



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  
**2400K-CC5050-60-reel**  
Project Number  
**10345709**  
Test Number  
**33091**

Test Date

2014-06-16

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

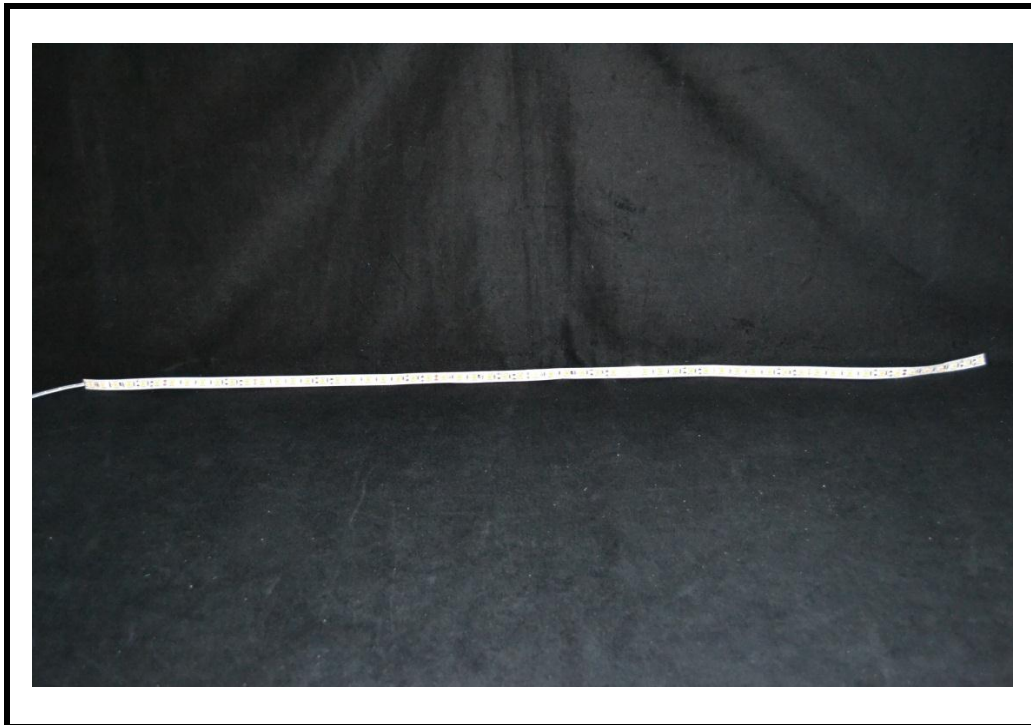
The results contained in this report pertain only to the tested sample.  
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Luminaire Description: LED Strip Light  
Catalog Number: 2400K-CC5050-60-reel  
Lamp: LED Array  
Ballast/Driver: One Mean Well SP-320-24 Driver

Luminaire



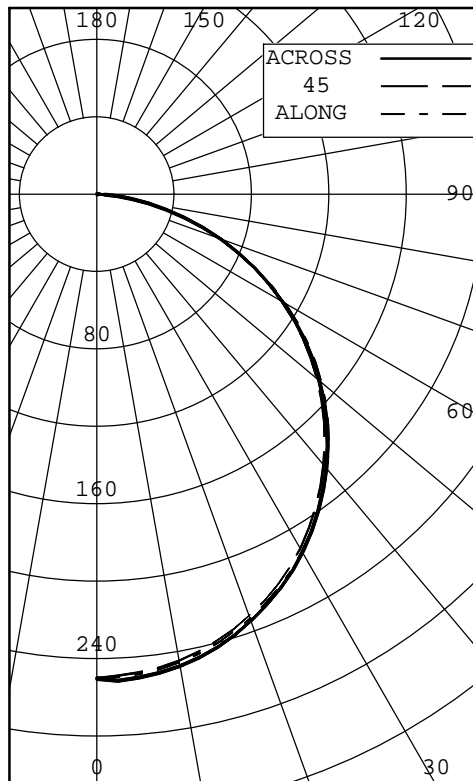
Test Conditions

Test Temperature: 24.8 °C  
Voltage: 24.0 VDC



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INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	250	250	250	250	250	
5	249	247	248	251	251	24
10	246	244	245	247	248	
15	240	238	239	242	242	68
20	233	231	231	234	234	
25	224	222	222	225	225	103
30	213	211	211	213	213	
35	200	198	197	200	200	124
40	185	183	182	185	185	
45	169	167	166	168	168	129
50	152	149	149	150	150	
55	133	130	130	131	131	117
60	112	110	110	111	111	
65	91	89	89	90	90	88
70	69	68	68	68	68	
75	47	46	46	47	47	50
80	27	27	27	27	27	
85	10	10	10	11	11	13
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	194	27.21
0-40	318	44.57
0-60	564	78.93
0-90	714	100.00
40-90	396	55.43
60-90	151	21.07
90-180	0	0.00
0-180	714	100.00

\*\*\* THIS IS AN ABSOLUTE TEST \*\*\*

LUMINOUS LENGTH: 39.370 INS  
 WIDTH: 0.375 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3  
 SC: 1.3

ANGLE	ALONG	45	ACROSS
45	25092	24763	25068
55	24270	23876	24097
65	22606	22262	22405
75	19105	18864	19137
85	12407	12560	12878

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA  
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0.0	250	250	250	250	250	250	
2.5	250	248	249	252	252	250	
5.0	249	247	248	251	251	249	24
7.5	248	246	247	249	250	248	
10.0	246	244	245	247	248	246	
12.5	243	241	242	245	245	243	
15.0	240	238	239	242	242	240	68
17.5	237	235	236	238	239	237	
20.0	233	231	231	234	234	233	
22.5	229	227	227	230	230	228	
25.0	224	222	222	225	225	223	103
27.5	219	217	217	219	219	218	
30.0	213	211	211	213	213	212	
32.5	206	204	204	207	207	205	
35.0	200	198	197	200	200	199	124
37.5	193	191	190	192	192	191	
40.0	185	183	182	185	185	184	
42.5	177	175	175	177	177	176	
45.0	169	167	166	168	168	167	129
47.5	161	158	158	159	159	159	
50.0	152	149	149	150	150	150	
52.5	142	140	140	141	141	140	
55.0	133	130	130	131	131	131	117
57.5	123	120	120	121	121	121	
60.0	112	110	110	111	111	110	
62.5	102	99	100	100	100	100	
65.0	91	89	89	90	90	90	88
67.5	80	78	79	79	79	79	
70.0	69	68	68	68	68	68	
72.5	58	57	57	58	58	57	
75.0	47	46	46	47	47	47	50
77.5	36	36	36	37	37	36	
80.0	27	27	27	27	27	27	
82.5	18	18	18	18	18	18	
85.0	10	10	10	11	11	10	13
87.5	4	5	5	5	5	5	
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	
	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	.030	.99	1.101	.051	.010	.98	1.071	.030	.990	.96	0.990	.960	.93	0.950	.920	.90	0.910	.890	.87	0.85				
2	1.030	.950	.880	.82	1.000	.930	.870	.81	0.980	.910	.850	.80	0.870	.830	.78	0.840	.800	.77	0.810	.780	.75	0.73				
3	0.940	.830	.750	.69	0.920	.820	.740	.68	0.900	.800	.730	.68	0.780	.720	.67	0.750	.700	.65	0.720	.680	.64	0.62				
4	0.870	.750	.660	.59	0.850	.740	.650	.59	0.830	.720	.650	.58	0.700	.630	.58	0.670	.620	.57	0.650	.600	.56	0.54				
5	0.800	.670	.580	.51	0.780	.660	.570	.51	0.760	.650	.560	.50	0.620	.550	.50	0.600	.540	.49	0.590	.530	.49	0.47				
6	0.740	.600	.510	.44	0.720	.590	.500	.44	0.700	.580	.500	.44	0.560	.490	.43	0.540	.480	.43	0.530	.470	.42	0.41				
7	0.670	.530	.440	.39	0.660	.530	.440	.38	0.640	.520	.440	.38	0.500	.430	.38	0.490	.420	.37	0.480	.420	.37	0.35				
8	0.630	.480	.400	.34	0.610	.480	.390	.34	0.600	.470	.390	.33	0.460	.380	.33	0.440	.380	.33	0.430	.370	.33	0.31				
9	0.580	.440	.350	.30	0.570	.430	.350	.30	0.550	.430	.350	.30	0.420	.340	.29	0.400	.340	.29	0.390	.330	.29	0.27				
10	0.540	.400	.310	.26	0.530	.400	.310	.26	0.510	.390	.310	.26	0.380	.310	.26	0.370	.300	.26	0.360	.300	.26	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  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ , 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.