

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: P188509

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188509
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-L840-CD1-MR-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH MEDIUM RED SKYTRIM.

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3647.0 lumens
Efficiency: N/A
Efficacy: 72.6 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

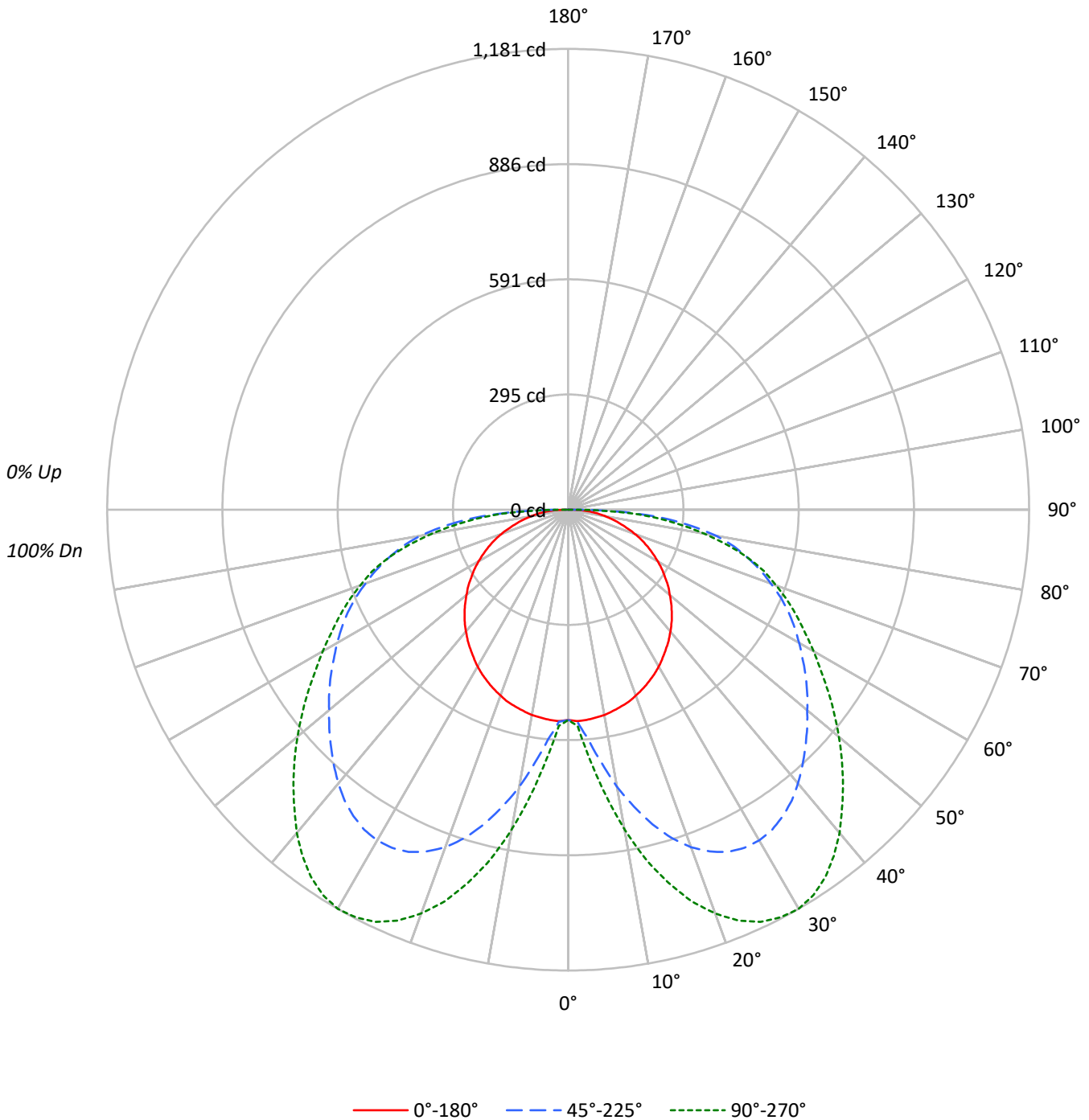
Input Watts (W): 50.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	725	725	725
5°	730	798	869
10°	730	986	1136
15°	728	1163	1378
20°	726	1318	1577
25°	723	1437	1730
30°	721	1521	1835
35°	717	1575	1887
40°	716	1609	1899
45°	714	1635	1894
50°	712	1674	1895
55°	711	1742	1908
60°	713	1838	1954
65°	717	1984	2058
70°	717	2175	2229
75°	716	2476	2484
80°	748	2978	2741
85°	875	3736	3381



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	1.6
10°-20°	226.6	6.2
20°-30°	416.9	11.4
30°-40°	555.7	15.2
40°-50°	608.8	16.7
50°-60°	598.6	16.4
60°-70°	543.2	14.9
70°-80°	432.5	11.9
80°-90°	205.0	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°	703.3	19.3
0°-40°	1258.9	34.5
0°-60°	2466.3	67.6
0°-90°	3647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	539	539	539	539	539	
5°	541	545	591	630	643	51
15°	522	647	835	951	989	148
25°	487	717	968	1113	1166	225
35°	436	705	959	1100	1149	273
45°	375	636	859	963	996	290
55°	303	561	743	799	813	272
65°	225	486	623	636	646	222
75°	138	379	476	473	478	146
85°	57	204	242	219	219	59
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°	539.1	539.1	539.1	539.1	539.1	539.1	539.1	539.1	539.1	539.1	539.1
2.5°	542.2	542.2	540.6	540.6	540.6	539.1	539.1	540.6	542.2	543.7	545.2
5°	540.6	540.6	540.6	540.6	542.2	548.3	556.0	566.7	575.9	591.2	598.8
7.5°	537.6	537.6	539.1	543.7	556.0	572.8	592.7	615.7	634.1	654.0	672.4
10°	534.5	534.5	537.6	552.9	577.4	606.5	635.6	664.7	690.7	721.4	744.3
12.5°	528.4	528.4	537.6	565.1	601.9	638.7	675.4	713.7	747.4	779.6	811.7
15°	522.3	522.3	540.6	578.9	624.9	669.3	712.2	756.6	796.4	834.7	868.4
17.5°	516.1	517.7	545.2	594.2	644.8	696.9	747.4	794.9	839.3	882.2	920.5
20°	506.9	510.0	548.3	605.0	661.6	719.8	773.4	825.5	874.5	920.5	960.3
22.5°	497.8	503.9	549.8	612.6	675.4	738.2	794.9	848.5	900.6	948.0	989.4
25°	487.0	494.7	551.4	617.2	684.6	748.9	808.7	865.3	918.9	968.0	1009.3
27.5°	476.3	487.0	548.3	617.2	687.7	755.1	814.8	873.0	929.7	977.1	1021.6
30°	464.1	477.8	543.7	615.7	687.7	753.5	814.8	874.5	929.7	978.7	1021.6
32.5°	450.3	468.7	536.0	609.6	681.5	748.9	810.2	868.4	923.5	972.5	1013.9
35°	436.5	456.4	526.9	600.4	672.4	738.2	797.9	856.1	909.8	958.8	1000.1
37.5°	422.7	445.7	516.1	589.7	658.6	722.9	782.6	840.8	892.9	940.4	978.7
40°	407.4	431.9	502.4	574.3	643.3	704.5	764.3	819.4	869.9	915.9	952.6
42.5°	392.1	418.1	487.0	559.0	624.9	686.1	744.3	797.9	847.0	888.3	922.0
45°	375.2	402.8	471.7	540.6	605.0	666.2	722.9	773.4	820.9	859.2	889.8
47.5°	358.4	387.5	454.9	523.8	586.6	646.3	701.5	750.5	793.4	830.1	859.2
50°	340.0	370.6	438.0	505.4	568.2	626.4	680.0	726.0	767.3	799.5	827.0
52.5°	323.2	355.3	421.2	488.6	549.8	608.0	660.1	703.0	741.3	771.9	794.9
55°	303.3	338.5	405.9	471.7	533.0	589.7	638.7	680.0	715.2	742.8	762.7
57.5°	284.9	321.6	389.0	454.9	514.6	571.3	617.2	657.0	687.7	712.2	730.6
60°	265.0	304.8	372.2	438.0	497.8	552.9	597.3	634.1	663.2	683.1	698.4
62.5°	245.1	286.4	356.9	421.2	479.4	531.5	574.3	608.0	634.1	654.0	663.2
65°	225.1	268.0	338.5	404.3	461.0	510.0	551.4	583.5	606.5	623.3	629.5
67.5°	203.7	249.6	320.1	382.9	439.6	487.0	525.3	556.0	575.9	589.7	592.7
70°	182.3	228.2	298.7	361.5	415.1	459.5	497.8	523.8	543.7	552.9	556.0
72.5°	159.3	206.8	277.2	336.9	387.5	431.9	465.6	493.2	510.0	516.1	516.1
75°	137.8	183.8	252.7	309.4	358.4	399.7	431.9	456.4	471.7	476.3	474.8
77.5°	116.4	162.3	226.7	280.3	324.7	363.0	393.6	416.6	430.4	435.0	433.4
80°	96.5	139.4	196.0	246.6	286.4	321.6	349.2	373.7	386.0	384.4	375.2
82.5°	76.6	113.3	163.9	208.3	243.5	275.7	303.3	318.6	323.2	318.6	309.4
85°	56.7	85.8	127.1	162.3	191.4	217.5	234.3	245.1	246.6	242.0	234.3
87.5°	33.7	50.5	75.0	96.5	117.9	130.2	139.4	147.0	148.6	144.0	140.9
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°	539.1	539.1	539.1	539.1	539.1	539.1	539.1	539.1
2.5°	546.8	548.3	549.8	552.9	551.4	552.9	552.9	554.4
5°	609.6	618.8	624.9	634.1	634.1	638.7	640.2	643.3
7.5°	686.1	698.4	712.2	726.0	727.5	735.2	738.2	738.2
10°	764.3	781.1	797.9	813.3	817.9	827.0	831.6	831.6
12.5°	834.7	853.1	876.1	892.9	899.0	909.8	915.9	917.4
15°	896.0	918.9	941.9	960.3	971.0	981.7	987.9	989.4
17.5°	948.0	975.6	1000.1	1018.5	1030.7	1043.0	1050.7	1052.2
20°	989.4	1020.0	1044.5	1064.4	1078.2	1093.5	1099.7	1101.2
22.5°	1021.6	1050.7	1078.2	1099.7	1115.0	1130.3	1138.0	1139.5
25°	1043.0	1073.6	1101.2	1124.2	1141.0	1154.8	1162.5	1165.5
27.5°	1055.3	1087.4	1115.0	1136.4	1153.3	1168.6	1176.2	1177.8
30°	1056.8	1088.9	1116.5	1138.0	1154.8	1170.1	1177.8	1180.8
32.5°	1049.1	1081.3	1107.3	1128.8	1145.6	1159.4	1167.1	1170.1
35°	1033.8	1064.4	1090.5	1110.4	1125.7	1138.0	1147.1	1148.7
37.5°	1012.4	1041.5	1064.4	1082.8	1098.1	1110.4	1118.0	1118.0
40°	983.3	1010.8	1030.7	1047.6	1062.9	1072.1	1081.3	1081.3
42.5°	951.1	977.1	995.5	1010.8	1021.6	1032.3	1038.4	1038.4
45°	917.4	938.9	957.2	969.5	980.2	987.9	995.5	995.5
47.5°	883.7	902.1	915.9	928.1	937.3	945.0	951.1	951.1
50°	848.5	865.3	876.1	886.8	894.4	900.6	905.2	905.2
52.5°	813.3	827.0	834.7	843.9	850.0	856.1	859.2	859.2
55°	779.6	788.8	794.9	802.5	807.1	810.2	813.3	813.3
57.5°	742.8	748.9	755.1	759.7	762.7	765.8	768.8	767.3
60°	706.1	710.6	715.2	718.3	721.4	724.4	726.0	726.0
62.5°	669.3	670.8	672.4	678.5	681.5	683.1	684.6	684.6
65°	632.5	632.5	634.1	638.7	641.7	644.8	646.3	646.3
67.5°	592.7	594.2	595.8	600.4	601.9	605.0	608.0	608.0
70°	552.9	554.4	554.4	559.0	560.6	563.6	566.7	566.7
72.5°	514.6	514.6	514.6	517.7	520.7	523.8	526.9	526.9
75°	471.7	471.7	471.7	474.8	474.8	476.3	479.4	477.8
77.5°	425.8	421.2	416.6	415.1	415.1	416.6	418.1	418.1
80°	366.0	359.9	356.9	353.8	352.3	353.8	355.3	353.8
82.5°	303.3	295.6	291.0	289.5	289.5	289.5	291.0	287.9
85°	229.7	222.1	219.0	219.0	217.5	217.5	217.5	219.0
87.5°	137.8	133.2	128.7	130.2	128.7	127.1	128.7	131.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)