

DATE: 31 October 2025
DESIGNER: Don Kinghan
PROJECT No: MMA19767
PROJECT NAME: Talbot Way, Letchworth - Private



Lighting designed to the recommendations of BS5489-1:2020 - R1

Main spine road illuminated to Lighting Class P4
Maintained average illuminances >5.0Lux
Minimum point illuminance >1.0Lux
Overall uniformity > 0.20 (20%)

Side roads illuminated to Lighting Class P5
Maintained average illuminances >3.0Lux
Minimum point illuminance >0.6Lux
Overall uniformity > 0.20 (20%)

Road 2 achieves P4 due to road layout, to not introduce an additional lumen/optic package and maintain consistency.

Base drawing - P25-0636 Landscape Masterplan_04.09.2025.dwg

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
Web: www.mma-consultancy.co.uk

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	Spine road A (P4)	209356.88	93525.13	54.00	207.00	1.50	1.50
2	Road 1a	209366.42	93534.91	81.00	18.00	1.50	1.50
3	Road 1b (P5)	209425.81	93563.43	18.00	57.00	1.50	1.50
4	Road 1c	209423.60	93604.04	21.00	99.00	1.50	1.50
5	Road 1d (P5)	209343.20	93613.84	39.00	15.00	1.50	1.50
6	Road 2	209289.51	93516.80	72.00	45.00	1.50	1.50
7	Road 3a (P5)	209266.41	93566.95	78.00	18.00	1.50	1.50
8	Road 3b (P5)	209312.29	93564.01	12.00	30.00	1.50	1.50
9	Road 4 (P5)	209233.19	93612.61	57.00	24.00	1.50	1.50
10	Spine road B (P5)	209223.93	93679.19	39.00	48.00	1.50	1.50
11	Road 5a (P5)	209198.07	93667.74	42.00	15.00	1.50	1.00
12	Road 6a (P5)	209269.49	93674.17	42.00	12.00	1.50	1.50
13	Road 6b (P5)	209275.05	93721.53	39.00	15.00	1.50	1.50

Luminaires



Luminaire A Data

Supplier	D W Windsor
Type	Kirium One 24LED 27K Asymmetrical Area 300mA UMSUG 42 0020 000
Lamp(s)	24x2.7k LED
Lamp Flux (klm)	3.09
File Name	Kirium One 24LED 27K Asymmetrical Area 300mA UMSUG 42 0020 0000 100.ies
Maintenance Factor	0.83
Lum. Int. Class	G1
No. in Project	10



Luminaire B Data

Supplier	D W Windsor
Type	Kirium One 12LED 27K Medium Road Type 2 300mA UMSUG 42 0010 00
Lamp(s)	12x2.7k LED
Lamp Flux (klm)	1.65
File Name	Kirium One 12LED 27K Medium Road Type 2 300mA UMSUG 42 0010 0000 100.ies
Maintenance Factor	0.83
Lum. Int. Class	G2
No. in Project	22

Layout

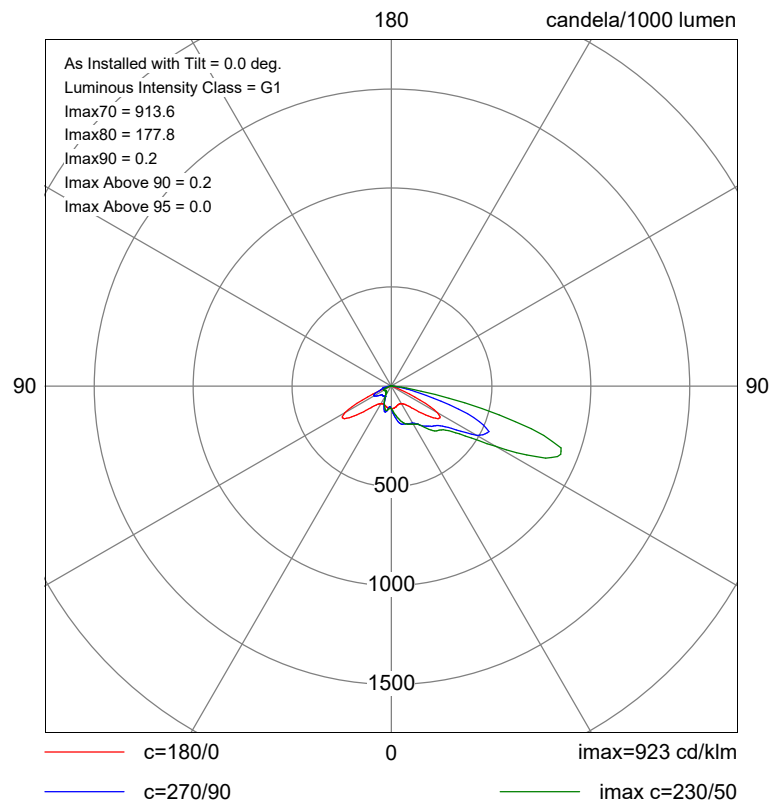
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
SR1/1	A	209363.79	93550.15	6.00	188.00	0.00	0.00	0.40			
SR1/2	A	209350.51	93568.62	6.00	13.00	0.00	0.00	0.40			
SR1/3	A	209354.60	93594.06	6.00	200.00	0.00	0.00	0.40			
SR1/4	A	209331.78	93608.47	6.00	38.00	0.00	0.00	0.40			
SR1/5	A	209324.58	93630.02	6.00	219.00	0.00	0.00	0.40			
SR1/6	A	209299.78	93638.39	6.00	58.00	0.00	0.00	0.40			
SR1/7	A	209281.06	93650.59	6.00	60.00	0.00	0.00	0.40			
SR1/8	A	209261.48	93664.96	6.00	58.00	0.00	0.00	0.40			

Layout Continued

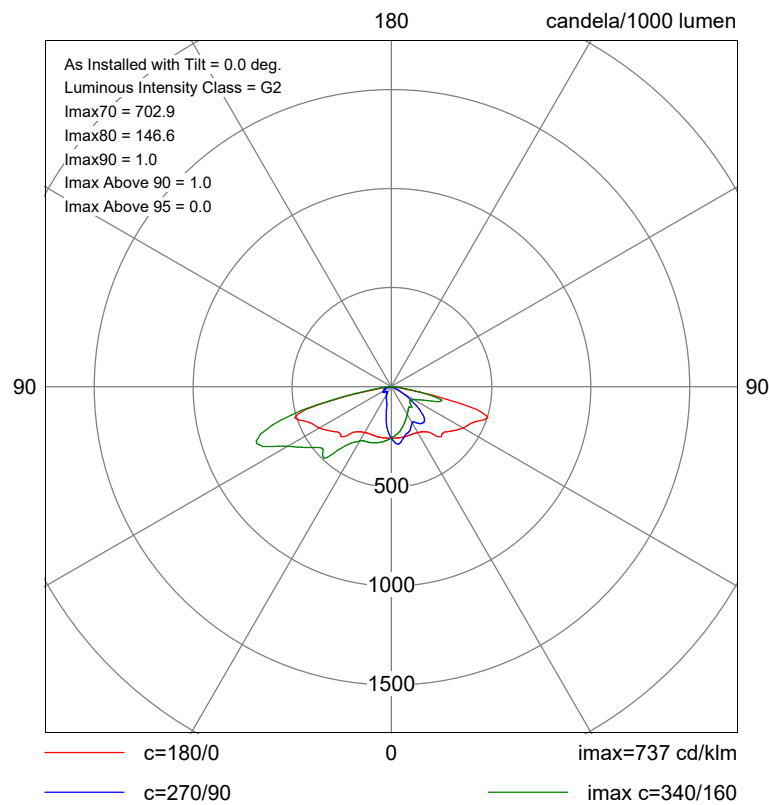
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
SR1/9	A	209240.48	93682.31	6.00	43.00	0.00	0.00	0.40			
R1/1	B	209375.71	93547.24	6.00	279.00	0.00	0.00	0.40			
R2/1	B	209345.89	93534.79	6.00	103.00	0.00	0.00	0.40			
R1/2	B	209415.53	93547.54	6.00	98.00	0.00	0.00	0.40			
R1/3	B	209436.58	93571.60	6.00	189.00	0.00	0.00	0.40			
R1/4	B	209439.89	93602.87	6.00	166.00	0.00	0.00	0.40			
R1/5	B	209420.04	93622.80	6.00	238.00	0.00	0.00	0.40			
R1/6	B	209392.09	93643.64	6.00	226.00	0.00	0.00	0.40			
R1/7	B	209364.02	93663.22	6.00	227.00	0.00	0.00	0.40			
R1/8	B	209353.53	93631.54	6.00	149.00	0.00	0.00	0.40			
R2/2	B	209318.89	93543.28	6.00	30.00	0.00	0.00	0.40			
R2/3	B	209300.76	93547.60	6.00	122.00	0.00	0.00	0.40			
R2/4	B	209318.30	93562.43	6.00	284.00	0.00	0.00	0.40			
R3/1	B	209299.49	93605.33	6.00	318.00	0.00	0.00	0.40			
R3/3	B	209268.98	93580.03	6.00	304.00	0.00	0.00	0.40			
R3/2	B	209309.36	93589.30	6.00	218.00	0.00	0.00	0.40			
R4/1	B	209257.26	93647.44	6.00	322.00	0.00	0.00	0.40			
R4/2	B	209238.58	93632.92	6.00	304.00	0.00	0.00	0.40			
SR1/11	B	209211.60	93728.22	6.00	315.00	0.00	0.00	0.40			
SR1/10	A	209221.87	93704.75	6.00	39.00	0.00	0.00	0.40			
R5/1	B	209209.83	93687.33	6.00	304.00	0.00	0.00	0.40			
R6/1	B	209281.95	93690.92	6.00	139.00	0.00	0.00	0.40			
R6/2	B	209304.18	93708.86	6.00	237.00	0.00	0.00	0.40			
R6/3	B	209285.93	93728.85	6.00	217.00	0.00	0.00	0.40			

Polar Diagrams

Luminaire A Kirium One 24LED 2.7K Asymmetrical Area 300mA UMSUG 42 0020 000



Luminaire B Kirium One 12LED 2.7K Medium Road Type 2 300mA UMSUG 42 0010 00



Horizontal Illuminance (lux)

Spine road A (P4)



Results

Eav	5.50
Emin	1.12
Emax	13.09
Emin/Emax	0.09
Emin/Eav	0.20

Horizontal Illuminance (lux)

Road 1a

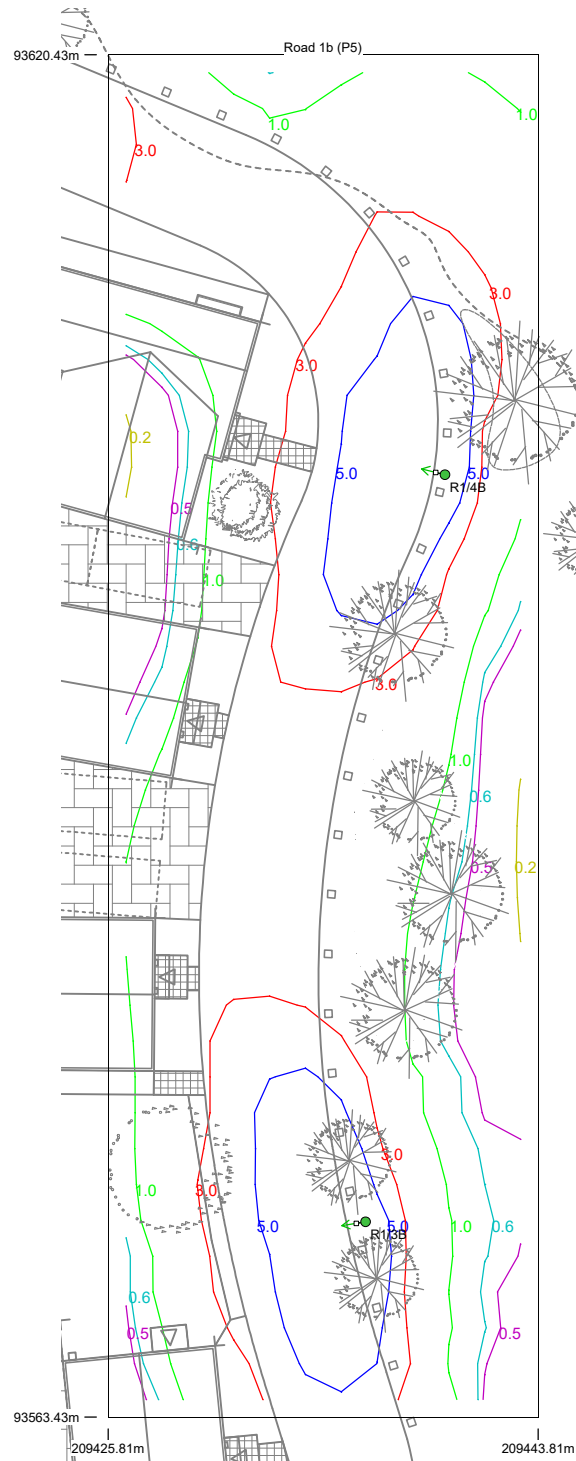


Results

Eav	3.58
Emin	1.02
Emax	11.22
Emin/Emax	0.09
Emin/Eav	0.28

Horizontal Illuminance (lux)

Road 1b (P5)

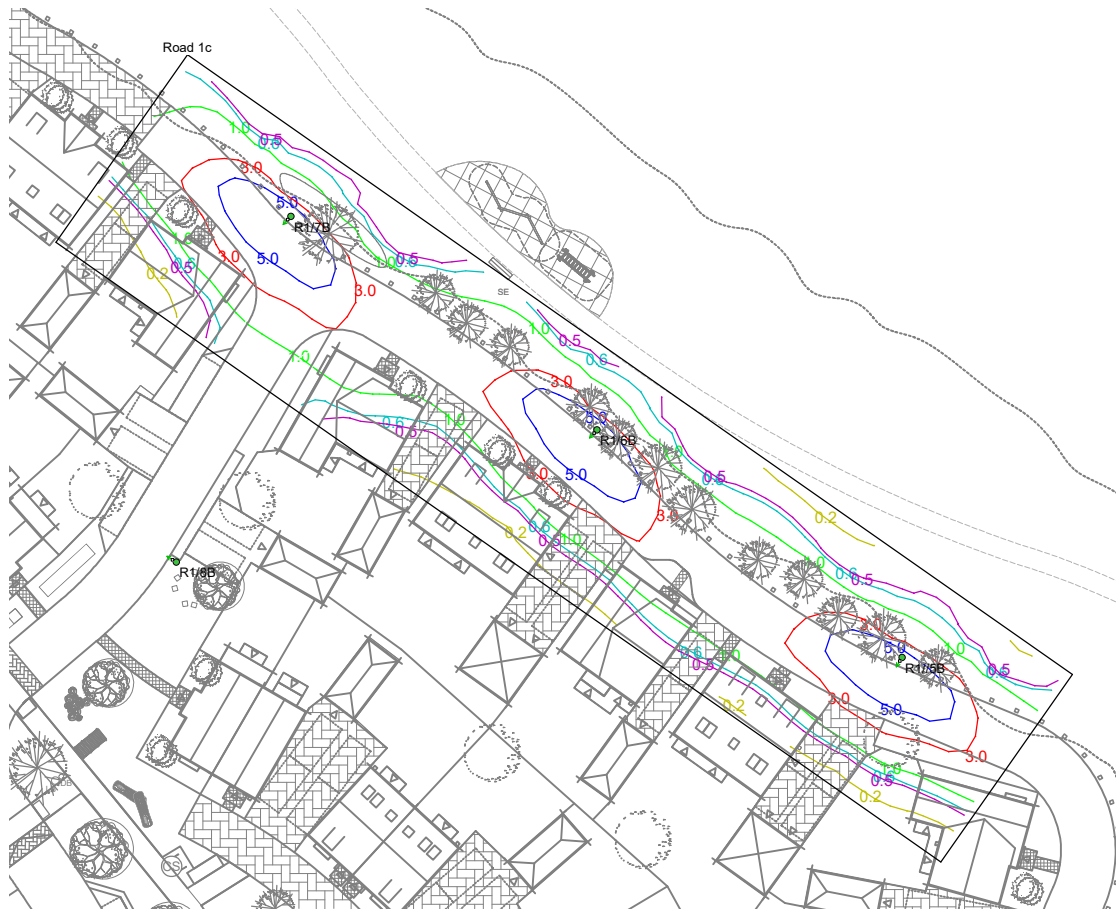


Results

Eav	4.10
Emin	1.21
Emax	11.05
Emin/Emax	0.11
Emin/Eav	0.29

Horizontal Illuminance (lux)

Road 1c

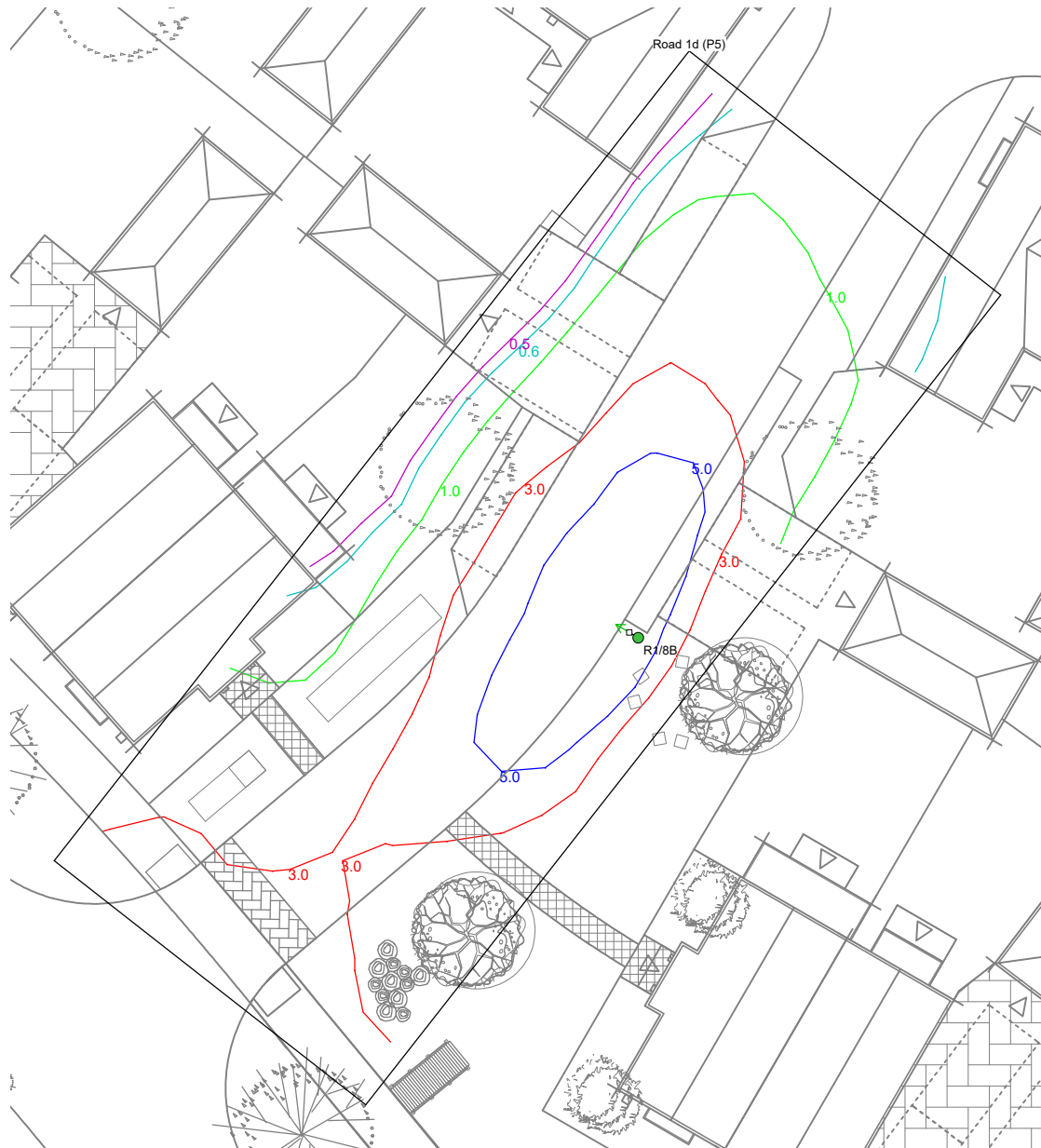


Results

Eav	3.60
Emin	0.71
Emax	10.42
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Road 1d (P5)

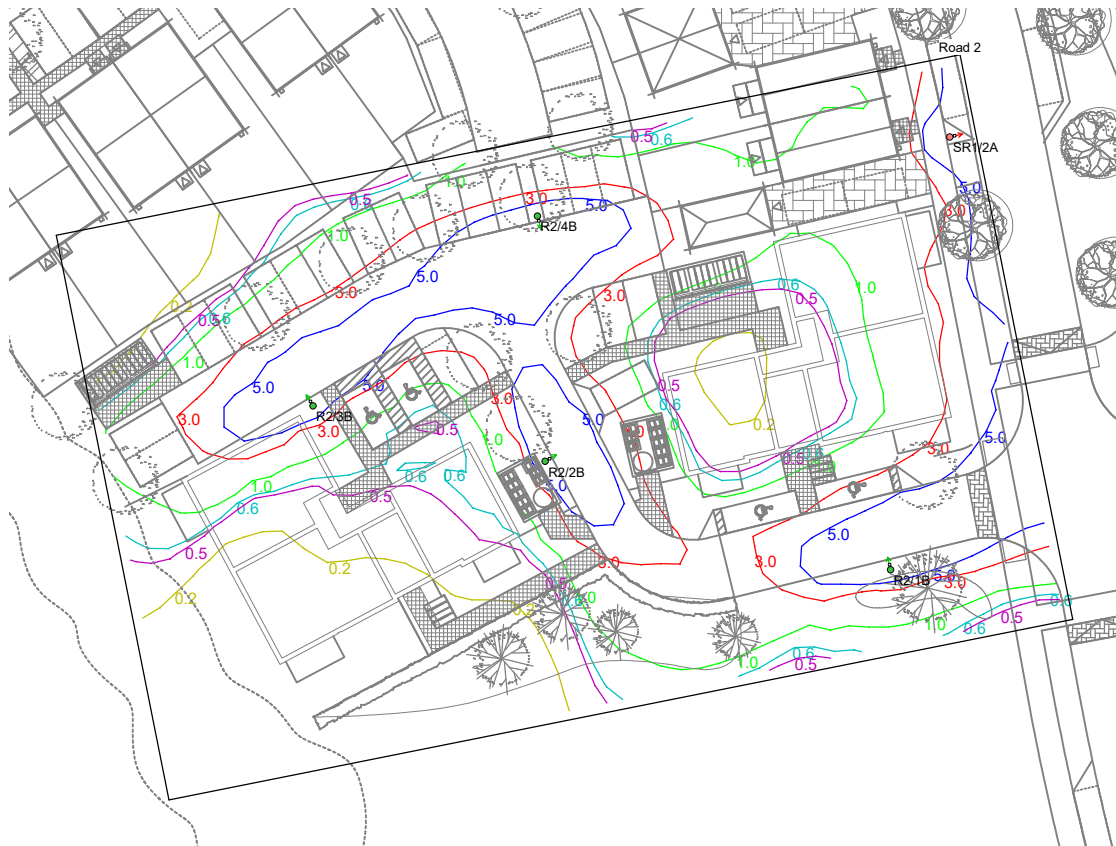


Results

Eav	3.76
Emin	0.77
Emax	11.07
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Road 2

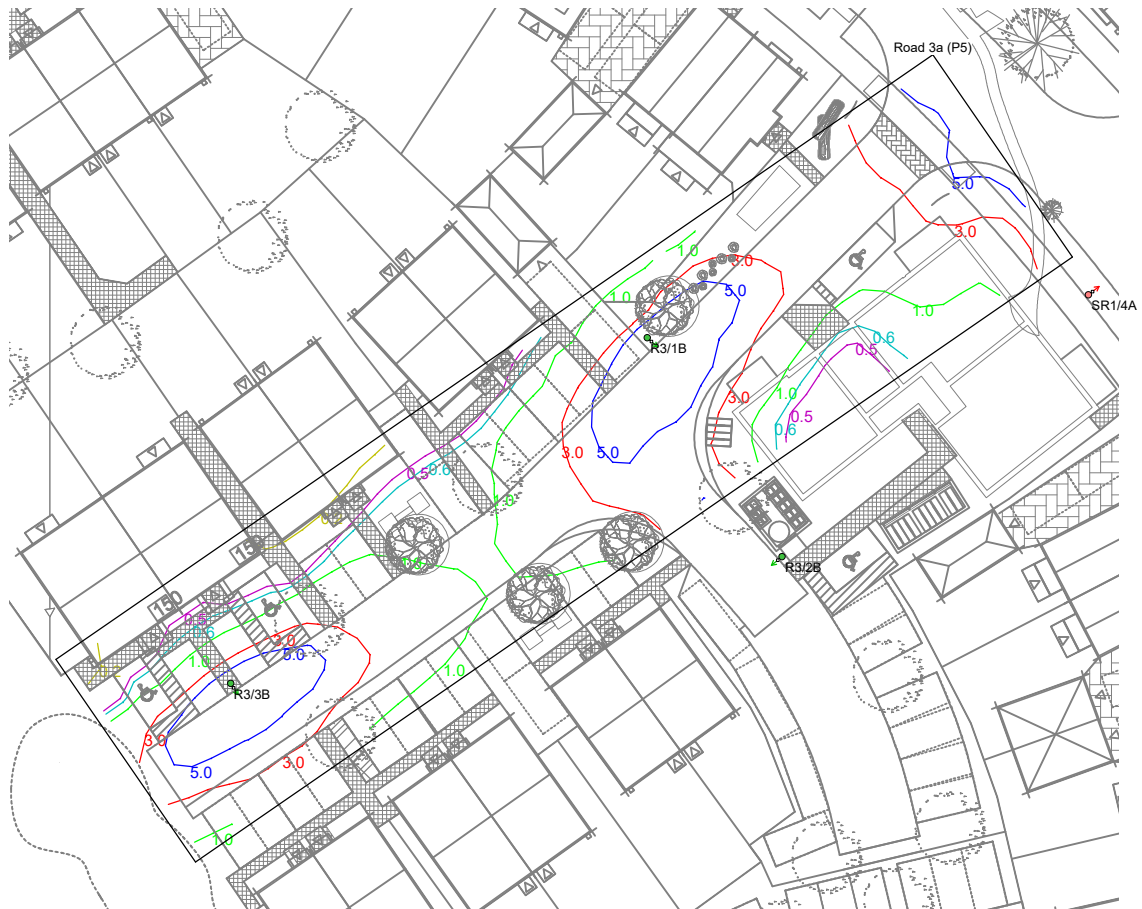


Results

Eav	5.62
Emin	2.16
Emax	11.74
Emin/Emax	0.18
Emin/Eav	0.39

Horizontal Illuminance (lux)

Road 3a (P5)

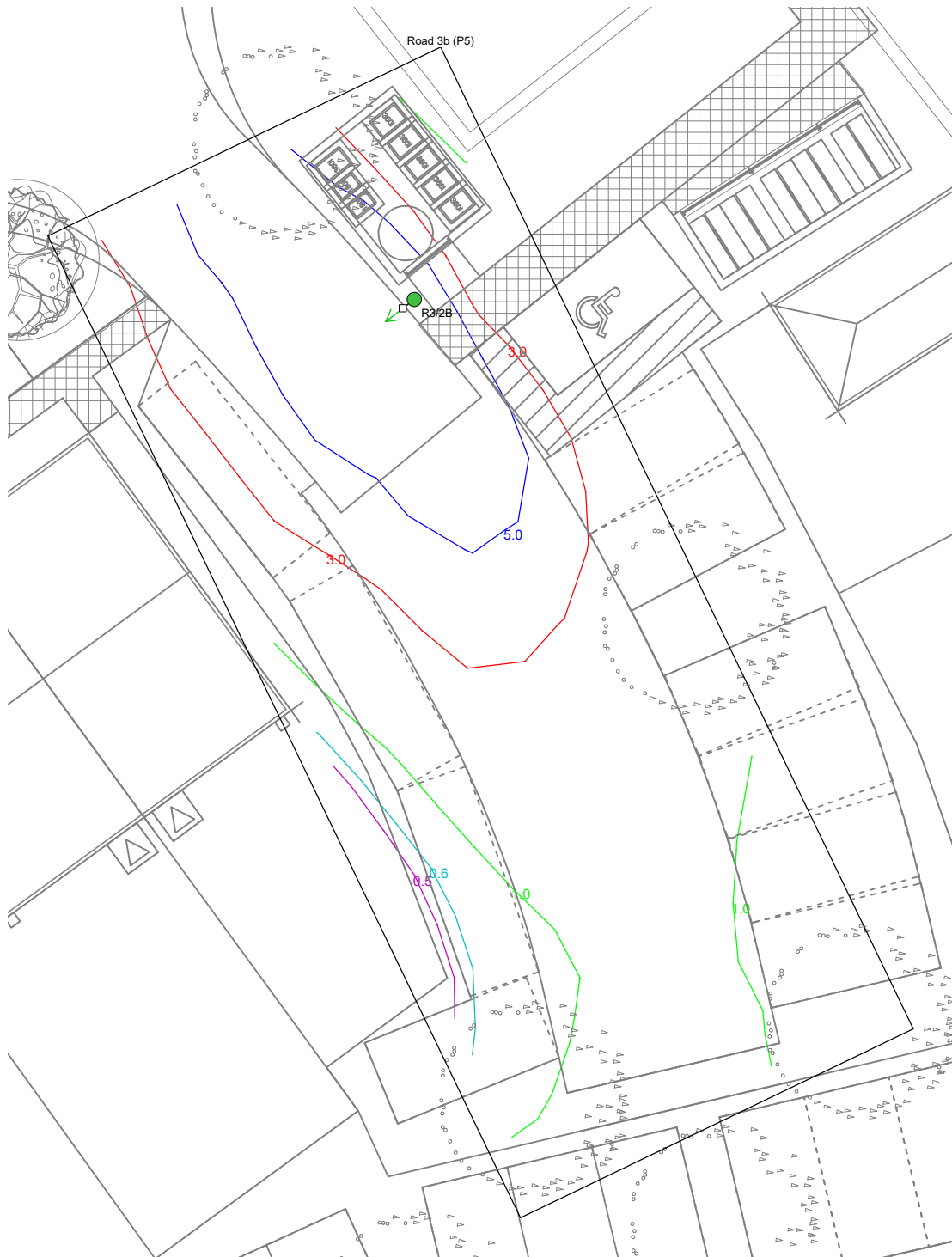


Results

Eav	3.79
Emin	0.92
Emax	11.27
Emin/Emax	0.08
Emin/Eav	0.24

Horizontal Illuminance (lux)

Road 3b (P5)

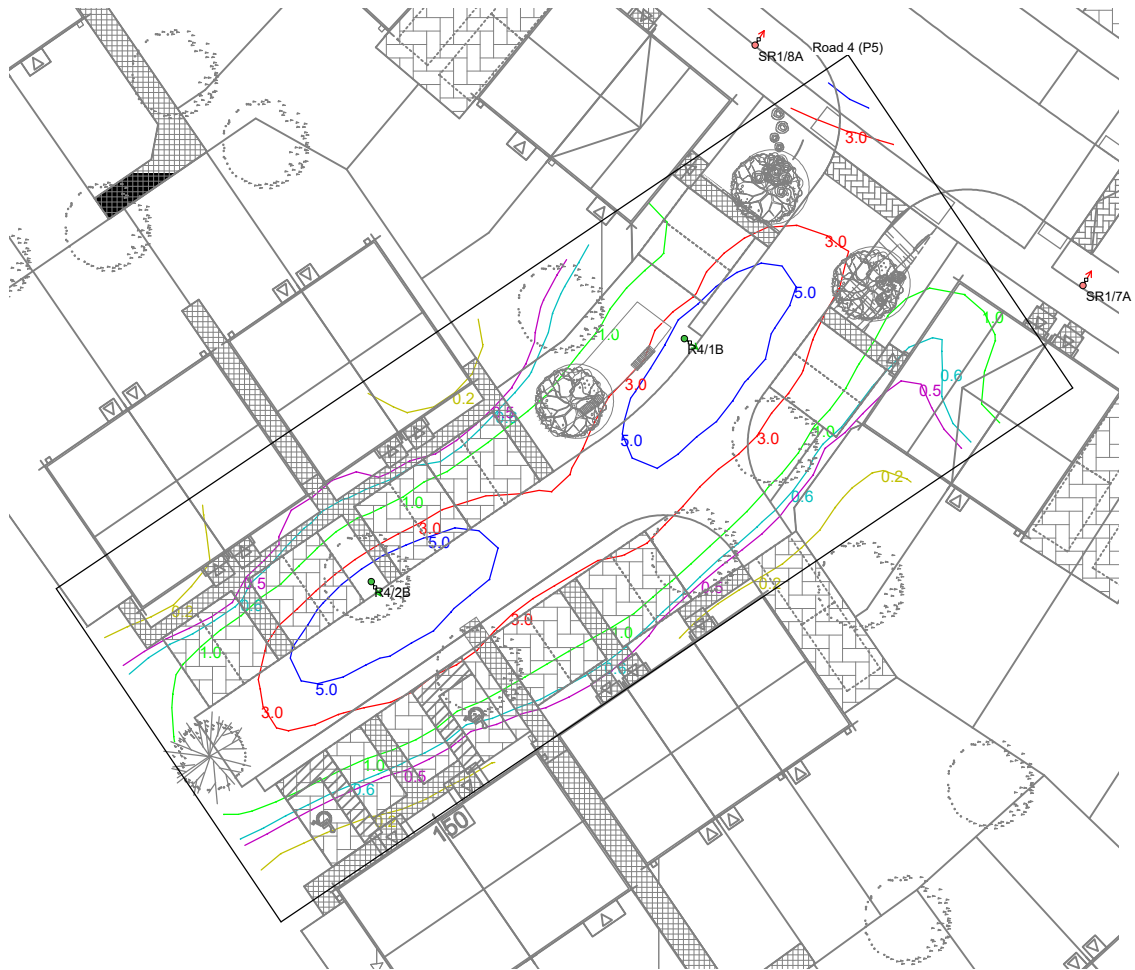


Results

Eav	3.67
Emin	0.92
Emax	10.58
Emin/Emax	0.09
Emin/Eav	0.25

Horizontal Illuminance (lux)

Road 4 (P5)

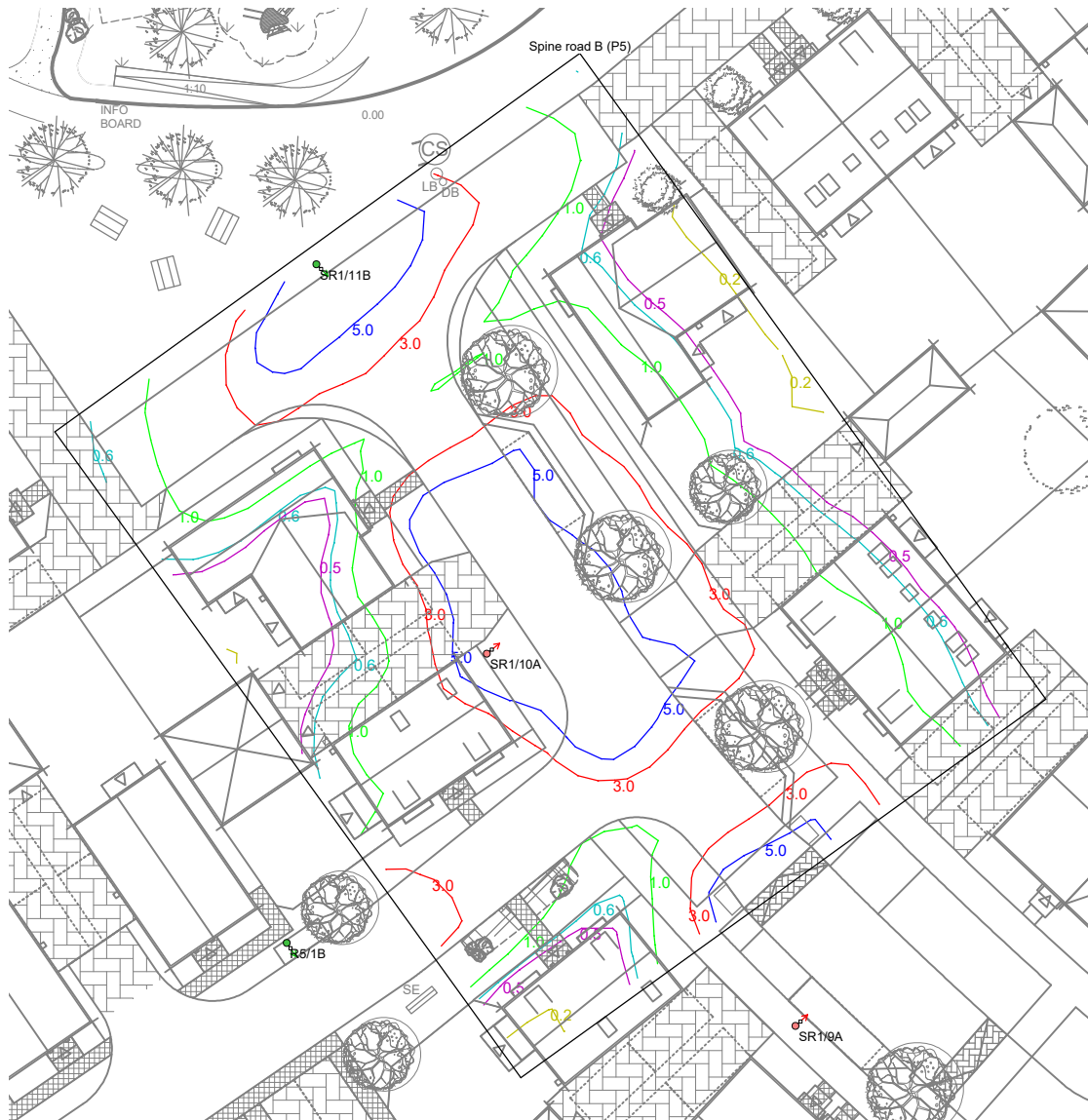


Results

Eav	4.58
Emin	1.18
Emax	11.34
Emin/Emax	0.10
Emin/Eav	0.26

Horizontal Illuminance (lux)

Spine road B (P5)

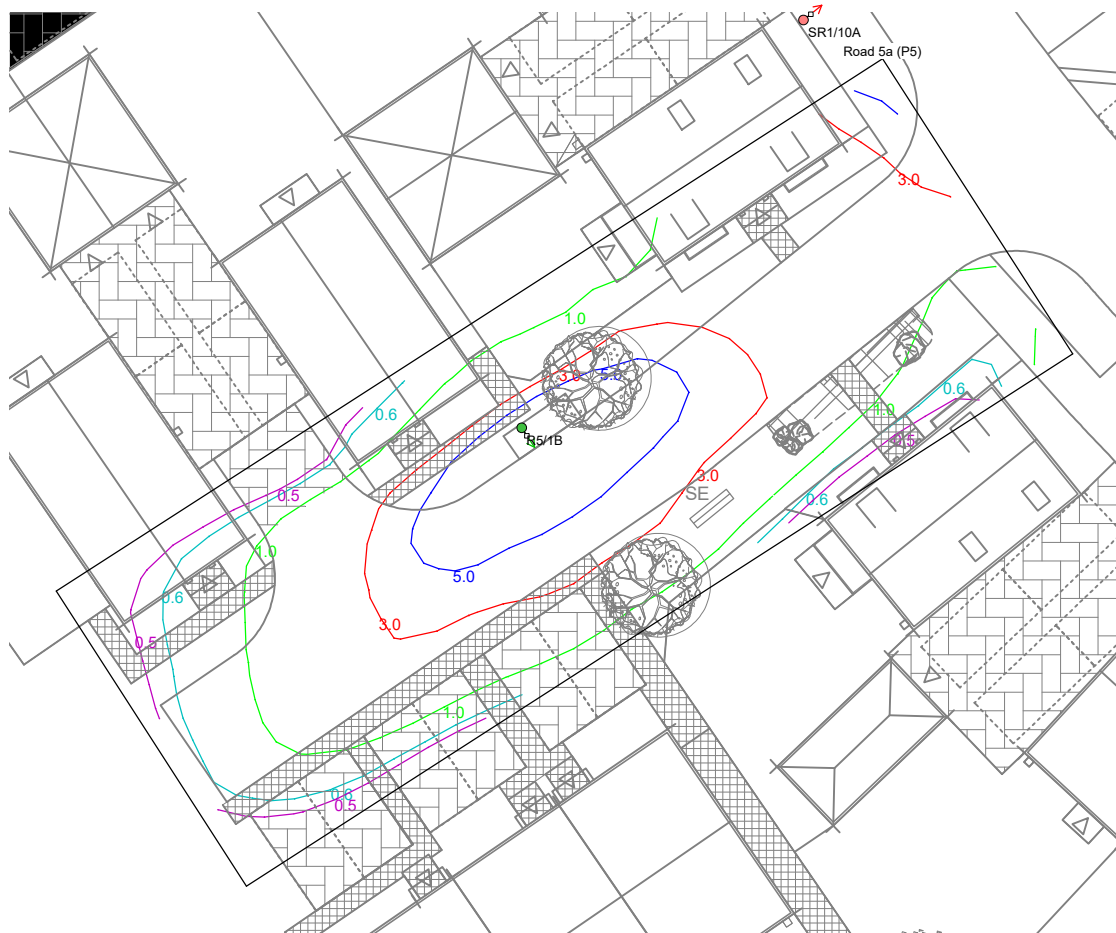


Results

Eav	3.84
Emin	0.76
Emax	12.74
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Road 5a (P5)

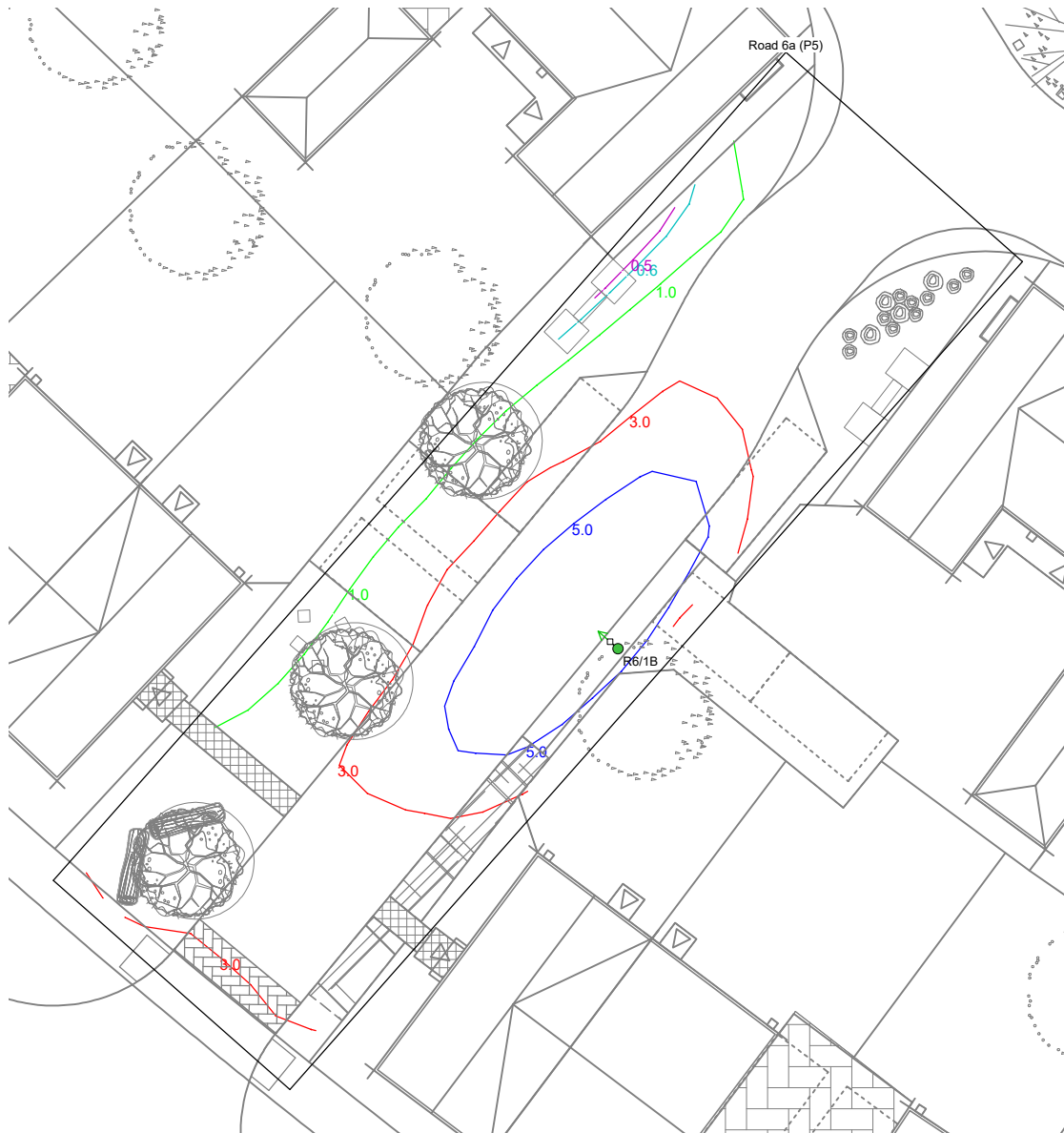


Results

Eav	3.13
Emin	0.63
Emax	10.43
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Road 6a (P5)

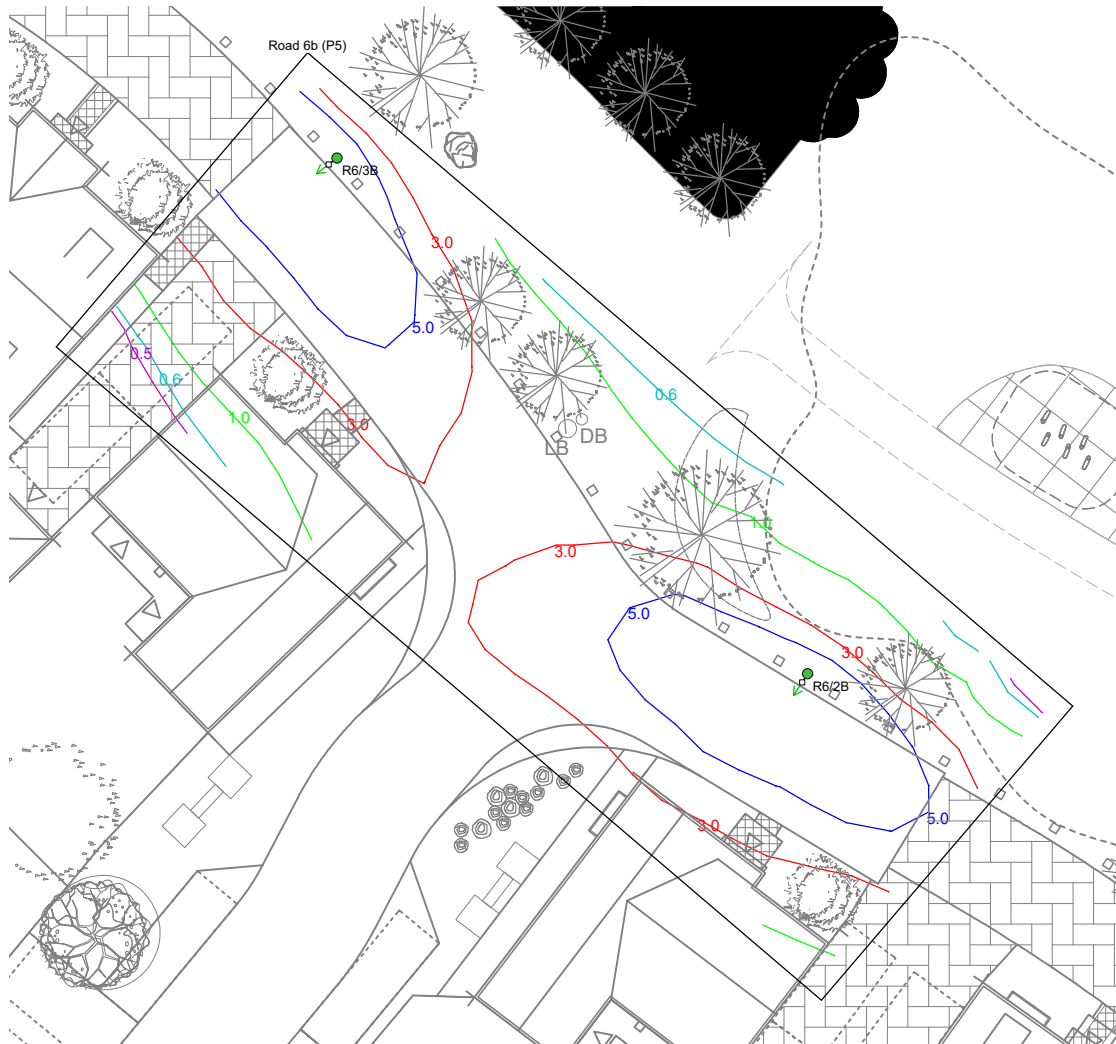


Results

Eav	3.45
Emin	1.23
Emax	9.37
Emin/Emax	0.13
Emin/Eav	0.36

Horizontal Illuminance (lux)

Road 6b (P5)



Results

Eav	4.84
Emin	2.14
Emax	11.24
Emin/Emax	0.19
Emin/Eav	0.44