



REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458

Date: March 13, 2015

REPORT NO. 101918458LAX-024

TEST OF ONE LED WASH

MODEL NO. COLOUR CHORUS 24

RENDERED TO

ELATION PROFESSIONAL
6122 S. EASTERN AVE
COMMERCE, CA 90040 USA

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 Q500519256.

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 COLOUR CHORUS 24. The sample was received by Intertek on March 10, 2015, in undamaged condition and one sample was tested as received. The sample designation was LAN1503101019-004.

DATES OF TESTS: March 11, 2015

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SUMMARY

Model No.:	COLOUR CHORUS 24
Description:	LED Wash

Criteria	Result
Total Lumen Output (Lumens)	3919.2
Total Power (W)	133.20
Luminaire Efficacy (LPW)	29.42
Power Factor	0.980

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
LSI High Speed Mirror Goniometer	6440T	000943	02/25/15	03/25/15
Elgar Power Supply	CW1251	000944	VBU	VBU
Yokogawa Power Analyzer	WT210	000945	11/26/14	11/26/15
Temp. & RH Meter	971	001178	12/22/14	12/22/15
Extech Instruments Stop Watch	365510	001390	12/08/14	12/08/15
Tape Measure	33-430	001491	12/08/14	12/08/15

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

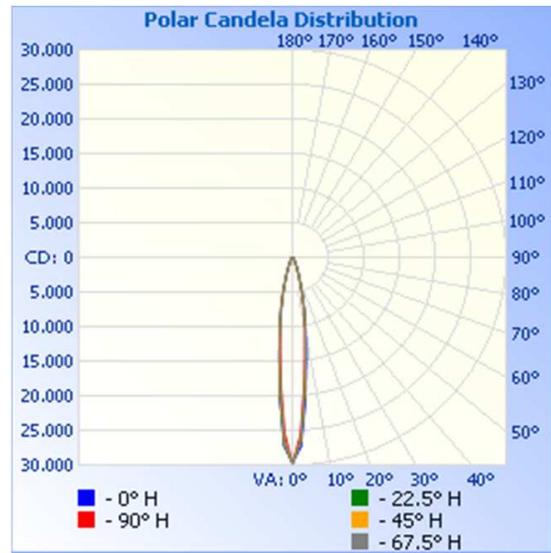
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

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)
LAN1503101019-004	UP	120.0	1183	133.2	0.980	3919.2	29.42

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 29,737.7

Angle	0	22.5	45	67.5	90
0	29738	29738	29738	29738	29738
5	20754	19965	19748	19231	18537
10	10655	10397	10395	10169	9828
15	5187	4998	4910	4811	4632
20	2318	2181	2095	2009	1919
25	1140	1071	996	941	889
30	618	596	534	500	462
35	348	319	284	251	230
40	194	161	155	133	143
45	115	100	89	89	85
50	87	90	75	58	64
55	50	44	58	38	50
60	49	42	25	45	20
65	65	30	22	18	19
70	14	15	0	11	22
75	15	9	9	23	0
80	8	5	12	0	0
85	2	6	0	0	2
90	2	0	6	0	0

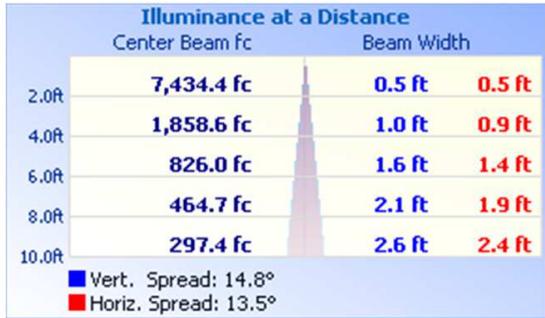


RESULTS OF TEST (cont'd)

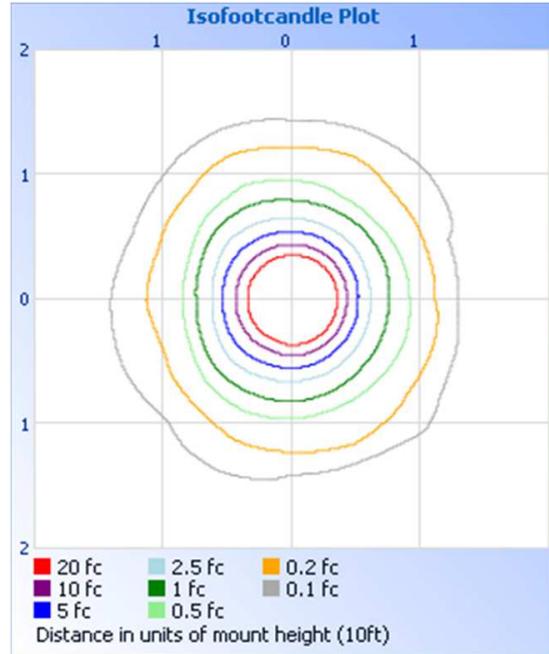
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	3530	90.1%
0-40	3739	95.4%
0-60	3870	98.8%
60-90	48.4	1.2%
0-90	3918.7	0.5%
90-180	0.5	0.0%
0-180	3919.2	100.0%

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	1570	40.0%
10-20	1425	36.4%
20-30	535.4	13.7%
30-40	209.0	5.3%
40-50	83.6	2.1%
50-60	47.4	1.2%
60-70	28.3	0.7%
70-80	13.5	0.3%
80-90	6.7	0.2%
90-100	0.5	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