

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: P188629

Luminaire Tested: **24SR-LD2-59-C-UNV-L840-CD1-SO-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188629
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24785)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SR-LD2-59-C-UNV-L840-CD1-SO-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH STORARO ORANGE SKYTRIM.

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4432.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.85 / 1.72
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

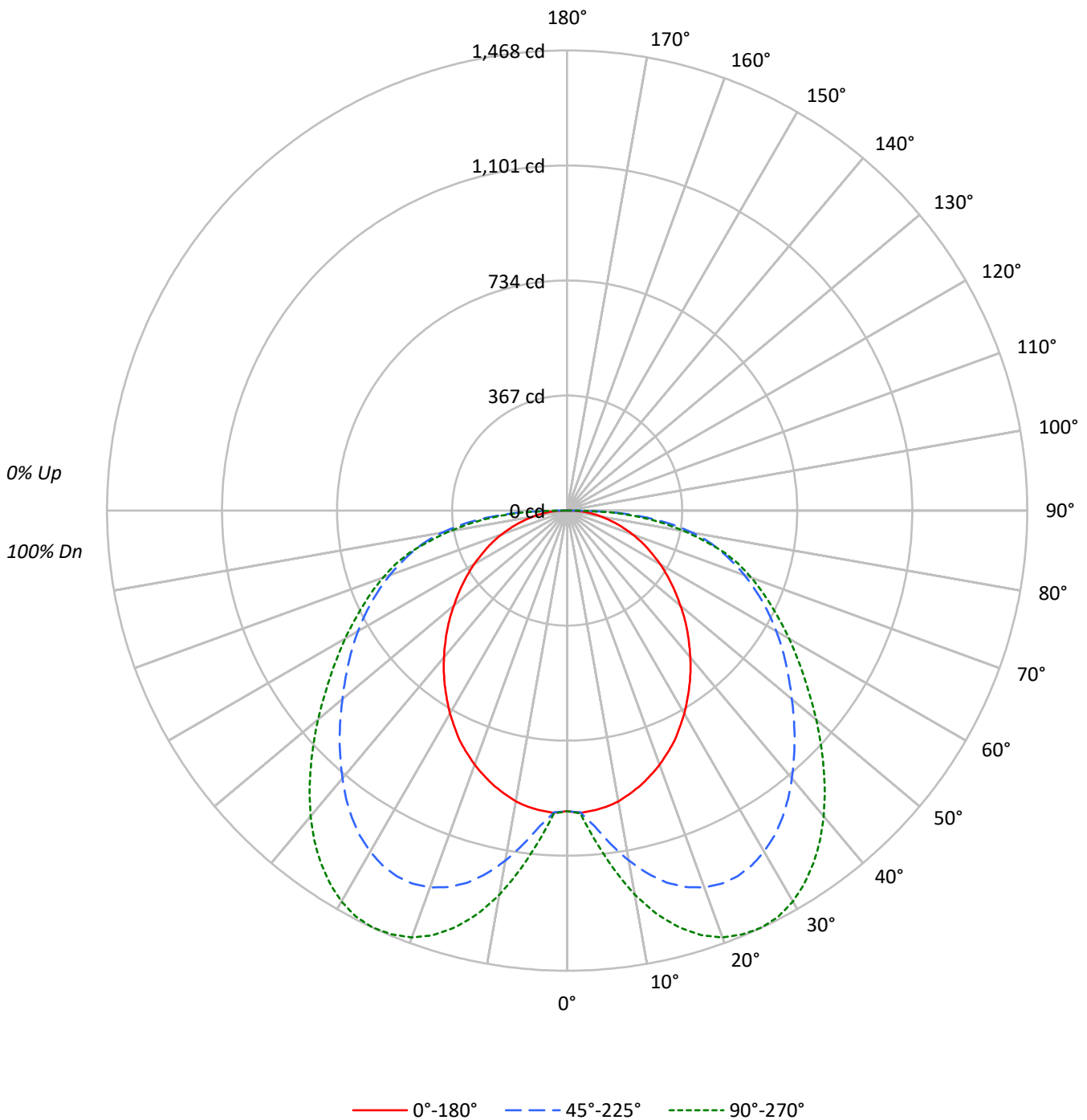
Input Watts (W): 50.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	107	101	96	91	104	99	94	90	94	90	87	90	87	84	87	84	82	79
2	96	87	79	72	93	85	77	71	81	75	70	78	73	68	74	70	66	64
3	87	75	66	59	84	74	65	58	70	63	57	68	61	56	65	60	55	53
4	79	66	56	49	77	65	56	49	62	54	48	60	53	47	57	52	47	44
5	72	59	49	42	70	57	48	42	55	47	41	53	46	41	51	45	40	38
6	67	53	43	36	65	52	43	36	50	42	36	48	41	35	46	40	35	33
7	62	47	38	32	60	47	38	32	45	37	31	43	36	31	42	36	31	29
8	57	43	34	28	56	42	34	28	41	33	28	40	33	28	39	32	27	25
9	53	39	31	25	52	39	31	25	38	30	25	37	30	25	35	29	24	23
10	50	36	28	23	49	36	28	22	35	27	22	34	27	22	33	27	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1290	1290	1290
5°	1297	1366	1434
10°	1287	1549	1700
15°	1263	1711	1916
20°	1235	1832	2075
25°	1203	1911	2179
30°	1161	1952	2237
35°	1117	1965	2252
40°	1074	1959	2236
45°	1032	1953	2201
50°	988	1959	2171
55°	952	1998	2163
60°	924	2074	2201
65°	897	2190	2287
70°	874	2369	2459
75°	852	2660	2708
80°	855	3146	2944
85°	946	3949	3571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	2.2
10°-20°	335.1	7.6
20°-30°	561.1	12.7
30°-40°	702.6	15.9
40°-50°	737.1	16.6
50°-60°	696.5	15.7
60°-70°	609.6	13.8
70°-80°	470.9	10.6
80°-90°	219.7	5.0
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°	995.7	22.5
0°-40°	1698.3	38.3
0°-60°	3131.8	70.7
0°-90°	4432.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4432.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	960	1011	1049	1062	91
15°	907	1034	1229	1340	1376	255
25°	810	1040	1287	1418	1468	372
35°	680	951	1196	1325	1371	426
45°	542	806	1026	1126	1157	418
55°	406	669	852	907	922	363
65°	282	548	688	707	718	279
75°	164	411	512	516	521	174
85°	61	216	256	237	231	65
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°	959.0	959.0	959.0	959.0	959.0	959.0	959.0	959.0	959.0	959.0	959.0
2.5°	965.1	963.6	962.1	959.0	957.5	957.5	957.5	957.5	959.0	963.6	966.7
5°	960.5	960.5	957.5	956.0	957.5	962.1	969.7	982.0	994.3	1011.1	1024.9
7.5°	952.9	951.4	949.8	951.4	965.1	985.1	1005.0	1028.0	1049.4	1073.9	1093.8
10°	942.2	940.6	942.2	954.4	982.0	1014.2	1043.3	1072.4	1101.5	1133.7	1161.2
12.5°	925.3	925.3	931.4	959.0	997.3	1037.1	1075.4	1112.2	1149.0	1185.7	1217.9
15°	906.9	908.5	923.8	963.6	1011.1	1057.1	1101.5	1144.4	1187.3	1228.6	1263.9
17.5°	885.5	888.5	914.6	963.6	1017.2	1070.9	1121.4	1168.9	1214.9	1259.3	1296.1
20°	862.5	865.6	903.9	960.5	1020.3	1078.5	1132.1	1184.2	1233.2	1279.2	1317.5
22.5°	836.5	841.1	890.1	951.4	1017.2	1080.0	1135.2	1188.8	1239.4	1288.4	1326.7
25°	810.4	816.5	873.2	939.1	1008.0	1072.4	1130.6	1184.2	1237.8	1286.9	1325.2
27.5°	778.2	789.0	853.3	920.7	994.3	1058.6	1116.8	1173.5	1227.1	1276.1	1314.4
30°	747.6	761.4	828.8	899.3	974.3	1038.7	1096.9	1153.6	1207.2	1256.2	1294.5
32.5°	713.9	730.8	801.2	874.8	948.3	1011.1	1070.9	1127.5	1181.2	1230.2	1266.9
35°	680.2	700.1	772.1	847.2	919.2	982.0	1040.2	1096.9	1149.0	1196.5	1231.7
37.5°	646.5	667.9	739.9	816.5	885.5	946.8	1005.0	1060.1	1113.7	1158.2	1193.4
40°	611.3	635.8	707.8	781.3	850.2	910.0	968.2	1021.8	1072.4	1115.3	1149.0
42.5°	576.0	603.6	675.6	747.6	813.5	871.7	929.9	982.0	1029.5	1070.9	1103.0
45°	542.3	569.9	640.4	712.4	776.7	834.9	891.6	942.2	988.1	1026.4	1057.1
47.5°	507.1	537.7	608.2	678.7	739.9	798.2	853.3	900.8	945.2	980.5	1009.6
50°	471.8	505.6	574.5	643.4	706.2	762.9	816.5	862.5	903.9	936.0	963.6
52.5°	438.1	473.4	543.9	611.3	672.5	729.2	781.3	825.7	864.0	893.1	917.7
55°	406.0	442.7	513.2	579.1	641.9	697.0	746.1	789.0	824.2	851.8	873.2
57.5°	373.8	413.6	484.1	551.5	611.3	666.4	713.9	753.7	785.9	811.9	830.3
60°	343.2	384.5	456.5	522.4	582.2	635.8	681.7	718.5	749.1	770.6	784.4
62.5°	311.0	355.4	427.4	494.8	554.6	605.1	649.6	684.8	710.8	729.2	741.5
65°	281.9	326.3	399.8	467.3	523.9	573.0	614.3	648.0	672.5	687.9	695.5
67.5°	252.8	298.7	372.3	438.1	493.3	540.8	579.1	611.3	632.7	645.0	651.1
70°	222.1	271.2	343.2	407.5	461.1	505.6	543.9	571.4	591.3	602.1	605.1
72.5°	191.5	242.1	314.1	376.9	427.4	470.3	505.6	531.6	550.0	557.6	559.2
75°	163.9	211.4	281.9	341.6	390.7	430.5	465.7	490.2	504.0	511.7	513.2
77.5°	136.3	182.3	249.7	306.4	349.3	387.6	421.3	444.3	458.1	464.2	464.2
80°	110.3	153.2	214.5	265.0	306.4	341.6	372.3	395.2	407.5	406.0	399.8
82.5°	85.8	125.6	177.7	222.1	258.9	291.1	321.7	335.5	340.1	335.5	330.9
85°	61.3	93.5	134.8	171.6	203.8	228.3	248.2	258.9	260.4	255.8	251.2
87.5°	35.2	52.1	76.6	104.2	121.0	136.3	153.2	159.3	159.3	162.4	153.2
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°	959.0	959.0	959.0	959.0	959.0	959.0	959.0	959.0
2.5°	965.1	966.7	966.7	969.7	971.3	971.3	969.7	966.7
5°	1029.5	1038.7	1044.8	1054.0	1058.6	1063.2	1064.7	1061.7
7.5°	1104.6	1118.3	1130.6	1144.4	1150.5	1155.1	1161.2	1156.6
10°	1176.6	1194.9	1210.3	1225.6	1234.8	1240.9	1245.5	1244.0
12.5°	1237.8	1259.3	1276.1	1291.5	1303.7	1312.9	1317.5	1317.5
15°	1285.3	1309.8	1331.3	1348.1	1360.4	1369.6	1375.7	1375.7
17.5°	1322.1	1346.6	1369.6	1386.4	1398.7	1410.9	1417.1	1420.1
20°	1343.5	1369.6	1392.6	1410.9	1424.7	1438.5	1444.7	1449.2
22.5°	1354.3	1380.3	1404.8	1424.7	1440.1	1452.3	1460.0	1463.0
25°	1354.3	1381.8	1407.9	1427.8	1443.1	1456.9	1464.6	1467.6
27.5°	1345.1	1374.2	1400.2	1418.6	1435.5	1449.2	1456.9	1460.0
30°	1326.7	1355.8	1381.8	1400.2	1417.1	1429.3	1437.0	1440.1
32.5°	1297.6	1328.2	1352.7	1371.1	1388.0	1400.2	1407.9	1409.4
35°	1263.9	1293.0	1316.0	1334.4	1351.2	1361.9	1368.1	1371.1
37.5°	1222.5	1250.1	1273.1	1289.9	1305.2	1317.5	1323.6	1325.2
40°	1178.1	1204.1	1224.0	1239.4	1254.7	1265.4	1271.5	1273.1
42.5°	1130.6	1155.1	1173.5	1187.3	1201.1	1210.3	1214.9	1216.4
45°	1081.6	1103.0	1119.9	1132.1	1144.4	1152.0	1156.6	1156.6
47.5°	1032.6	1052.5	1066.3	1075.4	1086.2	1093.8	1098.4	1096.9
50°	983.5	1000.4	1011.1	1020.3	1029.5	1034.1	1038.7	1037.1
52.5°	934.5	949.8	956.0	963.6	971.3	975.9	980.5	977.4
55°	887.0	897.7	903.9	910.0	916.1	920.7	923.8	922.2
57.5°	841.1	848.7	853.3	859.4	864.0	867.1	870.2	868.6
60°	792.0	798.2	801.2	807.4	811.9	815.0	818.1	818.1
62.5°	746.1	750.7	752.2	758.3	761.4	764.5	769.1	767.5
65°	697.0	701.6	704.7	709.3	712.4	715.4	720.0	718.5
67.5°	651.1	655.7	657.2	661.8	666.4	671.0	672.5	672.5
70°	605.1	608.2	609.7	615.9	617.4	622.0	625.0	625.0
72.5°	559.2	560.7	563.8	568.4	571.4	574.5	577.6	576.0
75°	510.1	513.2	514.7	517.8	517.8	520.9	520.9	520.9
77.5°	459.6	455.0	453.5	451.9	450.4	450.4	450.4	448.9
80°	390.7	386.1	384.5	381.5	381.5	381.5	381.5	379.9
82.5°	323.2	317.1	314.1	312.5	311.0	311.0	311.0	309.5
85°	245.1	239.0	237.5	235.9	235.9	234.4	232.9	231.3
87.5°	151.7	147.1	145.5	142.5	144.0	140.9	140.9	140.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)