

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-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-LD5-11-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

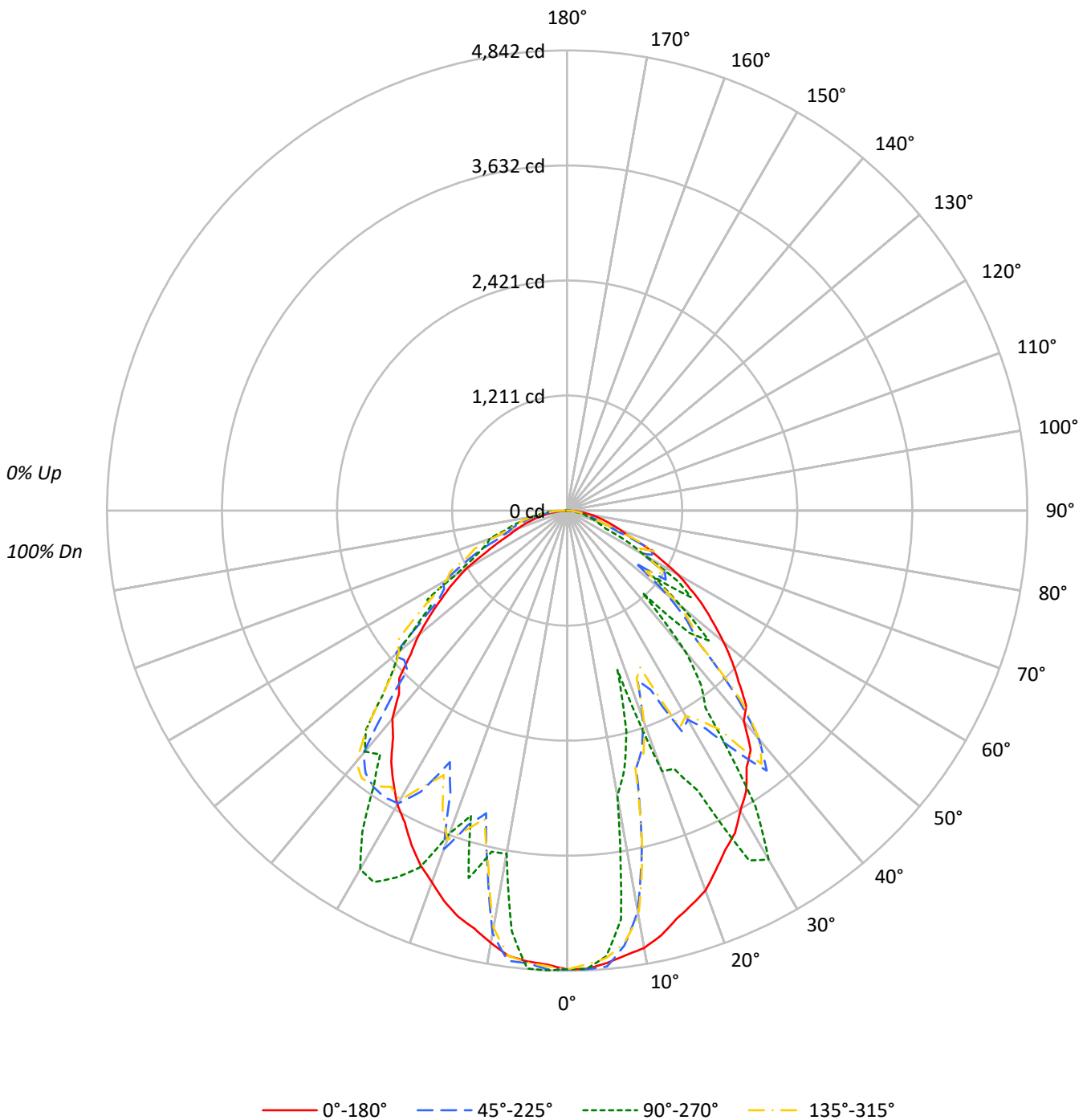
Lumens per Lamp: N/A
Luminaire Lumens: 9507.0 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

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	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°	14172	14172	14172	14172
5°	14054	13741	14002	14116
10°	13864	8914	13712	10723
15°	13427	7101	13358	11822
20°	13173	8767	12878	10848
25°	12608	10018	12413	13131
30°	12180	13517	11938	13889
35°	11604	8444	11366	11818
40°	10847	6797	10736	11624
45°	10340	6797	10113	10270
50°	9512	6329	9045	9333
55°	8640	7043	7958	7750
60°	7581	4630	6886	6693
65°	6127	2519	5314	5657
70°	4782	2205	4413	5724
75°	4232	1631	3874	4667
80°	3799	1134	3191	3813
85°	3188	838	2070	3132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	439.3	4.6
10°-20°	1020.3	10.7
20°-30°	1518.7	16.0
30°-40°	1915.3	20.1
40°-50°	1734.7	18.2
50°-60°	1442.3	15.2
60°-70°	871.3	9.2
70°-80°	432.1	4.5
80°-90°	133.0	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°	2978.3	31.3
0°-40°	4893.6	51.5
0°-60°	8070.5	84.9
0°-90°	9507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9507.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4828	4828	4828	4828	4828	
5°	4780	4708	4762	4836	4780	453
15°	4448	2405	4425	4004	4448	1258
25°	3938	3250	3877	4260	3938	1821
35°	3295	2536	3227	3550	3295	2070
45°	2553	1816	2497	2744	2553	1969
55°	1748	1590	1610	1750	1748	1556
65°	929	447	806	1005	929	913
75°	408	202	373	579	408	438
85°	122	56	79	209	122	135
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°	4827.5	4827.5	4827.5	4827.5	4827.5	4827.5	4827.5	4827.5	4827.5	4827.5	4827.5
2.5°	4825.9	4853.9	4830.8	4825.9	4824.3	4829.2	4779.8	4765.0	4781.5	4830.8	4829.2
5°	4779.8	4821.0	4814.4	4745.3	4707.5	4748.6	4725.6	4728.9	4761.8	4796.3	4779.8
7.5°	4719.0	4770.0	4615.4	4419.6	4339.0	4441.0	4592.3	4710.8	4725.6	4781.5	4778.2
10°	4671.3	4717.3	4279.8	3613.7	3047.9	3495.2	4325.9	4615.4	4620.3	4697.6	4516.7
12.5°	4577.5	4511.7	3633.4	2832.4	2784.7	2860.3	3658.1	4403.2	4506.8	4559.4	3862.0
15°	4447.6	4251.9	2806.1	2475.5	2404.7	2485.3	2756.7	4219.0	4424.6	4473.9	3297.9
17.5°	4350.5	3980.5	2620.2	2192.5	1758.3	2092.2	2676.1	4062.7	4306.1	4227.2	3470.6
20°	4255.1	3707.4	2327.4	2385.0	2917.9	2373.5	2363.6	3760.1	4159.7	3689.3	3793.0
22.5°	4090.7	3123.5	1929.4	2843.9	2940.9	2815.9	1914.6	3228.8	4036.4	3330.8	3209.0
25°	3937.7	2588.9	2079.1	2952.5	3250.2	2911.3	1815.9	2559.3	3876.8	2978.8	2919.6
27.5°	3824.2	2442.6	2616.9	3394.9	4149.9	3161.3	2570.9	2363.6	3699.2	2817.6	3335.7
30°	3644.9	2238.6	2539.6	4144.9	4238.7	4070.9	2495.2	2273.1	3572.5	2982.1	3557.7
32.5°	3503.5	1988.6	2722.2	3909.7	3687.7	3890.0	2620.2	2120.2	3399.8	3138.3	3575.8
35°	3294.6	1885.0	3080.7	3419.6	2536.3	3311.0	2819.2	1947.5	3227.1	2899.8	3551.2
37.5°	3171.2	1551.1	3449.2	2319.2	2317.6	2322.5	3360.4	1717.2	3006.7	2462.3	3483.7
40°	2889.9	1677.7	3141.6	2120.2	1936.0	2164.6	3149.8	1401.4	2860.3	2176.1	3332.4
42.5°	2788.0	1883.3	2615.3	1741.9	1174.4	1848.8	2709.0	1776.4	2620.2	2273.1	2827.4
45°	2552.8	1834.0	1922.8	1102.0	1815.9	1176.0	1914.6	1756.7	2496.8	2396.5	2376.8
47.5°	2355.4	1720.5	1712.3	1692.5	2023.1	1643.2	1774.8	1649.8	2228.7	2330.7	2325.8
50°	2144.8	1779.7	1365.2	1779.7	1565.9	1804.4	1518.2	1552.7	2039.6	2186.0	2375.1
52.5°	1936.0	1861.9	896.4	1330.7	1134.9	1376.7	1042.8	1533.0	1822.5	2054.4	1962.3
55°	1748.4	1850.4	1266.5	1143.1	1590.5	1088.9	1143.1	1699.1	1610.3	1848.8	1653.0
57.5°	1537.9	1562.6	1218.8	1394.8	1376.7	1463.9	1225.4	1506.7	1422.8	1644.8	1534.6
60°	1347.1	1162.9	896.4	1090.5	937.5	1212.2	912.9	1241.8	1223.7	1292.8	1506.7
62.5°	1103.7	940.8	1006.6	797.7	735.2	786.2	863.5	899.7	978.7	1095.4	1250.1
65°	929.3	743.5	991.8	508.2	447.4	595.4	1009.9	794.4	806.0	991.8	1041.2
67.5°	695.8	547.7	569.1	407.9	368.4	399.7	710.6	615.2	646.4	733.6	802.7
70°	595.4	486.9	412.8	335.5	333.9	337.2	445.7	458.9	549.4	618.5	664.5
72.5°	496.7	401.3	329.0	276.3	250.0	304.3	325.7	378.3	465.5	735.2	606.9
75°	407.9	463.8	266.5	227.0	202.3	222.1	261.5	343.8	373.4	457.3	496.7
77.5°	329.0	269.8	208.9	189.2	180.9	195.7	202.3	358.6	292.8	353.6	419.4
80°	256.6	200.7	162.8	126.7	108.6	123.4	161.2	182.6	215.5	263.2	312.5
82.5°	184.2	153.0	113.5	92.1	79.0	90.5	106.9	128.3	146.4	180.9	218.8
85°	121.7	100.3	80.6	65.8	55.9	64.1	72.4	80.6	79.0	108.6	139.8
87.5°	60.9	54.3	54.3	47.7	39.5	44.4	49.3	42.8	23.0	47.7	85.5
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°	4827.5	4827.5	4827.5	4827.5	4827.5	4827.5
2.5°	4829.2	4842.3	4839.1	4797.9	4801.2	4825.9
5°	4794.6	4835.8	4825.9	4773.3	4770.0	4779.8
7.5°	4628.5	4464.0	4705.8	4727.2	4709.1	4719.0
10°	3776.5	3666.3	3945.9	4459.1	4672.9	4671.3
12.5°	3390.0	3676.2	3445.9	3834.1	4571.0	4577.5
15°	3865.3	4003.5	3919.6	3355.4	4455.8	4447.6
17.5°	3618.6	3365.3	3651.5	3519.9	4309.4	4350.5
20°	3227.1	3610.4	3265.0	3684.4	3796.2	4255.1
22.5°	3916.3	4067.6	3763.3	3419.6	3436.0	4090.7
25°	4013.4	4260.1	3937.7	3070.9	3130.1	3937.7
27.5°	4126.9	4408.1	4102.2	3263.3	2945.9	3824.2
30°	4174.6	4355.5	4250.2	3513.3	3003.4	3644.9
32.5°	4082.4	4010.1	4176.2	3447.5	2964.0	3503.5
35°	3603.8	3549.5	3802.8	3538.0	2927.8	3294.6
37.5°	3057.7	3232.1	3339.0	3551.2	2671.2	3171.2
40°	3011.7	3311.0	3084.0	3447.5	2445.8	2889.9
42.5°	3082.4	3133.4	3021.5	3120.2	2260.0	2788.0
45°	2741.9	2743.6	2924.5	2746.8	2279.7	2552.8
47.5°	2386.6	2478.7	2562.6	2447.5	2263.3	2355.4
50°	2095.5	2309.3	2297.8	2311.0	2108.7	2144.8
52.5°	2095.5	2006.7	2029.7	2248.5	2011.6	1936.0
55°	1783.0	1750.1	1899.8	1936.0	1932.7	1748.4
57.5°	1582.3	1745.2	1635.0	1666.2	1736.9	1537.9
60°	1404.7	1355.3	1565.9	1460.6	1539.6	1347.1
62.5°	1097.1	1139.9	1213.9	1380.0	1286.2	1103.7
65°	939.2	1005.0	1051.0	1154.7	1041.2	929.3
67.5°	884.9	912.9	899.7	1057.6	894.8	695.8
70°	778.0	866.8	807.6	792.8	738.5	595.4
72.5°	648.1	676.0	738.5	631.6	570.8	496.7
75°	552.7	579.0	583.9	546.1	560.9	407.9
77.5°	439.2	467.1	463.8	465.5	463.8	329.0
80°	345.4	365.1	365.1	356.9	312.5	256.6
82.5°	259.9	279.6	284.6	258.2	231.9	184.2
85°	185.9	208.9	207.2	184.2	153.0	121.7
87.5°	120.1	146.4	149.7	118.4	90.5	60.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)