CAROLINA
HIGH MAST

DSF640
High Output Sports Flood

The DSF640 provides an impressive 75,000 lumen output allowing replacement of traditional 1000W and 1500W products while maintaining IESNA RP-6 levels. The DSF640 provides an unmatched level of light output in a package of equal or less weight and wind loading making retrofits safe and easy.

Powered by

HYUNDAI HYUNDAI LED

Technology

c UL us LISTED

DLC QPL LISTED

Features

- UL/cUL 1598
- Suitable for Wet Locations
- IP65 Construction
- 120-277V
- 50C Temperature Rating
- L88 @ 100,000 Hours (TM-21 Calculated)
- Available 0-10V dimming
- Photometric testing to LM-79-08
- 5 year complete replacement warranty

Applications

- Sports Lighting
  - Replacement of expensive and unreliable hot-restrike fixtures
  - Indoor arenas where instant on is required
  - High use applications that demand longer product life (track/security/etc)
- Security Lighting
- High mast flood lighting

PRODUCT	WATTAGE	FINISH	SOURCE	COLOR	VOLTAGE	BEAM	OPTIONS
• DSF= LED Sports Flood	• 640 = 640W	• G = Gray Powder Coat	• L = LED	• 57=5700K	• 0 = 120V-277V	• 15 = 15 DEG • 20 = 20 DEG • 30 = 30 DEG • 45 = 45 DEG • 60 = 60 DEG	• EV = EXTERNAL VISOR • DM= 0-10V DIMMING • T4 = External XFMR 480V • T3 = External XFMR 347V

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Available as part of the CHM Sports Lighting Pre-Wire/Pre-Aimed sports lighting system.

Rev. 12/18/13

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OUTPUT SPECIFICATIONS					
Beam	15D	20D	30D	45D	60D
NEMA Type	3HX3V	3H X 3H	4H X 4V	4H X 4V	5H X 5V
Lumens	75,206	75,747	75,771	75,860	76,275
Efficacy (LPW)	114	115	115	115	116
Test Number	ITL79589	ITL79588	ITL79587	ITL79590	ITL79591

LIGHTING QUALITY	
Color Temperature	5700K
CRI	70
L88 (HRS)	100,000
Chip Manufacturer	Philips
Chip Series	Luxeon M
ELECTRICAL INPUT	
Voltage	90-305 VAC
Frequency	47-63 Hz
Operating Current	7A / 115VAC, 3.3A / 230VAC, 2.9A / 277VAC
Wattage	640W +/-10%
Driver Efficiency	95%
Driver Power Factor	PF>0.98 / 115VAC, PF>0.95 / 277V @ Full Load
Inrush Current	Cold start 140A (twidth =1010µs measured @ 50% Ipeak) @ 230VAC
Leak Current	<0.75mA / 277vac
PROTECTIONS	
Over Temperature	100C +/-10C: shut down and latch off, re-power on to recover
SAFETY	
Luminaire Standard	UL1598, Suitable for Wet Location (pending)
Operating Temperature	-40C to 50C
Driver Standard	UL8750, CSA C22.2, IP65
EMC Emission	Compliance to EN55015, EN55022 (CISPR22) Class B, EN6100-3-2 Class C (≥50% Load); EN6100-3-3
EMC Immunity	Compliance to EN6100-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria B
PHYSICAL DIMENSIONS	
Weight	45 lbs without visor
Size	15.5" Diameter, 17.75" Length
Wind Loading	2.8 square feet

DESIGNED FOR USE IN AIMING ANGLES AT OR BELOW HORIZONTAL. NOT TO BE USED IN AN UP-LIGHTING APPLICATION

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DFS640 High Output LED Flood Light
Product Specification

General Description

The flood lighting luminaire shall be the DSF640 by Carolina High Mast. The lighting fixture shall be rated for at least 40C ambient operation and UL/cUL 1598 listed for wet locations. The luminaire shall be designed to thermally isolate the drivers from the light source by a minimum of 13". The housing shall be fabricated of heavy duty, perforated aluminum and shall have a total luminaire weight of no more than 45 pounds with a maximum wind loading of 2.8 square feet. The LEDs shall utilize chip-on-board technology and shall be contained in an independent IP66 rated enclosure. Each LED shall have its own integrated optical achieving the desired lighting distribution. The LED array shall be cooled by integrated passive cooling techniques only. The fixture shall have publicly available IES files, LM-79-08 test reports and Spectroradiometric testing results. TM-21 validation of lumen maintenance, including ISTMT Testing, shall be made available upon request. All testing shall be completed by a Design Lights Consortium (DLC) approved laboratory.

The entire luminaire shall be an integral driver design. Remote driver solutions will not be accepted.

Housing

To ensure long life of the drivers, the drivers shall be thermally isolated from the optical chamber. The drivers shall be contained in an enclosure independent of the light source and shall not have any direct contact or wire way that could transfer heat to the drivers. The housing shall include a heavy duty trunion with integrated aiming indication for both horizontal and vertical aiming.

Driver

There shall be no more than (2) drivers with a maximum rating of 320W per each. The driver shall accept the specified line voltage, to within +/- 10%. Electric losses in the ballast shall not exceed 5%. The driver shall be listed for -40C to 70C ambient operation and shall be integrally tested by Under Writers Laboratory (UL) in the flood lighting luminaire. The driver shall be listed per UL8750 and rated IP65 at a minimum.

Optic Assembly

The optical assembly shall be enclosed at rated IP66. The optical shall use (96) LED chips utilizing chip on board technology. Thermal management of the LED chips shall be integrally attached to the optical assembly to ensure maximum cooling efficiency of the LEDs. Each LED shall have a dedicated optical constructed of PMMA (polymethyl methacrylate). The optical design shall overlay the pattern of each LED chip so that any one chip failure lessens the overall beam intensity rather than creating a dark spot in the distribution. The LEDs shall produce 5700K, 70CRI light with a minimum efficacy of 113 lumens per watt.

Warranty

The entire product shall be covered by a minimum five (5) year comprehensive fixture warranty. The warranty shall cover any failure in emission of light from the luminaire. This shall include any one (1) driver or any one (1) LED chip. In the event of failure, the entire fixture shall be replaced by the manufacturer.

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