

Manufacturing for Manufacturers



Knight (NJZ-FEL-I Series Emergency Battery Backup.) Hazardous Location LED Luminaire



2020-12-09 V1.3 EN

Knight

Hazardous Location LED Luminaire

NJZ-FEL-I Series



Product description

The Knight NJZ-FEL-I 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 and IEC.

NJZ-FEL-I Series is ideal for retrofit of existing HPS/MH, and T8 tube-type explosion proof light. It offers higher efficacy for increased energy savings, lower maintenance costs and shorter paybacks.

Features

- Best-in-class system efficacy - Up to 136 Lm / W
- Charge time 24h, Discharge time 1.5h
- Wide ambient temp. range from - 20°C to + 45 °C (-4°F ~ + 113°F)
- Safe and reliable heat transfer - Offering a T-rating of T6 (CID1)
- Instant on/off operation
- Shock-and vibration-resistant - Durable LEDs with solder-less board connection
- Copper-free aluminum body and corrosion resistant
- All exposed fasteners with quality stainless steel
- Thermal shock and impact resistant tempered glass
- Slim and compact design

Compliance

NEC/CEC Standard

UL 844

Class I Division 1, Group C, D

Class I, Zone 1, Group IIB

UL924

CSA C22.2 No. 137

CSA C22.2 No. 141-15

IP66 / IK07 / 5G vibration

1000hrs salt spray

Application

Mining Sites/Heavy Industries

Storage Facility/Paper Mills

Wastewater Treatment Plants

Loading Docks/Platforms/Shipyards

Chemical Processing Facility

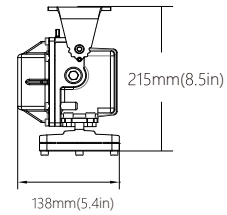
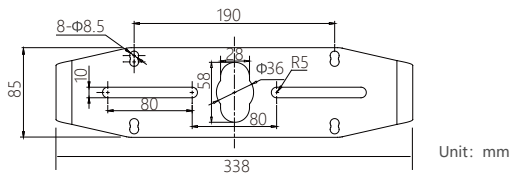
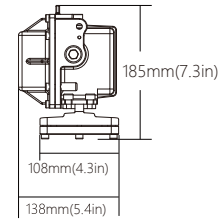
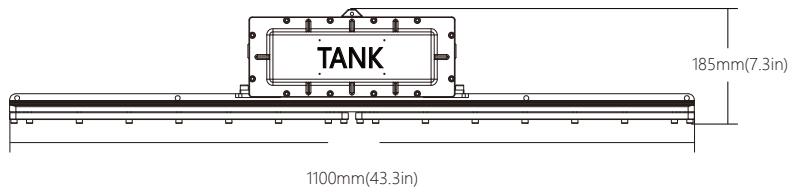
Petrochemical Processing Facility

Warranty

5-Year Standard Warranty



Product Dimensions

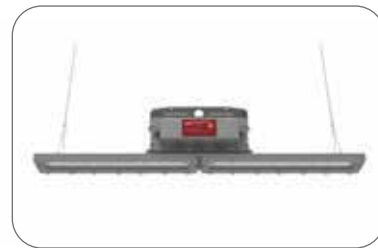


| Model | Net weight | Dimensions (L×W×H) | Gross weight | Dimensions (L×W×H) |
|---------------------|----------------|-----------------------------------|----------------|-----------------------------------|
| NJZ-FEL-I-80 | 12.2kg/26.9lbs | 1100×138×185 mm 43.3×5.4×7.3in | 13.5kg/29.8lbs | 1197×256×200 mm 47.1×7.7×7.9in |

Mounting



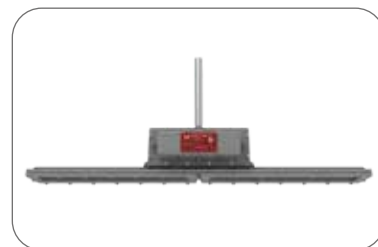
Ceiling & Wall



Hanging Chain



Stanchion



Pendant

Technical Parameter

Electrical

| Specification | NJZ-FEL-I-80(Battery backup) |
|-----------------------|--------------------------------|
| Rated Power | 80W(6W) |
| Input Voltage | AC120-277V only(50/60Hz) |
| Battery | Nickel-Cadmium |
| Expected Battery Life | 5-year |
| Charge Time | 24 hours |
| Emergency Run Time | 90 min |
| Power Factor | ≥0.95 |

Optical

| Specification | NJZ-FEL-I-80(Battery backup) |
|------------------------------------|--------------------------------|
| Lumen Output | 10800Lm(812Lm) |
| Lumens Per Watt | 136Lm/W |
| Beam Angle | 60°/110°/Type II |
| Correlated Color Temperature (CCT) | 3000K/4000K/5000K |
| Color Rendering Index (CRI) | Ra>70 |

Environmental

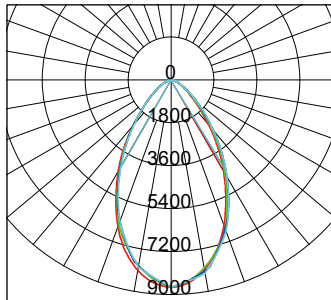
| Specification | NJZ-FEL-I-80(Battery backup) |
|-------------------------------|-------------------------------------|
| Ambient Operating Humidity | 10% ~ 90% RH |
| Ambient Operating Temperature | - 20°C to + 45 °C (-4°F ~ + 113°F) |
| Optimal Operating Temperature | 25°C (77°F) |
| T-Code | Class I Division 1, Group C, D |
| Max Mounting Height | 15.6ft (4.75m) |

Mechanical

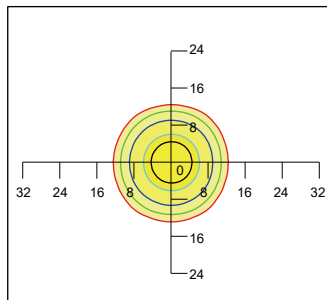
| Specification | NJZ-FEL-I-80(Battery backup) |
|------------------|--|
| Housing Material | Copper-free Aluminum |
| External Lens | Transparent Glass /Diffuse Glass |
| Internal Lens | PMMA |
| Hardware | Stainless steel 316 |
| Color | Dark Grey (RAL7037) |
| Finish | Polyster powder coating for uniform corrosion resistance |
| Protection | IP66 / IK07 / 5G vibration / 1000hrs salt spray |
| Cable entries | 3 x NPT3/4 (one top, two rear) |
| Termination | 3 x WAGO 221-415 (max. 4 mm ² ,5-conductor,with levers) |
| Mounting | Ceiling, Wall, Stanchion, Hanging Chain, Pendant |
| Installation | MIN 90°C SUPPLY CONDUCTORS |

Photometric

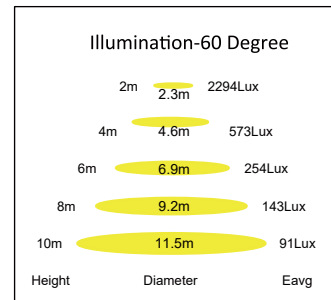
60 Degree



— C0/180,60.8
— C30/210,60.8
— C60/240,61.3
— C90/270,61.0

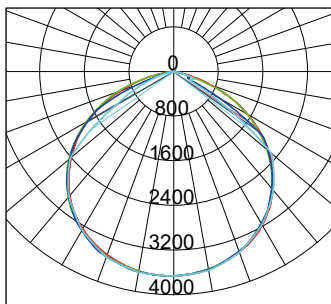


Mounting Height 33'(10m), 0 Tilt

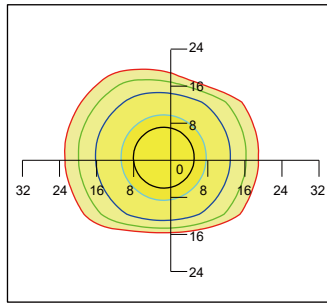


Flux out: 9609 lm

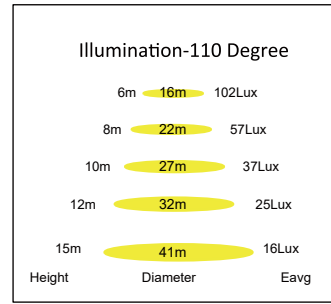
110 Degree



— C0/180,115.0
— C30/210,115.0
— C60/240,114.0
— C90/270,107.0

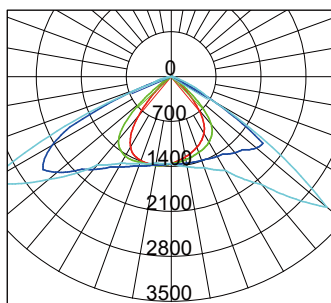


Mounting Height 33'(10m), 0 Tilt

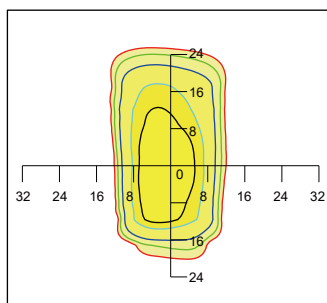


Flux out: 7550 lm

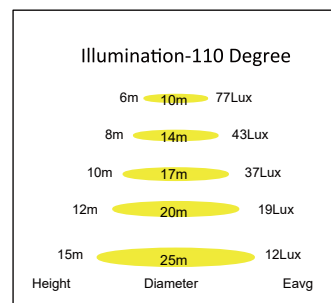
Type II



— C0/180,80.5
— C30/210,93.6
— C60/240,129.1
— C90/270,129.0

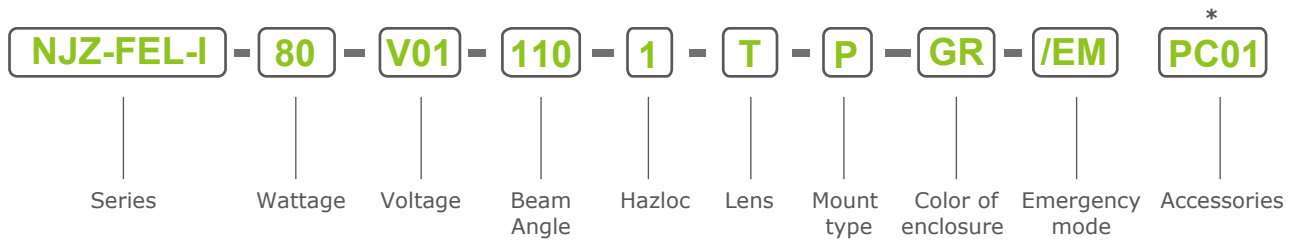


Mounting Height 33'(10m), 0 Tilt



Flux out: 4232 lm

Ordering Information and Mounting Accessories



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

SERIES

NJZ-FEL-I

WATTAGE

80=80W

VOLTAGE

V01= 120-277 Vac

BEAM ANGLE

60=60° LED diffuser*

T2=Type II LED diffuser*

110=110° Without LED diffuser

* available with T (clear glass) only

HAZLOC

1=CID1

LENS

T=Clear glass

F=Frosted glass

MOUNT TYPE

P= NPT 3/4"pendant mount

U= NPT 3/4"pendant+U-bracket

COLOR OF ENCLOSURE

GR = "gray"(Standard)

BL= "black"

WT= "white"

BZ = "bronze"

EMERGENCY MODE

/EM = 90mins

ACCESSORIES

PC01=Pipe Clamp (M8*48mm) for pole ϕ 1 7/8" (48mm)

PC02=Pipe Clamp (M8*60mm) for pole ϕ 2 3/8" (60mm)

UB02=Stainless steel U-Bracket

SC04=Stainless Steel Safety Cable kit

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

CA-X=Cable, order upon request

SP01=10kv Surge Protector 100~277V

SP02=10kv Surge Protector 347~480V

INSTALLATION TIPS

1. Termination

4x 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 & Side x2)

Side x1 open, Top & Side with stopping plugs

3. Dimming

Standard: 0-10V Dimming (10-100%)



PC01

Stanchion mount
Pipe clamp_one pair
(M8*48mm) for Round pole ϕ 1 7/8" (48mm)



PC02

Stanchion mount
Pipe clamp_one pair
(M8*60mm) for Round pole ϕ 2 3/8" (60mm)



UB02

Ceiling/Wall mount
Stainless steel U-Bracket



SC04

Stainless Steel
Safety Cable kit



CA01

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

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.