

Technical Submittal - UCLH P5 33695



© Mace Ltd Classification & Handling Status: Restricted / Confidential / Unrestricted *delete as appropriate*

Package Number:	6000
Package Name:	Mechanical & Electrical
Company Name:	Dornan Engineering
Sub Contractor manager:	James Ryan
File Name:	P5-DES-001-ZZ-TS-E-0058
Document Title:	Lighting Report
Purpose of Issue:	For Approval

Status by Lead Reviewer:	<i>See Conject for current status</i>

Version History			
Revision No.	Date Issued	Prepared By	Status
P01	12/12/17	Tony McMeiken	For Approval
P02	02/01/19	Kevin Walsh	For Approval

Design Information and Technical Data used to prepare submittal	
Equipment Data Sheets / Schedules :	• P5-ARP-Z0-SP-Z-0011 • •
Particular Specification:	• P5-ARP-Z0-SP-Z-0004_iss2_revT02 • •
Materials & Workmanship:	• • •
Drawings:	• • •
Schematics/Diagrammatic:	• •
Supplementary Specs:	• • •

Attachments *(Tick as appropriate)*

- ☐ Catalogue Details
- ☒ Design Check Calculations
- ☐ Manufacturing Drawings
- ☐ Wiring/Control Diagrams
- ☐ Sample List
- ☐ BWIC requirements
- ☐ Assembly / installation details
- ☐ O&M instructions
- ☐ List of recommended spares
- ☐ Interface and coordination with other packages
- ☐ FAT / SAT Test Requirements
- ☐ Description of Operation



Specification Compliance Statement	
Technical Submission fully compliant If no then proposed deviations are: Y	
Specification Requirement	Proposed Deviation

2- Report Reference Table

Please refer to next page

Basement Level 3		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1 and Q1E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type NE	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2

Basement Level 2		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1 and Q1E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I2 and I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type NE	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A2, A6 and A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type A1C and A2C	P5-DES-001-ZZ-TS-E-0002	AVENUE AV4BSTRW
Type S1	P5-DES-001-ZZ-TS-E-0017	CONCERT CNMR10004KFLFW
Type F1	P5-DES-001-ZZ-TS-E-0007	FEILOSILVANIA 0047415
Type L	P5-DES-001-ZZ-TS-E-0011	PROLICHT IDAHO

Basement Level 1		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1 and Q1E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I2, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E, E2	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type NE	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1, H2	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2, A6, A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type B1, B3, B5	P5-DES-001-ZZ-TS-E-0003	DFTA LED DLAAGH44K

Ground Floor		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1, Q1E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E, E2	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type NE	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1, H3, H3E	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2, A3, A6, A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type D, DE	P5-DES-001-ZZ-TS-E-0005	CIRCO CRLH14K + CRLAC65
Type V1, V2	P5-DES-001-ZZ-TS-E-0021	SATTLER CIRCOLO 1600 H140 L-Acryl
Type C1	P5-DES-001-ZZ-TS-E-0004	Esprit - ESLY24K + ESLA-IP44C

Level 1		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1, QE	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I2, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type N(E)	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1, H2	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2, A6, A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type B4	P5-DES-001-ZZ-TS-E-0003	DFTA LED DLAAGH44K
Type F1	P5-DES-001-ZZ-TS-E-0007	FEILOSILVANIA 0047415

Level 2		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1, QE	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I2, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type N(E)	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1, H2	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2, A6, A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type F1	P5-DES-001-ZZ-TS-E-0007	FEILOSILVANIA 0047415
Type B4	P5-DES-001-ZZ-TS-E-0003	DFTA LED DLAAGH44K

Level 3		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1, Q1E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I2, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type N(E)	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1, H2	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2, A6, A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type B2	P5-DES-001-ZZ-TS-E-0003	DFTA LED DLAAGH44K

Level 4		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1, Q1E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I2, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type N(E)	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1, H2	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2, A6, A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type B1, B2, B4	P5-DES-001-ZZ-TS-E-0003	DFTA LED DLAAGH44K

Level 5		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q1, Q1E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I2, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type N(E)	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1, H2	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2, A6, A9	P5-DES-001-ZZ-TS-E-0002	CITYLINE CLFY1SRF1
Type B4	P5-DES-001-ZZ-TS-E-0003	DFTA LED DLAAGH44K
Type F1	P5-DES-001-ZZ-TS-E-0007	FEILOSILVANIA 0047415

Roof Level 6		
Luminaire Reference	Technical Submittal Reference	Dialux Reference
Type Q6, Q6E	P5-DES-001-ZZ-TS-E-0016	ACL PARK ACLH34K
Type I1, I3	P5-DES-001-ZZ-TS-E-0009	FLORIN E3 FLE31/EP
Type E	P5-DES-001-ZZ-TS-E-0006	TEGAN TEPDH24K
Type O	P5-DES-001-ZZ-TS-E-0014	KOLO IP65 K6H4274KS
Type N(E)	P5-DES-001-ZZ-TS-E-0013	APOLLO DELED2
Type H1	P5-DES-001-ZZ-TS-E-0008	VIABIZZUNO DISPLEI
Type A1, A2	P5-DES-001-ZZ-TS-E-0002	CTYLINE CLFY1SRF1
Type T3, T3E	P5-DES-001-ZZ-TS-E-0069	HOOD - K6Y44KHB & K6HY44kHBEP
Type T4	P5-DES-001-ZZ-TS-E-0070	BROADWALK RS - BRLY34KRB

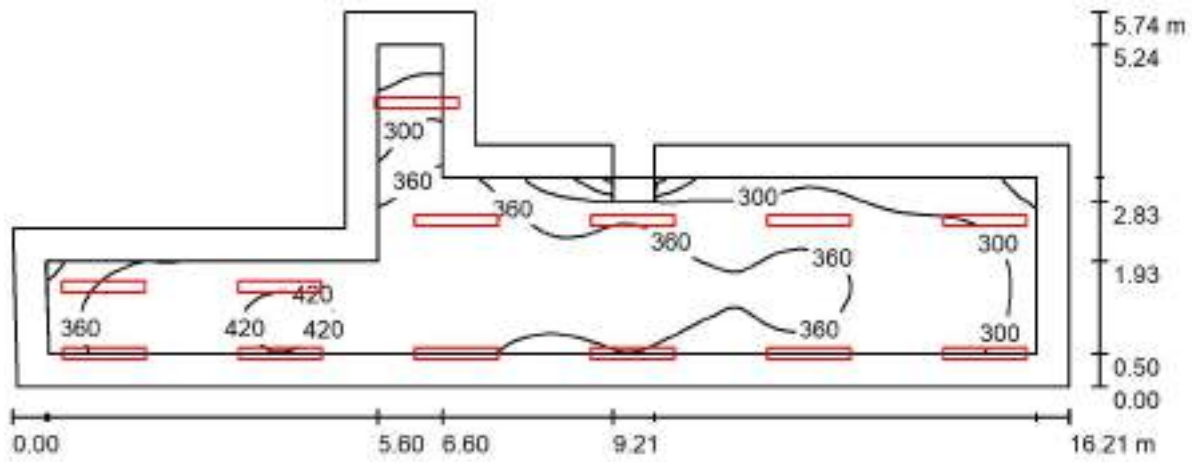


UCLH PHASE 5
BASEMENT LEVEL 3
LIGHT CALCS REPORT



Operator
Telephone
Fax
e-Mail

PLTO11 / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:116

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	352	144	437	0.409
Floor	27	325	131	435	0.402
Ceiling	30	46	29	64	0.645
Walls (9)	27	148	18	847	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

Luminaire Parts List

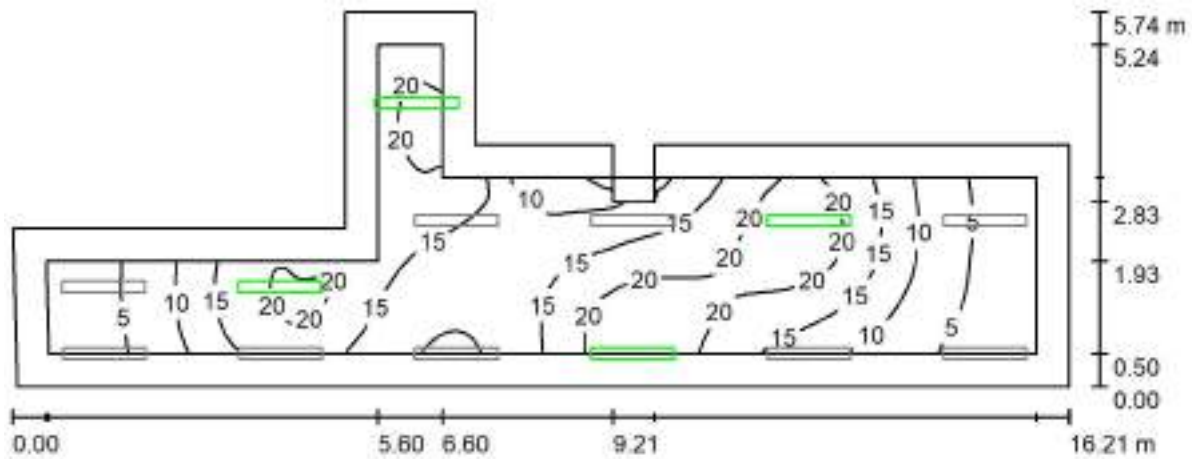
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	9	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	4	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			56392	56173	468.0

Specific connected load: $8.14 \text{ W/m}^2 = 2.32 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 57.47 m^2)



Operator
Telephone
Fax
e-Mail

PLTO11 / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:116

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	14	1.94	24	0.141
Floor	27	12	1.24	24	0.099
Ceiling	30	0.15	0.03	0.30	0.172
Walls (9)	27	4.41	0.01	97	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

Luminaire Parts List

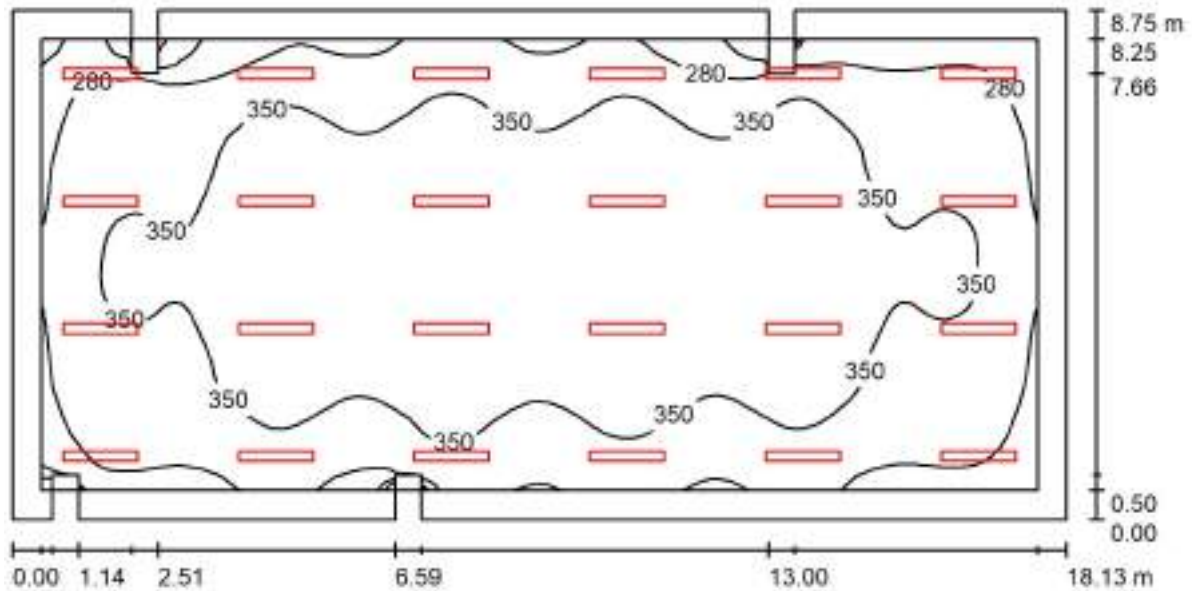
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			2429	2420	144.0

Specific connected load: $2.51 \text{ W/m}^2 = 18.23 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 57.47 m^2)



Operator
Telephone
Fax
e-Mail

North Plantroom / L / Summary



Height of Room: 7.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	340	96	404	0.282
Floor	27	322	34	405	0.106
Ceiling	30	49	33	61	0.677
Walls (5)	27	103	22	333	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

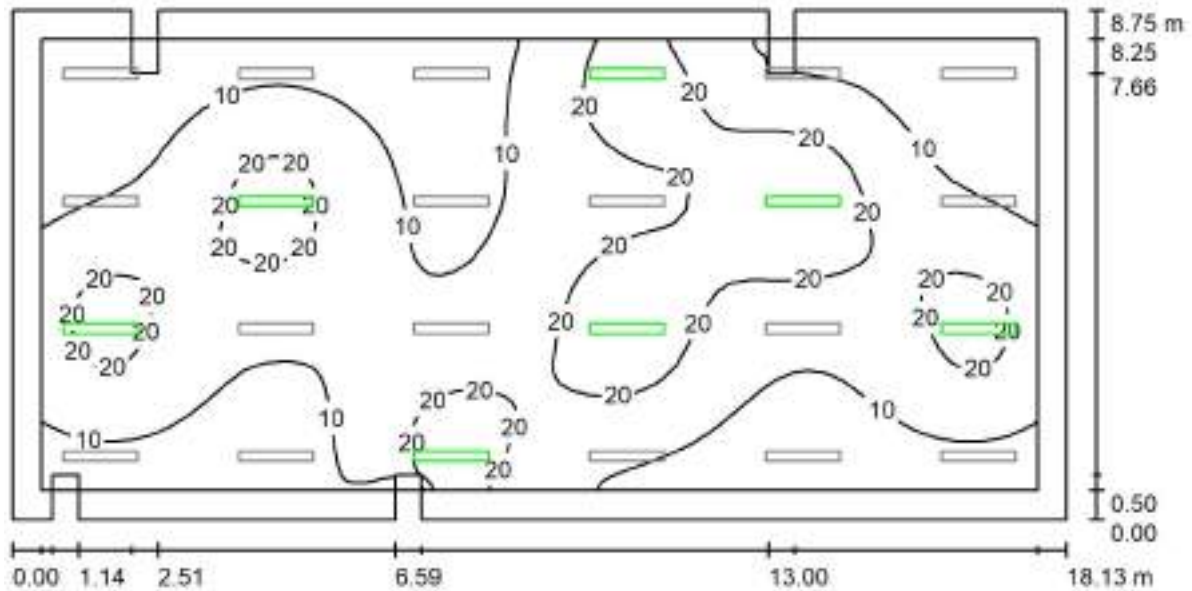
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	17	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	7	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			104109	103704	864.0

Specific connected load: $5.45 \text{ W/m}^2 = 1.60 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 158.60 m^2)

Operator
Telephone
Fax
e-Mail

North Plantroom / E / Summary



Height of Room: 7.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	14	0.84	26	0.061
Floor	27	13	0.34	26	0.027
Ceiling	30	0.13	0.05	0.21	0.390
Walls (5)	27	2.29	0.05	32	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

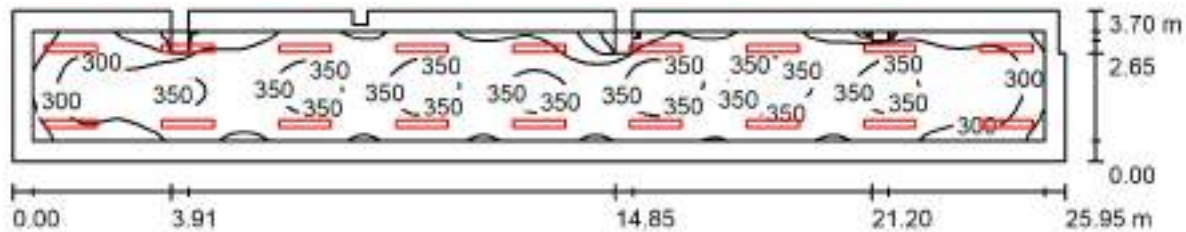
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	7	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			4251	4235	252.0

Specific connected load: $1.59 \text{ W/m}^2 = 11.44 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 158.60 m^2)

Operator
Telephone
Fax
e-Mail

PLT008 / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:186

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	322	152	372	0.474
Floor	27	300	81	372	0.269
Ceiling	30	45	26	54	0.586
Walls (5)	27	135	25	390	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

Luminaire Parts List

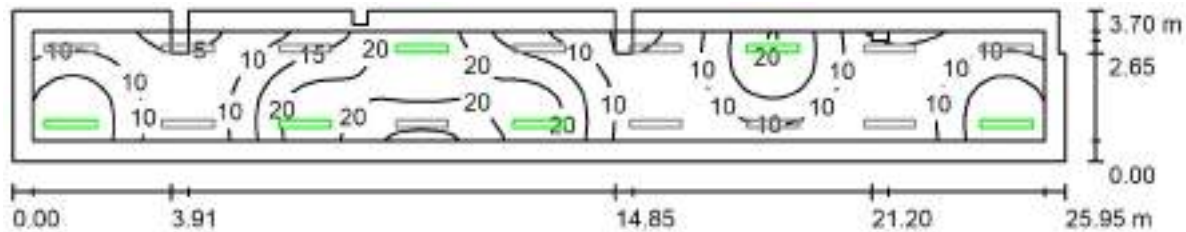
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	12	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			78082	77778	648.0

Specific connected load: $6.75 \text{ W/m}^2 = 2.10 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 95.99 m^2)



Operator
Telephone
Fax
e-Mail

PLT008 / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:186

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	13	2.19	25	0.166
Floor	27	12	1.92	25	0.155
Ceiling	30	0.14	0.02	0.28	0.173
Walls (5)	27	4.55	0.02	41	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

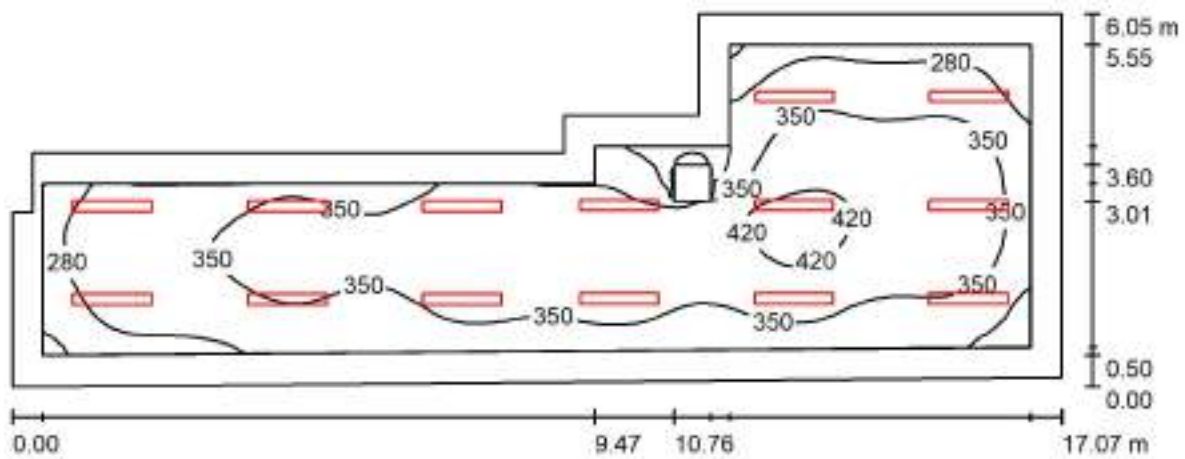
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			3644	3630	216.0

Specific connected load: $2.25 \text{ W/m}^2 = 17.09 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 95.99 m^2)

Operator
Telephone
Fax
e-Mail

PLT005 / L / Summary



Height of Room: 4.900 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:123

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	345	112	445	0.324
Floor	27	317	119	446	0.374
Ceiling	30	49	33	74	0.680
Walls (8)	27	131	27	432	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.326, Ceiling / Working Plane: 0.142.

Luminaire Parts List

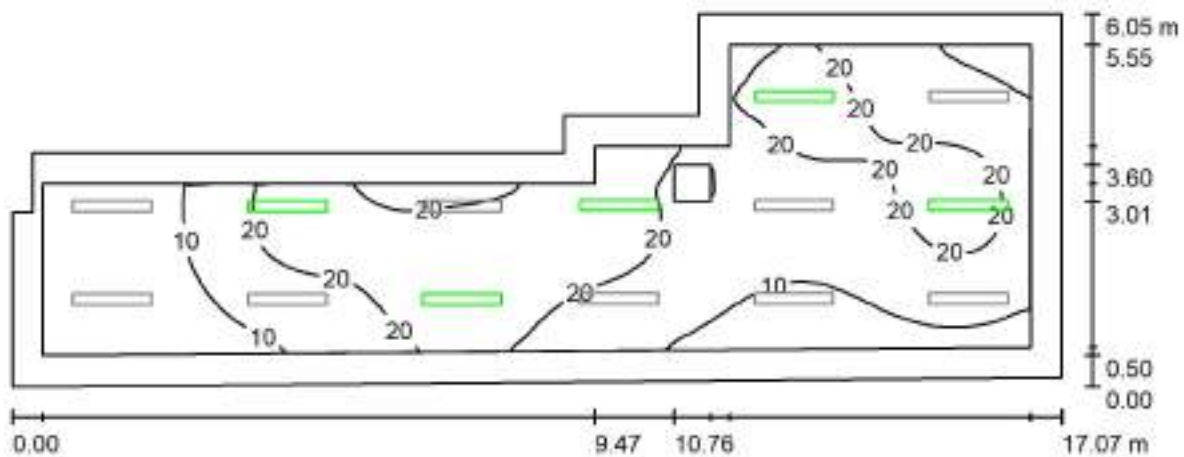
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	9	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	5	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			60730	60494	504.0

Specific connected load: $6.45 \text{ W/m}^2 = 1.87 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 78.11 m^2)



Operator
Telephone
Fax
e-Mail

PLT005 / E / Summary



Height of Room: 4.900 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:123

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	16	1.34	27	0.085
Floor	27	14	0.89	27	0.062
Ceiling	30	0.21	0.03	0.41	0.163
Walls (8)	27	4.30	0.03	45	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.232, Ceiling / Working Plane: 0.013.

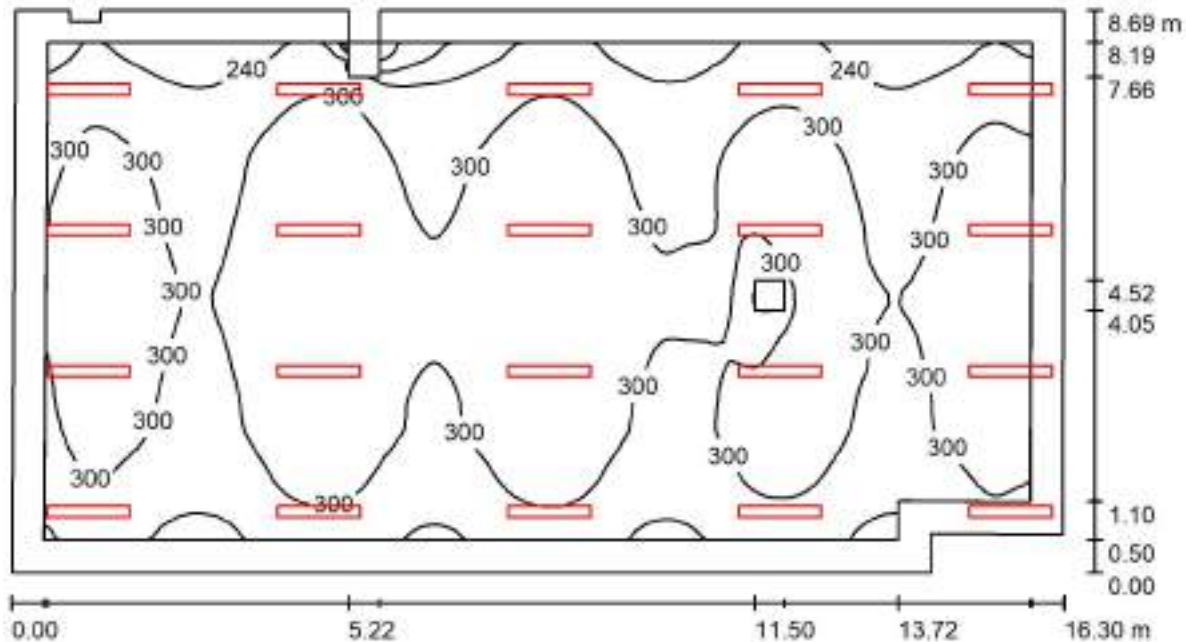
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			3037	3025	180.0

Specific connected load: $2.30 \text{ W/m}^2 = 14.59 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 78.11 m^2)

Operator
Telephone
Fax
e-Mail

SOUTH PLANTROOM / L / Summary



Height of Room: 7.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:117

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	298	98	359	0.327
Floor	27	286	98	361	0.341
Ceiling	30	43	33	52	0.765
Walls (7)	27	103	25	1202	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

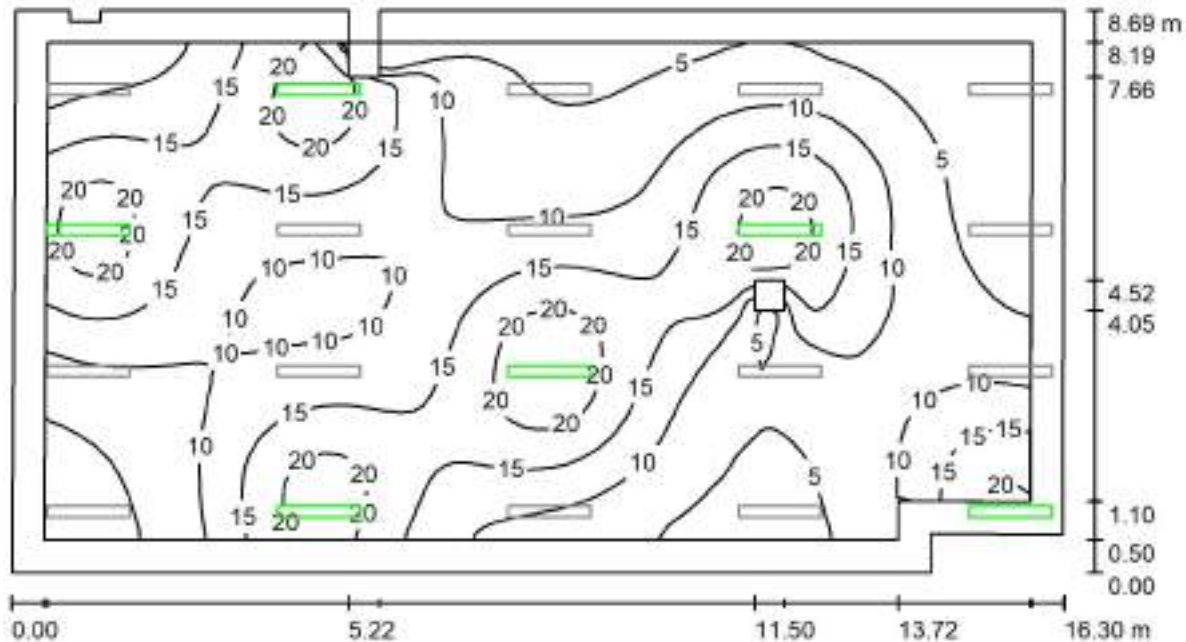
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	14	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	6	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			86758	86420	720.0

Specific connected load: $5.14 \text{ W/m}^2 = 1.73 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 139.94 m^2)

Operator
Telephone
Fax
e-Mail

SOUTH PLANTROOM / E / Summary



Height of Room: 7.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:117

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	11	0.94	23	0.082
Floor	27	11	0.74	23	0.069
Ceiling	30	0.12	0.06	0.17	0.489
Walls (7)	27	2.64	0.05	155	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

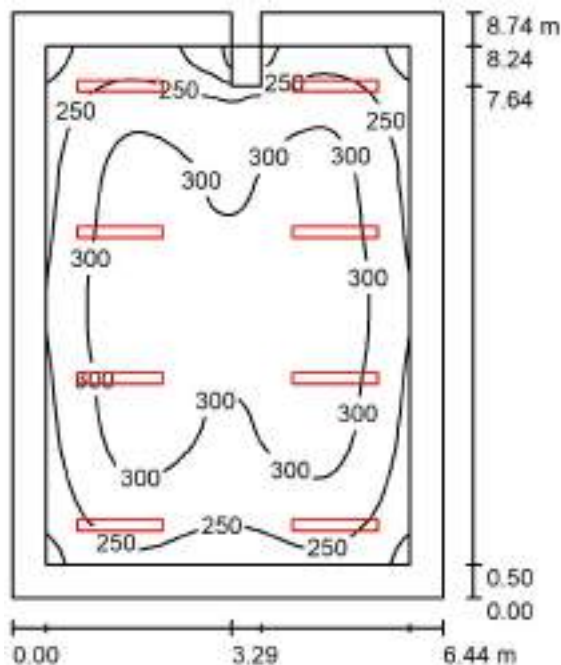
Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			3644	3630	216.0

Specific connected load: $1.54 \text{ W/m}^2 = 13.44 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 139.94 m^2)


 Operator
 Telephone
 Fax
 e-Mail

PLT009 / Summary


Height of Room: 7.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:113

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	283	116	331	0.408
Floor	27	260	100	334	0.384
Ceiling	30	27	22	33	0.808
Walls (5)	27	78	15	293	/

Workplane:

 Height: 0.000 m
 Grid: 64 x 64 Points
 Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

Luminaire Parts List

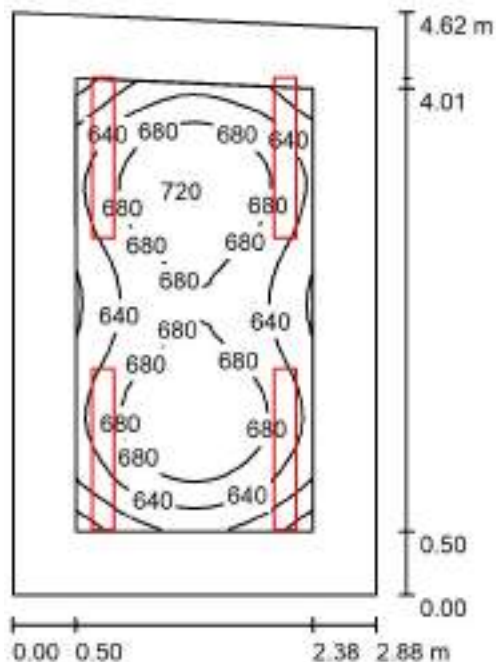
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	8	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			34703	34568	288.0

 Specific connected load: $5.11 \text{ W/m}^2 = 1.80 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 56.31 m^2)



Operator
Telephone
Fax
e-Mail

IT HUB SHA001 / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.80

Values in Lux, Scale 1:60

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	659	538	725	0.816
Floor	20	459	325	543	0.708
Ceiling	70	79	64	89	0.809
Walls (4)	50	235	56	678	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.345, Ceiling / Working Plane: 0.120.

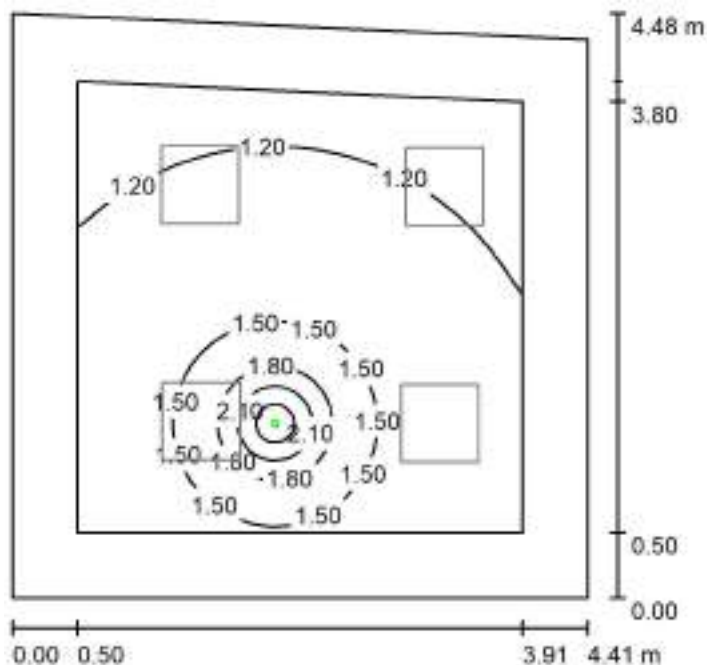
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			17352	17284	144.0

Specific connected load: $11.00 \text{ W/m}^2 = 1.67 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 13.10 m^2)

Operator
Telephone
Fax
e-Mail

Medical Physics Workshop LGT001 / E LGT / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:58

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	1.39	0.97	2.46	0.696
Floor	20	0.75	0.53	1.28	0.708
Ceiling	70	0.02	0.00	4.58	0.000
Walls (4)	50	2.37	0.07	31	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.195, Ceiling / Working Plane: 0.016.

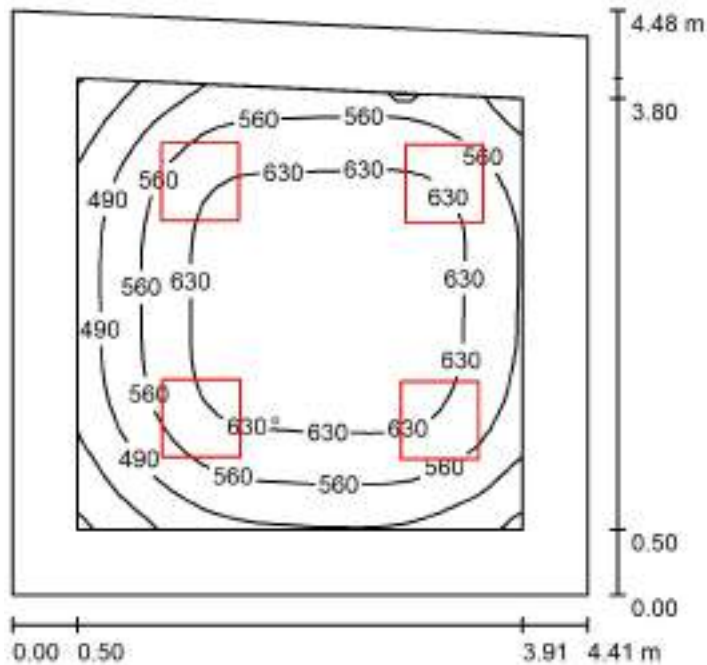
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.16 \text{ W/m}^2 = 11.18 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 19.32 m^2)

Operator
Telephone
Fax
e-Mail

Medical Physics Workshop LGT001 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:58

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	580	343	680	0.591
Floor	20	408	234	535	0.574
Ceiling	70	112	75	129	0.673
Walls (4)	50	259	89	437	/

Workplane:

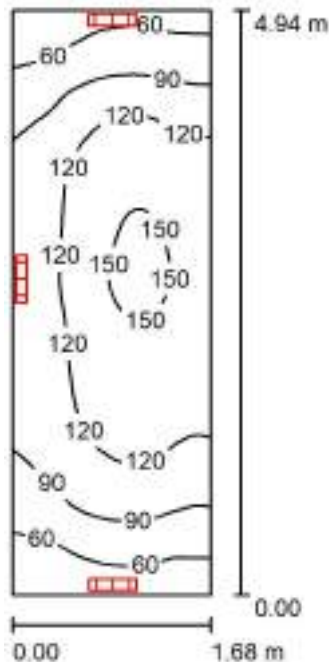
Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.465, Ceiling / Working Plane: 0.193.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT TEPDH24K TEGAN (1.000)	4092	4100	35.0
Total:			16367	16400	140.0

Specific connected load: $7.25 \text{ W/m}^2 = 1.25 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 19.32 m^2)

E2 019 / Summary


Height of Room: 4.920 m, Maintenance factor: 0.70

Values in Lux, Scale 1:64

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	106	38	156	0.361
Floor	27	106	39	157	0.363
Ceiling	30	52	29	73	0.550
Walls (4)	27	99	18	363	/

Workplane:

 Height: 0.000 m
 Grid: 64 x 32 Points
 Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.940, Ceiling / Working Plane: 0.492.

Luminaire Parts List

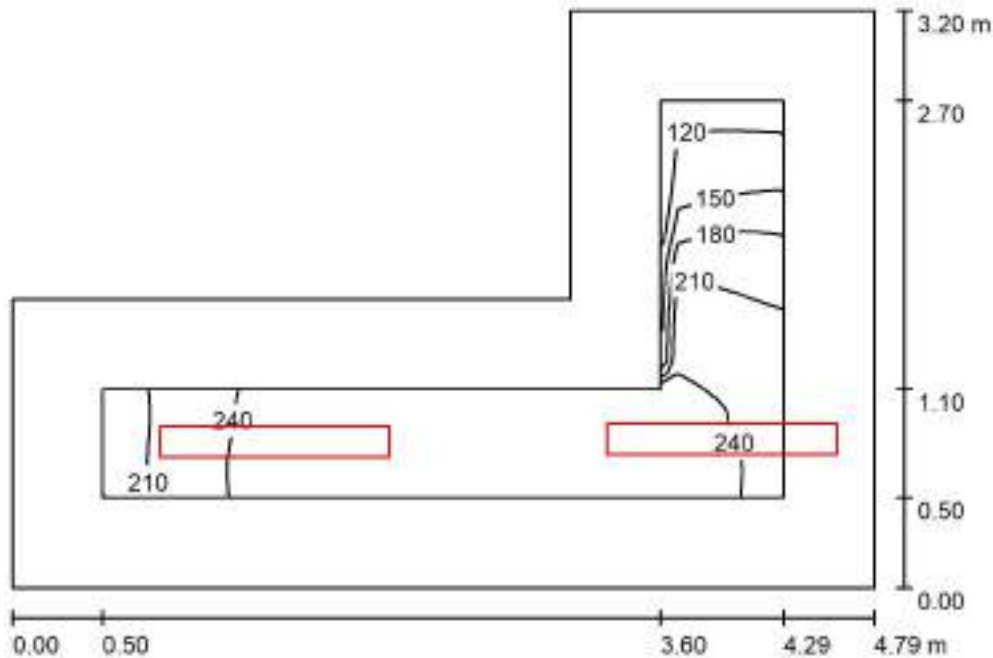
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	Whitecroft Lighting K6H4274KS Kolo Ip65 (1.000)	2709	2705	28.0
Total:			8127	8115	84.0

 Specific connected load: $10.13 \text{ W/m}^2 = 9.53 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 8.29 m^2)



Operator
Telephone
Fax
e-Mail

COM 005 LOBBY / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.75

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	223	111	260	0.499
Floor	40	201	83	258	0.413
Ceiling	30	26	20	33	0.736
Walls (6)	40	105	13	688	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.471, Ceiling / Working Plane: 0.118.

Luminaire Parts List

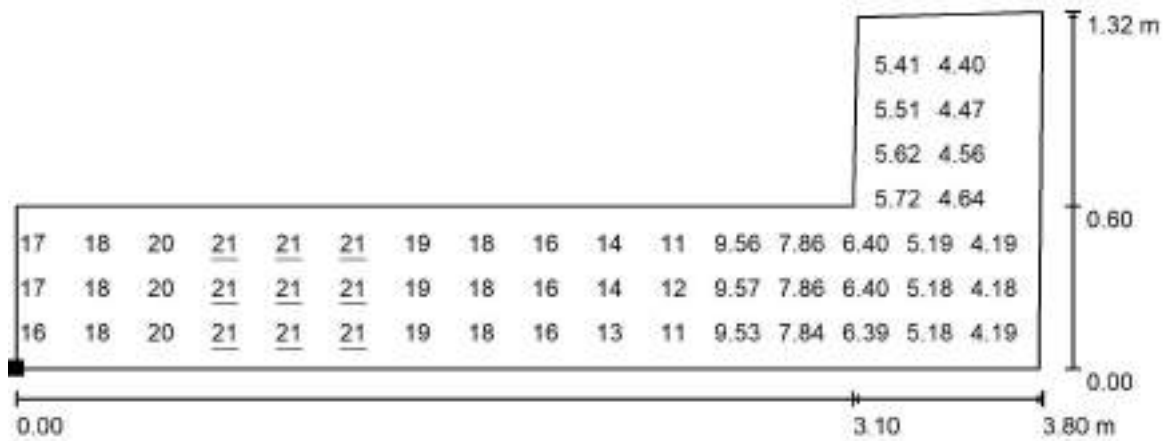
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			8676	8642	72.0

Specific connected load: $6.95 \text{ W/m}^2 = 3.12 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.36 m^2)



Operator
Telephone
Fax
e-Mail

COM 005 LOBBY / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



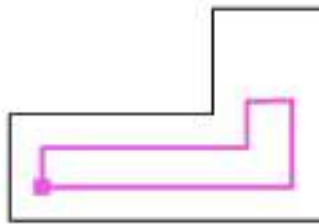
Values in Lux, Scale 1 : 28

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(-32.476 m, -3.411 m, 0.000 m)



Grid: 32 x 16 Points

E_{av} [lx]
12

E_{min} [lx]
3.51

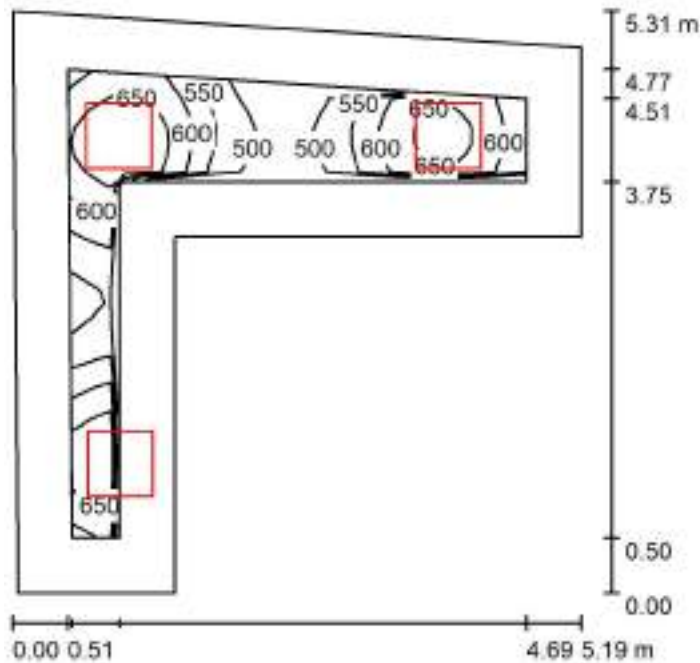
E_{max} [lx]
21

u_0
0.287

E_{min} / E_{max}
0.167

Operator
Telephone
Fax
e-Mail

FMOO1 FM MANAGER OFFICE / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:69

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	589	468	706	0.794
Floor	20	405	288	488	0.713
Ceiling	70	158	111	502	0.705
Walls (6)	50	336	130	2206	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.649, Ceiling / Working Plane: 0.268.

Luminaire Parts List

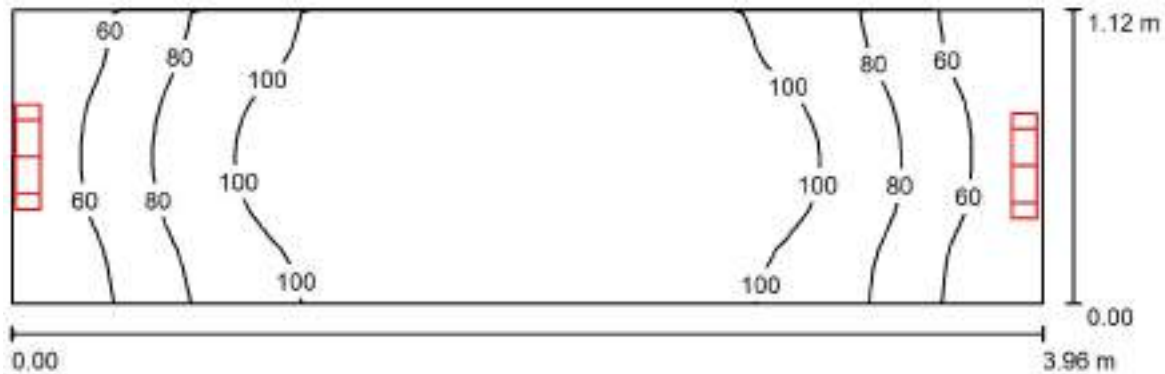
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT TEPDH34K TEGAN (1.000)	6088	6100	56.0
Total:			18263	18300	168.0

Specific connected load: $11.59 \text{ W/m}^2 = 1.97 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.49 m^2)



Operator
Telephone
Fax
e-Mail

B1 & C1 Combined riser / Summary



Height of Room: 3.700 m, Maintenance factor: 0.70

Values in Lux, Scale 1:29

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	90	41	114	0.457
Floor	20	90	42	114	0.464
Ceiling	30	84	39	108	0.466
Walls (4)	27	117	26	727	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.296, Ceiling / Working Plane: 0.933.

Luminaire Parts List

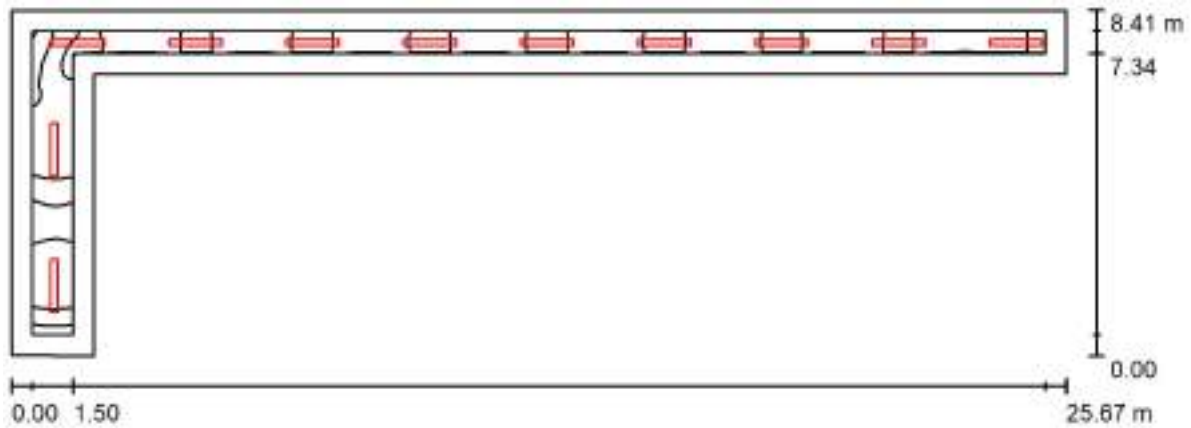
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Whitecroft Lighting K6H4274KS Kolo Ip65 (1.000)	2709	2705	28.0
Total:			5418	5410	56.0

Specific connected load: $12.60 \text{ W/m}^2 = 13.98 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.44 m^2)



Operator
Telephone
Fax
e-Mail

SOUTH CORE CORRIDOR / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.430 m, Maintenance factor: 0.70

Values in Lux, Scale 1:184

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	222	135	256	0.611
Floor	27	213	94	256	0.440
Ceiling	30	19	13	22	0.690
Walls (7)	27	98	8.46	437	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.439, Ceiling / Working Plane: 0.086.

Luminaire Parts List

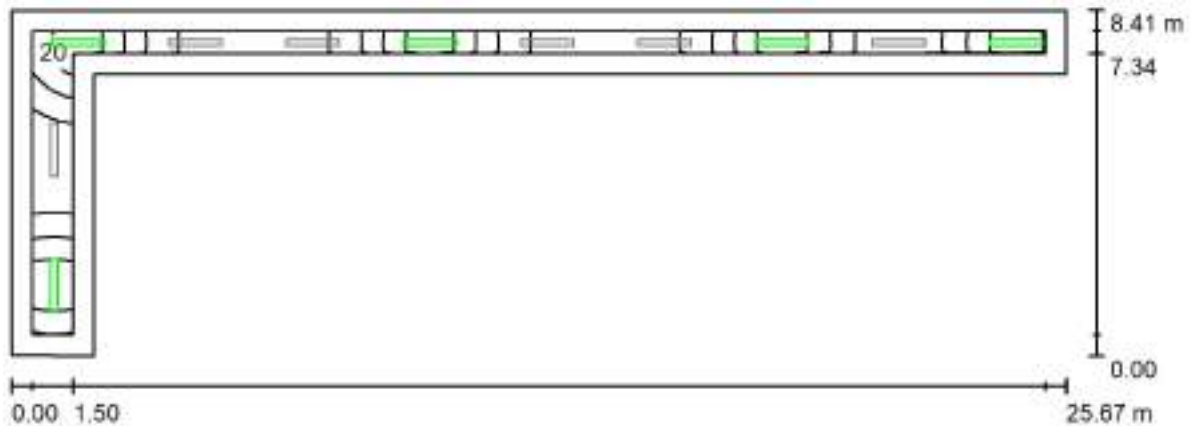
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	6	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			47717	47531	396.0

Specific connected load: $7.42 \text{ W/m}^2 = 3.35 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 53.37 m^2)



Operator
Telephone
Fax
e-Mail

SOUTH CORE CORRIDOR / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.430 m, Maintenance factor: 0.70

Values in Lux, Scale 1:184

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	12	1.81	23	0.151
Floor	27	11	1.79	23	0.157
Ceiling	30	0.08	0.03	0.20	0.419
Walls (7)	27	4.40	0.01	55	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.365, Ceiling / Working Plane: 0.007.

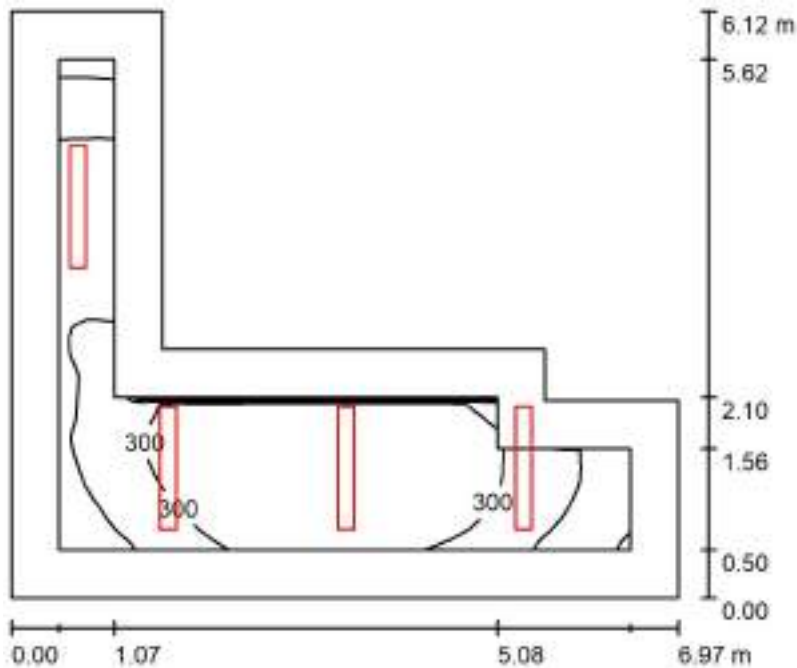
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			3037	3025	180.0

Specific connected load: $3.37 \text{ W/m}^2 = 28.06 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 53.37 m^2)

Operator
Telephone
Fax
e-Mail

NORTH CORE CORRIOR/LOBBY / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:79

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	285	141	347	0.494
Floor	20	250	106	345	0.425
Ceiling	70	40	22	50	0.557
Walls (8)	50	110	19	655	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.387, Ceiling / Working Plane: 0.139.

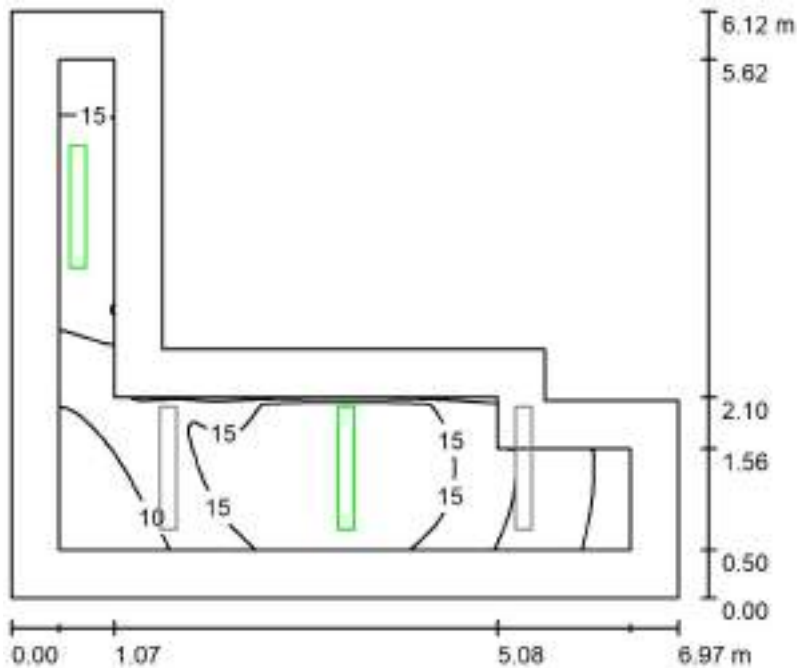
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	2	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			17352	17284	144.0

Specific connected load: $6.29 \text{ W/m}^2 = 2.20 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 22.90 m^2)

Operator
Telephone
Fax
e-Mail

NORTH CORE CORRIOR/LOBBY / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:79

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	14	3.49	20	0.255
Floor	20	12	2.12	20	0.178
Ceiling	70	0.13	0.03	0.24	0.235
Walls (8)	50	4.35	0.01	61	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.320, Ceiling / Working Plane: 0.010.

Luminaire Parts List

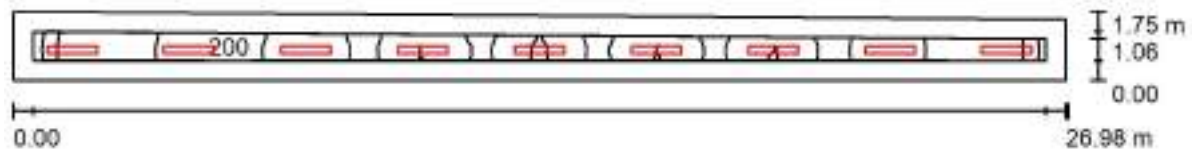
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			1215	1210	72.0

Specific connected load: $3.14 \text{ W/m}^2 = 23.01 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 22.90 m^2)



Operator
Telephone
Fax
e-Mail

NORTH CORE CORRIDOR / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:193

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	203	149	222	0.732
Floor	27	195	112	219	0.574
Ceiling	30	19	13	22	0.697
Walls (4)	27	99	9.28	419	/

Workplane:

Height: 0.000 m
Grid: 128 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.485, Ceiling / Working Plane: 0.093.

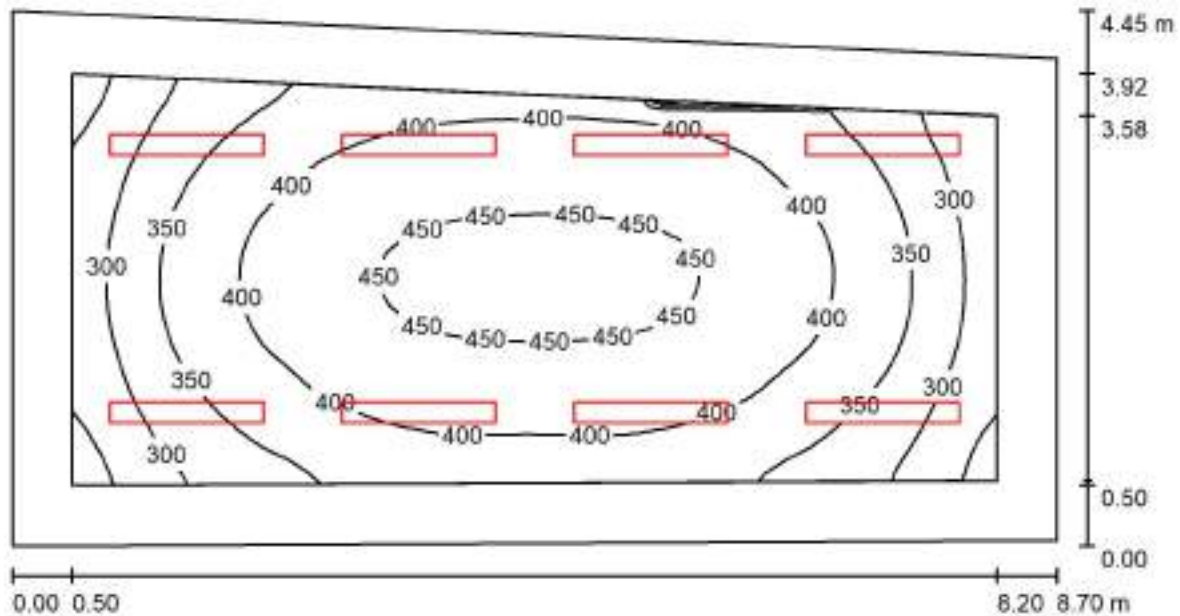
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	9	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			39041	38889	324.0

Specific connected load: $7.29 \text{ W/m}^2 = 3.59 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 44.43 m^2)

Operator
Telephone
Fax
e-Mail

OIL STORAGE ROOM / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:63

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	380	228	464	0.601
Floor	27	345	162	463	0.469
Ceiling	30	48	35	59	0.723
Walls (4)	27	145	29	471	/

Workplane:

Height: 0.000 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.384, Ceiling / Working Plane: 0.126.

Luminaire Parts List

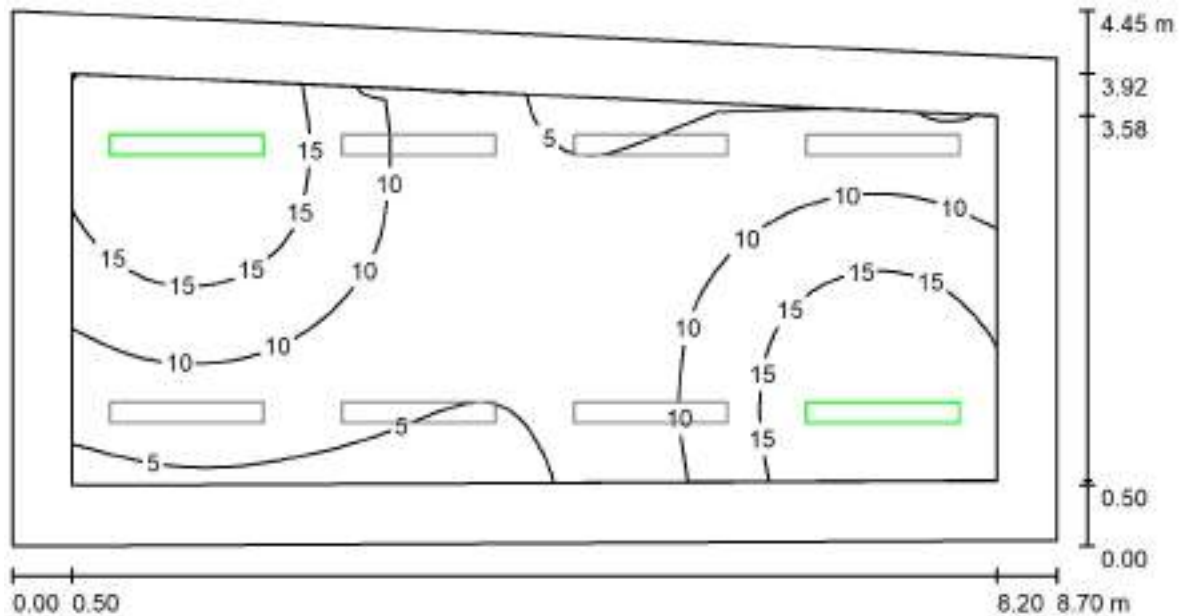
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	2	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			34703	34568	288.0

Specific connected load: $7.83 \text{ W/m}^2 = 2.06 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 36.79 m^2)



Operator
Telephone
Fax
e-Mail

OIL STORAGE ROOM / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:63

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	11	3.91	20	0.371
Floor	27	9.89	2.37	20	0.240
Ceiling	30	0.12	0.05	0.22	0.408
Walls (4)	27	3.71	0.04	32	/

Workplane:

Height: 0.000 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.354, Ceiling / Working Plane: 0.011.

Luminaire Parts List

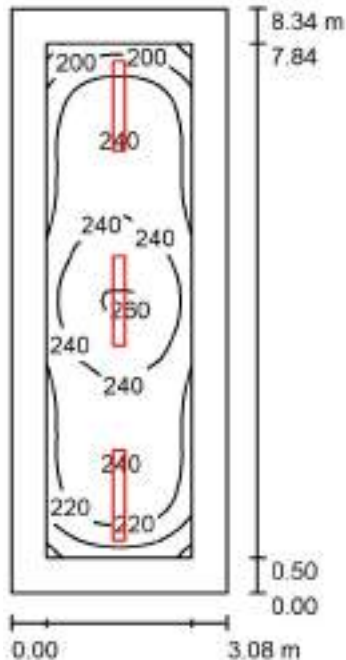
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			1215	1210	72.0

Specific connected load: $1.96 \text{ W/m}^2 = 18.57 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 36.79 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM002 / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.80

Values in Lux, Scale 1:108

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	229	172	261	0.752
Floor	40	210	127	260	0.603
Ceiling	50	37	29	44	0.763
Walls (4)	40	96	22	212	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.422, Ceiling / Working Plane: 0.163.

Luminaire Parts List

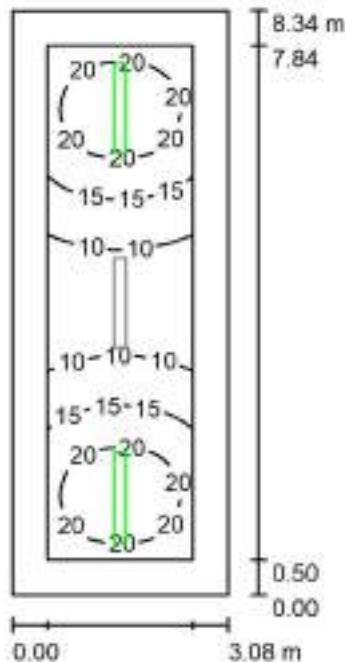
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			13014	12963	108.0

Specific connected load: $4.20 \text{ W/m}^2 = 1.83 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 25.70 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM002 / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.600 m, Maintenance factor: 0.80

Values in Lux, Scale 1:108

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	16	7.44	23	0.477
Floor	40	14	6.80	23	0.471
Ceiling	50	0.09	0.06	0.16	0.590
Walls (4)	40	5.21	0.06	22	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.336, Ceiling / Working Plane: 0.006.

Luminaire Parts List

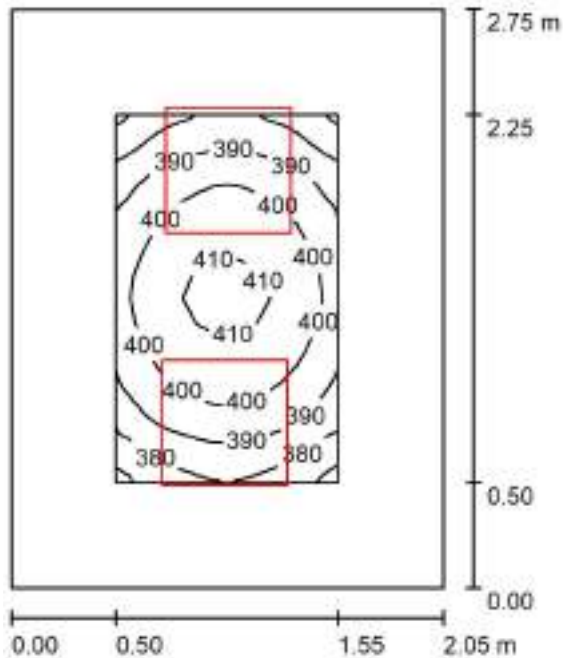
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			1215	1210	72.0

Specific connected load: $2.80 \text{ W/m}^2 = 17.96 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 25.70 m^2)



Operator
Telephone
Fax
e-Mail

BMS OFFICE / Summary



Height of Room: 3.465 m, Mounting Height: 3.555 m, Maintenance factor: 0.80

Values in Lux, Scale 1:36

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	396	368	414	0.930
Floor	20	258	214	290	0.829
Ceiling	70	107	78	136	0.729
Walls (4)	50	217	100	477	/

Workplane:

Height: 0.750 m
Grid: 16 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.608, Ceiling / Working Plane: 0.270.

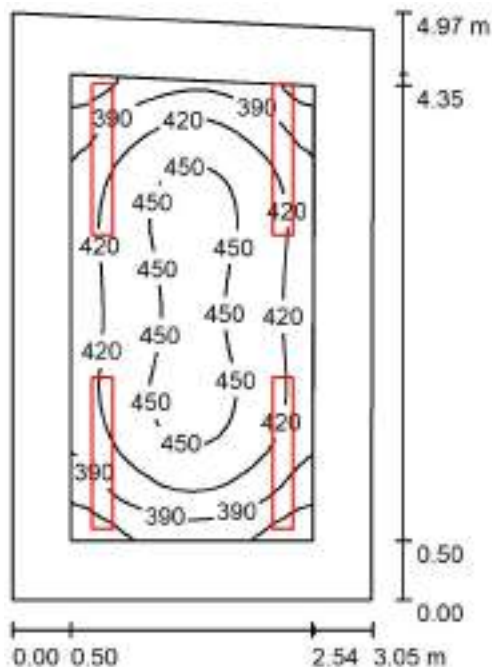
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $10.26 \text{ W/m}^2 = 2.59 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.65 m^2)

Operator
Telephone
Fax
e-Mail

LOBBY C0M004 / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.430 m, Maintenance factor: 0.80

Values in Lux, Scale 1:64

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	420	331	463	0.787
Floor	27	377	228	463	0.606
Ceiling	30	37	32	41	0.859
Walls (4)	27	162	23	573	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.386, Ceiling / Working Plane: 0.088.

Luminaire Parts List

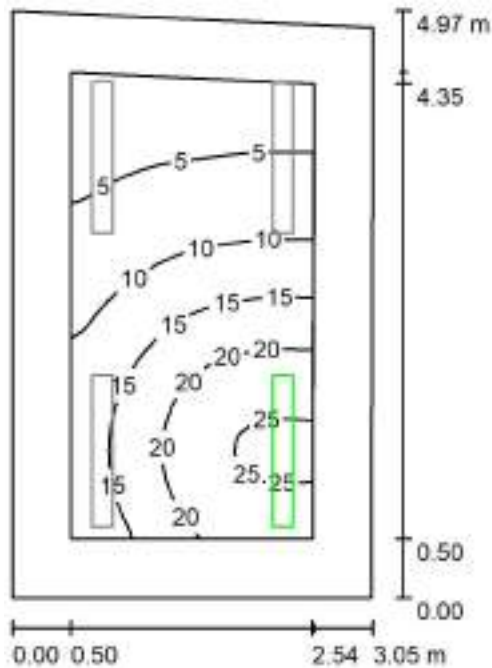
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			17352	17284	144.0

Specific connected load: $9.66 \text{ W/m}^2 = 2.30 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.91 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY C0M004 / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.430 m, Maintenance factor: 0.80

Values in Lux, Scale 1:64

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	13	2.26	26	0.175
Floor	27	11	1.30	26	0.115
Ceiling	30	0.07	0.02	0.21	0.286
Walls (4)	27	3.95	0.01	62	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.305, Ceiling / Working Plane: 0.006.

Luminaire Parts List

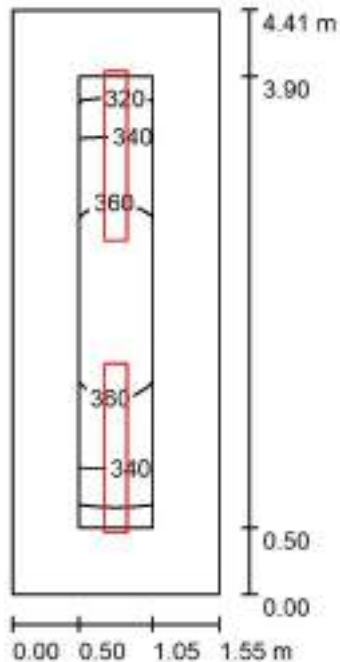
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			607	605	36.0

Specific connected load: $2.41 \text{ W/m}^2 = 18.70 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.91 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY COM001 / L / Summary



Height of Room: 5.030 m, Mounting Height: 2.430 m, Maintenance factor: 0.80

Values in Lux, Scale 1:57

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	349	309	364	0.887
Floor	20	318	234	361	0.735
Ceiling	70	40	33	44	0.830
Walls (4)	50	170	25	558	/

Workplane:

Height: 0.000 m
Grid: 8 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.488, Ceiling / Working Plane: 0.115.

Luminaire Parts List

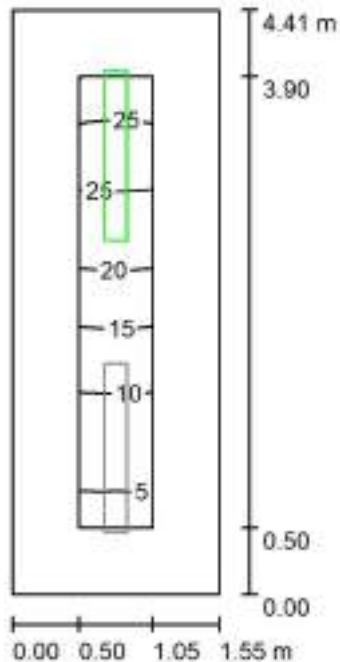
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			8676	8642	72.0

Specific connected load: $10.52 \text{ W/m}^2 = 3.01 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.85 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY COM001 / E / Summary



Height of Room: 5.030 m, Mounting Height: 2.430 m, Maintenance factor: 0.80

Values in Lux, Scale 1:57

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	16	4.01	26	0.246
Floor	20	15	2.45	26	0.166
Ceiling	70	0.06	0.02	0.13	0.384
Walls (4)	50	6.41	0.01	59	/

Workplane:

Height: 0.000 m
Grid: 8 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.394, Ceiling / Working Plane: 0.004.

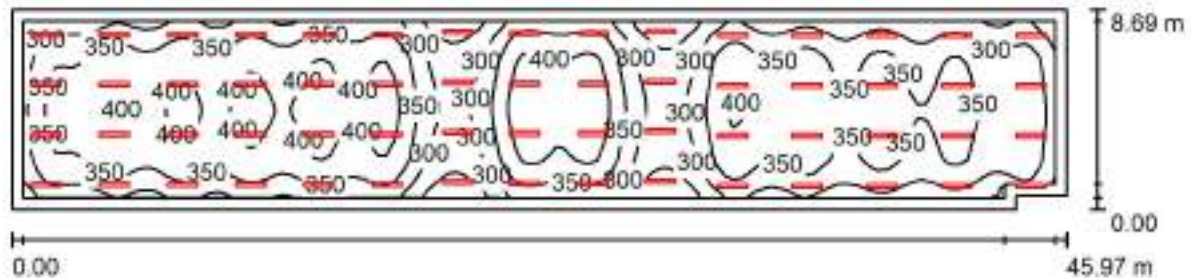
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			607	605	36.0

Specific connected load: $5.26 \text{ W/m}^2 = 32.29 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.85 m^2)

Operator
Telephone
Fax
e-Mail

PLT009 & NORTH & SOUTH PLANT / Summary



Height of Room: 7.030 m, Maintenance factor: 0.70

Values in Lux, Scale 1:329

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	344	206	438	0.599
Floor	27	331	125	438	0.378
Ceiling	30	59	38	72	0.645
Walls (6)	27	124	28	946	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.361, Ceiling / Working Plane: 0.170.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	60	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			260273	259260	2160.0

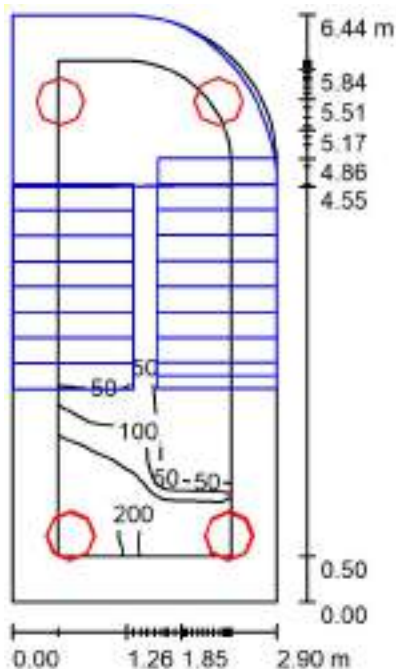
Specific connected load: $5.43 \text{ W/m}^2 = 1.58 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 397.55 m^2)



UCLH PHASE 5
BASEMENT LEVEL 2
LIGHT CALCS REPORT

Operator
 Telephone
 Fax
 e-Mail

SOUTH CORE STAIRS / Summary



Height of Room: 5.000 m, Maintenance factor: 0.80

Values in Lux, Scale 1:83

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	59	1.63	202	0.027
Floor	20	52	0.87	200	0.017
Ceilings (2)	70	63	0.12	228	/
Walls (56)	50	145	0.19	1102	/

Workplane:

 Height: 0.000 m
 Grid: 128 x 128 Points
 Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: - , Ceiling / Working Plane: - .

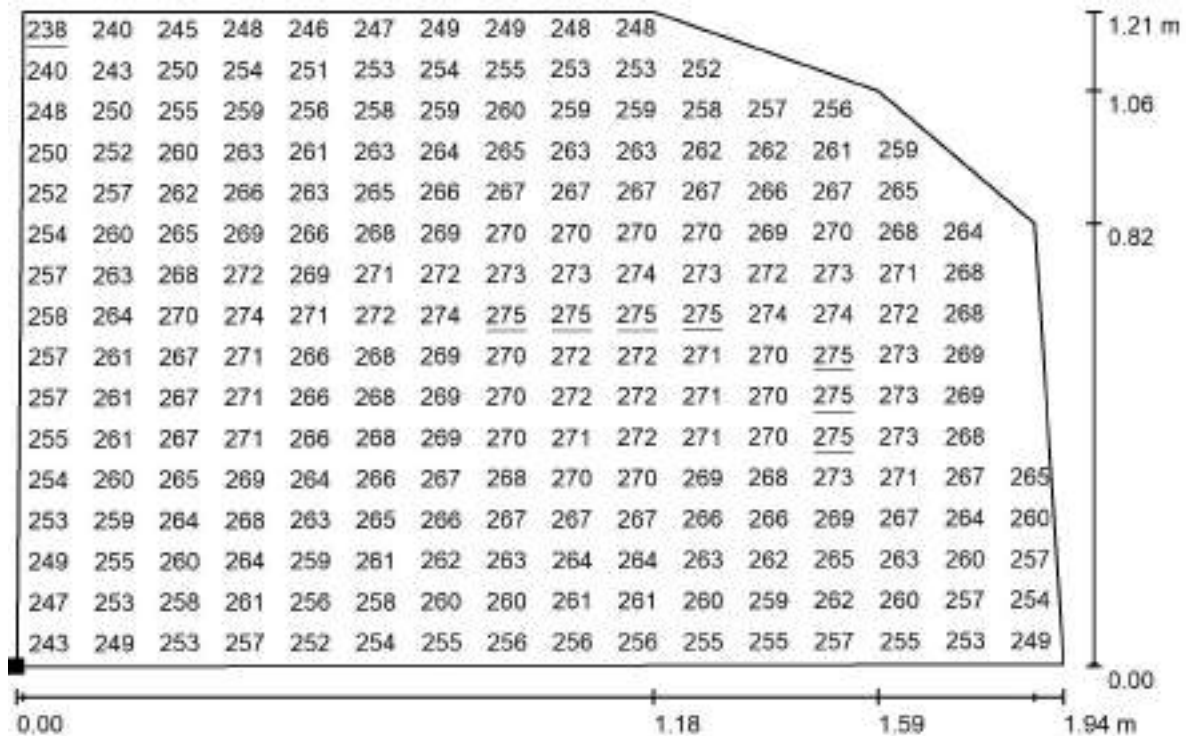
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	Apollo Lighting Ltd DELED2 Deluxe LED 2 (1.000)	2280	2280	22.8
Total:			13680	13680	136.8

 Specific connected load: $7.57 \text{ W/m}^2 = 12.79 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 18.08 m^2)

Operator
Telephone
Fax
e-Mail

SOUTH CORE STAIRS / HALF LANDING / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 14

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(30.720 m, 2.221 m, 1.550 m)



Grid: 16 x 16 Points

E_{av} [lx]
263

E_{min} [lx]
238

E_{max} [lx]
275

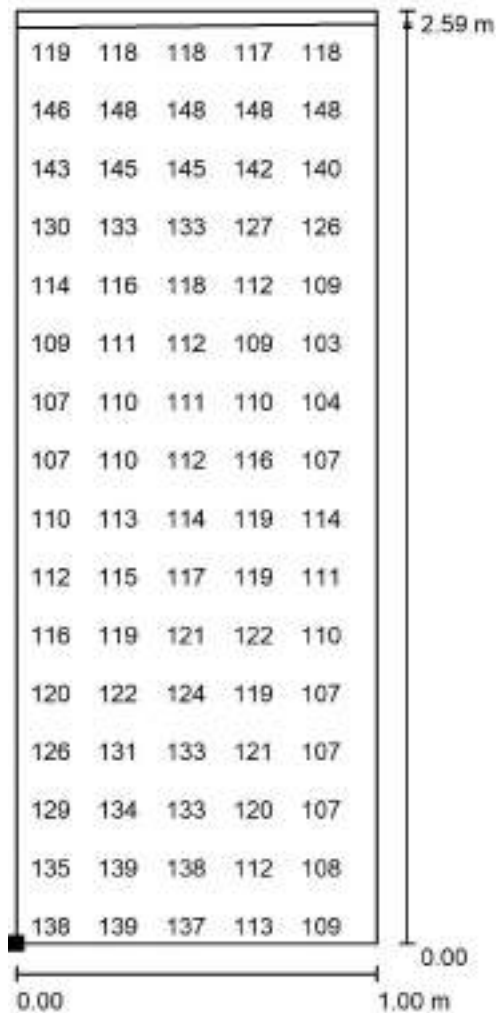
u_0
0.906

E_{min} / E_{max}
0.865



Operator
Telephone
Fax
e-Mail

SOUTH CORE STAIRS / 1st FLIGHT / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 21

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(30.638 m, -0.366 m, 0.182 m)



Grid: 16 x 32 Points

E_{av} [lx]
121

E_{min} [lx]
94

E_{max} [lx]
150

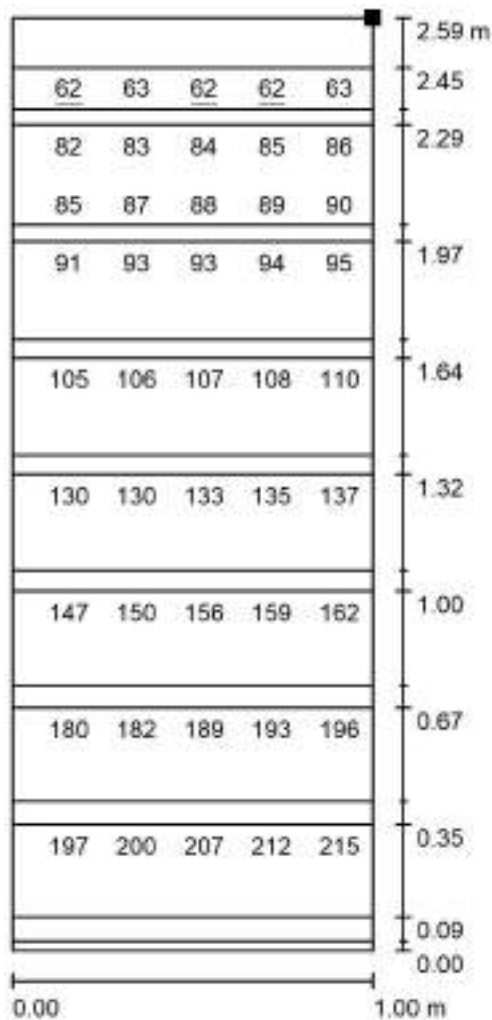
u_0
0.778

E_{min} / E_{max}
0.627



Operator
Telephone
Fax
e-Mail

SOUTH CORE STAIRS / 2st FLIGHT / Value Chart (E, Perpendicular)



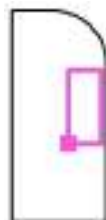
Values in Lux, Scale 1 : 21

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(32.170 m, -0.353 m, 2.947 m)



Grid: 16 x 32 Points

E_{av} [lx]
138

E_{min} [lx]
62

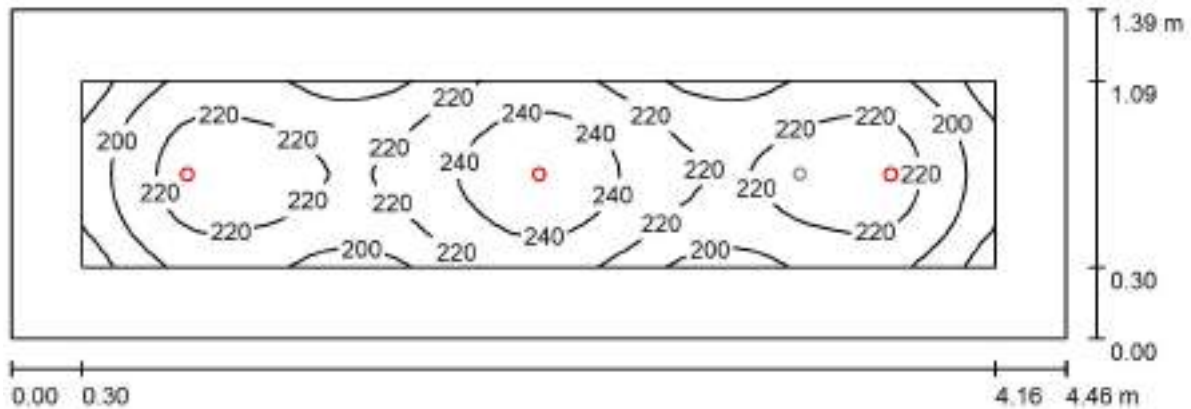
E_{max} [lx]
223

u_0
0.447

E_{min} / E_{max}
0.276

Operator
Telephone
Fax
e-Mail

MRI WAITING / NORMAL LTG / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	217	166	253	0.764
Floor	20	190	96	252	0.507
Ceiling	70	25	20	34	0.805
Walls (4)	50	57	21	96	/

Workplane:

Height: 0.000 m
Grid: 16 x 64 Points
Boundary Zone: 0.300 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.260, Ceiling / Working Plane: 0.115.

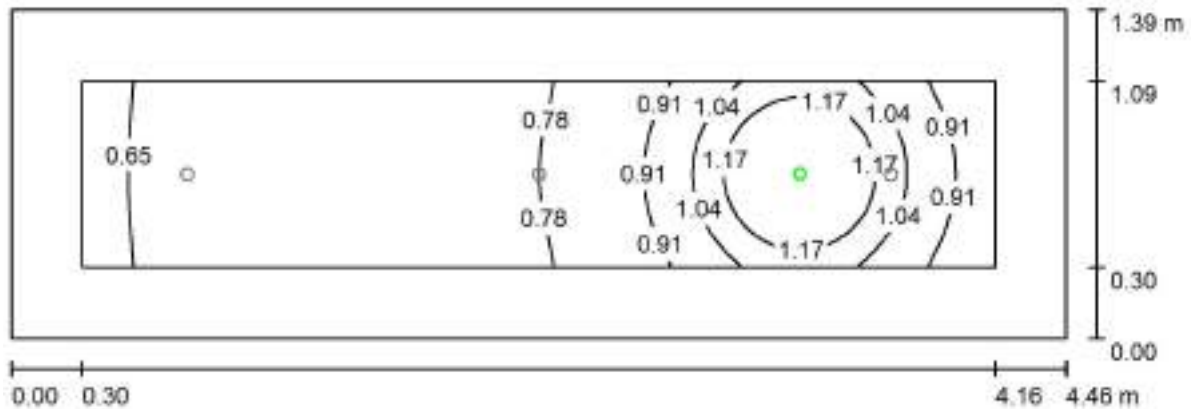
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			2358	3450	36.0

Specific connected load: $5.81 \text{ W/m}^2 = 2.67 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.20 m^2)

Operator
Telephone
Fax
e-Mail

MRI WAITING / EMER LTG / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	0.86	0.61	1.28	0.707
Floor	20	0.81	0.55	1.28	0.680
Ceiling	70	0.06	0.00	4.57	0.000
Walls (4)	50	3.86	0.03	107	/

Workplane:

Height: 0.000 m
Grid: 16 x 64 Points
Boundary Zone: 0.300 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.309, Ceiling / Working Plane: 0.074.

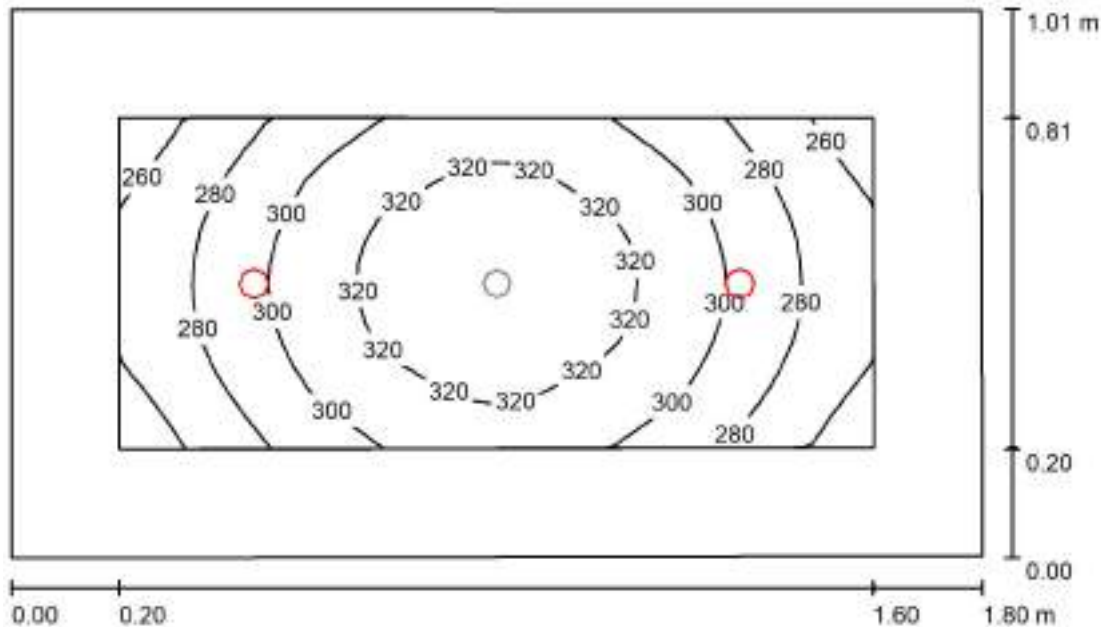
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.48 \text{ W/m}^2 = 56.13 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.20 m^2)

Operator
Telephone
Fax
e-Mail

CHANGING ROOM IMG 002 / NORMAL LTG / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:14

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	298	247	337	0.827
Floor	20	271	189	337	0.699
Ceiling	70	47	36	57	0.776
Walls (4)	50	111	39	215	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.200 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.375, Ceiling / Working Plane: 0.156.

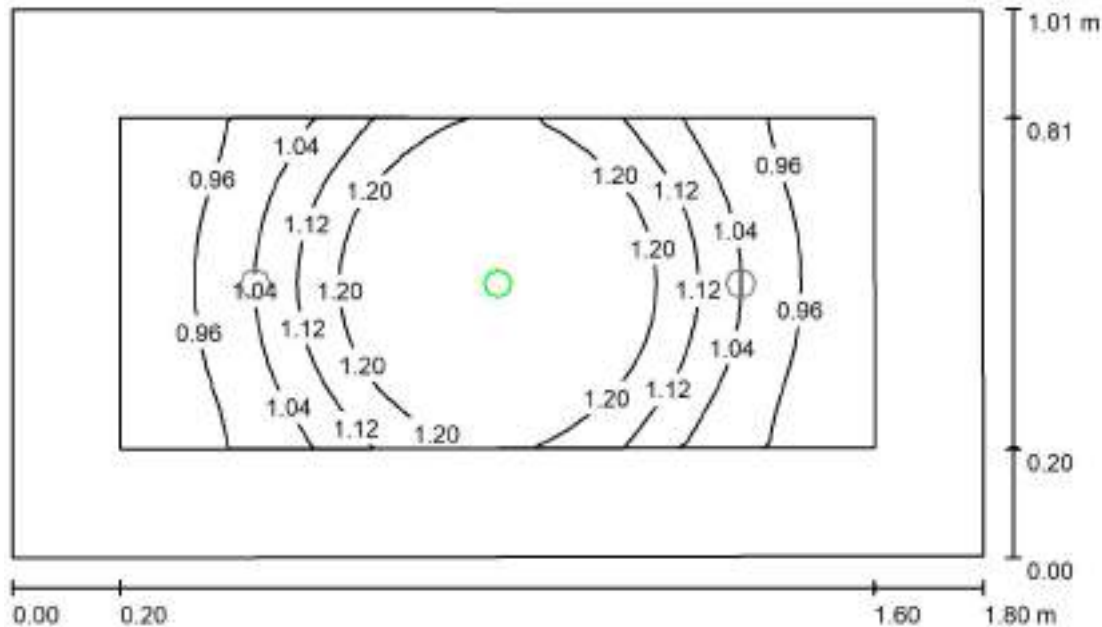
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			1572	2300	24.0

Specific connected load: $13.22 \text{ W/m}^2 = 4.43 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 1.82 m^2)

Operator
Telephone
Fax
e-Mail

CHANGING ROOM IMG 002 / EMER LTG / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:14

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.10	0.88	1.28	0.805
Floor	20	1.00	0.81	1.28	0.805
Ceiling	70	0.20	0.00	4.49	0.000
Walls (4)	50	8.32	0.16	183	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.200 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 7.072, Ceiling / Working Plane: 0.186.

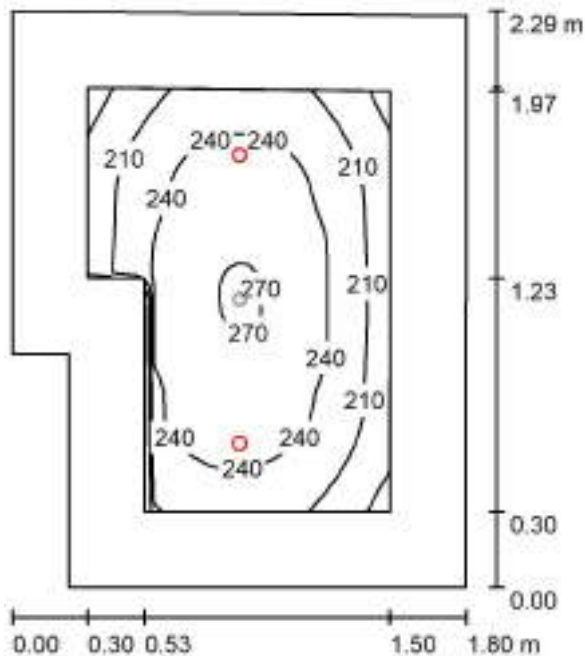
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $1.65 \text{ W/m}^2 = 150.66 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 1.82 m^2)

Operator
 Telephone
 Fax
 e-Mail

CHANGING ROOM IMG 003 / NORMAL LTG / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:30

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	233	167	273	0.719
Floor	20	195	80	273	0.408
Ceiling	70	25	18	30	0.736
Walls (6)	50	57	19	127	/

Workplane:

 Height: 0.000 m
 Grid: 32 x 32 Points
 Boundary Zone: 0.300 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.246, Ceiling / Working Plane: 0.108.

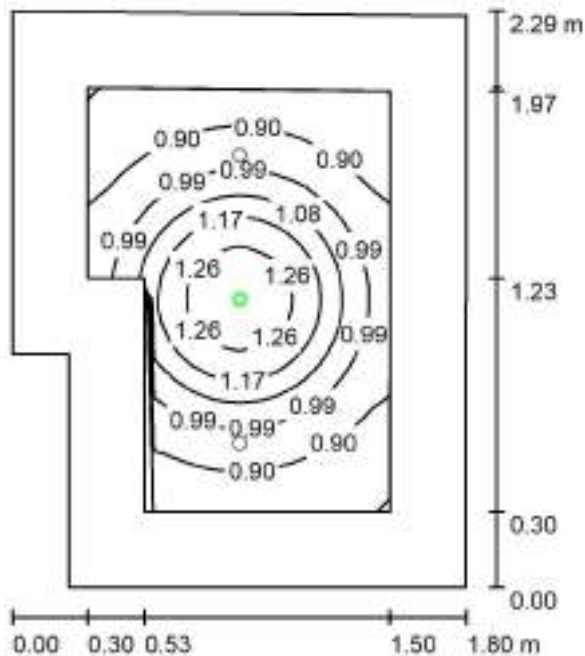
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			1572	2300	24.0

 Specific connected load: $6.18 \text{ W/m}^2 = 2.65 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 3.88 m^2)

Operator
 Telephone
 Fax
 e-Mail

CHANGING ROOM IMG 003 / EMER LTG / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:30

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.00	0.81	1.28	0.803
Floor	20	0.90	0.73	1.28	0.805
Ceiling	70	0.10	0.00	4.13	0.000
Walls (6)	50	5.61	0.07	87	/

Workplane:

 Height: 0.000 m
 Grid: 32 x 32 Points
 Boundary Zone: 0.300 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

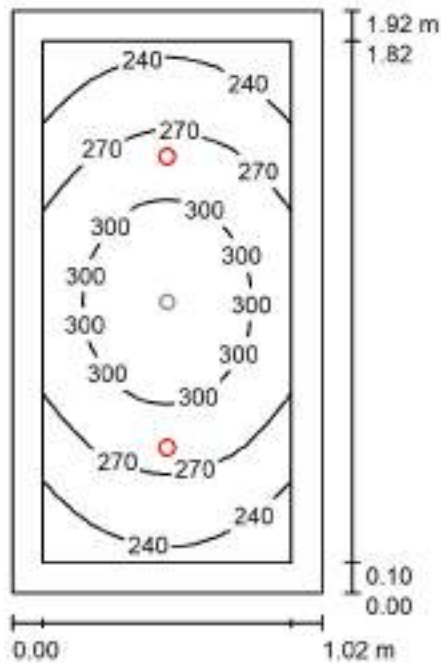
Illuminance Quotient (according to LG7): Walls / Working Plane: 5.452, Ceiling / Working Plane: 0.098.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

 Specific connected load: $0.77 \text{ W/m}^2 = 76.95 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 3.88 m^2)

Operator
 Telephone
 Fax
 e-Mail

WC SHA 004 & 003 / NORMAL LTG / Summary


Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:25

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	274	211	322	0.771
Floor	20	260	180	325	0.695
Ceiling	70	43	33	58	0.777
Walls (4)	50	103	38	189	/

Workplane:

 Height: 0.000 m
 Grid: 16 x 32 Points
 Boundary Zone: 0.100 m

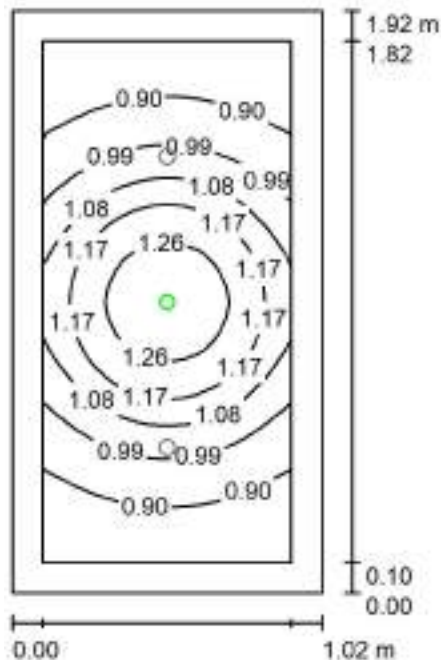
Illuminance Quotient (according to LG7): Walls / Working Plane: 0.379, Ceiling / Working Plane: 0.156.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			1572	2300	24.0

 Specific connected load: $12.19 \text{ W/m}^2 = 4.45 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 1.97 m^2)

Operator
 Telephone
 Fax
 e-Mail

WC SHA 004 & 003 / EMER LTG / Summary


Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:25

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	1.03	0.83	1.28	0.807
Floor	20	0.99	0.79	1.28	0.798
Ceiling	70	0.19	0.00	4.60	0.000
Walls (4)	50	7.87	0.16	216	/

Workplane:

 Height: 0.000 m
 Grid: 16 x 32 Points
 Boundary Zone: 0.100 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 7.646, Ceiling / Working Plane: 0.188.

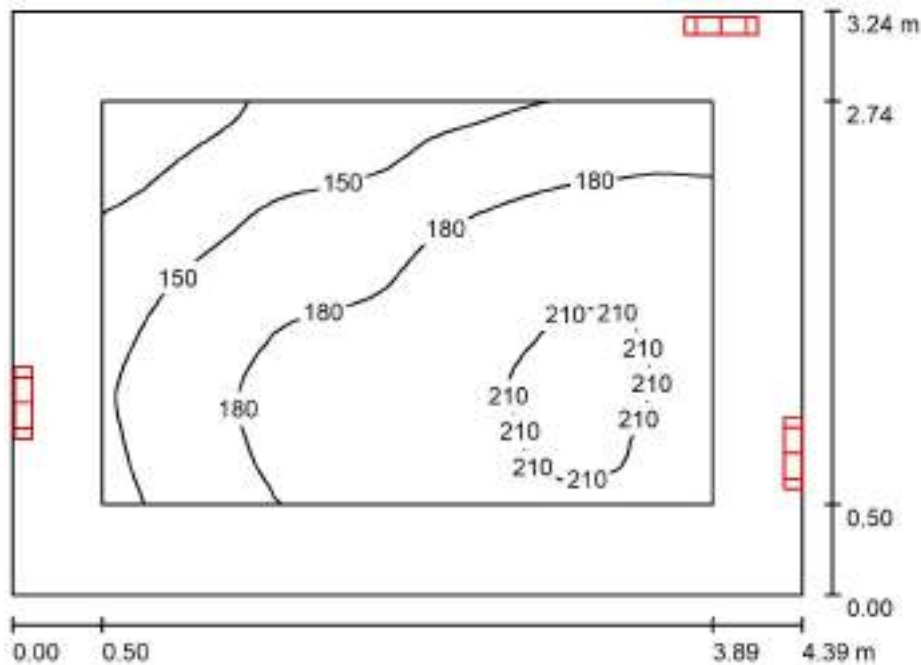
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

 Specific connected load: $1.52 \text{ W/m}^2 = 147.81 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 1.97 m^2)

Operator
Telephone
Fax
e-Mail

E plant room / Summary



Height of Room: 3.500 m, Mounting Height: 1.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	176	101	216	0.576
Floor	20	155	70	219	0.455
Ceiling	70	147	62	212	0.421
Walls (4)	50	153	67	1174	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.874, Ceiling / Working Plane: 0.837.

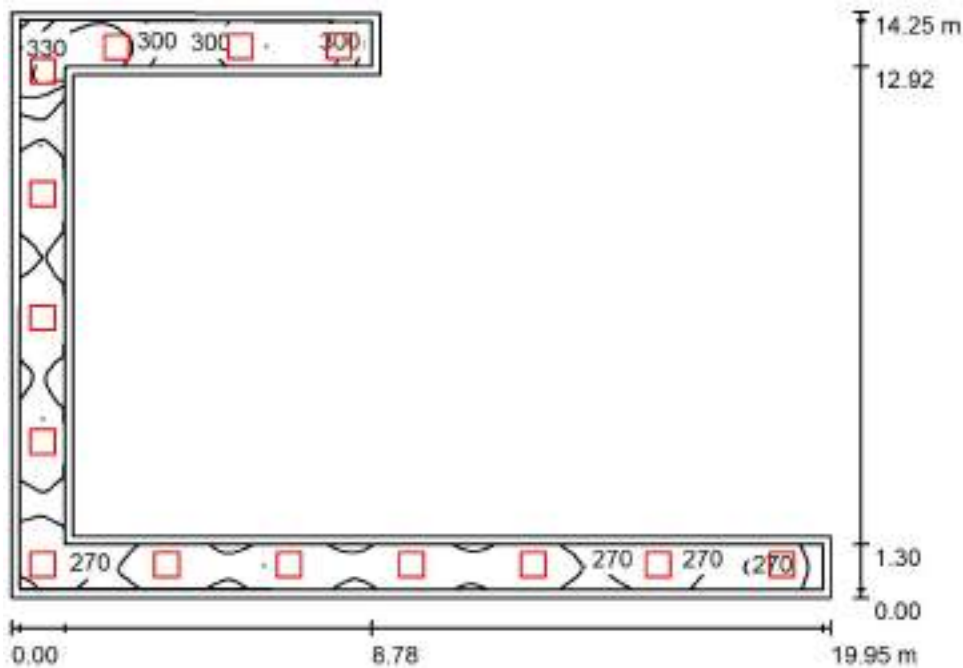
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	Whitcroft Lighting K6H4274KS Kolo Ip65 (1.000)	2709	2705	28.0
Total:			8127	8115	84.0

Specific connected load: $5.91 \text{ W/m}^2 = 3.36 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.22 m^2)

Operator
Telephone
Fax
e-Mail

Corridor CIR 006 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:184

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	284	220	361	0.772
Floor	20	277	201	360	0.725
Ceiling	70	83	60	128	0.723
Walls (8)	50	184	81	529	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.200 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.650, Ceiling / Working Plane: 0.291.

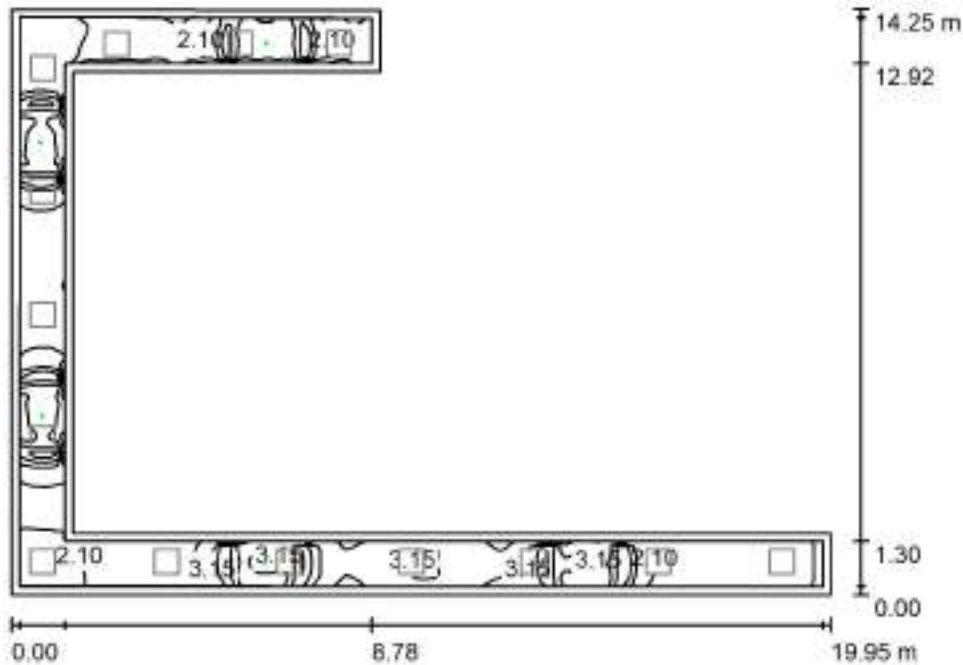
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	14	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			43536	43771	406.0

Specific connected load: $6.73 \text{ W/m}^2 = 2.37 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 60.32 m^2)

Operator
Telephone
Fax
e-Mail

Corridor CIR 006 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:184

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.63	0.96	6.20	0.364
Floor	20	2.52	0.77	6.50	0.306
Ceiling	70	0.09	0.00	5.26	0.000
Walls (8)	50	2.00	0.03	26	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.200 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.759, Ceiling / Working Plane: 0.034.

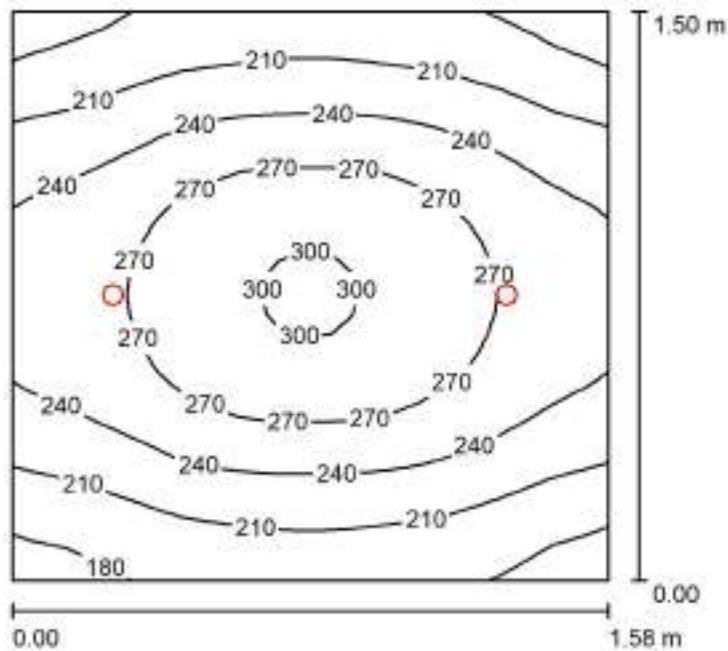
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			751	700	15.0

Specific connected load: $0.25 \text{ W/m}^2 = 9.46 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 60.32 m^2)

Operator
Telephone
Fax
e-Mail

WCS SHA 013 / Summary



Height of Room: 2.700 m, Mounting Height: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:20

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	239	164	305	0.687
Floor	20	239	159	305	0.666
Ceiling	70	45	32	64	0.728
Walls (4)	50	93	36	475	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.387, Ceiling / Working Plane: 0.186.

Luminaire Parts List

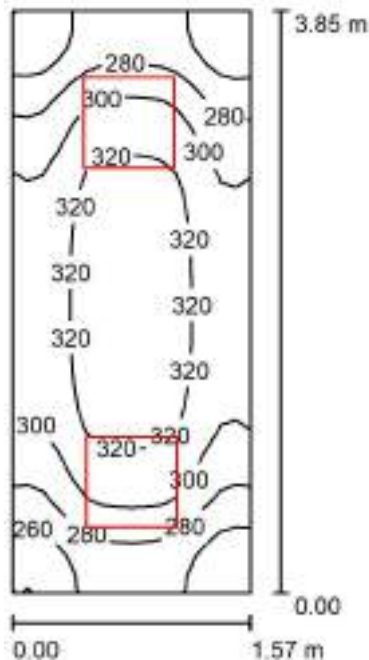
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			1572	2300	24.0

Specific connected load: $10.13 \text{ W/m}^2 = 4.23 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 2.37 m^2)



Operator
Telephone
Fax
e-Mail

Lobby com 006 / Summary



Height of Room: 2.700 m, Mounting Height: 2.790 m, Maintenance factor: 0.80

Values in Lux, Scale 1:50

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	298	232	332	0.780
Floor	20	298	236	332	0.791
Ceiling	70	107	83	135	0.772
Walls (4)	50	228	106	502	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.766, Ceiling / Working Plane: 0.360.

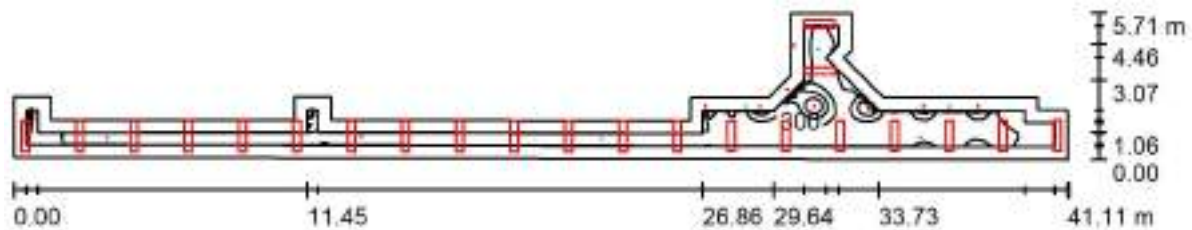
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $9.60 \text{ W/m}^2 = 3.22 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.04 m^2)

Operator
Telephone
Fax
e-Mail

Waiting and Check In WTG 001 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:294

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	269	202	486	0.749
Floor	20	253	135	495	0.535
Ceiling	70	66	42	161	0.642
Walls (22)	50	141	47	1268	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.526, Ceiling / Working Plane: 0.246.

Luminaire Parts List

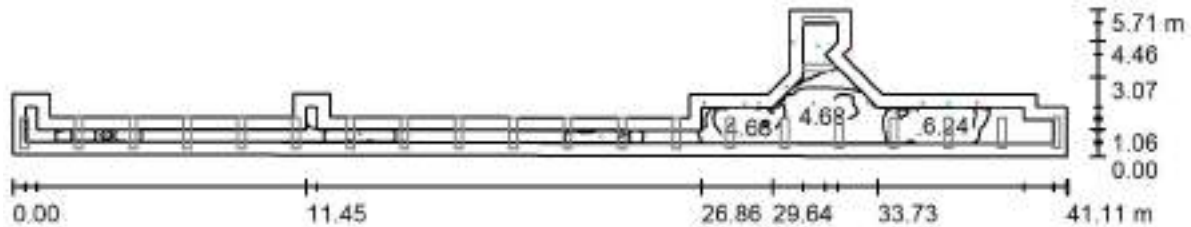
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	10	Viabizzuno Vb6.588.01.27 displei fisso dn35 350mA (1.000)	340	340	6.7
2	22	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			45677	45706	463.0

Specific connected load: $5.47 \text{ W/m}^2 = 2.03 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 84.68 m^2)



Operator
Telephone
Fax
e-Mail

Waiting and Check In WTG 001 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:294

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	3.49	0.00	7.82	0.000
Floor	20	2.92	0.00	7.44	0.000
Ceiling	70	0.08	0.00	5.44	0.001
Walls (22)	50	2.32	0.00	100	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.677, Ceiling / Working Plane: 0.023.

Luminaire Parts List

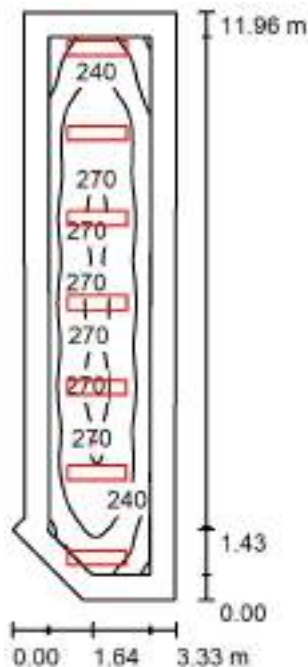
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
2	6	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			1060	980	21.0

Specific connected load: $0.25 \text{ W/m}^2 = 7.10 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 84.68 m^2)



Operator
Telephone
Fax
e-Mail

Corridor COM 007 / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:154

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	244	171	274	0.703
Floor	20	221	125	274	0.566
Ceiling	70	49	35	72	0.711
Walls (6)	50	106	46	246	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.434, Ceiling / Working Plane: 0.199.

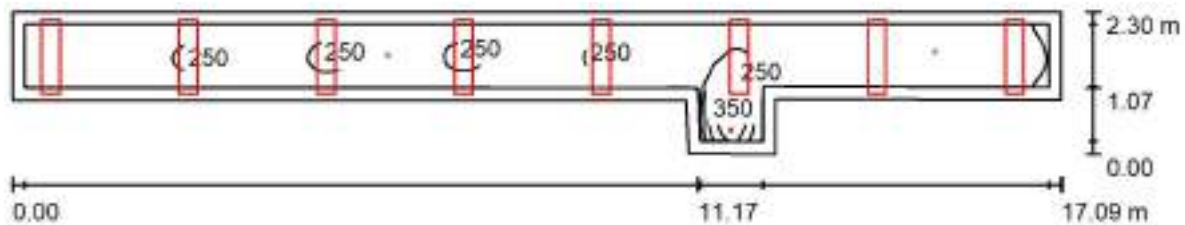
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	7	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
2	2	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			13770	13741	132.0

Specific connected load: $3.66 \text{ W/m}^2 = 1.50 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 36.05 m^2)

Operator
Telephone
Fax
e-Mail

Corridor CIR 005 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:123

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	237	189	401	0.797
Floor	20	229	162	385	0.706
Ceiling	70	67	46	100	0.678
Walls (8)	50	142	50	621	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.200 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.596, Ceiling / Working Plane: 0.284.

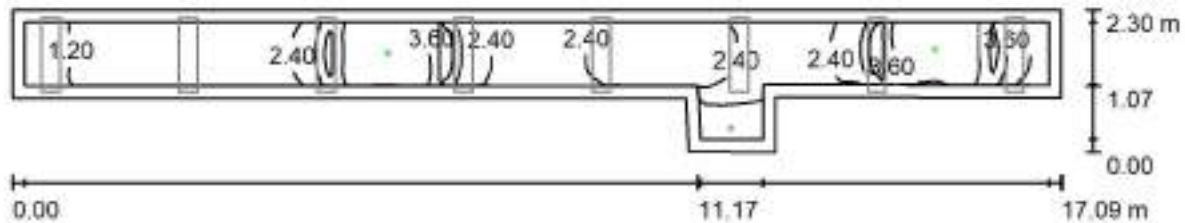
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	Viabizzuno Vb6.588.01.27 displei fisso dn35 350mA (1.000)	340	340	6.7
2	8	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			15714	15724	150.7

Specific connected load: $5.91 \text{ W/m}^2 = 2.49 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 25.49 m^2)

Operator
Telephone
Fax
e-Mail

Corridor CIR 005 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:123

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.39	0.00	6.01	0.000
Floor	20	2.27	0.00	5.95	0.000
Ceiling	70	0.09	0.00	5.77	0.000
Walls (8)	50	1.76	0.00	29	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.200 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.734, Ceiling / Working Plane: 0.034.

Luminaire Parts List

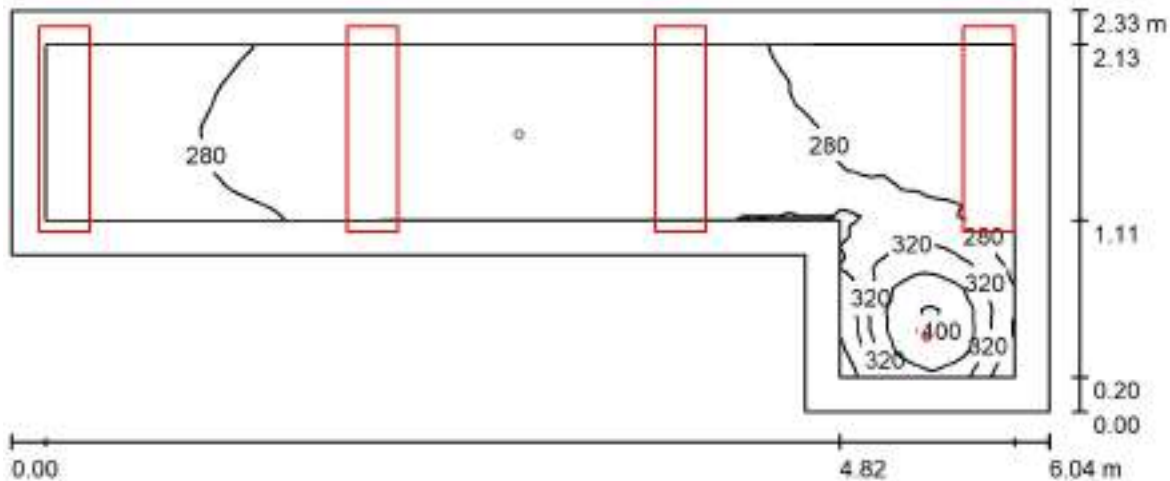
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			300	280	6.0

Specific connected load: $0.24 \text{ W/m}^2 = 9.84 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 25.49 m^2)



Operator
Telephone
Fax
e-Mail

Corridor CIR 003 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:44

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	288	218	415	0.755
Floor	20	275	150	412	0.546
Ceiling	70	89	44	154	0.498
Walls (6)	50	178	53	659	/

Workplane:

Height: 0.000 m
Grid: 64 x 128 Points
Boundary Zone: 0.200 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.615, Ceiling / Working Plane: 0.309.

Luminaire Parts List

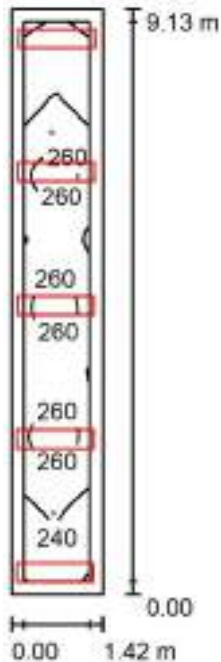
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	Viabizzuno Vb6.588.01.27 displei fisso dn35 350mA (1.000)	340	340	6.7
2	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			8027	8032	78.7

Specific connected load: $7.97 \text{ W/m}^2 = 2.76 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 9.88 m^2)



Operator
Telephone
Fax
e-Mail

Corridor CIR 004 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:118

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	247	213	267	0.859
Floor	20	240	193	268	0.802
Ceiling	70	86	61	156	0.716
Walls (4)	50	172	83	659	/

Workplane:

Height: 0.000 m
Grid: 64 x 8 Points
Boundary Zone: 0.200 m

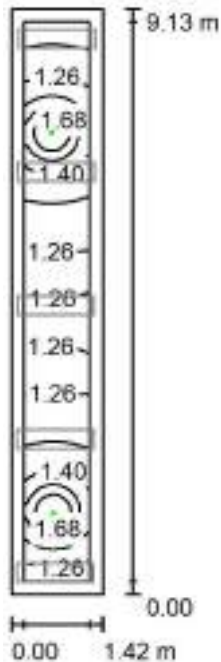
Illuminance Quotient (according to LG7): Walls / Working Plane: 0.692, Ceiling / Working Plane: 0.346.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			9608	9615	90.0

Specific connected load: $6.94 \text{ W/m}^2 = 2.81 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.96 m^2)

Corridor CIR 004 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:118

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.33	1.07	1.75	0.803
Floor	20	1.30	1.03	1.75	0.796
Ceiling	70	0.06	0.00	4.57	0.000
Walls (4)	50	4.17	0.08	144	/

Workplane:

Height:	0.000 m
Grid:	128 x 16 Points
Boundary Zone:	0.200 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 3.061, Ceiling / Working Plane: 0.046.

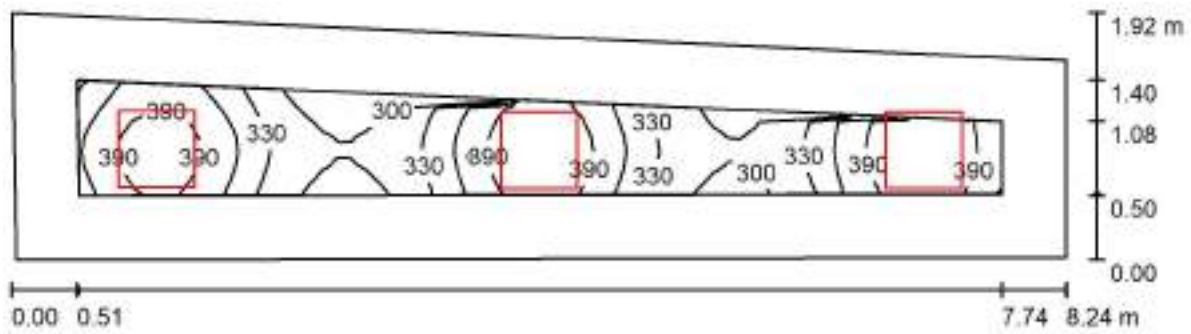
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
			Total: 318	Total: 280	6.0

Specific connected load: $0.46 \text{ W/m}^2 = 34.89 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.96 m^2)

Operator
Telephone
Fax
e-Mail

Disposal Hold SHA 015 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:59

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	354	284	418	0.803
Floor	20	249	179	281	0.720
Ceiling	70	72	53	100	0.736
Walls (4)	50	162	68	446	/

Workplane:

Height: 0.750 m
Grid: 64 x 8 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.496, Ceiling / Working Plane: 0.204.

Luminaire Parts List

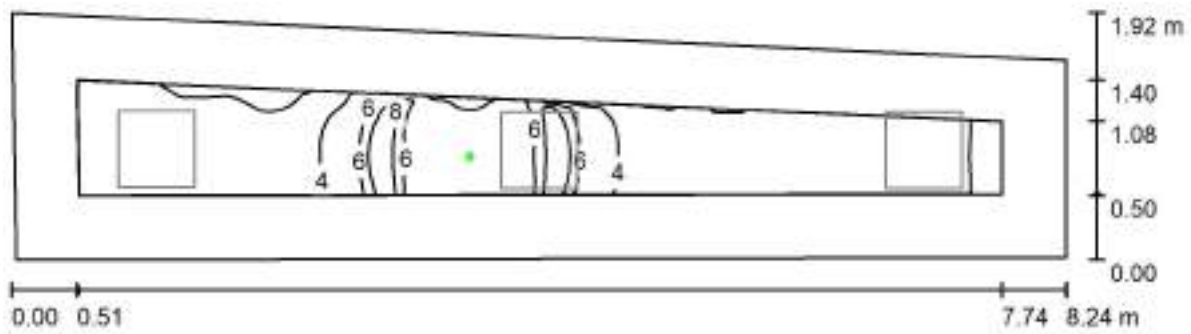
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			9329	9380	87.0

Specific connected load: $6.12 \text{ W/m}^2 = 1.73 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.23 m^2)



Operator
Telephone
Fax
e-Mail

Disposal Hold SHA 015 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:59

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	3.64	1.55	11	0.426
Floor	20	1.88	0.64	5.50	0.338
Ceiling	70	0.08	0.00	5.34	0.000
Walls (4)	50	1.74	0.05	20	/

Workplane:

Height: 0.750 m
Grid: 128 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.564, Ceiling / Working Plane: 0.021.

Luminaire Parts List

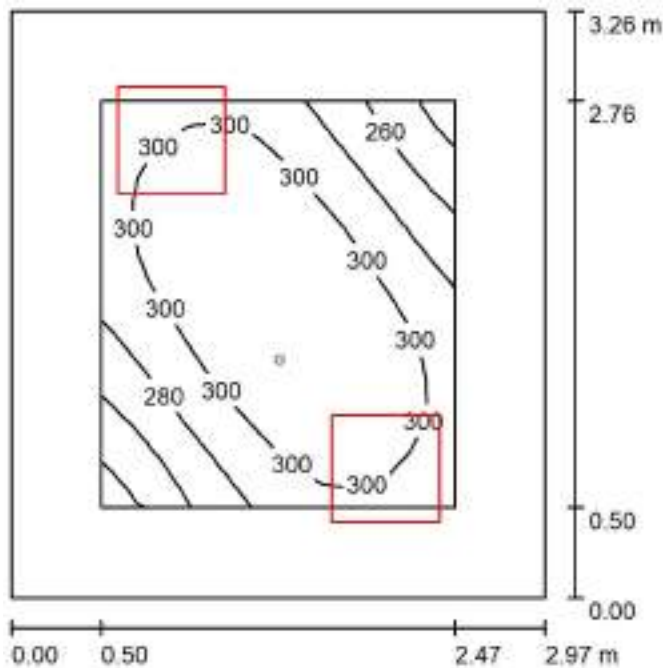
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.21 \text{ W/m}^2 = 5.80 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.23 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY COM 010 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	294	230	319	0.781
Floor	20	264	162	319	0.614
Ceiling	70	74	43	103	0.585
Walls (4)	50	161	54	485	/

Workplane:

Height: 0.000 m
Grid: 16 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.548, Ceiling / Working Plane: 0.250.

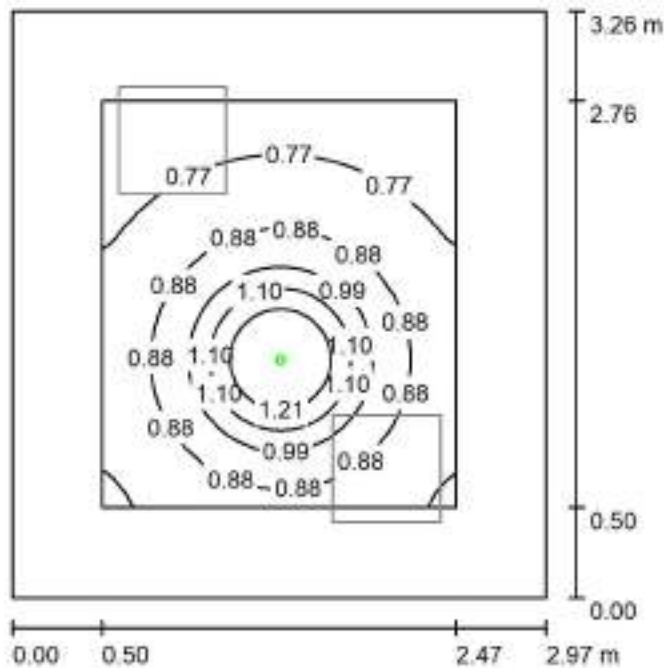
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $6.00 \text{ W/m}^2 = 2.04 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 9.66 m^2)

Operator
Telephone
Fax
e-Mail

LOBBY COM 010 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	0.88	0.71	1.28	0.802
Floor	20	0.81	0.71	1.28	0.878
Ceiling	70	0.04	0.00	4.60	0.000
Walls (4)	50	3.55	0.18	33	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.000, Ceiling / Working Plane: 0.051.

Luminaire Parts List

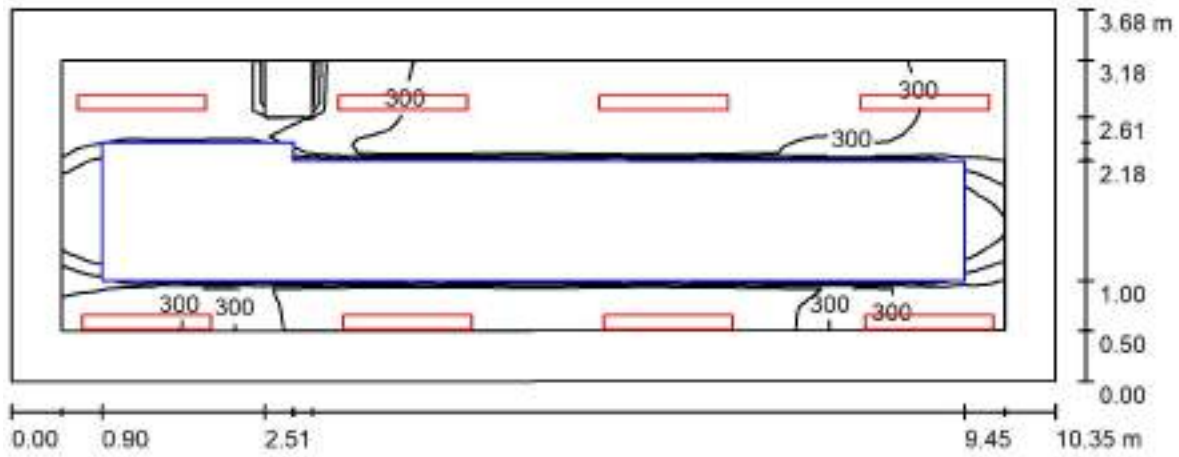
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.31 \text{ W/m}^2 = 35.15 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 9.66 m^2)



Operator
Telephone
Fax
e-Mail

LV SWITCHROOM / L / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:75

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	284	95	335	0.333
Floor	20	198	8.83	335	0.045
Ceiling	50	90	58	116	0.647
Walls (4)	30	233	39	1210	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.785, Ceiling / Working Plane: 0.314.

Luminaire Parts List

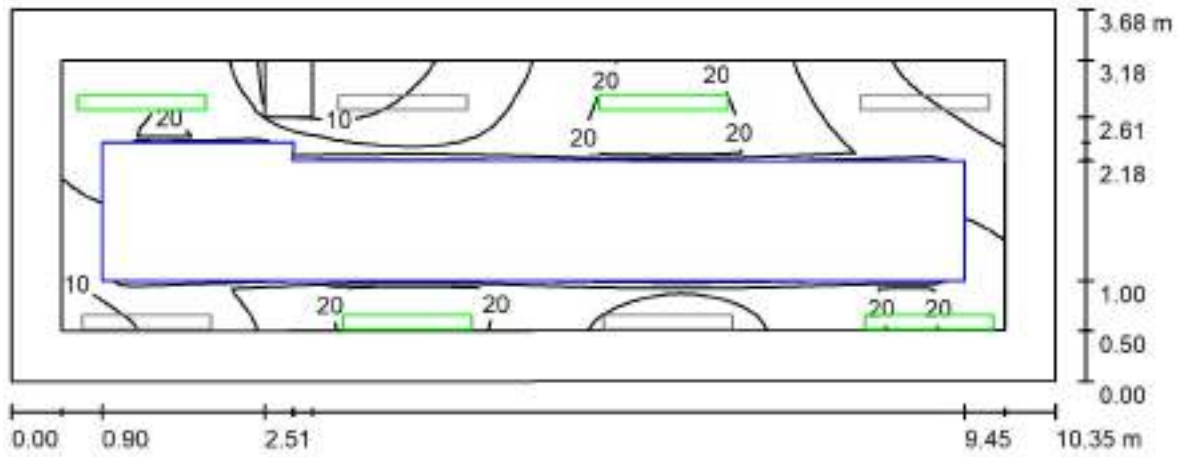
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITCROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
2	4	WHITCROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
Total:			51232	51232	380.0

Specific connected load: $9.99 \text{ W/m}^2 = 3.52 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 38.05 m^2)



Operator
Telephone
Fax
e-Mail

LV SWITCHROOM / E / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:75

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	16	6.43	23	0.403
Floor	20	16	0.48	23	0.031
Ceiling	50	0.45	0.04	0.72	0.079
Walls (4)	30	9.15	0.05	96	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

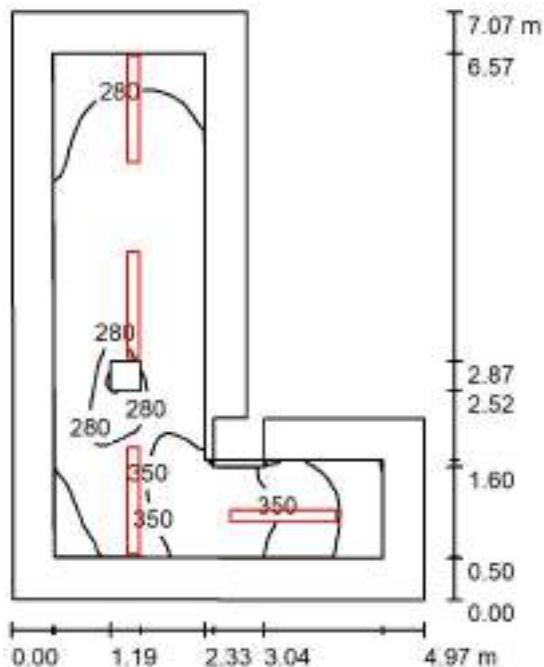
Illuminance Quotient (according to LG7): Walls / Working Plane: 0.541, Ceiling / Working Plane: 0.028.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITCROFT ACH64K ACL INDUSTRY (1.000)	576	576	47.5
Total:			2305	2305	190.0

Specific connected load: $4.99 \text{ W/m}^2 = 31.30 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 38.05 m^2)

UPS 1 / L / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:91

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	306	119	424	0.389
Floor	20	276	141	428	0.512
Ceiling	50	52	34	102	0.656
Walls (6)	30	171	35	578	/

Workplane:

Height: 0.000 m
 Grid: 128 x 128 Points
 Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.516, Ceiling / Working Plane: 0.169.

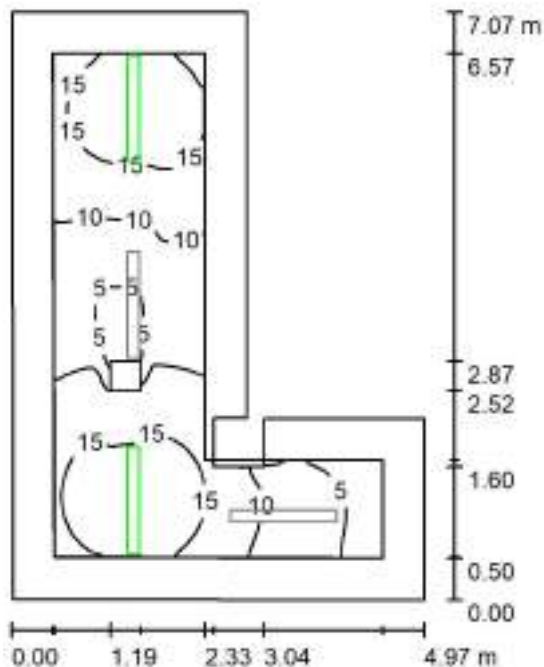
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
2	2	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
Total:			25616	25616	190.0

Specific connected load: $7.73 \text{ W/m}^2 = 2.53 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 24.57 m^2)

Operator
Telephone
Fax
e-Mail

UPS 1 / E / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:91

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	12	1.49	18	0.127
Floor	20	10	0.00	18	0.000
Ceiling	50	0.26	0.00	0.60	0.000
Walls (6)	30	5.60	0.00	24	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.415, Ceiling / Working Plane: 0.022.

Luminaire Parts List

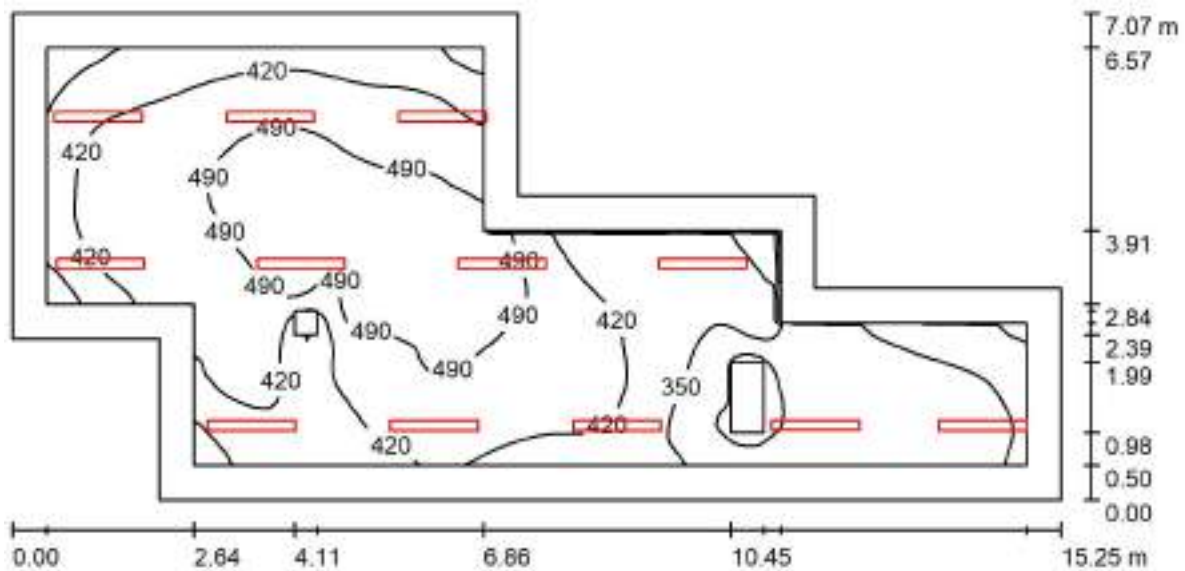
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACH64K ACL INDUSTRY (1.000)	576	576	47.5
Total:			1153	1153	95.0

Specific connected load: $3.87 \text{ W/m}^2 = 33.05 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 24.57 m^2)



Operator
Telephone
Fax
e-Mail

MECHANICAL PLANTROOM / L / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:110

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	417	196	545	0.469
Floor	20	385	142	546	0.369
Ceiling	50	78	43	131	0.553
Walls (10)	30	218	45	588	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.514, Ceiling / Working Plane: 0.188.

Luminaire Parts List

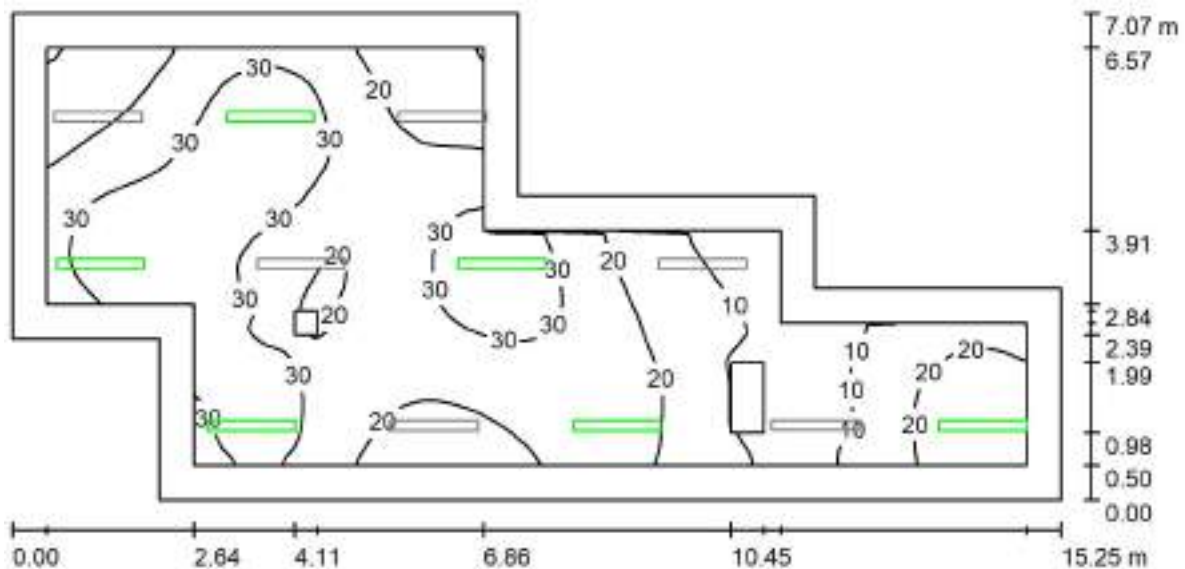
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
2	6	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
Total:			76848	76848	570.0

Specific connected load: $7.40 \text{ W/m}^2 = 1.77 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 77.04 m^2)



Operator
Telephone
Fax
e-Mail

MECHANICAL PLANTROOM / E / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:110

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	23	2.62	37	0.112
Floor	20	21	2.56	37	0.120
Ceiling	50	0.69	0.05	1.45	0.078
Walls (10)	30	11	0.25	63	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

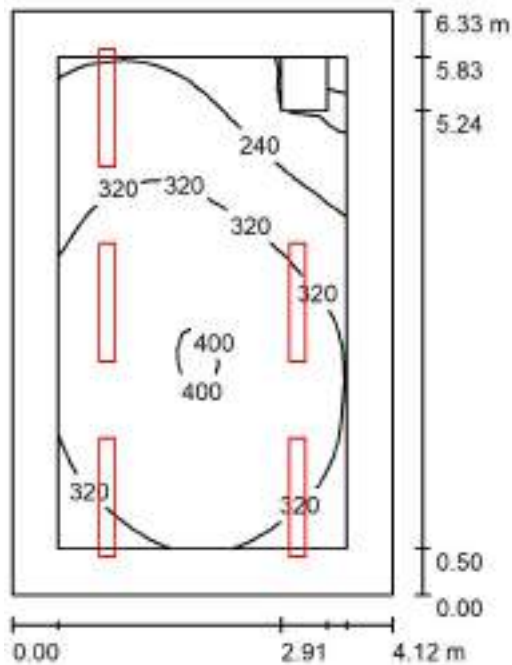
Illuminance Quotient (according to LG7): Walls / Working Plane: 0.431, Ceiling / Working Plane: 0.030.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITCROFT ACH64K ACL INDUSTRY (1.000)	897	897	47.5
2	1	WHITCROFT ACH64K ACL INDUSTRY (1.000)	576	576	47.5
Total:			5059	5059	285.0

Specific connected load: $3.70 \text{ W/m}^2 = 15.88 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 77.04 m^2)

UPS 2 / L / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:82

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	322	39	403	0.121
Floor	20	290	19	403	0.065
Ceiling	50	52	19	69	0.359
Walls (4)	30	149	15	354	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.424, Ceiling / Working Plane: 0.162.

Luminaire Parts List

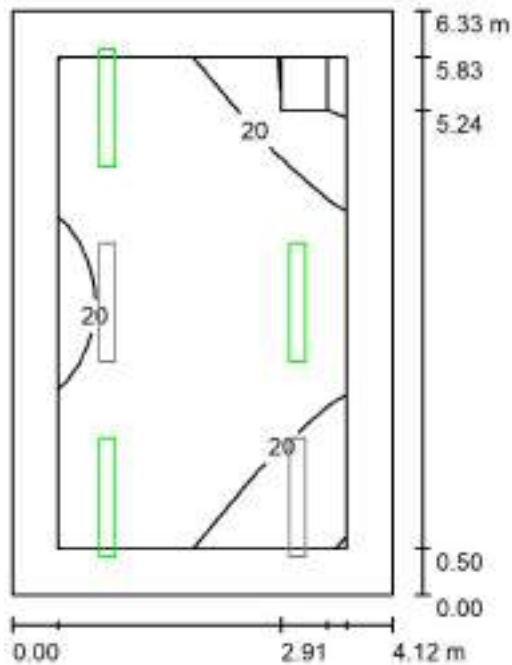
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	2	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			21689	21605	180.0

Specific connected load: $6.90 \text{ W/m}^2 = 2.14 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 26.10 m^2)



Operator
Telephone
Fax
e-Mail

UPS 2 / E / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:82

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	23	1.27	29	0.056
Floor	20	20	0.00	29	0.000
Ceiling	50	0.65	0.01	1.06	0.016
Walls (4)	30	9.02	0.00	40	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.362, Ceiling / Working Plane: 0.028.

Luminaire Parts List

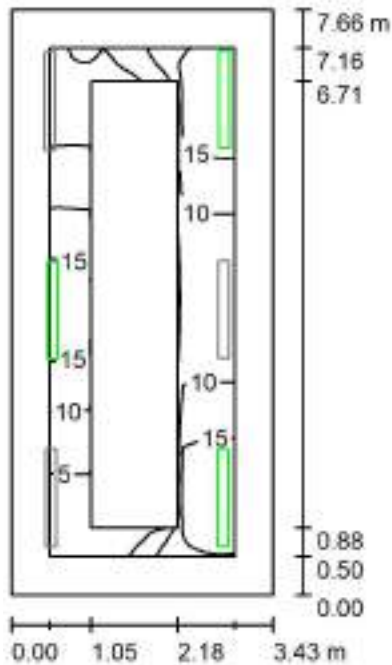
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			1822	1815	108.0

Specific connected load: $4.14 \text{ W/m}^2 = 18.28 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 26.10 m^2)



Operator
Telephone
Fax
e-Mail

LIFE SAFETY SWITCHROOM / E / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:99

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	11	2.51	18	0.235
Floor	20	10	2.45	18	0.237
Ceiling	50	0.44	0.16	0.71	0.358
Walls (4)	30	8.13	0.23	105	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.786, Ceiling / Working Plane: 0.041.

Luminaire Parts List

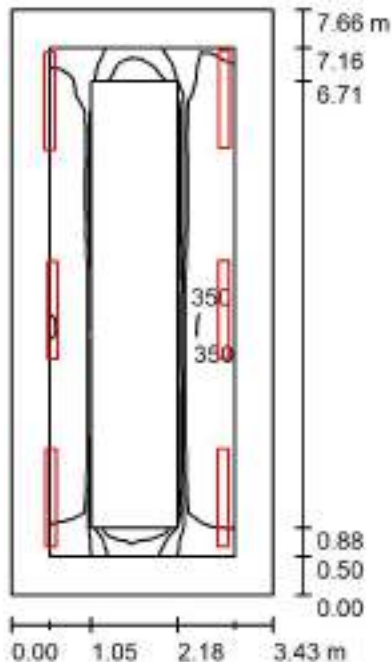
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT ACH64K ACL INDUSTRY (1.000)	576	576	47.5
Total:			1729	Total: 1729	142.5

Specific connected load: $5.43 \text{ W/m}^2 = 50.85 \text{ W/m}^2 / 100 \text{ lx}$ (Ground area: 26.22 m^2)



Operator
Telephone
Fax
e-Mail

LIFE SAFETY SWITCHROOM / L / Summary



Height of Room: 3.765 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:99

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	310	128	357	0.413
Floor	20	302	126	356	0.418
Ceiling	50	108	70	139	0.653
Walls (4)	30	271	73	1412	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.887, Ceiling / Working Plane: 0.347.

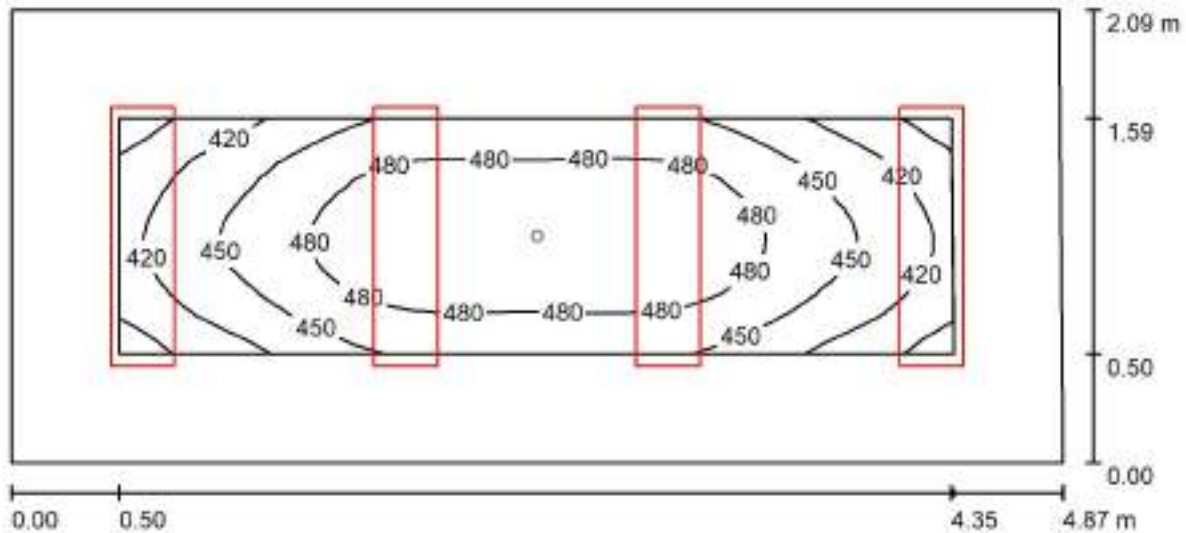
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
2	3	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
Total:			38424	38424	285.0

Specific connected load: $10.87 \text{ W/m}^2 = 3.50 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 26.22 m^2)

Operator
Telephone
Fax
e-Mail

REPORTING ROOM IMG 011 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:35

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	458	374	505	0.816
Floor	20	308	200	382	0.650
Ceiling	70	83	60	102	0.728
Walls (4)	50	181	82	352	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.420, Ceiling / Working Plane: 0.181.

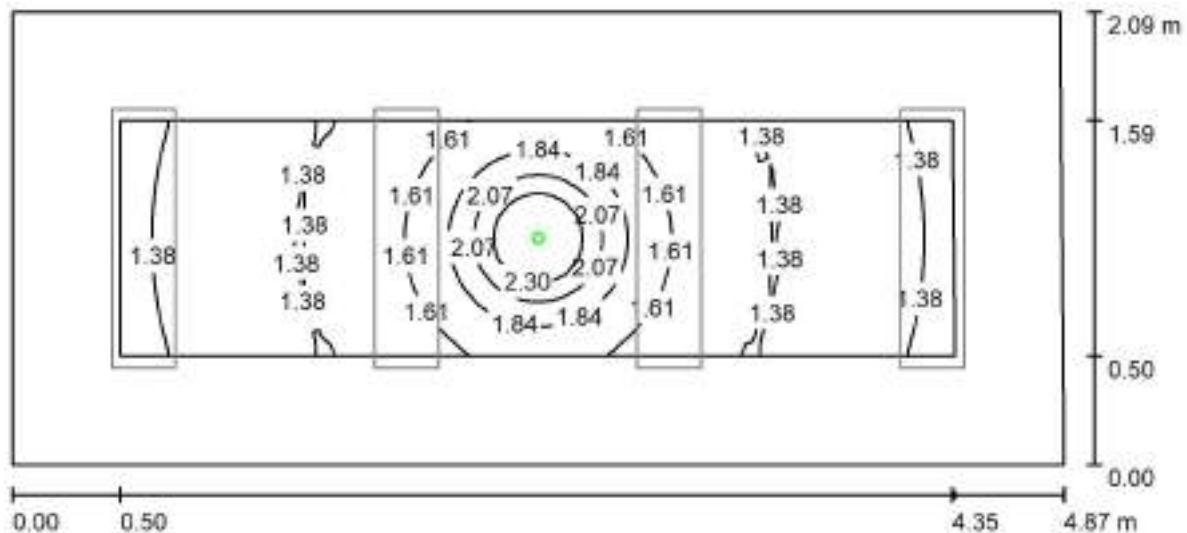
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			7687	7692	72.0

Specific connected load: $7.09 \text{ W/m}^2 = 1.55 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.15 m^2)

Operator
Telephone
Fax
e-Mail

REPORTING ROOM IMG 011 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:35

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.56	1.31	2.46	0.842
Floor	20	0.80	0.71	1.28	0.880
Ceiling	70	0.04	0.00	4.60	0.000
Walls (4)	50	3.17	0.10	49	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.767, Ceiling / Working Plane: 0.026.

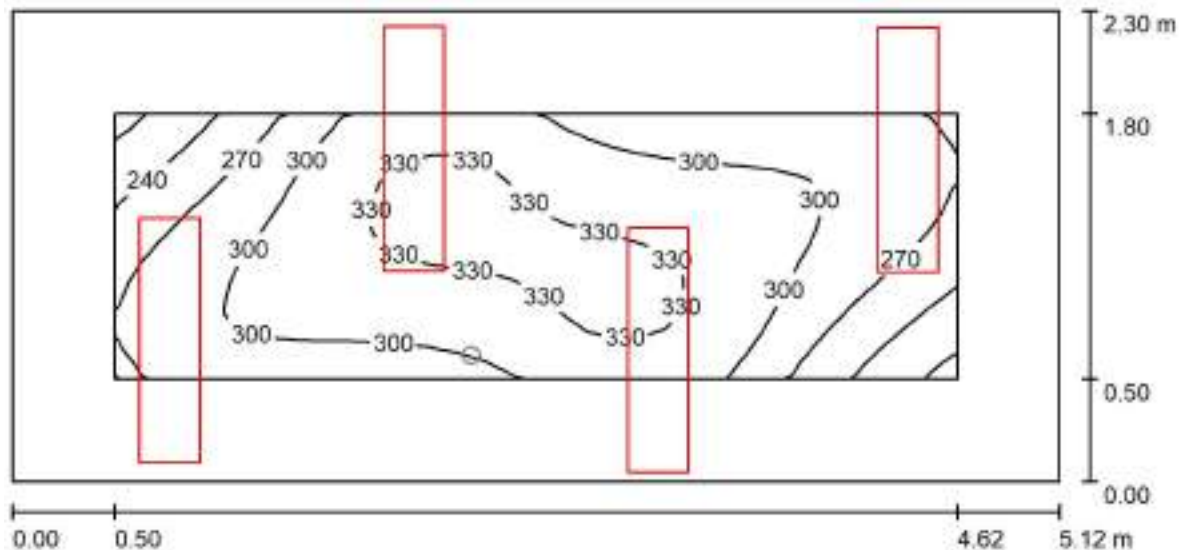
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.30 \text{ W/m}^2 = 18.99 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.15 m^2)

Operator
Telephone
Fax
e-Mail

CONTROL ROOM IMG 005 / L / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [Ix]	E_{min} [Ix]	E_{max} [Ix]	u_0
Workplane	/	299	202	339	0.676
Floor	20	207	121	261	0.585
Ceiling	70	57	34	118	0.590
Walls (4)	50	120	47	604	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.429, Ceiling / Working Plane: 0.190.

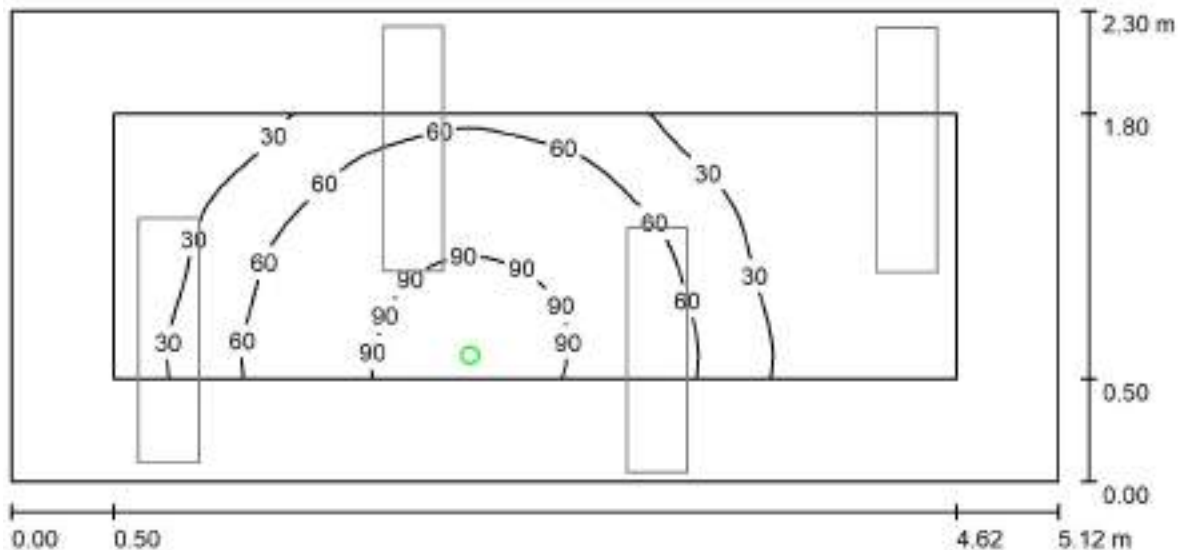
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
*Modified Technical Specifications			Total: 5696	Total: 5700	72.0

Specific connected load: $6.11 \text{ W/m}^2 = 2.04 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.78 m^2)

Operator
Telephone
Fax
e-Mail

CONTROL ROOM IMG 005 / E / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	46	0.70	103	0.015
Floor	20	27	0.73	54	0.027
Ceiling	70	0.00	0.00	0.04	0.000
Walls (4)	50	5.27	0.00	136	/

Workplane:

Height: 0.750 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.108, Ceiling / Working Plane: 0.000.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			667	667	9.0

Specific connected load: $0.76 \text{ W/m}^2 = 1.65 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.78 m^2)



UCLH Phase 5 - REV 4

Installation : Basement 2

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 09.10.2018

Project description:
WLL Sample lighting calculations to areas as requested.

Calculation parameters:

Standard reflectances:
70% Ceiling / 50% Wall / 20% Floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

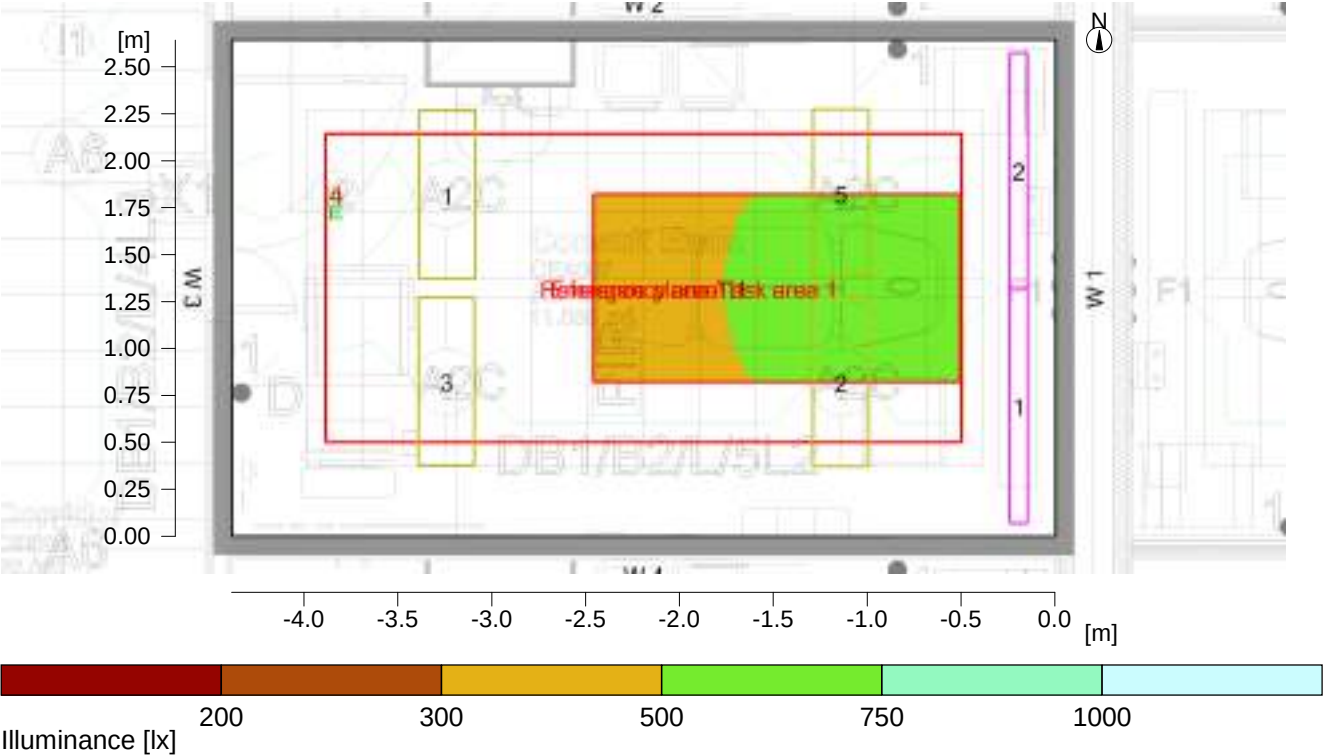
First Page	1
Table of contents	2
1 Consult Exam - CEA007 - B2.026	
1.1 Summary, Consult Exam - CEA007 - B2.026	
1.1.1 Result overview, Task area 1	3
1.1.2 Result overview, Evaluation area 1	4
1.2 Calculation results, Consult Exam - CEA007 - B2.026	
1.2.1 Boundary line, Emergency area 1 (E)	6
1.2 Summary, Consult Exam - CEA007 - B2.026	
1.2.2 Result overview (emergency lighting)	7
2 Staff Breakout - SHA007 - B2.043	
2.1 Summary, Staff Breakout - SHA007 - B2.043	
2.1.1 Result overview, Evaluation area 1	8
2.2 Calculation results, Staff Breakout - SHA007 - B2.043	
2.2.1 Boundary line, Emergency area 1 (E)	10
2.2 Summary, Staff Breakout - SHA007 - B2.043	
2.2.2 Result overview (emergency lighting)	11
3 Cone CT Sitting - IMG009 - B2.021	
3.1 Summary, Cone CT Sitting - IMG009 - B2.021	
3.1.1 Result overview, Evaluation area 1	12
3.2 Calculation results, Cone CT Sitting - IMG009 - B2.021	
3.2.1 Boundary line, Emergency area 1 (E)	14
3.2 Summary, Cone CT Sitting - IMG009 - B2.021	
3.2.2 Result overview (emergency lighting)	15
4 Consult Exam - CEA001 - B2.016	
4.1 Summary, Consult Exam - CEA001 - B2.016	
4.1.1 Result overview, Task area 1	16
4.1.2 Result overview, Evaluation area 1	17
4.2 Calculation results, Consult Exam - CEA001 - B2.016	
4.2.1 Boundary line, Emergency area 1 (E)	19
4.2 Summary, Consult Exam - CEA001 - B2.016	
4.2.2 Result overview (emergency lighting)	20
5 Technical Room - IMG066 - B2.011	
5.1 Summary, Technical Room - IMG066 - B2.011	
5.1.1 Result overview, Evaluation area 1	21
5.2 Calculation results, Technical Room - IMG066 - B2.011	
5.2.1 Boundary line, Emergency area 1 (E)	23
5.2 Summary, Technical Room - IMG066 - B2.011	
5.2.2 Result overview (emergency lighting)	24
6 Cannulation Bay - IMG004 - B2.008	
6.1 Summary, Cannulation Bay - IMG004 - B2.008	
6.1.1 Result overview, Evaluation area 1	25
6.2 Calculation results, Cannulation Bay - IMG004 - B2.008	
6.2.1 Boundary line, Emergency area 1 (E)	26
6.2 Summary, Cannulation Bay - IMG004 - B2.008	
6.2.2 Result overview (emergency lighting)	27
7 Corridor - CIR053 - B2.005	
7.1 Summary, Corridor - CIR053 - B2.005	
7.1.1 Result overview, Evaluation area 2	28
7.2 Calculation results, Corridor - CIR053 - B2.005	
7.2.1 Boundary line, Escape route 1 (E)	30
7.2 Summary, Corridor - CIR053 - B2.005	
7.2.2 Result overview (emergency lighting)	31



1 Consult Exam - CEA007 - B2.026

1.1 Summary, Consult Exam - CEA007 - B2.026

1.1.1 Result overview, Task area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.85 m
Height of luminaire plane	2.70 m
Maintenance factor	0.80

Total luminous flux of all lamps	8814 lm
Total power	80 W
Total power per area (11.58 m²)	6.91 W/m²

Illuminance

Task area		Horizontal (0.85 m)
Average value	Em	502 lx
Minimum	Emin	403 lx
Uniformity Uo	Emin/Em	1:1.25 (0.8)

Type No. Make

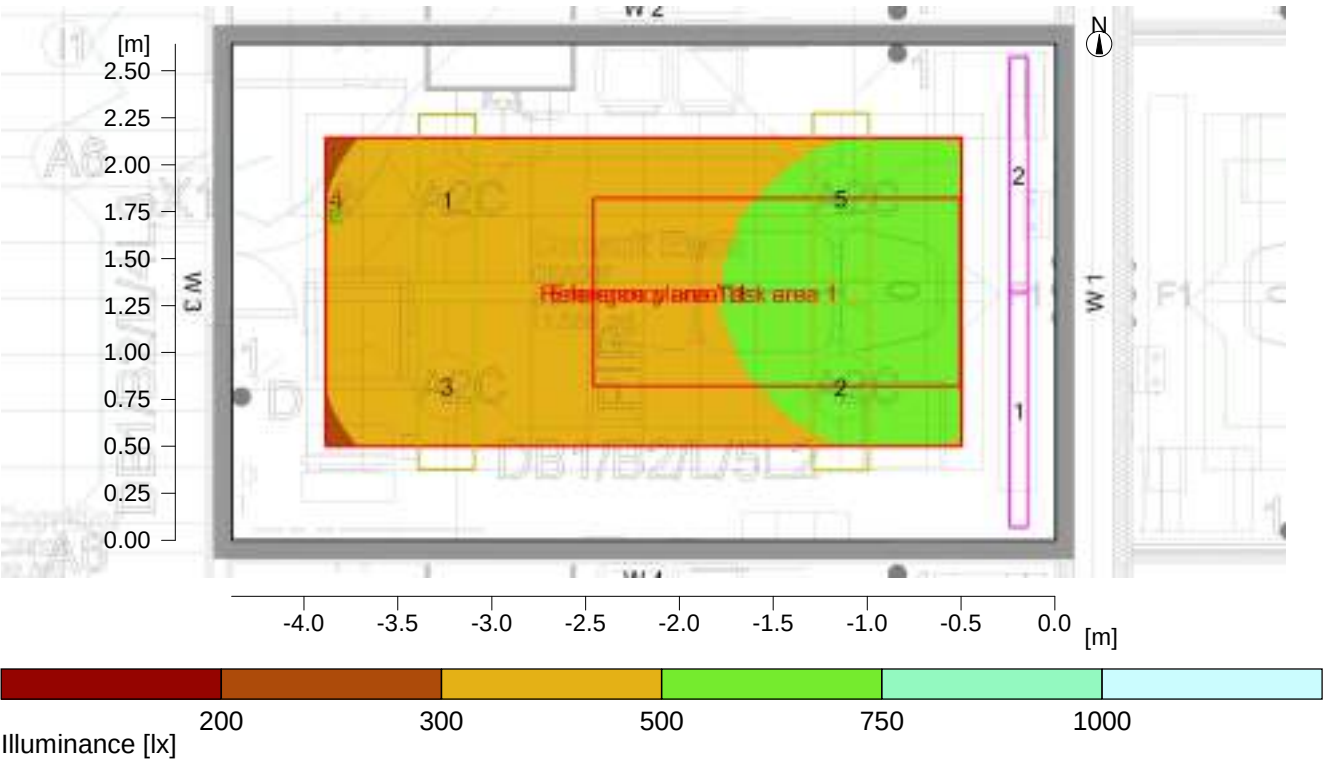
Whitecroft Lighting

1	4	Order No.	: !CLFT1/900/SRF TBC (Nominal) 900mm x 300mm
		Luminaire name	: A2C - CITYLINE TUNABLE WHITE - Special
		Equipment	: 1 x LED 13.5 W / 1425 lm
2	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm



1.1 Summary, Consult Exam - CEA007 - B2.026

1.1.2 Result overview, Evaluation area 1



General	
Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8814.00 lm
Total power	80.0 W
Total power per area (11.58 m²)	6.91 W/m² (1.57 W/m²/100lx)

Evaluation area 1	Reference plane 1.1
	Horizontal
Em	439 lx
Emin	298 lx
Emin/Eav (Uo)	0.68
Emin/Emax (Ud)	0.51
Position	0.85 m

Major surfaces	Em	Uo
M 1.5 (Ceiling)	83 lx	0.76
M 1.1 (Wall)	242 lx	0.67
M 1.2 (Wall)	200 lx	0.65
M 1.3 (Wall)	161 lx	0.74
M 1.4 (Wall)	200 lx	0.65

Type No. Make

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



1.1 Summary, Consult Exam - CEA007 - B2.026

1.1.2 Result overview, Evaluation area 1

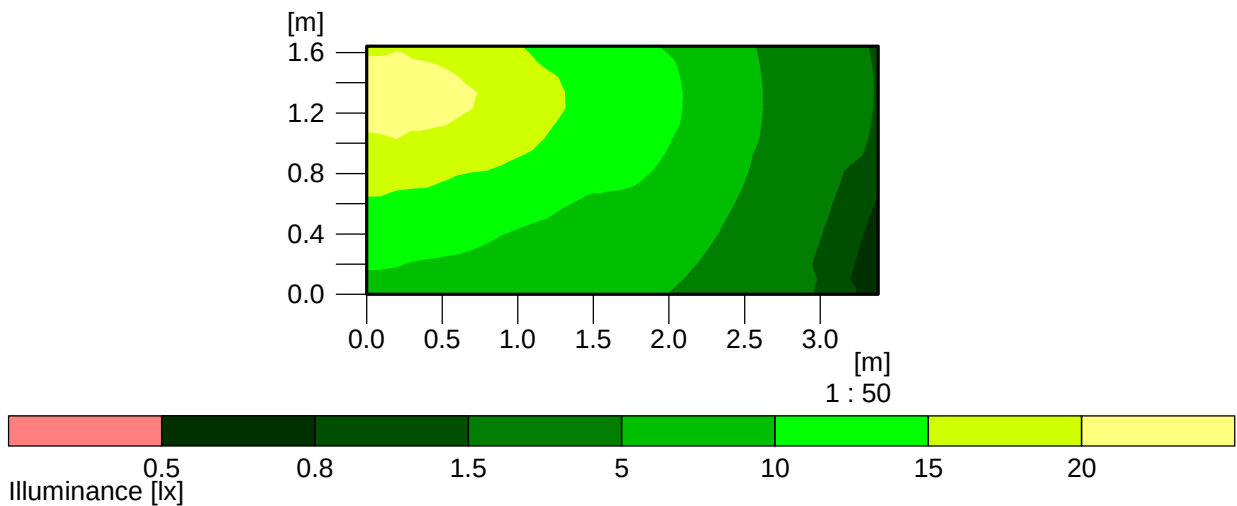
Whitecroft Lighting

1	4	Order No.	: !CLFT1/900/SRF TBC (Nominal) 900mm x 300mm
		Luminaire name	: A2C - CITYLINE TUNABLE WHITE - Special
		Equipment	: 1 x LED 13.5 W / 1425 lm
2	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm

1 Consult Exam - CEA007 - B2.026

1.2 Calculation results, Consult Exam - CEA007 - B2.026

1.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.5 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 43.50 (0.02) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



1.2 Summary, Consult Exam - CEA007 - B2.026

1.2.2 Result overview (emergency lighting)

Type No. Make

3 1 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

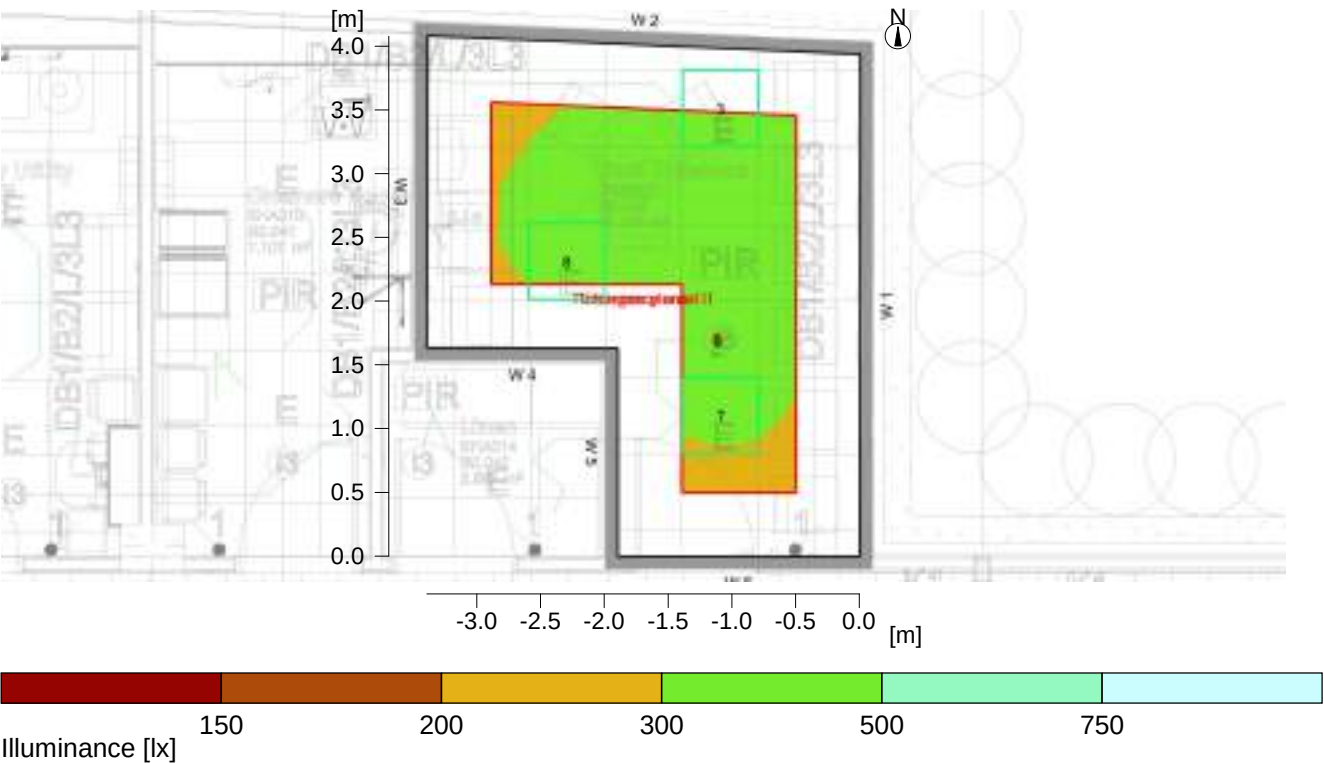
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.5	22.2	1: 43.47	0.00



2 Staff Breakout - SHA007 - B2.043

2.1 Summary, Staff Breakout - SHA007 - B2.043

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	9533.70 lm (90.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	81.0 W
Total power per area (11.15 m²)	7.27 W/m² (2.26 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	321 lx
Emin	269 lx
Emin/Eav (Uo)	0.84
Emin/Emax (Ud)	0.75
Position	0.00 m

Major surfaces

	Em	Uo
M 1.6 (Ceiling)	104 lx	0.86
M 1.1 (Wall)	260 lx	0.71
M 1.2 (Wall)	275 lx	0.62
M 1.3 (Wall)	249 lx	0.74
M 1.4 (Wall)	259 lx	0.52
M 1.5 (Wall)	246 lx	0.70

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018

2 Staff Breakout - SHA007 - B2.043

2.1 Summary, Staff Breakout - SHA007 - B2.043

2.1.1 Result overview, Evaluation area 1



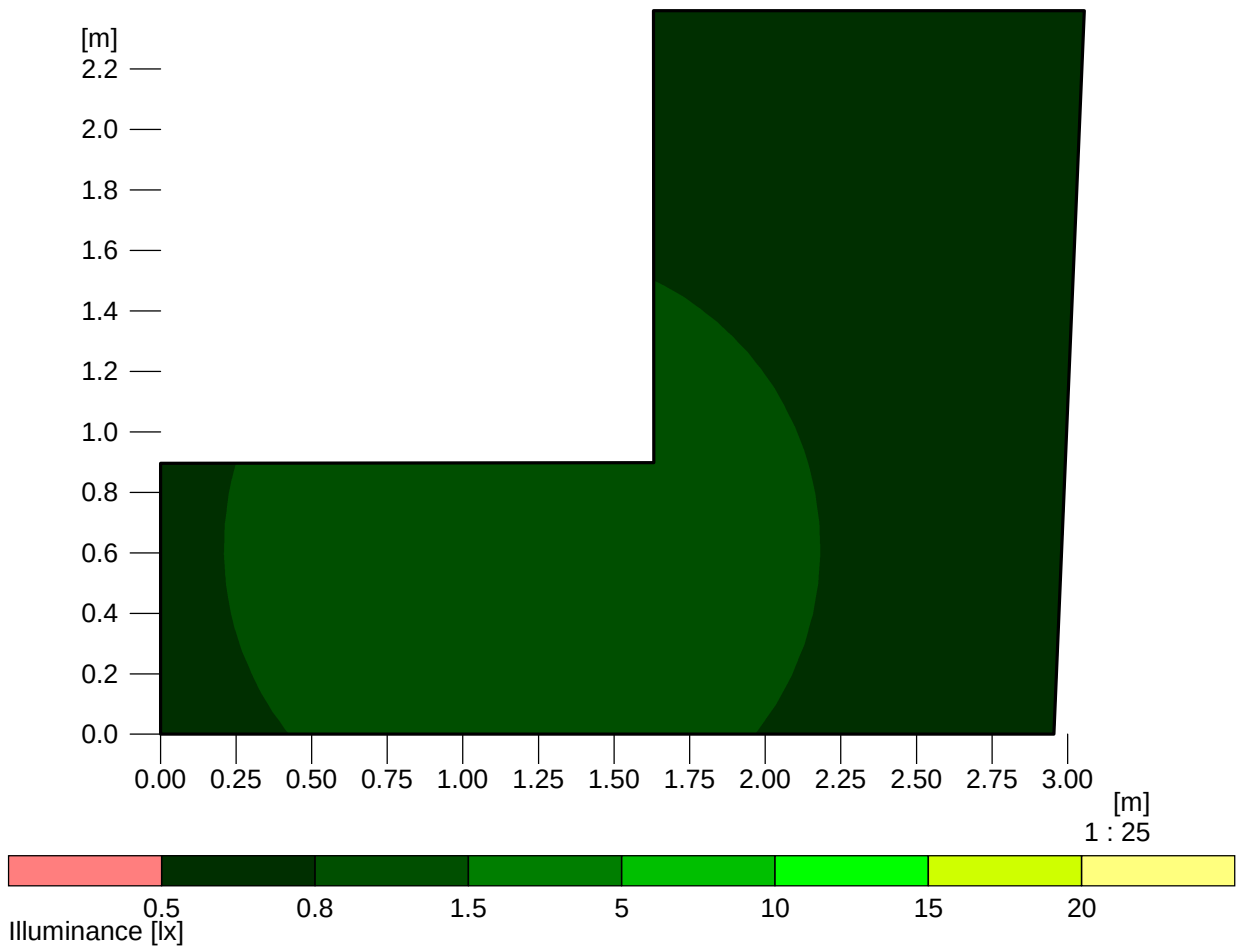
Type No. Make

7	3	Whitecroft Lighting
		Order No. : !TAE LH24KXT
		Luminaire name : E - TEGAN SLIM
		Equipment : 1 x LED 27 W / 3531 lm

2 Staff Breakout - SHA007 - B2.043

2.2 Calculation results, Staff Breakout - SHA007 - B2.043

2.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.84 (0.54) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



2.2 Summary, Staff Breakout - SHA007 - B2.043

2.2.2 Result overview (emergency lighting)

Type No. Make

5 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

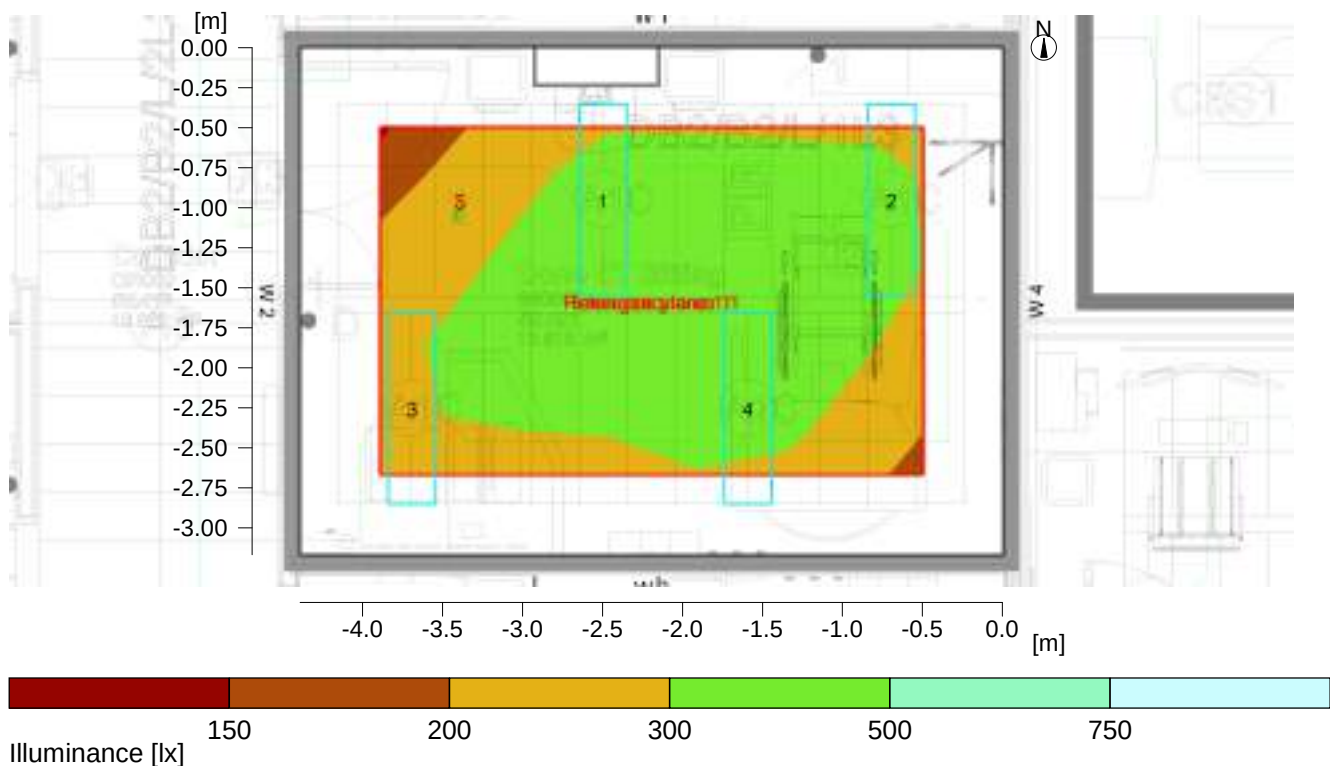
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	1.3	1: 1.84	0.00



3 Cone CT Sitting - IMG009 - B2.021

3.1 Summary, Cone CT Sitting - IMG009 - B2.021

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.70 m
 0.80

Total luminous flux of all lamps
 (Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)

6004.00 lm (79.00% dimmed)

Total power

76.0 W

Total power per area (13.91 m²)

5.46 W/m² (1.81 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em
 Emin
 Emin/Eav (Uo)
 Emin/Emax (Ud)
 Position

302 lx
 187 lx
 0.62
 0.52
 0.75 m (rot: 0°/0°)

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	50 lx	0.82
M 1.1 (Wall)	125 lx	0.49
M 1.2 (Wall)	121 lx	0.50
M 1.3 (Wall)	127 lx	0.60
M 1.4 (Wall)	131 lx	0.52

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018

3 Cone CT Sitting - IMG009 - B2.021

3.1 Summary, Cone CT Sitting - IMG009 - B2.021

3.1.1 Result overview, Evaluation area 1



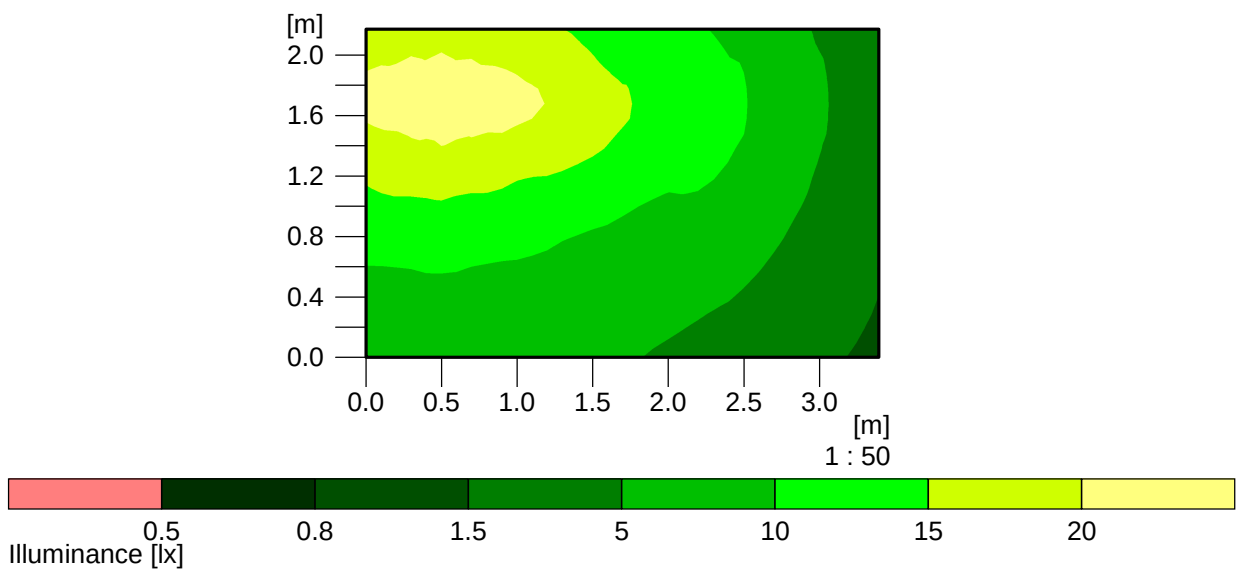
Type No. Make

		Whitecroft Lighting	
6	4	Order No.	: !CLFTE1/1200/SRF TBC (Nominal 1200x300mm)
		Luminaire name	: A1C - CITYLINE TUNABLE WHITE
		Equipment	: 1 x LED 18 W / 1900 lm

3 Cone CT Sitting - IMG009 - B2.021

3.2 Calculation results, Cone CT Sitting - IMG009 - B2.021

3.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.1 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 20.50 (0.05) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



3.2 Summary, Cone CT Sitting - IMG009 - B2.021

3.2.2 Result overview (emergency lighting)

Type No. Make

3 1 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

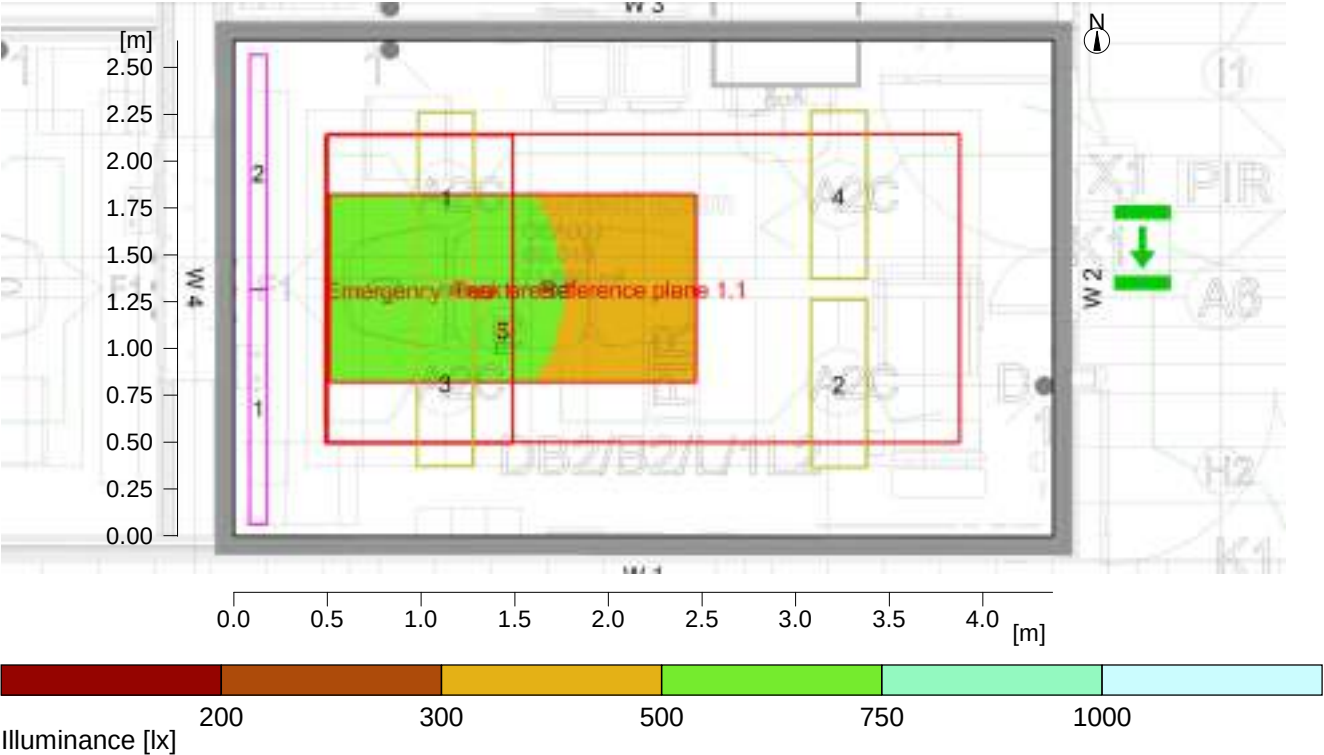
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.1	22.0	1: 20.55	0.00



4 Consult Exam - CEA001 - B2.016

4.1 Summary, Consult Exam - CEA001 - B2.016

4.1.1 Result overview, Task area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.85 m
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8814 lm
Total power	80 W
Total power per area (11.56 m²)	6.92 W/m²

Illuminance

Task area		Horizontal (0.85 m)
Average value	Em	501 lx
Minimum	Emin	403 lx
Uniformity Uo	Emin/Em	1:1.24 (0.81)

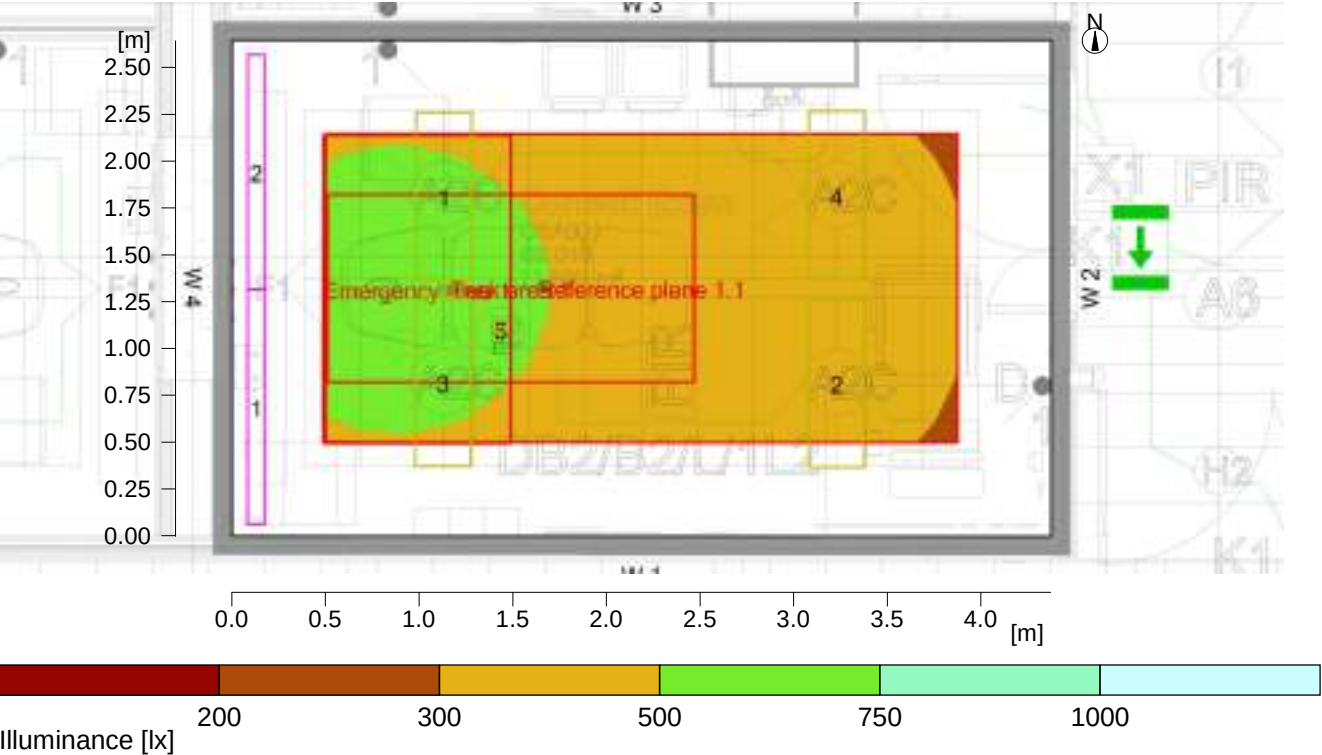
Type No. Make

Whitecroft Lighting		
1	4	Order No. : !CLFT1/900/SRF TBC (Nominal) 900mm x 300mm
		Luminaire name : A2C - CITYLINE TUNABLE WHITE - Special
		Equipment : 1 x LED 13.5 W / 1425 lm
2	2	Order No. : !AOARHA14KW
		Luminaire name : F1 - AVENUE METRO RECESSED
		Equipment : 1 x LED 13 W / 1557 lm



4.1 Summary, Consult Exam - CEA001 - B2.016

4.1.2 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8814.00 lm
Total power	80.0 W
Total power per area (11.56 m²)	6.92 W/m² (1.63 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	425 lx
Emin	289 lx
Emin/Eav (Uo)	0.68
Emin/Emax (Ud)	0.52
Position	0.75 m (rot: 0°/0.04°)

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	83 lx	0.75
M 1.1 (Wall)	199 lx	0.66
M 1.2 (Wall)	160 lx	0.74
M 1.3 (Wall)	198 lx	0.66
M 1.4 (Wall)	223 lx	0.72

Type No. IMake

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



4.1 Summary, Consult Exam - CEA001 - B2.016

4.1.2 Result overview, Evaluation area 1

Whitecroft Lighting

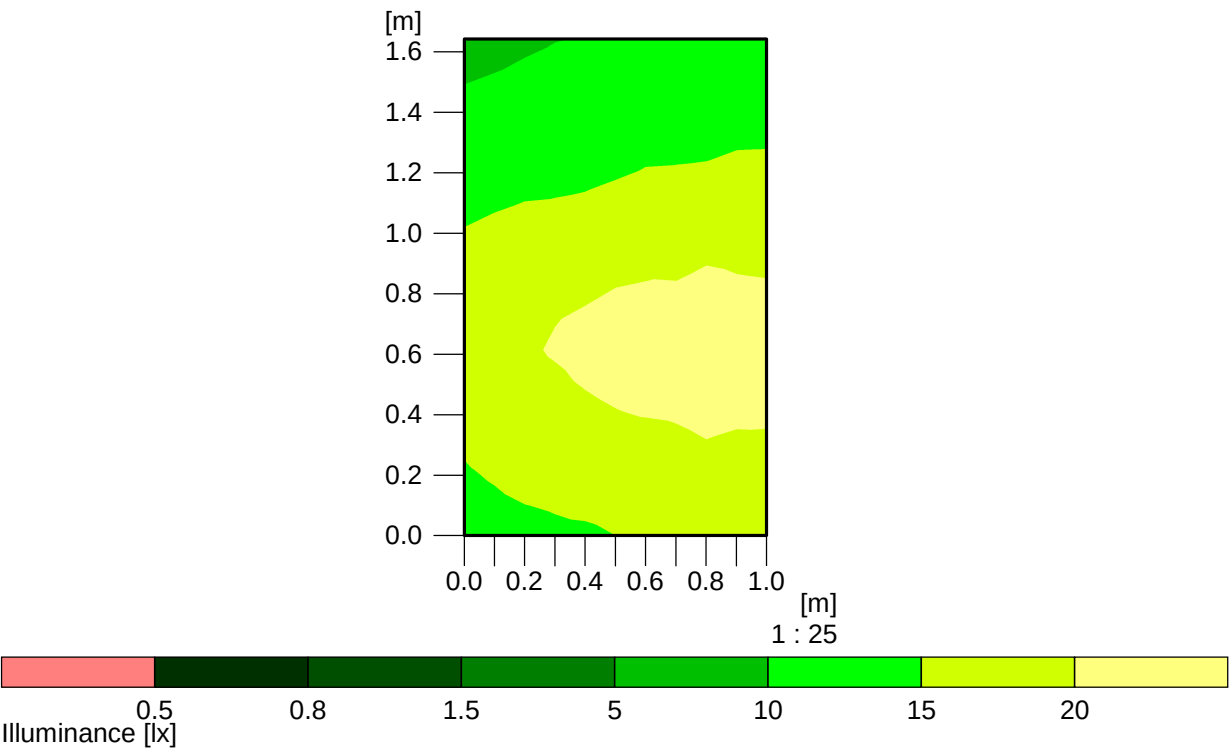
1	4	Order No.	: !CLFT1/900/SRF TBC (Nominal) 900mm x 300mm
		Luminaire name	: A2C - CITYLINE TUNABLE WHITE - Special
		Equipment	: 1 x LED 13.5 W / 1425 lm
2	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm



4 Consult Exam - CEA001 - B2.016

4.2 Calculation results, Consult Exam - CEA001 - B2.016

4.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 8.8 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 2.51 (0.40) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



4.2 Summary, Consult Exam - CEA001 - B2.016

4.2.2 Result overview (emergency lighting)

Type No. Make

3 1 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

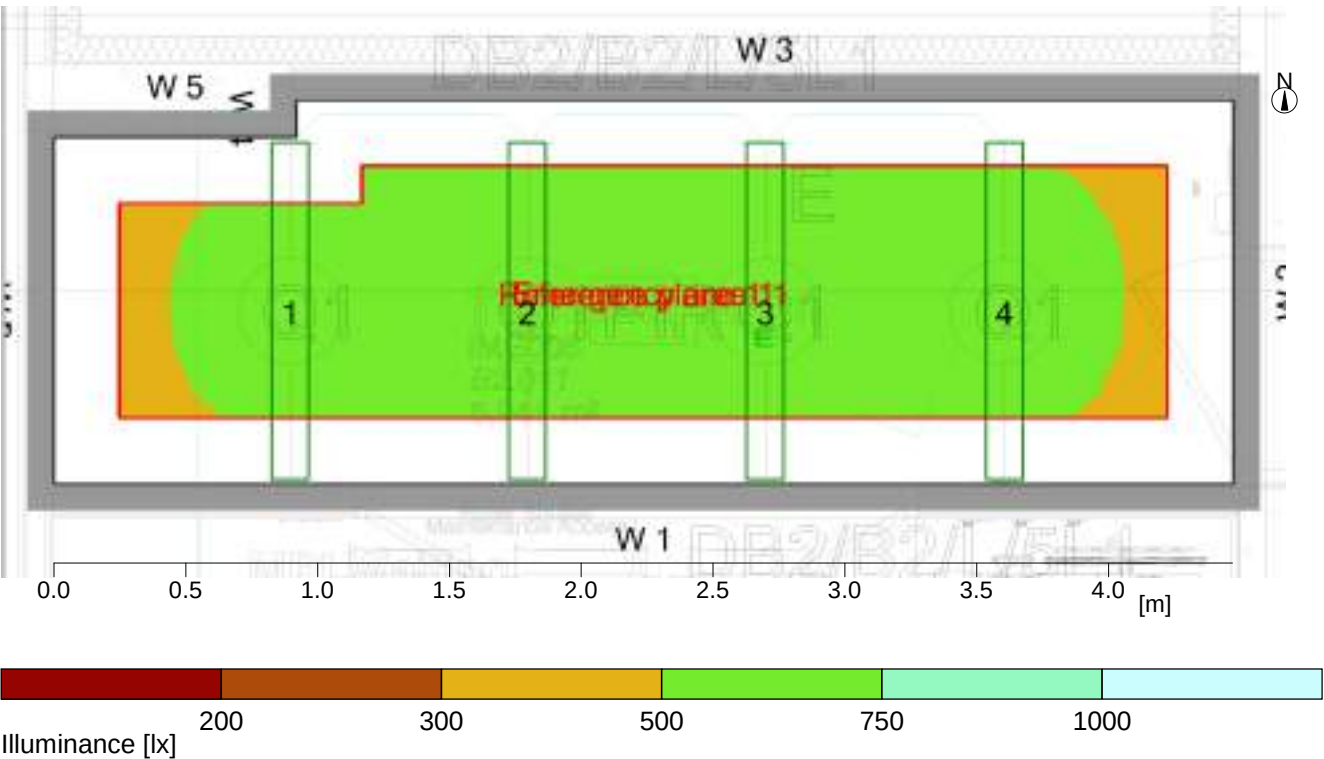
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	8.8	22.1	1: 2.51	0.00

5 Technical Room - IMG066 - B2.011

5.1 Summary, Technical Room - IMG066 - B2.011

5.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
Height of luminaire plane
Maintenance factor

Average indirect fraction
3.77 m
0.80

Total luminous flux of all lamps
Total power
Total power per area (6.37 m²)

18520.00 lm
132.0 W
20.73 W/m² (3.73 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
Em 556 lx
Emin 448 lx
Emin/Eav (Uo) 0.81
Emin/Emax (Ud) 0.72
Position 0.75 m

Major surfaces

	Em	Uo
M 1.6 (Ceiling)	487 lx	0.65
M 1.1 (Wall)	509 lx	0.32
M 1.2 (Wall)	538 lx	0.40
M 1.3 (Wall)	531 lx	0.32
M 1.4 (Wall)	411 lx	0.34
M 1.5 (Wall)	537 lx	0.40

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018

5 Technical Room - IMG066 - B2.011

5.1 Summary, Technical Room - IMG066 - B2.011

5.1.1 Result overview, Evaluation area 1



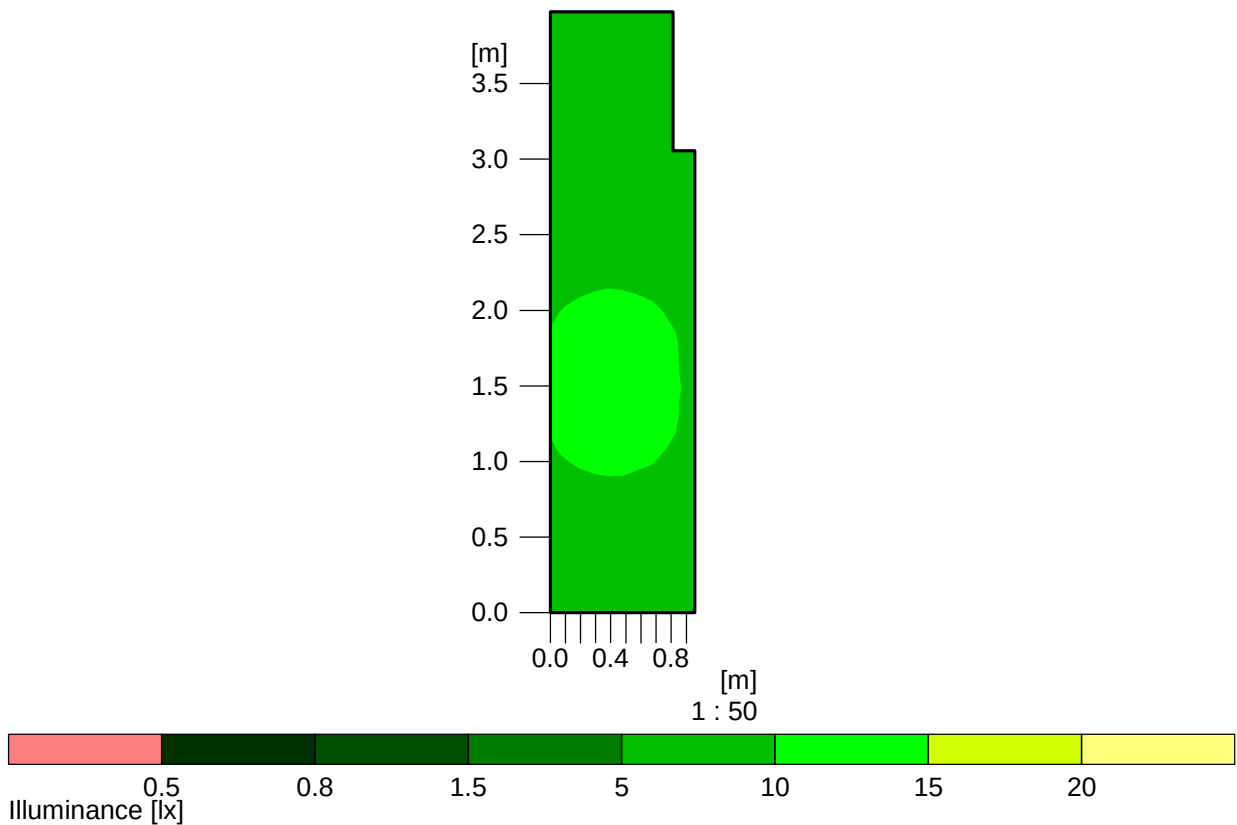
Type No. Make

		Whitecroft Lighting	
8	4	Order No.	: !ACH44K
		Luminaire name	: Q1 - ACL INDUSTRY
		Equipment	: 1 x LED 33 W / 4630 lm

5 Technical Room - IMG066 - B2.011

5.2 Calculation results, Technical Room - IMG066 - B2.011

5.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 5.4 lx
Maximum illuminance	Emax	: 10 lx
Diversity	Emin/Emax	: 1 : 1.92 (0.52) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



5.2 Summary, Technical Room - IMG066 - B2.011

5.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
8	1	Order No.	: !ACH44K
		Luminaire name	: Q1 - ACL INDUSTRY
		Equipment	: 1 x LED 33 W / 4630 lm (13.8 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

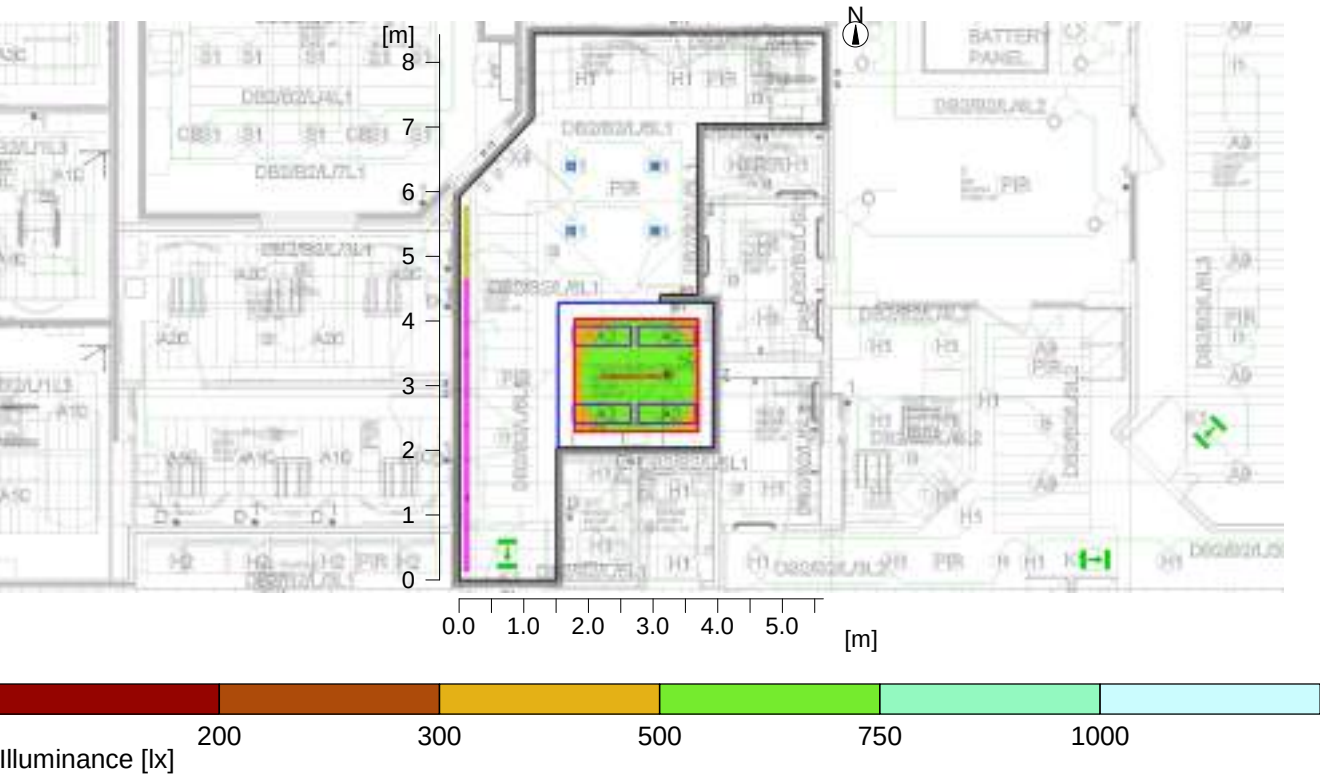
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	5.4	10.4	1: 1.92	0.00



6 Cannulation Bay - IMG004 - B2.008

6.1 Summary, Cannulation Bay - IMG004 - B2.008

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	6800.00 lm (85.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	54.0 W
Total power per area (5.39 m²)	10.02 W/m² (1.89 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Em	Horizontal
Emin	529 lx
Emin/Eav (Uo)	423 lx
Emin/Emax (Ud)	0.80
Position	0.70
	0.75 m

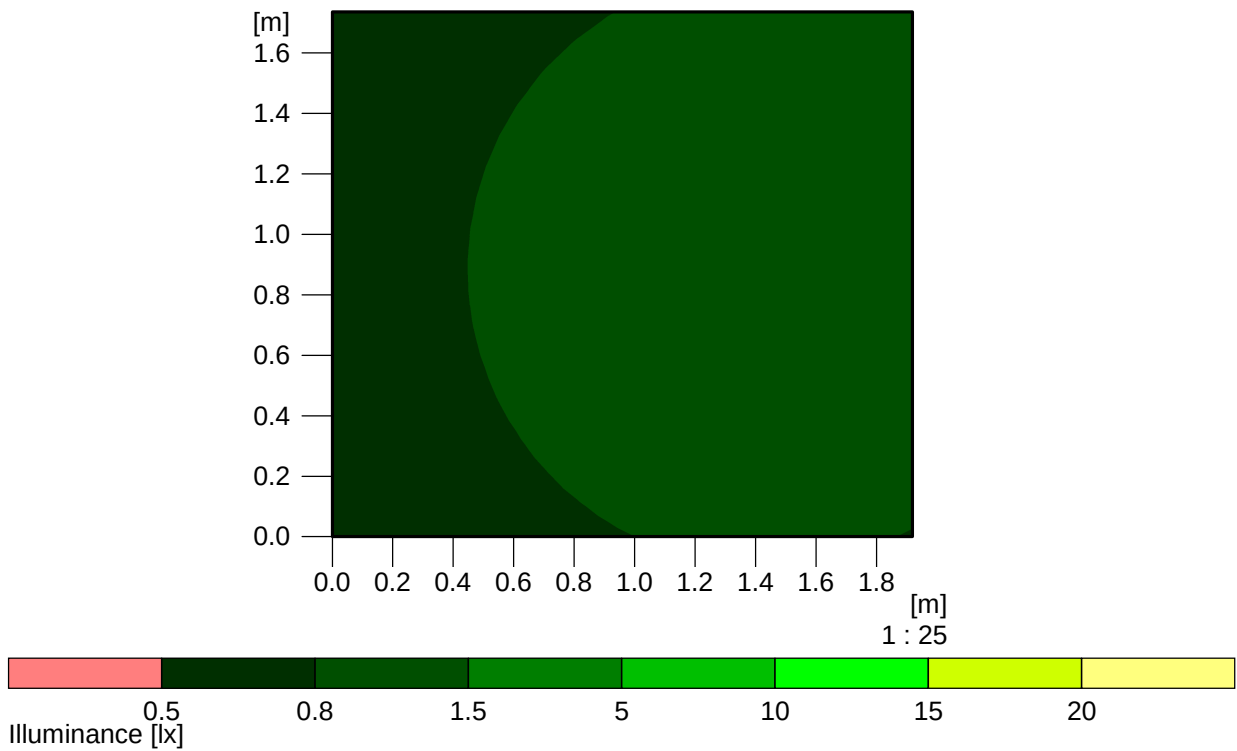
Type No. Make

Whitecroft Lighting	
9	Order No. : lv
4	Luminaire name : A2 - CITYLINE
	Equipment : 1 x LED 13.5 W / 2000 lm

6 Cannulation Bay - IMG004 - B2.008

6.2 Calculation results, Cannulation Bay - IMG004 - B2.008

6.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.84 (0.54) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018



6.2 Summary, Cannulation Bay - IMG004 - B2.008

6.2.2 Result overview (emergency lighting)

Type No. Make

5 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

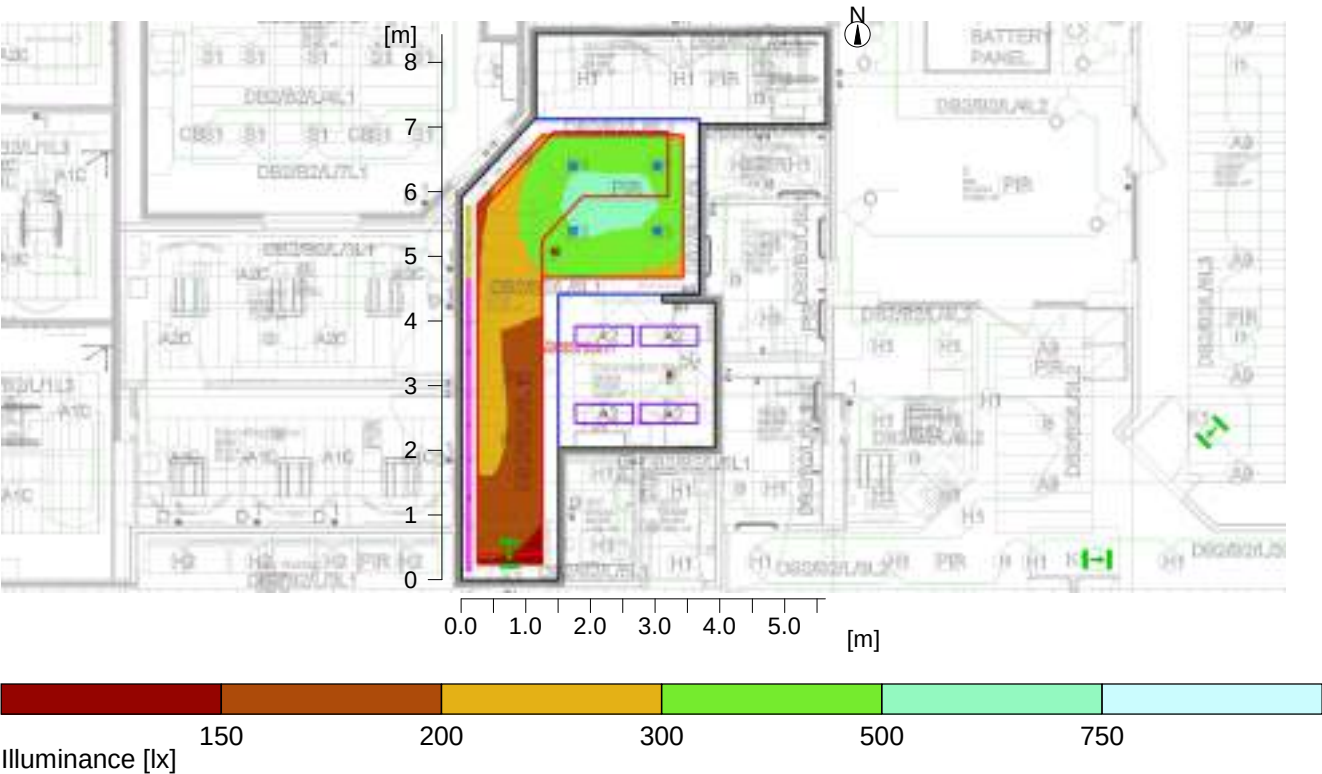
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	1.3	1: 1.84	0.00



7 Corridor - CIR053 - B2.005

7.1 Summary, Corridor - CIR053 - B2.005

7.1.1 Result overview, Evaluation area 2



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	9830.00 lm (89.12% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	128.0 W
Total power per area (15.86 m²)	8.07 W/m² (2.63 W/m²/100lx)

Evaluation area 2

Reference plane 2.1

Em	Horizontal
Emin	307 lx
Emin/Eav (Uo)	141 lx
Emin/Emax (Ud)	0.46
Position	0.26
	0.00 m

Type No.1Make

Whitecroft Lighting

10	4	Order No.	: !CNXH14K+CNX-IP54C
		Luminaire name	: H1 - CONCERT XL
		Equipment	: 1 x LED 13 W / 1200 lm

Object : UCLH Phase 5 - REV 4
Installation : Basement 2
Project number : (58285) 5808
Date : 09.10.2018

7 Corridor - CIR053 - B2.005

7.1 Summary, Corridor - CIR053 - B2.005

7.1.1 Result overview, Evaluation area 2

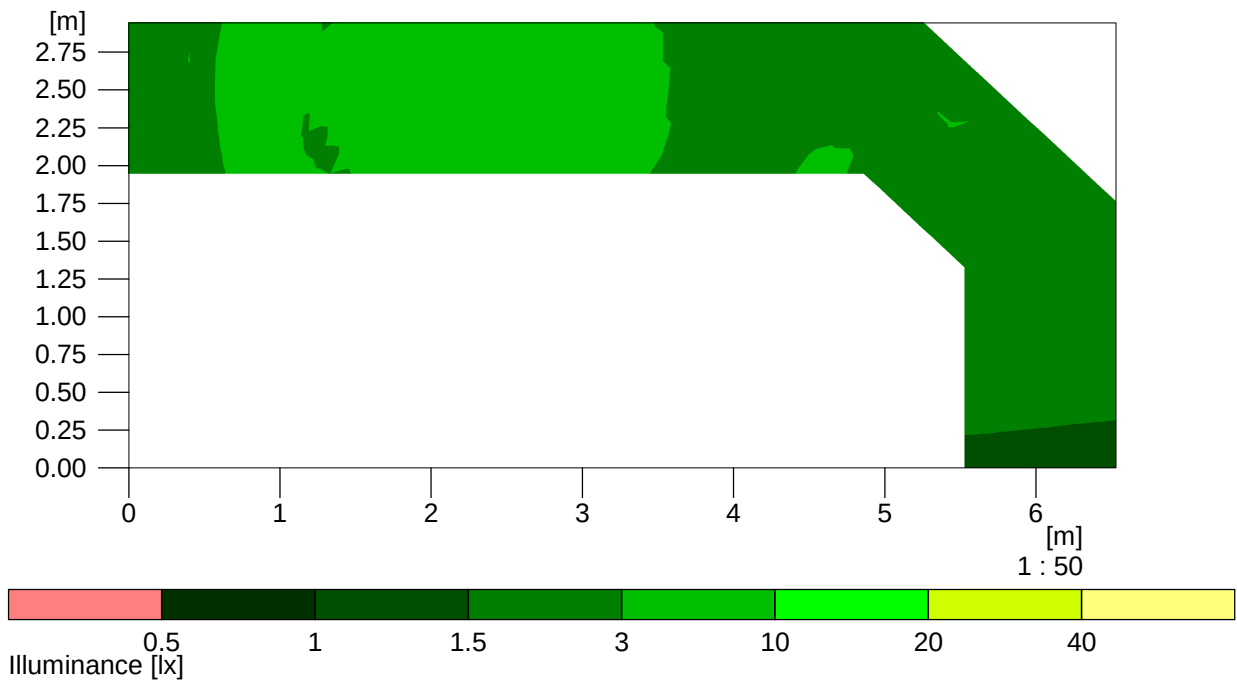
12	1	Order No.	: !AMRH2W
		Luminaire name	: L - AVENUE MICRO RECESSED
		Equipment	: 1 x LED 15 W / 1246 lm
13	2	Order No.	: !AMRH3W
		Luminaire name	: L - AVENUE MICRO RECESSED
		Equipment	: 1 x LED 30.5 W / 2492 lm



7 Corridor - CIR053 - B2.005

7.2 Calculation results, Corridor - CIR053 - B2.005

7.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 1.1 lx
Maximum illuminance (central axis)	Emax	: 7 lx
Diversity	Emin/Emax	: 1 : 6.36 (0.16) (Threshold value 1:40)
Minimum illuminance	Emin	: 1.1 lx
Maximum illuminance	Emax	: 7 lx
Diversity	Emin/Emax	: 1 : 6.57 (0.15) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



7.2 Summary, Corridor - CIR053 - B2.005

7.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
5	2	Order No.	: !FLE31
		Luminaire name	: I3 - FLORIN E3
		Equipment	: 1 x LED 3 W / 140 lm (100.0 %)
14	1	Order No.	: !FLE32
		Luminaire name	: I1 - FLORIN E3
		Equipment	: 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Escape routes:

No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Height
			Emax[lx]	Diversity		Emax[lx]	Diversity	
Escape route 1								
1	1.0	1.1	7.0	1: 6.29	1.1	7.0	1: 6.57	0.00

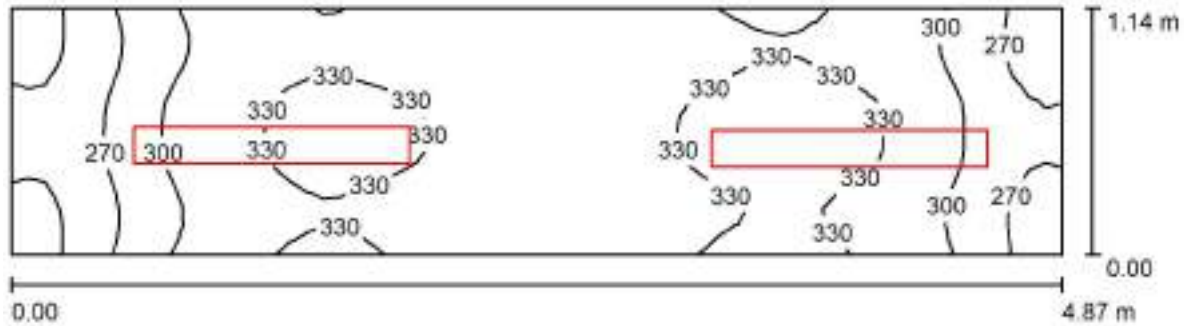


UCLH PHASE 5
BASEMENT LEVEL 1
LIGHT CALCS REPORT



Operator
Telephone
Fax
e-Mail

LOBBY PLT020 / L / Summary



Height of Room: 4.185 m, Mounting Height: 2.400 m, Maintenance factor: 0.80

Values in Lux, Scale 1:35

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	309	229	345	0.741
Floor	20	309	220	343	0.712
Ceiling	70	57	45	66	0.788
Walls (4)	50	218	37	974	/

Workplane:

Height: 0.000 m
Grid: 64 x 16 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.709, Ceiling / Working Plane: 0.185.

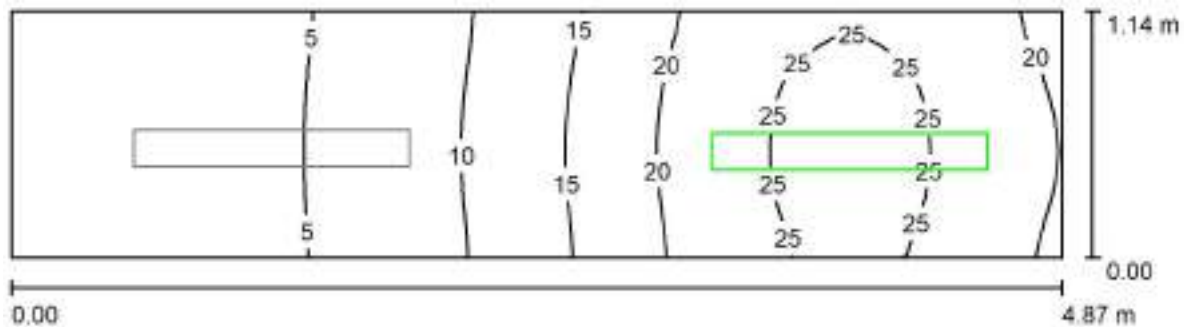
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			8676	8642	72.0

Specific connected load: $13.00 \text{ W/m}^2 = 4.21 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.54 m^2)

Operator
Telephone
Fax
e-Mail

LOBBY PLT020 / E / Summary



Height of Room: 4.185 m, Mounting Height: 2.400 m, Maintenance factor: 0.80

Values in Lux, Scale 1:35

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	14	1.49	26	0.110
Floor	20	14	1.50	26	0.110
Ceiling	70	0.10	0.03	0.23	0.310
Walls (4)	50	8.16	0.01	115	/

Workplane:

Height: 0.000 m
Grid: 64 x 16 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.601, Ceiling / Working Plane: 0.007.

Luminaire Parts List

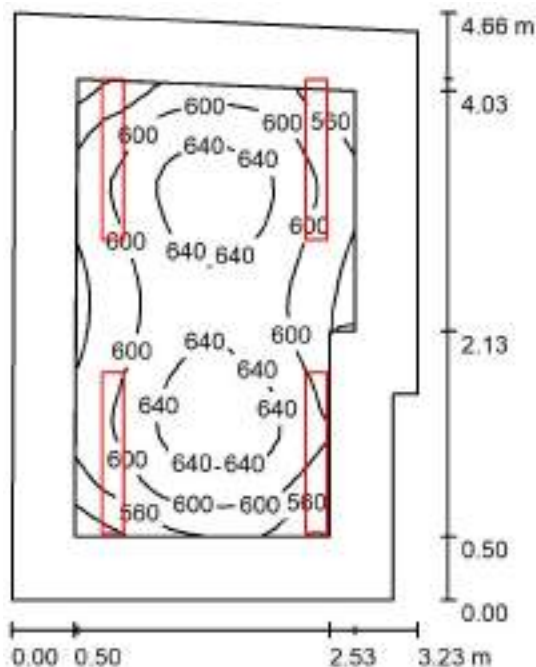
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
			Total: 607	Total: 605	36.0

Specific connected load: $6.50 \text{ W/m}^2 = 47.80 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.54 m^2)



Operator
Telephone
Fax
e-Mail

IT HUB SHA031 / L / Summary



Height of Room: 4.185 m, Mounting Height: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:60

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	605	489	661	0.807
Floor	20	429	307	510	0.715
Ceiling	70	108	77	125	0.717
Walls (6)	50	262	77	793	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.436, Ceiling / Working Plane: 0.178.

Luminaire Parts List

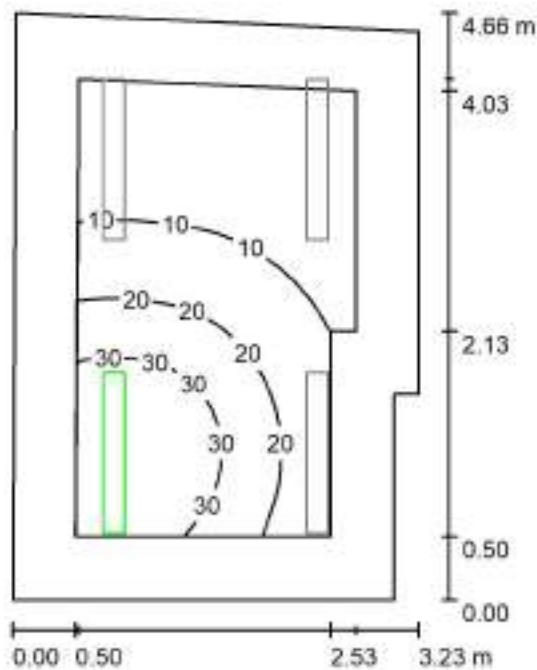
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	3	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			17352	17284	144.0

Specific connected load: $10.00 \text{ W/m}^2 = 1.65 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.41 m^2)



Operator
Telephone
Fax
e-Mail

IT HUB SHA031 / E / Summary



Height of Room: 4.185 m, Mounting Height: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:60

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	17	2.19	40	0.131
Floor	20	10	1.80	21	0.172
Ceiling	70	0.22	0.04	0.60	0.175
Walls (6)	50	5.09	0.00	57	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.307, Ceiling / Working Plane: 0.013.

Luminaire Parts List

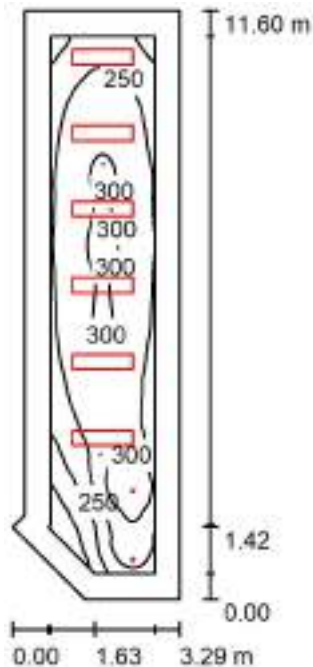
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			607	605	36.0

Specific connected load: $2.50 \text{ W/m}^2 = 14.93 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.41 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM 013 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:149

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	261	107	344	0.409
Floor	20	232	59	344	0.256
Ceiling	70	45	26	58	0.562
Walls (6)	50	94	25	192	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.359, Ceiling / Working Plane: 0.174.

Luminaire Parts List

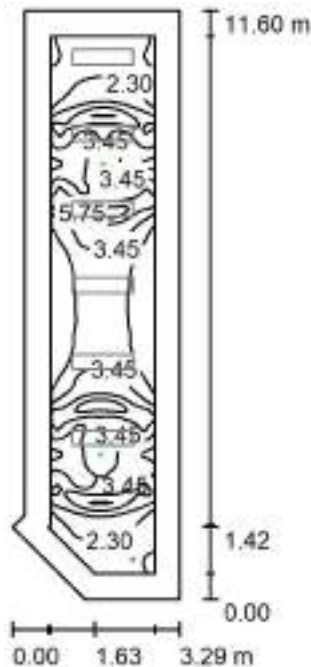
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
2	6	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			13102	13838	132.0

Specific connected load: $3.81 \text{ W/m}^2 = 1.46 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 34.66 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM 013 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:149

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	3.08	1.03	6.80	0.334
Floor	20	2.57	0.78	6.74	0.302
Ceiling	70	0.06	0.00	4.55	0.004
Walls (6)	50	1.95	0.06	11	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.631, Ceiling / Working Plane: 0.021.

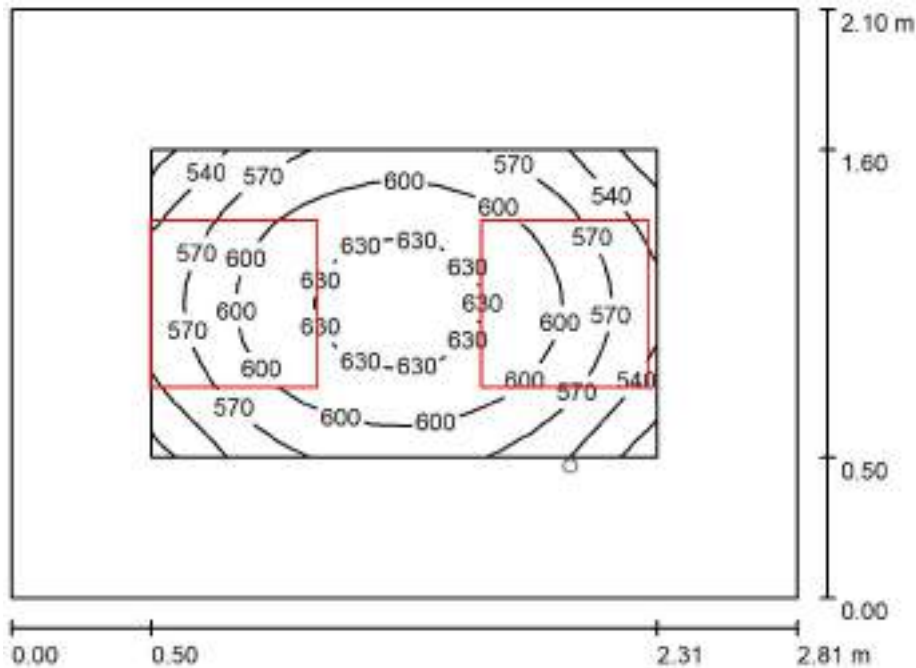
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			300	280	6.0

Specific connected load: $0.17 \text{ W/m}^2 = 5.62 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 34.66 m^2)

Operator
Telephone
Fax
e-Mail

ADMISSIONS ROOM / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:27

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	588	496	645	0.843
Floor	20	354	268	417	0.757
Ceiling	70	105	76	124	0.724
Walls (4)	50	234	97	454	/

Workplane:

Height: 0.750 m
Grid: 16 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.425, Ceiling / Working Plane: 0.179.

Luminaire Parts List

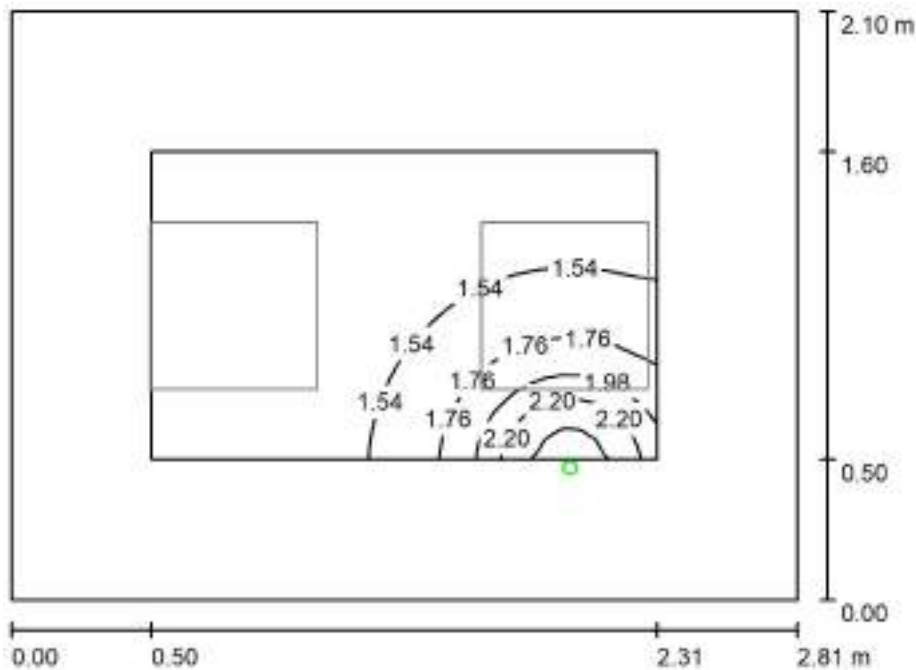
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $9.84 \text{ W/m}^2 = 1.67 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.89 m^2)



Operator
Telephone
Fax
e-Mail

ADMISSIONS ROOM / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:27

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	1.55	1.36	2.46	0.880
Floor	20	0.83	0.71	1.28	0.852
Ceiling	70	0.07	0.00	4.60	0.000
Walls (4)	50	4.62	0.10	227	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.100, Ceiling / Working Plane: 0.043.

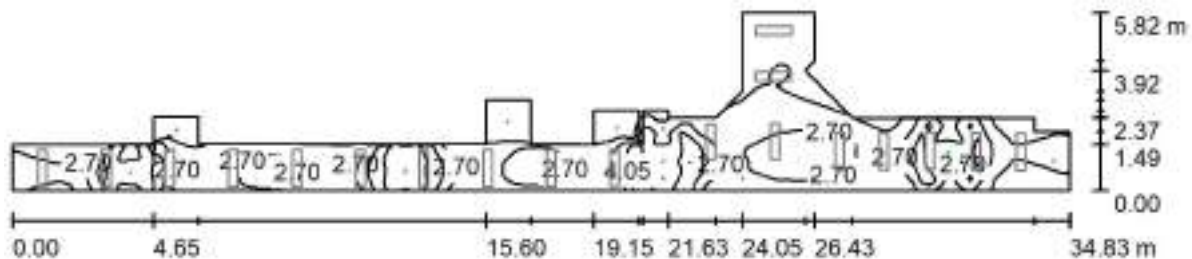
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.51 \text{ W/m}^2 = 32.92 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.89 m^2)

Operator
Telephone
Fax
e-Mail

Waiting and Check In WTG 004 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:249

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.30	0.00	6.76	0.000
Floor	20	2.30	0.00	6.77	0.000
Ceiling	70	0.06	0.00	5.24	0.000
Walls (29)	50	1.81	0.00	49	/

Workplane:

Height:	0.000 m
Grid:	128 x 64 Points
Boundary Zone:	0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.789, Ceiling / Working Plane: 0.026.

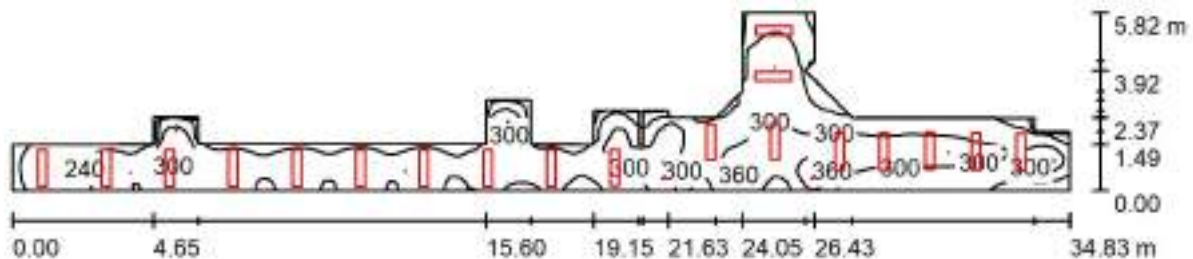
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
2	4	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			759	700	15.0

Specific connected load: $0.19 \text{ W/m}^2 = 8.29 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 78.68 m^2)

Operator
Telephone
Fax
e-Mail

Waiting and Check In WTG 004 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:249

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	270	151	407	0.560
Floor	20	270	122	409	0.451
Ceiling	70	63	41	94	0.650
Walls (29)	50	135	44	492	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.506, Ceiling / Working Plane: 0.233.

Luminaire Parts List

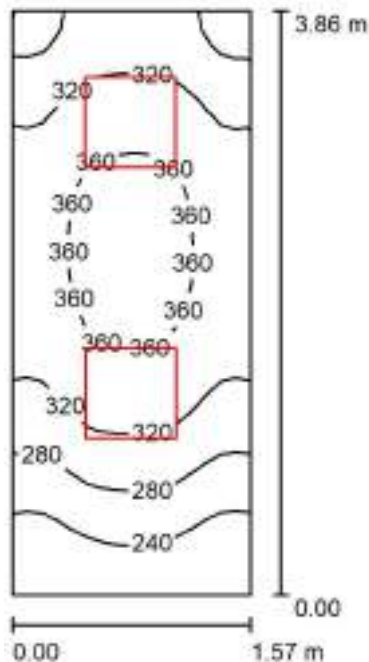
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	8	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
2	19	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			42800	45737	438.0

Specific connected load: $5.57 \text{ W/m}^2 = 2.07 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 78.68 m^2)



Operator
Telephone
Fax
e-Mail

Lobby COM012 / Summary



Height of Room: 2.700 m, Mounting Height: 2.790 m, Maintenance factor: 0.80

Values in Lux, Scale 1:50

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	313	199	377	0.636
Floor	20	313	198	377	0.633
Ceiling	70	104	62	133	0.599
Walls (4)	50	222	76	507	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.708, Ceiling / Working Plane: 0.333.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $9.56 \text{ W/m}^2 = 3.06 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.06 m^2)



UCLH Phase 5 - REV 4

Installation : Basement 1

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 09.10.2018

Project description:
WLL Sample lighting calculations to areas as requested.

Calculation parameters:

Standard reflectances:
70% Ceiling / 50% Wall / 20% Floor

Procedure room reflectances:
80% Ceiling / 50% Wall / 30% Floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

First Page	1
Table of contents	2
1 Eq. Store - SHA024 - B1.037	
1.1 Summary, Eq. Store - SHA024 - B1.037	
1.1.1 Result overview, Evaluation area 1	4
1.2 Calculation results, Eq. Store - SHA024 - B1.037	
1.2.1 Boundary line, Emergency area 1 (E)	6
1.2 Summary, Eq. Store - SHA024 - B1.037	
1.2.2 Result overview (emergency lighting)	7
2 WC Staff - SHA025 - B1.036	
2.1 Summary, WC Staff - SHA025 - B1.036	
2.1.1 Result overview, Evaluation area 2	8
2.2 Calculation results, WC Staff - SHA025 - B1.036	
2.2.1 Boundary line, Emergency area 1 (E)	9
2.2 Summary, WC Staff - SHA025 - B1.036	
2.2.2 Result overview (emergency lighting)	10
3 Acc. Shower / WC - SCB003 - B1.035	
3.1 Summary, Acc. Shower / WC - SCB003 - B1.035	
3.1.1 Result overview, Evaluation area 1	11
3.2 Calculation results, Acc. Shower / WC - SCB003 - B1.035	
3.2.1 Boundary line, Emergency area 1 (E)	13
3.2 Summary, Acc. Shower / WC - SCB003 - B1.035	
3.2.2 Result overview (emergency lighting)	14
4 Shower - SCB002 - B1.034	
4.1 Summary, Shower - SCB002 - B1.034	
4.1.1 Result overview, Evaluation area 1	15
4.2 Calculation results, Shower - SCB002 - B1.034	
4.2.1 Boundary line, Emergency area 1 (E)	17
4.2 Summary, Shower - SCB002 - B1.034	
4.2.2 Result overview (emergency lighting)	18
5 Staff Change Male - SCB006 - B1.038	
5.1 Summary, Staff Change Male - SCB006 - B1.038	
5.1.1 Result overview, Evaluation area 2	19
5.2 Calculation results, Staff Change Male - SCB006 - B1.038	
5.2.1 Boundary line, Emergency area 1 (E)	21
5.2 Summary, Staff Change Male - SCB006 - B1.038	
5.2.2 Result overview (emergency lighting)	22
6 Procedure - PRC015 - B1.026	
6.1 Summary, Procedure - PRC015 - B1.026	
6.1.1 Result overview, Evaluation area 1	23
6.2 Calculation results, Procedure - PRC015 - B1.026	
6.2.1 Boundary line, Emergency area 1 (E)	25
6.2 Summary, Procedure - PRC015 - B1.026	
6.2.2 Result overview (emergency lighting)	26
7 Staff Breakout - SHA026 - B1.050	
7.1 Summary, Staff Breakout - SHA026 - B1.050	
7.1.1 Result overview, Evaluation area 1	27
7.2 Calculation results, Staff Breakout - SHA026 - B1.050	
7.2.1 Boundary line, Emergency area 1 (E)	29
7.2 Summary, Staff Breakout - SHA026 - B1.050	
7.2.2 Result overview (emergency lighting)	30
8 Procedure - PRC005 - B1.013	
8.1 Summary, Procedure - PRC005 - B1.013	
8.1.1 Result overview, Evaluation area 1	31
8.2 Calculation results, Procedure - PRC005 - B1.013	
8.2.1 Boundary line, Emergency area 1 (E)	33
8.2 Summary, Procedure - PRC005 - B1.013	



Table of contents

8.2.2	Result overview (emergency lighting)	34
9	Medical Physics Workshop - LGT001 - B1.0040	
9.1	Summary, Medical Physics Workshop - LGT001 - B1.0040	
9.1.1	Result overview, Evaluation area 1	35
9.2	Calculation results, Medical Physics Workshop - LGT001 - B1.0040	
9.2.1	Boundary line, Emergency area 1 (E)	37
9.2	Summary, Medical Physics Workshop - LGT001 - B1.0040	
9.2.2	Result overview (emergency lighting)	38
10	Corridor - CIRC010 - B1.033	
10.1	Summary, Corridor - CIRC010 - B1.033	
10.1.1	Result overview, Evaluation area 1	39
10.2	Calculation results, Corridor - CIRC010 - B1.033	
10.2.1	Boundary line, Escape route 1 (E)	41
10.2	Summary, Corridor - CIRC010 - B1.033	
10.2.2	Result overview (emergency lighting)	42
11	Recovery Adult - PRC003 - B1.015	
11.1	Summary, Recovery Adult - PRC003 - B1.015	
11.1.1	Result overview, Measuring area 1	43
11.1.2	Result overview, Measuring area 2	44
11.1.3	Result overview, Measuring area 3	45
11.1.4	Result overview, Measuring area 4	46
11.1.5	Result overview, Evaluation area 1	47
11.2	Calculation results, Recovery Adult - PRC003 - B1.015	
11.2.1	Boundary line, Emergency area 1 (E)	49
11.2	Summary, Recovery Adult - PRC003 - B1.015	
11.2.2	Result overview (emergency lighting)	50
12	Paediatric Wait - WTG006 - B1.007	
12.1	Summary, Paediatric Wait - WTG006 - B1.007	
12.1.1	Result overview, Evaluation area 1	51
12.2	Calculation results, Paediatric Wait - WTG006 - B1.007	
12.2.1	Boundary line, Emergency area 1 (E)	53
12.2	Summary, Paediatric Wait - WTG006 - B1.007	
12.2.2	Result overview (emergency lighting)	54

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

1 Eq. Store - SHA024 - B1.037

1.1 Summary, Eq. Store - SHA024 - B1.037

1.1.1 Result overview, Evaluation area 1



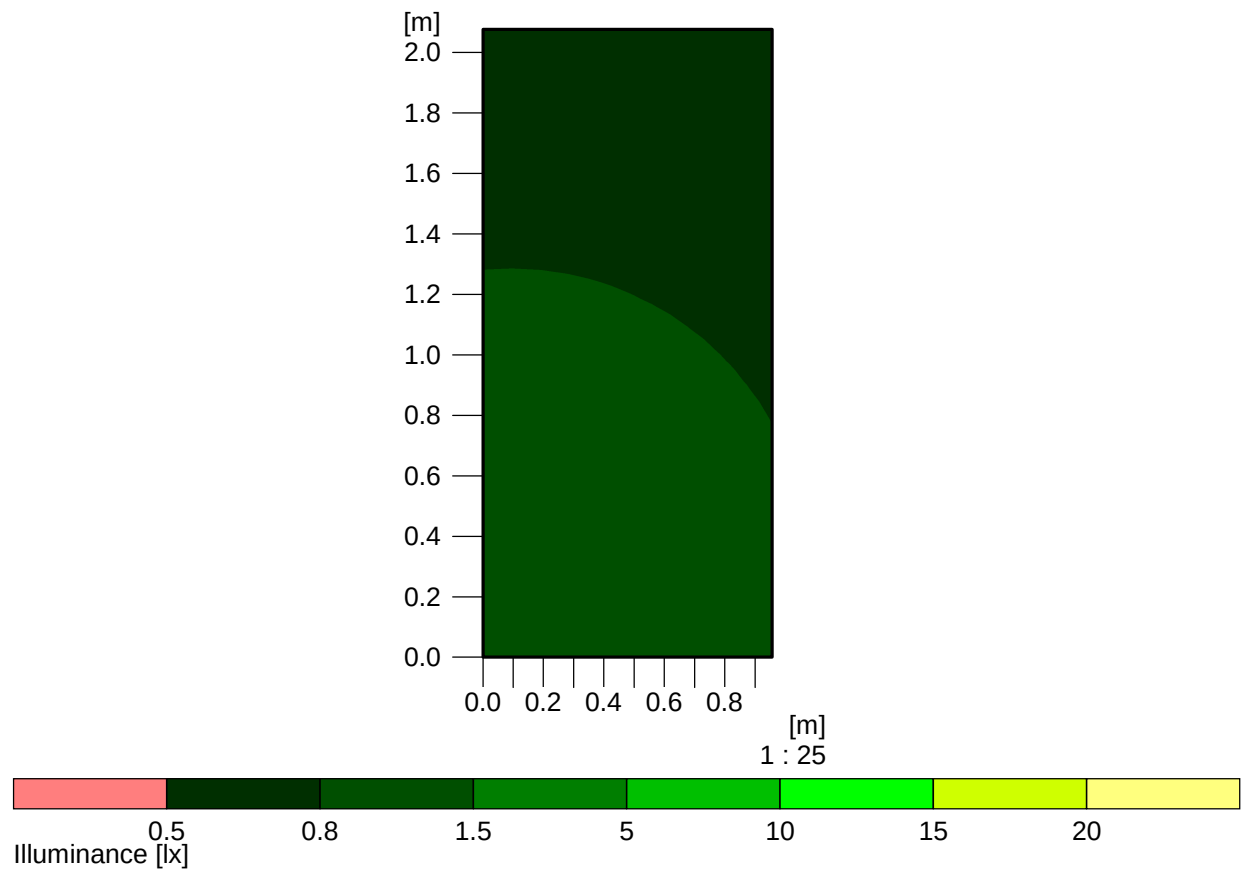
1		1		Whitecroft Lighting	
				Order No.	: !TAE LH24KXT
				Luminaire name	: E - TEGAN SLIM
				Equipment	: 1 x LED 27 W / 3531 lm



1 Eq. Store - SHA024 - B1.037

1.2 Calculation results, Eq. Store - SHA024 - B1.037

1.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.84 (0.54) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



1.2 Summary, Eq. Store - SHA024 - B1.037

1.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

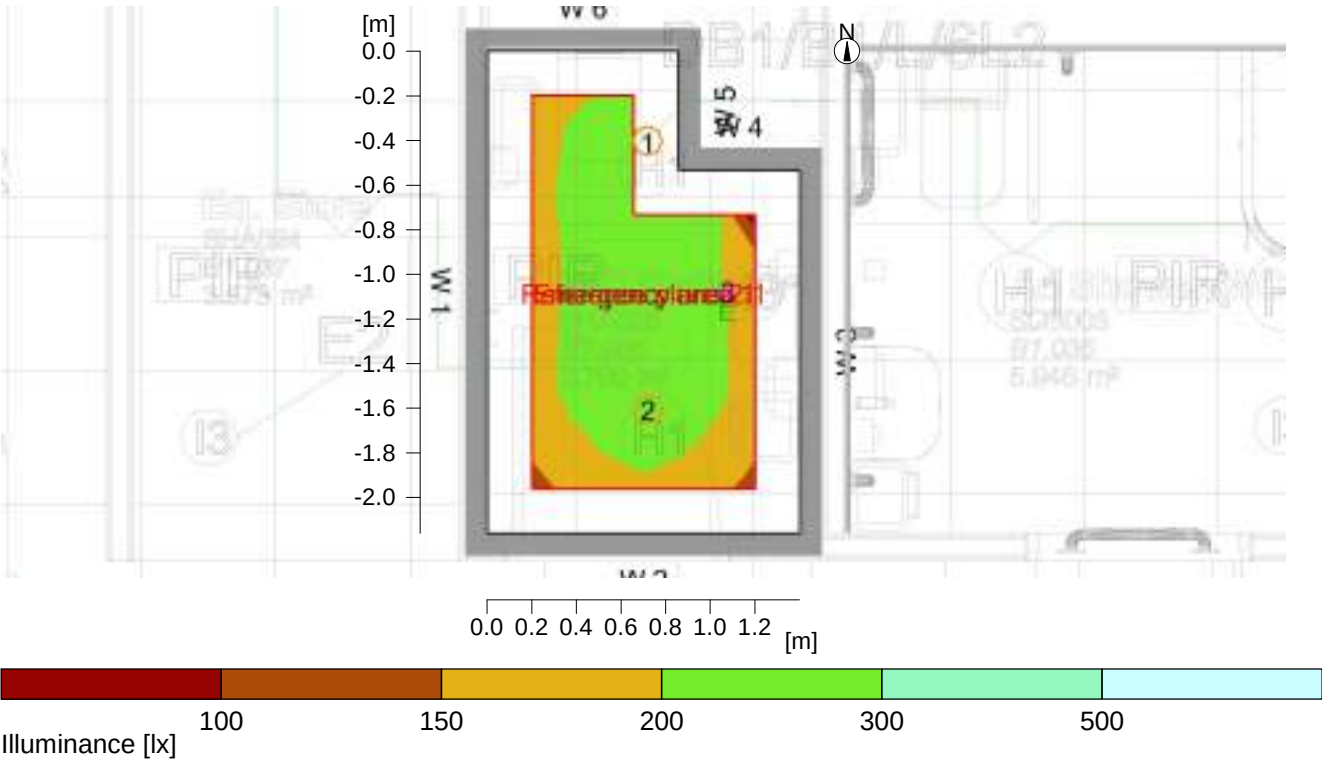
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	1.3	1: 1.84	0.00

2 WC Staff - SHA025 - B1.036

2.1 Summary, WC Staff - SHA025 - B1.036

2.1.1 Result overview, Evaluation area 2



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.45 m
Maintenance factor	0.80

Evaluation area 2

Em
Emin
Emin/Eav (Uo)
Emin/Emax (Ud)
Position

Reference plane 2.1

Horizontal
202 lx
175 lx
0.87
0.75
0.00 m

Major surfaces

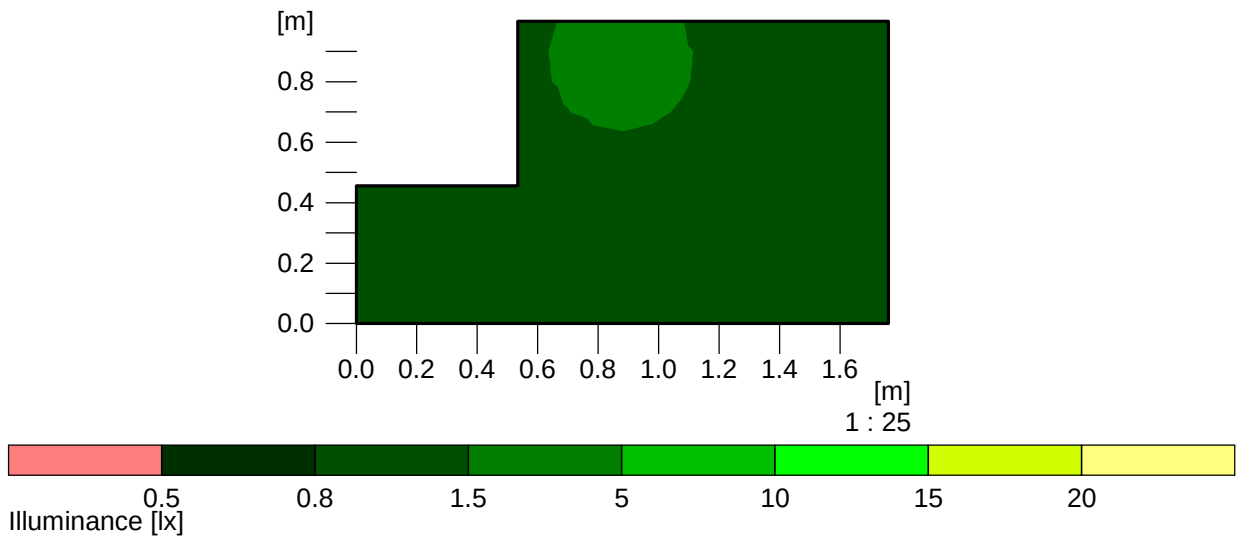
M 2.1 (Ceiling)	Em	Uo
	0 lx	---

Type No. Make

2 WC Staff - SHA025 - B1.036

2.2 Calculation results, WC Staff - SHA025 - B1.036

2.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.9 lx
Maximum illuminance	Emax	: 1.6 lx
Diversity	Emin/Emax	: 1 : 1.79 (0.56) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



2.2 Summary, WC Staff - SHA025 - B1.036

2.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

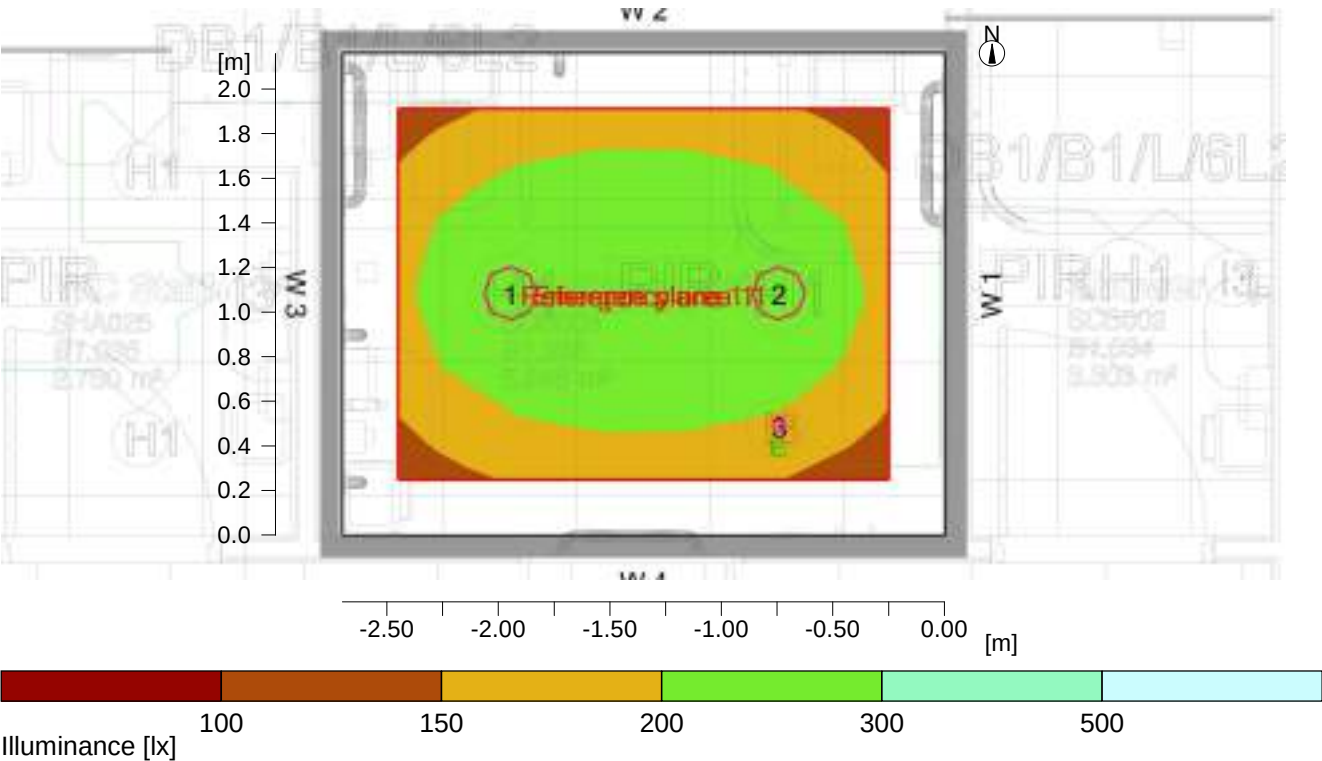
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.9	1.6	1: 1.79	0.00

3 Acc. Shower / WC - SCB003 - B1.035

3.1 Summary, Acc. Shower / WC - SCB003 - B1.035

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.45 m
Maintenance factor	0.80
Total luminous flux of all lamps	1817.60 lm (54.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	44.4 W
Total power per area (5.83 m²)	7.61 W/m² (3.80 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	200 lx
Emin	145 lx
Emin/Eav (Uo)	0.72
Emin/Emax (Ud)	0.57
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	23 lx	0.86
M 1.1 (Wall)	60 lx	0.33
M 1.2 (Wall)	52 lx	0.37
M 1.3 (Wall)	62 lx	0.32
M 1.4 (Wall)	51 lx	0.39

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

3 Acc. Shower / WC - SCB003 - B1.035

3.1 Summary, Acc. Shower / WC - SCB003 - B1.035

3.1.1 Result overview, Evaluation area 1



Type No. Make

4

2



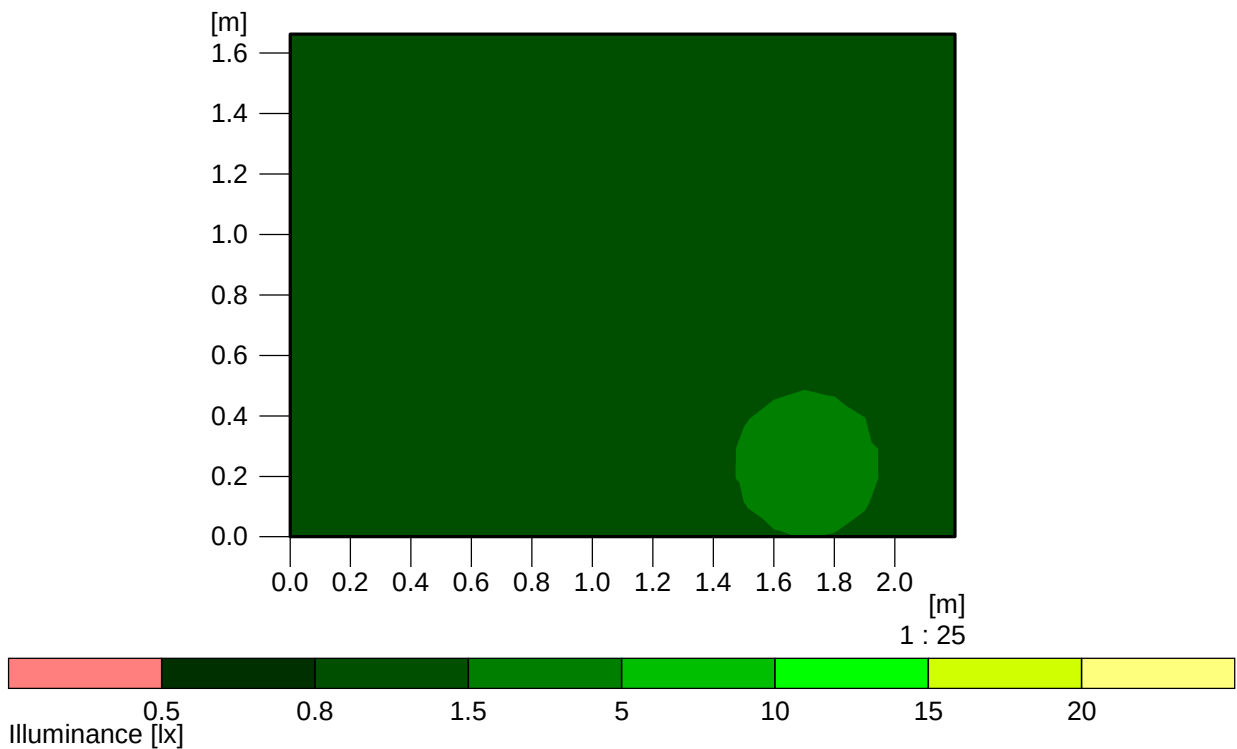
Whitecroft Lighting

Order No. : !CRLAH14K+CRLAC65
Luminaire name : D - CIRCO L20/65
Equipment : 1 x LED 22.2 W / 1683 lm

3 Acc. Shower / WC - SCB003 - B1.035

3.2 Calculation results, Acc. Shower / WC - SCB003 - B1.035

3.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.9 lx
Maximum illuminance	Emax	: 1.6 lx
Diversity	Emin/Emax	: 1 : 1.84 (0.54) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



3.2 Summary, Acc. Shower / WC - SCB003 - B1.035

3.2.2 Result overview (emergency lighting)

Type No. Make

2

1

Whitecroft Lighting
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

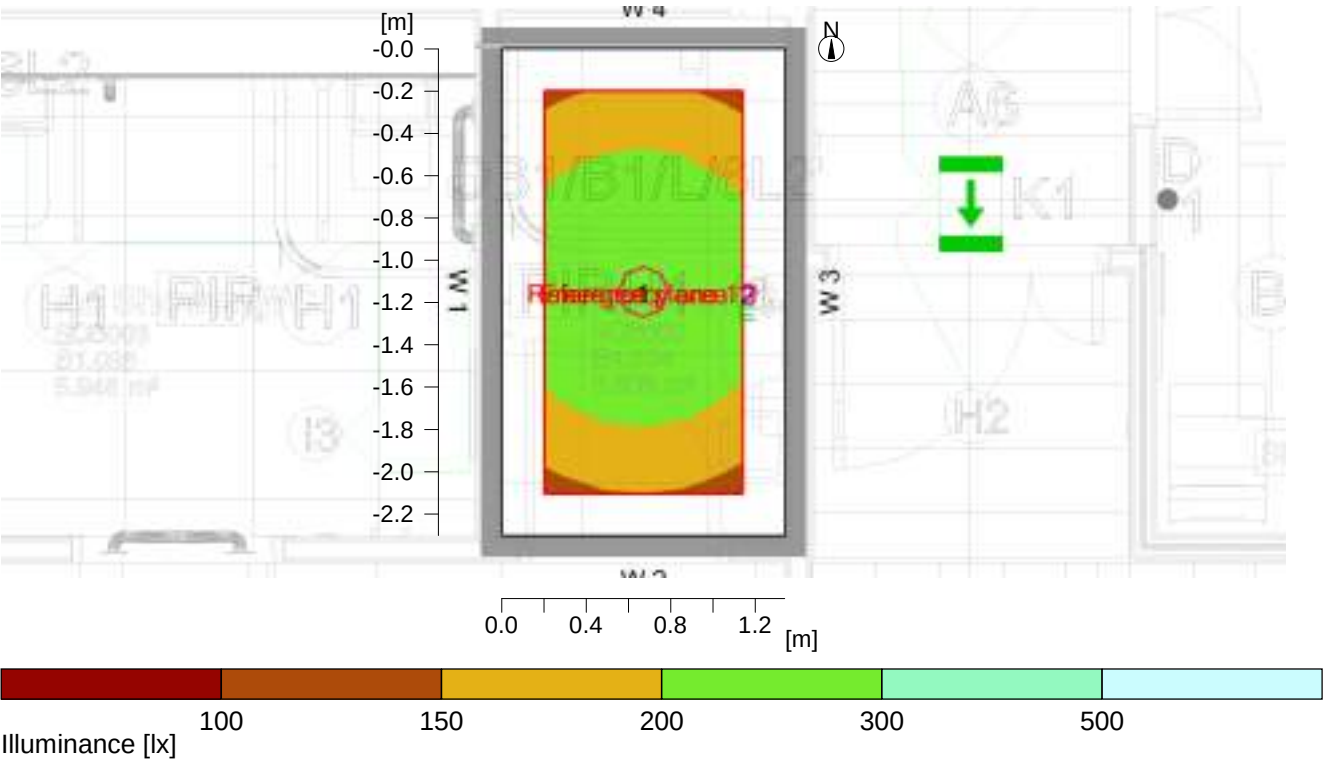
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.9	1.6	1: 1.84	0.00

4 Shower - SCB002 - B1.034

4.1 Summary, Shower - SCB002 - B1.034

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	1464.20 lm (87.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	22.2 W
Total power per area (3.08 m²)	7.20 W/m² (3.58 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	201 lx
Emin	142 lx
Emin/Eav (Uo)	0.71
Emin/Emax (Ud)	0.57
Position	0.00 m

Major surfaces

M 1.5 (Ceiling)	27 lx	0.79
M 1.1 (Wall)	90 lx	0.26
M 1.2 (Wall)	62 lx	0.35
M 1.3 (Wall)	87 lx	0.27
M 1.4 (Wall)	64 lx	0.34

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

4 Shower - SCB002 - B1.034

4.1 Summary, Shower - SCB002 - B1.034

4.1.1 Result overview, Evaluation area 1



Type No. Make

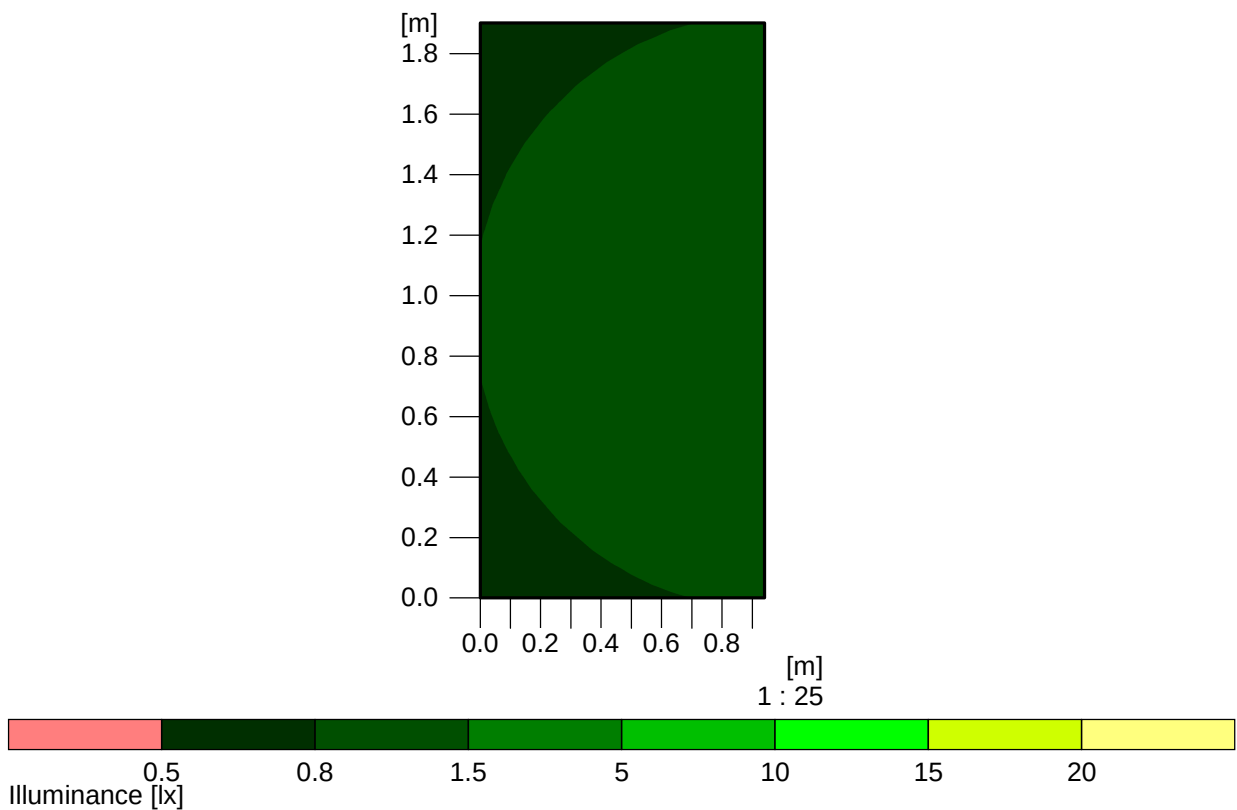
4	1	Whitecroft Lighting
		Order No. : !CRLAH14K+CRLAC65
		Luminaire name : D - CIRCO L20/65
		Equipment : 1 x LED 22.2 W / 1683 lm



4 Shower - SCB002 - B1.034

4.2 Calculation results, Shower - SCB002 - B1.034

4.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.79 (0.56) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



4.2 Summary, Shower - SCB002 - B1.034

4.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

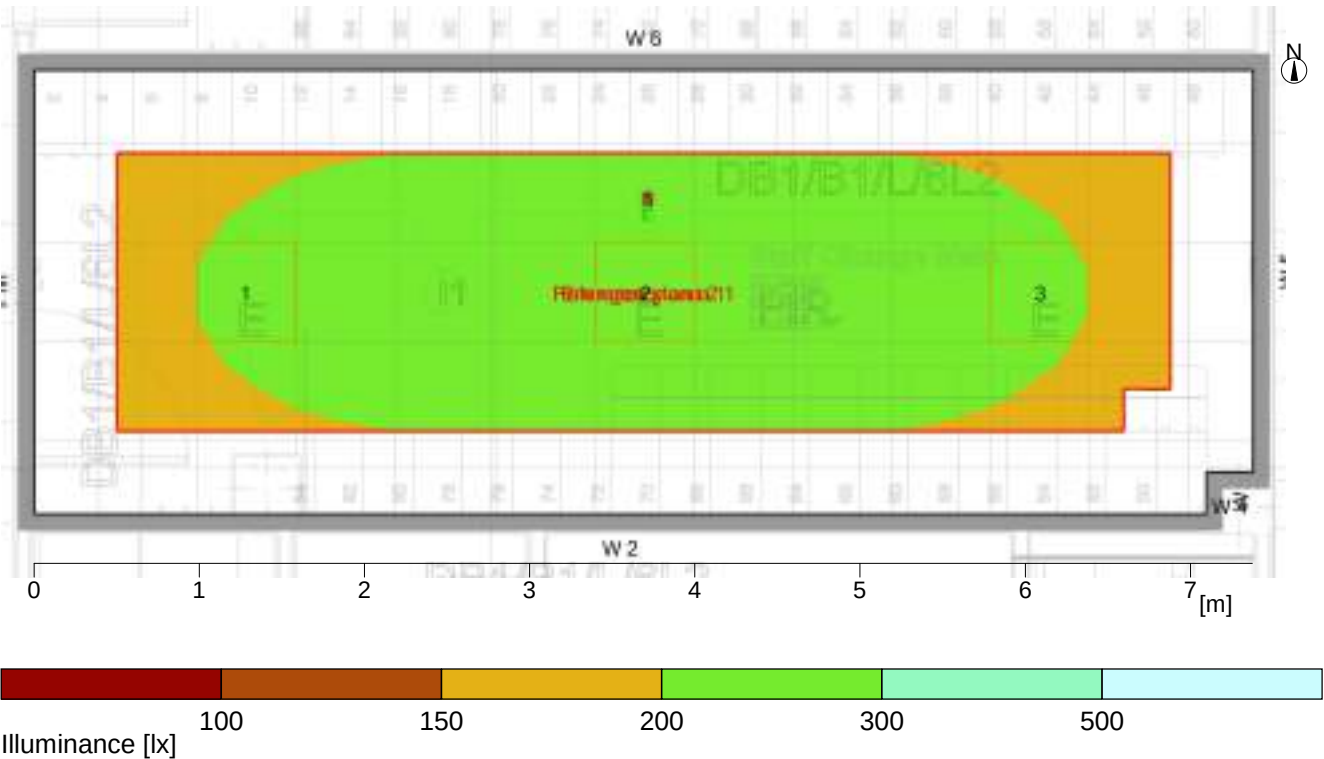
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	1.3	1: 1.79	0.00

5 Staff Change Male - SCB006 - B1.038

5.1 Summary, Staff Change Male - SCB006 - B1.038

5.1.1 Result overview, Evaluation area 2



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8580.30 lm (81.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	81.0 W
Total power per area (19.70 m²)	4.11 W/m² (2.04 W/m²/100lx)

Evaluation area 2

Reference plane 2.1

Em	Horizontal
Emin	201 lx
Emin/Eav (Uo)	159 lx
Emin/Emax (Ud)	0.79
Position	0.70
	0.00 m

Major surfaces

M 2.5 (Ceiling)	Em	Uo
M 2.1 (Wall)	55 lx	0.96
M 2.2 (Wall)	153 lx	0.76
M 2.3 (Wall)	156 lx	0.70
M 2.4 (Wall)	154 lx	0.75
	155 lx	0.70

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

5 Staff Change Male - SCB006 - B1.038

5.1 Summary, Staff Change Male - SCB006 - B1.038

5.1.1 Result overview, Evaluation area 2



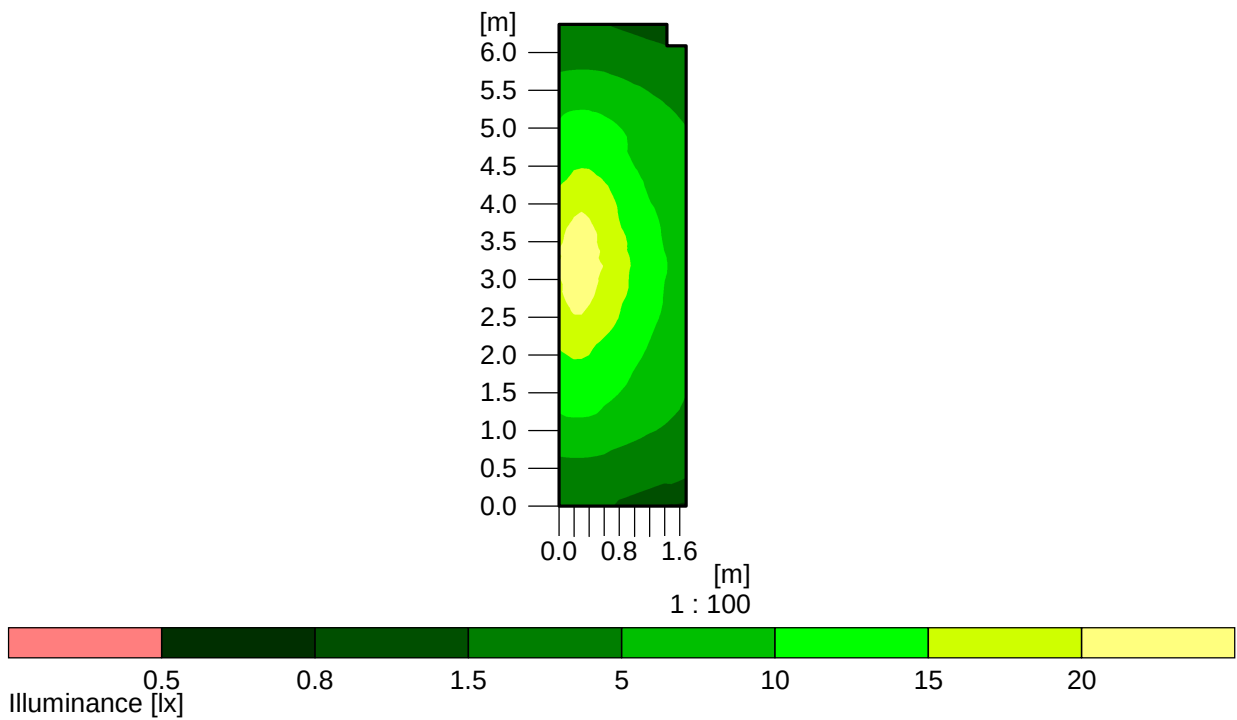
Type No. Make

1	3	Whitecroft Lighting
		Order No. : !TAE LH24KXT
		Luminaire name : E - TEGAN SLIM
		Equipment : 1 x LED 27 W / 3531 lm

5 Staff Change Male - SCB006 - B1.038

5.2 Calculation results, Staff Change Male - SCB006 - B1.038

5.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 32.70 (0.03) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



5.2 Summary, Staff Change Male - SCB006 - B1.038

5.2.2 Result overview (emergency lighting)

Type No. Make

5

1

Whitecroft Lighting
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

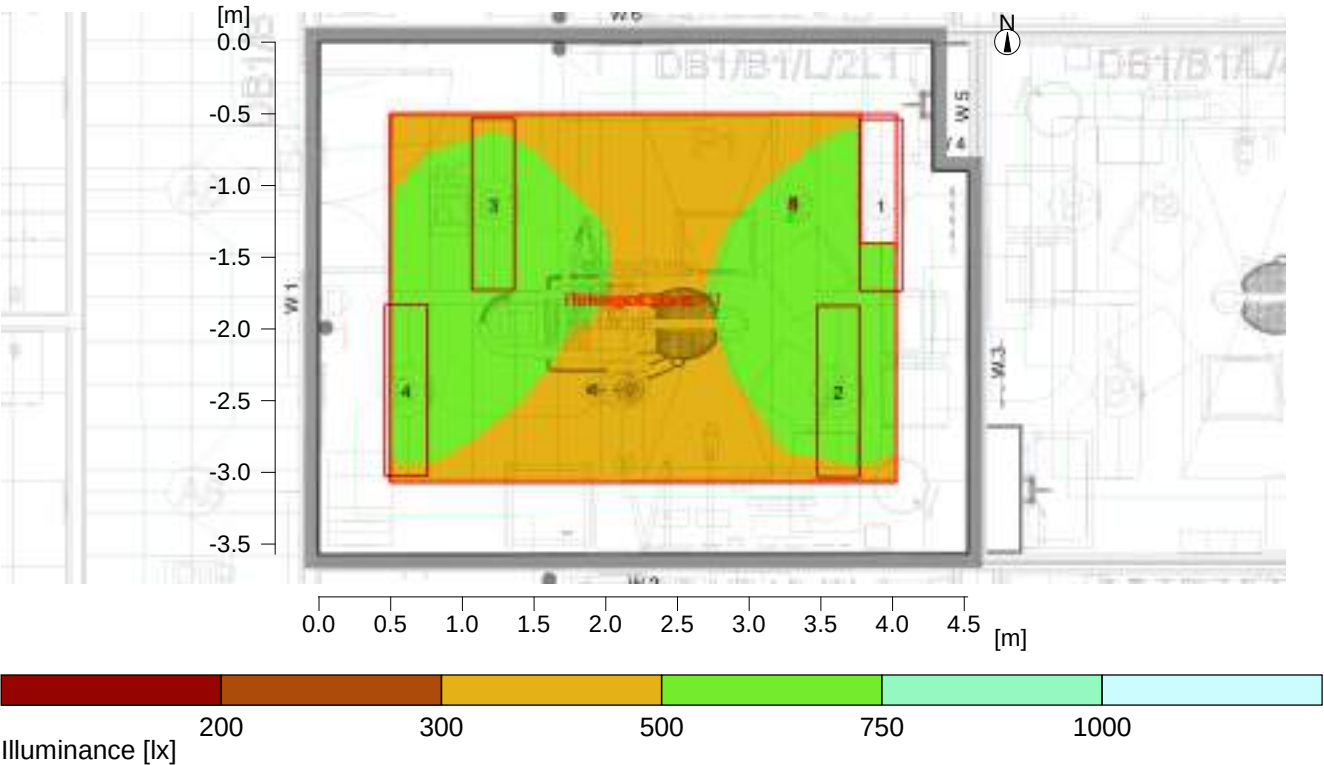
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	22.1	1: 32.67	0.00



6 Procedure - PRC015 - B1.026

6.1 Summary, Procedure - PRC015 - B1.026

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	12040.00 lm (86.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	152.0 W
Total power per area (15.92 m²)	9.55 W/m² (1.89 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	504 lx
Emin	329 lx
Emin/Eav (Uo)	0.65
Emin/Emax (Ud)	0.48
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	89 lx	0.91
M 1.1 (Wall)	267 lx	0.54
M 1.2 (Wall)	192 lx	0.59
M 1.3 (Wall)	281 lx	0.66
M 1.4 (Wall)	195 lx	0.64

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

6 Procedure - PRC015 - B1.026

6.1 Summary, Procedure - PRC015 - B1.026

6.1.1 Result overview, Evaluation area 1



Type No. Make

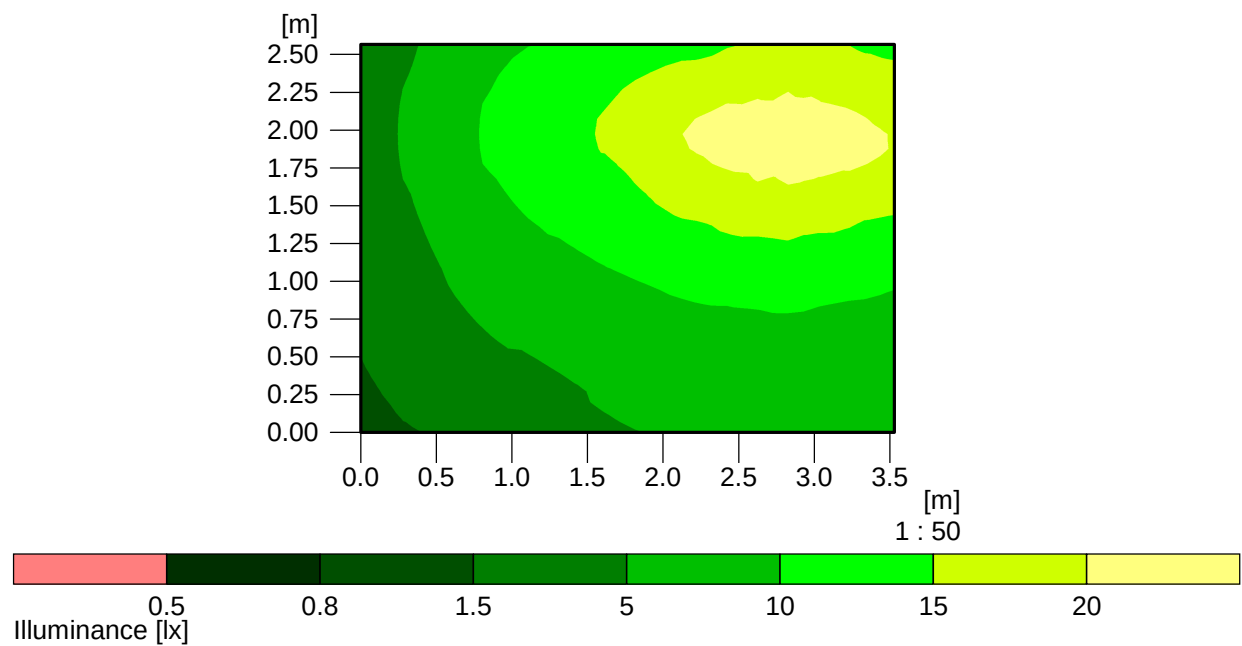
		Whitecroft Lighting
16	4	Order No. : !CLFY#/1194/SRF###
		Luminaire name : B1 - CITYLINE Ra90
		Equipment : 1 x LED 38.5 W / 3500 lm



6 Procedure - PRC015 - B1.026

6.2 Calculation results, Procedure - PRC015 - B1.026

6.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.9 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 24.50 (0.04) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



6.2 Summary, Procedure - PRC015 - B1.026

6.2.2 Result overview (emergency lighting)

Type No. Make

5

1

Whitecroft Lighting
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

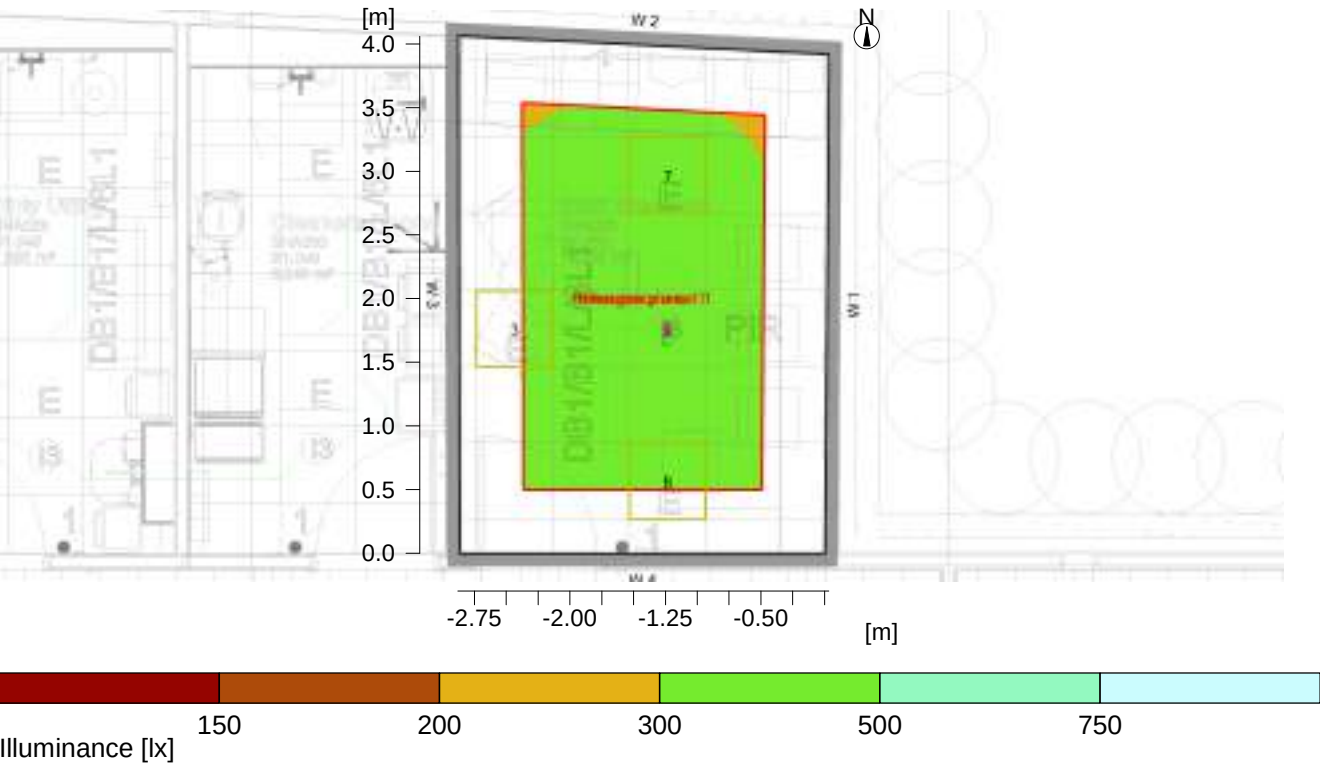
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.9	22.1	1: 24.54	0.00



7 Staff Breakout - SHA026 - B1.050

7.1 Summary, Staff Breakout - SHA026 - B1.050

7.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	10593.00 lm
Total power	81.0 W
Total power per area (11.53 m²)	7.03 W/m² (1.97 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	356 lx
Emin	290 lx
Emin/Eav (Uo)	0.81
Emin/Emax (Ud)	0.72
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	113 lx	0.84
M 1.1 (Wall)	273 lx	0.77
M 1.2 (Wall)	277 lx	0.73
M 1.3 (Wall)	305 lx	0.60
M 1.4 (Wall)	333 lx	0.59

Type No.lMake

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

7 Staff Breakout - SHA026 - B1.050

7.1 Summary, Staff Breakout - SHA026 - B1.050

7.1.1 Result overview, Evaluation area 1



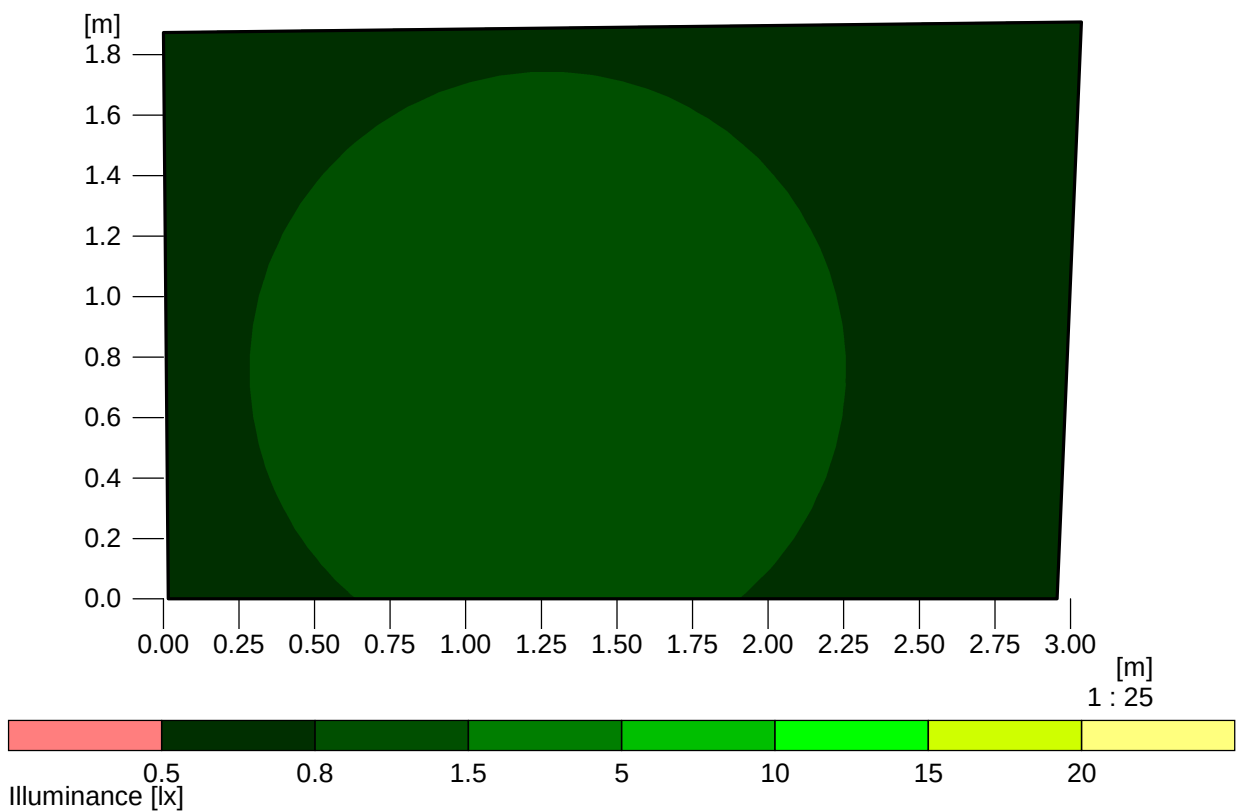
		Whitecroft Lighting	
1	3	Order No.	: !TAELH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm



7 Staff Breakout - SHA026 - B1.050

7.2 Calculation results, Staff Breakout - SHA026 - B1.050

7.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.83 (0.55) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



7.2 Summary, Staff Breakout - SHA026 - B1.050

7.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

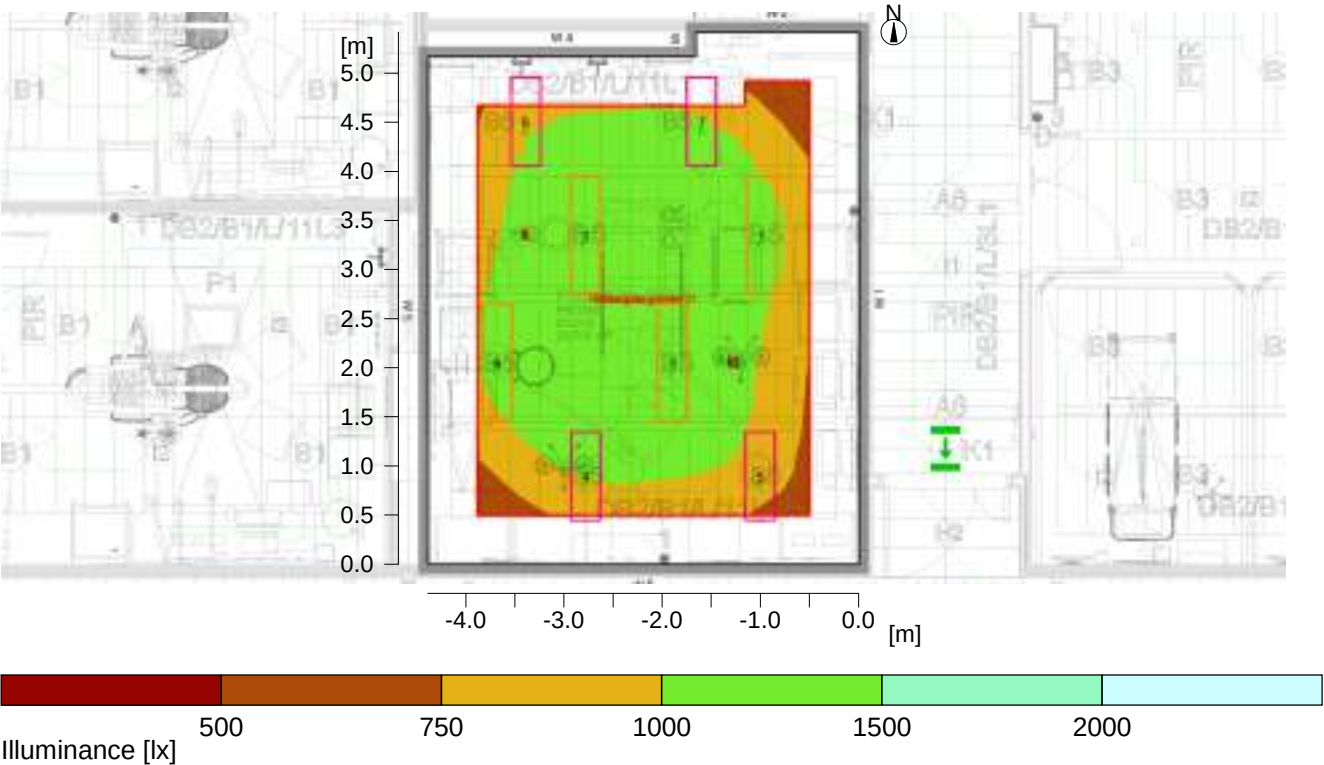
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	1.3	1: 1.83	0.00



8 Procedure - PRC005 - B1.013

8.1 Summary, Procedure - PRC005 - B1.013

8.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	28524.00 lm
Total power	304.0 W
Total power per area (23.06 m²)	13.18 W/m² (1.28 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	1030 lx
Emin	657 lx
Emin/Eav (Uo)	0.64
Emin/Emax (Ud)	0.50
Position	1.00 m

Major surfaces

	Em	Uo
M 1.6 (Ceiling)	195 lx	0.83
M 1.1 (Wall)	407 lx	0.57
M 1.2 (Wall)	338 lx	0.64
M 1.3 (Wall)	481 lx	0.78
M 1.4 (Wall)	458 lx	0.53
M 1.5 (Wall)	421 lx	0.67

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

8 Procedure - PRC005 - B1.013

8.1 Summary, Procedure - PRC005 - B1.013

8.1.1 Result overview, Evaluation area 1



Type No. Make

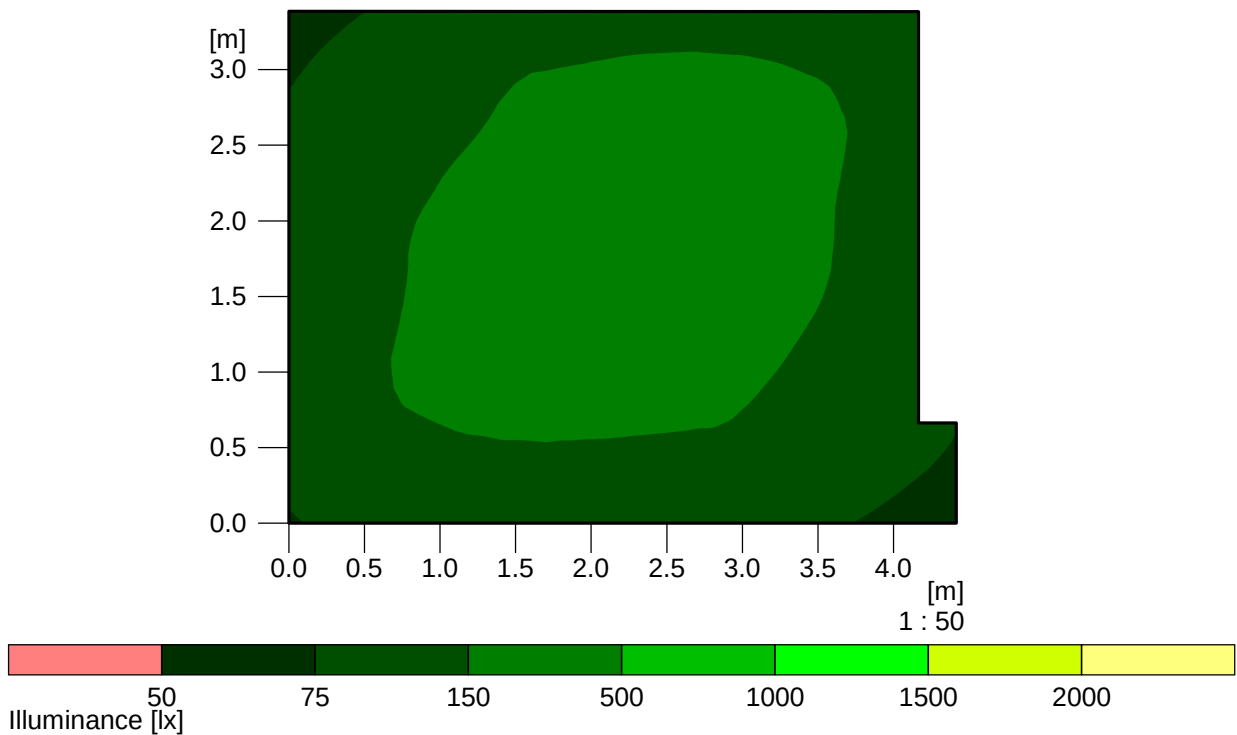
		Whitcroft Lighting	
14	4	Order No.	: !D9LUGH44K
		Luminaire name	: B5 - DTFU
		Equipment	: 1 x LED 38 W / 4075 lm
15	4	Order No.	: !D9LUGH44K
		Luminaire name	: B5(B) - DTFU
		Equipment	: 1 x LED 38 W / 3056 lm



8 Procedure - PRC005 - B1.013

8.2 Calculation results, Procedure - PRC005 - B1.013

8.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 50 lx
Minimum illuminance	Emin	: 50 lx
Maximum illuminance	Emax	: 180 lx
Diversity	Emin/Emax	: 1 : 3.57 (0.28) (Threshold value 1:40)
Height		: 0.9 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



8.2 Summary, Procedure - PRC005 - B1.013

8.2.2 Result overview (emergency lighting)

Type No. Make

Whitcroft Lighting			
5	2	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)
14	4	Order No.	: !D9LUGH44K
		Luminaire name	: B5 - DTFU
		Equipment	: 1 x LED 38 W / 4075 lm (12.6 %)
15	4	Order No.	: !D9LUGH44K
		Luminaire name	: B5(B) - DTFU
		Equipment	: 1 x LED 38 W / 3056 lm (16.9 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

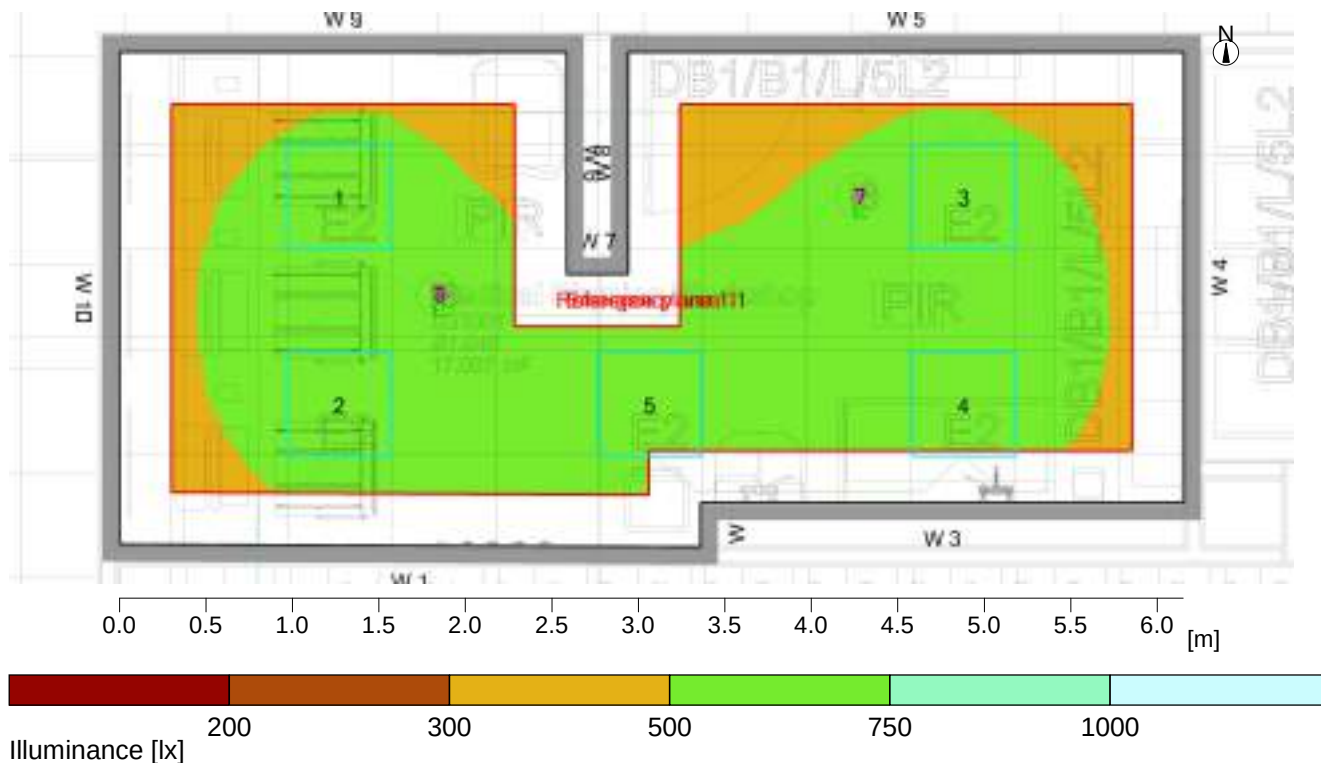
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	50.0	50.1	179.0	1: 3.57	0.85

9 Medical Physics Workshop - LGT001 - B1.0040

9.1 Summary, Medical Physics Workshop - LGT001 - B1.0040

9.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.70 m
 0.80

Total luminous flux of all lamps 17720.50 lm (70.00% dimmed)
 (Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)

Total power 200.0 W
 Total power per area (16.37 m²) 12.22 W/m² (2.23 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 548 lx
 Emin 330 lx
 Emin/Eav (Uo) 0.60
 Emin/Emax (Ud) 0.51
 Position 0.75 m

Major surfaces

	Em	Uo
M 1.9 (Ceiling)	131 lx	0.72
M 1.1 (Wall)	367 lx	0.59
M 1.2 (Wall)	387 lx	0.52
M 1.3 (Wall)	318 lx	0.70
M 1.4 (Wall)	323 lx	0.61
M 1.5 (Wall)	216 lx	0.65
M 1.6 (Wall)	266 lx	0.67
M 1.7 (Wall)	331 lx	0.58
M 1.8 (Wall)	313 lx	0.70

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

9 Medical Physics Workshop - LGT001 - B1.0040

9.1 Summary, Medical Physics Workshop - LGT001 - B1.0040

9.1.1 Result overview, Evaluation area 1

Type No. Make

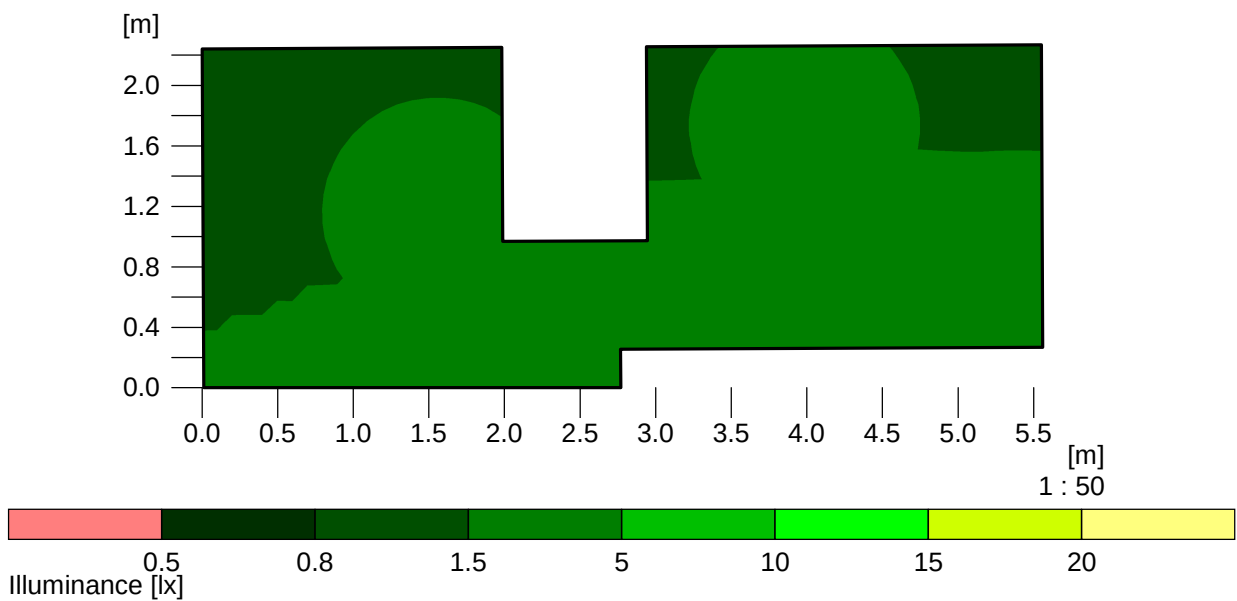
17	5	Whitecroft Lighting
		Order No. : !TAE LH34KXT
		Luminaire name : E2 - TEGAN SLIM
		Equipment : 1 x LED 40 W / 5063 lm



9 Medical Physics Workshop - LGT001 - B1.0040

9.2 Calculation results, Medical Physics Workshop - LGT001 - B1.0040

9.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.4 lx
Maximum illuminance	Emax	: 3.1 lx
Diversity	Emin/Emax	: 1 : 2.31 (0.43) (Threshold value 1:40)
Height		: 0.8 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



9.2 Summary, Medical Physics Workshop - LGT001 - B1.0040

9.2.2 Result overview (emergency lighting)

Type No. Make

2 2 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

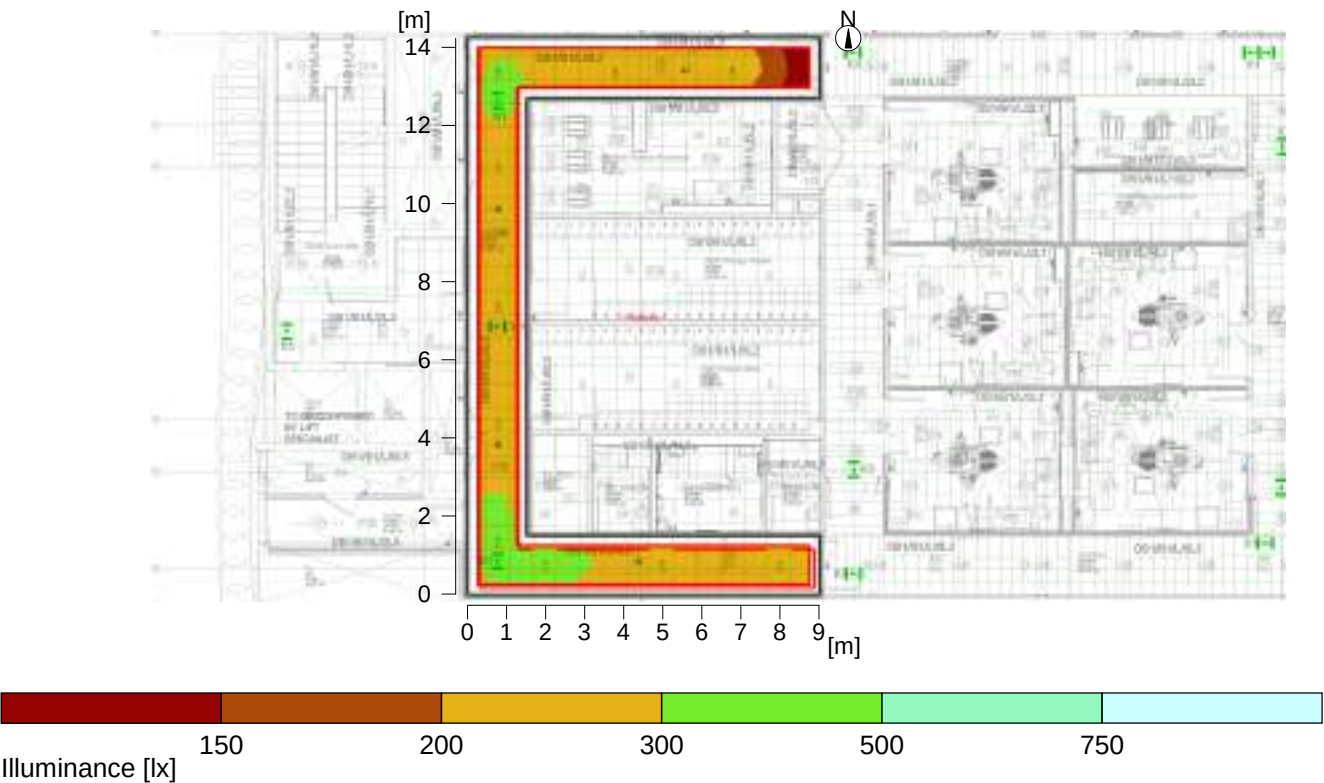
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.4	3.1	1: 2.31	0.75



10 Corridor - CIRC010 - B1.033

10.1 Summary, Corridor - CIRC010 - B1.033

10.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	35310.00 lm
Total power	270.0 W
Total power per area (44.01 m²)	6.13 W/m² (2.34 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	262 lx
Emin	145 lx
Emin/Eav (Uo)	0.55
Emin/Emax (Ud)	0.41
Position	0.00 m

Major surfaces

	Em	Uo
M 1.9 (Ceiling)	96 lx	0.56
M 1.1 (Wall)	245 lx	0.49
M 1.2 (Wall)	245 lx	0.54
M 1.3 (Wall)	241 lx	0.47
M 1.4 (Wall)	215 lx	0.44
M 1.5 (Wall)	197 lx	0.29
M 1.6 (Wall)	100 lx	0.64
M 1.7 (Wall)	211 lx	0.27
M 1.8 (Wall)	234 lx	0.41

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

10 Corridor - CIRC010 - B1.033

10.1 Summary, Corridor - CIRC010 - B1.033

10.1.1 Result overview, Evaluation area 1



Type No. Make

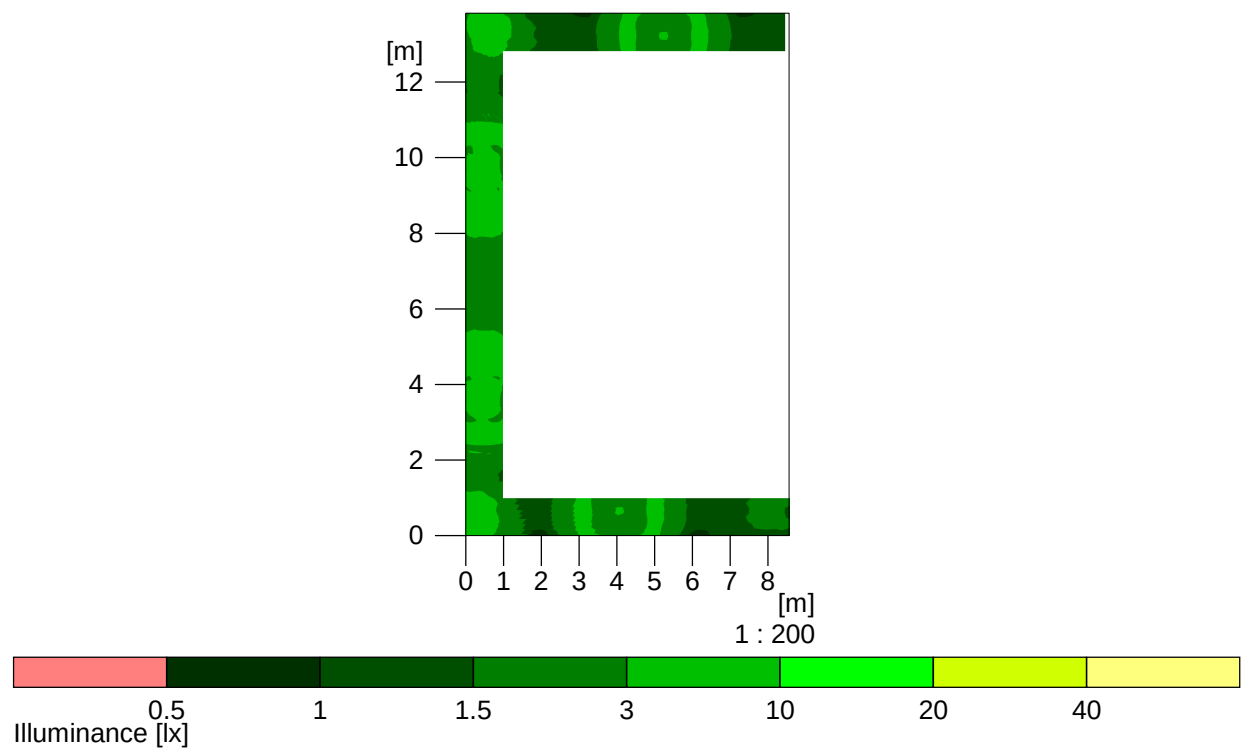
		Whitecroft Lighting	
1	10	Order No.	: !TAE LH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm



10 Corridor - CIRC010 - B1.033

10.2 Calculation results, Corridor - CIRC010 - B1.033

10.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 1.1 lx
Maximum illuminance (central axis)	Emax	: 6.8 lx
Diversity	Emin/Emax	: 1 : 6.18 (0.16) (Threshold value 1:40)
Minimum illuminance	Emin	: 0.8 lx
Maximum illuminance	Emax	: 6.8 lx
Diversity	Emin/Emax	: 1 : 8.42 (0.12) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



10.2 Summary, Corridor - CIRC010 - B1.033

10.2.2 Result overview (emergency lighting)

Type No. Make

19 4 **Whitecroft Lighting**
Order No. : !FLE32
Luminaire name : I1 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

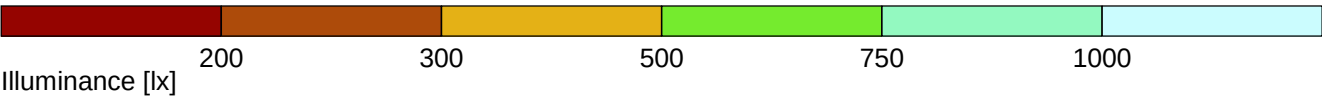
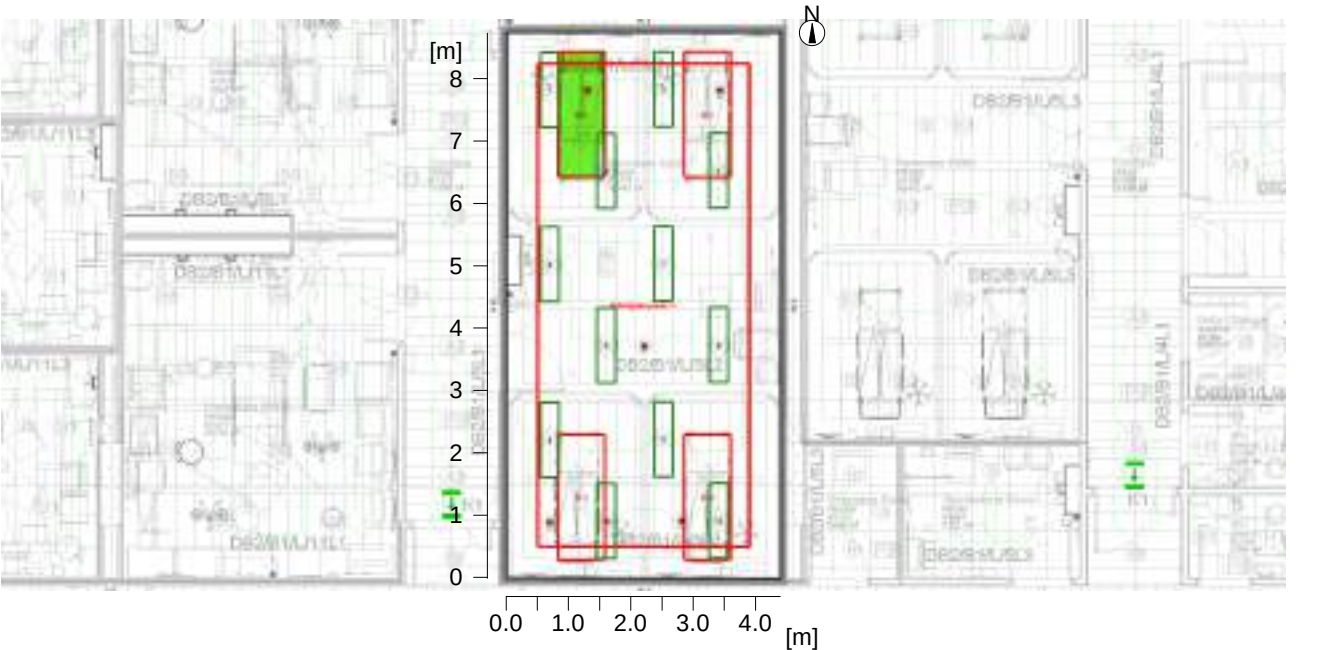
Escape routes:

No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	1.1	6.8	1: 5.97	0.8	6.8	1: 8.42		0.00

11 Recovery Adult - PRC003 - B1.015

11.1 Summary, Recovery Adult - PRC003 - B1.015

11.1.1 Result overview, Measuring area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	31680 lm (80.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	312 W
Total power per area (38.44 m²)	8.12 W/m²

Illuminance

Average illuminance	Eav	614 lx
Minimum illuminance	Emin	466 lx
Maximum illuminance	Emax	722 lx
Uniformity Uo	Emin/Em	1:1.32 (0.76)
Diversity Ud	Emin/Emax	1:1.55 (0.65)

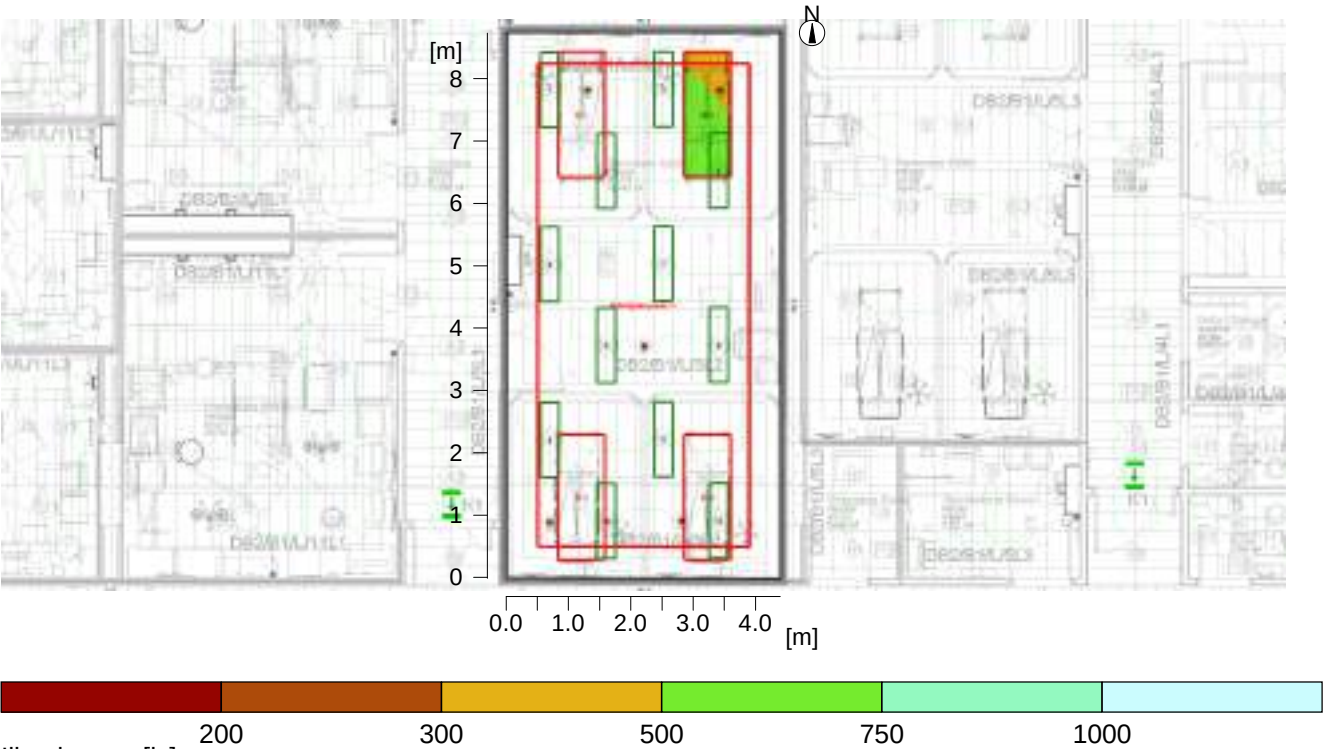
Type No.1Make

Whitecroft Lighting		
8	12	Order No. : !L3LKH34K
		Luminaire name : B3 - LISTER
		Equipment : 1 x LED 26 W / 3300 lm



11.1 Summary, Recovery Adult - PRC003 - B1.015

11.1.2 Result overview, Measuring area 2



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	31680 lm (80.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	312 W
Total power per area (38.44 m²)	8.12 W/m²

Illuminance

Average illuminance	Eav	528 lx
Minimum illuminance	Emin	318 lx
Maximum illuminance	Emax	681 lx
Uniformity Uo	Emin/Em	1:1.66 (0.6)
Diversity Ud	Emin/Emax	1:2.14 (0.47)

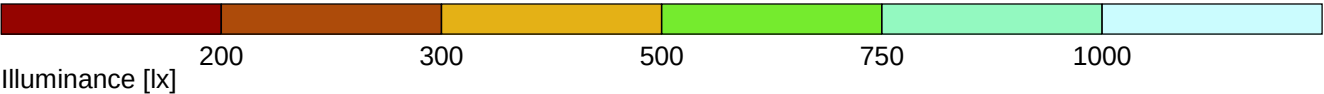
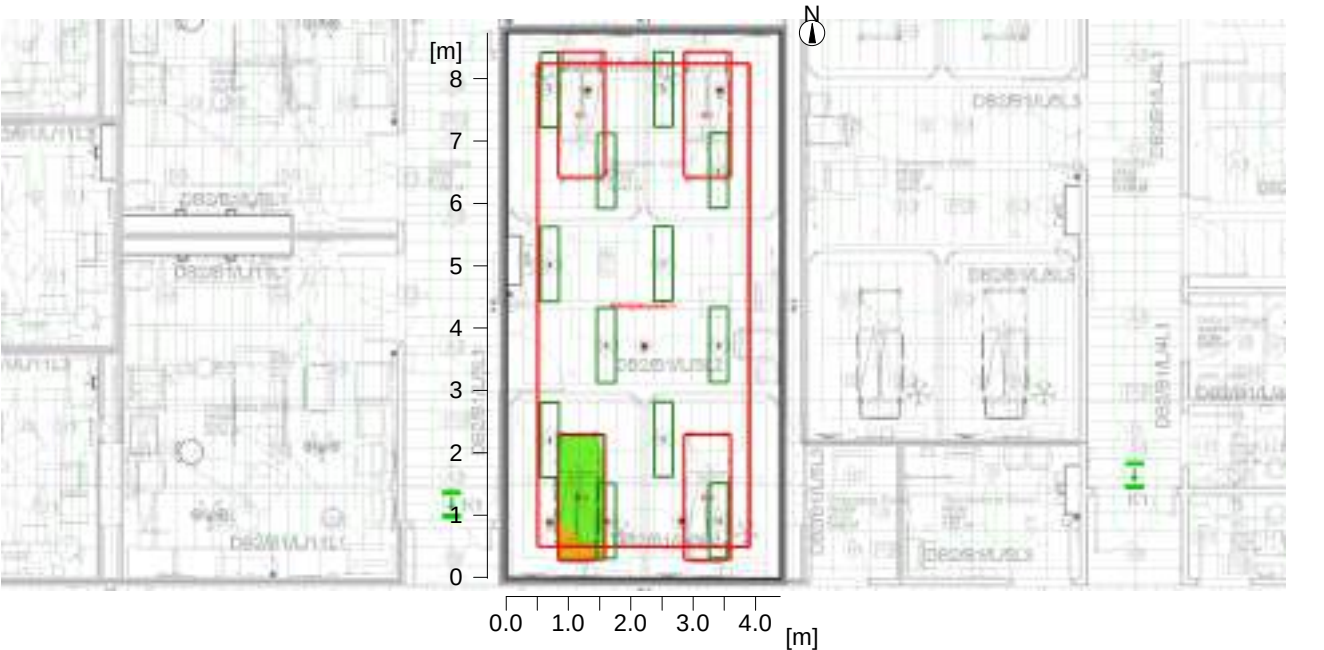
Type No.1Make

Whitecroft Lighting			
8	12	Order No.	: !L3LKH34K
		Luminaire name	: B3 - LISTER
		Equipment	: 1 x LED 26 W / 3300 lm



11.1 Summary, Recovery Adult - PRC003 - B1.015

11.1.3 Result overview, Measuring area 3



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	31680 lm (80.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	312 W
Total power per area (38.44 m²)	8.12 W/m²

Illuminance

Average illuminance	Eav	583 lx
Minimum illuminance	Emin	373 lx
Maximum illuminance	Emax	716 lx
Uniformity Uo	Emin/Em	1:1.56 (0.64)
Diversity Ud	Emin/Emax	1:1.92 (0.52)

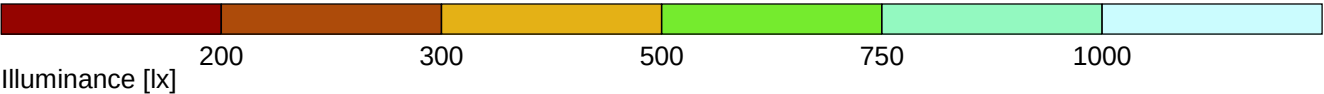
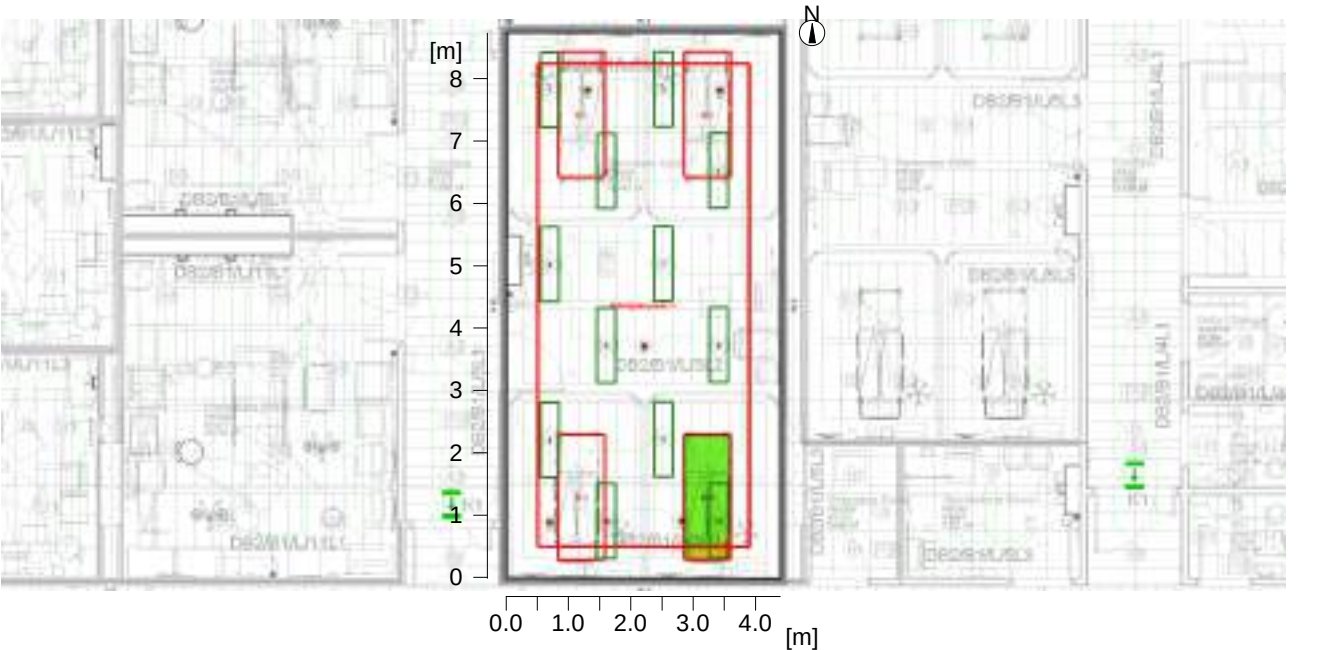
Type No.1Make

		Whitcroft Lighting	
8	12	Order No.	: !L3LKH34K
		Luminaire name	: B3 - LISTER
		Equipment	: 1 x LED 26 W / 3300 lm



11.1 Summary, Recovery Adult - PRC003 - B1.015

11.1.4 Result overview, Measuring area 4



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	31680 lm (80.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	312 W
Total power per area (38.44 m²)	8.12 W/m²

Illuminance

Average illuminance	Eav	561 lx
Minimum illuminance	Emin	417 lx
Maximum illuminance	Emax	663 lx
Uniformity Uo	Emin/Em	1:1.35 (0.74)
Diversity Ud	Emin/Emax	1:1.59 (0.63)

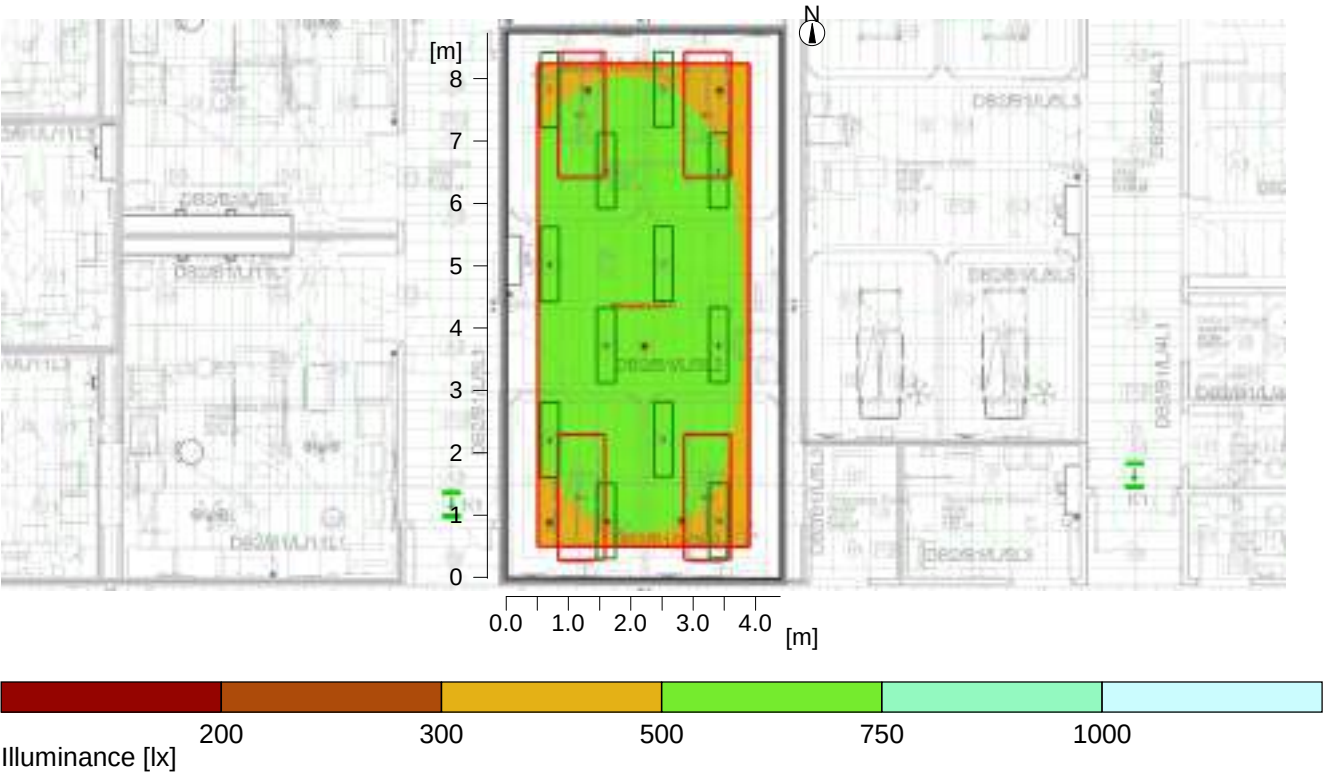
Type No.1Make

		Whitcroft Lighting	
8	12	Order No.	: !L3LKH34K
		Luminaire name	: B3 - LISTER
		Equipment	: 1 x LED 26 W / 3300 lm



11.1 Summary, Recovery Adult - PRC003 - B1.015

11.1.5 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	31680.00 lm (80.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	312.0 W
Total power per area (38.44 m²)	8.12 W/m² (1.49 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	546 lx
Emin	337 lx
Emin/Eav (Uo)	0.62
Emin/Emax (Ud)	0.51
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	108 lx	0.78
M 1.1 (Wall)	275 lx	0.63
M 1.2 (Wall)	253 lx	0.49
M 1.3 (Wall)	269 lx	0.51
M 1.4 (Wall)	293 lx	0.49

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

11.1 Summary, Recovery Adult - PRC003 - B1.015

11.1.5 Result overview, Evaluation area 1



Type No. Make

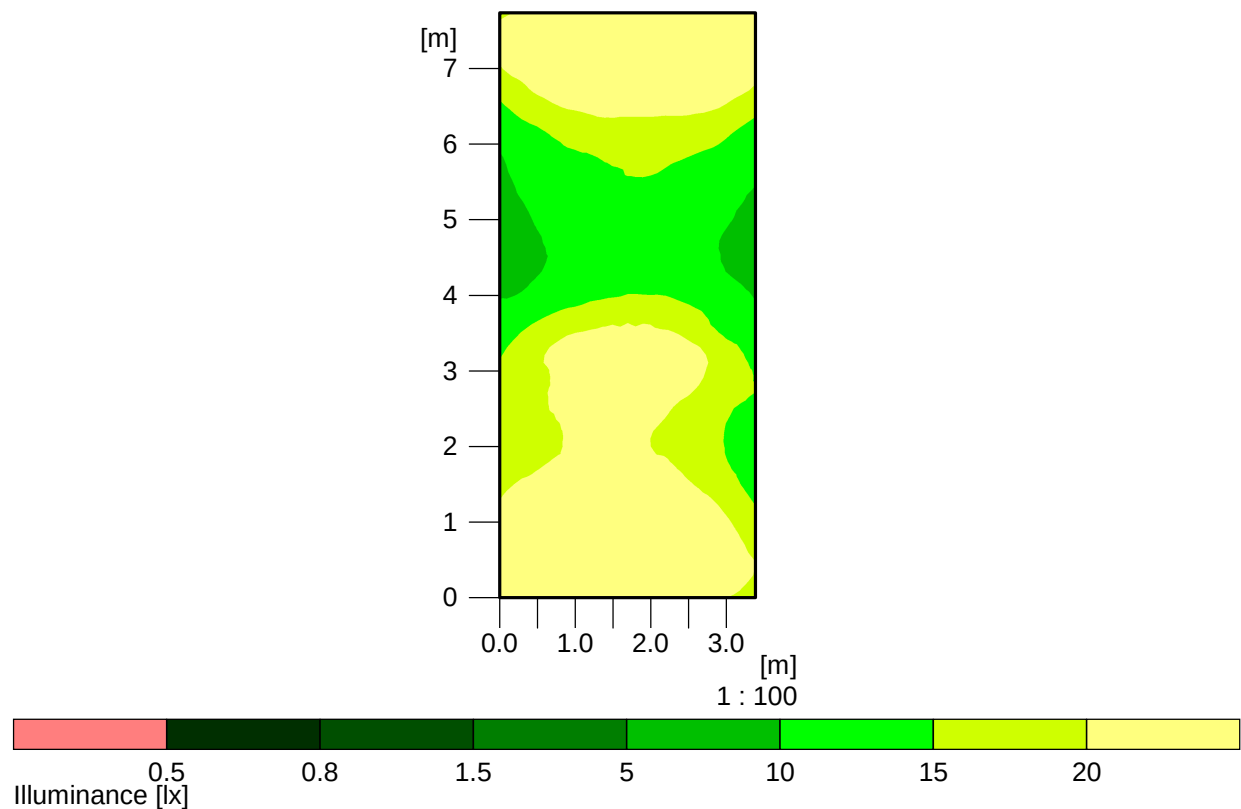
		Whitecroft Lighting	
8	12	Order No.	: !L3LKH34K
		Luminaire name	: B3 - LISTER
		Equipment	: 1 x LED 26 W / 3300 lm



11 Recovery Adult - PRC003 - B1.015

11.2 Calculation results, Recovery Adult - PRC003 - B1.015

11.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 7.9 lx
Maximum illuminance	Emax	: 36 lx
Diversity	Emin/Emax	: 1 : 4.60 (0.22) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



11.2 Summary, Recovery Adult - PRC003 - B1.015

11.2.2 Result overview (emergency lighting)

Type No. Make

5 5 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

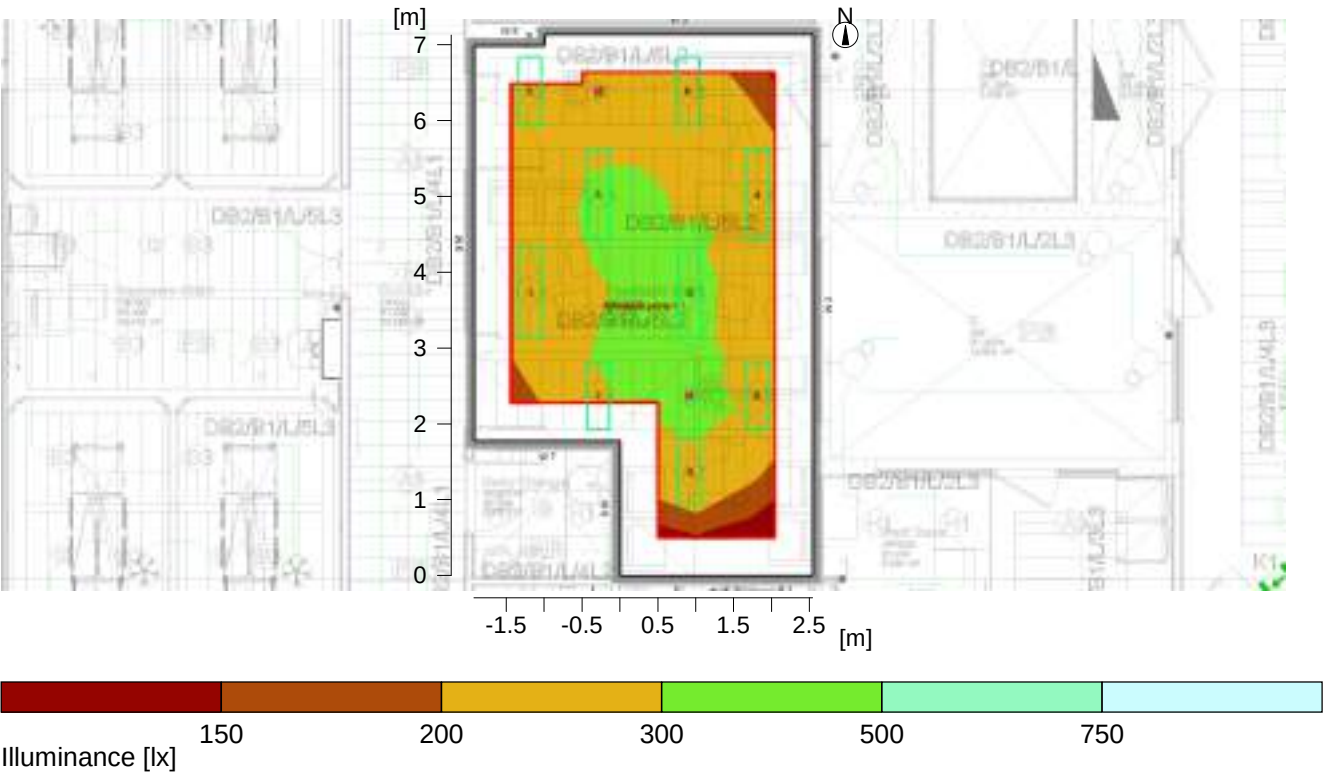
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	7.9	36.1	1: 4.60	0.00



12 Paediatric Wait - WTG006 - B1.007

12.1 Summary, Paediatric Wait - WTG006 - B1.007

12.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	9730.60 lm (55.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	139.5 W
Total power per area (28.27 m²)	4.94 W/m² (1.88 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	262 lx
Emin	151 lx
Emin/Eav (Uo)	0.58
Emin/Emax (Ud)	0.50
Position	0.75 m (rot: 0°/0.05°)

Major surfaces

	Em	Uo
M 1.7 (Ceiling)	43 lx	0.75
M 1.1 (Wall)	72 lx	0.68
M 1.2 (Wall)	104 lx	0.43
M 1.3 (Wall)	108 lx	0.57
M 1.4 (Wall)	111 lx	0.60
M 1.5 (Wall)	102 lx	0.61
M 1.6 (Wall)	81 lx	0.61

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018

12 Paediatric Wait - WTG006 - B1.007

12.1 Summary, Paediatric Wait - WTG006 - B1.007

12.1.1 Result overview, Evaluation area 1



Type No. Make

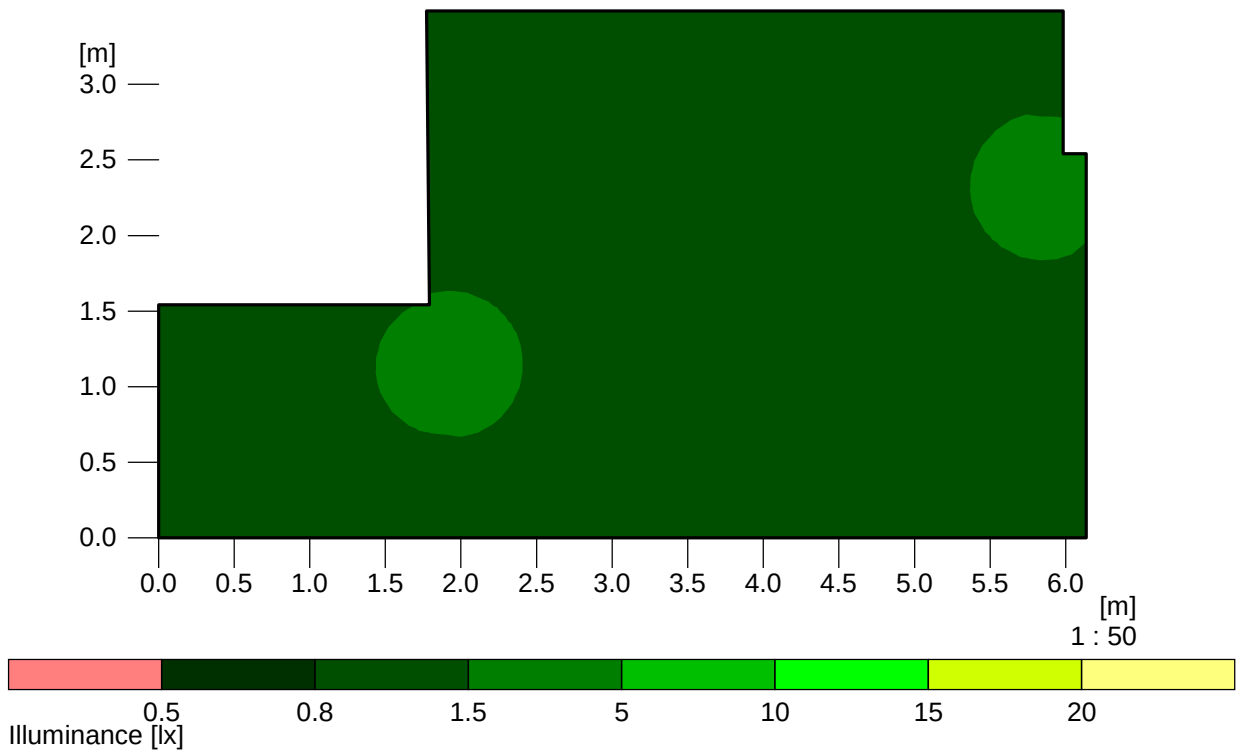
Whitecroft Lighting

7	4	Order No.	: !CLFY#/1194/SRF###
		Luminaire name	: A1 - CITYLINE
		Equipment	: 1 x LED 18 W / 1923 lm
18	5	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm

12 Paediatric Wait - WTG006 - B1.007

12.2 Calculation results, Paediatric Wait - WTG006 - B1.007

12.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.2 lx
Maximum illuminance	Emax	: 1.8 lx
Diversity	Emin/Emax	: 1 : 1.53 (0.65) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Basement 1
Project number : (58285) 5808
Date : 09.10.2018



12.2 Summary, Paediatric Wait - WTG006 - B1.007

12.2.2 Result overview (emergency lighting)

Type No. Make

2

2

Whitecroft Lighting
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

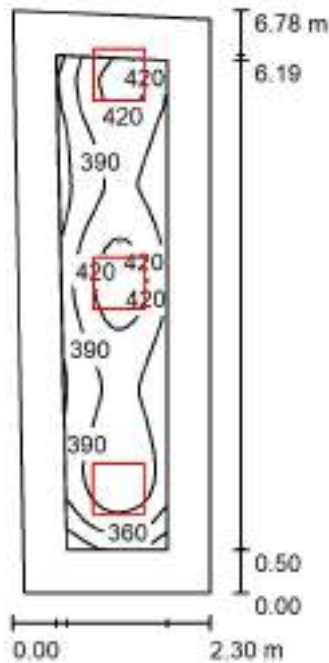
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.2	1.8	1: 1.53	0.00



UCLH PHASE 5
GROUND FLOOR
LIGHT CALCS REPORT

Operator
Telephone
Fax
e-Mail

Sterile Supplies LGT 004 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:88

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	392	308	437	0.785
Floor	20	275	171	330	0.623
Ceiling	70	72	49	119	0.676
Walls (4)	50	163	63	496	/

Workplane:

Height: 0.750 m
Grid: 64 x 16 Points
Boundary Zone: 0.500 m

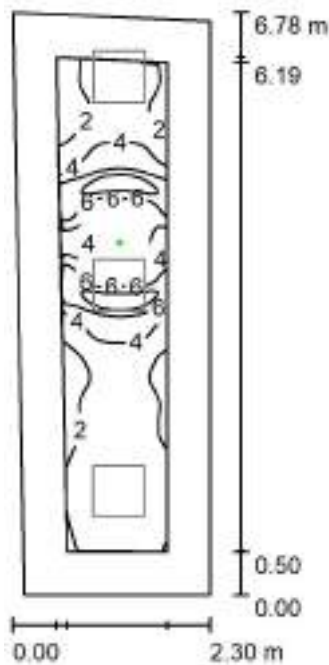
Illuminance Quotient (according to LG7): Walls / Working Plane: 0.433, Ceiling / Working Plane: 0.184.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			9329	9380	87.0

Specific connected load: $5.81 \text{ W/m}^2 = 1.48 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.99 m^2)

Operator
 Telephone
 Fax
 e-Mail

Sterile Supplies LGT 004 / E / Summary


Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:88

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	3.66	1.24	11	0.339
Floor	20	1.90	0.60	5.54	0.315
Ceiling	70	0.07	0.00	5.46	0.000
Walls (4)	50	1.90	0.08	13	/

Workplane:

 Height: 0.750 m
 Grid: 128 x 32 Points
 Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.614, Ceiling / Working Plane: 0.020.

Luminaire Parts List

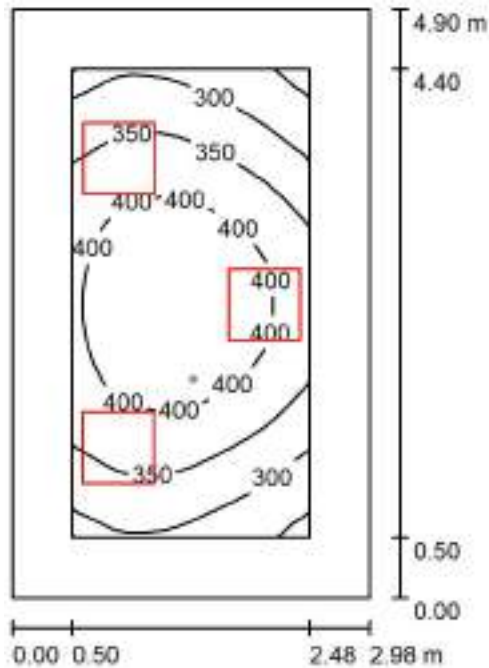
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

 Specific connected load: $0.20 \text{ W/m}^2 = 5.47 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.99 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY COMO25 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:63

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	364	236	437	0.649
Floor	20	319	163	436	0.509
Ceiling	70	73	47	87	0.648
Walls (4)	50	160	61	368	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.439, Ceiling / Working Plane: 0.201.

Luminaire Parts List

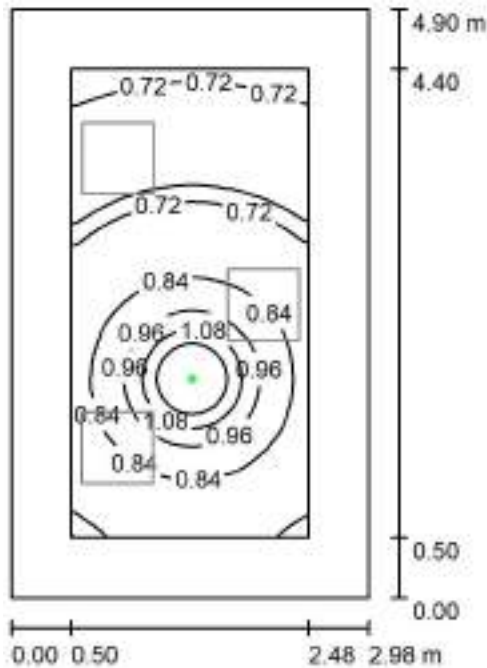
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			9329	9380	87.0

Specific connected load: $5.96 \text{ W/m}^2 = 1.64 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.60 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY COMO25 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:63

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	0.82	0.69	1.28	0.833
Floor	20	0.77	0.55	1.28	0.718
Ceiling	70	0.03	0.00	4.60	0.000
Walls (4)	50	2.72	0.07	25	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 3.325, Ceiling / Working Plane: 0.035.

Luminaire Parts List

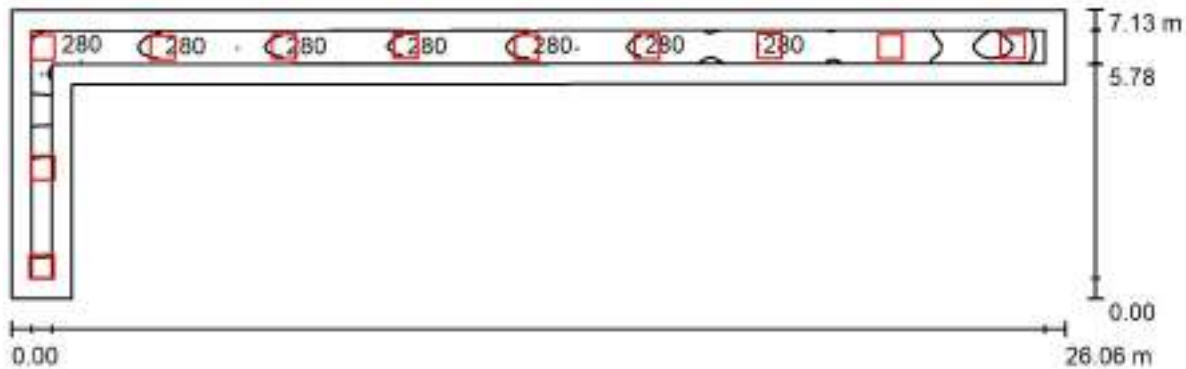
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.21 \text{ W/m}^2 = 24.97 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.60 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOE CIR013 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:187

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	274	227	311	0.827
Floor	20	263	186	327	0.705
Ceiling	70	72	45	128	0.631
Walls (6)	50	166	69	480	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.609, Ceiling / Working Plane: 0.263.

Luminaire Parts List

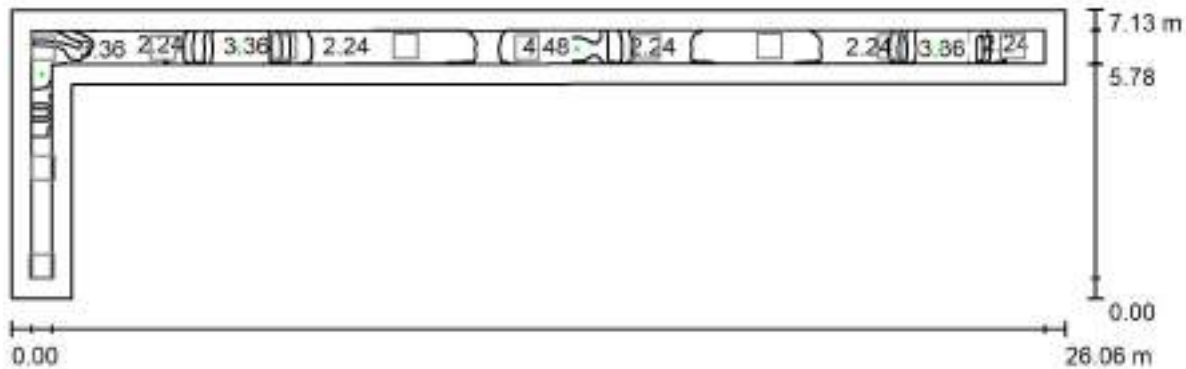
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	11	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			34207	34392	319.0

Specific connected load: $5.75 \text{ W/m}^2 = 2.10 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 55.50 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOE CIR013 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:187

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	2.90	1.20	6.78	0.412
Floor	20	2.63	0.86	6.79	0.327
Ceiling	70	0.08	0.00	5.50	0.001
Walls (6)	50	1.89	0.04	35	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.647, Ceiling / Working Plane: 0.027.

Luminaire Parts List

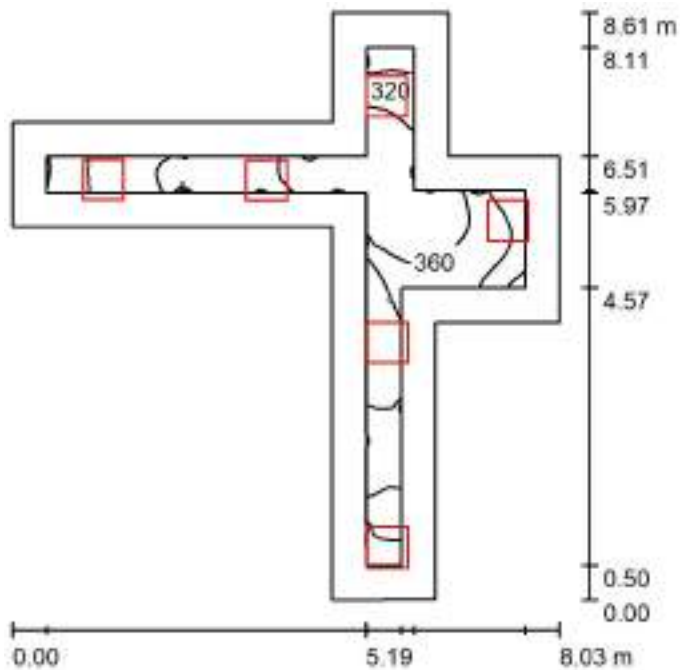
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			601	560	12.0

Specific connected load: $0.22 \text{ W/m}^2 = 7.45 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 55.50 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM027 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:111

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	330	234	398	0.709
Floor	20	295	174	395	0.589
Ceiling	70	86	54	133	0.634
Walls (12)	50	187	76	533	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.567, Ceiling / Working Plane: 0.260.

Luminaire Parts List

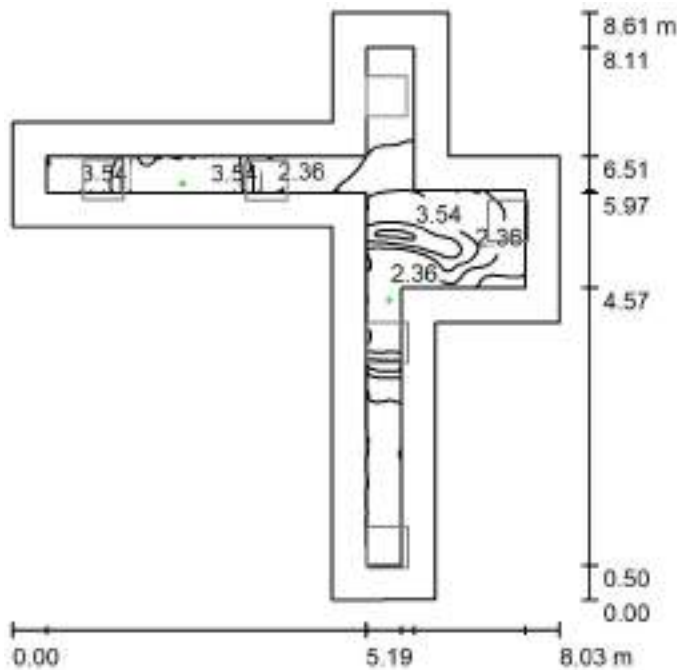
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			18658	18759	174.0

Specific connected load: $6.94 \text{ W/m}^2 = 2.10 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 25.09 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM027 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:111

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.65	0.60	6.50	0.227
Floor	20	2.21	0.43	6.50	0.193
Ceiling	70	0.09	0.00	5.95	0.000
Walls (12)	50	2.06	0.03	31	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.781, Ceiling / Working Plane: 0.033.

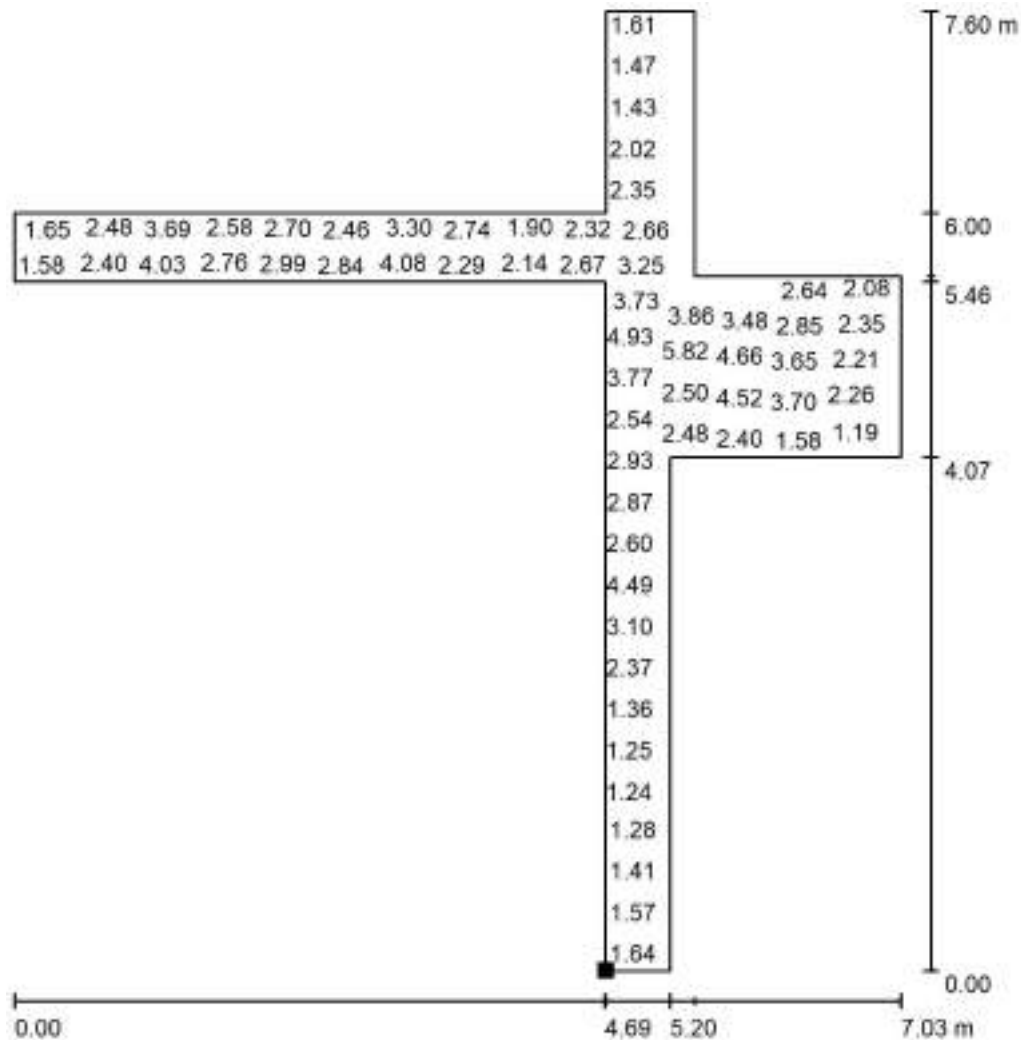
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			300	280	6.0

Specific connected load: $0.24 \text{ W/m}^2 = 9.03 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 25.09 m^2)

Operator
Telephone
Fax
e-Mail

CORRIDOR COM027 / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 60

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(-29.222 m, -8.831 m, 0.000 m)



Grid: 128 x 128 Points

$$E_{av} [Ix]$$

$$2.65$$
$$E_{\min} [\text{lx}]$$

$$0.60$$
$$E_{\max} [Ix] = 6.50$$

u0
0.227

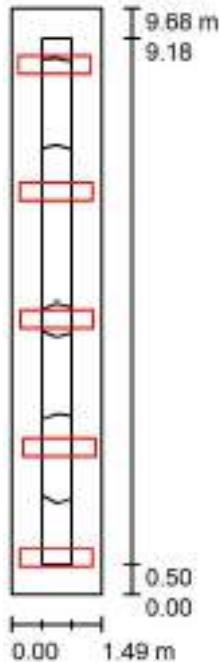
$$E_{\min} / E_{\max}$$

0.093



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR012 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:125

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	249	205	273	0.821
Floor	20	233	152	274	0.654
Ceiling	70	75	51	107	0.678
Walls (4)	50	154	72	565	/

Workplane:

Height: 0.000 m
Grid: 128 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.618, Ceiling / Working Plane: 0.300.

Luminaire Parts List

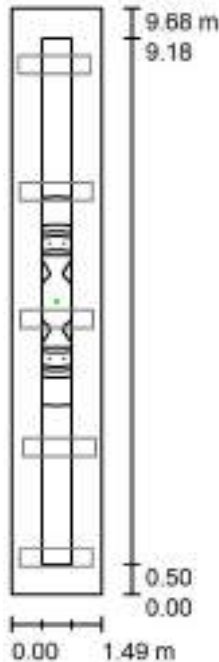
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			9608	9615	90.0

Specific connected load: $6.24 \text{ W/m}^2 = 2.50 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.42 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR012 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:125

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.07	1.19	5.54	0.574
Floor	20	1.84	0.78	5.49	0.422
Ceiling	70	0.07	0.00	4.61	0.000
Walls (4)	50	1.55	0.04	23	/

Workplane:

Height: 0.000 m
Grid: 128 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.751, Ceiling / Working Plane: 0.035.

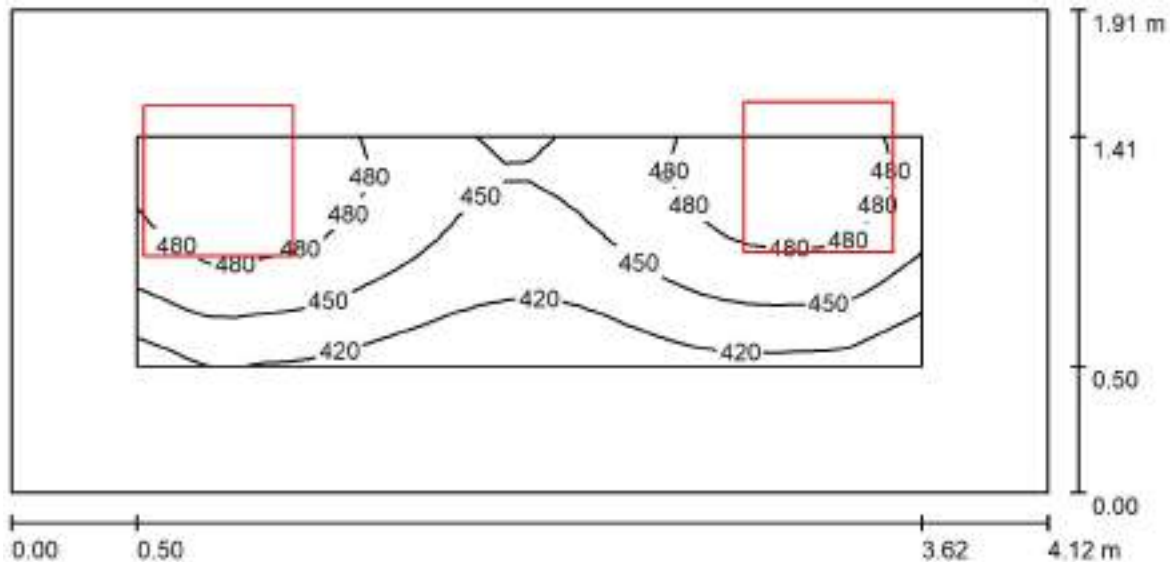
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.21 \text{ W/m}^2 = 10.04 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.42 m^2)

Operator
Telephone
Fax
e-Mail

Receipt Office LGT 003 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:30

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	456	391	509	0.857
Floor	20	302	220	345	0.730
Ceiling	70	128	85	177	0.667
Walls (4)	50	266	107	864	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.672, Ceiling / Working Plane: 0.280.

Luminaire Parts List

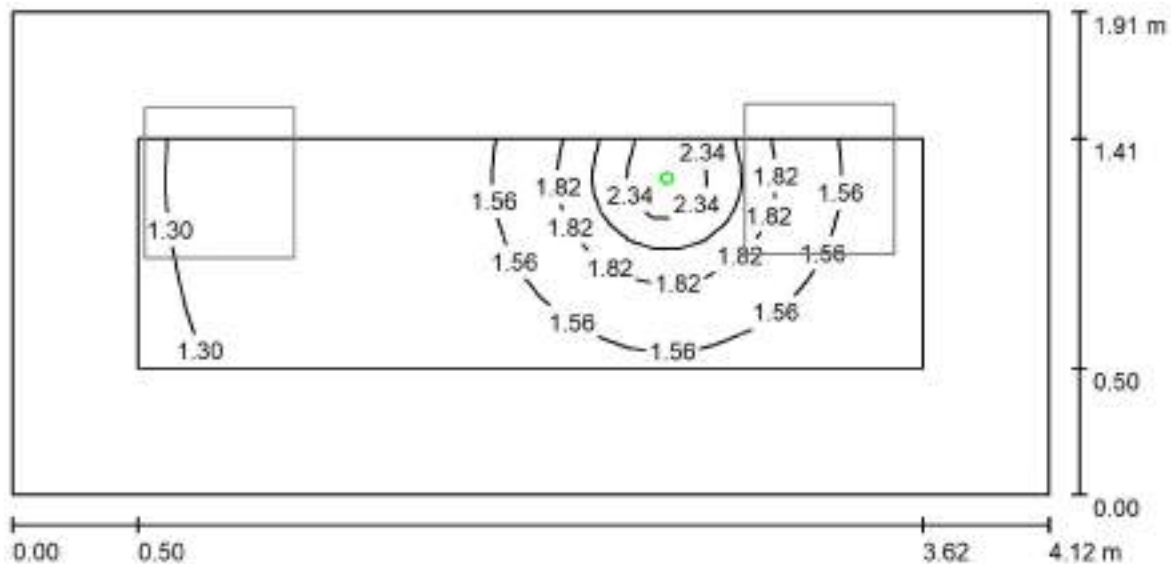
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEPDH24K TEGAN (1.000)	4092	4100	35.0
Total:			8183	8200	70.0

Specific connected load: $8.90 \text{ W/m}^2 = 1.95 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 7.86 m^2)



Operator
Telephone
Fax
e-Mail

Receipt Office LGT 003 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:30

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.57	1.16	2.46	0.741
Floor	20	0.82	0.65	1.28	0.799
Ceiling	70	0.05	0.00	4.60	0.000
Walls (4)	50	3.71	0.06	121	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

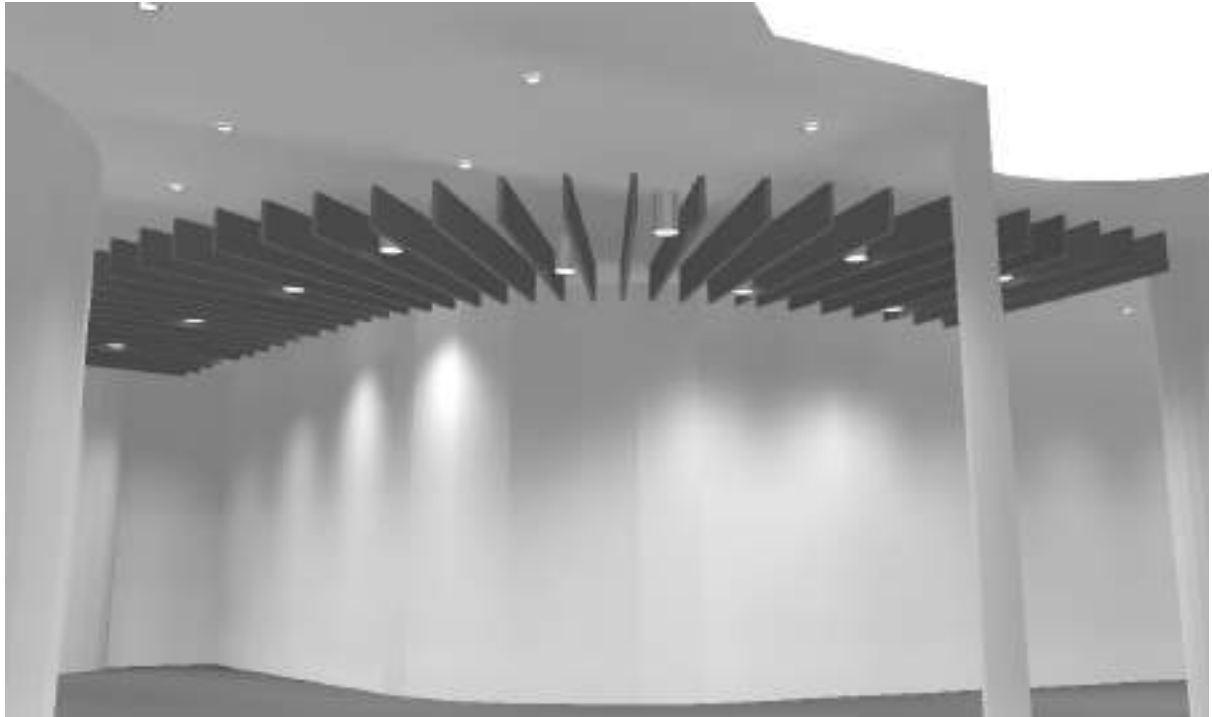
Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 3.159, Ceiling / Working Plane: 0.034.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.38 \text{ W/m}^2 = 24.35 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 7.86 m^2)

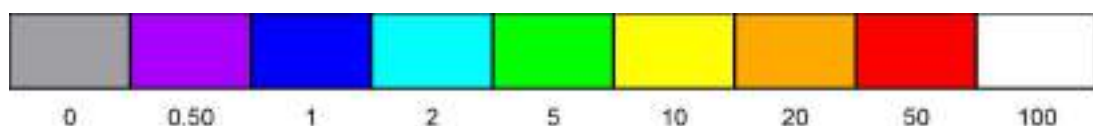
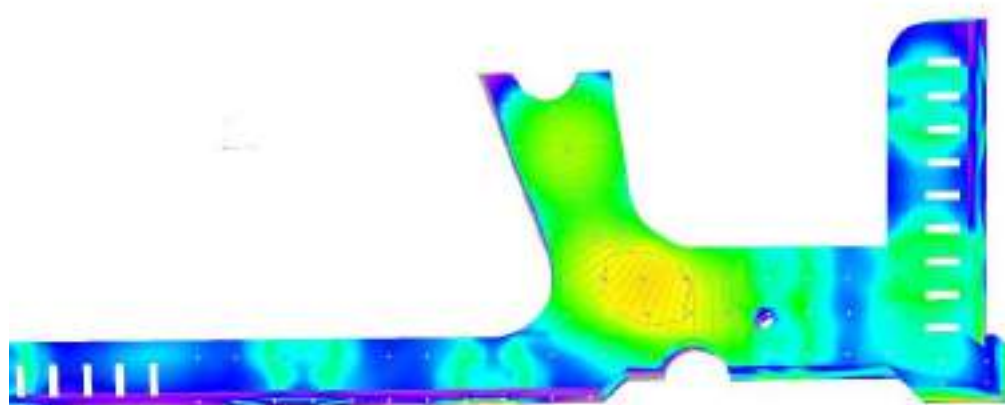


Corridor ENT002 (Near reception)



Operator
Telephone
Fax
e-Mail

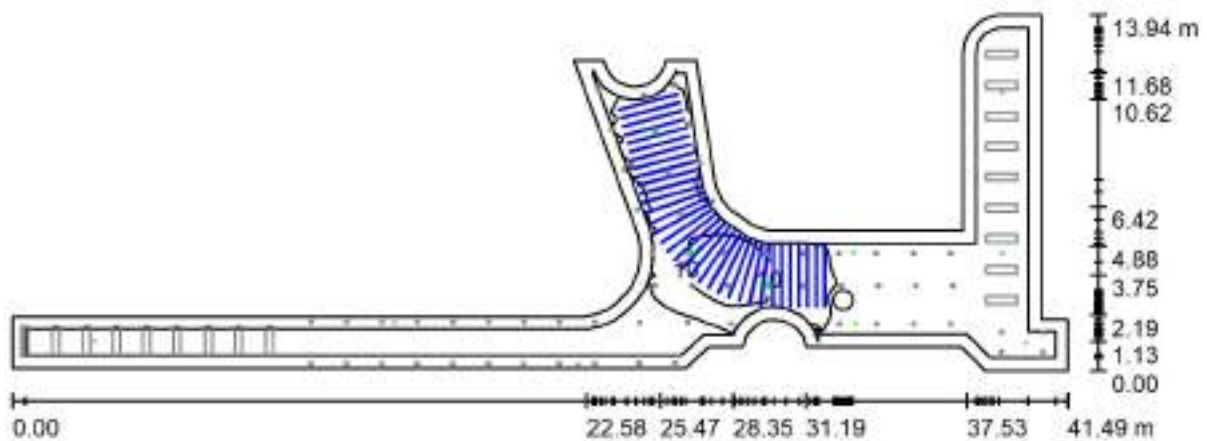
CORRIDOR ENT002 (New) / E / False Colour Rendering



lx

Operator
Telephone
Fax
e-Mail

CORRIDOR ENT002 (New) / E / Summary



Height of Room: 3.535 m, Maintenance factor: 0.80

Values in Lux, Scale 1:297

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	4.26	0.82	13	0.192
Floor	20	3.66	0.31	13	0.084
Ceiling	70	0.04	0.00	5.54	0.001
Walls (69)	50	1.68	0.00	237	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.399, Ceiling / Working Plane: 0.010.

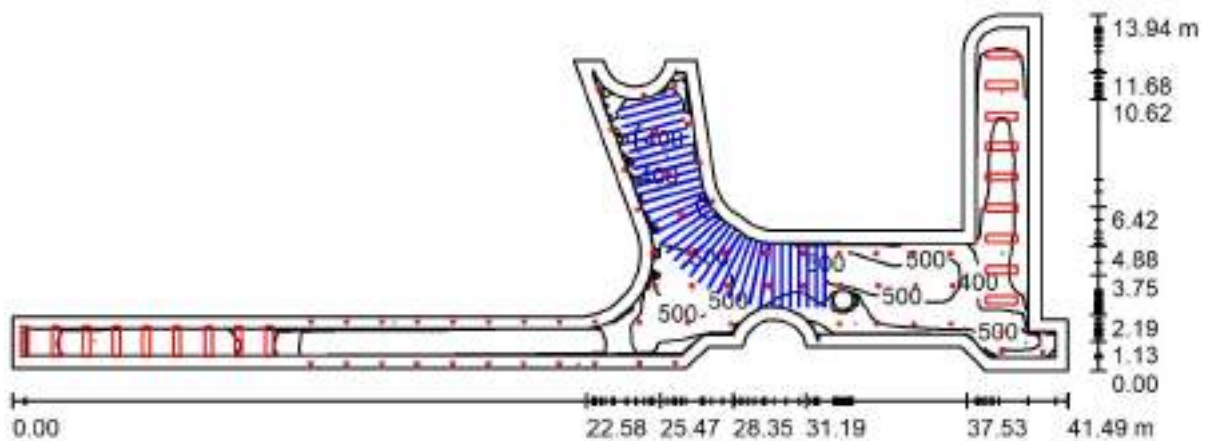
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
2	7	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
3	3	Whitecroft Lighting MBSH24K27W Mirage LED Surface (1.000)	190	190	18.0
Total:			1779	1690	78.0

Specific connected load: $0.44 \text{ W/m}^2 = 10.22 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 178.95 m^2)

Operator
Telephone
Fax
e-Mail

CORRIDOR ENT002 (New) / L / Summary



Height of Room: 3.535 m, Maintenance factor: 0.80

Values in Lux, Scale 1:297

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	407	148	603	0.363
Floor	20	379	95	599	0.250
Ceiling	70	64	22	131	0.349
Walls (69)	50	140	36	1753	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.342, Ceiling / Working Plane: 0.157.

Luminaire Parts List

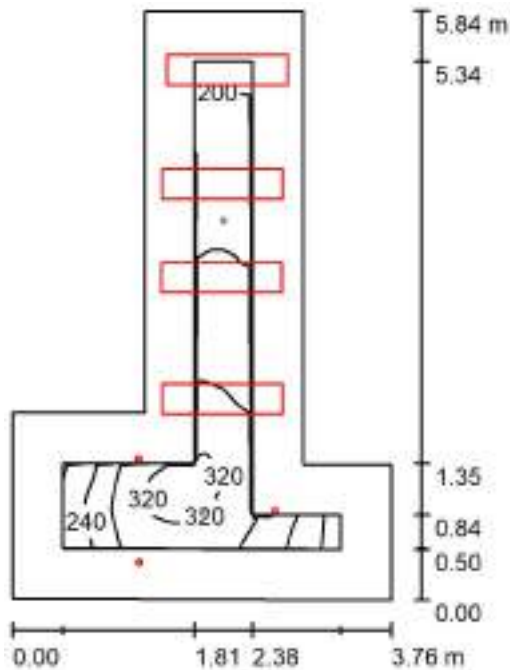
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	18	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
2	51	WHITECROFT CNXH14K CONCERT XL (1.000)	1179	1162	13.2
3	3	Whitecroft Lighting MBSH24K27W Mirage LED Surface (1.000)	1899	1901	18.0
4	7	Whitecroft Lighting MBSH24K27W Mirage LED Surface (1.000)	1899	1901	18.0
Total:			113690	112886	1177.2

Specific connected load: $6.58 \text{ W/m}^2 = 1.62 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 178.95 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY COM019 / L / Summary



Height of Room: 3.535 m, Maintenance factor: 0.80

Values in Lux, Scale 1:75

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	261	174	336	0.665
Floor	20	224	89	334	0.398
Ceiling	70	61	28	105	0.461
Walls (8)	50	116	28	347	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.446, Ceiling / Working Plane: 0.233.

Luminaire Parts List

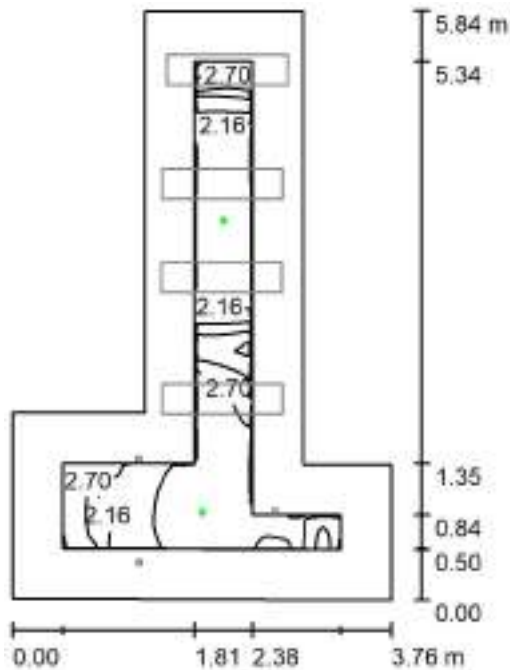
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
2	4	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
*Modified Technical Specifications			Total: 8054	Total: 9150	108.0

Specific connected load: $8.47 \text{ W/m}^2 = 3.25 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.75 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY COM019 / E / Summary



Height of Room: 3.535 m, Maintenance factor: 0.80

Values in Lux, Scale 1:75

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.38	1.42	4.12	0.597
Floor	20	2.23	0.98	4.25	0.439
Ceiling	70	0.17	0.00	5.10	0.002
Walls (8)	50	3.13	0.20	26	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.313, Ceiling / Working Plane: 0.071.

Luminaire Parts List

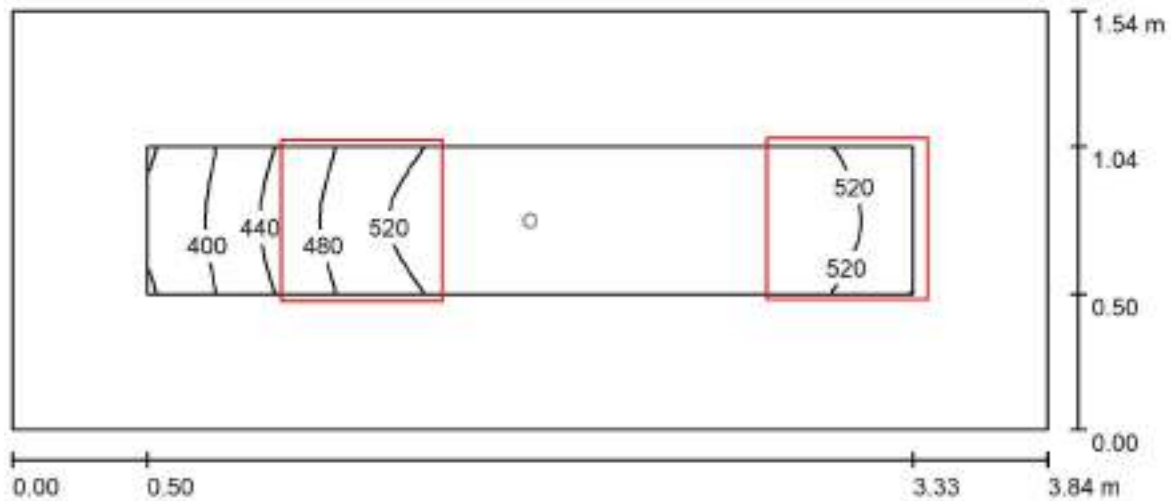
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			300	280	6.0

Specific connected load: $0.47 \text{ W/m}^2 = 19.75 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.75 m^2)



Operator
Telephone
Fax
e-Mail

HEARING AID REPAIR SERVICE ENT003 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:28

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	506	359	552	0.710
Floor	20	315	205	377	0.650
Ceiling	70	107	64	137	0.598
Walls (4)	50	227	81	501	/

Workplane:

Height: 0.750 m
Grid: 32 x 8 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.503, Ceiling / Working Plane: 0.211.

Luminaire Parts List

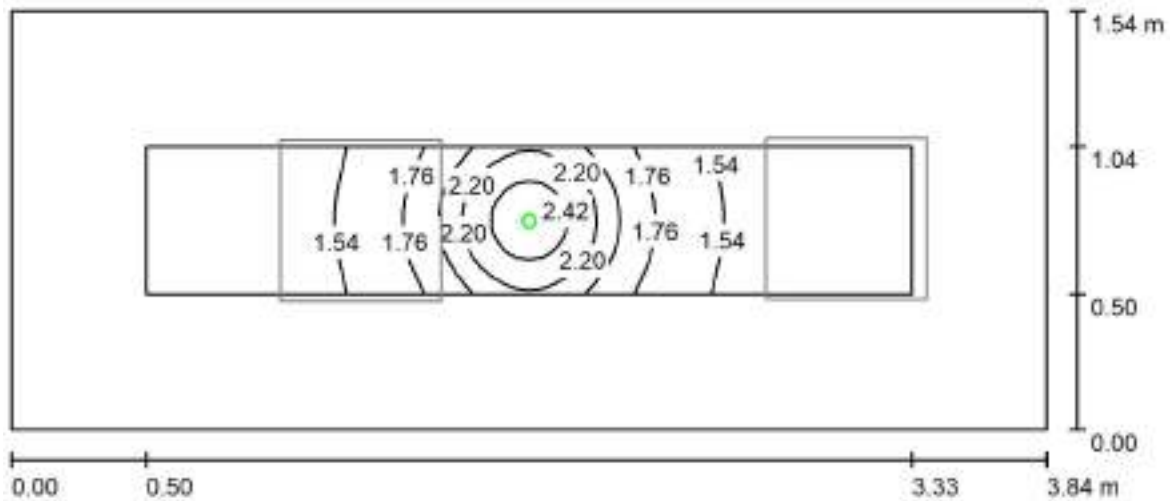
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $9.79 \text{ W/m}^2 = 1.94 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.93 m^2)



Operator
Telephone
Fax
e-Mail

HEARING AID REPAIR SERVICE ENT003 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:28

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.68	1.36	2.46	0.810
Floor	20	0.84	0.71	1.28	0.842
Ceiling	70	0.07	0.00	4.58	0.000
Walls (4)	50	4.20	0.16	89	/

Workplane:

Height: 0.750 m
Grid: 64 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 3.471, Ceiling / Working Plane: 0.041.

Luminaire Parts List

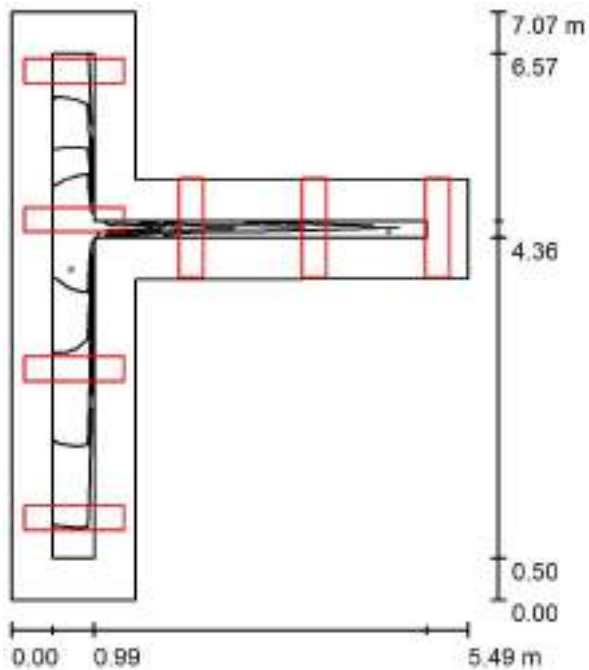
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.51 \text{ W/m}^2 = 30.09 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.93 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM 024 / L / Summary



Height of Room: 2.700 m, Mounting Height: 2.740 m, Maintenance factor: 0.80

Values in Lux, Scale 1:91

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	293	223	361	0.763
Floor	20	265	161	367	0.607
Ceiling	70	88	56	244	0.637
Walls (8)	50	176	70	1135	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.601, Ceiling / Working Plane: 0.301.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
2	3	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
Total:			11959	11967	126.0

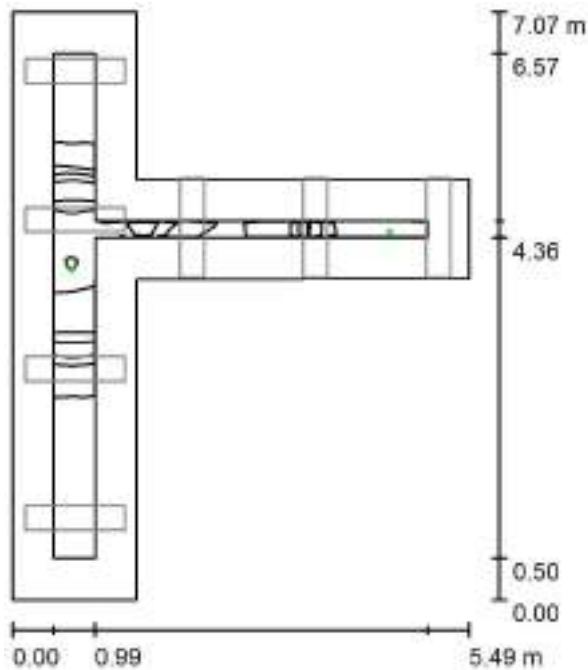
*Modified Technical Specifications

Specific connected load: $8.22 \text{ W/m}^2 = 2.81 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 15.33 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM 024 / E / Summary



Height of Room: 2.700 m, Mounting Height: 2.740 m, Maintenance factor: 0.80

Values in Lux, Scale 1:91

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.85	1.18	6.99	0.415
Floor	20	2.56	0.73	7.01	0.285
Ceiling	70	0.13	0.00	5.81	0.001
Walls (8)	50	2.97	0.07	97	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.047, Ceiling / Working Plane: 0.048.

Luminaire Parts List

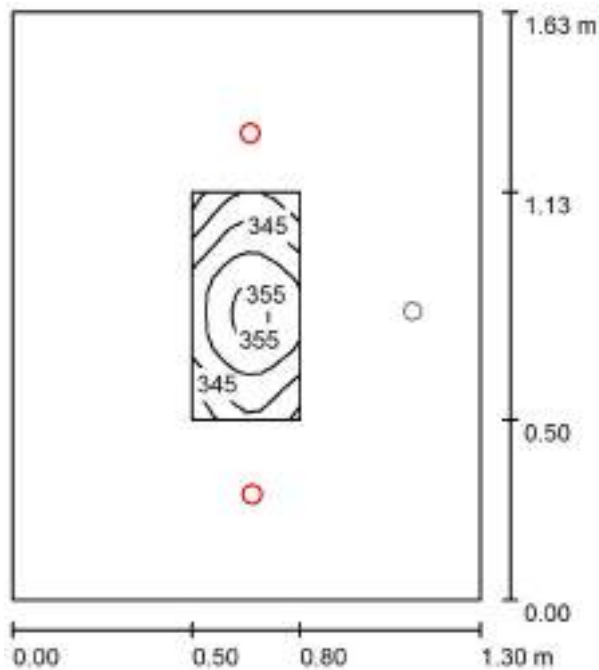
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			300	280	6.0

Specific connected load: $0.39 \text{ W/m}^2 = 13.74 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 15.33 m^2)



Operator
Telephone
Fax
e-Mail

WC ENT 008 / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:21

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	348	334	357	0.959
Floor	20	282	184	355	0.654
Ceiling	70	47	35	87	0.749
Walls (4)	50	105	38	403	/

Workplane:

Height: 0.000 m
Grid: 16 x 8 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.306, Ceiling / Working Plane: 0.134.

Luminaire Parts List

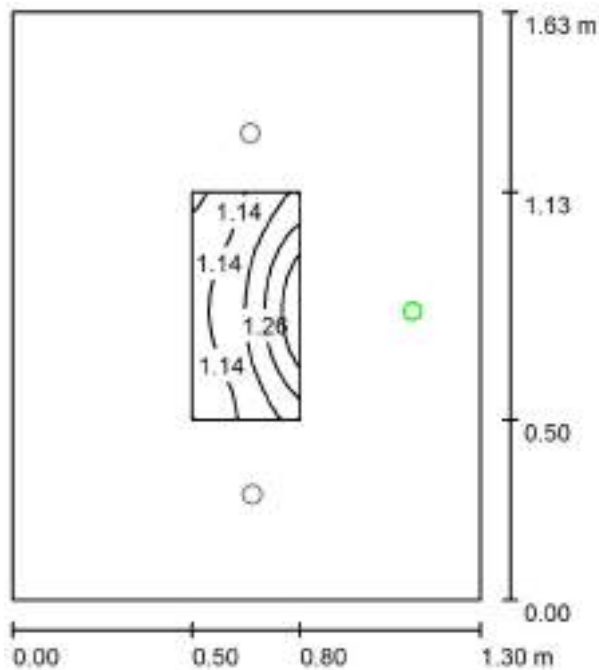
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			1572	2300	24.0

Specific connected load: $11.34 \text{ W/m}^2 = 3.26 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 2.12 m^2)



Operator
Telephone
Fax
e-Mail

WC ENT 008 / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:21

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	1.19	1.07	1.37	0.902
Floor	20	1.11	0.87	1.56	0.787
Ceiling	70	0.16	0.00	4.59	0.000
Walls (4)	50	8.18	0.08	506	/

Workplane:

Height: 0.000 m
Grid: 16 x 8 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 7.364, Ceiling / Working Plane: 0.137.

Luminaire Parts List

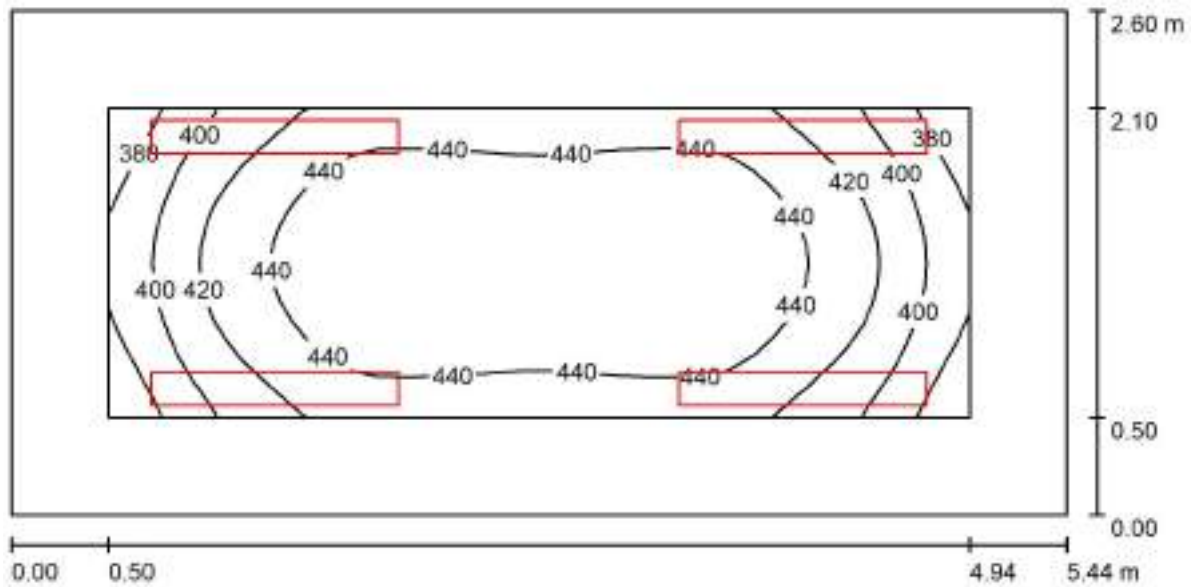
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $1.42 \text{ W/m}^2 = 119.18 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 2.12 m^2)



Operator
Telephone
Fax
e-Mail

Cafe Store Preparation ENT017 / L / Summary



Height of Room: 2.700 m, Mounting Height: 2.700 m, Maintenance factor: 0.70

Values in Lux, Scale 1:39

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	429	364	458	0.848
Floor	20	393	270	455	0.688
Ceiling	70	186	108	324	0.579
Walls (4)	50	316	157	695	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.736, Ceiling / Working Plane: 0.434.

Luminaire Parts List

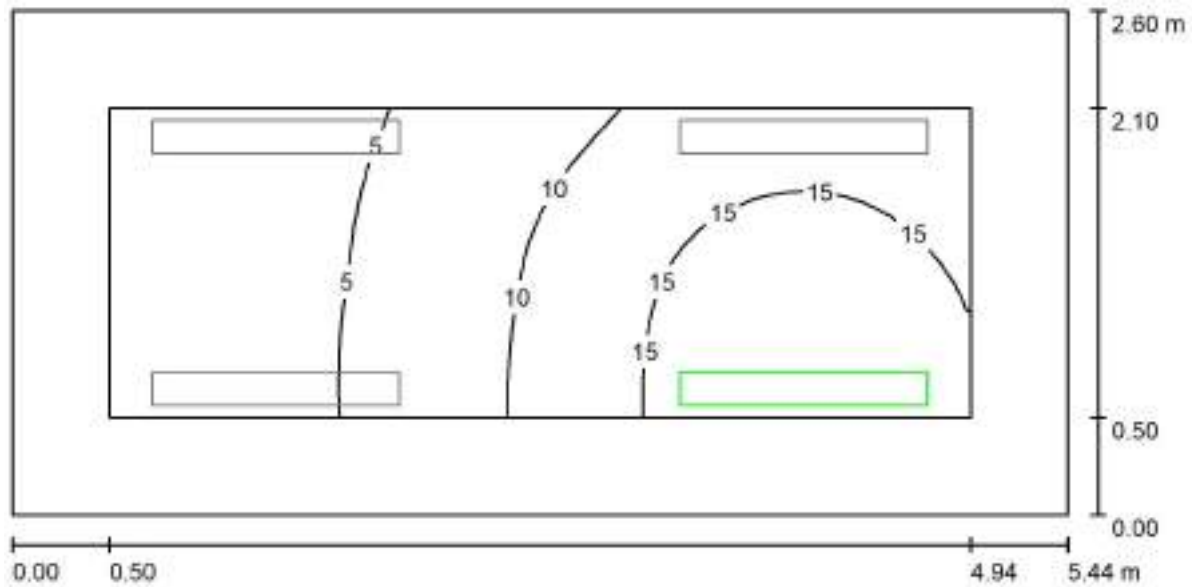
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			17352	17284	144.0

Specific connected load: $10.19 \text{ W/m}^2 = 2.37 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.14 m^2)



Operator
Telephone
Fax
e-Mail

Cafe Store Preparation ENT017 / E / Summary



Height of Room: 2.700 m, Mounting Height: 2.700 m, Maintenance factor: 0.70

Values in Lux, Scale 1:39

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	9.77	1.74	18	0.178
Floor	20	8.76	1.11	18	0.127
Ceiling	70	1.54	0.00	23	0.002
Walls (4)	50	6.44	0.04	68	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.659, Ceiling / Working Plane: 0.158.

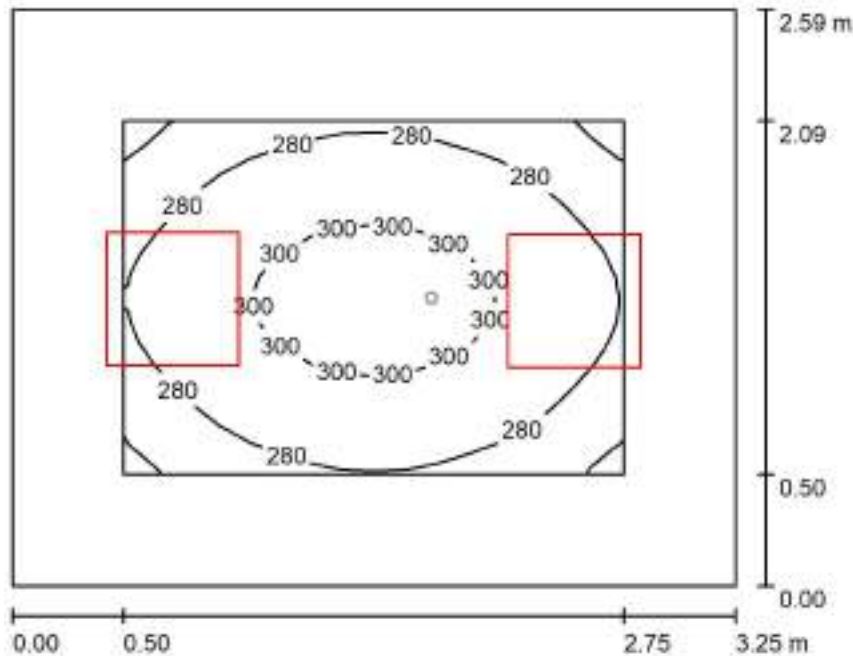
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			607	605	36.0

Specific connected load: $2.55 \text{ W/m}^2 = 26.06 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.14 m^2)

Operator
Telephone
Fax
e-Mail

Central Housekeeping Store FM 004 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.70

Values in Lux, Scale 1:34

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	287	253	308	0.882
Floor	20	256	184	307	0.716
Ceiling	70	70	50	90	0.723
Walls (4)	50	155	61	422	/

Workplane:

Height: 0.000 m
Grid: 16 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.540, Ceiling / Working Plane: 0.243.

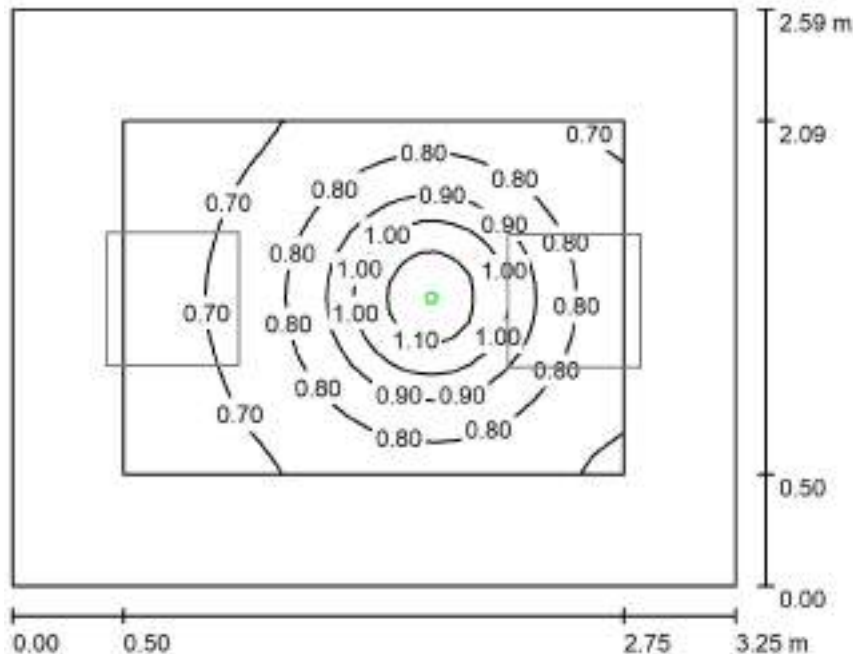
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $6.90 \text{ W/m}^2 = 2.41 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 8.41 m^2)

Operator
Telephone
Fax
e-Mail

Central Housekeeping Store FM 004 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.70

Values in Lux, Scale 1:34

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	0.80	0.62	1.12	0.779
Floor	20	0.72	0.62	1.12	0.866
Ceiling	70	0.04	0.00	4.03	0.000
Walls (4)	50	3.34	0.17	29	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.163, Ceiling / Working Plane: 0.056.

Luminaire Parts List

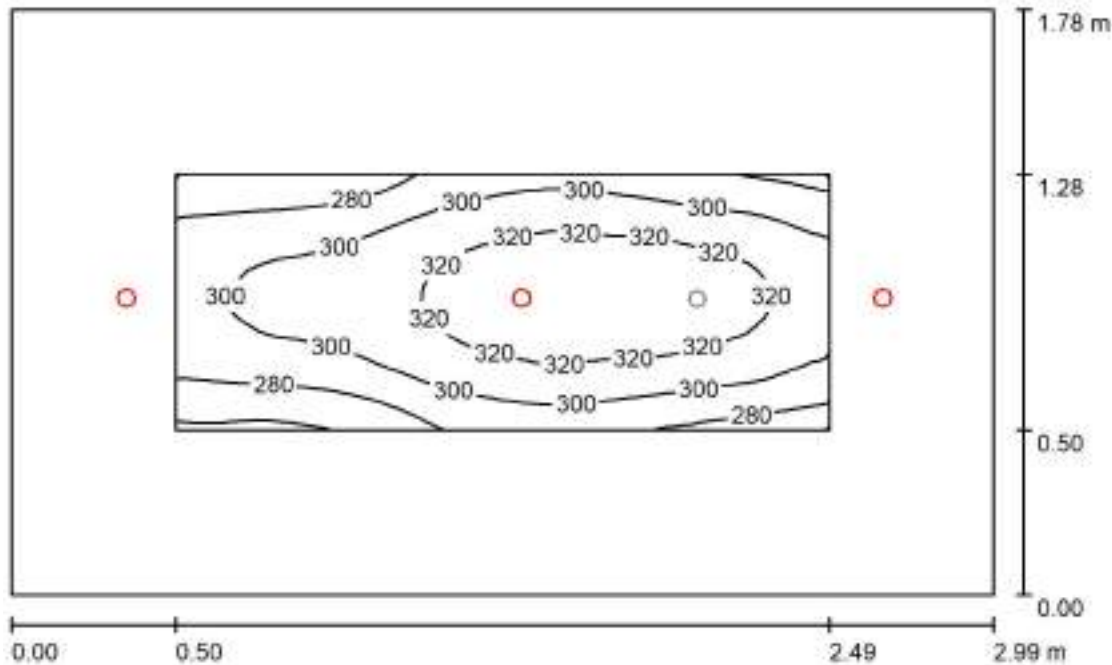
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.36 \text{ W/m}^2 = 44.82 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 8.41 m^2)



Operator
Telephone
Fax
e-Mail

WC A ENT 015 / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:23

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	303	256	334	0.844
Floor	20	239	125	333	0.525
Ceiling	70	34	26	57	0.759
Walls (4)	50	70	27	301	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.233, Ceiling / Working Plane: 0.112.

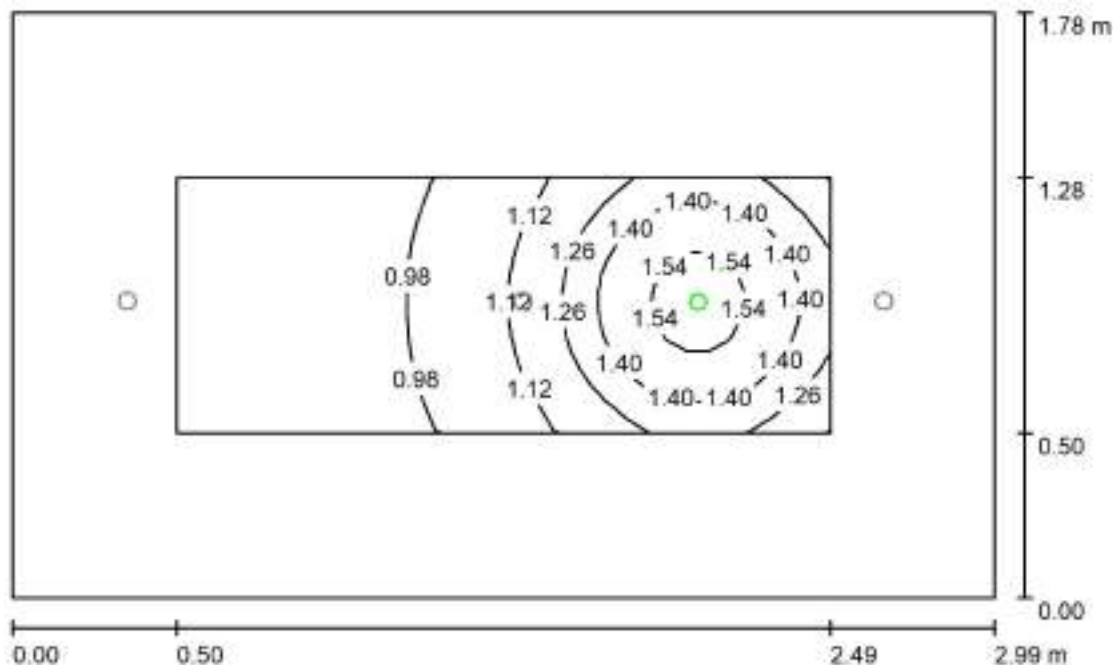
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			2358	3450	36.0

Specific connected load: $6.77 \text{ W/m}^2 = 2.23 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.32 m^2)

Operator
Telephone
Fax
e-Mail

WC A ENT 015 / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:23

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.14	0.86	1.56	0.755
Floor	20	1.02	0.86	1.56	0.843
Ceiling	70	0.08	0.00	4.58	0.000
Walls (4)	50	5.21	0.14	74	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.498, Ceiling / Working Plane: 0.068.

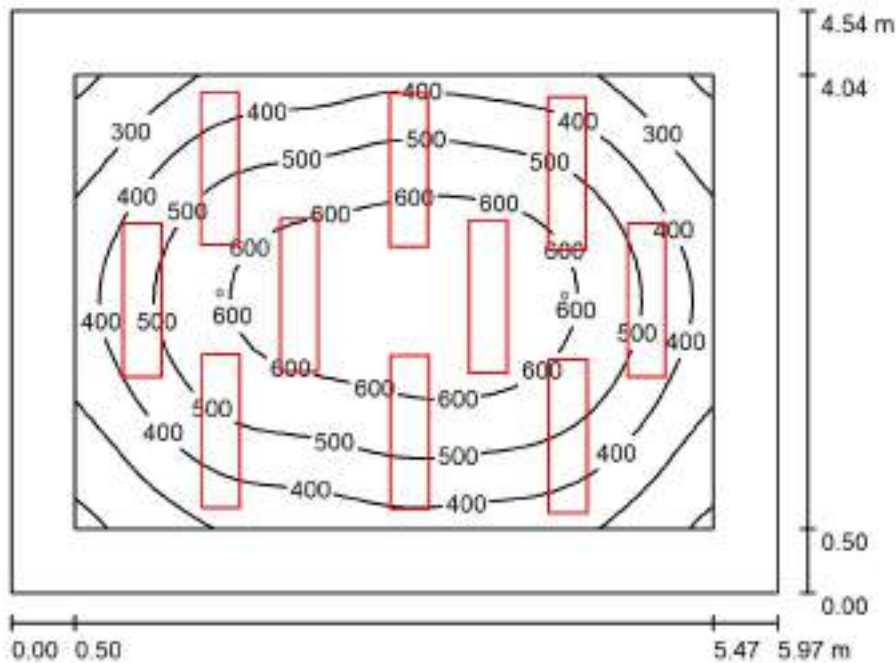
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
			Total: 159	Total: 140	3.0

Specific connected load: $0.56 \text{ W/m}^2 = 49.43 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.32 m^2)

Operator
Telephone
Fax
e-Mail

GROUP ROOM 02 CEG 002 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:59

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	471	183	680	0.387
Floor	20	337	137	540	0.405
Ceiling	70	63	44	73	0.699
Walls (4)	50	125	52	215	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.251, Ceiling / Working Plane: 0.135.

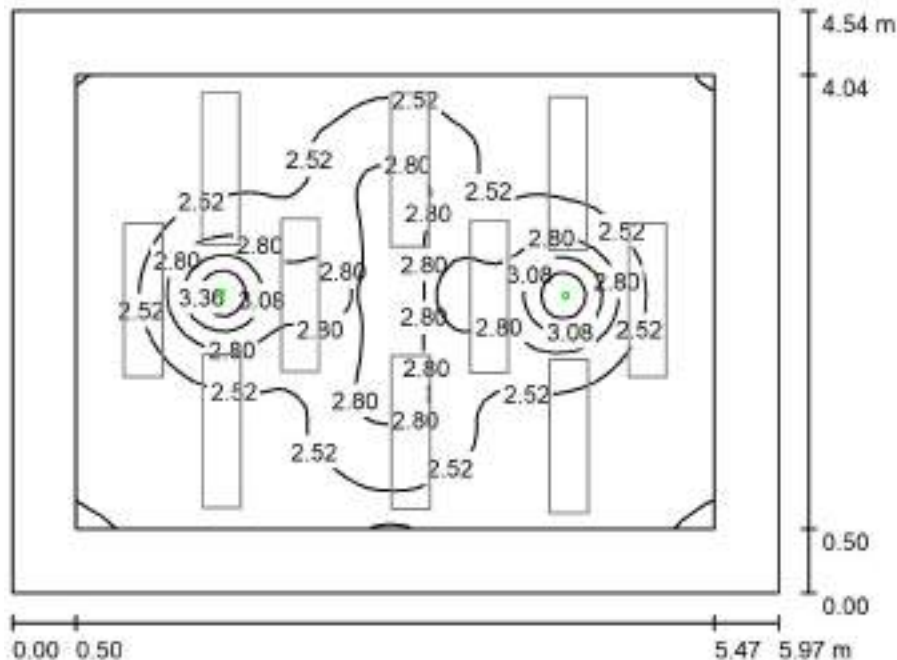
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	10	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
*Modified Technical Specifications			Total: 14240	Total: 14250	180.0

Specific connected load: $6.64 \text{ W/m}^2 = 1.41 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 27.10 m^2)

Operator
Telephone
Fax
e-Mail

GROUP ROOM 02 CEG 002 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:59

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.55	2.11	3.50	0.830
Floor	20	1.40	1.15	1.99	0.824
Ceiling	70	0.03	0.00	4.58	0.016
Walls (4)	50	3.81	0.19	21	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.844, Ceiling / Working Plane: 0.012.

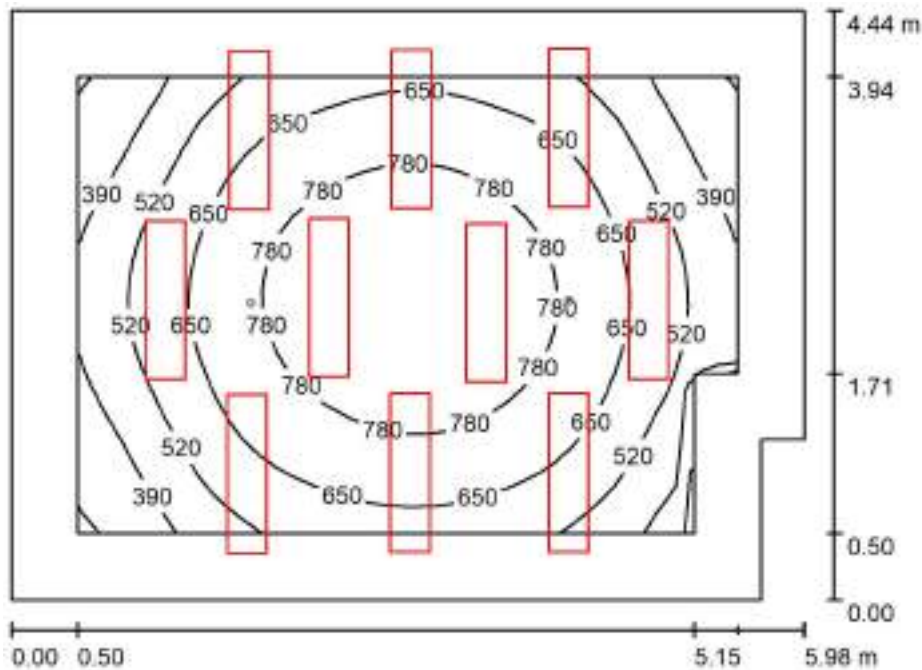
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			318	280	6.0

Specific connected load: $0.22 \text{ W/m}^2 = 8.69 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 27.10 m^2)

Operator
Telephone
Fax
e-Mail

GROUP ROOM 01 CEG 001 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:57

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	631	248	878	0.393
Floor	20	458	185	721	0.404
Ceiling	70	90	61	114	0.671
Walls (6)	50	180	70	344	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.277, Ceiling / Working Plane: 0.143.

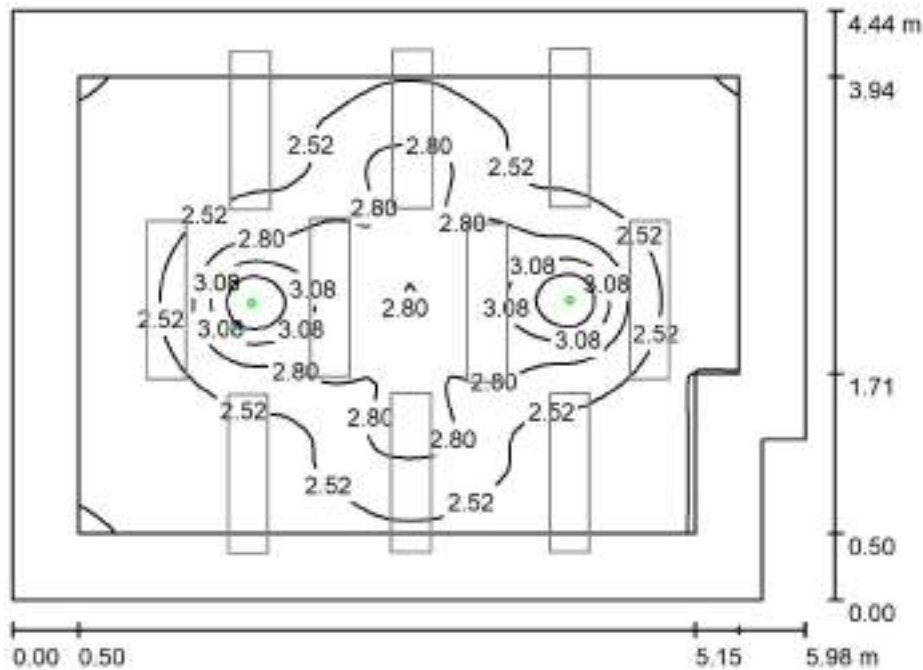
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	10	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1922	1923	18.0
*Modified Technical Specifications			Total: 19217	Total: 19230	180.0

Specific connected load: $6.89 \text{ W/m}^2 = 1.09 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 26.14 m^2)

Operator
Telephone
Fax
e-Mail

GROUP ROOM 01 CEG 001 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:57

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	2.59	2.12	3.55	0.821
Floor	20	1.41	1.13	2.01	0.799
Ceiling	70	0.03	0.00	4.60	0.016
Walls (6)	50	3.86	0.20	18	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.844, Ceiling / Working Plane: 0.013.

Luminaire Parts List

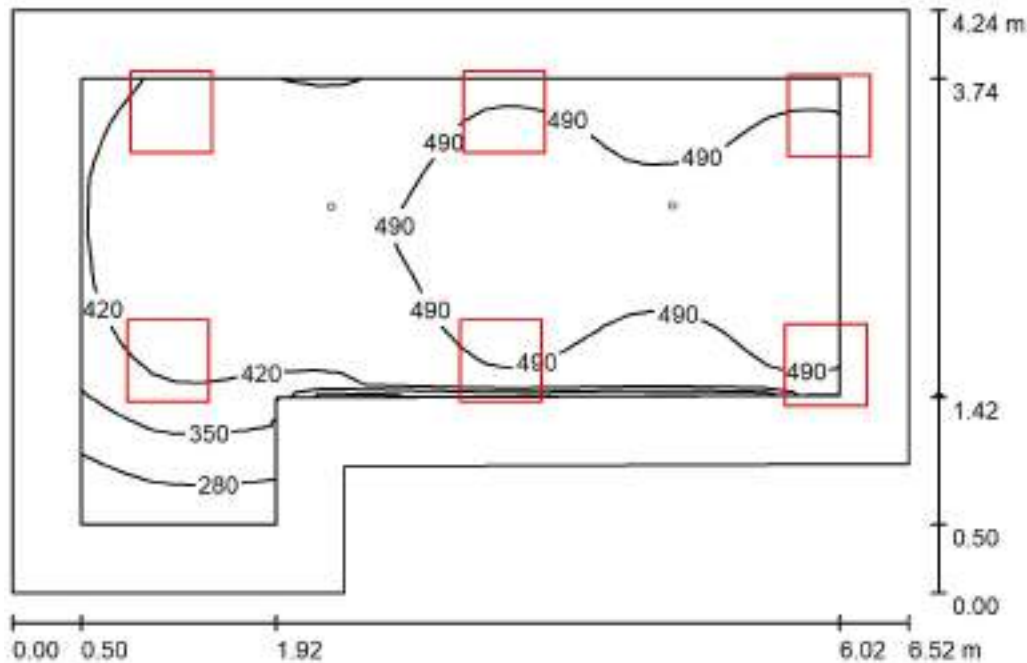
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			318	280	6.0

Specific connected load: $0.23 \text{ W/m}^2 = 8.87 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 26.14 m^2)



Operator
Telephone
Fax
e-Mail

CENTRAL WASTE FM005 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.70

Values in Lux, Scale 1:55

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	461	215	525	0.465
Floor	20	354	143	454	0.404
Ceiling	70	89	47	160	0.525
Walls (6)	50	195	56	647	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.451, Ceiling / Working Plane: 0.192.

Luminaire Parts List

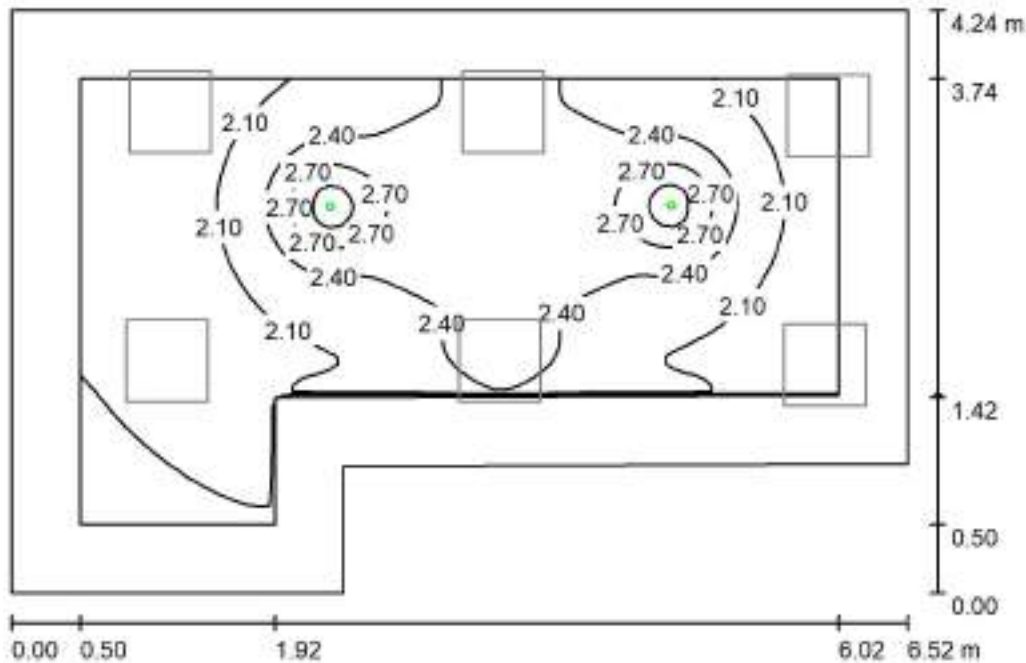
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			18658	18759	174.0

Specific connected load: $7.31 \text{ W/m}^2 = 1.58 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 23.81 m^2)



Operator
Telephone
Fax
e-Mail

CENTRAL WASTE FM005 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.70

Values in Lux, Scale 1:55

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	2.24	1.59	3.08	0.710
Floor	20	1.21	0.55	1.75	0.453
Ceiling	70	0.03	0.00	4.03	0.009
Walls (6)	50	3.34	0.01	25	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.881, Ceiling / Working Plane: 0.014.

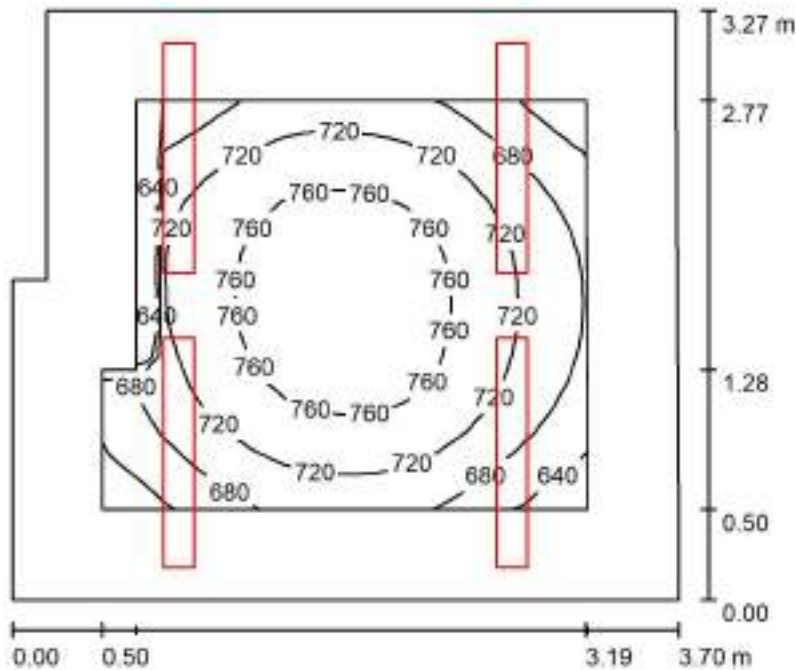
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			318	280	6.0

Specific connected load: $0.25 \text{ W/m}^2 = 11.24 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 23.81 m^2)

Operator
Telephone
Fax
e-Mail

IT HUB SHA 034 / L / Summary



Height of Room: 4.500 m, Mounting Height: 2.600 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	721	607	789	0.841
Floor	20	499	339	602	0.680
Ceiling	70	105	86	136	0.823
Walls (6)	50	281	70	934	/

Workplane:

Height: 0.750 m
Grid: 16 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.387, Ceiling / Working Plane: 0.145.

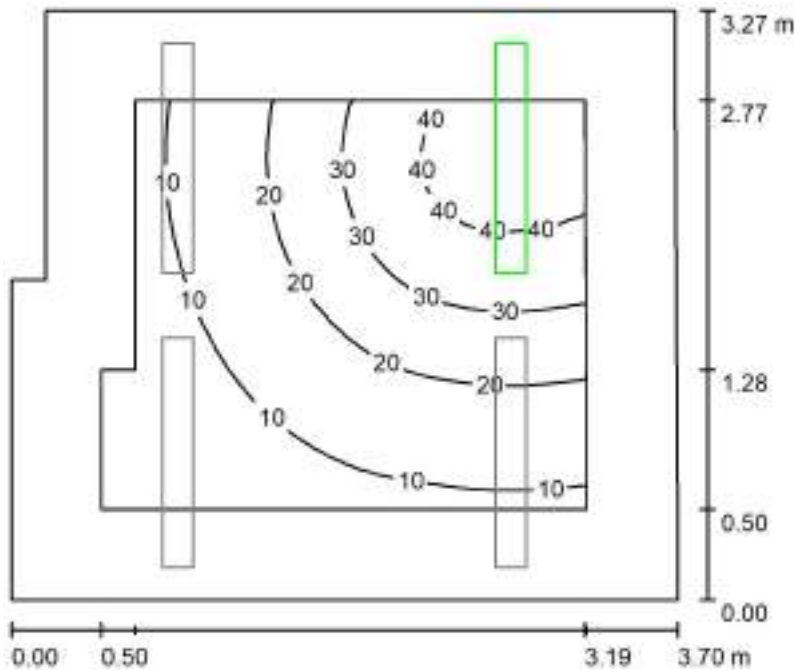
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			17352	17284	144.0

Specific connected load: $12.22 \text{ W/m}^2 = 1.69 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.79 m^2)

Operator
Telephone
Fax
e-Mail

IT HUB SHA 034 / E / Summary



Height of Room: 4.500 m, Mounting Height: 2.600 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	20	3.35	44	0.166
Floor	20	12	2.39	22	0.195
Ceiling	70	0.17	0.04	0.38	0.249
Walls (6)	50	5.43	0.00	109	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.268, Ceiling / Working Plane: 0.009.

Luminaire Parts List

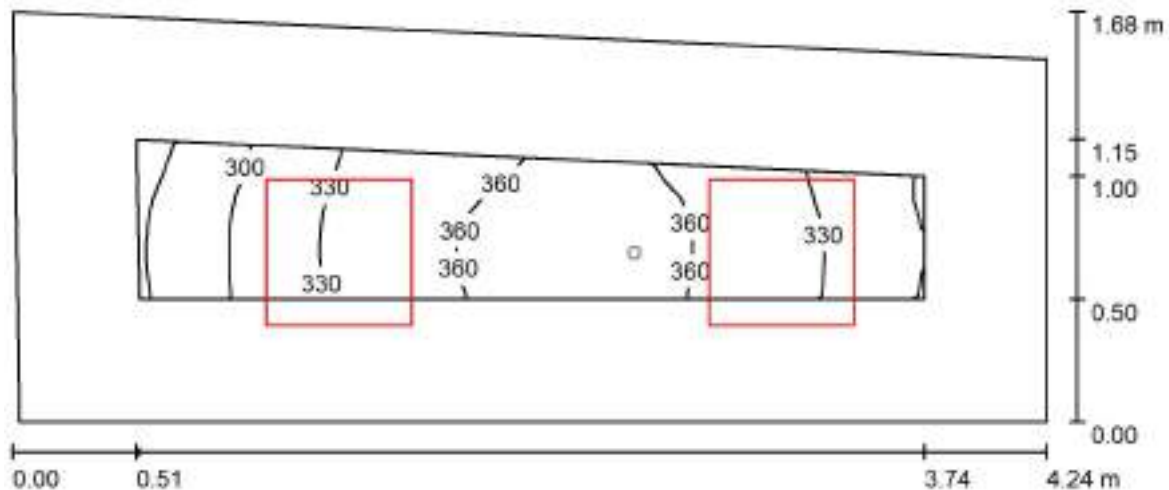
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			607	605	36.0

Specific connected load: $3.05 \text{ W/m}^2 = 15.11 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.79 m^2)



Operator
Telephone
Fax
e-Mail

CLEANERS ROOM SHA 035 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:31

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	335	259	368	0.775
Floor	20	300	190	368	0.634
Ceiling	70	96	60	123	0.624
Walls (4)	50	204	74	535	/

Workplane:

Height: 0.000 m
Grid: 32 x 8 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.609, Ceiling / Working Plane: 0.287.

Luminaire Parts List

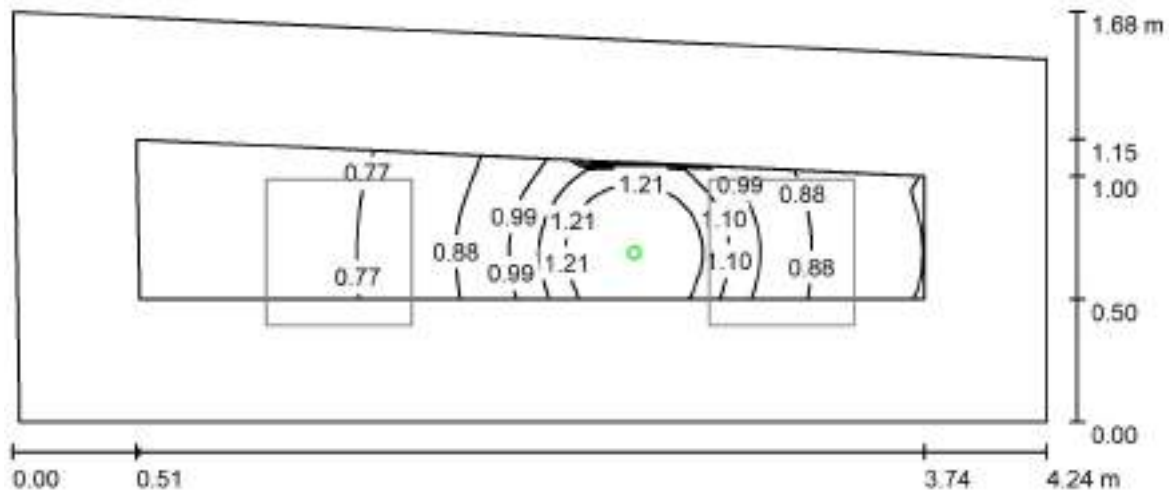
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $8.69 \text{ W/m}^2 = 2.60 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.67 m^2)



Operator
Telephone
Fax
e-Mail

CLEANERS ROOM SHA 035 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:31

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	0.91	0.71	1.28	0.781
Floor	20	0.83	0.70	1.28	0.839
Ceiling	70	0.06	0.00	4.60	0.000
Walls (4)	50	3.88	0.07	107	/

Workplane:

Height: 0.000 m
Grid: 64 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.174, Ceiling / Working Plane: 0.070.

Luminaire Parts List

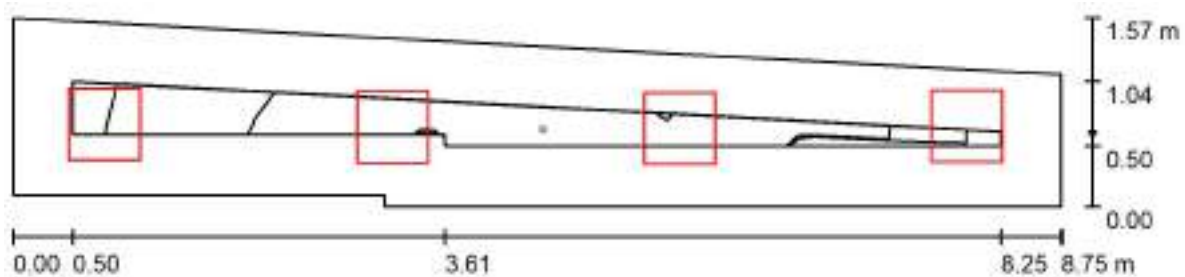
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.45 \text{ W/m}^2 = 49.53 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.67 m^2)



Operator
Telephone
Fax
e-Mail

EQUIPMENT STORE LGT 005 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:63

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	344	306	362	0.888
Floor	20	325	236	361	0.726
Ceiling	70	118	88	187	0.741
Walls (6)	50	243	109	1014	/

Workplane:

Height: 0.000 m
Grid: 64 x 4 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.704, Ceiling / Working Plane: 0.343.

Luminaire Parts List

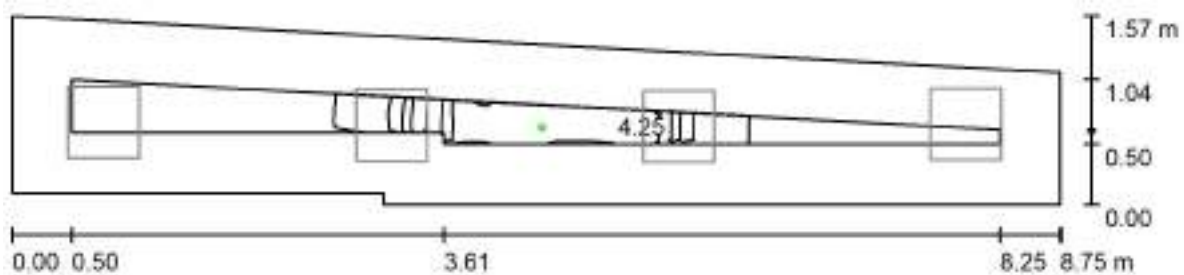
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			12439	12506	116.0

Specific connected load: $10.18 \text{ W/m}^2 = 2.96 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.39 m^2)



Operator
Telephone
Fax
e-Mail

EQUIPMENT STORE LGT 005 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:63

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.15	1.19	5.44	0.553
Floor	20	1.93	0.71	5.58	0.369
Ceiling	70	0.09	0.00	5.68	0.000
Walls (6)	50	1.80	0.04	32	/

Workplane:

Height: 0.000 m
Grid: 128 x 8 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.836, Ceiling / Working Plane: 0.042.

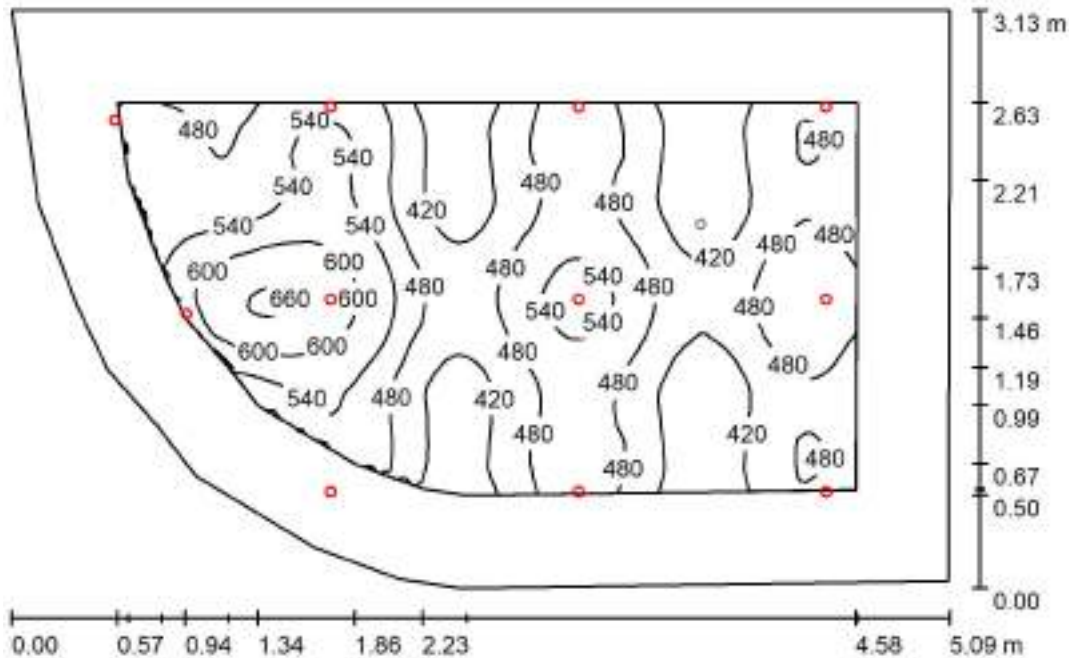
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.26 \text{ W/m}^2 = 12.25 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.39 m^2)

Operator
Telephone
Fax
e-Mail

RECEPTION ENT 001 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:41

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	484	375	670	0.774
Floor	20	384	185	525	0.483
Ceiling	70	60	46	105	0.756
Walls (11)	50	115	51	393	/

Workplane:

Height: 0.750 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.231, Ceiling / Working Plane: 0.125.

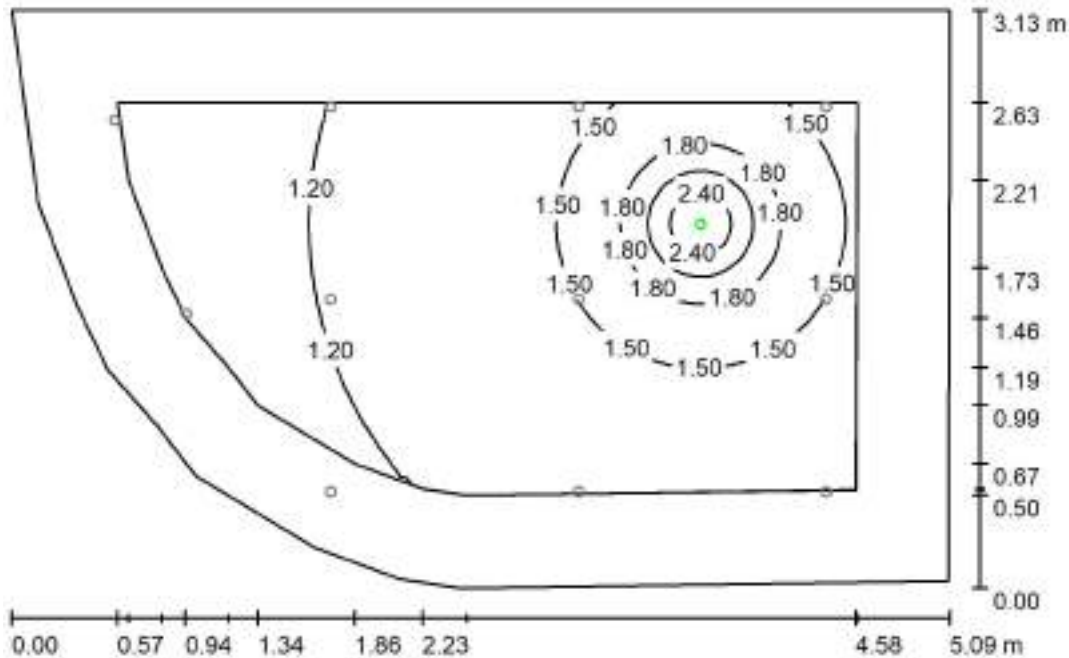
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	11	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			8646	12650	132.0

Specific connected load: $9.37 \text{ W/m}^2 = 1.93 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.09 m^2)

Operator
Telephone
Fax
e-Mail

RECEPTION ENT 001 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:41

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.42	0.94	2.46	0.660
Floor	20	0.76	0.52	1.28	0.683
Ceiling	70	0.03	0.00	4.28	0.000
Walls (11)	50	2.84	0.04	40	/

Workplane:

Height: 0.750 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.646, Ceiling / Working Plane: 0.020.

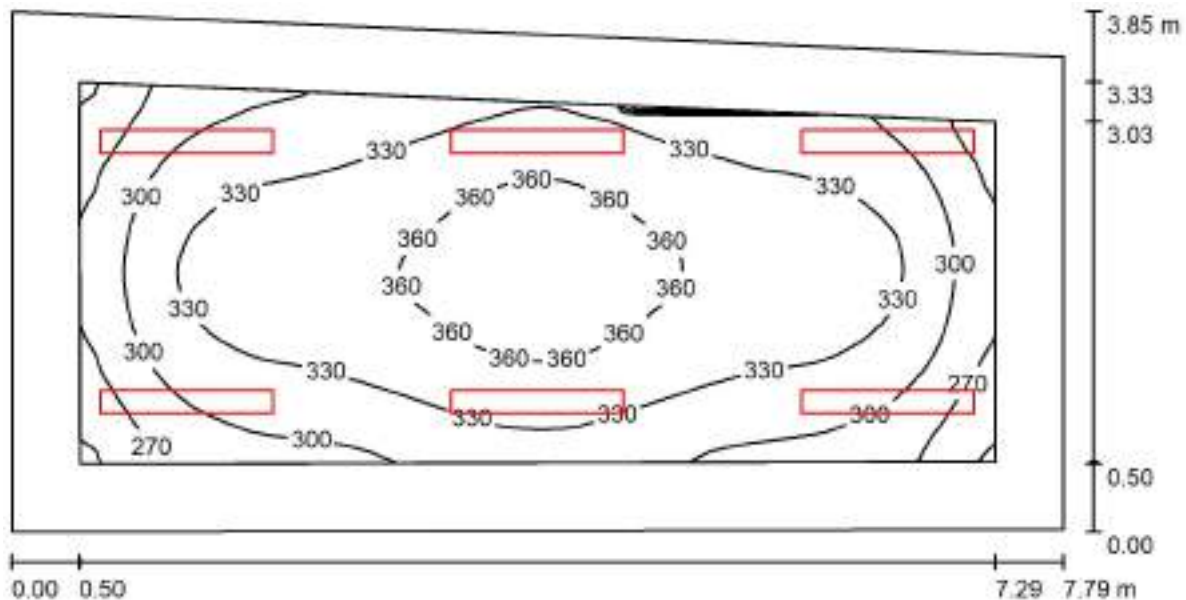
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.21 \text{ W/m}^2 = 14.97 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.09 m^2)

Operator
Telephone
Fax
e-Mail

Medical Gas and Gas Cylinder PLT 021 / L / Summary



Height of Room: 4.400 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:56

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	325	236	381	0.725
Floor	20	297	169	379	0.569
Ceiling	30	41	30	50	0.743
Walls (4)	27	144	27	537	/

Workplane:

Height: 0.000 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.442, Ceiling / Working Plane: 0.126.

Luminaire Parts List

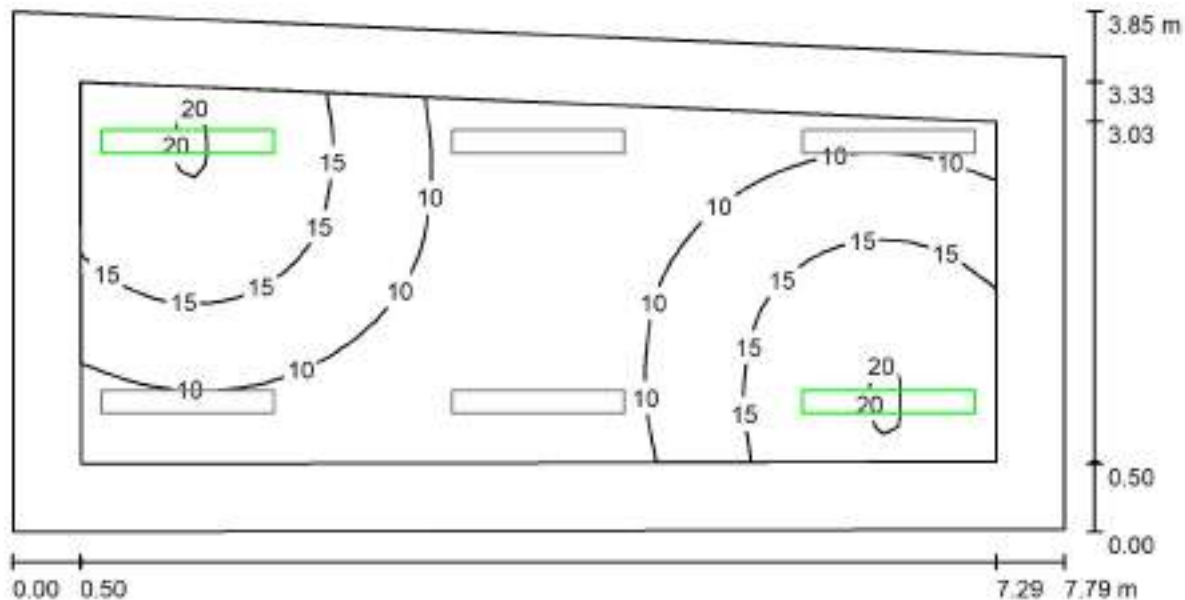
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	2	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			26027	25926	216.0

Specific connected load: $7.55 \text{ W/m}^2 = 2.32 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 28.60 m^2)



Operator
Telephone
Fax
e-Mail

Medical Gas and Gas Cylinder PLT 021 / E / Summary



Height of Room: 4.400 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:56

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	12	5.69	20	0.469
Floor	20	11	3.50	20	0.306
Ceiling	30	0.20	0.08	0.38	0.378
Walls (4)	27	5.14	0.08	41	/

Workplane:

Height: 0.000 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.423, Ceiling / Working Plane: 0.016.

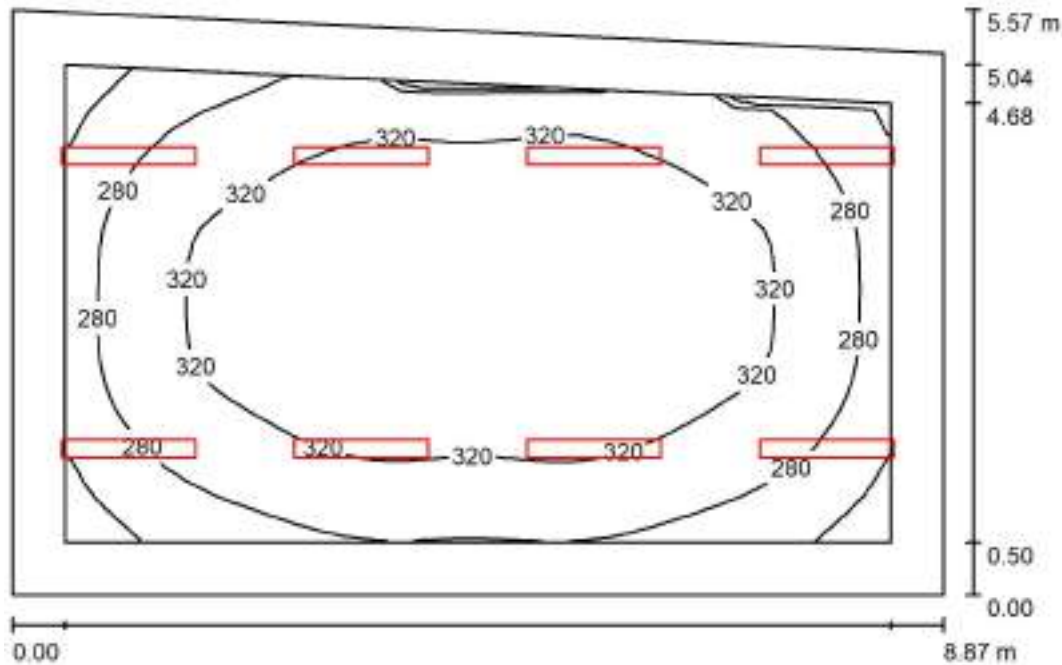
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			1215	1210	72.0

Specific connected load: $2.52 \text{ W/m}^2 = 20.72 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 28.60 m^2)

Operator
Telephone
Fax
e-Mail

Loading Bay Receipt & Distribution LGT 002 / L / Summary



Height of Room: 4.400 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:72

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	311	210	361	0.677
Floor	20	288	153	362	0.533
Ceiling	30	44	30	55	0.695
Walls (4)	27	130	29	309	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.417, Ceiling / Working Plane: 0.141.

Luminaire Parts List

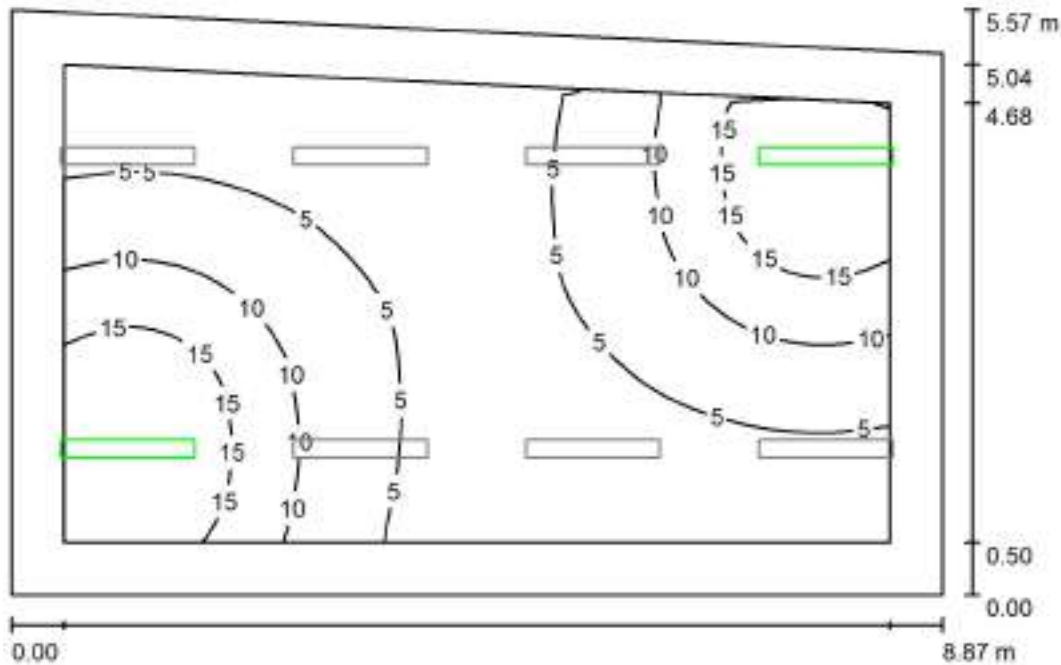
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	6	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			34703	34568	288.0

Specific connected load: $6.06 \text{ W/m}^2 = 1.95 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 47.54 m^2)



Operator
Telephone
Fax
e-Mail

Loading Bay Receipt & Distribution LGT 002 / E / Summary



Height of Room: 4.400 m, Mounting Height: 2.600 m, Maintenance factor: 0.70

Values in Lux, Scale 1:72

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	7.95	2.18	20	0.274
Floor	20	7.80	1.47	20	0.189
Ceiling	30	0.18	0.08	0.38	0.442
Walls (4)	27	3.76	0.08	34	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.471, Ceiling / Working Plane: 0.023.

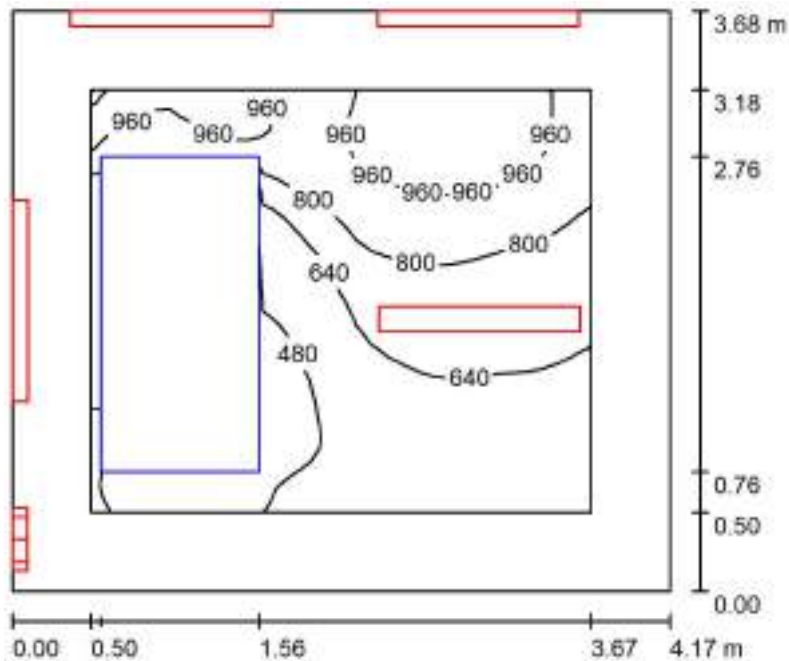
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			1215	1210	72.0

Specific connected load: $1.51 \text{ W/m}^2 = 19.05 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 47.54 m^2)

Operator
Telephone
Fax
e-Mail

UKPN Substation / Summary



Height of Room: 3.485 m, Maintenance factor: 0.80

Values in Lux, Scale 1:48

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	726	325	1099	0.447
Floor	20	425	40	679	0.093
Ceiling	70	592	335	1042	0.567
Walls (4)	50	524	114	2467	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.813, Ceiling / Working Plane: 0.817.

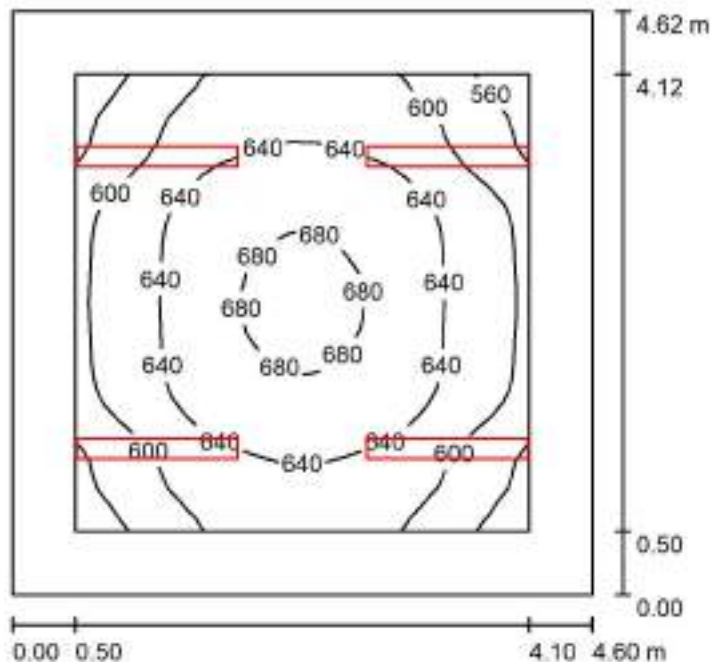
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT ACFH254P ACF DURALITE (1.000)	7752	8900	118.6
2	2	WHITECROFT ACFH254P ACF DURALITE (1.000)	7752	8900	118.6
3	1	WHITECROFT K6H4274KS KOLO IP65 (1.000)	2705	2705	28.0
Total:			33713	38305	502.4

Specific connected load: $32.72 \text{ W/m}^2 = 4.51 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 15.35 m^2)

Operator
Telephone
Fax
e-Mail

UKPN Intake room / Summary



Height of Room: 3.485 m, Mounting Height: 3.485 m, Maintenance factor: 0.80

Values in Lux, Scale 1:60

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	628	534	685	0.851
Floor	20	472	357	548	0.756
Ceiling	70	325	205	676	0.632
Walls (4)	50	455	229	822	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

UGR

Lengthways-
Left Wall <10
Lower Wall <10
(CIE, SHR = 1.00.)

Across

to luminaire axis

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.799, Ceiling / Working Plane: 0.518.

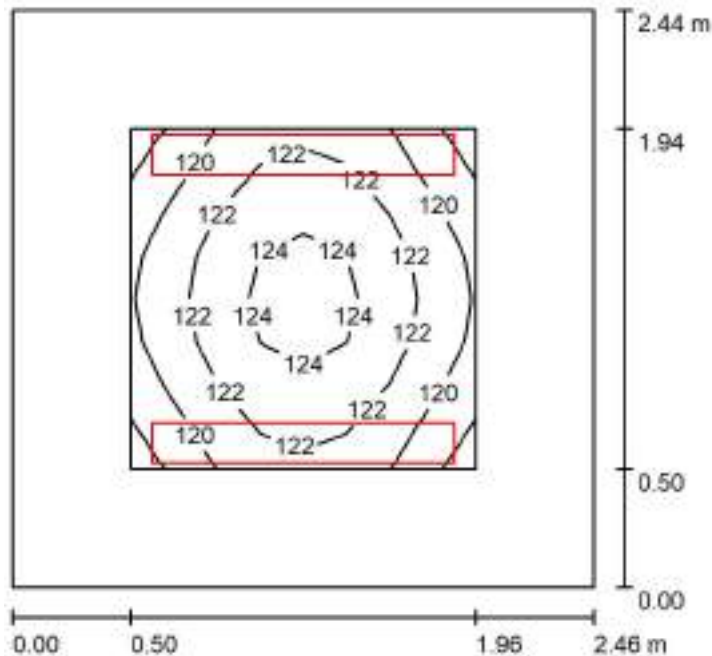
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT ACFH254P ACF DURALITE (1.000)	7752	8900	118.6
Total:			31008	35600	474.4

Specific connected load: $22.31 \text{ W/m}^2 = 3.56 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 21.26 m^2)

Operator
Telephone
Fax
e-Mail

GAS METER PLT 022 / L / Summary



Height of Room: 4.400 m, Mounting Height: 4.400 m, Maintenance factor: 0.70

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	122	117	125	0.965
Floor	20	114	101	124	0.886
Ceiling	30	107	48	233	0.446
Walls (4)	27	160	45	640	/

Workplane:

Height: 0.000 m
Grid: 8 x 8 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.317, Ceiling / Working Plane: 0.882.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			8676	8642	72.0

Specific connected load: $12.00 \text{ W/m}^2 = 9.86 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.00 m^2)



Operator
Telephone
Fax
e-Mail

GAS METER PLT 022 / L / Photometric Results

Total Luminous Flux: 8676 lm
Total Load: 72.0 W
Maintenance factor: 0.70
Boundary Zone: 0.500 m

Surface	Average illuminances [lx]			Reflection factor [%]	Average luminance [cd/m²]
	direct	indirect	total		
Workplane	94	28	122	/	/
Floor	88	26	114	20	7.26
Ceiling	50	57	107	30	10
Wall 1	139	38	177	27	15
Wall 2	104	39	143	27	12
Wall 3	139	38	177	27	15
Wall 4	104	39	143	27	12

Uniformity on the working plane

u0: 0.965 (1:1)

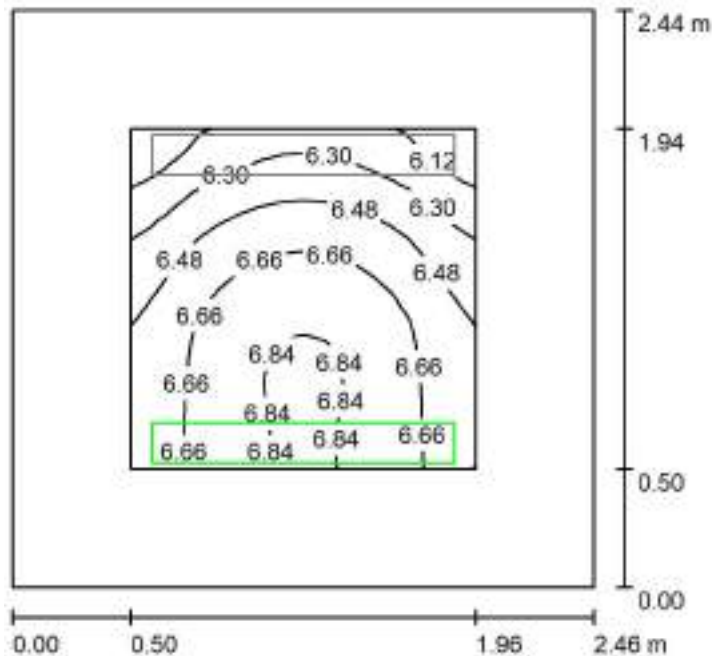
E_{min} / E_{max}: 0.938 (1:1)

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.317, Ceiling / Working Plane: 0.882.

Specific connected load: 12.00 W/m² = 9.86 W/m²/100 lx (Ground area: 6.00 m²)

Operator
Telephone
Fax
e-Mail

GAS METER PLT 022 / E / Summary



Height of Room: 4.400 m, Mounting Height: 4.400 m, Maintenance factor: 0.70

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	6.56	5.97	6.88	0.909
Floor	20	6.19	4.85	6.88	0.784
Ceiling	30	3.52	0.14	23	0.039
Walls (4)	27	8.51	0.90	74	/

Workplane:

Height: 0.000 m
Grid: 16 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.300, Ceiling / Working Plane: 0.537.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			607	605	36.0

Specific connected load: $6.00 \text{ W/m}^2 = 91.44 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.00 m^2)



Operator
Telephone
Fax
e-Mail

GAS METER PLT 022 / E / Photometric Results

Total Luminous Flux: 607 lm
Total Load: 36.0 W
Maintenance factor: 0.70
Boundary Zone: 0.500 m

Surface	Average illuminances [lx]			Reflection factor [%]	Average luminance [cd/m²]
	direct	indirect	total		
Workplane	6.56	0.00	6.56	/	/
Floor	6.19	0.00	6.19	20	0.39
Ceiling	3.52	0.00	3.52	30	0.34
Wall 1	13	0.00	13	27	1.14
Wall 2	7.28	0.00	7.28	27	0.63
Wall 3	6.25	0.00	6.25	27	0.54
Wall 4	7.28	0.00	7.28	27	0.63

Uniformity on the working plane
u₀: 0.909 (1:1)
E_{min} / E_{max}: 0.867 (1:1)

Emergency lighting scene (EN 1838):
Only direct light is calculated. Contributions of reflected light are ignored.

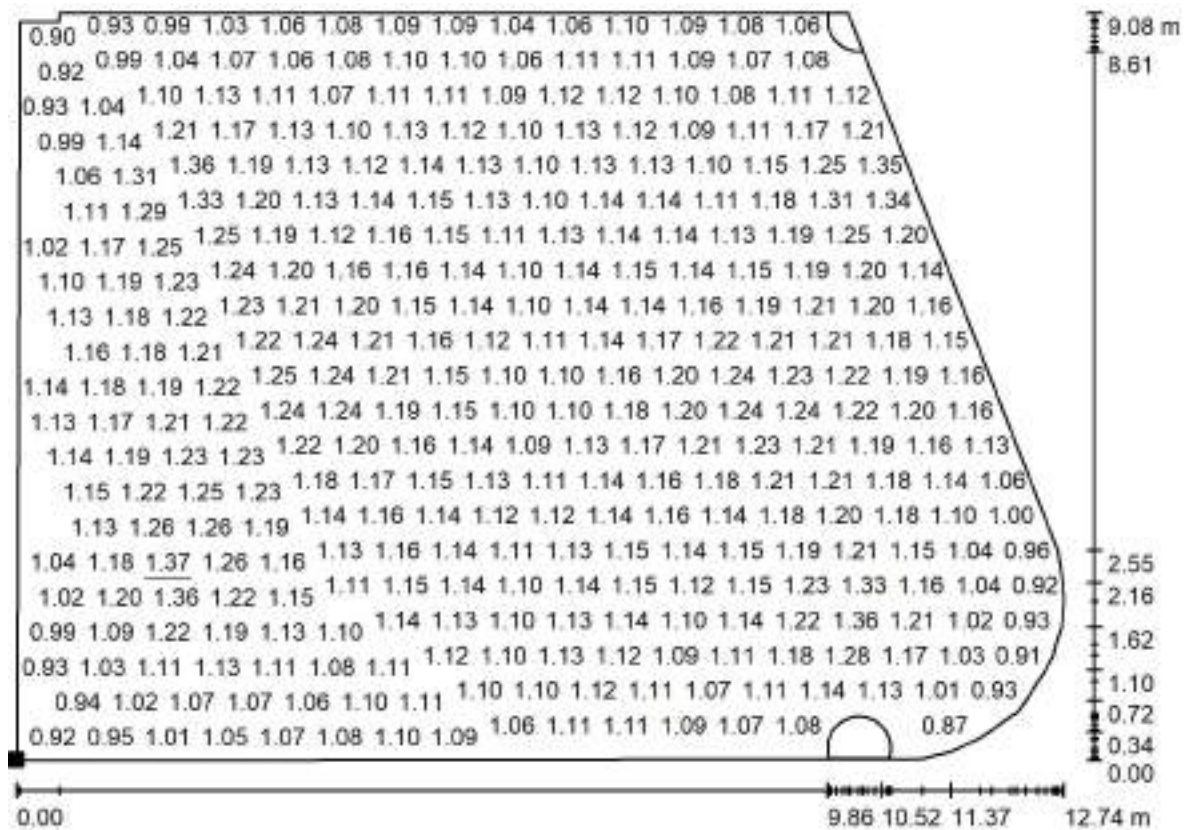
Illuminance Quotient (according to LG7): Walls / Working Plane: 1.300, Ceiling / Working Plane: 0.537.

Specific connected load: 6.00 W/m² = 91.44 W/m²/100 lx (Ground area: 6.00 m²)



Operator
Telephone
Fax
e-Mail

Waiting and Cafe ENT002 / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



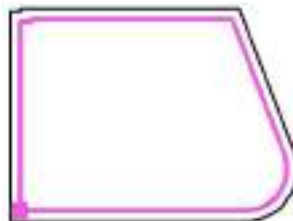
Values in Lux, Scale 1 : 92

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(-0.872 m, -8.499 m, 0.000 m)



Grid: 128 x 128 Points

E_{av} [lx]
1.13

E_{min} [lx]
0.57

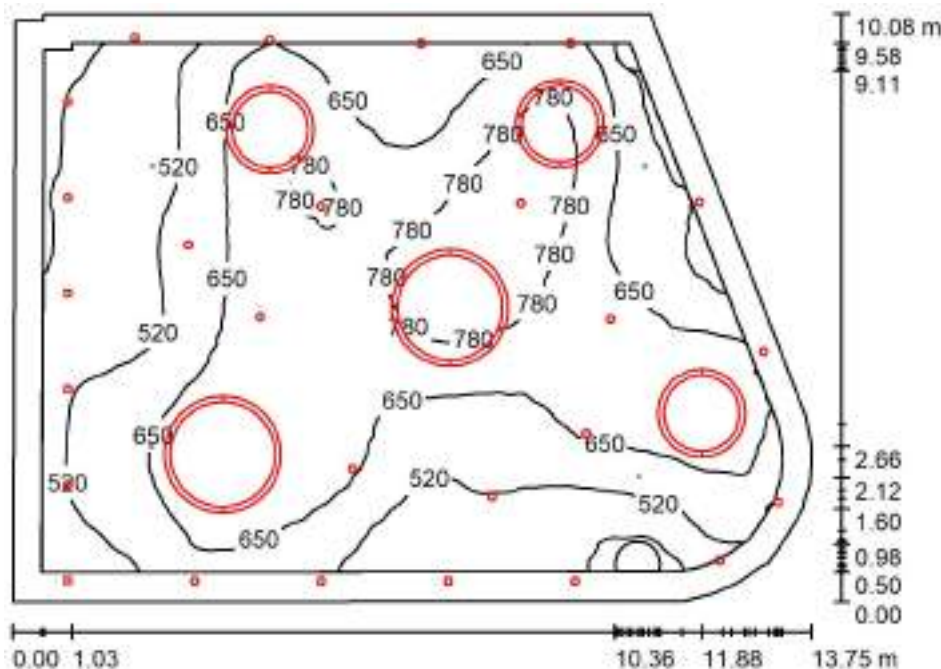
E_{max} [lx]
1.37

u_0
0.500

E_{min} / E_{max}
0.412

Operator
Telephone
Fax
e-Mail

Waiting and Cafe ENT002 (NEW) / L / Summary



Height of Room: 3.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	629	287	888	0.456
Floor	20	596	67	890	0.112
Ceiling	70	109	67	156	0.613
Walls (20)	50	198	46	626	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.304, Ceiling / Working Plane: 0.174.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	LIGHTNET RG10SE-840M-D1500-US Ringo-Star-G1 (1.000)	12784	12784	141.6
2	2	LIGHTNET RG10SE-840M-D2000-US Ringo-Star-G1 (1.000)	17048	17048	188.0
3	26	WHITECROFT CNXH14K CONCERT XL (1.000)	1179	1162	13.2
Total:			103094	102660	1144.0

Specific connected load: $9.02 \text{ W/m}^2 = 1.43 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 126.78 m^2)



UCLH Phase 5 - REV 4

Installation : Ground

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 09.10.2018

Project description:
WLL Sample lighting calculations to areas as requested.

Calculation parameters:

Standard reflectances:
70% Ceiling / 50% Wall / 20% Floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

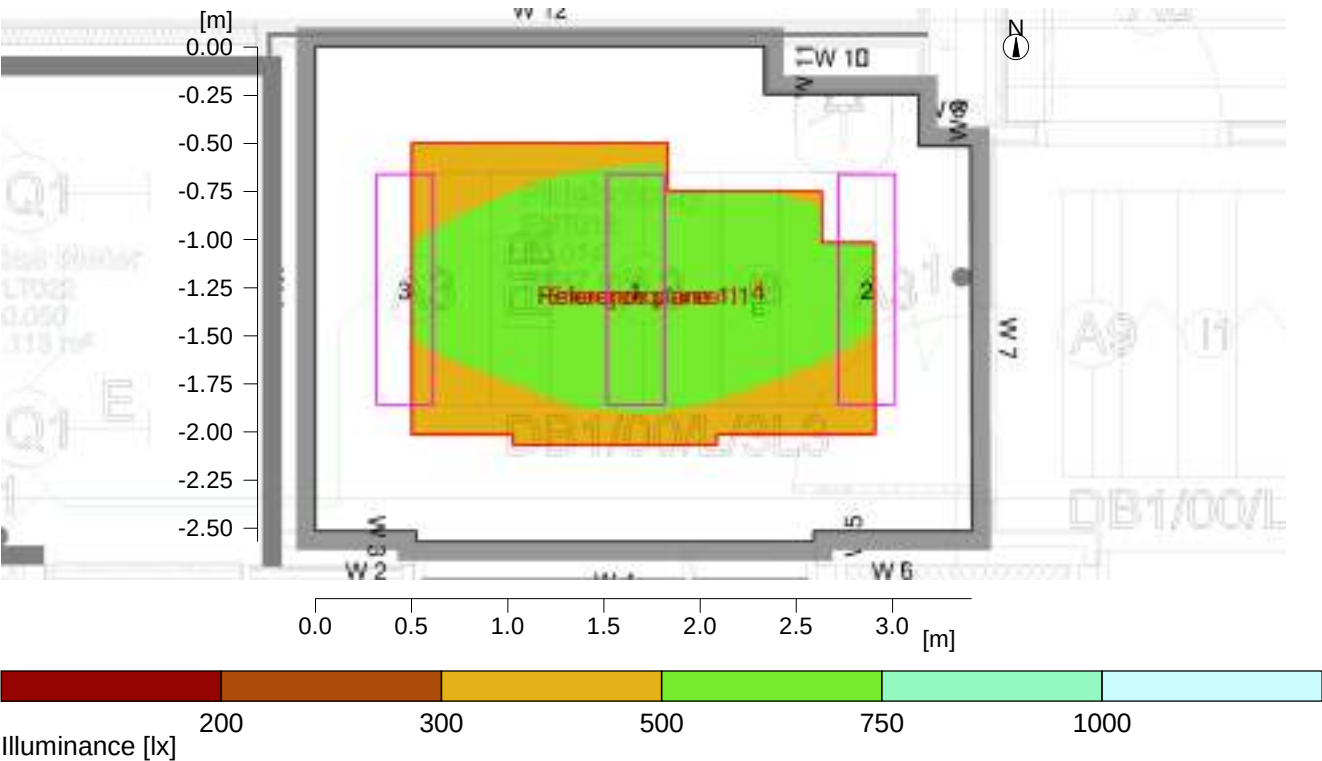
First Page	1
Table of contents	2
1 Phlebotomy - ENT016 - 00.014	
1.1 Summary, Phlebotomy - ENT016 - 00.014	
1.1.1 Result overview, Evaluation area 1	3
1.2 Calculation results, Phlebotomy - ENT016 - 00.014	
1.2.1 Boundary line, Emergency area 1 (E)	5
1.2 Summary, Phlebotomy - ENT016 - 00.014	
1.2.2 Result overview (emergency lighting)	6
2 Patient Transport - ENT028 - 00.031	
2.1 Summary, Patient Transport - ENT028 - 00.031	
2.1.1 Result overview, Evaluation area 1	7
2.2 Calculation results, Patient Transport - ENT028 - 00.031	
2.2.1 Boundary line, Emergency area 1 (E)	9
2.2 Summary, Patient Transport - ENT028 - 00.031	
2.2.2 Result overview (emergency lighting)	10



1 Phlebotomy - ENT016 - 00.014

1.1 Summary, Phlebotomy - ENT016 - 00.014

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	6631.20 lm (90.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	69.0 W
Total power per area (8.33 m²)	8.28 W/m² (1.65 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	501 lx
Emin	421 lx
Emin/Eav (Uo)	0.84
Emin/Emax (Ud)	0.74
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	84 lx	0.95
M 1.1 (Wall)	253 lx	0.65
M 1.2 (Wall)	194 lx	0.78
M 1.3 (Wall)	256 lx	0.66
M 1.4 (Wall)	196 lx	0.80

Object : UCLH Phase 5 - REV 4
Installation : Ground
Project number : (58285) 5808
Date : 09.10.2018

1 Phlebotomy - ENT016 - 00.014

1.1 Summary, Phlebotomy - ENT016 - 00.014

1.1.1 Result overview, Evaluation area 1



Type No. Make

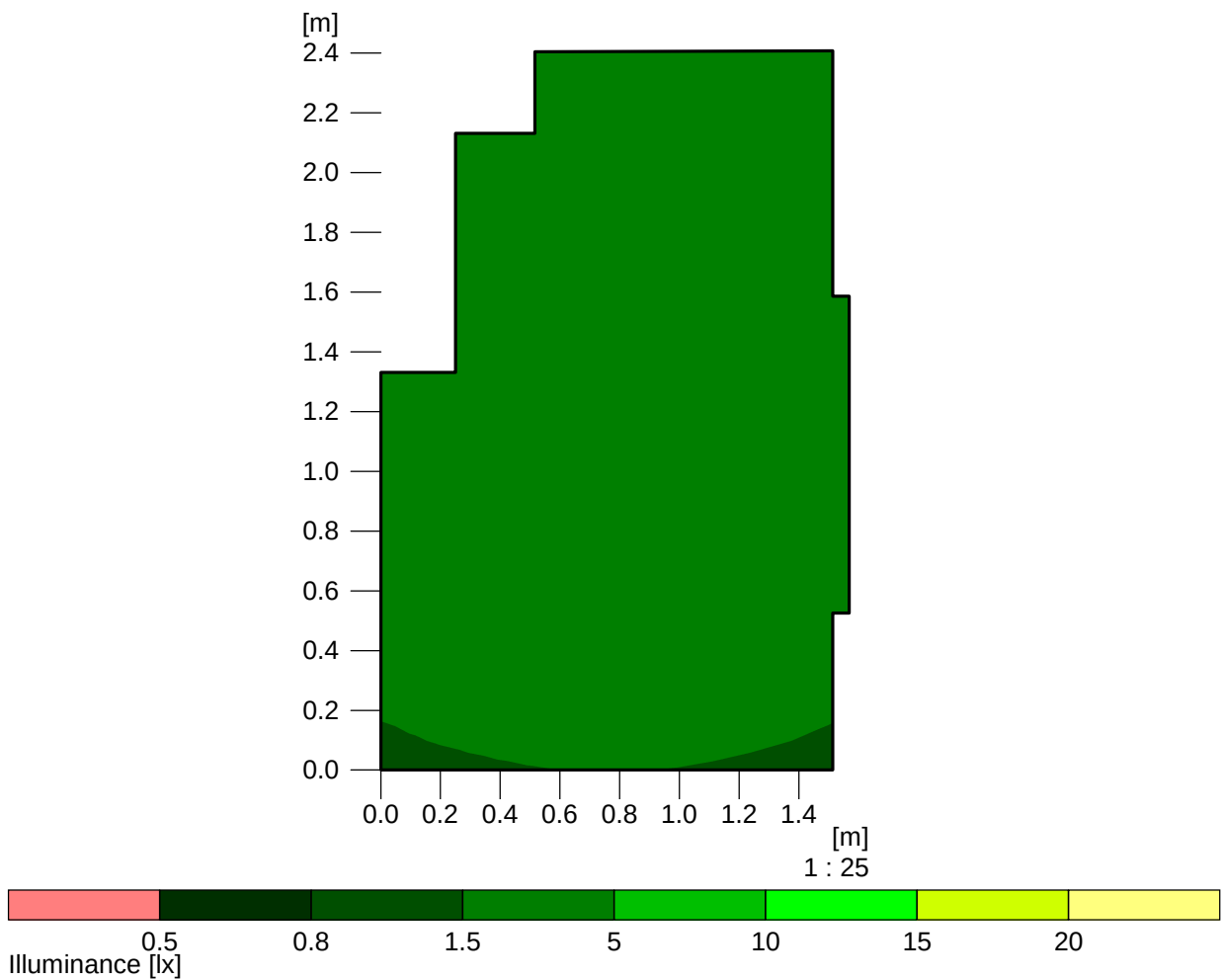
		Whitecroft Lighting
3	3	Order No. : !CLFY#/1194/SRF###
		Luminaire name : A3 - CITYLINE
		Equipment : 1 x LED 23 W / 2456 lm



1 Phlebotomy - ENT016 - 00.014

1.2 Calculation results, Phlebotomy - ENT016 - 00.014

1.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.4 lx
Maximum illuminance	Emax	: 2.8 lx
Diversity	Emin/Emax	: 1 : 1.98 (0.50) (Threshold value 1:40)
Height		: 0.9 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



1.2 Summary, Phlebotomy - ENT016 - 00.014

1.2.2 Result overview (emergency lighting)

Type No. Make

4

1

Whitecroft Lighting

Order No. : !FLE31

Luminaire name : I3 - FLORIN E3

Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

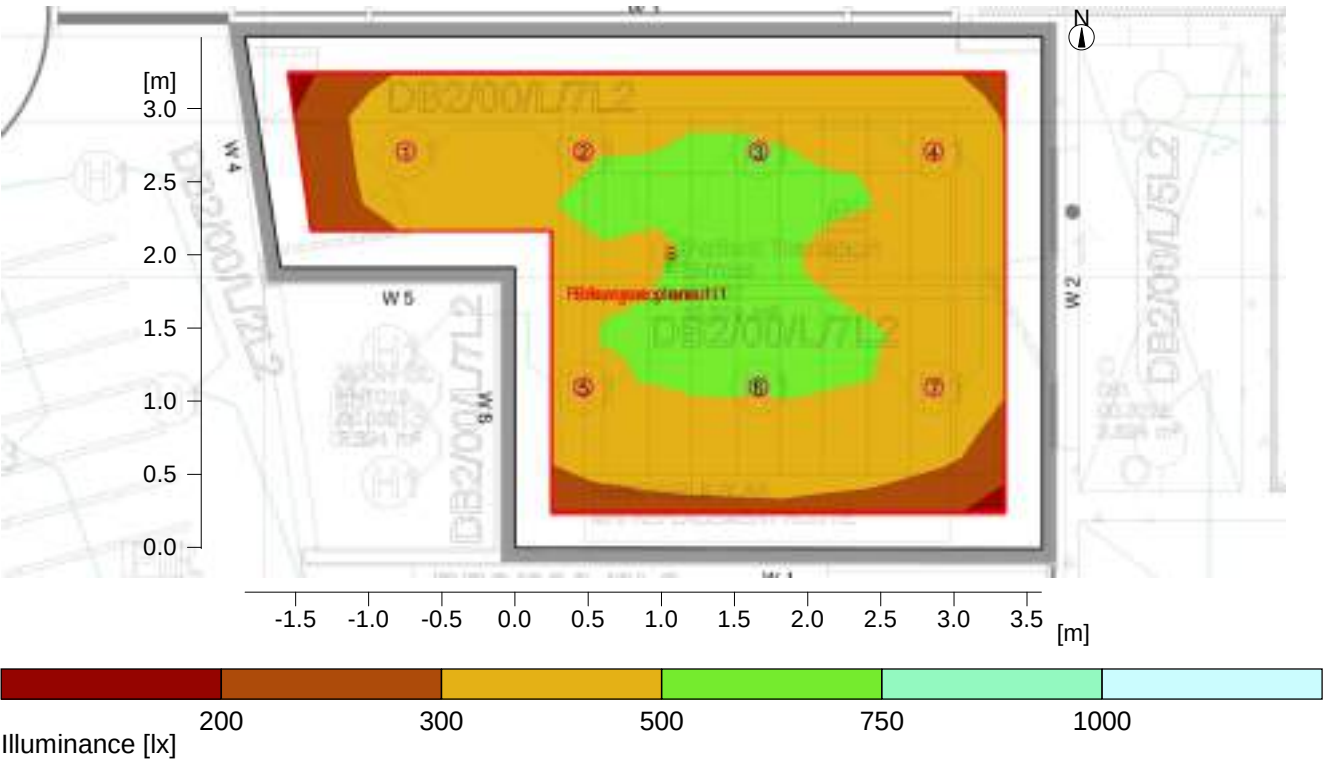
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.4	2.8	1: 1.98	0.85



2 Patient Transport - ENT028 - 00.031

2.1 Summary, Patient Transport - ENT028 - 00.031

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	8400.00 lm
Total power	91.0 W
Total power per area (15.27 m²)	5.96 W/m² (1.43 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	417 lx
Emin	249 lx
Emin/Eav (Uo)	0.60
Emin/Emax (Ud)	0.49
Position	0.00 m

Major surfaces

	Em	Uo
M 1.7 (Ceiling)	43 lx	0.64
M 1.1 (Wall)	66 lx	0.55
M 1.2 (Wall)	78 lx	0.45
M 1.3 (Wall)	84 lx	0.35
M 1.4 (Wall)	59 lx	0.45
M 1.5 (Wall)	74 lx	0.33
M 1.6 (Wall)	111 lx	0.31

Object : UCLH Phase 5 - REV 4
Installation : Ground
Project number : (58285) 5808
Date : 09.10.2018

2 Patient Transport - ENT028 - 00.031

2.1 Summary, Patient Transport - ENT028 - 00.031

2.1.1 Result overview, Evaluation area 1



Type No. Make



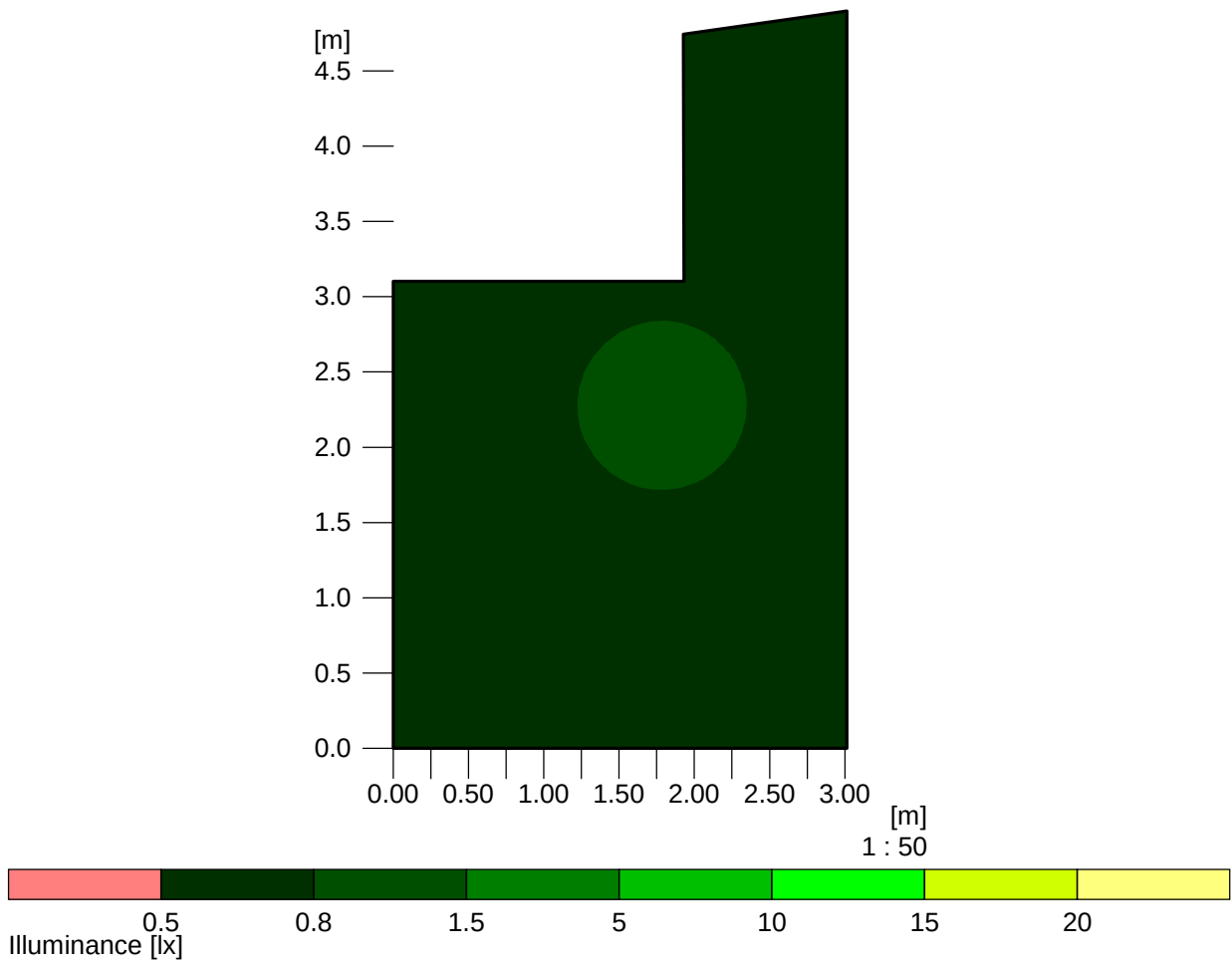
Whitecroft Lighting

Order No. : !CNXH14K+CNX-IP54C
Luminaire name : H1 - CONCERT XL
Equipment : 1 x LED 13 W / 1200 lm

2 Patient Transport - ENT028 - 00.031

2.2 Calculation results, Patient Transport - ENT028 - 00.031

2.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.6 lx
Maximum illuminance	Emax	: 1.1 lx
Diversity	Emin/Emax	: 1 : 1.84 (0.54) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Ground
Project number : (58285) 5808
Date : 09.10.2018



2.2 Summary, Patient Transport - ENT028 - 00.031

2.2.2 Result overview (emergency lighting)

Type No. Make

4 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.6	1.1	1: 1.84	0.00



UCLH PHASE 5

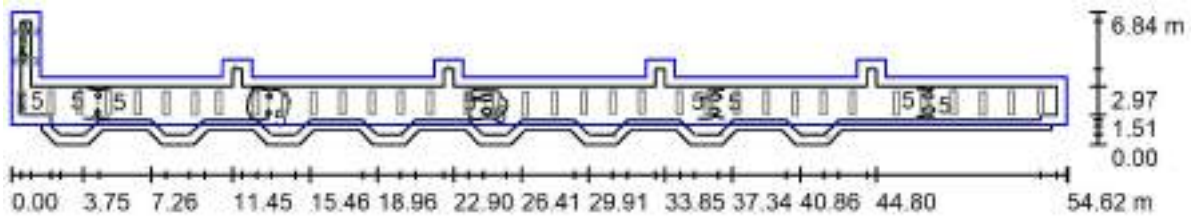
LEVEL 01

LIGHT CALCS REPORT



Operator
Telephone
Fax
e-Mail

CORRIDOR COM031 / E / Summary



Height of Room: 2.980 m, Maintenance factor: 0.80

Values in Lux, Scale 1:391

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.77	0.31	11	0.113
Floor	20	1.85	0.00	5.79	0.000
Ceiling	70	0.00	0.00	0.01	0.021
Walls (58)	50	1.03	0.00	34	/

Workplane:

Height: 0.750 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.413, Ceiling / Working Plane: 0.001.

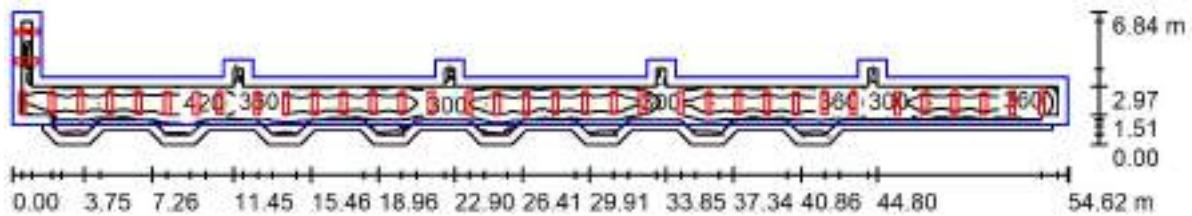
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			901	840	18.0

Specific connected load: $0.10 \text{ W/m}^2 = 3.77 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 172.33 m^2)

Operator
Telephone
Fax
e-Mail

CORRIDOR COM031 / L / Summary



Height of Room: 2.980 m, Maintenance factor: 0.80

Values in Lux, Scale 1:391

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	327	166	428	0.509
Floor	20	253	62	326	0.246
Ceiling	70	5.50	0.02	52	0.004
Walls (58)	50	96	13	473	/

Workplane:

Height: 0.750 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.279, Ceiling / Working Plane: 0.017.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	20	Viabizzuno displei dn50 led 12W 350mA (36°) (Type 1)* (1.000)	239	350	12.0
2	37	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			75887	78151	906.0

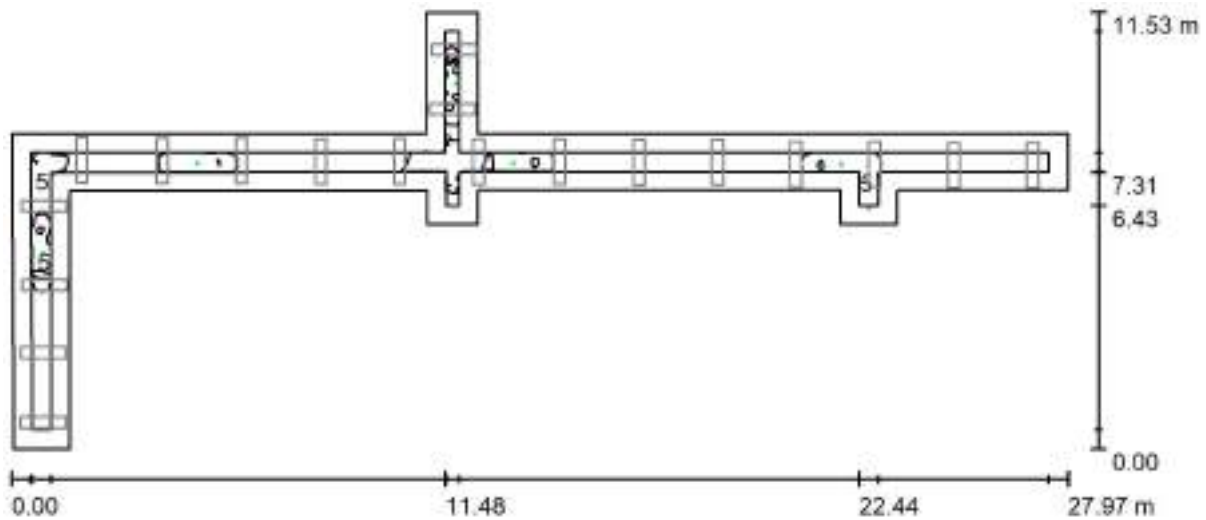
*Modified Technical Specifications

Specific connected load: $5.26 \text{ W/m}^2 = 1.61 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 172.33 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR018 / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:200

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	5.00	0.91	14	0.182
Floor	20	2.85	0.77	8.09	0.271
Ceiling	70	0.10	0.00	5.65	0.000
Walls (18)	50	2.14	0.01	36	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.518, Ceiling / Working Plane: 0.018.

Luminaire Parts List

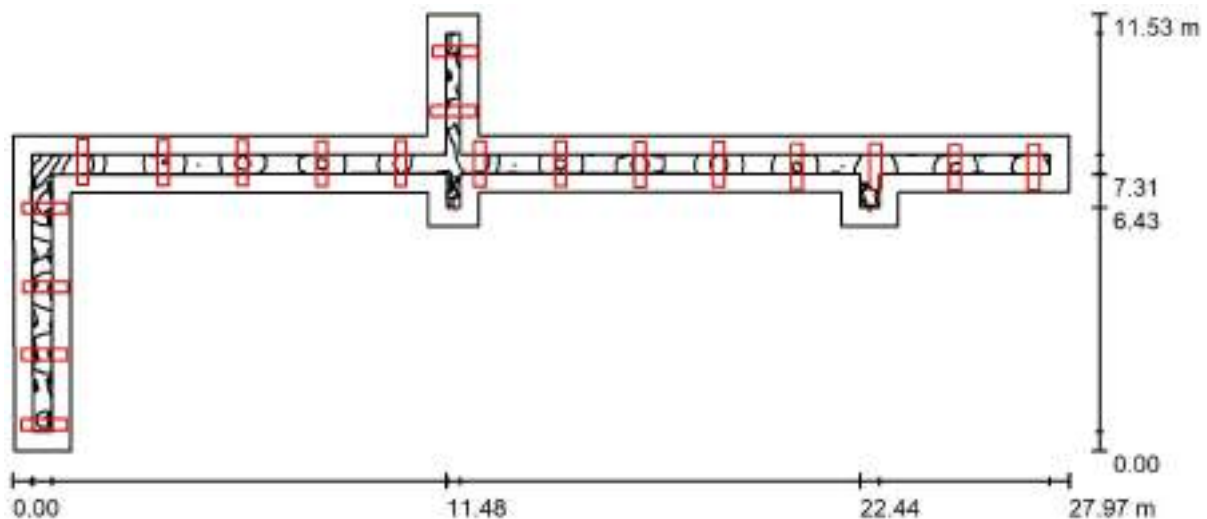
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			751	700	15.0

Specific connected load: $0.25 \text{ W/m}^2 = 5.06 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 59.35 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR018 / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:200

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	356	216	453	0.606
Floor	20	263	137	351	0.518
Ceiling	70	70	42	121	0.596
Walls (18)	50	150	48	722	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.459, Ceiling / Working Plane: 0.197.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (Type 1)* (1.000)	239	350	12.0
2	2	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
3	17	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0

*Modified Technical Specifications

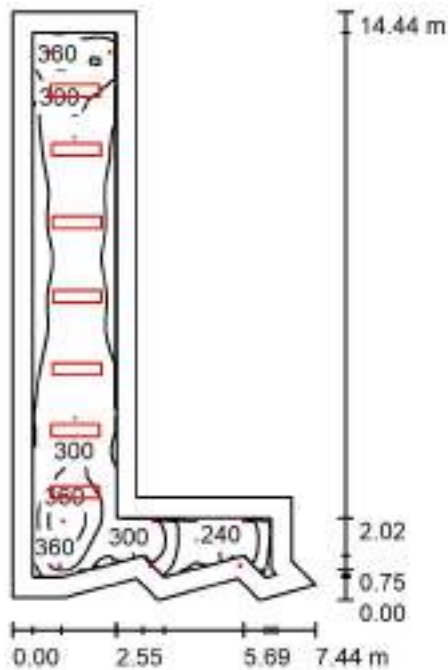
Total: 35995 Total: 36241 366.0

Specific connected load: $6.17 \text{ W/m}^2 = 1.73 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 59.35 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM029 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:186

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	274	130	402	0.474
Floor	20	244	39	404	0.159
Ceiling	70	44	20	54	0.448
Walls (12)	50	84	17	282	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.308, Ceiling / Working Plane: 0.160.

Luminaire Parts List

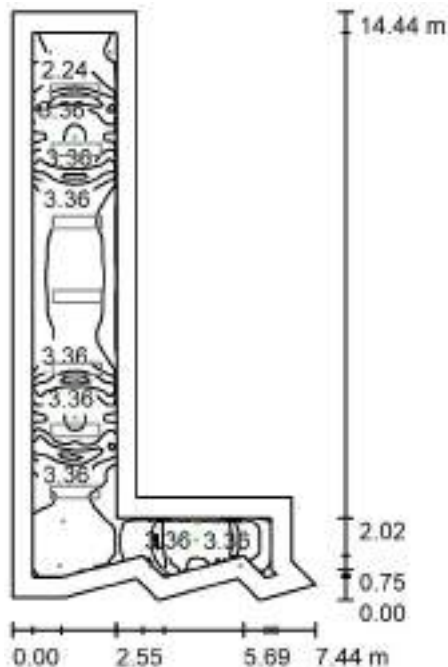
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	8	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
2	7	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			19740	22661	222.0

Specific connected load: $4.24 \text{ W/m}^2 = 1.55 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 52.38 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR COM029 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:186

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	2.88	0.80	6.42	0.277
Floor	20	2.49	0.61	6.37	0.246
Ceiling	70	0.07	0.00	5.44	0.000
Walls (12)	50	1.96	0.00	16	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.681, Ceiling / Working Plane: 0.023.

Luminaire Parts List

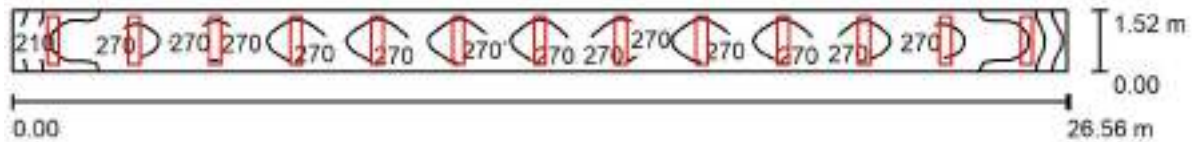
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			450	420	9.0

Specific connected load: $0.17 \text{ W/m}^2 = 5.96 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 52.38 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR015 / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:190

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	259	165	291	0.637
Floor	20	259	164	291	0.633
Ceiling	70	72	52	109	0.728
Walls (4)	50	156	74	413	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.598, Ceiling / Working Plane: 0.278.

Luminaire Parts List

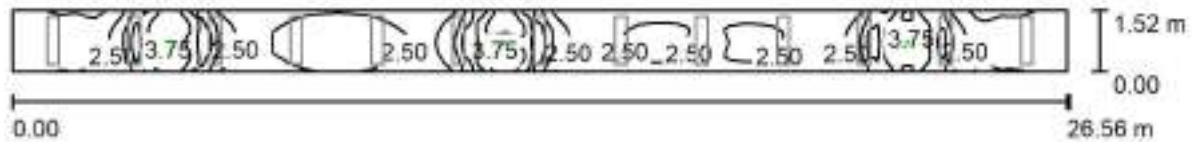
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	13	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			24982	24999	234.0

Specific connected load: $5.78 \text{ W/m}^2 = 2.23 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 40.51 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR015 / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:190

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.74	0.97	7.23	0.356
Floor	20	2.74	0.98	7.22	0.356
Ceiling	70	0.08	0.00	4.82	0.001
Walls (4)	50	1.82	0.08	25	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.661, Ceiling / Working Plane: 0.029.

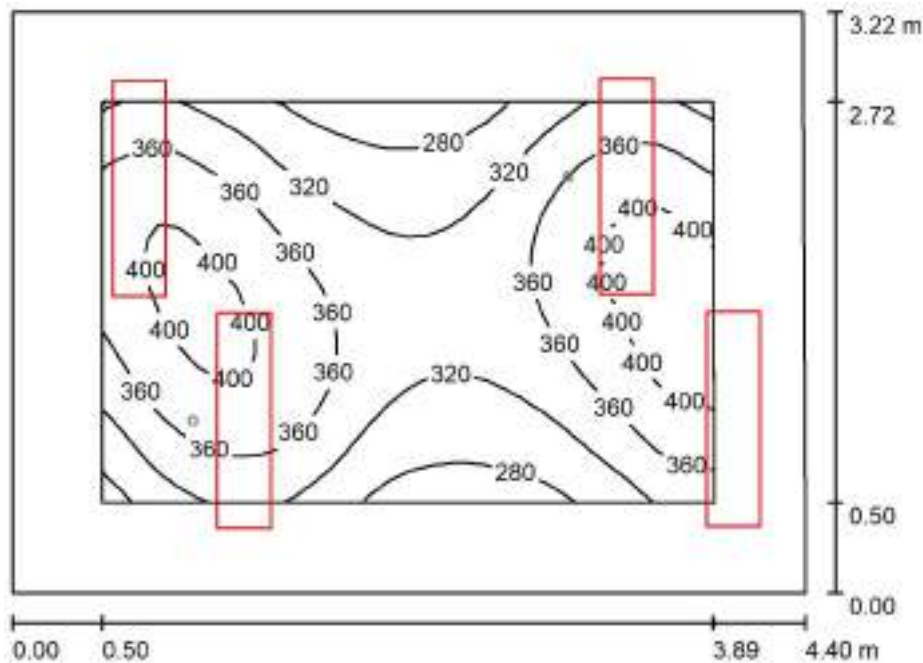
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			450	420	9.0

Specific connected load: $0.22 \text{ W/m}^2 = 8.11 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 40.51 m^2)

Operator
Telephone
Fax
e-Mail

Paediatric Waiting WTG 010 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	347	255	422	0.735
Floor	20	256	161	308	0.628
Ceiling	70	67	46	109	0.691
Walls (4)	50	146	58	499	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.448, Ceiling / Working Plane: 0.192.

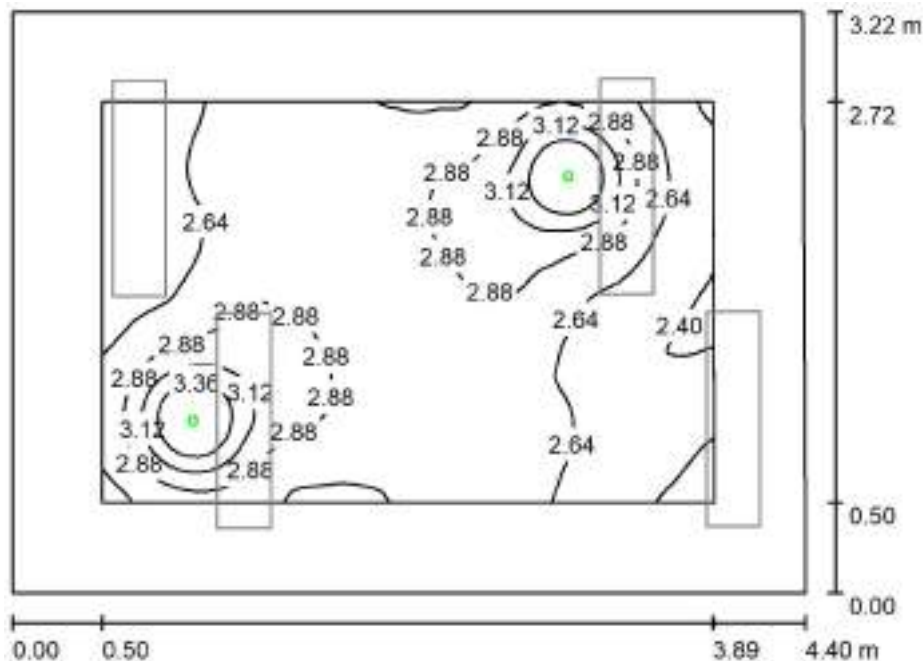
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			7687	7692	72.0

Specific connected load: $5.09 \text{ W/m}^2 = 1.46 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.15 m^2)

Operator
Telephone
Fax
e-Mail

Paediatric Waiting WTG 010 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.78	2.31	3.52	0.833
Floor	20	1.51	1.23	2.01	0.810
Ceiling	70	0.06	0.00	4.60	0.008
Walls (4)	50	5.66	0.26	62	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.720, Ceiling / Working Plane: 0.022.

Luminaire Parts List

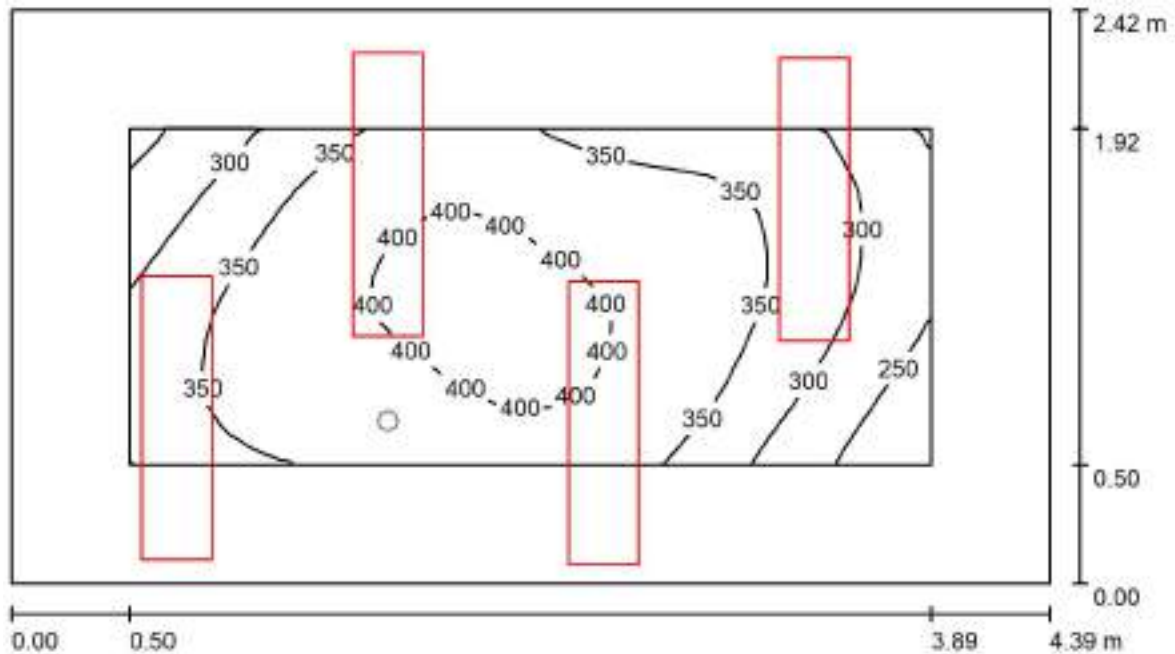
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			318	280	6.0

Specific connected load: $0.42 \text{ W/m}^2 = 15.25 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.15 m^2)



Operator
Telephone
Fax
e-Mail

Combined X-Ray IMG 016 / L / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	350	206	418	0.587
Floor	20	234	132	304	0.565
Ceiling	70	61	37	99	0.609
Walls (4)	50	130	47	480	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.393, Ceiling / Working Plane: 0.175.

Luminaire Parts List

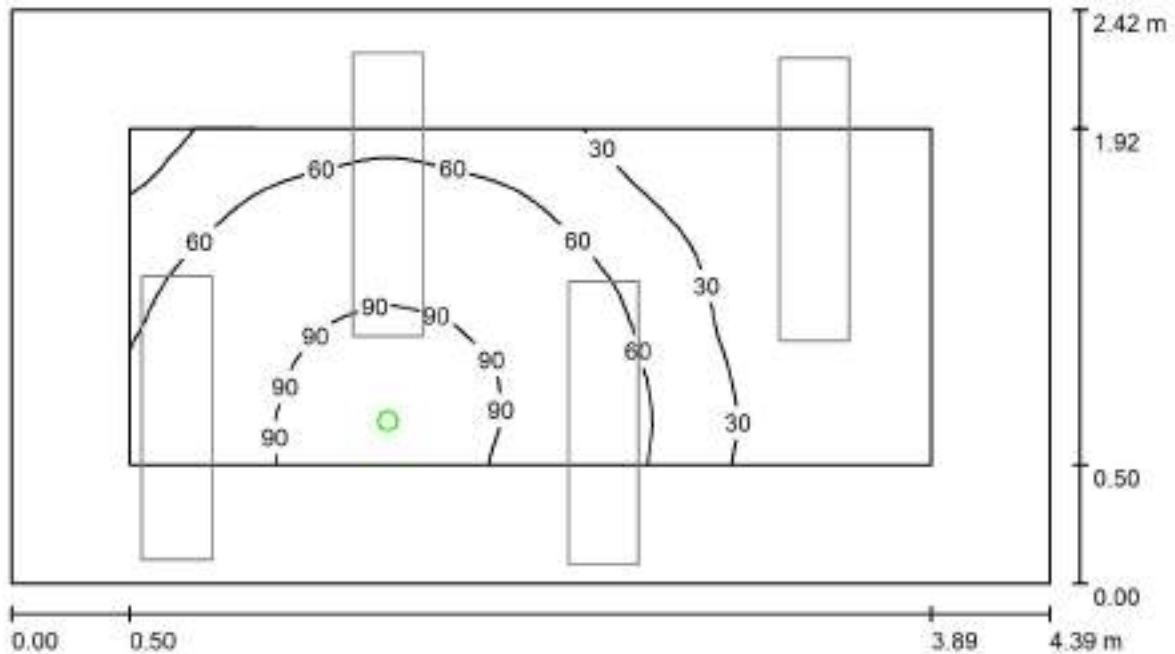
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
*Modified Technical Specifications			Total: 5696	Total: 5700	72.0

Specific connected load: $6.76 \text{ W/m}^2 = 1.93 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.64 m^2)



Operator
Telephone
Fax
e-Mail

Combined X-Ray IMG 016 / E / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	51	0.82	103	0.016
Floor	20	29	0.77	54	0.026
Ceiling	70	0.00	0.00	0.04	0.000
Walls (4)	50	5.99	0.00	110	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.102, Ceiling / Working Plane: 0.000.

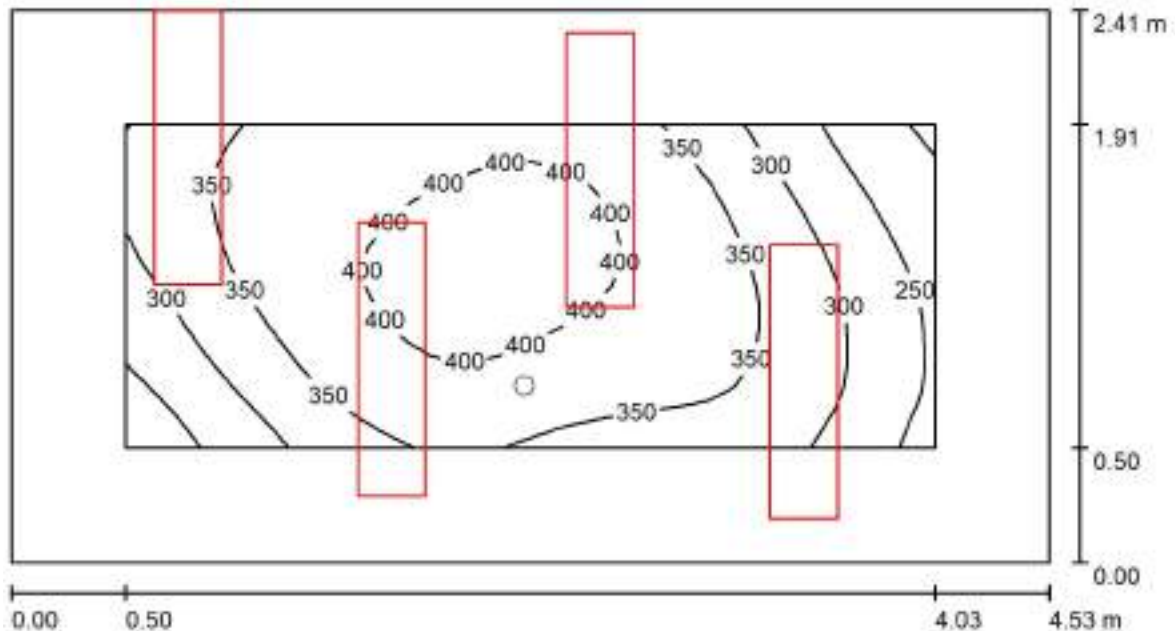
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			667	667	9.0

Specific connected load: $0.85 \text{ W/m}^2 = 1.66 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.64 m^2)

Operator
Telephone
Fax
e-Mail

OPG IMG 018 / L / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	346	194	424	0.562
Floor	20	230	121	305	0.525
Ceiling	70	59	36	178	0.606
Walls (4)	50	125	43	913	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.381, Ceiling / Working Plane: 0.171.

Luminaire Parts List

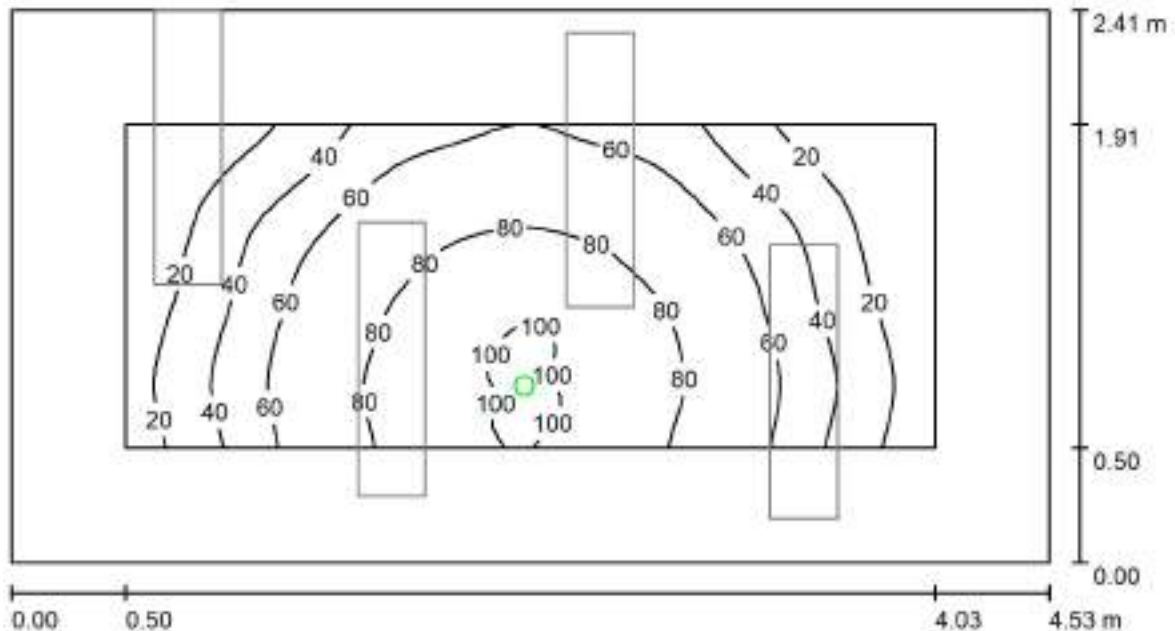
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
*Modified Technical Specifications			Total: 5696	Total: 5700	72.0

Specific connected load: $6.59 \text{ W/m}^2 = 1.90 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.93 m^2)



Operator
Telephone
Fax
e-Mail

OPG IMG 018 / E / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	56	4.06	103	0.073
Floor	20	31	2.54	54	0.082
Ceiling	70	0.00	0.00	0.04	0.000
Walls (4)	50	5.24	0.01	88	/

Workplane:

Height: 0.750 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.079, Ceiling / Working Plane: 0.000.

Luminaire Parts List

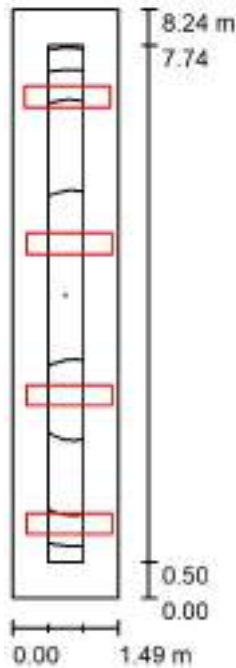
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			667	667	9.0

Specific connected load: $0.82 \text{ W/m}^2 = 1.48 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.93 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR 020 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:106

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	242	178	270	0.737
Floor	20	221	125	269	0.563
Ceiling	70	69	43	106	0.617
Walls (4)	50	141	54	565	/

Workplane:

Height: 0.000 m
Grid: 64 x 4 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.585, Ceiling / Working Plane: 0.287.

Luminaire Parts List

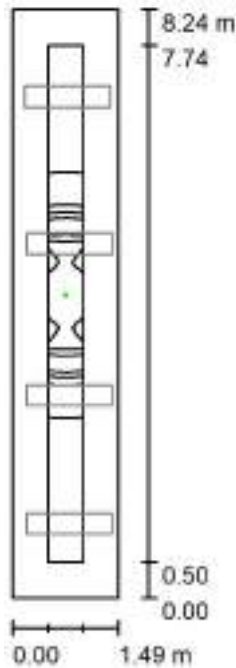
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			7687	7692	72.0

Specific connected load: $5.86 \text{ W/m}^2 = 2.43 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.28 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR CIR 020 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:106

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.16	1.19	5.54	0.550
Floor	20	1.92	0.77	5.46	0.403
Ceiling	70	0.09	0.00	5.70	0.000
Walls (4)	50	1.84	0.06	24	/

Workplane:

Height: 0.000 m
Grid: 128 x 8 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.859, Ceiling / Working Plane: 0.040.

Luminaire Parts List

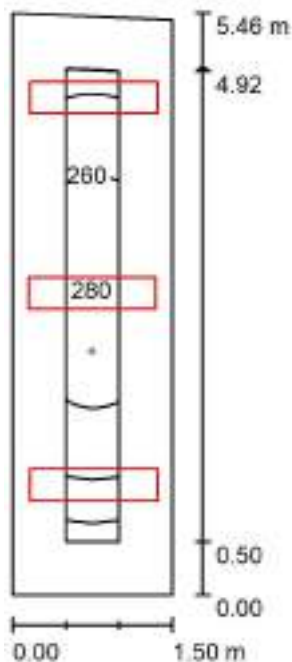
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.24 \text{ W/m}^2 = 11.31 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.28 m^2)



Operator
Telephone
Fax
e-Mail

AVR CORRIDOR CIR 022 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:71

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	257	211	281	0.822
Floor	20	234	149	280	0.636
Ceiling	70	78	50	124	0.641
Walls (4)	50	158	69	463	/

Workplane:

Height: 0.000 m
Grid: 32 x 4 Points
Boundary Zone: 0.500 m

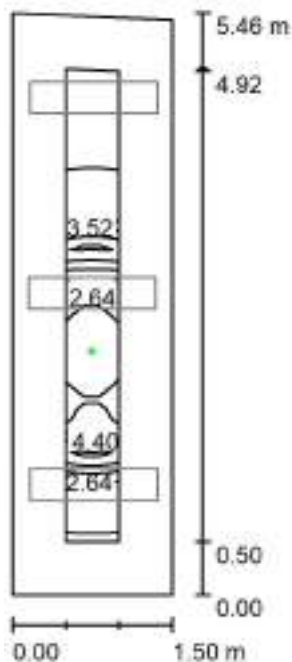
Illuminance Quotient (according to LG7): Walls / Working Plane: 0.614, Ceiling / Working Plane: 0.305.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			5765	5769	54.0

Specific connected load: $6.63 \text{ W/m}^2 = 2.58 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 8.14 m^2)

AVR CORRIDOR CIR 022 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:71

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.66	1.20	5.58	0.450
Floor	20	2.21	0.76	5.58	0.342
Ceiling	70	0.13	0.00	6.13	0.000
Walls (4)	50	2.74	0.12	23	/

Workplane:

Height:	0.000 m
Grid:	128 x 16 Points
Boundary Zone:	0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.028, Ceiling / Working Plane: 0.049.

Luminaire Parts List

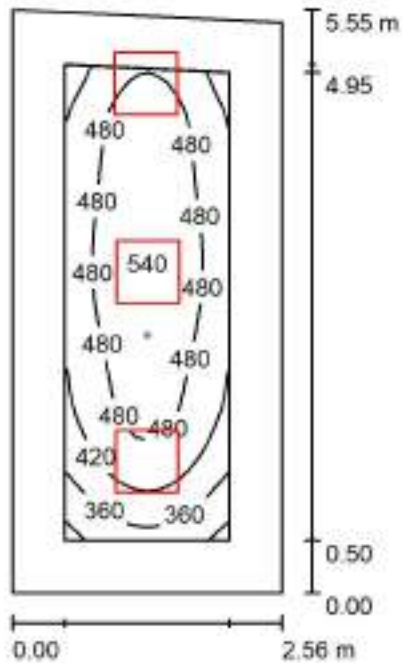
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
			Total: 150	Total: 140	3.0

Specific connected load: $0.37 \text{ W/m}^2 = 13.86 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 8.14 m^2)



Operator
Telephone
Fax
e-Mail

Clinical Cons Store SHA 044 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:72

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	459	285	543	0.621
Floor	20	311	170	398	0.546
Ceiling	70	76	47	134	0.622
Walls (4)	50	169	62	581	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.373, Ceiling / Working Plane: 0.164.

Luminaire Parts List

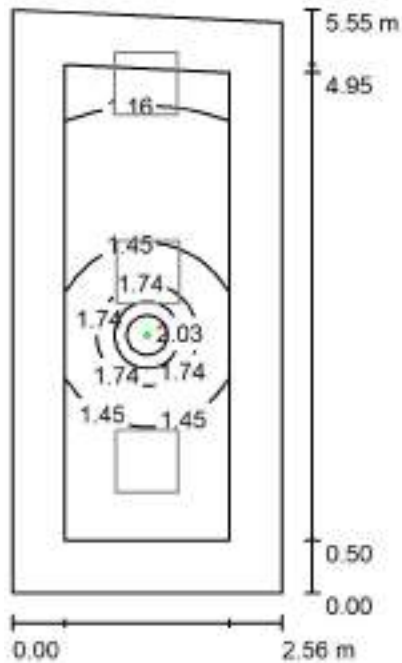
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			9329	9380	87.0

Specific connected load: $6.18 \text{ W/m}^2 = 1.35 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.07 m^2)



Operator
Telephone
Fax
e-Mail

Clinical Cons Store SHA 044 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:72

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.47	1.03	2.46	0.703
Floor	20	0.77	0.55	1.28	0.714
Ceiling	70	0.03	0.00	4.60	0.000
Walls (4)	50	2.67	0.06	33	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.412, Ceiling / Working Plane: 0.020.

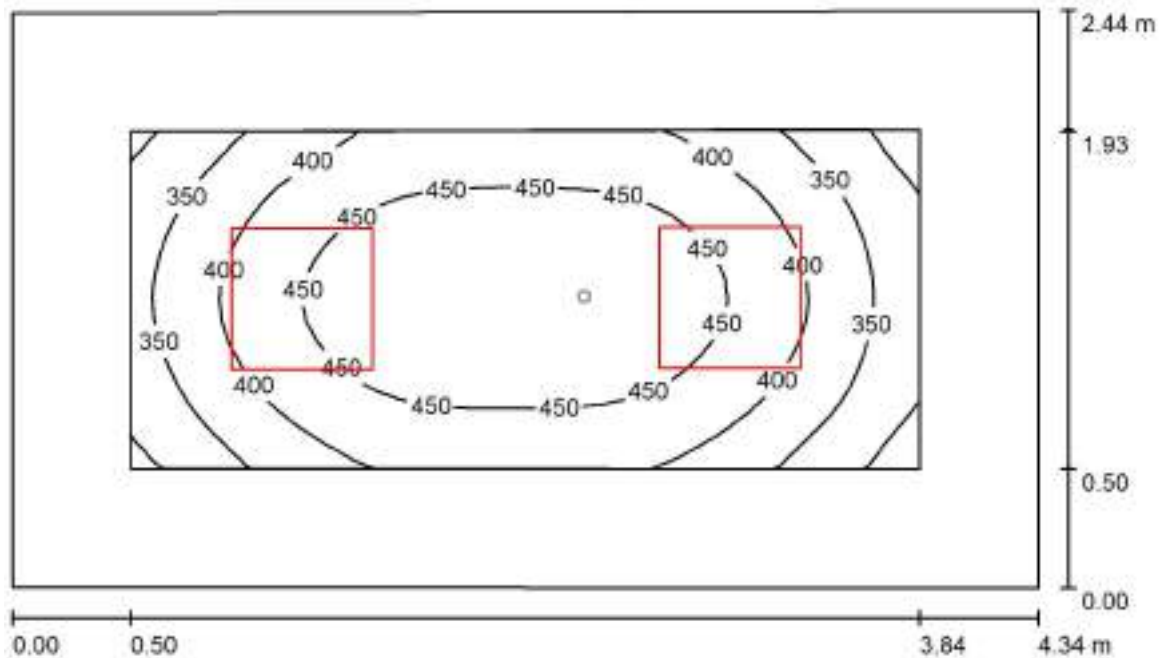
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.21 \text{ W/m}^2 = 14.55 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.07 m^2)

Operator
Telephone
Fax
e-Mail

Clean Utility SHA 040 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	411	276	484	0.670
Floor	20	262	163	337	0.622
Ceiling	70	62	46	72	0.744
Walls (4)	50	142	56	227	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.347, Ceiling / Working Plane: 0.151.

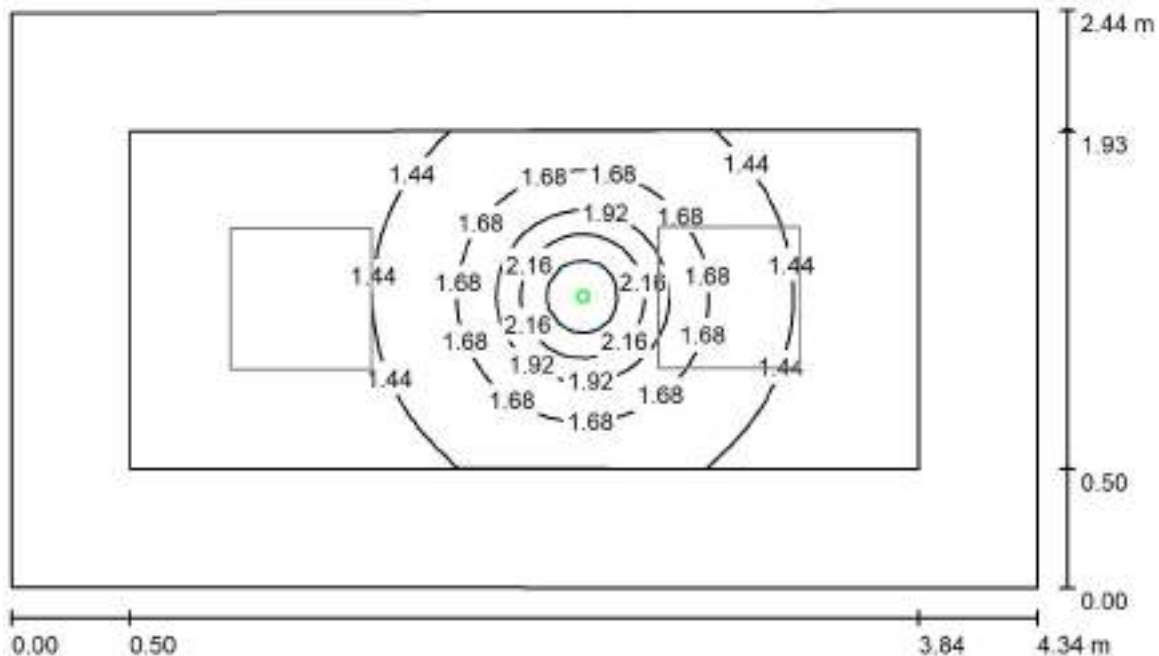
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $5.50 \text{ W/m}^2 = 1.34 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.55 m^2)

Operator
Telephone
Fax
e-Mail

Clean Utility SHA 040 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.55	1.28	2.46	0.823
Floor	20	0.80	0.70	1.28	0.871
Ceiling	70	0.04	0.00	4.59	0.000
Walls (4)	50	3.25	0.11	40	/

Workplane:

Height: 0.750 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.832, Ceiling / Working Plane: 0.026.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.28 \text{ W/m}^2 = 18.34 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.55 m^2)



UCLH Phase 5 - REV 4

Installation : First

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 09.10.2018

Project description:
WLL Sample lighting calculations to areas as requested.

Calculation parameters:

Standard reflectances:
70% Ceiling / 50% walls / 20% floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

First Page	1
Table of contents	2
1 Dirty instrument hold - SHA048 - 01.045	
1.1 Summary, Dirty instrument hold - SHA048 - 01.045	
1.1.1 Result overview, Evaluation area 1	4
1.2 Calculation results, Dirty instrument hold - SHA048 - 01.045	
1.2.1 Boundary line, Emergency area 1 (E)	6
1.2 Summary, Dirty instrument hold - SHA048 - 01.045	
1.2.2 Result overview (emergency lighting)	7
2 Staff Breakout - SHA043 - 01.055	
2.1 Summary, Staff Breakout - SHA043 - 01.055	
2.1.1 Result overview, Evaluation area 1	8
2.2 Calculation results, Staff Breakout - SHA043 - 01.055	
2.2.1 Boundary line, Emergency area 1 (E)	10
2.2 Summary, Staff Breakout - SHA043 - 01.055	
2.2.2 Result overview (emergency lighting)	11
3 Intra Oral - IMG017 - 01.028	
3.1 Summary, Intra Oral - IMG017 - 01.028	
3.1.1 Result overview, Evaluation area 1	12
3.2 Calculation results, Intra Oral - IMG017 - 01.028	
3.2.1 Boundary line, Emergency area 1 (E)	14
3.2 Summary, Intra Oral - IMG017 - 01.028	
3.2.2 Result overview (emergency lighting)	15
4 Staff Base - IMG015 - 01.026	
4.1 Summary, Staff Base - IMG015 - 01.026	
4.1.1 Result overview, Evaluation area 1	16
4.2 Calculation results, Staff Base - IMG015 - 01.026	
4.2.1 Boundary line, Emergency area 1 (E)	18
4.2 Summary, Staff Base - IMG015 - 01.026	
4.2.2 Result overview (emergency lighting)	19
5 SPR 02 - CEA019 - 01.053	
5.1 Summary, SPR 02 - CEA019 - 01.053	
5.1.1 Result overview, Evaluation area 1	20
5.2 Calculation results, SPR 02 - CEA019 - 01.053	
5.2.1 Boundary line, Emergency area 1 (E)	22
5.2 Summary, SPR 02 - CEA019 - 01.053	
5.2.2 Result overview (emergency lighting)	23
6 Staff Base - DNA005 - 01.056	
6.1 Summary, Staff Base - DNA005 - 01.056	
6.1.1 Result overview, Evaluation area 1	24
6.2 Calculation results, Staff Base - DNA005 - 01.056	
6.2.1 Boundary line, Emergency area 1 (E)	26
6.2 Summary, Staff Base - DNA005 - 01.056	
6.2.2 Result overview (emergency lighting)	27
7 Consult Exam - DNA002 - 01.013	
7.1 Summary, Consult Exam - DNA002 - 01.013	
7.1.1 Result overview, Evaluation area 1	28
7.2 Calculation results, Consult Exam - DNA002 - 01.013	
7.2.1 Boundary line, Emergency area 1 (E)	30
7.2 Summary, Consult Exam - DNA002 - 01.013	
7.2.2 Result overview (emergency lighting)	31
8 Consult Exam - CEA017 - 01.014	
8.1 Summary, Consult Exam - CEA017 - 01.014	
8.1.1 Result overview, Evaluation area 1	32
8.2 Calculation results, Consult Exam - CEA017 - 01.014	
8.2.1 Boundary line, Emergency area 1 (E)	34
8.2 Summary, Consult Exam - CEA017 - 01.014	

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018



Table of contents

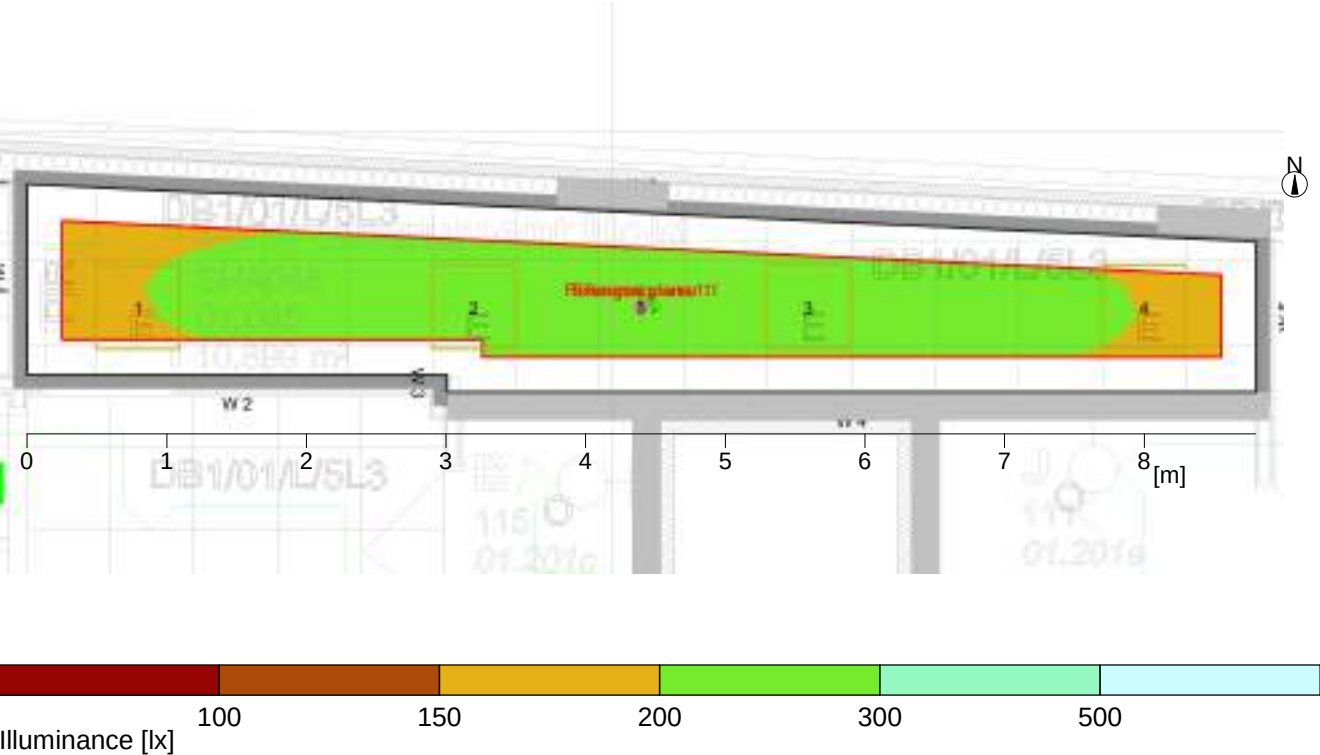
8.2.2	Result overview (emergency lighting)	35
9	Consult Exam - CEA011 - 01.006	
9.1	Summary, Consult Exam - CEA011 - 01.006	
9.1.1	Result overview, Evaluation area 1	36
9.2	Calculation results, Consult Exam - CEA011 - 01.006	
9.2.1	Boundary line, Emergency area 1 (E)	38
9.2	Summary, Consult Exam - CEA011 - 01.006	
9.2.2	Result overview (emergency lighting)	39



1 Dirty instrument hold - SHA048 - 01.045

1.1 Summary, Dirty instrument hold - SHA048 - 01.045

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	9321.80 lm (66.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	108.0 W
Total power per area (10.90 m²)	9.91 W/m² (4.93 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	201 lx
Emin	161 lx
Emin/Eav (Uo)	0.80
Emin/Emax (Ud)	0.74
Position	0.00 m

Major surfaces

	Em	Uo
M 1.6 (Ceiling)	99 lx	0.75
M 1.1 (Wall)	219 lx	0.46
M 1.2 (Wall)	194 lx	0.42
M 1.3 (Wall)	202 lx	0.43
M 1.4 (Wall)	236 lx	0.43
M 1.5 (Wall)	199 lx	0.42

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

1 Dirty instrument hold - SHA048 - 01.045

1.1 Summary, Dirty instrument hold - SHA048 - 01.045

1.1.1 Result overview, Evaluation area 1



Type No. Make

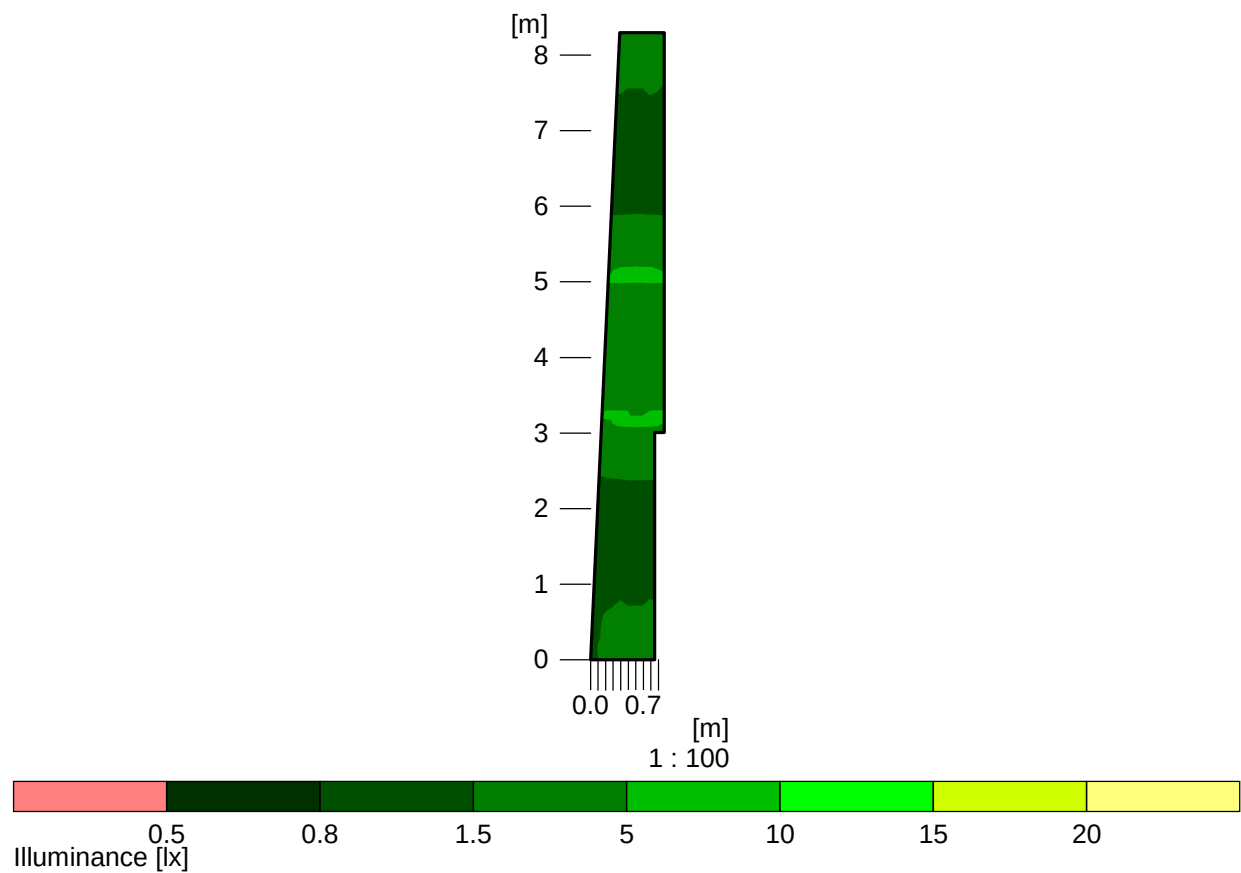
		Whitecroft Lighting	
1	4	Order No.	: !TAE LH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm



1 Dirty instrument hold - SHA048 - 01.045

1.2 Calculation results, Dirty instrument hold - SHA048 - 01.045

1.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1 lx
Maximum illuminance	Emax	: 5.6 lx
Diversity	Emin/Emax	: 1 : 5.77 (0.17) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018



1.2 Summary, Dirty instrument hold - SHA048 - 01.045

1.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
Order No. : !FLE32
Luminaire name : I1 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

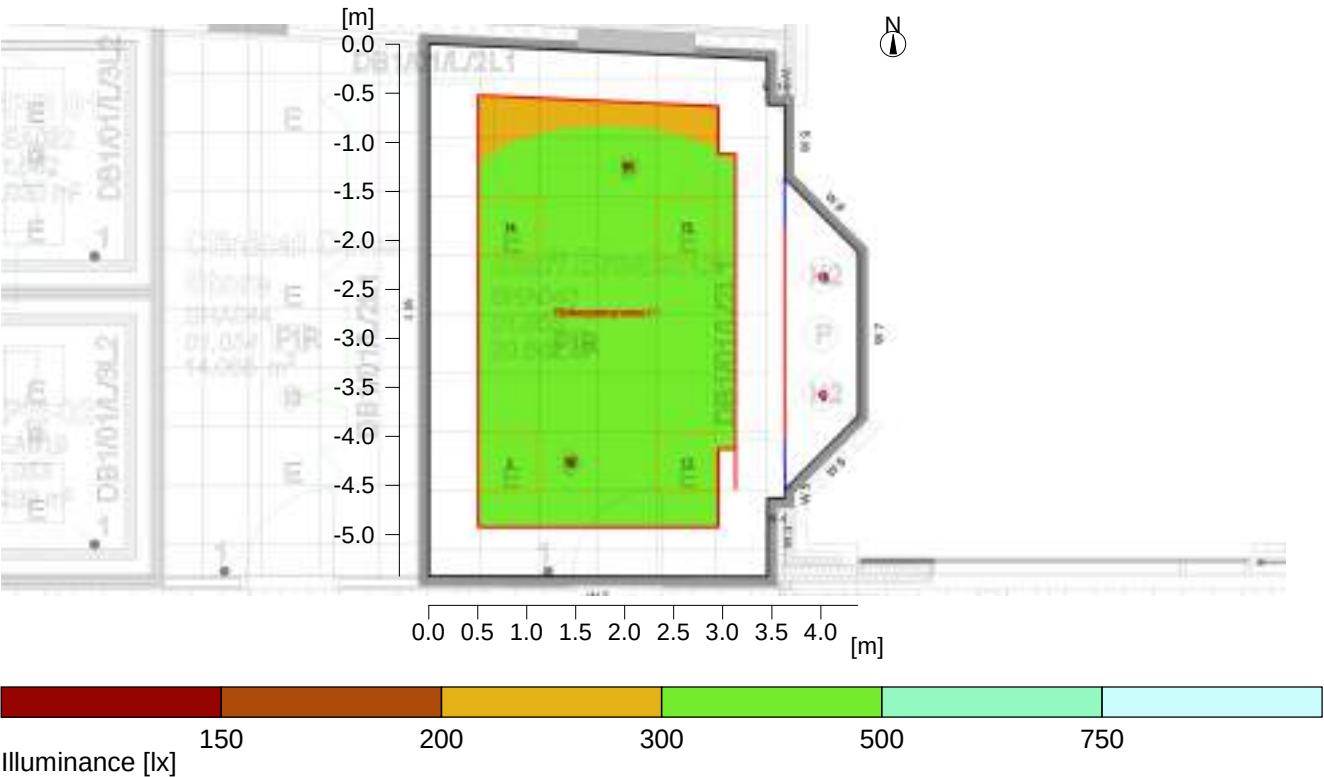
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.0	5.6	1: 5.77	0.00



2 Staff Breakout - SHA043 - 01.055

2.1 Summary, Staff Breakout - SHA043 - 01.055

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	14124.00 lm
Total power	108.0 W
Total power per area (19.14 m²)	5.64 W/m² (1.57 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	360 lx
Emin	260 lx
Emin/Eav (Uo)	0.72
Emin/Emax (Ud)	0.64
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	93 lx	0.83
M 1.1 (Wall)	286 lx	0.55
M 1.2 (Wall)	286 lx	0.77
M 1.3 (Wall)	281 lx	0.81
M 1.4 (Wall)	206 lx	0.81

Type No.IMake

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

2 Staff Breakout - SHA043 - 01.055

2.1 Summary, Staff Breakout - SHA043 - 01.055

2.1.1 Result overview, Evaluation area 1



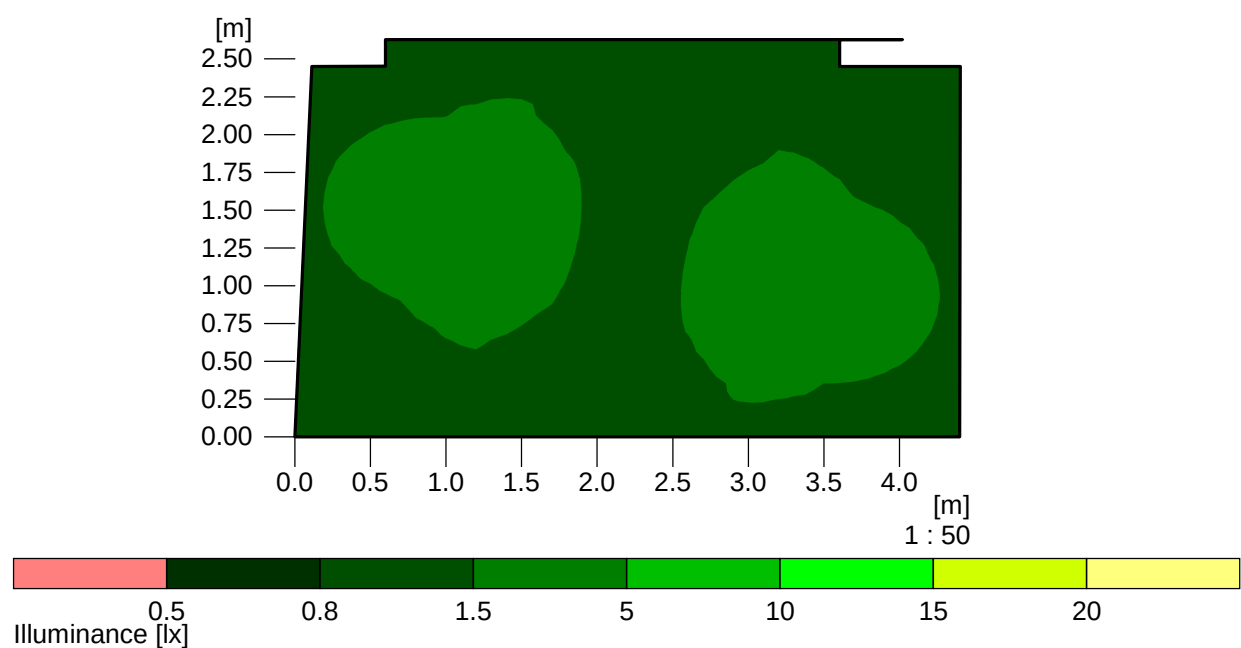
1		4		Whitecroft Lighting	
				Order No.	: !TAELH24KXT
				Luminaire name	: E - TEGAN SLIM
				Equipment	: 1 x LED 27 W / 3531 lm



2 Staff Breakout - SHA043 - 01.055

2.2 Calculation results, Staff Breakout - SHA043 - 01.055

2.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.2 lx
Maximum illuminance	Emax	: 1.9 lx
Diversity	Emin/Emax	: 1 : 1.57 (0.63) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



2.2 Summary, Staff Breakout - SHA043 - 01.055

2.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
5	2	Order No.	: !FLE31
		Luminaire name	: I3 - FLORIN E3
		Equipment	: 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

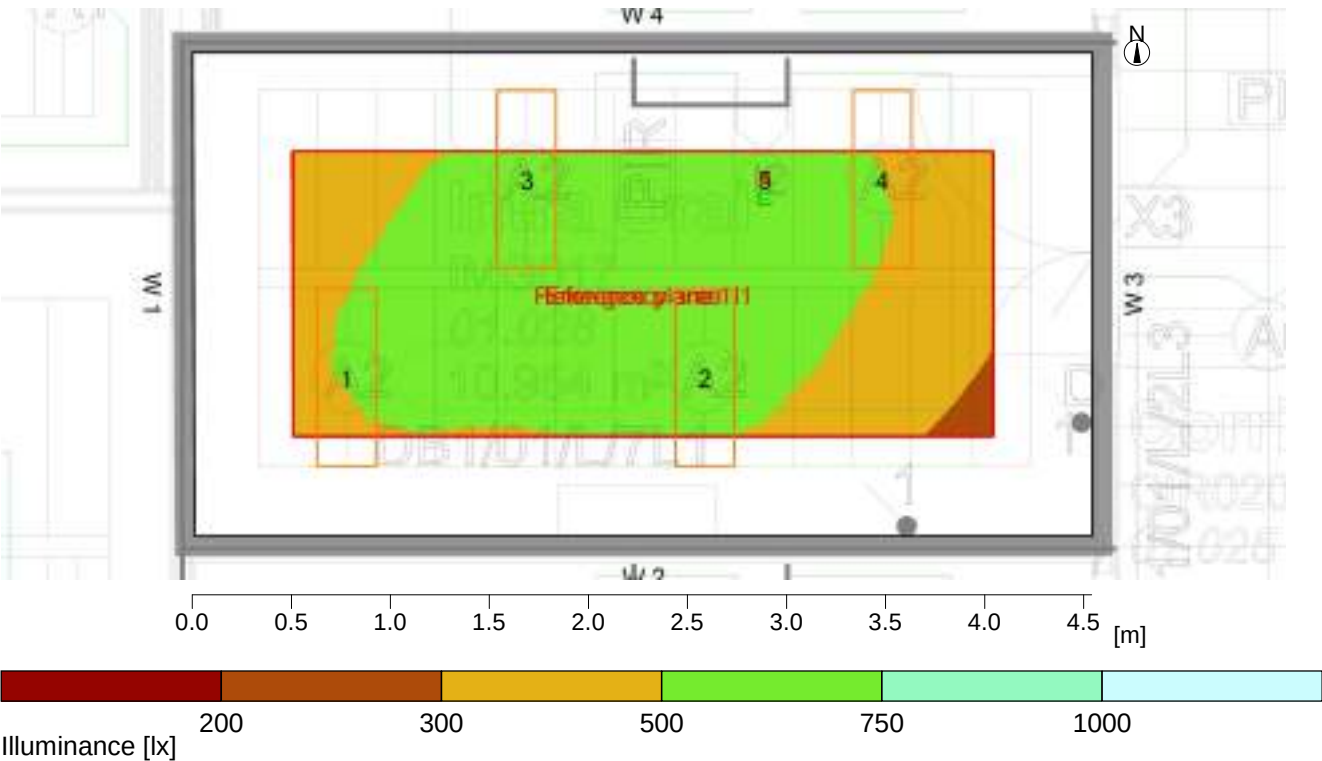
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.2	1.9	1: 1.57	0.00



3 Intra Oral - IMG017 - 01.028

3.1 Summary, Intra Oral - IMG017 - 01.028

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8000.00 lm
Total power	72.0 W
Total power per area (11.06 m²)	6.51 W/m² (1.30 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	499 lx
Emin	263 lx
Emin/Eav (Uo)	0.53
Emin/Emax (Ud)	0.43
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	87 lx	0.78
M 1.1 (Wall)	208 lx	0.62
M 1.2 (Wall)	211 lx	0.47
M 1.3 (Wall)	164 lx	0.65
M 1.4 (Wall)	229 lx	0.52

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

3 Intra Oral - IMG017 - 01.028

3.1 Summary, Intra Oral - IMG017 - 01.028

3.1.1 Result overview, Evaluation area 1



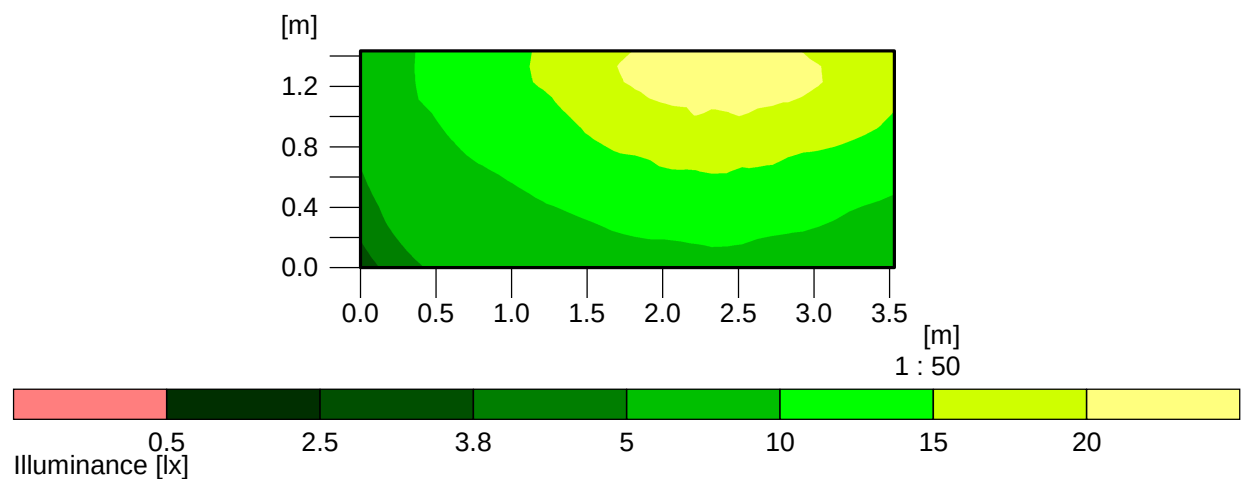
		Whitecroft Lighting	
3	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm



3 Intra Oral - IMG017 - 01.028

3.2 Calculation results, Intra Oral - IMG017 - 01.028

3.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3.3 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 6.72 (0.15) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



3.2 Summary, Intra Oral - IMG017 - 01.028

3.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
6	1	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

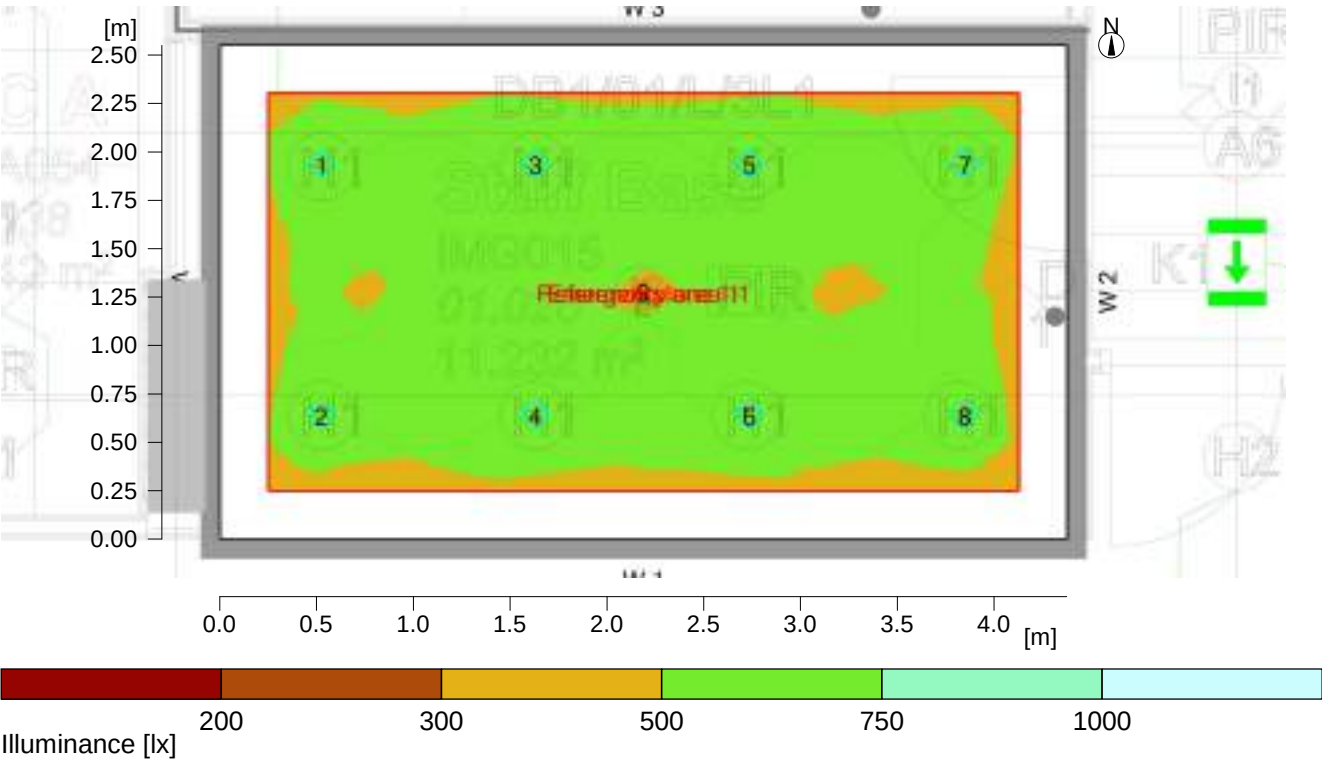
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.3	22.1	1: 6.72	0.00



4 Staff Base - IMG015 - 01.026

4.1 Summary, Staff Base - IMG015 - 01.026

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	7680.00 lm (80.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	104.0 W
Total power per area (11.16 m²)	9.32 W/m² (1.70 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	549 lx
Emin	499 lx
Emin/Eav (Uo)	0.91
Emin/Emax (Ud)	0.80
Position	0.75 m

Major surfaces

	Em	Uo
M 1.6 (Ceiling)	42 lx	0.83
M 1.2 (Wall)	103 lx	0.44
M 1.3 (Wall)	96 lx	0.37
M 1.4 (Wall)	94 lx	0.37
M 1.5 (Wall)	102 lx	0.34

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

4 Staff Base - IMG015 - 01.026

4.1 Summary, Staff Base - IMG015 - 01.026

4.1.1 Result overview, Evaluation area 1



Type No. Make

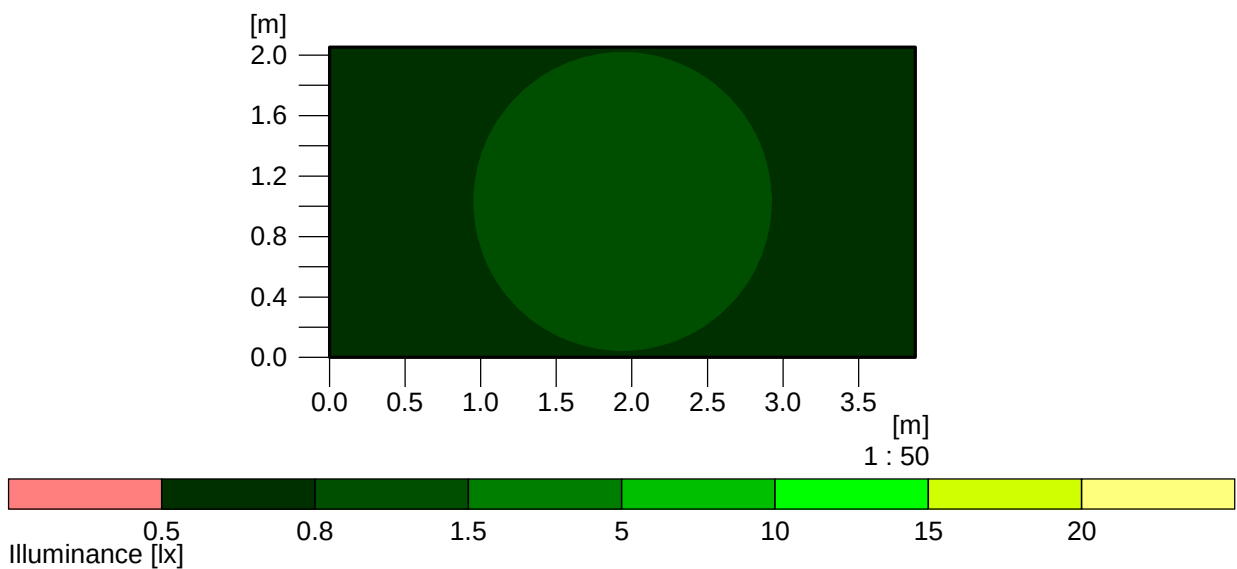


Whitecroft Lighting
Order No. : !CNXH14K+CNX-IP54C
Luminaire name : H1 - CONCERT XL
Equipment : 1 x LED 13 W / 1200 lm

4 Staff Base - IMG015 - 01.026

4.2 Calculation results, Staff Base - IMG015 - 01.026

4.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.84 (0.55) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018



4.2 Summary, Staff Base - IMG015 - 01.026

4.2.2 Result overview (emergency lighting)

Type No. Make

5 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

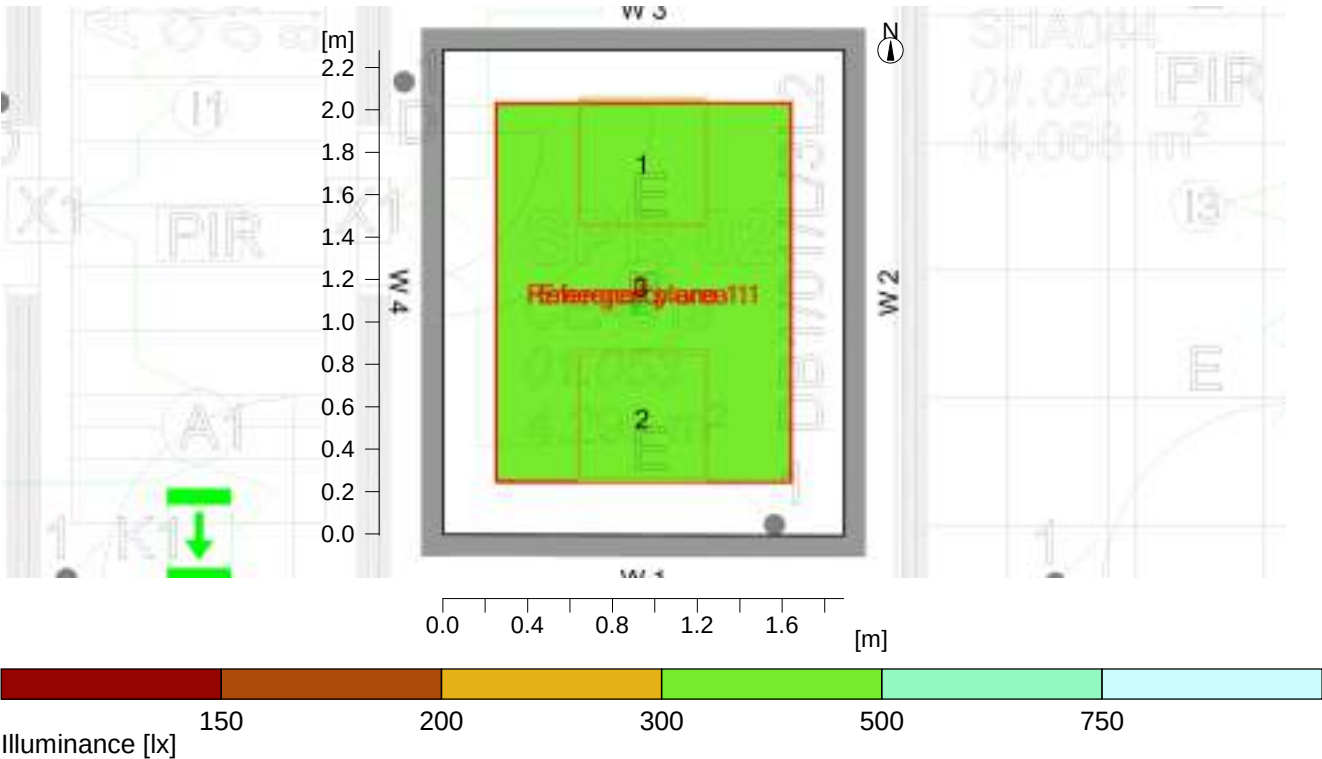
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	1.3	1: 1.84	0.00



5 SPR 02 - CEA019 - 01.053

5.1 Summary, SPR 02 - CEA019 - 01.053

5.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	7062.00 lm
Total power	54.0 W
Total power per area (4.31 m²)	12.51 W/m² (3.32 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	377 lx
Emin	322 lx
Emin/Eav (Uo)	0.85
Emin/Emax (Ud)	0.75
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	6 lx	0.92
M 1.1 (Wall)	296 lx	0.35
M 1.2 (Wall)	239 lx	0.43
M 1.3 (Wall)	300 lx	0.34
M 1.4 (Wall)	243 lx	0.43

Type No.1Make

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

5 SPR 02 - CEA019 - 01.053

5.1 Summary, SPR 02 - CEA019 - 01.053

5.1.1 Result overview, Evaluation area 1



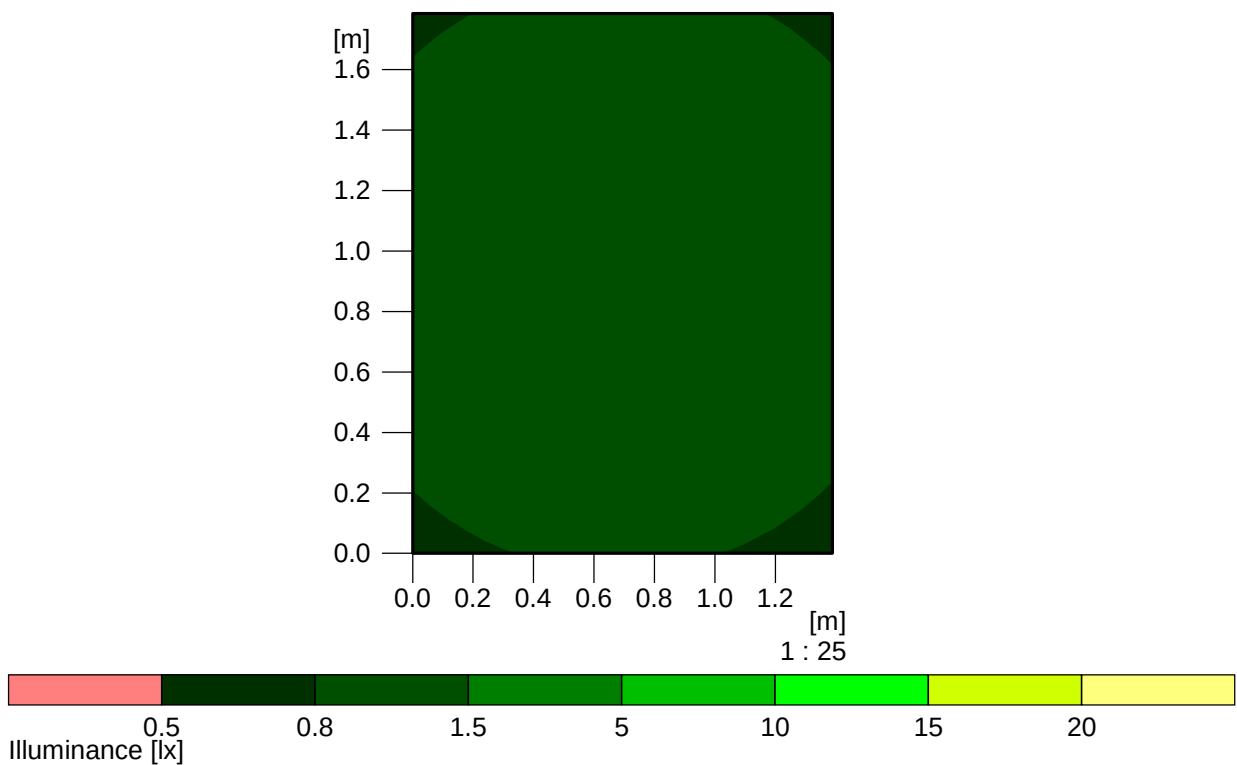
		Whitecroft Lighting	
1	2	Order No.	: !TAELH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm



5 SPR 02 - CEA019 - 01.053

5.2 Calculation results, SPR 02 - CEA019 - 01.053

5.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.8 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.72 (0.58) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



5.2 Summary, SPR 02 - CEA019 - 01.053

5.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
5	1	Order No.	: !FLE31
		Luminaire name	: I3 - FLORIN E3
		Equipment	: 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

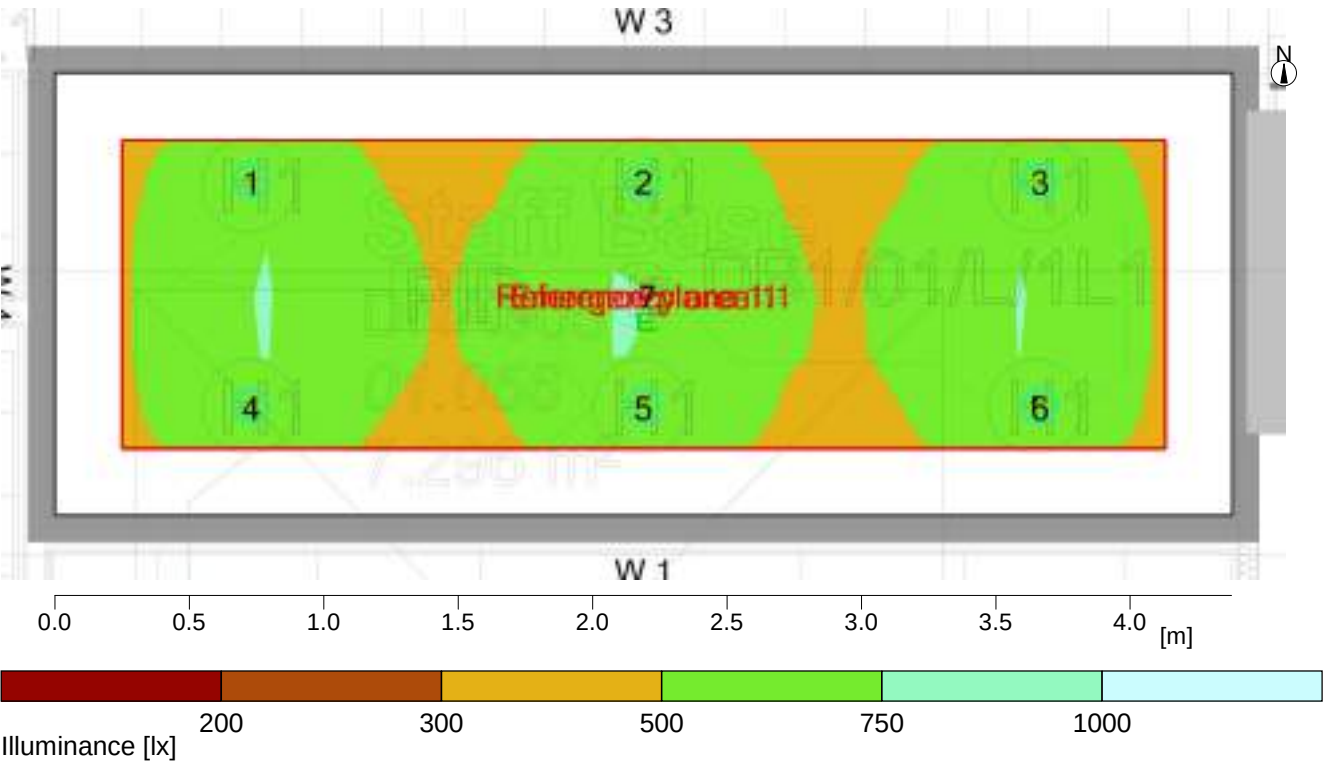
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.8	1.3	1: 1.72	0.00



6 Staff Base - DNA005 - 01.056

6.1 Summary, Staff Base - DNA005 - 01.056

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	5760.00 lm (80.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	78.0 W
Total power per area (7.19 m²)	10.85 W/m² (1.89 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	574 lx
Emin	396 lx
Emin/Eav (Uo)	0.69
Emin/Emax (Ud)	0.55
Position	0.75 m

Major surfaces

	Em	Uo
M 1.6 (Ceiling)	35 lx	0.81
M 1.1 (Wall)	95 lx	0.25
M 1.2 (Wall)	84 lx	0.39
M 1.4 (Wall)	117 lx	0.38
M 1.5 (Wall)	87 lx	0.38

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

6 Staff Base - DNA005 - 01.056

6.1 Summary, Staff Base - DNA005 - 01.056

6.1.1 Result overview, Evaluation area 1



Type No. Make



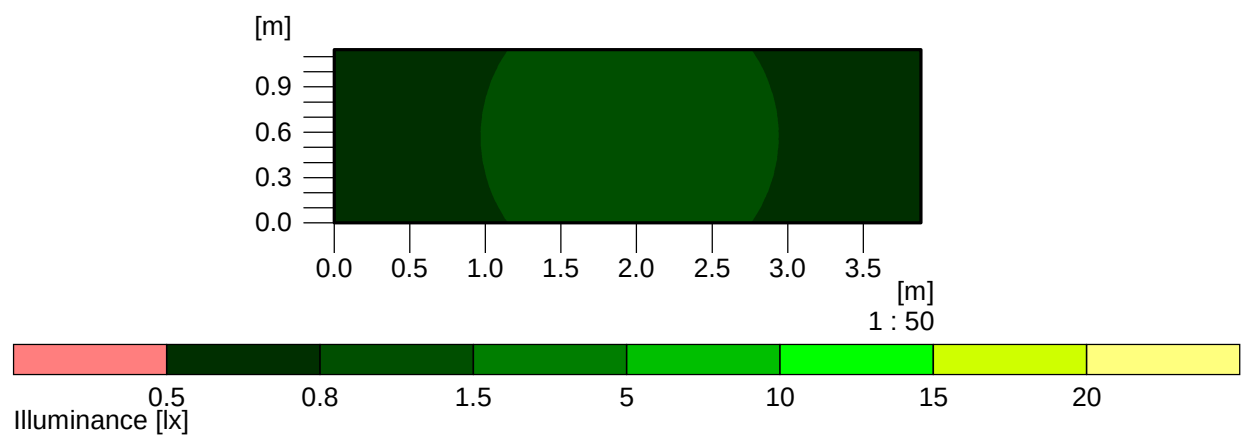
Whitecroft Lighting
Order No. : !CNXH14K+CNX-IP54C
Luminaire name : H1 - CONCERT XL
Equipment : 1 x LED 13 W / 1200 lm



6 Staff Base - DNA005 - 01.056

6.2 Calculation results, Staff Base - DNA005 - 01.056

6.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.7 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.84 (0.55) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



6.2 Summary, Staff Base - DNA005 - 01.056

6.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
5	1	Order No.	: !FLE31
		Luminaire name	: I3 - FLORIN E3
		Equipment	: 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

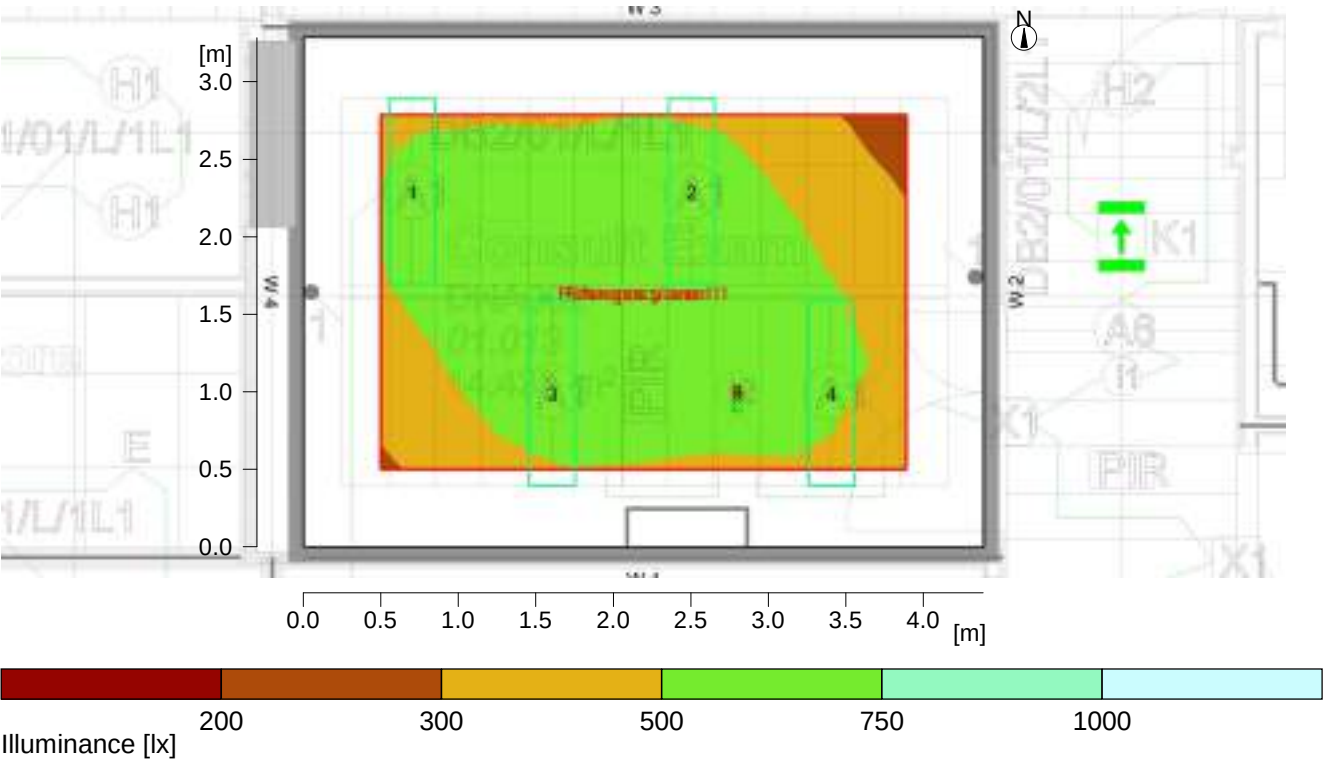
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.7	1.3	1: 1.84	0.00



7 Consult Exam - DNA002 - 01.013

7.1 Summary, Consult Exam - DNA002 - 01.013

7.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	10000.00 lm
Total power	92.0 W
Total power per area (14.40 m²)	6.39 W/m² (1.22 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	523 lx
Emin	283 lx
Emin/Eav (Uo)	0.54
Emin/Emax (Ud)	0.43
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	79 lx	0.82
M 1.1 (Wall)	208 lx	0.58
M 1.2 (Wall)	175 lx	0.56
M 1.3 (Wall)	203 lx	0.48
M 1.4 (Wall)	213 lx	0.51

Type No.IMake

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

7 Consult Exam - DNA002 - 01.013

7.1 Summary, Consult Exam - DNA002 - 01.013

7.1.1 Result overview, Evaluation area 1



Whitecroft Lighting

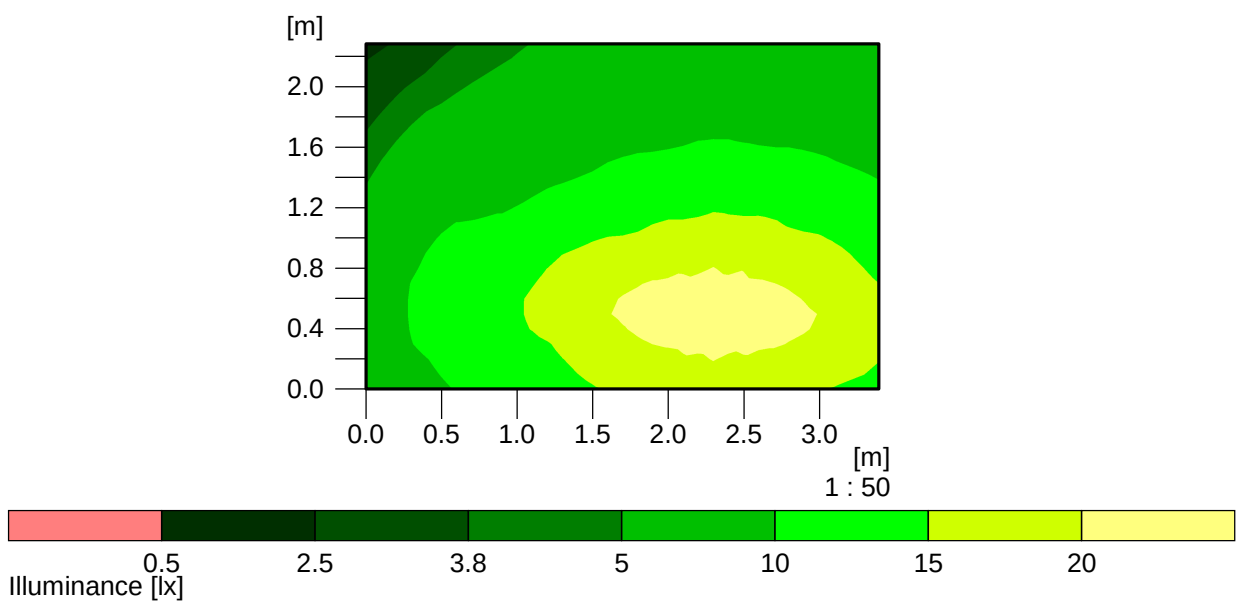
8	4	Order No.	: !CLFY#/1194/SRF###
		Luminaire name	: A1 - CITYLINE
		Equipment	: 1 x LED 20 W / 2500 lm



7 Consult Exam - DNA002 - 01.013

7.2 Calculation results, Consult Exam - DNA002 - 01.013

7.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 2.1 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 10.70 (0.09) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



7.2 Summary, Consult Exam - DNA002 - 01.013

7.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
6	1	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

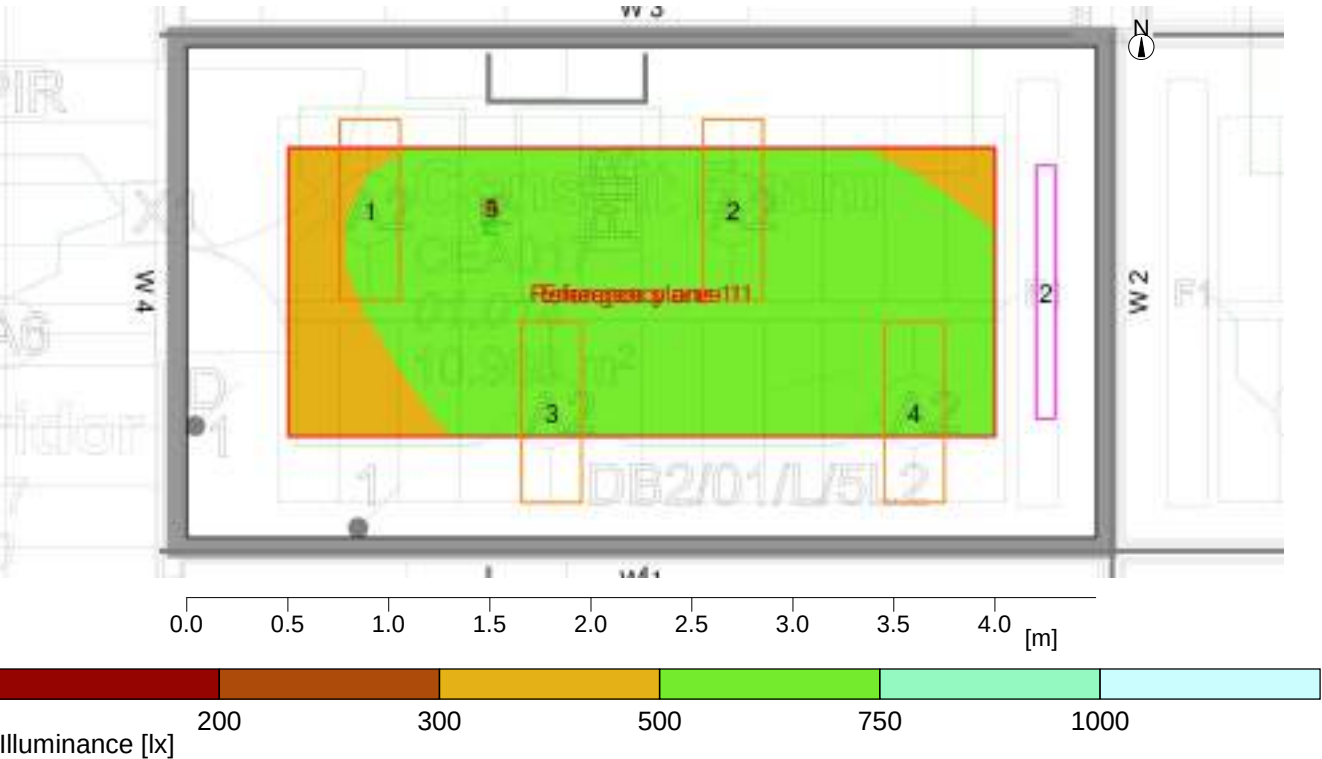
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	2.1	22.2	1: 10.72	0.00



8 Consult Exam - CEA017 - 01.014

8.1 Summary, Consult Exam - CEA017 - 01.014

8.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	9557.00 lm
Total power	85.0 W
Total power per area (10.91 m²)	7.79 W/m² (1.39 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	562 lx
Emin	334 lx
Emin/Eav (Uo)	0.59
Emin/Emax (Ud)	0.51
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	106 lx	0.77
M 1.1 (Wall)	264 lx	0.45
M 1.2 (Wall)	268 lx	0.72
M 1.3 (Wall)	249 lx	0.69
M 1.4 (Wall)	205 lx	0.65

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

8 Consult Exam - CEA017 - 01.014

8.1 Summary, Consult Exam - CEA017 - 01.014

8.1.1 Result overview, Evaluation area 1

Whitecroft Lighting

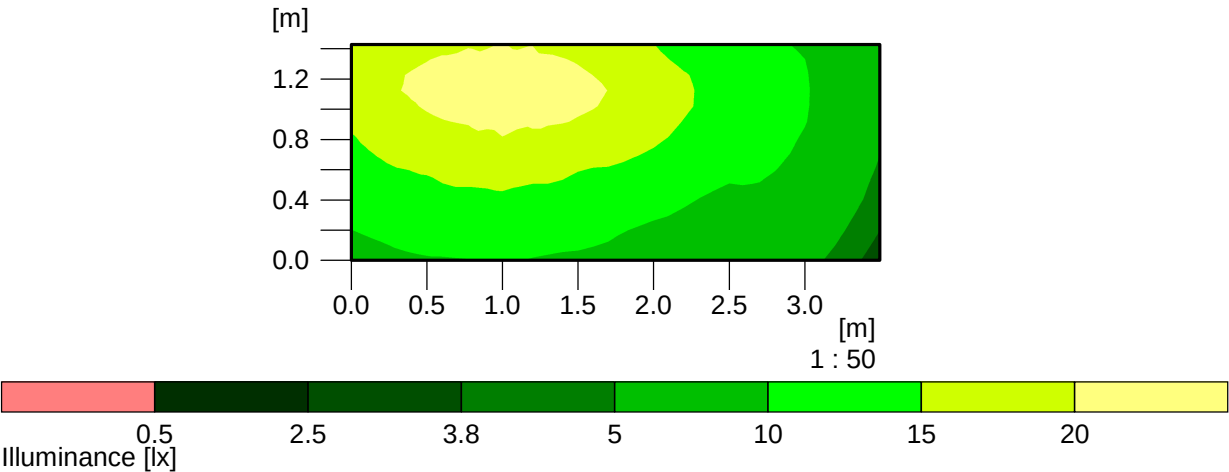
3	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm
9	1	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm



8 Consult Exam - CEA017 - 01.014

8.2 Calculation results, Consult Exam - CEA017 - 01.014

8.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3.2 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 6.85 (0.15) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



8.2 Summary, Consult Exam - CEA017 - 01.014

8.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
6	1	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

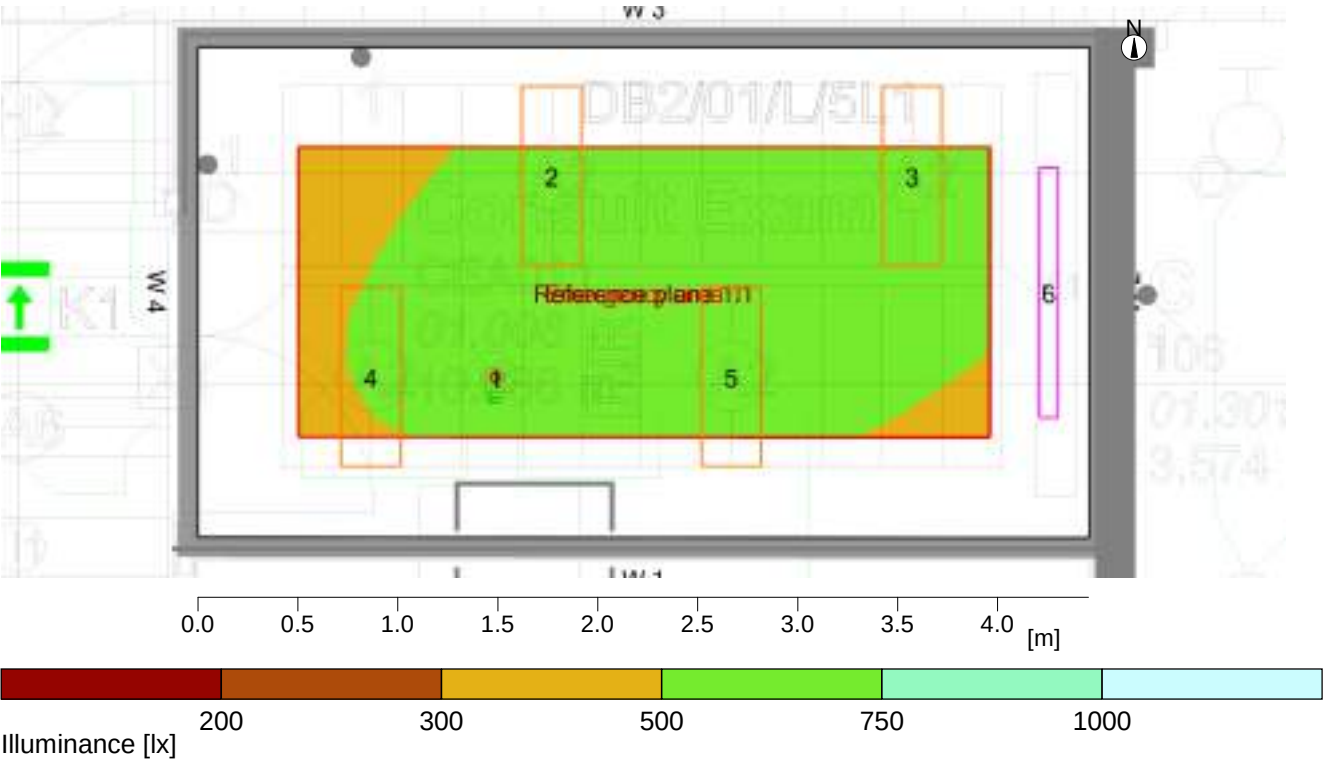
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.2	22.2	1: 6.85	0.00



9 Consult Exam - CEA011 - 01.006

9.1 Summary, Consult Exam - CEA011 - 01.006

9.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	9557.00 lm
Total power	85.0 W
Total power per area (10.91 m²)	7.79 W/m² (1.39 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	561 lx
Emin	340 lx
Emin/Eav (Uo)	0.61
Emin/Emax (Ud)	0.52
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	106 lx	0.78
M 1.1 (Wall)	249 lx	0.69
M 1.2 (Wall)	260 lx	0.73
M 1.3 (Wall)	262 lx	0.46
M 1.4 (Wall)	210 lx	0.65

Type No. Make

Object : UCLH Phase 5 - REV 4
Installation : First
Project number : (58285) 5808
Date : 09.10.2018

9 Consult Exam - CEA011 - 01.006

9.1 Summary, Consult Exam - CEA011 - 01.006

9.1.1 Result overview, Evaluation area 1



Whitecroft Lighting

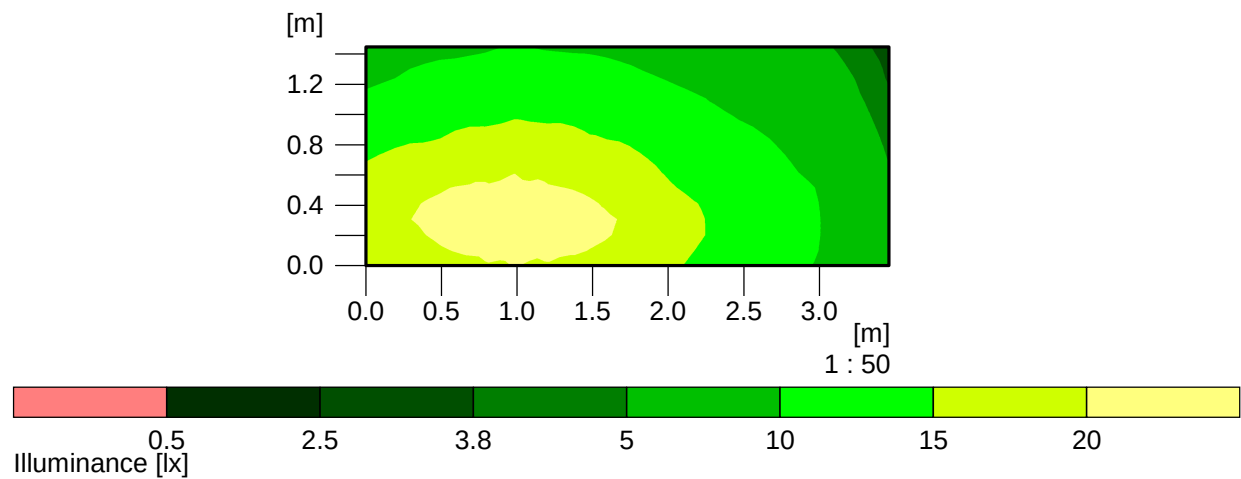
3	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm
9	1	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm



9 Consult Exam - CEA011 - 01.006

9.2 Calculation results, Consult Exam - CEA011 - 01.006

9.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3.3 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 6.76 (0.15) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



9.2 Summary, Consult Exam - CEA011 - 01.006

9.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
6	1	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.3	22.2	1: 6.76	0.00



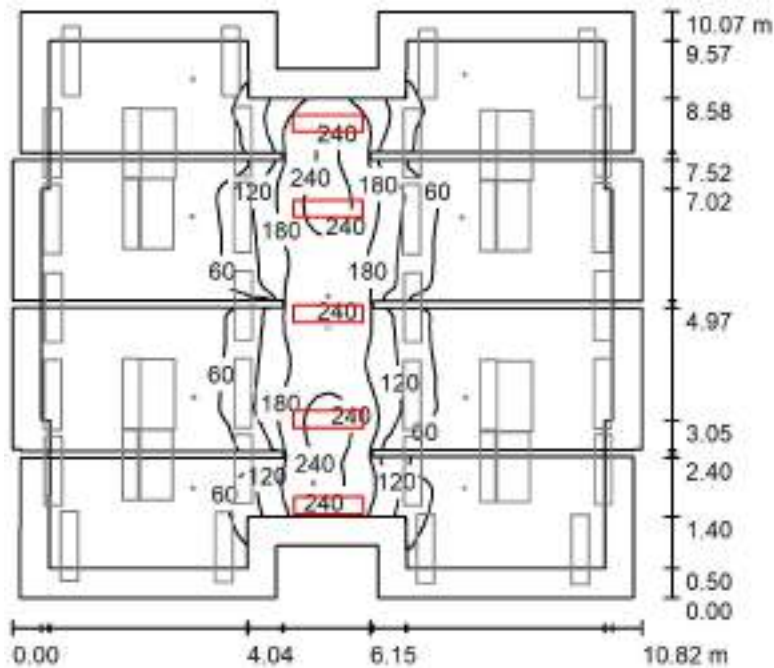
UCLH PHASE 5

LEVEL 2

LIGHT CALCS REPORT

Operator
Telephone
Fax
e-Mail

TREATMENT BAYS 002 - 009 / CORRIDOR / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	60	3.60	263	0.060
Floor	20	48	4.03	184	0.085
Ceiling	70	9.63	3.21	32	0.333
Walls (21)	50	13	4.02	175	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.233, Ceiling / Working Plane: 0.159.

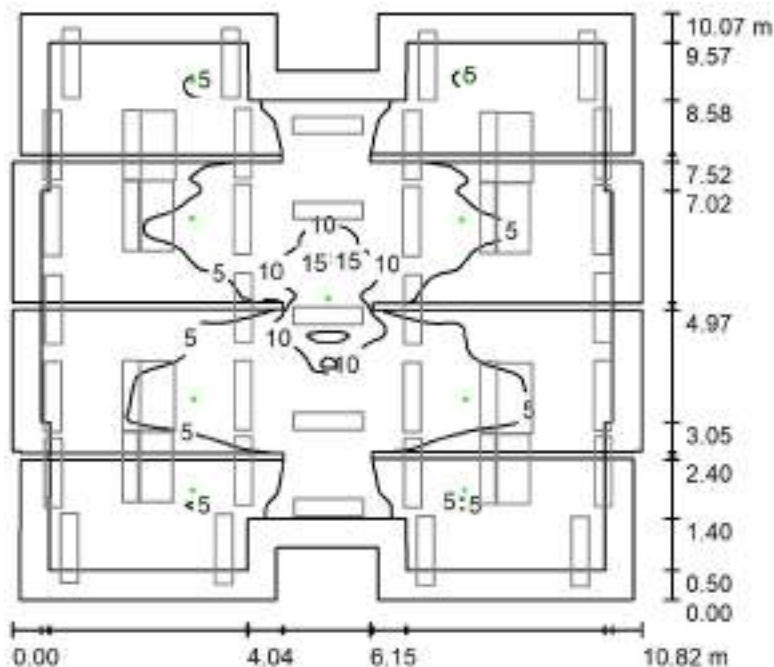
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
*Modified Technical Specifications			Total: 7120	Total: 7125	90.0

Specific connected load: $0.86 \text{ W/m}^2 = 1.43 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 104.33 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAYS 002 - 009 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	4.90	1.17	17	0.239
Floor	20	2.62	0.91	9.56	0.347
Ceiling	70	0.05	0.00	5.45	0.014
Walls (21)	50	4.71	0.25	50	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.978, Ceiling / Working Plane: 0.009.

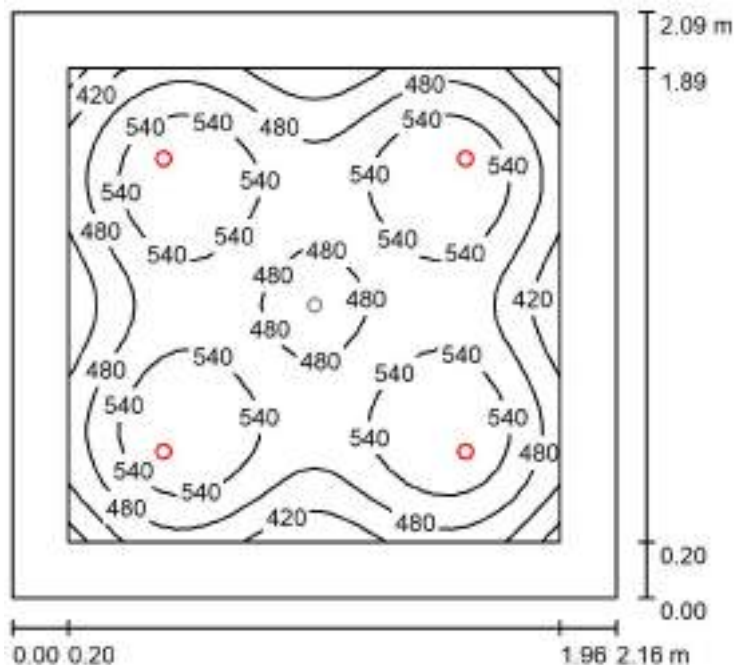
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	8	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
2	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			1421	1260	27.0

Specific connected load: $0.26 \text{ W/m}^2 = 5.29 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 104.33 m^2)

Operator
Telephone
Fax
e-Mail

BABY CHANGE & FEED / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:27

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	504	341	599	0.677
Floor	20	360	198	444	0.549
Ceiling	70	52	40	67	0.770
Walls (4)	50	111	44	177	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.200 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.212, Ceiling / Working Plane: 0.103.

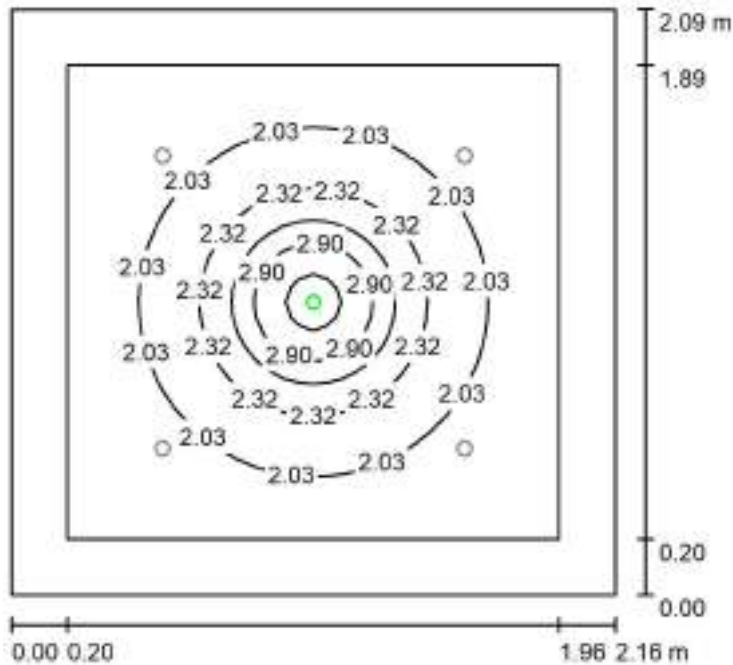
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			3144	4600	48.0

Specific connected load: $10.65 \text{ W/m}^2 = 2.11 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.51 m^2)

Operator
Telephone
Fax
e-Mail

BABY CHANGE & FEED / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:27

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	2.09	1.80	3.24	0.859
Floor	20	1.05	0.86	1.55	0.821
Ceiling	70	0.09	0.00	4.43	0.000
Walls (4)	50	5.89	0.39	49	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.200 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 3.982, Ceiling / Working Plane: 0.043.

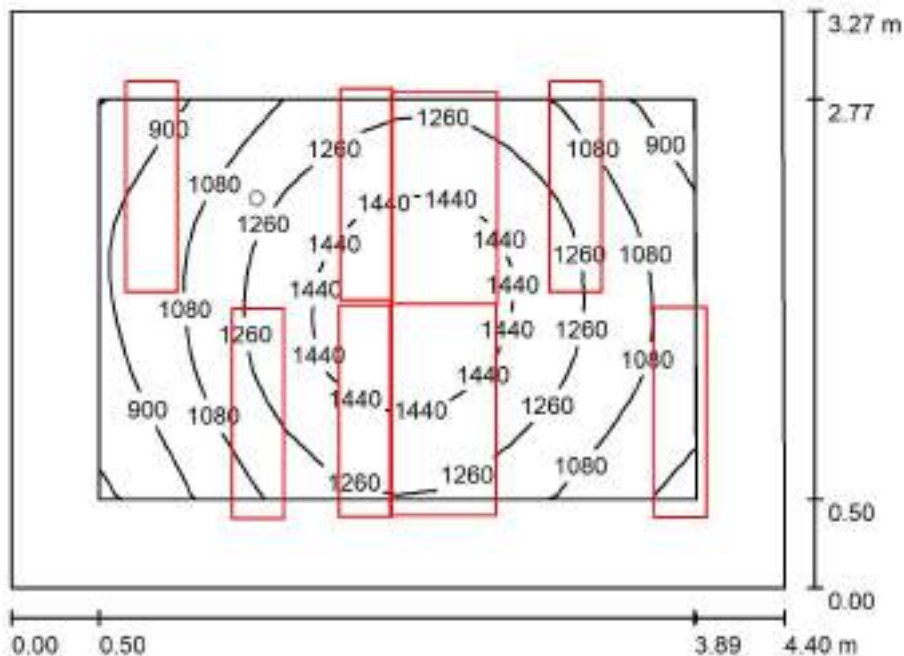
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.67 \text{ W/m}^2 = 31.83 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.51 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT ROOM DNP 010 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:43

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1199	709	1577	0.592
Floor	20	802	459	1085	0.573
Ceiling	70	224	149	297	0.667
Walls (4)	50	501	176	1149	/

Workplane:

Height: 0.750 m
Grid: 16 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.439, Ceiling / Working Plane: 0.187.

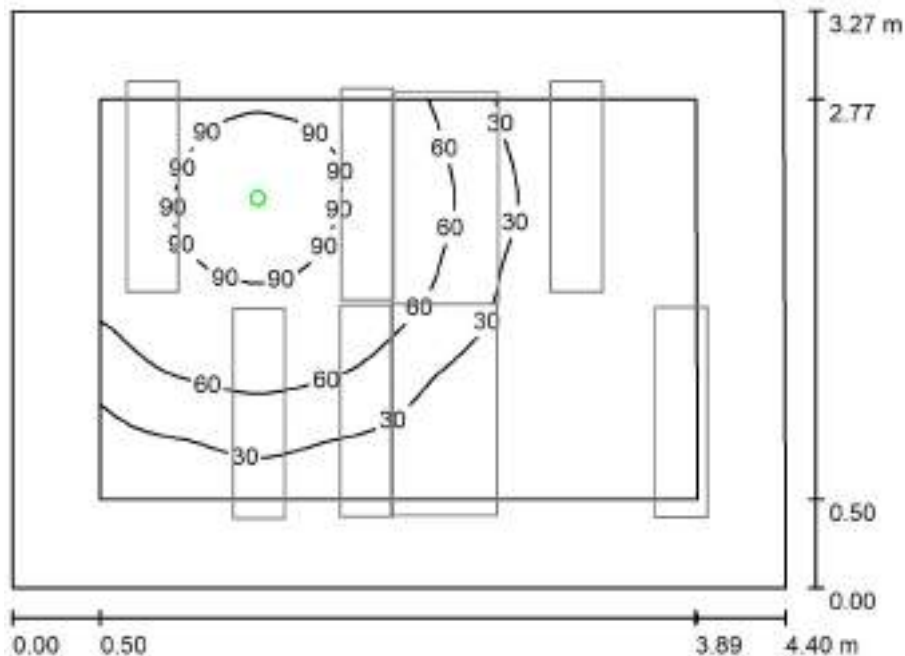
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	FEILOSILVANIA 0047415 Start Flat Panel LED 1200 NW DALI (1.000)	3696	3689	46.4
2	2	FeiloSYLVANIA 0047444 Start Flat Panel LED 1200x600 NW (1.000)	5291	5291	63.1
3	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			25661	25652	291.0

Specific connected load: $20.24 \text{ W/m}^2 = 1.69 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.38 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT ROOM DNP 010 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:43

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	42	0.31	103	0.007
Floor	20	25	0.32	54	0.013
Ceiling	70	0.00	0.00	0.04	0.000
Walls (4)	50	4.05	0.01	47	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.066, Ceiling / Working Plane: 0.000.

Luminaire Parts List

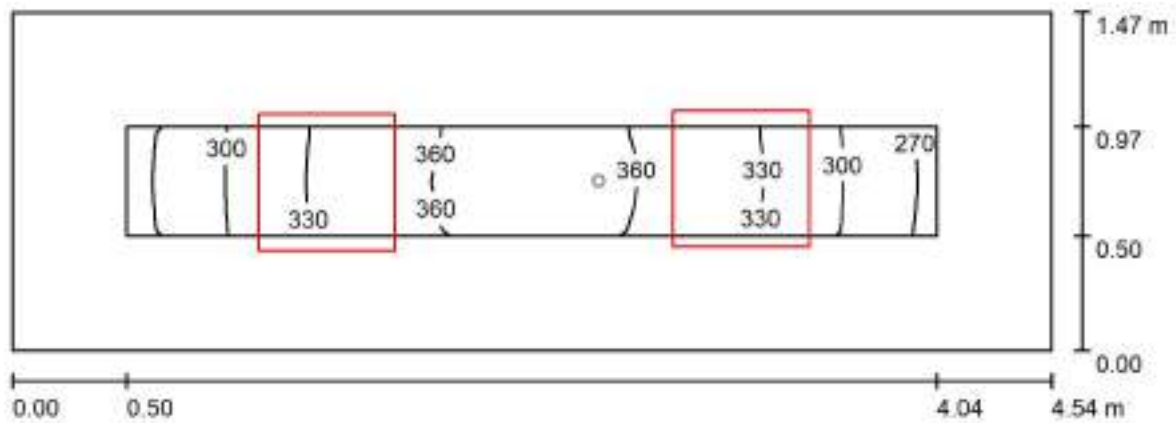
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			667	667	9.0

Specific connected load: $0.63 \text{ W/m}^2 = 1.49 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.38 m^2)



Operator
Telephone
Fax
e-Mail

Audiology Store SHA 065 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	329	262	367	0.795
Floor	20	293	193	365	0.660
Ceiling	70	94	60	116	0.635
Walls (4)	50	199	71	499	/

Workplane:

Height: 0.000 m
Grid: 32 x 4 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.603, Ceiling / Working Plane: 0.286.

Luminaire Parts List

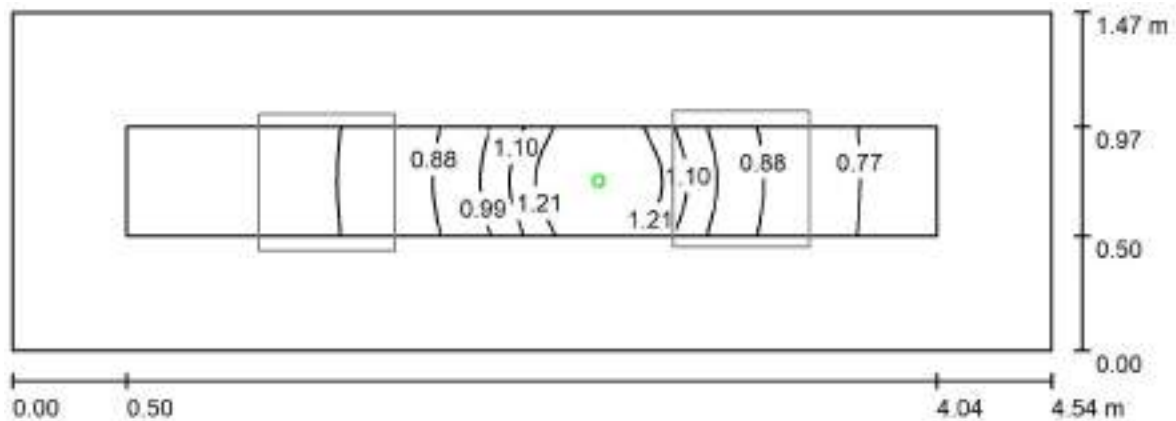
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $8.67 \text{ W/m}^2 = 2.63 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.69 m^2)



Operator
Telephone
Fax
e-Mail

Audiology Store SHA 065 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	0.91	0.71	1.28	0.784
Floor	20	0.83	0.70	1.28	0.850
Ceiling	70	0.06	0.00	4.60	0.000
Walls (4)	50	3.75	0.07	105	/

Workplane:

Height: 0.000 m
Grid: 64 x 8 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.008, Ceiling / Working Plane: 0.066.

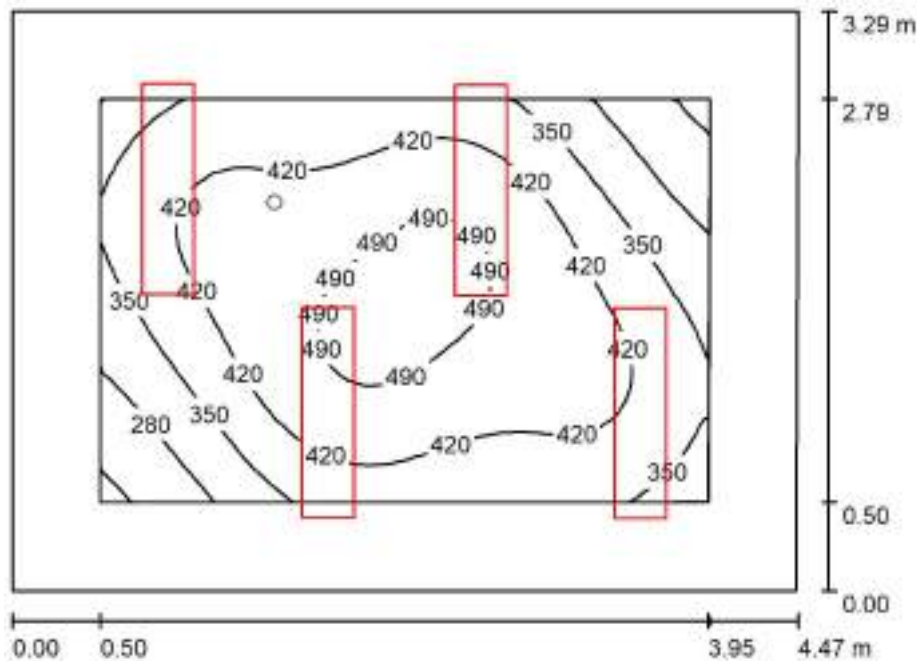
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.45 \text{ W/m}^2 = 49.58 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.69 m^2)

Operator
Telephone
Fax
e-Mail

Paediatric Consult Exam (AVM) CEP 002 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:43

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	402	194	512	0.483
Floor	20	274	137	378	0.501
Ceiling	70	59	41	69	0.685
Walls (4)	50	128	46	222	/

Workplane:

Height: 0.750 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.320, Ceiling / Working Plane: 0.147.

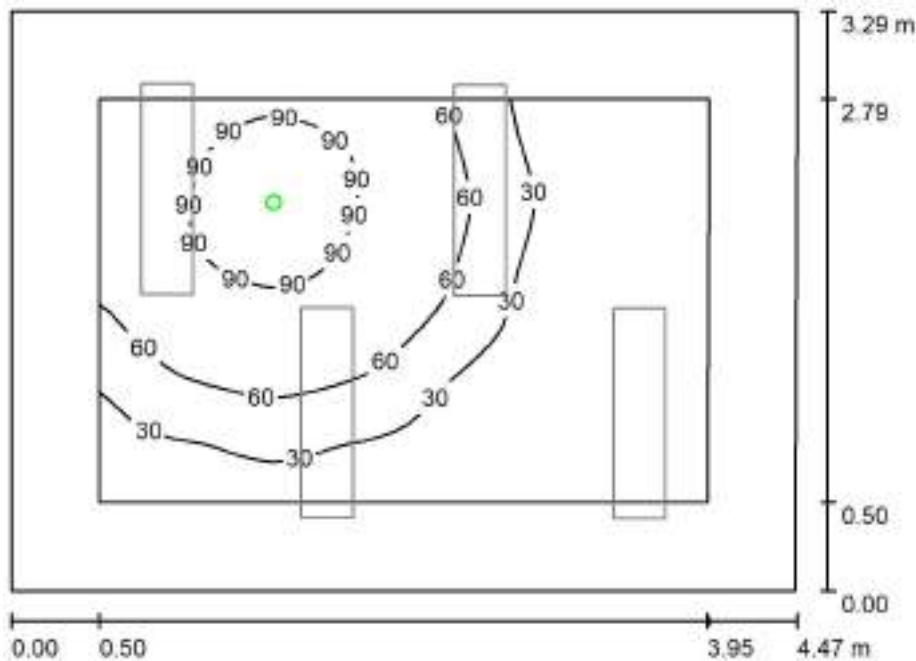
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			7687	7692	72.0

Specific connected load: $4.91 \text{ W/m}^2 = 1.22 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.66 m^2)

Operator
Telephone
Fax
e-Mail

Paediatric Consult Exam (AVM) CEP 002 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:43

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	43	0.33	103	0.008
Floor	20	26	0.35	54	0.014
Ceiling	70	0.00	0.00	0.04	0.000
Walls (4)	50	3.77	0.01	45	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.058, Ceiling / Working Plane: 0.000.

Luminaire Parts List

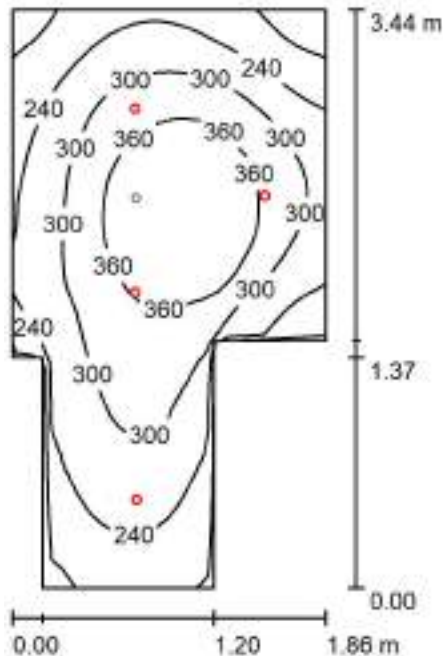
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			667	667	9.0

Specific connected load: $0.61 \text{ W/m}^2 = 1.44 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 14.66 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY SHA 055 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:45

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	287	146	421	0.508
Floor	20	287	141	422	0.492
Ceiling	70	40	30	97	0.759
Walls (8)	50	87	30	270	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.304, Ceiling / Working Plane: 0.139.

Luminaire Parts List

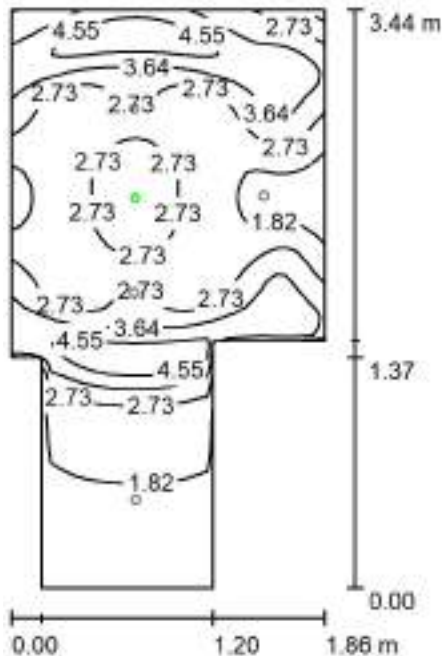
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			3144	4600	48.0

Specific connected load: $9.26 \text{ W/m}^2 = 3.22 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.18 m^2)



Operator
Telephone
Fax
e-Mail

LOBBY SHA 055 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:45

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.78	0.97	5.52	0.350
Floor	20	2.78	0.97	5.52	0.350
Ceiling	70	0.20	0.00	5.78	0.000
Walls (8)	50	3.70	0.19	68	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

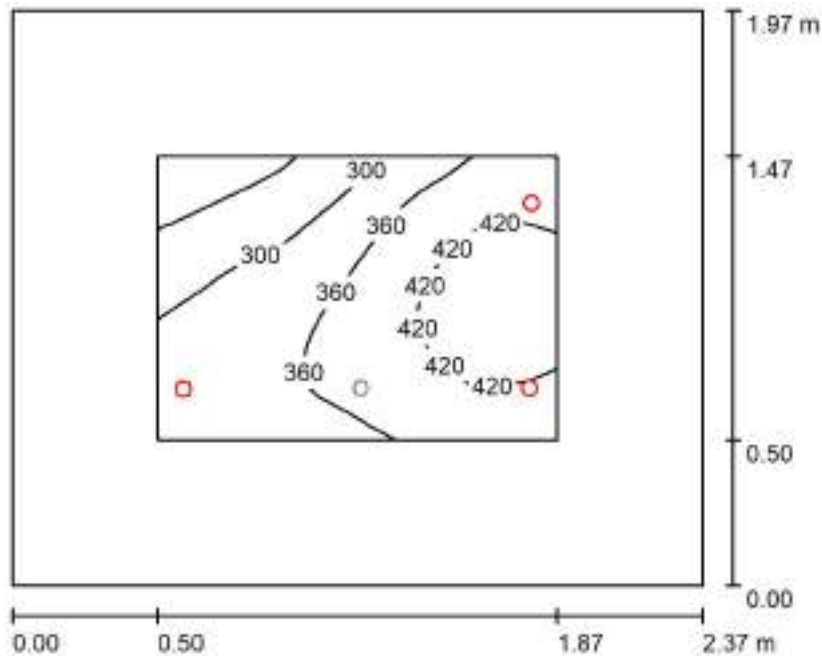
Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.301, Ceiling / Working Plane: 0.071.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.58 \text{ W/m}^2 = 20.79 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.18 m^2)

WC SHA 058 / L / Summary


Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:26

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	356	186	453	0.524
Floor	20	277	76	452	0.275
Ceiling	70	35	26	60	0.742
Walls (4)	50	75	27	160	/

Workplane:

 Height: 0.000 m
 Grid: 32 x 32 Points
 Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.213, Ceiling / Working Plane: 0.100.

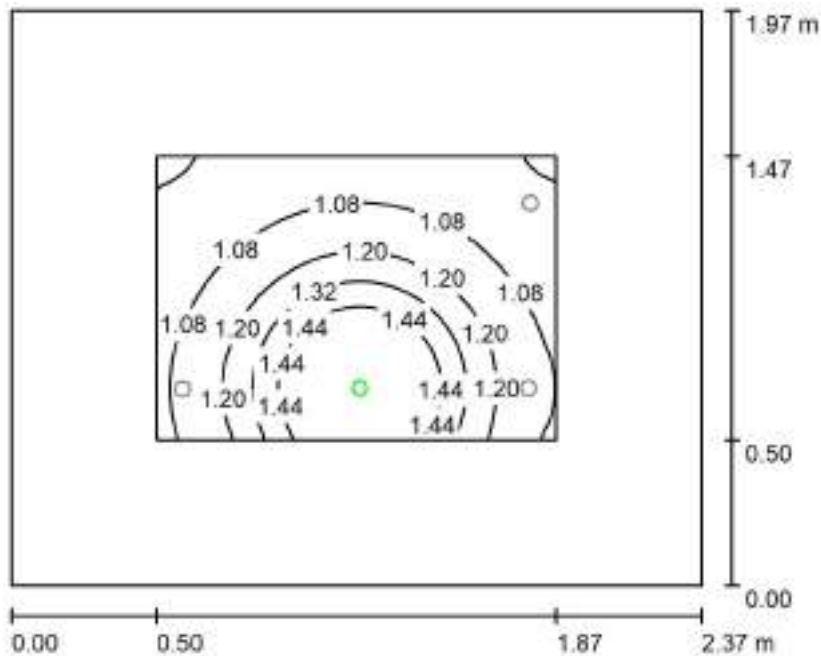
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			2358	3450	36.0

 Specific connected load: $7.69 \text{ W/m}^2 = 2.16 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.68 m^2)

Operator
Telephone
Fax
e-Mail

WC SHA 058 / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:26

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.20	0.94	1.55	0.789
Floor	20	1.03	0.86	1.56	0.832
Ceiling	70	0.09	0.00	4.60	0.000
Walls (4)	50	5.74	0.25	122	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.849, Ceiling / Working Plane: 0.072.

Luminaire Parts List

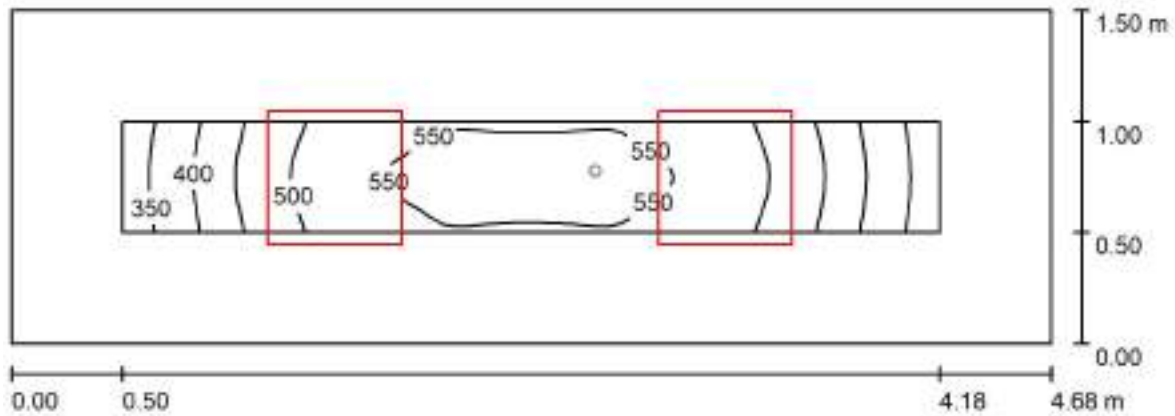
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.64 \text{ W/m}^2 = 53.55 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.68 m^2)



Operator
Telephone
Fax
e-Mail

EQUIPMENT STORE SHA 062 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:34

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	488	319	561	0.655
Floor	20	297	185	386	0.621
Ceiling	70	95	57	120	0.602
Walls (4)	50	198	65	492	/

Workplane:

Height: 0.750 m
Grid: 64 x 8 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.447, Ceiling / Working Plane: 0.194.

Luminaire Parts List

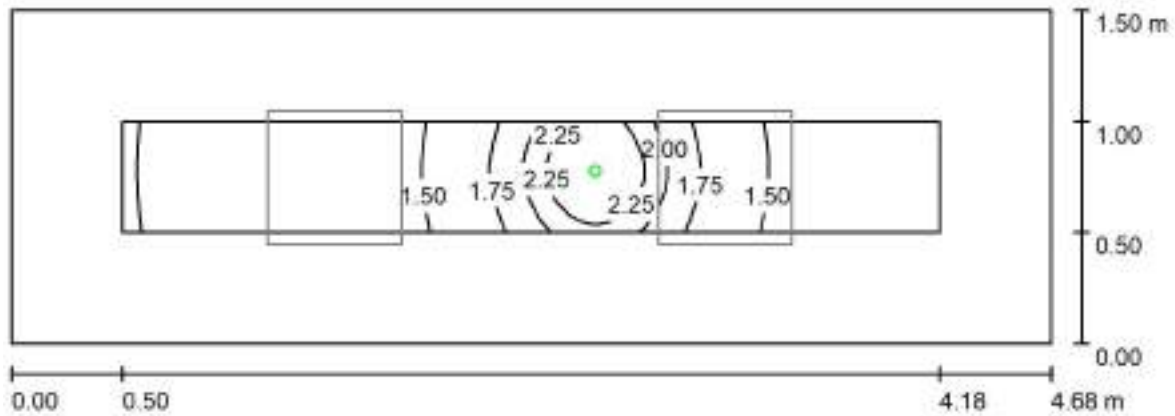
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT DLAAGH14K DTFA LED (1.000)	3223	3208	45.0
Total:			6446	6416	90.0

Specific connected load: $12.86 \text{ W/m}^2 = 2.64 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 7.00 m^2)



Operator
Telephone
Fax
e-Mail

EQUIPMENT STORE SHA 062 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:34

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	1.62	1.21	2.46	0.747
Floor	20	0.82	0.69	1.28	0.843
Ceiling	70	0.06	0.00	3.87	0.000
Walls (4)	50	3.64	0.06	106	/

Workplane:

Height: 0.750 m
Grid: 64 x 8 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 3.057, Ceiling / Working Plane: 0.034.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.43 \text{ W/m}^2 = 26.53 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 7.00 m^2)



UCLH Phase 5 - REV 4

Installation : Second

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 10.10.2018

Project description:
WLL Sample lighting calculations to areas as requested.

Calculation parameters:

Standard reflectances:
70% ceiling / 50% wall / 20% floor

Maintenance factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

First Page	1
Table of contents	2
1 Consult Exam - CEP011 - 02.028	
1.1 Summary, Consult Exam - CEP011 - 02.028	
1.1.1 Result overview, Evaluation area 1	4
1.2 Calculation results, Consult Exam - CEP011 - 02.028	
1.2.1 Boundary line, Emergency area 1 (E)	6
1.2 Summary, Consult Exam - CEP011 - 02.028	
1.2.2 Result overview (emergency lighting)	7
2 Staff Breakout - SHA067 - 02.055	
2.1 Summary, Staff Breakout - SHA067 - 02.055	
2.1.1 Result overview, Evaluation area 1	8
2.2 Calculation results, Staff Breakout - SHA067 - 02.055	
2.2.1 Boundary line, Emergency area 1 (E)	10
2.2 Summary, Staff Breakout - SHA067 - 02.055	
2.2.2 Result overview (emergency lighting)	11
3 SPR05 - CEP015 - 02.014	
3.1 Summary, SPR05 - CEP015 - 02.014	
3.1.1 Result overview, Evaluation area 1	12
3.2 Calculation results, SPR05 - CEP015 - 02.014	
3.2.1 Boundary line, Emergency area 1 (E)	14
3.2 Summary, SPR05 - CEP015 - 02.014	
3.2.2 Result overview (emergency lighting)	15
4 SPR01 - CEP019 - 02.051	
4.1 Summary, SPR01 - CEP019 - 02.051	
4.1.1 Result overview, Evaluation area 1	16
4.2 Calculation results, SPR01 - CEP019 - 02.051	
4.2.1 Boundary line, Emergency area 1 (E)	18
4.2 Summary, SPR01 - CEP019 - 02.051	
4.2.2 Result overview (emergency lighting)	19
5 Consult/Exam - CEP020 - 02.034	
5.1 Summary, Consult/Exam - CEP020 - 02.034	
5.1.1 Result overview, Evaluation area 1	20
5.2 Calculation results, Consult/Exam - CEP020 - 02.034	
5.2.1 Boundary line, Emergency area 1 (E)	22
5.2 Summary, Consult/Exam - CEP020 - 02.034	
5.2.2 Result overview (emergency lighting)	23
6 SPR 03 - CEP013 - 02.015a	
6.1 Summary, SPR 03 - CEP013 - 02.015a	
6.1.1 Result overview, Evaluation area 1	24
6.2 Calculation results, SPR 03 - CEP013 - 02.015a	
6.2.1 Boundary line, Emergency area 1 (E)	26
6.2 Summary, SPR 03 - CEP013 - 02.015a	
6.2.2 Result overview (emergency lighting)	27
7 SPR 02 - CEP012 - 02.016	
7.1 Summary, SPR 02 - CEP012 - 02.016	
7.1.1 Result overview, Evaluation area 1	28
7.2 Calculation results, SPR 02 - CEP012 - 02.016	
7.2.1 Boundary line, Emergency area 1 (E)	30
7.2 Summary, SPR 02 - CEP012 - 02.016	
7.2.2 Result overview (emergency lighting)	31
8 Consult Exam - CEP004 - 02.005	
8.1 Summary, Consult Exam - CEP004 - 02.005	
8.1.1 Result overview, Evaluation area 1	32
8.2 Calculation results, Consult Exam - CEP004 - 02.005	
8.2.1 Boundary line, Emergency area 1 (E)	34
8.2 Summary, Consult Exam - CEP004 - 02.005	



Table of contents

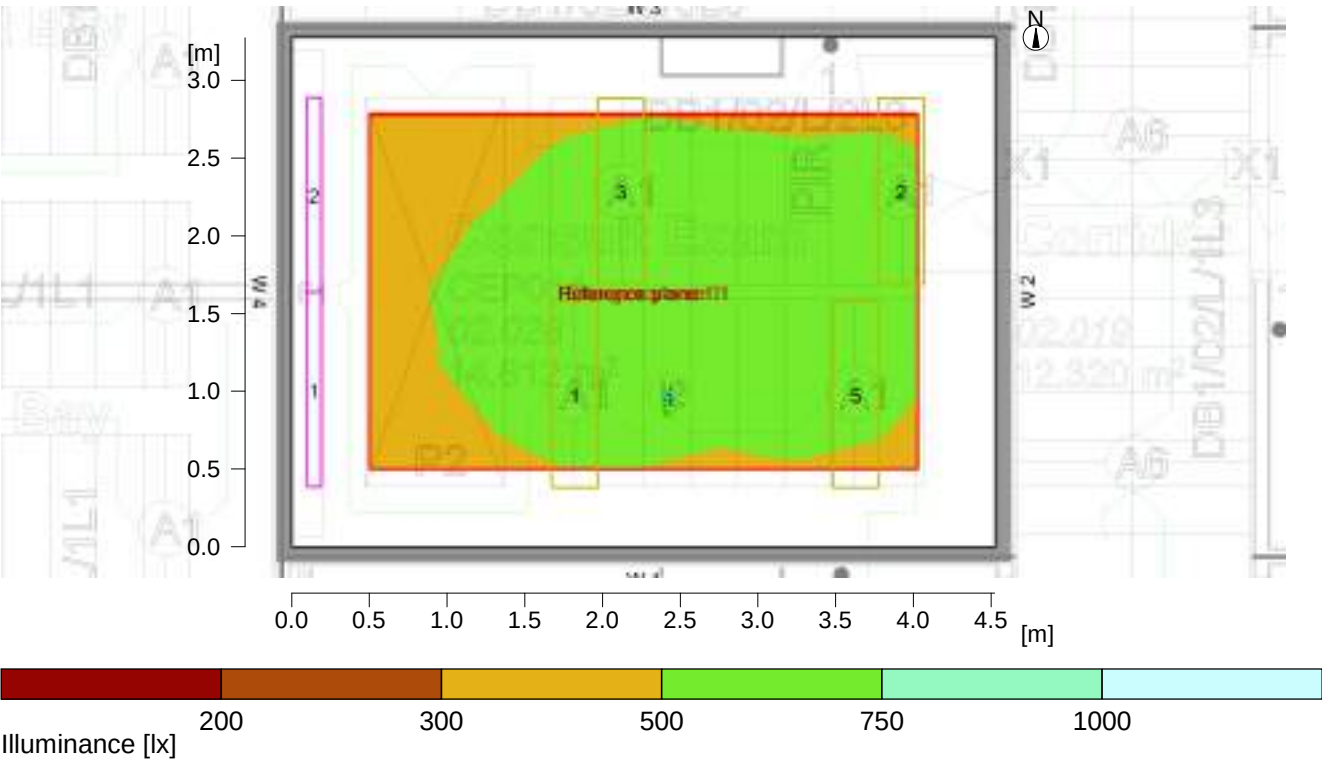
8.2.2	Result overview (emergency lighting)	35
9	Paediatric - CEP001 - 02.008	
9.1	Summary, Paediatric - CEP001 - 02.008	
9.1.1	Result overview, Evaluation area 1	36
9.2	Calculation results, Paediatric - CEP001 - 02.008	
9.2.1	Boundary line, Emergency area 1 (E)	38
9.2	Summary, Paediatric - CEP001 - 02.008	
9.2.2	Result overview (emergency lighting)	39



1 Consult Exam - CEP011 - 02.028

1.1 Summary, Consult Exam - CEP011 - 02.028

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	11955.60 lm (92.41% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	118.0 W
Total power per area (14.81 m²)	7.97 W/m² (1.50 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	531 lx
Emin	368 lx
Emin/Eav (Uo)	0.69
Emin/Emax (Ud)	0.57
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	94 lx	0.95
M 1.1 (Wall)	227 lx	0.70
M 1.2 (Wall)	267 lx	0.73
M 1.3 (Wall)	220 lx	0.73
M 1.4 (Wall)	181 lx	0.76

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

1 Consult Exam - CEP011 - 02.028

1.1 Summary, Consult Exam - CEP011 - 02.028

1.1.1 Result overview, Evaluation area 1



Type No. Make

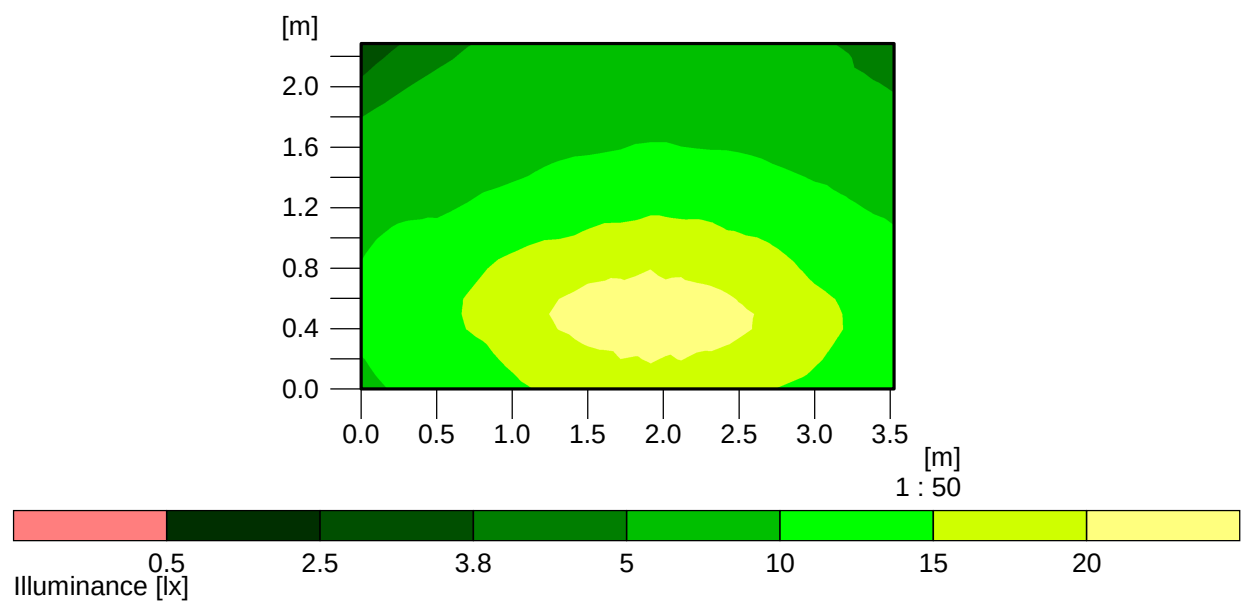
		Whitcroft Lighting	
1	4	Order No.	: !CLFY2SRF1
		Luminaire name	: A1 - CITYLINE
		Equipment	: 1 x LED 23 W / 2456 lm
5	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm



1 Consult Exam - CEP011 - 02.028

1.2 Calculation results, Consult Exam - CEP011 - 02.028

1.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 7.34 (0.14) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



1.2 Summary, Consult Exam - CEP011 - 02.028

1.2.2 Result overview (emergency lighting)

Type No. Make

6 1 **Whitecroft Lighting**
 Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

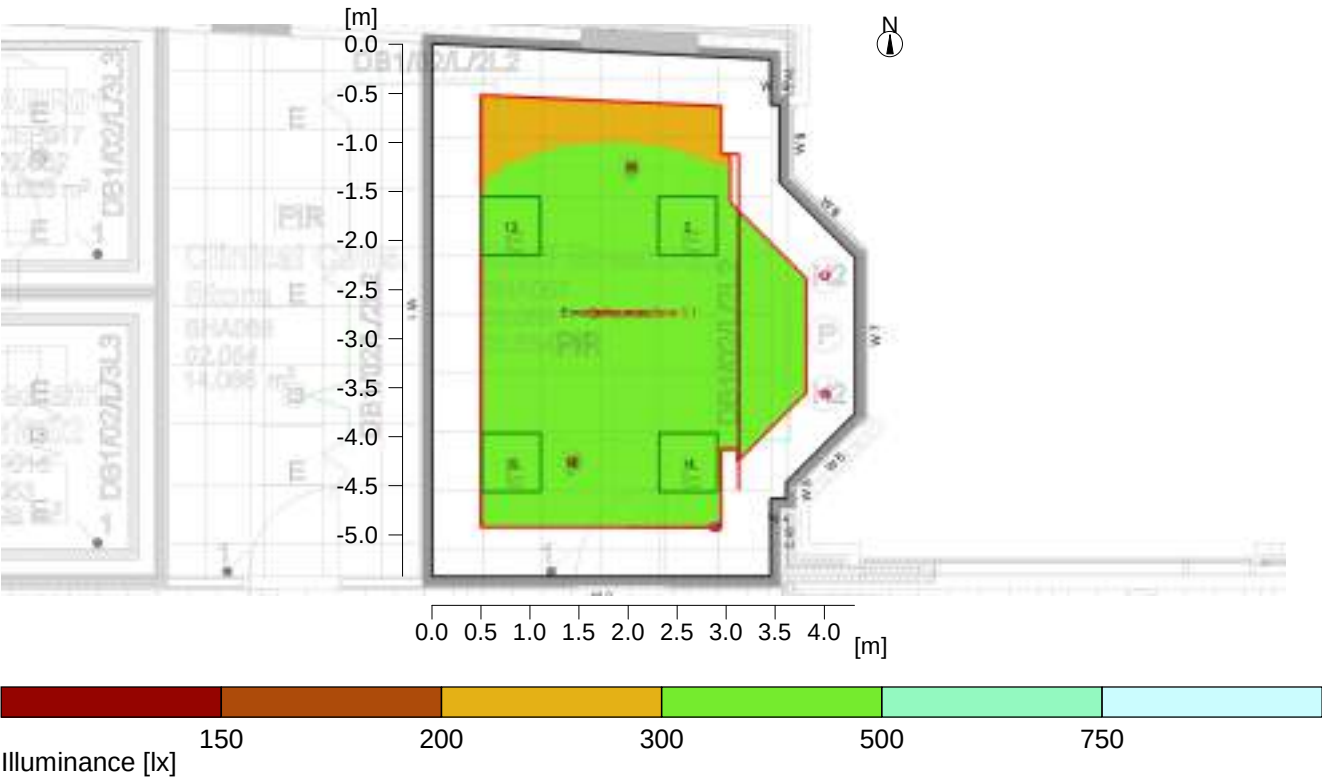
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.0	22.1	1: 7.34	0.00



2 Staff Breakout - SHA067 - 02.055

2.1 Summary, Staff Breakout - SHA067 - 02.055

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	14061.60 lm (90.87% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	132.0 W
Total power per area (20.59 m²)	6.41 W/m² (1.83 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	349 lx
Emin	248 lx
Emin/Eav (Uo)	0.71
Emin/Emax (Ud)	0.62
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	95 lx	0.85
M 1.1 (Wall)	270 lx	0.55
M 1.2 (Wall)	282 lx	0.74
M 1.3 (Wall)	234 lx	0.78
M 1.4 (Wall)	196 lx	0.82

2 Staff Breakout - SHA067 - 02.055

2.1 Summary, Staff Breakout - SHA067 - 02.055

2.1.1 Result overview, Evaluation area 1



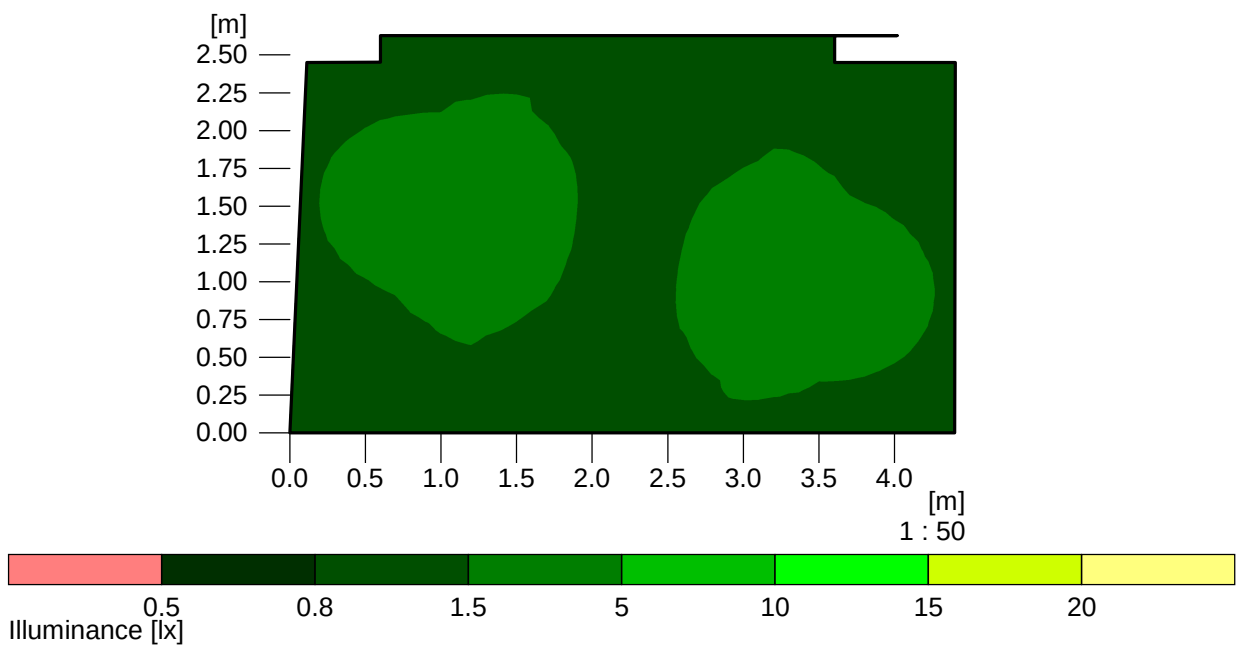
Type No. Make

		Whitecroft Lighting	
3	3	Order No.	: !CDH14KFLAW
		Luminaire name	: H2 - CHORD 80
		Equipment	: 1 x LED 8 W / 450 lm
8	4	Order No.	: !TAEH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm

2 Staff Breakout - SHA067 - 02.055

2.2 Calculation results, Staff Breakout - SHA067 - 02.055

2.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.2 lx
Maximum illuminance	Emax	: 1.9 lx
Diversity	Emin/Emax	: 1 : 1.58 (0.63) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



2.2 Summary, Staff Breakout - SHA067 - 02.055

2.2.2 Result overview (emergency lighting)

Type No. Make

4 2 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

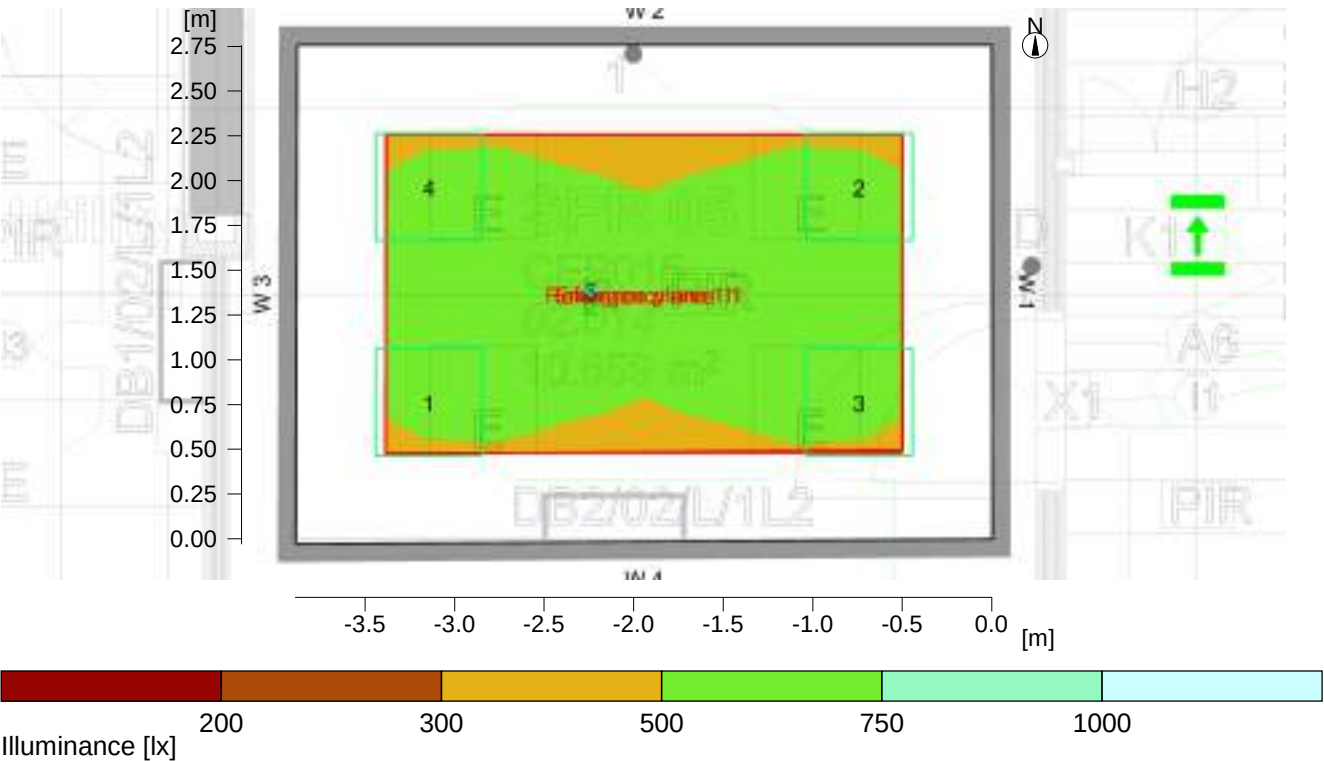
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.2	1.9	1: 1.58	0.00



3 SPR05 - CEP015 - 02.014

3.1 Summary, SPR05 - CEP015 - 02.014

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
Height of luminaire plane
Maintenance factor

Average indirect fraction
2.70 m
0.80

Total luminous flux of all lamps 11393.40 lm (85.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)

Total power 108.0 W
Total power per area (10.75 m²) 10.04 W/m² (1.99 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
Em 506 lx
Emin 467 lx
Emin/Eav (Uo) 0.92
Emin/Emax (Ud) 0.87
Position 0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	131 lx	0.93
M 1.1 (Wall)	369 lx	0.60
M 1.2 (Wall)	318 lx	0.74
M 1.3 (Wall)	369 lx	0.60
M 1.4 (Wall)	319 lx	0.74

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

3 SPR05 - CEP015 - 02.014

3.1 Summary, SPR05 - CEP015 - 02.014

3.1.1 Result overview, Evaluation area 1



Type No. Make

7 4



Whitecroft Lighting

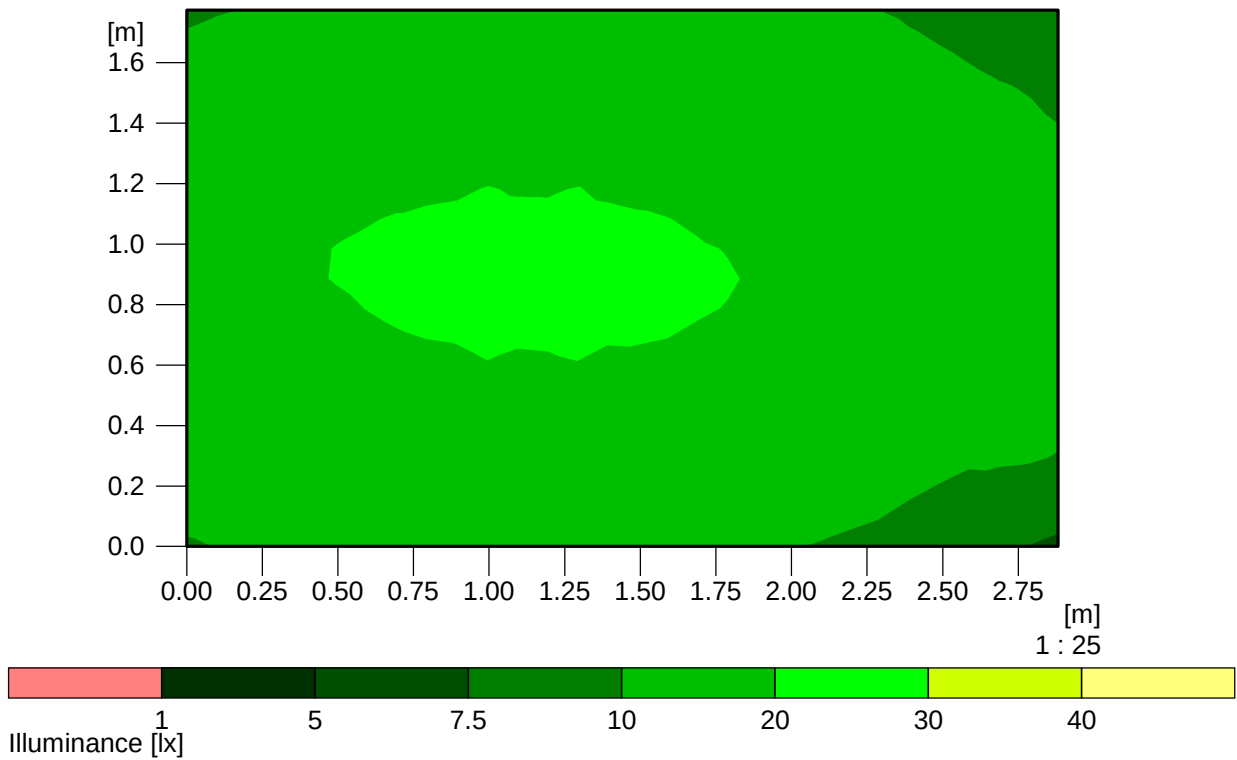
Order No. : TAELPH24KXT
Luminaire name : TEGAN SLIM
Equipment : 1 x LED 27 W / 3351 lm



3 SPR05 - CEP015 - 02.014

3.2 Calculation results, SPR05 - CEP015 - 02.014

3.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 7.2 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 3.08 (0.32) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



3.2 Summary, SPR05 - CEP015 - 02.014

3.2.2 Result overview (emergency lighting)

Type No. Make

6 1 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

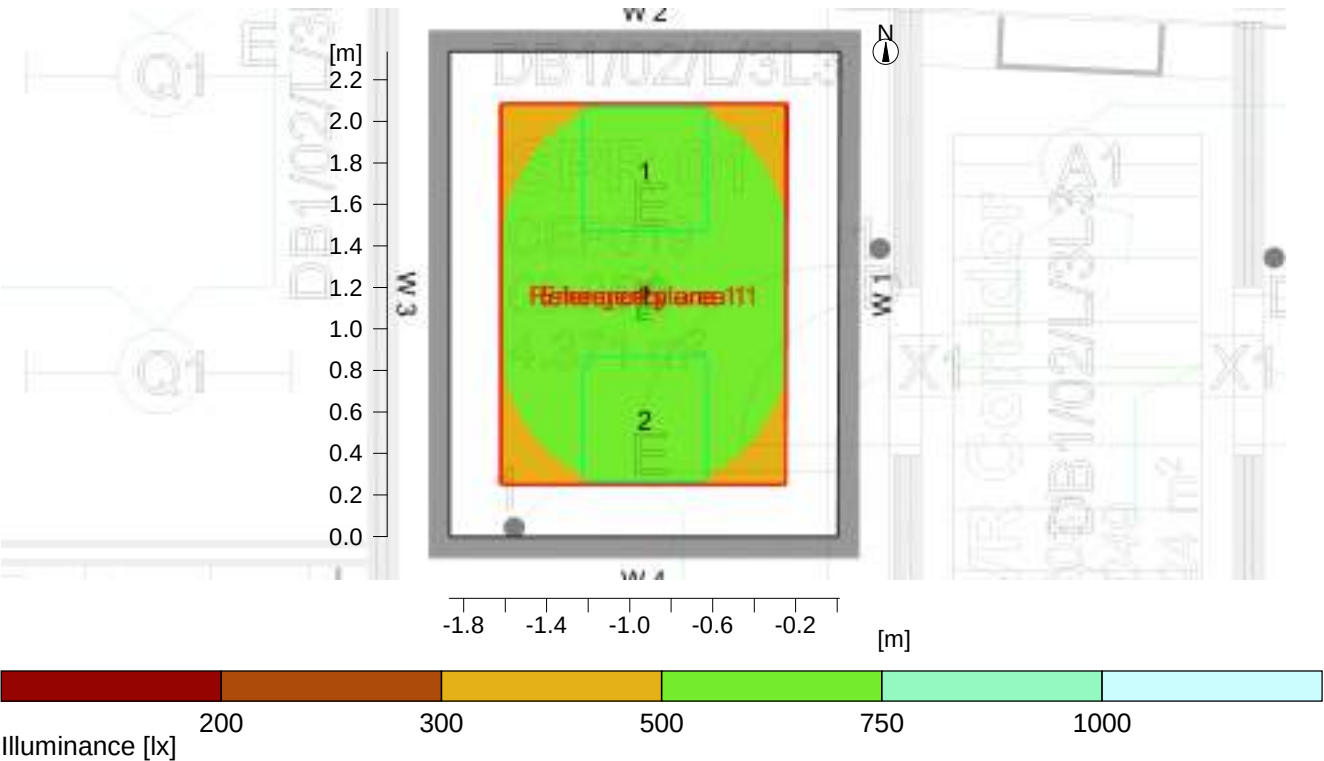
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	1.0	7.2	22.1	1: 3.08	0.00

4 SPR01 - CEP019 - 02.051

4.1 Summary, SPR01 - CEP019 - 02.051

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	6702.00 lm
Total power	54.0 W
Total power per area (4.38 m²)	12.34 W/m² (2.36 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	523 lx
Emin	461 lx
Emin/Eav (Uo)	0.88
Emin/Emax (Ud)	0.79
Position	0.75 m

Major surfaces

M 1.5 (Ceiling)	179 lx	0.95
M 1.1 (Wall)	364 lx	0.51
M 1.2 (Wall)	411 lx	0.46
M 1.3 (Wall)	363 lx	0.52
M 1.4 (Wall)	411 lx	0.46

Type No. Make

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

4 SPR01 - CEP019 - 02.051

4.1 Summary, SPR01 - CEP019 - 02.051

4.1.1 Result overview, Evaluation area 1



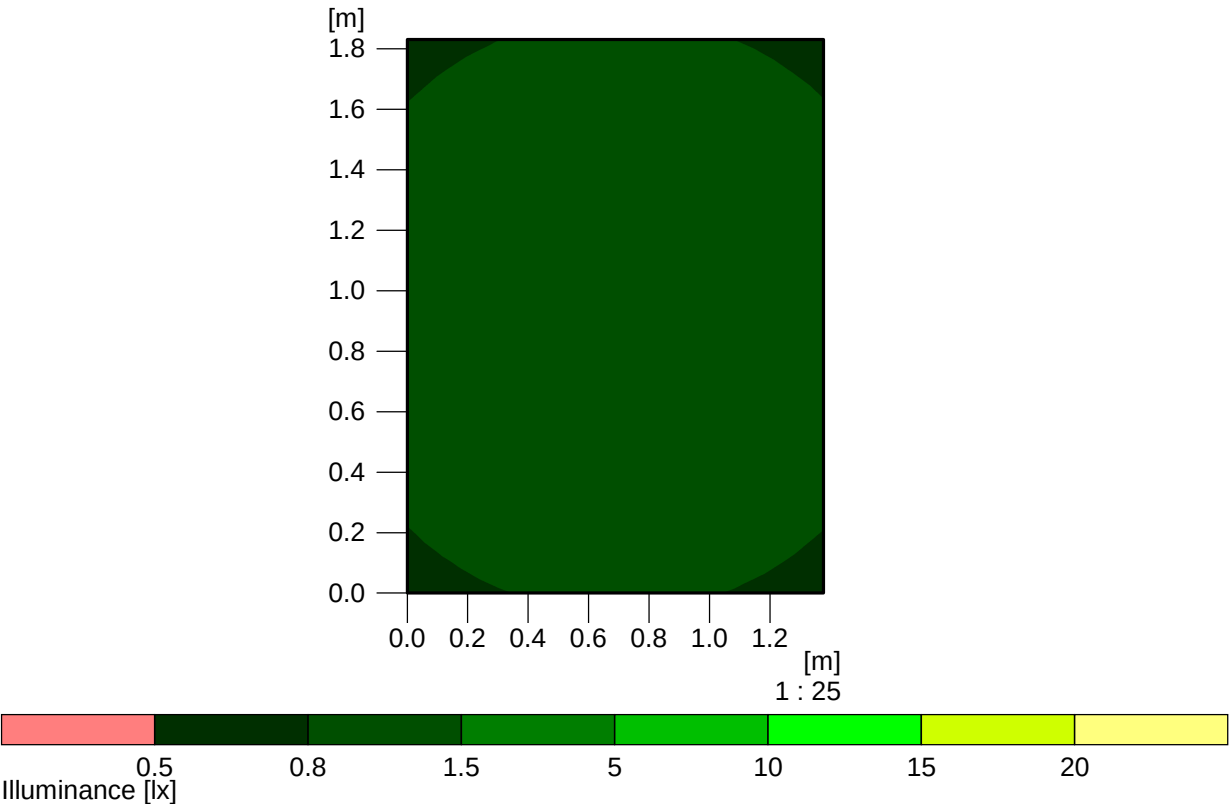
Whitecroft Lighting

7	2	Order No.	: TAELPH24KXT
		Luminaire name	: TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3351 lm

4 SPR01 - CEP019 - 02.051

4.2 Calculation results, SPR01 - CEP019 - 02.051

4.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.8 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 1.71 (0.58) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



4.2 Summary, SPR01 - CEP019 - 02.051

4.2.2 Result overview (emergency lighting)

Type No. Make

4 1 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

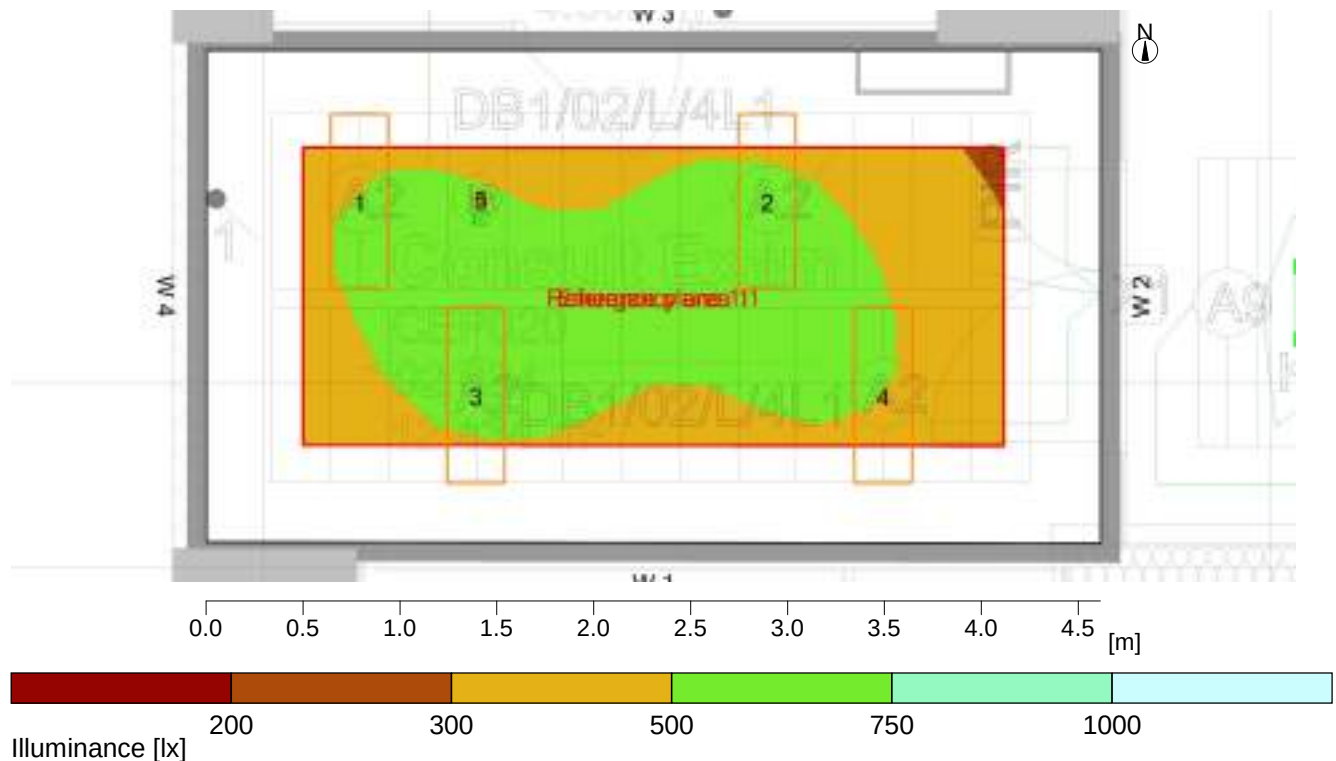
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.8	1.3	1: 1.71	0.00



5 Consult/Exam - CEP020 - 02.034

5.1 Summary, Consult/Exam - CEP020 - 02.034

5.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8000.00 lm
Total power	54.0 W
Total power per area (11.70 m²)	4.61 W/m² (0.97 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	476 lx
Emin	287 lx
Emin/Eav (Uo)	0.60
Emin/Emax (Ud)	0.52
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	82 lx	0.82
M 1.1 (Wall)	211 lx	0.62
M 1.2 (Wall)	163 lx	0.66
M 1.3 (Wall)	205 lx	0.49
M 1.4 (Wall)	210 lx	0.63

Type No. Make

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

5 Consult/Exam - CEP020 - 02.034

5.1 Summary, Consult/Exam - CEP020 - 02.034

5.1.1 Result overview, Evaluation area 1



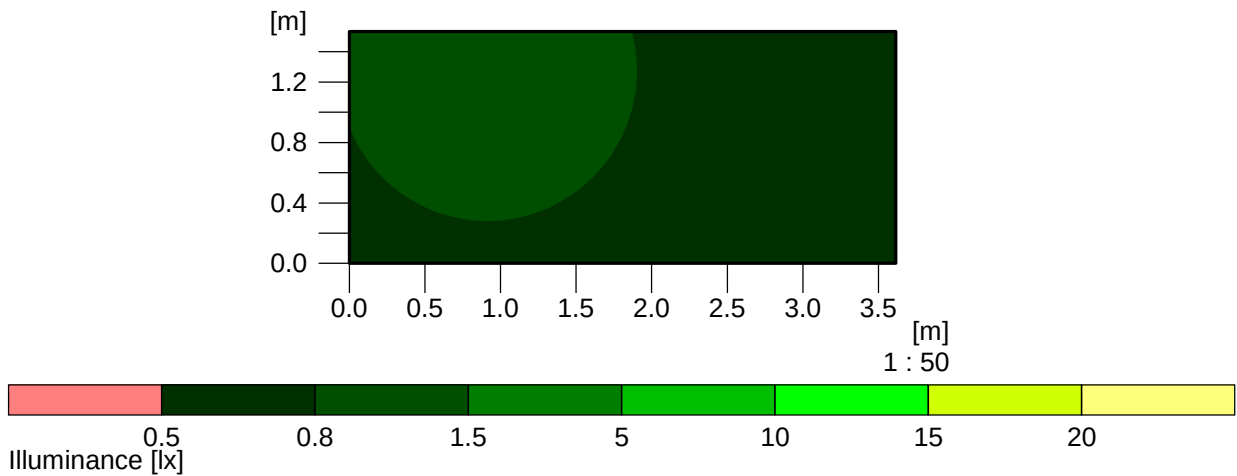
Whitecroft Lighting

2	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm

5 Consult/Exam - CEP020 - 02.034

5.2 Calculation results, Consult/Exam - CEP020 - 02.034

5.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.6 lx
Maximum illuminance	Emax	: 1.3 lx
Diversity	Emin/Emax	: 1 : 2.19 (0.46) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



5.2 Summary, Consult/Exam - CEP020 - 02.034

5.2.2 Result overview (emergency lighting)

Type No. Make

4

1

Whitecroft Lighting
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

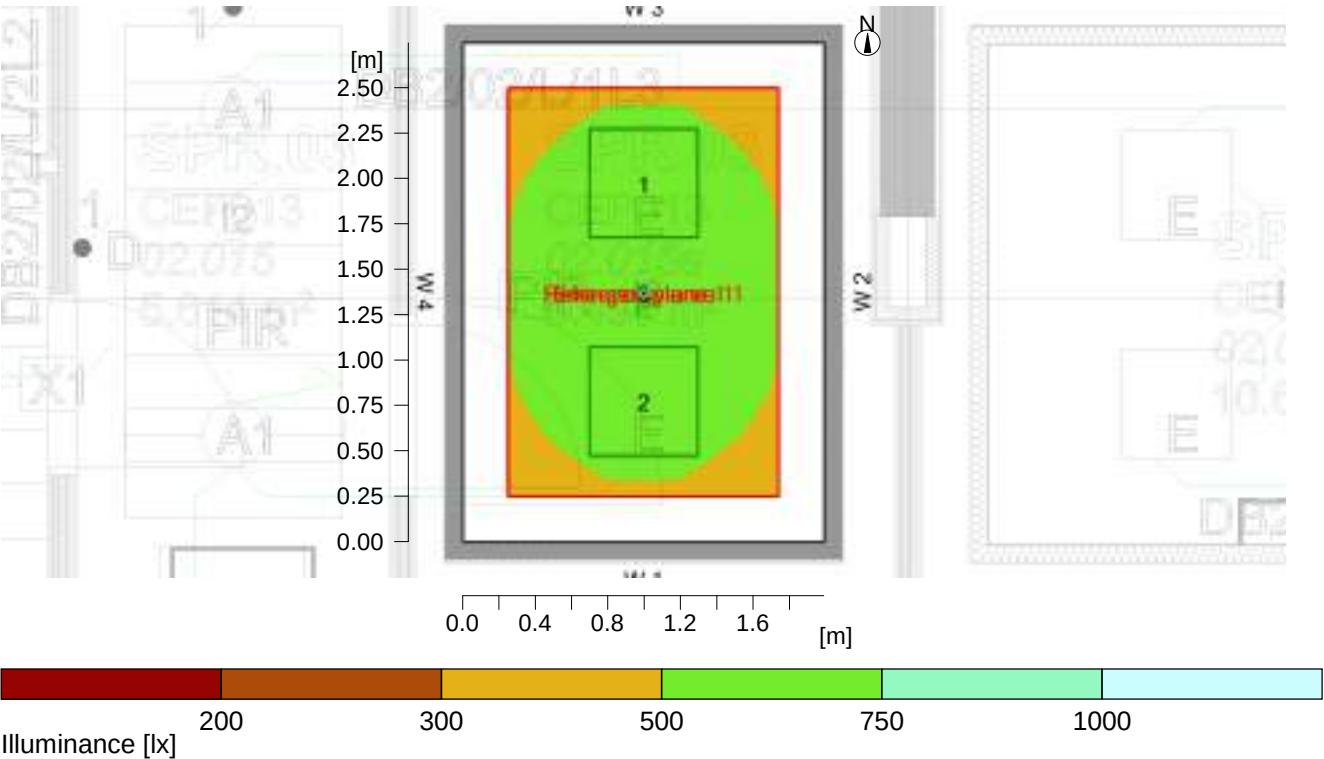
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.6	1.3	1: 2.19	0.00



6 SPR 03 - CEP013 - 02.015a

6.1 Summary, SPR 03 - CEP013 - 02.015a

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	7062.00 lm
Total power	54.0 W
Total power per area (5.46 m²)	9.88 W/m² (1.90 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	520 lx
Emin	450 lx
Emin/Eav (Uo)	0.87
Emin/Emax (Ud)	0.77
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	163 lx	0.98
M 1.1 (Wall)	369 lx	0.55
M 1.2 (Wall)	348 lx	0.55
M 1.3 (Wall)	369 lx	0.55
M 1.4 (Wall)	348 lx	0.55

Type No.IMake

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

6 SPR 03 - CEP013 - 02.015a

6.1 Summary, SPR 03 - CEP013 - 02.015a

6.1.1 Result overview, Evaluation area 1



Whitecroft Lighting

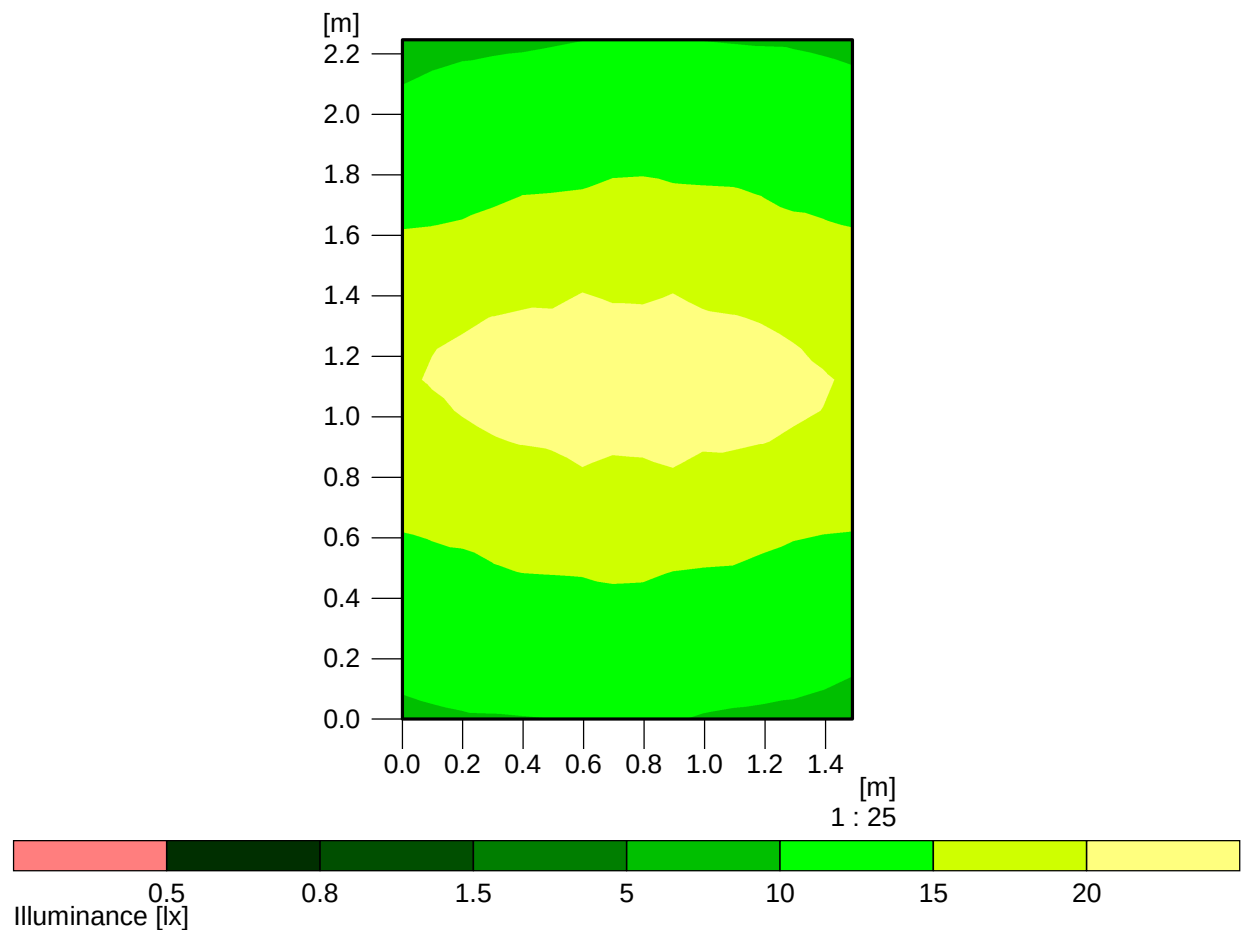
8	2	Order No.	: !TAEH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm



6 SPR 03 - CEP013 - 02.015a

6.2 Calculation results, SPR 03 - CEP013 - 02.015a

6.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 8.9 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 2.47 (0.40) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



6.2 Summary, SPR 03 - CEP013 - 02.015a

6.2.2 Result overview (emergency lighting)

Type No. Make

6 1 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

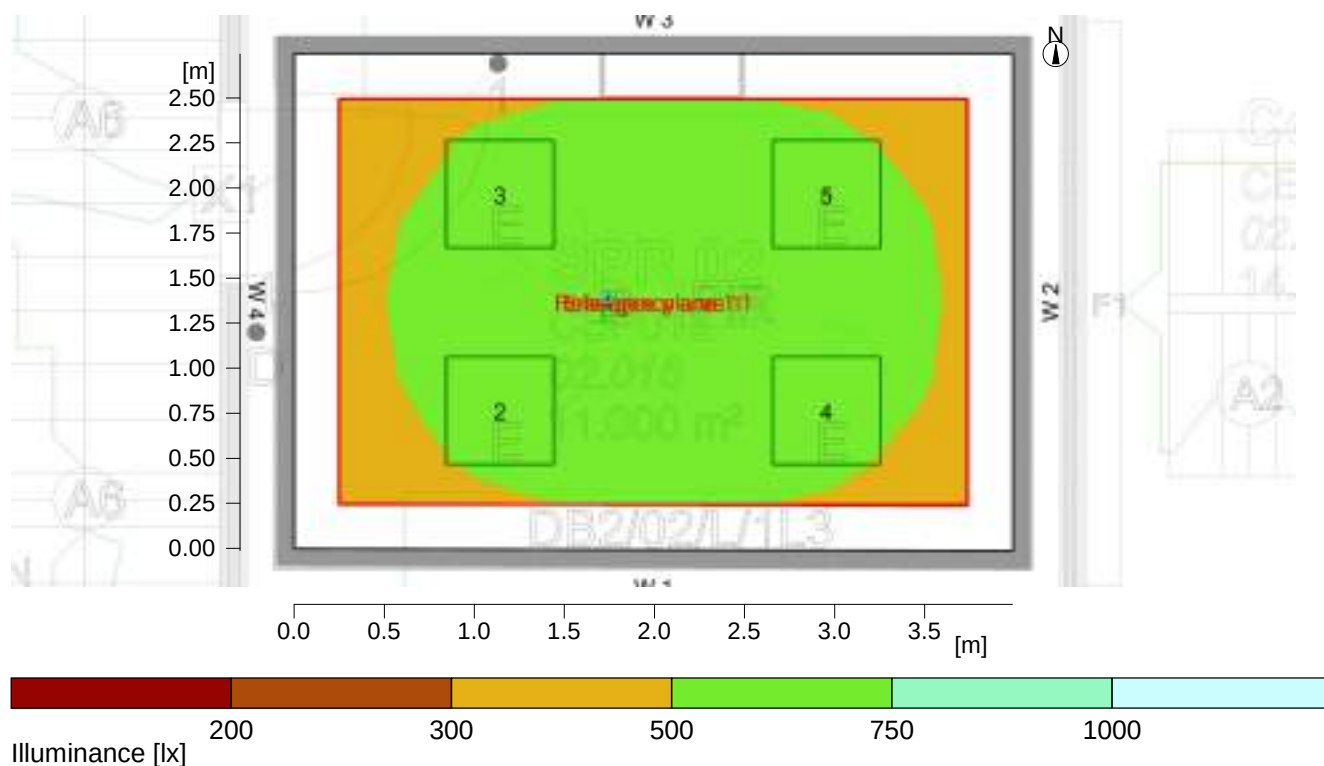
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	8.9	22.1	1: 2.47	0.00



7 SPR 02 - CEP012 - 02.016

7.1 Summary, SPR 02 - CEP012 - 02.016

7.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

High indirect fraction
 2.70 m
 0.80

Total luminous flux of all lamps 11299.20 lm (80.00% dimmed)
 (Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)

Total power 108.0 W
 Total power per area (10.96 m²) 9.85 W/m² (1.87 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 526 lx
 Emin 409 lx
 Emin/Eav (Uo) 0.78
 Emin/Emax (Ud) 0.67
 Position 0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	139 lx	0.94
M 1.1 (Wall)	345 lx	0.60
M 1.2 (Wall)	325 lx	0.68
M 1.3 (Wall)	344 lx	0.60
M 1.4 (Wall)	307 lx	0.71

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

7 SPR 02 - CEP012 - 02.016

7.1 Summary, SPR 02 - CEP012 - 02.016

7.1.1 Result overview, Evaluation area 1



Type No.lMake

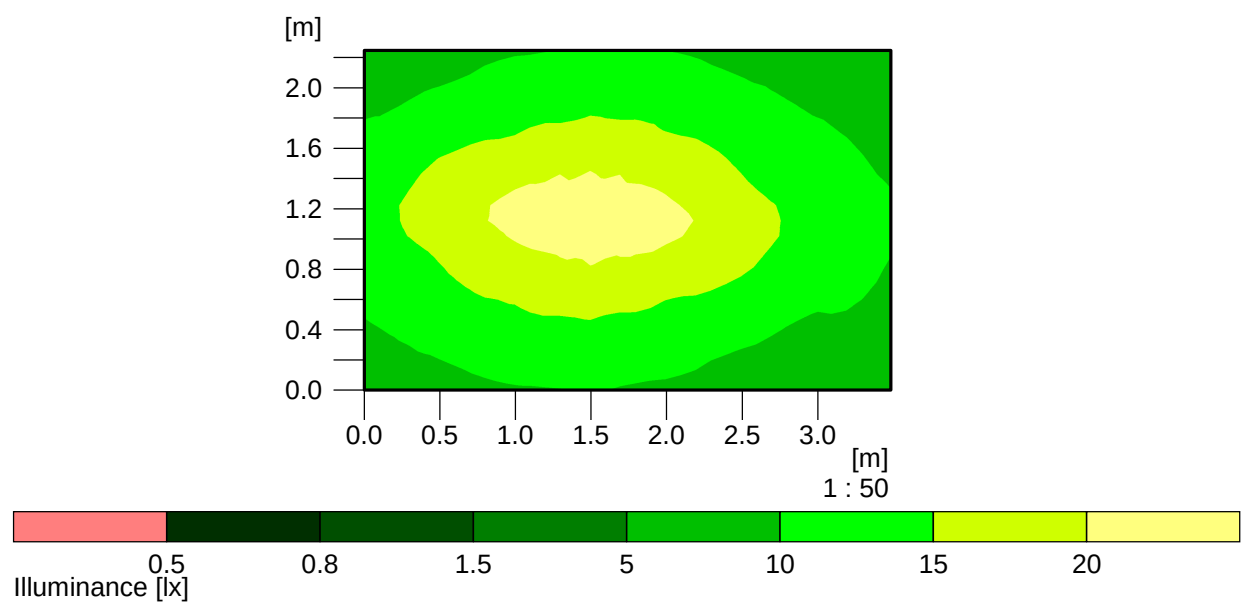
8	4	Whitecroft Lighting
		Order No. : !TAE LH24KXT
		Luminaire name : E - TEGAN SLIM
		Equipment : 1 x LED 27 W / 3531 lm



7 SPR 02 - CEP012 - 02.016

7.2 Calculation results, SPR 02 - CEP012 - 02.016

7.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 5.5 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 4.06 (0.25) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



7.2 Summary, SPR 02 - CEP012 - 02.016

7.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
6	1	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

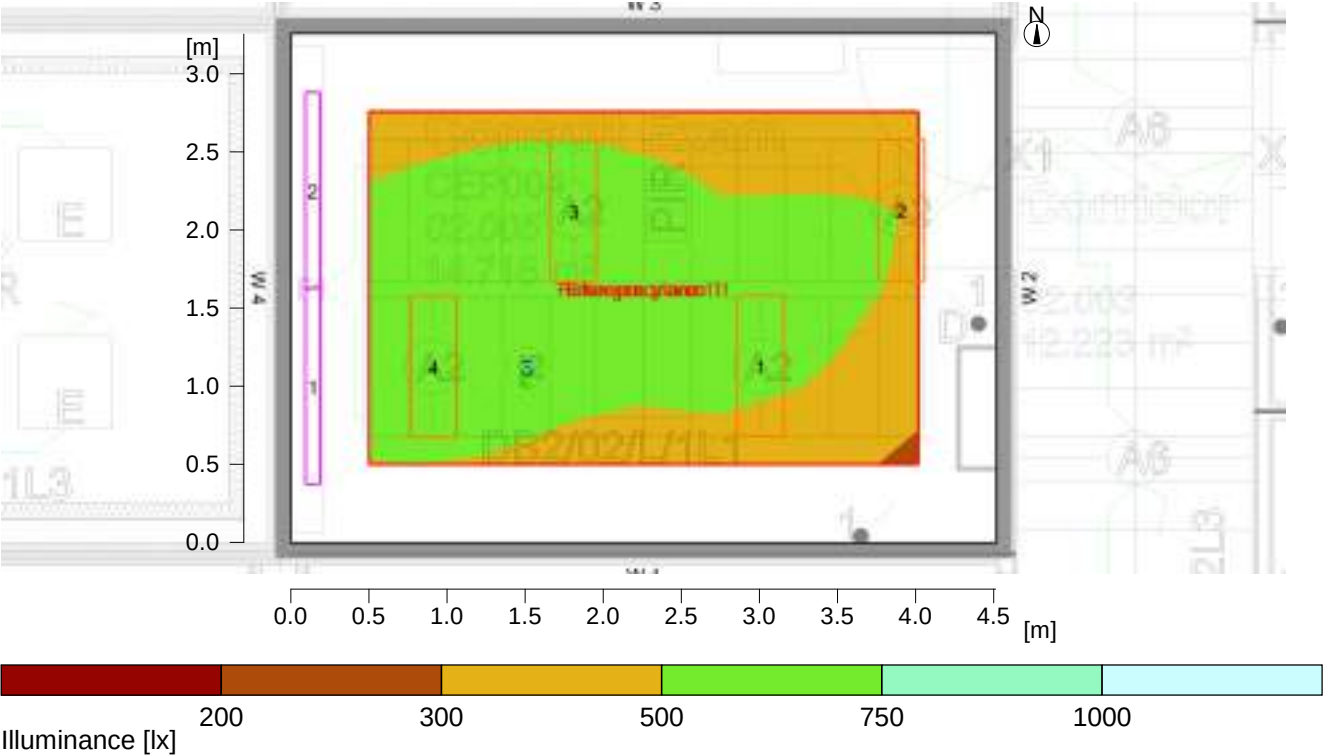
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	5.5	22.1	1: 4.06	0.00

8 Consult Exam - CEP004 - 02.005

8.1 Summary, Consult Exam - CEP004 - 02.005

8.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	11114.00 lm
Total power	80.0 W
Total power per area (14.69 m²)	5.45 W/m² (1.06 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	514 lx
Emin	330 lx
Emin/Eav (Uo)	0.64
Emin/Emax (Ud)	0.52
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	93 lx	0.80
M 1.1 (Wall)	205 lx	0.55
M 1.2 (Wall)	220 lx	0.53
M 1.3 (Wall)	202 lx	0.66
M 1.4 (Wall)	237 lx	0.70

Type No. IMake

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

8 Consult Exam - CEP004 - 02.005

8.1 Summary, Consult Exam - CEP004 - 02.005

8.1.1 Result overview, Evaluation area 1



Whitecroft Lighting

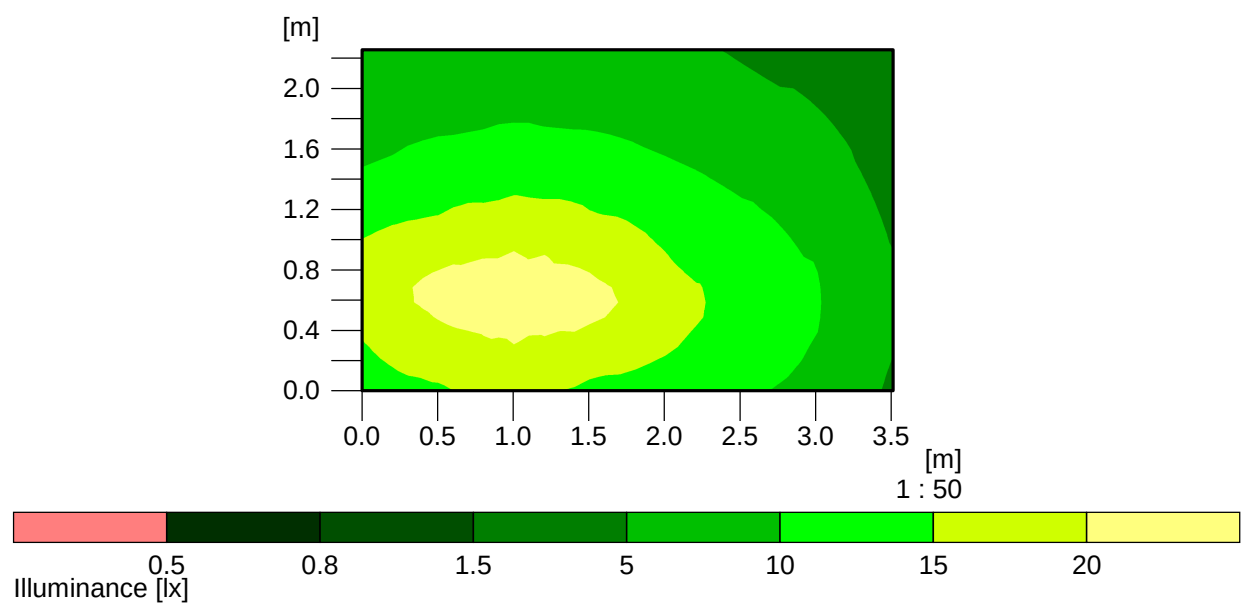
2	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm
5	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm



8 Consult Exam - CEP004 - 02.005

8.2 Calculation results, Consult Exam - CEP004 - 02.005

8.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 2 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 11.10 (0.09) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



8.2 Summary, Consult Exam - CEP004 - 02.005

8.2.2 Result overview (emergency lighting)

Type No. Make

6 1 **Whitecroft Lighting**
 Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

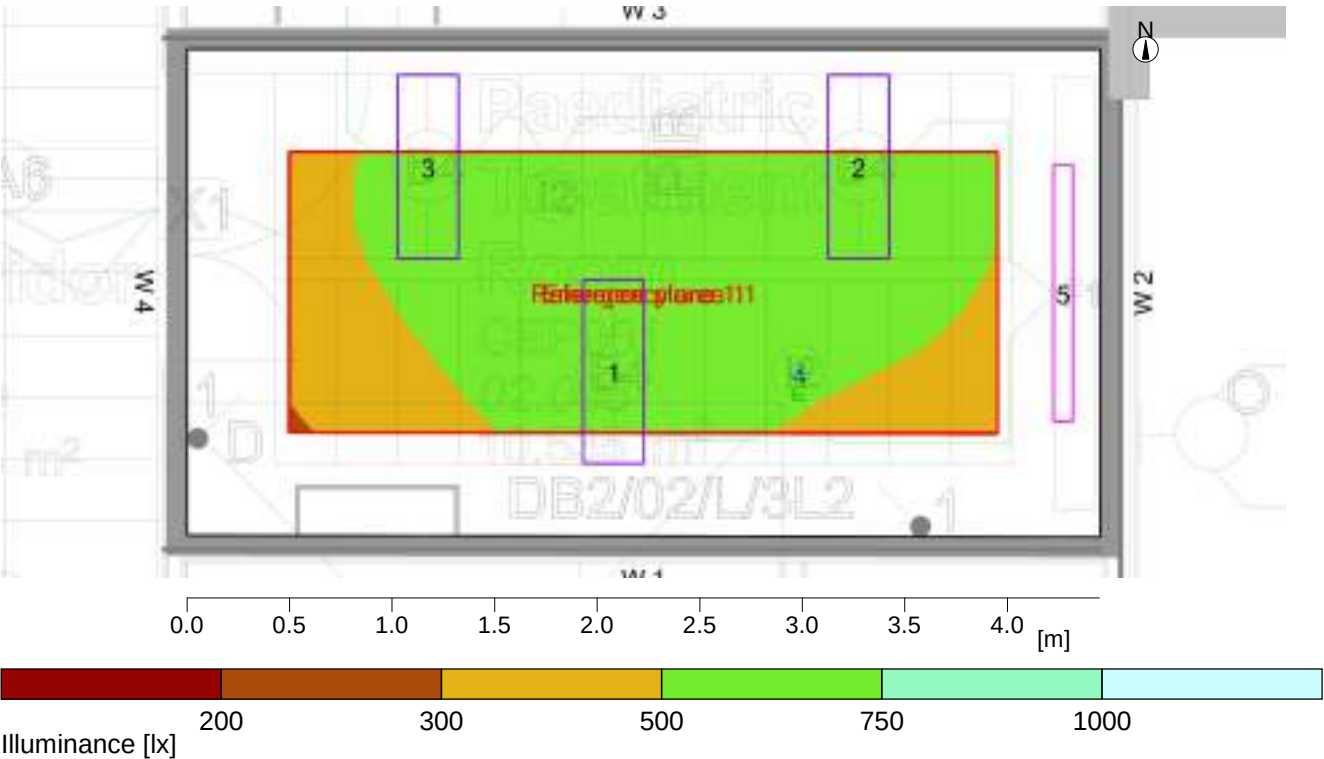
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	2.0	22.0	1: 11.13	0.00



9 Paediatric - CEP001 - 02.008

9.1 Summary, Paediatric - CEP001 - 02.008

9.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	9207.00 lm
Total power	82.0 W
Total power per area (10.55 m²)	7.78 W/m² (1.44 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	541 lx
Emin	303 lx
Emin/Eav (Uo)	0.56
Emin/Emax (Ud)	0.47
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	105 lx	0.74
M 1.1 (Wall)	231 lx	0.50
M 1.2 (Wall)	231 lx	0.73
M 1.3 (Wall)	283 lx	0.57
M 1.4 (Wall)	185 lx	0.66

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018

9 Paediatric - CEP001 - 02.008

9.1 Summary, Paediatric - CEP001 - 02.008

9.1.1 Result overview, Evaluation area 1

Whitecroft Lighting

5	1	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm

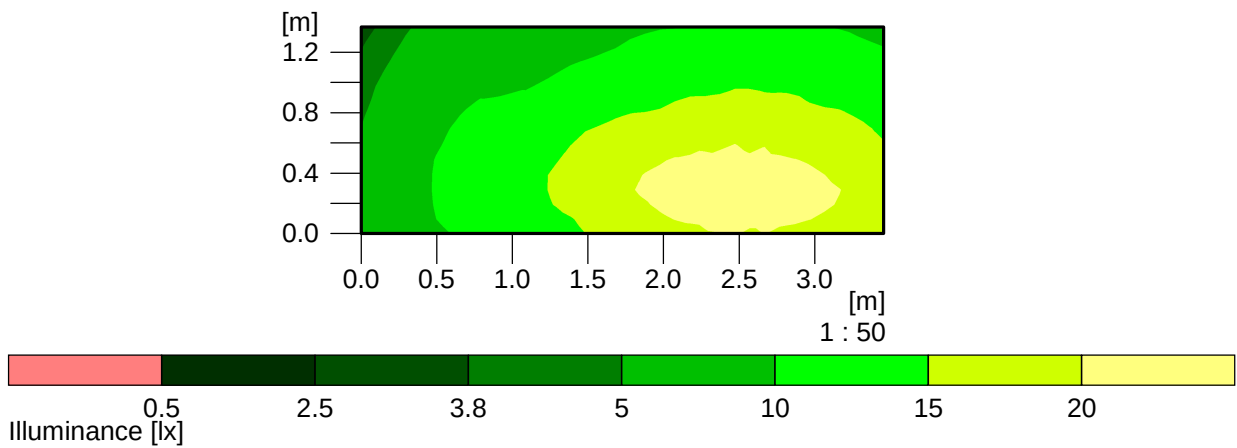
9	3	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: B4 - CITYLINE
		Equipment	: 1 x LED 23 W / 2550 lm



9 Paediatric - CEP001 - 02.008

9.2 Calculation results, Paediatric - CEP001 - 02.008

9.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3.4 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 6.57 (0.15) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second
Project number : (58285) 5808
Date : 10.10.2018



9.2 Summary, Paediatric - CEP001 - 02.008

9.2.2 Result overview (emergency lighting)

Type No. Make

6

1

Whitecroft Lighting
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.4	22.2	1: 6.57	0.00



UCLH Phase 5 - REV 4

Installation : Second Floor - ADDITIONAL CALCS

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 09.10.2018

Project description:
WLL Sample lighting calculations to areas as requested.

Calculation parameters:

Standard reflectances:
70% Ceiling / 50% Wall / 20% Floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

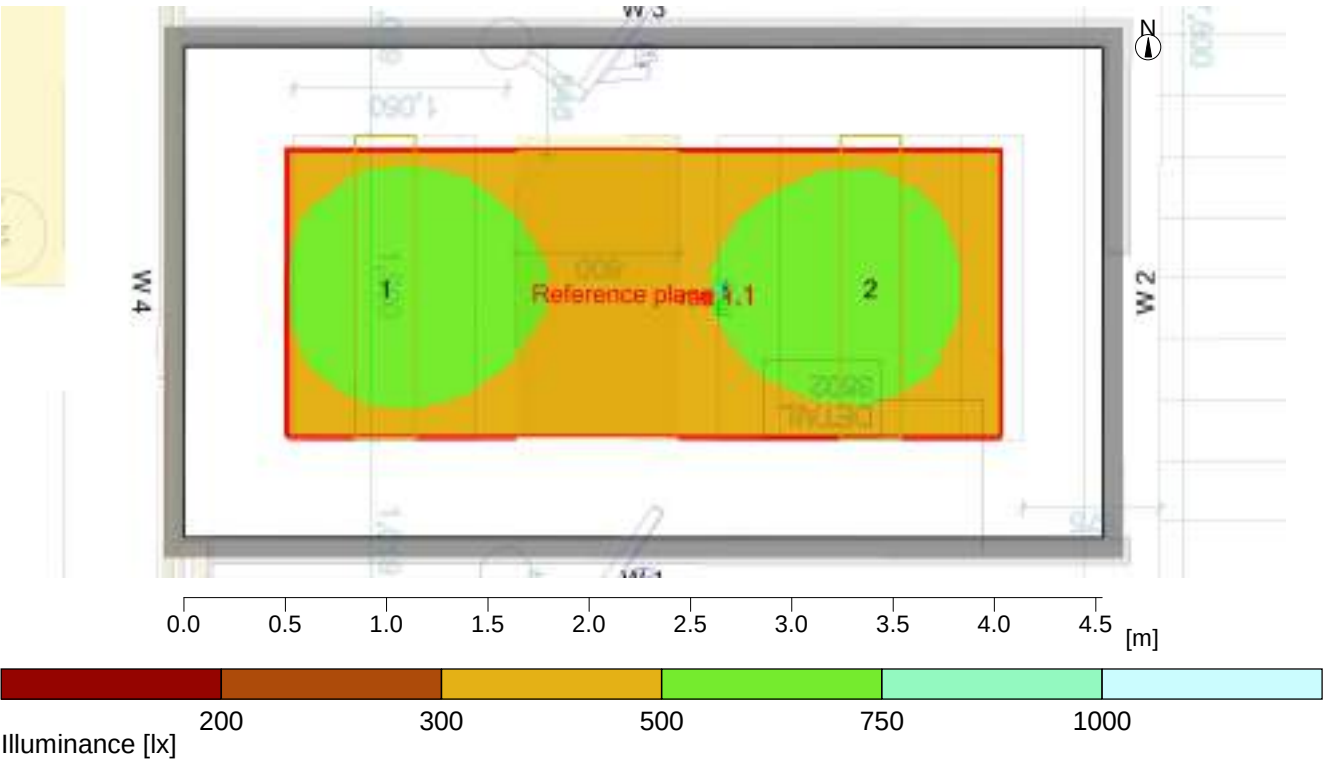
First Page	1
Table of contents	2
1 DNP0007 - 02.027	
1.1 Summary, DNP0007 - 02.027	
1.1.1 Result overview, Evaluation area 1	3
1.2 Calculation results, DNP0007 - 02.027	
1.2.1 Boundary line, Emergency area 1.1 (E)	5
1.2 Summary, DNP0007 - 02.027	
1.2.2 Result overview (emergency lighting)	6
2 DNP0008 - 02.028	
2.1 Summary, DNP0008 - 02.028	
2.1.1 Result overview, Evaluation area 1	7
2.2 Calculation results, DNP0008 - 02.028	
2.2.1 Boundary line, Emergency area 1.1 (E)	9
2.2 Summary, DNP0008 - 02.028	
2.2.2 Result overview (emergency lighting)	10
3 DNP0009 - 02.029	
3.1 Summary, DNP0009 - 02.029	
3.1.1 Result overview, Evaluation area 1	11
3.2 Calculation results, DNP0009 - 02.029	
3.2.1 Boundary line, Emergency area 1.1 (E)	13
3.2 Summary, DNP0009 - 02.029	
3.2.2 Result overview (emergency lighting)	14
4 DNP0006 - 02.026	
4.1 Summary, DNP0006 - 02.026	
4.1.1 Result overview, Evaluation area 1	15
4.2 Calculation results, DNP0006 - 02.026	
4.2.1 Boundary line, Emergency area 1.1 (E)	17
4.2 Summary, DNP0006 - 02.026	
4.2.2 Result overview (emergency lighting)	18



1 DNP0007 - 02.027

1.1 Summary, DNP0007 - 02.027

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	7946.00 lm
Total power	76.0 W
Total power per area (10.94 m²)	6.94 W/m² (1.46 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	476 lx
Emin	397 lx
Emin/Eav (Uo)	0.83
Emin/Emax (Ud)	0.72
Position	0.75 m (rot: 0°/0.02°)

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	85 lx	0.93
M 1.1 (Wall)	208 lx	0.60
M 1.2 (Wall)	204 lx	0.72
M 1.3 (Wall)	214 lx	0.58
M 1.4 (Wall)	232 lx	0.75

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : Second Floor - ADDITIONAL CALCS
Project number : (58285) 5808
Date : 09.10.2018

1 DNP0007 - 02.027

1.1 Summary, DNP0007 - 02.027

1.1.1 Result overview, Evaluation area 1

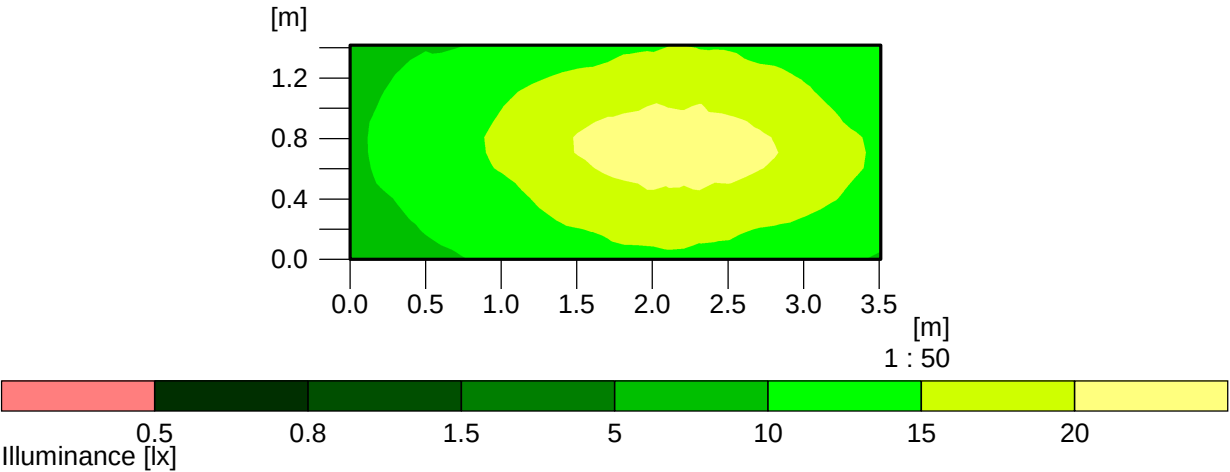


Whitecroft Lighting	
1	2
	Order No. : !CLFY#/1494/SRF###
	Luminaire name : A9 - CITYLINE
	Equipment : 1 x LED 38.5 W / 3973 lm

1 DNP0007 - 02.027

1.2 Calculation results, DNP0007 - 02.027

1.2.1 Boundary line, Emergency area 1.1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 6.1 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 3.61 (0.28) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second Floor - ADDITIONAL CALCS
Project number : (58285) 5808
Date : 09.10.2018



1.2 Summary, DNP0007 - 02.027

1.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

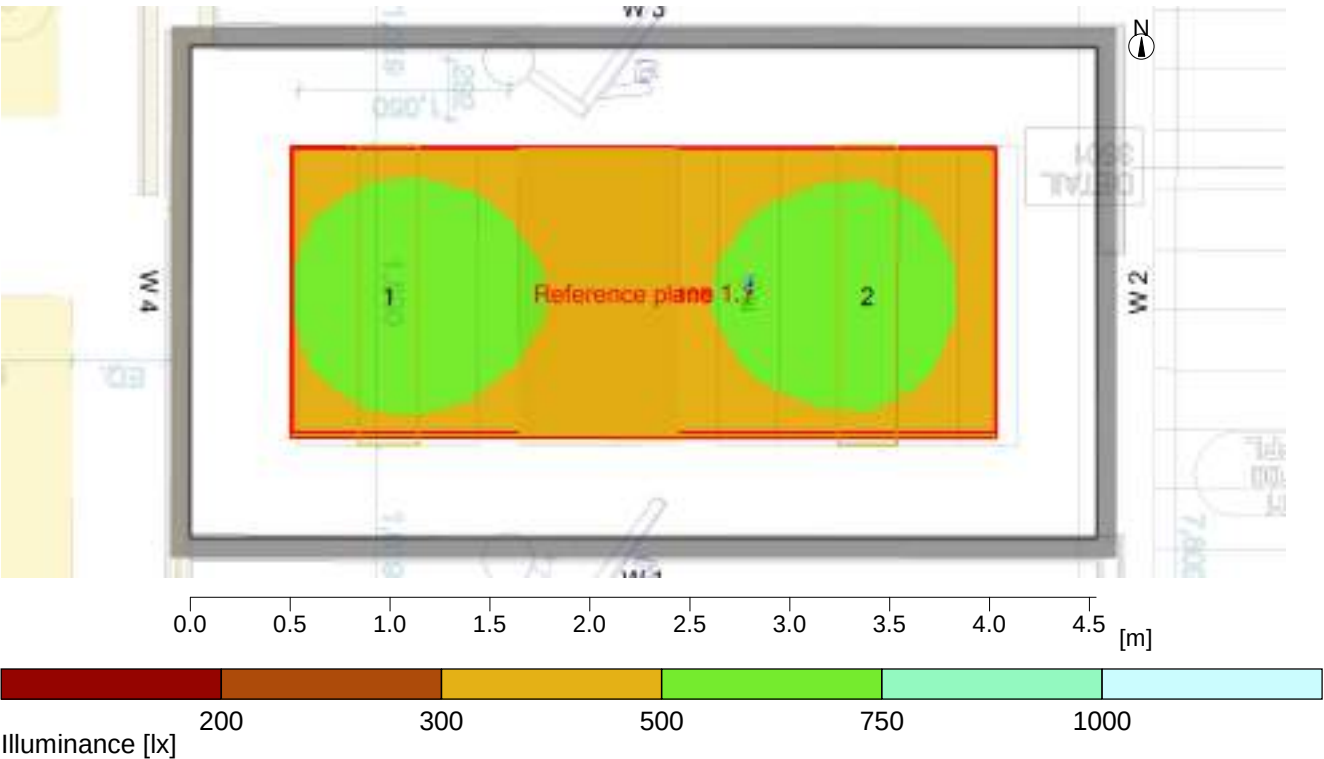
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1.1					
1	0.5	6.1	22.1	1: 3.61	0.00



2 DNP0008 - 02.028

2.1 Summary, DNP0008 - 02.028

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	7946.00 lm
Total power	76.0 W
Total power per area (11.12 m²)	6.83 W/m² (1.45 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	473 lx
Emin	394 lx
Emin/Eav (Uo)	0.83
Emin/Emax (Ud)	0.72
Position	0.75 m (rot: 0°/0.02°)

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	83 lx	0.93
M 1.1 (Wall)	209 lx	0.59
M 1.2 (Wall)	202 lx	0.72
M 1.3 (Wall)	205 lx	0.60
M 1.4 (Wall)	230 lx	0.75

Type No. Make

Object : UCLH Phase 5 - REV 4
Installation : Second Floor - ADDITIONAL CALCS
Project number : (58285) 5808
Date : 09.10.2018

2 DNP0008 - 02.028

2.1 Summary, DNP0008 - 02.028

2.1.1 Result overview, Evaluation area 1

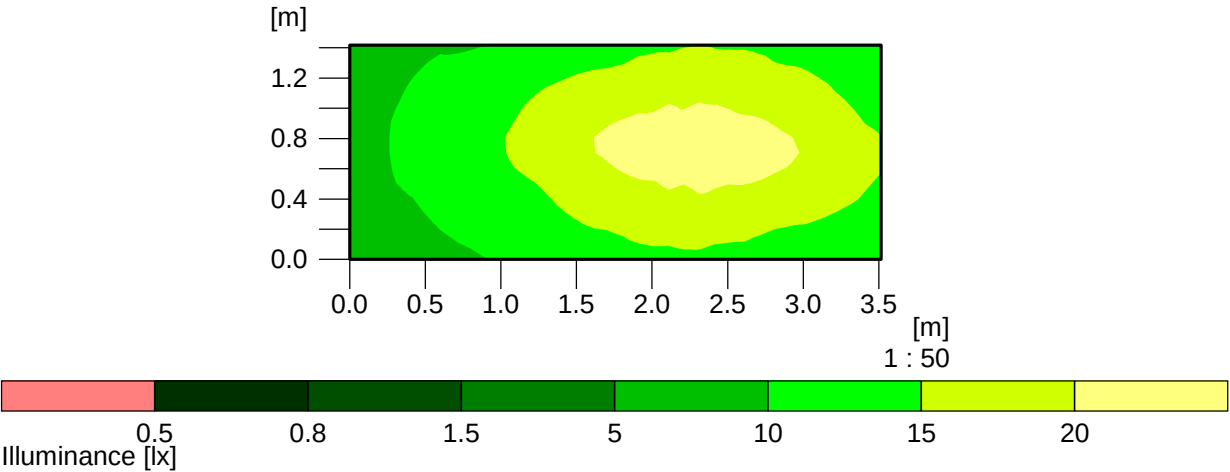
Whitecroft Lighting	
1	Order No. : !CLFY#/1494/SRF###
2	Luminaire name : A9 - CITYLINE
	Equipment : 1 x LED 38.5 W / 3973 lm



2 DNP0008 - 02.028

2.2 Calculation results, DNP0008 - 02.028

2.2.1 Boundary line, Emergency area 1.1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 5.3 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 4.19 (0.24) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
 Installation : Second Floor - ADDITIONAL CALCS
 Project number : (58285) 5808
 Date : 09.10.2018



2.2 Summary, DNP0008 - 02.028

2.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
 Order No. : !FLH31
 Luminaire name : I2 - FLORIN E3
 Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
 Maintenance factor: 0.8

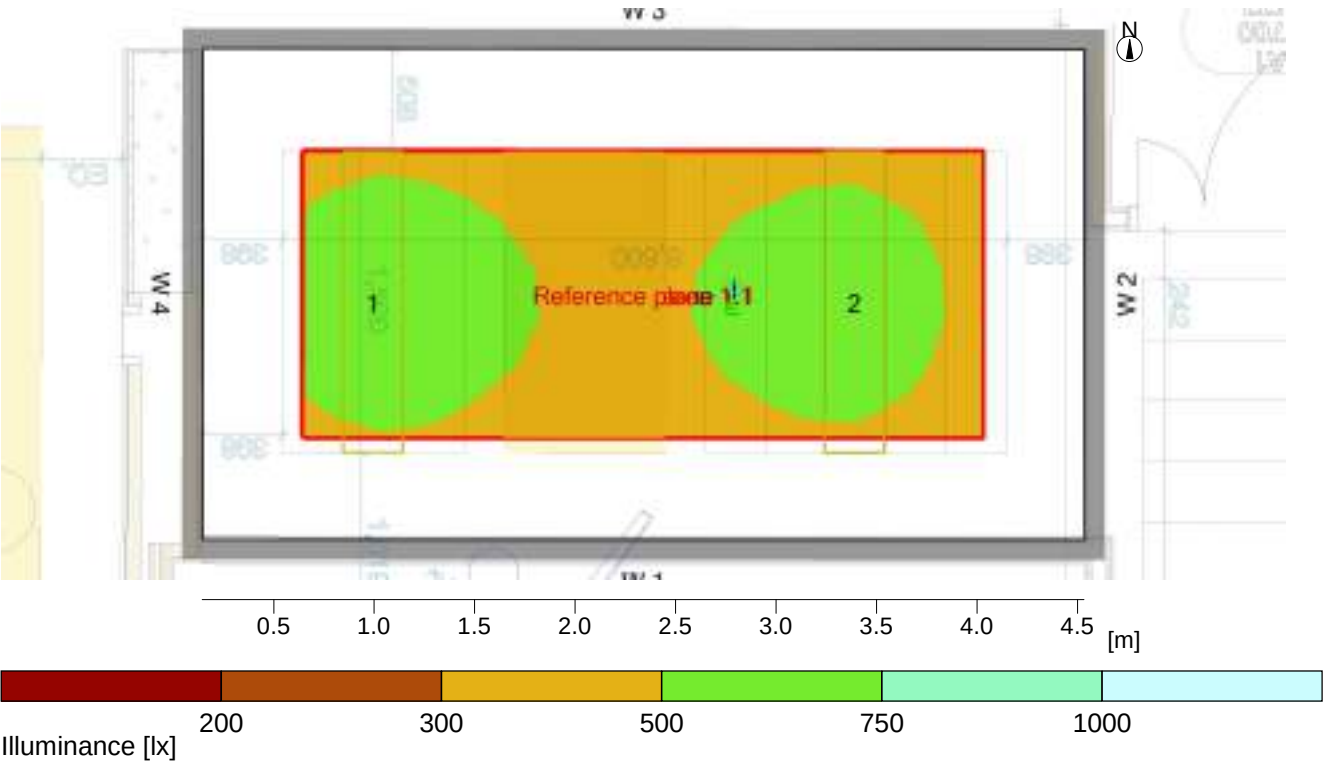
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1.1					
1	0.5	5.3	22.1	1: 4.19	0.00

3 DNP0009 - 02.029

3.1 Summary, DNP0009 - 02.029

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	7946.00 lm
Total power	76.0 W
Total power per area (10.70 m²)	7.10 W/m² (1.49 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	478 lx
Emin	394 lx
Emin/Eav (Uo)	0.82
Emin/Emax (Ud)	0.70
Position	0.75 m (rot: 0°/0.02°)

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	87 lx	0.91
M 1.1 (Wall)	218 lx	0.60
M 1.2 (Wall)	204 lx	0.71
M 1.3 (Wall)	209 lx	0.63
M 1.4 (Wall)	261 lx	0.70

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : Second Floor - ADDITIONAL CALCS
Project number : (58285) 5808
Date : 09.10.2018

3 DNP0009 - 02.029

3.1 Summary, DNP0009 - 02.029

3.1.1 Result overview, Evaluation area 1

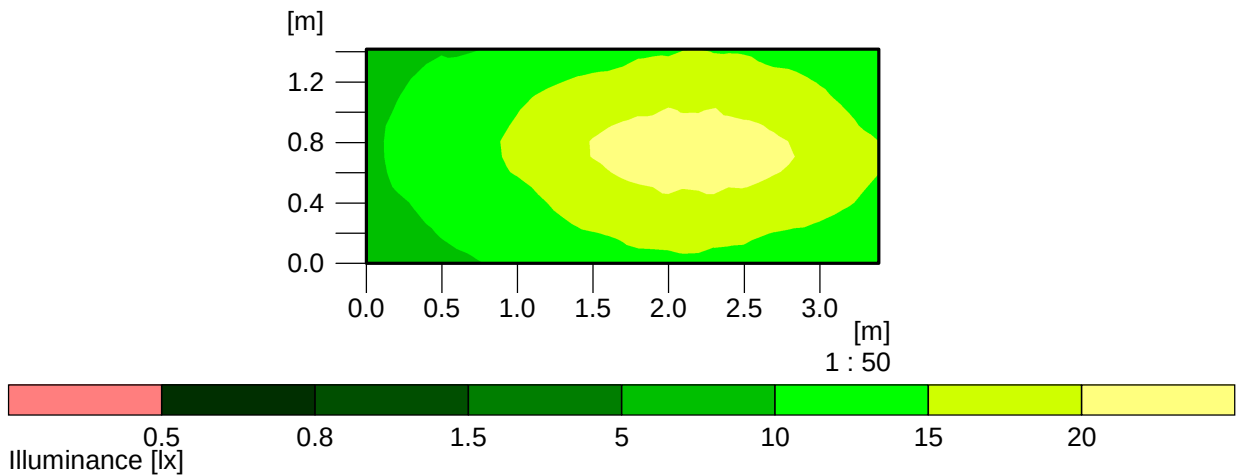


Whitecroft Lighting	
1	Order No. : !CLFY#/1494/SRF###
2	Luminaire name : A9 - CITYLINE
	Equipment : 1 x LED 38.5 W / 3973 lm

3 DNP0009 - 02.029

3.2 Calculation results, DNP0009 - 02.029

3.2.1 Boundary line, Emergency area 1.1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 6.1 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 3.60 (0.28) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second Floor - ADDITIONAL CALCS
Project number : (58285) 5808
Date : 09.10.2018



3.2 Summary, DNP0009 - 02.029

3.2.2 Result overview (emergency lighting)

Type No. Make

2

1

Whitecroft Lighting
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1.1					
1	0.5	6.1	22.1	1: 3.60	-0.00

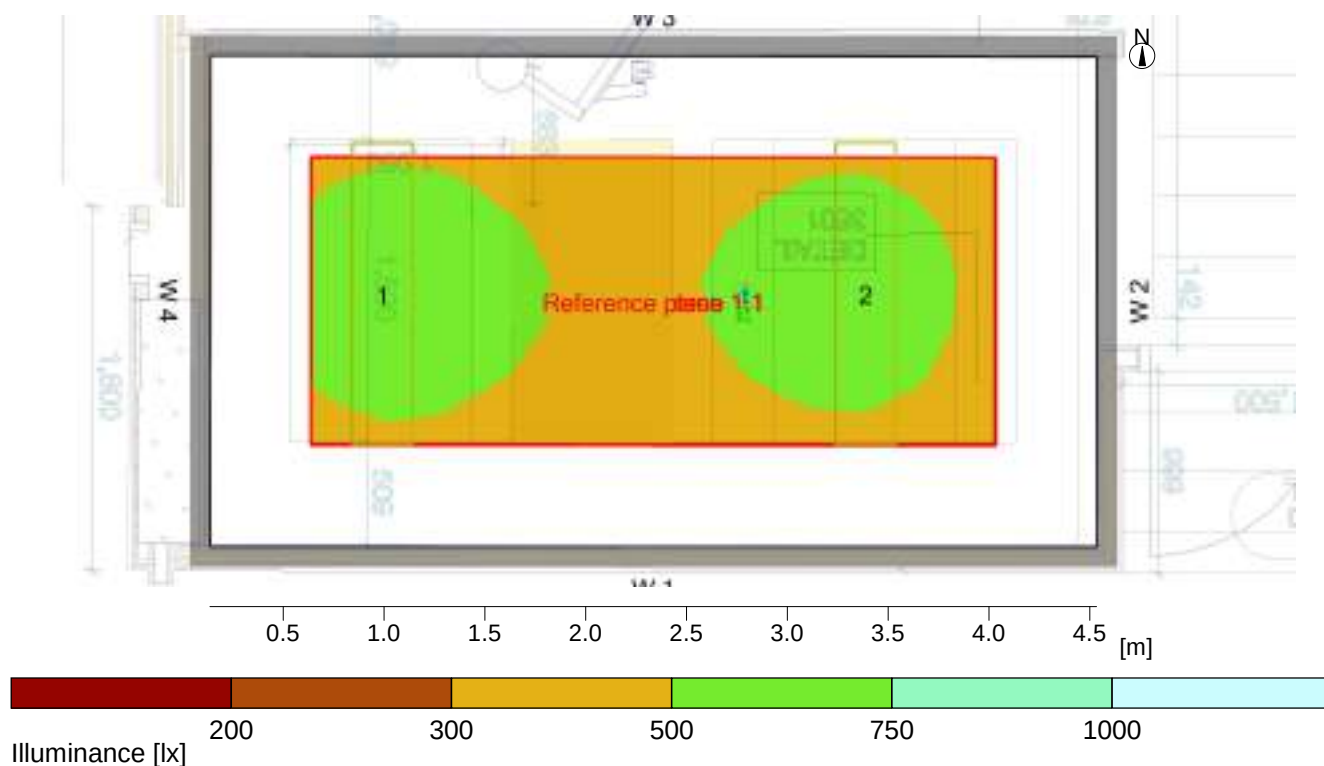
Object : UCLH Phase 5 - REV 4
 Installation : Second Floor - ADDITIONAL CALCS
 Project number : (58285) 5808
 Date : 09.10.2018



4 DNP0006 - 02.026

4.1 Summary, DNP0006 - 02.026

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

High indirect fraction
 2.70 m
 0.80

Total luminous flux of all lamps
 Total power
 Total power per area (10.67 m²)

7946.00 lm
 76.0 W
 7.12 W/m² (1.49 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 478 lx
 Emin 395 lx
 Emin/Eav (Uo) 0.83
 Emin/Emax (Ud) 0.71
 Position 0.75 m (rot: 0°/0.02°)

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	87 lx	0.91
M 1.1 (Wall)	210 lx	0.63
M 1.2 (Wall)	205 lx	0.71
M 1.3 (Wall)	218 lx	0.60
M 1.4 (Wall)	260 lx	0.71

Type No.1Make

Object : UCLH Phase 5 - REV 4
Installation : Second Floor - ADDITIONAL CALCS
Project number : (58285) 5808
Date : 09.10.2018

4 DNP0006 - 02.026

4.1 Summary, DNP0006 - 02.026

4.1.1 Result overview, Evaluation area 1

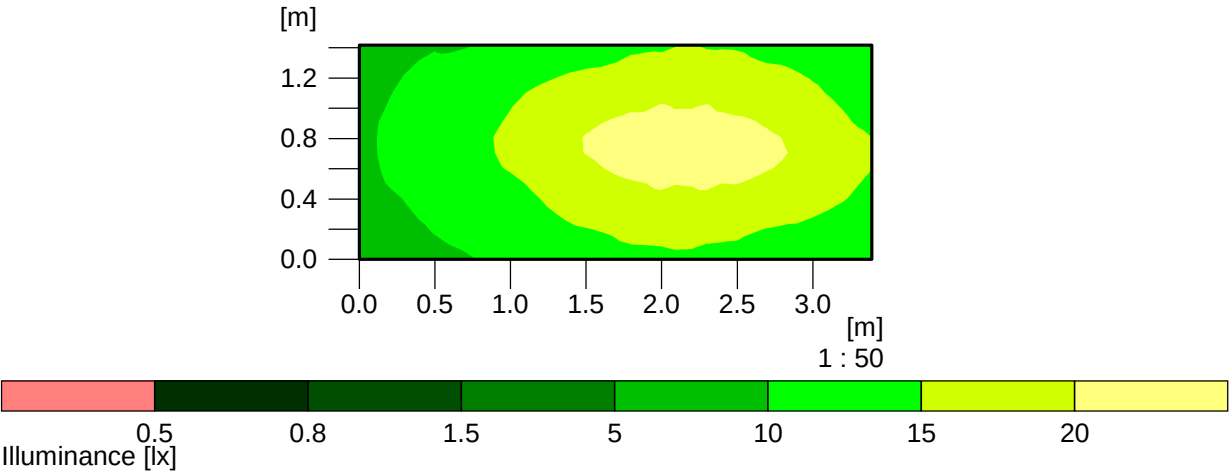


Whitecroft Lighting	
1	Order No. : !CLFY#/1494/SRF###
2	Luminaire name : A9 - CITYLINE
	Equipment : 1 x LED 38.5 W / 3973 lm

4 DNP0006 - 02.026

4.2 Calculation results, DNP0006 - 02.026

4.2.1 Boundary line, Emergency area 1.1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 6.1 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 3.60 (0.28) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Second Floor - ADDITIONAL CALCS
Project number : (58285) 5808
Date : 09.10.2018



4.2 Summary, DNP0006 - 02.026

4.2.2 Result overview (emergency lighting)

Type No. Make

2 1 **Whitecroft Lighting**
 Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1.1					
1	0.5	6.1	22.1	1: 3.60	0.00



UCLH PHASE 5

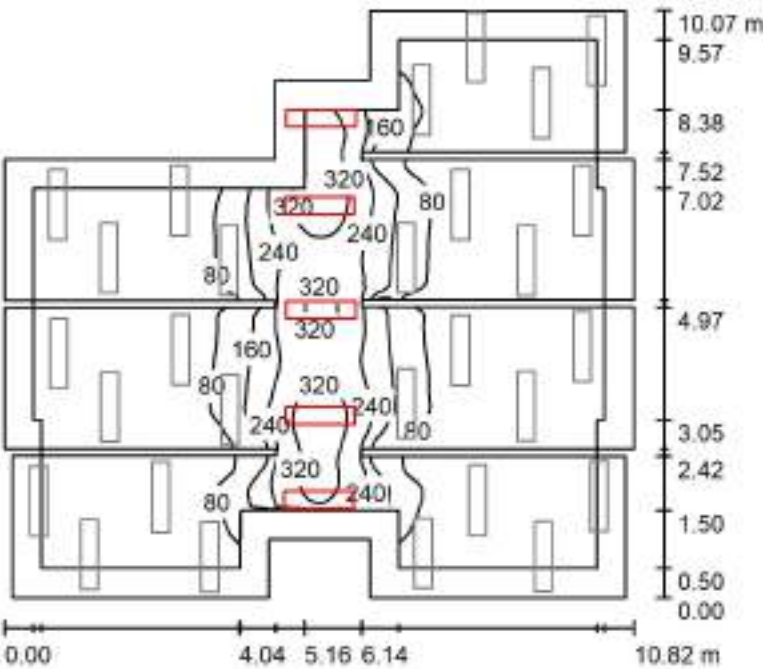
LEVEL 03

LIGHT CALCS REPORT



Operator
Telephone
Fax
e-Mail

TREATMENT BAYS DNA 027 - 033 / CORRIDOR IN TREATMENT BAY DNA 027 033 / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	85	5.15	363	0.061
Floor	20	69	6.11	256	0.089
Ceiling	70	15	4.55	69	0.312
Walls (18)	50	25	6.13	355	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.301, Ceiling / Working Plane: 0.172.

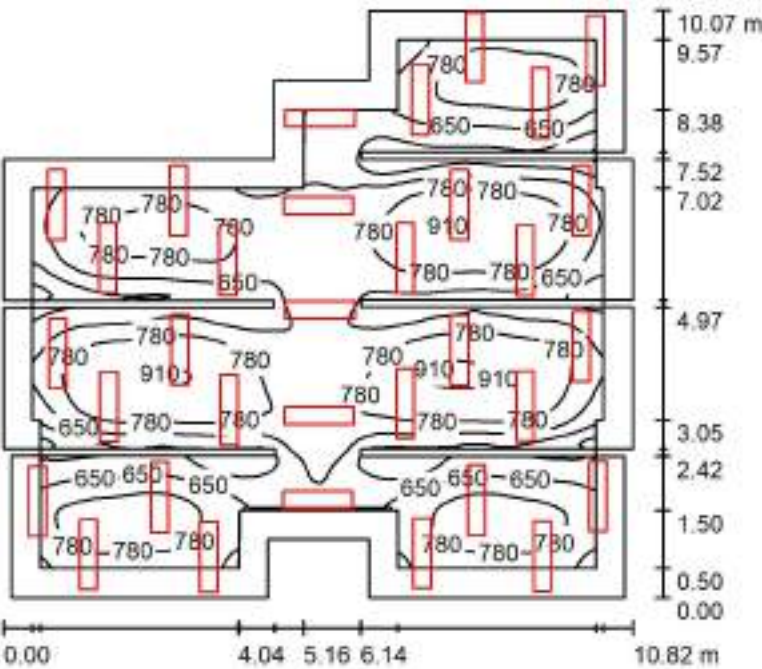
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1924	1925	18.0
*Modified Technical Specifications			Total: 9618	Total: 9625	90.0

Specific connected load: $0.97 \text{ W/m}^2 = 1.15 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 92.40 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAYS DNA 027 - 033 / ALL LIGHTS / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	715	316	930	0.442
Floor	20	565	317	742	0.561
Ceiling	70	146	100	259	0.688
Walls (18)	50	316	115	1411	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.460, Ceiling / Working Plane: 0.204.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1924	1925	18.0
2	28	WHITECROFT DLAAGH34K DTFA LED (Type 1)* (1.000)	3014	3000	39.0
Total:			94017	93625	1182.0

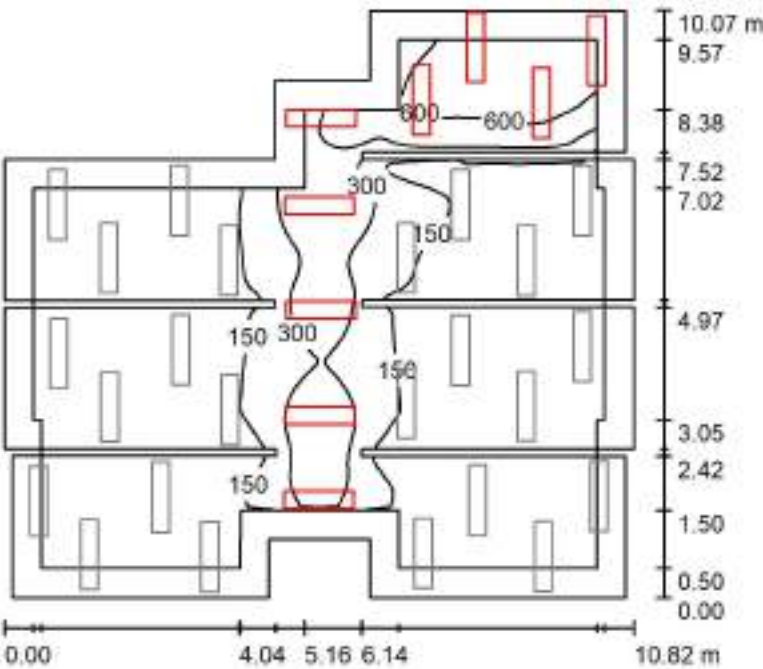
*Modified Technical Specifications

Specific connected load: $12.79 \text{ W/m}^2 = 1.79 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 92.40 m^2)



Operator
Telephone
Fax
e-Mail

TREATMENT BAYS DNA 027 - 033 / CORRIDOR & TREATMENT BAY DNA 030 / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:130

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	158	5.50	742	0.035
Floor	20	132	7.45	564	0.056
Ceiling	70	32	5.66	229	0.174
Walls (18)	50	82	6.77	1370	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.498, Ceiling / Working Plane: 0.207.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	5	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1924	1925	18.0
2	4	WHITECROFT DLAAGH34K DTFA LED (Type 1)* (1.000)	3014	3000	39.0
Total:			21675	21625	246.0

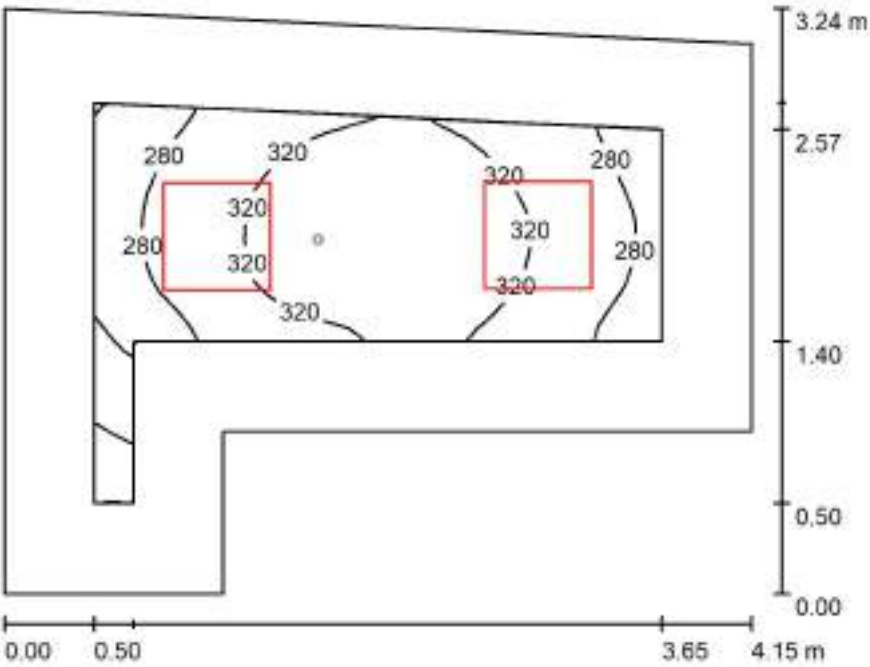
*Modified Technical Specifications

Specific connected load: $2.66 \text{ W/m}^2 = 1.69 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 92.40 m^2)



Operator
Telephone
Fax
e-Mail

EQUIPMENT STORE SHA 086 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	302	159	345	0.526
Floor	20	257	86	345	0.337
Ceiling	70	62	29	77	0.465
Walls (6)	50	134	31	259	/

Workplane:

Height: 0.000 m
Grid: 32 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.444, Ceiling / Working Plane: 0.205.

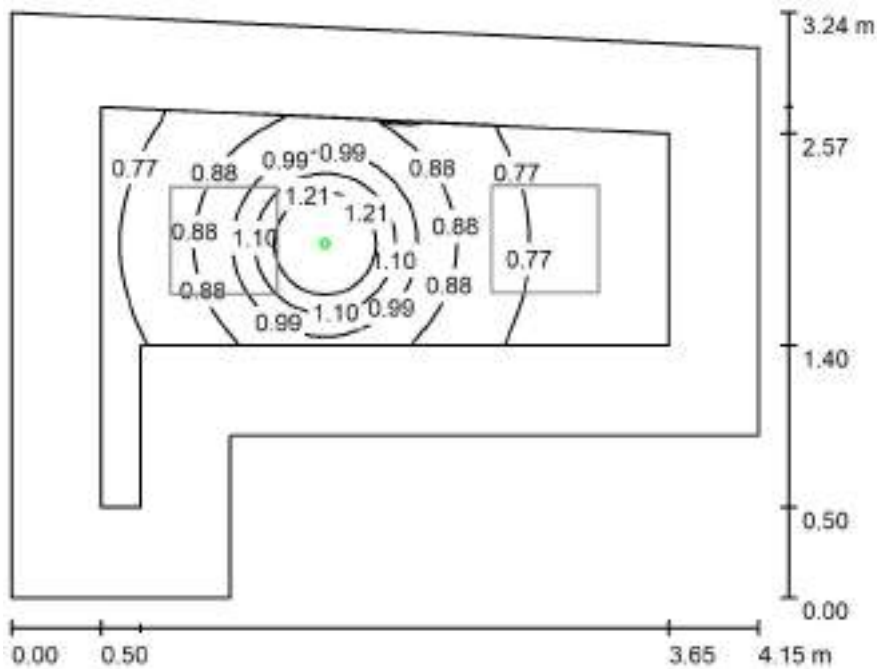
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $5.56 \text{ W/m}^2 = 1.84 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.43 m^2)

Operator
Telephone
Fax
e-Mail

EQUIPMENT STORE SHA 086 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:42

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	0.88	0.71	1.28	0.809
Floor	20	0.79	0.00	1.28	0.000
Ceiling	70	0.04	0.00	4.58	0.000
Walls (6)	50	3.02	0.00	49	/

Workplane:

Height: 0.000 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 3.421, Ceiling / Working Plane: 0.045.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.29 \text{ W/m}^2 = 32.84 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.43 m^2)



UCLH Phase 5 - REV 4

Installation : Third

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 10.10.2018

Project description:

WLL Sample calculations to areas as requested.

Calculation parameters:

Standard reflectances:

70% Ceiling / 50% Wall / 20% Floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

First Page	1
Table of contents	2
1 Staff breakout - SHA083 - 03.055	
1.1 Summary, Staff breakout - SHA083 - 03.055	
1.1.1 Result overview, Evaluation area 1	4
1.2 Calculation results, Staff breakout - SHA083 - 03.055	
1.2.1 Boundary line, Emergency area 1 (E)	5
1.2 Summary, Staff breakout - SHA083 - 03.055	
1.2.2 Result overview (emergency lighting)	6
2 Treatment Bay - DNA042 - 03.042	
2.1 Summary, Treatment Bay - DNA042 - 03.042	
2.1.1 Result overview, Evaluation area 1	7
2.2 Calculation results, Treatment Bay - DNA042 - 03.042	
2.2.1 Boundary line, Emergency area 1 (E)	9
2.2 Summary, Treatment Bay - DNA042 - 03.042	
2.2.2 Result overview (emergency lighting)	10
3 Corridor - COM043 - 03.001	
3.1 Summary, Corridor - COM043 - 03.001	
3.1.1 Result overview, Evaluation area 1	11
3.2 Calculation results, Corridor - COM043 - 03.001	
3.2.1 Boundary line, Escape route 1 (E)	14
3.2 Summary, Corridor - COM043 - 03.001	
3.2.2 Result overview (emergency lighting)	15
4 Corridor - CIR036 - 03.019	
4.1 Summary, Corridor - CIR036 - 03.019	
4.1.1 Result overview, Evaluation area 1	16
4.2 Calculation results, Corridor - CIR036 - 03.019	
4.2.1 Boundary line, Escape route 1 (E)	17
4.2 Summary, Corridor - CIR036 - 03.019	
4.2.2 Result overview (emergency lighting)	18
5 Corridor - CIR033 - 03.002	
5.1 Summary, Corridor - CIR033 - 03.002	
5.1.1 Result overview, Evaluation area 1	19
5.2 Calculation results, Corridor - CIR033 - 03.002	
5.2.1 Boundary line, Escape route 1 (E)	21
5.2 Summary, Corridor - CIR033 - 03.002	
5.2.2 Result overview (emergency lighting)	22
6 Corridor - Com041 - 03.401	
6.1 Summary, Corridor - Com041 - 03.401	
6.1.1 Result overview, Evaluation area 1	23
6.2 Calculation results, Corridor - Com041 - 03.401	
6.2.1 Boundary line, Escape route 1 (E)	25
6.2 Summary, Corridor - Com041 - 03.401	
6.2.2 Result overview (emergency lighting)	26
7 Medical Illustration Room - SHA144 - 03.051	
7.1 Summary, Medical Illustration Room - SHA144 - 03.051	
7.1.1 Result overview, Evaluation area 1	27
7.2 Calculation results, Medical Illustration Room - SHA144 - 03.051	
7.2.1 Boundary line, Emergency area 1 (E)	29
7.2 Summary, Medical Illustration Room - SHA144 - 03.051	
7.2.2 Result overview (emergency lighting)	30
8 Treatment Room - DNA044 - 03.035	
8.1 Summary, Treatment Room - DNA044 - 03.035	
8.1.1 Result overview, Evaluation area 1	31
8.2 Calculation results, Treatment Room - DNA044 - 03.035	
8.2.1 Boundary line, Emergency area 1 (E)	33
8.2 Summary, Treatment Room - DNA044 - 03.035	



Table of contents

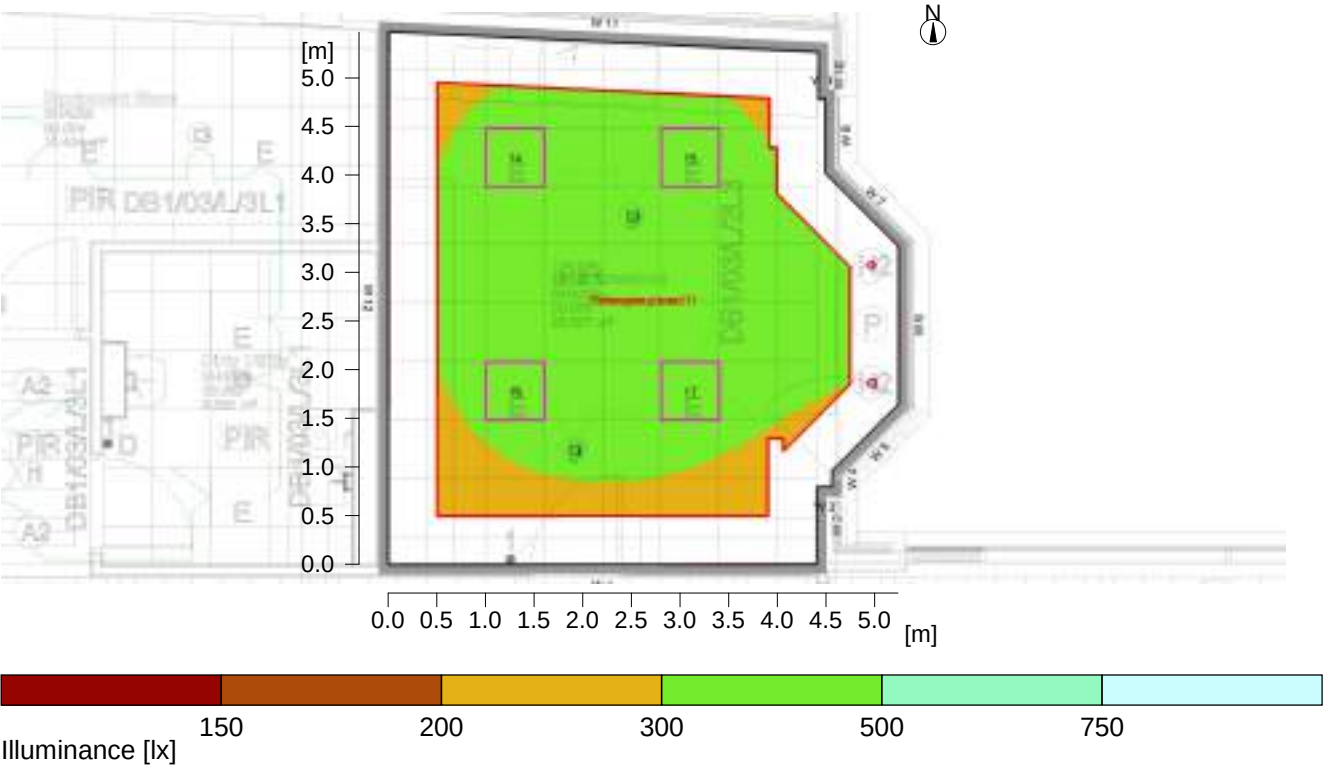
8.2.2	Result overview (emergency lighting)	34



1 Staff breakout - SHA083 - 03.055

1.1 Summary, Staff breakout - SHA083 - 03.055

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
Maintenance factor

Average indirect fraction
0.80

Evaluation area 1

Em
Emin
Emin/Eav (Uo)
Emin/Emax (Ud)
Position

Reference plane 1.1

Horizontal
330 lx
235 lx
0.71
0.60
0.10 m

Major surfaces

M 1.5 (Ceiling)
M 1.1 (Wall)
M 1.2 (Wall)
M 1.3 (Wall)
M 1.4 (Wall)

Em	Uo
78 lx	0.85
24 lx	---
0 lx	---
255 lx	0.68
221 lx	0.64

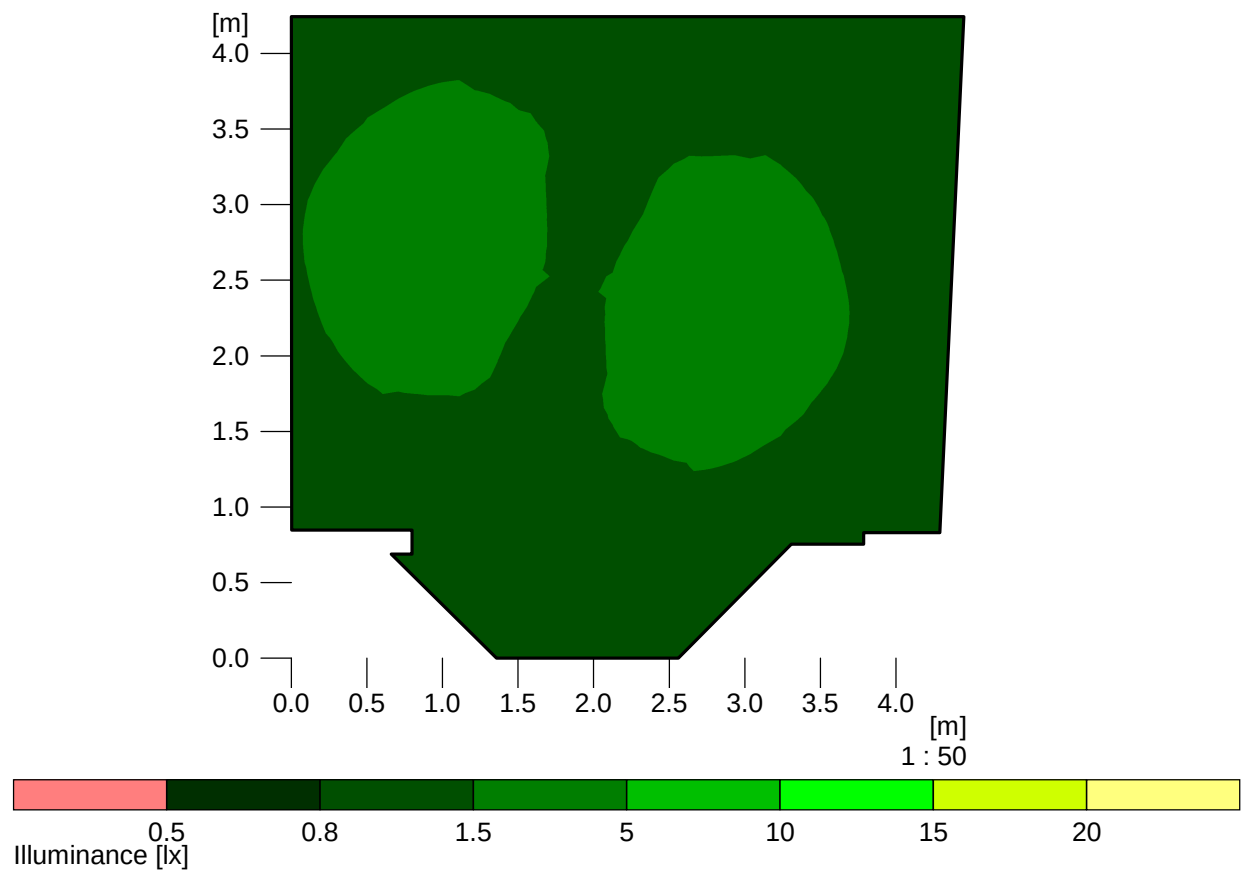
Type No.IMake



1 Staff breakout - SHA083 - 03.055

1.2 Calculation results, Staff breakout - SHA083 - 03.055

1.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.2 lx
Maximum illuminance	Emax	: 2 lx
Diversity	Emin/Emax	: 1 : 1.66 (0.60) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



1.2 Summary, Staff breakout - SHA083 - 03.055

1.2.2 Result overview (emergency lighting)

Type No. Make

7 2 **Whitecroft Lighting**
Order No. : !FLE31
Luminaire name : I3 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

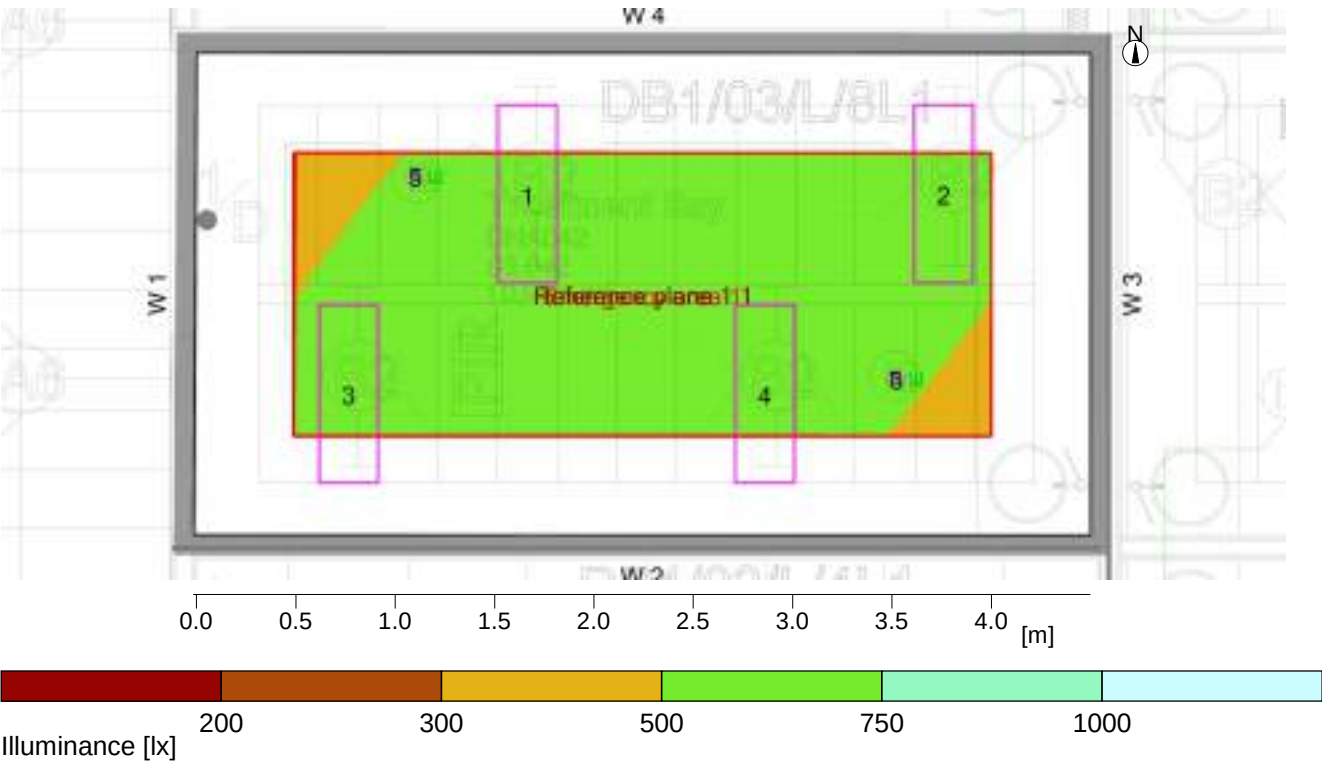
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.2	2.0	1: 1.66	0.00



2 Treatment Bay - DNA042 - 03.042

2.1 Summary, Treatment Bay - DNA042 - 03.042

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	10000.00 lm
Total power	112.0 W
Total power per area (10.91 m²)	10.27 W/m² (1.79 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	574 lx
Emin	393 lx
Emin/Eav (Uo)	0.68
Emin/Emax (Ud)	0.61
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	101 lx	0.85
M 1.1 (Wall)	244 lx	0.60
M 1.2 (Wall)	262 lx	0.53
M 1.3 (Wall)	250 lx	0.59
M 1.4 (Wall)	262 lx	0.52

Type No. Make

Object : UCLH Phase 5 - REV 4
Installation : Third
Project number : (58285) 5808
Date : 10.10.2018

2 Treatment Bay - DNA042 - 03.042

2.1 Summary, Treatment Bay - DNA042 - 03.042

2.1.1 Result overview, Evaluation area 1

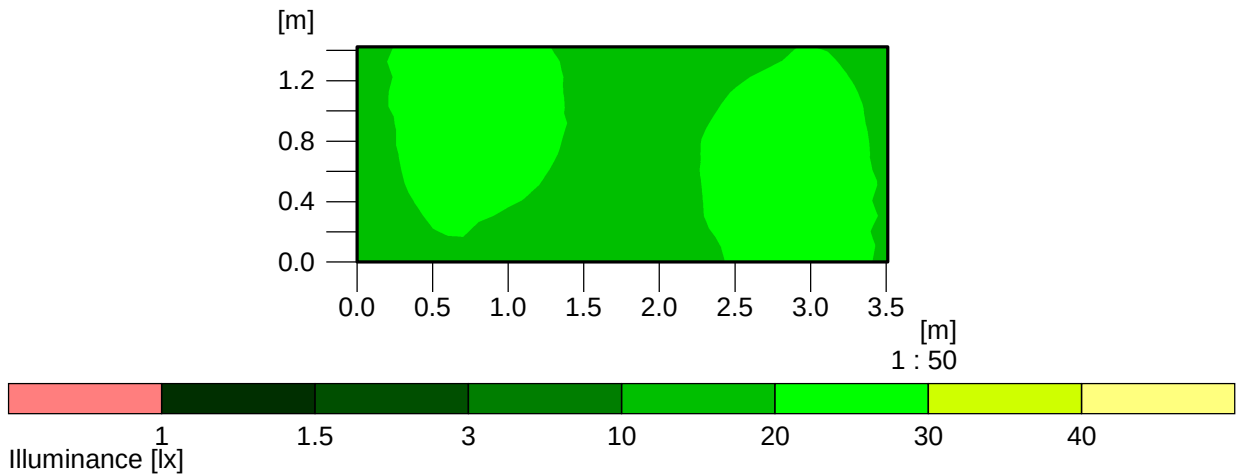


		Whitecroft Lighting	
4	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: B2 - CITYLINE Ra90
		Equipment	: 1 x LED 28 W / 2500 lm

2 Treatment Bay - DNA042 - 03.042

2.2 Calculation results, Treatment Bay - DNA042 - 03.042

2.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 12 lx
Maximum illuminance	Emax	: 26 lx
Diversity	Emin/Emax	: 1 : 2.06 (0.49) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



2.2 Summary, Treatment Bay - DNA042 - 03.042

2.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
9	2	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

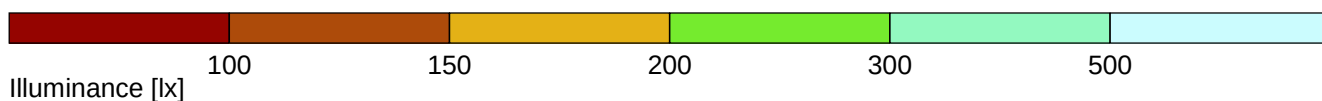
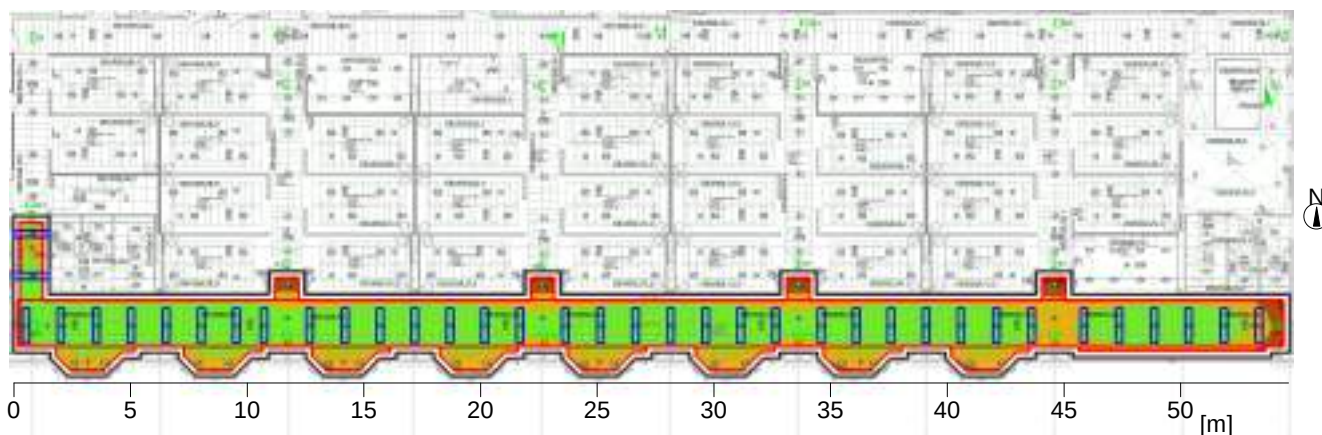
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	1.0	12.4	25.5	1: 2.06	0.00



3 Corridor - COM043 - 03.001

3.1 Summary, Corridor - COM043 - 03.001

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used High indirect fraction
 Height of luminaire plane 2.70 m
 Maintenance factor 0.80

Total luminous flux of all lamps 54950.00 lm (35.00% dimmed)
 (Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)

Total power 1566.0 W
 Total power per area (169.46 m²) 9.24 W/m² (4.60 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 201 lx
 Emin 90 lx
 Emin/Eav (Uo) 0.45
 Emin/Emax (Ud) 0.37
 Position 0.00 m

Major surfaces

	Em	Uo
M 1.57 (Ceiling)	42 lx	0.57
M 1.1 (Wall)	132 lx	0.56
M 1.2 (Wall)	120 lx	0.67
M 1.3 (Wall)	83 lx	0.69
M 1.4 (Wall)	81 lx	0.73
M 1.5 (Wall)	87 lx	0.68
M 1.6 (Wall)	117 lx	0.68
M 1.7 (Wall)	85 lx	0.67
M 1.8 (Wall)	79 lx	0.71



3 Corridor - COM043 - 03.001

3.1 Summary, Corridor - COM043 - 03.001

3.1.1 Result overview, Evaluation area 1

M 1.9 (Wall)	84 lx	0.69
M 1.10 (Wall)	91 lx	0.66
M 1.11 (Wall)	80 lx	0.67
M 1.12 (Wall)	75 lx	0.71
M 1.13 (Wall)	81 lx	0.68
M 1.14 (Wall)	118 lx	0.77
M 1.15 (Wall)	80 lx	0.68
M 1.16 (Wall)	76 lx	0.71
M 1.17 (Wall)	82 lx	0.68
M 1.18 (Wall)	88 lx	0.66
M 1.19 (Wall)	81 lx	0.68
M 1.20 (Wall)	75 lx	0.71
M 1.21 (Wall)	81 lx	0.68
M 1.22 (Wall)	117 lx	0.77
M 1.23 (Wall)	77 lx	0.68
M 1.24 (Wall)	76 lx	0.72
M 1.25 (Wall)	85 lx	0.68
M 1.26 (Wall)	88 lx	0.66
M 1.27 (Wall)	77 lx	0.67
M 1.28 (Wall)	75 lx	0.72
M 1.29 (Wall)	85 lx	0.69
M 1.30 (Wall)	117 lx	0.77
M 1.31 (Wall)	75 lx	0.67
M 1.32 (Wall)	74 lx	0.73
M 1.33 (Wall)	86 lx	0.68
M 1.34 (Wall)	77 lx	0.67
M 1.35 (Wall)	97 lx	0.65
M 1.36 (Wall)	53 lx	0.50
M 1.37 (Wall)	70 lx	0.61
M 1.38 (Wall)	96 lx	0.41
M 1.39 (Wall)	42 lx	0.67
M 1.40 (Wall)	50 lx	0.65
M 1.41 (Wall)	41 lx	0.69
M 1.42 (Wall)	100 lx	0.67
M 1.43 (Wall)	43 lx	0.67
M 1.44 (Wall)	54 lx	0.67
M 1.45 (Wall)	43 lx	0.67
M 1.46 (Wall)	101 lx	0.67
M 1.47 (Wall)	43 lx	0.67
M 1.48 (Wall)	54 lx	0.67
M 1.49 (Wall)	43 lx	0.67
M 1.50 (Wall)	101 lx	0.67
M 1.51 (Wall)	45 lx	0.67
M 1.52 (Wall)	56 lx	0.67
M 1.53 (Wall)	44 lx	0.68
M 1.54 (Wall)	105 lx	0.67
M 1.55 (Wall)	132 lx	0.58
M 1.56 (Wall)	126 lx	0.63

Type No. Make

		Whitecroft Lighting	
6	20	Order No.	: !CDH14KFLAW
		Luminaire name	: H2 - CHORD 80
		Equipment	: 1 x LED 8 W / 450 lm



Object : UCLH Phase 5 - REV 4
Installation : Third
Project number : (58285) 5808
Date : 10.10.2018

3 Corridor - COM043 - 03.001

3.1 Summary, Corridor - COM043 - 03.001

3.1.1 Result overview, Evaluation area 1

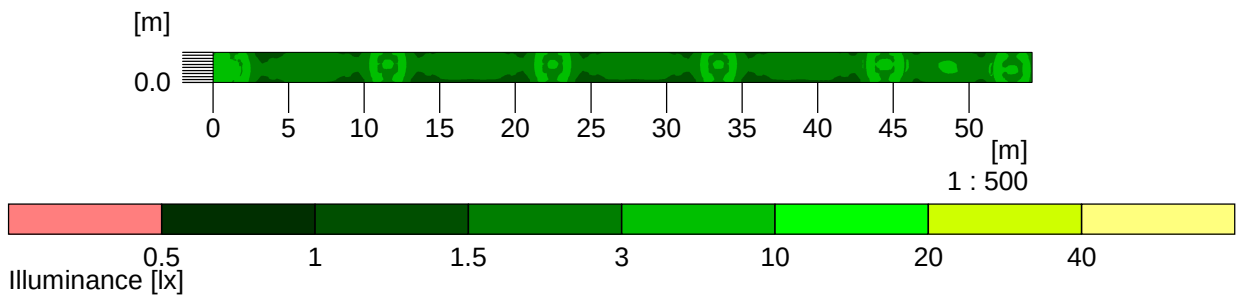
12	37	Order No.	: !CLFY/1494/SRF
		Luminaire name	: A9 - CITYLINE
		Equipment	: 1 x LED 38 W / 4000 lm



3 Corridor - COM043 - 03.001

3.2 Calculation results, Corridor - COM043 - 03.001

3.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 1.6 lx
Maximum illuminance (central axis)	Emax	: 7.2 lx
Diversity	Emin/Emax	: 1 : 4.50 (0.22) (Threshold value 1:40)
Minimum illuminance	Emin	: 1 lx
Maximum illuminance	Emax	: 7.2 lx
Diversity	Emin/Emax	: 1 : 7.35 (0.14) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

3.2 Summary, Corridor - COM043 - 03.001

3.2.2 Result overview (emergency lighting)

Type No. Make

8

7



Whitecroft Lighting

Order No. : !FLE32

Luminaire name : I1 - FLORIN E3

Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Escape routes:

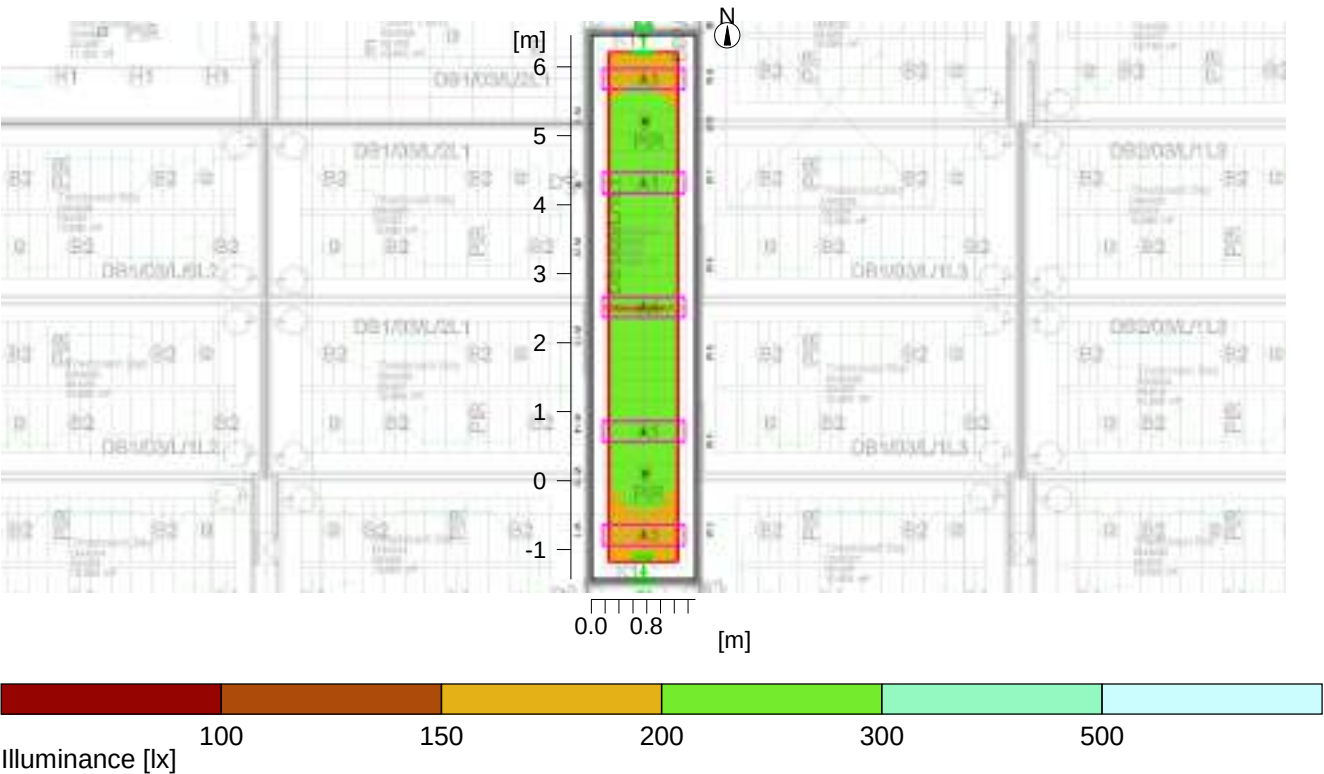
No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	1.6	7.2	1: 4.59	1.0	7.2	1: 7.35	0.00	



4 Corridor - CIR036 - 03.019

4.1 Summary, Corridor - CIR036 - 03.019

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8075.00 lm (85.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	90.0 W
Total power per area (11.82 m²)	7.62 W/m² (3.81 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Em	Horizontal
Emin	200 lx
Emin/Eav (Uo)	153 lx
Emin/Emax (Ud)	0.76
Position	0.70
	0.00 m

Type No. Make

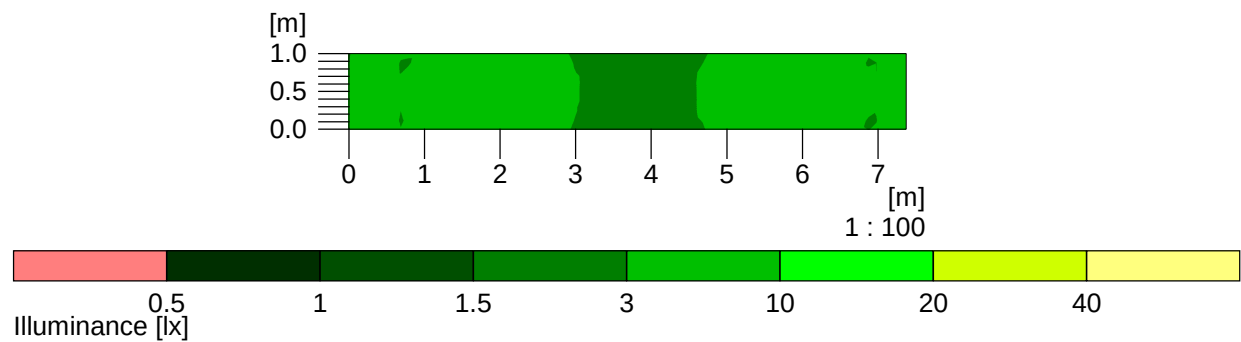
Whitecroft Lighting	
10	Order No. : !CLFY#/1194/SRF###
5	Luminaire name : A1 - CITYLINE
	Equipment : 1 x LED 18 W / 1900 lm



4 Corridor - CIR036 - 03.019

4.2 Calculation results, Corridor - CIR036 - 03.019

4.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 2.3 lx
Maximum illuminance (central axis)	Emax	: 7.1 lx
Diversity	Emin/Emax	: 1 : 3.09 (0.32) (Threshold value 1:40)
Minimum illuminance	Emin	: 2 lx
Maximum illuminance	Emax	: 7.1 lx
Diversity	Emin/Emax	: 1 : 3.49 (0.29) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



4.2 Summary, Corridor - CIR036 - 03.019

4.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
8	2	Order No.	: !FLE32
		Luminaire name	: I1 - FLORIN E3
		Equipment	: 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Escape routes:

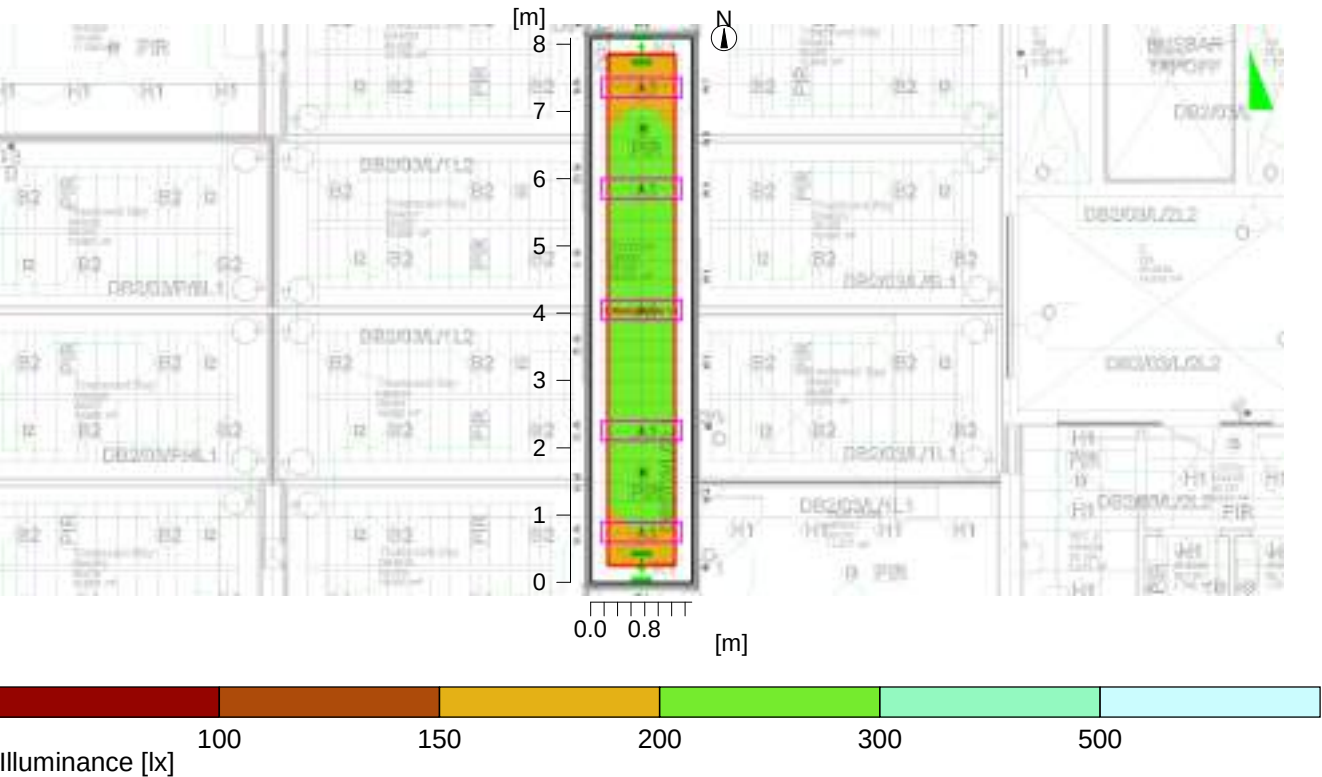
No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	2.3	7.1	1: 3.10	2.0	7.1	1: 3.49	0.00	



5 Corridor - CIR033 - 03.002

5.1 Summary, Corridor - CIR033 - 03.002

5.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	8170.00 lm (86.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	90.0 W
Total power per area (12.13 m²)	7.42 W/m² (3.68 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	202 lx
Emin	149 lx
Emin/Eav (Uo)	0.74
Emin/Emax (Ud)	0.67
Position	0.00 m

Major surfaces

	Em	Uo
M 1.14 (Ceiling)	32 lx	0.64
M 1.1 (Wall)	126 lx	0.64
M 1.2 (Wall)	131 lx	0.53
M 1.3 (Wall)	101 lx	0.56
M 1.4 (Wall)	112 lx	0.54
M 1.5 (Wall)	151 lx	0.56
M 1.6 (Wall)	139 lx	0.46
M 1.7 (Wall)	111 lx	0.66
M 1.8 (Wall)	134 lx	0.46

Object : UCLH Phase 5 - REV 4
Installation : Third
Project number : (58285) 5808
Date : 10.10.2018

5 Corridor - CIR033 - 03.002

5.1 Summary, Corridor - CIR033 - 03.002

5.1.1 Result overview, Evaluation area 1

M 1.9 (Wall)	140 lx	0.55
M 1.10 (Wall)	101 lx	0.56
M 1.11 (Wall)	113 lx	0.55
M 1.12 (Wall)	159 lx	0.56
M 1.13 (Wall)	160 lx	0.49

Type No.lMake

		Whitecroft Lighting	
10	5	Order No.	: !CLFY#/1194/SRF###
		Luminaire name	: A1 - CITYLINE
		Equipment	: 1 x LED 18 W / 1900 lm

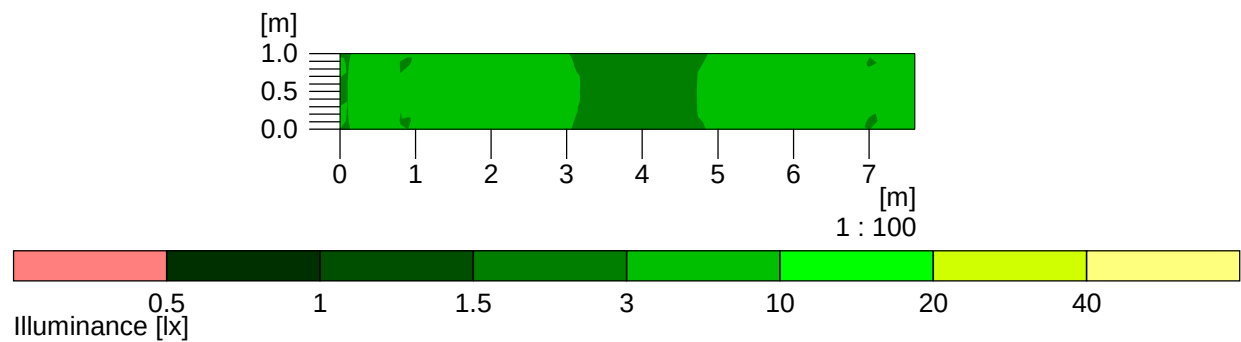




5 Corridor - CIR033 - 03.002

5.2 Calculation results, Corridor - CIR033 - 03.002

5.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 2.3 lx
Maximum illuminance (central axis)	Emax	: 7.1 lx
Diversity	Emin/Emax	: 1 : 3.09 (0.32) (Threshold value 1:40)
Minimum illuminance	Emin	: 2.1 lx
Maximum illuminance	Emax	: 7.1 lx
Diversity	Emin/Emax	: 1 : 3.46 (0.29) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



5.2 Summary, Corridor - CIR033 - 03.002

5.2.2 Result overview (emergency lighting)

Type No. Make

8		2		Whitcroft Lighting	
				Order No.	: !FLE32
				Luminaire name	: I1 - FLORIN E3
				Equipment	: 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

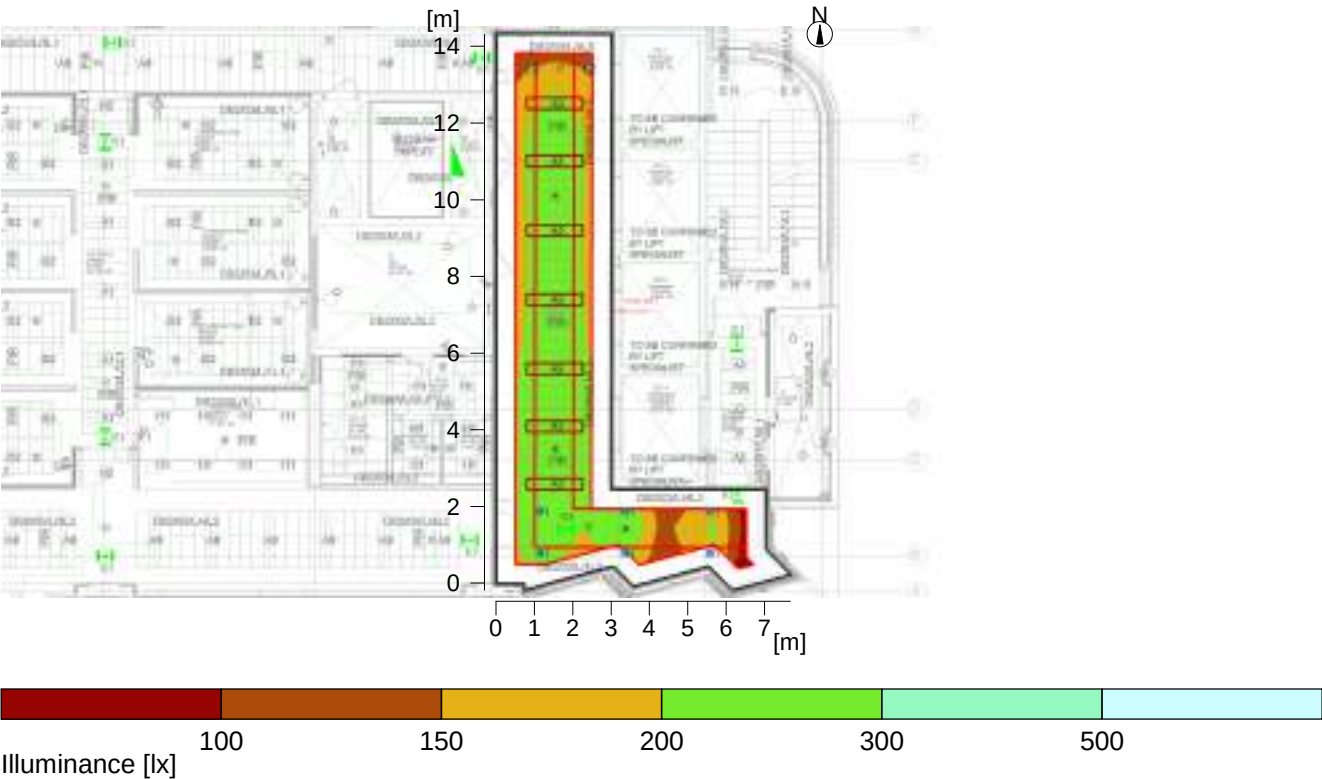
Escape routes:

No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	2.3	7.1	1: 3.10	2.1	7.1	1: 3.46	0.00	

6 Corridor - Com041 - 03.401

6.1 Summary, Corridor - Com041 - 03.401

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	14440.00 lm (40.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	360.0 W
Total power per area (52.03 m²)	6.92 W/m² (3.45 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	201 lx
Emin	88 lx
Emin/Eav (Uo)	0.44
Emin/Emax (Ud)	0.31
Position	0.00 m

Type No. Make

Whitecroft Lighting	
5	Order No. : !CLFY#/1460/SRF###
7	Luminaire name : A6 - CITYLINE
	Equipment : 1 x LED 38 W / 4000 lm

Object : UCLH Phase 5 - REV 4
Installation : Third
Project number : (58285) 5808
Date : 10.10.2018

6 Corridor - Com041 - 03.401

6.1 Summary, Corridor - Com041 - 03.401

6.1.1 Result overview, Evaluation area 1

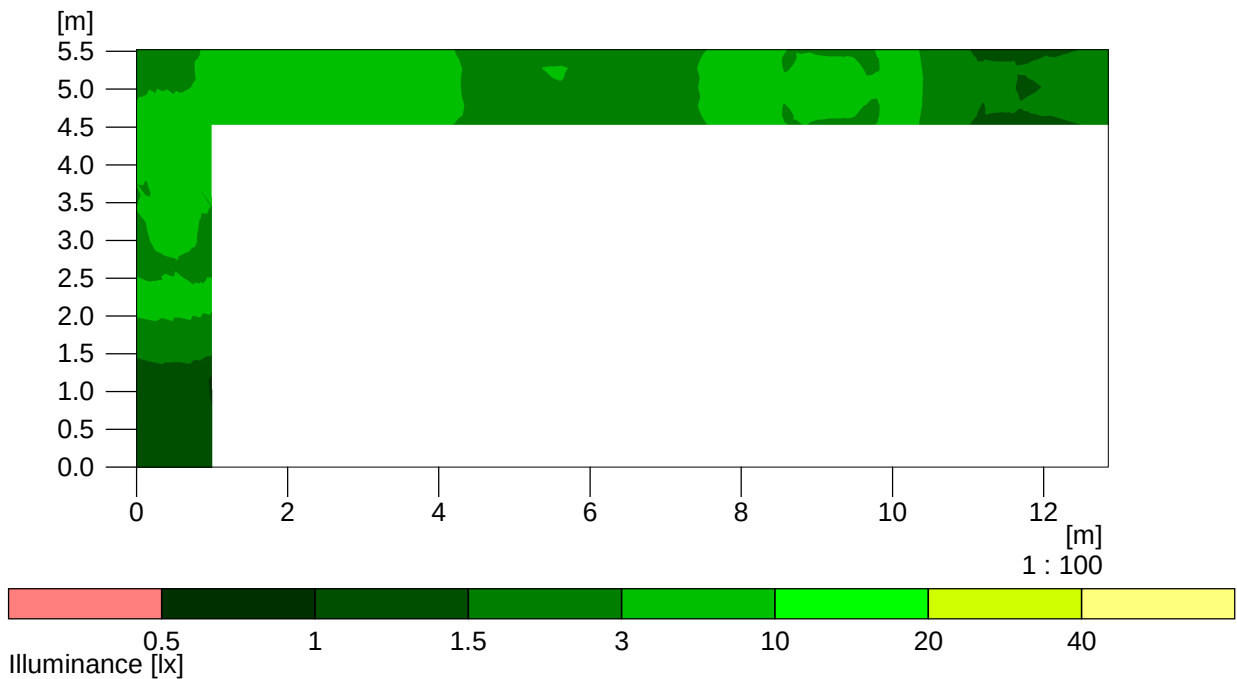
6	2	Order No.	: !CDH14KFLAW
		Luminaire name	: H2 - CHORD 80
		Equipment	: 1 x LED 8 W / 450 lm
11	6	Order No.	: !CNXH14K+CNX-IP54C
		Luminaire name	: h1 - CONCERT XL
		Equipment	: 1 x LED 13 W / 1200 lm



6 Corridor - Com041 - 03.401

6.2 Calculation results, Corridor - Com041 - 03.401

6.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 1.1 lx
Maximum illuminance (central axis)	Emax	: 7 lx
Diversity	Emin/Emax	: 1 : 6.36 (0.16) (Threshold value 1:40)
Minimum illuminance	Emin	: 1 lx
Maximum illuminance	Emax	: 7.1 lx
Diversity	Emin/Emax	: 1 : 7.42 (0.14) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

6.2 Summary, Corridor - Com041 - 03.401

6.2.2 Result overview (emergency lighting)

Type No. Make

83



Whitecroft Lighting

Order No. : !FLE32

Luminaire name : I1 - FLORIN E3

Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

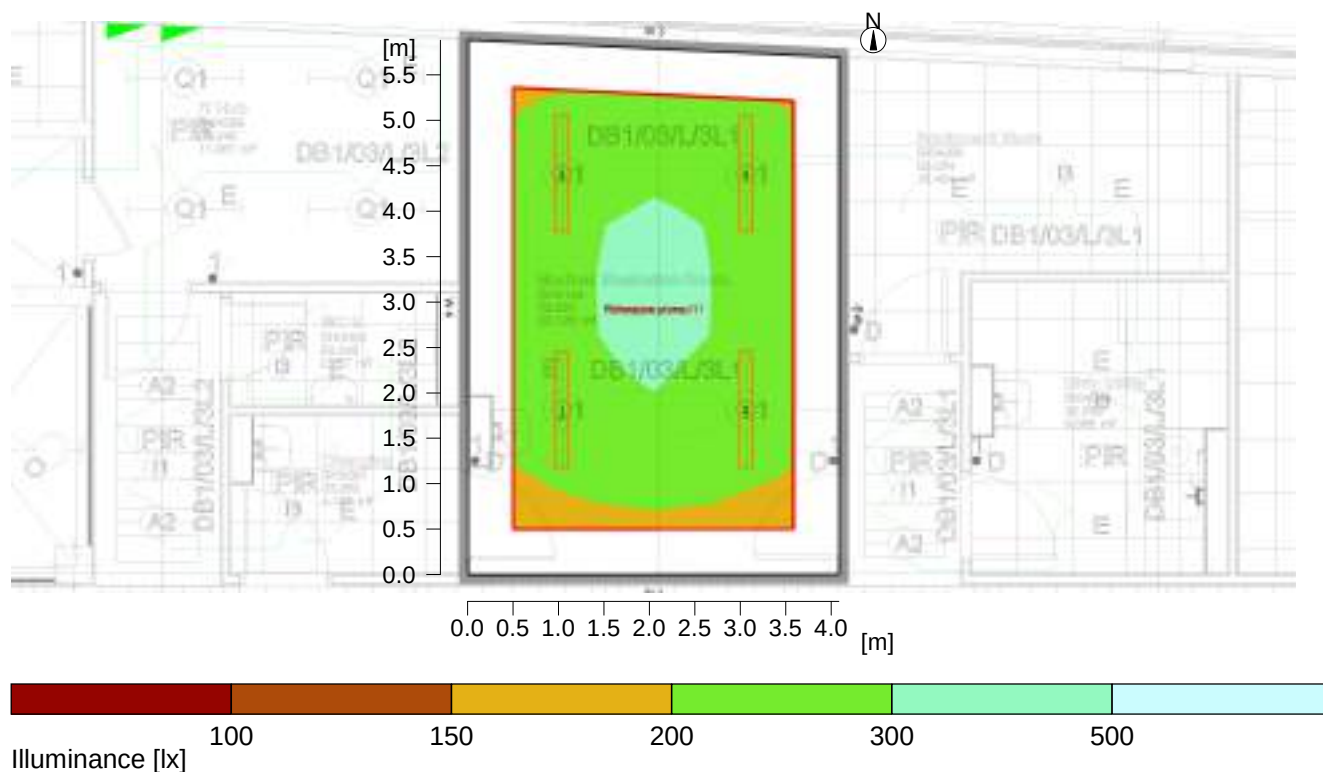
Escape routes:

No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	1.1	7.0	1: 6.13	1.0	7.1	1: 7.42		0.00

7 Medical Illustration Room - SHA144 - 03.051

7.1 Summary, Medical Illustration Room - SHA144 - 03.051

7.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 3.67 m
 0.80

Total luminous flux of all lamps
 Total power
 Total power per area (23.61 m²)

18520.00 lm
 132.0 W
 5.59 W/m² (2.24 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 E_m 249 lx
 E_{min} 174 lx
 E_{min}/E_{av} (U_o) 0.70
 E_{min}/E_{max} (U_d) 0.58
 UGR (1.7H 2.4H) <=26.3
 Position 0.75 m

Major surfaces

	E _m	U _o
M 1.5 (Ceiling)	52 lx	0.25
M 1.1 (Wall)	119 lx	0.75
M 1.2 (Wall)	210 lx	0.42
M 1.3 (Wall)	155 lx	0.59
M 1.4 (Wall)	208 lx	0.44

Object : UCLH Phase 5 - REV 4
Installation : Third
Project number : (58285) 5808
Date : 10.10.2018

7 Medical Illustration Room - SHA144 - 03.051

7.1 Summary, Medical Illustration Room - SHA144 - 03.051

7.1.1 Result overview, Evaluation area 1

Type No. Make

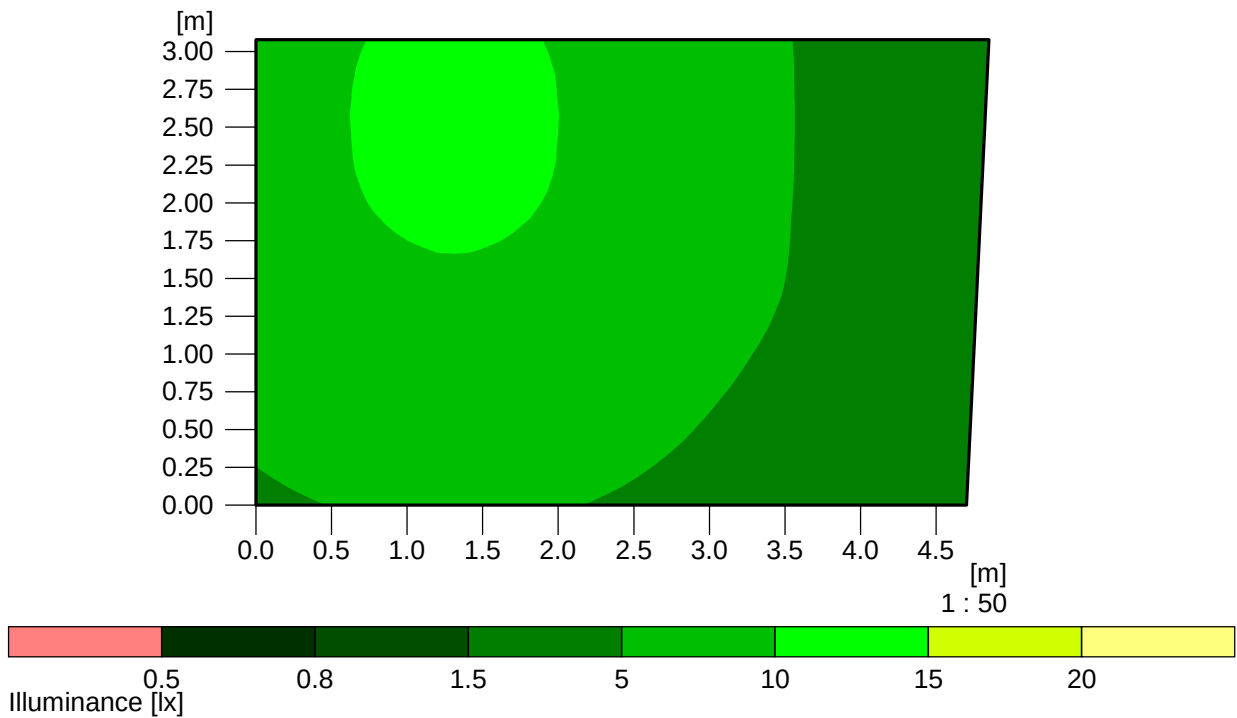
14	4	Whitecroft Lighting
		Order No. : ACH44K
		Luminaire name : ACL INDUSTRY
		Equipment : 1 x LED 33 W / 4630 lm



7 Medical Illustration Room - SHA144 - 03.051

7.2 Calculation results, Medical Illustration Room - SHA144 - 03.051

7.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 2 lx
Maximum illuminance	Emax	: 11 lx
Diversity	Emin/Emax	: 1 : 5.56 (0.18) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
 Installation : Third
 Project number : (58285) 5808
 Date : 10.10.2018



7.2 Summary, Medical Illustration Room - SHA144 - 03.051

7.2.2 Result overview (emergency lighting)

Type No. Make

14	1	Whitecroft Lighting
		Order No. : ACH44K
		Luminaire name : ACL INDUSTRY
		Equipment : 1 x LED 33 W / 4630 lm (13.8 %)

Result evaluation area

Calculation algorithm used: Direct component
 Maintenance factor: 0.8

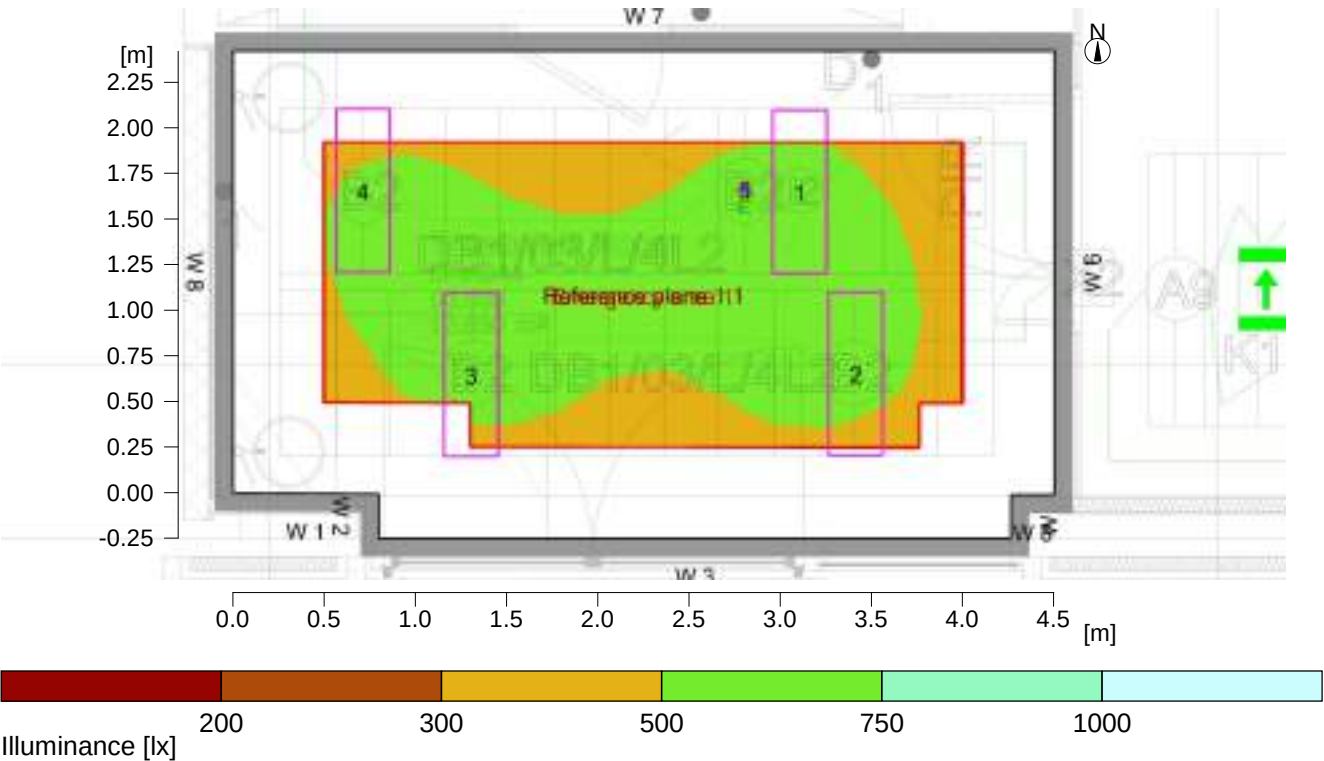
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	2.0	10.9	1: 5.56	0.00

8 Treatment Room - DNA044 - 03.035

8.1 Summary, Treatment Room - DNA044 - 03.035

8.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	10000.00 lm
Total power	112.0 W
Total power per area (11.76 m²)	9.52 W/m² (1.90 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	502 lx
Emin	356 lx
Emin/Eav (Uo)	0.71
Emin/Emax (Ud)	0.60
Position	0.85 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	18 lx	0.80
M 1.1 (Wall)	170 lx	0.52
M 1.2 (Wall)	149 lx	0.51
M 1.3 (Wall)	178 lx	0.42
M 1.4 (Wall)	201 lx	0.51

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : Third
Project number : (58285) 5808
Date : 10.10.2018

8 Treatment Room - DNA044 - 03.035

8.1 Summary, Treatment Room - DNA044 - 03.035

8.1.1 Result overview, Evaluation area 1



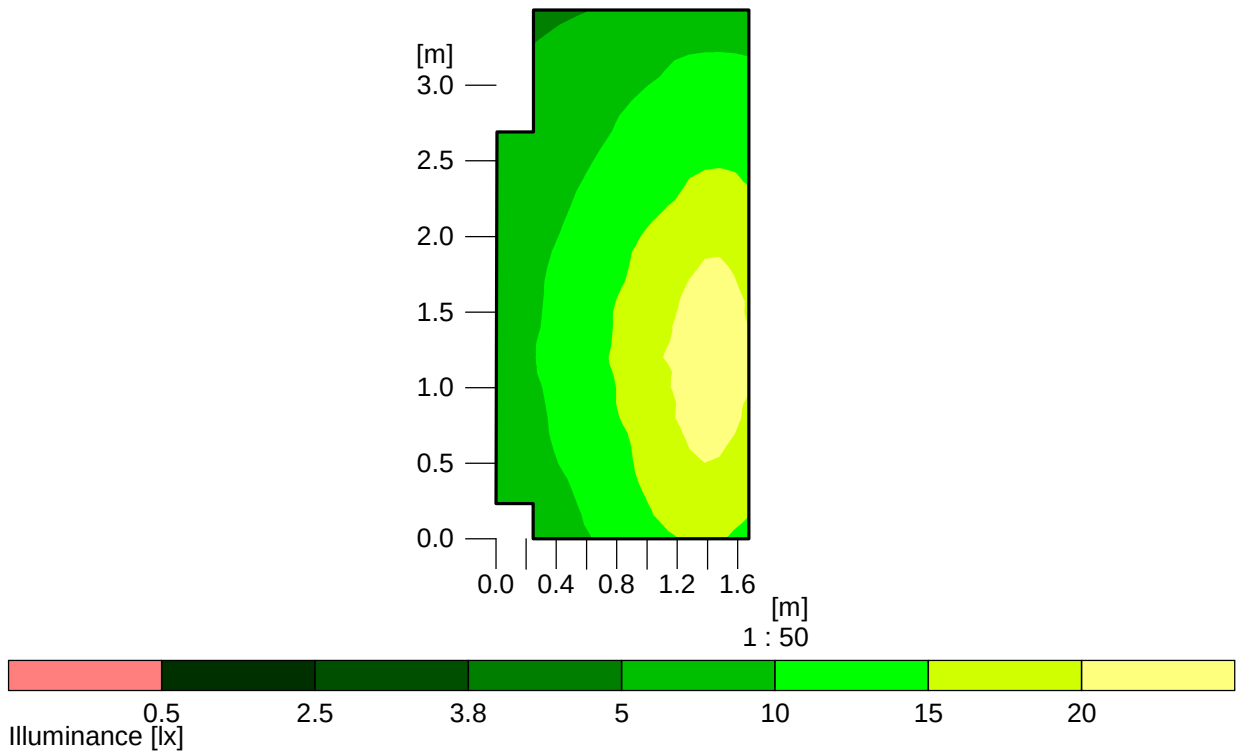
Whitecroft Lighting

4	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: B2 - CITYLINE Ra90
		Equipment	: 1 x LED 28 W / 2500 lm

8 Treatment Room - DNA044 - 03.035

8.2 Calculation results, Treatment Room - DNA044 - 03.035

8.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3.9 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 5.59 (0.18) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



8.2 Summary, Treatment Room - DNA044 - 03.035

8.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
9	1	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.9	22.0	1: 5.59	0.00



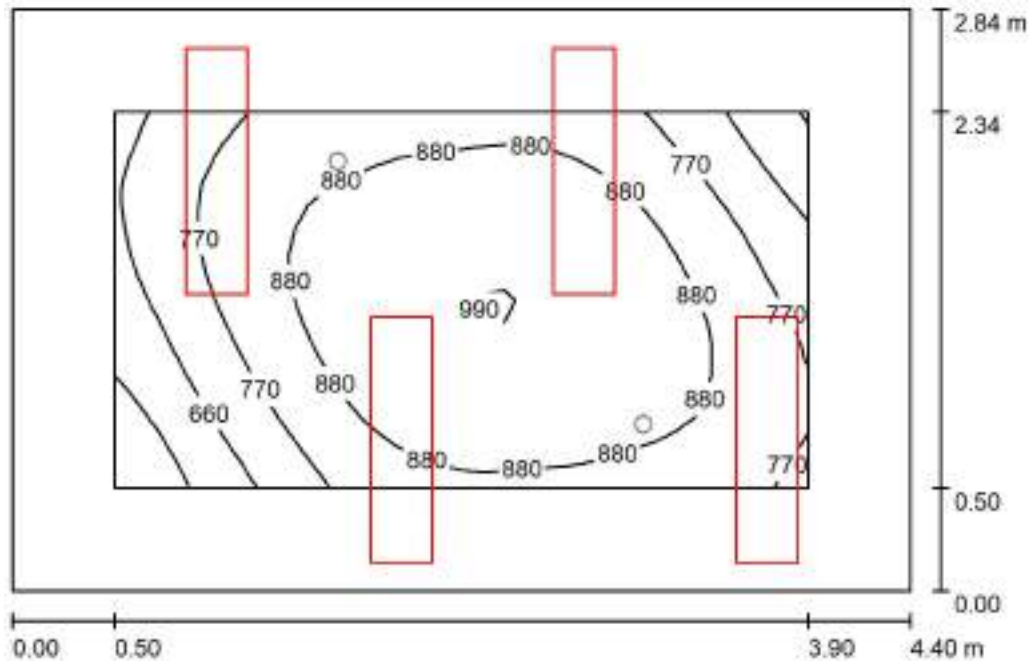
UCLH PHASE 5

LEVEL 4

LIGHT CALCS REPORT

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 067 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	836	452	995	0.540
Floor	20	574	315	753	0.550
Ceiling	70	153	94	205	0.611
Walls (4)	50	333	108	980	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.424, Ceiling / Working Plane: 0.184.

Luminaire Parts List

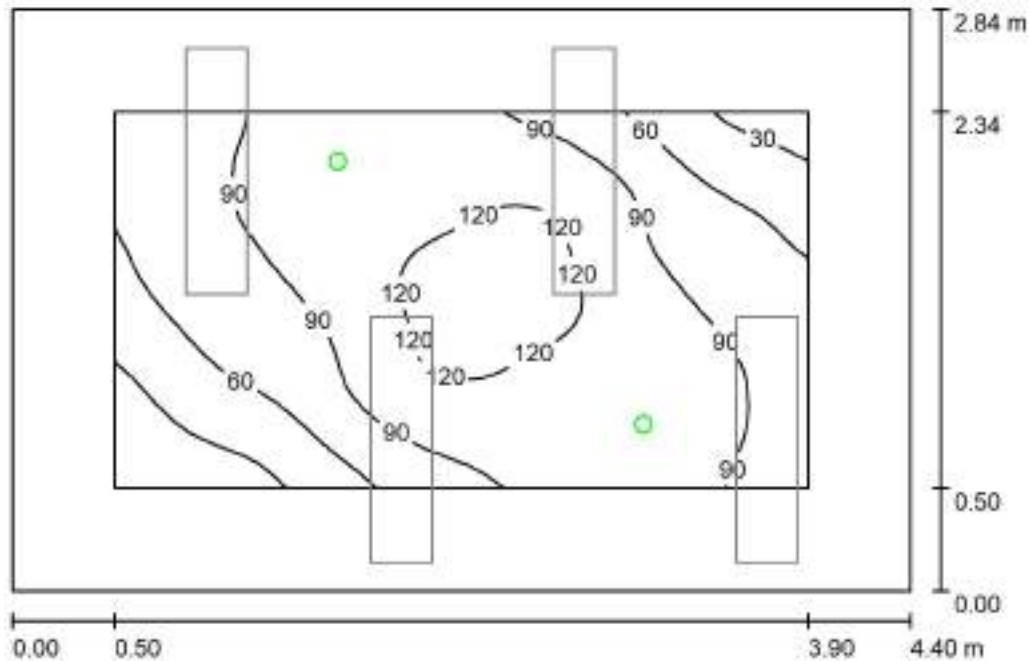
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
Total:			16076	16000	204.0

*Modified Technical Specifications

Specific connected load: $16.34 \text{ W/m}^2 = 1.96 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.48 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 067 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	87	8.20	132	0.094
Floor	20	53	4.88	82	0.092
Ceiling	70	0.00	0.00	0.04	0.028
Walls (4)	50	10	0.03	95	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.102, Ceiling / Working Plane: 0.000.

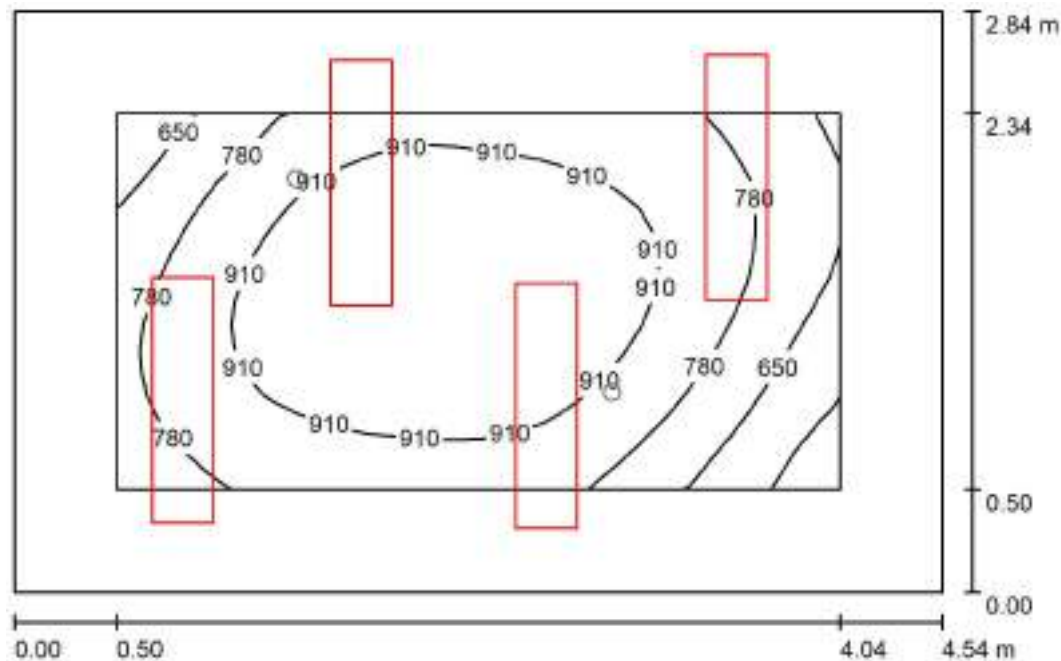
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	Total: 1334	18.0

Specific connected load: $1.44 \text{ W/m}^2 = 1.66 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.48 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 064 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	849	438	1040	0.516
Floor	20	574	303	769	0.528
Ceiling	70	146	96	178	0.657
Walls (4)	50	320	110	746	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.394, Ceiling / Working Plane: 0.171.

Luminaire Parts List

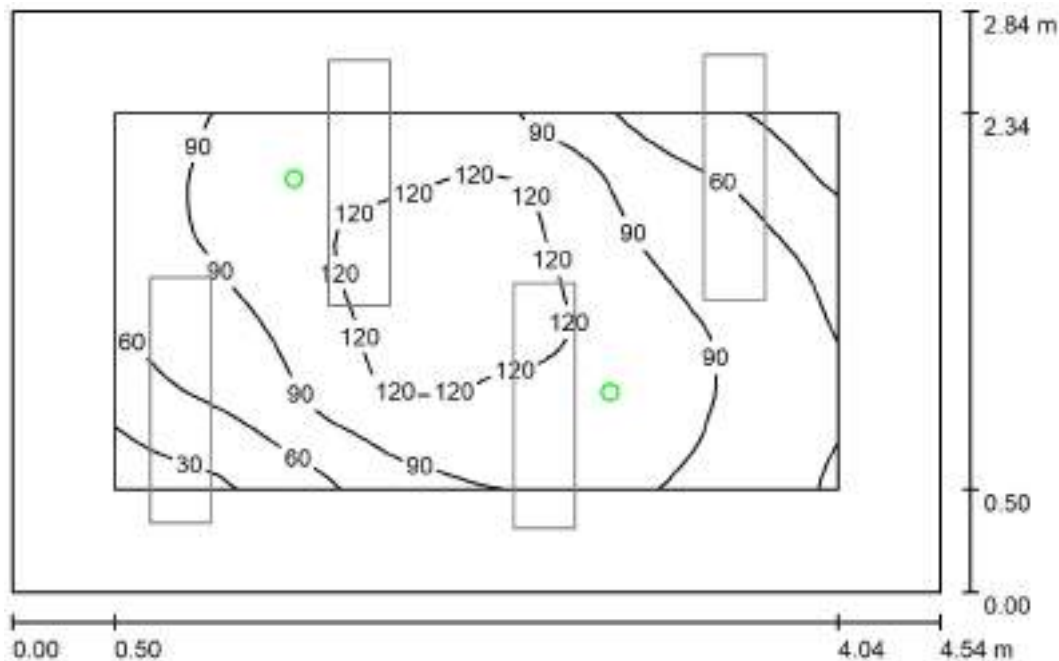
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
Total:			16076	16000	204.0

*Modified Technical Specifications

Specific connected load: $15.82 \text{ W/m}^2 = 1.86 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.89 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 064 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	90	14	137	0.150
Floor	20	53	6.64	84	0.124
Ceiling	70	0.00	0.00	0.04	0.029
Walls (4)	50	9.45	0.03	79	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.080, Ceiling / Working Plane: 0.000.

Luminaire Parts List

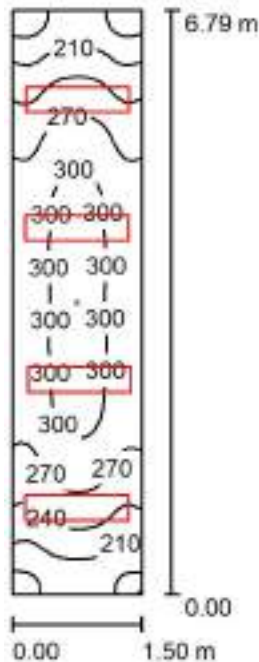
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

Specific connected load: $1.40 \text{ W/m}^2 = 1.54 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.89 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR (TREATMENT BAYS) / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:88

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	263	163	311	0.618
Floor	20	263	163	311	0.619
Ceiling	70	83	53	119	0.640
Walls (4)	50	169	74	509	/

Workplane:

Height: 0.000 m
Grid: 64 x 16 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.648, Ceiling / Working Plane: 0.317.

Luminaire Parts List

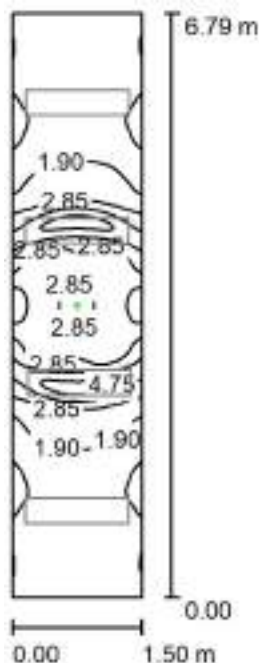
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			7687	7692	72.0

Specific connected load: $7.07 \text{ W/m}^2 = 2.69 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.19 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR (TREATMENT BAYS) / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:88

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.01	0.77	5.54	0.383
Floor	20	2.01	0.77	5.54	0.383
Ceiling	70	0.10	0.00	5.75	0.000
Walls (4)	50	2.23	0.11	23	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.109, Ceiling / Working Plane: 0.052.

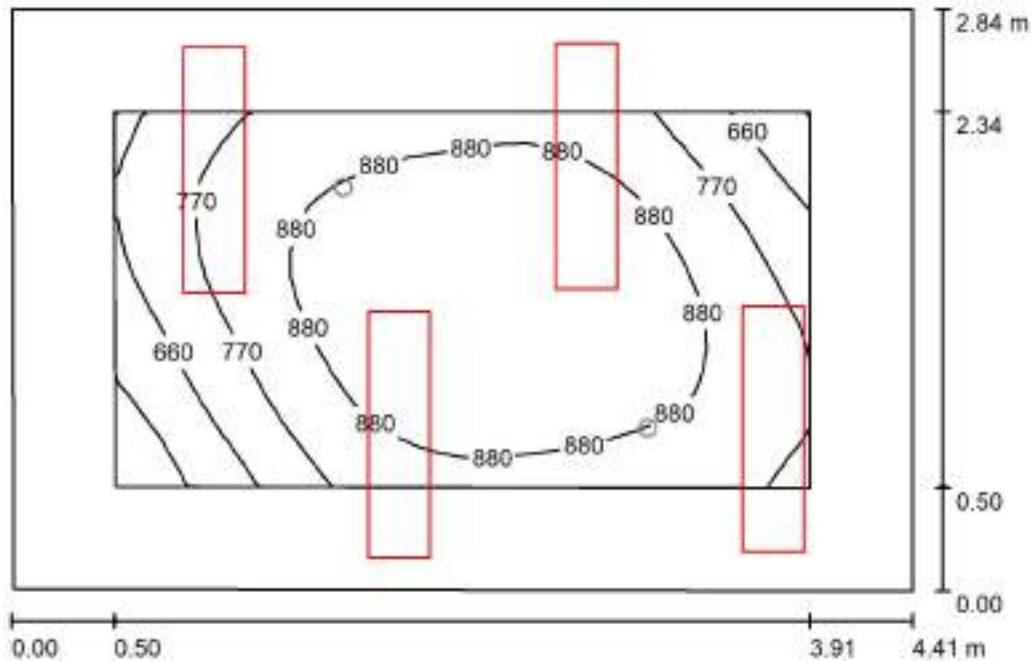
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.29 \text{ W/m}^2 = 14.63 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.19 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 065 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	833	457	988	0.549
Floor	20	572	313	748	0.548
Ceiling	70	152	95	192	0.628
Walls (4)	50	331	104	906	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.422, Ceiling / Working Plane: 0.182.

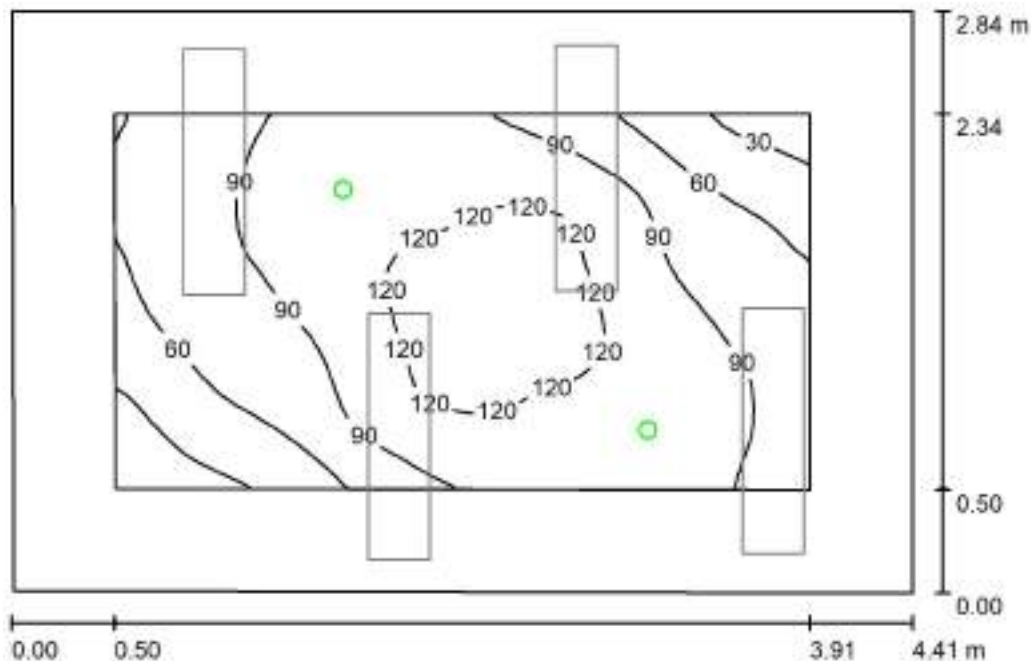
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
Total:			16076	16000	204.0

*Modified Technical Specifications

Specific connected load: $16.35 \text{ W/m}^2 = 1.96 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.48 m^2)

Operator
 Telephone
 Fax
 e-Mail

TREATMENT BAY DNA 065 / E / Summary


Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	90	11	136	0.121
Floor	20	54	5.81	83	0.108
Ceiling	70	0.00	0.00	0.04	0.028
Walls (4)	50	10	0.03	82	/

Workplane:

 Height: 0.750 m
 Grid: 32 x 64 Points
 Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.092, Ceiling / Working Plane: 0.000.

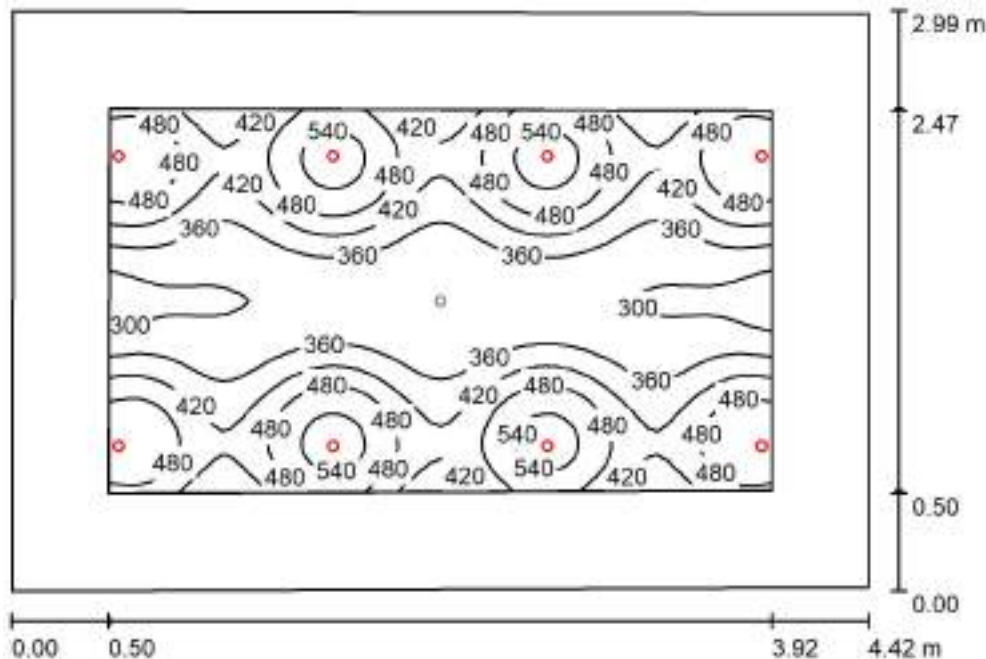
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

 Specific connected load: $1.44 \text{ W/m}^2 = 1.61 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.48 m^2)

Operator
Telephone
Fax
e-Mail

STAFF BASE DNA 059 / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:39

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	414	274	565	0.662
Floor	20	316	143	401	0.451
Ceiling	70	47	36	54	0.773
Walls (4)	50	86	40	154	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.191, Ceiling / Working Plane: 0.112.

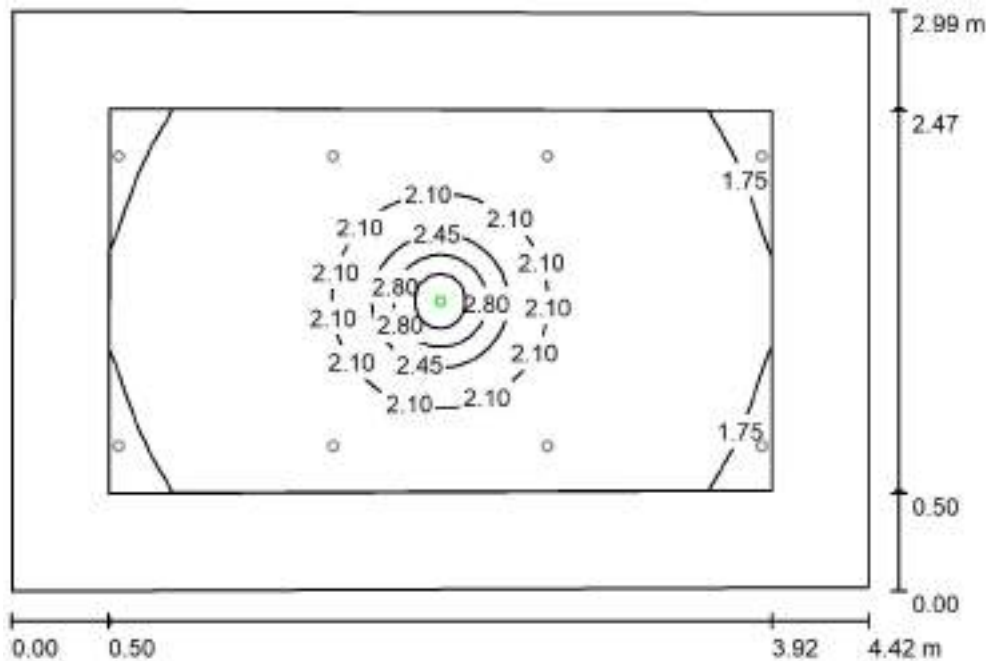
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	8	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
Total:			6288	9200	96.0

Specific connected load: $7.33 \text{ W/m}^2 = 1.77 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 13.11 m^2)

Operator
Telephone
Fax
e-Mail

STAFF BASE DNA 059 / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:39

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.94	1.48	3.23	0.761
Floor	20	0.94	0.77	1.55	0.822
Ceiling	70	0.03	0.00	4.59	0.000
Walls (4)	50	3.17	0.14	25	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.130, Ceiling / Working Plane: 0.016.

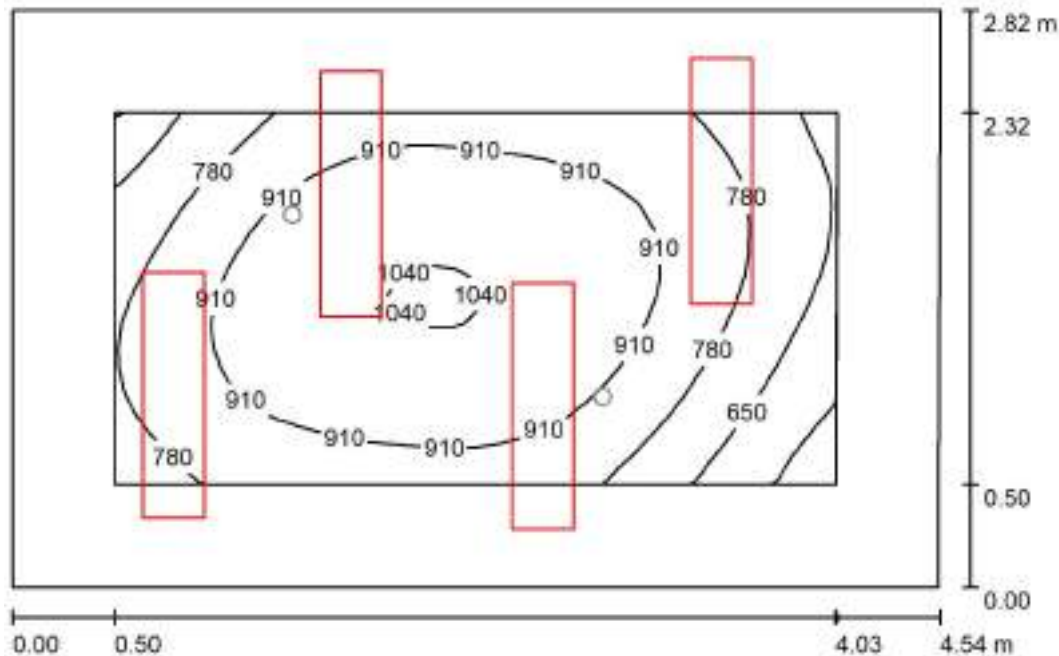
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.23 \text{ W/m}^2 = 11.79 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 13.11 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 053 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	860	448	1052	0.521
Floor	20	579	308	777	0.531
Ceiling	70	148	96	183	0.650
Walls (4)	50	325	114	703	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.395, Ceiling / Working Plane: 0.172.

Luminaire Parts List

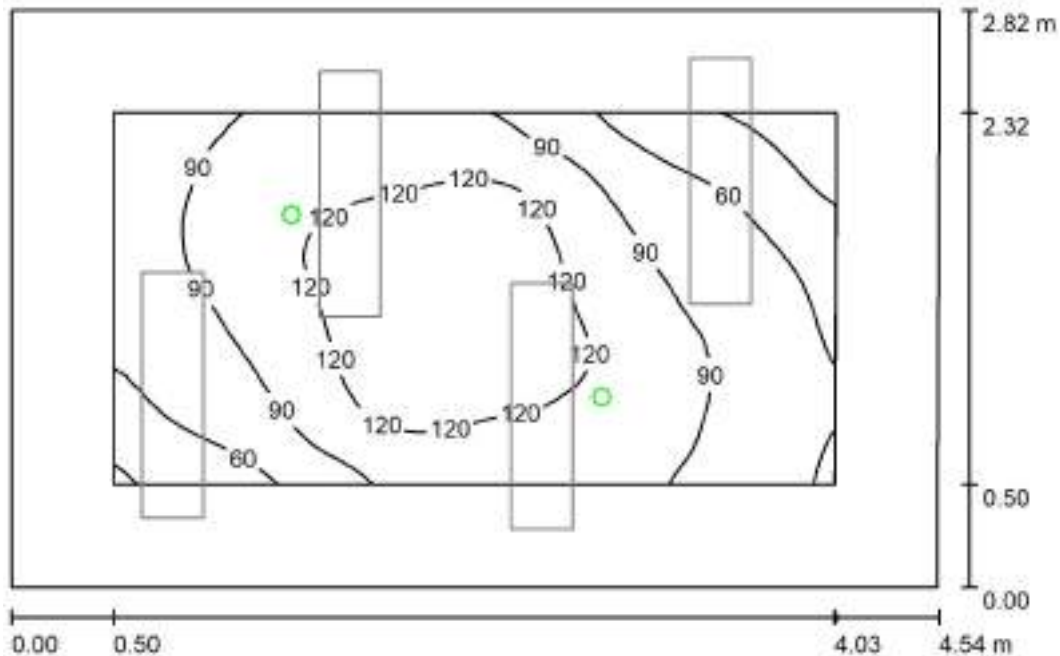
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
Total:			16076	16000	204.0

*Modified Technical Specifications

Specific connected load: $15.96 \text{ W/m}^2 = 1.86 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.78 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 053 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	94	12	142	0.125
Floor	20	55	6.00	86	0.110
Ceiling	70	0.00	0.00	0.04	0.026
Walls (4)	50	9.25	0.03	61	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.071, Ceiling / Working Plane: 0.000.

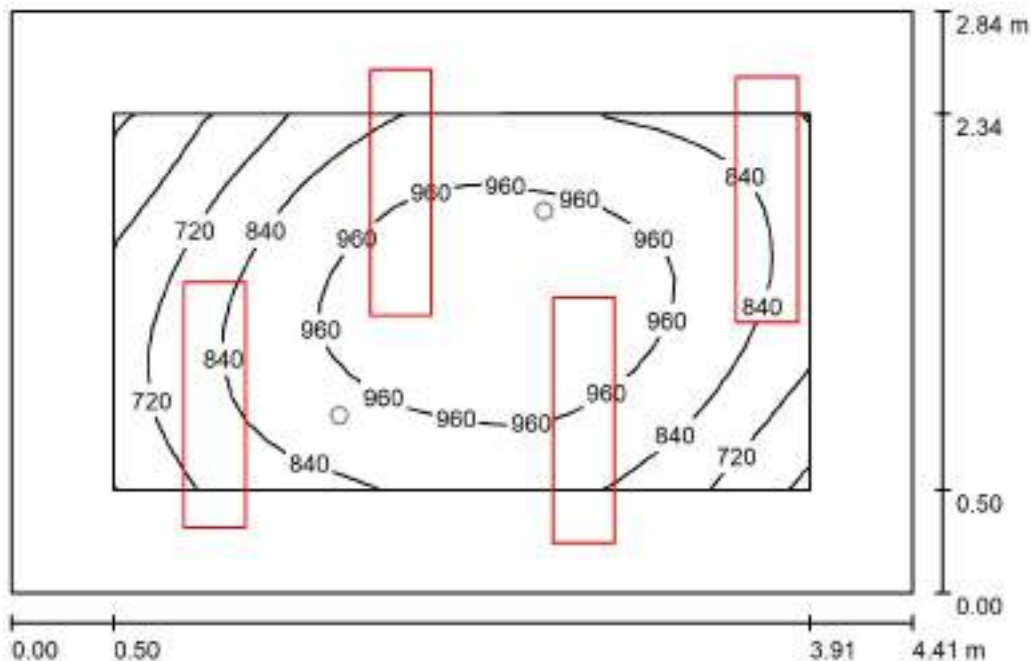
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

Specific connected load: $1.41 \text{ W/m}^2 = 1.50 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.78 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT ROOM DNA 049 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	868	472	1049	0.543
Floor	20	586	317	778	0.541
Ceiling	70	151	97	189	0.641
Walls (4)	50	334	114	726	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.403, Ceiling / Working Plane: 0.175.

Luminaire Parts List

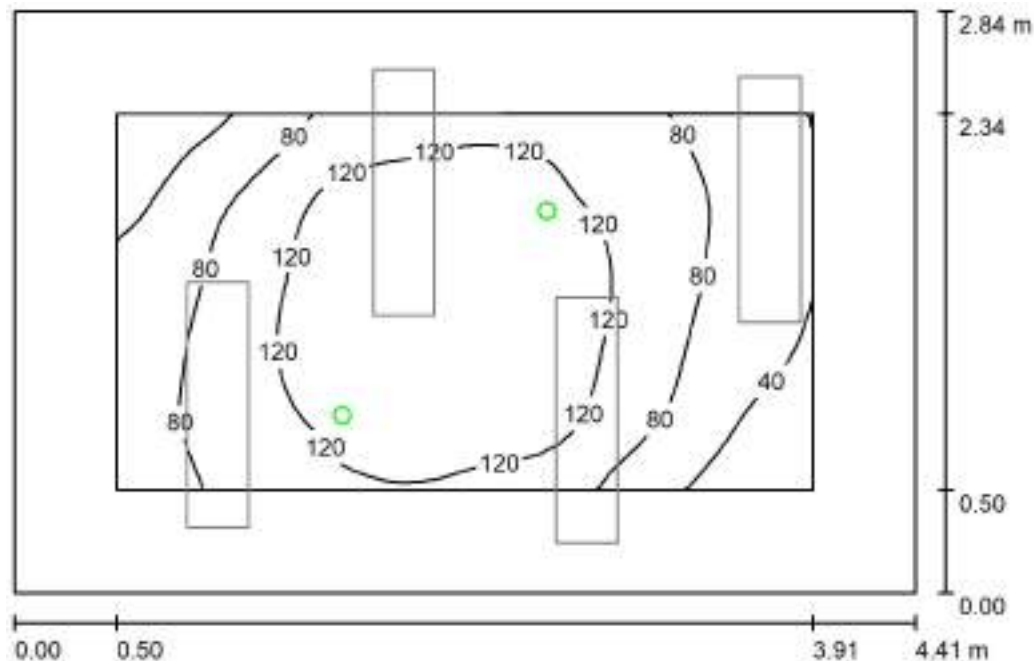
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
Total:			16076	16000	204.0

*Modified Technical Specifications

Specific connected load: $16.29 \text{ W/m}^2 = 1.88 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.52 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT ROOM DNA 049 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	100	9.15	160	0.091
Floor	20	57	5.81	93	0.102
Ceiling	70	0.00	0.00	0.04	0.049
Walls (4)	50	8.94	0.02	70	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.066, Ceiling / Working Plane: 0.000.

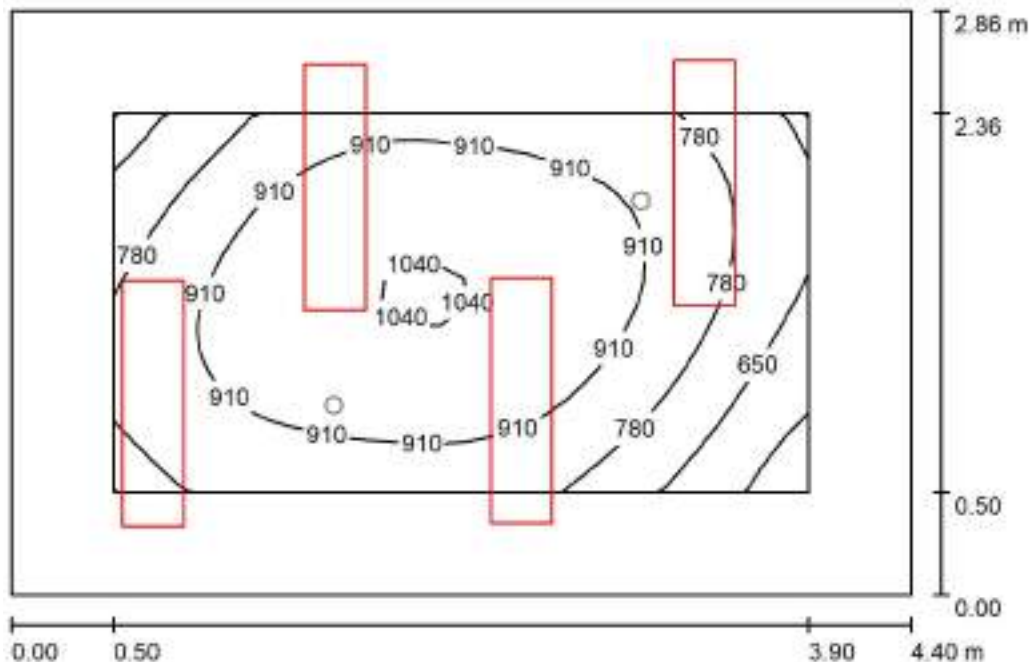
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

Specific connected load: $1.44 \text{ W/m}^2 = 1.44 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.52 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 048 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	864	446	1053	0.516
Floor	20	583	306	777	0.525
Ceiling	70	149	96	186	0.645
Walls (4)	50	329	108	694	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.397, Ceiling / Working Plane: 0.173.

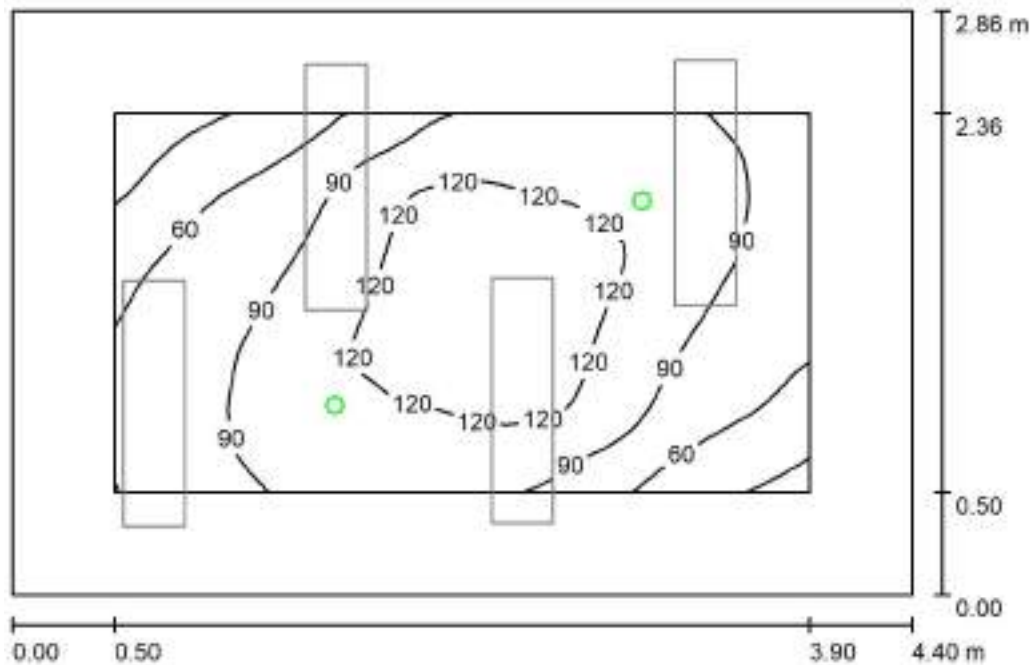
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
*Modified Technical Specifications			Total: 16076	Total: 16000	204.0

Specific connected load: $16.22 \text{ W/m}^2 = 1.88 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.58 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 048 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	93	13	141	0.138
Floor	20	55	6.51	86	0.119
Ceiling	70	0.00	0.00	0.04	0.035
Walls (4)	50	9.62	0.03	61	/

Workplane:

Height: 0.750 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.076, Ceiling / Working Plane: 0.000.

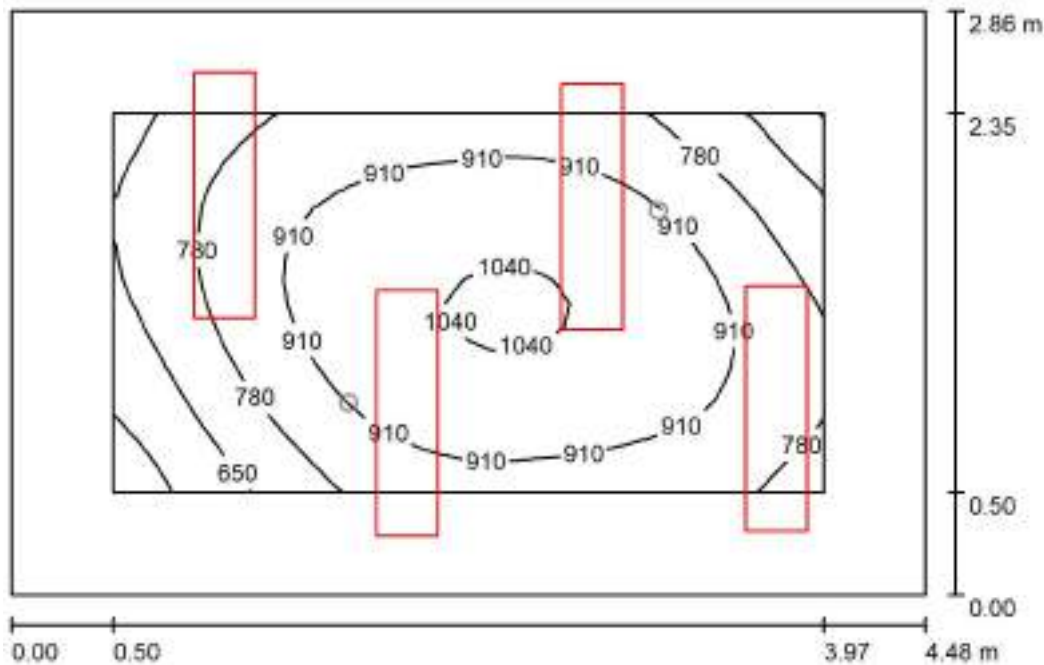
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

Specific connected load: $1.43 \text{ W/m}^2 = 1.53 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.58 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 045 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	862	451	1059	0.524
Floor	20	580	308	778	0.531
Ceiling	70	147	96	191	0.655
Walls (4)	50	324	110	640	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.390, Ceiling / Working Plane: 0.170.

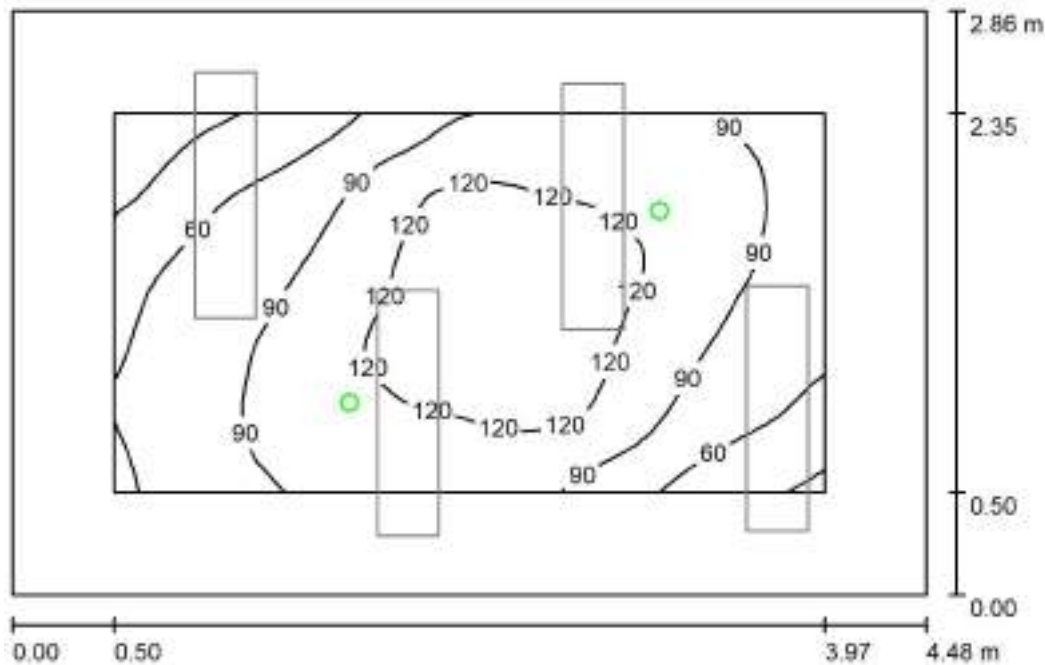
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
*Modified Technical Specifications			Total: 16076	Total: 16000	204.0

Specific connected load: $15.97 \text{ W/m}^2 = 1.85 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.77 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 045 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	93	11	142	0.119
Floor	20	55	5.76	87	0.106
Ceiling	70	0.00	0.00	0.04	0.035
Walls (4)	50	9.34	0.03	60	/

Workplane:

Height: 0.750 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.072, Ceiling / Working Plane: 0.000.

Luminaire Parts List

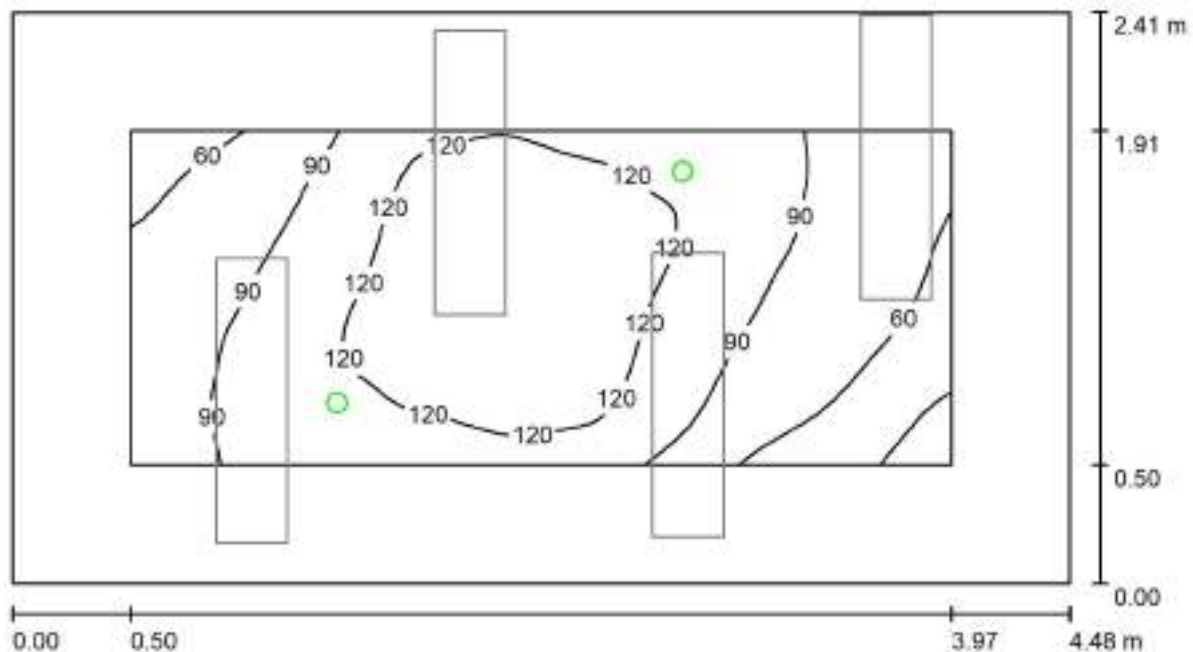
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

Specific connected load: $1.41 \text{ W/m}^2 = 1.51 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.77 m^2)



Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 070 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	99	16	144	0.162
Floor	20	57	7.30	87	0.128
Ceiling	70	0.00	0.00	0.04	0.021
Walls (4)	50	12	0.02	118	/

Workplane:

Height: 0.750 m
Grid: 32 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.104, Ceiling / Working Plane: 0.000.

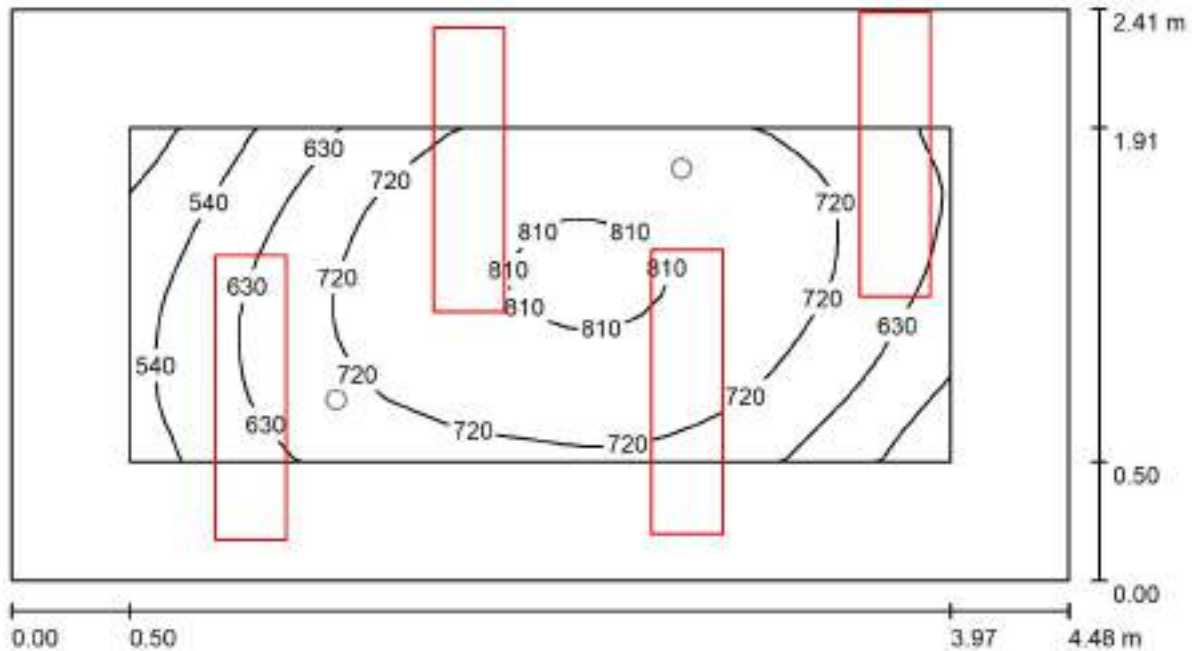
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

Specific connected load: $1.67 \text{ W/m}^2 = 1.69 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.79 m^2)

Operator
Telephone
Fax
e-Mail

TREATMENT BAY DNA 070 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	696	414	826	0.595
Floor	20	465	260	603	0.560
Ceiling	70	132	77	277	0.583
Walls (4)	50	284	98	1621	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.438, Ceiling / Working Plane: 0.190.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH34K DTFA LED (Type 1)* (1.000)	3014	3000	39.0
*Modified Technical Specifications			Total: 12057	Total: 12000	156.0

Specific connected load: $14.46 \text{ W/m}^2 = 2.08 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 10.79 m^2)



UCLH Phase 5 - REV 4

Installation : Fourth

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 09.10.2018

Project description:
WLL Sample lighting calculations to areas as requested.

Calculation parameters:

Standard reflectances:
70% Ceiling / 50% Wall / 20% Floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

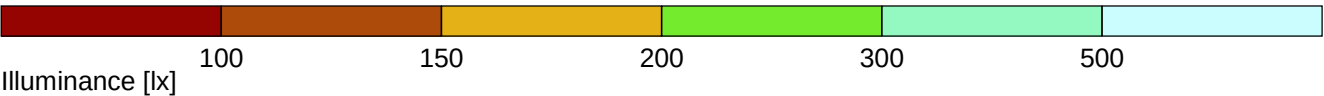
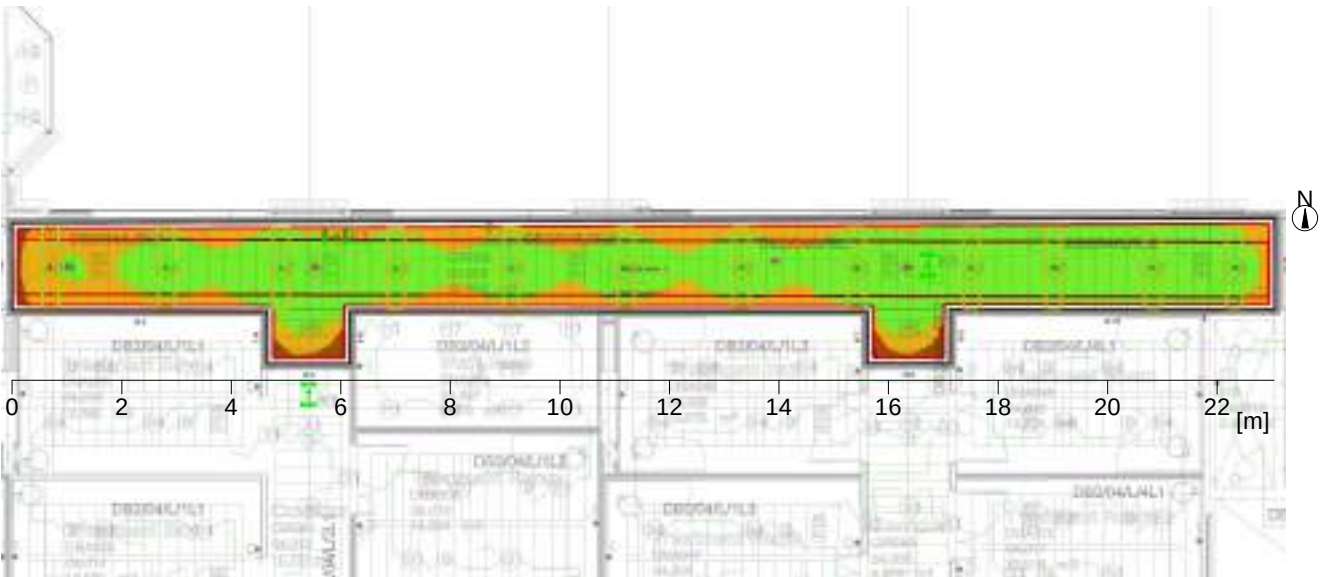
First Page	1
Table of contents	2
1 Corridor - CIRC039 - 04.056	
1.1 Summary, Corridor - CIRC039 - 04.056	
1.1.1 Result overview, Evaluation area 1	3
1.2 Calculation results, Corridor - CIRC039 - 04.056	
1.2.1 Boundary line, Escape route 1 (E)	5
1.2 Summary, Corridor - CIRC039 - 04.056	
1.2.2 Result overview (emergency lighting)	6
2 Corridor - CIRC040 - 04.006	
2.1 Summary, Corridor - CIRC040 - 04.006	
2.1.1 Result overview, Evaluation area 1	7
2.2 Calculation results, Corridor - CIRC040 - 04.006	
2.2.1 Boundary line, Escape route 1 (E)	9
2.2 Summary, Corridor - CIRC040 - 04.006	
2.2.2 Result overview (emergency lighting)	10
3 Corridor - COM049 - 04.001	
3.1 Summary, Corridor - COM049 - 04.001	
3.1.1 Result overview, Evaluation area 1	11
3.2 Calculation results, Corridor - COM049 - 04.001	
3.2.1 Boundary line, Escape route 1 (E)	13
3.2 Summary, Corridor - COM049 - 04.001	
3.2.2 Result overview (emergency lighting)	14



1 Corridor - CIRC039 - 04.056

1.1 Summary, Corridor - CIRC039 - 04.056

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.45 m
Maintenance factor	0.80
Total luminous flux of all lamps	19016.90 lm (39.15% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	472.0 W
Total power per area (40.63 m²)	11.62 W/m² (5.63 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Em	Horizontal
Emin	206 lx
Emin/Eav (Uo)	122 lx
Emin/Emax (Ud)	0.59
Position	0.47
	0.00 m

Type No. Make

1		Whitecroft Lighting	
12		Order No.	: !CLFY5/1490/SRF TBC
		Luminaire name	: A6 - CITYLINE (Nominal 1490x300mm)
		Equipment	: 1 x LED 38.5 W / 3973 lm

Object : UCLH Phase 5 - REV 4
Installation : Fourth
Project number : (58285) 5808
Date : 09.10.2018

1 Corridor - CIRC039 - 04.056

1.1 Summary, Corridor - CIRC039 - 04.056

1.1.1 Result overview, Evaluation area 1



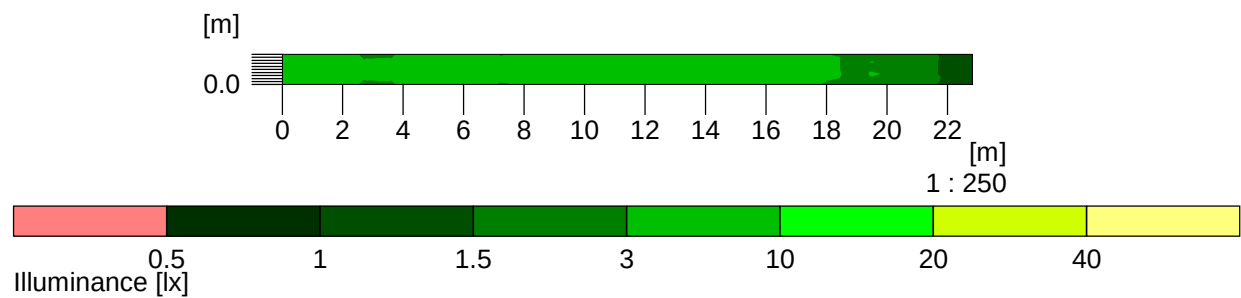
3	2	Order No.	: !CDH14KFLAW
		Luminaire name	: H2 - CHORD 80
		Equipment	: 1 x LED 8 W / 450 lm



1 Corridor - CIRC039 - 04.056

1.2 Calculation results, Corridor - CIRC039 - 04.056

1.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 1 lx
Maximum illuminance (central axis)	Emax	: 9.5 lx
Diversity	Emin/Emax	: 1 : 9.50 (0.10) (Threshold value 1:40)
Minimum illuminance	Emin	: 1 lx
Maximum illuminance	Emax	: 9.5 lx
Diversity	Emin/Emax	: 1 : 9.53 (0.10) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



1.2 Summary, Corridor - CIRC039 - 04.056

1.2.2 Result overview (emergency lighting)

Type No. Make

24



Whitecroft Lighting

Order No. : !FLE32
Luminaire name : I1 - FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Escape routes:

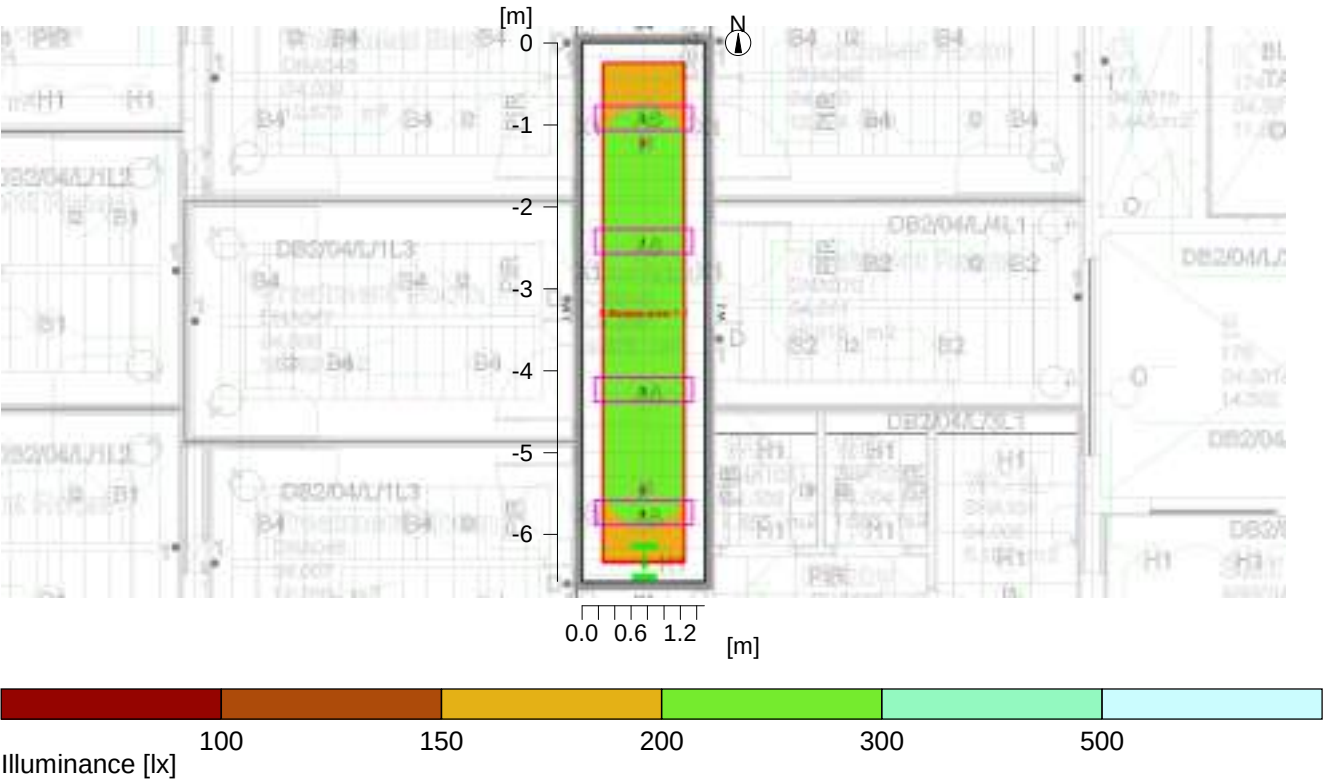
No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	1.0	9.5	1: 9.44	1.0	9.5	1: 9.53	0.00	



2 Corridor - CIRC040 - 04.006

2.1 Summary, Corridor - CIRC040 - 04.006

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	6000.00 lm (60.00% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	80.0 W
Total power per area (9.81 m²)	8.16 W/m² (3.85 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	212 lx
Emin	156 lx
Emin/Eav (Uo)	0.74
Emin/Emax (Ud)	0.67
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	64 lx	0.82
M 1.1 (Wall)	148 lx	0.54
M 1.2 (Wall)	132 lx	0.70
M 1.3 (Wall)	148 lx	0.54
M 1.4 (Wall)	123 lx	0.73

Object : UCLH Phase 5 - REV 4
Installation : Fourth
Project number : (58285) 5808
Date : 09.10.2018

2 Corridor - CIRC040 - 04.006

2.1 Summary, Corridor - CIRC040 - 04.006

2.1.1 Result overview, Evaluation area 1



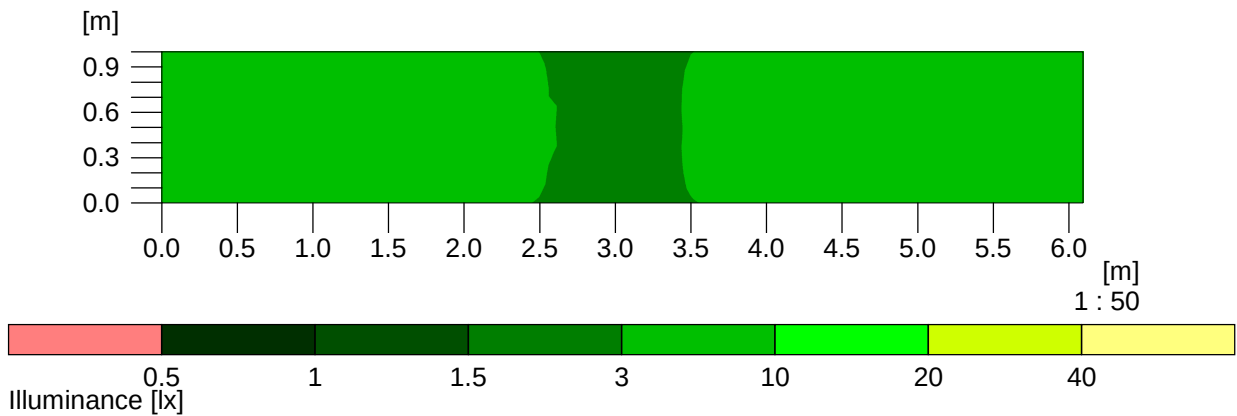
Type No. Make

		Whitecroft Lighting
5	4	Order No. : !CLFY#/1194/SRF###
		Luminaire name : A1 - CITYLINE
		Equipment : 1 x LED 20 W / 2500 lm

2 Corridor - CIRC040 - 04.006

2.2 Calculation results, Corridor - CIRC040 - 04.006

2.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 2.4 lx
Maximum illuminance (central axis)	Emax	: 7 lx
Diversity	Emin/Emax	: 1 : 2.92 (0.34) (Threshold value 1:40)
Minimum illuminance	Emin	: 1.9 lx
Maximum illuminance	Emax	: 7 lx
Diversity	Emin/Emax	: 1 : 3.60 (0.28) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

2.2 Summary, Corridor - CIRC040 - 04.006

2.2.2 Result overview (emergency lighting)

Type No. Make

2

2



Whitecroft Lighting

Order No. : !FLE32

Luminaire name : I1 - FLORIN E3

Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Escape routes:

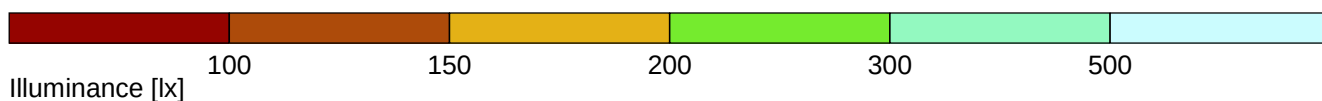
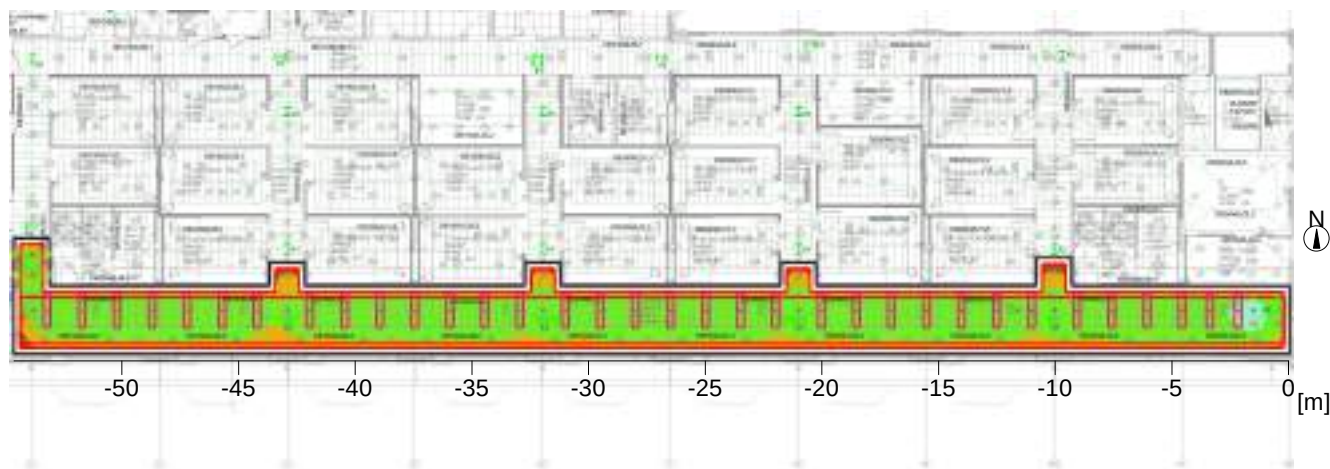
No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	2.4	7.0	1: 2.91	1.9	7.0	1: 3.60		0.00



3 Corridor - COM049 - 04.001

3.1 Summary, Corridor - COM049 - 04.001

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.70 m
 0.80

Total luminous flux of all lamps 58662.70 lm (37.47% dimmed)
 (Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)

Total power 1592.0 W
 Total power per area (168.24 m²) 9.46 W/m² (4.41 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 215 lx
 Emin 131 lx
 Emin/Eav (Uo) 0.61
 Emin/Emax (Ud) 0.41
 Position 0.00 m

Major surfaces

	Em	Uo
M 1.23 (Ceiling)	42.5 lx	0.70
M 1.1 (Wall)	101 lx	0.50
M 1.2 (Wall)	121 lx	0.63
M 1.3 (Wall)	61.1 lx	0.62
M 1.4 (Wall)	70.3 lx	0.59
M 1.5 (Wall)	60.5 lx	0.62
M 1.6 (Wall)	110 lx	0.66
M 1.7 (Wall)	64.2 lx	0.63
M 1.8 (Wall)	82.4 lx	0.58

3 Corridor - COM049 - 04.001

3.1 Summary, Corridor - COM049 - 04.001

3.1.1 Result overview, Evaluation area 1

M 1.9 (Wall)	64.2 lx	0.63
M 1.10 (Wall)	110 lx	0.66
M 1.11 (Wall)	64.6 lx	0.63
M 1.12 (Wall)	81.9 lx	0.56
M 1.13 (Wall)	62.9 lx	0.62
M 1.14 (Wall)	109 lx	0.66
M 1.15 (Wall)	61.2 lx	0.65
M 1.16 (Wall)	75.1 lx	0.56
M 1.17 (Wall)	61 lx	0.62
M 1.18 (Wall)	109 lx	0.66
M 1.19 (Wall)	168 lx	0.52
M 1.20 (Wall)	147 lx	0.65
M 1.21 (Wall)	118 lx	0.37
M 1.22 (Wall)	90.1 lx	0.51

Type No.lMake

		Whitecroft Lighting	
1	2	Order No.	: !CLFY5/1490/SRF TBC
		Luminaire name	: A6 - CITYLINE (Nominal 1490x300mm)
		Equipment	: 1 x LED 38.5 W / 3973 lm
3	28	Order No.	: !CDH14KFLAW
		Luminaire name	: H2 - CHORD 80
		Equipment	: 1 x LED 8 W / 450 lm
6	34	Order No.	: !CLFY#/1494/SRF###
		Luminaire name	: A9 - CITYLINE 1494mm x 297mm
		Equipment	: 1 x LED 38 W / 4000 lm

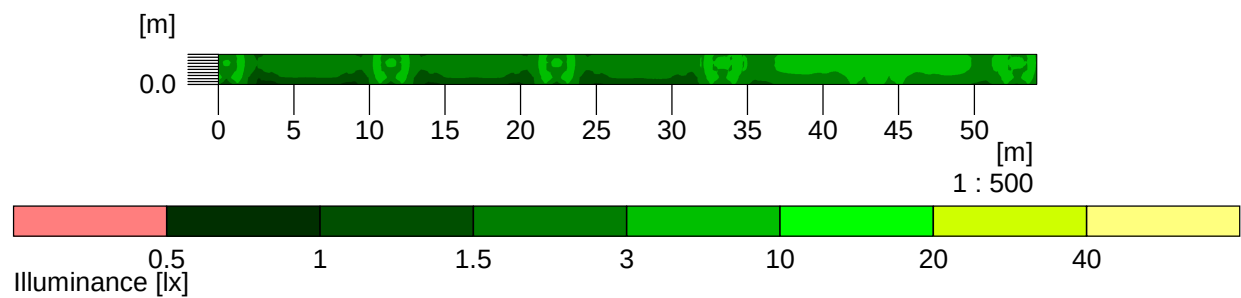




3 Corridor - COM049 - 04.001

3.2 Calculation results, Corridor - COM049 - 04.001

3.2.1 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 1.4 lx
Maximum illuminance (central axis)	Emax	: 9.9 lx
Diversity	Emin/Emax	: 1 : 7.07 (0.14) (Threshold value 1:40)
Minimum illuminance	Emin	: 0.8 lx
Maximum illuminance	Emax	: 9.9 lx
Diversity	Emin/Emax	: 1 : 11.70 (0.09) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

3.2 Summary, Corridor - COM049 - 04.001

3.2.2 Result overview (emergency lighting)

Type No. Make

27



Whitecroft Lighting

Order No. : !FLE32

Luminaire name : I1 - FLORIN E3

Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Escape routes:

No.	Default[lx]	Emin[lx]	Central axis		Emin[lx]	Surface		Diversity	Height
			Emax[lx]	Diversity		Emax[lx]	Diversity		
Escape route 1									
1	1.0	1.4	9.9	1: 6.94	0.8	9.9	1: 11.72		0.00



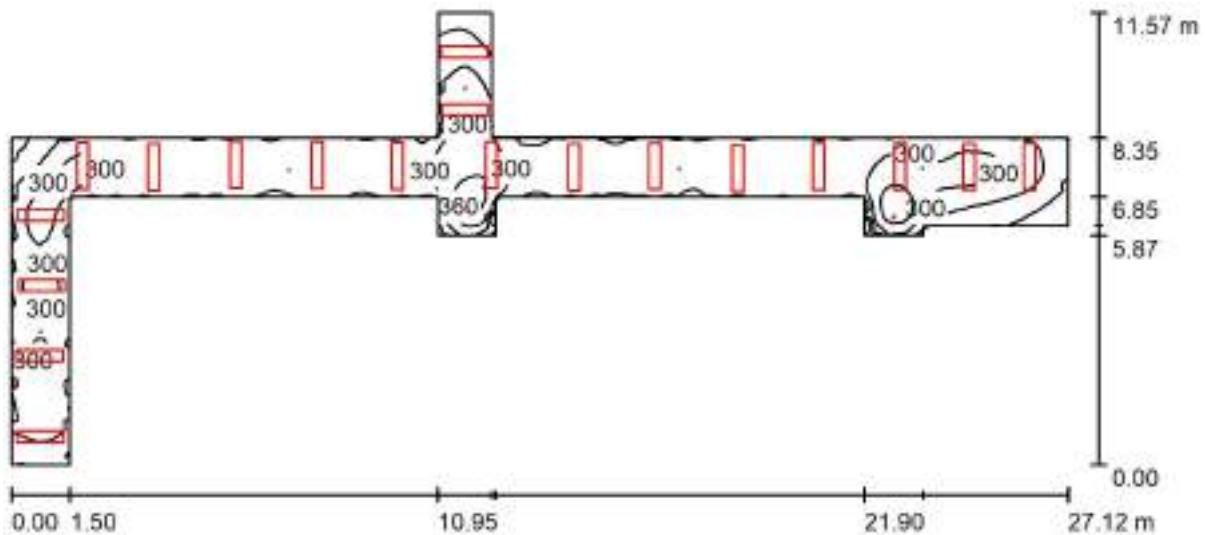
UCLH PHASE 5

LEVEL 5

LIGHT CALCS REPORT

Operator
Telephone
Fax
e-Mail

WEST CORRIDOR / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:194

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	270	120	417	0.445
Floor	20	271	127	414	0.467
Ceiling	70	72	48	129	0.657
Walls (18)	50	154	55	635	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.568, Ceiling / Working Plane: 0.268.

Luminaire Parts List

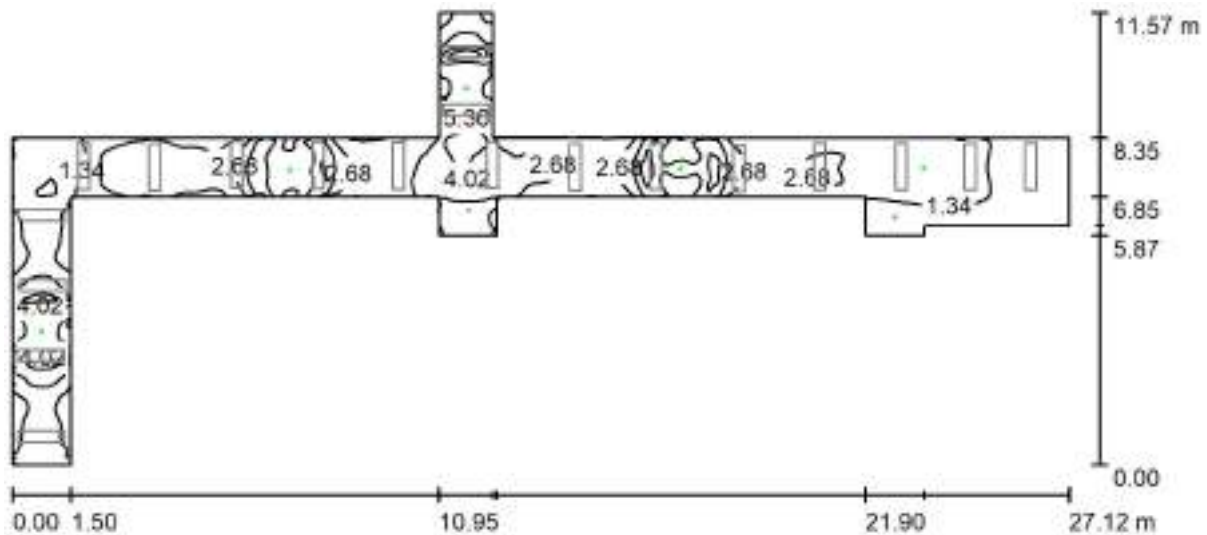
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
2	17	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
3	2	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
Total:			37089	37841	366.0

*Modified Technical Specifications

Specific connected load: $5.96 \text{ W/m}^2 = 2.21 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 61.38 m^2)

Operator
Telephone
Fax
e-Mail

WEST CORRIDOR / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:194

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.41	0.67	7.35	0.276
Floor	20	2.41	0.65	7.35	0.271
Ceiling	70	0.08	0.00	4.77	0.000
Walls (18)	50	2.32	0.03	95	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.970, Ceiling / Working Plane: 0.032.

Luminaire Parts List

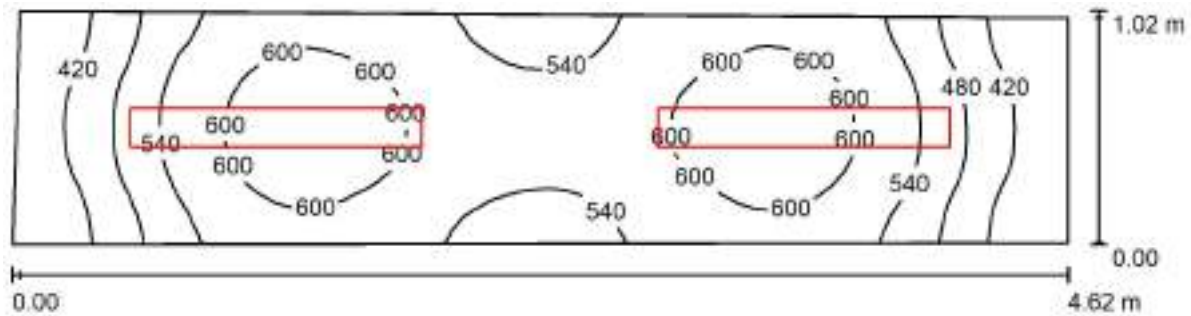
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
2	4	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			759	700	15.0

Specific connected load: $0.24 \text{ W/m}^2 = 10.13 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 61.38 m^2)



Operator
Telephone
Fax
e-Mail

STORE SHA 141 / L / Summary



Height of Room: 2.450 m, Mounting Height: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	538	361	634	0.671
Floor	20	352	258	395	0.734
Ceiling	70	284	142	463	0.499
Walls (4)	50	387	129	1091	/

Workplane:

Height: 0.750 m
Grid: 16 x 64 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.871, Ceiling / Working Plane: 0.527.

Luminaire Parts List

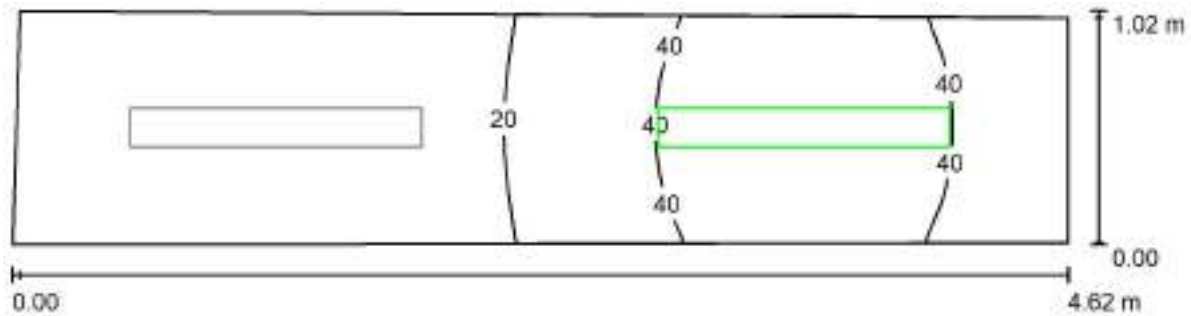
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
2	1	WHITECROFT ACLH34K ACL PARK (1.000)	4338	4321	36.0
Total:			8676	8642	72.0

Specific connected load: $15.67 \text{ W/m}^2 = 2.91 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.59 m^2)



Operator
Telephone
Fax
e-Mail

STORE SHA 141 / E / Summary



Height of Room: 2.450 m, Mounting Height: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	24	1.38	52	0.059
Floor	20	14	2.22	25	0.153
Ceiling	70	4.44	0.01	27	0.002
Walls (4)	50	15	0.05	116	/

Workplane:

Height: 0.750 m
Grid: 16 x 64 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.801, Ceiling / Working Plane: 0.190.

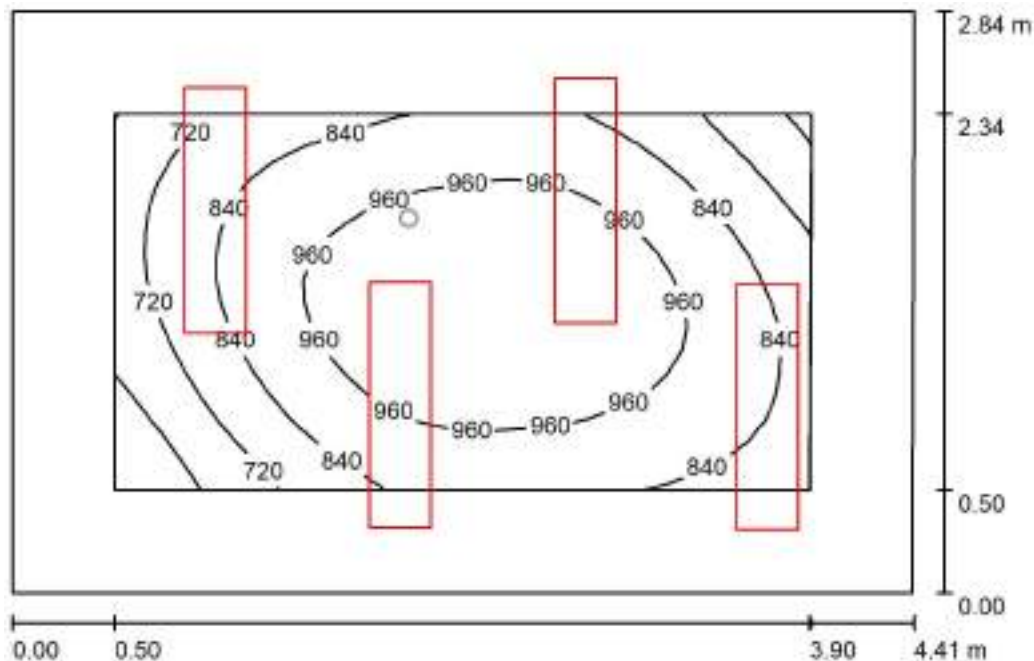
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT ACLH34K ACL PARK (1.000)	607	605	36.0
Total:			607	605	36.0

Specific connected load: $7.84 \text{ W/m}^2 = 33.29 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.59 m^2)

Operator
Telephone
Fax
e-Mail

EQUITEST CEA 047 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	877	484	1069	0.552
Floor	20	589	326	784	0.554
Ceiling	70	150	100	189	0.663
Walls (4)	50	332	117	619	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.394, Ceiling / Working Plane: 0.171.

Luminaire Parts List

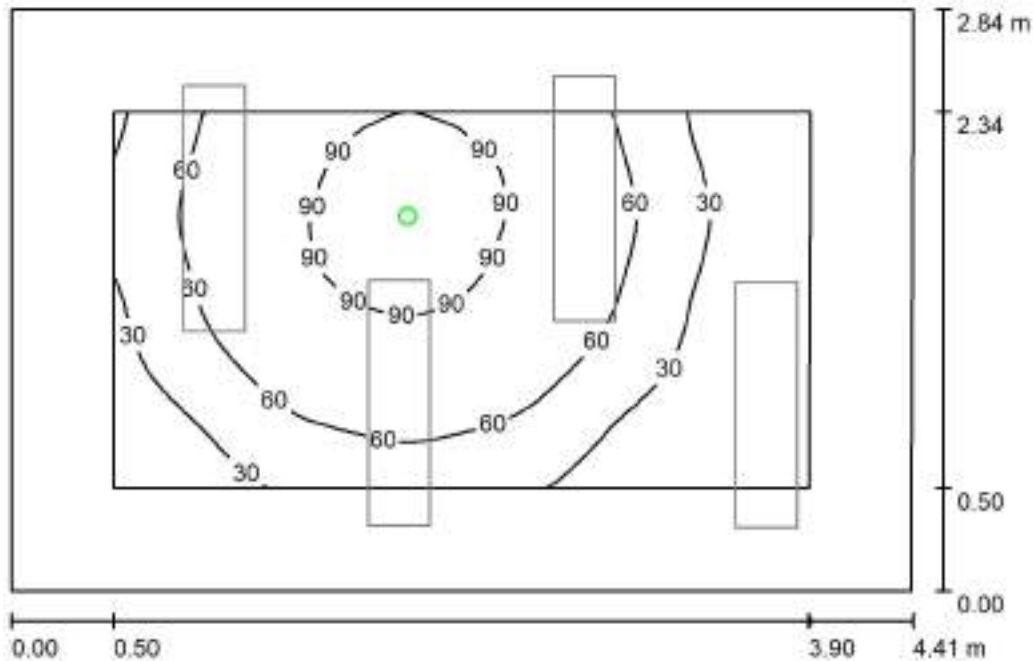
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT DLAAGH44K DTFA LED (Type 1)* (1.000)	4019	4000	51.0
Total:			16076	16000	204.0

*Modified Technical Specifications

Specific connected load: $16.30 \text{ W/m}^2 = 1.86 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.51 m^2)

Operator
Telephone
Fax
e-Mail

EQUITEST CEA 047 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:37

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	54	1.53	103	0.028
Floor	20	30	1.41	54	0.047
Ceiling	70	0.00	0.00	0.04	0.000
Walls (4)	50	4.06	0.01	51	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.051, Ceiling / Working Plane: 0.000.

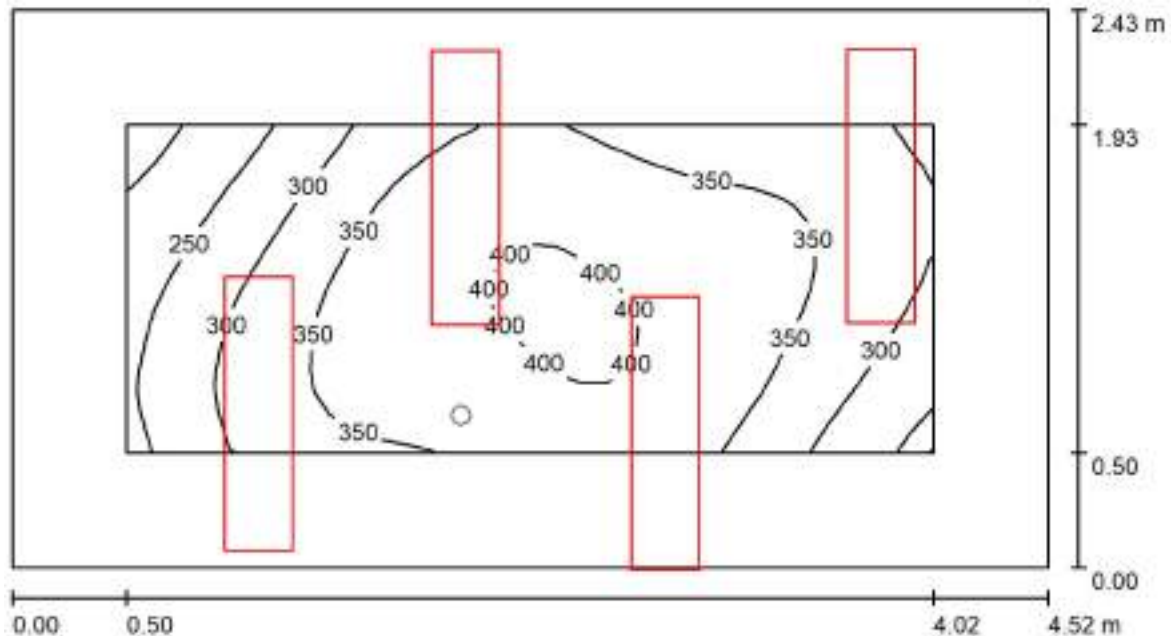
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			667	667	9.0

Specific connected load: $0.72 \text{ W/m}^2 = 1.33 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.51 m^2)

Operator
Telephone
Fax
e-Mail

ROTATING CHAIR / L / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	339	182	410	0.536
Floor	20	227	116	298	0.509
Ceiling	70	60	35	185	0.583
Walls (4)	50	126	47	1094	/

Workplane:

Height: 0.750 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.393, Ceiling / Working Plane: 0.177.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	18.0
Total:			5696	5700	72.0

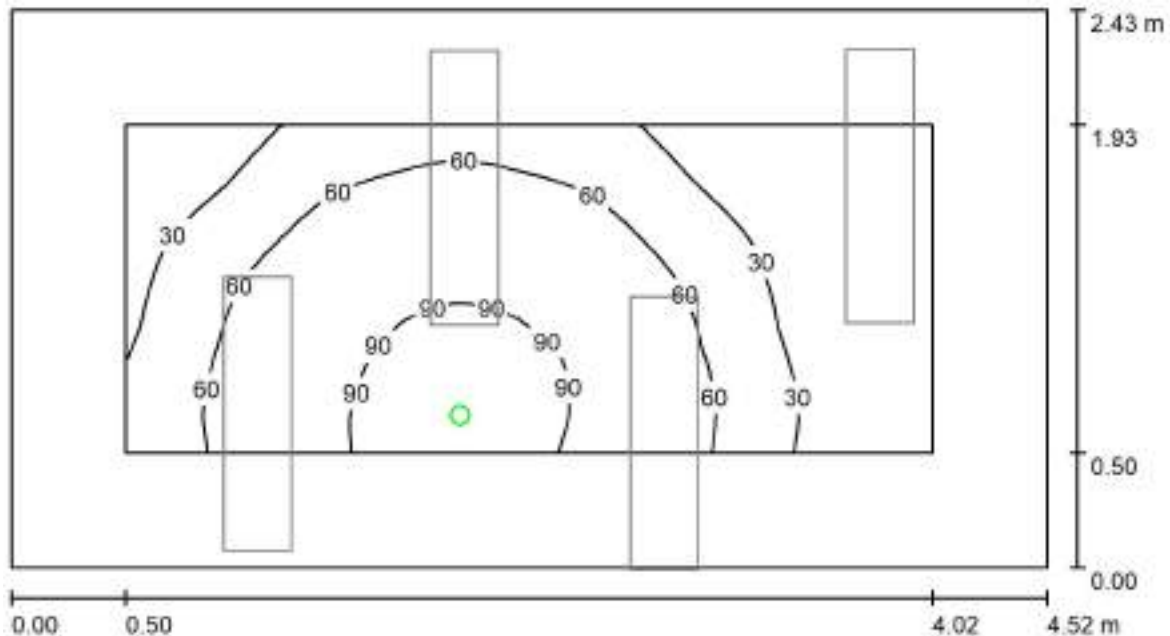
*Modified Technical Specifications

Specific connected load: $6.55 \text{ W/m}^2 = 1.93 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.00 m^2)



Operator
Telephone
Fax
e-Mail

ROTATING CHAIR / E / Summary



Height of Room: 2.700 m, Mounting Height: 2.760 m, Maintenance factor: 0.80

Values in Lux, Scale 1:33

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	52	1.38	103	0.027
Floor	20	30	1.22	54	0.041
Ceiling	70	0.00	0.00	0.04	0.000
Walls (4)	50	5.51	0.01	118	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.098, Ceiling / Working Plane: 0.000.

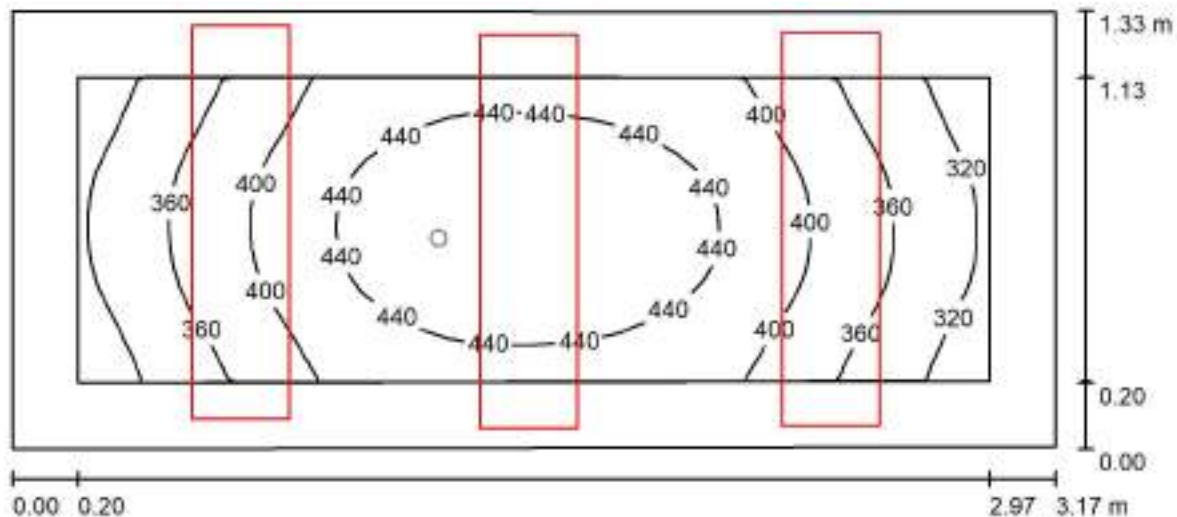
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			667	667	9.0

Specific connected load: $0.82 \text{ W/m}^2 = 1.58 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 11.00 m^2)

Operator
Telephone
Fax
e-Mail

CONTROL ROOM / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:23

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	400	296	465	0.739
Floor	20	262	197	309	0.752
Ceiling	70	108	70	163	0.651
Walls (4)	50	200	93	663	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.200 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.575, Ceiling / Working Plane: 0.269.

Luminaire Parts List

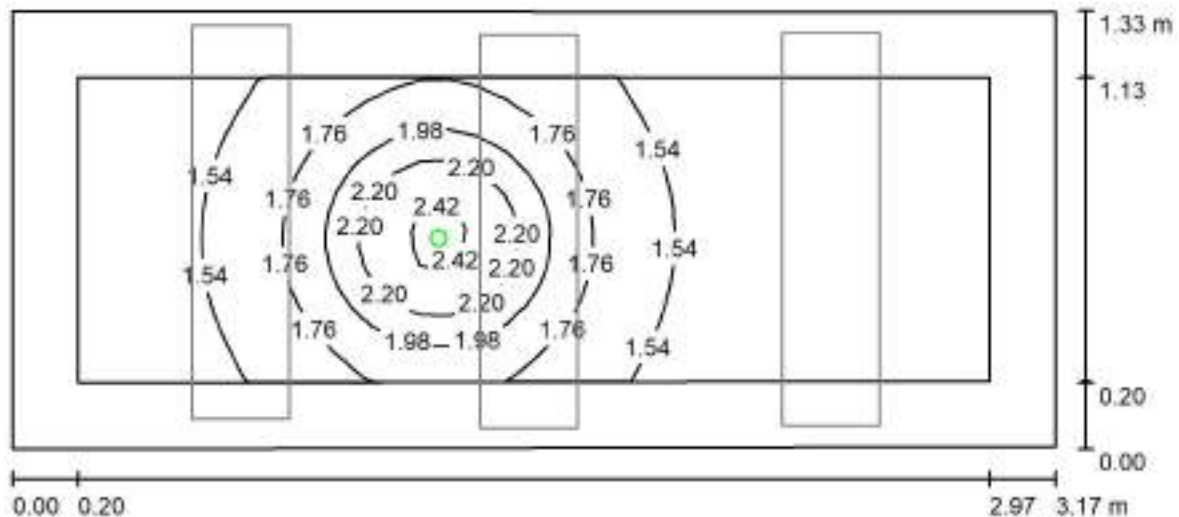
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	13.0
Total:			4272	4275	39.0

*Modified Technical Specifications

Specific connected load: $9.27 \text{ W/m}^2 = 2.32 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.21 m^2)

Operator
Telephone
Fax
e-Mail

CONTROL ROOM / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:23

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	1.64	1.36	2.46	0.830
Floor	20	0.88	0.71	1.28	0.808
Ceiling	70	0.09	0.00	4.59	0.000
Walls (4)	50	5.08	0.15	136	/

Workplane:

Height: 0.750 m
Grid: 16 x 32 Points
Boundary Zone: 0.200 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.204, Ceiling / Working Plane: 0.058.

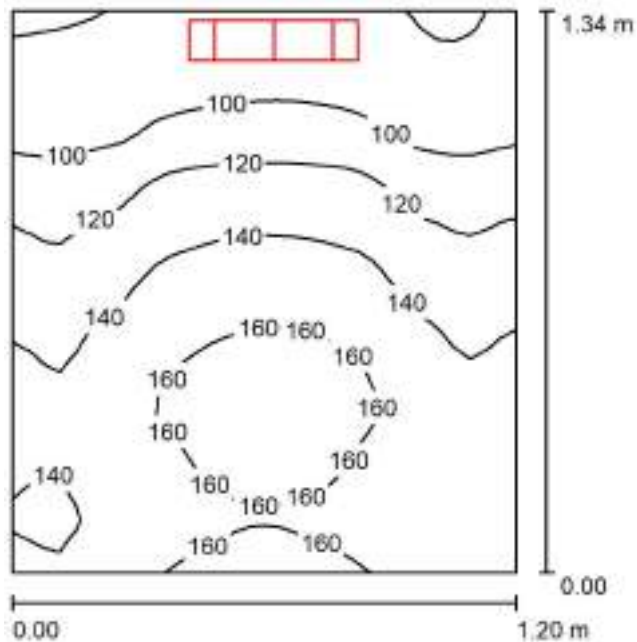
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.71 \text{ W/m}^2 = 43.50 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 4.21 m^2)

Operator
Telephone
Fax
e-Mail

CUPBOARD OFF CONTROL ROOM / L / Summary



Height of Room: 3.350 m, Mounting Height: 1.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:18

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	130	77	167	0.594
Floor	20	119	77	152	0.643
Ceiling	70	158	92	201	0.582
Walls (4)	50	229	51	789	/

Workplane:

Height: 0.100 m
Grid: 32 x 32 Points
Boundary Zone: 0.000 m

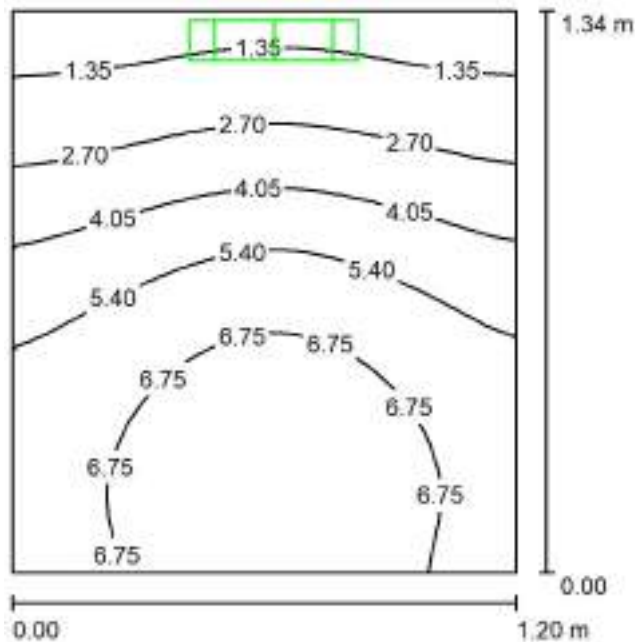
Illuminance Quotient (according to LG7): Walls / Working Plane: 1.805, Ceiling / Working Plane: 1.210.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	Whitecroft Lighting K6H4274KS Kolo Ip65 (1.000)	2709	2705	28.0
Total:			2709	2705	28.0

Specific connected load: $17.48 \text{ W/m}^2 = 13.42 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 1.60 m^2)

CUPBOARD OFF CONTROL ROOM / E / Summary



Height of Room: 3.350 m, Mounting Height: 1.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:18

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	4.81	0.78	7.54	0.162
Floor	20	4.23	0.71	6.73	0.167
Ceiling	70	5.89	0.93	9.07	0.158
Walls (4)	50	12	0.03	65	/

Workplane:

Height: 0.100 m
 Grid: 32 x 32 Points
 Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.566, Ceiling / Working Plane: 1.223.

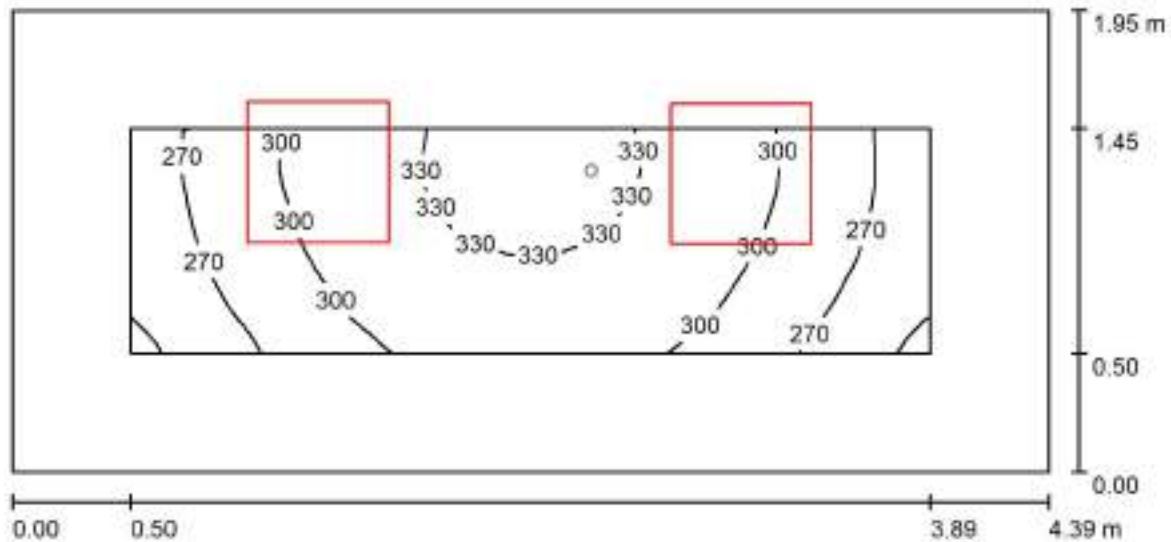
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	Whitecroft Lighting K6H4274KS Kolo Ip65 (1.000)	271	271	28.0
Total:			271	271	28.0

Specific connected load: $17.48 \text{ W/m}^2 = 363.26 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 1.60 m^2)

Operator
Telephone
Fax
e-Mail

AUDIOLOGY STORE SHA 128 / L / Summary



Height of Room: 2.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	299	235	339	0.786
Floor	20	267	163	337	0.612
Ceiling	70	77	50	108	0.642
Walls (4)	50	167	65	510	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.557, Ceiling / Working Plane: 0.258.

Luminaire Parts List

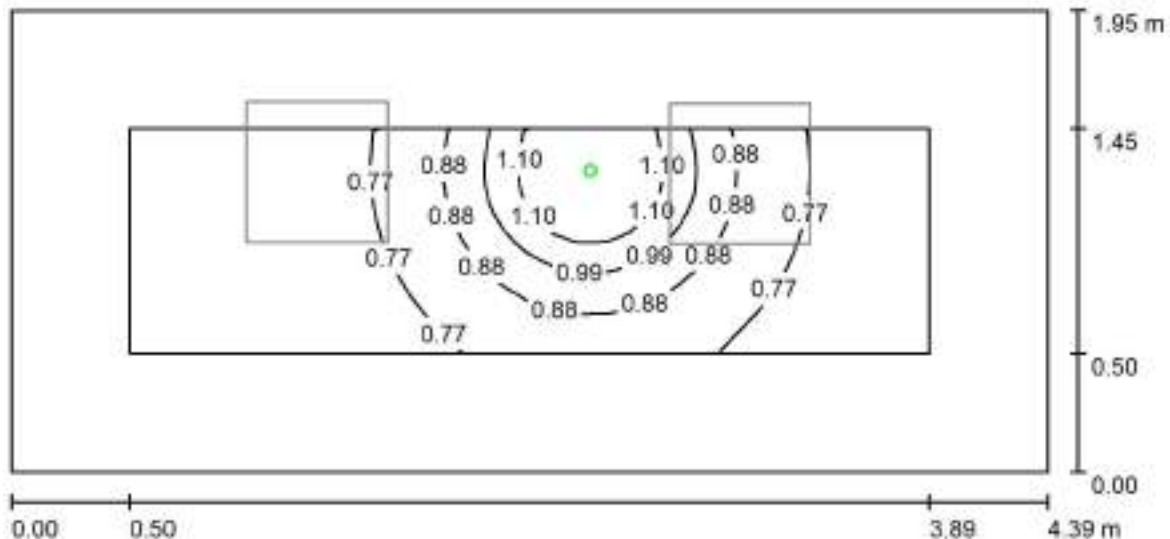
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			6219	6253	58.0

Specific connected load: $6.77 \text{ W/m}^2 = 2.27 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 8.56 m^2)



Operator
Telephone
Fax
e-Mail

AUDIOLOGY STORE SHA 128 / E / Summary



Height of Room: 2.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:32

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	0.81	0.66	1.19	0.810
Floor	20	0.76	0.65	1.19	0.863
Ceiling	70	0.05	0.00	4.60	0.000
Walls (4)	50	3.40	0.07	115	/

Workplane:

Height: 0.000 m
Grid: 32 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 4.162, Ceiling / Working Plane: 0.059.

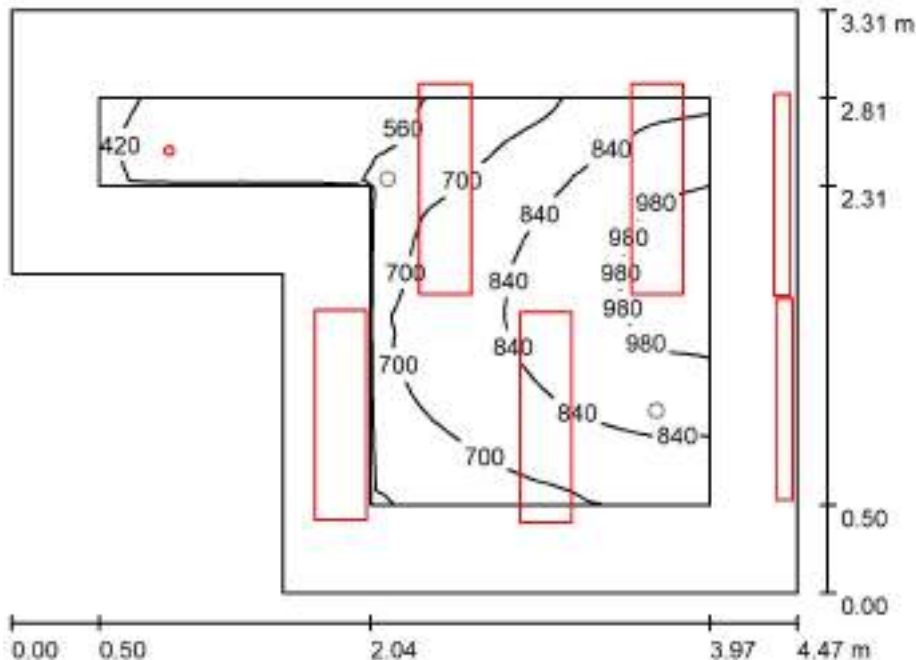
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.35 \text{ W/m}^2 = 43.10 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 8.56 m^2)

Operator
Telephone
Fax
e-Mail

CONSULT EXAM CEA 040 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:43

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	750	346	1045	0.461
Floor	20	512	165	724	0.323
Ceiling	70	153	54	460	0.353
Walls (6)	50	290	55	4168	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.428, Ceiling / Working Plane: 0.204.

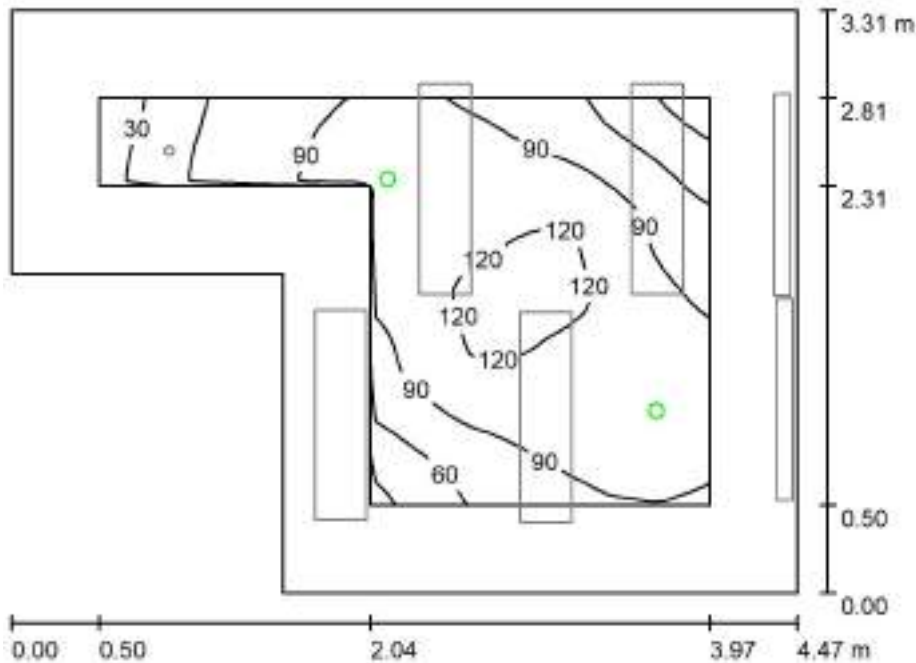
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
2	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000) Whitecroft Lighting	1922	1923	18.0
3	2	AV4BSTRW+AV42HL+AV4DMST Avenue Recessed (1.000)	2942	2940	41.0
Total:			14357	14722	166.0

Specific connected load: $13.83 \text{ W/m}^2 = 1.84 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.01 m^2)

Operator
Telephone
Fax
e-Mail

CONSULT EXAM CEA 040 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:43

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	91	14	130	0.155
Floor	20	53	8.64	81	0.162
Ceiling	70	0.00	0.00	0.04	0.018
Walls (6)	50	10	0.01	83	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.096, Ceiling / Working Plane: 0.000.

Luminaire Parts List

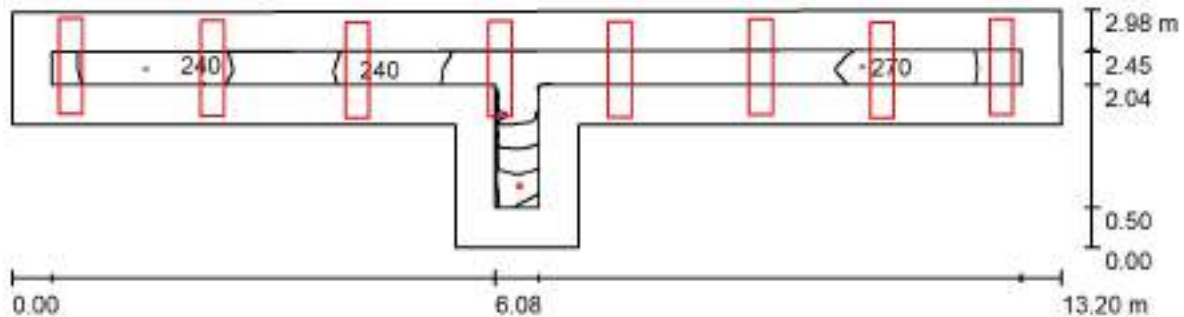
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT CNFH14KFL CONCERT FIRE (1.000)	667	667	9.0
Total:			1334	1334	18.0

Specific connected load: $1.50 \text{ W/m}^2 = 1.65 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.01 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR OFF STAFF BASE NORTH CORE / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:95

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	241	144	272	0.596
Floor	20	220	80	268	0.362
Ceiling	70	64	28	114	0.442
Walls (8)	50	132	32	471	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.552, Ceiling / Working Plane: 0.264.

Luminaire Parts List

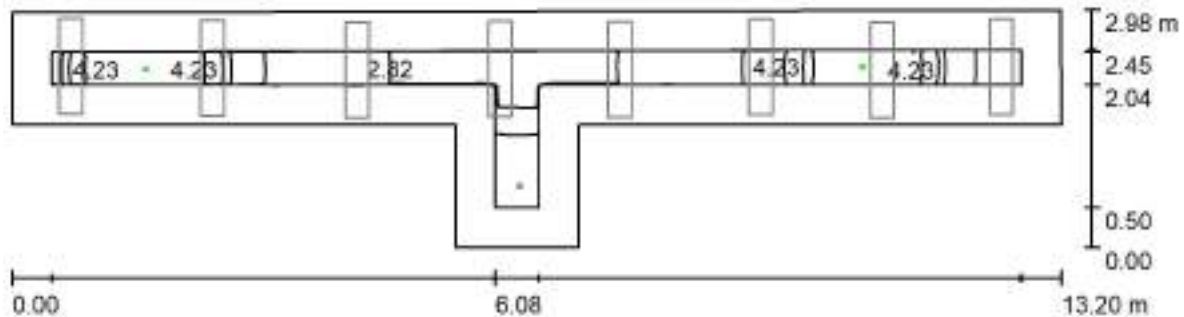
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	Viabizzuno displei dn50 led 12W 350mA (36°) (Type 1)* (1.000)	239	350	4.0
2	8	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	13.0
*Modified Technical Specifications			Total: 11631	Total: 11750	108.0

Specific connected load: $5.10 \text{ W/m}^2 = 2.11 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 21.19 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR OFF STAFF BASE NORTH CORE / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:95

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	3.07	0.00	7.06	0.000
Floor	20	2.70	0.00	7.38	0.000
Ceiling	70	0.04	0.00	0.25	0.000
Walls (8)	50	2.33	0.00	32	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.778, Ceiling / Working Plane: 0.014.

Luminaire Parts List

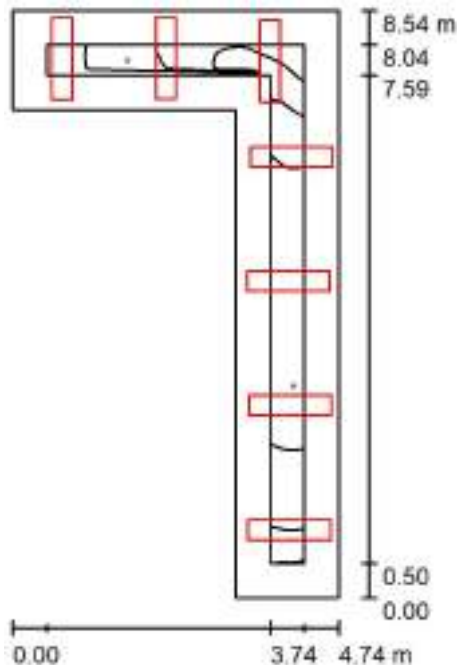
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			300	280	6.0

Specific connected load: $0.28 \text{ W/m}^2 = 9.22 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 21.19 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR OFF CONSULT EXAM CEA 024 025 & 026 / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:110

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	297	220	344	0.740
Floor	20	272	168	341	0.619
Ceiling	70	79	53	130	0.674
Walls (6)	50	167	73	606	/

Workplane:

Height: 0.000 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.564, Ceiling / Working Plane: 0.266.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
2	3	WHITECROFT CLFY1SRF1 CITYLINE (Type 1)* (1.000)	1424	1425	13.0
Total:			11959	11967	111.0

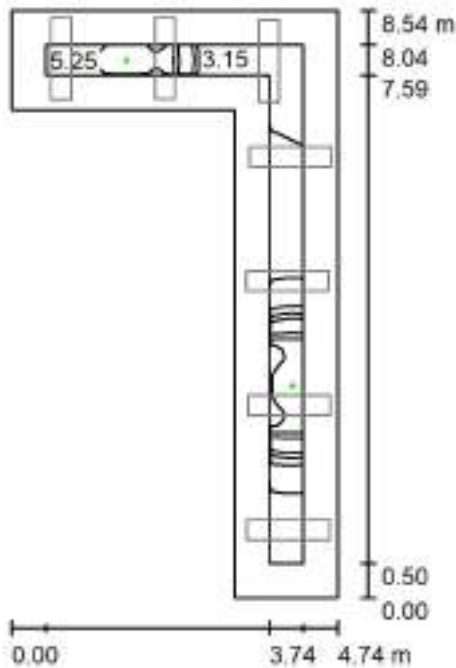
*Modified Technical Specifications

Specific connected load: $6.37 \text{ W/m}^2 = 2.14 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 17.44 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR OFF CONSULT EXAM CEA 024 025 & 026 / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:110

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	3.00	1.38	6.65	0.462
Floor	20	2.69	0.82	6.73	0.306
Ceiling	70	0.12	0.00	6.15	0.000
Walls (6)	50	2.98	0.08	31	/

Workplane:

Height: 0.000 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.008, Ceiling / Working Plane: 0.040.

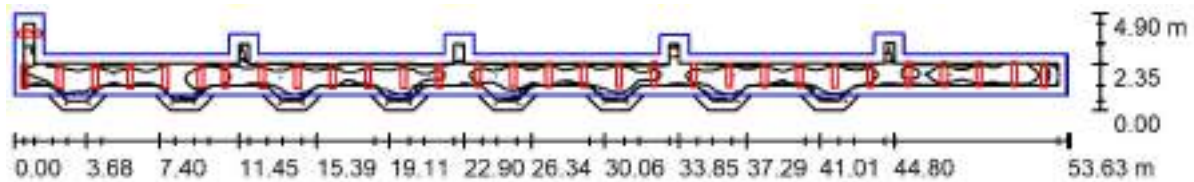
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			300	280	6.0

Specific connected load: $0.34 \text{ W/m}^2 = 11.47 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 17.44 m^2)

Operator
Telephone
Fax
e-Mail

EAST CORRIDOR / L / Summary



Height of Room: 2.720 m, Maintenance factor: 0.80

Values in Lux, Scale 1:384

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	283	178	353	0.629
Floor	20	258	68	354	0.265
Ceiling	70	3.98	0.01	45	0.003
Walls (54)	50	101	13	451	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.346, Ceiling / Working Plane: 0.014.

Luminaire Parts List

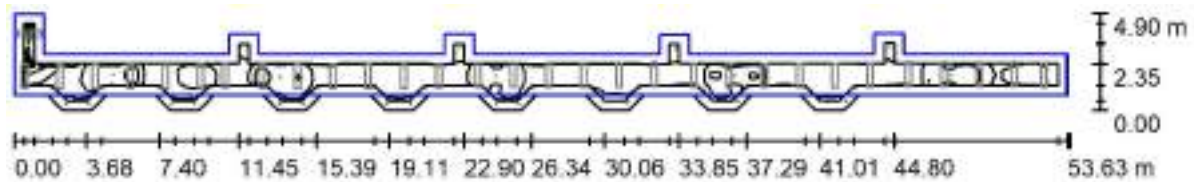
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	20	Viabizzuno displei dn50 led 12W 350mA (36°) (Type 1)* (1.000)	239	350	4.0
2	31	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			64357	66613	638.0

*Modified Technical Specifications

Specific connected load: $4.73 \text{ W/m}^2 = 1.67 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 134.76 m^2)

Operator
Telephone
Fax
e-Mail

EAST CORRIDOR / E / Summary



Height of Room: 2.720 m, Maintenance factor: 0.80

Values in Lux, Scale 1:384

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	2.34	0.01	6.54	0.002
Floor	20	2.02	0.00	6.84	0.000
Ceiling	70	0.05	0.00	4.32	0.000
Walls (54)	50	1.29	0.00	36	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.544, Ceiling / Working Plane: 0.021.

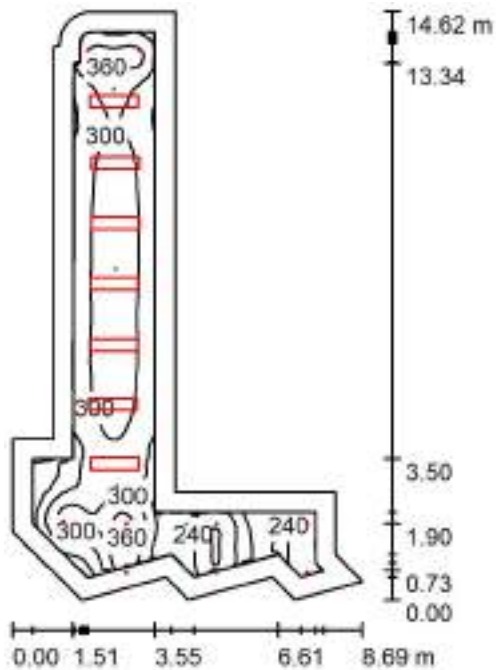
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			901	840	18.0

Specific connected load: $0.13 \text{ W/m}^2 = 5.71 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 134.76 m^2)

Operator
Telephone
Fax
e-Mail

CORRIDOR NORTH CORE LIFTS / L / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:188

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	282	118	383	0.419
Floor	20	248	47	379	0.190
Ceiling	70	45	24	72	0.536
Walls (24)	50	84	22	274	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.300, Ceiling / Working Plane: 0.159.

Luminaire Parts List

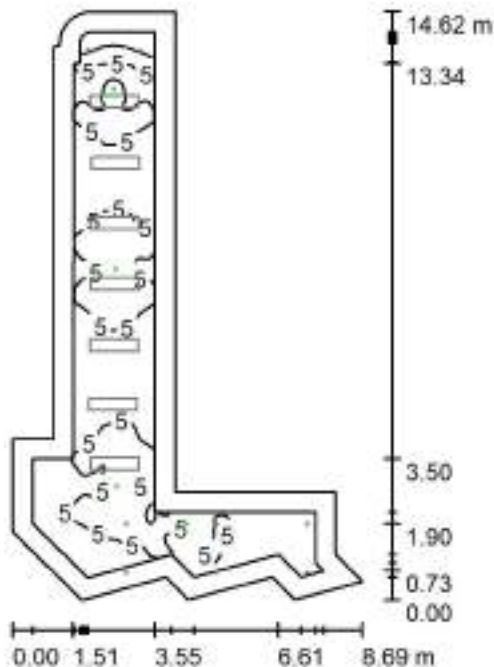
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	9	Viabizzuno displei dn50 led 12W 350mA (36°) (1.000)	786	1150	12.0
2	7	WHITECROFT CLFY1SRF1 CITYLINE (1.000)	1922	1923	18.0
Total:			20526	23811	234.0

Specific connected load: $4.19 \text{ W/m}^2 = 1.49 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 55.85 m^2)



Operator
Telephone
Fax
e-Mail

CORRIDOR NORTH CORE LIFTS / E / Summary



Height of Room: 2.450 m, Maintenance factor: 0.80

Values in Lux, Scale 1:188

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	4.43	0.79	12	0.177
Floor	20	3.66	0.00	12	0.000
Ceiling	70	0.08	0.00	5.57	0.009
Walls (24)	50	2.51	0.00	25	/

Workplane:

Height: 0.000 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.577, Ceiling / Working Plane: 0.019.

Luminaire Parts List

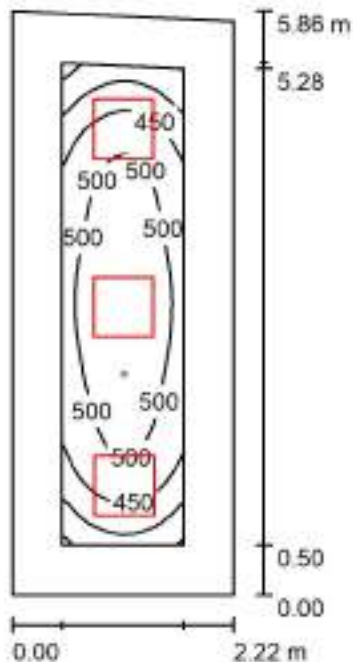
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			601	560	12.0

Specific connected load: $0.21 \text{ W/m}^2 = 4.85 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 55.85 m^2)



Operator
Telephone
Fax
e-Mail

CLEAN UTILITY SHA 129 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:76

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	477	332	550	0.696
Floor	20	319	193	406	0.606
Ceiling	70	79	54	89	0.685
Walls (4)	50	178	69	282	/

Workplane:

Height: 0.750 m
Grid: 64 x 16 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.383, Ceiling / Working Plane: 0.166.

Luminaire Parts List

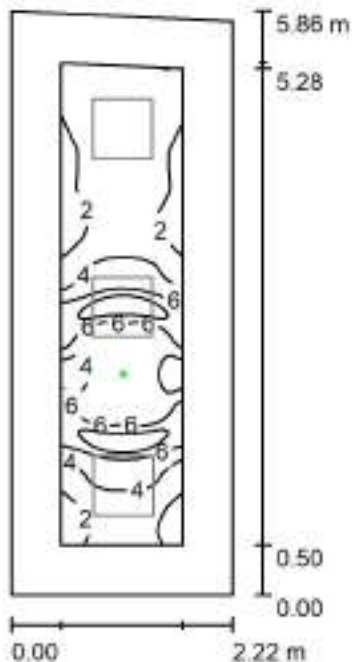
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT TEHDH14K TEGAN OFFICE (1.000)	3110	3127	29.0
Total:			9329	9380	87.0

Specific connected load: $6.73 \text{ W/m}^2 = 1.41 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.93 m^2)



Operator
Telephone
Fax
e-Mail

CLEAN UTILITY SHA 129 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:76

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	3.89	1.33	11	0.342
Floor	20	2.02	0.63	5.56	0.310
Ceiling	70	0.09	0.00	6.07	0.000
Walls (4)	50	2.17	0.11	18	/

Workplane:

Height: 0.750 m
Grid: 128 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.674, Ceiling / Working Plane: 0.022.

Luminaire Parts List

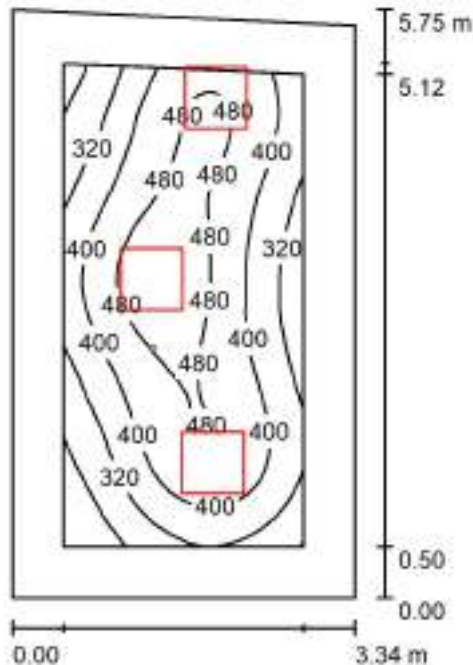
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.23 \text{ W/m}^2 = 5.96 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.93 m^2)



Operator
Telephone
Fax
e-Mail

Clinical Consumables Store SHA 130 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:74

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	399	162	524	0.407
Floor	20	275	123	377	0.448
Ceiling	70	61	40	97	0.645
Walls (4)	50	134	45	434	/

Workplane:

Height: 0.750 m
Grid: 64 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.333, Ceiling / Working Plane: 0.154.

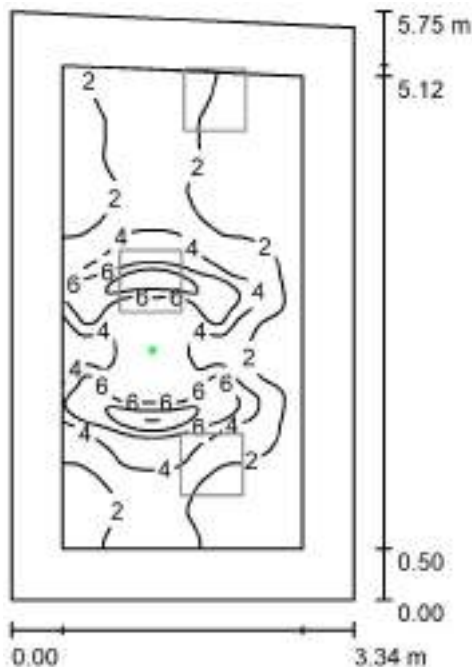
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT DLAAGH14K DTFA LED (1.000)	3223	3208	45.0
Total:			9670	9624	135.0

Specific connected load: $7.11 \text{ W/m}^2 = 1.79 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 18.98 m^2)

Operator
Telephone
Fax
e-Mail

Clinical Consumables Store SHA 130 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:74

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	3.10	0.81	11	0.263
Floor	20	1.70	0.44	5.52	0.259
Ceiling	70	0.06	0.00	5.05	0.000
Walls (4)	50	1.81	0.22	15	/

Workplane:

Height: 0.750 m
Grid: 128 x 64 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.698, Ceiling / Working Plane: 0.020.

Luminaire Parts List

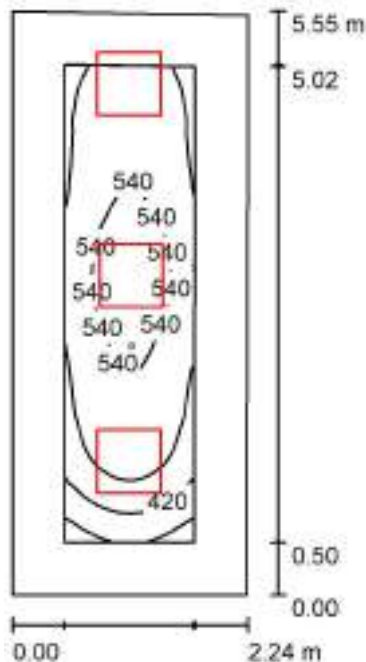
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.16 \text{ W/m}^2 = 5.11 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 18.98 m^2)



Operator
Telephone
Fax
e-Mail

DIRTY UTILITY SHA 128 / L / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:72

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	502	323	575	0.643
Floor	20	335	184	419	0.548
Ceiling	70	88	53	132	0.606
Walls (4)	50	197	64	567	/

Workplane:

Height: 0.750 m
Grid: 16 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.412, Ceiling / Working Plane: 0.175.

Luminaire Parts List

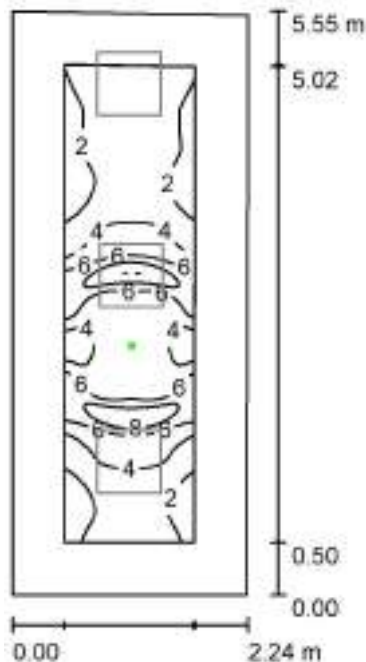
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	3	WHITECROFT DLAAGH14K DTFA LED (1.000)	3223	3208	45.0
Total:			9670	9624	135.0

Specific connected load: $10.94 \text{ W/m}^2 = 2.18 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.35 m^2)



Operator
Telephone
Fax
e-Mail

DIRTY UTILITY SHA 128 / E / Summary



Height of Room: 2.700 m, Maintenance factor: 0.80

Values in Lux, Scale 1:72

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	3.94	1.33	11	0.337
Floor	20	2.04	0.62	5.55	0.304
Ceiling	70	0.09	0.00	6.21	0.000
Walls (4)	50	2.27	0.15	16	/

Workplane:

Height: 0.750 m
Grid: 32 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.701, Ceiling / Working Plane: 0.023.

Luminaire Parts List

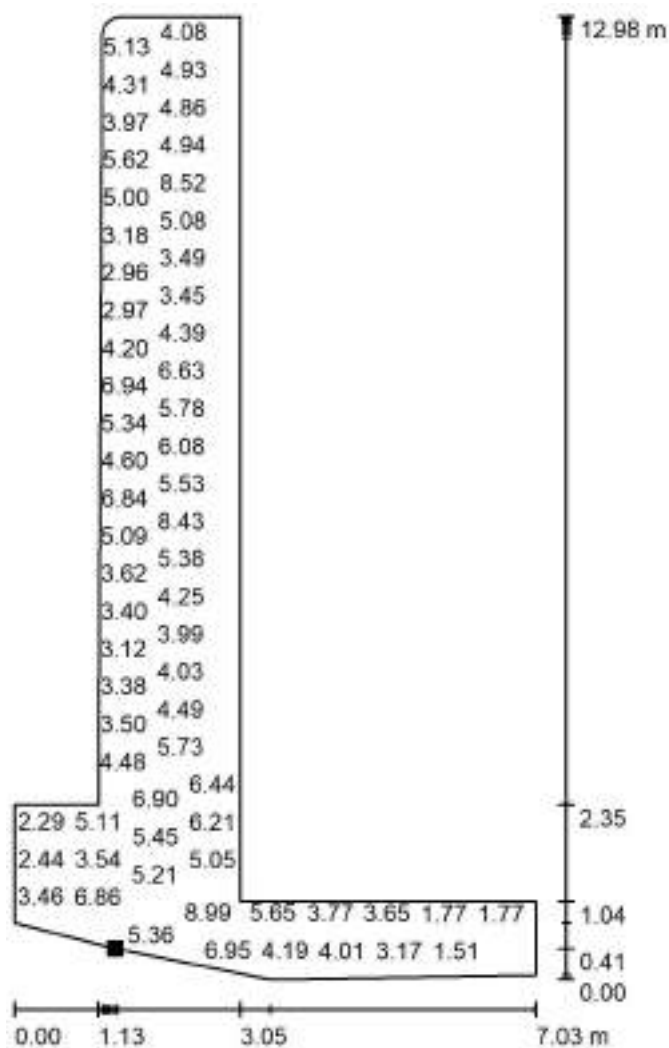
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.24 \text{ W/m}^2 = 6.17 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 12.35 m^2)



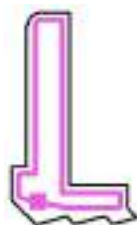
Operator
Telephone
Fax
e-Mail

CORRIDOR NORTH CORE LIFTS / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



Not all calculated values could be displayed.

Position of surface in room:
Marked point:
(25.890 m, -10.775 m, 0.000 m)



Grid: 128 x 128 Points

E_{av} [lx]
4.61

E_{min} [lx]
1.06

E_{max} [lx]
12

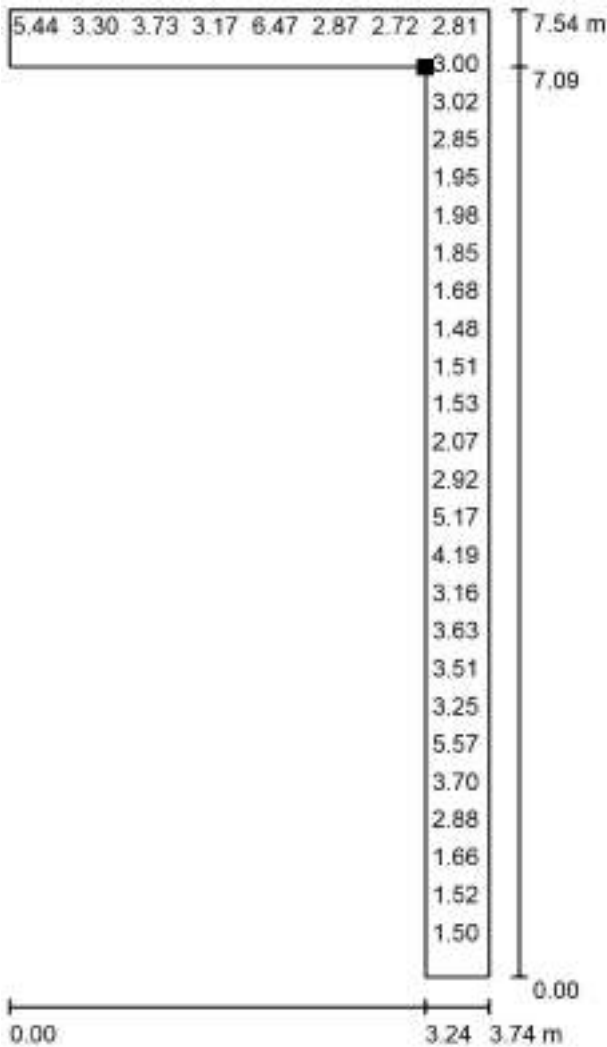
u_0
0.229

E_{min} / E_{max}
0.087



Operator
Telephone
Fax
e-Mail

CORRIDOR OFF CONSULT EXAM CEA 024 025 & 026 / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 59

Not all calculated values could be displayed.

Position of surface in room:
Marked point:
(14.584 m, 0.441 m, 0.000 m)



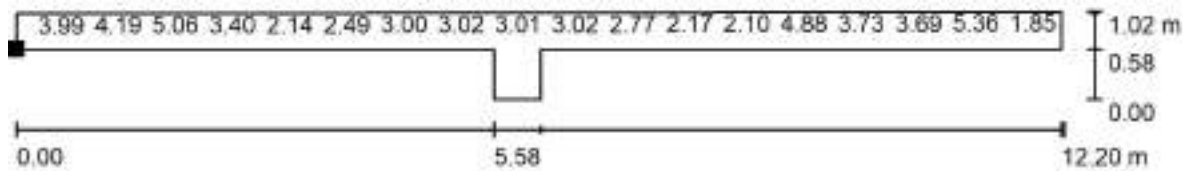
Grid: 128 x 64 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0	E_{min} / E_{max}
3.00	1.38	6.65	0.462	0.208



Operator
Telephone
Fax
e-Mail

CORRIDOR OFF STAFF BASE NORTH CORE / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



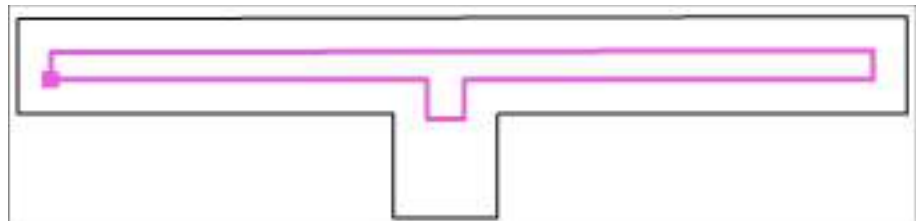
Values in Lux, Scale 1 : 88

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(-1.974 m, 0.446 m, 0.000 m)



Grid: 128 x 64 Points

E_{av} [lx]
3.32

E_{min} [lx]
1.66

E_{max} [lx]
7.08

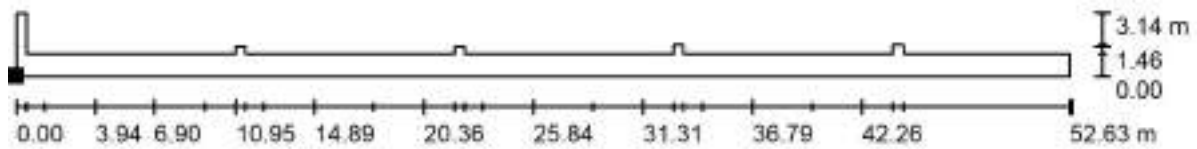
u_0
0.499

E_{min} / E_{max}
0.234



Operator
Telephone
Fax
e-Mail

EAST CORRIDOR / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 377

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(-29.217 m, -9.927 m, 0.000 m)



Grid: 128 x 32 Points

E_{av} [lx]
2.40

E_{min} [lx]
1.08

E_{max} [lx]
6.69

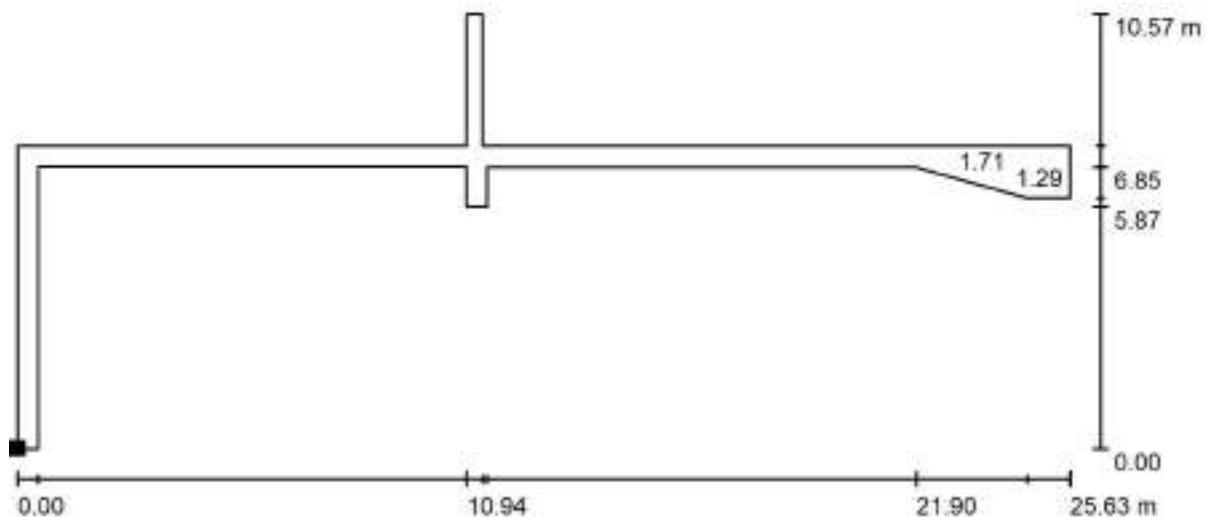
u_0
0.452

E_{min} / E_{max}
0.162



Operator
Telephone
Fax
e-Mail

WEST CORRIDOR / E / Anti-panic Surface 1 / Value Chart (E, Perpendicular)



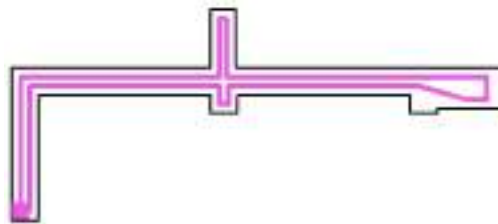
Values in Lux, Scale 1 : 184

Not all calculated values could be displayed.

Position of surface in room:

Marked point:

(-29.209 m, -5.658 m, 0.000 m)



Grid: 128 x 128 Points

E_{av} [lx]
2.69

E_{min} [lx]
1.00

E_{max} [lx]
7.13

u_0
0.373

E_{min} / E_{max}
0.140



UCLH Phase 5 - REV 4

Installation : Fifth

Project number : (58285) 5808

Customer : Dornan

Processed by : CC

Date : 09.10.2018

Project description:
WLL Sample lighting calculations to area as requested.

Calculation parameters:

Standard reflectances:
70% Ceiling / 50% wall / 20% floor

Maintenance Factor: 0.80

REVISION 4

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



Table of contents

First Page	1
Table of contents	2
1 Staff Breakout - SHA127 - 05.052	
1.1 Summary, Staff Breakout - SHA127 - 05.052	
1.1.1 Result overview, Evaluation area 1	4
1.2 Calculation results, Staff Breakout - SHA127 - 05.052	
1.2.1 Boundary line, Emergency area 1 (E)	6
1.2 Summary, Staff Breakout - SHA127 - 05.052	
1.2.2 Result overview (emergency lighting)	7
2 Treatment Room - CEA023 - 05.010	
2.1 Summary, Treatment Room - CEA023 - 05.010	
2.1.1 Result overview, Evaluation area 1	8
2.1.2 Result overview, Evaluation area 2	10
2.2 Calculation results, Treatment Room - CEA023 - 05.010	
2.2.1 Boundary line, Emergency area 1 (E)	12
2.2 Summary, Treatment Room - CEA023 - 05.010	
2.2.2 Result overview (emergency lighting)	13
3 Large Consult/Exam - CEA04 - 05.029	
3.1 Summary, Large Consult/Exam - CEA04 - 05.029	
3.1.1 Result overview, Evaluation area 1	14
3.2 Calculation results, Large Consult/Exam - CEA04 - 05.029	
3.2.1 Boundary line, Emergency area 1 (E)	16
3.2 Summary, Large Consult/Exam - CEA04 - 05.029	
3.2.2 Result overview (emergency lighting)	17
4 SPR 02 - CEA039 - 05.023	
4.1 Summary, SPR 02 - CEA039 - 05.023	
4.1.1 Result overview, Evaluation area 1	18
4.2 Calculation results, SPR 02 - CEA039 - 05.023	
4.2.1 Boundary line, Emergency area 1 (E)	20
4.2 Summary, SPR 02 - CEA039 - 05.023	
4.2.2 Result overview (emergency lighting)	21
5 Consult Exam - CEA038 - 05.035	
5.1 Summary, Consult Exam - CEA038 - 05.035	
5.1.1 Result overview, Evaluation area 1	22
5.2 Calculation results, Consult Exam - CEA038 - 05.035	
5.2.1 Boundary line, Emergency area 1 (E)	24
5.2 Summary, Consult Exam - CEA038 - 05.035	
5.2.2 Result overview (emergency lighting)	25
6 Corridor - CIR048 - 05.013	
6.1 Summary, Corridor - CIR048 - 05.013	
6.1.1 Result overview, Evaluation area 1	26
6.2 Calculation results, Corridor - CIR048 - 05.013	
6.2.1 Boundary line, Emergency area 1 (E)	28
6.2.2 Boundary line, Escape route 1 (E)	29
6.2 Summary, Corridor - CIR048 - 05.013	
6.2.3 Result overview (emergency lighting)	30
7 AVR 02 - CEA028 - 05.018	
7.1 Summary, AVR 02 - CEA028 - 05.018	
7.1.1 Result overview, Evaluation area 1	31
7.2 Calculation results, AVR 02 - CEA028 - 05.018	
7.2.1 Boundary line, Emergency area 1 (E)	33
7.2 Summary, AVR 02 - CEA028 - 05.018	
7.2.2 Result overview (emergency lighting)	34
8 AVR 01 - CEA027 - 05.019	
8.1 Summary, AVR 01 - CEA027 - 05.019	
8.1.1 Result overview, Evaluation area 1	35
8.2 Calculation results, AVR 01 - CEA027 - 05.019	

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018



Table of contents

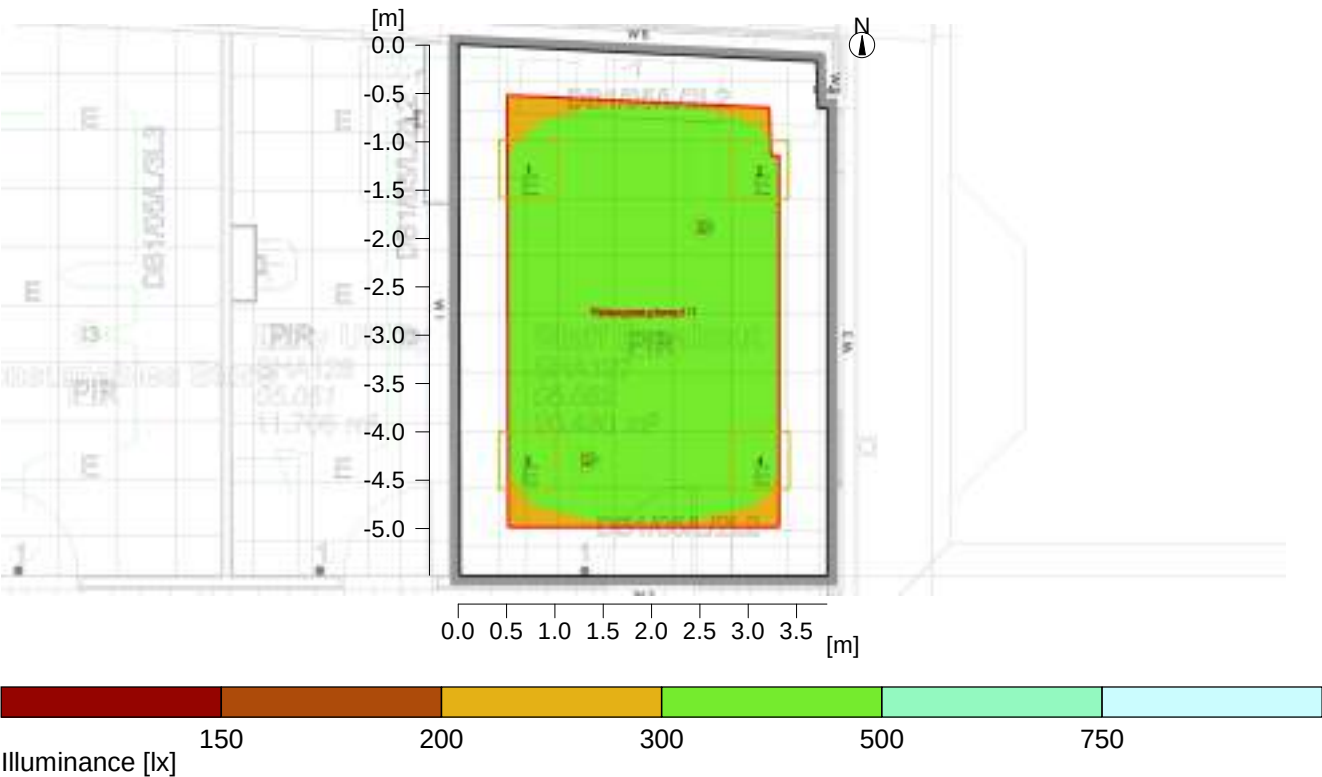
8.2.1	Boundary line, Emergency area 1 (E)	37
8.2	Summary, AVR 01 - CEA027 - 05.019	
8.2.2	Result overview (emergency lighting)	38
9	Consult Exam - CEA025 - 05.008	
9.1	Summary, Consult Exam - CEA025 - 05.008	
9.1.1	Result overview, Evaluation area 1	39
9.2	Calculation results, Consult Exam - CEA025 - 05.008	
9.2.1	Boundary line, Emergency area 2 (E)	41
9.2	Summary, Consult Exam - CEA025 - 05.008	
9.2.2	Result overview (emergency lighting)	42



1 Staff Breakout - SHA127 - 05.052

1.1 Summary, Staff Breakout - SHA127 - 05.052

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	14124.00 lm
Total power	108.0 W
Total power per area (20.48 m²)	5.27 W/m² (1.70 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	310 lx
Emin	284 lx
Emin/Eav (Uo)	0.92
Emin/Emax (Ud)	0.87
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	91 lx	0.92
M 1.1 (Wall)	261 lx	0.65
M 1.2 (Wall)	245 lx	0.81
M 1.3 (Wall)	259 lx	0.66
M 1.4 (Wall)	244 lx	0.81

Type No.IMake

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018

1 Staff Breakout - SHA127 - 05.052

1.1 Summary, Staff Breakout - SHA127 - 05.052

1.1.1 Result overview, Evaluation area 1

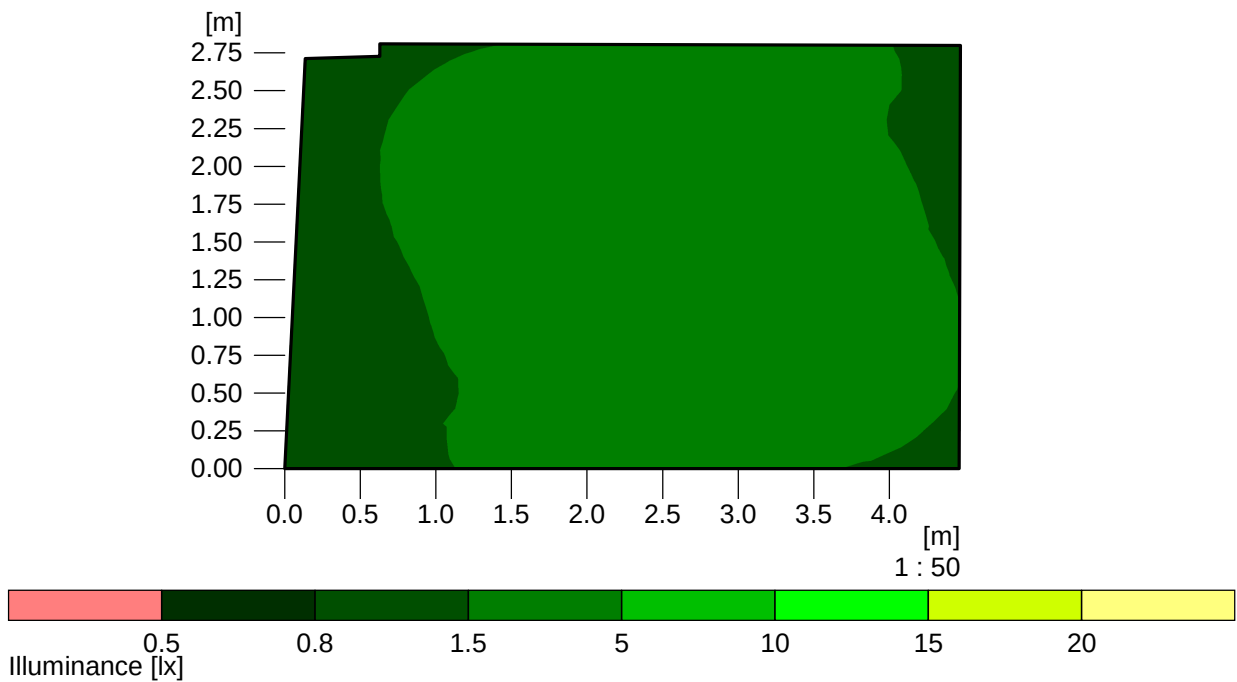


		Whitecroft Lighting	
1	4	Order No.	: !TAELH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm

1 Staff Breakout - SHA127 - 05.052

1.2 Calculation results, Staff Breakout - SHA127 - 05.052

1.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.3 lx
Maximum illuminance	Emax	: 2.2 lx
Diversity	Emin/Emax	: 1 : 1.69 (0.59) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018



1.2 Summary, Staff Breakout - SHA127 - 05.052

1.2.2 Result overview (emergency lighting)

Type No. Make

2

2

Whitecroft Lighting
Order No. : FLE31
Luminaire name : FLORIN E3
Equipment : 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

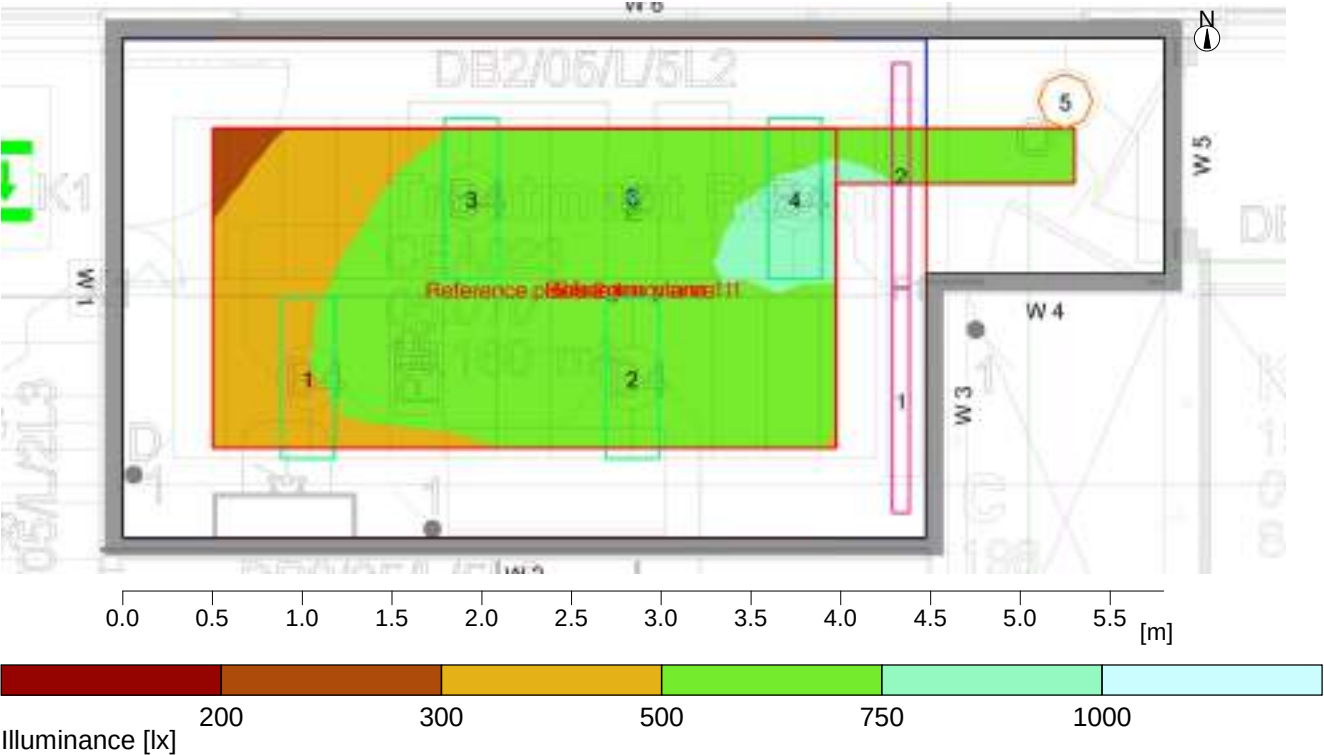
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.3	2.2	1: 1.69	0.00



2 Treatment Room - CEA023 - 05.010

2.1 Summary, Treatment Room - CEA023 - 05.010

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	13469.00 lm (84.08% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	146.0 W
Total power per area (14.16 m²)	10.31 W/m² (1.82 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	567 lx
Emin	260 lx
Emin/Eav (Uo)	0.46
Emin/Emax (Ud)	0.35
Position	0.85 m

Major surfaces

	Em	Uo
M 1.4 (Ceiling)	101 lx	0.67
M 1.1 (Wall)	177 lx	0.62
M 1.2 (Wall)	240 lx	0.65
M 1.3 (Wall)	269 lx	0.35

2 Treatment Room - CEA023 - 05.010

2.1 Summary, Treatment Room - CEA023 - 05.010

2.1.1 Result overview, Evaluation area 1



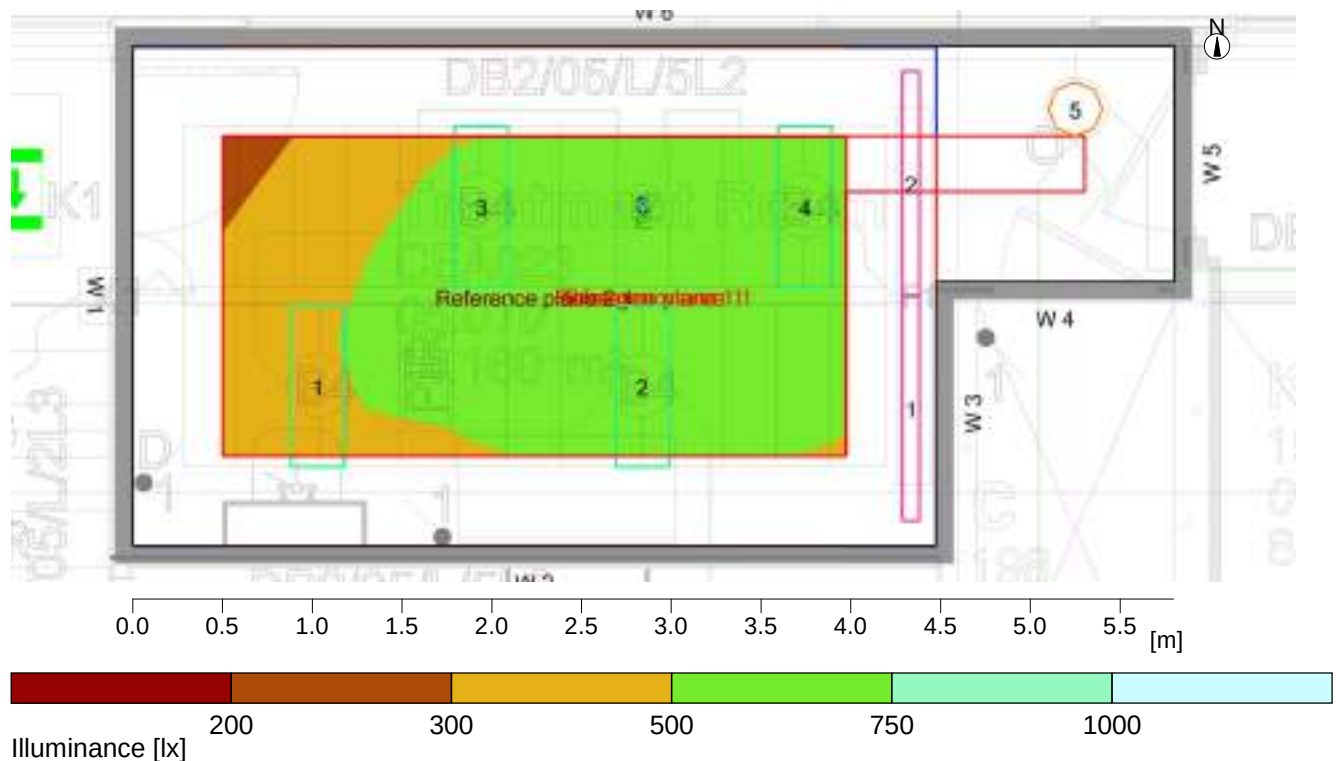
Type No. Make

		Whitcroft Lighting	
4	1	Order No.	: !K6H4274KS
		Luminaire name	: O - KOLO IP65
		Equipment	: 1 x LED 28 W / 2705 lm
5	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm
8	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: B4 - CITYLINE Ra90
		Equipment	: 1 x LED 23 W / 2550 lm



2.1 Summary, Treatment Room - CEA023 - 05.010

2.1.2 Result overview, Evaluation area 2



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	10764.00 lm (80.85% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	118.0 W
Total power per area (12.41 m ²)	9.51 W/m ² (1.74 W/m ² /100lx)

Evaluation area 2

Reference plane 2.1

Em	Horizontal
Emin	546 lx
Emin/Eav (Uo)	289 lx
Emin/Emax (Ud)	0.53
Position	0.41
	0.75 m (rot: 0°/0°)

Major surfaces

	Em	Uo
M 2.5 (Ceiling)	0 lx	0.46
M 2.1 (Wall)	3 lx	---
M 2.2 (Wall)	158 lx	---
M 2.3 (Wall)	231 lx	0.42
M 2.4 (Wall)	174 lx	0.60



2.1 Summary, Treatment Room - CEA023 - 05.010

2.1.2 Result overview, Evaluation area 2

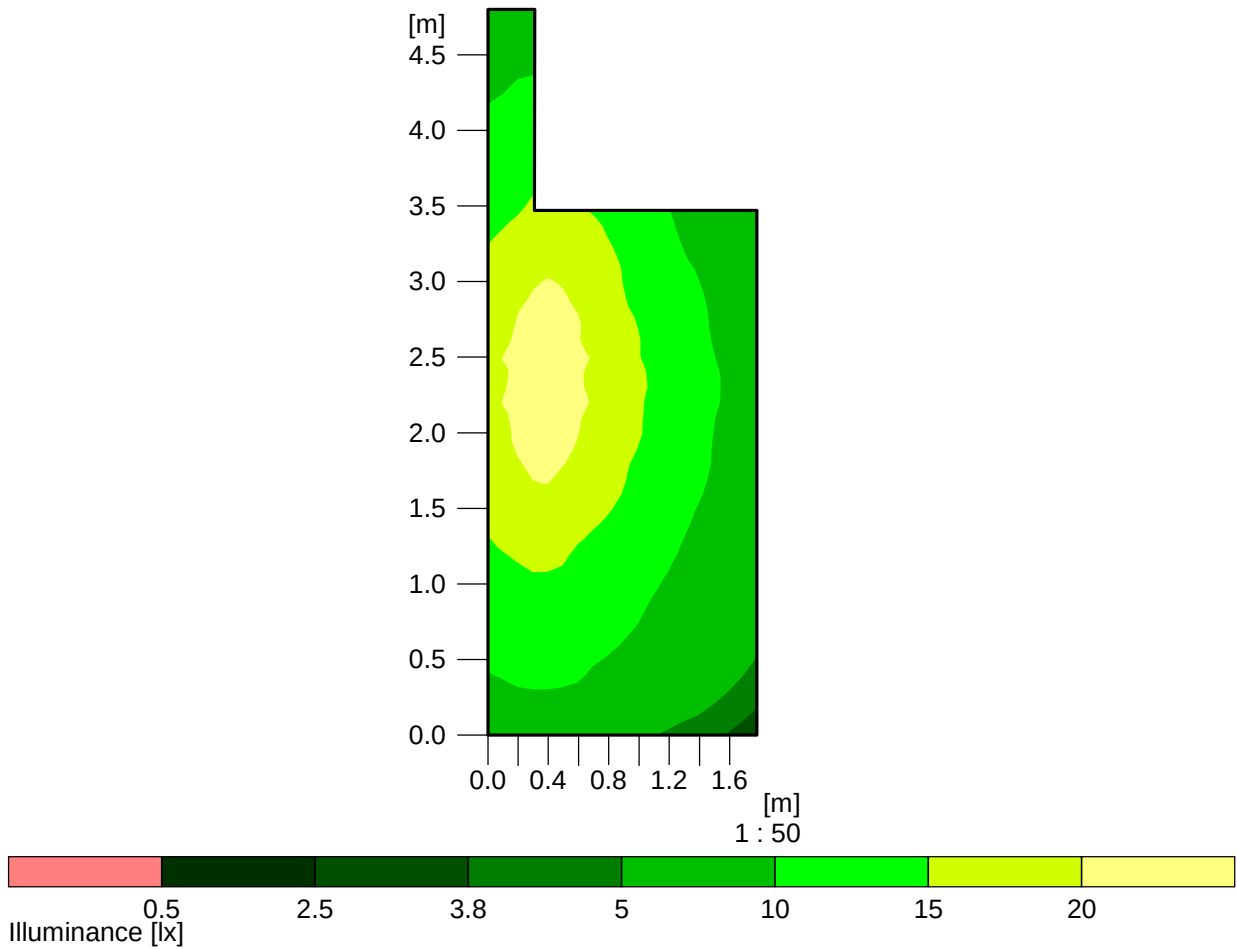
Type No. Make

		Whitecroft Lighting	
5	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm
8	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: B4 - CITYLINE Ra90
		Equipment	: 1 x LED 23 W / 2550 lm

2 Treatment Room - CEA023 - 05.010

2.2 Calculation results, Treatment Room - CEA023 - 05.010

2.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3.1 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 7.06 (0.14) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018



2.2 Summary, Treatment Room - CEA023 - 05.010

2.2.2 Result overview (emergency lighting)

Type No. Make

7

1

Whitecroft Lighting
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

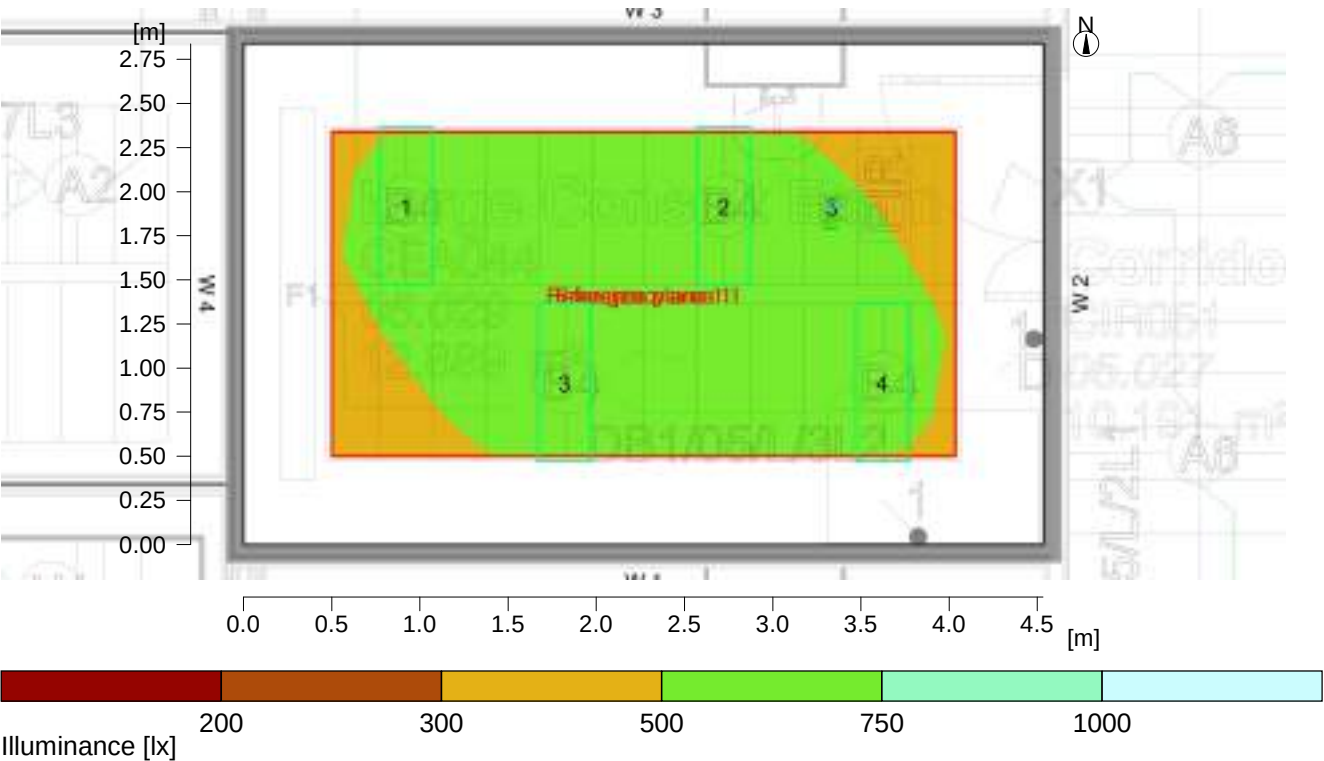
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.1	22.2	1: 7.06	-0.00



3 Large Consult/Exam - CEA04 - 05.029

3.1 Summary, Large Consult/Exam - CEA04 - 05.029

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	10200.00 lm
Total power	92.0 W
Total power per area (12.86 m²)	7.16 W/m² (1.24 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	578 lx
Emin	375 lx
Emin/Eav (Uo)	0.65
Emin/Emax (Ud)	0.53
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	88 lx	0.87
M 1.1 (Wall)	232 lx	0.47
M 1.2 (Wall)	210 lx	0.55
M 1.3 (Wall)	233 lx	0.47
M 1.4 (Wall)	210 lx	0.55

Type No. I Make

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018

3 Large Consult/Exam - CEA04 - 05.029

3.1 Summary, Large Consult/Exam - CEA04 - 05.029

3.1.1 Result overview, Evaluation area 1



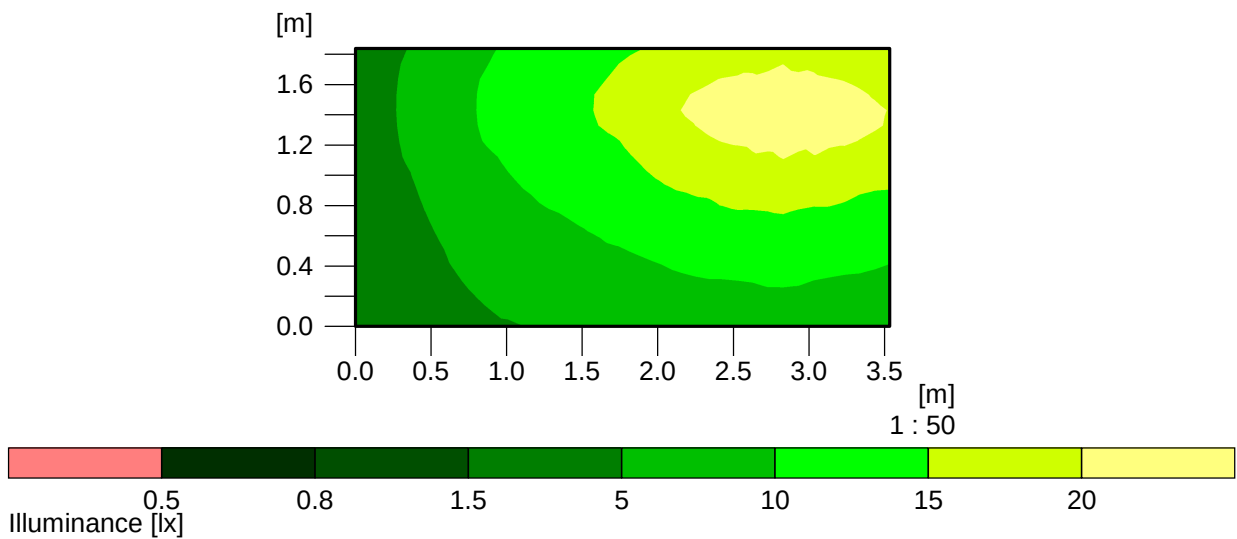
Whitecroft Lighting

8	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: B4 - CITYLINE Ra90
		Equipment	: 1 x LED 23 W / 2550 lm

3 Large Consult/Exam - CEA04 - 05.029

3.2 Calculation results, Large Consult/Exam - CEA04 - 05.029

3.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 1.5 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 15.20 (0.07) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018



3.2 Summary, Large Consult/Exam - CEA04 - 05.029

3.2.2 Result overview (emergency lighting)

Type No. Make

7

1

Whitecroft Lighting
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

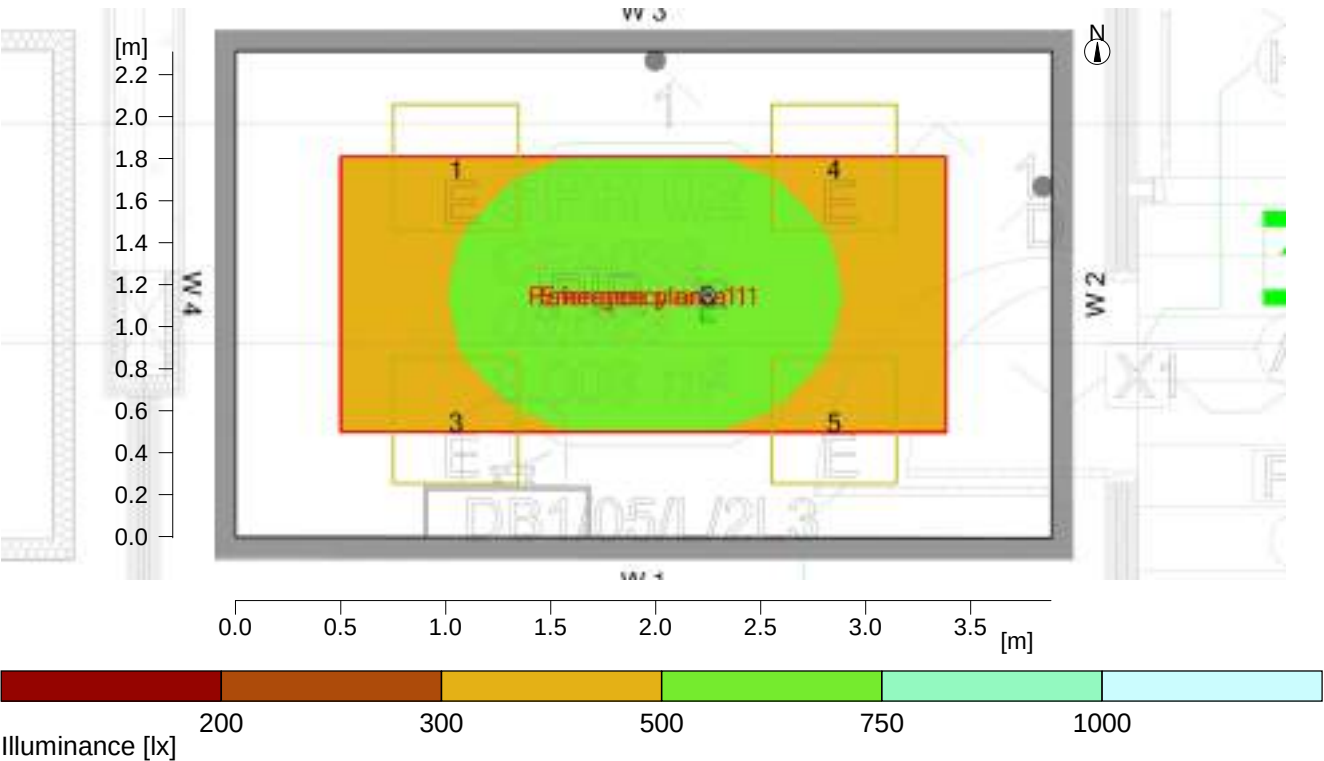
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	1.5	22.2	1: 15.16	0.00



4 SPR 02 - CEA039 - 05.023

4.1 Summary, SPR 02 - CEA039 - 05.023

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	14124.00 lm
Total power	108.0 W
Total power per area (8.97 m²)	12.04 W/m² (2.54 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	474 lx
Emin	421 lx
Emin/Eav (Uo)	0.89
Emin/Emax (Ud)	0.82
Position	0.00 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	192 lx	0.97
M 1.1 (Wall)	448 lx	0.58
M 1.2 (Wall)	436 lx	0.66
M 1.3 (Wall)	448 lx	0.58
M 1.4 (Wall)	434 lx	0.67

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018

4 SPR 02 - CEA039 - 05.023

4.1 Summary, SPR 02 - CEA039 - 05.023

4.1.1 Result overview, Evaluation area 1



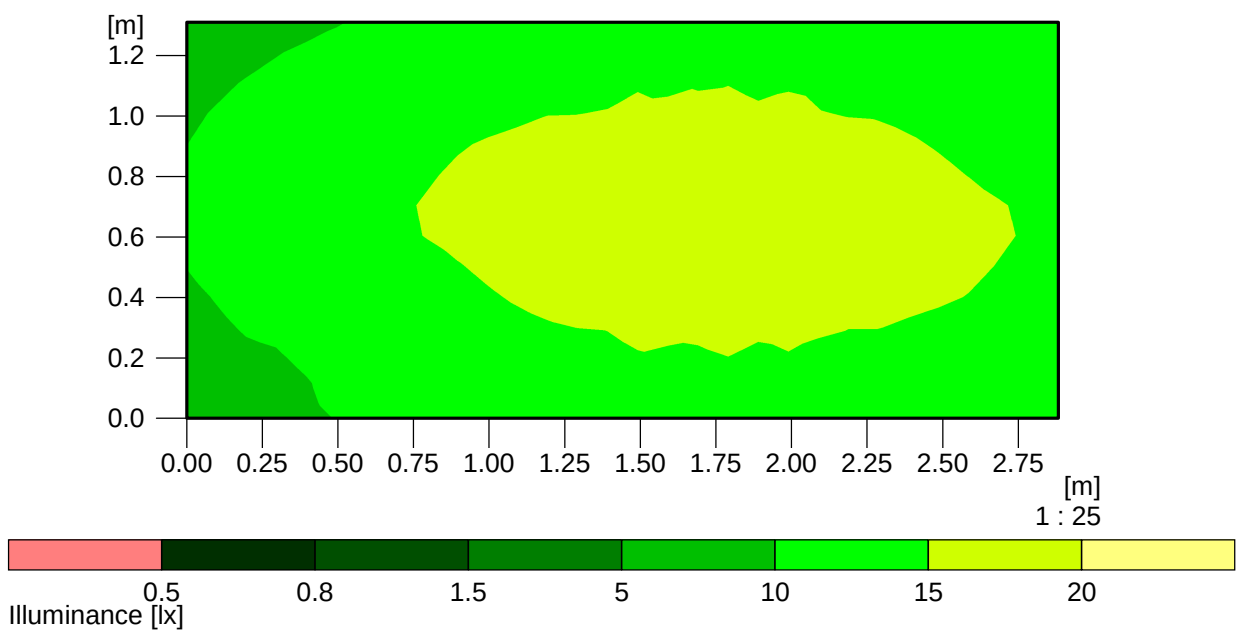
1		4		Whitecroft Lighting	
				Order No.	: !TAELH24KXT
				Luminaire name	: E - TEGAN SLIM
				Equipment	: 1 x LED 27 W / 3531 lm



4 SPR 02 - CEA039 - 05.023

4.2 Calculation results, SPR 02 - CEA039 - 05.023

4.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 8.3 lx
Maximum illuminance	Emax	: 18 lx
Diversity	Emin/Emax	: 1 : 2.16 (0.46) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018



4.2 Summary, SPR 02 - CEA039 - 05.023

4.2.2 Result overview (emergency lighting)

Type No. Make

7 1 **Whitecroft Lighting**
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

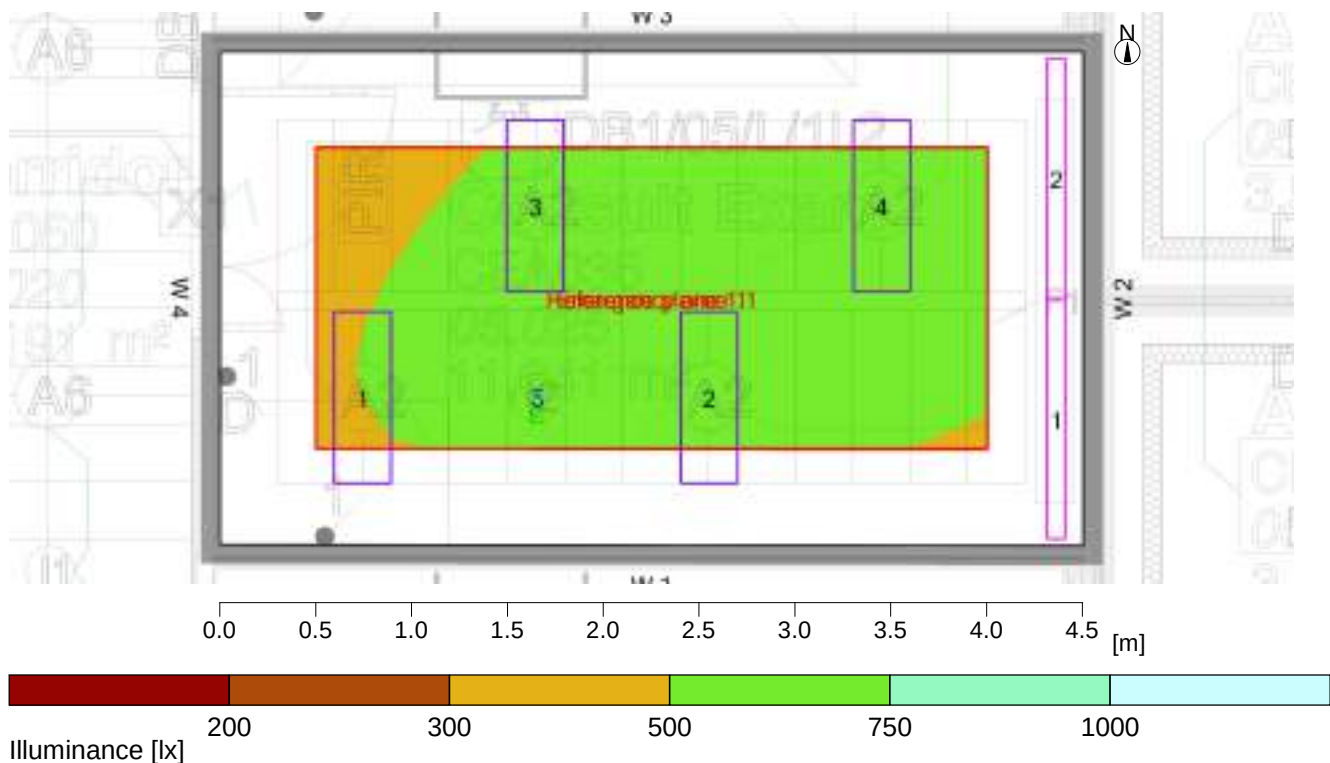
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	8.3	17.9	1: 2.16	0.00



5 Consult Exam - CEA038 - 05.035

5.1 Summary, Consult Exam - CEA038 - 05.035

5.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.70 m
 0.80

Total luminous flux of all lamps
 Total power
 Total power per area (11.57 m²)

11114.00 lm
 80.0 W
 6.92 W/m² (1.24 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em
 Emin
 Emin/Eav (Uo)
 Emin/Emax (Ud)
 Position

557 lx
 337 lx
 0.61
 0.53
 0.75 m

Major surfaces

M 1.5 (Ceiling)
 M 1.1 (Wall)
 M 1.2 (Wall)
 M 1.3 (Wall)
 M 1.4 (Wall)

Em
 104 lx
 253 lx
 247 lx
 254 lx
 221 lx

Uo
 0.75
 0.67
 0.74
 0.47
 0.61

Type No. I Make

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018

5 Consult Exam - CEA038 - 05.035

5.1 Summary, Consult Exam - CEA038 - 05.035

5.1.1 Result overview, Evaluation area 1



Whitecroft Lighting

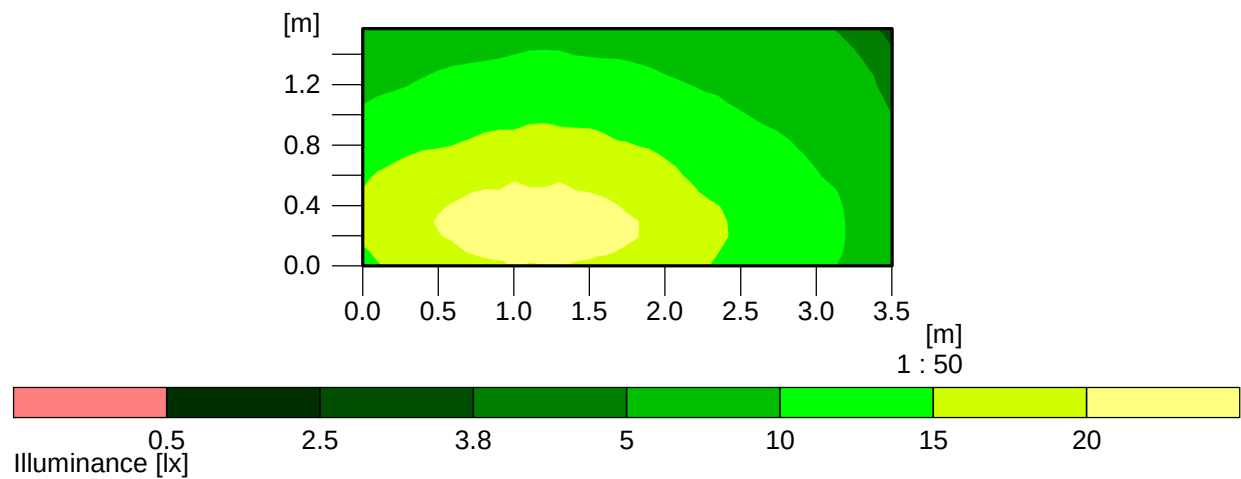
10	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm
11	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm



5 Consult Exam - CEA038 - 05.035

5.2 Calculation results, Consult Exam - CEA038 - 05.035

5.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 3.4 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 6.50 (0.15) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



5.2 Summary, Consult Exam - CEA038 - 05.035

5.2.2 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
7	1	Order No.	: !FLH31
		Luminaire name	: I2 - FLORIN E3
		Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

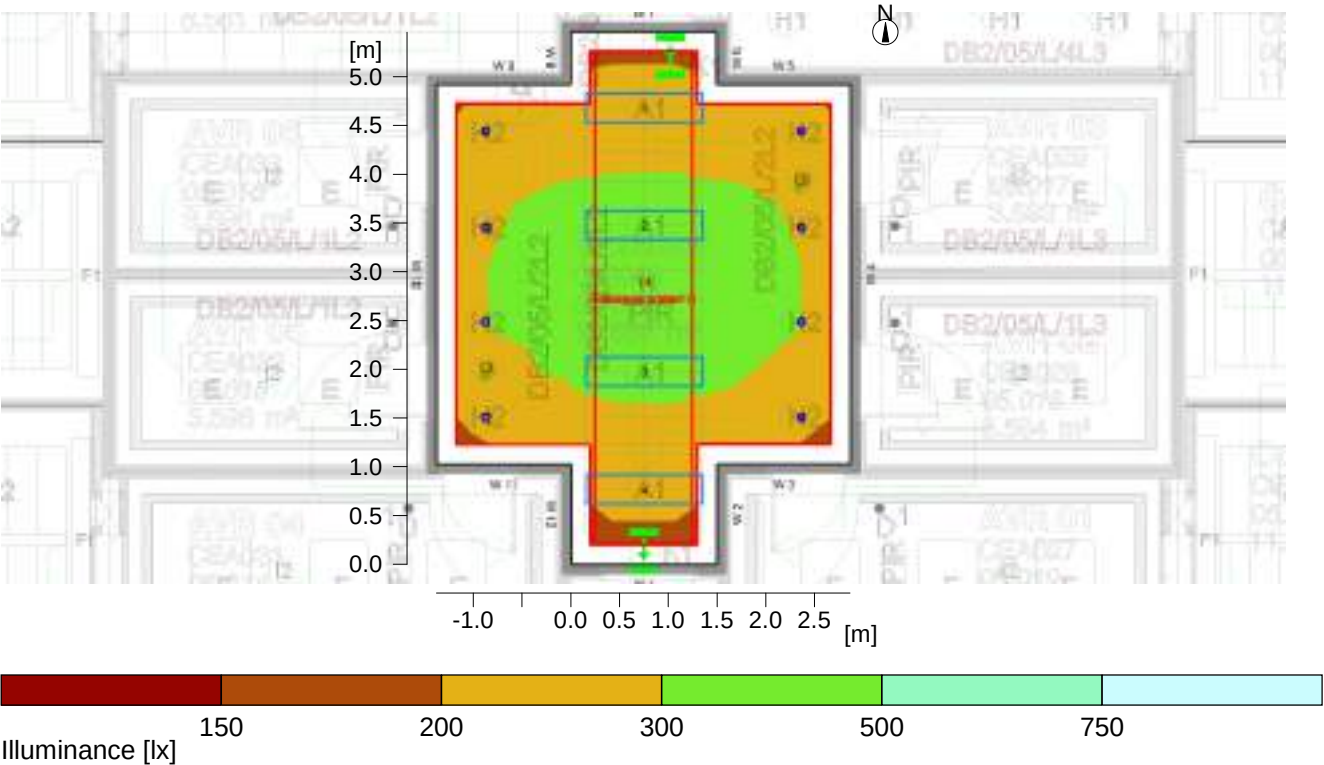
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	3.4	22.1	1: 6.50	0.00



6 Corridor - CIR048 - 05.013

6.1 Summary, Corridor - CIR048 - 05.013

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.45 m
Maintenance factor	0.80
Total luminous flux of all lamps	8840.00 lm (63.41% dimmed)
(Luminaires have been dimmed. For details turn to the dimming section in the luminaire data output.)	
Total power	145.0 W
Total power per area (18.84 m²)	7.69 W/m² (2.81 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	274 lx
Emin	197 lx
Emin/Eav (Uo)	0.72
Emin/Emax (Ud)	0.65
Position	0.00 m

Major surfaces

	Em	Uo
M 1.11 (Ceiling)	53 lx	0.94
M 1.1 (Wall)	136 lx	0.77
M 1.2 (Wall)	144 lx	0.57
M 1.3 (Wall)	109 lx	0.63
M 1.4 (Wall)	120 lx	0.69
M 1.5 (Wall)	112 lx	0.67
M 1.6 (Wall)	132 lx	0.76
M 1.7 (Wall)	111 lx	0.67
M 1.8 (Wall)	120 lx	0.69

6 Corridor - CIR048 - 05.013

6.1 Summary, Corridor - CIR048 - 05.013

6.1.1 Result overview, Evaluation area 1

M 1.9 (Wall)	109 lx	0.63
M 1.10 (Wall)	144 lx	0.58

Type No. Make

Whitcroft Lighting		
12	4	Order No. : !CLFY#/1194/SRF###
		Luminaire name : A1 - CITYLINE
		Equipment : 1 x LED 20 W / 2550 lm
13	8	Order No. : !CDH14KFLAW
		Luminaire name : H2 - CHORD 80
		Equipment : 1 x LED 8 W / 450 lm
14	1	Order No. : FLE32
		Luminaire name : FLORIN E3
		Equipment : 1 x LED 3 W / 140 lm

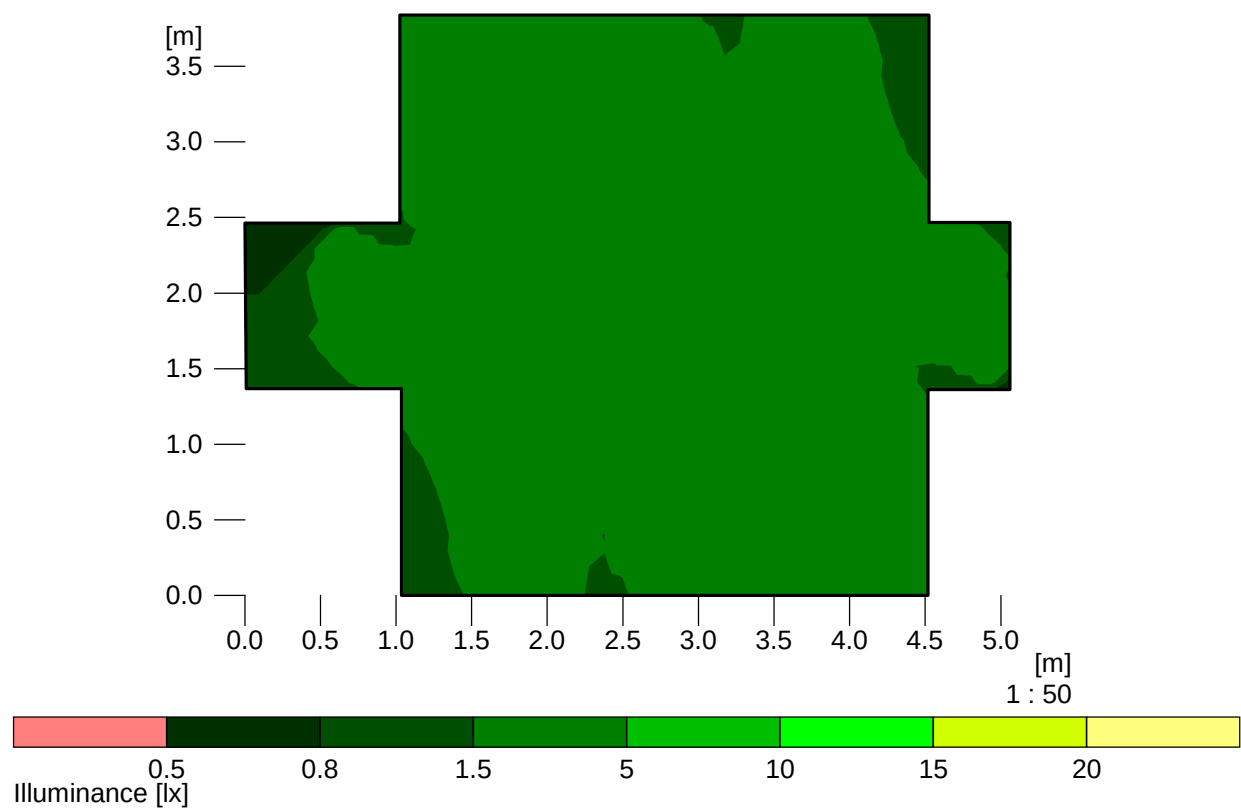




6 Corridor - CIR048 - 05.013

6.2 Calculation results, Corridor - CIR048 - 05.013

6.2.1 Boundary line, Emergency area 1 (E)

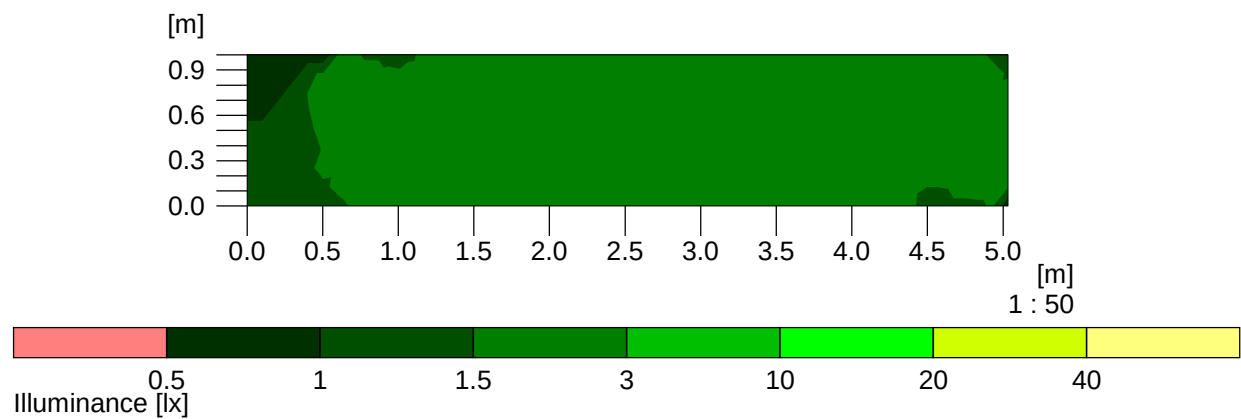


Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 0.6 lx
Maximum illuminance	Emax	: 2.2 lx
Diversity	Emin/Emax	: 1 : 3.88 (0.26) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



6.2 Calculation results, Corridor - CIR048 - 05.013

6.2.2 Boundary line, Escape route 1 (E)



Required minimum illuminance (central axis)		: 1 lx
Minimum illuminance (central axis)	Emin	: 1.4 lx
Maximum illuminance (central axis)	Emax	: 1.8 lx
Diversity	Emin/Emax	: 1 : 1.29 (0.78) (Threshold value 1:40)
Minimum illuminance	Emin	: 0.6 lx
Maximum illuminance	Emax	: 1.8 lx
Diversity	Emin/Emax	: 1 : 3.18 (0.31) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



6.2 Summary, Corridor - CIR048 - 05.013

6.2.3 Result overview (emergency lighting)

Type No. Make

		Whitecroft Lighting	
2	2	Order No.	: FLE31
		Luminaire name	: FLORIN E3
		Equipment	: 1 x LED 3 W / 140 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	0.6	2.2	1: 3.88	0.00

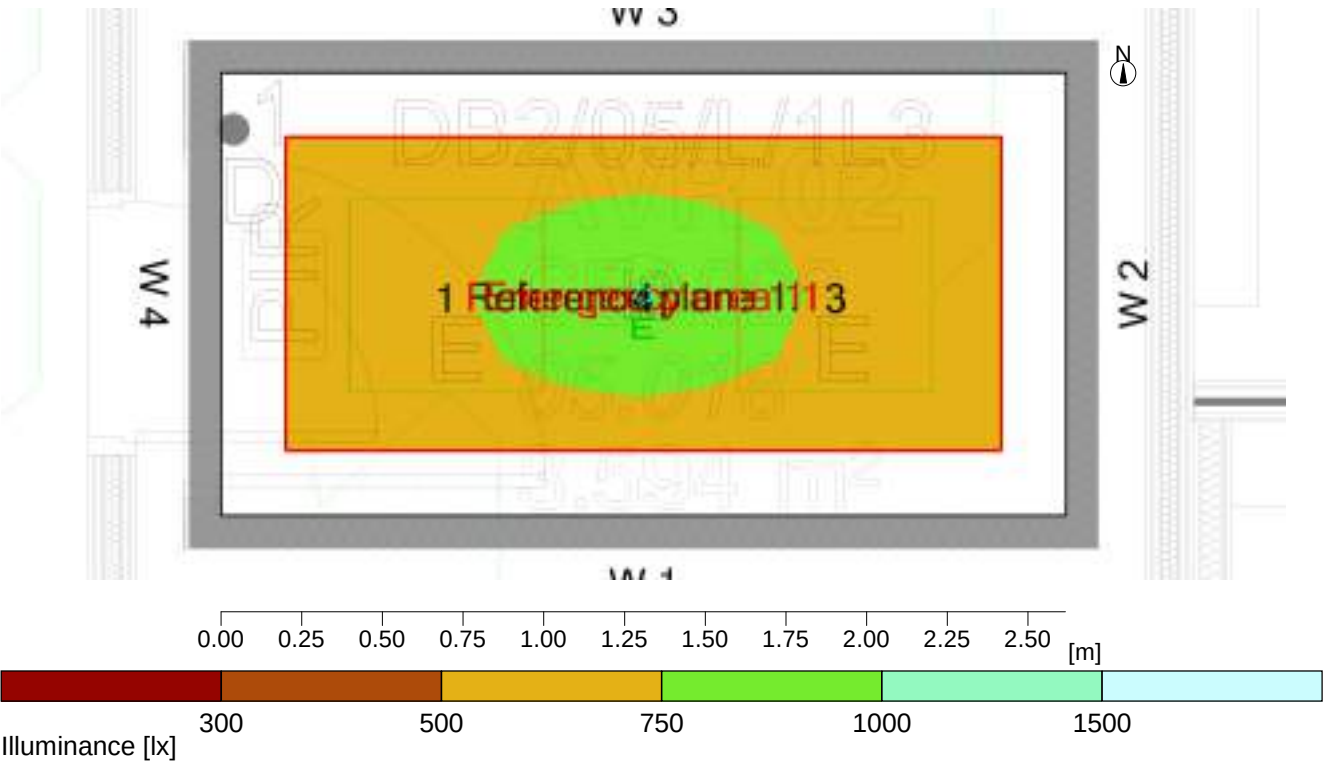
Escape routes:

No.	Default[lx]	Emin[lx]	Central axis Emax[lx]	Diversity	Emin[lx]	Surface Emax[lx]	Diversity	Height
Escape route 1								
1	1.0	1.4	1.8	1: 1.27	0.6	1.8	1: 3.18	0.00

7 AVR 02 - CEA028 - 05.018

7.1 Summary, AVR 02 - CEA028 - 05.018

7.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.45 m
Maintenance factor	0.80
Total luminous flux of all lamps	7062.00 lm
Total power	54.0 W
Total power per area (3.58 m²)	15.08 W/m² (2.27 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	666 lx
Emin	548 lx
Emin/Eav (Uo)	0.82
Emin/Emax (Ud)	0.73
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	227 lx	0.94
M 1.1 (Wall)	477 lx	0.43
M 1.2 (Wall)	457 lx	0.48
M 1.3 (Wall)	475 lx	0.43
M 1.4 (Wall)	465 lx	0.47

Type No. lMake

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018

7 AVR 02 - CEA028 - 05.018

7.1 Summary, AVR 02 - CEA028 - 05.018

7.1.1 Result overview, Evaluation area 1



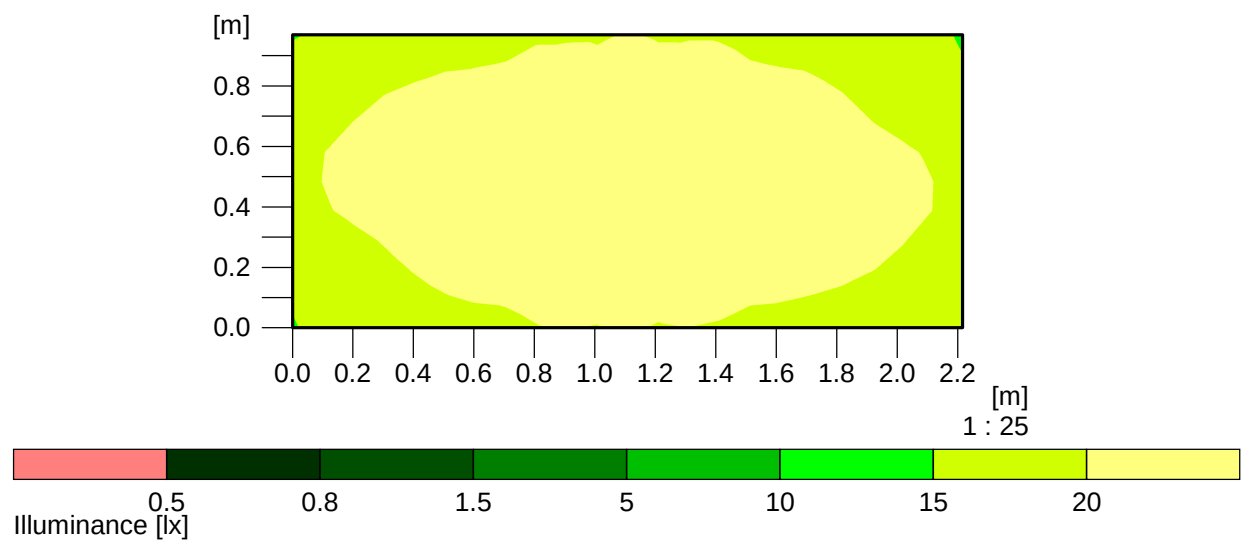
		Whitecroft Lighting	
1	2	Order No.	: !TAELH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm



7 AVR 02 - CEA028 - 05.018

7.2 Calculation results, AVR 02 - CEA028 - 05.018

7.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 15 lx
Maximum illuminance	Emax	: 27 lx
Diversity	Emin/Emax	: 1 : 1.83 (0.55) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



7.2 Summary, AVR 02 - CEA028 - 05.018

7.2.2 Result overview (emergency lighting)

Type No. Make

7		1		Whitecroft Lighting	
				Order No.	: !FLH31
				Luminaire name	: I2 - FLORIN E3
				Equipment	: 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

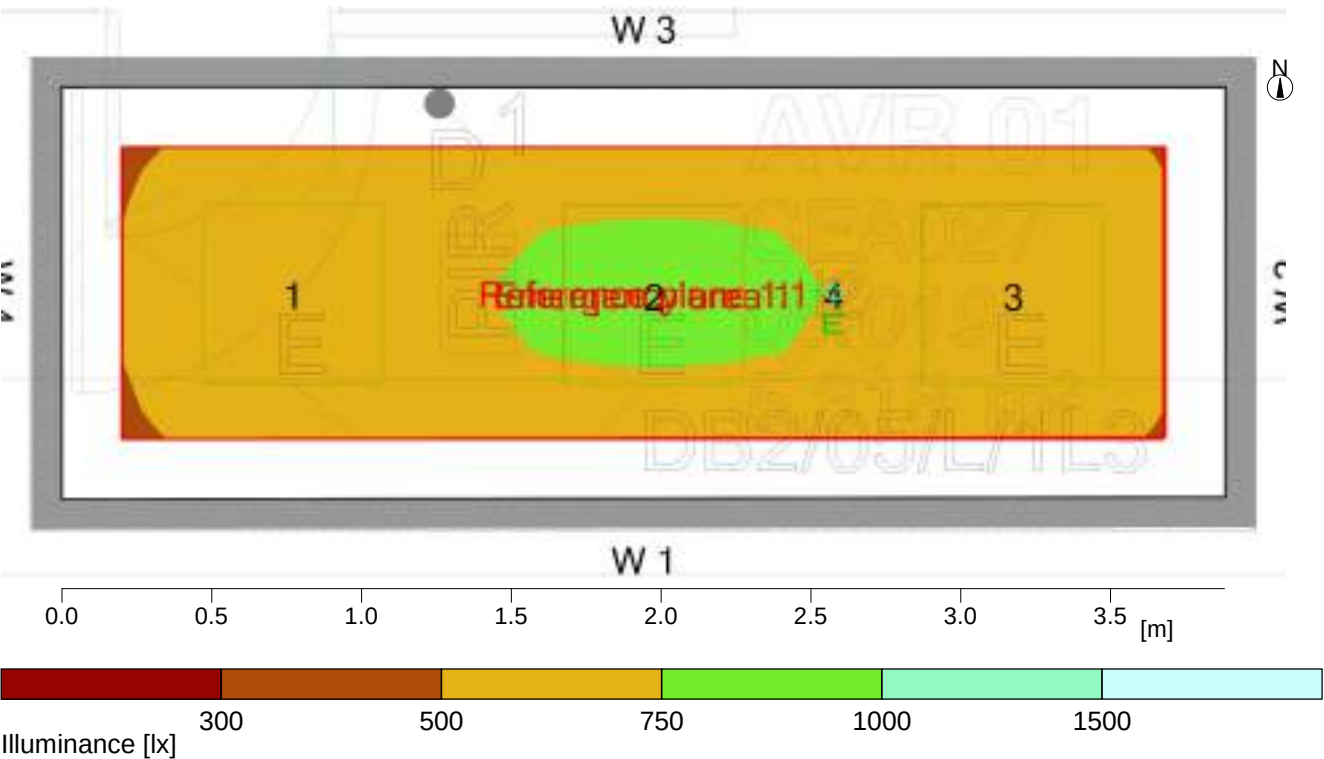
Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	14.7	27.0	1: 1.83	0.00

8 AVR 01 - CEA027 - 05.019

8.1 Summary, AVR 01 - CEA027 - 05.019

8.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	10593.00 lm
Total power	81.0 W
Total power per area (5.32 m²)	15.24 W/m² (2.39 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	638 lx
Emin	484 lx
Emin/Eav (Uo)	0.76
Emin/Emax (Ud)	0.66
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	229 lx	0.89
M 1.1 (Wall)	482 lx	0.41
M 1.2 (Wall)	459 lx	0.48
M 1.3 (Wall)	480 lx	0.41
M 1.4 (Wall)	436 lx	0.51

Type No. IMake

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018

8 AVR 01 - CEA027 - 05.019

8.1 Summary, AVR 01 - CEA027 - 05.019

8.1.1 Result overview, Evaluation area 1



Whitecroft Lighting

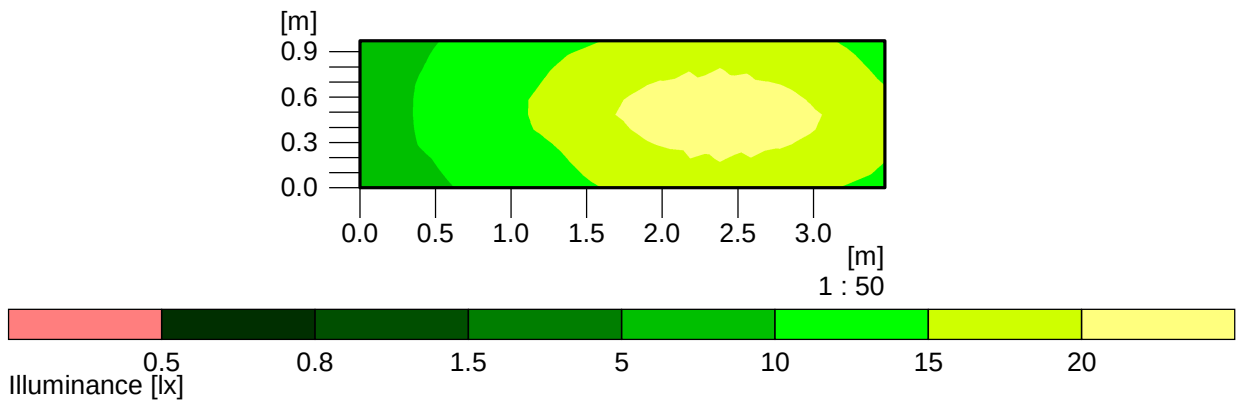
1	3	Order No.	: !TAE LH24KXT
		Luminaire name	: E - TEGAN SLIM
		Equipment	: 1 x LED 27 W / 3531 lm



8 AVR 01 - CEA027 - 05.019

8.2 Calculation results, AVR 01 - CEA027 - 05.019

8.2.1 Boundary line, Emergency area 1 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 5.4 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 4.11 (0.24) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



8.2 Summary, AVR 01 - CEA027 - 05.019

8.2.2 Result overview (emergency lighting)

Type No. Make

7		1		Whitecroft Lighting	
		Order No.		: !FLH31	
		Luminaire name		: I2 - FLORIN E3	
		Equipment		: 1 x LED 3 W / 287 lm (100.0 %)	

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

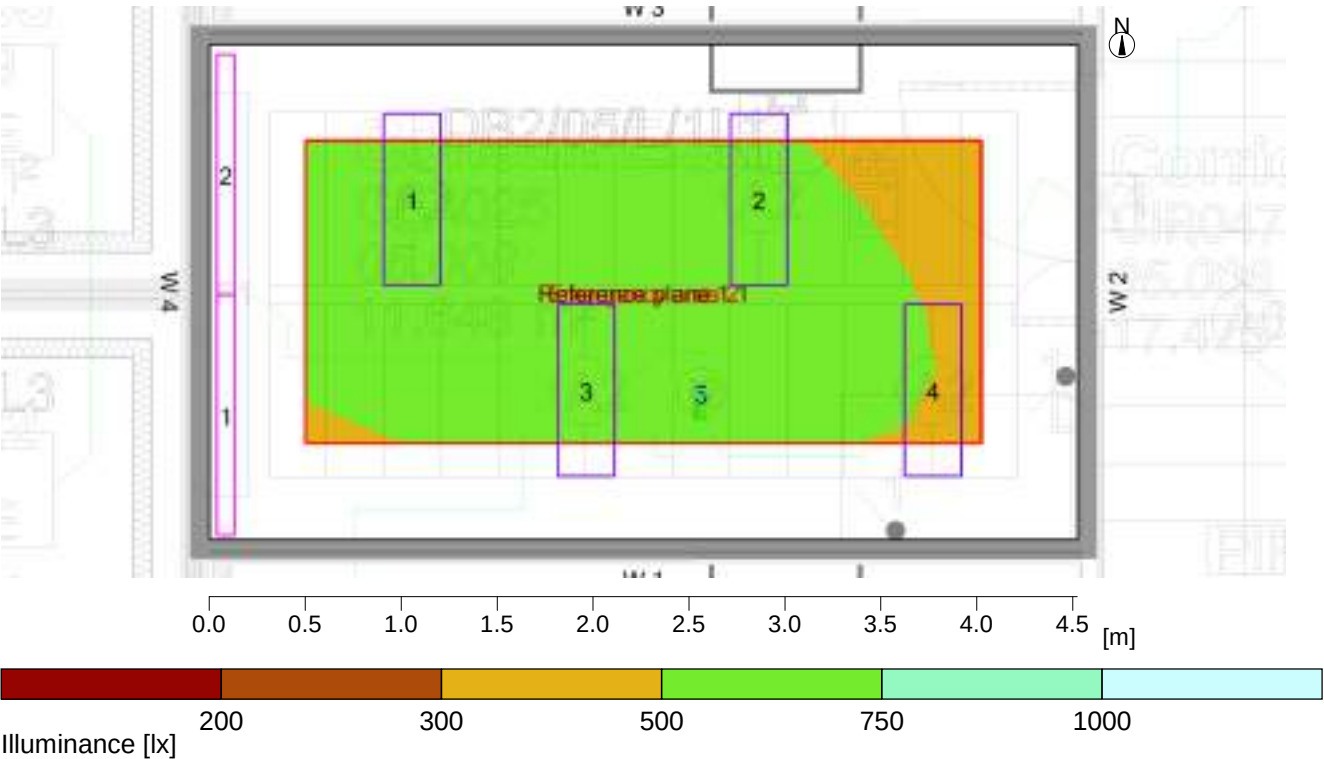
No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 1					
1	0.5	5.4	22.2	1: 4.11	0.00



9 Consult Exam - CEA025 - 05.008

9.1 Summary, Consult Exam - CEA025 - 05.008

9.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.70 m
Maintenance factor	0.80
Total luminous flux of all lamps	11114.00 lm
Total power	80.0 W
Total power per area (11.65 m²)	6.87 W/m² (1.24 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	552 lx
Emin	333 lx
Emin/Eav (Uo)	0.60
Emin/Emax (Ud)	0.52
Position	0.75 m

Major surfaces

	Em	Uo
M 1.5 (Ceiling)	102 lx	0.74
M 1.1 (Wall)	249 lx	0.67
M 1.2 (Wall)	218 lx	0.60
M 1.3 (Wall)	251 lx	0.47
M 1.4 (Wall)	224 lx	0.79

Type No. Make

Object : UCLH Phase 5 - REV 4
Installation : Fifth
Project number : (58285) 5808
Date : 09.10.2018

9 Consult Exam - CEA025 - 05.008

9.1 Summary, Consult Exam - CEA025 - 05.008

9.1.1 Result overview, Evaluation area 1



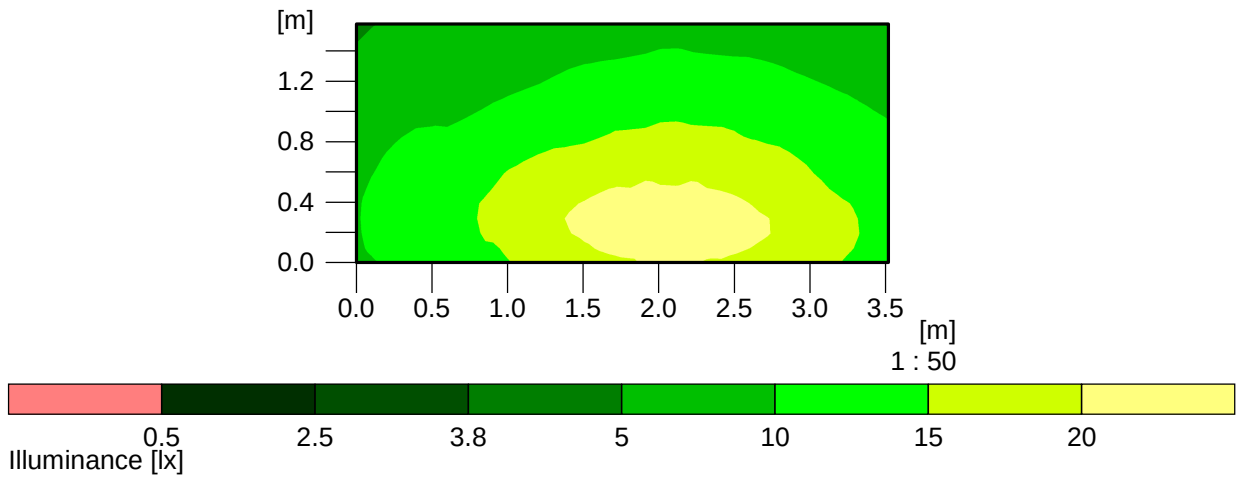
Whitecroft Lighting

10	4	Order No.	: !CLFY#/894/SRF###
		Luminaire name	: A2 - CITYLINE
		Equipment	: 1 x LED 13.5 W / 2000 lm
11	2	Order No.	: !AOARHA14KW
		Luminaire name	: F1 - AVENUE METRO RECESSED
		Equipment	: 1 x LED 13 W / 1557 lm

9 Consult Exam - CEA025 - 05.008

9.2 Calculation results, Consult Exam - CEA025 - 05.008

9.2.1 Boundary line, Emergency area 2 (E)



Required minimum illuminance		: 0.5 lx
Minimum illuminance	Emin	: 4.5 lx
Maximum illuminance	Emax	: 22 lx
Diversity	Emin/Emax	: 1 : 4.89 (0.20) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component
Maintenance factor		: 0.8



9.2 Summary, Consult Exam - CEA025 - 05.008

9.2.2 Result overview (emergency lighting)

Type No. Make

7

1

Whitecroft Lighting
Order No. : !FLH31
Luminaire name : I2 - FLORIN E3
Equipment : 1 x LED 3 W / 287 lm (100.0 %)

Result evaluation area

Calculation algorithm used: Direct component
Maintenance factor: 0.8

Emergency area:

No.	Default[lx]	Emin[lx]	Surface Emax[lx]	Diversity	Height
Emergency area 2					
2	0.5	4.5	22.1	1: 4.89	0.00



UCLH PHASE 5

LEVEL 6

LIGHT CALCS REPORT

Operator
Telephone
Fax
e-Mail

R6.003 PLANT ENCLOSURE / N / Summary



Height of Room: 2.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:221

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	208	0.26	1674	0.001
Floor	20	135	0.81	491	0.006
Ceiling	0	112	2.21	346	0.020
Walls (6)	10	49	0.71	169	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.279, Ceiling / Working Plane: 0.535.

Luminaire Parts List

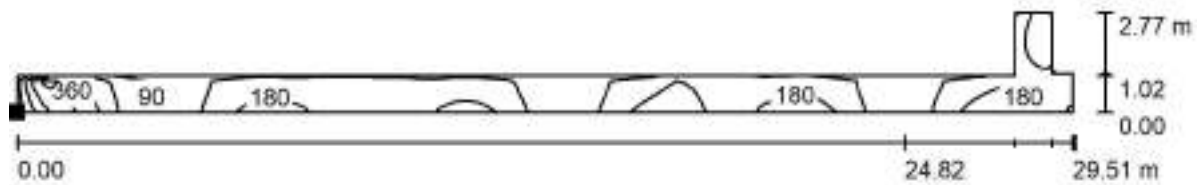
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	8	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
2	2	WHITECROFT ACH64K ACL INDUSTRY (1.000)	6404	6404	47.5
Total:			64040	64040	475.0

Specific connected load: $2.56 \text{ W/m}^2 = 1.23 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 185.37 m^2)



Operator
Telephone
Fax
e-Mail

R6.003 PLANT ENCLOSURE / N / Calculation Surface 1 / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 211

Position of surface in room:
Marked point:
(35.821 m, 31.600 m, 0.000 m)

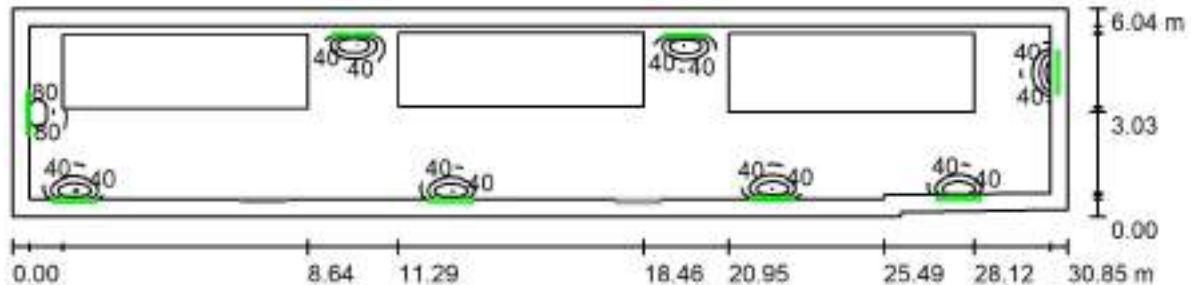


Grid: 128 x 16 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
150	56	486	0.375	0.116

Operator
Telephone
Fax
e-Mail

R6.003 PLANT ENCLOSURE / E / Summary



Height of Room: 2.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:221

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	15	0.00	166	0.000
Floor	20	9.27	0.00	45	0.000
Ceiling	0	7.29	0.04	31	0.005
Walls (6)	10	2.69	0.00	13	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.246, Ceiling / Working Plane: 0.468.

Luminaire Parts List

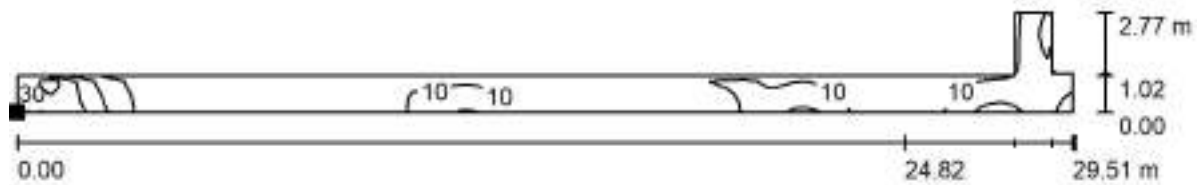
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	8	WHITECROFT ACH64K ACL INDUSTRY (1.000)	640	640	47.5
Total:			5123	5123	380.0

Specific connected load: $2.05 \text{ W/m}^2 = 13.31 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 185.37 m^2)



Operator
Telephone
Fax
e-Mail

R6.003 PLANT ENCLOSURE / E / Calculation Surface 1 / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 211

Position of surface in room:
Marked point:
(35.821 m, 31.600 m, 0.000 m)



Grid: 128 x 16 Points

E_{av} [lx]
9.72

E_{min} [lx]
0.57

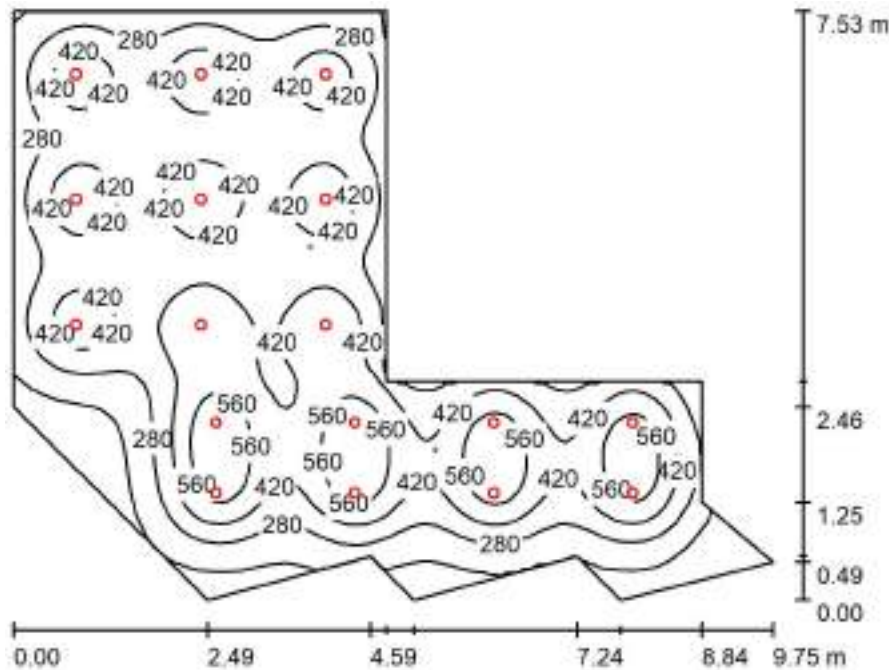
E_{max} [lx]
45

u_0
0.058

E_{min} / E_{max}
0.013

Operator
Telephone
Fax
e-Mail

R6.401 Lobby / N / Summary



Height of Room: 3.000 m, Maintenance factor: 0.80

Values in Lux, Scale 1:97

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	368	21	684	0.058
Floor	20	346	41	546	0.119
Ceiling	70	48	23	60	0.485
Walls (12)	50	73	20	194	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.181, Ceiling / Working Plane: 0.131.

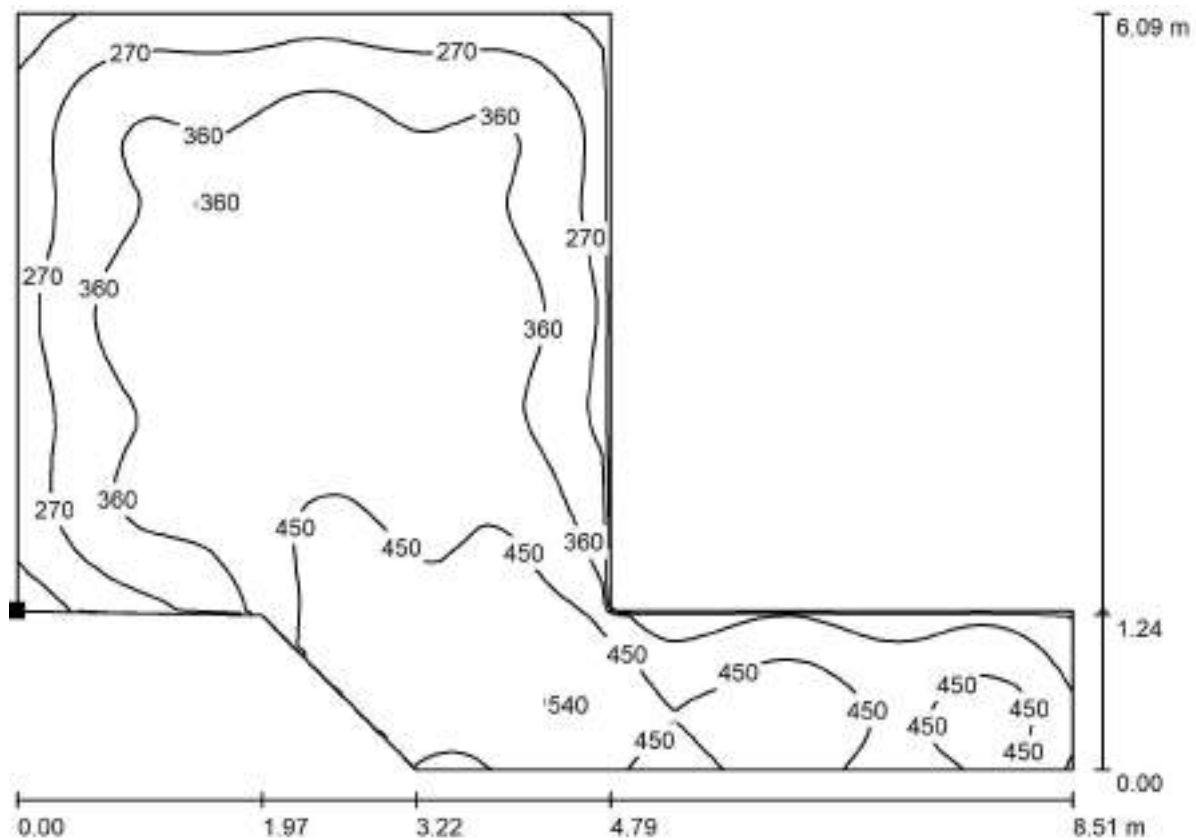
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	17	WHITECROFT CNXH14K CONCERT XL (1.000)	1179	1162	13.2
Total:			20038	19754	224.4

Specific connected load: $5.20 \text{ W/m}^2 = 1.41 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 43.13 m^2)

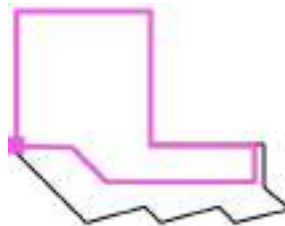
Operator
Telephone
Fax
e-Mail

R6.401 Lobby / N / Surface 1 / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 61

Position of surface in room:
Marked point:
(61.590 m, 24.800 m, 0.000 m)



Grid: 128 x 128 Points

E_{av} [lx]
375

E_{min} [lx]
130

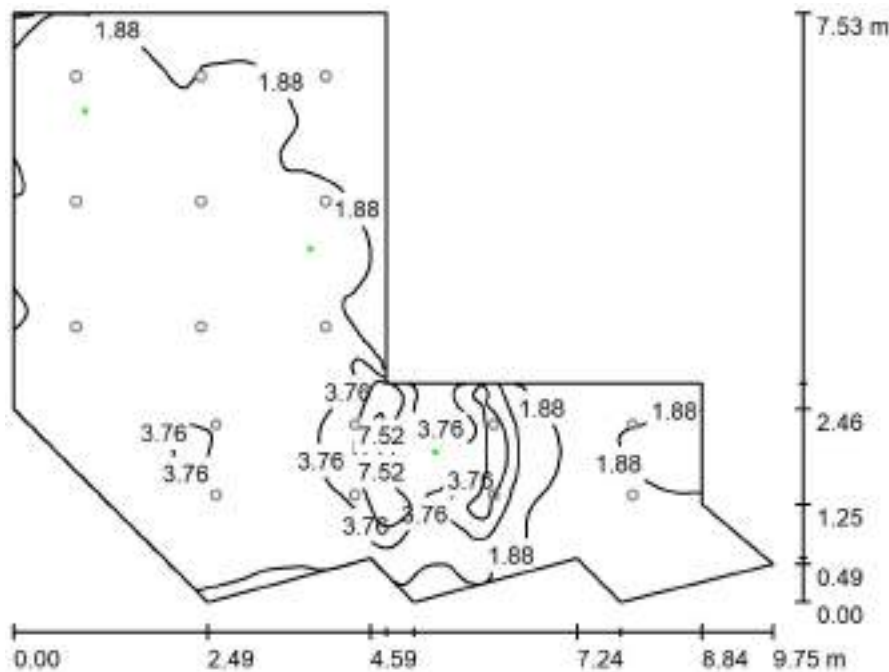
E_{max} [lx]
544

u_0
0.348

E_{min} / E_{max}
0.240

Operator
Telephone
Fax
e-Mail

R6.401 Lobby / E / Summary



Height of Room: 3.000 m, Maintenance factor: 0.80

Values in Lux, Scale 1:97

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	2.49	0.01	9.42	0.004
Floor	20	1.68	0.03	5.38	0.018
Ceiling	70	0.04	0.00	4.99	0.000
Walls (12)	50	3.07	0.00	64	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.494, Ceiling / Working Plane: 0.018.

Luminaire Parts List

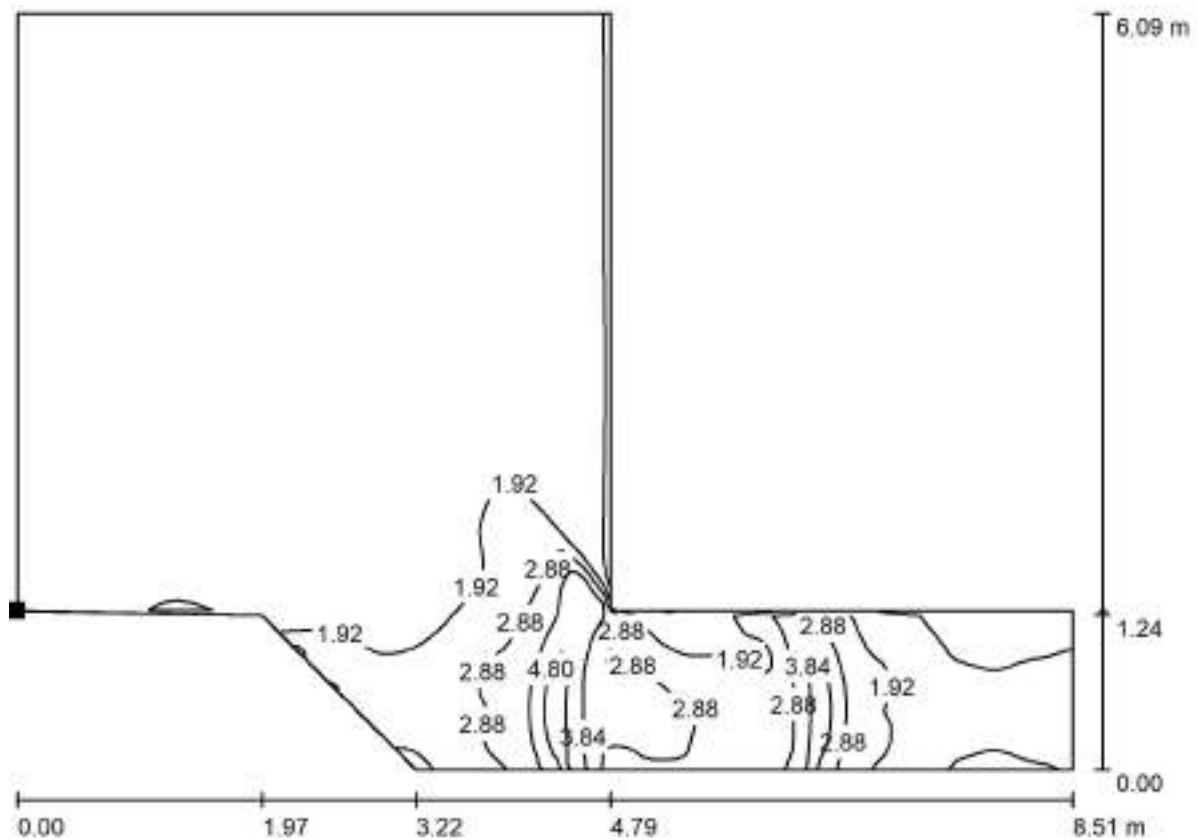
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
2	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			468	420	9.0

Specific connected load: $0.21 \text{ W/m}^2 = 8.37 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 43.13 m^2)



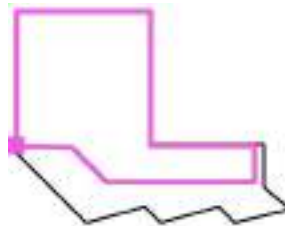
Operator
Telephone
Fax
e-Mail

R6.401 Lobby / E / Surface 1 / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 61

Position of surface in room:
Marked point:
(61.590 m, 24.800 m, 0.000 m)



Grid: 128 x 128 Points

E_{av} [lx]
1.65

E_{min} [lx]
0.64

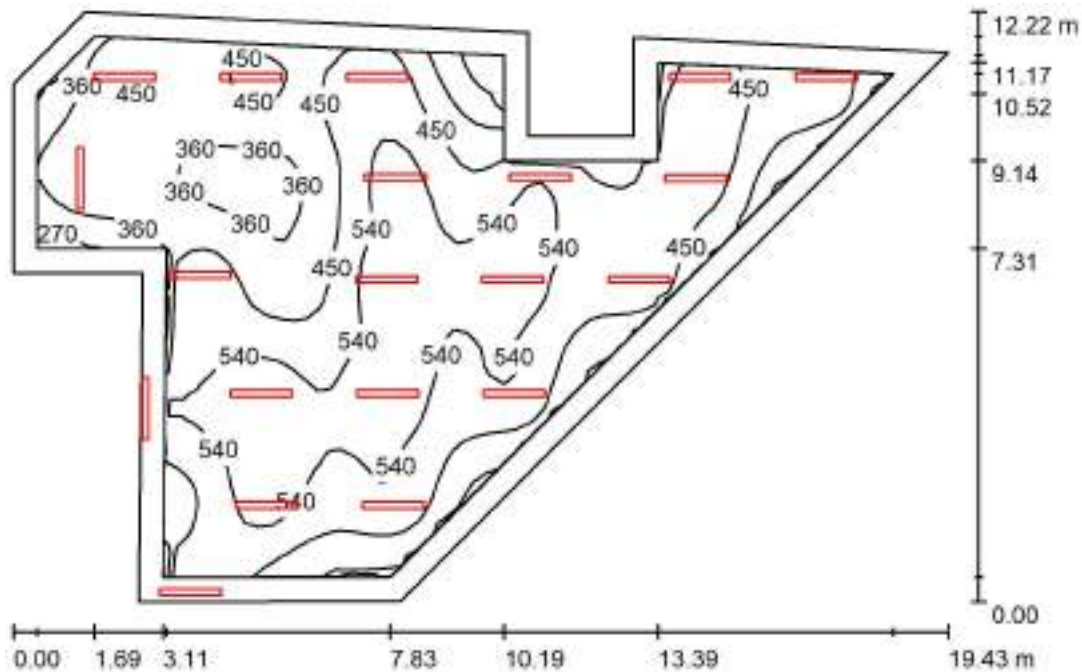
E_{max} [lx]
5.44

u_0
0.390

E_{min} / E_{max}
0.118

Operator
Telephone
Fax
e-Mail

R6.002 Plant enclosure / N / Summary



Height of Room: 2.800 m, Mounting Height: 2.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:157

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	468	194	613	0.415
Floor	20	401	135	529	0.337
Ceiling	70	136	68	790	0.497
Walls (11)	50	279	87	6704	/

Workplane:

Height: 0.750 m
Grid: 64 x 64 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.642, Ceiling / Working Plane: 0.291.

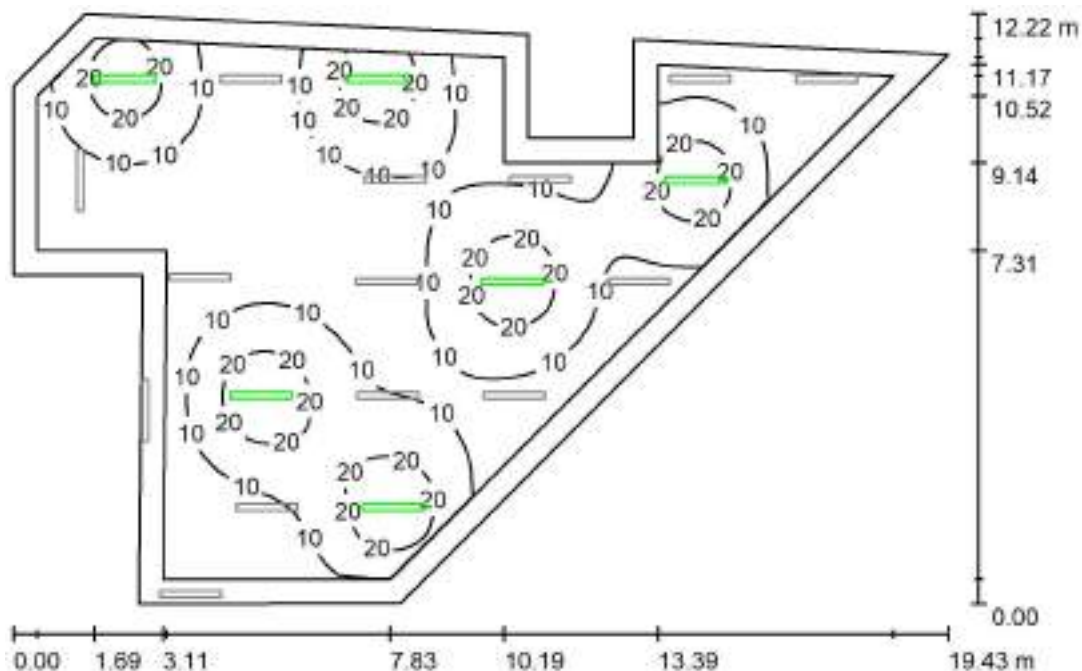
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	14	WHITECROFT ACH44K ACL INDUSTRY (1.000)	4630	4630	33.5
2	6	WHITECROFT ACH44K ACL INDUSTRY (1.000)	4630	4630	33.5
Total:			92600	92600	670.0

Specific connected load: $4.75 \text{ W/m}^2 = 1.01 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 141.19 m^2)

Operator
Telephone
Fax
e-Mail

R6.002 Plant enclosure / E / Summary



Height of Room: 2.800 m, Mounting Height: 2.800 m, Maintenance factor: 0.80

Values in Lux, Scale 1:157

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	12	0.72	28	0.062
Floor	20	9.09	0.51	17	0.056
Ceiling	70	0.91	0.01	17	0.006
Walls (11)	50	4.91	0.12	35	/

Workplane:

Height: 0.750 m
Grid: 128 x 128 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.442, Ceiling / Working Plane: 0.078.

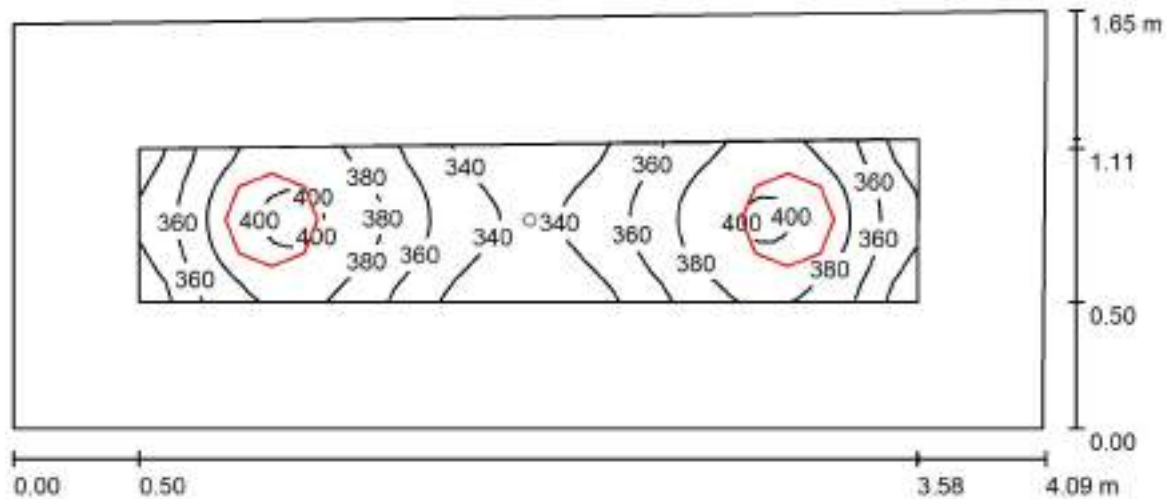
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	WHITECROFT ACH44K ACL INDUSTRY (1.000)	463	463	33.5
Total:			2778	2778	201.0

Specific connected load: $1.42 \text{ W/m}^2 = 12.27 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 141.19 m^2)

Operator
Telephone
Fax
e-Mail

R6.101 Lobby / N / Summary



Height of Room: 2.300 m, Maintenance factor: 0.80

Values in Lux, Scale 1:30

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	366	324	406	0.885
Floor	20	214	150	247	0.703
Ceiling	70	99	70	175	0.701
Walls (4)	50	185	93	387	/

Workplane:

Height:	0.750 m
Grid:	64 x 16 Points
Boundary Zone:	0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.577, Ceiling / Working Plane: 0.271.

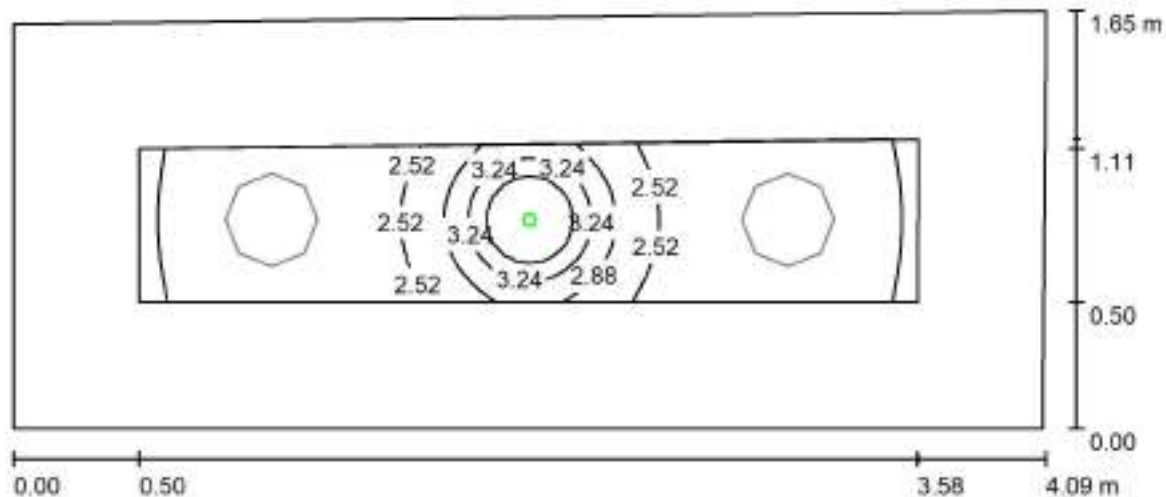
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	WHITECROFT HZH34K HORIZON 360 (1.000)	2341	2341	24.0
			Total: 4682	Total: 4682	48.0

Specific connected load: $7.22 \text{ W/m}^2 = 1.97 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.65 m^2)

Operator
Telephone
Fax
e-Mail

R6.101 Lobby / E / Summary



Height of Room: 2.300 m, Maintenance factor: 0.80

Values in Lux, Scale 1:30

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	2.51	2.10	3.90	0.838
Floor	20	1.12	0.98	1.76	0.876
Ceiling	70	0.06	0.00	4.41	0.000
Walls (4)	50	4.56	0.13	85	/

Workplane:

Height: 0.750 m
Grid: 64 x 16 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 2.608, Ceiling / Working Plane: 0.024.

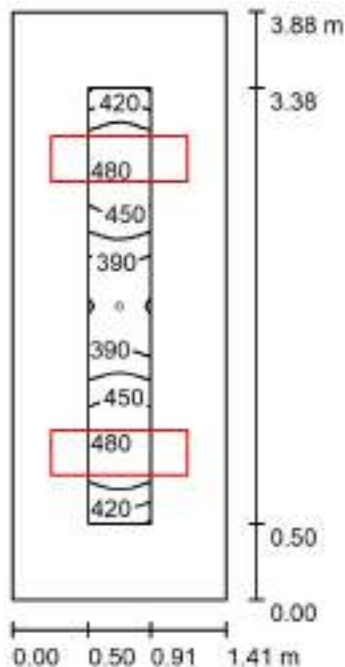
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE31 (OPEN AREA) FLORIN E3 (1.000)	159	140	3.0
Total:			159	140	3.0

Specific connected load: $0.45 \text{ W/m}^2 = 18.00 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 6.65 m^2)

Operator
Telephone
Fax
e-Mail

R6.401 Lobby / N / Summary



Height of Room: 2.300 m, Maintenance factor: 0.80

Values in Lux, Scale 1:50

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	429	358	483	0.834
Floor	20	252	171	297	0.676
Ceiling	70	74	50	87	0.675
Walls (4)	50	160	61	396	/

Workplane:

Height: 0.750 m
Grid: 8 x 32 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.412, Ceiling / Working Plane: 0.172.

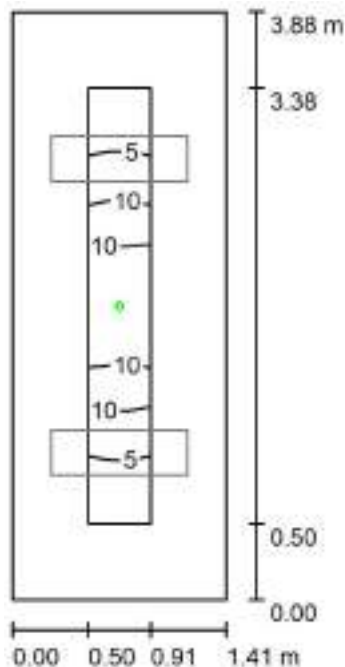
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Whitecroft Lighting NA Cityline Full Hex 900 x 300 1425lms (Type 1)* (1.000)	1988	2000	13.0
*Modified Technical Specifications			Total: 3976	Total: 4000	26.0

Specific connected load: $4.75 \text{ W/m}^2 = 1.11 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.48 m^2)

Operator
Telephone
Fax
e-Mail

R6.401 Lobby / E / Summary



Height of Room: 2.300 m, Maintenance factor: 0.80

Values in Lux, Scale 1:50

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	7.48	3.58	15	0.480
Floor	20	3.28	0.98	7.65	0.298
Ceiling	70	0.19	0.00	5.25	0.000
Walls (4)	50	4.21	0.30	25	/

Workplane:

Height: 0.750 m
Grid: 8 x 32 Points
Boundary Zone: 0.500 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.738, Ceiling / Working Plane: 0.025.

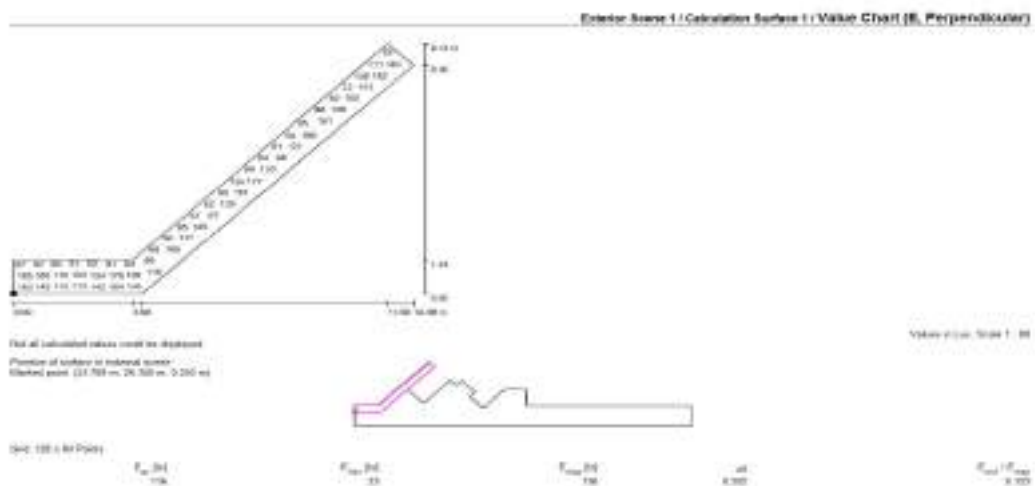
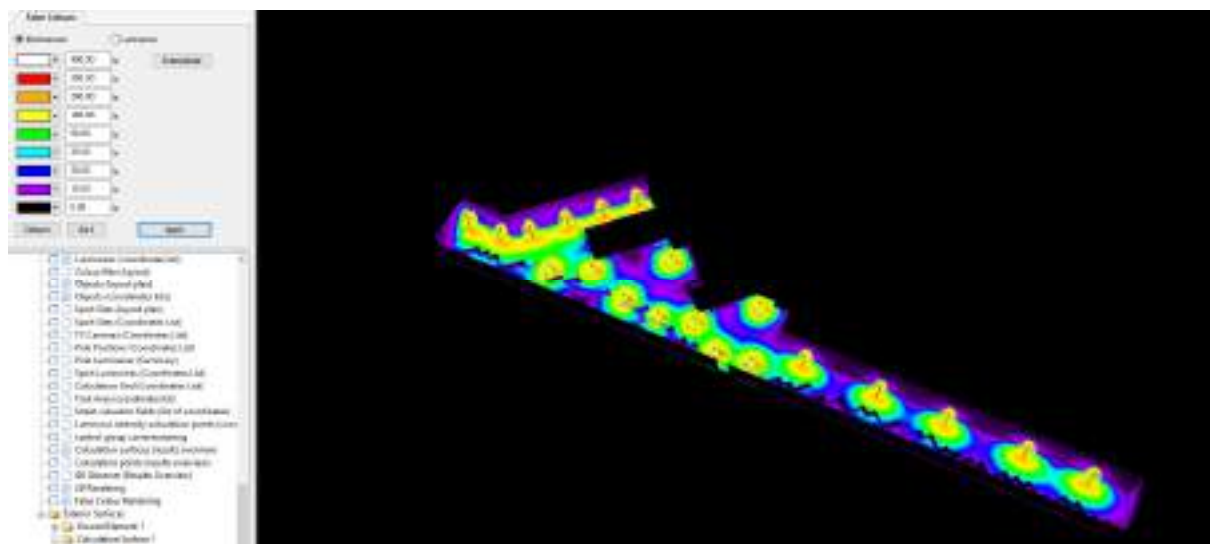
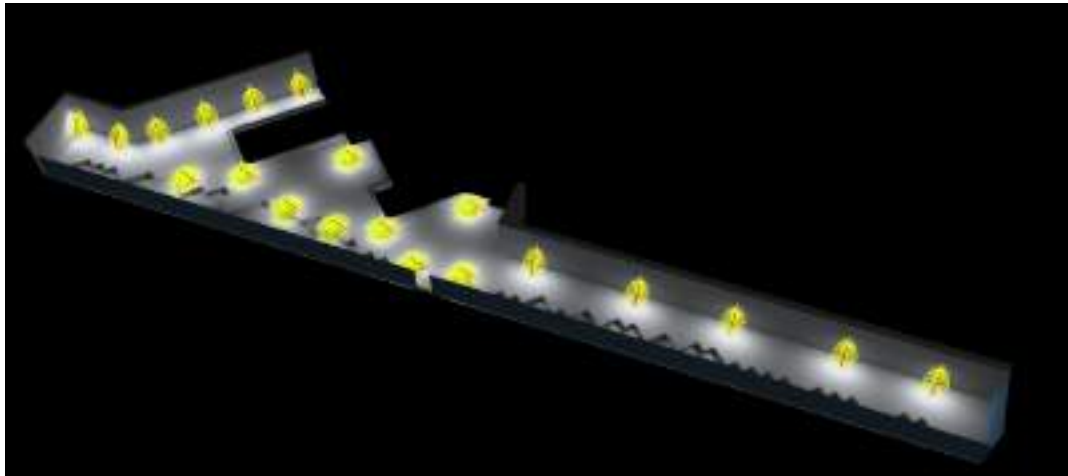
Luminaire Parts List

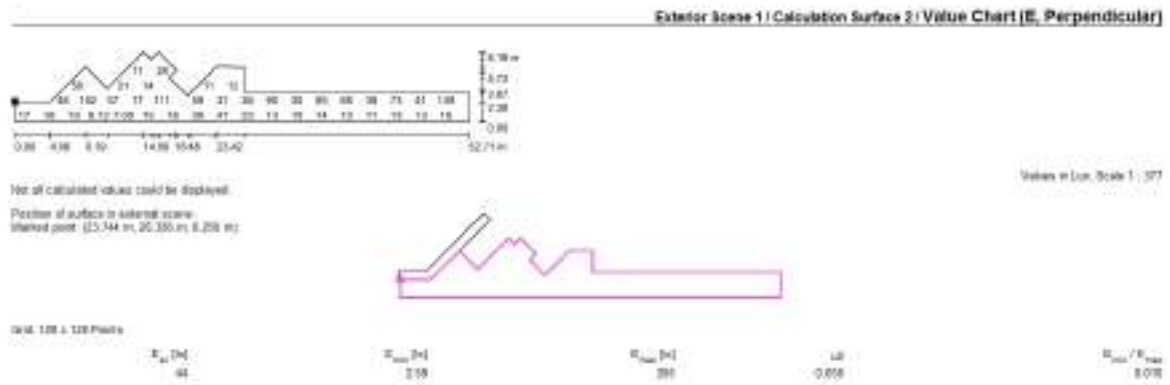
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	1	WHITECROFT FLE32 (ESCAPE ROUTE) FLORIN E3 (1.000)	150	140	3.0
Total:			150	140	3.0

Specific connected load: $0.55 \text{ W/m}^2 = 7.33 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 5.48 m^2)

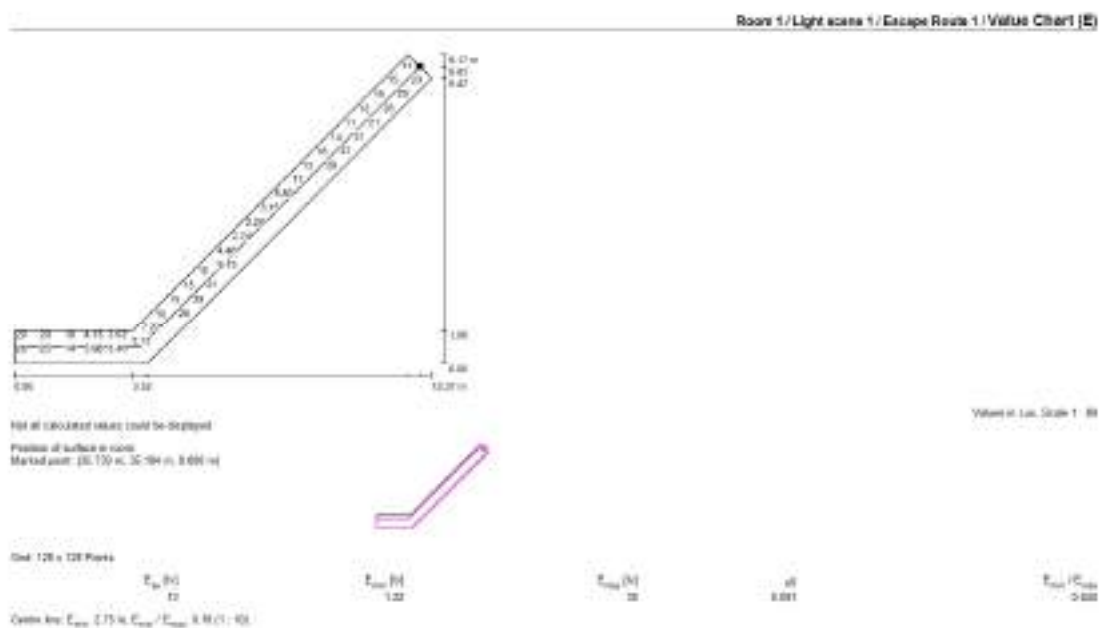
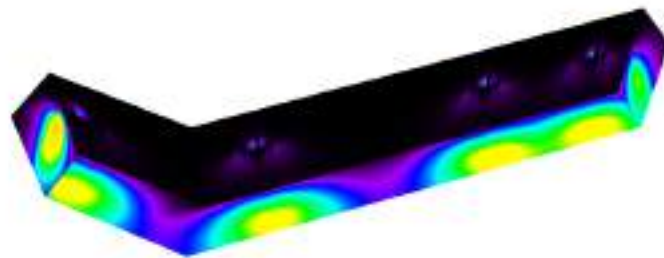
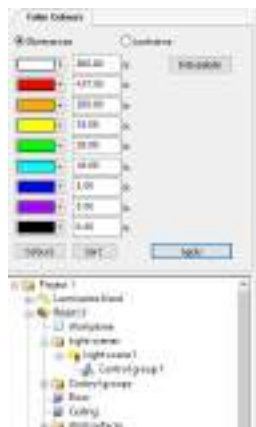
UCLH PHASE 5

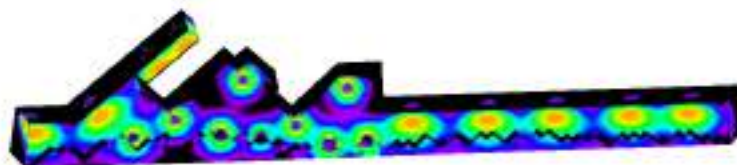
Level 06 Lighting Calculations.





Emergency Lighting Calculations:





Values in Law Scale = 337

$E_{\text{app}}(\text{mV})$

 $E_{\text{max}} = 0.1$

E. D. W.

62
A 130

$$\frac{E_{\text{max}}}{E_{\text{max}} - E_{\text{min}}} = 0.037$$

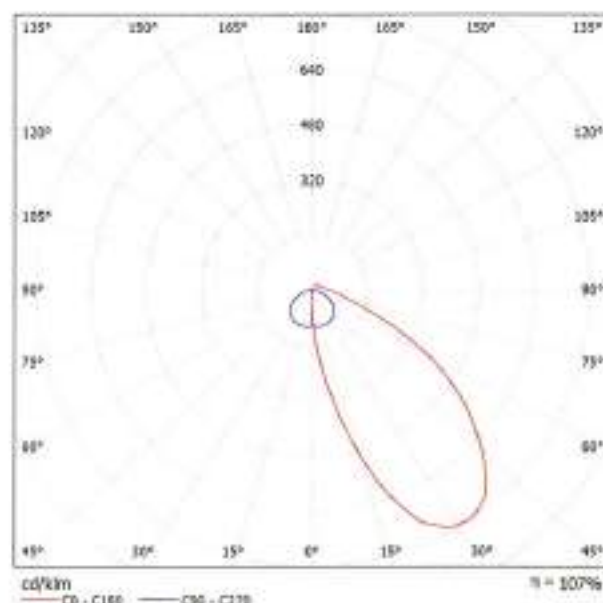
Circle Size: $E_{\text{max}} = 3.88$ to $E_{\text{min}} = E_{\text{max}} - 0.06$ (1:18)

Operator
Telephone
Fax
e-Mail

Whitecroft Lighting K6H44KHB Kolo IP65 Hood / Luminaire Data Sheet

See our luminaire catalog for an image of the luminaire.

Luminous emittance 1:



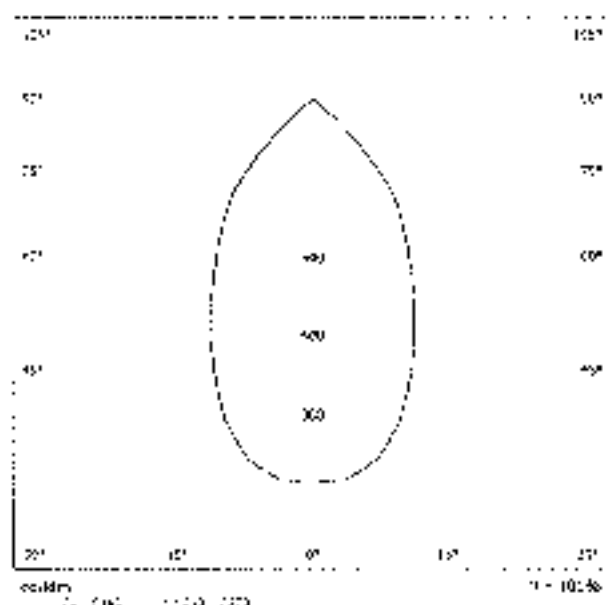
Luminaire classification according to CIE: 93
CIE flux code: 39 76 94 93 107

Due to missing symmetry properties, no UGR table can be displayed for this luminaire.

Operator
Telephone
Fax
e-mail

Philip Payne AVTN636 Emergency LED Twin Spot Wide / Luminaire Data Sheet

See our luminaire catalog for an image of the luminaire.



Luminaire classification according to CIE: 100
CIE flux code: 85 95 100 100 100

Luminous emittance 1

[illegible]

Operator
Telephone
Fax
e-Mail

Exterior Scene 1 / False Colour Rendering

