

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: P188687

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188687
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33587)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SR-LD2-39-C-UNV-L830-CD1-TB-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH TAHITIAN BLUE SKYTRIM.

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2559.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 2.07 / 1.9
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

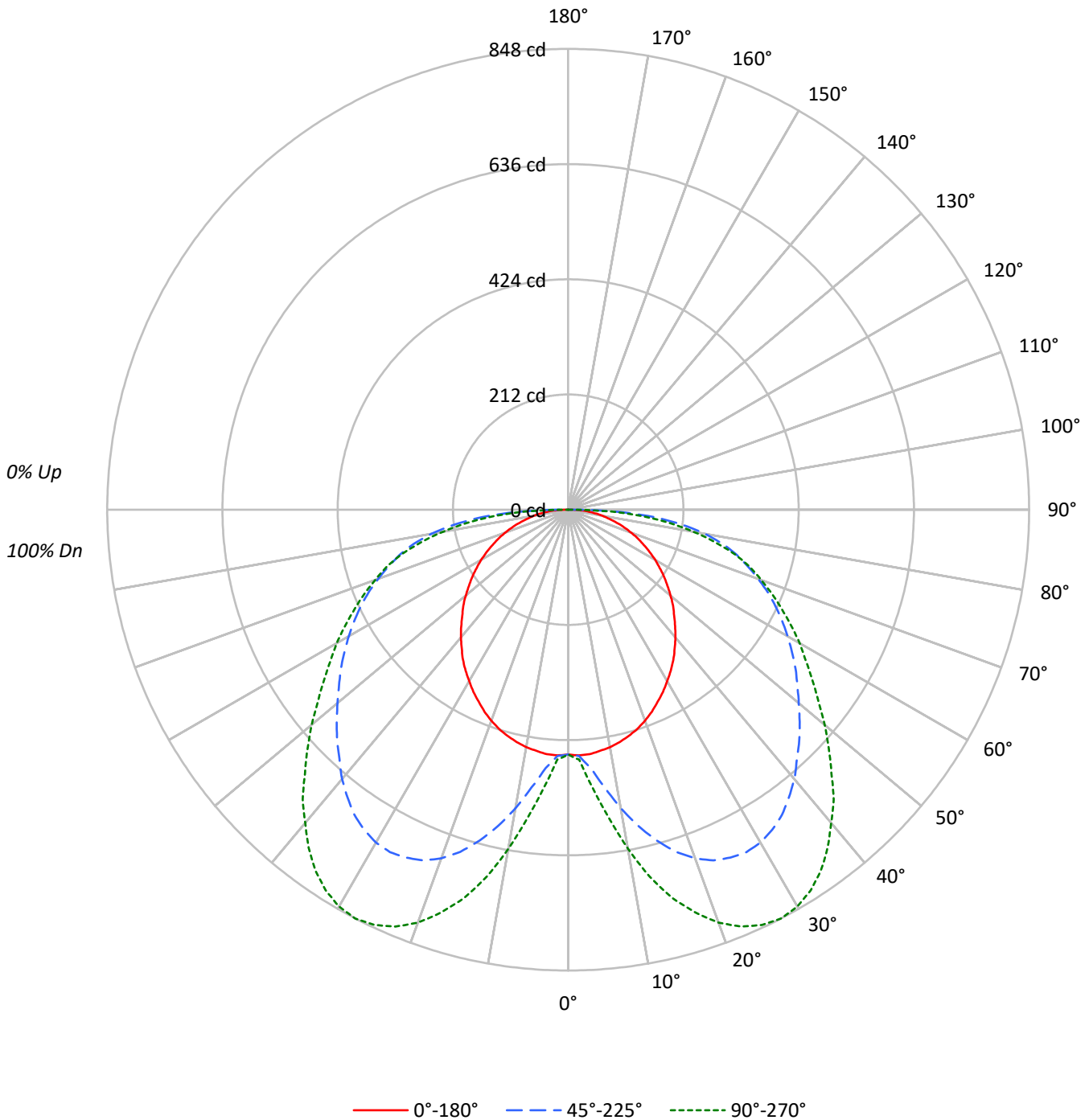
Input Watts (W): 31.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	100	95	91	103	98	93	89	94	90	86	90	86	83	86	83	81	79
2	95	86	78	71	93	84	77	70	80	74	69	77	72	67	74	69	65	63
3	86	74	65	58	83	73	64	57	69	62	56	67	60	55	64	59	54	52
4	78	65	55	48	76	64	54	47	61	53	47	59	52	46	56	50	45	43
5	72	58	48	40	69	56	47	40	54	46	40	52	45	39	50	44	39	36
6	66	51	42	35	64	50	41	35	49	40	34	47	39	34	45	39	34	31
7	61	46	37	30	59	45	37	30	44	36	30	42	35	30	41	34	29	27
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24
9	53	38	30	24	51	38	29	24	37	29	24	35	28	23	34	28	23	21
10	49	35	27	21	48	35	27	21	34	26	21	33	26	21	32	25	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	606	606	606
5°	610	644	694
10°	606	762	866
15°	600	878	1031
20°	592	978	1158
25°	578	1049	1252
30°	566	1099	1310
35°	554	1126	1331
40°	539	1137	1322
45°	524	1144	1303
50°	515	1159	1289
55°	505	1198	1288
60°	498	1255	1324
65°	489	1340	1381
70°	484	1463	1486
75°	481	1667	1652
80°	495	1982	1814
85°	546	2461	2126



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.0	1.9
10°-20°	173.3	6.8
20°-30°	308.7	12.1
30°-40°	400.2	15.6
40°-50°	426.8	16.7
50°-60°	410.5	16.0
60°-70°	367.4	14.4
70°-80°	289.2	11.3
80°-90°	134.9	5.3
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°	530.0	20.7
0°-40°	930.2	36.4
0°-60°	1767.6	69.1
0°-90°	2559.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2559.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	452	457	477	503	514	43
15°	431	513	631	713	740	121
25°	390	544	706	813	843	180
35°	337	518	686	784	811	211
45°	275	452	601	671	685	213
55°	215	388	511	544	549	193
65°	154	329	421	430	434	152
75°	92	253	321	316	318	98
85°	35	134	159	142	138	37
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°	450.5	450.5	450.5	450.5	450.5	450.5	450.5	450.5	450.5	450.5	450.5
2.5°	452.5	452.5	451.5	451.5	452.5	452.5	452.5	452.5	453.5	453.5	454.5
5°	451.5	450.5	450.5	452.5	455.5	458.4	461.4	466.3	470.2	477.1	483.0
7.5°	447.6	447.6	449.6	454.5	461.4	471.2	482.0	493.8	504.7	515.5	528.3
10°	443.7	443.7	448.6	457.4	471.2	488.9	506.6	524.3	541.1	557.8	571.5
12.5°	437.8	438.7	446.6	462.4	485.0	509.6	532.2	554.8	577.5	596.1	616.8
15°	430.9	432.8	444.6	468.3	497.8	527.3	554.8	582.4	607.9	630.6	652.2
17.5°	423.0	426.0	442.7	473.2	507.6	541.1	575.5	607.0	634.5	660.1	684.7
20°	413.2	418.1	440.7	477.1	515.5	553.8	590.2	623.7	655.2	682.7	710.3
22.5°	402.3	408.2	436.8	478.1	520.4	561.7	602.0	636.5	669.9	698.5	727.0
25°	389.6	398.4	432.8	477.1	522.4	566.6	607.9	643.4	677.8	706.3	737.8
27.5°	377.8	387.6	426.0	473.2	520.4	566.6	607.9	645.3	680.7	710.3	740.8
30°	364.0	376.8	419.1	467.3	515.5	561.7	604.0	641.4	675.8	707.3	738.8
32.5°	351.2	365.0	408.2	457.4	506.6	552.9	596.1	632.5	667.0	698.5	728.9
35°	337.4	351.2	396.4	447.6	494.8	541.1	582.4	619.8	653.2	685.7	714.2
37.5°	321.7	337.4	383.7	433.8	480.1	526.3	566.6	603.0	636.5	667.0	694.5
40°	306.9	323.6	368.9	419.1	465.3	509.6	548.9	583.4	615.8	647.3	671.9
42.5°	291.2	308.9	355.1	403.3	448.6	490.9	528.3	563.7	595.2	622.7	647.3
45°	275.4	295.1	340.4	387.6	430.9	473.2	510.6	543.0	573.5	601.1	621.7
47.5°	261.7	281.3	324.6	371.9	415.1	455.5	491.9	523.3	552.9	577.5	598.1
50°	245.9	265.6	309.9	356.1	398.4	438.7	473.2	503.7	531.2	553.8	573.5
52.5°	230.2	251.8	295.1	341.4	383.7	422.0	456.5	486.0	510.6	531.2	547.9
55°	215.4	237.1	281.3	326.6	368.9	407.3	439.7	468.3	491.9	510.6	523.3
57.5°	199.7	223.3	268.6	313.8	355.1	391.5	424.0	450.5	472.2	487.9	498.8
60°	184.9	209.5	255.8	300.0	341.4	377.8	408.2	433.8	452.5	466.3	475.1
62.5°	169.2	195.8	242.0	286.3	326.6	363.0	391.5	415.1	432.8	443.7	449.6
65°	153.5	182.0	228.2	272.5	311.8	346.3	373.8	395.5	411.2	421.0	426.0
67.5°	138.7	168.2	214.5	257.7	296.1	328.6	355.1	375.8	389.6	397.4	399.4
70°	123.0	153.5	199.7	242.0	279.4	309.9	335.5	353.2	365.9	371.9	373.8
72.5°	108.2	138.7	184.0	225.3	260.7	289.2	313.8	331.5	342.3	346.3	346.3
75°	92.5	123.0	167.2	206.6	239.0	267.6	290.2	305.9	315.8	320.7	318.7
77.5°	76.7	107.2	149.5	185.9	215.4	241.0	263.6	278.4	288.2	291.2	289.2
80°	63.9	91.5	128.9	162.3	189.9	213.5	234.1	248.9	257.7	255.8	250.9
82.5°	49.2	74.8	107.2	135.8	160.3	183.0	202.6	214.5	216.4	212.5	206.6
85°	35.4	55.1	81.6	104.3	125.9	142.6	156.4	164.3	164.3	159.4	155.4
87.5°	20.7	32.5	47.2	63.0	72.8	83.6	94.4	96.4	96.4	96.4	91.5
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°	450.5	450.5	450.5	450.5	450.5	450.5	450.5	450.5
2.5°	457.4	458.4	459.4	460.4	461.4	461.4	461.4	460.4
5°	488.9	494.8	499.7	505.6	507.6	509.6	511.5	513.5
7.5°	539.1	547.0	554.8	562.7	567.6	573.5	571.5	571.5
10°	587.3	602.0	610.9	620.7	625.7	631.6	634.5	633.5
12.5°	634.5	651.2	664.0	672.9	680.7	686.6	688.6	691.6
15°	674.8	691.6	707.3	718.1	728.0	733.9	737.8	739.8
17.5°	708.3	725.0	742.7	756.5	765.3	773.2	775.2	777.1
20°	732.9	754.5	771.2	786.0	795.8	803.7	807.6	808.6
22.5°	752.6	773.2	791.9	806.7	817.5	826.3	830.3	830.3
25°	763.4	785.0	804.7	820.4	831.3	839.1	843.1	843.1
27.5°	767.3	789.9	808.6	824.4	836.2	844.0	847.0	848.0
30°	764.4	787.0	805.7	820.4	832.2	839.1	842.1	843.1
32.5°	754.5	777.1	794.9	808.6	819.4	827.3	830.3	830.3
35°	738.8	759.4	777.1	790.9	800.8	806.7	810.6	810.6
37.5°	718.1	738.8	754.5	766.3	775.2	782.1	784.0	784.0
40°	694.5	712.2	727.0	738.8	746.7	751.6	753.5	752.6
42.5°	668.0	684.7	696.5	706.3	713.2	718.1	721.1	723.0
45°	640.4	656.1	667.0	674.8	679.8	682.7	685.7	684.7
47.5°	615.8	625.7	635.5	641.4	646.3	649.3	650.2	650.2
50°	587.3	596.1	604.0	608.9	611.9	613.8	613.8	615.8
52.5°	558.8	566.6	572.5	577.5	579.4	580.4	581.4	580.4
55°	533.2	538.1	542.0	546.0	547.9	548.9	550.9	548.9
57.5°	506.6	510.6	515.5	516.5	518.4	518.4	519.4	518.4
60°	480.1	483.0	485.0	486.0	488.9	489.9	489.9	491.9
62.5°	453.5	454.5	457.4	458.4	459.4	461.4	463.3	462.4
65°	426.9	427.9	428.9	430.9	432.8	434.8	434.8	433.8
67.5°	399.4	400.4	401.4	403.3	405.3	405.3	406.3	406.3
70°	372.8	372.8	373.8	374.8	376.8	377.8	378.7	377.8
72.5°	345.3	345.3	345.3	346.3	347.3	349.2	350.2	350.2
75°	316.8	316.8	316.8	315.8	316.8	318.7	317.7	317.7
77.5°	285.3	282.3	279.4	277.4	278.4	277.4	277.4	277.4
80°	245.9	241.0	237.1	235.1	234.1	235.1	234.1	234.1
82.5°	202.6	197.7	193.8	190.8	191.8	189.9	190.8	188.9
85°	150.5	146.6	142.6	140.7	141.7	141.7	140.7	137.7
87.5°	88.5	83.6	82.6	81.6	82.6	81.6	78.7	79.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)