



REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G102697884

Date: August 22, 2016

REPORT NO. 102697884LAX-009

TEST OF ONE LED MOVING HEAD BEAM

MODEL NO. FUZE WASH FULL ON ZOOM OUT

RENDERED TO

ELATION LIGHTING
6122 S. EASTERN AVE
COMMERCE CA 90040

TEST: Electrical and Photometric tests as required to the IESNA test standard.

STATEMENT OF LIMITATION: This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the federal government.

AUTHORIZATION: The testing performed was authorized by signed quote number Qu-00648726.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

DESCRIPTION OF SAMPLE: The client submitted one production sample of model number FUZE WASH FULL ON ZOOM OUT. The sample was received by Intertek on August 11, 2016, in undamaged condition and one sample was tested as received. The sample designation was LAN1608110839-002.

DATES OF TESTS: August 16, 2016

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.



SUMMARY

Model No.:	FUZE WASH FULL ON ZOOM OUT
Description:	LED Moving Head Beam

Criteria	Result
Total Lumen Output (Lumens)	1173
Total Power (W)	83.32
Luminaire Efficacy (LPW)	14.08

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
LSI High Speed Mirror Goniometer	6440T	000943	08/15/16	09/15/16
Elgar Power Supply	CW1251	000944	VBU	VBU
Yokogawa Power Analyzer	WT210	000945	12/04/15	12/04/16
Temp. & RH Meter	971	001178	12/18/15	12/18/16
Extech Instruments Stop Watch	365510	001379	11/19/15	11/19/16
Tape Measure	C1-25	000915	12/04/15	12/04/16
Empire Magnetic Level	581-9	001610	VBU	VBU

TEST METHODS

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

Photometric and Electrical Measurements – Distribution Method

A LSI Type C High Speed Model 6440 Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for each sample.

Ambient temperature was measured equal to the height of the sample mounted on the Goniometer equipment. Each sample was operated at input rated voltage in its designated orientation. Each sample was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

RESULTS OF TEST (cont'd)

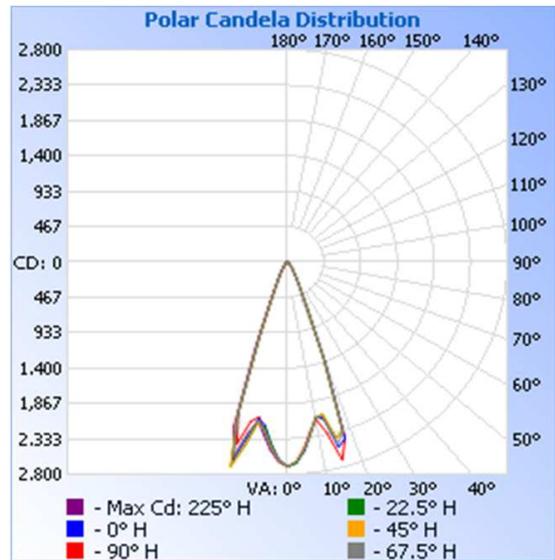
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
LAN1608110839-002	UP	120.0	725.7	83.32	0.957	1173	14.08

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 2,793.1

Angle	0	22.5	45	67.5	90
0	2701	2701	2701	2701	2701
5	2500	2489	2471	2474	2457
10	2080	2081	2087	2076	2112
15	2524	2404	2402	2478	2701
20	1402	1335	1345	1349	1365
25	403	402	396	389	378
30	197	200	199	192	188
35	115	114	113	112	108
40	70	69	71	69	67
45	47	46	46	45	44
50	33	31	31	30	30
55	21	21	21	21	22
60	14	12	11	11	12
65	6	6	6	5	4
70	1	2	3	1	2
75	0	0	0	0	0
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

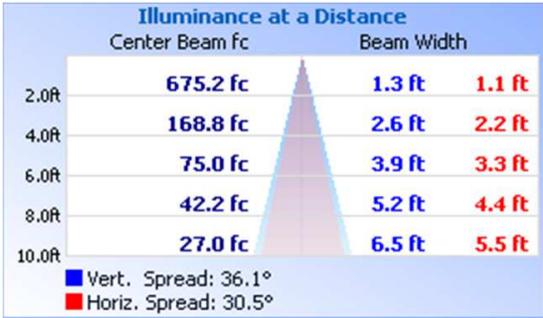


RESULTS OF TEST (cont'd)

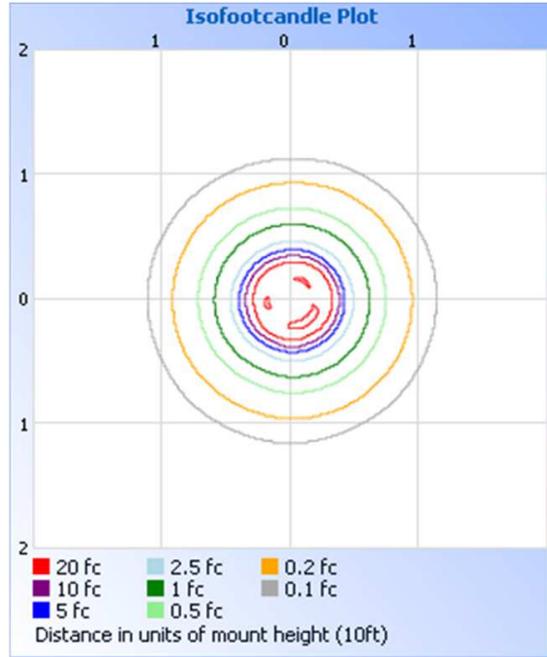
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1043	88.9
0-40	1114	94.9
0-60	1168	99.5
60-90	5.3	0.5
0-90	1173	100.0
90-180	0.0	0.0
0-180	1173	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	221.7	18.9
10-20	613.9	52.3
20-30	207.8	17.7
30-40	70.5	6.0
40-50	35.7	3.0
50-60	18.5	1.6
60-70	5.2	0.4
70-80	0.1	0.0
80-90	0.0	0.0

PICTURE (not to scale)



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



Ameet Alawi
Technician
Lighting Division

Attachment: None

Report Reviewed By:



Kenda Branch
Lighting Performance Team Lead
Lighting Division