



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
swrf5050-60-reel
Project Number
10345709
Test Number
33084

Test Date

2014-06-20

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

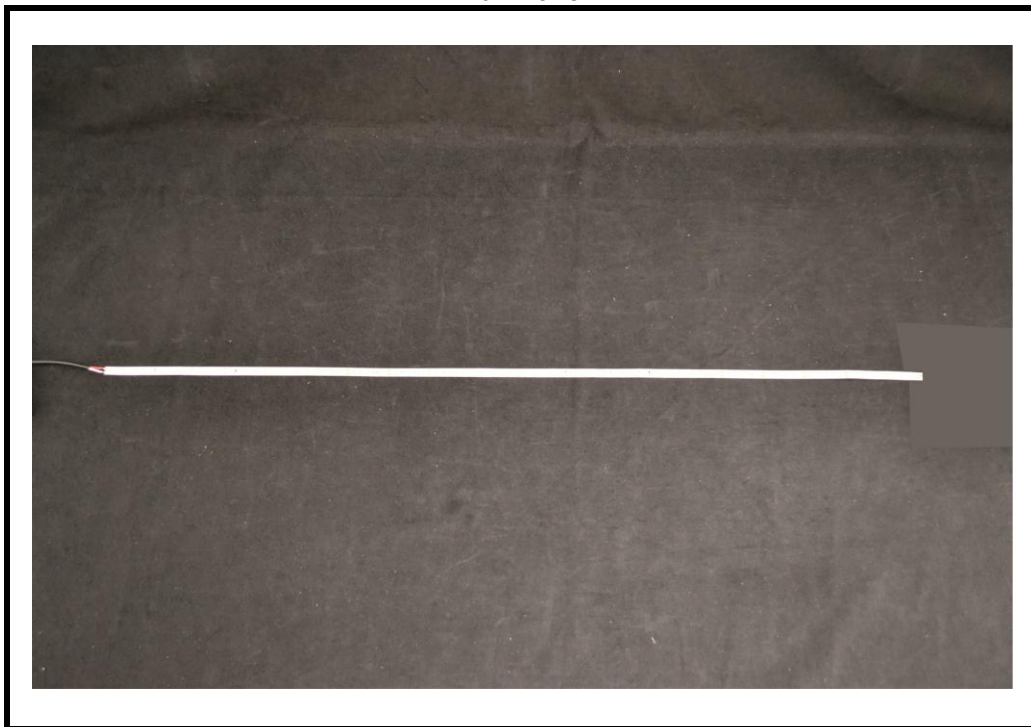
The results contained in this report pertain only to the tested sample.
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Luminaire Description: LED Strip Light
Catalog Number: swrf5050-60-reel
Lamp: LED Array
Ballast/Driver: One Mean Well SP-240-12 Driver

Luminaire



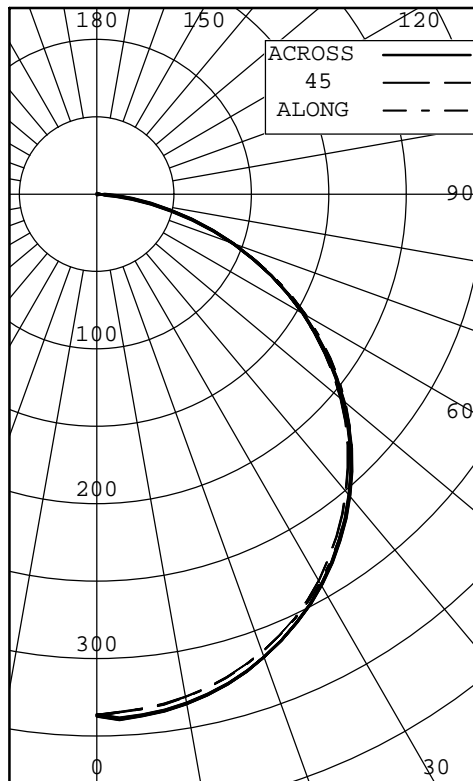
Test Conditions

Test Temperature: 24.6 °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	337	337	337	337	337	
5	334	333	334	338	338	32
10	330	328	330	333	334	
15	324	322	323	327	328	91
20	314	313	314	317	318	
25	303	301	302	305	306	139
30	289	287	287	290	291	
35	273	270	270	273	273	170
40	254	251	250	253	254	
45	233	230	229	232	232	178
50	210	206	206	208	208	
55	184	181	180	182	182	162
60	157	153	153	154	154	
65	127	124	124	124	125	123
70	96	94	94	94	94	
75	65	64	64	64	64	68
80	36	36	36	36	36	
85	13	13	13	13	13	16
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	263	26.90
0-40	433	44.23
0-60	772	78.89
0-90	979	100.00
40-90	546	55.77
60-90	207	21.11
90-180	0	0.00
0-180	979	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	103694	102480	103777
55	101092	99191	100155
65	94573	92700	93177
75	78552	78159	78058
85	45354	47825	46978

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	337	337	337	337	337	337	
2.5	335	334	335	339	339	336	
5.0	334	333	334	338	338	335	32
7.5	333	331	332	336	336	333	
10.0	330	328	330	333	334	331	
12.5	327	325	327	330	331	328	
15.0	324	322	323	327	328	324	91
17.5	319	318	319	322	323	320	
20.0	314	313	314	317	318	315	
22.5	309	307	308	311	312	309	
25.0	303	301	302	305	306	303	139
27.5	296	295	295	298	299	296	
30.0	289	287	287	290	291	289	
32.5	281	279	279	282	283	280	
35.0	273	270	270	273	273	272	170
37.5	263	261	260	263	264	262	
40.0	254	251	250	253	254	252	
42.5	244	241	240	243	243	242	
45.0	233	230	229	232	232	231	178
47.5	221	218	218	220	220	219	
50.0	210	206	206	208	208	207	
52.5	197	194	193	195	195	194	
55.0	184	181	180	182	182	181	162
57.5	170	167	166	168	168	168	
60.0	157	153	153	154	154	154	
62.5	142	138	138	139	139	139	
65.0	127	124	124	124	125	124	123
67.5	111	109	109	109	109	109	
70.0	96	94	94	94	94	94	
72.5	80	79	79	79	79	79	
75.0	65	64	64	64	64	64	68
77.5	50	49	50	49	49	49	
80.0	36	36	36	36	36	36	
82.5	23	23	23	23	23	23	
85.0	13	13	13	13	13	13	16
87.5	5	5	6	5	5	5	
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	.98	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	0.890	.800	.730	.68	0.770	.710	.66	0.750	.700	.65	0.720	.680	.64	0.62				
4	0.870	.750	.660	.59	0.850	.730	.650	.59	0.830	.720	.640	.58	0.700	.630	.57	0.670	.610	.57	0.650	.600	.56	0.54				
5	0.800	.670	.570	.51	0.780	.650	.570	.50	0.760	.640	.560	.50	0.620	.550	.50	0.600	.540	.49	0.580	.530	.48	0.46				
6	0.740	.600	.500	.44	0.720	.590	.500	.44	0.700	.580	.490	.43	0.560	.480	.43	0.540	.480	.43	0.530	.470	.42	0.40				
7	0.670	.530	.440	.38	0.660	.520	.440	.38	0.640	.520	.430	.37	0.500	.420	.37	0.480	.420	.37	0.470	.410	.36	0.35				
8	0.620	.480	.400	.33	0.610	.470	.390	.33	0.590	.470	.390	.33	0.450	.380	.33	0.440	.370	.33	0.430	.370	.32	0.30				
9	0.580	.440	.350	.29	0.560	.430	.350	.29	0.550	.420	.350	.29	0.410	.340	.29	0.400	.330	.29	0.390	.330	.28	0.27				
10	0.530	.400	.310	.26	0.520	.390	.310	.26	0.510	.390	.310	.26	0.380	.300	.26	0.370	.300	.25	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.