

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-LD5-7-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-LD5-7-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

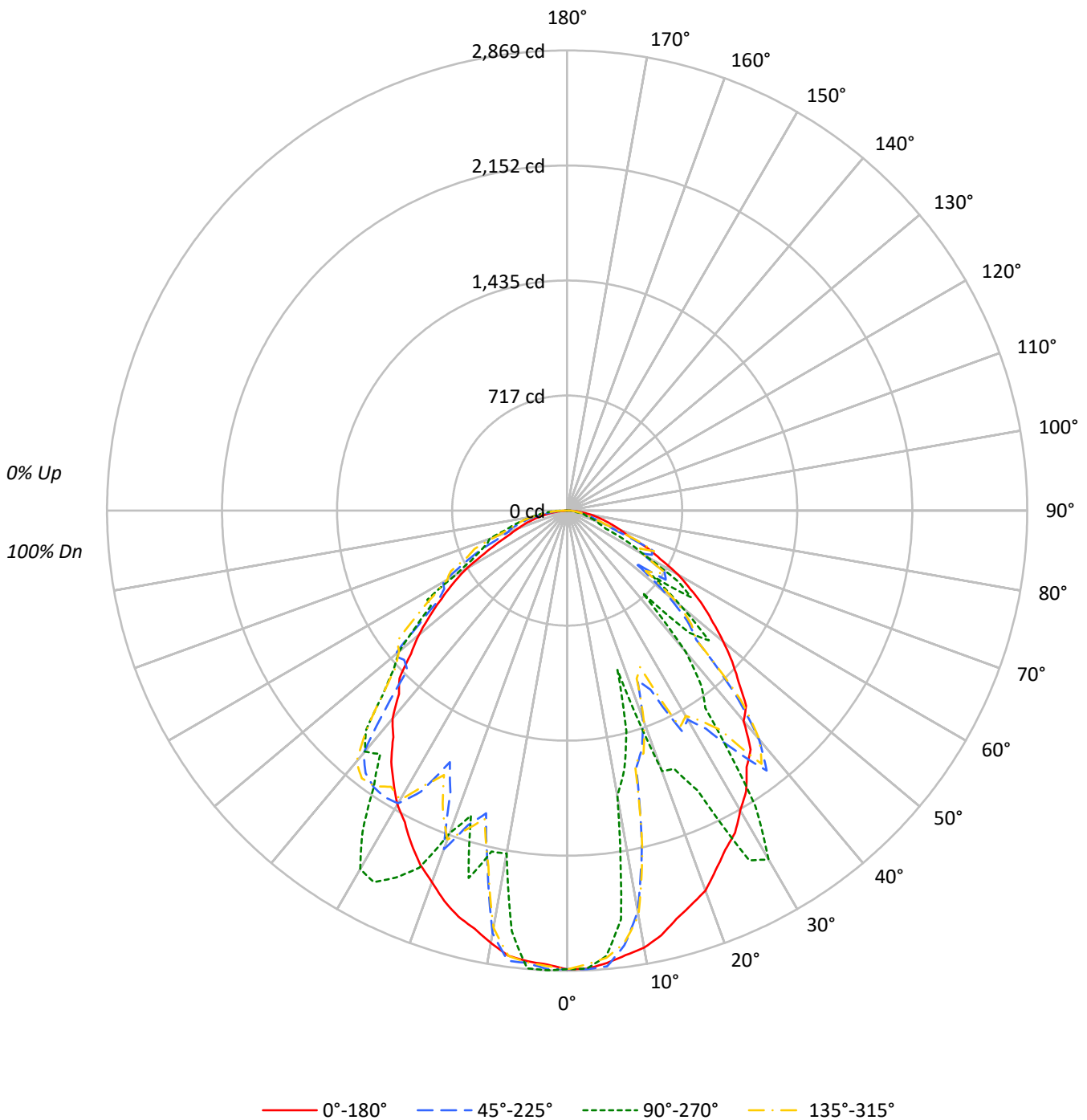
Lumens per Lamp: N/A
Luminaire Lumens: 5632.0 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 50.4
Input Voltage (V):
Input Current (A_{in}): 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°	8396	8396	8396	8396
5°	8326	8140	8295	8362
10°	8213	5281	8123	6352
15°	7954	4207	7913	7003
20°	7804	5194	7629	6426
25°	7469	5935	7353	7779
30°	7215	8007	7072	8228
35°	6874	5002	6733	7001
40°	6426	4027	6360	6886
45°	6125	4027	5991	6084
50°	5635	3749	5359	5529
55°	5119	4172	4714	4591
60°	4491	2743	4080	3965
65°	3629	1492	3148	3352
70°	2833	1306	2613	3391
75°	2507	966	2295	2765
80°	2251	672	1889	2259
85°	1889	496	1226	1854



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.3	4.6
10°-20°	604.4	10.7
20°-30°	899.7	16.0
30°-40°	1134.6	20.1
40°-50°	1027.6	18.2
50°-60°	854.4	15.2
60°-70°	516.2	9.2
70°-80°	256.0	4.5
80°-90°	78.8	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°	1764.3	31.3
0°-40°	2899.0	51.5
0°-60°	4781.0	84.9
0°-90°	5632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5632.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2860	2860	2860	2860	2860	
5°	2832	2789	2821	2865	2832	268
15°	2635	1425	2621	2372	2635	745
25°	2333	1925	2297	2524	2333	1079
35°	1952	1502	1912	2103	1952	1226
45°	1512	1076	1479	1625	1512	1166
55°	1036	942	954	1037	1036	922
65°	550	265	478	595	550	541
75°	242	120	221	343	242	259
85°	72	33	47	124	72	80
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°	2859.9	2859.9	2859.9	2859.9	2859.9	2859.9	2859.9	2859.9	2859.9	2859.9	2859.9
2.5°	2858.9	2875.5	2861.8	2858.9	2857.9	2860.8	2831.6	2822.8	2832.6	2861.8	2860.8
5°	2831.6	2856.0	2852.1	2811.1	2788.7	2813.1	2799.5	2801.4	2820.9	2841.4	2831.6
7.5°	2795.6	2825.8	2734.2	2618.2	2570.5	2630.9	2720.5	2790.7	2799.5	2832.6	2830.6
10°	2767.3	2794.6	2535.4	2140.8	1805.6	2070.6	2562.7	2734.2	2737.1	2782.9	2675.7
12.5°	2711.8	2672.8	2152.5	1677.9	1649.7	1694.5	2167.1	2608.5	2669.9	2701.0	2287.9
15°	2634.8	2518.8	1662.3	1466.5	1424.6	1472.3	1633.1	2499.3	2621.1	2650.4	1953.7
17.5°	2577.3	2358.0	1552.2	1298.9	1041.6	1239.4	1585.3	2406.8	2551.0	2504.2	2056.0
20°	2520.8	2196.3	1378.8	1412.9	1728.6	1406.1	1400.2	2227.5	2464.3	2185.6	2247.0
22.5°	2423.3	1850.4	1143.0	1684.7	1742.2	1668.2	1134.2	1912.7	2391.2	1973.2	1901.1
25°	2332.7	1533.7	1231.6	1749.0	1925.4	1724.7	1075.7	1516.2	2296.7	1764.6	1729.6
27.5°	2265.5	1447.0	1550.3	2011.2	2458.4	1872.8	1523.0	1400.2	2191.4	1669.1	1976.1
30°	2159.3	1326.2	1504.5	2455.5	2511.0	2411.6	1478.2	1346.6	2116.4	1766.6	2107.6
32.5°	2075.5	1178.1	1612.6	2316.1	2184.6	2304.5	1552.2	1256.0	2014.1	1859.2	2118.3
35°	1951.7	1116.7	1825.1	2025.8	1502.5	1961.5	1670.1	1153.7	1911.8	1717.9	2103.7
37.5°	1878.6	918.9	2043.3	1373.9	1372.9	1375.9	1990.7	1017.3	1781.2	1458.7	2063.8
40°	1712.0	993.9	1861.1	1256.0	1146.9	1282.3	1866.0	830.2	1694.5	1289.1	1974.1
42.5°	1651.6	1115.7	1549.3	1031.9	695.7	1095.2	1604.8	1052.4	1552.2	1346.6	1675.0
45°	1512.3	1086.5	1139.1	652.8	1075.7	696.7	1134.2	1040.7	1479.1	1419.7	1408.0
47.5°	1395.3	1019.2	1014.4	1002.7	1198.5	973.4	1051.4	977.3	1320.3	1380.7	1377.8
50°	1270.6	1054.3	808.8	1054.3	927.6	1068.9	899.4	919.8	1208.3	1295.0	1407.0
52.5°	1146.9	1103.0	531.0	788.3	672.3	815.6	617.8	908.1	1079.6	1217.0	1162.5
55°	1035.8	1096.2	750.3	677.2	942.2	645.1	677.2	1006.6	953.9	1095.2	979.3
57.5°	911.1	925.7	722.0	826.3	815.6	867.2	725.9	892.6	842.9	974.4	909.1
60°	798.0	688.9	531.0	646.0	555.4	718.1	540.8	735.7	725.0	765.9	892.6
62.5°	653.8	557.4	596.3	472.6	435.6	465.8	511.6	533.0	579.8	649.0	740.5
65°	550.5	440.4	587.6	301.1	265.0	352.7	598.3	470.6	477.5	587.6	616.8
67.5°	412.2	324.5	337.1	241.7	218.3	236.8	420.9	364.4	382.9	434.6	475.5
70°	352.7	288.4	244.6	198.8	197.8	199.8	264.1	271.9	325.4	366.4	393.7
72.5°	294.3	237.8	194.9	163.7	148.1	180.3	192.9	224.1	275.8	435.6	359.6
75°	241.7	274.8	157.9	134.5	119.9	131.5	154.9	203.6	221.2	270.9	294.3
77.5°	194.9	159.8	123.7	112.1	107.2	116.0	119.9	212.4	173.4	209.5	248.5
80°	152.0	118.9	96.5	75.0	64.3	73.1	95.5	108.2	127.6	155.9	185.1
82.5°	109.1	90.6	67.2	54.6	46.8	53.6	63.3	76.0	86.7	107.2	129.6
85°	72.1	59.4	47.7	39.0	33.1	38.0	42.9	47.7	46.8	64.3	82.8
87.5°	36.1	32.2	32.2	28.3	23.4	26.3	29.2	25.3	13.6	28.3	50.7
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°	2859.9	2859.9	2859.9	2859.9	2859.9	2859.9
2.5°	2860.8	2868.6	2866.7	2842.3	2844.3	2858.9
5°	2840.4	2864.7	2858.9	2827.7	2825.8	2831.6
7.5°	2742.0	2644.5	2787.8	2800.4	2789.7	2795.6
10°	2237.2	2171.9	2337.6	2641.6	2768.3	2767.3
12.5°	2008.2	2177.8	2041.4	2271.3	2707.9	2711.8
15°	2289.8	2371.7	2322.0	1987.8	2639.7	2634.8
17.5°	2143.7	1993.6	2163.2	2085.2	2552.9	2577.3
20°	1911.8	2138.8	1934.2	2182.7	2248.9	2520.8
22.5°	2320.0	2409.7	2229.4	2025.8	2035.5	2423.3
25°	2377.5	2523.7	2332.7	1819.2	1854.3	2332.7
27.5°	2444.8	2611.4	2430.2	1933.2	1745.2	2265.5
30°	2473.0	2580.2	2517.9	2081.3	1779.3	2159.3
32.5°	2418.5	2375.6	2474.0	2042.3	1755.9	2075.5
35°	2134.9	2102.8	2252.8	2095.9	1734.4	1951.7
37.5°	1811.4	1914.7	1978.0	2103.7	1582.4	1878.6
40°	1784.1	1961.5	1827.0	2042.3	1448.9	1712.0
42.5°	1826.0	1856.2	1790.0	1848.4	1338.8	1651.6
45°	1624.3	1625.3	1732.5	1627.2	1350.5	1512.3
47.5°	1413.9	1468.4	1518.1	1449.9	1340.8	1395.3
50°	1241.4	1368.1	1361.2	1369.0	1249.2	1270.6
52.5°	1241.4	1188.8	1202.4	1332.0	1191.7	1146.9
55°	1056.3	1036.8	1125.4	1146.9	1144.9	1035.8
57.5°	937.4	1033.8	968.6	987.1	1029.0	911.1
60°	832.1	802.9	927.6	865.3	912.0	798.0
62.5°	649.9	675.3	719.1	817.5	762.0	653.8
65°	556.4	595.4	622.6	684.0	616.8	550.5
67.5°	524.2	540.8	533.0	626.5	530.1	412.2
70°	460.9	513.5	478.4	469.7	437.5	352.7
72.5°	383.9	400.5	437.5	374.2	338.1	294.3
75°	327.4	343.0	345.9	323.5	332.3	241.7
77.5°	260.2	276.7	274.8	275.8	274.8	194.9
80°	204.6	216.3	216.3	211.4	185.1	152.0
82.5°	154.0	165.6	168.6	153.0	137.4	109.1
85°	110.1	123.7	122.8	109.1	90.6	72.1
87.5°	71.1	86.7	88.7	70.2	53.6	36.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)