

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: P188702

Luminaire Tested: **24SR-LD2-53-C-UNV-L830-CD1-TB-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188702
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-LD2-53-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: 3405.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 2.07 / 1.9
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

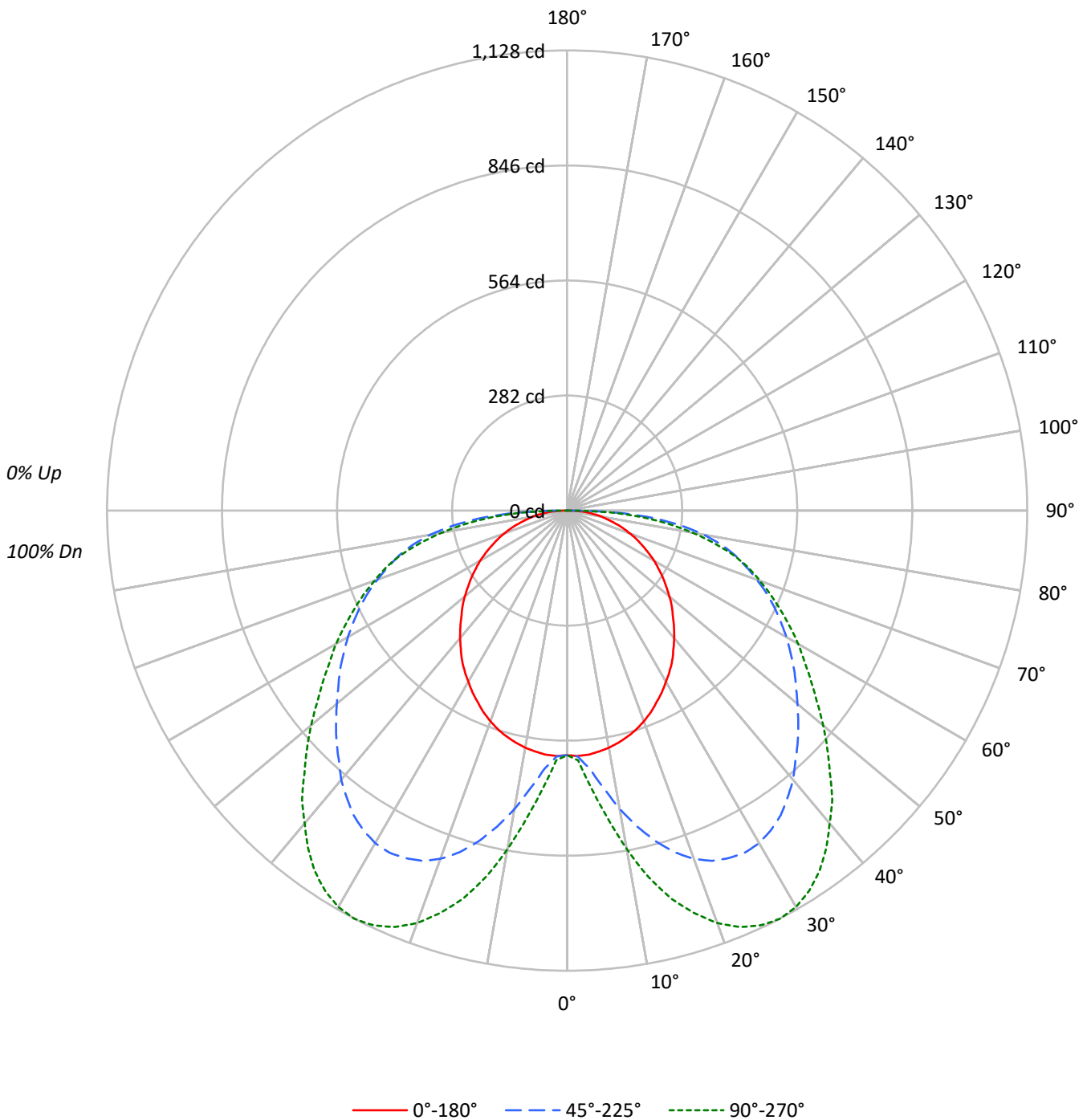
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	106	100	95	91	103	98	93	89	94	90	86	90	86	83	86	83	81	79					79			
2	95	86	78	71	93	84	77	70	80	74	69	77	72	67	74	69	65	63					63			
3	86	74	65	58	83	73	64	57	69	62	56	67	60	55	64	59	54	52					52			
4	78	65	55	48	76	64	54	47	61	53	47	59	52	46	56	50	45	43					43			
5	72	58	48	40	69	56	47	40	54	46	40	52	45	39	50	44	39	36					36			
6	66	51	42	35	64	50	41	35	49	40	34	47	39	34	45	39	34	31					31			
7	61	46	37	30	59	45	37	30	44	36	30	42	35	30	41	34	29	27					27			
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24					24			
9	53	38	30	24	51	38	29	24	37	29	24	35	28	23	34	28	23	21					21			
10	49	35	27	21	48	35	27	21	34	26	21	33	26	21	32	25	21	19					19			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	807	807	807
5°	811	857	923
10°	806	1014	1152
15°	799	1169	1371
20°	787	1301	1541
25°	769	1395	1665
30°	752	1462	1743
35°	738	1498	1772
40°	717	1513	1759
45°	697	1522	1733
50°	685	1542	1715
55°	673	1593	1713
60°	662	1669	1761
65°	650	1784	1838
70°	644	1947	1977
75°	639	2218	2198
80°	659	2637	2414
85°	727	3274	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	1.9
10°-20°	230.6	6.8
20°-30°	410.7	12.1
30°-40°	532.6	15.6
40°-50°	567.9	16.7
50°-60°	546.3	16.0
60°-70°	488.8	14.4
70°-80°	384.8	11.3
80°-90°	179.4	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°	705.2	20.7
0°-40°	1237.7	36.4
0°-60°	2351.9	69.1
0°-90°	3405.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3405.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	600	600	600	600	600	
5°	601	608	635	669	683	57
15°	573	682	839	948	984	162
25°	518	725	940	1081	1122	239
35°	449	689	912	1043	1079	280
45°	366	601	800	893	911	284
55°	287	516	679	724	730	256
65°	204	438	560	572	577	203
75°	123	337	427	421	423	130
85°	47	179	212	188	183	50
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°	599.5	599.5	599.5	599.5	599.5	599.5	599.5	599.5	599.5	599.5	599.5
2.5°	602.1	602.1	600.8	600.8	602.1	602.1	602.1	602.1	603.4	603.4	604.7
5°	600.8	599.5	599.5	602.1	606.0	610.0	613.9	620.4	625.7	634.8	642.7
7.5°	595.6	595.6	598.2	604.7	613.9	627.0	641.4	657.1	671.5	685.9	702.9
10°	590.3	590.3	596.9	608.7	627.0	650.5	674.1	697.7	719.9	742.2	760.5
12.5°	582.5	583.8	594.3	615.2	645.3	678.0	708.1	738.2	768.4	793.2	820.7
15°	573.3	575.9	591.6	623.1	662.3	701.6	738.2	774.9	808.9	839.0	867.8
17.5°	562.8	566.8	589.0	629.6	675.4	719.9	765.7	807.6	844.3	878.3	911.0
20°	549.8	556.3	586.4	634.8	685.9	736.9	785.4	829.9	871.8	908.4	945.1
22.5°	535.4	543.2	581.2	636.2	692.4	747.4	801.1	846.9	891.4	929.4	967.3
25°	518.3	530.1	575.9	634.8	695.1	754.0	808.9	856.1	901.9	939.8	981.7
27.5°	502.6	515.7	566.8	629.6	692.4	754.0	808.9	858.7	905.8	945.1	985.6
30°	484.3	501.3	557.6	621.8	685.9	747.4	803.7	853.4	899.3	941.1	983.0
32.5°	467.3	485.6	543.2	608.7	674.1	735.6	793.2	841.7	887.5	929.4	969.9
35°	449.0	467.3	527.5	595.6	658.4	719.9	774.9	824.6	869.1	912.3	950.3
37.5°	428.0	449.0	510.5	577.2	638.8	700.3	754.0	802.4	846.9	887.5	924.1
40°	408.4	430.6	490.9	557.6	619.1	678.0	730.4	776.2	819.4	861.3	894.0
42.5°	387.5	411.0	472.5	536.7	596.9	653.2	702.9	750.0	791.9	828.6	861.3
45°	366.5	392.7	452.9	515.7	573.3	629.6	679.3	722.5	763.1	799.8	827.3
47.5°	348.2	374.4	432.0	494.8	552.4	606.0	654.5	696.4	735.6	768.4	795.8
50°	327.2	353.4	412.3	473.8	530.1	583.8	629.6	670.2	706.8	736.9	763.1
52.5°	306.3	335.1	392.7	454.2	510.5	561.5	607.4	646.6	679.3	706.8	729.1
55°	286.7	315.5	374.4	434.6	490.9	541.9	585.1	623.1	654.5	679.3	696.4
57.5°	265.7	297.1	357.3	417.6	472.5	521.0	564.2	599.5	628.3	649.2	663.6
60°	246.1	278.8	340.3	399.2	454.2	502.6	543.2	577.2	602.1	620.4	632.2
62.5°	225.1	260.5	322.0	380.9	434.6	483.0	521.0	552.4	575.9	590.3	598.2
65°	204.2	242.2	303.7	362.6	414.9	460.8	497.4	526.2	547.1	560.2	566.8
67.5°	184.6	223.8	285.4	342.9	394.0	437.2	472.5	500.0	518.3	528.8	531.4
70°	163.6	204.2	265.7	322.0	371.7	412.3	446.4	469.9	486.9	494.8	497.4
72.5°	144.0	184.6	244.8	299.8	346.9	384.8	417.6	441.1	455.5	460.8	460.8
75°	123.0	163.6	222.5	274.9	318.1	356.0	386.1	407.1	420.2	426.7	424.1
77.5°	102.1	142.7	199.0	247.4	286.7	320.7	350.8	370.4	383.5	387.5	384.8
80°	85.1	121.7	171.5	216.0	252.6	284.0	311.5	331.2	342.9	340.3	333.8
82.5°	65.4	99.5	142.7	180.6	213.4	243.5	269.6	285.4	288.0	282.7	274.9
85°	47.1	73.3	108.6	138.7	167.5	189.8	208.1	218.6	218.6	212.1	206.8
87.5°	27.5	43.2	62.8	83.8	96.9	111.3	125.7	128.3	128.3	128.3	121.7
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°	599.5	599.5	599.5	599.5	599.5	599.5	599.5	599.5
2.5°	608.7	610.0	611.3	612.6	613.9	613.9	613.9	612.6
5°	650.5	658.4	664.9	672.8	675.4	678.0	680.7	683.3
7.5°	717.3	727.8	738.2	748.7	755.3	763.1	760.5	760.5
10°	781.4	801.1	812.9	825.9	832.5	840.3	844.3	843.0
12.5°	844.3	866.5	883.5	895.3	905.8	913.6	916.3	920.2
15°	897.9	920.2	941.1	955.5	968.6	976.5	981.7	984.3
17.5°	942.4	964.7	988.3	1006.6	1018.4	1028.8	1031.5	1034.1
20°	975.2	1004.0	1026.2	1045.9	1058.9	1069.4	1074.7	1076.0
22.5°	1001.3	1028.8	1053.7	1073.3	1087.7	1099.5	1104.8	1104.8
25°	1015.7	1044.5	1070.7	1091.7	1106.1	1116.5	1121.8	1121.8
27.5°	1021.0	1051.1	1076.0	1096.9	1112.6	1123.1	1127.0	1128.3
30°	1017.1	1047.2	1072.0	1091.7	1107.4	1116.5	1120.5	1121.8
32.5°	1004.0	1034.1	1057.6	1076.0	1090.4	1100.8	1104.8	1104.8
35°	983.0	1010.5	1034.1	1052.4	1065.5	1073.3	1078.6	1078.6
37.5°	955.5	983.0	1004.0	1019.7	1031.5	1040.6	1043.2	1043.2
40°	924.1	947.7	967.3	983.0	993.5	1000.0	1002.7	1001.3
42.5°	888.8	911.0	926.7	939.8	949.0	955.5	959.5	962.1
45°	852.1	873.1	887.5	897.9	904.5	908.4	912.3	911.0
47.5°	819.4	832.5	845.6	853.4	860.0	863.9	865.2	865.2
50°	781.4	793.2	803.7	810.2	814.2	816.8	816.8	819.4
52.5°	743.5	754.0	761.8	768.4	771.0	772.3	773.6	772.3
55°	709.5	716.0	721.2	726.5	729.1	730.4	733.0	730.4
57.5°	674.1	679.3	685.9	687.2	689.8	689.8	691.1	689.8
60°	638.8	642.7	645.3	646.6	650.5	651.9	651.9	654.5
62.5°	603.4	604.7	608.7	610.0	611.3	613.9	616.5	615.2
65°	568.1	569.4	570.7	573.3	575.9	578.6	578.6	577.2
67.5°	531.4	532.7	534.1	536.7	539.3	539.3	540.6	540.6
70°	496.1	496.1	497.4	498.7	501.3	502.6	503.9	502.6
72.5°	459.4	459.4	459.4	460.8	462.1	464.7	466.0	466.0
75°	421.5	421.5	421.5	420.2	421.5	424.1	422.8	422.8
77.5°	379.6	375.7	371.7	369.1	370.4	369.1	369.1	369.1
80°	327.2	320.7	315.5	312.8	311.5	312.8	311.5	311.5
82.5°	269.6	263.1	257.9	253.9	255.2	252.6	253.9	251.3
85°	200.3	195.0	189.8	187.2	188.5	188.5	187.2	183.3
87.5°	117.8	111.3	110.0	108.6	110.0	108.6	104.7	106.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)