TEHNIČKA DOKUMENTACIJA

Za projekat spoljne rasvjete u VN postrojenju

TS 400/220/110 kV – PLJEVLJA 2

OPIS RADOVA: Zamjena postojećeg sistema spoljašnje rasvjete VN postrojenja

OBJEKAT: Trafostanica 400/220/110 kV, Pljevlja 2

LOKACIJA: Kalušići, Pljevlja, Crna Gora

INVESTITOR: Crnogorski elektroprenosni sistem AD, Podgorica

1. PREDMET PROJEKTA:

Za potrebe Investitora (CGES-a), potrebno je izvršiti zamjenu dotrajalih svetiljki postojećeg sistema osvetljenja spoljne rasvjete (SR) trafostanice, sa novijim energetski efikasnijim LED svetiljkama, uz obezbjeđivanje boljih uslova osvijetljenosti u odnosu na postojeće stanje. Obzirom na dotrajalost i stanje postojećih instalacija, predviđa se kompletna zamjena svih djelova sistema spoljne rasvjete novim. To obuhvata demontažu svih postojećih, zatim nabavku, transport i ugradnju novih elemenata tj. svjetiljki, pod-konstrukciju za iste, kablova za napajanje ormana i svjetiljki kao i ormane za razvod i upravljanje rasvjetom.

2. CILJ PROJEKTA:

Rekonstrukcijom postojećeg sistema spoljašnje rasvjete planirano je unapređenje osvijetljenosti VN postrojenja, povećanje energetske efikasnosti i smanjenje emisije CO2, smanjenje troškova održavanja, kao i povećanje bezbjednosti kretanja kroz VN postrojenje.

3. LOKACIJA

Predmenta lokacija se nalazi na katastarskoj parceli br. 290/12, KO Ilino brdo I, pozicionirana neposredno uz TE Pljevlja, uz magistralni put Pljevlja-Žabljak, gdje je i saobraćajni pristup. Lokacija je na ravnom terenu, pravilnog oblika na kojoj se nalazi postrojenje 400 kV, 200kV i 110 kV, komandna zgrada sa pomoćnim objektima. Površina parcele je ≈ 90.000 m^2.

4. OPIS POSTOJEĆEG STANJA

Postojeće sistem spoljašnje rasvjete postrojenja se sastoji od:

- 46 reflektora montiranim na sopstvenim nosačima po portalima u postrojenju
- 9 stubova visine 8m sa lirom 1m i uličnom svjetiljkom
- 22 stuba visine 4m sa dekorativnom svjetiljkom
- 18 ormarića za lokalni razvod u postrojenju
- Glavni razvodni ormar spoljne rasvjete (u VF prostoriji)

Reflektori u postrojenju su u MH ili HPS izvedbi, što ih čini ne-efikasnim i tehnološki odbačenim pa se isti neće dalje koristiti već ih je potrebno demontirati i odložiti u krugu TS.

Stubovi i svjetiljke na njima su duboko istrošeni korozijom, raznim udarcima tokom eksploatacije pa ni oni nisu iskoristivi za ponovnu upotrebu.

Ormari u polju su relativno upotrebljivi ali kako se novi sistem napajanja razlike od postojećeg, neće se moći iskoristiti.

Glavni ormar je u dotrajaloj izvedbi sa nožastim osiguračima i topljivim umetcima, pa je isti takođe potrebno zamijeniti sa novim modernim sistemom upravljanja kontaktorima i automatskim zaštitnim uređajima.

Kablaža po postrojenju je rađena zastarelim tipovima kablova, kopana kroz rovove (danas ispod novoizgrađenih VN elemenata) pa je istu nepraktično koristiti zbog nemogućnosti manipulacije prije svega, kao i zbog drugačijeg sistema napajanja rasvjetnih tijela i broja paljena po novom sistemu (dvije zone). Zbog potrebnih broja žila za paljenje i kontrolu zona rasvjete, potrebno će biti položiti nove kablove, dok će se postojeći uklanjati samo iz kablovskih kanala bez iskopa, dok će se isti u zemlji samo ukidati.

Iz gore opisanih razloga, sagledavajući stanje na licu mjesta, zaključak je da je kompletan sistem potrebno obnoviti novim elementima, kako svjetiljkama, tako stubovima, kablovima i ormarima.

5. PROJEKTOVANI RADOVI

5.1 RASVJETA I PRORAČUN

Projektom je predviđena zamjena postojećih svetiljki sa novim LED svjetiljkama koje posjeduju dodatnu zaštitu od prenapona, u broju i pozicijama potrebnim za zadovoljenje nivoa osvjetljaja prema standardu MEST EN 12464-2:2014. Po ovom standardu, u tabeli 5.11 za elektrane I postrojenja, za "Overall Inspection" zahtjeva se srednji osvjetljaj od 50lx I ravnomjernost 0.4. Ovaj standard je potrebno zadovoljiti u zonama razvodnih postrojenja (RP) 110, 220 i 400kV, kao i energetskih transformatora (ETR). Pored gore popisanih postrojenja, na predmetnoj lokaciji postoje još nekoliko različitih zona/prostora koje je potrebno osvijetliti u sledećim nivoima osvijetljenosti i ravnomjernosti.

Zona 2 (FULL nivo osvjetljaja)

- Ulaz (kapija) – srednja osvijetljenost >30lx / ravnomjernost >0.5.
- Centralni koridor – srednja osvijetljenost >20lx / ravnomjernost >0.4.
- Koridor 220kV – srednja osvijetljenost >25lx / ravnomjernost >0.4.
- Koridor 400kV – srednja osvijetljenost >25lx / ravnomjernost >0.4.
- RP 110kV – srednja osvijetljenost >50lx / ravnomjernost >0.5.
- RP 220kV – srednja osvijetljenost >50lx / ravnomjernost >0.4.
- RP 400kV – srednja osvijetljenost >50lx / ravnomjernost >0.4.
- ETR – srednja osvijetljenost >50lx / ravnomjernost >0.6.
- Perimetri (zone uz ograde) – srednja osvijetljenost >10lx / ravnomjernost >0.3.

Osim zamjene svetiljki projekat obuhvata i promjenu načina regulacije i upravljanja svetiljki sa ciljem racionalizacije potrošnje električne energije kao i samog intervala rada svetiljki (u dva nivoa – dva paljenja tj. dvije zone). Zona 1, definiše opšti nivo za cirkulaciju postrojenjem, dok zona 2 definiše maksimalni nivo, kojim se ispunjava gore opisani standard. U osnovnom režimu, tj. zoni 1 rasvjete, potrebni nivoi osvijetljenosti i ravnomjernosti su:

- Ulaz (kapija) – srednja osvijetljenost >30lx / ravnomjernost >0.5.
- Centralni koridor – srednja osvijetljenost >20lx / ravnomjernost >0.4.
- Koridor 220kV – srednja osvijetljenost >15lx / ravnomjernost >0.4.
- Koridor 400kV – srednja osvijetljenost >15lx / ravnomjernost >0.2.
- RP 110kV – srednja osvijetljenost >25lx / ravnomjernost >0.25.
- RP 220kV – srednja osvijetljenost >25lx / ravnomjernost >0.4.
- RP 400kV – srednja osvijetljenost >25lx / ravnomjernost >0.25.
- ETR – srednja osvijetljenost >25lx / ravnomjernost >0.3.
- Perimetri (zone uz ograde) – srednja osvijetljenost >10lx / ravnomjernost >0.3.

Fotometrijskim proračunom je potrebno zadovoljiti tražene vrijednosti za obije zone upravljanja rasvjetom, te iste prikazati kao posebne scene u proračunu. Prilikom izvođenja, izvođač treba da poštuje sve pozitivne zakonske propise i prakse i da u skladu sa istima vrši radove, bez obzira da li su isti navedeni ili nisu u ovom projektu. Na podlogama za fotometrijski proračun dati su kompletni detalji potrebni za izradu proračuna, sa svim ucrtanim elementima, njihovim dimenzijama i uputima za njihovo formiranje u samom proračunu. Elemente date na podlozi je obavezno tretirati u proračunu.

U cilju provjere ispravnosti fotometrijskog proračuna, Izvođač je dužan dostaviti fotometrijski fajl (.evo npr) kako bi Investitor mogao provjeriti sve elemente proračuna.

5.2 KABLOVSKA INSTALACIJA I RAZVODNI ORMANI

Projektom je previđena komplet zamjena napojnih kablova, na relaciji od ormana NN AG (odakle se napaja sistem spoljne rasvjete) do ormana GOSR (glavni orman spoljne rasvjete), zatim svi kablovi na relaciji od GOSR do lokalnih ormana na stubovima rasvjete i lokalnih svjetiljki na fasadi objekta.

GOSR je predviđen kao nadgradni, na zidu u prostoriji komandne zgrade u kom se nalazi NN razvod. Za isti je predviđeno napajanje sa postojećeg ormana NN AG, gdje je potrebno izvesti priključak na postojeći automat „I1 40A“ koji je ostavljen kao rezerva. Napojni kabl do GOSR je tipa NYCY 4x25mm2. Kabl se polaže kroz postojeće betonske kablovske kanale, a dio od kablovskog kanala do ormana GOSR po zidu se polaže u PNK regalu 200mm.

Sa GOSR se napajaju svi lokalni ormani po stubovima rasvjete, kablovima tipa NYCY 4x10mm2. Kablovi se polažu kroz postojeće betonske kanale i cijevi, do krajnjih tačaka postojećih kanala blizu stubova, zatim dijelom u zemljanom rovu do samih stubova, gdje se polažu nadgradno u PNK regalima 100mm po betonskom temelju i uz stub do pripadajućih ormana. Sa GOSR se još napajaju svjetiljke i foto-ćelija na fasadi objekta, kablovima tipa NYCY 3x1.5mm2. Ovi kablovi se dijelom polažu kroz postojeće betonske kanale i cijevi, zatim ispod spuštenog plafona kao i dijelom po unutrašnjim zidovima objekta u HF cijevima do pozicije svjetiljki.

Sa prvih lokalnih ormana stubova rasvjete (RO-AA, RO-BB, RO-BC, RO-CB, RO-DB i RO-EA) se napajaju ostali ormari u poljima po sledećem principu:

- RO-AA napaja RO-BB

- RO-BB napaja RO-BA
- RO-BC napaja RO-BD
- RO-CB napaja RO-CA i RO-CC
- RO-DB napaja RO-DA i RO-DC
- RO-EA napaja ormare RO-EB i RO-EC

Sa svih ormara RO u poljima se napajaju svjetiljke na portalima kablovima tipa NYCY 3x1.5mm2 dok se rasvjeta na stubovima po obodu zbog dužine kablova, kablovima tipa NYCY 3x2.5mm2. Kablovi se od pripadajućeg RO vode do svjetiljki, nadgradno po metalnoj konstrukciji stuba, pričvršćujući se na svakih 1m za istu. Kablovi koji se dijelom polažu u iskopane rovove u zemlji polažu se u rebrasto energetsko crijevo, dok se nadgradno vode ili kroz PNK regale (po temelju stuba) ili kroz SAPA crijevo (uz stub portala).

Komanda (paljenje) rasvjete je predviđeno putem dva grebenasta prekidača koji će biti montirani na malom ormanu KO u komandnoj sobi komandne zgrade. Zona 1 kao osnovni scenario će se paliti preko preklopke „1-0-2" koja omogućava ručno paljenje (položaj 1) i automatski rad preko foto-ćelije (položaj 2). Zona 2 kao maksimalni scenario će se paliti pomoću preklopke „1-0". U tu svrhu od GOSR do pozicije ormana KO se polaže kabl tipa NYCY 5x1.5mm2. Ovaj kabl se dijelom polaže kroz postojeće betonske kanale i cijevi, zatim unutrašnjim zidovima objekta u HF cijevima. Uz taj kabl polaže se i kabl NYCY 3x1.5mm2 koji služi za kontrolu rasvjete agregata (DEA). Za njega je predviđen posebna preklopka „1-0" na vratima KO.

Ormani na stubovima rasvjete (RO-A,... RO-E) moraju biti nadgradni, predviđeni za montažu na metalnu konstrukciju stubova. Ormani moraju biti izrađeni od poliestera ojačanog staklenim vlaknima otporan na UV zračenja i atmosferske uticaje, u zaštiti IP55.

Zbog blizine transformatora i relativno kratkih dionica kablova u energetskom smislu, sva sklopna tehnika korištena u ormanima mora biti isklopne moći 10kA.

5.3 POD-KONSTRUKCIJA I MONTAŽNO/DEMONTAŽNI RADOVI

Ovim projektom se ne tretiraju postojeći stubovi za rasvjetu, već se oni demontiraju i postavljaju novi na određenim pozicijama. Na njima se predviđa montaža novih nosača visine 1m, za montažu 2 reflektora (po principu „leđa u leđa") a sve u skladu sa grafičkom dokumentacijom. Kako se ostale svjetiljke u postrojenju montiraju na stubovima portala, potrebno je izraditi pod-kontrukciju za iste. Pod-

konstrukciju je potrebno izvesti na način da zadovolje potrebne uglove orijentacije (po X i Y osi) kao i inklinaciju (po Z osi), u skladu sa uvojenim fotometrijskim rješenjem. Tačan način uklapanja definisati na licu mjesta, u zavisnosti od usvojenog fotometrijskog rješenja. Pod-konstrukcija (nosač) mora imati gumenu barijeru na mjestu montaže svjetiljke radi galvanskog odvajanja same svjetiljke od metalne mase stuba.

Uz demontažu postojećih strih stubova za rasvjetu po obodu postrojenja, potrebno je demontirati sve ormane, svjetiljke i kablove tretirane ovim projektom. Svu demontiranu opremu skladištiti u krugu trafostanice.

5.4 ZAVRŠNE ODREDBE

Nakon svih izvedenih radova, Izvođač je dužan da izvrši testiranje i puštanje u rad spoljne rasvjete u prisustvu predstavnika Investitora. Po puštanju u rad, neophodno je izvršiti mjerenje nivoa osvjetljaja u skladu sa tačkama iz fotometrijskog proračuna. Devijacije u odnosu na proračunske vrijednosti ne smiju biti veće od 10%.

6. USLOVI

Izvođač radova je u obavezi da posjeduje odgovarajuće licence, i to:

- Licencu projektanta i izvođača radova, izdatu od strane nadležnog ministarstva.
- Licencu ovlašćenog inženjera za obavljanje djelatnosti izrade tehničke dokumentacije i građenje objekta, djelatnost elektrotehnička, izdato od strane nadležnog ministarstva.
- Rješenje o utvrđivanju ispunjenosti uslova za obavljanje poslova ovlašćenog inženjera (elektrotehničke struke) za složeni inženjerski objekat (dalekovodi i trafostanice naponskog nivoa 35 kV i više) izdato od strane nadležnog ministarstva.

7. ROKOVI

Rok izvođenja predmetnih radova je 180 dana od uvođenja u posao.

8. PRILOZI

8.1 NUMERIČKA DOKUMENTACIJA

Bilans snaga i energije – Spoljna rasvjeta TS PV 2
Proračun napojnih kablova – Spoljna rasvjeta TS PV 2
Fotometrijski proračun: Rasvjeta outoodr pogona TS PV 2

8.2 GRAFIČKA DOKUMENTACIJA

Prilog 1 – Situacija: Osnova TS	R = 1:300
Prilog 2 – Situacija: Dispozicija rasvjete	R = 1:300
Prilog 3 – RP400kV (1): Napojni kablovi zone A	R = 1:150
Prilog 4 – RP400kV (1): Rasvjeta na portalima A	R = 1:150
Prilog 5 – RP400kV (2): Napojni kablovi zone B	R = 1:150
Prilog 6 – RP400kV (2): Rasvjeta na portalima B	R = 1:150
Prilog 7 – Komandna zgrada: Napojni kablovi kroz objekat	R = 1:150
Prilog 8 – Komandna zgrada: Rasvjeta na fasadi objekta	R = 1:150
Prilog 9 – ETR + RP110kV : Napojni kablovi zone E	R = 1:150
Prilog 10 – ETR + RP110kV : Rasvjeta na portalima E	R = 1:150
Prilog 11 – Situacija : Rasvjeta na stubovima E	R = 1:150
Prilog 12 – RP220kV (1): Napojni kablovi zone C i D	R = 1:150
Prilog 13 – RP220kV (1): Rasvjeta na portalima C i D	R = 1:150
Prilog 14 – RP220kV (1): Rasvjeta na portalima C i stražarskoj kućici	R = 1:150
Prilog 15 – RP220kV (2): Napojni kablovi zone C i D	R = 1:150
Prilog 16 – RP220kV (2): Rasvjeta na portalima C i D	R = 1:150
Prilog 17 – Jednopolna šema ormana GOSR	
Prilog 18 – Jednopolna šema ormana RO-AA	
Prilog 19 – Jednopolna šema ormana RO-AB	
Prilog 20 – Jednopolna šema ormana RO-BB	
Prilog 21 – Jednopolna šema ormana RO-BA	
Prilog 22 – Jednopolna šema ormana RO-BC	
Prilog 23 – Jednopolna šema ormana RO-BD	
Prilog 24 – Jednopolna šema ormana RO-CB	
Prilog 25 – Jednopolna šema ormana RO-CA	
Prilog 26 – Jednopolna šema ormana RO-CC	
Prilog 27 – Jednopolna šema ormana RO-DB	
Prilog 28 – Jednopolna šema ormana RO-DA	
Prilog 29 – Jednopolna šema ormana RO-DC	
Prilog 30 – Jednopolna šema ormana RO-EA	
Prilog 31 – Jednopolna šema ormana RO-EB	
Prilog 32 – Jednopolna šema ormana RO-EC	
Prilog 33 – Jednopolna šema dodatka u ormaru RO-SK	
Prilog 34 – Jednopolna šema ormana KO	
Prilog 35 – Blok šema napajanja SR	
Prilog 36 – Legenda svjetiljki i sklopne opreme	
Prilog 37 – Situacija: Podloga za fotometrijski proračun	R = 1:300

BILANS SNAGA				
Tip potrošača	Razvodni orman - Potrošač	Instal. Snaga (W)	Koef. jednovr.	Jedn. snaga (W)
GOSR	RO - AA	1,200	1.00	1,200
	RO - AB	1,302	1.00	1,302
	RO - BA	1,044	1.00	1,044
	RO - BB	1,530	1.00	1,530
	RO - BC	1,334	1.00	1,334
	RO - BD	1,044	1.00	1,044
	RO - CA	1,116	1.00	1,116
	RO - CB	1,192	1.00	1,192
	RO - CC	934	1.00	934
	RO - DA	1,094	1.00	1,094
	RO - DB	1,352	1.00	1,352
	RO - DC	1,134	1.00	1,134
	RO - EA	894	1.00	894
	RO - EB	800	1.00	800
	RO - EC	775	1.00	775
	FASADA	380	1.00	380
NN AG	RO-SK	120	1.00	120

Ukupna instalisana snaga (W)	17,245
Koeficijent jednovremenosti (K)	1.00
Ukupna jednovremena snaga (W)	**17,245**
Ukupna aktivna snaga P (W)	17,245
cos φ	0.95
Ukupna prividna snaga S (VA)	**18,153**
Potrebna godišnja energija (kWh)	**44,165**

Podgorica, Decembar 2025.

TABELA 1.

PRORAČUN NAPOJNIH KABLOVA

Relacija		Instal. Snaga	Koef. Jednov.	Jedn. Snaga	Fakt. snage	Struja	Tip i presjek kabla	Nosiv. kabla	"A"	Korekcioni faktori			"B"	"C"	"D"	"E"			Duž. kabla	Pad napona	
																				dionica	ukupno
od	do	P_i (W)	k_j	P_j (W)	cos φ	I_b (A)	(mm^2)	I_d(A)	/	K_n	K_θ	K_λ	I_z(A)	I_n(A)	/	I_2 (A)	1,45xI_z	/	l(m)	%	%
NN	GOSR	17,125	1.00	17,125	0.95	**26.05**	NYCY 4x25	**95**	C	0.80	1.00	1.00	**76.00**	40	1.35	54.00	110.20	**zadov.**	**20**	**0.150**	**0.150**
GOSR	RO-AA	2,502	1.00	2,502	0.95	**3.81**	NYCY 4x10	**54**	C	0.70	0.80	1.00	**30.24**	25	1.35	33.75	43.85	**zadov.**	**264**	0.724	**0.874**
GOSR	RO-BB	2,574	1.00	2,574	0.95	**3.92**	NYCY 4x10	**54**	C	0.70	0.80	1.00	**30.24**	25	1.35	33.75	43.85	**zadov.**	**187**	0.528	**0.678**
GOSR	RO-BC	2,378	1.00	2,378	0.95	**3.62**	NYCY 4x10	**54**	C	0.70	0.80	1.00	**30.24**	25	1.35	33.75	43.85	**zadov.**	**187**	0.488	**0.638**
GOSR	RO-CB	3,242	1.00	3,242	0.95	**4.93**	NYCY 4x10	**54**	C	0.70	0.80	1.00	**30.24**	25	1.35	33.75	43.85	**zadov.**	**61**	0.217	**0.367**
GOSR	RO-DB	3,580	1.00	3,580	0.95	**5.45**	NYCY 4x10	**54**	C	0.70	0.80	1.00	**30.24**	25	1.35	33.75	43.85	**zadov.**	**137**	0.538	**0.688**
GOSR	RO-EA	2,469	1.00	2,469	0.95	**3.76**	NYCY 4x10	**54**	C	0.70	0.80	1.00	**30.24**	25	1.35	33.75	43.85	**zadov.**	**112**	0.303	**0.453**
RO-AA	RO-AB	1,302	1.00	1,302	0.95	**1.98**	NYCY 4x6	**48**	C	0.70	0.80	1.00	**26.88**	20	1.35	27.00	38.98	**zadov.**	**160**	0.381	**1.255**
RO-AB	AB6	455	1.00	455	0.95	**2.08**	NYCY 3x1.5	**23**	E	0.70	0.80	1.00	**12.88**	10	1.35	13.50	18.68	**zadov.**	**137**	2.756	**4.012**
RO-EA	RO-EC	775	1.00	775	0.95	**1.18**	NYCY 4x6	**48**	C	0.70	0.80	1.00	**26.88**	20	1.35	27.00	38.98	**zadov.**	**130**	0.184	**0.822**
RO-EC	EC6	240	1.00	240	0.95	**1.10**	NYCY 3x2.5	**27**	C	0.70	0.80	1.00	**15.12**	10	1.35	13.50	21.92	**zadov.**	**218**	1.388	**2.210**

"A" - tip električnog razvoda: prema JUS N.B2. 752

"B" - trajno dozvoljena struja I_z=In x K_n x K_θ x K_λ (A)

"C" - I_n - nazivna struja zaštitnog uredjaja - osiguraca (A).

"D" - koeficijent zaštitnog uredjaja - osiguraca (k)

"E" - $I_2 = I_n \times k$ - struja kod koje zaštitni uređaj pouzdano djeluje (A)

1. $I_b < I_n < I_z$
2. $I_2 < 1.45 \times I_z$

K_n - zbog paralelnog vodjenja kablova

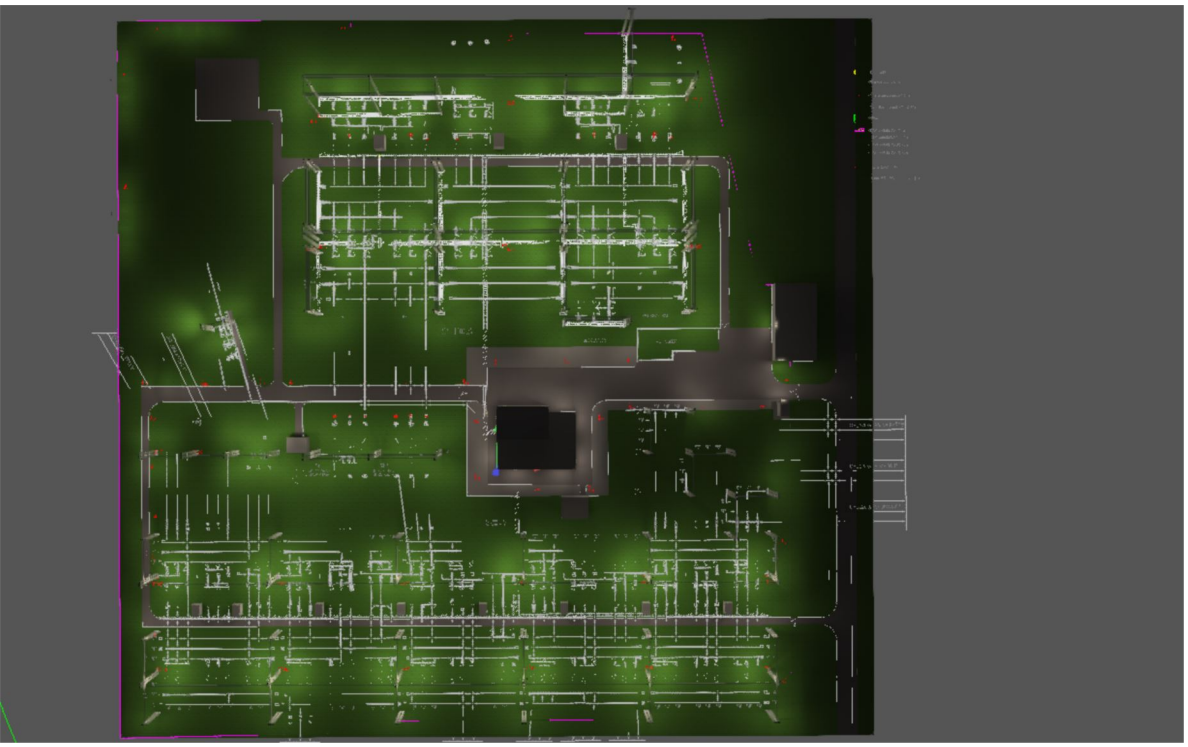
K_θ - zbog temperature ambijenta

K_λ - zbog termičke otpornosti zemlje

Podgorica, Decembar 2025.

Date 11/11/2025

CRNOGORSKI ELEKTROPRENOSNI SISTEM AD



RASVJETA OUTDOOR POGONA - TS PLJEVLJA 2

Created with DIALux

CRNOGORSKI ELEKTROPRENOSNI SISTEM AD

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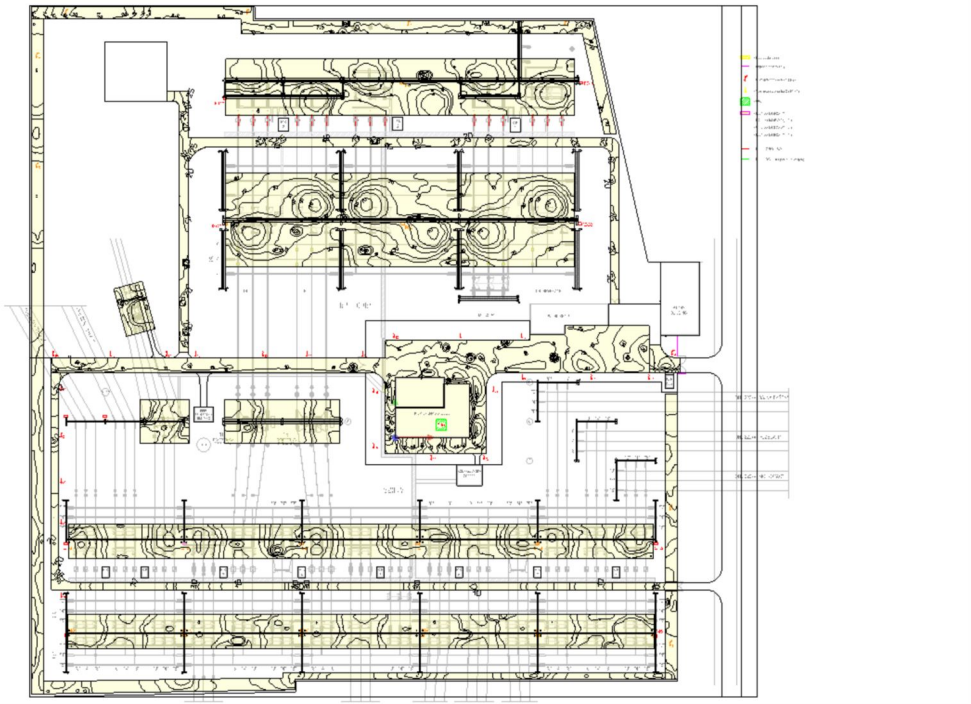
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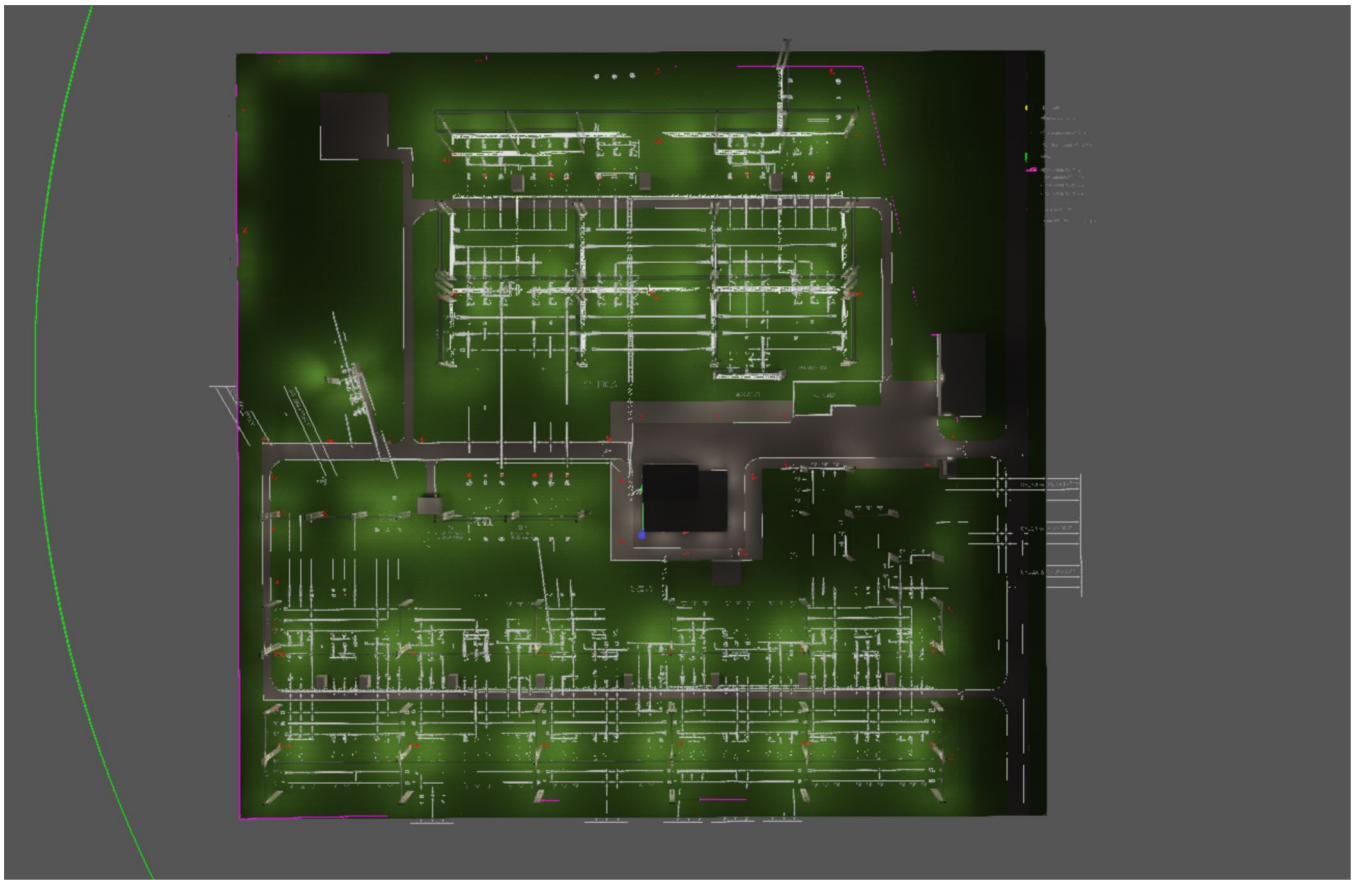


Description

RASVJETA OUTDOOR POGONA - TS PLJEVLJA 2

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

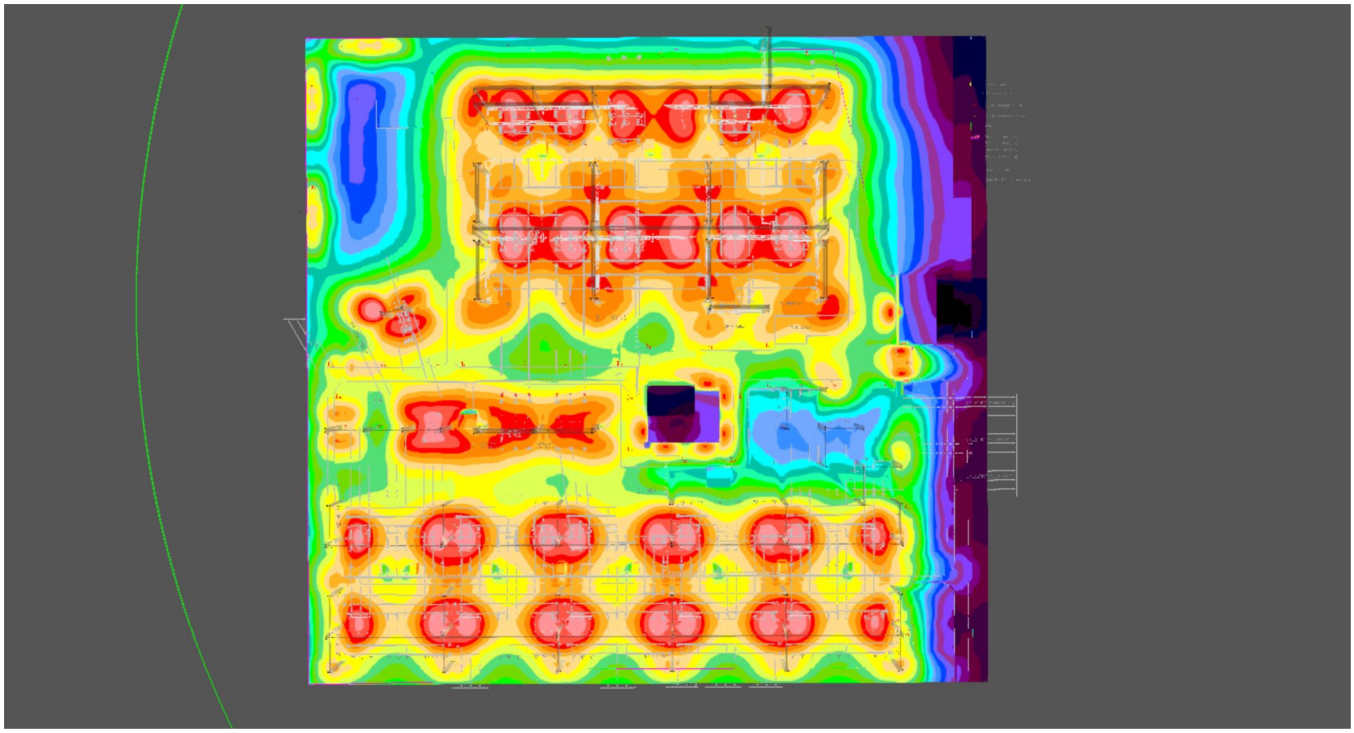
Images



Site 1 (174)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

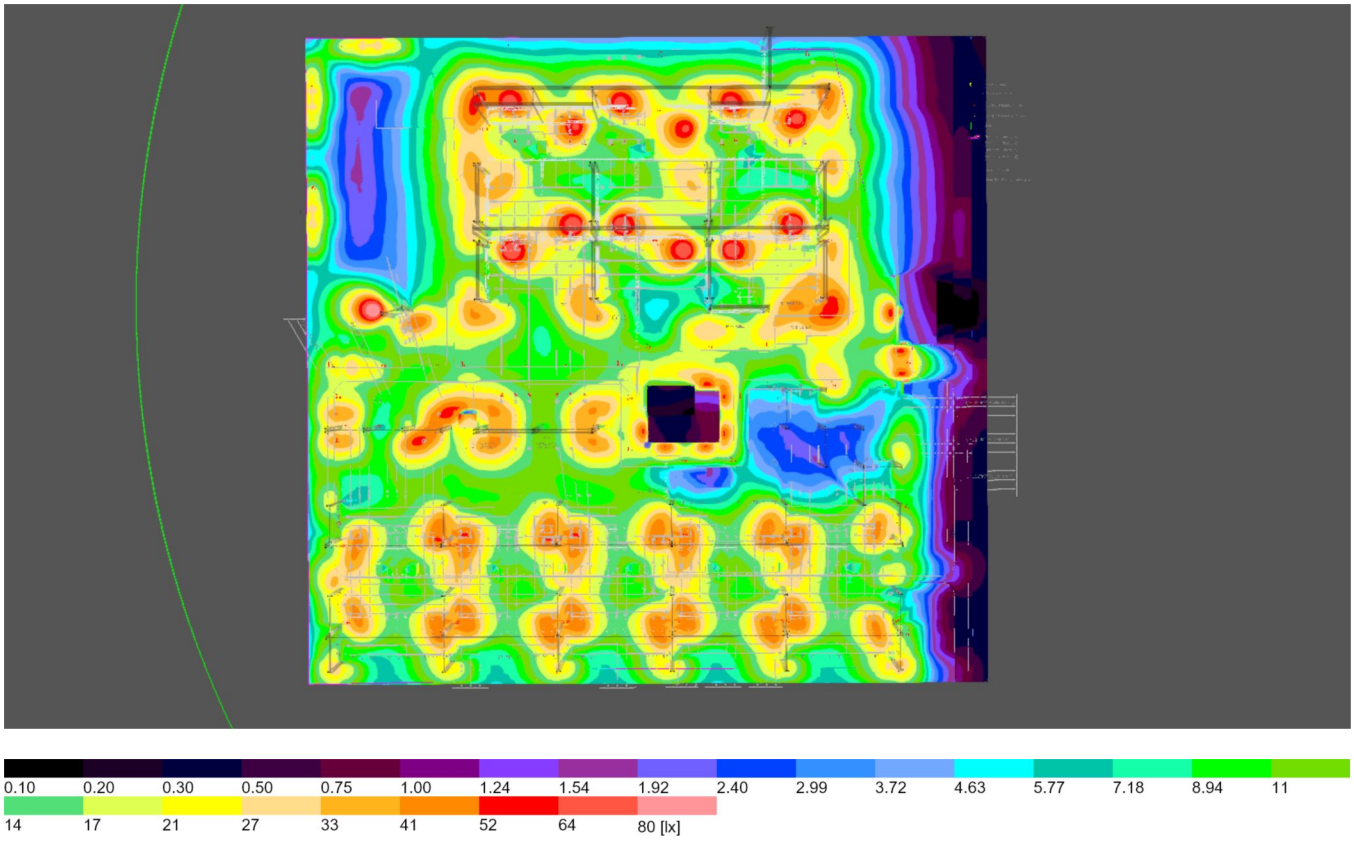
Images



Site 1 (175)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

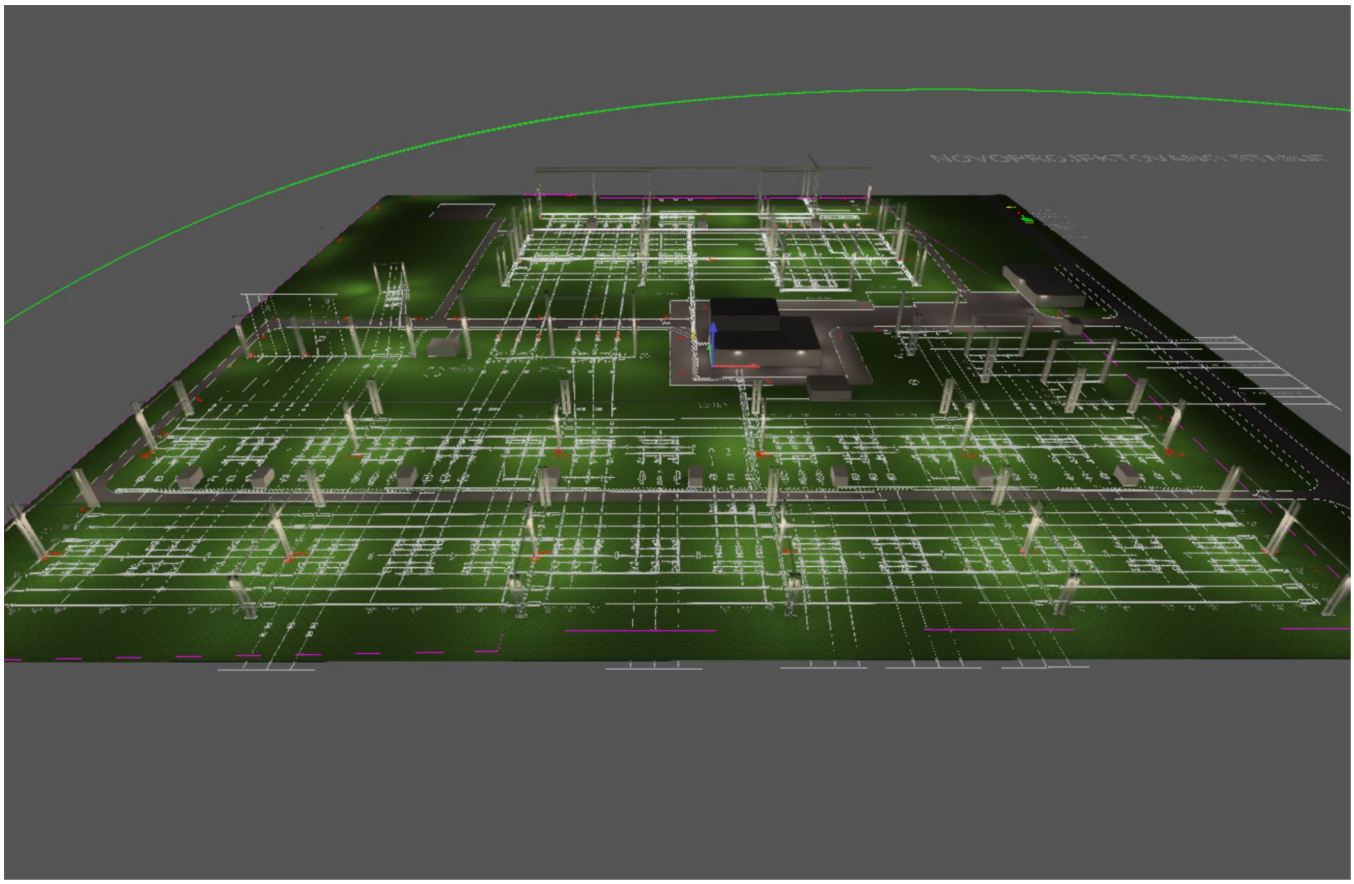
Images



Site 1 (176)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

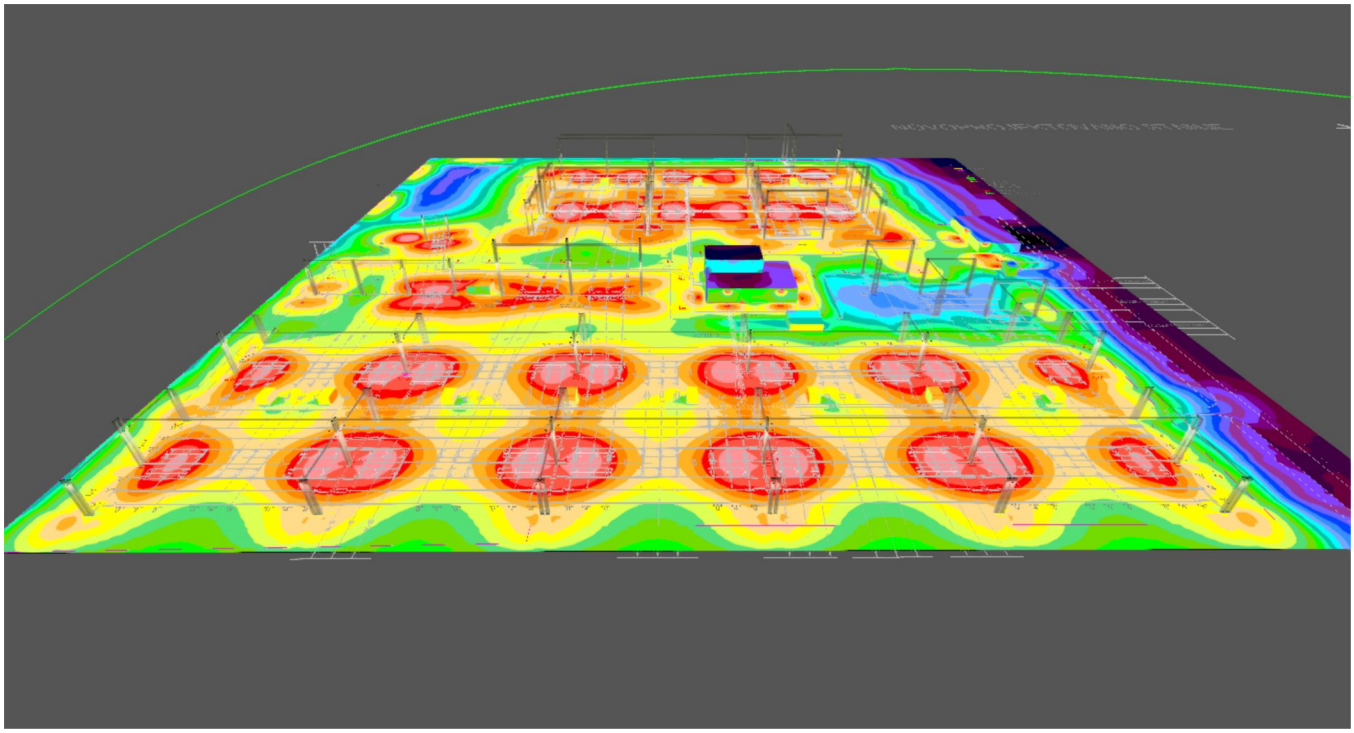
Images

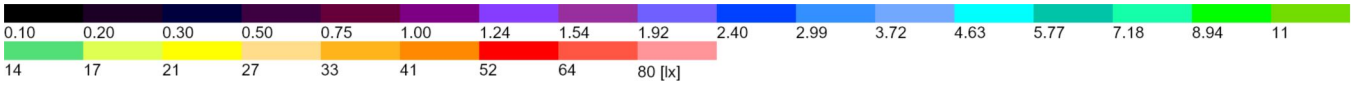


Site 1 (177)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Images

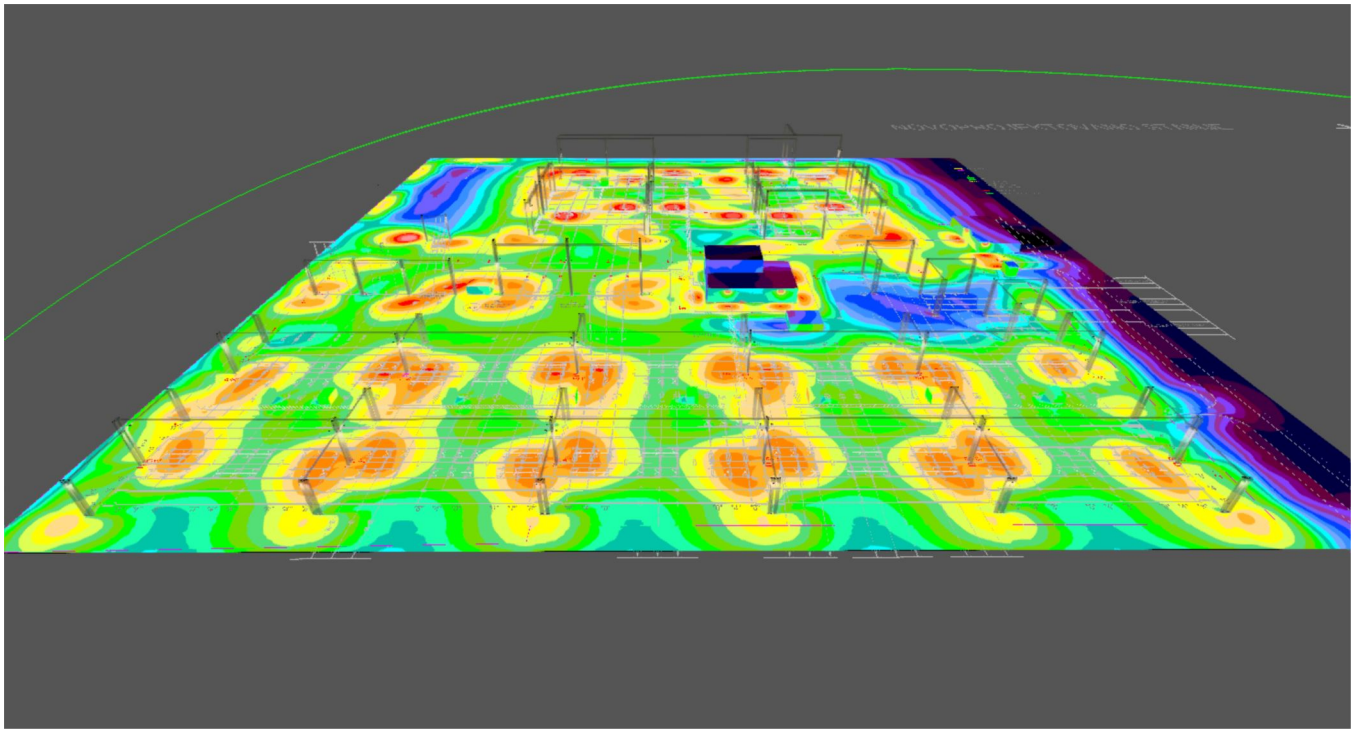




Site 1 (178)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

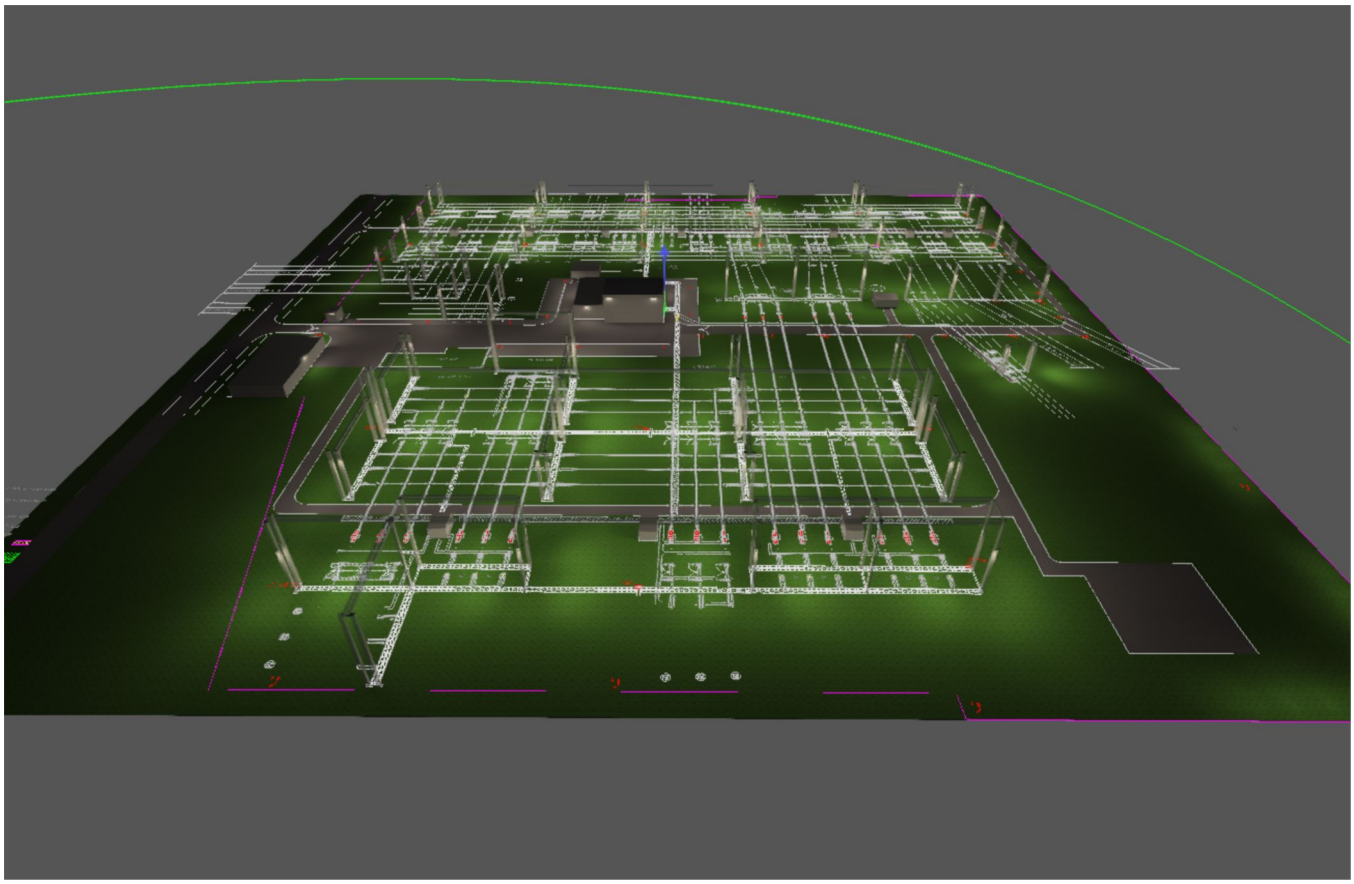
Images



Site 1 (179)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

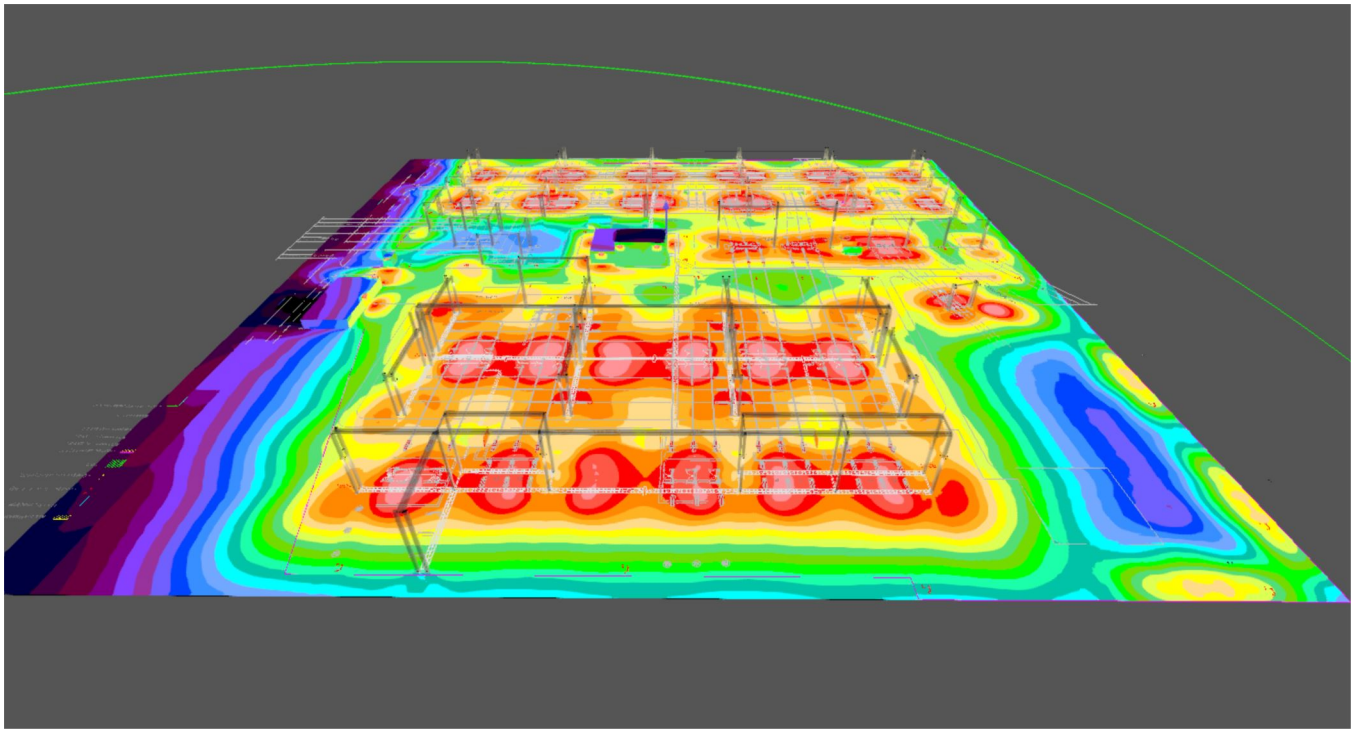
Images



Site 1 (180)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

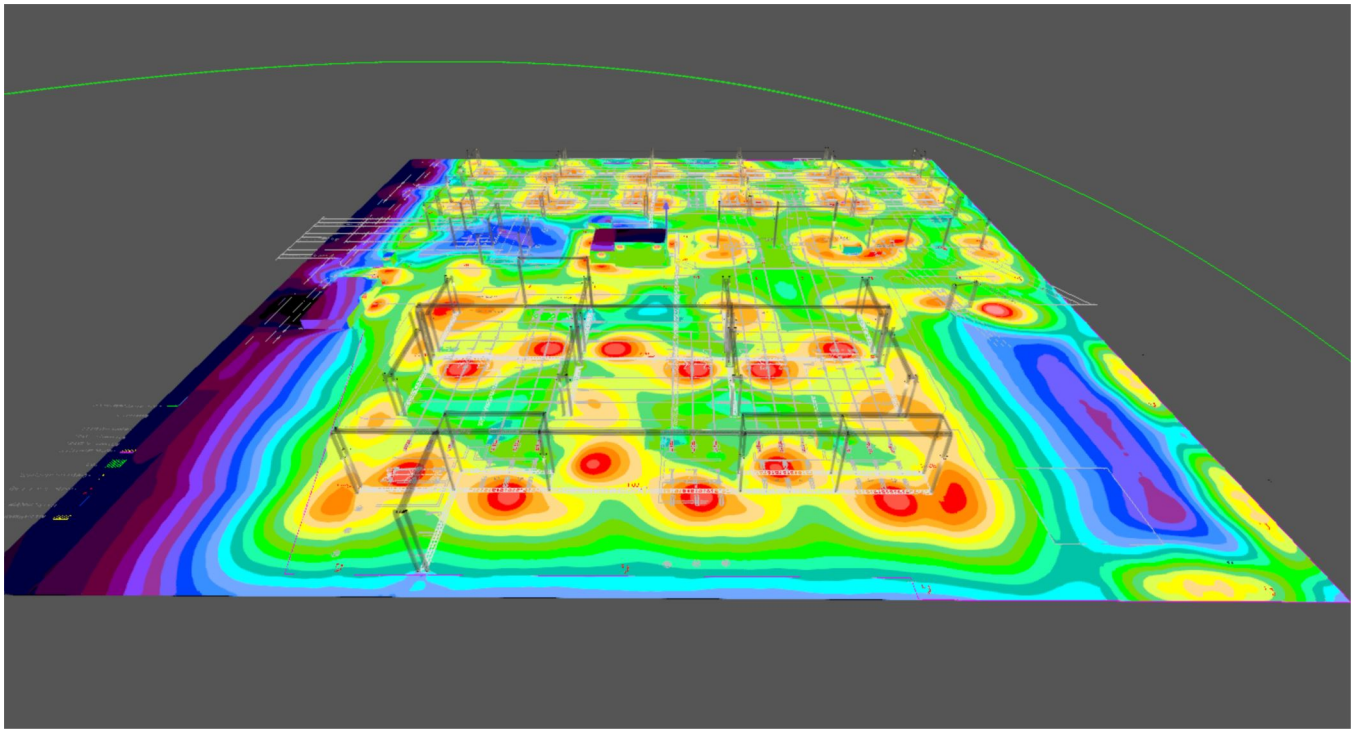
Images



Site 1 (181)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

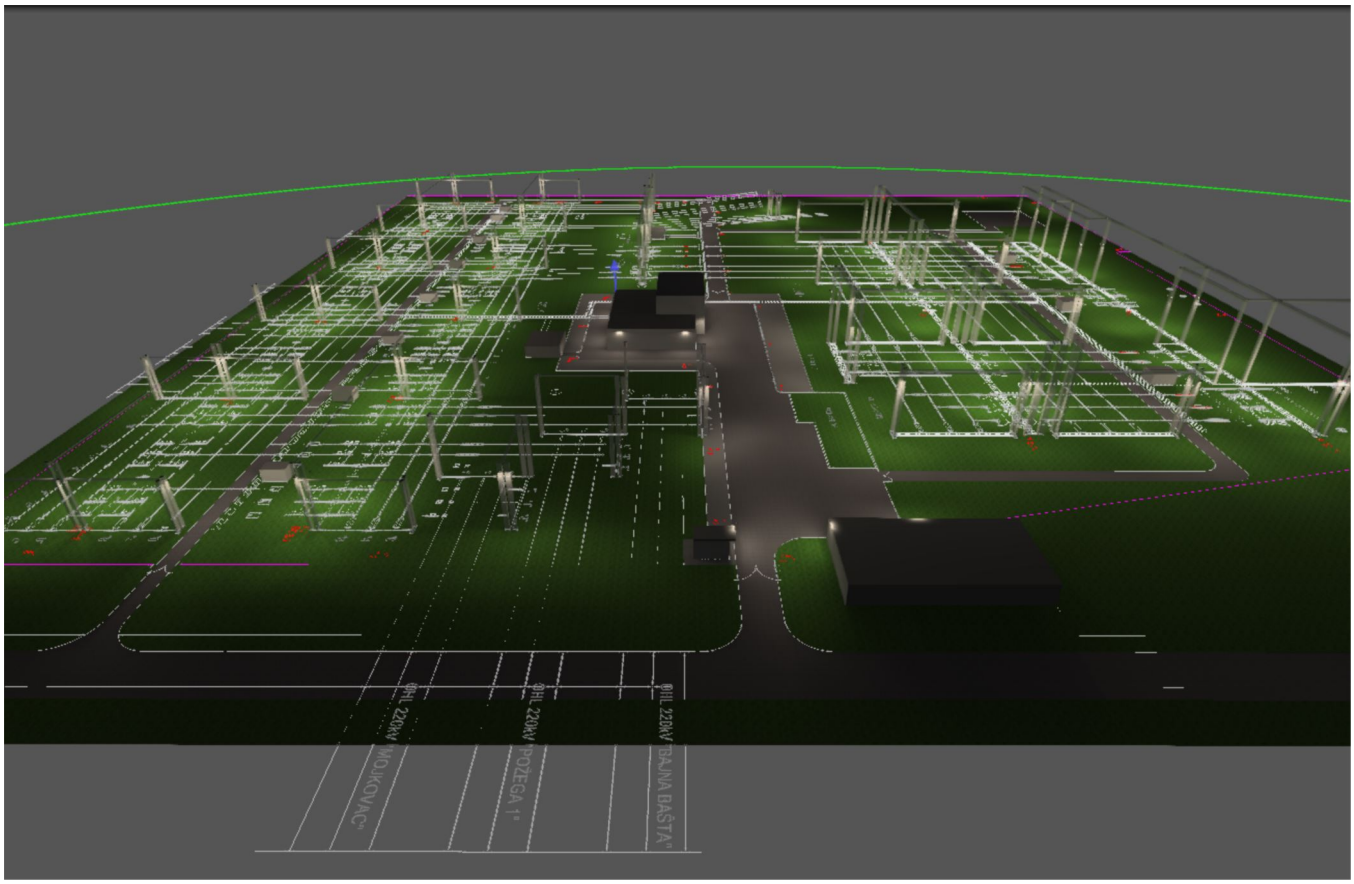
Images



Site 1 (182)

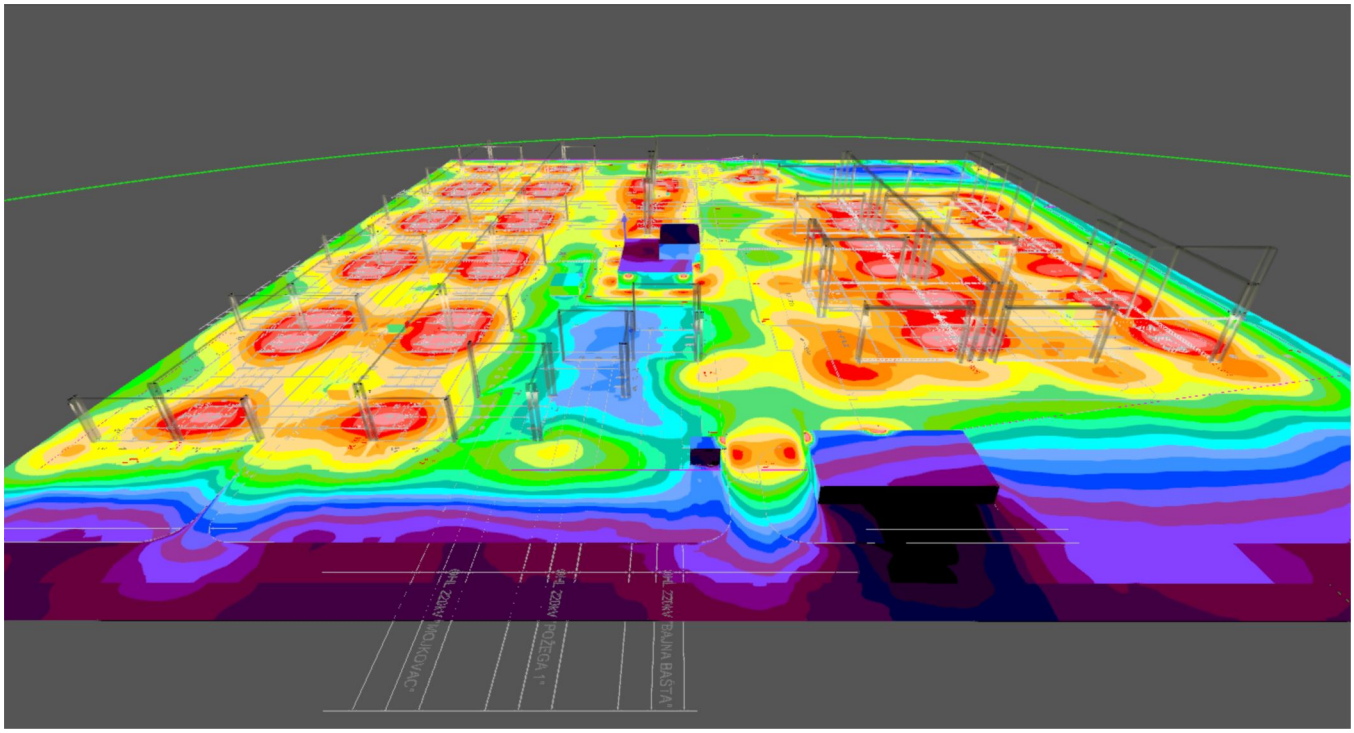
The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

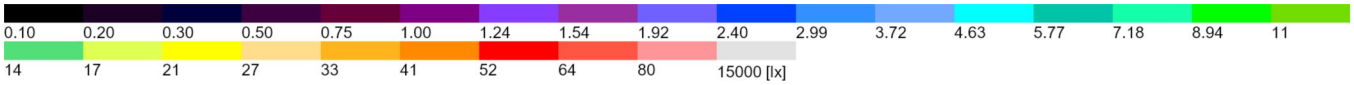
Images



Site 1 (183)

Images

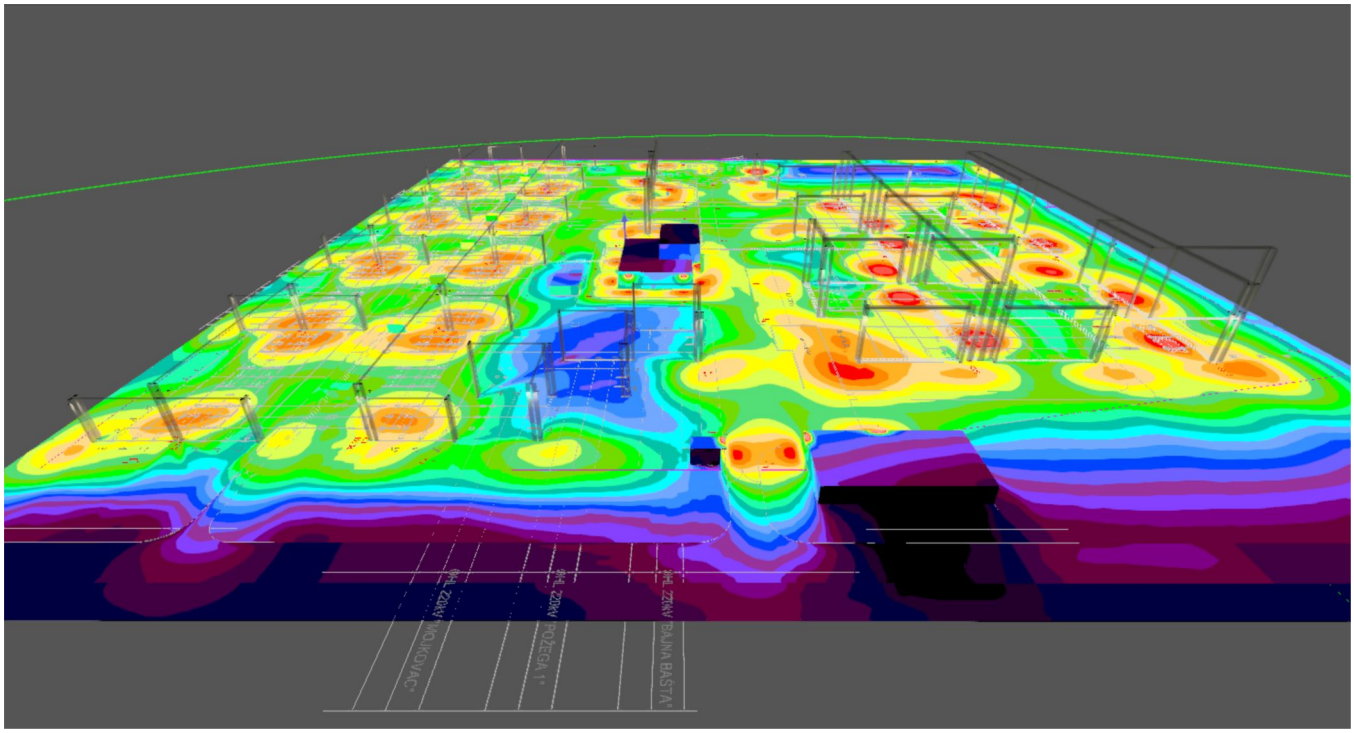




Site 1 (184)

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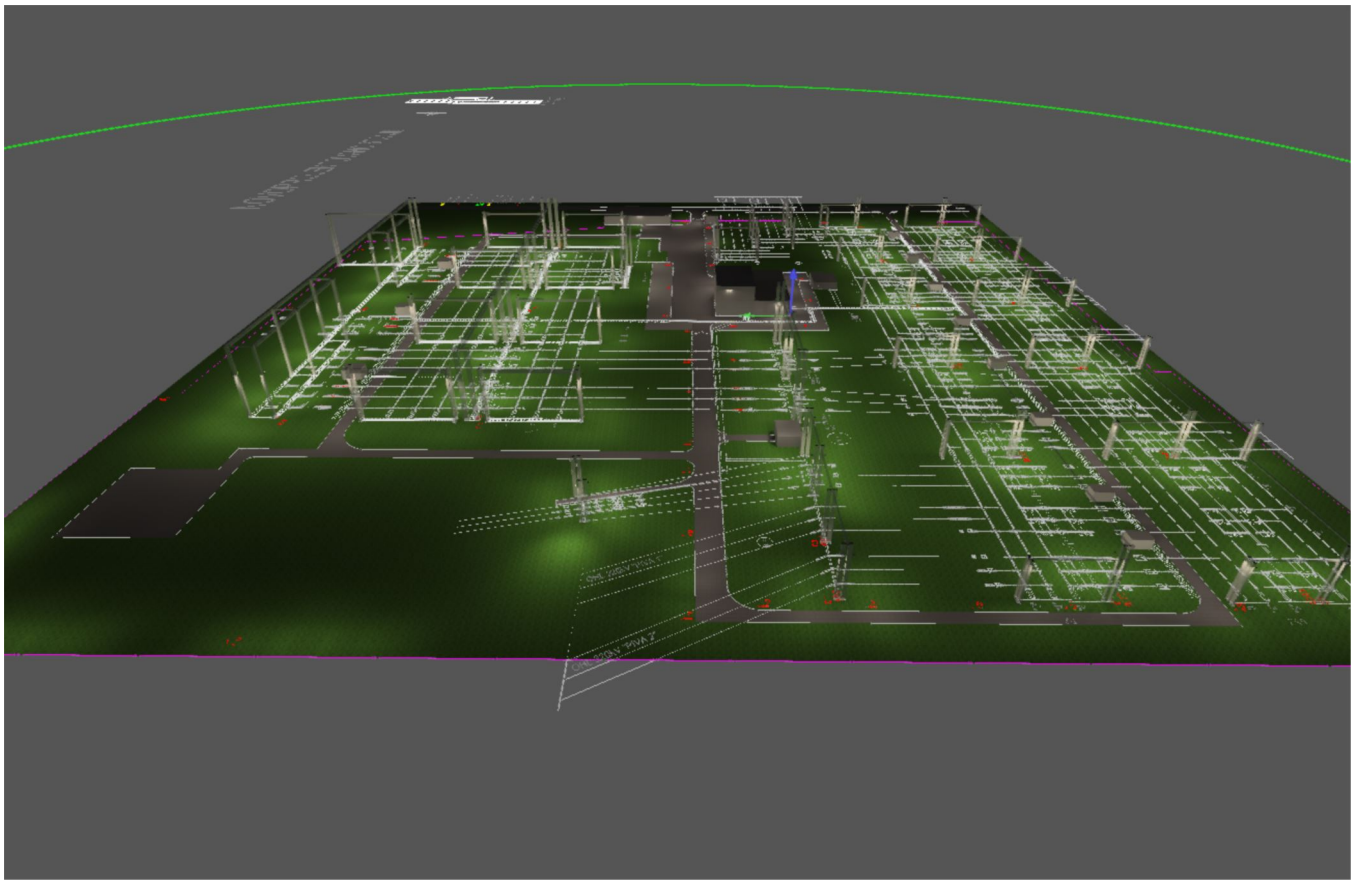
Images



Site 1 (185)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

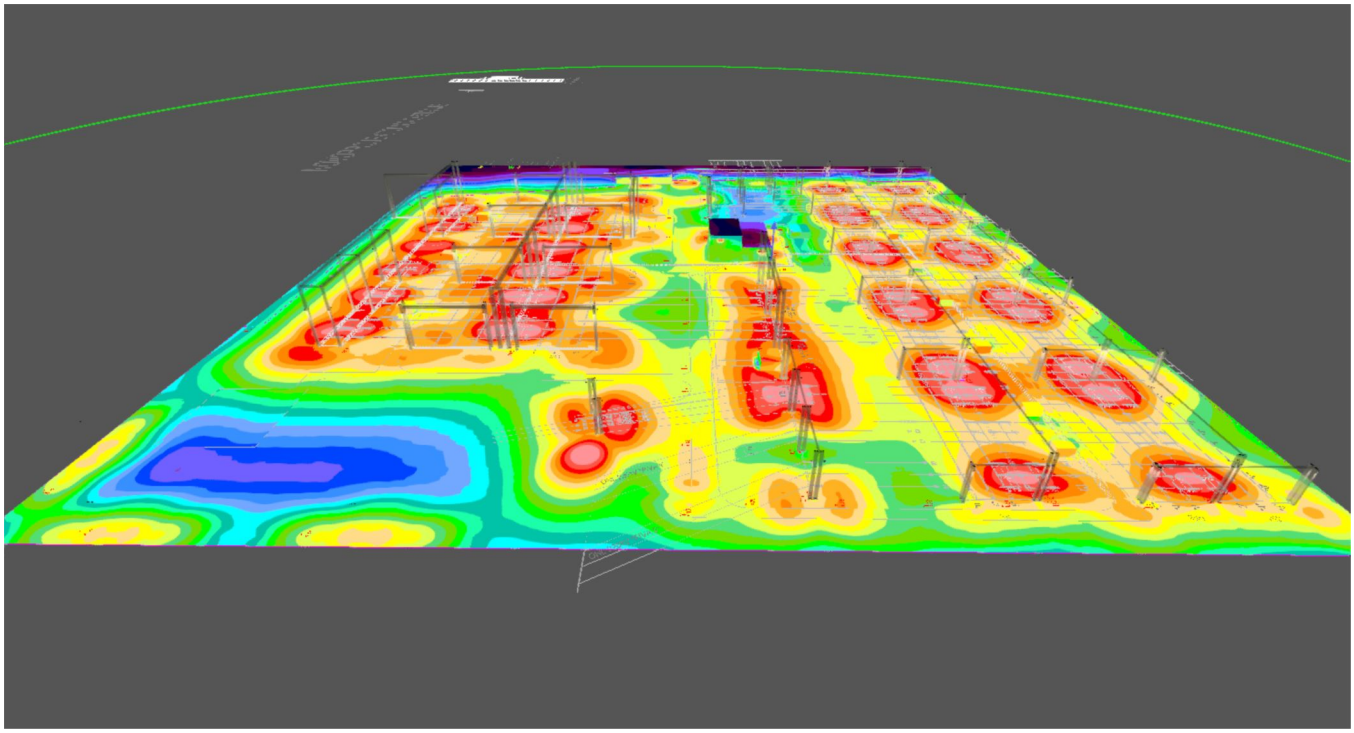
Images



Site 1 (186)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

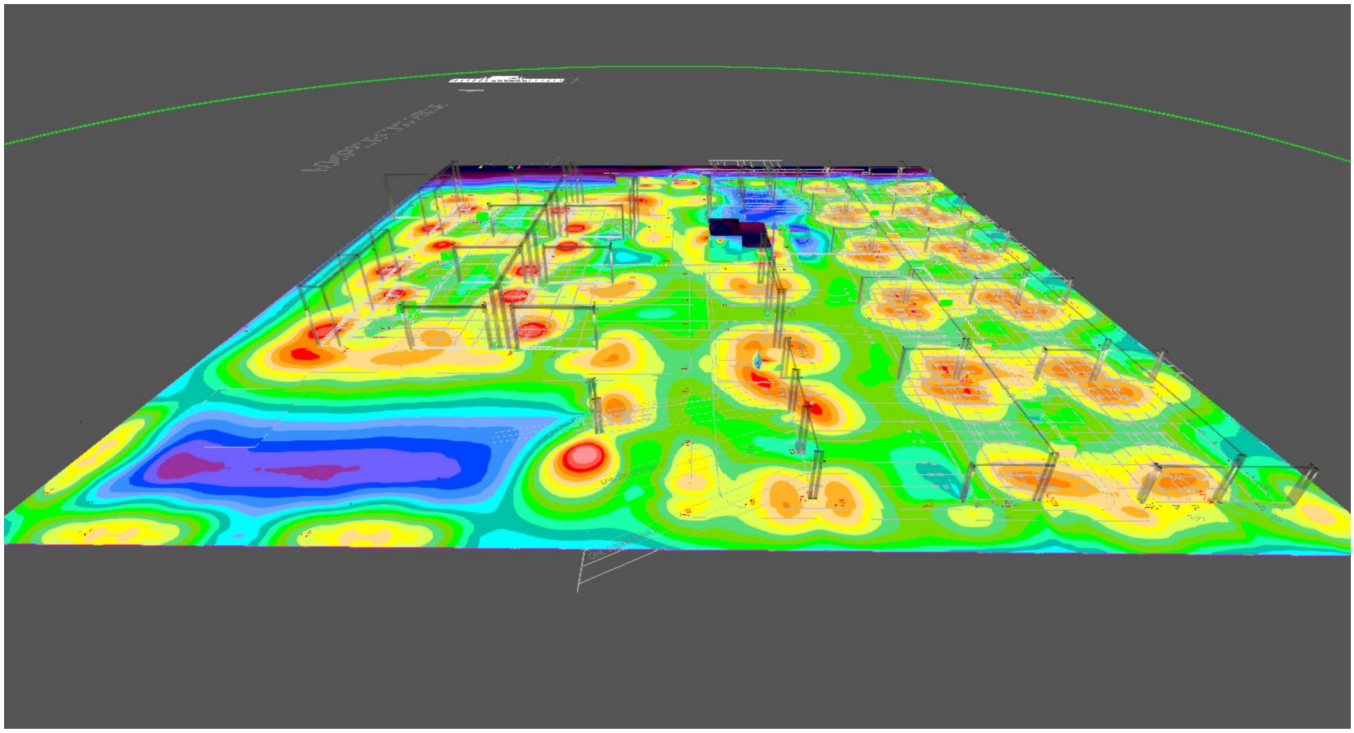
Images



Site 1 (187)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Images



Site 1 (188)

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
2804350 lm	17225.0 W	162.8 lm/W

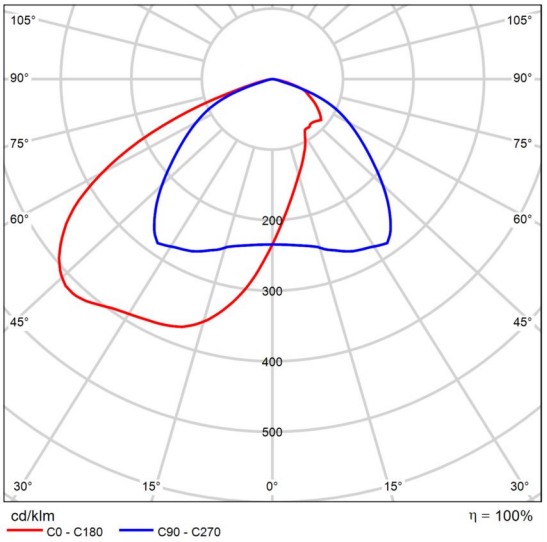
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
25	LUG Light Factory	120202.5L 091.22	POWERLUG ED 25050lm/740 50st. easy connect	149.0 W	25050 lm	168.1 lm/W
64	LUG Light Factory	120202.5L 091.42	POWERLUG ED 24250lm/740 as szeroki easy connect	149.0 W	24250 lm	162.8 lm/W
22	LUG Light Factory	120202.5L 131.42	POWERLUG ED 17100lm/740 as szeroki easy connect	102.0 W	17100 lm	167.6 lm/W
8	LUG Light Factory	120212.5L 301.31	POWERLUG MINI ED 6300lm/740 as w¹ski	40.0 W	6300 lm	157.5 lm/W
35	LUG Light Factory	120212.5L 301.51	POWERLUG MINI ED 5700lm/740 as bardzo szeroki	40.0 W	5700 lm	142.5 lm/W

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Product data sheet

LUG Light Factory - POWERLUG ED 17100lm/740 as szeroki easy connect

Article No.	120202.5L131.42
P	102.0 W
Φ_{Lamp}	17100 lm
$\Phi_{Luminaire}$	17100 lm
η	100.00 %
Luminous efficacy	167.6 lm/W
CCT	4000 K
CRI	70

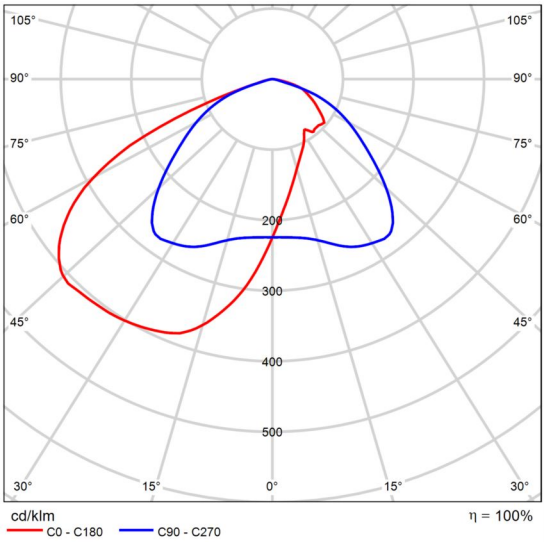


Polar LDC

Product data sheet

LUG Light Factory - POWERLUG ED 24250lm/740 as szeroki easy connect

Article No.	120202.5L091.42
P	149.0 W
Φ_{Lamp}	24250 lm
$\Phi_{Luminaire}$	24250 lm
η	100.00 %
Luminous efficacy	162.8 lm/W
CCT	4000 K
CRI	70

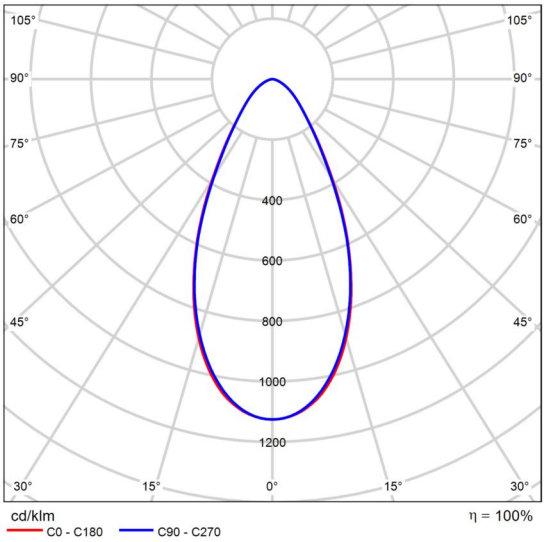


Polar LDC

Product data sheet

LUG Light Factory - POWERLUG ED 25050lm/740 50st. easy connect

Article No.	120202.5L091.22
P	149.0 W
Φ_{Lamp}	25050 lm
$\Phi_{Luminaire}$	25050 lm
η	100.00 %
Luminous efficacy	168.1 lm/W
CCT	4000 K
CRI	70



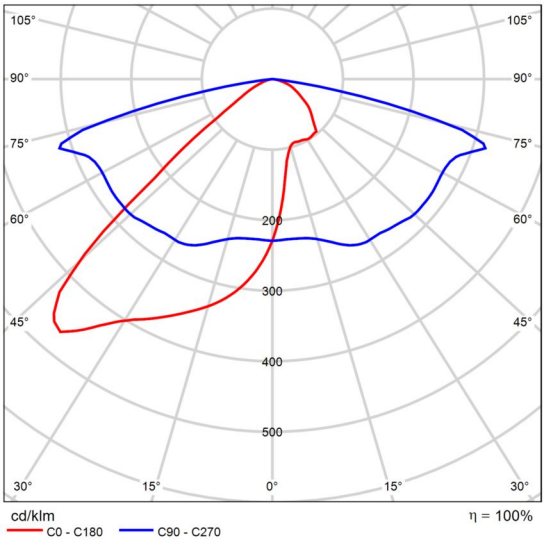
Polar LDC

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Product data sheet

LUG Light Factory - POWERLUG MINI ED 5700lm/740 as bardzo szeroki

Article No.	120212.5L301.51
P	40.0 W
Φ_{Lamp}	5700 lm
$\Phi_{Luminaire}$	5700 lm
η	100.00 %
Luminous efficacy	142.5 lm/W
CCT	4000 K
CRI	70

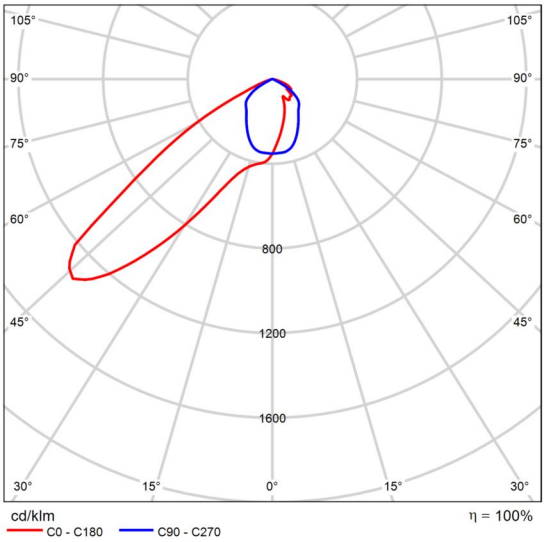


Polar LDC

Product data sheet

LUG Light Factory - POWERLUG MINI ED 6300lm/740 as w[1]ski

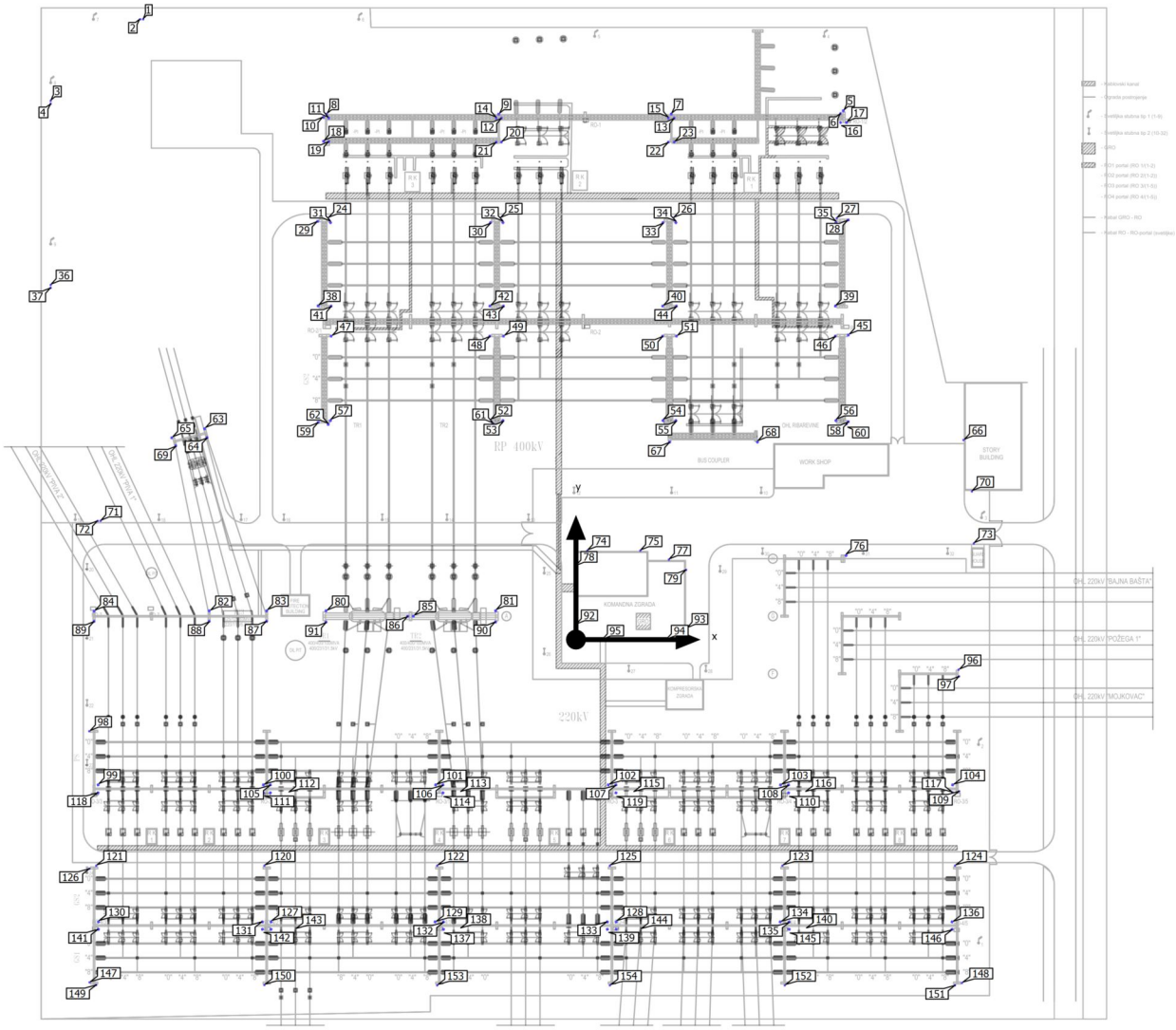
Article No.	120212.5L301.31
P	40.0 W
Φ_{Lamp}	6300 lm
$\Phi_{Luminaire}$	6300 lm
η	100.00 %
Luminous efficacy	157.5 lm/W
CCT	4000 K
CRI	70



Polar LDC

Site 1

Luminaire layout plan



Site 1

Luminaire layout plan

LUG Light Factory - 120202.5L091.22 - POWERLUG ED 25050lm/740 50st. easy connect 1x LED 4000K

X	Y	Mounting height	Housing rotation	MF	Luminaire
73.616 m	146.285 m	12.600 m	0.0° / -55.0° / 170.0°	0.90	6
-68.769 m	145.000 m	12.600 m	-0.0° / -55.0° / 15.0°	0.90	11
-20.759 m	145.000 m	12.600 m	-0.0° / -55.0° / 10.0°	0.90	12
27.284 m	145.000 m	12.600 m	0.0° / -55.0° / 10.0°	0.90	13
-22.160 m	145.000 m	12.600 m	-0.0° / -55.0° / 170.0°	0.90	14
25.729 m	145.000 m	12.600 m	0.0° / -55.0° / 170.0°	0.90	15
73.616 m	143.800 m	12.600 m	-0.0° / -55.0° / -155.0°	0.90	16
-68.723 m	138.500 m	12.600 m	0.0° / -55.0° / -10.0°	0.90	19
-20.758 m	138.353 m	12.600 m	-0.0° / -55.0° / -15.0°	0.90	20
-22.114 m	138.353 m	12.600 m	-0.0° / -55.0° / -170.0°	0.90	21
25.734 m	138.350 m	12.600 m	0.0° / -55.0° / -165.0°	0.90	22
27.282 m	138.350 m	12.600 m	-0.0° / -55.0° / -15.0°	0.90	23
72.145 m	92.750 m	12.600 m	-0.0° / -50.0° / 170.0°	0.90	39
24.115 m	92.750 m	12.600 m	0.0° / -50.0° / 170.0°	0.90	40
-68.098 m	92.750 m	12.600 m	-0.0° / -50.0° / 10.0°	0.90	41
-23.939 m	92.750 m	12.600 m	0.0° / -50.0° / 170.0°	0.90	42
-20.177 m	92.750 m	12.600 m	-0.0° / -50.0° / 10.0°	0.90	43
27.916 m	92.750 m	12.600 m	0.0° / -50.0° / 10.0°	0.90	44
72.145 m	84.400 m	12.600 m	0.0° / -50.0° / -170.0°	0.90	46
-68.098 m	84.400 m	12.600 m	0.0° / -50.0° / -10.0°	0.90	47
-23.939 m	84.400 m	12.600 m	-0.0° / -50.0° / -170.0°	0.90	48

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

Luminaire layout plan

X	Y	Mounting height	Housing rotation	MF	Luminaire
-20.177 m	84.400 m	12.600 m	0.0° / -50.0° / -10.0°	0.90	49
24.115 m	84.400 m	12.600 m	-0.0° / -50.0° / -170.0°	0.90	50
27.916 m	84.400 m	12.600 m	0.0° / -50.0° / -10.0°	0.90	51
-112.400 m	56.119 m	9.600 m	-0.0° / 55.0° / -10.0°	0.90	65

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

Luminaire layout plan

LUG Light Factory - 120202.5L091.42 - POWERLUG ED 24250lm/740 as szeroki easy connect 1x LED 4000K

X	Y	Mounting height	Housing rotation	MF	Luminaire
-23.746 m	115.957 m	12.600 m	0.0° / 20.0° / 45.0°	0.90	30
-68.273 m	115.957 m	12.600 m	-0.0° / 20.0° / 135.0°	0.90	31
-20.315 m	115.957 m	12.600 m	0.0° / 20.0° / 135.0°	0.90	32
24.212 m	115.957 m	12.600 m	0.0° / 20.0° / 45.0°	0.90	33
27.770 m	115.957 m	12.600 m	0.0° / 20.0° / 135.0°	0.90	34
72.297 m	115.957 m	12.600 m	0.0° / 20.0° / 45.0°	0.90	35
-23.747 m	60.900 m	12.600 m	0.0° / 20.0° / -45.0°	0.90	52
-20.316 m	60.900 m	12.600 m	0.0° / 20.0° / -135.0°	0.90	53
24.211 m	60.900 m	12.600 m	0.0° / 20.0° / -45.0°	0.90	54
27.769 m	60.900 m	12.600 m	0.0° / 20.0° / -135.0°	0.90	55
72.296 m	60.900 m	12.600 m	0.0° / 20.0° / -45.0°	0.90	56
-68.274 m	60.900 m	12.600 m	-0.0° / 20.0° / -135.0°	0.90	57
26.049 m	54.941 m	14.000 m	0.0° / 15.0° / 90.0°	0.90	67
50.449 m	54.941 m	14.000 m	0.0° / 15.0° / 135.0°	0.90	68
-69.509 m	8.000 m	12.600 m	0.0° / 15.0° / -110.0°	0.90	80
-22.348 m	8.000 m	12.600 m	-0.0° / 15.0° / -70.0°	0.90	81
-101.992 m	7.984 m	10.500 m	-0.0° / 15.0° / -110.0°	0.90	82
-85.993 m	7.984 m	10.500 m	-0.0° / 15.0° / -70.0°	0.90	83
-45.248 m	6.520 m	12.600 m	0.0° / 15.0° / -180.0°	0.90	85
-46.752 m	6.507 m	12.600 m	0.0° / 15.0° / -0.0°	0.90	86
-86.006 m	5.100 m	10.500 m	-0.0° / 15.0° / 70.0°	0.90	87

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

Luminaire layout plan

X	Y	Mounting height	Housing rotation	MF	Luminaire
-102.005 m	5.100 m	10.500 m	0.0° / 15.0° / 110.0°	0.90	88
-22.348 m	4.912 m	12.600 m	-0.0° / 15.0° / 70.0°	0.90	90
-69.509 m	4.912 m	12.600 m	0.0° / 15.0° / 110.0°	0.90	91
-132.900 m	-40.400 m	10.500 m	0.0° / 20.0° / -160.0°	0.90	99
-86.900 m	-40.400 m	10.500 m	0.0° / 20.0° / -20.0°	0.90	100
-39.000 m	-40.400 m	10.500 m	0.0° / 20.0° / -20.0°	0.90	101
9.000 m	-40.400 m	10.500 m	0.0° / 20.0° / -20.0°	0.90	102
56.900 m	-40.400 m	10.500 m	-0.0° / 20.0° / -20.0°	0.90	103
104.750 m	-40.400 m	10.500 m	0.0° / 20.0° / -20.0°	0.90	104
-85.000 m	-40.400 m	10.500 m	-0.0° / 20.0° / -160.0°	0.90	105
-37.000 m	-40.400 m	10.500 m	0.0° / 20.0° / -160.0°	0.90	106
11.100 m	-40.400 m	10.500 m	0.0° / 20.0° / -160.0°	0.90	107
59.100 m	-40.400 m	10.500 m	0.0° / 20.0° / -160.0°	0.90	108
59.100 m	-42.600 m	10.500 m	0.0° / 20.0° / 160.0°	0.90	110
-86.900 m	-42.600 m	10.500 m	0.0° / 20.0° / 20.0°	0.90	111
-85.000 m	-42.600 m	10.500 m	-0.0° / 20.0° / 160.0°	0.90	112
-39.000 m	-42.600 m	10.500 m	0.0° / 20.0° / 20.0°	0.90	113
-37.000 m	-42.600 m	10.500 m	0.0° / 20.0° / 160.0°	0.90	114
9.000 m	-42.600 m	10.500 m	-0.0° / 20.0° / 20.0°	0.90	115
56.900 m	-42.600 m	10.500 m	0.0° / 20.0° / 20.0°	0.90	116
104.750 m	-42.600 m	10.500 m	-0.0° / 20.0° / 20.0°	0.90	117
-132.900 m	-42.600 m	10.500 m	0.0° / 20.0° / 160.0°	0.90	118
11.100 m	-42.600 m	10.500 m	0.0° / 20.0° / 160.0°	0.90	119

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

Luminaire layout plan

X	Y	Mounting height	Housing rotation	MF	Luminaire
-84.818 m	-78.500 m	10.500 m	0.0° / 20.0° / -155.0°	0.90	127
11.161 m	-78.500 m	10.500 m	0.0° / 20.0° / -155.0°	0.90	128
-39.163 m	-78.500 m	10.500 m	0.0° / 20.0° / -25.0°	0.90	129
-132.810 m	-78.500 m	10.500 m	-0.0° / 20.0° / -155.0°	0.90	130
-87.167 m	-78.500 m	10.500 m	-0.0° / 20.0° / -25.0°	0.90	131
-36.868 m	-78.500 m	10.500 m	0.0° / 20.0° / -155.0°	0.90	132
8.743 m	-78.500 m	10.500 m	-0.0° / 20.0° / -25.0°	0.90	133
56.815 m	-78.500 m	10.500 m	0.0° / 20.0° / -25.0°	0.90	134
59.285 m	-78.500 m	10.500 m	-0.0° / 20.0° / -155.0°	0.90	135
104.579 m	-78.500 m	10.500 m	-0.0° / 20.0° / -25.0°	0.90	136
-36.868 m	-80.550 m	10.500 m	0.0° / 20.0° / 155.0°	0.90	137
-39.163 m	-80.550 m	10.500 m	-0.0° / 20.0° / 25.0°	0.90	138
8.743 m	-80.550 m	10.500 m	-0.0° / 20.0° / 25.0°	0.90	139
56.815 m	-80.550 m	10.500 m	-0.0° / 20.0° / 25.0°	0.90	140
-132.810 m	-80.550 m	10.500 m	-0.0° / 20.0° / 160.0°	0.90	141
-87.167 m	-80.550 m	10.500 m	0.0° / 20.0° / 20.0°	0.90	142
-84.818 m	-80.550 m	10.500 m	-0.0° / 20.0° / 155.0°	0.90	143
11.161 m	-80.550 m	10.500 m	-0.0° / 20.0° / 155.0°	0.90	144
59.285 m	-80.550 m	10.500 m	-0.0° / 20.0° / 160.0°	0.90	145
104.579 m	-80.550 m	10.500 m	0.0° / 20.0° / 20.0°	0.90	146

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

Luminaire layout plan

LUG Light Factory - 120202.5L131.42 - POWERLUG ED 17100lm/740 as szeroki easy connect 1x LED 4000K

X	Y	Mounting height	Housing rotation	MF	Luminaire
74.324 m	147.038 m	12.600 m	0.0° / 15.0° / -90.0°	0.90	5
26.495 m	146.120 m	12.600 m	0.0° / 15.0° / -90.0°	0.90	7
-69.379 m	146.100 m	12.600 m	0.0° / 20.0° / -90.0°	0.90	8
-21.470 m	146.100 m	12.600 m	0.0° / 15.0° / -90.0°	0.90	9
-70.200 m	145.200 m	12.600 m	0.0° / 15.0° / -30.0°	0.90	10
75.217 m	143.778 m	12.600 m	0.0° / 5.0° / -180.0°	0.90	17
-70.171 m	138.558 m	12.600 m	0.0° / 15.0° / -0.0°	0.90	18
75.715 m	116.692 m	12.600 m	0.0° / 10.0° / -180.0°	0.90	28
-71.819 m	116.300 m	12.600 m	0.0° / 15.0° / -0.0°	0.90	29
-71.695 m	92.803 m	12.600 m	0.0° / 15.0° / -0.0°	0.90	38
75.715 m	84.700 m	12.600 m	0.0° / 10.0° / -180.0°	0.90	45
75.715 m	60.583 m	12.600 m	0.0° / 10.0° / -180.0°	0.90	58
-71.695 m	60.380 m	12.600 m	0.0° / 15.0° / -0.0°	0.90	59
75.128 m	59.941 m	12.600 m	-0.0° / 15.0° / 115.0°	0.90	60
-23.000 m	59.919 m	12.600 m	0.0° / 15.0° / 90.0°	0.90	61
-68.900 m	59.843 m	12.600 m	-0.0° / 15.0° / 90.0°	0.90	62
-103.251 m	58.625 m	9.600 m	-0.0° / 15.0° / -73.5°	0.90	63
-102.590 m	56.205 m	9.600 m	0.0° / 15.0° / 106.5°	0.90	64
-111.302 m	53.901 m	9.600 m	0.0° / 15.0° / 106.5°	0.90	69
75.109 m	23.386 m	11.500 m	-0.0° / 15.0° / -135.0°	0.90	76
-133.994 m	7.910 m	10.500 m	0.0° / 15.0° / -90.0°	0.90	84

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Site 1

Luminaire layout plan

X	Y	Mounting height	Housing rotation	MF	Luminaire
-134.007 m	5.092 m	10.500 m	-0.0° / 15.0° / 90.0°	0.90	89

LUG Light Factory - 120212.5L301.31 - POWERLUG MINI ED 6300lm/740 as w[1]ski 1x LED 4000K

X	Y	Mounting height	Housing rotation	MF	Luminaire
-120.363 m	172.479 m	9.000 m	-0.0° / 15.0° / 180.0°	0.90	1
-121.149 m	172.479 m	9.000 m	-0.0° / 15.0° / -0.0°	0.90	2
-146.062 m	149.782 m	9.000 m	-0.0° / 15.0° / -90.0°	0.90	3
-146.062 m	148.996 m	9.000 m	0.0° / 15.0° / 90.0°	0.90	4
-146.059 m	98.593 m	9.000 m	0.0° / 15.0° / -90.0°	0.90	36
-146.059 m	97.807 m	9.000 m	-0.0° / 15.0° / 90.0°	0.90	37
-132.231 m	33.001 m	9.000 m	0.0° / 15.0° / 175.0°	0.90	71
106.388 m	-8.368 m	11.500 m	0.0° / 20.0° / -110.0°	0.90	96

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

Luminaire layout plan

LUG Light Factory - 120212.5L301.51 - POWERLUG MINI ED 5700lm/740 as bardzo szeroki 1x LED 4000K

X	Y	Mounting height	Housing rotation	MF	Luminaire
-68.900 m	117.200 m	12.600 m	0.0° / -0.0° / -90.0°	0.90	24
-20.991 m	117.200 m	12.600 m	0.0° / -0.0° / -90.0°	0.90	25
27.100 m	117.200 m	12.600 m	0.0° / -0.0° / -90.0°	0.90	26
72.500 m	117.165 m	12.600 m	0.0° / -0.0° / -90.0°	0.90	27
107.778 m	55.500 m	4.800 m	0.0° / 15.0° / -0.0°	0.90	66
110.100 m	41.213 m	4.800 m	0.0° / 15.0° / 90.0°	0.90	70
-132.979 m	32.998 m	9.000 m	0.0° / 15.0° / -0.0°	0.90	72
110.600 m	26.704 m	4.800 m	-0.0° / 15.0° / -90.0°	0.90	73
3.119 m	24.705 m	9.500 m	0.0° / 15.0° / -90.0°	0.90	74
17.881 m	24.705 m	9.500 m	0.0° / 15.0° / -90.0°	0.90	75
25.819 m	22.205 m	5.000 m	0.0° / 15.0° / -90.0°	0.90	77
-0.179 m	20.381 m	9.500 m	0.0° / 15.0° / -0.0°	0.90	78
30.631 m	19.381 m	5.000 m	0.0° / 15.0° / -180.0°	0.90	79
-0.179 m	4.119 m	5.000 m	0.0° / 15.0° / -0.0°	0.90	92
30.631 m	3.119 m	5.000 m	0.0° / 15.0° / -180.0°	0.90	93
24.831 m	-0.136 m	5.000 m	0.0° / 15.0° / 90.0°	0.90	94
7.119 m	-0.136 m	5.000 m	-0.0° / 15.0° / 90.0°	0.90	95
106.500 m	-10.219 m	11.500 m	0.0° / 5.0° / -180.0°	0.90	97
-135.326 m	-25.486 m	9.300 m	0.0° / 5.0° / -0.0°	0.90	98
106.558 m	-42.181 m	10.500 m	0.0° / 5.0° / -180.0°	0.90	109
-86.648 m	-62.871 m	9.300 m	0.0° / -0.0° / -90.0°	0.90	120

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Site 1

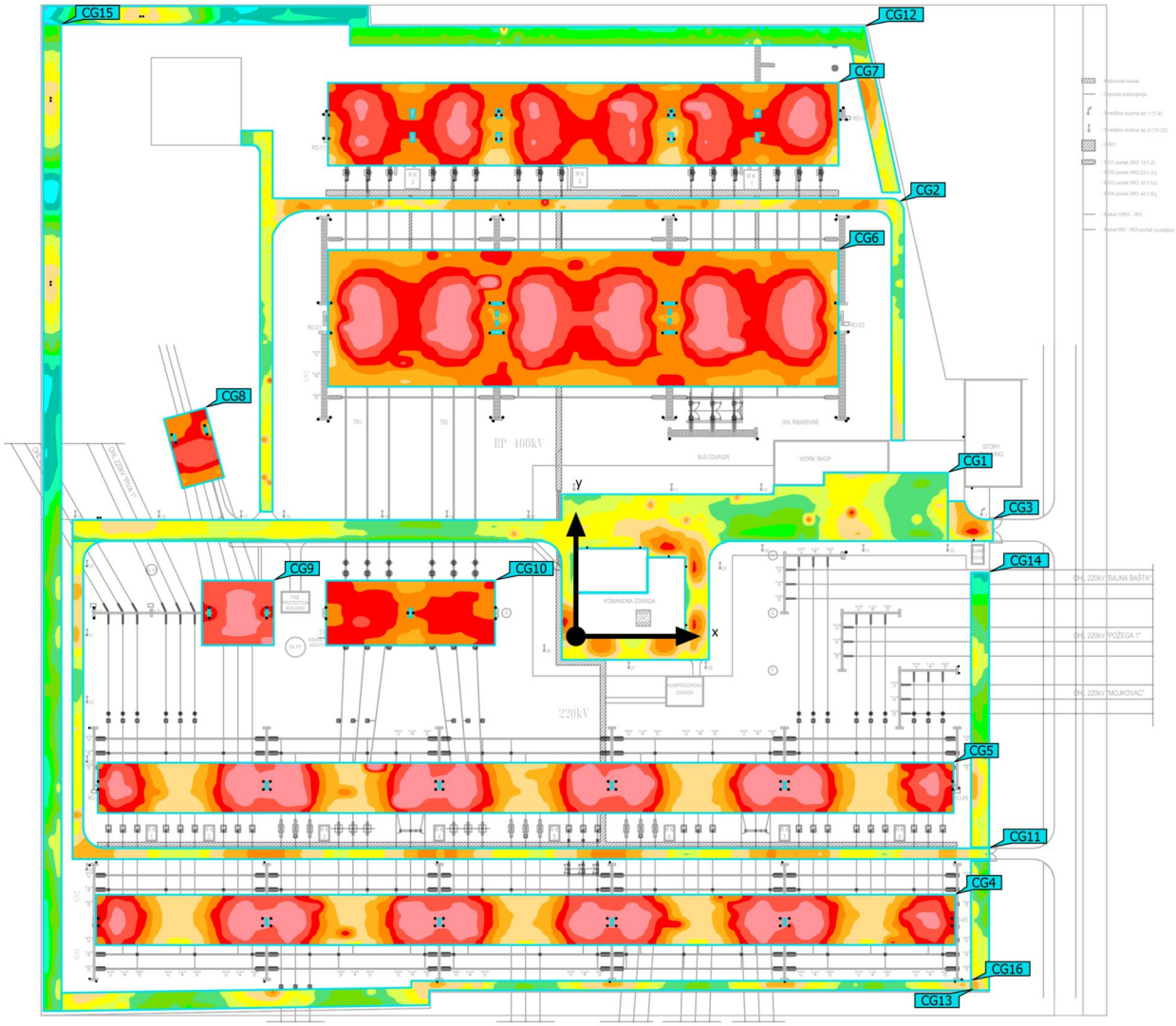
Luminaire layout plan

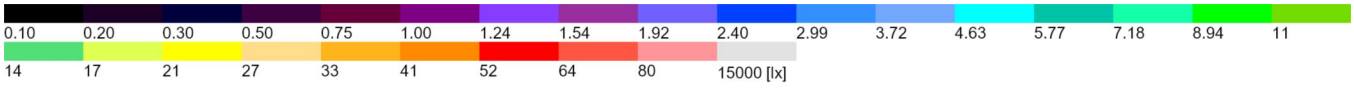
X	Y	Mounting height	Housing rotation	MF	Luminaire
-133.400 m	-62.871 m	9.300 m	0.0° / 5.0° / -90.0°	0.90	121
-38.601 m	-62.871 m	9.300 m	0.0° / -0.0° / -90.0°	0.90	122
57.400 m	-62.871 m	9.300 m	0.0° / -0.0° / -90.0°	0.90	123
105.400 m	-62.871 m	9.300 m	0.0° / -0.0° / -90.0°	0.90	124
9.428 m	-62.873 m	9.300 m	0.0° / -0.0° / -90.0°	0.90	125
-135.250 m	-63.700 m	9.300 m	0.0° / 10.0° / -0.0°	0.90	126
-135.250 m	-95.300 m	9.300 m	0.0° / 5.0° / -0.0°	0.90	147
107.327 m	-95.474 m	9.300 m	0.0° / 5.0° / -180.0°	0.90	148
-133.400 m	-96.010 m	9.300 m	0.0° / 5.0° / 90.0°	0.90	149
-86.648 m	-96.058 m	9.300 m	0.0° / -0.0° / 90.0°	0.90	150
105.400 m	-96.110 m	9.300 m	0.0° / -0.0° / 90.0°	0.90	151
58.057 m	-96.149 m	9.300 m	0.0° / -0.0° / 90.0°	0.90	152
-38.601 m	-96.149 m	9.300 m	0.0° / -0.0° / 90.0°	0.90	153
9.428 m	-96.149 m	9.300 m	0.0° / -0.0° / 90.0°	0.90	154

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

Calculation objects





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Site 1 (Light scene 1 - Nivo 1 (FULL))

Calculation objects

Calculation surfaces

Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 1 - Centralni koridor Perpendicular illuminance Height: -0.000 m	23.2 lx	9.24 lx	61.9 lx	0.40	0.15	CG1
CS 2 - Koridor 400kV Perpendicular illuminance Height: -0.000 m	27.6 lx	13.6 lx	75.8 lx	0.49	0.18	CG2
CS 3 - Ulazna kapija Perpendicular illuminance Height: 0.020 m	34.8 lx	17.7 lx	58.6 lx	0.51	0.30	CG3
CS 5 - RP 220 - 1 Perpendicular illuminance Height: 0.020 m	58.0 lx	25.6 lx	102 lx	0.44	0.25	CG4
CS 6 - RP 220 - 2 Perpendicular illuminance Height: 0.020 m	59.6 lx	26.9 lx	173 lx	0.45	0.16	CG5
CS 7 - RP 400 - 1 Perpendicular illuminance Height: 0.020 m	59.9 lx	29.7 lx	154 lx	0.50	0.19	CG6
CS 8 - RP 400 - 2 Perpendicular illuminance Height: 0.020 m	57.9 lx	24.9 lx	109 lx	0.43	0.23	CG7
CS 9 - RP 110 - 1 Perpendicular illuminance Height: 0.020 m	56.3 lx	33.1 lx	75.0 lx	0.59	0.44	CG8
CS 10 - ETR 110 - 1 Perpendicular illuminance Height: 0.020 m	75.9 lx	47.7 lx	96.5 lx	0.63	0.49	CG9
CS 11 - ETR 400 - 1 Perpendicular illuminance Height: 0.020 m	51.8 lx	36.2 lx	78.0 lx	0.70	0.46	CG10
CS 4 - Koridor 220kV Perpendicular illuminance Height: -0.000 m	29.4 lx	14.9 lx	49.6 lx	0.51	0.30	CG11

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Site 1 (Light scene 1 - Nivo 1 (FULL))

Calculation objects

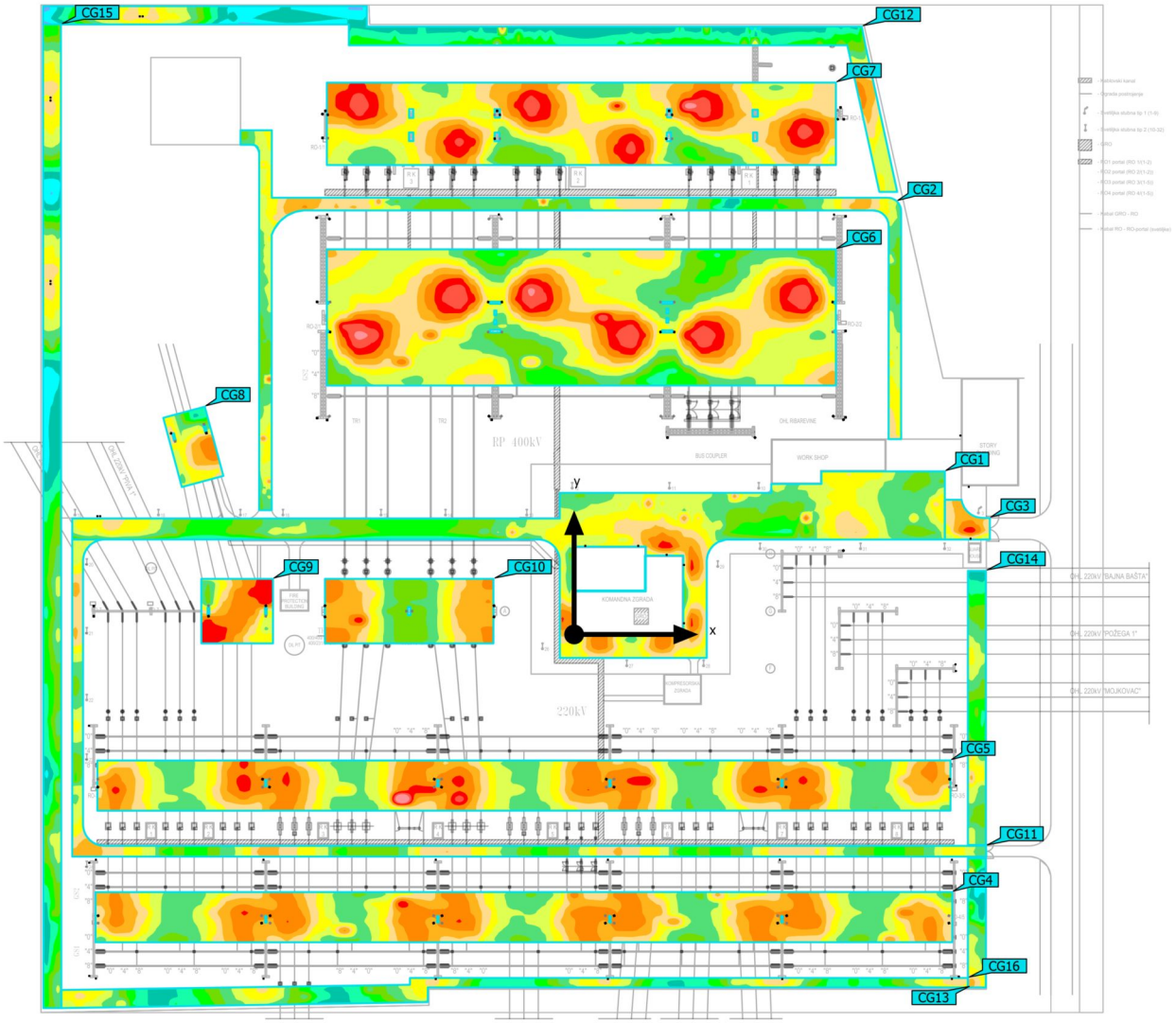
Perimetar 1 Perpendicular illuminance Height: 0.020 m	13.7 lx	4.47 lx	47.7 lx	0.33	0.094	CG12
Perimetar 2 Perpendicular illuminance Height: 0.020 m	18.8 lx	8.12 lx	36.9 lx	0.43	0.22	CG13
Perimetar 3 Perpendicular illuminance Height: 0.020 m	17.2 lx	6.31 lx	40.6 lx	0.37	0.16	CG14
Perimetar 4 Perpendicular illuminance Height: 0.010 m	13.7 lx	4.87 lx	31.2 lx	0.36	0.16	CG15
Perimetar 5 Perpendicular illuminance Height: 0.020 m	20.4 lx	10.7 lx	43.6 lx	0.52	0.25	CG16

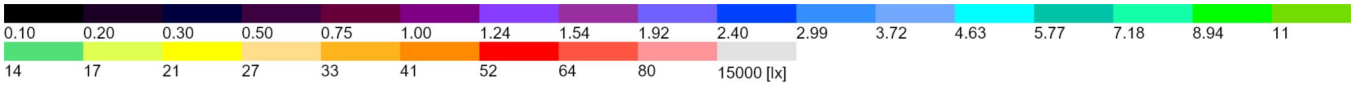
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 2 - Nivo 2)

Calculation objects





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Site 1 (Light scene 2 - Nivo 2)

Calculation objects

Calculation surfaces

Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 1 - Centralni koridor Perpendicular illuminance Height: -0.000 m	21.1 lx	8.46 lx	57.9 lx	0.40	0.15	CG1
CS 2 - Koridor 400kV Perpendicular illuminance Height: -0.000 m	19.6 lx	6.11 lx	52.8 lx	0.31	0.12	CG2
CS 3 - Ulazna kapija Perpendicular illuminance Height: 0.020 m	34.4 lx	17.3 lx	58.2 lx	0.50	0.30	CG3
CS 5 - RP 220 - 1 Perpendicular illuminance Height: 0.020 m	29.4 lx	12.4 lx	58.9 lx	0.42	0.21	CG4
CS 6 - RP 220 - 2 Perpendicular illuminance Height: 0.020 m	30.1 lx	13.3 lx	124 lx	0.44	0.11	CG5
CS 7 - RP 400 - 1 Perpendicular illuminance Height: 0.020 m	27.5 lx	7.38 lx	85.9 lx	0.27	0.086	CG6
CS 8 - RP 400 - 2 Perpendicular illuminance Height: 0.020 m	32.4 lx	10.0 lx	89.2 lx	0.31	0.11	CG7
CS 9 - RP 110 - 1 Perpendicular illuminance Height: 0.020 m	25.5 lx	7.06 lx	51.1 lx	0.28	0.14	CG8
CS 10 - ETR 110 - 1 Perpendicular illuminance Height: 0.020 m	39.0 lx	13.1 lx	59.0 lx	0.34	0.22	CG9
CS 11 - ETR 400 - 1 Perpendicular illuminance Height: 0.020 m	27.5 lx	11.7 lx	56.2 lx	0.43	0.21	CG10
CS 4 - Koridor 220kV Perpendicular illuminance Height: -0.000 m	20.6 lx	9.12 lx	37.7 lx	0.44	0.24	CG11

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Site 1 (Light scene 2 - Nivo 2)

Calculation objects

Perimetar 1 Perpendicular illuminance Height: 0.020 m	11.6 lx	4.34 lx	45.8 lx	0.37	0.095	CG12
Perimetar 2 Perpendicular illuminance Height: 0.020 m	14.0 lx	4.33 lx	36.1 lx	0.31	0.12	CG13
Perimetar 3 Perpendicular illuminance Height: 0.020 m	14.6 lx	5.97 lx	34.8 lx	0.41	0.17	CG14
Perimetar 4 Perpendicular illuminance Height: 0.010 m	12.8 lx	4.60 lx	30.9 lx	0.36	0.15	CG15
Perimetar 5 Perpendicular illuminance Height: 0.020 m	14.6 lx	6.39 lx	32.8 lx	0.44	0.19	CG16

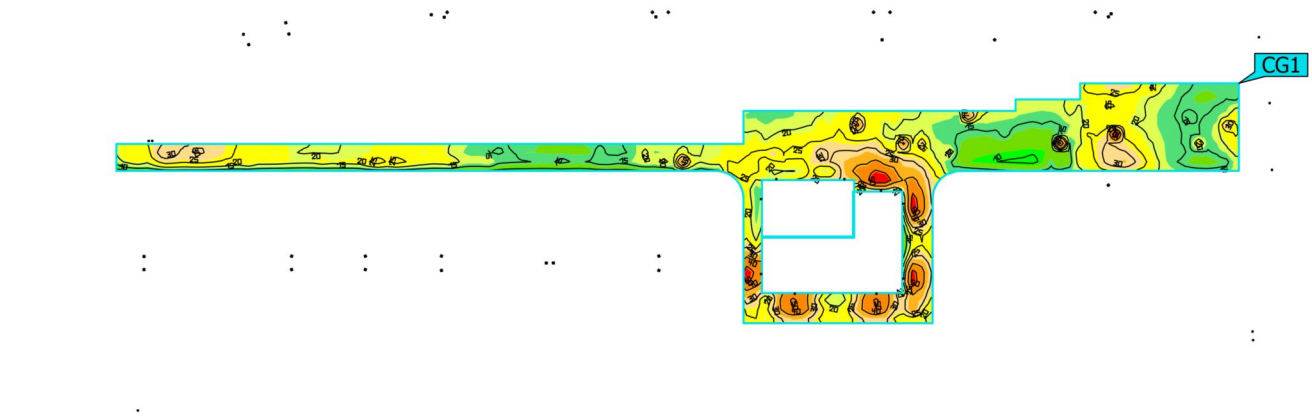
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

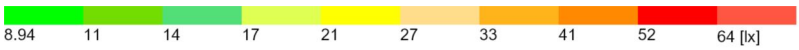
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Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 1 - Centralni koridor







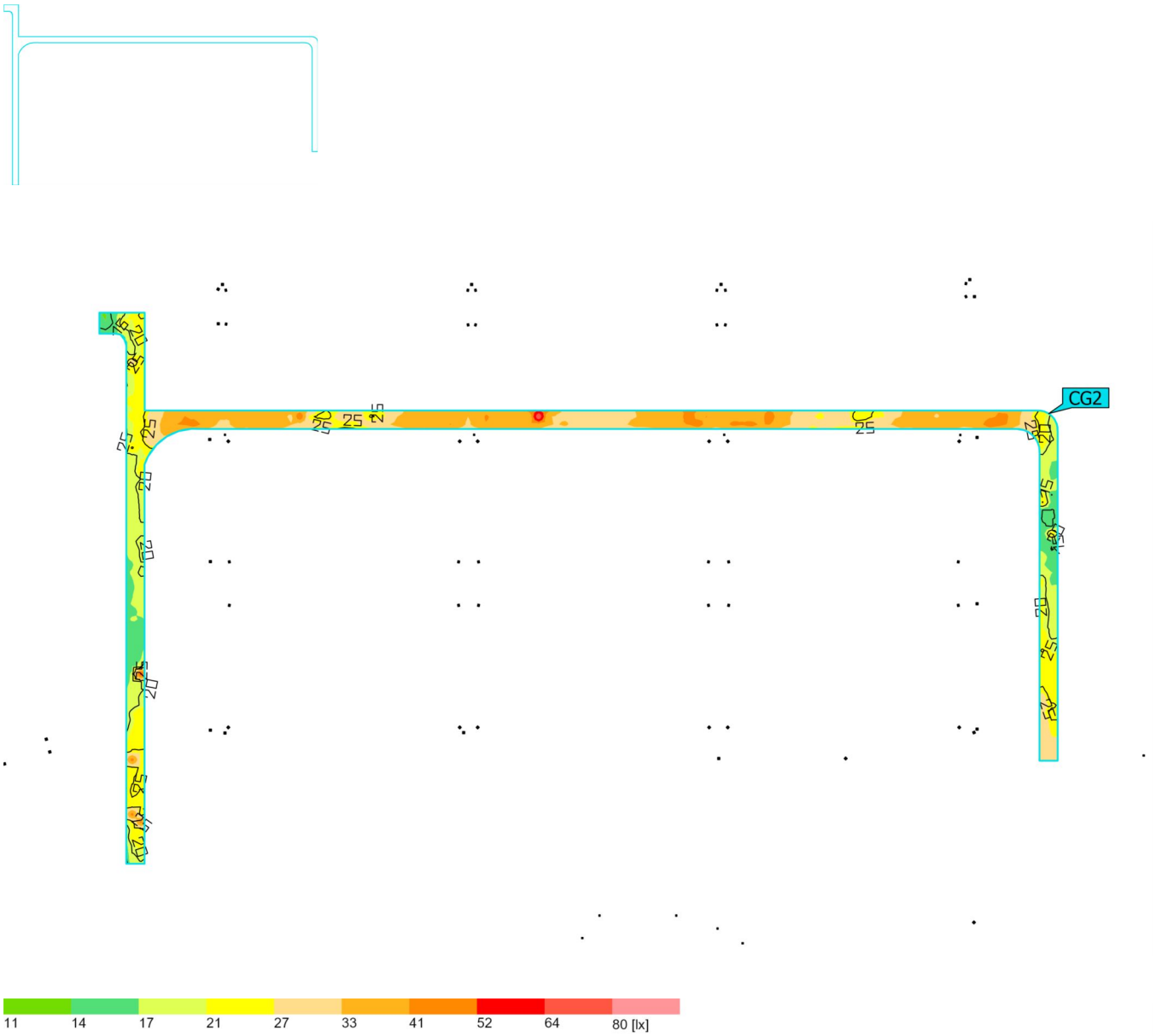
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 1 - Centralni koridor Perpendicular illuminance Height: -0.000 m	23.2 lx	9.24 lx	61.9 lx	0.40	0.15	CG1

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 2 - Koridor 400kV



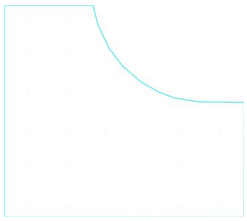
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 2 - Koridor 400kV Perpendicular illuminance Height: -0.000 m	27.6 lx	13.6 lx	75.8 lx	0.49	0.18	CG2

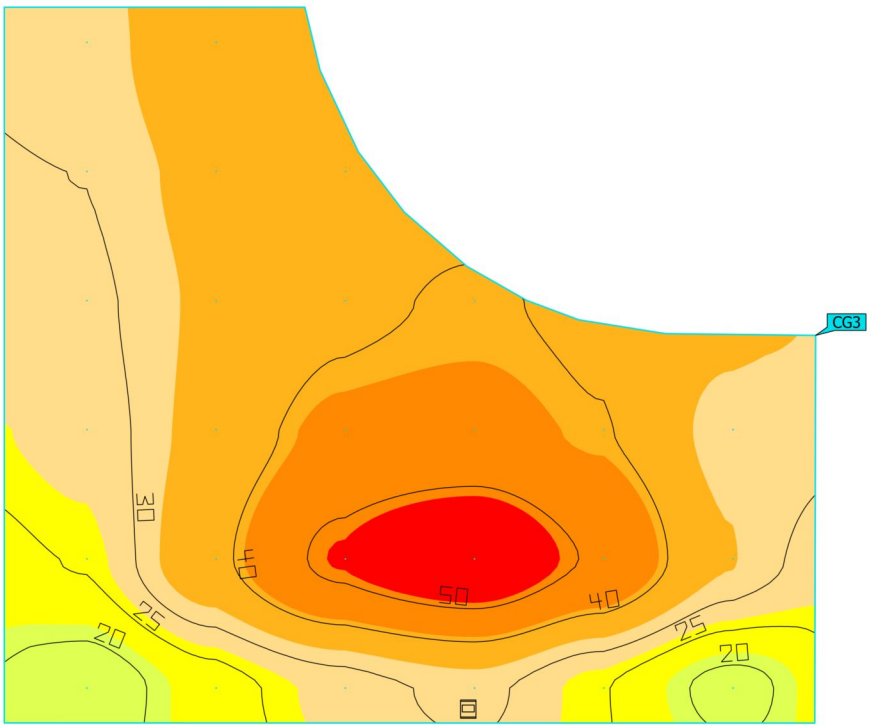
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 3 - Ulazna kapija







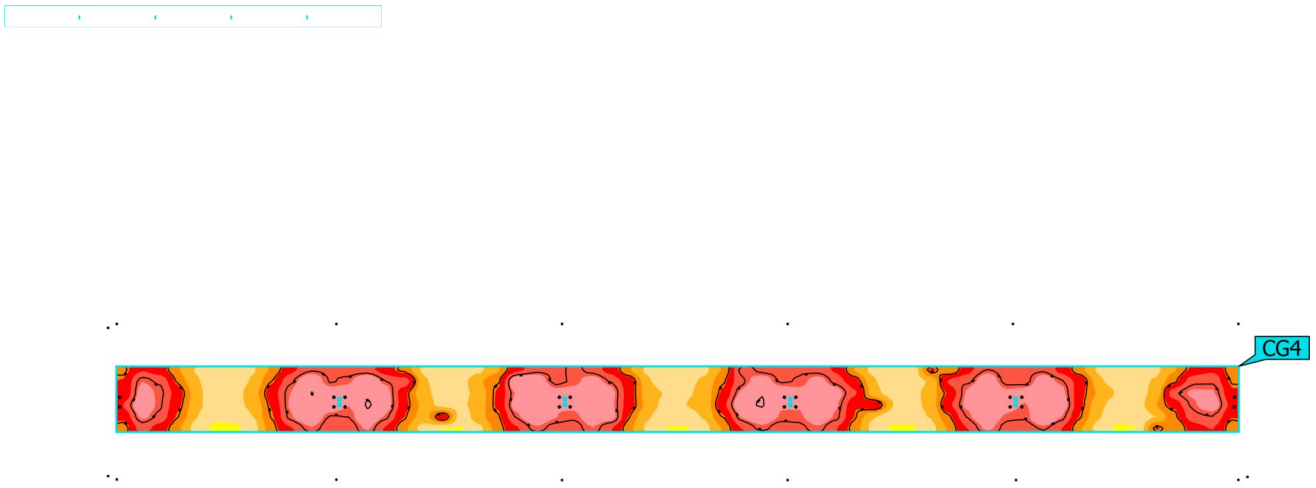
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 3 - Ulazna kapija Perpendicular illuminance Height: 0.020 m	34.8 lx	17.7 lx	58.6 lx	0.51	0.30	CG3

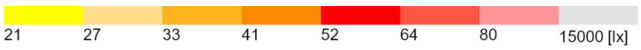
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 5 - RP 220 - 1





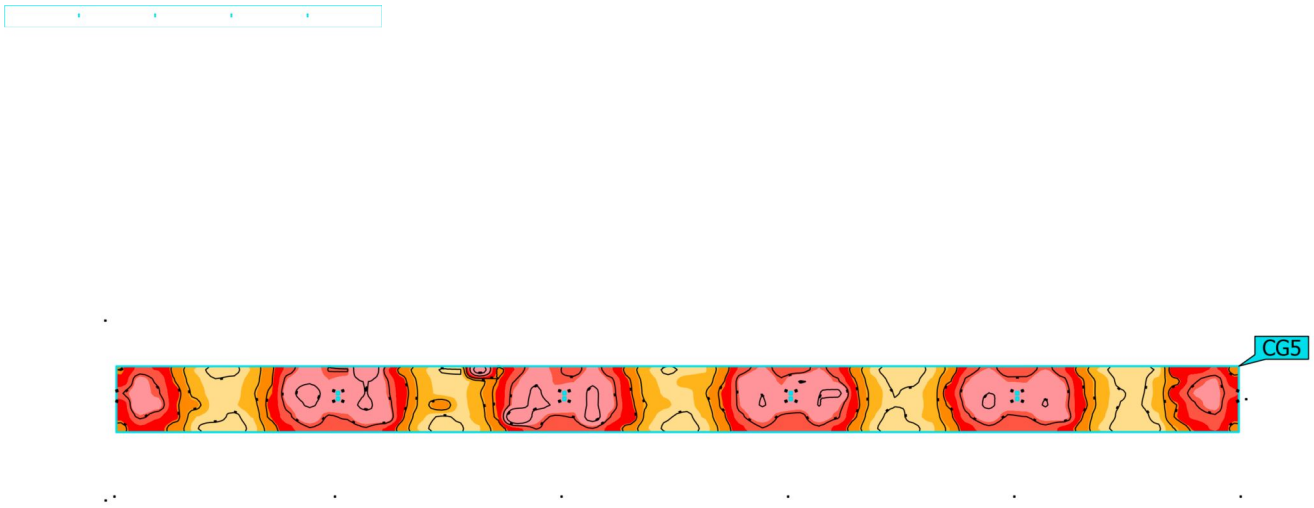
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 5 - RP 220 - 1 Perpendicular illuminance Height: 0.020 m	58.0 lx	25.6 lx	102 lx	0.44	0.25	CG4

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 6 - RP 220 - 2





Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 6 - RP 220 - 2 Perpendicular illuminance Height: 0.020 m	59.6 lx	26.9 lx	173 lx	0.45	0.16	CG5

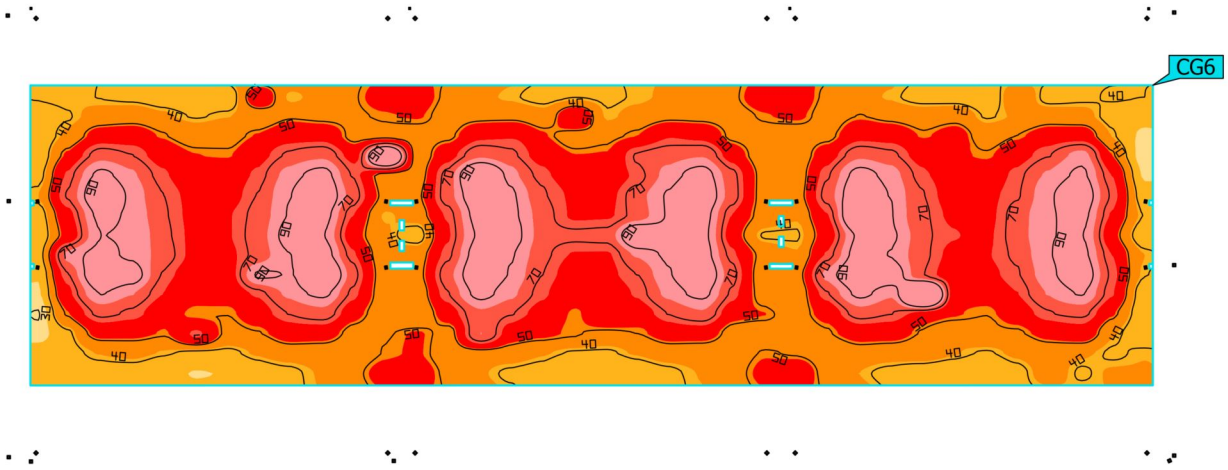
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

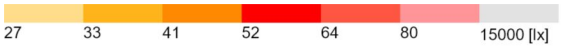
The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 7 - RP 400 - 1







Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 7 - RP 400 - 1 Perpendicular illuminance Height: 0.020 m	59.9 lx	29.7 lx	154 lx	0.50	0.19	CG6

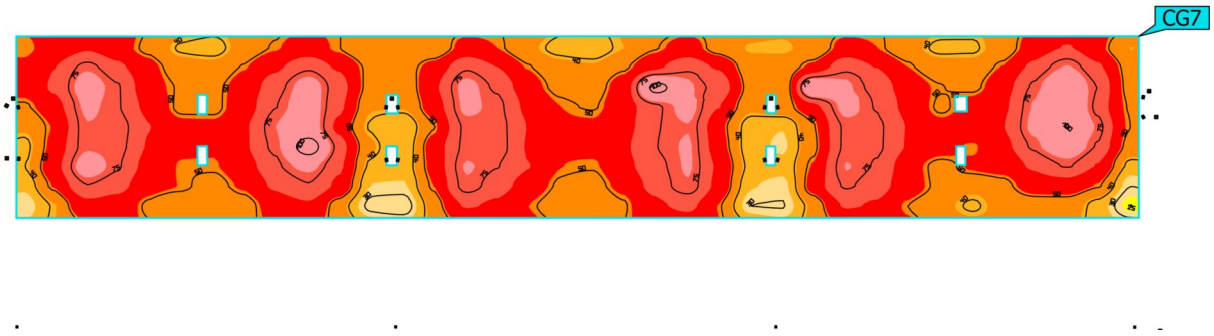
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

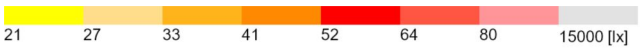
The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 8 - RP 400 - 2







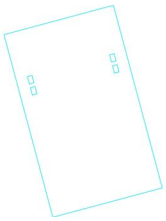
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 8 - RP 400 - 2 Perpendicular illuminance Height: 0.020 m	57.9 lx	24.9 lx	109 lx	0.43	0.23	CG7

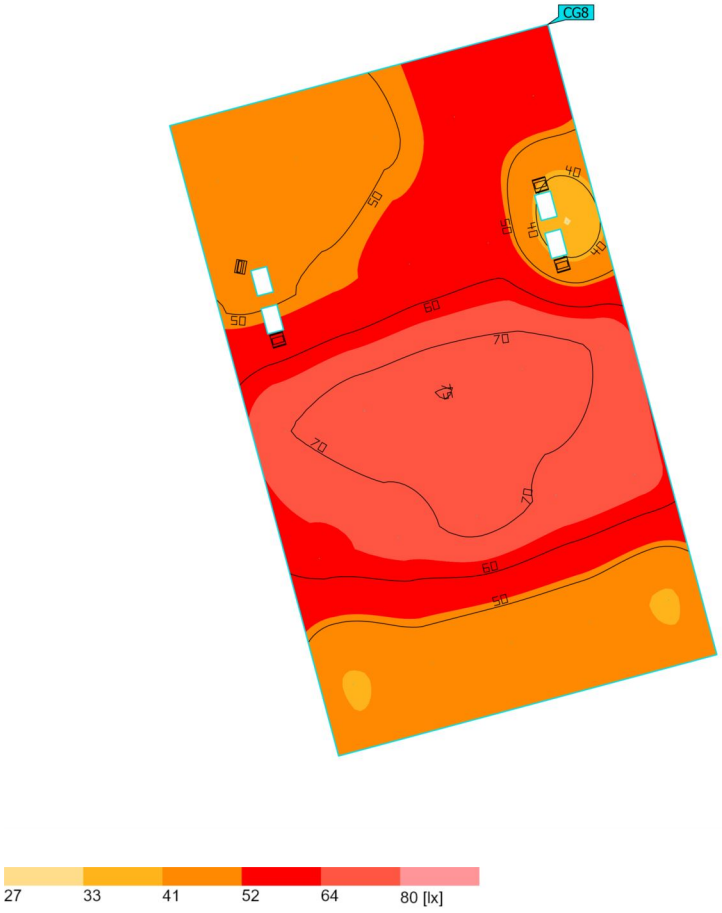
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 9 - RP 110 - 1





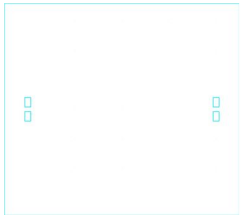
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 9 - RP 110 - 1 Perpendicular illuminance Height: 0.020 m	56.3 lx	33.1 lx	75.0 lx	0.59	0.44	CG8

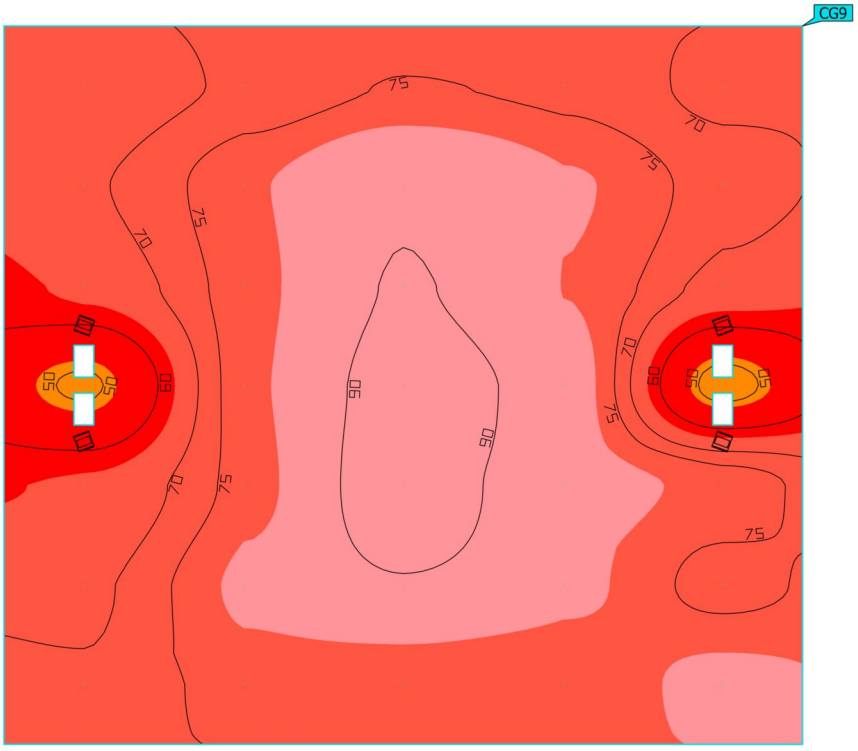
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 10 - ETR 110 - 1







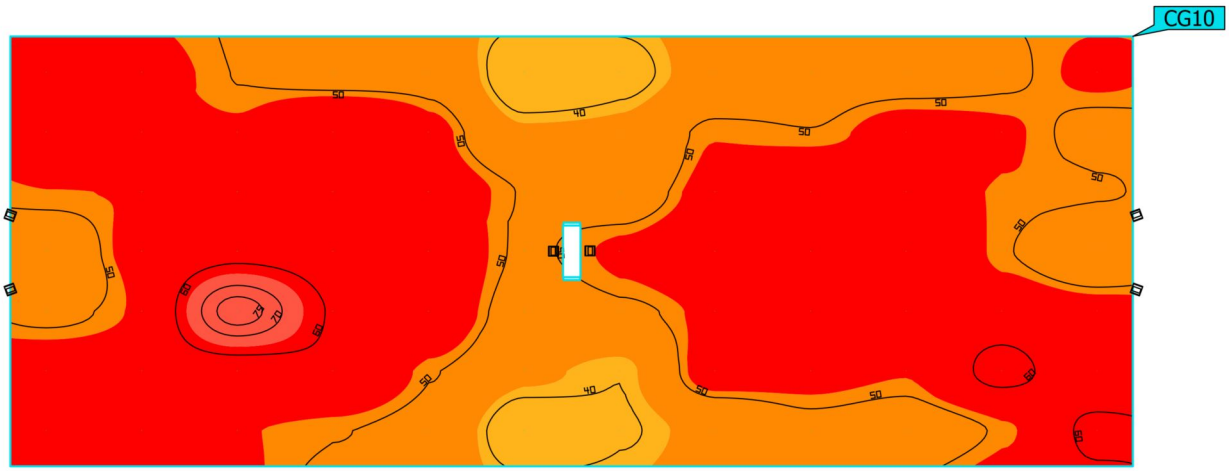
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 10 - ETR 110 - 1 Perpendicular illuminance Height: 0.020 m	75.9 lx	47.7 lx	96.5 lx	0.63	0.49	CG9

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 11 - ETR 400 - 1





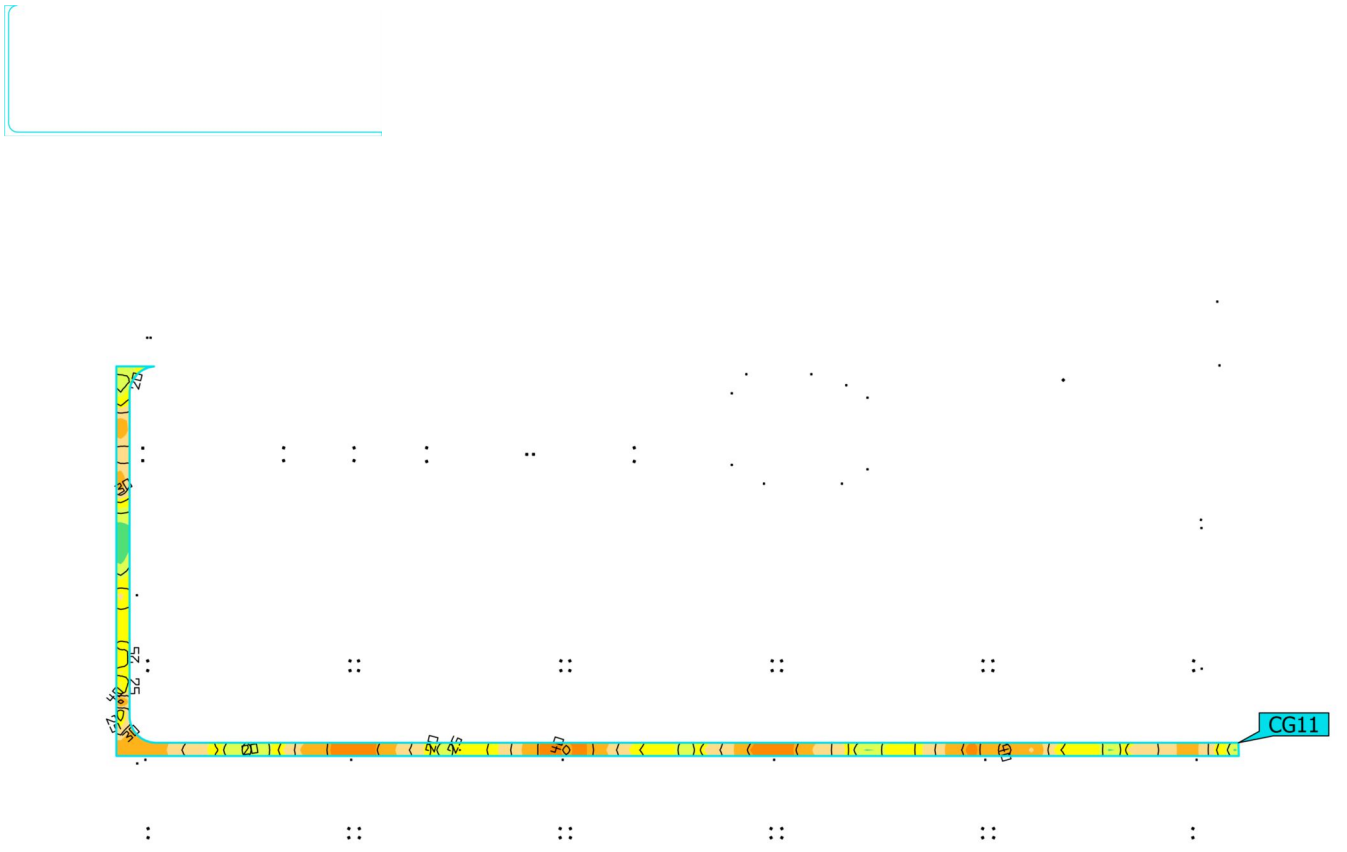
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 11 - ETR 400 - 1 Perpendicular illuminance Height: 0.020 m	51.8 lx	36.2 lx	78.0 lx	0.70	0.46	CG10

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 1 - Nivo 1 (FULL))

CS 4 - Koridor 220kV





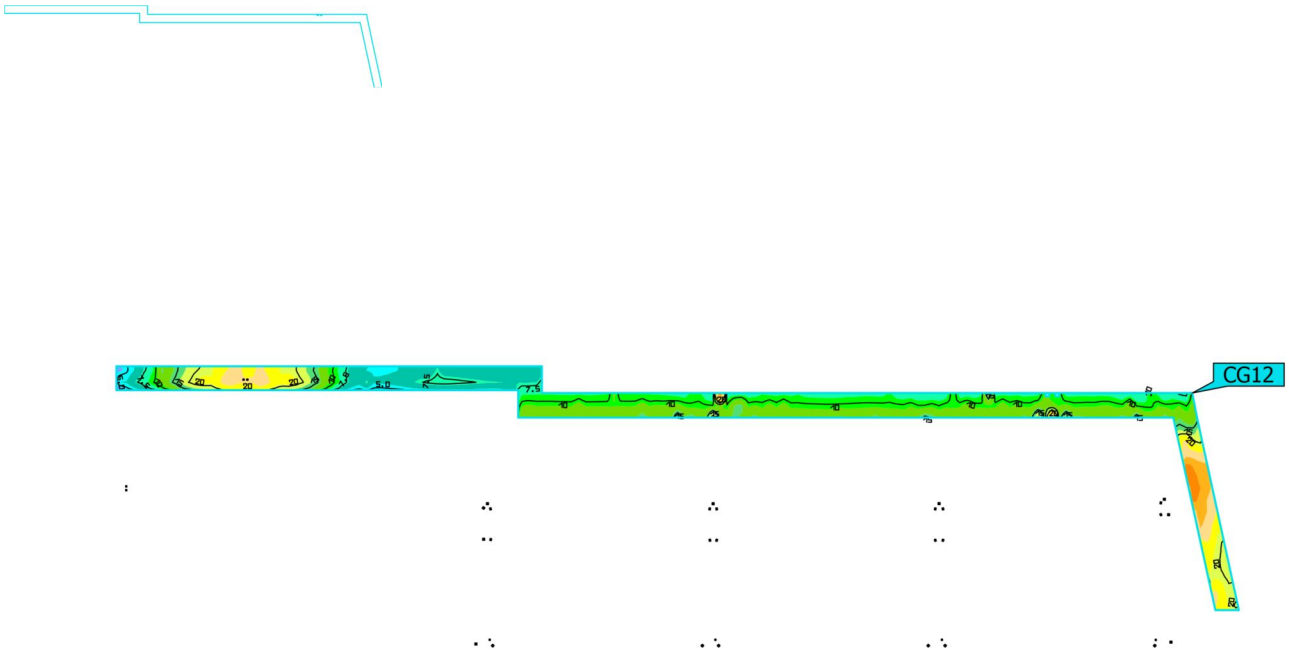
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 4 - Koridor 220kV Perpendicular illuminance Height: -0.000 m	29.4 lx	14.9 lx	49.6 lx	0.51	0.30	CG11

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

Perimetar 1





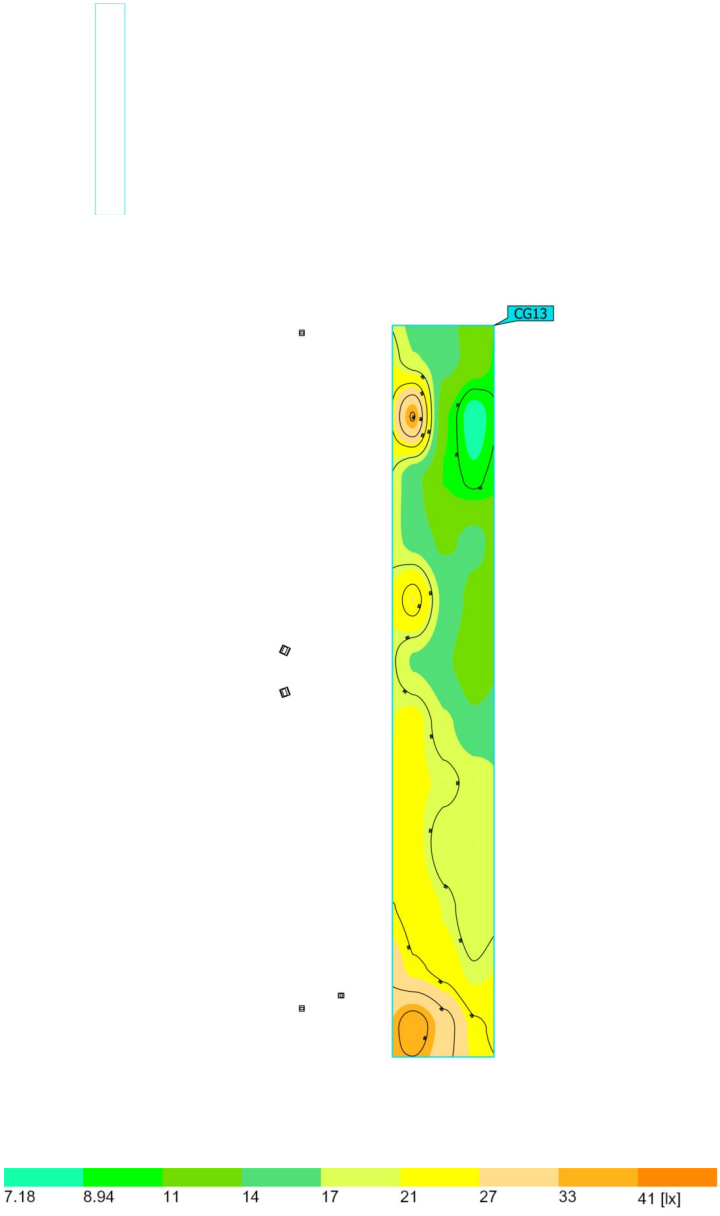
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 1 Perpendicular illuminance Height: 0.020 m	13.7 lx	4.47 lx	47.7 lx	0.33	0.094	CG12

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 1 - Nivo 1 (FULL))

Perimetar 2



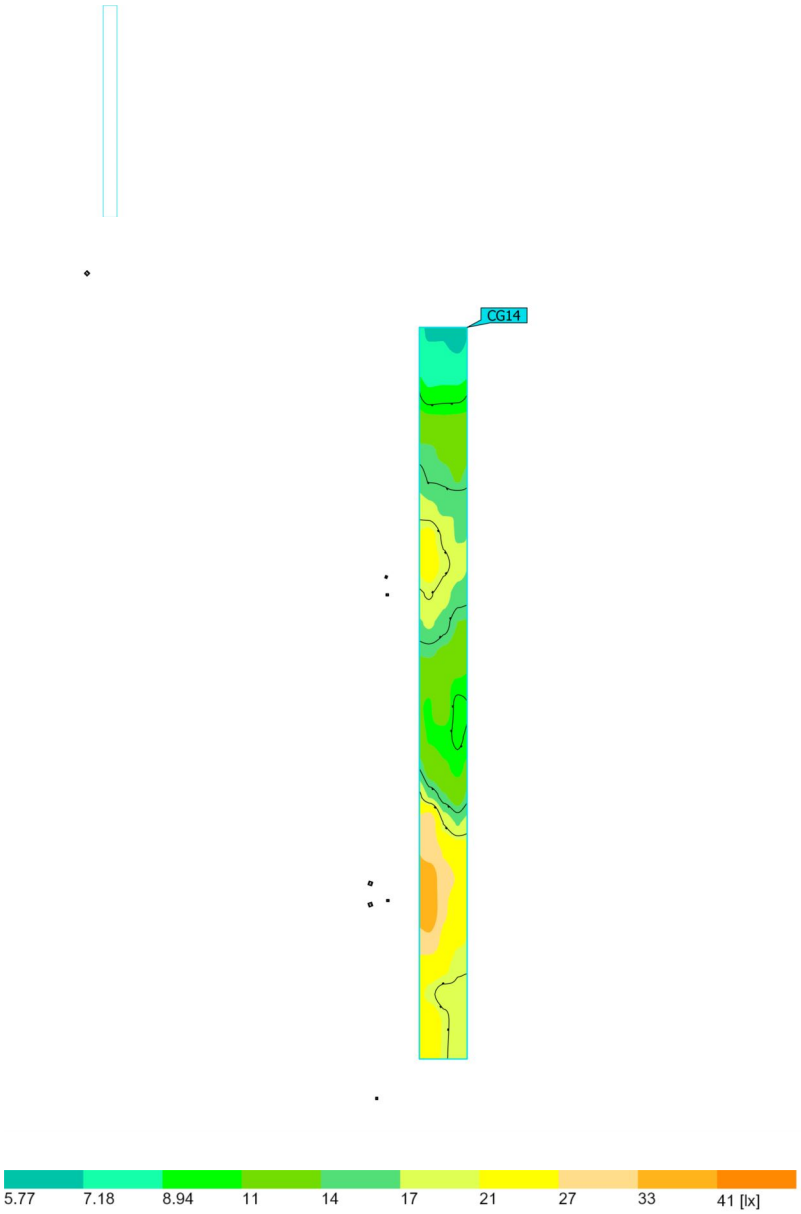
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 2 Perpendicular illuminance Height: 0.020 m	18.8 lx	8.12 lx	36.9 lx	0.43	0.22	CG13

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

Perimetar 3



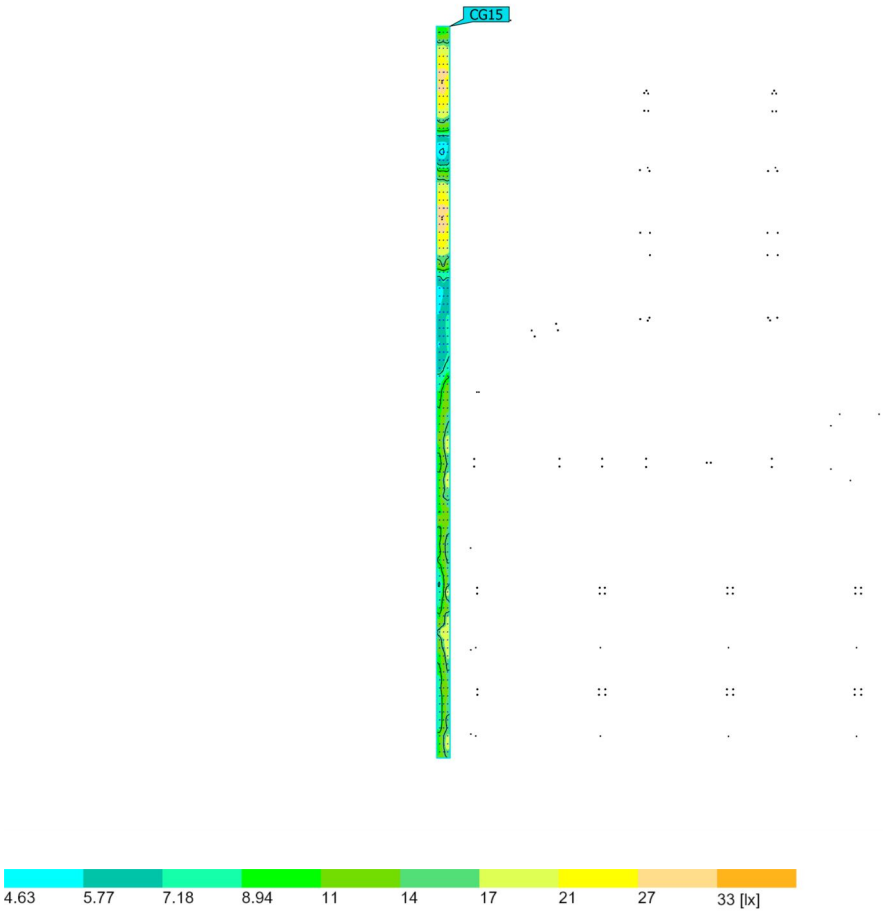
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 3 Perpendicular illuminance Height: 0.020 m	17.2 lx	6.31 lx	40.6 lx	0.37	0.16	CG14

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

Perimetar 4



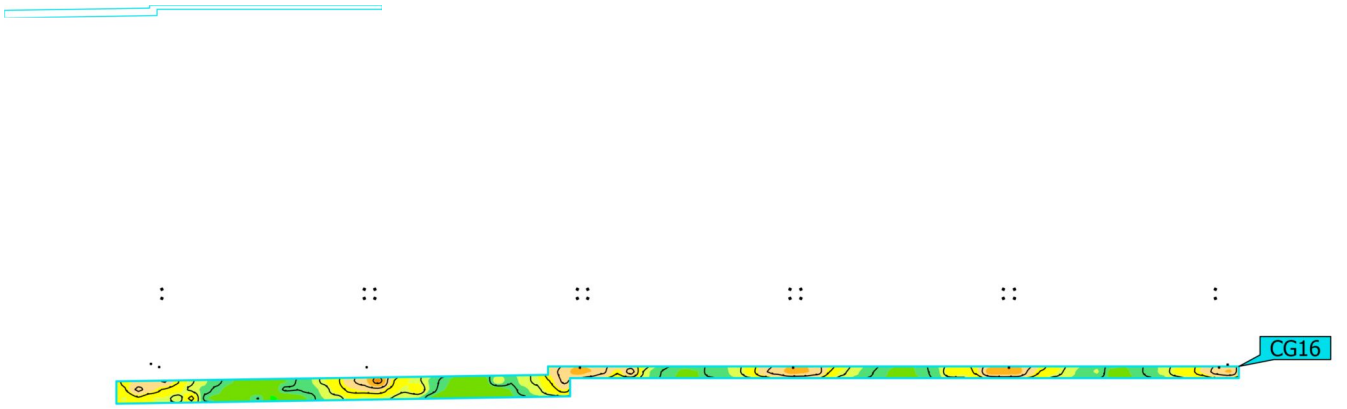
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 4 Perpendicular illuminance Height: 0.010 m	13.7 lx	4.87 lx	31.2 lx	0.36	0.16	CG15

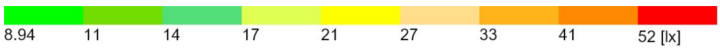
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 1 - Nivo 1 (FULL))

Perimetar 5





Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 5 Perpendicular illuminance Height: 0.020 m	20.4 lx	10.7 lx	43.6 lx	0.52	0.25	CG16

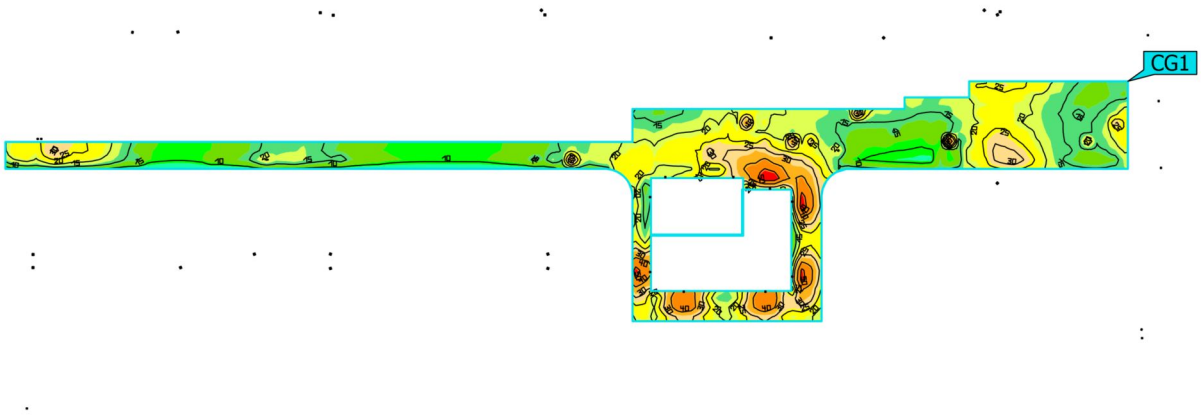
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

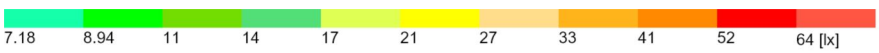
The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 1 - Centralni koridor







Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 1 - Centralni koridor Perpendicular illuminance Height: -0.000 m	21.1 lx	8.46 lx	57.9 lx	0.40	0.15	CG1

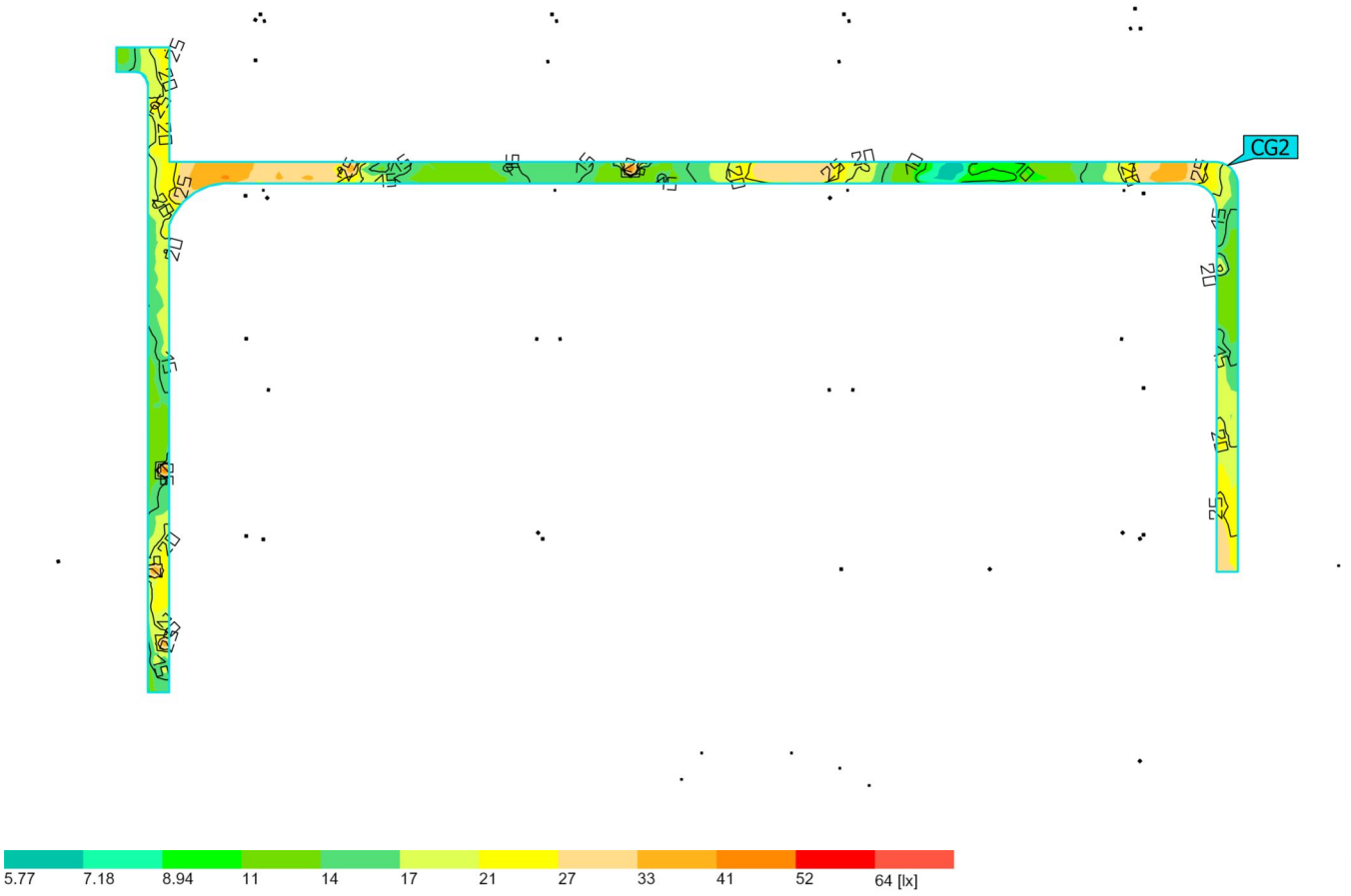
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 2 - Koridor 400kV





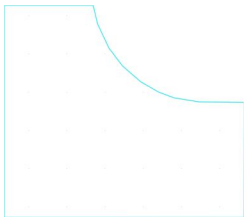
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 2 - Koridor 400kV Perpendicular illuminance Height: -0.000 m	19.6 lx	6.11 lx	52.8 lx	0.31	0.12	CG2

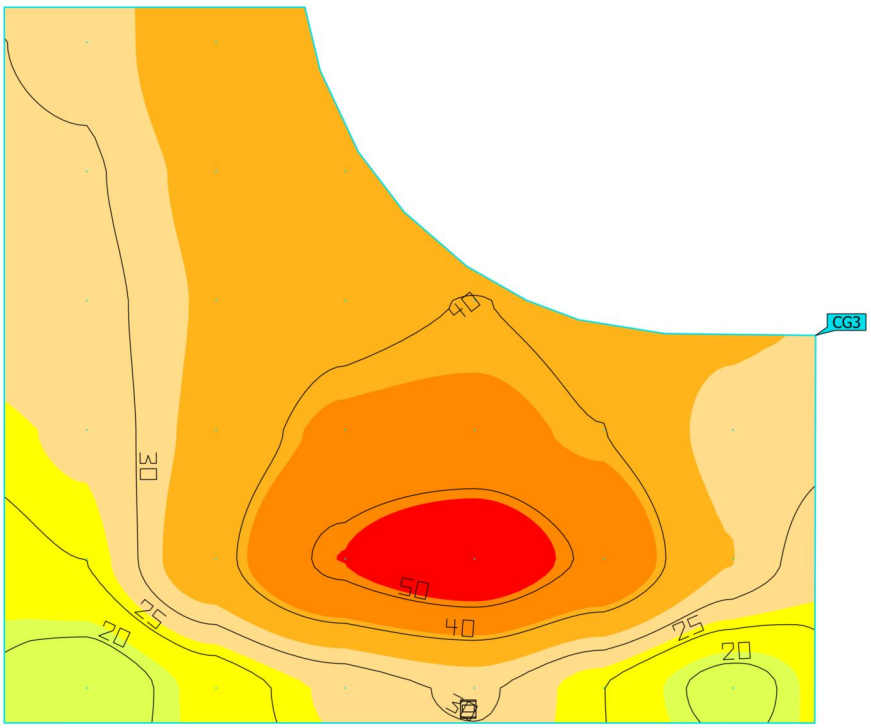
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 3 - Ulazna kapija







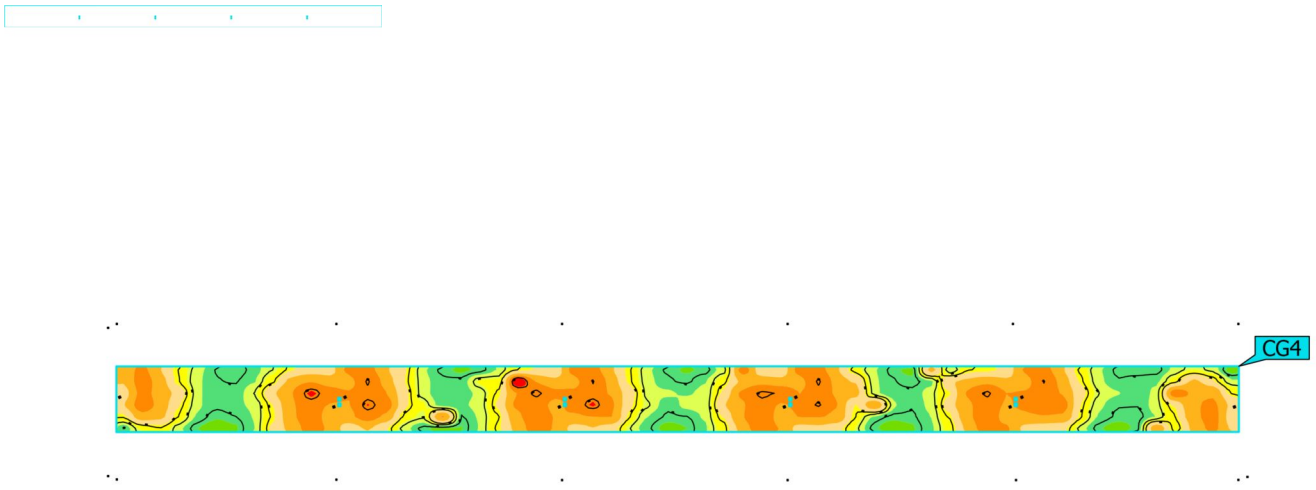
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 3 - Ulazna kapija Perpendicular illuminance Height: 0.020 m	34.4 lx	17.3 lx	58.2 lx	0.50	0.30	CG3

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 5 - RP 220 - 1





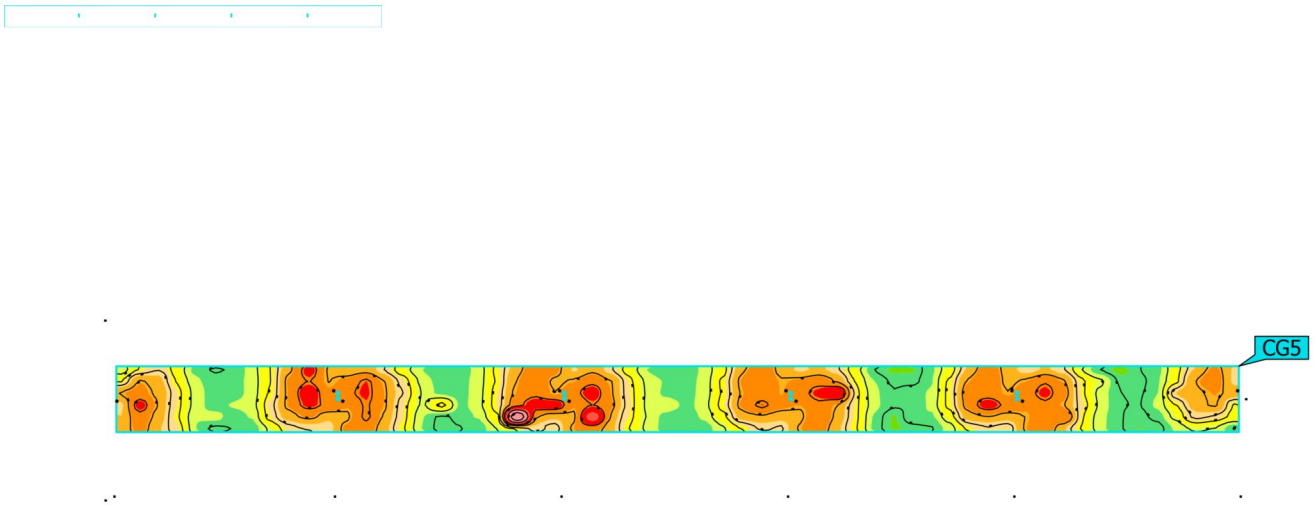
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 5 - RP 220 - 1 Perpendicular illuminance Height: 0.020 m	29.4 lx	12.4 lx	58.9 lx	0.42	0.21	CG4

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 6 - RP 220 - 2





Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 6 - RP 220 - 2 Perpendicular illuminance Height: 0.020 m	30.1 lx	13.3 lx	124 lx	0.44	0.11	CG5

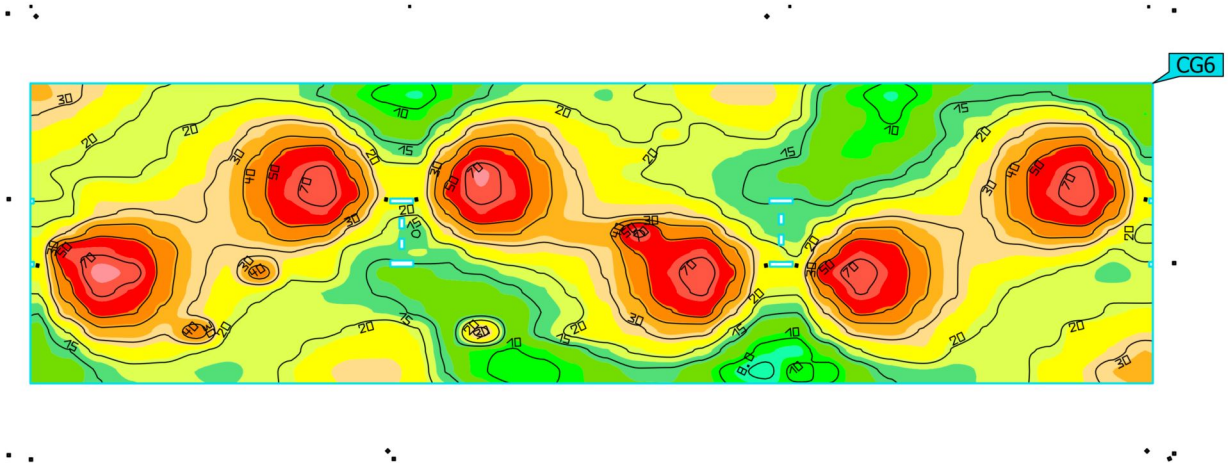
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 7 - RP 400 - 1







Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 7 - RP 400 - 1 Perpendicular illuminance Height: 0.020 m	27.5 lx	7.38 lx	85.9 lx	0.27	0.086	CG6

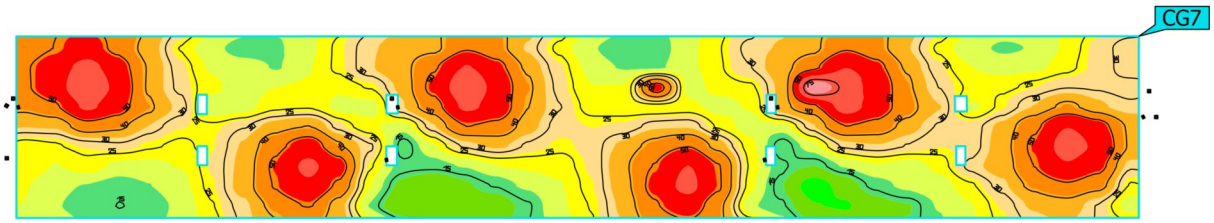
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

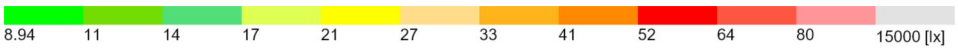
The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 8 - RP 400 - 2







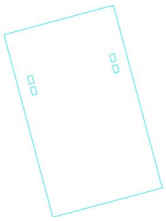
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 8 - RP 400 - 2 Perpendicular illuminance Height: 0.020 m	32.4 lx	10.0 lx	89.2 lx	0.31	0.11	CG7

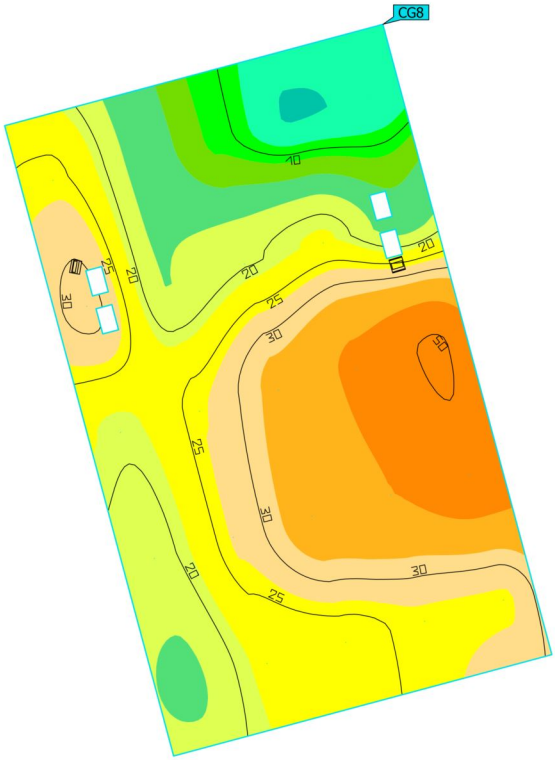
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 9 - RP 110 - 1







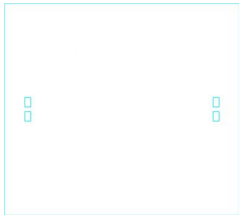
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 9 - RP 110 - 1 Perpendicular illuminance Height: 0.020 m	25.5 lx	7.06 lx	51.1 lx	0.28	0.14	CG8

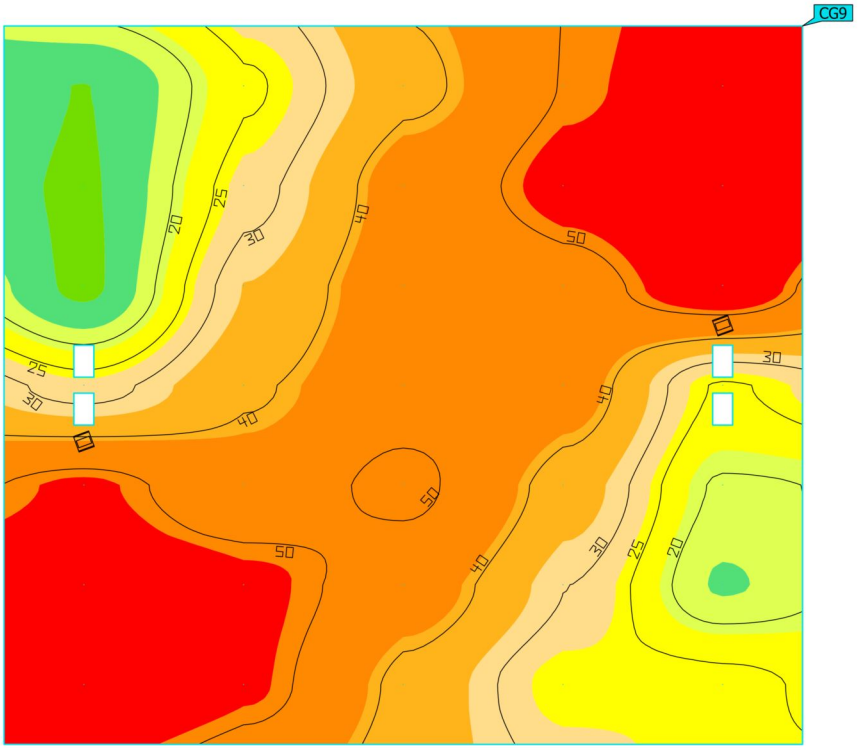
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 10 - ETR 110 - 1







Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 10 - ETR 110 - 1 Perpendicular illuminance Height: 0.020 m	39.0 lx	13.1 lx	59.0 lx	0.34	0.22	CG9

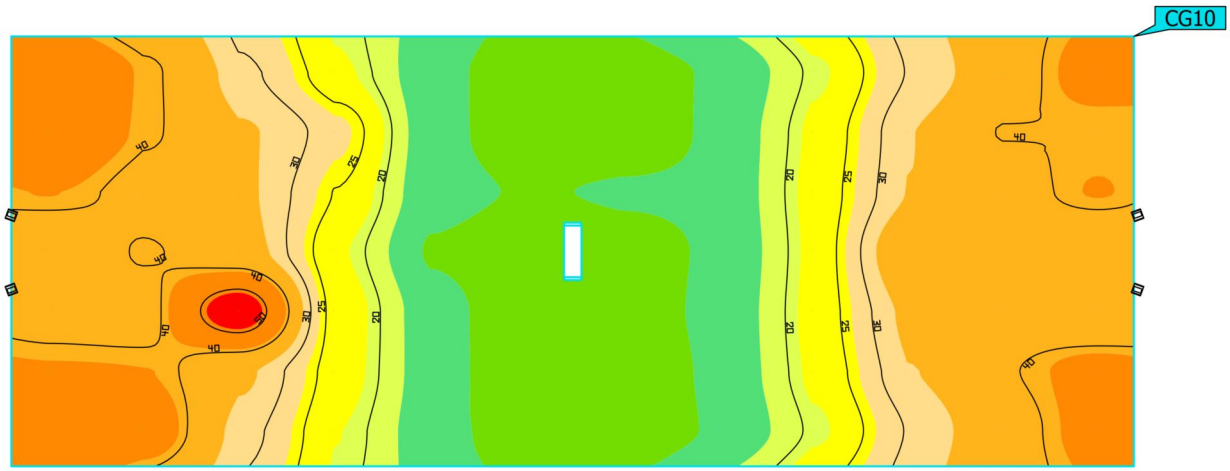
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 2 - Nivo 2)

CS 11 - ETR 400 - 1







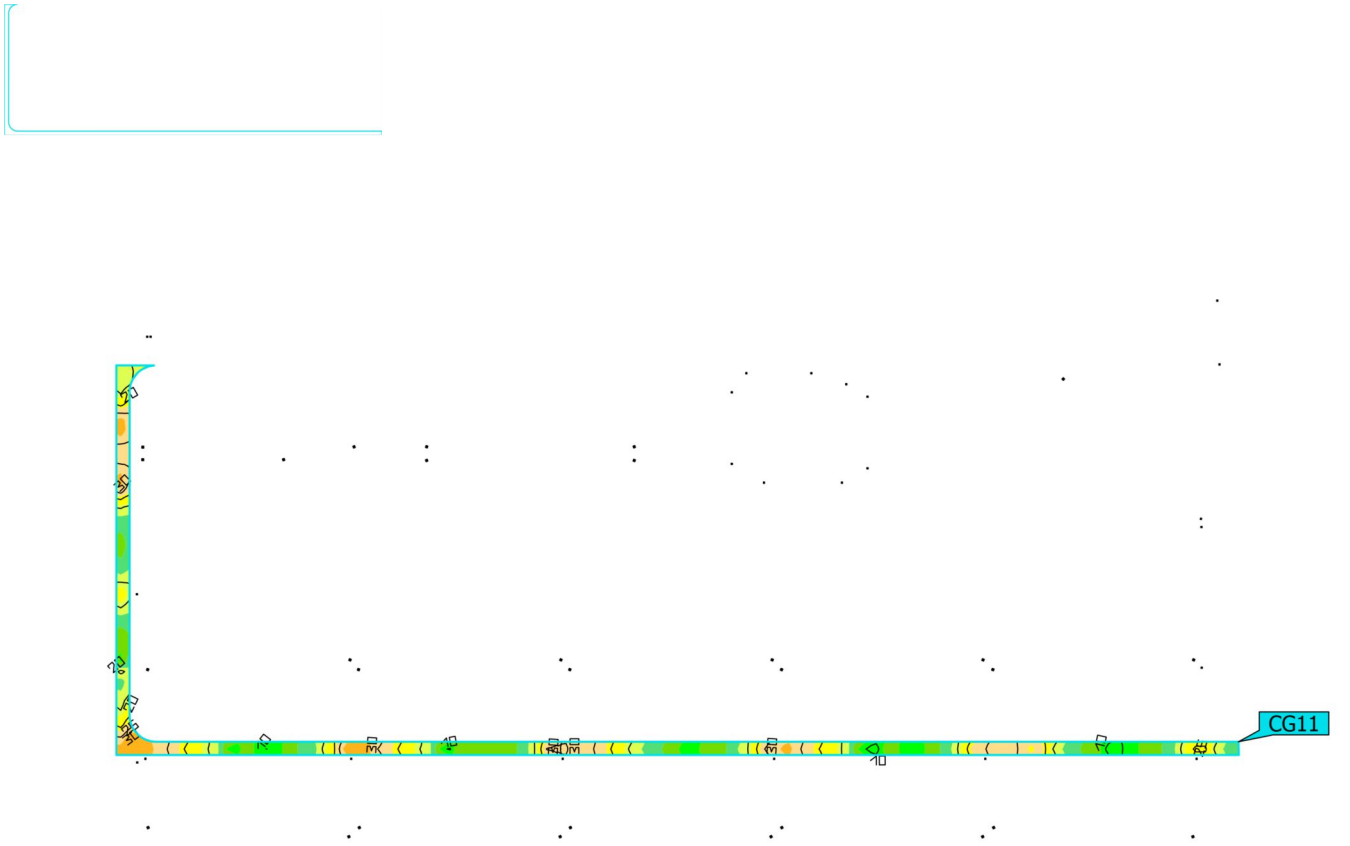
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 11 - ETR 400 - 1 Perpendicular illuminance Height: 0.020 m	27.5 lx	11.7 lx	56.2 lx	0.43	0.21	CG10

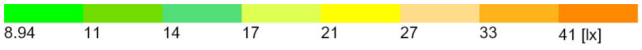
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

CS 4 - Koridor 220kV





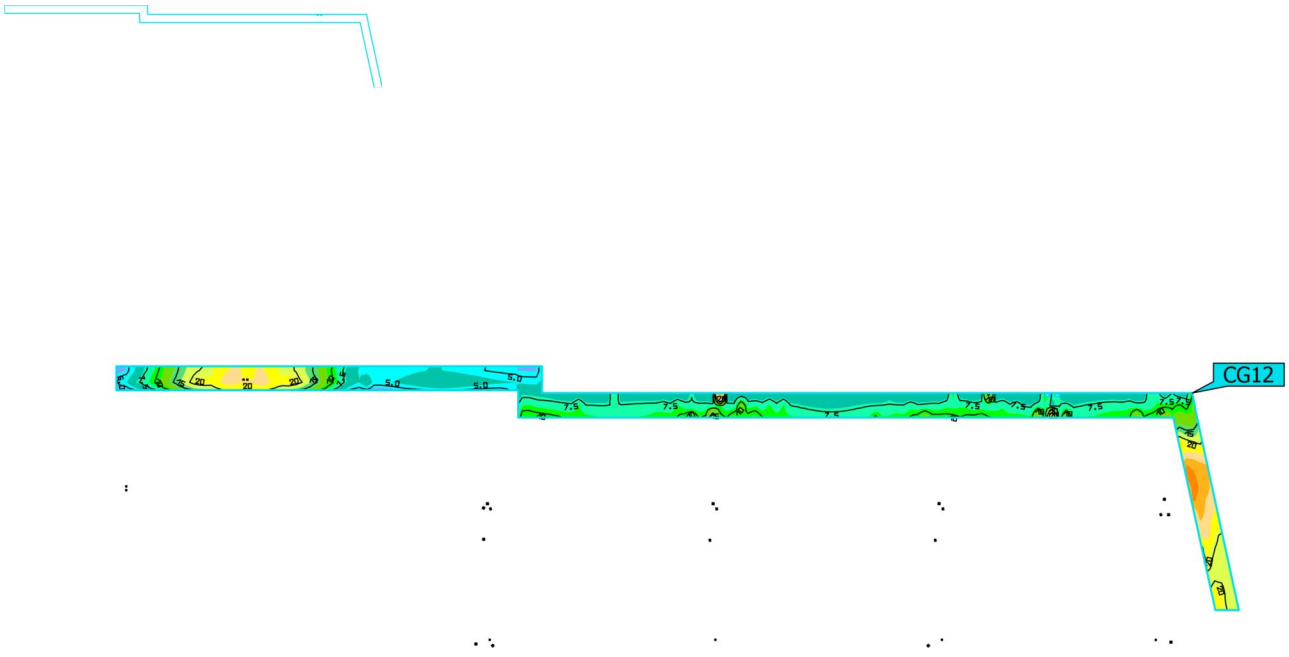
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
CS 4 - Koridor 220kV Perpendicular illuminance Height: -0.000 m	20.6 lx	9.12 lx	37.7 lx	0.44	0.24	CG11

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

Perimetar 1





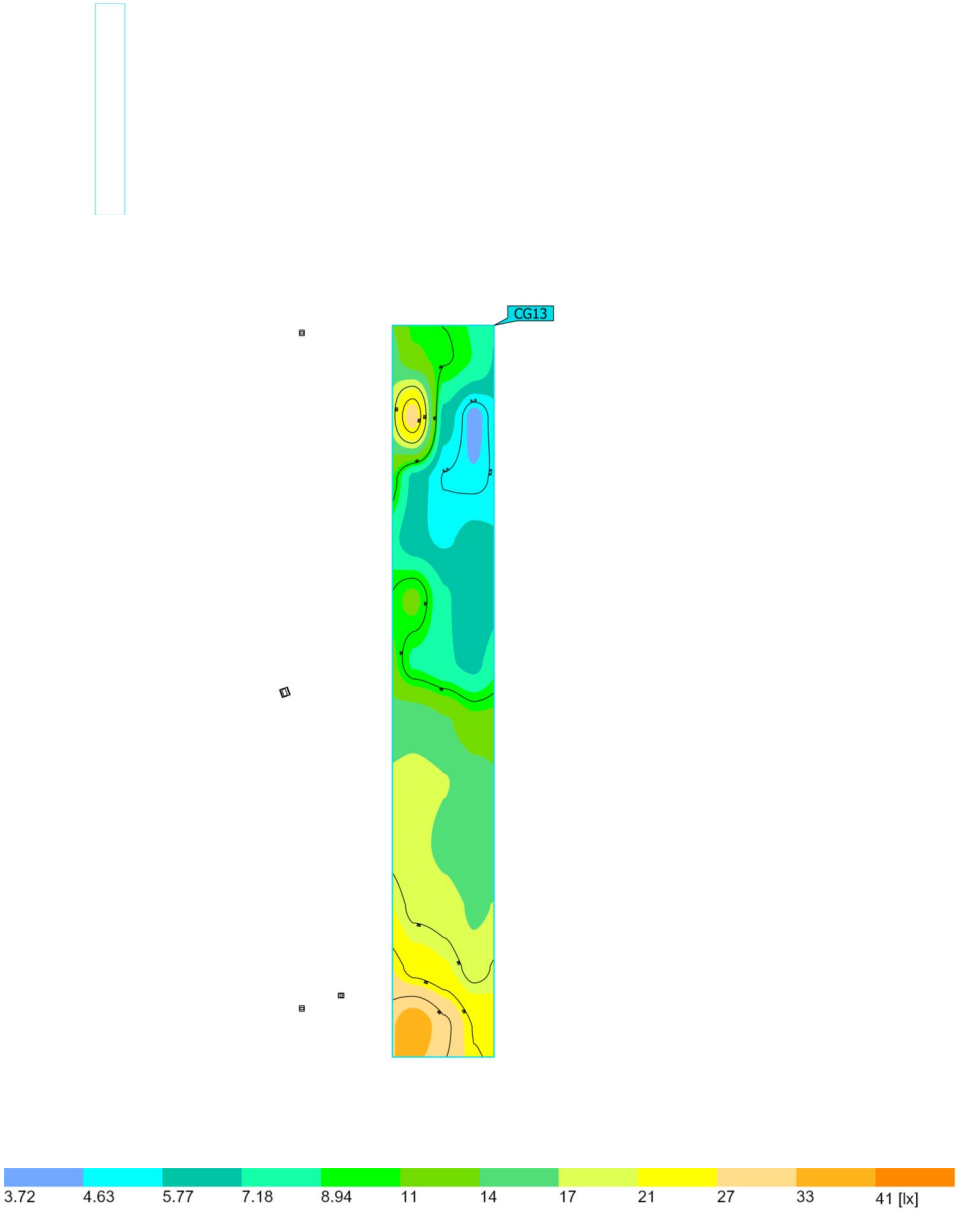
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 1 Perpendicular illuminance Height: 0.020 m	11.6 lx	4.34 lx	45.8 lx	0.37	0.095	CG12

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 2 - Nivo 2)

Perimetar 2



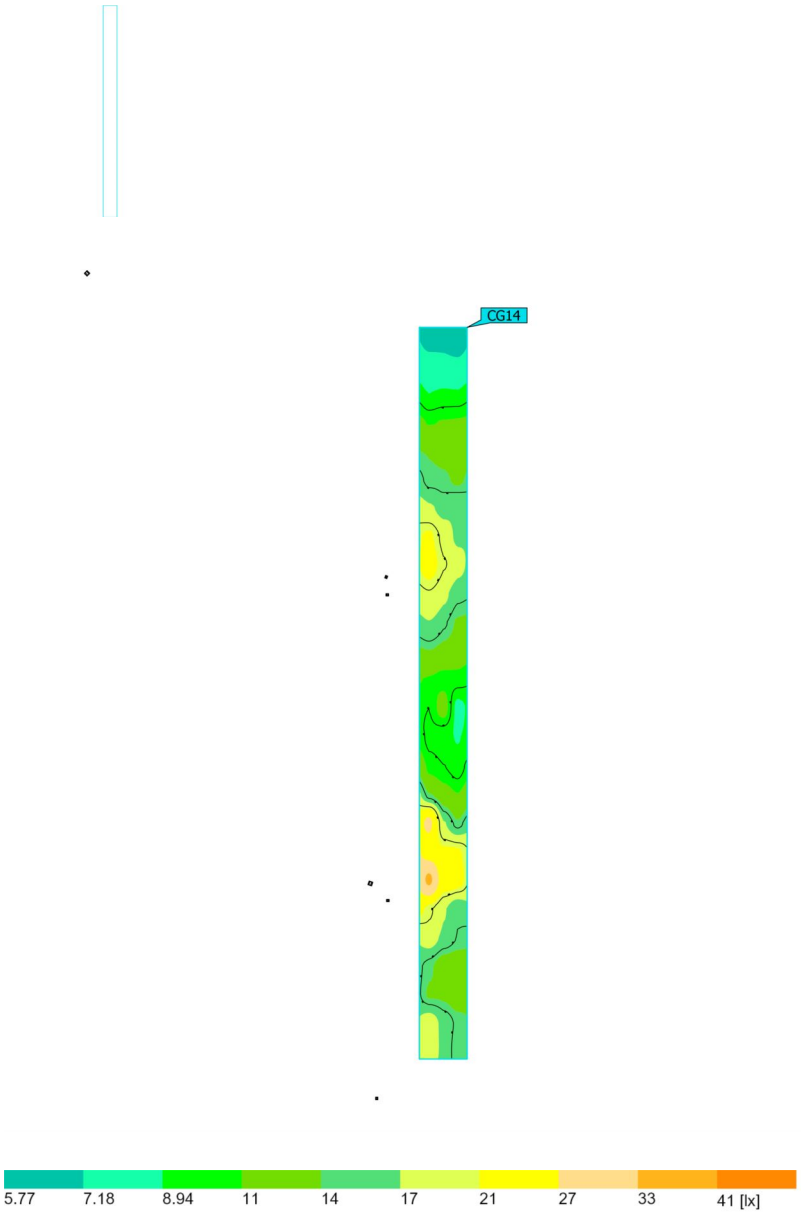
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 2 Perpendicular illuminance Height: 0.020 m	14.0 lx	4.33 lx	36.1 lx	0.31	0.12	CG13

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 2 - Nivo 2)

Perimetar 3



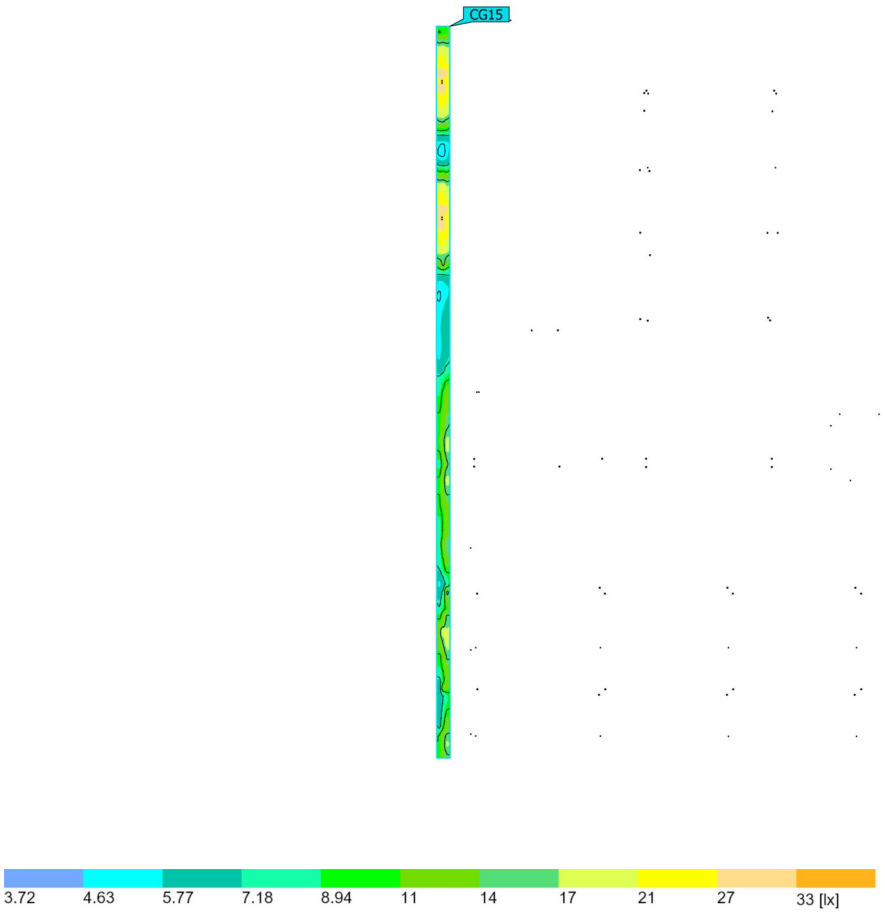
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 3 Perpendicular illuminance Height: 0.020 m	14.6 lx	5.97 lx	34.8 lx	0.41	0.17	CG14

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1 (Light scene 2 - Nivo 2)

Perimetar 4



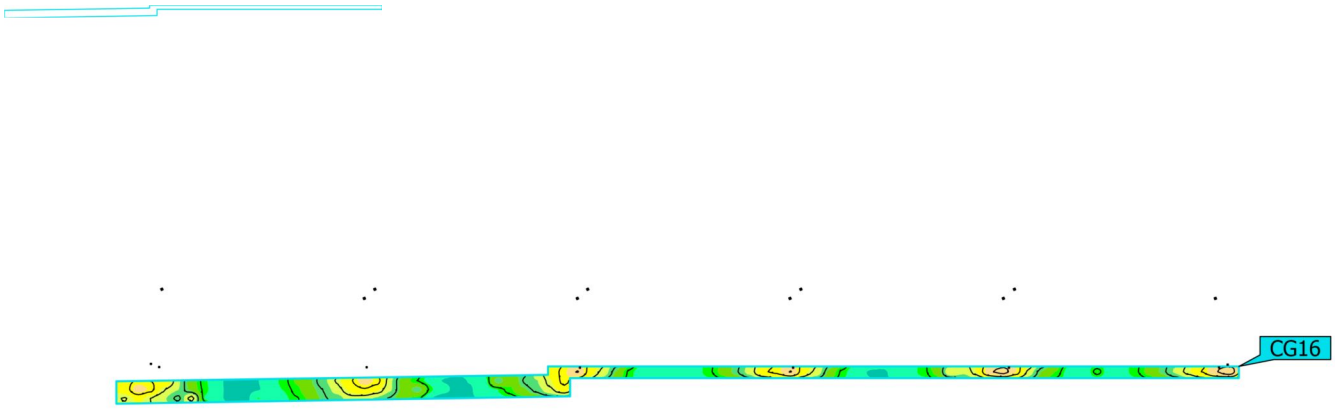
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 4 Perpendicular illuminance Height: 0.010 m	12.8 lx	4.60 lx	30.9 lx	0.36	0.15	CG15

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

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Site 1 (Light scene 2 - Nivo 2)

Perimetar 5





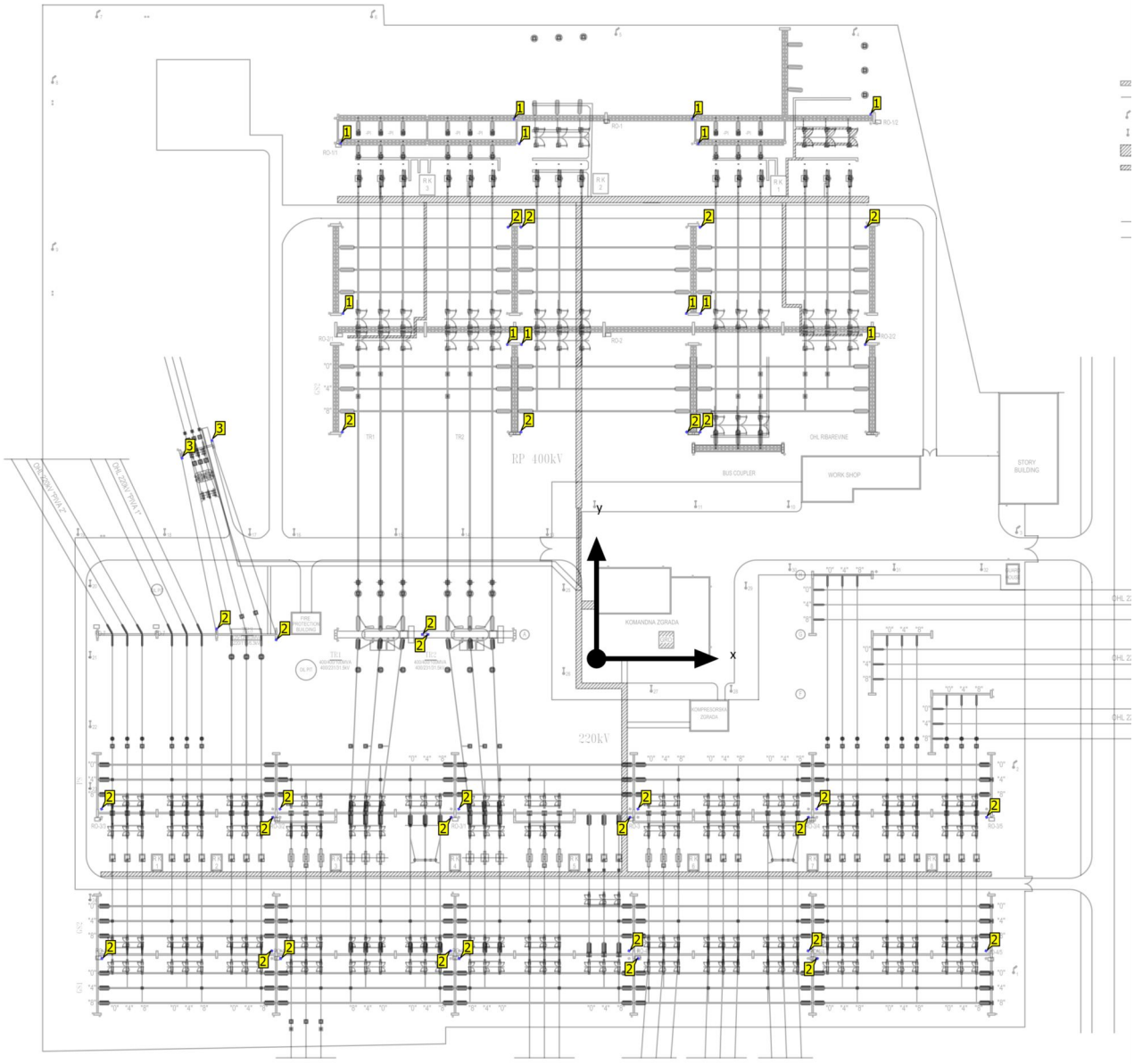
Properties	Ē	E_{min}	E_{max}	U_o (g_1)	g_2	Index
Perimetar 5 Perpendicular illuminance Height: 0.020 m	14.6 lx	6.39 lx	32.8 lx	0.44	0.19	CG16

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

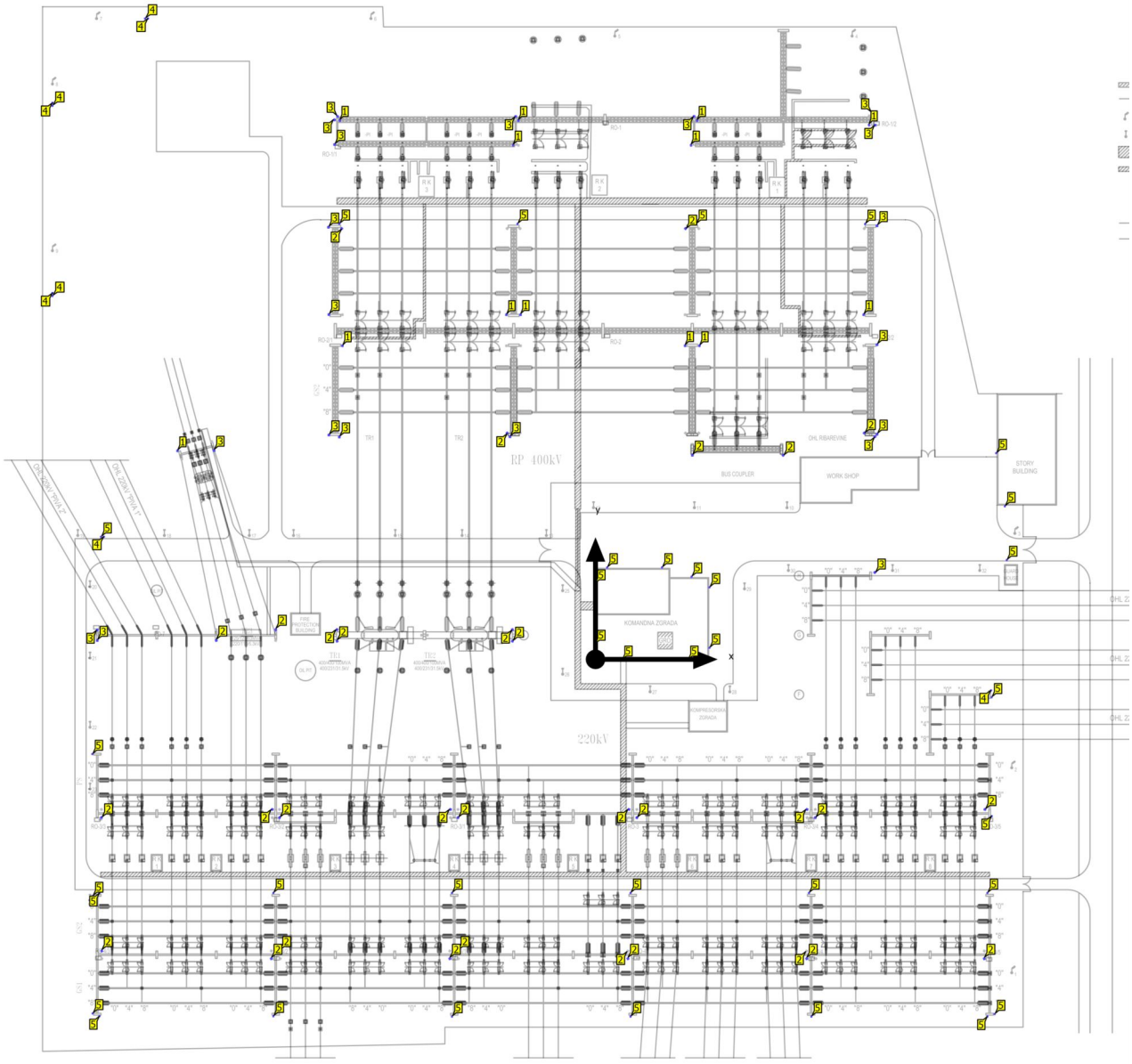
Control group CG 1



The project is not the offer as concerns law. The presented results are approximate and may change. The actual results may vary depending on the conditions in which the luminaires are installed.

Site 1

Control group CG 2



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Site 1

Control groups

Control group	CG 1	CG 2
Light scene 1 - Nivo 1 (FULL)	100	100
Light scene 2 - Nivo 2	–	100

Dimming values [%]

pcs.	Manufacturer	Article No.	Article name	P	Index
25	LUG Light Factory	120202.5L091.22	POWERLUG ED 25050lm/740 50st. easy connect	149.0 W	1
64	LUG Light Factory	120202.5L091.42	POWERLUG ED 24250lm/740 as szeroki easy connect	149.0 W	2
22	LUG Light Factory	120202.5L131.42	POWERLUG ED 17100lm/740 as szeroki easy connect	102.0 W	3
8	LUG Light Factory	120212.5L301.31	POWERLUG MINI ED 6300lm/740 as w¹ski	40.0 W	4
35	LUG Light Factory	120212.5L301.51	POWERLUG MINI ED 5700lm/740 as bardzo szeroki	40.0 W	5

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NAPOMENA:

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OHL 110kV "PLJEVLJA 1"

OHL 220kV "PIVA 2"

OHL 220kV "PIVA 1"

GS2

R K 3

R K 2

R K 1

TR1

TR2

RP 400kV

OHL RIBAREVINE

BUS COUPLER

WORK SHOP

STORY BUILDING

GUARD HOUSE

OHL 220kV "BAJNA BAŠTA"

OHL 220kV "POŽEGA 1"

OHL 220kV "MOJKOVAC"

OIL PIT

FIRE PROTECTION BUILDING

TR3

TR1

TR2

OIL PIT

KOMANDNA ZGRADA

KOMPRESORSKA ZGRADA

220kV

PS

R K 1

R K 2

R K 3

R K 4

R K 5

R K 6

R K 7

R K 8

GS2

GS1

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2	Lokacija: kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja		
Pripremio:	Tehnička dokumentacija: Spoljna ravnjeta - TS Pljevlja 2		Razmjera: R 1:300
Datum izrade: 12.2025. god.	Prilog: Situacija Osnova TS	Broj priloga: 1	Br. strane: xx

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
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Luminaire list (TS Pljevlja 2)

Index	Symbol	Manufacturer	Article name	Item number	Fitting	Luminous flux	Maintenance factor	Connected load	Quantity
01		LUG Light Factory	POWERLUG EO 24250mm740 ws spindle-easy connect	135050.SLW1.42	1x LED 400K	24250 lm	0.90	149 W	64
02		LUG Light Factory	POWERLUG EO 29350mm740 5090 easy connect	135050.SLW1.52	1x LED 400K	29350 lm	0.90	149 W	28
03		LUG Light Factory	POWERLUG EO 17150mm740 ws spindle easy connect	135050.SLY1.42	1x LED 400K	17150 lm	0.90	102 W	22
04		LUG Light Factory	POWERLUG lefd EO 8300mm740 ws spindle	135012.SLW1.51	1x LED 400K	8300 lm	0.90	63 W	8
05		LUG Light Factory	POWERLUG lefd EO 5700mm740 ws bardo sivrelir	135012.SLW1.51	1x LED 400K	5700 lm	0.90	63 W	55

OHL 110kV "PLJEVLJA 1"

OHL 220kV "PIVA 2"

OHL 220kV "PIVA 1"

OIL PIT

FIRE PROTECTION BUILDING

TR3

TR1

TR2

OIL PIT

GS2

RP 400kV

TR1

TR2

OHL RIBAREVINE

BUS COUPLER

WORK SHOP

STORY BUILDING

GUARD HOUSE

KOMANDNA ZGRADA

KOMPRESORSKA ZGRADA

OHL 220kV "BAJNA BAŠTA"

OHL 220kV "POŽEGA 1"

OHL 220kV "MOJKOVAC"

220kV

PS

GS2

GS1

R K 1

R K 2

R K 3

R K 4

R K 5

R K 6

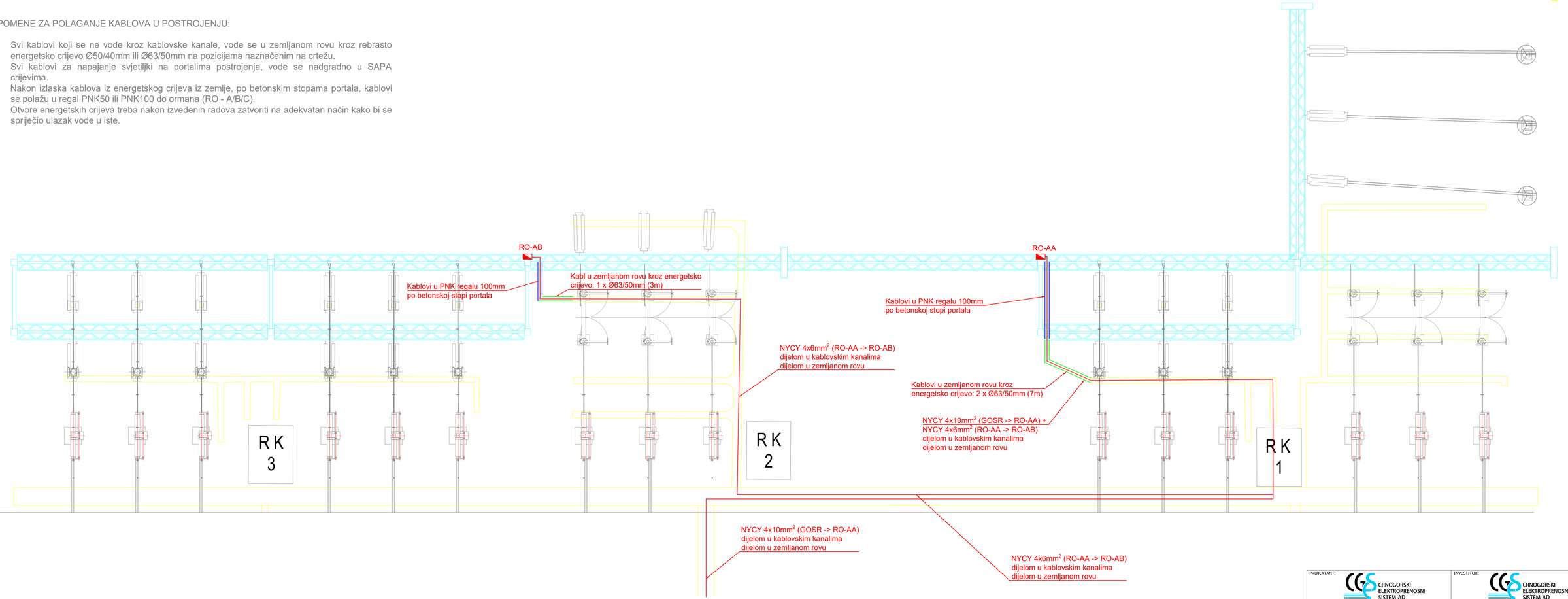
R K 7

R K 8

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna ravnjeta - TS Pljevlja 2	Razmjera: R 1:300
Datum izrade: 12.2025. god.		Prilog: Situacija Disposicija rasvjete	Broj priloga: 2 / Br. strane: xx

NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.



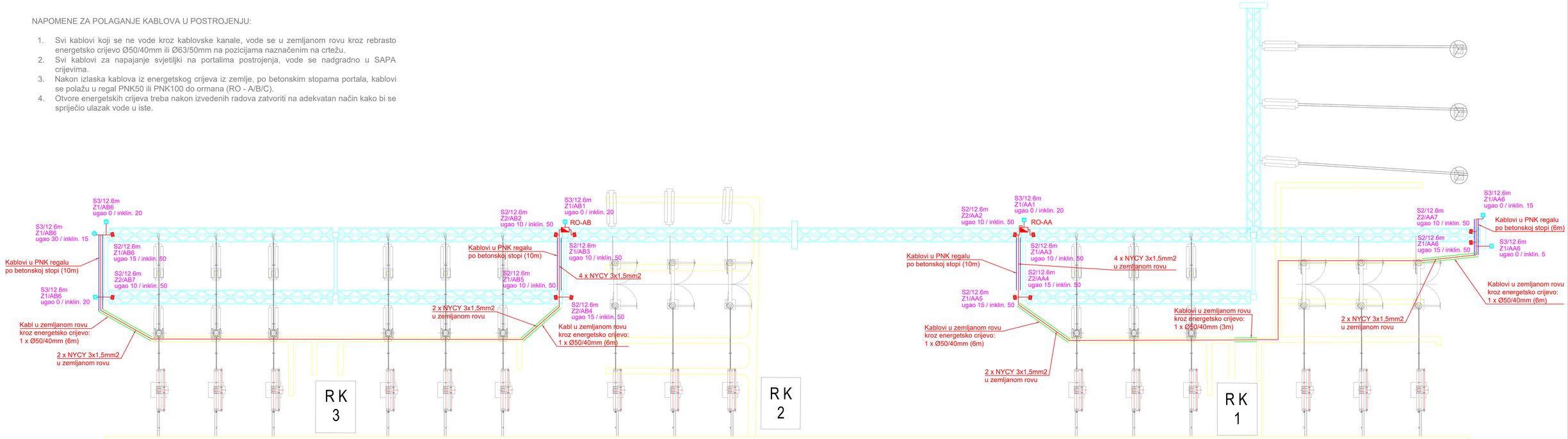
NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: RP 400kV (1) Napojni kablovi zone "A" (RO-Ax)	Broj priloga: 3 / Br. strane: xx

NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

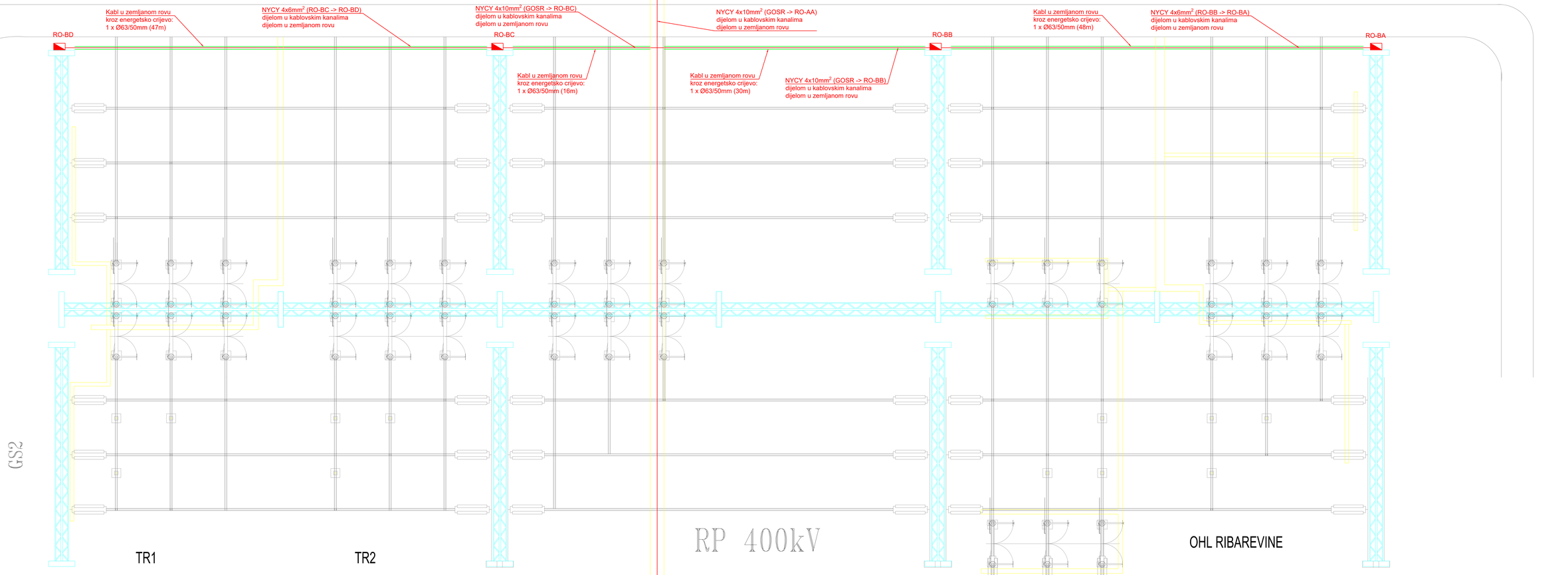
1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.



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PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spojna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: RP 400kV (1) Rasvjeta na portalima "A" (RO-Ax)	Broj priloga: 4 / Br. strane: xx



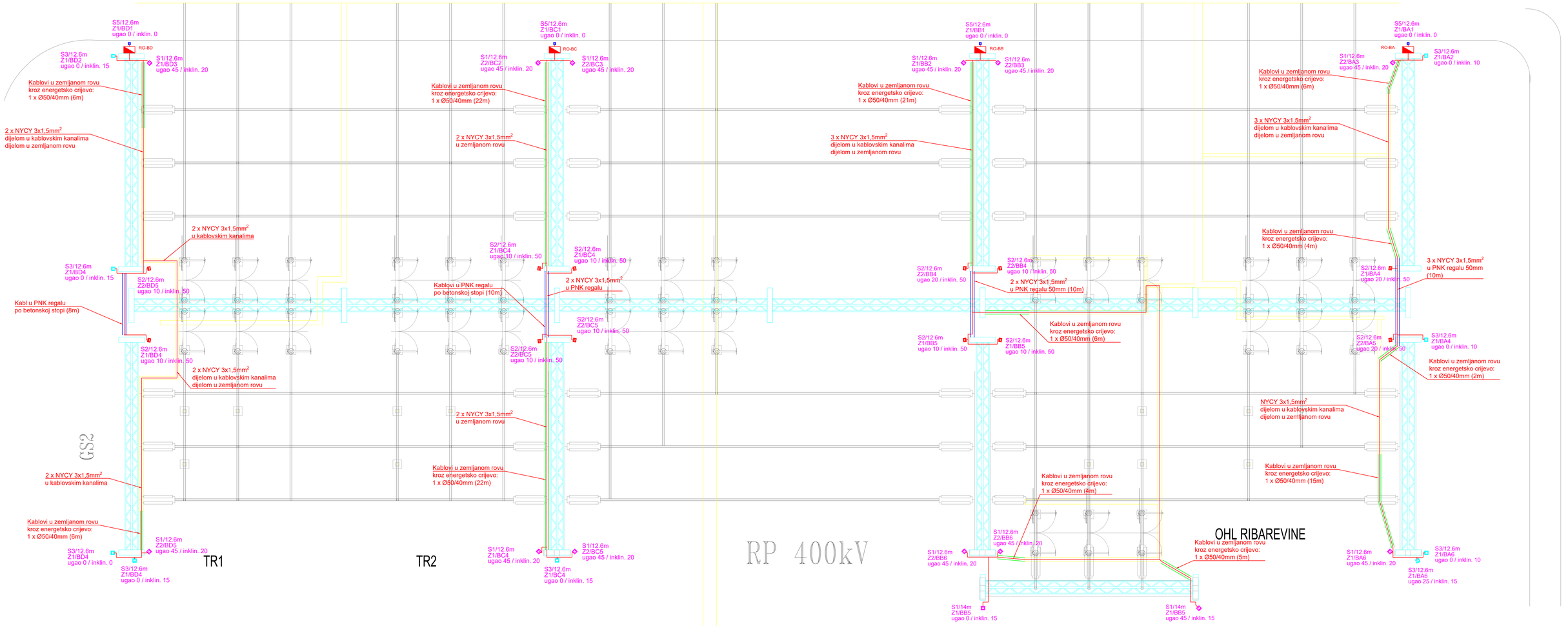
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
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NAPOMENA:

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PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna razvoda - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: RP 400kV (2) Napojni kablovi zone "B" (RO-Bx)	Broj priloga: 5 / Br. strane: xx



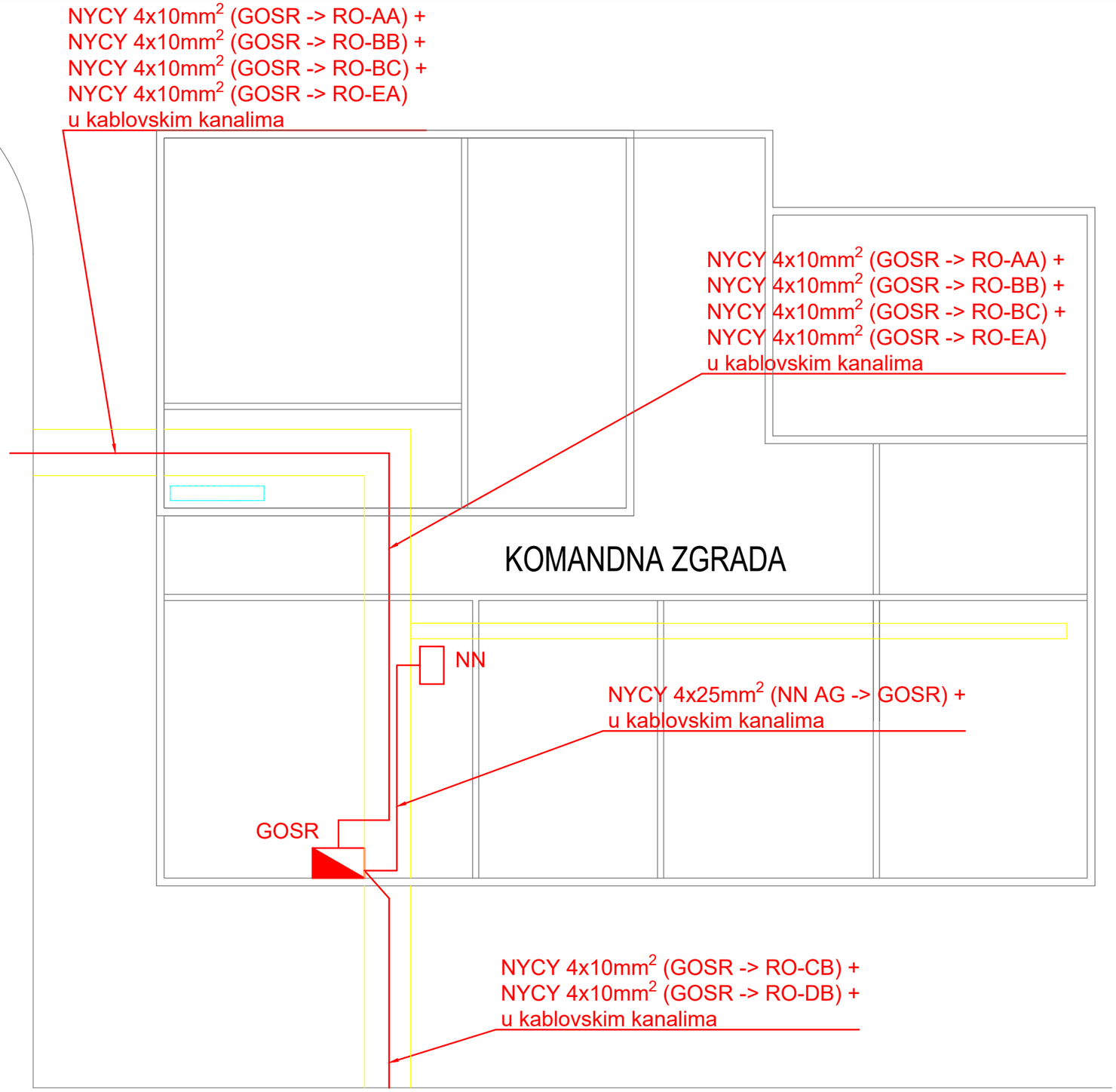
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
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PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spojna razvodna - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: RP 400kV (2) Rasvjeta na portalima "B" (RO-Bx)	Broj priloga: 6 / Br. strane: xx



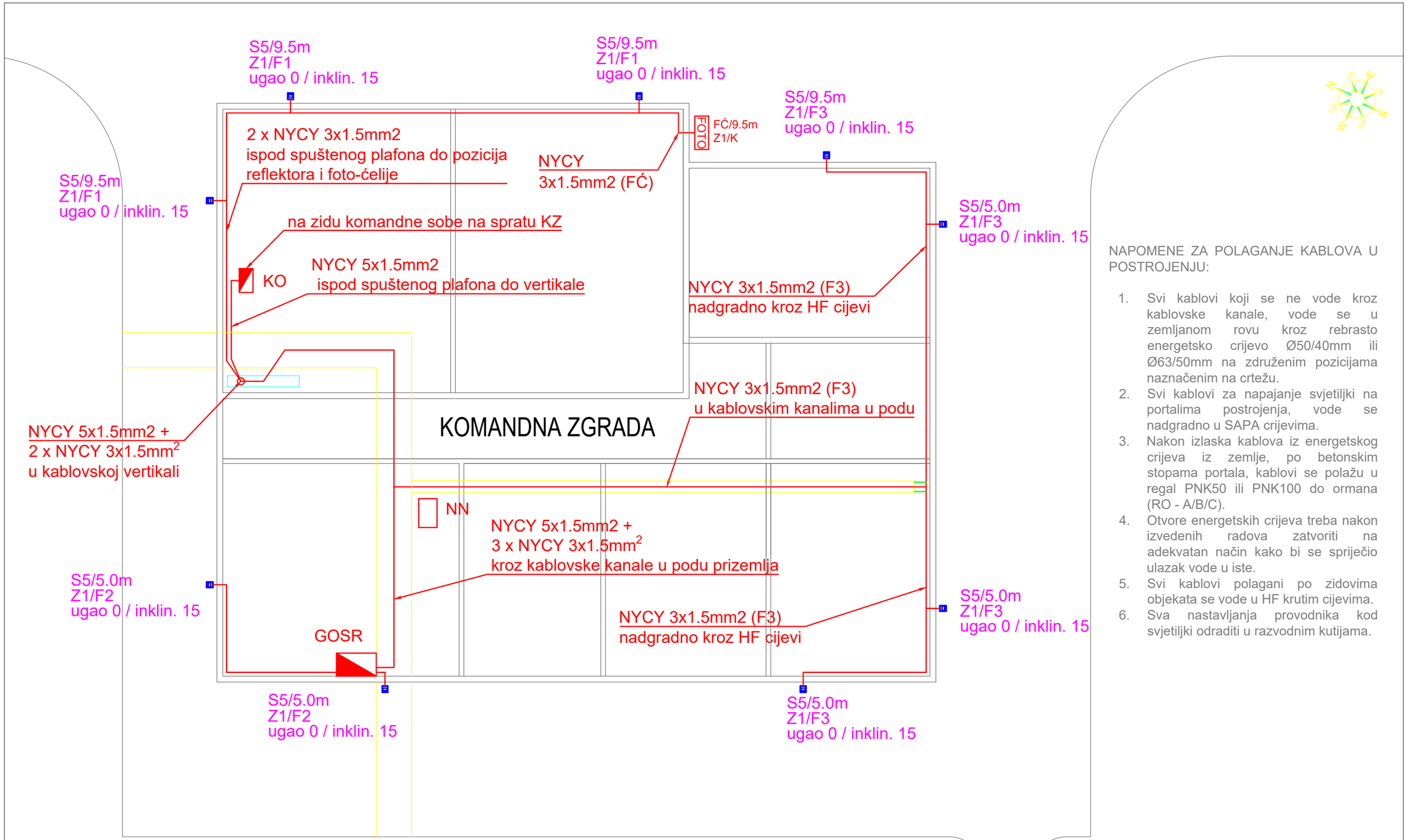
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na združenim pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.
5. Svi kablovi polagani po zidovima objekata se vode u HF krutim cijevima.
6. Sva nastavljanja provodnika kod svjetiljki odraditi u razvodnim kutijama.

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: Komandna zgrada Napojni kablovi kroz objekat	Broj priloga: 7 / Br. strane: xx



NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na združenim pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.
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6. Sva nastavljanja provodnika kod svjetiljki odraditi u razvodnim kutijama.

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: Komandna zgrada Rasvjeta na fasadi objekta	Broj priloga: 8 / Br. strane: xx



OHL 220kV "PIVA 2"

OHL 220kV "PIVA 1"

RO-EC

NYCY 4x6mm^2 (RO-EA -> RO-EC)
u kablovskim kanalima

NYCY 4x6mm^2 (RO-EA -> RO-EB) +
NYCY 4x6mm^2 (RO-EA -> RO-EC)
u kablovskim kanalima

NYCY 4x6mm^2 (RO-EA -> RO-EB)
u kablovskim kanalima

OIL PIT

RO-EB

FIRE PROTECTION BUILDING

TR3

NYCY 4x10mm^2 (GOSR -> RO-EA) +
NYCY 4x6mm^2 (RO-EA -> RO-EB) +
NYCY 4x6mm^2 (RO-EA -> RO-EC)
u kablovskim kanalima

Kablovi u zemljanom rovu
kroz energetsko crijevo:
3 x Ø63/50mm (6m)

RO-EA

TR1

TR2

NYCY 4x10mm^2 (GOSR -> RO-EA)
u kablovskim kanalima

NYCY 4x10mm^2 (GOSR -> RO-AA) +
NYCY 4x10mm^2 (GOSR -> RO-BB) +
NYCY 4x10mm^2 (GOSR -> RO-BC) +
NYCY 4x10mm^2 (GOSR -> RO-EA)
u kablovskim kanalima

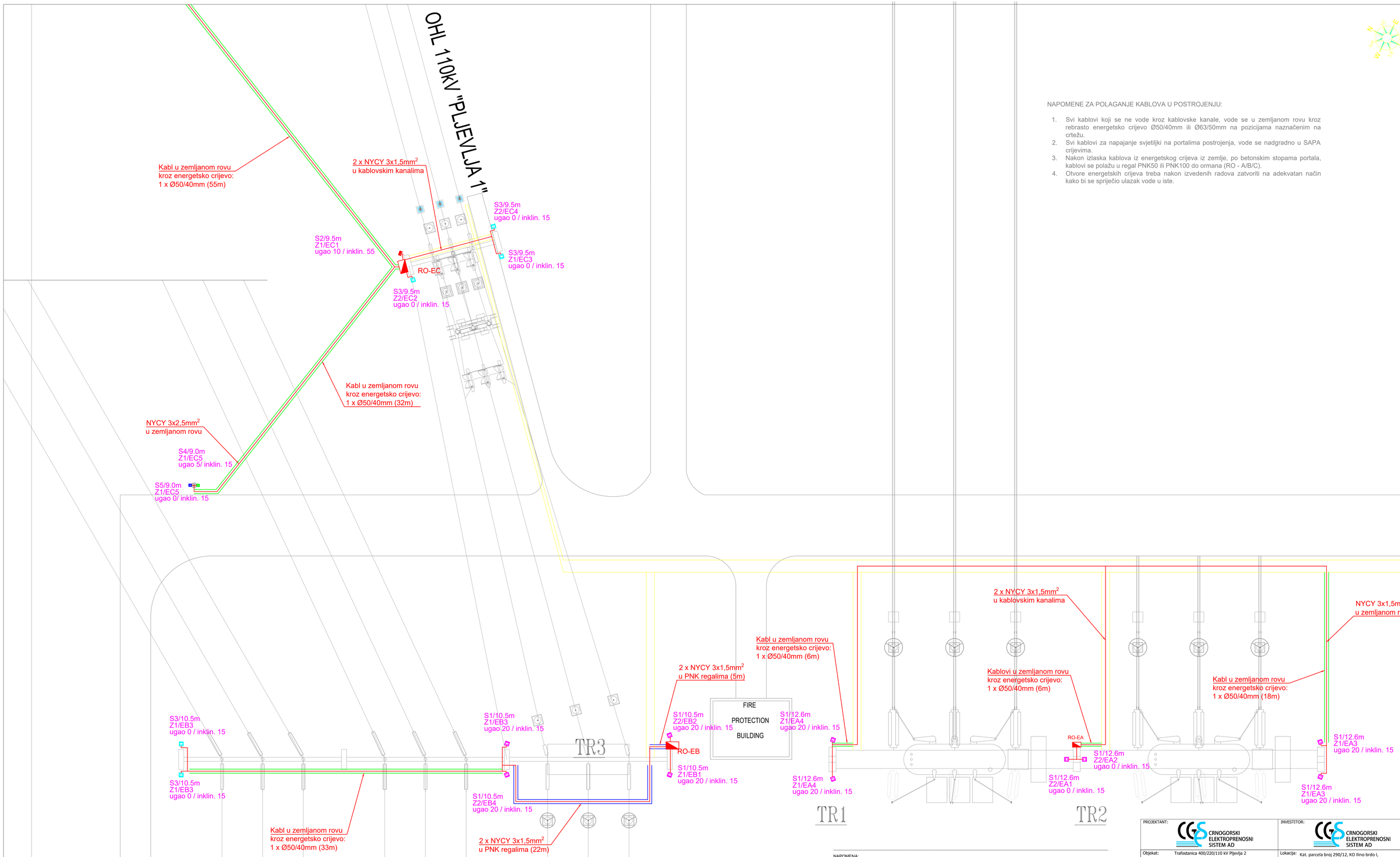
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: ETR + RP 110 Napojni kablovi zone "E" (RO-Ex)	Broj priloga: 9 / Br. strane: xx



NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: ETR + RP 110 Rasvjeta na portalima "E" (RO-Ex)	Broj priloga: 10 / Br. strane: xx

S4/9.0m
Z1/EC6
ugao 0 / inklin. 10

S4/9.0m
Z1/EC6
ugao 0 / inklin. 20

NYCY 3x2,5mm^2
u zemljanom rovu

Kabl u zemljanom rovu
kroz energetsko crijevo:
1 x Ø50/40mm (48m)

S4/9.0m
Z1/EC6
ugao 0 / inklin. 20

S4/9.0m
Z1/EC6
ugao 0 / inklin. 20

Kabl u zemljanom rovu
kroz energetsko crijevo:
1 x Ø50/40mm (52m)

NYCY 3x2,5mm^2
u zemljanom rovu

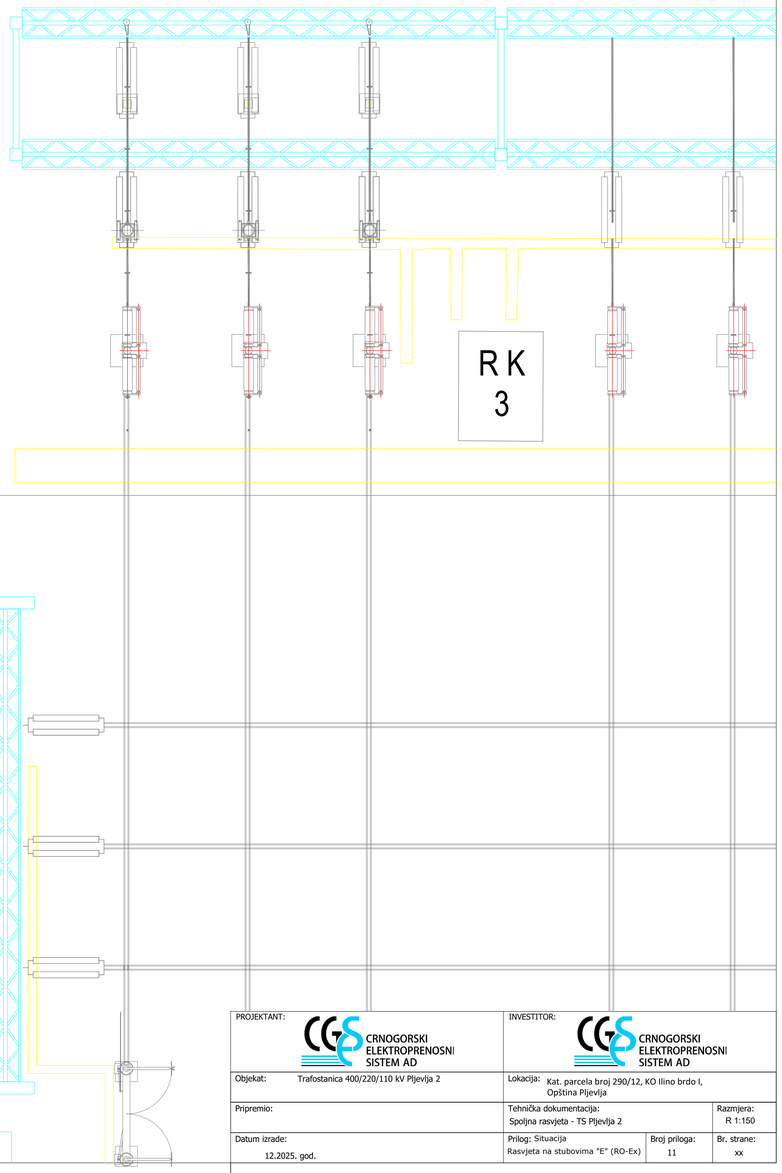
S4/9.0m
Z1/EC6
ugao 0 / inklin. 20

S4/9.0m
Z1/EC6
ugao 0 / inklin. 20

NYCY 3x2,5mm^2
u zemljanom rovu

NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

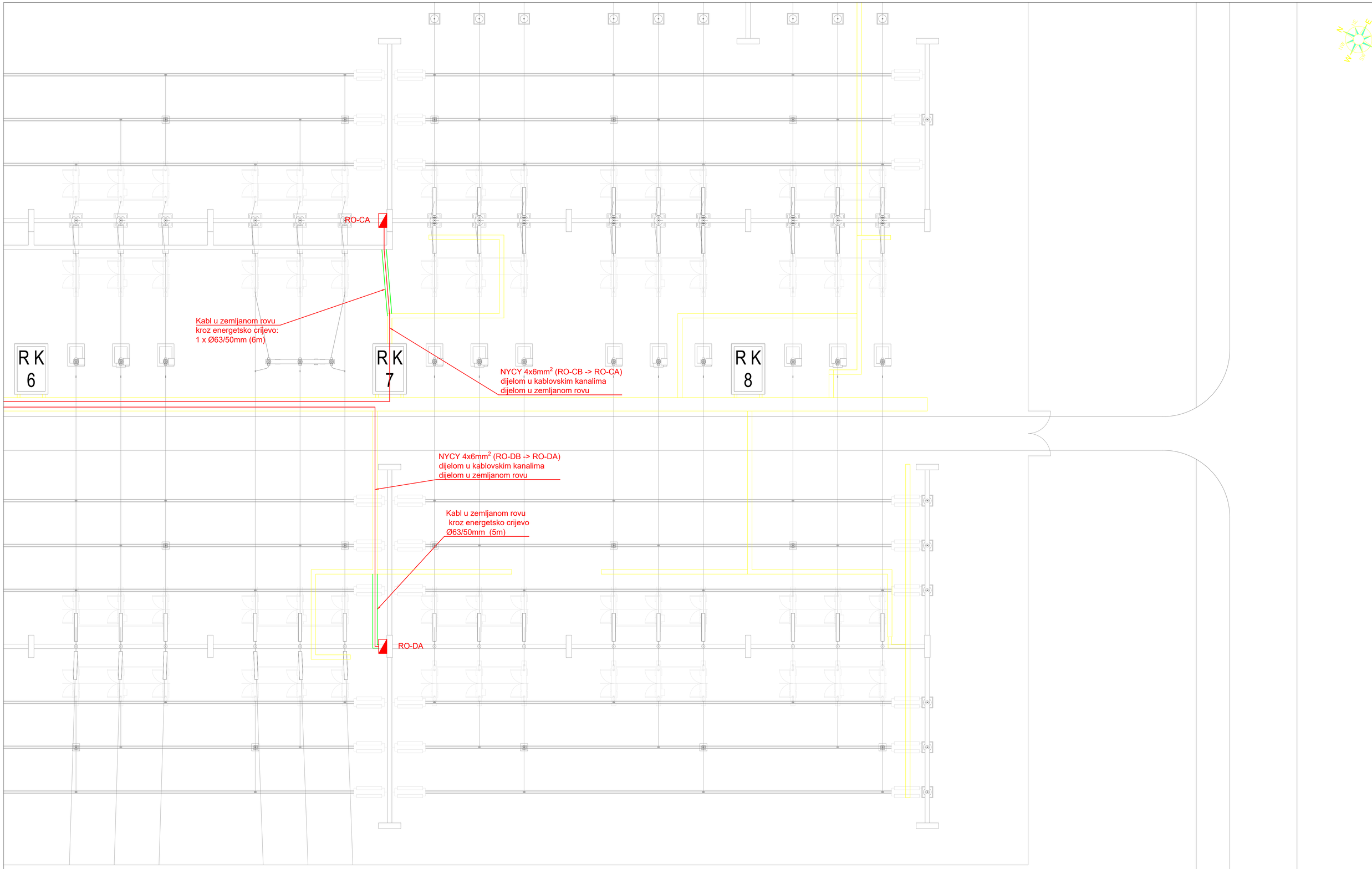
1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.



NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: Situacija Rasvjeta na stubovima "E" (RO-Ex)	Broj priloga: 11 / Br. strane: xx



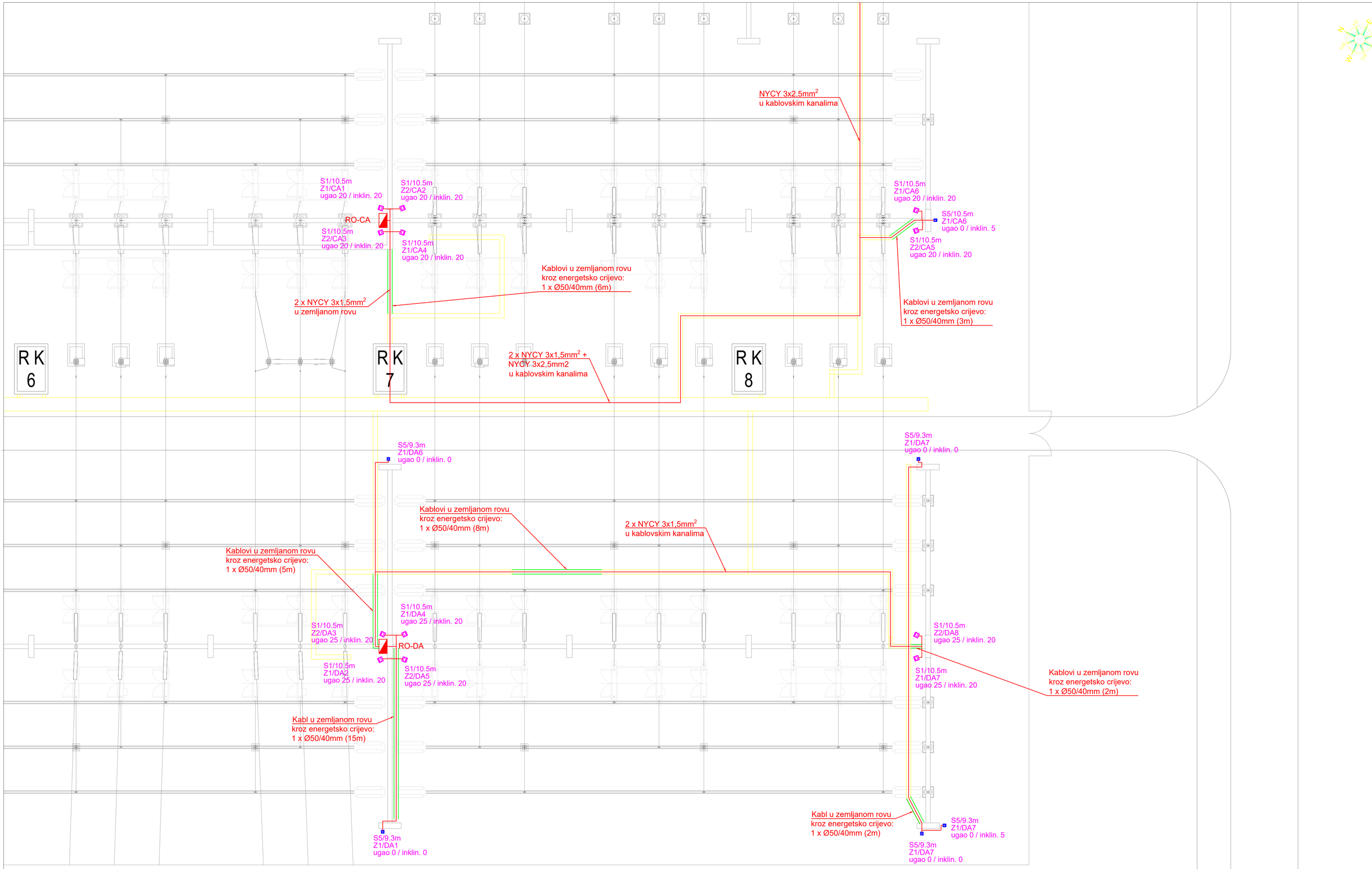
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
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PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.	Prilog: RP 220kV (1) Napojni kablovi zone "C i D" (RO-CA i RO-DA)	Broj priloga: 12	Br. strane: xx



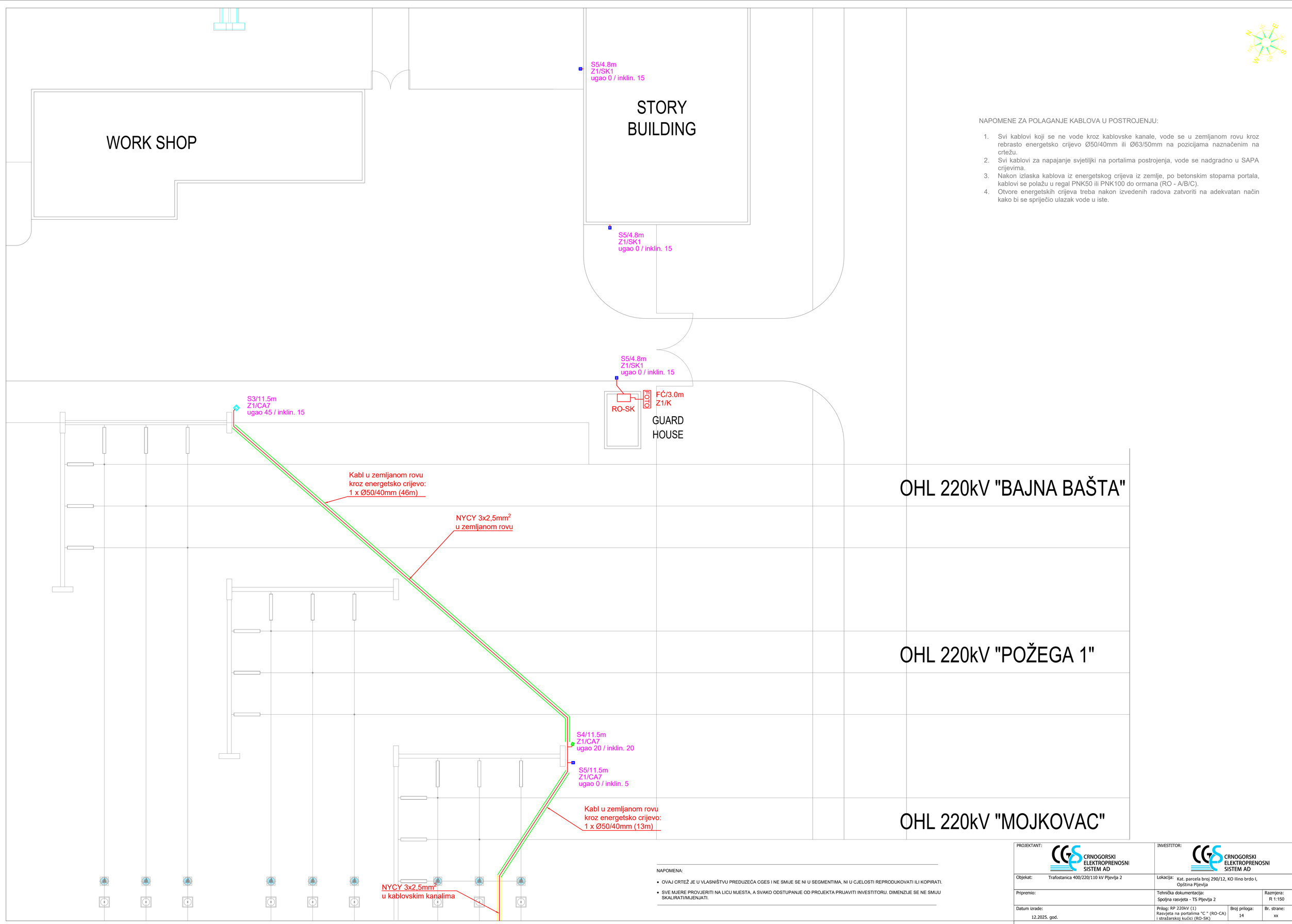
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
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PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.	Prilog: RP 220kV (1) Rasvjeta na portalima "C i D" (RO-CA i RO-DA)	Broj priloga: 13	Br. strane: xx



NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.

OHL 220kV "BAJNA BAŠTA"

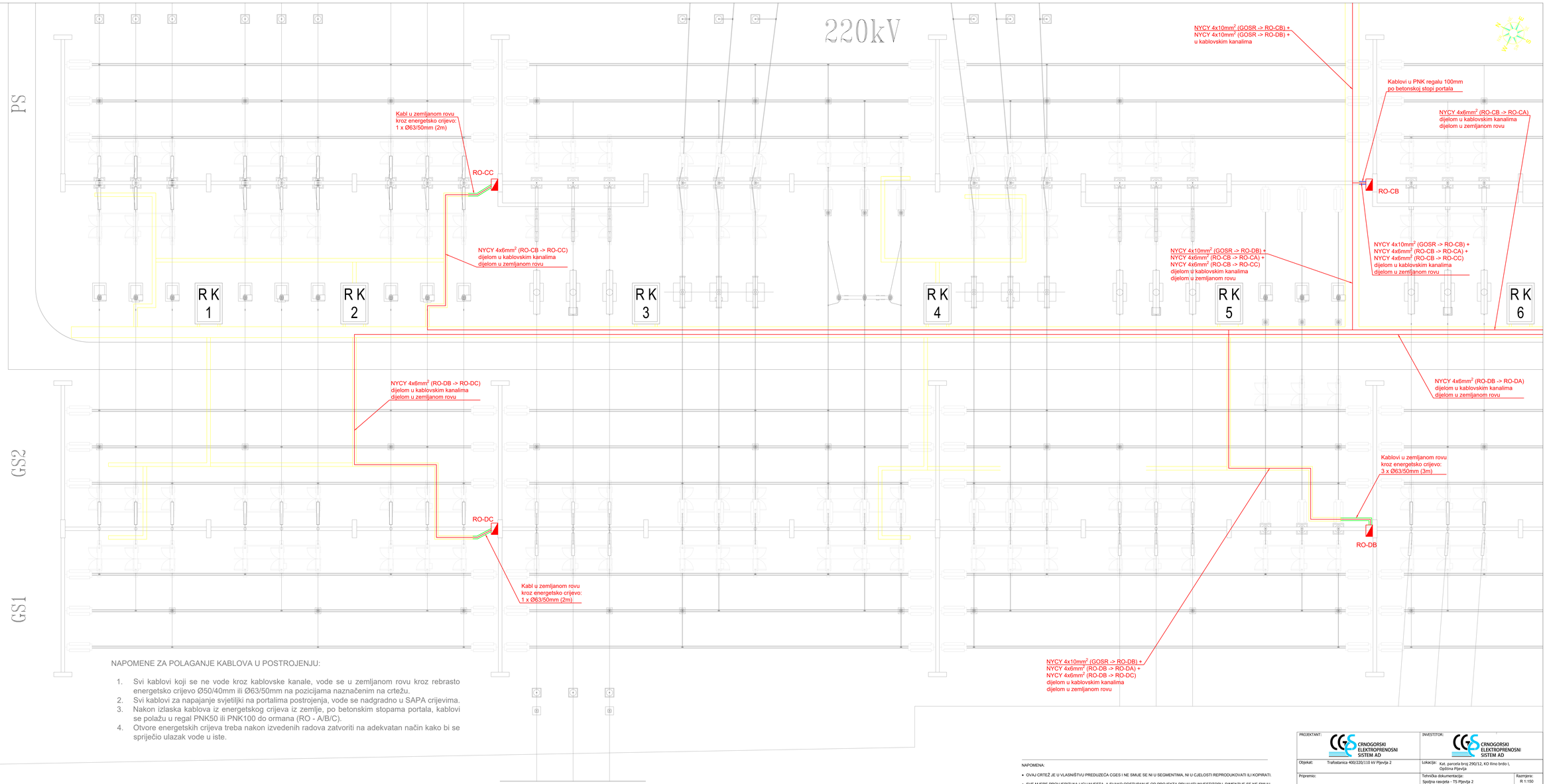
OHL 220kV "POŽEGA 1"

OHL 220kV "MOJKOVAC"

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: RP 220kV (1) Rasvjeta na portalima "C " (RO-CA) i stražarskoj kućici (RO-SK)	Broj priloga: 14 / Br. strane: xx



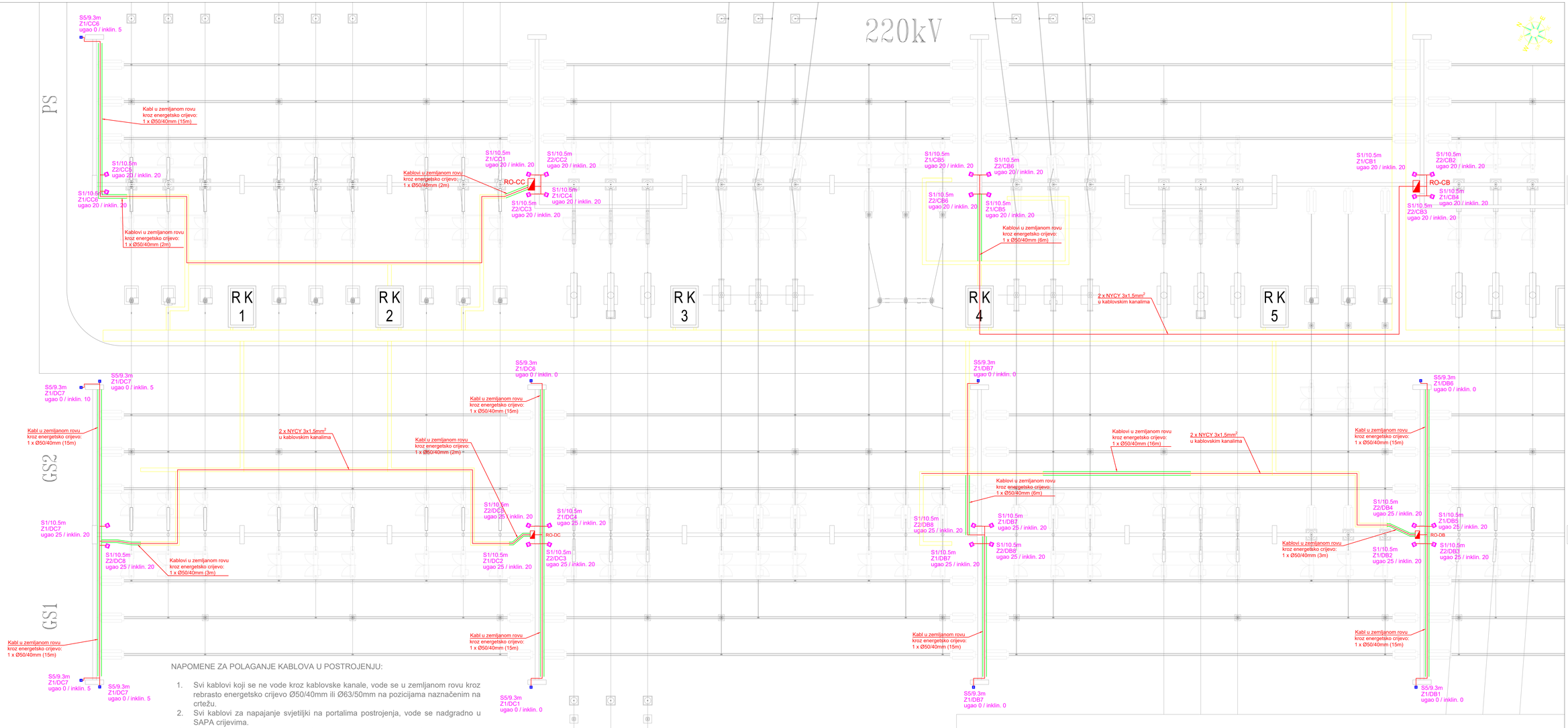
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
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NAPOMENA:

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- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna razvoda - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: RP 220kV (2) Nacrtpo kablovi sistem "C i D" (RO-CB, RO-CC, RO-DB i RO-DC)	Broj priloga: 15 / Br. stranc: xx



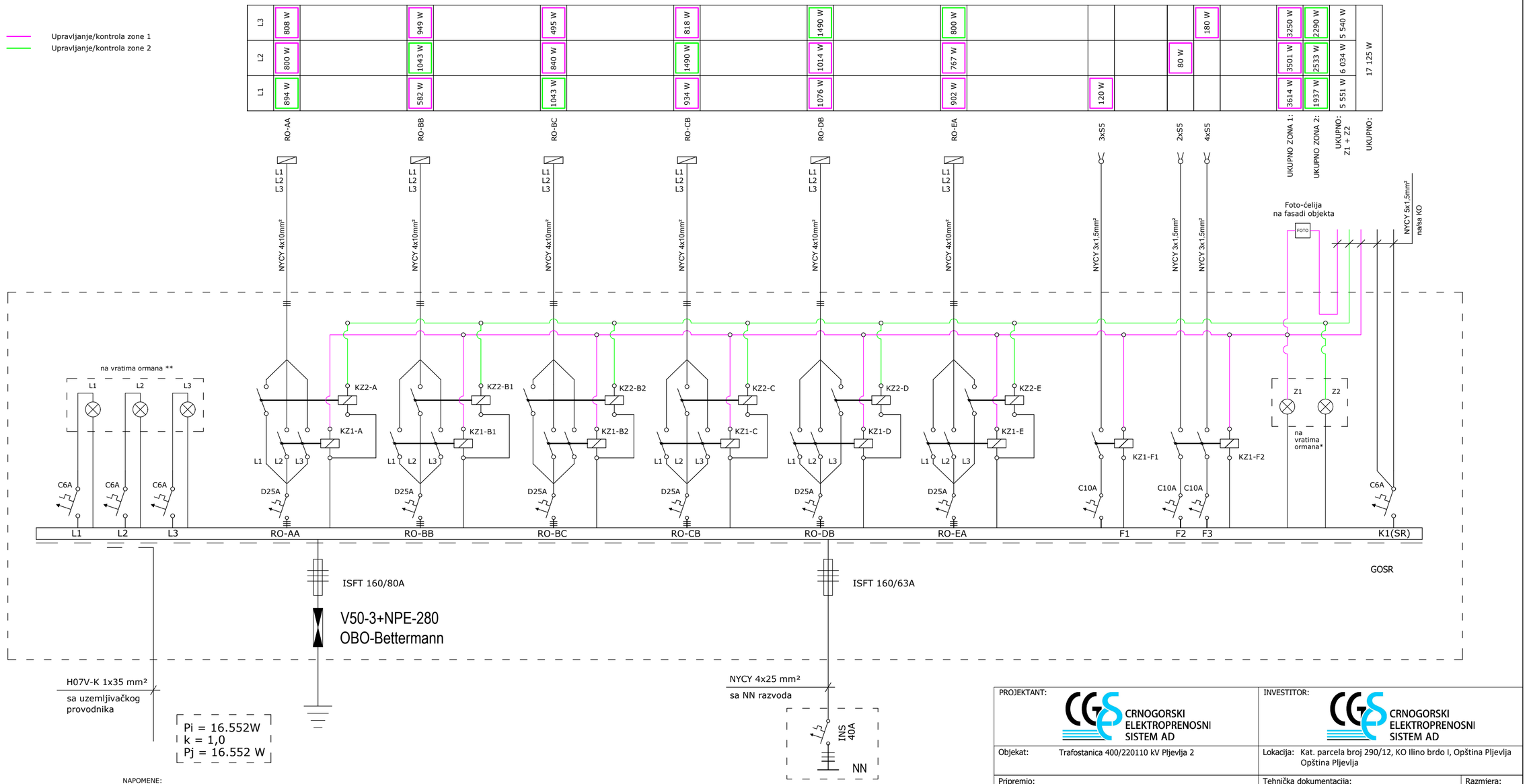
NAPOMENE ZA POLAGANJE KABLOVA U POSTROJENJU:

1. Svi kablovi koji se ne vode kroz kablovske kanale, vode se u zemljanom rovu kroz rebrasto energetsko crijevo Ø50/40mm ili Ø63/50mm na pozicijama naznačenim na crtežu.
2. Svi kablovi za napajanje svjetiljki na portalima postrojenja, vode se nadgradno u SAPA crijevima.
3. Nakon izlaska kablova iz energetskog crijeva iz zemlje, po betonskim stopama portala, kablovi se polažu u regal PNK50 ili PNK100 do ormana (RO - A/B/C).
4. Otvore energetskih crijeva treba nakon izvedenih radova zatvoriti na adekvatan način kako bi se spriječio ulazak vode u iste.

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MJENJATI.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna razvoda - TS Pljevlja 2	Razmjera: R 1:150
Datum izrade: 12.2025. god.		Prilog: RP 220kV (2) Razvoda na portalima "C i D" (RO-CB, RO-CC, RO-DB i RO-DC)	Broj priloga: 16 / Br. strane: xx



NAPOMENE:

* - Signalne sijalice 220V u crvenoj boji na vratima ormana, za signalizaciju aktivnosti zona spoljne rasvjete (Z1 i Z2). Natpis iznad sijalica "komanda Z1" i " komanda Z2".

** - Signalne sijalice 220V u zelenoj boji na vratima ormana, za signalizaciju prisustva faza. Natpis iznad sijalica "L1", "L2" i "L3" .

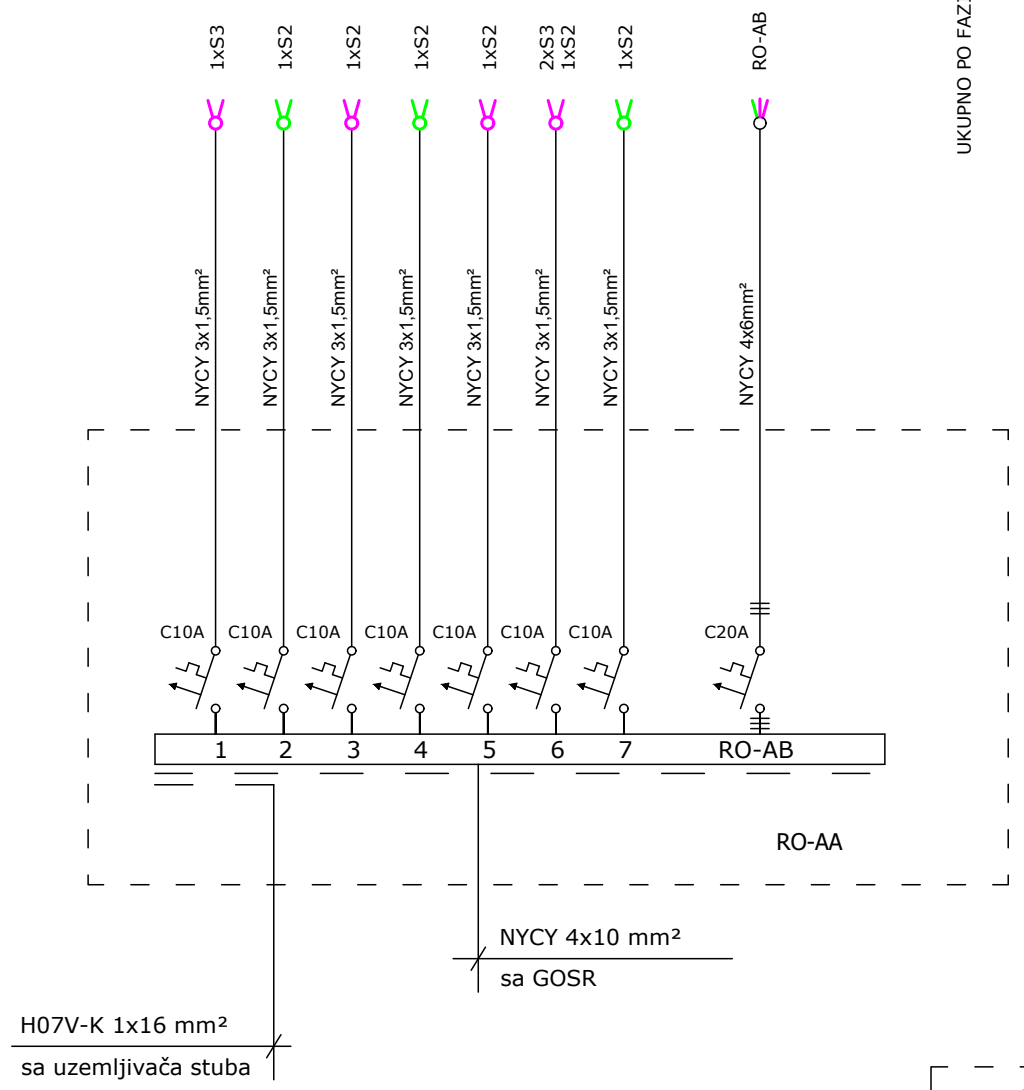
U ormanu ostaviti minimum 30% slobodnog prostora.

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.	Prilog: Jednopolna šema ormana GOSR	Broj priloga: 17	Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3	0	0	0	0	0	353 W	0		455 W			808 W	2 502 W
L2	102 W	0	149 W	0	149 W	0	0		400 W			800 W	
L1	0	149 W	0	149 W	0	0	149 W		447 W			894 W	



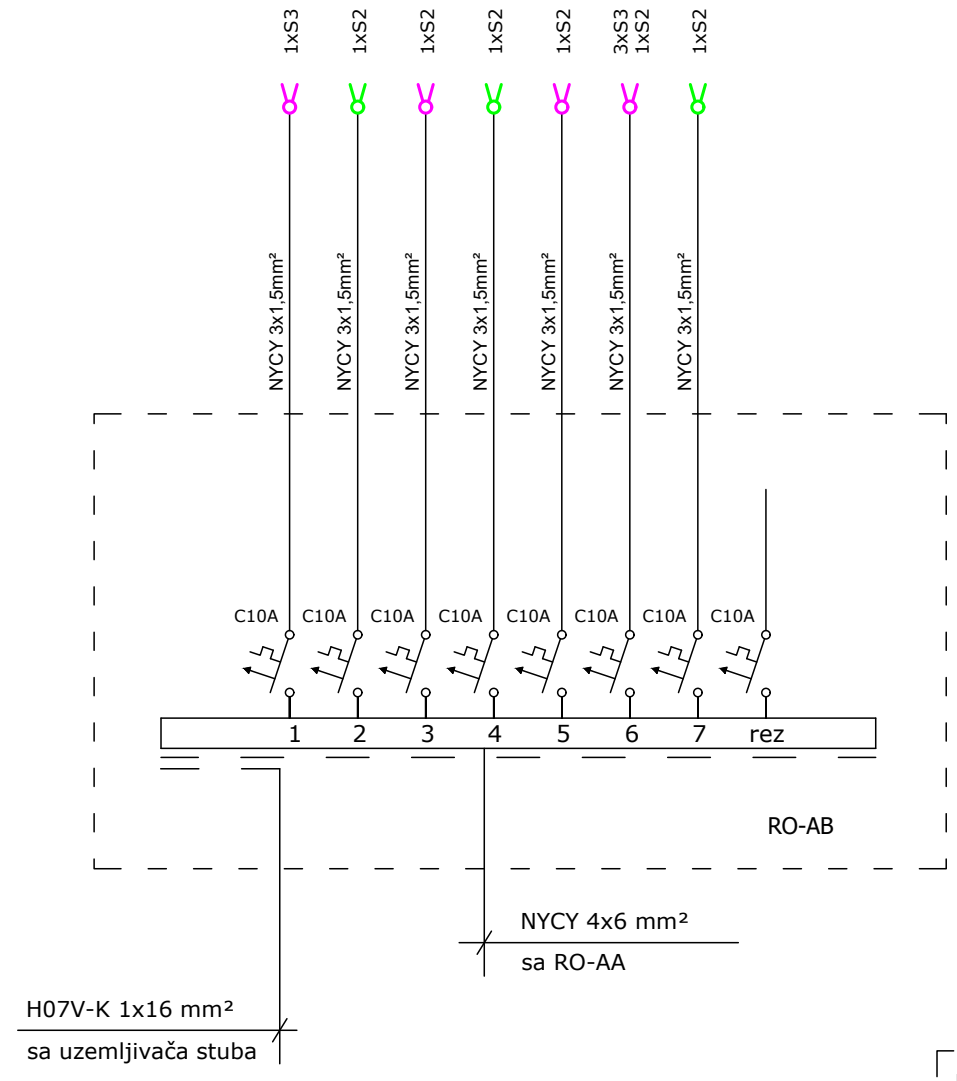
Pi = 2 502 W
k = 1,0
Pj = 2 502 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-AA	Broj priloga: 18 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3		0	0	0	0	0	455 W	0				455 W	1 302 W
L2		102 W	0	149 W	0	149 W	0	0				400 W	
L1		0	149 W	0	149 W	0	0	149 W				447 W	
		1xS3	1xS2	1xS2	1xS2	1xS2	3xS3 1xS2	1xS2				UKUPNO PO FAZI:	UKUPNO:



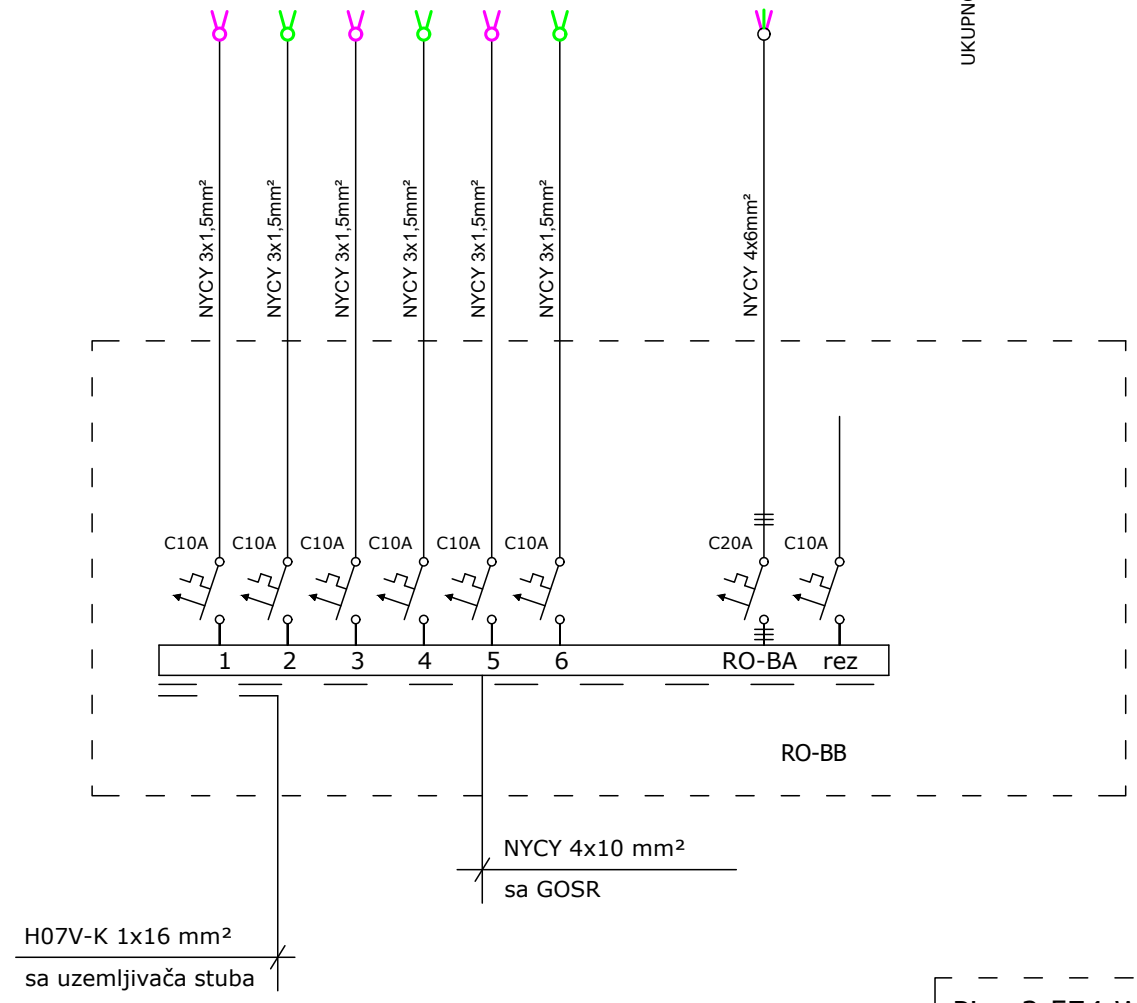
Pi = 1 302 W
k = 1,0
Pj = 1 302 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-AB	Broj priloga: 19 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3	0	0		0	596 W				353 W			949 W	2 574 W
L2		149 W		298 W		298 W			298 W			1043 W	
L1	40 W		149 W			0			393 W			582 W	
	1xS5	1xS1	1xS1	2xS2	2xS1 2xS2	2xS1			RO-BA			UKUPNO PO FAZI:	UKUPNO:



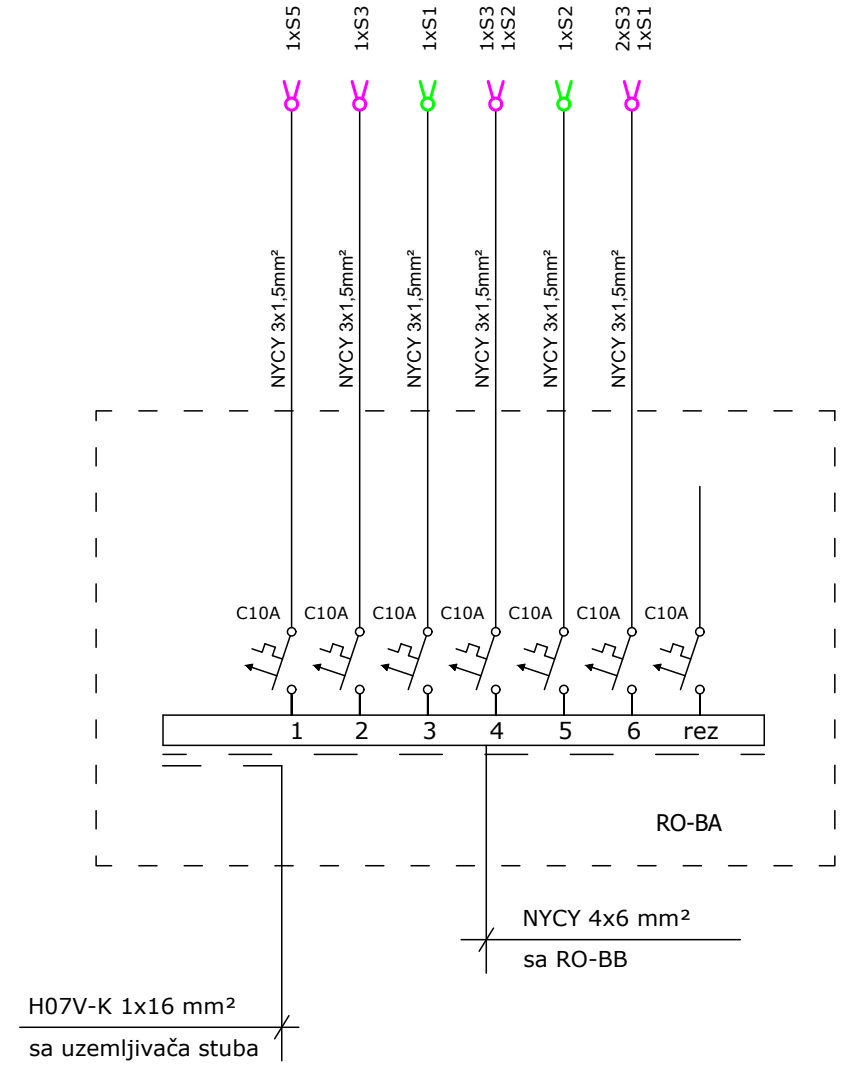
Pi = 2 574 W
k = 1,0
Pj = 2 574 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-BB	Broj priloga: 20 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3							353 W					353 W	1 044 W
L2				149 W		149 W						298 W	
L1		40 W	102 W		251 W							393 W	
												UKUPNO PO FAZI:	UKUPNO:

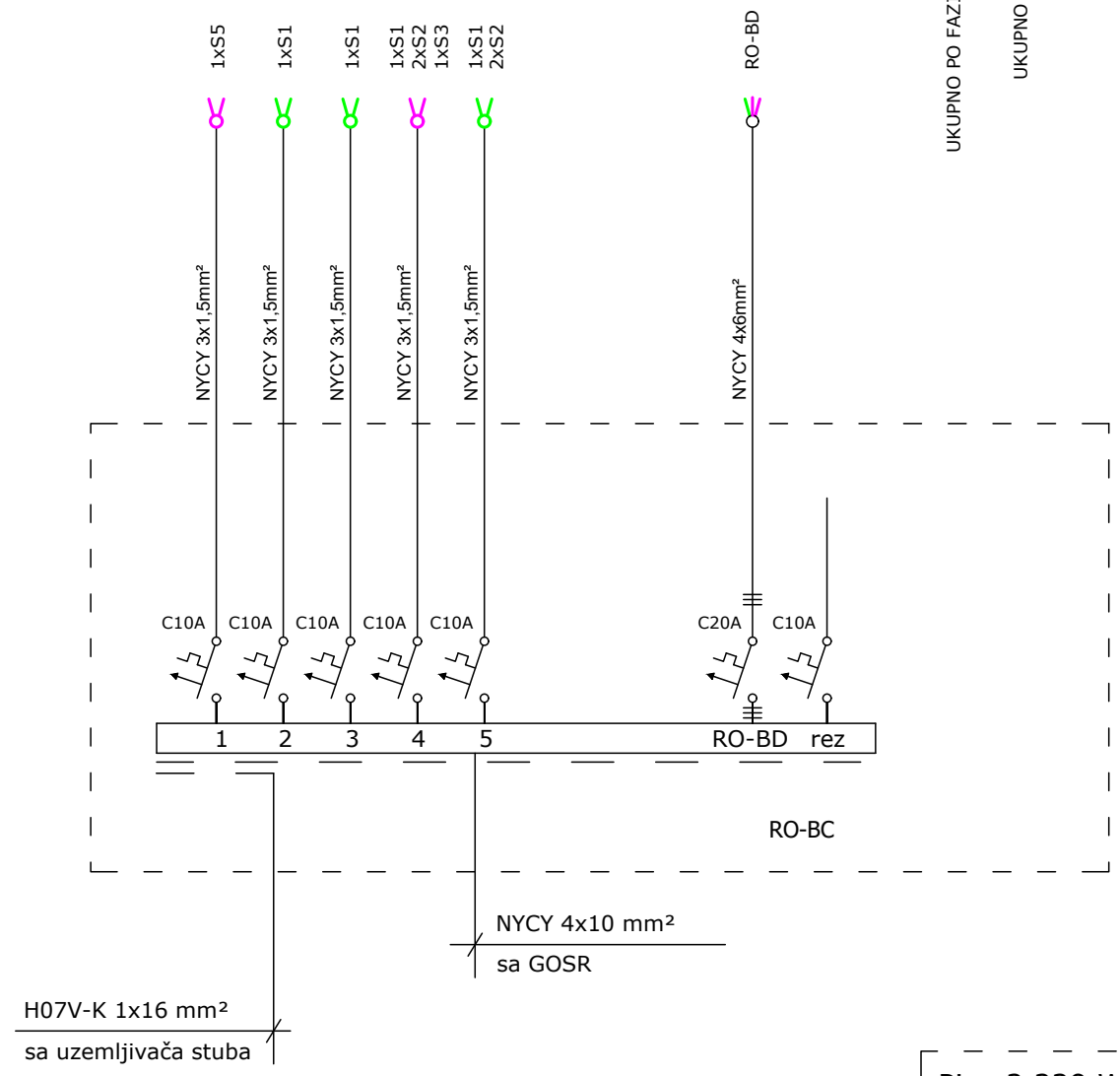


Pi = 1 044 W
k = 1,0
Pj = 1 044 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-BA	Broj priloga: 21 / Br. strane: xx

Upravljanje/kontrola zone 1
Upravljanje/kontrola zone 2

L3	40 W								455 W			495 W	2 378 W
L2				549 W					291 W			840 W	
L1		149 W	149 W		447 W				298 W			1043 W	
		1xS5	1xS1	1xS1	1xS1 2xS2 1xS3	1xS1 2xS2			RO-BD			UKUPNO PO FAZI:	UKUPNO:



Pi = 2 229 W
k = 1,0
Pj = 2 229 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-BC	Broj priloga: 22 / Br. strane: xx

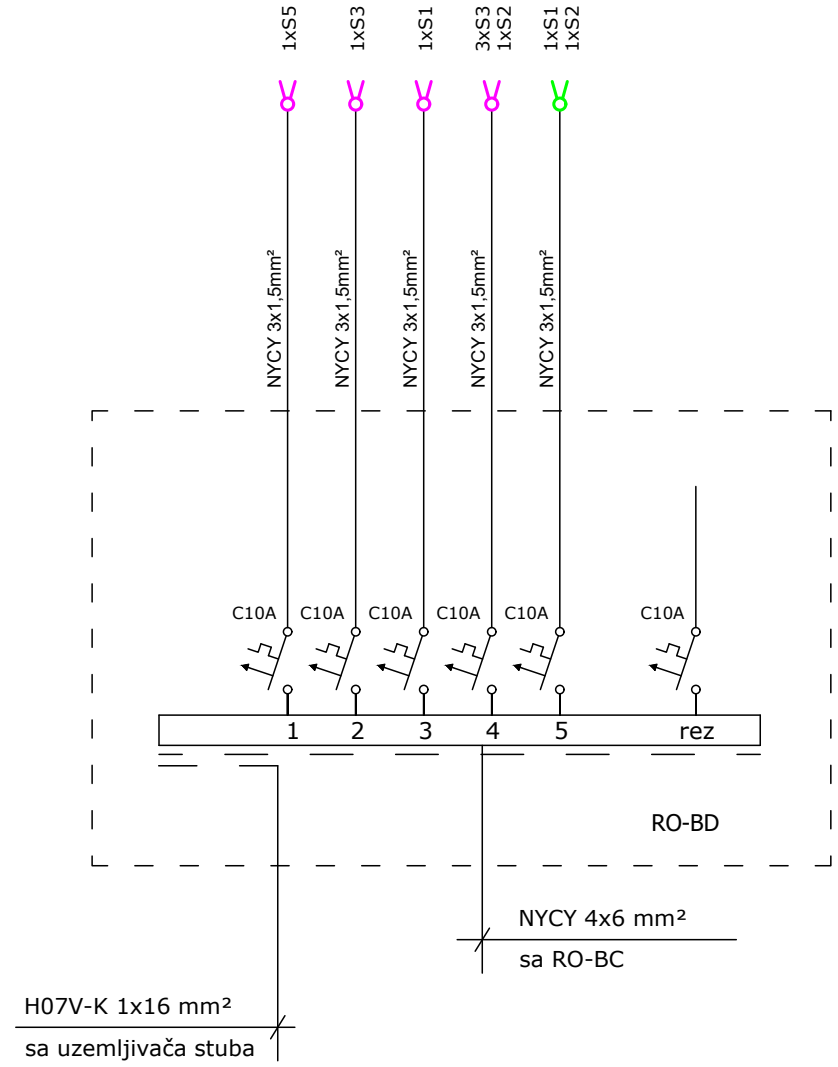
Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3					455 W							455 W	1 044 W
L2		40 W	102 W	149 W								291 W	
L1						298 W						298 W	

UKUPNO PO FAZI:

UKUPNO:

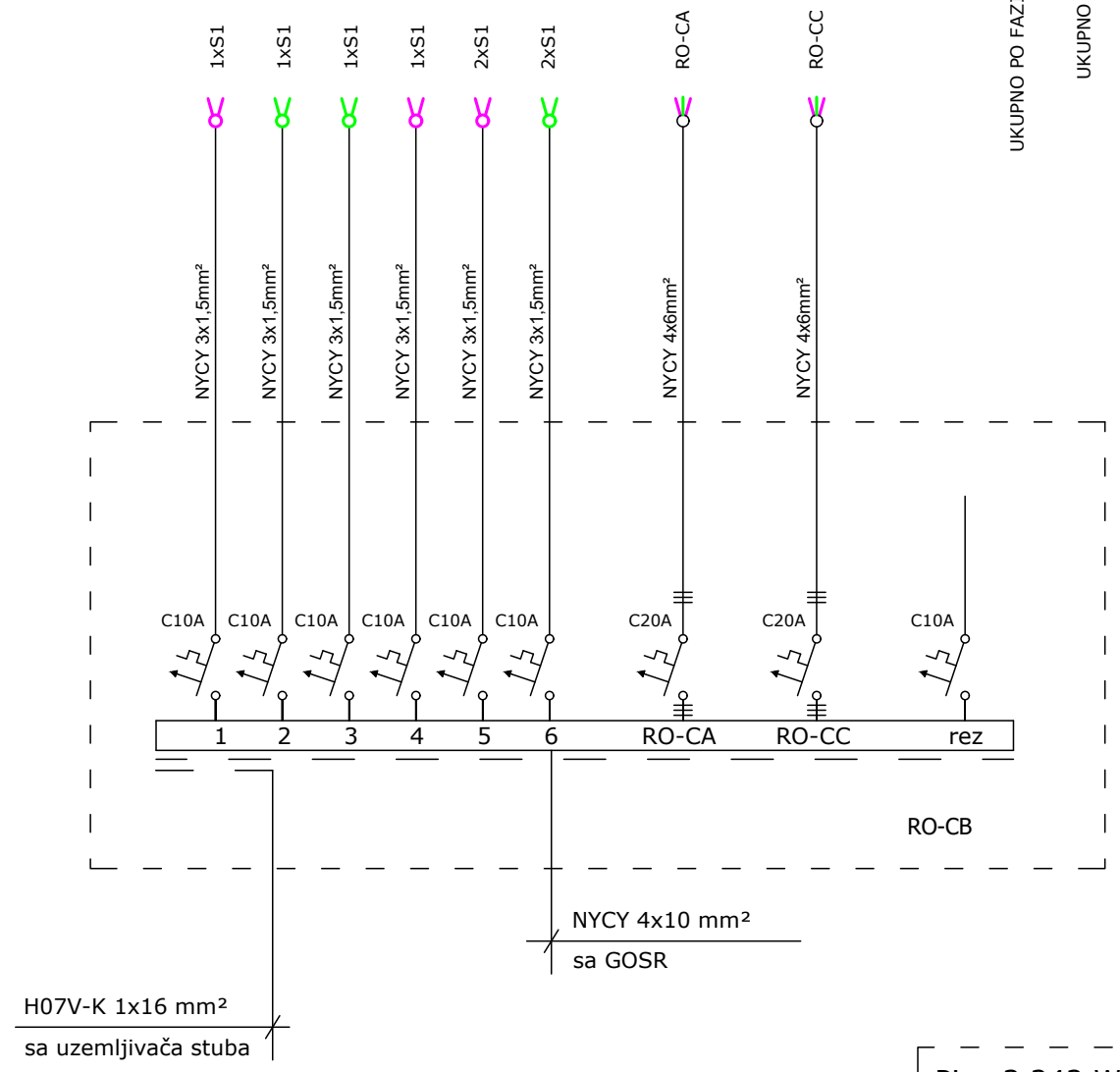


Pi = 1 044 W
k = 1,0
Pj = 1 044 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-BD	Broj priloga: 23 / Br. strane: xx

Upravljanje/kontrola zone 1
Upravljanje/kontrola zone 2

	1xS1	1xS1	1xS1	1xS1	2xS1	2xS1	RO-CA	RO-CC	UKUPNO PO FAZI:	UKUPNO:
L3					298 W		331 W	189 W	818 W	3 242 W
L2		149 W	149 W			298 W	447 W	447 W	1490 W	
L1	149 W			149 W			338 W	298 W	934 W	



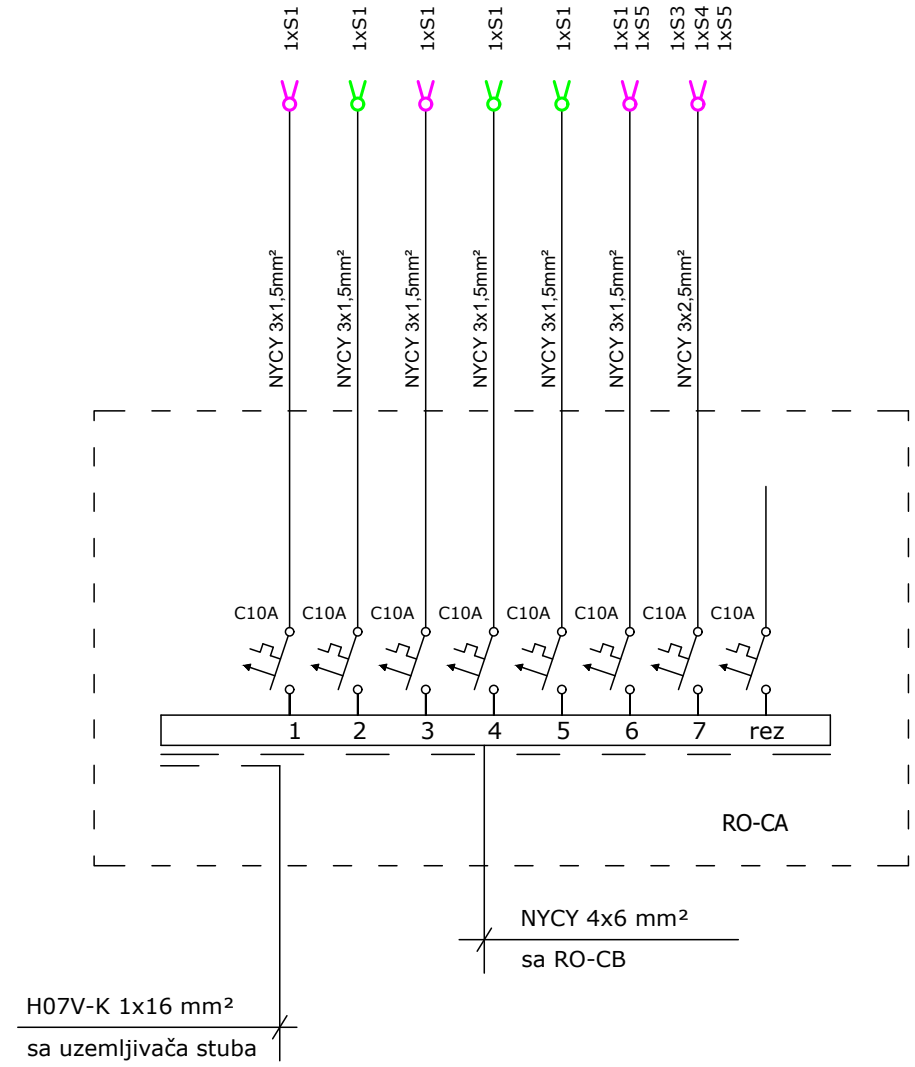
Pi = 3 242 W
k = 1,0
Pj = 3 242 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD
Objekat: Trafostanica 400/220110 kV Pljevlja 2	Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja
Pripremio:	Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2 — Razmjera: - // -
Datum izrade: 12.2025. god.	Prilog: Jednopolna šema ormana RO-CB — Broj priloga: 24 — Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3				149 W				182 W				331 W	1 116 W
L2			149 W		149 W	149 W						447 W	
L1		149 W					189 W					338 W	
												UKUPNO PO FAZI:	UKUPNO:

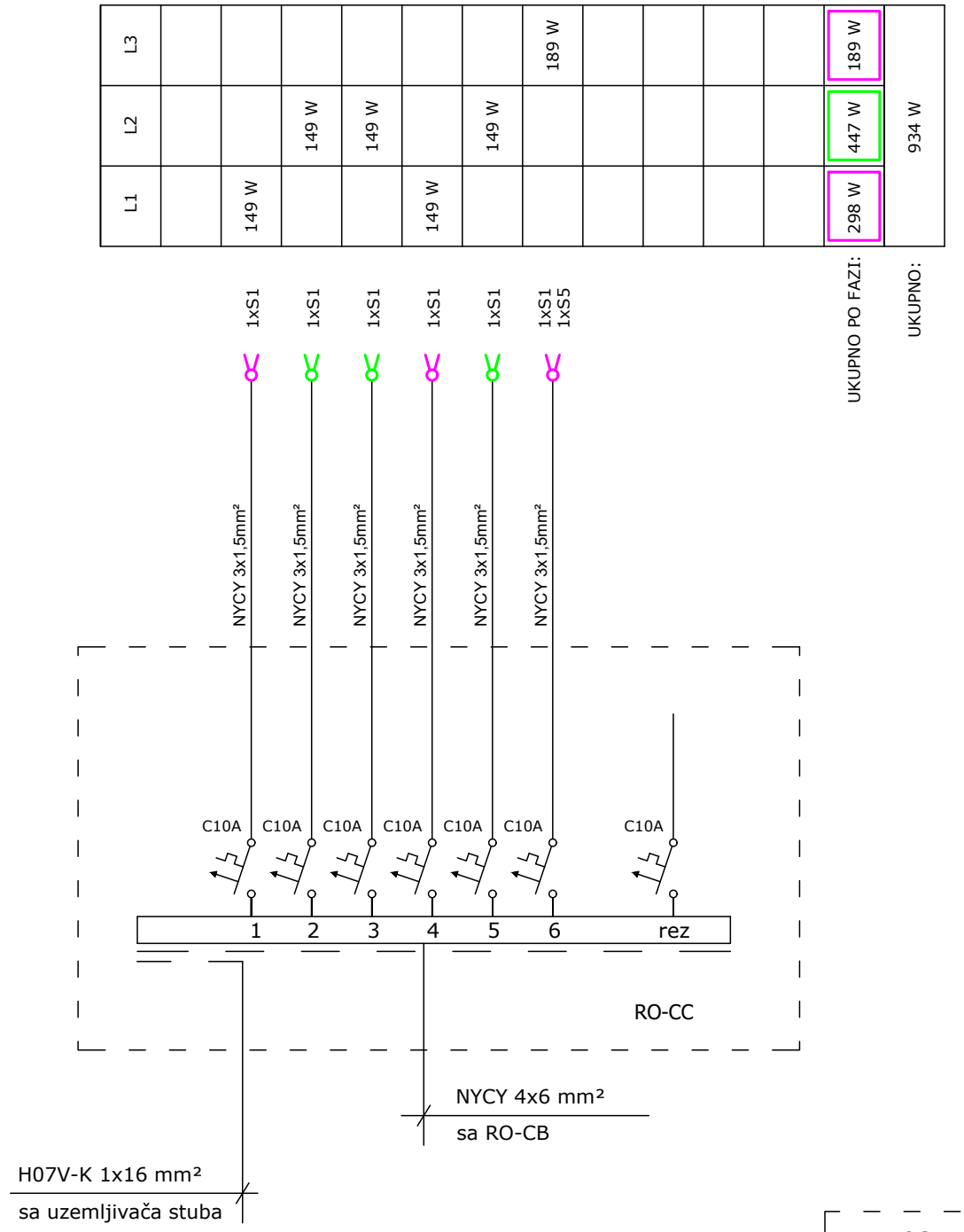


Pi = 1 116 W
k = 1,0
Pj = 1 116 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-CA	Broj priloga: 25 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2



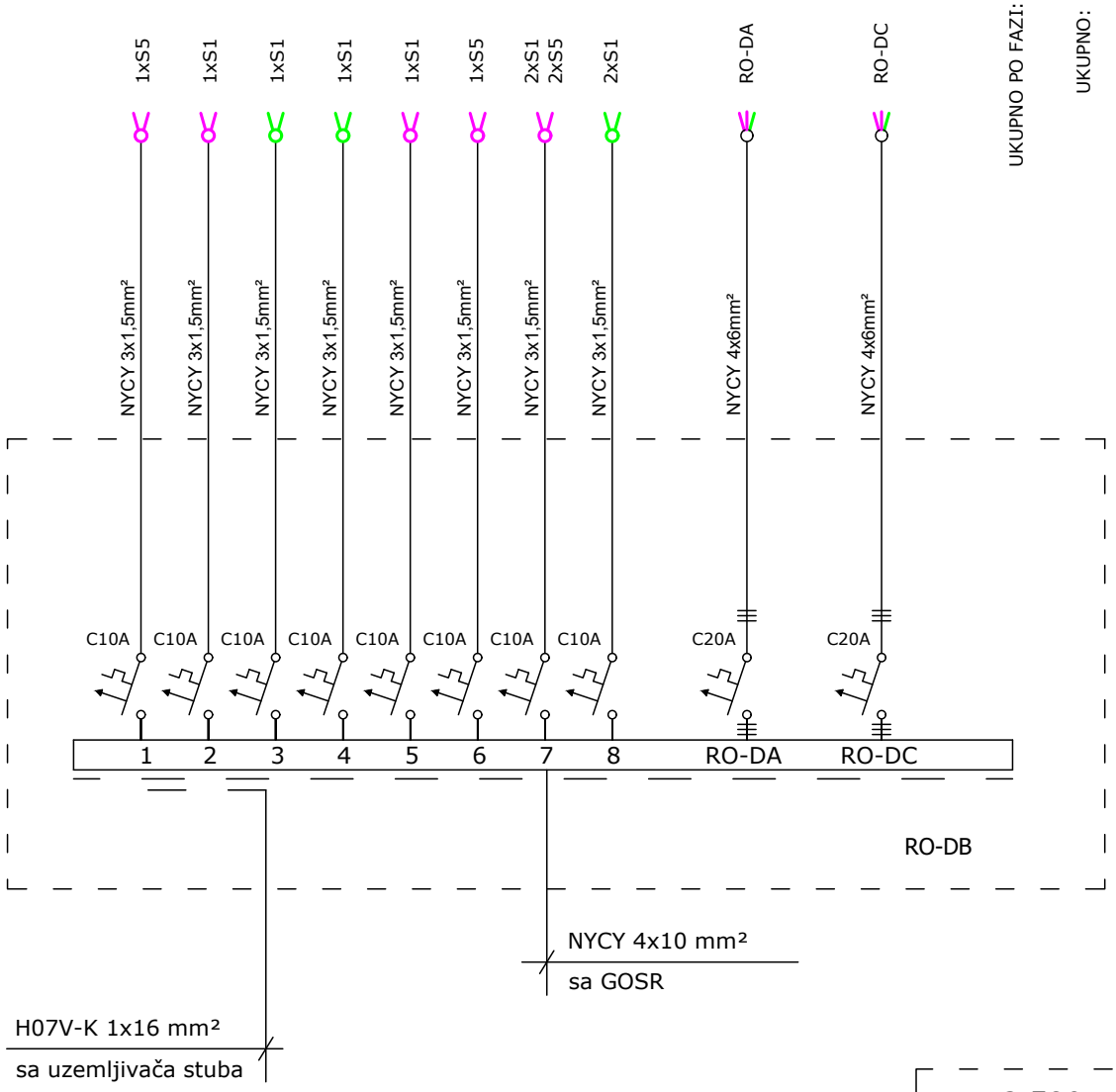
Pi = 934 W
k = 1,0
Pj = 934 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-CC	Broj priloga: 26 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3			149 W	149 W				298 W		447 W		447 W		1490 W	
L2	40 W	149 W			149 W	40 W				298 W		338 W		1014 W	3 580 W
L1							378 W			349 W		349 W		1076 W	



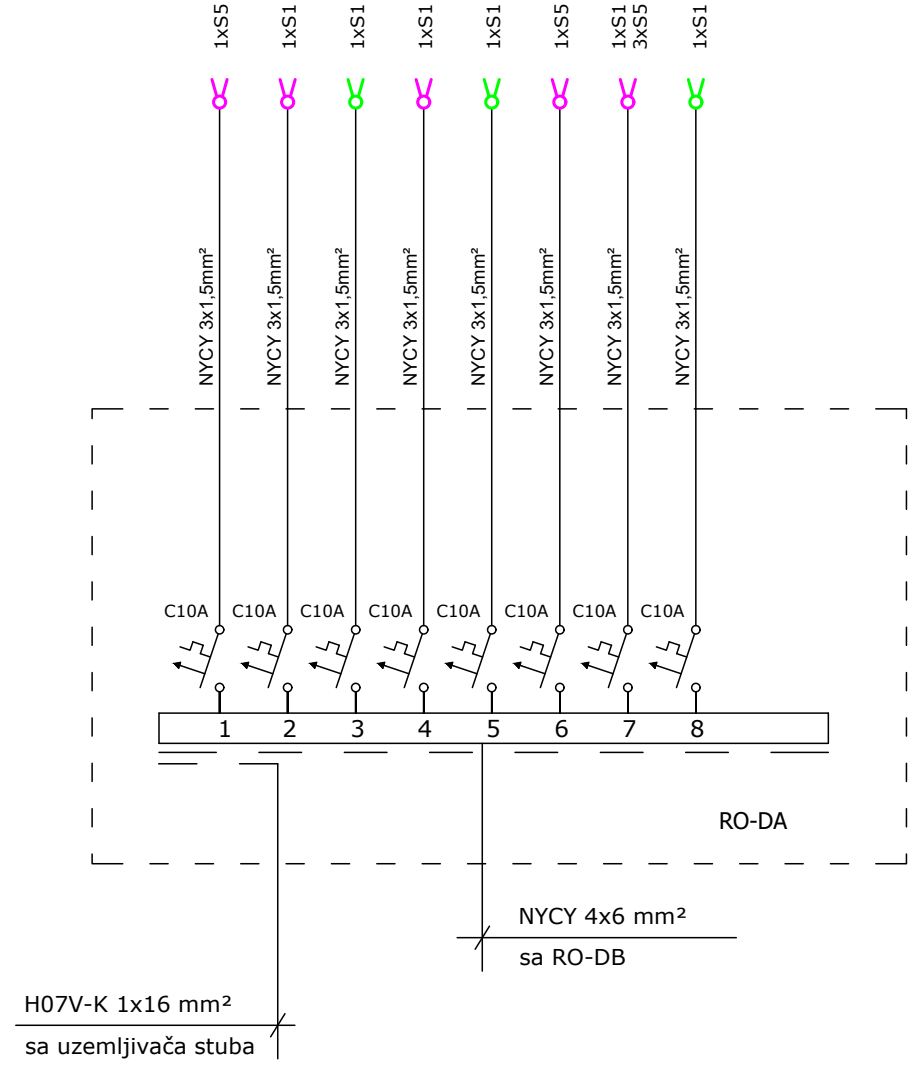
Pi = 3 580 W
k = 1,0
Pj = 3 580 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-DB	Broj priloga: 27 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3			149 W		149 W			149 W				447 W	1 094 W
L2		149 W		149 W								298 W	
L1	40 W					40 W	269 W					349 W	
	1xS5	1xS1	1xS1	1xS1	1xS1	1xS5	1xS1 3xS5	1xS1				UKUPNO PO FAZI:	UKUPNO:



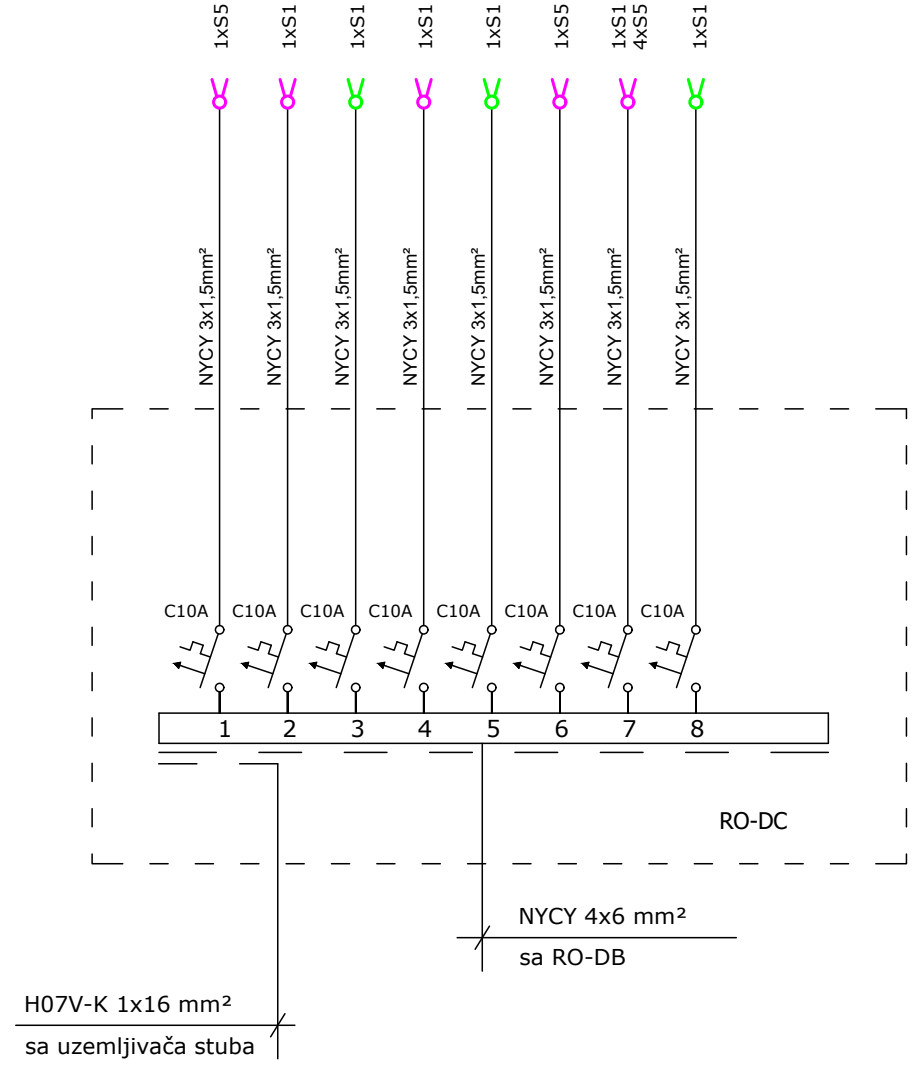
Pi = 1 094 W
k = 1,0
Pj = 1 094 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-DA	Broj priloga: 28 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

L3			149 W		149 W			149 W				447 W	1 134 W
L2		149 W		149 W		40 W						338 W	
L1	40 W						309 W					349 W	
	1xS5	1xS1	1xS1	1xS1	1xS1	1xS5	1xS1 4xS5	1xS1				UKUPNO PO FAZI:	UKUPNO:



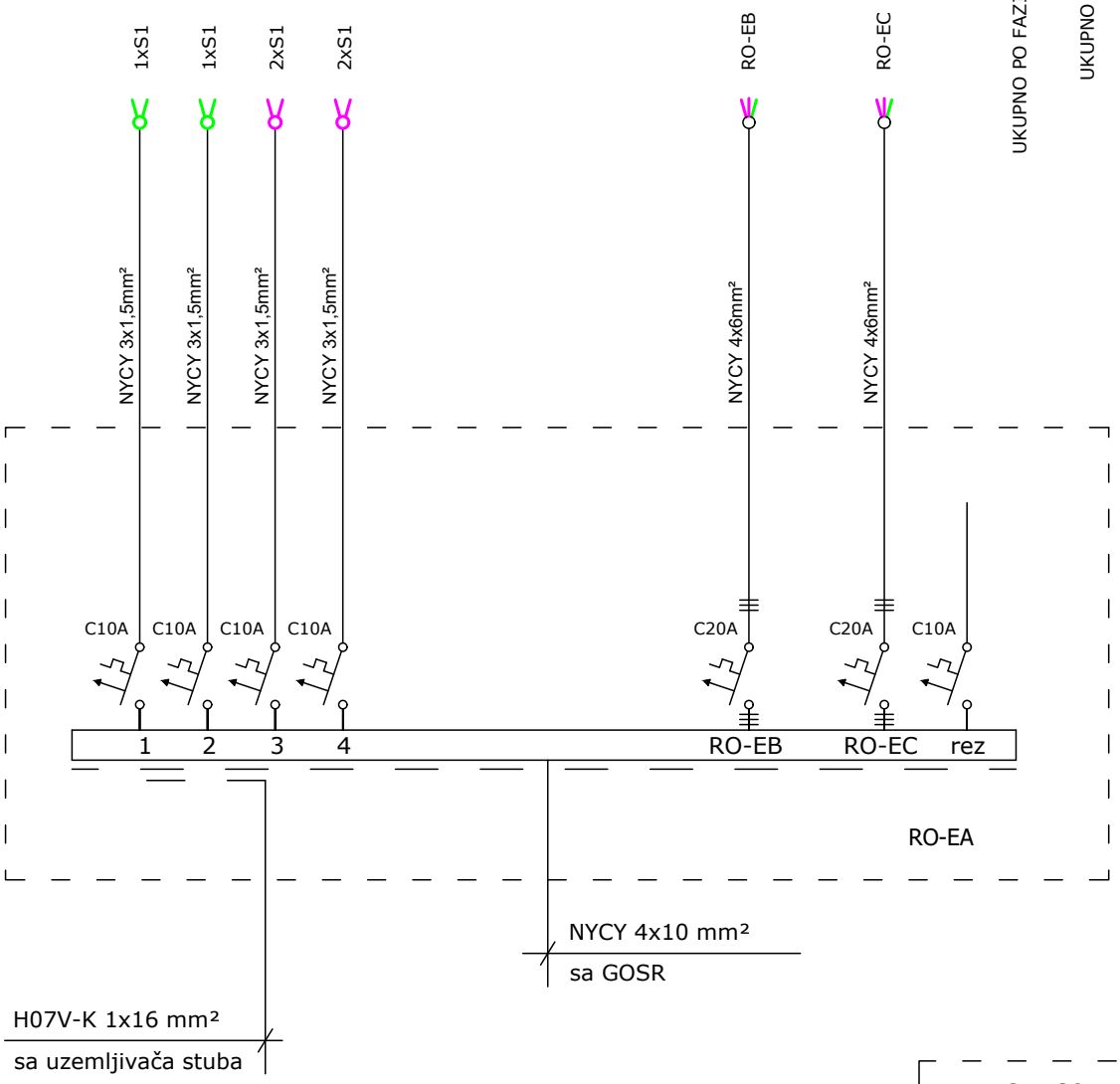
Pi = 1 134 W
k = 1,0
Pj = 1 134 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-DC	Broj priloga: 29 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

	1xS1	1xS1	2xS1	2xS1						RO-EB		RO-EC		UKUPNO PO FAZI:	UKUPNO:
L3	149 W	149 W								298 W		204 W		800 W	
L2				298 W						149 W		320 W		767 W	2 469 W
L1			298 W							353 W		251 W		902 W	

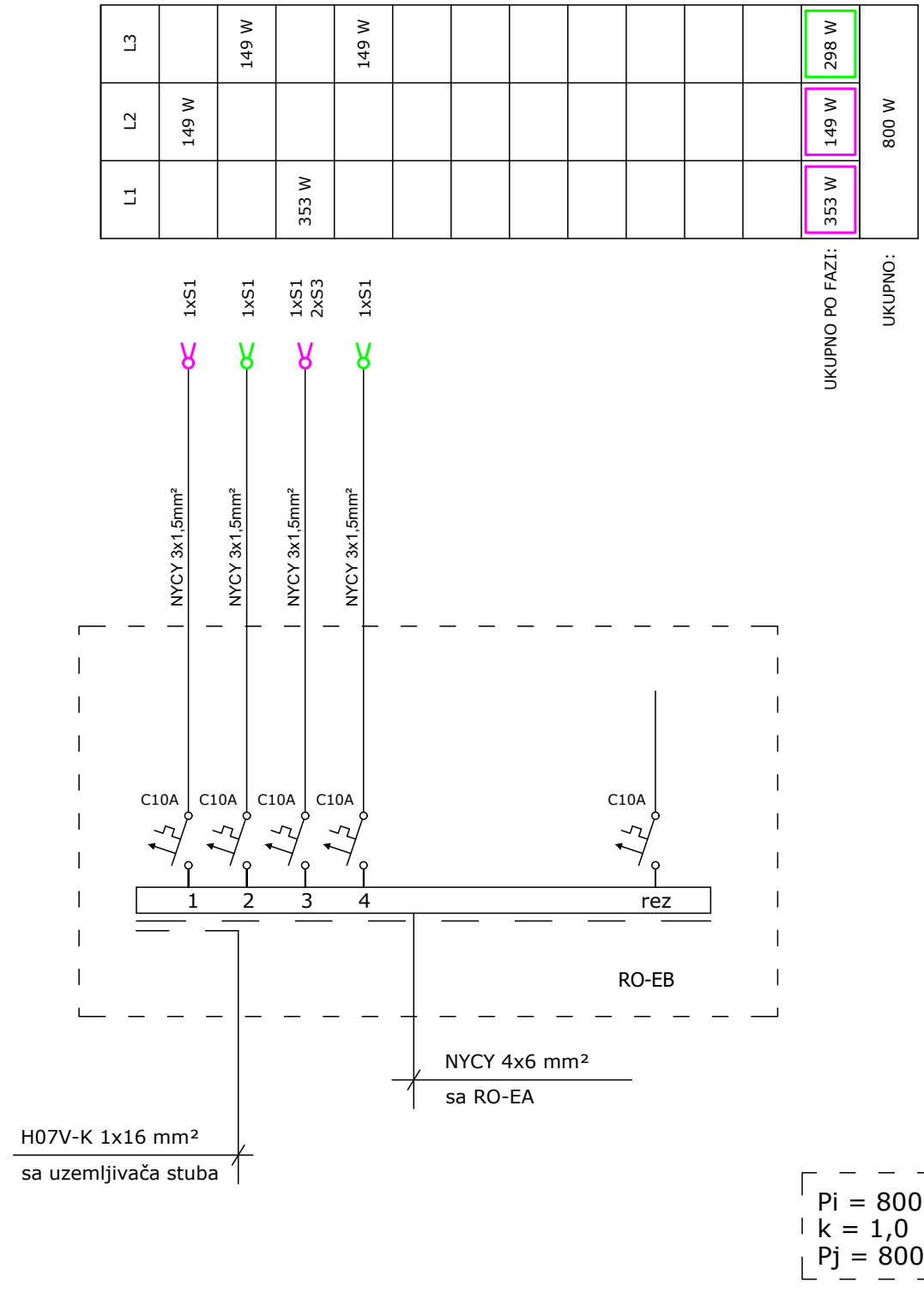


Pi = 2 469 W
k = 1,0
Pj = 2 469 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-EA	Broj priloga: 30 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

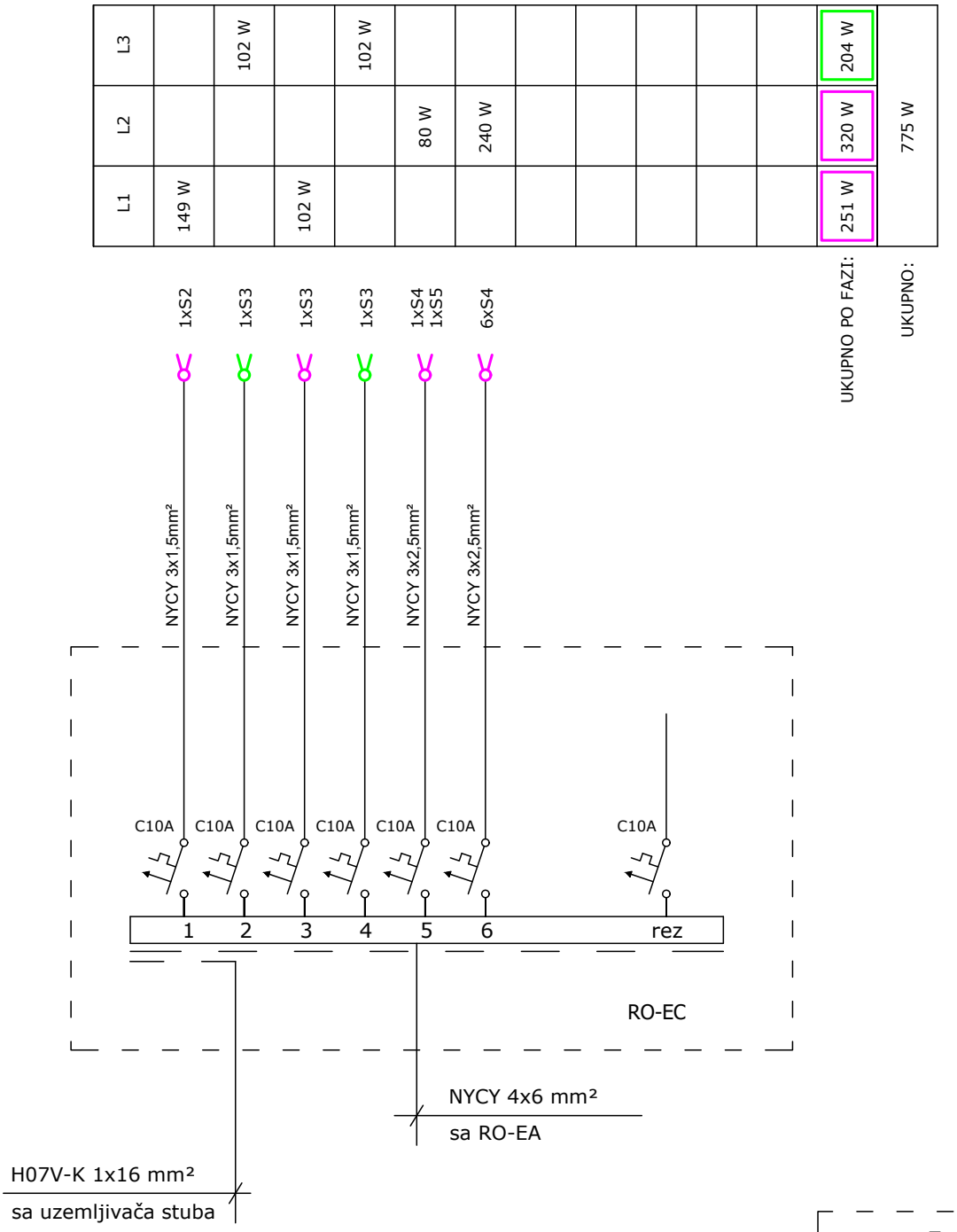


Pi = 800 W
k = 1,0
Pj = 800 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-EB	Broj priloga: 31 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2



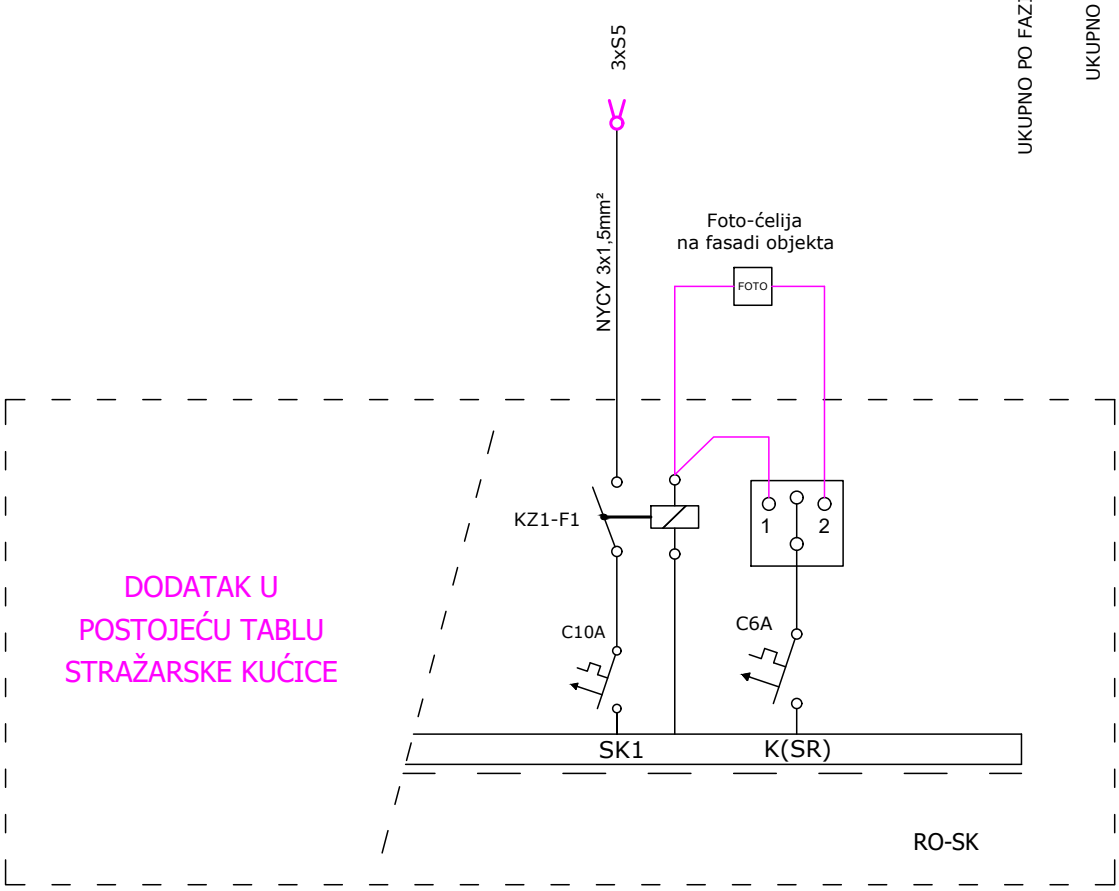
Pi = 775 W
k = 1,0
Pj = 775 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana RO-EC	Broj priloga: 32 / Br. strane: xx

Upravljanje/kontrola zone 1

Upravljanje/kontrola zone 2

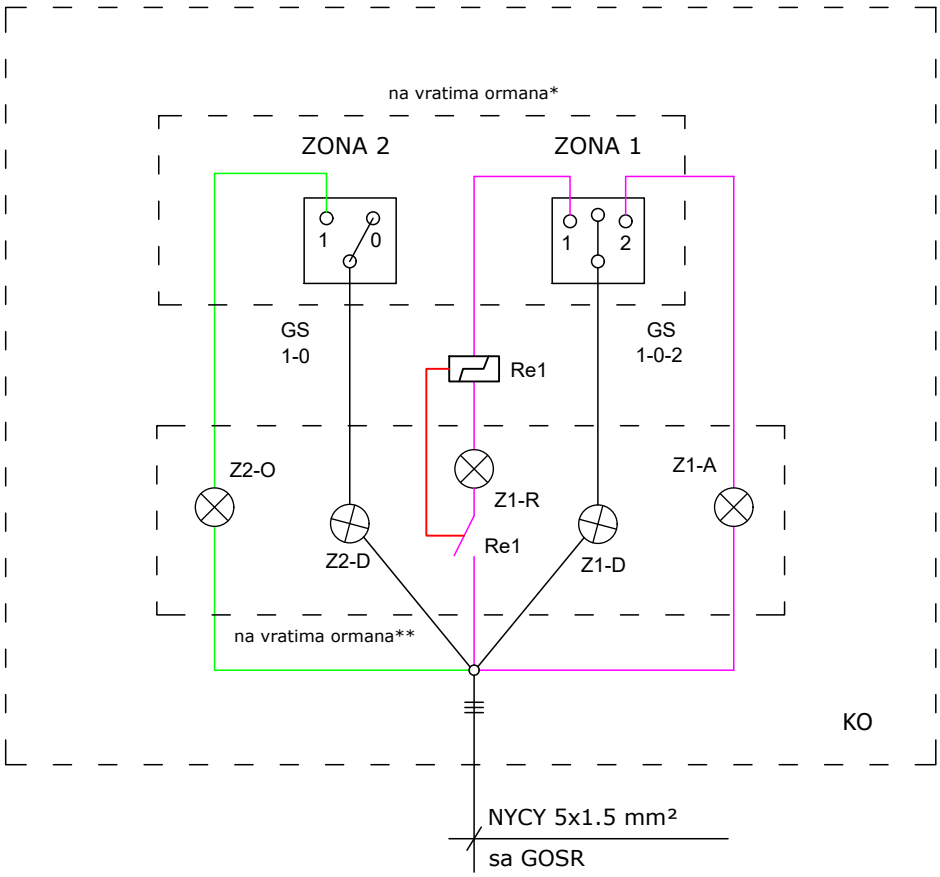
L3															130 W
L2															
L1								120 W		10 W				130 W	
														UKUPNO PO FAZI:	UKUPNO:



Pi = 130 W
k = 1,0
Pj = 130 W

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema dodatka u ormaru RO-SK	Broj priloga: 33 / Br. strane: xx

Upravljanje/kontrola zone 1
Upravljanje/kontrola zone 2



NAPOMENE:

* - Grebenaste sklopke na vratima ormana, za komandu aktivnosti zona spoljne rasvjete (Z1 i Z2). Natpis iznad sijalica "komanda Z1" i " komanda Z2".

** - Signalne sijalice 220V na vratima ormana, za signalizaciju dovodnih i odvodnih signala:

Z1-D - Signalizacija dovoda signala Z1, zelene boje. Natpis "DOVOD Z1"

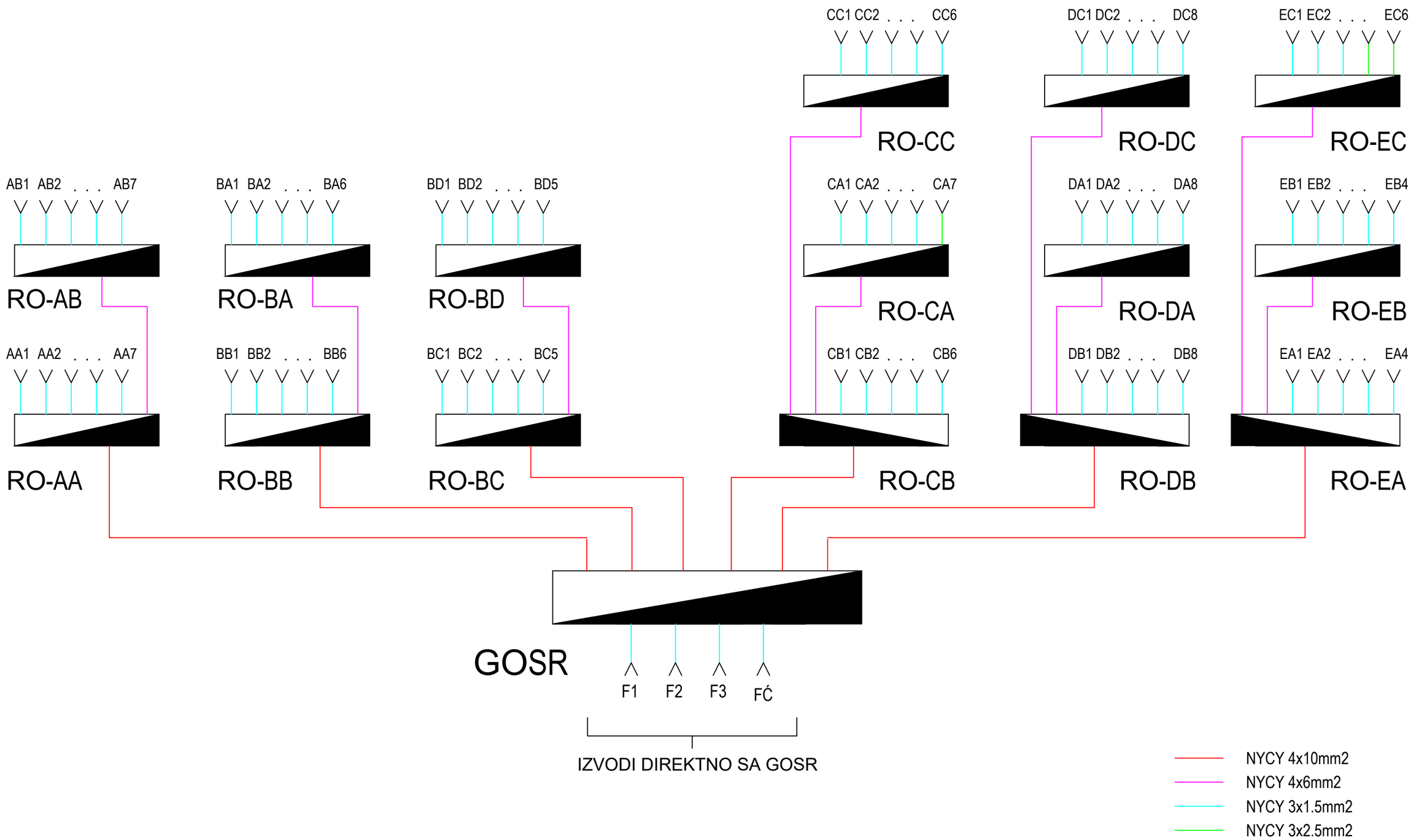
Z2-D - Signalizacija dovoda signala Z2, zelene boje. Natpis "DOVOD Z2 "

Z1-A - Signalizacija aktivacije signala Z1 - automatski režim, crvene boje. Natpis " Z1 AUTO "

Z1-R - Signalizacija aktivacije signala Z1 - ručni režim, crvene boje. Natpis " Z1 RUČNO "

Z2-O - Signalizacija aktivacije signala Z2, crvene boje. Natpis " Z2 UKLJUČENO "

PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Jednopolna šema ormana KO	Broj priloga: 34 / Br. strane: xx



PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.	Prilog: Blok šema napajanja SR	Broj priloga: 35	Br. strane: xx

LEGENDA OZNAKE ELEMENATA U TABLI GOSR I KO	
KZ1-A	Kontaktor 2NO 25A - zona 1 - ormari AA i AB
KZ2-A	Kontaktor 1NO 25A - zona 2 - ormari AA i AB
KZ1-B	Kontaktor 2NO 25A - zona 1 - ormari BA i BB
KZ2-B	Kontaktor 1NO 25A - zona 2 - ormari BA i BB
KZ1-C	Kontaktor 1NO 25A - zona 1 - ormari CA, CB i CC
KZ2-C	Kontaktor 2NO 25A - zona 2 - ormari CA, CB i CC
KZ1-D	Kontaktor 1NO 25A - zona 1 - ormari DA, DB i DC
KZ2-D	Kontaktor 2NO 25A - zona 2 - ormari DA, DB i DC
KZ1-E	Kontaktor 1NO 25A - zona 1 - ormari EA, EB i EC
KZ2-E	Kontaktor 2NO 25A - zona 2 - ormari EA, EB i EC
KZ1-F1	Kontaktor 1NO 25A - zona Z1 - Fasada objekta 1
KZ1-F2	Kontaktor 2NO 25A - zona Z1 - Fasada objekta 2
GS 1-0	Grebenasta sklopka/prekidač na vratima ormana 1-0, 1P, 20A, 230V
GS 1-0-2	Grebenasta sklopka/izbornik položaja na vratima ormana 1-0-2, 1P, 20A, 230V
⊗	Signalna sijalica 220V
FĆ	Foto-ćelija na fasadi objekta.
———	Upravljanje/kontrola zone 1
———	Upravljanje/kontrola zone 2

Luminaire list (TS Pljevlja 2)

Index	Symbol	Manufacturer	Article name	Item number	Fitting	Luminous flux	Maintenance factor	Connected load	Quantity
S1		LUG Light Factory	POWERLUG ED 24250lm/740 as szeroki easy connect	120202.5L091.42	1x LED 4000K	24250 lm	0.90	149 W	64
S2		LUG Light Factory	POWERLUG ED 25050lm/740 50st. easy connect	120202.5L091.22	1x LED 4000K	25050 lm	0.90	149 W	25
S3		LUG Light Factory	POWERLUG ED 17100lm/740 as szeroki easy connect	120202.5L131.42	1x LED 4000K	17100 lm	0.90	102 W	22
S4		LUG Light Factory	POWERLUG MINI ED 6300lm/740 as wyski	120212.5L301.31	1x LED 4000K	6300 lm	0.90	40 W	8
S5		LUG Light Factory	POWERLUG MINI ED 5700lm/740 as bardzo szeroki	120212.5L301.51	1x LED 4000K	5700 lm	0.90	40 W	35

NAPOMENA:

- OVAJ CRTEŽ JE U VLASNIŠTVU PREDUZEĆA CGES I NE SMIJE SE NI U SEGMENTIMA, NI U CJELOSTI REPRODUKOVATI ILI KOPIRATI.
- SVE MJERE PROVJERITI NA LICU MJESTA, A SVAKO ODSTUPANJE OD PROJEKTA PRIJAVITI INVESTITORU. DIMENZIJE SE NE SMIJU SKALIRATI/MIJENJATI.

PROJEKTANT: CGES CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CGES CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: Kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spoljna rasvjeta - TS Pljevlja 2	Razmjera: - // -
Datum izrade: 12.2025. god.		Prilog: Legenda svjetiljki i sklopne opreme	Broj priloga: 36 / Br. strane: xx

NAPOMENE ZA PRIPREMU FOTOMETRIJSKIH PRORAČUNA:

1. Sve kalkulacijske površine se postavljaju na 0.02m visine (osim koridora koji su na 0.00m).
2. Svi objekti ucrtani na crtežu moraju biti tretirani i u proračunu, sa njihovim visinama naznačenim na crtežu.
3. "Maintenance factor" svjetiljki može biti maksimalno 0.9.
4. Mrežu kalkulacijskih tačaka na površinama prilagoditi tačkama prikazanim na crtežu.
5. Za kalkulacijske površine perimetralnih zona, maksimalna udaljenost tačaka (grid) je 2m x 3m.
6. Za kalkulacijske površine ulaza i centralnog koridora maksimalna udaljenost tačaka (grid) je 2m x 2m, koridora 400kV maksimalna udaljenost tačaka (grid) je 1.7m x 1.5m, koridora 220kV maksimalna udaljenost tačaka (grid) je 2.2m x 2.2m.
7. Za kalkulacijske površine u postrojenjima 110, 220 i 400kV i transformatorima, maksimalna udaljenost tačaka (grid) je 2.5m x 4m (gledano po užoj strani).
8. Visine montaže svjetiljki predvidjeti na maksimalno zadatim visinama prikazanim na crtežima (oznaka "Hs").
9. Refleksije podnih površina maksimalno 20%.
10. Refleksije zidova objekata maksimalno 50%.
11. Zbog uticaja stubova portala u postrojenjima, iste je potrebno tretirati u proračunu. Zbog njihove rešetkaste prirode i uticaja na distribuciju svjetla, iste formirati kao "prozirne" (transparent) sa refleksijom ne većom od 50% (reflection factor) i propustom ne većim od 40% (degree of transmission).

NIVOI OSVIJETLJENOSTI PO ZONAMA:

Komplet rasvjetu postrojenja treba dizajnirati na način da postoje dva nivoa osvjetljaja, tj dvije zone paljenja. Svjetiljke na fasadi moraju pokriti sve strane objekta i biti uključene u zoni 1, uz perimetralnu rasvjetu i dio rasvjete postrojenja.

Zona 1, osnovni nivo ima sledeće potrebe u pogledu srednjeg nivoa osvjetljaja i ravnomjernosti:
Ulaz (kapija) - Em > 30lx i Uo > 0.5
Centralni koridor - Em > 20lx i Uo > 0.4
Koridor 220kV - Em > 15lx i Uo > 0.4
Koridor 400kV - Em > 15lx i Uo > 0.3
RP 110kV - Em > 25lx i Uo > 0.25
RP 220kV - Em > 25lx i Uo > 0.4
RP 400kV - Em > 25lx i Uo > 0.25
ETR (transformatori) - Em > 25lx i Uo > 0.3
Perimetri - Em > 10lx i Uo >0.3

Zona 2, maksimalni nivo ima sledeće potrebe u pogledu srednjeg nivoa osvjetljaja i ravnomjernosti:
Ulaz (kapija) - Em > 30lx i Uo > 0.5
Centralni koridor - Em > 20lx i Uo > 0.4
Koridor 220kV - Em > 25lx i Uo > 0.4
Koridor 400kV - Em > 25lx i Uo > 0.4
RP 110kV - Em > 50lx i Uo > 0.5
RP 220kV - Em > 50lx i Uo > 0.4
RP 400kV - Em > 50lx i Uo > 0.4
ETR (transformatori) - Em > 50lx i Uo > 0.6
Perimetri - Em > 10lx i Uo >0.3

NAPOMENA:

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PROJEKTANT: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD		INVESTITOR: CRNOGORSKI ELEKTROPRENOSNI SISTEM AD	
Objekat: Trafostanica 400/220/110 kV Pljevlja 2		Lokacija: kat. parcela broj 290/12, KO Ilino brdo I, Opština Pljevlja	
Pripremio:		Tehnička dokumentacija: Spojna rasvjeta - TS Pljevlja 2	Razmjera: R 1:300
Datum izrade: 12.2025. god.		Prilog: Situacija Podloga za fotometriju	Broj priloga: 37 / Br. strane: xx