

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: P188649

Luminaire Tested: **24SR-LD2-39-C-UNV-L840-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188649
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-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: 3858.0 lumens
Efficiency: N/A
Efficacy: 120.9 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

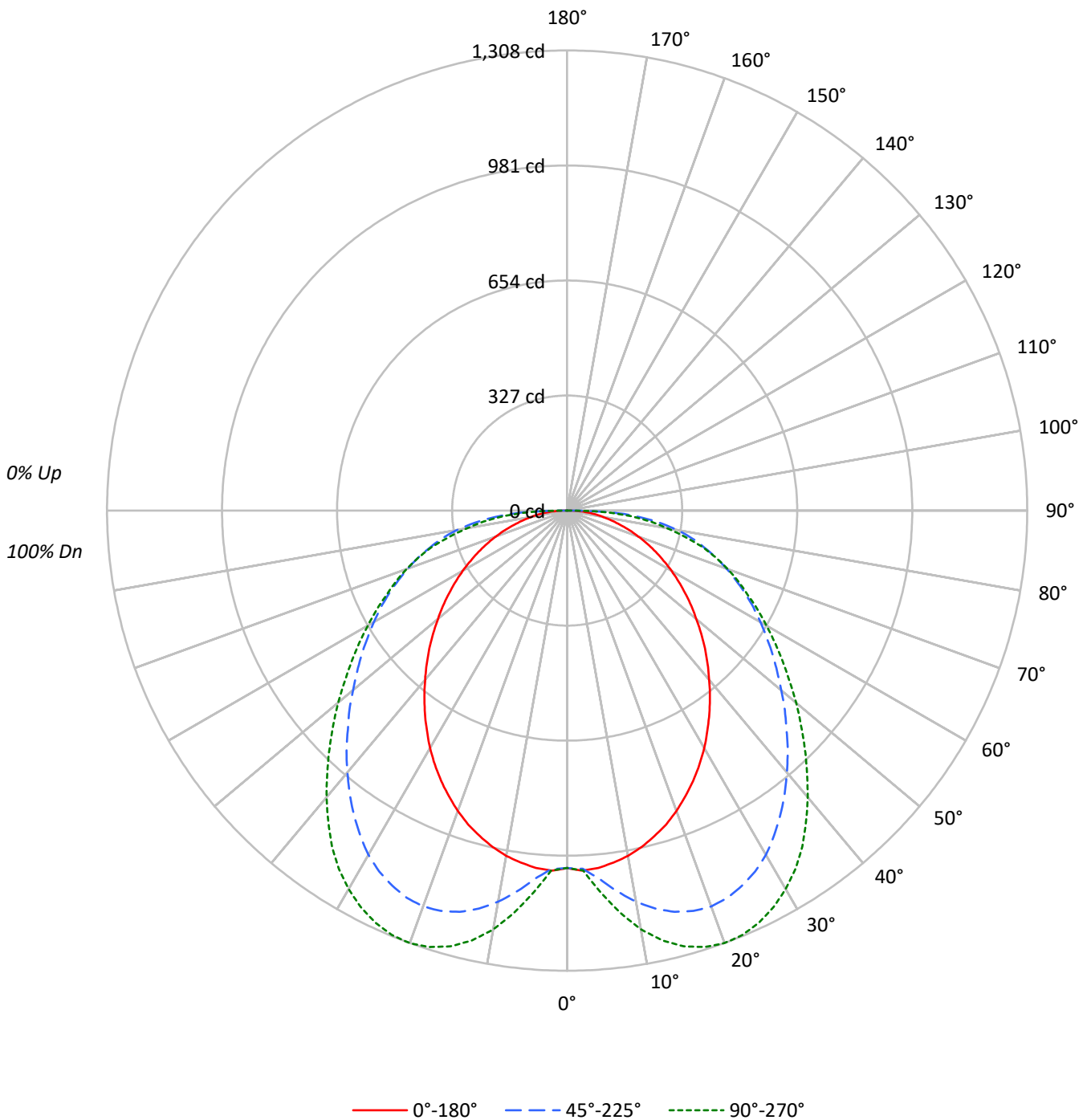
Input Watts (W): 31.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1367	1367	1367
5°	1377	1419	1470
10°	1362	1542	1651
15°	1335	1645	1786
20°	1301	1714	1873
25°	1258	1747	1917
30°	1211	1756	1929
35°	1157	1736	1914
40°	1103	1707	1869
45°	1054	1678	1818
50°	1003	1664	1778
55°	961	1673	1755
60°	922	1707	1760
65°	883	1779	1802
70°	847	1897	1910
75°	807	2093	2061
80°	802	2469	2229
85°	878	3179	2780



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.1	2.6
10°-20°	324.3	8.4
20°-30°	518.5	13.4
30°-40°	627.7	16.3
40°-50°	641.0	16.6
50°-60°	590.7	15.3
60°-70°	502.5	13.0
70°-80°	375.7	9.7
80°-90°	175.5	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°	944.9	24.5
0°-40°	1572.6	40.8
0°-60°	2804.4	72.7
0°-90°	3858.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3858.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1019	1014	1050	1077	1089	97
15°	958	1044	1181	1255	1282	270
25°	848	1007	1177	1260	1292	390
35°	705	890	1057	1137	1165	441
45°	554	737	882	939	955	427
55°	410	596	713	740	748	367
65°	277	471	559	562	566	275
75°	155	340	403	396	396	166
85°	57	180	206	183	180	60
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°	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2
2.5°	1024.5	1022.5	1019.4	1015.2	1014.2	1014.2	1013.1	1013.1	1015.2	1019.4	1025.6
5°	1019.4	1017.3	1014.2	1011.1	1012.1	1015.2	1021.4	1028.7	1039.0	1050.4	1062.8
7.5°	1009.0	1008.0	1005.9	1005.9	1014.2	1028.7	1043.2	1057.6	1074.2	1091.8	1110.4
10°	996.6	995.5	994.5	1002.8	1021.4	1043.2	1063.9	1083.5	1106.3	1129.0	1150.8
12.5°	979.0	979.0	982.1	1000.7	1026.6	1053.5	1079.4	1105.2	1132.2	1159.1	1182.9
15°	958.3	958.3	968.6	995.5	1028.7	1059.7	1090.8	1119.7	1150.8	1180.8	1205.6
17.5°	935.5	934.5	954.2	987.3	1024.5	1060.7	1095.9	1128.0	1160.1	1193.2	1219.1
20°	908.6	910.7	936.6	974.9	1016.2	1056.6	1093.9	1128.0	1162.2	1197.3	1222.2
22.5°	878.6	882.7	914.8	957.3	1003.8	1045.2	1084.5	1120.8	1156.0	1191.1	1216.0
25°	847.6	852.7	892.1	936.6	986.2	1028.7	1068.0	1106.3	1141.5	1176.7	1201.5
27.5°	814.4	821.7	866.2	912.8	962.4	1006.9	1046.3	1085.6	1120.8	1157.0	1179.8
30°	779.3	788.6	836.2	883.8	935.5	979.0	1018.3	1058.7	1094.9	1130.1	1151.8
32.5°	742.0	753.4	802.0	853.8	904.5	946.9	986.2	1027.6	1061.8	1094.9	1116.6
35°	704.7	718.2	767.9	819.6	869.3	911.7	950.0	991.4	1025.6	1056.6	1077.3
37.5°	666.5	683.0	732.7	783.4	832.0	874.5	913.8	952.1	986.2	1015.2	1035.9
40°	628.2	646.8	696.5	746.1	794.8	835.1	873.4	911.7	945.9	971.7	991.4
42.5°	590.9	609.5	660.2	709.9	754.4	795.8	834.1	871.4	902.4	928.3	945.9
45°	553.7	573.3	623.0	671.6	716.1	757.5	795.8	830.0	860.0	881.7	899.3
47.5°	516.4	537.1	586.8	635.4	677.8	718.2	757.5	788.6	817.6	839.3	853.8
50°	479.1	501.9	550.6	600.2	641.6	682.0	719.2	748.2	775.1	794.8	808.2
52.5°	445.0	466.7	516.4	566.1	607.5	647.8	683.0	711.0	734.8	752.4	765.8
55°	409.8	433.6	485.4	533.0	575.4	615.7	647.8	673.7	695.4	713.0	723.4
57.5°	375.7	402.6	453.3	500.9	544.3	582.6	613.7	638.5	658.2	672.7	682.0
60°	342.5	370.5	423.3	470.9	514.3	551.6	581.6	604.4	622.0	634.4	642.7
62.5°	309.4	341.5	393.3	442.9	484.3	520.5	548.5	569.2	585.7	597.1	602.3
65°	277.3	310.5	364.3	412.9	454.3	488.5	515.4	534.0	549.5	558.8	560.9
67.5°	246.3	281.5	335.3	383.9	424.3	456.4	482.3	499.8	513.3	519.5	521.6
70°	215.3	251.5	306.3	355.0	393.3	424.3	448.1	464.7	476.0	482.3	482.3
72.5°	186.3	222.5	277.3	325.0	360.1	391.2	412.9	428.4	438.8	442.9	441.9
75°	155.2	192.5	246.3	291.8	326.0	355.0	376.7	392.2	399.5	402.6	401.5
77.5°	128.3	163.5	215.3	257.7	293.9	317.7	339.4	353.9	361.2	363.2	362.2
80°	103.5	136.6	182.1	222.5	253.5	279.4	299.1	314.6	320.8	318.7	309.4
82.5°	79.7	109.7	150.1	185.2	214.2	238.0	258.7	268.0	269.1	263.9	255.6
85°	56.9	79.7	113.8	143.8	170.8	188.3	200.8	208.0	210.1	205.9	196.6
87.5°	32.1	46.6	67.3	89.0	109.7	122.1	129.4	133.5	136.6	132.5	126.3
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°	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2	1016.2
2.5°	1019.4	1022.5	1021.4	1023.5	1024.5	1024.5	1021.4	1023.5
5°	1063.9	1070.1	1074.2	1080.4	1084.5	1084.5	1085.6	1088.7
7.5°	1112.5	1122.8	1132.2	1139.4	1144.6	1146.6	1149.7	1152.8
10°	1158.0	1170.4	1180.8	1190.1	1196.3	1200.5	1203.6	1208.7
12.5°	1193.2	1207.7	1219.1	1229.4	1237.7	1243.9	1247.0	1251.2
15°	1219.1	1235.6	1249.1	1260.5	1267.7	1275.0	1278.1	1282.2
17.5°	1234.6	1251.2	1265.7	1277.0	1285.3	1292.6	1296.7	1300.8
20°	1238.7	1255.3	1270.8	1282.2	1290.5	1299.8	1303.9	1308.1
22.5°	1232.5	1249.1	1265.7	1278.1	1287.4	1296.7	1300.8	1305.0
25°	1220.1	1237.7	1254.3	1266.7	1275.0	1284.3	1289.5	1291.5
27.5°	1200.5	1218.0	1234.6	1246.0	1255.3	1264.6	1269.8	1270.8
30°	1172.5	1190.1	1206.7	1218.0	1228.4	1236.7	1241.8	1241.8
32.5°	1138.4	1154.9	1172.5	1182.9	1192.2	1200.5	1205.6	1207.7
35°	1099.0	1115.6	1132.2	1141.5	1151.8	1158.0	1162.2	1165.3
37.5°	1056.6	1073.2	1086.6	1094.9	1106.3	1110.4	1116.6	1115.6
40°	1011.1	1024.5	1036.9	1044.2	1053.5	1058.7	1064.9	1063.9
42.5°	963.5	976.9	987.3	995.5	1000.7	1005.9	1010.0	1009.0
45°	914.8	927.2	936.6	940.7	949.0	951.0	955.2	955.2
47.5°	866.2	876.5	884.8	891.0	895.2	897.2	901.4	901.4
50°	819.6	828.9	834.1	839.3	843.4	846.5	848.6	849.6
52.5°	774.1	781.3	785.5	789.6	793.7	795.8	797.9	796.9
55°	730.6	735.8	738.9	742.0	745.1	748.2	748.2	748.2
57.5°	687.2	690.3	693.4	695.4	698.5	700.6	700.6	700.6
60°	644.7	647.8	648.9	650.9	654.0	655.1	656.1	654.0
62.5°	603.3	604.4	605.4	606.4	609.5	611.6	611.6	610.6
65°	560.9	560.9	561.9	563.0	565.0	567.1	568.1	566.1
67.5°	519.5	519.5	520.5	520.5	523.6	525.7	526.8	526.8
70°	479.1	478.1	480.2	481.2	483.3	483.3	485.4	485.4
72.5°	438.8	437.8	439.8	439.8	441.9	442.9	442.9	442.9
75°	399.5	396.4	397.4	395.3	397.4	397.4	396.4	396.4
77.5°	357.0	349.8	347.7	343.6	343.6	343.6	341.5	341.5
80°	303.2	296.0	292.9	289.8	289.8	288.7	287.7	287.7
82.5°	249.4	243.2	240.1	237.0	239.1	236.0	237.0	238.0
85°	191.5	186.3	184.2	181.1	180.1	180.1	181.1	180.1
87.5°	124.2	119.0	119.0	115.9	118.0	114.9	111.8	113.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)