

APRON LIGHTING

R-System LED Floodlight

Modular Lighting System for Aprons, Parking Stands and Deicing Stations



Compliance with Standards

FAA: Designed according to AC 150/5360-13 (Current Edition)

ICAO: Annex 14, Volume 1, 5.3.21

Overview

F-System LED Floodlights are a compact and modular LED floodlighting system for use in high mast systems with mounting heights of up to 30 meters or more. The floodlights are used to illuminate large areas at airports, such as aprons, parking stands, deicing stations and service roads.

It uses advanced, energy-efficient and environment-friendly LED technology that can cope with input power of 120-277 V and extreme ambient temperatures.

In comparison to conventional lighting systems, the F-System LED Floodlight is a proven, safer and more cost-effective alternative that includes a host of capabilities, such as hot restart, multi-layer lighting and dimming. These ensure fail-safe, more precise illumination, lower power consumption and better visibility respectively, and make this product ideal for demanding airside operations.

Features

- Energy savings ranging from 30% to 80%.
- Dimming capability provides significant energy savings and better visibility.
- Precise lighting from corner mast location for increased energy savings.
- Enhances airfield safety as lights are restored almost instantly in a power failure.
- Multi-layer lighting ensures that lumen-output is distributed uniformly across multiple LED light units. In the case of an individual light unit failure, the full area will remain lit at a slightly lower level of illumination.
- Hot-restart ensures illumination is restored in less than a second in case of a power failure without the need for additional electronic equipment typically required in conventional lighting systems.
- Service life of more than 50,000 h at maximum average night temperature levels of 30°C.
- Can be easily retrofitted in existing high mast systems.
- Easy-to-maintain design results in reduced maintenance costs.
- Built to withstand extreme environmental conditions.

- Modular design of housing unit allows for easy installation of replacement parts in case of partial failure. A plug connection ensures replacement of light units, thus eliminating the need for on-site wiring.
- Flat glass cover ensures enhanced protection in demanding environments and allows for easy maintenance.
- Protection against overvoltage up to 6 kV; Protection against spikes of high voltage up to a maximum of 10 kA.
- Upward Light Ratio (ULR) of 0.0%. This ensures no light is emitted towards the sky, thereby eliminating light pollution and reducing glare to pilots and Air Traffic Control, which increases air safety.
- Optimizes visibility and reduces environmental impact.
- Constant Lumen Output (CLO) option to ensure lighting requirement is met throughout entire life cycle of luminaire by taking into account LED age-related luminous flux.
- High Color Rendering Index (CRI) of greater than 70 allows for better identification of security tags, people, vehicle and colors on the apron.
- Two-year standard warranty.
- Manufactured by ewo in Italy.

Operating Conditions

Temperature: -40 °F to +131 °F (-40 °C to +55 °C)
Humidity: 0 to 100%
Altitude: 0 to 10,000 ft (3,050 m)

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Ordering Code

EWP - X X X X - X X X - X X X C

Light Distribution Unit

- K = AP_04-L/R (50% left, 50% right), standard
- L = AP_04-L (left)
- M = AP_04-R (right)
- N = AP_04-L/R with shield
- O = AP_04-L with shield
- P = AP_04-R with shield

Housing

- M = R1
- N = R2
- O = R3
- P = R4

Color

- C = Cool white 5700 °K (standard)
- N = Neutral white 4000 °K

LED Driver

- N = No Drivers
- L = Loose Drivers
- B = Integrated Drivers (standard)

LED Driver Current

- 500 = 500 mA
- 550 = 550 mA
- 600 = 600 mA
- 650 = 650 mA
- 700 = 700 mA
- 750 = 750 mA²
- 800 = 800 mA²

Electrical Approval

- E = ENEC
- U = UL

Dimming Interface

- A = DALI
- B = 1-10V (standard)

Constant Lumen Output

- N = Without CLO

Coating

- C = Powder coated¹

Notes

- ¹ Al6060 powder coating sample salt spray test report is available upon request.
- ² Only available with ENEC electrical approval.

Color temperature

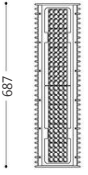
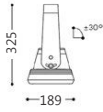
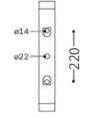
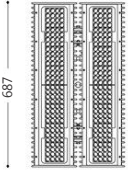
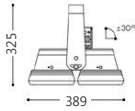
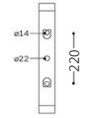
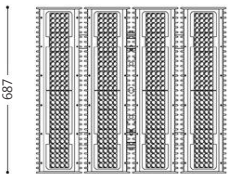
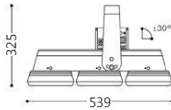
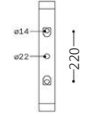
Current mA	4,000 K		5,700 K		Power W
	Luminous flux ¹ [lm]	Luminous efficacy ² [lm/W]	Luminous flux ¹ [lm]	Luminous efficacy ² [lm/W]	
R1					
500 mA	23,698	122.4	24,663	127.3	194
600 mA	27,316	117.2	28,406	121.9	233
700 mA	30,589	112.2	31,787	116.6	273
800 mA	33,572	107.4	34,843	111.5	313
R2					
500 mA	47,395	122.4	49,325	127.3	387
600 mA	54,632	117.2	56,812	121.9	466
700 mA	61,178	112.2	63,573	116.6	545
800 mA	67,144	107.4	69,687	111.5	625
R3					
500 mA	71,093	122.4	73,988	127.3	581
600 mA	81,947	117.2	85,218	121.9	699
700 mA	91,767	112.2	95,360	116.6	818
800 mA	100,716	107.4	104,530	111.5	938
R4					
500 mA	94,790	122.4	98,650	127.3	775
600 mA	109,263	117.2	113,624	121.9	932
700 mA	122,356	112.2	127,146	116.6	1,091
800 mA	134,287	107.4	139,373	111.5	1,251

Notes

- ¹ Luminous flux tolerance $\pm 7\%$
- ² Luminous efficacy is a measure of how well a light source produces visible light. It is the ratio of luminous flux to power. Depending on context, the power can be either the radiant flux of the source's output, or it can be the total power (electric power, chemical energy, or others) consumed by the source.

R-System LED Floodlight

Dimensions

<p>R1 11 kg 3 kg Driver</p>			
<p>R2 18 kg 3 kg Driver</p>			
<p>R3 26 kg 5 kg Driver</p>			
<p>R4 33 kg 5 kg Driver</p>	