

DATE: 5 July 2023
DESIGNER: Ronan Meally
PROJECT No: 22K179
PROJECT NAME: Gilsons National School Carpark



Outdoor Lighting Report

**ROAD LIGHTING DESIGNED TO IS EN 13201:2015 CLASS C3
CARPARK LIGHTING DESIGNED TO IS EN 12464-2:2007**

PREPARED BY: Ronan Meally Consulting Engineers
1 Clty Wall
James Street
Kilkenny

Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Roadway	-11.24	47.33	95.38	12.82	1.67	1.42
2	Carpark	75.52	35.57	24.52	85.53	1.44	1.47

Luminaires

Luminaire A Data



Supplier	Philips
Type	BGP291 DN25
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	6.00
File Name	LumiStreet Gen2 Micro_BGP291_DN25_6000_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	705.1, 87.1, 0.0
No. in Project	3

Luminaire B Data



Supplier	Philips
Type	BGP702 DPR1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	6.00
File Name	Luma Gen2 Micro_BGP702_DPR1_6000_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	247.8, 31.8, 0.0
No. in Project	1

Luminaire C Data



Supplier	Philips
Type	BGP702 DPL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	6.00
File Name	Luma Gen2 Micro_BGP702_DPL1_6000_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	247.8, 31.8, 0.0
No. in Project	1

Luminaire D Data



Supplier	Philips
Type	BGP293 DX70
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	19.50
File Name	LumiStreet Gen2 Medium_BGP293_DX70_19500_80LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	325.1, 353.8, 0.0
No. in Project	5

Layout

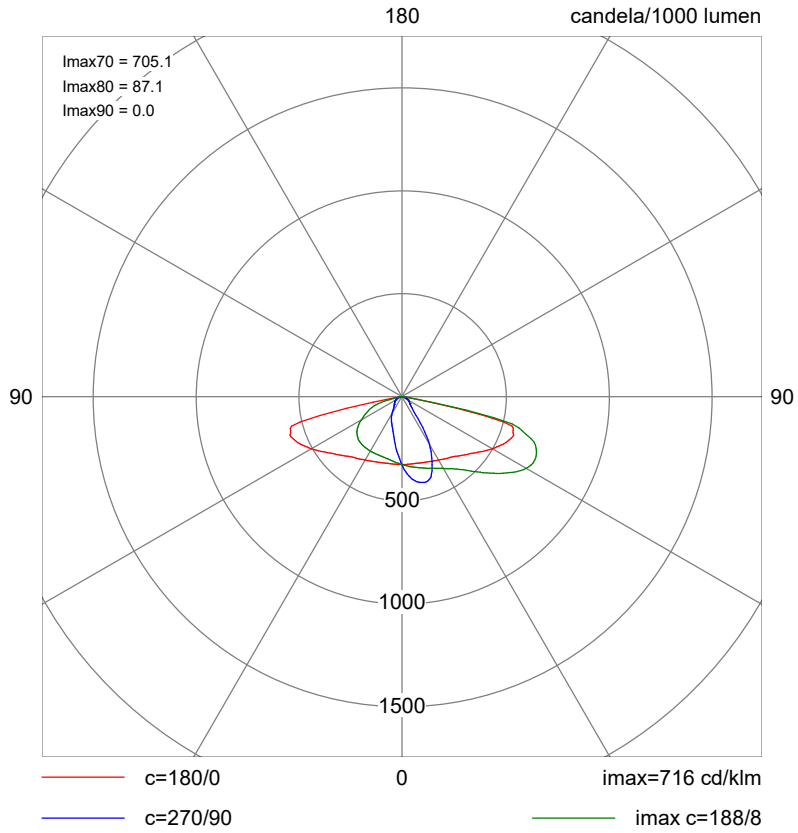
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	-7.62	55.70	8.00	251.00	0.00	0.00	0.00			
2	A	35.98	44.82	8.00	256.00	0.00	0.00	0.00			
3	B	17.72	45.80	6.00	251.00	0.00	0.00	1.00			
4	C	20.15	39.76	6.00	67.00	0.00	0.00	0.00			
5	A	69.29	34.41	8.00	256.00	0.00	0.00	0.00			
6	D	81.67	47.08	6.00	338.00	0.00	0.00	0.00			
7	D	102.56	109.27	6.00	339.00	5.00	0.00	0.00			
8	D	92.15	77.60	6.00	340.00	5.00	0.00	0.00			
9	D	-106.23	-57.16	8.00	-163.00	0.00	0.00	0.00			

Layout Continued

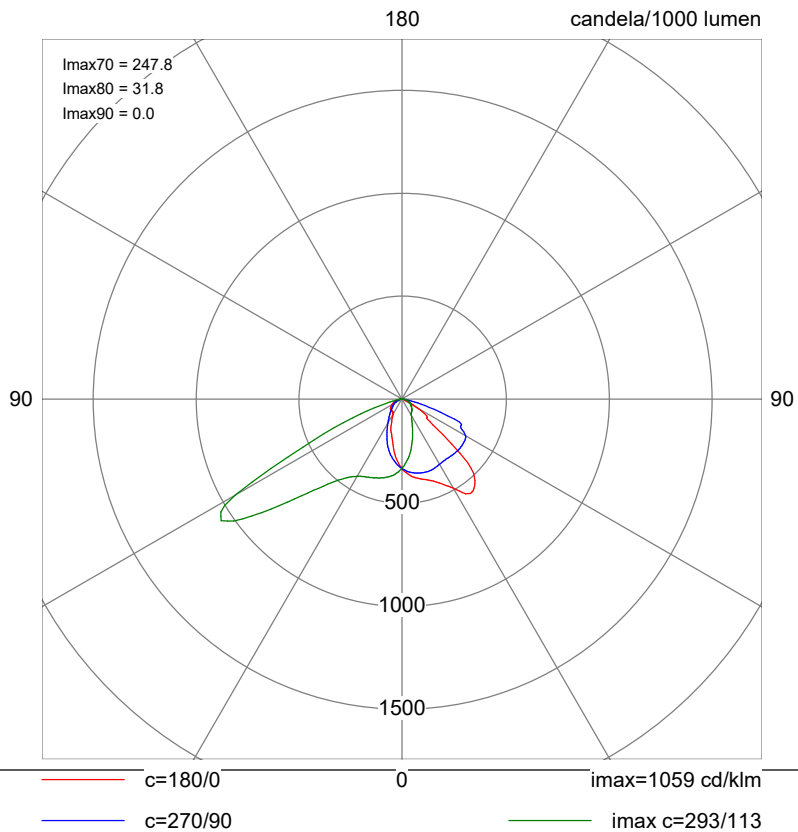
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
10	D	115.83	88.69	8.00	160.00	0.00	0.00	0.00			

Polar Diagrams

Luminaire A BGP291 DN25

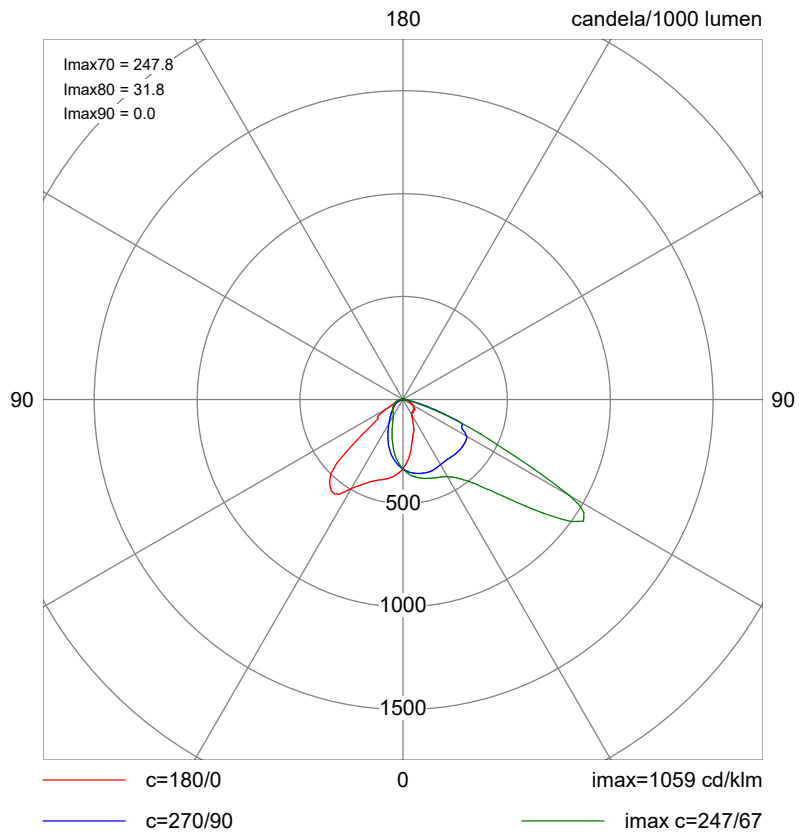


Luminaire B BGP702 DPR1

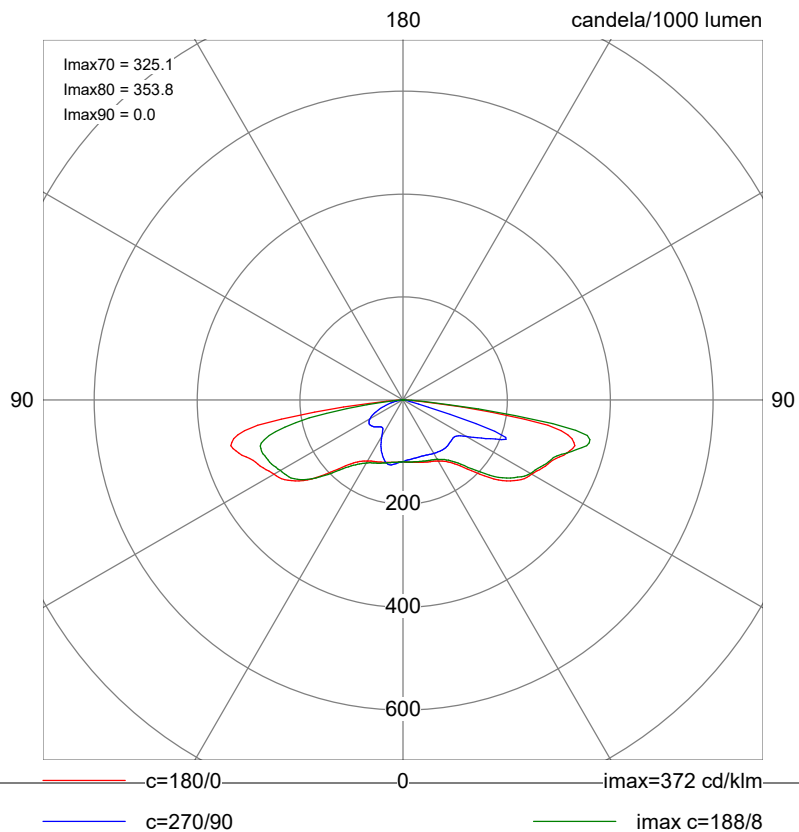


Polar Diagrams Continued

Luminaire C BGP702 DPL1

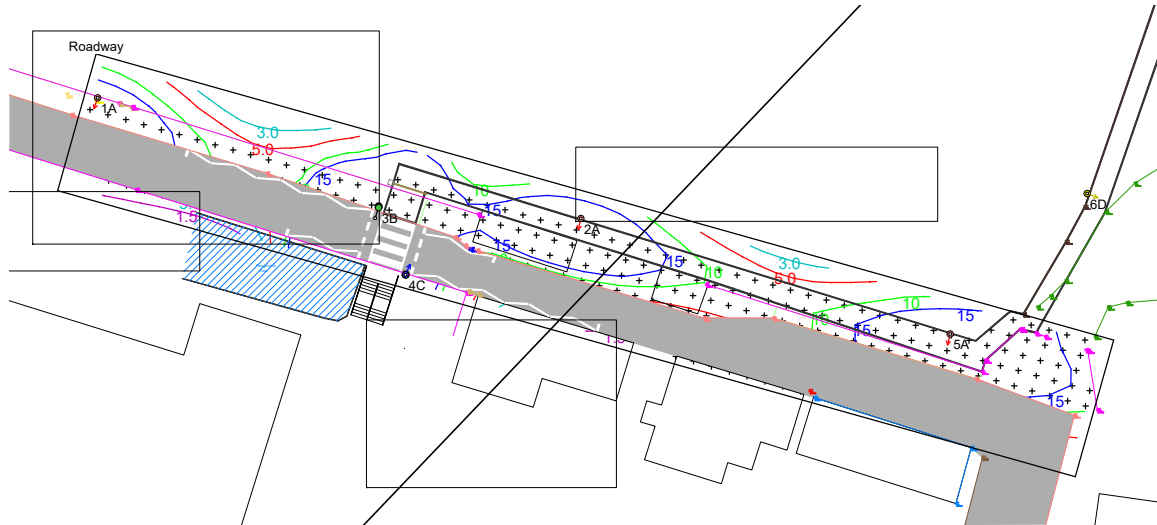


Luminaire D BGP293 DX70



Horizontal Illuminance (lux)

Roadway

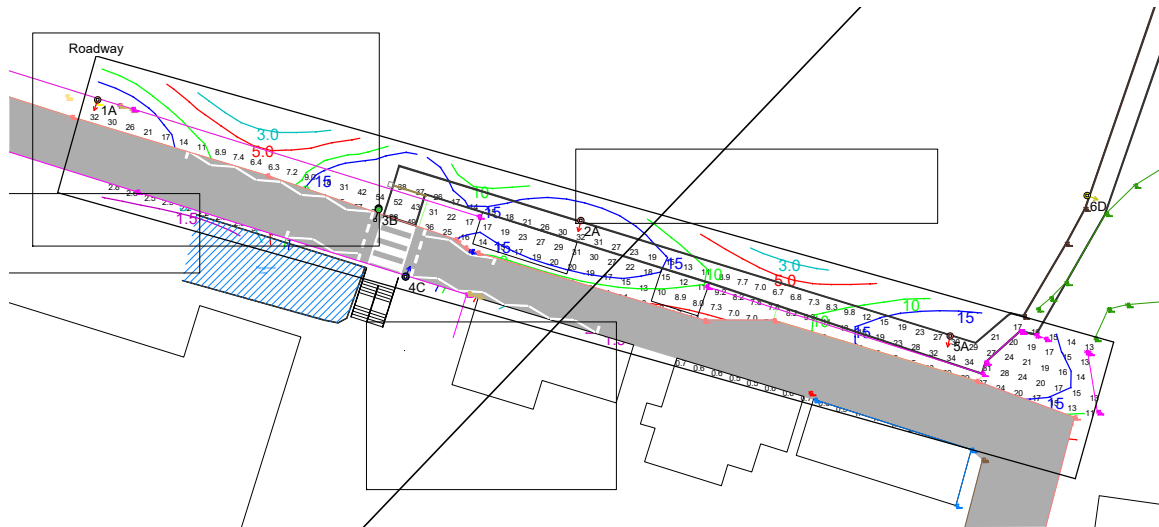


Results

Eav	16.08
Emin	0.54
E _{max}	92.93
E _{min} /E _{max}	0.01
E _{min} /E _{av}	0.03

Horizontal Illuminance (lux)

Roadway

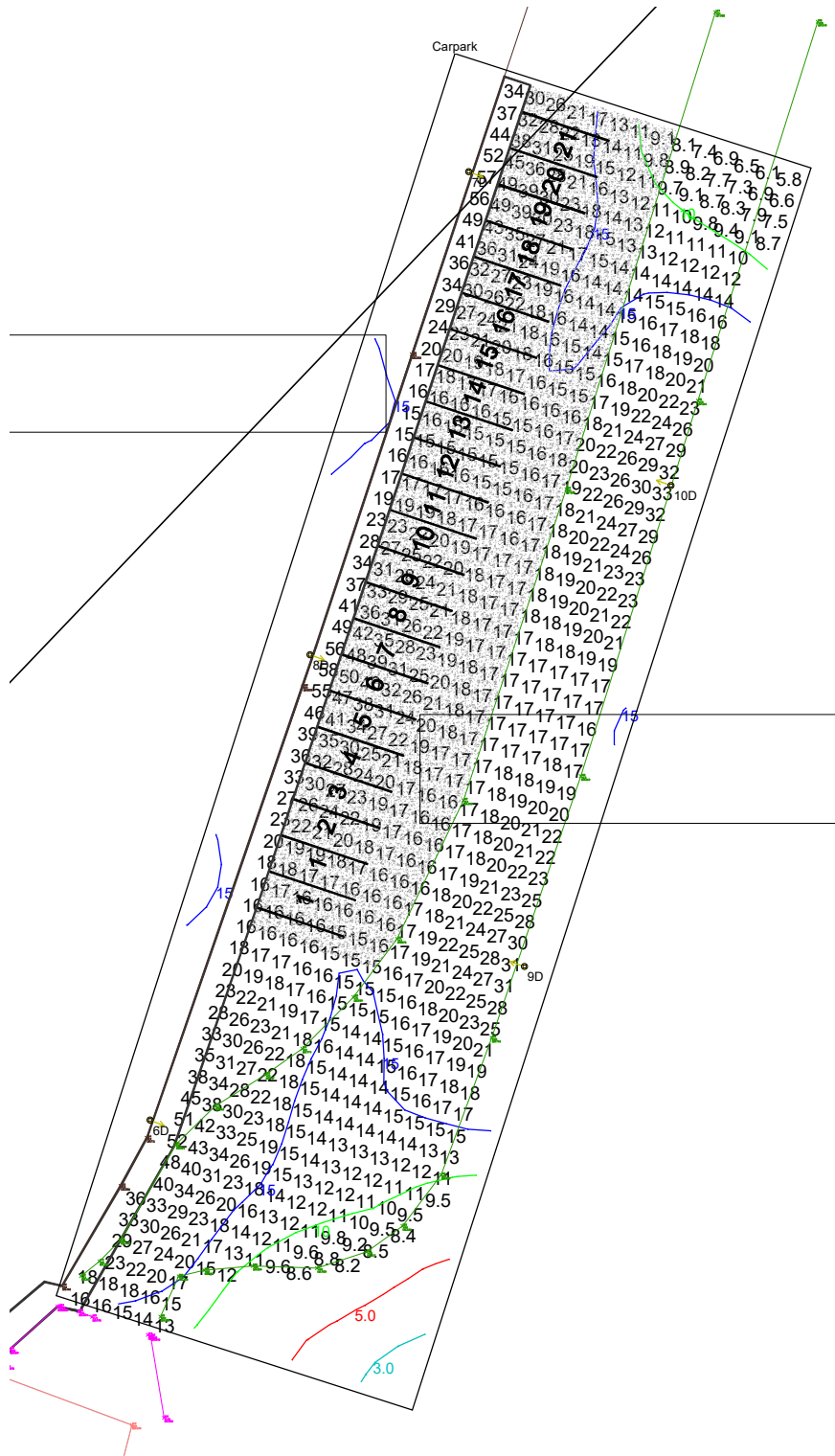


Results

Eav	16.08
Emin	0.54
Emax	92.93
Emin/Emax	0.01
Emin/Eav	0.03

Horizontal Illuminance (lux)

Carpark



Results

Eav	20.21
Emin	5.76
Emax	8 58.33