



Think Automation and beyond...



IDEC LUMIFA Family
LED Lighting Solutions

LUMIFA



Lighting your way

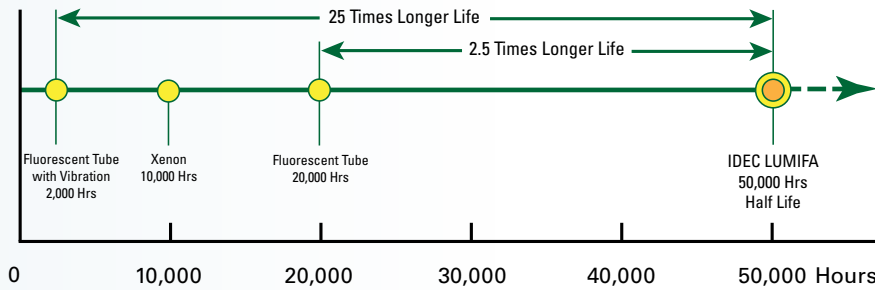
For over two decades, IDEC has produced LEDs for applications requiring indicator lights and signaling towers. Which is why it was a natural progression to begin developing lighting products and construct the world's first building illuminated with 100% of our own LED technology. New LUMIFA LED lights provide a brighter, longer-lasting, cost-effective and more environmentally-friendly lighting source.

- **Bright:**
65.3 Lumens/Watt (LUMIFA Series average)
- **Long Lasting:**
70% of Initial Luminance at 50,000 Hrs
- **Efficient:**
1/3 the energy of Fluorescent Tubes
- **Compact:**
Width as narrow as 27.5mm
- **Rugged:**
Heavy-duty, durable, water/oil resistant
- **Variety of Colors:**
Cool white, warm white, red, yellow, blue, green

800.262.4332

Suitable for Harsh Environments

With their IP67/IP67f rating, the LF1D and 2D series can be used in wet and harsh environments. Resistant to water, oil and metal shavings, they are perfect for many industrial applications. In addition, the LF1E series can withstand temperatures down to -40°C making them ideal for freezers and refrigerated environments.

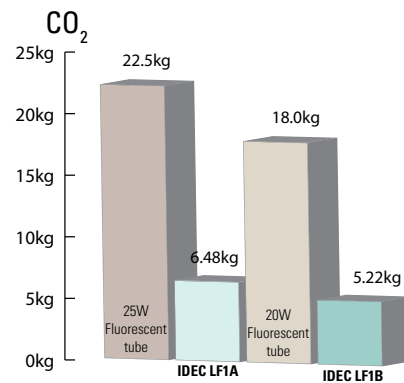


Heat Dissipation Technology

In an LED, only 20% of the energy converts into Light, while 80% is lost in the form of heat. For that reason, proper heat management is critical. IDEC Heat Dissipation Technology (patent pending) uses dissipation pins to transfer heat generated in the LED chip to a heat dissipation plate. This minimizes the buildup of heat in the LED element and results in a longer-lasting LED.

Environmentally-friendly

LUMIFA LEDs are made from non-toxic materials and produce 71% less CO₂ emissions compared with a 20W/25W fluorescent tube. LUMIFA are also great for green applications such as solar panels, which have a low power requirement and can't supply the energy necessary for fluorescent bulbs.



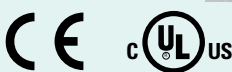
LUMIFA LF1B-N

Control Panels • Industrial Equipment • Freezers • Refrigerated Display Cases

LF1B-N Series

The LF1B-N series LED light strips are slim and perfect for applications where space is a concern. They come in six different lengths and six distinct colors, making them a very flexible lighting solution.

- Compact design: 27.5mm wide, 16mm high, and 134 to 1,080mm long
- 6 Colors: cool white, warm white, yellow, red, blue, green
- All units come standard with 3 meter connection cables
- 2 Cover options: clear, white
- IP65 degree of protection (waterproof, dustproof), suitable for use in wet locations



LED Optical Specifications

Illumination Color		Cool White		Warm White		Yellow		Red		Green		Blue	
Cover		Clear	White	Clear	White	Clear	White	Clear	White	Clear	White	Clear	White
Color Temperature/ Dominant Wavelength (typ.)		5,500K		2,900K		590nm		620nm		525nm		455nm	
Reference Brightness (typ.) at 0.5m	LF1B-NA	90lx	80lx	60lx	55lx	20lx	18lx	20lx	18lx	30lx	27lx	10lx	9lx
	LF1B-NB	220lx	200lx	145lx	130lx	40lx	36lx	40lx	36lx	60lx	55lx	20lx	18lx
	LF1B-NC	400lx	360lx	250lx	225lx	75lx	65lx	75lx	65lx	110lx	100lx	30lx	27lx
	LF1B-ND	660lx	600lx	455lx	410lx	125lx	110lx	125lx	110lx	190lx	170lx	50lx	45lx
	LF1B-NE	820lx	740lx	560lx	500lx	160lx	145lx	160lx	145lx	260lx	235lx	60lx	55lx
	LF1B-NF	935lx	850lx	620lx	555lx	180lx	160lx	180lx	160lx	300lx	270lx	80lx	70lx

800.262.4332

LED modules and illumination units may vary in illumination colors and brightness.

General Specifications

Model		LF1B-NA (134mm)	LF1B-NB (210mm)	LF1B-NC (330mm)	LF1B-ND (580mm)	LF1B-NE (830mm)	LF1B-NF (1,080mm)
Rated Voltage		24V DC (operating voltage range: 21.6 to 26.4V)					
Input Current (typ.) (at the rated current)	cool white/warm white/blue	60mA	120mA	180mA	360mA	540mA	720mA
	red/yellow/green	40mA	80mA	120mA	240mA	360mA	480mA
Power Consumption (typ.) (at the rated voltage)	cool white/warm white/blue	1.5W	2.9W	4.4W	8.7W	13.0W	17.3W
	red/yellow/green	1.0W	2.0W	2.9W	5.8W	8.7W	11.6W
Insulation Resistance		100MΩ minimum (500V DC megger)					
Dielectric Strength		1,000V AC, 1 minute (between live and dead parts)					
Vibration Resistance (damage limits)		Frequency: 5 to 55 Hz, Amplitude 0.5mm Acceleration 60m/s ² (6G), 2 hours each in 3 axes				Frequency: 5 to 55 Hz, Amplitude 0.17mm Acceleration 20m/s ² (2G), 2 hours each in 3 axes	
Shock Resistance (damage limits)		1,000m/s ² (100G), 5 shocks each in 6 axes				300m/s ² (30G), 5 shocks each in 6 axes	
Operating Temperature		-30 to +55°C (no freezing)					
Operating Humidity		45 to 85% RH (no condensation)					
Storage Temperature		-35 to +70°C (no freezing)					
Operating Atmosphere		No corrosive gases					
Life (Note)		40,000 hours (Ta = 25°C) (The total illumination life in which the brightness maintains a minimum of 70% of the initial value.)					
Degree of Protection		IP65 (IEC 60529)					
Material		Cover: polycarbonate, End cover/cable gland: polyamide, Wire: PVC (24AWG)					
Weight (approx.)		95g	125g	165g	255g	430g	740g

LED life depends on the operating environment.

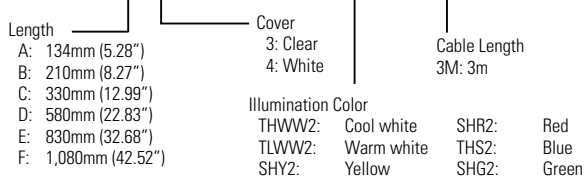
Part Numbers

Illumination Color	Cool White	Warm White	Yellow	Red	Blue	Green
Appearance						
LF1B-NA (134mm)	LF1B-NA*P-2THWW2-3M	LF1B-NA*P-2TLWW2-3M	LF1B-NA*P-2SHY2-3M	LF1B-NA*P-2SHR2-3M	LF1B-NA*P-2THS2-3M	LF1B-NA*P-2SHG2-3M
LF1B-NB (210mm)	LF1B-NB*P-2THWW2-3M	LF1B-NB*P-2TLWW2-3M	LF1B-NB*P-2SHY2-3M	LF1B-NB*P-2SHR2-3M	LF1B-NB*P-2THS2-3M	LF1B-NB*P-2SHG2-3M
LF1B-NC (330mm)	LF1B-NC*P-2THWW2-3M	LF1B-NC*P-2TLWW2-3M	LF1B-NC*P-2SHY2-3M	LF1B-NC*P-2SHR2-3M	LF1B-NC*P-2THS2-3M	LF1B-NC*P-2SHG2-3M
LF1B-ND (580mm)	LF1B-ND*P-2THWW2-3M	LF1B-ND*P-2TLWW2-3M	LF1B-ND*P-2SHY2-3M	LF1B-ND*P-2SHR2-3M	LF1B-ND*P-2THS2-3M	LF1B-ND*P-2SHG2-3M
LF1B-NE (830mm)	LF1B-NE*P-2THWW2-3M	LF1B-NE*P-2TLWW2-3M	LF1B-NE*P-2SHY2-3M	LF1B-NE*P-2SHR2-3M	LF1B-NE*P-2THS2-3M	LF1B-NE*P-2SHG2-3M
LF1B-NF (1,080mm)	LF1B-NF*P-2THWW2-3M	LF1B-NF*P-2TLWW2-3M	LF1B-NF*P-2SHY2-3M	LF1B-NF*P-2SHR2-3M	LF1B-NF*P-2THS2-3M	LF1B-NF*P-2SHG2-3M

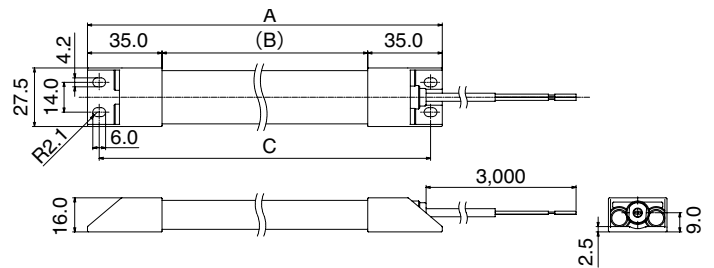
*Insert 3 for clear cover and 4 for white cover.

Part Number Structure (use for interpreting part numbers only)

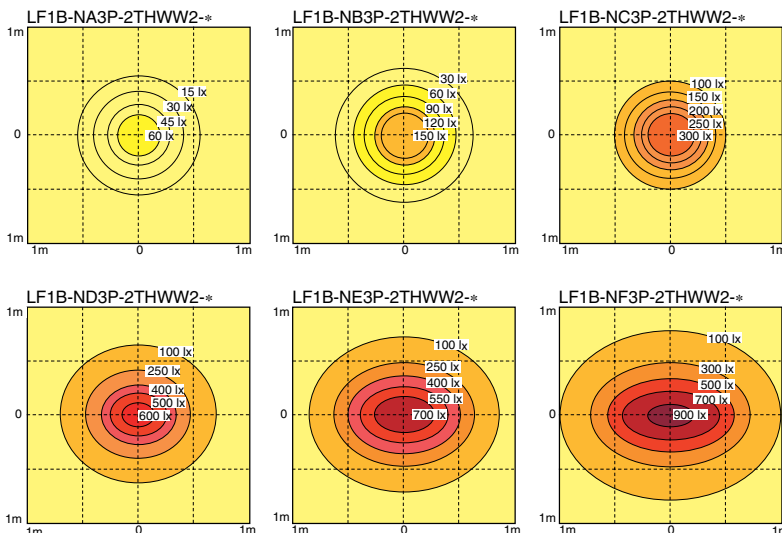
LF1B - NC 3 P - 2 THWW2 - 3M



Dimensions (mm)



Brilliance Distribution at 0.5m (reference value)



Dimension Table

Model	A		B		C	
	mm	inch	mm	inch	mm	inch
LF1B-NA	134	5.28	64	2.52	123	4.84
LF1B-NB	210	8.27	140	5.51	199	7.83
LF1B-NC	330	12.99	260	10.24	319	12.56
LF1B-ND	580	22.83	510	20.08	569	22.40
LF1B-NE	830	32.68	760	29.92	819	32.24
LF1B-NF	1080	42.52	1010	39.76	1069	42.09

LUMIFA LF2B

Control Panels • Industrial Equipment

LF2B Series

Wide range of input voltages (100 - 240V AC) and DC-battery compatible 12/24V DC are available. Slim units can be used in many applications and installations where space is limited. Rated IP65 (protection from water and dust) LF2B is great for environments where there is water spray.

- Slim units: 40mm (w) x 29mm (h). Using mounting brackets, one-step installation in a narrow space is possible.
- Five Lengths (210/330/580/830/1,080mm) are offered to meet space requirements and illumination coverages.
- Bright and clear white LED illuminates the shapes and colors of target objects. (LF2B illuminance is approximately 25% higher than the LF1B.)
- Two covers: clear or white



*UL applies for DC units only.



LED Optical Specifications

Model	LF2B-B (210mm)		LF2B-C (330mm)		LF2B-D (580mm)		LF2B-E (830mm)		LF2B-F (1,080mm)	
Illumination Color	White									
Color Temperature	5,500K									
Luminous Flux (typ.)	180 lm		360 lm		720 lm		1,080 lm		1,440 lm	
Cover	Clear	White	Clear	White	Clear	White	Clear	White	Clear	White
Reference Illuminance (typ.) at 0.5m directly below	230 lx	215 lx	425 lx	390 lx	710 lx	645 lx	930 lx	835 lx	1,160 lx	1,040 lx

LED modules and illumination units may vary in illumination colors and illuminance.

General Specifications

Model	LF2B-B (210mm)	LF2B-C (330mm)	LF2B-D (580mm)	LF2B-E (830mm)	LF2B-F (1,080mm)
Rated Voltage	100-240V AC 50/60Hz (Voltage range: 90-264V AC)				
	12V/24V DC (Voltage range: 10.8-30V DC)				
Input Current (typical) (at the rated voltage) ¹	AC100~240V	33mA	67mA	96mA	149mA
	DC12V/24V	215mA	409mA	880mA	—
Rated Power (at the rated voltage)	AC100~240V	3.8W	7.5W	9.2W	14.3W
	DC12V/24V	2.6W	4.9W	10.6W	—
Insulation Resistance	100MΩ minimum (500V DC megger)				
Dielectric Strength	AC100~240V	AC2,000V			—
	DC12V/24V	AC1,000V			—
Vibration Resistance	Frequency 5 - 55 Hz, Amplitude 0.17mm, speed acceleration 20m/s ² , 3 directions, 2 hours each				
Shock Resistance	300m/s ² , 6 directions, 5 times each				
Operating Temperature	-30 to +55°C (no freezing)				
Operating Humidity	45 to 85% RH (no condensation)				
Storage Temperature	-35 to +70°C (no freezing)				
Operating Atmosphere	No corrosive gases				
Life ²	40,000 hours (Ta = 25°C) (The total illumination life in which the brightness maintains a minimum of 70% of the initial value.)				
Degree of Protection	IP65 (IEC 60529)				
Material	Front Cover: Polycarbonate Resin; End Cover/Cable Gland: Polyamide Resin; Cable: PVC sheathing (24AWG)				
Weight (approx.)	AC100~240V	200g	255g	400g	520g
	DC12V/24V	175g	235g	370g	—

1. AC100V input for AC100 - 240V; DC12V input for DC12V/24V

2. LED life is dependent on the operating environment and conditions.

Part Numbers

Illumination Color	White			
	Clear Cover		White Cover	
Cover				
Rated Voltage	100 - 240V AC	12V/24V DC	100-240V AC	12V/24V DC
LF2B-B (210mm)	LF2B-B3P-ATHWW2-1M	LF2B-B3P-BTHWW2-1M	LF2B-B4P-ATHWW2-1M	LF2B-B4P-BTHWW2-1M
LF2B-C (330mm)	LF2B-C3P-ATHWW2-1M	LF2B-C3P-BTHWW2-1M	LF2B-C4P-ATHWW2-1M	LF2B-C4P-BTHWW2-1M
LF2B-D (580mm)	LF2B-D3P-ATHWW2-1M	LF2B-D3P-BTHWW2-1M	LF2B-D4P-ATHWW2-1M	LF2B-D4P-BTHWW2-1M
LF2B-E (830mm)	LF2B-E3P-ATHWW2-1M		LF2B-E4P-ATHWW2-1M	
LF2B-F (1,080mm)	LF2B-F3P-ATHWW2-1M		LF2B-F4P-ATHWW2-1M	

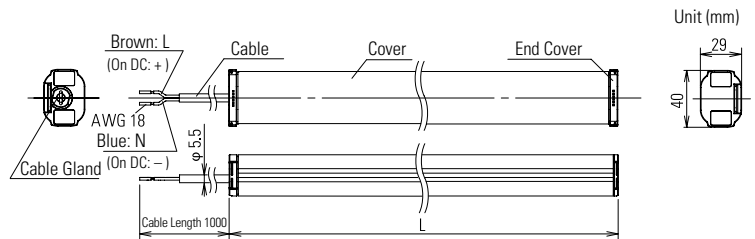
Part Number Structure (use for interpreting part numbers only)

LF2B - C 3 P - ATHWW2 - 1M

Length	Cover	Rated Voltage
B: 210mm (8.27")	3: Clear	A: 100/240V AC
C: 330mm (12.99")	4: White	B: 12V/24V DC
D: 580mm (22.83")		
E: 830mm (32.68")		
F: 1,080mm (42.52")		

DC12V/24V Length: B (210mm), C (330mm), D (580mm) only

Dimensions (mm)



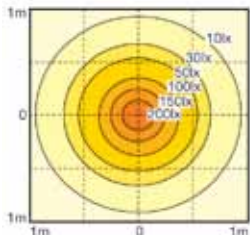
Dimension Table

Part Number	L (mm)	Inch
LF2B-B□P-◇THWW2-1M	210	8.27
LF2B-C□P-◇THWW2-1M	330	12.99
LF2B-D□P-◇THWW2-1M	580	22.83
LF2B-E□P-◇THWW2-1M	830	32.68
LF2B-F□P-◇THWW2-1M	1,080	42.52

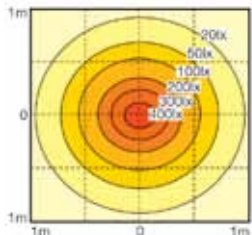
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Illuminance Charts (Clear light at 0.5m)

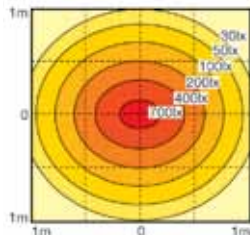
LF2B-B (210mm)



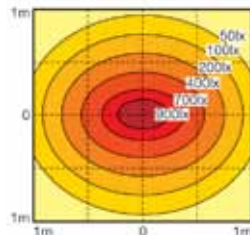
LF2B-C (330mm)



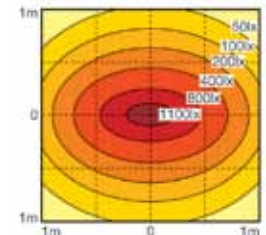
LF2B-D (580mm)



LF2B-E (830mm)



LF2B-F (1,080mm)



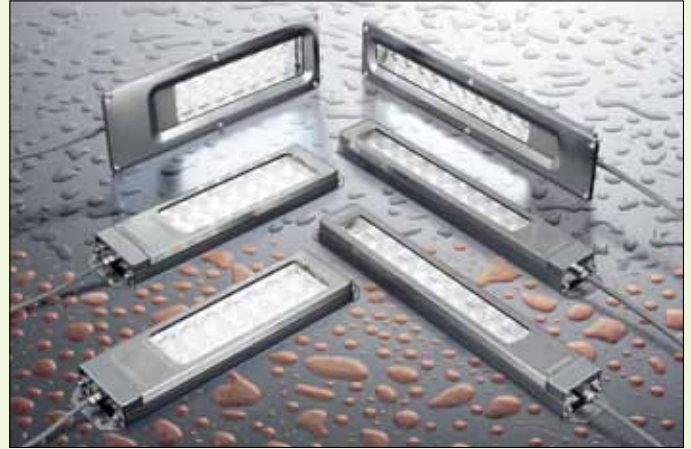
LUMIFA LF1D & LF2D

Machine Tools • Food & Beverage Processing Equipment

LF1D (IP69K) and LF2D (IP67, IP67f) Series

LF1D and LF2D LED units are the brightest in their class. With their rugged construction they are ideal for machine tools, and food and beverage processing equipment. Available in wide or slim packages, with either Standard or High-Luminance (brighter, wider range) options. The design of these LED lights provides equally brilliant light at the center or edges of the units.

- Brightness: Standard Models: up to 1,100lx at 1m
High-Luminance Models: up to 1,450lx at 1m
- Life: 70% of initial luminance at 50,000 Hrs
- Rugged & durable for harsh environments
- Stainless steel cover (LF1D models), diecast aluminum housing
- LF1D: IP67, IP67f, IP69K (high pressure and high temperature washdown)
- LF2D: IP67 (Polycarbonate lens) or IP67f (Reinforced glass lens)
- UL Listed (wet locations)
- RoHS Compliant



LED Optical Specifications

Model	Standard				High-Luminance			
	Slim		Wide		Slim		Wide	
Illumination Surface	Clear	Diffused	Clear	Diffused	Clear	Diffused	Clear	Diffused
Illumination Color	Cool White							
Total Luminous Flux	600lm		840lm		1,000lm		1,260lm	
Color Temperature	5700K							
Reference Illuminance at 1.0m	1,100lx	1,000lx	1,100lx	1,000lx	1,450lx	1,200lx	1,450lx	1,200lx

LED modules and illumination units may vary in color and brilliance. Luminous flux, color temperature, and illuminance values shown above are typical.



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General Specifications

Model	Standard		High-Luminance	
	Slim	Wide	Slim	Wide
Rated Voltage	24V DC			
Voltage Range	21.6 to 26.4V DC			
Rated Power (typ.)	9W	12.5W	11W	12.5W
Insulation Resistance	1MΩ minimum (500V DC megger)			
Dielectric Strength	1,000V AC, 50/60Hz, 1 minute			
Vibration Resistance (damage limits)	Frequency 5 to 55Hz, amplitude 0.5mm			
Shock Resistance (damage limits)	1000m/s ²			
Operating Temperature	-30 to +55°C (no freezing)			
Operating Humidity	45 to 85% RH (no condensation)			
Storage Temperature	-35 to +70°C (no freezing)			
Operating Environment	No corrosive gases			
Life ¹	50,000 hours (The illumination duration in which the illuminance maintains a minimum of 70% of the initial value at 25°C.)			
Degree of Protection ²	IP67f (LF2D: reinforced glass), IP67 (LF2D: polycarbonate), IP67, IP69K (LF1D)			
Material ³	Housing: Diecast aluminum (LF1D/LF2D), Lens: Reinforced glass or polycarbonate (LF1D/LF2D) Cover: Stainless steel (LF1D), Flange cover: Diecast aluminum (LF2D)			
Weight (approx.)	LF1D-E*-2W*: 750g LF1D-E*-2W-A*: 950g LF2D-E*-2W*: 850g LF2D-E*-2W-A*: 1,000g	LF1D-F*-2W*: 800g LF1D-F*-2W-*: 1,000g LF2D-F*-2W*: 900g LF2D-F*-2W-A*: 1,050g	LF1D-E*-2W*: 750g LF1D-E*-2W-A*: 950g LF2D-E*-2W*: 850g LF2D-E*-2W-A*: 1,000g	LF1D-F*-2W*: 800g LF1D-F*-2W-*: 1,000g LF2D-F*-2W*: 900g LF2D-F*-2W-A*: 1,050g

1. LED life depends on the operating environment.
2. Waterproof or oil-proof characteristics specified by IEC 60529 and JEM1030. For illumination units without accessories, use a cable gland and cables that satisfy IP67f or IP67 degree of protection.
3. The reinforced glass and polycarbonate illumination surfaces have the same appearance, but have different degrees of protection (IP67f or IP67).

Part Numbers

Model			Slim Model (10 LEDs × 1 row)		Wide Model (7 LEDs × 2 rows)	
Cable Gland	Cable	Mounting Bracket	Clear Reinforced Glass	Clear Polycarbonate	Clear Reinforced Glass	Clear Polycarbonate
Appearance			 LF1D shown		 LF2D shown	
— (hole on the side)	—	√	LF⓪D-E⓪2F-2W LF⓪D-E⓪2F-2W-101	LF⓪D-E⓪3G-2W LF⓪D-E⓪3G-2W-101	LF⓪D-F⓪2F-2W LF⓪D-F⓪2F-2W-101	LF⓪D-F⓪3G-2W LF⓪D-F⓪3G-2W-101
— (hole on the back)	—	√	LF⓪D-E⓪2F-2W-200 LF⓪D-E⓪2F-2W-201	LF⓪D-E⓪3G-2W-200 LF⓪D-E⓪3G-2W-201	LF⓪D-F⓪2F-2W-200 LF⓪D-F⓪2F-2W-201	LF⓪D-F⓪3G-2W-200 LF⓪D-F⓪3G-2W-201
√ (Side)	—	√	LF⓪D-E⓪2F-2W-300 LF⓪D-E⓪2F-2W-301	LF⓪D-E⓪3G-2W-300 LF⓪D-E⓪3G-2W-301	LF⓪D-F⓪2F-2W-300 LF⓪D-F⓪2F-2W-301	LF⓪D-F⓪3G-2W-300 LF⓪D-F⓪3G-2W-301
	√	√	LF⓪D-E⓪2F-2W-350 LF⓪D-E⓪2F-2W-A	LF⓪D-E⓪3G-2W-350 LF⓪D-E⓪3G-2W-A	LF⓪D-F⓪2F-2W-350 LF⓪D-F⓪2F-2W-A	LF⓪D-F⓪3G-2W-350 LF⓪D-F⓪3G-2W-A
√ (Back)	—	√	LF⓪D-E⓪2F-2W-400 LF⓪D-E⓪2F-2W-401	LF⓪D-E⓪3G-2W-400 LF⓪D-E⓪3G-2W-401	LF⓪D-F⓪2F-2W-400 LF⓪D-F⓪2F-2W-401	LF⓪D-F⓪3G-2W-400 LF⓪D-F⓪3G-2W-401
	√	√	LF⓪D-E⓪2F-2W-450 LF⓪D-E⓪2F-2W-451	LF⓪D-E⓪3G-2W-450 LF⓪D-E⓪3G-2W-451	LF⓪D-F⓪2F-2W-450 LF⓪D-F⓪2F-2W-451	LF⓪D-F⓪3G-2W-450 LF⓪D-F⓪3G-2W-451

*In place of ⓪ insert 1 for Surface Mount models and 2 for Recessed models, in place of ② insert H for High-Luminance or leave blank for Standard models.

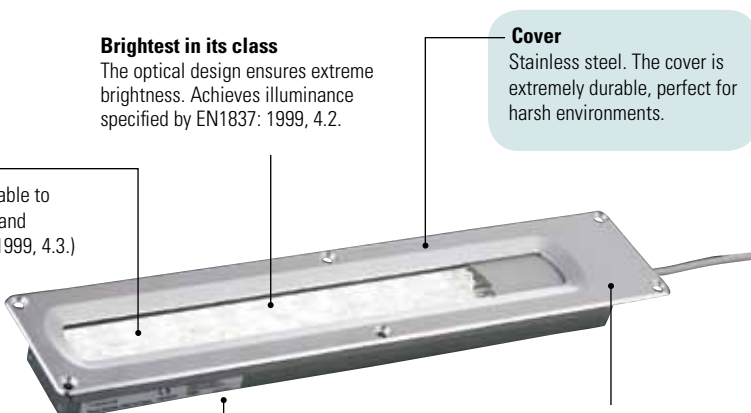
Part Number Structure (use for interpreting part numbers only)

LF 2 D - E H 2 F - 2 W - 300

- Shape
 - 1: Surface mount
 - 2: Recessed mount
- Size (LED arrangement)
 - E: Slim Model (10 LEDs × 1 row)
 - F: Wide Model (7 LEDs × 2 rows)
- Illumination Models
 - blank: Standard
 - H: large area, High Luminance
- Illumination Surface
 - 2: Clear, Reinforced glass
 - 3: Clear, Polycarbonate
 - 5: Diffused, Polycarbonate
 - 9: Diffused, Reinforced glass

- Degree of Protection
 - F: IP67f (LF2D), IP67f/IP69K (LF1D)
 - G: IP67 (LF2D), IP67/IP69K (LF1D)

Code	Cable Gland	Cable Gland Hole Location	Cable	Mounting Bracket
Blank	—	side	—	—
A	√	side	√	√*
101	—	side	—	√*
200	—	back	—	—
201	—	back	—	√*
300	√	side	—	—
301	√	side	—	√*
350**	√	side	√	—
400	√	back	—	—
401	√	back	—	√*
450	√	back	—	—
451	√	back	√	√*



Brightest in its class
The optical design ensures extreme brightness. Achieves illuminance specified by EN1837: 1999, 4.2.

Cover
Stainless steel. The cover is extremely durable, perfect for harsh environments.

Glare prevention
Diffused model available to prevent glaring light and reflection. (EN1837: 1999, 4.3.)

Housing
Aluminum.

Heat dissipation
Heat is dissipated by the aluminum housing.

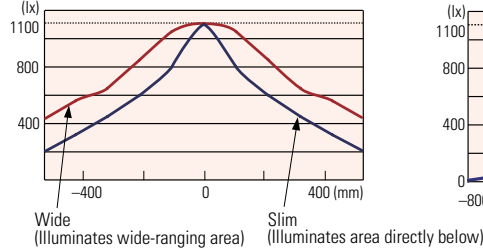
Efficient power circuit
Highly efficient, low-heat power circuit.

LUMIFA LF1D & LF2D

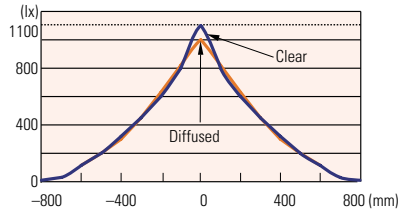
Machine Tools • Food & Beverage Processing Equipment

Distribution Characteristics (reference value at 1.0m)

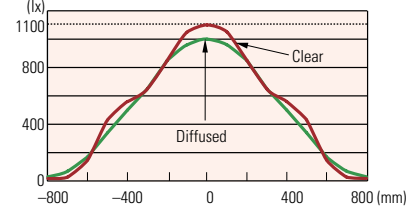
Standard Slim and Wide Models (Clear Surface)



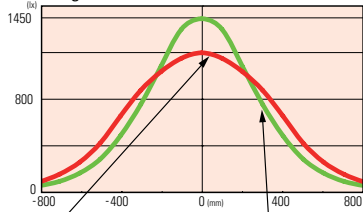
Standard Clear and Diffused Surface (Slim)



Standard Clear and Diffused Surface (Wide)

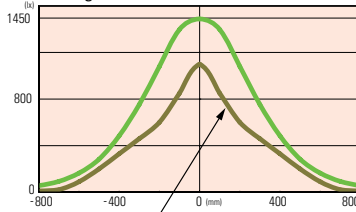


High-Luminance



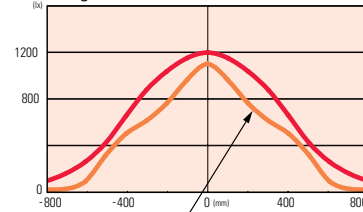
High-Luminance (wide) (Illuminates a large area with ultra bright light)
High-Luminance (slim) (Illuminates directly below and the surrounding area)

High-Luminance & Standard



Standard (slim) (Illuminates area directly below)
High-Luminance

High-Luminance & Standard



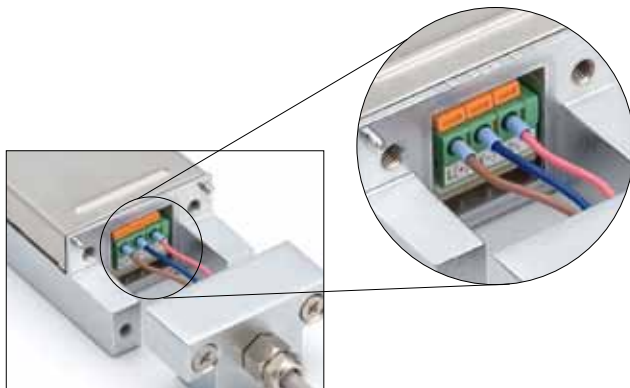
Standard (wide) (Illuminates large area)
High-Luminance

X: long side
Y: short side

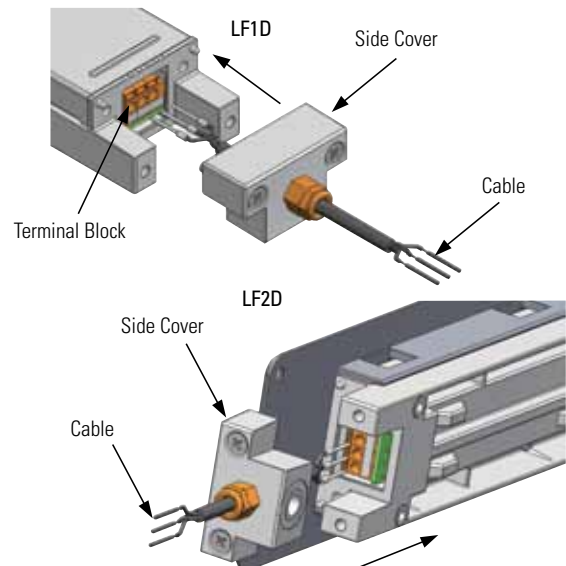
Easy Maintenance

Spring-clamp Terminal Blocks

Removable direct plug-in terminal blocks, with spring clamp connections, ensure a high-quality connection. This provides for easy installation or replacement of the LED illumination unit.

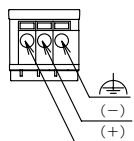


Connection Example

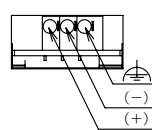


Terminal Block Wiring

Slim Type



Wide Type

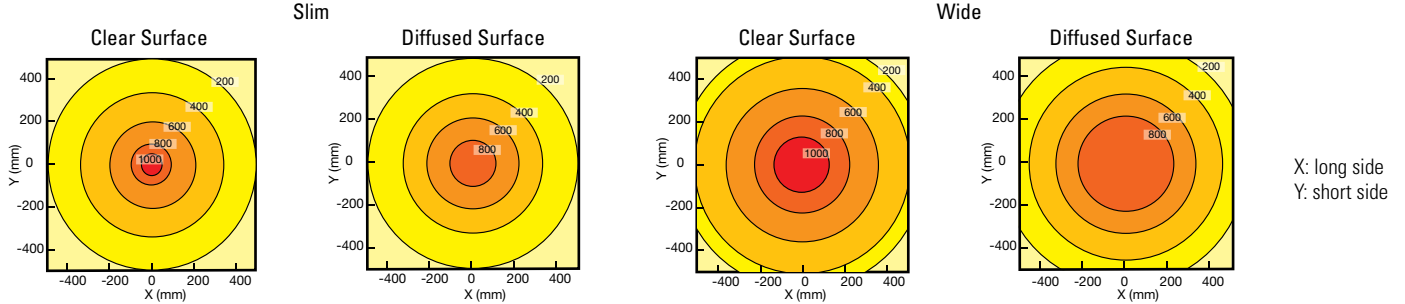


Applicable ferrules: 0.25 to 0.75 mm²

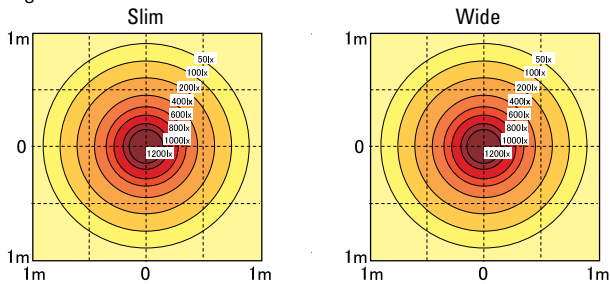
Recommended source - Phoenix Contact: AI 0,25-12 BU, AI 0,34-12 TQ,
AI 0,5-12 WH, AI 0,75-12 GY

Illuminance Charts

Standard



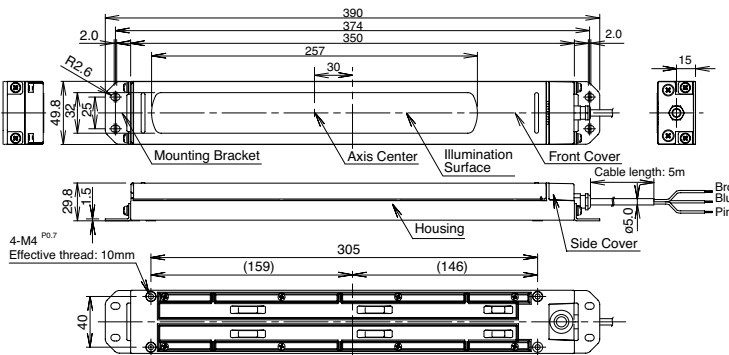
High-Luminance



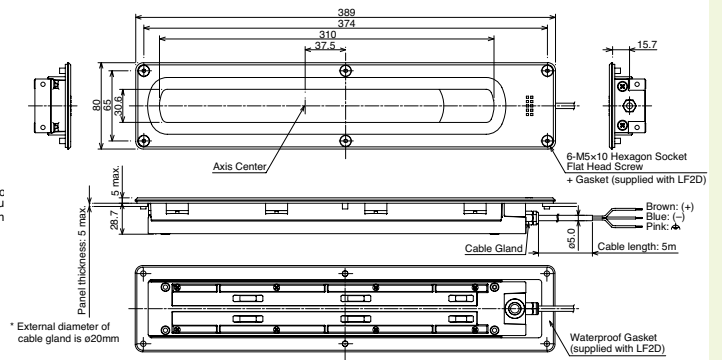
800.262.4332

Dimensions (mm)

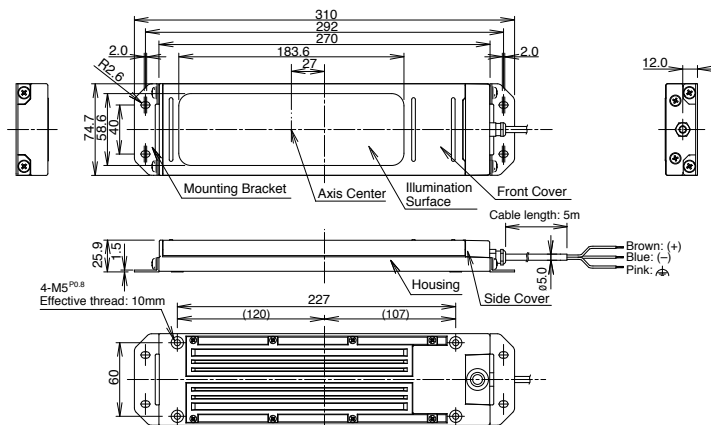
LF1D Slim



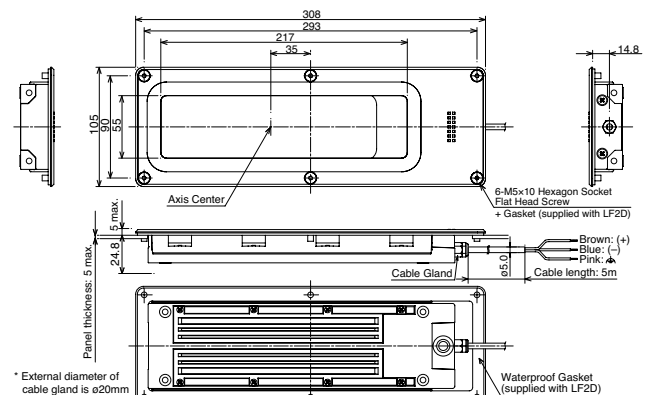
LF2D Slim



LF1D Wide



LF2D Wide



LUMIFA LF1E

Freezers • Refrigerated Display Cases • Testing Chambers

LF1E Series

The LF1E illumination lights are designed to be used in freezers or refrigerated display cases where the ambient temperature is as low as -40°C. These energy saving units, with a long service life, compact size and low heat generation make them perfect for illuminating areas with very low temperatures.

- Three types of light distribution: no-lens, condensing and dual
- Life: 70% of initial luminance at 40,000 Hrs
- Available in 4 lengths
- Plastic lens suitable for food industry
- IP54 protection against dust and water
- CE marked, UL Listed (damp locations)



LED Optical Specifications

Illumination Color		Cool White	Warm White
Color Temperature		5000K	3000K
Lens Type	Unit Length	Reference Illumination	
No Lens ¹	550mm	950lx	750lx
	808mm	1,100lx	900lx
	1066mm	1,200lx	950lx
	1450mm	1,250lx	1,000lx
Condensing Lens ¹	550mm	1,950lx	1,500lx
	808mm	2,000lx	1,550lx
	1066mm	2,000lx	1,550lx
	1450mm	2,000lx	1,550lx
Dual Lens	See Illumination Distribution Chart next page		

1. Measured at 0.3m directly below unit.

800.262.4332

General Specifications

Model (length)	LF1E-B (550mm)	LF1E-C (808mm)	LF1E-D (1066mm)	LF1E-E (1450mm)
Rated Voltage	24V DC			
Input Current (at rated voltage)	24V DC 350mA (404mA max)	525mA (606mA max)	700mA (807mA max)	950mA (1004mA max)
Power Consumption (typ. at rated input)	24V DC 8.4W (9.7W max)	12.6W (14.6W max)	16.8W (19.4W max)	22.8W (26.3W max)
Insulation Resistance	100 MΩ minimum (500V DC megger) between input and housing			
Dielectric Strength	500V AC, 1 minute			
Vibration Resistance (damage limits)	Frequency 5 to 55Hz, amplitude 0.17mm			
Shock Resistance (damage limits)	300m/s ²			
Operating Temperature	-40 to +40°C			
Operating Humidity	45 to 85% RH (no condensation)			
Storage Temperature	-40 to +70°C			
Operating Environment	No corrosive gases			
Life ¹	40,000 hours (The illumination duration in which the illuminance maintains a minimum of 70% of the initial value at 25°C.)			
Weight (approx.) ²	275g	390g	515g	690g
Degree of protection	IP54			
Material	End cover, conduit: polyamide, Cover: polycarbonate, Cable: PVC, Mounting bracket: stainless steel			

1. LED life depends on the operating environment.
2. Dual lens type.

Part Numbers



* N = Cool white, L: Warm white. † Blank = No lens, A = Condensing Lens, B = Dual Lens.

Part Number Structure (use for interpreting part numbers only)

LF1E-B3S-2NA

Length (mm)

- B: 550
- C: 808
- D: 1,066
- E: 1,450

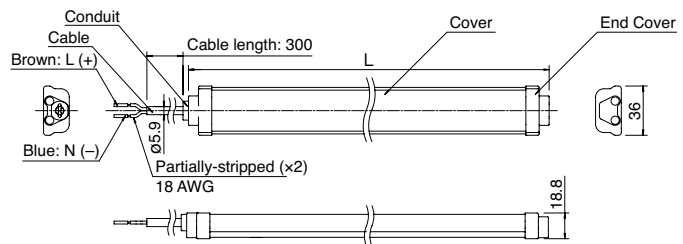
LED Color

- N: Cool white (5,000K equivalent)
- L: Warm white (3,000K equivalent)

Light Distribution (Lens type)

- Blank: No Lens
- A: Condensing Lens
- B: Dual Lens

Dimensions (mm)

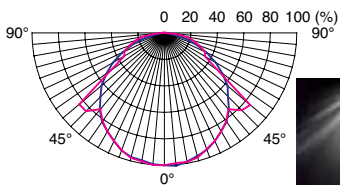


Dimension Table

Part No.	L	A	B	C	D	Mounting Bracket Qty
LF1E-B3	550	585	30	490	490	2
LF1E-C3	808	843	29	750	375	3
LF1E-D3	1,066	1,101	30.5	1,005	335	4
LF1E-E3	1,450	1,485	32	1,386	462	4

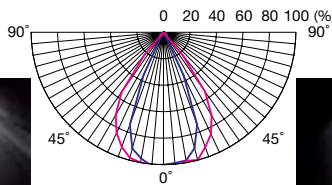
Illuminance Distribution Charts

No-lens



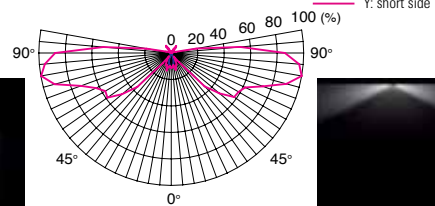
Y (short side) image

Condensing Lens



Y (short side) image

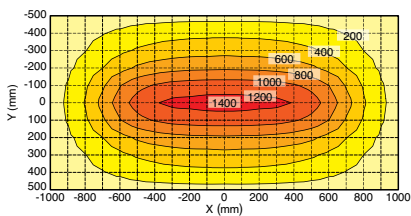
Dual Lens



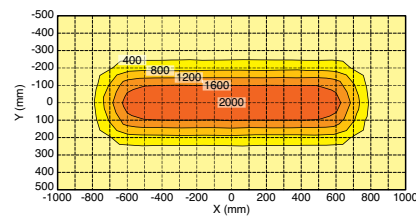
Y (short side) image

Illuminance Charts

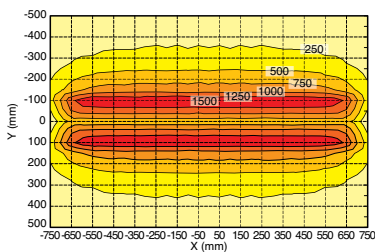
No-lens (LF1E-E3S-2N)



Condensing Lens (LF1E-E3S-2NA)



Dual Lens (LF1E-E3S-2NB)



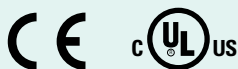
LUMIFA LF1A

Control Panels • Manufacturing Equipment

LF1A Series

LF1A LED strips use super-bright multi-chip LEDs providing illumination equivalent to a 25W fluorescent lamp, while consuming only one-third the power. They come in a thin housing available in three sizes with four color configurations: cool white (5500K), warm white (2800K), yellow (590nm) and red (625nm).

- Brightness: 66.6 Lumens/Watt
- Energy saving: One-third of fluorescent lamps
- Long life: 40,000 Hrs (Half-life)
- UL Listed
- RoHS Compliant
- IP40



LED Optical Specifications

Model	LF1A-*-2THWW6	LF1A-*-2TLWW6	LF1A-*-2SHY8	LF1A-*-2SHR8
Illumination Color	Cool White	Warm White	Yellow	Red
Luminous Intensity (Single LED module)	6,000mcd	4,000mcd	4,000mcd	2,500mcd
Color Temperature / Dominant Wavelength	5,500K	2,800K	590nm	625nm
Reference Illuminance at 0.5m				
LED Array 3 x 2	190lx	130lx	130lx	85lx
LED Array 6 x 2	380lx	260lx	260lx	170lx
LED Array 12 x 2	760lx	520lx	520lx	340lx

*LED Array A1 = 3x2, B1 = 6x2, D1 = 12x2





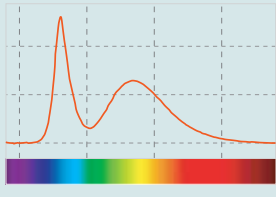
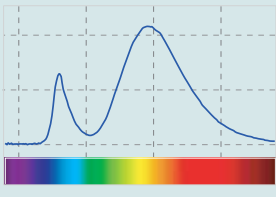
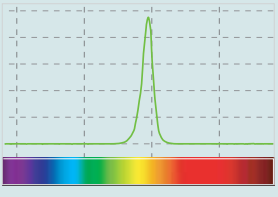
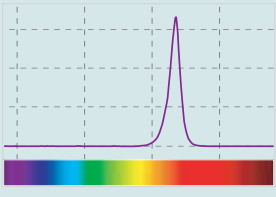
General Specifications

Model	LF1A-*-2THWW6	LF1A-*-2TLWW6	LF1A-*-2SHY8	LF1A-*-2SHR8
Rated Voltage	24V DC (non-polarized)			
Input Current (at rated voltage)				
LED Array 3 x 2	75mA			90mA
LED Array 6 x 2	150mA			180mA
LED Array 12 x 2	300mA			360mA
Rated Power (at rated voltage)				
LED Array 3 x 2	1.8W			2.2W
LED Array 6 x 2	3.6W			4.4W
LED Array 12 x 2	7.2W			8.7W
Dielectric Strength	Between live and dead parts: 1000V AC, 1 minute			
Insulation Resistance	Between live and dead parts: 100 MΩ (500V DC megger)			
Operating Temperature	-20 to +50°C			
Storage Temperature	-25 to +70°C			
Operating/Storage Humidity	45 to 85% RH (no condensation)			
Life (half luminance) ²	40,000 hours			
Weight (approx.)	LF1A-A1: 190g, LF1A-B1: 270g, LF1A-D1: 470g			
Degree of Protection	IP40			

1. *LED Array A1 = 3x2, B1 = 6x2, D1 = 12x2

2. LED life depends upon operating environment.

Part Numbers

Color	Cool White	Warm White	Yellow	Red
Part No.	LF1A-*-2THWW6	LF1A-*-2TLWW6	LF1A-*-2SHY8	LF1A-*-2SHR8
Appearance				
Light Spectrum				

*LED Array A1 = 3x2, B1 = 6x2, D1 = 12x2

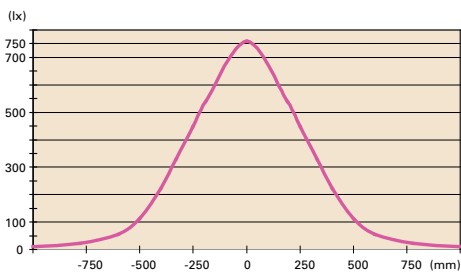
Part Number Structure (use for interpreting part numbers only)

LF1A - A1 - 2 THWW6

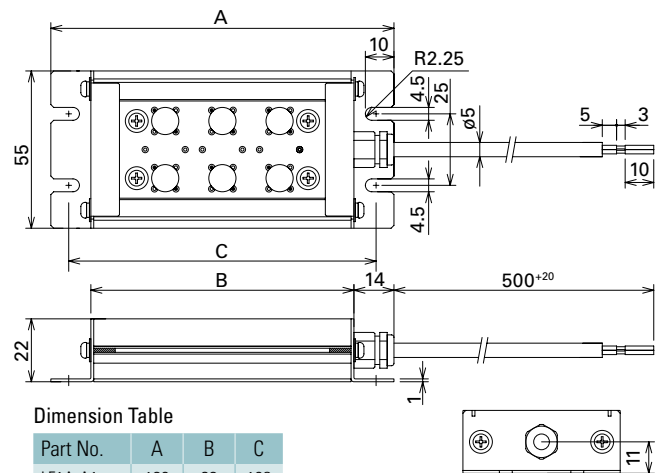
LED Module Arrangement
 A1: 3 LEDs x 2 rows
 B1: 6 LEDs x 2 rows
 D1: 12 LEDs x 2 rows

LED Illumination Color
 THWW6: Cool White
 TLWW6: Warm white
 SHY8: Yellow
 SHR8: Red

Light Distribution at 0.5m LF1A-D1-THWW6 (Cool White)



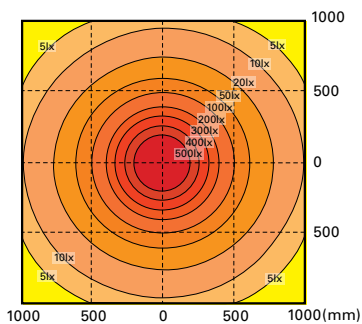
Dimensions (mm)



Dimension Table

Part No.	A	B	C
LF1A-A1-	120	92	108
LF1A-B1-	180	152	168
LF1A-D1-	300	272	288

Illuminance Chart LF1A-D1-2THWW6



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LUMIFA EF1A

Hazardous & Wet Locations

EF1A Series

Hazardous locations LED illumination units, EF1A are ideal for locations that require additional protection. With an IP67 rating they can be used in wet locations subject to high pressure spray.

- Hazardous locations LED units (Class 1, Zone 1 and Zone 2 approved)
- Slim or wide models available
- 2 cover colors: clear or white
- Available with adjustable, fixed angle or no mounting bracket
- IP67 (without switch)
- IP65 (with switch)



*UL, ATEX, and IECEx are pending approval.



LED Optical Specifications

Model	EF1A			
Illumination Surface	Clear		Diffused	
	With	Without	With	Without
Collecting Lens (Light Distribution)				
Illumination Color	White			
Color Temperature (typ.)	5700 K			
Total Luminous Flux (typ.)	960 lm			
Reference Illuminance (typ.) At 1.0m directory below	1100 lx	450 lx	205 lx	175 lx

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General Specifications

Model	EF1A -11	EF1A -12
Explosion protection	Ex d II C T4	
Zone	Zone 1, Zone 2	
Rated voltage	24V DC	100 to 240V AC
Voltage Range	18 to 26.4V DC	85 to 264V AC
Rated Power (Typ.)	16W (at rated voltage)	19W (at rated voltage)
Insulation Resistance	100MΩ minimum (500V DC megger) input - FG	
Dielectric Strength	2000V AC 1 minute input - FG	
Vibration Resistance (damage limits)	Frequency 5 to 55 Hz, amplitude 0.5mm	
Shock Resistance (damage limits)	1000 m/s ²	
Operating Temperature	-20 to +50°C (no freezing)	
Operating Humidity	45 to 85% RH (no condensation)	
Storage Temperature	-35 to +70°C (no freezing)	
Life ¹	50,000 hours (The illumination duration in which the brightness maintains a minimum of 70% of initial value at 25°C)	
Degree of Protection	IP67 (IEC 60529), IP65 (with pushbutton switch)	
Material	Housing: aluminum, front panel: stainless steel, mounting bracket: stainless steel Illumination surface: reinforced glass, cable gland: nickel-plated brass	
Weight (approx.)	3.2Kg (without mounting bracket), 3.4Kg (with mounting bracket)	

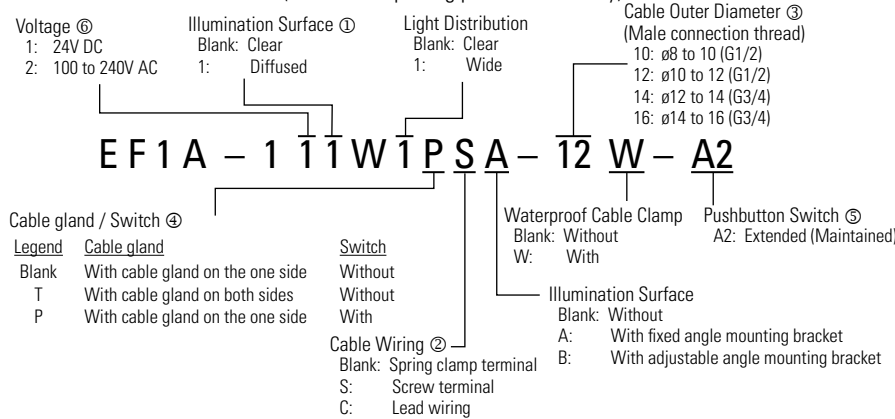
1. LED life depends upon operating environment.

Part Numbers

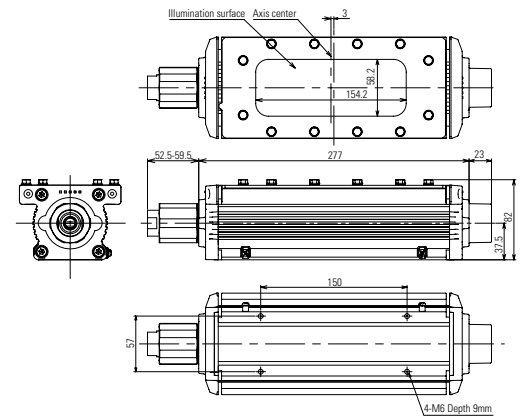
Light Distribution	Mounting Bracket	Waterproof Cable Clamp	Illumination Surface ①	Terminal Block ②	Cable Gland Outer Diameter ③	Part No.
Narrow	Without (4-M6 screw on the back of EF1A)	With Without	Blank: Clear 1: Diffused	Blank: Spring Clamp Terminal S: Screw Terminal C: Lead Wire	10: ø8-ø10 12: ø10-ø12 14: ø12-ø14 16: ø14-ø16	EF1A-1⑥1W④②-③⑤ EF1A-1⑥1W④②-③W⑤
	With (Fixed angle)	With Without				EF1A-1⑥1W④②A-③⑤ EF1A-1⑥1W④②A-③W⑤
	With (Adjustable angle)	With Without				EF1A-1⑥1W④②B-③⑤ EF1A-1⑥1W④②B-③W⑤
Wide	Without (4-M6 screw on the back of EF1A)	With Without				EF1A-1⑥1W1④②-③⑤ EF1A-1⑥1W1④②-③W⑤
	With (Fixed angle)	With Without				EF1A-1⑥1W1④②A-③⑤ EF1A-1⑥1W1④②A-③W⑤
	With (Adjustable angle)	With Without				EF1A-1⑥1W1④②B-③⑤ EF1A-1⑥1W1④②B-③W⑤

In place of ① insert Illumination Surface code, in place of ② insert Cable Wiring code, in place of ③ insert Cable Outer Diameter code, in place of ④ insert Cable Gland/Switch code, in place of ⑤ insert Pushbutton Switch code and in place of ⑥ insert the Voltage code.

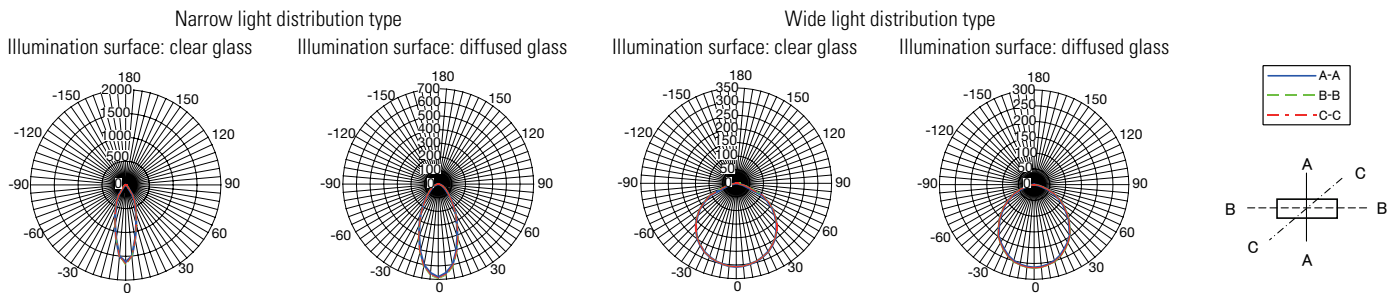
Part Number Structure (use for interpreting part numbers only)



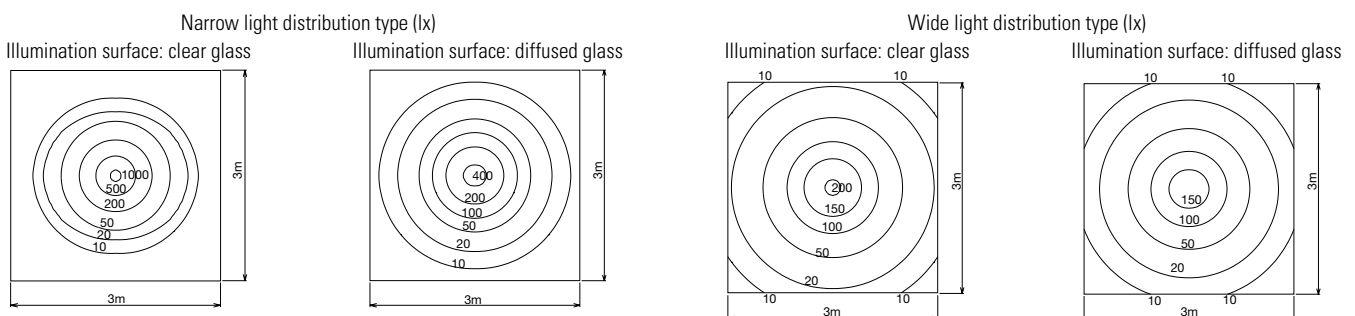
Dimensions (mm) without mounting bracket



Light Distribution (cd/1000lm)



Illuminance Distribution (at 1.0m)



LUMIFA LF1F

Visual Inspection Lighting • Elevator Ceiling Lighting

LF1F Series

Unlike fluorescent lights, LED lights do not flicker and therefore illuminate objects evenly. Uneven surfaces, such as scratches and flaws, are more visible providing more accurate inspections. The LF1F provides steady light regardless of ambient temperature and the narrow profile saves space allowing mounting flexibility.

- Energy saving
- Long operating life
- Maintenance free
- 12mm-thin bezel saves space
- 300mm square illuminated surface
- Wider operating temperature range than fluorescent lighting

LED Optical Specifications


Model	LF1F
Color Temperature	8,500K
Reference Illuminance at 1.0m	5,800lx minimum (panel center)

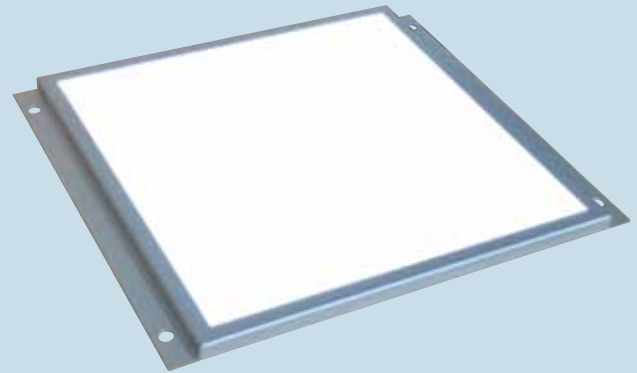
Operating Specifications

Model	LF1F
Operating Voltage Range	21.6 ~ 26.4V DC
Wattage (typ.)	11W
Insulation Resistance	100MΩ minimum
Dielectric Strength	1,000V, 50/60Hz, 1 minute
Vibration Resistance	5 ~ 55Hz, amplitude 0.5mm, 60m/s ² (3 directions, 2 hours each)
Shock Resistance	1,000m/s ²
Operating Temperature	-10° ~ 60 (no freezing)
Operating Humidity	45 ~ 85% RH (no condensation)
Storage Temperature	-20° ~ 70°C (no freezing)
Operating Environment	No corrosive gases, no harmful dust
Life ¹	40,000 hours
Degree of Protection	IP20 (IEC60529)
Materials	Housing: Aluminum Light emitting part: acrylic; Cover: acrylic
Weight (approx.)	1.1kg

1. LED life depends upon operating environment.

Part Numbers

Appearance	Model	Cable Length	Size	Color Temperature
	LF1F-B4-2D1	1m	300mm square	8,500K
	LF1F-B4-2D3	3m		



Applications

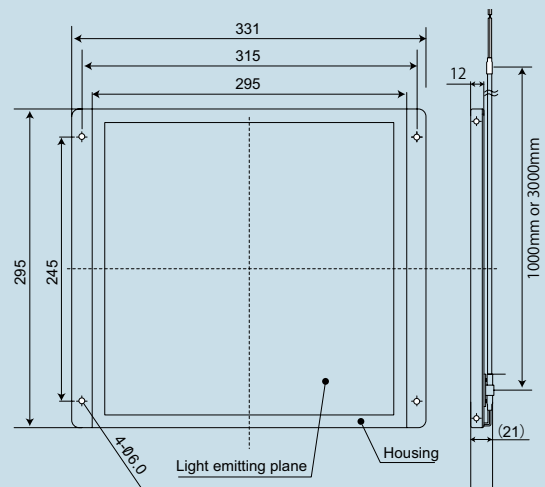
Ideal for visual inspection, as the LF1F makes it easy to see even the slightest surface flaws.



Application examples for product inspections

- Detect uneven plastic and rubber part surfaces
- Detect dust on glass or plastic plates
- Illuminate marks on metal surfaces during cutting and marking
- Detect flaws on painted or plated surfaces
- Detect scratches and unevenness on embossed materials
- Detect scratches and foreign materials on silicon wafers
- Elevator illumination

Dimensions (mm)



(Light emitting plane: 271 x 271)




800.262.4332

Choose Your LUMIFA

Comparison Chart

Color	IP Rating	Lens/Cover	Mounting	Series
 <p>Cool white (Color Temp Range: 2900K - 8500K)</p>	IP20	Clear	Flush	LF1F
	IP40	Clear	Standard	LF1A
	IP54	Clear	Standard	LF1E
		White	Standard	LF1B-N
	IP65	Clear	Standard	LF1B-N
		White	Standard	LF2B
	IP67	Clear and Polycarbonate	Standard	LF1D
			Flush	LF2D
		Diffused & Polycarbonate	Standard	LF1D
			Flush	LF2D
IP67f	Clear & Reinforced Glass	Standard	LF1D	
		Flush	LF2D	
	Diffused & Reinforced Glass	Standard	LF1D	
		Flush	LF2D	
IP69K	Clear and Polycarbonate	Standard	LF1D	
 <p>Warm white (Color Temp: 2800K-3000K)</p>	IP40	Clear	Standard	LF1A
	IP54	Clear	Standard	LF1E
	IP65	Clear	Standard	LF1B-N
White		Standard	LF1B-N	
 <p>Yellow (Dominant Wavelength: 590nm)</p>	IP40	Clear	Standard	LF1A
	IP65	Clear	Standard	LF1B-N
White		Standard	LF1B-N	
 <p>Red (Dominant Wavelength: 625nm)</p>	IP40	Clear	Standard	LF1A
	IP54	Clear	Standard	LF1B
		White	Standard	LF1B
	IP65	Clear	Standard	LF1B-N
White		Standard	LF1B-N	
 <p>Blue</p>	IP65	Clear	Standard	LF1B-N
		White	Standard	LF1B-N
 <p>Green</p>	IP65	Clear	Standard	LF1B-N
		White	Standard	LF1B-N

Accessories

									
Item	Mounting Bracket							Cable Gland	Cable
Part No.	LF9Z-1MB1	LF9Z-1MA1	LF9Z-B12	LF9Z-B11	LF9Z-1MDE1	LF9Z-1MDF1	LF9Z-1SE1	LF9Z-A11	LF9Z-C05
Applicable Unit	LF1B-NA, -B, -C (-D not applicable)	LF1A-A, -B, -D	LF1D (Slim)		LF1D (Wide)		LF1E	LF1D	LF1D
Material	Stainless Steel							Brass	PVC
Notes	1 pair Left and Right						1 piece	M8, applicable wire size (10-12 AWG)	Length: 5m

PS5R Slim Line Power Supplies

- Lightweight and compact in size
- Wide power range: 10W-240W
- Universal input:
10W to 90W: 85-264V AC/100-370V DC
120W and 240W: 85-264V AC/100-350V DC
- Power Factor Correction for 60W to 240W (EN61000-3-2)
- Meets SEMI F47 Sag Immunity (120W & 240W only)
- UL Listed for Class 1, Div. 2 Hazardous Locations



Need a reliable, lightweight power supply? PS5R Slim Line models give you all the power of a traditional power supply in only half the space. The 10W and 15W are only 22.5mm wide, the 30W and 60W are 36mm wide, and the 90W is 46mm wide. The 120W unit has a width of only 50mm while the 240W is 80mm wide. They also come with all the convenient features you've come to expect from IDEC.

Support Information

IDEC LED Illumination
www.IDEC.com/usa/LED

Technical support:
support@IDEC.com

800-262-IDECC
www.IDEC.com/usa

800.262.4332



Think Automation and beyond...

www.IDEC.com

USA

IDEC Corporation
Tel: (408) 747-0550
opencontact@IDEC.com

Canada

IDEC Canada Ltd.
Tel: (905) 890-8561
sales@ca.IDEC.com

Australia

IDEC Australia Pty. Ltd.
Tel: +61-3-8523-5900
sales@au.IDEC.com

Japan

IDEC Corporation
Tel: +81-6-6398-2571
products@IDEC.co.jp

United Kingdom

IDEC Electronics Ltd.
Tel: +44-1256-321000
IDEC@uk.IDEC.com

Germany

IDEC Elektrotechnik GmbH
Tel: +49-40-253054-0
service@IDEC.de

Hong Kong

IDEC (H.K.) Co., Ltd.
Tel: +852-2803-8989
info@hk.IDEC.com

China/Beijing

IDEC (Beijing) Corporation
Tel: +86-10-6581-6131
idec@cn.IDEC.com

China/Shanghai

IDEC (Shanghai) Corporation
Tel: +86-21-5353-1000
idec@cn.IDEC.com

China/Shenzhen

IDEC (Shenzhen) Corporation
Tel: +86-755-8356-2977

Singapore

IDEC Asia Pte. Ltd.
Tel: +65-6746-1155
info@sg.IDEC.com

Taiwan

IDEC Taiwan Corporation
Tel: +886-2-2698-3929
service@tw.IDEC.com

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