

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-L850-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-L850-CD1-U  
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

Light Source: (1) 5000 CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

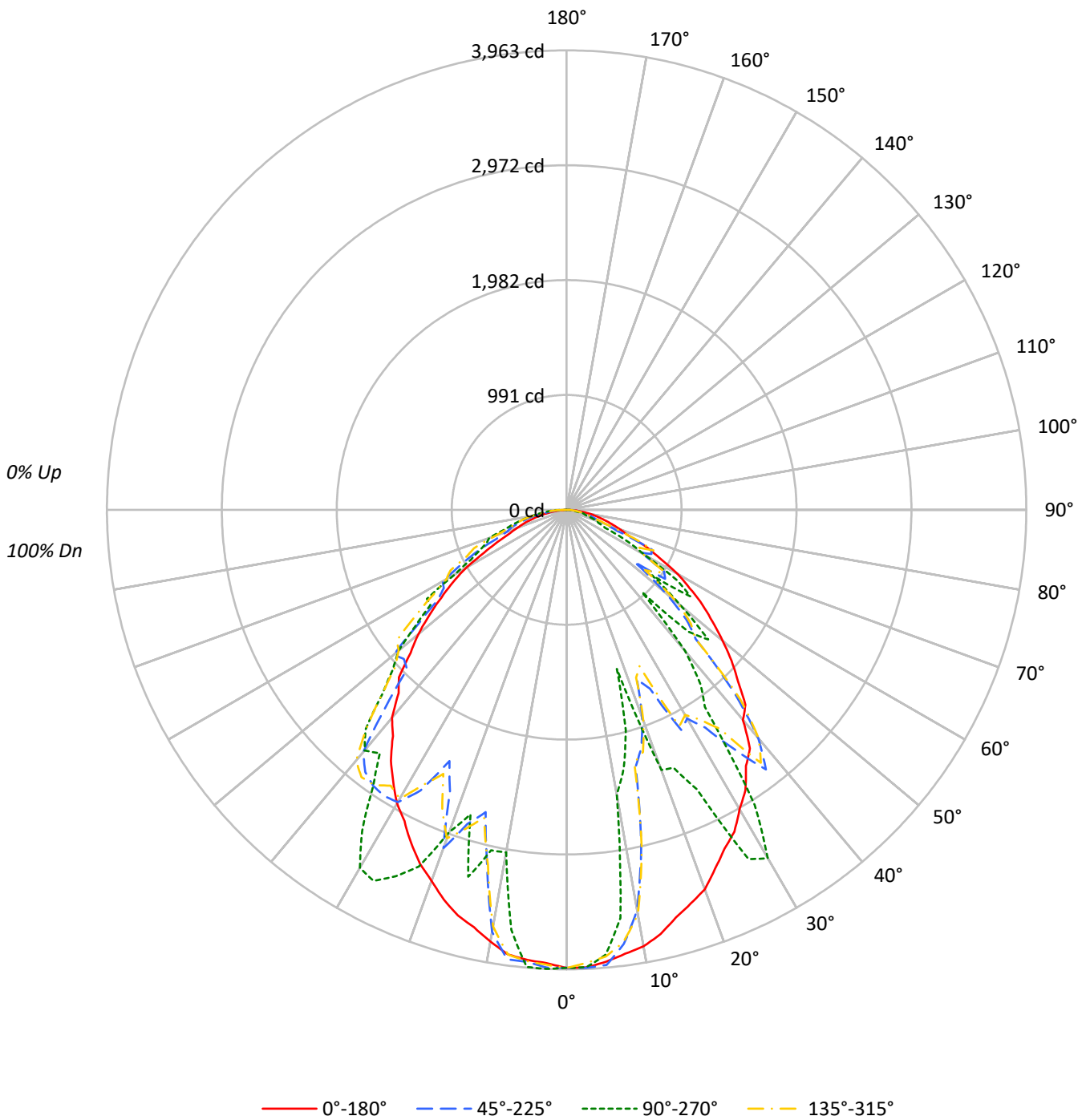
Lumens per Lamp: N/A  
Luminaire Lumens: 7780.0 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 65.7  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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				
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75					73				
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65					63				
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56					54				
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50					47				
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44					42				
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39					37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35					34				
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32					30				
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29					28				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	11597	11597	11597	11597
5°	11502	11245	11458	11551
10°	11345	7295	11221	8775
15°	10988	5811	10931	9674
20°	10780	7175	10539	8877
25°	10317	8198	10158	10745
30°	9967	11061	9769	11366
35°	9496	6911	9301	9671
40°	8877	5562	8786	9513
45°	8461	5562	8276	8404
50°	7784	5179	7402	7638
55°	7071	5764	6512	6342
60°	6204	3789	5635	5477
65°	5014	2061	4349	4630
70°	3914	1804	3611	4685
75°	3463	1335	3169	3819
80°	3109	927	2610	3121
85°	2609	687	1692	2562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	359.5	4.6
10°-20°	834.9	10.7
20°-30°	1242.8	16.0
30°-40°	1567.4	20.1
40°-50°	1419.6	18.2
50°-60°	1180.3	15.2
60°-70°	713.1	9.2
70°-80°	353.6	4.5
80°-90°	108.8	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°	2437.2	31.3
0°-40°	4004.6	51.5
0°-60°	6604.5	84.9
0°-90°	7780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7780.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3951	3951	3951	3951	3951	
5°	3912	3852	3897	3957	3912	370
15°	3640	1968	3621	3276	3640	1029
25°	3222	2660	3173	3486	3222	1490
35°	2696	2076	2641	2905	2696	1694
45°	2089	1486	2043	2245	2089	1611
55°	1431	1302	1318	1432	1431	1273
65°	760	366	660	822	760	747
75°	334	166	306	474	334	358
85°	100	46	65	171	100	110
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°	3950.6	3950.6	3950.6	3950.6	3950.6	3950.6	3950.6	3950.6	3950.6	3950.6	3950.6
2.5°	3949.2	3972.1	3953.3	3949.2	3947.9	3951.9	3911.6	3899.4	3912.9	3953.3	3951.9
5°	3911.6	3945.2	3939.8	3883.3	3852.3	3886.0	3867.1	3869.8	3896.8	3925.0	3911.6
7.5°	3861.8	3903.5	3777.0	3616.8	3550.8	3634.3	3758.1	3855.0	3867.1	3912.9	3910.2
10°	3822.7	3860.4	3502.4	2957.2	2494.2	2860.3	3540.1	3777.0	3781.0	3844.3	3696.2
12.5°	3746.0	3692.2	2973.4	2317.9	2278.8	2340.7	2993.6	3603.3	3688.1	3731.2	3160.5
15°	3639.7	3479.5	2296.3	2025.8	1967.9	2033.8	2255.9	3452.6	3620.8	3661.2	2698.8
17.5°	3560.2	3257.4	2144.2	1794.3	1438.9	1712.1	2190.0	3324.7	3523.9	3459.3	2840.1
20°	3482.2	3033.9	1904.6	1951.7	2387.9	1942.3	1934.2	3077.0	3404.1	3019.1	3103.9
22.5°	3347.6	2556.1	1578.9	2327.3	2406.7	2304.4	1566.8	2642.3	3303.2	2725.7	2626.1
25°	3222.4	2118.6	1701.4	2416.1	2659.8	2382.5	1486.0	2094.4	3172.6	2437.7	2389.2
27.5°	3129.5	1998.9	2141.5	2778.2	3396.0	2587.1	2103.8	1934.2	3027.2	2305.7	2729.7
30°	2982.8	1831.9	2078.3	3392.0	3468.7	3331.4	2041.9	1860.2	2923.6	2440.4	2911.5
32.5°	2867.0	1627.3	2227.7	3199.5	3017.8	3183.4	2144.2	1735.0	2782.2	2568.2	2926.3
35°	2696.1	1542.5	2521.1	2798.4	2075.6	2709.6	2307.1	1593.7	2640.9	2373.0	2906.1
37.5°	2595.1	1269.3	2822.6	1897.9	1896.6	1900.6	2749.9	1405.3	2460.5	2015.0	2850.9
40°	2365.0	1372.9	2570.9	1735.0	1584.3	1771.4	2577.6	1146.8	2340.7	1780.8	2727.1
42.5°	2281.5	1541.2	2140.2	1425.4	961.1	1512.9	2216.9	1453.7	2144.2	1860.2	2313.8
45°	2089.0	1500.8	1573.5	901.8	1486.0	962.4	1566.8	1437.6	2043.3	1961.2	1945.0
47.5°	1927.5	1407.9	1401.2	1385.1	1655.6	1344.7	1452.4	1350.1	1823.9	1907.3	1903.3
50°	1755.2	1456.4	1117.2	1456.4	1281.4	1476.6	1242.4	1270.7	1669.1	1788.9	1943.7
52.5°	1584.3	1523.7	733.6	1088.9	928.8	1126.6	853.4	1254.5	1491.4	1681.2	1605.8
55°	1430.8	1514.3	1036.4	935.5	1301.6	891.1	935.5	1390.4	1317.8	1512.9	1352.8
57.5°	1258.5	1278.7	997.4	1141.4	1126.6	1198.0	1002.8	1233.0	1164.3	1346.0	1255.8
60°	1102.4	951.6	733.6	892.4	767.2	992.0	747.0	1016.3	1001.4	1058.0	1233.0
62.5°	903.2	769.9	823.8	652.8	601.7	643.4	706.7	736.3	800.9	896.5	1023.0
65°	760.5	608.4	811.7	415.9	366.1	487.3	826.5	650.1	659.6	811.7	852.0
67.5°	569.4	448.2	465.7	333.8	301.5	327.1	581.5	503.4	529.0	600.3	656.9
70°	487.3	398.4	337.9	274.6	273.2	275.9	364.8	375.5	449.6	506.1	543.8
72.5°	406.5	328.4	269.2	226.1	204.6	249.0	266.5	309.6	380.9	601.7	496.7
75°	333.8	379.6	218.1	185.8	165.6	181.7	214.0	281.3	305.5	374.2	406.5
77.5°	269.2	220.7	170.9	154.8	148.1	160.2	165.6	293.4	239.6	289.4	343.2
80°	210.0	164.2	133.3	103.6	88.8	101.0	131.9	149.4	176.3	215.4	255.7
82.5°	150.8	125.2	92.9	75.4	64.6	74.0	87.5	105.0	119.8	148.1	179.0
85°	99.6	82.1	66.0	53.8	45.8	52.5	59.2	66.0	64.6	88.8	114.4
87.5°	49.8	44.4	44.4	39.0	32.3	36.3	40.4	35.0	18.8	39.0	70.0
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°	3950.6	3950.6	3950.6	3950.6	3950.6	3950.6
2.5°	3951.9	3962.7	3960.0	3926.4	3929.1	3949.2
5°	3923.7	3957.3	3949.2	3906.2	3903.5	3911.6
7.5°	3787.7	3653.1	3851.0	3868.5	3853.7	3861.8
10°	3090.5	3000.3	3229.1	3649.1	3824.1	3822.7
12.5°	2774.2	3008.4	2819.9	3137.6	3740.6	3746.0
15°	3163.2	3276.2	3207.6	2745.9	3646.4	3639.7
17.5°	2961.3	2754.0	2988.2	2880.5	3526.6	3560.2
20°	2640.9	2954.5	2671.9	3015.1	3106.6	3482.2
22.5°	3204.9	3328.7	3079.7	2798.4	2811.9	3347.6
25°	3284.3	3486.2	3222.4	2513.0	2561.5	3222.4
27.5°	3377.2	3607.4	3357.0	2670.5	2410.7	3129.5
30°	3416.2	3564.3	3478.1	2875.1	2457.8	2982.8
32.5°	3340.8	3281.6	3417.6	2821.3	2425.5	2867.0
35°	2949.1	2904.7	3112.0	2895.3	2395.9	2696.1
37.5°	2502.3	2644.9	2732.4	2906.1	2186.0	2595.1
40°	2464.6	2709.6	2523.8	2821.3	2001.5	2365.0
42.5°	2522.5	2564.2	2472.7	2553.4	1849.4	2281.5
45°	2243.8	2245.2	2393.2	2247.9	1865.6	2089.0
47.5°	1953.1	2028.5	2097.1	2002.9	1852.1	1927.5
50°	1714.8	1889.8	1880.4	1891.2	1725.6	1755.2
52.5°	1714.8	1642.2	1661.0	1840.0	1646.2	1584.3
55°	1459.1	1432.2	1554.7	1584.3	1581.6	1430.8
57.5°	1294.9	1428.1	1338.0	1363.5	1421.4	1258.5
60°	1149.5	1109.1	1281.4	1195.3	1259.9	1102.4
62.5°	897.8	932.8	993.4	1129.3	1052.6	903.2
65°	768.6	822.4	860.1	944.9	852.0	760.5
67.5°	724.2	747.0	736.3	865.5	732.2	569.4
70°	636.7	709.4	660.9	648.8	604.4	487.3
72.5°	530.3	553.2	604.4	516.9	467.1	406.5
75°	452.3	473.8	477.8	446.9	459.0	333.8
77.5°	359.4	382.3	379.6	380.9	379.6	269.2
80°	282.7	298.8	298.8	292.1	255.7	210.0
82.5°	212.7	228.8	232.9	211.3	189.8	150.8
85°	152.1	170.9	169.6	150.8	125.2	99.6
87.5°	98.3	119.8	122.5	96.9	74.0	49.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)