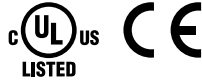


LED illumination units for freezer and refrigerated display cases.

- LED light sources achieve energy saving, long service life, reduced mounting space, elimination of noise, and low heat generation.
- Available in 4 lengths of 550, 808, 1066, and 1450 mm designed to meet the width of display cases.
- 3 types of light distribution characteristics are available; no-lens, condensing lens, and dual lens.
- IP54 protection against dust and water.



Specifications

Model	LF1E-A	LF1E-B	LF1E-C	LF1E-D	LF1E-E
Length (mm)	292	550	808	1066	1450
Rated Voltage	24V DC (voltage range: 21.6 to 26.4V DC)				
Input Current (typ.) (at rated input)	175mA	350 mA	525 mA	700 mA	950 mA
Power Consumption (typ.) (at rated input)	4.2W	8.4W	12.6W	16.8W	22.8W
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 55 Hz, Amplitude 0.17 mm				
Shock Resistance (damage limits)	300 m/s ²				
Operating Temperature	-40 to +40°C (no freezing)				
Operating Humidity	45 to 85% RH (no condensation)				
Storage Temperature	-40 to +70°C (no freezing)				
Operating Atmosphere	No corrosive gases				
Life (Note 1)	40,000 hours (The total illumination duration where the illuminance maintains a minimum of 70% of the initial value in 25°C environment.)				
Weight (approx.) (Note 2)	150g	275g	390g	515g	690g
Degree of protection	IP54				
Materials	End cover, conduit: polyamide Cable: PVC		Cover: polycarbonate Mounting bracket: stainless steel		

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

- Use Class 2 power supply when using the LF1E as UL/c-UL listed LED illumination unit.

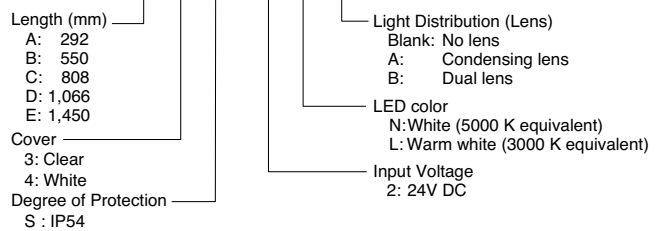
LED Optical Specifications (clear lens)

Illumination Color		White	Warm white	
Color Temperature (typ.)		5000K	3000K	
Reference Illuminance (typ.) (Measured at 0.3m directly below the unit)	Lens	Unit Length	Illuminance	
		292 mm	630 lx	480 lx
	No-lens (Note)	550 mm	950 lx	750 lx
		808 mm	1100 lx	900 lx
		1066 mm	1200 lx	950 lx
		1450 mm	1250 lx	1000 lx
	Condensing Lens (Note)	292 mm	1800 lx	1400 lx
		550 mm	1950 lx	1500 lx
		808 mm	2000 lx	1550 lx
		1066 mm	2000 lx	1550 lx
Dual Lens	1450 mm	2000 lx	1550 lx	
	See the illuminance distribution chart on page 23.			


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

Part No. Development

LF1E - B 3 S - 2 N A



Accessories

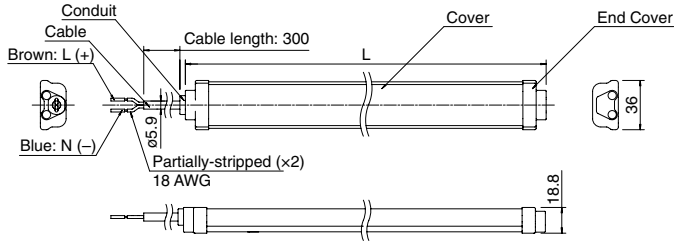
Item	Part No.	Package Quantity
	LF9Z-1SE1PN05	5

- Five mounting screws are supplied (one mounting screw is used for a mounting bracket)
- Number of mounting brackets supplied: LF1E-B (2), LF1E-C (3), LF1E-D (4) and LF1E-E (4)
When installing the LF1E unit in the place subject to excessive vibrations, supply additional mounting brackets.
- See page 23 for dimensions.

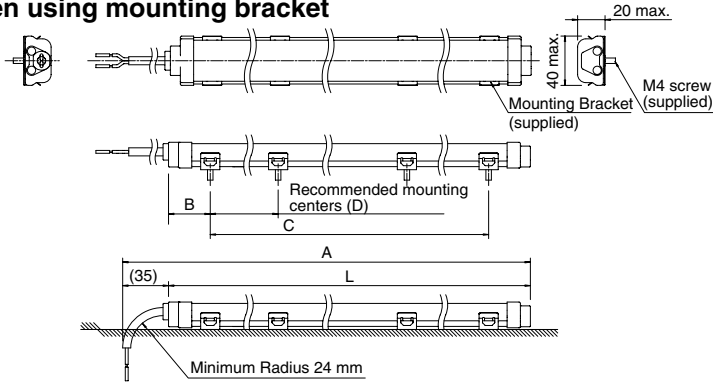
LF1E LED Illumination Units

Dimensions

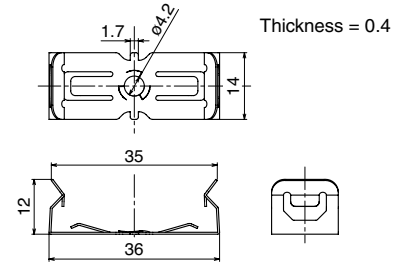
LF1E Illumination Unit



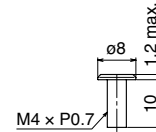
When using mounting bracket



Mounting Bracket (supplied) (LF9Z-1SE1)

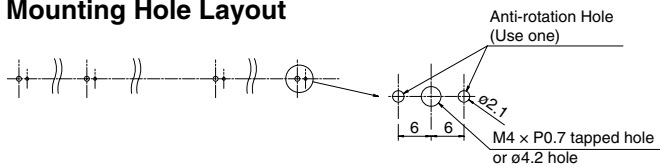


Mounting Screw (supplied)



All dimensions in mm.

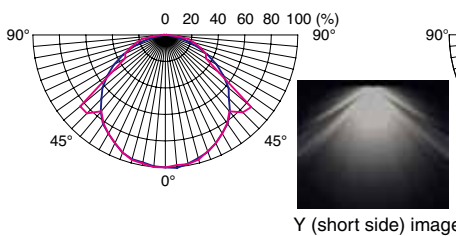
Mounting Hole Layout



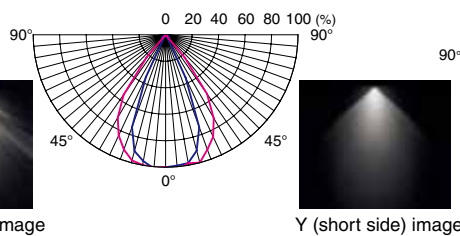
Model	L	A	B	C	D	No. of Mounting Brackets
LF1E-A	292	327	36	220	220	2
LF1E-B	550	585	30	490	490	2
LF1E-C	808	843	29	750	375	3
LF1E-D	1066	1101	30.5	1005	335	4
LF1E-E	1450	1485	32	1386	462	4

Illuminance Distribution Chart

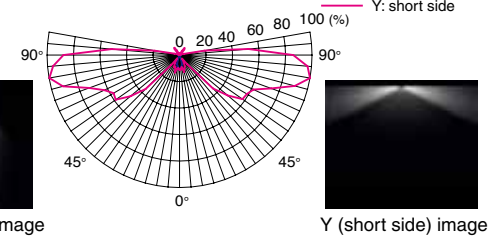
No-lens



Condensing Lens

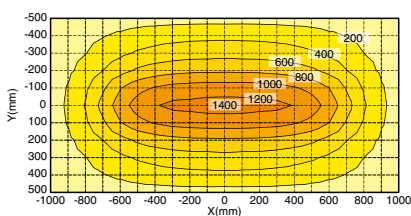


Dual Lens

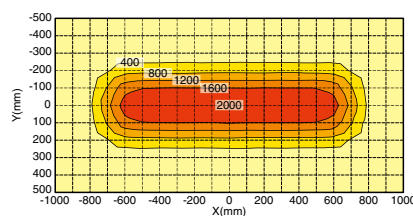


Illumination Chart (reference value of 5000K at 0.3m. Dual lens type at 50 mm.)

No-lens (LF1E-E3S-2N)



Condensing Lens (LF1E-E3S-2NA)



Dual Lens (LF1E-E3S-2NB)

