

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-LD5-14-W-ASY-UNV-L835-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-LD5-14-W-ASY-UNV-L835-CD2-U  
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

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

**Summary**

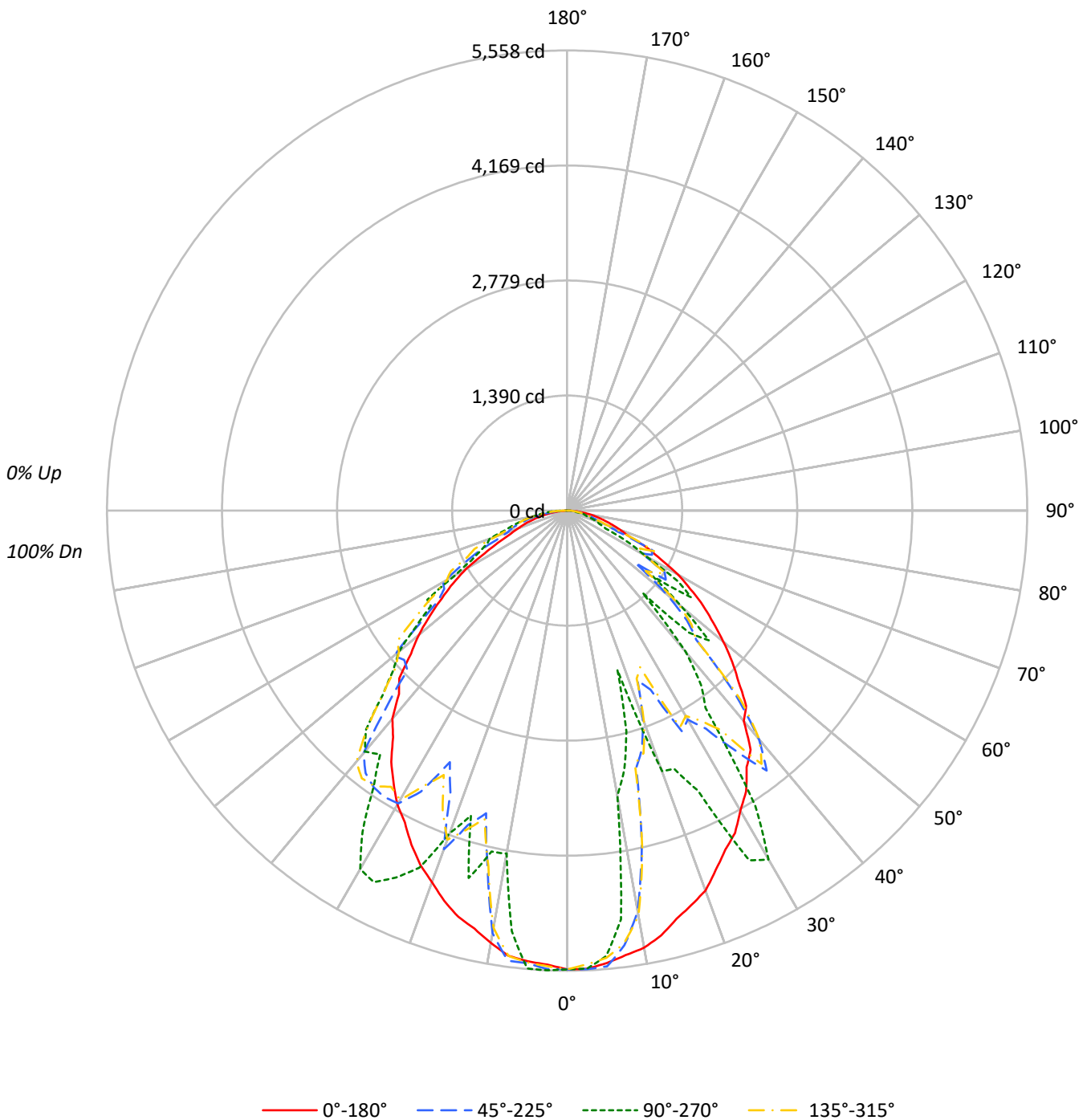
Lumens per Lamp: N/A  
Luminaire Lumens: 10912.0 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 102  
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	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°	16266	16266	16266	16266
5°	16132	15772	16071	16201
10°	15912	10231	15739	12307
15°	15411	8150	15332	13569
20°	15120	10063	14781	12451
25°	14471	11498	14247	15071
30°	13980	15514	13702	15942
35°	13319	9692	13046	13564
40°	12450	7801	12323	13342
45°	11867	7802	11607	11787
50°	10918	7264	10382	10713
55°	9917	8084	9134	8895
60°	8701	5314	7904	7682
65°	7033	2891	6099	6493
70°	5489	2531	5065	6570
75°	4857	1872	4446	5356
80°	4360	1301	3662	4377
85°	3660	962	2373	3595



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	504.2	4.6
10°-20°	1171.1	10.7
20°-30°	1743.1	16.0
30°-40°	2198.4	20.1
40°-50°	1991.0	18.2
50°-60°	1655.4	15.2
60°-70°	1000.1	9.2
70°-80°	496.0	4.5
80°-90°	152.7	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°	3418.4	31.3
0°-40°	5616.8	51.5
0°-60°	9263.2	84.9
0°-90°	10912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10912.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	5541	5541	5541	5541	5541	
5°	5486	5403	5466	5550	5486	519
15°	5105	2760	5078	4595	5105	1444
25°	4520	3730	4450	4890	4520	2090
35°	3782	2911	3704	4074	3782	2376
45°	2930	2084	2866	3149	2930	2260
55°	2007	1826	1848	2009	2007	1786
65°	1067	514	925	1154	1067	1048
75°	468	232	429	664	468	502
85°	140	64	91	240	140	155
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°	5541.0	5541.0	5541.0	5541.0	5541.0	5541.0	5541.0	5541.0	5541.0	5541.0	5541.0
2.5°	5539.1	5571.2	5544.8	5539.1	5537.2	5542.9	5486.2	5469.2	5488.1	5544.8	5542.9
5°	5486.2	5533.4	5525.9	5446.6	5403.2	5450.4	5423.9	5427.7	5465.5	5505.1	5486.2
7.5°	5416.4	5474.9	5297.4	5072.8	4980.3	5097.3	5271.0	5406.9	5423.9	5488.1	5484.4
10°	5361.6	5414.5	4912.3	4147.7	3498.3	4011.8	4965.2	5297.4	5303.1	5391.8	5184.2
12.5°	5254.0	5178.5	4170.4	3251.0	3196.2	3283.1	4198.7	5053.9	5172.8	5233.3	4432.8
15°	5104.9	4880.2	3220.8	2841.3	2760.1	2852.6	3164.1	4842.5	5078.5	5135.1	3785.2
17.5°	4993.5	4568.7	3007.4	2516.6	2018.2	2401.4	3071.6	4663.1	4942.5	4851.9	3983.5
20°	4884.0	4255.3	2671.4	2737.5	3349.1	2724.2	2712.9	4315.7	4774.5	4234.6	4353.5
22.5°	4695.2	3585.1	2214.5	3264.2	3375.6	3232.1	2197.5	3705.9	4632.9	3823.0	3683.3
25°	4519.6	2971.6	2386.3	3388.8	3730.5	3341.6	2084.2	2937.6	4449.8	3419.0	3351.0
27.5°	4389.4	2803.5	3003.7	3896.6	4763.2	3628.5	2950.8	2712.9	4245.9	3234.0	3828.7
30°	4183.6	2569.4	2914.9	4757.5	4865.1	4672.6	2863.9	2609.1	4100.5	3422.8	4083.5
32.5°	4021.2	2282.5	3124.5	4487.5	4232.7	4464.9	3007.4	2433.5	3902.3	3602.1	4104.3
35°	3781.5	2163.5	3536.0	3924.9	2911.1	3800.3	3235.9	2235.3	3704.1	3328.4	4076.0
37.5°	3639.9	1780.3	3958.9	2661.9	2660.1	2665.7	3857.0	1971.0	3451.1	2826.2	3998.6
40°	3317.0	1925.7	3605.9	2433.5	2222.1	2484.5	3615.3	1608.5	3283.1	2497.7	3824.9
42.5°	3200.0	2161.6	3001.8	1999.3	1348.0	2122.0	3109.4	2038.9	3007.4	2609.1	3245.3
45°	2930.0	2105.0	2207.0	1264.9	2084.2	1349.8	2197.5	2016.3	2865.8	2750.7	2728.0
47.5°	2703.5	1974.7	1965.3	1942.6	2322.1	1886.0	2037.0	1893.6	2558.1	2675.2	2669.5
50°	2461.8	2042.7	1567.0	2042.7	1797.3	2071.0	1742.5	1782.2	2341.0	2509.0	2726.1
52.5°	2222.1	2137.1	1028.9	1527.3	1302.7	1580.2	1196.9	1759.5	2091.8	2358.0	2252.3
55°	2006.8	2123.9	1453.7	1312.1	1825.6	1249.8	1312.1	1950.2	1848.3	2122.0	1897.3
57.5°	1765.2	1793.5	1398.9	1600.9	1580.2	1680.2	1406.5	1729.3	1633.0	1887.9	1761.4
60°	1546.2	1334.7	1028.9	1251.7	1076.1	1391.4	1047.8	1425.4	1404.6	1483.9	1729.3
62.5°	1266.8	1079.9	1155.4	915.6	843.9	902.4	991.1	1032.7	1123.3	1257.3	1434.8
65°	1066.7	853.3	1138.4	583.4	513.5	683.4	1159.2	911.9	925.1	1138.4	1195.0
67.5°	798.6	628.7	653.2	468.2	422.9	458.8	815.6	706.1	741.9	842.0	921.3
70°	683.4	558.8	473.9	385.1	383.2	387.0	511.6	526.7	630.6	709.9	762.7
72.5°	570.1	460.6	377.6	317.2	287.0	349.3	373.8	434.2	534.3	843.9	696.6
75°	468.2	532.4	305.8	260.5	232.2	254.9	300.2	394.6	428.6	524.8	570.1
77.5°	377.6	309.6	239.8	217.1	207.7	224.7	232.2	411.6	336.0	405.9	481.4
80°	294.5	230.3	186.9	145.4	124.6	141.6	185.0	209.6	247.3	302.1	358.7
82.5°	211.4	175.6	130.3	105.7	90.6	103.8	122.7	147.3	168.0	207.7	251.1
85°	139.7	115.2	92.5	75.5	64.2	73.6	83.1	92.5	90.6	124.6	160.5
87.5°	69.9	62.3	62.3	54.7	45.3	51.0	56.6	49.1	26.4	54.7	98.2
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°	5541.0	5541.0	5541.0	5541.0	5541.0	5541.0
2.5°	5542.9	5558.0	5554.2	5507.0	5510.8	5539.1
5°	5503.2	5550.4	5539.1	5478.7	5474.9	5486.2
7.5°	5312.6	5123.8	5401.3	5425.8	5405.1	5416.4
10°	4334.6	4208.1	4529.1	5118.1	5363.5	5361.6
12.5°	3891.0	4219.5	3955.2	4400.7	5246.5	5254.0
15°	4436.6	4595.2	4498.9	3851.3	5114.3	5104.9
17.5°	4153.4	3862.6	4191.1	4040.1	4946.3	4993.5
20°	3704.1	4143.9	3747.5	4228.9	4357.3	4884.0
22.5°	4495.1	4668.8	4319.5	3924.9	3943.8	4695.2
25°	4606.5	4889.7	4519.6	3524.7	3592.7	4519.6
27.5°	4736.7	5059.6	4708.4	3745.6	3381.2	4389.4
30°	4791.5	4999.2	4878.3	4032.6	3447.3	4183.6
32.5°	4685.8	4602.7	4793.4	3957.0	3402.0	4021.2
35°	4136.4	4074.1	4364.8	4060.9	3360.5	3781.5
37.5°	3509.6	3709.7	3832.4	4076.0	3066.0	3639.9
40°	3456.7	3800.3	3539.8	3957.0	2807.3	3317.0
42.5°	3537.9	3596.5	3468.1	3581.3	2594.0	3200.0
45°	3147.1	3149.0	3356.7	3152.8	2616.6	2930.0
47.5°	2739.3	2845.1	2941.3	2809.2	2597.8	2703.5
50°	2405.2	2650.6	2637.4	2652.5	2420.3	2461.8
52.5°	2405.2	2303.2	2329.7	2580.8	2308.9	2222.1
55°	2046.5	2008.7	2180.5	2222.1	2218.3	2006.8
57.5°	1816.2	2003.1	1876.6	1912.4	1993.6	1765.2
60°	1612.3	1555.6	1797.3	1676.5	1767.1	1546.2
62.5°	1259.2	1308.3	1393.3	1583.9	1476.3	1266.8
65°	1078.0	1153.5	1206.4	1325.3	1195.0	1066.7
67.5°	1015.7	1047.8	1032.7	1213.9	1027.0	798.6
70°	893.0	994.9	927.0	910.0	847.7	683.4
72.5°	743.8	775.9	847.7	725.0	655.1	570.1
75°	634.3	664.5	670.2	626.8	643.8	468.2
77.5°	504.1	536.2	532.4	534.3	532.4	377.6
80°	396.5	419.1	419.1	409.7	358.7	294.5
82.5°	298.3	320.9	326.6	296.4	266.2	211.4
85°	213.3	239.8	237.9	211.4	175.6	139.7
87.5°	137.8	168.0	171.8	135.9	103.8	69.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)