

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: P188647

Luminaire Tested: **24SR-LD2-39-C-UNV-L830-CD1-ST-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188647
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-L830-CD1-ST-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH STRAW SKYTRIM.

Light Source: EATON LED 3000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3668.0 lumens
Efficiency: N/A
Efficacy: 115.0 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

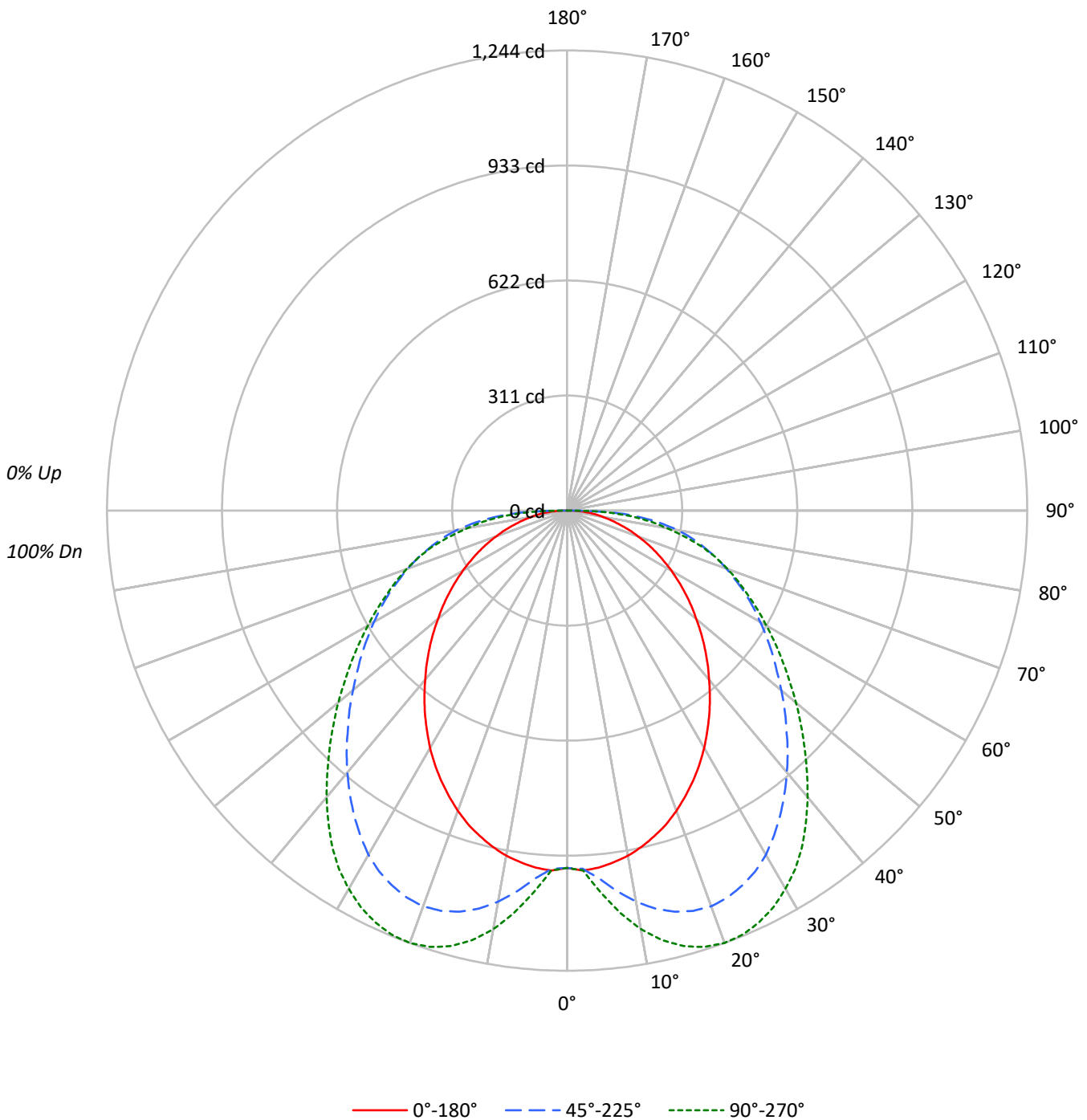
Input Watts (W): 31.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1300	1300	1300
5°	1309	1349	1398
10°	1295	1467	1570
15°	1269	1564	1698
20°	1237	1630	1781
25°	1196	1661	1823
30°	1151	1669	1834
35°	1101	1650	1820
40°	1049	1623	1777
45°	1002	1595	1728
50°	953	1582	1691
55°	914	1590	1669
60°	876	1623	1673
65°	840	1691	1713
70°	805	1804	1816
75°	767	1989	1959
80°	762	2348	2119
85°	835	3023	2643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.1	2.6
10°-20°	308.3	8.4
20°-30°	493.0	13.4
30°-40°	596.8	16.3
40°-50°	609.5	16.6
50°-60°	561.6	15.3
60°-70°	477.7	13.0
70°-80°	357.2	9.7
80°-90°	166.9	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°	898.4	24.5
0°-40°	1495.2	40.8
0°-60°	2666.2	72.7
0°-90°	3668.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3668.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	969	964	999	1024	1035	92
15°	911	993	1123	1193	1219	257
25°	806	958	1119	1198	1228	371
35°	670	847	1005	1081	1108	419
45°	526	701	838	892	908	406
55°	390	566	678	704	711	349
65°	264	448	531	535	538	262
75°	148	324	383	377	377	158
85°	54	171	196	174	171	57
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°	966.2	966.2	966.2	966.2	966.2	966.2	966.2	966.2	966.2	966.2	966.2
2.5°	974.1	972.1	969.1	965.2	964.2	964.2	963.2	963.2	965.2	969.1	975.1
5°	969.1	967.2	964.2	961.3	962.3	965.2	971.1	978.0	987.8	998.7	1010.5
7.5°	959.3	958.3	956.4	956.4	964.2	978.0	991.8	1005.6	1021.3	1038.0	1055.7
10°	947.5	946.5	945.5	953.4	971.1	991.8	1011.5	1030.2	1051.8	1073.4	1094.1
12.5°	930.8	930.8	933.7	951.4	976.0	1001.6	1026.2	1050.8	1076.4	1102.0	1124.6
15°	911.1	911.1	920.9	946.5	978.0	1007.5	1037.0	1064.6	1094.1	1122.6	1146.3
17.5°	889.5	888.5	907.2	938.6	974.1	1008.5	1042.0	1072.5	1103.0	1134.4	1159.0
20°	863.9	865.8	890.4	926.8	966.2	1004.6	1040.0	1072.5	1104.9	1138.4	1162.0
22.5°	835.3	839.3	869.8	910.1	954.4	993.7	1031.1	1065.6	1099.0	1132.5	1156.1
25°	805.8	810.7	848.1	890.4	937.7	978.0	1015.4	1051.8	1085.3	1118.7	1142.3
27.5°	774.3	781.2	823.5	867.8	915.0	957.3	994.7	1032.1	1065.6	1100.0	1121.7
30°	740.9	749.7	795.0	840.3	889.5	930.8	968.2	1006.5	1041.0	1074.4	1095.1
32.5°	705.5	716.3	762.5	811.7	859.9	900.3	937.7	977.0	1009.5	1041.0	1061.6
35°	670.0	682.8	730.1	779.3	826.5	866.8	903.2	942.6	975.1	1004.6	1024.2
37.5°	633.6	649.4	696.6	744.8	791.1	831.4	868.8	905.2	937.7	965.2	984.9
40°	597.2	614.9	662.2	709.4	755.6	794.0	830.4	866.8	899.3	923.9	942.6
42.5°	561.8	579.5	627.7	675.0	717.3	756.6	793.0	828.5	858.0	882.6	899.3
45°	526.4	545.1	592.3	638.6	680.9	720.2	756.6	789.1	817.6	838.3	855.0
47.5°	491.0	510.6	557.9	604.1	644.5	682.8	720.2	749.7	777.3	797.9	811.7
50°	455.5	477.2	523.4	570.7	610.0	648.4	683.8	711.4	736.9	755.6	768.4
52.5°	423.1	443.7	491.0	538.2	577.6	615.9	649.4	675.9	698.6	715.3	728.1
55°	389.6	412.3	461.5	506.7	547.1	585.4	615.9	640.5	661.2	677.9	687.8
57.5°	357.2	382.7	431.0	476.2	517.5	553.9	583.5	607.1	625.8	639.5	648.4
60°	325.7	352.2	402.4	447.7	489.0	524.4	553.0	574.6	591.3	603.1	611.0
62.5°	294.2	324.7	373.9	421.1	460.5	494.9	521.5	541.1	556.9	567.7	572.6
65°	263.7	295.2	346.3	392.6	431.9	464.4	490.0	507.7	522.5	531.3	533.3
67.5°	234.2	267.6	318.8	365.0	403.4	433.9	458.5	475.2	488.0	493.9	495.9
70°	204.7	239.1	291.2	337.5	373.9	403.4	426.0	441.8	452.6	458.5	458.5
72.5°	177.1	211.5	263.7	308.9	342.4	371.9	392.6	407.3	417.2	421.1	420.1
75°	147.6	183.0	234.2	277.5	309.9	337.5	358.1	372.9	379.8	382.7	381.8
77.5°	122.0	155.5	204.7	245.0	279.4	302.1	322.7	336.5	343.4	345.4	344.4
80°	98.4	129.9	173.2	211.5	241.1	265.7	284.3	299.1	305.0	303.0	294.2
82.5°	75.8	104.3	142.7	176.1	203.7	226.3	246.0	254.8	255.8	250.9	243.0
85°	54.1	75.8	108.2	136.8	162.3	179.1	190.9	197.8	199.7	195.8	186.9
87.5°	30.5	44.3	64.0	84.6	104.3	116.1	123.0	126.9	129.9	125.9	120.0
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°	966.2	966.2	966.2	966.2	966.2	966.2	966.2	966.2
2.5°	969.1	972.1	971.1	973.1	974.1	974.1	971.1	973.1
5°	1011.5	1017.4	1021.3	1027.2	1031.1	1031.1	1032.1	1035.1
7.5°	1057.7	1067.5	1076.4	1083.3	1088.2	1090.2	1093.1	1096.1
10°	1101.0	1112.8	1122.6	1131.5	1137.4	1141.3	1144.3	1149.2
12.5°	1134.4	1148.2	1159.0	1168.9	1176.8	1182.7	1185.6	1189.5
15°	1159.0	1174.8	1187.6	1198.4	1205.3	1212.2	1215.1	1219.1
17.5°	1173.8	1189.5	1203.3	1214.1	1222.0	1228.9	1232.8	1236.8
20°	1177.7	1193.5	1208.2	1219.1	1226.9	1235.8	1239.7	1243.7
22.5°	1171.8	1187.6	1203.3	1215.1	1224.0	1232.8	1236.8	1240.7
25°	1160.0	1176.8	1192.5	1204.3	1212.2	1221.0	1225.9	1227.9
27.5°	1141.3	1158.1	1173.8	1184.6	1193.5	1202.3	1207.3	1208.2
30°	1114.8	1131.5	1147.2	1158.1	1167.9	1175.8	1180.7	1180.7
32.5°	1082.3	1098.0	1114.8	1124.6	1133.5	1141.3	1146.3	1148.2
35°	1044.9	1060.7	1076.4	1085.3	1095.1	1101.0	1104.9	1107.9
37.5°	1004.6	1020.3	1033.1	1041.0	1051.8	1055.7	1061.6	1060.7
40°	961.3	974.1	985.9	992.8	1001.6	1006.5	1012.4	1011.5
42.5°	916.0	928.8	938.6	946.5	951.4	956.4	960.3	959.3
45°	869.8	881.6	890.4	894.4	902.2	904.2	908.1	908.1
47.5°	823.5	833.4	841.2	847.1	851.1	853.0	857.0	857.0
50°	779.3	788.1	793.0	797.9	801.9	804.8	806.8	807.8
52.5°	736.0	742.9	746.8	750.7	754.7	756.6	758.6	757.6
55°	694.6	699.6	702.5	705.5	708.4	711.4	711.4	711.4
57.5°	653.3	656.3	659.2	661.2	664.1	666.1	666.1	666.1
60°	613.0	615.9	616.9	618.9	621.8	622.8	623.8	621.8
62.5°	573.6	574.6	575.6	576.6	579.5	581.5	581.5	580.5
65°	533.3	533.3	534.3	535.2	537.2	539.2	540.2	538.2
67.5°	493.9	493.9	494.9	494.9	497.9	499.8	500.8	500.8
70°	455.5	454.6	456.5	457.5	459.5	459.5	461.5	461.5
72.5°	417.2	416.2	418.2	418.2	420.1	421.1	421.1	421.1
75°	379.8	376.8	377.8	375.9	377.8	377.8	376.8	376.8
77.5°	339.4	332.6	330.6	326.7	326.7	326.7	324.7	324.7
80°	288.3	281.4	278.4	275.5	275.5	274.5	273.5	273.5
82.5°	237.1	231.2	228.3	225.3	227.3	224.3	225.3	226.3
85°	182.0	177.1	175.1	172.2	171.2	171.2	172.2	171.2
87.5°	118.1	113.1	113.1	110.2	112.2	109.2	106.3	108.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)