



LOOX LED DESIGN GUIDE







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LED LIGHTING **ADVANTAGES**

LEDs (Light Emitting Diodes) have unique features that make them ideally suited for cabinet lighting applications. LED lights offer beautiful, controllable and discrete illumination with unlimited creative possibilities. Here are just a few of their practical advantages:



LONG LASTING

LED lights have an extremely long service life of up to 25 years or more than 30,000 to 50,000 hours. This dramatically reduces maintenance and replacement costs.



ENERGY-SAVING

LED lights use an impressive 90 percent less power than conventional light bulbs. They can be used to create modern residential and commercial lighting scenarios, and still be in line with the energy saving trend.



COOLER

Because of their extremely low power consumption, LED lights generate hardly any heat. This makes LED lighting systems especially suitable for displays and enclosed spaces.



POWERFUL

Even with their small footprint, LED lights are bright and produce a saturated light color. They achieve full brightness as soon as they're switched on, and are fully dimmable.



FLEXIBILITY

From puck light to flexible strip lights, LED lights are offered in a variety of shapes and sizes; giving you the ability to integrate lighting into cabinetry and furniture in ways never before possible



CUSTOMIZABLE LIGHTING EFFECTS

With LED lights, you can tailor the light temperature, brightness and beam angle to achieve the precise lighting effect that you desire.

HAFELE

LIGHTING **APPLICATIONS**

Häfele's Loox LED Catalog for 2020 features turn-key solutions for the most requested cabinet lighting applications. The products in the 2020 catalog are primarily intended for use with face frame cabinetry, and they can easily be installed on location during cabinet installation.



UNDER CABINET LIGHTING

Proper task lighting is a necessity in any kitchen design. Because of their superior energy efficiency and low heat output, LED lights offer significant advantages vs. halogen, fluorescent and other lighting technologies. Häfele's Loox LED catalog for 2020 includes two under cabinet lighting options: Light Strips and Puck Lights.



INTERIOR CABINET LIGHTING

To maximize visibility inside cabinet spaces, Häfele has developed turn-key kits for integrating interior lighting into base and wall cabinets that turns on when the cabinet door is opened and off when the door is closed.



DRAWER LIGHTING

Drawer lights increase functionality and optimize every inch of space within a drawer. Loox drawer light kits include flexible silicone light strips with an integrated switch that activates the lights when the drawer is opened.



ACCENT LIGHTING

Interior accent lighting for cabinets with glass doors can have a dramatic visual effect.

HXFELE

PRODUCTS IN LOOX 2020 CATALOG

UNDER CABINET LIGHT STRIPS

Light Strips provide smooth, even lighting that is ideally suited for under cabinet task lighting applications. The surface mount profiles are easily installed and concealed behind the cabinet face frame. The light strips are offered in a range of widths to fit any size cabinet and are available in warm and cool color temperatures. The strips are available with a built-in dimmer switch and are linkable so that all connected strips can be controlled with a single switch.

LIGHT STRIPS WITH LINKABLE CABLES

Lumen per watt: 85

CRI: 82

Material: Aluminum, clear anodized; Lens: milk

Light Color (K)	Length	Number of LEDs	Wattage	Lumen	Item No.
3000 warm white	152 (6")	10 1	1.0	00	833.73.531
4000 cool white	152 (6)	12	1.0	83	833.73.551
3000 warm white	hite 229 (9") 21 1.7	1.7	145	833.73.533	
4000 cool white	229 (9")	21	1.7	140	833.73.553
3000 warm white	305 (12")	30	2.9	207	833.71.223
4000 cool white	303 (12)	30	2.9	201	833.71.228
3000 warm white	381 (15")	39	3.2	269	833.73.535
4000 cool white	301 (13)		0.2	209	833.73.555
3000 warm white	457 (18")	48	3.9	332	833.73.537
4000 cool white	457 (16)	40	5.9	332	833.73.557
3000 warm white	533 (21")	57	4.6	394	833.73.539
4000 cool white	333 (21)		4.0		833.73.559
3000 warm white	610 (24")	66	5.8	455	833.71.224
4000 cool white	010 (24)		5.0	400	833.71.229
3000 warm white	686 (27")	75	6.1	518	833.73.541
4000 cool white	000 (21)	13	0.1		833.73.563
3000 warm white	762 (30")	84	7.3	580	833.71.225
4000 cool white	702 (30)	04	7.0		833.71.230
3000 warm white	838 (33")	93	7.6	642	833.73.543
4000 cool white	000 (00)	93	7.0	042	833.73.565
3000 warm white	914 (36")	102	8.8	704	833.71.226
4000 cool white	914 (30)	102	0.0	7 04	833.71.231
3000 warm white	001 (20")	111	9.0	767	833.73.545
4000 cool white	991 (39")	111	9.0	767	833.73.567
3000 warm white	1067 (40")	120	10.2	828	833.71.227
4000 cool white	1067 (42")	120	10.2	020	833.71.232
3000 warm white	1143 (45")	129	10.5	001	833.73.547
4000 cool white	white 1743 (43) 129	10.5	891	833.73.569	

Supplied With

100 mm (4") male mini driver cable

100 mm (4") female mini driver cable

Mounting brackets; Screws; Two-sided mounting tape

Note

An Extension Lead will be required if not linked to a Light Strip with Inline Dimmer Switch. Extension Leads are sold separately. See page 20.



UNDER CABINET LIGHT STRIPS



LIGHT STRIPS WITH BUILT-IN DIMMER SWITCH

Lumen per watt: 85

CRI: 82

Material: Aluminum, clear anodized; Lens: milk

Light Color (K)	Length	Number of LEDs	Wattage	Lumen	Item No.
3000 warm white	152 (6")	0	0.7	60	833.73.530
4000 cool white	152 (6)	9	0.7	62	833.73.550
3000 warm white	229 (9")	18	1.5	124	833.73.532
4000 cool white	229 (9)	10	1.0	124	833.73.552
3000 warm white	305 (12")	27	2.4	186	833.71.213
4000 cool white	303 (12)	21	2.4		833.71.218
3000 warm white	381 (15")	36	2.9	249	833.73.534
4000 cool white	301 (13)		2.9		833.73.554
3000 warm white	457 (18")	45	3.7	311	833.73.536
4000 cool white	407 (10)		0.1		833.73.556
3000 warm white	533 (21")	54	4.4	373	833.73.538
4000 cool white	000 (21)				833.73.558
3000 warm white	610 (24")	63	5.4	435	833.71.214
4000 cool white	010 (21)				833.71.219
3000 warm white		5.9	497	833.73.540	
4000 cool white					833.73.562
3000 warm white	762 (30")	81	6.8	559	833.71.215
4000 cool white	7 02 (00)				833.71.220
3000 warm white	838 (33")	90	7.3	622	833.73.542
4000 cool white					833.73.564
3000 warm white	914 (36")	99	8.3	683	833.71.216
4000 cool white	011(00)				833.71.221
3000 warm white	991 (39")	108	8.8	746	833.73.544
4000 cool white				7 +0	833.73.566
3000 warm white	1067 (42")	117	9.7	807	833.71.217
4000 cool white	1001 (42)	117			833.71.222
3000 warm white	1143 (45")	126	10.2	870	833.73.546
4000 cool white	1170 (40)	120	10.2		833.73.568

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



INTERIOR CABINET LIGHT KITS

Loox interior cabinet light kits provide a turn-key solution for one and two-door base or wall cabinets. Each kit includes flexible silicone LED light strips, door switches, cables and accessories for installation. The LED strips can be trimmed to fit the cabinet height, and they have a peel and stick backing so they can be applied to the inside of the cabinet face frames.



Wattage: 9.25 LEDs: 114

L x W x H: 960 x 8 x 2 mm (38" x 5/16" x 1/16") Material: Housing and Switch: Plastic; Color: black Wire Management: Plastic; Color: tan Ribbon: Silicone; Color: white

Light Color	Lumen	Item No.
warm white	745	833.73.589
cool white	750	833.73.591

Supplied With

2 Silicone ribbons

Door switch

Switch housing

1000 mm (39 3/8") Switch cable

Splitter cable

500 mm (19 11/16") Lead extension

2 - 50 mm (2") Leads with clips

2 - 10" and 1- 20" Cable management channels



Wattage: 9.25 LEDs: 114

L x W x H: 960 x 8 x 2 mm (38" x 5/16" x 1/16") Material: Housing and Switch: Plastic; Color: black Wire Management: Plastic; Color: tan Ribbon: Silicone; Color: white

Light Color	Lumen	Item No.
warm white	745	833.73.588
cool white	750	833.73.590

Supplied With

- 2 Silicone ribbons
- 2 Door switches
- 2 Switch housings
- 2 1000 mm (39 3/8") Switch cables
- 2 50 mm (2") Leads with clips
- 2 10" and 1- 20" Cable management channels



DRAWER LIGHT KITS

Loox Drawer light kits provide a turn-key solution for lighting drawer interiors. Each kit includes a flexible silicone LED light strip, a drawer switch, cables and accessories for installation. The LED strips can be trimmed to fit the drawer width, and they have a peel and stick backing so they can be applied to the inside of the drawer opening.



Wattage: 2.92 LEDs: 36

L x W x H: 610 x 8 x 2 mm (24" x 5/16" x 1/16") Material: Housing and Switch: Plastic; Color: black Wire Management: Plastic; Color: tan Ribbon: Silicone; Color: white

Light Color Lumen		Item No.
warm white	235	833.73.580
cool white	236	833.73.585

Supplied With

Silicone ribbon Drawer switch Switch housing 1000 mm (39 3/8") Switch cable 50 mm (2") Lead with clip

1 - 10" and 1 - 20" Cable management channels

PUCK LIGHT KITS

Puck Lights can be used for either under cabinet task lighting or for accent lighting in cabinets with glass doors. Loox pucks are modular and are offered with your choice of Round or Square trim rings for surface mounting.



Wattage: 3.8

Ø x H: 65 x 15.6 mm (2 9/16" x 5/8")

Material: Trim Ring: Plastic; Color: silver colored

Light: Plastic, frosted

Light Color	Lumen	Round	Square
warm white	280	833.72.251	833.72.252
cool white	302	833.72.253	833.72.254

Supplied With

Puck light

Round or square trim ring 2000 mm (78 3/4") Lead

HAFELE

USING HÄFELE'S LOOX LED 2020 CATALOG

Häfele's Loox LED catalog for 2020 simplifies the process of selecting, quoting and ordering the Loox components needed to add cabinet lighting to your kitchen designs. Once you have completed your cabinet layout, open the Häfele LED catalog and complete these three simple steps:

- 1) Select the type of lights you want and attach them to cabinets in your layout
- 2) Determine how many LED Drivers are needed and add them to the Item List
- 3) Add optional dimmer control and cable accessories to the Item List

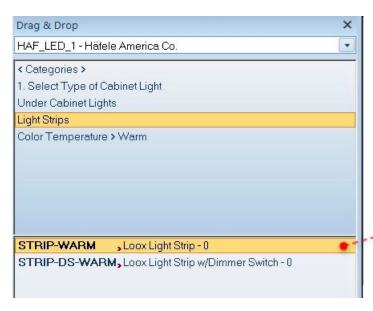
At any time during the process, you can review details about the lights or view renderings of how they will look.

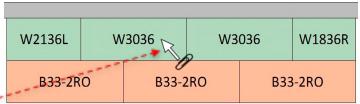


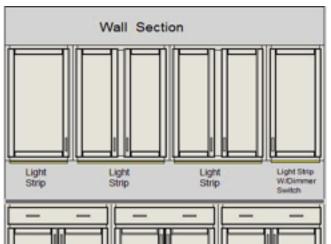


UNDER CABINET LIGHTS - LIGHT STRIPS

- Choose Warm or Cool color temperature
- Select STRIP (Loox Light Strip) or STRIP-DS (Loox Light Strip with Dimmer Switch)
- Drag and attach the selected Light Strip to any Wall Cabinet in your floor plan; 2020 will automatically select the appropriate length light strip based on the cabinet width







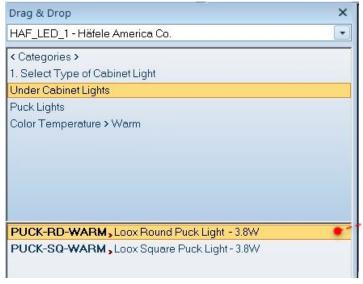
DESIGN TIP

Select only one cabinet per wall section to receive a Light Strip with Dimmer Switch. It should be attached to a cabinet at one of the ends of the section. The Light Strips for all of the cabinets in the wall section link together and are controlled by the Light Strip with Dimmer Switch.



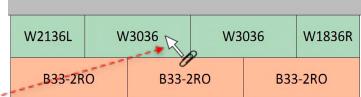
UNDER CABINET PUCK LIGHTS

- Choose Warm or Cool color temperature
- Select PUCK-RD (Loox Round Puck Light) or PUCK-SQ (Loox Square Puck Light)
- Drag and attach the selected light to any Wall Cabinet in your floor plan
- Select the number of pucks you would like to add to the cabinet and click Apply; 2020 will automatically distribute the lights evenly within the width of the cabinet



DESIGN TIPS

To achieve an even distribution of light, use one light for every 6-10 inches of space. The Multizone Remote Dimmer (Optional Accessories) is recommended for puck light applications.





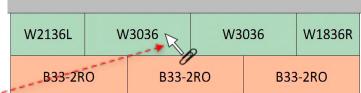
ACCENT LIGHTS FOR CABINETS WITH GLASS DOORS

- Choose Warm or Cool color temperature
- Select PUCK-RD (Loox Round Puck Light) or PUCK-SQ (Loox Square Puck Light)
- Drag and attach the selected light to any Wall Cabinet in your floor plan
- Select the number of pucks you would like to add to the cabinet and click Apply; 2020 will automatically distribute the lights evenly within the width of the cabinet



DESIGN TIPS

To achieve an even distribution of light, use one light for every 6-10 inches of space. For cabinets with shelves, use glass shelves. The Multizone Remote Dimmer (Optional Accessories) is recommended for puck light applications.







INTERIOR CABINET LIGHTS

- Choose Warm or Cool color temperature
- Select appropriate light for the cabinet type:

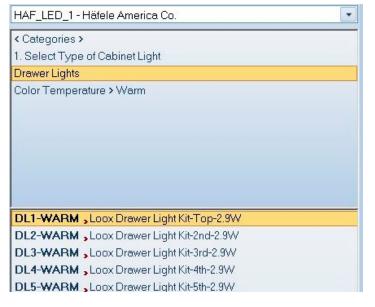
W1D (Wall Cabinet – 1 Door)

W2D (Wall Cabinet - 2 Doors)

B1D (Base Cabinet – 1 Door)

B2D (Base Cabinet – 2 Doors)

• Drag and attach the item to the cabinet



DRAWER LIGHTS

- Choose Warm or Cool color temperature
- Select appropriate light for the drawer:

DL1 (Top Drawer)

DL2 (2nd Drawer from top)

DL3 (3rd Drawer from top)

DL4 (4th Drawer from top)

DL5 (5th Drawer from top)

- Drag and attach the item to a cabinet in your layout
- Repeat for each drawer in the cabinet

DESIGN TIPS

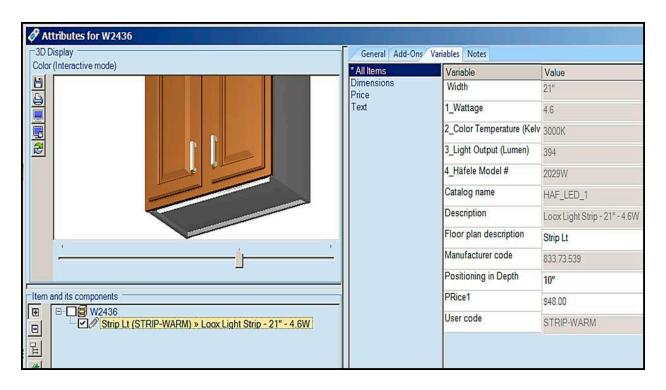
When adding lights to a cabinet with multiple drawers, connect the lights with a 3-way or 6-way distributor (Optional Accessories).



VIEWING LIGHT ATTRIBUTES

- To review details about lights that have been added to the cabinet, select the cabinet and click Attributes. The Loox component will appear in the Item and its components section underneath the 3D Display.
- Click on the Loox component and open the Variables Tab in the right column to see item details including:

Wattage	Used to calculate LED # of LED Drivers required
Color Temperature (Kelvin)	Warm lights - 3000K; Cool Lights - 5000K
Light Output (Lumen)	Indicates quantity of light emitted
Description	Includes item description and Wattage
Häfele Model #	Hafele product group
Manufacturer Code	Häfele 8 digit Item number; Use this number for orders.
Price	Häfele SRP





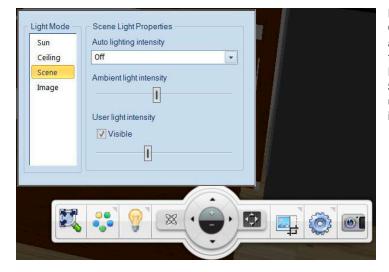
VIEWING RENDERINGS

2020's powerful rendering engine allows you to see the dramatic effect that cabinet lighting can have on your kitchen design. Following are some basic tips for viewing cabinet lights in your renderings. For additional help, go to **www.2020.net**.









DESIGN TIPS

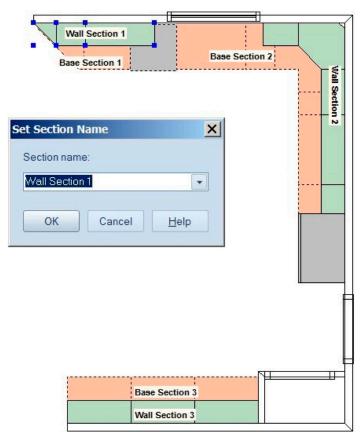
Open cabinet doors and drawers to see Interior Cabinet Lights and Drawer Lights in the rendering. Turn off Auto Lighting feature to better see the Ambient Light and User Light. Click the Lightbulb icon in the 2020 rendering dashboard and open the **Scene** light mode. Make sure the **Visible** check box is selected under **User Light Intensity**. Move the slider bars to adjust intensity of Ambient Light and User Light.



SELECT LED DRIVERS (POWER SUPPLIES)

The Loox LED Driver is a device that converts high voltage alternating electrical current (AC) that comes from a wall outlet to a regulated low voltage current (DC) appropriate for powering Loox LED diodes. All Loox lights and components are powered by the driver which plugs into a standard wall outlet.

After you have added the lights to your plan, you will need to determine how many drivers will be required.



DETERMINING NUMBER OF DRIVERS NEEDED

The number of drivers needed is based on 2 primary factors:

- 1) The number of Cabinet Sections in your layout
- 2) The total Wattage requirements of the lights in each Cabinet Section

CABINET SECTIONS

You will need at least one driver for each cabinet section. A cabinet section is a group of contiguous wall or base cabinets. When creating your design, make sure that there is a wall outlet available for each cabinet section that you are adding lighting to. Outlets used for Loox drivers should be located out of normal sight lines. More information about Outlet Placement can be found on page 18.

DESIGNER TIP

Use the 2020 Section Name function to define each base and wall cabinet section in your layout.



OUTLET PLACEMENT

Loox LED lights can easily be installed without the need for an electrician, because the driver is powered by a standard wall outlet. However, when planning your kitchen, make sure that there is a wall outlet available for each cabinet section that you plan to add lighting to. Outlets used for Loox drivers should be located in places that are out of normal sight lines. For wall cabinets, the typical location for outlets is either above the cabinets, or inside a cabinet above a microwave or range hood. Outlets for base cabinets are typically located in the back of cabinets or behind an adjacent appliance such as a refrigerator.





OUTLET ABOVE CABINET

OUTLET INSIDE CABINET, ABOVE MICROWAVE

CONTROLLING OUTLETS WITH A WALL SWITCH

If you want to control under cabinet or accent lights with a traditional wall switch, plug the driver into a "Switched" outlet. With this method, the dimming function can still be controlled by the built-in dimmer switch or the multi-zone dimmer, but the lights can be turned on or off with the wall switch.





CALCULATING WATTAGE REQUIREMENTS

The standard Loox Driver has a 60 Watt capacity. All Loox lights have a Wattage rating. The Wattage rating for each of the Loox lights is included in their product Description. Wattage can also be found in the product specifications pages in this design guide.

To calculate the total Wattage requirements for a cabinet section, add the Wattage ratings for the lights that have been added to a cabinet section. If the combined requirement exceeds 60 Watts, you will need two drivers for that section.

Note

In most situations, wattage requirements for a cabinet section will rarely exceed 60W.

Section Wall Section 3					
#	Qty	User code Catalog	Manuf. code Manuf. Name	Description	Fin. Side
31	1	W3336-GL SAMPLE_F_1	W3336-GL	Wall w/Glass	
31.1	1	STRIP-WARM HAF_LED_1	833.71.225	Loox Light Strip - 30" - 6.8W	В
31.2	3	PUCK-RD- WARM HAF_LED_1	833.72.251	Loox Round Puck Light - 3.8W	В
32	1	W3336-GL SAMPLE_F_1	W3336-GL	Wall w/Glass	
32.1	1	STRIP-WARM HAF_LED_1	833.71.225	Loox Light Strip - 30" - 6.8W	В
32.2	3	PUCK-SQ- WARM HAF_LED_1	833.72.252	Loox Square Puck Light - 3.8W	В
33	1	W3336-GL SAMPLE_F_1	W3336-GL	Wall w/Glass	R
33.1	1	STRIP-DS- WARM HAF_LED_1	833.71.215	Loox Light Strip w/Dimmer Switch - 30" - 6.8W	В
33.2 *: non-plar	3 item	PUCK-RD- WARM HAF_LED_1	833.72.251	Loox Round Puck Light - 3.8W	В

DESIGN TIP

Use 2020's Report Manager to run an Items by Section report to view the lights and their wattage requirements that have been added to each cabinet section. When calculating the Wattage, be sure to check the quantity for each line item. In this example, the Wattage requirement for the section is 54.6 Watts.

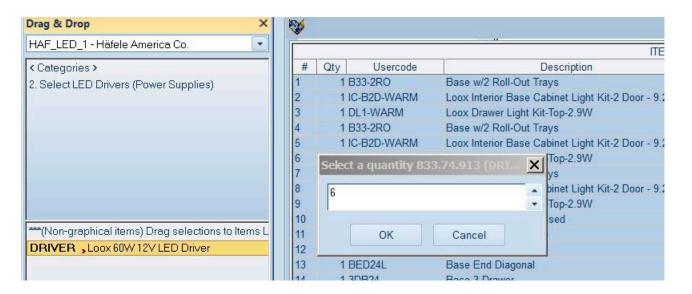
IN THE EXAMPLE ABOVE, THE WATTAGE REQUIREMENTS IS 54.6 WATTS.



ADDING DRIVERS TO THE ITEM LIST

Once you have determined the number of Drivers needed, add the Drivers to your Items List:

- Open the Items List for your design
- Click Select LED Drivers (Power Supplies) Drag the Loox 60W 12V LED Driver to the Items List
- Indicate the number of drivers in the dialog box and click OK





SELECT OPTIONAL ACCESSORIES



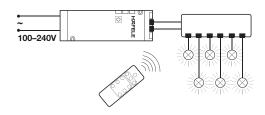




REMOTE SWITCH & SWITCH HOUSING

MULTI-70NE WIRELESS DIMMER SYSTEM

Description	Item No.
6-channel Remote Receiver	833.73.741
Remote Control	833.89.121
Remote Switch	833.89.123
Switch Housing for Remote Switch	833.89.122



With the Loox multi-zone wireless dimmer system, you can control all the cabinet lights in the kitchen with a single remote control. The 6-channel remote receiver and remote control provides on/off or dimming for up to six lights and allows you to create and save up to three lighting scenes. The remote can control lights on up to 10 receivers.

The Remote Switch can be used as an On/Off Dimmer switch for all the lights connected to the multi-zone receivers.

DESIGN TIPS

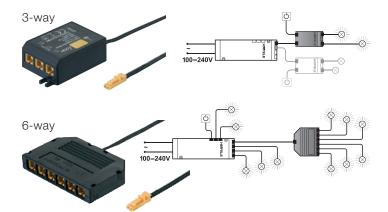
The Multi-zone Dimmer is recommended for controlling applications with puck lights both under cabinet and accent lights. Multi-zone Dimmers should not be used for light strips with the in-line dimmer switches or for drawer and interior cabinet lights. Be sure to order a separate receiver for each Cabinet Section that you want to control with the Remote Control.



SELECT OPTIONAL ACCESSORIES

DISTRIBUTORS

3-way and 6-way distributors allow you to operate multiple lights from a single driver port. Distributors are helpful for situations when you have more than six lights controlled by a single driver.





Description	Item No.
3-way	833.74.769
6-way	833.74.724

EXTENSION LEADS

Loox lights are supplied with 1 m (39 3/8") or 2 m (78 3/4") leads. Depending on the location of the driver and the configuration of the cabinet section, extension leads may be required. The maximum lead length from the driver to the light is 6 m (236 7/16").



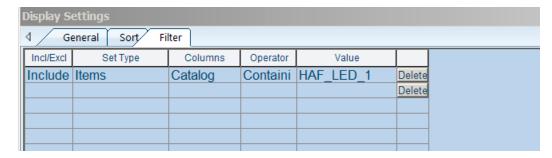
Material: Plastic; Color: black

Length	Item No.
300 mm (11 13/16")	833.74.769
500 mm (19 5/8")	833.74.724
610 mm (24")	833.74.770
1000 mm (39 5/8")	833.74.725
2000 mm (78 3/4")	833.74.726

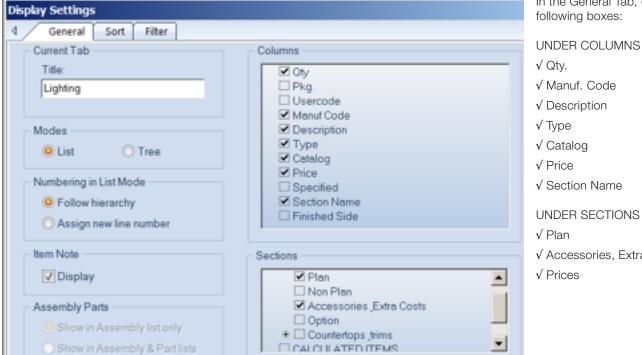


LIGHTING ITEM LIST

Once you have added the lights, drivers and optional Loox accessories to your plan, 2020 provides multiple options for reviewing items and prices. To quickly view a summary of the lighting, it is helpful to set up a separate Lighting Tab.



Right click to open Display Settings. Click the filter tab and add a filter to include Items contained in the Häfele Loox LED catalog.



In the General Tab, check the

UNDER SECTIONS

√ Accessories, Extra Costs



CREATING LIGHTING QUOTES

- Use the 2020 Report Manager to create a quote. This is the information you will need for ordering the lighting
- Make sure to set Nomenclature to include Manufacturer Codes & Descriptions The Manufacturer Code is the 8 digit Item Number used for ordering Häfele products The Description includes the Wattage for each of the products
- Prices shown for Loox products in 2020 are the Suggested Retail Price

Supplier		Hafele America Co.		
4		Manuf. code	Description	
Cabine	ets			
1	3	833.73.588	Loox Interior Base Cabinet Light Kit-2 Door - 9.2W	198.00
2	2	833.73.580	Loox Drawer Light Kit-Top-2.9W	106.00
3	1	833.73.580	Loox Drawer Light Kit-Top-2.9W	53.00
4	1	833.73.580	Loox Drawer Light Kit-2nd-2.9W	53.00
5	1	833.73.580	Loox Drawer Light Kit-3rd-2.9W	53.00
3	1	833.73.580	Loox Drawer Light Kit-Top-2.9W	53.00
7	1	833.73.589	Loox Interior Base Cabinet Light Kit-1 Door - 9.2W	60.00
3	1	833.73.588	Loox Interior Base Cabinet Light Kit-2 Door - 9.2W	66.00
9	2	833.71.225	Loox Light Strip - 30" - 6.8W	114.00
10	5	833.72.251	Loox Round Puck Light - 3.8W	260.00
11	3	833.72.252	Loox Square Puck Light - 3.8W	156.00
12	1	833.72.251	Loox Round Puck Light - 3.8W	52.00
13	1	833.71.213	Loox Light Strip w/Dimmer Switch - 12" - 2.4W	49.00
14	1	833.73.589	Loox Interior Wall Cabinet Light Kit-1 Door - 9.2W	60.00
15	1	833.73.543	Loox Light Strip - 33" - 7.6W	60.00
16	1	833.73.534	Loox Light Strip w/Dimmer Switch - 15" - 3.2W	52.00
17	1	833.73.589	Loox Interior Wall Cabinet Light Kit-1 Door - 9.2W	60.00
18	2	833.73.539	Loox Light Strip - 21" - 4.6W	96.00
19	1	833.73.589	Loox Interior Wall Cabinet Light Kit-1 Door - 9.2W	60.00
Cabinets net total			1,661.00	
Acces	sories			
20	6	833.74.913	Loox 60W 12V LED Driver	432.00
Accessories net total				432.00
HAF	LED	1 Net Total		2,093.00

HAFELE

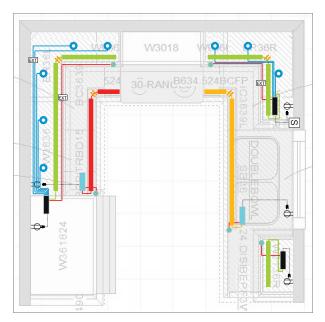
PLACING ORDERS WITH HÄFELE



The 2020 Lighting Quote has all the information needed to order the Loox components. Placing orders with Häfele is easy and convenient, and can be done online, by phone, or by email.

Online and Live Chat: www.hafele.com/us
Phone: 800.423.3531
E-mail sales@hafele.us

HÄFELE'S LED LIGHTING DESIGN SERVICE



If you have questions about your design, our lighting design professionals can help you create a complimentary customized lighting plan and price quote for your project.

For more information, call one of our Lighting Specialists at 1.888.437.7477 or email us at projects@hafele.us.



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Phone: 800 423 3531 | **Fax:** 800 325 6197 | **Showroom:** New York

www.hafele.com