



Lighting Calculation Report

Installation : Work in Progress

Project number : 22113 Scarborough Harbour

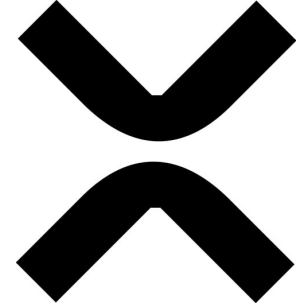
Customer : WBS

Processed by : Ridings

Date : 28.06.2023

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.



1 Luminaire data

1.1 Thorn, PIAZZA II LED 1690-830 HF ANT (96632757)

1.1.1 Data sheet

Manufacturer: Thorn

96632757 PIAZZA II LED 1690-830 HF ANT

A robust wall mounted luminaire. Electronic, fixed output control gear. Back plate: die-cast aluminium, painted anthracite. Body: anthracite polycarbonate. Ø20mm cable entry via rear or side conduit entries, BESA compatible. IP65, IK10. Complete with 3000K LED.

Dimensions: 381 x 196 x 305 mm
Total power: 15.2 W
Luminaire luminous flux: 1756 lm
Luminaire efficacy: 116 lm/W
Weight: 2.8 kg

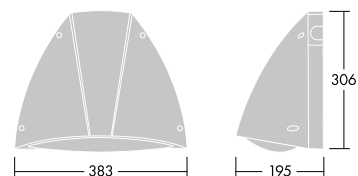
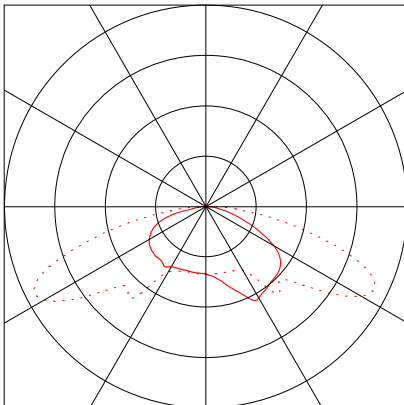
Luminaire data

Absolute Photometry
Luminaire efficacy : 115.53 lm/W
Classification : A20 ↓99.9% ↑0.1%
CIE Flux Codes : 27 58 89 100 100
UGR 4H 8H : 29.9 / 39.1
Power : 15.2 W
Luminous flux : 1756 lm

Equipped with

Quantity : 1
Designation : TL_PIA2-830
Colour : 3000
Colour reproduction : 80

Dimensions : 381 mm x 196 mm x 305 mm



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1 Luminaire data

1.2 Thorn, R2L2 M 60L35 EWS 740 CL1 (96268291)

1.2.1 Data sheet

Manufacturer: Thorn

96268291 R2L2 M 60L35 EWS 740 CL1

A medium size LED road lighting lantern with 60 LEDs driven at 350mA with Extra Wide Street optic. Electronic, fixed output control gear. Class I electrical, IP66, IK08. Housing: die-cast aluminium, powder coated textured light grey. Diffuser: tempered flat glass. Screws: stainless steel, Ecolubric® treated. Post top (Ø60/76mm, tilted 0°/5°/10°) or lateral (Ø34/42/49/60mm, tilted 0°/-5°/-10°/-15°) mounting. Complete with 4000K LED.

Dimensions: 880 x 370 x 155 mm

Total power: 63 W

Weight: 12.86 kg

Scx: 0.06 m²

Luminaire data

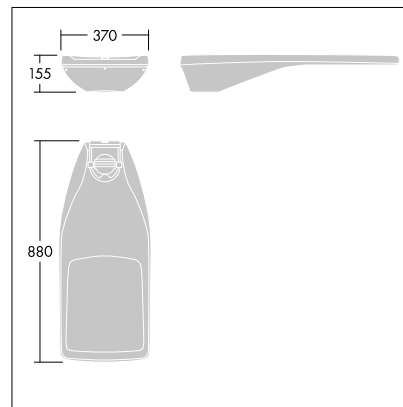
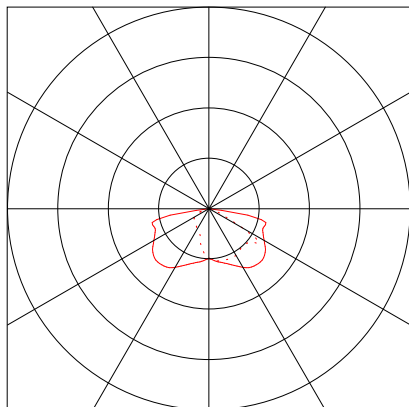
Absolute Photometry

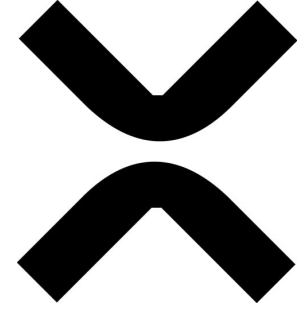
Luminaire efficacy : 139.4 lm/W
Classification : A30 ↓100.0% ↑0.0%
CIE Flux Codes : 33 67 95 100 100
Glare : G*1 / D6
Power : 63 W
Luminous flux : 8782 lm

Equipped with

Quantity : 1
Designation : R2L2_60L35EWS4K
Colour : 4000
Colour reproduction : 70

Dimensions : 880 mm x 370 mm x 155 mm



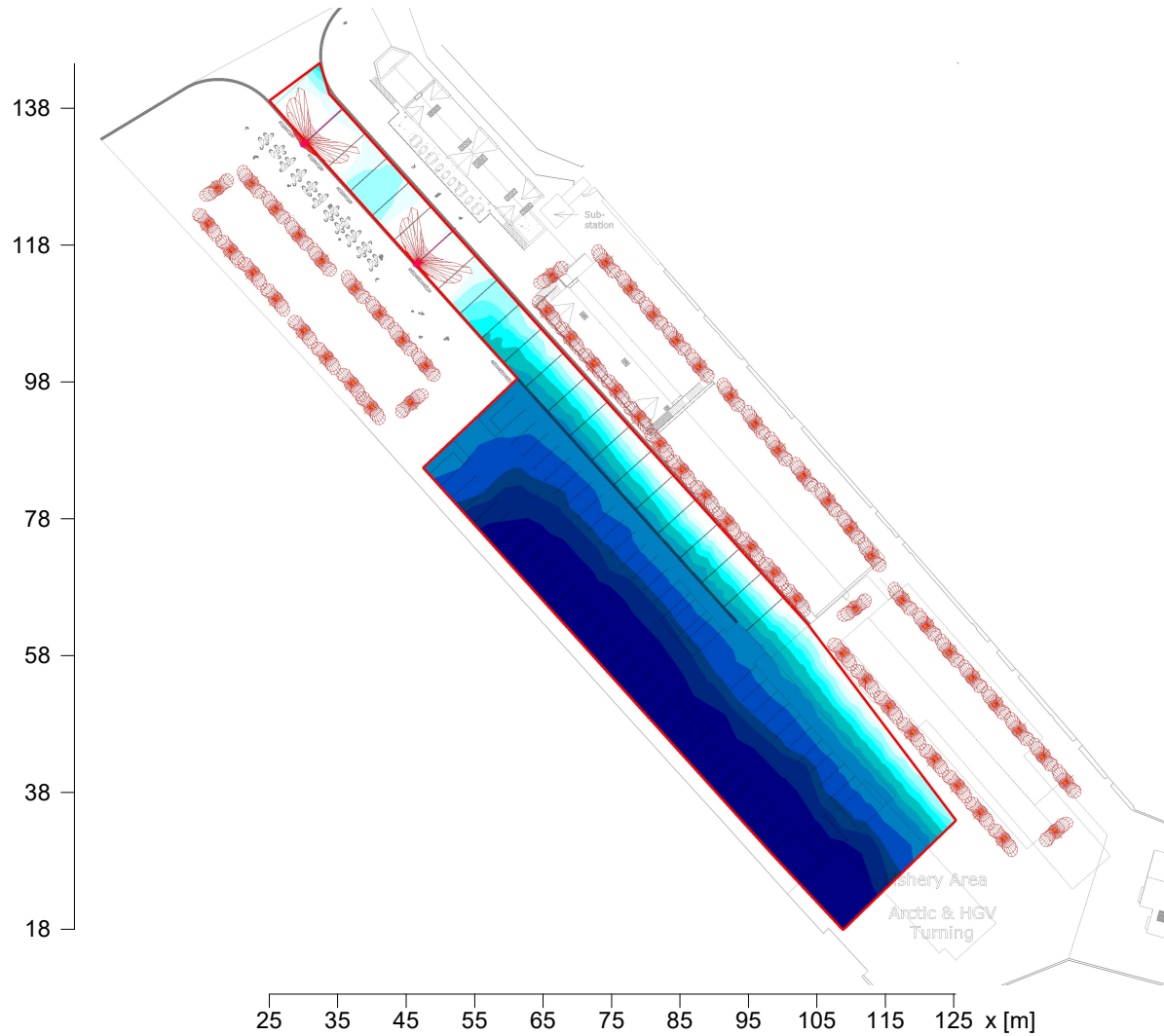


2 Exterior

2.1 Calculation results, Exterior

2.1.1 Pseudo colours, Floor (E)

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23%	9%	5%	4%	8%	5%	8%	4%	5%	4%	3%	6%	6%	9%
634 m ²	240 m ²	140 m ²	117 m ²	224 m ²	139 m ²	233 m ²	115 m ²	136 m ²	109 m ²	82 m ²	170 m ²	160 m ²	239 m ²
0	0.2	0.3	0.4	0.5	0.75	1	2	3	5	7.5	10	15	20

Illuminance [lx]

Average illuminance	\bar{E}_m	: 6.1 lx
Minimum illuminance	E_{min}	: 0.1 lx
Maximum illuminance	E_{max}	: 57.2 lx
Uniformity U_o	E_{min}/\bar{E}_m	: 1 : 74.50 (0.01)
Diversity U_d	E_{min}/E_{max}	: 1 : 693.46 (0.00)