

**DATE:** 23 February 2022  
**DESIGNER:** Patrick Redmond  
**PROJECT No:** 21092  
**PROJECT NAME:** Proposed Res Dev at Edmonstown ~ North Site REV D



Lighting on junction designed to comply with I.S. EN 13201-2:2015 C3, new road & Whitechurch Road with P2, spine road with P3, residential areas with P4. Energy consumption assessed in accordance with I.S. EN 13201-5:2015.

LMF 0.92 x LDF 0.9 x LSF 1 = MF 0.83 at 100,000 hours at 25 degree ambient. Photometry measured at minimum 15 degree ambient.

Luminaire A = 69W. Luminaire B = 63W. Luminaire C = 56W.  
Luminaire D = 27W. Luminaire E = 32W. Luminaire F = 14W.  
Luminaire G = 6W. Luminaire H = 21W. Luminaire I = 17W.  
Luminaire J = 13W. Luminaire K = 30W. Luminaire L = 5W.  
Luminaire M = 70W. Connected load, averaged for CLO.

## Light Level ~ Full Output

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## 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	Phase 1 North	63.68	799.80	193.23	126.13	1.50	1.48
2	Phase 2 North	2.46	842.67	95.43	126.76	1.49	1.49
3	Whitechurch Road 1	271.16	713.13	46.05	117.98	1.49	1.49
4	Whitechurch Road 2	273.06	649.22	38.55	73.27	1.48	1.50

### Luminaires

#### Luminaire F Data



Supplier	Philips
Type	BGP291 DW52
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	2.40
File Name	LumiStreet Gen2 Micro_BGP291_DW52_240_0_10LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	639.6, 45.2, 0.0
No. in Project	3

#### Luminaire G Data



Supplier	Philips
Type	BGP291 DRXN1
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	1.00
File Name	LumiStreet Gen2 Micro_BGP291_DRXN1_1000_6LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	1155.3, 26.3, 0.0
No. in Project	12

#### Luminaire I Data



Supplier	Philips
Type	BGP291 DM10
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	3.00
File Name	LumiStreet Gen2 Micro_BGP291_DM10_300_0_20LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	534.0, 55.4, 0.0
No. in Project	9

#### Luminaire J Data



Supplier	Philips
Type	BGP291 DM33
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	2.20
File Name	LumiStreet Gen2 Micro_BGP291_DM33_220_0_10LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	292.4, 11.4, 0.0
No. in Project	7

#### Luminaire K Data



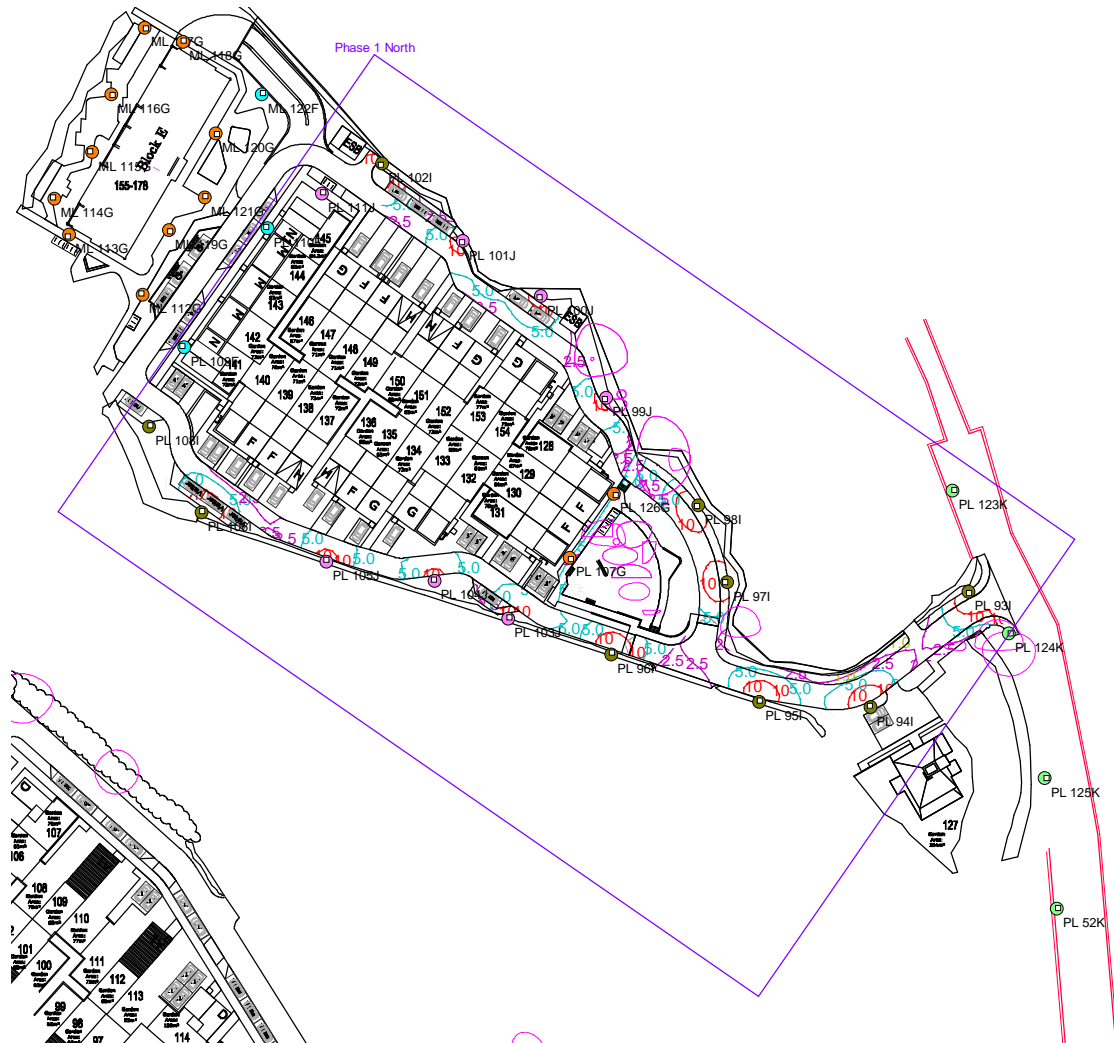
Supplier	Philips
Type	BGP291 DM12
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	5.20
File Name	LumiStreet Gen2 Micro_BGP291_DM12_520_0_20LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	742.0, 45.4, 0.0
No. in Project	5

**Layout**

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
PL 93	I	270.20	781.61	6.00	299.00	0.00	0.00	0.40			
PL 94	I	248.03	755.46	6.00	120.00	0.00	0.00	0.40			
PL 95	I	222.71	756.57	6.00	74.00	0.00	0.00	0.40			
PL 96	I	189.16	767.45	6.00	73.00	0.00	0.00	0.40			
PL 97	I	215.50	783.82	6.00	183.00	0.00	0.00	0.40			
PL 98	I	208.97	801.26	6.00	207.00	0.00	0.00	0.40			
PL 99	J	188.03	825.57	6.00	213.00	0.00	0.00	0.40			
PL 100	J	173.16	848.78	6.00	232.00	0.00	0.00	0.40			
PL 101	J	155.52	861.25	6.00	239.00	0.00	0.00	0.40			
PL 102	I	137.11	878.79	6.00	238.00	0.00	0.00	0.40			
PL 103	J	165.84	775.52	6.00	49.00	0.00	0.00	0.40			
PL 104	J	149.07	784.06	6.00	102.00	0.00	0.00	0.40			
PL 105	J	124.47	788.48	6.00	71.00	0.00	0.00	0.40			
PL 106	I	96.18	799.58	6.00	54.00	0.00	0.00	0.40			
PL 107	G	179.67	789.30	6.00	325.00	0.00	0.00	0.40			
PL 108	I	84.33	819.09	6.00	55.00	0.00	0.00	0.40			
PL 109	F	92.23	837.16	6.00	141.00	5.00	0.00	0.40			
PL 110	F	111.23	864.19	6.00	148.00	5.00	0.00	0.40			
PL 111	J	123.55	871.93	6.00	55.00	0.00	0.00	0.40			
ML 112	G	82.92	849.07	6.00	144.00	0.00	0.00	0.40			
ML 113	G	66.10	862.64	6.00	237.00	0.00	0.00	0.40			
ML 114	G	62.87	870.85	6.00	151.00	0.00	0.00	0.40			
ML 115	G	71.37	881.39	6.00	164.00	0.00	0.00	0.40			
ML 116	G	75.68	894.46	6.00	340.00	0.00	0.00	0.40			
ML 117	G	83.29	909.67	6.00	322.00	0.00	0.00	0.40			
ML 118	G	91.95	906.41	6.00	61.00	0.00	0.00	0.40			
ML 119	G	88.79	863.68	6.00	328.00	0.00	0.00	0.40			
ML 120	G	99.39	885.70	6.00	332.00	0.00	0.00	0.40			
ML 121	G	96.92	871.14	6.00	55.00	0.00	0.00	0.40			
ML 122	F	109.91	894.48	6.00	44.00	5.00	0.00	0.40			
PL 123	K	266.63	804.65	6.00	19.00	5.00	0.00	0.40			
PL 124	K	279.41	772.11	6.00	19.00	5.00	0.00	0.40			
PL 125	K	287.56	739.32	6.00	14.00	5.00	0.00	0.40			
PL 52	K	290.21	709.75	6.00	7.00	5.00	0.00	0.40			
PL 54	K	293.15	677.50	6.00	8.00	5.00	0.00	0.40			
PL 126	G	189.82	803.81	6.00	333.00	0.00	0.00	0.40			

# Horizontal Illuminance (lux)

Phase 1 North

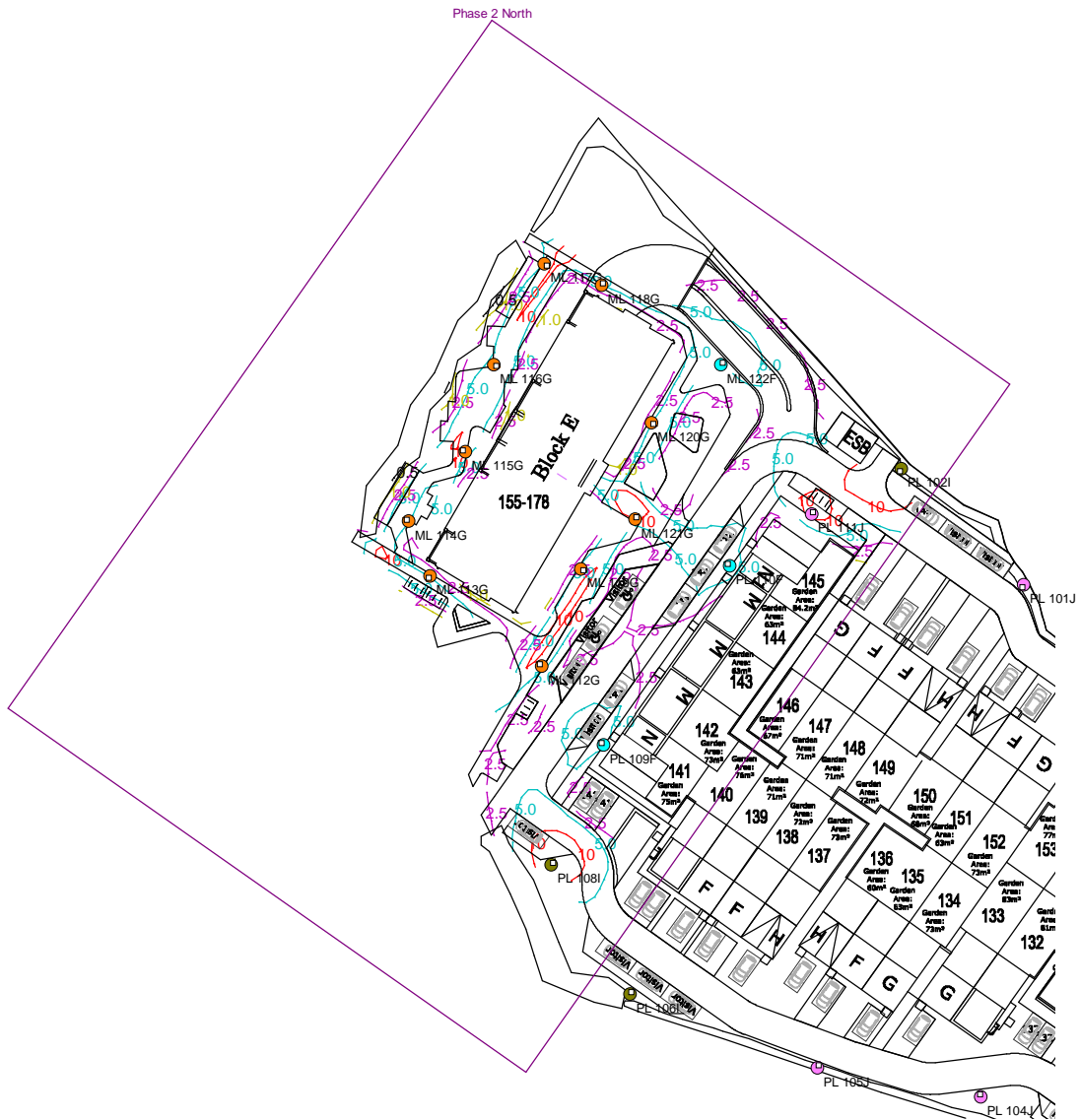


## Results

Eav	6.04
Emin	1.37
E <sub>max</sub>	17.32
E <sub>min</sub> /E <sub>max</sub>	0.08
E <sub>min</sub> /E <sub>av</sub>	0.23

# Horizontal Illuminance (lux)

Phase 2 North

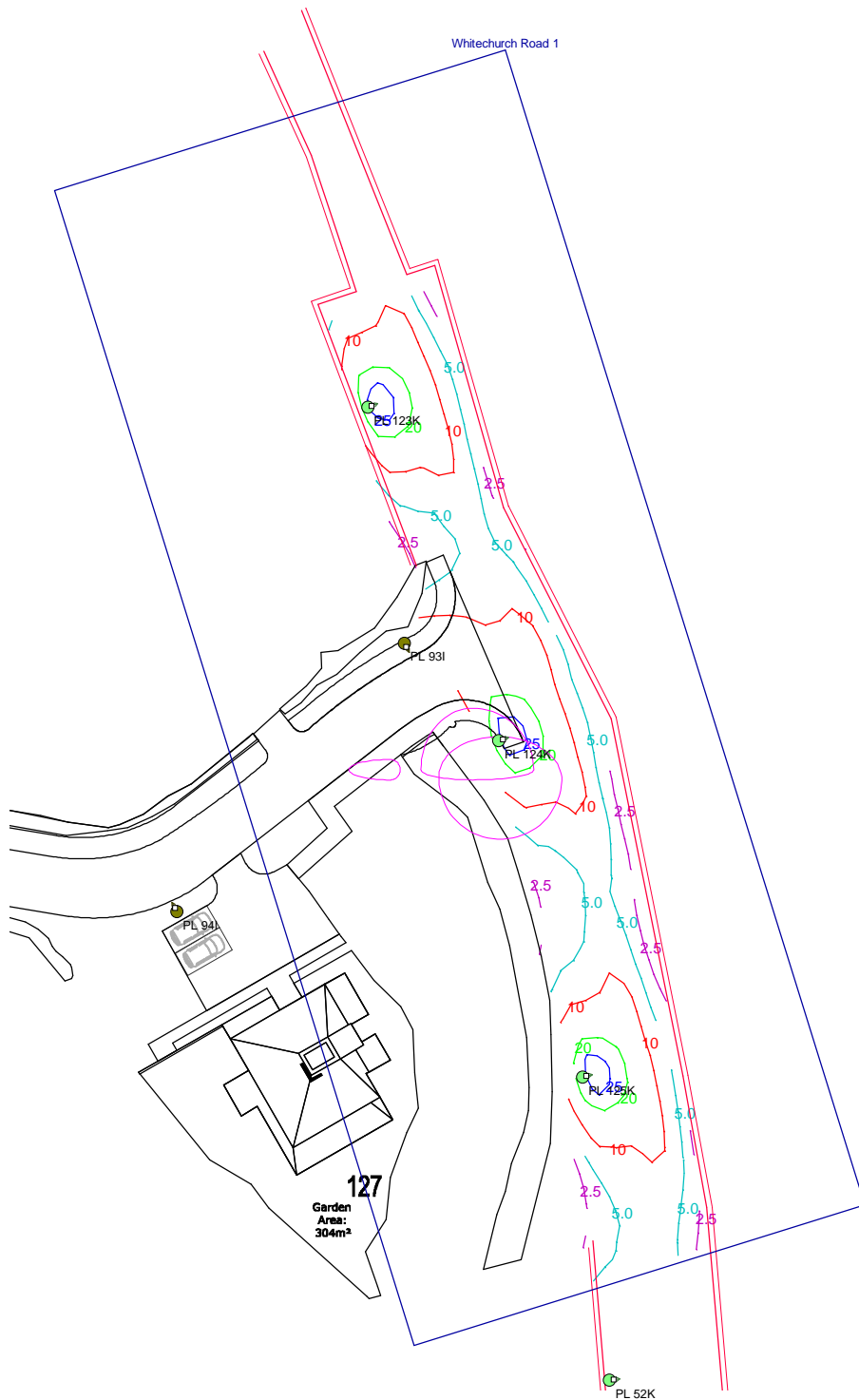


## Results

Eav	5.15
Emin	0.99
E <sub>max</sub>	16.15
E <sub>min</sub> /E <sub>max</sub>	0.06
E <sub>min</sub> /E <sub>av</sub>	0.19

# Horizontal Illuminance (lux)

Whitechurch Road 1

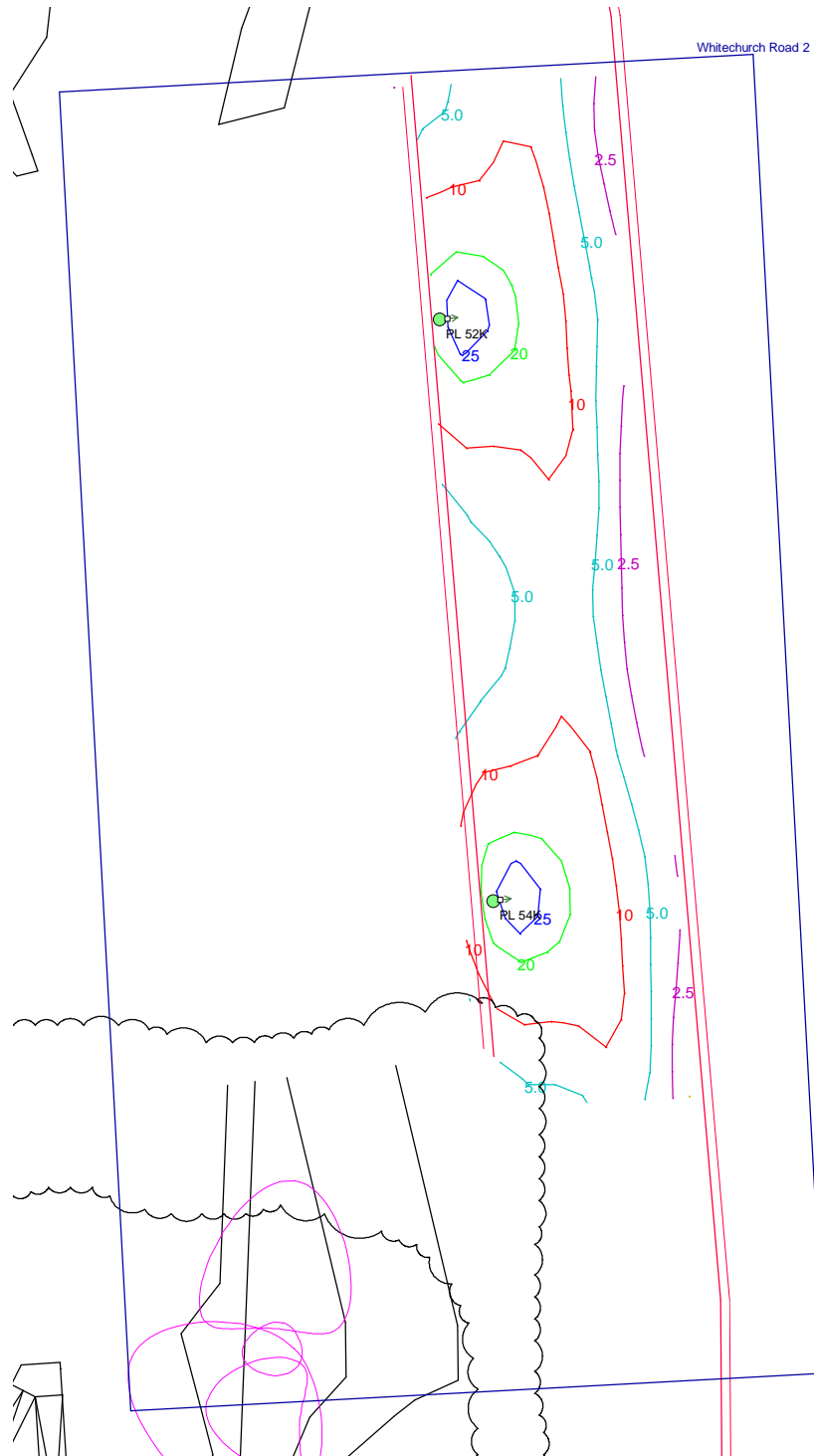


## Results

Eav	10.74
Emin	2.82
Emax	28.05
Emin/Emax	0.10
Emin/Eav	0.26

# Horizontal Illuminance (lux)

Whitechurch Road 2



### Results

Eav	10.54
Emin	2.97
Emax	27.79
Emin/Emax	0.11
Emin/Eav	0.28