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

Photometric Indoor Test Report

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

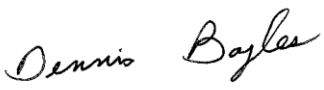
Prepared For
Environmental Lights
11235 W. Bernardo Court, Suite 102
San Diego, CA 92127

Catalog Number
dlrf-reel
Project Number
10345709
Test Number
33059

Test Date

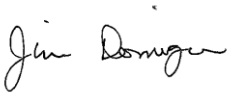
2014-06-18

Prepared By



Dennis Boyles, Technician

Approved By



Jim Domigan, Laboratory Team Leader

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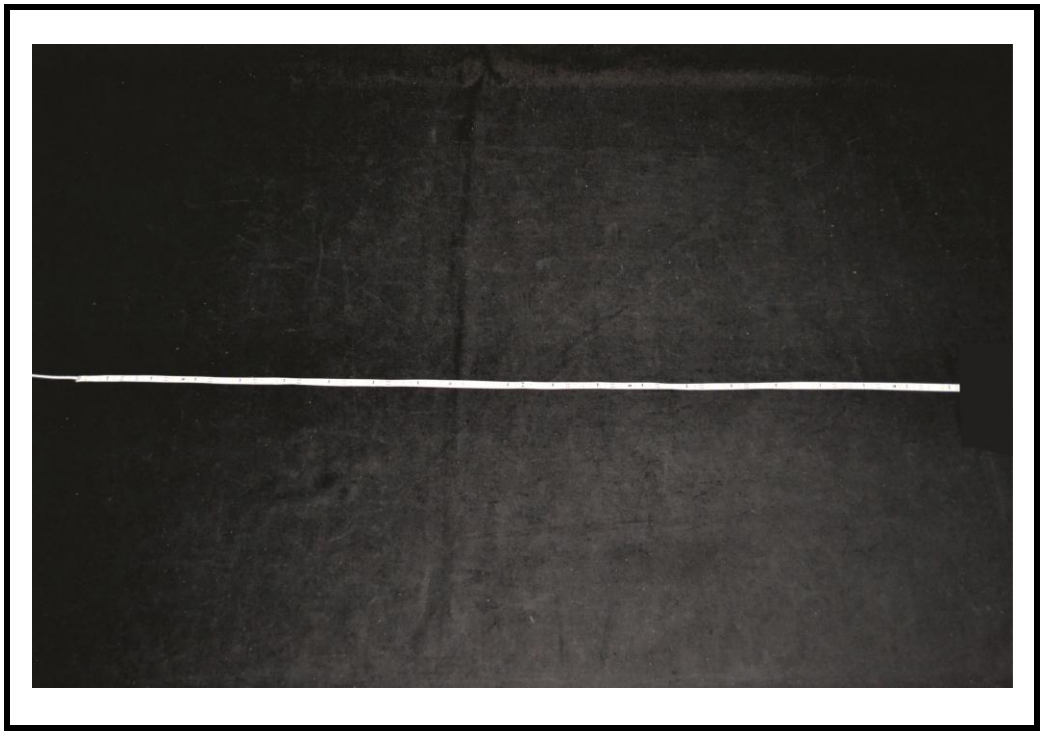
Luminaire Description:	LED Strip Light
Catalog Number:	dlrf-reel
Lamp:	LED Array
Ballast/Driver:	One Mean Well SP-240-12 Driver

Luminaire



Test Conditions

Test Temperature:	24.9 °C
Voltage:	12.0 VDC

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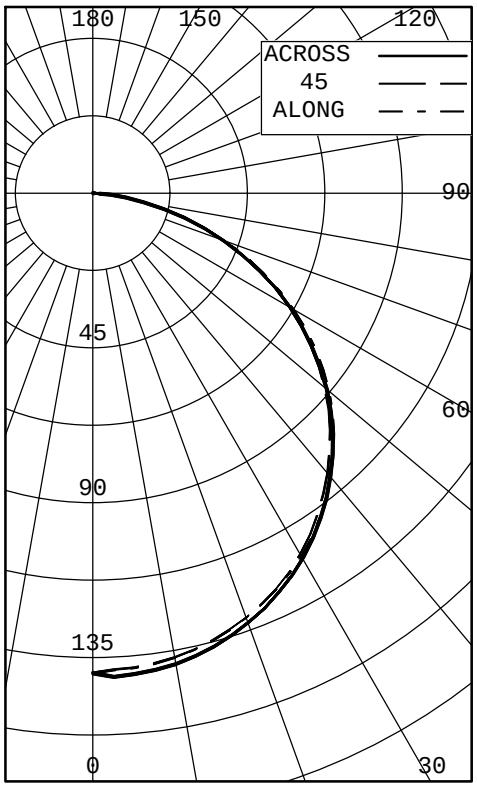

INTENSITY(CANDLEPOWER) SUMMARY

ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	140	140	140	140	140	
5	139	138	139	140	140	13
10	137	136	137	139	139	
15	135	134	135	136	137	38
20	131	131	131	132	133	
25	127	126	127	128	128	58
30	122	121	121	122	122	
35	115	114	114	115	115	72
40	108	106	106	107	107	
45	99	98	98	99	99	76
50	90	88	88	89	89	
55	79	77	77	78	78	69
60	68	66	66	66	66	
65	55	54	53	54	54	53
70	41	41	41	41	41	
75	28	28	28	28	28	29
80	15	15	15	15	15	
85	5	6	6	5	5	7
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	110	26.45
0-40	182	43.68
0-60	327	78.55
0-90	416	100.00
40-90	234	56.32
60-90	89	21.45
90-180	0	0.00
0-180	416	100.00

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 39.370 INS
WIDTH: 0.250 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3
SC: 1.3

ANGLE	ALONG	45	ACROSS
45	22081	21797	22076
55	21717	21304	21442
65	20438	19987	20030
75	17097	16905	16918
85	9757	10144	9704

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	140	140	140	140	140	140	
2.5	139	138	139	140	141	139	
5.0	139	138	139	140	140	139	13
7.5	138	137	138	139	140	138	
10.0	137	136	137	139	139	138	
12.5	136	135	136	137	138	136	
15.0	135	134	135	136	137	135	38
17.5	133	132	133	134	135	133	
20.0	131	131	131	132	133	132	
22.5	129	129	129	130	131	129	
25.0	127	126	127	128	128	127	58
27.5	124	124	124	125	125	124	
30.0	122	121	121	122	122	121	
32.5	119	118	118	119	119	118	
35.0	115	114	114	115	115	115	72
37.5	112	110	110	111	112	111	
40.0	108	106	106	107	107	107	
42.5	104	102	102	103	103	103	
45.0	99	98	98	99	99	98	76
47.5	95	93	93	94	94	94	
50.0	90	88	88	89	89	89	
52.5	85	83	83	84	83	83	
55.0	79	77	77	78	78	78	69
57.5	73	72	72	72	72	72	
60.0	68	66	66	66	66	66	
62.5	61	60	60	60	60	60	
65.0	55	54	53	54	54	54	53
67.5	49	47	47	47	47	47	
70.0	41	41	41	41	41	41	
72.5	35	34	34	34	34	34	
75.0	28	28	28	28	28	28	29
77.5	22	21	21	21	21	21	
80.0	15	15	15	15	15	15	
82.5	10	10	10	10	10	10	
85.0	5	6	6	5	5	5	7
87.5	2	2	2	2	2	2	
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	1.09	1.05	1.01	0.97	1.07	1.03	0.99	0.96	0.98	0.95	0.93	0.94	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	0.86	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	0.74	0.72
3	0.94	0.83	0.75	0.68	0.92	0.81	0.74	0.68	0.89	0.80	0.73	0.67	0.77	0.71	0.66	0.74	0.69	0.65	0.72	0.68	0.64	0.62
4	0.87	0.74	0.65	0.59	0.84	0.73	0.65	0.58	0.82	0.72	0.64	0.58	0.69	0.62	0.57	0.67	0.61	0.56	0.65	0.60	0.55	0.53
5	0.80	0.66	0.57	0.50	0.78	0.65	0.56	0.50	0.75	0.64	0.56	0.50	0.62	0.55	0.49	0.60	0.53	0.49	0.58	0.53	0.48	0.46
6	0.73	0.59	0.50	0.44	0.71	0.58	0.49	0.43	0.69	0.57	0.49	0.43	0.55	0.48	0.42	0.54	0.47	0.42	0.52	0.46	0.42	0.40
7	0.67	0.53	0.44	0.38	0.65	0.52	0.43	0.37	0.64	0.51	0.43	0.37	0.50	0.42	0.37	0.48	0.41	0.36	0.47	0.41	0.36	0.34
8	0.62	0.48	0.39	0.33	0.61	0.47	0.39	0.33	0.59	0.46	0.38	0.33	0.45	0.38	0.32	0.44	0.37	0.32	0.42	0.36	0.32	0.30
9	0.57	0.44	0.35	0.29	0.56	0.43	0.34	0.29	0.55	0.42	0.34	0.29	0.41	0.34	0.28	0.40	0.33	0.28	0.39	0.33	0.28	0.26
10	0.53	0.39	0.31	0.25	0.52	0.39	0.31	0.25	0.51	0.38	0.31	0.25	0.37	0.30	0.25	0.36	0.30	0.25	0.35	0.29	0.25	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° 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.