

# REPORT

#### 25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G102697884 Date: August 24, 2016

REPORT NO. 102697884LAX-030

TEST OF ONE LED MOVING HEAD BEAM

MODEL NO. PLATINUM SEVEN FULL ON ZOOM OUT

#### **RENDERED TO**

ELATION LIGHTING 6122 S. EASTERN AVE COMMERCE CA 90040

<u>TEST</u>: 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.

<u>AUTHORIZATION</u>: 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

<u>DESCRIPTION OF SAMPLE</u>: The client submitted one production sample of model number PLATINUM SEVEN

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 LAN1608110839-005.

DATES OF TESTS: August 22, 2016

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#### **SUMMARY**

Model No.: PLATINUM SEVEN FULL ON ZOOM OUT

Description: LED Moving Head Beam

Criteria	Result
Total Lumen Output (Lumens)	4861
Total Power (W)	608.8
Luminaire Efficacy (LPW)	7.985

#### **EQUIPMENT LIST**

	Model	Control	Last Date	Calibration
Equipment Used	Number	Number	Calibrated	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)

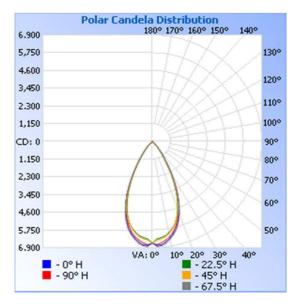
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) - Distribution Method

		Input	Input	Input	Input	Absolute	Lumen Efficacy
	Base	Voltage	Current	Power	Power	Luminous Flux	(Lumens Per
Intertek Sample No.	Orientation	{Vac}	(mA)	(Watts)	Factor	(Lumens)	Watt)
LAN1608110839-005	UP	119.9	5103	608.8	0.996	4861	7.985

# Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 6,841.3

Angle	0	22.5	45	67.5	90
0	6595	6595	6595	6595	6595
5	6740	6267	6352	6791	6599
10	6382	6008	6073	6444	6274
15	5841	5527	5536	5878	5698
20	4937	4682	4758	4996	4880
25	3725	3547	3624	3772	3804
30	2394	2256	2319	2422	2438
35	1353	1228	1275	1359	1285
40	617	606	634	659	649
45	220	228	240	219	252
50	0	0	2	0	3
55	0	0	0	0	0
60	0	0	0	0	0
65	0	0	0	0	0
70	0	0	0	0	0
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)

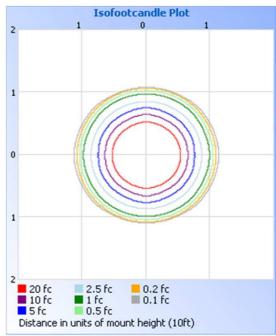
#### **Illumination Plots**

# Mounting Height: 10 ft.

# Illuminance - Cone of Light

#### Illuminance at a Distance Center Beam fc Beam Width 1,648.7 fc 2.0 ft 2.0 ft 2.0R 412.2 fc 3.9 ft 4.0 ft 4.0R 6.0 ft 183.2 fc 5.9 ft 6.0R 103.0 fc 7.9 ft 8.0 ft 8.08 9.9 ft 65.9 fc 10.0 ft 10.0A ■ Vert. Spread: 52.4° ■ Horiz. Spread: 52.9°

# Isoillumination Plot



#### Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	3831	78.8
0-40	4667	96.0
0-60	4861	100.0
60-90	0.0	0.0
0-90	4861	100.0
90-180	0.0	0.0
0-180	4861	100.0

#### Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	612.3	12.6
10-20	1570	32.3
20-30	1649	33.9
30-40	836.1	17.2
40-50	193.8	4.0
50-60	0.1	0.0
60-70	0.0	0.0
70-80	0.0	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