

LED SPOT

FLATLINE



FLATLINE RECESSED MOUNTED LED SPOT

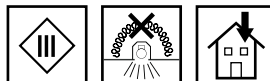
Get this incredibly lightweight and hyper flat LED spotlight. Designed to combine quality and production technique.

Three different materials merged together to offer an high front IP protection.

The tuneable white version has a dynamic colour temperature.

Typical applications

- Furniture lighting
- Residential Lighting
- Retail lighting



FlatLine

- **CONSTANT-CURRENT OR VOLTAGE-DRIVEN**
- **DEGREE OF PROTECTION: IP44 (FRONT PART)**
- **TUNEABLE WHITE VERSION**
- **5 YEARS GUARANTEE**
- **MADE IN ITALY**



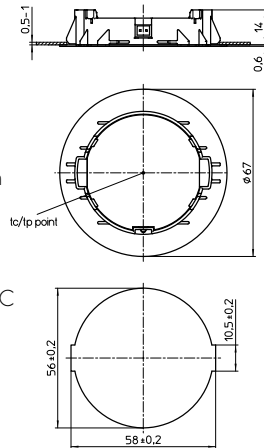
FlatLine – 700 mA

Complete LEDSpot equipped with optics, leads and metal frame

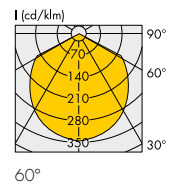
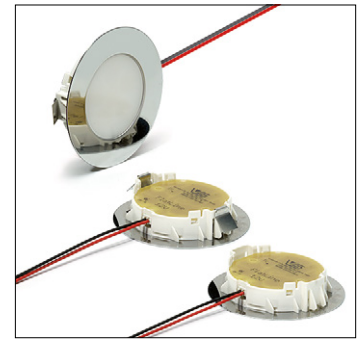
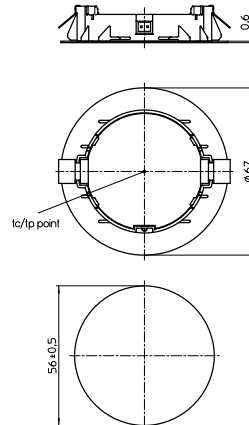
Technical notes

Metal frame, round
 For cut-out: \varnothing 56 mm
 LEDSpot with 5 LEDs
 Beam angle: 60°
 CRI R_a : 80
 With plug
 Snap-in clips or springs for easy installation
 Degree of protection: IP20
 (front part: IP44)
 Allowed ambient temperature: 0 to 40 °C
 Allowed storage temperature: -30 to 60 °C
 Lumen maintenance L70/B50:
 50,000 hrs. ($t_c/t_p = 70$ °C)
 Max. operating temperature
 at t_c/t_p point: 90 °C
 Weight: 40 g
 Packaging unit: 45 pcs.

Plastic snap-in clips



Metal snap-in springs



Type	Description	Ref. No.		Colour	Correlated colour temperature (K)	Typ. luminous flux* (lm), typ. voltage* (U_{yp}) and typ. power consumption* (P_{el}) at 700 mA	Typ. CRI R_a	Beam angle °	Light intensity at max. current Candela	Energy efficiency at max. current
		with metal springs	with plastic clips							
						$P_{el} = 2.2$ W; $U_{yp} = 3.1$ V				
LCH027	Flat 757D 30K	561580	561581	warm white	3000	260	80	60	90	A++
LCH027	Flat 757D 40K	561582	561583	neutral white	4000	270	80	60	95	A++

Emission data at $t_j = 80$ °C | * Measurement tolerance of luminous flux, voltage, power consumption: $\pm 5\%$ | Further colour temperatures on request

LED drivers

You will find more information about our LED drivers on our website: www.vossloh-schwabe.com

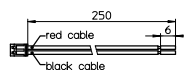
Capacity range W	Output current DC mA	Output voltage DC V	Ref. No.	Version	Current setting	Dimming	Max. service life time (hrs.)	Dimensions: mm (LxWxH)
700 mA								
5.6	700	2.8–8	186348	EasyLine	—	—	50,000	81.6x42.5x23
17.5	700	2–25	186681	ComfortLine	—	—	100,000	128x37x28
350 mA								
8.75	350	2–25	186519	ComfortLine	—	—	100,000	65x30.7x21.5
11	350	2–32	186679	ComfortLine	—	—	100,000	128x37x28

Please ensure you choose the correct LED driver for the module in question and that the respective output parameters (current, voltage, wattage) are correct.

Cable set

Leads: Cu tinned, stranded conductors AWG22,
 PVC-insulation, lengths: 250 mm

Ref. No.: 561868



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

FlatLine TW – 12 V DC

Complete LEDSpot equipped with leads and metal frame

With dynamic colour temperature

Technical notes

CA system control

Round frame: metal, silver

For cut-out: Ø 56 mm

LEDSpot with 12 LEDs

Beam angle: 70°

CRI R_a: 80

Leads: Cu tinned, stranded conductors AWG22,

PVC-insulation, length: 200 mm

Use of external LED constant-voltage converter

Metal snap-in springs for easy installation

Degree of protection: IP20 (front part: IP44)

Allowed ambient temperature: 0 to 40 °C

Allowed storage temperature: -30 to 60 °C

Lumen maintenance L70/B50:

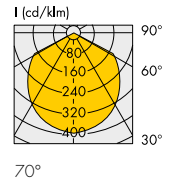
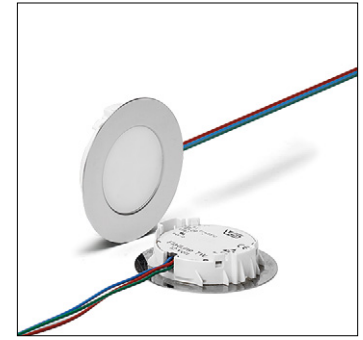
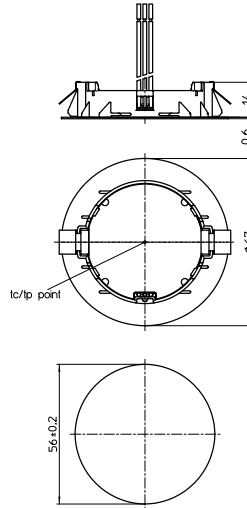
50,000 hrs. (t_c/t_p = 70 °C)

Max. operating temperature

at t_c/t_p point: 85 °C

Weight: 40 g

Packaging unit: 45 pcs.



Type	Description	Ref. No.	Colour	Correlated colour temperature K	Max. power consumption W	Typ. luminous flux* lm	Typ. CRI R _a	Beam angle °	Light intensity Candela	Energy efficiency
FlatLine TW 12 V DC										
LCH-49	FlatLine TW	569401	warm white	2700	2.4	165	80	70	55	A+
			neutral white	4000		175			65	

Emission data at t_i = 80 °C | * Measurement tolerance of luminous flux: ± 5% | Further colour temperatures on request

FlatLine – 24 V DC and 12 V DC

Complete LEDSpot equipped with leads and metal frame

Technical notes

Round frame: metal, silver

For cut-out: \varnothing 56 mm

LEDSpot with 6 LEDs

Beam angle: 60°

CRI R_a : 80

With plug

Use of external LED constant-voltage converter

Snap-in clips or springs for easy installation

Degree of protection: IP20 (front part: IP44)

Allowed ambient temperature: 0 to 40 °C

Allowed storage temperature: -30 to 60 °C

Lumen maintenance L70/B50:

50,000 hrs. ($t_c/t_p = 70$ °C)

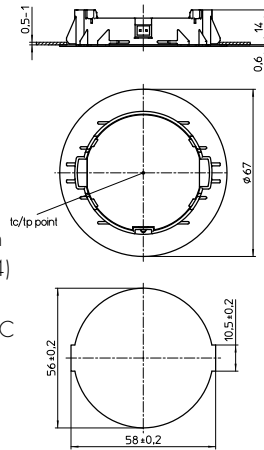
Max. operating temperature

at t_c/t_p point: 90 °C

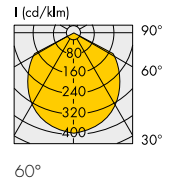
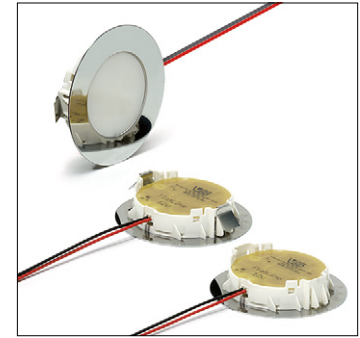
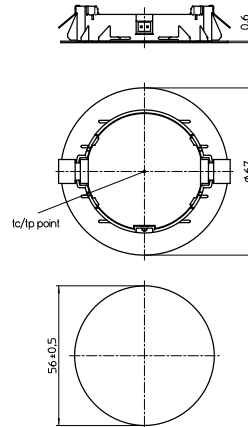
Weight: 40 g

Packaging unit: 45 pcs.

Plastic snap-in clips



Metal snap-in springs



Type	Description	Ref. No.		Colour	Correlated colour temperature K	Max. power consumption W	Typ. luminous flux* lm	Typ. CRI R_a	Beam angle °	Light intensity Candela	Energy efficiency
		with metal springs	with plastic clips								
FlatLine 24 V DC											
LCH043	Flat 2835 3000K	on request	564252	warm white	2870...3200	1.6	140	80	60	55	A++
LCH043	Flat 2835 4000K	on request	564253	neutral white	3850...4250	1.6	140	80	60	55	A++
FlatLine 12 V DC											
LCH028	Flat 2835 3000K	561588	561589	warm white	2870...3200	1.4	110	80	60	45	A++
LCH028	Flat 2835 4000K	561590	561591	neutral white	3850...4250	1.4	110	80	60	45	A++

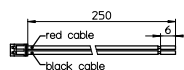
Emission data at $t_f = 80$ °C | * Measurement tolerance of luminous flux: $\pm 5\%$ | Further colour temperatures on request

Cable set

Leads: Cu tinned, stranded conductors AWG22,

PVC-insulation, lengths: 250 mm

Ref. No.: 561868



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FlatLine – 24 V DC and 12 V DC

LED converters

You will find more information about our LED converter on our website: www.vossloh-schwabe.com

Capacity range W	Mains voltage 50–60 Hz V ±10 %	Output current A	Ref. No.	Version	Max. service life time hrs.	Service life time at °C	Connection	Dimensions LxWxH mm
24 V								
20	220–240	0–0.85	186129	ComfortLine	100,000	65	Screw terminals	182x42x18
30	220–240	0–1.25	186624	EasyLine	50,000	70	Screw terminals	153x41.4x32
60	220–240	0–2.5	186625	EasyLine	50,000	75	Screw terminals	180x52x30
75	220–240	0–3.125	186626	EasyLine	50,000	80	Screw terminals	180x52x30
120	220–240	0–5	186627	EasyLine	50,000	80	Screw terminals	300x40x30
12 V								
6	220–240	0–0.5	186412	EasyLine	50,000	55	Preassembled leads	81.6x42.5x23
12	220–240	0–1	186204	ComfortLine	100,000	65	Screw terminals	103.5x36x22
20	220–240	0–1.68	186620	EasyLine	50,000	65	Screw terminals	123x45x19
60	220–240	0–5	186621	EasyLine	50,000	70 / 80	Screw terminals	180x52x30
75	220–240	0–6.25	186622	EasyLine	50,000	75	Screw terminals	180x52x30
100	220–240	0–8.4	186623	EasyLine	50,000	70 / 80	Screw terminals	300x40x30

Please ensure you choose the correct LED driver for the module in question and that the respective output parameters (current, voltage, wattage) are correct.

Surface Kit with Mounted LEDSpot

Attention: To use the surface kit for the LEDSpot FlatLine only the variant with plastic snap-in clips is suitable.

Metal frame to use LEDSpot as surface mounting spots

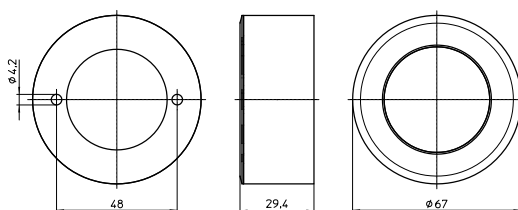
Two single pole terminals for electrical connection inside the kit (frame + spot)

Frame colour: silver

Fixation by self tapping screws

Unit: 90 pcs.

Ref. No.: 554843



Frame

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FlatLine Kit

On request, you will receive complete sets that contain the desired number of LEDSpots, a respective number of cable sets and the required LED drivers.

Contact us – we will gladly support you when it comes to dimensioning your lighting application.



Ref. No.	Sets includes	Frame*	Driver	Lead set	
	LEDSpot				
FlatLine Set – Current-driven					
561733	2 pieces FlatLine 700 mA, 3000 K, 60°, metal snap-in springs	round	silver	186348	inclusive

* Square shape or other colours on request

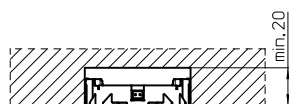
LEDSpot FlatLine – Installation Instruction

General safety information

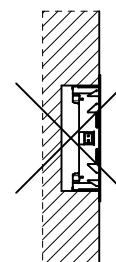
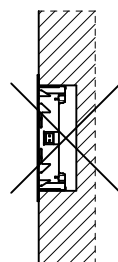
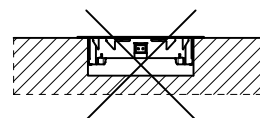
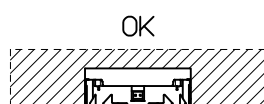
- VS product may only be installed and commissioned by authorised and fully qualified staff.
- These instructions must be carefully read before installing and commissioning the system, as this is the only way to ensure safe and correct handling.
- An external converter in 12 V DC or 24 V DC or an external constant-current driver of max. 700 mA is required.
- Before any work is carried out on the equipment, it must be disconnected from the mains.
- All valid safety and accident-prevention regulations must be observed.
- The products should never be inexpertly opened. Repairs may only be undertaken by the manufacturer.
- Dimming: The dimming characteristics of the installed converter have to be observed.
- The photo biological safety of the LED modules is classified into risk groups in accordance with EN 62471: 2008 and IEC TR 62778: risk group 1.

See drawing and cut out for each product on previous pages

Built-in



Correct position



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All VS LED Spots at a glance

Tiny

LEDSpot with optics, leads and metal frame
For cut-out: Ø 26 mm
Beam angle: 36°
Lumen output: max. 140 lm
Versions: CC, CV, Kit



StartLine

LEDSpot with optics, heat sink, leads and frame
For cut-out: Ø 56 mm
Beam angle: 30°, 36°, 38°
Lumen output: max. 250 lm
Versions: CC, CV



EffectLine

LEDSpot with optics, heat sink, leads and metal frame
For cut-out: Ø 37 mm
Beam angle: 10°, 16°, 28° or 38°
Lumen output: max. 250 lm
Versions: CC



IPLine

LEDSpot IP54 with optics, heat sink, leads and metal frame
For cut-out: Ø 56 mm
Beam angle: 40°
Lumen output: max. 330 lm
Versions: CC



FlatLine

LEDSpot with optics, leads and metal frame
For cut-out: Ø 56 mm
Beam angle: 60°, 70°
Lumen output: max. 270 lm
Versions: CC, CV, TW, Kit



DisLine

LEDSpot with optics, heat sink, leads and metal frame
For cut-out: Ø 56 mm
Beam angle: 45°, 55°
Lumen output: max. 220 lm
Versionen CC



SmartLine COB

LEDSpot with optics, heat sink, leads and metal frame
For cut-out: Ø 56 mm
Beam angle: 40°
Lumen output: max. 330 lm
Versions: CC



SoftLine

LEDSpot with heat sink, leads and metal frame
For cut-out: Ø 56 mm
Beam angle: 90°
Lumen output: max. 225 lm
Versions: CV



SmartLine SMD

LEDSpot with optics, heat sink, leads and metal frame
For cut-out: Ø 56 mm
Beam angle: 36°, 40°
Lumen output: max. 250 lm
Versions: CC, CV



Revo

LEDSpot with optics and frame
For cut-out: 67.5x25x5 mm
Beam angle: 60°, 70°
Lumen output: max. 255 lm
Versions: CC, CV, TW



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