



Gājēju un velo celiņa atjaunošana Kļavu ielā (no Dubultu prospekta līdz Strēlnieku prospektam) un Strēlnieku prospektā (no Kļavu ielas līdz Ogres ielai), Jūrmalā

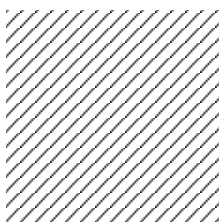
Luminaire list

Φ_{total} 76758 lm	P_{total} 611.0 W	Luminous efficacy 125.6 lm/W
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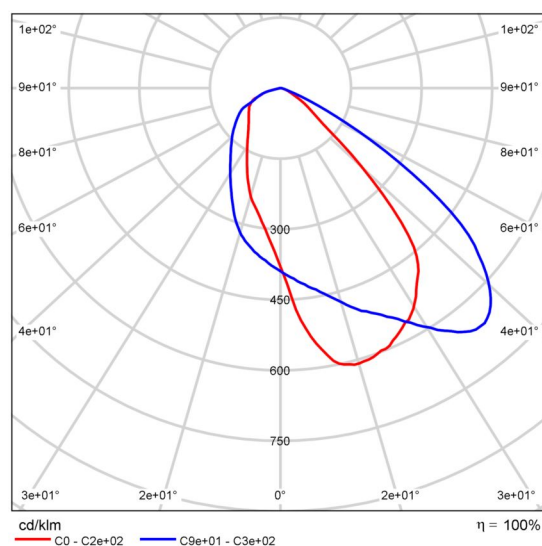
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1		Micro Martin 35 W 16 LEDs	MRUE 035 730 L11 AA016_Bin-L_TH	35.0 W	5062 lm	144.6 lm/W
16		Micro Martin 36 W 16 LEDs	MRUE 036 730 L22 A016_Bin-L_TH	36.0 W	4481 lm	124.5 lm/W

Product data sheet

MRUE 035 730 L11 AA016_Bin-L_TH



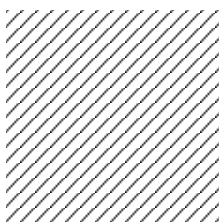
Article No.	Micro Martin 35 W 16 LEDs
P	35.0 W
Φ_{Lamp}	5062 lm
$\Phi_{\text{Luminaire}}$	5062 lm
η	100.00 %
Luminous efficacy	144.6 lm/W
CCT	3000 K
CRI	70



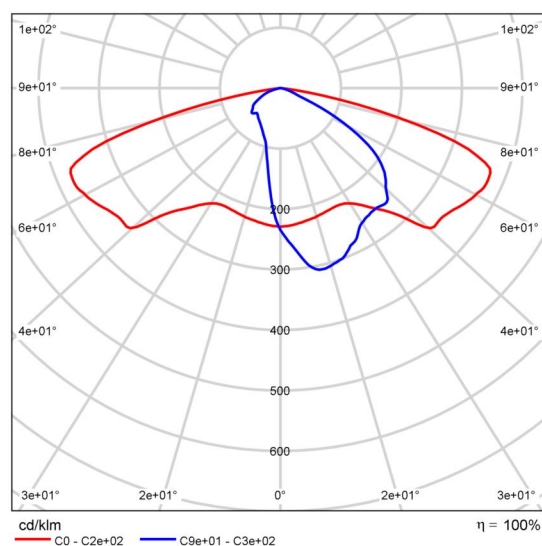
Polar LDC

Product data sheet

MRUE 036 730 L22 A016_Bin-L_TH



Article No.	Micro Martin 36 W 16 LEDs
P	36.0 W
Φ_{Lamp}	4481 lm
$\Phi_{\text{Luminaire}}$	4481 lm
η	100.00 %
Luminous efficacy	124.5 lm/W
CCT	3000 K
CRI	70



Polar LDC

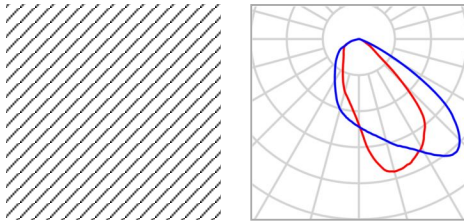
Site 1

Luminaire layout plan



Site 1

Luminaire layout plan



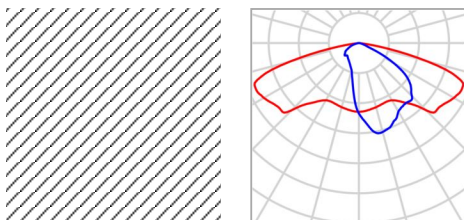
Article No.	Micro Martin 35 W 16 LEDs	P	35.0 W
Article name	MRUE 035 730 L11 AA016_Bin-L_TH	$\Phi_{\text{Luminaire}}$	5062 lm
Fitting	1x 16 LEDs bin L		

Individual luminaires

X	Y	Mounting height	Luminaire
3.272 m	-3.955 m	6.500 m	1

Site 1

Luminaire layout plan



Article No.	Micro Martin 36 W 16 LEDs	P	36.0 W
Article name	MRUE 036 730 L22 A016_Bin-L_TH	$\Phi_{\text{Luminaire}}$	4481 lm
Fitting	1x 16 LEDs bin L		

Individual luminaires

X	Y	Mounting height	Luminaire
74.935 m	-0.133 m	6.000 m	2
102.603 m	11.210 m	6.000 m	3
132.088 m	16.643 m	6.000 m	4
162.060 m	17.948 m	6.000 m	5
189.715 m	6.661 m	6.000 m	6
219.794 m	5.056 m	6.000 m	7
242.792 m	5.868 m	6.000 m	8
243.574 m	35.865 m	6.000 m	9
243.580 m	65.875 m	6.000 m	10
15.420 m	-0.400 m	6.000 m	11
45.208 m	-4.817 m	6.000 m	12

Site 1 (Light scene 1)

Calculation objects



Site 1 (Light scene 1)

Calculation objects

Calculation surfaces

Properties	$\bar{E}$	E_{min}	E_{max}	g_1	g_2	Index
Gājēju un velo celiņš (Posms nr.1) Perpendicular illuminance Height: 0.050 m	13.3 lx	3.37 lx	26.6 lx	0.25	0.13	S1
Gājēju un velo celiņš (Posms nr.2) Perpendicular illuminance Height: 0.050 m	11.9 lx	2.83 lx	25.1 lx	0.24	0.11	S2
Gājēju un velo celiņš (Posms nr.3) Perpendicular illuminance Height: 0.050 m	11.8 lx	3.77 lx	25.6 lx	0.32	0.15	S3
Gājēju pāreja AB (horizontālā) Perpendicular illuminance Height: 0.050 m	47.5 lx	28.0 lx	62.3 lx	0.59	0.45	S4
Uzgaidāmā zona A (vertikālā) Vertical illuminance Rotation: 90.0°, Height: 1.100 m	4.82 lx	2.34 lx	8.86 lx	0.49	0.26	S5
Uzgaidāmā zona B (vertikālā) Vertical illuminance Rotation: -90.0°, Height: 1.100 m	18.8 lx	9.89 lx	30.9 lx	0.53	0.32	S6
Gājēju pāreja A (vertikālā) Vertical illuminance Rotation: 90.0°, Height: 1.100 m	5.71 lx	3.17 lx	11.4 lx	0.56	0.28	S7
Gājēju pāreja B (vertikālā) Vertical illuminance Rotation: -90.0°, Height: 1.100 m	35.2 lx	27.5 lx	47.1 lx	0.78	0.58	S8
Uzgaidāmā zona B (horizontālā) Perpendicular illuminance Height: 0.050 m	37.0 lx	25.4 lx	50.0 lx	0.69	0.51	S9
Uzgaidāmā zona A (horizontālā) Perpendicular illuminance Height: 0.050 m	26.2 lx	16.8 lx	35.3 lx	0.64	0.48	S10
Gājēju un velo celiņš (Posms nr.5) Perpendicular illuminance Height: 0.040 m	12.6 lx	3.82 lx	26.3 lx	0.30	0.15	S11

Site 1 (Light scene 1)

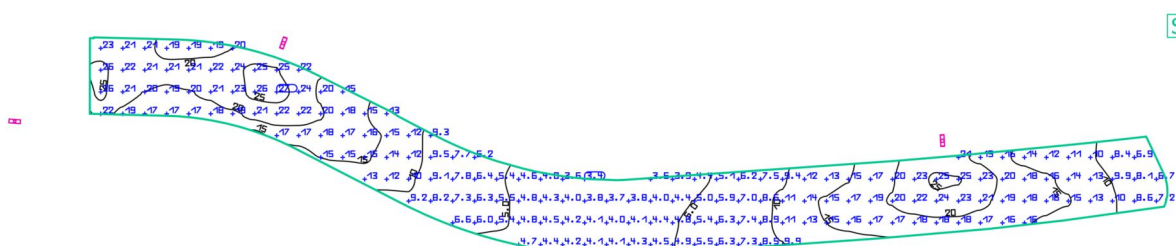
Calculation objects

Gājēju un velo celiņš (Posms nr.4) Perpendicular illuminance Height: 0.050 m	10.3 lx	2.41 lx	26.1 lx	0.23	0.092	S12
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Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

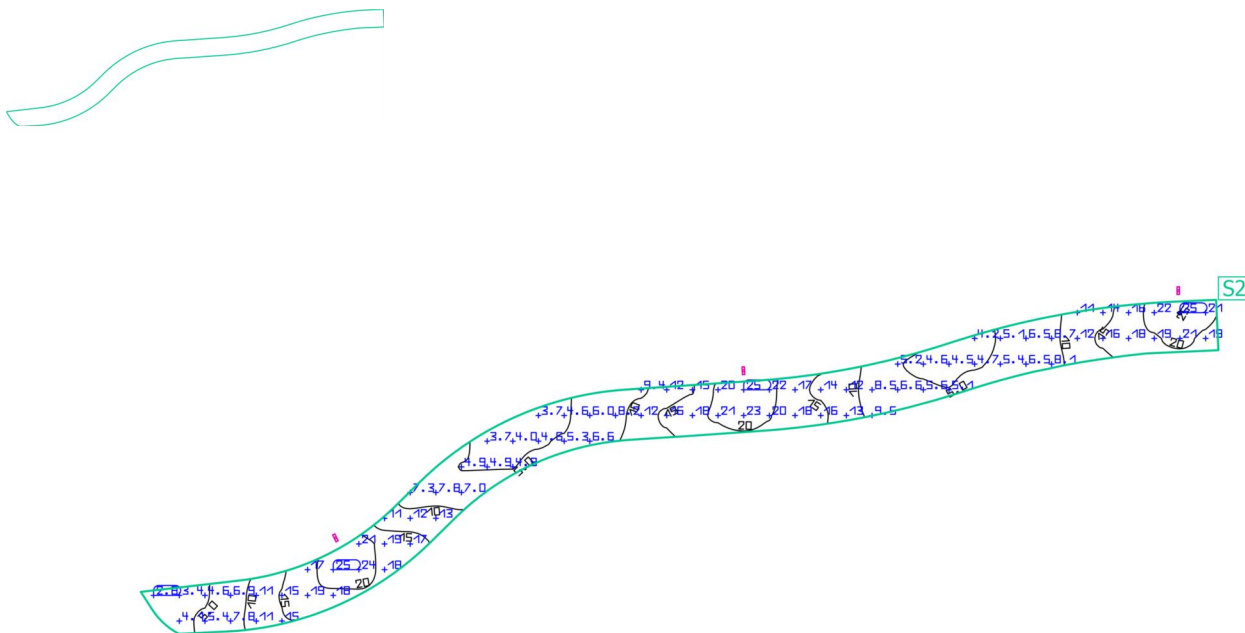
Gājēju un velo celiņš (Posms nr.1)



Properties	Ē	E _{min}	E _{max}	g ₁	g ₂	Index
Gājēju un velo celiņš (Posms nr.1)	13.3 lx	3.37 lx	26.6 lx	0.25	0.13	S1
Perpendicular illuminance						
Height: 0.050 m						

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Gājēju un velo celiņš (Posms nr.2)

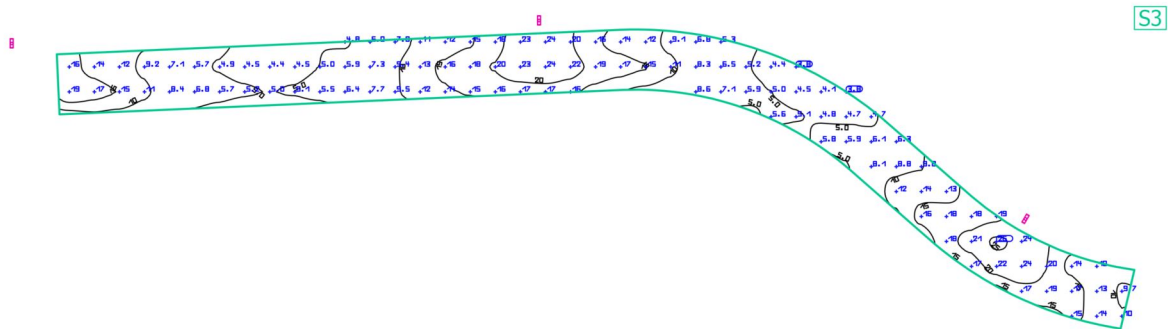


Properties	$\bar{E}$	E_{min}	E_{max}	g_1	g_2	Index
Gājēju un velo celiņš (Posms nr.2) Perpendicular illuminance Height: 0.050 m	11.9 lx	2.83 lx	25.1 lx	0.24	0.11	S2

12

Site 1 (Light scene 1)

Gājēju un velo celiņš (Posms nr.3)

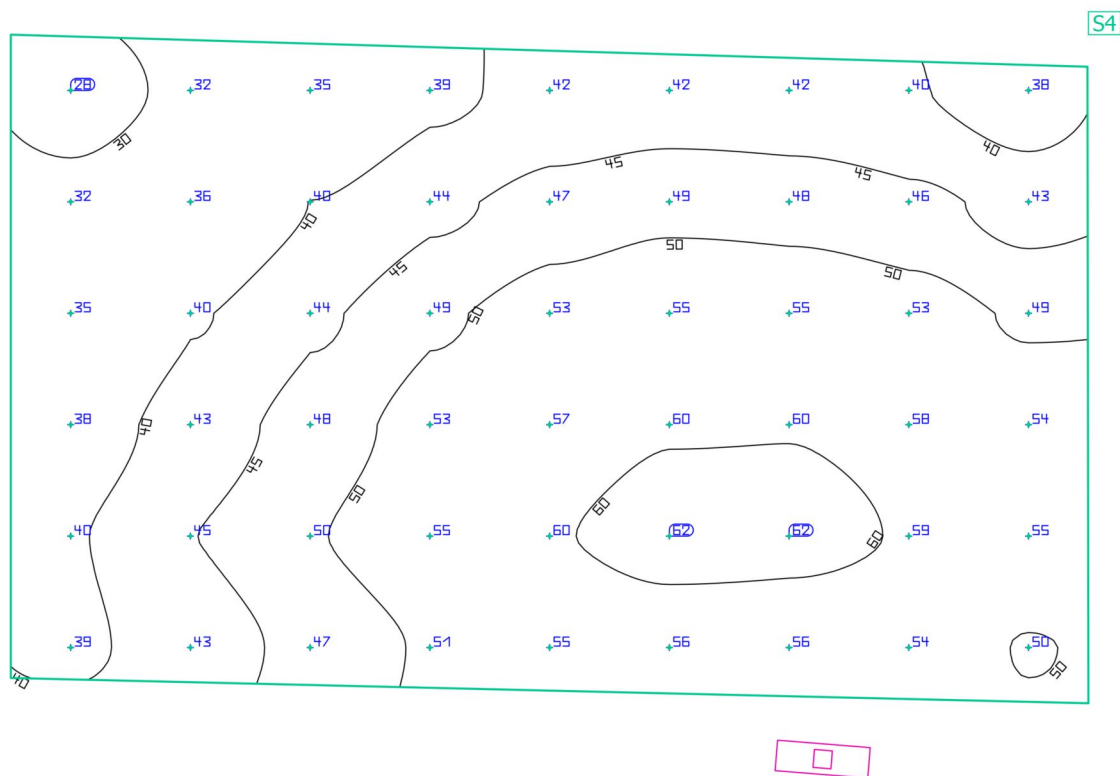


Properties	$\bar{E}$	E_{min}	E_{max}	g_1	g_2	Index
Gājēju un velo celiņš (Posms nr.3) Perpendicular illuminance Height: 0.050 m	11.8 lx	3.77 lx	25.6 lx	0.32	0.15	S3

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

Gājēju pāreja AB (horizontālā)

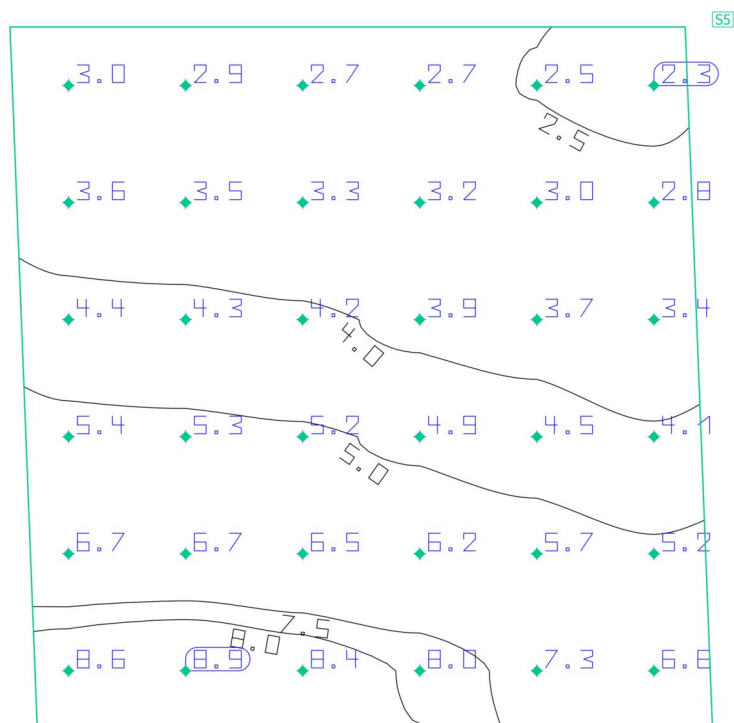


Properties	Ē	E _{min}	E _{max}	g ₁	g ₂	Index
Gājēju pāreja AB (horizontālā) Perpendicular illuminance Height: 0.050 m	47.5 lx	28.0 lx	62.3 lx	0.59	0.45	S4

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

Uzgaidāmā zona A (vertikālā)

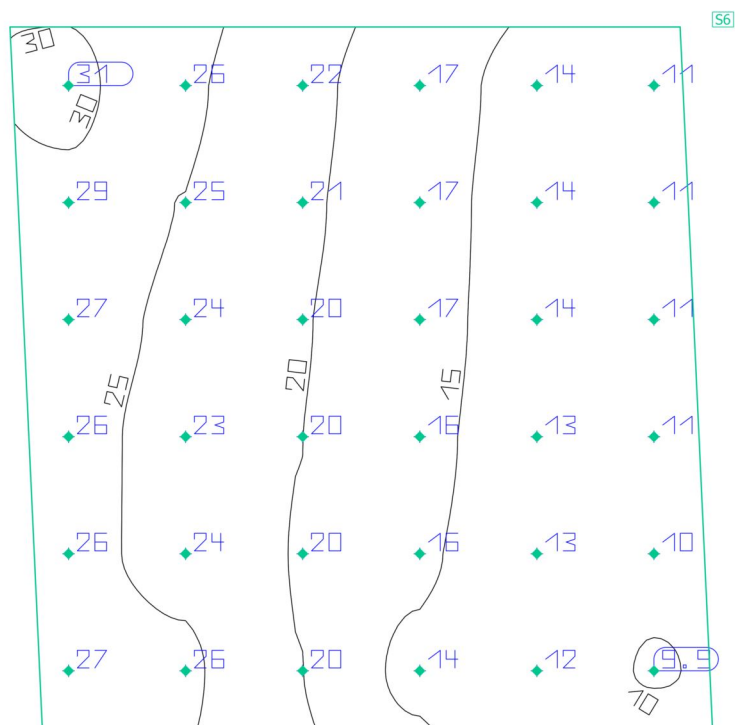


Properties	Ē	E _{min}	E _{max}	g ₁	g ₂	Index
Uzgaidāmā zona A (vertikālā)	4.82 lx	2.34 lx	8.86 lx	0.49	0.26	S5
Vertical illuminance						
Rotation: 90.0°, Height: 1.100 m						

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

Uzgaidāmā zona B (vertikālā)

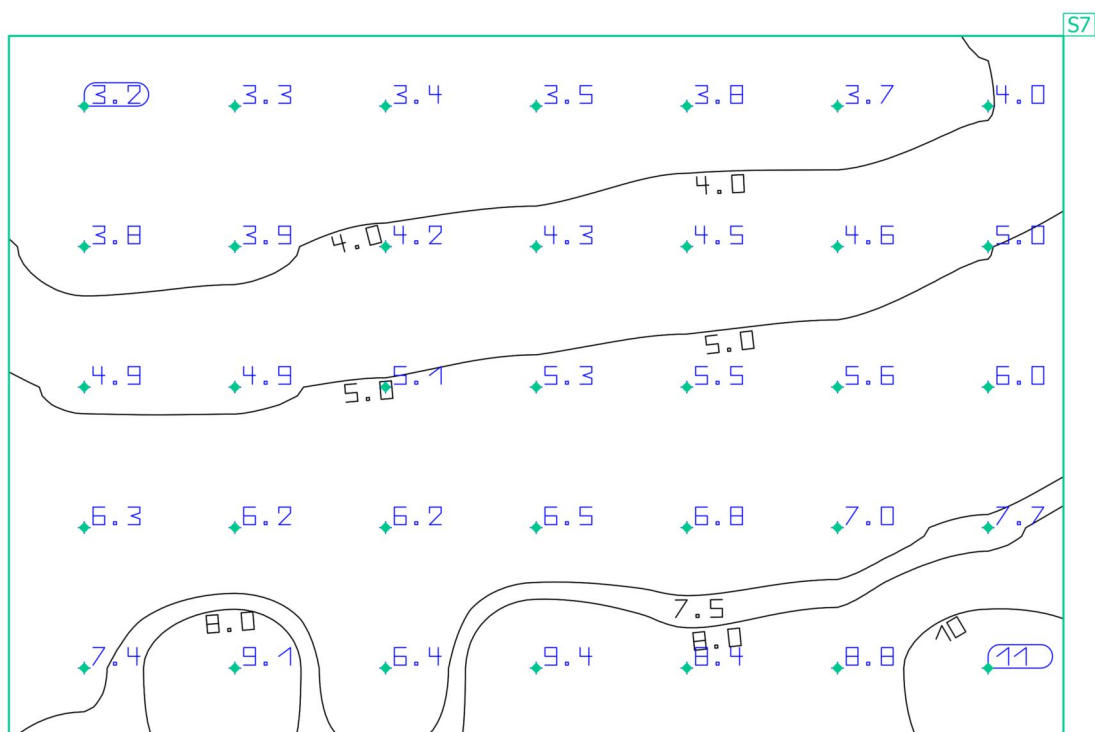


Properties	Ē	E _{min}	E _{max}	g ₁	g ₂	Index
Uzgaidāmā zona B (vertikālā) Vertical illuminance Rotation: -90.0°, Height: 1.100 m	18.8 lx	9.89 lx	30.9 lx	0.53	0.32	S6

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

Gājēju pāreja A (vertikālā)

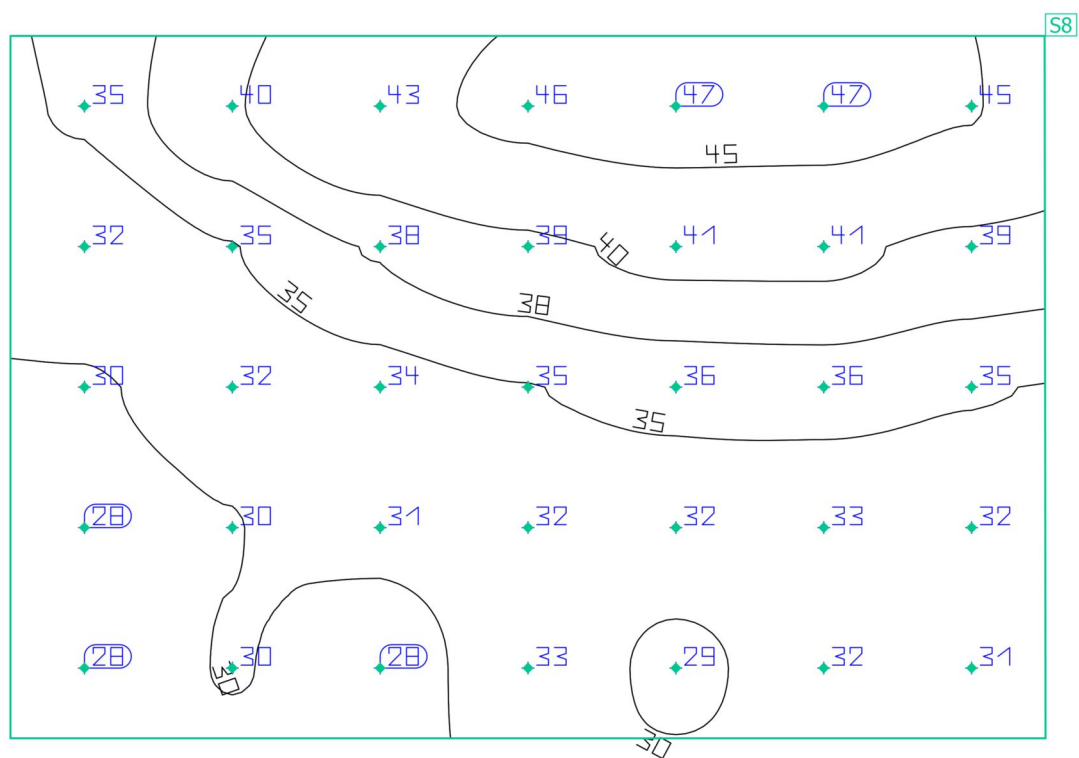


Properties	$\bar{E}$	E_{min}	E_{max}	g_1	g_2	Index
Gājēju pāreja A (vertikālā) Vertical illuminance Rotation: 90.0°, Height: 1.100 m	5.71 lx	3.17 lx	11.4 lx	0.56	0.28	S7

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

Gājēju pāreja B (verikālā)

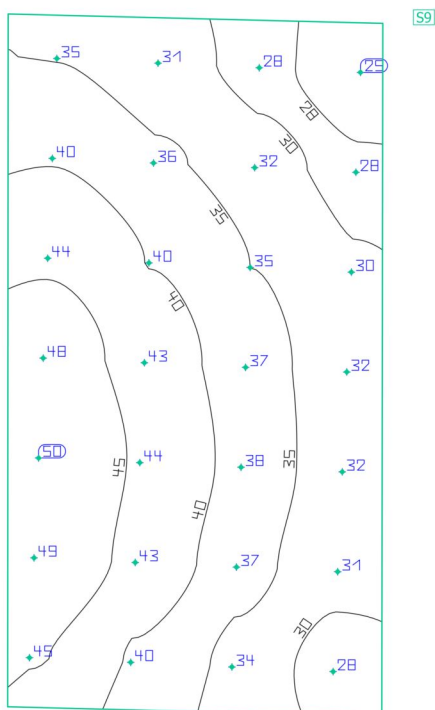


Properties	$\bar{E}$	E_{min}	E_{max}	g_1	g_2	Index
Gājēju pāreja B (verikālā) Vertical illuminance Rotation: -90.0°, Height: 1.100 m	35.2 lx	27.5 lx	47.1 lx	0.78	0.58	S8

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

Uzgaidāmā zona B (horizontālā)

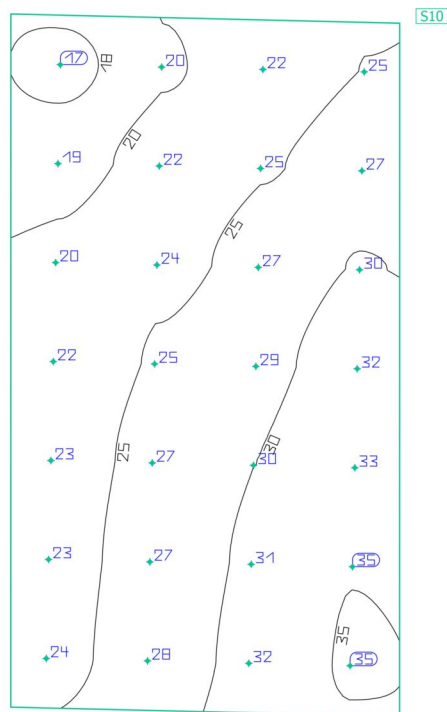


Properties	Ē	E _{min}	E _{max}	g ₁	g ₂	Index
Uzgaidāmā zona B (horizontālā) Perpendicular illuminance Height: 0.050 m	37.0 lx	25.4 lx	50.0 lx	0.69	0.51	S9

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

Uzgaidāmā zona A (horizontālā)



Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	g_1	g_2	Index
Uzgaidāmā zona A (horizontālā) Perpendicular illuminance Height: 0.050 m	26.2 lx	16.8 lx	35.3 lx	0.64	0.48	S10

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Site 1 (Light scene 1)

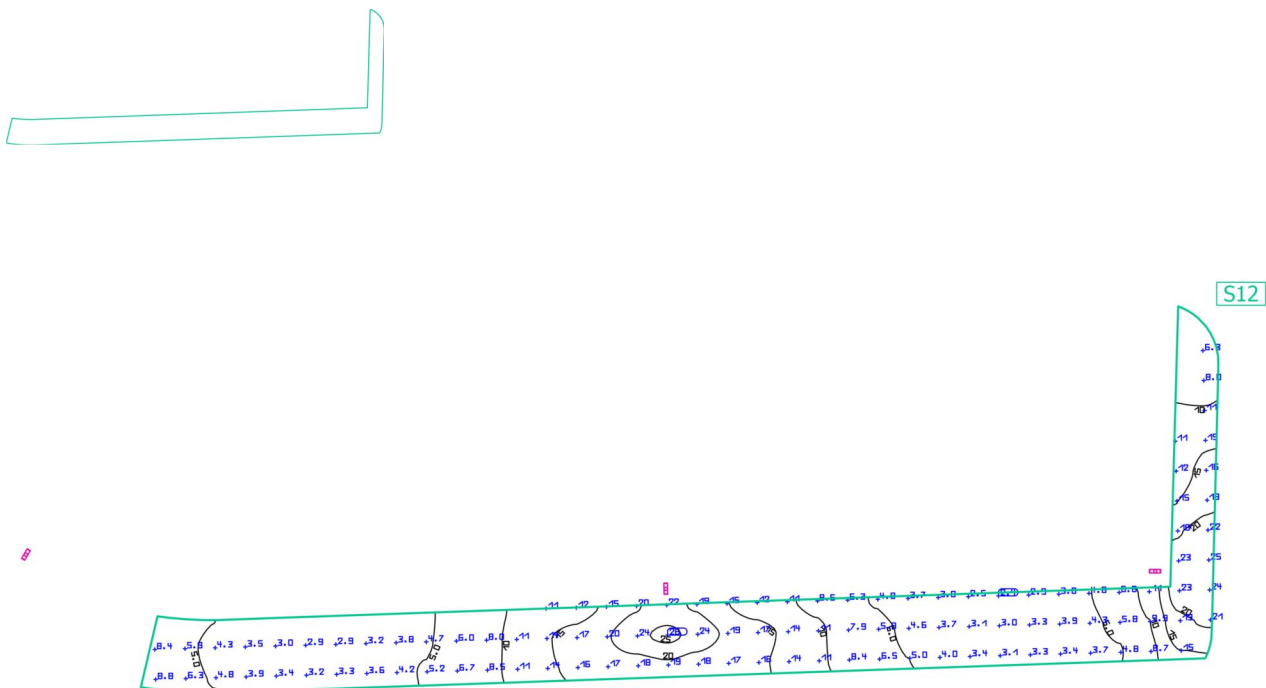
Gājēju un velo celiņš (Posms nr.5)



Properties	Ē	E _{min}	E _{max}	g ₁	g ₂	Index
Gājēju un velo celiņš (Posms nr.5)	12.6 lx	3.82 lx	26.3 lx	0.30	0.15	S11
Perpendicular illuminance						
Height: 0.040 m						

Utilisation profile: General circulation areas at outdoor workplaces, Traffic areas for slow-moving vehicles (max.10 km/h), e.g. bicycles, excavators

Gājēju un velo celiņš (Posms nr.4)

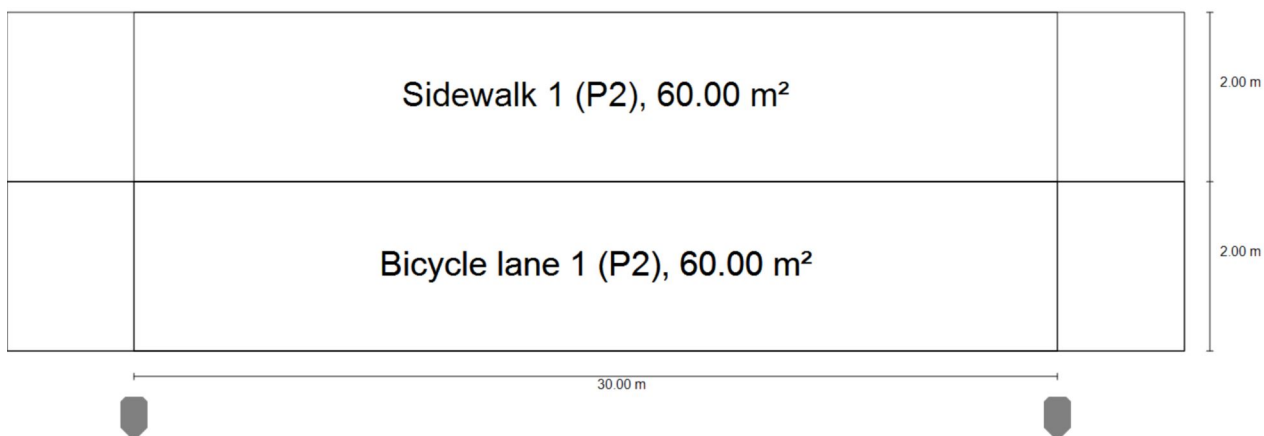


Properties	$\bar{E}$	E_{min}	E_{max}	g_1	g_2	Index
Gājēju un velo celiņš (Posms nr.4) Perpendicular illuminance Height: 0.050 m	10.3 lx	2.41 lx	26.1 lx	0.23	0.092	S12

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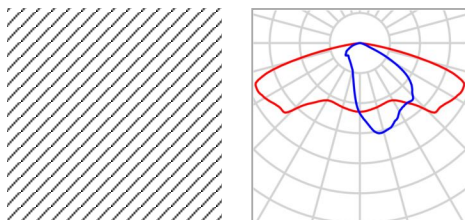
Street 1

Summary (according to EN 13201:2015)



Street 1

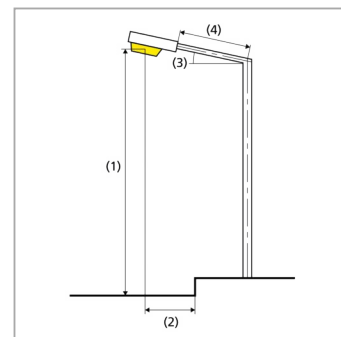
Summary (according to EN 13201:2015)



Article No.	Micro Martin 36 W 16 LEDs	P	36.0 W
Article name	MRUE 036 730 L22 A016_Bin-L_TH	Φ_{Lamp}	4481 lm
Fitting	1x 16 LEDs bin L	$\Phi_{\text{Luminaire}}$	4481 lm
		η	100.00 %

MRUE 036 730 L22 A016_Bin-L_TH (single side bottom)

Pole distance	30.000 m
(1) Light spot height	6.000 m
(2) Light point overhang	-0.800 m
(3) Boom inclination	10.0°
(4) Boom length	0.186 m
Annual operating hours	4000 h: 100.0 %, 36.0 W
Consumption	1188.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	≥ 70°: 621 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	≥ 80°: 362 cd/klm ≥ 90°: 13.1 cd/klm
Luminous intensity class	-
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	
Glare index class	D.5



Street 1

Summary (according to EN 13201:2015)

Results for valuation fields

	Symbol	Calculated	Target	Check
Sidewalk 1 (P2)	E _{av}	10.94 lx	[10.00 - 15.00] lx	✓
	E _{min}	5.11 lx	≥ 2.00 lx	✓
Bicycle lane 1 (P2)	E _{av}	11.43 lx	[10.00 - 15.00] lx	✓
	E _{min}	3.95 lx	≥ 2.00 lx	✓

A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
Street 1	D _p	0.027 W/lx*m ²	-
MRUE 036 730 L22 A016_Bin-L_TH (single side bottom)	D _e	1.2 kWh/m ² yr,	144.0 kWh/yr