

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-FLUPL-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 (P34183)  
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-FLUPL-UNV-L835-CD2-U  
Description: Metalux 4' ILED WITH FROST LENS WITH UPL DISTRIBUTION

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

**Summary**

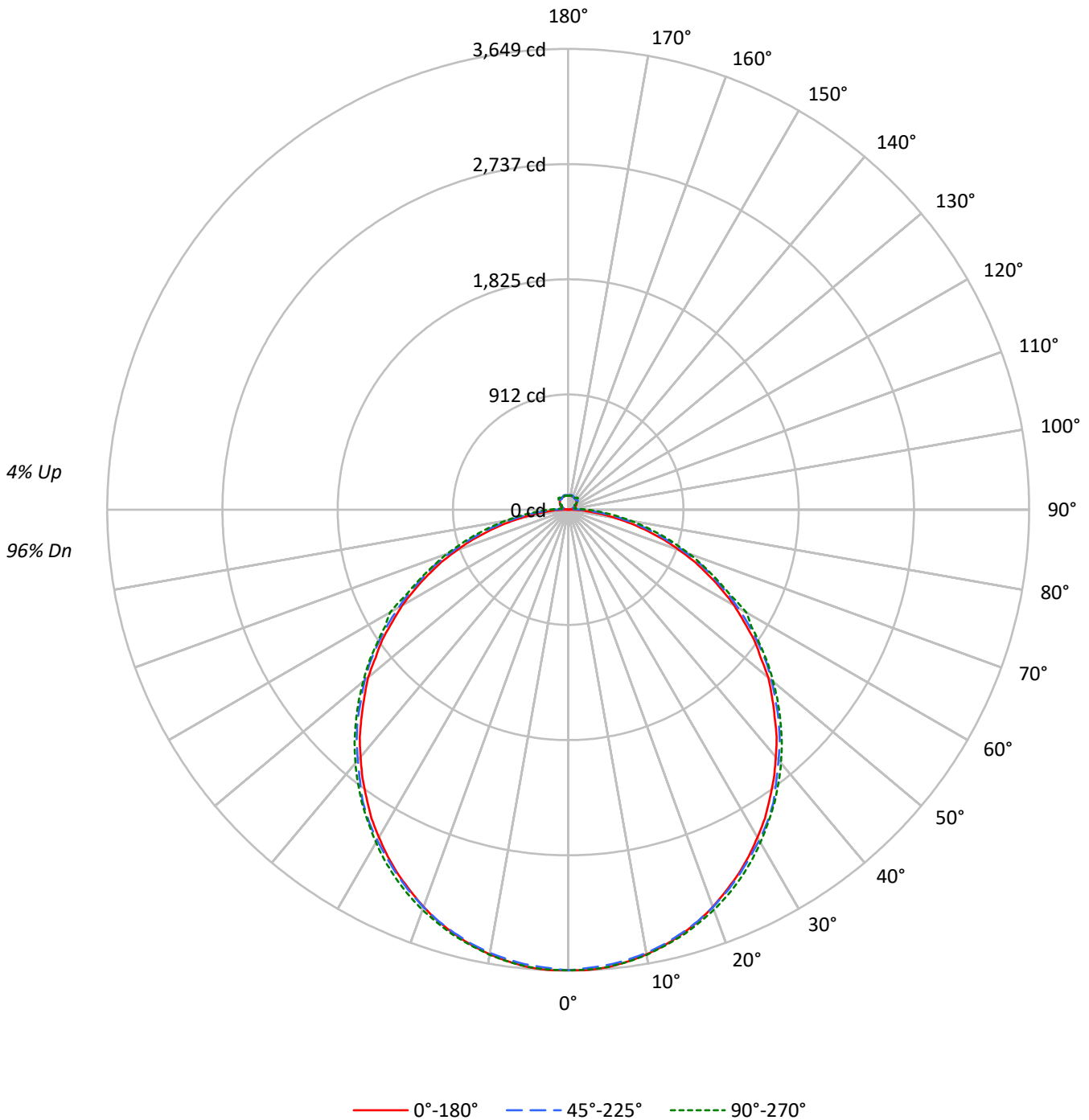
Lumens per Lamp: N/A  
Luminaire Lumens: 10765.0 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 102  
Input Voltage (V):  
Input Current (Ain): 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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96
1	107	103	98	94	104	100	96	92	95	91	89	90	87	85	86	84	82	79
2	98	89	82	76	95	87	81	75	83	77	73	79	74	70	75	72	68	66
3	89	78	70	63	86	76	69	63	73	66	61	69	64	59	66	62	58	55
4	81	69	60	54	79	68	59	53	65	58	52	62	56	51	59	54	50	47
5	75	62	53	46	72	60	52	46	58	50	45	55	49	44	53	48	43	41
6	69	56	47	40	67	55	46	40	52	45	39	50	44	39	48	42	38	36
7	64	50	42	36	62	49	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	31	43	36	31	42	35	31	40	35	30	28
9	56	42	34	28	54	41	34	28	40	33	28	39	32	28	37	31	27	25
10	52	39	31	26	51	38	31	26	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10707	10707	10707
5°	10691	10577	10608
10°	10611	10450	10468
15°	10504	10289	10307
20°	10362	10113	10131
25°	10197	9914	9938
30°	10011	9719	9704
35°	9807	9516	9465
40°	9594	9194	9199
45°	9359	8934	8897
50°	9167	8622	8560
55°	8881	8254	8192
60°	8541	7816	8045
65°	8077	7301	7269
70°	7505	6697	6719
75°	6737	5947	6026
80°	5674	5002	5245
85°	4301	3905	4358



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	344.7	3.2
10°-20°	982.1	9.1
20°-30°	1475.6	13.7
30°-40°	1765.5	16.4
40°-50°	1815.1	16.9
50°-60°	1634.7	15.2
60°-70°	1256.3	11.7
70°-80°	748.0	6.9
80°-90°	271.0	2.5
90°-100°	58.4	0.5
100°-110°	48.5	0.5
110°-120°	57.2	0.5
120°-130°	70.8	0.7
130°-140°	77.3	0.7
140°-150°	66.4	0.6
150°-160°	49.9	0.5
160°-170°	32.4	0.3
170°-180°	10.9	0.1
0°-30°	2802.4	26.0
0°-40°	4567.9	42.4
0°-60°	8017.7	74.5
0°-90°	10293.0	95.6
90°-120°	164.2	1.5
90°-150°	378.7	3.5
90°-180°	472.0	4.4
0°-180°	10765.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3647	3647	3647	3647	3647	
5°	3636	3634	3619	3632	3634	345
15°	3479	3481	3472	3487	3490	981
25°	3185	3190	3196	3219	3224	1467
35°	2784	2818	2832	2837	2843	1743
45°	2311	2335	2356	2379	2377	1786
55°	1797	1805	1831	1846	1850	1601
65°	1225	1236	1265	1289	1291	1215
75°	649	668	710	750	748	689
85°	164	196	242	278	291	180
90°	4	49	98	134	145	13
95°	13	32	47	68	76	13
105°	40	34	43	70	62	41
115°	62	70	49	51	51	61
125°	79	79	91	74	64	71
135°	92	91	104	110	108	72
145°	102	104	100	110	117	64
155°	108	115	108	104	104	50
165°	111	115	119	115	111	32
175°	113	113	115	113	110	11
180°	111	111	111	111	111	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3647.2	3647.2	3647.2	3647.2	3647.2
2.5°	3649.1	3647.2	3632.1	3643.4	3645.3
5°	3635.9	3634.0	3618.9	3632.1	3634.0
7.5°	3609.4	3609.4	3594.3	3609.4	3611.3
10°	3575.5	3575.5	3564.1	3577.4	3579.2
12.5°	3532.0	3533.9	3522.6	3537.7	3537.7
15°	3479.2	3481.1	3471.6	3486.7	3490.5
17.5°	3418.8	3418.8	3415.0	3432.0	3433.9
20°	3347.0	3356.5	3348.9	3367.8	3371.6
22.5°	3265.9	3275.3	3275.3	3296.1	3301.7
25°	3184.7	3190.4	3196.0	3218.7	3224.3
27.5°	3094.1	3105.4	3107.3	3131.8	3137.5
30°	2995.9	3014.8	3024.2	3039.3	3043.1
32.5°	2897.8	2922.3	2933.6	2941.2	2943.1
35°	2784.5	2818.5	2831.7	2837.3	2843.0
37.5°	2675.0	2703.3	2707.1	2727.9	2733.5
40°	2556.1	2590.0	2590.0	2614.6	2620.2
42.5°	2442.8	2450.3	2478.7	2495.7	2503.2
45°	2310.7	2335.2	2356.0	2378.6	2376.7
47.5°	2186.1	2218.1	2223.8	2244.6	2250.2
50°	2067.1	2089.8	2101.1	2118.1	2118.1
52.5°	1919.9	1950.1	1974.6	1984.1	1989.7
55°	1797.2	1804.7	1831.2	1846.3	1850.0
57.5°	1648.0	1666.9	1691.5	1710.3	1719.8
60°	1517.8	1529.1	1549.9	1576.3	1629.2
62.5°	1370.5	1383.7	1410.2	1489.5	1434.7
65°	1225.2	1236.5	1264.8	1289.4	1291.2
67.5°	1087.4	1098.7	1138.3	1145.9	1151.5
70°	934.5	949.6	983.5	1008.1	1017.5
72.5°	794.8	808.0	842.0	870.3	879.7
75°	649.4	668.3	709.8	749.5	747.6
77.5°	511.6	545.6	579.6	611.6	621.1
80°	383.2	409.6	455.0	488.9	502.2
82.5°	268.1	298.3	343.6	377.6	390.8
85°	164.2	196.3	241.6	277.5	290.7
87.5°	79.3	111.4	160.5	196.3	211.4
90°	3.8	49.1	98.2	134.0	145.4
92.5°	7.6	28.3	64.2	92.5	101.9
95°	13.2	32.1	47.2	68.0	75.5
97.5°	18.9	28.3	41.5	54.7	60.4
100°	26.4	28.3	47.2	49.1	52.9
102.5°	32.1	30.2	45.3	49.1	49.1
105°	39.6	34.0	43.4	69.8	62.3
107.5°	45.3	47.2	41.5	49.1	52.9
110°	51.0	54.7	45.3	52.9	52.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	56.6	62.3	49.1	49.1	52.9
115°	62.3	69.8	49.1	51.0	51.0
117.5°	68.0	71.7	58.5	54.7	54.7
120°	71.7	73.6	73.6	54.7	58.5
122.5°	75.5	77.4	83.1	60.4	58.5
125°	79.3	79.3	90.6	73.6	64.2
127.5°	83.1	83.1	96.3	86.8	77.4
130°	86.8	83.1	101.9	94.4	90.6
132.5°	90.6	86.8	103.8	101.9	98.2
135°	92.5	90.6	103.8	109.5	107.6
137.5°	96.3	94.4	100.1	115.2	113.3
140°	98.2	98.2	100.1	115.2	118.9
142.5°	100.1	100.1	100.1	113.3	118.9
145°	101.9	103.8	100.1	109.5	117.0
147.5°	103.8	107.6	100.1	107.6	111.4
150°	105.7	109.5	100.1	105.7	107.6
152.5°	107.6	113.3	103.8	103.8	105.7
155°	107.6	115.2	107.6	103.8	103.8
157.5°	109.5	115.2	109.5	103.8	103.8
160°	109.5	117.0	113.3	107.6	105.7
162.5°	111.4	117.0	117.0	111.4	109.5
165°	111.4	115.2	118.9	115.2	111.4
167.5°	113.3	115.2	118.9	117.0	113.3
170°	113.3	115.2	117.0	117.0	113.3
172.5°	113.3	115.2	117.0	115.2	113.3
175°	113.3	113.3	115.2	113.3	109.5
177.5°	113.3	113.3	113.3	111.4	109.5
180°	111.4	111.4	111.4	111.4	111.4

(END OF REPORT)