

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **4ILED-LD5-9-W-ASY-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34179)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4ILED-LD5-9-W-ASY-UNV-L840-CD1-U
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

Light Source: (1) 4000 CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

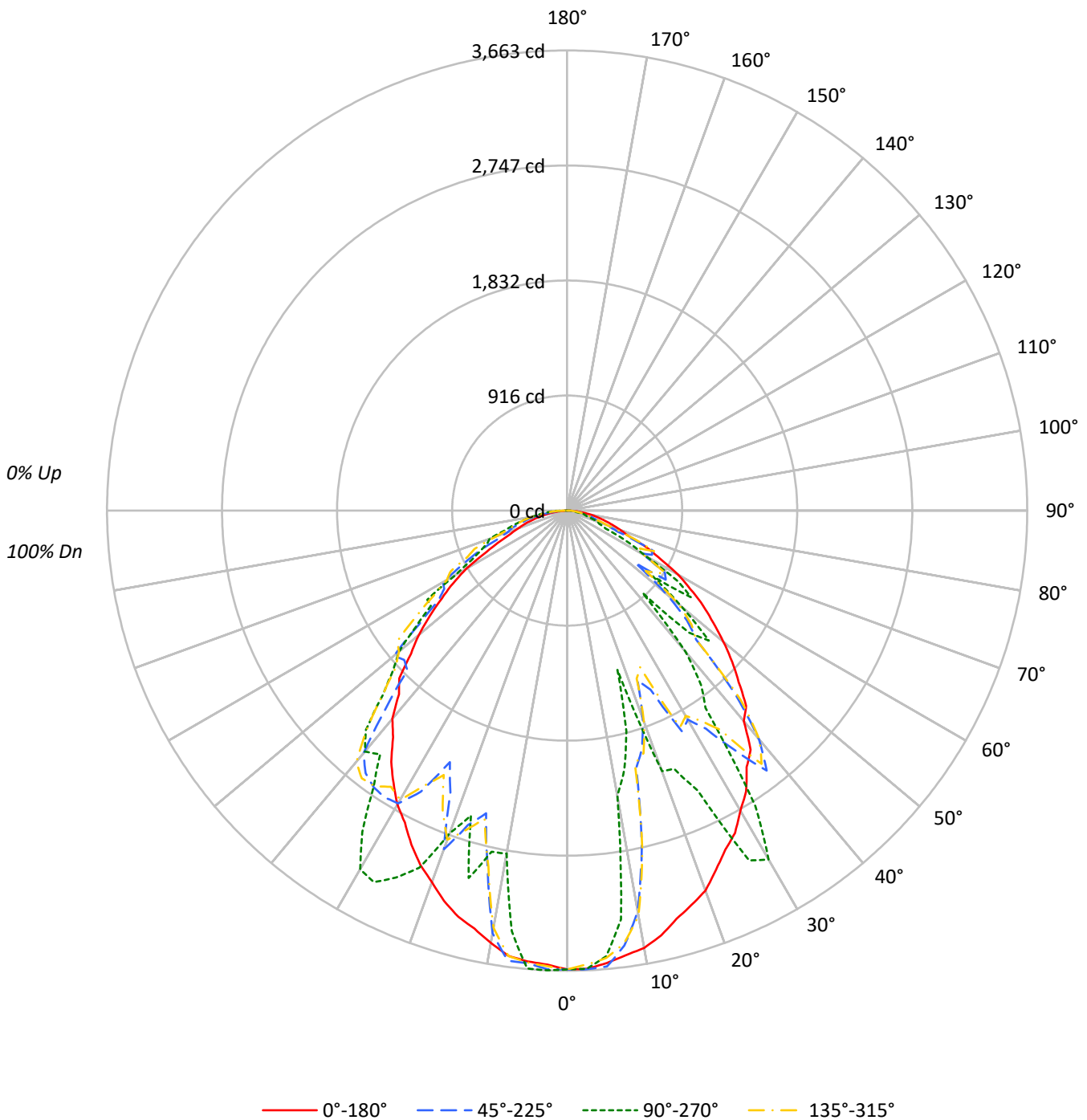
Lumens per Lamp: N/A
Luminaire Lumens: 7192.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 65.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73					73			
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10721	10721	10721	10721
5°	10632	10395	10592	10678
10°	10488	6743	10373	8111
15°	10158	5372	10105	8943
20°	9966	6633	9742	8206
25°	9537	7578	9390	9933
30°	9214	10226	9031	10507
35°	8778	6388	8598	8940
40°	8206	5142	8122	8794
45°	7822	5142	7650	7769
50°	7196	4788	6843	7061
55°	6536	5328	6020	5862
60°	5735	3502	5210	5063
65°	4635	1905	4020	4280
70°	3617	1668	3338	4330
75°	3202	1233	2931	3531
80°	2874	857	2413	2885
85°	2413	634	1564	2368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.3	4.6
10°-20°	771.8	10.7
20°-30°	1148.9	16.0
30°-40°	1448.9	20.1
40°-50°	1312.3	18.2
50°-60°	1091.1	15.2
60°-70°	659.2	9.2
70°-80°	326.9	4.5
80°-90°	100.6	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2253.0	31.3
0°-40°	3702.0	51.5
0°-60°	6105.3	84.9
0°-90°	7192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7192.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3652	3652	3652	3652	3652	
5°	3616	3561	3602	3658	3616	342
15°	3365	1819	3347	3029	3365	952
25°	2979	2459	2933	3223	2979	1377
35°	2492	1919	2441	2685	2492	1566
45°	1931	1374	1889	2076	1931	1490
55°	1323	1203	1218	1324	1323	1177
65°	703	338	610	760	703	691
75°	309	153	282	438	309	331
85°	92	42	60	158	92	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3652.0	3652.0	3652.0	3652.0	3652.0	3652.0	3652.0	3652.0	3652.0	3652.0	3652.0
2.5°	3650.8	3671.9	3654.5	3650.8	3649.5	3653.3	3615.9	3604.7	3617.2	3654.5	3653.3
5°	3615.9	3647.0	3642.1	3589.8	3561.2	3592.3	3574.9	3577.4	3602.2	3628.4	3615.9
7.5°	3569.9	3608.5	3491.5	3343.4	3282.5	3359.6	3474.1	3563.7	3574.9	3617.2	3614.7
10°	3533.8	3568.6	3237.7	2733.7	2305.7	2644.1	3272.5	3491.5	3495.2	3553.7	3416.8
12.5°	3462.9	3413.1	2748.7	2142.7	2106.6	2163.8	2767.3	3331.0	3409.4	3449.2	2921.6
15°	3364.6	3216.5	2122.8	1872.7	1819.2	1880.1	2085.4	3191.6	3347.2	3384.5	2494.8
17.5°	3291.2	3011.2	1982.2	1658.6	1330.2	1582.7	2024.5	3073.4	3257.6	3197.8	2625.5
20°	3219.0	2804.6	1760.7	1804.2	2207.4	1795.5	1788.1	2844.5	3146.8	2791.0	2869.4
22.5°	3094.6	2362.9	1459.6	2151.4	2224.8	2130.2	1448.4	2442.6	3053.5	2519.7	2427.6
25°	2978.8	1958.5	1572.8	2233.5	2458.7	2202.4	1373.7	1936.1	2932.8	2253.4	2208.6
27.5°	2893.0	1847.8	1979.7	2568.2	3139.4	2391.5	1944.8	1788.1	2798.4	2131.5	2523.4
30°	2757.4	1693.5	1921.2	3135.6	3206.6	3079.6	1887.6	1719.6	2702.6	2255.9	2691.4
32.5°	2650.4	1504.4	2059.3	2957.7	2789.7	2942.8	1982.2	1603.9	2572.0	2374.1	2705.1
35°	2492.3	1426.0	2330.6	2586.9	1918.7	2504.8	2132.7	1473.2	2441.3	2193.7	2686.4
37.5°	2399.0	1173.4	2609.3	1754.5	1753.2	1756.9	2542.1	1299.0	2274.6	1862.7	2635.4
40°	2186.2	1269.2	2376.6	1603.9	1464.5	1637.5	2382.8	1060.1	2163.8	1646.2	2520.9
42.5°	2109.1	1424.7	1978.4	1317.7	888.4	1398.6	2049.4	1343.8	1982.2	1719.6	2138.9
45°	1931.2	1387.4	1454.6	833.7	1373.7	889.7	1448.4	1328.9	1888.8	1812.9	1798.0
47.5°	1781.8	1301.5	1295.3	1280.4	1530.5	1243.1	1342.6	1248.0	1686.0	1763.2	1759.4
50°	1622.6	1346.3	1032.8	1346.3	1184.6	1365.0	1148.5	1174.6	1542.9	1653.7	1796.8
52.5°	1464.5	1408.5	678.1	1006.6	858.6	1041.5	788.9	1159.7	1378.7	1554.1	1484.4
55°	1322.7	1399.8	958.1	864.8	1203.2	823.7	864.8	1285.4	1218.2	1398.6	1250.5
57.5°	1163.4	1182.1	922.0	1055.2	1041.5	1107.4	927.0	1139.8	1076.3	1244.3	1160.9
60°	1019.1	879.7	678.1	825.0	709.2	917.0	690.6	939.4	925.8	978.0	1139.8
62.5°	834.9	711.7	761.5	603.5	556.2	594.8	653.3	680.6	740.4	828.7	945.7
65°	703.0	562.4	750.3	384.5	338.4	450.4	764.0	601.0	609.7	750.3	787.6
67.5°	526.3	414.4	430.5	308.6	278.7	302.4	537.5	465.4	489.0	555.0	607.2
70°	450.4	368.3	312.3	253.8	252.6	255.1	337.2	347.2	415.6	467.9	502.7
72.5°	375.8	303.6	248.9	209.0	189.1	230.2	246.4	286.2	352.1	556.2	459.1
75°	308.6	350.9	201.6	171.7	153.0	168.0	197.8	260.1	282.5	345.9	375.8
77.5°	248.9	204.1	158.0	143.1	136.9	148.1	153.0	271.3	221.5	267.5	317.3
80°	194.1	151.8	123.2	95.8	82.1	93.3	121.9	138.1	163.0	199.1	236.4
82.5°	139.4	115.7	85.9	69.7	59.7	68.4	80.9	97.1	110.7	136.9	165.5
85°	92.1	75.9	61.0	49.8	42.3	48.5	54.7	61.0	59.7	82.1	105.8
87.5°	46.0	41.1	41.1	36.1	29.9	33.6	37.3	32.4	17.4	36.1	64.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3652.0	3652.0	3652.0	3652.0	3652.0	3652.0
2.5°	3653.3	3663.2	3660.7	3629.6	3632.1	3650.8
5°	3627.1	3658.2	3650.8	3611.0	3608.5	3615.9
7.5°	3501.5	3377.0	3559.9	3576.1	3562.4	3569.9
10°	2856.9	2773.5	2985.1	3373.3	3535.1	3533.8
12.5°	2564.5	2781.0	2606.8	2900.5	3457.9	3462.9
15°	2924.1	3028.6	2965.2	2538.4	3370.8	3364.6
17.5°	2737.5	2545.8	2762.3	2662.8	3260.1	3291.2
20°	2441.3	2731.2	2469.9	2787.2	2871.8	3219.0
22.5°	2962.7	3077.1	2847.0	2586.9	2599.3	3094.6
25°	3036.1	3222.7	2978.8	2323.1	2367.9	2978.8
27.5°	3121.9	3334.7	3103.3	2468.7	2228.5	2893.0
30°	3158.0	3294.9	3215.3	2657.8	2272.1	2757.4
32.5°	3088.3	3033.6	3159.3	2608.0	2242.2	2650.4
35°	2726.3	2685.2	2876.8	2676.5	2214.9	2492.3
37.5°	2313.2	2445.0	2525.9	2686.4	2020.7	2399.0
40°	2278.3	2504.8	2333.1	2608.0	1850.3	2186.2
42.5°	2331.8	2370.4	2285.8	2360.4	1709.7	2109.1
45°	2074.2	2075.5	2212.4	2078.0	1724.6	1931.2
47.5°	1805.5	1875.2	1938.6	1851.5	1712.2	1781.8
50°	1585.2	1747.0	1738.3	1748.2	1595.2	1622.6
52.5°	1585.2	1518.0	1535.5	1701.0	1521.8	1464.5
55°	1348.8	1323.9	1437.2	1464.5	1462.1	1322.7
57.5°	1197.0	1320.2	1236.8	1260.5	1314.0	1163.4
60°	1062.6	1025.3	1184.6	1104.9	1164.7	1019.1
62.5°	829.9	862.3	918.3	1044.0	973.0	834.9
65°	710.5	760.3	795.1	873.5	787.6	703.0
67.5°	669.4	690.6	680.6	800.1	676.9	526.3
70°	588.6	655.7	611.0	599.8	558.7	450.4
72.5°	490.3	511.4	558.7	477.8	431.8	375.8
75°	418.1	438.0	441.7	413.1	424.3	308.6
77.5°	332.2	353.4	350.9	352.1	350.9	248.9
80°	261.3	276.2	276.2	270.0	236.4	194.1
82.5°	196.6	211.5	215.3	195.4	175.4	139.4
85°	140.6	158.0	156.8	139.4	115.7	92.1
87.5°	90.8	110.7	113.2	89.6	68.4	46.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)