

DATE: 26 February 2020
DESIGNER: SS
PROJECT No: 20320
PROJECT NAME: Haverhill, Suffolk



20320-A-01F

****Grids 2-4 show reduced lighting for bat areas****

P3 with S/P ratio of 1/.61

Outdoor Lighting Report

PREPARED BY: Design Software from:
Lighting Reality Ltd
Park Business Centre
Wood Lane
Erdington
Birmingham
B24 9QR
United Kingdom

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website: www.lightingreality.com

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	568126.85	246648.20	48.47	26.39	1.03	1.32
2	Grid 2	568128.26	246483.93	72.00	32.92	1.50	1.50
3	Grid 3	568142.79	245969.60	39.00	91.26	1.50	1.50
4	Grid 4	568388.42	245727.89	151.07	114.00	1.50	1.50
5	Grid 5	567965.46	246484.32	375.00	375.00	1.50	1.50
6	Grid 6	567827.95	246215.09	375.00	375.00	1.50	1.50
7	Grid 7	567883.72	245798.49	375.00	375.00	1.50	1.50
8	Grid 8	568193.36	245651.90	375.00	375.00	1.50	1.50
9	Grid 9	568319.50	245651.84	375.00	375.00	1.50	1.50
10	Grid 10	567970.99	246158.23	375.00	375.00	1.50	1.50

Luminaires



Luminaire A Data

Supplier	Philips
Type	BGP615_DX70_2800_10LED_5.1S_CLO_L9_0_NW
Lamp(s)	LED-HB 5.1S NW
Lamp Flux (klm)	2.80
File Name	Luma Micro_BGP615_DX70_2800_10LED_5.1S_CLO_L90_NW.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	328.4, 277.9, 0.0
Lamp S/P Ratio	1.61
No. in Project	1



Luminaire C Data

Supplier	Philips
Type	BGP615_DM70_6000_20LED_5.1S_CLO_L9_0_NW
Lamp(s)	LED-HB 5.1S NW
Lamp Flux (klm)	6.00
File Name	Luma Micro_BGP615_DM70_6000_20LED_5.1S_CLO_L90_NW.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	405.6, 354.6, 0.0
Lamp S/P Ratio	1.61
No. in Project	89

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
2	C	568394.52	245833.51	6.00	299.00	0.00	0.00	0.30			
3	C	568435.23	245840.59	6.00	130.00	0.00	0.00	0.30			
5	A	568097.38	246000.88	6.00	344.00	0.00	0.00	0.30			
6	C	568181.81	246009.56	6.00	337.00	0.00	0.00	0.30			
8	C	568154.72	246495.92	6.00	96.00	0.00	0.00	0.30			
10	C	568155.61	246683.08	6.00	323.00	0.00	0.00	0.30			
11	C	568131.90	246662.19	6.00	114.00	0.00	0.00	0.30			
12	C	568180.64	246833.94	6.00	174.00	0.00	0.00	0.30			
13	C	568177.48	246794.98	6.00	177.00	0.00	0.00	0.30			
14	C	568177.53	246760.40	6.00	183.00	0.00	0.00	0.30			
15	C	568179.53	246726.08	6.00	183.00	0.00	0.00	0.30			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
16	C	568164.55	246700.03	6.00	344.00	0.00	0.00	0.30			
17	C	568191.49	246691.30	6.00	276.00	0.00	0.00	0.30			
18	C	568177.01	246672.01	6.00	115.00	0.00	0.00	0.30			
19	C	568222.88	246693.15	6.00	263.00	0.00	0.00	0.30			
20	C	568283.18	246683.77	6.00	260.00	0.00	0.00	0.30			
21	C	568307.15	246671.71	6.00	209.00	0.00	0.00	0.30			
22	C	568297.21	246633.38	6.00	353.00	0.00	0.00	0.30			
23	C	568306.32	246590.73	6.00	177.00	0.00	0.00	0.30			
24	C	568292.29	246557.72	6.00	2.00	0.00	0.00	0.30			
25	C	568292.28	246519.53	6.00	359.00	0.00	0.00	0.30			
26	C	568298.41	246500.19	6.00	93.00	0.00	0.00	0.30			
27	C	568334.28	246503.02	6.00	91.00	0.00	0.00	0.30			
28	C	568265.41	246499.26	6.00	93.00	0.00	0.00	0.30			
29	C	568233.07	246498.49	6.00	93.00	0.00	0.00	0.30			
30	C	568127.17	246501.80	6.00	284.00	0.00	0.00	0.30			
31	C	568095.81	246494.58	6.00	285.00	0.00	0.00	0.30			
32	C	568066.09	246487.79	6.00	285.00	0.00	0.00	0.30			
33	C	567989.64	246465.37	6.00	19.00	0.00	0.00	0.30			
34	C	568009.15	246474.75	6.00	286.00	0.00	0.00	0.30			
35	C	568009.32	246445.60	6.00	198.00	0.00	0.00	0.30			
36	C	568008.53	246407.73	6.00	12.00	0.00	0.00	0.30			
37	C	567989.43	246500.14	6.00	206.00	0.00	0.00	0.30			
38	C	567962.54	246524.64	6.00	28.00	0.00	0.00	0.30			
39	C	567976.17	246563.20	6.00	150.00	0.00	0.00	0.30			
40	C	567981.19	246586.39	6.00	298.00	0.00	0.00	0.30			
41	C	567971.42	246543.70	6.00	187.00	0.00	0.00	0.30			
42	C	568013.30	246606.68	6.00	310.00	0.00	0.00	0.30			
43	C	568075.70	246632.03	6.00	123.00	0.00	0.00	0.30			
44	C	568103.79	246661.28	6.00	301.00	0.00	0.00	0.30			
45	C	568042.85	246624.81	6.00	305.00	0.00	0.00	0.30			
46	C	568022.04	246374.11	6.00	34.00	0.00	0.00	0.30			
47	C	568055.94	246348.58	6.00	215.00	0.00	0.00	0.30			
48	C	568071.00	246316.61	6.00	193.00	0.00	0.00	0.30			
49	C	568074.33	246280.07	6.00	186.00	0.00	0.00	0.30			

51	C	568088.49	246213.31	6.00	177.00	0.00	0.00	0.30			
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Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
52	C	568080.03	246182.40	6.00	153.00	0.00	0.00	0.30			
53	C	568059.19	246158.67	6.00	346.00	0.00	0.00	0.30			
54	C	568072.11	246138.96	6.00	200.00	0.00	0.00	0.30			
55	C	568075.95	246111.60	6.00	48.00	0.00	0.00	0.30			
56	C	568106.48	246104.40	6.00	233.00	0.00	0.00	0.30			
57	C	568125.20	246077.71	6.00	52.00	0.00	0.00	0.30			
58	C	568149.97	246060.48	6.00	54.00	0.00	0.00	0.30			
59	C	568184.75	246050.15	6.00	241.00	0.00	0.00	0.30			
60	C	568214.45	246034.69	6.00	214.00	0.00	0.00	0.30			
61	C	568225.97	246011.60	6.00	62.00	0.00	0.00	0.30			
62	C	568185.59	246033.83	6.00	26.00	0.00	0.00	0.30			
63	C	568253.35	245994.84	6.00	54.00	0.00	0.00	0.30			
64	C	568179.28	245964.66	6.00	165.00	0.00	0.00	0.30			
65	C	568156.20	245933.72	6.00	329.00	0.00	0.00	0.30			
66	C	568133.34	245905.55	6.00	315.00	0.00	0.00	0.30			
67	C	568107.48	245886.04	6.00	313.00	0.00	0.00	0.30			
68	C	568091.60	245851.08	6.00	150.00	0.00	0.00	0.30			
70	C	568069.53	245817.49	6.00	355.00	0.00	0.00	0.30			
71	C	568287.30	245981.18	6.00	219.00	0.00	0.00	0.30			
72	C	568299.45	245953.60	6.00	52.00	0.00	0.00	0.30			
73	C	568331.33	245944.80	6.00	238.00	0.00	0.00	0.30			
74	C	568360.93	245916.69	6.00	52.00	0.00	0.00	0.30			
75	C	568395.09	245901.60	6.00	235.00	0.00	0.00	0.30			
76	C	568446.74	245886.46	6.00	273.00	0.00	0.00	0.30			
77	C	568450.62	245865.20	6.00	164.00	0.00	0.00	0.30			
78	C	568416.60	245879.04	6.00	69.00	0.00	0.00	0.30			
79	C	568481.29	245883.79	6.00	112.00	0.00	0.00	0.30			
80	C	568506.99	245902.65	6.00	283.00	0.00	0.00	0.30			
81	C	568536.14	245904.51	6.00	264.00	0.00	0.00	0.30			
82	C	568563.07	245891.01	6.00	82.00	0.00	0.00	0.30			
83	C	568357.37	245807.90	6.00	313.00	0.00	0.00	0.30			
84	C	568335.26	245775.51	6.00	132.00	0.00	0.00	0.30			
85	C	568306.04	245746.98	6.00	126.00	0.00	0.00	0.30			
86	C	568277.14	245720.83	6.00	138.00	0.00	0.00	0.30			

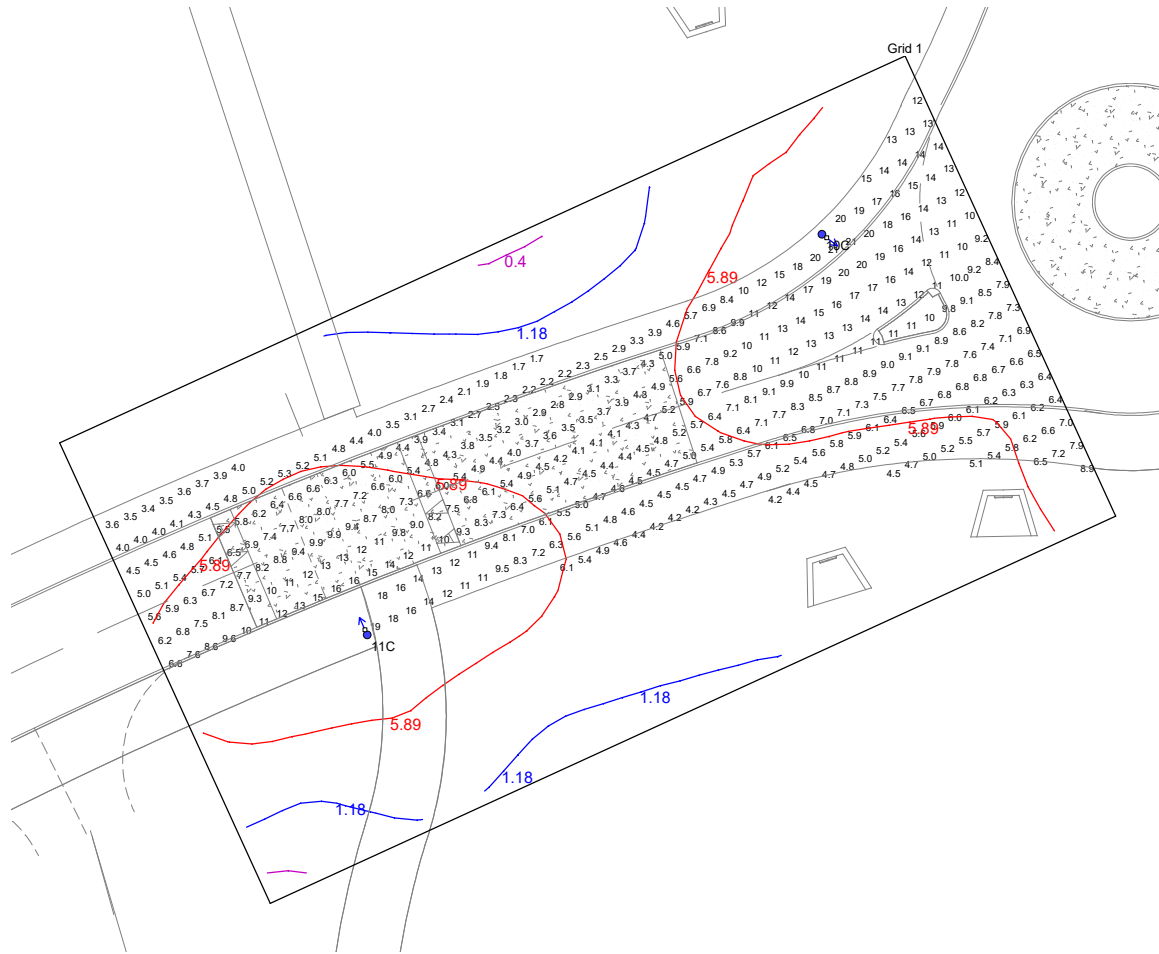
88	C	568601.39	245893.62	6.00	254.00	0.00	0.00	0.30			
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Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
89	C	568633.13	245873.05	6.00	71.00	0.00	0.00	0.30			
90	C	568668.18	245871.52	6.00	252.00	0.00	0.00	0.30			
91	C	568382.08	246506.60	6.00	97.00	0.00	0.00	0.30			
92	C	568061.82	245792.68	6.00	331.00	0.00	0.00	0.30			
93	C	568253.48	246689.49	6.00	258.00	0.00	0.00	0.30			
94	C	568199.79	246497.85	6.00	88.00	0.00	0.00	0.30			
95	C	568037.58	246481.34	6.00	283.00	0.00	0.00	0.30			

Horizontal Illuminance (lux)

Grid 1

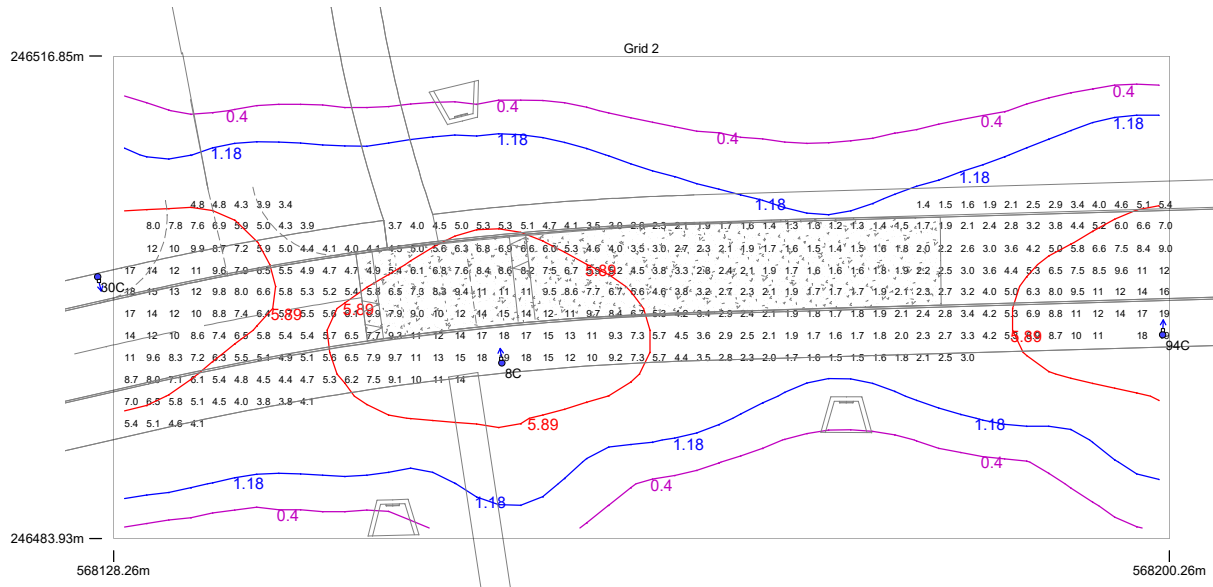


Results

Eav	7.85
Emin	1.65
E _{max}	20.64
E _{min} /E _{max}	0.08
E _{min} /E _{av}	0.21

Horizontal Illuminance (lux)

Grid 2

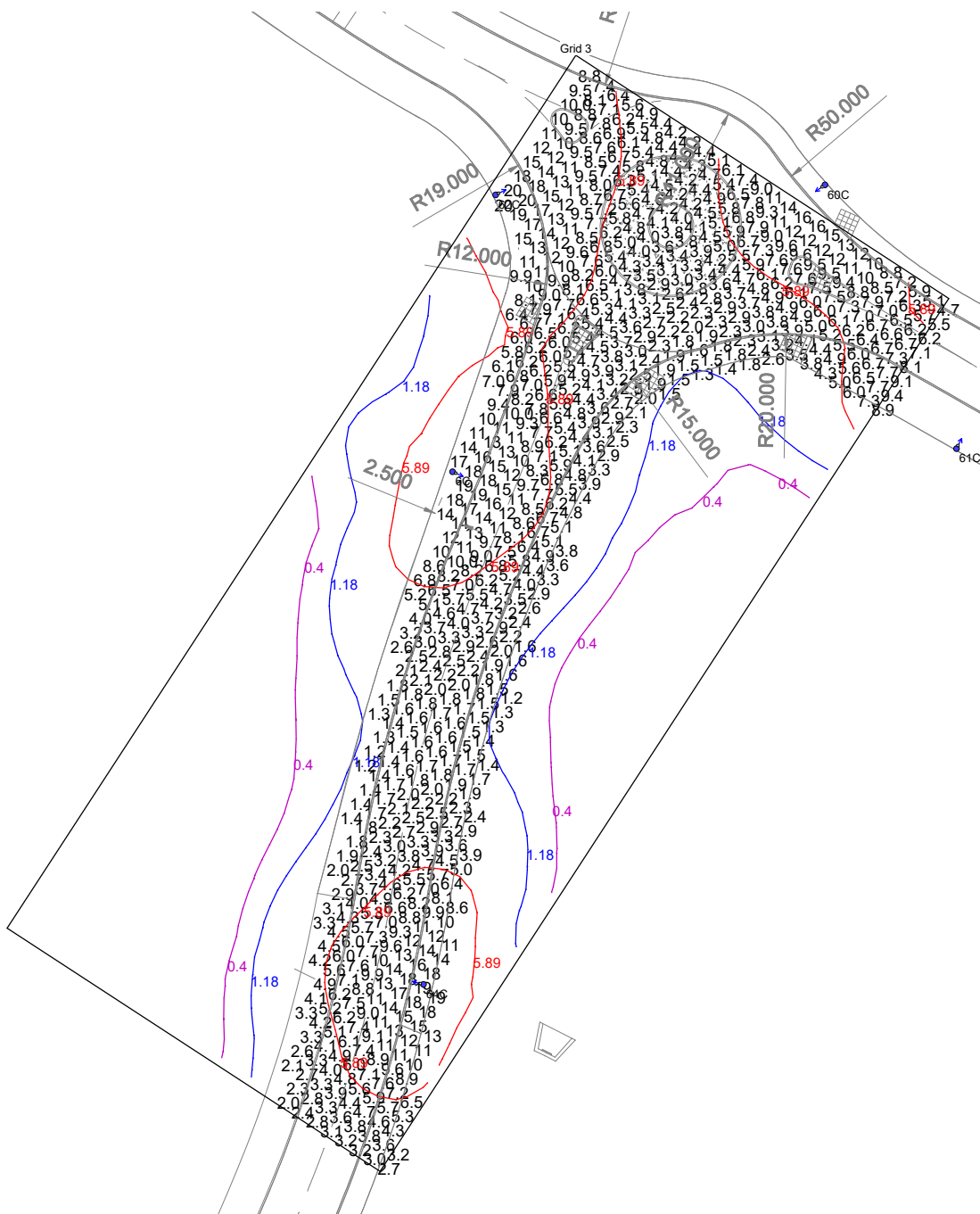


Results

Eav	6.21
Emin	1.24
Emax	19.45
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 3

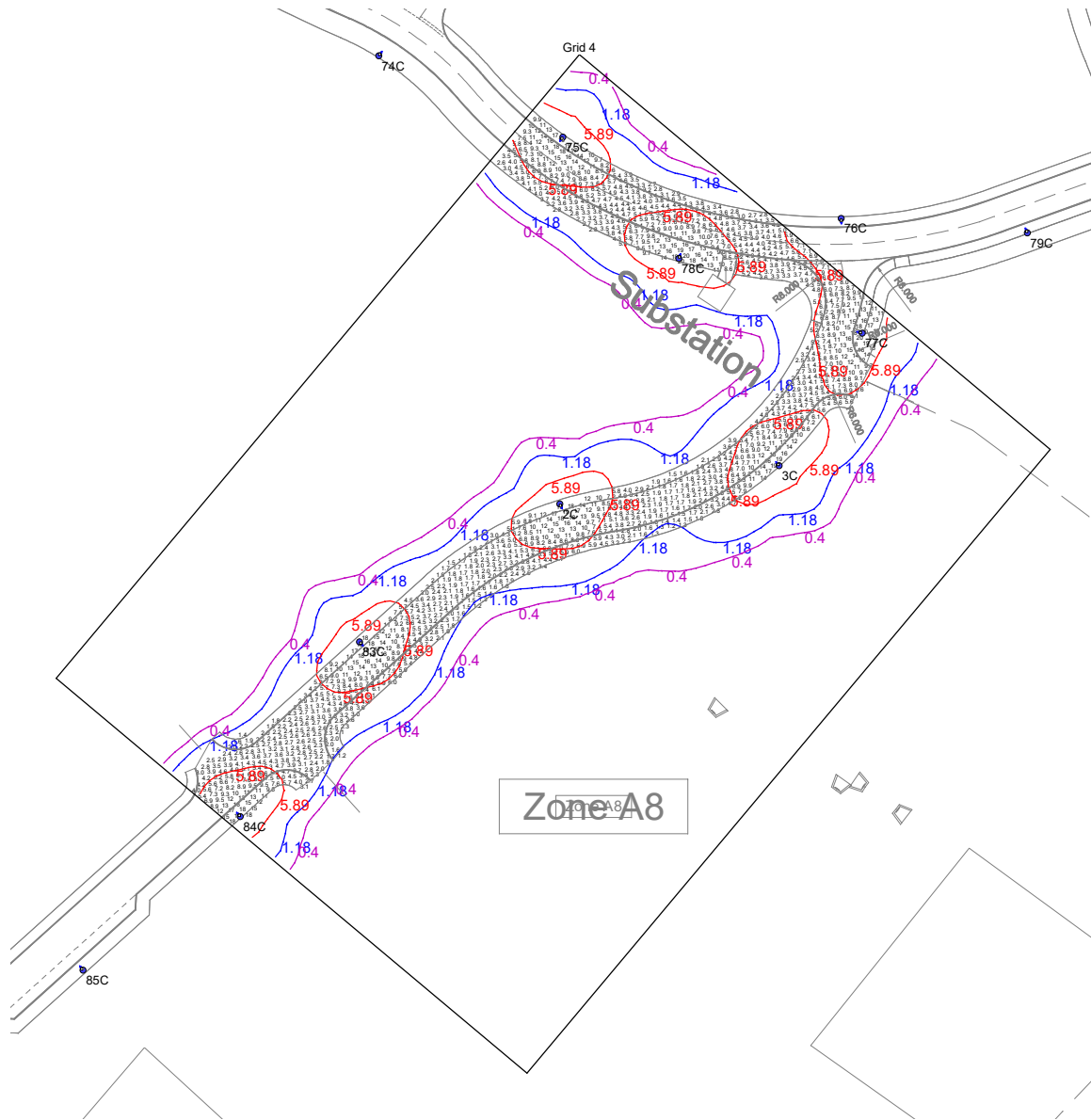


Results

Eav	6.21
Emin	1.18
Emax	20.41
Emin/Emax	0.06
Emin/Eav	0.19

Horizontal Illuminance (lux)

Grid 4

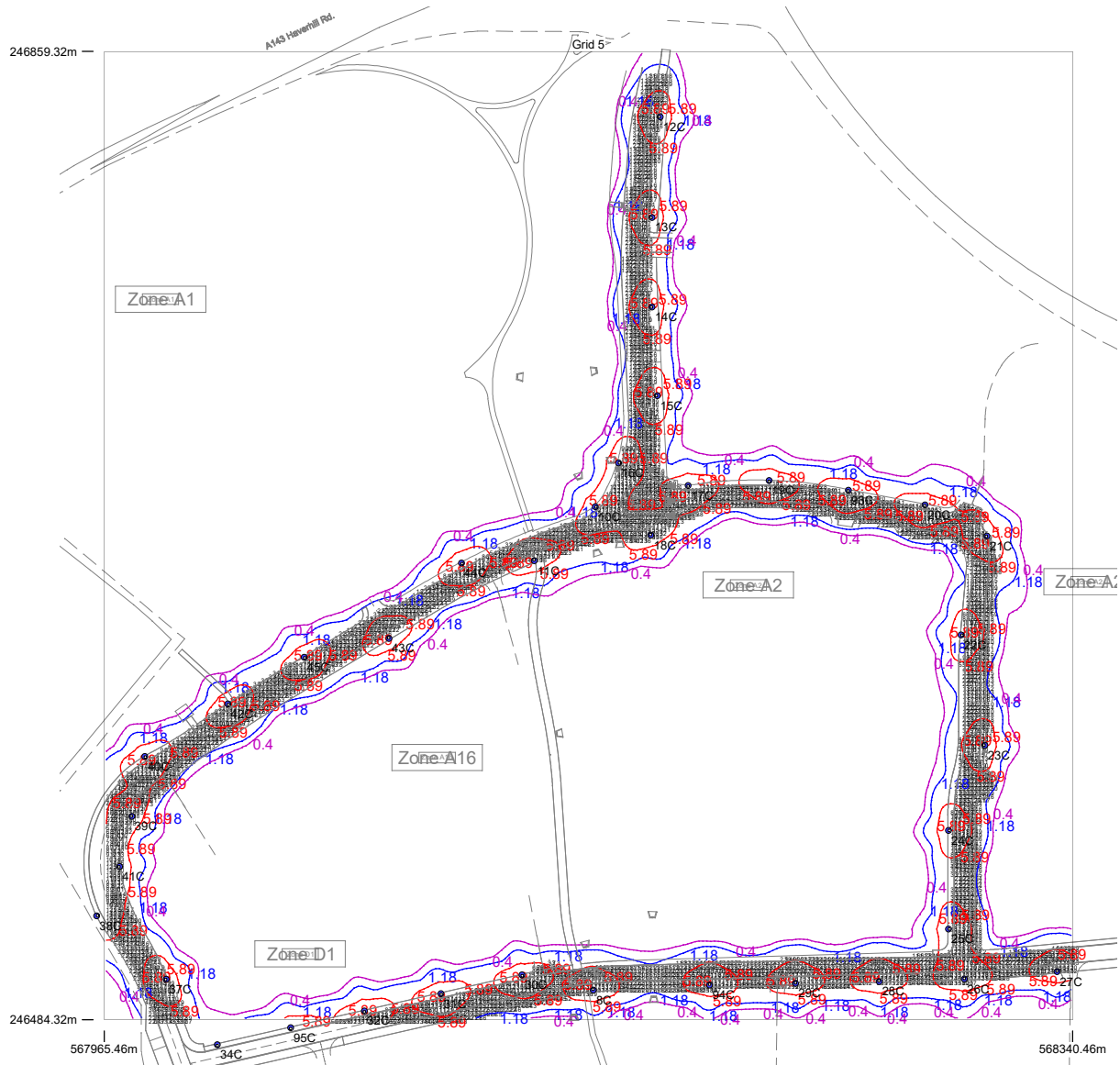


Results

Eav	6.44
Emin	1.20
Emax	19.72
Emin/Emax	0.06
Emin/Eav	0.19

Horizontal Illuminance (lux)

Grid 5



Results

Eav	6.80
Emin	1.18
Emax	20.65
Emin/Emax	0.06
Emin/Eav	0.17

Horizontal Illuminance (lux)

Grid 6

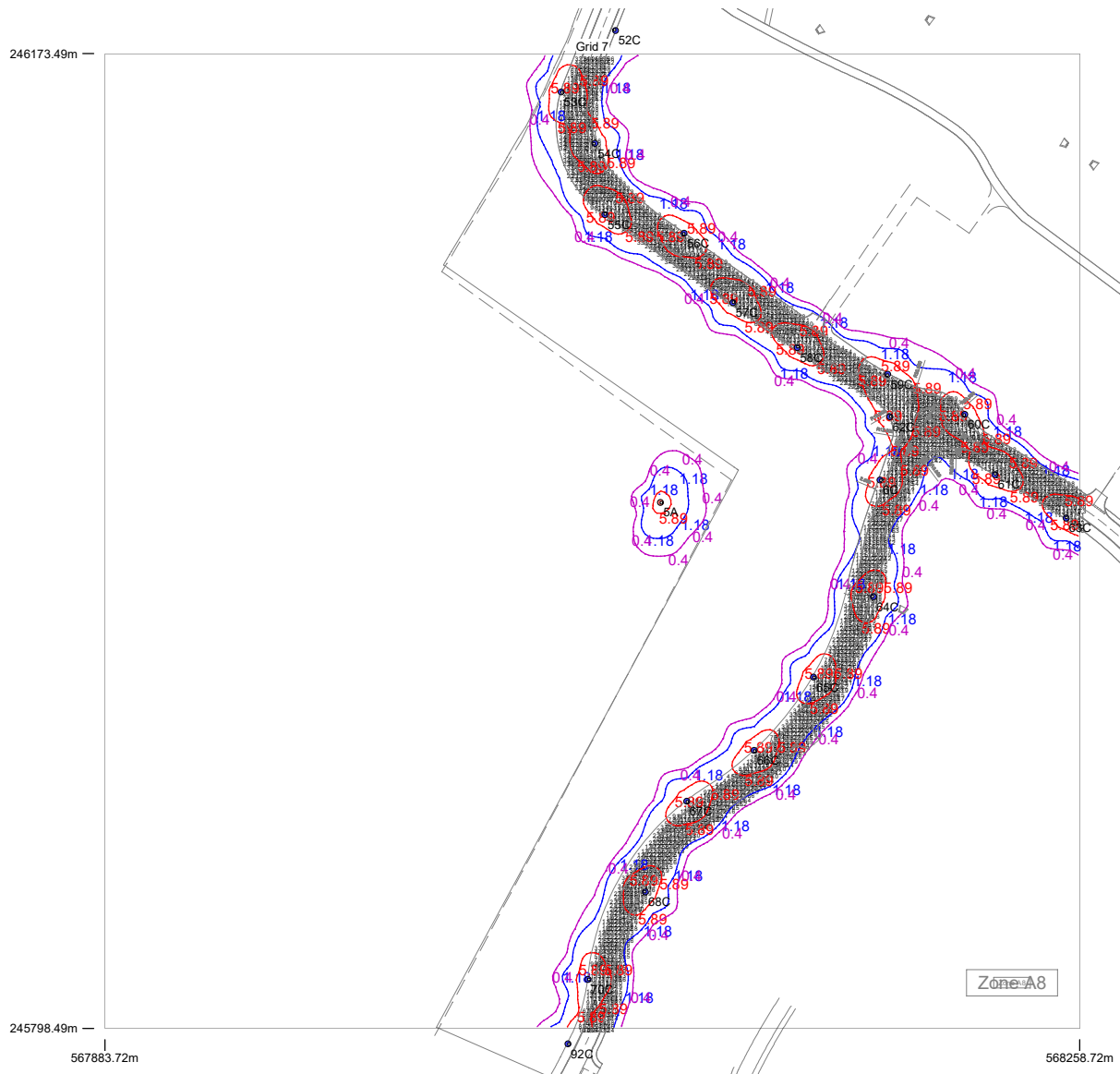


Results

Eav	6.77
Emin	1.07
Emax	20.42
Emin/Emax	0.05
Emin/Eav	0.16

Horizontal Illuminance (lux)

Grid 7

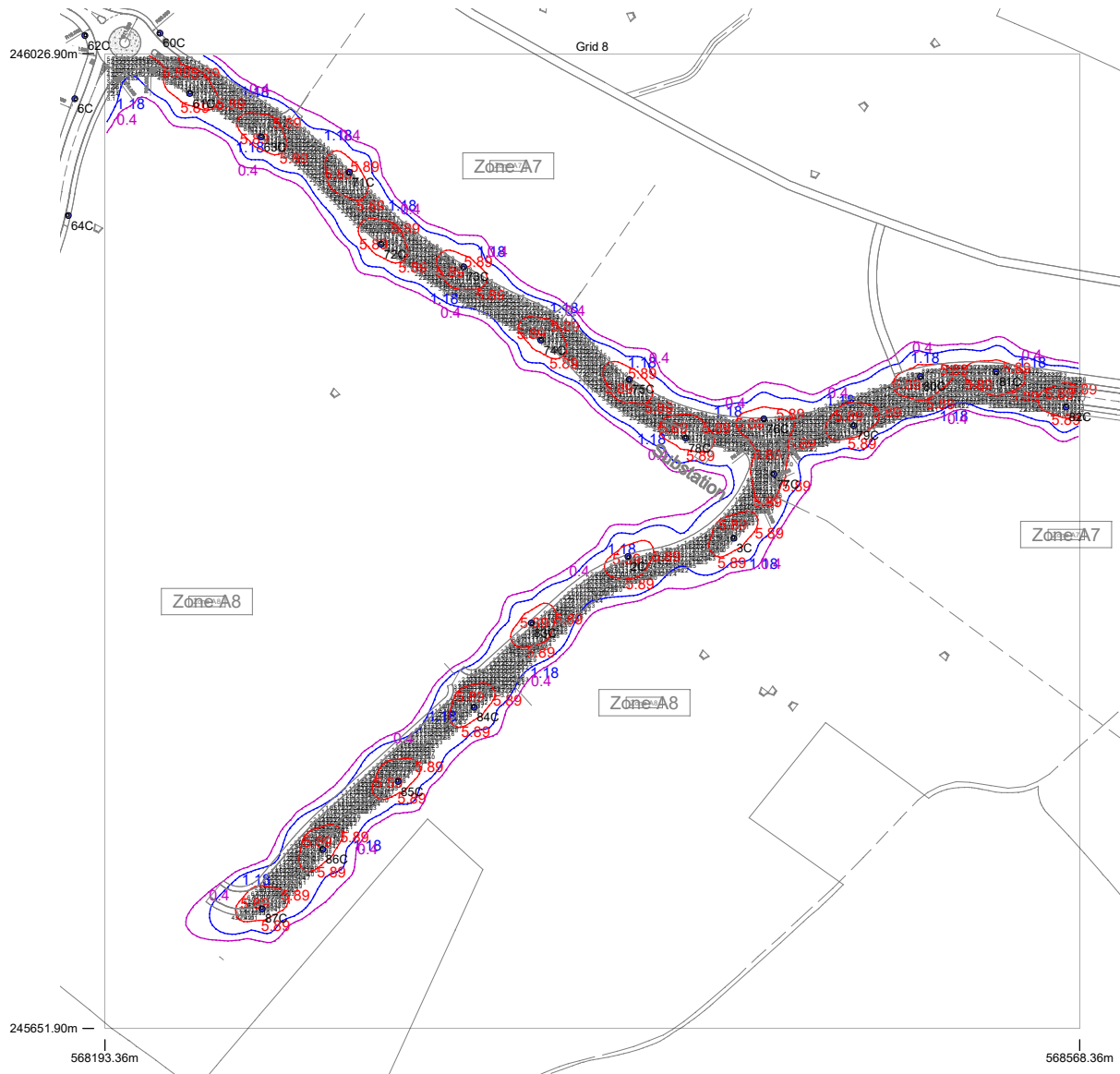


Results

Eav	6.67
Emin	1.17
E _{max}	21.28
E _{min} /E _{max}	0.06
E _{min} /E _{av}	0.18

Horizontal Illuminance (lux)

Grid 8



Results

Eav	6.36
Emin	0.78
E _{max}	19.80
Emin/E _{max}	0.04
Emin/Eav	0.12

Horizontal Illuminance (lux)

Grid 9

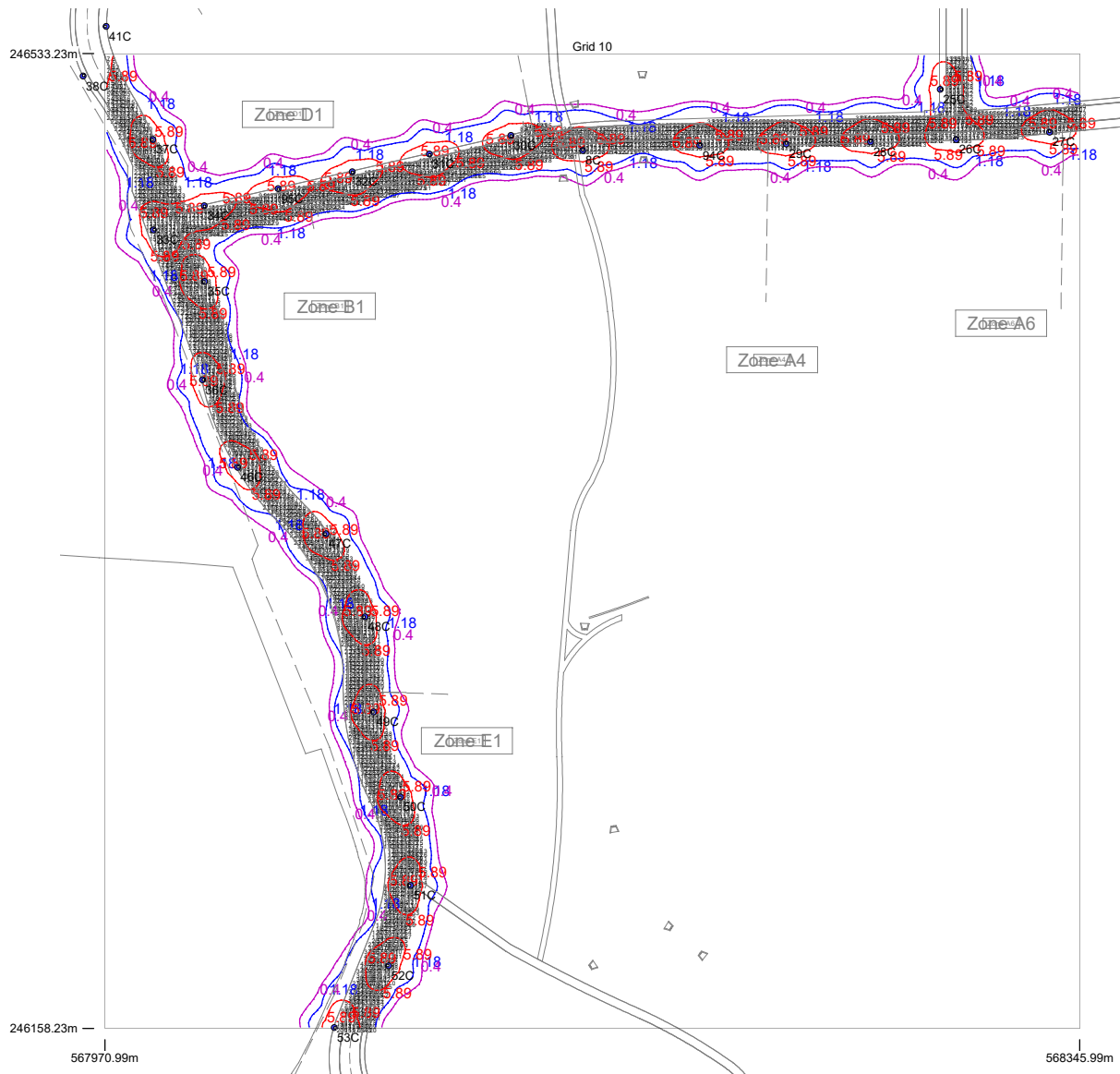


Results

Eav	6.39
Emin	1.15
Emax	19.79
Emin/Emax	0.06
Emin/Eav	0.18

Horizontal Illuminance (lux)

Grid 10



Results

Eav	6.60
Emin	1.05
E _{max}	20.62
E _{min} /E _{max}	0.05
E _{min} /E _{av}	0.16