

LiDL Ross-on-Wye

Installation : Carpark

Project number :
Customer : LiDL
Processed by : HSR / AGG
Date : 19.12.2018

Project description:

Maintenance Factor 0.79

No obstructions are considered in these lighting calculations.

Lighting levels take into account approximated spill light from the stores sales area.

Lighting levels 15 Lux Ave with 25% uniformity.

The nominal values shown in this report are the result of precision calculations, based upon precisely positioned luminaires in a fixed relationship to each other and to the area under examination. In practice the values may vary due to tolerances on luminaires, luminaire positioning, reflection properties and electrical supply.

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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Object : LiDL Ross-on-Wye
 Installation : Carpark
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1 Carpark

1.1 Description, Carpark

1.1.1 Luminaire data/Room elements

Product data:

Type No.\Make

		Philips Lighting	
1	24	Order No.	: !Luminaire Ref: LL-E
		Luminaire name	: WT460C L1300 1xLED23S/840 WB
		Equipment	: 1 x LED23S/840/- 22 W / 2600 lm
2	11	Order No.	: !
		Luminaire name	: TMS122 1xTL5-35W HFP
		Equipment	: 1 x TL5-35W/840 39 W / 1000 lm
4	14	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Col umn
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm
6	16	Order No.	: !Luminaire Ref: LL-CANOPY
		Luminaire name	: BBS490 1xDLED-4000 PG
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm

No.	Centre point			Rotation angle			Target coordinates		
	X [m]	Y [m]	Z [m]	Z [°]	C0 [°]	C90 [°]	Xa [m]	Ya [m]	Za [m]
Philips Lighting WT460C L1300 1xLED23S/840 WB !Luminaire Ref: LL-E									
5.1	102.41	36.30	3.05	90.00	0.00	-5.00	102.41	36.57	0.00
6.1	105.21	34.64	3.06	0.00	0.00	-25.00	106.63	34.64	0.00
6.2	105.21	25.14	3.06	0.00	0.00	-25.00	106.63	25.14	0.00
6.3	105.21	15.64	3.06	0.00	0.00	-25.00	106.63	15.64	0.00
11.1	97.25	5.35	3.05	270.00	0.00	-5.00	97.25	5.08	0.00
10.1	113.94	3.78	1.75	90.00	0.00	-5.00	113.94	3.93	0.00
10.2	119.94	3.78	1.75	90.00	0.00	-5.00	119.94	3.93	0.00
12.1	119.94	8.63	1.75	270.00	0.00	-5.00	119.94	8.48	0.00
12.2	113.94	8.63	1.75	270.00	0.00	-5.00	113.94	8.48	0.00
34	60.58	36.30	3.05	90.00	0.00	-5.00	60.58	36.57	0.00
35	73.25	36.30	3.05	90.00	0.00	-5.00	73.25	36.57	0.00
36	85.08	36.30	3.05	90.00	0.00	-5.00	85.08	36.57	0.00
37	96.00	36.30	3.05	90.00	0.00	-5.00	96.00	36.57	0.00
13.1	81.25	5.35	3.05	270.00	0.00	-5.00	81.25	5.08	0.00
14.1	89.25	5.35	3.05	270.00	0.00	-5.00	89.25	5.08	0.00
15.1	73.25	5.35	3.05	270.00	0.00	-5.00	73.25	5.08	0.00
16.1	65.25	5.35	3.05	270.00	0.00	-5.00	65.25	5.08	0.00
17.1	57.25	5.35	3.05	270.00	0.00	-5.00	57.25	5.08	0.00
18.1	49.25	5.35	3.05	270.00	0.00	-5.00	49.25	5.08	0.00
19.1	41.25	5.35	3.05	270.00	0.00	-5.00	41.25	5.08	0.00
20.1	33.25	5.35	3.05	270.00	0.00	-5.00	33.25	5.08	0.00
21.1	110.73	5.35	3.05	270.00	0.00	-5.00	110.73	5.08	0.00
22.1	112.54	11.36	3.05	0.00	0.00	-5.00	112.81	11.36	0.00
23.1	105.25	5.35	3.05	270.00	0.00	-5.00	105.25	5.08	0.00

Philips Lighting TMS122 1xTL5-35W HFP !

2.1	38.23	11.33	2.96	180.00	0.00	0.00	38.23	11.33	0.00
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Signify - Guildford Business Park, Guildford Surrey GU2 8XH

NOT FOR CONSTRUCTION

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018



1 Carpark

1.1 Description, Carpark

1.1.1 Luminaire data/Room elements

2.2	38.23	13.53	2.96	180.00	0.00	0.00	38.23	13.53	0.00
2.3	38.23	15.73	2.96	180.00	0.00	0.00	38.23	15.73	0.00
2.4	38.23	17.93	2.96	180.00	0.00	0.00	38.23	17.93	0.00
2.5	38.23	20.13	2.96	180.00	0.00	0.00	38.23	20.13	0.00
2.6	38.23	22.33	2.96	180.00	0.00	0.00	38.23	22.33	0.00
2.7	38.23	24.53	2.96	180.00	0.00	0.00	38.23	24.53	0.00
2.8	38.23	26.73	2.96	180.00	0.00	0.00	38.23	26.73	0.00
2.9	38.23	28.93	2.96	180.00	0.00	0.00	38.23	28.93	0.00
2.10	38.23	31.13	2.96	180.00	0.00	0.00	38.23	31.13	0.00
2.11	38.23	33.33	2.96	180.00	0.00	0.00	38.23	33.33	0.00

Philips Lighting LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Column !910770202407

30	113.20	46.49	6.00	106.15	5.00	0.00	98.93	42.36	0.00
21	85.90	74.32	6.00	180.00	5.00	0.00	85.90	59.47	0.00
22	50.81	74.32	6.00	180.00	5.00	0.00	50.81	59.47	0.00
28	8.35	43.68	6.00	341.50	5.00	0.00	13.06	57.77	0.00
2	86.40	57.58	6.00	0.00	5.00	0.00	86.40	72.43	0.00
3	86.40	55.57	6.00	180.00	5.00	0.00	86.40	40.72	0.00
18	13.81	61.63	6.00	261.00	5.00	0.00	28.48	59.31	0.00
25	17.66	2.72	6.00	0.00	5.00	0.00	17.66	17.57	0.00
26	1.37	18.41	6.00	270.00	5.00	0.00	16.22	18.41	0.00
27	16.06	37.60	6.00	180.00	5.00	0.00	16.06	22.75	0.00
31	62.10	57.58	6.00	0.00	5.00	0.00	62.10	72.43	0.00
32	62.10	55.57	6.00	180.00	5.00	0.00	62.10	40.72	0.00
33	37.53	56.57	6.00	180.00	5.00	0.00	37.53	41.72	0.00
38	108.10	63.30	6.00	106.15	5.00	0.00	93.83	59.17	0.00

Philips Lighting BBS490 1xDLED-4000 PG !Luminaire Ref: LL-CANOPY

1.1	33.67	38.25	3.00	180.61	0.00	0.00	33.67	38.25	0.00
2.1	33.67	35.15	3.00	180.61	0.00	0.00	33.67	35.15	0.00
3.1	33.67	32.05	3.00	180.61	0.00	0.00	33.67	32.05	0.00
4.1	33.67	28.95	3.00	180.61	0.00	0.00	33.67	28.95	0.00
5.1	33.67	25.85	3.00	180.61	0.00	0.00	33.67	25.85	0.00
6.1	33.67	22.75	3.00	180.61	0.00	0.00	33.67	22.75	0.00
7.1	33.67	19.65	3.00	180.61	0.00	0.00	33.67	19.65	0.00
8.1	33.67	16.55	3.00	180.61	0.00	0.00	33.67	16.55	0.00
9.1	33.67	13.45	3.00	180.61	0.00	0.00	33.67	13.45	0.00
10.1	33.67	10.35	3.00	180.61	0.00	0.00	33.67	10.35	0.00
1.1	36.57	38.25	3.00	270.60	0.00	0.01	36.57	38.25	0.00
2.1	39.47	38.25	3.00	270.60	0.00	0.01	39.47	38.25	0.00
3.1	42.37	38.25	3.00	270.60	0.00	0.01	42.37	38.25	0.00
4.1	45.27	38.25	3.00	270.60	0.00	0.01	45.27	38.25	0.00
5.1	48.17	38.25	3.00	270.60	0.00	0.01	48.17	38.25	0.00
6.1	51.07	38.25	3.00	270.60	0.00	0.01	51.07	38.25	0.00

Structural elements

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018



1 Carpark

1.1 Description, Carpark

1.1.1 Luminaire data/Room elements

Measuring surface

No.	xm[m]	ym[m]	zm[m]	Length	Width	z axis	Rotation angle	
							L axis	Q axis
Carpark								
M 1	25.76	2.41	0.00	113.37	72.07	0.00	0.00	0.00
Lorry Bay								
M 2	111.93	36.25	0.00	5.36	21.98	270.00	0.00	0.00
RoH Footpath								
M 3	31.89	4.88	0.00	80.59	2.10	270.00	0.00	0.00

Others

No.	xm[m]	ym[m]	zm[m]	Length	Width	z axis	Rotation angle		rho[%]
							L axis	Q axis	
LiDL Store									
A 1	31.89	5.40	0.00	80.62	35.28	270.08	0.00	0.00	50
Canopy Area									
A 2	31.88	9.25	3.00	20.50	31.20	0.00	0.00	0.00	50
Tr 1	-4.90	1.94	0.00	130.85	0.23	0.00	0.00	0.00	50
Tr 2	85.70	74.61	5.75	0.39	0.02	0.00	0.00	0.00	0
Tr 3	50.62	74.61	5.75	0.39	0.02	0.00	0.00	0.00	0
Tr 5	13.53	61.88	5.75	0.08	0.39	261.00	0.00	0.00	0
Tr 6	1.09	18.23	5.75	0.02	0.39	90.00	0.00	0.00	0
Tr 7	17.47	2.40	5.75	0.39	0.02	0.00	0.00	0.00	0

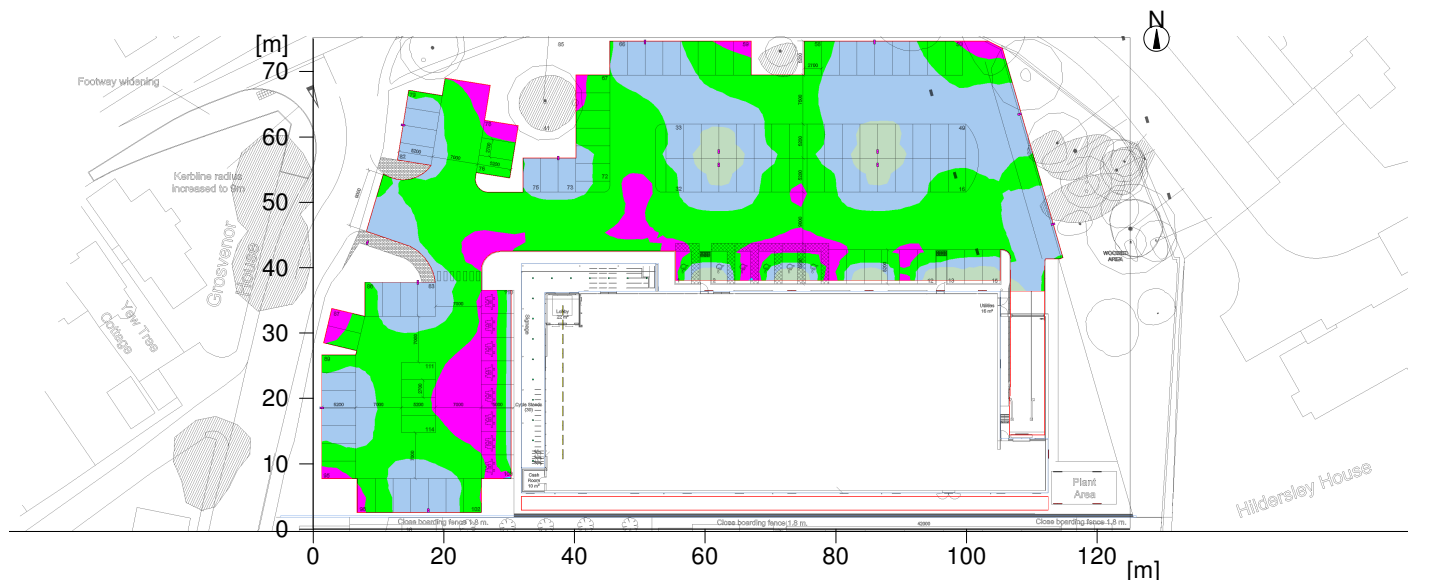
 **signify**

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018

1 Carpark

1.2 Summary, Carpark

1.2.1 Result overview, Carpark



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.79

Total luminous flux of all lamps	214560 lm
Total power	1507 W
Total power per area (9375.00 m ²)	0.16 W/m ²
Upward light ratio (ULR)	0.01

Illuminance

Average illuminance	Eav	14.2 lx
Minimum illuminance	Emin	4.6 lx
Maximum illuminance	Emax	46.6 lx
Uniformity U _o	Emin/Em	1:3.08 (0.33)
Diversity U _d	Emin/Emax	1:10.1 (0.1)

Type No.\Make

Philips Lighting	
1	24
Order No.	: !Luminaire Ref: LL-E
Luminaire name	: WT460C L1300 1xLED23S/840 WB
Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

2	11
Order No.	: !
Luminaire name	: TMS122 1xTL5-35W HFP
Equipment	: 1 x TL5-35W/840 39 W / 1000 lm

The ULR value has been calculated without obstruction by other objects.

Object : LiDL Ross-on-Wye
Installation : Carpark
Project number :
Date : 19.12.2018

1 Carpark

1.2 Summary, Carpark

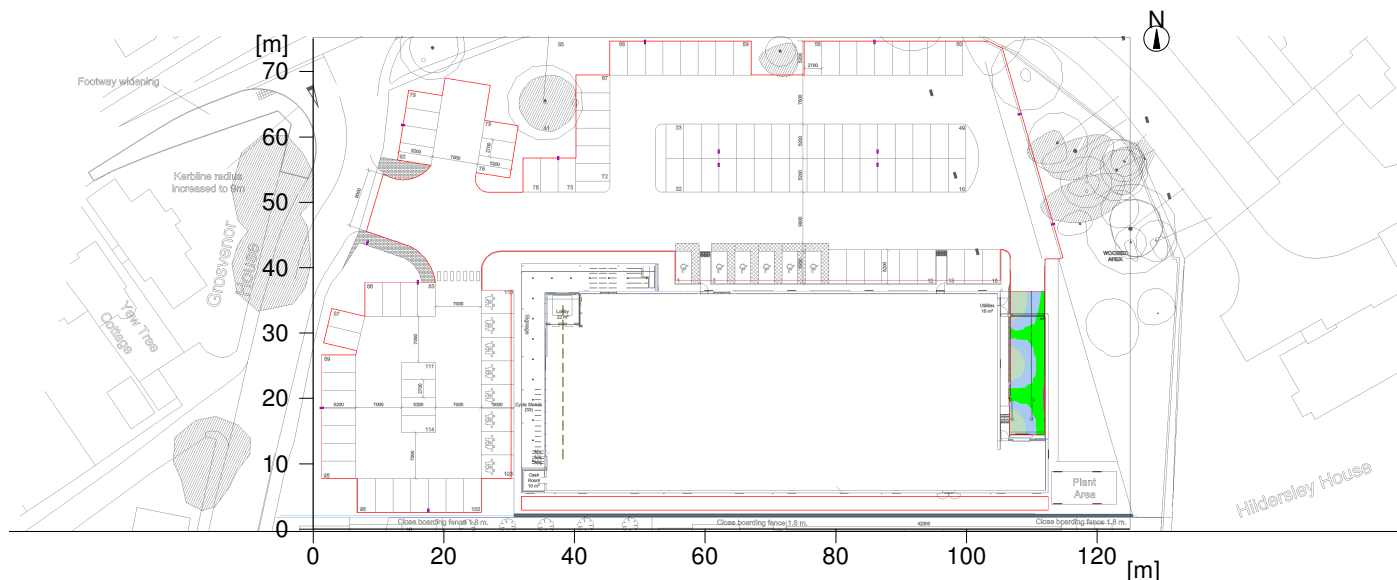
1.2.1 Result overview, Carpark

4	14	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Col umn
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm
6	16	Order No.	: !Luminaire Ref: LL-CANOPY
		Luminaire name	: BBS490 1xDLED-4000 PG
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018

1.2 Summary, Carpark

1.2.2 Result overview, Lorry Bay



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.79

Total luminous flux of all lamps	214560 lm
Total power	1507 W
Total power per area (9375.00 m ²)	0.16 W/m ²
Upward light ratio (ULR)	0.01

Illuminance

Average illuminance	Eav	21.4 lx
Minimum illuminance	Emin	9.1 lx
Maximum illuminance	Emax	51.2 lx
Uniformity Uo	Emin/Em	1:2.34 (0.43)
Diversity Ud	Emin/Emax	1:5.61 (0.18)

Type No. \ Make

Philips Lighting	
1	24
Order No.	: !Luminaire Ref: LL-E
Luminaire name	: WT460C L1300 1xLED23S/840 WB
Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

2	11
Order No.	: !
Luminaire name	: TMS122 1xTL5-35W HFP
Equipment	: 1 x TL5-35W/840 39 W / 1000 lm

The ULR value has been calculated without obstruction by other objects.

Object : LiDL Ross-on-Wye
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1.2 Summary, Carpark

1.2.2 Result overview, Lorry Bay

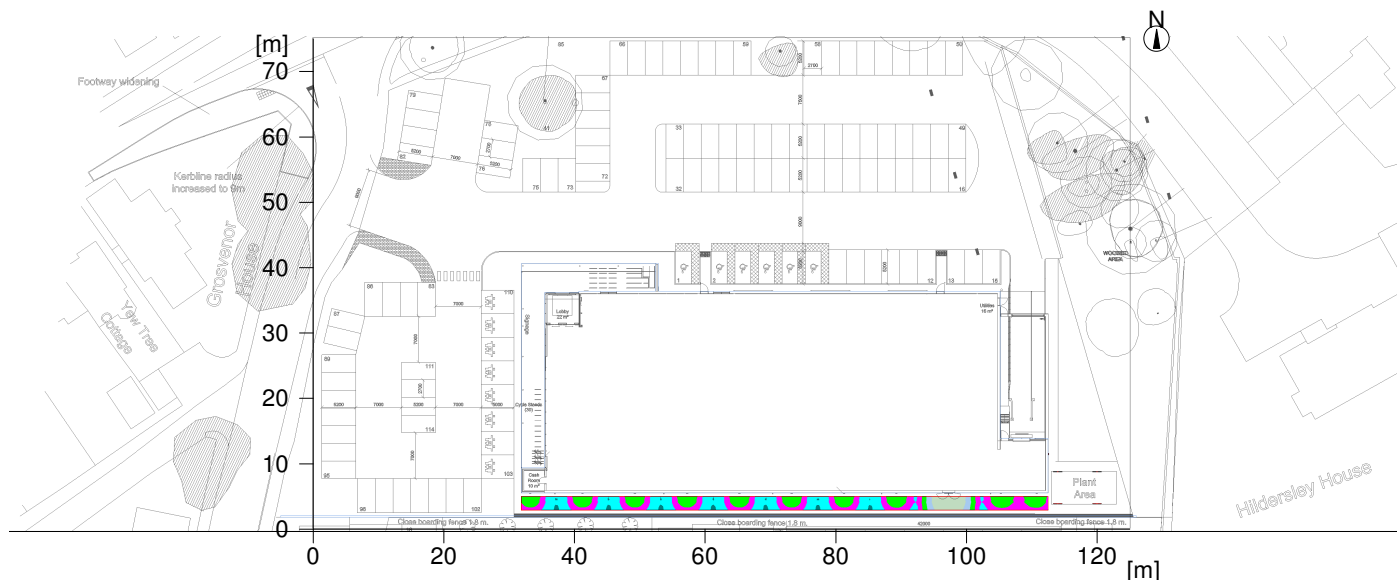
4	14	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Col umn
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm
6	16	Order No.	: !Luminaire Ref: LL-CANOPY
		Luminaire name	: BBS490 1xDLED-4000 PG
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018

2 Carpark Emergency

2.1 Summary, Carpark Emergency

2.1.1 Result overview, RoH Footpath



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.79
Total luminous flux of all lamps	6560 lm
Total power	55 W
Total power per area (9375.00 m ²)	0.01 W/m ²
Upward light ratio (ULR)	0.00

Illuminance

Average illuminance	Eav	9.1 lx
Minimum illuminance	Emin	1.8 lx
Maximum illuminance	Emax	77.4 lx
Uniformity Uo	Emin/Em	1:5.12 (0.2)
Diversity Ud	Emin/Emax	1:43.7 (0.02)

Type No.\Make

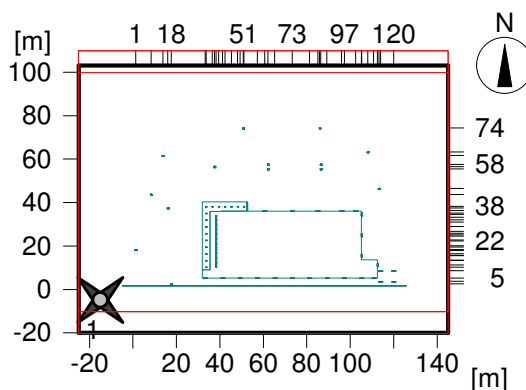
Philips Lighting	
1	1
Order No.	: !Luminaire Ref: LL-E
Luminaire name	: WT460C L1300 1xLED23S/840 WB
Equipment	: 1 x LED23S/840/- 22 W / 2600 lm
5	11
Order No.	:
Luminaire name	: WT460C EL3 L1300 EM 1xLED23S/840 WB
Equipment	: 1 x LED23S/840/- 3 W / 360 lm

The ULR value has been calculated without obstruction by other objects.

3 Carpark Spill Light

3.1 Calculation results, Carpark Spill Light

3.1.1 Luminous intensity - I(p) 1



Measuring point for luminous intensity: I(p) 1

Position : x = -15.00 m, y = -5.00 m, z = 0.00 m

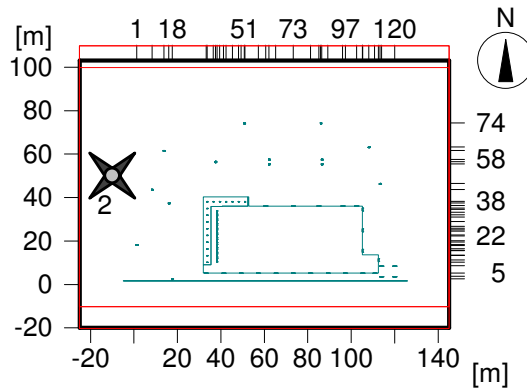
Output criteria:

2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position			Lumin. intensity	
		x[m]	y[m]	z[m]	I[kcd]	
1	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	50.81	74.32	6.00	0.067	
2	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	1.37	18.41	6.00	0.053	
3	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	7.66	2.72	6.00	0.037	
4	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	28.95	3.00	0.004	
5	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	32.05	3.00	0.004	
6	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	35.15	3.00	0.004	
7	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	38.25	3.00	0.004	
8	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	36.57	38.25	3.00	0.004	
9	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	13.81	61.63	6.00	0.002	
10	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	8.35	43.68	6.00	0.001	

3.1 Calculation results, Carpark Spill Light

3.1.2 Luminous intensity - I(p) 2



Measuring point for luminous intensity: I(p) 2

Position : x = -10.00 m, y = 50.00 m, z = 0.00 m

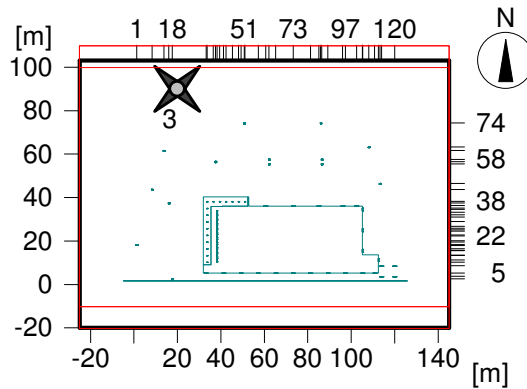
Output criteria:

2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position			Lumin. intensity
		x[m]	y[m]	z[m]	I[kcd]
1	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	38.25	3.00	0.004
2	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	35.15	3.00	0.004
3	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	32.05	3.00	0.004
4	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	28.95	3.00	0.004
5	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	25.85	3.00	0.004
6	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	22.75	3.00	0.004
7	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	19.65	3.00	0.004
8	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	16.55	3.00	0.004
9	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	13.45	3.00	0.004
10	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	10.35	3.00	0.004

3.1 Calculation results, Carpark Spill Light

3.1.3 Luminous intensity - I(p) 3



Measuring point for luminous intensity: I(p) 3

Position : x = 20.00 m, y = 90.00 m, z = 0.00 m

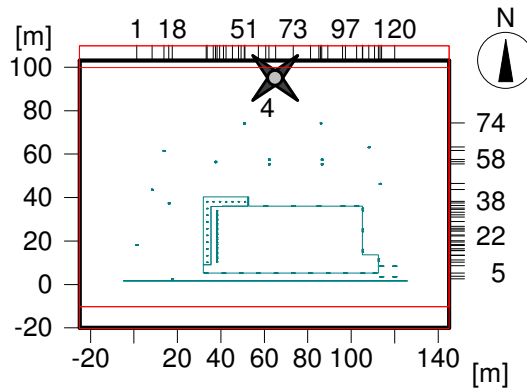
Output criteria:

2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position		Lumin. intensity	
		x[m]	y[m]	z[m]	I[kcd]
1	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	38.25	3.00	0.004
2	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	35.15	3.00	0.004
3	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	32.05	3.00	0.004
4	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	28.95	3.00	0.004
5	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	25.85	3.00	0.004
6	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	22.75	3.00	0.004
7	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	19.65	3.00	0.004
8	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	16.55	3.00	0.004
9	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	13.45	3.00	0.004
10	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	10.35	3.00	0.004

3.1 Calculation results, Carpark Spill Light

3.1.4 Luminous intensity - I(p) 4



Measuring point for luminous intensity: I(p) 4

Position : x = 65.00 m, y = 95.00 m, z = 0.00 m

Output criteria:

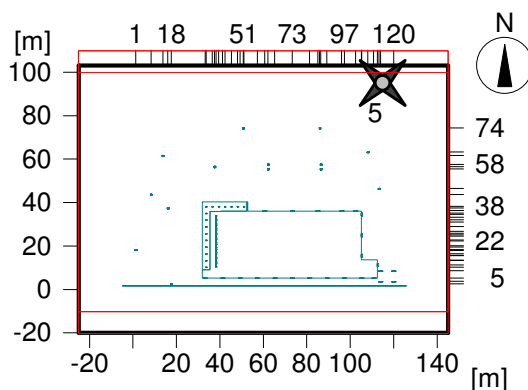
2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position			Lumin. intensity
		x[m]	y[m]	z[m]	
1	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024073.20	47.32	46.49	6.00	0.093
2	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024075.90	75.90	74.32	6.00	0.055
3	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	51.07	38.25	3.00	0.004
4	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	48.17	38.25	3.00	0.004
5	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	45.27	38.25	3.00	0.004
6	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	42.37	38.25	3.00	0.004
7	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	39.47	38.25	3.00	0.004
8	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	36.57	38.25	3.00	0.004
9	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	38.25	3.00	0.004
10	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	35.15	3.00	0.004

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018

3.1 Calculation results, Carpark Spill Light

3.1.5 Luminous intensity - I(p) 5



Measuring point for luminous intensity: I(p) 5

Position : x = 115.00 m, y = 95.00 m, z = 0.00 m

Output criteria:

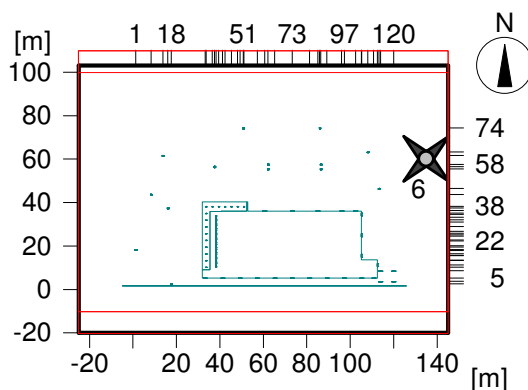
2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position			Lumin. intensity	
		x[m]	y[m]	z[m]	I[kcd]	
1	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024075.90	75.90	74.32	6.00	0.013	
2	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024073.20	73.20	46.49	6.00	0.005	
3	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	48.17	38.25	3.00	0.003	
4	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	45.27	38.25	3.00	0.003	
5	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	42.37	38.25	3.00	0.003	
6	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	39.47	38.25	3.00	0.003	
7	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	36.57	38.25	3.00	0.003	
8	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	38.25	3.00	0.003	
9	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	35.15	3.00	0.003	
10	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024070.81	70.81	74.32	6.00	0.002	

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018

3.1 Calculation results, Carpark Spill Light

3.1.6 Luminous intensity - I(p) 6



Measuring point for luminous intensity: I(p) 6

Position : x = 135.00 m, y = 60.00 m, z = 0.00 m

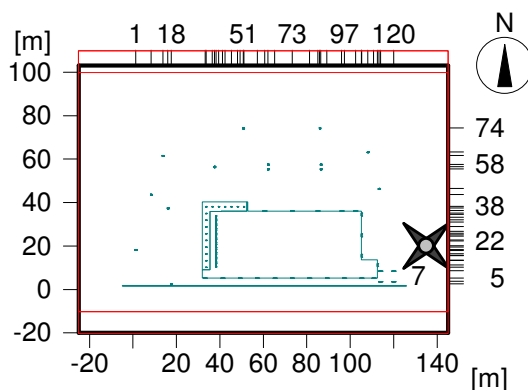
Output criteria:

2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position			Lumin. intensity
		x[m]	y[m]	z[m]	
1	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024075.90	75.90	74.32	6.00	0.042
2	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024073.20	73.20	46.49	6.00	0.027
3	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024076.40	76.40	57.58	6.00	0.018
4	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024078.35	78.35	43.68	6.00	0.011
5	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024076.40	76.40	55.57	6.00	0.011
6	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !9107702024070.81	70.81	74.32	6.00	0.006
7	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	42.37	38.25	3.00	0.003
8	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	39.47	38.25	3.00	0.003
9	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	36.57	38.25	3.00	0.003
10	BBS490 1xDLED-4000 PG, !Luminaire Ref: LL-CANOPY	33.67	38.25	3.00	0.003

3.1 Calculation results, Carpark Spill Light

3.1.7 Luminous intensity - I(p) 7



Measuring point for luminous intensity: I(p) 7

Position : x = 135.00 m, y = 20.00 m, z = 0.00 m

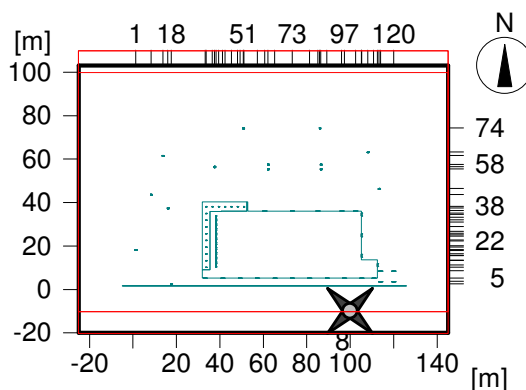
Output criteria:

2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position			Lumin. intensity	
		x[m]	y[m]	z[m]	I[kcd]	
1	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !91077020240736.40	55.57	6.00	0.255		
2	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !91077020240735.90	74.32	6.00	0.099		
3	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	105.21	34.64	0.087		
4	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	105.21	25.14	0.082		
5	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	105.21	15.64	0.081		
6	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !91077020240730.81	74.32	6.00	0.053		
7	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !91077020240730.73.20	46.49	6.00	0.023		
8	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	119.94	3.78	0.018		
9	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	113.94	3.78	0.013		
10	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !91077020240736.40	57.58	6.00	0.002		

3.1 Calculation results, Carpark Spill Light

3.1.8 Luminous intensity - I(p) 8



Measuring point for luminous intensity: I(p) 8

Position : x = 100.00 m, y = -10.00 m, z = 0.00 m

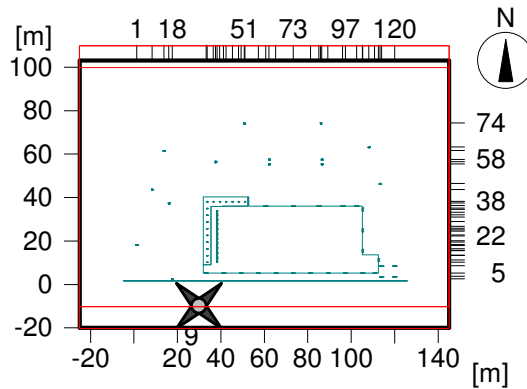
Output criteria:

2. Only the first 10 luminaires will be listed.

No.	Luminaire	Position			Lumin. intensity
		x[m]	y[m]	z[m]	
1	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	97.25	5.35	3.05	0.031
2	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	89.25	5.35	3.05	0.026
3	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	81.25	5.35	3.05	0.018
4	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	73.25	5.35	3.05	0.012
5	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	65.25	5.35	3.05	0.009
6	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	57.25	5.35	3.05	0.007
7	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	49.25	5.35	3.05	0.005
8	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	41.25	5.35	3.05	0.004
9	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	33.25	5.35	3.05	0.003
10	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	7.66	2.72	6.00	0.002

3.1 Calculation results, Carpark Spill Light

3.1.9 Luminous intensity - I(p) 9



Measuring point for luminous intensity: I(p) 9

Position : x = 30.00 m, y = -10.00 m, z = 0.00 m

Output criteria:

2. Only the first 10 luminaires will be listed.

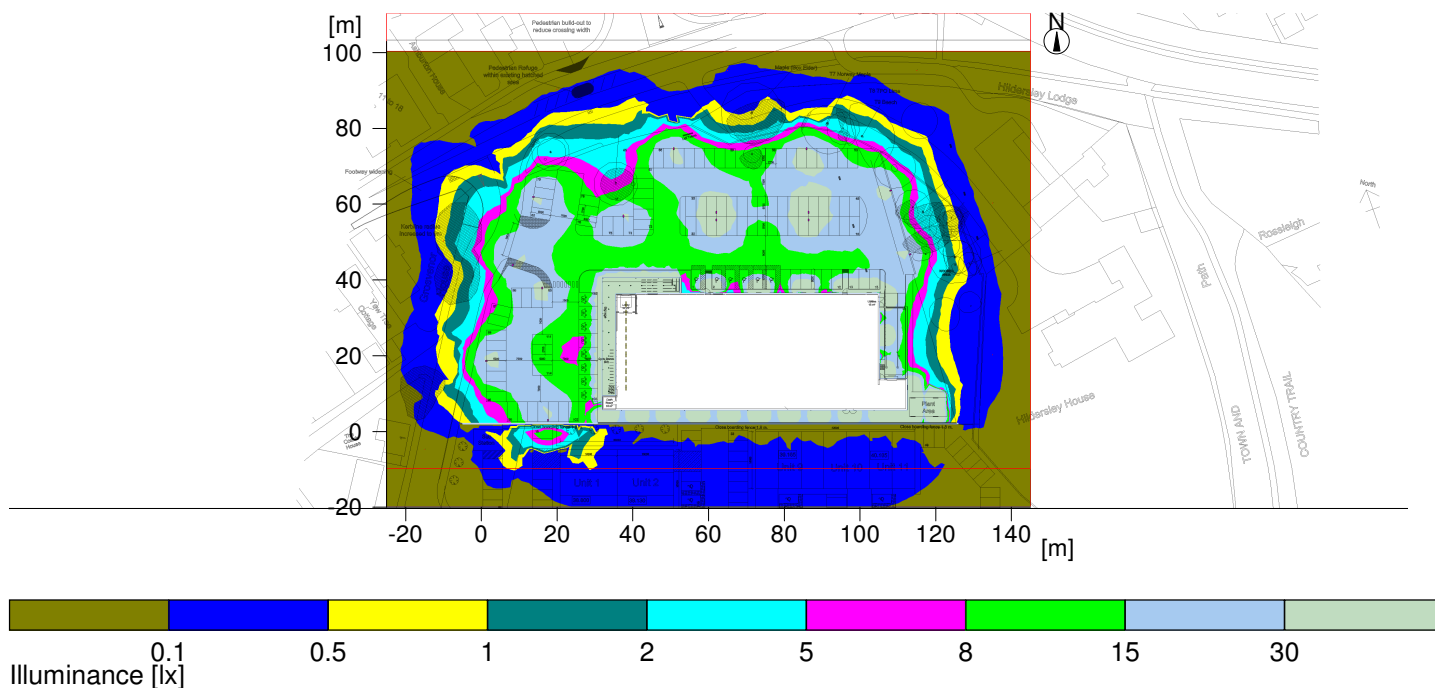
No.	Luminaire	Position			Lumin. intensity	
		x[m]	y[m]	z[m]	I[kcd]	
1	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	1.37	18.41	6.00	0.386	
2	LumiStreet BGP213 LED75-4S/740 I DX10 7024..., !910770202407	7.66	2.72	6.00	0.262	
3	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	41.25	5.35	3.05	0.026	
4	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	49.25	5.35	3.05	0.017	
5	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	57.25	5.35	3.05	0.012	
6	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	65.25	5.35	3.05	0.009	
7	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	73.25	5.35	3.05	0.007	
8	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	81.25	5.35	3.05	0.005	
9	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	89.25	5.35	3.05	0.004	
10	WT460C L1300 1xLED23S/840 WB, !Luminaire Ref: LL-E	97.25	5.35	3.05	0.003	

Object : LiDL Ross-on-Wye
 Installation : Carpark
 Project number :
 Date : 19.12.2018

3 Carpark Spill Light

3.2 Summary, Carpark Spill Light

3.2.1 Result overview, Horizontal Spill Light @0M



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	1.00

Total luminous flux of all lamps	214560 lm
Total power	1507 W
Total power per area (20910.00 m²)	0.07 W/m²
Upward light ratio (ULR)	0.01

Illuminance

Average illuminance	Eav	9 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	233 lx
Uniformity Uo	Emin/Em	1:2450 (0)
Diversity Ud	Emin/Emax	1:66800 (0)

Type No.\Make

Philips Lighting	
1	24
Order No.	: !Luminaire Ref: LL-E
Luminaire name	: WT460C L1300 1xLED23S/840 WB
Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

2	11
Order No.	: !
Luminaire name	: TMS122 1xTL5-35W HFP
Equipment	: 1 x TL5-35W/840 39 W / 1000 lm

The ULR value has been calculated without obstruction by other objects.

Object : LiDL Ross-on-Wye
Installation : Carpark
Project number :
Date : 19.12.2018

3 Carpark Spill Light

3.2 Summary, Carpark Spill Light

3.2.1 Result overview, Horizontal Spill Light @0M

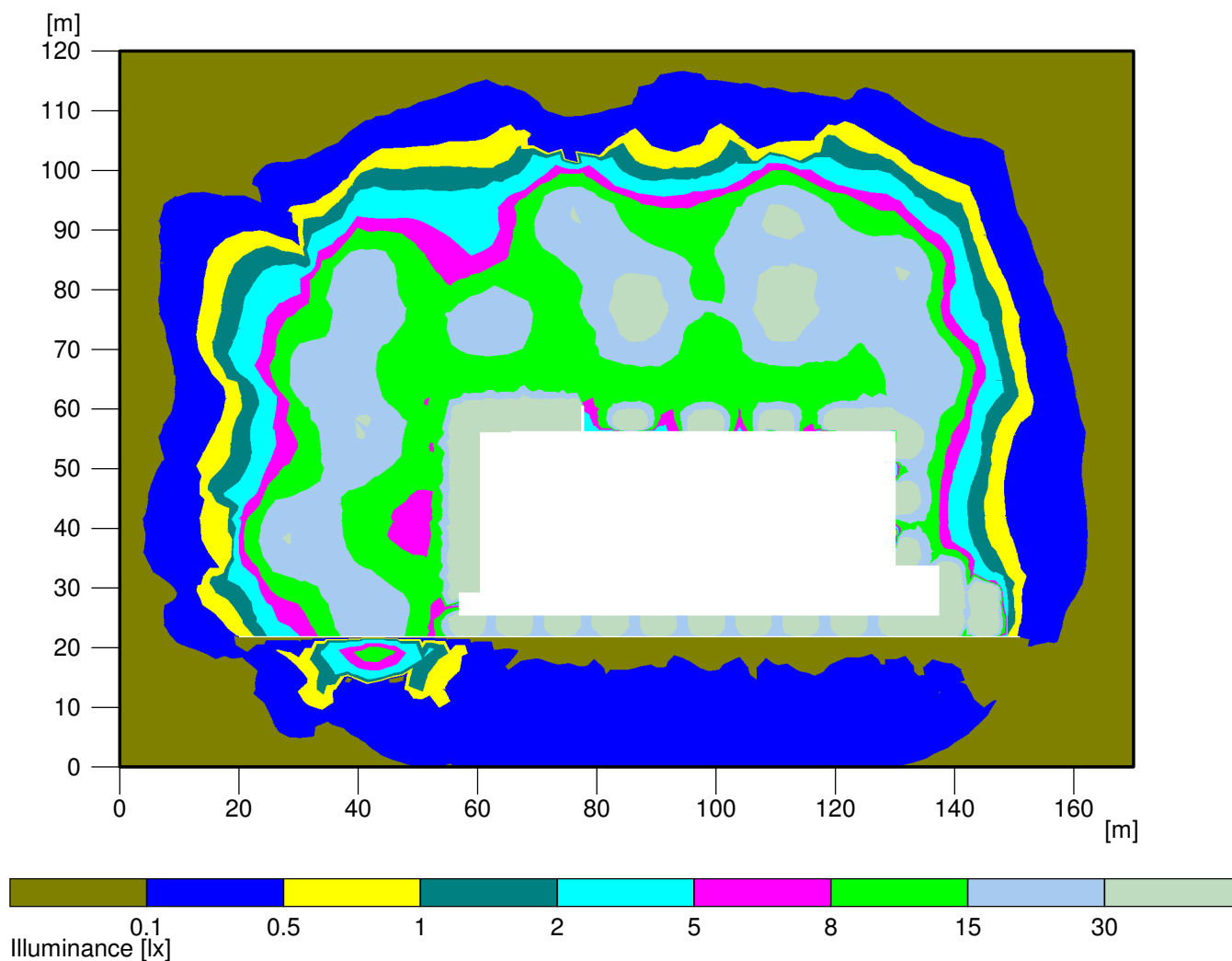
4	14	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Col umn
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm
6	16	Order No.	: !Luminaire Ref: LL-CANOPY
		Luminaire name	: BBS490 1xDLED-4000 PG
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm

Object : LiDL Ross-on-Wye
Installation : Carpark
Project number :
Date : 19.12.2018

3 Carpark Spill Light

3.3 Calculation results, Carpark Spill Light

3.3.1 Pseudo colours, Horizontal Spill Light @0M (E)

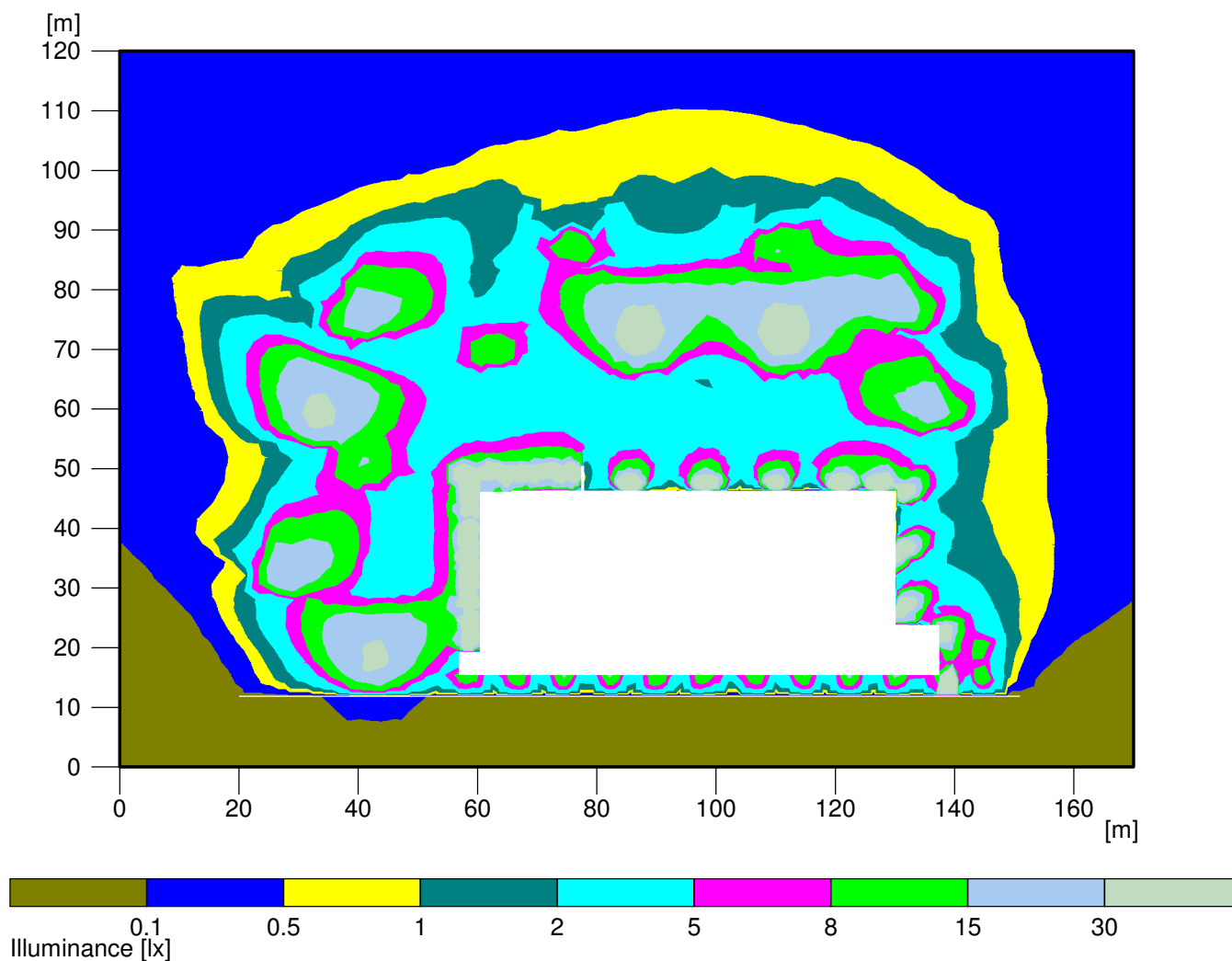


Height reference plane	:	0.00 m
Average illuminance	Eav	: 9 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 233 lx
Uniformity Uo	Emin/Eav	: 1 : 2453.33 (0.00)
Diversity Ud	Emin/Emax	: 1 : 66836.48 (0.00)

Object : LiDL Ross-on-Wye
Installation : Carpark
Project number :
Date : 19.12.2018

3.3 Calculation results, Carpark Spill Light

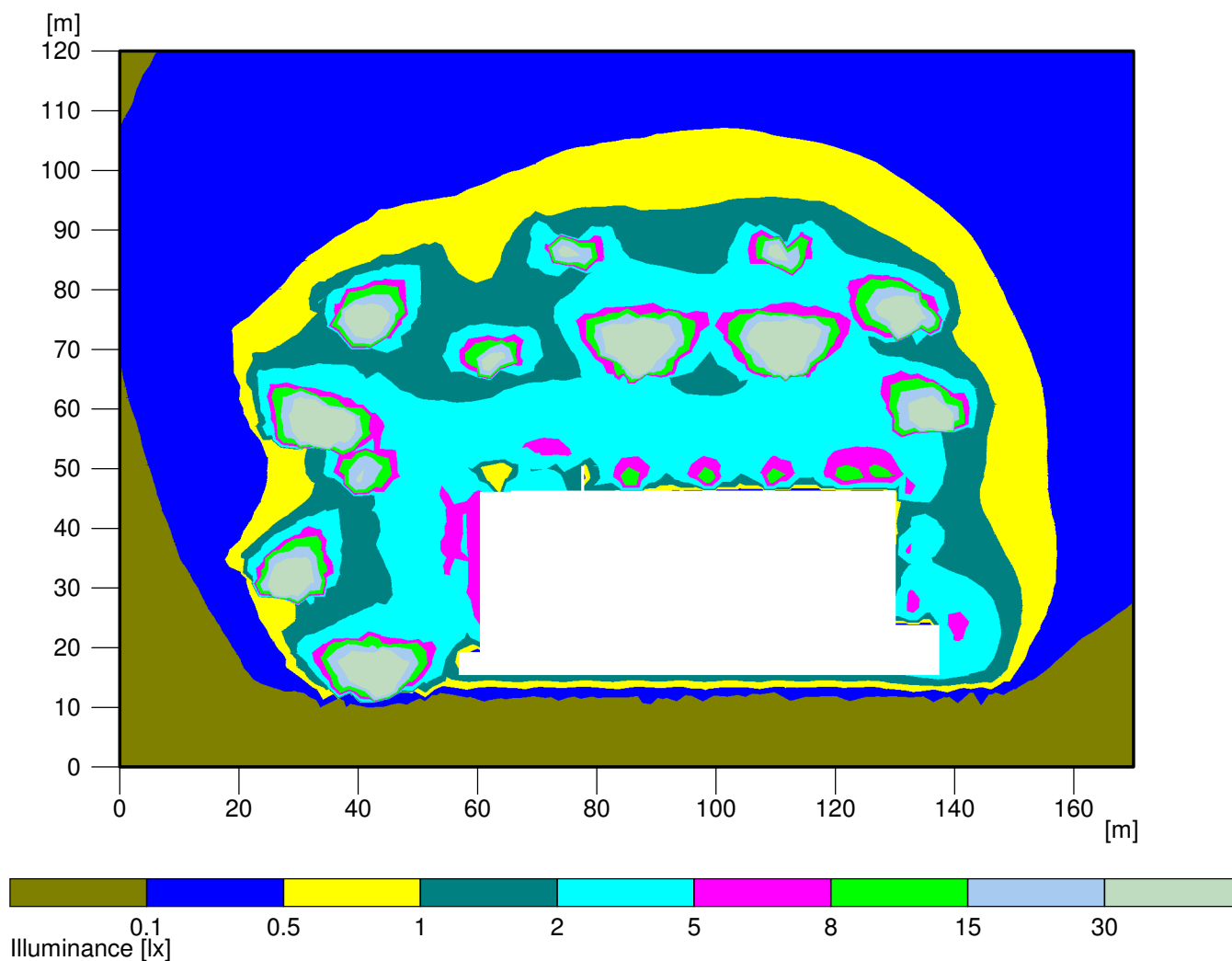
3.3.2 Pseudo colours, Vertical Spill Light @1.5M South Facing Receptors (Ev, South (180°))



Vertical illuminance	
Height reference plane	: 1.50 m
from direction	: South (180°)
Average illuminance	Eav : 4 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 122 lx
Uniformity Uo	Emin/Eav : ---
Diversity Ud	Emin/Emax : ---

3.3 Calculation results, Carpark Spill Light

3.3.3 Pseudo colours, Vertical Spill Light @4M South Facing Receptors (Ev, South (180°))



Vertical illuminance	
Height reference plane	: 4.00 m
from direction	: South (180°)
Average illuminance	Eav : 3 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 146 lx
Uniformity Uo	Emin/Eav : ---
Diversity Ud	Emin/Emax : ---