

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: P188664

Luminaire Tested: **24SR-LD2-53-C-UNV-L840-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188664
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-LD2-53-C-UNV-L840-CD1-ST-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH STRAW SKYTRIM.

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5132.0 lumens
Efficiency: N/A
Efficacy: 119.1 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

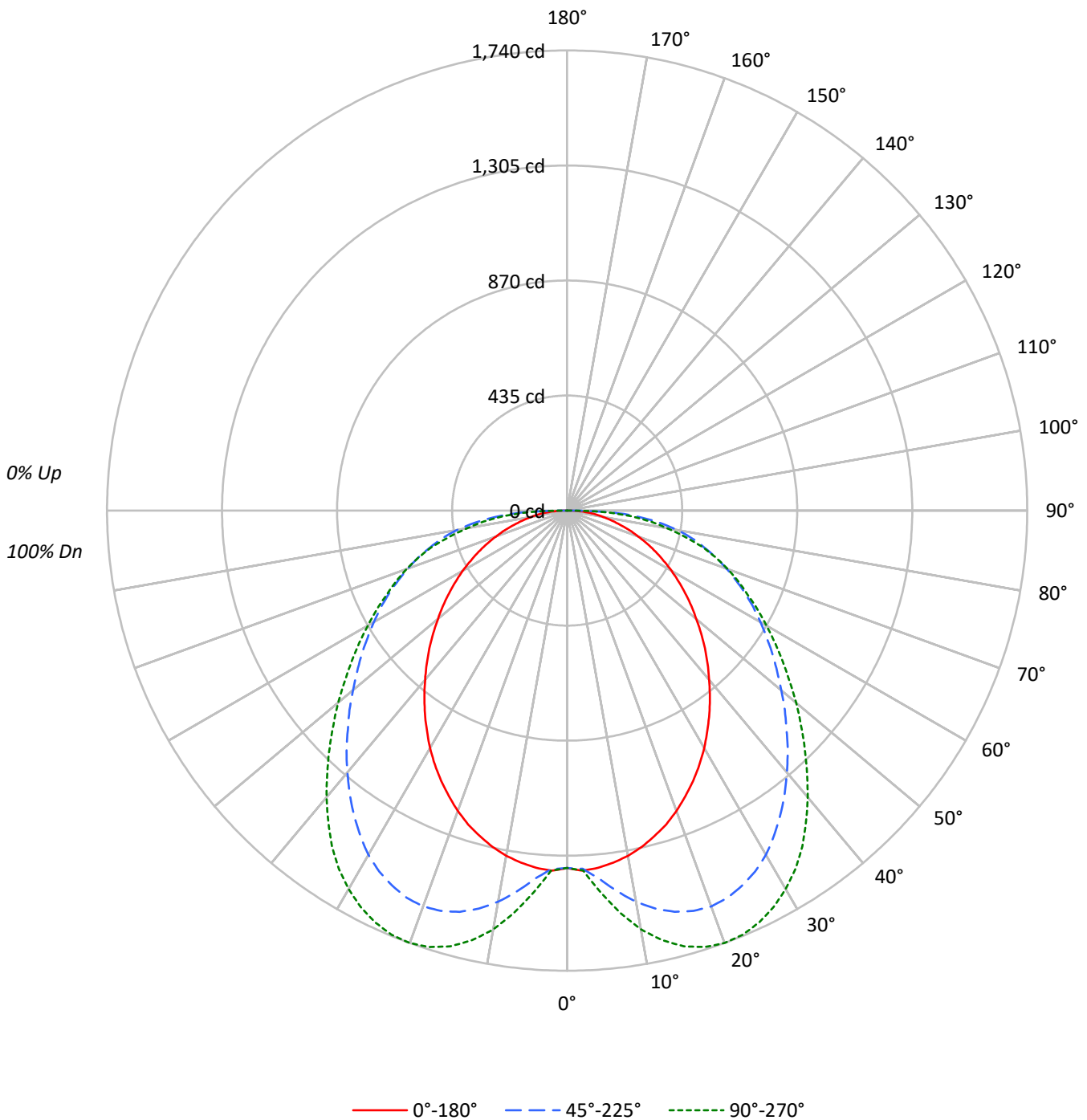
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P188664

CATALOG NUMBER: 24SR-LD2-53-C-UNV-L840-CD1-ST-U

Luminous Intensity Polar Plot





TEST NUMBER: P188664

CATALOG NUMBER: 24SR-LD2-53-C-UNV-L840-CD1-ST-U

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°	1819	1819	1819
5°	1831	1887	1956
10°	1811	2052	2197
15°	1776	2188	2376
20°	1731	2280	2491
25°	1674	2324	2551
30°	1611	2336	2566
35°	1540	2309	2546
40°	1468	2270	2486
45°	1401	2232	2418
50°	1334	2213	2366
55°	1279	2225	2335
60°	1226	2271	2341
65°	1174	2367	2397
70°	1126	2524	2540
75°	1074	2784	2741
80°	1067	3285	2965
85°	1169	4228	3697



TEST NUMBER: P188664

CATALOG NUMBER: 24SR-LD2-53-C-UNV-L840-CD1-ST-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.8	2.6
10°-20°	431.3	8.4
20°-30°	689.7	13.4
30°-40°	835.0	16.3
40°-50°	852.7	16.6
50°-60°	785.8	15.3
60°-70°	668.4	13.0
70°-80°	499.7	9.7
80°-90°	233.4	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°	1256.9	24.5
0°-40°	2091.9	40.8
0°-60°	3730.4	72.7
0°-90°	5132.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5132.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1356	1348	1397	1433	1448	128
15°	1275	1389	1571	1669	1706	359
25°	1127	1340	1565	1677	1718	519
35°	938	1185	1406	1512	1550	586
45°	736	980	1173	1249	1271	568
55°	545	792	948	985	995	488
65°	369	627	743	748	753	366
75°	206	453	536	527	527	221
85°	76	239	274	243	240	80
90°	0	0	0	0	0	



TEST NUMBER: P188664

CATALOG NUMBER: 24SR-LD2-53-C-UNV-L840-CD1-ST-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1362.8	1360.1	1356.0	1350.5	1349.1	1349.1	1347.7	1347.7	1350.5	1356.0	1364.2
5°	1356.0	1353.2	1349.1	1345.0	1346.3	1350.5	1358.7	1368.4	1382.1	1397.3	1413.8
7.5°	1342.2	1340.8	1338.1	1338.1	1349.1	1368.4	1387.6	1406.9	1428.9	1452.3	1477.1
10°	1325.7	1324.3	1322.9	1333.9	1358.7	1387.6	1415.2	1441.3	1471.6	1501.9	1530.8
12.5°	1302.3	1302.3	1306.4	1331.2	1365.6	1401.4	1435.8	1470.2	1506.0	1541.8	1573.5
15°	1274.7	1274.7	1288.5	1324.3	1368.4	1409.7	1450.9	1489.5	1530.8	1570.7	1603.8
17.5°	1244.5	1243.1	1269.2	1313.3	1362.8	1411.0	1457.8	1500.5	1543.2	1587.2	1621.6
20°	1208.7	1211.4	1245.8	1296.8	1351.8	1405.5	1455.1	1500.5	1545.9	1592.7	1625.8
22.5°	1168.7	1174.3	1216.9	1273.4	1335.3	1390.4	1442.7	1490.9	1537.7	1584.5	1617.5
25°	1127.4	1134.3	1186.6	1245.8	1311.9	1368.4	1420.7	1471.6	1518.4	1565.2	1598.2
27.5°	1083.4	1093.0	1152.2	1214.2	1280.2	1339.4	1391.8	1444.1	1490.9	1539.1	1569.3
30°	1036.6	1049.0	1112.3	1175.6	1244.5	1302.3	1354.6	1408.3	1456.5	1503.3	1532.2
32.5°	987.0	1002.2	1066.9	1135.7	1203.2	1259.6	1311.9	1367.0	1412.4	1456.5	1485.4
35°	937.5	955.4	1021.4	1090.3	1156.4	1212.8	1263.7	1318.8	1364.2	1405.5	1433.1
37.5°	886.5	908.6	974.6	1042.1	1106.8	1163.2	1215.5	1266.5	1311.9	1350.5	1378.0
40°	835.6	860.4	926.5	992.5	1057.2	1110.9	1161.9	1212.8	1258.2	1292.6	1318.8
42.5°	786.0	810.8	878.3	944.4	1003.6	1058.6	1109.5	1159.1	1200.4	1234.8	1258.2
45°	736.5	762.6	828.7	893.4	952.6	1007.7	1058.6	1104.0	1144.0	1172.9	1196.3
47.5°	686.9	714.5	780.5	845.2	901.7	955.4	1007.7	1049.0	1087.5	1116.4	1135.7
50°	637.4	667.7	732.4	798.4	853.5	907.2	956.7	995.3	1031.1	1057.2	1075.1
52.5°	591.9	620.9	686.9	753.0	808.1	861.8	908.6	945.7	977.4	1000.8	1018.7
55°	545.1	576.8	645.6	709.0	765.4	819.1	861.8	896.2	925.1	948.5	962.3
57.5°	499.7	535.5	603.0	666.3	724.1	775.0	816.3	849.4	875.5	894.8	907.2
60°	455.7	492.8	563.0	626.4	684.2	733.7	773.7	803.9	827.3	843.9	854.9
62.5°	411.6	454.3	523.1	589.2	644.3	692.4	729.6	757.1	779.2	794.3	801.2
65°	368.9	413.0	484.6	549.3	604.3	649.8	685.6	710.3	731.0	743.4	746.1
67.5°	327.6	374.4	446.0	510.7	564.4	607.1	641.5	664.9	682.8	691.1	693.8
70°	286.3	334.5	407.5	472.2	523.1	564.4	596.1	618.1	633.2	641.5	641.5
72.5°	247.8	296.0	368.9	432.3	479.1	520.4	549.3	569.9	583.7	589.2	587.8
75°	206.5	256.0	327.6	388.2	433.6	472.2	501.1	521.7	531.4	535.5	534.1
77.5°	170.7	217.5	286.3	342.8	391.0	422.6	451.5	470.8	480.4	483.2	481.8
80°	137.7	181.7	242.3	296.0	337.3	371.7	397.8	418.5	426.7	424.0	411.6
82.5°	106.0	145.9	199.6	246.4	285.0	316.6	344.2	356.5	357.9	351.0	340.0
85°	75.7	106.0	151.4	191.3	227.1	250.5	267.1	276.7	279.5	273.9	261.6
87.5°	42.7	61.9	89.5	118.4	145.9	162.4	172.1	177.6	181.7	176.2	167.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P188664

CATALOG NUMBER: 24SR-LD2-53-C-UNV-L840-CD1-ST-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1356.0	1360.1	1358.7	1361.5	1362.8	1362.8	1358.7	1361.5
5°	1415.2	1423.4	1428.9	1437.2	1442.7	1442.7	1444.1	1448.2
7.5°	1479.9	1493.6	1506.0	1515.7	1522.5	1525.3	1529.4	1533.5
10°	1540.4	1556.9	1570.7	1583.1	1591.4	1596.9	1601.0	1607.9
12.5°	1587.2	1606.5	1621.6	1635.4	1646.4	1654.7	1658.8	1664.3
15°	1621.6	1643.7	1661.6	1676.7	1686.4	1696.0	1700.1	1705.6
17.5°	1642.3	1664.3	1683.6	1698.7	1709.8	1719.4	1724.9	1730.4
20°	1647.8	1669.8	1690.5	1705.6	1716.6	1729.0	1734.5	1740.0
22.5°	1639.5	1661.6	1683.6	1700.1	1712.5	1724.9	1730.4	1735.9
25°	1623.0	1646.4	1668.5	1685.0	1696.0	1708.4	1715.3	1718.0
27.5°	1596.9	1620.3	1642.3	1657.4	1669.8	1682.2	1689.1	1690.5
30°	1559.7	1583.1	1605.1	1620.3	1634.0	1645.1	1651.9	1651.9
32.5°	1514.3	1536.3	1559.7	1573.5	1585.9	1596.9	1603.8	1606.5
35°	1462.0	1484.0	1506.0	1518.4	1532.2	1540.4	1545.9	1550.1
37.5°	1405.5	1427.5	1445.4	1456.5	1471.6	1477.1	1485.4	1484.0
40°	1345.0	1362.8	1379.4	1389.0	1401.4	1408.3	1416.5	1415.2
42.5°	1281.6	1299.5	1313.3	1324.3	1331.2	1338.1	1343.6	1342.2
45°	1216.9	1233.4	1245.8	1251.3	1262.4	1265.1	1270.6	1270.6
47.5°	1152.2	1166.0	1177.0	1185.3	1190.8	1193.5	1199.0	1199.0
50°	1090.3	1102.7	1109.5	1116.4	1121.9	1126.1	1128.8	1130.2
52.5°	1029.7	1039.3	1044.8	1050.4	1055.9	1058.6	1061.4	1060.0
55°	971.9	978.8	982.9	987.0	991.2	995.3	995.3	995.3
57.5°	914.1	918.2	922.3	925.1	929.2	932.0	932.0	932.0
60°	857.6	861.8	863.1	865.9	870.0	871.4	872.8	870.0
62.5°	802.6	803.9	805.3	806.7	810.8	813.6	813.6	812.2
65°	746.1	746.1	747.5	748.9	751.6	754.4	755.8	753.0
67.5°	691.1	691.1	692.4	692.4	696.6	699.3	700.7	700.7
70°	637.4	636.0	638.7	640.1	642.9	642.9	645.6	645.6
72.5°	583.7	582.3	585.1	585.1	587.8	589.2	589.2	589.2
75°	531.4	527.2	528.6	525.9	528.6	528.6	527.2	527.2
77.5°	474.9	465.3	462.5	457.0	457.0	457.0	454.3	454.3
80°	403.3	393.7	389.6	385.5	385.5	384.1	382.7	382.7
82.5°	331.8	323.5	319.4	315.2	318.0	313.9	315.2	316.6
85°	254.7	247.8	245.0	240.9	239.5	239.5	240.9	239.5
87.5°	165.2	158.3	158.3	154.2	156.9	152.8	148.7	151.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)