

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: P188670

Luminaire Tested: **24SR-LD2-59-C-UNV-L850-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188670
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-L850-CD1-ST-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH STRAW SKYTRIM.

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6214.0 lumens
Efficiency: N/A
Efficacy: 123.8 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

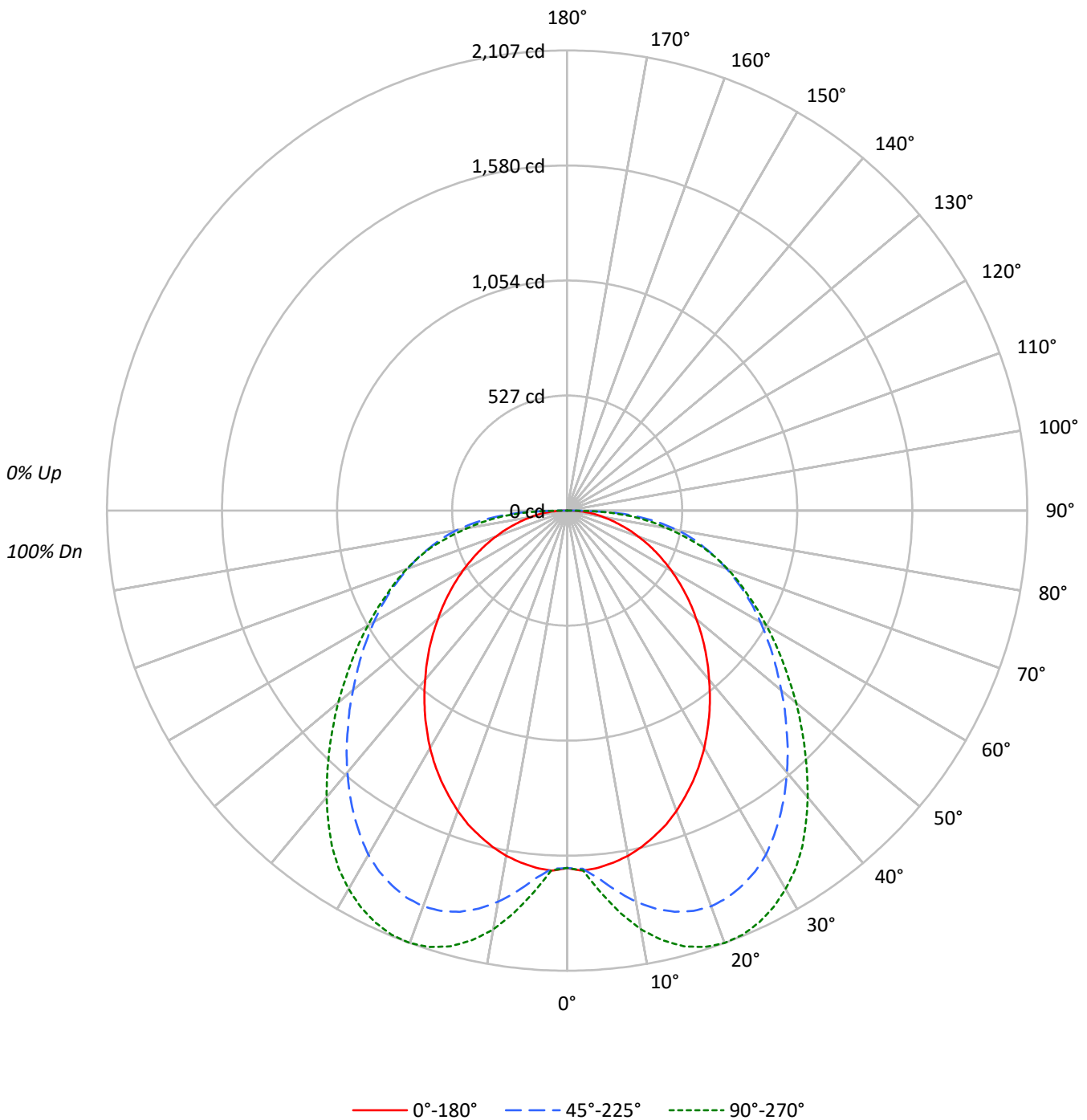
Input Watts (W): 50.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2202	2202	2202
5°	2217	2285	2368
10°	2193	2485	2660
15°	2150	2649	2877
20°	2095	2761	3017
25°	2027	2814	3088
30°	1950	2828	3108
35°	1864	2795	3083
40°	1777	2749	3010
45°	1697	2702	2927
50°	1616	2680	2865
55°	1548	2694	2827
60°	1485	2750	2835
65°	1422	2866	2903
70°	1364	3056	3076
75°	1300	3371	3319
80°	1292	3978	3591
85°	1416	5121	4477



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.5	2.6
10°-20°	522.3	8.4
20°-30°	835.2	13.4
30°-40°	1011.0	16.3
40°-50°	1032.5	16.6
50°-60°	951.4	15.3
60°-70°	809.3	13.0
70°-80°	605.1	9.7
80°-90°	282.7	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°	1521.9	24.5
0°-40°	2533.0	40.8
0°-60°	4516.9	72.7
0°-90°	6214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6214.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1637	1637	1637	1637	1637	
5°	1642	1633	1692	1735	1754	155
15°	1544	1682	1902	2021	2065	435
25°	1365	1623	1895	2030	2080	628
35°	1135	1434	1702	1831	1877	710
45°	892	1187	1420	1512	1538	688
55°	660	959	1148	1193	1205	591
65°	447	759	900	906	912	443
75°	250	548	648	638	638	267
85°	92	289	332	294	290	97
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°	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8
2.5°	1650.2	1646.8	1641.8	1635.2	1633.5	1633.5	1631.8	1631.8	1635.2	1641.8	1651.8
5°	1641.8	1638.5	1633.5	1628.5	1630.2	1635.2	1645.2	1656.8	1673.5	1691.9	1711.9
7.5°	1625.2	1623.5	1620.2	1620.2	1633.5	1656.8	1680.2	1703.5	1730.2	1758.5	1788.5
10°	1605.2	1603.5	1601.8	1615.2	1645.2	1680.2	1713.5	1745.2	1781.9	1818.5	1853.5
12.5°	1576.8	1576.8	1581.8	1611.8	1653.5	1696.9	1738.5	1780.2	1823.5	1866.9	1905.2
15°	1543.5	1543.5	1560.2	1603.5	1656.8	1706.9	1756.9	1803.5	1853.5	1901.9	1941.9
17.5°	1506.8	1505.2	1536.8	1590.2	1650.2	1708.5	1765.2	1816.9	1868.5	1921.9	1963.5
20°	1463.5	1466.8	1508.5	1570.2	1636.8	1701.9	1761.9	1816.9	1871.9	1928.5	1968.5
22.5°	1415.2	1421.8	1473.5	1541.8	1616.8	1683.5	1746.9	1805.2	1861.9	1918.5	1958.5
25°	1365.1	1373.5	1436.8	1508.5	1588.5	1656.8	1720.2	1781.9	1838.5	1895.2	1935.2
27.5°	1311.8	1323.5	1395.2	1470.2	1550.2	1621.8	1685.2	1748.5	1805.2	1863.5	1900.2
30°	1255.1	1270.1	1346.8	1423.5	1506.8	1576.8	1640.2	1705.2	1763.5	1820.2	1855.2
32.5°	1195.1	1213.5	1291.8	1375.2	1456.8	1525.2	1588.5	1655.2	1710.2	1763.5	1798.5
35°	1135.1	1156.8	1236.8	1320.1	1400.2	1468.5	1530.2	1596.8	1651.8	1701.9	1735.2
37.5°	1073.5	1100.1	1180.1	1261.8	1340.1	1408.5	1471.8	1533.5	1588.5	1635.2	1668.5
40°	1011.8	1041.8	1121.8	1201.8	1280.1	1345.1	1406.8	1468.5	1523.5	1565.2	1596.8
42.5°	951.8	981.8	1063.4	1143.5	1215.1	1281.8	1343.5	1403.5	1453.5	1495.2	1523.5
45°	891.8	923.4	1003.4	1081.8	1153.5	1220.1	1281.8	1336.8	1385.2	1420.2	1448.5
47.5°	831.8	865.1	945.1	1023.4	1091.8	1156.8	1220.1	1270.1	1316.8	1351.8	1375.2
50°	771.8	808.4	886.8	966.8	1033.4	1098.5	1158.5	1205.1	1248.5	1280.1	1301.8
52.5°	716.7	751.7	831.8	911.8	978.4	1043.4	1100.1	1145.1	1183.5	1211.8	1233.5
55°	660.1	698.4	781.8	858.4	926.8	991.8	1043.4	1085.1	1120.1	1148.5	1165.1
57.5°	605.1	648.4	730.1	806.8	876.8	938.4	988.4	1028.4	1060.1	1083.5	1098.5
60°	551.7	596.7	681.7	758.4	828.4	888.4	936.8	973.4	1001.8	1021.8	1035.1
62.5°	498.4	550.1	633.4	713.4	780.1	838.4	883.4	916.8	943.4	961.8	970.1
65°	446.7	500.1	586.7	665.1	731.7	786.8	830.1	860.1	885.1	900.1	903.4
67.5°	396.7	453.4	540.1	618.4	683.4	735.1	776.8	805.1	826.8	836.8	840.1
70°	346.7	405.0	493.4	571.7	633.4	683.4	721.7	748.4	766.8	776.8	776.8
72.5°	300.0	358.4	446.7	523.4	580.1	630.1	665.1	690.1	706.7	713.4	711.7
75°	250.0	310.0	396.7	470.1	525.1	571.7	606.7	631.7	643.4	648.4	646.7
77.5°	206.7	263.4	346.7	415.0	473.4	511.7	546.7	570.1	581.7	585.1	583.4
80°	166.7	220.0	293.4	358.4	408.4	450.0	481.7	506.7	516.7	513.4	498.4
82.5°	128.3	176.7	241.7	298.4	345.0	383.4	416.7	431.7	433.4	425.0	411.7
85°	91.7	128.3	183.4	231.7	275.0	303.4	323.4	335.0	338.4	331.7	316.7
87.5°	51.7	75.0	108.3	143.3	176.7	196.7	208.4	215.0	220.0	213.4	203.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8
2.5°	1641.8	1646.8	1645.2	1648.5	1650.2	1650.2	1645.2	1648.5
5°	1713.5	1723.5	1730.2	1740.2	1746.9	1746.9	1748.5	1753.5
7.5°	1791.9	1808.5	1823.5	1835.2	1843.5	1846.9	1851.9	1856.9
10°	1865.2	1885.2	1901.9	1916.9	1926.9	1933.5	1938.5	1946.9
12.5°	1921.9	1945.2	1963.5	1980.2	1993.6	2003.6	2008.6	2015.2
15°	1963.5	1990.2	2011.9	2030.2	2041.9	2053.6	2058.6	2065.2
17.5°	1988.6	2015.2	2038.6	2056.9	2070.2	2081.9	2088.6	2095.2
20°	1995.2	2021.9	2046.9	2065.2	2078.6	2093.6	2100.2	2106.9
22.5°	1985.2	2011.9	2038.6	2058.6	2073.6	2088.6	2095.2	2101.9
25°	1965.2	1993.6	2020.2	2040.2	2053.6	2068.6	2076.9	2080.2
27.5°	1933.5	1961.9	1988.6	2006.9	2021.9	2036.9	2045.2	2046.9
30°	1888.5	1916.9	1943.5	1961.9	1978.6	1991.9	2000.2	2000.2
32.5°	1833.5	1860.2	1888.5	1905.2	1920.2	1933.5	1941.9	1945.2
35°	1770.2	1796.9	1823.5	1838.5	1855.2	1865.2	1871.9	1876.9
37.5°	1701.9	1728.5	1750.2	1763.5	1781.9	1788.5	1798.5	1796.9
40°	1628.5	1650.2	1670.2	1681.9	1696.9	1705.2	1715.2	1713.5
42.5°	1551.8	1573.5	1590.2	1603.5	1611.8	1620.2	1626.8	1625.2
45°	1473.5	1493.5	1508.5	1515.2	1528.5	1531.8	1538.5	1538.5
47.5°	1395.2	1411.8	1425.2	1435.2	1441.8	1445.2	1451.8	1451.8
50°	1320.1	1335.1	1343.5	1351.8	1358.5	1363.5	1366.8	1368.5
52.5°	1246.8	1258.5	1265.1	1271.8	1278.5	1281.8	1285.1	1283.5
55°	1176.8	1185.1	1190.1	1195.1	1200.1	1205.1	1205.1	1205.1
57.5°	1106.8	1111.8	1116.8	1120.1	1125.1	1128.5	1128.5	1128.5
60°	1038.4	1043.4	1045.1	1048.4	1053.4	1055.1	1056.8	1053.4
62.5°	971.8	973.4	975.1	976.8	981.8	985.1	985.1	983.4
65°	903.4	903.4	905.1	906.8	910.1	913.4	915.1	911.8
67.5°	836.8	836.8	838.4	838.4	843.4	846.8	848.4	848.4
70°	771.8	770.1	773.4	775.1	778.4	778.4	781.8	781.8
72.5°	706.7	705.1	708.4	708.4	711.7	713.4	713.4	713.4
75°	643.4	638.4	640.1	636.7	640.1	640.1	638.4	638.4
77.5°	575.1	563.4	560.1	553.4	553.4	553.4	550.1	550.1
80°	488.4	476.7	471.7	466.7	466.7	465.1	463.4	463.4
82.5°	401.7	391.7	386.7	381.7	385.0	380.0	381.7	383.4
85°	308.4	300.0	296.7	291.7	290.0	290.0	291.7	290.0
87.5°	200.0	191.7	191.7	186.7	190.0	185.0	180.0	183.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)