

DATE: 14 December 2021
DESIGNER: Ben van Deventer DKPI
PROJECT No: M70
PROJECT NAME: Cherry Orchard, Palmerstown

**LIGHTING
REALITY**

Lux levels calculation results for the circulation areas are in compliance with P3 EN13201 2015.
P3 is maintained for all areas, vehicular and pedestrian including podium circulation areas for even and adequate lux levels.
Base target level of horizontal illuminance for P3 is 7.50 Lux average and 1.50 lux min.
Constant Light output is used for these led fittings hence the MF relates to 2% led failure and 8% fouling only.
The calculation shows a respectable uniformity Emin/Eav of 0.24
The existing "B" fittings are shown for calculation purposes only as they impact on the relevant calculation grids

Outdoor Lighting Report

Public Lighting design for above mentioned project :
Light fittings to dim 25% (75% output) between midnight and 6 am (profile 2A)
Fittings must be ordered with Nema socket for 35/18 lux switching photo cell and to have CLO function applied (Constant light output) Calculations comply to EN13201-2015

PREPARED BY: Ben van Deventer
DKP International
CBG House
Kenmare
Co Kerry
Design Software from:
Lighting Reality Ltd

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin 7.7m x 13.7m
Area 116.9m x 97.5m
Sample Spacing 1.00m x 1.01m

Luminaires



Luminaire B Data

Supplier	_Historic Lanterns
Type	SRS201
Lamp(s)	SOX55W/-
LampFlux(klm)/Colour	7.80 -/
File Name	SRS201 1xSOX55W.ltd
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	303.0, 191.0, 43.0
Lamp S/P Ratio	0.00
No. in Project	8



Luminaire C Data

Supplier	Thorn UK
Type	Avenue Deco - Clear Prismatic Diff - 18 x L EDs 3000K 700mA -
Lamp(s)	LED 3000K
LampFlux(klm)/Colour	3.12 3000/
File Name	AVD18L70RS3KG32_DC.LDT
Maintenance Factor	1.00
Imax70,80,90(cd/klm)	203.8, 155.7, 69.3
Lamp S/P Ratio	1.20
No. in Project	10

Luminaire D Data

Supplier	
Type	BRP708 T25 DM50 LED21/740 NO
Lamp(s)	LED21-4S/740
Lamp Flux (klm)	2.10
File Name	ofmt1_brp708t251xled21-4s740dm50.ies
Maintenance Factor	1.00
Imax70,80,90(cd/klm)	807.3, 28.3, 0.0
Lamp S/P Ratio	0.00
No. in Project	7

Layout

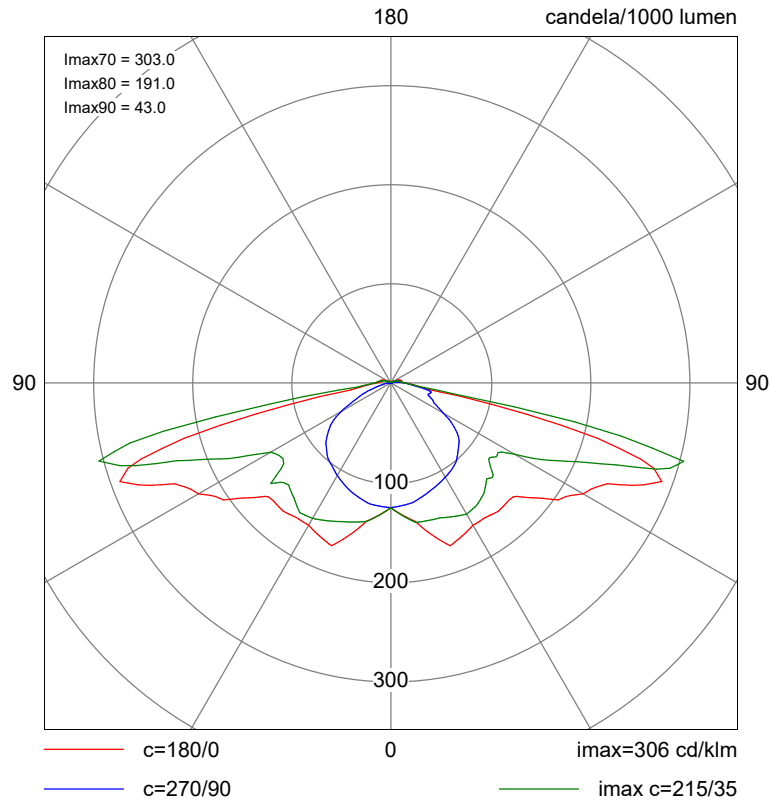
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	C	29.76	57.77	4.00	0.00	0.00	0.00	0.00			
2	C	85.40	31.93	4.00	0.00	0.00	0.00	0.00			
3	C	65.02	55.98	4.00	0.00	0.00	0.00	0.00			
4	C	63.50	72.66	4.00	346.00	0.00	0.00	0.00			
5	C	82.93	62.49	4.00	0.00	0.00	0.00	0.00			
6	C	106.98	62.63	4.00	0.00	0.00	0.00	0.00			
7	C	85.89	44.90	4.00	0.00	0.00	0.00	0.00			
8	B	-11.92	13.04	8.00	341.00	5.00	0.00	1.00			
9	B	34.49	110.18	8.00	162.00	5.00	0.00	1.00			
10	B	24.60	78.08	8.00	161.00	5.00	0.00	1.00			

Layout Continued

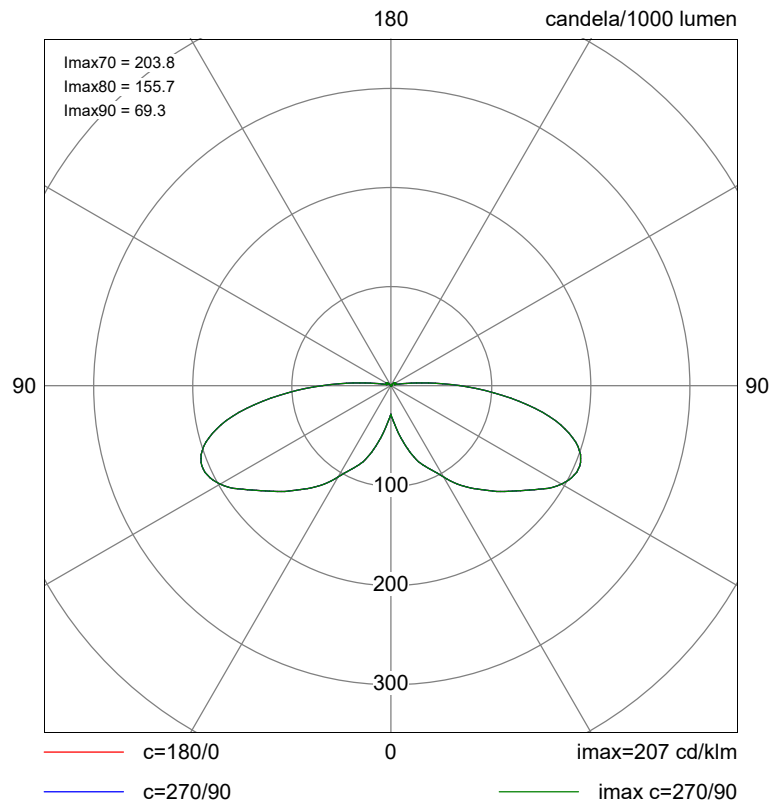
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
11	B	14.53	43.50	8.00	160.00	5.00	0.00	1.00			
12	B	91.48	8.51	8.00	97.00	5.00	0.00	1.00			
13	B	27.85	18.75	8.00	270.00	0.00	0.00	1.00			
14	B	60.22	18.83	8.00	272.00	0.00	0.00	1.00			
15	C	44.13	54.79	4.00	0.00	0.00	0.00	0.00			
16	D	53.59	101.17	5.00	81.00	0.00	0.00	0.00			
17	C	69.23	88.94	4.00	0.00	0.00	0.00	0.00			
18	D	105.62	88.23	5.00	77.00	0.00	0.00	0.00			
19	D	80.87	94.72	5.00	76.00	0.00	0.00	0.00			
20	D	115.52	75.24	5.00	0.00	0.00	0.00	0.00			
21	D	111.30	22.62	5.00	278.00	0.00	0.00	0.00			
22	D	115.55	54.95	5.00	0.00	0.00	0.00	0.00			
23	B	135.58	8.58	8.00	85.00	5.00	0.00	1.00			
24	C	36.33	84.72	4.00	346.00	0.00	0.00	0.00			
25	D	122.26	33.96	5.00	173.00	0.00	0.00	0.00			

Polar Diagrams

Luminaire B SRS201

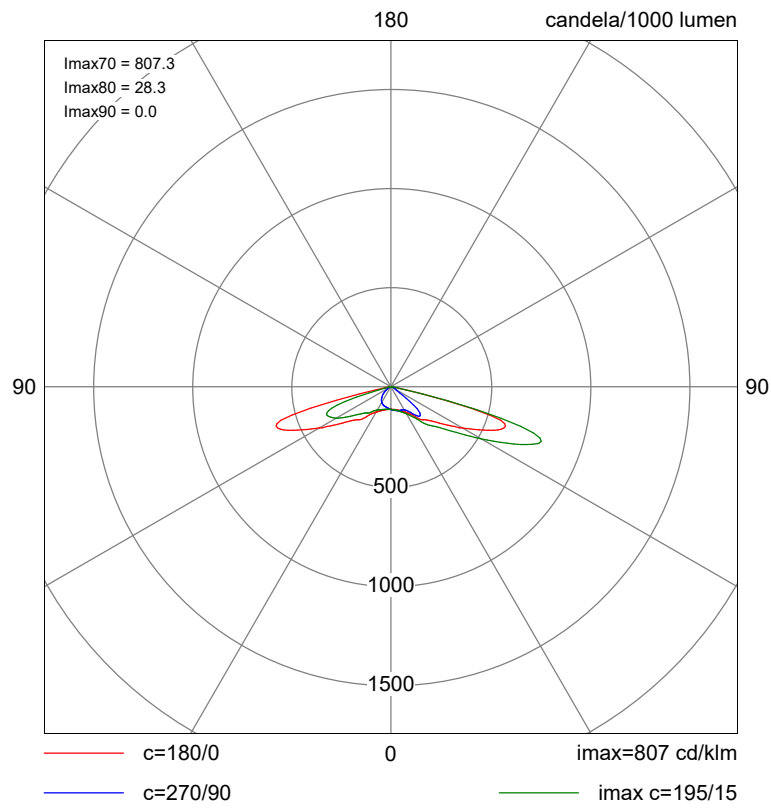


Luminaire C Avenue Deco - Clear Prismatic Diff - 18 x LEDs 3000K 700mA -



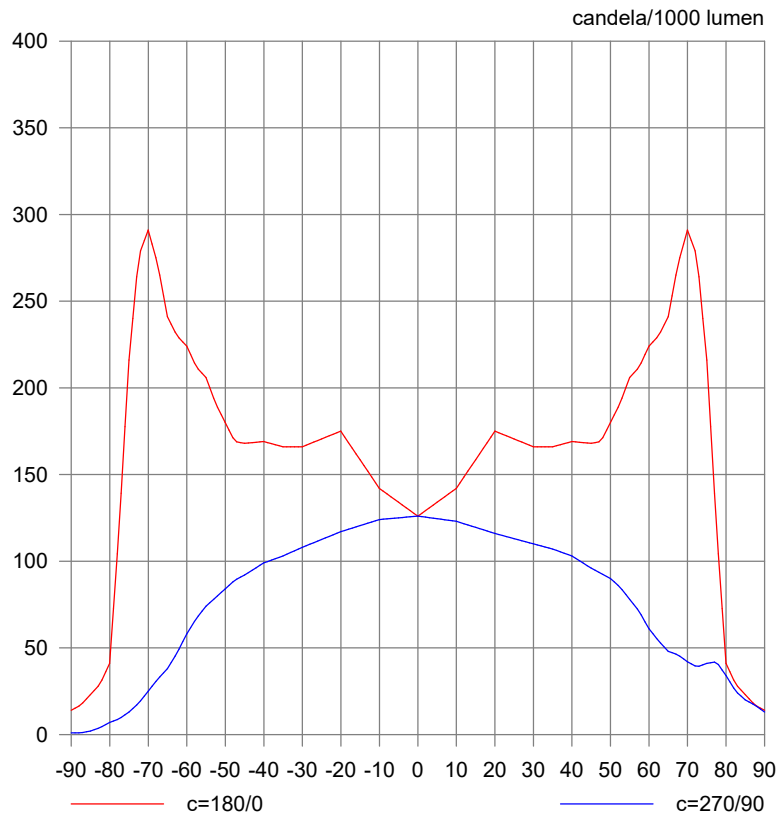
Polar Diagrams Continued

Luminaire D BRP708 T25 DM50 LED21/740 NO

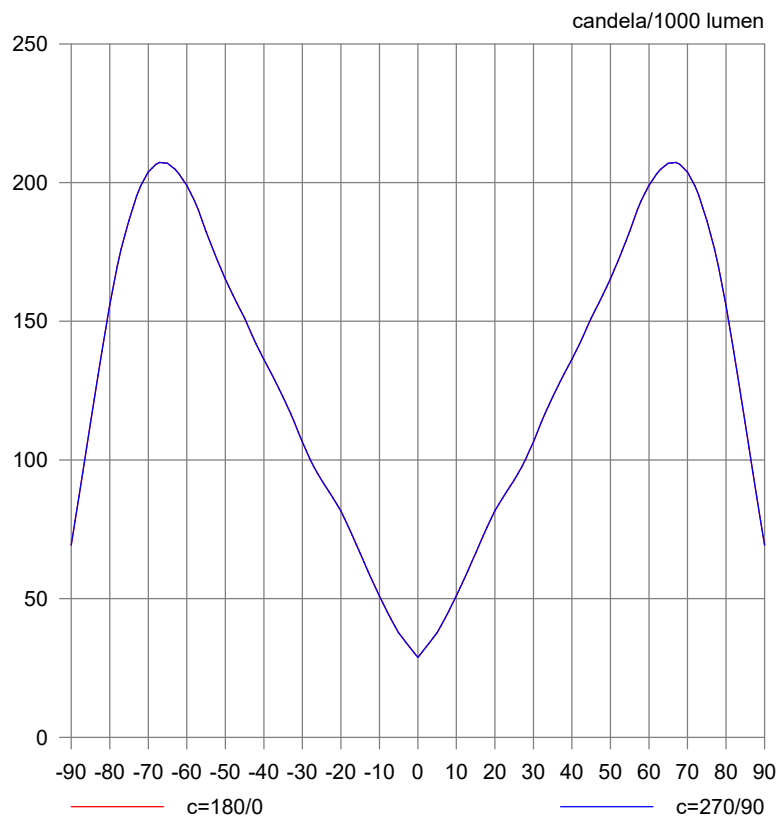


Cartesian Diagrams

Luminaire B SRS201

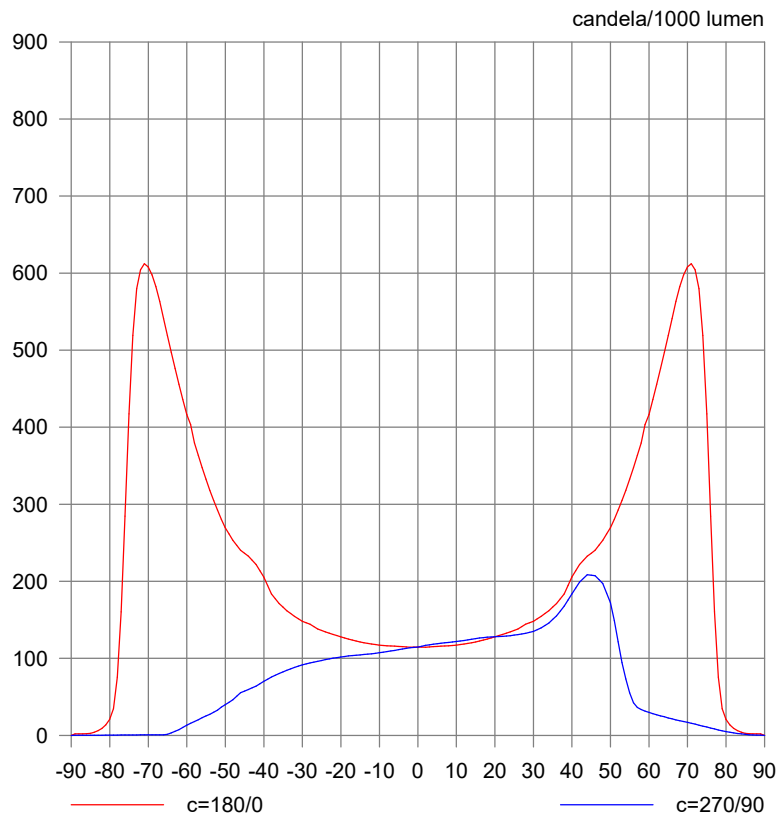


Luminaire C Avenue Deco - Clear Prismatic Diff - 18 x LEDs 3000K 700mA -



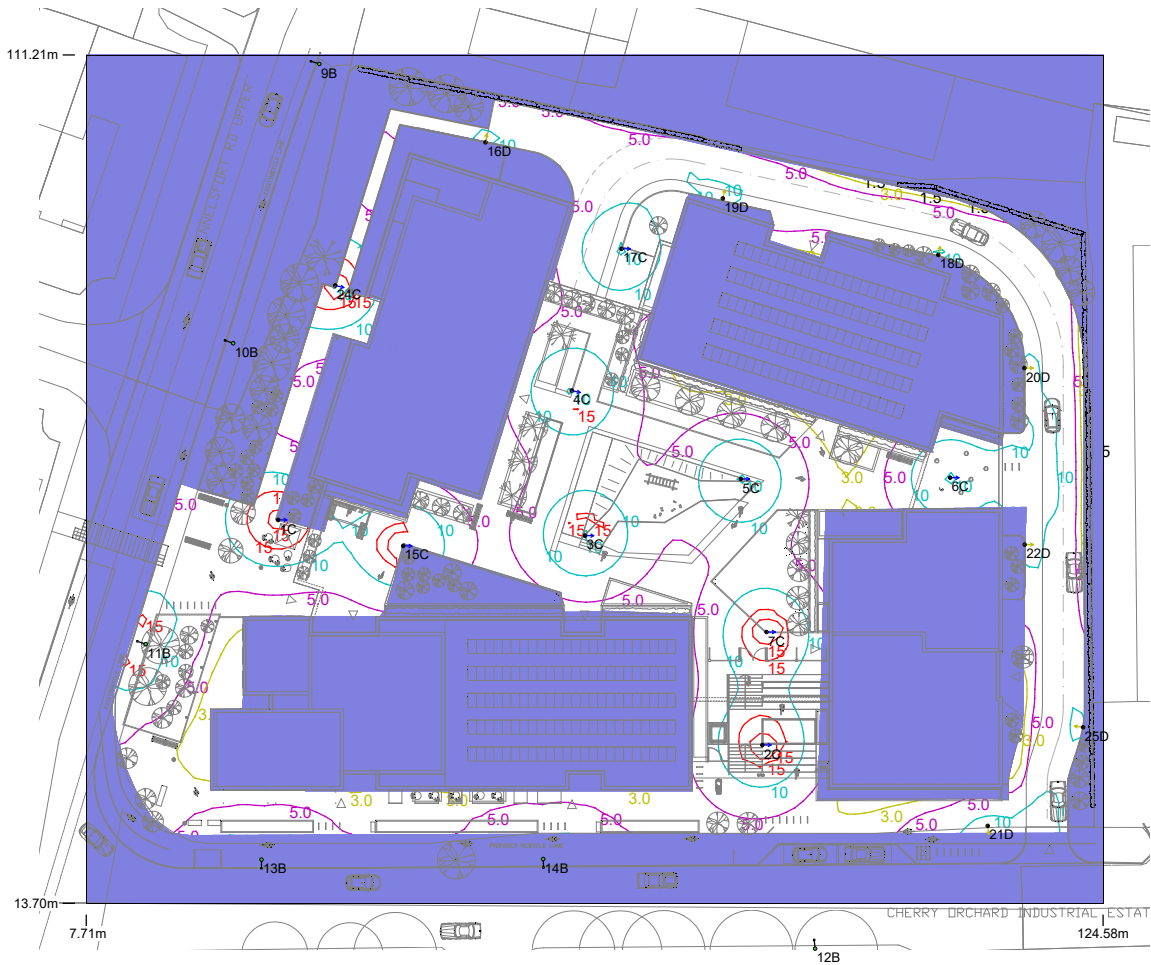
Cartesian Diagrams Continued

Luminaire D BRP708 T25 DM50 LED21/740 NO



Horizontal Illuminance (lux)

Grid 1



Results

Eav	7.58
Emin	1.63
Emax	16.94
Emin/Emax	0.10
Emin/Eav	0.22