

DATE: 2 October 2025
DESIGNER: MMA Lighting Consultancy Ltd
PROJECT No: MMA19630
PROJECT NAME: Shipley Road, Southwater



MMA19630 - Shipley Road, Southwater - Private Lighting - Area Calculation - R2
Proposed 6m road lighting columns with post top mounted Philips Luma Gen2 LED lanterns.

Lighting class P5 selected in accordance with BS5489-1:2020.

Results required
Eav = 3.00 to 4.50 Lux
Emin = 0.60 Lux
Emin / Eav = 0.20

Base used 102108-BEL-SL-01 - 30.09.25

Outdoor Lighting Report

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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	Grid 1	515646.90	125031.89	25.50	75.00	1.50	1.50
2	Grid 2	515711.17	124975.24	91.25	73.46	1.50	1.50
3	Grid 3	515635.83	124965.96	144.00	33.00	1.50	1.50
4	Grid 4	515569.17	124878.17	112.50	24.00	1.50	1.50
5	Grid 5	515616.81	124880.73	43.50	42.00	1.50	1.50
6	Grid 6	515609.57	125094.15	27.00	34.50	1.50	1.50
7	Grid 7	515585.03	125049.36	27.00	34.50	1.50	1.50

Luminaires

Luminaire A Data

Supplier	
Type	BGP702I-4312f12b-8ddc-48d1-8de6-9fde91e9c370
Lamp(s)	LED35-4S/727
Lamp Flux (klm)	3.50
File Name	BGP702 T35 LED35-4S_727 PSA DW50 B L1 FG - Luma gen2.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	7

Luminaire B Data

Supplier	
Type	BGP702I-810b29ff-5353-4189-90e3-e136f609eb4f
Lamp(s)	LED27-4S/727
Lamp Flux (klm)	2.70
File Name	BGP702 T50 LED27-4S_727 PSD DW50 B L2 FG.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	9

Luminaire C Data

Supplier	
Type	BGP702I-c9c8d64f-64a5-45f7-b258-672e76ca28f6
Lamp(s)	LED30-4S/727
Lamp Flux (klm)	3.00
File Name	BGP702 T35 LED30-4S_727 PSA DW50 B L1 FG.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	4

Layout

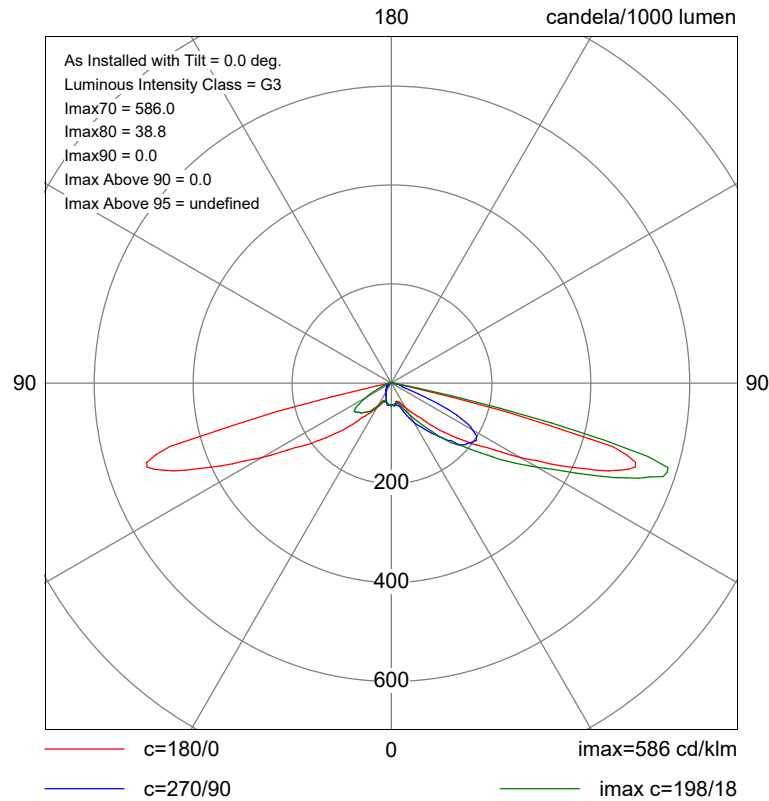
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	B	515604.76	125076.99	6.00	76.00	0.00	0.00	0.40			
2	C	515607.41	125057.47	6.00	340.00	0.00	0.00	0.40			
3	B	515646.37	125048.54	6.00	51.00	0.00	0.00	0.40			
4	C	515620.71	125092.40	6.00	344.00	0.00	0.00	0.40			

Layout Continued

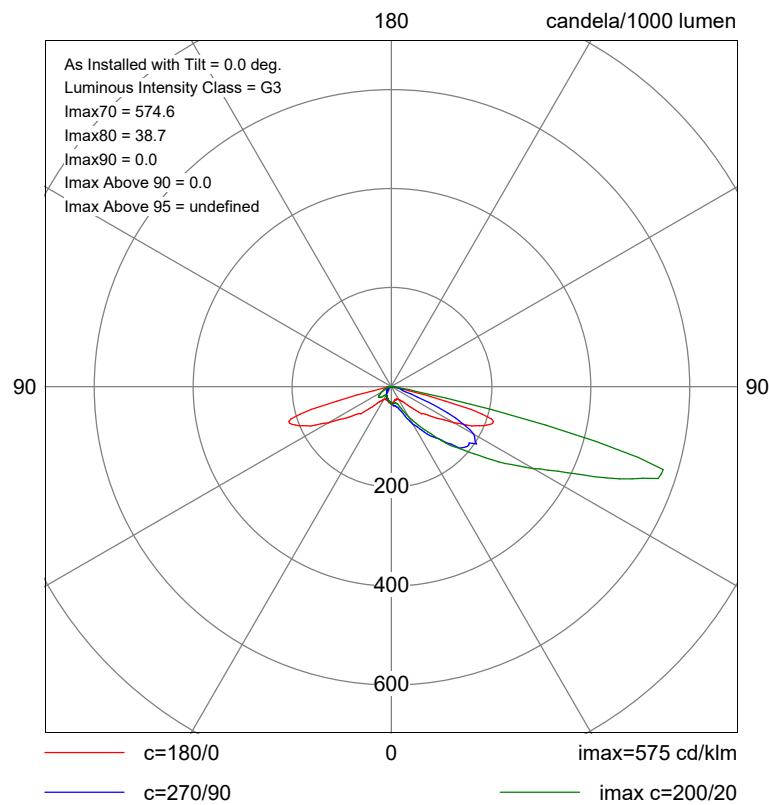
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
5	A	515671.12	125046.20	6.00	140.00	0.00	0.00	0.40			
6	A	515682.24	125084.23	6.00	341.00	0.00	0.00	0.40			
7	A	515640.29	125024.57	6.00	320.00	0.00	0.00	0.40			
8	A	515629.48	124995.52	6.00	150.00	0.00	0.00	0.40			
9	A	515612.42	124968.70	6.00	148.00	0.00	0.00	0.40			
10	C	515687.73	125047.02	6.00	232.00	0.00	0.00	0.40			
11	A	515584.90	124942.72	6.00	327.00	0.00	0.00	0.40			
12	A	515572.00	124909.18	6.00	144.00	0.00	0.00	0.40			
13	C	515602.45	124916.47	6.00	60.00	0.00	0.00	0.40			
14	B	515700.57	125002.23	6.00	123.00	0.00	0.00	0.40			
15	B	515724.76	125019.73	6.00	117.00	0.00	0.00	0.40			
16	B	515749.99	125035.94	6.00	139.00	0.00	0.00	0.40			
17	B	515708.96	125023.34	6.00	216.00	0.00	0.00	0.40			
18	B	515633.43	125072.07	6.00	233.00	0.00	0.00	0.40			
19	B	515615.00	124891.26	6.00	140.00	0.00	0.00	0.40			
20	B	515635.10	124916.66	6.00	146.00	0.00	0.00	0.40			

Polar Diagrams

Luminaire A BGP702I-4312f12b-8ddc-48d1-8de6-9fdc91e9c370

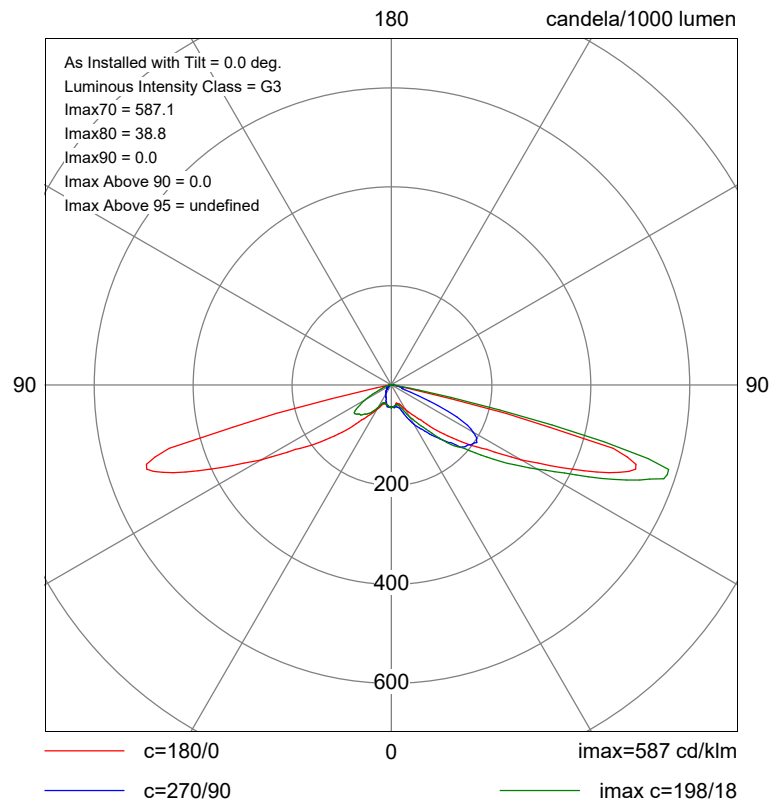


Luminaire B BGP702I-810b29ff-5353-4189-90e3-e136f609eb4f



Polar Diagrams Continued

Luminaire C BGP702I-c9c8d64f-64a5-45f7-b258-672e76ca28f6



Horizontal Illuminance (lux)

Grid 1

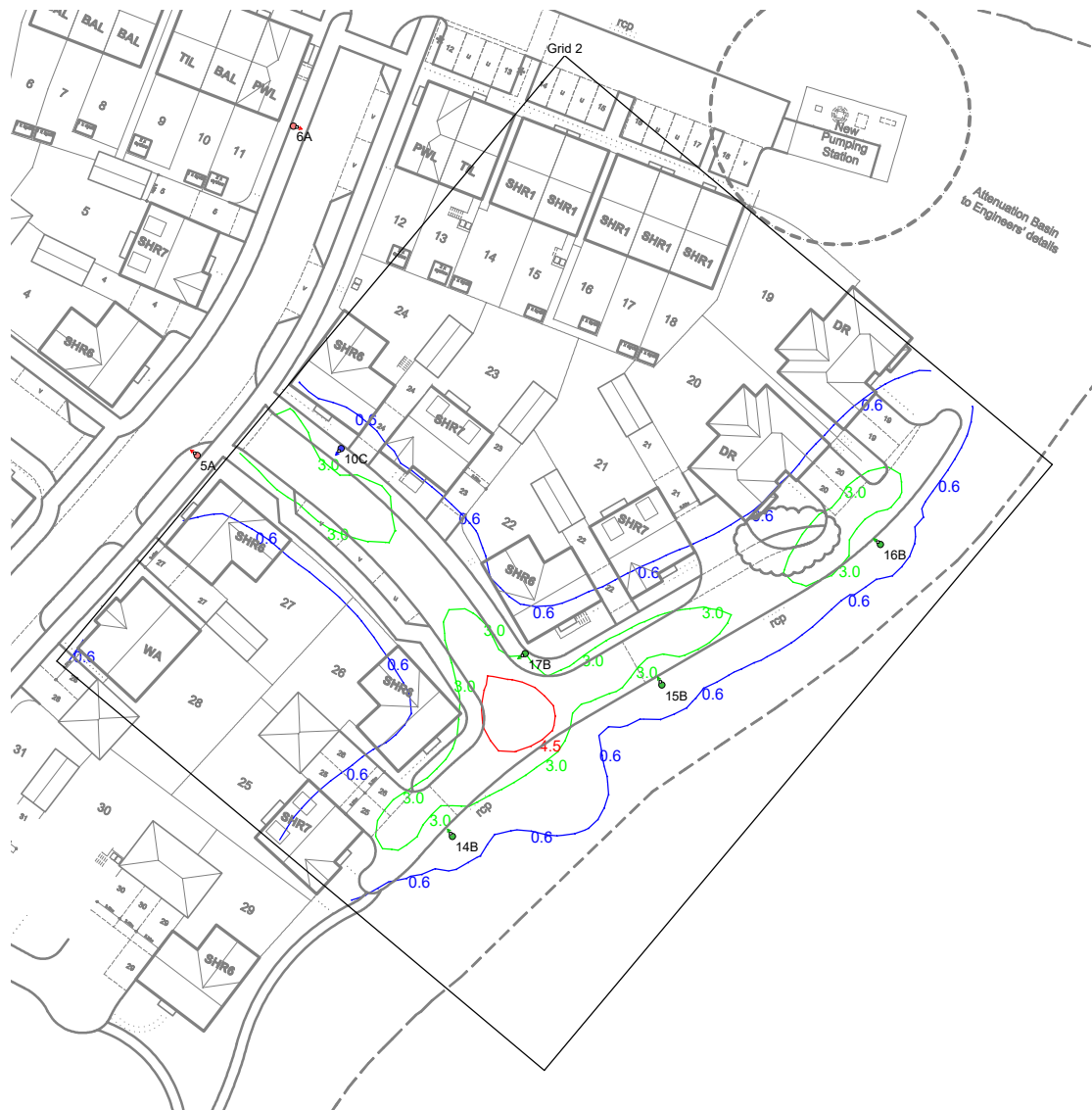


Results

Eav	3.30
Emin	0.81
Emax	4.95
Emin/Emax	0.16
Emin/Eav	0.25

Horizontal Illuminance (lux)

Grid 2



Results

Eav	3.15
Emin	0.62
Emax	6.25
Emin/Emax	0.10
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 3



Results

Eav	3.22
Emin	0.82
E _{max}	6.60
Emin/E _{max}	0.12
Emin/Eav	0.25

Horizontal Illuminance (lux)

Grid 4



Results

Eav	3.08
Emin	0.70
Emax	5.32
Emin/Emax	0.13
Emin/Eav	0.23

Horizontal Illuminance (lux)

Grid 5



Results

Eav	3.04
Emin	1.88
Emax	4.42
Emin/Emax	0.42
Emin/Eav	0.62

Horizontal Illuminance (lux)

Grid 6

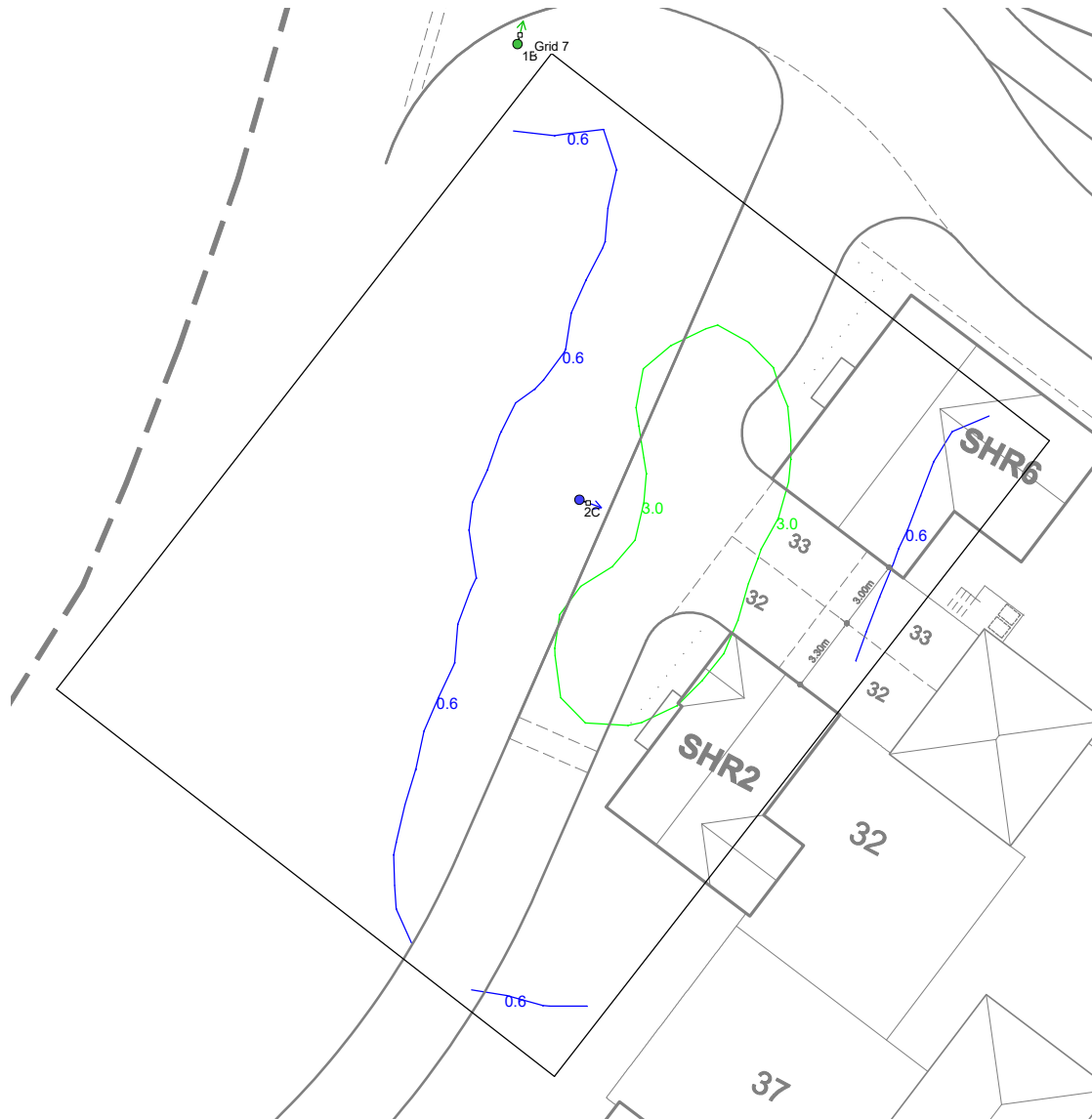


Results

Eav	3.13
Emin	1.22
Emax	4.54
Emin/Emax	0.27
Emin/Eav	0.39

Horizontal Illuminance (lux)

Grid 7



Results

Eav	3.33
Emin	2.28
Emax	4.39
Emin/Emax	0.52
Emin/Eav	0.69