



PUBLIC LIGHTING

LIGHTING REALITY REPORT

MALLOW TOWN PARK

UPGRADE WORKS

PROPOSED CAR PARK

Rev: P01

Date: JULY 2020

LINKED PRACTICES

VARMING CONSULTING ENGINEERS LTD. ARE LINKED TO
STEENSEN VARMING INTERNATIONAL
OFFICES IN LONDON,
DENMARK, HONG KONG, SYDNEY.

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MALLOW TOWN PARK
UPGRADE WORKS
PROPOSED NEW CAR PARK

1. Public Lighting – Lighting Reality Report

DATE: 23 July 2020
DESIGNER: Declan Doyle
PROJECT No: KE/RE/MTP/01
PROJECT NAME: Mallow town park lighting



Car park lighting to BS EN12464 - 5lux avg./0.25Uo
Entrance (conflict zone) to class C3 - 15lux avg./6lux min./0.4Uo

- 1) CREE XSPME B DY0009 type 3SH, 3.15klm, 21w clo
- 2) CREE XSPHO1 L DY0011 type 2LG, 7.50klm, 55w clo

c/w nema 7 pin socket

6m columns car park, 8m columns main road (existing)

Outdoor Lighting Report

PREPARED BY: Declan Doyle,
Astrotek Ltd.,
M50 Business park,
Ballymount Avenue,
Dublin 12
Tel: 01 4568009
www.astrotek.ie

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	Town Park	555573.58	598220.10	204.08	210.44	1.49	1.49
2	Car Park 1	555609.33	598251.26	21.32	116.67	1.25	1.36
3	Car Park 2	555635.35	598364.19	99.45	25.18	1.48	1.48
4	Entrance - Conflict Zone...	555647.16	598385.64	20.69	18.18	1.48	1.40

Luminaires



Luminaire A Data

Supplier	Cree Lighting
Type	XSPME - B - Type 3SH - 21W 3K
Lamp(s)	3MD-SA1400 M 21W 3K
LampFlux(klm)/Colour	3.15 3000/70
File Name	XSPME023SHB30K_21W-PL12371-012A.LDT
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	334.5, 193.4, 0.0
Lamp S/P Ratio	1.27
No. in Project	21



Luminaire B Data

Supplier	Cree Lighting
Type	XSP1E - L - Type 2LG - 55W 3K
Lamp(s)	5MDSA1400 3K 55W
LampFlux(klm)/Colour	7.50 3000/70
File Name	XSP1E022LGL30K_55W-PL11703-033.LDT
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	687.8, 233.4, 0.0
Lamp S/P Ratio	1.27
No. in Project	3

Layout

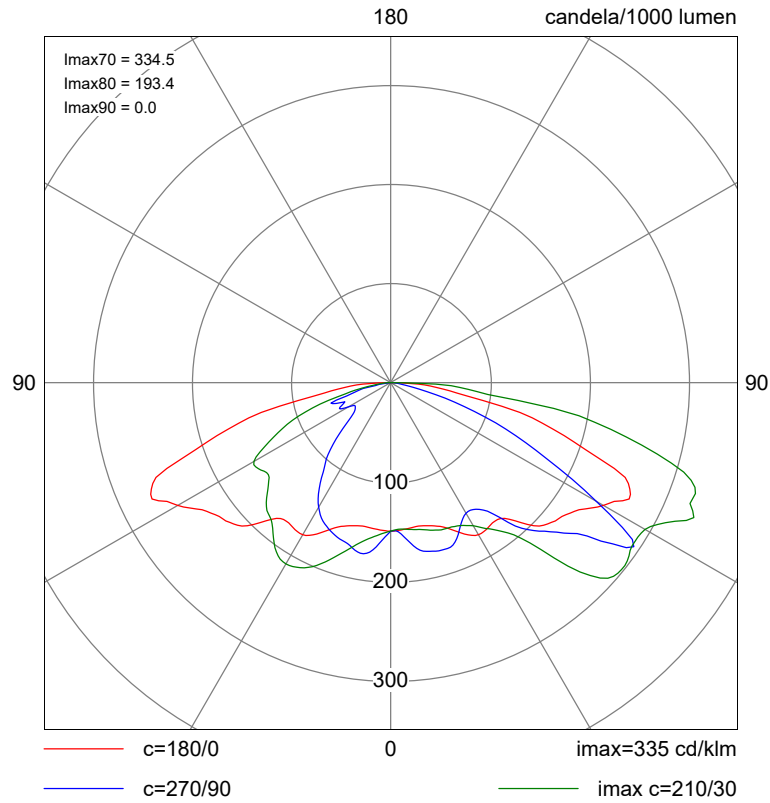
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	555610.65	598261.82	6.00	349.00	0.00	0.00	0.00			
2	A	555614.17	598276.74	6.00	349.00	0.00	0.00	0.00			
3	A	555617.57	598296.39	6.00	349.00	0.00	0.00	0.00			
4	A	555621.06	598316.00	6.00	349.00	0.00	0.00	0.00			
5	A	555624.64	598335.77	6.00	349.00	0.00	0.00	0.00			
6	A	555628.09	598355.48	6.00	349.00	0.00	0.00	0.00			
7	A	555647.14	598351.94	6.00	169.00	0.00	0.00	0.00			
8	A	555643.69	598332.42	6.00	169.00	0.00	0.00	0.00			
9	A	555640.29	598312.75	6.00	169.00	0.00	0.00	0.00			
10	A	555636.75	598293.08	6.00	169.00	0.00	0.00	0.00			
11	A	555633.55	598273.41	6.00	169.00	0.00	0.00	0.00			
12	A	555631.73	598257.71	6.00	169.00	0.00	0.00	0.00			
13	A	555681.44	598378.42	6.00	267.00	0.00	0.00	0.00			
14	A	555704.69	598377.38	6.00	267.00	0.00	0.00	0.00			
15	A	555724.81	598375.36	6.00	264.00	0.00	0.00	0.00			
16	A	555707.74	598360.82	6.00	91.00	0.00	0.00	0.00			
17	A	555682.68	598363.89	6.00	90.00	0.00	0.00	0.00			

Layout Continued

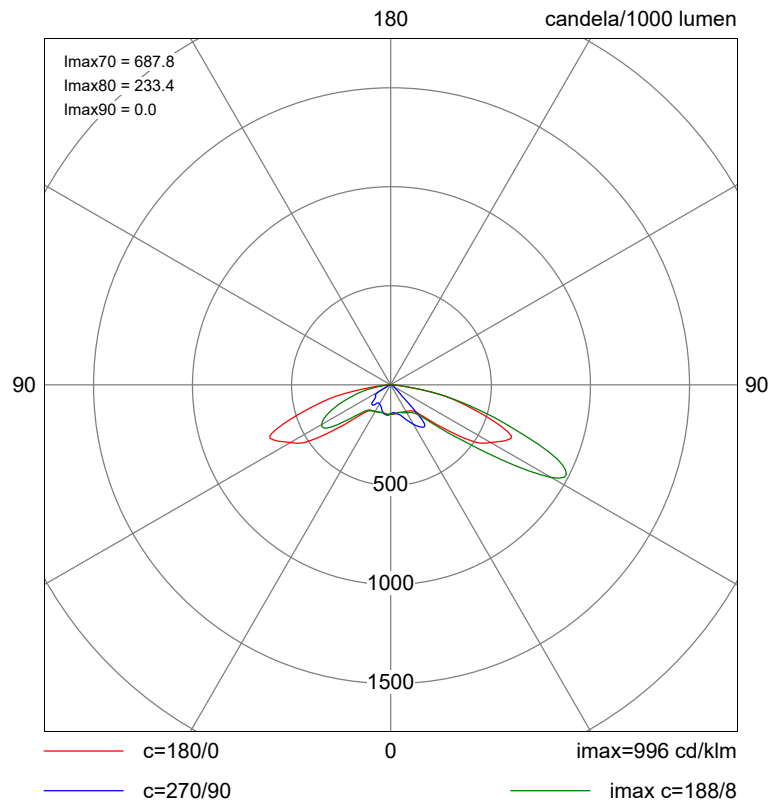
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
18	A	555658.92	598365.82	6.00	90.00	0.00	0.00	0.00			
19	A	555662.68	598381.66	6.00	180.00	0.00	0.00	0.00			
20	A	555731.37	598358.03	6.00	84.00	0.00	0.00	0.00			
21	A	555640.07	598372.83	6.00	303.00	0.00	0.00	0.00			
22	B	555658.05	598403.32	8.00	270.00	5.00	0.00	2.00			
23	B	555654.29	598384.13	8.00	90.00	5.00	0.00	2.00			
24	B	555682.90	598385.33	8.00	92.00	5.00	0.00	2.00			

Polar Diagrams

Luminaire A XSPME - B - Type 3SH - 21W 3K

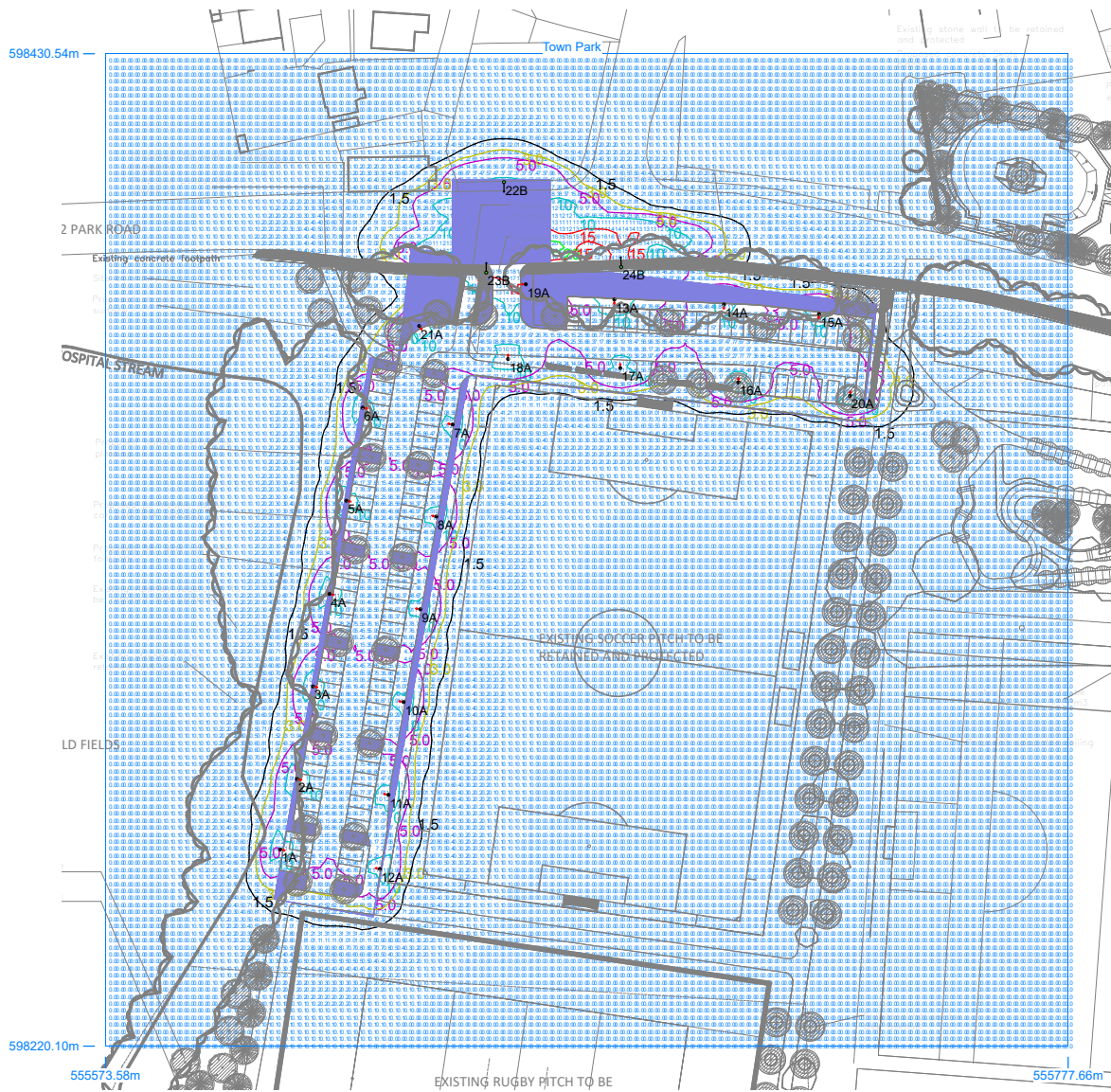


Luminaire B XSP1E - L - Type 2LG - 55W 3K



Horizontal Illuminance (lux)

Town Park

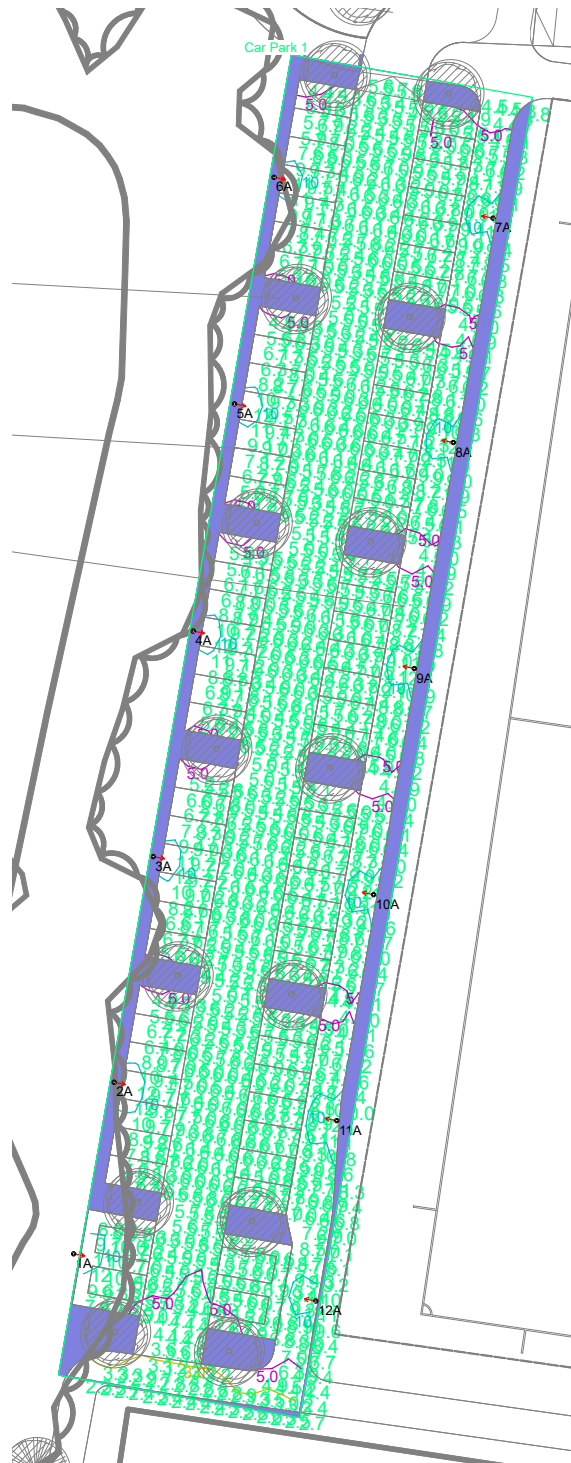


Results

Eav	1.13
Emin	0.00
Emax	22.98
Emin/Emax	0.00
Emin/Eav	0.00

Horizontal Illuminance (lux)

Car Park 1

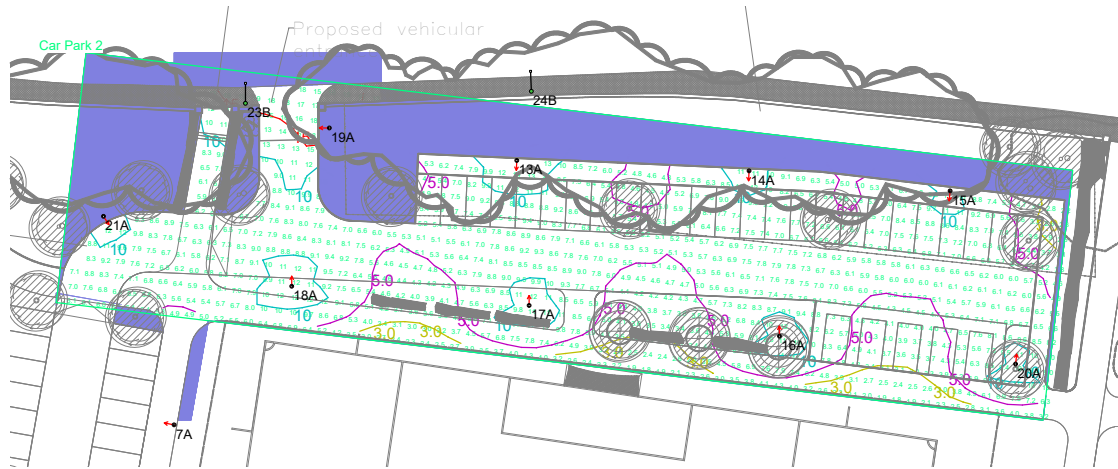


Results

Eav	6.49
Emin	2.25
Emax	11.83
Emin/Emax	0.19
Emin/Eav	0.35

Horizontal Illuminance (lux)

Car Park 2

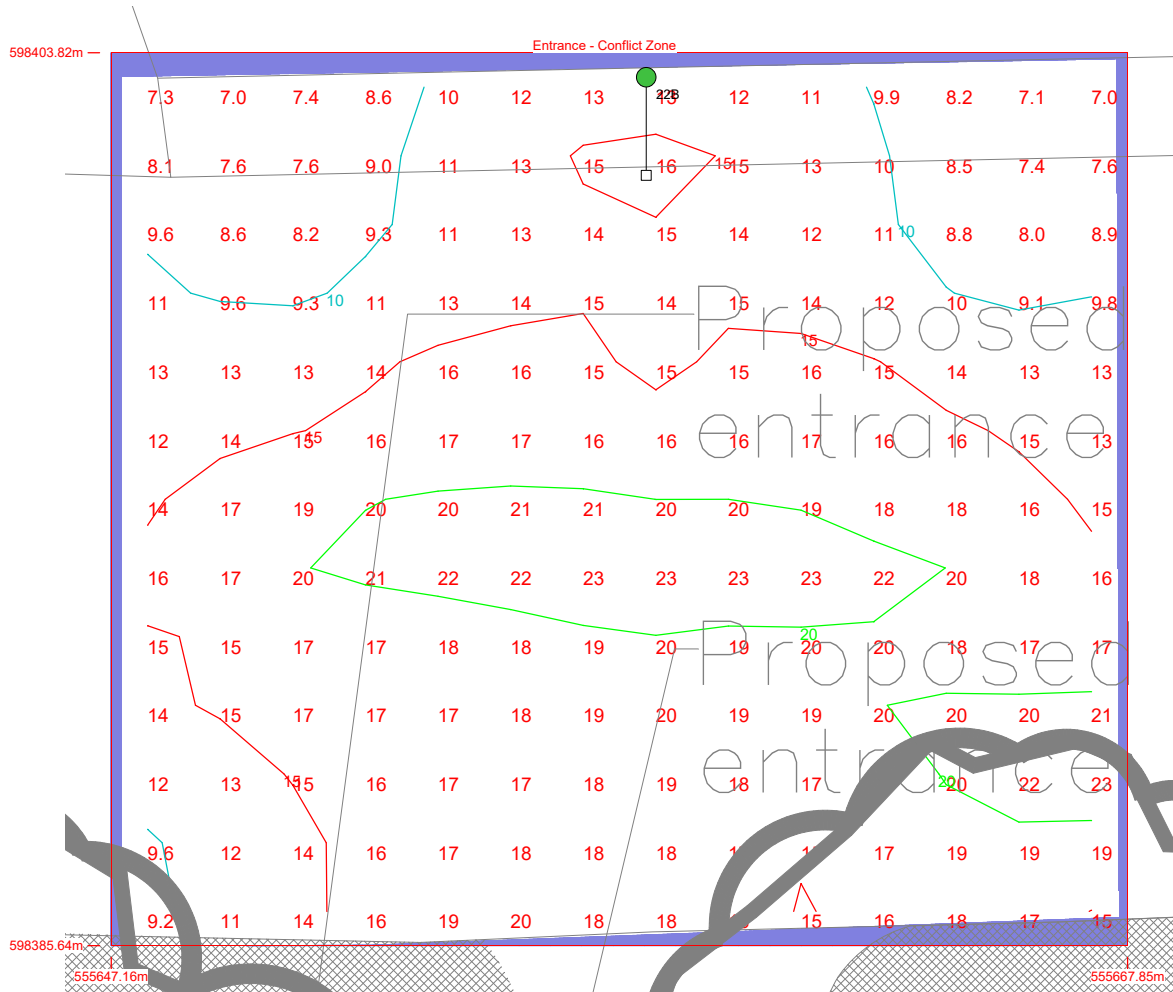


Results

Eav	6.86
Emin	1.78
Emax	18.97
Emin/Emax	0.09
Emin/Eav	0.26

Horizontal Illuminance (lux)

Entrance - Conflict Zone



Results

Eav	15.18
Emin	6.98
Emax	23.04
Emin/Emax	0.30
Emin/Eav	0.46