

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: P188650

Luminaire Tested: **24SR-LD2-39-C-UNV-L850-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188650
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-LD2-39-C-UNV-L850-CD1-ST-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH STRAW SKYTRIM.

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4198.0 lumens
Efficiency: N/A
Efficacy: 131.6 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

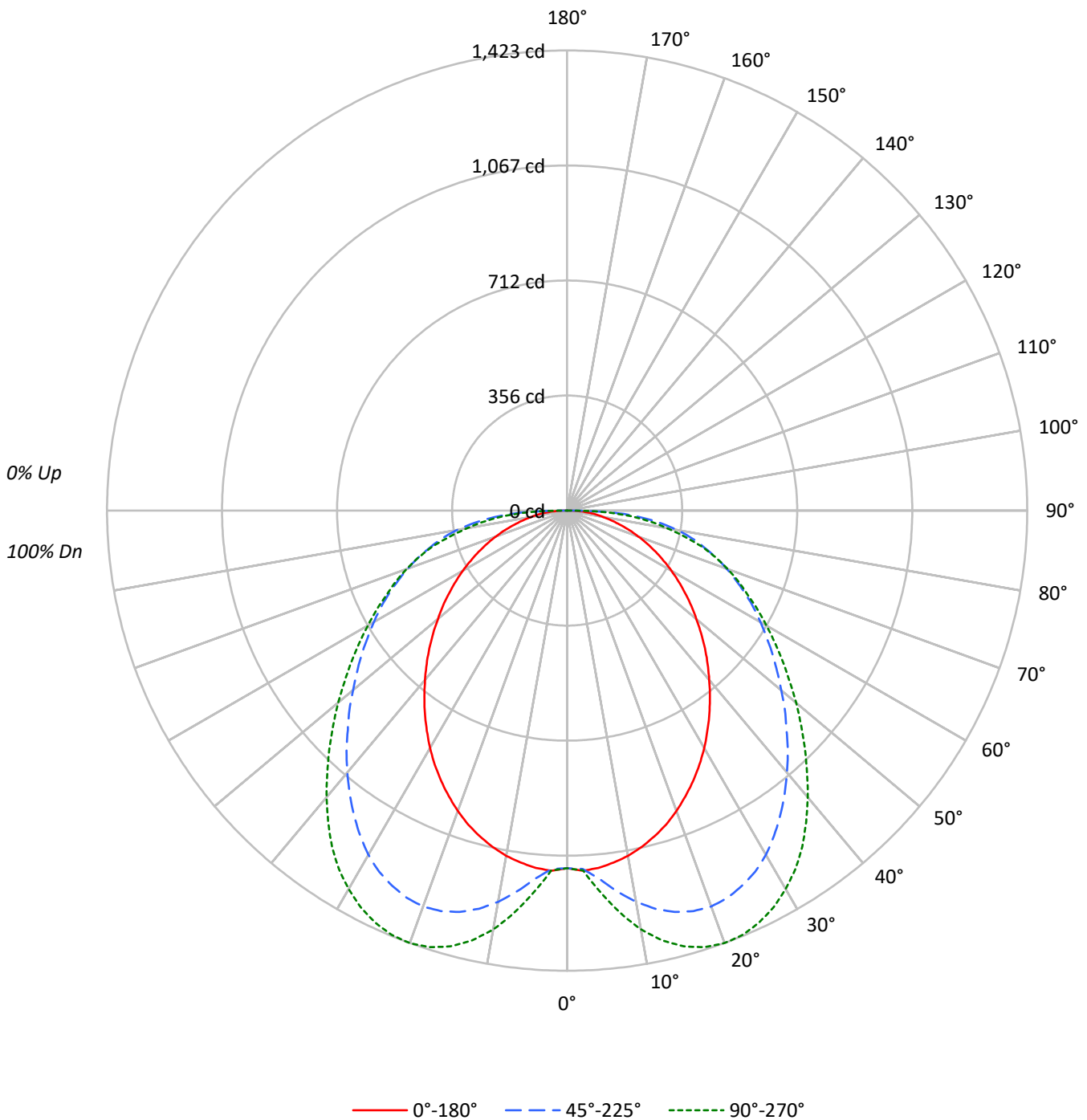
Input Watts (W): 31.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1488	1488	1488
5°	1498	1544	1600
10°	1482	1678	1797
15°	1452	1790	1943
20°	1416	1866	2038
25°	1369	1901	2086
30°	1317	1911	2099
35°	1260	1888	2083
40°	1201	1857	2033
45°	1146	1826	1978
50°	1091	1810	1935
55°	1046	1820	1910
60°	1003	1858	1915
65°	961	1936	1961
70°	921	2065	2078
75°	878	2277	2242
80°	872	2687	2425
85°	956	3460	3024



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	2.6
10°-20°	352.8	8.4
20°-30°	564.2	13.4
30°-40°	683.0	16.3
40°-50°	697.5	16.6
50°-60°	642.8	15.3
60°-70°	546.7	13.0
70°-80°	408.8	9.7
80°-90°	191.0	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°	1028.2	24.5
0°-40°	1711.2	40.8
0°-60°	3051.5	72.7
0°-90°	4198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4198.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1106	1106	1106	1106	1106	
5°	1109	1103	1143	1172	1185	105
15°	1043	1136	1285	1365	1395	294
25°	922	1096	1280	1372	1405	424
35°	767	969	1150	1237	1268	479
45°	602	802	959	1021	1039	465
55°	446	648	776	806	814	399
65°	302	513	608	612	616	299
75°	169	370	438	431	431	181
85°	62	195	224	199	196	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°	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8
2.5°	1114.8	1112.6	1109.2	1104.7	1103.6	1103.6	1102.4	1102.4	1104.7	1109.2	1115.9
5°	1109.2	1106.9	1103.6	1100.2	1101.3	1104.7	1111.4	1119.3	1130.6	1143.0	1156.5
7.5°	1097.9	1096.8	1094.5	1094.5	1103.6	1119.3	1135.1	1150.8	1168.9	1188.0	1208.3
10°	1084.4	1083.3	1082.2	1091.2	1111.4	1135.1	1157.6	1179.0	1203.8	1228.5	1252.2
12.5°	1065.3	1065.3	1068.6	1088.9	1117.1	1146.3	1174.5	1202.6	1231.9	1261.2	1287.1
15°	1042.7	1042.7	1054.0	1083.3	1119.3	1153.1	1186.9	1218.4	1252.2	1284.9	1311.9
17.5°	1018.0	1016.8	1038.2	1074.3	1114.8	1154.2	1192.5	1227.4	1262.3	1298.4	1326.5
20°	988.7	990.9	1019.1	1060.8	1105.8	1149.7	1190.3	1227.4	1264.6	1302.9	1329.9
22.5°	956.0	960.5	995.5	1041.6	1092.3	1137.3	1180.1	1219.5	1257.8	1296.1	1323.1
25°	922.3	927.9	970.7	1019.1	1073.2	1119.3	1162.1	1203.8	1242.1	1280.3	1307.4
27.5°	886.2	894.1	942.5	993.2	1047.3	1095.7	1138.5	1181.3	1219.5	1259.0	1283.7
30°	847.9	858.1	909.9	961.7	1018.0	1065.3	1108.1	1152.0	1191.4	1229.7	1253.3
32.5°	807.4	819.8	872.7	929.0	984.2	1030.4	1073.2	1118.2	1155.4	1191.4	1215.0
35°	766.9	781.5	835.5	891.9	945.9	992.1	1033.7	1078.8	1115.9	1149.7	1172.2
37.5°	725.2	743.2	797.3	852.4	905.4	951.5	994.3	1036.0	1073.2	1104.7	1127.2
40°	683.5	703.8	757.8	811.9	864.8	908.7	950.4	992.1	1029.2	1057.4	1078.8
42.5°	643.0	663.3	718.4	772.5	820.9	866.0	907.6	948.2	981.9	1010.1	1029.2
45°	602.5	623.8	677.9	730.8	779.2	824.3	866.0	903.1	935.8	959.4	978.6
47.5°	561.9	584.4	638.5	691.4	737.6	781.5	824.3	858.1	889.6	913.2	929.0
50°	521.4	546.1	599.1	653.1	698.2	742.1	782.6	814.2	843.4	864.8	879.5
52.5°	484.2	507.9	561.9	616.0	661.0	704.9	743.2	773.6	799.5	818.7	833.3
55°	445.9	471.8	528.1	579.9	626.1	670.0	704.9	733.1	756.7	775.9	787.1
57.5°	408.8	438.0	493.2	545.0	592.3	634.0	667.8	694.8	716.2	731.9	742.1
60°	372.7	403.1	460.6	512.4	559.7	600.2	632.9	657.6	676.8	690.3	699.3
62.5°	336.7	371.6	427.9	482.0	527.0	566.4	596.8	619.3	637.4	649.7	655.4
65°	301.8	337.8	396.4	449.3	494.3	531.5	560.8	581.1	597.9	608.1	610.3
67.5°	268.0	306.3	364.8	417.8	461.7	496.6	524.8	543.9	558.5	565.3	567.5
70°	234.2	273.6	333.3	386.2	427.9	461.7	487.6	505.6	518.0	524.8	524.8
72.5°	202.7	242.1	301.8	353.6	391.9	425.7	449.3	466.2	477.5	482.0	480.8
75°	168.9	209.5	268.0	317.6	354.7	386.2	409.9	426.8	434.7	438.0	436.9
77.5°	139.6	177.9	234.2	280.4	319.8	345.7	369.4	385.1	393.0	395.3	394.1
80°	112.6	148.6	198.2	242.1	275.9	304.0	325.4	342.3	349.1	346.8	336.7
82.5°	86.7	119.4	163.3	201.6	233.1	259.0	281.5	291.7	292.8	287.1	278.1
85°	61.9	86.7	123.9	156.5	185.8	204.9	218.5	226.3	228.6	224.1	214.0
87.5°	34.9	50.7	73.2	96.8	119.4	132.9	140.8	145.3	148.6	144.1	137.4
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°	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8
2.5°	1109.2	1112.6	1111.4	1113.7	1114.8	1114.8	1111.4	1113.7
5°	1157.6	1164.4	1168.9	1175.6	1180.1	1180.1	1181.3	1184.6
7.5°	1210.5	1221.8	1231.9	1239.8	1245.4	1247.7	1251.1	1254.4
10°	1260.1	1273.6	1284.9	1295.0	1301.7	1306.2	1309.6	1315.3
12.5°	1298.4	1314.1	1326.5	1337.8	1346.8	1353.5	1356.9	1361.4
15°	1326.5	1344.5	1359.2	1371.6	1379.4	1387.3	1390.7	1395.2
17.5°	1343.4	1361.4	1377.2	1389.6	1398.6	1406.5	1411.0	1415.5
20°	1347.9	1365.9	1382.8	1395.2	1404.2	1414.4	1418.9	1423.4
22.5°	1341.2	1359.2	1377.2	1390.7	1400.8	1411.0	1415.5	1420.0
25°	1327.6	1346.8	1364.8	1378.3	1387.3	1397.5	1403.1	1405.3
27.5°	1306.2	1325.4	1343.4	1355.8	1365.9	1376.1	1381.7	1382.8
30°	1275.8	1295.0	1313.0	1325.4	1336.7	1345.7	1351.3	1351.3
32.5°	1238.7	1256.7	1275.8	1287.1	1297.2	1306.2	1311.9	1314.1
35°	1195.9	1213.9	1231.9	1242.1	1253.3	1260.1	1264.6	1268.0
37.5°	1149.7	1167.7	1182.4	1191.4	1203.8	1208.3	1215.0	1213.9
40°	1100.2	1114.8	1128.3	1136.2	1146.3	1152.0	1158.7	1157.6
42.5°	1048.4	1063.0	1074.3	1083.3	1088.9	1094.5	1099.0	1097.9
45°	995.5	1009.0	1019.1	1023.6	1032.6	1034.9	1039.4	1039.4
47.5°	942.5	953.8	962.8	969.6	974.1	976.3	980.8	980.8
50°	891.9	902.0	907.6	913.2	917.8	921.1	923.4	924.5
52.5°	842.3	850.2	854.7	859.2	863.7	866.0	868.2	867.1
55°	795.0	800.6	804.0	807.4	810.8	814.2	814.2	814.2
57.5°	747.7	751.1	754.5	756.7	760.1	762.4	762.4	762.4
60°	701.5	704.9	706.0	708.3	711.7	712.8	713.9	711.7
62.5°	656.5	657.6	658.8	659.9	663.3	665.5	665.5	664.4
65°	610.3	610.3	611.5	612.6	614.8	617.1	618.2	616.0
67.5°	565.3	565.3	566.4	566.4	569.8	572.0	573.2	573.2
70°	521.4	520.2	522.5	523.6	525.9	525.9	528.1	528.1
72.5°	477.5	476.3	478.6	478.6	480.8	482.0	482.0	482.0
75°	434.7	431.3	432.4	430.2	432.4	432.4	431.3	431.3
77.5°	388.5	380.6	378.4	373.9	373.9	373.9	371.6	371.6
80°	329.9	322.1	318.7	315.3	315.3	314.2	313.0	313.0
82.5°	271.4	264.6	261.2	257.9	260.1	256.7	257.9	259.0
85°	208.3	202.7	200.4	197.1	195.9	195.9	197.1	195.9
87.5°	135.1	129.5	129.5	126.1	128.4	125.0	121.6	123.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)