

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: P188153

Luminaire Tested: **24SR-LD2-53-UNV-EL14W-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188153
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-L840-CD1-U
Description: METALUX SKYRIDGE 2X4 TROFFER

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1281.3 lumens
Efficiency: N/A
Efficacy: 100.1 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

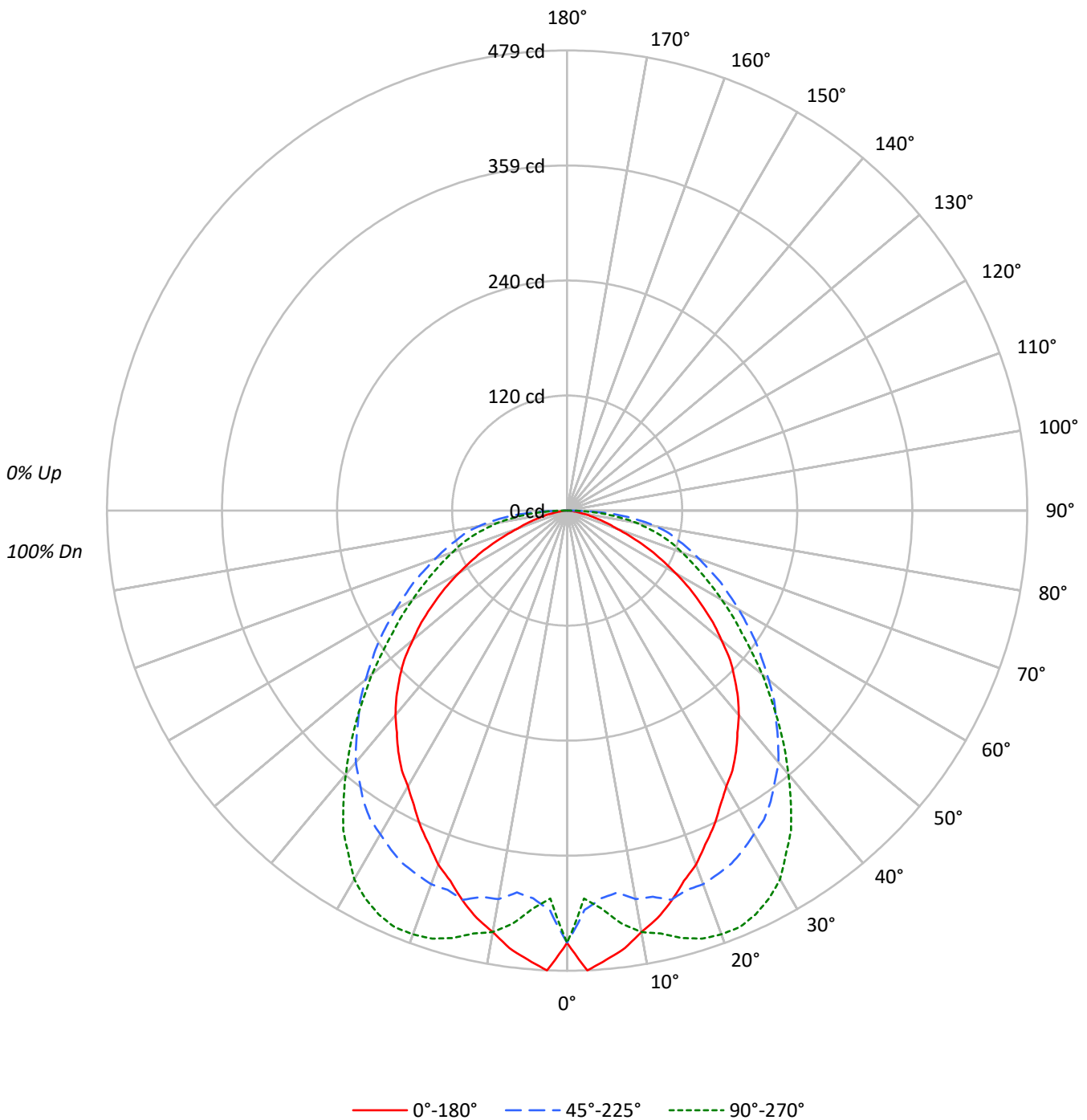
Input Watts (W): 12.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	605	605	605
5°	626	540	558
10°	593	546	601
15°	564	561	629
20°	533	561	655
25°	503	561	666
30°	475	555	661
35°	457	547	635
40°	435	532	593
45°	410	507	551
50°	374	484	511
55°	331	461	471
60°	280	438	444
65°	224	421	425
70°	156	402	417
75°	106	394	417
80°	60	386	399
85°	25	303	320



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.0	3.1
10°-20°	117.5	9.2
20°-30°	183.2	14.3
30°-40°	220.2	17.2
40°-50°	220.9	17.2
50°-60°	194.1	15.2
60°-70°	152.4	11.9
70°-80°	106.8	8.3
80°-90°	46.1	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°	340.7	26.6
0°-40°	561.0	43.8
0°-60°	976.0	76.2
0°-90°	1281.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1281.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	469	405	405	422	416	44
15°	420	369	419	453	461	118
25°	362	344	405	453	464	166
35°	306	306	369	402	406	191
45°	247	259	308	315	311	190
55°	171	206	240	230	222	152
65°	92	154	176	160	154	91
75°	32	105	120	105	102	35
85°	4	56	54	42	38	6
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°	449.8	449.8	449.8	449.8	449.8	449.8	449.8	449.8	449.8	449.8	449.8
2.5°	479.1	476.9	471.5	467.2	461.7	457.4	454.1	444.3	435.6	428.0	416.1
5°	469.3	462.8	447.6	432.4	412.8	405.2	400.9	395.4	396.5	400.9	405.2
7.5°	459.5	446.5	417.2	393.3	384.6	386.8	392.2	403.1	407.4	405.2	400.9
10°	445.4	427.0	388.9	373.7	385.7	392.2	397.6	395.4	393.3	400.9	410.7
12.5°	434.6	406.3	363.9	370.5	384.6	383.5	381.3	387.8	402.0	409.6	411.7
15°	420.4	383.5	349.8	368.3	368.3	369.4	375.9	394.4	398.7	408.5	419.4
17.5°	404.1	359.6	340.0	355.3	355.3	367.2	377.0	385.7	398.7	409.6	413.9
20°	392.2	337.9	333.5	339.0	353.1	363.9	368.3	383.5	394.4	403.1	413.9
22.5°	375.9	319.4	324.8	325.9	347.6	352.0	361.8	378.1	386.8	399.8	409.6
25°	361.8	302.0	311.8	319.4	334.6	344.4	355.3	367.2	381.3	392.2	405.2
27.5°	345.5	287.9	296.6	311.8	325.9	337.9	344.4	359.6	371.5	384.6	397.6
30°	331.4	275.9	282.5	302.0	319.4	327.0	334.6	349.8	365.0	375.9	388.9
32.5°	320.5	265.1	270.5	290.1	309.6	316.1	324.8	341.1	354.2	367.2	381.3
35°	306.4	256.4	261.8	280.3	297.7	306.4	314.0	330.3	344.4	357.4	369.4
37.5°	291.2	245.5	252.0	269.4	285.7	293.3	302.0	318.3	330.3	344.4	355.3
40°	278.1	236.8	243.4	259.6	274.9	282.5	291.2	305.3	318.3	330.3	342.2
42.5°	262.9	224.9	232.5	247.7	261.8	271.6	278.1	292.2	304.2	315.1	324.8
45°	246.6	211.8	219.5	233.6	249.9	258.6	265.1	280.3	290.1	299.8	307.5
47.5°	230.3	199.9	206.4	221.6	237.9	244.4	252.0	265.1	275.9	285.7	292.2
50°	209.7	185.8	193.4	209.7	224.9	232.5	240.1	253.1	261.8	268.3	273.8
52.5°	191.2	169.5	181.4	196.6	211.8	220.5	227.1	239.0	247.7	253.1	256.4
55°	170.6	156.4	167.3	183.6	198.8	206.4	214.0	224.9	232.5	237.9	240.1
57.5°	151.0	140.1	155.4	170.6	186.9	193.4	199.9	211.8	217.3	221.6	222.7
60°	130.4	123.8	140.1	157.5	172.7	180.3	186.9	195.6	201.0	206.4	206.4
62.5°	110.8	109.7	127.1	145.6	160.8	167.3	173.8	182.5	187.9	190.1	190.1
65°	92.3	96.7	115.2	133.6	147.8	154.3	159.7	168.4	173.8	176.0	176.0
67.5°	72.8	82.6	102.1	120.6	135.8	142.3	147.8	155.4	158.6	160.8	159.7
70°	55.4	69.5	90.2	109.7	123.8	129.3	134.7	142.3	145.6	147.8	145.6
72.5°	43.5	57.6	79.3	98.9	111.9	117.3	121.7	128.2	132.5	133.6	132.5
75°	31.5	47.8	70.6	88.0	101.0	105.4	109.7	116.2	120.6	121.7	119.5
77.5°	22.8	40.2	60.8	79.3	91.3	95.6	99.9	106.5	108.6	109.7	108.6
80°	14.1	31.5	51.1	68.4	78.2	83.7	86.9	92.3	95.6	96.7	93.4
82.5°	8.7	25.0	42.4	57.6	67.4	70.6	73.9	79.3	80.4	79.3	75.0
85°	4.3	19.6	33.7	45.6	54.3	56.5	58.7	60.8	60.8	59.8	54.3
87.5°	3.3	12.0	21.7	29.3	34.8	33.7	33.7	36.9	35.9	32.6	29.3
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°	449.8	449.8	449.8	449.8	449.8	449.8	449.8	449.8	449.8	449.8
2.5°	410.7	410.7	409.6	408.5	407.4	406.3	407.4	406.3	405.2	404.1
5°	410.7	417.2	419.4	421.5	421.5	421.5	420.4	419.4	418.3	416.1
7.5°	400.9	408.5	415.0	421.5	424.8	425.9	429.1	433.5	433.5	433.5
10°	418.3	425.9	428.0	432.4	434.6	436.7	440.0	444.3	444.3	445.4
12.5°	420.4	433.5	441.1	445.4	446.5	447.6	449.8	451.9	451.9	450.9
15°	427.0	433.5	443.3	450.9	453.0	455.2	459.5	461.7	460.6	460.6
17.5°	427.0	436.7	443.3	451.9	455.2	458.5	463.9	466.1	467.2	467.2
20°	423.7	436.7	446.5	453.0	456.3	458.5	463.9	468.2	468.2	469.3
22.5°	423.7	434.6	444.3	454.1	456.3	459.5	465.0	468.2	469.3	469.3
25°	418.3	430.2	438.9	449.8	453.0	457.4	461.7	463.9	463.9	463.9
27.5°	412.8	424.8	434.6	441.1	444.3	446.5	451.9	454.1	455.2	455.2
30°	405.2	415.0	423.7	431.3	433.5	435.6	440.0	442.2	443.3	443.3
32.5°	394.4	404.1	411.7	418.3	419.4	421.5	423.7	424.8	424.8	423.7
35°	382.4	390.0	397.6	399.8	402.0	403.1	405.2	406.3	405.2	406.3
37.5°	366.1	371.5	377.0	380.2	381.3	382.4	385.7	383.5	382.4	382.4
40°	348.7	355.3	357.4	359.6	359.6	359.6	361.8	360.7	358.5	358.5
42.5°	331.4	334.6	337.9	337.9	337.9	336.8	336.8	336.8	336.8	334.6
45°	312.9	315.1	315.1	315.1	315.1	315.1	312.9	312.9	310.7	310.7
47.5°	295.5	295.5	295.5	294.4	293.3	292.2	292.2	289.0	289.0	286.8
50°	274.9	275.9	274.9	272.7	271.6	269.4	268.3	266.2	265.1	265.1
52.5°	257.5	257.5	254.2	253.1	249.9	249.9	247.7	245.5	243.4	242.3
55°	240.1	239.0	235.7	232.5	230.3	230.3	227.1	223.8	223.8	221.6
57.5°	223.8	221.6	217.3	212.9	210.8	210.8	207.5	205.3	204.2	204.2
60°	205.3	201.0	197.7	194.5	193.4	191.2	190.1	186.9	185.8	185.8
62.5°	187.9	185.8	181.4	177.1	176.0	174.9	172.7	171.7	169.5	169.5
65°	172.7	168.4	165.1	161.9	159.7	158.6	157.5	155.4	154.3	154.3
67.5°	157.5	153.2	149.9	146.7	145.6	143.4	142.3	142.3	141.2	140.1
70°	143.4	139.1	134.7	132.5	130.4	129.3	128.2	128.2	128.2	127.1
72.5°	128.2	124.9	121.7	119.5	118.4	117.3	116.2	116.2	115.2	115.2
75°	117.3	113.0	109.7	106.5	105.4	105.4	103.2	103.2	102.1	102.1
77.5°	104.3	99.9	96.7	93.4	91.3	91.3	90.2	88.0	86.9	86.9
80°	88.0	83.7	80.4	77.1	76.0	75.0	72.8	72.8	72.8	72.8
82.5°	69.5	66.3	61.9	59.8	58.7	57.6	56.5	56.5	56.5	55.4
85°	51.1	46.7	44.5	42.4	42.4	40.2	40.2	40.2	40.2	38.0
87.5°	26.1	23.9	22.8	21.7	21.7	21.7	20.6	19.6	20.6	19.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)