LTL LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING MEMBER of the IESNA

905 Harrison Street · Allentown, PA 18103 · 610-770-1044 · Fax 610-770-8912 · www.LuminaireTesting.com

Photometric Indoor Test Report

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

Prepared For
Maxlite SK America, Inc.
Ken Charton
12 York Avenue
West Caldwell, NJ 07006

Catalog Number
MLSDLBL1250LED

LTL Test Number
26667

Test Date

2011-12-13

Prepared By

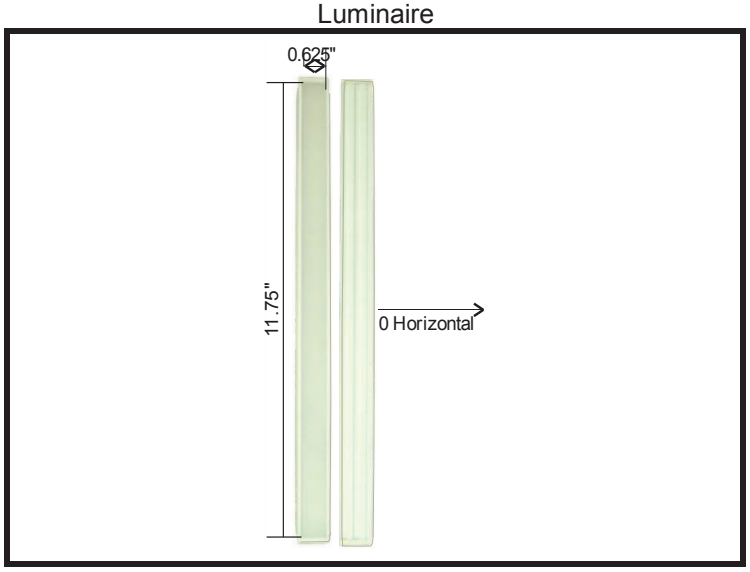
Kyle Spaziani, Technician III

Approved By

Brian Moyer, Engineer

Luminaire Description: Extruded aluminum housing, translucent white plastic enclosure
Catalog Number: MLSDLBL1250LED
Lamp: 12 white LEDs
Mounting: Surface

Luminaire



Zonal Lumen Summary

Zone (Degrees)	Lumens	% of Lamp	% of Luminaire
0-30	59.5	N/A	29.0%
0-40	95.9	N/A	46.7%
0-60	164.8	N/A	80.2%
0-90	205.4	N/A	100.0%
90-180	0	N/A	0%
0-180	205.5	N/A	100.0%

Test Conditions

Test Temperature:	26.0	°C
Voltage:	120.0	VAC
Current:	0.06031	A
Power:	3.592	W
Power Factor:	0.496	
Frequency:	60	Hz
Current THD:	151	%

Summary of Results

Total Lumen Output: 205.5 Lumens
Luminaire Efficacy: 57.2 Lumens/Watt
CIE Type: Direct

Spacing Criterion: 0 Degree: 1.20 90 Degree: 1.21
180 Degree: 1.20 270 Degree: 1.21

Data was acquired using the calibrated photodetector method of absolute photometry. A spectral mismatch correction factor was employed based on the spectral responsivity of the photodetector and the spectral power distribution of the test subject.

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Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19	78.19
5	77.93	77.96	77.71	77.81	78.09	77.81	77.71	77.96	77.93	77.96	77.71	77.81	78.09	77.81	77.71	77.96
10	76.53	76.56	76.38	76.59	76.87	76.59	76.38	76.56	76.53	76.56	76.38	76.59	76.87	76.59	76.38	76.56
15	74.33	74.37	74.20	74.35	74.65	74.35	74.20	74.37	74.33	74.37	74.20	74.35	74.65	74.35	74.20	74.37
20	71.28	71.35	71.22	71.43	71.72	71.43	71.22	71.35	71.28	71.35	71.22	71.43	71.72	71.43	71.22	71.35
25	67.50	67.63	67.54	67.78	68.01	67.78	67.54	67.63	67.50	67.63	67.54	67.78	68.01	67.78	67.54	67.63
30	63.11	63.18	63.05	63.22	63.43	63.22	63.05	63.18	63.11	63.18	63.05	63.22	63.43	63.22	63.05	63.18
35	58.11	58.23	58.13	58.31	58.44	58.31	58.13	58.23	58.11	58.23	58.13	58.31	58.44	58.31	58.13	58.23
40	52.91	53.00	52.90	53.03	53.12	53.03	52.90	53.00	52.91	53.00	52.90	53.03	53.12	53.03	52.90	53.00
45	47.41	47.53	47.36	47.47	47.59	47.47	47.36	47.53	47.41	47.53	47.36	47.47	47.59	47.47	47.36	47.53
50	41.74	41.83	41.73	41.80	41.79	41.80	41.73	41.83	41.74	41.83	41.73	41.80	41.79	41.80	41.73	41.83
55	36.03	36.16	35.99	36.04	36.01	36.04	35.99	36.16	36.03	36.16	35.99	36.04	36.01	36.04	35.99	36.16
60	30.22	30.27	30.14	30.06	30.01	30.06	30.14	30.27	30.22	30.27	30.14	30.06	30.01	30.06	30.14	30.27
65	24.42	24.40	24.29	24.18	24.03	24.18	24.29	24.40	24.42	24.40	24.29	24.18	24.03	24.18	24.29	24.40
70	18.68	18.66	18.53	18.36	18.23	18.36	18.53	18.66	18.68	18.66	18.53	18.36	18.23	18.36	18.53	18.66
75	12.91	12.82	12.70	12.50	12.32	12.50	12.70	12.82	12.91	12.82	12.70	12.50	12.32	12.50	12.70	12.82
80	7.44	7.46	7.37	7.18	7.01	7.18	7.37	7.46	7.44	7.46	7.37	7.18	7.01	7.18	7.37	7.46
85	2.79	2.73	2.66	2.52	2.32	2.52	2.66	2.73	2.79	2.73	2.66	2.52	2.32	2.52	2.66	2.73
90	0.24	0.23	0.20	0.15	0.10	0.15	0.20	0.23	0.24	0.23	0.20	0.15	0.10	0.15	0.20	0.23
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Zonal Lumen Tabulation (5 degree zones)

Zone (Degrees)	Lumens	Zone (Degrees)	Lumens	Zone (Degrees)	Lumens	Zone (Degrees)	Lumens
0-5	1.87	45-50	18.00	90-95	0.03	135-140	0
5-10	5.53	50-55	16.93	95-100	0	140-145	0
10-15	8.95	55-60	15.28	100-105	0	145-150	0
15-20	12.01	60-65	13.22	105-110	0	150-155	0
20-25	14.59	65-70	10.83	110-115	0	155-160	0
25-30	16.57	70-75	8.12	115-120	0	160-165	0
30-35	17.86	75-80	5.28	120-125	0	165-170	0
35-40	18.56	80-85	2.63	125-130	0	170-175	0
40-45	18.60	85-90	0.60	130-135	0	175-180	0

Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%												
Ceiling Cavity Reflectance	90				80				70			
Wall Reflectance	70	50	30	10	70	50	30	10	70	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **											
0	250.6	250.6	250.6	250.6	244.6	244.6	244.6	244.6	238.9	238.9	238.9	238.9
1	229.9	219.2	209.8	201.4	224.0	214.4	205.8	198.0	218.4	209.7	201.9	194.8
2	209.7	191.4	176.4	163.9	204.0	187.3	173.5	161.9	198.6	183.5	170.8	160.0
3	191.6	168.2	150.4	136.4	186.2	164.9	148.3	135.1	181.2	161.6	146.3	133.9
4	175.7	149.2	130.1	115.7	170.7	146.3	128.5	114.9	166.0	143.6	127.0	114.1
5	161.7	133.4	113.9	99.8	157.2	131.0	112.7	99.2	152.8	128.7	111.5	98.7
6	149.4	120.1	100.9	87.3	145.3	118.1	99.9	86.9	141.3	116.2	99.0	86.5
7	138.6	109.0	90.2	77.2	134.8	107.3	89.4	76.9	131.2	105.6	88.6	76.6
8	129.0	99.5	81.3	69.0	125.6	98.0	80.7	68.7	122.4	96.6	80.0	68.5
9	120.5	91.3	73.8	62.2	117.4	90.1	73.3	62.0	114.5	88.8	72.8	61.8
10	112.9	84.3	67.5	56.4	110.2	83.2	67.0	56.3	107.5	82.1	66.6	56.2

Ceiling Cavity Reflectance	50				30			10			0
Wall Reflectance	70	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **										
0	228.3	228.3	228.3	228.3	218.6	218.6	218.6	209.6	209.6	209.6	205.4
1	208.0	201.0	194.5	188.6	193.0	187.7	182.8	185.6	181.3	177.4	173.1
2	188.7	176.2	165.5	156.3	169.4	160.5	152.7	163.2	155.9	149.3	144.9
3	171.8	155.5	142.4	131.5	149.8	138.6	129.2	144.6	135.1	127.0	122.5
4	157.4	138.5	124.0	112.5	133.7	121.1	110.9	129.2	118.4	109.5	105.0
5	144.9	124.3	109.2	97.6	120.3	107.0	96.5	116.5	104.8	95.5	91.1
6	134.1	112.5	97.1	85.7	109.0	95.4	84.9	105.8	93.7	84.2	80.0
7	124.7	102.4	87.2	76.0	99.5	85.7	75.5	96.7	84.3	74.9	70.9
8	116.4	93.9	78.8	68.1	91.3	77.6	67.7	88.9	76.5	67.3	63.4
9	109.1	86.5	71.8	61.5	84.3	70.8	61.2	82.2	69.9	60.8	57.1
10	102.7	80.1	65.8	55.9	78.2	65.0	55.7	76.3	64.2	55.4	51.8

Average Luminance Table (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degree)	0	45	90
0	16500	16500	16500
45	14150	14140	14210
55	13260	13240	13250
65	12200	12130	12000
75	10530	10360	10050
85	6754	6440	5615

This test was conduted using photometry techniques according to standard IES procedures. The user must therefore use caution in the following situations: 1) This test was performed using a specific ballast/lamp combination. Extrapolation of this data for other ballast/lamp combinations may produce erroneous results. 2) This test was conducted in a controlled laboratory environment where the ambient temperature was held at $25^0C \pm 1^0C$. Field performance may differ particularly in regards to change in luminous output as a result of difference in ambient temperature and method of mounting the luminaire.

Polar Plot (Candela)