

DATE: 13 October 2023
DESIGNER: Delap and Waller
PROJECT No: 22135
PROJECT NAME: Gowan House

**LIGHTING
REALITY**

Outdoor Lighting Report

PREPARED BY: Delap and Waller,
Bloomfiel House,
Bloomfield Avenue,
Dublin 8

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	Road-South	-3709.86	134.19	85.04	12.73	1.49	1.41
2	Road - East	-3623.97	139.67	14.73	89.46	1.34	1.49
3	Walkway-Ground	-3685.70	164.72	62.55	33.13	1.49	1.51
4	Road-West	-3725.39	134.59	15.11	94.09	1.37	1.49
5	Surface 1	-3709.37	147.90	22.74	71.23	1.42	1.48
6	North	-3709.50	220.00	100.53	23.60	1.48	1.47
7	Pedestrian crossing	-3746.81	141.77	21.12	19.46	1.41	1.50

Luminaires



Luminaire A Data

Supplier	ASD Lighting
Type	HWD-#4LED1230-S4 Osram Rev 1
Lamp(s)	4000K Osram LED
LampFlux(klm)/Colour	1.47 4000/72
File Name	HWD-#4LED1230-S4 (13w).ldt
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	536.5, 68.6, 0.0
No. in Project	18

Luminaire D Data

Supplier	
Type	Stealth Elite Black Clear LED 4000K 430 W de Lens
Lamp(s)	LED
LampFlux(klm)/Colour	1.28 4000k/80
File Name	SEL-B4LED430-W.ldt
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	814.9, 427.2, 45.2
No. in Project	2



Luminaire F Data

Supplier	
Type	Mini Horizon Louvre LED Black Opal 4000K 600
Lamp(s)	LED
LampFlux(klm)/Colour	0.28 4000K/80
File Name	HR2-BLL4LED600.ldt
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	173.4, 107.1, 51.6
No. in Project	8

Luminaire G Data

Supplier	Thorn UK
Type	Avenue F2 - Clear Diffuser - clear ring - 18 x LEDs 4000K 350
Lamp(s)	LED 4000K
LampFlux(klm)/Colour	2.22 4000/
File Name	AVF18L35RS4KG32_DC.LDT
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	271.6, 199.6, 46.2
No. in Project	19

Luminaires



Luminaire J Data

Supplier	ASD Lighting
Type	HWD6-#4K076 650-M1-CLO Gen 5
Lamp(s)	LED 4000K
LampFlux(klm)/Colour	17.61 4000/72
File Name	HWD6-#4K076 650-M1-CLO (135W).ldt
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	579.8, 193.9, 0.4
No. in Project	3

Layout

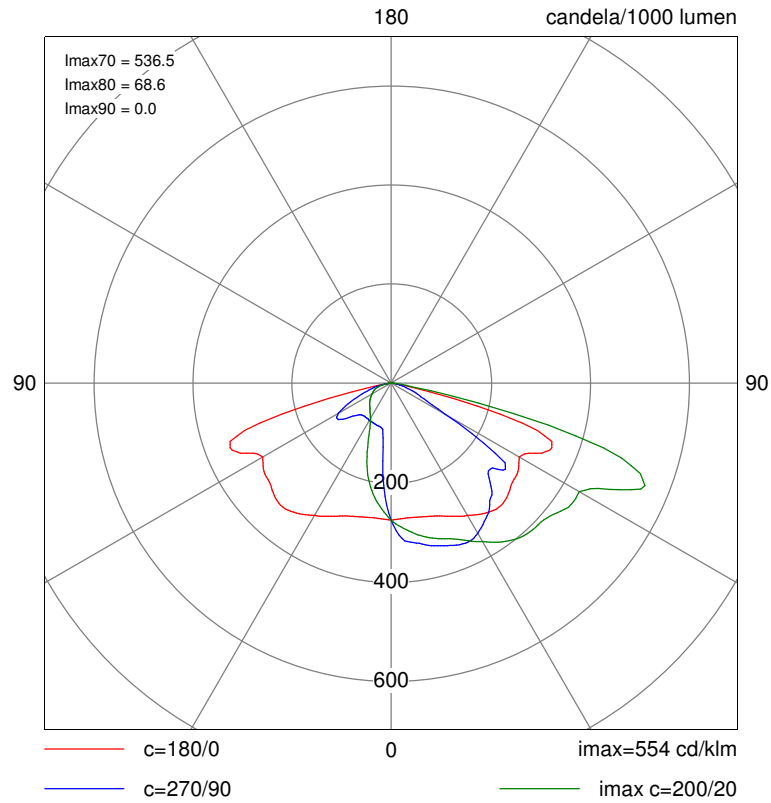
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	G	-3654.48	171.87	4.00	326.00	0.00	0.00	0.00			
2	G	-3625.60	187.74	4.00	233.00	0.00	0.00	0.00			
3	G	-3636.29	181.51	4.00	326.00	0.00	0.00	0.00			
4	G	-3696.59	171.68	4.00	326.00	0.00	0.00	0.00			
5	G	-3650.73	193.33	4.00	88.00	0.00	0.00	0.00			
6	A	-3669.74	143.75	6.00	270.00	0.00	0.00	0.55			
7	A	-3619.81	166.68	6.00	0.00	0.00	0.00	0.00			
8	A	-3619.52	180.23	6.00	0.00	0.00	0.00	0.00			
9	F	-3699.34	183.67	3.00	326.00	0.00	0.00	0.00			
10	F	-3699.48	188.09	3.00	326.00	0.00	0.00	0.00			
11	F	-3683.49	160.67	3.00	269.00	0.00	0.00	0.00			
12	A	-3617.20	149.12	6.00	0.00	0.00	0.00	0.00			
13	A	-3617.34	193.08	6.00	0.00	0.00	0.00	0.00			
14	G	-3667.15	187.52	4.00	95.00	0.00	0.00	0.00			
15	G	-3669.00	169.91	4.00	15.00	0.00	0.00	0.00			
16	A	-3619.39	207.09	6.00	358.00	0.00	0.00	0.00			
17	G	-3634.91	194.68	4.00	326.00	0.00	0.00	0.00			
18	F	-3680.73	163.18	2.70	267.00	0.00	0.00	0.00			
19	F	-3685.79	157.92	2.70	271.00	0.00	0.00	0.00			
20	G	-3682.38	179.15	4.00	326.00	0.00	0.00	0.00			
21	A	-3621.88	224.94	6.00	0.00	0.00	0.00	0.00			
22	D	-3685.18	199.83	3.00	356.00	0.00	0.00	0.00			
23	F	-3694.49	183.43	3.00	326.00	0.00	0.00	0.00			
24	A	-3621.69	140.41	6.00	270.00	0.00	0.00	0.00			
25	A	-3653.28	143.49	6.00	270.00	0.00	0.00	0.25			
26	A	-3682.76	140.58	6.00	270.00	0.00	0.00	0.00			
27	A	-3709.71	142.20	6.00	245.00	0.00	0.00	0.00			
28	F	-3685.48	162.66	2.70	271.00	0.00	0.00	0.00			
29	F	-3687.88	186.67	3.00	326.00	0.00	0.00	0.00			
30	A	-3636.83	143.58	6.00	270.00	0.00	0.00	0.00			
31	A	-3716.09	227.82	6.00	192.00	0.00	0.00	1.00			
32	A	-3714.02	153.93	6.00	184.00	0.00	0.00	0.00			
33	A	-3688.04	149.54	6.00	174.00	0.00	0.00	0.00			
34	G	-3644.75	178.54	4.00	326.00	0.00	0.00	0.00			
35	A	-3714.16	170.25	6.00	177.00	0.00	0.00	1.00			
36	G	-3700.19	150.89	4.00	23.00	0.00	0.00	1.00			

Layout Continued

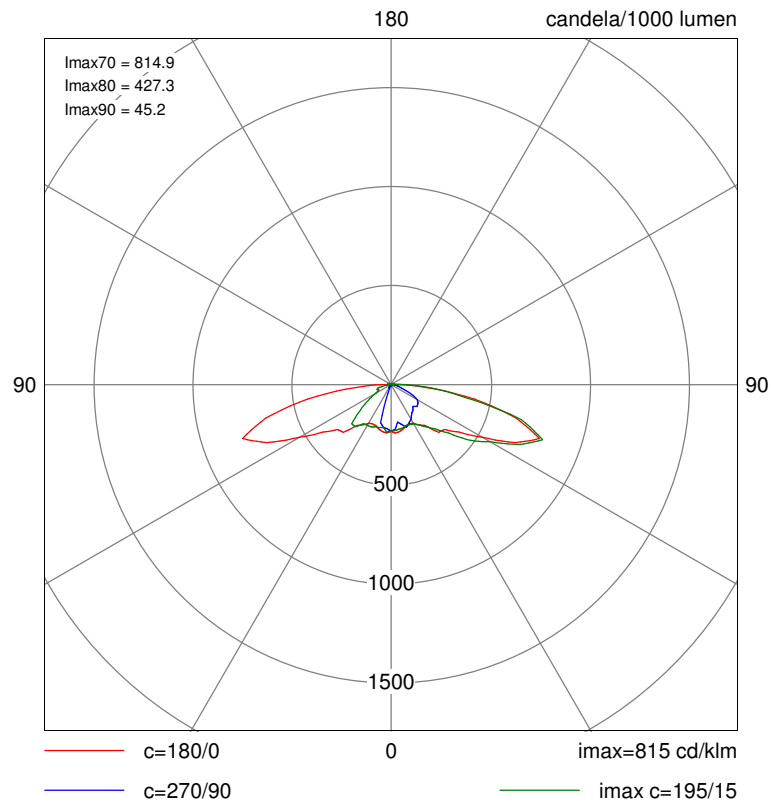
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
37	A	-3715.01	190.73	6.00	180.00	0.00	0.00	1.00			
38	A	-3716.09	211.27	6.00	180.00	0.00	0.00	1.00			
39	G	-3707.31	186.00	4.00	0.00	0.00	0.00	1.00			
40	G	-3709.34	203.35	4.00	0.00	0.00	0.00	1.00			
41	G	-3708.96	223.49	4.00	0.00	0.00	0.00	1.00			
42	G	-3692.19	226.18	4.00	0.00	0.00	0.00	1.00			
43	G	-3677.89	233.11	4.00	0.00	0.00	0.00	1.00			
44	G	-3657.45	236.03	4.00	0.00	0.00	0.00	1.00			
45	G	-3636.24	236.86	4.00	263.00	0.00	0.00	1.00			
46	G	-3619.40	237.89	4.00	265.00	0.00	0.00	1.00			
47	D	-3679.45	220.64	4.00	82.00	0.00	0.00	1.00			
48	J	-3734.49	154.20	6.00	180.00	0.00	0.00	0.50			
49	J	-3745.43	159.33	6.00	0.00	0.00	0.00	0.50			
50	J	-3723.80	148.54	6.00	180.00	0.00	0.00	0.50			

Polar Diagrams

Luminaire A HWD-#4LED1230-S4 Osram Rev 1

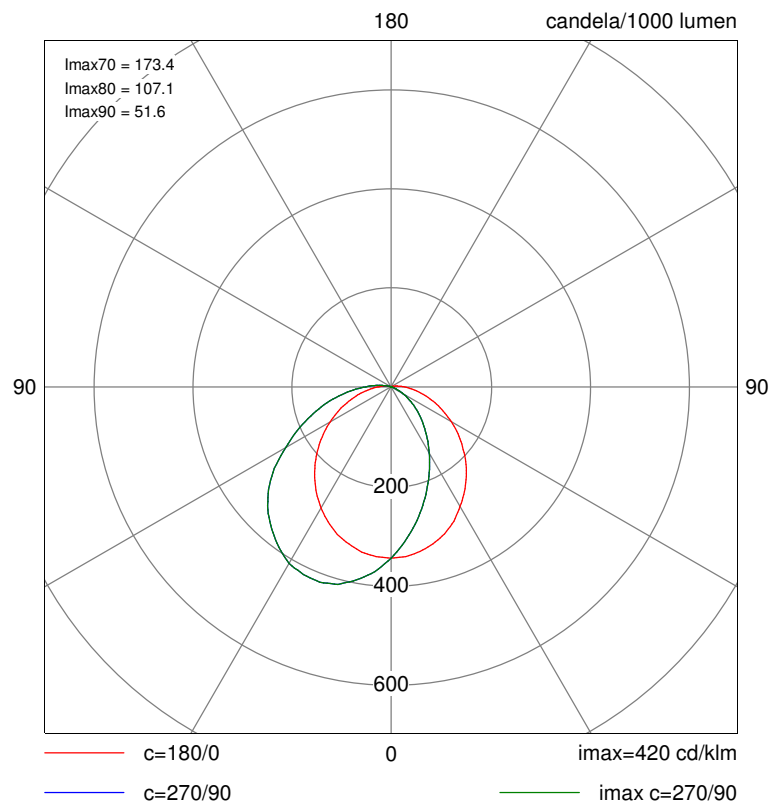


Luminaire D Stealth Elite Black Clear LED 4000K 430 Wide Lens

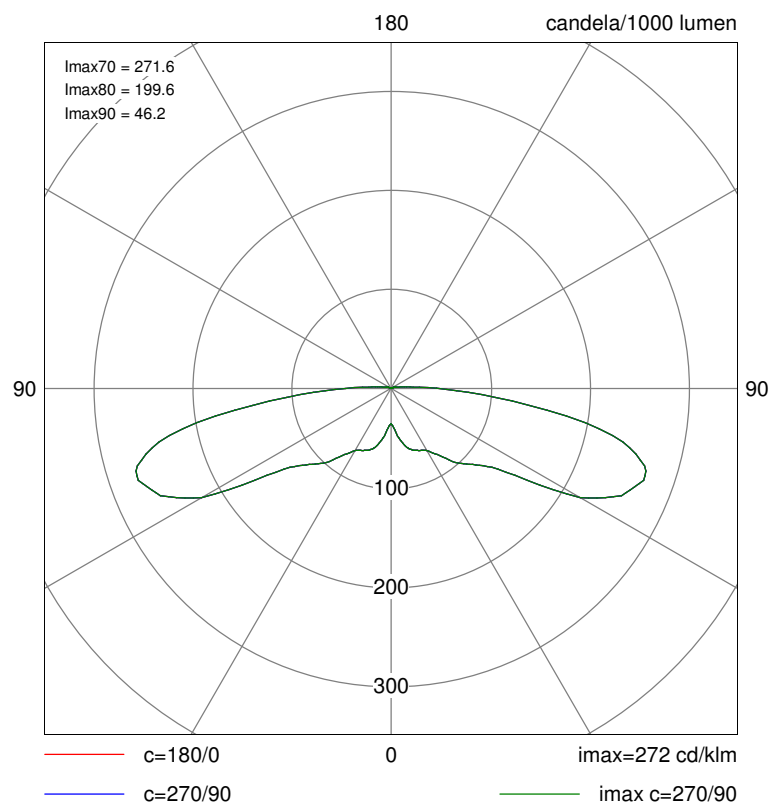


Polar Diagrams Continued

Luminaire F Mini Horizon Louvre LED Black Opal 4000K 600

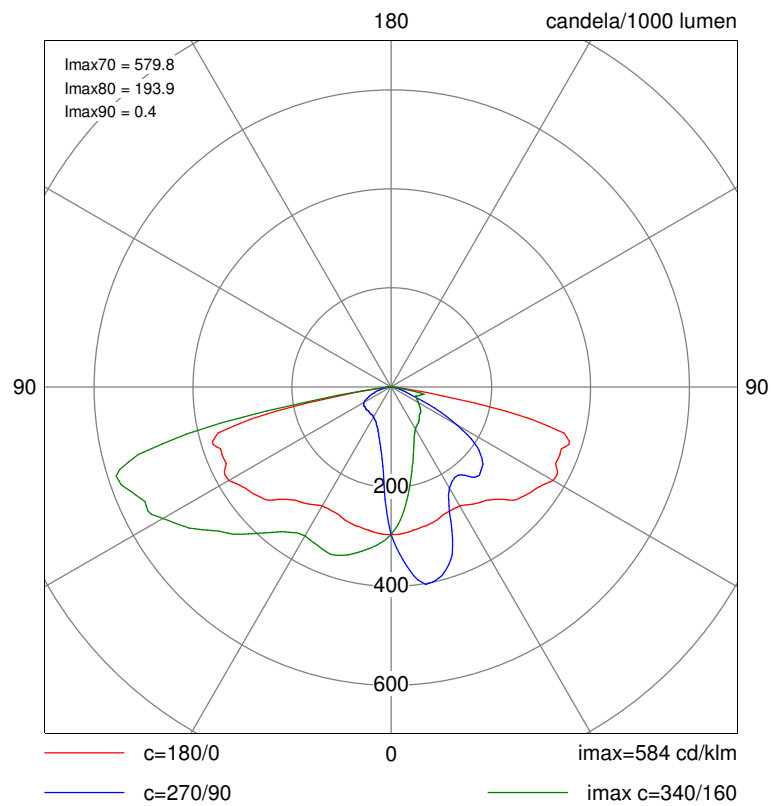


Luminaire G Avenue F2 - Clear Diffuser - clear ring - 18 x LEDs 4000K 350



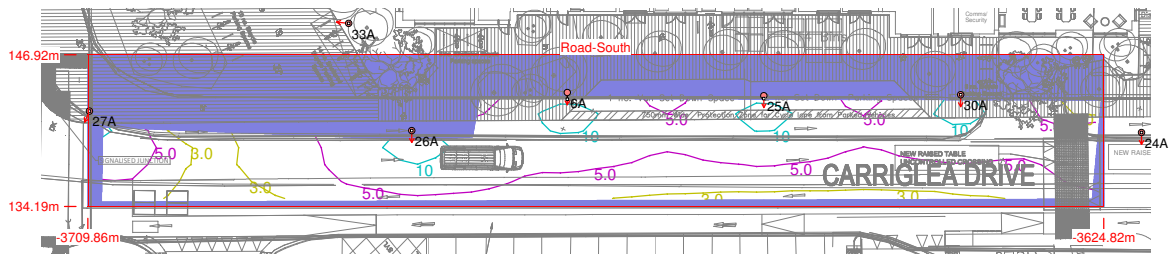
Polar Diagrams Continued

Luminaire J HWD6-#4K076 650-M1-CLO Gen 5



Horizontal Illuminance (lux)

Road-South

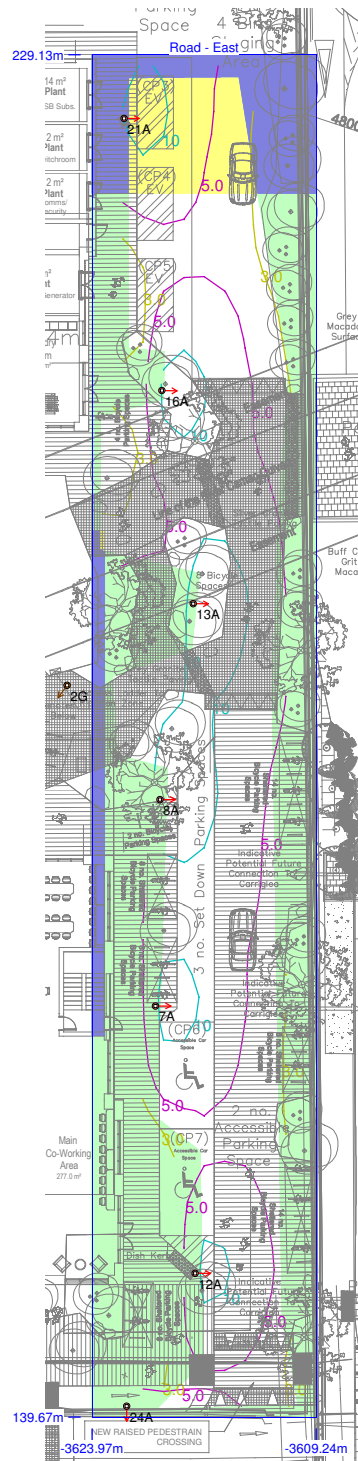


Results

Eav	5.51
Emin	2.45
Emax	11.61
Emin/Emax	0.21
Emin/Eav	0.44

Horizontal Illuminance (lux)

Road - East

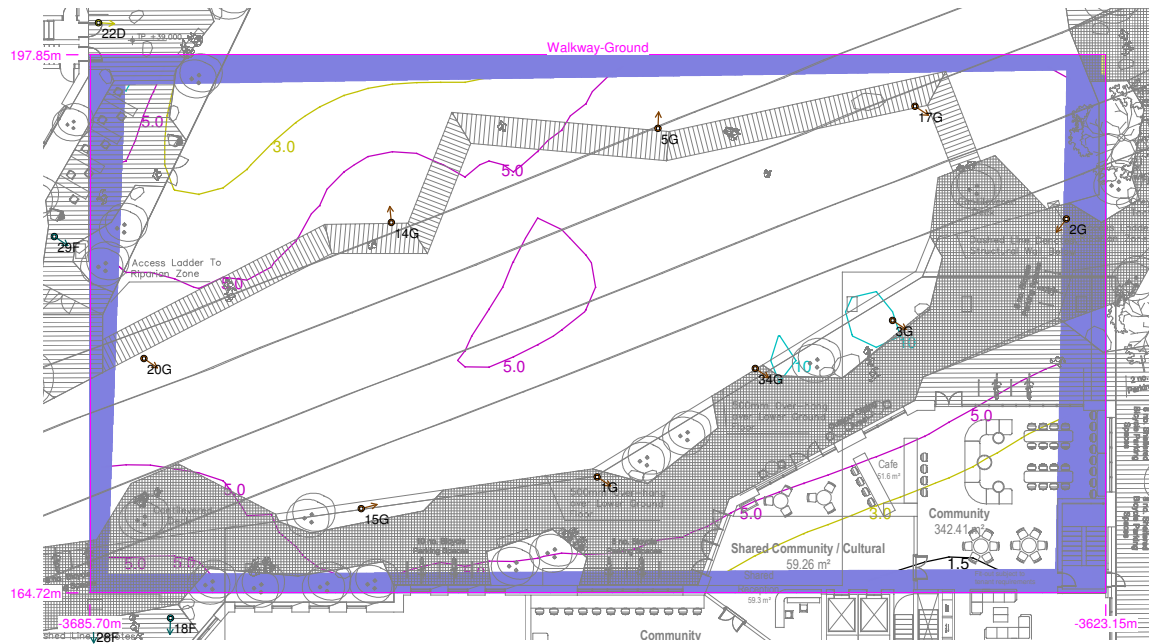


Results

Eav	6.83
Emin	2.28
Emax	14.19
Emin/Emax	0.16
Emin/Eav	0.33

Horizontal Illuminance (lux)

Walkway-Ground

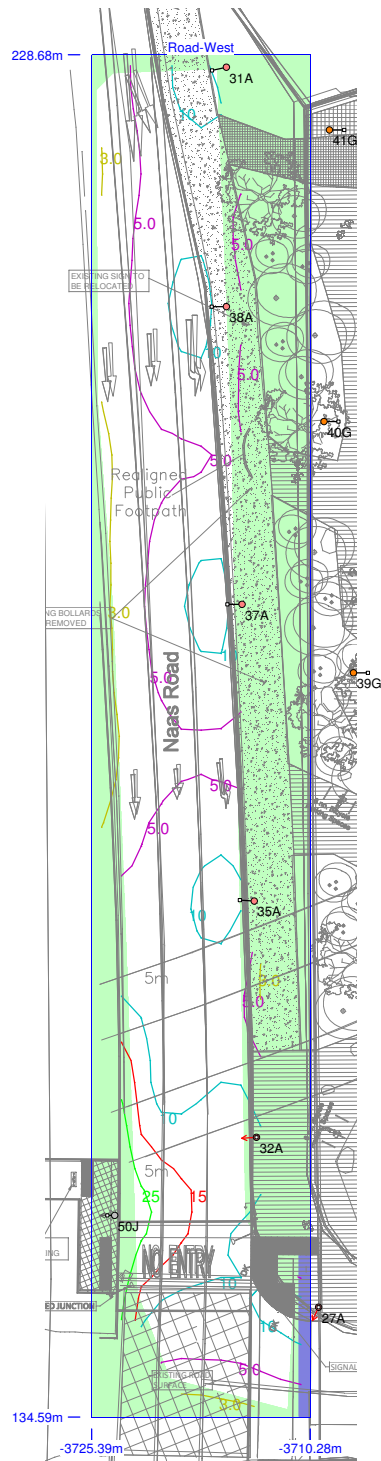


Results

Eav	5.94
Emin	1.51
Emax	10.69
Emin/Emax	0.14
Emin/Eav	0.25

Horizontal Illuminance (lux)

Road-West

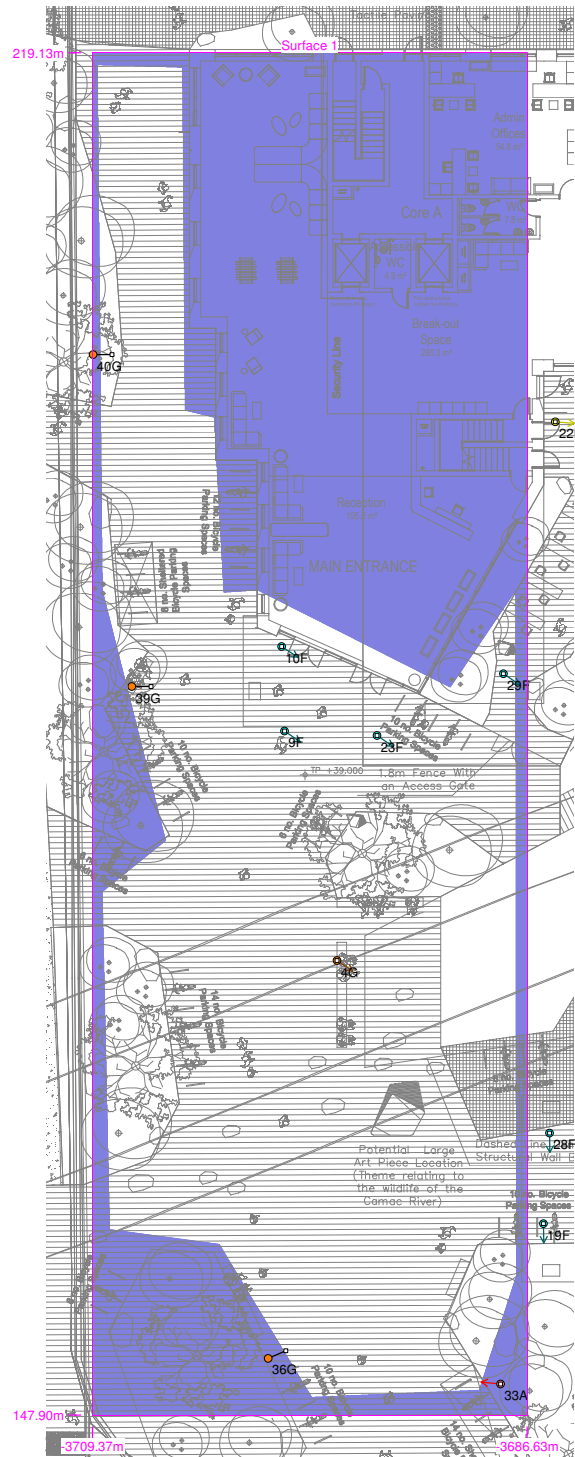


Results

Eav	7.69
Emin	2.64
E _{max}	29.20
E _{min} /E _{max}	0.09
E _{min} /E _{av}	0.34

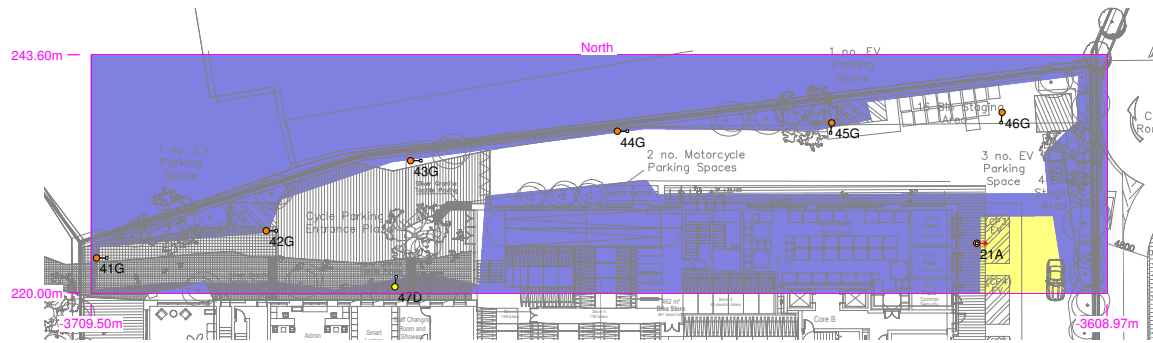
Horizontal Illuminance (lux)

Surface 1



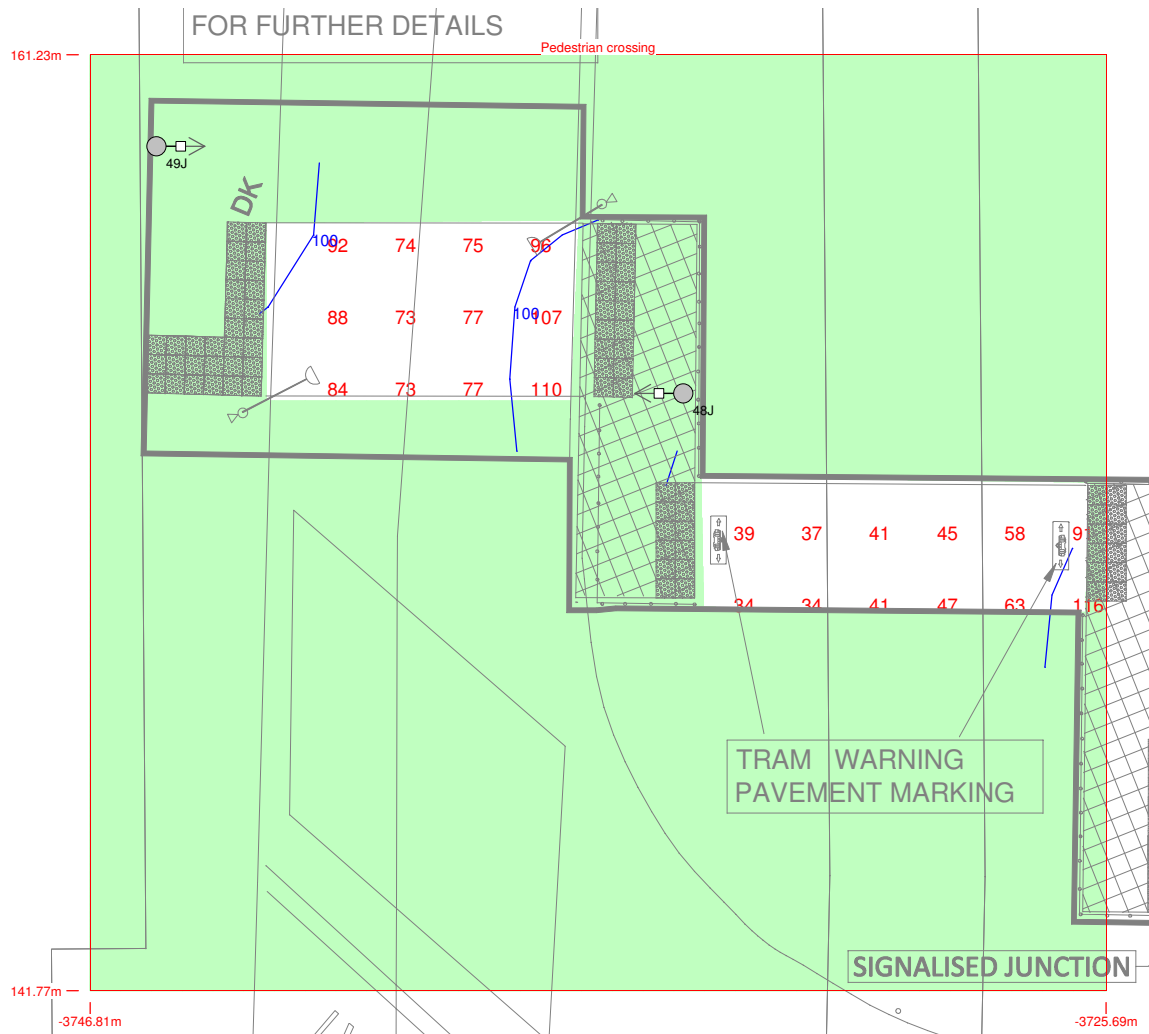
Horizontal Illuminance (lux)

North



Horizontal Illuminance (lux)

Pedestrian crossing



Results

Eav	69.61
Emin	33.67
Emax	115.90
Emin/Emax	0.29
Emin/Eav	0.48