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

Photometric Indoor Test Report

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

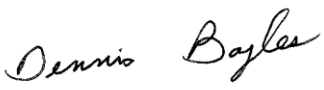
Prepared For
Environmental Lights
11235 W. Bernardo Court, Suite 102
San Diego, CA 92127

Catalog Number
ww3528-240-10-reel
Project Number
10345709
Test Number
33070

Test Date

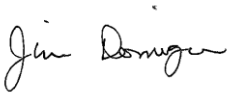
2014-06-10

Prepared By



Dennis Boyles, Technician

Approved By



Jim Domigan, Laboratory Team Leader

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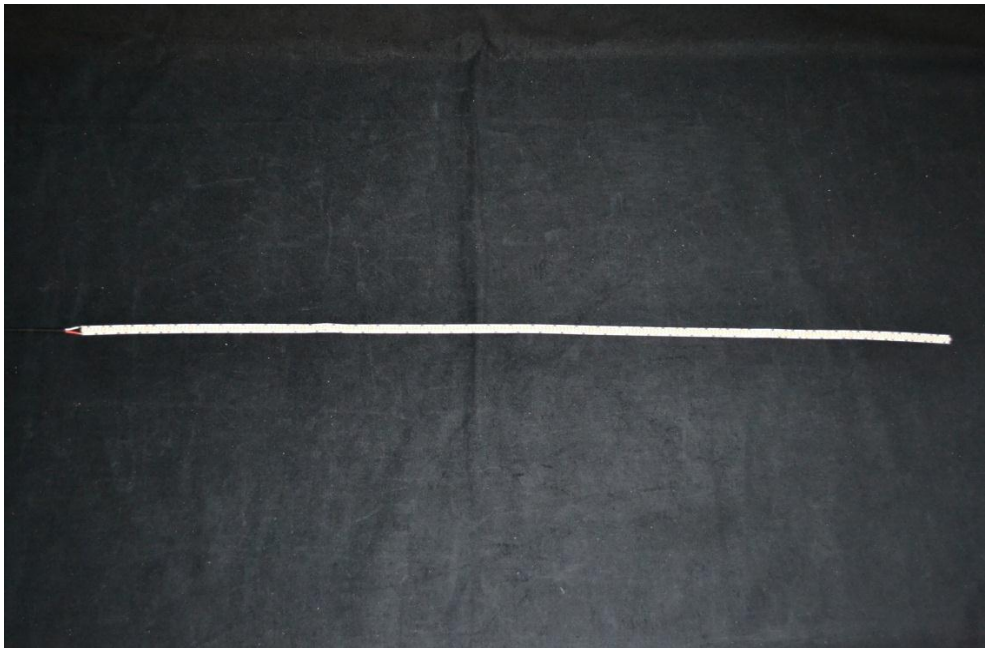
Luminaire Description:	LED Strip Light
Catalog Number:	ww3528-240-10-reel
Lamp:	LED Array
Ballast/Driver:	One Mean Well SP-320-24 Driver

Luminaire



Test Conditions

Test Temperature:	24.9 °C
Voltage:	24.0 VDC

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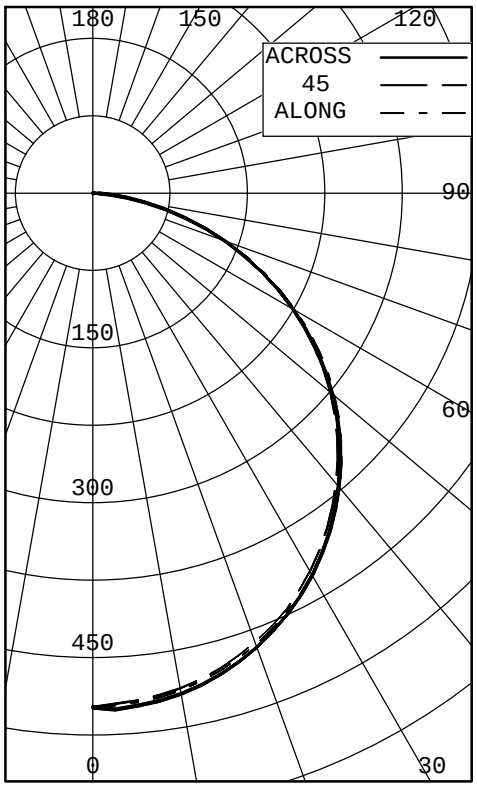

INTENSITY(CANDLEPOWER) SUMMARY

ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	498	498	498	498	498	
5	495	492	494	499	499	48
10	489	486	487	493	493	
15	479	475	477	482	482	135
20	465	461	462	467	467	
25	447	444	444	449	449	205
30	426	423	422	427	426	
35	400	397	396	400	400	249
40	372	368	367	371	371	
45	340	336	335	339	339	260
50	306	302	300	303	303	
55	268	263	263	265	265	236
60	227	223	222	224	224	
65	185	180	180	181	181	179
70	140	137	137	137	137	
75	94	93	93	93	93	98
80	52	52	51	52	51	
85	18	18	18	17	18	22
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	388	27.10
0-40	637	44.48
0-60	1132	79.08
0-90	1432	100.00
40-90	795	55.52
60-90	300	20.92
90-180	0	0.00
0-180	1432	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	151509	149830	151462
55	147218	144749	145796
65	137500	134657	135370
75	114877	112700	113911
85	64869	64129	63847

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	498	498	498	498	498	498	
2.5	497	493	495	501	501	497	
5.0	495	492	494	499	499	495	48
7.5	493	489	491	496	496	493	
10.0	489	486	487	493	493	489	
12.5	485	481	483	488	488	484	
15.0	479	475	477	482	482	479	135
17.5	472	469	470	475	475	472	
20.0	465	461	462	467	467	464	
22.5	456	453	454	459	459	456	
25.0	447	444	444	449	449	446	205
27.5	437	434	434	438	438	436	
30.0	426	423	422	427	426	424	
32.5	413	410	409	414	414	412	
35.0	400	397	396	400	400	398	249
37.5	386	383	382	386	386	384	
40.0	372	368	367	371	371	369	
42.5	356	353	351	355	355	354	
45.0	340	336	335	339	339	337	260
47.5	323	319	318	321	321	320	
50.0	306	302	300	303	303	302	
52.5	287	283	282	284	284	284	
55.0	268	263	263	265	265	264	236
57.5	248	243	243	244	244	244	
60.0	227	223	222	224	224	224	
62.5	206	202	201	203	203	202	
65.0	185	180	180	181	181	181	179
67.5	163	159	159	159	159	159	
70.0	140	137	137	137	137	137	
72.5	117	115	115	115	115	115	
75.0	94	93	93	93	93	93	98
77.5	73	71	71	72	72	72	
80.0	52	52	51	52	51	51	
82.5	33	33	33	33	33	33	
85.0	18	18	18	17	18	18	22
87.5	6	6	6	6	6	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
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	0.98	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	0.83	0.78	0.84	0.80	0.77	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	0.90	0.80	0.73	0.68	0.78	0.72	0.67	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	0.65	0.58	0.70	0.63	0.58	0.67	0.62	0.57	0.65	0.60	0.56	0.54
5	0.80	0.67	0.58	0.51	0.78	0.66	0.57	0.51	0.76	0.64	0.56	0.50	0.62	0.55	0.50	0.60	0.54	0.49	0.59	0.53	0.49	0.47
6	0.74	0.60	0.51	0.44	0.72	0.59	0.50	0.44	0.70	0.58	0.50	0.44	0.56	0.49	0.43	0.54	0.48	0.43	0.53	0.47	0.42	0.40
7	0.67	0.53	0.44	0.39	0.66	0.53	0.44	0.38	0.64	0.52	0.44	0.38	0.50	0.43	0.38	0.49	0.42	0.37	0.47	0.41	0.37	0.35
8	0.63	0.48	0.40	0.34	0.61	0.48	0.39	0.33	0.60	0.47	0.39	0.33	0.46	0.38	0.33	0.44	0.38	0.33	0.43	0.37	0.33	0.31
9	0.58	0.44	0.35	0.29	0.57	0.43	0.35	0.29	0.55	0.43	0.35	0.29	0.41	0.34	0.29	0.40	0.34	0.29	0.39	0.33	0.29	0.27
10	0.54	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	0.26	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.