

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: P188449

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188449
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24786)
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-L840-CD1-BR-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH BELLADONNA ROSE

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2520.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 2.29 / 2.08
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

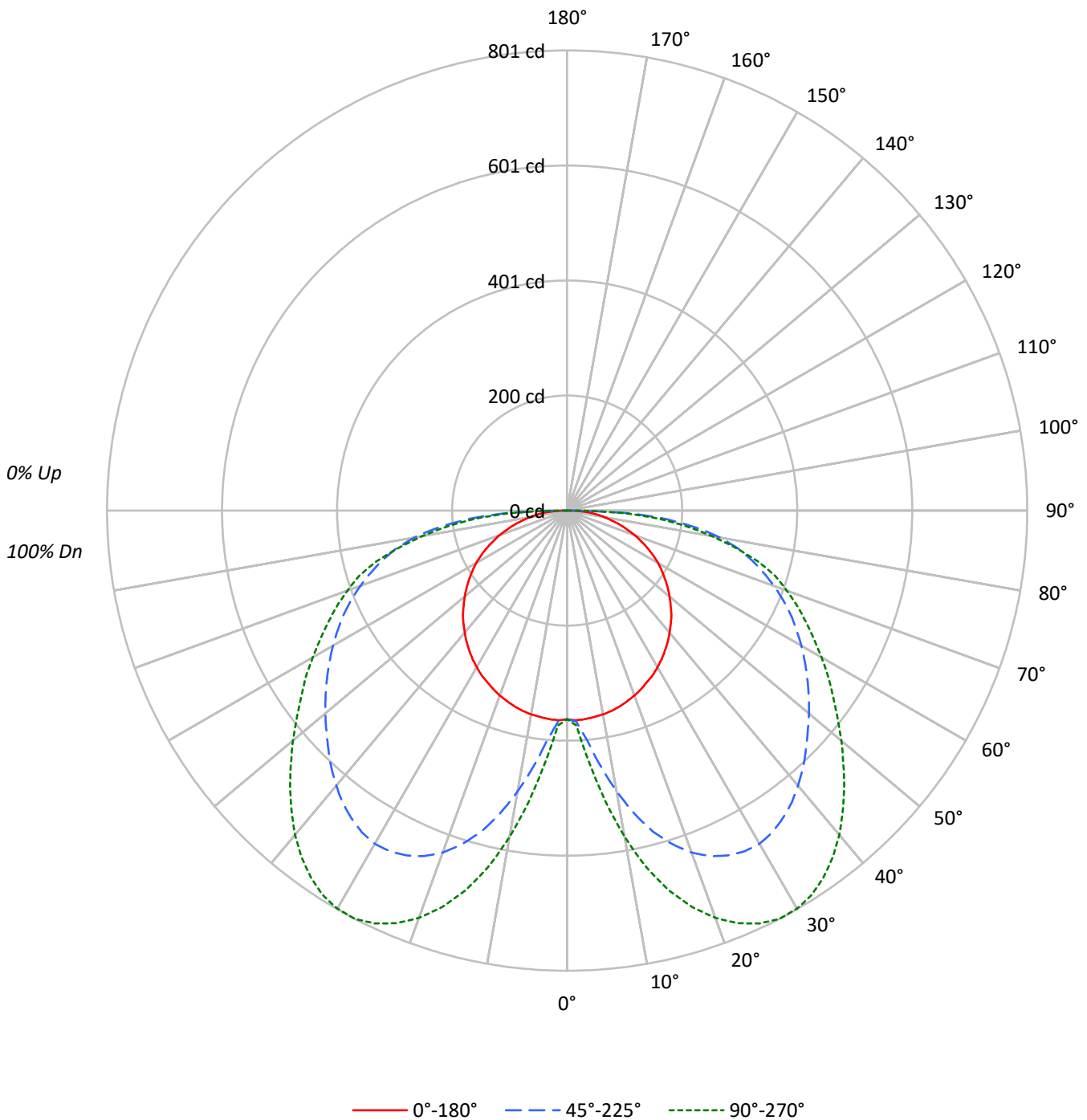
Input Watts (W): 31.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	90	103	97	93	88	93	89	85		89	86	83		85	83	80	78
2	95	85	77	70	92	83	75	69	79	73	67		76	70	66		73	68	64	62
3	85	73	64	56	83	71	63	56	68	61	55		65	59	54		63	57	53	50
4	77	64	54	46	75	62	53	46	60	52	45		57	50	45		55	49	44	41
5	71	56	46	39	68	55	46	39	53	45	38		51	44	38		49	42	37	35
6	65	50	40	33	63	49	40	33	47	39	33		46	38	33		44	37	32	30
7	60	45	36	29	58	44	35	29	43	35	29		41	34	28		40	33	28	26
8	56	41	32	25	54	40	31	25	39	31	25		38	30	25		36	30	25	23
9	52	37	29	23	50	37	28	22	36	28	22		34	27	22		33	27	22	20
10	48	34	26	20	47	34	26	20	33	25	20		32	25	20		31	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	489	489	489
5°	492	542	594
10°	492	677	788
15°	492	806	953
20°	491	907	1080
25°	489	983	1177
30°	489	1040	1243
35°	488	1075	1279
40°	487	1098	1294
45°	488	1119	1298
50°	488	1150	1304
55°	488	1197	1326
60°	493	1267	1376
65°	491	1367	1460
70°	493	1507	1600
75°	495	1727	1792
80°	513	2093	1981
85°	591	2700	2445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.8	1.6
10°-20°	155.8	6.2
20°-30°	284.8	11.3
30°-40°	378.8	15.0
40°-50°	417.1	16.6
50°-60°	413.4	16.4
60°-70°	378.4	15.0
70°-80°	304.7	12.1
80°-90°	146.2	5.8
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°	481.4	19.1
0°-40°	860.3	34.1
0°-60°	1690.7	67.1
0°-90°	2520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	363	363	363	363	363	
5°	364	367	402	429	440	35
15°	353	444	579	656	684	100
25°	329	493	662	758	793	152
35°	297	485	654	746	778	186
45°	257	437	588	659	682	198
55°	208	386	510	553	565	186
65°	154	333	430	448	458	153
75°	95	260	332	342	345	100
85°	38	142	175	160	158	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°	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3
2.5°	365.4	365.4	364.3	364.3	364.3	364.3	364.3	364.3	365.4	367.4	368.5
5°	364.3	364.3	364.3	364.3	365.4	369.5	374.7	383.0	391.2	401.6	410.9
7.5°	362.3	362.3	362.3	365.4	374.7	389.2	402.6	418.2	433.7	449.2	461.6
10°	360.2	360.2	362.3	373.7	392.3	414.0	434.7	455.4	475.1	495.8	513.4
12.5°	357.1	357.1	363.3	384.0	410.9	437.8	464.7	489.6	514.4	540.3	560.0
15°	353.0	353.0	366.4	394.4	427.5	460.6	491.6	521.7	550.6	578.6	600.3
17.5°	347.8	349.8	369.5	404.7	442.0	480.3	514.4	548.6	579.6	608.6	634.5
20°	342.6	345.7	372.6	413.0	454.4	496.8	534.1	569.3	602.4	633.5	660.4
22.5°	336.4	340.5	374.7	419.2	463.7	508.2	547.5	584.8	620.0	651.0	679.0
25°	329.1	335.4	375.7	422.3	470.9	515.5	555.8	594.1	630.3	662.4	690.4
27.5°	322.9	331.2	374.7	424.4	474.1	519.6	561.0	599.3	636.6	668.6	697.6
30°	314.7	325.0	372.6	423.3	473.0	519.6	560.0	599.3	636.6	669.7	697.6
32.5°	306.4	318.8	367.4	419.2	469.9	514.4	555.8	595.2	631.4	664.5	691.4
35°	297.1	311.6	361.2	413.0	462.7	507.2	547.5	585.8	623.1	654.2	681.1
37.5°	287.7	303.3	353.0	404.7	453.4	496.8	536.2	574.5	609.6	641.7	666.6
40°	277.4	295.0	344.7	395.4	442.0	484.4	523.7	561.0	595.2	625.2	649.0
42.5°	267.0	285.7	335.4	385.0	430.6	470.9	510.3	545.5	578.6	607.6	629.3
45°	256.7	275.3	324.0	373.7	417.1	457.5	494.8	529.9	561.0	587.9	608.6
47.5°	244.3	265.0	313.6	361.2	403.7	444.0	480.3	513.4	544.4	568.2	587.9
50°	232.9	254.6	302.2	348.8	390.2	430.6	465.8	497.9	526.8	549.6	567.2
52.5°	220.5	243.2	290.8	337.4	378.8	417.1	452.3	482.3	508.2	529.9	546.5
55°	208.0	231.9	280.5	325.0	366.4	404.7	437.8	466.8	491.6	510.3	525.8
57.5°	195.6	220.5	269.1	314.7	355.0	392.3	424.4	450.2	474.1	490.6	504.1
60°	183.2	209.1	256.7	302.2	343.6	378.8	409.9	434.7	455.4	470.9	482.3
62.5°	168.7	196.7	245.3	289.8	330.2	364.3	394.4	417.1	436.8	450.2	459.6
65°	154.2	184.2	232.9	277.4	316.7	349.8	377.8	399.5	417.1	429.5	435.8
67.5°	139.7	171.8	220.5	265.0	302.2	333.3	360.2	380.9	396.4	406.8	412.0
70°	125.2	157.3	206.0	249.4	285.7	314.7	340.5	360.2	373.7	383.0	387.1
72.5°	109.7	142.8	190.4	232.9	267.0	296.0	319.8	338.5	350.9	358.1	361.2
75°	95.2	127.3	173.9	214.3	246.3	273.3	296.0	314.7	327.1	332.3	335.4
77.5°	79.7	111.8	156.3	193.6	223.6	248.4	270.1	287.7	299.1	304.3	307.4
80°	66.2	95.2	135.6	169.7	197.7	221.5	241.2	259.8	269.1	270.1	267.0
82.5°	51.8	78.7	113.9	143.9	167.7	190.4	209.1	221.5	225.6	225.6	222.5
85°	38.3	59.0	89.0	112.8	133.5	150.1	161.5	171.8	173.9	174.9	170.8
87.5°	21.7	33.1	52.8	68.3	80.7	92.1	100.4	105.6	105.6	106.6	104.5
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°	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3
2.5°	368.5	370.5	370.5	372.6	373.7	373.7	374.7	374.7
5°	415.1	423.3	426.4	431.6	434.7	438.9	440.9	439.9
7.5°	470.9	483.4	489.6	496.8	505.1	507.2	510.3	510.3
10°	526.8	541.3	550.6	558.9	568.2	572.4	576.5	576.5
12.5°	577.6	592.0	604.5	614.8	624.1	630.3	634.5	635.5
15°	619.0	637.6	650.0	661.4	671.7	678.0	683.1	684.2
17.5°	653.1	670.7	687.3	699.7	709.0	718.3	721.4	723.5
20°	680.0	698.7	716.3	728.7	739.0	748.3	752.5	754.6
22.5°	699.7	719.4	737.0	750.4	760.8	770.1	775.3	777.3
25°	712.1	732.8	751.4	764.9	776.3	785.6	790.8	792.8
27.5°	720.4	741.1	758.7	772.1	783.5	792.8	798.0	801.1
30°	720.4	741.1	758.7	772.1	783.5	792.8	798.0	800.1
32.5°	714.2	734.9	752.5	764.9	776.3	785.6	790.8	792.8
35°	702.8	723.5	740.1	752.5	763.9	772.1	777.3	778.4
37.5°	687.3	706.9	722.5	734.9	745.2	753.5	758.7	759.7
40°	669.7	688.3	702.8	714.2	723.5	730.7	735.9	737.0
42.5°	649.0	666.6	679.0	690.4	698.7	705.9	711.1	710.0
45°	627.2	643.8	654.2	663.5	672.8	678.0	682.1	682.1
47.5°	605.5	619.0	628.3	636.6	643.8	649.0	652.1	652.1
50°	582.7	594.1	602.4	609.6	615.9	620.0	623.1	623.1
52.5°	560.0	570.3	576.5	582.7	587.9	591.0	594.1	593.1
55°	537.2	545.5	549.6	555.8	560.0	564.1	566.2	565.1
57.5°	514.4	519.6	523.7	528.9	533.1	537.2	538.2	539.3
60°	489.6	494.8	497.9	503.0	507.2	510.3	512.3	511.3
62.5°	465.8	468.9	472.0	476.1	479.2	483.4	484.4	484.4
65°	439.9	443.0	446.1	450.2	453.4	457.5	459.6	458.5
67.5°	415.1	418.2	421.3	424.4	428.5	432.7	433.7	433.7
70°	389.2	392.3	394.4	398.5	401.6	405.7	406.8	406.8
72.5°	364.3	366.4	368.5	372.6	374.7	377.8	379.9	379.9
75°	336.4	338.5	340.5	342.6	343.6	344.7	345.7	344.7
77.5°	305.3	303.3	301.2	301.2	299.1	300.2	301.2	300.2
80°	262.9	260.8	258.8	257.7	255.7	255.7	256.7	255.7
82.5°	218.4	214.3	212.2	211.2	209.1	209.1	209.1	209.1
85°	164.6	162.5	161.5	159.4	157.3	156.3	157.3	158.4
87.5°	102.5	100.4	98.3	96.3	95.2	94.2	96.3	93.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)