



# Industrial Light Fittings

for harsh and arduous environment

 **COOPER** Crouse-Hinds



# INDUSTRIAL LIGHT FITTINGS

**LLK 98... 18 - 58 W**  
**for harsh and arduous environment**

The industrial light fittings of the series LLK 98 are conform to the requirements of harsh environment and heavy duty. They are designed and tested for use in harsh environment with high mechanical hazard, humidity and dust according to EN 60598 and EN 60529. Additionally these light fittings have excellent mechanical properties, a high UV-resistance and solid stability against many chemicals found in industrial plants.

They are equipped with electronic ballast (EVG) for G13 bi-pin fluorescent lamps.

The new EVG additionally fulfils the relevant requirements of "End of Life" (EOL) according the latest standards. This ensures a controlled lamp operation and a safely switch off at the end of life.

Alternative the light fittings can also be equipped with low-loss electromagnetic ballast (VVG).

The standard single-sided throughwiring architecture in conjunction with the generously large terminal compartment offers a cost efficient installation. Double-sided lock with 10, 20 or 24 latch points allows the protective bowl to be hingeable on both sides meaning the fitting can be mounted without having to pay attention to which side is the right side.



**Special versions with excellent mechanical properties and high resistance against humidity, dust and harsh environmental**

**High ingress protection IP66**

**Double-sided safety lock**

**Cost efficient installation due to single-sided through-wiring**

**With electronic ballast incl. EOL set-up, alternative with low-loss electromagnetic ballast**



2 x 18 W

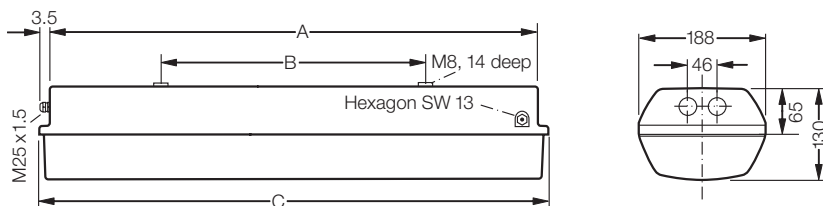
1 x 36 W

2 x 36 W

1 x 58 W

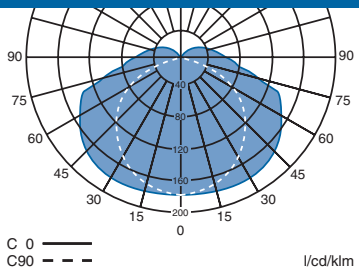
2 x 58 W

**Dimension drawing | Polar curve | Accessories**

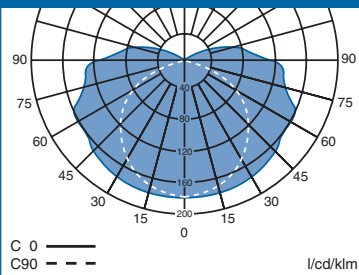


Typ	A	B	C
LLK 98018/18	732	400	760
LLK 98036 / LLK 98036/36	1332	700	1360
LLK 98058 / LLK 98058/58	1632	700	1660

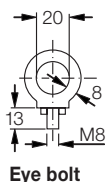
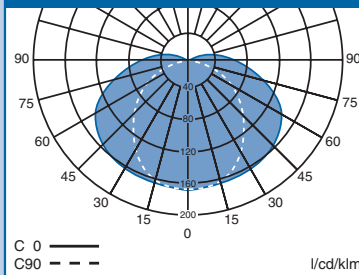
**Polar curve**  
**LLK 98018/18 / LLK 98036/36**



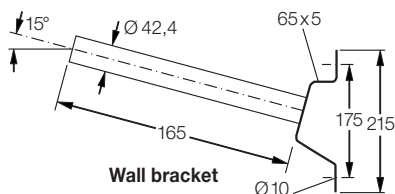
**Polar curve**  
**LLK 98036 / LLK 98058**



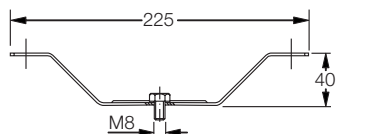
**Polar curve**  
**LLK 98058/58**



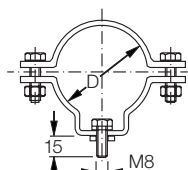
**Eye bolt**



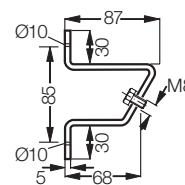
**Wall bracket**



**Ceiling mounting bracket D92**



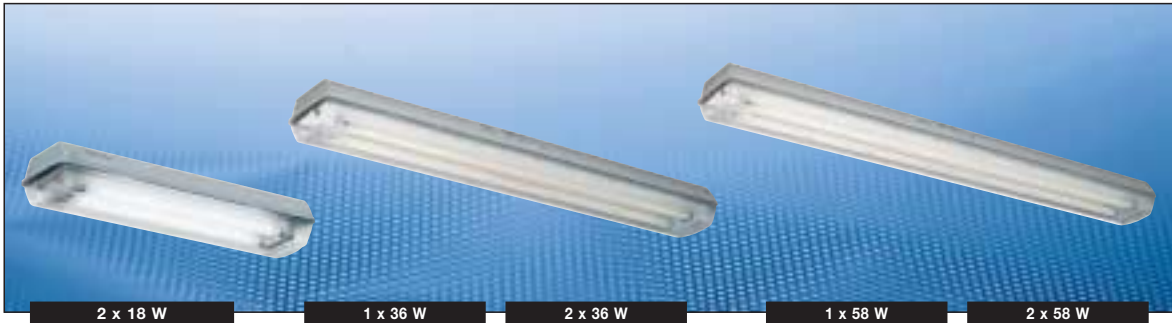
**Pipe clamp**



**Luminaire wall suspension 30°**

Dimensions in mm

**Industrial Light Fittings for harsh and arduous environment with electronic ballast**  
**LLK 98018/18 | LLK 98036 | LLK 98036/36 | LLK 98058 | LLK 98058/58**



**Technical data**

LLK 98018/18	LLK 98036	LLK 98036/36	LLK 98058	LLK 98058/58
Rated voltage	220 V - 240 V AC/DC			
Frequency	50 - 60 Hz			
Power factor $\cos \varphi$	$\geq 0.95$			
Circuit	Electronic ballast			
Permissible ambient temperature	-20 °C to +40 °C			
Connecting terminals	L1/L2/L3/L, N, PE screw-type terminals, max. 2 x 6 mm <sup>2</sup> single wire			
Insulation class	I			
Lamp cap	G13 accd. to IEC 60081			
Degree of protection accd. EN 60529	IP 66			
Cable glands/enclosure drilling	Cable glands M25 x 1.5 (plastic) for cables from $\varnothing 8 - 17$ mm Option: M20 x 1.5 metal thread			
Enclosure material	Glass-fibre reinforced polyester			
Protective cover/protective bowl	Polycarbonate			

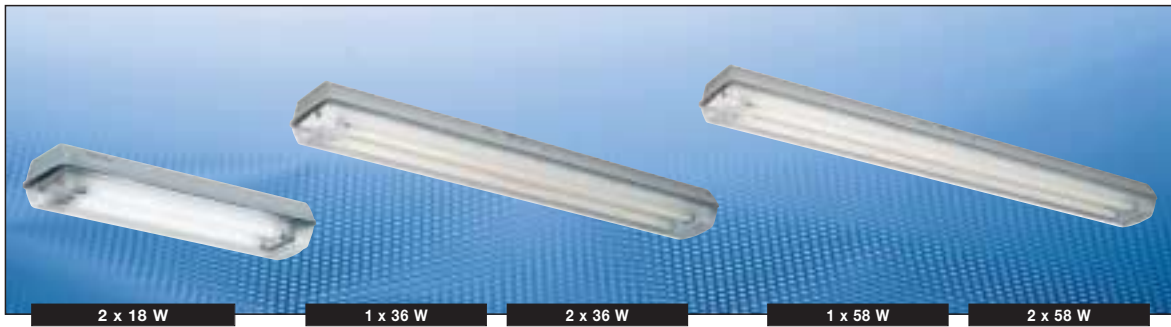
LLK 98018/18	
Rated current	0.16 A
Lamp/illuminant	2 x T26 / 18 W (T8)
Rated luminous flux <sup>1)</sup>	2700 lm
Light efficiency in operation	78 %
Dimensions (L x W x H)	862 x 280 x 120 mm
Weight	approx. 4 kg

	LLK 98036	LLK 98036/36
Rated current	0.16 A	0.31 A
Lamp/illuminant	1 x T26 / 36 W (T8)	2 x T26 / 36 W (T8)
Rated luminous flux <sup>1)</sup>	3350 lm	6700 lm
Light efficiency in operation	86 %	78 %
Dimensions (L x W x H)	1460 x 280 x 120 mm	1460 x 280 x 120 mm
Weight	approx. 6.0 kg	approx. 6 kg

	LLK 98058	LLK 98058/58
Rated current	0.25 A	0.45 A
Lamp/illuminant	1 x T26 / 58 W (T8)	2 x T26 / 58 W (T8)
Rated luminous flux <sup>1)</sup>	5200 lm	10400 lm
Light efficiency in operation	83 %	72 %
Dimensions (L x W x H)	1760 x 280 x 120 mm	1760 x 280 x 120 mm
Weight	approx. 7.3 kg	approx. 7.3 kg

<sup>1)</sup> depends on used lamps

**Industrial Light Fittings for harsh and arduous environment with electronic ballast**  
**LLK 98018/18 | LLK 98036 | LLK 98036/36 | LLK 98058 | LLK 98058/58**



### Ordering details

Type	Connecting terminals	Through-wiring		Cable glands <sup>2)</sup>	Plugs	Order No.
		single-ended	double-ended			
<b>Type LLK 98018/18 (2 x 18 W)</b>						
1/6-1M <sup>1)</sup>	1 x 6	x	–	2 x M20 x 1.5	1 x threaded	<b>1 3461 218 031</b>
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	<b>1 3461 218 023</b>
2/6-2 M <sup>1)</sup>	2 x 6	–	x	4 x M25 x 1.5	2 x threaded	<b>1 3461 218 131</b>
<b>Type LLK 98036 (1 x 36 W)</b>						
1/6-1M <sup>1)</sup>	1 x 6	x	–	2 x M20 x 1.5	1 x threaded	<b>1 3461 136 031</b>
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	<b>1 3461 136 023</b>
<b>Type LLK 98036/36 (2 x 36 W)</b>						
1/6-1M <sup>1)</sup>	1 x 6	x	–	2 x M20 x 1.5	1 x threaded	<b>1 3461 236 031</b>
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	<b>1 3461 236 023</b>
2/6-2M <sup>1)</sup>	2 x 6	–	x	4 x M25 x 1.5	2 x threaded	<b>1 3461 236 131</b>
<b>Type LLK 98058 (1 x 58 W)</b>						
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	<b>1 3461 158 023</b>
<b>Type LLK 98058/58 (2 x 58 W)</b>						
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	<b>1 3461 258 023</b>

<sup>1)</sup> M: with metal thread, without cable gland

<sup>2)</sup> With dustcover if entry/thread is not closed

**Scope of delivery without lamp and fixing accessories.**

**| Industrial Light Fittings for harsh and arduous environment with low-loss electromagnetic ballast | LLK 98018/18 | LLK 98036/36 |**



### Technical data

LLK 98018/18   LLK 98036/36	
Rated voltage	240 V AC
Frequency	50 Hz
Power factor cos φ	≥ 0.90
Circuit	low-loss electromagnetic ballast, compensated
Permissible ambient temperature	-20 °C to +40 °C
Connecting terminals	L1/L2/L3/L, N, PE screw-type terminals, max. 2 x 6 mm <sup>2</sup> single wire
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP 66
Protective cover/protective bowl	Cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm Option: for M20 x 1.5 metal thread
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonate

	LLK 98018/18	LLK 98036/36
Rated current	0.23 A	0.43 A
Lamp/illuminant	2 x T26 / 18 W (T8)	2 x T26 / 36 W (T8)
Rated luminous flux <sup>1)</sup>	2700 lm	6700 lm
Light efficiency in operation	75 %	75 %
Dimensions (L x W x H)	862 x 280 x 120 mm	1460 x 280 x 120 mm
Weight	approx. 4 kg	approx. 6 kg

<sup>1)</sup> depends on used lamps

### Ordering details

Type	Connecting terminals	Through-wiring		Cable glands <sup>2)</sup>	Plugs	Order No.
		single-ended	double-ended			
<b>Type LLK 98018/18 (2 x 18 W)</b>						
2/6-2	2 x 6	-	x	2 x M25 x 1.5	2 x threaded	<b>1 3461 218 911</b>
2/6-2 M <sup>1)</sup>	2 x 6	-	x	4 x M20 x 1.5	2 x threaded	<b>1 3461 218 931</b>
<b>Type LLK 98036/36 (2 x 36 W)</b>						
2/6-2	2 x 6	-	x	2 x M25 x 1.5	2 x threaded	<b>1 3461 236 911</b>
2/6-2 M <sup>1)</sup>	2 x 6	-	x	4 x M20 x 1.5	2 x threaded	<b>1 3461 236 931</b>

<sup>1)</sup> M: with metal thread, without cable gland

<sup>2)</sup> With dustcover if entry/thread is not closed

**Scope of delivery without lamp and fixing accessoires**



## Accessories

### Lamp for luminaire LLK98

Type of lamp socket/ Diameter	Power	Luminous flux <sup>1)</sup> Light colour	Order No.
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 22/20 Bi-pin socket G13	18 W	1350 lm universal white	<b>3 2475 900 081</b>
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 24/20 Bi-pin socket G13	36 W	3350 lm universal white	<b>3 2475 900 082</b>
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 21/22 Bi-pin G13	58 W	5200 lm universal white	<b>3 2475 900 083</b>
T26/Ø 26 mm (T8) Longlife Socket G13	18 W	1300 lm universal white	<b>3 2475 900 087</b>
Aura-Ultimate	36 W	3350 lm universal white	<b>3 2475 900 088</b>
	58 W	5200 lm universal white	<b>on request</b>

### Serie LLK 98

Type	Order No.
Hexagon screw SW 13	<b>3 2485 000 005</b>

### Fixing materials LLK 98

Type/ Code	Corrosion protection	Qty. per light fitting	Order No.
Eye bolt A2	galvanized	2	<b>2 2480 002 000</b>
Hexagon screw S4	stainless steel	2	<b>2 2480 054 000</b>
Ceiling mounting bracket D92 incl. screws and washer	stainless steel	2	<b>2 2480 092 000</b>

### Fixing materials LLK 98

Type/ Code	Corrosion protection	for pipes DIN	Outer Ø D (mm)	Qty. per light fitting	Order No.
Pipe clamp					
R12	hot galvanized	1 1/4"	38 - 42	2	<b>2 2480 462 000</b>
R14	CrNi	1 1/4"	38 - 42	2	<b>2 2480 464 000</b>
R22	hot galvanized	1 1/2"	47 - 51	2	<b>2 2480 472 000</b>
R24	CrNi	1 1/2"	47 - 51	2	<b>2 2480 474 000</b>
R32	hot galvanized	2"	56 - 60	2	<b>2 2480 482 000</b>
R34	CrNi	2"	56 - 60	2	<b>2 2480 484 000</b>
Wall bracket W27	hot galvanized		42,4	1	<b>2 2483 027 000</b>
Luminaire wall suspension 30° incl. screws and washer	hot galvanized			2	<b>2 2480 000 122</b>

<sup>1)</sup> depends on used lamps

**Cooper Crouse-Hinds GmbH**

Neuer Weg – Nord 49  
D-69412 Eberbach  
Phone +49 (0) 6271/806-500  
Fax +49 (0) 6271/806-476  
Internet [www.ceag.de](http://www.ceag.de)  
e-mail [info-ex@ceag.de](mailto:info-ex@ceag.de)

**Cooper Crouse-Hinds (UK) Ltd.**

Unit G, Quinn Close  
Seven Stars Industrial Estate  
Whitley  
GB - Coventry CV 3 4LH  
Phone +44 247-630-89 30  
Fax +44 247-630-10 27  
e-mail [sales@ceag-crouse-hinds.co.uk](mailto:sales@ceag-crouse-hinds.co.uk)

**Cooper Crouse-Hinds S.A.**

Avda. Santa Eulalia, 290  
E - 08223 Terrassa  
Barcelona  
Phone +34 (0) 9-37362710  
Fax +34 (0) 9-37835055

**Cooper Crouse-Hinds B. V.**

Sydneystraat 74  
NL - 3047 BP Rotterdam  
Phone +31 (0) 10-2452145  
Fax +31 (0) 10-2452121  
e-mail [mail@ceag.nl](mailto:mail@ceag.nl)

**COOPER Industries Crouse-Hinds Division**

Wolf 7th North Streets  
P. O. Box 4999  
USA - Syracuse, NY 13221  
Phone +1 (0) 3-154777000  
Fax +1 (0) 3-154775717  
e-mail [crouse.customerctr@crouse-hinds.com](mailto:crouse.customerctr@crouse-hinds.com)  
Internet [www.crouse-hinds.com](http://www.crouse-hinds.com)

**Cooper Crouse-Hinds Norge A/S**

Husebysletta 9  
N - 3412-Lierstranda  
Phone +47 32-244600  
Fax +47 32-244646  
e-mail [info@ceag.no](mailto:info@ceag.no)

**Cooper Crouse-Hinds LLC**

Office No. M1  
Sultan Hareeb Building  
P.O. Box 30861  
UAE Al Jadaf, Dubai  
Phone +971-4-3241519  
Fax +971-4-3241640  
e-mail [rfq@ceagme.ae](mailto:rfq@ceagme.ae)

**Branches of Cooper Crouse-Hinds Pte Ltd.**

28 Floor Yu An Building  
738 Dong Fang Road  
Pudong Shanghai 200122, P.R. China  
Phone +86 (0) 21-5831 6805  
Fax +86 (0) 21-5831 6762  
e-mail [sales@cchspore.com.sg](mailto:sales@cchspore.com.sg)

**Cooper Crouse-Hinds Pte. Ltd.**

2 Serangoon North Avenue 5  
Fu Yu Building #06-01  
SGP - 554911 Singapore  
Phone +65 (0) 6297-4849  
Fax +65 (0) 6297-4819  
e-mail [sales@cchspore.com.sg](mailto:sales@cchspore.com.sg)  
Internet [www.cchspore.com.sg/](http://www.cchspore.com.sg/)

©2008 Cooper Crouse-Hinds GmbH

Cooper Industries, Ltd.  
600 Travis, Ste. 5800  
Houston, TX 77002-1001  
P: 713-209-8400  
Internet [www.cooperindustries.com](http://www.cooperindustries.com)