

LF1E Series

Freezers • Refrigerated Display Cases • Testing Chambers

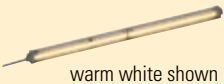



Key features

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 are 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)

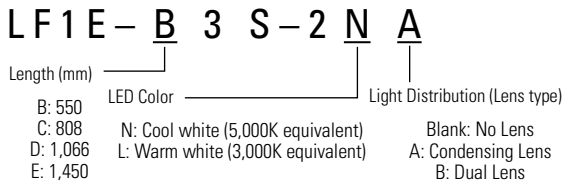


Part Numbers

LF1E-B3S-2*† (550mm)	LF1E-C3S-2*† (808mm)	LF1E-D3S-2*† (1066mm)	LF1E-E3S-2*† (1450mm)
 warm white shown	 cool white shown	 cool white shown	 cool white shown

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

Part Number Structure (use for interpreting part numbers only)



Accessory



Item	Mounting Bracket Adjustable Angle
Part No.	LF9Z-1SE1
Material	Stainless Steel

Specifications

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
Dual Lens	See Illumination Distribution Chart next page	2,000lx	1,550lx

1. Measured at 0.3m directly below unit.

General Specifications

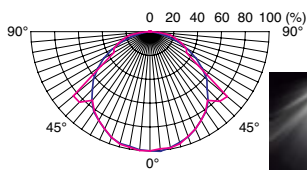
Model (length)		LF1E-B (550mm)	LF1E-C (808mm)	LF1E-D (1066mm)	LF1E-E (1450mm)
Rated Voltage		24V DC			
Input Current (at rated voltage)	24V DC	350mA (404mA max)	525mA (606mA max)	700mA (807mA max)	950mA (1004mA max)
Power Consumption (typ. at rated input)	24V DC	8.4W (9.7W max)	12.6W (14.6W max)	16.8W (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.

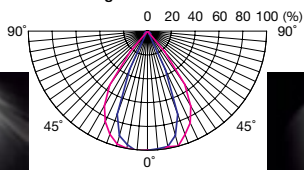
Illuminance Distribution Charts

No-lens



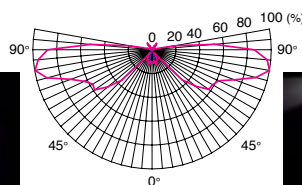
Y (short side) image

Condensing Lens



Y (short side) image

Dual Lens

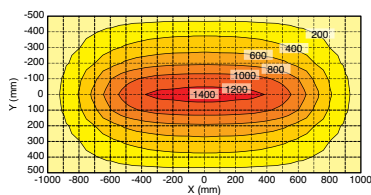


Y (short side) image

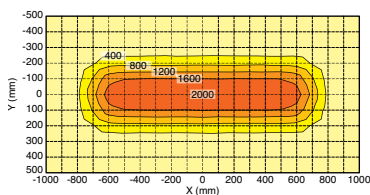
— X: long side
— Y: short side

Illuminance Charts

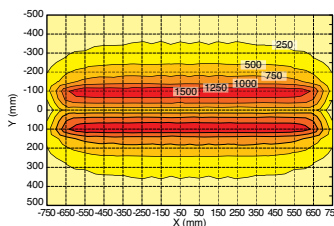
No-lens (LF1E-E3S-2N)



Condensing Lens (LF1E-E3S-2NA)

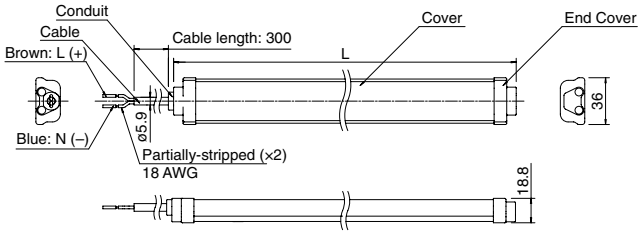


Dual Lens (LF1E-E3S-2NB)

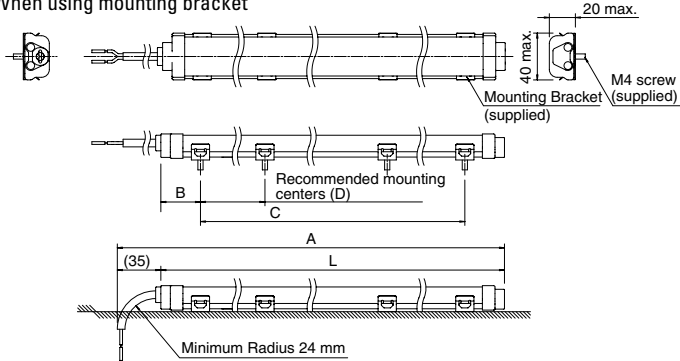


Dimensions (mm)

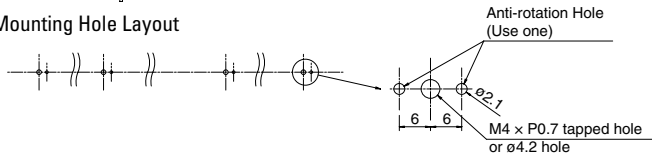
LF1E Illumination Unit



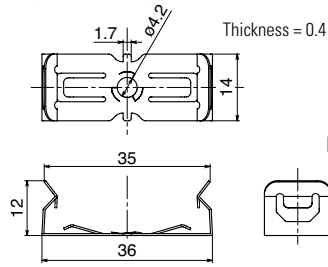
When using mounting bracket



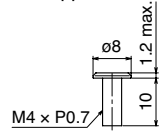
Mounting Hole Layout



Mounting Bracket (supplied) (LF9Z-1SE1)



Mounting Screw (supplied)



Dimension Table

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