

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: P188659

Luminaire Tested: **24SR-LD2-48-C-UNV-L840-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188659
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-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: 4637.0 lumens
Efficiency: N/A
Efficacy: 121.4 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

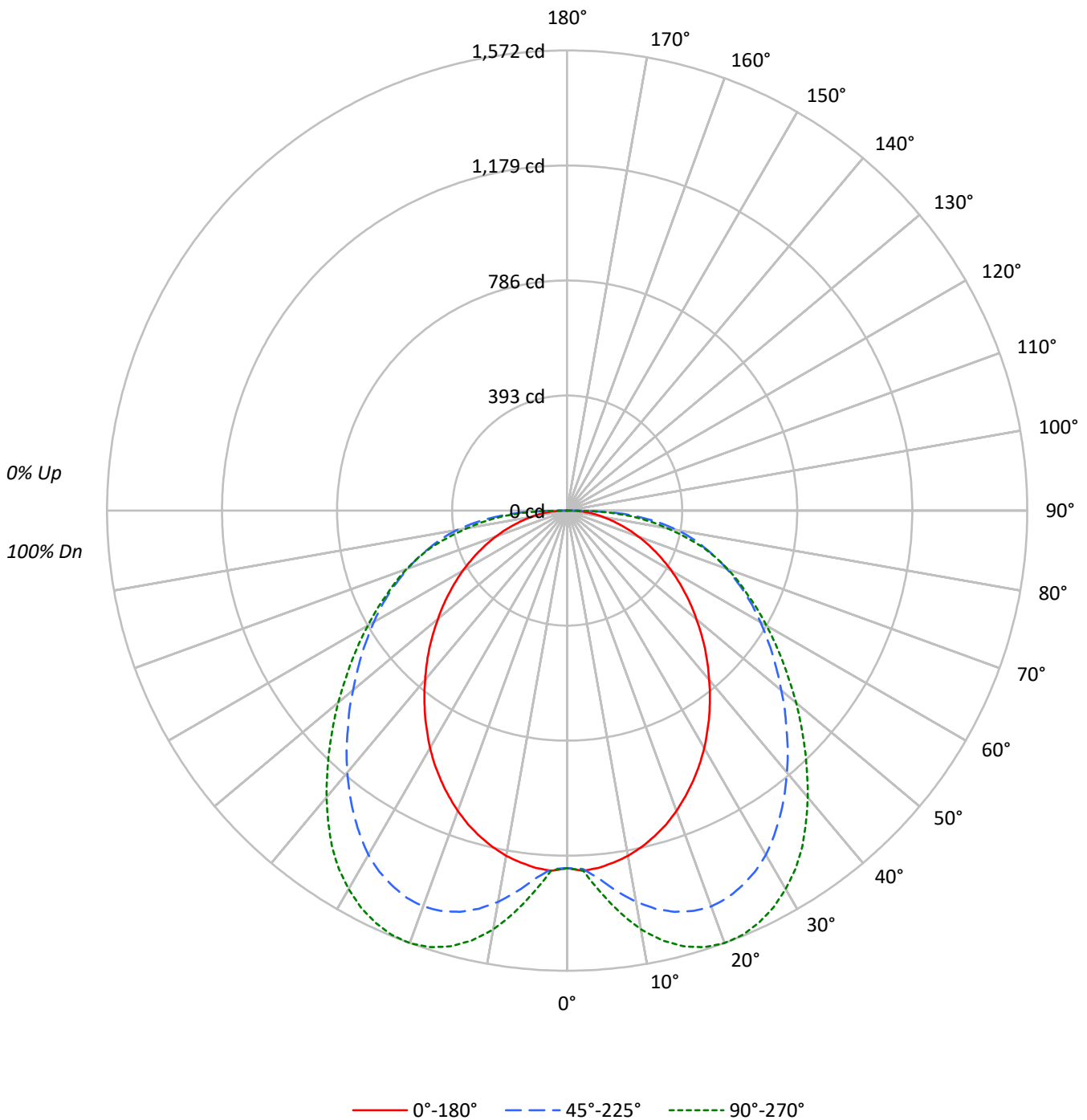
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1643	1643	1643
5°	1655	1705	1767
10°	1636	1854	1985
15°	1604	1977	2147
20°	1564	2061	2251
25°	1512	2099	2305
30°	1455	2110	2319
35°	1391	2086	2301
40°	1326	2051	2246
45°	1266	2016	2185
50°	1205	2000	2138
55°	1156	2010	2110
60°	1108	2052	2115
65°	1061	2138	2166
70°	1018	2280	2295
75°	970	2516	2477
80°	964	2968	2679
85°	1056	3821	3341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	2.6
10°-20°	389.7	8.4
20°-30°	623.2	13.4
30°-40°	754.4	16.3
40°-50°	770.5	16.6
50°-60°	710.0	15.3
60°-70°	603.9	13.0
70°-80°	451.5	9.7
80°-90°	210.9	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°	1135.7	24.5
0°-40°	1890.1	40.8
0°-60°	3370.6	72.7
0°-90°	4637.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4637.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1221	1221	1221	1221	1221	
5°	1225	1218	1262	1295	1308	116
15°	1152	1255	1419	1508	1541	324
25°	1019	1211	1414	1515	1552	469
35°	847	1070	1270	1366	1401	530
45°	666	886	1060	1128	1148	513
55°	493	716	857	890	899	441
65°	333	567	672	676	680	331
75°	187	409	484	476	476	199
85°	68	216	248	220	216	72
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°	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4
2.5°	1231.4	1228.9	1225.2	1220.2	1219.0	1219.0	1217.7	1217.7	1220.2	1225.2	1232.6
5°	1225.2	1222.7	1219.0	1215.2	1216.5	1220.2	1227.7	1236.4	1248.8	1262.5	1277.4
7.5°	1212.7	1211.5	1209.0	1209.0	1219.0	1236.4	1253.8	1271.2	1291.1	1312.2	1334.6
10°	1197.8	1196.6	1195.3	1205.3	1227.7	1253.8	1278.7	1302.3	1329.7	1357.0	1383.1
12.5°	1176.7	1176.7	1180.4	1202.8	1233.9	1266.2	1297.3	1328.4	1360.8	1393.1	1421.7
15°	1151.8	1151.8	1164.2	1196.6	1236.4	1273.7	1311.0	1345.8	1383.1	1419.2	1449.1
17.5°	1124.4	1123.2	1146.8	1186.6	1231.4	1274.9	1317.2	1355.8	1394.3	1434.1	1465.2
20°	1092.1	1094.6	1125.7	1171.7	1221.4	1270.0	1314.7	1355.8	1396.8	1439.1	1469.0
22.5°	1056.0	1061.0	1099.5	1150.5	1206.5	1256.3	1303.5	1347.1	1389.4	1431.7	1461.5
25°	1018.7	1024.9	1072.2	1125.7	1185.4	1236.4	1283.6	1329.7	1371.9	1414.2	1444.1
27.5°	978.9	987.6	1041.1	1097.1	1156.8	1210.2	1257.5	1304.8	1347.1	1390.6	1418.0
30°	936.6	947.8	1005.0	1062.2	1124.4	1176.7	1223.9	1272.4	1316.0	1358.3	1384.4
32.5°	891.8	905.5	964.0	1026.2	1087.1	1138.1	1185.4	1235.1	1276.2	1316.0	1342.1
35°	847.1	863.2	922.9	985.1	1044.8	1095.8	1141.8	1191.6	1232.6	1270.0	1294.8
37.5°	801.0	820.9	880.6	941.6	1000.0	1051.0	1098.3	1144.3	1185.4	1220.2	1245.1
40°	755.0	777.4	837.1	896.8	955.3	1003.8	1049.8	1095.8	1136.9	1168.0	1191.6
42.5°	710.2	732.6	793.6	853.3	906.8	956.5	1002.5	1047.3	1084.6	1115.7	1136.9
45°	665.5	689.1	748.8	807.2	860.7	910.5	956.5	997.6	1033.6	1059.7	1080.9
47.5°	620.7	645.5	705.3	763.7	814.7	863.2	910.5	947.8	982.6	1008.7	1026.2
50°	575.9	603.3	661.7	721.4	771.2	819.7	864.5	899.3	931.6	955.3	971.4
52.5°	534.8	561.0	620.7	680.4	730.1	778.6	820.9	854.5	883.1	904.3	920.4
55°	492.6	521.2	583.4	640.6	691.6	740.1	778.6	809.7	835.9	857.0	869.4
57.5°	451.5	483.9	544.8	602.0	654.3	700.3	737.6	767.4	791.1	808.5	819.7
60°	411.7	445.3	508.7	565.9	618.2	663.0	699.0	726.4	747.5	762.5	772.4
62.5°	371.9	410.5	472.7	532.4	582.1	625.6	659.2	684.1	704.0	717.7	723.9
65°	333.3	373.2	437.8	496.3	546.0	587.1	619.4	641.8	660.5	671.7	674.2
67.5°	296.0	338.3	403.0	461.5	510.0	548.5	579.6	600.8	616.9	624.4	626.9
70°	258.7	302.3	368.2	426.6	472.7	510.0	538.6	558.5	572.2	579.6	579.6
72.5°	223.9	267.4	333.3	390.6	432.9	470.2	496.3	514.9	527.4	532.4	531.1
75°	186.6	231.4	296.0	350.8	391.8	426.6	452.8	471.4	480.1	483.9	482.6
77.5°	154.2	196.5	258.7	309.7	353.2	381.9	408.0	425.4	434.1	436.6	435.3
80°	124.4	164.2	218.9	267.4	304.7	335.8	359.5	378.1	385.6	383.1	371.9
82.5°	95.8	131.8	180.4	222.6	257.5	286.1	311.0	322.2	323.4	317.2	307.2
85°	68.4	95.8	136.8	172.9	205.2	226.4	241.3	250.0	252.5	247.5	236.3
87.5°	38.6	56.0	80.8	107.0	131.8	146.8	155.5	160.5	164.2	159.2	151.7
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°	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4	1221.4
2.5°	1225.2	1228.9	1227.7	1230.2	1231.4	1231.4	1227.7	1230.2
5°	1278.7	1286.1	1291.1	1298.6	1303.5	1303.5	1304.8	1308.5
7.5°	1337.1	1349.6	1360.8	1369.5	1375.7	1378.2	1381.9	1385.6
10°	1391.8	1406.8	1419.2	1430.4	1437.9	1442.8	1446.6	1452.8
12.5°	1434.1	1451.6	1465.2	1477.7	1487.6	1495.1	1498.8	1503.8
15°	1465.2	1485.1	1501.3	1515.0	1523.7	1532.4	1536.1	1541.1
17.5°	1483.9	1503.8	1521.2	1534.9	1544.8	1553.5	1558.5	1563.5
20°	1488.9	1508.8	1527.4	1541.1	1551.1	1562.3	1567.2	1572.2
22.5°	1481.4	1501.3	1521.2	1536.1	1547.3	1558.5	1563.5	1568.5
25°	1466.5	1487.6	1507.5	1522.5	1532.4	1543.6	1549.8	1552.3
27.5°	1442.8	1464.0	1483.9	1497.6	1508.8	1520.0	1526.2	1527.4
30°	1409.3	1430.4	1450.3	1464.0	1476.4	1486.4	1492.6	1492.6
32.5°	1368.2	1388.1	1409.3	1421.7	1432.9	1442.8	1449.1	1451.6
35°	1321.0	1340.9	1360.8	1371.9	1384.4	1391.8	1396.8	1400.6
37.5°	1270.0	1289.9	1306.0	1316.0	1329.7	1334.6	1342.1	1340.9
40°	1215.2	1231.4	1246.3	1255.0	1266.2	1272.4	1279.9	1278.7
42.5°	1158.0	1174.2	1186.6	1196.6	1202.8	1209.0	1214.0	1212.7
45°	1099.5	1114.5	1125.7	1130.6	1140.6	1143.1	1148.1	1148.1
47.5°	1041.1	1053.5	1063.5	1070.9	1075.9	1078.4	1083.4	1083.4
50°	985.1	996.3	1002.5	1008.7	1013.7	1017.5	1019.9	1021.2
52.5°	930.4	939.1	944.1	949.0	954.0	956.5	959.0	957.8
55°	878.1	884.4	888.1	891.8	895.6	899.3	899.3	899.3
57.5°	825.9	829.6	833.4	835.9	839.6	842.1	842.1	842.1
60°	774.9	778.6	779.9	782.4	786.1	787.3	788.6	786.1
62.5°	725.2	726.4	727.6	728.9	732.6	735.1	735.1	733.9
65°	674.2	674.2	675.4	676.6	679.1	681.6	682.9	680.4
67.5°	624.4	624.4	625.6	625.6	629.4	631.9	633.1	633.1
70°	575.9	574.7	577.1	578.4	580.9	580.9	583.4	583.4
72.5°	527.4	526.1	528.6	528.6	531.1	532.4	532.4	532.4
75°	480.1	476.4	477.6	475.1	477.6	477.6	476.4	476.4
77.5°	429.1	420.4	417.9	413.0	413.0	413.0	410.5	410.5
80°	364.4	355.7	352.0	348.3	348.3	347.0	345.8	345.8
82.5°	299.8	292.3	288.6	284.8	287.3	283.6	284.8	286.1
85°	230.1	223.9	221.4	217.7	216.4	216.4	217.7	216.4
87.5°	149.3	143.0	143.0	139.3	141.8	138.1	134.3	136.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)