

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: P188454

Luminaire Tested: **24SR-LD2-45-C-UNV-L840-CD1-BR-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188454
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-LD2-45-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: 2844.0 lumens
Efficiency: N/A
Efficacy: 77.5 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

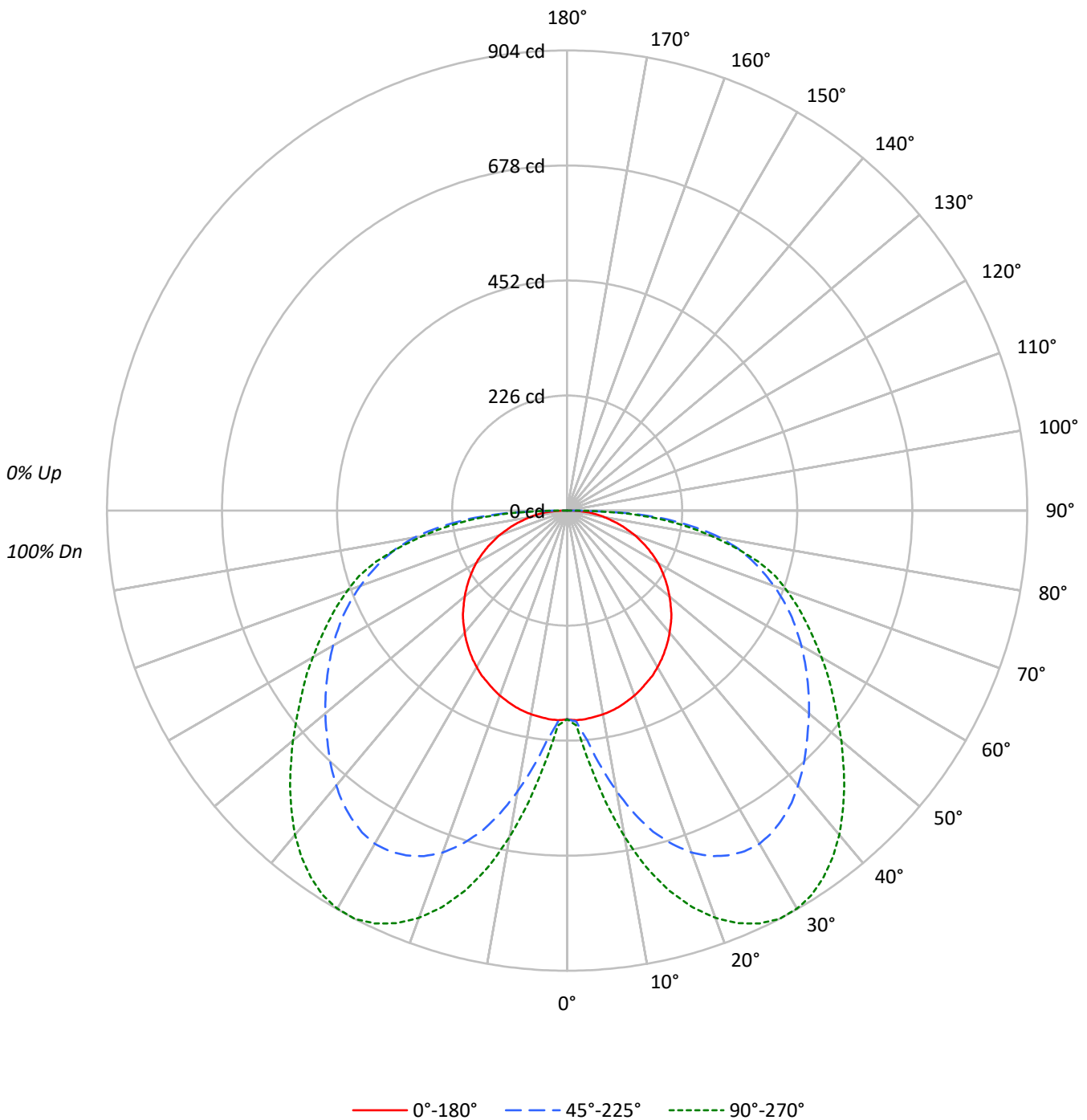
Input Watts (W): 36.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	552	552	552
5°	555	612	671
10°	555	764	889
15°	555	910	1075
20°	554	1024	1219
25°	552	1110	1328
30°	552	1174	1403
35°	551	1213	1443
40°	550	1239	1461
45°	551	1263	1465
50°	550	1298	1472
55°	551	1351	1496
60°	556	1430	1553
65°	554	1543	1648
70°	556	1700	1806
75°	559	1949	2022
80°	580	2362	2235
85°	667	3047	2759



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.0	1.6
10°-20°	175.8	6.2
20°-30°	321.5	11.3
30°-40°	427.5	15.0
40°-50°	470.7	16.6
50°-60°	466.5	16.4
60°-70°	427.1	15.0
70°-80°	343.9	12.1
80°-90°	165.0	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°	543.3	19.1
0°-40°	970.9	34.1
0°-60°	1908.1	67.1
0°-90°	2844.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2844.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	410	410	410	410	410	
5°	411	415	453	484	496	39
15°	398	501	653	740	772	112
25°	372	557	748	856	895	172
35°	335	547	738	842	878	210
45°	290	494	664	744	770	223
55°	235	435	576	624	638	210
65°	174	376	485	506	518	172
75°	108	293	375	386	389	113
85°	43	160	197	181	179	45
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°	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0
2.5°	412.3	412.3	411.2	411.2	411.2	411.2	411.2	411.2	412.3	414.7	415.9
5°	411.2	411.2	411.2	411.2	412.3	417.0	422.9	432.2	441.6	453.2	463.7
7.5°	408.8	408.8	408.8	412.3	422.9	439.2	454.4	471.9	489.4	507.0	521.0
10°	406.5	406.5	408.8	421.7	442.7	467.3	490.6	514.0	536.2	559.5	579.4
12.5°	403.0	403.0	410.0	433.4	463.7	494.1	524.5	552.5	580.6	609.8	632.0
15°	398.3	398.3	413.5	445.1	482.4	519.8	554.9	588.7	621.4	653.0	677.5
17.5°	392.5	394.8	417.0	456.7	498.8	542.0	580.6	619.1	654.2	686.9	716.1
20°	386.7	390.2	420.5	466.1	512.8	560.7	602.8	642.5	679.9	714.9	745.3
22.5°	379.6	384.3	422.9	473.1	523.3	573.6	617.9	660.0	699.7	734.8	766.3
25°	371.5	378.5	424.0	476.6	531.5	581.7	627.3	670.5	711.4	747.6	779.1
27.5°	364.5	373.8	422.9	478.9	535.0	586.4	633.1	676.3	718.4	754.6	787.3
30°	355.1	366.8	420.5	477.8	533.8	586.4	632.0	676.3	718.4	755.8	787.3
32.5°	345.8	359.8	414.7	473.1	530.3	580.6	627.3	671.7	712.6	749.9	780.3
35°	335.3	351.6	407.7	466.1	522.2	572.4	617.9	661.2	703.2	738.3	768.6
37.5°	324.7	342.3	398.3	456.7	511.6	560.7	605.1	648.3	688.0	724.2	752.3
40°	313.1	332.9	389.0	446.2	498.8	546.7	591.1	633.1	671.7	705.5	732.4
42.5°	301.4	322.4	378.5	434.5	485.9	531.5	575.9	615.6	653.0	685.7	710.2
45°	289.7	310.7	365.6	421.7	470.8	516.3	558.4	598.1	633.1	663.5	686.9
47.5°	275.7	299.0	353.9	407.7	455.6	501.1	542.0	579.4	614.4	641.3	663.5
50°	262.8	287.4	341.1	393.7	440.4	485.9	525.7	561.9	594.6	620.3	640.1
52.5°	248.8	274.5	328.2	380.8	427.5	470.8	510.5	544.3	573.6	598.1	616.8
55°	234.8	261.7	316.6	366.8	413.5	456.7	494.1	526.8	554.9	575.9	593.4
57.5°	220.8	248.8	303.7	355.1	400.7	442.7	478.9	508.1	535.0	553.7	568.9
60°	206.8	236.0	289.7	341.1	387.8	427.5	462.6	490.6	514.0	531.5	544.3
62.5°	190.4	221.9	276.8	327.1	372.6	411.2	445.1	470.8	493.0	508.1	518.6
65°	174.1	207.9	262.8	313.1	357.4	394.8	426.4	450.9	470.8	484.8	491.8
67.5°	157.7	193.9	248.8	299.0	341.1	376.1	406.5	429.9	447.4	459.1	464.9
70°	141.3	177.6	232.5	281.5	322.4	355.1	384.3	406.5	421.7	432.2	436.9
72.5°	123.8	161.2	214.9	262.8	301.4	334.1	361.0	382.0	396.0	404.2	407.7
75°	107.5	143.7	196.2	241.8	278.0	308.4	334.1	355.1	369.1	375.0	378.5
77.5°	89.9	126.2	176.4	218.4	252.3	280.4	304.9	324.7	337.6	343.4	346.9
80°	74.8	107.5	153.0	191.6	223.1	250.0	272.2	293.2	303.7	304.9	301.4
82.5°	58.4	88.8	128.5	162.4	189.2	214.9	236.0	250.0	254.7	254.7	251.1
85°	43.2	66.6	100.5	127.3	150.7	169.4	182.2	193.9	196.2	197.4	192.7
87.5°	24.5	37.4	59.6	77.1	91.1	104.0	113.3	119.1	119.1	120.3	118.0
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°	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0
2.5°	415.9	418.2	418.2	420.5	421.7	421.7	422.9	422.9
5°	468.4	477.8	481.3	487.1	490.6	495.3	497.6	496.5
7.5°	531.5	545.5	552.5	560.7	570.0	572.4	575.9	575.9
10°	594.6	610.9	621.4	630.8	641.3	646.0	650.6	650.6
12.5°	651.8	668.2	682.2	693.9	704.4	711.4	716.1	717.2
15°	698.5	719.6	733.6	746.4	758.1	765.1	771.0	772.1
17.5°	737.1	756.9	775.6	789.7	800.2	810.7	814.2	816.5
20°	767.5	788.5	808.3	822.4	834.0	844.6	849.2	851.6
22.5°	789.7	811.8	831.7	846.9	858.6	869.1	874.9	877.3
25°	803.7	827.0	848.1	863.2	876.1	886.6	892.5	894.8
27.5°	813.0	836.4	856.2	871.4	884.3	894.8	900.6	904.1
30°	813.0	836.4	856.2	871.4	884.3	894.8	900.6	903.0
32.5°	806.0	829.4	849.2	863.2	876.1	886.6	892.5	894.8
35°	793.2	816.5	835.2	849.2	862.1	871.4	877.3	878.4
37.5°	775.6	797.8	815.4	829.4	841.1	850.4	856.2	857.4
40°	755.8	776.8	793.2	806.0	816.5	824.7	830.5	831.7
42.5°	732.4	752.3	766.3	779.1	788.5	796.7	802.5	801.3
45°	707.9	726.6	738.3	748.8	759.3	765.1	769.8	769.8
47.5°	683.4	698.5	709.1	718.4	726.6	732.4	735.9	735.9
50°	657.7	670.5	679.9	688.0	695.0	699.7	703.2	703.2
52.5°	632.0	643.6	650.6	657.7	663.5	667.0	670.5	669.3
55°	606.3	615.6	620.3	627.3	632.0	636.6	639.0	637.8
57.5°	580.6	586.4	591.1	596.9	601.6	606.3	607.4	608.6
60°	552.5	558.4	561.9	567.7	572.4	575.9	578.2	577.1
62.5°	525.7	529.2	532.7	537.3	540.8	545.5	546.7	546.7
65°	496.5	500.0	503.5	508.1	511.6	516.3	518.6	517.5
67.5°	468.4	471.9	475.4	478.9	483.6	488.3	489.4	489.4
70°	439.2	442.7	445.1	449.7	453.2	457.9	459.1	459.1
72.5°	411.2	413.5	415.9	420.5	422.9	426.4	428.7	428.7
75°	379.6	382.0	384.3	386.7	387.8	389.0	390.2	389.0
77.5°	344.6	342.3	339.9	339.9	337.6	338.8	339.9	338.8
80°	296.7	294.4	292.0	290.9	288.5	288.5	289.7	288.5
82.5°	246.5	241.8	239.5	238.3	236.0	236.0	236.0	236.0
85°	185.7	183.4	182.2	179.9	177.6	176.4	177.6	178.7
87.5°	115.6	113.3	111.0	108.6	107.5	106.3	108.6	105.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)