

DATE: 21 March 2025
DESIGNER: Nick Smith
PROJECT No: 3125
PROJECT NAME: Leicester Road, Earl Shilton



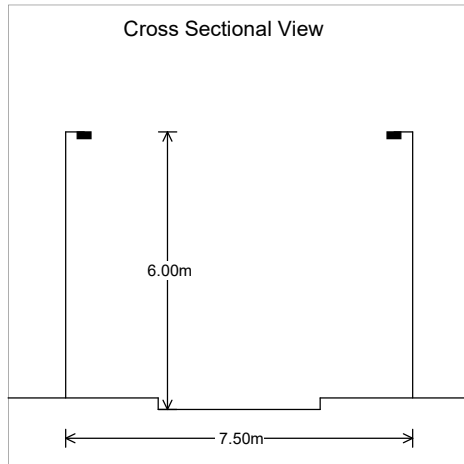
Nick Smith Associates
Lighting to the end of the tunnel

Roadway Lighting Report

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Roadway Report Summary

Layout



Road Data

Calculation Grid	2015:EN13201 Illuminance
Width (m)	7.50
No. of Lanes	2
Road Surface	C2
Q0	0.07
Left Footpath(m)	2.00
Right Footpath(m)	2.00

Main Lighting

Column Data

Configuration	Staggered
Spacing (m)	47.00
Height (m)	6.00
Tilt (deg)	0.00
Left Setback (m)	2.00
Left Outreach (m)	0.40
Left Overhang (m)	-1.60
Right Setback (m)	2.00
Right Outreach (m)	0.40
Right Overhang (m)	-1.60

Luminaire Data

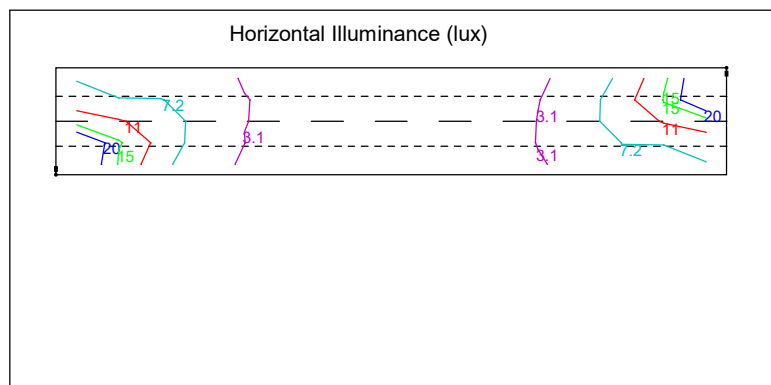
Supplier	_My data
Type	S2 HWD2-#3K16 700-M1-CLO Gen 5
Lamp(s)	LED 3000K
LampFlux(klm)/Colour	3.62 3000/72
File Name	S2 HWD2-#3K16 700-M1-CLO (34W).ldt
Maintenance Factor	0.83
Lum. Int. Class	G2

Results

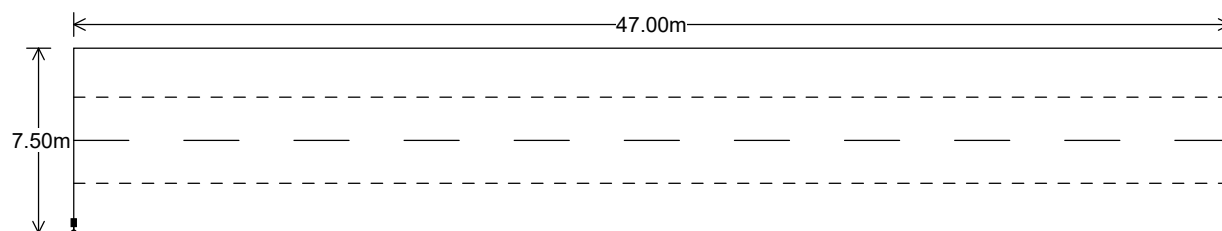
Main

Complies with P4

Eav	5.92
Emin	1.05
Emax	25.60
Emin/Emax	0.04
Emin/Eav	0.18
TI(%)	23.74



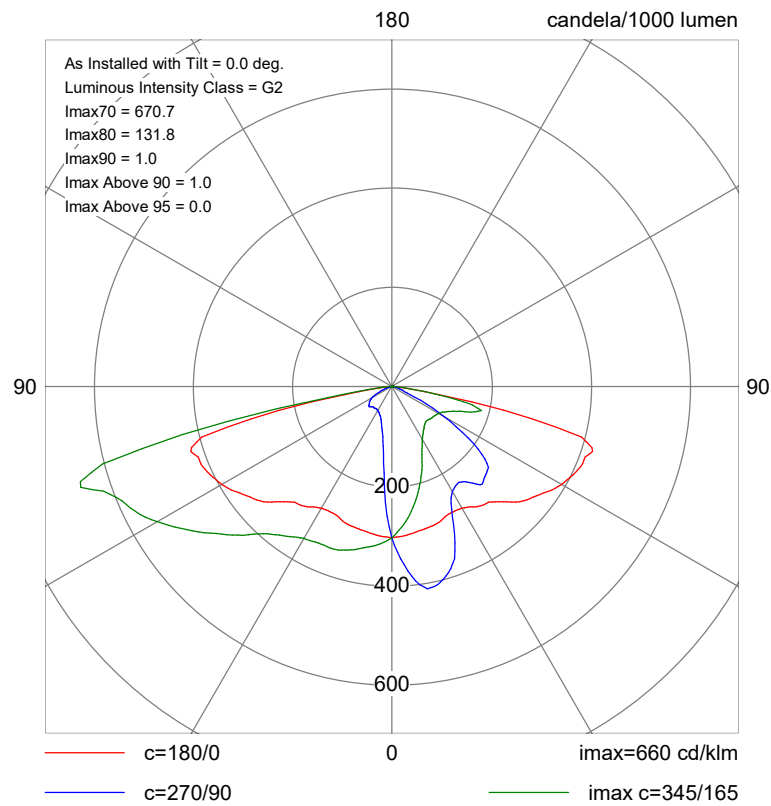
Energy performance indicators



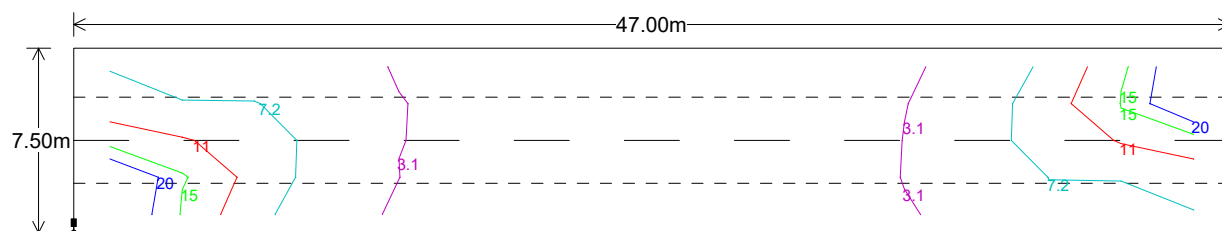
Power Main Luminaire(W)	33.80
Parasitic Power(W)	0.00
Area(m ²)	352
Hours per Year	4100
Power Density(mW/lx/m ²)	16.20
AECI(kWh/m ²)	0.39

Polar Diagram

Main Luminaire S2 HWD2-#3K16 700-M1-CLO Gen 5



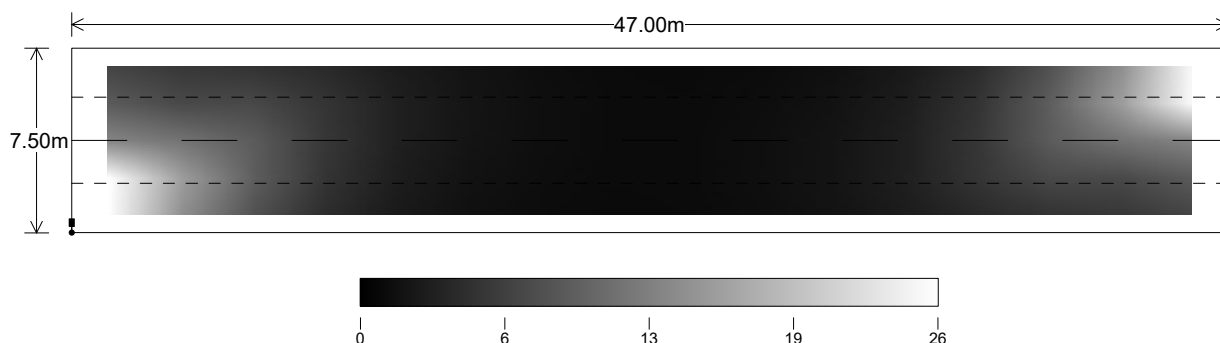
Horizontal Illuminance (lux)



Main Results

Eav	5.92
Emin	1.05
E _{max}	25.60
E _{min} /E _{max}	0.04
E _{min} /E _{av}	0.18
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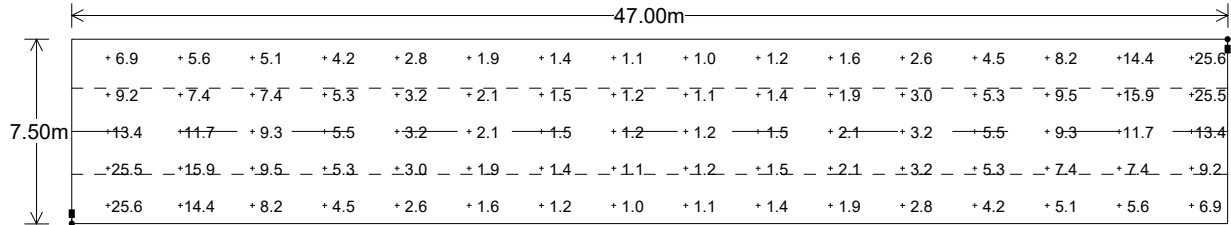
Horizontal Illuminance (lux)



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Horizontal Illuminance (lux)



Main Results

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Comparison Table

EN13201 Class: P4 Calculation Grid: 2015:EN13201 Illuminance Road Surface: C2 Q0: 0.07 No. of Lanes: 2 Total Width: 7.50
Configuration: Staggered

No.	Luminaire	Lamp	Flux	MF	Spacing	Overhang	Height	Tilt	Eav	Emin	Emax	Emin/Emax	Emin/Eav	TI	Power Density	AECI
1	S2 HWD2-#3K16	LED 3000K	3.62	0.83	38.00	-1.60	6.00	0.00	7.32	2.26	25.66	0.09	0.31	20.13	16.19	0.49
2	S2 HWD2-#3K16	LED 3000K	3.62	0.83	39.00	-1.60	6.00	0.00	7.13	2.08	25.50	0.08	0.29	20.53	16.20	0.47
3	S2 HWD2-#3K16	LED 3000K	3.62	0.83	40.00	-1.60	6.00	0.00	6.96	1.93	25.77	0.08	0.28	20.94	16.19	0.46
4	S2 HWD2-#3K16	LED 3000K	3.62	0.83	41.00	-1.60	6.00	0.00	6.79	1.79	25.63	0.07	0.26	21.34	16.19	0.45
5	S2 HWD2-#3K16	LED 3000K	3.62	0.83	42.00	-1.60	6.00	0.00	6.62	1.64	25.49	0.06	0.25	21.75	16.20	0.44
6	S2 HWD2-#3K16	LED 3000K	3.62	0.83	43.00	-1.60	6.00	0.00	6.47	1.52	25.74	0.06	0.24	22.14	16.19	0.43
7	S2 HWD2-#3K16	LED 3000K	3.62	0.83	44.00	-1.60	6.00	0.00	6.32	1.40	25.61	0.05	0.22	22.55	16.20	0.42
8	S2 HWD2-#3K16	LED 3000K	3.62	0.83	45.00	-1.60	6.00	0.00	6.18	1.28	25.48	0.05	0.21	22.95	16.20	0.41
9	S2 HWD2-#3K16	LED 3000K	3.62	0.83	46.00	-1.60	6.00	0.00	6.05	1.15	25.72	0.04	0.19	23.34	16.19	0.40
10	S2 HWD2-#3K16	LED 3000K	3.62	0.83	47.00	-1.60	6.00	0.00	5.92	1.05	25.60	0.04	0.18	23.74	16.20	0.39