

DATE: 25 November 2021
DESIGNER: Patrick Redmond
PROJECT No: 21092
PROJECT NAME: Proposed Residential Development at Edmonstown



Product selected based on a balance of visual comfort and low energy consumption whilst achieving compliance with I.S. EN 13201-2:2015 P2 on a typical section of the development.

Energy consumption assessed in accordance with I.S. EN 13201-5:2015.

LMF 0.92 x LDF 0.9 x LSF 1 = MF 0.83 at 100,000 hours at 25 degree ambient. Photometry measured at minimum 15 degree ambient.

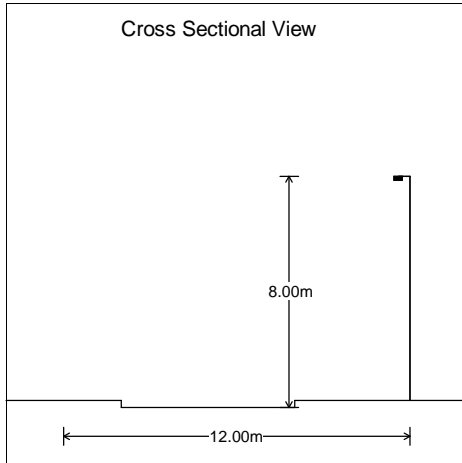
Of the comparable products assessed, the Philips luminaire offers excellent U0, comfortable TI, and high energy efficacy. Product specification may vary with detailed design.

Product Selection

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Roadway Report Summary

Layout



Road Data

Calculation Grid	2015:EN13201 Illuminance
Width (m)	12.00
No. of Lanes	2
Road Surface	C2
Q0	0.07
Left Footpath(m)	2.00
Right Footpath(m)	4.00

Main Lighting



Column Data

Configuration	Single Sided Right
Spacing (m)	40.00
Height (m)	8.00
Tilt (deg)	0.00
Setback (m)	4.00
Outreach (m)	0.40
Overhang (m)	-3.60

Luminaire Data

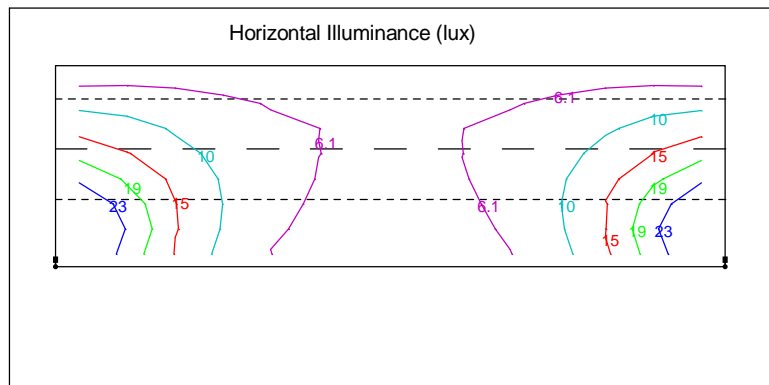
Supplier	Philips
Type	BGP292 DM10
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	10.00
File Name	LumiStreet Gen2 Mini_BGP292_DM10_10000_40LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.83
Lum. Int. Class	G3

Results

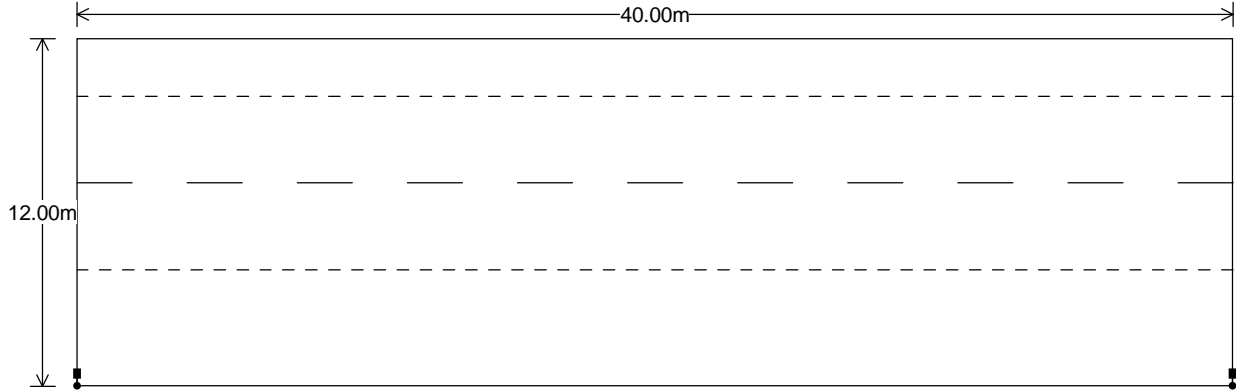
Main

Complies with P2

Eav	10.16
Emin	4.02
Emax	29.54
Emin/Emax	0.14
Emin/Eav	0.40
TI(%)	13.53

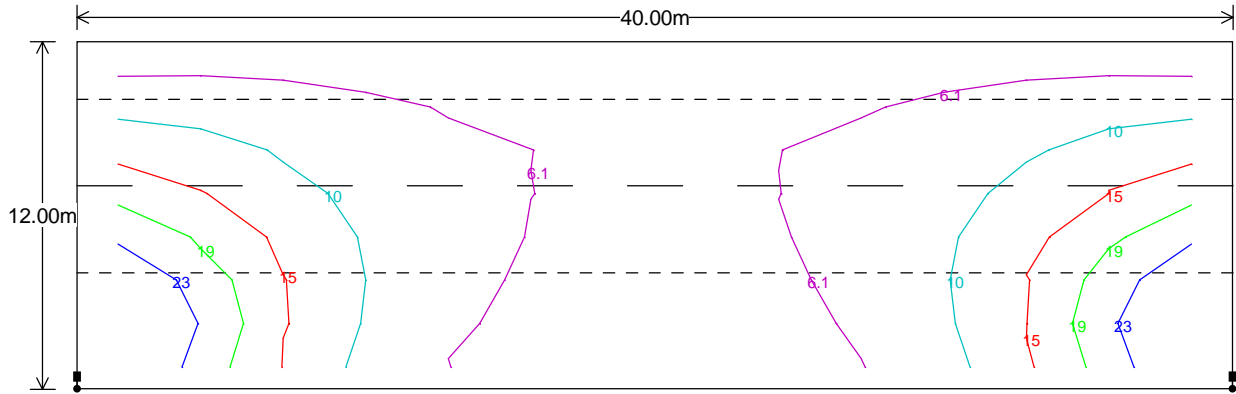


Energy performance indicators



Power Main Luminaire(W)	56.00
Parasitic Power(W)	0.00
Area(m ²)	480
Hours per Year	4100
Power Density(mW/lx/m ²)	11.48
AECI(kWh/m ²)	0.48

Horizontal Illuminance (lux)



Main Results

Eav	10.16
Emin	4.02
Emax	29.54
Emin/Emax	0.14
Emin/Eav	0.40
TI(%)	13.53

Comparison Table

EN13201 Class: P2 Calculation Grid: 2015:EN13201 Illuminance Road Surface: C2 Q0: 0.07 No. of Lanes: 2 Total Width: 12.00
Configuration: Single Sided Right

No.	Luminaire	Lamp	Flux	MF	Spacing	Overhang	Height	Tilt	Eav	Emin	Emax	Emin/Emax	Emin/Eav	TI	Power Density	AECI
1	HWD6-#4LED523	LED	7.89	0.83	40.00	-3.60	8.00	0.00	10.01	2.82	33.65	0.08	0.28	11.55	10.61	0.44
2	P852K-24-S2-NW	740SS NW	9.23	0.83	40.00	-3.60	8.00	0.00	10.25	3.57	31.36	0.11	0.35	14.55	13.42	0.56
3	BGP292 DM10	LED-HB 5.2	10.00	0.83	40.00	-3.60	8.00	0.00	10.16	4.02	29.54	0.14	0.40	13.53	11.48	0.48
4	ISARO PRO S - 3	LED_4000K	8.20	0.83	40.00	-3.60	8.00	0.00	10.09	2.35	21.53	0.11	0.23	24.82	11.35	0.47
5	AXIA 3.2 5279 Int	24 OSLO	7.91	0.83	40.00	-3.60	8.00	0.00	10.04	2.14	27.39	0.08	0.21	18.85	12.45	0.51