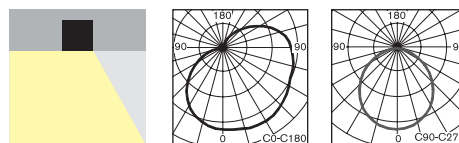
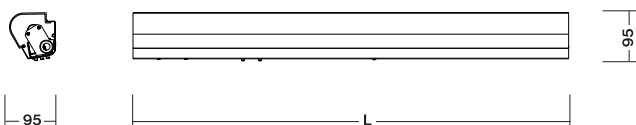


15T / ŠKODA Transportation

- The PARALUX modular lighting system has been designed for direct illumination of the interior of tram vehicles. Originally it has been designed for ŠKODA TRANSPORTATION project 15T.
- Thanks to the variable lengths it is possible to create continuous lighting band along the entire vehicle length.
- Electronic ballast meets the latest EN50311 requirements
- PARALUX je modulárny svetelný systém pre priame osvetlenie (pôvodne navrhnutý pre električky ŠKODA Transportation, 15T)
- Vďaka modulom rôznej dĺžky je možné vytvoriť inline svetelný systém po celej dĺžke vagóna.
- Elektronické predradníky spĺňajú EN50311

**STANDARD ACCESSORIES****ŠTANDARDNÁ VÝBAVA**

- AL body finished in white polyester powder coat RAL9003
- Diffuser is made of PC (complying EN45545 and DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GKW (H+S)
- "INLINE" wiring
- WAGO I/O connectors
- Dimming SETTING function 30%/100% (refer also to pages No.47-51)
- Teleso z lakovaného AL plechu v RAL9003
- PC difúzor svetidla (splňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- Prieběžná kabeláž
- WAGO I/O konektory
- Stmievanie SETTING 30%/100% (pozri aj str.47-51)

**OPTIONS****PRÍPLATKY**

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

PARALUX (190-B)

Type / Typ	Length mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
PARALUX 58W/24V DC SETTING 30%	1589 mm	DC 24V	T8 58W	30%/100%	YES	OPTION
PARALUX 18W/24V DC SETTING 30%	923 mm	DC 24V	T8 18W	30%/100%	YES	OPTION
CUSTOMISED MODULE	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

15T / ŠKODA Transportation

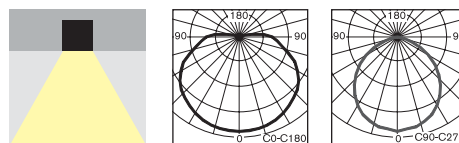


Semi-recessed Luminaires for direct lighting

15T / ŠKODA Transportation





BERN XL / SIEMENS

- COMBILUX lighting fixtures have been designed for SIEMENS tram application for city BERN XL project.
- Thanks to the variable lengths it is possible to create continuous lighting band along the entire vehicle length.
- The system includes also speakers.
- Electronic ballast meets the latest EN50311 requirements

- Svetidlá COMBILUX boli konštruované a vyrobené pre projekt električiek SIEMENS pre mesto BERN.
- Vďaka modulom rôznej dĺžky je možné vytvoriť "inline" svetelný systém po celej dĺžke vagóna.
- Systém obsahuje aj reproduktory.
- Elektronické predradníky spĺňajú EN50311

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

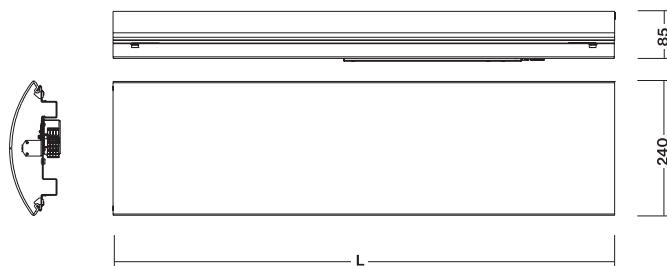
- AL body finished in white polyester powder coat RAL9003
- Diffuser is made of PC (complying EN45545 and DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GWK (H+S)
- WAGO terminal blocks

- Teleso z lakovaného AL plechu v RAL9003
- PC difúzor svetidla (splňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- WAGO pripojné svorkovnice

OPTIONS**PRÍPLATKY**

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- "INLINE" wiring
- WAGO I/O connectors
- Dimming function SETTING (refer also to pages No.47-51)

- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)
- Pribežná kabeláž
- WAGO I/O konektory
- Stmievanie SETTING (pozri aj str.47-51)



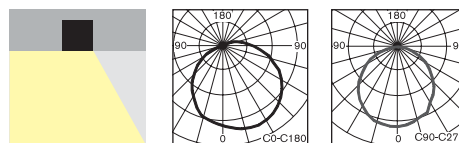
Copyright Siemens AG

COMBILUX (221-B)

Type / Typ	Length mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
COMBILUX 21W T5	900 mm	DC 24V	T5 21W	OPTION	YES	OPTION
COMBILUX 28W T5	1300 mm	DC 24V	T5 28W	OPTION	YES	OPTION
COMBILUX AUDIO MODULE 300mm	300 mm	DC 24V	-	-	-	-
COMBILUX AUDIO MODULE 240mm	240 mm	DC 24V	-	-	-	-
COMBILUX CUSTOMISED MODULE	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION



SIEMENS

14T/16T / ŠKODA Transportation

- The TRACKLUX modular lighting system has been designed for direct illumination of the interior of public transport vehicles. Originally it has been designed for ŠKODA TRANSPORTATION 14T/16T trams.
- Thanks to the variable lengths it is possible to create continuous lighting band along the entire vehicle length.
- Speakers are included
- Electronic ballast meets the latest EN50311 requirements

- TRACKLUX je modulárny svetelný systém pre priame osvetlenie (pôvodne navrhnutý pre ŠKODA Transportation, 14T/16T projekty)
- Vďaka modulom rôznej dĺžky je možné vytvoriť inline svetelný systém po celej dĺžke vagóna. Systém obsahuje reproduktory.
- Elektronické predradníky spĺňajú EN50311

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

- Extruded AL profile
- Diffuser is made of PC (complying EN45545 and DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GWK (H+S)
- "INLINE" wiring
- WAGO I/O connectors
- Dimming SETTING function 50%/100% (refer also to pages No.47-51)

- Teleso z extrudovaného AL profilu
- PC difúzor svetidla (splňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- Prieběžná kabeláž
- WAGO I/O konektory
- Stmievanie SETTING 50%/100% (pozri aj str.47-51)

OPTIONS**PRÍPLATKY**

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)

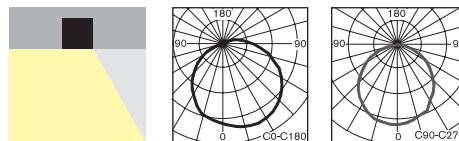
- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

**TRACKLUX (152-B)**

Type / Typ	Length mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
TRACKLUX 2x36W/24V + Speakers	3170 mm	DC 24V	T8 2x36W	50%/100%	YES	OPTION
TRACKLUX 3x36W/24V + Speakers	4208 mm	DC 24V	T8 3x36W	50%/100%	YES	OPTION
TRACKLUX 4x36W/24V + Speakers	5270 mm	DC 24V	T8 4x36W	50%/100%	YES	OPTION
TRACKLUX CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

14T/16T / ŠKODA Transportation



28T / ŠKODA Transportation

- The TRACKLUX modular lighting system has been designed for direct illumination of the interior of public transport vehicles. Originally it has been designed for ŠKODA TRANSPORTATION 28T trams.
- Thanks to the variable lengths it is possible to create continuous lighting band along the entire vehicle length.
- Speakers are included
- Electronic ballast meets the latest EN50311 requirements
- TRACKLUX je modulárny svetelný systém pre priame osvetlenie (pôvodne navrhnutý pre ŠKODA Transportation, projekt 28T)
- Vďaka modulom rôznej dĺžky je možné vytvoriť inline svetelný systém po celej dĺžke vagóna. Systém obsahuje reproduktory.
- Elektronické predradníky spĺňajú EN50311

**STANDARD ACCESSORIES****ŠTANDARDNÁ VÝBAVA**

- Extruded AL profile
- Diffuser is made of PC (complying EN45545 and DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GWK (H+S)
- "INLINE" wiring
- WAGO I/O connectors
- Dimming SETTING function 50%/100% (refer also to pages No.47-51)
- Teleso z extrúdaného AL profilu
- PC difúzor svetidla (splňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- Priebežná kabeláž
- WAGO I/O konektory
- Strmievanie SETTING 50%/100% (pozri aj str.47-51)

OPTIONS**PRÍPLATKY**

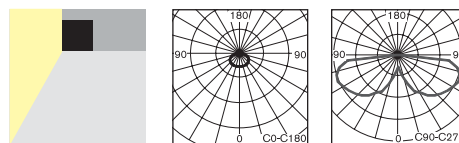
- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

**TRACKLUX (152-B)**

Type / Typ	Length mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
TRACKLUX 2x36W/24V + Speakers	3035 mm	DC 24V	T8 2x36W	50%/100%	YES	OPTION
TRACKLUX 3x36W/24V + Speakers	4290 mm	DC 24V	T8 3x36W	50%/100%	YES	OPTION
TRACKLUX 4x36W/24V + Speakers	5605 mm	DC 24V	T8 4x36W	50%/100%	YES	OPTION
TRACKLUX CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION



City Runner LINZ / BOMBARDIER



- RUNLUX lighting fixtures have been designed for direct+indirect illumination of BOMBARDIER tram application for city LINZ project.
- Thanks to the variable lengths it is possible to create continuous lighting band along the entire vehicle length.
- Electronic ballast meets the latest EN50311 requirements

- Svetidlá RUNLUX boli konštruované a vyrobené pre projekt električiek BOMBARDIER pre mesto LINZ. Je to modulárny polozapustený systém pre priame/nepriame osvetlenie (odraz svetla od stropných panelov).
- Vďaka modulom rôznej dĺžky je možné vytvoriť líniový svetelný systém po celej dĺžke vagóna.
- Elektronické predradníky spĺňajú EN50311

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- AL body finished in white polyester powder coat RAL9003
- Diffuser is made of PC (complying EN45545 and DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GWK (H+S)
- WAGO terminal blocks

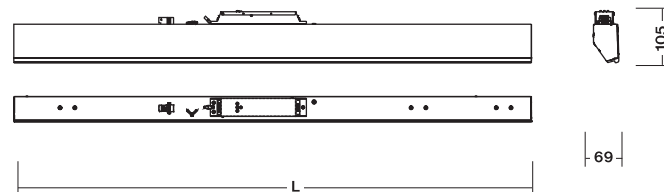
- Teleso z lakovaného AL plechu v RAL9003
- PC difúzor svetidla (spĺňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- WAGO pripojné svorkovnice

OPTIONS

PRIPLATKY

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- "INLINE" wiring
- WAGO I/O connectors
- Dimming function SETTING (refer also to pages No.47-51)

- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)
- Prieběžná kabeláž
- WAGO I/O konektory
- Stmievanie SETTING (pozri aj str.47-51)



RUNLUX (255-B)

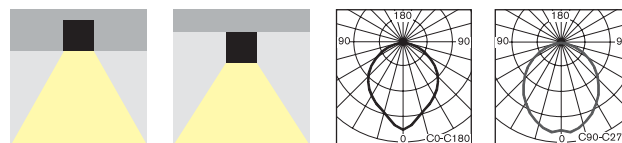
Type / Typ	Length mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
RUNLUX 36W/24V DC	1403 mm	DC 24V	T8 36W	OPTION	YES	OPTION
RUNLUX 36W+18W/24V DC	2293mm	DC 24V	T8 18W+36W	OPTION	YES	OPTION
RUNLUX 18W/24V DC	638 mm	DC 24V	T8 18W	OPTION	YES	OPTION
RUNLUX 18W+36W-1m/24V DC	1824 mm	DC 24V	T8 18W+36W	-OPTION	YES	OPTION
RUNLUX CUSTOMISED MODULE	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

City Runner LINZ / BOMBARDIER



BOMBARDIER

SIEMENS / ŠKODA



- SIEMENS-TSLM / ŠKODA lighting fixtures have been designed as an individual robust both recessed or surface mounted lighting fixtures for illumination of either for a locomotive driver cabin or an engine room. Versions equipped with switch or LEDs are also available.
- Electronic ballast meets the latest EN50311 requirements
- Svetidlá SIEMENS/ŠKODA sú robustné svetidlá pre prísadenú alebo zapustenú montáž do stropu pre osvetlenie kabíny alebo motorového priestoru lokomotívy (pôvodne navrhnuté pre lokomotívy SIEMENS, ŠKODA Transportation). V ponuke je aj verzia s vypínačom a verzia s LED.
- Elektronické predradníky spĺňajú EN50311

STANDARD ACCESSORIES

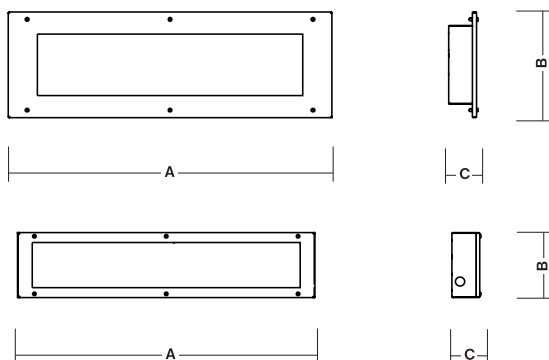
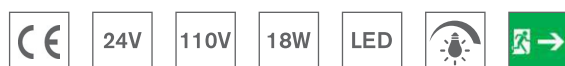
ŠTANDARDNÁ VÝBAVA

- Metal sheet body finished in white polyester powder coat RAL9002
- Diffuser is made of PC (complying EN45545 and DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GWK (H+S)
- WAGO terminal block
- Dimming 50%/100% (only SETING versions)
- Teleso z lakovaného oceľového plechu v RAL9002
- PC difúzor svetidla (splňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- WAGO pripojné svorkovnice
- Stmievanie 50%/100% (iba SETING verzie)

OPTIONS

PRÍPLATKY

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- Dimming function SETTING (refer also to pages No.47-51)
- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)
- Stmievanie SETTING (pozri aj str.47-51)



SIEMENS X4+ / ŠKODA 109E (217-B)

Type / Typ	Dimensions AxBxCmm	Power Supply	Light Source	Dimming	Order Code
SIEMENS TSLM 18W/24V DC Recessed Mounted	713x233x62 mm	DC 24V	T8 18W	OPTION	217-B-00-01-00
SIEMENS TSLM 18W/24V DC Surface Mounted	655x143x62mm	DC 24V	T8 18W	OPTION	217-B-01-01-00
SIEMENS TSLM 18W/24V DC Recessed + Switch	713x233x62 mm	DC 24V	T8 18W	OPTION	217-B-02-01-00
SIEMENS TSLM 18W/110V DC Setting Recessed	713x233x62 mm	DC 110V	T8 18W	50%/100%	217-B-07-01-00
SIEMENS TSLM 18W/24V DC Setting Recessed	713x233x62 mm	DC 24V	T8 18W	50%/100%	217-B-11-01-00
SKODA 18W/24V DC + 2xLED Recessed Mounted	713x233x62 mm	DC 24V	T8 18W+ 2xLED	OPTION	217-B-03-01-00
SKODA 18W/24V DC + 2xLED Surface Mounted	655x143x62mm	DC 24V	T8 18W+ 2xLED	OPTION	217-B-04-01-00
SKODA 18W/24V DC + 2xLED Setting Recessed	713x233x62 mm	DC 24V	T8 18W+ 2xLED	50%/100%	217-B-16-01-00

CUSTOMISED LIGHTING FIXTURE

CUSTOMISED

CUSTOMISED

CUSTOMISED

OPTION

-

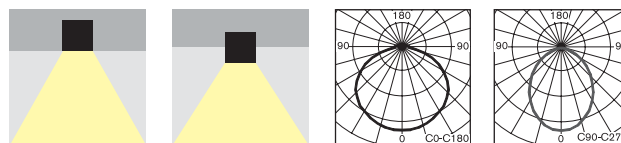
Ask SEC for detailed drawings or the specific item order code (design@sec.sk)



SIEMENS Driver Cabin





TRAXX AC3+ / BOMBARDIER

- The TRAXX lighting modules has been designed for BOMBARDIER TRAXX locomotives. There are two different types. The first one in flat design for engine room area and the second one as a semi-recessed for locomotive cabin illumination.
- Electronic ballast meets the latest EN50311 requirements
- Svetidlá boli navrhnuté pre lokomotívy TRAXX BOMBARDIER. Strojovňa je osvetlená prisadeným svetidlami s nízkou zástavbovou výškou 2x18W alebo 2x36W. Kabína je osvetlená polozapusteným svetidlom s prizmatickým krytom a vypínačom.
- Elektronické predradníky spĺňajú EN50311

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

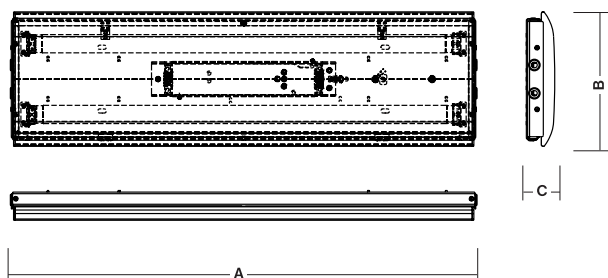
- AL sheet body finished in white polyester powder coat RAL9003
- Diffuser is made of PC (complying EN45545 and DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GKW (H+S)
- WAGO terminal block

- Teleso z lakovaného AL plechu v RAL9002
- PC difúzor svetidla (spĺňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- WAGO pripojné svorkovnice

OPTIONS**PRÍPLATKY**

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- Dimming function SETTING (refer also to pages No.47-51)

- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)
- Stmievanie SETTING (pozri aj str.47-51)

**TRAXX AC3+ (243-B)**

Type / Typ	Dimensions AxBxCmm	Power Supply	Light Source	Dimming	AutoTest
TRAXX 2x36W/110V DC	1266x190x40 mm	DC 110V	T8 2x36W	OPTION	YES
TRAXX 2x18W/110V DC	656x190x40 mm	DC 110V	T8 2x18W	OPTION	YES
TRAXX 2x18W/110V DC + Switch	1312x154x37 mm	DC 110V	T8 2x18W	OPTION	YES
TRAXX CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION

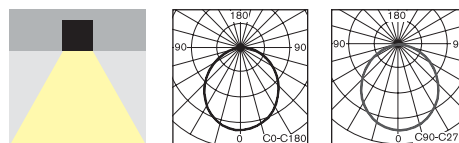


BOMBARDIER



BOMBARDIER



DB DESIRO HC / SIEMENS

- This recessed lighting fixture type has been designed for DESIRO-HC project (SIEMENS) for smooth and powerfull illumination of the door entrance door area
- It is equipped with MidPower OSRAM LEDs
- Tieto stropné zapustené svietidlá boli pôvodne navrhnuté pre projekt DESIRO-HC (SIEMENS) pre výkonné osvetlenie nástupného priestoru dverí
- Svietidlá sú vybavené výkonnými LED OSRAM

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

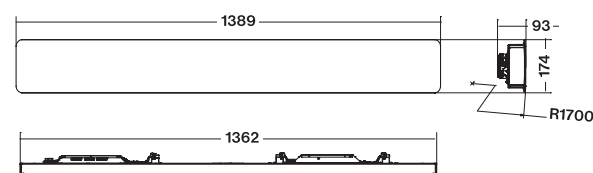
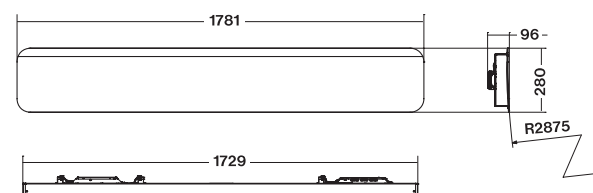
- Equipped with MidPower OSRAM DURIS S5 LEDs (3000K)
- LED Binning < 3 MacAdam Steps
- AL sheet base painted in RAL9003
- Diffuser is made by semi-opal milky colour PC (complying fire+smoke standard EN45545)
- Diffuser with perfect illumination uniformity, no LED SPOT effect
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks

- Vybavené MidPower OSRAM DURIS S5 LED (3000K)
- LED Binning < 3 MacAdam Steps
- Základňa svietidla vyrobená z AL plechu v RAL9003
- PC difúzor svietidla vyrobený z poloopálového PC (splňajúci DIN5510 S4/SR2/ST2 a EN45545)
- Kryt svietidla rovnomerne osvetlený, žiadne nežiadúce SPOT LED efekty
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice

OPTIONS**PRÍPLATKY**

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Stmievanie 30%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

**ENTRANCE DOOR AREA LED FIXTURE (308-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
ENDCAR DOOR AREA LED FIXTURE	see the drawing	DC 24V, 110V	LED OSRAM 3000K	YES	OPTION	OPTION
MIDDLECAR DOOR AREA LED FIXTURE	see the drawing	DC 24V, 110V	LED OSRAM 3000K	YES	OPTION	OPTION
CUSTOMISED LED MODULE	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION



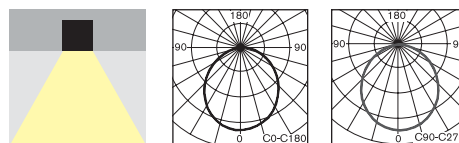
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SIEMENS

SBB TWINDEX / BOMBARDIER



- This recessed lighting fixture type has been designed for SBB Twindex project (BOMBARDIER) for smooth and powerfull illumination of all staircase and door entrance area or loading platform area
- It is equipped with LED or 18W fluorescent tube

- Tieto stropné zapustené svietidlá boli pôvodne navrhnuté pre projekt SBB Twindex (BOMBARDIER) pre výkonné osvetlenie priestorov schodišťa, nástupného priestoru dverí, nakladacieho priestoru,...
- Svietidlá sú vybavené výkonnými LED alebo 18W žiarivkou

STANDARD ACCESSORIES

STANDARDNÁ VÝBAVA

- HighPower LEDs (3500K) - only for ENTRANCE DOOR version
- LED Binning < 3 MacAdam Steps
- AL sheet base painted in RAL9003
- Diffuser is made by semi-opal milky colour PC (complying DIN5510 S4/SR2/ST2 and EN45545)
- Halogen-free wiring RADOX GKW
- WAGO terminal blocks

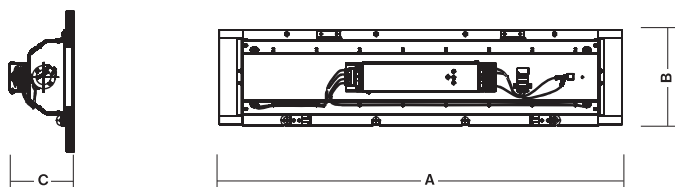
- HighPower LED (3500K) - len pre ENTRANCE DOOR version
- LED Binning < 3 MacAdam Steps
- základňa svietidla vyrobená z AL plechu v RAL9003
- PC difúzor svietidla vyrobený z poloopálového PC (splňajúci DIN5510 S4/SR2/ST2 a EN45545)
- Halogénovo bezpečné vodiče RADOX GKW
- WAGO prípojné svorkovnice

OPTIONS

PRÍPLATKY

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Stmievanie 30%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)



18W RECESSED FIXTURE (276-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
STAIRCASE LIGHTING FIXTURE 18W	683x167x98 mm	DC 24V, 110V	T8 18W	OPTION	YES	OPTION
LOADING PLATFORM FIXTURE 18W	683x167x103 mm	DC 24V, 110V	T8 18W	OPTION	YES	OPTION
CUSTOMISED LED MODULE	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

LED RECESSED FIXTURE (276-B)

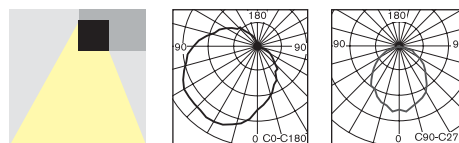
Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
ENTRANCE DOOR AREA LED	997x165x68 mm	DC 24V, 110V	24x HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED LED MODULE	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

SBB TWINDEX / BOMBARDIER



BOMBARDIER

DESIRO HC / SIEMENS



- This recessed lighting fixture type has been designed for DESIRO-HC project (SIEMENS) for smooth and powerful illumination of staircase ceiling area
- It is equipped with MidPower OSRAM LEDs

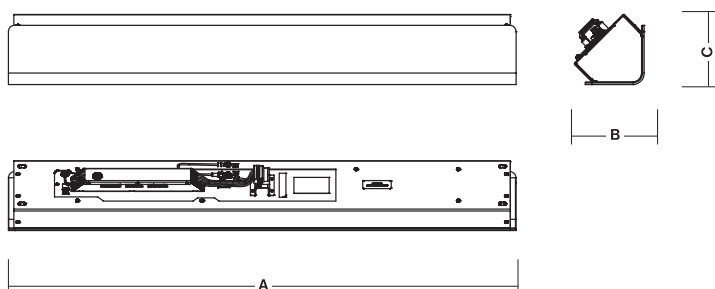
- Tieto stropné zapustené svietidlá boli pôvodne navrhnuté pre projekt DESIRO-HC (SIEMENS) pre výkonné osvetlenie schodiska
- Svietidlá sú vybavené výkonnými LED OSRAM

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- Equipped with MidPower OSRAM LEDs DURIS S5 (3000K)
- LED Binning < 3 MacAdam Steps
- AL sheet base painted in RAL9003
- Diffuser is made by semi-opal milky colour PC (complying fire+smoke standard EN45545)
- Diffuser with perfect illumination uniformity, no LED SPOT effect
- Halogen-free wiring RADOX GKW
- WAGO terminal blocks

- Vybavené MidPower OSRAM LED DURIS S5 (3000K)
- LED Binning < 3 MacAdam Steps
- Základňa svietidla vyrobená z AL plechu v RAL9003
- PC difúzor svietidla vyrobený z poloopálového PC (splňajúci DIN5510 S4/SR2/ST2 a EN45545)
- Kryt svietidla rovnomerne osvetlený, žiadne nežiadúce SPOT LED efekty
- Halogénovo bezpečné vodiče RADOX GKW
- WAGO prípojné svorkovnice



OPTIONS

PRÍPLATKY

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Stmievanie 30%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

STAIRCASE CEILING LED FIXTURE (308-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
STAIRCASE CEILING LED FIXTURE	896x123x123 mm	DC 24V, 110V	LED OSRAM 3000K	YES	OPTION	OPTION
CUSTOMISED LED MODULE	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Staircase ceiling recessed mounted LED Luminaires

DESIRO HC / SIEMENS



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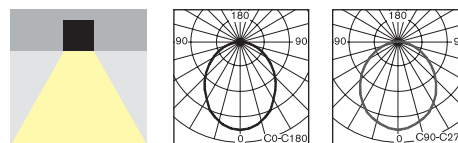
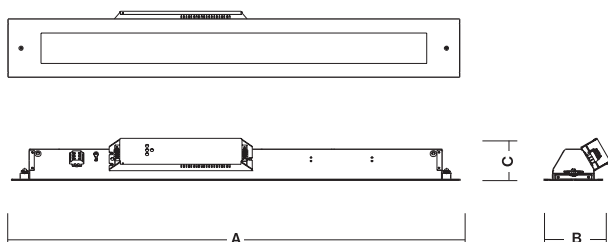


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ERGOLUX-L /-K



- ERGOLUX has been designed as individual recessed lighting fixture for illumination all corridor, driver cockpit, door entrance area, etc. ERGOLUX is a sophisticated lighting with intelligence
- Dimming function (Setting versions) and AUTO-TEST function are available.
- Electronic ballast meets the latest EN requirements
- Svietidlá ERGOLUX sú určené pre zapustenú montáž do stropu. Sú vyrábané vo viacerých rozmeroch s PC opálovým alebo prismatickým krytom. Sú určené ako individuálne svietidlá pre osvetlenie režijných priestorov koľajového dopravného prostriedku (osvetlenie kabíny, osvetlenie dverných priestorov, osvetlenie chodieb, toalety,...)

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- Metal sheet body finished in white polyester powder coat RAL9003
- Diffuser is made of PC (complying EN45545 or DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GWK (H+S)
- WAGO terminal blocks
- Dimming 30%/100% or 50%/100% (only SETTING versions)
- Teleso z lakovaného AL plechu v RAL9003
- PC difúzor svietidla (splňajúci EN45545 a DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- WAGO prípojné svorkovnice
- Stmievanie 30%/100% alebo 50%/100% (len SETTING verzie)

OPTIONS

PRÍPLATKY

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- "INLINE" wiring + WAGO I/O connectors
- Dimming function SETTING (refer also to pages No.47-51)
- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)
- Prieběžná kabeláž + WAGO I/O konektory
- Stmievanie SETTING (pozri aj str.47-51)

ERGOLUX (112-B)

Type / Typ	Dimensions	Power Supply	Light Source	Dimming	AutoTest	Central Control
ERGOLUX-K 18W	360x115x83 mm	DC 24V, 110V	18W 2G11	OPTION	YES	OPTION
ERGOLUX-K 18W Setting 30%	360x115x83 mm	DC 24V	18W 2G11	30%/100%	YES	OPTION
ERGOLUX-K 18W+5xLED	360x115x83 mm	DC 24V	18W+5xHiPower LED	OPTION	YES	OPTION
ERGOLUX-K 18W+5xLED Setting 50%	360x115x83 mm	DC 24V	18W+5xHiPower LED	50%/100%	YES	OPTION
ERGOLUX-K 2x18W	360x360x83 mm	DC 24V	2x18W 2G11	OPTION	YES	OPTION
ERGOLUX-K 2x18W+5xLED	360x360x83 mm	DC 24V	2x18W 2G11 +5xLED	OPTION	YES	OPTION
ERGOLUX-L 18W	690x115x83 mm	DC 24V	T8 18W	OPTION	YES	OPTION
ERGOLUX-L 18W Setting 30%	690x115x83 mm	DC 24V	T8 18W	30%/100%	YES	OPTION
ERGOLUX-L 18W Setting 50%	690x115x83 mm	DC 24V	T8 18W	50%/100%	YES	OPTION
ERGOLUX-L 2x18W	676x176x92 mm	DC 24V	T8 2x18W	OPTION	YES	OPTION
ERGOLUX-L 2x18W Setting 50%	676x176x92 mm	DC 24V	T8 2x18W	50%/100%	YES	OPTION
ERGOLUX-L 36W Setting	1230x115x83 mm	DC 24V	T8 36W	OPTION	YES	OPTION
ERGOLUX-L 36W Setting 50%	1230x115x83 mm	DC 24V	T8 36W	50%/100%	YES	OPTION
ERGOLUX-10xLED	360x115x83 mm	DC 110V	10xHighPower LED	OPTION	OPTION	OPTION
ERGOLUX-18xLED Setting 50%	1000x115x79 mm	DC 110V	18xHighPower LED	50%/100%	OPTION	OPTION
ERGOLUX CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)

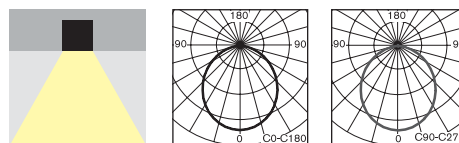
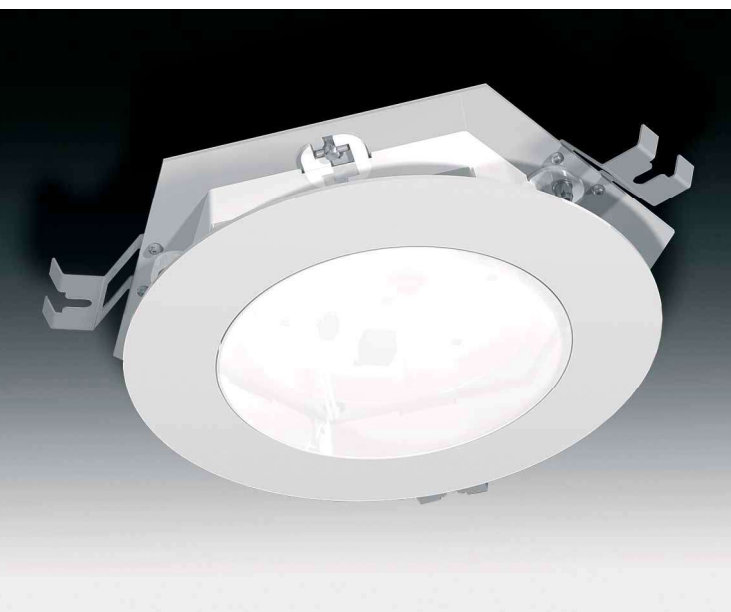




ERGOLUX-K 18W

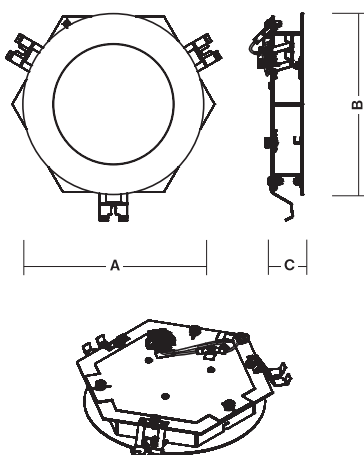
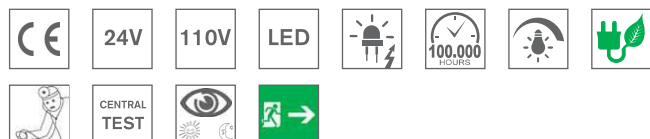


ERGOLUX-K 2x18W

SBB TWINDEX / BOMBARDIER

- Recessed round shaped powerful LED fixture has been originally designed for SBB Twindex project (BOMBARDIER Trains) for smooth driver cabin illumination
- It is equipped with 7xHighPower LEDs
- SEC LED electronic ballast is integrated

- Výkonné LED svetidlo kruhového tvaru pre montáž do stropu bolo pôvodne navrhnuté pre projekt SBB Twindex (BOMBARDIER) pre rovnomerné osvetlenie kabíny vodiča
- Vybavené výkonnými 7xHighPower LED svetelnými zdrojmi
- SEC LED elektronický predradník je integrovaný vo svetidle

**STANDARD ACCESSORIES****STANDARDNÁ VÝBAVA**

- HighPower LEDs OSRAM OSOLON SSL
- LED Binning < 3 MacAdam Steps
- AL Sheet body painted in RAL9003
- Diffuser is semi-opal PC complying DIN5510 (S4/SR2/ST2) alebo EN45545
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks

- HighPower LED OSRAM OSOLON SSL
- LED Binning < 3 MacAdam Steps
- základňa svetidla AL vo farbe RAL9003
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice
- difúzor svetidla vyrobený z poloopálového PC spĺňajúci DIN 5510 (S4/SR2/ST2) or EN45545 (option)

OPTIONS**PRÍPLATKY**

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery
- Stmievanie 30%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

LED DRIVER CABIN LIGHT (276-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
DRIVER CABIN LED FIXTURE	195x195x50 mm	DC 24V, 110V	HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

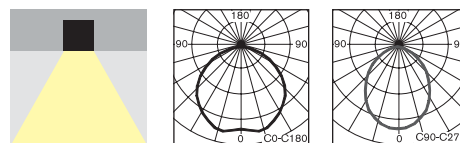
Ask SEC for detailed drawings or the specific item order code (design@sec.sk)

SBB TWINDEX / BOMBARDIER



BOMBARDIER

MINILUX



- MINILUX has been designed as an individual recessed lighting fixture for illumination of interior of public transport vehicles or ambulances.
- The cover frame can be optionally painted in grey RAL9006 or white RAL9003 colour
- It is equipped with either 18W, 2x18W, 36W fluorescent tubes or 10xHighPower LEDs. The second circuit can be equipped with either 4x5W tubular lamps for night illumination or LEDs.

- MINILUX je rozmermi malé, ale výkonné zabudovateľné svetidlo do stropu vybavené kompaktnými žiarovkami 18W,2x18W,36W alebo výkonnými 10xLED. Druhý sveteltný okruh môže byť vybavený 5W sufitovými žiarovkami alebo LED.
- Rám krytu svetidla je štandardne v šedej RAL9006, na požiadanie v bielej RAL9003.

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- Metal sheet body finished in white polyester powder coat RAL9003
- Diffuser is made of PC (complying EN45545 or DIN5510 S4/SR2/ST2)
- Halogen-free wiring RADOX GKW (H+S)
- WAGO terminal blocks

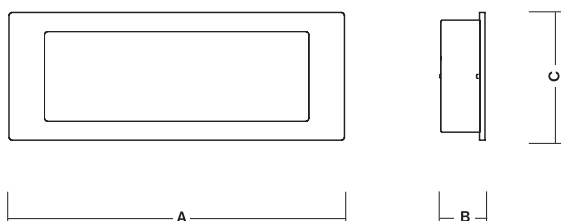
- Teleso z lakovaného AL plechu v RAL9003
- PC difúzor svetidla (splňajúci EN45545 alebo DIN5510 S4/SR2/ST2)
- Halogénovo bezpečné vodiče RADOX (H+S)
- WAGO prípojné svorkovnice

OPTIONS

PRÍPLATKY

- Alternative LED light source
- Alternative colour surface treatment
- Alternative customised dimensions
- Central diagnostics and communication (refer also to pages No.47-51)
- "INLINE" wiring
- WAGO I/O connectors
- Dimming function 30%-100% (refer also to pages No.47-51)

- LED ako alternatívny svetelný zdroj
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)
- Prieběžná kabeláž
- WAGO I/O konektory
- Stmievanie 30%-100% (pozri aj str.47-51)



MINILUX (142-B)

Type / Typ	Dimmensions	Power Supply	Light Source	Dimming	AutoTest	CentralControl
MINILUX 18W	314x113x46-67 mm	DC 12, 24V, 110V	18W 2G11	OPTION	YES	OPTION
MINILUX 18W Setting 30%	314x113x46-67 mm	DC 24V	18W 2G11	30%/100%	YES	OPTION
MINILUX 2x18W	335x154x65 mm	DC 24V, 48V	2x18W 2G11	OPTION	YES	OPTION
MINILUX 2x18W Setting 50%	335x154x65 mm	DC 110V	2x18W 2G11	50%/100%	YES	OPTION
MINILUX-INV 18W/12V DC	335x154x45-65 mm	DC 12	18W 2G11	-	-	-
MINILUX 36W	532x155x65 mm	DC 24V	36W 2G11	OPTION	YES	OPTION
MINILUX 36W Setting 50%	532x155x65 mm	DC 24V, 110V	36W 2G11	50%/100%	YES	OPTION
MINILUX 36W +5xLED	690x115x83 mm	DC 24V	36W 2G11+5x LED	OPTION	YES	OPTION
MINILUX-A 10xLED /3000K	314x113x42 mm	DC 24V	10xLED 3000K	OPTION	-	OPTION
MINILUX-A 10xLED /6000K	314x113x42 mm	DC 24V	10xLED 6000K	OPTION	-	OPTION
MINILUX 2x15W-B22D/110V	314x113x42 mm	DC 110V	2x15W-B22D	-	-	-
MINILUX CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)



MINILUX 18W



MINILUX 2x18W



MINILUX 18W



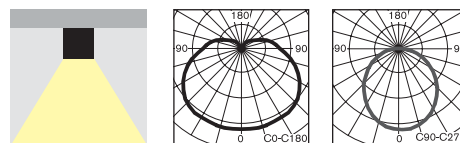
MINILUX 18W



MINILUX 18W



MEGALUX



- MEGALUX has been designed as an individual lighting fixture for illumination of interior of public transport vehicles.
A-MEGALUX is analog control version designed for bus/coach applications. C-MEGALUX microcomputer controlled versions are especially designed for railway application.
Thanks to the microcomputer both dimming function (Setting versions) and SELF-TEST function are available.

- MEGALUX su individuálne stropné svietidlá: A-MEGALUX verzia pre kolesové vozidlá a C-MEGALUX pre koľajové vozidlá.
Verzia C-MEGALUX môže byť vybavená stmievaním SETTING verzie.

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- Metal sheet body finished in white polyester powder coat RAL9003
- Diffuser is made of PC
- Halogen-free wiring RADOX GWK (H+S)
- WAGO terminal blocks
- Dimming SETTING function 30%-100% (refer also to pages No.47-51)

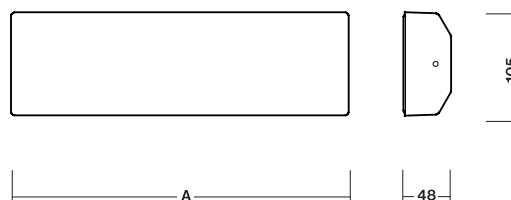
- Teleso z lakovaného AL plechu v RAL9003
- PC difúzor svetidla
- Halogénovo bezpečné vodiče RADOX (H+S)
- WAGO prípojné svorkovnice
- Stmievanie SETTING 30%-100% (pozri aj str.47-51)

OPTIONS

PRÍPLATKY

- Alternative LED light source
- Dimming SETTING function 30%-100% (refer also to pages No.47-51)

- LED ako alternatívny svetelný zdroj
- Stmievanie SETTING 30%-100% (pozri aj str.47-51)



MEGALUX (16-B)

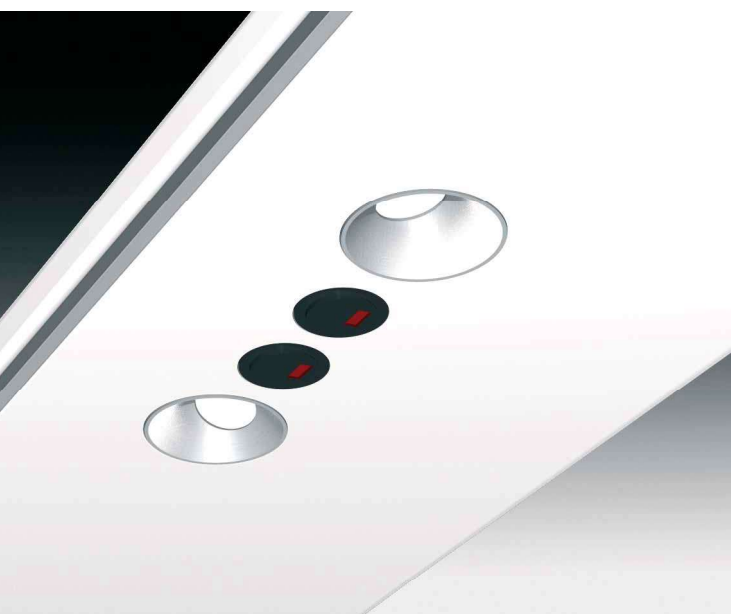
Type / Typ	Length mm	Power Supply	Light Source	Dimming	AutoTest
A-MEGALUX 18W/12V DC *	351 mm	DC 12V	18W 2G11	-	-
A-MEGALUX 18W/24V DC *	351 mm	DC 24V	18W 2G11	-	-
A-MEGALUX 24W/24V DC *	449 mm	DC 24V	24W 2G11	-	-
C-MEGALUX 18W/24V DC	351 mm	DC 24V	18W 2G11	-	YES
C-MEGALUX 18W Setting 50%	351 mm	DC 48V	18W 2G11	50%/100%	YES
C-MEGALUX 18W Setting 4 levels	351 mm	DC 24V	18W 2G11	YES	YES
C-MEGALUX 18W Setting 30%	351 mm	DC 110V	18W 2G11	30%/100%	YES
C-MEGALUX 24W	449 mm	DC 24V, 48V, 72V, 110V	24W 2G11	-	YES
C-MEGALUX 24W Setting 4 levels	449 mm	DC 24V	24W 2G11	YES	YES
MEGALUX 3x15W/B22D/110V	351 mm	110V	3x15W/B22D/110V	-	-

* designed for buses, vans, trucks,...etc. (not suitable for railway applications)

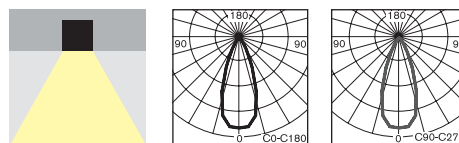


DESIRO HC / SIEMENS

FRONT VIEW OF TWIN LED READING LIGHT MODULE



READING LIGHT MODULE BUILT IN A LUGGAGE RACK AL PROFILE



- The LED lighting modules DESIRO-HC type serie have been designed for direct illumination of the seat reading zone (according to EN13272)
- Thanks to the variable SEC LED body reflector geometry design the light can be directed to the required area
- The powerful illumination is ensured by HighPower LED CREE
- Each LED can be individually ON/OFF by illuminated switch
- Its design perfectly fits into a luggage rack (Luggage rack can also be designed and produced by SEC - refer also to pages No. 34)

- DESIRO-HC bodové čítacie svetidlá sú vybavené výkonnými LED diodami od renomovaného svetového výrobcu CREE
- Flexibilná geometria LED telesa svetidla dovoľuje nasmerovať svetlo do požadovaného priestoru v súlade s EN13272
- Každé svetidlo má svoj podsvietený vypínač
- Konštrukcia svetného modulu je navrhnutá pre priamu montáž do batožinového nosiča, ktorý Vám SEC vie navrhnuť a vyrobiť podľa vašej špecifikácie (pozri str. 34)

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

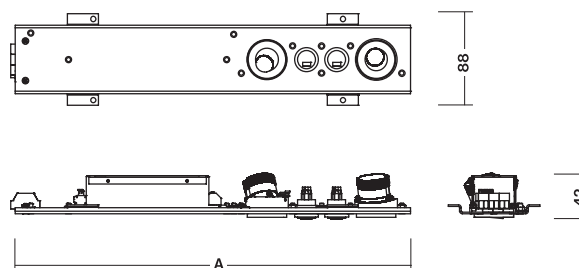
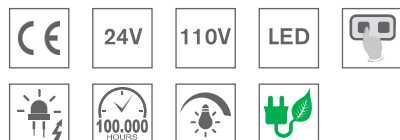
- SEC LED electronic ballast
- HighPower LED CREE XPG2 3000K
- LED Binning < 3 MacAdam Steps
- Illuminated switch
- Halogen-free "inline" wiring including I/O WAGO connectors
- AL extruded profile (part of the ceiling structure)

- SEC LED predradník pre napájanie LED a vypínačov
- HighPower LED CREE XPG2 3000K
- LED Binning < 3 MacAdam Steps
- Podsvietené vypínače
- Halogénovo bezpečné vodiče - priebežná kabeláž s vstupno/výstupnými WAGO konektormi
- Hliníkový nosný profil (súčasť stropného panelu)

OPTIONS**PRÍPLATKY**

- Contactless switches
- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour

- Alternatívna farba svetla pre LED
- Bezdotykové vypínače
- Alternatívna farba povrchu
- Alternatívne rozmery modulov

**LED READING MODULES (308-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
Reading Light 1xLED+Illuminated Switch	306 x 88 x 42 mm	DC 24V, 110V	1xCREE XPG2 LED	OPTION	OPTION	OPTION
Reading Light 2xLED+Illuminated Switches	384 x 88 x 42 mm	DC 24V, 110V	2xCREE XPG2 LED	OPTION	OPTION	OPTION
Reading Light CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

DESIRO HC / SIEMENS



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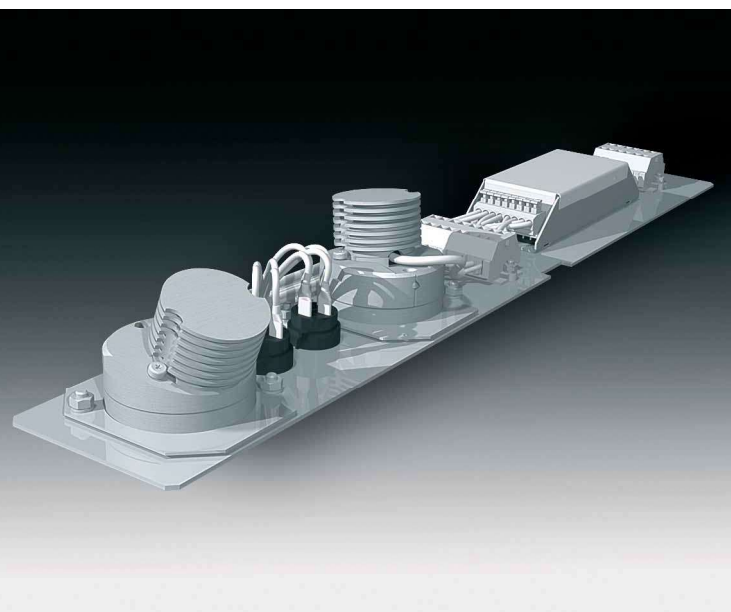


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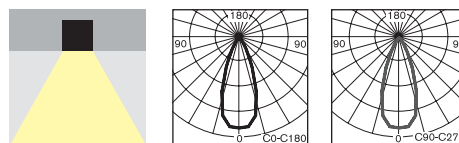
SIEMENS



FRONT VIEW OF TWIN LED READING LIGHT MODULE



BACK SIDE VIEW OF TWIN LED READING LIGHT MODULE



- These LED lighting modules have been designed for direct illumination of the seat reading zone (according to EN13272)
- Its design perfectly fits into a luggage rack (Luggage rack can also be designed and produced by SEC - refer also to pages No. 34)
- Thanks to the variable SEC LED body reflector geometry design the light can be directed to the required area
- The powerful illumination is ensured by HighPower LED CREE
- Each LED can be individually ON/OFF by illuminated switch

- Bodové čítacie svetidlá sú vybavené výkonnými LED diodami od renomovaného svetového výrobcu CREE
- Konštrukcia svetového modulu je navrhnutá pre priamu montáž do batožinového nosiča, ktorý Vám SEC vie navrhnuť a vyrobiť podľa vašej špecifikácie (pozri str. 34)
- Flexibilná geometria LED telesa svetidla dovoľuje nasmerovať svetlo do požadovaného priestoru v súlade s EN13272
- Každé svetidlo má svoj podsvietený vypínač

STANDARD ACCESSORIES**STANDARDNÁ VÝBAVA**

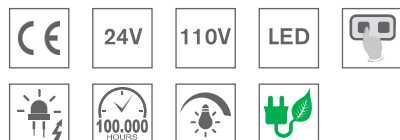
- SEC LED electronic ballast
- HighPower LED CREE XPG2 3000K
- LED Binning < 3 MacAdam Steps
- Illuminated switch
- Halogen-free "inline" wiring including I/O WAGO connectors
- AL extruded profile (part of the ceiling structure)

- SEC LED predradník pre napájanie LED a vypínačov
- HighPower LED CREE XPG2 3000K
- LED Binning < 3 MacAdam Steps
- Podsvietené vypínače
- Halogénovo bezpečné vodiče - priebežná kabeláž s vstupno/výstupnými WAGO konektormi
- Hliníkový nosný profil (súčasť stropného panelu)

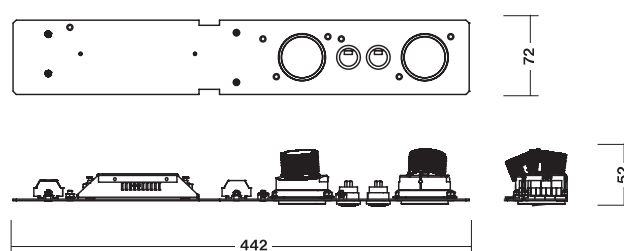
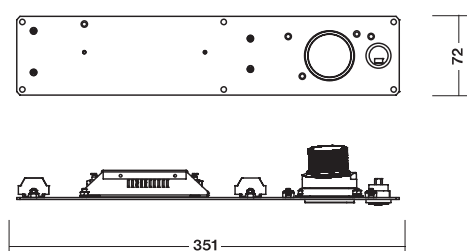
OPTIONS**PRÍPLATKY**

- Contactless switches
- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Bezdotykové vypínače
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

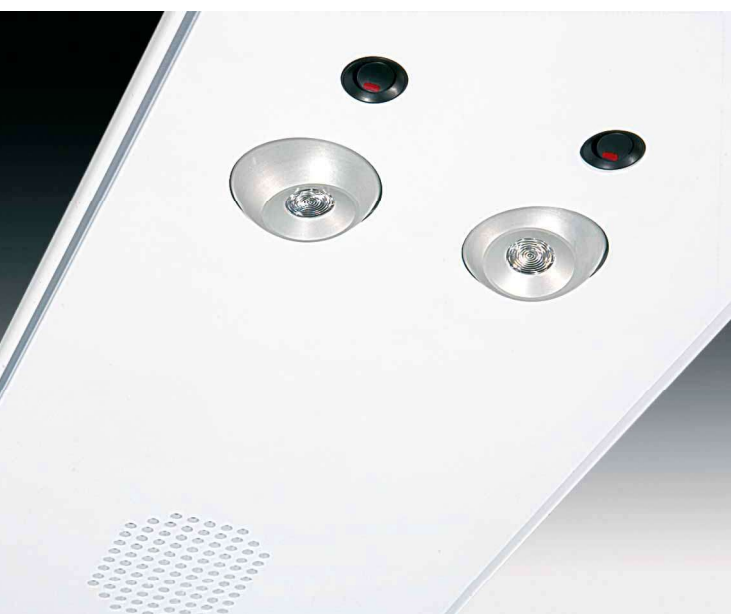
**LED READING MODULES (304-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
Reading Light 1xLED+ Illuminated Switch	351 x 72 x 52 mm	DC 24V, 110V	1x HighPower LED	OPTION	OPTION	OPTION
Reading Light 2xLED+ Illuminated Switches	442 x 72 x 52 mm	DC 24V, 110V	2x HighPower LEDs	OPTION	OPTION	OPTION
Reading Light CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

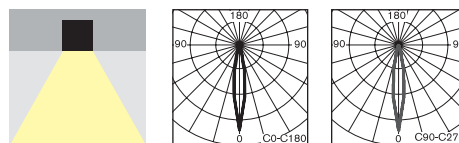


UNILED / ŽOS Vrútky

SINGLE LED MODULE



TWIN LED MODULE



- UNILED type serie has been designed as LED spot reading lighting fixtures for direct illumination of the interior of public transport vehicles. Thanks to the variable fixation of the body (sphere) the light can be directed to the required area in order to be in compliance with EN13272. The position is adjusted and fixed during the first instalation.
- The powerful illumination is ensured by HighPower LED made by one of the famous led manufacturer CREE.
- Each LED can be individually ON/OFF by illuminated switch

- UNILED sú bodové čítacie svetidlá vybavené výkonnými LED diodami od renomovaného svetového výrobcu CREE. Každé svetidlo má svoj podsvietený vypínač. Vďaka guľovému tvaru telesa LED je možné ho zafixovať počas prvej inštalácie do požadovaného smeru tak, aby sa dosiahol súlad s EN13272.

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

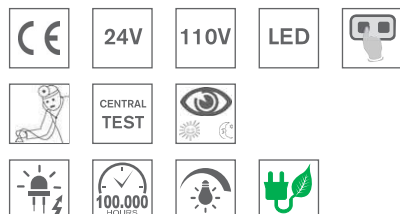
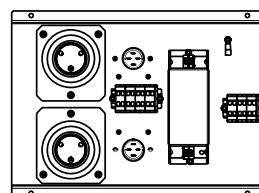
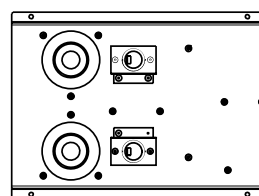
- All electronic ballasts, LED, wiring, WAGO terminal block are designed as one modul which has been designed for customise AL extruded profile (part of the ceiling structure)

- Všetky komponenty sú umiestnené na nosnom plechu, ktorý slúži ako monoblok pre zabudovanie do extrudovaného AL profilu (časť stropnej konštrukcie odberateľa)

OPTIONS**PRÍPLATKY**

- Contactless Switch
- Alternative colour surface treatment
- Alternative customised dimmensions
- Alternative LED light colour

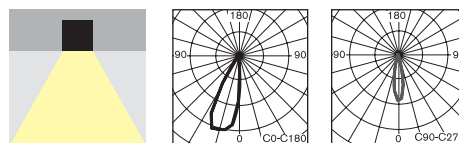
- Bezdotykový vypínač
- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov

**UNILED (233-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
UNILED 1xLED + Illuminated Switch	260x190x40 mm	DC 24V, 110V	1x HighPower LED	OPTION	OPTION	OPTION
UNILED 2xLED + 2xIlluminated Switches	260x190x40 mm	DC 24V, 110V	2x HighPower LEDs	OPTION	OPTION	OPTION
UNILED CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

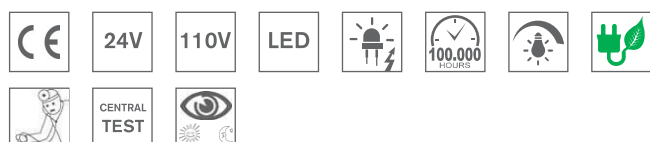


AIRPORT EXPRESS OSLO / BOMBARDIER



- BONOLUX type series has been designed as LED Spot Reading lighting fixture for direct illumination of the interior of public transport vehicles. Originally it has been designed for BOMBARDIER Airport Express OSLO train. The geometry and position of LEDs meets the customer requirements for required area illumination. The powerful illumination is ensured by 2x3W high power LED made by Cree led manufacturer
- Each LED can be individually ON/OFF by illuminated switch

- Svetidlo BONOLUX je bodové čítacie svetidlo vybavené výkonnými 2x3W LED (Cree) dodávané pre BOMBARDIER Airport Express OSLO.
- Každá LED môže byť samostatne zapínaná podsvieteným vypínačom.

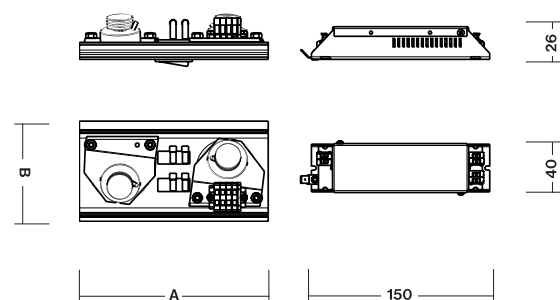


STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- HighPower LEDs
- LED Binning < 3 MacAdam Steps
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks

- HighPower LED
- LED Binning < 3 MacAdam Steps
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice



OPTIONS

PRÍPLATKY

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Stmievanie 30%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

BONOLUX (229-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
BONOLUX 2xLED	160x85 mm	DC 24V, 110V	HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

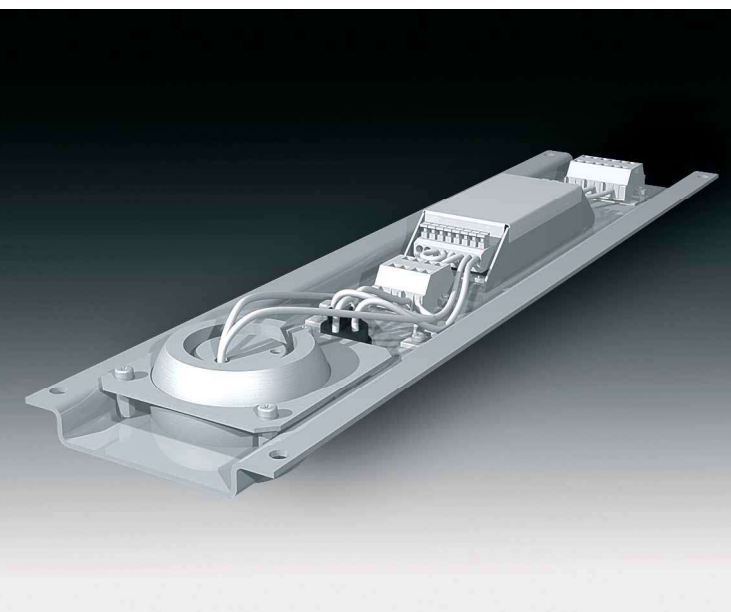
AIRPORT EXPRESS OSLO / BOMBARDIER



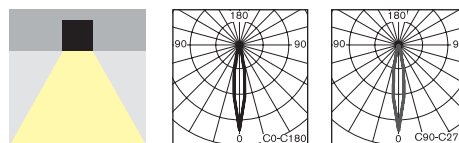
BOMBARDIER

GYSEV / UNILED (JÁRMŮ)

FRONT SIDE OF THE READING LIGHT MODULE



BACK SIDE OF THE READING LIGHT MODULE



- These LED lighting modules have been designed for direct illumination of the seat reading zone (according to EN13272)
- Its design perfectly fits into the luggage rack
- Thanks to the variable SEC LED body reflector geometry design the light flow can be directed to the required area in order to be in compliance with EN13272
- The powerful illumination is ensured by HighPower LED CREE
- Each LED can be individually ON/OFF by illuminated switch

- Bodové čítacie svetidlá sú vybavené výkonnými LED diodami od renomovaného svetového výrobcu CREE
- Konštrukcia svetového modulu je navrhnutá pre priamu montáž do batožinového nosiča
- Flexibilná geometria LED telesa svetidla dovoľuje nasmerovať svetlo do požadovaného priestoru v súlade s EN13272
- Každé svetidlo má svoj podsvietený vypínač

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

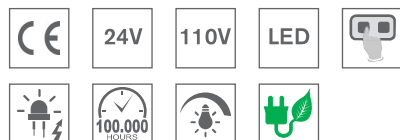
- SEC LED electronic ballast
- HighPower LED CREE XPG2 3000K
- LED Binning < 3 MacAdam Steps
- Illuminated switch
- Halogen-free "inline" wiring including I/O WAGO connectors

- SEC LED predradník pre napájanie LED a vypínačov
- HighPower LED CREE XPG2 3000K
- LED Binning < 3 MacAdam Steps
- Podsvietené vypínače
- Halogénovo bezpečné vodiče - priebežná kabeláž s vstupno/výstupnými WAGO konektormi

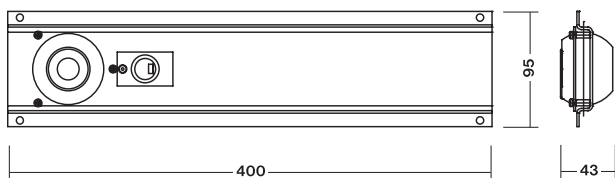
OPTIONS**PRÍPLATKY**

- Contactless switches
- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Bezdotykové vypínače
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

**LED READING MODULES (233-B)**

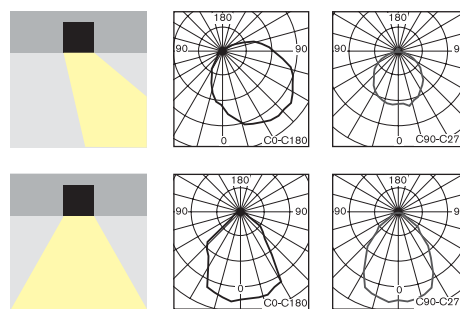
Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
Reading Light 1xLED + Illuminated Switch	400 x 95 x 43 mm	DC 24V, 110V	1x HighPower LED	OPTION	OPTION	OPTION
Reading Light CUSTOMISED	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

READING LIGHT MODULE INTEGRATION IN TO **JÁRMŰ** LUGGAGE RACK

UNDERSEAT LED FIXTURES



UNDERSEAT LED FIXTURE WITH ASYMETRICAL LIGHTING DISTRIBUTION



- SEC LED UNDERSEAT fixtures have been designed for aesthetical illumination of the floor in order to make the whole interior brighter
- there are 2 design ideas:
 - in case of SIEMENS DESIRO-HC the lighting beam is asymetrically distributed from the underseat position to the corridor center
 - in case of ALSTOM project the light is distributed symetrically down on the floor under the seat
- IP65 protection index.
- It is equipped with HighPower LEDs (3000K / 4000K)
- Electronic ballast is integrated in the fixture. No external electronics is needed.

- LED podsedadlové svietidlá boli navrhnuté z designového a estetického hľadiska za účelom dosiahnuť efekt svetlejšieho interiéru celého vagóna
- uplatnili sme 2 prístupy:
 - v prípade projektu SIEMENS DESIRO-HC sa jedná o asymetricky distribuované svetlo z podsedadlovej pozície do osi koridora medzi sedadlami, čím sa nasvieti ulička
 - v prípade ALSTOM sa jedná o symetrickú distribúciu svetla priamo na podlahu priamo pod sedadlom
- Vybavené výkonnými LED svetelnými zdrojmi (3000K / 5000K)
- Svietidlá sú IP65
- Elektronický predradník je plne integrovaný v telese svietidla

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- HighPower LEDs
- LED Binning < 3 MacAdam Steps
- solid AL body (IP65) - valid for ALSTOM project fixture
- PC plastic body (IP65) - valid for SIEMENS DESIRO-HC project fixture
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks

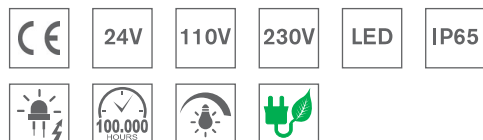
- HighPower LED
- LED Binning < 3 MacAdam Steps
- Svietidlá vyrobené z hliníka (IP65) - platí pre ALSTOM projekt
- Svietidlá vyrobené z polykarbonátu PC (IP65) - platí pre SIEMENS DESIRO-HC projekt
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice

OPTIONS

PRÍPLATKY

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 0%-100% (refer also to pages No.47-51)

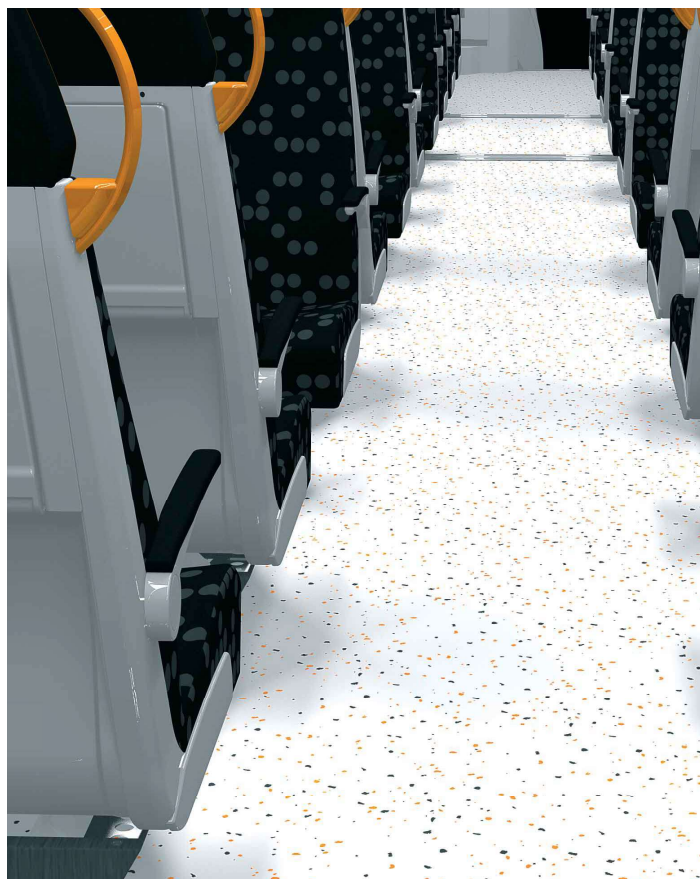
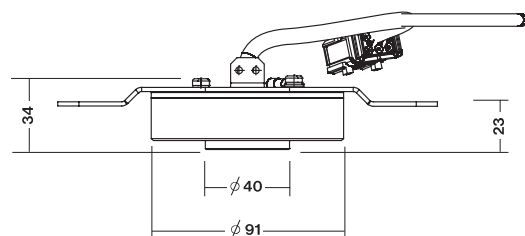
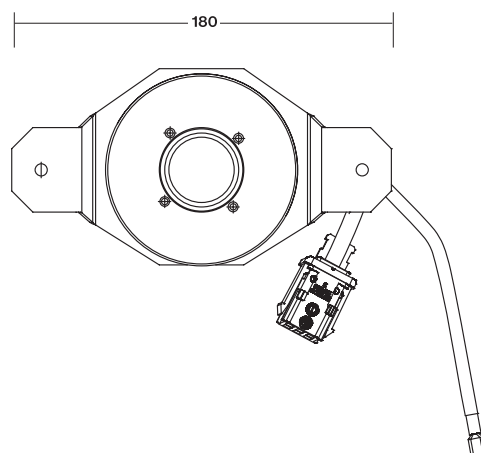
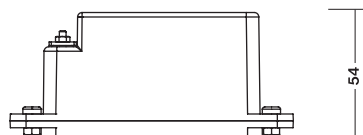
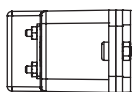
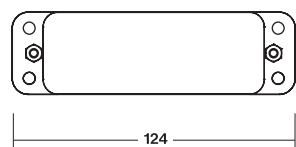
- Alternatívna farba svetla pre LED podľa špecifikácie odberateľa
- Alternatívna farba povrchu
- Alternatívne rozmery podľa špecifikácie odberateľa
- Stmievanie 0%-100% (pozri aj str.47-51)

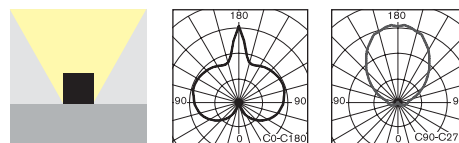


LED UNDERSEAT LIGHTING FIXTURES (305-B/308-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
UNDERSEAT LED 305-B (SIEMENS)	see the drawing	AC 230V	OSRAM MidPower LEDs	OPTION	OPTION	OPTION
UNDERSEAT LED 308-B (ALSTOM)	see the drawing	DC 24V, 110V	OSRAM HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)

UNDERSEAT LED FIXTURES

SBB TWINDEX / BOMBARDIER

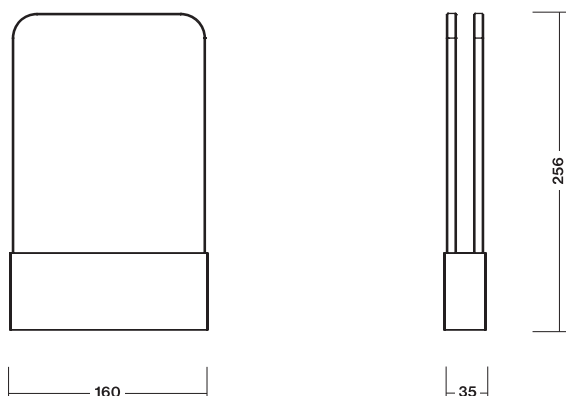
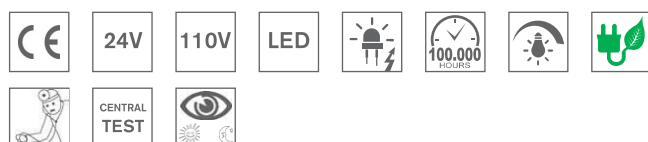
- Restaurant table LED illuminated menu holder has been designed for SBB Twindex project (BOMBARDIER Trains) for restaurant car
- It is equipped with highpower 3W LEDs (3000K) resembling the candle light on the table
- Podsvietený držiak menu bol navrhnutý pre projekt SBB Twindex (BOMBARDIER) pre osvetlenie menu na stole v reštauračnom vagóne.
- Vybavené výkonnými 3W LED svetelnými zdrojmi (3000K) so svetlom pripomínajúcim svetlo sviečky

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

- HighPower LEDs (3000K)
- LED Binning < 3 MacAdam Steps
- Diffuser is made of hardened glass
- AL extruded profile base
- Halogen-free wiring RADOX GKW
- WAGO terminal blocks
- HighPower LED (3000K)
- LED Binning < 3 MacAdam Steps
- základňa svetidla vyrobená z extrudovaného AL profilu
- PC difúzor svetidla vyrobený z tvrdého skla
- Halogénovo bezpečné vodiče RADOX GKW
- WAGO prípojné svorkovnice

OPTIONS**PRÍPLATKY**

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Stmievanie 30%-100% (pozri aj str.47-51)

**LED RESTAURANT TABLE MENU HOLDER (276-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
LED MENU HOLDER FIXTURE	160x256x35 mm	DC 24V, 110V	HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION



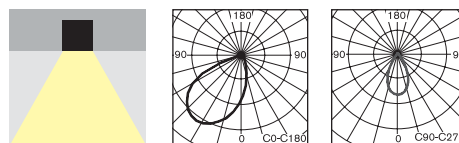
BOMBARDIER

SBB TWINDEX / BOMBARDIER

DIRECT LED FIXTURE



INDIRECT LED FIXTURE



- Powerful restaurant area both direct table multiLED lighting fixtures and indirect side window LED stripe lighting fixtures (behind the wall panel) have been designed for SBB Twindex project (BOMBARDIER Trains) for restaurant car illumination
- Equipped with highpower LEDs
- External electronic ballast is needed. Its type will be specified by SEC based on number of fixtures connected.

- Pre projekt SBB Twindex (BOMBARDIER) boli pre osvetlenie reštauračného vagóna navrhnuté svietidla:
- Pre priame osvetlenie reštauračného stola je určené výkonné multiLED dvoj-svietidlo zabudovateľné v bočnom paneli.
- Pre nepriame osvetlenie je určený LED pás umiestnený za panelom v medziokennom priestore
- Vybavené výkonnými LED svetelnými zdrojmi
- Svietidlá vyžadujú externý LED elektronický predradník. Jeho typ vám vyšpecifikujeme podľa počtu inštalovaných svietidiel.

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

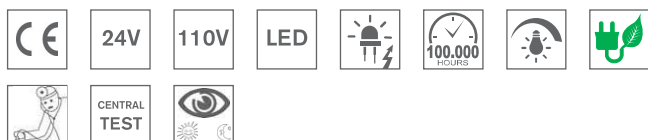
- HighPower LEDs 3500K
- LED Binning < 3 MacAdam Steps
- Solid AL base
- Diffuser is made of PC complying EN45545 (only indirect LED module)
- Halogen-free wiring RADOX GKW
- WAGO terminal blocks

- HighPower LED 3500K
- LED Binning < 3 MacAdam Steps
- základňa svietidla AL
- PC difúzor svietidla vyrobený z polykarbonátu spĺňajúci EN45545 (len nepriame osvetlenie)
- Halogénovo bezpečné vodiče RADOX GKW
- WAGO pripojné svorkovnice

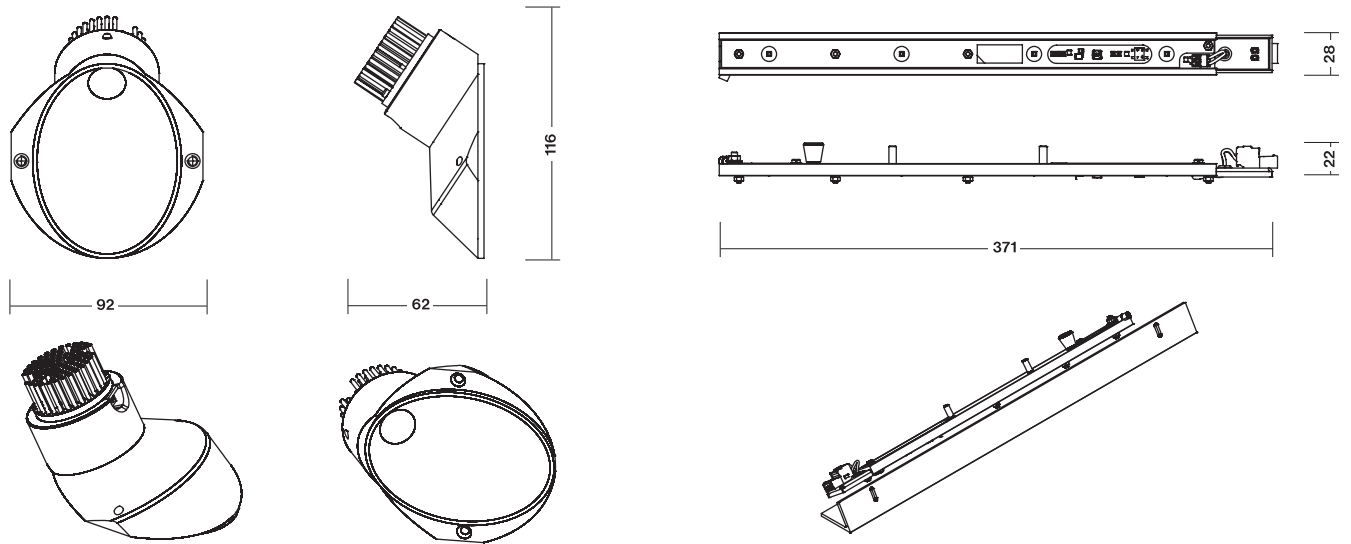
OPTIONS**PRÍPLATKY**

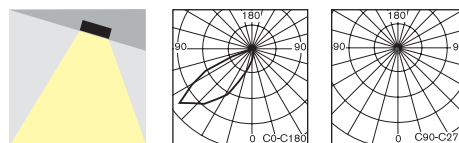
- External electronic ballast must be ordered separately
- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Externý elektronický predradník musí byť objednaný samostatne
- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Stmievanie 30%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

**RESTAURANT CAR LED FIXTURES (276-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
DIRECT LED FIXTURE	see the drawing	DC 24V, 110V	HighPower LEDs	OPTION	OPTION	OPTION
INDIRECT LED FIXTURE	see the drawing	DC 24V, 110V	HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION



DESIRO-HC / SIEMENS

- Powerful recessed mounting LED fixture has been designed for sloping ceiling panel in order to illuminate the staircase area under
- Originally designed for MiddleCars DESIRO-HC project (SIEMENS)
- It is equipped with HighPower HighPower LED (3000K)
- Electronic ballast is included (1pc for TWIN LED SET)

- Výkonné LED svetidlo pre zapustenú montáž do skloneného stropného panelu nad schodiskom
- Jeho geometria zaručuje distribúciu svetla do požadovaného priestoru
- Pôvodne navrhnutý pre MiddleCars DESIRO-HC projekt (SIEMENS)
- Vybavené výkonnými LED svetelnými zdrojmi (3000K)
- Set 2ks svetidiel obsahuje aj elektronický predradník

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

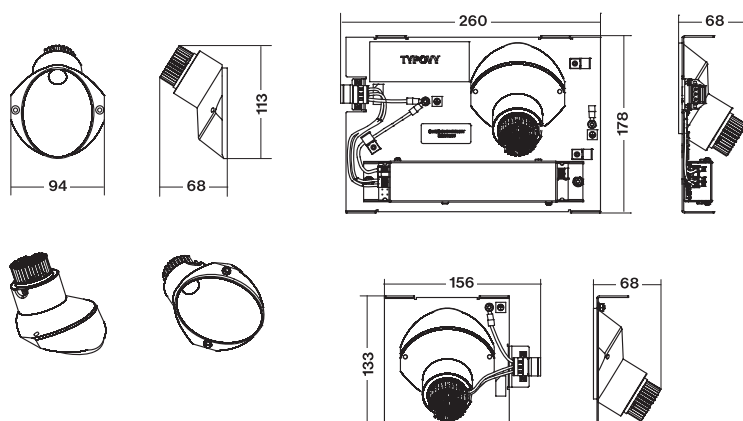
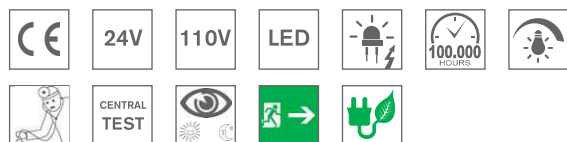
- HighPower LEDs 3500K
- LED Binning < 3 MacAdam Steps
- solid AL body
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks

- HighPower LED 3500K
- LED Binning < 3 MacAdam Steps
- Svetidla vyrobená z hliníka
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO pripojné svorkovnice

OPTIONS**PRÍPLATKY**

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 0%-100% (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery
- Stmievanie 0%-100% (pozri aj str.47-51)

**SLOPING CEILING RECESSED LED LIGHTING FIXTURE (308-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
SLOPING CEILING LED FIXTURE SET	see the drawing	DC 24V, 110V	HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)

DESIRO-HC / SIEMENS

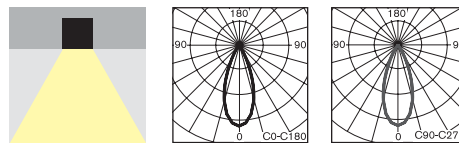


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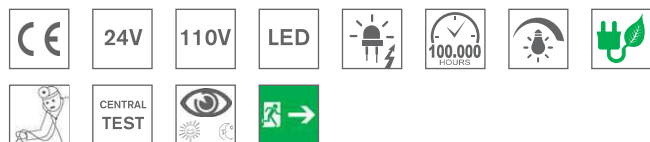
Copyright: SIEMENS AG

SIEMENS

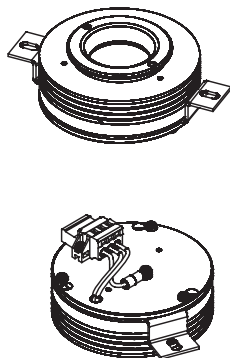
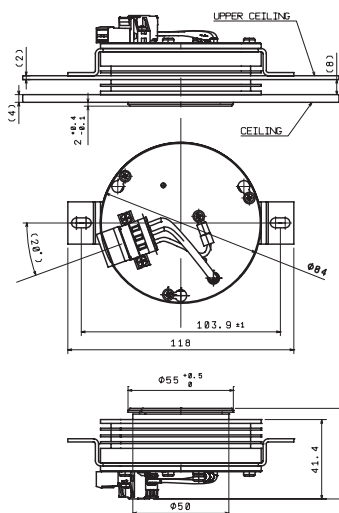
SBB TWINDEX / BOMBARDIER

- Slim recessed mounting 3xLED HighPower LED fixture has been designed originally for SBB Twindex project (BOMBARDIER Trains) for gangway train car area illumination.
- It has IP65 protection index.
- It is equipped with highpower 3xHighPower LEDs (3500K)
- Electronic ballast is integrated in the module

- Ploché výkonné 3xLED svetidlo boli navrhnuté pre projekt SBB Twindex (BOMBARDIER) pre osvetlenie prechodovej chodby medzi jednotlivými vagónmi
- Vybavené výkonnými 3xLED svetelnými zdrojmi (3500K)
- Svetidlá sú IP65
- Elektronický predradník je plne integrovaný v telese svetidla

**STANDARD ACCESSORIES****ŠTANDARDNÁ VÝBAVA**

- HighPower LEDs 3500K
- LED Binning < 3 MacAdam Steps
- solid AL body
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks
- HighPower LED 3500K
- LED Binning < 3 MacAdam Steps
- Svetidla vyrobená z hliníka.
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice

**OPTIONS****PRÍPLATKY**

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 0%-100% (refer also to pages No.47-51)
- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery
- Stmievanie 0%-100% (pozri aj str.47-51)

LED GANGWAY LIGHTING FIXTURE (276-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
3xLED GANGWAY LED FIXTURE	see the drawing	DC 24V, 110V	OSRAM HighPower LEDs	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)



BOMBARDIER

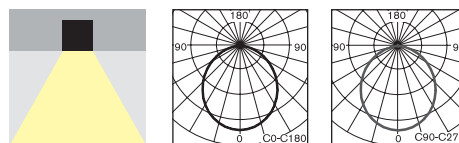
ROSELUX-LED



ROSELUX-B



ROSELUX in alternative shape with flat diffuser



- ROSELUX-B type serie has been designed as a small but powerfull recessed mounted LED lighting fixtures for direct illumination of the interior of public transport vehicles (gangway, driver cab, passenger compartment).

The **powerful illumination** is ensured by 6xHighPower LED made by one of the renowned led manufacturer Cree or Osram or Lumileds.

- Each LED is equipped by its own special len in order to achieve both perfect even lighting distribution (100° angle) and eliminate the glares (see the chart below)
- There is needed external SEC LED electronic ballast CONTROLLED 6-12xLED/24V to be able to power either 1 or 2pcs of ROSELUX

- ROSELUX-B svetidlá sú určené pre zapustenú montáž so stropu pre **výkonné LED osvetlenie** vybaveného výkonnými LED od renomovaného svetového výrobcu Cree, Osram alebo Lumileds.

- Každá LED má svoju šošovku (optiku) pre dosiahnutie optimálnej rovnomernej distribúcie svetla (100° vyžarovací uhol) a zamedzeniu oslnenia (viď tabuľku nižšie).

- Pre napájanie svetidla je nutné použiť externý predradník CONTROLLED 6-12xLED/24V, ktorý môže napájať 1 alebo 2ks svetidiel ROSELUX

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- HighPower LEDs
- LED Binning < 3 MacAdam Steps
- solid AL body
- Halogen-free wiring RADOX GWK
- WAGO terminal block

- HighPower LED
- LED Binning < 3 MacAdam Steps
- základňa svetidla vyrobená z hliníka
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice

OPTIONS

PRÍPLATKY

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 30%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery
- Stmievanie 30%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)



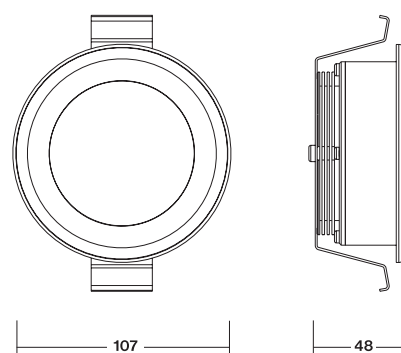
ROSELUX (286-B)

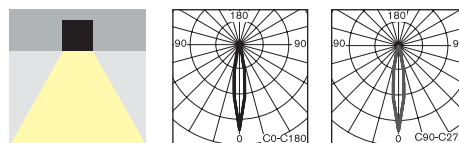
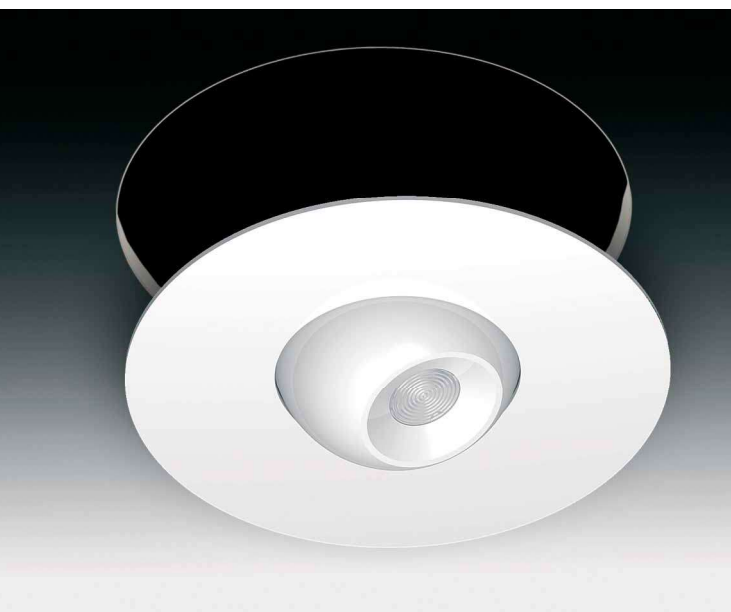
Type / Typ	Lighting beam angle	Power Supply	Light Source	Dimming	AutoTest	CentralControl
ROSELUX-B 6xLED/24V Ceiling 10mm	100°	DC 24V	6xHighPower LED	OPTION	OPTION	OPTION
ROSELUX-B 6xLED/24V Ceiling 3mm	100°	DC 24V	6xHighPower LED	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

CONTROLLED (267-B-25-01-00)

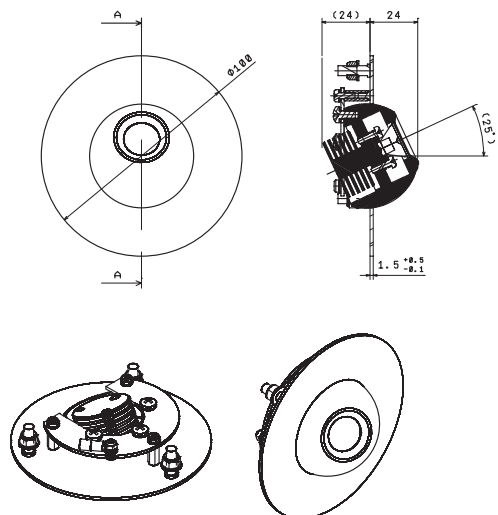
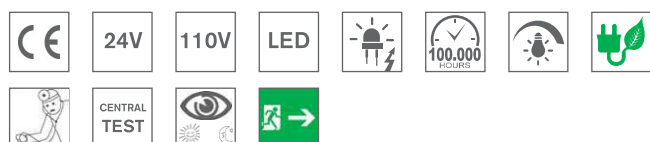
Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
CONTROLLED 6-12xLED/24V	220x49x29mm	DC 24V	for 6-12xHighPower LED	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)



UNILED-G LED

- UNILED type serie has been designed as LED SPOT lighting fixtures for direct illumination of a driver cabin or door area/threshold
- Thanks to the variable fixation of the body (sphere) the light can be directed to the required area. The angle adjustment is fixed by SEC during the production according to customer angle specification.
- The powerful illumination is ensured by HighPower LED made by one of the famous led manufacturer CREE.
- There is needed external SEC LED electronic ballast CONTROLLED 2-5xLED/24V to be able to power from 1 up to 5pcs of UNILED-G. There is available also dimmable version with SETTING function 50%/100%
- UNILED sú bodové svetidlá vybavené výkonnými LED pôvodne navrhnuté pre osvetlenie kabína vodiča alebo pre osvetlenie nástupného priestoru dverí.
- Vďaka guľovému tvaru telesa LED je možné nastaviť požadovaný uhol/sklon a zafixovať ho počas výroby v SEC do požadovaného smeru určeného zákazníkom.
- Pre napájanie svetidla je nutné použiť externý predradník CONTROLLED 1-5xLED/24V, ktorý môže napájať 1 až 5ks svetidiel UNILED-G. Predradník môže byť navyše v stmievateľnej verzii SETTING 50%/100%

**STANDARD ACCESSORIES****ŠTANDARDNÁ VÝBAVA**

- HighPower LEDs
- LED Binning < 3 MacAdam Steps
- solid AL body
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks
- HighPower LED
- LED Binning < 3 MacAdam Steps
- Svetidlo vyrobené hliníka
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice

OPTIONS**PRÍPLATKY**

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- SETTING Dimming function 50%/100% (refer also to pages No.47-51)
- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery
- SETTING Stmievanie 50%/100% (pozri aj str.47-51)

UNILED-G (233-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
UNILED-G 1xLED/24V DC	see the drawing	DC 24V	1xHighPower LED	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

CONTROLLED ELECTRONIC BALLAST (267-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	Order Code
CONTOLED 2-5xLED/24V	220x48x29mm	DC 24V	for 2-5 HighPower LEDs	-	OPTION	267-B-36
CONTOLED 2-5xLED/24V SETTING 50%	220x48x29mm	DC 24V	for 2-5 HighPower LEDs	50%/100%	OPTION	267-B-35
CONTOLED READLUX 1-2xLED/24V	115x40x24mm	DC 24V	for 1-2 HighPower LEDs	-	-	115-B-04
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	-

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)

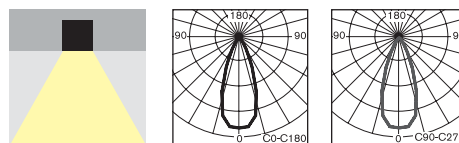


LED SPOT Lighting Fixtures

UNILED-G LED





UNILED-V LED

- UNILED type serie has been designed as LED SPOT lighting fixtures for direct illumination of a driver cabin or a door area, etc.
- The fixation is done by stainless steel spring
- The powerful illumination is ensured by HighPower LED CREE
- There is needed external SEC LED electronic ballast CONTROLLED

- UNILED sú bodové svietidlá vybavené výkonnými LED pôvodne navrhnuté pre osvetlenie kabíny vodiča alebo pre osvetlenie nástupného priestoru dverí a pod.
- Svietidlo sa montuje do otvoru v stropě a jeho uchytenie je nerezovou pružinou.
- Pre napájanie svietidla je nutné použiť externý predradník CONTROLLED. Predradník môže byť navyše v stmievateľnej verzii SETTING

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

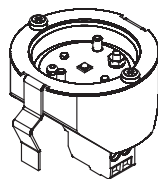
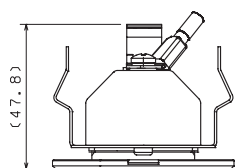
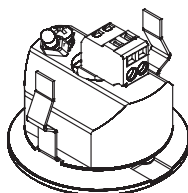
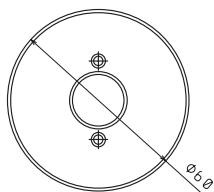
- HighPower CREE LEDs
- LED Binning < 3 MacAdam Steps
- solid AL body
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks

- HighPower LED CREE
- LED Binning < 3 MacAdam Steps
- Svietidlo vyrobené z hliníka
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice

OPTIONS**PRÍPLATKY**

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- SETTING Dimming function (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery
- SETTING Stmievanie (pozri aj str.47-51)

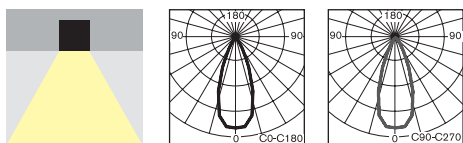
**UNILED-V (233-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
UNILED-V 1xLED/24V DC	see the drawing	DC 24V	1xHighPower LED	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

CONTROLLED ELECTRONIC BALLAST (267-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	Order Code
CONTOLED 2-5xLED/24V	220x48x29mm	DC 24V	for 2-5 HighPower Leds	-	OPTION	267-B-36
CONTOLED 2-5xLED/24V SETTING 50%	220x48x29mm	DC 24V	for 2-5 HighPower Leds	50%/100%	OPTION	267-B-35
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	-

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)



- UNILED type serie has been designed as LED SPOT lighting fixtures for direct illumination of a driver cabin or a door area, etc.
- The fixation is done by stainless steel spring
- The powerful illumination is ensured by HighPower LED CREE
- There is needed external SEC LED electronic ballast CONTROLLED

- UNILED sú bodové svetidlá vybavené výkonnými LED pôvodne navrhnuté pre osvetlenie kabína vodiča alebo pre osvetlenie nástupného priestoru dverí a pod.
- Svetidlo sa montuje do otvoru v stropu a jeho uchytenie je nerezovou pružinou.
- Pre napájanie svetidla je nutné použiť externý predradník CONTROLLED
- Predradník môže byť navyše v stmievateľnej verzii SETTING

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- HighPower LEDs
- Solid AL body
- Halogen-free wiring RADOX GKW
- WAGO terminal blocks

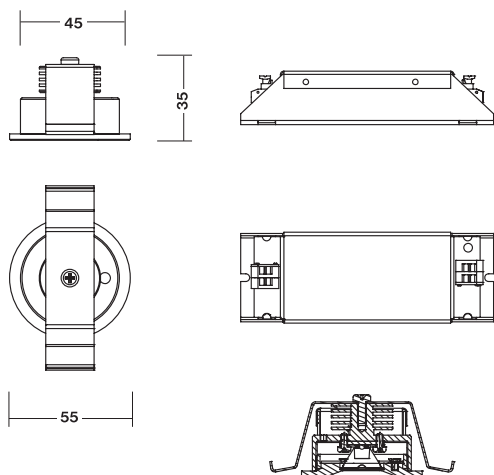
- HighPower LED
- Svetidlo vyrobené hliníka
- Halogénovo bezpečné vodiče RADOX GKW
- WAGO prípojné svorkovnice

OPTIONS

PRIPLATKY

- Alternative colour surface treatment or alternative customised dimensions
- Alternative LED light colour
- SETTING Dimming function (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED alebo alternatívna farba povrchu
- Alternatívne rozmery
- SETTING Stmievanie (pozri aj str.47-51)



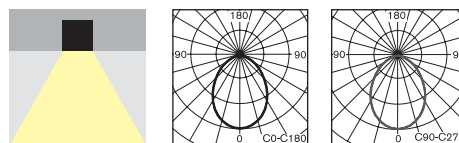
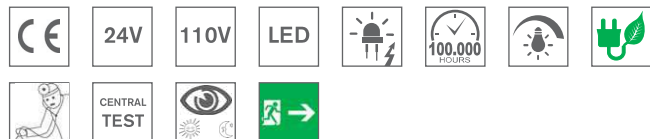
UNILED-P (233-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
UNILED-P 1xLED/24V DC	see the drawing	DC 24V	1xHighPower LED	50%/100%	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

CONTROLLED ELECTRONIC BALLAST (267-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	Order Code
CONTROLLED 2-5xLED/24V	220x48x29mm	DC 24V	for 2-5 HighPower Leds	-	OPTION	267-B-36
CONTROLLED 2-5xLED/24V SETTING 50%	220x48x29mm	DC 24V	for 2-5 HighPower Leds	50%/100%	OPTION	267-B-35
CONTROLLED READLUX 1-2xLED/24V	115x40x24mm	DC 24V	for 1-2 HighPower Leds	-	-	115-B-04
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	-

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)



- Recessed mounted LED lighting modules has been designed for SBB Twindex project (BOMBARDIER Trains) for staircase area illumination
- It has IP65 protection index
- It is equipped with highpower LED (3500K)
- External electronic ballast meets the latest EN requirements

- Výkonné LED svetidlá boli navrhnuté pre projekt SBB Twindex (BOMBARDIER) pre osvetlenie schodiska
- Vybavené výkonnými LED svetelnými zdrojmi (3500K)
- Svetidlá sú IP65
- Externý elektronický predradník spája, je určený pre napájanie celej skupiny LED modulov pre celé schodište

ŠTANDARDNÁ VÝBAVA

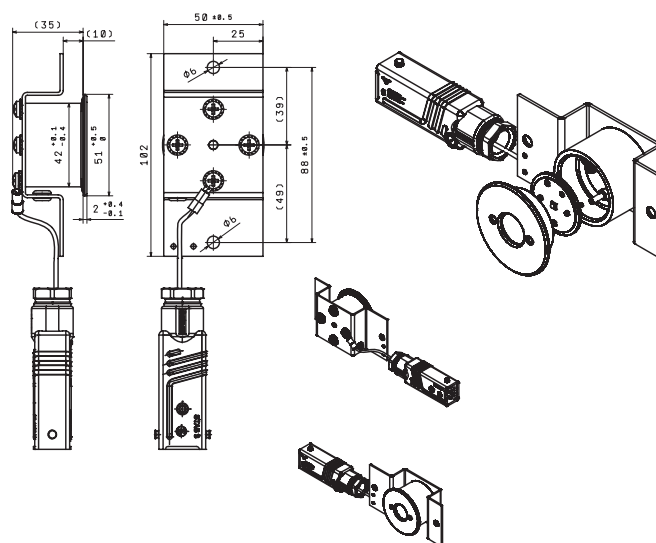
- HighPower LEDs
- LED Binning < 3 MacAdam Steps
- solid AL body (IP65)
- Halogen-free wiring RADOX GKW
- HIRSCHMANN Connectors IP65

- HighPower LED
- LED Binning < 3 MacAdam Steps
- Svietidlo vyrobená z hliníka
- Halogénovo bezpečné vodiče RADOX GWK
- HIRSCHMANN konektory IP65

PRÍPLATKY

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function (refer also to pages No.47-51)

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery
- Stmievanie (pozri aj str.47-51)



STAIRCASE LED LIGHTING FIXTURES (276-B)

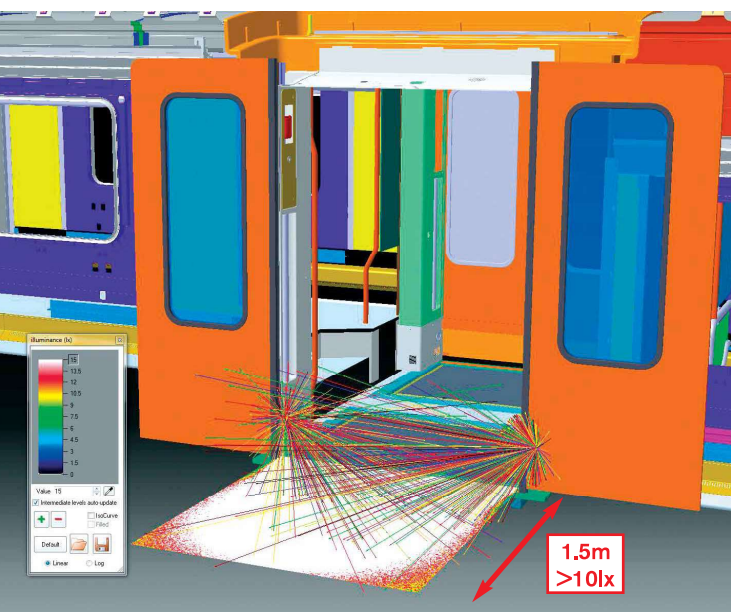
Type / Typ	Dimmensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
LED STAIRCASE LED FIXTURE	see the drawing	DC 24V, 110V	1xHighPower LED	OPTION	OPTION	OPTION
ELECTRONIC BOX 6-9x LEDs	288x170x66 mm	DC 24V, 110V	for 6-9 HighPower Leds	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION



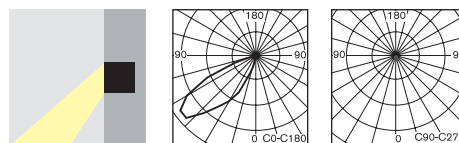
BOMBARDIER

DESIRO-HC / SIEMENS

DIRECT LED FIXTURE



Platform illumination 1.5m in front of the door threshold



- Recessed LED DOOR AREA lighting fixture has been designed for the illumination of threshold area.
- It provides powerful and energy-saving light. Thanks to its geometry and position of LEDs the light is directed to the required area on the threshold and platform in front of the door train in order to comply with TSI and EN13272 regulations. It is equipped with the HighPower LED CREE.
- The LED lifetime is min 100,000h which decreases both maintenance and service costs

- Jedná sa o výkonné LED svietidlo vybavené HighPower LED
- Vďaka geometrii telesa/reflektoru a použitých LED je svetelný tok distribuovaný presne na požadované miesto pre osvetlenie nástupného dverného priestoru, vrátane nástupnej hrany a platformy pred dverami.
- Splňa TSI a EN13272 požiadavky.
- Svietidlo poskytuje výkonné a úsporné osvetlenie.
- Životnosť LED je min.100000h, čo výrazne prispieva k šetreniu servisných nákladov v porovnaní so svietidlami s halogénovou žiarovkou.

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

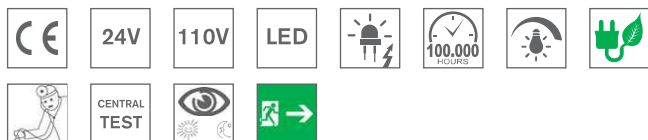
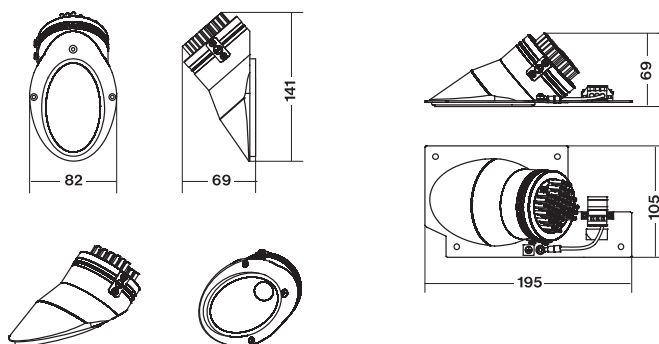
- HighPower LEDs
- LED Binning < 3 MacAdam Steps
- Solid AL base
- Halogen-free wiring RADOX GWK
- WAGO terminal blocks
- External electronic ballast is needed (1 ballast feeds 1 or 2 fixtures)

- HighPower LED
- LED Binning < 3 MacAdam Steps
- základňa svietidla AL
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO pripojné svorkovnice
- Vyžaduje externý elektronický predradník (1ks pre 1-2 svietidlá)

OPTIONS**PRÍPLATKY**

- External electronic ballast must be ordered separately
- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light colour
- Dimming function 10%-100% (refer also to pages No.47-51)
- Central diagnostics and communication (refer also to pages No.47-51)

- Externý elektronický predradník musí byť objednaný samostatne
- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu
- Alternatívne rozmery modulov
- Stmievanie 10%-100% (pozri aj str.47-51)
- Centrálna diagnostika a komunikácia (pozri aj str.47-51)

**DOOR AREA / THRESHOLD LED LIGHTING FIXTURES (308-B)**

Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
LED THRESHOLD FIXTURE	see the drawing	DC 24V, 110V	HighPower LED	OPTION	OPTION	OPTION
ELECTRONIC BALLAST for 1-2 FIXTURES	220x48x29 mm	DC 24V, 110V	for 1-2 FIXTURES	OPTION	OPTION	OPTION
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

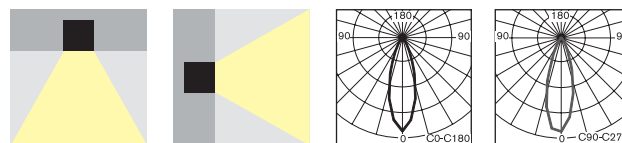
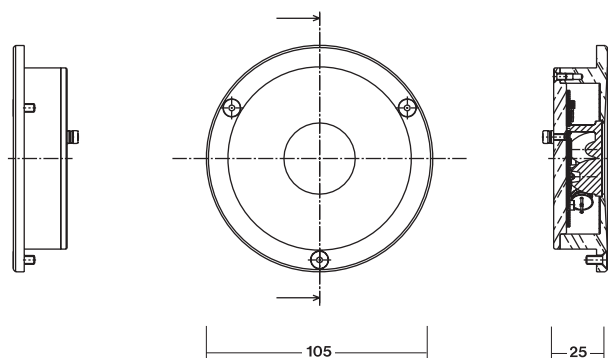


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STEPLUX

- Slim recessed STEPLUX lighting fixture has been designed for the illumination of treshold area. The electronic ballast is fully integrated. It provides powerfull and energy-saving light. The geometry and position of LEDs meets the requirements for SPOT illumination. The powerful illumination is ensured by 3xHighPower LEDs.
- The LED lifetime is min 70.000h which decreases both maintenance and service costs

- STEPLUX je výkonné LED svetidlo vybavené 3xHighPower LED určené pre osvetlenie schodov alebo dverného priestoru. Jeho výhodou je veľmi malá požadovaná zástavbová výška len 25mm. Elektronický predradník je integrovaný v telese svetidla. Svetidlo poskytuje výkonné a úsporné osvetlenie.
- Životnosť LED je min.70000h, čo výrazne prispieva k šetreniu servisných nákladov v porovnaní so svetidlami s halogénovou žiarovkou.

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

- HighPower LEDs OSRAM OSLON SSL
- LED Binning < 3 MacAdam Steps
- Solid AL body (not suitable for outdoor application)
- Halogen-free wiring RADOX GKW
- WAGO terminal block
- SEC LED Electronic ballast is integrated

- HighPower LED OSRAM OSLON SSL
- LED Binning < 3 MacAdam Steps
- Teleso svetidla vyrobená z hliníku (nie je vhodné pre montáž do exteriéru)
- Halogénovo bezpečné vodiče RADOX GKW
- WAGO pripojné svorkovnice
- SEC LED elektronický predradník je integrovaný

OPTIONS**PRIPLATKY**

- Alternative colour surface treatment or an alternative customised dimensions
- Alternative LED light colour
- Alternative opal milky colour diffuser

- Alternatívna farba svetla pre LED
- Alternatívna farba povrchu alebo alternatívne rozmery
- Opálovo mliečny difúzor

**STEPLUX (216-B)**

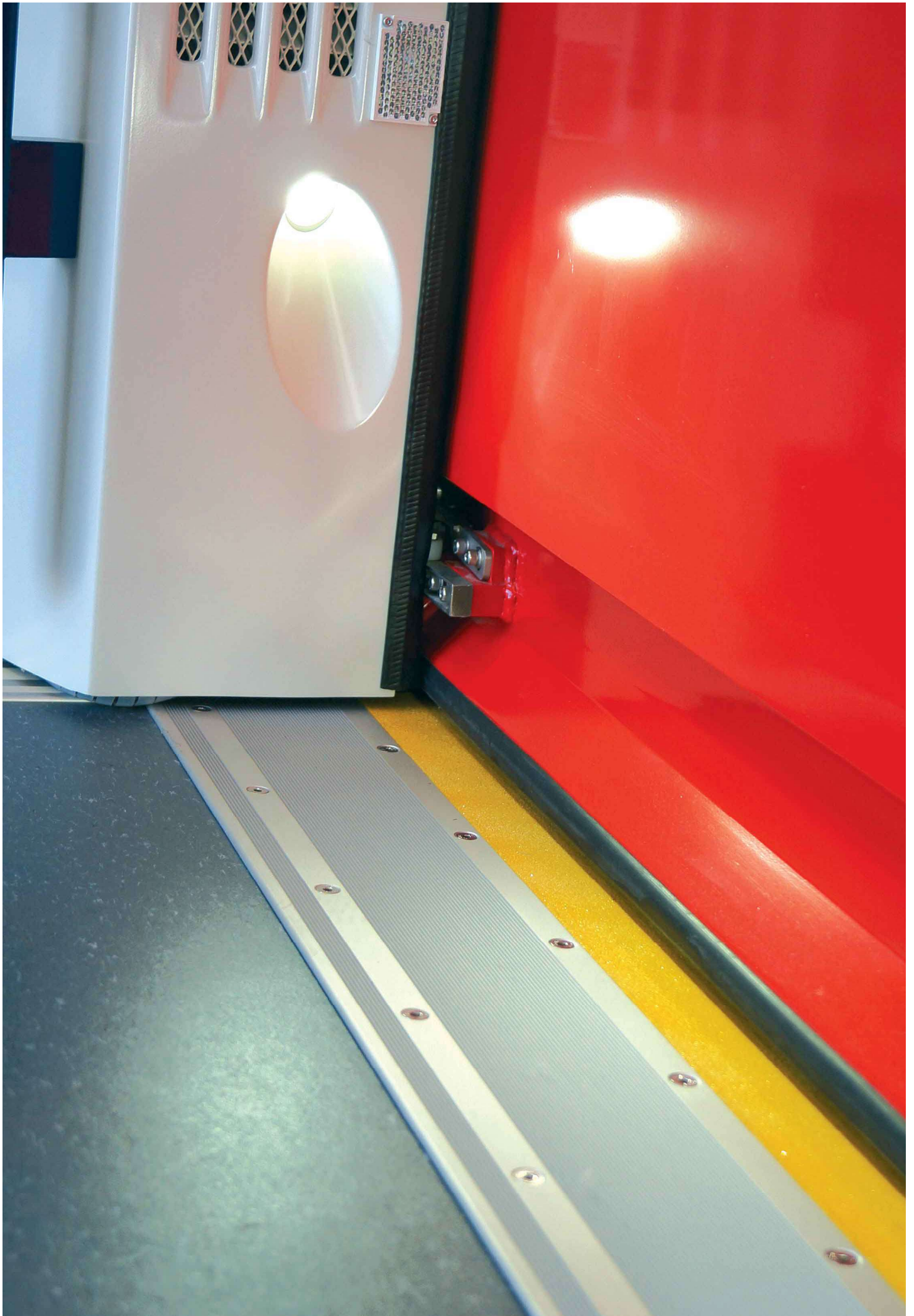
Type / Typ	Dimensions mm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
STEPLUX 3xLED/24V DC	see the drawing	DC 24V	3xHighPower LED	OPTION	-	-
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION

Ask SEC for detailed drawings or the specific item order code (design@sec.sk)

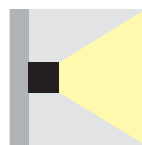
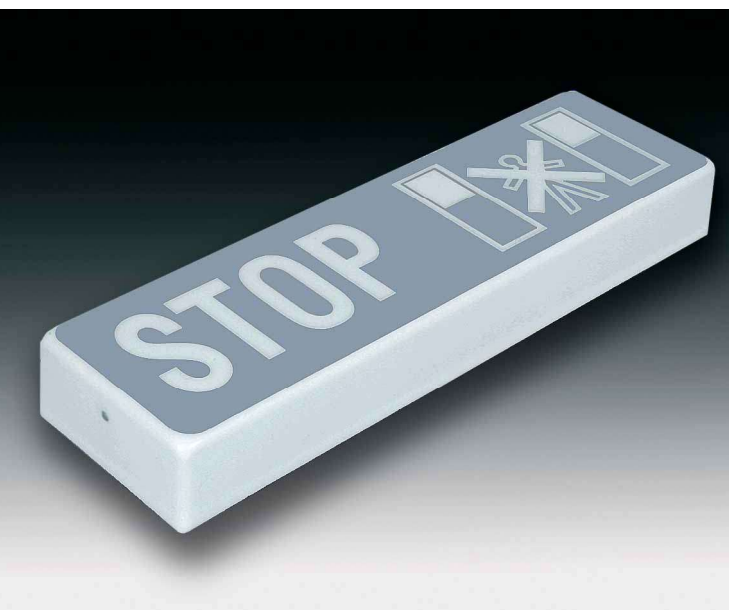




Threshold Area Illumination



Threshold Area Illumination



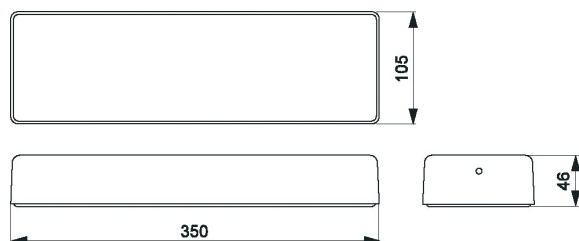
- The INFOLUX lighting fixtures have been designed as informational illuminated panels for the interior of public transport vehicles.
- It can be equipped also with a buzzer.

- INFOLUX sú informáčné svietidlá pre MHD, s možnosťou zvukového návestia pre nástup/výstup z autobusu/električky.

STANDARD ACCESSORIES**ŠTANDARDNÁ VÝBAVA**

- AL base finished in polyester powder coat RAL9003
- Diffuser made of acrylic
- Halogen-free wiring RADOX GWK
- WAGO terminal block

- Základňa svietidla z AL plechu lakovaného v RAL9003
- Kryt svietidla z PMMA
- Halogénovo bezpečné vodiče RADOX GWK
- WAGO prípojné svorkovnice

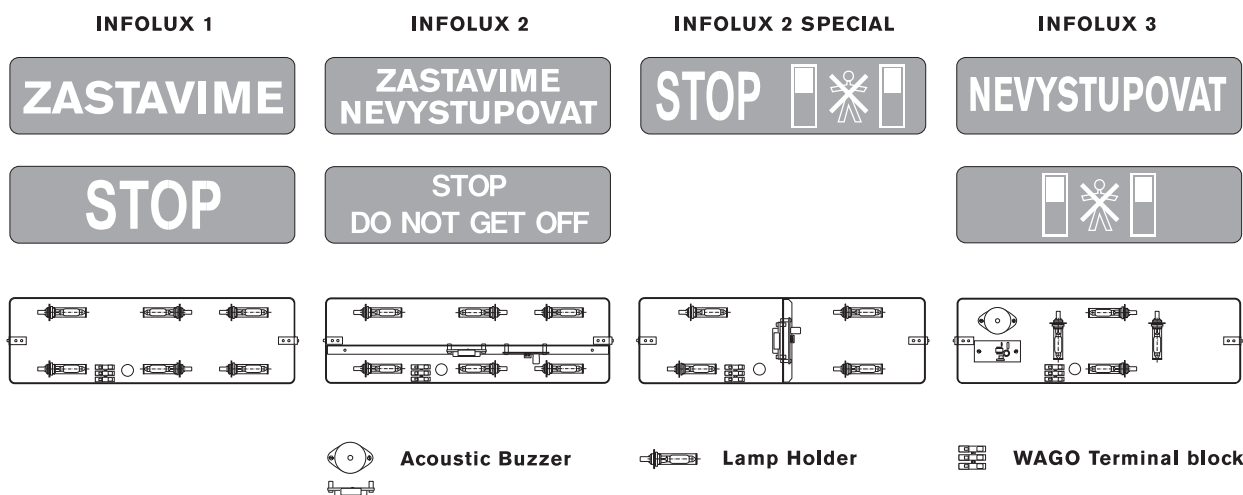
**OPTIONS****PRÍPLATKY**

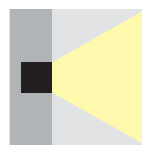
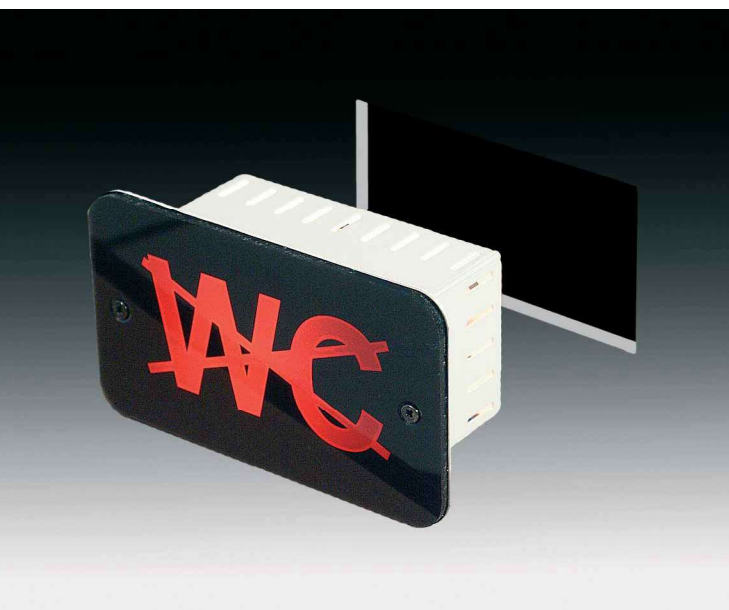
- Alternative legend (pictogram)
- LED as a light source

- Piktogram podľa špecifikácie zákazníka
- LED ako svetelný zdroj

INFOLUX (29-B)

Type / Typ	Dimensions mm	Power Supply	Light Source	Order Code
INFOLUX 1 "ZASTAVÍME" White Colour Light / biele sufitky	350x105x46mm	DC 24V	6x5W bulb	29-B-00-01-01
INFOLUX 1 "ZASTAVÍME" Green Colour Light / zelené sufitky	350x105x46mm	DC 24V	6x5W bulb	29-B-00-09-00
INFOLUX 1 "ZASTAVÍME" Red Colour Light / červené sufitky	350x105x46mm	DC 24V	6x5W bulb	29-B-00-08-00
INFOLUX 1 "ZASTAVÍME" Green Colour Light / zelené sufitky	350x105x46mm	DC 24V	6x5W bulb	29-B-00-04-00
INFOLUX 1 "ZASTAVÍME" Red Colour Light / červené sufitky	350x105x46mm	DC 24V	6x5W bulb	29-B-00-05-00
INFOLUX 1 "STOP" White Colour Light / biele sufitky	350x105x46mm	DC 24V	6x5W bulb	29-B-00-01-00
INFOLUX 1 "STOP" Red Colour Light / červené sufitky	350x105x46mm	DC 24V	6x5W bulb	29-B-00-03-00
INFOLUX 2 "ZASTAVÍME/NEVYSTUPOVAŤ" White Light / biele suf. + Signal	350x105x46mm	DC 24V	6x5W bulb + Buzzer	29-B-
INFOLUX 2 "STOP/DO NOT GET OFF" White Light / biele sufitky + Signal	350x105x46mm	DC 24V	6x5W bulb + Buzzer	29-B-01-02-00
INFOLUX 2 Special White Light / biele sufitky + Signal	350x105x46mm	DC 24V	4x5W bulb + Buzzer	29-B-02-01-00
INFOLUX 2 Special White Light / biele sufitky	350x105x46mm	DC 24V	4x5W bulb	29-B-04-01-00
INFOLUX 2 Special 2x white bulbs + 2x red bulbs / 2xbiele+2xčervené sufitky	350x105x46mm	DC 24V	4x5W bulb + Buzzer	29-B-02-04-00
INFOLUX 2 Special 2x white bulbs + 2x red bulbs / 2xbiele+2xčervené sufitky	350x105x46mm	DC 24V	4x5W bulb	29-B-04-02-00
INFOLUX 3 "NEVYSTUPOVAŤ" White Colour Light / biele sufitky + Signal	350x105x46mm	DC 24V	4x5W bulb + Buzzer	29-B-03-03-00
INFOLUX 3 "NEVYSTUPOVAŤ" White Colour Light / biele sufitky + Signal	350x105x46mm	DC 24V	4x5W bulb + Buzzer	29-B-03-02-00
INFOLUX 3 "X" White Colour Light / biele sufitky + Signal	350x105x46mm	DC 24V	4x5W bulb + Buzzer	29-B-03-01-00
INFOLUX CUSTOMISED	350x105x46mm	DC 24V,12V	CUSTOMISED	-





- The UNILUX-INFO recessed lighting fixtures are designed as illuminated informational panels.
- Legend is visible only when the fixture is turned on, otherwise the diffuser is black colour only.
- UNILUX-INFO sú informačné svietidlá, kde je piktogram viditeľný len v zapnutom stave. Ak je svietidlo vypnuté, plocha krytu svietidla je čierna.

STANDARD ACCESSORIES

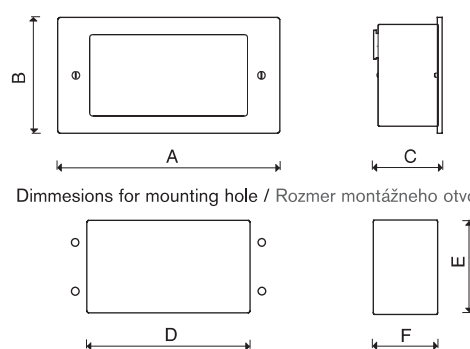
ŠTANDARDNÁ VÝBAVA

- Metal base finished in polyester powder coat RAL9003
- Diffuser made of acrylic
- Halogen-free wiring RADOX GKW
- WAGO terminal block
- BUZZER for accoustic signal (only BUZZER version)
- Základňa svietidla z plechu lakovaného v RAL9003
- Kryt svietidla z PMMA
- Halogénovo bezpečné vodiče RADOX GKW
- WAGO pripojné svorkovnice
- Zvuková signalizácia - len BUZZER verzia

OPTIONS

PRIPLATKY

- Alternative legend (pictogram)
- LED as a light source
- Alternative customised dimensions
- Piktogram podľa špecifikácie zákazníka
- LED ako svetelný zdroj
- Alternatívne rozmery



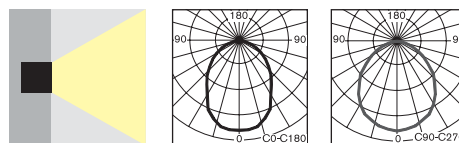
UNILUX-INFO (1 17-B)

Type / Typ	Dimmensions A,B,C,D,E,F	Power Supply	Light Source	BUZZER	AutoTest	CentralControl
UNILUX 5W/SV8,5	120,70,70,92,53,65 mm	DC 24V	Bub 5W/SV8,5	-	-	-
UNILUX 2x5W/SV8,5	210,70,70,185,53,65 mm	DC 24V	Bubs 2x5W/SV8,5	-	-	-
UNILUX 3x5W/SV8,5	300,70,52,273,53,50 mm	DC 24V	Bubs 3x5W/SV8,5	-	-	-
UNILUX 5x5W/SV8,5 + BUZZER	300,70,52,273,53,50 mm	DC 24V	Bubs 5x5W/SV8,5	YES	-	-
UNILUX 5x5W/SV8,5	300,70,52,273,53,50 mm0	DC 24V	Bubs 5x5W/SV8,5	-	-	-
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	-	-	-



UNILUX 5x5W





- The UNILUX recessed lighting fixtures are designed for stairs area illumination
- UNILUX svetidlá sú určené pre zapustenú montáž pre osvetlenie priestoru schodov

STANDARD ACCESSORIES

ŠTANDARDNÁ VÝBAVA

- Stainless steel metal base
- Halogen-free wiring RADOX GKW
- Diffuser made of PC (polycarbonate complying DIN5510 or EN45545)
- WAGO terminal block

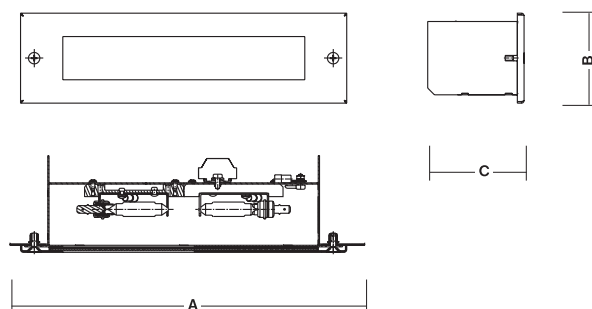
- Teleso z nerezového plechu
- Halogénovo bezpečné vodiče RADOX GKW
- PC kryt svetidla spĺňajúci DIN5510 alebo EN45545
- WAGO prípojné svorkovnice

OPTIONS

PRÍPLATKY

- Alternative colour surface treatment
- Alternative customised dimensions
- Alternative LED light source

- Alternatívny zdroj svetla LED
- Alternatívna farba povrchu
- Alternatívne rozmery



UNILUX (117-B)

Type / Typ	Dimensions AxBxCmm	Power Supply	Light Source	Dimming	AutoTest	CentralControl
UNILUX 2X10W/24V DC	240x66x71mm	DC 24V	2x10W Bulb	OPTION	-	-
CUSTOMISED VERSION	CUSTOMISED	CUSTOMISED	CUSTOMISED	OPTION	OPTION	OPTION



SYSTEM 
SUPPLIER

Sales Representative / Obchodné zastúpenie:

Contact SEC head office for your nearest local SEC distributor.
Pre určenie najbližšieho predajcu svetidiel kontaktujte SEC.

**Customised
Project
Design**

Edition 2016-2018

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