

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-LD5-16-W-ASY-UNV-L850-CD2-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-LD5-16-W-ASY-UNV-L850-CD2-U
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

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

Summary

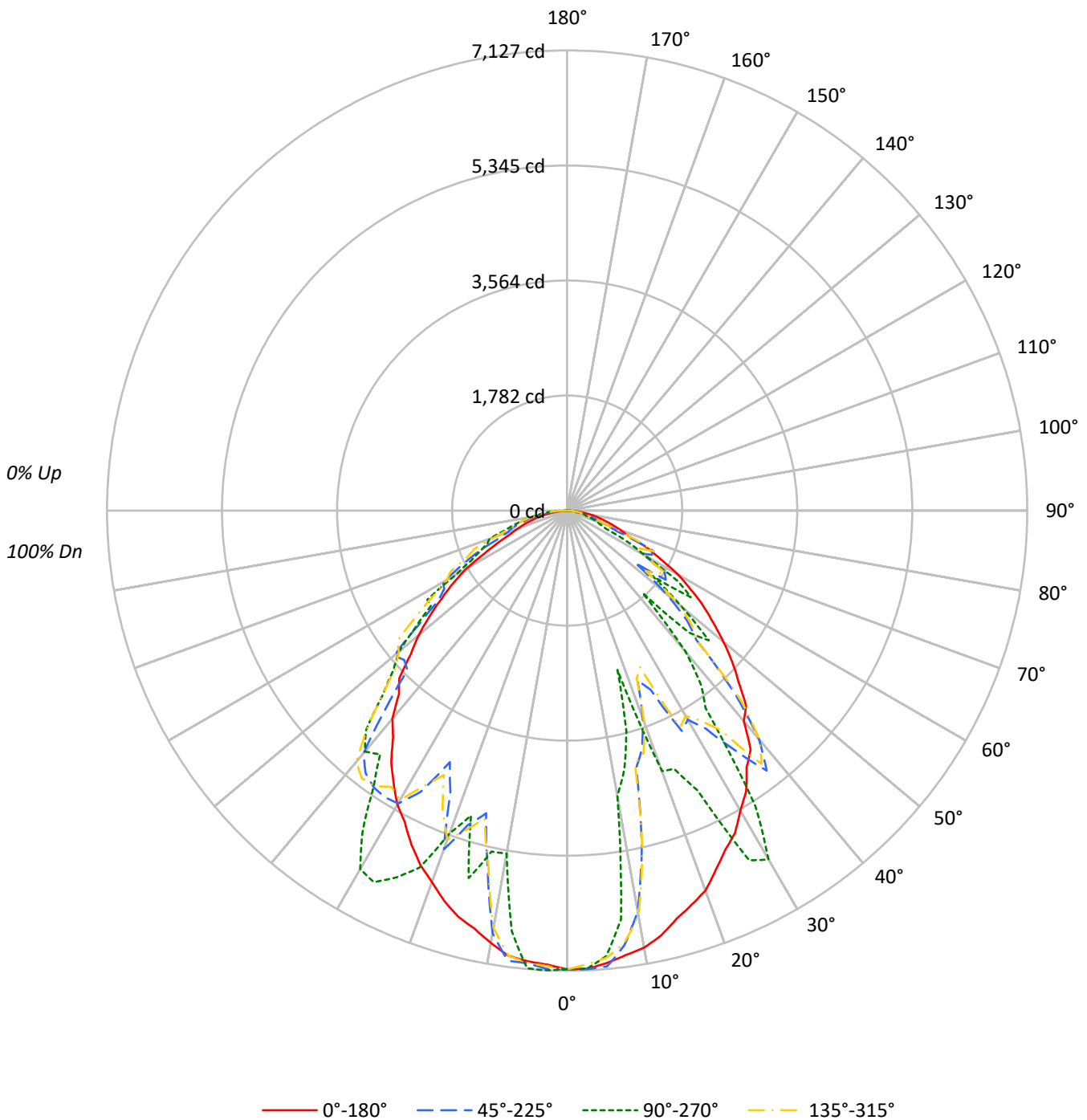
Lumens per Lamp: N/A
Luminaire Lumens: 13992.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 126.6
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				
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°	20858	20858	20858	20858
5°	20685	20223	20607	20775
10°	20404	13119	20181	15781
15°	19761	10451	19659	17399
20°	19388	12904	18953	15966
25°	18555	14744	18269	19325
30°	17925	19893	17569	20442
35°	17078	12428	16728	17393
40°	15964	10003	15801	17108
45°	15217	10004	14884	15115
50°	14000	9314	13313	13736
55°	12716	10366	11711	11406
60°	11157	6814	10136	9850
65°	9017	3707	7820	8326
70°	7038	3245	6493	8425
75°	6229	2400	5701	6868
80°	5591	1669	4695	5613
85°	4692	1234	3044	4608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	646.6	4.6
10°-20°	1501.6	10.7
20°-30°	2235.1	16.0
30°-40°	2818.9	20.1
40°-50°	2553.0	18.2
50°-60°	2122.7	15.2
60°-70°	1282.4	9.2
70°-80°	636.0	4.5
80°-90°	195.8	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°	4383.3	31.3
0°-40°	7202.1	51.5
0°-60°	11877.8	84.9
0°-90°	13992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13992.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	7105	7105	7105	7105	7105	
5°	7035	6928	7008	7117	7035	666
15°	6546	3539	6512	5892	6546	1851
25°	5795	4784	5706	6270	5795	2680
35°	4849	3733	4750	5224	4849	3047
45°	3757	2672	3675	4038	3757	2898
55°	2573	2341	2370	2576	2573	2290
65°	1368	658	1186	1479	1368	1344
75°	600	298	550	852	600	644
85°	179	82	116	307	179	198
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°	7105.0	7105.0	7105.0	7105.0	7105.0	7105.0	7105.0	7105.0	7105.0	7105.0	7105.0
2.5°	7102.6	7143.7	7109.8	7102.6	7100.1	7107.4	7034.8	7013.0	7037.2	7109.8	7107.4
5°	7034.8	7095.3	7085.6	6983.9	6928.3	6988.8	6954.9	6959.7	7008.1	7059.0	7034.8
7.5°	6945.2	7020.3	6792.7	6504.6	6386.0	6536.1	6758.8	6933.1	6954.9	7037.2	7032.4
10°	6875.0	6942.8	6298.9	5318.4	4485.7	5144.1	6366.6	6792.7	6800.0	6913.7	6647.5
12.5°	6737.0	6640.2	5347.5	4168.6	4098.4	4209.7	5383.8	6480.4	6632.9	6710.4	5684.0
15°	6545.8	6257.7	4129.8	3643.3	3539.2	3657.8	4057.2	6209.3	6511.9	6584.5	4853.7
17.5°	6403.0	5858.3	3856.3	3226.9	2587.8	3079.2	3938.6	5979.3	6337.6	6221.4	5107.8
20°	6262.5	5456.4	3425.4	3510.1	4294.5	3493.2	3478.7	5533.9	6122.1	5429.8	5582.3
22.5°	6020.5	4597.1	2839.6	4185.5	4328.3	4144.4	2817.8	4752.0	5940.6	4902.1	4722.9
25°	5795.3	3810.3	3059.9	4345.3	4783.5	4284.8	2672.5	3766.7	5705.8	4384.0	4296.9
27.5°	5628.3	3594.9	3851.5	4996.5	6107.6	4652.7	3783.7	3478.7	5444.3	4146.8	4909.3
30°	5364.4	3294.7	3737.7	6100.4	6238.3	5991.4	3672.3	3345.5	5257.9	4388.9	5236.1
32.5°	5156.3	2926.7	4006.4	5754.2	5427.4	5725.1	3856.3	3120.4	5003.7	4618.8	5262.8
35°	4848.8	2774.2	4534.1	5032.8	3732.8	4873.0	4149.2	2866.2	4749.6	4267.8	5226.5
37.5°	4667.3	2282.8	5076.4	3413.3	3410.9	3418.1	4945.6	2527.3	4425.2	3623.9	5127.2
40°	4253.3	2469.2	4623.7	3120.4	2849.3	3185.7	4635.8	2062.5	4209.7	3202.7	4904.5
42.5°	4103.2	2771.8	3849.0	2563.6	1728.4	2721.0	3987.0	2614.4	3856.3	3345.5	4161.3
45°	3757.0	2699.2	2829.9	1621.9	2672.5	1730.9	2817.8	2585.4	3674.7	3527.1	3498.0
47.5°	3466.6	2532.1	2520.0	2491.0	2977.6	2418.4	2612.0	2428.0	3280.2	3430.2	3423.0
50°	3156.7	2619.3	2009.2	2619.3	2304.6	2655.6	2234.4	2285.2	3001.8	3217.2	3495.6
52.5°	2849.3	2740.3	1319.3	1958.4	1670.3	2026.2	1534.8	2256.2	2682.2	3023.5	2888.0
55°	2573.3	2723.4	1864.0	1682.4	2340.9	1602.6	1682.4	2500.7	2369.9	2721.0	2432.9
57.5°	2263.4	2299.7	1793.8	2052.8	2026.2	2154.5	1803.5	2217.4	2094.0	2420.8	2258.6
60°	1982.6	1711.5	1319.3	1605.0	1379.8	1784.1	1343.5	1827.7	1801.1	1902.7	2217.4
62.5°	1624.3	1384.7	1481.5	1174.1	1082.1	1157.1	1270.9	1324.2	1440.4	1612.2	1839.8
65°	1367.7	1094.2	1459.7	748.0	658.5	876.3	1486.4	1169.2	1186.2	1459.7	1532.4
67.5°	1024.0	806.1	837.6	600.4	542.3	588.2	1045.8	905.4	951.4	1079.7	1181.3
70°	876.3	716.5	607.6	493.8	491.4	496.3	656.0	675.4	808.5	910.2	978.0
72.5°	731.1	590.7	484.2	406.7	368.0	447.8	479.3	556.8	685.1	1082.1	893.3
75°	600.4	682.7	392.2	334.1	297.8	326.8	384.9	505.9	549.5	673.0	731.1
77.5°	484.2	397.0	307.4	278.4	266.3	288.1	297.8	527.7	430.9	520.5	617.3
80°	377.6	295.3	239.7	186.4	159.8	181.6	237.2	268.7	317.1	387.3	459.9
82.5°	271.1	225.1	167.0	135.6	116.2	133.1	157.4	188.8	215.4	266.3	322.0
85°	179.1	147.7	118.6	96.8	82.3	94.4	106.5	118.6	116.2	159.8	205.8
87.5°	89.6	79.9	79.9	70.2	58.1	65.4	72.6	62.9	33.9	70.2	125.9
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°	7105.0	7105.0	7105.0	7105.0	7105.0	7105.0
2.5°	7107.4	7126.8	7121.9	7061.4	7066.2	7102.6
5°	7056.6	7117.1	7102.6	7025.1	7020.3	7034.8
7.5°	6812.1	6570.0	6925.8	6957.3	6930.7	6945.2
10°	5558.1	5395.9	5807.4	6562.7	6877.4	6875.0
12.5°	4989.2	5410.4	5071.5	5642.8	6727.3	6737.0
15°	5688.8	5892.2	5768.7	4938.4	6557.9	6545.8
17.5°	5325.7	4952.9	5374.1	5180.5	6342.4	6403.0
20°	4749.6	5313.6	4805.2	5422.5	5587.2	6262.5
22.5°	5763.9	5986.6	5538.7	5032.8	5057.0	6020.5
25°	5906.7	6269.8	5795.3	4519.6	4606.7	5795.3
27.5°	6073.7	6487.7	6037.4	4802.8	4335.6	5628.3
30°	6143.9	6410.2	6255.3	5170.8	4420.3	5364.4
32.5°	6008.4	5901.9	6146.4	5073.9	4362.2	5156.3
35°	5303.9	5224.0	5596.8	5207.1	4309.0	4848.8
37.5°	4500.2	4756.8	4914.2	5226.5	3931.3	4667.3
40°	4432.4	4873.0	4539.0	5073.9	3599.7	4253.3
42.5°	4536.5	4611.6	4447.0	4592.2	3326.1	4103.2
45°	4035.4	4037.9	4304.1	4042.7	3355.2	3757.0
47.5°	3512.5	3648.1	3771.6	3602.1	3331.0	3466.6
50°	3084.1	3398.8	3381.8	3401.2	3103.4	3156.7
52.5°	3084.1	2953.3	2987.2	3309.2	2960.6	2849.3
55°	2624.1	2575.7	2796.0	2849.3	2844.4	2573.3
57.5°	2328.8	2568.4	2406.3	2452.2	2556.3	2263.4
60°	2067.3	1994.7	2304.6	2149.6	2265.8	1982.6
62.5°	1614.7	1677.6	1786.5	2031.0	1893.0	1624.3
65°	1382.3	1479.1	1546.9	1699.4	1532.4	1367.7
67.5°	1302.4	1343.5	1324.2	1556.6	1316.9	1024.0
70°	1145.0	1275.7	1188.6	1166.8	1086.9	876.3
72.5°	953.8	994.9	1086.9	929.6	840.0	731.1
75°	813.4	852.1	859.4	803.7	825.5	600.4
77.5°	646.3	687.5	682.7	685.1	682.7	484.2
80°	508.4	537.4	537.4	525.3	459.9	377.6
82.5°	382.5	411.5	418.8	380.1	341.3	271.1
85°	273.5	307.4	305.0	271.1	225.1	179.1
87.5°	176.7	215.4	220.3	174.3	133.1	89.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)