

VRTEC LAPORJE

Instalacija : Zunanja razsvetljava

Številka projekta : VRTEC LAPORJE C02

Stranka :

Projektiral : Zvonko Arčon

Datum : 12.03.2018

Sledeče vrednosti bazirajo na natančnem izračunu na kalibriranih sijalkah, svetilkah in njihovi postavitvi. V praksi lahko pride do odstopanj.

Garancijske zahteve vezane na datoteke svetilk so izključene. Proizvajalec ne prevzema nobenega poročstva za posledično škodo oz. škodo, ki je bila povzročena uporabniku ali tretji osebi.

1 Podatki o svetilkah

1.1 Disano, SZ01... (!Disano 1779 LED CLD CELL silver/...)

1.1.1 Podatkovni list

Proizvod: Disano



!Disano 1779 LED CLD CELL silver/graphite 423555SPEC Disano - LED SOLUTIONS - Residential - Surface-Mounted on Wall SZ01

Musa was the Goddess who inspired Greek mythology, and this lighting fitting illuminates in the same way, inspiring numerous decorative and non-decorative functions.

Musa is able to blend into the space almost like a physical presence with its sleek design, which is vaguely anthropomorphous; always able to create new atmospheres and highly refined lighting solutions. To the observer's eye Musa looks like a human figure with head bowed, immersed in the green area.

HOUSING/FRAME: Made of die-cast aluminium.

GLASS: Tempered glass 4 mm, resistant to impact and thermal shock (UNI 12150-1: 2001 tests: 2001).

COATING: In several stages. epoxy cationic electrocoating, resistant to corrosive and saline environments, UV stabilising priming; lastly a rough finish with frosted silver or graphite paint.

EQUIPMENT: Environment-friendly gasket. These lighting fixtures also come with an automatic control temperature device, which protects the LEDs from peak current through a protection diode.

REGULATIONS: Manufactured in accordance with EN 60598-CEI 34-21 standards. Degree of protection in accordance with EN 60529 standards.

LED: 3970lm - 4000K - 23W tot. Ta-20+40°C life 80% 80.000h L80B20. Photobiological safety class: exempt group EN62471.

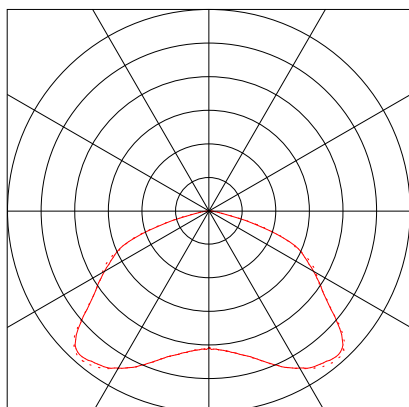
Podatki o svetilki

Absolutna fotometrija
svetilna učinkovitost : 86.9 lm/W
Razvrščanje : A40 □ 100.0% ↑ 0.0%
CIE Flux Codes : 41 79 98 100 100
UGR 4H 8H : 24.9 / 24.8
Moč : 18 W
Svetlobni tok : 1564.2 lm

S sijalkami

Število : 1
Opis :
Barva : 4000K
Barvni videz : 70

Mere : 300 mm x 225 mm x 256 mm



1 Podatki o svetilkah

1.2 disano, SZ02... (IDisano 3290 8 LED 19 W CLD CELL ...)

1.2.1 Podatkovni list

Proizvod: disano



!Disano 3290 8 LED 19 W CLD CELL graphite 33062000 Disano - LED SOLUTIONS - Road lighting - Pole Top SZ02

Housing and cover: in die-cast aluminium and designed with a very small surface exposed to wind. Cooling fins are integrated into the cover.

Optics: in aluminium coated with very high purity (99.99%) silver using physical vapour deposition (PVD).

Pole connection: in die-cast aluminium and with gaskets to secure the frame according to different inclinations. Adjustable ranges: between 0° and 20° for side mount; and between 0° and 20° for mast-top mounting. Inclination pace: 5°. Suited for poles with a diameter 46-76.

Diffuser: extra-clear, tempered glass, 4 mm thick, resistant to thermal shock and impacts (UNI-EN12150-1:2001).

Coating: polyester resin based and UV-stabilised powder paint, resistant to corrosion and saline environments.

Standard supply: double insulation switch that cuts off electricity when the cover is opened. Electronic safety device to protect the LED module and the related ballast compliant with EN 61547. External connector for quick installation.

It works in two modes:

- differential mode: surge between power cables and between the phase and neutral.

- common mode: surge between power, L/N and ground cables or between the fixture's body if it is of class II and installed on a metal pole.

Upon request: for Class II fixtures, protection up to 10KV. Acetic acid salt spray coating pursuant to standard UNI EN ISO 9227 "Corrosion Tests in Artificial Atmosphere".

LED: Power factor: ≥ 0.92

maintenance of luminous flux at 80%: $>100.000h$ (L80B10).

LED 39W - 5420lm - CRI 70 - 700mA - 4000K -30°+40° - surge protector 4/6kV

LED 78W - 10840lm - CRI 70 - 700mA - 4000K -30°+40° - surge protector 6/8kV

LED 118W - 16260lm - CRI 70 - 700mA - 4000K -30°+40° - surge protector 6/8kV

LED 19W - 3000lm - CRI 70 - 350mA - 4000K

LED 38W - 6000lm - CRI 70 - 350mA - 4000K

LED 57W - 9000lm - CRI 70 - 350mA - 4000K

LED 29W - 4150lm - CRI 70 - 530mA - 4000K

LED 59W - 8300lm - CRI 70 - 530mA - 4000K

LED 88W - 12400lm - CRI 70 - 530mA - 4000K

Available upon request:

- 1-10V dimmer: 10%-100% dimming with 1-10V device, to be ordered with subcode -12.

- Virtual midnight: stand-alone device with automatic flux reduction, to be ordered with subcode -30.

- Power line carrier: point-to-point diagnosis and control management system, to be ordered with subcode -0078.

- Wi-Fi remote control (to be agreed upon): point-to-point control and diagnosis system of the entire system with Wi-Fi technology.

Wind surface: 1750cm².

The products of the Sella family are compliant with all applicable tests (third-party certification) pursuant to

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1 Podatki o svetilkah

1.2 disano, SZ02... (IDisano 3290 8 LED 19 W CLD CELL ...)

1.2.1 Podatkovni list

standard ANSI C136.31: Street Lighting – Luminaire Vibration.

- Test level: 3.0G Level 2 for bridge/overpass applications.

LED: Luminous flux maintenance (including end-of-life failure)

Sella 1: art. 3290 - 3291

L80B10
@ta+25°C

L80B10
@ta+50°C

L90B10
@ta+25°C

L90B10
@ta+50°C

n.LED

W

8

39 (700mA)

>100.000h

>100.000h

70.000h

50.000h

16

78 (700mA)

24

118 (700mA)

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1 Podatki o svetilkah

1.2 disano, SZ02... (!Disano 3290 8 LED 19 W CLD CELL ...)

1.2.1 Podatkovni list

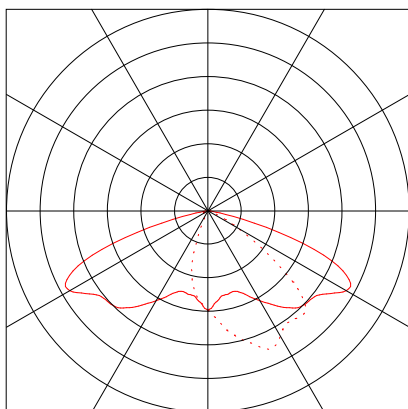
Podatki o svetilki

Absolutna fotometrija
svetilna učinkovitost : 128.57 lm/W
Razvrščanje : A30 □ 100.0% ↑ 0.0%
CIE Flux Codes : 40 77 98 100 100
Zasenčenje : G*4 / D5
Predstikalna naprava : CELL
Moč : 20.3 W
Svetlobni tok : 2610 lm

S sijalkami

Število : 1
Opis :
Barva : 4000K
Barvni videz : 70

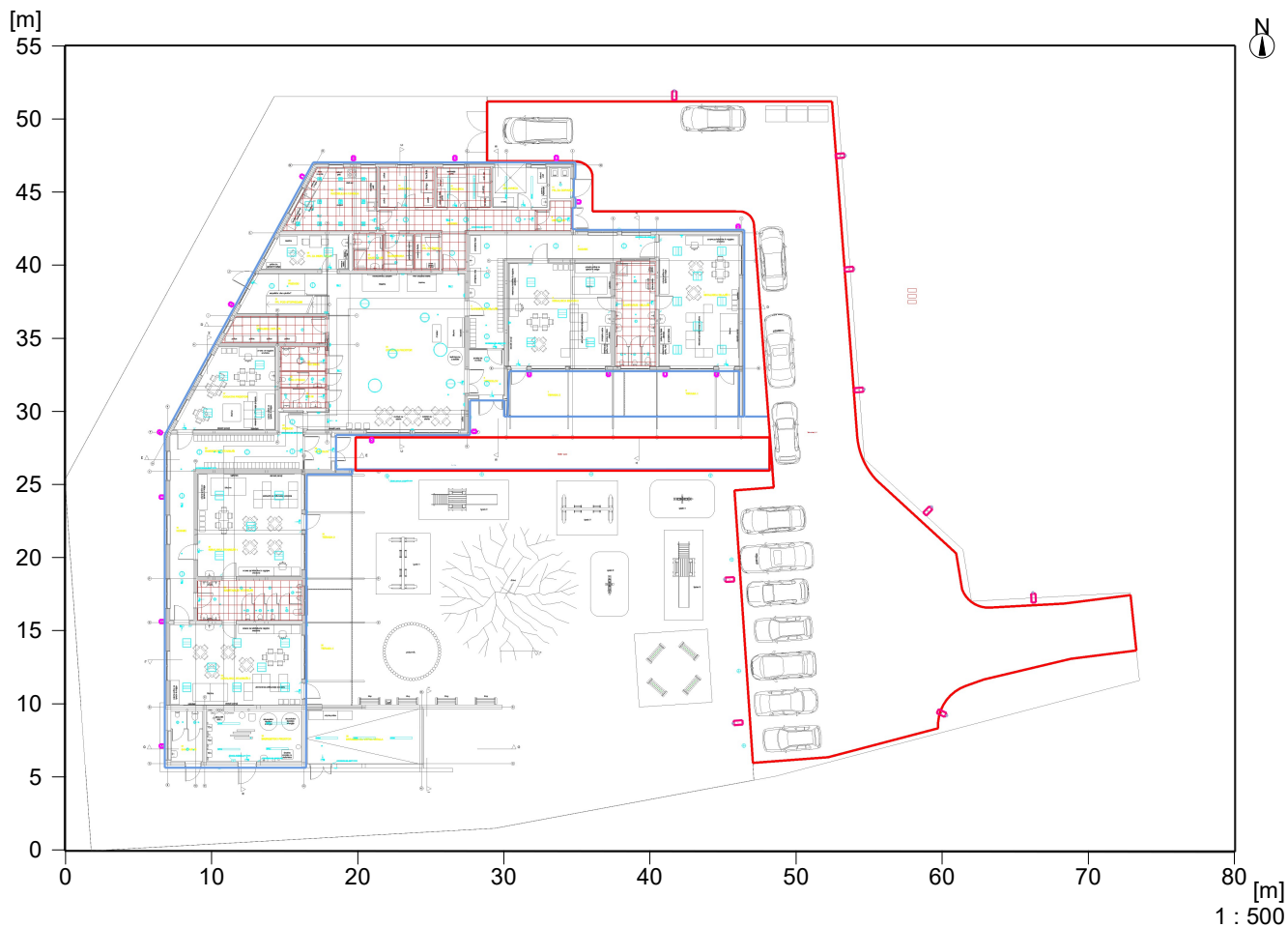
Mere : 603 mm x 300 mm x 180 mm



2 V03 Zunanji projekt

2.1 Opis, V03 Zunanji projekt

2.1.1 Tloris

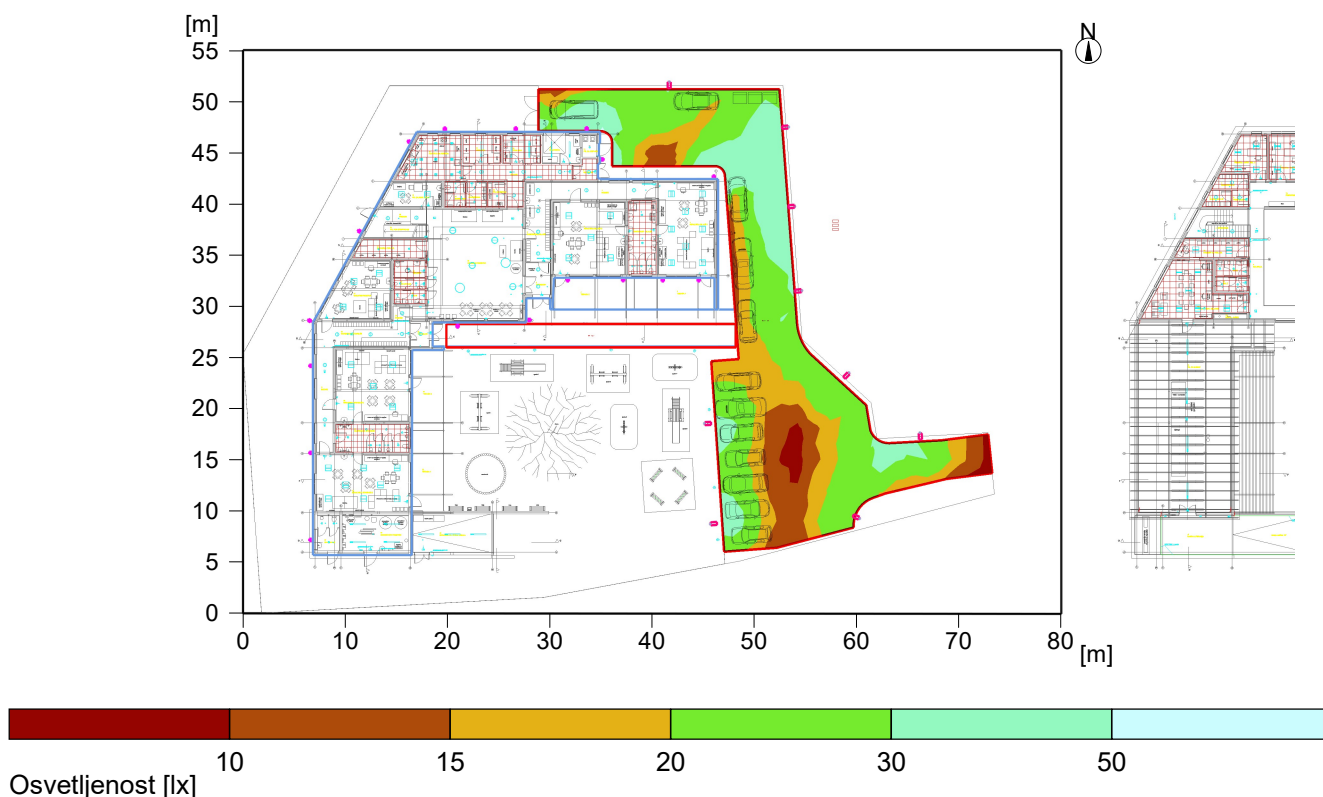


Digitalizacija

2 V03 Zunanji projekt

2.2 Povzetek, V03 Zunanji projekt

2.2.1 Pregled rezultatov, Dovozna pot



Splošno

Uporabljen računski algoritem	Srednji indirektni delež
Višina merilne površine	0.05 m
Faktor vzdrževanja	0.80

Skupni svetlobni tok vseh sijalk	50078 lm
Skupna moč	488.7 W
Skupna moč po območju (4402.60 m ²)	0.11 W/m ²

Osvetljenost

Srednja osvetljenost	Esr	22.5 lx
Minimalna osvetljenost	Emin	8.1 lx
Maksimalna osvetljenost	EMax	43.8 lx
Enakomernost Uo	Emin/Em	1:2.78 (0.36)
Enakomernost Ud	Emin/Emax	1:5.42 (0.18)

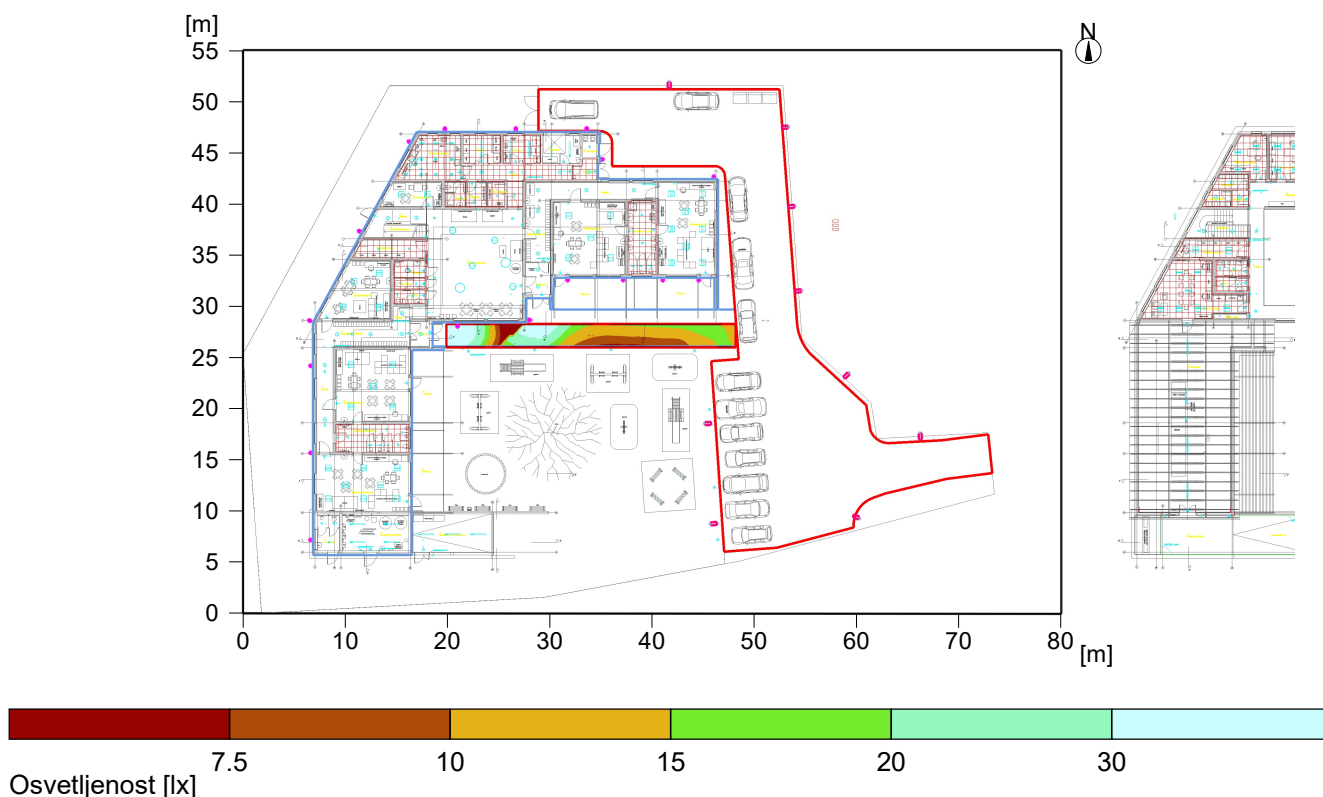
Tip Št. Proizvajalec

1	17	Disano	
		Tipska oznaka	: !Disano 1779 LED CLD CELL silver/graphite 423555SPEC
		Ime svetilke	: SZ01
		Sijalke	: 1 x LED_1779_200_mA 18 W / 1564 lm

2	9	disano	
		Tipska oznaka	: !Disano 3290 8 LED 19 W CLD CELL graphite 33062000
		Ime svetilke	: SZ02
		Sijalke	: 1 x LuxM+LuxTX19_3290 20.3 W / 2610 lm

2.2 Povzetek, V03 Zunanji projekt

2.2.2 Pregled rezultatov, Dohona pot



Splošno


Uporabljen računski algoritem	Srednji indirektni delež
Višina merilne površine	0.02 m
Faktor vzdrževanja	0.80


Skupni svetlobni tok vseh sijalk	50078 lm
Skupna moč	488.7 W
Skupna moč po območju (4402.60 m ²)	0.11 W/m ²

Osvetljenost

Srednja osvetljenost	Esr	16.6 lx
Minimalna osvetljenost	Emin	2.5 lx
Maksimalna osvetljenost	EMax	39.5 lx
Enakomernost Uo	Emin/Em	1:6.53 (0.15)
Enakomernost Ud	Emin/Emax	1:15.5 (0.06)

Tip Št. Proizvajalec

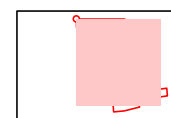
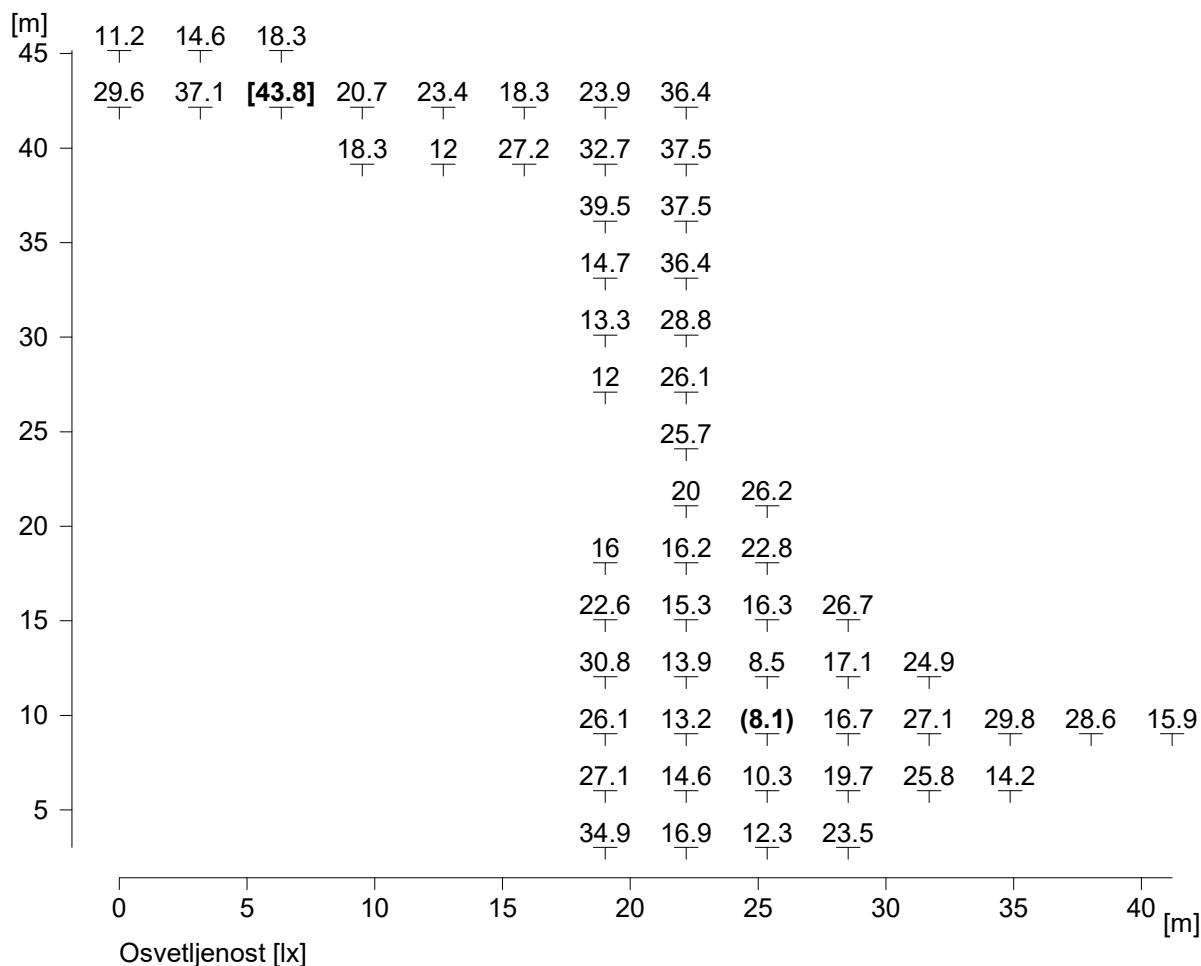
1	17	Disano	
		Tipska oznaka	: !Disano 1779 LED CLD CELL silver/graphite 423555SPEC
		Ime svetilke	: SZ01
		Sijalke	: 1 x LED_1779_200_mA 18 W / 1564 lm

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		Ime svetilke	: SZ02
		Sijalke	: 1 x LuxM+LuxTX19_3290 20.3 W / 2610 lm

2 V03 Zunanji projekt

2.3 Rezultati izračunov, V03 Zunanji projekt

2.3.1 Tabela, Dovožna pot (E)



Višina referenčne ravnine

: 0.05 m

Srednja osvetljenost

Esr : 22.5 lx

Minimalna osvetljenost

Emin : 8.1 lx

Maksimalna osvetljenost

EMax : 43.8 lx

Enakomernost Uo

Emin/Esr : 1 : 2.78 (0.36)

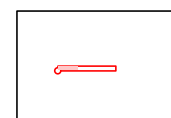
Enakomernost Ud

Emin/EMax : 1 : 5.42 (0.18)

2.3 Rezultati izračunov, V03 Zunanji projekt

2.3.2 Tabela, Dohona pot (E)

[m]	36,9	37,4	37,2	36,9	36,3	35	33,4	30,8	27,4	23,3	19,6	16	12,3	9,3	7,3	5,8	4,6	3,8	3,1	2,7	(2,5)	31,3	33,4	35,1	35,4	35,8	34,9	36,6
1.8	38,4	39,5	39,2	38,4	38,1	36,7	34,4	31,4	27,6	23,8	20	16,3	12,6	9,6	7,5	5,9	4,8	4	3,4	3,1	29,8	31,3	32	33,2	34,3	33,6	36,2	34,2
1.4	38,2	39,2	38,9	38,4	38,1	36,2	34,5	31,4	27,3	23,3	19,6	15,9	12,5	9,8	7,8	6,2	5	4,2	3,6	27,1	28,8	29,5	30,8	31,4	31,9	31,4	32,4	30,6
1.0	36,9	38,1	37,5	37,6	36,9	35,3	32,6	29,8	26	22,6	18,9	15,3	12,1	9,6	7,6	6,1	5	21,9	23,3	25,3	26,3	26,8	28,2	28,6	28,2	30,1	29,1	27
0.6	33,7	34,5	35,1	35,1	33,6	32,4	30	26,9	23,9	20,8	17,2	13,9	10,9	8,9	7,4	6	18,1	19,5	21,1	22,2	23,2	23,8	24,8	25,1	24,5	26,2	25,2	23,6
0.2	29,6	30,2	31,3	31,2	29,8	29	26,8	24,1	21,4	18,4	15,2	12,2	9,8	8	6,7	14,8	15,7	16,9	18,2	19,4	20	20,6	21,2	21,4	22,4	22,1	21,4	20
							2.5						5.0								7.5							10.
	Osvetljenost [lx]																											



Del1

Višina referenčne ravnine

: 0.02 m

Srednja osvetljenost

Esr : 16.6 lx

Minimalna osvetljenost

Emin : 2.5 lx

Maksimalna osvetljenost

EMax : 39.5 lx

Enakomernost Uo

Emin/Esr : 1 : 6.53 (0.15)

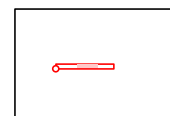
Enakomernost Ud

Emin/EMax : 1 : 15.50 (0.06)

2.3 Rezultati izračunov, V03 Zunanji projekt

2.3.2 Tabela, Dohona pot (E)

34.1	31.4	29.1	25.8	22.9	20.5	18.8	17.4	16.2	15.3	14.7	14.1	13.7	13.4	13.2	13.2	13.3	13.4	13.6	13.6	13.8	14	14.2	14.4	14.4	14.5	14.5	14.8	14.9	15.1
32	29.1	26.4	23.6	20.4	18.5	16.8	15.5	14.4	13.5	13	12.4	12.1	11.8	11.6	11.6	11.5	11.5	11.7	11.7	11.8	12	12.1	12.3	12.3	12.4	12.5	12.5	12.7	12.9
28.8	26.1	23.5	20.7	18	16.2	14.8	13.6	12.7	11.8	11.3	11	10.7	10.4	10.2	10.1	10	10	10.2	10.2	10.3	10.4	10.5	10.6	10.5	10.6	10.7	10.7	10.9	11.1
25.2	23	20.4	17.9	15.7	14	12.9	12	11.2	10.5	10	9.7	9.4	9.1	9	8.9	8.8	8.8	8.9	8.9	8.9	9	9.1	9.1	9.1	9.1	9.2	9.3	9.4	9.6
21.7	19.7	17.6	15.4	13.7	12.2	11.2	10.5	9.9	9.4	9	8.6	8.3	8	7.9	7.8	7.7	7.7	7.7	7.7	7.8	7.9	7.9	7.8	7.9	7.9	8	8	8.1	8.2
18.2	16.3	14.8	13.4	11.9	10.9	9.9	9.2	8.7	8.3	8	7.6	7.3	7.1	6.9	6.9	6.8	6.7	6.7	6.7	6.8	6.9	6.8	6.8	6.8	6.9	7	7	7.1	7.1
0						12.5							15.0									17.5						20.0	



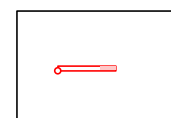
Del2

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2.3 Rezultati izračunov, V03 Zunanji projekt

2.3.2 Tabela, Dohona pot (E)

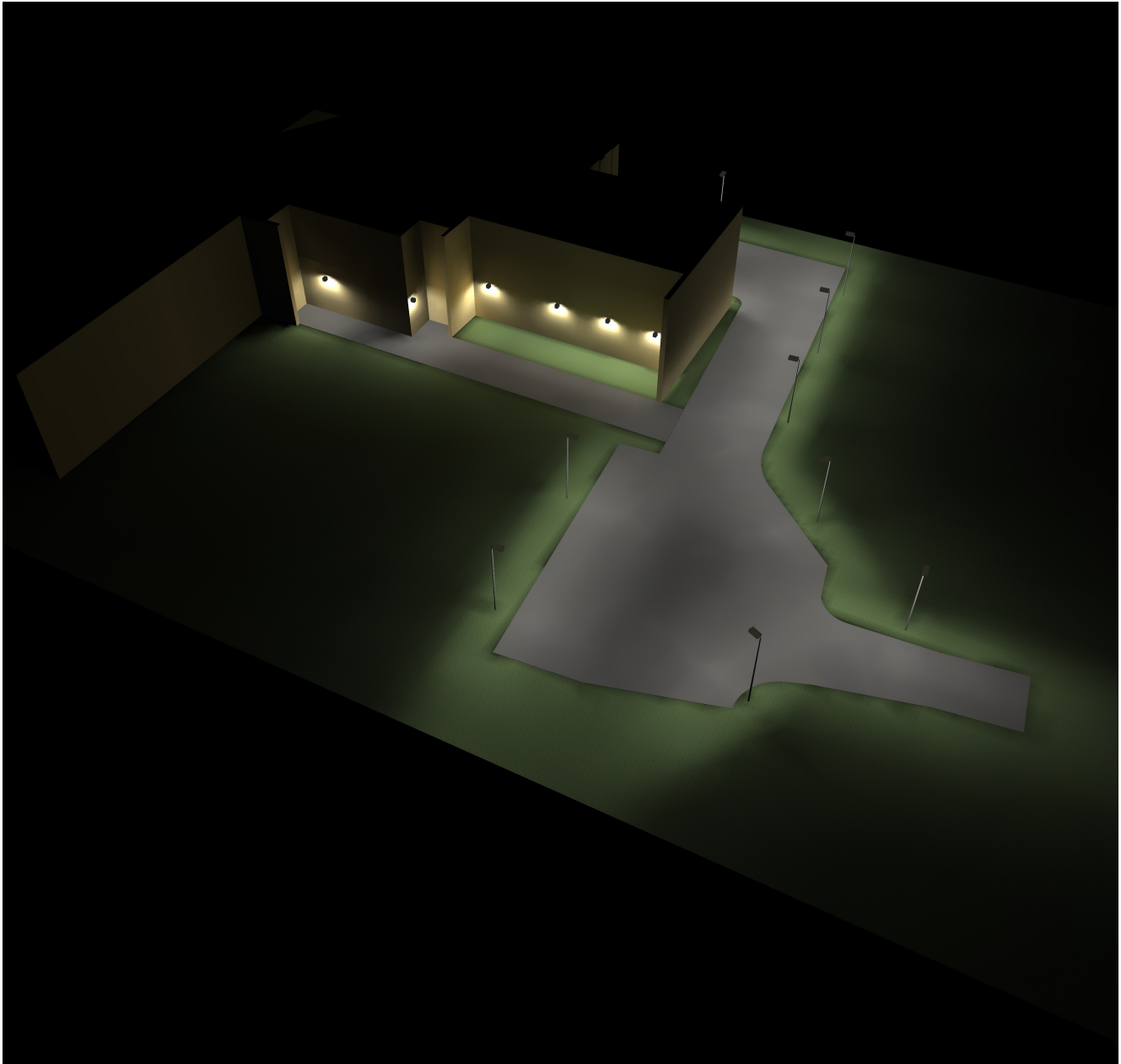
15	15	15.1	15.3	15.5	15.5	15.7	16	16.4	16.9	17.2	17.3	17.3	17.3	17.4	17.1	16.8	16.7	12.1	12.6	13.2	14.1
12.8	12.9	12.9	13.1	13.2	13.1	13.4	13.7	14.2	14.8	15.2	15.5	15.6	16	16.1	15.9	16	16	16	12.7	13.3	13.9
11.1	11.2	11.2	11.3	11.3	11.3	11.5	11.9	12.5	13.1	13.7	14.1	14.6	14.9	15.1	15.1	15.3	15.4	15.5	14.8	13.2	13.9
9.6	9.7	9.8	9.7	9.8	9.8	10	10.4	11.1	11.7	12.5	13.1	13.7	14	14.4	14.5	14.7	14.9	15.1	15.2	13.2	13.7
8.4	8.5	8.5	8.5	8.5	8.6	8.8	9.2	9.9	10.7	11.6	12.4	13	13.4	13.8	14.1	14.4	14.6	14.7	14.8	14.3	13.5
7.3	7.4	7.4	7.4	7.4	7.6	7.8	8.2	9	9.8	10.9	11.8	12.5	13	13.4	13.8	14.1	14.4	14.5	14.5	14.5	13.3
					22.5					25.0					27.5 [m]						



Del3

2.3 Rezultati izračunov, V03 Zunanji projekt

2.3.3 3D svetlosti, Pogled 1



Svetlost v sceni
Minimum : 0 cd/m²
Maksimum: : 650 cd/m²

2.3 Rezultati izračunov, V03 Zunanji projekt

2.3.4 3D nadomestne barve, Pogled 1 (E)

