

DATE: 29 March 2019
DESIGNER: KM
PROJECT No: C85850
PROJECT NAME: Bartons Road, Havant



Phase 2 Private Street Lighting to BS EN 13201:2015

Rev A

Lanterns - Philips Micro Luma DM70 LED

Lighting Class - P6 with 1.61 S/P Ratio applied

Eav = 1.20 - 1.80 lux

Emin = 0.40 lux

This report is to be read in conjunction with drawing no. C85850-D141

Luminaire Type A shown for information only. For Phase 1 street lighting, refer to C85850-C111 S38 Street Lighting Design.

C85850-C112 A Phase 2 Street Lighting

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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	473059.21	107726.03	120.00	67.50	1.50	1.50
2	Grid 2	473153.11	107649.00	72.00	172.50	1.50	1.50
3	Grid 3	473219.00	107649.00	100.50	162.00	1.50	1.50
4	Grid 4	473066.93	107644.00	100.50	90.00	1.50	1.50
5	Grid 5	473122.75	107557.44	105.00	99.00	1.50	1.50

Luminares

Luminaire A Data



Supplier	Philips
Type	BGP615 DW50 BL1
Lamp(s)	LED-HB 5.1S
Lamp Flux (klm)	1.20
File Name	Luma Micro_BGP615_DW50 BL1_1200_6LED_5.1S_CLO_L90_NW.ies
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	602.5, 31.2, 0.0
Lamp S/P Ratio	1.61
No. in Project	5

Luminaire B Data



Supplier	Philips
Type	BGP615 DW50
Lamp(s)	LED-HB 5.1S
Lamp Flux (klm)	1.20
File Name	Luma Micro_BGP615_DW50_1200_6LED_5.1S_CLO_L90_NW.ies
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	616.7, 39.5, 0.0
Lamp S/P Ratio	1.61
No. in Project	27

Luminaire C Data



Supplier	Philips
Type	BGP615_DM50_1200_6LED_5.1S_CLO_L90_NW
Lamp(s)	LED-HB 5.1S NW
Lamp Flux (klm)	1.20
File Name	Luma Micro_BGP615_DM50_1200_6LED_5.1S_CLO_L90_NW.ies
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	950.4, 42.6, 0.0
Lamp S/P Ratio	1.61
No. in Project	3

Layout

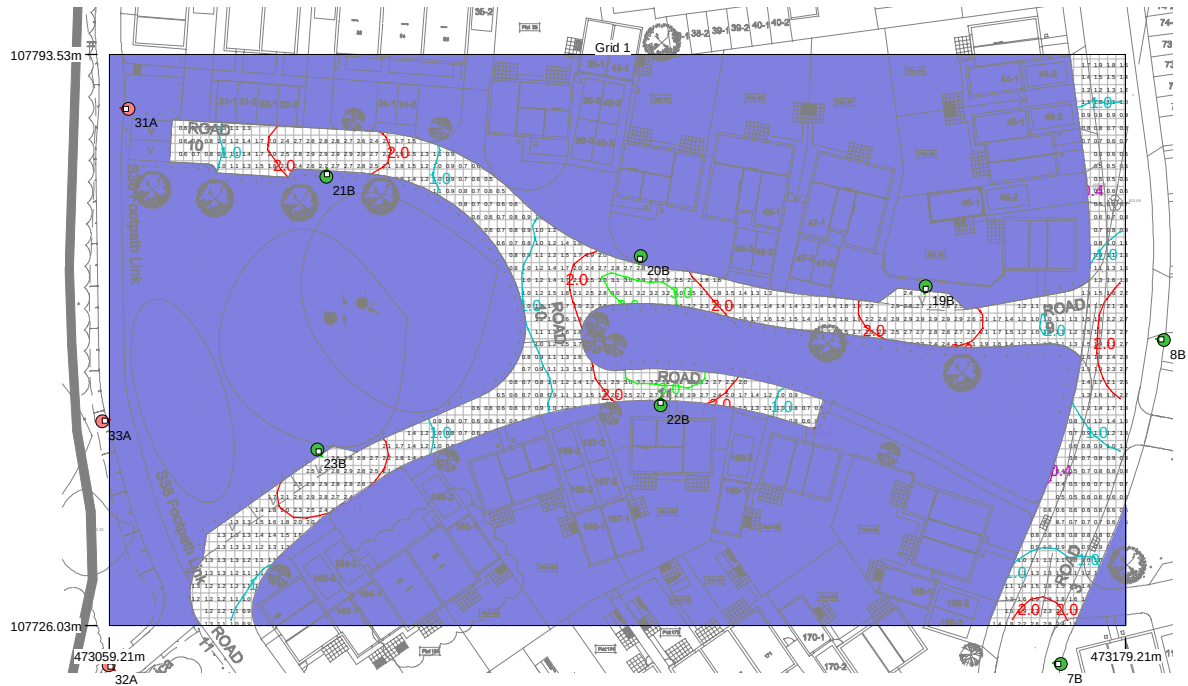
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	B	473271.90	107789.95	6.00	342.00	0.00	0.00	0.30			
2	B	473260.27	107753.54	6.00	342.00	0.00	0.00	0.30			
3	B	473251.21	107697.08	6.00	152.00	0.00	0.00	0.30			
4	B	473231.14	107664.43	6.00	148.00	0.00	0.00	0.30			
5	B	473203.17	107655.79	6.00	45.00	0.00	0.00	0.30			
6	B	473183.38	107691.40	6.00	216.00	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	B	473171.49	107721.55	6.00	167.00	0.00	0.00	0.30			
8	B	473183.68	107759.84	6.00	174.00	0.00	0.00	0.30			
9	B	473171.90	107800.16	6.00	8.00	0.00	0.00	0.30			
10	B	473263.69	107730.18	6.00	253.00	0.00	0.00	0.30			
11	B	473292.36	107714.66	6.00	68.00	0.00	0.00	0.30			
12	C	473228.22	107726.18	6.00	252.00	0.00	0.00	0.30			
13	B	473266.79	107684.66	6.00	237.00	0.00	0.00	0.30			
14	B	473202.18	107637.31	6.00	326.00	0.00	0.00	0.30			
15	B	473183.09	107620.04	6.00	304.00	0.00	0.00	0.30			
16	B	473139.85	107703.01	6.00	125.00	0.00	0.00	0.30			
17	B	473110.07	107690.78	6.00	306.00	0.00	0.00	0.30			
18	C	473204.83	107740.93	6.00	75.00	0.00	0.00	0.30			
19	B	473155.59	107766.16	6.00	261.00	0.00	0.00	0.30			
20	B	473121.95	107769.74	6.00	256.00	0.00	0.00	0.30			
21	B	473084.85	107779.13	6.00	85.00	0.00	0.00	0.30			
22	B	473124.27	107752.16	6.00	88.00	0.00	0.00	0.30			
23	B	473083.77	107746.92	6.00	302.00	0.00	0.00	0.30			
24	B	473084.47	107705.41	6.00	35.00	0.00	0.00	0.30			
25	B	473129.08	107662.10	6.00	216.00	0.00	0.00	0.30			
26	B	473150.07	107634.41	6.00	213.00	0.00	0.00	0.30			
27	B	473166.65	107601.08	6.00	36.00	0.00	0.00	0.30			
28	B	473191.29	107576.88	6.00	210.00	0.00	0.00	0.30			
29	A	473282.15	107819.02	6.00	252.00	0.00	0.00	0.30			
30	A	473176.24	107831.80	6.00	278.00	0.00	0.00	0.30			
31	A	473061.51	107787.10	6.00	176.00	0.00	0.00	0.30			
32	A	473059.14	107721.47	6.00	318.00	0.00	0.00	0.30			
33	A	473058.39	107750.20	6.00	15.00	0.00	0.00	0.30			
34	C	473304.90	107759.55	6.00	158.00	0.00	0.00	0.30			
35	B	473285.60	107760.16	6.00	68.00	0.00	0.00	0.30			

Horizontal Illuminance (lux)

Grid 1

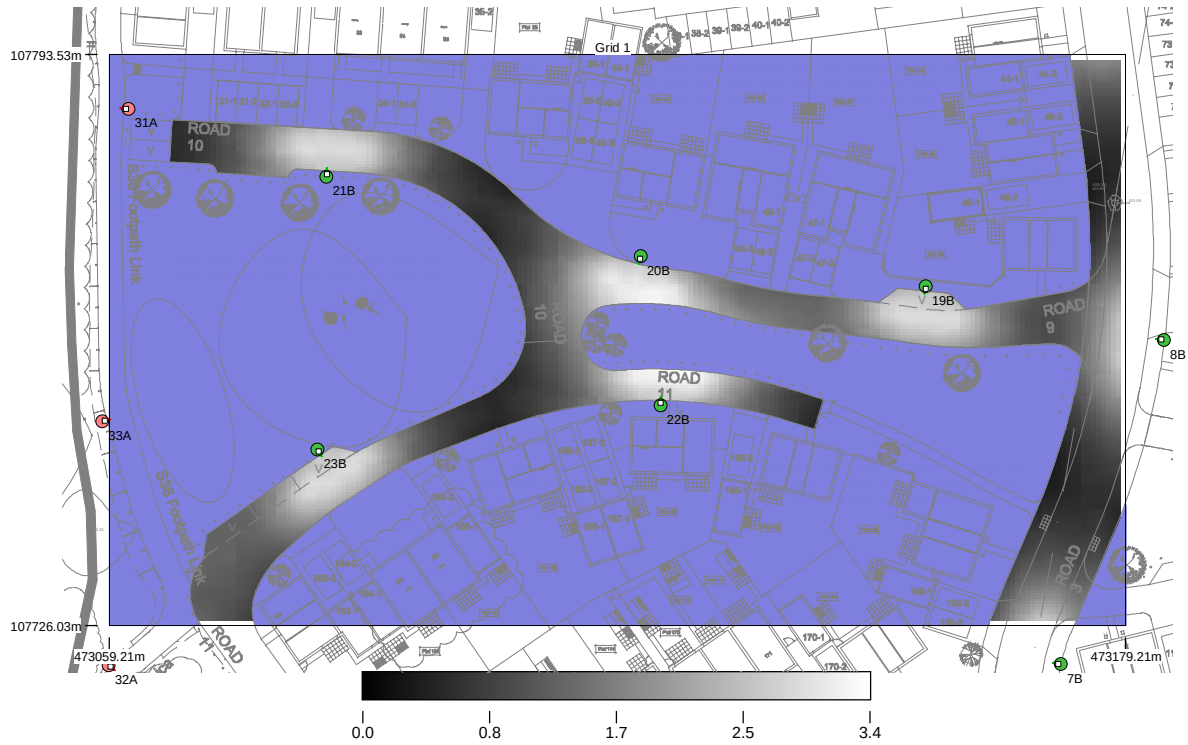


Results

Eav	1.52
Emin	0.40
Emax	3.31
Emin/Emax	0.12
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 1



Results

Eav	1.52
Emin	0.40
Emax	3.31
Emin/Emax	0.12
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 2

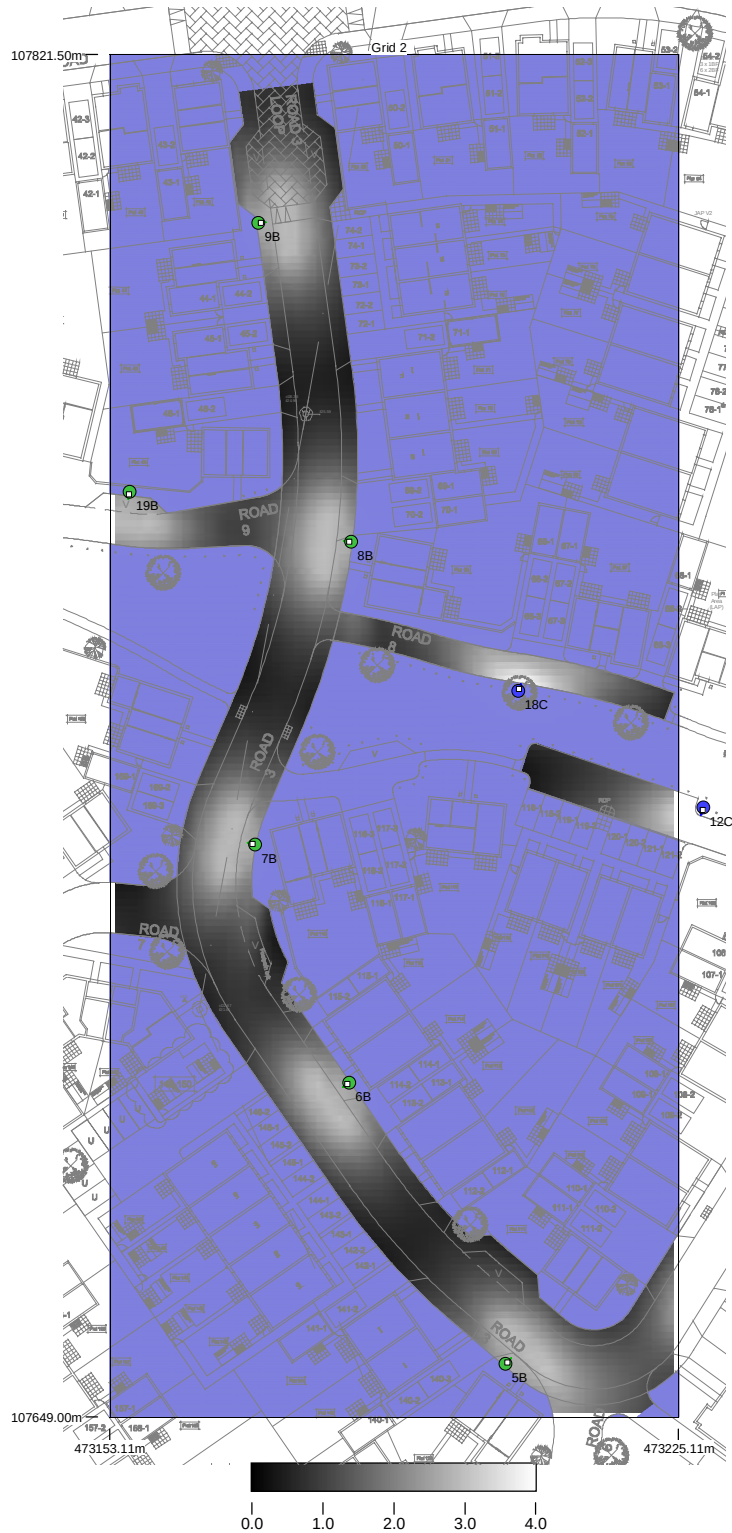


Results

Eav	1.51
Emin	0.39
Emax	3.96
Emin/Emax	0.10
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 2



Results

Eav	1.51
Emin	0.39
E _{max}	3.96
E _{min} /E _{max}	0.10
E _{min} /E _{av}	0.26

Horizontal Illuminance (lux)

Grid 3

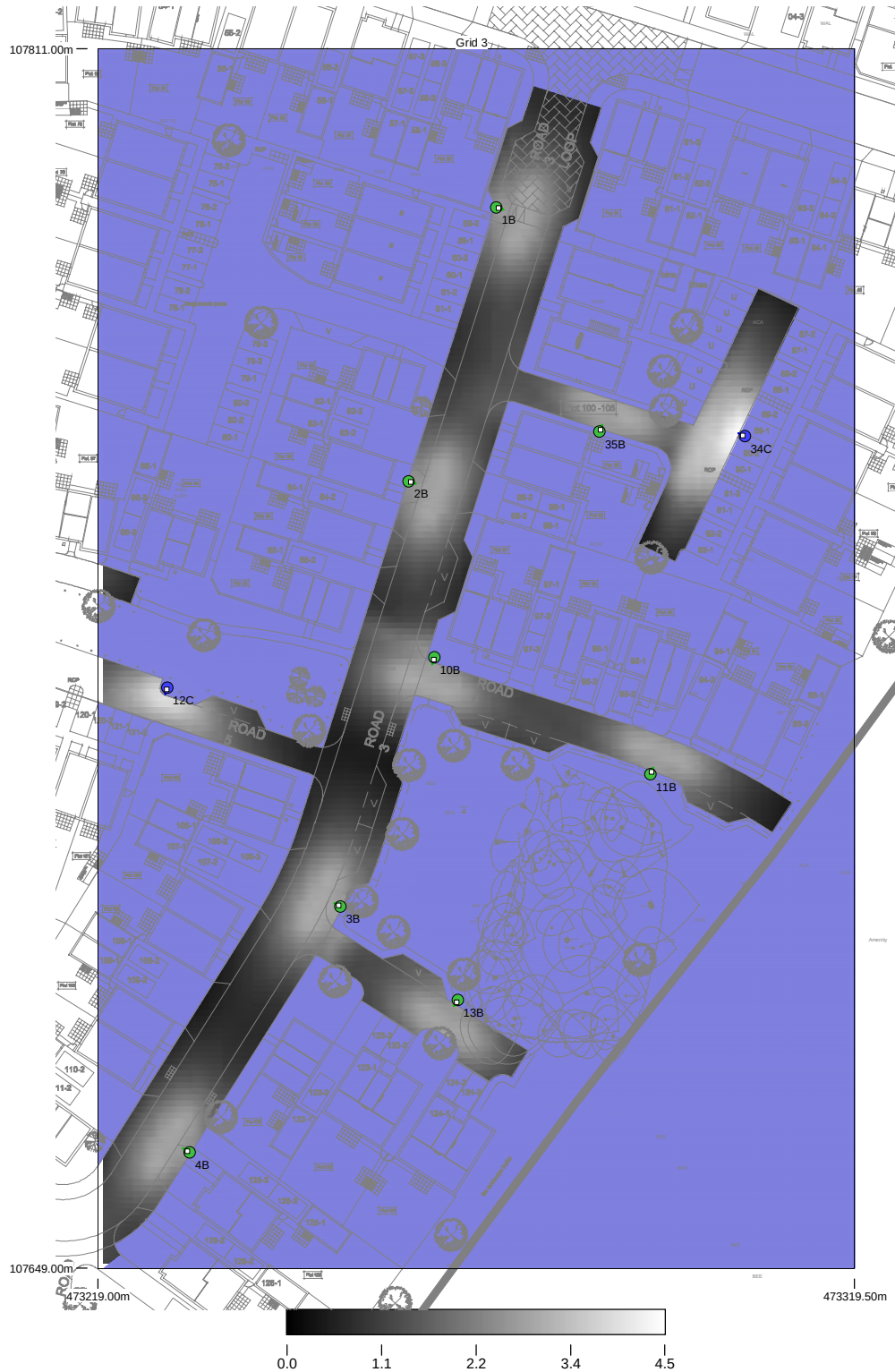


Results

Eav	1.74
Emin	0.45
Emax	4.48
Emin/Emax	0.10
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 3

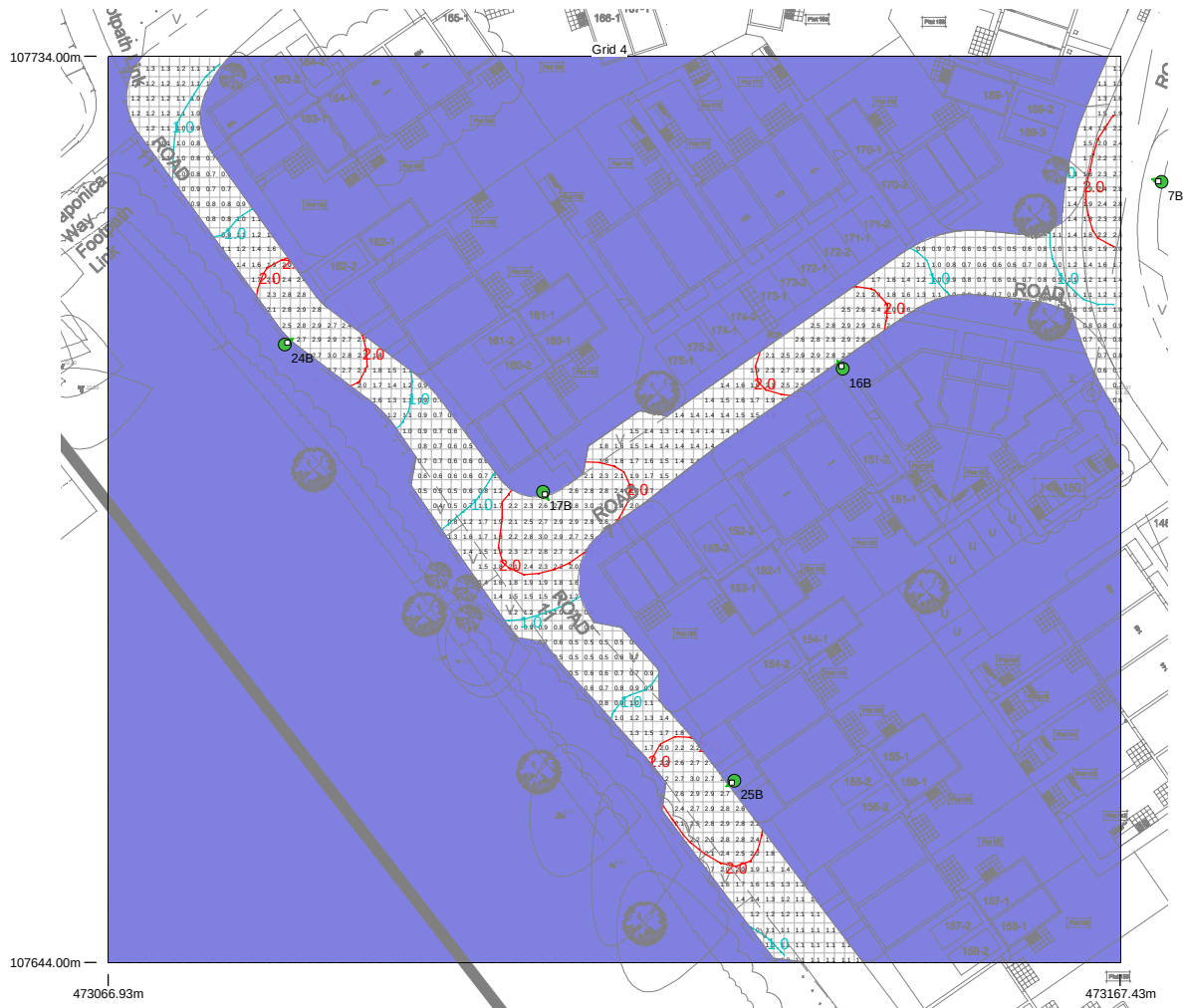


Results

Eav	1.74
Emin	0.45
Emax	4.48
Emin/Emax	0.10
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 4

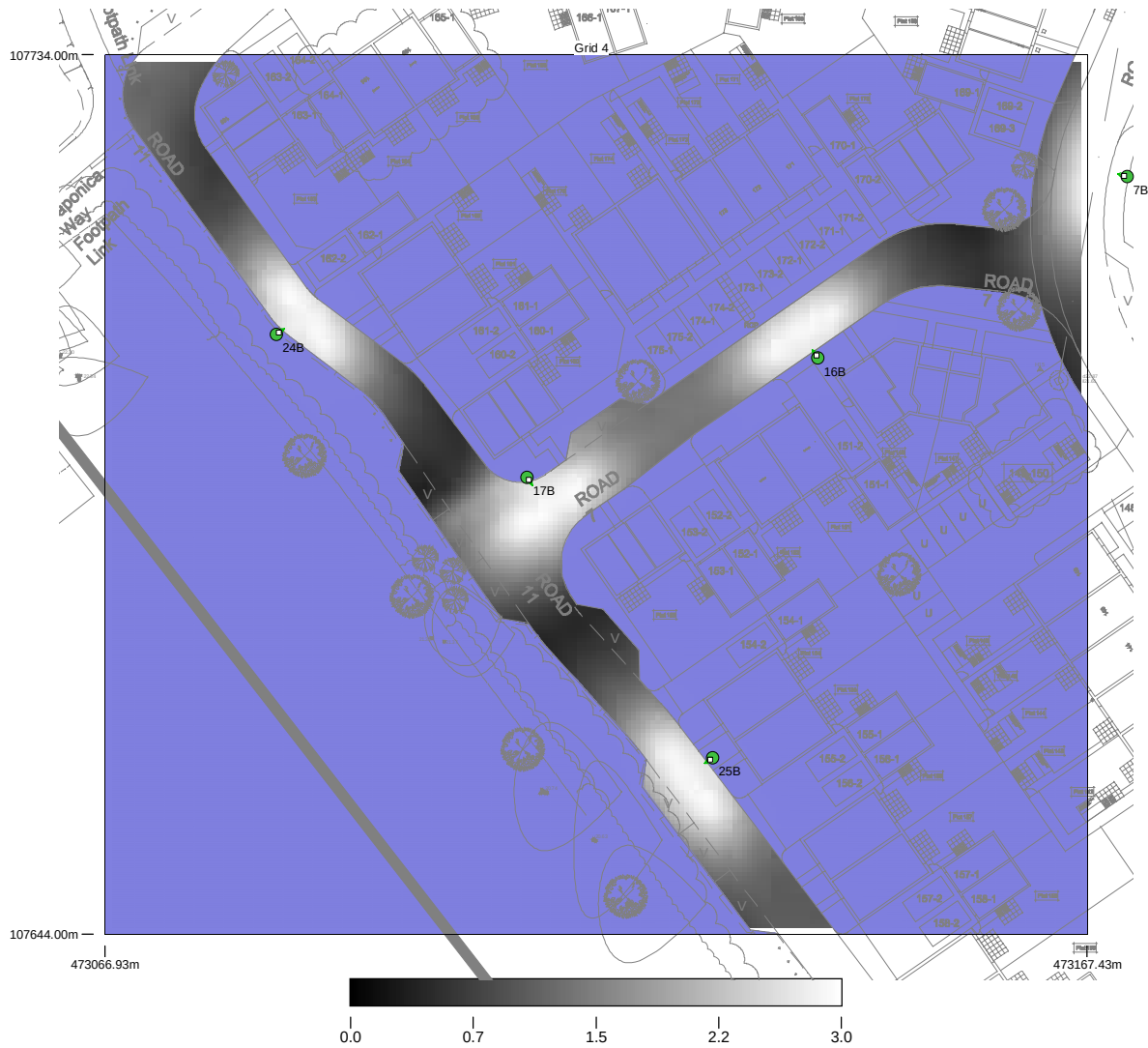


Results

Eav	1.55
Emin	0.42
Emax	2.97
Emin/Emax	0.14
Emin/Eav	0.27

Horizontal Illuminance (lux)

Grid 4



Results

Eav	1.55
Emin	0.42
Emax	2.97
Emin/Emax	0.14
Emin/Eav	0.27

Horizontal Illuminance (lux)

Grid 5

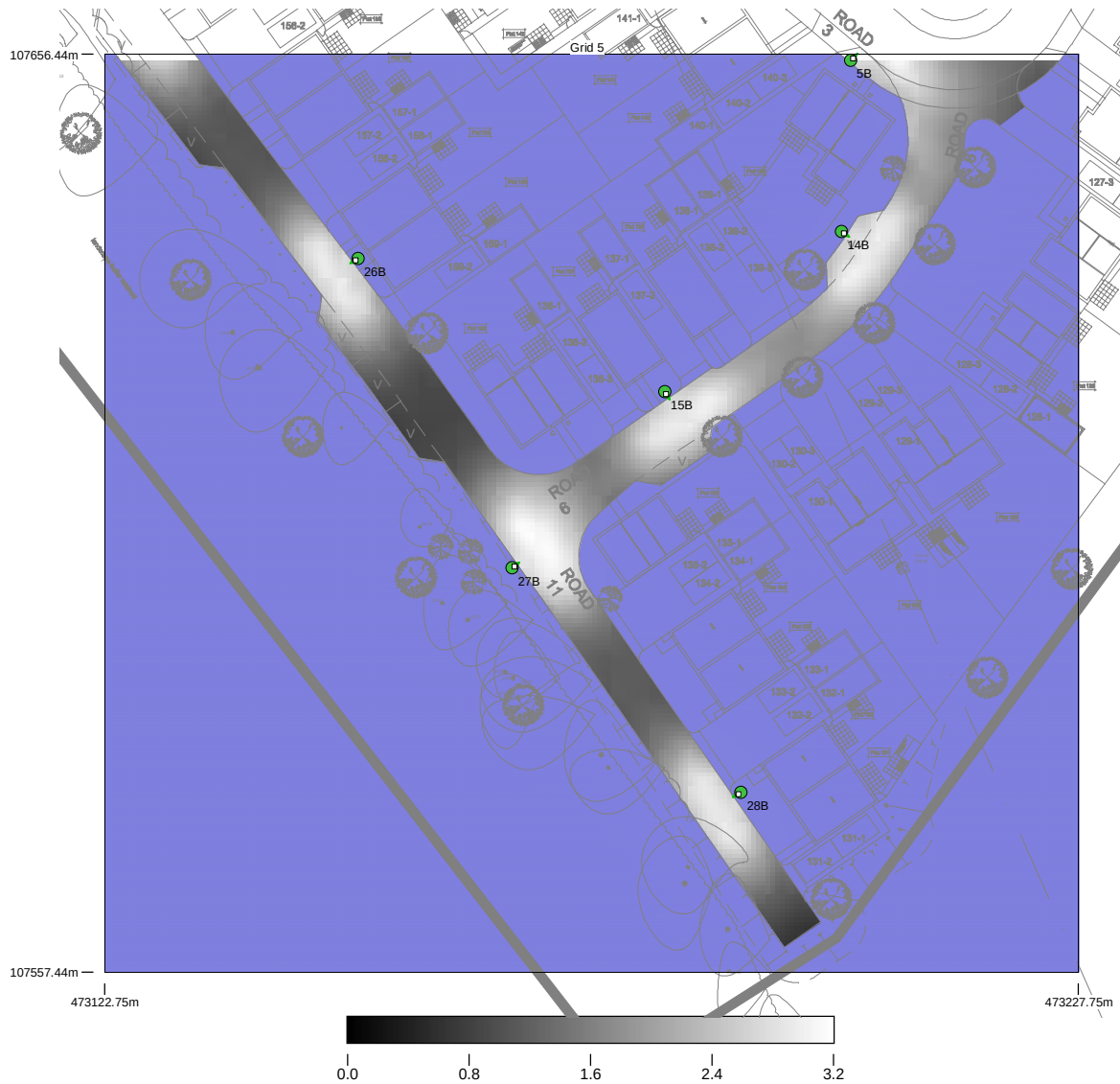


Results

Eav	1.91
Emin	0.61
E _{max}	3.16
Emin/E _{max}	0.19
Emin/E _{av}	0.32

Horizontal Illuminance (lux)

Grid 5



Results

Eav	1.91
Emin	0.61
Emax	3.16
Emin/Emax	0.19
Emin/Eav	0.32





PROJECT NAME:
Bartons Road, Havant

PROJECT No: C85850

SCALE: 1:500 **DATE:** 29 March 2019

CALCULATION:
Horizontal Illuminance (lux)

DESIGNER:
KM

Phase 2 Private Street Lighting to BS EN 13031:2015
Rev A
Luminaires - Philips Micro Luma CM70 LED
Lighting Class - P6 with 1.61 S/P Ratio applied
Eav = 1.20 - 1.80 lux
Emin = 0.40 lux
Emax = 3.31 lux
Emin/Emax = 0.12
Emin/Eav = 0.26
This report is to be read in conjunction with drawing no. C85850-01A1.
Luminaire Type A shown for information only. For Phase 1 street lighting, refer to C85850-C111 S338 Street Lighting Design.

REVISION: A **SCALE:** 1:500 @ A1

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FILE NAME:
\\tsclient\HJobs_C\85850 Barton's Rd, Hampshire, Havant, P09 SNAIDocs JNP\Calcals Street Lighting\Phase 2 Private\C85850 Havant Street Lighting - Phase 2 Private - Rev A.rvtma

Results Grid 1	
Eav	1.52
Emin	0.40
Emax	3.31
Emin/Emax	0.12
Emin/Eav	0.26

Results Grid 2	
Eav	1.51
Emin	0.39
Emax	3.96
Emin/Emax	0.10
Emin/Eav	0.26

Results Grid 3	
Eav	1.74
Emin	0.45
Emax	4.48
Emin/Emax	0.10
Emin/Eav	0.26

Results Grid 4	
Eav	1.55
Emin	0.42
Emax	2.97
Emin/Emax	0.14
Emin/Eav	0.27

Results Grid 5	
Eav	1.91
Emin	0.61
Emax	3.16
Emin/Emax	0.19
Emin/Eav	0.32

	 Luminaire A	 Luminaire B	 Luminaire C
Supplier	Philips	Philips	Philips
Type	BGP615 DW90 DLI	BGP615 DW90	BGP615 DW90 1200 BLEO S1
Lamp(s)	LED-HB 5.1S	LED-HB 5.1S	S_CLD_L90_NW LED-HB 5.1S NW
Lamp Flux (lm)	1.20	1.20	1.20
Maintenance Factor	0.85	0.85	0.85
No. in Project	5	27	3