

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-L840-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-L840-CD2-U
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

Light Source: (1) 4000 CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

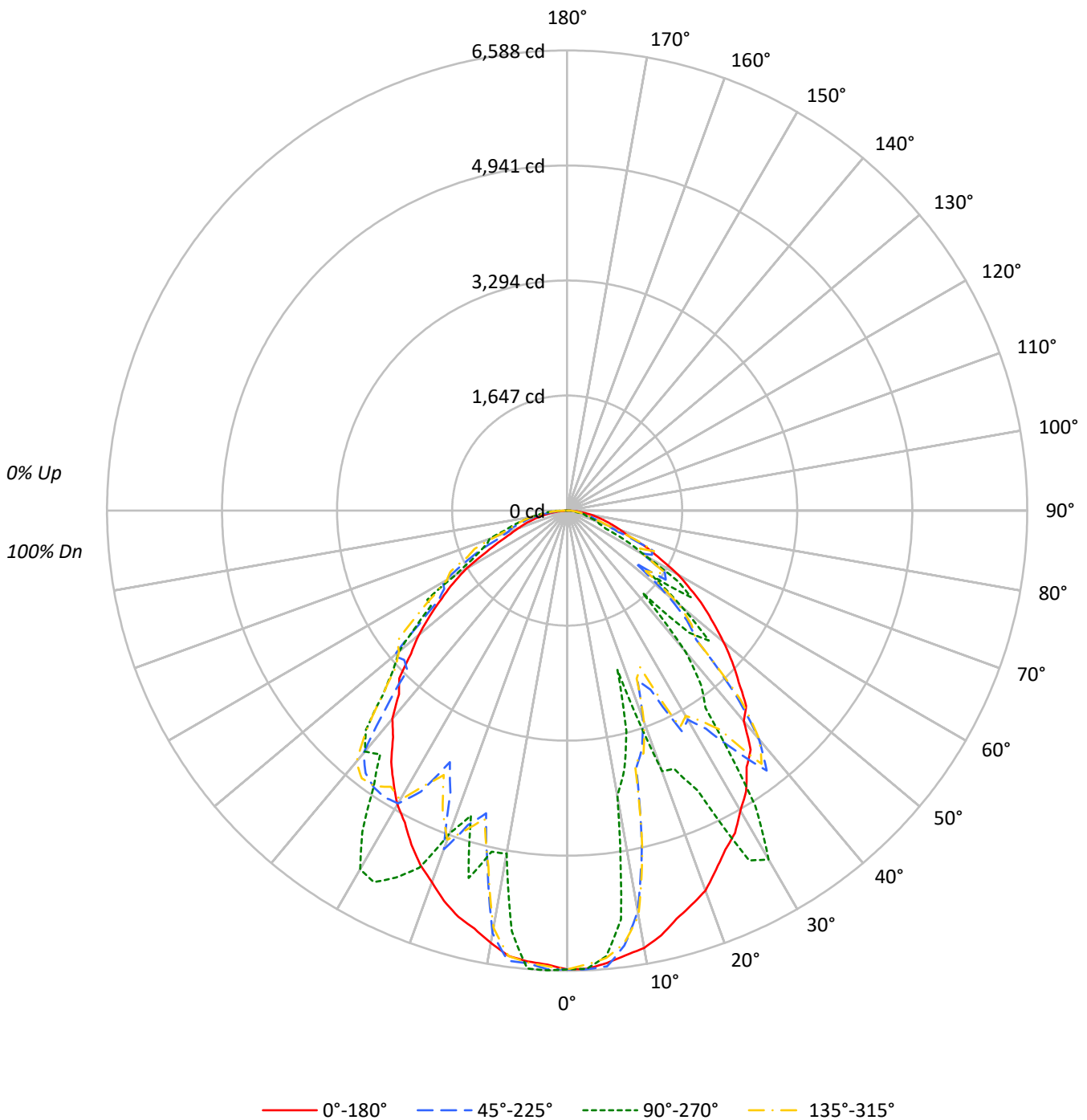
Lumens per Lamp: N/A
Luminaire Lumens: 12935.0 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

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	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°	19282	19282	19282	19282
5°	19122	18696	19050	19205
10°	18862	12128	18657	14589
15°	18269	9661	18174	16084
20°	17923	11929	17522	14760
25°	17153	13630	16888	17866
30°	16571	18391	16242	18897
35°	15788	11489	15465	16079
40°	14758	9247	14607	15816
45°	14068	9248	13759	13973
50°	12942	8611	12307	12699
55°	11756	9583	10827	10544
60°	10314	6299	9370	9106
65°	8336	3427	7230	7698
70°	6506	3000	6004	7789
75°	5758	2219	5270	6349
80°	5169	1543	4341	5189
85°	4338	1141	2814	4260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	597.7	4.6
10°-20°	1388.2	10.7
20°-30°	2066.3	16.0
30°-40°	2605.9	20.1
40°-50°	2360.2	18.2
50°-60°	1962.3	15.2
60°-70°	1185.5	9.2
70°-80°	587.9	4.5
80°-90°	181.0	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°	4052.1	31.3
0°-40°	6658.1	51.5
0°-60°	10980.6	84.9
0°-90°	12935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12935.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6568	6568	6568	6568	6568	
5°	6503	6405	6479	6579	6503	616
15°	6051	3272	6020	5447	6051	1712
25°	5358	4422	5275	5796	5358	2477
35°	4482	3451	4391	4829	4482	2816
45°	3473	2471	3397	3733	3473	2679
55°	2379	2164	2191	2381	2379	2117
65°	1264	609	1097	1367	1264	1243
75°	555	275	508	788	555	595
85°	166	76	107	284	166	183
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°	6568.2	6568.2	6568.2	6568.2	6568.2	6568.2	6568.2	6568.2	6568.2	6568.2	6568.2
2.5°	6566.0	6604.1	6572.7	6566.0	6563.8	6570.5	6503.3	6483.2	6505.6	6572.7	6570.5
5°	6503.3	6559.3	6550.3	6456.3	6404.9	6460.8	6429.5	6434.0	6478.7	6525.7	6503.3
7.5°	6420.5	6489.9	6279.6	6013.2	5903.6	6042.3	6248.2	6409.4	6429.5	6505.6	6501.1
10°	6355.6	6418.3	5823.0	4916.7	4146.8	4755.5	5885.7	6279.6	6286.3	6391.5	6145.3
12.5°	6228.1	6138.6	4943.5	3853.7	3788.8	3891.7	4977.1	5990.9	6131.9	6203.5	5254.6
15°	6051.3	5785.0	3817.9	3368.0	3271.8	3381.5	3750.7	5740.2	6020.0	6087.1	4487.0
17.5°	5919.3	5415.7	3565.0	2983.1	2392.3	2846.6	3641.1	5527.6	5858.8	5751.4	4722.0
20°	5789.5	5044.2	3166.6	3245.0	3970.0	3229.3	3215.9	5115.8	5659.7	5019.6	5160.6
22.5°	5565.7	4249.8	2625.1	3869.3	4001.4	3831.3	2604.9	4393.0	5491.8	4531.8	4366.1
25°	5357.5	3522.5	2828.7	4017.0	4422.1	3961.1	2470.6	3482.2	5274.7	4052.8	3972.3
27.5°	5203.1	3323.3	3560.5	4619.0	5646.2	4301.2	3497.8	3215.9	5033.0	3833.5	4538.5
30°	4959.2	3045.8	3455.3	5639.5	5767.1	5538.8	3394.9	3092.8	4860.7	4057.3	4840.6
32.5°	4766.7	2705.6	3703.7	5319.5	5017.4	5292.6	3565.0	2884.7	4625.7	4269.9	4865.2
35°	4482.5	2564.6	4191.6	4652.6	3450.8	4504.9	3835.8	2649.7	4390.8	3945.4	4831.6
37.5°	4314.7	2110.3	4692.9	3155.4	3153.2	3159.9	4572.0	2336.4	4090.9	3350.1	4739.9
40°	3932.0	2282.7	4274.4	2884.7	2634.0	2945.1	4285.6	1906.7	3891.7	2960.7	4534.0
42.5°	3793.2	2562.4	3558.3	2369.9	1597.9	2515.4	3685.8	2416.9	3565.0	3092.8	3847.0
45°	3473.2	2495.3	2616.1	1499.4	2470.6	1600.1	2604.9	2390.1	3397.1	3260.6	3233.8
47.5°	3204.7	2340.8	2329.7	2302.8	2752.6	2235.7	2414.7	2244.6	3032.4	3171.1	3164.4
50°	2918.2	2421.4	1857.5	2421.4	2130.5	2455.0	2065.6	2112.6	2775.0	2974.2	3231.5
52.5°	2634.0	2533.3	1219.7	1810.5	1544.2	1873.1	1418.8	2085.7	2479.6	2795.1	2669.8
55°	2378.9	2517.6	1723.2	1555.3	2164.1	1481.5	1555.3	2311.8	2190.9	2515.4	2249.1
57.5°	2092.4	2126.0	1658.3	1897.7	1873.1	1991.7	1667.2	2049.9	1935.8	2237.9	2088.0
60°	1832.8	1582.2	1219.7	1483.7	1275.6	1649.3	1242.0	1689.6	1665.0	1759.0	2049.9
62.5°	1501.6	1280.1	1369.6	1085.4	1000.3	1069.7	1174.9	1224.1	1331.6	1490.4	1700.8
65°	1264.4	1011.5	1349.5	691.5	608.7	810.1	1374.1	1080.9	1096.6	1349.5	1416.6
67.5°	946.6	745.2	774.3	555.0	501.3	543.8	966.8	837.0	879.5	998.1	1092.1
70°	810.1	662.4	561.7	456.5	454.3	458.8	606.5	624.4	747.5	841.5	904.1
72.5°	675.8	546.0	447.6	376.0	340.2	414.0	443.1	514.7	633.3	1000.3	825.8
75°	555.0	631.1	362.5	308.8	275.3	302.1	355.8	467.7	508.0	622.1	675.8
77.5°	447.6	367.0	284.2	257.4	246.2	266.3	275.3	487.9	398.3	481.1	570.7
80°	349.1	273.0	221.6	172.3	147.7	167.8	219.3	248.4	293.2	358.1	425.2
82.5°	250.6	208.1	154.4	125.3	107.4	123.1	145.5	174.6	199.2	246.2	297.6
85°	165.6	136.5	109.7	89.5	76.1	87.3	98.5	109.7	107.4	147.7	190.2
87.5°	82.8	73.9	73.9	64.9	53.7	60.4	67.1	58.2	31.3	64.9	116.4
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°	6568.2	6568.2	6568.2	6568.2	6568.2	6568.2
2.5°	6570.5	6588.4	6583.9	6528.0	6532.4	6566.0
5°	6523.5	6579.4	6566.0	6494.4	6489.9	6503.3
7.5°	6297.5	6073.7	6402.6	6431.7	6407.1	6420.5
10°	5138.2	4988.3	5368.7	6067.0	6357.9	6355.6
12.5°	4612.3	5001.7	4688.4	5216.6	6219.1	6228.1
15°	5259.1	5447.1	5332.9	4565.3	6062.5	6051.3
17.5°	4923.4	4578.7	4968.1	4789.1	5863.3	5919.3
20°	4390.8	4912.2	4442.2	5012.9	5165.1	5789.5
22.5°	5328.4	5534.3	5120.3	4652.6	4675.0	5565.7
25°	5460.5	5796.2	5357.5	4178.2	4258.7	5357.5
27.5°	5614.9	5997.6	5581.3	4440.0	4008.1	5203.1
30°	5679.8	5926.0	5782.7	4780.2	4086.4	4959.2
32.5°	5554.5	5456.0	5682.0	4690.6	4032.7	4766.7
35°	4903.2	4829.4	5174.0	4813.7	3983.5	4482.5
37.5°	4160.3	4397.5	4542.9	4831.6	3634.4	4314.7
40°	4097.6	4504.9	4196.1	4690.6	3327.8	3932.0
42.5°	4193.8	4263.2	4111.0	4245.3	3074.9	3793.2
45°	3730.6	3732.8	3979.0	3737.3	3101.7	3473.2
47.5°	3247.2	3372.5	3486.7	3330.0	3079.4	3204.7
50°	2851.1	3142.0	3126.4	3144.3	2869.0	2918.2
52.5°	2851.1	2730.2	2761.6	3059.2	2737.0	2634.0
55°	2425.9	2381.1	2584.8	2634.0	2629.5	2378.9
57.5°	2152.9	2374.4	2224.5	2267.0	2363.2	2092.4
60°	1911.2	1844.0	2130.5	1987.3	2094.7	1832.8
62.5°	1492.7	1550.9	1651.6	1877.6	1750.0	1501.6
65°	1277.8	1367.4	1430.0	1571.0	1416.6	1264.4
67.5°	1204.0	1242.0	1224.1	1439.0	1217.4	946.6
70°	1058.5	1179.4	1098.8	1078.7	1004.8	810.1
72.5°	881.7	919.8	1004.8	859.4	776.6	675.8
75°	751.9	787.7	794.5	743.0	763.1	555.0
77.5°	597.5	635.6	631.1	633.3	631.1	447.6
80°	470.0	496.8	496.8	485.6	425.2	349.1
82.5°	353.6	380.4	387.2	351.4	315.5	250.6
85°	252.9	284.2	282.0	250.6	208.1	165.6
87.5°	163.4	199.2	203.6	161.1	123.1	82.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)