

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-L850-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-L850-CD1-U  
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

Light Source: (1) 5000 CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

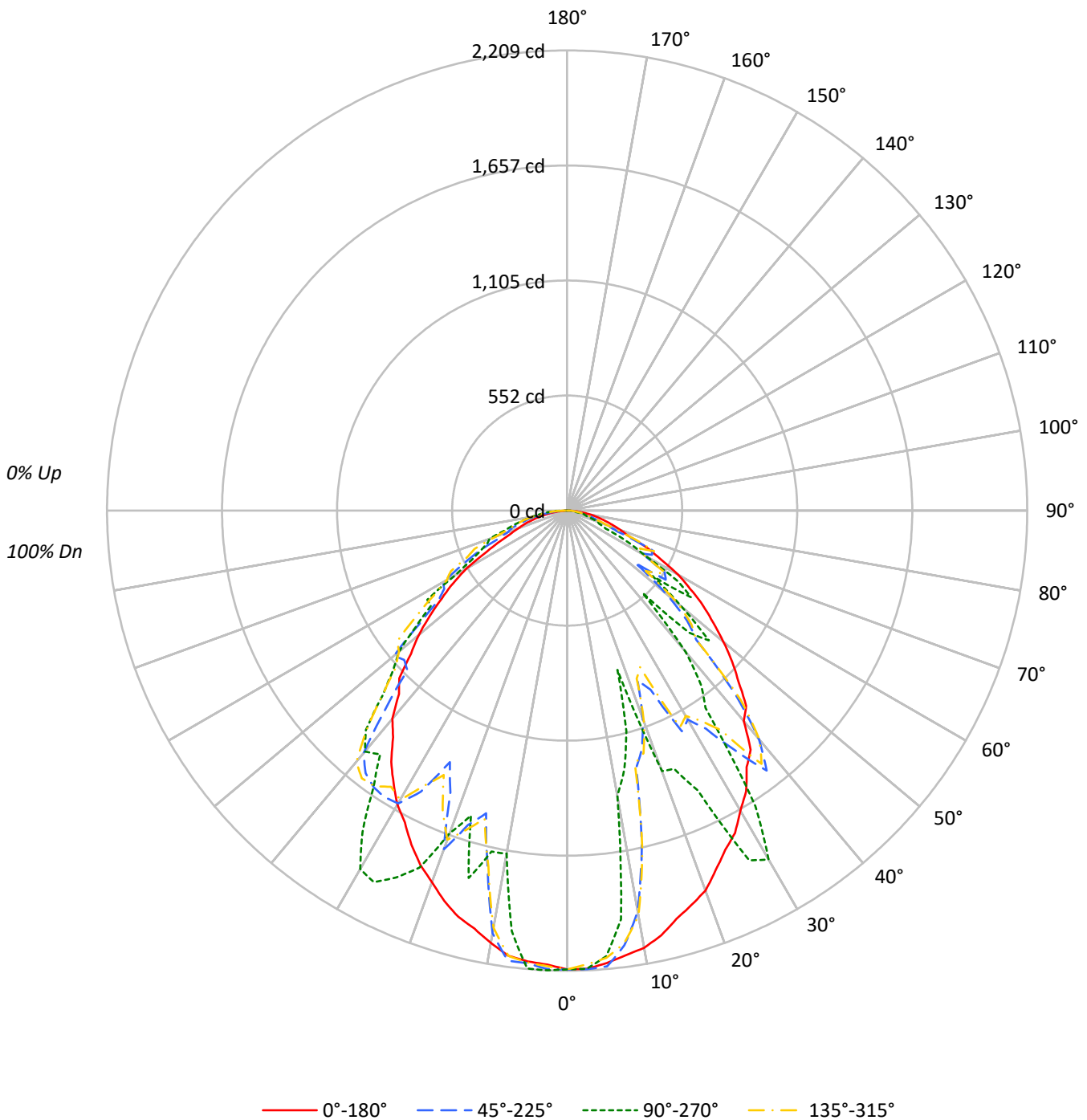
Lumens per Lamp: N/A  
Luminaire Lumens: 4337.0 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73					73			
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28					28			

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

	0°	90°	180°	270°
0°	6465	6465	6465	6465
5°	6412	6268	6387	6439
10°	6324	4066	6255	4891
15°	6125	3239	6093	5393
20°	6010	4000	5875	4949
25°	5751	4570	5663	5990
30°	5556	6166	5446	6336
35°	5294	3852	5185	5391
40°	4949	3101	4898	5303
45°	4717	3101	4613	4685
50°	4340	2887	4126	4258
55°	3941	3213	3630	3535
60°	3458	2112	3142	3053
65°	2795	1149	2424	2581
70°	2181	1006	2013	2611
75°	1931	744	1767	2129
80°	1734	517	1455	1740
85°	1454	382	943	1429



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.4	4.6
10°-20°	465.4	10.7
20°-30°	692.8	16.0
30°-40°	873.8	20.1
40°-50°	791.3	18.2
50°-60°	657.9	15.2
60°-70°	397.5	9.2
70°-80°	197.1	4.5
80°-90°	60.7	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°	1358.6	31.3
0°-40°	2232.4	51.5
0°-60°	3681.7	84.9
0°-90°	4337.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4337.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2202	2202	2202	2202	2202	
5°	2180	2148	2172	2206	2180	206
15°	2029	1097	2018	1826	2029	574
25°	1796	1483	1769	1943	1796	831
35°	1503	1157	1472	1619	1503	944
45°	1164	828	1139	1252	1164	898
55°	798	726	735	798	798	710
65°	424	204	368	458	424	417
75°	186	92	170	264	186	200
85°	56	26	36	95	56	61
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°	2202.3	2202.3	2202.3	2202.3	2202.3	2202.3	2202.3	2202.3	2202.3	2202.3	2202.3
2.5°	2201.5	2214.3	2203.8	2201.5	2200.8	2203.0	2180.5	2173.8	2181.3	2203.8	2203.0
5°	2180.5	2199.3	2196.3	2164.8	2147.5	2166.3	2155.8	2157.3	2172.3	2188.0	2180.5
7.5°	2152.8	2176.0	2105.5	2016.2	1979.4	2025.9	2095.0	2149.0	2155.8	2181.3	2179.8
10°	2131.0	2152.0	1952.4	1648.5	1390.4	1594.5	1973.4	2105.5	2107.7	2143.0	2060.5
12.5°	2088.2	2058.2	1657.5	1292.1	1270.3	1304.9	1668.8	2008.7	2056.0	2080.0	1761.8
15°	2028.9	1939.7	1280.1	1129.3	1097.0	1133.8	1257.6	1924.6	2018.4	2041.0	1504.5
17.5°	1984.7	1815.8	1195.3	1000.2	802.1	954.4	1220.8	1853.4	1964.4	1928.4	1583.2
20°	1941.2	1691.3	1061.7	1088.0	1331.1	1082.8	1078.3	1715.3	1897.6	1683.0	1730.3
22.5°	1866.1	1424.9	880.2	1297.4	1341.6	1284.6	873.4	1472.9	1841.4	1519.5	1463.9
25°	1796.3	1181.1	948.4	1346.9	1482.7	1328.1	828.4	1167.5	1768.6	1358.9	1331.9
27.5°	1744.6	1114.3	1193.8	1548.7	1893.1	1442.2	1172.8	1078.3	1687.5	1285.4	1521.7
30°	1662.8	1021.2	1158.5	1890.9	1933.7	1857.1	1138.3	1037.0	1629.8	1360.4	1623.0
32.5°	1598.2	907.2	1241.8	1783.6	1682.3	1774.6	1195.3	967.2	1551.0	1431.7	1631.3
35°	1503.0	859.9	1405.4	1560.0	1157.0	1510.5	1286.1	888.4	1472.2	1322.9	1620.0
37.5°	1446.7	707.6	1573.5	1058.0	1057.2	1059.5	1533.0	783.4	1371.6	1123.3	1589.2
40°	1318.4	765.4	1433.2	967.2	883.2	987.5	1436.9	639.3	1304.9	992.7	1520.2
42.5°	1271.8	859.2	1193.1	794.6	535.8	843.4	1235.8	810.4	1195.3	1037.0	1289.9
45°	1164.5	836.6	877.2	502.7	828.4	536.5	873.4	801.4	1139.0	1093.3	1084.3
47.5°	1074.5	784.9	781.1	772.1	922.9	749.6	809.6	752.6	1016.7	1063.2	1061.0
50°	978.5	811.9	622.8	811.9	714.3	823.1	692.6	708.3	930.4	997.2	1083.5
52.5°	883.2	849.4	408.9	607.0	517.7	628.0	475.7	699.3	831.4	937.2	895.2
55°	797.6	844.1	577.8	521.5	725.6	496.7	521.5	775.1	734.6	843.4	754.1
57.5°	701.6	712.8	556.0	636.3	628.0	667.8	559.0	687.3	649.1	750.4	700.1
60°	614.5	530.5	408.9	497.5	427.7	553.0	416.4	566.5	558.3	589.8	687.3
62.5°	503.5	429.2	459.2	363.9	335.4	358.7	393.9	410.4	446.5	499.7	570.3
65°	423.9	339.2	452.5	231.9	204.1	271.6	460.7	362.4	367.7	452.5	475.0
67.5°	317.4	249.9	259.6	186.1	168.1	182.3	324.2	280.6	294.9	334.7	366.2
70°	271.6	222.1	188.3	153.1	152.3	153.8	203.3	209.3	250.6	282.1	303.1
72.5°	226.6	183.1	150.1	126.1	114.1	138.8	148.6	172.6	212.3	335.4	276.9
75°	186.1	211.6	121.6	103.5	92.3	101.3	119.3	156.8	170.3	208.6	226.6
77.5°	150.1	123.1	95.3	86.3	82.5	89.3	92.3	163.6	133.6	161.3	191.3
80°	117.1	91.5	74.3	57.8	49.5	56.3	73.5	83.3	98.3	120.1	142.6
82.5°	84.0	69.8	51.8	42.0	36.0	41.3	48.8	58.5	66.8	82.5	99.8
85°	55.5	45.8	36.8	30.0	25.5	29.3	33.0	36.8	36.0	49.5	63.8
87.5°	27.8	24.8	24.8	21.8	18.0	20.3	22.5	19.5	10.5	21.8	39.0
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°	2202.3	2202.3	2202.3	2202.3	2202.3	2202.3
2.5°	2203.0	2209.0	2207.5	2188.8	2190.3	2201.5
5°	2187.3	2206.0	2201.5	2177.5	2176.0	2180.5
7.5°	2111.5	2036.5	2146.8	2156.5	2148.3	2152.8
10°	1722.8	1672.5	1800.1	2034.2	2131.7	2131.0
12.5°	1546.5	1677.0	1572.0	1749.1	2085.2	2088.2
15°	1763.3	1826.4	1788.1	1530.7	2032.7	2028.9
17.5°	1650.8	1535.2	1665.8	1605.8	1965.9	1984.7
20°	1472.2	1647.0	1489.4	1680.8	1731.8	1941.2
22.5°	1786.6	1855.6	1716.8	1560.0	1567.5	1866.1
25°	1830.9	1943.4	1796.3	1400.9	1427.9	1796.3
27.5°	1882.6	2010.9	1871.4	1488.7	1343.9	1744.6
30°	1904.4	1986.9	1938.9	1602.7	1370.1	1662.8
32.5°	1862.4	1829.4	1905.1	1572.7	1352.1	1598.2
35°	1644.0	1619.3	1734.8	1614.0	1335.6	1503.0
37.5°	1394.9	1474.4	1523.2	1620.0	1218.6	1446.7
40°	1373.9	1510.5	1406.9	1572.7	1115.8	1318.4
42.5°	1406.2	1429.4	1378.4	1423.4	1031.0	1271.8
45°	1250.8	1251.6	1334.1	1253.1	1040.0	1164.5
47.5°	1088.8	1130.8	1169.0	1116.5	1032.5	1074.5
50°	955.9	1053.5	1048.2	1054.2	961.9	978.5
52.5°	955.9	915.4	925.9	1025.7	917.7	883.2
55°	813.4	798.4	866.7	883.2	881.7	797.6
57.5°	721.8	796.1	745.8	760.1	792.4	701.6
60°	640.8	618.3	714.3	666.3	702.3	614.5
62.5°	500.5	520.0	553.8	629.5	586.8	503.5
65°	428.5	458.5	479.5	526.7	475.0	423.9
67.5°	403.7	416.4	410.4	482.5	408.2	317.4
70°	354.9	395.4	368.4	361.7	336.9	271.6
72.5°	295.6	308.4	336.9	288.1	260.4	226.6
75°	252.1	264.1	266.4	249.1	255.9	186.1
77.5°	200.3	213.1	211.6	212.3	211.6	150.1
80°	157.6	166.6	166.6	162.8	142.6	117.1
82.5°	118.6	127.6	129.8	117.8	105.8	84.0
85°	84.8	95.3	94.5	84.0	69.8	55.5
87.5°	54.8	66.8	68.3	54.0	41.3	27.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)