

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-LD5-11-W-FLUPL-UNV-L835-CD1-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-LD5-11-W-FLUPL-UNV-L835-CD1-U  
Description: Metalux 4' ILED WITH FROST LENS WITH UPL DISTRIBUTION

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

**Summary**

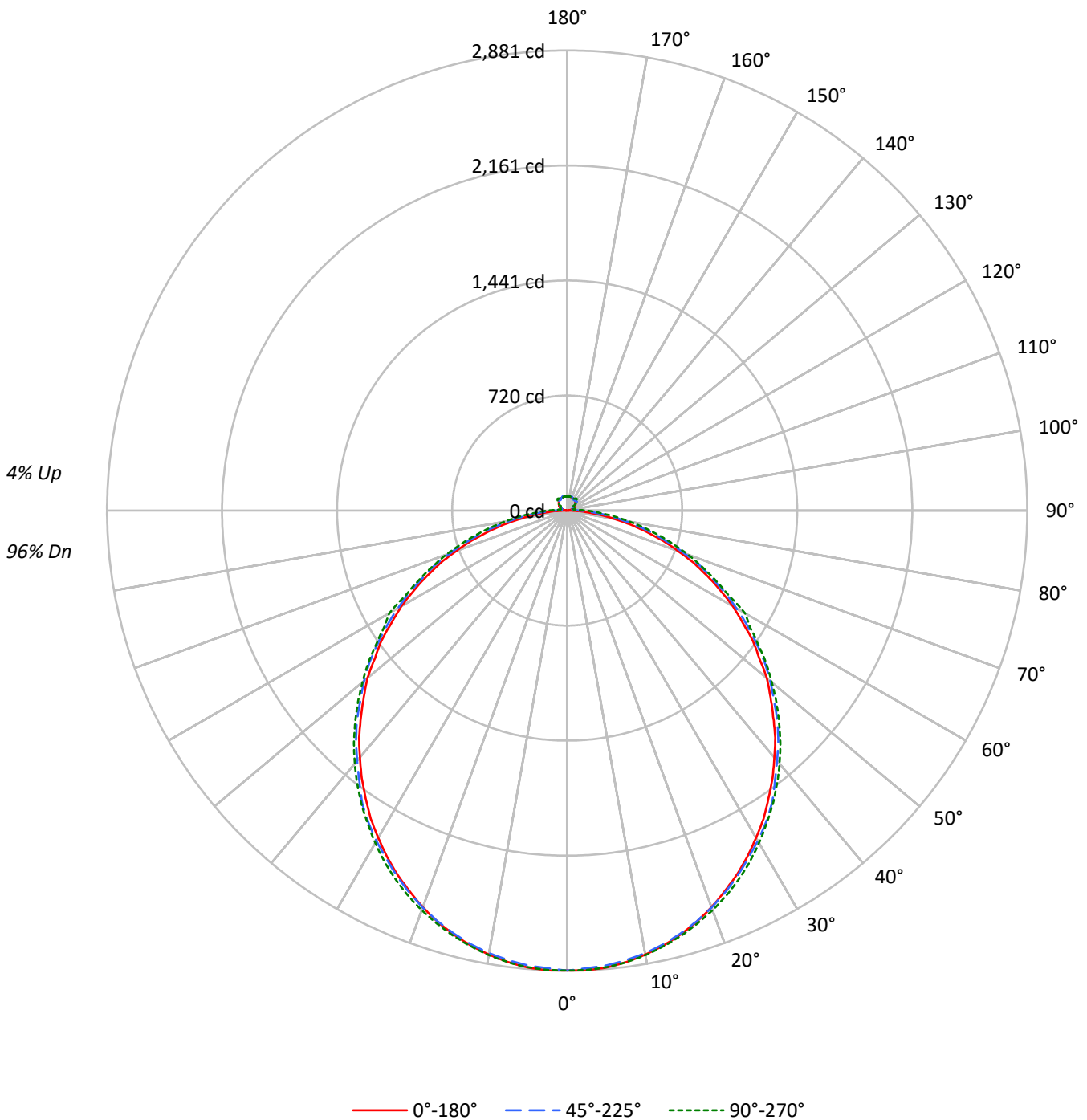
Lumens per Lamp: N/A  
Luminaire Lumens: 8500.0 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 83.9  
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	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°	8454	8454	8454
5°	8442	8351	8376
10°	8379	8251	8266
15°	8294	8125	8138
20°	8182	7985	7999
25°	8051	7828	7847
30°	7905	7674	7662
35°	7744	7514	7474
40°	7576	7260	7263
45°	7390	7054	7025
50°	7239	6807	6759
55°	7012	6518	6469
60°	6744	6172	6352
65°	6378	5765	5740
70°	5926	5288	5306
75°	5320	4696	4758
80°	4480	3949	4141
85°	3398	3084	3442



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.1	3.2
10°-20°	775.4	9.1
20°-30°	1165.2	13.7
30°-40°	1394.0	16.4
40°-50°	1433.2	16.9
50°-60°	1290.8	15.2
60°-70°	992.0	11.7
70°-80°	590.6	6.9
80°-90°	214.0	2.5
90°-100°	46.1	0.5
100°-110°	38.3	0.5
110°-120°	45.2	0.5
120°-130°	55.9	0.7
130°-140°	61.0	0.7
140°-150°	52.4	0.6
150°-160°	39.4	0.5
160°-170°	25.6	0.3
170°-180°	8.6	0.1
0°-30°	2212.8	26.0
0°-40°	3606.8	42.4
0°-60°	6330.8	74.5
0°-90°	8127.3	95.6
90°-120°	129.6	1.5
90°-150°	299.0	3.5
90°-180°	373.0	4.4
0°-180°	8500.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2880	2880	2880	2880	2880	
5°	2871	2869	2858	2868	2869	272
15°	2747	2749	2741	2753	2756	775
25°	2515	2519	2524	2542	2546	1158
35°	2199	2225	2236	2240	2245	1376
45°	1824	1844	1860	1878	1877	1410
55°	1419	1425	1446	1458	1461	1264
65°	967	976	999	1018	1020	959
75°	513	528	560	592	590	544
85°	130	155	191	219	230	142
90°	3	39	78	106	115	10
95°	10	25	37	54	60	11
105°	31	27	34	55	49	32
115°	49	55	39	40	40	49
125°	63	63	72	58	51	56
135°	73	72	82	86	85	57
145°	80	82	79	86	92	50
155°	85	91	85	82	82	39
165°	88	91	94	91	88	25
175°	89	89	91	89	86	9
180°	88	88	88	88	88	



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2879.8	2879.8	2879.8	2879.8	2879.8
2.5°	2881.3	2879.8	2867.9	2876.8	2878.3
5°	2870.9	2869.4	2857.5	2867.9	2869.4
7.5°	2850.0	2850.0	2838.1	2850.0	2851.5
10°	2823.2	2823.2	2814.2	2824.7	2826.2
12.5°	2788.9	2790.4	2781.4	2793.4	2793.4
15°	2747.2	2748.6	2741.2	2753.1	2756.1
17.5°	2699.5	2699.5	2696.5	2709.9	2711.4
20°	2642.8	2650.3	2644.3	2659.2	2662.2
22.5°	2578.7	2586.2	2586.2	2602.6	2607.0
25°	2514.6	2519.1	2523.6	2541.5	2545.9
27.5°	2443.1	2452.0	2453.5	2472.9	2477.4
30°	2365.6	2380.5	2387.9	2399.8	2402.8
32.5°	2288.1	2307.4	2316.4	2322.3	2323.8
35°	2198.6	2225.4	2235.9	2240.4	2244.8
37.5°	2112.2	2134.5	2137.5	2153.9	2158.4
40°	2018.3	2045.1	2045.1	2064.5	2068.9
42.5°	1928.8	1934.8	1957.1	1970.6	1976.5
45°	1824.5	1843.9	1860.3	1878.1	1876.7
47.5°	1726.1	1751.4	1755.9	1772.3	1776.8
50°	1632.2	1650.1	1659.0	1672.4	1672.4
52.5°	1515.9	1539.8	1559.2	1566.6	1571.1
55°	1419.0	1425.0	1445.9	1457.8	1460.8
57.5°	1301.3	1316.2	1335.6	1350.5	1357.9
60°	1198.4	1207.4	1223.8	1244.6	1286.4
62.5°	1082.2	1092.6	1113.5	1176.1	1132.8
65°	967.4	976.3	998.7	1018.1	1019.6
67.5°	858.6	867.5	898.8	904.8	909.3
70°	737.8	749.8	776.6	796.0	803.4
72.5°	627.5	638.0	664.8	687.2	694.6
75°	512.8	527.7	560.5	591.8	590.3
77.5°	403.9	430.8	457.6	483.0	490.4
80°	302.6	323.5	359.2	386.1	396.5
82.5°	211.7	235.5	271.3	298.1	308.6
85°	129.7	155.0	190.8	219.1	229.6
87.5°	62.6	87.9	126.7	155.0	166.9
90°	3.0	38.8	77.5	105.8	114.8
92.5°	6.0	22.4	50.7	73.0	80.5
95°	10.4	25.3	37.3	53.7	59.6
97.5°	14.9	22.4	32.8	43.2	47.7
100°	20.9	22.4	37.3	38.8	41.7
102.5°	25.3	23.8	35.8	38.8	38.8
105°	31.3	26.8	34.3	55.2	49.2
107.5°	35.8	37.3	32.8	38.8	41.7
110°	40.2	43.2	35.8	41.7	41.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	44.7	49.2	38.8	38.8	41.7
115°	49.2	55.2	38.8	40.2	40.2
117.5°	53.7	56.6	46.2	43.2	43.2
120°	56.6	58.1	58.1	43.2	46.2
122.5°	59.6	61.1	65.6	47.7	46.2
125°	62.6	62.6	71.5	58.1	50.7
127.5°	65.6	65.6	76.0	68.6	61.1
130°	68.6	65.6	80.5	74.5	71.5
132.5°	71.5	68.6	82.0	80.5	77.5
135°	73.0	71.5	82.0	86.5	85.0
137.5°	76.0	74.5	79.0	90.9	89.4
140°	77.5	77.5	79.0	90.9	93.9
142.5°	79.0	79.0	79.0	89.4	93.9
145°	80.5	82.0	79.0	86.5	92.4
147.5°	82.0	85.0	79.0	85.0	87.9
150°	83.5	86.5	79.0	83.5	85.0
152.5°	85.0	89.4	82.0	82.0	83.5
155°	85.0	90.9	85.0	82.0	82.0
157.5°	86.5	90.9	86.5	82.0	82.0
160°	86.5	92.4	89.4	85.0	83.5
162.5°	87.9	92.4	92.4	87.9	86.5
165°	87.9	90.9	93.9	90.9	87.9
167.5°	89.4	90.9	93.9	92.4	89.4
170°	89.4	90.9	92.4	92.4	89.4
172.5°	89.4	90.9	92.4	90.9	89.4
175°	89.4	89.4	90.9	89.4	86.5
177.5°	89.4	89.4	89.4	87.9	86.5
180°	87.9	87.9	87.9	87.9	87.9

(END OF REPORT)