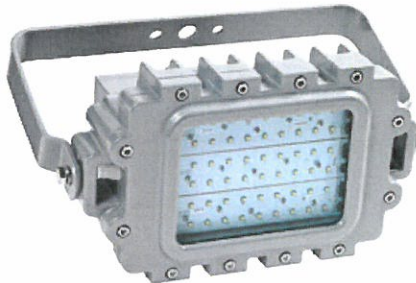


# LIGHTING

## KF1L SERIES



### C1D1 FLOOD – INTRODUCTION & LOGIC



Class I, Div. 1&2, Groups B,C,D  
 Class I, Zone 1&2, Groups IIB+H2, IIA  
 Class II, Div. 1&2, Groups EFG, Class III  
 Enclosure Type 4X, IP66 (-50°C to +55°C)

File LR11713

IEC Ex Rated model (w/IEX or IEX4B suffix) Zone 1, Zone 21  
 Ex de IIB+H2 T6..T5, Gb, IP66  
 Tamb -20°C ≤ Ta ≤ +55°C; Option LT for -50°C ≤ Ta ≤ +55°C  
 Ex de IIB T6..T5, Gb, -50°C ≤ Ta ≤ +55°C  
 Ex tb IIIC T90°C Db, -50°C ≤ Ta ≤ +55°C  
 Certificate IECEX CSA 14.0010  
 ATEX Certificate SIRA14ATEX1159X

## PETROBRIGHT® LED

### FEATURES-SPECIFICATIONS

#### Applications

LED KF1L Series Explosion-proof Floods are 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 ambients 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.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities

#### Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598A
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 1; Class II, Division 1; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- IEX or IEX4B suffix for Zone 1 and Zone 21 to IEC 60079-0, 60079-1, 60079-31, 60079-7 Standards
- Enclosed and gasketed
- NEMA 3, 4X
- IP66

#### Materials

- Body, end caps and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Thermal shock and impact resistant extra heavy-duty glass lens
- High temperature silicone gasketing
- Trunnion heavy gauge 316 SS

#### LED Flood Features and Standards

- **Factory Sealed Construction**
- One 3/4" NPT & one M20 entry standard (see logic for other choices)
- **Supplemental surge protection (AC models 120-277VAC only) and looping terminals are standard**
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- Long Life – 100,000+ maintenance free hours to 70% initial lumens
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- LM80-08\* Measurement of lumen maintenance for LED light sources
- LM79-08\* Certified "Absolute" Photometry, including Chromaticity Color for Solid State Lighting
- L70 Values – Industry Nomenclature for Hours of use to 70% of initial Lumens – TM-21\* & calculated

Patent Pending  
 Fixture Design



KF1L with KFS-6 Slipfitter mount on 2" pipe



Dark Sky Visor  
 KF1L-DARK

Suitable for Paint  
 Spray

\* LM-xx & TM-xx are Illumination Engineering Society Standards designed to promote uniformity in testing procedures among test labs and manufacturers. For more information go to [www.ies.org](http://www.ies.org)

#### Catalog Number Logic

	KF1L	125	30	XX
<b>KF1L - Series Constant</b>	_____	_____	_____	_____
<b>Fixture Wattage</b>				
090 - 90W		150 - 150W		
105 - 105W		165 - 165W		
110 - 110W		195 - 195W		
125 - 125W				
<b>Voltage</b>				
30 - 120 - 277VAC 50/60Hz				
33 - 347 - 480VAC 60Hz (90W-125W)				
34 - 120-250VDC (90W-125W)				
<b>Options</b>				
<b>IEX4B</b> - Four bolt termination cover (see Note 1)				
<b>LT</b> - For -50°C to +55°C, IEC Zone 1 (see Note 1)				
<b>F</b> - Single Fuse				
<b>FF</b> - Double Fuse				
<b>D20</b> - Dual M-20 Entries				
<b>D25</b> - Dual M-25 Entries				
<b>D75</b> - Dual 3/4" NPT				

① Construction/Certification  
 Notes: KF1L units are standard with one 3/4" NPT hub & one M20 hub – both plugged, with an 8-bolt factory sealed termination chamber, suitable for CID1 BCD -50°C to +55°C and IEC Zone 1  
 Ex de suitable for -20°C to 55°C.  
 Use option LT for models needing IEC Zone 1, -50°C to +55°C suitability for hydrogen.  
 Option IEX4B utilizes 4 terminal cover bolts for Ex de and maintains all ratings EXCEPT CID1 BCD.  
 See logic for other entry options

© Fusing not for Canadian or Marine Installations



## C1D1 FLOOD – ORDERING & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D1		C2D1		IEC ZONE 1		IEC ZONE 21		L70		
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	TM-21	CALCULATED
KF1L09030	30.00 / 13.61	90	120-277VAC	0.72-0.31	7182	T6	T6	(EFG)	⊙	T6	T5	160-75	175-90	60100	270000
KF1L09033			347-480VAC	0.25-0.18											
KF1L09034			120-250VDC	0.72-0.28											
KF1L10530		105	120-277VAC	0.85-0.37	8362	T6	T6	(EFG)	⊙	T6	T5	160-76	175-91	60100	270000
KF1L10533			347-480VAC	0.29-0.21											
KF1L10534			120-250VDC	0.85-0.33											
KF1L11030		110	120-277VAC	0.95-0.41	10590	T6	T6	(EFG)	⊙	T6	T5	160-77	175-92	72600	278000
KF1L11033			347-480VAC	0.33-0.24											
KF1L11034			120-250VDC	0.95-0.37											
KF1L12530		125	120-277VAC	1.10-0.48	11590	T6	T6	(EFG)	⊙	T6	T5	160-78	175-93	72600	278000
KF1L12533			347-480VAC	0.38-0.28											
KF1L12534			120-250VDC	1.10-0.43											
KF1L15030		150	120-277VAC	1.25-0.54	13280	T5	-	-	-	-	T5	-	-	60300	190000
KF1L16530		165	120-277VAC	1.38-0.60	13760	T5	-	-	-	-	T5	-	-	72600	278000
KF1L19530		195	120-277VAC	1.63-0.70	15707	T5	-	-	-	-	T5	-	-	72600	278000

Ⓢ Shipping weight Approx. 46lbs, 20.87kg; yellow highlighted models have extra high lumen LED's.

Ⓢ See logic for 347-480V availability

Ⓢ Amperage measured at 120VAC; 277VAC calculated

Ⓢ Use minimum 75" Supply Wire @40°C Ambient; 90"@55°C Ambient

Ⓢ C1D1 40°/55° & C2D1 40°C use Aiming Figure "A" below.

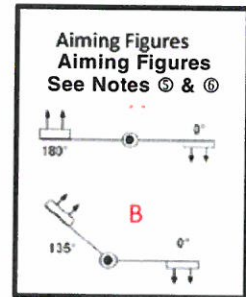
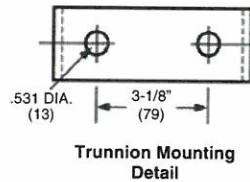
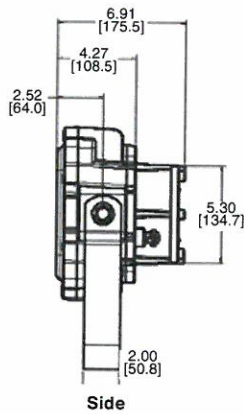
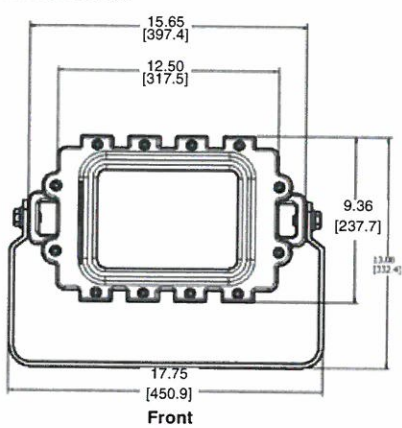
Ⓢ 55°C C2D1 EFG T3C Aiming Figure "B", 55° C2D1 EF T3A Aiming Figure "A"

Ⓢ First number is lens temperature under 25mm layer of dust; Second number is lens temp for dust cloud.

Ⓢ 150-195W pending

\*\* TM-21 based values require very long duration testing. IES TM-21 "official reported" is based on at 8,000 to 10,000 hours of LED chip manufacturer's LM-80 Testing at printing.

### Dimensions



KFL MOUNTS AND ACCESSORIES Ⓢ	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting).
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting.
KFLG	Wire Guard, 316 Stainless Steel
VMSC10	10' Stainless Steel Safety Cable with loop grip Ⓢ
KF1L-DARK	Dark Sky Visor, White Painted Aluminum Ⓢ
KF1L-DOOR	Replacement Door and Lens Assembly

Ⓢ Fittings available to adapt trunnion mount floodlights to crossarms, poles and walls. Must be ordered separately.

Ⓢ Drop limit 1'. Attaches to luminaire cable provision and to mounting structure.

Ⓢ Designed to eliminate uplight when aimed at 45°.



# LIGHTING

KFLP SERIES



## C1D2 FLOOD – INTRODUCTION & LOGIC



Class I, Div. 2, Groups A, B, C, D  
 Class II, Div. 1 & 2, Groups EFG  
 Class III  
 Suitable for wet locations  
 Marine Rated (US Only)  
 NEMA 3, 4X  
 IP66

CS US File LR11713

IEC Ex Rated model (w/IEX suffix)  
 Zone 2 and Zone 21 areas  
 Ex nA IIC T6 to T3, Gc  
 Ex 1b IIC T160°C Db  
 Tamb -50°C ≤ Ta ≤ +55°C, IP66  
 IECEx Certificate  
 CSA 14.0002X  
 ATEX Certificate  
 CML 14ATEX3087/4088

### FEATURES-SPECIFICATIONS

#### Applications

LED Portable Floods are designed for temporary applications where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water, snow or high ambients 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.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

#### Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X, IP66
- IEX suffix Zone 2/21 to IEC 60079-0, 60079-15, 60079-31 Standards

#### Materials

- Body, end caps and lens frame and base corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- High temperature silicone gasketing
- Trunnion heavy gauge galvanized steel with painted finish
- Stand and handle epoxy pound coat
- Polycarbonate Lens
- Stainless steel wire guard

### LED Flood Features and Standards

- Crisp White Light for Excellent Color Rendering - Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings - High lumens per watt
- Long Life - to 150,000 maintenance free hours to 70% initial lumens
- Ambient suitability -50°C to 55°C up to 125W@
- Instant On - Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections - Vibration Resistant
- LM80-08\* Measurement of lumen maintenance for LED light sources
- LM79-08\* Certified "Absolute" Photometry, including Chromaticity Color for Solid State Lighting
- L70 Values - Industry Nomenclature for Hours of use to 70% of initial Lumens - TM-21\* & Calculated

Supplemental surge protection included as standard for AC models only

### PATENTED LUMINAIRE DESIGN



Available with cord and plug

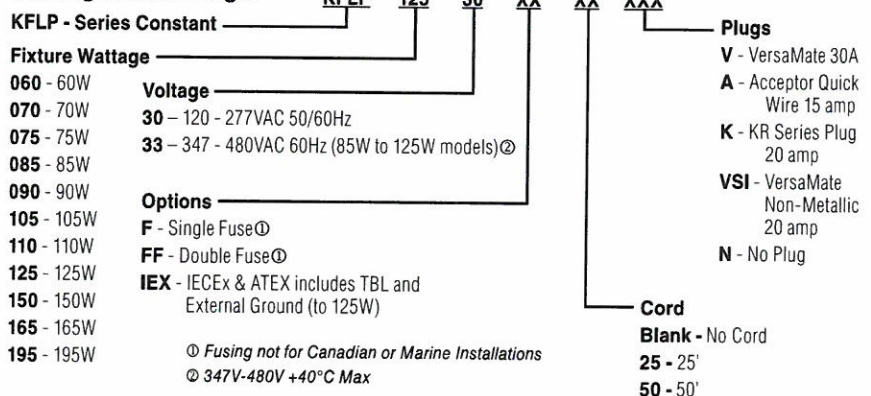
Strain Relief Card Grip



\* LM-xx & TM-xx are Illumination Engineering Society Standards designed to promote uniformity in testing procedures among test labs and manufacturers. For more information go to [www.ies.org](http://www.ies.org)

Units include Qty. 3 6mm terminals plus external ground as standard

### Catalog Number Logic



Ⓢ Fusing not for Canadian or Marine Installations  
 Ⓢ 347V-480V +40°C Max



## C1D2 FLOOD – ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY				C1D2 <sup>⑤</sup>		C1D2 <sup>⑤</sup> SIMULTANEOUS		C2D1 <sup>⑥</sup>		IEC ZONE 2 <sup>⑤</sup>		IEC ZONE 21 <sup>⑤ ⑥</sup>	
CATALOG NO. <sup>①②</sup>	WATTS	AMPS 120/277 <sup>③</sup>	DELIVERED LUMENS	40C	55C	40C	55C	40C	55C	40C	55C	40C	55C
KFLP06030	60	0.5/0.2	6111	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145/70	160/85
KFLP07030	70	0.6/0.3	9742 <sup>④</sup>	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145/70	160/85
KFLP07530	75	0.6/0.3	7454	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145/70	160/85
KFLP08530	85	0.7/0.3	10840 <sup>④</sup>	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145/70	160/85
KFLP09030	90	0.8/0.4	9023	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145/70	160/85
KFLP10530	105	0.9/0.4	10370	T4A	T4A	T3C	T3C	T3C (EFG)	T3C (EFG)	T4	T4	145/70	160/85
KFLP11030	110	0.9/0.4	13780 <sup>④</sup>	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145/70	160/85
KFLP12530	125	1.0/0.5	15340 <sup>④</sup>	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145/70	160/85
KFLP15030	150	1.25/0.54	18550	T5	-	T3C	-	T3C (EFG)	-	-	-	-	-
KFLP16530	165	1.38/0.6	19220 <sup>④</sup>	T5	-	T3C	-	T3C (EFG)	-	-	-	-	-
KFLP19530	195	1.63/0.7	21940 <sup>④</sup>	T5	-	T3C	-	T3C (EFG)	-	-	-	-	-

- ① Shipping weight Approx. 30lbs
- ② Cat. nos. are 120-277VAC models, see logic for 347-480V.
- ③ Amperage measured at 120VAC; 277VAC calculated
- ④ Extra high Lumens per Watt LED models
- ⑤ Use 75° minimum Supply Wire @40°C Ambient; 90 @55°C Ambient
- ⑥ First number is lens temperature under 25mm layer of dust; Second number is lens temp. for dust cloud.

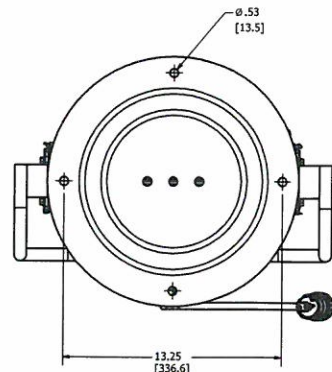
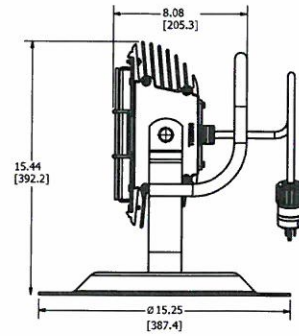
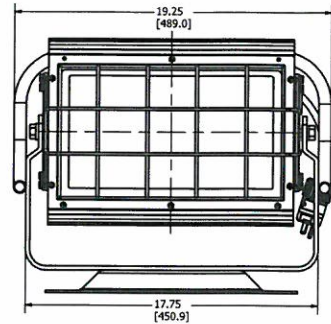
LUMEN LIFE	L70 CALCULATED	L70 TM-21**
Extra High L/W Models	150,000 Hours to 70% Initial	72,600 Hours Official Reported
High L/W Models	150,000 Hours to 70% Initial	60,100 Hours Official Reported
150W High L/W Models	190,000 Hours to 70% Initial	50,500 Hours Official Reported

\*\* TM-21 based values require very long duration testing. IES TM-21 "official reported" is based on at 8,000 to 10,000 hours of LED chip manufacturer's LM-80 Testing at printing.

KFL MOUNTS AND ACCESSORIES <sup>①</sup>	
CATALOG NUMBER	DESCRIPTION
KFLG	Wire Guard, 316 Stainless Steel (not used with KFL-DARK)
KFL-DOOR-POLY	Replacement Door and Lens Assembly (for units w/o internal reflectors)
VP3023	VersaMate Metallic 30 amp 3W4P Plug
UGP-15231QW	Acceptor Quick Wire 15 amp NEMA 5-15P
KP-20ABC	KR Series 20 amp Plug
VSI20P304	VersaMate Non-Metallic 20 amp 125v Plug

- ① Fittings available to adapt trunnion mount floodlights to crossarms, poles and walls. Must be ordered separately.
- ② Drop limit 1'. Attaches to luminaire cable provision and to mounting structure.
- ③ Designed to eliminate uplight when aimed at 45°.

### Dimensions



Typical Weights (lbs.) Including Yoke - KFL Series 33.00