



7826 East Evans Road  
Scottsdale, AZ 85260  
480-991-9260

## Photometric Indoor Test Report

Relevant Standards  
IES LM-79-2008  
ANSI C82.77-2002

Prepared For  
**Environmental Lights**  
11235 W. Bernardo Court, Suite 102  
San Diego, CA 92127

Catalog Number  
dl3528-120-10-reel  
Project Number  
10345709  
Test Number  
33068

Test Date

2014-06-19

Prepared By

Handwritten signature of Dennis Boyles in black ink.

Dennis Boyles, Technician

Approved By

Handwritten signature of Jim Domigan in black ink.

Jim Domigan, Laboratory Team Leader

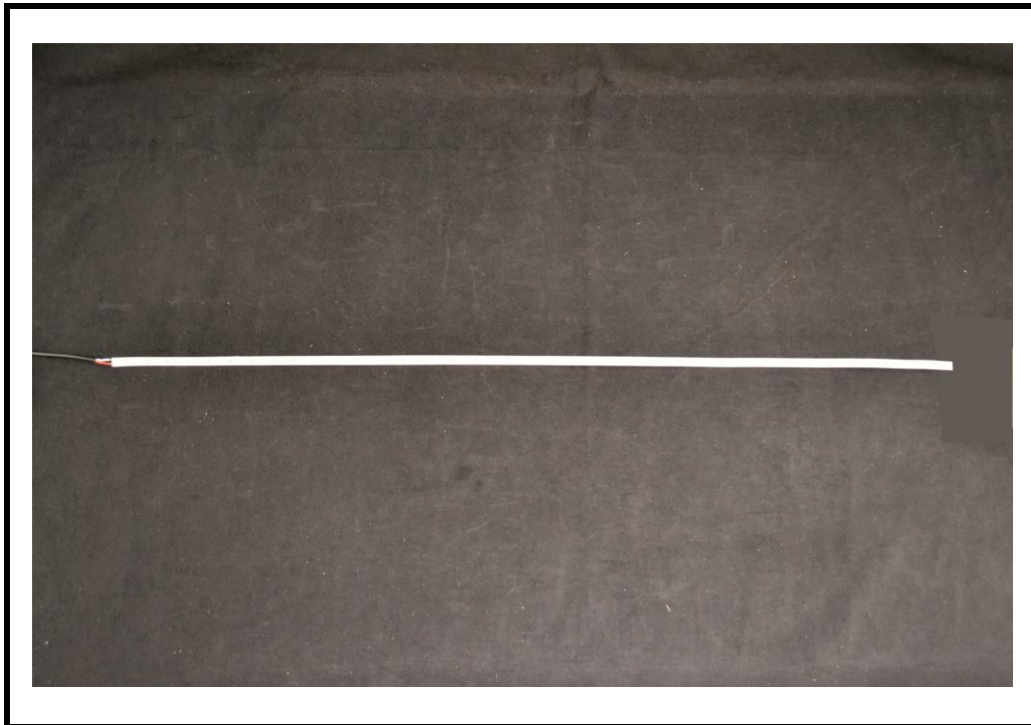
The results contained in this report pertain only to the tested sample.  
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Luminaire Description: LED Strip Light  
Catalog Number: dl3528-120-10-reel  
Lamp: LED Array  
Ballast/Driver: One Mean Well SP-240-12 Driver

Luminaire



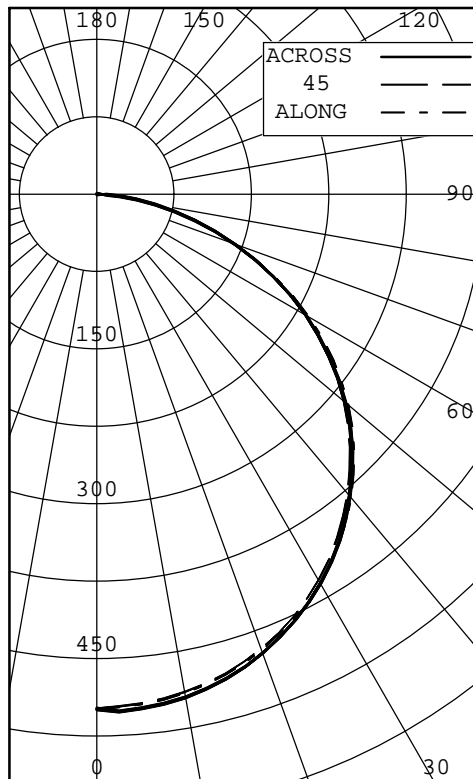
Test Conditions

Test Temperature: 24.8 °C  
Voltage: 12.0 VDC



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INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	499	499	499	499	499	
5	496	493	496	500	500	48
10	491	488	490	495	495	
15	482	479	481	486	486	136
20	470	466	468	472	473	
25	453	451	452	455	455	209
30	434	431	431	435	435	
35	410	407	406	410	410	255
40	383	379	378	382	381	
45	352	349	347	351	350	269
50	318	313	313	315	314	
55	279	275	274	276	275	246
60	237	233	233	234	233	
65	192	188	189	189	189	186
70	145	142	142	143	143	
75	99	98	98	98	99	104
80	57	57	57	58	58	
85	23	23	23	23	23	27
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	392	26.52
0-40	648	43.76
0-60	1162	78.51
0-90	1480	100.00
40-90	832	56.24
60-90	318	21.49
90-180	0	0.00
0-180	1480	100.00

\*\*\* THIS IS AN ABSOLUTE TEST \*\*\*

LUMINOUS LENGTH: 39.370 INS  
 WIDTH: 0.125 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3  
 SC: 1.3

ANGLE	ALONG	45	ACROSS
45	156944	155195	156537
55	153395	150950	151639
65	143313	141014	141280
75	120353	119523	120630
85	82396	83151	84162

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA  
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0.0	499	499	499	499	499	499	
2.5	498	495	497	502	502	498	
5.0	496	493	496	500	500	497	48
7.5	494	491	493	498	498	495	
10.0	491	488	490	495	495	492	
12.5	487	484	486	491	491	487	
15.0	482	479	481	486	486	482	136
17.5	477	473	475	479	480	476	
20.0	470	466	468	472	473	469	
22.5	462	459	460	464	464	462	
25.0	453	451	452	455	455	453	209
27.5	444	442	442	446	446	444	
30.0	434	431	431	435	435	433	
32.5	423	420	419	423	423	421	
35.0	410	407	406	410	410	408	255
37.5	397	394	393	396	396	395	
40.0	383	379	378	382	381	380	
42.5	368	364	363	367	366	365	
45.0	352	349	347	351	350	349	269
47.5	336	331	331	333	333	332	
50.0	318	313	313	315	314	314	
52.5	299	294	294	296	295	295	
55.0	279	275	274	276	275	275	246
57.5	259	254	254	255	254	255	
60.0	237	233	233	234	233	234	
62.5	215	211	211	212	211	212	
65.0	192	188	189	189	189	189	186
67.5	168	165	166	166	166	166	
70.0	145	142	142	143	143	143	
72.5	122	120	120	121	121	120	
75.0	99	98	98	98	99	98	104
77.5	77	77	77	77	78	77	
80.0	57	57	57	58	58	57	
82.5	39	39	39	39	39	39	
85.0	23	23	23	23	23	23	27
87.5	9	10	10	10	10	10	
90.0	0	0	0	0	0	0	



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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	90				80				70				50				30				10				0
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																									
0	1.221	.221	.221	.22	1.191	.191	.191	.19	1.161	.161	.161	.16	1.111	.111	.11	1.061	.061	.06	1.021	.021	.02	1.00			
1	1.121	.071	.030	.99	1.091	.051	.010	.97	1.071	.030	.990	.96	0.980	.950	.93	0.940	.920	.90	0.910	.890	.87	0.85			
2	1.030	.950	.880	.82	1.000	.930	.860	.81	0.980	.910	.850	.80	0.870	.820	.78	0.840	.800	.76	0.810	.780	.75	0.72			
3	0.940	.830	.750	.68	0.920	.820	.740	.68	0.890	.800	.730	.67	0.770	.710	.66	0.740	.690	.65	0.720	.680	.64	0.62			
4	0.870	.740	.650	.59	0.840	.730	.650	.58	0.820	.720	.640	.58	0.690	.620	.57	0.670	.610	.56	0.650	.600	.56	0.54			
5	0.800	.660	.570	.50	0.780	.650	.560	.50	0.750	.640	.560	.50	0.620	.550	.49	0.600	.540	.49	0.580	.530	.48	0.46			
6	0.730	.590	.500	.44	0.710	.580	.500	.43	0.690	.570	.490	.43	0.550	.480	.43	0.540	.470	.42	0.520	.460	.42	0.40			
7	0.670	.530	.440	.38	0.650	.520	.430	.38	0.640	.510	.430	.37	0.500	.420	.37	0.480	.420	.36	0.470	.410	.36	0.34			
8	0.620	.480	.390	.33	0.610	.470	.390	.33	0.590	.460	.380	.33	0.450	.380	.33	0.440	.370	.32	0.430	.370	.32	0.30			
9	0.580	.440	.350	.29	0.560	.430	.350	.29	0.550	.420	.340	.29	0.410	.340	.29	0.400	.330	.28	0.390	.330	.28	0.26			
10	0.530	.400	.310	.26	0.520	.390	.310	.26	0.510	.380	.310	.26	0.370	.300	.25	0.360	.300	.25	0.360	.290	.25	0.23			

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS  
 BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.  
 LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD  
 THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.  
 BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST  
 LUMINOUS OPENING OF LUMINAIRE.



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**All testing was conducted in accordance with LM-79-08,**

Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products as published by the Illuminating Engineering Society of North America (IESNA).

The condition of the item tested was new. Stabilization time before testing meets the stabilization requirements of LM-79-08.

The test results (luminous distribution and flux) were obtained by using a Lighting Sciences series 6000 Type C Moving Mirror Goniophotometer

- The photometric reference standard used is a set of three incandescent luminous intensity standard lamps calibrated and traceable to the U.S. National Institute of Standards and Technology.

Power measurements were obtained with a Xitron 2801 power analyzer.

Ambient temperature during testing was  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ , measured using an Omega model DP460.

Calibration certificates are on file at the laboratory

The results in this report apply to the test sample(s) mentioned in this report at the time of the testing period only and are not to be used to indicate applicability to other similar products.