

# FA-166EX 149mm RECTANGULAR SPOT/FLOOD LED LIGHTING FIXTURE



The FA-166EX Flameproof, Zone 1 Fixture is designed to perform multiple lighting functions on offshore production platforms and drilling rigs. The fixture enclosure is comprised of cast marine grade aluminum, with a tempered, toughened glass window. The metal/glass construction provides superior performance to plastic products in high temperature and high UV marine environments.

The FA-166EX is designed to house state of the art high flux LEDs. For the Spotlight applications, the LED arrays are mounted on a stainless steel, parabolic reflector. The highly efficient reflector uses a state of the art dichroic hybrid spectral metal coating. The LEDs are mounted on metal core PCBs with patented integrated heat pipes to cool the LED arrays **without a cooling fan**. This highly efficient, passive, cooling system gives the LED array the highest design life in the marketplace (greater than 60,000 hours).

The LED electronic controller is housed in a separate housing. It provides current limiting to the LED array. Nominal controller input is 24 volts to accommodate standby batteries. Input voltages including 110V/220V 50-60HZ are also available. The LED controller may be located as much as 500 meters away from the light.

FA 166EX spotlight meets CAP437 and ICAO signaling requirements.

On approximately 22.5m x 22.35m helideck, the average illumination values are 18.8 lux for the "H" and 20.6 lux for the helideck.

**Dimensions:** 149mm x 229mm x 221mm.

FORM No.: 041311K

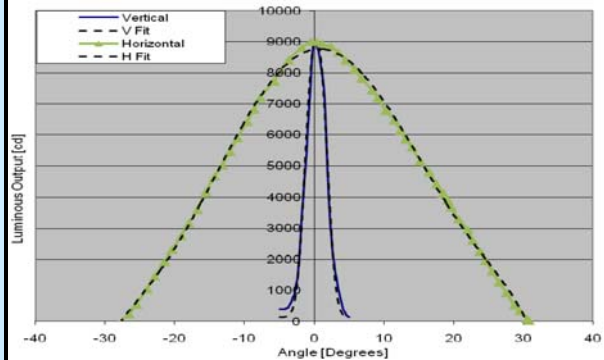
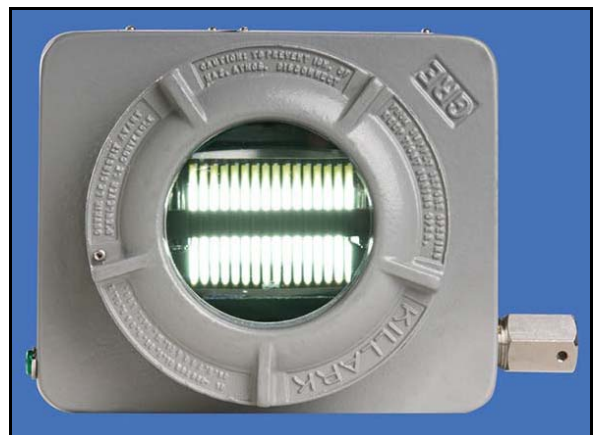


Figure 1 - FA-166 EX Spotlight max candela. The dark line in the graph is experimental data for the horizontal axis of the flood lamp.



## MODEL FA-166EX SL

**FA-166EX-SL Rectangular Spotlight, 25 Watt 2500 Lumen White LED Array providing a low dazzle 3 degree vertical by 35 degree horizontal illumination for helidecks and other area illumination requirements.**

CENELEC/ATEX/IEC Ex  
EExd IIC T6 or T5  
IP66 T80°C or T90°C  
Ex d IIC T6 or T5  
Ex tD A21 IP66 T80°C or T90°C

**Patent No.: US 7,461,952**



## Comparison between FA-166EX LED and Xenon Helideck Illumination Light

Comparison	API FA-166EX	Xenon Spotlight
Number of Lights Required	4	4
Illumination Source	LED	Xenon Lamp
Light Source Life	Greater than 50,000 hrs.	1,000 hours
Power Consumption	20 W (80W total)	50 W (200W total)
Total Lumens	8000 Lumens	4 000 Lumens
Photometrics	3 deg V, 35 deg H	3 deg V, 5 deg H
Illumination (Average)	20.6 lux on helideck 18.8 lux on "H"	13 lux on helideck 4.4 lux on "H"
Cost	Approx. 1/2 the cost per light	Approx. twice the total cost
Size	149 x 229 x 221mm	185 x 420 mm
Protection	IP-66, NEMA- 4X/7	IP 66/67
Temperature	-40 to + 55C	-20 to +40C
Ease of use	Once installed, no maintenance required.	Need to remove light to work shop to change lamp; disassembly of light required. Requires special tools and EX-certified personnel.

*Specifications subject to change without notice*

