



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  
dl3528-450-reel  
Project Number  
10345709  
Test Number  
33082

Test Date

2014-06-16

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

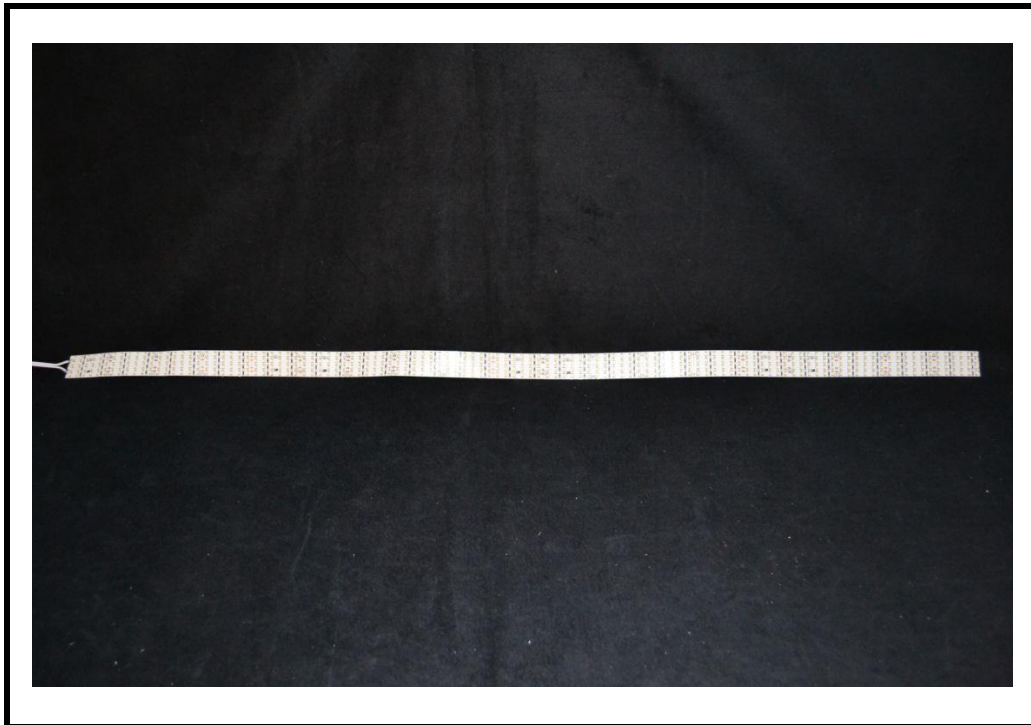
The results contained in this report pertain only to the tested sample.  
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Luminaire Description: LED Strip Light  
Catalog Number: dl3528-450-reel  
Lamp: LED Array  
Ballast/Driver: One Mean Well SP-320-24 Driver

Luminaire



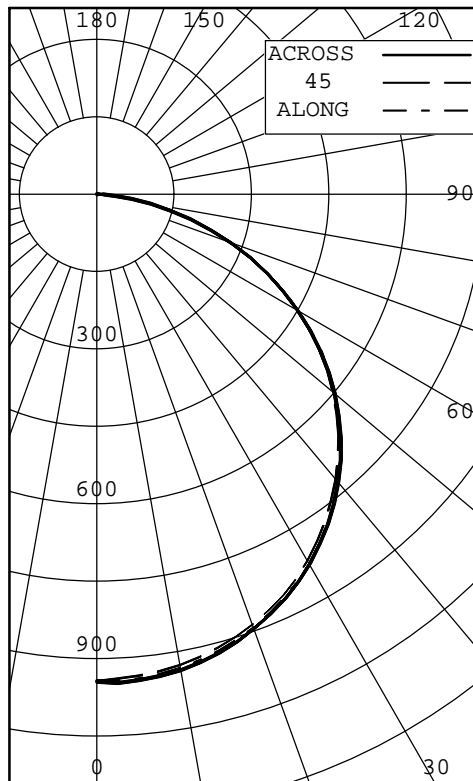
Test Conditions

Test Temperature: 24.8 °C  
Voltage: 24.0 VDC



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INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	944	944	944	944	944	
5	942	934	937	947	946	91
10	933	924	927	937	937	
15	916	907	910	921	920	258
20	892	884	887	896	896	
25	862	856	857	866	865	396
30	825	819	818	827	827	
35	779	774	772	781	781	485
40	728	722	720	728	728	
45	669	664	662	669	669	513
50	603	599	597	603	602	
55	531	527	526	529	529	471
60	452	448	447	450	449	
65	369	364	365	366	366	361
70	281	278	278	279	278	
75	192	189	189	190	189	201
80	106	107	105	106	106	
85	36	38	37	38	37	47
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	744	26.39
0-40	1230	43.59
0-60	2213	78.44
0-90	2821	100.00
40-90	1591	56.41
60-90	608	21.56
90-180	0	0.00
0-180	2821	100.00

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

LUMINOUS LENGTH: 39.370 INS  
 WIDTH: 0.875 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3  
 SC: 1.3

ANGLE	ALONG	45	ACROSS
45	42540	42297	42703
55	41674	41427	41644
65	39296	38970	39067
75	33291	32922	32991
85	18740	19383	19097

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	944	944	944	944	944	944	
2.5	944	936	940	950	949	943	
5.0	942	934	937	947	946	940	91
7.5	938	930	933	943	942	936	
10.0	933	924	927	937	937	931	
12.5	925	916	920	930	929	923	
15.0	916	907	910	921	920	914	258
17.5	905	897	899	909	909	903	
20.0	892	884	887	896	896	890	
22.5	877	871	872	882	881	876	
25.0	862	856	857	866	865	860	396
27.5	845	838	839	847	847	842	
30.0	825	819	818	827	827	822	
32.5	803	797	796	804	804	800	
35.0	779	774	772	781	781	777	485
37.5	755	749	746	755	755	751	
40.0	728	722	720	728	728	725	
42.5	699	694	692	699	699	696	
45.0	669	664	662	669	669	666	513
47.5	637	633	630	637	636	634	
50.0	603	599	597	603	602	601	
52.5	568	564	563	567	566	565	
55.0	531	527	526	529	529	528	471
57.5	492	488	487	490	489	489	
60.0	452	448	447	450	449	449	
62.5	411	407	406	409	407	408	
65.0	369	364	365	366	366	366	361
67.5	326	322	322	323	323	323	
70.0	281	278	278	279	278	279	
72.5	236	233	233	234	233	234	
75.0	192	189	189	190	189	189	201
77.5	148	146	146	147	146	146	
80.0	106	107	105	106	106	106	
82.5	68	70	68	69	69	69	
85.0	36	38	37	38	37	37	47
87.5	14	15	15	15	14	15	
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	.111	.11	1.061	.061	.061	.06	1.021	.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	0.950	.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	0.73				
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	0.53				
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	.490	.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	.410	.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	.340	.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	.25	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.