



8165 E Kaiser Blvd. Anaheim, CA 92808
 p. 714.282.2270
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Test #: L10137601

Date: 11/7/2013



NVLAP LAB CODE 200927-0

Test Report: L10137601

Model Number: cuepix blinder

Report Prepared For: ELATION LIGHTING
 6122 S. EASTERN AVE, COMMERCE, CA 90040

Test: Electrical and Photometric tests as required by the IESNA test standards.

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2008 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI NEMA ANSLG C78.377: 2008 Specification of the Chromaticity of Solid State Lighting Products
ANSI C82.77:2002: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Fixture catalog number is cuepix blinder .
 Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 11/5/13

Date of Tests: 11/6/13 - 11/6/13

Seasoning of Sample SSL: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	01/04/14
Xitron Power Analysis System	2503AH	MT-EL01	01/09/14
Fluke Digital Thermometer	52kJ	MT-TP02-GC	01/04/14
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

LM-79 Test Summary

Manufacturer:	ELATION LIGHTING
Model Number:	cuepix blinder
LAMPCAT:	N/A
Driver Model Number:	CUSTOM DRIVER
Total Lumens:	4537.38
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	1.80
Input Power (W):	214.41
Input Power Factor:	0.99
Total Harmonic Distortion @ 120V(%)	9%
Total Harmonic Distortion @ 277V(%)	N/A
Efficacy:	21
Color Rendering Index (CRI):	92
Correlated Color Temperature (K):	2883
Chromaticity Coordinate x:	0.4411
Chromaticity Coordinate y:	0.3982
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	1:50
Total Operating Time (Hours):	2:50
Off State Power(W):	0.00

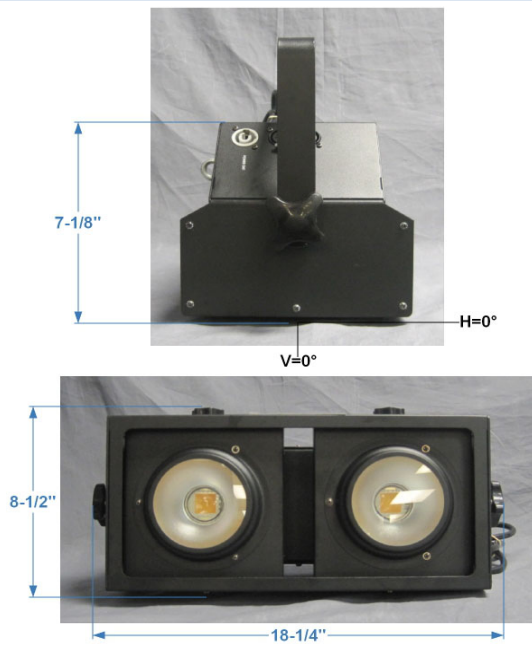
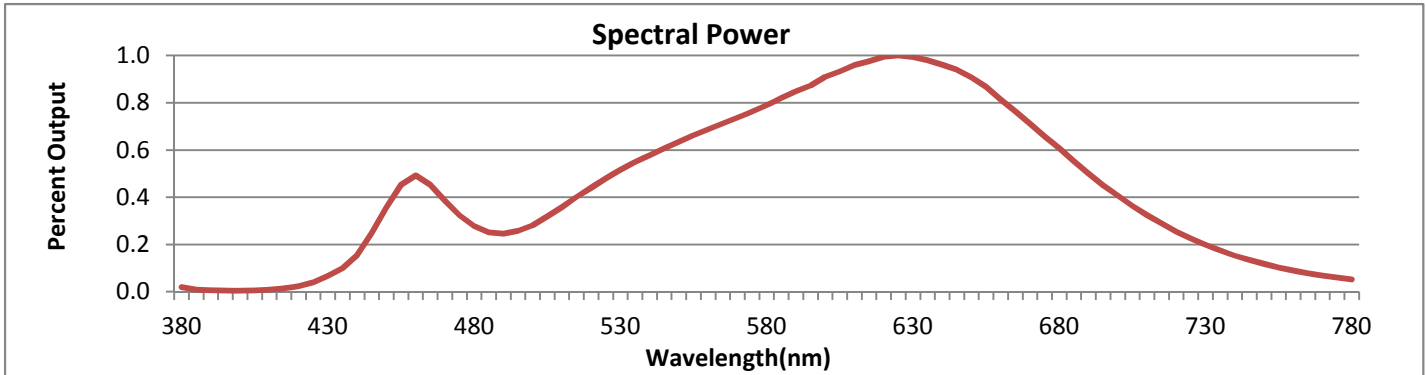


FIG. 1 LUMINAIRE

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



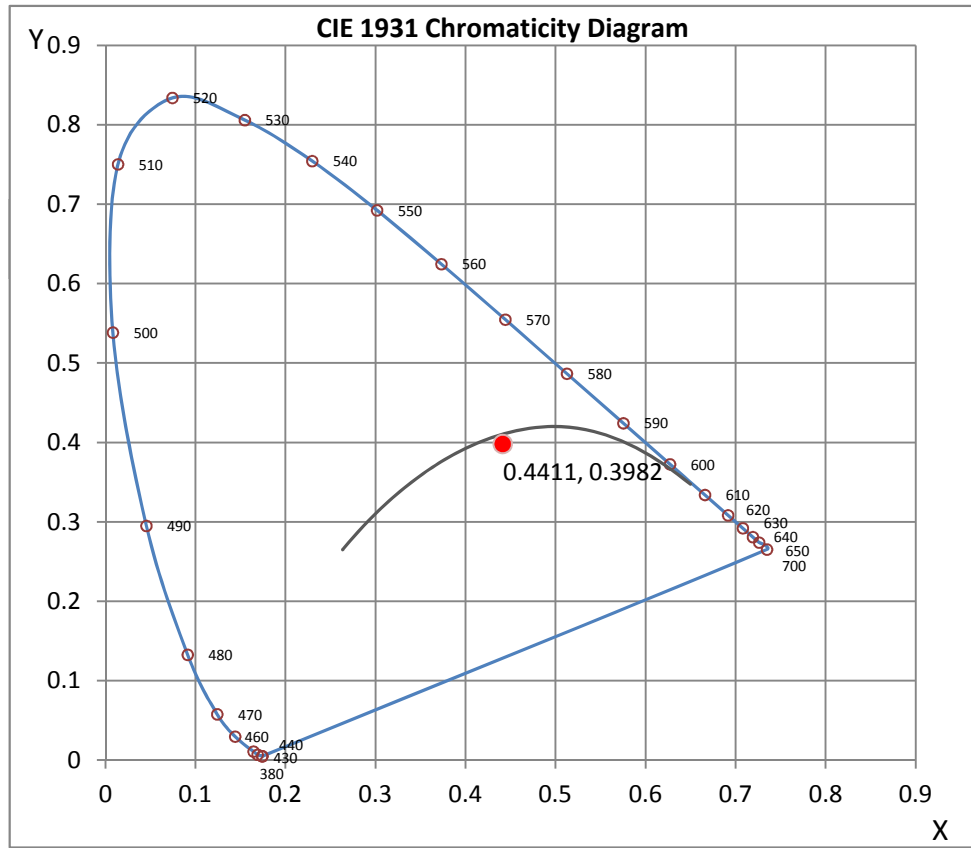
Wavelength	W/m ² nm	440	0.0681	510	0.1575	580	0.3480	650	0.3991	720	0.1118
380	0.0086	450	0.1573	520	0.1934	590	0.3738	660	0.3579	730	0.0871
390	0.0025	460	0.2167	530	0.2266	600	0.4003	670	0.3131	740	0.0670
400	0.0017	470	0.1696	540	0.2540	610	0.4225	680	0.2673	750	0.0518
410	0.0037	480	0.1221	550	0.2792	620	0.4381	690	0.2200	760	0.0397
420	0.0105	490	0.1079	560	0.3024	630	0.4372	700	0.1789	770	0.0300
430	0.0292	500	0.1234	570	0.3244	640	0.4234	710	0.1430	780	0.0230

CRI & CCT

x	0.4411
y	0.3982
u'	0.2559
v'	0.5197
CRI	92.20
CCT	2883
Duv	-0.00287

R Values

R1	92.75
R2	97.10
R3	97.57
R4	89.66
R5	91.40
R6	94.74
R7	91.49
R8	83.20
R9	65.03
R10	90.58
R11	87.82
R12	79.15
R13	94.15
R14	98.06



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Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : Randy Chau

Test Report Released by:

Jeff Ahn
 Engineering Manager

Test Report Reviewed by:

Steve Kang
 Quality Assurance

**Attached are photometric data reports. Total number of pages: 8*

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Photometric Test Report

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L10137601.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L10137601
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 11/7/2013
 [MANUFAC] ELATION LIGHTING
 [LUMCAT] cuepix blinder
 [LUMINAIRE] 8-1/2"L. X 18-1/4"W. X 7-1/8"H. LED LUMINAIRE
 [MORE] ALUMINUM REFLECTOR WITH CLEAR LENS
 [BALLASTCAT] CUSTOM DRIVER
 [BALLAST] INPUT: 120VAC, 60Hz.
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [_INPUT] 120VAC, 214.41W
 [_TEST PROCEDURE] IESNA:LM-79-08

Note: Candela values converted from Type-C to Type-B

CHARACTERISTICS

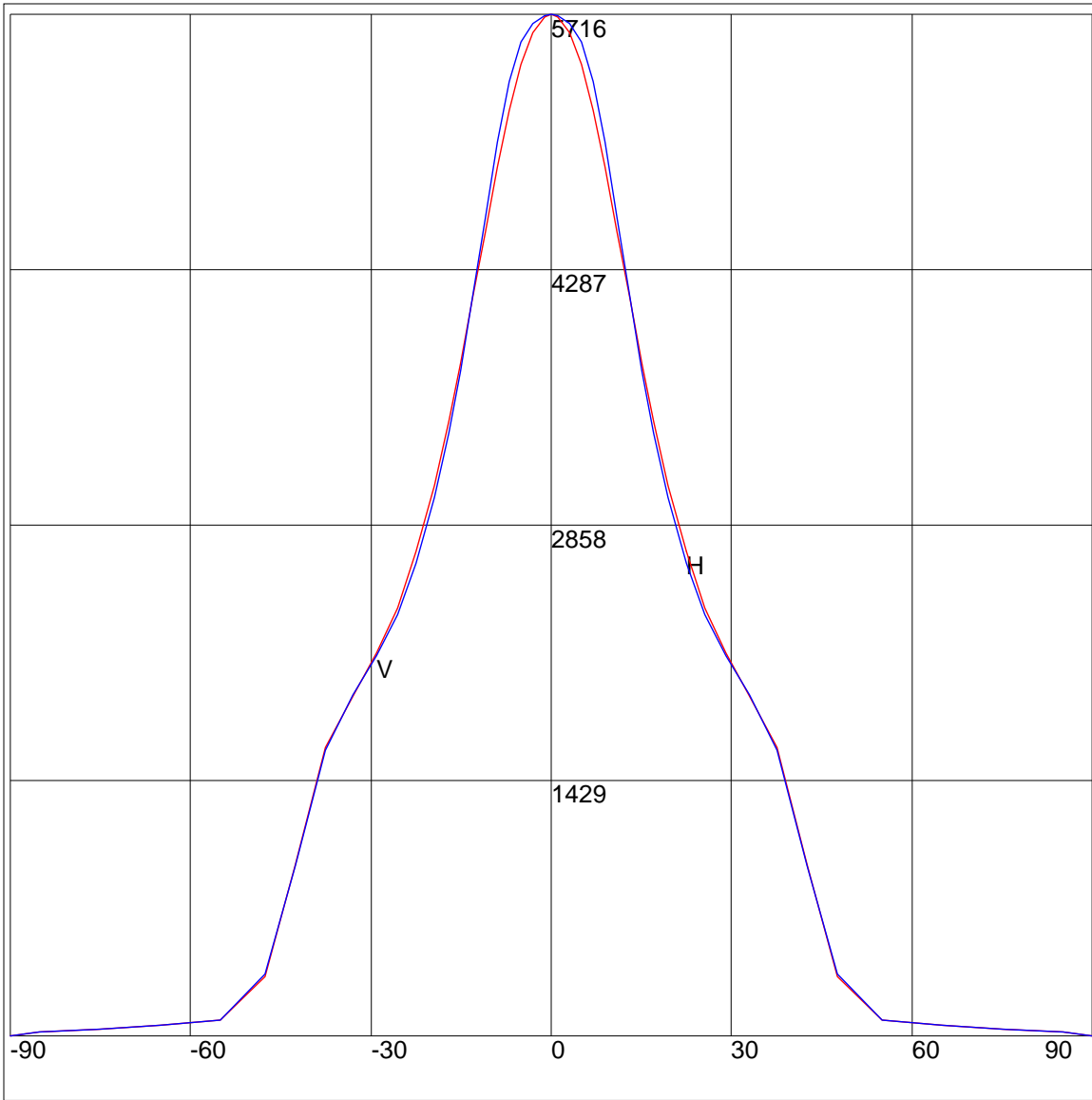
NEMA Type	5 H x 5 V
Maximum Candela	5716
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	42.6
Vertical Beam Angle (50%)	41.6
Horizontal Field Angle (10%)	91.2
Vertical Field Angle (10%)	91.3
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	1641
Beam Efficiency	N.A.
Field Lumens	4172
Field Efficiency	N.A.
Spill Lumens	366
Luminaire Lumens	4537
Total Efficiency	N.A.
Total Luminaire Watts	214.41
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L10137601.IES

AXIAL CANDELA

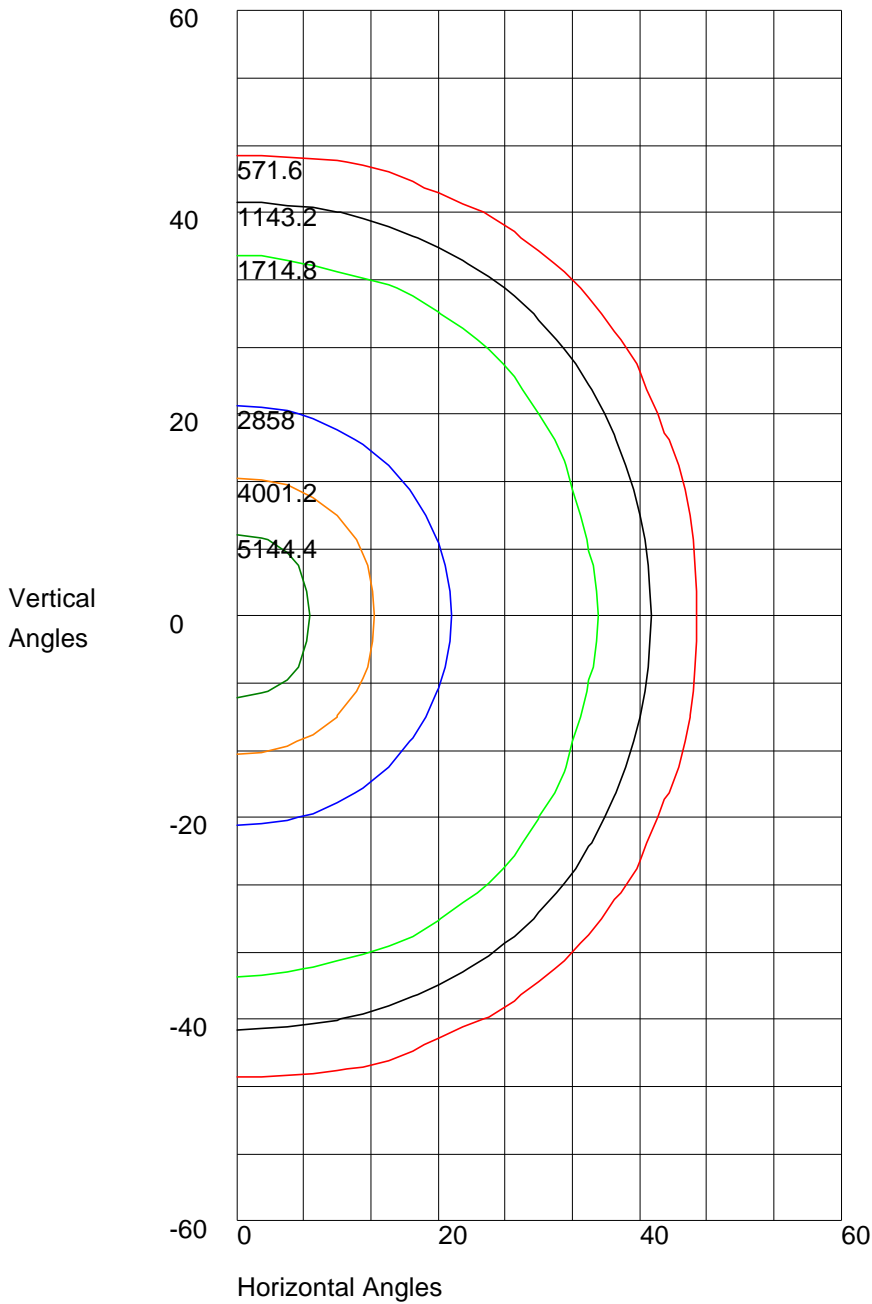
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	26	85	26
75	38	75	39
65	61	65	60
55	93	55	91
47.5	333	47.5	353
42.5	959	42.5	950
37.5	1613	37.5	1599
33	1901	33	1909
29	2149	29	2133
25.5	2398	25.5	2361
22.5	2711	22.5	2648
19.5	3081	19.5	3017
17	3440	17	3377
15	3763	15	3723
13	4126	13	4134
11	4500	11	4579
9	4860	9	5003
7	5181	7	5342
5	5433	5	5558
3	5610	3	5666
1	5702	1	5708
0	5716	0	5716
-1	5702	-1	5708
-3	5610	-3	5666
-5	5433	-5	5558
-7	5181	-7	5342
-9	4860	-9	5003
-11	4500	-11	4579
-13	4126	-13	4134
-15	3763	-15	3723
-17	3440	-17	3377
-19.5	3081	-19.5	3017
-22.5	2711	-22.5	2648
-25.5	2398	-25.5	2361
-29	2149	-29	2133
-33	1901	-33	1909
-37.5	1613	-37.5	1599
-42.5	959	-42.5	950
-47.5	333	-47.5	353
-55	93	-55	91
-65	61	-65	60
-75	38	-75	39
-85	26	-85	26
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 5716 Located At Horizontal Angle = 0, Vertical Angle = 0
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 5716 Located At Horizontal Angle = 0, Vertical Angle = 0
50% Maximum Candela = 2858
10% Maximum Candela = 571.6