

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-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 (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-L840-CD1-U
Description: Metalux 4' ILED WITH ASYMMETRIC DIRECTIONAL LOUVER DISTRIBUTION

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

Summary

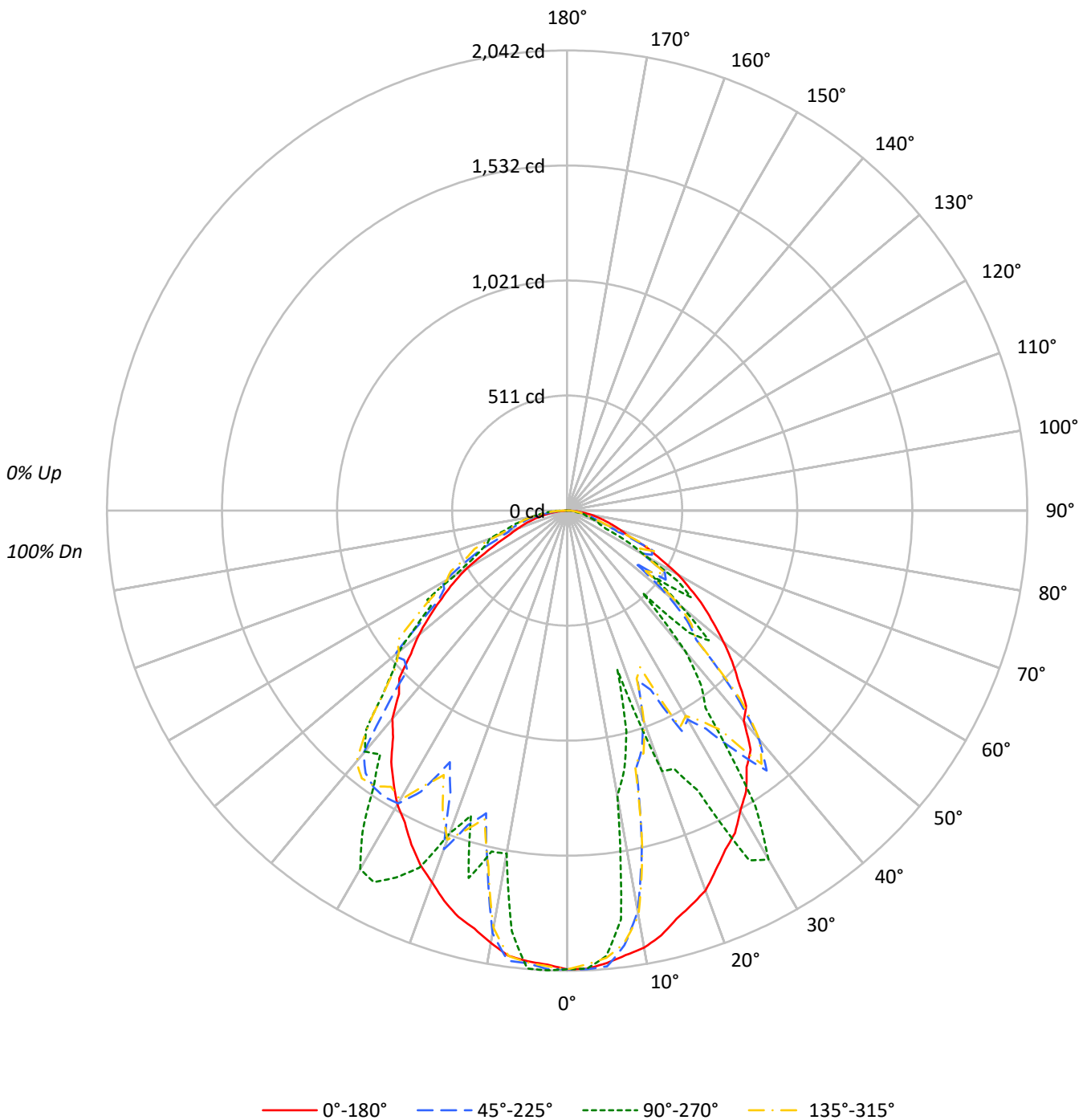
Lumens per Lamp: N/A
Luminaire Lumens: 4009.0 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.25 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 33.5
Input Voltage (V):
Input Current (A_{in}): 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°	5976	5976	5976	5976
5°	5927	5794	5904	5952
10°	5846	3759	5782	4521
15°	5662	2994	5633	4985
20°	5555	3697	5430	4575
25°	5317	4225	5234	5537
30°	5136	5700	5034	5857
35°	4893	3561	4793	4983
40°	4574	2866	4527	4902
45°	4360	2866	4265	4331
50°	4011	2669	3814	3936
55°	3643	2970	3355	3268
60°	3197	1953	2904	2822
65°	2584	1062	2241	2386
70°	2017	930	1861	2414
75°	1784	688	1633	1968
80°	1602	478	1346	1608
85°	1344	354	872	1321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.3	4.6
10°-20°	430.2	10.7
20°-30°	640.4	16.0
30°-40°	807.7	20.1
40°-50°	731.5	18.2
50°-60°	608.2	15.2
60°-70°	367.4	9.2
70°-80°	182.2	4.5
80°-90°	56.1	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°	1255.9	31.3
0°-40°	2063.6	51.5
0°-60°	3403.3	84.9
0°-90°	4009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4009.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2036	2036	2036	2036	2036	
5°	2016	1985	2008	2039	2016	191
15°	1876	1014	1866	1688	1876	530
25°	1660	1371	1635	1796	1660	768
35°	1389	1070	1361	1497	1389	873
45°	1076	766	1053	1157	1076	830
55°	737	671	679	738	737	656
65°	392	189	340	424	392	385
75°	172	85	157	244	172	185
85°	51	24	33	88	51	57
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°	2035.7	2035.7	2035.7	2035.7	2035.7	2035.7	2035.7	2035.7	2035.7	2035.7	2035.7
2.5°	2035.0	2046.8	2037.1	2035.0	2034.3	2036.4	2015.6	2009.4	2016.3	2037.1	2036.4
5°	2015.6	2032.9	2030.2	2001.0	1985.1	2002.4	1992.7	1994.1	2008.0	2022.5	2015.6
7.5°	1989.9	2011.4	1946.2	1863.7	1829.7	1872.7	1936.5	1986.5	1992.7	2016.3	2014.9
10°	1969.8	1989.3	1804.8	1523.8	1285.2	1473.9	1824.2	1946.2	1948.3	1980.9	1904.6
12.5°	1930.3	1902.6	1532.2	1194.4	1174.3	1206.2	1542.6	1856.8	1900.5	1922.7	1628.6
15°	1875.5	1793.0	1183.3	1043.9	1014.0	1048.0	1162.5	1779.1	1865.8	1886.6	1390.7
17.5°	1834.6	1678.5	1104.9	924.6	741.5	882.3	1128.5	1713.2	1815.9	1782.6	1463.5
20°	1794.4	1563.4	981.4	1005.7	1230.5	1000.9	996.7	1585.6	1754.1	1555.8	1599.4
22.5°	1725.0	1317.2	813.6	1199.2	1240.2	1187.4	807.4	1361.5	1702.1	1404.5	1353.2
25°	1660.5	1091.7	876.7	1245.0	1370.6	1227.7	765.7	1079.2	1634.8	1256.1	1231.1
27.5°	1612.6	1030.0	1103.5	1431.6	1750.0	1333.1	1084.1	996.7	1559.9	1188.1	1406.6
30°	1537.0	944.0	1070.9	1747.9	1787.4	1716.7	1052.2	958.6	1506.5	1257.5	1500.3
32.5°	1477.4	838.6	1147.9	1648.7	1555.1	1640.4	1104.9	894.1	1433.7	1323.4	1507.9
35°	1389.3	794.9	1299.1	1442.0	1069.5	1396.2	1188.8	821.2	1360.8	1222.8	1497.5
37.5°	1337.3	654.1	1454.5	978.0	977.3	979.4	1417.0	724.1	1267.9	1038.3	1469.1
40°	1218.7	707.5	1324.8	894.1	816.4	912.8	1328.2	590.9	1206.2	917.6	1405.2
42.5°	1175.7	794.2	1102.8	734.5	495.2	779.6	1142.4	749.1	1104.9	958.6	1192.3
45°	1076.5	773.4	810.8	464.7	765.7	495.9	807.4	740.8	1052.9	1010.6	1002.3
47.5°	993.2	725.5	722.0	713.7	853.1	692.9	748.4	695.7	939.8	982.8	980.8
50°	904.5	750.5	575.7	750.5	660.3	760.9	640.2	654.8	860.1	921.8	1001.6
52.5°	816.4	785.2	378.0	561.1	478.6	580.5	439.7	646.4	768.5	866.3	827.5
55°	737.3	780.3	534.1	482.1	670.7	459.2	482.1	716.5	679.0	779.6	697.1
57.5°	648.5	658.9	514.0	588.2	580.5	617.3	516.7	635.3	600.0	693.6	647.1
60°	568.1	490.4	378.0	459.9	395.4	511.2	384.9	523.7	516.0	545.2	635.3
62.5°	465.4	396.7	424.5	336.4	310.0	331.5	364.1	379.4	412.7	461.9	527.1
65°	391.9	313.5	418.2	214.3	188.7	251.1	425.9	335.0	339.9	418.2	439.1
67.5°	293.4	231.0	240.0	172.0	155.4	168.5	299.6	259.4	272.6	309.3	338.5
70°	251.1	205.3	174.1	141.5	140.8	142.2	188.0	193.5	231.7	260.8	280.2
72.5°	209.5	169.2	138.7	116.5	105.4	128.3	137.3	159.5	196.3	310.0	255.9
75°	172.0	195.6	112.4	95.7	85.3	93.6	110.3	145.0	157.4	192.8	209.5
77.5°	138.7	113.8	88.1	79.8	76.3	82.5	85.3	151.2	123.5	149.1	176.9
80°	108.2	84.6	68.7	53.4	45.8	52.0	68.0	77.0	90.9	111.0	131.8
82.5°	77.7	64.5	47.9	38.8	33.3	38.1	45.1	54.1	61.7	76.3	92.2
85°	51.3	42.3	34.0	27.7	23.6	27.1	30.5	34.0	33.3	45.8	59.0
87.5°	25.7	22.9	22.9	20.1	16.6	18.7	20.8	18.0	9.7	20.1	36.1
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°	2035.7	2035.7	2035.7	2035.7	2035.7	2035.7
2.5°	2036.4	2042.0	2040.6	2023.2	2024.6	2035.0
5°	2021.9	2039.2	2035.0	2012.8	2011.4	2015.6
7.5°	1951.8	1882.4	1984.4	1993.4	1985.8	1989.9
10°	1592.5	1546.0	1664.0	1880.4	1970.5	1969.8
12.5°	1429.5	1550.2	1453.1	1616.8	1927.5	1930.3
15°	1630.0	1688.2	1652.9	1414.9	1879.0	1875.5
17.5°	1525.9	1419.1	1539.8	1484.3	1817.2	1834.6
20°	1360.8	1522.5	1376.8	1553.7	1600.8	1794.4
22.5°	1651.5	1715.3	1587.0	1442.0	1448.9	1725.0
25°	1692.4	1796.4	1660.5	1295.0	1319.9	1660.5
27.5°	1740.2	1858.9	1729.8	1376.1	1242.2	1612.6
30°	1760.4	1836.7	1792.3	1481.5	1266.5	1537.0
32.5°	1721.5	1691.0	1761.1	1453.8	1249.9	1477.4
35°	1519.7	1496.8	1603.6	1491.9	1234.6	1389.3
37.5°	1289.4	1362.9	1408.0	1497.5	1126.4	1337.3
40°	1270.0	1396.2	1300.5	1453.8	1031.4	1218.7
42.5°	1299.8	1321.3	1274.1	1315.8	953.0	1175.7
45°	1156.2	1156.9	1233.2	1158.3	961.3	1076.5
47.5°	1006.4	1045.3	1080.6	1032.1	954.4	993.2
50°	883.7	973.8	969.0	974.5	889.2	904.5
52.5°	883.7	846.2	855.9	948.2	848.3	816.4
55°	751.9	738.0	801.1	816.4	815.0	737.3
57.5°	667.2	735.9	689.4	702.6	732.4	648.5
60°	592.3	571.5	660.3	615.9	649.2	568.1
62.5°	462.6	480.7	511.9	581.9	542.4	465.4
65°	396.0	423.8	443.2	486.9	439.1	391.9
67.5°	373.2	384.9	379.4	446.0	377.3	293.4
70°	328.1	365.5	340.6	334.3	311.4	251.1
72.5°	273.3	285.1	311.4	266.3	240.7	209.5
75°	233.1	244.1	246.2	230.3	236.5	172.0
77.5°	185.2	197.0	195.6	196.3	195.6	138.7
80°	145.7	154.0	154.0	150.5	131.8	108.2
82.5°	109.6	117.9	120.0	108.9	97.8	77.7
85°	78.4	88.1	87.4	77.7	64.5	51.3
87.5°	50.6	61.7	63.1	49.9	38.1	25.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)