

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: P188668

Luminaire Tested: **24SR-LD2-59-C-UNV-L835-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188668
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24808)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SR-LD2-59-C-UNV-L835-CD1-ST-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH STRAW SKYTRIM.

Light Source: EATON LED 3500K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5599.0 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.62 / 1.56
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

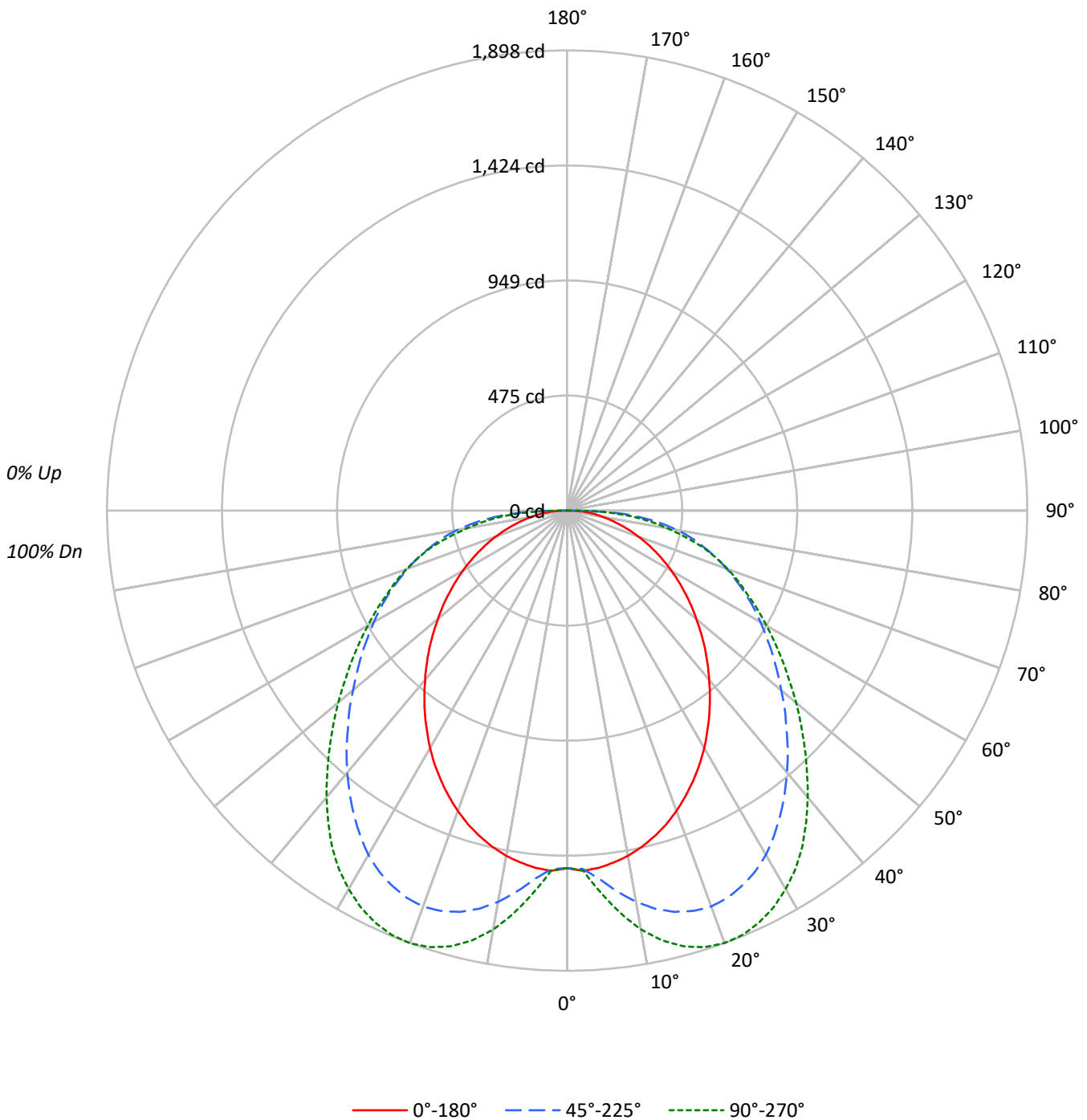
Input Watts (W): 50.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	102	97	92	104	99	95	91	95	91	88	91	88	85	87	85	83	80					80			
2	97	88	80	74	94	86	79	73	82	76	71	79	74	69	76	71	68	66					66			
3	88	76	68	61	85	75	67	60	72	65	59	69	63	58	66	61	57	54					54			
4	80	67	58	51	78	66	57	50	63	56	50	61	54	49	59	53	48	46					46			
5	74	60	50	43	71	59	50	43	57	49	43	55	48	42	53	47	42	40					40			
6	68	54	44	38	66	53	44	38	51	43	37	49	42	37	48	41	37	34					34			
7	63	49	40	33	61	48	39	33	46	39	33	45	38	33	43	37	32	30					30			
8	58	44	36	30	57	44	35	29	42	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	26	53	40	32	26	39	31	26	38	31	26	37	31	26	24					24			
10	51	37	29	24	50	37	29	24	36	29	24	35	28	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1984	1984	1984
5°	1998	2059	2134
10°	1976	2239	2397
15°	1937	2387	2592
20°	1888	2488	2718
25°	1826	2535	2783
30°	1757	2548	2800
35°	1680	2519	2778
40°	1601	2477	2712
45°	1529	2435	2638
50°	1456	2414	2581
55°	1395	2427	2547
60°	1338	2478	2554
65°	1281	2582	2615
70°	1229	2753	2771
75°	1171	3037	2990
80°	1164	3584	3235
85°	1275	4614	4034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.2	2.6
10°-20°	470.6	8.4
20°-30°	752.5	13.4
30°-40°	911.0	16.3
40°-50°	930.3	16.6
50°-60°	857.3	15.3
60°-70°	729.2	13.0
70°-80°	545.2	9.7
80°-90°	254.7	4.5
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°	1371.3	24.5
0°-40°	2282.3	40.8
0°-60°	4069.9	72.7
0°-90°	5599.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5599.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1479	1471	1524	1564	1580	140
15°	1391	1515	1714	1821	1861	392
25°	1230	1462	1708	1829	1874	566
35°	1023	1292	1533	1650	1691	639
45°	804	1069	1280	1362	1386	620
55°	595	864	1035	1075	1086	533
65°	402	684	811	816	822	399
75°	225	494	584	575	575	241
85°	83	261	299	265	261	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8
2.5°	1486.9	1483.9	1479.4	1473.3	1471.8	1471.8	1470.3	1470.3	1473.3	1479.4	1488.4
5°	1479.4	1476.3	1471.8	1467.3	1468.8	1473.3	1482.4	1492.9	1507.9	1524.4	1542.4
7.5°	1464.3	1462.8	1459.8	1459.8	1471.8	1492.9	1513.9	1534.9	1559.0	1584.5	1611.5
10°	1446.3	1444.8	1443.3	1455.3	1482.4	1513.9	1543.9	1572.5	1605.5	1638.6	1670.1
12.5°	1420.8	1420.8	1425.3	1452.3	1489.9	1528.9	1566.5	1604.0	1643.1	1682.1	1716.7
15°	1390.7	1390.7	1405.8	1444.8	1492.9	1537.9	1583.0	1625.0	1670.1	1713.6	1749.7
17.5°	1357.7	1356.2	1384.7	1432.8	1486.9	1539.4	1590.5	1637.1	1683.6	1731.7	1769.2
20°	1318.7	1321.7	1359.2	1414.8	1474.8	1533.4	1587.5	1637.1	1686.6	1737.7	1773.7
22.5°	1275.1	1281.1	1327.7	1389.2	1456.8	1516.9	1574.0	1626.5	1677.6	1728.7	1764.7
25°	1230.0	1237.6	1294.6	1359.2	1431.3	1492.9	1549.9	1605.5	1656.6	1707.6	1743.7
27.5°	1182.0	1192.5	1257.1	1324.7	1396.7	1461.3	1518.4	1575.5	1626.5	1679.1	1712.1
30°	1130.9	1144.4	1213.5	1282.6	1357.7	1420.8	1477.9	1536.4	1589.0	1640.1	1671.6
32.5°	1076.8	1093.4	1164.0	1239.1	1312.6	1374.2	1431.3	1491.4	1540.9	1589.0	1620.5
35°	1022.8	1042.3	1114.4	1189.5	1261.6	1323.2	1378.7	1438.8	1488.4	1533.4	1563.5
37.5°	967.2	991.2	1063.3	1136.9	1207.5	1269.1	1326.2	1381.7	1431.3	1473.3	1503.4
40°	911.6	938.7	1010.8	1082.9	1153.4	1212.0	1267.6	1323.2	1372.7	1410.3	1438.8
42.5°	857.6	884.6	958.2	1030.3	1094.9	1154.9	1210.5	1264.6	1309.6	1347.2	1372.7
45°	803.5	832.0	904.1	974.7	1039.3	1099.4	1154.9	1204.5	1248.1	1279.6	1305.1
47.5°	749.4	779.5	851.6	922.2	983.7	1042.3	1099.4	1144.4	1186.5	1218.0	1239.1
50°	695.4	728.4	799.0	871.1	931.2	989.7	1043.8	1085.9	1124.9	1153.4	1173.0
52.5°	645.8	677.3	749.4	821.5	881.6	940.2	991.2	1031.8	1066.3	1091.9	1111.4
55°	594.7	629.3	704.4	773.5	835.0	893.6	940.2	977.7	1009.3	1034.8	1049.8
57.5°	545.2	584.2	657.8	726.9	790.0	845.6	890.6	926.7	955.2	976.2	989.7
60°	497.1	537.7	614.3	683.4	746.4	800.5	844.1	877.1	902.6	920.7	932.7
62.5°	449.1	495.6	570.7	642.8	702.9	755.4	796.0	826.0	850.1	866.6	874.1
65°	402.5	450.6	528.7	599.3	659.3	708.9	747.9	775.0	797.5	811.0	814.0
67.5°	357.4	408.5	486.6	557.2	615.8	662.3	699.9	725.4	744.9	753.9	756.9
70°	312.4	365.0	444.6	515.1	570.7	615.8	650.3	674.3	690.9	699.9	699.9
72.5°	270.3	322.9	402.5	471.6	522.7	567.7	599.3	621.8	636.8	642.8	641.3
75°	225.3	279.3	357.4	423.5	473.1	515.1	546.7	569.2	579.7	584.2	582.7
77.5°	186.2	237.3	312.4	374.0	426.5	461.1	492.6	513.6	524.2	527.2	525.7
80°	150.2	198.2	264.3	322.9	368.0	405.5	434.0	456.6	465.6	462.6	449.1
82.5°	115.6	159.2	217.8	268.8	310.9	345.4	375.5	389.0	390.5	383.0	371.0
85°	82.6	115.6	165.2	208.8	247.8	273.3	291.4	301.9	304.9	298.9	285.4
87.5°	46.6	67.6	97.6	129.2	159.2	177.2	187.7	193.7	198.2	192.2	183.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8	1474.8
2.5°	1479.4	1483.9	1482.4	1485.4	1486.9	1486.9	1482.4	1485.4
5°	1543.9	1552.9	1559.0	1568.0	1574.0	1574.0	1575.5	1580.0
7.5°	1614.5	1629.5	1643.1	1653.6	1661.1	1664.1	1668.6	1673.1
10°	1680.6	1698.6	1713.6	1727.2	1736.2	1742.2	1746.7	1754.2
12.5°	1731.7	1752.7	1769.2	1784.2	1796.2	1805.3	1809.8	1815.8
15°	1769.2	1793.2	1812.8	1829.3	1839.8	1850.3	1854.8	1860.8
17.5°	1791.7	1815.8	1836.8	1853.3	1865.3	1875.8	1881.9	1887.9
20°	1797.8	1821.8	1844.3	1860.8	1872.8	1886.4	1892.4	1898.4
22.5°	1788.7	1812.8	1836.8	1854.8	1868.3	1881.9	1887.9	1893.9
25°	1770.7	1796.2	1820.3	1838.3	1850.3	1863.8	1871.3	1874.3
27.5°	1742.2	1767.7	1791.7	1808.3	1821.8	1835.3	1842.8	1844.3
30°	1701.6	1727.2	1751.2	1767.7	1782.7	1794.7	1802.3	1802.3
32.5°	1652.1	1676.1	1701.6	1716.7	1730.2	1742.2	1749.7	1752.7
35°	1595.0	1619.0	1643.1	1656.6	1671.6	1680.6	1686.6	1691.1
37.5°	1533.4	1557.5	1577.0	1589.0	1605.5	1611.5	1620.5	1619.0
40°	1467.3	1486.9	1504.9	1515.4	1528.9	1536.4	1545.4	1543.9
42.5°	1398.3	1417.8	1432.8	1444.8	1452.3	1459.8	1465.8	1464.3
45°	1327.7	1345.7	1359.2	1365.2	1377.2	1380.2	1386.2	1386.2
47.5°	1257.1	1272.1	1284.1	1293.1	1299.1	1302.1	1308.1	1308.1
50°	1189.5	1203.0	1210.5	1218.0	1224.0	1228.5	1231.5	1233.0
52.5°	1123.4	1133.9	1139.9	1145.9	1151.9	1154.9	1158.0	1156.4
55°	1060.3	1067.8	1072.3	1076.8	1081.4	1085.9	1085.9	1085.9
57.5°	997.2	1001.8	1006.3	1009.3	1013.8	1016.8	1016.8	1016.8
60°	935.7	940.2	941.7	944.7	949.2	950.7	952.2	949.2
62.5°	875.6	877.1	878.6	880.1	884.6	887.6	887.6	886.1
65°	814.0	814.0	815.5	817.0	820.0	823.0	824.5	821.5
67.5°	753.9	753.9	755.4	755.4	760.0	763.0	764.5	764.5
70°	695.4	693.9	696.9	698.4	701.4	701.4	704.4	704.4
72.5°	636.8	635.3	638.3	638.3	641.3	642.8	642.8	642.8
75°	579.7	575.2	576.7	573.7	576.7	576.7	575.2	575.2
77.5°	518.1	507.6	504.6	498.6	498.6	498.6	495.6	495.6
80°	440.1	429.5	425.0	420.5	420.5	419.0	417.5	417.5
82.5°	362.0	352.9	348.4	343.9	346.9	342.4	343.9	345.4
85°	277.8	270.3	267.3	262.8	261.3	261.3	262.8	261.3
87.5°	180.2	172.7	172.7	168.2	171.2	166.7	162.2	165.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)