



UL Verification Services

7036 Snowdrift Road Suite 200
Allentown, PA 18106
610-774-1300



Photometric Indoor Test Report

Relevant Standards

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

Prepared For
TC Millwork
Leo Couchara
3433 Marshall LN
PO Box 826
Bensalem, PA 19020

Catalog Number
LED Strip
Project Number
10011087
Test Number
182667

Test Date

2013-05-07

Prepared By

Handwritten signature of Kyle Spaziani in black ink.

Kyle Spaziani, Project Coordinator

Approved By

Handwritten signature of Zachary Mooney in black ink.

Zachary Mooney, Project Coordinator

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed aluminum heatsink with LED strip
Catalog Number: LED Strip
Lamp: 12 white LEDs
Mounting: Surface

Luminaire

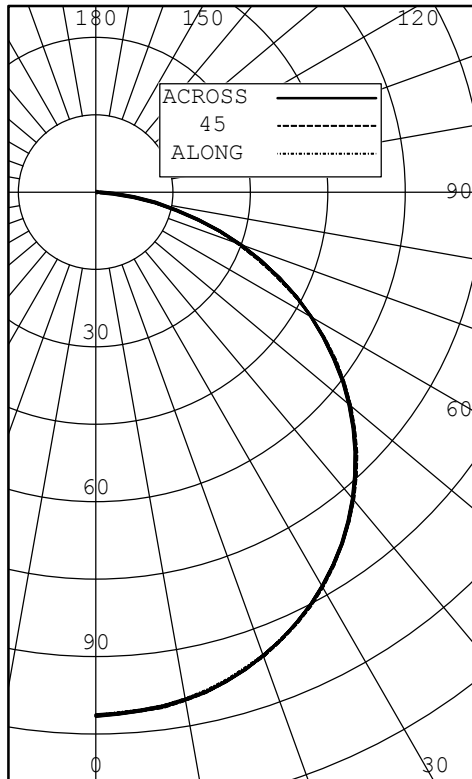


Test Conditions

Test Temperature: 25.0 °C
Voltage: 24.00 VDC
Current: 0.1735 A
Power: 4.170 W



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	101	101	101	101	101	
5	101	101	101	101	101	10
10	100	100	100	100	100	
15	98	98	98	99	98	28
20	95	96	96	96	95	
25	92	92	92	93	92	43
30	88	88	88	89	88	
35	83	83	83	84	83	52
40	77	78	78	78	78	
45	71	71	72	72	71	55
50	64	65	65	65	64	
55	57	57	57	56	56	50
60	48	49	48	47	48	
65	39	40	38	38	39	38
70	30	30	29	29	30	
75	20	20	20	20	21	21
80	11	11	11	11	12	
85	4	4	4	4	4	5
90	1	1	1	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	80	26.46
0-40	132	43.69
0-60	238	78.57
0-90	302	100.00
40-90	170	56.31
60-90	65	21.43
90-180	0	0.00
0-180	302	100.00

EFFICACY (LUMENS PER WATT): 72.0

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 0.630 INS
 WIDTH: 9.250 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3
 SC: 1.3

ANGLE	ALONG	45	ACROSS
45	26782	27016	26846
55	26246	26463	26253
65	24796	24189	24828
75	20553	20732	21302
85	13428	12544	10722

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	101	101	101	101	101	101	
2.5	101	101	101	102	101	101	
5.0	101	101	101	101	101	101	10
7.5	100	101	101	101	101	101	
10.0	100	100	100	100	100	100	
12.5	99	99	99	100	99	99	
15.0	98	98	98	99	98	98	28
17.5	97	97	97	97	97	97	
20.0	95	96	96	96	95	96	
22.5	94	94	94	94	94	94	
25.0	92	92	92	93	92	92	43
27.5	90	90	90	91	90	90	
30.0	88	88	88	89	88	88	
32.5	86	86	86	86	86	86	
35.0	83	83	83	84	83	83	52
37.5	80	81	81	81	80	81	
40.0	77	78	78	78	78	78	
42.5	74	75	75	75	74	75	
45.0	71	71	72	72	71	71	55
47.5	68	68	68	68	68	68	
50.0	64	65	65	65	64	65	
52.5	61	61	61	61	60	61	
55.0	57	57	57	56	56	57	50
57.5	53	53	53	51	52	52	
60.0	48	49	48	47	48	48	
62.5	44	44	43	42	44	43	
65.0	39	40	38	38	39	39	38
67.5	35	35	34	34	35	34	
70.0	30	30	29	29	30	30	
72.5	25	25	25	24	25	25	
75.0	20	20	20	20	21	20	21
77.5	16	15	15	16	16	16	
80.0	11	11	11	11	12	11	
82.5	8	7	7	8	8	7	
85.0	4	4	4	4	4	4	5
87.5	2	2	2	1	1	2	
90.0	1	1	1	0	0	0	



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	.061	.06	1.021	.021	.021	.02	1.00
	1	1.121	.071	.030	.99	1.091	.051	.010	.97	1.071	.030	.990	.96	0.980	.950	.93	0.950	.920	.90	0.910	.890	.87	0.85			
	2	1.030	.950	.880	.82	1.000	.930	.860	.81	0.980	.910	.850	.80	0.870	.820	.78	0.840	.800	.76	0.810	.780	.75	0.73			
	3	0.940	.830	.750	.69	0.920	.820	.740	.68	0.890	.800	.730	.67	0.770	.710	.66	0.750	.700	.65	0.720	.680	.64	0.62			
	4	0.870	.740	.650	.59	0.850	.730	.650	.59	0.820	.720	.640	.58	0.690	.630	.57	0.670	.610	.57	0.650	.600	.56	0.54			
	5	0.800	.670	.570	.50	0.780	.650	.570	.50	0.750	.640	.560	.50	0.620	.550	.49	0.600	.540	.49	0.580	.530	.48	0.46			
	6	0.740	.590	.500	.44	0.720	.580	.500	.44	0.700	.570	.490	.43	0.560	.480	.43	0.540	.470	.43	0.530	.470	.42	0.40			
	7	0.670	.530	.440	.38	0.660	.520	.440	.38	0.640	.510	.430	.37	0.500	.420	.37	0.480	.420	.37	0.470	.410	.36	0.35			
	8	0.620	.480	.390	.33	0.610	.470	.390	.33	0.590	.470	.390	.33	0.450	.380	.33	0.440	.370	.33	0.430	.370	.32	0.30			
	9	0.580	.440	.350	.29	0.560	.430	.350	.29	0.550	.420	.350	.29	0.410	.340	.29	0.400	.330	.29	0.390	.330	.28	0.27			
	10	0.530	.400	.310	.26	0.520	.390	.310	.26	0.510	.390	.310	.26	0.380	.300	.26	0.370	.300	.25	0.360	.300	.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.