Born for Industrial Safety

Defender (NJZ-FEL-B Series)

Hazardous Location LED Luminaire

NJZ LIGHTING

Cerbelux

info@cerbelux.fi www.cerbelux.fi

2020-02-10 V1.0 EN

Defender

Hazardous Location LED Luminaire

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
- Wide power range from 20W to 150W
- High luminous efficacy-Up to 130 lm/W
- Universal Voltage: AC100-270V (50/60Hz)
- Optional lighting distribution 25°, 60°, 110°
- Anti-corrosion 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 IP66

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

Zone1,21
Zone 2, 22

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

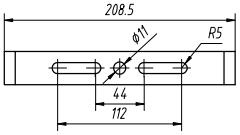
Application

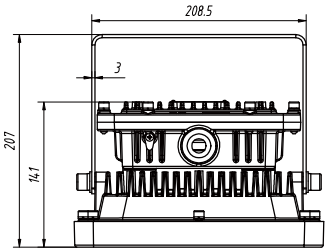
Power Plant / Heavy Industrials
Storage Facility / Paper Mills
Wastewater Treatment Plants
Loading Docks / Platforms /
Shipyards Chemical Processing
Facility Petrochemical Processing
Facility

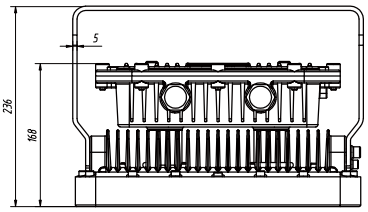
Warranty

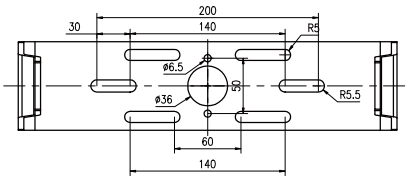
5-Year Standard Warranty
LED lumen Maintenance:
L70>140,000 Operation Hours @
50°C

Product Dimensions

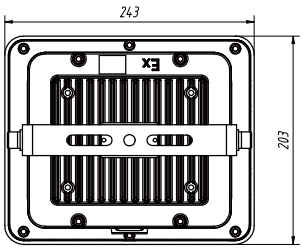


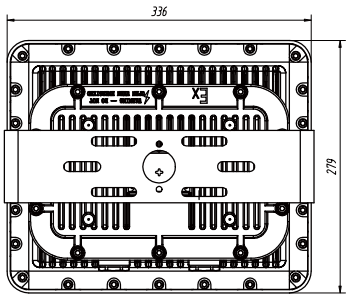






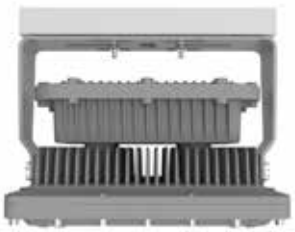
Unit : mm





Model	Net weight	Dimensions (L×W×H)	Gross weight	Dimensions (L×W×H)
NJZ-FEL-B-20	4.6kg	243×203×141 mm	6.0kg	327×290×200 mm
NJZ-FEL-B-40				
NJZ-FEL-B-50				
NJZ-FEL-B-60				
NJZ-FEL-B-80	12.2kg	336×279×168 mm	13.5kg	370×362×233 mm
NJZ-FEL-B-100				
NJZ-FEL-B-120				
NJZ-FEL-B-150				

Mounting



Ceiling Type

Pole Type

Wall Type

Technical Parameter

Electrical

Specification	NJZ-FEL-B-20	NJZ-FEL-B-40	NJZ-FEL-B-50	NJZ-FEL-B-60
Rated Power	20W	40W	50W	60W
Input Voltage	AC100-270V			
Input Frequency	50/60Hz			
Input Current (AC230V)	0.09A	0.17A	0.22A	0.26A
Power Factor	≥0.95			
Driver Efficiency	≥91%			

Optical

Specification	NJZ-FEL-B-20	NJZ-FEL-B-40	NJZ-FEL-B-50	NJZ-FEL-B-60
Lumen Output	2400lm	4400lm	5500lm	6000lm
Lumens Per Watt	120lm/W			
Beam Angle	25°/ 60°/ 110°			
Correlated Color Temperature (CCT)	3000K/4000K/5500K			
Color Rendering Index (CRI)	Ra>70 (80 to order)			

Environmental

Specification	NJZ-FEL-B-20	NJZ-FEL-B-40	NJZ-FEL-B-50	NJZ-FEL-B-60
Ambient Operating Humidity	5% ～ 95% RH			
Ambient Operating Temperature	-30°C ～ +50°C			
Optimal Operating Temperature	25°C			

Mechanical

Specification	NJZ-FEL-B-20	NJZ-FEL-B-40	NJZ-FEL-B-50	NJZ-FEL-B-60
Housing Material	Copper-free Aluminum			
Lens Material	Tempered glass			
Mounting Options	Ceiling, Wall, Pole			
IP Rating	IP66			
IK Rating	IK08			

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	AC100-270V			
Input Frequency	50/60Hz			
Input Current (AC230V)	0.35A	0.43A	0.52A	0.65A
Power Factor	≥0.95			
Driver Efficiency	≥91%			

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/5500K			
Color Rendering Index (CRI)	Ra>70			

Environmental

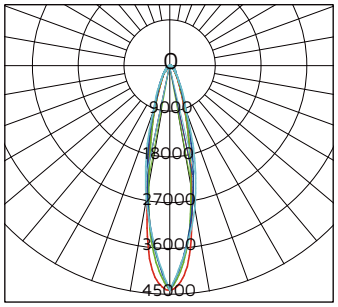
Specification	NJZ-FEL-B-80	NJZ-FEL-B-100	NJZ-FEL-B-120	NJZ-FEL-B-150
Ambient Operating Humidity	5% ～ 95% RH			
Ambient Operating Temperature	-30°C ～ +50°C			
Optimal Operating Temperature	25°C			

Mechanical

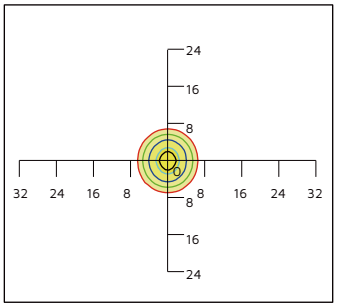
Specification	NJZ-FEL-B-80	NJZ-FEL-B-100	NJZ-FEL-B-120	NJZ-FEL-B-150
Housing Material	Copper-free Aluminum			
Lens Material	Tempered glass			
Mounting Options	Ceiling, Wall, Pole			
IP Rating	IP66			
IK Rating	IK08			

Photometric

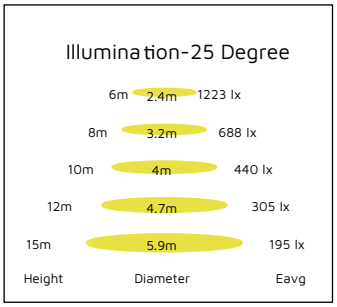
25 Degree



C0/180,22.4
C30/210,21.5
C60/240,23.7
C90/270,25.8

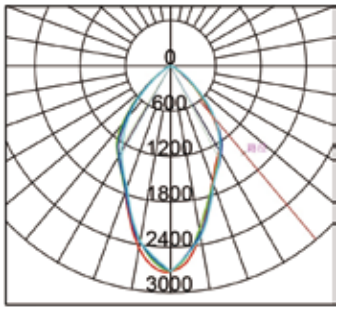


Mounting Height 10m, 0 Tilt

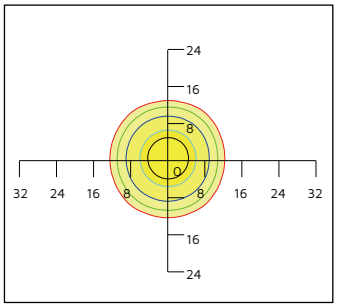


Flux out: 5727 lm

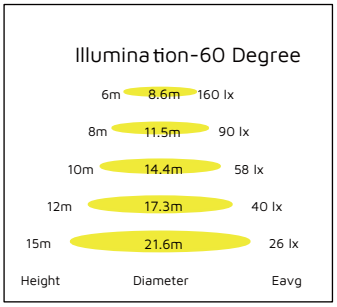
60 Degree



C0/180,57.8deg
C30/210,59.9deg
C60/240,59.9deg
C90/270,57.2deg

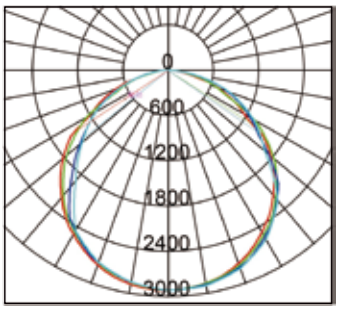


Mounting Height 10m, 0 Tilt

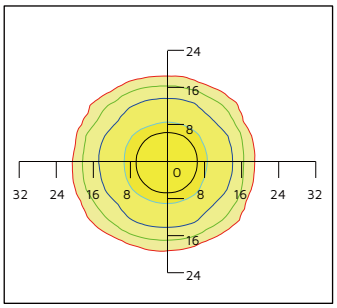


Flux out: 9544 lm

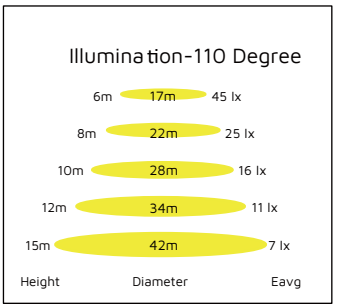
110 Degree



C0/180,113.0deg
C30/210,113.4deg
C60/240,106.3deg
C90/270,106.4deg



Mounting Height 10m, 0 Tilt



Flux out: 10387 lm

Ordering Information and Mounting Accessories

FEL-B – 150 – V01 – RN – 60 – 3 – T – XX

Series | Wattage | Voltage | Color Temp | Beam Angle | Hazloc | Tempered Glass | Option

SERIES
FEL-B

WATTAGE
20 =20W
40 =40W
50 =50W
60 =60W
80 =80W
100 =100W
120=120W
150 =150W

VOLTAGE
V01 =AC100-270V

COLOR TEMP
RN =3000K (Warm White)
RL =4000K (Neutral White)
RM =5500K (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
SP01 =10kv Surge Protector 100~277V
SC01 =Stainless Steel Safety Cable kit

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 kit

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, vapors and mists

For gases, vapors 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.