

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-LD5-9-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-LD5-9-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**

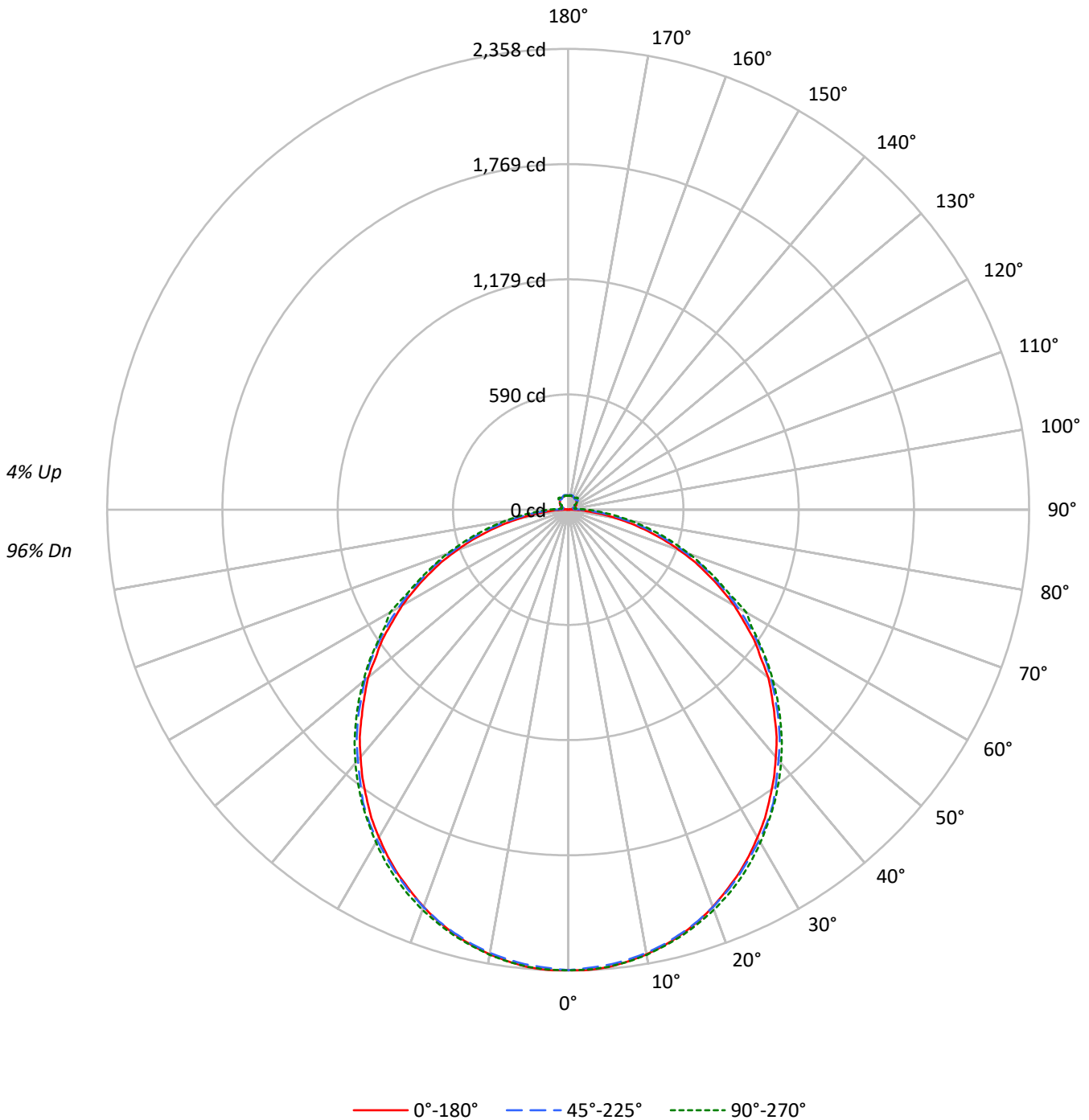
Lumens per Lamp: N/A  
Luminaire Lumens: 6956.0 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 65.7  
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



TEST NUMBER: P#  
CATALOG NUMBER: 4ILED-LD5-9-W-FLUPL-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-9-W-FLUPL-UNV-L835-CD1-U

**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°	6918	6918	6918
5°	6908	6834	6854
10°	6857	6752	6764
15°	6787	6649	6660
20°	6696	6535	6546
25°	6589	6406	6422
30°	6469	6280	6271
35°	6337	6149	6116
40°	6199	5941	5944
45°	6048	5773	5749
50°	5924	5571	5531
55°	5739	5333	5293
60°	5519	5051	5198
65°	5220	4718	4697
70°	4849	4327	4342
75°	4353	3843	3894
80°	3666	3232	3389
85°	2779	2523	2817



TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-9-W-FLUPL-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.7	3.2
10°-20°	634.6	9.1
20°-30°	953.5	13.7
30°-40°	1140.8	16.4
40°-50°	1172.9	16.9
50°-60°	1056.3	15.2
60°-70°	811.8	11.7
70°-80°	483.3	6.9
80°-90°	175.1	2.5
90°-100°	37.7	0.5
100°-110°	31.4	0.5
110°-120°	37.0	0.5
120°-130°	45.8	0.7
130°-140°	50.0	0.7
140°-150°	42.9	0.6
150°-160°	32.3	0.5
160°-170°	21.0	0.3
170°-180°	7.1	0.1
0°-30°	1810.8	26.0
0°-40°	2951.6	42.4
0°-60°	5180.8	74.5
0°-90°	6651.0	95.6
90°-120°	106.1	1.5
90°-150°	244.7	3.5
90°-180°	305.0	4.4
0°-180°	6956.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2357	2357	2357	2357	2357	
5°	2349	2348	2338	2347	2348	223
15°	2248	2249	2243	2253	2256	634
25°	2058	2062	2065	2080	2084	948
35°	1799	1821	1830	1833	1837	1126
45°	1493	1509	1522	1537	1536	1154
55°	1161	1166	1183	1193	1195	1034
65°	792	799	817	833	834	785
75°	420	432	459	484	483	445
85°	106	127	156	179	188	117
90°	2	32	63	87	94	8
95°	8	21	30	44	49	9
105°	26	22	28	45	40	27
115°	40	45	32	33	33	40
125°	51	51	59	48	42	46
135°	60	59	67	71	70	46
145°	66	67	65	71	76	41
155°	70	74	70	67	67	32
165°	72	74	77	74	72	20
175°	73	73	74	73	71	7
180°	72	72	72	72	72	



TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-9-W-FLUPL-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2356.7	2356.7	2356.7	2356.7	2356.7
2.5°	2357.9	2356.7	2346.9	2354.3	2355.5
5°	2349.4	2348.2	2338.4	2346.9	2348.2
7.5°	2332.3	2332.3	2322.6	2332.3	2333.5
10°	2310.4	2310.4	2303.0	2311.6	2312.8
12.5°	2282.3	2283.5	2276.2	2286.0	2286.0
15°	2248.1	2249.4	2243.3	2253.0	2255.5
17.5°	2209.1	2209.1	2206.7	2217.6	2218.9
20°	2162.8	2168.9	2164.0	2176.2	2178.6
22.5°	2110.3	2116.4	2116.4	2129.8	2133.5
25°	2057.8	2061.5	2065.2	2079.8	2083.5
27.5°	1999.3	2006.6	2007.8	2023.7	2027.4
30°	1935.9	1948.1	1954.2	1963.9	1966.4
32.5°	1872.4	1888.3	1895.6	1900.5	1901.7
35°	1799.2	1821.2	1829.7	1833.4	1837.1
37.5°	1728.5	1746.8	1749.2	1762.7	1766.3
40°	1651.6	1673.6	1673.6	1689.5	1693.1
42.5°	1578.5	1583.3	1601.6	1612.6	1617.5
45°	1493.1	1508.9	1522.3	1537.0	1535.8
47.5°	1412.6	1433.3	1437.0	1450.4	1454.0
50°	1335.7	1350.3	1357.7	1368.6	1368.6
52.5°	1240.6	1260.1	1275.9	1282.0	1285.7
55°	1161.3	1166.2	1183.2	1193.0	1195.4
57.5°	1064.9	1077.1	1093.0	1105.2	1111.3
60°	980.7	988.1	1001.5	1018.6	1052.7
62.5°	885.6	894.1	911.2	962.4	927.1
65°	791.7	799.0	817.3	833.1	834.4
67.5°	702.6	709.9	735.6	740.4	744.1
70°	603.8	613.6	635.5	651.4	657.5
72.5°	513.5	522.1	544.0	562.3	568.4
75°	419.6	431.8	458.7	484.3	483.1
77.5°	330.6	352.5	374.5	395.2	401.3
80°	247.6	264.7	294.0	315.9	324.5
82.5°	173.2	192.7	222.0	244.0	252.5
85°	106.1	126.9	156.1	179.3	187.9
87.5°	51.2	72.0	103.7	126.9	136.6
90°	2.4	31.7	63.4	86.6	93.9
92.5°	4.9	18.3	41.5	59.8	65.9
95°	8.5	20.7	30.5	43.9	48.8
97.5°	12.2	18.3	26.8	35.4	39.0
100°	17.1	18.3	30.5	31.7	34.2
102.5°	20.7	19.5	29.3	31.7	31.7
105°	25.6	22.0	28.1	45.1	40.3
107.5°	29.3	30.5	26.8	31.7	34.2
110°	32.9	35.4	29.3	34.2	34.2



TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-9-W-FLUPL-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	36.6	40.3	31.7	31.7	34.2
115°	40.3	45.1	31.7	32.9	32.9
117.5°	43.9	46.4	37.8	35.4	35.4
120°	46.4	47.6	47.6	35.4	37.8
122.5°	48.8	50.0	53.7	39.0	37.8
125°	51.2	51.2	58.6	47.6	41.5
127.5°	53.7	53.7	62.2	56.1	50.0
130°	56.1	53.7	65.9	61.0	58.6
132.5°	58.6	56.1	67.1	65.9	63.4
135°	59.8	58.6	67.1	70.7	69.5
137.5°	62.2	61.0	64.7	74.4	73.2
140°	63.4	63.4	64.7	74.4	76.8
142.5°	64.7	64.7	64.7	73.2	76.8
145°	65.9	67.1	64.7	70.7	75.6
147.5°	67.1	69.5	64.7	69.5	72.0
150°	68.3	70.7	64.7	68.3	69.5
152.5°	69.5	73.2	67.1	67.1	68.3
155°	69.5	74.4	69.5	67.1	67.1
157.5°	70.7	74.4	70.7	67.1	67.1
160°	70.7	75.6	73.2	69.5	68.3
162.5°	72.0	75.6	75.6	72.0	70.7
165°	72.0	74.4	76.8	74.4	72.0
167.5°	73.2	74.4	76.8	75.6	73.2
170°	73.2	74.4	75.6	75.6	73.2
172.5°	73.2	74.4	75.6	74.4	73.2
175°	73.2	73.2	74.4	73.2	70.7
177.5°	73.2	73.2	73.2	72.0	70.7
180°	72.0	72.0	72.0	72.0	72.0

(END OF REPORT)