



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
vwrfEV3014-96-reel
Project Number
10345709
Test Number
33086

Test Date

2014-06-21

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

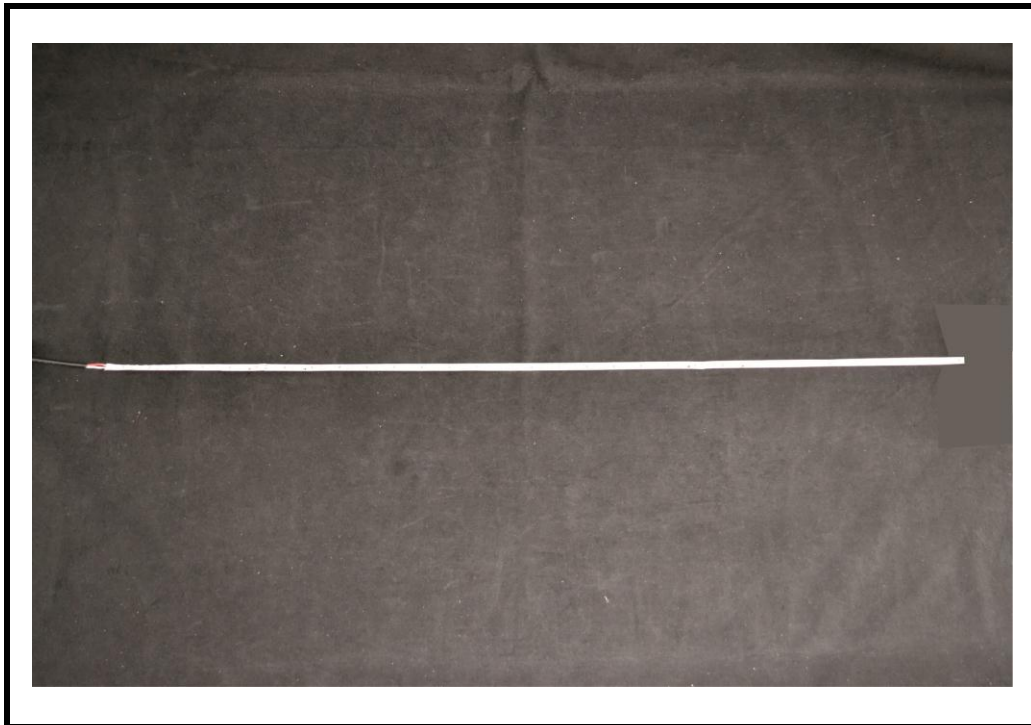
The results contained in this report pertain only to the tested sample.
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Luminaire Description: LED Strip Light
Catalog Number: vwwrfEV3014-96-reel
Lamp: LED Array
Ballast/Driver: One Mean Well SP-240-12 Driver

Luminaire



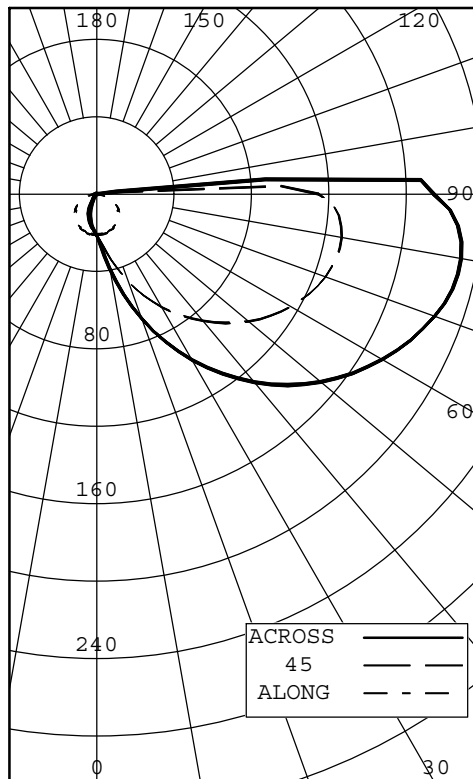
Test Conditions

Test Temperature: 24.9 °C
Voltage: 12.0 VDC



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INTENSITY (CANDLEPOWER) SUMMARY OUTPUT
 BEAM SIDE LUMENS



ANGLE	ALONG	67.5	45	22.5	ACROSS	LUMENS
0	21	21	21	21	21	
5	21	23	25	27	27	1
15	21	27	39	50	54	6
25	20	34	58	77	84	13
35	18	41	77	103	113	23
45	16	48	94	128	140	34
55	14	54	110	147	162	45
65	10	60	122	163	179	54
75	6	63	128	173	190	61
85	2	59	126	170	187	61
90	0	51	115	158	174	
95	0	1	12	62	88	23
105	0	0	0	0	0	0
115	0	0	0	0	0	0
125	0	0	0	0	0	0
135	0	0	0	0	0	0
145	0	0	0	0	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	0

BOTH SIDES
 ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	26	7.64
0-40	51	15.12
0-60	134	39.72
0-90	312	92.86
40-90	261	77.73
60-90	179	53.14
90-180	24	7.14
0-180	336	100.00

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 39.370 INS
 WIDTH: 0.062 INS

LUMINANCE SUMMARY - CD./SQ.M.

ANGLE	ALONG	45	ACROSS
45	14253	84327	125015
55	15375	121046	178042
65	14905	181737	267673
75	14603	312880	464930
85	14455	909408	1359663

TESTED IN ACCORDANCE WITH IES PROCEDURES.



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BEAM SIDE
INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE					AVERAGE	OUTPUT LUMENS
	ALONG	67.5	45	22.5	ACROSS		
0	21	21	21	21	21	21	
5	21	23	25	27	27	25	1
10	21	25	31	37	39	30	
15	21	27	39	50	54	38	6
20	20	30	48	63	69	47	
25	20	34	58	77	84	55	13
30	19	37	68	91	99	64	
35	18	41	77	103	113	72	23
40	17	45	86	116	127	80	
45	16	48	94	128	140	87	34
50	15	52	103	138	151	94	
55	14	54	110	147	162	100	45
60	12	57	116	156	171	105	
65	10	60	122	163	179	110	54
70	8	62	126	169	186	113	
75	6	63	128	173	190	115	61
80	4	61	129	174	191	115	
85	2	59	126	170	187	112	61
90	0	51	115	158	174	103	
95	0	1	12	62	88	30	23
100	0	1	1	1	2	1	
105	0	0	0	0	0	0	0
110	0	0	0	0	0	0	
115	0	0	0	0	0	0	0
120	0	0	0	0	0	0	
125	0	0	0	0	0	0	0
130	0	0	0	0	0	0	
135	0	0	0	0	0	0	0
140	0	0	0	0	0	0	
145	0	0	0	0	0	0	0
150	0	0	0	0	0	0	
155	0	0	0	0	0	0	0
160	0	0	0	0	0	0	
165	0	0	0	0	0	0	0
170	0	0	0	0	0	0	
175	0	0	0	0	0	0	0
180	0	0	0	0	0	0	



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OPPOSITE SIDE TO BEAM
INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE					AVERAGE	OUTPUT LUMENS
	ALONG	112.5	135	157.5	ACROSS		
0	21	21	21	21	21	21	
5	21	20	20	19	19	20	1
10	21	19	18	17	16	18	
15	21	18	16	14	14	16	2
20	20	17	14	11	11	14	
25	20	15	11	8	7	12	3
30	19	14	9	6	5	10	
35	18	12	7	4	3	8	3
40	17	11	5	3	2	7	
45	16	9	4	2	2	6	2
50	15	8	3	2	2	5	
55	14	6	3	2	2	5	2
60	12	5	2	2	1	4	
65	10	4	2	1	1	3	2
70	8	3	2	1	1	3	
75	6	2	1	1	1	2	1
80	4	2	1	1	1	2	
85	2	1	1	1	1	1	0
90	0	0	1	1	1	0	
95	0	0	0	0	1	0	0
100	0	0	0	0	0	0	
105	0	0	0	1	1	0	0
110	0	0	0	0	0	0	
115	0	0	0	0	0	0	0
120	0	0	0	0	0	0	
125	0	0	0	0	0	0	0
130	0	0	0	0	0	0	
135	0	0	0	0	0	0	0
140	0	0	0	0	0	0	
145	0	0	0	0	0	0	0
150	0	0	0	0	0	0	
155	0	0	0	0	0	0	0
160	0	0	0	0	0	0	
165	0	0	0	0	0	0	0
170	0	0	0	0	0	0	
175	0	0	0	0	0	0	0
180	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	1.211	.211	.211	.21	1.171	.171	.171	.17	1.141	.141	.141	.14	1.071	.071	.07	1.011	.011	.01	0.950	.950	.95	0.93		
	1	1.030	.940	.860	.79	0.990	.910	.830	.77	0.950	.880	.810	.75	0.820	.760	.71	0.760	.720	.67	0.710	.670	.64	0.61		
	2	0.900	.770	.660	.57	0.860	.740	.640	.55	0.830	.710	.620	.54	0.660	.580	.51	0.620	.550	.49	0.570	.520	.47	0.44		
	3	0.800	.640	.520	.43	0.760	.620	.510	.42	0.730	.600	.490	.41	0.550	.460	.39	0.510	.440	.37	0.470	.410	.35	0.32		
	4	0.720	.550	.430	.34	0.690	.530	.420	.33	0.660	.520	.410	.33	0.480	.390	.31	0.440	.360	.30	0.410	.340	.29	0.26		
	5	0.660	.480	.360	.27	0.620	.460	.350	.27	0.590	.450	.340	.26	0.410	.320	.25	0.380	.300	.24	0.360	.290	.23	0.20		
	6	0.600	.420	.300	.22	0.570	.400	.300	.22	0.540	.390	.290	.21	0.360	.270	.20	0.340	.260	.20	0.310	.240	.19	0.16		
	7	0.540	.370	.260	.19	0.520	.350	.250	.18	0.490	.340	.240	.17	0.320	.230	.17	0.300	.220	.16	0.280	.210	.15	0.13		
	8	0.500	.330	.230	.15	0.480	.320	.220	.15	0.460	.310	.210	.15	0.290	.200	.14	0.270	.190	.13	0.250	.180	.13	0.11		
	9	0.460	.300	.190	.13	0.440	.290	.190	.13	0.420	.280	.190	.12	0.260	.180	.12	0.240	.170	.11	0.230	.160	.11	0.09		
	10	0.420	.270	.170	.11	0.410	.260	.170	.11	0.390	.250	.160	.11	0.230	.160	.10	0.220	.150	.10	0.210	.140	.09	0.07		

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.

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.