



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
ct3528-120-10-reel-B
Project Number
10345709
Test Number
33063B

Test Date

2014-06-10

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

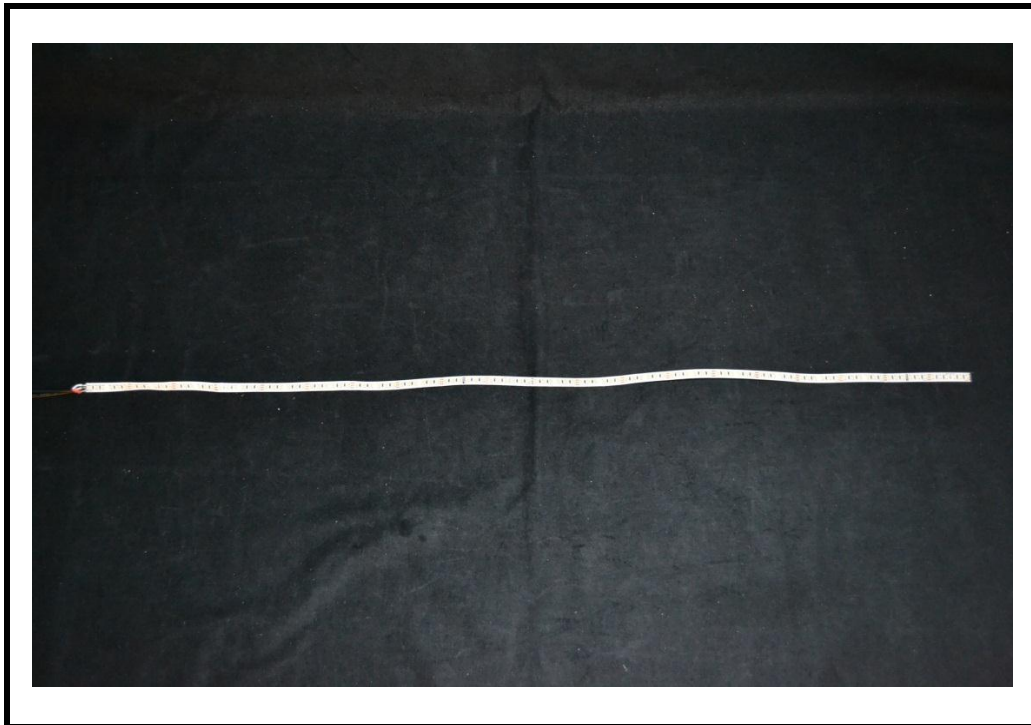
The results contained in this report pertain only to the tested sample.
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Luminaire Description: LED Strip Light
Catalog Number: ct3528-120-10-reel-B
Lamp: LED Array
Ballast/Driver: One Mean Well SP-320-24 Driver

Luminaire

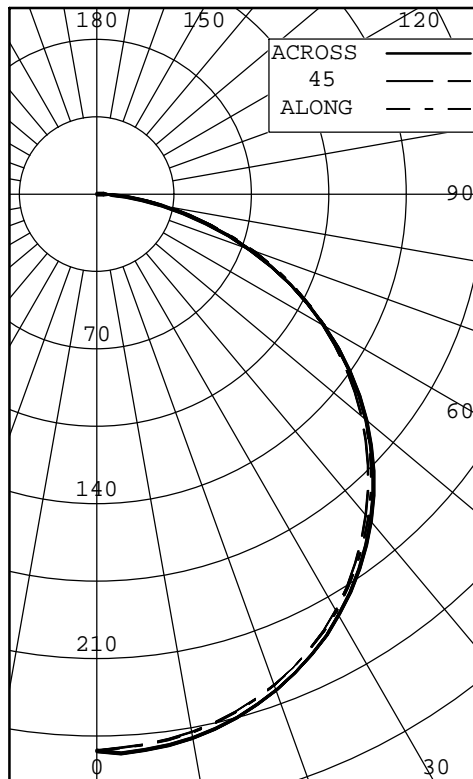


Test Conditions

Test Temperature: 24.5 °C
Voltage: 24.0 VDC



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG 22.5	45	67.5	ACROSS	LUMENS
0	252	252	252	252	
5	250	249	250	253	24
15	243	241	242	245	69
25	228	227	227	230	105
35	205	204	204	207	128
45	176	174	173	176	135
55	140	137	138	139	123
65	99	96	97	96	96
75	54	54	54	53	56
85	14	15	15	14	17
90	0	1	3	3	
95	0	0	0	0	1
105	0	0	0	0	0
115	0	0	0	0	0
125	0	0	0	0	0
135	0	0	0	0	0
145	0	0	0	0	0
155	0	0	0	0	0
165	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	198	26.25
0-40	326	43.25
0-60	584	77.53
0-90	752	99.93
40-90	427	56.68
60-90	169	22.40
90-180	1	0.07
0-180	753	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	78193	77530	79095
55	76931	75792	77004
65	73445	72433	72342
75	65409	65549	62361
85	49329	54165	47704

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0	252	252	252	252	252	252	
5	250	249	250	253	252	251	24
10	247	246	247	250	250	248	
15	243	241	242	245	245	243	69
20	236	235	236	238	238	236	
25	228	227	227	230	230	228	105
30	217	216	217	219	219	218	
35	205	204	204	207	207	205	128
40	191	189	189	192	193	191	
45	176	174	173	176	177	175	135
50	159	156	156	159	159	157	
55	140	137	138	139	140	138	123
60	120	117	118	118	119	118	
65	99	96	97	96	97	97	96
70	77	75	75	75	74	75	
75	54	54	54	53	51	53	56
80	33	34	33	32	30	33	
85	14	15	15	14	13	14	17
90	0	1	3	3	3	2	
95	0	0	0	0	0	0	1
100	0	0	0	0	0	0	
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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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	.020	.98	1.091	.051	.010	.97	1.071	.030	.990	.95	0.980	.950	.92	0.940	.920	.89	0.910	.890	.87	0.85				
2	1.020	.940	.870	.81	1.000	.920	.860	.80	0.980	.900	.840	.79	0.870	.820	.77	0.840	.790	.76	0.810	.770	.74	0.72				
3	0.940	.830	.740	.68	0.910	.810	.730	.67	0.890	.800	.720	.67	0.770	.710	.65	0.740	.690	.64	0.720	.670	.63	0.61				
4	0.860	.740	.650	.58	0.840	.730	.640	.58	0.820	.710	.640	.57	0.690	.620	.57	0.670	.610	.56	0.640	.590	.55	0.53				
5	0.800	.660	.570	.50	0.770	.650	.560	.50	0.750	.640	.550	.49	0.610	.540	.49	0.600	.530	.48	0.580	.520	.48	0.46				
6	0.730	.590	.500	.43	0.710	.580	.490	.43	0.690	.570	.490	.43	0.550	.480	.42	0.530	.470	.42	0.520	.460	.41	0.39				
7	0.670	.530	.440	.38	0.650	.520	.430	.37	0.640	.510	.430	.37	0.490	.420	.37	0.480	.410	.36	0.470	.410	.36	0.34				
8	0.620	.480	.390	.33	0.610	.470	.390	.33	0.590	.460	.380	.32	0.450	.370	.32	0.440	.370	.32	0.420	.360	.32	0.30				
9	0.570	.430	.350	.29	0.560	.430	.340	.29	0.550	.420	.340	.29	0.410	.340	.28	0.400	.330	.28	0.390	.330	.28	0.26				
10	0.530	.390	.310	.25	0.520	.390	.310	.25	0.510	.380	.310	.25	0.370	.300	.25	0.360	.300	.25	0.350	.290	.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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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.