

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: P188689

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188689
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-L840-CD1-TB-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH TAHITIAN BLUE SKYTRIM.

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2691.0 lumens
Efficiency: N/A
Efficacy: 84.4 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

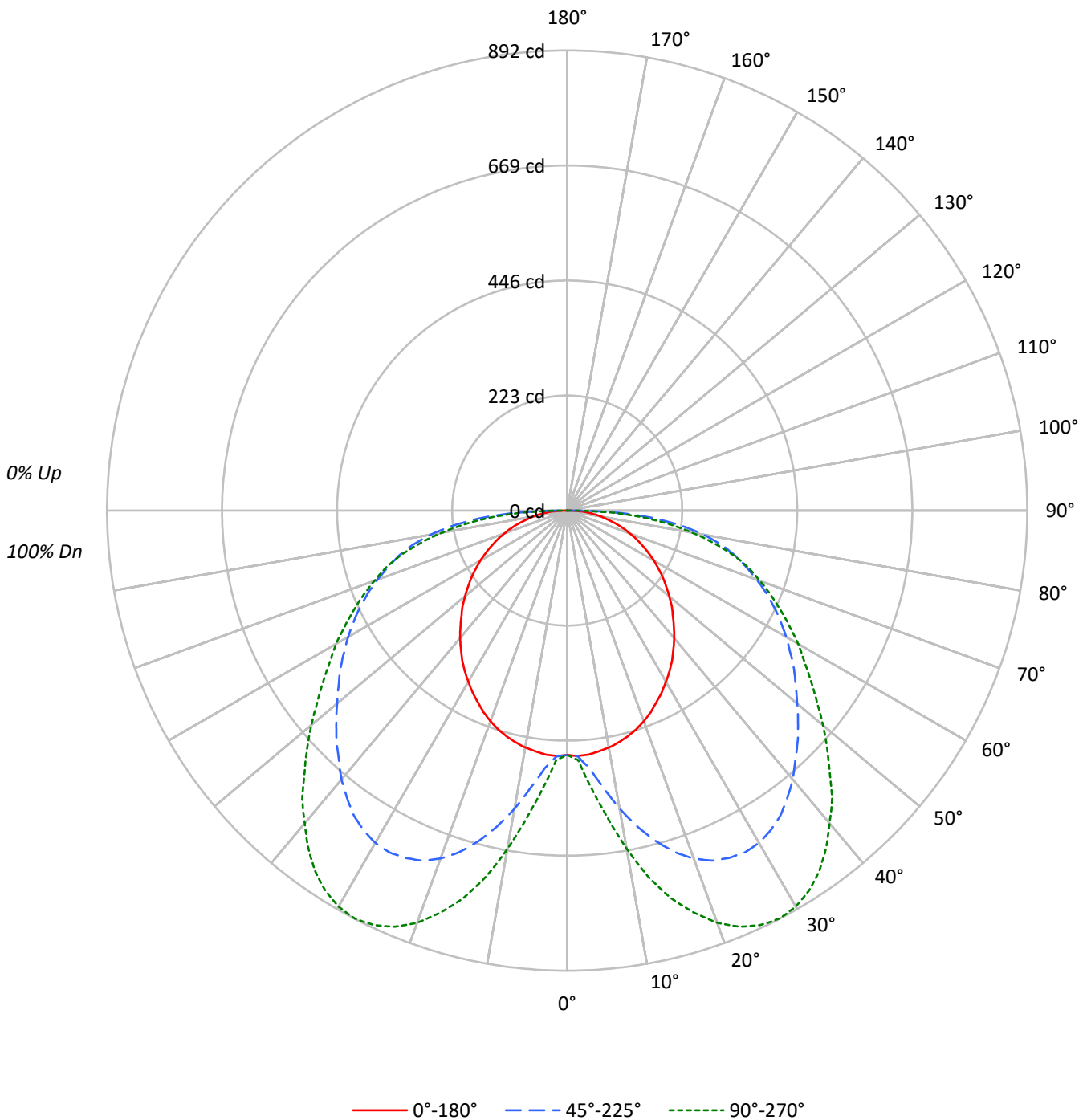
Input Watts (W): 31.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	637	637	637
5°	641	678	729
10°	637	801	910
15°	631	924	1084
20°	622	1028	1217
25°	608	1103	1316
30°	595	1156	1377
35°	583	1184	1400
40°	567	1196	1390
45°	551	1203	1370
50°	541	1219	1356
55°	532	1259	1354
60°	523	1319	1392
65°	514	1410	1452
70°	509	1538	1563
75°	505	1753	1737
80°	521	2084	1908
85°	574	2587	2235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.5	1.9
10°-20°	182.2	6.8
20°-30°	324.6	12.1
30°-40°	420.9	15.6
40°-50°	448.8	16.7
50°-60°	431.7	16.0
60°-70°	386.3	14.4
70°-80°	304.1	11.3
80°-90°	141.8	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°	557.3	20.7
0°-40°	978.2	36.4
0°-60°	1858.7	69.1
0°-90°	2691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	474	474	474	474	474	
5°	475	481	502	529	540	45
15°	453	539	663	750	778	128
25°	410	573	743	854	886	189
35°	355	545	721	824	852	222
45°	290	475	632	706	720	224
55°	227	408	537	572	577	202
65°	161	346	443	452	456	160
75°	97	266	337	333	334	103
85°	37	141	168	149	145	39
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°	473.8	473.8	473.8	473.8	473.8	473.8	473.8	473.8	473.8	473.8	473.8
2.5°	475.9	475.9	474.8	474.8	475.9	475.9	475.9	475.9	476.9	476.9	477.9
5°	474.8	473.8	473.8	475.9	479.0	482.1	485.2	490.3	494.5	501.7	507.9
7.5°	470.7	470.7	472.8	477.9	485.2	495.5	506.9	519.3	530.7	542.1	555.5
10°	466.5	466.5	471.7	481.0	495.5	514.1	532.8	551.4	569.0	586.5	601.0
12.5°	460.3	461.4	469.7	486.2	510.0	535.9	559.7	583.4	607.2	626.9	648.6
15°	453.1	455.2	467.6	492.4	523.4	554.5	583.4	612.4	639.3	663.1	685.9
17.5°	444.8	447.9	465.5	497.6	533.8	569.0	605.2	638.3	667.2	694.1	720.0
20°	434.5	439.7	463.4	501.7	542.1	582.4	620.7	655.9	689.0	717.9	746.9
22.5°	423.1	429.3	459.3	502.8	547.2	590.7	633.1	669.3	704.5	734.5	764.5
25°	409.7	419.0	455.2	501.7	549.3	595.9	639.3	676.5	712.8	742.8	775.9
27.5°	397.2	407.6	447.9	497.6	547.2	595.9	639.3	678.6	715.9	746.9	779.0
30°	382.8	396.2	440.7	491.4	542.1	590.7	635.2	674.5	710.7	743.8	776.9
32.5°	369.3	383.8	429.3	481.0	532.8	581.4	626.9	665.2	701.4	734.5	766.5
35°	354.8	369.3	416.9	470.7	520.3	569.0	612.4	651.7	686.9	721.0	751.0
37.5°	338.3	354.8	403.4	456.2	504.8	553.4	595.9	634.1	669.3	701.4	730.3
40°	322.8	340.3	387.9	440.7	489.3	535.9	577.2	613.4	647.6	680.7	706.5
42.5°	306.2	324.8	373.4	424.1	471.7	516.2	555.5	592.8	625.9	654.8	680.7
45°	289.7	310.3	357.9	407.6	453.1	497.6	536.9	571.0	603.1	632.1	653.8
47.5°	275.2	295.9	341.4	391.0	436.5	479.0	517.2	550.3	581.4	607.2	629.0
50°	258.6	279.3	325.9	374.5	419.0	461.4	497.6	529.7	558.6	582.4	603.1
52.5°	242.1	264.8	310.3	359.0	403.4	443.8	480.0	511.0	536.9	558.6	576.2
55°	226.6	249.3	295.9	343.4	387.9	428.3	462.4	492.4	517.2	536.9	550.3
57.5°	210.0	234.8	282.4	330.0	373.4	411.7	445.9	473.8	496.5	513.1	524.5
60°	194.5	220.3	269.0	315.5	359.0	397.2	429.3	456.2	475.9	490.3	499.7
62.5°	177.9	205.9	254.5	301.0	343.4	381.7	411.7	436.5	455.2	466.5	472.8
65°	161.4	191.4	240.0	286.5	327.9	364.1	393.1	415.9	432.4	442.8	447.9
67.5°	145.9	176.9	225.5	271.0	311.4	345.5	373.4	395.2	409.7	417.9	420.0
70°	129.3	161.4	210.0	254.5	293.8	325.9	352.8	371.4	384.8	391.0	393.1
72.5°	113.8	145.9	193.4	236.9	274.1	304.1	330.0	348.6	360.0	364.1	364.1
75°	97.2	129.3	175.9	217.2	251.4	281.4	305.2	321.7	332.1	337.2	335.2
77.5°	80.7	112.8	157.2	195.5	226.6	253.4	277.2	292.8	303.1	306.2	304.1
80°	67.2	96.2	135.5	170.7	199.7	224.5	246.2	261.7	271.0	269.0	263.8
82.5°	51.7	78.6	112.8	142.8	168.6	192.4	213.1	225.5	227.6	223.4	217.2
85°	37.2	57.9	85.9	109.7	132.4	150.0	164.5	172.8	172.8	167.6	163.4
87.5°	21.7	34.1	49.7	66.2	76.6	87.9	99.3	101.4	101.4	101.4	96.2
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°	473.8	473.8	473.8	473.8	473.8	473.8	473.8	473.8
2.5°	481.0	482.1	483.1	484.1	485.2	485.2	485.2	484.1
5°	514.1	520.3	525.5	531.7	533.8	535.9	537.9	540.0
7.5°	566.9	575.2	583.4	591.7	596.9	603.1	601.0	601.0
10°	617.6	633.1	642.4	652.8	657.9	664.1	667.2	666.2
12.5°	667.2	684.8	698.3	707.6	715.9	722.1	724.1	727.2
15°	709.7	727.2	743.8	755.2	765.5	771.7	775.9	777.9
17.5°	744.8	762.4	781.0	795.5	804.8	813.1	815.2	817.2
20°	770.7	793.4	811.0	826.5	836.9	845.2	849.3	850.3
22.5°	791.4	813.1	832.8	848.3	859.6	869.0	873.1	873.1
25°	802.8	825.5	846.2	862.8	874.1	882.4	886.5	886.5
27.5°	806.9	830.7	850.3	866.9	879.3	887.6	890.7	891.7
30°	803.8	827.6	847.2	862.8	875.2	882.4	885.5	886.5
32.5°	793.4	817.2	835.9	850.3	861.7	870.0	873.1	873.1
35°	776.9	798.6	817.2	831.7	842.1	848.3	852.4	852.4
37.5°	755.2	776.9	793.4	805.9	815.2	822.4	824.5	824.5
40°	730.3	749.0	764.5	776.9	785.2	790.3	792.4	791.4
42.5°	702.4	720.0	732.4	742.8	750.0	755.2	758.3	760.3
45°	673.4	690.0	701.4	709.7	714.8	717.9	721.0	720.0
47.5°	647.6	657.9	668.3	674.5	679.7	682.8	683.8	683.8
50°	617.6	626.9	635.2	640.3	643.4	645.5	645.5	647.6
52.5°	587.6	595.9	602.1	607.2	609.3	610.3	611.4	610.3
55°	560.7	565.9	570.0	574.1	576.2	577.2	579.3	577.2
57.5°	532.8	536.9	542.1	543.1	545.2	545.2	546.2	545.2
60°	504.8	507.9	510.0	511.0	514.1	515.2	515.2	517.2
62.5°	476.9	477.9	481.0	482.1	483.1	485.2	487.2	486.2
65°	449.0	450.0	451.0	453.1	455.2	457.2	457.2	456.2
67.5°	420.0	421.0	422.1	424.1	426.2	426.2	427.2	427.2
70°	392.1	392.1	393.1	394.1	396.2	397.2	398.3	397.2
72.5°	363.1	363.1	363.1	364.1	365.2	367.2	368.3	368.3
75°	333.1	333.1	333.1	332.1	333.1	335.2	334.1	334.1
77.5°	300.0	296.9	293.8	291.7	292.8	291.7	291.7	291.7
80°	258.6	253.4	249.3	247.2	246.2	247.2	246.2	246.2
82.5°	213.1	207.9	203.8	200.7	201.7	199.7	200.7	198.6
85°	158.3	154.1	150.0	147.9	149.0	149.0	147.9	144.8
87.5°	93.1	87.9	86.9	85.9	86.9	85.9	82.8	83.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)