

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-LD5-7-W-FLUPL-UNV-L840-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-LD5-7-W-FLUPL-UNV-L840-CD1-U  
Description: Metalux 4' ILED WITH FROST LENS WITH UPL DISTRIBUTION

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

**Summary**

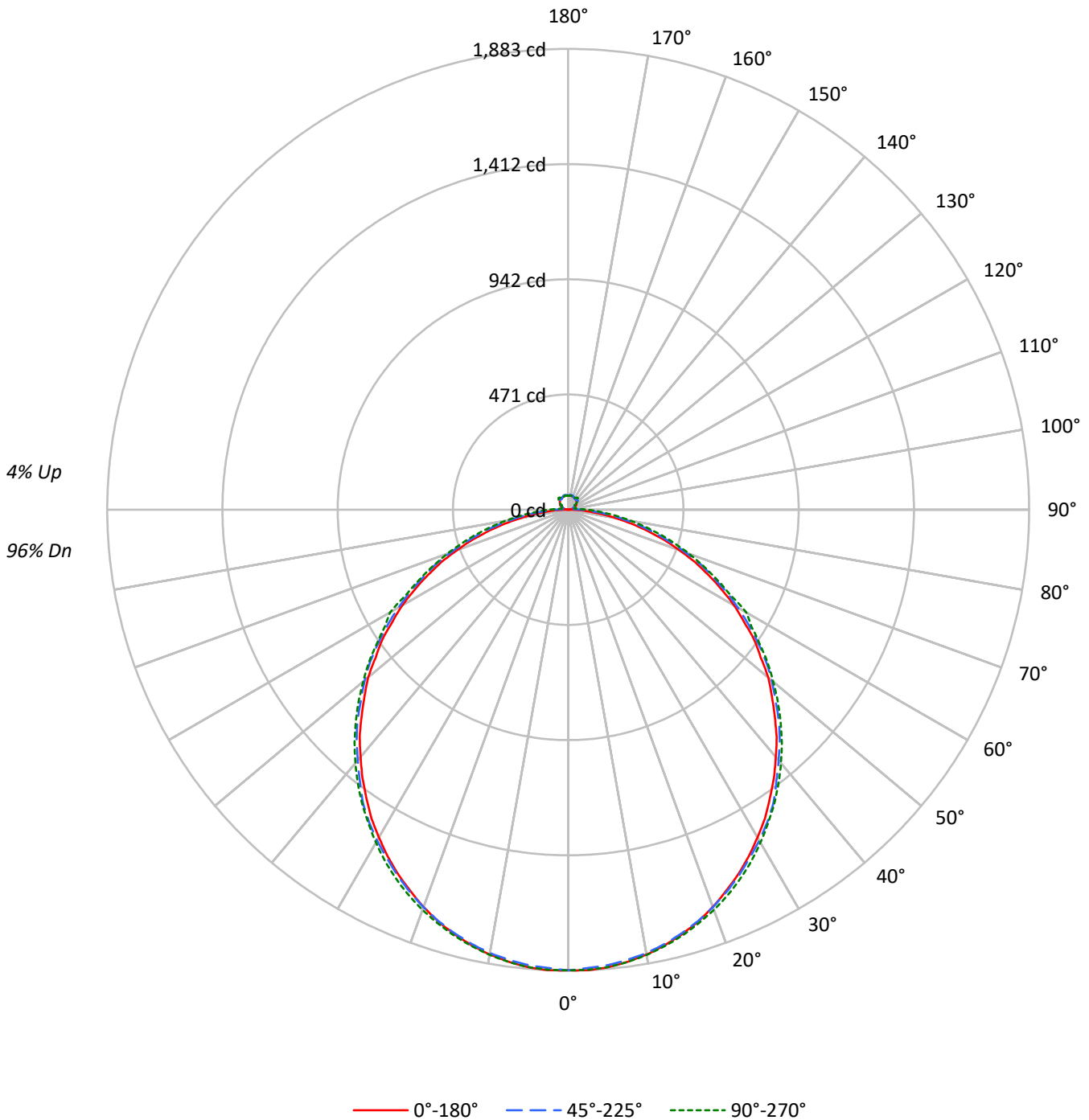
Lumens per Lamp: N/A  
Luminaire Lumens: 5556.0 lumens  
Efficiency: N/A  
Efficacy: 110.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 50.4  
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	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°	5526	5526	5526
5°	5518	5459	5475
10°	5477	5393	5403
15°	5421	5311	5320
20°	5348	5219	5228
25°	5263	5117	5129
30°	5167	5016	5008
35°	5062	4912	4885
40°	4952	4745	4748
45°	4830	4611	4592
50°	4732	4450	4418
55°	4584	4260	4228
60°	4409	4034	4152
65°	4169	3768	3751
70°	3874	3456	3468
75°	3477	3069	3110
80°	2929	2581	2707
85°	2221	2016	2249



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.9	3.2
10°-20°	506.9	9.1
20°-30°	761.6	13.7
30°-40°	911.2	16.4
40°-50°	936.8	16.9
50°-60°	843.7	15.2
60°-70°	648.4	11.7
70°-80°	386.0	6.9
80°-90°	139.9	2.5
90°-100°	30.1	0.5
100°-110°	25.1	0.5
110°-120°	29.5	0.5
120°-130°	36.6	0.7
130°-140°	39.9	0.7
140°-150°	34.2	0.6
150°-160°	25.8	0.5
160°-170°	16.7	0.3
170°-180°	5.6	0.1
0°-30°	1446.4	26.0
0°-40°	2357.6	42.4
0°-60°	4138.1	74.5
0°-90°	5312.4	95.6
90°-120°	84.7	1.5
90°-150°	195.4	3.5
90°-180°	244.0	4.4
0°-180°	5556.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1882	1882	1882	1882	1882	
5°	1876	1876	1868	1875	1876	178
15°	1796	1797	1792	1800	1802	506
25°	1644	1647	1650	1661	1664	757
35°	1437	1455	1462	1464	1467	900
45°	1193	1205	1216	1228	1227	922
55°	928	931	945	953	955	826
65°	632	638	653	666	666	627
75°	335	345	366	387	386	356
85°	85	101	125	143	150	93
90°	2	25	51	69	75	7
95°	7	17	24	35	39	7
105°	20	18	22	36	32	21
115°	32	36	25	26	26	32
125°	41	41	47	38	33	37
135°	48	47	54	56	56	37
145°	53	54	52	56	60	33
155°	56	59	56	54	54	26
165°	58	59	61	59	58	16
175°	58	58	59	58	56	6
180°	58	58	58	58	58	



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1882.4	1882.4	1882.4	1882.4	1882.4
2.5°	1883.4	1882.4	1874.6	1880.4	1881.4
5°	1876.5	1875.6	1867.8	1874.6	1875.6
7.5°	1862.9	1862.9	1855.1	1862.9	1863.9
10°	1845.4	1845.4	1839.5	1846.3	1847.3
12.5°	1823.0	1823.9	1818.1	1825.9	1825.9
15°	1795.7	1796.6	1791.8	1799.6	1801.5
17.5°	1764.5	1764.5	1762.5	1771.3	1772.3
20°	1727.5	1732.3	1728.4	1738.2	1740.1
22.5°	1685.6	1690.4	1690.4	1701.2	1704.1
25°	1643.7	1646.6	1649.5	1661.2	1664.1
27.5°	1596.9	1602.8	1603.7	1616.4	1619.3
30°	1546.2	1556.0	1560.9	1568.7	1570.6
32.5°	1495.6	1508.2	1514.1	1518.0	1519.0
35°	1437.1	1454.7	1461.5	1464.4	1467.3
37.5°	1380.6	1395.2	1397.2	1407.9	1410.8
40°	1319.2	1336.8	1336.8	1349.4	1352.4
42.5°	1260.8	1264.7	1279.3	1288.0	1291.9
45°	1192.6	1205.2	1215.9	1227.6	1226.7
47.5°	1128.3	1144.8	1147.7	1158.5	1161.4
50°	1066.9	1078.6	1084.4	1093.2	1093.2
52.5°	990.9	1006.5	1019.1	1024.0	1026.9
55°	927.6	931.4	945.1	952.9	954.8
57.5°	850.6	860.3	873.0	882.7	887.6
60°	783.4	789.2	799.9	813.6	840.8
62.5°	707.4	714.2	727.8	768.7	740.5
65°	632.3	638.2	652.8	665.5	666.4
67.5°	561.2	567.1	587.5	591.4	594.3
70°	482.3	490.1	507.6	520.3	525.2
72.5°	410.2	417.0	434.5	449.2	454.0
75°	335.2	344.9	366.3	386.8	385.8
77.5°	264.0	281.6	299.1	315.7	320.6
80°	197.8	211.4	234.8	252.3	259.2
82.5°	138.4	153.9	177.3	194.9	201.7
85°	84.8	101.3	124.7	143.2	150.0
87.5°	40.9	57.5	82.8	101.3	109.1
90°	1.9	25.3	50.7	69.2	75.0
92.5°	3.9	14.6	33.1	47.7	52.6
95°	6.8	16.6	24.4	35.1	39.0
97.5°	9.7	14.6	21.4	28.3	31.2
100°	13.6	14.6	24.4	25.3	27.3
102.5°	16.6	15.6	23.4	25.3	25.3
105°	20.5	17.5	22.4	36.0	32.2
107.5°	23.4	24.4	21.4	25.3	27.3
110°	26.3	28.3	23.4	27.3	27.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	29.2	32.2	25.3	25.3	27.3
115°	32.2	36.0	25.3	26.3	26.3
117.5°	35.1	37.0	30.2	28.3	28.3
120°	37.0	38.0	38.0	28.3	30.2
122.5°	39.0	39.9	42.9	31.2	30.2
125°	40.9	40.9	46.8	38.0	33.1
127.5°	42.9	42.9	49.7	44.8	39.9
130°	44.8	42.9	52.6	48.7	46.8
132.5°	46.8	44.8	53.6	52.6	50.7
135°	47.7	46.8	53.6	56.5	55.5
137.5°	49.7	48.7	51.6	59.4	58.5
140°	50.7	50.7	51.6	59.4	61.4
142.5°	51.6	51.6	51.6	58.5	61.4
145°	52.6	53.6	51.6	56.5	60.4
147.5°	53.6	55.5	51.6	55.5	57.5
150°	54.6	56.5	51.6	54.6	55.5
152.5°	55.5	58.5	53.6	53.6	54.6
155°	55.5	59.4	55.5	53.6	53.6
157.5°	56.5	59.4	56.5	53.6	53.6
160°	56.5	60.4	58.5	55.5	54.6
162.5°	57.5	60.4	60.4	57.5	56.5
165°	57.5	59.4	61.4	59.4	57.5
167.5°	58.5	59.4	61.4	60.4	58.5
170°	58.5	59.4	60.4	60.4	58.5
172.5°	58.5	59.4	60.4	59.4	58.5
175°	58.5	58.5	59.4	58.5	56.5
177.5°	58.5	58.5	58.5	57.5	56.5
180°	57.5	57.5	57.5	57.5	57.5

(END OF REPORT)