

LOOK FOR CLOSETS 2022



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LOOX LED Illumination



A closet project, whether a simple reach-in or a luxurious walk-in, is not complete without well-integrated illumination. It adds a crucial functional design element, one which transforms the look of your space.

HÄFELE'S LOOX5 LED LIGHTING is the industry's premier option for closet and organizational illumination.

THE COUTURE CLOSET
Photographer: Dan Plassick

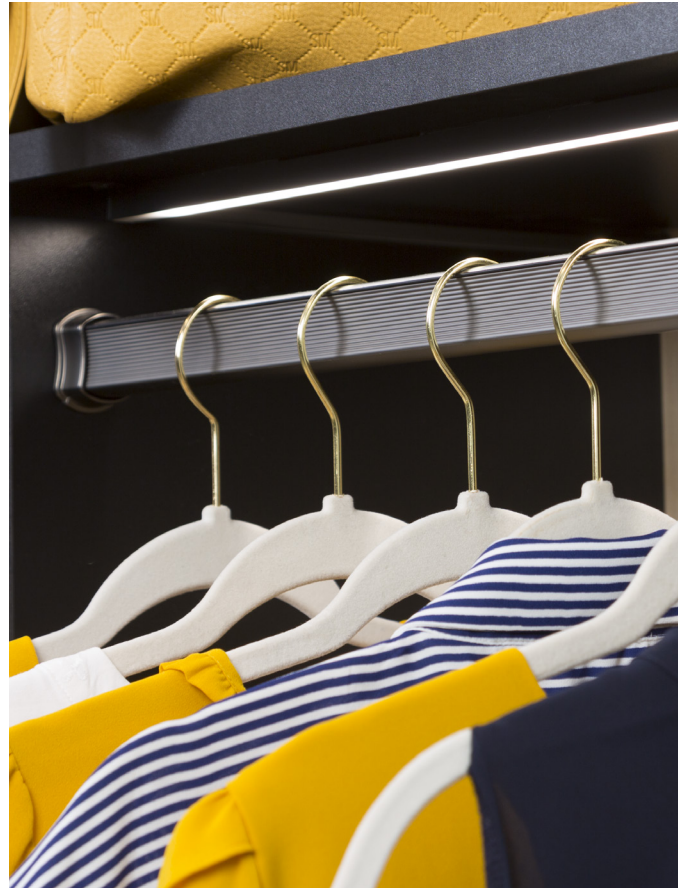
Fixtures

UP LIGHTING. STRIP LIGHTING. PUCK LIGHTS. ILLUMINATED SHELVES. LIGHTED WARDROBE TUBES. Wherever you'd like to cast light within the closet space, Häfele's Loox5 LED lighting provides easy and adaptable solutions.

LIGHTED WARDROBE TUBES



STRIP LIGHTING



PUCK LIGHTS



ILLUMINATED SHELVES



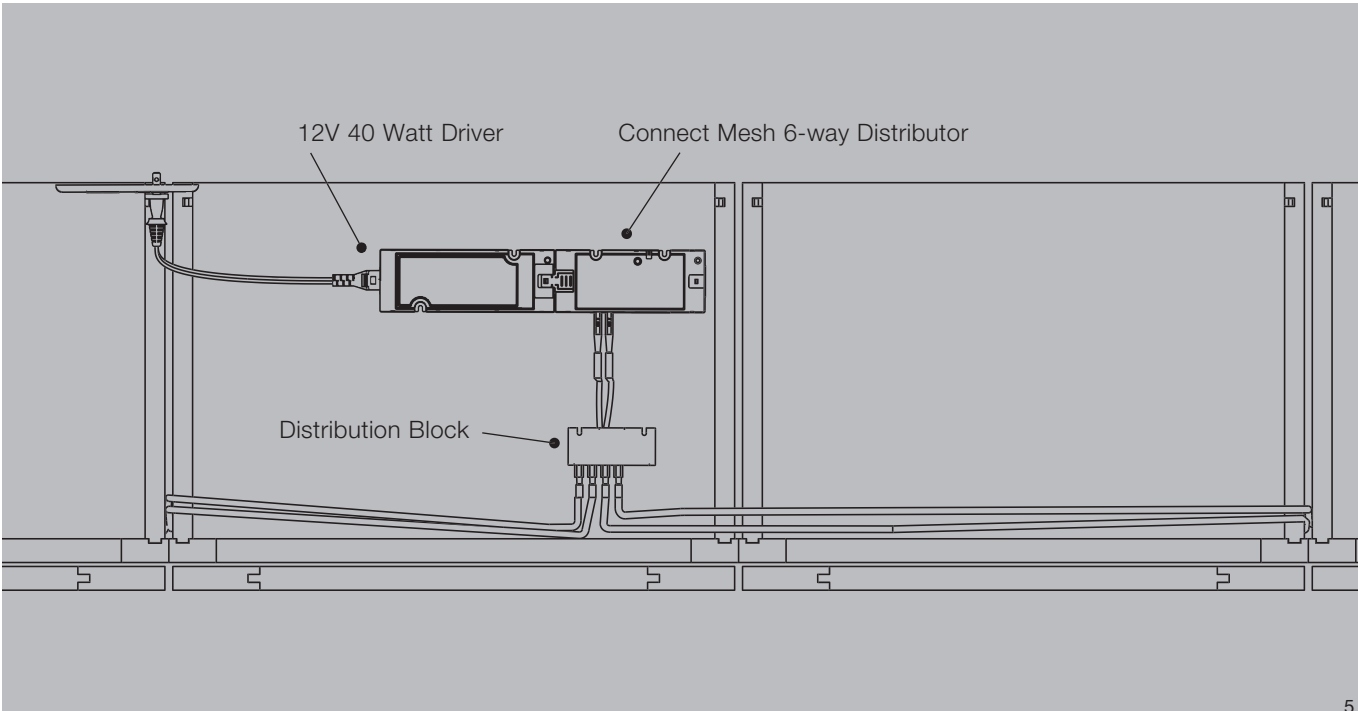
Switching

Some prefer to flip a standard wall switch. Others might prefer lights which turn on whenever they enter the space or open a door. Then there are also the users who prefer to create pre-set scenes. Whatever your switching preference, Häfele's Loox5 LED lighting can provide the solution – our broad range of switching options lead the industry.

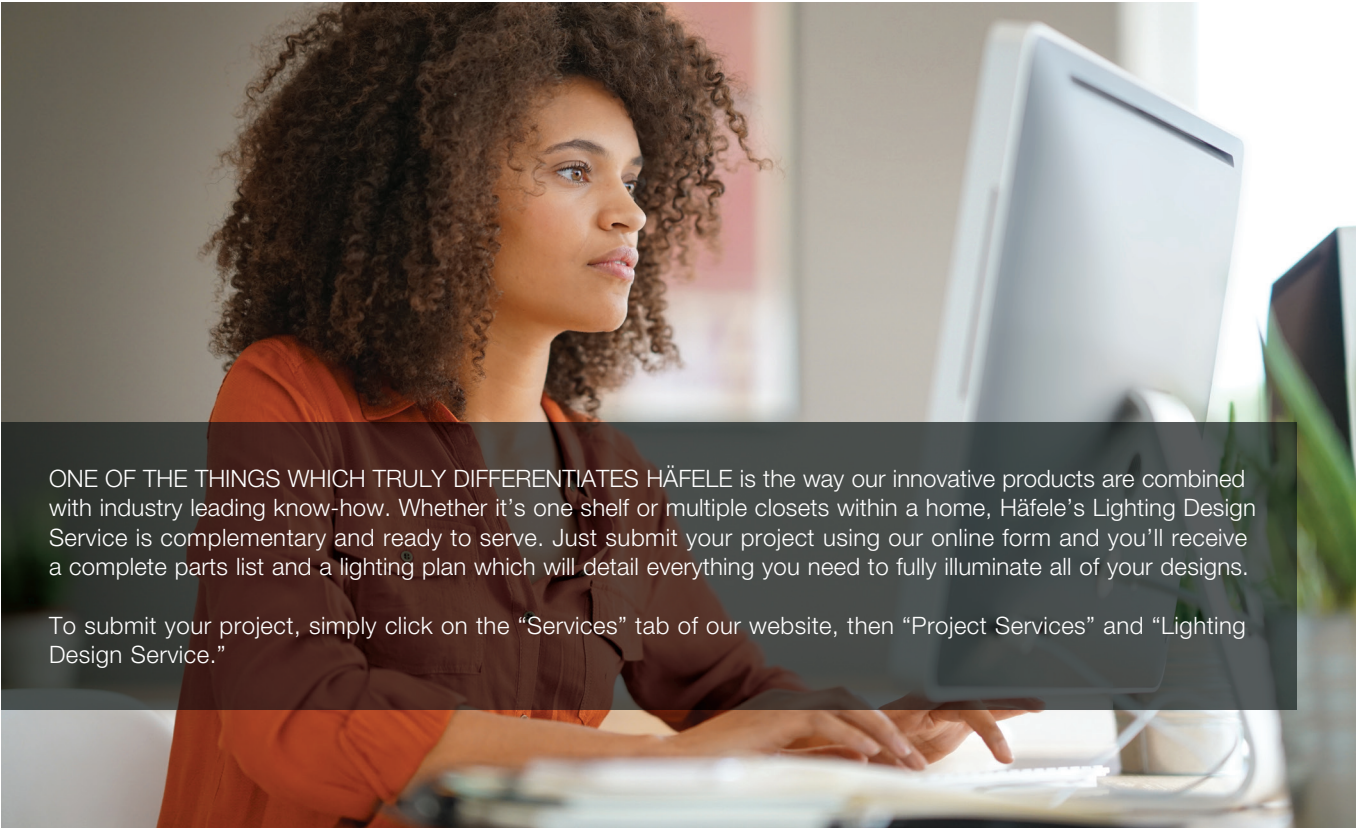


Ease of installation

All you need is a receptacle. Häfele's Loox5 LED lighting is most commonly installed as a "plug and play" system with standard electrical outlets – normally installed above storage space, allowing for easy wire management and bringing power to every part of your closet and storage solutions.

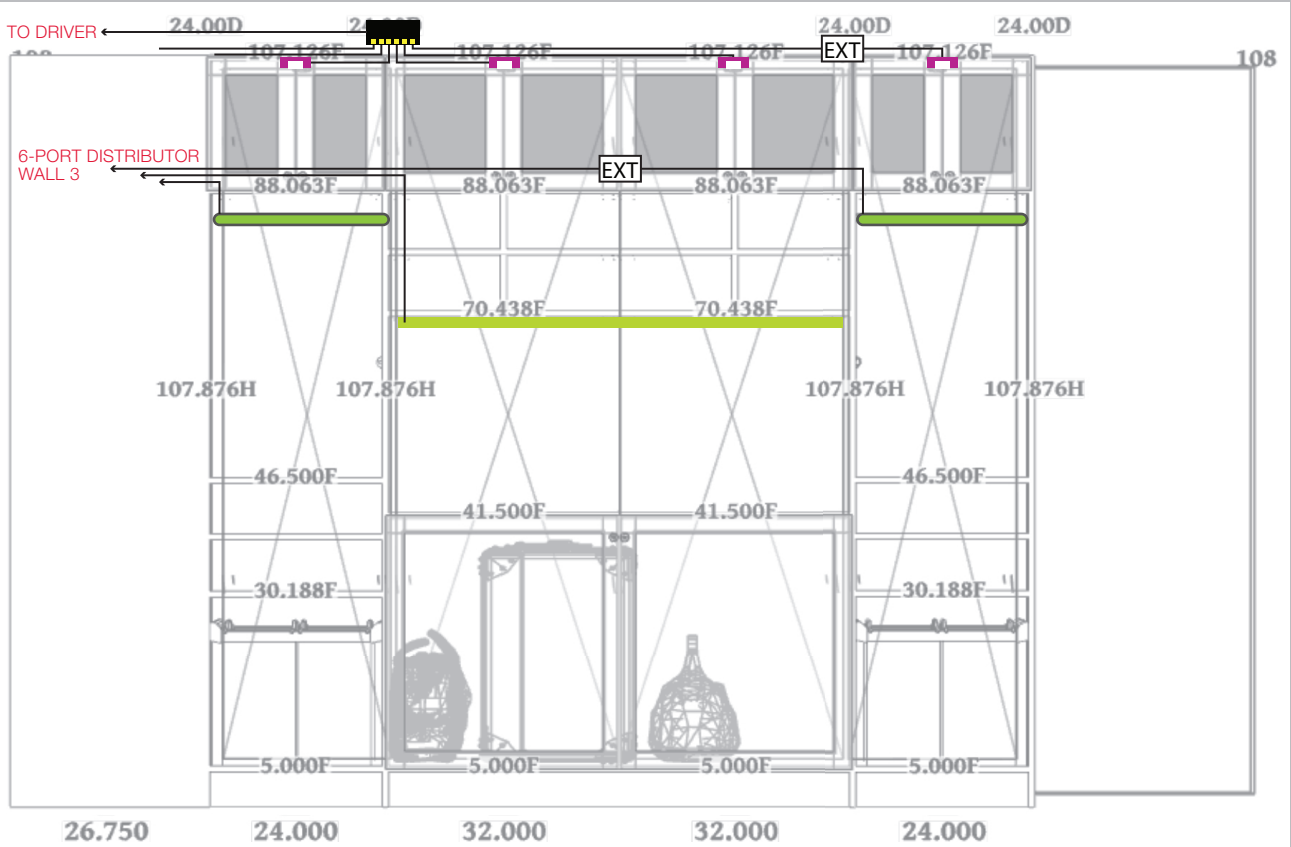


We're here to help



ONE OF THE THINGS WHICH TRULY DIFFERENTIATES HÄFELE is the way our innovative products are combined with industry leading know-how. Whether it's one shelf or multiple closets within a home, Häfele's Lighting Design Service is complementary and ready to serve. Just submit your project using our online form and you'll receive a complete parts list and a lighting plan which will detail everything you need to fully illuminate all of your designs.

To submit your project, simply click on the "Services" tab of our website, then "Project Services" and "Lighting Design Service."



Linear light



Task light: Illuminate work spaces with > 500 lx at a distance of 500 mm (19 11/16")

					Illuminance max. at a distance of 500 mm (19 11/16") lx	
LED 2061	12V	5 mm (3/16")	9.6 W/m	860	> Page 8	
LED 2068	12V	8 mm (5/16")	9.6 W/m	955	> Page 10	



Ambient light: 150–500 lx at a distance of 500 mm (19 11/16")

					Illuminance max. at a distance of 500 mm (19 11/16") lx	
LED 2060	12V	5 mm (3/16")	4.8 W/m	430	> Page 8	
LED 2065	12V	8 mm (5/16")	4.8 W/m	470	> Page 10	
LED 2063	12V	Silicone	8 mm (5/16")	4.8 W/m	425	> Page 12



LED strip lights

Monochrome, 5 mm (3/16")

0 100%

Häfele Loox5 LED 2060/2061



LED 2060/2061

EXTRA
NARROW
5 mm
(3/16")

Illuminance value in lx applies to 1 m (39 3/8")
strip length:

3000 K		4000 K		120°	
970 lx	1000 lx			250 mm	(9 13/16")
420 lx	430 lx			500 mm	(19 11/16")
235 lx	240 lx			750 mm	(29 1/2")
145 lx	145 lx			1000 mm	(39 3/8")

LED 2060

3000 K		4000 K		120°	
1960 lx	2000 lx			250 mm	(9 13/16")
850 lx	860 lx			500 mm	(19 11/16")
470 lx	480 lx			750 mm	(29 1/2")
290 lx	290 lx			1000 mm	(39 3/8")

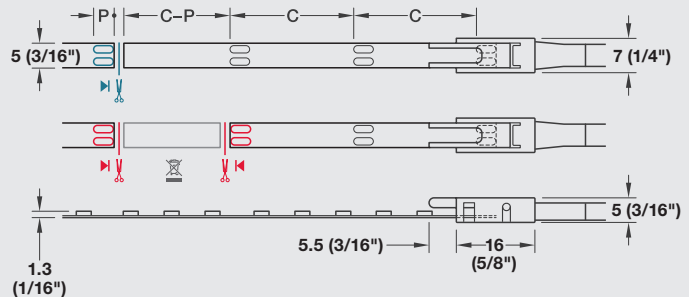
LED 2061

Equipped with high-quality Samsung® LEDs

- > Dimmable: Yes
- > Material: Plastic
- > Color: White
- > Width: 5 mm (3/16")
- > Height: 1.3 mm (1/16")
- > Life time L80/B10: >50,000 h
- > Energy efficiency class: A+
- > Degree of protection: IP20
- > Mounting: Self-adhesive
- > Supplied with: 1 roll

Order reference:
Please order lead separately.

Aluminum profile recommended from 9.6 W/m.



Cut LED strip light to length
(one contact side remains on the remainder piece; reusable)

Connect LED strip lights
(two contact sides required)

C = section length
P = length of contact surface

Loox 12 V drivers see pages 52–53

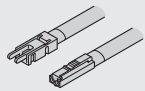
LED strip lights

Monochrome, 5 mm (3/16")

Häfele Loox5 LED 2060 / 2061

Voltage V	Quantity LEDs/m	Color temperature K	Wattage W/m	Luminous flux lm/m	Luminous efficacy lm/W	Color rendering index CRI		Weighted energy consumpt. kWh/1000 h	Section length C	Length of contact surface P	Max. strip length (visual)	Available length	
						R _a	R ₉					5 m (196 7/8")	15 m (590 9/16")
5 12V	LED 2060		*	*									
	120	3000	4.8	460	96	>90	>50	5.28	25 (1")	3 (1/8")	4.0 (157 1/2")	833.74.321	833.74.325
		4000	4.8	480	100	>90	>50	5.28	25 (1")	3 (1/8")	4.0 (157 1/2")	833.74.322	833.74.326
	LED 2061												
	120	3000	9.6	830	97	>90	>50	10.56	25 (1")	3 (1/8")	3.0 (118 1/8")	833.74.329	833.74.333
		4000	9.6	955	99	>90	>50	10.56	25 (1")	3 (1/8")	3.0 (118 1/8")	833.74.330	833.74.334

! Maximum visual strip length applies for an imperceptible drop in luminous flux of max. 30%.



> 3.5 A/20 AWG lead for 5 mm (3/16") LED strip light

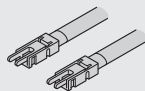
Length	Item No.
100 (4")	833.93.740
2000 (78 3/4")	833.95.705



> 3.5 A Clip connector for 5 mm (3/16") LED strip light

> Supplied with: 10 pcs.

Item No.
833.89.207



> 3.5 A/20 AWG interconnecting lead for 5 mm (3/16") LED strip light

Length	Item No.
50 (2")	833.89.194
500 (19 11/16")	833.89.195
2000 (78 3/4")	833.89.196



> 3.5 A Corner connector, 90° rigid, left or right, for 5 mm (3/16") LED strip light

> Supplied with: 10 pcs.

Item No.
833.89.190

LED strip lights

Monochrome, 8 mm (5/16")



Häfele Loox5 LED 2065/2068



LED 2065/2068

Equipped with high-quality Samsung® LEDs

> Dimmable:	Yes
> Material:	Plastic
> Color:	White
> Width:	8 mm (5/16")
> Height:	1.3 mm (1/16")
> Life time L80/B10:	>50,000 h
> Energy efficiency class:	A+
> Degree of protection:	IP20
> Mounting:	Self-adhesive
> Supplied with:	1 roll

Illuminance value in lx applies to 1 m (39 3/8") strip length:

3000 K	4000 K	120°	
1090 lx	1120 lx		250 mm (9 13/16")
455 lx	460 lx		500 mm (19 11/16")
245 lx	260 lx		750 mm (29 1/2")
150 lx	155 lx		1000 mm (39 3/8")

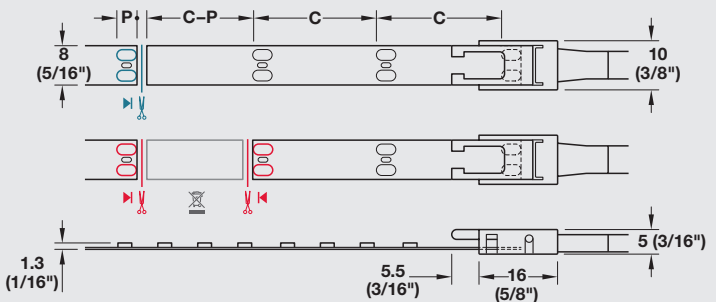
LED 2065

3000 K	4000 K	120°	
2250 lx	2300 lx		250 mm (9 13/16")
940 lx	950 lx		500 mm (19 11/16")
505 lx	510 lx		750 mm (29 1/2")
310 lx	320 lx		1000 mm (39 3/8")

LED 2068

! Order reference:
Please order lead separately.

➔ Aluminum profile recommended from 9.6 W/m.



Cut LED strip light to length
(one contact side remains on the remainder piece; reusable)

Connect LED strip lights
(two contact sides required)

C = section length
P = length of contact surface

⚡ Loox 12 V drivers see pages 52–53

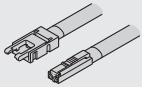
LED strip lights

Monochrome, 8 mm (5/16")



Häfele Loox5 LED 2065 / 2068

Voltage V	Quantity LEDs/m	Color temperature K	Wattage W/m	Luminous flux lm/m	Luminous efficacy lm/W	Color rendering index CRI		Weighted energy consumpt. kWh/ 1000 h	Section length C	Length of contact surface P	Max. strip length (visual)	Available length		
						R _a	R ₉					5 m (196 7/8")	50 m (1968 1/2")	
5 12V	LED 2065													
				*	*									
	120	3000	4.8	465	97	>90	>50	5.28	25 (1")	4 (3/16")	6.0 (236 1/4")	833.74.355	833.74.359	
		4000	4.8	490	102	>90	>50	5.28	25 (1")	4 (3/16")	6.0 (236 1/4")	833.74.356	833.74.360	
	LED 2068													
	120	3000	9.6	970	101	>90	>50	10.56	25 (1")	4 (3/16")	4.0 (157 1/2")	833.74.363	833.74.367	
	4000	9.6	1000	104	>90	>50	10.56	25 (1")	4 (3/16")	4.0 (157 1/2")	833.74.364	833.74.368		



> 5 A/18 AWG lead
for 8 mm (5/16") LED strip light

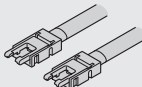
Length	Item No.
100 (4")	833.93.736
500 (19 11/16")	833.95.701
2000 (78 3/4")	833.95.700



> 5 A Clip connector
for 8 mm (5/16") LED strip light

> Supplied with: 10 pcs.

Item No.
833.89.206



> 5 A/18 AWG interconnecting lead
for 8 mm (5/16") LED strip light

Length	Item No.
50 (2")	833.89.191
500 (19 11/16")	833.89.192
2000 (78 3/4")	833.89.193



> 5 A Corner connector, 90° rigid,
left or right, for 8 mm (5/16") LED strip light

> Supplied with: 10 pcs.

Item No.
833.89.187

LED silicone strip lights

Monochrome, 8 mm (5/16")



Häfele Loox5 LED 2063



Equipped with high-quality Samsung® LEDs

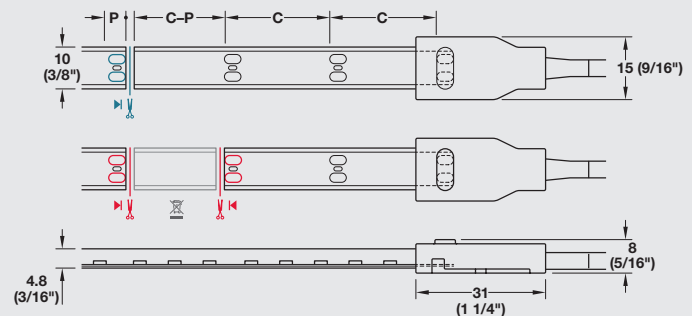
- > Dimmable: Yes
- > Material: Plastic
- > Color: White
- > Width: Strip: 8 mm (5/16")
Silicone sleeve: 10 mm (3/8")
- > Height: Strip: 1.3 mm (1/16")
Silicone sleeve: 4.8 mm (3/16")
- > Life time L80/B10: >50,000 h
- > Energy efficiency class: A+
- > Degree of protection: IP44 / IP20 optional
- > Mounting: Self-adhesive
- > Supplied with: 1 roll

Illuminance value in lx applies to 1 m (39 3/8") strip length:

3000 K		4000 K		120°	
960 lx	975 lx			250 mm	(9 13/16")
410 lx	415 lx			500 mm	(19 11/16")
225 lx	230 lx			750 mm	(29 1/2")
140 lx	145 lx			1000 mm	(39 3/8")

LED 2063

- ! Order reference:
Please order lead separately.



- Cut LED strip light to length
(one contact side remains on the remainder piece; reusable)
- Connect LED strip lights
(two contact sides required)

C = section length

P = length of contact surface

- ! Loox 12 V drivers see pages 52–53

! Minimal color deviations due to silicone sleeve:

Color temperature of the LED	Color deviation
3000 K	-40 K
4000 K	-50 K

LED silicone strip lights

Monochrome, 8 mm (5/16")



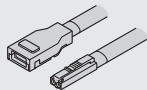
Häfele Loox5 LED 2063

Voltage V	Quantity LEDs/m	Color temperature K	Wattage W/m	Luminous flux lm/m	Luminous efficacy lm/W	Color rendering index CRI		Weighted energy consumpt. kWh/1000 h	Section length C	Length of contact surface P	Max. strip length (visual)	Available length	
						R _a	R ₉					5 m (196 7/8")	15 m (590 9/16")
5 ¹² V	LED 2063		*	*									
	60	3000	4.8	440	92	>90	>50	5.28	50 (2")	4 (3/16")	6.0 (236 1/4")	833.74.345	833.74.349
		4000	4.8	455	95	>90	>50	5.28	50 (2")	4 (3/16")	6.0 (236 1/4")	833.74.346	833.74.350

! Maximum visual strip length applies for an imperceptible drop in luminous flux of max. 30%.



Degree of protection IP44



> 5 A/18 AWG lead for 8 mm (5/16") LED silicone strip light

Length	Item No.
2000 (78 3/4")	833.95.703

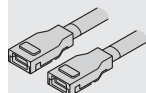


> End cap set with 5 ml adhesive for 8 mm (5/16") LED silicone strip light
> For sealing the shortened silicone sleeve; achieves degree of protection IP44

Item No.
833.89.184

Supplied with

5 pcs. with 5 ml adhesive



> 5 A/18 AWG interconnecting lead for 8 mm (5/16") LED silicone strip light

Length	Item No.
50 (2")	833.89.203
500 (19 11/16")	833.89.204
2000 (78 3/4")	833.89.205

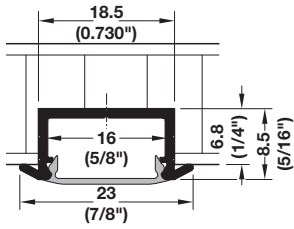


> Silicone stripping tool, required

Item No.
006.13.485

Profiles for recess and surface mounting

Häfele Loox profile 1190 - for recess mounting



End cap

- > Material: Aluminum
- > Finish: Silver colored anodized
- > L x W: 2500 x 18 mm (98 7/16" x 11/16")
- > Height: 8.5 mm (5/16")
- > Supplied with: 1 profile, 1 diffuser

Cover	Item No.
Milk	833.72.864
Frosted	833.72.865

! LED points are always visible when this profile is used

+ End cap with cable outlet for 833.72.864 and 833.72.865

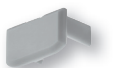
- > Material/Finish: Plastic, silver colored
- > Supplied with: 2 pcs.

Item No.
833.72.855

Häfele Loox profile 2190 - for shallow surface mounting with flat lens 10.3 mm (3/8")



Mounting clip



End cap

- > Material/Finish: Aluminum, clear anodized
- > Cover: Milk
- > L x W: 2500 x 18.5 mm (98 7/16" x 3/4")

Item No.
833.71.852

+ Mounting clip, optional

- > Material/Finish: Stainless Steel, silver colored
- > Supplied with: 2 pcs.

Item No.
833.74.832

+ Flat lens cover

- > Material/Cover: Polycarbonate, milk
- > L x W x H: 2500 x 18.5 x 3.9 mm (98 7/16" x 3/4" x 1/8")

Item No.
833.74.783

+ End cap

- > Material/Finish: Plastic, silver colored
- > Supplied with: 2 pcs.

Item No.
833.72.852

Profiles for recess mounting

ILLUMINATING



EXTENDING



SWITCHING



NETWORKING



DISTRIBUTING



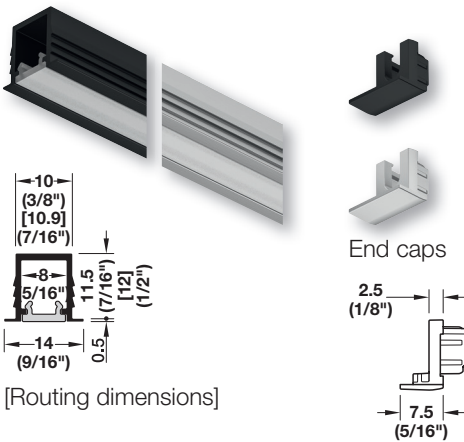
SUPPLYING



Häfele Loox5 profile 1104/1103

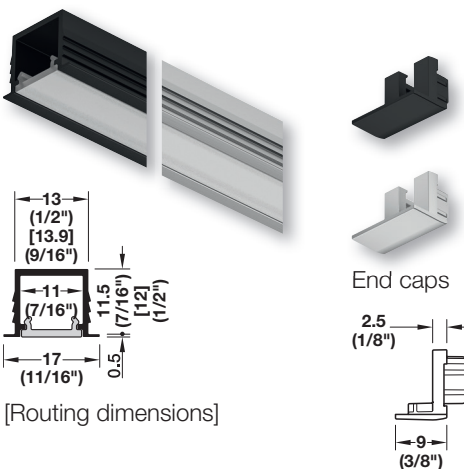


Profile 1104



[Routing dimensions]

Profile 1103



[Routing dimensions]

- > Material: Profile: Aluminum, anodized
Diffuser: Plastic
- > Color: Diffuser: White opal, transmittance 70–80%
- > Length: 2236 mm (92")
- > Diffuser width: Profile 1104: 8 mm (5/16")
Profile 1103: 11 mm (7/16")
- > Supplied with: 1 profile
1 diffuser

Finish	1104	1103
Black	833.94.203	833.94.201
Silver colored	833.94.202	833.94.200

Note
Profile 1104 is usable for LED strip lights up to max. 5 mm (3/16") width.
Routing dimensions are for reference only. Furniture construction may affect dimensions.

End caps for Häfele Loox5 profile 1104/1103

- > Material: Plastic
- > Version: With cable outlet
- > Supplied with: 10 pcs.

Color	1104	1103
Black	833.95.769	833.95.767
Silver colored	833.95.768	833.95.766

Diffusers
The diffuser creates a uniform light.
The LED points are invisible from 120 LEDs/m.
If required, please order alternative diffusers in black or transparent separately.

➔ Diffusers see page 24

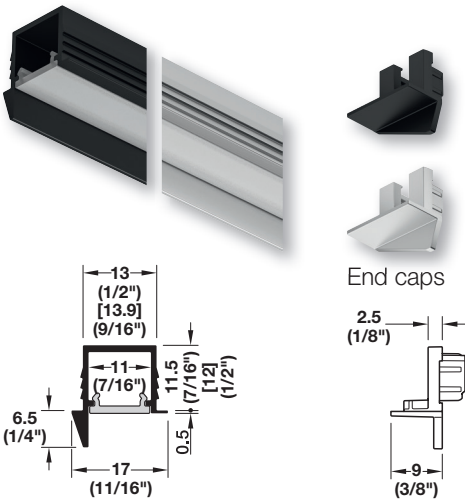
Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Profiles for recess mounting

Häfele Loox5 profile 1105 - asymmetric light distribution



Profile 1105



[Routing dimensions]

Anti-glare shield

Asymmetric light distribution allows for a glare-free light source.

- > Material: Profile: Aluminum, anodized
Diffuser: Plastic
- > Color: Diffuser: White opal, transmittance 70–80%
- > Length: 2236 mm (92")
- > Diffuser width: 11 mm (7/16")
- > Supplied with: 1 profile
1 diffuser

Finish	Item No.
Black	833.94.205
Silver colored	833.94.204

End caps for Häfele Loox5 profile 1105

- > Material: Plastic
- > Version: With cable outlet
- > Supplied with: 10 pcs.

Color	Item No.
Black	833.95.771
Silver colored	833.95.770

Diffusers

The diffuser creates a uniform light.
The LED points are invisible from 120 LEDs/m.
If required, please order alternative diffusers in black or transparent separately.

➔ Diffusers see page 24

Note

Routing dimensions are for reference only. Furniture construction may affect dimensions.

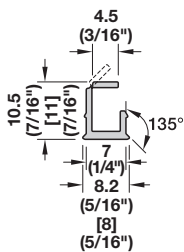
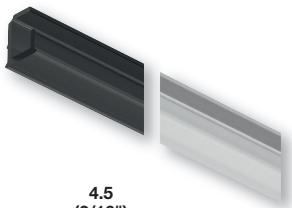
One-piece profiles for recess mounting



Häfele Loox5 profile 1102/1101

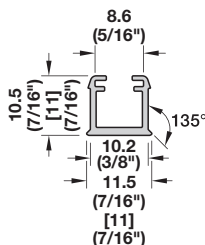
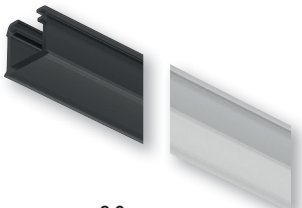


Profile 1102



[Routing dimensions]

Profile 1101



[Routing dimensions]

- > Material: Plastic
- > Length: 2500 mm (98 7/16")
- > Supplied with: 1 profile

Color	Transmittance	1102	1101
Black	~20 %	833.95.803	833.95.801
White opal	70–80 %	833.95.802	833.95.800



Note

Profile 1102 and 1101 are usable for LED strip lights up to max 9.6 W/m.

Profile 1102 is usable for LED strip lights up to max. 5 mm (3/16") width.

Profile 1101 is usable only for LED strip lights with a width of precisely 8 mm (5/16").

The diffuser creates a uniform light. The LED points in the white version are invisible from 120 LEDs/m.

Routing dimensions are for reference only. Furniture construction may affect dimensions.



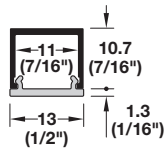
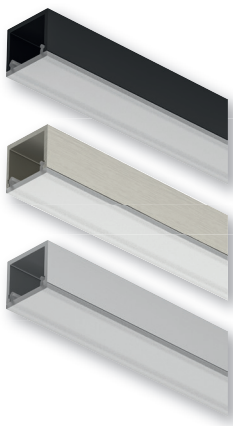
Diffusers see page 24

Profiles for surface mounting

Häfele Loox5 profile 2101 / 2102



Profile 2101

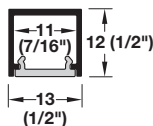


Surface mounted
diffuser

- > Material: Profile: Aluminum, anodized
Diffuser: Plastic
- > Color: Diffuser: White opal,
transmittance 70–80%
- > Length: 2236 mm (92")
- > Diffuser width: Profile 2101: 13 mm (1/2")
Profile 2102: 11 mm (7/16")
- > Supplied with: 1 profile
1 diffuser

Finish	2101	2102
Black	833.94.211	833.94.214
Brushed stainless steel colored	833.94.212	833.94.215
Silver colored	833.94.210	833.94.213

Profile 2102



Flush recess mounted
diffuser



Diffusers

The diffuser creates a uniform light.
The LED points are invisible from 120 LEDs/m.
If required, please order alternative diffusers in black or transparent (only for 2102) separately.

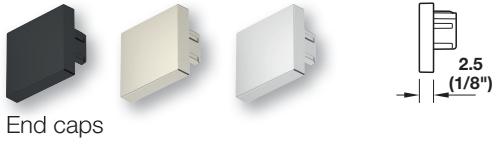


Diffusers see page 24

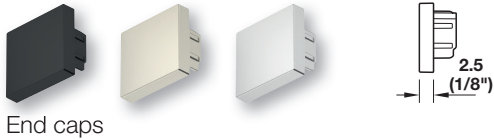
Profiles for surface mounting

Häfele Loox5 profile 2101/2102

Profile 2101



Profile 2102



End caps for Häfele Loox5 profile 2101/2102

- > Material: Plastic
- > Version: With drill mark for cable outlet
- > Supplied with: 10 pcs.

Color	End cap 2101	End cap 2102
Black	833.95.775	833.95.778
Brushed stainless steel colored	833.95.776	833.95.779
Silver colored	833.95.774	833.95.777

Adhesive tape - for profile 2101/2102



- > Area of application: For fixing aluminum on wood, metal, or plastic
- > Version: Double-sided, high instant adhesion, high temperature resistance
- > Length: 33 m (108' 3 3/16")
- > Width: 10 mm (3/8")
- > Thickness: 0.6 mm (1/32")

	Item No.
	833.89.266



Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Profiles for surface mounting

Häfele Loox5 profile 2103/2104 - with concealed fixing



Profile 2103



- > Material: Profile: Aluminum, anodized
Diffuser: Plastic
- > Color: Diffuser: White opal, transmittance 70–80%
- > Length: 2236 mm (92")
- > Diffuser width: 11 mm (7/16")
- > Supplied with: 1 profile
1 diffuser

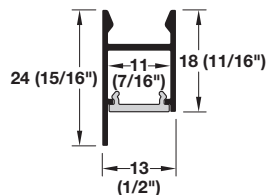
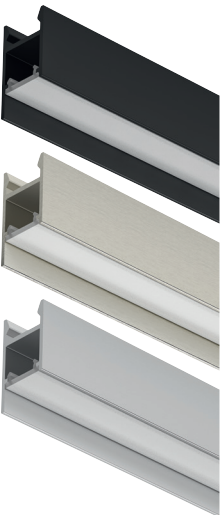
Finish	2103	2104
Black	833.94.217	833.94.220
Brushed stainless steel colored	833.94.218	833.94.221
Silver colored	833.94.216	833.94.219

- ! **Order reference**
Please order (required) mounting bracket separately, see page 21.

- ! **Diffusers**
The diffuser creates a uniform light.
The LED points are invisible from 120 LEDs/m.
If required, please order alternative diffusers in black or transparent separately.

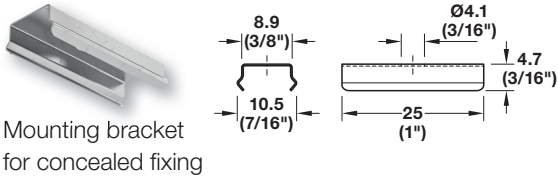
- ➔ Diffusers see page 24

Profile 2104, with asymmetric light distribution



Profiles for surface mounting

Häfele Loox5 profile 2103/2104 - with concealed fixing



Mounting bracket for concealed fixing

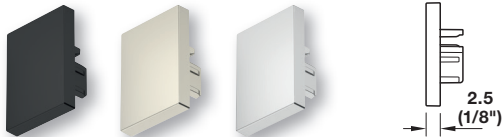


Mounting bracket

- > Material: Stainless Steel
- > Mounting: For screw fixing
- > Supplied with: 10 pcs.

	Item No.
	833.95.761

Profile 2103



End caps

End caps for Häfele Loox5 profile 2103/2104

- > Material: Plastic
- > Version: With drill mark for cable outlet
- > Supplied with: 10 pcs.

Color	2103	2104
Black	833.95.781	833.95.784
Brushed stainless steel colored	833.95.782	833.95.785
Silver colored	833.95.780	833.95.783

Profile 2104



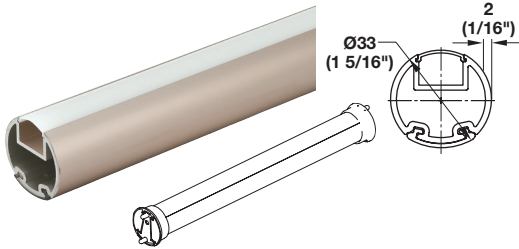
End caps



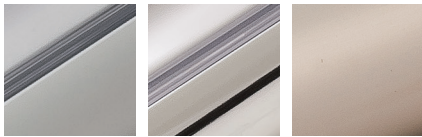
Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Elite wardrobe tube profiles

Wardrobe tube



- > Material/Finish: Aluminum, anodized
- > Insert: Plastic
- > Supplied with: 1 pc. with milk lens



matt aluminum polished chrome matt nickel



black matt gold slate

Length	Finish/insert	Item No.
2438 (8')	Matt aluminum/clear	830.28.700
2438 (8')	Matt nickel/clear	830.28.710
2438 (8')	Polished chrome/clear	830.28.720
2438 (8')	Black/black	830.28.820
2438 (8')	Matt gold/clear	830.28.790
2438 (8')	Slate/black	830.28.800
1219 (4')	Matt aluminum/clear	830.28.701
1219 (4')	Matt nickel/clear	830.28.711
1219 (4')	Polished chrome/clear	830.28.721
1219 (4')	Black/black	830.28.821
1219 (4')	Matt gold/clear	830.28.705
1219 (4')	Slate/black	830.28.706



Lens

- > Material: Plastic
- > Cover: Milk
- > Height: 13 mm (1/2")

Item No.
833.74.781

Wardrobe tube support



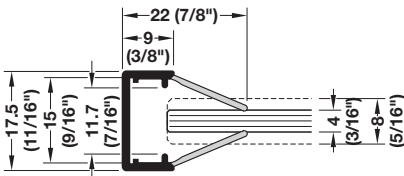
- > Unique two-part design allows the support to fully surround the tube ends
- > Connect the wedge shaped brackets into line bore holes and side supports onto the end of the tube
- > Side supports connect to the wedge shaped brackets
- > With two pins for 5 mm (3/16") holes
- > 32 mm (1 1/4") spacing with an additional screw hole for side panel mounting

- > Material: Zinc-plated
- > Diameter: 32 mm (1 1/4")

Finish	Item No.
Matt aluminum	803.39.410
Matt nickel	803.39.610
Polished chrome	803.39.210
Black	803.64.410
Matt gold	803.39.910
Slate	803.39.710

Profiles for surface mounting

Häfele Loox glass edge profile



Effect of the glass edge on the light

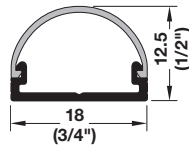
- > Glass edge with satin finish = even light line
- > Clear glass edge = point light

- > Material: Plastic
- > Finish/Color: Profile: Silver colored
Diffusers: Milk
- > L x W: 2000 x 17.5 mm (78 3/4" x 11/16")
- > Height: 22 mm (7/8")
- > Application: For screw fixing
- > Supplied with: 1 profile
2 diffusers

Item No.
833.74.733

- ! For manufacturing customized glass edge lighting for glass thickness 4–8 mm (3/16"–5/16"). Without load bearing function. Only for LED strip lights with max. 9.6 W/m. Note the dimensions of the clip connector.

Häfele Loox drawer profile



- > Material: Aluminum
- > Finish/Color: Profile: Silver colored anodized
Diffuser: Milk
- > L x W: 2500 x 18 mm (98 7/16" x 11/16")
- > Height: 12.5 mm (1/2")
- > Supplied with: 1 profile
1 diffuser

Item No.
833.71.928

- + **End cap set**
- > Material/Finish: ABS Plastic, silver colored
- > Supplied with: 5 sets of end caps, fixing screws

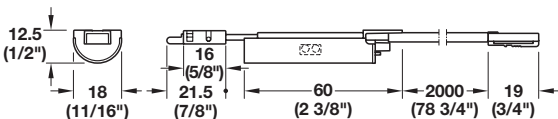
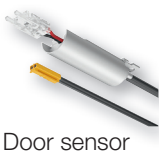
Item No.
833.74.877

- Retaining clip**
- > Material/Finish: Stainless Steel, silver colored
- > Supplied with: 2 pcs.

Item No.
833.74.893

Loox5 door sensor for Häfele Loox drawer profile

Switching capacity	Item No.
60 W	833.89.251



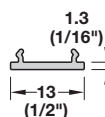
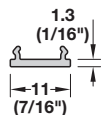
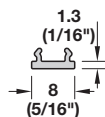
Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Diffusers and lenses

Häfele Loox5 diffusers for profiles - for recess mounting 1103-1107 and 2101-2104



Dimensions



- > Material: Plastic
- > Length: 2500 mm (98 7/16")
- > Supplied with: 1 diffuser

Width	Transmittance		
	transparent ~90 %	white opal 70-80 %	black ~20 %
8 (5/16")	-	833.95.804	833.95.808
11 (7/16")	833.95.807	833.95.805	833.95.809
13 (1/2")	-	833.95.806	833.95.810





The white diffuser creates a uniform light. The LED points are invisible from 120 LEDs/m. When using the black diffuser, LED points may be visible. LED points are always visible when the transparent diffuser is used.

Point light (Puck lights)







Ambient light

	LED 2040	Recess mounted/ surface mounted	Drill hole Ø 35 mm (1 3/8")	3.4 W	> Page 26
	LED 2090	Recess mounted/ surface mounted	Drill hole Ø 26 mm (1")	1.2 W	> Page 28




Light bars and lighted wardrobe tubes

	5111	12 V lighted wardrobe tube, LED 2065			> Page 30
	2194	Drawer light, with IR sensor, LED 2065			> Page 31
	2191	12 V surface mounted light bar, LED 2068			> Page 32
	2103	12 V surface mounted light bar, LED 2068			> Page 33
		TAG illuminated glass shelf			> Pages 34–35




Battery operated lights

	LED 2034	With charging station 1.5 W			> Page 36
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Battery operated lights

	LED 9004	With motion sensor	120 x 65 mm (4 3/4" x 2 9/16")	0.8W	> Page 37
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Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Recess/surface mounted lights

Modular monochrome, drill hole Ø: 35 mm (1 3/8")



Häfele Loox5 LED 2040



- > Dimmable: Yes
- > Material: Aluminum
- > Energy efficiency class: A+
- > Degree of protection: IP44 as recess mounted light
IP20 as surface mounted light
- > Mounting: For mounting in drilled hole,
for clamp or screw fixing
- > Drill hole Ø: 35 mm (1 3/8")
- > Supplied with: 1 light module

3000 K 4000 K

90°

660 lx	720 lx		250 mm	(9 13/16")
180 lx	185 lx		500 mm	(19 11/16")
80 lx	85 lx		750 mm	(29 1/2")
40 lx	50 lx		1000 mm	(39 3/8")



Note

The IP44 degree of protection is reduced to IP20 when surface mounting or recess mounting with through hole.

Order reference

Please order lead and housing separately.



Loox 12 V drivers see pages 52–53

Recess/surface mounted lights

Modular monochrome, drill hole Ø: 35 mm (1 3/8")

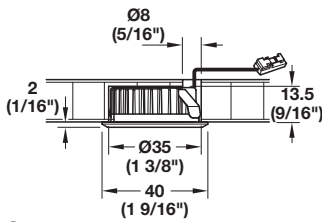


Häfele Loox5 LED 2040

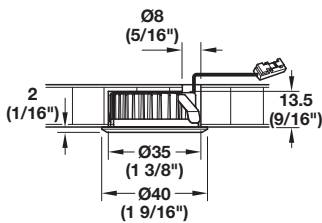
Voltage V	Quantity LEDs	Color temperature K	Wattage W	Luminous flux lm	Luminous efficacy lm/W	Color rendering index CRI	Weighted energy consumpt. kWh/1000 h	Item No.
5 12V	3	3000	1.5	88	59	90	1.65	833.72.371
		4000	1.5	96	64	90	1.65	833.72.372



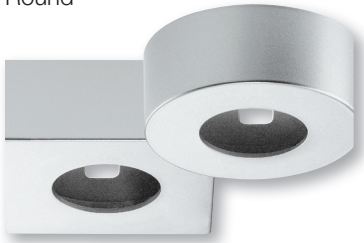
Recess mount housing



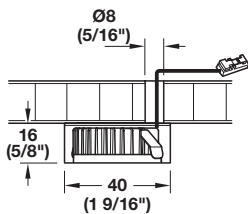
Square



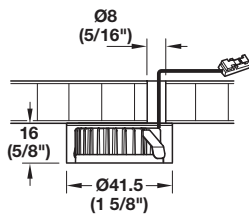
Round



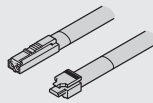
Surface mount housing



Square

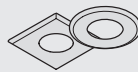


Round



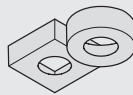
> Lead, 1.5 A/24 AWG, with snap-in connector

Length	Item No.
1000 (39 3/8")	833.95.789
2000 (78 3/4")	833.95.788



> Housing, recess mounted, Plastic

Color	Round	Square
Black	833.72.184	833.72.188
Matt nickel-plated	833.72.186	833.72.190
Silver colored	833.72.145	833.72.146
White, RAL 9003	833.72.187	833.72.191



> Housing, surface mounted, Plastic

Color	Round	Square
Black	833.72.176	833.72.180
Matt nickel-plated	833.72.178	833.72.182
Silver colored	833.72.143	833.72.144
White, RAL 9003	833.72.179	833.72.183

Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Recess/surface mounted lights

Monochrome, drill hole Ø: 26 mm (1")



Häfele Loox5 LED 2090



> Narrow beam angle for staging objects

- > Dimmable: Yes
- > Material: Aluminum
- > Energy efficiency class: A+
- > Degree of protection: IP44 as recess mounted light
IP20 as surface mounted light
- > Mounting: For mounting in drilled hole,
for clamp or screw fixing
- > Drill hole Ø: 26 mm (1")
- > Supplied with: 1 light module with 2000 mm
(78 3/4") lead

3000 K	4000 K	55°	
990 lx	1005 lx		250 mm (9 13/16")
240 lx	250 lx		500 mm (19 11/16")
100 lx	110 lx		750 mm (29 1/2")
55 lx	60 lx		1000 mm (39 3/8")

LED 2090

Note
The IP44 degree of protection is reduced to IP20 when surface mounting or recess mounting with through hole.

Loox 12 V drivers see pages 52–53

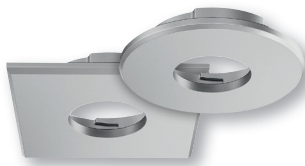
Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Recess/surface mounted lights

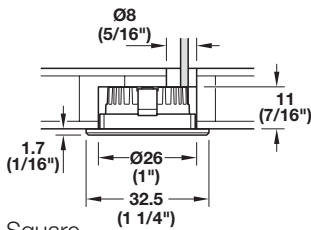
Monochrome, drill hole Ø: 26 mm (1")

Häfele Loox5 LED 2090

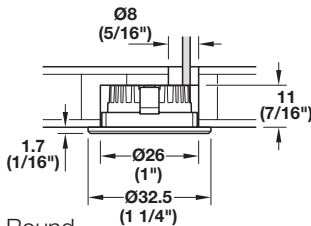
Voltage V	Quantity LEDs	Color temperature K	Wattage W	Luminous flux lm	Luminous efficacy lm/W	Color rendering index CRI		Weighted energy consumpt. kWh/1000 h	Item No.
						R _a	R ₉		
5 12 V	1	3000	1.2	90	75	>90	>60	1.32	833.72.471
		4000	1.2	95	79	>90	>60	1.32	833.72.472



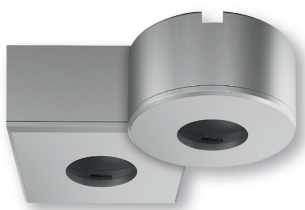
Recess mount housing



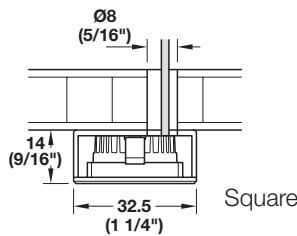
Square



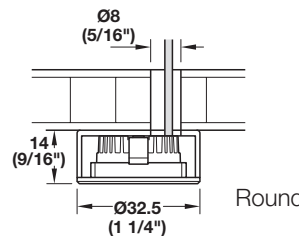
Round



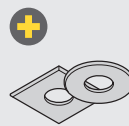
Surface mount housing



Square

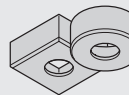


Round



> Housing, recess mounted, Plastic

Color	Round	Square
Black	833.89.225	833.89.232
Anthracite	833.89.226	833.89.233
Brown	833.89.227	833.89.234
Matt nickel-plated	833.89.223	833.89.230
Stainless steel colored	833.89.228	833.89.235
Silver colored	833.89.222	833.89.229
White, RAL 9003	833.89.224	833.89.231



> Housing, surface mounted, Plastic

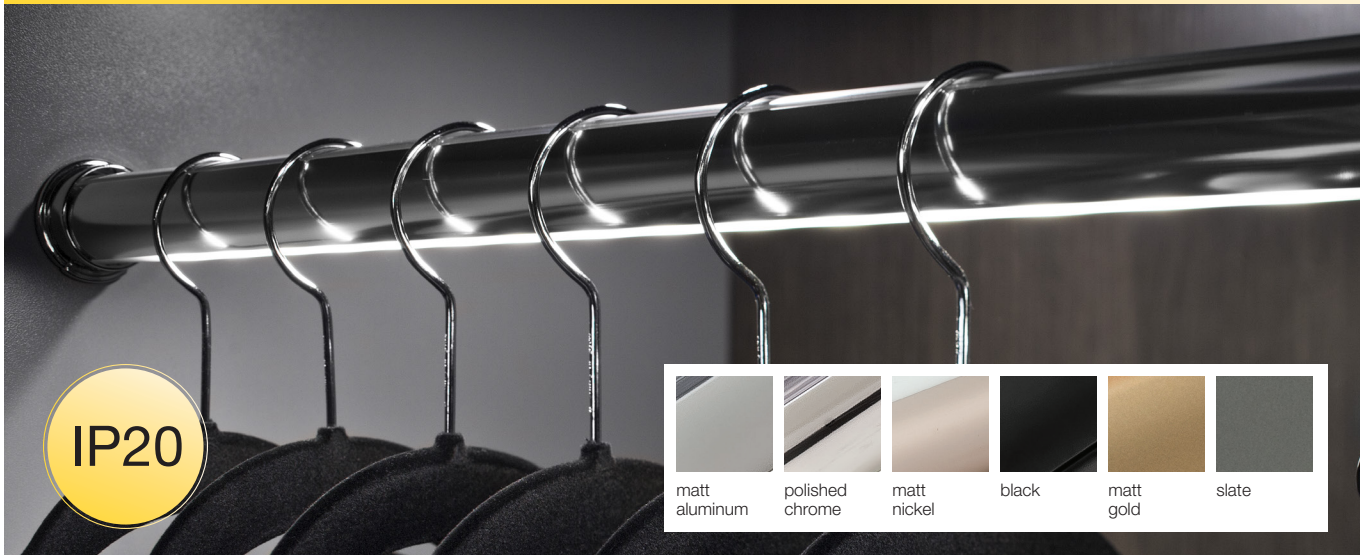
Color	Round	Square
Black	833.89.239	833.89.246
Anthracite	833.89.240	833.89.247
Brown	833.89.241	833.89.248
Matt nickel-plated	833.89.237	833.89.244
Stainless steel colored	833.89.242	833.89.249
Silver colored	833.89.236	833.89.243
White, RAL 9003	833.89.238	833.89.245

Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

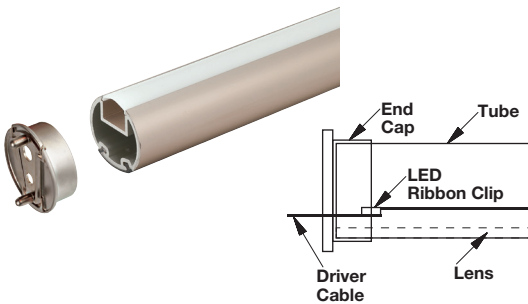
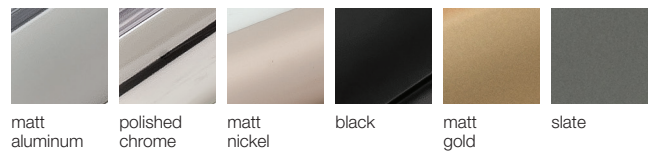
Elite lighted wardrobe tubes



Häfele Loox LED 2065



IP20



- > CRI 90 lights are Title 24 compliant
- > CRI 90 lights offer more vibrant, true color rendering than lower CRI products
- > A great way to brighten up your closet space
- > 2 color temperatures available
- > 6 finishes to choose from
- > Comes ready to install
- > Tube is cut 6 mm (1/4") shorter than nominal size to allow room for end caps and driver cable exit
- > Degree of protection: IP20

3000 K	4000 K	120°		
816 lx	901 lx		250 mm	(9 13/16")
204 lx	225 lx		500 mm	(19 11/16")
91 lx	100 lx		750 mm	(29 1/2")
51 lx	56 lx		1000 mm	(39 3/8")



Note

Position cable around and out of tube between lens and end cap or through end cap exit hole.



Loox 12 V drivers see pages 52–53

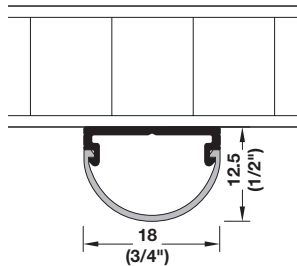
Light Color (K)	3000 (warm white)				4000 (cool white)			
Matt aluminum	833.96.020	833.96.021	833.96.022	833.96.023	833.96.024	833.96.025	833.96.026	833.96.027
Polished chrome	833.96.028	833.96.029	833.96.030	833.96.031	833.96.032	833.96.033	833.96.034	833.96.035
Matt nickel	833.96.036	833.96.037	833.96.038	833.96.039	833.96.040	833.96.041	833.96.042	833.96.043
Black	833.96.100	833.96.101	833.96.102	833.96.103	833.96.104	833.96.105	833.96.106	833.96.107
Matt gold	833.96.052	833.96.053	833.96.054	833.96.055	833.96.056	833.96.057	833.96.058	833.96.059
Slate	833.96.060	833.96.061	833.96.062	833.96.063	833.96.064	833.96.065	833.96.066	833.96.067
Length	457 (18")	610 (24")	762 (30")	915 (36")	457 (18")	610 (24")	762 (30")	915 (36")
Wattage	3.7	1.8	2.4	3.1	3.7	1.8	2.4	3.4
Lumen	292	146	195	243	292	146	95	243
CRI	90*							
Material	Aluminum							
Supplied with	Tube, lens, Loox5 2065 flexible strip light, 2000 mm (78 3/4") driver cable, 2 end caps							

Surface mounted drawer light

With IR sensor



Häfele Loox LED 2065



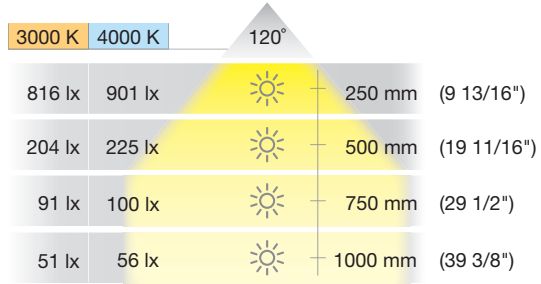
- > CRI 90 lights are Title 24 Compliant
- > CRI 90 lights offer more vibrant, true color rendering than lower CRI products
- > Lifetime: 50,000 hours
- > Supplied ready to install
- > Optimal lengths for installing behind face frames and in frameless cabinets for drawer applications (brackets required)
- > W x H: 18 x 12.5 mm (3/4" x 1/2")

Loox 12 V drivers see pages 52–53

Drawer light bar clip

> Optional brackets for frameless cabinet mounting

	Item No.
	260.26.933



Light Color (K)	3000 (warm white)			4000 (cool white)		
	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.
Lumen per watt	102			107		
Item No.	833.73.865	833.73.866	833.73.867	833.73.871	833.73.872	833.73.873
Length	250 (10")	330 (13")	406 (16")	250 (10")	330 (13")	406 (16")
Wattage	0.73	1.03	1.33	0.73	1.03	1.33
LEDs	21	30	39	21	30	39
Lumen	60	85	111	56	80	104
Item No.	833.73.868	833.73.869	833.73.870	833.73.874	833.73.875	833.73.876
Length	559 (22")	711 (28")	864 (34")	559 (22")	711 (28")	864 (34")
Wattage	1.93	2.53	3.13	1.93	2.53	3.13
LEDs	21	30	39	21	30	39
Lumen	170	213	272	160	200	256
CRI	90*					
Material	Aluminum, clear anodized; Lens: milk					
Supplied with	2000 mm (78 3/8") cable, mounting brackets					

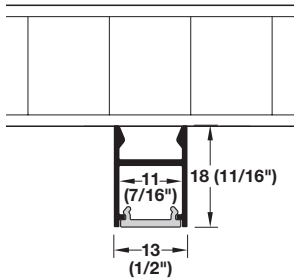
Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Surface mounted strip lights

With inline dimmer switch



Häfele Loox LED 2068



Inline dimmer switch is concealed below the diffuser.

- > CRI 90 lights are Title 24 compliant
- > CRI 90 lights offer more vibrant, true color rendering than lower CRI products
- > Life time: 50,000 hours
- > Supplied ready to install
- > Optimal lengths for installing under your wall cabinets to brighten up your countertop workspace
- > Linkable to other light bars, see next page



Loox 12 V drivers see pages 52–53

3000 K	4000 K	120°
2250 lx	2300 lx	250 mm (9 13/16")
940 lx	950 lx	500 mm (19 11/16")
505 lx	510 lx	750 mm (29 1/2")
310 lx	320 lx	1000 mm (39 3/8")

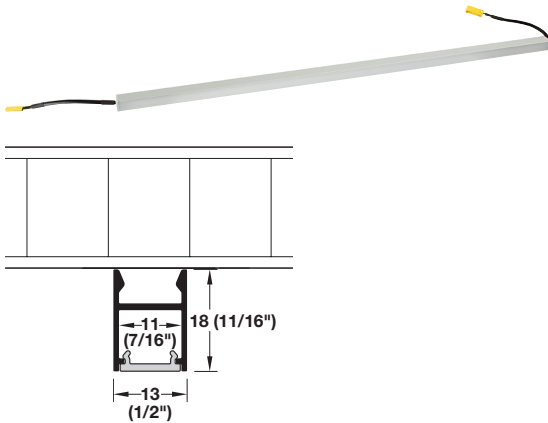
Light Color (K)	3000 (warm white)				4000 (cool white)			
	101				104			
Lumen per watt	101				104			
Item No.	833.70.647	833.70.648	833.70.649	833.70.650	833.70.661	833.70.662	833.70.663	833.70.664
Length	152 (6")	229 (9")	305 (12")	381 (15")	152 (6")	229 (9")	305 (12")	381 (15")
Wattage	0.7	1.4	2.2	2.9	0.7	1.4	2.2	2.9
LEDs	9	18	27	36	9	18	27	36
Lumen	73	146	218	291	75	150	225	300
Item No.	833.70.651	833.70.652	833.70.653	833.70.654	833.70.665	833.70.666	833.70.667	833.70.668
Length	457 (18")	533 (21")	610 (24")	686 (27")	457 (18")	533 (21")	610 (24")	686 (27")
Wattage	3.6	4.3	5	5.8	3.6	4.3	5	5.8
LEDs	45	54	63	72	45	54	63	72
Lumen	364	437	509	582	375	450	525	600
Item No.	833.70.655	833.70.656	833.70.657	833.70.658	833.70.669	833.70.670	833.70.671	833.70.672
Length	762 (30")	832 (33")	915 (36")	991 (39")	762 (30")	832 (33")	915 (36")	991 (39")
Wattage	6.5	7.2	7.9	8.6	6.5	7.2	7.9	8.6
LEDs	81	90	99	108	81	90	99	108
Lumen	655	728	800	873	675	750	825	900
Item No.	833.70.659		833.70.660		833.70.673		833.70.674	
Length	1067 (42")		1143 (45")		1067 (42")		1143 (45")	
Wattage	9.4		10.1		9.4		10.1	
LEDs	117		126		117		126	
Lumen	946		1019		975		1050	
CRI	90*							
Material	Aluminum; Lens: Plastic, opal							
Supplied with	2000 mm (78 3/4") driver connection cable with integrated switch, 100 mm (4") female mini driver cable, mounting brackets, screws, two-sided mounting tape							

Surface mounted strip lights

With linkable cable



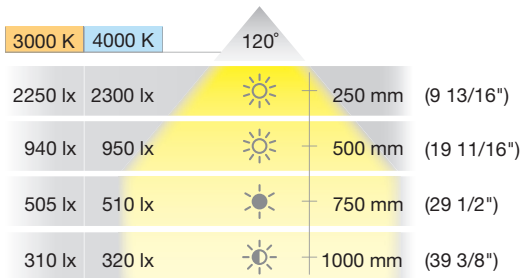
Häfele Loox LED 2068



- > CRI 90 lights are Title 24 compliant
- > CRI 90 lights offer more vibrant, true color rendering than lower CRI products
- > Life time: 50,000 hours
- > Supplied ready to install
- > Optimal lengths for installing under your wall cabinets to brighten up your countertop workspace
- > Linkable to other light bars, see previous page



Loox 12 V drivers see pages 52–53



Light Color (K)	3000 (warm white)				4000 (cool white)			
	101				104			
Lumen per watt	101				104			
Item No.	833.70.818	833.70.819	833.70.820	833.70.821	833.70.832	833.70.833	833.70.834	833.70.835
Length	152 (6")	229 (9")	305 (12")	381 (15")	152 (6")	229 (9")	305 (12")	381 (15")
Wattage	1.0	1.7	2.4	3.1	1.0	1.7	2.4	3.1
LEDs	12	21	30	39	12	21	30	39
Lumen	97	170	243	315	100	175	250	325
Item No.	833.70.822	833.70.823	833.70.824	833.70.825	833.70.836	833.70.837	833.70.838	833.70.839
Length	457 (18")	533 (21")	610 (24")	686 (27")	457 (18")	533 (21")	610 (24")	686 (27")
Wattage	3.8	4.6	5.3	6.0	3.8	4.6	5.3	6.0
LEDs	48	57	66	75	48	57	66	75
Lumen	388	461	534	606	400	475	550	625
Item No.	833.70.826	833.70.827	833.70.828	833.70.829	833.70.840	833.70.841	833.70.842	833.70.843
Length	762 (30")	832 (33")	915 (36")	991 (39")	762 (30")	832 (33")	915 (36")	991 (39")
Wattage	6.7	7.4	8.2	8.9	6.7	7.4	8.2	8.9
LEDs	84	93	102	111	84	93	102	111
Lumen	679	752	825	897	700	775	850	925
Item No.	833.70.830		833.70.831		833.70.844		833.70.845	
Length	1067 (42")		1143 (45")		1067 (42")		1143 (45")	
Wattage	9.6		10.3		9.6		10.3	
LEDs	120		129		120		129	
Lumen	970		1043		1000		1075	
CRI	90*							
Material	Aluminum; Lens: Plastic, opal							
Supplied with	100 mm (4") male mini driver cable, 100 mm (4") female mini driver cable, mounting brackets, screws, two-sided mounting tape							

Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Illuminated glass shelf

TAG illuminated glass shelf



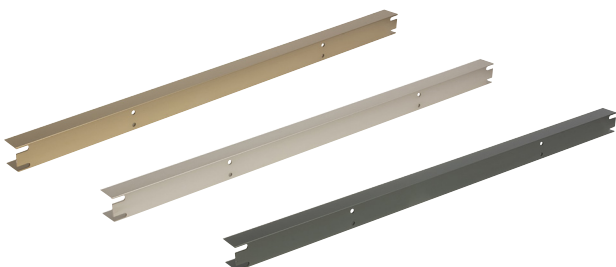
- > Mount alone or above a drawer to showcase jewelry and other accessories
- > Mounts quickly and easily with concealed hardware for an attractive installation
- > Shelf has been tested to hold up to 25 kg (55 lbs.)
- > Optional 25 mm (1") filler strip available to extend shelf depth



Loox 12 V drivers see pages 52–53

Depth	Width	Light color: 3000K warm white			Light color: 4000K cool white		
		Matt gold	Matt nickel	Slate	Matt gold	Matt nickel	Slate
349 (13 3/4")	457 (18")	807.76.800	807.76.600	807.76.300	807.76.810	807.76.610	807.76.310
	610 (24")	807.76.801	807.76.601	807.76.301	807.76.811	807.76.611	807.76.311
	762 (30")	807.76.802	807.76.602	807.76.302	807.76.812	807.76.612	807.76.312
	915 (36")	807.76.803	807.76.603	807.76.303	807.76.813	807.76.613	807.76.313
521 (20 1/2")	457 (18")	807.76.820	807.76.620	807.76.320	807.76.830	807.76.630	807.76.330
	610 (24")	807.76.821	807.76.621	807.76.321	807.76.831	807.76.631	807.76.331
	762 (30")	807.76.822	807.76.622	807.76.322	807.76.832	807.76.632	807.76.332
	915 (36")	807.76.823	807.76.623	807.76.323	807.76.833	807.76.633	807.76.333
Supplied with	12V Loox LED Lighting						
Material	Aluminum/Tempered safety glass						

Filler strip, optional



- > Allows shelf depth to be extended by 25 mm (1")

Width	Matt gold	Matt nickel	Slate
457 (18")	807.76.890	807.76.690	807.76.390
610 (24")	807.76.891	807.76.691	807.76.391
762 (30")	807.76.892	807.76.692	807.76.392
915 (36")	807.76.893	807.76.693	807.76.393
Material	Aluminum		

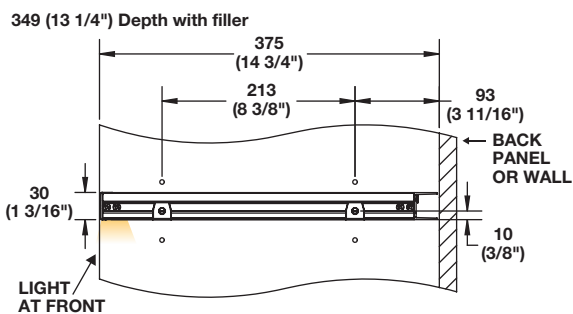
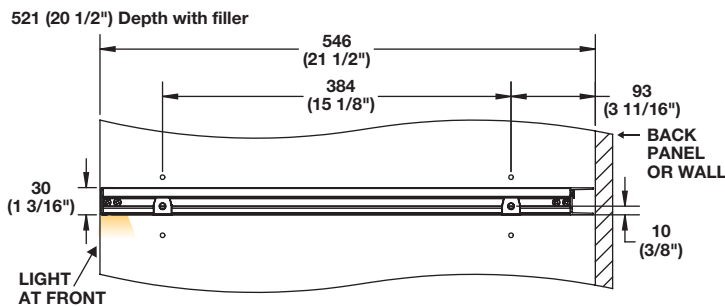
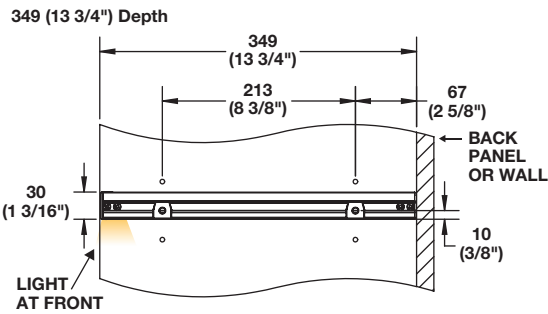
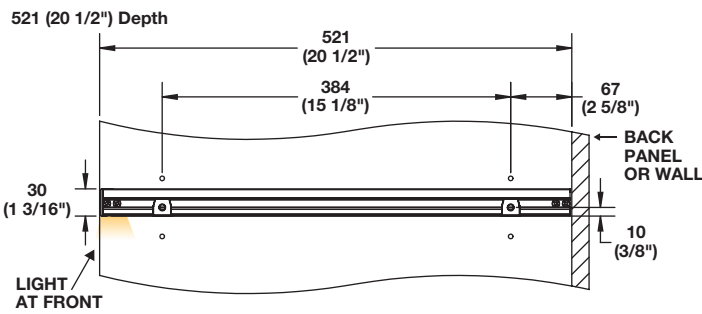
Illuminated glass shelf

TAG illuminated glass shelf

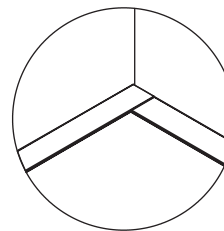
Includes wire lead from back of shelf:
 > 356 mm (14") deep shelves have 1651 mm (65") lead
 > 508 mm (20") deep shelves have 1499 mm (59") lead

Approximate power consumption:
 > 8.4 W for 915 mm (36") shelf
 > 6.9 W for 762 mm (30") shelf
 > 5.4 W for 610 mm (24") shelf
 > 4.0 W for 457 mm (18") shelf

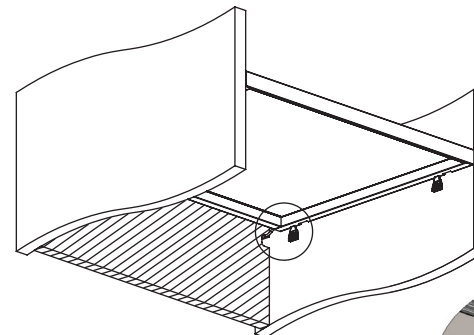
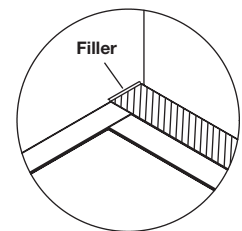
Installation



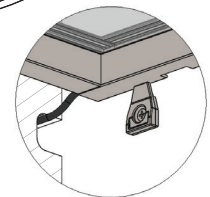
No filler



With filler



Insert the illuminated glass shelf on the supports.



Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Flexible surface mounted lights

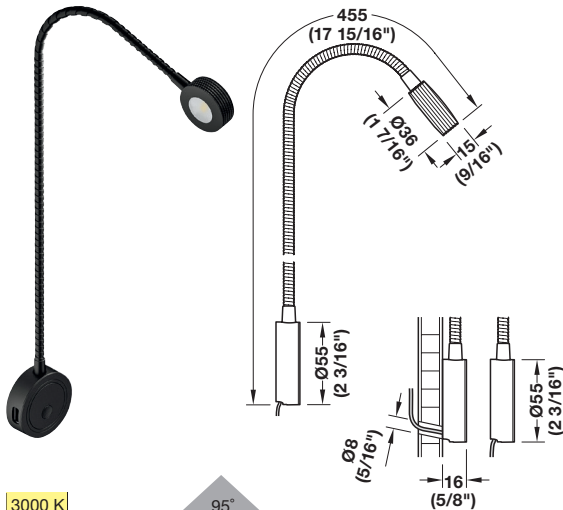
Monochrome with USB, 12 V



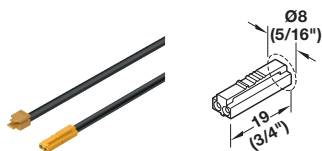
Häfele Loox5 LED 2034



WITH USB
CHARGING
STATION



3000 K	95°	
845 lx		250 mm (9 13/16")
220 lx		500 mm (19 11/16")
100 lx		750 mm (29 1/2")
60 lx		1000 mm (39 3/8")



Lead, 5 A/18 AWG, with snap-in connector

Length	Item No.
2.0 m	833.95.830
1.0 m	833.95.831

- > Version: Integrated 5 V / 2.5 A USB charging station; push button switch for 2 brightness levels; magnetic cover for base; modular power lead
- > Material: Aluminum
- > L x W x H: 455 x 55 x 15.5 mm (17 15/16" x 2 3/16" x 5/8")
- > Color temperature: 3000 K (warm white)
- > Wattage (including USB): Max. 17 W (light 1.5 W)
- > Luminous flux: 120 lm
- > Luminous efficacy: 80 lm/W
- > Color rendering index Ra: ≥90
- > Mounting: For screw mounting under magnetic cover
- > Supplied with: 1 light, including mounting materials



Order reference

Please order 5A modular lead separately



Loox 12 V drivers see pages 52–53

Finish	Item No.
Black	833.74.088
Chrome-plated	833.74.089

Surface mounted light

Battery-operated light, monochrome, 120 x 65 mm (4 3/4" x 2 9/16")



ILLUMINATING



EXTENDING



SWITCHING



NETWORKING



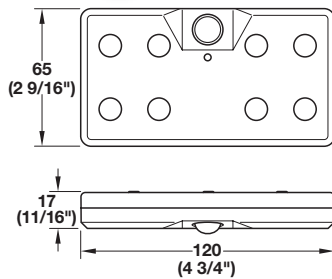
DISTRIBUTING




SUPPLYING

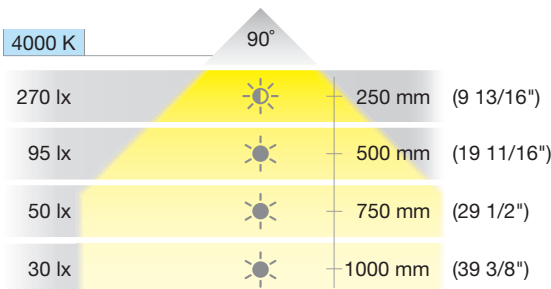


Häfele Loox LED 9004



- > Version: With motion detector, twilight switch with built-in rechargeable lithium-ion battery
- > Material/Color: Plastic, silver colored
- > L x W: 120 x 65 mm (4 3/4" x 2 9/16")
- > Height: 17 mm (11/16")
- > Energy efficiency class: A++
- > Degree of protection: IP20
- > Number of LEDs: 8
- > Sensor range: 0–2000 mm (0–78 3/4")
- > Sensor angle: 120°
- > Delay time: 30 sec.
- > Operating time: 8 hrs.
- > Charging time: 3 hrs.
- > Two operating modes: Motion: permanently active motion detector
Auto: motion detector active with residual brightness of <5 lx
- > Mounting: Mounting plate for screw fixing; light for sliding on
- > Supplied with: 1 light with mounting plate for screw fixing and 0.8 m micro-USB cable

 The light can be recharged using the supplied micro-USB cable



Color temperature K	Wattage W	Luminous flux lm	Luminous efficacy lm/W	Color rendering index CRI R _a	Item No.
4000	0.8	55	69	>90	833.87.021

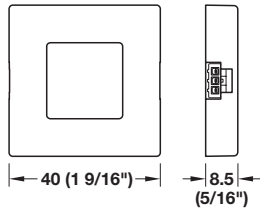
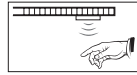
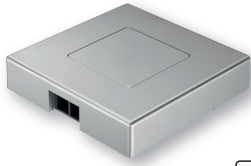


Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Sensor switches

Häfele Loox sensor switch, surface mounted modular - touch-free on/off switching

TOUCH-FREE



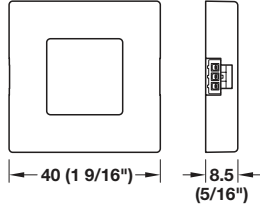
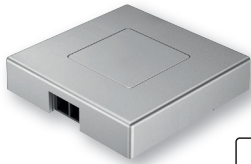
- > Material/Color: Plastic, silver colored
- > L x W x H: 40 x 40 x 8.5 mm (1 9/16" x 1 9/16" x 5/16")
- > Degree of protection: IP20
- > Sensor range: 0–80 mm (0–3 1/8")
- > Power consumption: ≤0.3 W
- > Supplied with: 1 switch with fixing material

	Item No.
	833.89.136

+ Please order lead with snap-in connector for modular switches driver separately. Length 2000 mm (78 3/4"): Item No. 833.89.142, see page 39.

! On/off state is stored without the need for power supply (memory function).

Häfele Loox door sensor switch, surface mounted modular - soft on/off switching



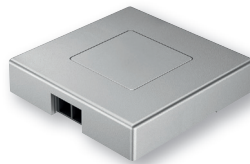
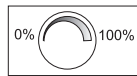
- > Material: Plastic
- > L x W x H: 40 x 40 x 8.5 mm (1 9/16" x 1 9/16" x 5/16")
- > Degree of protection: IP20
- > Sensor range: 0–100 mm (0–4")
- > Power consumption: ≤0.3 W
- > Supplied with: 1 switch with fixing material

Silver colored	Black	White
833.89.137	833.89.182	833.89.183

+ Please order lead with snap-in connector for modular switches driver separately. Length 2000 mm (78 3/4"): Item No. 833.89.142, see page 39.

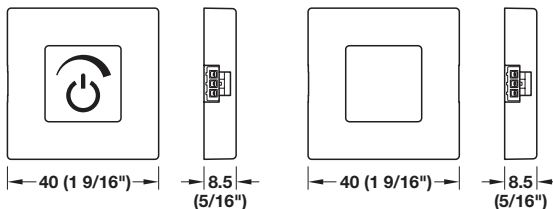
Häfele Loox dimmer, surface mounted modular - soft on/off switching and dimming

TOUCH/
TOUCH-FREE



Touch

Touch-free



- > Material: Plastic
- > L x W x H: 40 x 40 x 8.5 mm (1 9/16" x 1 9/16" x 5/16")
- > Degree of protection: IP20
- > Sensor range: 0–100 mm (0–4")
- > Power consumption: ≤0.3 W
- > Supplied with: 1 switch with fixing material

	Sensor range	Color	Item No.
Touch	–	silver colored	833.89.134
Touch-free	0–80 (0–3 1/8")	silver colored	833.89.135
Touch	–	black	833.89.176
Touch	–	white	833.89.177

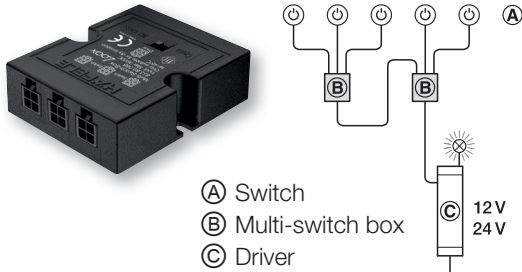
+ Please order lead with snap-in connector for modular switches driver separately. Length 2000 mm (78 3/4"): Item No. 833.89.142, see page 39.

! Dimming value is stored without the need for voltage supply (memory function)

Switch accessories



Häfele Loox multi-switch box



- (A) Switch
- (B) Multi-switch box
- (C) Driver

1 LED driver operated by up to 3 switches. Allows the LED driver or distributor with switching function to be switched on and off from different positions.



Drill hole Ø for plug: 12 mm (1/2")
Alternative to the supplied 1000 mm (39 3/8") lead for multi-switch box.
The drill hole Ø for the male plug and the female socket of the switch leads is 12 mm (1/2").



Drill hole Ø for plug: 12 mm (1/2")
Alternative to the supplied three 1000 m (39 3/8") leads for multi-driver box.
The drill hole Ø for the male plug and the female socket of the switch leads is 12 mm (1/2").

- > Function:
 - 2 operating modes can be selected using an integrated toggle switch.
 - Cross:** On/off switching at different switches
 - No cross:** Switching on with switch 1, 2 or 3. For switching off, all switches that were switched on have to be activated again
- > Material/Color: Plastic, black
- > Standby power consumption W: ≤0.3
- > L x W x H: 55 x 45 x 16 mm (2 3/16" x 1 3/4" x 5/8")
- > Degree of protection: IP20
- > Supplied with: 1 multi-switch box
With 1000 mm (39 3/8") lead for switch

Item No.
833.89.066



Lead from multi-boxes to switching input

- > Supplied with: 1 lead



Length	Item No.
500 (19 11/16")	833.89.068
2000 (78 3/4")	833.89.069

Häfele Loox lead with snap-in connector - for modular switches



- > Material/Color: Plastic, black
- > Degree of protection: IP20
- > Supplied with: 1 lead

Length	Item No.
500 (19 11/16")	833.89.140
1000 (39 3/8")	833.89.141
2000 (78 3/4")	833.89.142



Required for modular switches



Drill hole Ø for plug: 12 mm (1/2")

Häfele Loox extension lead - for switches



- > Length: 2000 mm (78 3/4")
- > Supplied with: 1 lead

Item No.
833.89.067



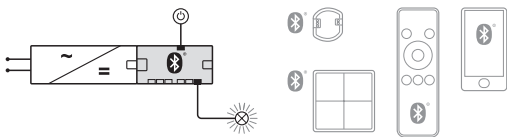
Drill hole Ø for plug: 12 mm (1/2")
Can also be used for the multi-switch box.
The maximum lead length of a switch is 6000 mm (236 1/4").
The drill hole Ø for the male plug and the female socket of the switch leads is 12 mm (1/2").

Distributor



Häfele Connect Mesh 6-way distributor - with switching function

- > Control several light colors on one box.
- > Each output port can be controlled individually.



- > Area of application: For on/off switching and dimming (0–100%) of monochrome lights; or, in conjunction with adapters, for the operation of multi-white lights, RGB lights, and electrically operated fittings
- > Version: With programmable switching input for standard Loox switches (switching function programmable via app)
- > Material/Color: Plastic, black
- > L x W x H: 120 x 50 x 16 mm (4 3/4" x 2" x 5/8")
- > Number of connections: 1x input port with box to box plug
1x output port with box to box socket
1x input port switch socket
6x output ports device sockets (2-pin), can be controlled from any active component of the network
- > Supplied with: 1 distributor

Max. connected wattage W	Item No.
60	850.00.042

! The distance between the smartphone or tablet to the nearest Häfele Connect Mesh component is approx. 10,000 mm (393"). Multiple components create a network, and can also be placed approximately 10,000 mm (393") apart.

➔ 6-way distributor for monochrome lights or other 2-pin powered devices, such as electrically operated fittings, see page 46.



MESH

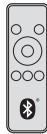
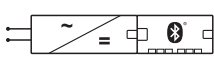
- Häfele Connect Mesh App**
- > Detects and reports new nodes in the network independently
 - > Intuitively assign functions to switches
 - > Set up light groups and scenes
 - > Share your protected access with others
 - > The Häfele Connect Mesh App is free for Apple iOS® and Android™.



Remote controls



Häfele Connect Mesh remote control



- > Area of application: For controlling components at the Häfele Connect Mesh 6-way distributor
- > Function: Easy, direct pairing with a 6-way distributor or programming of buttons via app to control each node of the network
- > Version: Multi-function control panel
- > Material: Plastic
- > Color: Faceplate: Black; Housing: White
- > L x W x H: 130 x 42 x 11 mm (5 1/8" x 1 5/8" x 7/16")
- > Supplied with: Replaceable CR2032 lithium battery

Item No.
850.00.040

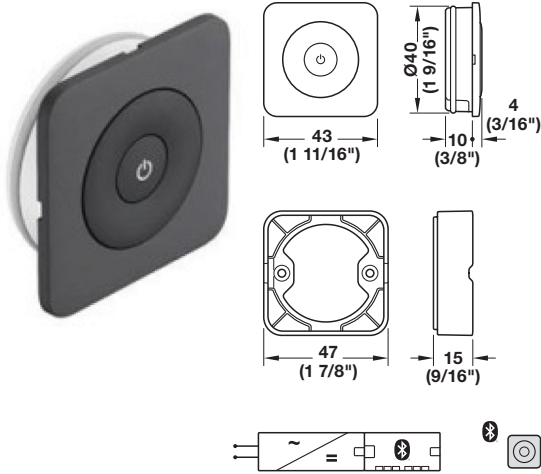
Replacement coin battery, lithium-ion



Model	Item No.
CR2032	002.99.032

Wireless controls

Häfele Connect Mesh furniture switch, multi-functional



- > Area of application: For Bluetooth® wireless control of lights in a Häfele Connect Mesh network
- > Configuration: Switch is paired to a group of lights using the Häfele Connect Mesh app
- > Function: On/off, dimming
- > Mounting: Recessed in drilled hole or surface mounted with supplied switch housing
- > Drill hole Ø: 40 mm (1 5/8")
- > Material: Plastic
- > Color: Faceplate: Black; Housing: White
- > Dimensions:
 - Switch (L x W): 43 x 43 mm (1 11/16" x 1 11/16")
 - Housing (L x W x H): 47 x 47 x 15 mm (1 7/8" x 1 7/8" x 9/16")
- > Supplied with:
 - 1 furniture switch
 - 1 surface mount housing
 - 1 replaceable CR2032 button cell lithium battery (002.99.032)

	Item No.
	850.00.952

! Please order Häfele Connect Mesh distributor separately, see page 40.

Wireless wall switch



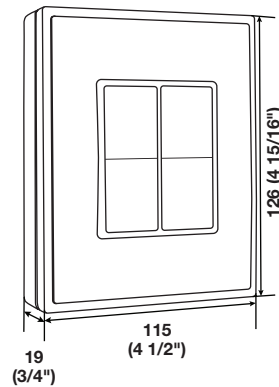
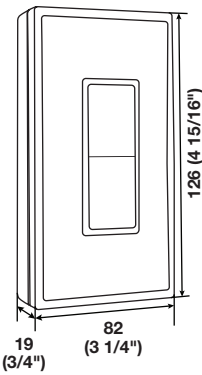
EnOcean wall switch - for Häfele Connect Mesh



Single



Double



- > Area of application: For controlling components connected to the Häfele Connect Mesh distributors or Häfele Connect BLE box
- > Function: Wall switch functions by pressing or holding down a button to:
Switch on/off and dimming of white lights.
> Can be placed anywhere wires are not required
> Maintenance free (batteries not required)
- > Material: Plastic
- > Color: White
- > Mounting: Surface mount for screw fixing
- > Supplied with: Wall switch, base, wall plate, cover

Version	L x W x H	Item No.
Single	126 x 82 x 19 (4 15/16" x 3 1/4" x 3/4")	850.00.025
Double	126 x 115 x 19 (4 15/16" x 4 1/2" x 3/4")	850.00.026

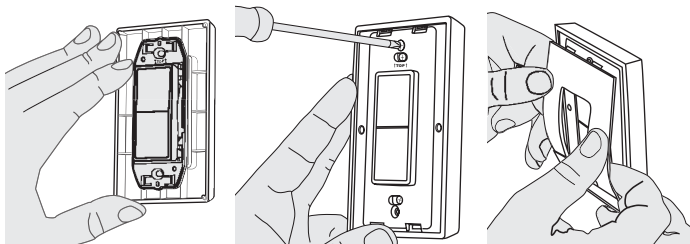


Please order Häfele Connect Mesh distributor separately, see page 40.

Compatible with:



Installation



Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.



Wireless wall switch



Häfele Connect Mesh 4-button remote with wall plate kit



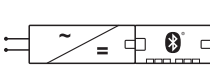
4-button remote switch



Decora style wall plate



Mounting bracket for remote



Battery included in kit only

- > Version: 4-button remote with wall plate, mounting bracket and battery
- > Material: Plastic
- > Color: White
- > L x W x H: 119 x 75 x 8 mm (4 11/16" x 3" x 5/16")
- > Mounting: Screw mounted on a wall surface or installed over a wall box
- > Supplied with: 4-button remote (850.00.951)
Decora style wall plate with mounting screws (820.66.753)
Mounting bracket for remote control (825.73.775)
CR2032 button cell lithium battery (002.99.032)

	Item No.
	450.80.868

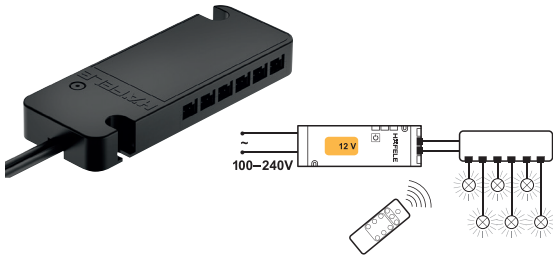


Please order Häfele Connect Mesh 6-way distributor separately, see page 40.

Remote controls



Premium 6-channel remote receiver



- > Material/Finish: Aluminum, black
- > L x W x H: 172 x 69 x 32 mm
(6 3/4" x 2 11/16" x 1 1/4")

System	Wattage (W)	Max. wattage per slot (W)	Item No.
12 V	60	30	833.73.741

- ! White LED lights can be remote controlled with this system.
Remote system requires at least 1 remote and 6-channel receiver to control lights.
Three lighting scenes can be stored.
Remote switches can be added that are compatible with the 12 V system.

Max. 10 remote receivers can be combined.
Light state and scene stored in memory and recalled upon start up.

Note

Adapter 833.95.752 must be used with remote receiver, see page 50.

Premium 6-channel remote



- > Application: 12 V and 24 V system
- > Material/Color: Plastic, black
- > Supplied with: Replaceable CR2032 lithium battery

Item No.
833.89.121

- ! For controlling Loox 6-channel remote receivers for white LEDs.
Soft on/off with dimming function for 6 channels.
3 lighting scenes can be stored.
Max. 10 remote receivers can be controlled within a radius of 15 m (49').

Remote switch 12 V/24 V - recess mounted



- > Drill hole Ø x H: 40 x 14.4 mm (1 5/8" x 9/16")
- > Material/Color: Plastic, silver colored
- > Supplied with: Replaceable CR2032 lithium battery

Item No.
833.89.122

- ! For controlling all channels or one channel of Loox remote receiver for white LEDs.
Soft on/off and dimming.
Max. 10 remote receivers can be controlled within a radius of 15 m (49').

+ Housing for surface mounting



> Round for screw mounting

Item No.
833.89.123

Replacement coin battery, lithium-ion



Model	Item No.
CR2032	002.99.032

Distributors

Häfele Loox5 box to box 6-way distributor

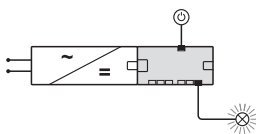
Plug connection box to box

> The connection of the distributors with the driver can be done via a box to box plug-in connection or via an extension lead. Any number of distributors can be connected to the driver. Observe maximum wattage!

Häfele Loox5 box to box 6-way distributor - with switching function



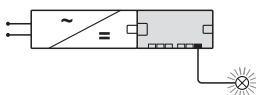
1 switch controls all output ports



- > Material/Color: Plastic, black
- > L x W x H: 120 x 50 x 16 mm (4 3/4" x 2" x 5/8")
- > Number of connections: 1 x input port with box to box plug
1 x output port with box to box socket
1 x input port switch socket
6 x output ports
- > Supplied with: 1 distributor

Voltage	Max. connected wattage W	Item No.
5 12V	60	833.95.748

Häfele Loox5 box to box 6-way distributor - without switching function



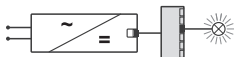
- > Material/Color: Plastic, black
- > L x W x H: 120 x 50 x 16 mm (4 3/4" x 2" x 5/8")
- > Number of connections: 1 x input port with box to box plug
1 x output port with box to box socket
6 x output ports
- > Supplied with: 1 distributor

Voltage	Max. connected wattage W	Item No.
5 12V	60	833.95.747

Häfele Loox5 6-way distributor - without switching function



Can also be connected to 6-way distributor.



- > Material/Color: Plastic, black
- > L x W x H: 70 x 30 x 14 mm (2 3/4" x 1 3/16" x 9/16")
- > Number of connections: 1 x input port with box to box plug
1 x output port with box to box socket
6 x output ports
- > Supplied with: 1 distributor

Voltage	Max. connected wattage W	Item No.
5 12V	60	833.95.786

Distributors



Häfele Loox5 6-way distributor with multi-switching function

- > Multi-switching function for up to 3 switches, saving space and cost
- > 3 switching mode options
- > Permanent soft on/off function, regardless of the switch that is used



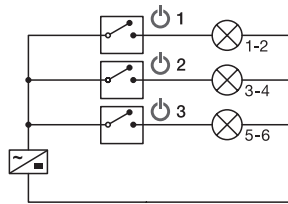
- > Area of application: For switching on/off and dimming (0–100%)
- > Material/Color: Plastic, black
- > L x W x H: 120 x 50 x 16 mm (4 3/4" x 2" x 5/8")
- > Number of connections: 1 x input port with box to box plug
1 x output port with box to box socket
3 x input switch sockets
6 x output ports
- > Supplied with: 1 distributor

Max. connected wattage W	Item No.
60	833.95.828

3 modes of operation

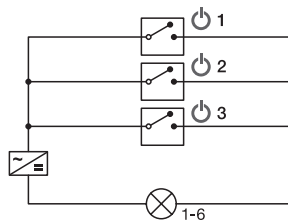
Parallel (red indicator light)

- Switch 1 = controls outputs 1 and 2
- Switch 2 = controls outputs 3 and 4
- Switch 3 = controls outputs 5 and 6



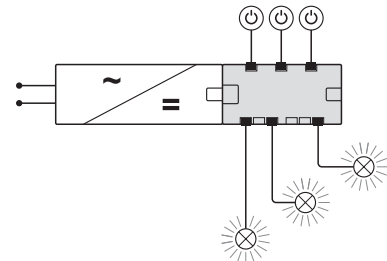
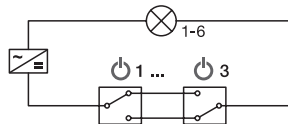
No cross (blue indicator light)

- Any of the three switches can turn the lights on.
- To turn lights off, all switches must be turned off.



Cross (green indicator light)

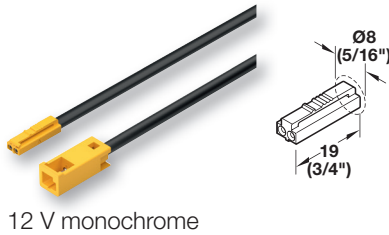
- Any of the 3 switches can turn on/off the lights.



Extension leads

- Meets the following codes for wire and cable locations:**
- > NEC article 411 Lighting systems operating at 30 V or less attached to Class 2 power
 - > NEC article 725.135 Installation of Class 2 cable
 - > NEC article 411.5 Specific Location Requirements

Häfele Loox5 CL3R extension leads monochrome

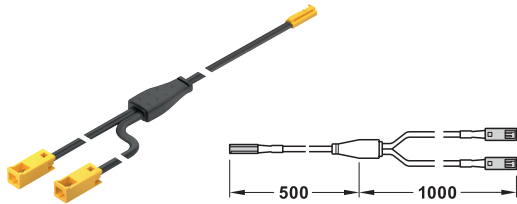


12 V monochrome

- > Area of application: For monochrome lights and other 2-wire powered devices and distributors
- > Material: Plastic
- > Current carrying capacity: Max. 5 A
- > Type of cable: Wire gauge: 18AWG; Wire type: CL3R
Construction: 2-conductor, stranded copper
Rating: Class 2, double insulated
- > Drill hole Ø: Plug 8 mm (5/16"), socket 13 mm (1/2")
- > Supplied with: 1 extension lead, 1 plug/1 socket

500 mm (19 11/16")	1000 mm (39 3/8")	2000 mm (78 3/4")	3000 mm (118 1/8")	5000 mm (196 7/8")	10000 mm (393 3/4")
833.93.725	833.93.724	833.93.723	833.95.871	833.95.872	833.95.873

Häfele Loox5 2-way Y distributor monochrome - 1 male, 2 female



- > Material: Plastic
- > Length: 1500 mm (59 1/16")
- > Supplied with: 1 lead
1 plug/2 sockets

Max. connected wattage W	Item No.
60	833.93.737

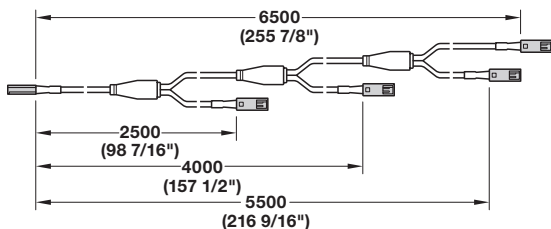
Häfele Loox5 4-way extension leads - monochrome



12 V monochrome

- > Area of application: For monochrome lights and other 2-wire powered devices and distributors
- > Material: Plastic
- > Current carrying capacity: Max. 5 A
- > Type of cable: 2-wire 18 AWG
- > Drill hole Ø: Plug 8 mm (5/16")
- > Length: 6500 mm (255 7/8")
- > Supplied with: 1 extension lead
1 plug/4 sockets

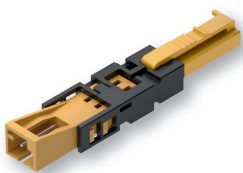
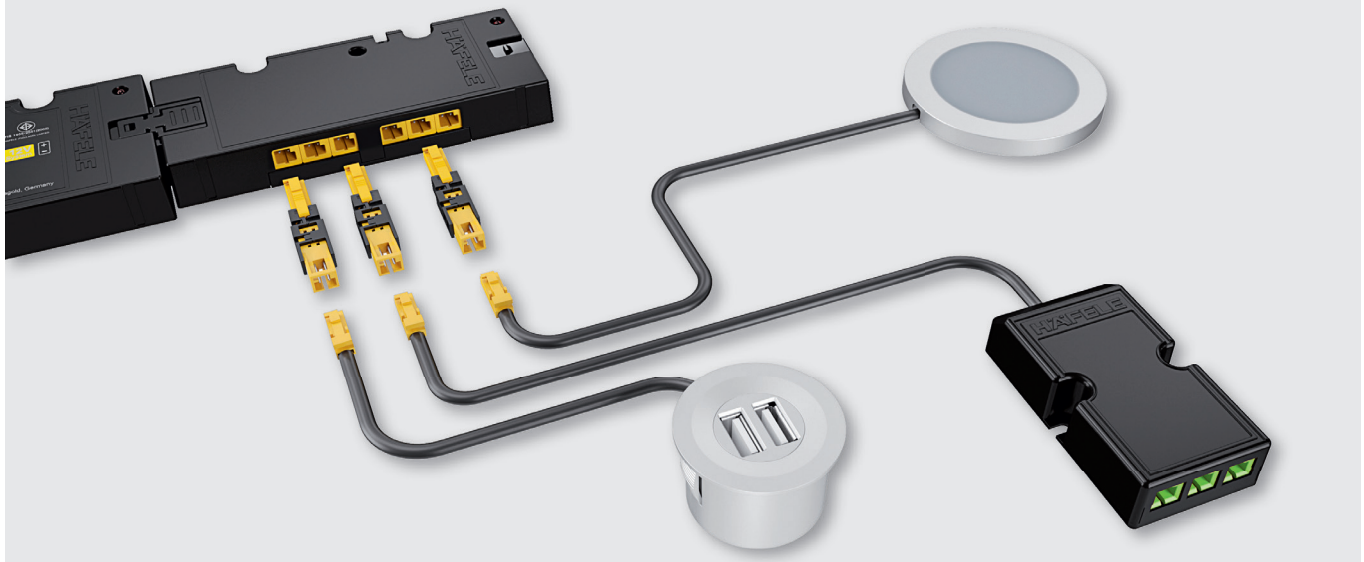
Item No.
833.95.742



Adapter

Loox5 driver > Loox device

Adapter for devices with Loox plug - for connecting to Loox5 driver



12 V: Loox socket/Loox5 plug

- > Area of application: For connecting Loox devices to Loox5 drivers or Loox5 distributors. Suitable for all devices with Loox plug, e.g. monochrome lights, distributors, charging stations, converters, etc.
- > Length: 50 mm (2")
- > Current carrying capacity: Max. 3.5 A
- > Drill hole Ø: 12 mm (1/2")
- > Supplied with: 6 pcs.

Device	Driver	Max. connected wattage W	Item No.
12 V	5 12 V	Max. 42	833.95.753

Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

ILLUMINATING

EXTENDING

SWITCHING

NETWORKING

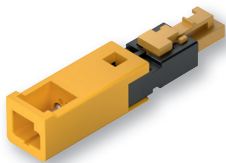
DISTRIBUTING

SUPPLYING

Adapter

Loox driver > Loox5 device

Adapter for devices with Loox5 plug - for connecting to Loox driver



12 V: Loox5 socket/Loox plug

- > Area of application: For connecting Loox5 devices to Loox drivers or Loox distributors. Suitable for all devices with 2-wire Loox5 plug, e.g. monochrome lights, distributors, charging stations, etc.
- > Length: 45 mm (1 3/4")
- > Current carrying capacity: Max. 3.5 A
- > Drill hole Ø: 13 mm (1/2")
- > Supplied with: 6 pcs.

Device	Driver	Max. connected wattage W	Item No.
5 12V	12V	Max. 42	833.95.752

Adapter leads for LED strip lights with Loox5 clip - for connecting to Loox driver

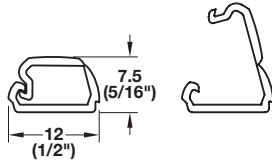
> Length: 2000 mm (78 3/4")

Device	Driver/color mixer	For monochrome LED strip light	Item No.
5 12V	12V	5 mm (3/16")	833.72.742
		8 mm (5/16")	833.72.716

Cable routing



Häfele Loox cable channel



- > Material: Plastic
- > L x W x H: 2500 x 12 x 7.5 mm (98 7/16" x 1/2" x 5/16")
- > Application: Concealing visible cables in furniture and cabinets
- > Supplied with: 1 cable channel with adhesive tape

Color	Item No.
Black, RAL 9005	833.89.033
Brown, RAL 8007	833.89.023
White, RAL 9010	833.89.013

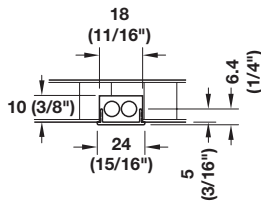
Cable management channel



- > Material: Plastic
- > L x W x H: 2438 x 36.5 x 5 mm (96" x 1 7/16" x 3/16")
- > Application: Concealing visible cables in furniture and cabinets

Color	Item No.
Tan	833.16.040
Black	833.16.041
White	833.16.042

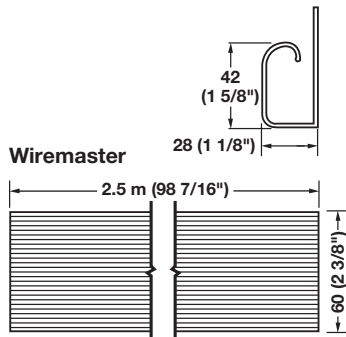
Wire management cover - recess mounted



- > Material/Color: Plastic, white RAL 9010
- > Length: 2500 mm (98 3/8")
- > Application: Concealing visible cables in furniture and cabinets

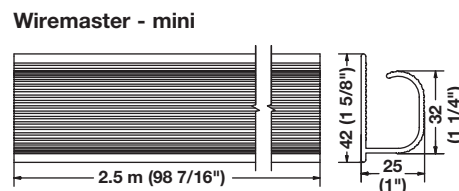
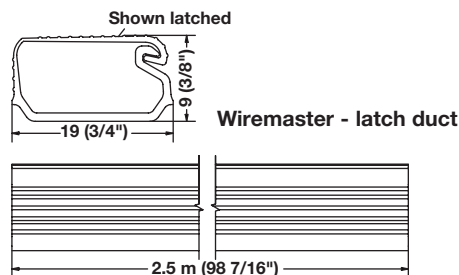
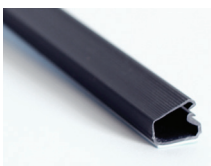
Item No.
833.00.730

Wire cable trunking



- > Material/Color: Plastic PVC, adhesive tape, black
- > L x W x H: 2438 x 36.5 x 5 mm (96" x 1 7/16" x 3/16")
- > Application: Apply behind desks, along modesty panels, along baseboards, etc.

Description	Item No.
Wiremaster	829.15.302
Wiremaster - mini	829.15.303
Wiremaster - latch duct	829.15.304



Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Drivers

Häfele Loox driver constant voltage 12 V



THIN PROFILE

- > Version: With an integrated port for a wide selection of switches
- > Material/Color: Plastic, black
- > Degree of protection: IP20
- > Input voltage: 100–240 V~; 50–60 Hz
- > Output voltage: DC 12 V
- > Number of connections: 1x switch, 6x lights, 1x power cord
- > Efficiency level: VI
- > Safety: Class 2
- > Supplied with: Mounting accessories
1 US power cord
Y splitter

	Output power	Output current	Standby power consumpt.	L x W x H	Item No.
	W	A	W		
1	20	1.67	≤0.1 W	140 x 50 x 16 (5 1/2" x 2" x 5/8")	833.74.960
2	40	3.33	≤0.1 W	190 x 60 x 16 (7 1/2" x 2 3/8" x 5/8")	833.74.962
3	60	5.00	≤0.2 W	208 x 56.5 x 30 (8 13/16" x 2 1/4" x 1 3/16")	833.74.913

! Drivers must be mounted in well ventilated area

! Maximum lead length from the Loox5 driver to switch is 6 m (236 1/4"). Max. 42 W per light output. Long cable lengths in combination with large loads (strip light lengths) can result in voltage losses in the cable. These lead to visible loss of brightness in the lights. The illuminance listed with the lights has been determined with the rated output voltage of the driver.

- 1 Item No. 833.74.960
⊗₁ + ⊗₂ + ... + ⊗₆ < 20 W
- 2 Item No. 833.74.962
⊗₁ + ⊗₂ + ... + ⊗₆ < 40 W
- 3 Item No. 833.74.913

	Country-specific 2 m (78 3/4") primary leads							3 m (118")
Item No.	833.89.000	833.89.001	833.89.002	833.89.003	833.89.016	833.89.005	833.89.050	833.89.008
Plug design								
Designation	UK	AU	EU	US	JP	CN	US	US
Voltage (V)	250	250	250	120	100	250	120	120

Drivers



Häfele Loox5 driver constant voltage 12 V



EXTRA SLIM

- > Version: With overload protection
- > Material/Color: Plastic, black
- > Degree of protection: IP20
- > Input voltage: 100–240 V~; 50–60 Hz
- > Output voltage: DC 12 V
- > Number of connections: 1x socket
- > Life time: >70,000 hours
- > Safety: Class 2
- > Supplied with: 1 driver with mounting accessories
1 US power cord

	Output power	Output current	Standby power consumpt.	L x W x H	Item No.
	W	A	W		
1	20	1.67	≤0.2 W	140 x 50 x 16 (5 1/2" x 2" x 5/8")	833.95.000
2	40	3.33	≤0.3 W	191 x 60 x 16 (7 1/2" x 2 3/8" x 5/8")	833.95.002
3	60	5.00	≤0.3 W	230 x 70 x 16 (9 1/16" x 2 3/4" x 5/8")	833.95.003

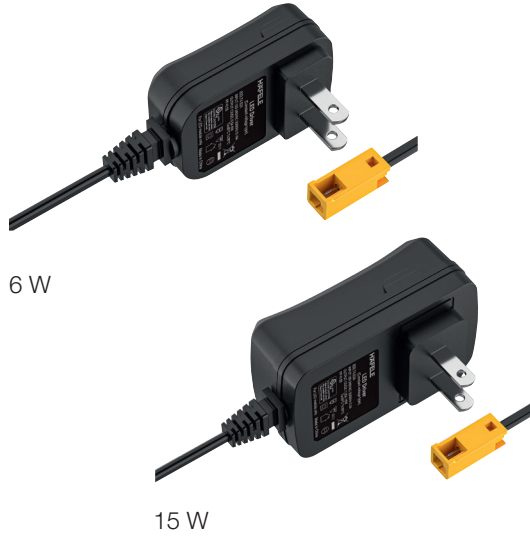
! Ambient temperature –25 °C to +45 °C (60 W: 40 °C)
Ensure that there is a sufficient air supply and circulation at the mounting location.

! Maximum lead length from the Loox5 driver to the device is 10,000 mm (393 11/16"). Long cable lengths in combination with large loads (strip light lengths) can result in voltage losses in the cable. These lead to visible loss of brightness in the lights. The illuminance listed with the lights has been determined with the rated output voltage of the driver.


Dimensional data not binding. Dimensions in mm, inches are approximate. We reserve the right to alter specifications without notice.

Plug-in drivers

Häfele Loox5 wall plug driver 12 V



- > Material/Color: Plastic, black
- > Degree of protection: IP20
- > Input voltage: 100–240 V~; 50–60 Hz
- > Output voltage: DC 12 V
- > Standby power consumption: 0.1 W
- > Supplied with: 1 wall plug driver with 100 mm (3 15/16") cable with socket

Plug design/ designation	Output power W	L x W x H	Item No.
 US	6	61 x 37 x 43 (2 3/8" x 1 1/2" x 1 11/16")	833.74.631
	15	78 x 46 x 54 (3 1/16" x 1 13/16" x 2 1/8")	833.74.634

Accessories

Drill bits and systems

Silicone stripping tool



Item No.

006.13.485



Required for 2063 Silicone Strip.

Machine boring bit - RH



> Material: Carbide

Ø x L

Item No.

26 x 70 (1" x 2 3/4")

001.08.004

28 x 70 (1 1/8" x 2 3/4")

001.08.012

35 x 70 (1 3/8" x 2 3/4")

001.08.006

40 x 57 (1 5/8" x 2 1/4")

001.06.865

Machine boring bit - with center spur - RH



> Material: Carbide

Ø x L

Item No.

55 x 57 (2 3/16" x 2 1/4")

001.07.513

58 x 57 (2 5/16" x 2 1/4")

001.07.522

60 x 57 x 10 (2 3/8" x 2 1/4" x 3/8")

001.08.040

68 x 70 x 10 (2 11/16" x 2 3/4" x 3/8")

001.08.016



Accessories

Drill bits and systems

Drilling jig - for puck light



> Supplied with: Jig, 2 boring bits, 1 drill bit

Item No.
001.35.052

Drill bit - for puck light, with stop



> Material: M2 HSS Steel
 > Ø x L: 10 x 457 mm (3/8" x 18")
 > Supplied with: Hex key

Item No.
001.35.053

! High grade steel material for increased drill life. Allows for deeper wire holes.

Forstner bit assembly - for puck light



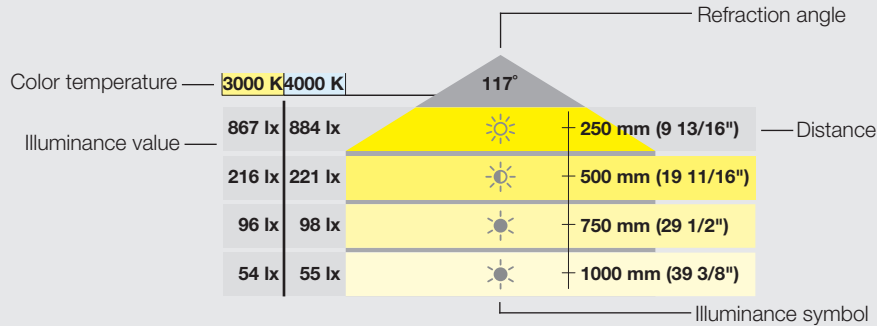
> Material: HSS Steel
 > Supplied with: Adjustable depth stop, collar, hex key

Ø	Item No.
54 (2 1/8")	001.35.054
56 (2 1/4")	001.35.055

! Superior Austrian quality. High grade steel material with patented wave cutting edge. Patented cutting edge drills 10x faster than standard bits. Modified low-profile brad point tip for flat bottom hole.

Light effects and lighting technology

Cone of light



	>500 lx
	150–500 lx
	<150 lx



Note:

The illuminance symbol always represents the best value of all color temperatures and is meant to be for quick reference only. Please note the specific values of the individual color temperatures and the refraction angle before ordering.

Recommendation for illumination of interior rooms

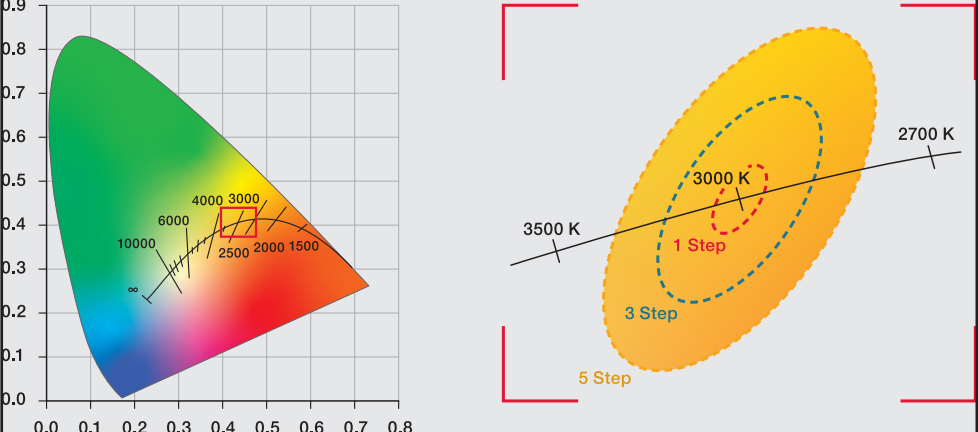
Interior room type	Illuminance in Lux at 500 mm	Color temperature
Kitchen, dining area	300–500	2700–4000 K
Store fixtures, galleries	300–500	4000–6500 K
Bedroom, living room	200–300	2700–4000 K
Bathroom	200–500	3500–4000 K
Storage room	100	4000–5000 K
Orientation light, hallway, wardrobe	10–50	4000–5000 K

Conversion chart

Wattage		Luminous Flux			
W/m	W/ft.	lm/m	lm/ft.	lm/m	lm/ft.
4.8	1.5	415	127	970	296
9.6	3.0	425	130	990	302
14.4	4.5	440	134	1000	305
19.2	6.0	455	139	1030	314
		460	140	1040	317
		465	142	1060	323
		480	146	1080	329
		490	149	1230	375
		495	151	1270	387
		530	162	1305	398
		810	247	1340	409
		820	250	1370	418
		825	252	1430	436
		860	262	1520	464
		870	265	1605	490
		900	275	1650	503
		905	276	1850	564
		920	281	2015	615
		930	284	2050	625
		945	288	2100	641
		955	291		





Technical terms

Technical terms

Refraction angle	<p>The refraction angle (beam angle) describes the angle between two imagined straight lines in a plane through the visual beam axis, whereby these straight lines go through the center of the front of the lamp and through the points at which the illuminance is 50% of the illuminance on the visual beam axis.</p>														
Illuminance	<p>The illuminance is the luminous flux (lm) in relation to a surface (m²) and it is indicated in Lux (lx). It is used to measure the brightness with which a surface is illuminated.</p>														
Binning	<p>During industrial manufacture, LEDs differ from each other with regard to color, luminous flux (brightness) and forward voltage. In order to achieve consistent light quality with the same brightness level and a uniform light color, they are therefore sorted according to color, luminous flux and forward voltage and separated into bins ("containers") during manufacturing. This sorting process is known as Binning. Häfele exclusively uses bins with a high degree of brightness in order to achieve high efficiency.</p>														
Bluetooth® Mesh	<p>Network technology which was introduced in 2017, based on Bluetooth® Low Energy, in which all components (controls, devices) form a joint network, which is ideal for controlling lights. Häfele Connect Mesh uses this technology.</p>														
Energy efficiency class	<p>The energy efficiency class provides information about the relevant energy consumption. Lamps and lights are categorized in classes E to A++. LED lights achieve the highest classes A to A++.</p>														
Color temperature and light color	<p>The color temperature is a specification of the color appearance of a white light source and is measured in Kelvin (K). The lower the color temperature, the warmer the light color; the higher the color temperature, the cooler the light color. White light sources with a color temperature below 3400 K are considered "warm white" by Häfele, white light sources with a color temperature between 3400 K and 5700 K are considered "cool white". White light sources above 5700 K are referred to as "daylight white".</p>														
Color consistency/ color differences	<div style="display: flex; align-items: flex-start;">  </div> <p>Color differences are specified in stages, so called "MacAdams Ellipses" or "SDCM" (Standard Deviation of Color Matching). Häfele uses 3 SDCM binnings for its LED products. This is a good value, because it is statistically unlikely that LEDs with a maximum color difference will be next to each other on the strip light or in the light and that the color difference is visible. In its ErP directive, the EU Commission stipulates that 6 SDCMs may not be exceeded for LED products.</p> <table border="1" data-bbox="483 1562 1398 1787"> <thead> <tr> <th>SDCM</th> <th>Visibility</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Only people with extremely good vision can see the most minimal color differences.</td> </tr> <tr> <td>2</td> <td>Most minimal color differences are visible.</td> </tr> <tr> <td>3</td> <td>Very small color differences are visible.</td> </tr> <tr> <td>4</td> <td>Color differences are visible.</td> </tr> <tr> <td>5</td> <td>Significant color differences are visible.</td> </tr> <tr> <td>>5</td> <td>Very clear color differences are visible.</td> </tr> </tbody> </table>	SDCM	Visibility	1	Only people with extremely good vision can see the most minimal color differences.	2	Most minimal color differences are visible.	3	Very small color differences are visible.	4	Color differences are visible.	5	Significant color differences are visible.	>5	Very clear color differences are visible.
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Color rendering index CRI	<p>The color rendering index is a parameter that can be used to compare the color rendering quality of light sources at the same color temperature. The higher the value, the better the color rendering. A value of 100 corresponds to the color rendering of sunlight.</p>														
Weighted energy consumption	<p>The weighted energy consumption is rounded to two decimal places in kilowatt hours in relation to 1,000 hours of use. It applies to operation of the LED with an external driver. The calculation and publication of this value is defined by EU ordinance No. 874/2012.</p>														

Test symbols and symbols



Product features

-  Dimmable
-  RGB light
-  Multi-white light
-  Bluetooth®: industry standard for data transmission between electronic devices by radio over a short distance. The Bluetooth® word mark and logos are registered trademarks of Bluetooth SIG, Inc., and Häfele uses these marks under licence. Other trademarks and names are the property of their respective owners.



Test symbol

-  TÜV seal of quality
-  Confirmation from manufacturer that the product complies with the product-specific applicable European norms and standards. Häfele will not use the certification in advertising.
- RoHS** Restriction of Hazardous Substances (EU directive 2011/65/EU). Häfele will not use the certification in advertising.
-  Underwriters Laboratories, correspondence with the national standards in the USA and Canada
-  Energy efficiency standard level VI (USA) meets DOE new standards
-  Product Safety Electrical Appliance and Material Safety Law (for Japan)
-  Regulatory Compliance Mark (for Australia)
-  China Compulsory Certification
- EAC** Eurasian Conformity, for CU countries (Russia, Kazakhstan, Belarus)
-  Korea Certification Mark
-  Bureau of Standards, Metrology & Inspection BSMI (for Taiwan)
-  Thai Industrial Standards Institute TISI
-  European Norms Electrical Certification, with indication of the testing laboratory (one of 18 European national institutes)
- FC** Declaration of Conformity for telecommunication and radio equipment (USA)
-  Telecommunication and Radio Equipment (Japan)







Protection classes

-  Protection class II
-  Protection class III



Degrees of protection

- IP20** Only for use in dry locations
- IP44** Penetration by solid foreign bodies $q \geq 1$ mm is prevented. Water spray protection (water from all directions)
- IP65** Dustproof, protection from water spray (jet) from any angle.
-  IP44 after installation
-  IP65 after installation

Safety symbols

-  Installation permitted on or in furniture, whose ignition properties are unknown.
-  Max. surface temperature in case of fault
-  Lights to be used indoors only. Not to be used outdoors.
-  Do not use components that impede thermal radiation.
-  Waste of Electrical and Electronic Equipment. Do not dispose of in residential waste!
-  Driver, converts alternating current to direct current

Voltage supply

- SELV** Safety Extra Low Voltage
-  Independent operating unit for use outside wof light without additional cover.
-  Short-circuit proof with safety isolation

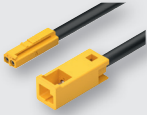
Technical terms

Technical terms

Constant current technology	The same current flows through each LED. That means that the brightness of all LEDs is the same, and a drop in luminous flux is prevented. This increases the maximum visual length of the strip lights.																												
Life time	Specified in operating hours. The life time mainly depends on the warming of the products. The hotter the environment, the shorter the life time. The replacement rate in years is calculated from the total life time and the average operating time per annum. The following table can be used as a planning aid. The specified life time relates to L70/B50. <table border="1" data-bbox="483 527 1385 779"> <thead> <tr> <th>Indoor use</th> <th>Annual operating time (EN 15193) hours</th> <th>Replacement rate Years</th> <th>Life time installation Hours</th> </tr> </thead> <tbody> <tr> <td>Office</td> <td>2,500</td> <td>20</td> <td>50,000</td> </tr> <tr> <td>Education</td> <td>2,000</td> <td>25</td> <td>50,000</td> </tr> <tr> <td>Hospital</td> <td>5,000</td> <td>10</td> <td>50,000</td> </tr> <tr> <td>Hotel</td> <td>5,000</td> <td>10</td> <td>50,000</td> </tr> <tr> <td>Restaurant</td> <td>2,500</td> <td>10</td> <td>25,000</td> </tr> <tr> <td>Shop</td> <td>5,000</td> <td>10</td> <td>50,000</td> </tr> </tbody> </table>	Indoor use	Annual operating time (EN 15193) hours	Replacement rate Years	Life time installation Hours	Office	2,500	20	50,000	Education	2,000	25	50,000	Hospital	5,000	10	50,000	Hotel	5,000	10	50,000	Restaurant	2,500	10	25,000	Shop	5,000	10	50,000
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Life time L80/B10	L80 is the time after which the LED is still emitting 80% of its original light. B10 means that 10% of the LEDs may have less than 80% of the original light output. Häfele tests all LEDs it uses in accordance with the LM-80 standard. LM-80 is a standardized testing method, which allows products to bear the EPA's (Environmental Protection Agency) Energy Star. The test is a manufacturer-independent comparison of LEDs. During the test the luminous flux (Lumen maintenance) of an LED is tested at three different temperatures for a minimum of 6,000 hours. Then the life time L80 is calculated by means of extrapolation. The extrapolation procedure is described in regulation IES TM-21.																												
LED	A light-emitting diode (LED) is a semi-conductor element that emits light when electricity passes through it. This semi-conductor element consists of a crystal that is attached to a metal base, and both are encapsulated in protective plastic. LEDs are mostly based on inorganic, i.e. non-carbon based materials.																												
Luminous efficacy	The luminous efficacy is the ratio of the luminous flux and the wattage absorbed. It is used to measure the operating efficiency of the light source. It is indicated in Lumens per Watt (lm/W).																												
Luminous flux	It is indicated in Lumen (lm). The luminous flux indicates the light output, i.e. the quantity of light a source emits. The value may be subject to measurement and production-related fluctuations of ±10%.																												
Drop in luminous flux	The brightness of the LEDs on LED strip lights decreases with the length of the strip light due to the increasing resistance of the copper line. A drop in luminous flux from the first to the last LED of up to 30% is imperceptible to the human eye. That's why Häfele specifies a maximum strip light length for this visual value. Generally, it is possible to operate strip lights with longer lengths, but a difference in brightness will be visible.																												
Max. strip light length	<p>Visual value Strip light length with an imperceptible drop in luminous flux of max. 30%.</p> <p>Wattage-dependent value Strip light length = output power of driver / wattage of the strip light per meter. If the wattage-dependent value is greater than the visual value, a difference in brightness will be perceivable. Exception: The LEDs of the strip lights with constant current technology (LED 2077/3050/3051/3052) always have the same brightness.</p>																												
RoHS – Lead in Loox products	Loox products by Häfele are lead-free and adhere to the RoHS guidelines. RoHS is part of CE conformity. All Loox products are CE compliant. Häfele does not advertise the CE conformity in its catalogs, since only CE compliant products are allowed to be offered. The declaration of conformity is available online at www.hafele.com																												
Transmittance	Ratio of transmitted light to incidental light. An ideal transparent body would have a transmittance of 100%.																												

Technical questions

Technical questions

How do I clean an LED strip light?	LED strip lights without a silicone sleeve do not require cleaning. Silicone strip lights can be wiped down with a damp, anti-static cloth. Scouring agents and aggressive cleaners can destroy the surface and attack the LEDs.																																				
May I use drivers from other manufacturers?	In order to ensure the safety and functionality of the installation, only Loox drivers or drivers that have been explicitly approved by Häfele may be used. If an electronics technician installs the system, Loox can also be connected and coupled with on-site electrical equipment. However, we explicitly point out that these tasks must be performed by a qualified electrician.																																				
What is the life time of the products in permanent operation?	Loox5 drivers >70,000 hrs. with max. ambient temperature (40 °C/45 °C), wall plug drivers 30,000 hrs. at an ambient temperature of max. 40 °C. Provide for sufficient air supply and circulation at the mounting location of the driver. Loox5 LED strip lights >50,000 hrs. at an ambient temperature of max. 45 °C. Cooling with an aluminum profile is recommended from 9.6 W/m (3.0 W/ft.).																																				
How can sensor switch malfunctions be avoided?	Check for correct switch installation. The TOP lettering on the switch must point upwards in the installation situation.																																				
How is consistent bulb light color guaranteed?	Häfele makes high demands on the selection of the materials. All Loox5 strip lights contain high-quality and long-lasting LEDs from Samsung and Lumileds. Setting very tight quality specifications ensures not only luminous flux and breakdown voltage, but also consistent light color for follow-up purchases.																																				
What is the maximum wattage that I can connect to a device output of the driver?	12 V x 5.0 A = 60 W with a 60 W driver																																				
How long may the lead between the driver and the device be?	The maximum lead length from the Loox5 driver to the device is 10 m (32' 9 11/16"). Long cable lengths in combination with large loads (strip light lengths) can result in voltage losses in the cable. These lead to visible loss of brightness in the lights. The illuminance listed with the lights has been determined with the rated output voltage of the driver. (12 V or 24 V).																																				
What is AWG?	AWG stands for American Wire Gauge. It is the coding for wire diameters in electrical leads that are mainly used in North America. This identifies the cross-section of wires in electrical leads that consist of stranded or solid core wire.																																				
What is the current carrying capacity of my cable?	<p>Häfele allows the following current carrying capacity and wattage:</p> <table border="1" data-bbox="492 1207 1320 1354"> <thead> <tr> <th>Type of cable</th> <th colspan="2">24 AWG</th> <th colspan="2">22 AWG</th> <th colspan="2">20 AWG</th> <th colspan="2">18 AWG</th> </tr> </thead> <tbody> <tr> <td>Current carrying capacity</td> <td colspan="2">1.5 A</td> <td colspan="2">2.5 A</td> <td colspan="2">3.5 A</td> <td colspan="2">5.0 A</td> </tr> <tr> <td>Voltage</td> <td>12 V</td> <td>24 V</td> <td>12 V</td> <td>24 V</td> <td>12 V</td> <td>24 V</td> <td>12 V</td> <td>24 V</td> </tr> <tr> <td>Wattage</td> <td>18 W</td> <td>36 W</td> <td>30 W</td> <td>60 W</td> <td>42 W</td> <td>84 W</td> <td>60 W</td> <td>110 W</td> </tr> </tbody> </table> <p>The type of cable is imprinted on the coating of the cable.</p> 	Type of cable	24 AWG		22 AWG		20 AWG		18 AWG		Current carrying capacity	1.5 A		2.5 A		3.5 A		5.0 A		Voltage	12 V	24 V	12 V	24 V	12 V	24 V	12 V	24 V	Wattage	18 W	36 W	30 W	60 W	42 W	84 W	60 W	110 W
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Can an LED flexible strip light be used behind acrylic glass?	Yes, however the acrylic glass increases the color variations (binning) up to four times and minimal color deviations are therefore more visible.																																				
Can Loox lights be operated using multiple switches?	Yes, please use the multi-switch box to do this. Up to three switches can be connected to the multi switch box (multi-switch box see page 34).																																				
Why do the lights have to be plugged in first before connecting the high voltage mains plug?	If the driver is connected to the line voltage first, electrical power is output at the secondary side, which leads to overvoltage and therefore damage to the lights as they are connected.																																				
Can Loox lights be used in RVs/boats/cars?	Yes. We have special IC strip lights that compensate for voltage fluctuations of the vehicles without problems. Our regular LED strip lights can be used as well. It is important to note, however, that the voltage peaks may reduce the life time.																																				
Can I use Loox in a sauna/bathroom?	We offer special lights that offer IP44 and IP65 protection when installed. This is sufficient for many applications. Our LED silicone strip lights are IP44 protected as well. However, it must be ensured that the driver and power cord are dry. Furthermore, a maximum ambient temperature of 45° C or 113° F must be ensured.																																				
Why does my LED light flash?	Flashing is a sign of (under or) overloading. Use a driver with higher power or reduce the number of lights.																																				

LOOX REFERENCE GUIDE - COMPLIANCE WITH ELECTRICAL CODES

Häfele is committed to producing, marketing and selling products that meet or exceed all relevant safety standards for the industry.

Loox lighting products are designed and manufactured to achieve the most relevant standard in the United States, as defined by Underwriters Laboratory (UL), UL2108 (Standard for Safety Low Voltage Lighting Systems). All Häfele branded Loox low voltage lighting products are UL listed to the 2108 standard as components and together as a system.

- UL2108 applies to low voltage lighting systems and components intended for permanent installation and use in locations following the National Electrical Code (NEC), NFPA 70, Article 411 (Lighting Systems Operating at 30 Volts or Less and Lighting Equipment Connected to Class 2 Power Sources)
- The UL2108 listing of Loox low voltage lighting products is also relevant when our customers want to comply with other standards such as UL962 for residential and commercial furnishings, UL970 for commercial display cases and UL1286 for office furnishings. These standards are only referenced as examples and are not meant to be an exhaustive list of potential requirements to consider in applying low voltage lighting systems.
- Compliance with relevant standards and codes is the responsibility of our customers when using the Häfele Loox low voltage lighting systems, and it is the installer's responsibility to ensure the lighting is applied correctly, safely and in compliance with all applicable codes.
- Many local electrical code interpretations exist in the United States, and it is advisable to proactively understand these nuances before installing low voltage lighting in construction or furniture products.
- In jurisdictions where the NEC Article 410 (Luminaires, Lampholders and Lamps) applies, care must be taken in selecting the correct placement and/or luminaire. Consider the following points in particular when using luminaires in a clothes closet:
 - All Häfele Loox luminaires are suitable for use in the clothes closet spaces, provided installation satisfies the required location constraints of NEC Article 410.16C (Luminaires in Clothes Closets-Location).
 - LED strip lights must always be installed within a linear profile with a lens and endcaps to ensure that the LED light source is enclosed and cannot be contacted.
 - If luminaires are to be installed in a location that may place them in direct contact with items stored in the closet or storage space, they are required to pass an additional test under the standard UL1598 (Standard for Safety- Luminaires). This is an additional requirement contained in the UL2108 listing, which as previously outlined, is the general certification making the luminaires suitable for installation in the storage area of a clothes closet.
 - The Häfele Loox low voltage lighting system has the following families of product that meet the additional UL1598 test standard for more flexible use within closet or storage space:

Linear luminaire models	Puck style luminaire models
Model 2060	Model 2020
Model 2061	Model 2022
Model 2065	Model 2023
Model 2068	Model 2040
Model 2070	Model 2050
Model 2077	Model 2051
Model 3040	Model 2090
Model 3041	Model 3023
Model 3042	Model 3025
Model 3044	Model 3035
Model 3045	Model 3036
Model 3047	Model 3090
Model 3048	Model 3094
Model 3049	
Model 3050	
Model 3051	

- The Häfele Loox Adjustable Shelf Light System is UL listed under the UL2108 standard. Per NEC 411.6C (Low-Voltage Lighting Systems, Secondary Circuits, Bare Conductors), our bare low voltage conductor (bus bar) is specifically listed for installation in locations lower than the code required 7-foot height.

This information is provided to you as a Reference Guide, not an authoritative body of work. Compliance with relevant Standards and Codes is the responsibility of our customers when using the Häfele Loox low voltage lighting systems, and it is the installer's responsibility to ensure the lighting is applied correctly, safely and in compliance with all applicable codes.

HÄFELE

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