

TOKISTAR

PRODUCT GUIDE
GRADIENT HB
I'LINKS



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2022.11 Ver. 1

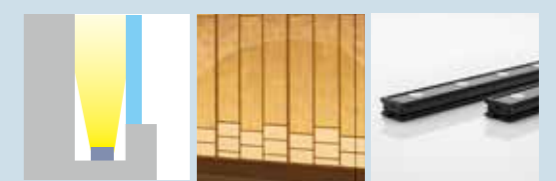


#01

#02

#03

#01 Yunokawa Onsen Umi to Akari

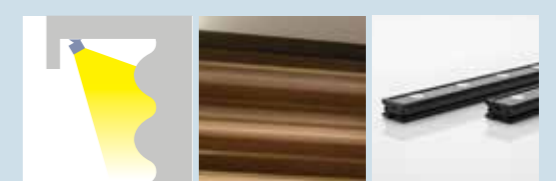


GRADIENT HB

GRHB-60-2700K-15D
 Interior Design : Ishii Architect & Associates
 Lighting Design : sola associates
 Photograph : Forward Stroke inc.

▶▶ Page 3-6

#02 SHISEIDO THE STORE



GRADIENT HB

GRHB-75-3500K-15D
 GRHB-75-3500K-SP + Parallel louver
 Design : nendo + onndo
 Lighting Design : L·GROW lighting planning room

▶▶ Page 3-6

#03 Tokiwabashi Tower

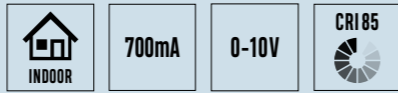


I'LINKS

ILS-30K-15D
 (Honeycomb louver & custom magnet)
 Design : Mitsubishi Jisho Design Inc.
 Lighting Design : sola associates
 Photograph : Kawasumi · Kobayashi Kenji
 Photograph Office

▶▶ Page 9-12

GRADIENT HB



Current = 700mA
 Wattage = 2.1W/LED
 Weight = 900g/m
 Main Materials = Aluminum & PC
 Lead cable = AWG18 x 2 L=0.2m

GRHB-□□□-□□□□K-□□

LED Spacing	LED Color	Beam Angle
60 : 60mm	2700K	SP : Spread
75 : 75mm	3000K	15D : 15°
100 : 100mm	3500K	
	4000K	

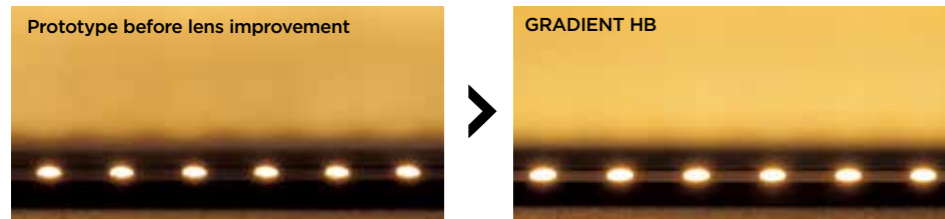
Catalog#	Power	LED Q'ty/run
GRHB-60-_-_-	35.0W/m	4 to 18LEDs
GRHB-75-_-_-	28.0W/m	
GRHB-100-_-_-	21.0W/m	

Optional Mounting Brackets are absolute necessity for installation.
 Please choose from page 5.

System Features

Point 01

Beautiful illumination from the beginning

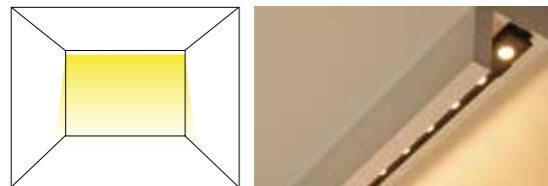


For optimum results, and to minimize light scallop we recommend positioning fixtures the same distance from the reflecting surface as the spacing between the LEDs.

Point 02

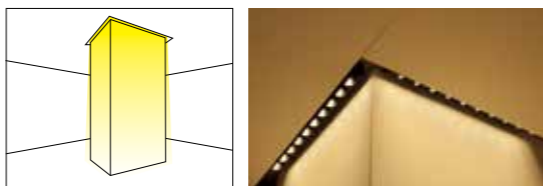
A variety of options designed toward meeting specific lighting objectives

Fixed Brackets



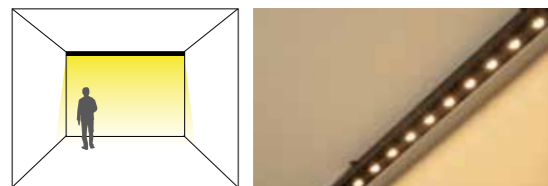
Positioning a fixture behind a cornice will keep it hidden from view.

Fixed Brackets + Parallel Louver



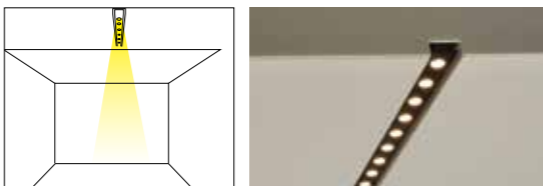
Parallel louvers block light from side viewing angles.

Adjustable Brackets + Glare Guards



The degree of rotation is easy to set with adjustable brackets for precise focusing.

Fixed Brackets + Honeycomb Louver



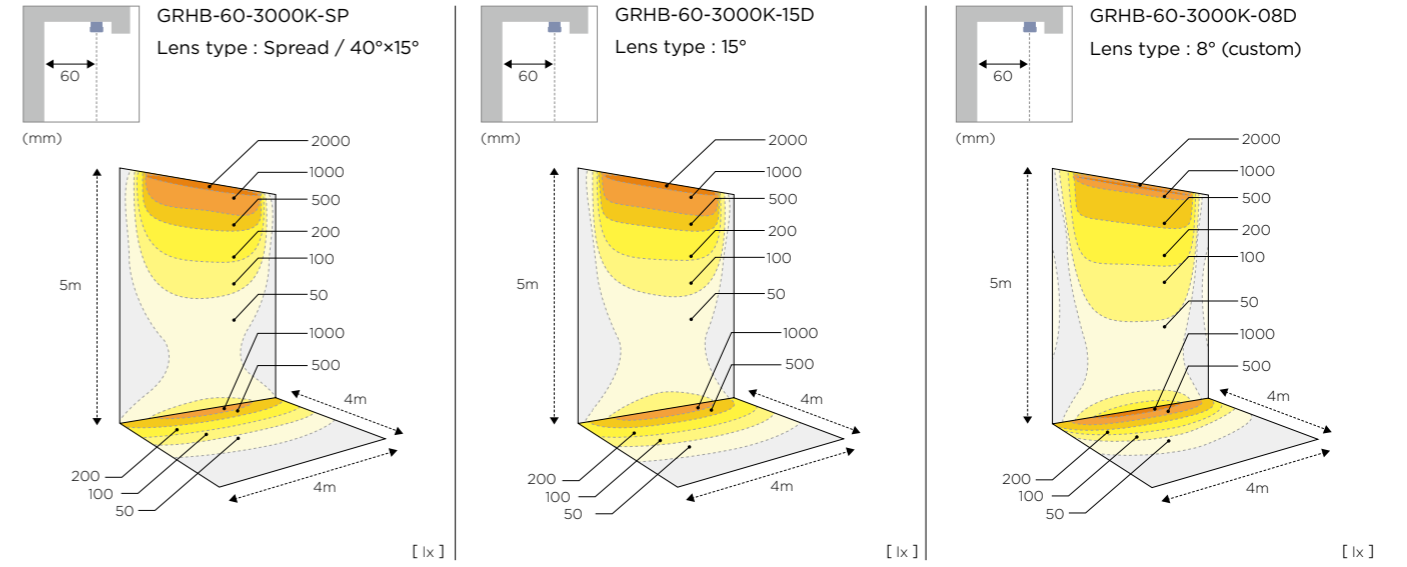
GHRB recessed in the ceiling.



Parallel Louvers (above),
 Honeycomb Louvers (below).

These optional louvers can be installed after installation.

Light Distribution



Beam Angle

SP : Spread (40°x15°)	08D : 8°(custom)
15D : 15°	25D : 25°(custom)
	35D : 35°(custom)

Lumen value per meter

LED Color \ Pitch	60mm	75mm	100mm
2700K	3333	2666	2000
3000K	3666	2933	2200
3500K	3666	2933	2200
4000K	3666	2933	2200

(lm)

LED Color, lm

2700K : 200lm / LED	3500K : 220lm / LED
3000K : 220lm / LED	4000K : 220lm / LED

GRHB 2CH tunable white type is available as a custom-made product.



※LED Spacing is 50mm.
 For further details, please contact us.

Mounting Brackets



Fixed Bracket

Fixture lengths shorter than 1.5m require 2 brackets.

GRHB-FIXB2 Fixed Bracket 2pcs

Fixtures exceeding 1.5m require 3 brackets.
(at 100mm LED spacing 16 pcs or more)

GRHB-FIXB3 Fixed Bracket 3pcs



Adjustable Bracket

Fixture lengths shorter than 1.5m require 2 brackets.

GRHB-ADJB2 Adjustable Bracket 2pcs

Fixtures exceeding 1.5m require 3 brackets.
(at 100mm LED spacing 16 pcs or more)

GRHB-ADJB3 Adjustable Bracket 3pcs

Optional Louvers



Parallel Louver

Parallel louvers block light from front and side viewing angles. They can be used with fixed or adjustable brackets.

GRHB-PLVR Parallel Louver



Glare Guard Louver

Glare Guards slide and lock onto the fixture, preventing glare from many angles. They are for use with adjustable brackets only.

GRHB-GLVR Glare Guard Louver



Honeycomb Louver

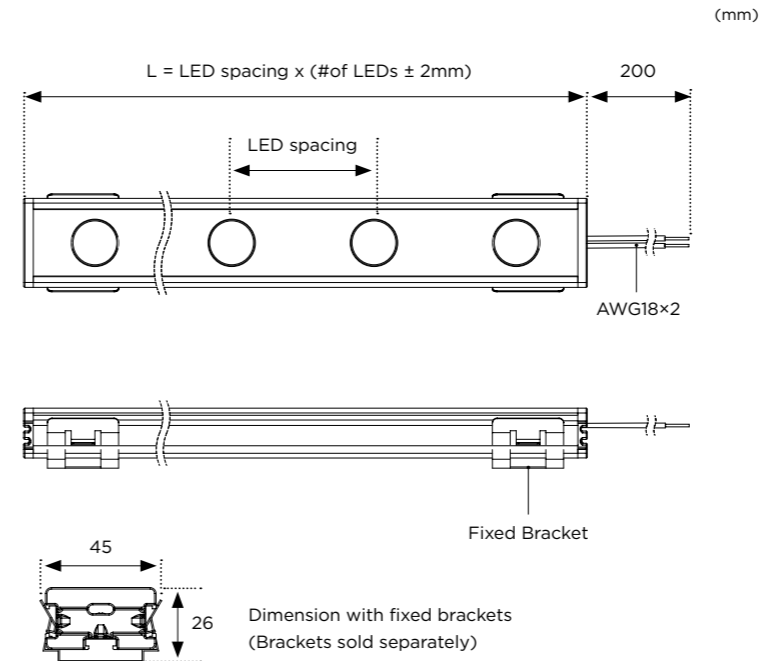
This louver adds very little to the fixture's overall profile and eliminates glare from many angles. It can be used with fixed or adjustable brackets.

GRHB-HLVR Honeycomb Louver

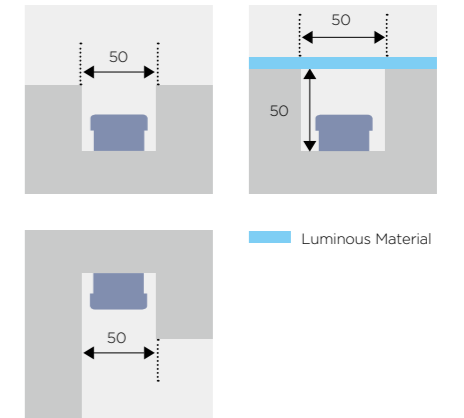
	Parallel Louver GRHB-PLVR	Honeycomb Louver GRHB-HLVR	Glare Guard Louver GRHB-GLVR
Fixed Bracket (mm)	 Fixed Bracket +Parallel Louver (mm)	 Fixed Bracket +Honeycomb Louver (mm)	X
Adjustable Bracket (mm)	 Adjustable Bracket +Parallel Louver (mm)	 Adjustable Bracket +Honeycomb Louver (mm)	 Adjustable Bracket +Glare Guard Louver (mm)

Different louvers cannot be used together. Select the one most appropriate for the application. Glare Guard Louvers cannot be used with fixed brackets.

Specifications



Minimum Space Requirements



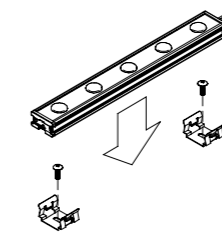
※For proper air flow, the dimensions indicated are required to prevent heat build up. Please keep these guidelines in mind when using various optional parts. Other considerations are lighting effect and maintenance.

Instructions

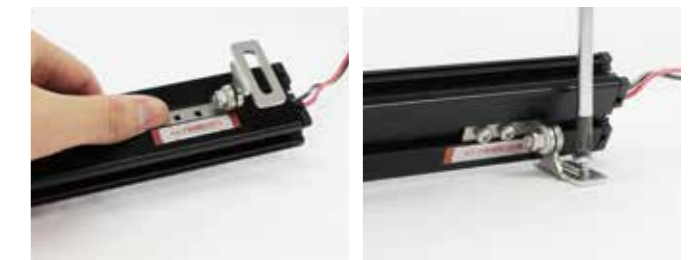
Fixed Bracket Mounting



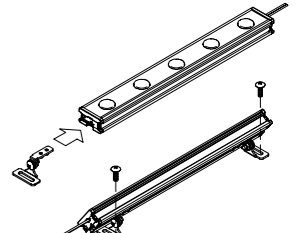
After screwing brackets into the mounting position, insert the fixture into the brackets. Glare Guards cannot be combined with fixed brackets.



Adjustable Bracket Mounting



Slide the brackets to one of the specified positions of the lighting fixture and screws them on. After attaching the brackets, fix them by screwing them to the construction surface. Adjustable range is $\pm 55^\circ$.



Glare Guard Louver Mounting



Slide Glare Guards into the groove on the side and screw in place. Attach Glare Guards before installing the fixture.

※Can not be combined with fixed brackets.

Parallel • Honeycomb Louver Mounting

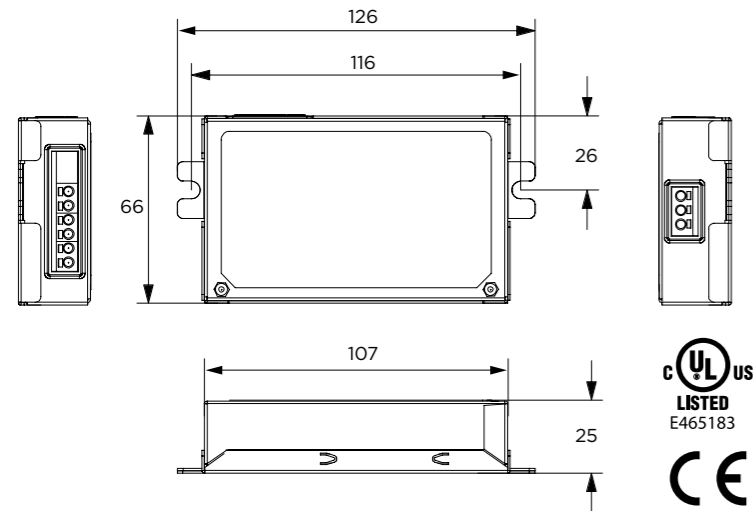


Be sure to attach optional louvers directly over the center of the LED lens. These items can be attached after the fixture has been installed.

Power Supply

LDRCC-40-NS

Our constant current LED Driver accepts input from 0-10VDC dimming controls. The driver has full range dim-to-off capability. The input is universal ranging from 100 to 277 VAC 50/60 Hz. (mm)



LDRCC-40 Specifications

Input Range : 100-277 VAC
 Frequency Range : 50/60 Hz
 Output : 3-57 VDC
 Current : 700mA
 Max. Output Power : 40W
 Protection : Overload, Overcurrent, Short Circuit
 Over Temperature, Mis-Wiring protection (auto shutdown)
 Operating Temperature : -40°C to +50°C

Mechanical Specifications

Dimensions : 126 x 66 x 25mm
 Weight : 170g
 Enclosure Rating : IP21
 Mounting : Flange Mount
 Input/Output Connectors : Wago 253/AWG16-20

Safety Standards

Listed to UL8750, UL Class 2, Class P
 EMI Compliance : FCC 47CFR Part 15 Class B

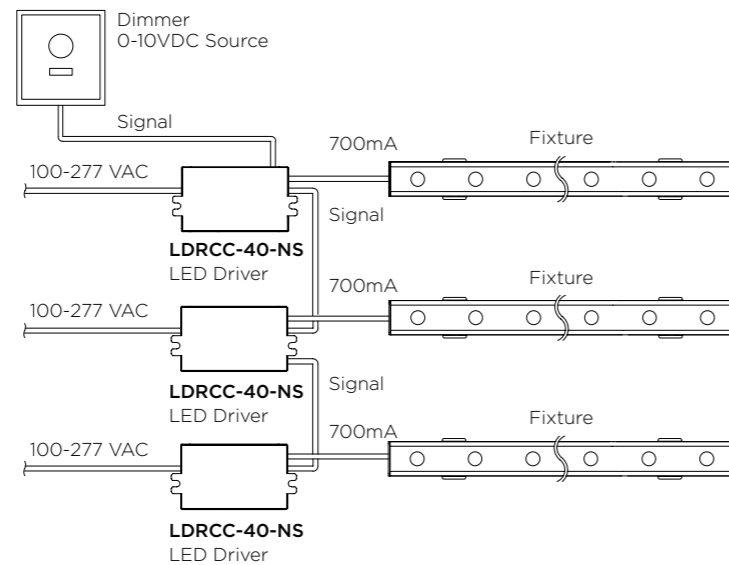
LED Capacity

2 to 18 GRHB (2.1 Watt) LEDs

Wiring Diagram

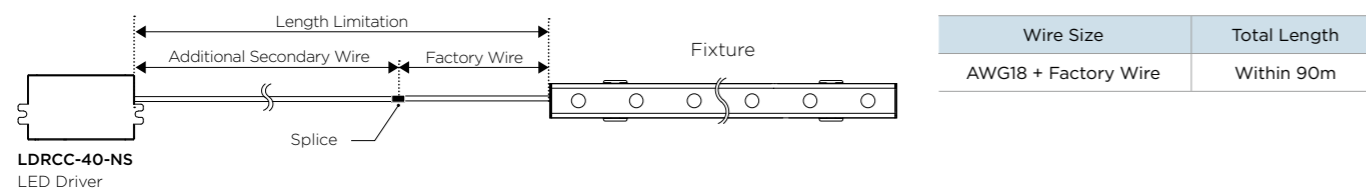
Dimming Control

Up to 30 LDRCC-40-NS LED Drivers can be connected in series from a single 0-10VDC source. The maximum distance from the 0-10VDC source to the last LED driver is 75 meters based upon the use of AWG18 shielded cable. For applications operating from DMX, Dali or other protocols, check with the dimmer manufacturer to provide a suitable interface to generate a 0-10VDC signal.



Recommended Lead Wire Size and Length Limitation

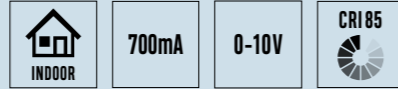
The distance from the power supply to the fixture, and the load of the fixture, will determine the proper size of secondary wire. Fixtures are provided with a factory lead. If additional wire needs to be attached, refer to the recommendation in this chart.



PRECAUTIONS

1. Read all instructions completely before beginning installation.
2. Turn off electricity before beginning installation.
3. All wiring is to be performed by a qualified electrician.
4. Installation must comply with the National Electrical Code, or all applicable codes.
5. Turn main supply to LED Driver on only after all connections have been made and tested.
6. Use only LED Drivers provided by Tokistar with the system.

I'LINKS



Current = 700mA
 Wattage = 2.1W/LED
 Weight = 50g
 Main Materials = Aluminum & PC
 Lead cable = AWG18 x 2

ILS-□□K-□□

LED Color	Beam Angle
27K : 2700K	SP : Spread
30K : 3000K	15D : 15°
35K : 3500K	08D : 8°
40K : 4000K	

Catalog#	Power	LED Q'ty/run
ILS-__K-__	2.1W	1 to 18LEDs

Optional Mounting Brackets are an absolute necessity for installation. Please choose from page 11.
 ILS Lead Cable 0.2m & End Connector are essential. Please confirm at page 12.

System Features

Point 01

The system is ideal for architectural details of all shapes and sizes.



Ultra-compact, with a width of 60 mm and a height of 26 mm (including the fixed bracket). It can be used in confined areas and deliver efficient light where needed.

Point 03

Wide variety of options

Louvers can be selected according to the situation.



Parallel Louver



Honeycomb Louver



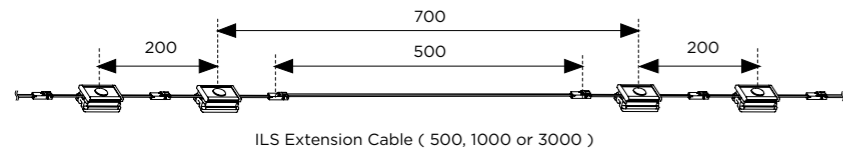
Glare Guard Louver

Point 02

Various spatial effects are possible depending on your design.



I'Links uses the same LED driver and distribution method as GRADIENT HB, making them extremely compatible. Flexible wires between modules make it extremely versatile. Irregular configurations may be accommodated by using ILS Extension Cables.



Beam Angle

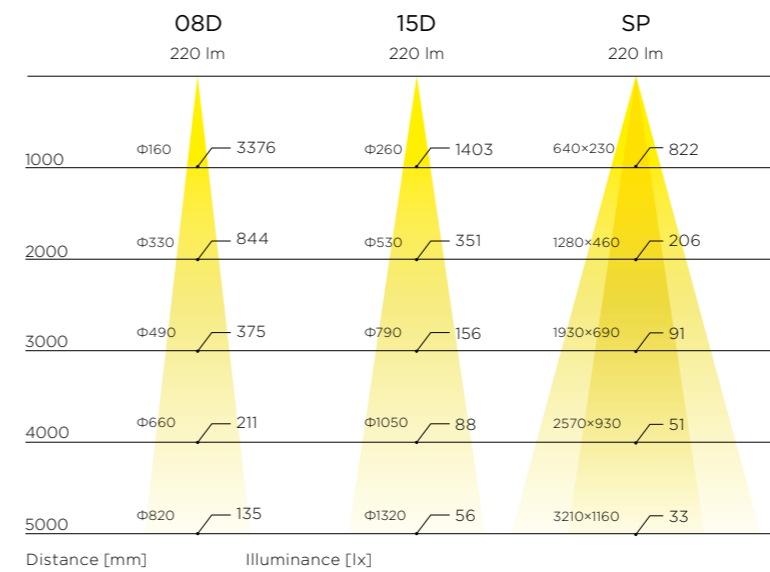
SP : Spread (40°x15°)	25D : 25° (custom)
15D : 15°	35D : 35° (custom)
08D : 8°	

LED Color, lm

2700K : 200lm / LED	3500K : 220lm / LED
3000K : 220lm / LED	4000K : 220lm / LED

Light Distribution

※All values shown are for 3000K per module



Mounting Brackets



Fixed Bracket
One bracket is required per module.

ILS-FIXB1	Fixed Bracket
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Adjustable Bracket
One bracket is required per module.

ILS-ADJB1	Adjustable Bracket
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Optional Louvers



Parallel Louver
Parallel louvers block light from front and side viewing angles.

GRHB-PLVR	Parallel Louver
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Glare Guard Louver
Glare Guards slide and lock onto the fixture, preventing glare from many angles.

ILS-GLVR	Glare Guard Louver
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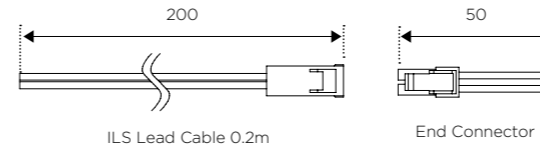
Honeycomb Louver
This louver adds very little to the fixture's overall profile and eliminates glare from many angles.

GRHB-HLVR	Honeycomb Louver
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ILS Connectors

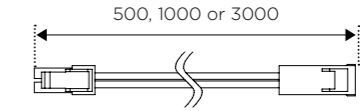
(mm)

ILS-CON-0.2m/EC **REQUIRED**



ILS-CON-0.2m/EC | ILS Lead Cable 0.2m & End Connector

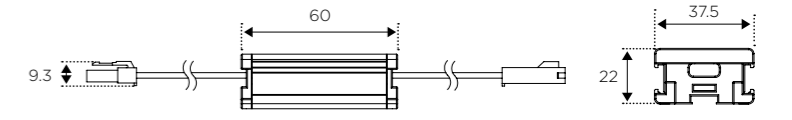
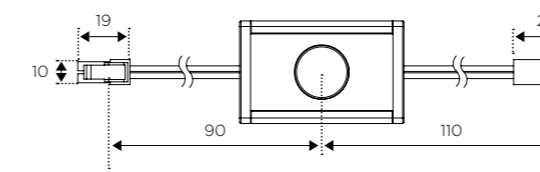
ILS-EXT-0.5m
ILS-EXT-1m
ILS-EXT-3m



ILS-EXT-0.5m	ILS Extension Cable 0.5m
ILS-EXT-1m	ILS Extension Cable 1m
ILS-EXT-3m	ILS Extension Cable 3m

Specifications

(mm)



When I'Links are connected, the LED spacing is 200mm.

Instructions

Fixed Bracket Mounting



After screwing brackets into the mounting position, insert the fixture into the bracket.

Adjustable Bracket Mounting



Slide the bracket to one of the specified positions of the lighting fixture and screw it on. After attaching the bracket, fix it by screwing it to the construction surface. Adjustable range is $\pm 55^\circ$.

Glare Guard Louver Mounting



Slide Glare Guards into the groove on the side and screw in place. Attach Glare Guards before installing the fixture.

Parallel • Honeycomb Louver Mounting



Be sure to attach optional louvers directly over the center of the LED lens. These items can be attached after the fixture has been installed.

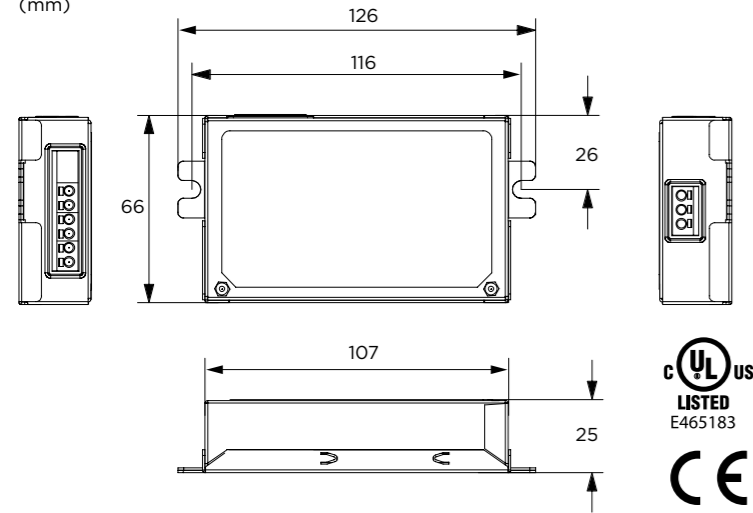
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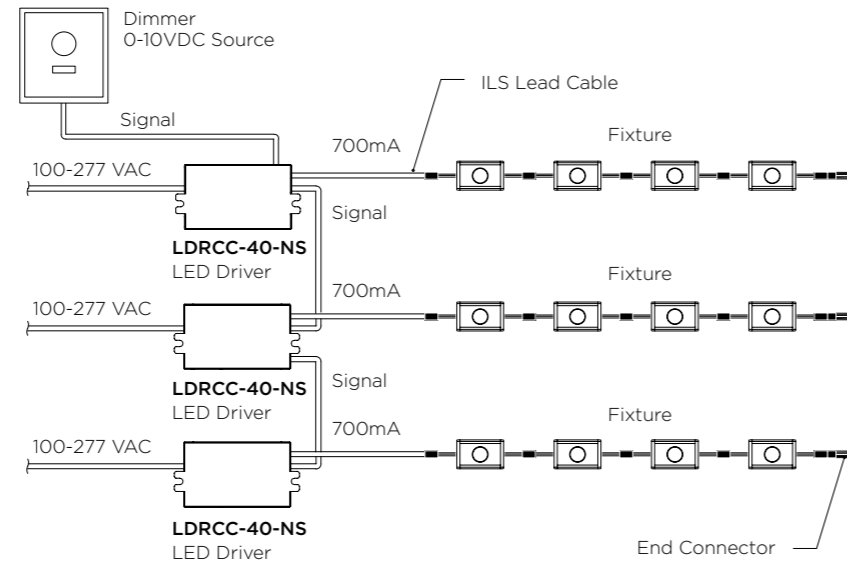
LED Capacity

LDRCC-40-NS : 2 to 18 ILS (2.1 Watt) LEDs
 LDRCC-40-NS-D : 1 ILS (2.1 Watt) LED

Wiring Diagram

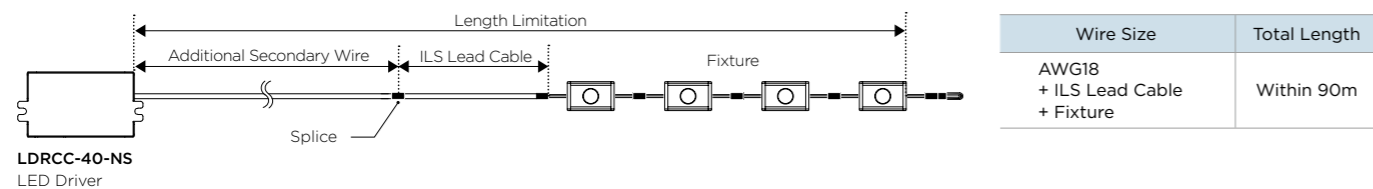
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