

***TL-Line*** | LED Linear Lighting System

# NELUX TRUNKING LIGHTING SYSTEM



## LED Linear Lighting System



35W / 40W / 45W / 50W / 55W / 60W / 65W / 70W optional

DALI / DIM switch/ 1-10V dimmable optional

Sharp / narrow / wide / flood / flat / asymmetric / double asymmetric

5 / 8 / 12 wires trunking rail

Daylight sensor, motion sensor

L , T , X node connector

160LM / 180LM per watt

DC emergency / central safety emergency supply / built-in battery supply

Cord / chain / rod / surface mounted / mounting clip

2700K / 3000K / 3500K / 4000K / 5000K / 5700K / 6500K

600mm / 1200mm / 1500mm / 2400mm / 3000mm / 4500mm



# NELUX TRUNKING LIGHTING SYSTEM

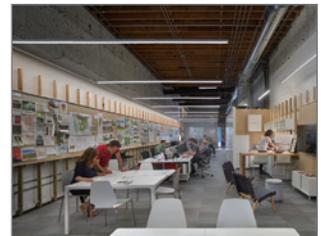


## LED Linear Lighting System



### Application

Commercial-Industrial-Warehouse-Other indoor lighting



# NELUX TRUNKING LIGHTING SYSTEM



## TRUNKING RAIL



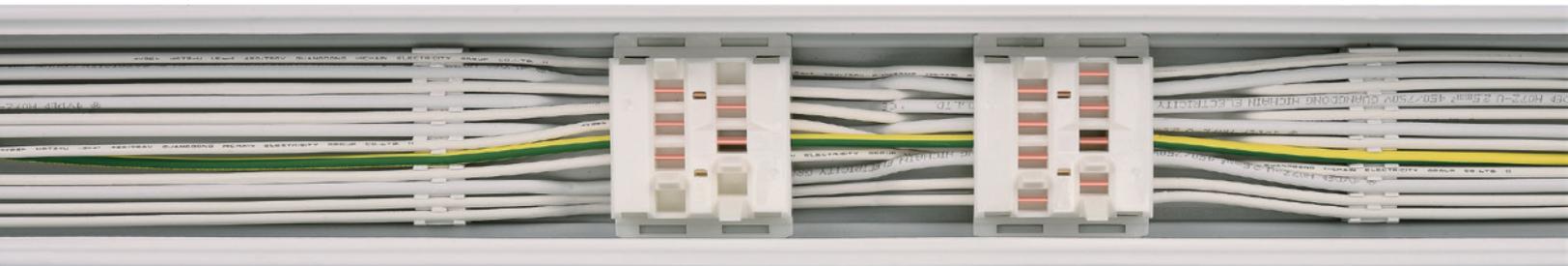
- 3-phase pre-selection via moving luminaire male connector pin to right or left to install in the rail
- Trunking rail as standard with 5, 8 or 12-core through-wiring with 2.5mm<sup>2</sup> cable for power supply and 1.5mm<sup>2</sup> cable for dimming control.
- The maximum current is 16A, allowing 70pcs of 1500mm 50W in one serial row with 220VAC power supply
- Separate power supplies, dimming or emergency supply can be integrated
- Electrical feed possible in sideward or end area of a trunking rail arrangement via special trunking rail element
- Trunking rail modules with pre-assembled connectors
- Wide distances between suspension points to 3m with self-supporting connector elements
- Simple mounting of trunking rail elements with pre-assembled connectors with integral plug-in system (electrical and mechanical connection)
- Flexible electrical feed-in and feed-out points

# NELUX TRUNKING LIGHTING SYSTEM



## Wiring Information

5/8/12 wiring are available

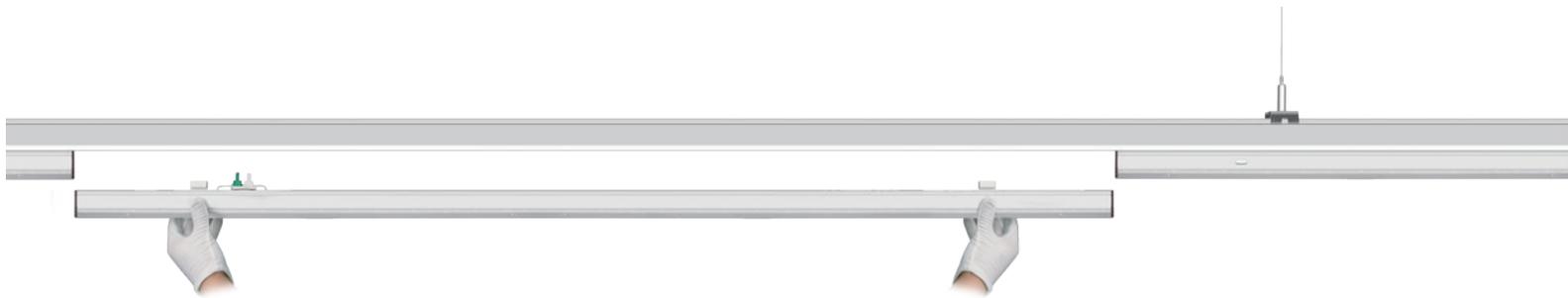


Mode	Function Description						Description Of The Wire											
	3 phase	DALI	1-10V	Batt	EMG1	EMG2	1	2	3	4	5	6	7	8	9	10	11	12
<b>5-core trunking rail :</b>																		
1	✓							L1		N		L2		PE		L3		
<b>8-core trunking rail :</b>																		
2	✓		✓	✓			CHR	L1		N		L2		PE		L3	DIM+	DIM-
3	✓	✓		✓			CHR	L1		N		L2		PE		L3	DA/L	DA/N
4	✓			✓	✓		CHR	L1		N		L2		PE		L3	EL1	EN1
<b>12-core trunking rail :</b>																		
5	✓		✓	✓	✓	✓	CHR	L1	EL1	N	EN1	L2	EN2	PE	EL2	L3	DIM+	DIM-
6	✓	✓		✓	✓	✓	CHR	L1	EL1	N	EN1	L2	EN2	PE	EL2	L3	DA/L	DA/N
7	x2		✓	✓			CHR	L1	L4	N1	N2	L2	L5	PE	L6	L3	DIM+	DIM-
8	x2	✓		✓			CHR	L1	L4	N1	N2	L2	L5	PE	L6	L3	DA/L	DA/N

# NELUX TRUNKING LIGHTING SYSTEM



A continuous-row LED lighting system could be created only by a trunking unit and a LED luminaire. It appears as a consistent continuous-row system, without any visual interruption or different reflectors. The luminaire and trunking rail are perfectly matched to each other.



## Housing Colors



White  
RAL 9016



Black  
RAL 9017

## DIP Switch Driver

All drivers are DIP Switch Driver. Power can be selectable by setting the buttons in different position, which is more convenient for customers to make inventory.



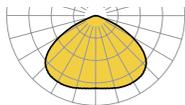
# NELUX TRUNKING LIGHTING SYSTEM



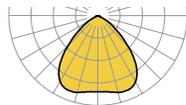
## OPTICS



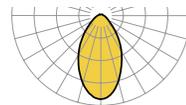
**FD-120°**  
Extremely wide



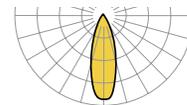
**WD-90°**  
wide



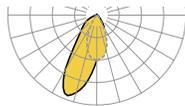
**NR-60°**  
narrow



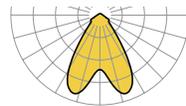
**SP-30°**  
extremely narrow



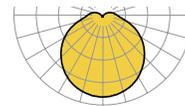
**LS / RS**  
asymmetrical



**DS**  
Double asymmetrical



**FF**  
Diffuse



### Lenses Module



Central.Line.Optic



Individual.Lens Optic



Diffusers

# NELUX TRUNKING LIGHTING SYSTEM



## EMERGENCY LIGHTING



### External emergency with Constant current(On/off) LED driver

Luminaires with Constant current(on/off) led driver connect to the central backup battery or UPS through EL, EN. When no power is detected, the luminaires are off; when power is detected, the luminaires are 100% brightness.

EL/EN	Lamp Brightness
OFF	0%
ON	100%

L/N or EL/EN	Lamp Brightness
OFF	0%
AC 220V ON	100%
DC 220V ON	15%

### External emergency with DALI driver

Luminaires with DALI driver connect to the mains electricity, central backup battery or UPS. When no power is detected, the luminaires are off; when AC power is detected, the luminaires are on 100%; when DC power is detected, the luminaires are on 15%.

### Internal emergency with built-in battery pack

Different combination of emergency driver and battery pack are available. When CHR detects that there is power, luminaires are on 100%; when no power detected, luminaires will work according to the selected emergency driver. Different emergency drivers and battery packs can be freely combined as below.

L/N	L-CHR/N-CHR	Battery	Emergency driver power	Power when in emergency	Duration time
OFF	ON	/	/	/	0%
OFF	OFF	1800mAh	6W	6W	3 hours
OFF	OFF	3600mAh	12W	12W	3 hours
OFF	OFF	3600mAh	6W	6W	6 hours

# NELUX TRUNKING LIGHTING SYSTEM



## FUNCTION MODULES



Spotlight Module



Sensor Module



Exit Sign Module



Wireless Sensor

## ACCESSORIES

### Power Feed



Feed In Box



Feed In Connector



Terminal Box

### Mounting Kit



Suspension Cord



Suspension Rod



Suspension Chain



Surface Mounted



Mounting Clip

### Node Connector



L Node Connector



T Node Connector



X Node Connector

### Closure



End Cap



Blank Cover

# NELUX TRUNKING LIGHTING SYSTEM



## Order Number List - Trunking Rail

Category	Length	Option	Wire Quantity	Color
KFT	06	N	05	WH
	09	F	08	BK
	12	T	12	SV
	15			
	24			
	30			
	36			
	45			

### Code Definition

#### Length:

06 = 600mm  
09 = 900mm  
12 = 1200mm  
15 = 1500mm  
24 = 2400mm  
30 = 3000mm  
36 = 3600mm  
45 = 4500mm

#### Option:

N = normal rail  
F = feed-in rail  
T = terminal rail

#### Wire quantity:

05 = 5 wires  
08 = 8 wires  
12 = 12 wires

#### Color:

WH = white  
BK = black  
SV = silver



e.g.: KFT-15F-05WH

1.5m linear trunking rail, feed-in, 5 wires, white color

# NELUX TRUNKING LIGHTING SYSTEM



## Order Number List - Luminaire

Category	Length	Power	CCT	Beam Angle	Wire	Color	Function				
KFL-	12	30	27	SP-	05	WH-	E1	B1	DA		
				NR							
		15	40	30	30	WD	08	BK	E2	B2	10
	FD										
	DS										
	70		50	50	57	RS	12	SV			
						LS					
						FF					
	24		30	70	65	FT					

e.g.: KFL-1550-40NR-08WH-DA  
 1.5m linear luminaire, 50W, 4000K, narrow angle,  
 8 wires, white color, DALI dimming.

### Code Definition

#### Length:

- 12 = 1200mm
- 15 = 1500mm
- 24 = 2400mm
- 30 = 3000mm

#### Power:

- 30, 40, 60 = 30W, 40W, 60W
- 35, 50, 70 = 35W, 50W, 70W

#### CCT:

- 27 = 2700K
- 30 = 3000K
- 35 = 3500K
- 40 = 4000K
- 50 = 5000K
- 57 = 5700K
- 65 = 6500K

#### Beam angle

- SP = sharp
- NR = narrow
- WD = wide
- FD = flood
- DS = double asymmetric
- RS / LS = right / left asymmetric
- FF / FT = flat frosted / transparent

#### Wire quantity:

- 05 = 5 wires,
- 08 = 8 wires,
- 12 = 12 wires
- Color of the housing:
- WH = white shell
- BK = black shell
- SV = silver shell

#### Function:

- E1 = 6W emergency power supply
- E2 = 12W emergency power supply
- B1 = 1800mAh emergency battery pack
- B2 = 3600mAh emergency battery pack
- DA = DALI dimming
- 10 = 1-10V dimming



# NELUX TRUNKING LIGHTING SYSTEM



## Order Number List - Node Connector - Feed-in Box

Category	Model	Wire Quantity	Color
KFN -	BF	05	WH
		08	BK
		12	SV

### Code Definition

#### Model:

BF= Feed-in box

#### Wire quantity:

05= 5 wires

08= 8 wires

12= 12 wires

#### Color:

WH= white

BK= black

SV= silver



e.g.: KFN-BF-05WH

Feed-in box, 5 wires, white color

## Order Number List - L, T, X Node Connector

Category	Model	Option	Wire Quantity	Color	
KFN -	L	X	X	X	
		0I	None	WH	
		T	I0	05	BK
			I00	08	SV
		X	0I0	12	
			00I		
			I000		

### Option:

0I=feed-in by the left side; feed-out by right side

I0=feed-in by the right side; feed-out by left side

0I0=one side for feed-in; two sides for feed-out

I000=one side for feed-in; three sides for feed-out



L Node Connector



T Node Connector



X Node Connector

e.g.: KFN-L0I-05WH

L-node connector, feed in by the left side and feed out by right side, 5 wires, white color

# NELUX TRUNKING LIGHTING SYSTEM



## Luminaire Characteristics / Standard Version / 35W/50W/70W

### Product Description

Tool free installation  
 Continuous line  
 Plug and play

### Application

Commercial  
 Industrial  
 Warehouse



Model No.	KFLS-1535	KFLS-1550	KFLS-1570
Outer dimensions	1500*76*70mm	1500*76*70mm	1500*76*70mm
Input power	35W	50W	70W
Dip switch to	35/40/45/50W	35/40/45/50W	55/60/65/70W
Input voltage	220 - 240VAC	220 - 240VAC	220 - 240VAC
Input current	0.2A max	0.3A max	0.4A max
Mains frequency	50/60HZ	50/60HZ	50/60HZ
PF (at 230 V, 50 Hz, full load)	0.9	0.9	0.9
Lumen	5600lm/6300lm	8000lm/9000lm	11200lm/12600lm
Efficiency	160lm/W / 180lm/W	160lm/W / 180lm/W	160lm/W / 180lm/W
CCT	2700-6500K	2700-6500K	2700-6500K
CRI	80Ra	80Ra	80Ra
R9	>0	>0	>0
SDCM	<3	<3	<3
Beam Angle	30°, 60°, 90°, 120° LS/RS, DS, FF	30°, 60°, 90°, 120° LS/RS, DS, FF	30°, 60°, 90°, 120° LS/RS, DS, FF
Dimming	NO	NO	NO
Dimming range	/	/	/
Flicker percent	≤5%	≤5%	≤5%
Flicker metric Pst LM	≤1.0	≤1.0	≤1.0
Stroboscopic effect metric SVM	≤0.4	≤0.4	≤0.4
Type of protection	IP20	IP20	IP20
Operating humidity	10% - 80%	10% - 80%	10% - 80%
Storage humidity	10% - 80%	10% - 80%	10% - 80%
Ambient temperature Ta (at life-time 50,000 h)	-25 - 40°C	-25 - 40°C	-25 - 40°C
Warranty	5 years	5 years	5 years
Storage temperature Ts	-40 - 85°C	-40 - 85°C	-40 - 85°C

# NELUX TRUNKING LIGHTING SYSTEM



## Luminaire Characteristics / Dali 2.0 version / 35W/50W/70W

### Product Description

Tool free installation  
 Continuous line  
 Plug and play

### Application

Commercial  
 Industrial  
 Warehouse



Model No.	KFLS-1535-DA	KFLS-1550-DA	KFLS-1570-DA
Outer dimensions	1500*76*70mm	1500*76*70mm	1500*76*70mm
Input power	35W	50W	70W
Dip switch to	35/40/45/50W	35/40/45/50W	55/60/65/70W
Input voltage	220 - 240VAC	220 - 240VAC	220 - 240VAC
Input current	0.2A max	0.3A max	0.4A max
Mains frequency	50/60HZ	50/60HZ	50/60HZ
PF (at 230 V, 50 Hz, full load)	0.9	0.9	0.9
Lumen	5600lm/6300lm	8000lm/9000lm	11200lm/12600lm
Efficiency	160lm/W / 180lm/W	160lm/W / 180lm/W	160lm/W / 180lm/W
CCT	2700-6500K	2700-6500K	2700-6500K
CRI	80Ra	80Ra	80Ra
R9	>0	>0	>0
SDCM	<3	<3	<3
Beam Angle	30°, 60°, 90°, 120° LS/RS, DS, FF	30°, 60°, 90°, 120° LS/RS, DS, FF	30°, 60°, 90°, 120° LS/RS, DS, FF
Dimming	DALI DT6/switch	DALI DT6/switch	DALI DT6/switch
Dimming range	1% - 100%	1% - 100%	1% - 100%
Flicker percent	≤5%	≤5%	≤5%
Flicker metric Pst LM	≤1.0	≤1.0	≤1.0
Stroboscopic effect metric SVM	≤0.4	≤0.4	≤0.4
Type of protection	IP20	IP20	IP20
Operating humidity	10% - 80%	10% - 80%	10% - 80%
Storage humidity	10% - 80%	10% - 80%	10% - 80%
Ambient temperature Ta (at life-time 50,000 h)	-25 - 40°C	-25 - 40°C	-25 - 40°C
Warranty	5 years	5 years	5 years
Storage temperature Ts	-40 - 85°C	-40 - 85°C	-40 - 85°C

# NELUX TRUNKING LIGHTING SYSTEM



## Electrical Characteristics | Output Selectable Driver | 50W/70W

### Product description

Constant current LED driver  
Lifespan: 50,000h  
5 years warranty

### Properties

Over voltage protection with automatic restart  
Overload protection  
Short-circuit protection with automatic restart  
Surge voltage: 2.5KV



Model No.	KSD2U-50	KSD2U-70
Input voltage	220 - 240VAC	220 - 240VAC
Input current	0.33A max	0.47A max
Mains frequency	50/60HZ	50/60HZ
PF (at 230 V, 50 Hz, full load)	0.9	0.9
THD (at 230 V, 50 Hz, full load)	15%	15%
Inrush current	28A@110us	30A@110us
Turn on time (output)	≤1s	≤1s
Output voltage	55 - 82V	55 - 82V
Output current	0.43/0.49/0.55/0.61A	0.69/0.73/0.79/0.85A
Max output power	50W	70W
Efficiency (at 230V,50Hz,full load)	90%	91%
Dimming	NO	NO
Dimming range	/	/
Output LF current ripple	≤5%	≤5%
Surge (between L - N)	2.5KV	2.5KV
Surge (between L/N - PE)	2KV	2KV
Type of protection	IP20	IP20
Operating humidity	10% - 80%	10% - 80%
Storage humidity	10% - 80%	10% - 80%
Ambient temperature Ta (at life-time 50,000 h)	-25 - 60°C	-25 - 60°C
Max. Casing temperature Tc	80°C	80°C
Storage temperature Ts	-40 - 85°C	-40 - 85°C
Outer dimensions	280*30*22mm	280*37*31mm

# NELUX TRUNKING LIGHTING SYSTEM



## Electrical Characteristics | DALI DT6 Dimming Driver | 50W/70W

### Product description

Constant current LED driver  
Lifespan: 50,000h  
5 years warranty

### Properties

Over voltage protection with automatic restart  
Overload protection  
Short-circuit protection with automatic restart  
Surge voltage: 2.5KV



Model No.	KSD2H-50-DT6 220 -	KSD2H-70-DT6 220
Input voltage	240V	- 240V
Input current	0.3A max	0.43A max
Mains frequency	0/50/60HZ	0/50/60HZ
PF (at 230 V, 50 Hz, full load)	0.9	0.9
THD (at 230 V, 50 Hz, full load)	15%	15%
Inrush current	25A@120us	30A@110us
Turn on time (output)	≤1s	≤1s
Standby power P <sub>sb</sub>	≤0.5W	≤0.5W
Output voltage	30 - 40V	30 - 40V
Output current	0.84/0.95/1.07/1.18A	1.3/1.42/1.53/1.65A
Max output power	47W	66W
Efficiency (at 230V,50Hz,full load)	88%	88%
Dimming	DALI DT6/switch	DALI DT6/switch
Dimming range	1% - 100%	1% - 100%
Output LF current ripple	≤5%	≤5%
Surge (between L - N)	2.5KV	2.5KV
Surge (between L/N - PE)	2KV	2KV
Type of protection	IP20	IP20
Operating humidity	10% - 80%	10% - 80%
Storage humidity	10% - 80%	10% - 80%
Ambient temperature T <sub>a</sub> (at life-time 50,000 h)	-25 - 60°C	-25 - 60°C
Max. Casing temperature T <sub>c</sub>	85°C	85°C
Storage temperature T <sub>s</sub>	-40 - 85°C	-40 - 85°C
Outer dimensions	280*32*30mm	360*32*30mm