Born for Industrial Safety

Thunder™ (NJZ-FEL-M Series)

Hazardous Location LED Luminaire

NJZ LIGHTING

Specsheet-2021-09A EN

Thunder™

Hazardous Location LED Luminaire

NJZ-FEL-M Series

Product description

The Thunder™ NJZ-FEL-M Series LED Luminaire is designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water, snow or high ambient can be expected.

They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC.

NJZ-FEL-M Series is ideal for retrofit of existing HPS/MH 320W~1000W and offers higher efficacy for increased energy savings, lower maintenance costs and shorter paybacks.

Features

- High luminous efficacy-Up to 160 Lm/W
- Input Voltage: AC100-277V, AC347-480V (50/60Hz)
- Instant illumination and restrike-no warm-up time required
- Valid over the entire temperature range from -40°C ~ +65°C（-40°F ~+149°F）
- Safe and reliable heat transfer - Offering a T-rating of T4A (CID2 / CIID1 / CIII)
- Thermal shock and impact resistant tempered glass or PC Lens
- Shock and vibration resistant-Durable LEDs with solderless board connection
- Anti-corrosion housing tested 1000hrs to standard ASTM"B117-11"
- All exposed fasteners with quality stainless steel 316
- High Temperature silicone gasketing

Compliance

NEC/CEC Standard

UL844
Class I Division 2, Group A, B, C, D
Class II Division 1 Group E, F, G
Class II Division 2, Group F, G
Class III
Class I, Zone 2, Group IIC
Zone 21, Group IIC
Simutaneous Presence
UL 1598 Wet Locations
UL 1598A Outside Type (Salt Water)

IP66
IK08(Glass) / IK10(PC)
5G vibration
1000hrs salt spray

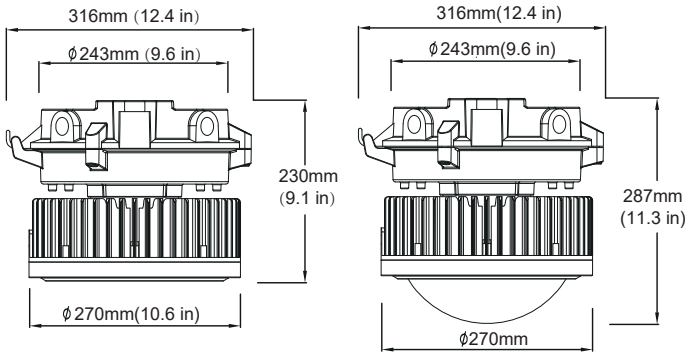
Application

- Power Plants
- Heavy Industrials Storage Facility
- Paper mills
- Wastewater Treatment Plants
- Loading Docks Platforms
- Shipyards
- Chemical Processing Facility
- Petrochemical Processing Facility

Warranty

5-Year Standard Warranty
LED lumen Maintenance： L70>145,000 Operation Hours@55°C

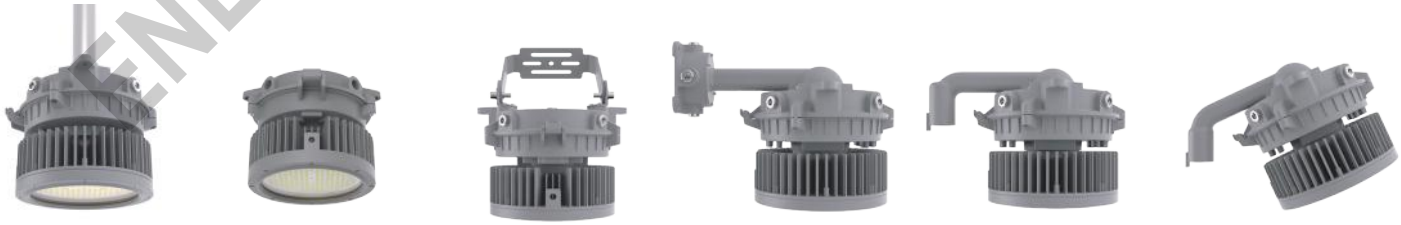
Product Dimensions



Model	Parts	Net weight	Product Dimensions (L×W×H)	Gross weight	Package Dimensions (L×W×H)
NJZ-FEL-M-80	Flat Lens	8.9kg	Φ316x230mm	9.9kg	325x325x265mm
NJZ-FEL-M-120		9.2kg		10.2kg	
NJZ-FEL-M-150					
NJZ-FEL-M-200		9.8kg		10.8kg	
NJZ-FEL-M-80	Drop Lens	9.9kg	Φ316x287mm	10.9kg	325x325x420mm
NJZ-FEL-M-120		10.2kg		11.2kg	
NJZ-FEL-M-150					
NJZ-FEL-M-200		10.8kg		11.8kg	

Catalog #	Description	Note	Single Package (L×W×H)	Net weight	Gross weight	Master Package (L×W×H)	Net weight	Gross weight
PB03	U-Bracket	Master Box 8pcs, 2pcs/ single box	255x255x89mm	3.2kg	3.8kg	385x285x282mm	12.8kg	14.0kg
WL90-M	Wall mount- 90°	Master Box 4pcs, 1pc/ single box	418x167x169mm	1.9kg	2.5kg	430x375x360mm	10.0kg	11.2kg
SN2503 SN2504	Stanchion - 25°	Master Box 4pcs, 1pc/ single box	393x129x152mm	1.0kg	1.4kg	410x340x295mm	5.6kg	6.5kg
SN9003 SN9004	Stanchion - 90°	Master Box 4pcs, 1pc/ single box	373x183x152mm	1.0kg	1.4kg	390x340x295mm	5.6kg	6.5kg
WG07	Wire guard for Flat Glass Lens	Master Box 20pcs	N.A	N.A	N.A	338x260x242mm	3.2kg	3.7kg
WG08	Wire guard for Glass Drop Lens	Master Box 10pcs	N.A	N.A	N.A	460x353x255mm	2.2kg	3.0kg

Mounting



Pendant Ceiling Bracket Wall Stanchion 90° Stanchion 25°

Safety cable installed

Technical Parameter

Electrical

Specification		NJZ-FEL-M-80	NJZ-FEL-M-120
Rated Power		80W	120W
MH Replacement		320W	400~600W
Input Voltage		AC100-277V / AC347-480V	
Input Frequency		50/60Hz	
Power Factor		≥0.9	
Driver Efficiency		≥90%	
Input Current	(AC100-277V)	0.79/0.28A	1.19/0.41A
	(AC347-480V)	0.23/0.16A	0.34/0.24A
Surge Protection		10Kv	

Optical

Specification	NJZ-FEL-M-80	NJZ-FEL-M-120
Lumen Output	12000Lm	18000Lm
Lumens Per Watt	150Lm/W with T5; 130Lm/W with T1 or T3*	
Beam Angle	T1 / T3 / T5	
Correlated Color Temperature (CCT)	3000K/4000K/5000K	
Color Rendering Index (CRI)	Ra>70	

*value calculated based on 5000K ,varies to differrent spec

Environmental

Specification		NJZ-FEL-M-80	NJZ-FEL-M-120
Ambient Operating Temperature		-40°C~+65°C(-40°F~+149°F)	
T-Code	CID2	T4A	T4A
	CIID1/CIII		

Mechanical

Specification	NJZ-FEL-M-80	NJZ-FEL-M-120
Housing Material	Copper-free Aluminum	
Lens Material	Glass(Clear/Frosted/Drop lens) PC(Clear/Frosted/Drop lens)	
Hardware	Stainless steel 316	
Color	Dark Grey (RAL7037)	
Finish	Polyster powder coating for uniform corrosion resistance	
Protection	IP66/IK08(Glass)/IK10(PC)/5G vibration/1000hrs salt spray	
Mounting	Ceiling,Wall, Stanchion, Bracket, Pendant	
Installation	MIN 90℃ SUPPLY CONDUCTORS	
Cable entries	3/4" NPT (Topx1 open &Sidex5 with stopping plugs)	
Termination	3 x WAGO 221-415 (max. 4 mm²,5-conductor,with levers)	
Dimming	0-10V Dimming standard (Dim+,Dim-,12V leads capped)	

Technical Parameter

Electrical

Specification		NJZ-FEL-M-150	NJZ-FEL-M-200
Rated Power		150W	200W
MH Replacement		600~750W	750~1000W
Input Voltage		AC120-277V / AC347-480V	
Input Frequency		50/60Hz	
Power Factor		≥0.95	
Driver Efficiency		≥90%	
Input Current	(AC100-277V)	1.49/0.51A	1.98/0.70A
	(AC347-480V)	0.43/0.30A	0.57/0.41A
Surge Protection		10Kv	

Optical

Specification	NJZ-FEL-M-150	NJZ-FEL-M-200
Lumen Output	22500Lm	30000Lm
Lumens Per Watt	150Lm/W with T5; 130Lm/W with T1 or T3*	
Beam Angle	T1 / T3 / T5	
Correlated Color Temperature (CCT)	3000K/4000K/5000K	
Color Rendering Index (CRI)	Ra>70	

*value calculated based on 5000K ,varies to differrent spec

Environmental

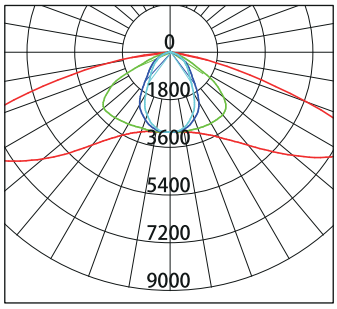
Specification		NJZ-FEL-M-150	NJZ-FEL-M-200
Ambient Operating Temperature		-40°C~+60°C/-40°F~+140°F	-40°C~+55°C/-40°F~+131°F
T-Code	CID2	T4A	T4A
	CIID1/CIII		

Mechanical

Specification	NJZ-FEL-M-150	NJZ-FEL-M-200
Housing Material	Copper-free Aluminum	
Lens Material	Glass(Clear/Frosted/Drop lens) PC(Clear/Frosted/Drop lens)	
Hardware	Stainless steel 316	
Color	Dark Grey (RAL7037)	
Finish	Polyster powder coating for uniform corrosion resistance	
Protection	IP66/IK08(Glass)/IK10(PC)/5G vibration/1000hrs salt spray	
Mounting	Ceiling,Wall, Stanchion, Bracket, Pendant	
Installtion	MIN 90℃ SUPPLY CONDUCTORS	
Cable entries	3/4" NPT (Topx1 open &Sidex5 with stopping plugs)	
Termination	3 x WAGO 221-415 (max. 4 mm²,5-conductor,with levers)	
Dimming	0-10V Dimming standard (Dim+, Dim-, 12V leads capped)	

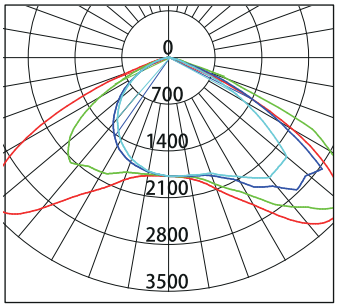
Photometric

Type I



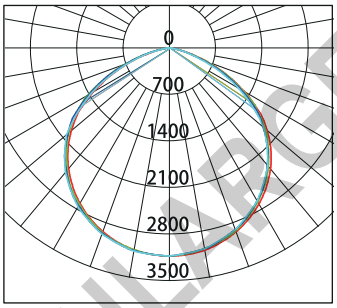
C0/180,159.5
C30/210,123.9
C60/240,78.0
C90/270,67.1

Type III



C0/180,134.6
C30/210,133.3
C60/240,98.3
C90/270,102.0

Type V



C0/180,112.5
C30/210,113.7
C60/240,112.9
C90/270,111.4

Ordering Information and Mounting Accessories

NJZ	–	FEL-M	–	80	–	V01	–	RN	–	T1	–	25	–	TG	–	P	–	GR	* XX
Brand		Series		Wattage		Voltage		Color Temp		LED diffuser Type		Hazloc		Lens		Mount Type		Color	Accessories

*: Suffix not within nomenclature as per Certification, for marketing purpose only

BRAND
NJZ

SERIES
FEL-M

WATTAGE
80=80W
120=120W
150=150W
200=200W

VOLTAGE
V01= AC100-277V
V04= AC347-480V

COLOR TEMP
RN= 3000K (Warm White)
RL= 4000K (Neutral White)
RZ= 5000K (Neutral White)
RD= Red
GN= Green
BU= Blue
AM= Amber

LED DIFFUSER TYPE
T1=Type I LED diffuser*
T3=Type III LED diffuser*
T5=110°（No LED diffuser）
* available with TG (clear glass) only

HAZLOC
25=CID2,CIID1

LENS
TG = Clear glass
FG = Frosted glass
DL = Drop lens (glass)

CP = Clear PC
FP = Frosted PC
DP = Drop lens (PC)

MOUNT TYPE
P=NPT 3/4" pendant mount
U=NPT 3/4" pendant+U-bracket
F=Multi-mount(Stanchion/Wall)

COLOR OF FINISH
GR=Gray(Standard)
BL=Black
WT=White
BZ=Bronze

ACCESSORIES
PB03= U-Bracket (SUS 304)
WL90-M= Wall mount-90°
SN2503=Stanchion-25°(NPT 1.25")
SN2504=Stanchion-25°(NPT 1.50")
SN9003=Stanchion-90°(NPT 1.25")
SN9004=Stanchion-90°(NPT 1.50")
WG07=Stainless Steel Wire guard for Flat Lens
WG08=Stainless Steel Wire guard for Drop Lens
SC01=Stainless Steel Safety Cable
CA01=3' SEOOW-18/3 Cord (Factory installed)
CA-X=Cable, order upon request
SP01=10Kv Surge Protect for 120-277V
SP02=10Kv Surge Protect for 347-480V
SP05=20Kv Surge Protect for 120-277V
SP06=20Kv Surge Protect for 347-480V

INSTALLATION TIPS

1. Termination
3x WAGO 5-conductor for L, N, G connection
Conductor range: 0,2 … 4 mm² / 24 … 12 AWG
Rated voltage UL: 600 V
Rated current UL: 20A

2.Cable Entries
3/4" NPT (Top x1 & Sidex5)
Top x1 open, Side x5 with stopping plugs

3.Dimming
Standard: 0-10V Dimming(10-100%)
(Dim+,Dim-,12V leads capped)

PB03
Wall/Pipe
U-Bracket (SUS 304)

WL90-M
Wall mount-90°
NPT 3/4" Grey Painted
A356 Aluminum AL

SN2503
Stanchion-25°,
NPT 1.25"(1.660"Pole OD)
slip-fit stanchion mount

SN2504
Stanchion-25°,
NPT 1.50"(1.900"Pole OD)
slip-fit stanchion mount

SN9003
Stanchion-90°,
NPT 1.25"(1.660"Pole OD)
slip-fit stanchion mount

SN9004
Stanchion-90°,
NPT 1.50"(1.900"Pole OD)
slip-fit stanchion mount

WG07
Stainless Steel
Wire guard

WG08
Stainless Steel
Wire guard

SC01
Stainless Steel
Safety Cable

CA01
3' SEOOW-18/3 Cord
(Factory installed)

SP01/SP02
10KV Surge Protector
for 120-277/347-480V

SP05/SP06
20KV Surge Protector
for 120-277/347-480V

Class I Locations

Class I locations are those in which inflammable gases or vapors are or may be present in sufficient quantities to produce explosive or flammable mixtures.

CLASS I, DIVISION 1

Class I, Division 1 locations are where hazardous atmosphere may be present during normal operations. It may be present continuously, intermittently, periodically or during normal repair or maintenance operations, or those areas where a breakdown in processing equipment releases hazardous vapors with the simultaneous failure of electrical equipment.

CLASS I, DIVISION 2

Class I, Division 2 locations are those in which volatile flammable liquids or gases are handled, processed or used. Normally they will be confined within closed containers or in closed systems from which they can escape only in the case of rupture or deterioration of the containers or systems.

Class II Locations

Class II locations are those that are hazardous because of the presence of combustible dust.

CLASS II, DIVISION 1

Class II, Division 1 locations include areas where combustible dust may be in suspension in the air under normal conditions in sufficient quantities to produce explosive or ignitable mixtures (Dust may be emitted into the air continuously, intermittently or periodically), or where failure or malfunction of equipment might cause a hazardous location to exist and provide an ignition source with the simultaneous failure of electrical equipment, included also are locations in which combustible dust of an electrically conductive nature may be present.

CLASS II, DIVISION 2

Class II, Division 2 locations are those in which combustible dust will not normally be in suspension nor will normal operations put dust in suspension, but where accumulation of dust may interfere with heat dissipation from electrical equipment or where accumulations near electrical equipment may be ignited.

Class III Locations

Class III locations are those considered hazardous due to the presence of easily ignitable fibers of flyings, which are in quantities sufficient to produce ignitable mixtures.

CLASS III, DIVISION 1

Locations in which easily ignitable fibers or materials producing combustible flyings are handled, manufactured or used.

CLASS III, DIVISION 2

Locations where easily ignitable fibers are stored or handled.