

# orlight

FROM SOURCE TO SITE

## Standard Lighting Calculation



### Coram QEII - External

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Version 01

Issued By: LR



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Design Studio: 535 Kings Road | Chelsea | London | SW10 0SZ | T: 020 7352 1799

Orlight Special Projects: 569 Kings Road | Chelsea | London | SW6 2EB | T: 020 7352 9039

For any project assistance inclusive of product information, samples and special requirements, please contact your External Sales Executive. For any other queries, please contact the following Heads of department:

## EXTERNAL SALES:

In the event that your External Sales representative is not contactable, please contact the External Sales Supervisor on:

### ALEV KOTCH: EXTERNAL SALES SUPERVISOR



Mobile Number: 07415017596  
Office Number: 01923 851890 Ext 230  
Email Address:  
Alev.Kotch@orlight.com  
Group Email Address:  
Executives@orlight.com

## INTERNAL SALES:

For details regarding orders, call offs and deliveries, please contact the Internal sales team on:

### JUSTIN ROSS: INTERNAL SALES MANAGER



Mobile Number: 07943860497  
Office Number: 01923 851890 Ext 213  
Email Address:  
Justin.Ross@orlight.com  
Group Email Address:  
Sales@orlight.com

## QUOTATIONS, BIDS AND TENDERS:

For assistance with project-based quotations, tender submissions and general pricing assistance, please contact the Quotation, Bids and Tenders department on:

### KENAN AHMET: HEAD OF QUOTATIONS



Mobile Number: 07985154832  
Office Number: 01923 851890 Ext 227  
Email Address:  
Kenan.Ahmet@orlight.com  
Group Email Address:  
Quotations@orlight.com

## LIGHTING DESIGN:

To find out how our Lighting Design Team can assist and outsource all of your Lighting Design requirements, please contact the team on:

### SITUL JETHA: DESIGN DIRECTOR



Mobile Number: 07961805394  
Office Number: 02073521799  
Email Address:  
Situl.Jetha@orlight.com  
Group Email Address:  
LightingDesignTeam@orlight.com

## TECHNICAL:

For all of your technical requirements inclusive of; installation advice on or off site or in depth technical advice on Orlight's product range (Conformity/electrical regulations, compatibility) please contact the Technical team on:

### PETER BURKE, MIET: TECHNICAL DIRECTOR



Mobile Number: 07375068367  
Office Number: 01923 851890  
Email Address:  
Peter.Burke@orlight.com  
Group Email Address:  
Technical.calls@orlight.com

## AFTERCARE:

For informed and qualified assistance in the investigation of onsite product and installation issues, please contact the Aftercare team on:

### CHAUNTAE BERNARD: HEAD OF AFTERCARE



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Office Number: 01923 851890 Ext 273  
Email Address:  
Chauntae.Bernard@orlight.com  
Group Email Address:  
Aftercare@orlight.com



Orlight offers an in-house lighting design service, with designers covering a number of specialisms, ranging from architectural and lighting design to graphic design and civil engineering. Building on the strengths of Orlight's technical department, the lighting design team are able to provide designs that are conceptually cutting edge and aesthetically pleasing, always exceeding the client's expectations.

The lighting designers are based in Orlight's Chelsea showroom, in the heart of the Kings Road, which offers a unique space to showcase Orlight products and illustrate the clear benefit of Orlight's full service approach. The team are able to provide innovative solutions to private residential developments, renovations and commercial buildings across a range of different scales and sizes.

The team focuses on creating the right lighting scheme for the needs of each bespoke client, endeavouring to uphold CIBSE recommendations through our care and expertise. Orlight's design team take light seriously, striving to provide each client with the best solution available for their diverse requirements.

# Lighting Design Team



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# Luminaire Specification



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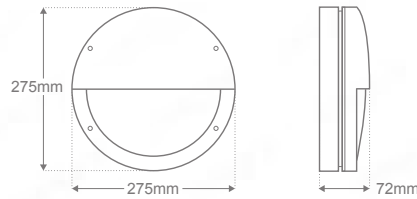
## ORLBH16-E - Textured IP65 LED Fixture - Eyelid



### Description

This series of surface fixtures feature IP65 rated construction with a textured epoxy finish. The product includes integrated LED power supply with solid state chipset and polycarbonate diffuser for glare reduction. A CRI value of Ra > 80 ensures light quality and eyelid construction provides asymmetric downward light emission. Available in Black, White and bespoke RAL finishes.

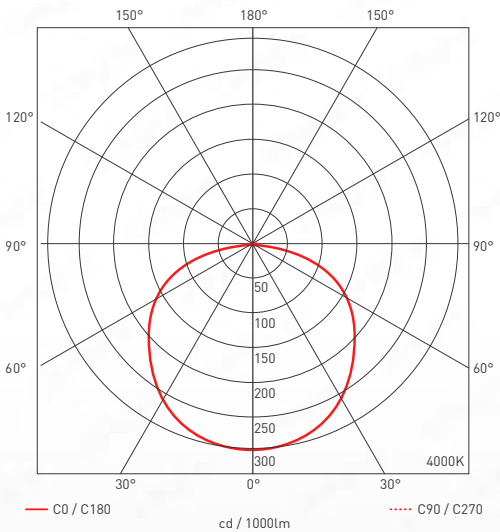
### Dimensions



### Standards



### Polar Report



### Specifications

Chipset	Epistar 0918
Dimming Options	1-10V; DALI
Power Consumption	8W
Voltage	240V
Colour Temperature	4000K
Light Output ~	368lm
lm Per Watt ~	46lm/W
CRI	>80
Beam Angle	Wide
Binning	4 Step MacAdams Ellipse
Chip Life TM-21	L70 > 36,000 hours
IP Rating	65
Touch Temperature (Glass)	37.7°C
Touch Temperature (Body Casing)	34.7°C
Weight	1411g
Finish	Black, White, RAL

### Finish



### Colourmetrics

4000K

R1	R2	R3	R4	R5	R6	R7	R8
84	91	96	84	83	87	89	71
R9	R10	R11	R12	R13	R14	R15	
28	78	82	66	86	97	79	

Product Coding: Example: ORLBH16-E-BL-LED-4000K-DALI

CODE	FINISH	LAMP	COLOUR TEMP	DIMMING OPTION	EMERGENCY OPTION
ORLBH16-E	WH - (WHITE)	LED	4000K	ND - (SWITCHED)	EM
	BL - (BLACK)			1-10V	EM
	RAL - (BESPOKE RAL)			DALI	EM

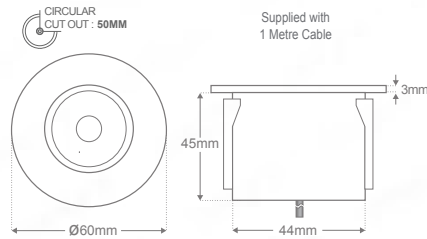
## ORLLM760 - Midsize High Spec Fixture

### Description

Miniature recessed fixture complete with integral CREE LED package and 35 degree beam option and 45 degree for the 2W. Marine Grade 316 Stainless Steel option with construction rated to IP68. White finish option features a Aluminium construction with Epoxy Power coat rated to IP65. Product footprint of 60mm diameter ensures versatile application. Inline driver options include switched, 1-10V and DALI dimmable solutions.



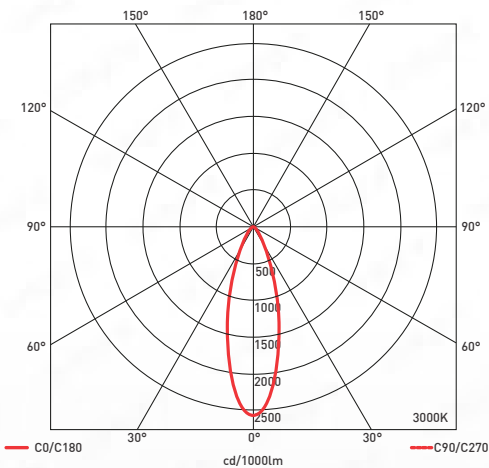
### Dimensions



### Standards



### Polar Report



### Specifications

Chipset	CREE			
Dimming Options	Mains; 1-10V; DALI			
Power Consumption	1W		2W	
Voltage	3V			
Colour Temperature	3000K	3000K (2W)	4000K	6000K
Light Output ~	100lm	125lm	107lm	110lm
lm Per Watt ~	100lm/W	125lm/W	107lm/W	110lm/W
CRI	>85	>85	>80	>70
Beam Angle	35° (1W); 45° (2W)			
Binning	2 Step MacAdams Ellipse			
Chip Life TM-21	L70 > 60,500 hours			
IP Rating	68 - (Stainless Steel); 65 - (White)			
Ik Rating	10			
Operating Ambient Temp	-20-50 °C			
Touch Temperature (Glass)	33.6 °C			
Touch Temperature (Body Casing)	32.6 °C			
Max Surface Operating Temp	65 °C			
Weight	465g			
Finish	316 Marine Grade Stainless Steel; White ; Bronze			

### Colourmetrics

#### 3000K

R1	R2	R3	R4	R5	R6	R7	R8
80	87	94	82	79	83	87	64
R9	R10	R11	R12	R13	R14	R15	
6	70	80	60	81	96	72	

#### 3000K - (2W)

R1	R2	R3	R4	R5	R6	R7	R8
66	73	77	71	68	64	79	57
R9	R10	R11	R12	R13	R14	R15	
0	35	68	39	67	87	59	

#### 4000K

R1	R2	R3	R4	R5	R6	R7	R8
80	87	94	82	79	83	87	64
R9	R10	R11	R12	R13	R14	R15	
6	70	80	60	81	96	72	

#### 6000K

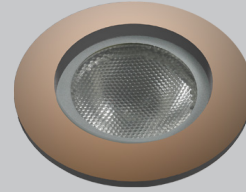
R1	R2	R3	R4	R5	R6	R7	R8
66	73	77	71	68	64	79	57
R9	R10	R11	R12	R13	R14	R15	
0	35	68	39	67	87	59	

Finish (Only in 1W)

White



Bronze



Product Coding: Example: ORLLM760-WH-3000K-DALI

\*Accessories

CODE	FINISH	COLOUR TEMP	DIMMING OPTION	DRIVERS
ORLLM760	WH - (WHITE)	3000K	D - (MAINS DIM)	JOLLY-MD - (IP20)
	SS - (STAINLESS STEEL)	4000K - (ONLY IN 1W)	ND - (SWITCHED)	ORLRPV350CC - (IP68) - (ONLY IN1W)
	BR - (BRONZE)	6000K - (ONLY IN 1W)	1-10V	JOLLY-MINI-1-10V - (IP20)
			DALI	JOLLY-MINI-DALI - (IP20)
			*Refer to Accessories	ACCLMTS116 (HOUSING ACCESSORY)

# Lighting Calculations



## Standard Calculation

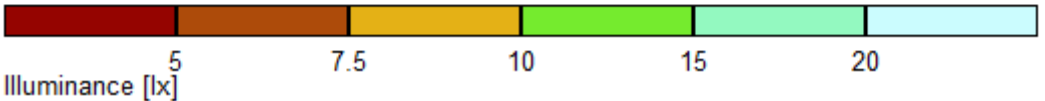
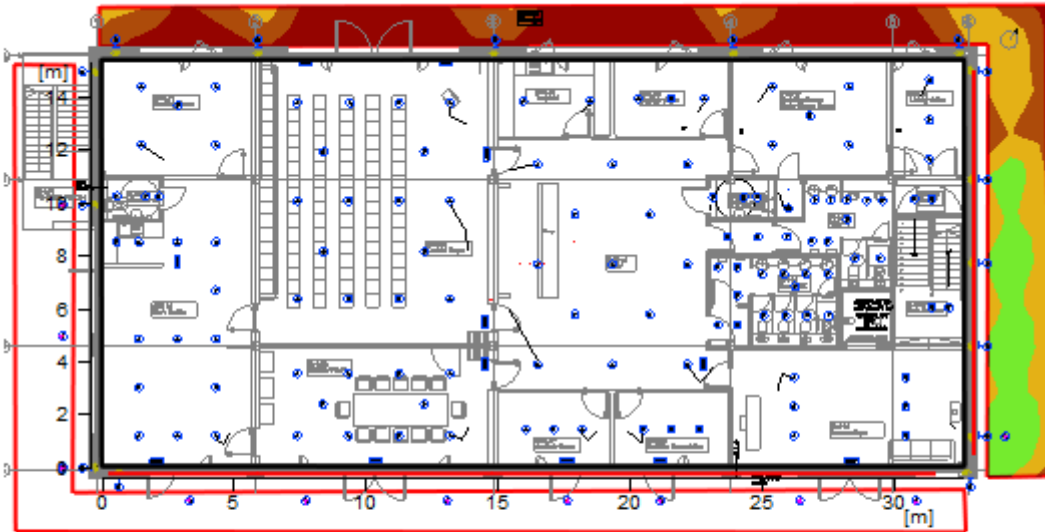
### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	9487 lm
Total power	125.8 W
Total power per area (503.57 m <sup>2</sup> )	0.25 W/m <sup>2</sup>

### Illuminance

Average illuminance	Eav	11.4 lx
Minimum illuminance	Emin	7.6 lx
Maximum illuminance	Emax	14.8 lx
Uniformity U <sub>o</sub>	Emin/Em	1:1.5 (0.67)



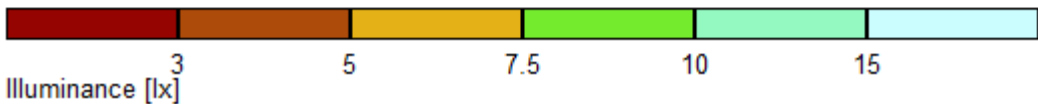
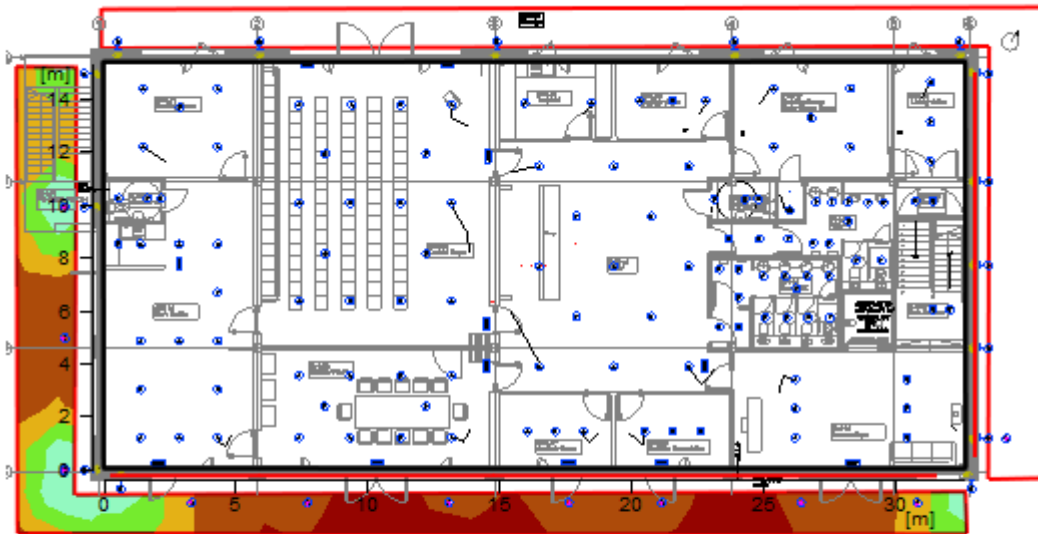
## Standard Calculation

### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	9487 lm
Total power	125.8 W
Total power per area (503.57 m <sup>2</sup> )	0.25 W/m <sup>2</sup>

### Illuminance

Average illuminance	Eav	7.8 lx
Minimum illuminance	Emin	4.2 lx
Maximum illuminance	E <sub>max</sub>	12.7 lx
Uniformity U <sub>0</sub>	Emin/Em	1:1.87 (0.53)



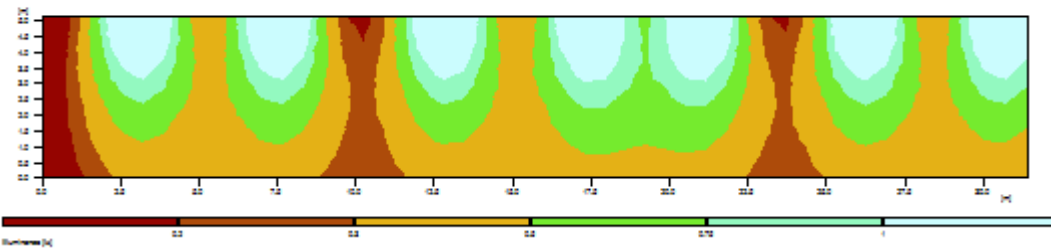
## Standard Calculation

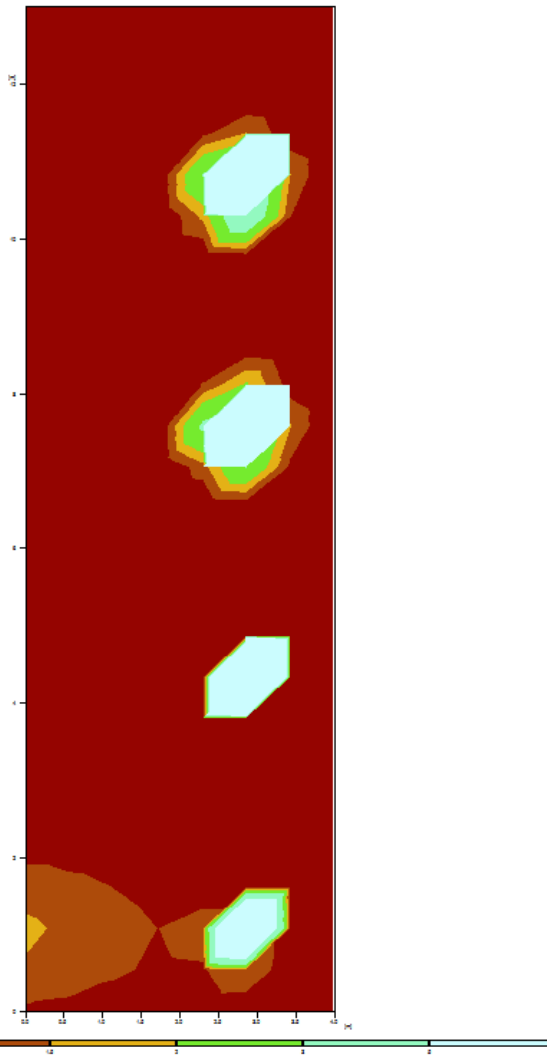
### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	9487 lm
Total power	125.8 W
Total power per area (503.57 m <sup>2</sup> )	0.25 W/m <sup>2</sup>

### Illuminance

Average illuminance	Eav	0.62 lx
Minimum illuminance	Emin	0.05 lx
Maximum illuminance	E <sub>max</sub>	2.2 lx
Uniformity U <sub>0</sub>	E <sub>min</sub> /E <sub>m</sub>	1:13.4 (0.07)





## Standard Calculation

### General

Calculation algorithm used  
Maintenance factor

Average indirect fraction  
0.80

Total luminous flux of all lamps  
Total power  
Total power per area (503.57 m<sup>2</sup>)

9487 lm  
125.8 W  
0.25 W/m<sup>2</sup>

### Illuminance

Average illuminance  
Minimum illuminance  
Maximum illuminance  
Uniformity U<sub>0</sub>

E<sub>av</sub>  
E<sub>min</sub>  
E<sub>max</sub>  
E<sub>min</sub>/E<sub>max</sub>

2 lx  
0 lx  
233 lx  
1:96.7 (0.01)



Please note Orlight offer light level calculations as a bespoke complimentary service to valued clients. Orlight only act as a supplier of lighting and as such calculations are provided for informative purposes only.

All information is provided in good faith and is dependent on a multitude of variables including drawing scales and finishes. Adjustment of any such parameters may result in an alteration in light levels. As such Orlight will not be held responsible for and inaccuracies whatsoever.



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