

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

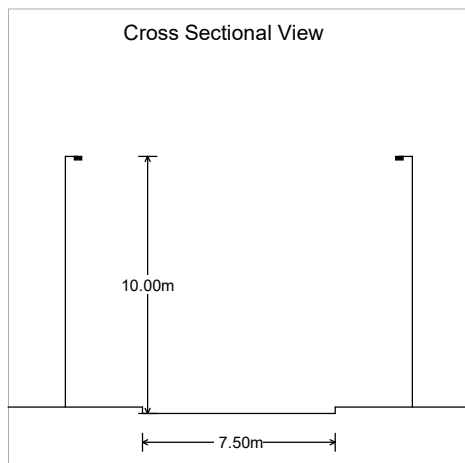
Design prepared with S9 AS64_LED_142W_GR5_3000K_FG
also checked with A64_GEN2_LED_129W_CLO_GR5
_Blue)_G0_3000K_FG.ies which works slightly better at the same
spacings. See CMP for more details

Roadway Lighting Report

PREPARED BY: Nick Smith Associates Ltd
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Roadway Report Summary

Layout



Road Data

Calculation Grid	EN13201 Luminance
Width (m)	7.50
No. of Lanes	2
Road Surface	C2
Q0	0.07
Lane Width (m)	3.75
Rei Width (m)	3.75

Main Lighting



Column Data

Configuration	Staggered
Spacing (m)	39.00
Height (m)	10.00
Tilt (deg)	0.00
Left Setback (m)	3.00
Left Outreach (m)	0.50
Left Overhang (m)	-2.50
Right Setback (m)	3.00
Right Outreach (m)	0.50
Right Overhang (m)	-2.50

Luminaire Data

Supplier	TRT Lighting
Type	A64_GEN2_LED_129W_CLO_GR5_Blue G0_3000K_FG
Lamp(s)	42 0129 0000 100
Lamp Flux (klm)	17.98
File Name	A64_GEN2_LED_129W_CLO_GR5_Blue G0_3000K_FG.ies
Maintenance Factor	0.83
Lum. Int. Class	None

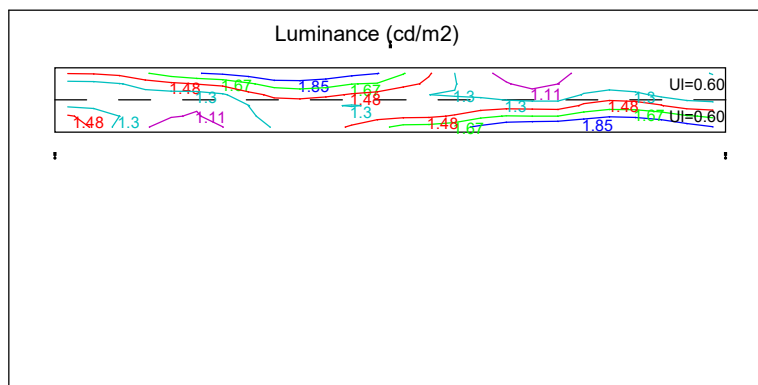
Results

Main

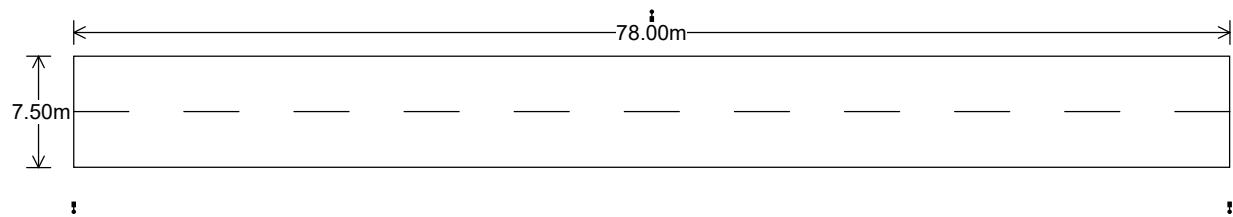
Complies with M4

Lavmin	1.44 (1)
Lmin	1.02 (1)
Lmax	2.19 (2)
U0min	0.70 (2)
U1min	0.60 (1)
TI(%)	13.29 (1)
Rei	0.85

Number in brackets is the
Observer Lane for Result shown.



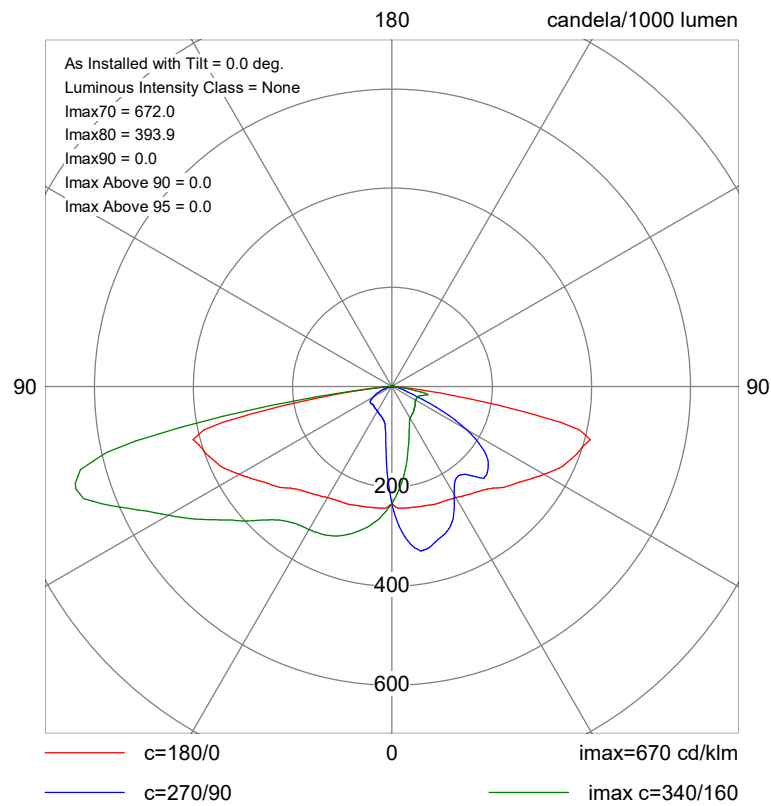
Energy performance indicators



Power Main Luminaire(W)	142.00
Parasitic Power(W)	0.00
Area(m ²)	585
Hours per Year	4100
Power Density(mW/lx/m ²)	24.51
AECI(kWh/m ²)	1.99

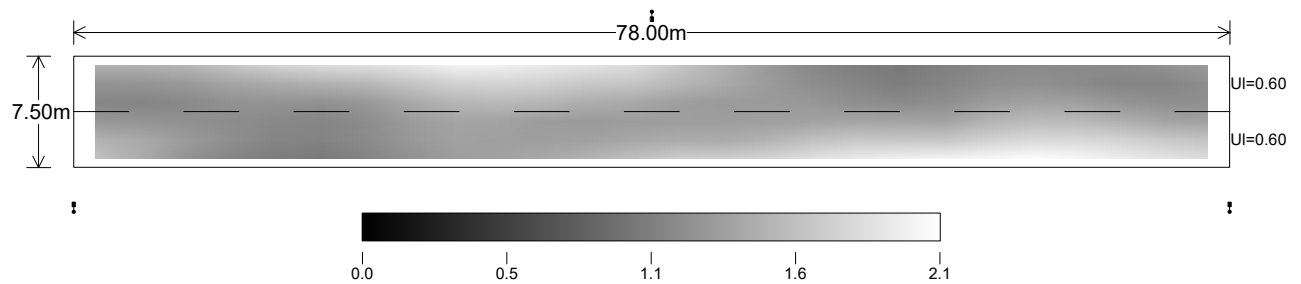
Polar Diagram

Main Luminaire A64 GEN2 LED 129W CLO GR5 Blue) G0 3000K FG



Luminance (cd/m²)

Observer in Lane 1



Main Results

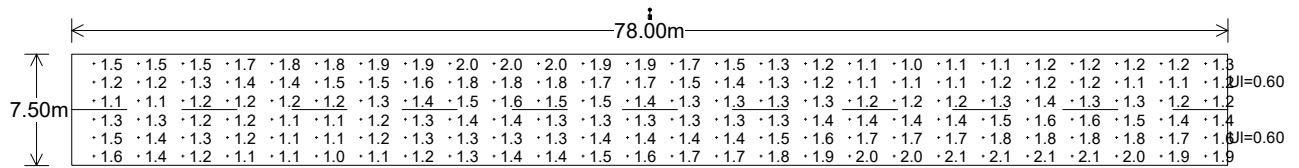
Observers in all Lanes

Lavmin	1.44 (1)
Lmin	1.02 (1)
Lmax	2.19 (2)
U0min	0.70 (2)
Ulmin	0.60 (1)
Tlmax(%)	13.29 (1)
Rei	0.85

Number in brackets is the
Observer Lane for Result shown.

Luminance (cd/m²)

Observer in Lane 1



Main Results

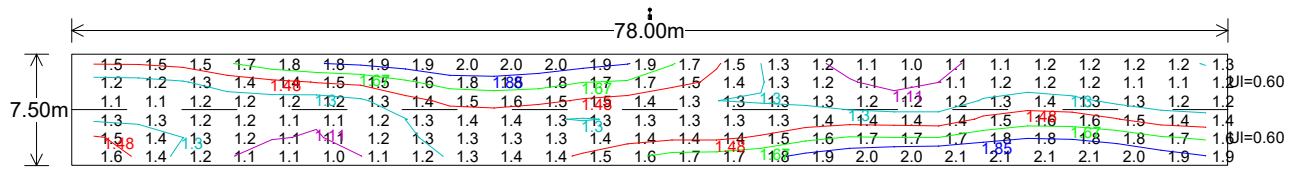
Observers in all Lanes

Lavmin	1.44 (1)
Lmin	1.02 (1)
Lmax	2.19 (2)
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Number in brackets is the
Observer Lane for Result shown.

Luminance (cd/m²)

Observer in Lane 1



Main Results

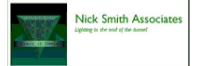
Observers in all Lanes

Lavmin	1.44 (1)
Lmin	1.02 (1)
Lmax	2.19 (2)
U0min	0.70 (2)
U1min	0.60 (1)
Tlmax(%)	13.29 (1)
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Comparison Table

Calculation Grid: 2015:EN13201 Luminance Road Surface: C2 Q0: 0.07 No. of Lanes: 2 Lane Width: 3.75
Configuration: Staggered

No.	Luminaire	Lamp	Flux	MF	Spacing	Overhang	Height	Tilt	Lav	U0	UI	TI	Power Density	AECI
1	A64_GEN2_LED_12	42 0129 0000	17.98	0.83	39.00	-2.50	10.00	0.00	1.44	0.70	0.60	13.29	0.00	0.00
2	S9 AS64_LED_142W	42 0142 0000	18.98	0.83	36.00	-2.50	10.00	0.00	1.59	0.71	0.60	13.35	0.00	0.00