

# Carpark

Installation : LiDL New Hey Road

Project number : D-372174

Customer :

Processed by : HSR / AGG

Date : 25.09.2020

Project description:

Maintenance Factor 0.79

Spill Light Maintenance Factor 1

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.

Not for construction

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

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Object : Carpark  
Installation : LiDL New Hey Road  
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



## 2 Carpark

### 2.1 Description, Carpark

#### 2.1.1 Luminaire data/Room elements

##### Product data:

##### Type No.\Make

		<b>Philips Lighting</b>	
1	17	Order No.	: !
		Luminaire name	: LL-Canopy
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm
2	22	Order No.	: !1300mm Linear Luminaire
		Luminaire name	: LL-E with Adjustable Bracket
		Equipment	: 1 x LED23S/840/- 22 W / 2600 lm
		<b>PHILIPS/2019-07-08 Eulumdat/1 B-Tilt = 0.00</b>	
4	14	Order No.	: !BGP292 T25 LED49-4S 740 DX10.ltd
		Luminaire name	: LL-A BGP292 T25 DX10 /740
		Equipment	: 1 x LED49-4S/740 31 W / 4900 lm
5	4	Order No.	: !BGP292 T25 LED75-4S 740 DX10.ltd
		Luminaire name	: LL-B BGP292 T25 DX10 /740
		Equipment	: 1 x LED75-4S/740 46.5 W / 7600 lm

No.	Centre point			Rotation angle			Target coordinates		
	X [m]	Y [m]	Z [m]	Z [°]	C0 [°]	C90 [°]	Xa [m]	Ya [m]	Za [m]
<b>Philips Lighting LL-Canopy !</b>									
7.1	148.41	112.00	3.00	0.52	0.00	0.00	148.41	112.00	0.00
7.2	149.84	114.52	3.00	0.52	0.00	0.00	149.84	114.52	0.00
7.3	151.28	117.04	3.00	0.52	0.00	0.00	151.28	117.04	0.00
7.4	152.71	119.56	3.00	0.52	0.00	0.00	152.71	119.56	0.00
7.5	154.14	122.08	3.00	0.52	0.00	0.00	154.14	122.08	0.00
7.6	155.57	124.60	3.00	0.52	0.00	0.00	155.57	124.61	0.00
7.7	157.00	127.13	3.00	0.52	0.00	0.00	157.01	127.13	0.00
7.8	158.44	129.65	3.00	0.52	0.00	0.00	158.44	129.65	0.00
7.9	159.87	132.17	3.00	0.52	0.00	0.00	159.87	132.17	0.00
7.10	161.30	134.69	3.00	0.52	0.00	0.00	161.30	134.69	0.00
7.11	162.73	137.21	3.00	0.52	0.00	0.00	162.73	137.21	0.00
10.1	145.89	113.43	3.00	90.52	0.00	0.00	145.89	113.43	0.00
10.2	143.37	114.87	3.00	90.52	0.00	0.00	143.37	114.86	0.00
10.3	140.85	116.30	3.00	90.52	0.00	0.00	140.85	116.30	0.00
10.4	138.33	117.73	3.00	90.52	0.00	0.00	138.33	117.73	0.00
10.5	135.80	119.16	3.00	90.52	0.00	0.00	135.80	119.16	0.00
10.6	133.28	120.59	3.00	90.52	0.00	0.00	133.28	120.59	0.00
<b>Philips Lighting LL-E with Adjustable Bracket !1300mm Linear Luminaire</b>									
1.1	129.60	125.27	3.06	240.34	0.00	-25.00	128.90	124.03	0.00
1.2	123.08	128.98	3.06	240.34	0.00	-25.00	122.38	127.75	0.00
1.3	116.56	132.69	3.06	240.34	0.00	-25.00	115.86	131.46	0.00
1.4	110.05	136.41	3.06	240.34	0.00	-25.00	109.34	135.17	0.00
1.5	103.53	140.12	3.06	240.34	0.00	-25.00	102.82	138.88	0.00
3.1	97.21	137.67	3.05	240.34	0.00	-5.00	97.07	137.44	0.00
3.2	91.56	140.89	3.05	240.34	0.00	-5.00	91.43	140.66	0.00

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## 2 Carpark

### 2.1 Description, Carpark

#### 2.1.1 Luminaire data/Room elements

11.1	165.57	139.12	3.05	330.34	0.00	-5.00	165.81	138.99	0.00
4.1	89.62	143.23	3.05	150.34	0.00	-5.00	89.39	143.37	0.00
4.2	92.84	148.88	3.05	150.34	0.00	-5.00	92.61	149.01	0.00
12.1	125.87	163.96	3.05	60.44	0.00	-5.00	126.00	164.20	0.00
12.2	133.27	159.77	3.05	60.44	0.00	-5.00	133.40	160.00	0.00
12.3	140.66	155.58	3.05	60.44	0.00	-5.00	140.79	155.81	0.00
12.4	148.05	151.39	3.05	60.44	0.00	-5.00	148.19	151.62	0.00
12.5	155.45	147.19	3.05	60.44	0.00	-5.00	155.58	147.42	0.00
12.6	162.84	143.00	3.05	60.44	0.00	-5.00	162.97	143.23	0.00
6.1	111.11	172.37	3.05	60.44	0.00	-5.00	111.24	172.60	0.00
6.2	118.51	168.18	3.05	60.44	0.00	-5.00	118.64	168.41	0.00
14.1	95.71	153.97	3.05	150.34	0.00	-5.00	95.48	154.10	0.00
14.2	99.42	160.49	3.05	150.34	0.00	-5.00	99.19	160.62	0.00
14.3	103.13	167.01	3.05	150.34	0.00	-5.00	102.90	167.14	0.00
14.4	106.84	173.52	3.05	150.34	0.00	-5.00	106.61	173.65	0.00

#### PHILIPS/2019-07-08 Eulumdat/1 B-Tilt = 0.00 LL-A BGP292 T25 DX10

##### /740 !BGP292 T25 LED49-4S 740 DX10.Idt

2	129.42	65.70	5.95	344.36	5.00	0.00	133.39	79.89	0.00
3	129.15	64.73	5.95	164.36	5.00	0.00	125.18	50.54	0.00
18	134.01	82.07	5.95	344.36	5.00	0.00	137.98	96.25	0.00
19	133.74	81.10	5.95	164.36	5.00	0.00	129.77	66.91	0.00
20	138.60	98.44	5.95	344.36	5.00	0.00	142.57	112.62	0.00
21	138.33	97.46	5.95	164.36	5.00	0.00	134.36	83.28	0.00
22	121.94	50.14	5.95	344.36	5.00	0.00	125.91	64.33	0.00
23	104.77	64.82	5.95	254.36	5.00	0.00	118.96	60.84	0.00
30	156.08	85.45	5.95	60.27	5.00	0.00	143.29	92.75	0.00
31	149.00	61.79	5.95	78.75	5.00	0.00	134.55	64.66	0.00
33	141.13	46.80	5.95	74.36	5.00	0.00	126.94	50.77	0.00
34	110.17	84.07	5.95	254.36	5.00	0.00	124.36	80.10	0.00
35	115.57	103.33	5.95	254.36	5.00	0.00	129.76	99.36	0.00
36	119.29	118.75	5.95	294.00	5.00	0.00	131.62	124.24	0.50

#### PHILIPS/2019-07-08 Eulumdat/1 B-Tilt = 0.00 LL-B BGP292 T25 DX10

##### /740 !BGP292 T25 LED75-4S 740 DX10.Idt

39	176.05	99.62	5.95	60.27	10.00	0.00	159.14	109.27	0.00
40	183.22	112.80	5.95	60.27	10.00	0.00	166.31	122.45	0.00
41	161.55	93.84	5.95	330.27	5.00	0.00	168.86	106.64	0.00
43	176.10	138.41	5.95	150.27	5.00	0.00	168.79	125.61	0.00

### Structural elements

#### Measuring surface

No.	xm[m]	ym[m]	zm[m]	Length	Width	z axis	Rotation angle	
							L axis	Q axis
Carpark								
M 1	146.08	69.56	-0.00	85.23	105.46	354.99	0.00	0.00
Lorry Bay								
M 2	116.70	124.86	-0.00	20.62	14.74	330.40	0.00	0.00
Canopy Area								
M 4	148.60	109.37	-0.00	32.34	37.16	330.39	0.00	0.00

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## 2 Carpark

### 2.1 Description, Carpark

#### 2.1.1 Luminaire data/Room elements

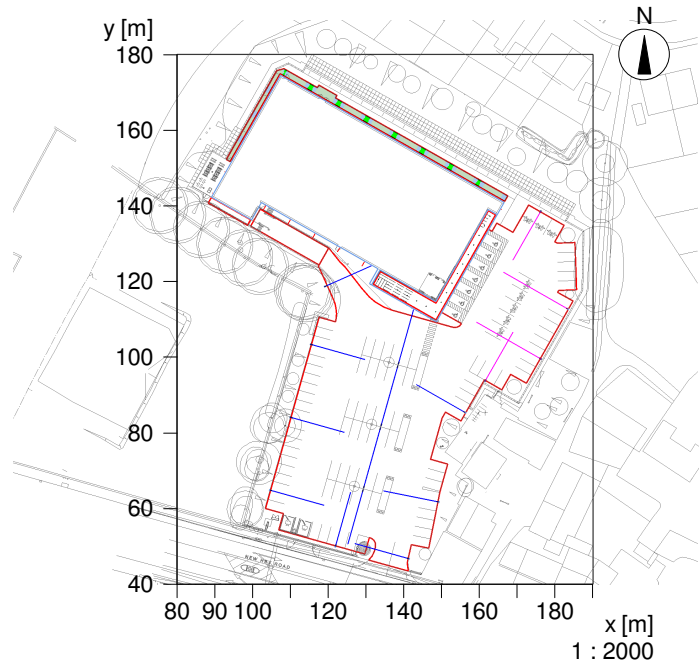
RoH Footpath 1									
M 3	94.85	149.59	0.00	79.75	65.56	285.19	0.00	0.00	
RoH Footpath 2									
M 5	98.62	134.82	0.00	11.20	7.37	330.41	0.00	0.00	

#### Others

No.	xm[m]	ym[m]	zm[m]	Length	Width	z axis	Rotation angle		rho[%]
							L axis	Q axis	
LiDL Store									
A 1	98.12	138.13	0.00	77.35	65.68	330.43	0.00	0.00	50
Canopy									
A 2	131.44	119.11	3.00	33.23	38.05	330.41	0.00	0.00	50
Tr 1	119.10	118.45	5.75	0.18	0.36	114.00	0.00	0.00	0
Tr 2	115.24	103.22	5.75	0.13	0.38	74.00	0.00	0.00	0
Tr 3	109.84	83.97	5.75	0.13	0.38	74.00	0.00	0.00	0
Tr 4	104.44	64.70	5.75	0.13	0.38	74.00	0.00	0.00	0
Tr 5	141.37	46.53	5.75	0.13	0.38	74.00	0.00	0.00	0
Tr 6	122.05	49.81	5.75	0.38	0.13	164.00	0.00	0.00	0
Tr 7	149.27	61.53	5.75	0.10	0.39	78.75	0.00	0.00	0
Tr 8	156.25	85.13	5.75	0.21	0.35	60.00	0.00	0.00	0
Tr 13	176.22	99.29	5.75	0.21	0.35	60.00	0.00	0.00	0
Tr 14	183.39	112.48	5.75	0.21	0.35	60.00	0.00	0.00	0
Tr 15	161.58	93.50	5.75	0.35	0.21	150.00	0.00	0.00	0
Tr 16	176.42	138.56	5.75	0.35	0.21	150.00	0.00	0.00	0

## 2.1 Description, Carpark

### 2.1.2 Floor plan

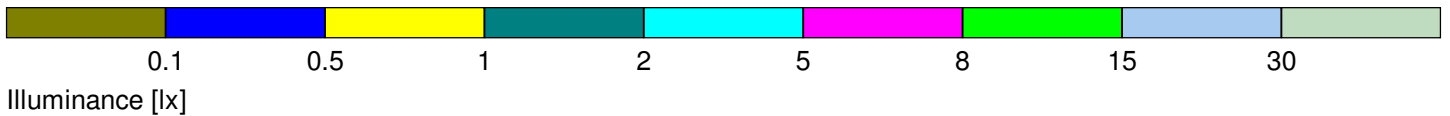
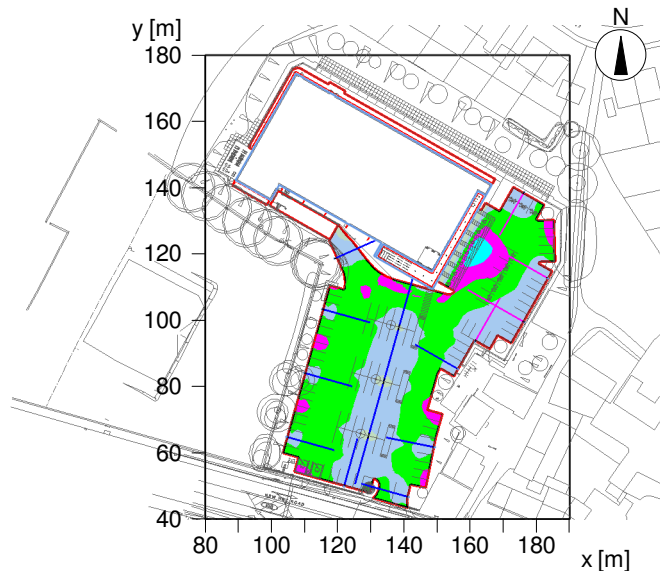


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## 2 Carpark

### 2.2 Summary, Carpark

#### 2.2.1 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	194620 lm
Total power	1673.5 W
Total power per area (15400.00 m <sup>2</sup> )	0.11 W/m <sup>2</sup>
Upward light ratio (ULR)	0.00

#### Illuminance

Average illuminance	Em	14.1 lx
Minimum illuminance	Emin	3.5 lx
Maximum illuminance	Emax	97.3 lx
Uniformity U <sub>o</sub>	Emin/Em	1:3.98 (0.25)
Diversity U <sub>d</sub>	Emin/Emax	1:27.5 (0.04)

#### Type No.\Make

		<b>Philips Lighting</b>	
1	17	Order No.	: !
		Luminaire name	: LL-Canopy
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm
2	22	Order No.	: !1300mm Linear Luminaire
		Luminaire name	: LL-E with Adjustable Bracket
		Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

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


Object : Carpark  
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## 2 Carpark

### 2.2 Summary, Carpark

#### 2.2.1 Result overview, Carpark

**PHILIPS/2019-07-08 Eulumdat/1 B-Tilt = 0.00**

4	14	Order No.	: !BGP292 T25 LED49-4S 740 DX10.Idt
		Luminaire name	: LL-A BGP292 T25 DX10 /740
		Equipment	: 1 x LED49-4S/740 31 W / 4900 lm

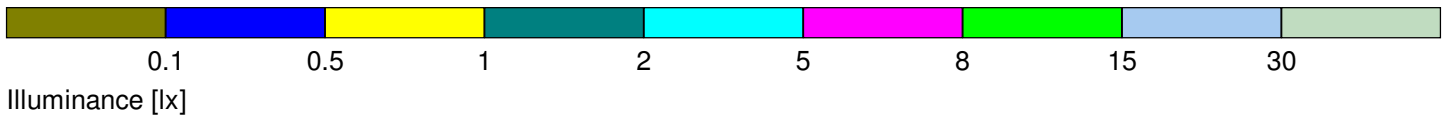
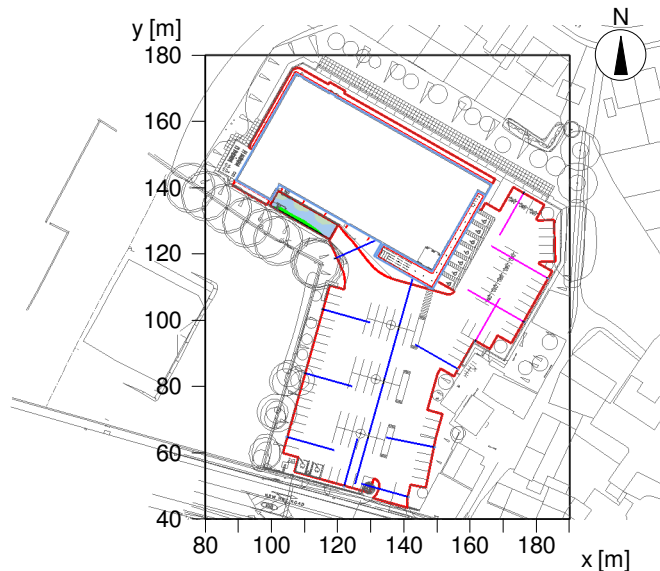
5	4	Order No.	: !BGP292 T25 LED75-4S 740 DX10.Idt
		Luminaire name	: LL-B BGP292 T25 DX10 /740
		Equipment	: 1 x LED75-4S/740 46.5 W / 7600 lm



Object : Carpark  
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## 2.2 Summary, Carpark

### 2.2.2 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	194620 lm
Total power	1673.5 W
Total power per area (15400.00 m <sup>2</sup> )	0.11 W/m <sup>2</sup>
Upward light ratio (ULR)	0.00

#### Illuminance

Average illuminance	Em	23.7 lx
Minimum illuminance	Emin	12 lx
Maximum illuminance	Emax	49.3 lx
Uniformity U <sub>o</sub>	Emin/Em	1:1.97 (0.51)
Diversity U <sub>d</sub>	Emin/Emax	1:4.1 (0.24)

#### Type No.\Make

<b>Philips Lighting</b>	
1	17
	Order No. : !
	Luminaire name : LL-Canopy
	Equipment : 1 x DLED-4000 33.5 W / 2260 lm

2	22
	Order No. : !1300mm Linear Luminaire
	Luminaire name : LL-E with Adjustable Bracket
	Equipment : 1 x LED23S/840/- 22 W / 2600 lm

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



NOT FOR CONSTRUCTION

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## 2.2 Summary, Carpark

### 2.2.2 Result overview, Lorry Bay

#### PHILIPS/2019-07-08 Eulumdat/1 B-Tilt = 0.00

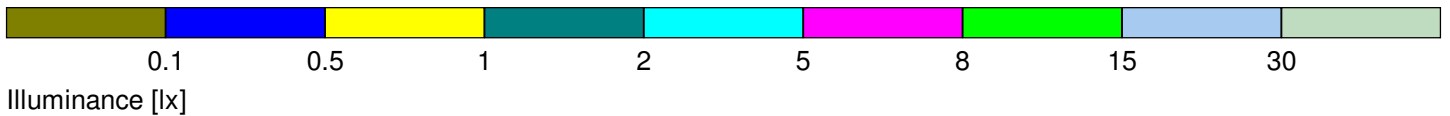
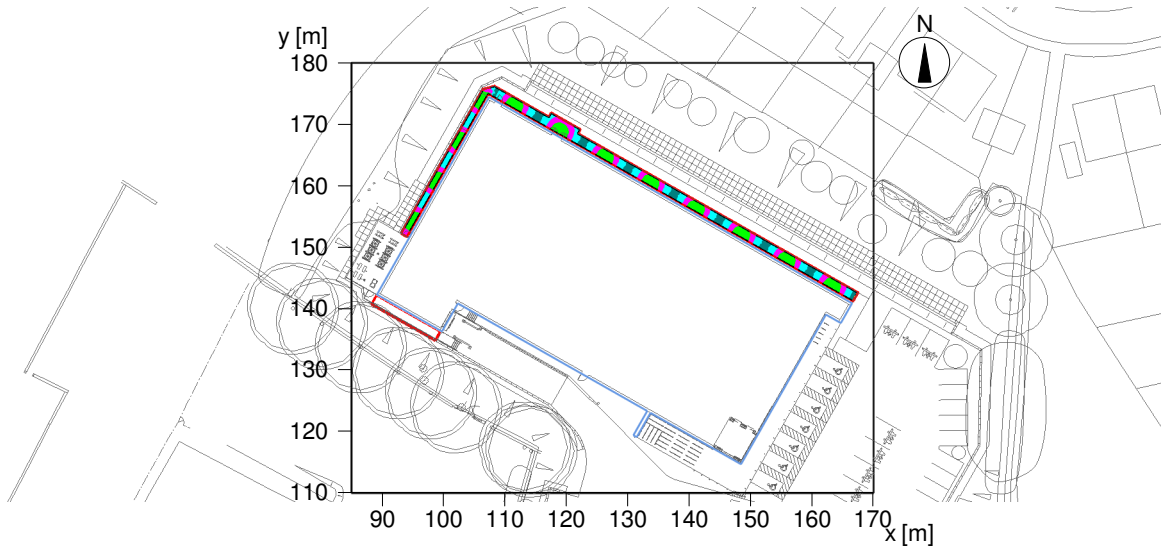
4	14	Order No.	: !BGP292 T25 LED49-4S 740 DX10.Idt
		Luminaire name	: LL-A BGP292 T25 DX10 /740
		Equipment	: 1 x LED49-4S/740 31 W / 4900 lm
5	4	Order No.	: !BGP292 T25 LED75-4S 740 DX10.Idt
		Luminaire name	: LL-B BGP292 T25 DX10 /740
		Equipment	: 1 x LED75-4S/740 46.5 W / 7600 lm

Object : Carpark  
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### 3 RoH Footpath Eme Ltg

#### 3.1 Summary, RoH Footpath Eme Ltg

##### 3.1.1 Result overview, RoH Footpath 1



#### General


Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	3.05 m
Maintenance factor	0.79

Total luminous flux of all lamps	5760 lm
Total power	48 W
Total power per area (5950.00 m <sup>2</sup> )	0.01 W/m <sup>2</sup>
Upward light ratio (ULR)	0.00

#### Illuminance

Average illuminance	Em	5.7 lx
Minimum illuminance	Emin	0.9 lx
Maximum illuminance	Emax	11.4 lx
Uniformity Uo	Emin/Em	1:6.07 (0.16)
Diversity Ud	Emin/Emax	1:12 (0.08)

#### Type No.\Make

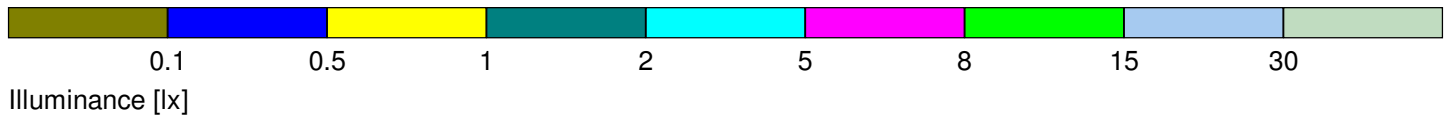
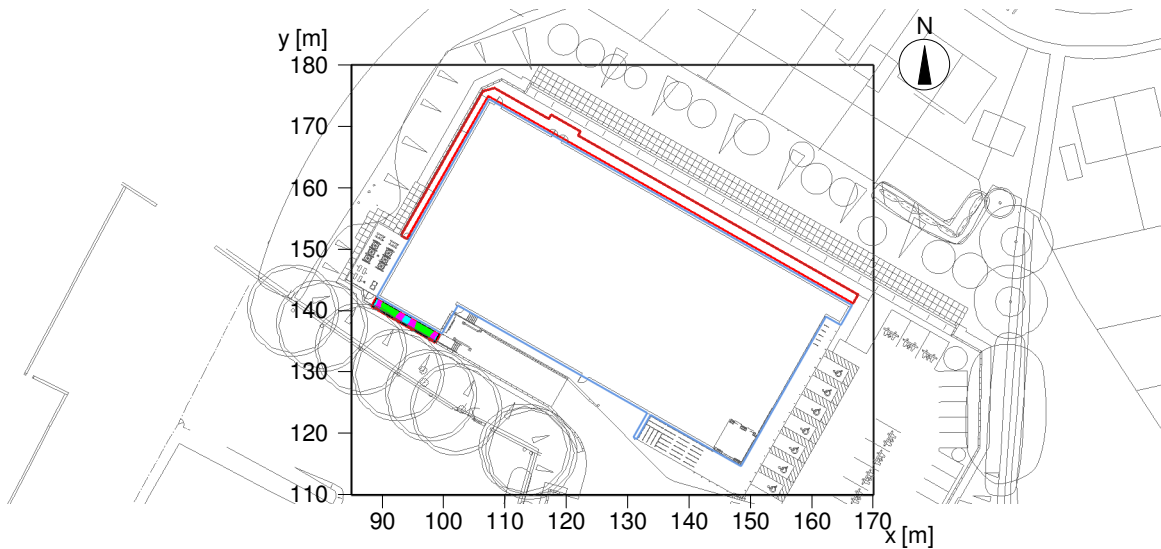
<b>Philips Lighting</b>	
3 16	Order No. : !1300mm Linear Emergency Luminaire
	Luminaire name : LL-E EM with Adjustable Bracket
	Equipment : 1 x LED23S/840/- 3 W / 360 lm

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

Object : Carpark  
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### 3.1 Summary, RoH Footpath Eme Ltg

#### 3.1.2 Result overview, RoH Footpath 2



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.05 m
Maintenance factor	0.79

Total luminous flux of all lamps	5760 lm
Total power	48 W
Total power per area (5950.00 m <sup>2</sup> )	0.01 W/m <sup>2</sup>
Upward light ratio (ULR)	0.00

#### Illuminance

Average illuminance	Em	7.5 lx
Minimum illuminance	Emin	3.5 lx
Maximum illuminance	Emax	11.6 lx
Uniformity Uo	Emin/Em	1:2.11 (0.47)
Diversity Ud	Emin/Emax	1:3.26 (0.31)

#### Type No.\Make

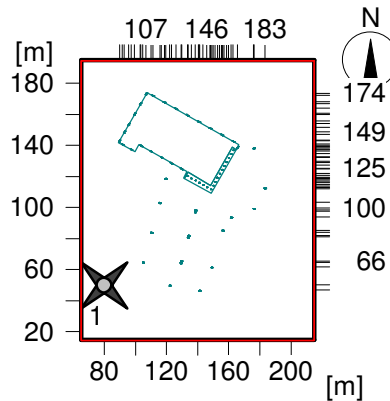
<b>Philips Lighting</b>	
3	16
Order No.	: !1300mm Linear Emergency Luminaire
Luminaire name	: LL-E EM with Adjustable Bracket
Equipment	: 1 x LED23S/840/- 3 W / 360 lm

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

## 4 Carpark Spill Light

### 4.1 Calculation results, Carpark Spill Light

#### 4.1.1 Luminous intensity - I(p) 1



#### Measuring point for luminous intensity: I(p) 1

Position : x = 80.00 m, y = 50.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..176.05	99.62	5.95	0.273	
2	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..129.15	64.73	5.95	0.270	
3	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..183.22	112.80	5.95	0.106	
4	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..133.74	81.10	5.95	0.092	
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..141.13	46.80	5.95	0.085	
6	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..149.00	61.79	5.95	0.076	
7	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..156.08	85.45	5.95	0.076	
8	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..176.10	138.41	5.95	0.073	
9	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..138.33	97.46	5.95	0.062	
10	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.057
11	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.056
12	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.056
13	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.055
14	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.055
15	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..104.77	64.82	5.95	0.038	
16	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.019
17	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.019
18	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..121.94	50.14	5.95	0.007	
19	LL-Canopy, !	133.28	120.59	3.00	0.003
20	LL-Canopy, !	135.80	119.16	3.00	0.003
21	LL-Canopy, !	138.33	117.73	3.00	0.003
22	LL-Canopy, !	140.85	116.30	3.00	0.003
23	LL-Canopy, !	143.37	114.87	3.00	0.003
24	LL-Canopy, !	145.89	113.43	3.00	0.003
25	LL-Canopy, !	148.41	112.00	3.00	0.003
26	LL-Canopy, !	149.84	114.52	3.00	0.003
27	LL-Canopy, !	151.28	117.04	3.00	0.003
28	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..110.17	84.07	5.95	0.003	

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



## 4 Carpark Spill Light

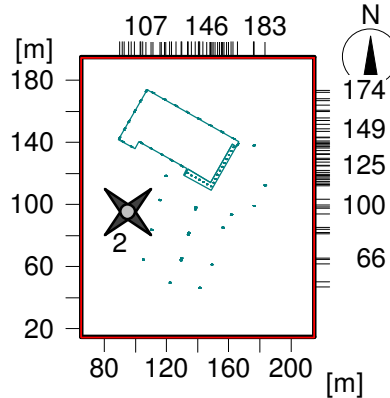
### 4.1 Calculation results, Carpark Spill Light

#### 4.1.1 Luminous intensity - I(p) 1

29	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	134.01	82.07	5.95	0.002
30	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.42	65.70	5.95	0.002
31	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	115.57	103.33	5.95	0.001
32	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.60	98.44	5.95	0.001
33	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	119.29	118.75	5.95	0.001
34	LL-Canopy, !	157.00	127.13	3.00	0.000
35	LL-Canopy, !	158.44	129.65	3.00	0.000
36	LL-Canopy, !	155.57	124.60	3.00	0.000
37	LL-Canopy, !	154.14	122.08	3.00	0.000
38	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	161.55	93.84	5.95	0.000
39	LL-Canopy, !	159.87	132.17	3.00	0.000
40	LL-Canopy, !	161.30	134.69	3.00	0.000
41	LL-Canopy, !	162.73	137.21	3.00	0.000
42	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-Canopy, !	152.71	119.56	3.00	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000

## 4.1 Calculation results, Carpark Spill Light

### 4.1.2 Luminous intensity - I(p) 2



#### Measuring point for luminous intensity: I(p) 2

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

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..176.05	99.62	5.95	0.235	
2	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..183.22	112.80	5.95	0.228	
3	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..129.42	65.70	5.95	0.169	
4	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..121.94	50.14	5.95	0.122	
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..115.57	103.33	5.95	0.092	
6	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..156.08	85.45	5.95	0.086	
7	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..149.00	61.79	5.95	0.085	
8	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..141.13	46.80	5.95	0.073	
9	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	
10	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	
11	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	
12	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	
13	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	
14	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..138.33	97.46	5.95	0.065	
15	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..134.01	82.07	5.95	0.022	
16	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	
17	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	
18	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..104.77	64.82	5.95	0.018	
19	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..133.74	81.10	5.95	0.014	
20	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..138.60	98.44	5.95	0.004	
21	LL-Canopy, !	135.80	119.16	3.00	
22	LL-Canopy, !	138.33	117.73	3.00	
23	LL-Canopy, !	140.85	116.30	3.00	
24	LL-Canopy, !	143.37	114.87	3.00	
25	LL-Canopy, !	145.89	113.43	3.00	
26	LL-Canopy, !	148.41	112.00	3.00	
27	LL-Canopy, !	149.84	114.52	3.00	
28	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..129.15	64.73	5.95	0.003	

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



## 4.1 Calculation results, Carpark Spill Light

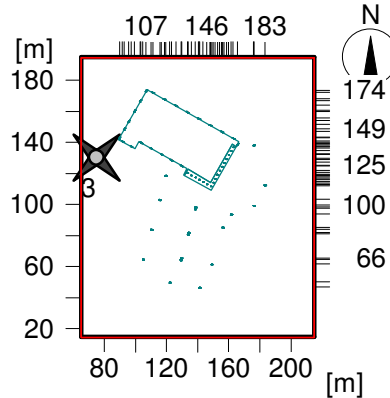
### 4.1.2 Luminous intensity - I(p) 2

29	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	161.55	93.84	5.95	0.002
30	LL-Canopy, !	161.30	134.69	3.00	0.000
31	LL-Canopy, !	159.87	132.17	3.00	0.000
32	LL-Canopy, !	158.44	129.65	3.00	0.000
33	LL-Canopy, !	157.00	127.13	3.00	0.000
34	LL-Canopy, !	133.28	120.59	3.00	0.000
35	LL-Canopy, !	155.57	124.60	3.00	0.000
36	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	119.29	118.75	5.95	0.000
37	LL-Canopy, !	154.14	122.08	3.00	0.000
38	LL-Canopy, !	152.71	119.56	3.00	0.000
39	LL-Canopy, !	162.73	137.21	3.00	0.000
40	LL-Canopy, !	151.28	117.04	3.00	0.000
41	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	110.17	84.07	5.95	0.000
42	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	176.10	138.41	5.95	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000



## 4.1 Calculation results, Carpark Spill Light

### 4.1.3 Luminous intensity - I(p) 3



#### Measuring point for luminous intensity: I(p) 3

Position : x = 75.00 m, y = 130.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..176.05	99.62	5.95	0.198	
2	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..129.42	65.70	5.95	0.066	
3	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..156.08	85.45	5.95	0.055	
4	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..121.94	50.14	5.95	0.051	
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..149.00	61.79	5.95	0.044	
6	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..141.13	46.80	5.95	0.040	
7	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	
8	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	
9	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	
10	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	
11	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	
12	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..134.01	82.07	5.95	0.016	
13	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	
14	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	
15	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..138.60	98.44	5.95	0.007	
16	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	
17	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	
18	LL-Canopy, !	138.33	117.73	3.00	
19	LL-Canopy, !	140.85	116.30	3.00	
20	LL-Canopy, !	143.37	114.87	3.00	
21	LL-Canopy, !	145.89	113.43	3.00	
22	LL-Canopy, !	148.41	112.00	3.00	
23	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	
24	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	
25	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..110.17	84.07	5.95	0.002	
26	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..138.33	97.46	5.95	0.002	
27	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..119.29	118.75	5.95	0.002	
28	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



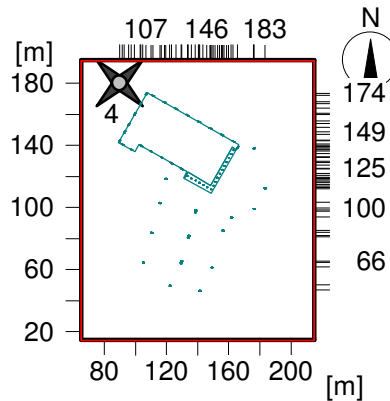
## 4.1 Calculation results, Carpark Spill Light

### 4.1.3 Luminous intensity - I(p) 3

29	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	161.55	93.84	5.95	0.002
30	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	104.77	64.82	5.95	0.001
31	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	129.15	64.73	5.95	0.001
32	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	133.74	81.10	5.95	0.001
33	LL-Canopy, !	161.30	134.69	3.00	0.000
34	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	115.57	103.33	5.95	0.000
35	LL-Canopy, !	158.44	129.65	3.00	0.000
36	LL-Canopy, !	157.00	127.13	3.00	0.000
37	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	183.22	112.80	5.95	0.000
38	LL-Canopy, !	135.80	119.16	3.00	0.000
39	LL-Canopy, !	159.87	132.17	3.00	0.000
40	LL-Canopy, !	133.28	120.59	3.00	0.000
41	LL-Canopy, !	154.14	122.08	3.00	0.000
42	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.000
43	LL-Canopy, !	152.71	119.56	3.00	0.000
44	LL-Canopy, !	151.28	117.04	3.00	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	176.10	138.41	5.95	0.000
54	LL-Canopy, !	149.84	114.52	3.00	0.000
55	LL-Canopy, !	162.73	137.21	3.00	0.000
56	LL-Canopy, !	155.57	124.60	3.00	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.000

## 4.1 Calculation results, Carpark Spill Light

### 4.1.4 Luminous intensity - I(p) 4



#### Measuring point for luminous intensity: I(p) 4

Position : x = 90.00 m, y = 180.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity
		x[m]	y[m]	z[m]	I[kcd]
1	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.029
2	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.028
3	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.024
4	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.018
5	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.014
6	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.011
7	LL-Canopy, !	157.00	127.13	3.00	0.000
8	LL-Canopy, !	158.44	129.65	3.00	0.000
9	LL-Canopy, !	159.87	132.17	3.00	0.000
10	LL-Canopy, !	161.30	134.69	3.00	0.000
11	LL-Canopy, !	162.73	137.21	3.00	0.000
12	LL-Canopy, !	145.89	113.43	3.00	0.000
13	LL-Canopy, !	143.37	114.87	3.00	0.000
14	LL-Canopy, !	140.85	116.30	3.00	0.000
15	LL-Canopy, !	138.33	117.73	3.00	0.000
16	LL-Canopy, !	135.80	119.16	3.00	0.000
17	LL-Canopy, !	133.28	120.59	3.00	0.000
18	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.000
19	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.000
20	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.000
21	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.000
22	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.000
23	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	129.42	65.70	5.95	0.000
24	LL-Canopy, !	155.57	124.60	3.00	0.000
25	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	134.01	82.07	5.95	0.000
26	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	133.74	81.10	5.95	0.000
27	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	138.60	98.44	5.95	0.000
28	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	138.33	97.46	5.95	0.000

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



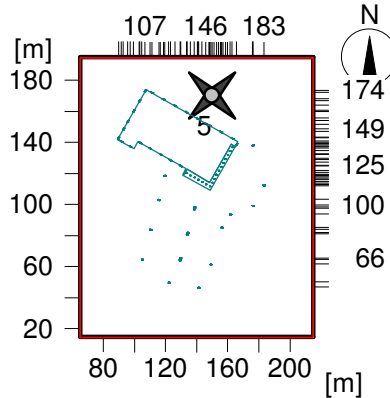
## 4.1 Calculation results, Carpark Spill Light

### 4.1.4 Luminous intensity - I(p) 4

29	LL-Canopy, !	152.71	119.56	3.00	0.000
30	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	104.77	64.82	5.95	0.000
31	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	156.08	85.45	5.95	0.000
32	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	149.00	61.79	5.95	0.000
33	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	141.13	46.80	5.95	0.000
34	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	110.17	84.07	5.95	0.000
35	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	115.57	103.33	5.95	0.000
36	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	119.29	118.75	5.95	0.000
37	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.05	99.62	5.95	0.000
38	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	183.22	112.80	5.95	0.000
39	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	161.55	93.84	5.95	0.000
40	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.000
41	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.000
42	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.000
43	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.15	64.73	5.95	0.000
44	LL-Canopy, !	154.14	122.08	3.00	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.10	138.41	5.95	0.000
54	LL-Canopy, !	149.84	114.52	3.00	0.000
55	LL-Canopy, !	151.28	117.04	3.00	0.000
56	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	121.94	50.14	5.95	0.000
57	LL-Canopy, !	148.41	112.00	3.00	0.000

## 4.1 Calculation results, Carpark Spill Light

### 4.1.5 Luminous intensity - I(p) 5



#### Measuring point for luminous intensity: I(p) 5

Position : x = 150.00 m, y = 170.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	183.22	112.80	5.95	0.280
2	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.031
3	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.028
4	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.026
5	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.022
6	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.020
7	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.014
8	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.013
9	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.10	138.41	5.95	0.010
10	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.010
11	LL-Canopy, !	162.73	137.21	3.00	0.000
12	LL-Canopy, !	145.89	113.43	3.00	0.000
13	LL-Canopy, !	143.37	114.87	3.00	0.000
14	LL-Canopy, !	140.85	116.30	3.00	0.000
15	LL-Canopy, !	138.33	117.73	3.00	0.000
16	LL-Canopy, !	135.80	119.16	3.00	0.000
17	LL-Canopy, !	133.28	120.59	3.00	0.000
18	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.000
19	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.000
20	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.000
21	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.000
22	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.000
23	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.42	65.70	5.95	0.000
24	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.15	64.73	5.95	0.000
25	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	134.01	82.07	5.95	0.000
26	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	133.74	81.10	5.95	0.000
27	LL-Canopy, !	159.87	132.17	3.00	0.000
28	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.33	97.46	5.95	0.000

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



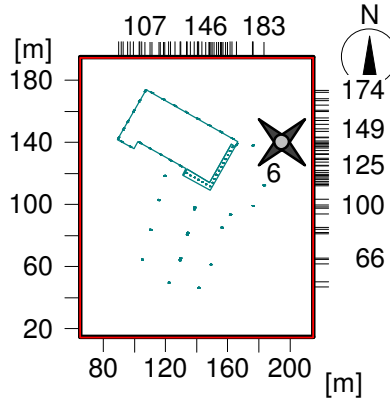
## 4.1 Calculation results, Carpark Spill Light

### 4.1.5 Luminous intensity - I(p) 5

29	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	121.94	50.14	5.95	0.000
30	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	104.77	64.82	5.95	0.000
31	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	156.08	85.45	5.95	0.000
32	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	149.00	61.79	5.95	0.000
33	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	141.13	46.80	5.95	0.000
34	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	110.17	84.07	5.95	0.000
35	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	115.57	103.33	5.95	0.000
36	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	119.29	118.75	5.95	0.000
37	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.05	99.62	5.95	0.000
38	LL-Canopy, !	158.44	129.65	3.00	0.000
39	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	161.55	93.84	5.95	0.000
40	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.000
41	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.000
42	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-Canopy, !	157.00	127.13	3.00	0.000
46	LL-Canopy, !	155.57	124.60	3.00	0.000
47	LL-Canopy, !	154.14	122.08	3.00	0.000
48	LL-Canopy, !	152.71	119.56	3.00	0.000
49	LL-Canopy, !	151.28	117.04	3.00	0.000
50	LL-Canopy, !	149.84	114.52	3.00	0.000
51	LL-Canopy, !	161.30	134.69	3.00	0.000
52	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.60	98.44	5.95	0.000
53	LL-Canopy, !	148.41	112.00	3.00	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000

## 4.1 Calculation results, Carpark Spill Light

### 4.1.6 Luminous intensity - I(p) 6



#### Measuring point for luminous intensity: I(p) 6

Position : x = 195.00 m, y = 140.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..183.22	112.80	174.00	5.95	0.332
2	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..176.10	138.41	174.00	5.95	0.152
3	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..161.55	93.84	174.00	5.95	0.141
4	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..138.60	98.44	100.00	5.95	0.068
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..134.01	82.07	100.00	5.95	0.055
6	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..129.42	65.70	100.00	5.95	0.053
7	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..121.94	50.14	100.00	5.95	0.049
8	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..110.17	84.07	66.00	5.95	0.047
9	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..104.77	64.82	66.00	5.95	0.034
10	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..176.05	99.62	66.00	5.95	0.033
11	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.022
12	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.010
13	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.007
14	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.005
15	LL-Canopy, !	162.73	137.21	3.00	0.004
16	LL-Canopy, !	161.30	134.69	3.00	0.004
17	LL-Canopy, !	159.87	132.17	3.00	0.004
18	LL-Canopy, !	158.44	129.65	3.00	0.004
19	LL-Canopy, !	157.00	127.13	3.00	0.004
20	LL-Canopy, !	155.57	124.60	3.00	0.004
21	LL-Canopy, !	154.14	122.08	3.00	0.004
22	LL-Canopy, !	152.71	119.56	3.00	0.004
23	LL-Canopy, !	151.28	117.04	3.00	0.004
24	LL-Canopy, !	149.84	114.52	3.00	0.004
25	LL-Canopy, !	148.41	112.00	3.00	0.004
26	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.004
27	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.003
28	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.002

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



## 4.1 Calculation results, Carpark Spill Light

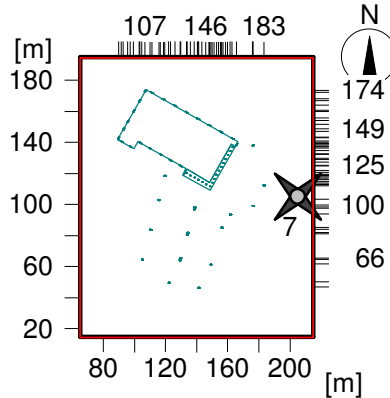
### 4.1.6 Luminous intensity - I(p) 6

29	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	156.08	85.45	5.95	0.002
30	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.002
31	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.002
32	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.33	97.46	5.95	0.002
33	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	149.00	61.79	5.95	0.001
34	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	141.13	46.80	5.95	0.001
35	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	119.29	118.75	5.95	0.000
36	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.000
37	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.000
38	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	115.57	103.33	5.95	0.000
39	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.000
40	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.000
41	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.000
42	LL-Canopy, !	135.80	119.16	3.00	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.000
47	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.15	64.73	5.95	0.000
48	LL-Canopy, !	138.33	117.73	3.00	0.000
49	LL-Canopy, !	140.85	116.30	3.00	0.000
50	LL-Canopy, !	143.37	114.87	3.00	0.000
51	LL-Canopy, !	133.28	120.59	3.00	0.000
52	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	133.74	81.10	5.95	0.000
53	LL-Canopy, !	145.89	113.43	3.00	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000



## 4.1 Calculation results, Carpark Spill Light

### 4.1.7 Luminous intensity - I(p) 7



#### Measuring point for luminous intensity: I(p) 7

Position : x = 205.00 m, y = 105.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	161.55	93.84	5.95	0.277
2	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	176.10	138.41	5.95	0.100
3	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	134.01	82.07	5.95	0.086
4	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	115.57	103.33	5.95	0.062
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	129.42	65.70	5.95	0.056
6	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	119.29	118.75	5.95	0.050
7	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	110.17	84.07	5.95	0.050
8	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	121.94	50.14	5.95	0.043
9	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	104.77	64.82	5.95	0.037
10	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.021
11	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	138.60	98.44	5.95	0.019
12	LL-Canopy, !	159.87	132.17	3.00	0.004
13	LL-Canopy, !	158.44	129.65	3.00	0.004
14	LL-Canopy, !	161.30	134.69	3.00	0.004
15	LL-Canopy, !	157.00	127.13	3.00	0.004
16	LL-Canopy, !	162.73	137.21	3.00	0.004
17	LL-Canopy, !	155.57	124.60	3.00	0.004
18	LL-Canopy, !	154.14	122.08	3.00	0.004
19	LL-Canopy, !	152.71	119.56	3.00	0.004
20	LL-Canopy, !	151.28	117.04	3.00	0.004
21	LL-Canopy, !	149.84	114.52	3.00	0.004
22	LL-Canopy, !	148.41	112.00	3.00	0.004
23	LL-Canopy, !	145.89	113.43	3.00	0.004
24	LL-Canopy, !	143.37	114.87	3.00	0.004
25	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	176.05	99.62	5.95	0.003
26	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	156.08	85.45	5.95	0.002
27	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	149.00	61.79	5.95	0.001
28	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	133.74	81.10	5.95	0.001

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



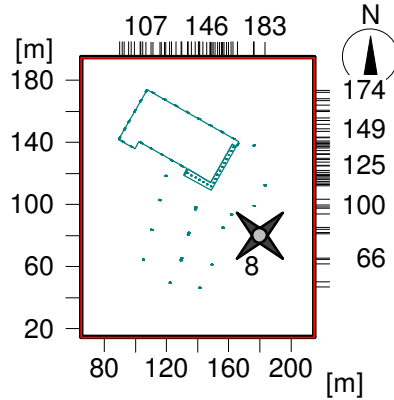
## 4.1 Calculation results, Carpark Spill Light

### 4.1.7 Luminous intensity - I(p) 7

29	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	141.13	46.80	5.95	0.001
30	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	138.33	97.46	5.95	0.001
31	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	129.15	64.73	5.95	0.001
32	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.000
33	LL-Canopy, !	133.28	120.59	3.00	0.000
34	LL-Canopy, !	135.80	119.16	3.00	0.000
35	LL-Canopy, !	138.33	117.73	3.00	0.000
36	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.000
37	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.000
38	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	183.22	112.80	5.95	0.000
39	LL-Canopy, !	140.85	116.30	3.00	0.000
40	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.000
41	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.000
42	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000

## 4.1 Calculation results, Carpark Spill Light

### 4.1.8 Luminous intensity - I(p) 8



#### Measuring point for luminous intensity: I(p) 8

Position : x = 180.00 m, y = 80.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	161.55	93.84	5.95	0.268
2	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.42	65.70	5.95	0.240
3	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.10	138.41	5.95	0.133
4	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.05	99.62	5.95	0.111
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	119.29	118.75	5.95	0.095
6	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	121.94	50.14	5.95	0.083
7	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	115.57	103.33	5.95	0.078
8	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	110.17	84.07	5.95	0.074
9	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	104.77	64.82	5.95	0.063
10	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	134.01	82.07	5.95	0.029
11	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.33	97.46	5.95	0.022
12	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.015
13	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.60	98.44	5.95	0.007
14	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	149.00	61.79	5.95	0.007
15	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	183.22	112.80	5.95	0.006
16	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	133.74	81.10	5.95	0.005
17	LL-Canopy, !	148.41	112.00	3.00	0.004
18	LL-Canopy, !	149.84	114.52	3.00	0.004
19	LL-Canopy, !	151.28	117.04	3.00	0.004
20	LL-Canopy, !	145.89	113.43	3.00	0.004
21	LL-Canopy, !	152.71	119.56	3.00	0.004
22	LL-Canopy, !	154.14	122.08	3.00	0.004
23	LL-Canopy, !	143.37	114.87	3.00	0.004
24	LL-Canopy, !	155.57	124.60	3.00	0.004
25	LL-Canopy, !	157.00	127.13	3.00	0.004
26	LL-Canopy, !	140.85	116.30	3.00	0.004
27	LL-Canopy, !	158.44	129.65	3.00	0.004
28	LL-Canopy, !	159.87	132.17	3.00	0.004

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



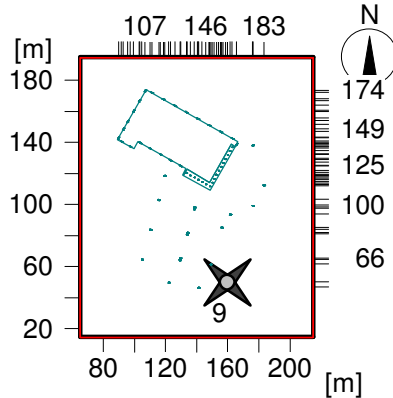
## 4.1 Calculation results, Carpark Spill Light

### 4.1.8 Luminous intensity - I(p) 8

29	LL-Canopy, !	138.33	117.73	3.00	0.004
30	LL-Canopy, !	161.30	134.69	3.00	0.004
31	LL-Canopy, !	135.80	119.16	3.00	0.004
32	LL-Canopy, !	162.73	137.21	3.00	0.004
33	LL-Canopy, !	133.28	120.59	3.00	0.004
34	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.003
35	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	129.15	64.73	5.95	0.002
36	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	141.13	46.80	5.95	0.002
37	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.001
38	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.001
39	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.000
40	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.000
41	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	156.08	85.45	5.95	0.000
42	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000

## 4.1 Calculation results, Carpark Spill Light

### 4.1.9 Luminous intensity - I(p) 9



#### Measuring point for luminous intensity: I(p) 9

Position : x = 160.00 m, y = 50.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	133.74	81.10	5.95	0.580
2	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	149.00	61.79	5.95	0.179
3	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.33	97.46	5.95	0.113
4	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.15	64.73	5.95	0.104
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	121.94	50.14	5.95	0.102
6	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.10	138.41	5.95	0.097
7	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	104.77	64.82	5.95	0.091
8	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	110.17	84.07	5.95	0.090
9	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	115.57	103.33	5.95	0.070
10	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.42	65.70	5.95	0.024
11	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.023
12	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.020
13	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.018
14	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.016
15	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	156.08	85.45	5.95	0.008
16	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.008
17	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.007
18	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.007
19	LL-Canopy, !	148.41	112.00	3.00	0.004
20	LL-Canopy, !	145.89	113.43	3.00	0.004
21	LL-Canopy, !	149.84	114.52	3.00	0.004
22	LL-Canopy, !	143.37	114.87	3.00	0.004
23	LL-Canopy, !	151.28	117.04	3.00	0.004
24	LL-Canopy, !	140.85	116.30	3.00	0.004
25	LL-Canopy, !	152.71	119.56	3.00	0.004
26	LL-Canopy, !	138.33	117.73	3.00	0.004
27	LL-Canopy, !	154.14	122.08	3.00	0.004
28	LL-Canopy, !	135.80	119.16	3.00	0.004

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



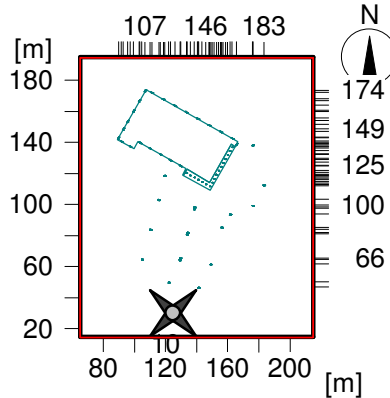
## 4.1 Calculation results, Carpark Spill Light

### 4.1.9 Luminous intensity - I(p) 9

29	LL-Canopy, !	155.57	124.60	3.00	0.004
30	LL-Canopy, !	133.28	120.59	3.00	0.004
31	LL-Canopy, !	157.00	127.13	3.00	0.004
32	LL-Canopy, !	158.44	129.65	3.00	0.004
33	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	119.29	118.75	5.95	0.004
34	LL-Canopy, !	159.87	132.17	3.00	0.004
35	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	176.05	99.62	5.95	0.003
36	LL-Canopy, !	161.30	134.69	3.00	0.003
37	LL-Canopy, !	162.73	137.21	3.00	0.003
38	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	134.01	82.07	5.95	0.003
39	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	183.22	112.80	5.95	0.002
40	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	138.60	98.44	5.95	0.002
41	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	161.55	93.84	5.95	0.000
42	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	141.13	46.80	5.95	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000

## 4.1 Calculation results, Carpark Spill Light

### 4.1.10 Luminous intensity - I(p) 10



#### Measuring point for luminous intensity: I(p) 10

Position : x = 125.00 m, y = 30.00 m, z = 0.00 m

No.	Luminaire	Position			Lumin. intensity I[kcd]
		x[m]	y[m]	z[m]	
1	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	141.13	46.80	5.95	1.333
2	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	149.00	61.79	5.95	0.396
3	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	104.77	64.82	5.95	0.238
4	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	110.17	84.07	5.95	0.192
5	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	129.15	64.73	5.95	0.159
6	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	133.74	81.10	5.95	0.102
7	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	138.33	97.46	5.95	0.078
8	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.10	138.41	5.95	0.075
9	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	129.60	125.27	3.06	0.056
10	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	123.08	128.98	3.06	0.053
11	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	116.56	132.69	3.06	0.049
12	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	110.05	136.41	3.06	0.045
13	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.53	140.12	3.06	0.040
14	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	115.57	103.33	5.95	0.015
15	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	97.21	137.67	3.05	0.014
16	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	91.56	140.89	3.05	0.013
17	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	176.05	99.62	5.95	0.006
18	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D..	156.08	85.45	5.95	0.004
19	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D..	183.22	112.80	5.95	0.004
20	LL-Canopy, !	148.41	112.00	3.00	0.003
21	LL-Canopy, !	145.89	113.43	3.00	0.003
22	LL-Canopy, !	143.37	114.87	3.00	0.003
23	LL-Canopy, !	140.85	116.30	3.00	0.003
24	LL-Canopy, !	149.84	114.52	3.00	0.003
25	LL-Canopy, !	138.33	117.73	3.00	0.003
26	LL-Canopy, !	135.80	119.16	3.00	0.003
27	LL-Canopy, !	151.28	117.04	3.00	0.003
28	LL-Canopy, !	133.28	120.59	3.00	0.003

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020



## 4.1 Calculation results, Carpark Spill Light

### 4.1.10 Luminous intensity - I(p) 10

29	LL-Canopy, !	152.71	119.56	3.00	0.003
30	LL-Canopy, !	154.14	122.08	3.00	0.003
31	LL-Canopy, !	155.57	124.60	3.00	0.003
32	LL-Canopy, !	157.00	127.13	3.00	0.003
33	LL-Canopy, !	158.44	129.65	3.00	0.003
34	LL-Canopy, !	159.87	132.17	3.00	0.003
35	LL-Canopy, !	161.30	134.69	3.00	0.003
36	LL-Canopy, !	162.73	137.21	3.00	0.003
37	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	129.42	65.70	5.95	0.002
38	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	165.57	139.12	3.05	0.002
39	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	134.01	82.07	5.95	0.001
40	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	119.29	118.75	5.95	0.001
41	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	121.94	50.14	5.95	0.000
42	LL-B BGP292 T25 DX10 /740 ..., !BGP292 T25 LED75-4S 740 D.	161.55	93.84	5.95	0.000
43	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	89.62	143.23	3.05	0.000
44	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	92.84	148.88	3.05	0.000
45	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	125.87	163.96	3.05	0.000
46	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	133.27	159.77	3.05	0.000
47	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	140.66	155.58	3.05	0.000
48	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	148.05	151.39	3.05	0.000
49	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	155.45	147.19	3.05	0.000
50	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	162.84	143.00	3.05	0.000
51	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	111.11	172.37	3.05	0.000
52	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	118.51	168.18	3.05	0.000
53	LL-A BGP292 T25 DX10 /740 ..., !BGP292 T25 LED49-4S 740 D.	138.60	98.44	5.95	0.000
54	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	95.71	153.97	3.05	0.000
55	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	99.42	160.49	3.05	0.000
56	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	103.13	167.01	3.05	0.000
57	LL-E with Adjustable Bracket, !1300mm Linear Luminaire	106.84	173.52	3.05	0.000

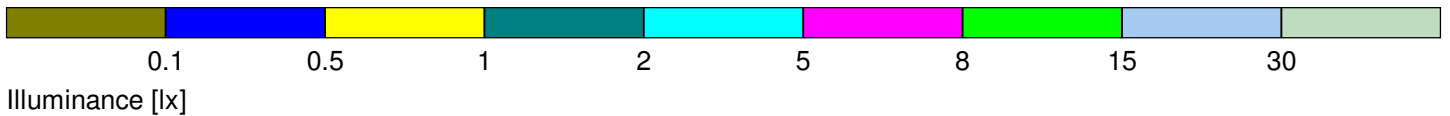
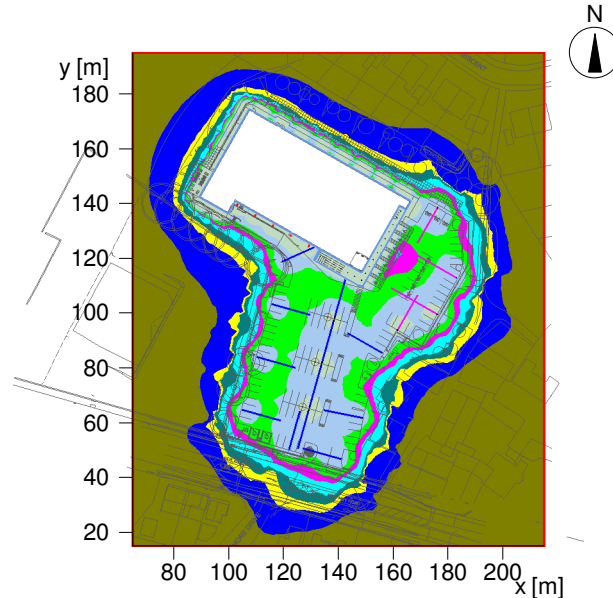


Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020

## 4 Carpark Spill Light

### 4.2 Summary, Carpark Spill Light

#### 4.2.1 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	194620 lm
Total power	1673.5 W
Total power per area (27000.00 m <sup>2</sup> )	0.06 W/m <sup>2</sup> (1.06 W/m <sup>2</sup> /100lx)
Upward light ratio (ULR)	0.00

#### Illuminance

Average illuminance	Em	6 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	180 lx
Uniformity U <sub>o</sub>	Emin/Em	1:3380 (0)
Diversity U <sub>d</sub>	Emin/Emax	1:104000 (0)

#### Type No.\Make

		<b>Philips Lighting</b>	
1	17	Order No.	: !
		Luminaire name	: LL-Canopy
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm
2	22	Order No.	: !1300mm Linear Luminaire
		Luminaire name	: LL-E with Adjustable Bracket
		Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

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



Object : Carpark  
Installation : LiDL New Hey Road  
Project number : D-372174  
Date : 25.09.2020

## 4 Carpark Spill Light

### 4.2 Summary, Carpark Spill Light

#### 4.2.1 Result overview, Horizontal Spill Light @0M

**PHILIPS/2019-07-08 Eulumdat/1 B-Tilt = 0.00**

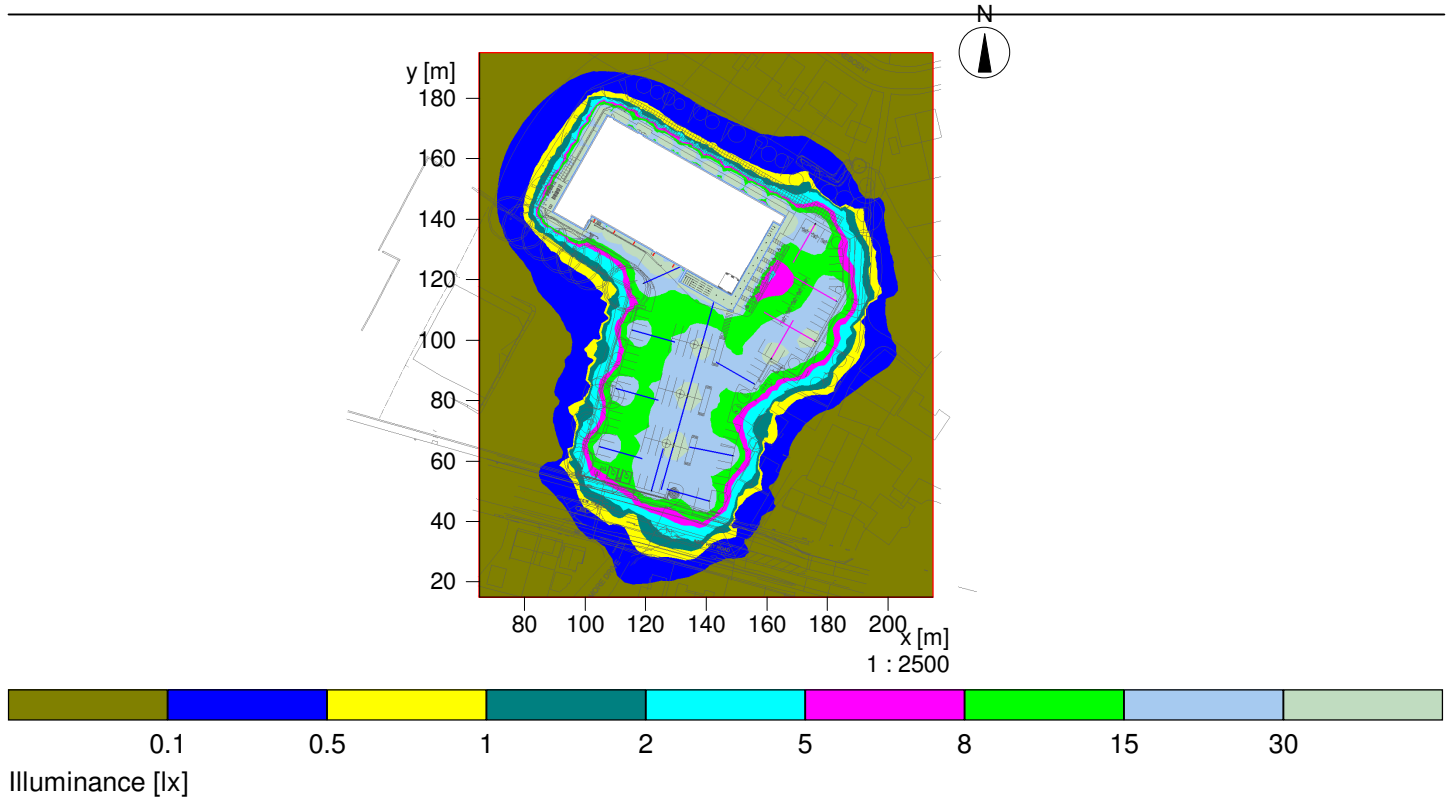
4	14	Order No.	: !BGP292 T25 LED49-4S 740 DX10.Idt
		Luminaire name	: LL-A BGP292 T25 DX10 /740
		Equipment	: 1 x LED49-4S/740 31 W / 4900 lm
5	4	Order No.	: !BGP292 T25 LED75-4S 740 DX10.Idt
		Luminaire name	: LL-B BGP292 T25 DX10 /740
		Equipment	: 1 x LED75-4S/740 46.5 W / 7600 lm

Object : Carpark  
 Installation : LiDL New Hey Road  
 Project number : D-372174  
 Date : 25.09.2020

## 4 Carpark Spill Light

### 4.3 Calculation results, Carpark Spill Light

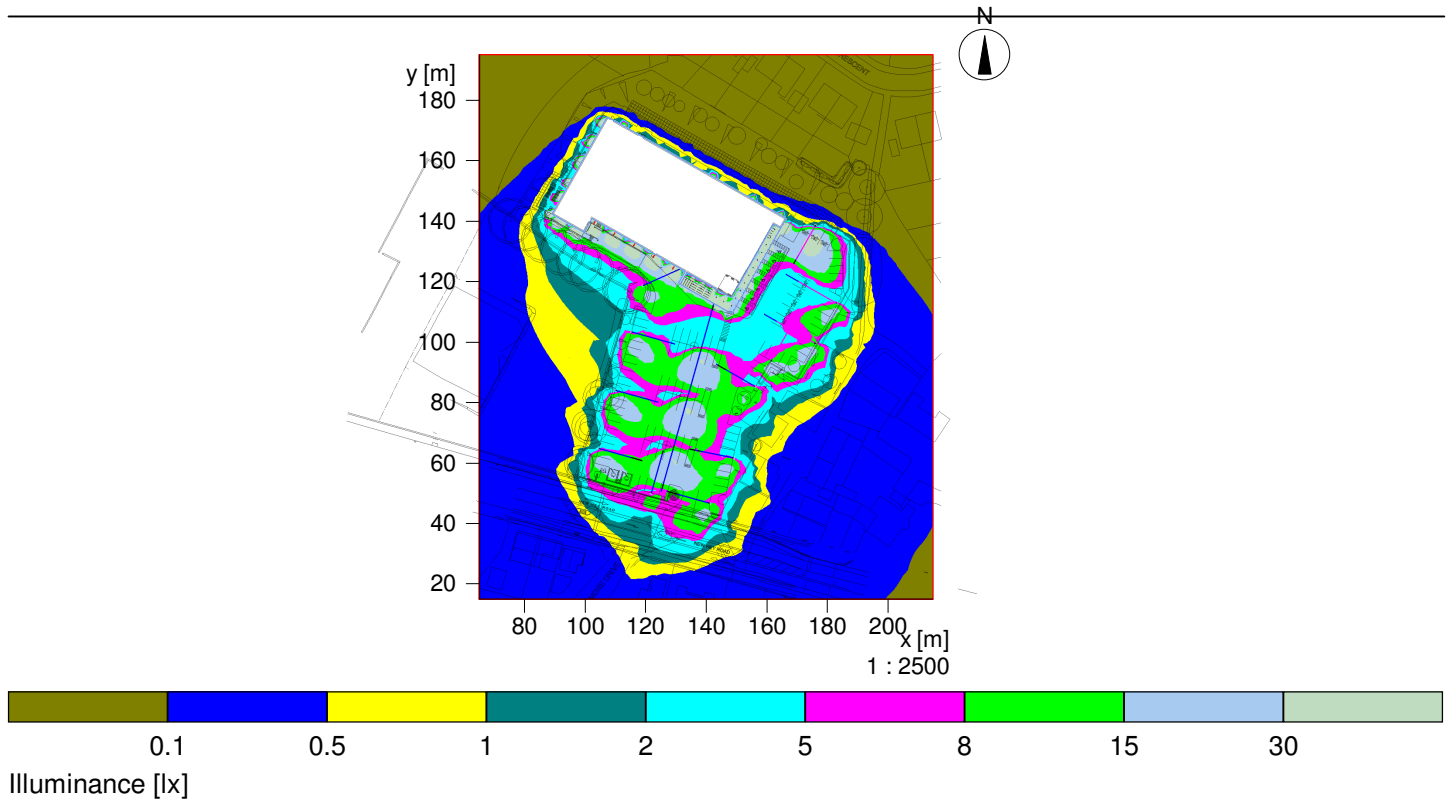
#### 4.3.1 Pseudo colours, Horizontal Spill Light @0M (E)



Height reference plane	:	0.00 m
Average illuminance	Em	: 6 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 180 lx
Uniformity U <sub>0</sub>	Emin/Em	: 1 : 3382.56 (0.00)
Diversity U <sub>d</sub>	Emin/Emax	: 1 : 103979.81 (0.00)

### 4.3 Calculation results, Carpark Spill Light

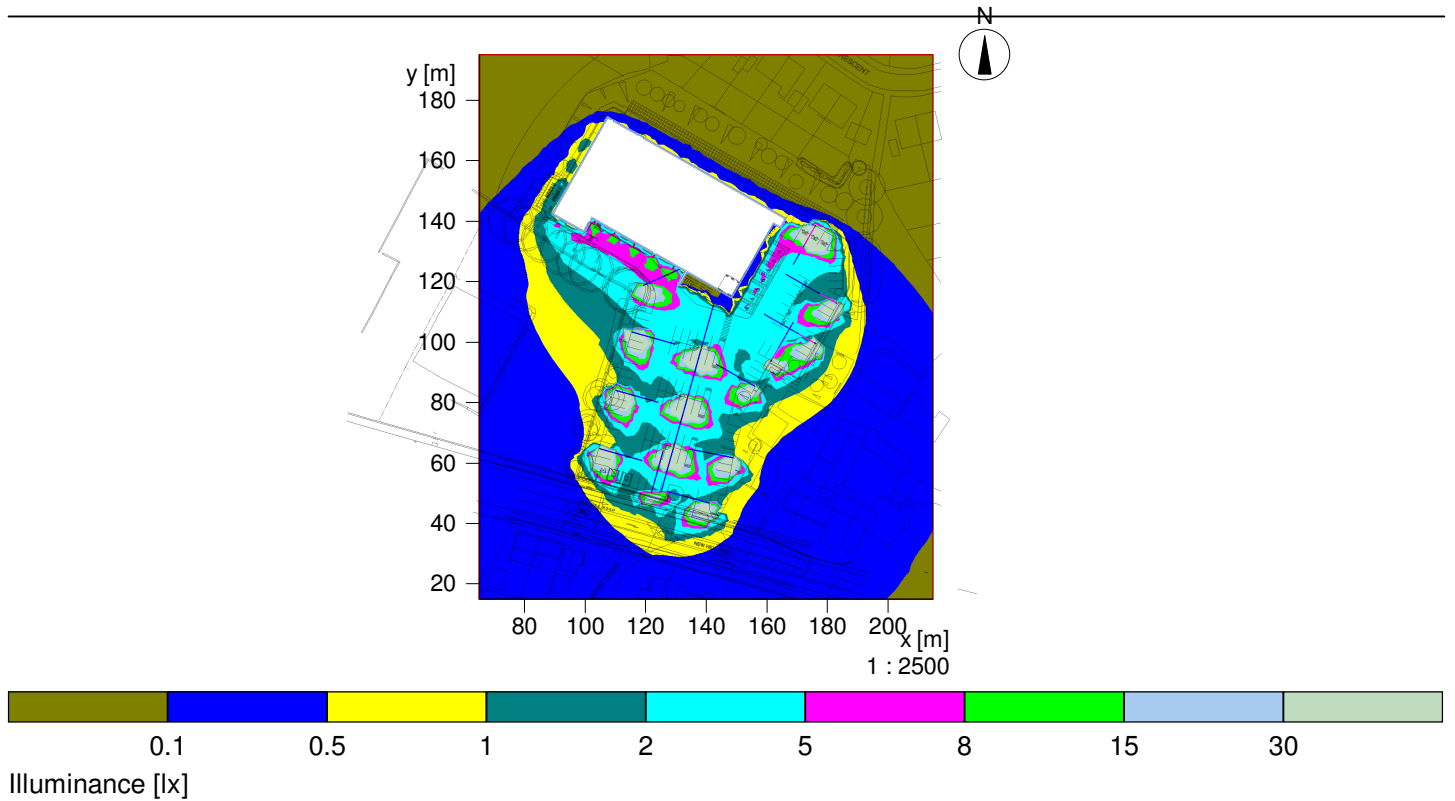
#### 4.3.2 Pseudo colours, Vertical Spill Light @1.5M North Facing Receptors (Ev, North (0°))



Vertical illuminance		
Height reference plane		: 1.50 m
from direction		: North (0°)
Average illuminance	Em	: 3 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 156 lx
Uniformity Uo	Emin/Em	: ---
Diversity Ud	Emin/Emax	: ---

### 4.3 Calculation results, Carpark Spill Light

#### 4.3.3 Pseudo colours, Vertical Spill Light @4M North Facing Receptors (Ev, North (0°))



Vertical illuminance		
Height reference plane		: 4.00 m
from direction		: North (0°)
Average illuminance	Em	: 2 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 121 lx
Uniformity Uo	Emin/Em	: ---
Diversity Ud	Emin/Emax	: ---