

DATE: 17 May 2023
DESIGNER: Hector Bernal
PROJECT No: 2102
PROJECT NAME: Newmarket Residential

**LIGHTING
REALITY**

Roadway designed in accordance with EN13201-2:2015 Category P2.

2102 Newmarket Residential

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin -57.7m x 41.7m
Area 126.6m x 98.8m
Sample Spacing 1.49m x 1.50m

Luminaires

Luminaire A Data

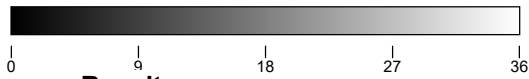
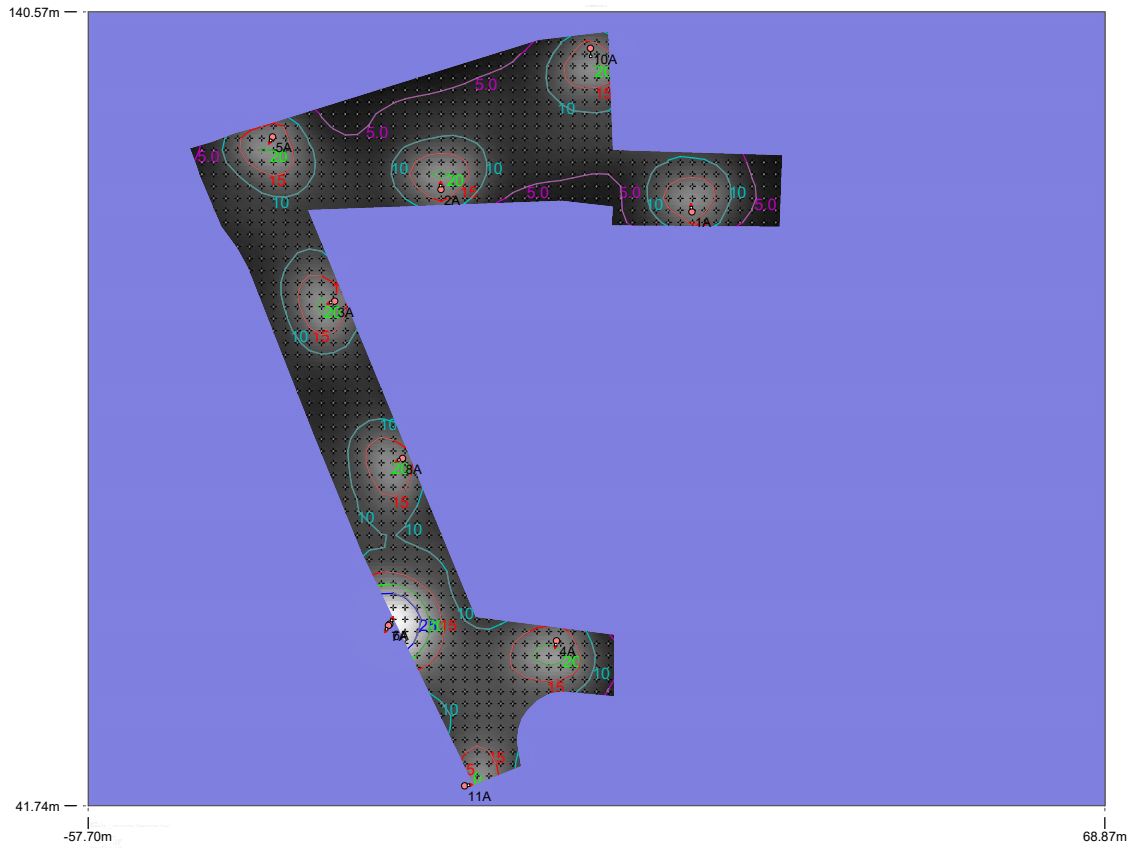
Supplier	
Type	IP 12L70 740 EWR M BS 3550 CL2 M60 ANT
Lamp(s)	IP12L70-740EWR 28W
LampFlux(klm)/Colour	3.79 4000/70
File Name	96275919_(STD).LDT
Maintenance Factor	1.00
Imax70,80,90(cd/klm)	540.7, 73.4, 0.0
No. in Project	10

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	17.45	115.69	6.00	98.00	0.00	0.00	0.50			
2	A	-13.80	118.45	6.00	93.00	0.00	0.00	0.50			
3	A	-27.04	104.55	6.00	200.00	0.00	0.00	0.50			
4	A	0.60	62.30	6.00	257.00	0.00	0.00	0.50			
5	A	-34.75	124.99	6.00	240.00	0.00	0.00	0.50			
6	A	-20.16	64.37	6.00	65.00	0.00	0.00	0.50			
7	A	-20.33	64.20	6.00	243.00	0.00	0.00	0.50			
8	A	-18.57	85.00	6.00	206.00	0.00	0.00	0.50			
10	A	4.80	136.05	6.00	274.00	0.00	0.00	1.00			
11	A	-10.86	44.22	6.00	10.00	0.00	0.00	0.50			

Horizontal Illuminance (lux)

Grid 1



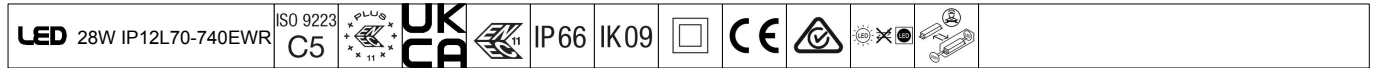
Results

Eav	10.49
Emin	3.00
Emax	35.54
Emin/Emax	0.08
Emin/Eav	0.29

Isaro Pro

THORN

96275919 IP 12L70 740 EWR M BS 3550 CL2 M60 ANT



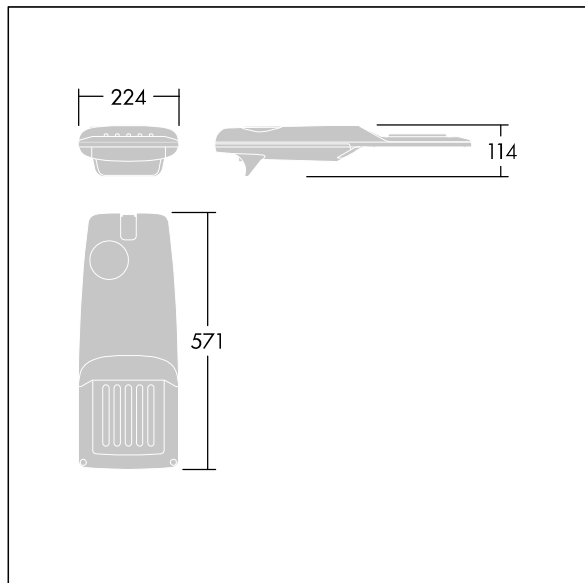
Isaro Pro

A state of the art LED road lighting lantern (small) with 12 LEDs driven at 700mA with Extra Wide Road optic. Programmable LED driver. Class II electrical, IP66, IK09. Housing: die-cast aluminium (EN AC-44300), powder coated textured anthracite (close to RAL7043). Spigot: die-cast aluminium (EN AC-44300), powder coated anthracite (close to RAL7043). Enclosure: 5mm thick glass. Fixings: stainless steel. Supplied with Ø60mm spigot adaptor which can be fitted for post-top (0°/5°/10°/15°/20° tilt) or side-entry (-15°/-10°/-5°/0°/5°/10°/15° tilt). Equipped with 50% power reduction circuit, effective 3 hours before and 5 hours after a calculated midnight. It can be deactivated at installation with an easily accessible internal switch. Complete with 4000K LED. Surge protection: 10kV single pulse common mode and 8kV multipulse common mode and 6kV multipulse differential mode. If permanent DALI system is connected, 6kV multipulse common and differential mode.

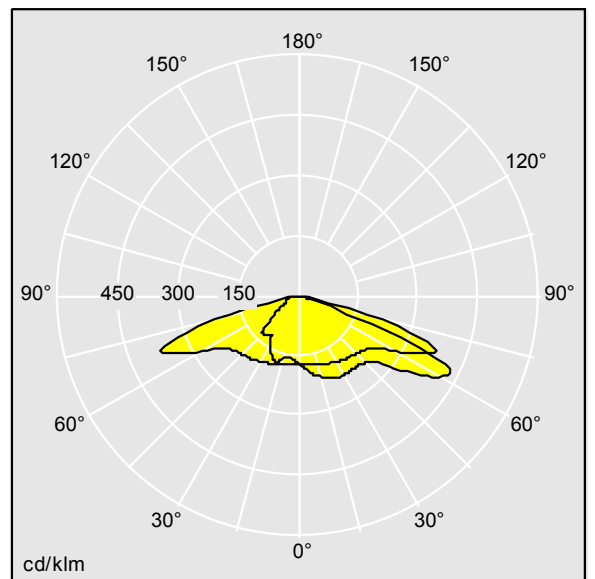
Dimensions: 571 x 224 x 114 mm
Luminaire input power: 28 W
Luminaire luminous flux: 3785 lm
Luminaire efficacy: 135 lm/W
Weight: 5.48 kg
Scx: 0.05 m²



TLG_ISRP_F_PDB_ANT.jpg



TLG_ISRP_M_LD1.wmf



TL_IP12L70EWR740.idt

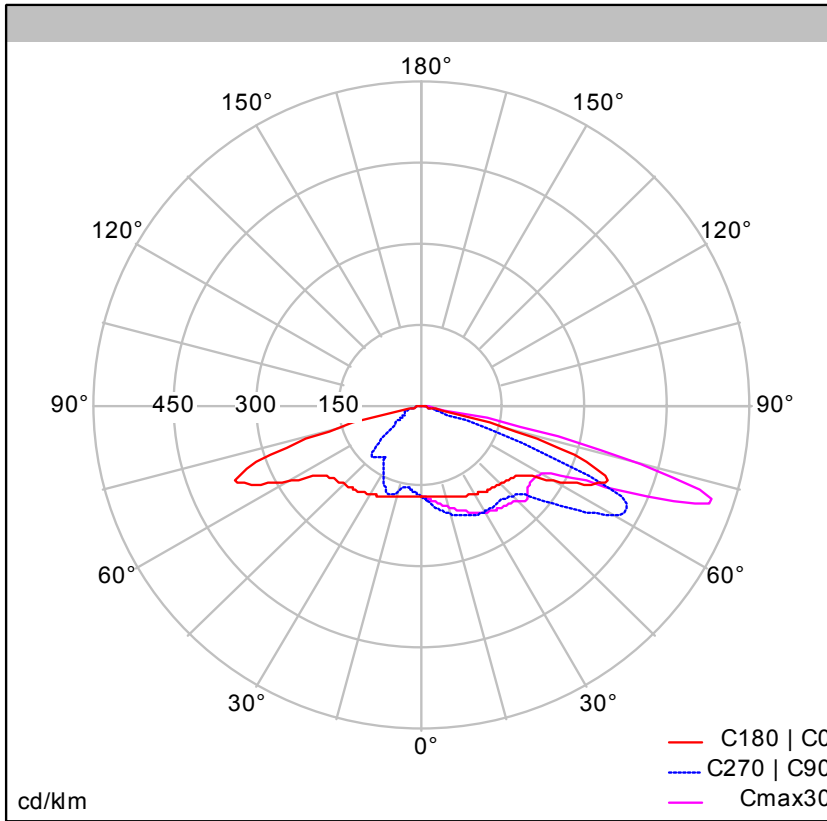
Lamp position: STD - standard
Light Source: LED
Luminaire luminous flux*: 3785 lm
Luminaire efficacy*: 135 lm/W
Colour Rendering Index min.: 70
Ballast: 1 x 87500884 LCO 40/200-1050/64 o4a NF C EXC3

Correlated colour temperature: 4000 Kelvin
Chromaticity tolerance (initial MacAdam): 5
Rated useful life (B10)*:
L95 100000h at 25°C
Luminaire input power*: 28 W Power factor = 0.89
Dimming: PROG
LOR: 1,00 ULOR: 0,00 DLOR: 1,00

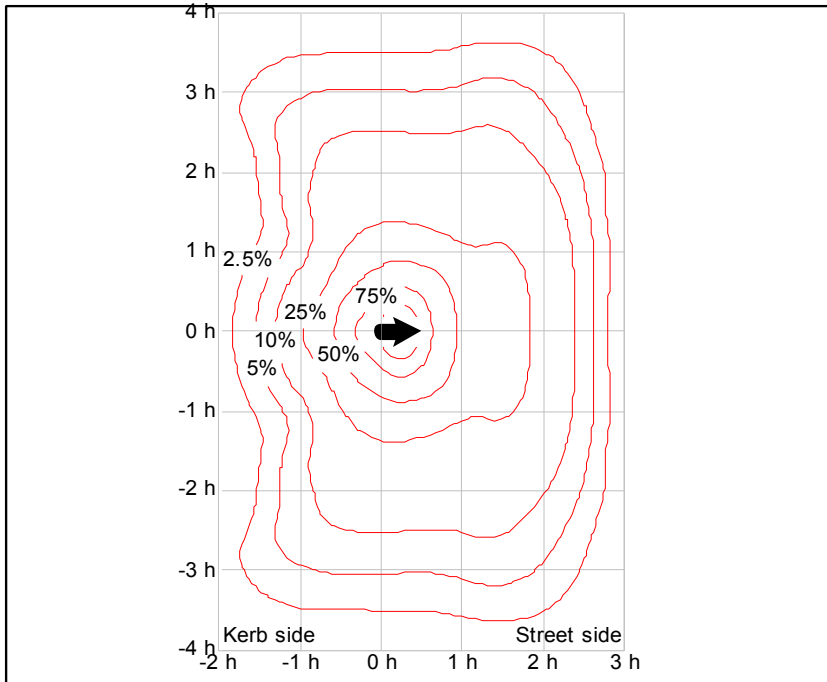
This product contains a light source of energy efficiency class D.

All values marked with an * are rated values. Thorn uses tried and tested components from leading suppliers, however there may be isolated instances of technology-related failures of individual LEDs during the rated product lifetime. International standards set the tolerance in initial flux and connected load at ±10%. Unless stated otherwise, the values apply to an ambient temperature of 25°C.

Thorn Lighting is constantly developing and improving its products. The right is reserved to change specifications without prior notification or public announcement.
© Thorn Lighting

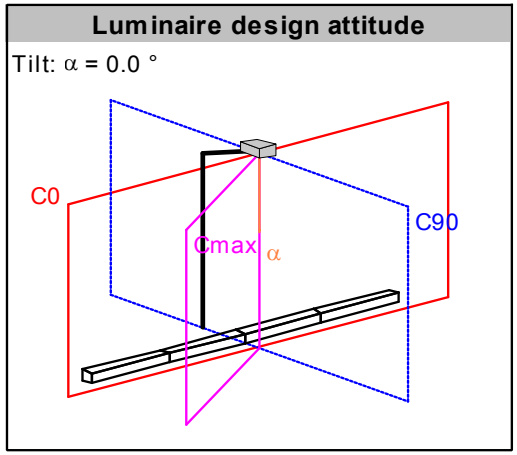


Measurement	IP12L70EWR740G37
Catalogue number	IP 12L70-740 EWR
Lamps	1 x LEDs
Lamp adjustment	IP



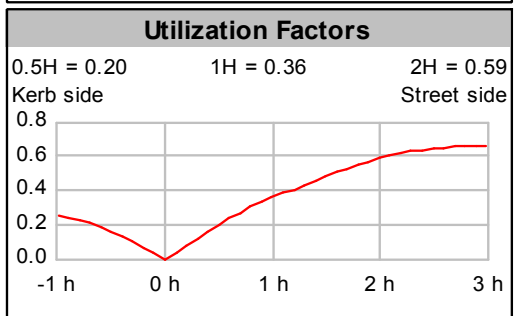
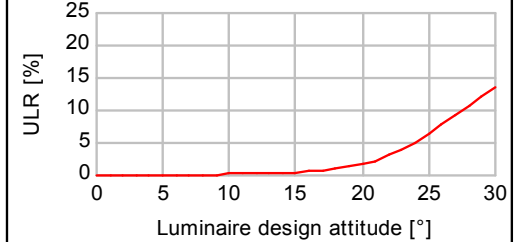
$$E \text{ (lux)} = \frac{E_{\text{max}} \times E\% \times F}{h^2 \times 1000}$$

$E_{\text{max}} = 181.4 \text{ / m / klm}$
 luminous flux for the chosen lamp (lm)
 Mounting height (m)



Maximum intensity	
I _{max}	557 cd/klm
C _{max}	30°
γ max	72°
Light Output Ratio	
Luminaire design attitude	0.0°
LOR	100.00
ULOR	0.00
DLOR	100.00

Upward light ratio	
0% for a tilt = 5°	1% for a tilt = 19°
3% for a tilt = 22°	5% for a tilt = 24°
10% for a tilt = 28°	15% for a tilt = 31°
20% for a tilt = 35°	25% for a tilt = 39°



Glare restriction Obtrusive light

Luminous intensity class G3

γ	Meas. Data I _{max} in cd/klm	Specified in EN 13201-2
70°	557	
80°	70	100
90°	0	20
>95°	0	

DGI max.: 43812



Octagonal Pole Series

External lighting



Octagonal pole in rooted or flanged Version, with optional paint finish. Can be manufactured to client specification and to suit location and/or windage and weight of Luminaire and brackets.

Construction: Galvanised steel construction. Optional Spigot sizes, access doors, brackets, etc.

Installation: Rooted as standard (Flanged on request).

Installation: Base details from Veelite. Guideline shown on back page, Contractor will supply fuse and internal wiring within pole.

Finish: Galvanised as standard. RAL Finish on request.

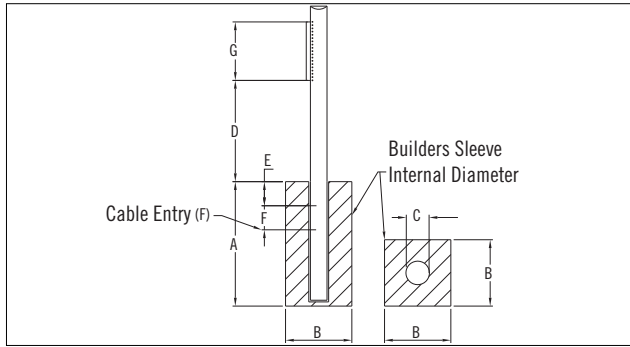
Product Compliance: EN 40.



FRAMED DOOR



DIMENSIONS



DIMENSIONS

Dimensions	Column Height							
	5m	6m	8m-1	8m-2	10m-1	10m-2	12m-1	12m-1
A	600	1000	1200	1500	1500	1700	1700	1700
B	600	700	800	800	800	800	1000	1000
C Minimum	200min	230min	280min	300min	300min	320min	340min	340min
C Typical	300	300	450	450	450	450	450	450
D	1000	1300	1200	1200	1200	1200	1200	1200
E	300	300	300	300	300	300	300	300
F	150	150	150	150	150	150	150	150
G	400	400	625	625	625	625	625	625

ORDERING CODE

Height*	Code	Details
5m	5PBRG0500	5m Rooted Octagonal Pole for 1 or 2 luminaires
6m	5PBRG0600	6m Rooted Octagonal Pole for 1 or 2 luminaires
8m -1	5PBRG0800	8m Rooted Octagonal Pole for 1 luminaire
8m -2	5PBRG0801	8m Rooted Octagonal Pole for 2 luminaires
10m -1	5PBRG1000	10m Rooted Octagonal Pole for 1 luminaire
10m -2	5PBRG1001	10m Rooted Octagonal Pole for 2 luminaires
12m -1	5PBRG1200	12m Rooted Octagonal Pole for 1 luminaire
12m -2	5PBRG1201	12m Rooted Octagonal Pole for 2 luminaires

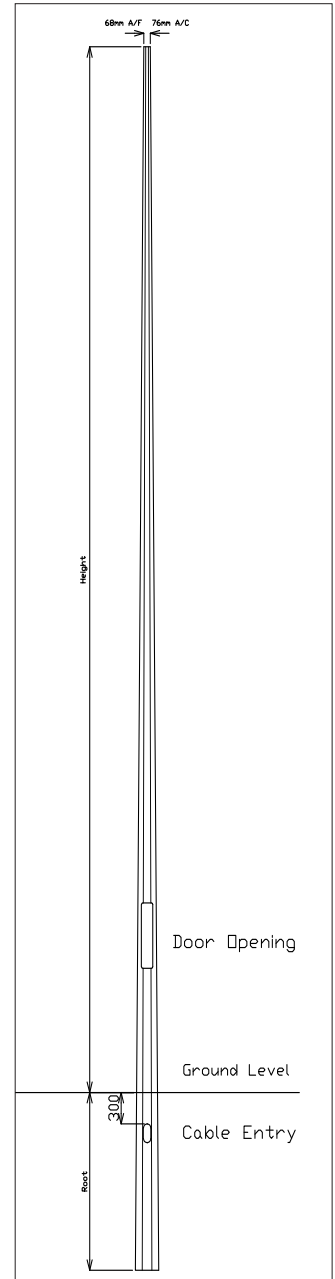
OPTIONS

RAL: Pls specify

FLG: Flanged

HNG: Hinged

*Note Height excludes any rooted Section



Warning: Details provided are to give general guidance only and are not project specific. These must be confirmed by a structural engineer on site who will decide if they are appropriate to the circumstances/location, including soil conditions, wind exposure, etc.

* For hinged columns or columns with more than 1 luminaire, check with Veelite. In particular, for floodlighting projects, even with 1 luminaire we often supply stronger columns, with deeper planting depth, so please check with Veelite in this case.

TN Source-1

ESB

MP-1

$I_b(L1) = 0.8A$

