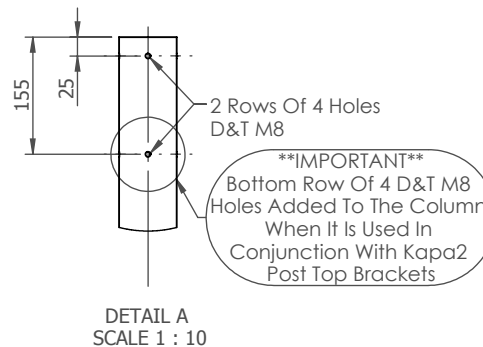
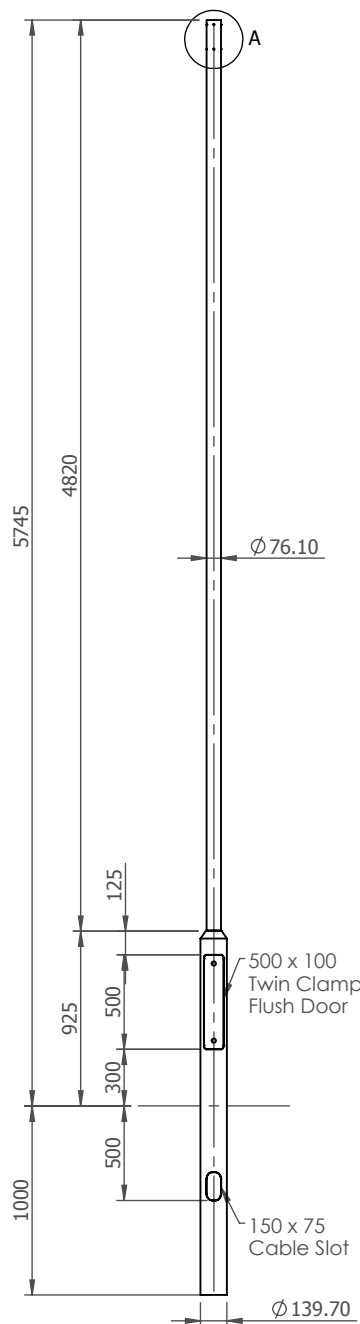


Note
Maximum bracket project
500mm

3rd Angle



DIMENSIONS	Nominal Height:	6000MM
	Planting Depth :	1000MM
	Column Top Dia :	76.10MM
	Column Base Dia :	139.70MM
	Column Weight :	50Kg

Reference No. :

Notes

All Dimensions in Millimetres unless stated otherwise.

Where multiple views are shown
3rd Angle Projection is assumed.

Revisions		
Rev.	Description	Date
1	SECOND ROW OF GRUB SCREW HOLES	25/04/2012
2	Shaft Revised to Ø76.1	05/06/13

PHILIPS

Philips lighting, Philips Centre,
Guildford Business Park
Guildford, Surrey. GU2 8XH

www.philips.com

Title

6M Rooted KAPA 2 Stepped Tubular
Column

Drg No. 26316-2

N.T.S.
Sheet 1 of 1

Drawn By: sc

Chk'd: mhw

Ref. General Arrangement

Contract:

Customer:

Date: 08/09/2011

Arc

IP 66
(SIP)

IP 66
(DIP)

IK 08
(Glass)

IK 09
(Bowl)

Class I

Class II □



Complete and multi-functional range in a modern timeless design and with highly valued concepts like Double Ingress Protection (DIP), Controlled Breathing Technology (CBT) and Safe Maintenance Technology (SMT).

Applications

Consult pages 16-19

Lamps

High pressure sodium
up to 400W (SE)
up to 600W (ST)
Quartz metal halide
up to 400W
Ceramic metal halide
up to 250W
Compact fluorescent
up to 57W (FSM)
up to 120W (FSM6H)
Fluorescent induction
up to 165W



Arc 80
Polycarbonate Bowl



Arc 80 and 90
Curved Glass



Arc 80 and 90
Flat Glass



Arc 80
Arc 80 and 90
Side entry and post top
mounting

Arc 90

Ingress Protection

- 1 **SIP** total lantern IP 66 by main silicon gasket.
- 2 **DIP** additionally sealed lamp compartment with silicon seals between reflector and bowl/ lampholder cap.
- 3 **CBT breathing system** using filters (3a) and labyrinths (3b), to avoid detrimental condensation.

Optical System

High purity aluminium multifaceted 3D reflectors.

- 4 **SIP** reflector mounted to and hinging upwards with canopy (4a), lamp holder bracket facilitating horizontal and vertical lamp position adjustment (4b).

DIP reflector sealed to bowl/frame (4c), lamp holder bracket contained in bayonet cap, enabling horizontal/vertical lamp position adjustment and easy lamp replacement.

Optics for full range of lamps up to 600W.

ExaCT-Performer or ExaCT-Comfort micro optic DIP for ceramic metal halide lamps up to 150W.

- 5 **Tilt adjustment** integrated in spigot (+50, +100 post top; -50,-100 side entry).

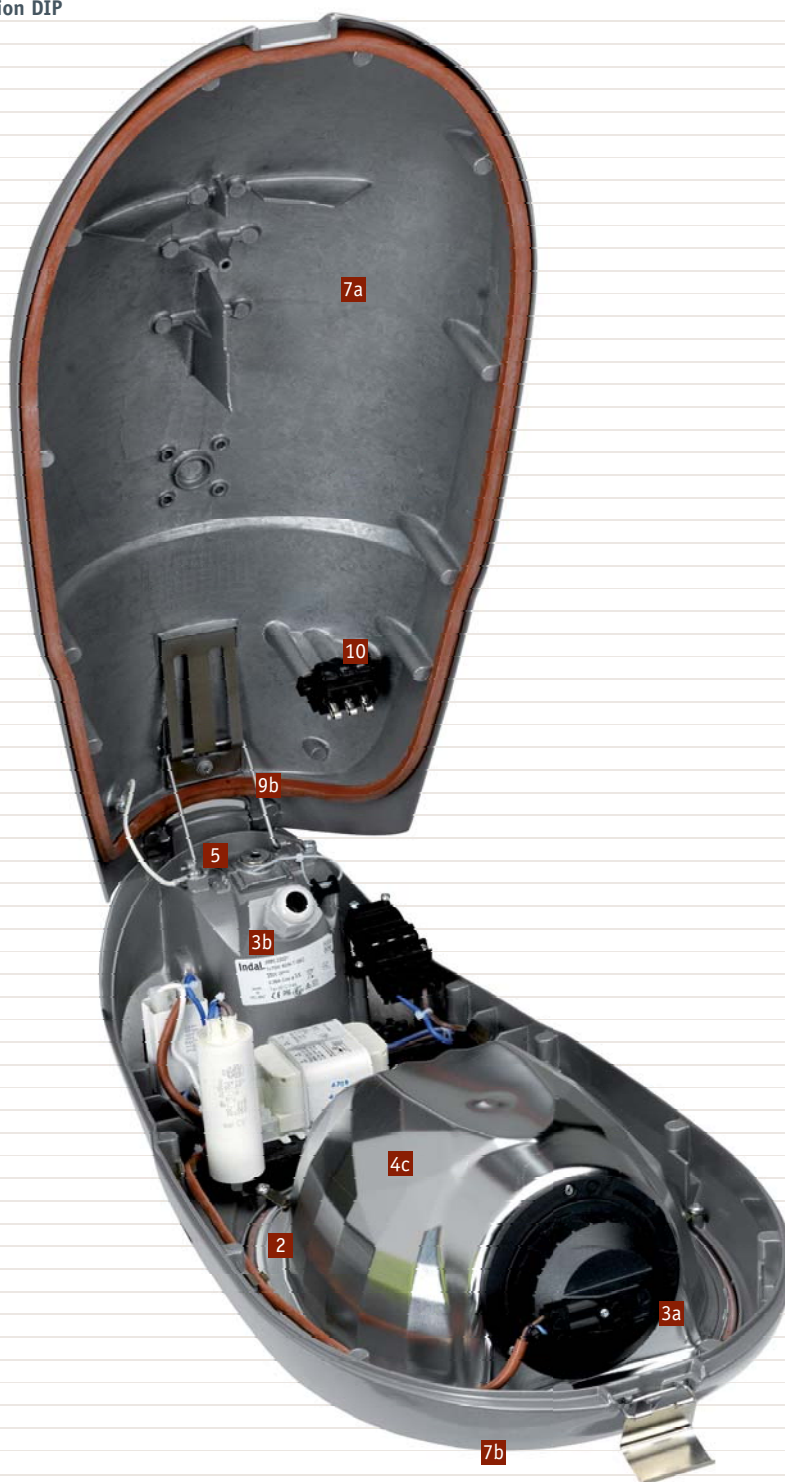
Special optics for pedestrian crossings and cycle paths available (SIP only).

Anti-glare shields also for retrofit use available.

version SIP



version DIP



6 Bowl toughened curved glass, flat glass or UV stabilized polycarbonate bowl (Arc 80 only).

7 Canopy/frame upper canopy (7a) and lower frame (7b) in die-cast aluminium (LM6) standard RAL 9007 (other colours on request).

8 Mounting system reversible spigot of die-cast aluminium (LM6) in same colour as canopy/frame, for post top Ø 60-76mm and side entry Ø 60mm (32-34-42-48mm with adapter). Column mounting with two stainless steel M10 bolts.

9 Opening/closing stainless steel closing clip fixed at front of frame (9a); canopy hinges upwards and has a safety catch to keep it in a fixed position during maintenance (9b).

10 Disconnect SMT automatic power disconnection when cover is opened.

11 Gear tray composite material, removable without tools by plug/socket connectors and two stainless steel retaining clips; some electronic gear and 600W gear on aluminium gear tray (fixed to frame by 2 screws).

Control gear electromagnetic or electronic depending on lamp type/wattage; electromagnetic gear for metal halide standard with timed ignitor; bi-power ballasts and dimming systems on request; versions with mini-Photocell, NEMA socket or pre-wired for cell.

12 Cable connection M20 gland with strain relief, for 7-12mm cable diameter.

Insulation Class II as standard, for Class I earth wire to be connected on special stud.

Arc

CHARACTERISTICS

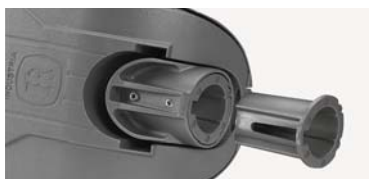
Universal mounting system

Arc can be mounted on all common column diameters in a versatile way.



Mounting side entry Ø 60mm

Adapter for Ø 32-48mm.



Mounting post top Ø 60-76mm

Adapter to fill up gap Ø 60-76mm available as an option.



Central spigot bolt for post top/side entry arrangement and tilt adjustment

The spigot arrangement can easily be set in post top or side entry position by loosening the central spigot bolt and turning the spigot. The central spigot plate has to be put in post top or side entry position, and in the required tilt angle (post top 0°, +5°, +10°; side entry 0°, -5°, -10°).



Fixing to column

Fixing to column is with two M10 bolts (for fixing on widest column diameters shorter bolts are available on request).

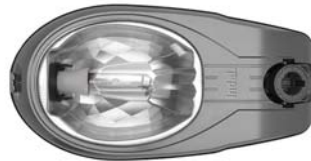


High performance optical systems



Arc80-S

Symmetrical optic for all Arc 80 lamps.



Arc90-S

Symmetrical optic for all Arc 90 lamps.



Arc80-A and Arc90-A Pedestrian crossing

Asymmetrical optic for high pressure sodium lamps up to 150W (Arc 80) or 250W (Arc 90), in right hand drive (RHD) or left hand drive (LHD) version (only in SIP protection).



Arc80-B Cycle path

Symmetrical wide beam optic for high pressure sodium lamps up to 70W (only in SIP protection).



ExaCT-Performer

Symmetrical micro optic for ceramic metal halide lamps up to 150W; for optimisation of spacings (only in DIP protection).



ExaCT-Comfort

Symmetrical micro optic for ceramic metal halide lamps up to 150W; for minimisation of glare and upward light (only in DIP protection).

Basic Bowl/Glass versions



Polycarbonate bowl version for max. impact/vandal resistance at lower mounting heights.



Curved glass version for general high performance lighting (max. spacing).



Flat glass version for max. glare and upward light limitation.

Anti-glare shields

For further reduction of obtrusive forward or backward light special anti-glare shields are available in two sizes, which can also be used retrofit.



Lamp position adjustment

The light distribution of the optics can be more specifically adapted to the road geometry and/or the required results by adjusting the lamp position in horizontal or vertical (Arc80/90 optics only) direction. The available positions are clearly given in the photometric data.

- 1 – wide beam
- 4 – narrow beam
- A – wide street
- E – narrow street



Lamp holder SIP.



Lamp holder DIP.

Total protection of optics and components



SIP (Single Ingress Protection)

The overall lantern has an IP 66 protection against the ingress of dust and moisture. On opening the lantern the optics hinge upwards with the canopy.



DIP (Double Ingress Protection)

In addition to the overall IP 66 protection of the lantern, the lamp compartment is separately protected by sealing the reflector to the glass/bowl, for an extra guarantee of the lighting performance over a long period of time.



Controlled Breathing Technology (CBT)

By a serie of filters and labyrinths the build up of detrimental moisture and dirt is avoided in both lamp and component compartments.



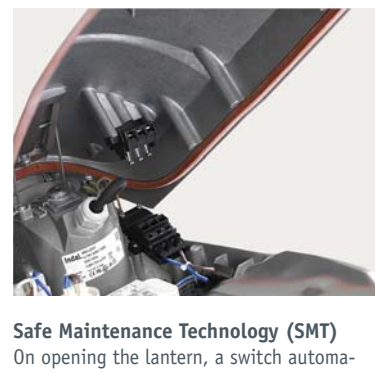
Safe and easy installation and maintenance



With the stainless steel closing clip Arc can be opened and closed easily and without the use of tools.



When opened, the canopy is kept in a fixed position by a stainless steel safety catch.



Safe Maintenance Technology (SMT)

On opening the lantern, a switch automatically disconnects the power allowing safe access to the components. After entry of the main cable through the cable gland, the cable is connected to this safety switch.



Both in SIP and DIP versions lamp replacement is done within seconds.



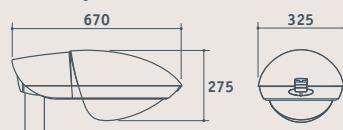
The gear tray with the components can be removed without the use of tools by disconnecting the plug and socket connection on the lamp side and pressing the stainless steel clips.

For a further integration of lantern and column towards a more decorative arrangement, a number of standard brackets is available. Some examples are shown here.

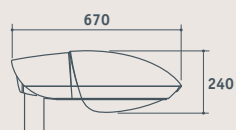


- 1 Rio Single - with Arc 80
- 2 Sao Paulo - with Arc 90
- 3 Salvador - with Arc 80
- 4 Rio Twin - with Arc 90
- 5 Arc-Lux die-cast aluminium - with Arc 80

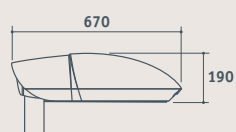
Arc 80 Polycarbonate Bowl



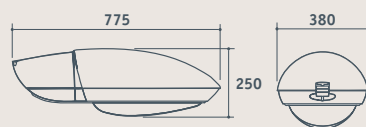
Arc 80 Curved Glass



Arc 80 Flat Glass



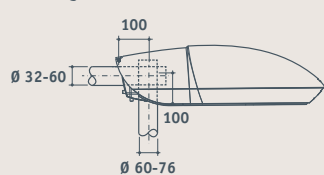
Arc 90 Curved Glass



Arc 90 Flat Glass

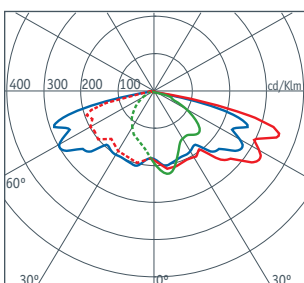


Mounting details



Type	Arc 80 Polycarbonate Bowl	Arc 80 Curved Glass	Arc 80 Flat Glass	Arc 90 Curved Glass	Arc 90 Flat Glass
Windage area (m ²)	0.122	0.115	0.104	0.140	0.126
Weight (kg)	7-10	7-10	7-10	11-14	11-14

Arc 80 Curved Glass



Reflector

Arc80-S

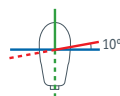
Lamp

ST-150

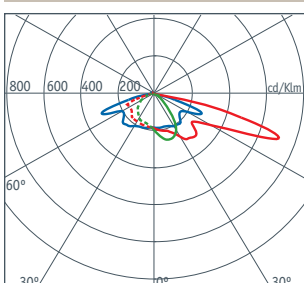
Performance

ULOR: 0%

DLOR: 78%



Arc 80 Curved Glass



Reflector

ExaCT-Performer

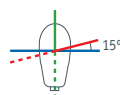
Lamp

ST-140

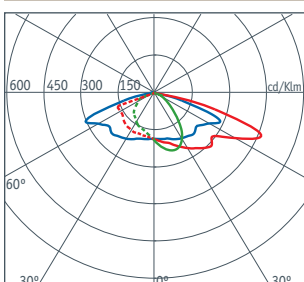
Performance

ULOR: 0%

DLOR: 80%



Arc 80 Curved Glass



Reflector

ExaCT-Comfort

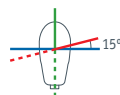
Lamp

MT-140

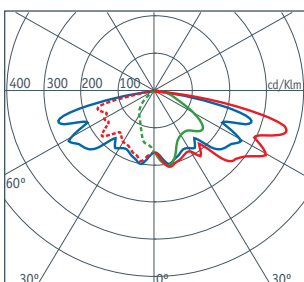
Performance

ULOR: 0%

DLOR: 79%



Arc 80 Polycarbonate Bowl



Reflector

Arc80-S

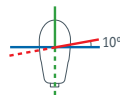
Lamp

ST-70

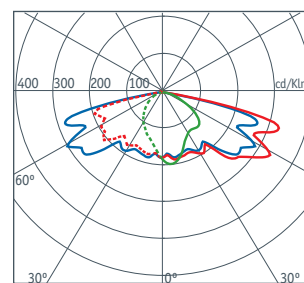
Performance

ULOR: 1%

DLOR: 77%



Arc 90 Curved Glass



Reflector

Arc90-S

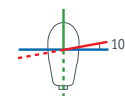
Lamp

ST-250

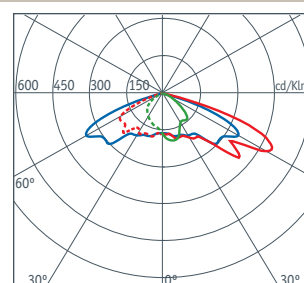
Performance

ULOR: 0%

DLOR: 77%



Arc 90 Flat Glass



Reflector

Arc90-S

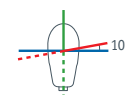
Lamp

ST-250

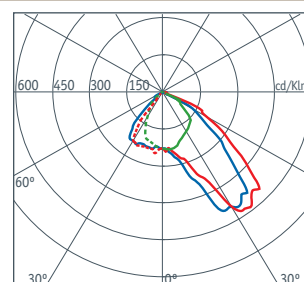
Performance

ULOR: 0%

DLOR: 77%



Arc 80 Pedestrian Crossing



Reflector

Arc80-A (RHD)

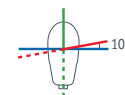
Lamp

ST-70

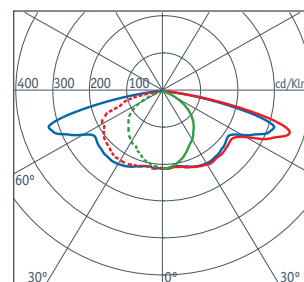
Performance

ULOR: 0%

DLOR: 74%



Arc 80 Cycle Path



Reflector

Arc80-B

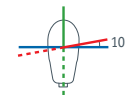
Lamp

ST-70

Performance












































ULOR: 0%

DLOR: 72%



OPTIONS

- Including lamp and cable
- Wired for cell (WFC), mini Photocell or NEMA socket
- Other RAL colours on request
- DIM versions (including preparation for Control & Monitoring Systems)
- Electronic ballast for ST/MT

MODEL	TYPE	SHAPE	LAMP HOLDER	BOWL			REFLECTOR						
				Curved Glass	Flat Glass	PC Bowl	Arc80-S Symm. (SNN)	Arc90-S Symm. (SNN)	ExaCT Performer (PNN)	ExaCT Comfort (CNN)	Arc80-A Asymmetric Pedestrian Crossing (only SIP) (ANN) (RHD OR LHD)	Arc90-A Asymmetric Pedestrian Crossing (only SIP) (ANN) (RHD OR LHD)	Arc80-A Cycle Path (only SIP) (BNN)
Arc 80 SIP or DIP	ST-50		E27	•	•	•	•				•		•
	ST-70		E27	•	•	•	•				•		•
	ST-100		E40	•	•	•	•				•		
	ST-150		E40	•	•	•	•				•		
	SE-50		E27	•	•	•	•						
	SE-70		E27	•	•	•	•						
	SE-100		E40	•	•	•	•						
	SE-150		E40	•	•	•	•						
	MT-50		E27	•	•	•	•				•		•
	MT-70		E27	•	•	•	•				•		•
(only SIP)	MT-100		E40	•	•	•	•				•		
	MT-150		E40	•	•	•	•				•		
	ME-70		E27	•	•	•	•						
	ME-100		E40	•	•	•	•						
	ME-150		E40	•	•	•	•						
	MT-45		PGZ12	•	•	•	•		•	•			
	MT-60		PGZ12	•	•	•	•		•	•			
	MT-90		PGZ12	•	•	•	•		•	•			
	MT-140		PGZ12	•	•	•	•		•	•			
	MT-35		G12	•	•	•	•		•	•			
(only SIP)	MT-70		G12	•	•	•	•		•	•			
	MT-150		G12	•	•	•	•		•	•			
	FSM-26/32/42		GX24q-3/4	•	•	•	•						
	FSM-57		GX24q-5	•	•	•	•						
	FSM6H-60		2G8-1	•	•	•	•						
	FSM6H-85		2G8-1	•	•	•	•						
	FSG-55		Twist Base	•	•	•	•						
	FSG-85		Twist Base	•	•	•	•						
Arc 90 SIP or DIP	ST-150		E40	•	•			•				•	
	ST-250		E40	•	•			•				•	
	ST-400		E40	•	•			•				•	
	ST-600		E40	•				•					
	SE-150		E40	•	•			•					
	SE-250		E40	•	•			•					
	SE-400		E40	•	•			•					
	MT-150		E40	•	•			•				•	
	MT-250		E40	•	•			•				•	
	ME-150		E40	•	•			•					
(only SIP)	ME-250		E40	•	•			•					
	FSM6H-120		2G8-1	•	•			•					
	MT-400		E40	•	•			•				•	
	ME-400		E40	•	•			•					
	FSG-165		Twist Base	•	•			•					

For more information about lamps, consult pages 486-489.

seattle medium

applications

- Floodlighting
- Building facades
- Car parks
- Security
- Service yards
- Sports facilities
- Retail parks

The Seattle Medium Floodlight combines functionality and performance within a compact design. Its durable construction coupled with a choice of optical arrangements provides a lighting solution that meets today's requirement for controlled non-obstrusive light. The Holophane Seattle Floodlight range remains at the forefront of technological advancements that led to the development of the new Seattle Medium Flood. This more compact product combines the positive attributes of the existing Seattle Large Flood but further embodies the ability to provide a cost effective and 'complete lighting solution'.



features and benefits

Contemporary and compact styling

> Aesthetic appeal

Robust construction

> Durability

Latch for tool-free opening

> Easy maintenance

Asymmetric light distributions

> Maximum efficiency for a wide range of applications

Choice of mounting arrangements

> Flexibility of use

> Available with a range of
Holophane columns and brackets

lamp types included

150W - 400W High Pressure Sodium

150W - 400W Ceramic Metal Halide

250W - 400W Quartz Metal Halide

IP rating

IP659  1.5 kg

approvals

Complies with EN60598

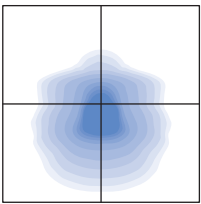
CE



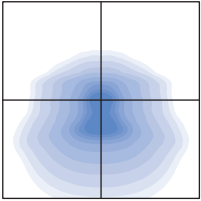
Seattle SMF

specification

The luminaire shall consist of a two-piece die-cast aluminium body and door frame with a maximum depth of 172mm, housing all integral control gear for a variety of high intensity discharge lamps. The body and door frame shall be hinged and sealed together by a closed-cell silicon gasket and secured by a single tool-free latch, ensuring an IP rating of 659. The optical assembly shall consist of a specular aluminium reflector and fully tempered clear front glass sealed to the door frame. The luminaire complies with EN60598 and can be mounted by means of a spigot adaptor or stirrup bracket for variable mounting orientations. A range of bracketry and columns is available with a wide choice of options and accessories.



Asymmetric 60°



Photometric data is available at www.holophane.co.uk

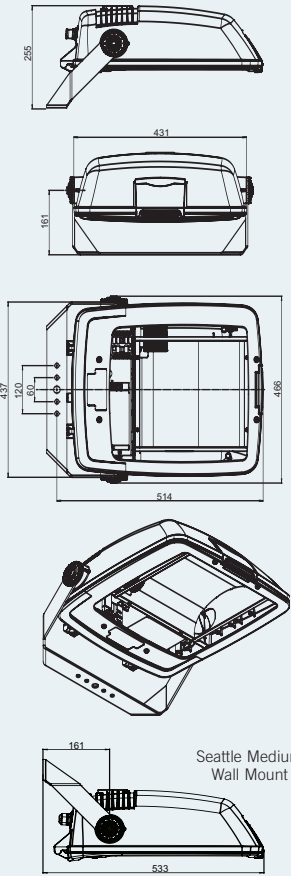
windage

Code	
Seattle Medium	0.084m²

weights & thermal data

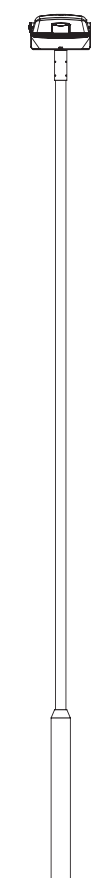
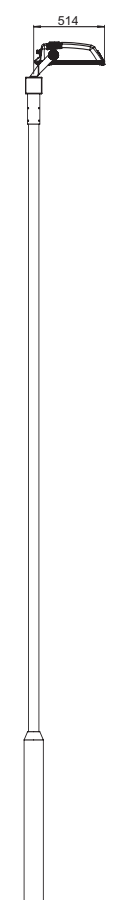
Lamp Type	Weight (kg)	Min Operating Temperature (°C)	Max Ambient Temperature (°C)*
250W, 400W Metal Halide	13.5	-20	35

*The maximum ambient temperatures stated are for exterior use only. For interior use deduct 10°C from the temperature stated



Note: The specifications of the Holophane luminaire and columns represents typical values. All descriptions, illustrations, drawings and specifications in the Holophane catalogue and website represent only general particulars of the goods to which they apply and shall not form part of any contract. The company reserves the right to change specifications at its discretion without prior notification or public announcement.

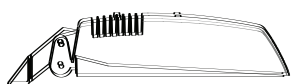
mounting arrangements



Galvanised steel stirrup option mounted on a SMFB tubular base compartment column

stirrup

0° Angle Minimum



Column Mount



ordering details : luminaire

Code	
SMF	Seattle (Medium)
Code	Lamp Type
.250CDMT3	250W Clear CDM-T3000K ceramic metal halide lamp (E40) base
Code	Light Distribution
.AY60	Asymmetric distribution (60° peak beam)
Code	Enclosure
.FLG	Flat Glass
Code	Fixing Method
.GS	Galvanised steel stirrup
Code	Colour
.C9	Silver (RAL 9006)
Example	SMF .400XT .AY60 .FLG .GS .C7

luminaire accessories

order separately for on site installation by others

Code	
SMF.AGL	Holophane Seattle anodised aluminium anti-glare galvanised steel anti glare cowl (black)
SMF.VRG	Holophane Seattle vandal resistant guard (black)

ordering details : columns & brackets

Code							
SMFB		Seattle Flood Tubular Base Compartment Column					
SMFC		Seattle Flood Conical Steel Column					
SMFMH		Seattle Flood Conical Steel Mid Hinged Column					
Code		Luminaire Mounting Height					
	.6	6 metres					
Code		Suspension					
	.GS	Galvanised steel stirrup (for .GS option)					
Code		No. of Luminaires					
	.1A	Single Head for .GS option only					
Code		Column Category					
	.LMZ	Medium column for terrain category 3 & 4 as per EN40					
Code		Bracket Colour					
	.C9	Metallic Silver (RAL 9006)					
Code		Optional Base Type					
	.FB1	Flange base					
	.FB2	Flange base					
	.FB3	Flange base					
Code		Optional Paint					
	.C	Enhanced paint finish††					
	.P1	Black undercoat primed					
	.P2	Undercoat primed**					
SMFB	.6	.GS	.1A	.LMZ	.C9	.FB1	.P1

* Please specify RAL colour reference. ** Match RAL colour specific. † Not with SMFMH. †† Bracket only.

**** 3A and 4A only available with SMFB column.

columns & brackets accessories

order separately for on site installation by others

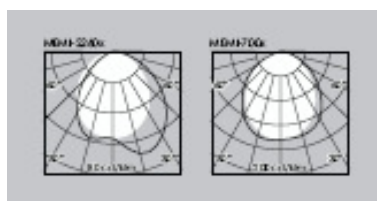
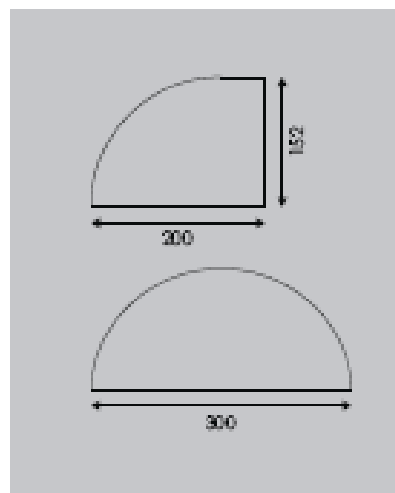
Code **Tubular Base Compartment Column (SMFB)**

HEL.CBEPAC Cut Out Box and Earth Plate for Armoured Cable*

*please contact Holophane for details

Type D and E

Selux MEMI 2260x



 **MEMI-2260x** | TC-D 2 x 26W G24d-3 230V~

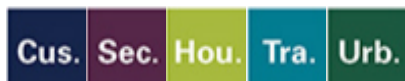
Surface wall mounted light fixture, applicable as down- or uplight, die-cast aluminium body coated, gaskets in silicone, stainless steel screws, reflector in aluminium inside, satined glass, integrated power supply in the version for compact fluorescent and metal halide lamp, one cablegland.



Type D is mounted at 3m
Type DE s D but with remote emergency battery
back up
Type E as D but mounted at 2.5m

selux

Type F

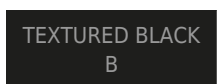


Parkalux T5



- Suitable for ceiling and semi recessed mounting.
- Zinc-coated steel body finished in black polyester powder coat.
- Clear patterned polycarbonate diffuser held against gasket by tamperproof screws.
- Electronic control gear on removable tray with fused plug & socket connector block.
- Provision for conduit entry in back and at ends, gaskets provided.

Finishes



1220mm LONG

LINEAR FLUORESCENT	Lamps	Rating	Temp	Load	Lum/lms	Efficacy	Weight
--------------------	-------	--------	------	------	---------	----------	--------

D333/149T5/B	1 x 49W T5	4375lm	N/A	54W	2993lms	56lm/W	5KG
--------------	------------	--------	-----	-----	---------	--------	-----

FITTING OPTIONS

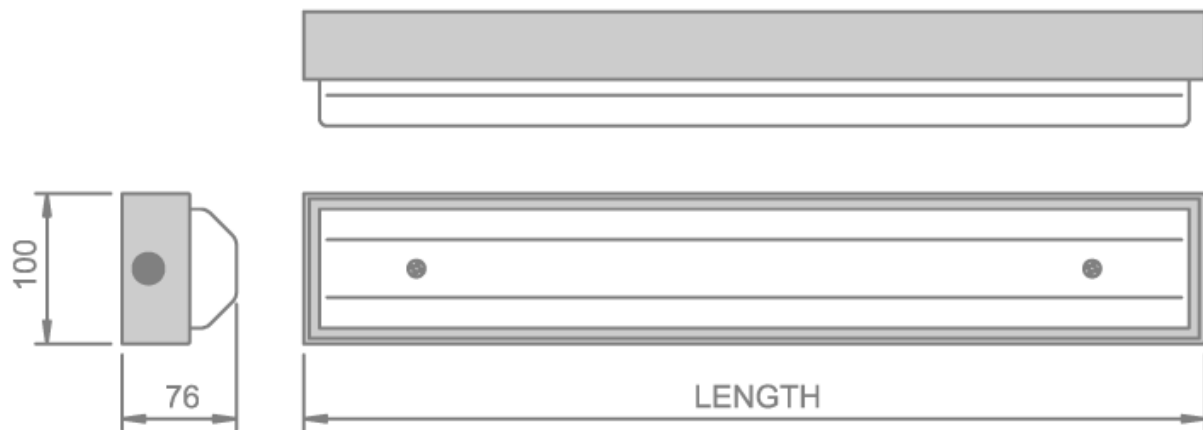
Integral 3 hour duration emergency add suffix /EM3

FE has integral
emergency

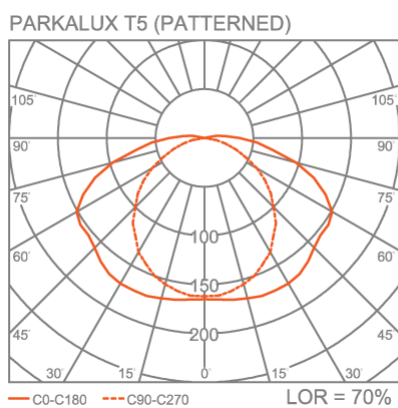
IP65 upgrade

add suffix /IP65

Section drawings



Polar curves



Type G

0675 Soprano

astro

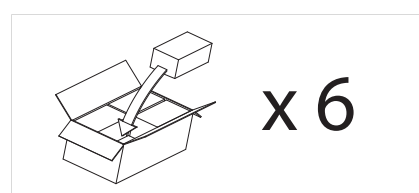


1 x 9w GX53		excl.
----------------	--	-------

Zones	Not Applicable
-------	----------------

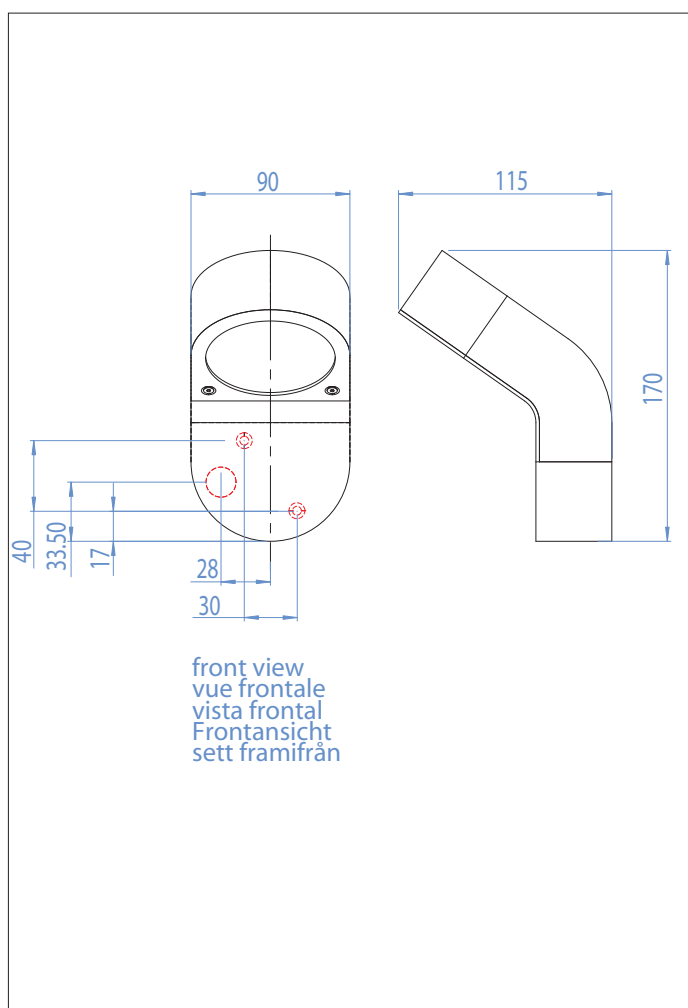
Soprano exterior wall-light.

- Painted black finish, white glass diffuser.
- Uses a 9w GX53 lamp.
- IP44 rated.
- Class 1, earthed.



NOTE:

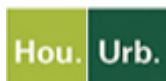
If used with a motion detector, ensure a minimum of 20 minutes ON time.



Astro Lighting Ltd.
G2 River Way, Harlow
CM20 2DP, Great Britain

T: +44 (0) 1279 427001
F: +44 (0) 1279 427002
sales@astrolighting.co.uk
www.astrolighting.co.uk

Type H



Gemini



- Suitable for wall or ceiling mounting.
- Zinc coated steel body finished in black polyester powder coat.
- Injection moulded clear prismatic polycarbonate diffuser held against gasket by tamperproof screws.
- Electronic control gear on removable tray with fused plug & socket connector block.
- Provision for conduit entry in back and at ends, gaskets provided.

Finishes

TEXTURED BLACK
B

LAMP OPTIONS

PRISMATIC DIFFUSER

LED	Lamps	Rating	Temp	Load	Lum/lms	Efficacy	Weight
D215/1800NW/PB	LED Array	1800lm	4000K	21W	1559lms	75lm/W	2.5KG

FITTING OPTIONS

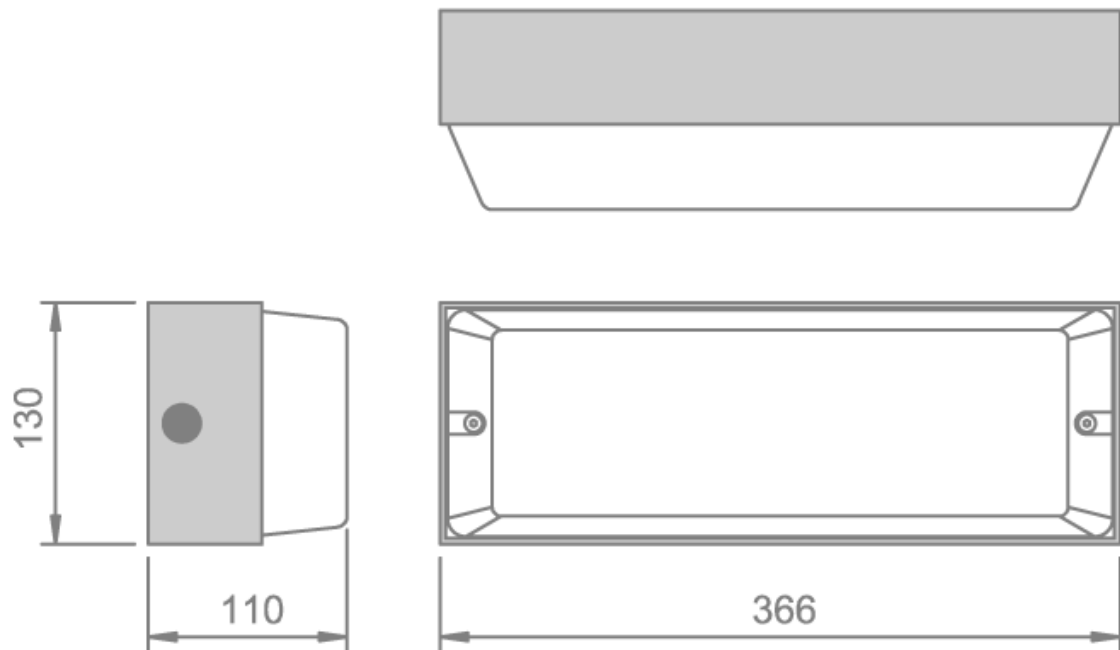
Integral 3 hour duration emergency add suffix /EM3 (deeper body)

HE has integral
emergency

IP65 upgrade

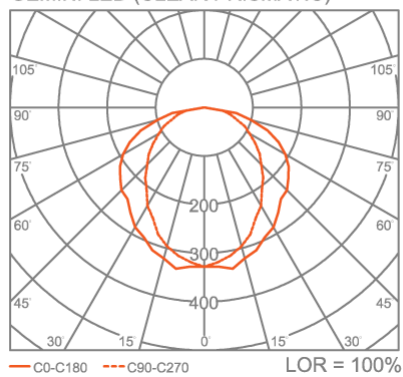
add suffix /IP65

Section drawings



Polar curves

GEMINI LED (CLEAR PRISMATIC)



GEMINI T5 (PATTERNED)

