MCLED

Smart
TECHNOLOGY SYSTEMS

LED Explosion Proof Light
Fixture Catalogue

for Industrial and Hazardous Areas

CE Ex

Hazardous Area Ratings

Fixed and portable fixtures for installation and use in hazardous areas.

Zones

The zone defines the probability of hazardous material being present in an explosive concentration in the atmosphere

Zone	Hazardous Material in Surrounding Atmosphere
Zone 0, 20	Area in which an explosive gas / dust mixture is continuously present or present for long periods
Zone 1, 21	Area in which an explosive gas / dust mixture is likely to occur for short periods in normal operation
Zone 2, 22	Area in which an explosive gas / dust mixture is present for a very short time due to an abnormal condition

Protection Types

are used to denote the protection concept utilised in the devices.

Ex	Presence of Hazardous Material	Zones
Ex d	Flameproof (Explosion proof) Enclosure	1, 21, 2, 22
Ex e	Increased Safety	1, 21, 2, 22
Ex m	Encapsulation	1, 21, 2, 22
Ex n or N	Non incentive or/and normally no sparking circuits	2, 22

Temperature Ratings

Certified equipment is tested for maximum temperature rating by approval agencies. Equipment for Group II receives a temperature code indicating the maximum temperatures of the product.

Temperature Rating	
T1	450°C
T2	300°C
T3	200°C
T4	135°C
T5	100°C
T6	85°C

Groups (Gas & Dust)

Equipment is tested for suitability in specified gas groups and dust groups. Gas groups IIA, IIB, IIC. Dust groups IIIA, IIIB, IIIC

Group	Hazardous Material in Surrounding Atmosphere
Group IIA	Propane group
Group IIB	Ethylene group
Group IIC	Hydrogen group
Group IIIA	Combustible flyings
Group IIIB	Non-conductive dust
Group IIIC	Conductive dust

High Power LED Explosion proof light

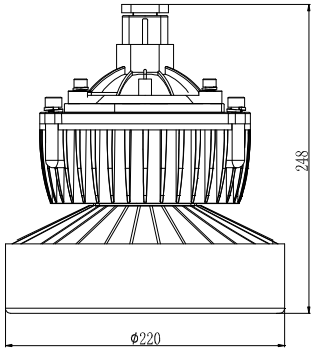
Model : MF05-20W 30W 40W

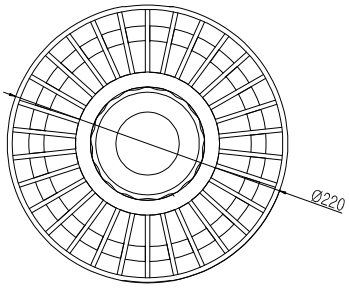
(Explosion proof grade : Ex d IICT 6 Gb)

※ Range of application ※

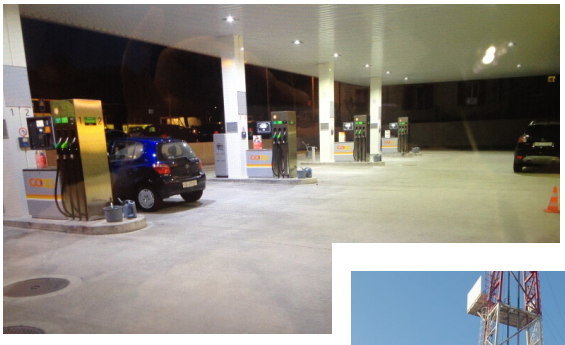
Applicable to warehouse 、workshops、military establishments、gas station、oil industry and the hazardous places where has inflammable and explosive materials.

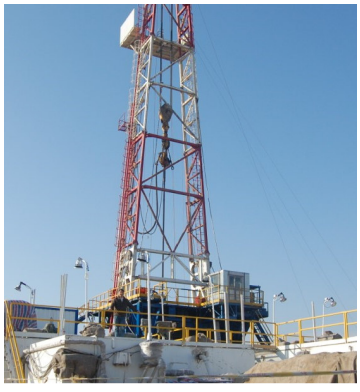
※ Product Image ※





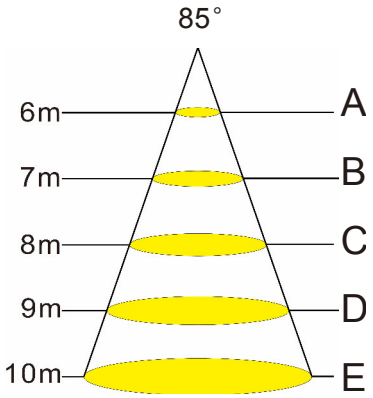
※ Applications ※



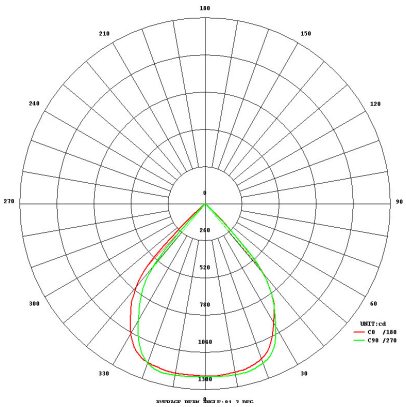


※ Optical Performance※

Isolux Line

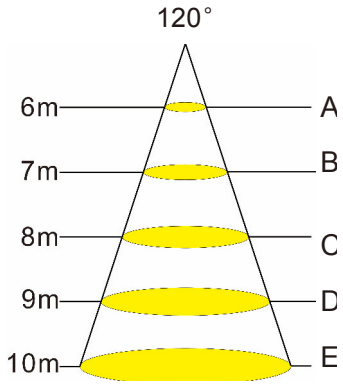


Distribution Curve

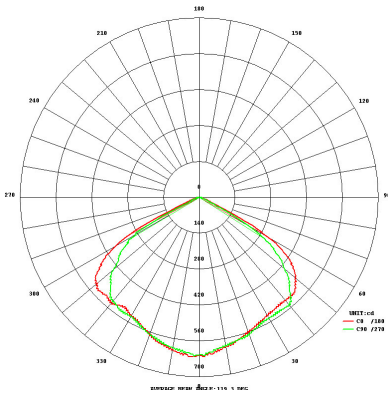


Power	A (lx)	B (lx)	C (lx)	D (lx)	E (lx)
20W	40.2	29.52	22.56	17.76	14.52
30W	49.68	36.48	27.96	21.96	17.88
40W	58.92	45.84	37.68	31.56	27.6

Isolux Line

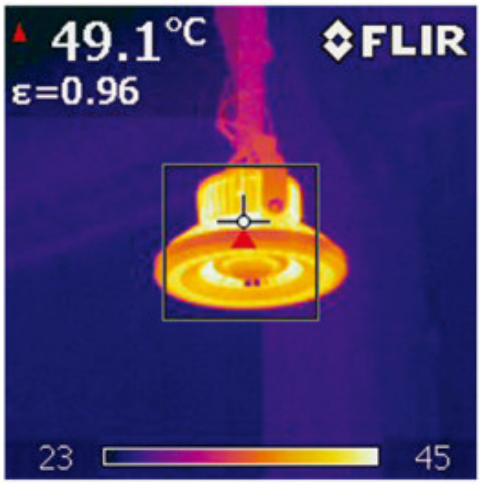


Distribution Curve



Power	A (lx)	B (lx)	C (lx)	D (lx)	E (lx)
20W	20.52	15.12	11.52	9.12	7.44
30W	31.2	22.92	17.4	13.8	11.28
40W	41.04	30.12	23.04	18.12	14.76

※ Thermal Management ※



Heat dissipation design :

Unique round design which allows air circulation automatically generated , through those cooling ribs , hot air go up while cool air go down , in this way the LED chip works under good temperature condition all the time and the light depreciation problem can be controlled very well . This kind of design is our invention patent at domestic and overseas , also the most effective method aiming at luminous decay at present .

※ Technical Parameters ※

Item / Model	MF05- 20W 30W 40W
LED Consumption	20W 30W 40W
System Consumption	LED consumption * 1.1
Input Voltage	AC 100～277V
Working Power Frequency Range	50Hz / 60Hz
Power Factor	>0.95
Total Harmonic Distortion	<25%
Working Environment	Working temperature：-40 ℃ ～ +60 ℃; Working humidity： 0～100%
Average Temperature in 24 hrs	≤35 ℃
Surface Highest Temperature	≤60 ℃
Junction Temperature(TJ)	<70 ℃
Lamp Luminous Efficacy （Lm/W）	≥105Lm/W
Lamp Initial Flux (Lm）	LED consumption * 105Lm/W
Lamp Efficiency(%)	≥90%
Color Temperature	3000K～7000K

Color Rendering Index(CRI)	*Ra＞75*
LED Life Span	*＞50000 h*
Protection Grade	*IP67*
Lens Light Transmittance	*≥90%*
Beam Angle	*90°～ 160°*

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