



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
sw3528-120-10-reel
Project Number
10345709
Test Number
33066

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

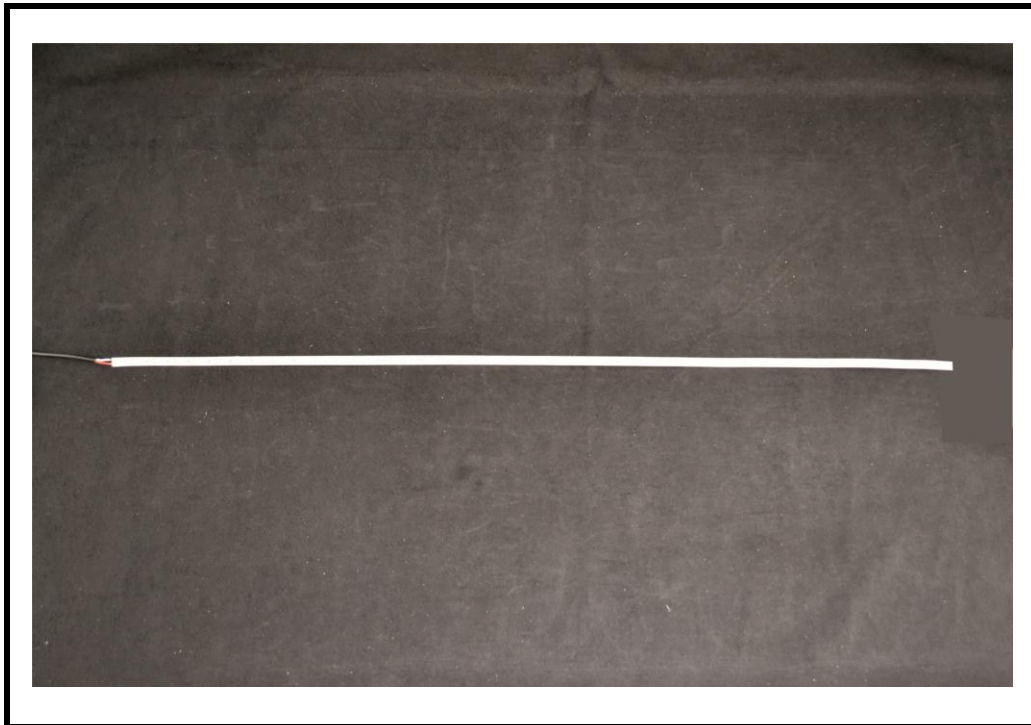
The results contained in this report pertain only to the tested sample.
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Luminaire Description: LED Strip Light
Catalog Number: sw3528-120-10-reel
Lamp: LED Array
Ballast/Driver: One Mean Well SP-240-12 Driver

Luminaire



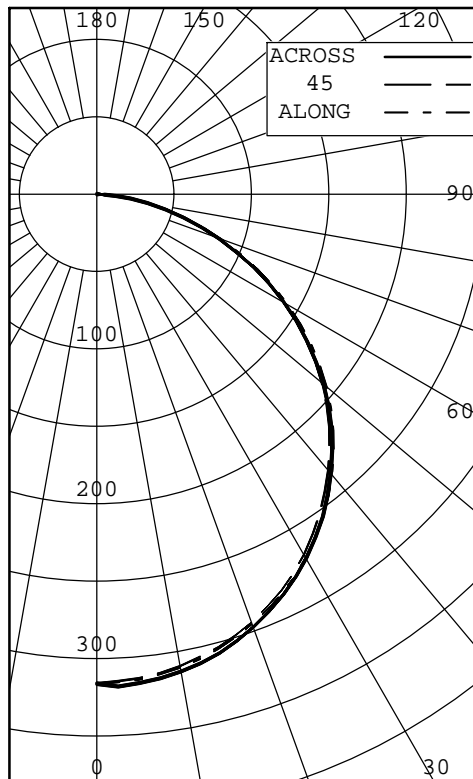
Test Conditions

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	316	316	316	316	316	
5	315	312	314	317	317	30
10	311	308	310	313	313	
15	304	302	303	306	307	86
20	295	293	294	297	297	
25	284	282	282	285	286	130
30	271	268	268	271	271	
35	254	252	251	254	254	158
40	236	233	233	235	235	
45	216	213	212	215	214	165
50	194	190	190	192	191	
55	169	165	165	167	166	148
60	143	139	139	140	140	
65	115	112	112	112	112	111
70	87	84	85	84	84	
75	60	59	59	59	58	62
80	35	35	34	34	33	
85	13	13	13	13	13	16
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	246	27.20
0-40	404	44.64
0-60	717	79.15
0-90	906	100.00
40-90	502	55.36
60-90	189	20.85
90-180	0	0.00
0-180	906	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	96210	94923	95885
55	92745	91088	91529
65	85705	83688	83750
75	73076	71397	70851
85	48426	47644	46434

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	316	316	316	316	316	316	
2.5	316	313	315	318	318	316	
5.0	315	312	314	317	317	315	30
7.5	313	311	312	315	316	313	
10.0	311	308	310	313	313	311	
12.5	308	305	307	310	311	308	
15.0	304	302	303	306	307	304	86
17.5	300	298	299	302	302	300	
20.0	295	293	294	297	297	295	
22.5	290	288	288	291	292	289	
25.0	284	282	282	285	286	284	130
27.5	278	276	276	278	279	277	
30.0	271	268	268	271	271	270	
32.5	263	261	260	263	263	262	
35.0	254	252	251	254	254	253	158
37.5	246	243	242	245	245	244	
40.0	236	233	233	235	235	234	
42.5	226	224	223	225	225	224	
45.0	216	213	212	215	214	214	165
47.5	205	202	201	203	203	203	
50.0	194	190	190	192	191	191	
52.5	182	178	178	179	179	179	
55.0	169	165	165	167	166	166	148
57.5	156	153	152	153	153	153	
60.0	143	139	139	140	140	140	
62.5	129	126	126	126	126	126	
65.0	115	112	112	112	112	112	111
67.5	101	98	98	98	98	98	
70.0	87	84	85	84	84	85	
72.5	73	71	71	71	71	72	
75.0	60	59	59	59	58	59	62
77.5	47	46	46	46	46	46	
80.0	35	35	34	34	33	34	
82.5	23	23	23	23	22	23	
85.0	13	13	13	13	13	13	16
87.5	6	6	6	6	5	6	
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	.06	1.021	.021	.02	1.00		
1	1.121	.071	.030	.99	1.101	.051	.010	.97	1.071	.030	.990	.96	0.990	.960	.93	0.950	.920	.90	0.910	.890	.87	0.85			
2	1.030	.950	.880	.82	1.000	.930	.870	.81	0.980	.910	.850	.80	0.870	.830	.78	0.840	.800	.77	0.810	.780	.75	0.73			
3	0.940	.830	.750	.69	0.920	.820	.740	.68	0.900	.800	.730	.68	0.780	.720	.67	0.750	.700	.65	0.720	.680	.64	0.62			
4	0.870	.750	.660	.59	0.850	.730	.650	.59	0.830	.720	.650	.58	0.700	.630	.58	0.670	.620	.57	0.650	.600	.56	0.54			
5	0.800	.670	.580	.51	0.780	.660	.570	.51	0.760	.640	.560	.50	0.620	.550	.50	0.600	.540	.49	0.590	.530	.49	0.47			
6	0.740	.600	.510	.44	0.720	.590	.500	.44	0.700	.580	.500	.44	0.560	.490	.43	0.540	.480	.43	0.530	.470	.42	0.41			
7	0.670	.530	.440	.39	0.660	.530	.440	.38	0.640	.520	.440	.38	0.500	.430	.38	0.490	.420	.37	0.480	.420	.37	0.35			
8	0.630	.480	.400	.34	0.610	.480	.390	.34	0.600	.470	.390	.33	0.460	.380	.33	0.440	.380	.33	0.430	.370	.33	0.31			
9	0.580	.440	.350	.29	0.570	.430	.350	.29	0.550	.430	.350	.29	0.410	.340	.29	0.400	.340	.29	0.390	.330	.29	0.27			
10	0.540	.400	.310	.26	0.520	.390	.310	.26	0.510	.390	.310	.26	0.380	.310	.26	0.370	.300	.26	0.360	.300	.25	0.24			

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.