

**DATE:** 29 June 2022  
**DESIGNER:** MMA Lighting Consultancy Ltd  
**PROJECT No:** E00022\_C\_S38\_SPE002P01  
**PROJECT NAME:** Henham Road, Elsenham



Henham Road, Elsenham - Area Calculation - P01

6m ECC spec columns with post top Philips Luma LED BL1  
Luminaires.

Lighting Class: P5 from BS5489-1:2020  
Eav: 3.00 - 4.50 Lux  
Emin: 0.60

Base drawing number used in this calculation "dapa\_1669\_100\_06  
scheme design plan issued 160622"

## Outdoor Lighting Report

**PREPARED BY:** MMA Lighting Consultancy Ltd  
99 Old Bath Road  
Summer Field House  
Charvil  
Reading  
Berkshire  
RG10 9QN  
Email: info@mma-consultancy.co.uk  
[REDACTED]

## 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	-489.14	53.03	81.00	174.96	1.50	1.50
2	Grid 2	-419.61	5.30	74.91	158.98	1.50	1.50
3	Grid 3	-560.47	86.97	108.05	123.00	1.50	1.50
4	Grid 4	-507.03	17.83	109.67	68.98	1.50	1.50
5	Grid 5	-461.76	-17.54	57.16	42.00	1.50	1.50
6	Grid 6	-406.27	-62.76	90.00	90.00	1.50	1.50

### Luminaires

#### Luminaire A Data



Supplier	Philips
Type	BGP702 DM10 BL1
Lamp(s)	LED-HB 5.2S 830
Lamp Flux (klm)	2.00
File Name	Luma Gen2 Micro_BGP702_DM10 BL1_2000_10LED_5.2S_CLO_L90_830.ies
Maintenance Factor	0.83
Lum. Int. Class	G3
No. in Project	13

#### Luminaire B Data



Supplier	Philips
Type	BGP702 DM10 BL1
Lamp(s)	LED-HB 5.2S 830
Lamp Flux (klm)	1.80
File Name	Luma Gen2 Micro_BGP702_DM10 BL1_1800_10LED_5.2S_CLO_L90_830.ies
Maintenance Factor	0.83
Lum. Int. Class	G3
No. in Project	18

### Layout

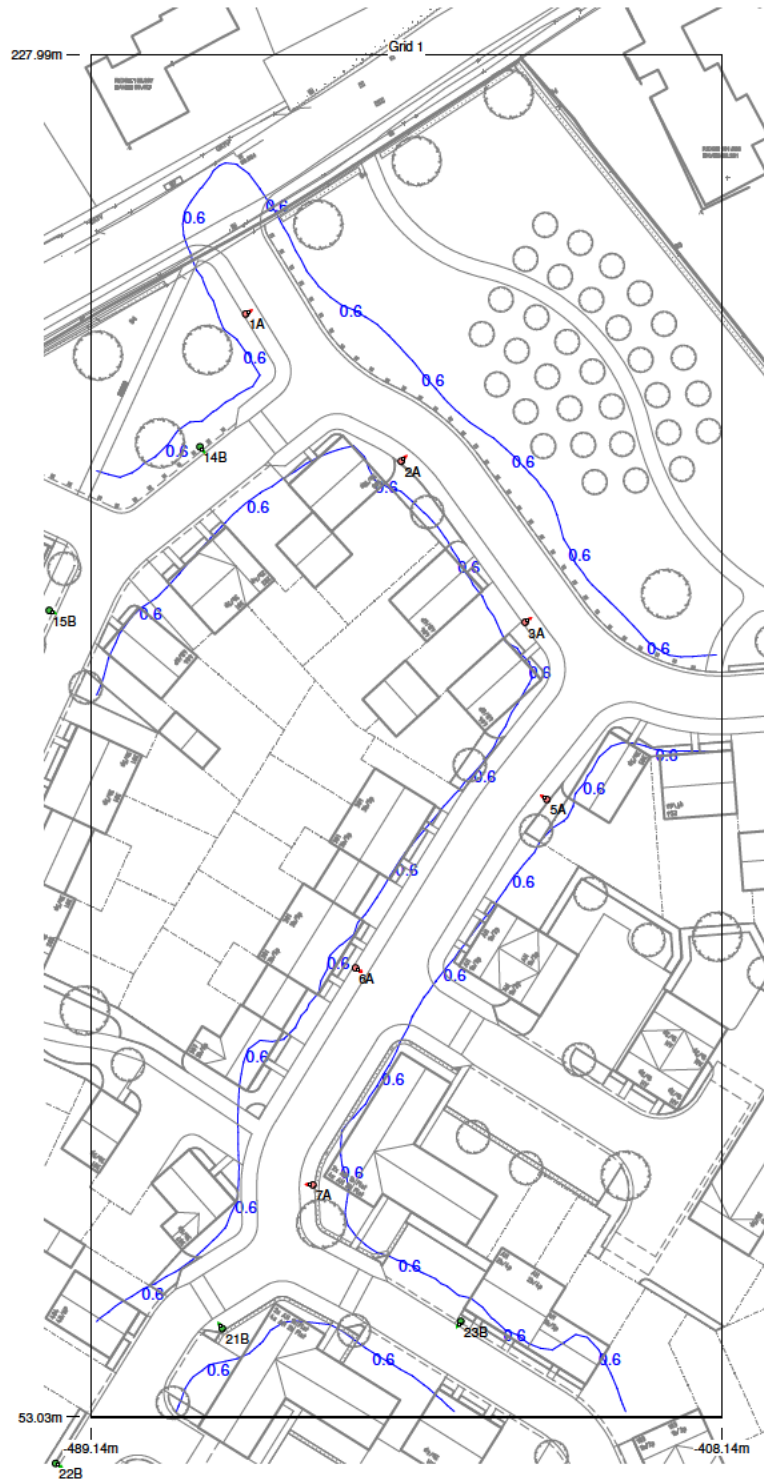
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	-469.26	194.70	6.00	32.00	0.00	0.00	0.40			
2	A	-449.28	175.81	6.00	46.00	0.00	0.00	0.40			
3	A	-433.35	155.12	6.00	38.00	0.00	0.00	0.40			
4	A	-400.15	141.60	6.00	95.00	0.00	0.00	0.40			
5	A	-430.56	132.35	6.00	145.00	0.00	0.00	0.40			
6	A	-455.15	110.74	6.00	329.00	0.00	0.00	0.40			
7	A	-460.61	82.88	6.00	177.00	0.00	0.00	0.40			
8	A	-385.29	128.16	6.00	25.00	0.00	0.00	0.40			
9	A	-373.21	105.47	6.00	28.00	0.00	0.00	0.40			
10	A	-361.95	77.64	6.00	12.00	0.00	0.00	0.40			
11	A	-370.48	57.78	6.00	295.00	0.00	0.00	0.40			
12	A	-380.86	34.67	6.00	150.00	0.00	0.00	0.40			
13	A	-412.04	23.22	6.00	294.00	0.00	0.00	0.40			
14	B	-475.13	177.66	6.00	308.00	0.00	0.00	0.40			
15	B	-494.48	156.62	6.00	335.00	0.00	0.00	0.40			

**Layout Continued**

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
16	B	-508.12	127.21	6.00	335.00	0.00	0.00	0.40			
17	B	-495.14	174.49	6.00	247.00	0.00	0.00	0.40			
18	B	-529.45	170.42	6.00	297.00	0.00	0.00	0.40			
19	B	-517.32	107.32	6.00	337.00	0.00	0.00	0.40			
20	B	-527.71	151.75	6.00	27.00	0.00	0.00	0.40			
21	B	-472.26	64.42	6.00	124.00	0.00	0.00	0.40			
22	B	-493.67	47.13	6.00	329.00	0.00	0.00	0.40			
23	B	-441.62	65.36	6.00	234.00	0.00	0.00	0.40			
24	B	-427.45	44.64	6.00	22.00	0.00	0.00	0.40			
25	B	-414.87	29.19	6.00	116.00	0.00	0.00	0.40			
26	B	-439.52	7.95	6.00	304.00	0.00	0.00	0.40			
28	B	-393.27	6.98	6.00	26.00	0.00	0.00	0.40			
29	B	-370.01	-12.09	6.00	215.00	0.00	0.00	0.40			
30	B	-395.05	-42.62	6.00	310.00	0.00	0.00	0.40			
31	B	-363.08	-28.32	6.00	128.00	0.00	0.00	0.40			
32	B	-334.92	-7.53	6.00	128.00	0.00	0.00	0.40			

# Horizontal Illuminance (lux)

Grid 1



### Results

Eav	3.53
Emin	0.69
Emax	9.54
Emin/Emax	0.07
Emin/Eav	0.20

# Horizontal Illuminance (lux)

Grid 1

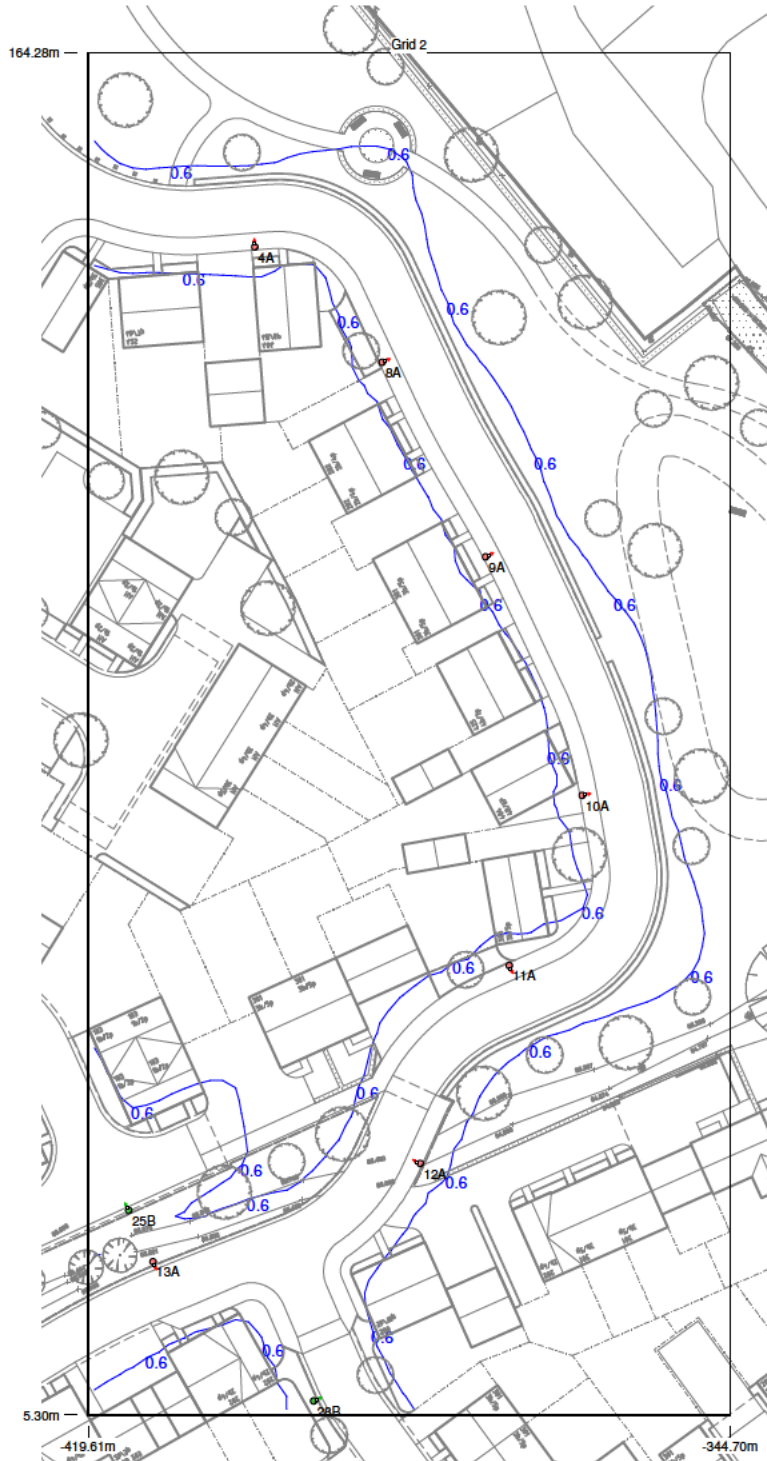


## Results

Eav	3.53
Emin	0.69
Emax	9.54
Emin/Emax	0.07
Emin/Eav	0.20

# Horizontal Illuminance (lux)

Grid 2

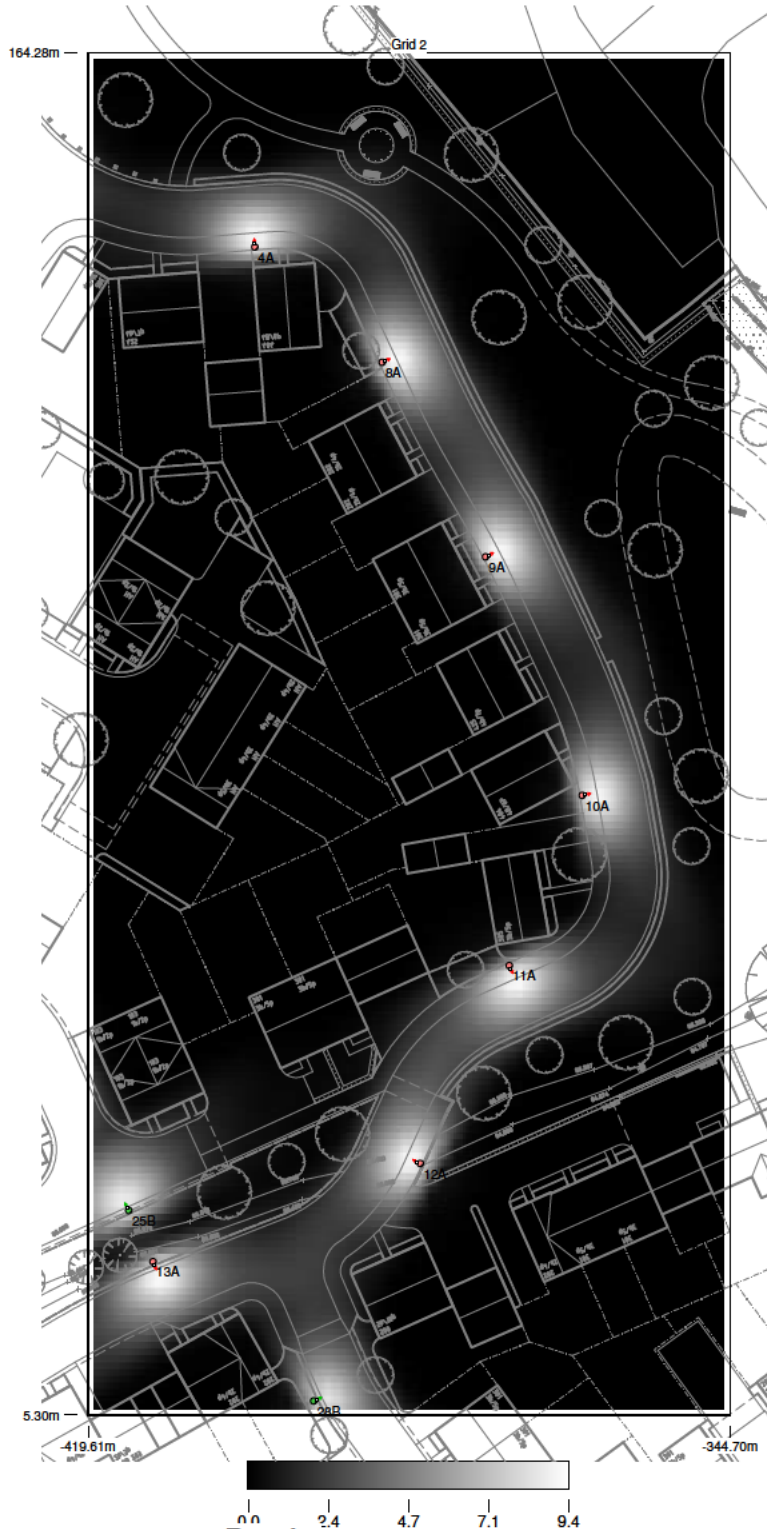


### Results

Eav	3.69
Emin	0.83
Emax	9.43
Emin/Emax	0.09
Emin/Eav	0.22

# Horizontal Illuminance (lux)

Grid 2



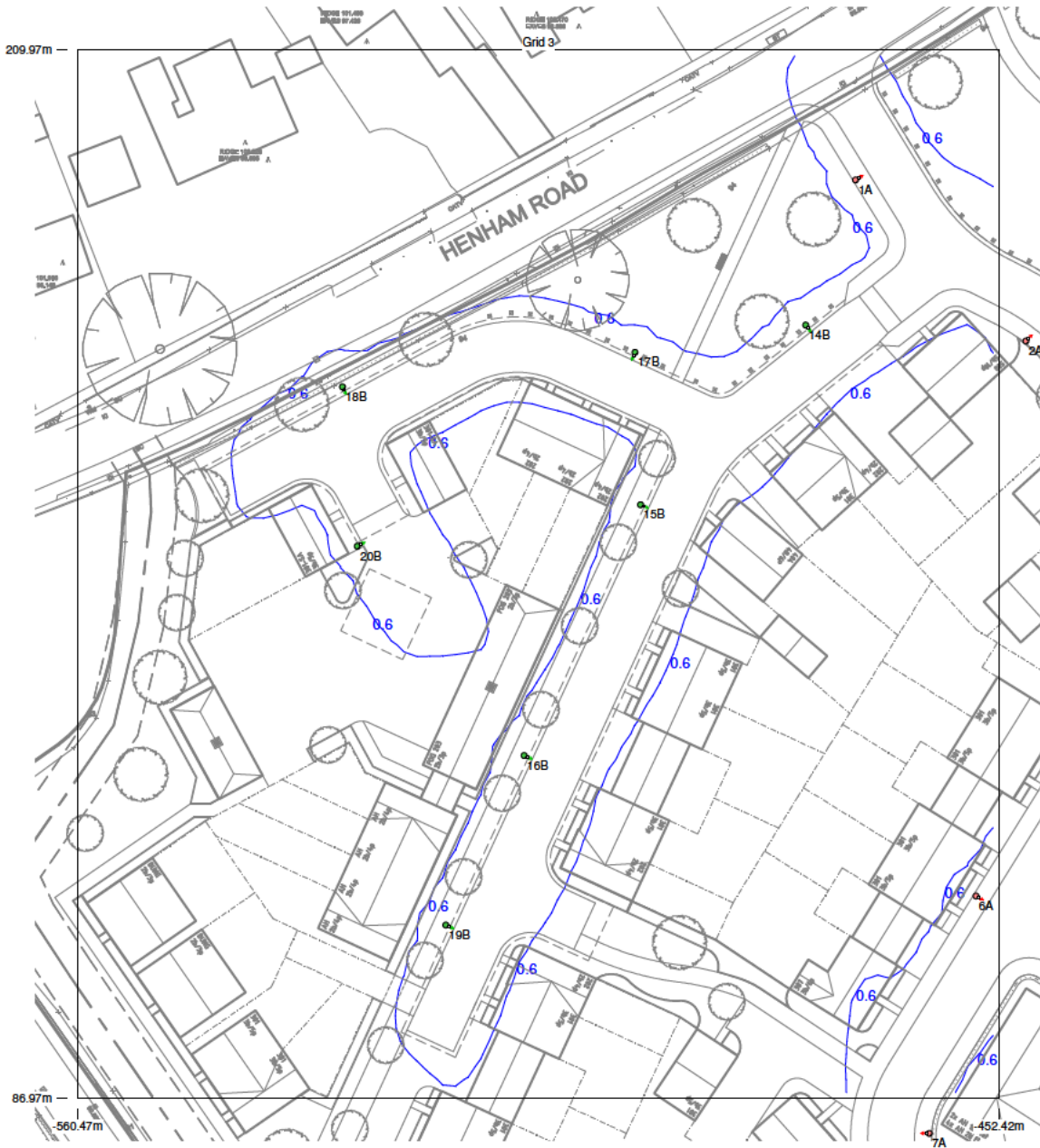
0.0 2.4 4.7 7.1 9.4

**Results**

Eav	3.69
Emin	0.83
Emax	9.43
Emin/Emax	0.09
Emin/Eav	0.22

# Horizontal Illuminance (lux)

Grid 3



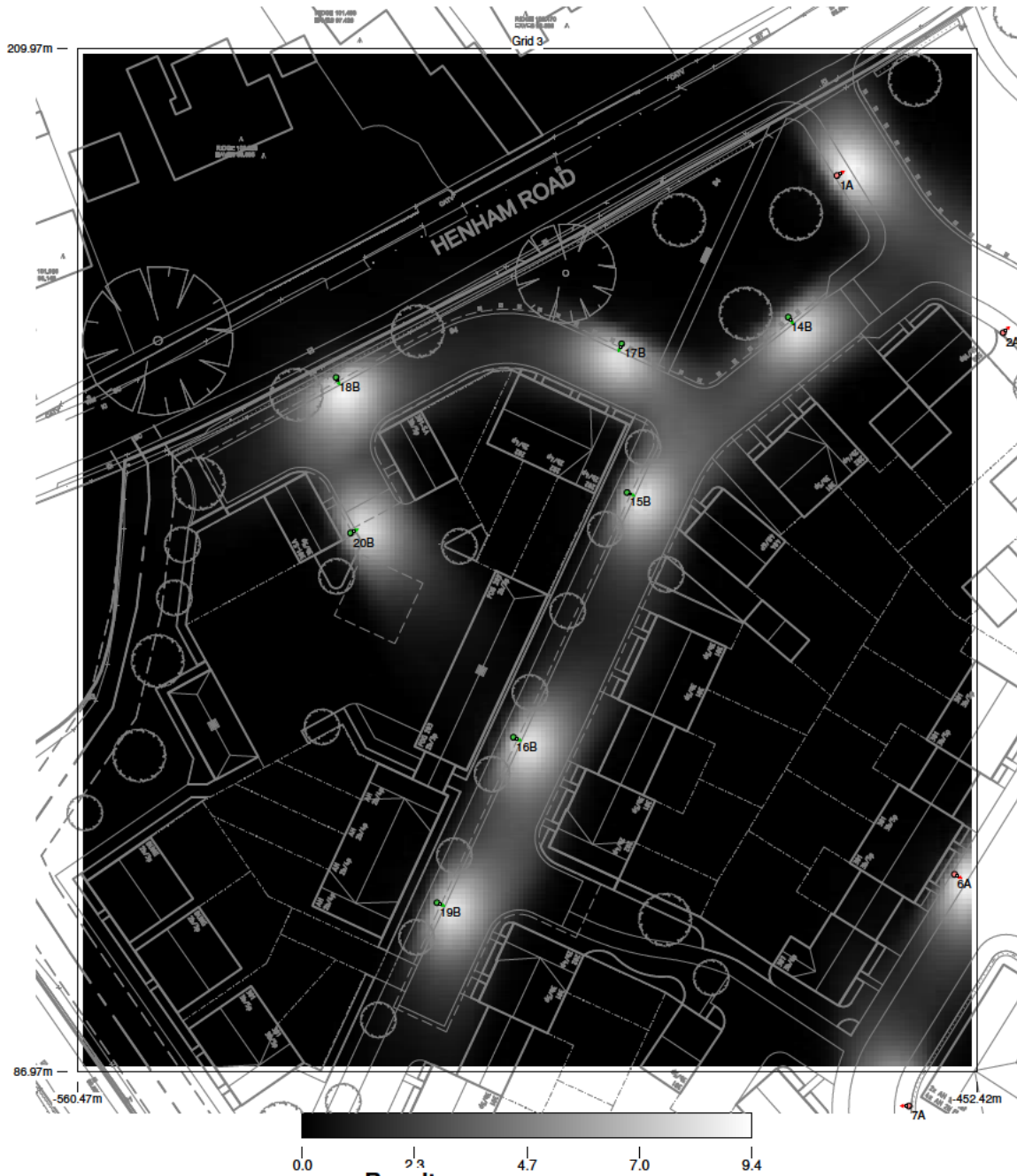
### Results

Eav	3.52
Emin	0.88
Emax	9.10
Emin/Emax	0.10
Emin/Eav	0.25



# Horizontal Illuminance (lux)

Grid 3

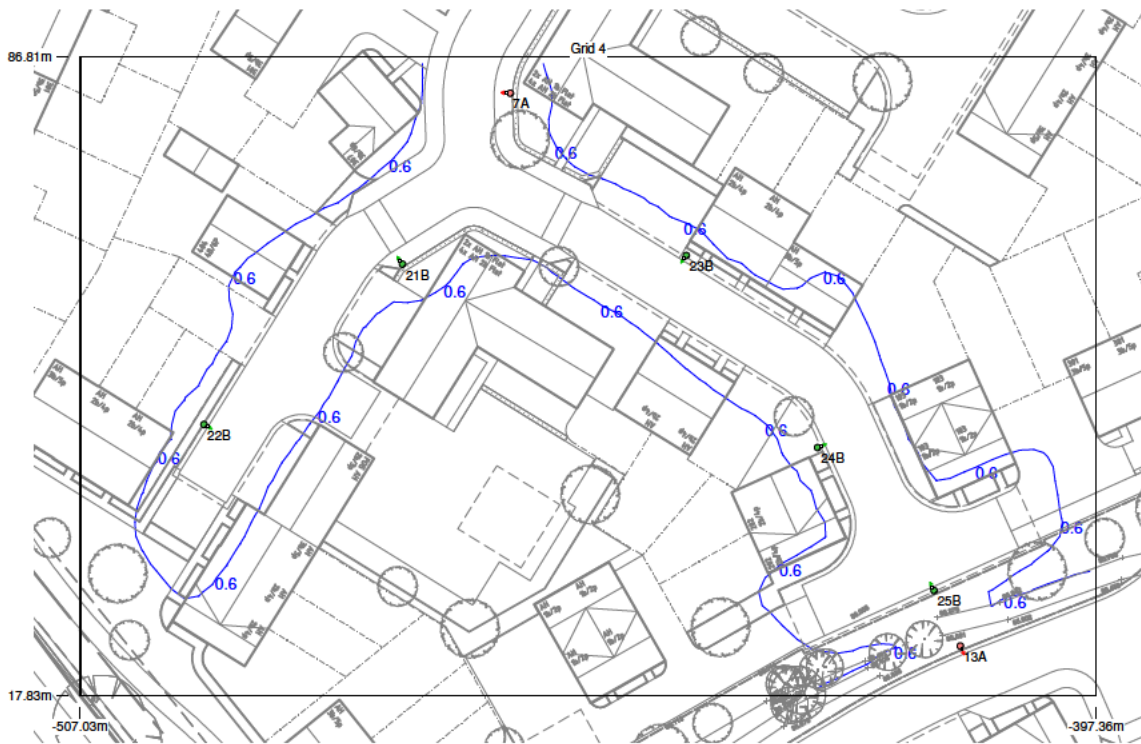


## Results

Eav	3.52
Emin	0.88
Emax	9.10
Emin/Emax	0.10
Emin/Eav	0.25

## Horizontal Illuminance (lux)

Grid 4

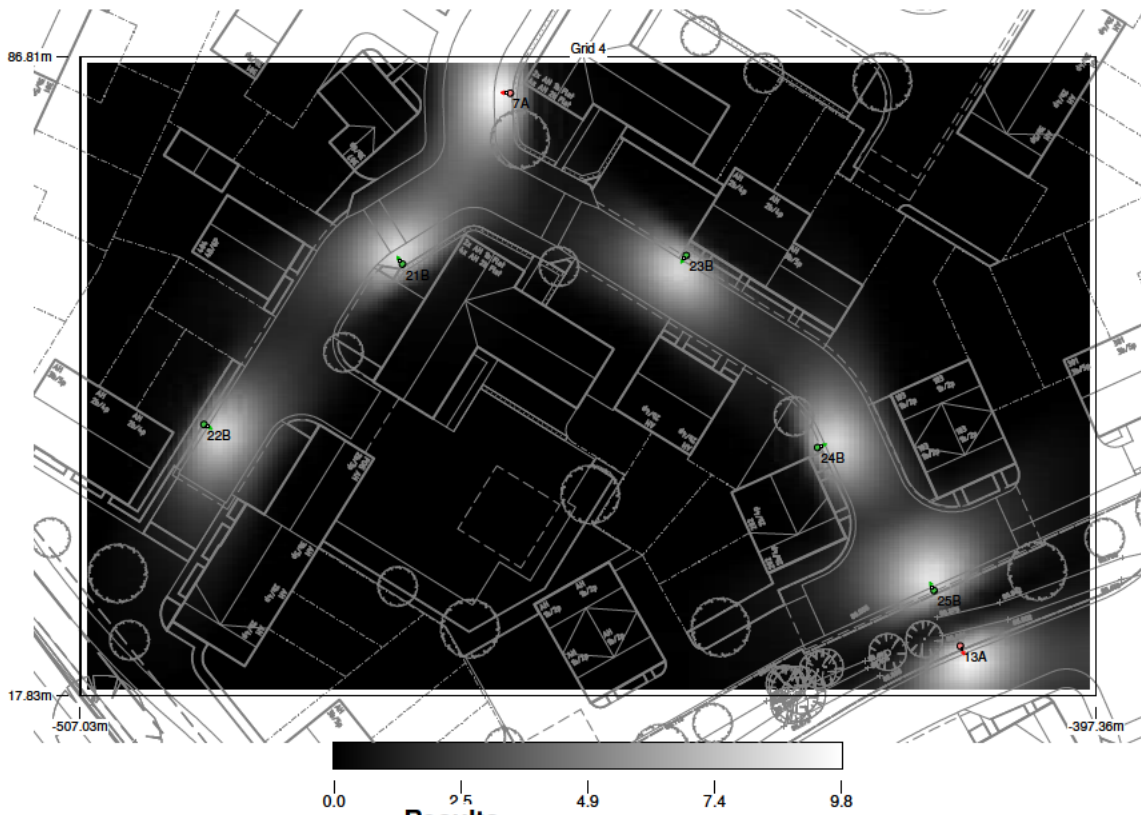


### Results

Eav	3.56
Emin	0.72
E <sub>max</sub>	8.95
E <sub>min</sub> /E <sub>max</sub>	0.08
E <sub>min</sub> /E <sub>av</sub>	0.20

# Horizontal Illuminance (lux)

Grid 4



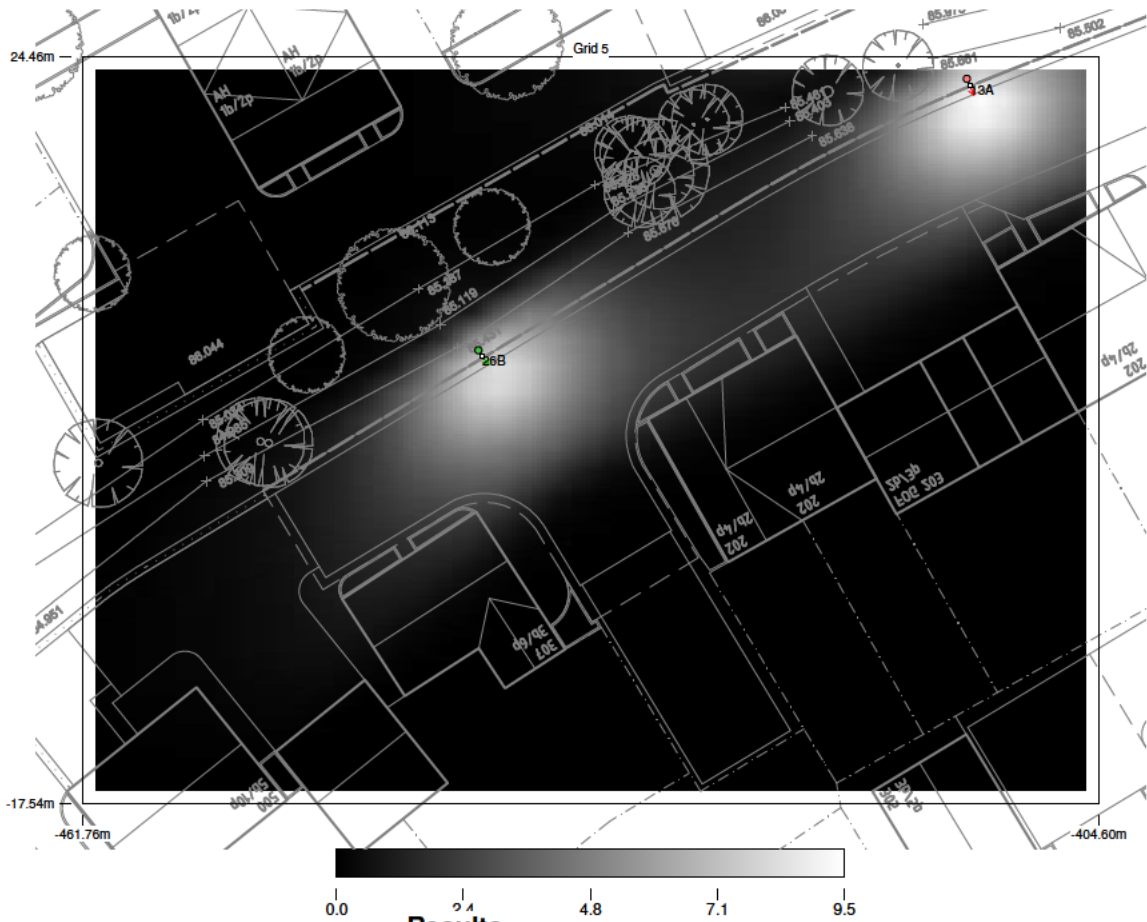
## Results

Eav	3.56
Emin	0.72
Emax	8.95
Emin/Emax	0.08
Emin/Eav	0.20



# Horizontal Illuminance (lux)

Grid 5



## Results

Eav	3.16
Emin	0.70
Emax	8.34
Emin/Emax	0.08
Emin/Eav	0.22

# Horizontal Illuminance (lux)

Grid 6

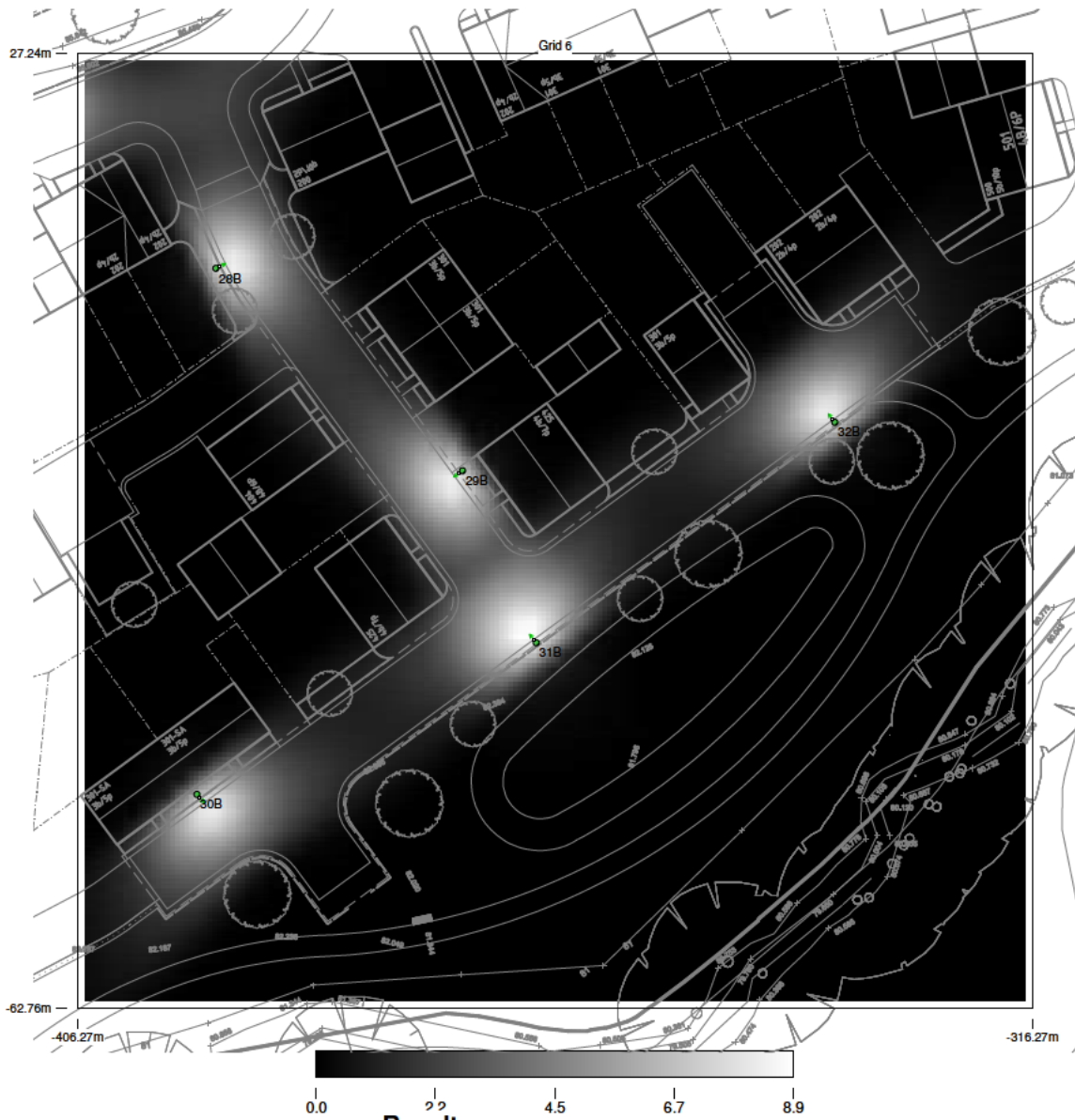


### Results

Eav	3.32
Emin	0.81
Emax	8.92
Emin/Emax	0.09
Emin/Eav	0.24

# Horizontal Illuminance (lux)

Grid 6



## Results

Eav	3.32
Emin	0.81
Emax	8.92
Emin/Emax	0.09
Emin/Eav	0.24