

**Born for Industrial Safety**



**Knight™** (NJZ-FEL-I Series)

**Hazardous Location LED Luminaire**



Specsheet-2021-09A 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 120lm/W
- Universal Voltage: AC120-277,347-480 ( 50/60Hz )
- Wide ambient temp. range from - 40°C to +60 °C ( -40°F ~ +140°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 316
- Thermal shock and impact resistant tempered glass
- Slim and compact design

## Compliance

### NEC/CEC Standard

UL844

Class I Division 1, Group C, D

Class I Division 2, Group A, B, C, D

Class I, Zone 1, Group IIB

Class I, Zone 2, Group IIC

UL 1598 Wet Locations

UL 1598A Marine Outside Type (Salt Water)

CSA C22.2 No.137

CSA C22.2 NO. 250.0

DLC \*

Not all product variations listed on this page are DLC qualified.\*  
Visit [www.designlights.org/search](http://www.designlights.org/search) to confirm qualification.

IP66

IK07

5G vibration

1000hrs salt spray

## Application

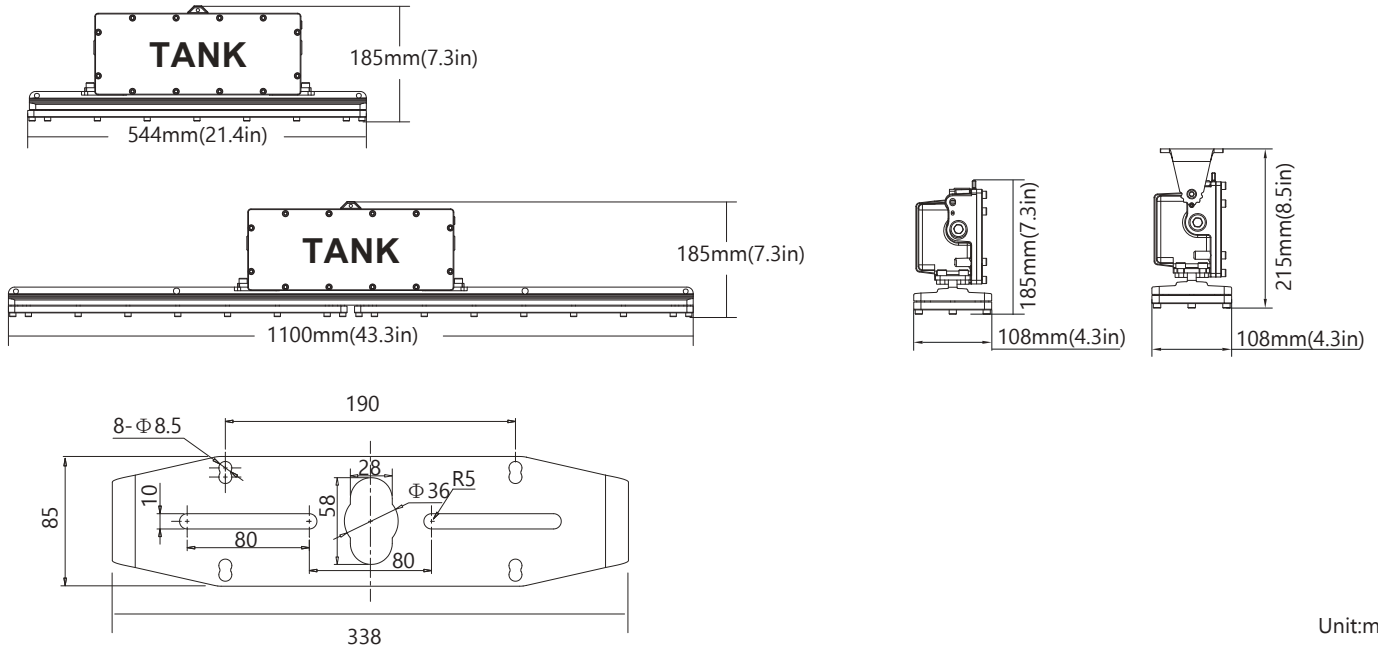
- Mining Sites
- Heavy Industrials Storage Facility
- Paper mills
- Wastewater Treatment Plants
- Loading Docks Platforms
- Shipyards
- Chemical Processing Facility
- Petrochemical Processing Facility

## Warranty

5-Year Standard Warranty

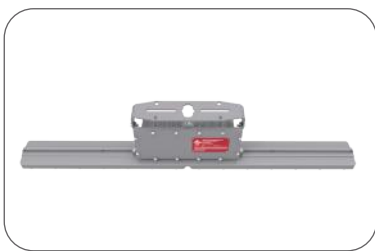
LED lumen Maintenance: L70>140,000 Operation Hours@60°C

## Product Dimensions

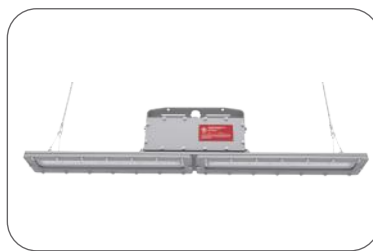


Model	Net weight	Dimensions (L×W×H)	Gross weight	Dimensions (L×W×H)
<b>NJZ-FEL-I-40</b>	7.3kg/16.1lbs	544×108×185 mm 21.4×4.3×7.3in	8.1kg/17.9lbs	596×245×160mm 23.5×9.6×6.3in
<b>NJZ-FEL-I-80</b>	10.8kg/23.8lbs	1100×108×185 mm 43.3×4.3×7.3in	12.1kg/26.7lbs	1155×245×160 mm 45.5×9.6×6.3in

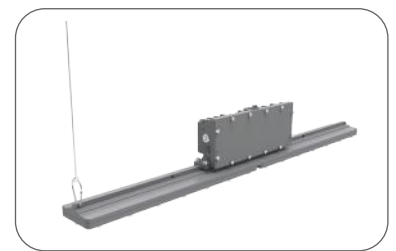
## Mounting



Ceiling & Wall



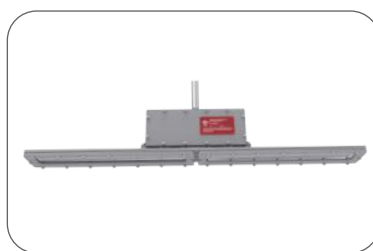
Hanging Chain



Safety cable installed



Stanchion



Pendant

### Technical Parameter

#### Electrical

Specification	NJZ-FEL-I-40	NJZ-FEL-I-80	
Rated Power	40W	80W	
Input Voltage	AC120-277V, AC347-480V		
Input Frequency	50/60Hz		
Input Current	(AC120/277V)	0.4/0.14A	0.8/0.29A
	(AC347/480V)	0.14/0.08A	0.29/0.17A
Power Factor	≥0.9		
Driver Efficiency	≥90%		
Surge Protection	6Kv	10Kv	

#### Optical

Specification	NJZ-FEL-I-40	NJZ-FEL-I-80
Lumen Output	4800Lm	9600Lm
Lumens Per Watt	120Lm/W*	
Beam Angle	60° /110° /TYPEII	
Correlated Color Temperature (CCT)	3000K/4000K/5000K	
Color Rendering Index (CRI)	Ra>70	

\*value calculated based on 5000K ,varies to different spec

#### Environmental

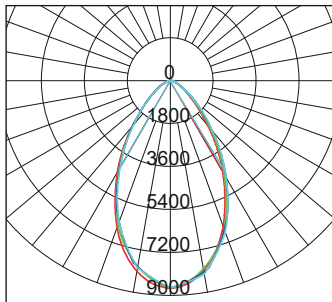
Specification	NJZ-FEL-I-40	NJZ-FEL-I-80
Ambient Operating Humidity	10%~90% RH	
Ambient Operating Temperature	-40°C~+60°C(-40°F~+140°F)	
Optimal Operating Temperature	25°C (77°F)	
T-Code	Class I Division 1, Group C, D	T6
	Class I Division 2, Group A, B, C, D	T3C

#### Mechanical

Specification	NJZ-FEL-I-40	NJZ-FEL-I-80
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	
Mounting	Ceiling, Wall, Stanchion, Hanging Chain,Pendant	
Installation	MIN 90°C SUPPLY CONDUCTORS	
Cable entries	3 x NPT3/4 (one top,Two rear)	
Termination	3 x WAGO 221-413 (max. 4 mm <sup>2</sup> ,3-conductor,with levers)	

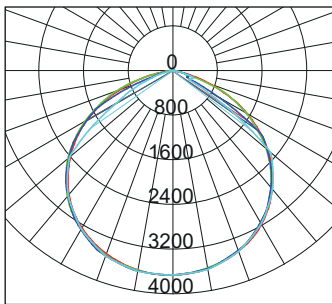
## Photometric

### 60 Degree



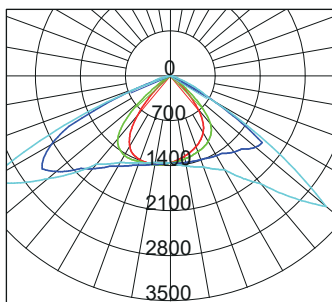
- C0/180,60.8
- C30/210,60.8
- C60/240,61.3
- C90/270,61.0

### 110 Degree



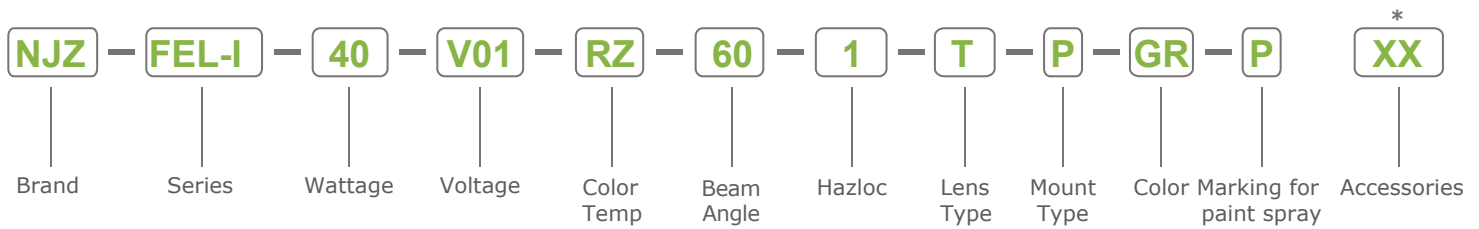
- C0/180,115.0
- C30/210,115.0
- C60/240,114.0
- C90/270,107.0

### Type II



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

## Ordering Information and Mounting Accessories



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

BRAND	SERIES	WATTAGE	VOLTAGE	COLOR TEMP	BEAM ANGLE
NJZ	FEL-I	40=40W 80=80W	V01= AC100-277V V04= AC277-480V	RN= 3000K (Warm White) RL= 4000K (Neutral White) RZ= 5000K (Neutral White)	60=60° LED diffuser* T2=Type II LED diffuser* 110=110° Without LED diffuser * available with T (clear glass) only

HAZLOC	LENS TYPE	MOUNT TYPE	COLOR OF FINISH	MARKING FOR PAINT SPRAY USE
1=CID1,CID2	T=Clear glass F=Frosted glass	P= NPT 3/4"pendant mount U= NPT 3/4"pendant+U-bracket	GR=Gray(Standard) BL=Black WT=White BZ=Bronze	Blank=Non paint spray use L= paint spray use

### ACCESSORIES

- PC01=Pipe Clamp(M8\*48mm) for pole φ1 7/8"(48mm)
- PC02=Pipe Clamp(M8\*60mm) for pole φ2 3/8"(60mm)
- UB02=Stainless steel U-Bracket
- SC04=Stainless Steel Safety Cable
- CA01=3' SEOWW-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 mm<sup>2</sup> / 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  
φ1 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



**CA01**

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



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## 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 or 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.