

# APOGEE LIGHTING

## TEST REPORT

**SCOPE OF WORK**

LED Performance Testing

**MODEL NUMBER**

Light Scape

**PROJECT NUMBER**

G103802715

**REPORT NUMBER**

103802715CRT-019

**REPORT ISSUE DATE**

January 24, 2020

**REPORT REVISION DATE**

None



**REPORT NUMBER**  
103802715CRT-019

TEST OF (1) 2' X 2' LIGHT SCAPE FIXTURE 2700K

**MODEL NUMBER**  
LIGHT SCAPE

**REPORT RENDERED TO:**  
APOGEE LIGHTING  
593 ACORN ST  
DEER PARK, NY 11729

**STATEMENT OF LIMITATION**

NVLAP Lab Code 100402-0. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

**AUTHORIZATION**

The testing performed was authorized by signed quote number Qu-00945597.

**TEST STANDARDS**

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

**TEST DATES**

January 24, 2020

In Charge of Testing:

Reviewer:



Gerald Gray  
Associate Engineer  
Lighting Division



Melanie Brittain  
Senior Associate Engineer  
Lighting Division

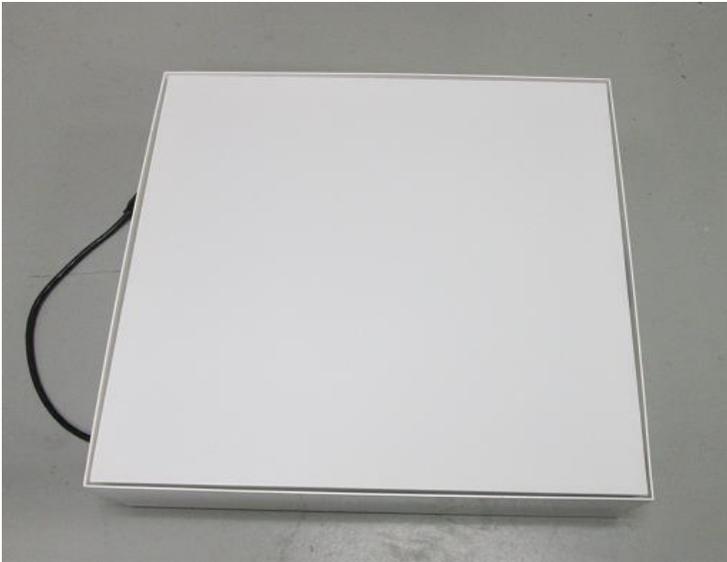
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**REPORT ISSUE DATE: January 24, 2020**

**SAMPLE INFORMATION**

Control No.	Model No.	Description	Type	Received
CRT2001231150-002	Light Scape	2' x 2' Light Scape fixture 2700K	Production	1/23/2020

**SAMPLE PHOTOS**



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**SUMMARY OF DATA**

<b>Product Model No.:</b>	Light Scape
<b>Product Description:</b>	2' x 2' Light Scape fixture 2700K
<b>LED Model No.:</b>	Apogee HE Module
<b>Driver Model No.:</b>	ELDOLED Dual Drive
<b>Light Source:</b>	LED

<b>Criteria</b>	<b>Results</b>
Light Output (lumens)	1533.6
Input Power (W) @ 120 (Vac)	16.69
Lumen Efficacy (lm/W)	91.9
Input Power Factor ( ) @ 120 (Vac)	0.983

**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 Type C Mirror Goniometer was used to measure the intensity (candela) at each angle of distribution for the SSL sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The SSL sample was operated on the client provided driver at rated input volts in its designated orientation. The SSL sample was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

The calibration of the goniometer-photometer system is traceable to the National Institute of Standards and Technology.

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**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)**

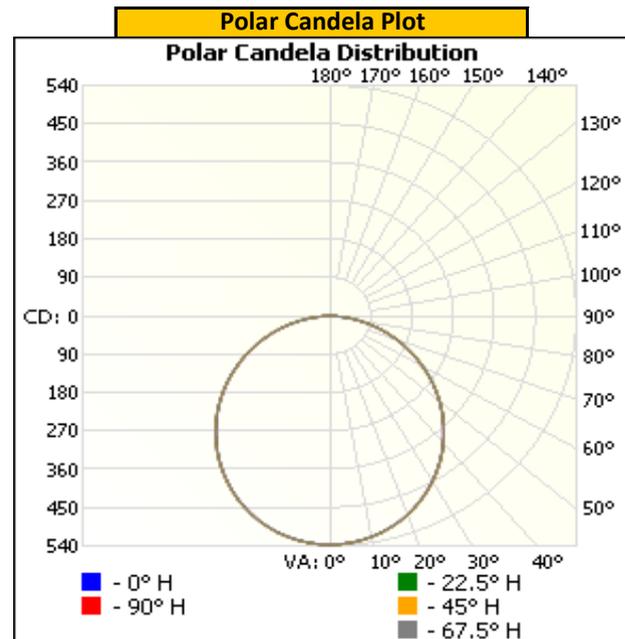
<b>Fixture Model No.</b>	Light Scape	<b>Fixture Control No.</b>	CRT2001231150-002
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<b>Base Orientation</b>	<b>Input Voltage (Vac)</b>	<b>Input Current (mA)</b>	<b>Input Power (W)</b>	<b>Input Power Factor ( )</b>
Up	120.03	141.5	16.69	0.983

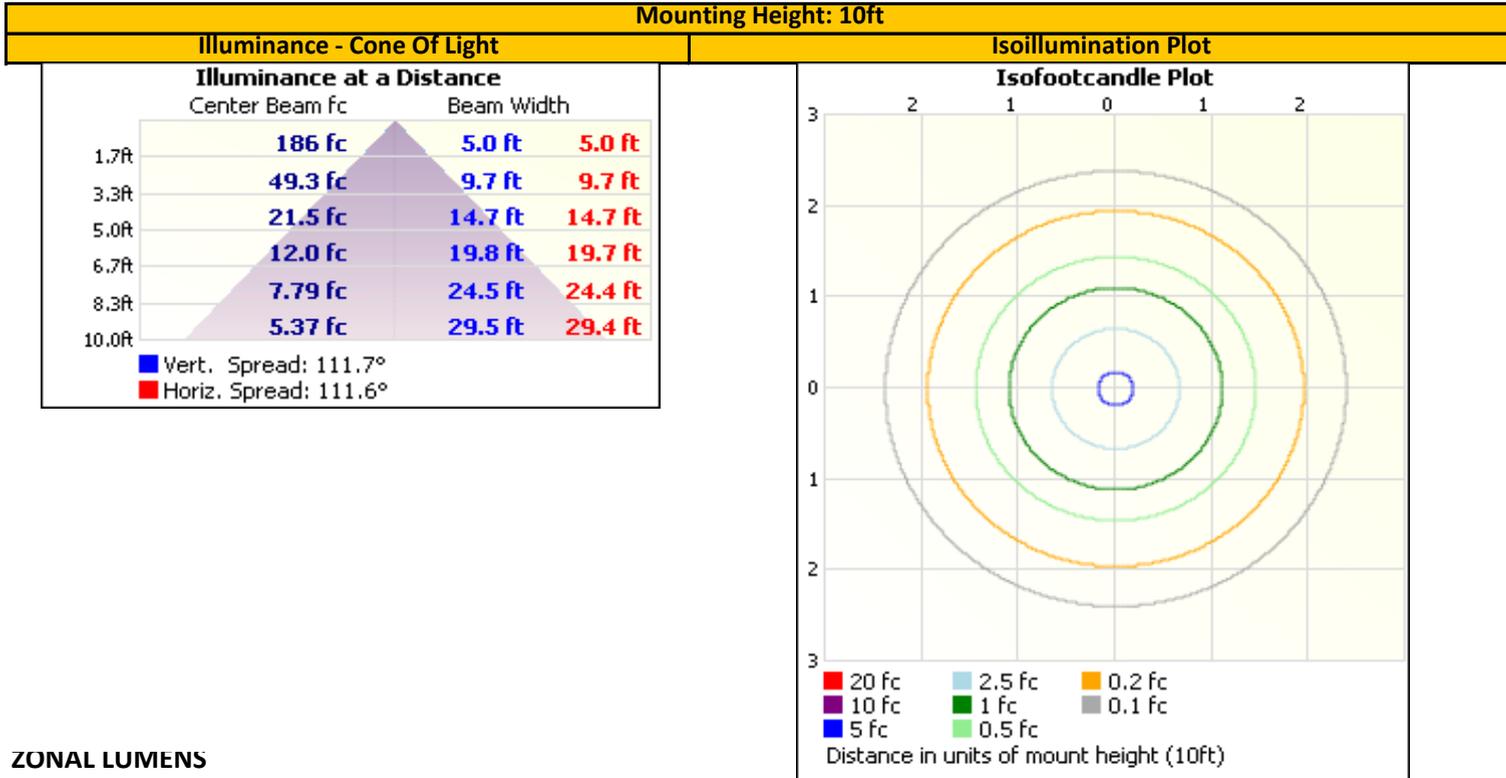
<b>Light Output (lm)</b>	<b>Lumen Efficacy (lm/W)</b>
1533.6	91.9

**INTENSITY SUMMARY - CANDELA**

Angle	0	22.5	45	67.5	90
0	536	536	536	536	536
5	534	534	534	534	534
10	526	526	527	526	526
15	514	514	514	514	514
20	496	497	497	496	497
25	475	475	476	474	475
30	449	449	450	449	449
35	419	420	420	419	419
40	387	387	388	386	386
45	352	352	352	351	352
50	314	315	315	314	314
55	274	276	275	275	275
60	233	234	232	234	233
65	193	193	193	192	192
70	151	152	151	150	150
75	109	110	110	108	108
80	69	70	69	68	68
85	30	31	30	29	30
90	0	0	0	0	0
95	0	0	0	0	0
100	0	0	0	0	0
105	0	0	0	0	0
110	0	0	0	0	0
115	0	0	0	0	0
120	0	0	0	0	0
125	0	0	0	0	0
130	0	0	0	0	0
135	0	0	0	0	0
140	0	0	0	0	0
145	0	0	0	0	0
150	0	0	0	0	0
155	0	0	0	0	0
160	0	0	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0



**ILLUMINANCE SUMMARY**



**ZONAL LUMENS**

Zonal Lumen Summary					
Zone	Lumens	Luminaire			
0-30	414.5	27.0%			
0-40	676.9	44.1%			
0-60	1,193.6	77.8%			
60-90	340.0	22.2%			
70-100	149.6	9.8%			
90-120	0.0	0.0%			
0-90	1,533.6	100.0%			
90-180	0.0	0.0%			
0-180	1,533.6	100.0%			
Zone	Lumens	Total	Zone	Lumens	Total
0-10	50.7	3.3%	90-100	0.0	0.0%
10-20	145.0	9.5%	100-110	0.0	0.0%
20-30	218.8	14.3%	110-120	0.0	0.0%
30-40	262.4	17.1%	120-130	0.0	0.0%
40-50	271.3	17.7%	130-140	0.0	0.0%
50-60	245.5	16.0%	140-150	0.0	0.0%
60-70	190.4	12.4%	150-160	0.0	0.0%
70-80	115.4	7.5%	160-170	0.0	0.0%
80-90	34.2	2.2%	170-180	0.0	0.0%

<b>Test Equipment Used:</b>	1 through 10		
<b>Ambient Temp (°C):</b>	24.2	<b>Relative Hum (%):</b>	NA
<b>Test Completion Date</b>	1/24/2020		

See last page for equipment details

