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

Photometric Indoor Test Report

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

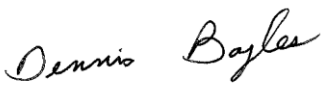
Prepared For
Environmental Lights
11235 W. Bernardo Court, Suite 102
San Diego, CA 92127

Catalog Number
swrf3528-240-reel
Project Number
10345709
Test Number
33075

Test Date

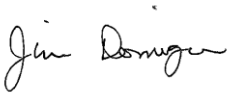
2014-06-13

Prepared By



Dennis Boyles, Technician

Approved By



Jim Domigan, Laboratory Team Leader

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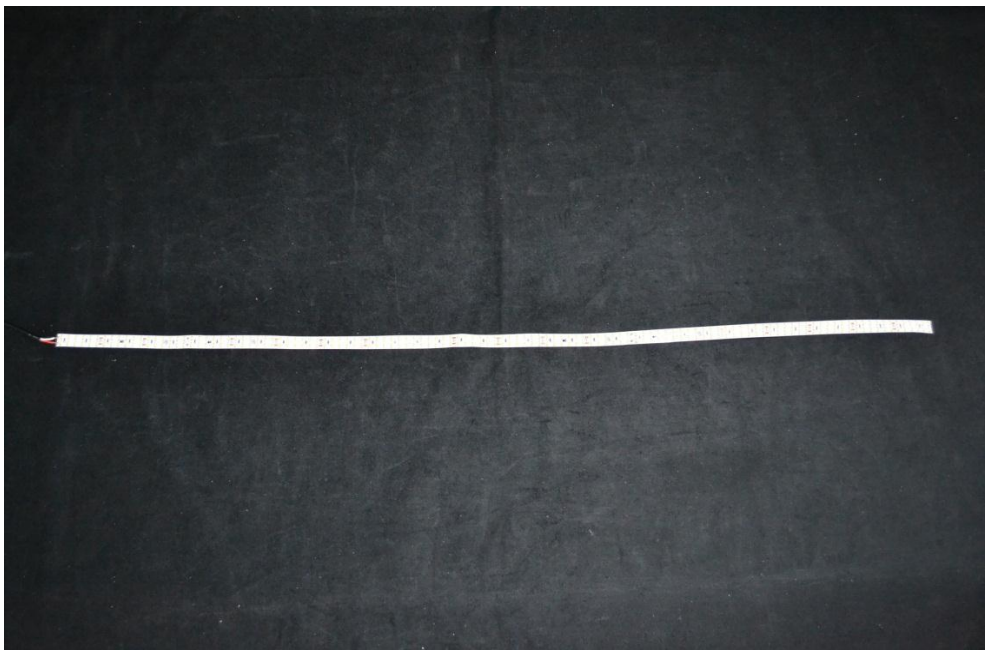
Luminaire Description:	LED Strip Light
Catalog Number:	swrf3528-240-reel
Lamp:	LED Array
Ballast/Driver:	One Mean Well SP-320-24 driver

Luminaire



Test Conditions

Test Temperature:	24.2 °C
Voltage:	24.0 VDC

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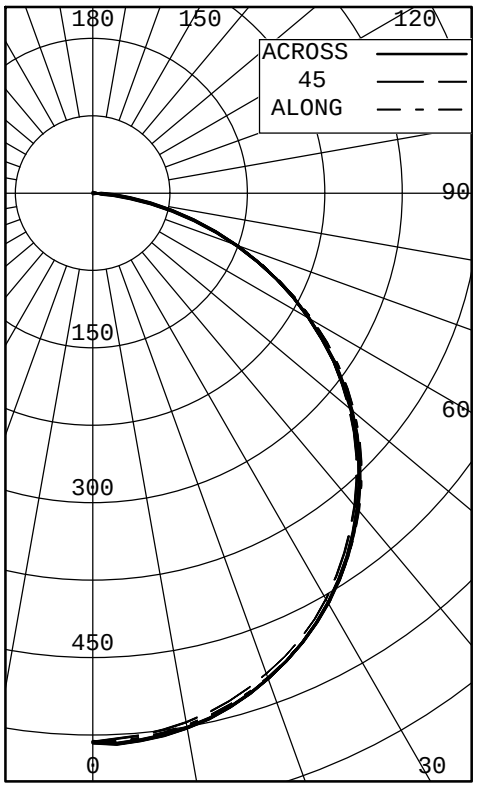

INTENSITY(CANDLEPOWER) SUMMARY

ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	532	532	532	532	532	
5	530	525	528	533	532	51
10	524	519	521	526	526	
15	513	508	510	515	515	144
20	498	494	495	500	500	
25	480	476	476	481	481	220
30	458	453	453	457	457	
35	431	427	425	430	430	267
40	401	396	395	399	399	
45	368	363	361	365	365	280
50	331	326	324	327	327	
55	290	285	284	286	286	255
60	247	242	241	242	242	
65	200	196	196	196	196	194
70	152	149	149	149	149	
75	103	102	102	102	102	108
80	57	56	57	57	57	
85	20	20	20	21	21	25
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	415	26.89
0-40	683	44.20
0-60	1218	78.83
0-90	1544	100.00
40-90	862	55.80
60-90	327	21.17
90-180	0	0.00
0-180	1544	100.00

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 39.370 INS
WIDTH: 0.500 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3
SC: 1.3

ANGLE	ALONG	45	ACROSS
45	40956	40403	40783
55	39859	39184	39384
65	37225	36618	36713
75	31366	30931	31104
85	17933	18478	18728

TESTED IN ACCORDANCE WITH IES PROCEDURES.

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INTENSITY(CANDLEPOWER) DATA
IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	LUMENS
0.0	532	532	532	532	532	532	
2.5	532	527	529	534	534	531	
5.0	530	525	528	533	532	529	51
7.5	527	523	525	530	530	526	
10.0	524	519	521	526	526	523	
12.5	519	514	516	521	521	518	
15.0	513	508	510	515	515	512	144
17.5	506	501	503	508	508	505	
20.0	498	494	495	500	500	497	
22.5	490	485	486	491	491	488	
25.0	480	476	476	481	481	478	220
27.5	470	465	465	470	469	467	
30.0	458	453	453	457	457	455	
32.5	445	440	440	444	444	442	
35.0	431	427	425	430	430	428	267
37.5	416	412	410	415	415	413	
40.0	401	396	395	399	399	397	
42.5	385	380	379	382	382	381	
45.0	368	363	361	365	365	364	280
47.5	350	345	343	347	347	346	
50.0	331	326	324	327	327	327	
52.5	311	306	305	307	307	307	
55.0	290	285	284	286	286	286	255
57.5	269	264	263	265	264	264	
60.0	247	242	241	242	242	242	
62.5	223	219	219	220	219	220	
65.0	200	196	196	196	196	197	194
67.5	176	172	173	173	173	173	
70.0	152	149	149	149	149	149	
72.5	127	125	125	126	125	126	
75.0	103	102	102	102	102	102	108
77.5	79	78	79	78	79	79	
80.0	57	56	57	57	57	57	
82.5	37	36	37	37	37	37	
85.0	20	20	20	21	21	20	25
87.5	7	8	8	9	8	8	
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
RCR	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	1.22	1.22	1.22	1.22	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.12	1.07	1.03	0.99	1.10	1.05	1.01	0.97	1.07	1.03	0.99	0.96	0.99	0.96	0.93	0.95	0.92	0.90	0.91	0.89	0.87	0.85
2	1.03	0.95	0.88	0.82	1.00	0.93	0.87	0.81	0.98	0.91	0.85	0.80	0.87	0.82	0.78	0.84	0.80	0.76	0.81	0.78	0.75	0.73
3	0.94	0.83	0.75	0.69	0.92	0.82	0.74	0.68	0.89	0.80	0.73	0.67	0.77	0.71	0.66	0.75	0.70	0.65	0.72	0.68	0.64	0.62
4	0.87	0.75	0.66	0.59	0.85	0.73	0.65	0.59	0.83	0.72	0.64	0.58	0.70	0.63	0.57	0.67	0.61	0.57	0.65	0.60	0.56	0.54
5	0.80	0.67	0.57	0.51	0.78	0.65	0.57	0.50	0.76	0.64	0.56	0.50	0.62	0.55	0.50	0.60	0.54	0.49	0.58	0.53	0.48	0.46
6	0.74	0.60	0.50	0.44	0.72	0.59	0.50	0.44	0.70	0.58	0.49	0.43	0.56	0.48	0.43	0.54	0.48	0.43	0.53	0.47	0.42	0.40
7	0.67	0.53	0.44	0.38	0.66	0.52	0.44	0.38	0.64	0.52	0.43	0.37	0.50	0.42	0.37	0.48	0.42	0.37	0.47	0.41	0.37	0.35
8	0.62	0.48	0.40	0.33	0.61	0.47	0.39	0.33	0.59	0.47	0.39	0.33	0.45	0.38	0.33	0.44	0.37	0.33	0.43	0.37	0.32	0.30
9	0.58	0.44	0.35	0.29	0.56	0.43	0.35	0.29	0.55	0.42	0.35	0.29	0.41	0.34	0.29	0.40	0.33	0.29	0.39	0.33	0.28	0.27
10	0.53	0.40	0.31	0.26	0.52	0.39	0.31	0.26	0.51	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.30	0.25	0.36	0.30	0.25	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° C ± 1° 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.