DATE: **12 December 2024**

DESIGNER: **Michael O'Callaghan**

PROJECT No: **C23024**

PROJECT NAME: **LDA Wilton, Sarsfield Road LRD**

Lighting to EN-13201 1-5 & Cork City Council lighting standards

Main road lighting to class C3, Spine road lighting to class P3, Estate road lighting to class P4,Pedestrian/cycle path lighting to P5
3000k - estate, 3000k main road
Dimming to U14 regime 35/18

A) Cree Energy Uno TRSA 02 200 8L 5.49klm, 36W CLO
B) Cree Energy Uno TRSA 02 200 4L 2.74klm, 19W CLO
C) Cree Energy Uno UMNA 02 200 5L 2.24klm, 15W CLO
D) Cree Energy Uno TRSA 02 SCP 2L 0.98klm, 8W CLO
E) Cree Energy Due TRMA 02 200 15L 11.13klm, 69W CLO
c/w nema 7 pin socket & photocell
6m columns - estate, 8m columns main road

Outdoor Lighting Report

Luminaires to be fitted with rear louvres:
10B,2B, 6B,15B,1B,3B, 12B,4B, 13B, 7A,37B,23B,25A,20A,22B 24A, 40E, 41E,38E, 39E, 52D, 58D, 61D

Luminaires to be fitted with front louvres:
11B,56D,57D,48D,49D,35D,51D,53D,16D, 8B

Luminaires to be fitted with hinged columns:
27D, 31D, 32D, 33D, 34D, 50D, 54D

Note: Calculation grids *Branch Roads* and *Pedestrian Paths* each span most of the site, but only evaluate their respective elements.

PREPARED BY:

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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	Branch roads	465.53	-804.63	319.43	65.66	1.50	1.49
2	Pedestrian paths	535.99	-816.53	257.46	77.58	1.50	1.12
3	Main road	715.53	-840.05	79.29	23.05	2.40	1.36
4	Spine road	471.05	-826.18	261.44	21.25	1.49	1.77
5	Ecological sensitive area	723.42	-808.35	62.14	21.45	1.41	1.43
6	Ecological senstiive area ...	730.65	-800.24	32.73	5.00	1.49	1.25

Luminaires

Luminaire A Data

Supplier	Cree Lighting
Type	TRSA-02-200-8L30836W
Lamp(s)	16lu8L36W3K
Lamp Flux (klm)	5.49
File Name	TRSA-02-200-8L-308 36W-1408-QL20-S05 .IES
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	462.5, 41.7, 0.0
No. in Project	9

Luminaire B Data

Supplier	
Type	Energy Uno. Type 200 with BLS. 4L. 30K R a80 19W
Lamp(s)	8Luxeon504L19W3KRa80
LampFlux(klm)/Colour	2.74 3000/80
File Name	TRSA-2-200-4L-308 BLS_19W.LDT
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	374.6, 33.9, 0.0
No. in Project	17

Luminaire C Data

Supplier	Cree Lighting
Type	UMNA-2-200-5L-30715W
Lamp(s)	1405L15W3K
Lamp Flux (klm)	2.24
File Name	UMNA-2-200-5L-307-R01204_15W.IES
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	385.5, 208.0, 0.0
No. in Project	13

Luminaire D Data

Supplier	Cree Lighting
Type	TRSA-02-SCP-2L308 8W
Lamp(s)	4Du2L8W3K
Lamp Flux (klm)	0.98
File Name	TRSA-02-SCP-2L-308 8W-1088-QL20-R15 .IES
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	427.4, 130.3, 0.0
No. in Project	13

Luminaire E Data

Supplier	Cree Lighting
Type	TRMA-02-20015L30869W
Lamp(s)	32L15L69W30K
Lamp Flux (klm)	11.13
File Name	TRMA-02-200-15L-308 69W-1038-QL21-R 03.IES
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	444.7, 42.5, 0.0
No. in Project	4

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
1	B	533.90	-760.53	6.00	273.00	0.00	0.00	1.00	100%			
2	B	500.84	-751.68	6.00	181.00	0.00	0.00	1.00	100%			
3	B	492.80	-769.46	6.00	1.00	0.00	0.00	1.00	100%			
4	B	518.06	-817.96	6.00	100.00	0.00	0.00	1.00	100%			
5	B	544.73	-769.98	6.00	185.00	0.00	0.00	1.00	100%			
6	A	683.25	-803.19	6.00	274.00	0.00	0.00	1.00	100%			
7	A	547.99	-807.21	6.00	221.00	0.00	0.00	1.00	100%			
8	B	496.15	-815.30	6.00	95.00	0.00	0.00	1.00	100%			
9	B	543.97	-751.88	6.00	175.00	0.00	0.00	1.00	100%			
10	B	486.58	-753.74	6.00	94.00	0.00	0.00	1.00	100%			
11	B	479.04	-814.99	6.00	100.00	0.00	0.00	1.00	100%			
12	B	494.26	-790.37	6.00	4.00	0.00	0.00	1.00	100%			
13	B	546.06	-788.47	6.00	194.00	0.00	0.00	1.00	100%			
14	A	532.13	-816.86	6.00	96.00	0.00	0.00	1.00	100%			
15	B	511.29	-762.13	6.00	276.00	0.00	0.00	1.00	100%			
16	D	559.24	-748.86	6.00	94.00	0.00	0.00	1.00	100%			
17	A	565.83	-818.89	6.00	90.00	0.00	0.00	1.00	100%			
18	A	607.81	-815.77	6.00	98.00	0.00	0.00	1.00	100%			
19	A	584.79	-809.83	6.00	276.00	0.00	0.00	1.00	100%			
20	A	634.74	-809.01	6.00	254.00	0.00	0.00	1.00	100%			
21	A	701.60	-807.29	6.00	276.00	0.00	0.00	1.00	100%			
22	B	730.08	-812.73	6.00	226.00	0.00	0.00	1.00	100%			
23	B	737.58	-771.45	6.00	285.00	0.00	0.00	1.00	100%			
24	B	730.30	-783.89	6.00	137.00	0.00	0.00	1.00	100%			
25	B	695.66	-791.46	6.00	339.00	0.00	0.00	1.00	100%			
26	C	623.10	-796.65	6.00	273.00	0.00	0.00	0.00	100%			
27	C	622.36	-783.63	6.00	90.00	0.00	0.00	0.00	100%			
28	C	622.45	-763.42	6.00	99.00	0.00	0.00	0.00	100%			
29	C	613.17	-759.08	6.00	342.00	0.00	0.00	0.00	100%			
35	D	720.09	-747.21	6.00	275.00	0.00	0.00	1.00	100%			
36	A	660.72	-815.41	6.00	101.00	0.00	0.00	1.00	100%			
37	B	717.87	-760.59	6.00	197.00	0.00	0.00	1.00	100%			
38	E	721.84	-820.86	8.00	273.00	0.00	0.00	1.00	100%			
39	E	739.26	-830.86	8.00	97.00	0.00	0.00	1.00	100%			
40	E	779.64	-817.05	8.00	274.00	0.00	0.00	1.00	100%			
41	E	754.95	-818.62	8.00	275.00	0.00	0.00	1.00	100%			

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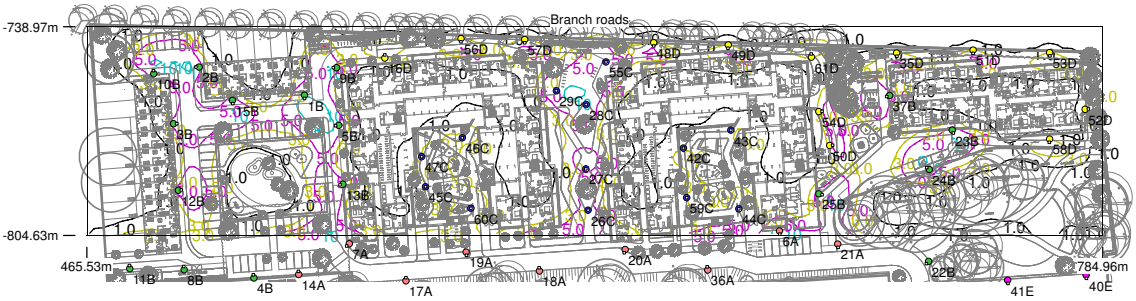
Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
42	C	653.02	-777.06	6.00	259.00	0.00	0.00	0.00	50%			
43	C	667.97	-771.44	6.00	332.00	0.00	0.00	0.00	50%			
44	C	670.46	-796.22	6.00	66.00	0.00	0.00	0.00	50%			
45	C	571.93	-789.25	6.00	329.00	0.00	0.00	0.00	50%			
46	C	583.53	-773.85	6.00	27.00	0.00	0.00	0.00	50%			
47	C	570.75	-779.79	6.00	16.00	0.00	0.00	0.00	50%			
48	D	643.73	-744.02	6.00	271.00	0.00	0.00	1.00	100%			
49	D	667.14	-744.71	6.00	266.00	0.00	0.00	1.00	100%			
50	D	699.00	-776.31	6.00	9.00	0.00	0.00	1.00	100%			
51	D	744.09	-746.35	6.00	273.00	0.00	0.00	1.00	100%			
52	D	779.34	-764.89	6.00	5.00	0.00	0.00	1.00	100%			
53	D	768.20	-747.13	6.00	272.00	0.00	0.00	1.00	100%			
54	D	695.61	-765.64	6.00	9.00	0.00	0.00	1.00	100%			
55	C	628.72	-750.08	6.00	152.00	0.00	0.00	0.00	100%			
56	D	583.10	-742.68	6.00	272.00	0.00	0.00	1.00	100%			
57	D	603.13	-742.98	6.00	273.00	0.00	0.00	1.00	100%			
58	D	768.20	-774.31	6.00	263.00	0.00	0.00	1.00	100%			
59	C	654.04	-792.70	6.00	13.00	0.00	0.00	0.00	50%			
60	C	586.25	-796.06	6.00	61.00	0.00	0.00	0.00	50%			
61	D	693.33	-748.54	6.00	99.00	0.00	0.00	1.00	100%			

Horizontal Illuminance (lux)

Branch roads

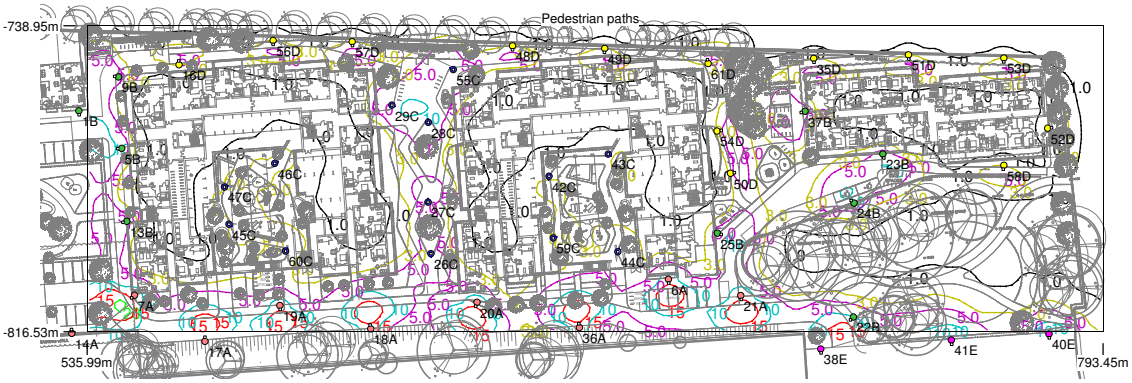


Results

Eav	5.27
Emin	1.15
Emax	13.31
Emin/Emax	0.09
Emin/Eav	0.22

Horizontal Illuminance (lux)

Pedestrian paths

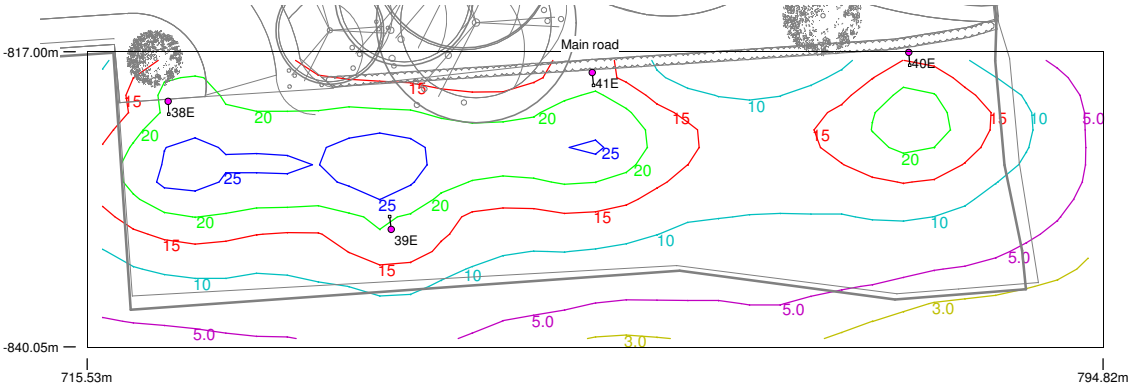


Results

Eav	4.08
Emin	1.00
Emax	11.24
Emin/Emax	0.09
Emin/Eav	0.24

Horizontal Illuminance (lux)

Main road

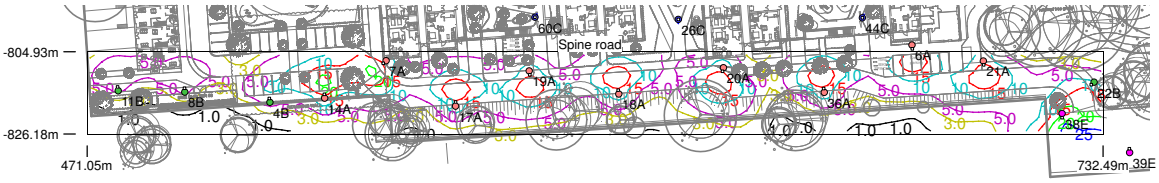


Results

Eav	17.37
Emin	7.48
Emax	28.23
Emin/Emax	0.26
Emin/Eav	0.43

Horizontal Illuminance (lux)

Spine road



Results

Eav	9.90
Emin	2.02
Emax	21.13
Emin/Emax	0.10
Emin/Eav	0.20

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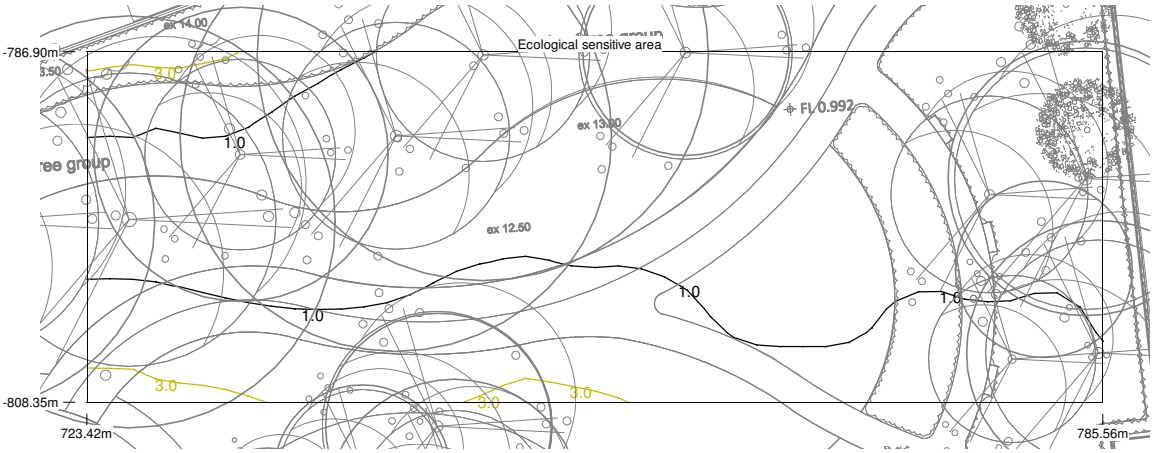
Horizontal Illuminance (lux)

Ecological sensitive area



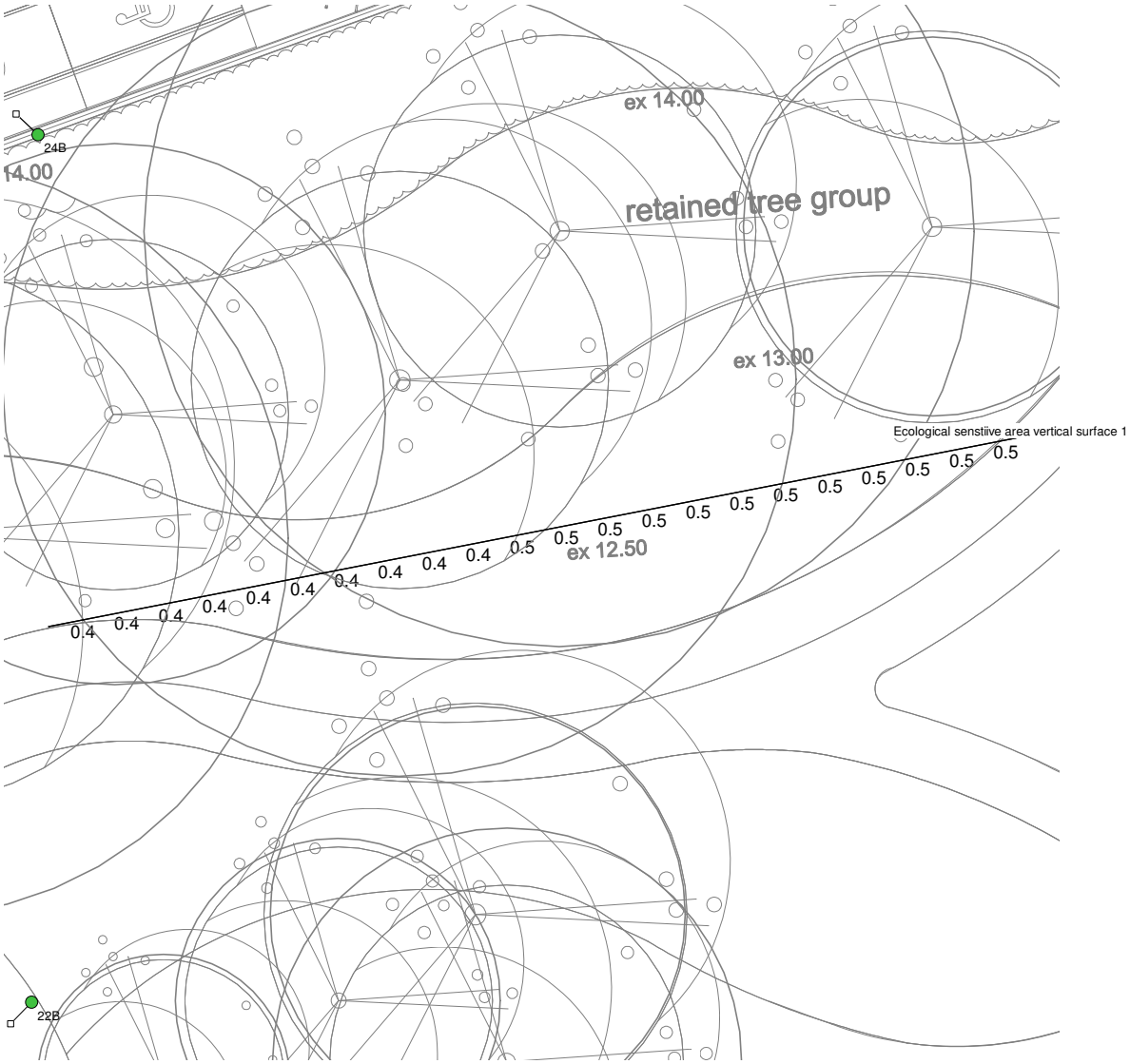
Results

Eav	1.05
Emin	0.25
Emax	4.71
Emin/Emax	0.05
Emin/Eav	0.24

Vertical Illuminance (lux)

Observer direction = 0 deg. Height = 0.00

Ecological senstiive area vertical surface 1



Results

Eav	0.45
Emin	0.38
Emax	0.51
Emin/Emax	0.74
Emin/Eav	0.84

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