

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: P188510

Luminaire Tested: **24SR-LD2-59-C-UNV-L850-CD1-MR-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188510
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24779)
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-L850-CD1-MR-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH MEDIUM RED SKYTRIM.

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3969.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 2.27 / 2.06
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

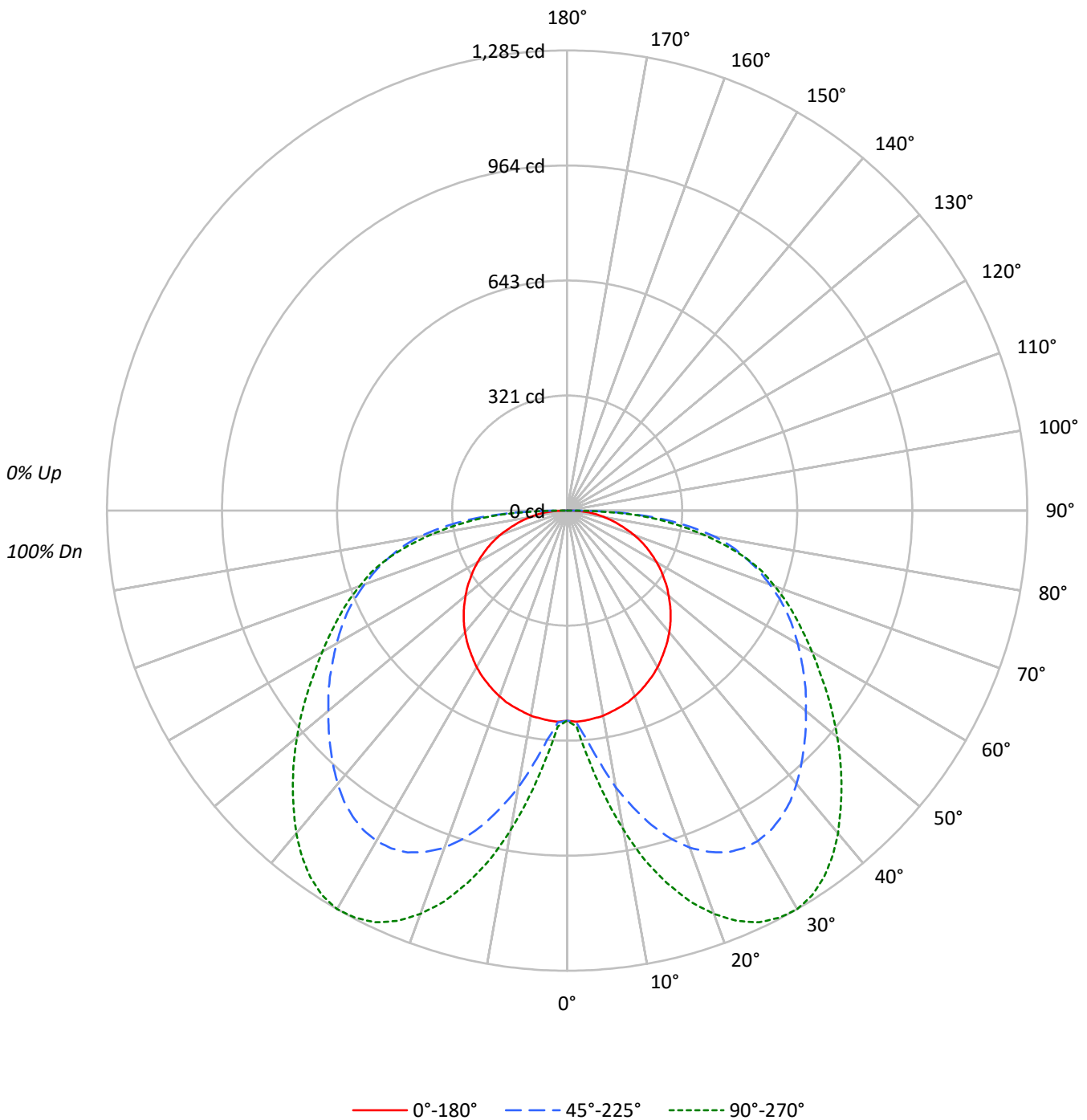
Input Watts (W): 50.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P188510

CATALOG NUMBER: 24SR-LD2-59-C-UNV-L850-CD1-MR-U

Luminous Intensity Polar Plot





TEST NUMBER: P188510

CATALOG NUMBER: 24SR-LD2-59-C-UNV-L850-CD1-MR-U

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	106	100	95	90	103	98	93	88	93	89	85		89	86	83		86	83	80	78
2	95	85	77	70	92	83	76	69	79	73	68		76	71	66		73	68	64	62
3	85	73	64	56	83	72	63	56	69	61	55		66	59	54		63	58	53	50
4	78	64	54	47	75	63	53	46	60	52	46		58	51	45		55	49	44	42
5	71	57	47	39	69	55	46	39	53	45	39		51	44	38		49	43	38	35
6	65	50	41	34	63	49	40	33	48	39	33		46	38	33		44	38	32	30
7	60	45	36	29	58	45	35	29	43	35	29		41	34	29		40	33	28	26
8	56	41	32	26	54	40	32	26	39	31	25		38	30	25		36	30	25	23
9	52	38	29	23	50	37	28	23	36	28	23		35	27	22		33	27	22	20
10	48	34	26	20	47	34	26	20	33	25	20		32	25	20		31	25	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	789	789	789
5°	795	869	946
10°	795	1073	1237
15°	792	1265	1500
20°	790	1434	1716
25°	787	1564	1883
30°	785	1655	1997
35°	780	1714	2053
40°	779	1751	2067
45°	777	1779	2062
50°	774	1821	2062
55°	774	1896	2076
60°	776	2000	2126
65°	780	2160	2239
70°	780	2367	2426
75°	780	2695	2703
80°	814	3242	2983
85°	953	4066	3680



TEST NUMBER: P188510

CATALOG NUMBER: 24SR-LD2-59-C-UNV-L850-CD1-MR-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	1.6
10°-20°	246.6	6.2
20°-30°	453.7	11.4
30°-40°	604.8	15.2
40°-50°	662.5	16.7
50°-60°	651.5	16.4
60°-70°	591.2	14.9
70°-80°	470.6	11.9
80°-90°	223.1	5.6
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°	765.3	19.3
0°-40°	1370.1	34.5
0°-60°	2684.1	67.6
0°-90°	3969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3969.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	587	587	587	587	587	
5°	588	593	643	685	700	56
15°	568	704	908	1035	1077	161
25°	530	780	1053	1211	1268	245
35°	475	768	1043	1198	1250	298
45°	408	692	935	1048	1083	315
55°	330	611	808	869	885	296
65°	245	528	678	693	703	242
75°	150	412	518	515	520	159
85°	62	222	263	238	238	64
90°	0	0	0	0	0	



TEST NUMBER: P188510

CATALOG NUMBER: 24SR-LD2-59-C-UNV-L850-CD1-MR-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	586.7	586.7	586.7	586.7	586.7	586.7	586.7	586.7	586.7	586.7	586.7
2.5°	590.0	590.0	588.4	588.4	588.4	586.7	586.7	588.4	590.0	591.7	593.4
5°	588.4	588.4	588.4	588.4	590.0	596.7	605.0	616.7	626.7	643.4	651.7
7.5°	585.0	585.0	586.7	591.7	605.0	623.4	645.0	670.1	690.1	711.7	731.7
10°	581.7	581.7	585.0	601.7	628.4	660.0	691.7	723.4	751.7	785.1	810.1
12.5°	575.0	575.0	585.0	615.0	655.0	695.1	735.1	776.7	813.4	848.4	883.4
15°	568.4	568.4	588.4	630.0	680.1	728.4	775.1	823.4	866.7	908.4	945.1
17.5°	561.7	563.4	593.4	646.7	701.7	758.4	813.4	865.1	913.4	960.1	1001.7
20°	551.7	555.0	596.7	658.4	720.1	783.4	841.7	898.4	951.7	1001.7	1045.1
22.5°	541.7	548.4	598.4	666.7	735.1	803.4	865.1	923.4	980.1	1031.7	1076.7
25°	530.0	538.4	600.0	671.7	745.1	815.1	880.1	941.7	1000.1	1053.4	1098.4
27.5°	518.4	530.0	596.7	671.7	748.4	821.7	886.7	950.1	1011.7	1063.4	1111.8
30°	505.0	520.0	591.7	670.1	748.4	820.1	886.7	951.7	1011.7	1065.1	1111.8
32.5°	490.0	510.0	583.4	663.4	741.7	815.1	881.7	945.1	1005.1	1058.4	1103.4
35°	475.0	496.7	573.4	653.4	731.7	803.4	868.4	931.7	990.1	1043.4	1088.4
37.5°	460.0	485.0	561.7	641.7	716.7	786.7	851.7	915.1	971.7	1023.4	1065.1
40°	443.4	470.0	546.7	625.0	700.1	766.7	831.7	891.7	946.7	996.7	1036.7
42.5°	426.7	455.0	530.0	608.4	680.1	746.7	810.1	868.4	921.7	966.7	1003.4
45°	408.4	438.4	513.4	588.4	658.4	725.1	786.7	841.7	893.4	935.1	968.4
47.5°	390.0	421.7	495.0	570.0	638.4	703.4	763.4	816.7	863.4	903.4	935.1
50°	370.0	403.4	476.7	550.0	618.4	681.7	740.1	790.1	835.1	870.1	900.1
52.5°	351.7	386.7	458.4	531.7	598.4	661.7	718.4	765.1	806.7	840.1	865.1
55°	330.0	368.4	441.7	513.4	580.0	641.7	695.1	740.1	778.4	808.4	830.1
57.5°	310.0	350.0	423.4	495.0	560.0	621.7	671.7	715.1	748.4	775.1	795.1
60°	288.4	331.7	405.0	476.7	541.7	601.7	650.0	690.1	721.7	743.4	760.1
62.5°	266.7	311.7	388.4	458.4	521.7	578.4	625.0	661.7	690.1	711.7	721.7
65°	245.0	291.7	368.4	440.0	501.7	555.0	600.0	635.0	660.0	678.4	685.1
67.5°	221.7	271.7	348.4	416.7	478.4	530.0	571.7	605.0	626.7	641.7	645.0
70°	198.3	248.4	325.0	393.4	451.7	500.0	541.7	570.0	591.7	601.7	605.0
72.5°	173.3	225.0	301.7	366.7	421.7	470.0	506.7	536.7	555.0	561.7	561.7
75°	150.0	200.0	275.0	336.7	390.0	435.0	470.0	496.7	513.4	518.4	516.7
77.5°	126.7	176.7	246.7	305.0	353.4	395.0	428.4	453.4	468.4	473.4	471.7
80°	105.0	151.7	213.3	268.4	311.7	350.0	380.0	406.7	420.0	418.4	408.4
82.5°	83.3	123.3	178.3	226.7	265.0	300.0	330.0	346.7	351.7	346.7	336.7
85°	61.7	93.3	138.3	176.7	208.3	236.7	255.0	266.7	268.4	263.4	255.0
87.5°	36.7	55.0	81.7	105.0	128.3	141.7	151.7	160.0	161.7	156.7	153.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P188510

CATALOG NUMBER: 24SR-LD2-59-C-UNV-L850-CD1-MR-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	586.7	586.7	586.7	586.7	586.7	586.7	586.7	586.7
2.5°	595.0	596.7	598.4	601.7	600.0	601.7	601.7	603.4
5°	663.4	673.4	680.1	690.1	690.1	695.1	696.7	700.1
7.5°	746.7	760.1	775.1	790.1	791.7	800.1	803.4	803.4
10°	831.7	850.1	868.4	885.1	890.1	900.1	905.1	905.1
12.5°	908.4	928.4	953.4	971.7	978.4	990.1	996.7	998.4
15°	975.1	1000.1	1025.1	1045.1	1056.7	1068.4	1075.1	1076.7
17.5°	1031.7	1061.7	1088.4	1108.4	1121.8	1135.1	1143.4	1145.1
20°	1076.7	1110.1	1136.8	1158.4	1173.4	1190.1	1196.8	1198.4
22.5°	1111.8	1143.4	1173.4	1196.8	1213.4	1230.1	1238.4	1240.1
25°	1135.1	1168.4	1198.4	1223.4	1241.8	1256.8	1265.1	1268.4
27.5°	1148.4	1183.4	1213.4	1236.8	1255.1	1271.8	1280.1	1281.8
30°	1150.1	1185.1	1215.1	1238.4	1256.8	1273.4	1281.8	1285.1
32.5°	1141.8	1176.8	1205.1	1228.4	1246.8	1261.8	1270.1	1273.4
35°	1125.1	1158.4	1186.8	1208.4	1225.1	1238.4	1248.4	1250.1
37.5°	1101.8	1133.4	1158.4	1178.4	1195.1	1208.4	1216.8	1216.8
40°	1070.1	1100.1	1121.8	1140.1	1156.8	1166.8	1176.8	1176.8
42.5°	1035.1	1063.4	1083.4	1100.1	1111.8	1123.4	1130.1	1130.1
45°	998.4	1021.7	1041.7	1055.1	1066.7	1075.1	1083.4	1083.4
47.5°	961.7	981.7	996.7	1010.1	1020.1	1028.4	1035.1	1035.1
50°	923.4	941.7	953.4	965.1	973.4	980.1	985.1	985.1
52.5°	885.1	900.1	908.4	918.4	925.1	931.7	935.1	935.1
55°	848.4	858.4	865.1	873.4	878.4	881.7	885.1	885.1
57.5°	808.4	815.1	821.7	826.7	830.1	833.4	836.7	835.1
60°	768.4	773.4	778.4	781.7	785.1	788.4	790.1	790.1
62.5°	728.4	730.1	731.7	738.4	741.7	743.4	745.1	745.1
65°	688.4	688.4	690.1	695.1	698.4	701.7	703.4	703.4
67.5°	645.0	646.7	648.4	653.4	655.0	658.4	661.7	661.7
70°	601.7	603.4	603.4	608.4	610.0	613.4	616.7	616.7
72.5°	560.0	560.0	560.0	563.4	566.7	570.0	573.4	573.4
75°	513.4	513.4	513.4	516.7	516.7	518.4	521.7	520.0
77.5°	463.4	458.4	453.4	451.7	451.7	453.4	455.0	455.0
80°	398.4	391.7	388.4	385.0	383.4	385.0	386.7	385.0
82.5°	330.0	321.7	316.7	315.0	315.0	315.0	316.7	313.4
85°	250.0	241.7	238.4	238.4	236.7	236.7	236.7	238.4
87.5°	150.0	145.0	140.0	141.7	140.0	138.3	140.0	143.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)