

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-LD5-11-W-ASY-UNV-L835-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-LD5-11-W-ASY-UNV-L835-CD1-U
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

Light Source: (1) 3500 CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

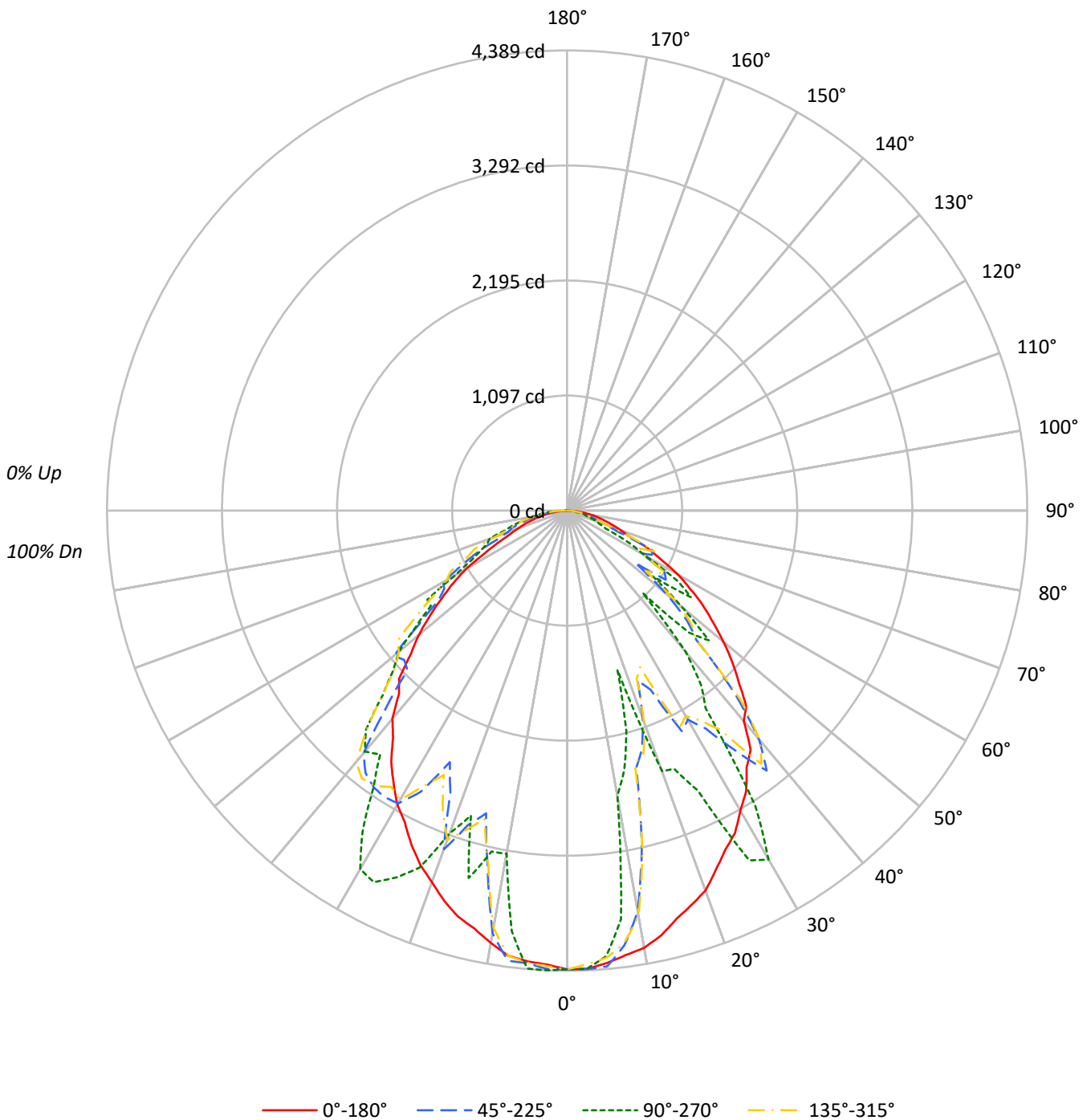
Lumens per Lamp: N/A
Luminaire Lumens: 8617.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 83.9
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	12845	12845	12845	12845
5°	12739	12455	12691	12794
10°	12566	8079	12429	9719
15°	12170	6436	12107	10715
20°	11940	7947	11672	9833
25°	11427	9080	11251	11902
30°	11039	12251	10820	12589
35°	10518	7654	10302	10711
40°	9832	6160	9731	10536
45°	9372	6161	9166	9308
50°	8622	5736	8198	8459
55°	7832	6384	7212	7024
60°	6871	4196	6242	6067
65°	5553	2283	4816	5128
70°	4335	1998	3999	5189
75°	3835	1478	3511	4230
80°	3444	1028	2892	3457
85°	2889	760	1876	2838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	398.2	4.6
10°-20°	924.8	10.7
20°-30°	1376.5	16.0
30°-40°	1736.0	20.1
40°-50°	1572.3	18.2
50°-60°	1307.2	15.2
60°-70°	789.8	9.2
70°-80°	391.7	4.5
80°-90°	120.6	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°	2699.4	31.3
0°-40°	4435.5	51.5
0°-60°	7315.0	84.9
0°-90°	8617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8617.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4376	4376	4376	4376	4376	
5°	4332	4267	4316	4383	4332	410
15°	4031	2180	4010	3629	4031	1140
25°	3569	2946	3514	3861	3569	1650
35°	2986	2299	2925	3217	2986	1876
45°	2314	1646	2263	2487	2314	1785
55°	1585	1442	1460	1586	1585	1410
65°	842	406	730	911	842	828
75°	370	183	338	525	370	397
85°	110	51	72	189	110	122
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°	4375.6	4375.6	4375.6	4375.6	4375.6	4375.6	4375.6	4375.6	4375.6	4375.6	4375.6
2.5°	4374.1	4399.5	4378.6	4374.1	4372.6	4377.1	4332.4	4319.0	4333.9	4378.6	4377.1
5°	4332.4	4369.7	4363.7	4301.1	4266.8	4304.1	4283.2	4286.2	4316.0	4347.3	4332.4
7.5°	4277.2	4323.4	4183.3	4005.9	3932.8	4025.3	4162.4	4269.8	4283.2	4333.9	4330.9
10°	4234.0	4275.7	3879.2	3275.4	2762.5	3168.0	3920.9	4183.3	4187.8	4257.8	4093.8
12.5°	4149.0	4089.4	3293.3	2567.2	2524.0	2592.6	3315.6	3991.0	4084.9	4132.6	3500.5
15°	4031.2	3853.8	2543.4	2243.7	2179.6	2252.7	2498.6	3824.0	4010.4	4055.1	2989.1
17.5°	3943.3	3607.8	2374.9	1987.3	1593.7	1896.3	2425.6	3682.4	3903.0	3831.5	3145.7
20°	3856.8	3360.4	2109.5	2161.7	2644.7	2151.3	2142.3	3408.1	3770.3	3344.0	3437.9
22.5°	3707.7	2831.1	1748.8	2577.7	2665.6	2552.3	1735.3	2926.5	3658.5	3019.0	2908.6
25°	3569.1	2346.6	1884.4	2676.1	2945.9	2638.8	1645.9	2319.7	3513.9	2699.9	2646.2
27.5°	3466.2	2213.9	2371.9	3077.1	3761.4	2865.4	2330.2	2142.3	3352.9	2553.8	3023.4
30°	3303.7	2029.0	2301.9	3756.9	3841.9	3689.8	2261.6	2060.3	3238.1	2702.9	3224.7
32.5°	3175.5	1802.4	2467.3	3543.7	3342.5	3525.8	2374.9	1921.7	3081.6	2844.5	3241.1
35°	2986.2	1708.5	2792.3	3099.5	2298.9	3001.1	2555.3	1765.2	2925.0	2628.4	3218.7
37.5°	2874.3	1405.9	3126.3	2102.1	2100.6	2105.1	3045.8	1556.4	2725.3	2231.8	3157.6
40°	2619.4	1520.7	2847.5	1921.7	1754.7	1961.9	2855.0	1270.2	2592.6	1972.4	3020.4
42.5°	2527.0	1707.0	2370.4	1578.8	1064.5	1675.7	2455.4	1610.1	2374.9	2060.3	2562.8
45°	2313.8	1662.3	1742.8	998.9	1645.9	1066.0	1735.3	1592.2	2263.1	2172.2	2154.3
47.5°	2134.9	1559.4	1552.0	1534.1	1833.7	1489.3	1608.6	1495.3	2020.1	2112.5	2108.0
50°	1944.1	1613.1	1237.4	1613.1	1419.3	1635.5	1376.0	1407.4	1848.6	1981.3	2152.8
52.5°	1754.7	1687.6	812.5	1206.1	1028.7	1247.8	945.2	1389.5	1651.9	1862.1	1778.6
55°	1584.8	1677.2	1147.9	1036.1	1441.6	986.9	1036.1	1540.0	1459.5	1675.7	1498.3
57.5°	1393.9	1416.3	1104.7	1264.2	1247.8	1326.8	1110.7	1365.6	1289.6	1490.8	1391.0
60°	1221.0	1054.0	812.5	988.4	849.8	1098.7	827.4	1125.6	1109.2	1171.8	1365.6
62.5°	1000.4	852.8	912.4	723.1	666.4	712.6	782.7	815.5	887.0	992.9	1133.0
65°	842.3	673.9	899.0	460.7	405.5	539.7	915.4	720.1	730.5	899.0	943.7
67.5°	630.6	496.4	515.8	369.7	333.9	362.3	644.0	557.6	585.9	664.9	727.5
70°	539.7	441.3	374.2	304.1	302.6	305.6	404.0	415.9	497.9	560.6	602.3
72.5°	450.2	363.8	298.2	250.5	226.6	275.8	295.2	342.9	421.9	666.4	550.1
75°	369.7	420.4	241.5	205.7	183.4	201.3	237.0	311.6	338.4	414.5	450.2
77.5°	298.2	244.5	189.3	171.4	164.0	177.4	183.4	325.0	265.4	320.5	380.2
80°	232.6	181.9	147.6	114.8	98.4	111.8	146.1	165.5	195.3	238.5	283.3
82.5°	167.0	138.6	102.9	83.5	71.6	82.0	96.9	116.3	132.7	164.0	198.3
85°	110.3	90.9	73.1	59.6	50.7	58.1	65.6	73.1	71.6	98.4	126.7
87.5°	55.2	49.2	49.2	43.2	35.8	40.3	44.7	38.8	20.9	43.2	77.5
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°	4375.6	4375.6	4375.6	4375.6	4375.6	4375.6
2.5°	4377.1	4389.0	4386.0	4348.8	4351.8	4374.1
5°	4345.8	4383.1	4374.1	4326.4	4323.4	4332.4
7.5°	4195.2	4046.1	4265.3	4284.7	4268.3	4277.2
10°	3423.0	3323.1	3576.5	4041.7	4235.5	4234.0
12.5°	3072.6	3332.0	3123.3	3475.1	4143.0	4149.0
15°	3503.5	3628.7	3552.7	3041.3	4038.7	4031.2
17.5°	3279.8	3050.3	3309.7	3190.4	3906.0	3943.3
20°	2925.0	3272.4	2959.3	3339.5	3440.9	3856.8
22.5°	3549.7	3686.8	3411.0	3099.5	3114.4	3707.7
25°	3637.6	3861.3	3569.1	2783.4	2837.1	3569.1
27.5°	3740.5	3995.4	3718.2	2957.8	2670.1	3466.2
30°	3783.8	3947.7	3852.3	3184.4	2722.3	3303.7
32.5°	3700.3	3634.7	3785.2	3124.8	2686.5	3175.5
35°	3266.4	3217.2	3446.8	3206.8	2653.7	2986.2
37.5°	2771.5	2929.5	3026.4	3218.7	2421.1	2874.3
40°	2729.7	3001.1	2795.3	3124.8	2216.9	2619.4
42.5°	2793.8	2840.0	2738.7	2828.1	2048.4	2527.0
45°	2485.2	2486.7	2650.7	2489.7	2066.3	2313.8
47.5°	2163.2	2246.7	2322.7	2218.4	2051.4	2134.9
50°	1899.3	2093.1	2082.7	2094.6	1911.3	1944.1
52.5°	1899.3	1818.8	1839.7	2038.0	1823.3	1754.7
55°	1616.1	1586.3	1721.9	1754.7	1751.7	1584.8
57.5°	1434.2	1581.8	1481.9	1510.2	1574.3	1393.9
60°	1273.2	1228.5	1419.3	1323.9	1395.4	1221.0
62.5°	994.4	1033.2	1100.2	1250.8	1165.8	1000.4
65°	851.3	910.9	952.6	1046.6	943.7	842.3
67.5°	802.1	827.4	815.5	958.6	811.0	630.6
70°	705.2	785.7	732.0	718.6	669.4	539.7
72.5°	587.4	612.7	669.4	572.5	517.3	450.2
75°	500.9	524.8	529.2	495.0	508.4	369.7
77.5°	398.1	423.4	420.4	421.9	420.4	298.2
80°	313.1	331.0	331.0	323.5	283.3	232.6
82.5°	235.6	253.4	257.9	234.1	210.2	167.0
85°	168.5	189.3	187.8	167.0	138.6	110.3
87.5°	108.8	132.7	135.7	107.3	82.0	55.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)