

OPC Newsletter Vol. 4 (April 2010)

Dear valued partners:

We are glad to inform you that the new SSL products:

- ***BACKlight Power Chain IP65 LED for light cove / signage***
- ***LINEARlight PowerSlim for display / cove lighting***
- ***LF05A LINEARlight Flex IP20 for light cove / indirect lighting***
- ***LF05E LINEARlight Flex IP20 for light cove / indirect lighting (commercial version)***

are available for lighting design & installation with superior performance.

Feel free to contact your OSRAM account manager or via phone 2511 2268 or email: info@osram.com.hk for any interest.

BACKlight Power Chain IP65 LED

BC01A



Product Description & Benefits

- Flexible IP65 chain with 25 High-Flux LED
- High luminance backlighting
- Provide wide viewing angle 120°
- Outstanding uniformity
- Easy and fast installation
- RoHS compliance

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Applications

- Lightboxes
- Channel letters
- Direct backlighting

Technical Operating Data

Product	color	No. of LED	Voltage (Vdc)*	Power (W)*	Current (A)*	Radiance Angle (deg)*	Wavelength (nm)/ Color Temp (K)	Flux (lm)*	Lum. Intensity (cd)#
BC01A-W4-765	White	50	24	74,0	3,0	120	6500	3240	18,5
BC01A-W4-830	white	50	24	74,0	3,0	120	3000	2080	13,0

*) All Data are related to the entire module

#) All Data are related to 1pc LED module

Due to the special conditions of manufacturing processes of LED, the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

Technical Features

- One chain consists of 25 LED modules with IP65 housing connected with flexible wires
- Length of entire module is up to 5.0m
- Mounting holes (Ø 4mm) or sticky pad allow easy installation
- Optimal operation with OPTOTRONIC®
- Only Parallel connection allowed

Minimum & Maximum Ratings

Product	Operating temp. at Tc (°C)*	Storage Temp (°C)*	Voltage Range (Vdc)*
BC01A-W4-765	-20 ... 60	-20 ... 65	23.5 ... 24.5
BC01A-W4-830	-20 ... 60	-20 ... 65	23.5 ... 24.5

*) Exceeding maximum ratings for operation and storage temperature will reduce expected life time or destroy the LED module.

Exceeding maximum ratings for operation voltage will cause hazardous overload and will likely destroy the LED module. The temperature of the LED module needs to be measured at the Tc-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

LINEARlight PowerSlim for display & cove lighting



Product Description & Benefits

- Equipped with OSRAM Power TopLEDs
- Energy saving Power LED profile
- Available in white with Fine-Binning
- Conformally coated to prevent moisture & dust
- Easy “Plug & Play” connection, up to 9 modules can be connected in series
- Elegantly designed slim profile
- 90° viewing angle per module

Applications

- Display case lighting
- Cabinet lighting
- Cove lighting

Specification

Item	Parameter	LP20S-W3F-827	LP20S-W3F-830	LP20S-W3F-854	LP20S-W3F-765
Light Output*	Type of LED	OSRAM PowerTop LED			
	No. of LED	20	20	20	20
	CCT (K)	2700	3000	5400	6500
	CRI	80	80	80	80
	Candela (cd)	20	26	26	36
	Lumen (lm)	50	58	58	90
	Beam angle	90 ⁰	90 ⁰	90 ⁰	90 ⁰
	Power (W)	4	4	4	4
	Efficacy (lm/W)	12.5	14.5	14.5	22.5
	Lifetime (Ta@25°C)	30,000h	30,000h	30,000h	30,000h

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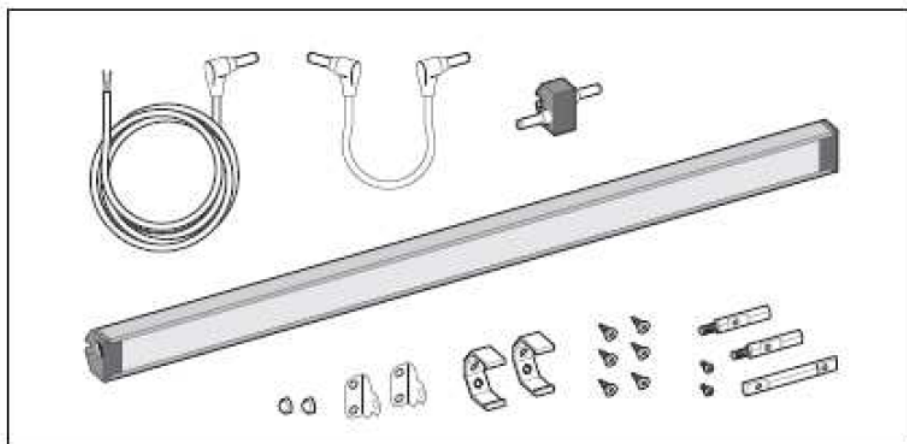
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Item	Parameter	LP20S-W3F-827	LP20S-W3F-830	LP20S-W3F-854	LP20S-W3F-765
Electrical [#]	Max. no. of module in-line	9	9	9	9
	Input Current (mA _{dc})	155	155	155	155
	Input Voltage (V _{dc})	24 ± 0.5	24 ± 0.5	24 ± 0.5	24 ± 0.5
	Max. reverse voltage (V)	30	30	30	30
	ESD protection	Contact 4KV	Contact 4KV	Contact 4KV	Contact 4KV
	Dimming	Dimmable by pulse width modulation (PWM) with electronic controller OT DIM			
Mechanical	Dimension (mm)	304 x 16 x 15	304 x 16 x 15	304 x 16 x 15	304 x 16 x 15
	Mounting hole	M2.5*6 (for metal bracket & plastic bracket installation)			
	Optics	PC	PC	PC	PC
	Misc.	Factory installed 1000mm / AWG 22 double pole cable			
Temp ^{##}	Operating Temp. (T _A)	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C
	Operating Temp. (T _C)	-20°C...+80°C	-20°C...+80°C	-20°C...+80°C	-20°C...+80°C
	Storage Temp. (T _s)	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C
Standard Compliance	IP Rating	IP 20	IP 20	IP 20	IP 20
	Eye Security	IEC 62471 (CIE S 009)	IEC 62471 (CIE S 009)	IEC 62471 (CIE S 009)	IEC 62471 (CIE S 009)
	Safety	IEC 62031	IEC 62031	IEC 62031	IEC 62031
	Harmonics & Flickers	EN 61000-3-2 IEC 61000-3-3	EN 61000-3-2 IEC 61000-3-3	EN 61000-3-2 IEC 61000-3-3	EN 61000-3-2 IEC 61000-3-3
	EMC / Radio disturbance	EN 55015	EN 55015	EN 55015	EN 55015
	EMC / immunity	EN 61547	EN 61547	EN 61547	EN 61547
Packaging	Standard box includes:	1) DC plug power supply cable 2) Interconnecting cable 3) Interconnector 4) 2 x screw cap 5) 2 x metal bracket 6) 2 x plastic bracket 7) 6 x M2 screw 8) 2 x metal bar for end cap 9) metal bar for interconnection			

Application Note

LINEARlight PowerSlim is a hi-end LED luminaire that can be easily used in various combinations with an appropriate power supplies and control systems.



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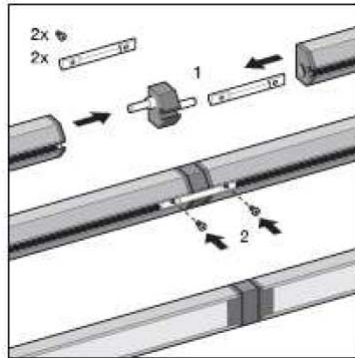
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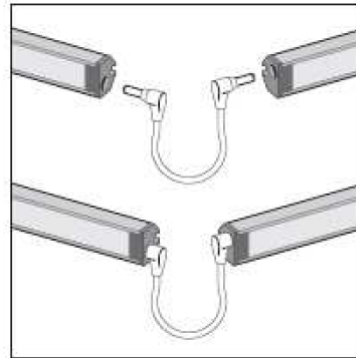
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2 ways of connection



Inter-connection

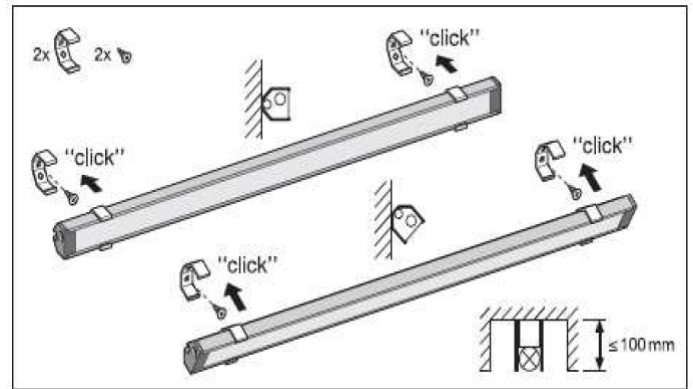


Connection via wire

2 ways of mounting method

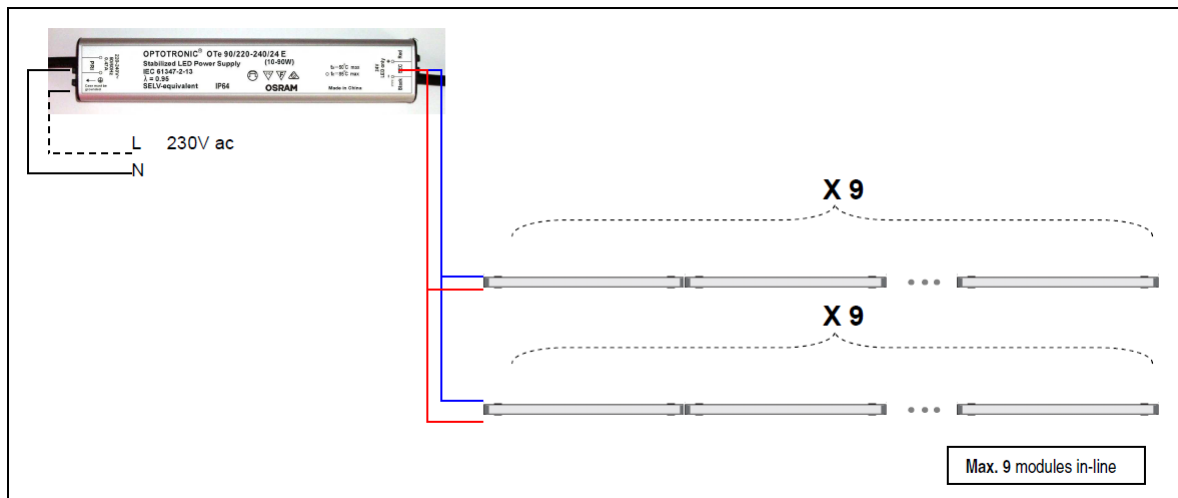


Adjustable metal end bracket



Fixed angle plastic bracket

Electrical connection diagram (connect via OT 90e / OT 75)



LF05A LINEARlight Flex IP20

for light cove / indirect lighting



Product Description & Benefits

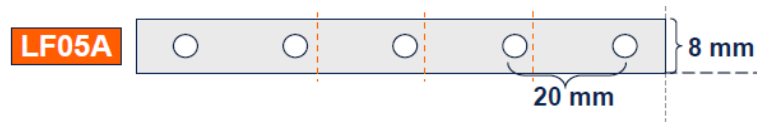
- Linear separable LED strip on flexible printed circuit board with self-adhesive back
- Low profile
- Available in various colors

Applications

- Edge-coupling of transparent or diffused materials
- Path illumination, contour accentuation
- Illuminated signs
- Walkways

Dimension

	LF05A [mm]
LED Pitch	20
SU*	100
Total Length	9900



Technical Operating Data

Product	Color	No. of LED	Voltage (Vdc)*	Power (W)*	Current (A)*	Radiance Angle (°)*	Wavelength (nm) / Color Temp (K)*	Lum. Flux (lm)*
LF05A-W3F-840	White	495	24	72	3	120	4000 K	2715
LF05A-W3F-830	White	495	24	72	3	120	3000 K	2110
LF05A-B3	Blue	495	24	72	3	120	470 nm	845

*) All Data are related to the entire module.

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+) Preliminary Data

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Technical Features

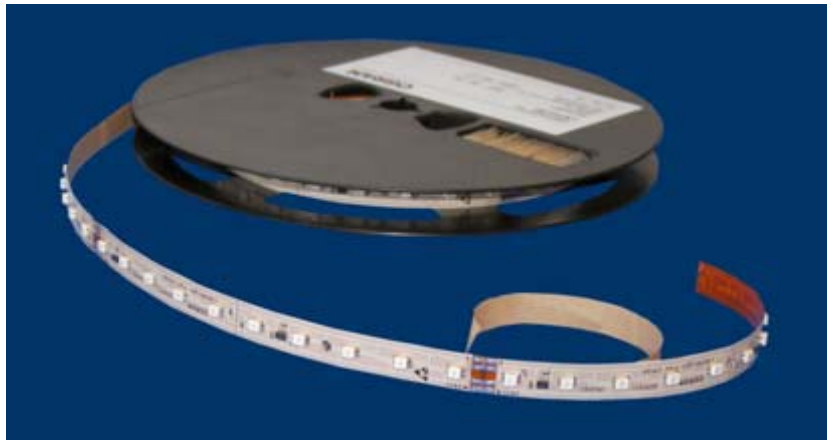
- One reel (entire module 495 LEDs) comes with one LED-band
- Light emission vertical to the mounting surface
- Size of printed circuit board (L x W x H): 9900 mm x 8 mm x 3mm
- Size of smallest unit (L x W): 100 mm x 8 mm
- Additional cutting possibilities by using the termination LF-2TERM
- Easy mounting by adhesive tape on isolated backside
- Easy connection with optional CONNECTsystem LF-xx Flex: Feeder LF-2PIN Flex, connector LF-CONN-10 Flex and LF-CONN-150 Flex
- Dimmable by pulse width modulation (PWM)
- Only parallel connection allowed
- Up to 50,000 h lifetime

Minimum & Maximum Ratings

Product	Operating Temperature at Tc-Point [°C] *	Storage Temperature [°C] *	Voltage Range [V dc] *	Reverse Voltage [V dc] *
LF05A-W3F-840	-30 ... 75	-40 ... 85	23 ... 25	25
LF05A-W3F-830	-30 ... 75	-40 ... 85	23 ... 25	25
LF05A-B3	-30 ... 75	-40 ... 85	23 ... 25	25

*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Module.
 Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED Module.
 The temperature of the LED module must be measured at the Tc-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label

LF05E LINEARlight Flex IP20 for light cove / indirect lighting (commercial version)



Product Description & Benefits

- Linear separable LED strip on flexible printed circuit board with self-adhesive back
- Low profile
- Available in various colors

Applications

- Edge-coupling of transparent or diffused materials
- Path illumination, contour accentuation
- Illuminated signs
- Walkways

Dimension

	LF05E [mm]
LED Pitch	30
SU*	150
Total Length	6000



Technical Operating Data

Product	Color	No. of LED	Voltage (Vdc)*	Power (W)*	Current (A)*	Radiance Angle (°)*	Wavelength (nm) / Color Temp (K)*	Lum. Flux (lm)*
LF05E-W2F-840	White	200	24	24.5	1	120	4000 K	940
LF05E-W2F-830	White	200	24	24.5	1	120	3000 K	735
LF05E-R1	Red	200	24	36	1.25	120	625 nm	680
LF05E-Y1	Yellow	200	24	36	1.25	120	587 nm	840
LF05E-T2	Green	200	24	24.5	1	120	525 nm	940
LF05E-B2	Blue	200	24	24.5	1	120	470 nm	290

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Technical Features

- One reel (entire module 200 LEDs) comes with one LED-band
- Light emission vertical to the mounting surface
- Size of printed circuit board (L x W x H): 6000 mm x 8 mm x 3mm
- Size of smallest unit (L x W): 150 mm x 8 mm
- Additional cutting possibilities by using the termination LF-2TERM
- Easy mounting by adhesive tape on isolated backside
- Easy connection with optional CONNECTsystem LF-xx Flex: Feeder LF-2PIN Flex, connector LF-CONN-10 Flex and LF-CONN-150 Flex
- Dimmable by pulse width modulation (PWM)
- Only parallel connection allowed
- Up to 50,000 h lifetime

Minimum & Maximum Ratings

Product	Operating Temperature at Tc-Point [°C] *	Storage Temperature [°C] *	Voltage Range [V dc] *	Reverse Voltage [V dc] *
LF05E-W2F-840	-30 ... 75	-40 ... 85	23 ... 25	25
LF05E-W2F-830	-30 ... 75	-40 ... 85	23 ... 25	25
LF05E-R1	-30 ... 75	-40 ... 85	23 ... 25	25
LF05E-Y1	-30 ... 75	-40 ... 85	23 ... 25	25
LF05E-T2	-30 ... 75	-40 ... 85	23 ... 25	25
LF05E-B2	-30 ... 75	-40 ... 85	23 ... 25	25

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Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED Module.

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LINEARlight Flex

Universal flexible, detachable, self adhesive LED tape

	LF05E	LF05A
Length / Width	6 m / 8 mm	9,9 m / 8 mm
LED Pitch	3 cm	2 cm
Smallest Unit	15 cm	10 cm
Power	24,5 W	72 W
Lumen / m	colors: same; white: as W2	white: as W3F
Colors	830, 840, G, B, Y (36W), R (36W),	840, 830, B

- **Significantly risen efficacy**
→ Lower systemcost
- **Lower prices**
→ Higher attractivity for customers
- **Segmentation for different applications**
→ LF05E for decorative
→ LF05A for additional illumination

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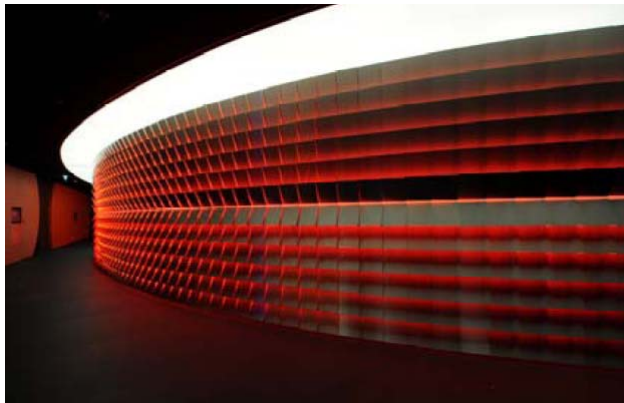
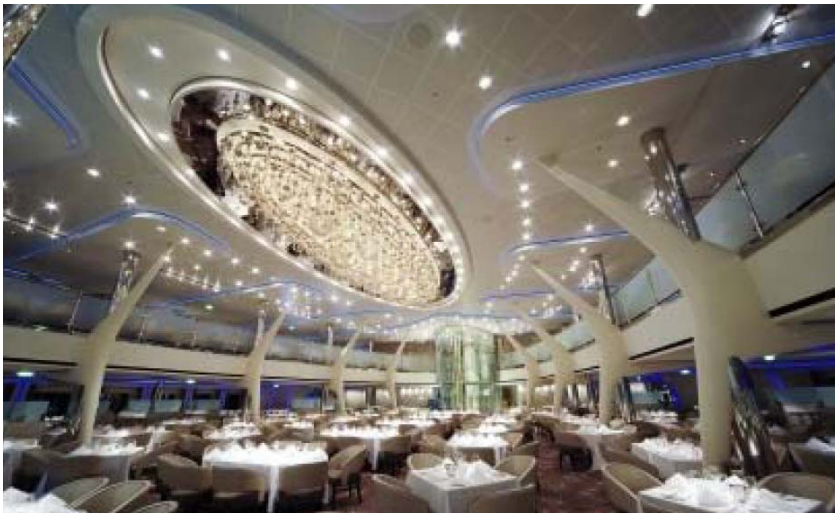
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LINEARlight Flex Application pictures



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