



8165 E Kaiser Blvd. Anaheim, CA 92808  
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Test#:L01121212  
 Date: 2/7/2012

**Test Report: L01121212**

**Model Number: ELAR 180 PAR WW**

**Report Prepared For: ELATION LIGHTING**  
 6122 S. Eastern Ave. Los Angeles, CA 90040

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

**Standards Used:** Appropriate part or all test guidelines were used for test performed:

*IESNA LM-79: 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.

**Description of Sample:** Client submitted one of sample of flood fixture. Fixture catalog number ELAR 180 PAR WW. Received in working and undamaged condition.No modifications were necessary.

**Dates sample received:** 1/13/12

**Dates of Tests:** 1/20/12 – 2/7/12

**Seasoning of sample SSL:** No seasoning was performed in accordance with IESNA LM-79

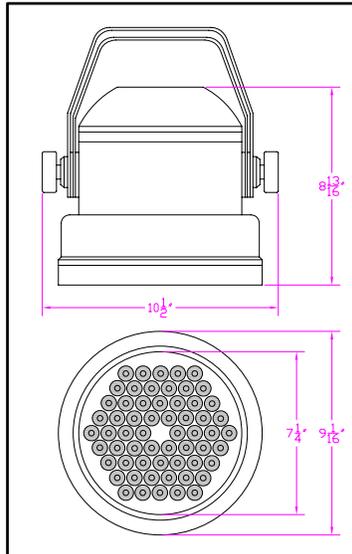
**Equipment List:**

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	01/04/13
Xitron Power Analysis System	2503AH	MT-EL01	01/9/13
Fluke Digital Thermometer	52k/J	MT-TP02-GC	01/04/13
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

<b>Manufacturer:</b>	ELATION LIGHTING
<b>Model Number:</b>	ELAR 180 PAR WW
<b>Total Lumens:</b>	2887.14
<b>Input Voltage (VAC):</b>	120.00
<b>Input Power (W):</b>	130.77
<b>Input Current (Amp):</b>	1.11
<b>Input Power Factor:</b>	0.98
<b>Efficacy:</b>	22.08
<b>Color Rendering Index ( CRI ):</b>	92.92
<b>Correlated Color Temperature ( K ):</b>	3049
<b>Chromaticity Ordinate x:</b>	0.4313
<b>Chromaticity Ordinate y:</b>	0.3983
<b>Ambient Temperature (°F)</b>	77.0
<b>Stabilization Time (Hours)</b>	1'20"
<b>Total Operating Time (Hours)</b>	3'05"



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



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**Test Methods**

**Photometric Measurements – Goniophotometer**

A Custom Light Laboratory Type C 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 25C throughout the testing process and the sample is stabilized for at least 30min 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 at the inside center of the sphere. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30min and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Test Report Released by:

Joseph Shin  
 Engineering Manager.

Test Report Reviewed by:

Steve Kang  
 Quality Assurance

*\*Attached are photometric data reports. Total number of pages: 7  
 \*Graphics created with PhotoTool and/or Photometricspro software.*

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



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# Photometric Test Report

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : L01121212.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L01121212  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUEDATE] 2/7/2012  
 [MANUFAC] ELATION LIGHTING  
 [LUMCAT] ELAR 180 PAR WW  
 [LUMINAIRE] 9-1/16"DIA. X 8-13/16"H. LED PAR FIXTURE  
 [MORE] 60 WARM WHITE LEDS WITH OPTICS  
 [MORE] FLAT TEMPERED GLASS LENS  
 [BALLASTCAT] N/A  
 [BALLAST] 120VAC 60Hz ELECTRONIC  
 [LAMPPOSITION] 0,0  
 [LAMPCAT] WARM WHITE LED  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [\_INPUT] 120VAC, 130.77W  
 [\_TEST PROCEDURE] IESNA:LM-79-08

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

**CHARACTERISTICS**

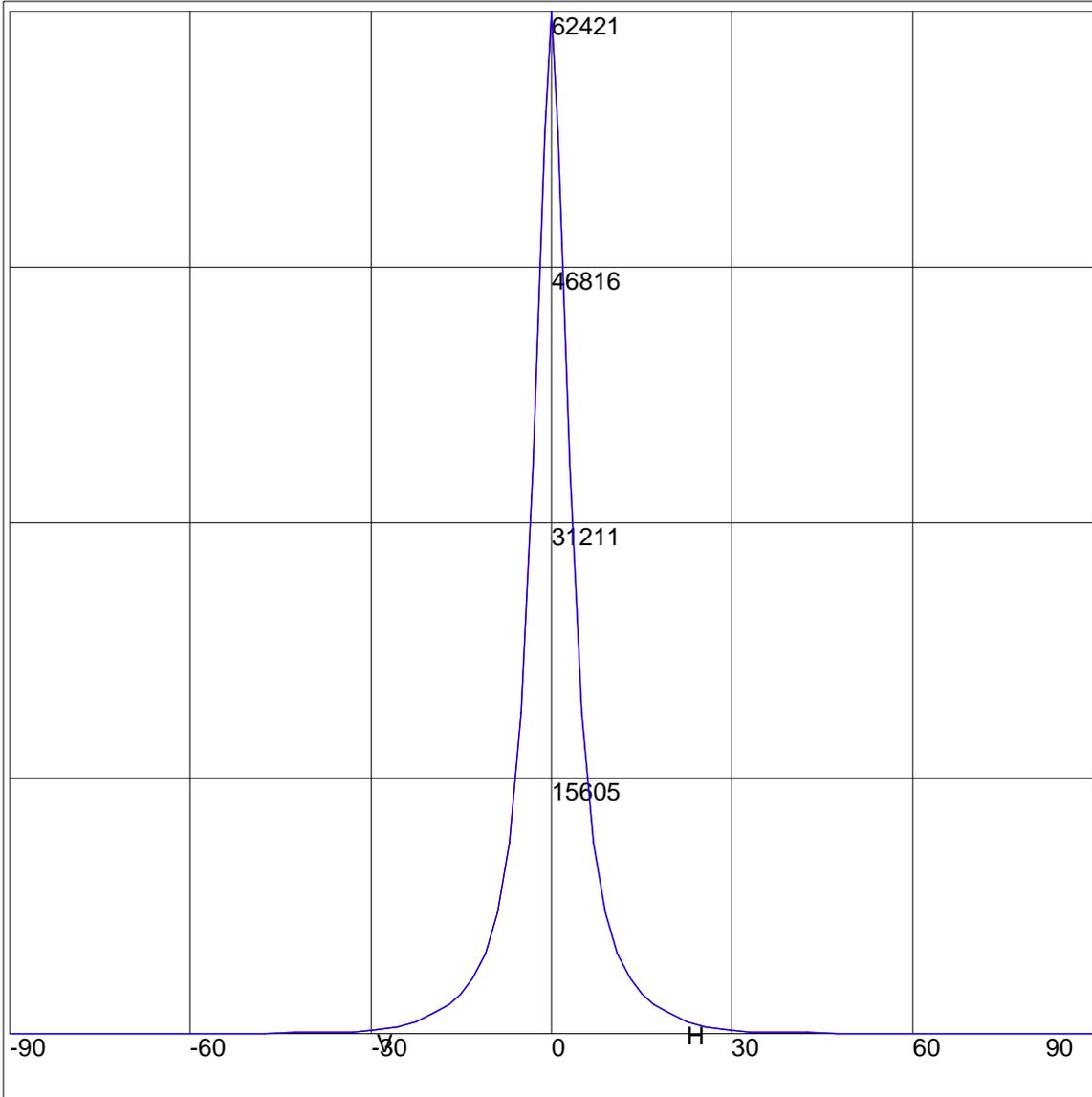
NEMA Type	2 H x 2 V
Maximum Candela	62421
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	6.9
Vertical Beam Angle (50%)	6.9
Horizontal Field Angle (10%)	19.9
Vertical Field Angle (10%)	19.9
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	454
Beam Efficiency	N.A.
Field Lumens	1544
Field Efficiency	N.A.
Spill Lumens	1343
Luminaire Lumens	2887
Total Efficiency	N.A.
Total Luminaire Watts	130.77
Ballast Factor	1.00

IES FLOOD REPORT  
PHOTOMETRIC FILENAME : L01121212.IES

AXIAL CANDELA

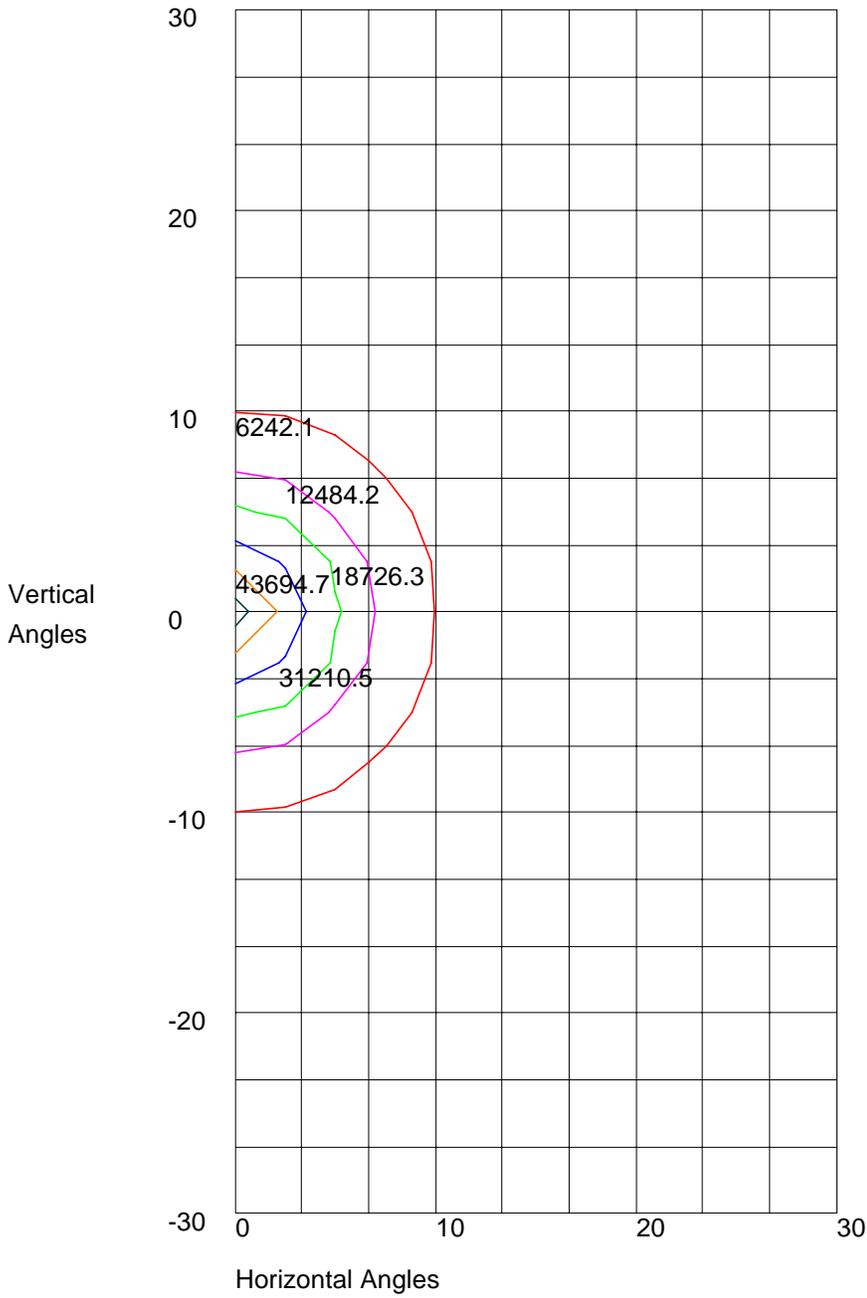
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	30	85	30
75	36	75	36
65	48	65	48
55	63	55	63
47.5	77	47.5	77
42.5	84	42.5	84
37.5	107	37.5	107
33	149	33	149
29	263	29	263
25.5	453	25.5	453
22.5	761	22.5	761
19.5	1311	19.5	1311
17	1842	17	1842
15	2459	15	2459
13	3412	13	3412
11	4934	11	4934
9	7410	9	7410
7	11702	7	11702
5	19683	5	19683
3	34661	3	34661
1	55071	1	55071
0	62421	0	62421
-1	55071	-1	55071
-3	34661	-3	34661
-5	19683	-5	19683
-7	11702	-7	11702
-9	7410	-9	7410
-11	4934	-11	4934
-13	3412	-13	3412
-15	2459	-15	2459
-17	1842	-17	1842
-19.5	1311	-19.5	1311
-22.5	761	-22.5	761
-25.5	453	-25.5	453
-29	263	-29	263
-33	149	-33	149
-37.5	107	-37.5	107
-42.5	84	-42.5	84
-47.5	77	-47.5	77
-55	63	-55	63
-65	48	-65	48
-75	36	-75	36
-85	30	-85	30
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 62421 Located At Horizontal Angle = 0, Vertical Angle = 0  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 62421 Located At Horizontal Angle = 0, Vertical Angle = 0  
50% Maximum Candela = 31210.5  
10% Maximum Candela = 6242.1