

DATE: 14 May 2024
DESIGNER: James Molloy
PROJECT No: PL2345
PROJECT NAME: Carton Oranmore

**LIGHTING
REALITY**

Lighting Design to BS 5489-1: 2020

Grid 1: Class P4
Eav> 5 lux, Emin> 1 lux, UO> 0.2

Grid 2/3: Class P2
Eav> 10 lux, Emin> 2 lux, UO> 0.2

Grid 4: Class C3
Eav> 15 lux, Emin> 0.6, UO> 0.4

Grid 5: BS EN 12464-2:2014. Table 5.7 Industrial Sites & Storage Areas. Class 5.7.1.
Standard recommends task area should not be more than 4x surrounding area (5 Lux).
Eav> 20 Lux, UO> 0.25

Outdoor Lighting Report

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	Grid 1	584640.51	573397.20	364.81	317.96	1.50	1.50
2	Grid 2	584606.63	573452.26	350.14	123.48	1.50	1.49
3	Grid 3	585006.81	573429.42	350.09	91.16	1.50	1.49
4	Grid 4	584956.79	573465.03	48.56	68.89	1.43	1.35
5	Grid 5	584977.27	573533.84	13.10	18.20	1.46	1.40

Luminaire

Luminaire A Data



Supplier	Philips
Type	BGP293 DM10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	14.00
File Name	LumiStreet Gen2 Medium_BGP293_DM10_14000_80LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	534.0, 55.4, 0.0
No. in Project	20

Luminaire B Data



Supplier	Philips
Type	BGP291 DW10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.40
File Name	LumiStreet Gen2 Micro_BGP291_DW10_2400_10LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	415.9, 39.5, 0.0
No. in Project	52

Luminaire C Data



Supplier	Philips
Type	BGP291 DW10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.00
File Name	LumiStreet Gen2 Micro_BGP291_DW10_2000_10LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	415.9, 39.5, 0.0
No. in Project	13

Luminaire D Data



Supplier	Philips
Type	BGP291 DX10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	5.40
File Name	LumiStreet Gen2 Micro_BGP291_DX10_5400_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Imax70,80,90(cd/klm)	513.2, 85.3, 0.0
No. in Project	2

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	584956.87	573490.83	10.00	268.00	0.00	0.00	0.30			
2	A	584906.81	573490.97	10.00	268.00	0.00	0.00	0.30			
3	A	584977.23	573475.89	10.00	91.00	0.00	0.00	0.30			
4	A	584997.94	573490.98	10.00	268.00	0.00	0.00	0.30			
5	A	584856.70	573491.22	10.00	268.00	0.00	0.00	0.30			
6	A	584806.79	573493.41	10.00	265.00	0.00	0.00	0.30			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
7	A	584757.48	573500.93	10.00	256.00	0.00	0.00	0.30			
8	A	584709.55	573515.49	10.00	249.00	0.00	0.00	0.30			
9	A	584665.02	573538.26	10.00	243.00	0.00	0.00	0.30			
10	A	584623.22	573565.48	10.00	245.00	0.00	0.00	0.30			
11	A	585046.96	573489.65	10.00	270.00	0.00	0.00	0.30			
12	A	585096.71	573488.31	10.00	268.00	0.00	0.00	0.30			
13	A	584987.97	573509.28	10.00	156.00	0.00	0.00	0.30			
14	A	585146.51	573488.82	10.00	270.00	0.00	0.00	0.30			
15	A	585196.15	573483.98	10.00	268.00	0.00	0.00	0.30			
16	A	585245.64	573477.27	10.00	268.00	0.00	0.00	0.30			
17	A	585294.84	573469.92	10.00	268.00	0.00	0.00	0.30			
18	A	585344.19	573463.12	10.00	262.00	0.00	0.00	0.30			
24	A	585379.26	573458.27	8.00	259.00	5.00	0.00	0.30			
44	A	585407.27	573457.82	8.00	273.00	5.00	0.00	1.00			
25	B	584969.75	573512.68	6.00	88.00	0.00	0.00	0.30			
26	B	584964.14	573538.70	6.00	0.00	0.00	0.00	0.30			
27	B	584964.12	573538.70	6.00	182.00	0.00	0.00	0.30			
28	B	584967.19	573562.60	6.00	269.00	0.00	0.00	0.30			
29	B	584958.73	573553.84	6.00	269.00	0.00	0.00	0.30			
30	B	584979.14	573573.76	6.00	0.00	0.00	0.00	0.30			
31	B	584980.77	573595.32	6.00	358.00	0.00	0.00	0.30			
32	B	584983.22	573632.50	6.00	269.00	0.00	0.00	0.30			
33	B	584916.97	573553.69	6.00	90.00	0.00	0.00	0.30			
34	B	584942.14	573562.64	6.00	271.00	0.00	0.00	0.30			
35	B	584920.48	573570.32	6.00	0.00	0.00	0.00	0.30			
36	B	584920.39	573590.71	6.00	0.00	0.00	0.00	0.30			
37	B	584920.46	573615.21	6.00	0.00	0.00	0.00	0.30			
38	B	584894.07	573553.67	6.00	90.00	0.00	0.00	0.30			
39	B	584874.38	573553.66	6.00	91.00	0.00	0.00	0.30			
40	B	584872.78	573537.89	6.00	177.00	0.00	0.00	0.30			
41	B	584872.80	573515.95	6.00	182.00	0.00	0.00	0.30			
42	B	584888.29	573506.68	6.00	270.00	0.00	0.00	0.30			
43	B	584907.98	573506.69	6.00	270.00	0.00	0.00	0.30			
44	B	584847.49	573511.04	6.00	270.00	0.00	0.00	0.30			
45	B	584832.00	573511.03	6.00	269.00	0.00	0.00	0.30			
46	B	584806.75	573522.19	6.00	359.00	0.00	0.00	0.30			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
47	B	584784.63	573516.91	6.00	268.00	0.00	0.00	0.30			
48	B	584757.77	573517.46	6.00	270.00	0.00	0.00	0.30			
49	B	584740.16	573522.18	6.00	180.00	0.00	0.00	0.30			
50	B	584738.41	573540.97	6.00	178.00	0.00	0.00	0.30			
51	B	584738.52	573563.00	6.00	179.00	0.00	0.00	0.30			
52	B	584738.52	573589.22	6.00	183.00	0.00	0.00	0.30			
53	B	584729.66	573613.44	6.00	0.00	0.00	0.00	0.30			
54	B	584754.33	573564.65	6.00	92.00	0.00	0.00	0.30			
55	B	584784.03	573564.65	6.00	91.00	0.00	0.00	0.30			
56	B	584806.63	573562.95	6.00	0.00	0.00	0.00	0.30			
57	B	584806.68	573542.13	6.00	0.00	0.00	0.00	0.30			
58	B	584806.68	573581.02	6.00	0.00	0.00	0.00	0.30			
59	B	584806.72	573605.27	6.00	0.00	0.00	0.00	0.30			
60	B	584805.30	573620.58	6.00	90.00	0.00	0.00	0.30			
61	B	584752.62	573620.51	6.00	89.00	0.00	0.00	0.30			
62	B	584779.95	573620.46	6.00	90.00	0.00	0.00	0.30			
59	C	584669.39	573556.75	6.00	203.00	0.00	0.00	0.30			
64	B	584673.58	573631.68	6.00	269.00	0.00	0.00	0.30			
65	B	584679.97	573609.41	6.00	179.00	0.00	0.00	0.30			
66	B	584679.91	573586.52	6.00	180.00	0.00	0.00	0.30			
67	B	584660.99	573570.26	6.00	254.00	0.00	0.00	0.30			
69	B	584680.00	573564.69	6.00	178.00	0.00	0.00	0.30			
70	B	584696.59	573547.67	6.00	251.00	0.00	0.00	0.30			
71	B	584726.55	573538.87	6.00	254.00	0.00	0.00	0.30			
72	C	584931.37	573503.33	6.00	273.00	0.00	0.00	0.30			
73	C	584956.24	573502.58	6.00	90.00	0.00	0.00	0.30			
74	B	584829.30	573557.96	6.00	92.00	0.00	0.00	0.30			
75	B	584855.67	573557.91	6.00	86.00	0.00	0.00	0.30			
76	B	584872.86	573577.17	6.00	182.00	0.00	0.00	0.30			
77	B	584872.87	573606.84	6.00	177.00	0.00	0.00	0.30			
78	C	584830.73	573586.15	6.00	296.00	0.00	0.00	0.30			
75	B	584871.09	573629.39	6.00	269.00	0.00	0.00	0.30			
81	C	584852.00	573585.61	6.00	269.00	0.00	0.00	0.30			
76	D	584983.81	573533.42	5.00	90.00	0.00	0.00	0.30			
77	D	584984.16	573552.49	5.00	270.00	0.00	0.00	0.30			
78	B	584921.99	573629.82	6.00	268.00	0.00	0.00	0.30			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
79	B	584980.77	573618.34	6.00	0.00	0.00	0.00	0.30			
80	C	584655.02	573551.82	6.00	19.00	0.00	0.00	0.40			
81	C	584729.56	573515.34	6.00	52.00	0.00	0.00	0.30			
82	C	584784.97	573501.48	6.00	81.00	0.00	0.00	0.30			
83	C	584802.91	573505.95	6.00	143.00	0.00	0.00	0.30			
84	C	584832.06	573503.14	6.00	270.00	0.00	0.00	0.30			
85	C	584881.84	573497.91	6.00	270.00	0.00	0.00	0.30			
86	C	584709.39	573533.49	6.00	72.00	0.00	0.00	0.30			
87	C	584679.76	573541.48	6.00	87.00	0.00	0.00	0.30			

Horizontal Illuminance (lux)

Grid 1

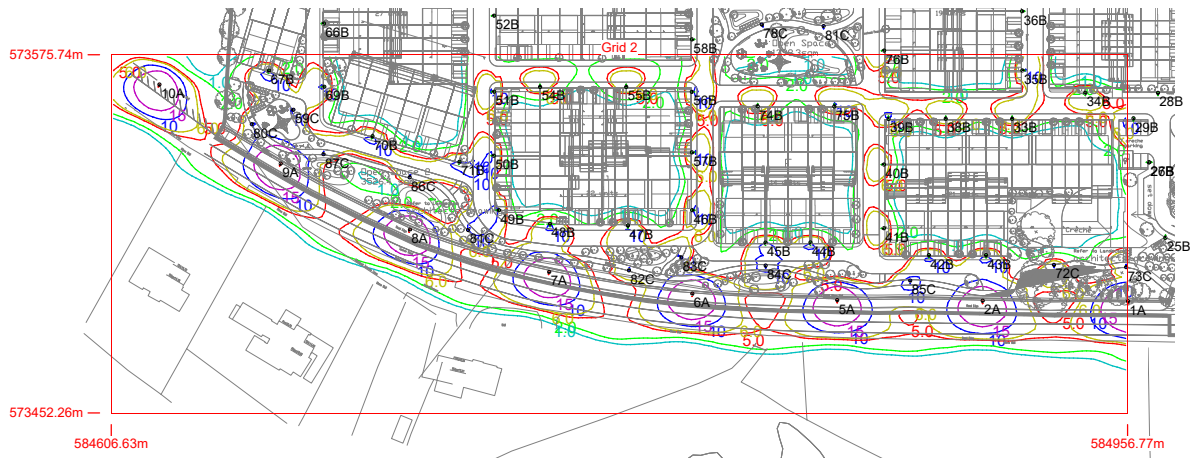


Results

Eav	6.08
Emin	1.27
E _{max}	18.01
Emin/E _{max}	0.07
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 2

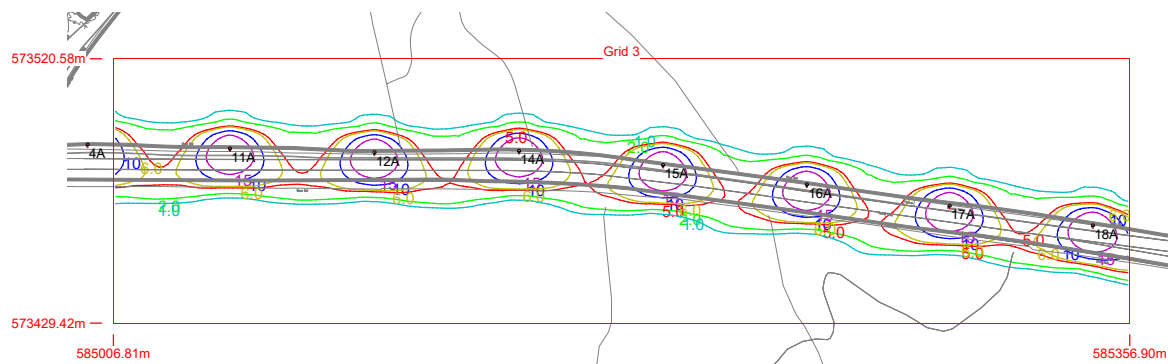


Results

Eav	10.27
Emin	3.51
Emax	31.10
Emin/Emax	0.11
Emin/Eav	0.34

Horizontal Illuminance (lux)

Grid 3

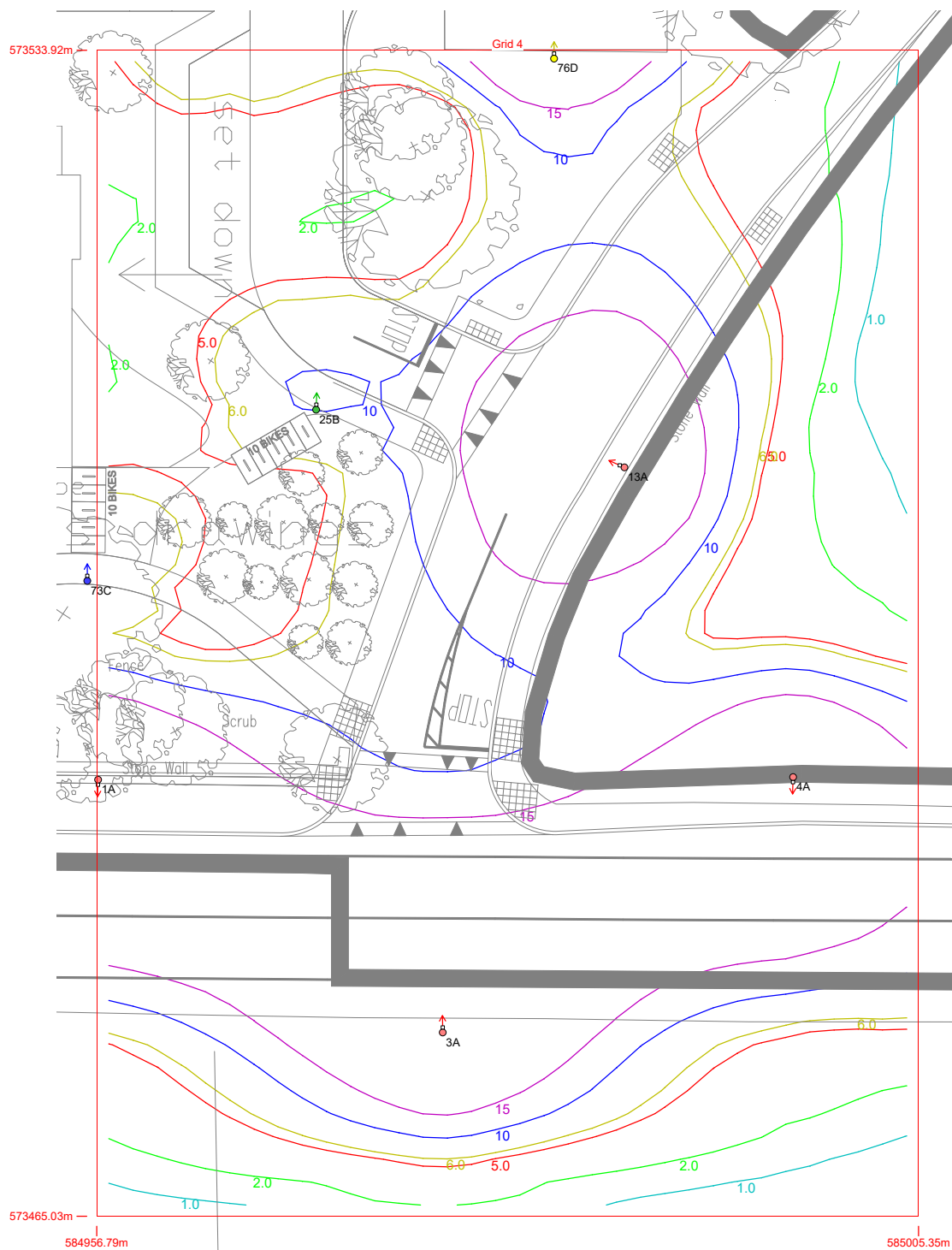


Results

Eav	10.29
Emin	3.67
Emax	27.96
Emin/Emax	0.13
Emin/Eav	0.36

Horizontal Illuminance (lux)

Grid 4

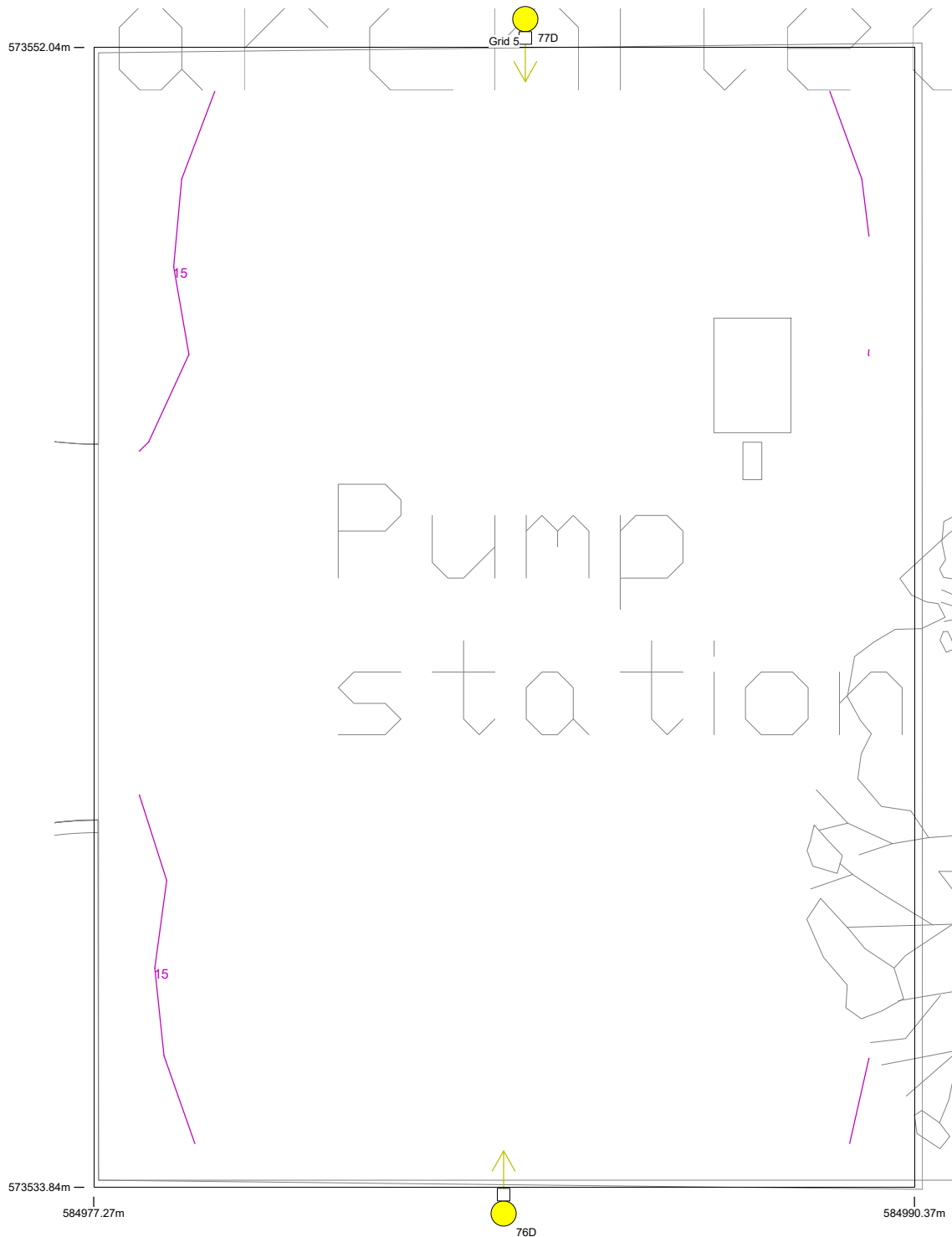


Results

Eav	18.87
Emin	7.55
Emax	34.67
Emin/Emax	0.22
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 5



Results

Eav	21.05
Emin	11.51
Emax	34.31
Emin/Emax	0.34
Emin/Eav	0.55