

# F2C Ex LED Floodlight

## Product Introduction

F2C LED flood lights are designed to withstand the harshest conditions within Zone 1 IIC gas environments, providing ideal solutions for a wide range of applications.

F2C LED offering provides the same durability and reliability of a traditional HID flood light, coupled with the low cost of ownership and energy efficiency of Eaton's Crouse-Hinds LED technology. High-performance LEDs and a solid-state electronic driver provide light where you need it, at a fraction of the operating costs of HID lighting technologies.

Suitable for Zone 1 & Zone 2 Ex-gas and Zone 21/22 Ex-dust hazardous area, such as heavy industrial, chemical, petrochemical or pharmaceutical facilities, platforms, shipyard, electric power, loading docks, wastewater treatment, paper mill.



## Product Features

- **High Efficient & Energy saving**

High efficiency drivers and Philips LUXEON series LED chips provide reliable low cost operation, total efficient Lumen output over than 16000Lm, energy saving up to 51%.

Model	Nominal Lumens	Wattage	Equivalent HID Luminaire	Energy Savings
F2CLEd-C57-16L	16000	<220W	400W MH	up to 51%

- **Superb Safety & Reliability; Robust Construction, Maintenance Free:**

- Copper free aluminum housing, tempered & impact resistant glass lens.
- IP66 Protection.
- Ex de design, suitable for Zone 1 & Zone 2, Zone 21 & Zone 22 both gas and dust Ex - hazardous area.

- **Wide temperature range in IIC and IIB+H<sub>2</sub> hazardous environment:**

- T- Rating: T4 .
- Permissible temp. range: -40°C~+60°C (IIB+H<sub>2</sub>)  
-20°C~+60°C (IIC)
- Standard product cool white 5700K LED

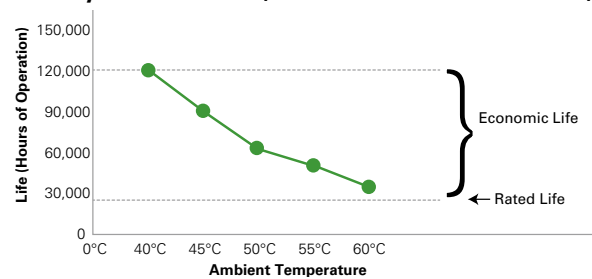
- **Increased serviceability, with easy access for wiring and lamp replacement, reducing maintenance time.**

- **Universal yolk bracket with wide installation angle, vertical adjustment from -90° to +60°.**

- **Optional shield and guard available.**

- **Lead-free and environment-friendly.**

- **LED System Lifetime (Rated Versus Economic Life):**



Economic life can range anywhere between 35,000 to 120,000 hours, or 4 to 14 years of maintenance-free operation.

- **Fixture Life and Years of Maintenance-free Operation**

Ambient Temperature	Fixture Life (Hours)	No. of Years at 24 Hours Usage	No. of Years at 12 Hours Usage
40°C	120,000	14	28
45°C	90,000	10	20
50°C	60,000	7	14
55°C	50,000	6	12
60°C	35,000	4	8

- **F2C LED Benefits:**

- Instant illumination and restrike
- Better visibility with crisp, white light
- Cold temperature operation / no warm-up required
- Redundancy in drivers with multiple series circuits connected to each driver to avoid complete loss of illumination
- Easy installation - compact modular fixture attaches onto existing
- Energy-efficient technology - up to 51% energy savings over HID fixtures
- Provides up to 35,000 hours rated life and up to 120,000 hours of economic life - eliminates need for frequent lamp replacement
- Contains no mercury or other hazardous substances
- Shock- and vibration-resistant solid-state luminaires have no filaments or glass components that could break - greatly reduces the risk of premature failure
- Suggested operation ambient to ensure 50,000 Hrs usage: -40°C~+55°C(IIB+H<sub>2</sub>)/-20°C~+55°C(IIC)
- Dark sky compliant
- 5 year fixture warranty

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## Technical Data

<b>Marking acc. to IECEx</b>	Ex d e IIC T* Gb(-20°C~+60°C) Ex d e IIB+H2 T* Gb(-40°C~+60°C) Ex tb IIIC T***C Db IP66
<b>EMC compliance</b>	EN55015:2006+A1:2007+A2:2000; EN61000-3-2:2006+A1:2009+A2:2009; EN61000-3-3:2008; EN61000-6-2:2005; EN61547:2009
<b>LED light source</b>	PHILIPS LUMILEDS Luxeon series LED chips
<b>Power consumption</b>	<220W
<b>Rated voltage</b>	220 V / 230V / 240V, 50 Hz & 220V / 230 V/ 240V, 60Hz
<b>THD</b>	<20% @220V~240V AC
<b>Power factor</b>	≥ 0.9
<b>CRI</b>	5700K(CRI 70)
<b>Cable entry</b>	2xM20x1.5 / 2xM25x1.5, 1 entry pre-plugged
<b>Connection terminal</b>	6 core conductor/cable, Solid: 0.08-4mm <sup>2</sup> , Flexible: 0.08-2.5mm <sup>2</sup>
<b>Insulation class</b>	I
<b>Permissible ambient temp.</b>	-40°C~+60°C (IIB+H <sub>2</sub> ) / -20°C~+60°C (IIC)
<b>Degree of protection</b>	IP66
<b>Net weight</b>	35kg
<b>Fittings</b>	Guard & glare shield

## Temperature Class Feature

Product Type	Color Temperature	Lumen Output	1M Entry	System Power	Voltage	Gas Group	T Class (Gas)	T °C (Dust)	Tamb.Range	Weight (Kg)
F2CLEC-C57-16L-1M	Cool white 5700K	16000Lm	1M=M20	<220W	220-240V AC 50/60Hz	IIC IIB+H <sub>2</sub>	T4 T4	120 120	-20°C~+60°C -40°C~+60°C	35
F2CLEC-C57-16L-2M	Cool white 5700K	16000Lm	2M=M25	<220W	220-240V AC 50/60Hz	IIC IIB+H <sub>2</sub>	T4 T4	120 120	-20°C~+60°C -40°C~+60°C	35

## Installation and Dimension

**Ceiling Mounting Bracket**

**Pole Mounting Bracket**

**Luminaire Adjustment Range**

**WARNING**  
TO AVOID IGNITION OF HAZARDOUS ATMOSPHERES OR OVERHEATING OF FIXTURE, DO NOT POSITION FIXTURE BEYOND AIMING RANGE LIMITS.  
AIMING RANGE:

### Accessories (Order Separately)

Material code	Product description
CHR8879	Guard SS304 SST
CHR8880	Guard SS316 SST
CHR8883	Glare Shield SS304
CHR8884	Glare Shield SS316
CHR8968	Glare Shield Painted Steel
CHR8856	U bracket 304SST
CHR8857	U bracket 316SST
CHR8858	U bracket Painted Steel
CHR8859	Ceiling bracket 304SST
CHR8860	Ceiling bracket 316SST
CHR8861	Ceiling bracket Painted Steel
CHR8862	Pipe bracket 304SST
CHR8863	Pipe bracket 316SST
CHR8864	Pipe bracket Painted Steel

## Polar Curve

