

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: P188653

Luminaire Tested: **24SR-LD2-45-C-UNV-L835-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188653
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-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: 4269.0 lumens
Efficiency: N/A
Efficacy: 116.3 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

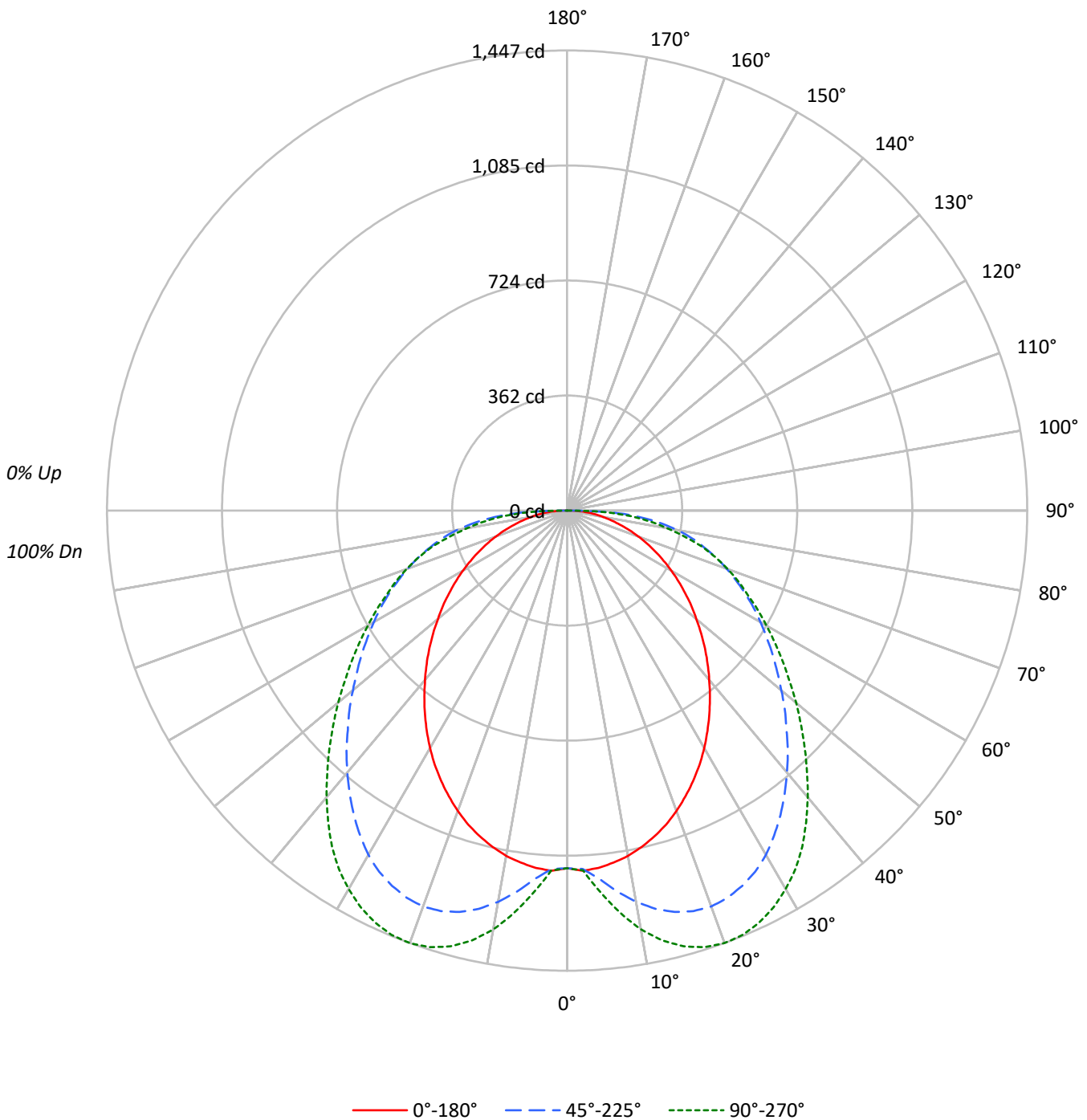
Input Watts (W): 36.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1513	1513	1513
5°	1523	1570	1627
10°	1507	1707	1827
15°	1477	1820	1976
20°	1440	1897	2072
25°	1392	1933	2122
30°	1340	1943	2135
35°	1281	1920	2118
40°	1221	1889	2068
45°	1166	1856	2011
50°	1110	1841	1968
55°	1064	1851	1942
60°	1020	1889	1947
65°	977	1969	1994
70°	937	2099	2113
75°	893	2316	2280
80°	887	2733	2466
85°	973	3518	3077



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.0	2.6
10°-20°	358.8	8.4
20°-30°	573.8	13.4
30°-40°	694.6	16.3
40°-50°	709.3	16.6
50°-60°	653.6	15.3
60°-70°	556.0	13.0
70°-80°	415.7	9.7
80°-90°	194.2	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°	1045.6	24.5
0°-40°	1740.1	40.8
0°-60°	3103.1	72.7
0°-90°	4269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4269.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1124	1124	1124	1124	1124	
5°	1128	1122	1162	1192	1205	107
15°	1060	1155	1307	1388	1419	299
25°	938	1115	1302	1395	1429	431
35°	780	985	1169	1258	1289	487
45°	613	815	976	1039	1057	473
55°	454	659	789	819	828	406
65°	307	522	618	622	626	304
75°	172	377	446	439	439	184
85°	63	199	228	202	199	66
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°	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5
2.5°	1133.7	1131.4	1127.9	1123.4	1122.2	1122.2	1121.1	1121.1	1123.4	1127.9	1134.8
5°	1127.9	1125.7	1122.2	1118.8	1119.9	1123.4	1130.2	1138.3	1149.7	1162.3	1176.0
7.5°	1116.5	1115.3	1113.1	1113.1	1122.2	1138.3	1154.3	1170.3	1188.6	1208.1	1228.7
10°	1102.8	1101.6	1100.5	1109.6	1130.2	1154.3	1177.2	1198.9	1224.1	1249.3	1273.4
12.5°	1083.3	1083.3	1086.7	1107.3	1136.0	1165.7	1194.4	1223.0	1252.8	1282.5	1308.9
15°	1060.4	1060.4	1071.8	1101.6	1138.3	1172.6	1207.0	1239.0	1273.4	1306.6	1334.1
17.5°	1035.2	1034.0	1055.8	1092.4	1133.7	1173.7	1212.7	1248.2	1283.7	1320.3	1349.0
20°	1005.4	1007.7	1036.3	1078.7	1124.5	1169.2	1210.4	1248.2	1286.0	1324.9	1352.4
22.5°	972.2	976.8	1012.3	1059.2	1110.8	1156.6	1200.1	1240.2	1279.1	1318.0	1345.5
25°	937.9	943.6	987.1	1036.3	1091.3	1138.3	1181.8	1224.1	1263.1	1302.0	1329.5
27.5°	901.2	909.2	958.5	1010.0	1065.0	1114.2	1157.7	1201.2	1240.2	1280.2	1305.4
30°	862.3	872.6	925.3	977.9	1035.2	1083.3	1126.8	1171.5	1211.5	1250.5	1274.5
32.5°	821.1	833.6	887.5	944.7	1000.8	1047.8	1091.3	1137.1	1174.9	1211.5	1235.6
35°	779.8	794.7	849.7	906.9	961.9	1008.9	1051.2	1097.0	1134.8	1169.2	1192.1
37.5°	737.5	755.8	810.7	866.9	920.7	967.6	1011.1	1053.5	1091.3	1123.4	1146.3
40°	695.1	715.7	770.7	825.6	879.5	924.1	966.5	1008.9	1046.6	1075.3	1097.0
42.5°	653.9	674.5	730.6	785.6	834.8	880.6	923.0	964.2	998.5	1027.2	1046.6
45°	612.6	634.4	689.4	743.2	792.4	838.2	880.6	918.4	951.6	975.6	995.1
47.5°	571.4	594.3	649.3	703.1	750.1	794.7	838.2	872.6	904.6	928.7	944.7
50°	530.2	555.4	609.2	664.2	710.0	754.6	795.9	827.9	857.7	879.5	894.3
52.5°	492.4	516.4	571.4	626.4	672.2	716.8	755.8	786.7	813.0	832.5	847.4
55°	453.5	479.8	537.1	589.7	636.7	681.3	716.8	745.5	769.5	789.0	800.4
57.5°	415.7	445.5	501.6	554.2	602.3	644.7	679.1	706.5	728.3	744.3	754.6
60°	379.0	410.0	468.4	521.0	569.1	610.3	643.6	668.8	688.2	702.0	711.1
62.5°	342.4	377.9	435.1	490.1	535.9	576.0	606.9	629.8	648.1	660.7	666.5
65°	306.9	343.5	403.1	456.9	502.7	540.5	570.3	590.9	608.1	618.4	620.7
67.5°	272.5	311.5	371.0	424.8	469.5	505.0	533.6	553.1	568.0	574.9	577.1
70°	238.2	278.3	339.0	392.8	435.1	469.5	495.8	514.2	526.8	533.6	533.6
72.5°	206.1	246.2	306.9	359.6	398.5	432.9	456.9	474.1	485.5	490.1	489.0
75°	171.8	213.0	272.5	322.9	360.7	392.8	416.8	434.0	442.0	445.5	444.3
77.5°	142.0	180.9	238.2	285.1	325.2	351.6	375.6	391.6	399.6	401.9	400.8
80°	114.5	151.2	201.5	246.2	280.6	309.2	330.9	348.1	355.0	352.7	342.4
82.5°	88.2	121.4	166.0	205.0	237.0	263.4	286.3	296.6	297.7	292.0	282.8
85°	63.0	88.2	126.0	159.2	188.9	208.4	222.2	230.2	232.5	227.9	217.6
87.5°	35.5	51.5	74.4	98.5	121.4	135.1	143.1	147.7	151.2	146.6	139.7
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°	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5	1124.5
2.5°	1127.9	1131.4	1130.2	1132.5	1133.7	1133.7	1130.2	1132.5
5°	1177.2	1184.1	1188.6	1195.5	1200.1	1200.1	1201.2	1204.7
7.5°	1231.0	1242.5	1252.8	1260.8	1266.5	1268.8	1272.2	1275.7
10°	1281.4	1295.1	1306.6	1316.9	1323.8	1328.3	1331.8	1337.5
12.5°	1320.3	1336.4	1349.0	1360.4	1369.6	1376.4	1379.9	1384.5
15°	1349.0	1367.3	1382.2	1394.8	1402.8	1410.8	1414.2	1418.8
17.5°	1366.1	1384.5	1400.5	1413.1	1422.2	1430.3	1434.8	1439.4
20°	1370.7	1389.0	1406.2	1418.8	1428.0	1438.3	1442.9	1447.4
22.5°	1363.8	1382.2	1400.5	1414.2	1424.5	1434.8	1439.4	1444.0
25°	1350.1	1369.6	1387.9	1401.6	1410.8	1421.1	1426.8	1429.1
27.5°	1328.3	1347.8	1366.1	1378.7	1389.0	1399.3	1405.1	1406.2
30°	1297.4	1316.9	1335.2	1347.8	1359.3	1368.4	1374.1	1374.1
32.5°	1259.6	1278.0	1297.4	1308.9	1319.2	1328.3	1334.1	1336.4
35°	1216.1	1234.4	1252.8	1263.1	1274.5	1281.4	1286.0	1289.4
37.5°	1169.2	1187.5	1202.4	1211.5	1224.1	1228.7	1235.6	1234.4
40°	1118.8	1133.7	1147.4	1155.4	1165.7	1171.5	1178.3	1177.2
42.5°	1066.1	1081.0	1092.4	1101.6	1107.3	1113.1	1117.6	1116.5
45°	1012.3	1026.0	1036.3	1040.9	1050.1	1052.4	1056.9	1056.9
47.5°	958.5	969.9	979.1	985.9	990.5	992.8	997.4	997.4
50°	906.9	917.2	923.0	928.7	933.3	936.7	939.0	940.1
52.5°	856.6	864.6	869.1	873.7	878.3	880.6	882.9	881.7
55°	808.5	814.2	817.6	821.1	824.5	827.9	827.9	827.9
57.5°	760.4	763.8	767.2	769.5	773.0	775.2	775.2	775.2
60°	713.4	716.8	718.0	720.3	723.7	724.9	726.0	723.7
62.5°	667.6	668.8	669.9	671.0	674.5	676.8	676.8	675.6
65°	620.7	620.7	621.8	622.9	625.2	627.5	628.7	626.4
67.5°	574.9	574.9	576.0	576.0	579.4	581.7	582.9	582.9
70°	530.2	529.0	531.3	532.5	534.8	534.8	537.1	537.1
72.5°	485.5	484.4	486.7	486.7	489.0	490.1	490.1	490.1
75°	442.0	438.6	439.7	437.4	439.7	439.7	438.6	438.6
77.5°	395.1	387.1	384.8	380.2	380.2	380.2	377.9	377.9
80°	335.5	327.5	324.1	320.6	320.6	319.5	318.3	318.3
82.5°	276.0	269.1	265.7	262.2	264.5	261.1	262.2	263.4
85°	211.8	206.1	203.8	200.4	199.3	199.3	200.4	199.3
87.5°	137.4	131.7	131.7	128.3	130.5	127.1	123.7	126.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)