

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-LD5-5-W-ASY-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 (P34179)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4ILED-LD5-5-W-ASY-UNV-L835-CD1-U  
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

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

**Summary**

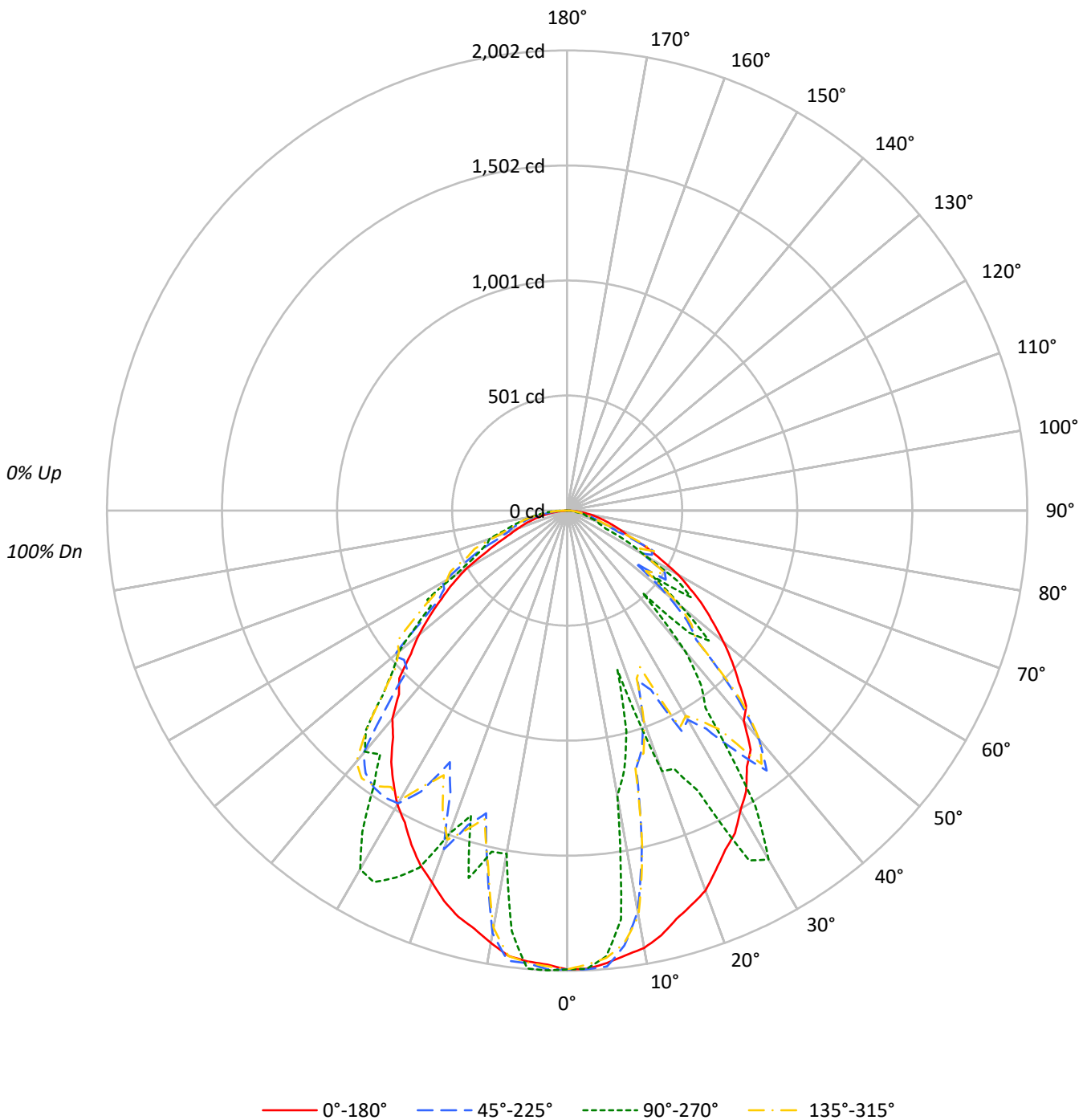
Lumens per Lamp: N/A  
Luminaire Lumens: 3931.0 lumens  
Efficiency: N/A  
Efficacy: 117.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 33.5  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	5860	5860	5860	5860
5°	5811	5682	5789	5836
10°	5732	3686	5670	4434
15°	5552	2936	5523	4888
20°	5447	3625	5325	4485
25°	5213	4142	5132	5429
30°	5036	5589	4936	5743
35°	4798	3492	4700	4887
40°	4485	2810	4439	4807
45°	4275	2810	4182	4246
50°	3933	2617	3740	3859
55°	3573	2912	3290	3204
60°	3135	1915	2848	2767
65°	2534	1041	2197	2339
70°	1977	912	1825	2367
75°	1750	675	1602	1930
80°	1571	469	1319	1577
85°	1318	346	854	1295



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.6	4.6
10°-20°	421.9	10.7
20°-30°	627.9	16.0
30°-40°	792.0	20.1
40°-50°	717.3	18.2
50°-60°	596.4	15.2
60°-70°	360.3	9.2
70°-80°	178.7	4.5
80°-90°	55.0	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°	1231.5	31.3
0°-40°	2023.4	51.5
0°-60°	3337.0	84.9
0°-90°	3931.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3931.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1996	1996	1996	1996	1996	
5°	1976	1946	1969	2000	1976	187
15°	1839	994	1830	1655	1839	520
25°	1628	1344	1603	1762	1628	753
35°	1362	1049	1334	1468	1362	856
45°	1056	751	1032	1134	1056	814
55°	723	658	666	724	723	643
65°	384	185	333	416	384	378
75°	169	84	154	239	169	181
85°	50	23	33	86	50	56
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°	1996.1	1996.1	1996.1	1996.1	1996.1	1996.1	1996.1	1996.1	1996.1	1996.1	1996.1
2.5°	1995.4	2007.0	1997.5	1995.4	1994.8	1996.8	1976.4	1970.3	1977.1	1997.5	1996.8
5°	1976.4	1993.4	1990.7	1962.1	1946.5	1963.5	1954.0	1955.3	1968.9	1983.2	1976.4
7.5°	1951.2	1972.3	1908.4	1827.5	1794.1	1836.3	1898.9	1947.8	1954.0	1977.1	1975.7
10°	1931.5	1950.5	1769.6	1494.2	1260.2	1445.2	1788.7	1908.4	1910.4	1942.4	1867.6
12.5°	1892.7	1865.5	1502.4	1171.1	1151.4	1182.7	1512.6	1820.6	1863.5	1885.3	1596.9
15°	1839.0	1758.1	1160.3	1023.6	994.3	1027.6	1139.9	1744.5	1829.5	1849.9	1363.6
17.5°	1798.9	1645.9	1083.4	906.6	727.0	865.1	1106.5	1679.9	1780.5	1747.9	1435.0
20°	1759.4	1533.0	962.4	986.2	1206.5	981.4	977.3	1554.7	1720.0	1525.5	1568.3
22.5°	1691.4	1291.5	797.8	1175.9	1216.0	1164.3	791.6	1335.1	1669.0	1377.2	1326.9
25°	1628.2	1070.5	859.7	1220.8	1343.9	1203.8	750.8	1058.2	1603.0	1231.7	1207.2
27.5°	1581.3	1010.0	1082.1	1403.7	1715.9	1307.2	1063.0	977.3	1529.6	1165.0	1379.3
30°	1507.1	925.6	1050.1	1713.9	1752.6	1683.3	1031.7	939.9	1477.2	1233.0	1471.1
32.5°	1448.6	822.3	1125.6	1616.6	1524.8	1608.5	1083.4	876.7	1405.8	1297.6	1478.6
35°	1362.3	779.4	1273.8	1413.9	1048.7	1369.1	1165.7	805.2	1334.4	1199.0	1468.4
37.5°	1311.2	641.3	1426.2	959.0	958.3	960.3	1389.5	710.0	1243.2	1018.1	1440.5
40°	1194.9	693.7	1299.0	876.7	800.5	895.0	1302.4	579.5	1182.7	899.8	1377.9
42.5°	1152.8	778.7	1081.4	720.2	485.6	764.4	1120.1	734.5	1083.4	939.9	1169.1
45°	1055.5	758.3	795.0	455.7	750.8	486.3	791.6	726.4	1032.4	990.9	982.8
47.5°	973.9	711.4	708.0	699.8	836.5	679.4	733.8	682.1	921.5	963.7	961.7
50°	886.9	735.9	564.5	735.9	647.5	746.1	627.7	642.0	843.3	903.9	982.1
52.5°	800.5	769.9	370.7	550.2	469.3	569.3	431.2	633.9	753.6	849.5	811.4
55°	723.0	765.1	523.7	472.7	657.7	450.2	472.7	702.6	665.8	764.4	683.5
57.5°	635.9	646.1	504.0	576.7	569.3	605.3	506.7	623.0	588.3	680.1	634.5
60°	557.0	480.8	370.7	450.9	387.7	501.2	377.5	513.5	506.0	534.6	623.0
62.5°	456.4	389.0	416.2	329.9	304.0	325.1	357.1	372.0	404.7	453.0	516.9
65°	384.3	307.4	410.1	210.2	185.0	246.2	417.6	328.5	333.3	410.1	430.5
67.5°	287.7	226.5	235.3	168.7	152.3	165.3	293.8	254.4	267.3	303.3	331.9
70°	246.2	201.3	170.7	138.7	138.1	139.4	184.3	189.8	227.2	255.7	274.8
72.5°	205.4	165.9	136.0	114.3	103.4	125.8	134.7	156.4	192.5	304.0	251.0
75°	168.7	191.8	110.2	93.9	83.7	91.8	108.1	142.1	154.4	189.1	205.4
77.5°	136.0	111.5	86.4	78.2	74.8	80.9	83.7	148.3	121.1	146.2	173.4
80°	106.1	83.0	67.3	52.4	44.9	51.0	66.7	75.5	89.1	108.8	129.2
82.5°	76.2	63.3	46.9	38.1	32.6	37.4	44.2	53.0	60.5	74.8	90.5
85°	50.3	41.5	33.3	27.2	23.1	26.5	29.9	33.3	32.6	44.9	57.8
87.5°	25.2	22.4	22.4	19.7	16.3	18.4	20.4	17.7	9.5	19.7	35.4
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°	1996.1	1996.1	1996.1	1996.1	1996.1	1996.1
2.5°	1996.8	2002.2	2000.9	1983.9	1985.2	1995.4
5°	1982.5	1999.5	1995.4	1973.7	1972.3	1976.4
7.5°	1913.8	1845.8	1945.8	1954.6	1947.1	1951.2
10°	1561.5	1516.0	1631.6	1843.8	1932.2	1931.5
12.5°	1401.7	1520.0	1424.8	1585.3	1890.0	1892.7
15°	1598.3	1655.4	1620.7	1387.4	1842.4	1839.0
17.5°	1496.2	1391.5	1509.8	1455.4	1781.9	1798.9
20°	1334.4	1492.8	1350.0	1523.4	1569.7	1759.4
22.5°	1619.3	1681.9	1556.1	1413.9	1420.7	1691.4
25°	1659.5	1761.5	1628.2	1269.8	1294.2	1628.2
27.5°	1706.4	1822.7	1696.2	1349.3	1218.1	1581.3
30°	1726.1	1800.9	1757.4	1452.7	1241.9	1507.1
32.5°	1688.0	1658.1	1726.8	1425.5	1225.6	1448.6
35°	1490.1	1467.7	1572.4	1462.9	1210.6	1362.3
37.5°	1264.3	1336.4	1380.6	1468.4	1104.5	1311.2
40°	1245.3	1369.1	1275.2	1425.5	1011.3	1194.9
42.5°	1274.5	1295.6	1249.4	1290.2	934.5	1152.8
45°	1133.7	1134.4	1209.2	1135.8	942.6	1055.5
47.5°	986.8	1024.9	1059.6	1012.0	935.8	973.9
50°	866.5	954.9	950.1	955.6	871.9	886.9
52.5°	866.5	829.7	839.3	929.7	831.8	800.5
55°	737.2	723.6	785.5	800.5	799.1	723.0
57.5°	654.3	721.6	676.0	688.9	718.2	635.9
60°	580.8	560.4	647.5	603.9	636.6	557.0
62.5°	453.6	471.3	501.9	570.6	531.8	456.4
65°	388.3	415.5	434.6	477.4	430.5	384.3
67.5°	365.9	377.5	372.0	437.3	370.0	287.7
70°	321.7	358.4	333.9	327.8	305.4	246.2
72.5°	268.0	279.5	305.4	261.2	236.0	205.4
75°	228.5	239.4	241.4	225.8	231.9	168.7
77.5°	181.6	193.2	191.8	192.5	191.8	136.0
80°	142.8	151.0	151.0	147.6	129.2	106.1
82.5°	107.5	115.6	117.7	106.8	95.9	76.2
85°	76.9	86.4	85.7	76.2	63.3	50.3
87.5°	49.6	60.5	61.9	49.0	37.4	25.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)