

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: P188169

Luminaire Tested: **24SR-LD2-53-UNV-EL14W-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188169
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34279)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SR-LD2-53-UNV-EL14W-L850-CD1-U
Description: METALUX SKYRIDGE 2X4 TROFFER

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1338.7 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.39 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 4' x L: 2' x H: 0.29')
CIE Type: Direct

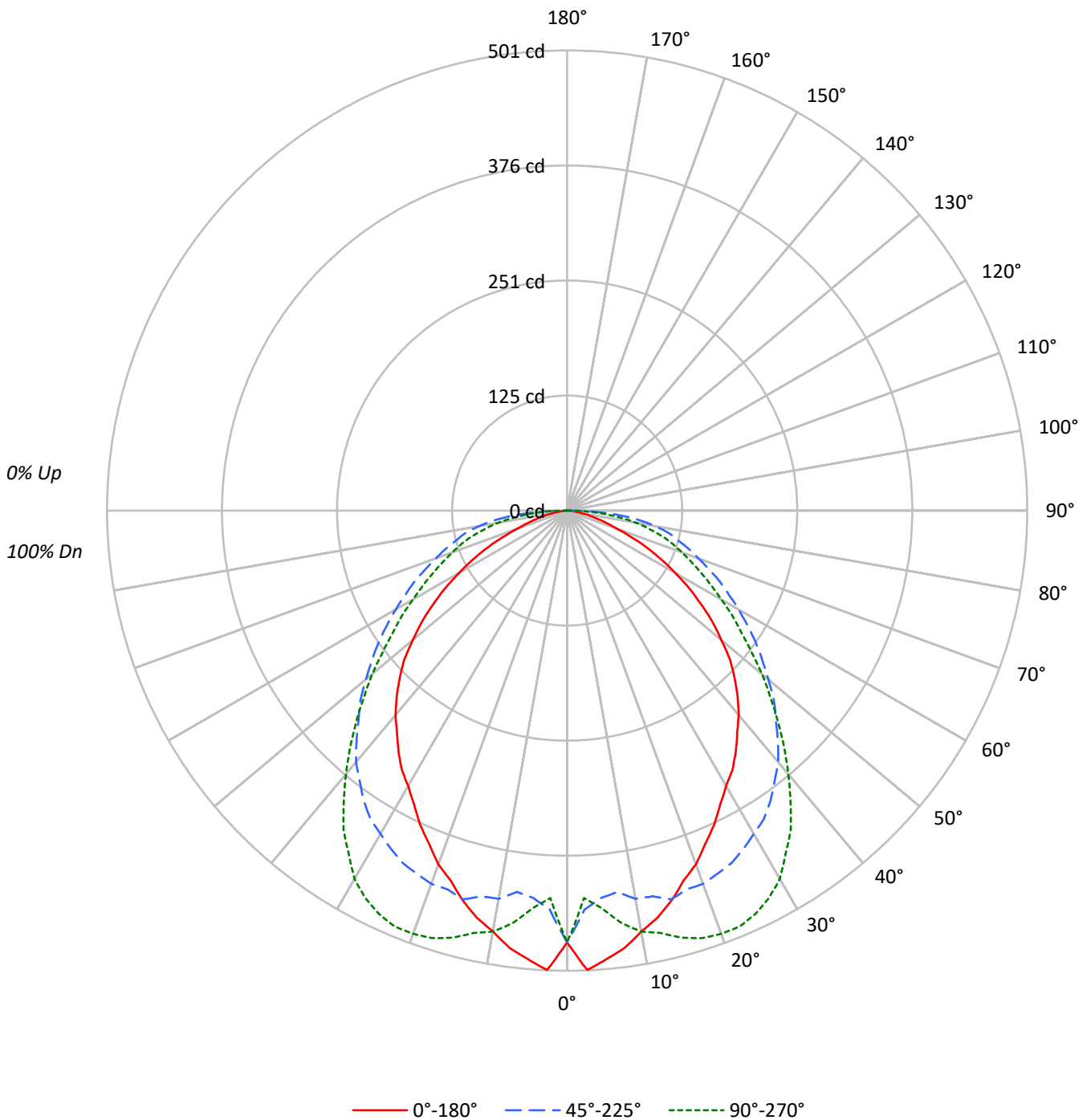
Input Watts (W): 12.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	70	63	87	77	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	632	632	632
5°	654	564	583
10°	620	571	628
15°	589	586	658
20°	557	586	684
25°	525	586	696
30°	496	580	690
35°	477	572	663
40°	455	556	620
45°	428	529	576
50°	391	505	533
55°	346	482	492
60°	293	458	464
65°	234	440	444
70°	163	420	435
75°	111	412	436
80°	63	403	417
85°	26	317	334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	3.1
10°-20°	122.8	9.2
20°-30°	191.4	14.3
30°-40°	230.1	17.2
40°-50°	230.8	17.2
50°-60°	202.8	15.2
60°-70°	159.3	11.9
70°-80°	111.5	8.3
80°-90°	48.1	3.6
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°	356.0	26.6
0°-40°	586.1	43.8
0°-60°	1019.7	76.2
0°-90°	1338.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1338.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	490	423	423	440	435	46
15°	439	386	438	473	481	123
25°	378	360	423	473	485	174
35°	320	320	386	420	424	200
45°	258	270	321	329	325	198
55°	178	216	251	241	232	159
65°	96	161	184	167	161	95
75°	33	110	125	110	107	36
85°	4	59	57	44	40	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9
2.5°	500.6	498.3	492.6	488.1	482.4	477.9	474.5	464.2	455.2	447.2	434.7
5°	490.3	483.5	467.6	451.8	431.3	423.4	418.8	413.2	414.3	418.8	423.4
7.5°	480.1	466.5	435.9	410.9	401.8	404.1	409.8	421.1	425.6	423.4	418.8
10°	465.4	446.1	406.4	390.5	402.9	409.8	415.4	413.2	410.9	418.8	429.1
12.5°	454.0	424.5	380.2	387.1	401.8	400.7	398.4	405.2	420.0	427.9	430.2
15°	439.3	400.7	365.5	384.8	384.8	385.9	392.7	412.0	416.6	426.8	438.1
17.5°	422.2	375.7	355.3	371.2	371.2	383.7	393.9	402.9	416.6	427.9	432.5
20°	409.8	353.0	348.5	354.1	368.9	380.2	384.8	400.7	412.0	421.1	432.5
22.5°	392.7	333.7	339.4	340.5	363.2	367.8	378.0	395.0	404.1	417.7	427.9
25°	378.0	315.5	325.8	333.7	349.6	359.8	371.2	383.7	398.4	409.8	423.4
27.5°	360.9	300.8	309.9	325.8	340.5	353.0	359.8	375.7	388.2	401.8	415.4
30°	346.2	288.3	295.1	315.5	333.7	341.7	349.6	365.5	381.4	392.7	406.4
32.5°	334.8	277.0	282.6	303.1	323.5	330.3	339.4	356.4	370.0	383.7	398.4
35°	320.1	267.9	273.5	292.8	311.0	320.1	328.0	345.1	359.8	373.4	385.9
37.5°	304.2	256.5	263.3	281.5	298.5	306.5	315.5	332.6	345.1	359.8	371.2
40°	290.6	247.4	254.3	271.3	287.2	295.1	304.2	319.0	332.6	345.1	357.5
42.5°	274.7	235.0	242.9	258.8	273.5	283.8	290.6	305.3	317.8	329.2	339.4
45°	257.7	221.3	229.3	244.0	261.1	270.1	277.0	292.8	303.1	313.3	321.2
47.5°	240.6	208.9	215.7	231.6	248.6	255.4	263.3	277.0	288.3	298.5	305.3
50°	219.1	194.1	202.0	219.1	235.0	242.9	250.8	264.5	273.5	280.4	286.0
52.5°	199.8	177.1	189.6	205.4	221.3	230.4	237.2	249.7	258.8	264.5	267.9
55°	178.2	163.4	174.8	191.8	207.7	215.7	223.6	235.0	242.9	248.6	250.8
57.5°	157.8	146.4	162.3	178.2	195.2	202.0	208.9	221.3	227.0	231.6	232.7
60°	136.2	129.4	146.4	164.6	180.5	188.4	195.2	204.3	210.0	215.7	215.7
62.5°	115.8	114.6	132.8	152.1	168.0	174.8	181.6	190.7	196.4	198.6	198.6
65°	96.5	101.0	120.3	139.6	154.4	161.2	166.9	175.9	181.6	183.9	183.9
67.5°	76.0	86.3	106.7	126.0	141.9	148.7	154.4	162.3	165.7	168.0	166.9
70°	57.9	72.6	94.2	114.6	129.4	135.1	140.7	148.7	152.1	154.4	152.1
72.5°	45.4	60.2	82.9	103.3	116.9	122.6	127.1	133.9	138.5	139.6	138.5
75°	32.9	49.9	73.8	91.9	105.6	110.1	114.6	121.5	126.0	127.1	124.9
77.5°	23.8	42.0	63.6	82.9	95.3	99.9	104.4	111.2	113.5	114.6	113.5
80°	14.8	32.9	53.3	71.5	81.7	87.4	90.8	96.5	99.9	101.0	97.6
82.5°	9.1	26.1	44.3	60.2	70.4	73.8	77.2	82.9	84.0	82.9	78.3
85°	4.5	20.4	35.2	47.7	56.8	59.0	61.3	63.6	63.6	62.4	56.8
87.5°	3.4	12.5	22.7	30.6	36.3	35.2	35.2	38.6	37.5	34.1	30.6
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9
2.5°	429.1	429.1	427.9	426.8	425.6	424.5	425.6	424.5	423.4	422.2
5°	429.1	435.9	438.1	440.4	440.4	440.4	439.3	438.1	437.0	434.7
7.5°	418.8	426.8	433.6	440.4	443.8	444.9	448.3	452.9	452.9	452.9
10°	437.0	444.9	447.2	451.8	454.0	456.3	459.7	464.2	464.2	465.4
12.5°	439.3	452.9	460.8	465.4	466.5	467.6	469.9	472.2	472.2	471.0
15°	446.1	452.9	463.1	471.0	473.3	475.6	480.1	482.4	481.3	481.3
17.5°	446.1	456.3	463.1	472.2	475.6	479.0	484.7	486.9	488.1	488.1
20°	442.7	456.3	466.5	473.3	476.7	479.0	484.7	489.2	489.2	490.3
22.5°	442.7	454.0	464.2	474.5	476.7	480.1	485.8	489.2	490.3	490.3
25°	437.0	449.5	458.6	469.9	473.3	477.9	482.4	484.7	484.7	484.7
27.5°	431.3	443.8	454.0	460.8	464.2	466.5	472.2	474.5	475.6	475.6
30°	423.4	433.6	442.7	450.6	452.9	455.2	459.7	462.0	463.1	463.1
32.5°	412.0	422.2	430.2	437.0	438.1	440.4	442.7	443.8	443.8	442.7
35°	399.5	407.5	415.4	417.7	420.0	421.1	423.4	424.5	423.4	424.5
37.5°	382.5	388.2	393.9	397.3	398.4	399.5	402.9	400.7	399.5	399.5
40°	364.4	371.2	373.4	375.7	375.7	375.7	378.0	376.8	374.6	374.6
42.5°	346.2	349.6	353.0	353.0	353.0	351.9	351.9	351.9	351.9	349.6
45°	326.9	329.2	329.2	329.2	329.2	329.2	326.9	326.9	324.6	324.6
47.5°	308.7	308.7	308.7	307.6	306.5	305.3	305.3	301.9	301.9	299.7
50°	287.2	288.3	287.2	284.9	283.8	281.5	280.4	278.1	277.0	277.0
52.5°	269.0	269.0	265.6	264.5	261.1	261.1	258.8	256.5	254.3	253.1
55°	250.8	249.7	246.3	242.9	240.6	240.6	237.2	233.8	233.8	231.6
57.5°	233.8	231.6	227.0	222.5	220.2	220.2	216.8	214.5	213.4	213.4
60°	214.5	210.0	206.6	203.2	202.0	199.8	198.6	195.2	194.1	194.1
62.5°	196.4	194.1	189.6	185.0	183.9	182.7	180.5	179.3	177.1	177.1
65°	180.5	175.9	172.5	169.1	166.9	165.7	164.6	162.3	161.2	161.2
67.5°	164.6	160.0	156.6	153.2	152.1	149.8	148.7	148.7	147.6	146.4
70°	149.8	145.3	140.7	138.5	136.2	135.1	133.9	133.9	133.9	132.8
72.5°	133.9	130.5	127.1	124.9	123.7	122.6	121.5	121.5	120.3	120.3
75°	122.6	118.0	114.6	111.2	110.1	110.1	107.8	107.8	106.7	106.7
77.5°	109.0	104.4	101.0	97.6	95.3	95.3	94.2	91.9	90.8	90.8
80°	91.9	87.4	84.0	80.6	79.5	78.3	76.0	76.0	76.0	76.0
82.5°	72.6	69.2	64.7	62.4	61.3	60.2	59.0	59.0	59.0	57.9
85°	53.3	48.8	46.5	44.3	44.3	42.0	42.0	42.0	42.0	39.7
87.5°	27.2	25.0	23.8	22.7	22.7	22.7	21.6	20.4	21.6	20.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)