

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: P188654

Luminaire Tested: **24SR-LD2-45-C-UNV-L840-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188654
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-LD2-45-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: 4355.0 lumens
Efficiency: N/A
Efficacy: 118.7 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

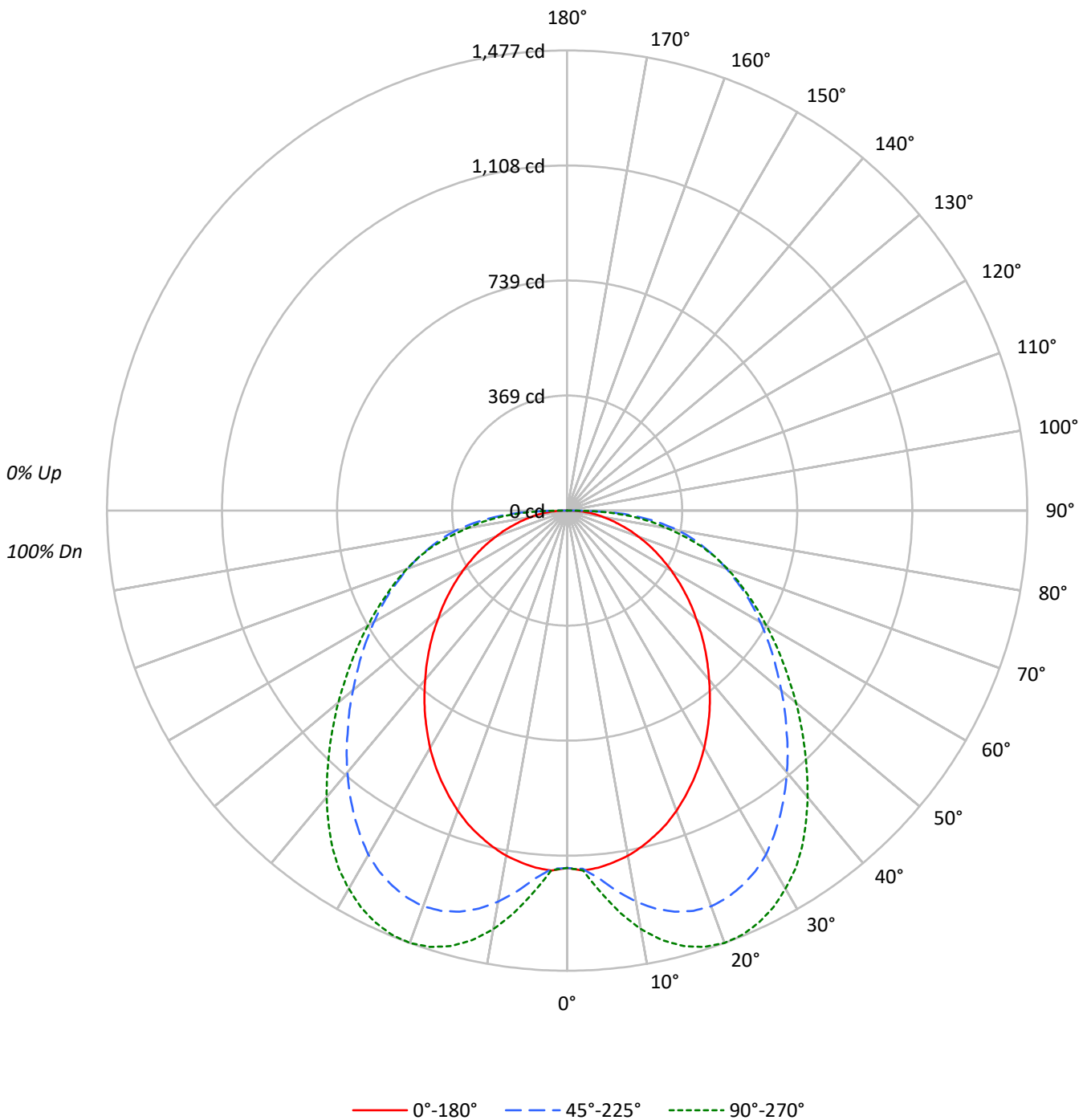
Input Watts (W): 36.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1544	1544	1544
5°	1554	1601	1660
10°	1537	1741	1864
15°	1507	1857	2016
20°	1469	1935	2114
25°	1420	1972	2164
30°	1367	1982	2178
35°	1307	1959	2161
40°	1245	1927	2109
45°	1189	1894	2052
50°	1132	1878	2008
55°	1085	1888	1981
60°	1041	1927	1987
65°	997	2008	2034
70°	956	2142	2155
75°	911	2362	2326
80°	905	2788	2517
85°	993	3589	3138



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	2.6
10°-20°	366.0	8.4
20°-30°	585.3	13.4
30°-40°	708.6	16.3
40°-50°	723.6	16.6
50°-60°	666.8	15.3
60°-70°	567.2	13.0
70°-80°	424.1	9.7
80°-90°	198.1	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°	1066.6	24.5
0°-40°	1775.2	40.8
0°-60°	3165.6	72.7
0°-90°	4355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4355.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1151	1144	1186	1216	1229	109
15°	1082	1179	1333	1416	1447	305
25°	957	1137	1328	1423	1458	440
35°	796	1005	1193	1283	1315	497
45°	625	832	995	1060	1078	482
55°	463	672	805	836	845	414
65°	313	532	631	635	639	311
75°	175	384	454	447	447	187
85°	64	203	232	206	203	68
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°	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2
2.5°	1156.5	1154.2	1150.7	1146.0	1144.8	1144.8	1143.7	1143.7	1146.0	1150.7	1157.7
5°	1150.7	1148.3	1144.8	1141.3	1142.5	1146.0	1153.0	1161.2	1172.9	1185.7	1199.7
7.5°	1139.0	1137.8	1135.5	1135.5	1144.8	1161.2	1177.5	1193.9	1212.6	1232.4	1253.5
10°	1125.0	1123.8	1122.6	1132.0	1153.0	1177.5	1200.9	1223.1	1248.8	1274.5	1299.0
12.5°	1105.1	1105.1	1108.6	1129.6	1158.8	1189.2	1218.4	1247.6	1278.0	1308.4	1335.2
15°	1081.7	1081.7	1093.4	1123.8	1161.2	1196.2	1231.3	1264.0	1299.0	1332.9	1360.9
17.5°	1056.0	1054.9	1077.1	1114.5	1156.5	1197.4	1237.1	1273.3	1309.5	1346.9	1376.1
20°	1025.7	1028.0	1057.2	1100.4	1147.2	1192.7	1234.8	1273.3	1311.9	1351.6	1379.6
22.5°	991.8	996.5	1032.7	1080.6	1133.1	1179.9	1224.3	1265.1	1304.9	1344.6	1372.6
25°	956.7	962.6	1007.0	1057.2	1113.3	1161.2	1205.6	1248.8	1288.5	1328.2	1356.3
27.5°	919.4	927.5	977.8	1030.3	1086.4	1136.6	1181.0	1225.4	1265.1	1306.0	1331.7
30°	879.6	890.2	943.9	997.6	1056.0	1105.1	1149.5	1195.1	1235.9	1275.7	1300.2
32.5°	837.6	850.4	905.3	963.8	1021.0	1068.9	1113.3	1160.0	1198.6	1235.9	1260.5
35°	795.5	810.7	866.8	925.2	981.3	1029.2	1072.4	1119.1	1157.7	1192.7	1216.1
37.5°	752.3	771.0	827.1	884.3	939.2	987.1	1031.5	1074.7	1113.3	1146.0	1169.4
40°	709.1	730.1	786.2	842.3	897.2	942.7	986.0	1029.2	1067.7	1096.9	1119.1
42.5°	667.0	688.1	745.3	801.4	851.6	898.3	941.6	983.6	1018.7	1047.9	1067.7
45°	625.0	647.2	703.3	758.2	808.4	855.1	898.3	936.9	970.8	995.3	1015.2
47.5°	582.9	606.3	662.4	717.3	765.2	810.7	855.1	890.2	922.9	947.4	963.8
50°	540.9	566.6	621.5	677.5	724.3	769.8	811.9	844.6	875.0	897.2	912.4
52.5°	502.3	526.9	582.9	639.0	685.7	731.3	771.0	802.5	829.4	849.3	864.5
55°	462.6	489.5	547.9	601.6	649.5	695.1	731.3	760.5	785.0	804.9	816.6
57.5°	424.1	454.4	511.7	565.4	614.5	657.7	692.7	720.8	743.0	759.3	769.8
60°	386.7	418.2	477.8	531.5	580.6	622.6	656.5	682.2	702.1	716.1	725.4
62.5°	349.3	385.5	443.9	500.0	546.7	587.6	619.1	642.5	661.2	674.0	679.9
65°	313.1	350.5	411.2	466.1	512.8	551.4	581.8	602.8	620.3	630.8	633.2
67.5°	278.0	317.7	378.5	433.4	479.0	515.2	544.4	564.2	579.4	586.4	588.8
70°	243.0	283.9	345.8	400.7	443.9	479.0	505.8	524.5	537.4	544.4	544.4
72.5°	210.3	251.2	313.1	366.8	406.5	441.6	466.1	483.6	495.3	500.0	498.8
75°	175.2	217.3	278.0	329.4	368.0	400.7	425.2	442.7	450.9	454.4	453.3
77.5°	144.9	184.6	243.0	290.9	331.8	358.6	383.2	399.5	407.7	410.0	408.9
80°	116.8	154.2	205.6	251.2	286.2	315.4	337.6	355.1	362.1	359.8	349.3
82.5°	90.0	123.8	169.4	209.1	241.8	268.7	292.0	302.6	303.7	297.9	288.5
85°	64.3	90.0	128.5	162.4	192.8	212.6	226.6	234.8	237.1	232.5	222.0
87.5°	36.2	52.6	75.9	100.5	123.8	137.8	146.0	150.7	154.2	149.5	142.5
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°	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2	1147.2
2.5°	1150.7	1154.2	1153.0	1155.3	1156.5	1156.5	1153.0	1155.3
5°	1200.9	1207.9	1212.6	1219.6	1224.3	1224.3	1225.4	1228.9
7.5°	1255.8	1267.5	1278.0	1286.2	1292.0	1294.4	1297.9	1301.4
10°	1307.2	1321.2	1332.9	1343.4	1350.4	1355.1	1358.6	1364.4
12.5°	1346.9	1363.3	1376.1	1387.8	1397.2	1404.2	1407.7	1412.3
15°	1376.1	1394.8	1410.0	1422.9	1431.0	1439.2	1442.7	1447.4
17.5°	1393.7	1412.3	1428.7	1441.5	1450.9	1459.1	1463.7	1468.4
20°	1398.3	1417.0	1434.5	1447.4	1456.7	1467.2	1471.9	1476.6
22.5°	1391.3	1410.0	1428.7	1442.7	1453.2	1463.7	1468.4	1473.1
25°	1377.3	1397.2	1415.8	1429.9	1439.2	1449.7	1455.6	1457.9
27.5°	1355.1	1375.0	1393.7	1406.5	1417.0	1427.5	1433.4	1434.5
30°	1323.6	1343.4	1362.1	1375.0	1386.6	1396.0	1401.8	1401.8
32.5°	1285.0	1303.7	1323.6	1335.2	1345.8	1355.1	1360.9	1363.3
35°	1240.6	1259.3	1278.0	1288.5	1300.2	1307.2	1311.9	1315.4
37.5°	1192.7	1211.4	1226.6	1235.9	1248.8	1253.5	1260.5	1259.3
40°	1141.3	1156.5	1170.5	1178.7	1189.2	1195.1	1202.1	1200.9
42.5°	1087.6	1102.8	1114.5	1123.8	1129.6	1135.5	1140.2	1139.0
45°	1032.7	1046.7	1057.2	1061.9	1071.2	1073.6	1078.2	1078.2
47.5°	977.8	989.5	998.8	1005.8	1010.5	1012.8	1017.5	1017.5
50°	925.2	935.7	941.6	947.4	952.1	955.6	957.9	959.1
52.5°	873.8	882.0	886.7	891.3	896.0	898.3	900.7	899.5
55°	824.7	830.6	834.1	837.6	841.1	844.6	844.6	844.6
57.5°	775.7	779.2	782.7	785.0	788.5	790.9	790.9	790.9
60°	727.8	731.3	732.5	734.8	738.3	739.5	740.6	738.3
62.5°	681.1	682.2	683.4	684.6	688.1	690.4	690.4	689.2
65°	633.2	633.2	634.3	635.5	637.8	640.2	641.3	639.0
67.5°	586.4	586.4	587.6	587.6	591.1	593.4	594.6	594.6
70°	540.9	539.7	542.0	543.2	545.5	545.5	547.9	547.9
72.5°	495.3	494.1	496.5	496.5	498.8	500.0	500.0	500.0
75°	450.9	447.4	448.6	446.2	448.6	448.6	447.4	447.4
77.5°	403.0	394.8	392.5	387.8	387.8	387.8	385.5	385.5
80°	342.3	334.1	330.6	327.1	327.1	325.9	324.8	324.8
82.5°	281.5	274.5	271.0	267.5	269.9	266.3	267.5	268.7
85°	216.1	210.3	207.9	204.4	203.3	203.3	204.4	203.3
87.5°	140.2	134.3	134.3	130.8	133.2	129.7	126.2	128.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)