Born for Industrial Safety

Defender™ (NJZ-FEL-B Series)

Hazardous Location LED Luminaire

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NJZ-FEL-B Series

Product description

The Defender™ NJZ-FEL-B Series LED Luminaire is designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or 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 ATEX.

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

Features

- Instant illumination and restrike-no warm-up time required
- High luminous efficacy-Up to 130 Lm/W
- Universal Voltage: AC100-270V (50/60Hz)
- Optional lighting distribution 25°, 60°, 110°
- Anti-corrision aluminum housing tested 1000hrs to standard ASTM″ B117-11″ (Marine reinforced ver，available upon request)
- All exposed fasteners with quality stainless steel 316
- Robust design rated with IP66/IK08/5G

Compliance

ATEX Standard

Ex II 2G Ex d IIB T5 Gb
Ex II 2D Ex tb IIIC 95°C Max Db IP 66

EN 60079-0, EN 60079-1, EN 60079-31

Zone 1,21
Zone 2,22

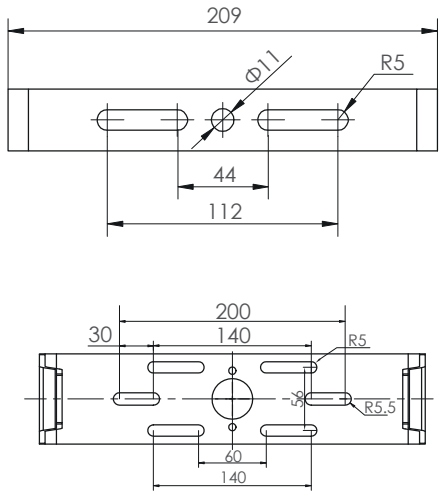
Ta.-30~+50°C
Enclosed and Gasketed
IP66
IK08
5G
1000hrs salt spray

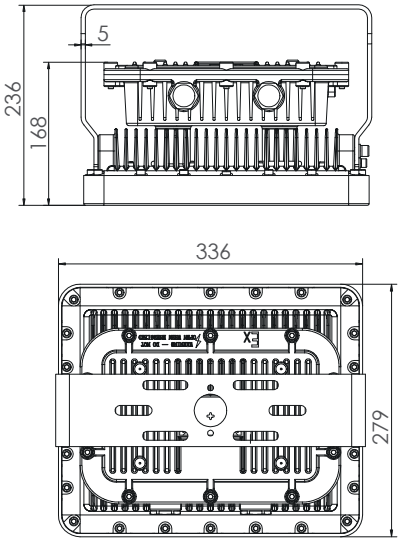
Application

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

LED lumen Maintenance: L70>140,000 Operation Hours@50°C

Product Dimensions





Unit:mm

Model	Net weight	Dimensions (L×W×H)	Gross weight	Dimensions (L×W×H)
NJZ-FEL-B-80	15.1kg	336×279×168 mm	16.1kg	370×362×233mm
NJZ-FEL-B-100				
NJZ-FEL-B-120				
NJZ-FEL-B-150				

Mounting

Ceiling Type

Pole Type

Wall Type

Safety cable installed

Technical Parameter

Electrical

Specification	NJZ-FEL-B-80	NJZ-FEL-B-100	NJZ-FEL-B-120	NJZ-FEL-B-150
Rated Power	80W	100W	120W	150W
Input Voltage	AC100-270			
Input Frequency	50/60Hz			
Input Current	0.35A	0.43A	0.52A	0.65A
Power Factor	≥0.95			
Driver Efficiency	≥91%			
Surge Protection	4KV			

Optical

Specification	NJZ-FEL-B-80	NJZ-FEL-B-100	NJZ-FEL-B-120	NJZ-FEL-B-150
Lumen Output	9600Lm	12000Lm	16000Lm	19500Lm
Lumens Per Watt	130Lm/W*			
Beam Angle	25° /60° /110°			
Correlated Color Temperature (CCT)	3000K/4000K/5000K/5700K			
Color Rendering Index (CRI)	Ra>70			

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

Environmental

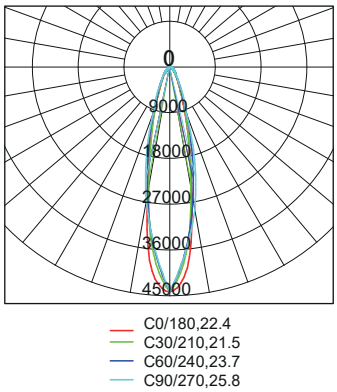
Specification	NJZ-FEL-B-80	NJZ-FEL-B-100	NJZ-FEL-B-120	NJZ-FEL-B-150
Ambient Operating Humidity	5%~95% RH			
Ambient Operating Temperature	-30°C~+50°C			
Optimal Operating Temperature	25°C (77°F)			

Mechanical

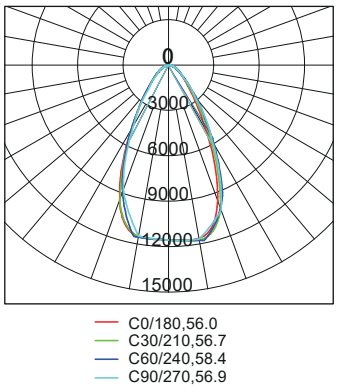
Specification	NJZ-FEL-B-80	NJZ-FEL-B-100	NJZ-FEL-B-120	NJZ-FEL-B-150
Housing Material	Copper-free Aluminum			
Lens Material	Tempered glass			
Hardware	Stainless steel 316			
Color	Dark Grey (RAL7037)			
Finish	Polyster powder coating for uniform corrosion resistance			
Protection	IP66/IK08/5G vibration/1000hrs salt spray			
Mounting	Ceiling, Pole, Wall			
Installation	MIN 90°C SUPPLY CONDUCTORS			
Cable entries	2 x NPT3/4 (two rear)			
Termination	3 x WAGO 221-413 (max. 4 mm²,3-conductor,with levers)			

Photometric

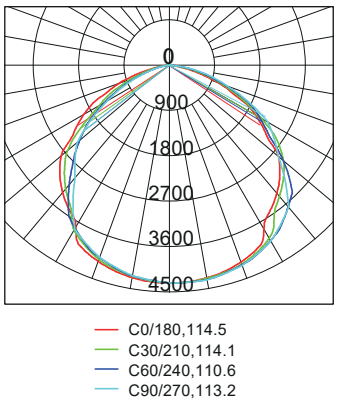
25 Degree



60 Degree



110 Degree



Ordering Information and Mounting Accessories

NJZ	–	FEL	–	80(B)	–	*V01	–	*RN	–	*60	–	*3	–	*T		*XX
Brand		Series		Wattage		Voltage		Color Temp		Beam Angle		Hzaloc		Tempered Glass		Accessories

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

BRAND
NJZ

SERIES
FEL

WATTAGE
80(B)= 80 W
100(B)= 100 W
120(B)= 120 W
150(B)= 150 W

VOLTAGE
V01= AC100-270V

COLOR TEMP
RN= 3000K (Warm White)
RL= 4000K (Neutral White)
RZ= 5000K (Neutral White)(standard)
RM= 5700K (Cool White)

BEAM ANGLE
25=25°
60=60°
110=110°

HAZLOC
3=Zone1,Zone21

TEMPERED GLASS
T=Transparent

ACCESSORIES
UB01=Stainless steel U-Bracket
UB03=Anti-vibration U-bracket
UB04=360Deg rotation U-bracket
SN01=Stanchion slip fitter for Dia 54-62mm range pole (Gray finish)
SP01=10kv Surge Protector 100~277V
SC01=Stainless Steel Safety Cable

UB01
Ceiling/Wall Type
Stainless steel U-Bracket

UB03
Anti-vibration
U-bracket

UB04
360Deg rotation
U-bracket

SN01
Pole Type
Stanchion

SP01
10KV Surge Protector

SC01
Stainless Steel
Safety Cable

Hazardous area zones and equipment categories

Hazardous places are classified in terms of zones on the basis of the frequency and duration of the occurrence of an explosive atmosphere.

Gases, vapours and mists

For gases, vapours and mists the zone classifications are:
Zone 0 A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is present continuously or for long periods or frequently.

Zone 1 A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is likely to occur in normal operation occasionally.

Zone 2 A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

Dusts

For dusts the zone classifications are:
Zone 20 A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, or for long periods or frequently. Zone 21 A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur in normal operation occasionally.

Zone 22 A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for a short period only.
Notes:

1. Layers, deposits and heaps of combustible dust must be considered as any other source which can form an explosive atmosphere.
2. "Normal operation" means the situation when installations are used within their design parameters.