

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-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-LD5-14-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

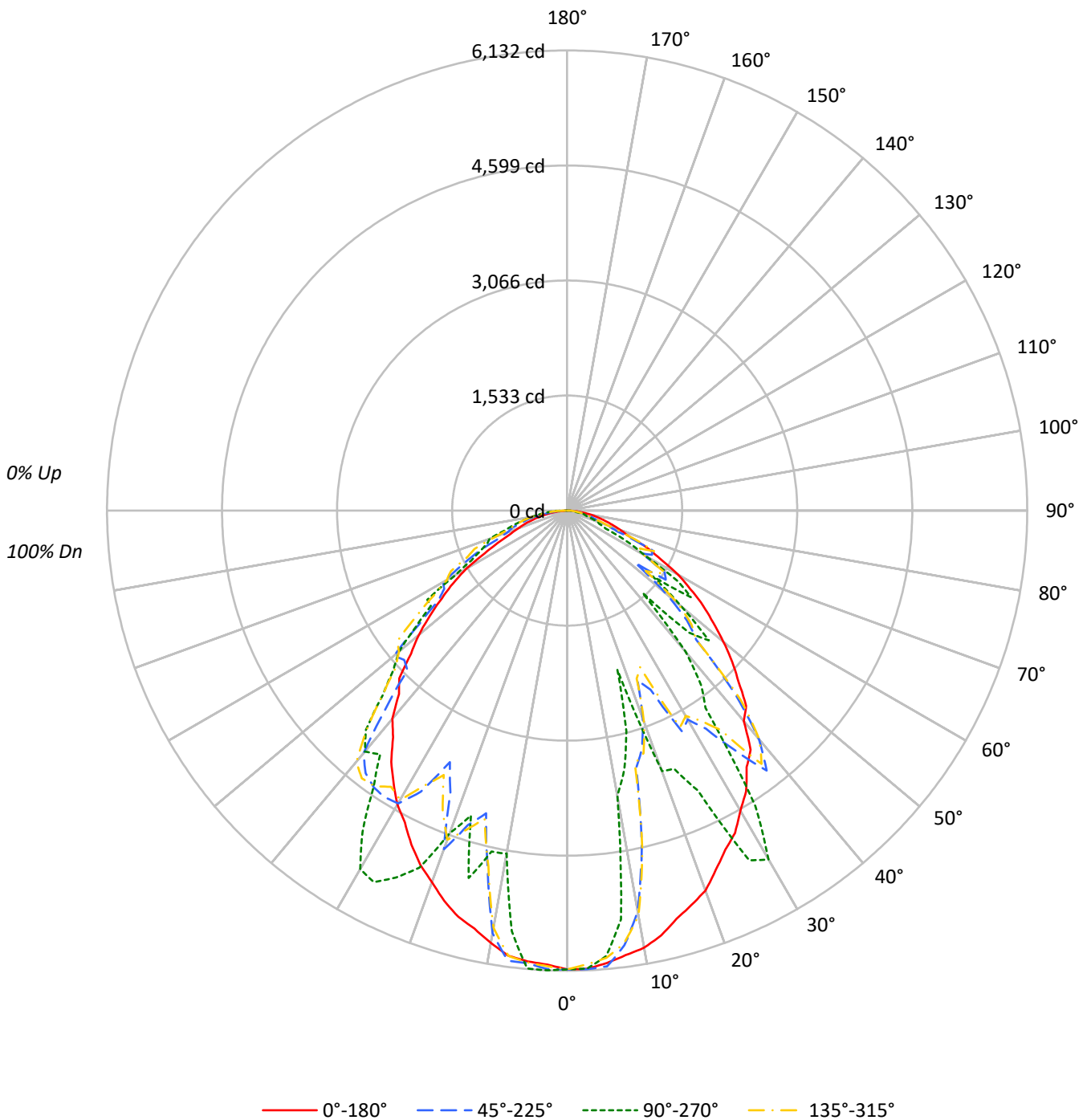
Lumens per Lamp: N/A
Luminaire Lumens: 12039.0 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 102
Input Voltage (V):
Input Current (A_{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°	17946	17946	17946	17946
5°	17798	17401	17731	17875
10°	17556	11288	17364	13578
15°	17003	8992	16915	14970
20°	16682	11102	16308	13737
25°	15965	12686	15719	16628
30°	15423	17117	15117	17588
35°	14694	10693	14393	14965
40°	13736	8607	13595	14720
45°	13093	8608	12806	13005
50°	12046	8014	11454	11819
55°	10941	8919	10077	9814
60°	9600	5863	8721	8475
65°	7758	3189	6729	7164
70°	6056	2792	5588	7249
75°	5359	2065	4905	5910
80°	4811	1436	4041	4829
85°	4037	1061	2620	3965



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	556.3	4.6
10°-20°	1292.0	10.7
20°-30°	1923.1	16.0
30°-40°	2425.4	20.1
40°-50°	2196.7	18.2
50°-60°	1826.4	15.2
60°-70°	1103.4	9.2
70°-80°	547.2	4.5
80°-90°	168.4	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°	3771.4	31.3
0°-40°	6196.9	51.5
0°-60°	10219.9	84.9
0°-90°	12039.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12039.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6113	6113	6113	6113	6113	
5°	6053	5961	6030	6124	6053	573
15°	5632	3045	5603	5070	5632	1593
25°	4986	4116	4909	5395	4986	2306
35°	4172	3212	4087	4495	4172	2621
45°	3233	2300	3162	3474	3233	2493
55°	2214	2014	2039	2216	2214	1971
65°	1177	566	1021	1273	1177	1156
75°	517	256	473	733	517	554
85°	154	71	100	264	154	171
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°	6113.3	6113.3	6113.3	6113.3	6113.3	6113.3	6113.3	6113.3	6113.3	6113.3	6113.3
2.5°	6111.2	6146.6	6117.4	6111.2	6109.1	6115.3	6052.9	6034.1	6054.9	6117.4	6115.3
5°	6052.9	6104.9	6096.6	6009.1	5961.2	6013.3	5984.1	5988.3	6030.0	6073.7	6052.9
7.5°	5975.8	6040.4	5844.6	5596.7	5494.6	5623.8	5815.4	5965.4	5984.1	6054.9	6050.8
10°	5915.4	5973.7	5419.7	4576.1	3859.6	4426.1	5478.0	5844.6	5850.8	5948.7	5719.6
12.5°	5796.7	5713.4	4601.1	3586.7	3526.3	3622.1	4632.3	5575.9	5707.1	5773.8	4890.6
15°	5632.1	5384.3	3553.4	3134.7	3045.2	3147.2	3490.9	5342.6	5603.0	5665.4	4176.2
17.5°	5509.2	5040.6	3318.0	2776.5	2226.6	2649.4	3388.9	5144.7	5453.0	5353.0	4394.9
20°	5388.4	4694.8	2947.3	3020.2	3695.0	3005.6	2993.1	4761.5	5267.6	4671.9	4803.1
22.5°	5180.1	3955.4	2443.2	3601.3	3724.2	3565.9	2424.5	4088.7	5111.4	4217.8	4063.7
25°	4986.4	3278.5	2632.8	3738.8	4115.8	3686.7	2299.5	3241.0	4909.4	3772.1	3697.1
27.5°	4842.7	3093.1	3313.9	4299.1	5255.1	4003.3	3255.5	2993.1	4684.4	3568.0	4224.1
30°	4615.7	2834.8	3216.0	5248.9	5367.6	5155.1	3159.7	2878.5	4524.0	3776.3	4505.3
32.5°	4436.5	2518.2	3447.2	4951.0	4669.8	4926.0	3318.0	2684.8	4305.3	3974.1	4528.2
35°	4172.0	2387.0	3901.2	4330.3	3211.8	4192.8	3570.1	2466.1	4086.6	3672.1	4496.9
37.5°	4015.8	1964.2	4367.8	2936.9	2934.8	2941.0	4255.3	2174.5	3807.5	3118.1	4411.5
40°	3659.6	2124.5	3978.3	2684.8	2451.6	2741.1	3988.7	1774.6	3622.1	2755.7	4219.9
42.5°	3530.5	2384.9	3311.8	2205.8	1487.2	2341.2	3430.5	2249.5	3318.0	2878.5	3580.5
45°	3232.6	2322.4	2434.9	1395.5	2299.5	1489.3	2424.5	2224.5	3161.8	3034.8	3009.8
47.5°	2982.7	2178.7	2168.3	2143.3	2561.9	2080.8	2247.4	2089.1	2822.3	2951.4	2945.2
50°	2716.1	2253.7	1728.8	2253.7	1982.9	2284.9	1922.5	1966.2	2582.8	2768.2	3007.7
52.5°	2451.6	2357.8	1135.2	1685.1	1437.2	1743.4	1320.5	1941.2	2307.8	2601.5	2484.9
55°	2214.1	2343.2	1603.8	1447.6	2014.1	1378.9	1447.6	2151.6	2039.1	2341.2	2093.3
57.5°	1947.5	1978.7	1543.4	1766.3	1743.4	1853.8	1551.7	1907.9	1801.7	2082.9	1943.3
60°	1705.9	1472.6	1135.2	1381.0	1187.2	1535.1	1156.0	1572.6	1549.7	1637.1	1907.9
62.5°	1397.6	1191.4	1274.7	1010.2	931.0	995.6	1093.5	1139.3	1239.3	1387.2	1583.0
65°	1176.8	941.5	1256.0	643.6	566.5	754.0	1278.9	1006.0	1020.6	1256.0	1318.5
67.5°	881.1	693.6	720.7	516.6	466.6	506.1	899.8	779.0	818.6	929.0	1016.4
70°	754.0	616.5	522.8	424.9	422.8	427.0	564.5	581.1	695.7	783.2	841.5
72.5°	629.0	508.2	416.6	349.9	316.6	385.3	412.4	479.1	589.5	931.0	768.6
75°	516.6	587.4	337.4	287.4	256.2	281.2	331.2	435.3	472.8	579.0	629.0
77.5°	416.6	341.6	264.5	239.5	229.1	247.9	256.2	454.1	370.8	447.8	531.1
80°	324.9	254.1	206.2	160.4	137.5	156.2	204.1	231.2	272.9	333.3	395.7
82.5°	233.3	193.7	143.7	116.6	100.0	114.6	135.4	162.5	185.4	229.1	277.0
85°	154.1	127.1	102.1	83.3	70.8	81.2	91.6	102.1	100.0	137.5	177.0
87.5°	77.1	68.7	68.7	60.4	50.0	56.2	62.5	54.2	29.2	60.4	108.3
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°	6113.3	6113.3	6113.3	6113.3	6113.3	6113.3
2.5°	6115.3	6132.0	6127.8	6075.8	6079.9	6111.2
5°	6071.6	6123.7	6111.2	6044.5	6040.4	6052.9
7.5°	5861.2	5652.9	5959.1	5986.2	5963.3	5975.8
10°	4782.3	4642.7	4996.8	5646.7	5917.5	5915.4
12.5°	4292.8	4655.2	4363.6	4855.2	5788.3	5796.7
15°	4894.8	5069.7	4963.5	4249.1	5642.5	5632.1
17.5°	4582.3	4261.6	4624.0	4457.4	5457.2	5509.2
20°	4086.6	4571.9	4134.5	4665.7	4807.3	5388.4
22.5°	4959.3	5151.0	4765.6	4330.3	4351.1	5180.1
25°	5082.2	5394.7	4986.4	3888.7	3963.7	4986.4
27.5°	5226.0	5582.1	5194.7	4132.4	3730.4	4842.7
30°	5286.4	5515.5	5382.2	4449.0	3803.3	4615.7
32.5°	5169.7	5078.1	5288.4	4365.7	3753.4	4436.5
35°	4563.6	4494.9	4815.6	4480.3	3707.5	4172.0
37.5°	3872.1	4092.9	4228.3	4496.9	3382.6	4015.8
40°	3813.8	4192.8	3905.4	4365.7	3097.2	3659.6
42.5°	3903.3	3967.9	3826.3	3951.2	2861.9	3530.5
45°	3472.2	3474.3	3703.4	3478.4	2886.9	3232.6
47.5°	3022.3	3138.9	3245.1	3099.3	2866.0	2982.7
50°	2653.6	2924.4	2909.8	2926.5	2670.3	2716.1
52.5°	2653.6	2541.1	2570.3	2847.3	2547.4	2451.6
55°	2257.8	2216.2	2405.7	2451.6	2447.4	2214.1
57.5°	2003.7	2209.9	2070.4	2110.0	2199.5	1947.5
60°	1778.8	1716.3	1982.9	1849.6	1949.6	1705.9
62.5°	1389.3	1443.4	1537.2	1747.5	1628.8	1397.6
65°	1189.3	1272.6	1331.0	1462.2	1318.5	1176.8
67.5°	1120.6	1156.0	1139.3	1339.3	1133.1	881.1
70°	985.2	1097.7	1022.7	1004.0	935.2	754.0
72.5°	820.7	856.1	935.2	799.8	722.8	629.0
75°	699.8	733.2	739.4	691.5	710.3	516.6
77.5°	556.1	591.5	587.4	589.5	587.4	416.6
80°	437.4	462.4	462.4	452.0	395.7	324.9
82.5°	329.1	354.1	360.3	327.0	293.7	233.3
85°	235.4	264.5	262.4	233.3	193.7	154.1
87.5°	152.1	185.4	189.5	150.0	114.6	77.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)