

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: P188658

Luminaire Tested: **24SR-LD2-48-C-UNV-L835-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188658
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-LD2-48-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: 4546.0 lumens
Efficiency: N/A
Efficacy: 119.0 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

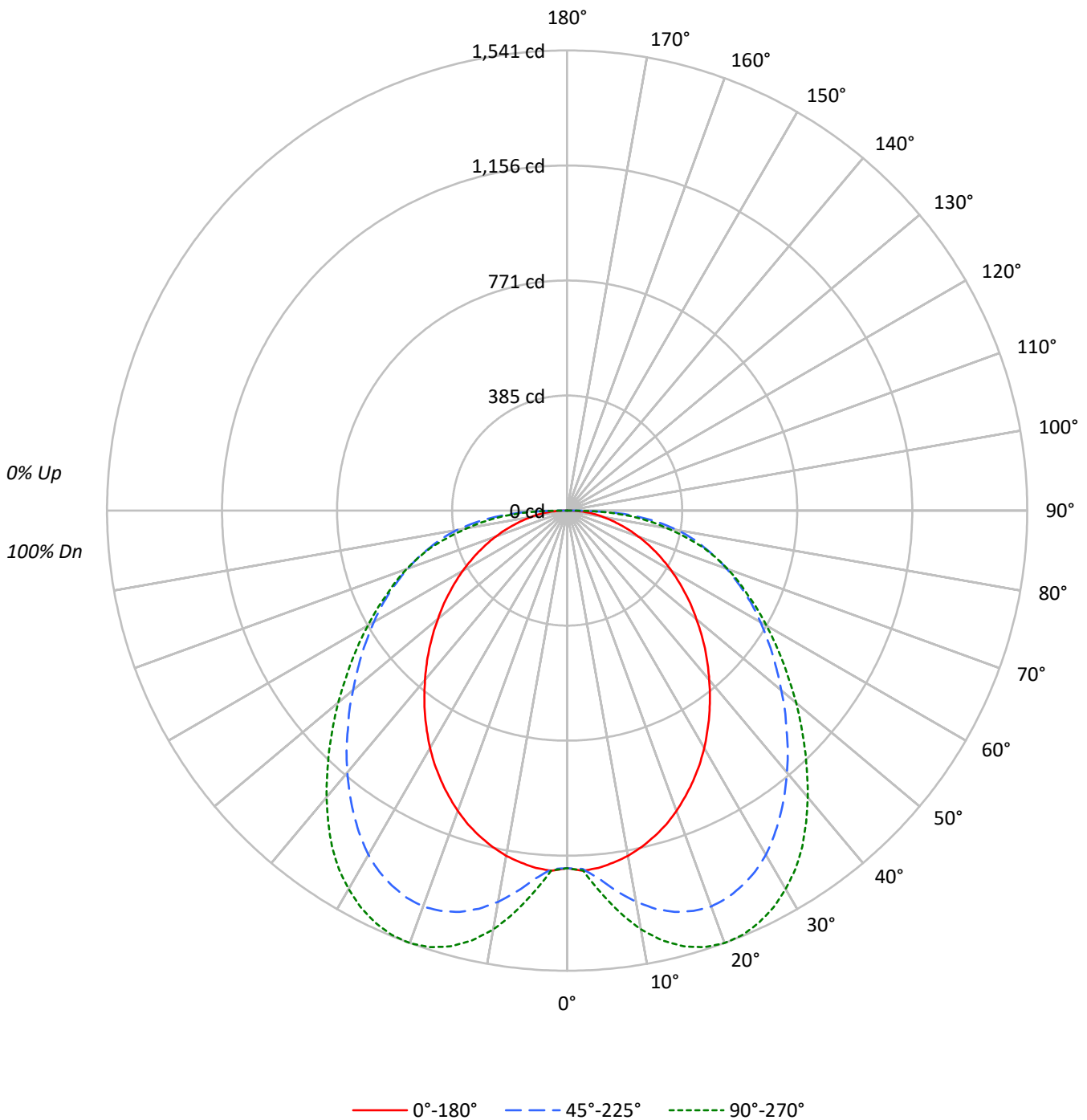
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1611	1611	1611
5°	1622	1672	1733
10°	1604	1818	1946
15°	1573	1938	2105
20°	1533	2020	2207
25°	1483	2058	2259
30°	1427	2069	2273
35°	1364	2045	2255
40°	1300	2011	2202
45°	1241	1977	2142
50°	1182	1960	2096
55°	1133	1971	2068
60°	1086	2012	2074
65°	1040	2096	2124
70°	998	2236	2250
75°	951	2466	2428
80°	945	2910	2627
85°	1036	3747	3276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	2.6
10°-20°	382.1	8.4
20°-30°	611.0	13.4
30°-40°	739.6	16.3
40°-50°	755.4	16.6
50°-60°	696.1	15.3
60°-70°	592.1	13.0
70°-80°	442.7	9.7
80°-90°	206.8	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°	1113.4	24.5
0°-40°	1853.1	40.8
0°-60°	3304.5	72.7
0°-90°	4546.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1201	1194	1238	1269	1283	114
15°	1129	1230	1391	1479	1511	318
25°	999	1187	1386	1485	1522	459
35°	830	1049	1245	1340	1373	519
45°	652	868	1039	1106	1126	503
55°	483	702	840	872	882	432
65°	327	555	658	663	667	324
75°	183	401	474	467	467	196
85°	67	212	243	215	212	71
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°	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5
2.5°	1207.2	1204.8	1201.1	1196.3	1195.0	1195.0	1193.8	1193.8	1196.3	1201.1	1208.4
5°	1201.1	1198.7	1195.0	1191.4	1192.6	1196.3	1203.6	1212.1	1224.3	1237.7	1252.3
7.5°	1188.9	1187.7	1185.3	1185.3	1195.0	1212.1	1229.2	1246.3	1265.8	1286.5	1308.4
10°	1174.3	1173.1	1171.9	1181.6	1203.6	1229.2	1253.6	1276.7	1303.6	1330.4	1356.0
12.5°	1153.6	1153.6	1157.2	1179.2	1209.7	1241.4	1271.9	1302.3	1334.0	1365.8	1393.8
15°	1129.2	1129.2	1141.4	1173.1	1212.1	1248.7	1285.3	1319.4	1356.0	1391.4	1420.6
17.5°	1102.4	1101.1	1124.3	1163.3	1207.2	1249.9	1291.4	1329.2	1367.0	1406.0	1436.5
20°	1070.7	1073.1	1103.6	1148.7	1197.5	1245.0	1288.9	1329.2	1369.4	1410.9	1440.1
22.5°	1035.3	1040.2	1078.0	1128.0	1182.8	1231.6	1278.0	1320.6	1362.1	1403.6	1432.8
25°	998.7	1004.8	1051.1	1103.6	1162.1	1212.1	1258.4	1303.6	1345.0	1386.5	1415.8
27.5°	959.7	968.2	1020.7	1075.5	1134.1	1186.5	1232.8	1279.2	1320.6	1363.3	1390.1
30°	918.2	929.2	985.3	1041.4	1102.4	1153.6	1199.9	1247.5	1290.2	1331.6	1357.2
32.5°	874.3	887.7	945.1	1006.0	1065.8	1115.8	1162.1	1210.9	1251.1	1290.2	1315.8
35°	830.4	846.3	904.8	965.8	1024.3	1074.3	1119.4	1168.2	1208.4	1245.0	1269.4
37.5°	785.3	804.8	863.4	923.1	980.4	1030.4	1076.8	1121.9	1162.1	1196.3	1220.6
40°	740.2	762.1	820.7	879.2	936.5	984.1	1029.2	1074.3	1114.6	1145.0	1168.2
42.5°	696.3	718.2	778.0	836.5	889.0	937.7	982.9	1026.8	1063.3	1093.8	1114.6
45°	652.4	675.6	734.1	791.4	843.8	892.6	937.7	978.0	1013.3	1038.9	1059.7
47.5°	608.5	632.9	691.4	748.7	798.7	846.3	892.6	929.2	963.3	989.0	1006.0
50°	564.6	591.4	648.7	707.3	756.0	803.6	847.5	881.6	913.3	936.5	952.4
52.5°	524.4	550.0	608.5	667.0	715.8	763.4	804.8	837.7	865.8	886.5	902.4
55°	482.9	510.9	571.9	628.0	678.0	725.6	763.4	793.8	819.5	840.2	852.4
57.5°	442.7	474.4	534.1	590.2	641.4	686.5	723.1	752.4	775.6	792.6	803.6
60°	403.6	436.6	498.7	554.8	606.1	650.0	685.3	712.1	732.9	747.5	757.3
62.5°	364.6	402.4	463.4	521.9	570.7	613.4	646.3	670.7	690.2	703.6	709.7
65°	326.8	365.8	429.2	486.5	535.3	575.6	607.3	629.2	647.5	658.5	660.9
67.5°	290.2	331.7	395.1	452.4	500.0	537.8	568.3	589.0	604.8	612.2	614.6
70°	253.6	296.3	360.9	418.3	463.4	500.0	528.0	547.5	560.9	568.3	568.3
72.5°	219.5	262.2	326.8	382.9	424.4	460.9	486.5	504.8	517.0	521.9	520.7
75°	182.9	226.8	290.2	343.9	384.1	418.3	443.9	462.2	470.7	474.4	473.1
77.5°	151.2	192.7	253.6	303.6	346.3	374.4	400.0	417.0	425.6	428.0	426.8
80°	121.9	161.0	214.6	262.2	298.8	329.2	352.4	370.7	378.0	375.6	364.6
82.5°	93.9	129.3	176.8	218.3	252.4	280.5	304.9	315.8	317.1	311.0	301.2
85°	67.1	93.9	134.1	169.5	201.2	221.9	236.6	245.1	247.5	242.7	231.7
87.5°	37.8	54.9	79.3	104.9	129.3	143.9	152.4	157.3	161.0	156.1	148.8
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°	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5	1197.5
2.5°	1201.1	1204.8	1203.6	1206.0	1207.2	1207.2	1203.6	1206.0
5°	1253.6	1260.9	1265.8	1273.1	1278.0	1278.0	1279.2	1282.8
7.5°	1310.9	1323.1	1334.0	1342.6	1348.7	1351.1	1354.8	1358.4
10°	1364.5	1379.2	1391.4	1402.3	1409.7	1414.5	1418.2	1424.3
12.5°	1406.0	1423.1	1436.5	1448.7	1458.4	1465.7	1469.4	1474.3
15°	1436.5	1456.0	1471.8	1485.3	1493.8	1502.3	1506.0	1510.9
17.5°	1454.8	1474.3	1491.4	1504.8	1514.5	1523.1	1527.9	1532.8
20°	1459.6	1479.2	1497.5	1510.9	1520.6	1531.6	1536.5	1541.4
22.5°	1452.3	1471.8	1491.4	1506.0	1517.0	1527.9	1532.8	1537.7
25°	1437.7	1458.4	1477.9	1492.6	1502.3	1513.3	1519.4	1521.8
27.5°	1414.5	1435.3	1454.8	1468.2	1479.2	1490.1	1496.2	1497.5
30°	1381.6	1402.3	1421.8	1435.3	1447.5	1457.2	1463.3	1463.3
32.5°	1341.4	1360.9	1381.6	1393.8	1404.8	1414.5	1420.6	1423.1
35°	1295.0	1314.5	1334.0	1345.0	1357.2	1364.5	1369.4	1373.1
37.5°	1245.0	1264.5	1280.4	1290.2	1303.6	1308.4	1315.8	1314.5
40°	1191.4	1207.2	1221.9	1230.4	1241.4	1247.5	1254.8	1253.6
42.5°	1135.3	1151.1	1163.3	1173.1	1179.2	1185.3	1190.2	1188.9
45°	1078.0	1092.6	1103.6	1108.5	1118.2	1120.7	1125.5	1125.5
47.5°	1020.7	1032.9	1042.6	1049.9	1054.8	1057.2	1062.1	1062.1
50°	965.8	976.8	982.9	989.0	993.8	997.5	999.9	1001.1
52.5°	912.1	920.7	925.5	930.4	935.3	937.7	940.2	939.0
55°	860.9	867.0	870.7	874.3	878.0	881.6	881.6	881.6
57.5°	809.7	813.4	817.0	819.5	823.1	825.5	825.5	825.5
60°	759.7	763.4	764.6	767.0	770.7	771.9	773.1	770.7
62.5°	710.9	712.1	713.4	714.6	718.2	720.7	720.7	719.5
65°	660.9	660.9	662.1	663.4	665.8	668.2	669.5	667.0
67.5°	612.2	612.2	613.4	613.4	617.0	619.5	620.7	620.7
70°	564.6	563.4	565.8	567.0	569.5	569.5	571.9	571.9
72.5°	517.0	515.8	518.3	518.3	520.7	521.9	521.9	521.9
75°	470.7	467.0	468.3	465.8	468.3	468.3	467.0	467.0
77.5°	420.7	412.2	409.7	404.8	404.8	404.8	402.4	402.4
80°	357.3	348.8	345.1	341.4	341.4	340.2	339.0	339.0
82.5°	293.9	286.6	282.9	279.2	281.7	278.0	279.2	280.5
85°	225.6	219.5	217.1	213.4	212.2	212.2	213.4	212.2
87.5°	146.3	140.2	140.2	136.6	139.0	135.4	131.7	134.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)