

DESCRIPTION

KEY ADVANTAGES

- LED Current < 400 mA
- Shield in extra-clear and prismatic tempered glass
- Ease installation and maintenance
- Flexibility installation, designed to fit all lighting fixtures
- Standard surge protection for differential/common mode 10kV/10kV (CL I, CL II)
- Smart City Ready - Zhaga Book 18 connector and remote management in compartment IP66 (on request)
- Neri Kruithof System (Tunable White Technology)
- Wide range of optical lighting distributions (on request)
- NPSB - Neri passive safety board
- Visual Comfort
- Main body in Die-cast Aluminum
- Disassemblable

Compliance

- ENEC safety mark.
- In compliance with EN 60598-1; EN 60598-2-3; EN 62031; EN 55015 EMC; EN 61547 EMC; EN 61000-3-2/3; IEC/TR 62778.



Mechanical information

Height	Width	Lenght	Weight	IP	IK
100 mm	185 mm	245mm	2.0kg	66	09

Electrical characteristics

Voltage	Frequency	Cos ϕ	Operative Temp.
220-240V	50/60 Hz	> 0.9	-35°C / +50°C

- Wiring predisposition: for electrical insulation Class I or II (refer to the installation manual for the connection modes).

Connection

- Refitting kit is set up for fixing on a 1,5mm thick flat plate.
- For installation on third parties lanterns please contact us.

Materials

- Die-cast aluminium (UNI EN 1706).
- Extra clear transparent and prismatic tempered flat glass.
- Polycarbonate.
- Stainless steel fasteners.
- Polyamide PA6.

Structure - Main components

- Integrated heat sink in cast aluminium.
- Shield in extra-clear tempered glass with impact resistance IK 09 (EN 62262).
- Frame for fixing the kit to the plate in polycarbonate.
- Possibility to install auxiliary devices comply to Zhaga Book 18.

Electrical auxiliaries

- Electronic power supply with protection against short circuits, overheating and power surges with an estimated B10 duration of 100,000 h.
- Standard surge protection for differential/common mode 10kV/10kV (CL I, CL II).

Operations and maintenance

- It is necessary to check in advance the state of the lighting fixture that will house the refitting kit and, if necessary, restore it.
- The refitting kit can be installed only by qualified personnel, responsible for the intervention.
- Periodic maintenance for the external cleaning of the structure and the screens from dust and smog and tightening control to the support - refer to the product's installation and maintenance manual-.
- It is the installer's responsibility to ensure correct installation and electrical connection in accordance with the applicable standards.

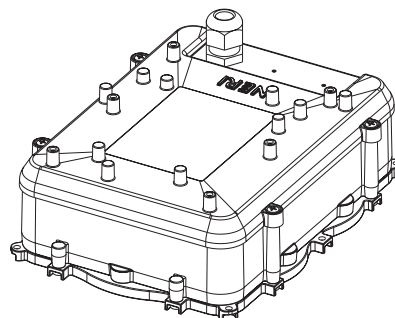
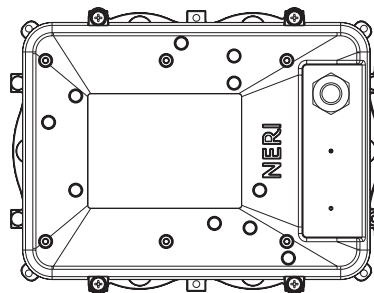
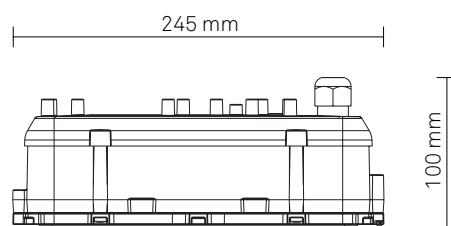
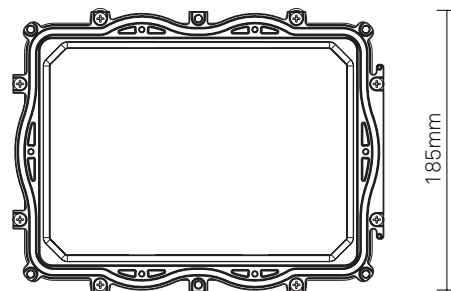
Painting

- Powder coating.
- Matt white colour.

Accessories

- PIR Presence detector.
- Infrared programmer for presence detector (cod. 7019.030.002).

DRAWINGS



DESCRIPTION

Optic configuration - Transparent screen

Lighting distribution	Distribution type	LOR*	ULOR
Type II - D	Asymmetric	100%	0%
Type III - B	Asymmetric	100%	0%
Type III - C	Asymmetric	100%	0%
Type III - H	Asymmetric	100%	0%

* optical efficiency of the device due to physical shielding.
- Modular (2 X 2) refractive lens in PMMA.
- Maximum luminous intensity class $\gamma \geq 90^\circ$: $< 0,49$ cd/klm.
- Wide range of optical lighting distributions (on request).

LuminousFlux - 3000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	10.1	149	16	2 x 94	8.0	188
2500	16.2	154	16	2 x 159	13.7	183
3500	22.8	154	16	2 x 226	19.8	177
4500	30.0	150	16	2 x 297	26.3	171
6000	38.5	156	24	2 x 261	34.5	174
7500	50.4	149	24	2 x 333	44.6	168
9000	56.0	161	24	2 x 371	50.0	180

Luminous Flux - 4000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	9.8	153	16	2 x 91	7.7	194
2500	15.7	159	16	2 x 154	13.2	189
3500	22.0	159	16	2 x 219	19.1	183
4500	29.1	154	16	2 x 287	25.4	177
6000	37.3	161	24	2 x 253	33.3	180
7500	48.8	154	24	2 x 322	43.0	174
9000	52.7	171	24	2 x 349	46.8	192

** The energetic values in the table are referred to the LED + Power supply.
- CCT 2200K and 2700K on demand.
- LED type: Lumileds Luxeon 5050
Source efficacy LED: 164 lm/W @ $T_j=25^\circ\text{C}$, 800 mA, 3000K
Source efficacy LED: 169 lm/W @ $T_j=25^\circ\text{C}$, 800 mA, 4000K
- Life time specification for gradual light output degradation (EN 62722-2-1, LM80 data) 100,000h L90B10 ($T_q = 25^\circ\text{C}$)
- Colour Rendering Index: $R_a \geq 70$
- Angular color uniformity $\Delta u'v' \leq 0.003$
- Photobiological risk: (IEC/TR 62778): RG1 Unlimited

Driver

Driver functions

1-10V + NCL (Analogic control + Neri Constant Lumen)

DALI + NCL (Digital control + Neri Constant Lumen)

NVL6H + NCL (Autodimming -30% x 6h + Neri Constant Lumen)

ON-OFF + NCL (ON-Off + Neri Constant Lumen)

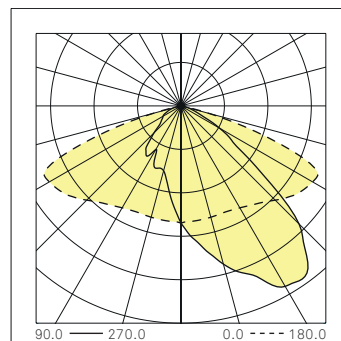
PIR Presence detector + SR

Zhaga connector + SR

POLAR DIAGRAMS

Type II - D

Luminous intensity class G*4



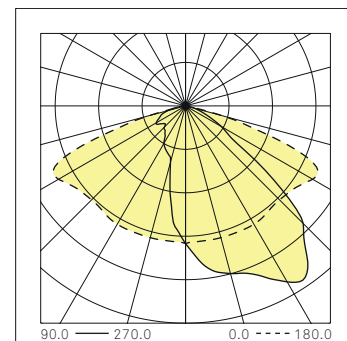
CIE Flux code

N.1 N.2 N.3 N.4 N.5
40 76 98 100 100



Type III - B

Luminous intensity class G*4



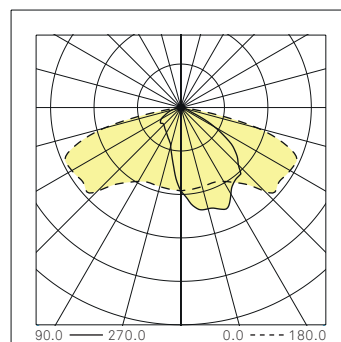
CIE Flux code

N.1 N.2 N.3 N.4 N.5
41 77 98 100 100



Type III - C

Luminous intensity class G*2



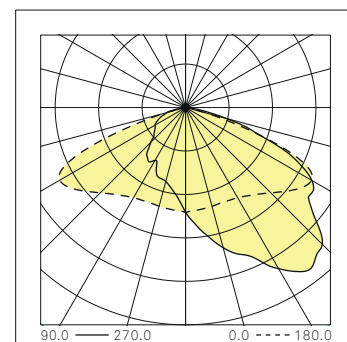
CIE Flux code

N.1 N.2 N.3 N.4 N.5
35 71 96 100 100



Type III - H

Luminous intensity class G*4



CIE Flux code

N.1 N.2 N.3 N.4 N.5
33 70 96 100 100



DESCRIPTION

Optic configuration - Transparent screen

Lighting distribution	Distribution type	LOR*	ULOR
Type I - A	Center road	100%	0%
Type IV - A	Forward throw	100%	0%
Type IV - C	Forward throw	100%	0%
Type V - A	Rotosymmetric	100%	0%

* optical efficiency of the device due to physical shielding.
- Modular (2 X 2) refractive lens in PMMA.
- Maximum luminous intensity class $\gamma \geq 90^\circ$: $< 0,49 \text{ cd/klm}$.
- Wide range of optical lighting distributions (on request).

LuminousFlux - 3000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	10.1	149	16	2 x 94	8.0	188
2500	16.2	154	16	2 x 159	13.7	183
3500	22.8	154	16	2 x 226	19.8	177
4500	30.0	150	16	2 x 297	26.3	171
6000	38.5	156	24	2 x 261	34.5	174
7500	50.4	149	24	2 x 333	44.6	168
9000	56.0	161	24	2 x 371	50.0	180

Luminous Flux - 4000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	9.8	153	16	2 x 91	7.7	194
2500	15.7	159	16	2 x 154	13.2	189
3500	22.0	159	16	2 x 219	19.1	183
4500	29.1	154	16	2 x 287	25.4	177
6000	37.3	161	24	2 x 253	33.3	180
7500	48.8	154	24	2 x 322	43.0	174
9000	52.7	171	24	2 x 349	46.8	192

** The energetic values in the table are referred to the LED + Power supply.
- CCT 2200K and 2700K on demand.
- LED type: Lumileds Luxeon 5050
Source efficacy LED: 164 lm/W @ Tj=25°C, 800 mA, 3000K
Source efficacy LED: 169 lm/W @ Tj=25°C, 800 mA, 4000K
- Life time specification for gradual light output degradation (EN 62722-2-1, LM80 data) 100,000h L90B10 (Tq = 25°C)
- Colour Rendering Index: Ra ≥ 70
- Angular color uniformity $\Delta u'v' \leq 0.003$
- Photobiological risk: (IEC/TR 62778): RG1 Unlimited

Driver

Driver functions

1-10V + NCL (Analogic control + Neri Constant Lumen)

DALI + NCL (Digital control + Neri Constant Lumen)

NVL6H + NCL (Autodimming -30% x 6h + Neri Constant Lumen)

ON-OFF + NCL (ON-Off + Neri Constant Lumen)

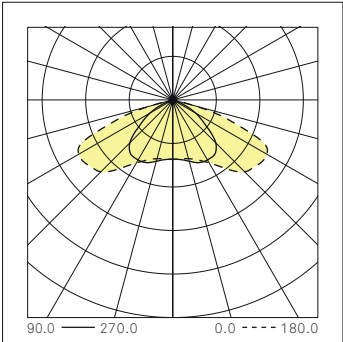
PIR Presence detector + SR

Zhaga connector + SR

POLAR DIAGRAMS

Type I – A

Luminous intensity class G*6

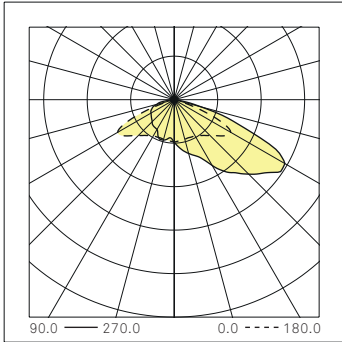


CIE Flux code				
N.1	N.2	N.3	N.4	N.5
38	80	99	100	100



Type IV - A

Luminous intensity class G*4

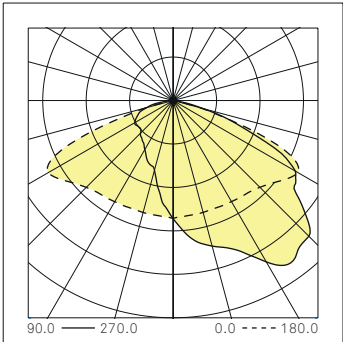


CIE Flux code				
N.1	N.2	N.3	N.4	N.5
28	65	96	100	100



Type IV - C

Luminous intensity class G*4

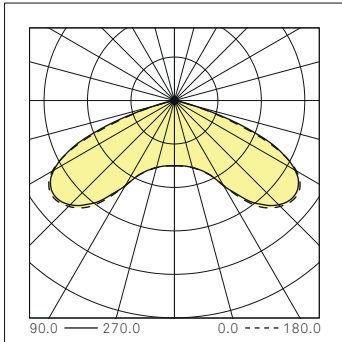


CIE Flux code				
N.1	N.2	N.3	N.4	N.5
35	71	97	100	100



Type V - A

Luminous intensity class G*6



CIE Flux code				
N.1	N.2	N.3	N.4	N.5
25	68	97	100	100



DESCRIPTION

Optic configuration - Prismatic screen

Lighting distribution	Distribution type	LOR*	ULOR
Type II - D	Asymmetric	100%	0%
Type III - B	Asymmetric	100%	0%
Type III - C	Asymmetric	100%	0%
Type III - H	Asymmetric	100%	0%

* optical efficiency of the device due to physical shielding.
- Modular (2 X 2) refractive lens in PMMA.
- Maximum luminous intensity class $\gamma \geq 90^\circ$: $< 0,49 \text{ cd/klm}$.
- Wide range of optical lighting distributions (on request).

LuminousFlux - 3000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	10.7	141	16	2 x 100	8.5	177
2500	17.2	145	16	2 x 169	14.6	171
3500	25.0	140	16	2 x 242	21.2	165
4500	32.0	141	16	2 x 317	28.2	159
6000	42.6	141	24	2 x 279	37.0	162
9000	59.8	150	24	2 x 397	53.8	167

Luminous Flux - 4000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	10.4	145	16	2 x 97	8.2	182
2500	16.7	150	16	2 x 164	14.1	177
3500	24.3	144	16	2 x 234	20.5	171
4500	31.0	145	16	2 x 307	27.3	165
6000	41.3	145	24	2 x 270	35.7	168
9000	56.3	160	24	2 x 373	50.3	179

** The energetic values in the table are referred to the LED + Power supply.
- CCT 2200K and 2700K on demand.
- LED type: Lumileds Luxeon 5050
Source efficacy LED: 164 lm/W @ $T_j=25^\circ\text{C}$, 800 mA, 3000K
Source efficacy LED: 169 lm/W @ $T_j=25^\circ\text{C}$, 800 mA, 4000K
- Life time specification for gradual light output degradation (EN 62722-2-1, LM80 data) 100,000h L90B10 ($T_q = 25^\circ\text{C}$)
- Colour Rendering Index: $R_a \geq 70$
- Angular color uniformity $\Delta u'v' \leq 0.003$
- Photobiological risk: (IEC/TR 62778): RG1 Unlimited

Driver

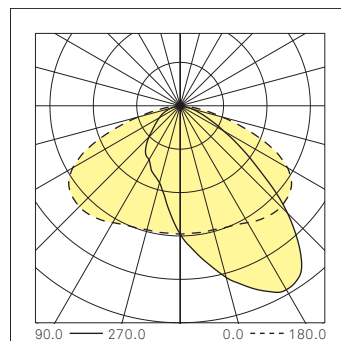
Driver functions

1-10V + NCL (Analogic control + Neri Constant Lumen)**DALI + NCL** (Digital control + Neri Constant Lumen)**NVL6H + NCL** (Autodimming -30% x 6h + Neri Constant Lumen)**ON-OFF + NCL** (ON-Off + Neri Constant Lumen)**PIR Presence detector + SR****Zhaga connector + SR**

POLAR DIAGRAMS

Type II - D

Luminous intensity class G*6



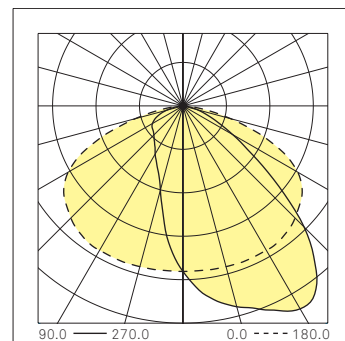
CIE Flux code

N.1	N.2	N.3	N.4	N.5
43	79	97	100	100



Type III - B

Luminous intensity class G*6



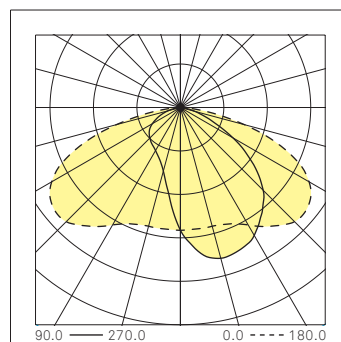
CIE Flux code

N.1	N.2	N.3	N.4	N.5
44	79	96	100	100



Type III - C

Luminous intensity class G*2



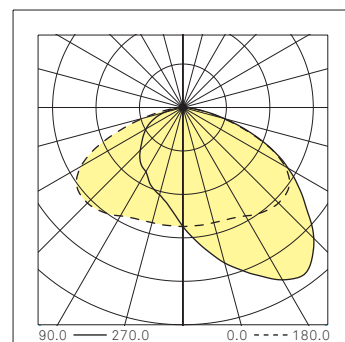
CIE Flux code

N.1	N.2	N.3	N.4	N.5
38	74	95	100	100



Type III - H

Luminous intensity class G*6



CIE Flux code

N.1	N.2	N.3	N.4	N.5
38	74	96	100	100



DESCRIPTION

Optic configuration - Prismatic screen

Lighting distribution	Distribution type	LOR*	ULOR
Type I - A	Center road	100%	0%
Type IV - A	Forward throw	100%	0%
Type IV - C	Forward throw	100%	0%
Type V - A	Rotosymmetric	100%	0%

* optical efficiency of the device due to physical shielding.
- Modular (2 X 2) refractive lens in PMMA.
- Maximum luminous intensity class $\gamma \geq 90^\circ$: < 0.49 cd/klm.
- Wide range of optical lighting distributions (on request).

LuminousFlux - 3000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	10.7	141	16	2 x 100	8.5	177
2500	17.2	145	16	2 x 169	14.6	171
3500	25.0	140	16	2 x 242	21.2	165
4500	32.0	141	16	2 x 317	28.2	159
6000	42.6	141	24	2 x 279	37.0	162
9000	59.8	150	24	2 x 397	53.8	167

Luminous Flux - 4000K

System**		LED Module				
lm	W	lm/W	n.LED	mA	W	lm/W
1500	10.4	145	16	2 x 97	8.2	182
2500	16.7	150	16	2 x 164	14.1	177
3500	24.3	144	16	2 x 234	20.5	171
4500	31.0	145	16	2 x 307	27.3	165
6000	41.3	145	24	2 x 270	35.7	168
9000	56.3	160	24	2 x 373	50.3	179

** The energetic values in the table are referred to the LED + Power supply.
- CCT 2200K and 2700K on demand.
- LED type: Lumileds Luxeon 5050
Source efficacy LED: 164 lm/W @ $T_j=25^\circ\text{C}$, 800 mA, 3000K
Source efficacy LED: 169 lm/W @ $T_j=25^\circ\text{C}$, 800 mA, 4000K
- Life time specification for gradual light output degradation (EN 62722-2-1, LM80 data) 100,000h L90B10 ($T_q = 25^\circ\text{C}$)
- Colour Rendering Index: $R_a \geq 70$
- Angular color uniformity $\Delta u'v' \leq 0.003$
- Photobiological risk: (IEC/TR 62778): RG1 Unlimited

Driver

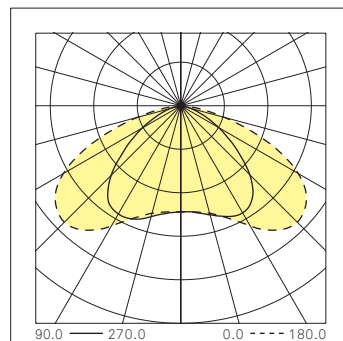
Driver functions

1-10V + NCL (Analogic control + Neri Constant Lumen)**DALI + NCL** (Digital control + Neri Constant Lumen)**NVL6H + NCL** (Autodimming -30% x 6h + Neri Constant Lumen)**ON-OFF + NCL** (ON-Off + Neri Constant Lumen)**PIR Presence detector + SR****Zhaga connector + SR**

POLAR DIAGRAMS

Type I - A

Luminous intensity class G*6



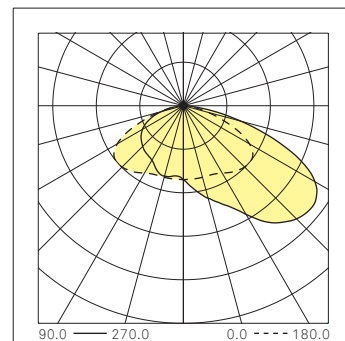
CIE Flux code

N.1	N.2	N.3	N.4	N.5
41	80	97	100	100



Type IV - A

Luminous intensity class G*6



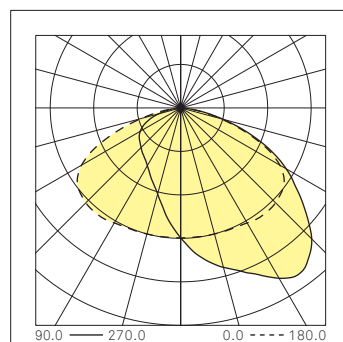
CIE Flux code

N.1	N.2	N.3	N.4	N.5
32	69	95	100	100



Type IV - C

Luminous intensity class G*6



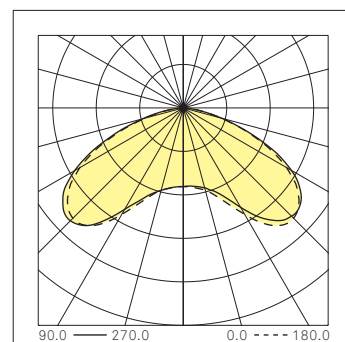
CIE Flux code

N.1	N.2	N.3	N.4	N.5
38	74	96	100	100



Type V - A

Luminous intensity class G*6



CIE Flux code

N.1	N.2	N.3	N.4	N.5
30	71	95	100	100



DESCRIPTION

Optic configuration - Prismatic screen

Lighting distribution	Distribution type	LOR*	ULOR
Type II - D	Asymmetric	100%	0%
Type III - B	Asymmetric	100%	0%
Type III - C	Asymmetric	100%	0%
Type III - H	Asymmetric	100%	0%

* optical efficiency of the device due to physical shielding.
- Modular (2 X 2) refractive lens in PMMA.
- Maximum luminous intensity class $\gamma \geq 90^\circ$: $< 0,49 \text{ cd/klm}$.

LED source from 2200K to 4000K - Table data: 3000K

Sistema**			Modulo LED		
lm	W	lm/W	mA	W	lm/W
2500	24.0	104	300	19.9	126
3500	33.8	104	430	29.1	120
4500	44.0	102	565	38.3	117

** The energetic values in the table are referred to the LED + Power supply.
- LED type: Nichia NVSLE21AT
- Life time specification for gradual light output degradation (EN 62722-2-1, LM80 data) 100,000h L80B10 (Tq = 25°C)
- Colour Rendering Index: Ra ≥ 80

CCT consumption factors table

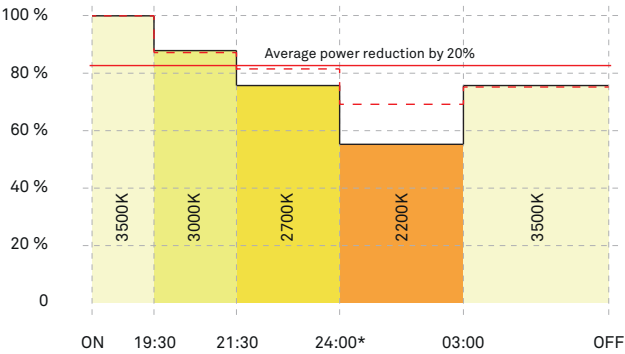
Correlated colour temperature (CCT)	2200K	2700K	3000K	3500K	4000K
Power factor correction (PF _{cct})	1,23 (123%)	1,05 (105%)	1,00 (100%)	0,97 (97%)	0,95 (95%)

PF_{cct}: Absorbed power correction factor due to variation of correlated colour temperature (CCT).

Driver functions

NVLK + NCL (Autodimming Kruithof scheme + Neri Constant Lumen)
DALI (DT8)* (Digital control) - *Priority over NVLK

KRUITHOF OPERATING DIAGRAM (NVLK)



--- Power (%) - - - Average power — Luminous flux
*The value 24:00 represents virtual midnight calculated as the equidistant value from the time of switching on and off according to latitude.
** The technology allows an average power reduction of 20%

PRESET LIGHTING SCENES

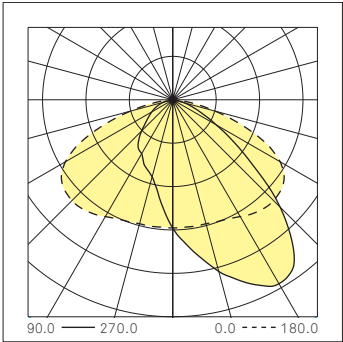
01 4000K (lm 100%)	02 3500K (lm 100%)	03 3000K (lm 100%)	04 2700K (lm 100%)	05 2200K (lm 100%)
06 4000K (lm 75%)	07 3500K (lm 75%)	08 3000K (lm 75%)	09 2700K (lm 75%)	10 2200K (lm 75%)
11 4000K (lm 50%)	12 3500K (lm 50%)	13 3000K (lm 50%)	14 2700K (lm 50%)	15 2200K (lm 50%)

Preset lighting scenes can be programmed with DALI 1 signal, creating one's own favourite composition.

POLAR DIAGRAMS

Type II - D

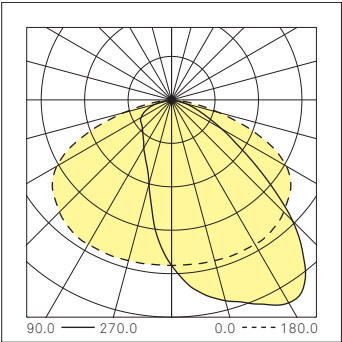
Luminous intensity class	G*6
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CIE Flux code				
N.1	N.2	N.3	N.4	N.5
41	78	96	100	100

Type III - B

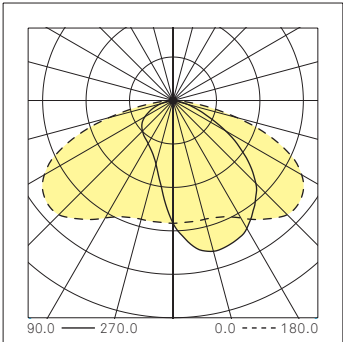
Luminous intensity class	G*6
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CIE Flux code				
N.1	N.2	N.3	N.4	N.5
42	78	96	100	100

Type III - C

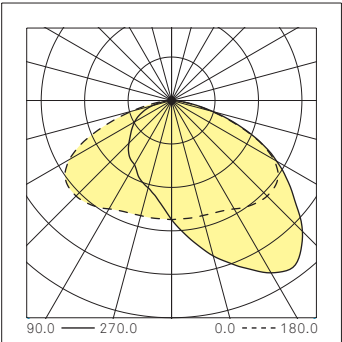
Luminous intensity class	G*2
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CIE Flux code				
N.1	N.2	N.3	N.4	N.5
37	74	95	100	100

Type III - H

Luminous intensity class	G*6
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CIE Flux code				
N.1	N.2	N.3	N.4	N.5
36	72	95	100	100

DESCRIPTION

Optic configuration - Prismatic screen

Lighting distribution	Distribution type	LOR*	ULOR
Type I - A	Center road	100%	0%
Type IV - A	Forward throw	100%	0%
Type IV - C	Forward throw	100%	0%
Type V - A	Rotosymmetric	100%	0%

* optical efficiency of the device due to physical shielding.
- Modular (2 X 2) refractive lens in PMMA.
- Maximum luminous intensity class $\gamma \geq 90^\circ$: $< 0,49 \text{ cd/klm}$.

LED source from 2200K to 4000K - Table data: 3000K

Sistema**			Modulo LED		
lm	W	lm/W	mA	W	lm/W
2500	24.0	104	300	19.9	126
3500	33.8	104	430	29.1	120
4500	44.0	102	565	38.3	117

** The energetic values in the table are referred to the LED + Power supply.
- LED type: Nichia NVSLE21AT
- Life time specification for gradual light output degradation (EN 62722-2-1, LM80 data) 100,000h L80B10 (Tq = 25°C)
- Colour Rendering Index: Ra ≥ 80

CCT consumption factors table

Correlated colour temperature (CCT)	2200K	2700K	3000K	3500K	4000K
Power factor correction (PF _{cct})	1,23 (123%)	1,05 (105%)	1,00 (100%)	0,97 (97%)	0,95 (95%)

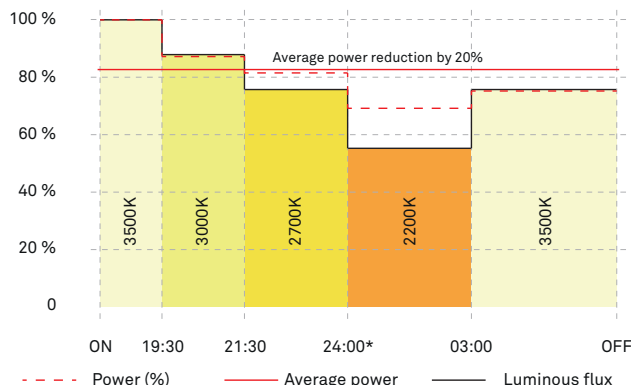
PF_{cct}: Absorbed power correction factor due to variation of correlated colour temperature (CCT).

Driver functions

NVLK + NCL (Autodimming Kruithof scheme + Neri Constant Lumen)

DALI (DT8)* (Digital control) - *Priority over NVLK

KRUIHOF OPERATING DIAGRAM (NVLK)



*The value 24:00 represents virtual midnight calculated as the equidistant value from the time of switching on and off according to latitude.

PRESET LIGHTING SCENES

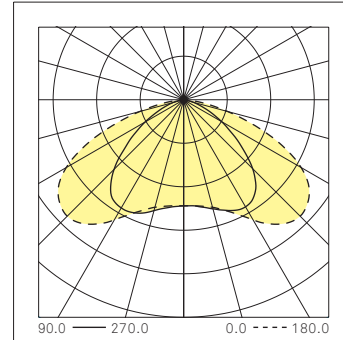
01 4000K (lm 100%)	02 3500K (lm 100%)	03 3000K (lm 100%)	04 2700K (lm 100%)	05 2200K (lm 100%)
06 4000K (lm 75%)	07 3500K (lm 75%)	08 3000K (lm 75%)	09 2700K (lm 75%)	10 2200K (lm 75%)
11 4000K (lm 50%)	12 3500K (lm 50%)	13 3000K (lm 50%)	14 2700K (lm 50%)	15 2200K (lm 50%)

Preset lighting scenes can be programmed with DALI 1 signal, creating one's own favourite composition.

POLAR DIAGRAMS

Type I - A

Luminous intensity class G*6

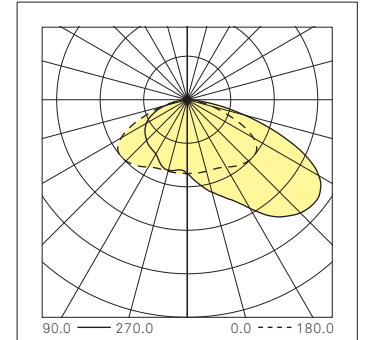


CIE Flux code

N.1 N.2 N.3 N.4 N.5
41 80 97 100 100

Type IV - A

Luminous intensity class G*2

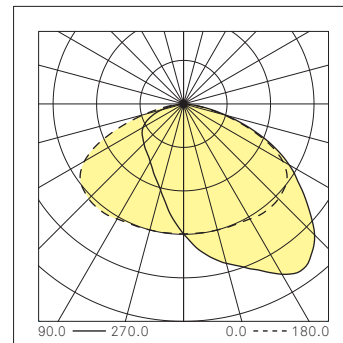


CIE Flux code

N.1 N.2 N.3 N.4 N.5
30 67 95 100 100

Type IV - C

Luminous intensity class G*6

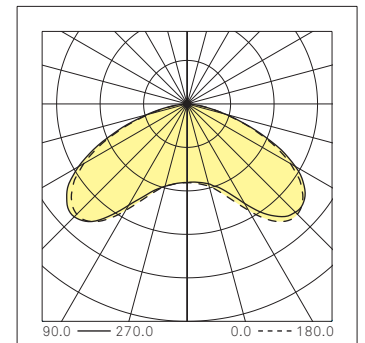


CIE Flux code

N.1 N.2 N.3 N.4 N.5
36 72 95 100 100

Type V - A

Luminous intensity class G*6



CIE Flux code

N.1 N.2 N.3 N.4 N.5
30 72 95 100 100

DESCRIPTION

Fixing plate

Refitting kit support plates has to be ordered separately.

DRAWINGS

NERI product series compatible with RNC21 Refitting kit	Features of compatible NERI products	Plate code
Light 800	Die-cast aluminium version, tilting reflector, without optics. The screens may or may not be retained.	0006.153.078D
Light 801; Light 803	Original version with optics. The devices must retain the basket or the screens.	0006.153.088D
Light 801	Original version with optics, where the basket and the disconnecting switch are designed to be removed.	0006.153.078D
Light 804	The lantern will retain the original flat screen and the refitting kit will be positioned in place of the pre-existing reflector.	0006.153.094D
Light 804 Fortimo	The lantern will not retain the original flat screen and the refitting kit will be positioned where the pre-existing screen is removed.	0006.153.095D
Light 400; Light 500; Light 600	Original version with optics. The devices must retain the pre-existing basket or screens.	0006.153.088D
Light 400; Light 500; Light 600	Original version with or without optics, where existing pre-baskets are designed to be removed. Excluding brass versions.	0006.153.091D
Light 400; Light 500; Light 600	Original version without optics, where pre-existing screens are to be retained. Including brass versions.	0006.153.092D
Light 104; MN109	Original version with optics. The devices must retain the existing screen. Excluding the original LED OPTIBOX and 7x4 versions.	0006.153.093D
Light 106	The product may or may not retain the flat screen of the original lantern. The refitting kit will be replace the original reflector which will be removed.	0006.153.080D
Light 21; Light 31	The product may or may not retain the screen of the original lantern, with the pre-existing ring being retained.	0006.153.081D
Light 21 LED; Light 31 LED	The product keeps the existing ring.	0006.153.089D
Light 22; Light 32	Eigenschaften der kompatiblen NERI-ProdukteB25B5:B26B5:B24B5:B22D4B5:B24	0006.153.084D
Light 22; Light 32	Original version with optics. The refitting kit will replace the pre-existing screen which will be removed.	0006.153.085D
Light 34; Light 37; Light 23; Light 24; Light 33; Light 35	The refitting kit will will replace the original screen which will be removed.	0006.153.082D
Light 700; Light 701	Version with or without optics and with or without screens.	0006.153.086D
Light Altair	Version with optics. The product may or may not retain the screen of the original device.	0006.153.083D

Accessories

Accessory code	Description
Z002.0431.008	IP68 Plug&Socket circular connector