

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: P188121

Luminaire Tested: **24SR-LD2-53-UNV-EL14W-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188121
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-L830-CD1-U
Description: METALUX SKYRIDGE 2X4 TROFFER

Light Source: EATON LED 3000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1210.2 lumens
Efficiency: N/A
Efficacy: 94.5 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

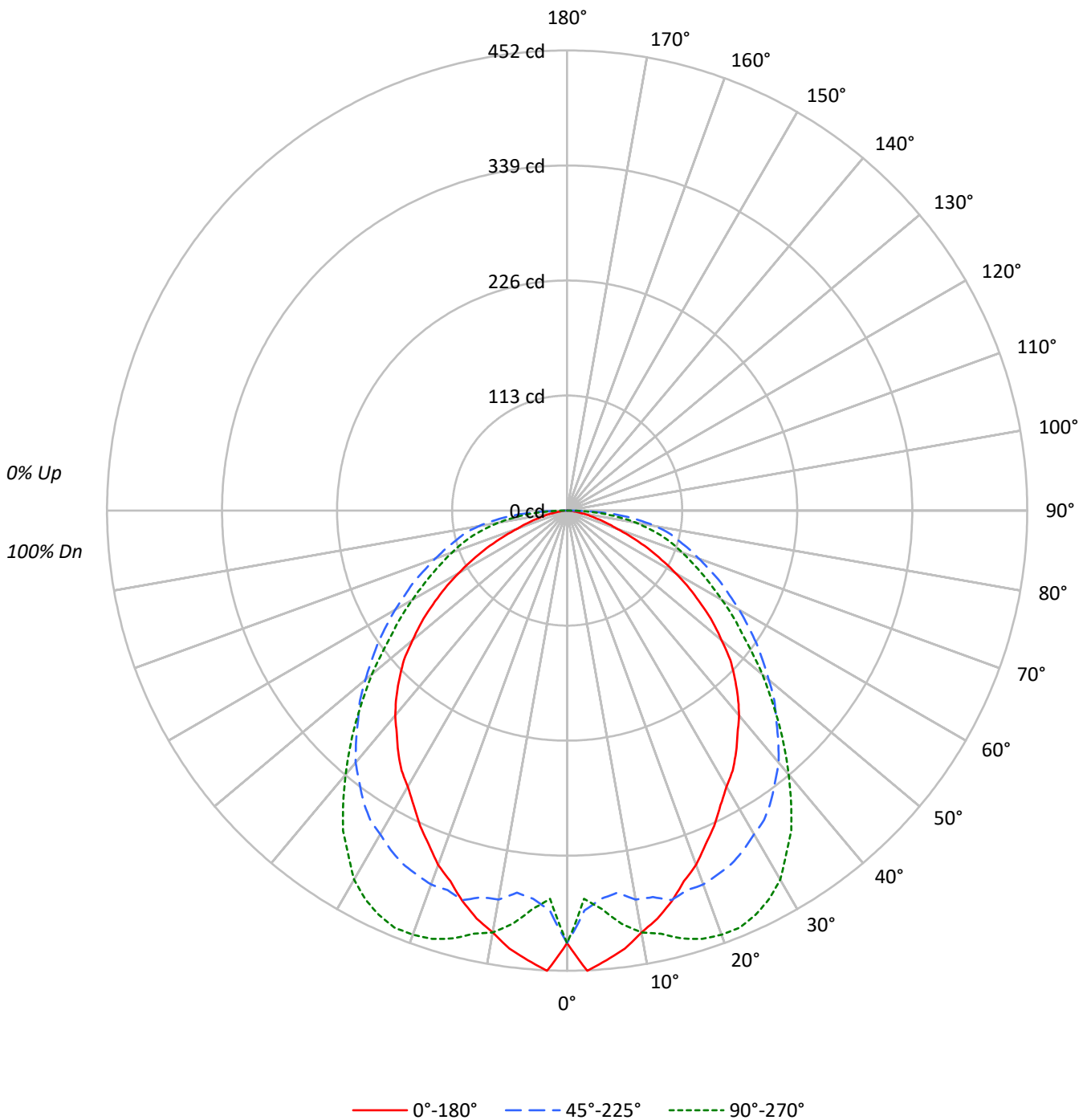
Input Watts (W): 12.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	572	572	572
5°	591	510	527
10°	560	516	567
15°	532	530	594
20°	504	530	618
25°	475	530	629
30°	449	524	624
35°	431	517	600
40°	411	502	560
45°	387	479	521
50°	353	457	482
55°	313	436	445
60°	264	414	419
65°	211	397	401
70°	147	380	394
75°	100	372	394
80°	56	364	377
85°	24	286	302



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	3.1
10°-20°	111.0	9.2
20°-30°	173.0	14.3
30°-40°	208.0	17.2
40°-50°	208.6	17.2
50°-60°	183.4	15.2
60°-70°	144.0	11.9
70°-80°	100.8	8.3
80°-90°	43.5	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°	321.8	26.6
0°-40°	529.8	43.8
0°-60°	921.8	76.2
0°-90°	1210.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1210.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	425	425	425	425	425	
5°	443	383	383	398	393	42
15°	397	349	396	428	435	112
25°	342	325	383	428	438	157
35°	289	289	349	380	384	181
45°	233	244	290	298	294	179
55°	161	195	227	218	209	144
65°	87	146	166	151	146	86
75°	30	100	113	100	96	33
85°	4	53	51	40	36	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°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	452.5	450.5	445.3	441.2	436.1	432.0	428.9	419.7	411.5	404.3	393.0
5°	443.3	437.1	422.8	408.4	389.9	382.7	378.6	373.5	374.5	378.6	382.7
7.5°	434.0	421.7	394.0	371.4	363.2	365.3	370.4	380.7	384.8	382.7	378.6
10°	420.7	403.3	367.3	353.0	364.3	370.4	375.6	373.5	371.4	378.6	387.9
12.5°	410.4	383.8	343.7	349.9	363.2	362.2	360.2	366.3	379.7	386.8	388.9
15°	397.1	362.2	330.4	347.8	347.8	348.9	355.0	372.5	376.6	385.8	396.1
17.5°	381.7	339.6	321.2	335.5	335.5	346.8	356.1	364.3	376.6	386.8	390.9
20°	370.4	319.1	315.0	320.1	333.5	343.7	347.8	362.2	372.5	380.7	390.9
22.5°	355.0	301.7	306.8	307.8	328.4	332.5	341.7	357.1	365.3	377.6	386.8
25°	341.7	285.3	294.5	301.7	316.0	325.3	335.5	346.8	360.2	370.4	382.7
27.5°	326.3	271.9	280.1	294.5	307.8	319.1	325.3	339.6	350.9	363.2	375.6
30°	313.0	260.6	266.8	285.3	301.7	308.9	316.0	330.4	344.8	355.0	367.3
32.5°	302.7	250.4	255.5	274.0	292.4	298.6	306.8	322.2	334.5	346.8	360.2
35°	289.4	242.2	247.3	264.7	281.2	289.4	296.5	311.9	325.3	337.6	348.9
37.5°	275.0	231.9	238.1	254.5	269.9	277.0	285.3	300.6	311.9	325.3	335.5
40°	262.7	223.7	229.8	245.2	259.6	266.8	275.0	288.3	300.6	311.9	323.2
42.5°	248.3	212.4	219.6	234.0	247.3	256.5	262.7	276.0	287.3	297.6	306.8
45°	232.9	200.1	207.3	220.6	236.0	244.2	250.4	264.7	274.0	283.2	290.4
47.5°	217.5	188.8	195.0	209.3	224.7	230.9	238.1	250.4	260.6	269.9	276.0
50°	198.0	175.5	182.6	198.0	212.4	219.6	226.8	239.1	247.3	253.4	258.6
52.5°	180.6	160.1	171.4	185.7	200.1	208.3	214.5	225.7	234.0	239.1	242.2
55°	161.1	147.8	158.0	173.4	187.8	195.0	202.1	212.4	219.6	224.7	226.8
57.5°	142.6	132.4	146.7	161.1	176.5	182.6	188.8	200.1	205.2	209.3	210.4
60°	123.1	117.0	132.4	148.8	163.2	170.3	176.5	184.7	189.8	195.0	195.0
62.5°	104.7	103.6	120.1	137.5	151.9	158.0	164.2	172.4	177.5	179.6	179.6
65°	87.2	91.3	108.8	126.2	139.5	145.7	150.8	159.0	164.2	166.2	166.2
67.5°	68.7	78.0	96.5	113.9	128.3	134.4	139.5	146.7	149.8	151.9	150.8
70°	52.3	65.7	85.2	103.6	117.0	122.1	127.2	134.4	137.5	139.5	137.5
72.5°	41.0	54.4	74.9	93.4	105.7	110.8	114.9	121.1	125.2	126.2	125.2
75°	29.8	45.1	66.7	83.1	95.4	99.5	103.6	109.8	113.9	114.9	112.9
77.5°	21.5	38.0	57.5	74.9	86.2	90.3	94.4	100.6	102.6	103.6	102.6
80°	13.3	29.8	48.2	64.6	73.9	79.0	82.1	87.2	90.3	91.3	88.2
82.5°	8.2	23.6	40.0	54.4	63.6	66.7	69.8	74.9	75.9	74.9	70.8
85°	4.1	18.5	31.8	43.1	51.3	53.4	55.4	57.5	57.5	56.4	51.3
87.5°	3.1	11.3	20.5	27.7	32.8	31.8	31.8	34.9	33.9	30.8	27.7
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	387.9	387.9	386.8	385.8	384.8	383.8	384.8	383.8	382.7	381.7
5°	387.9	394.0	396.1	398.1	398.1	398.1	397.1	396.1	395.0	393.0
7.5°	378.6	385.8	392.0	398.1	401.2	402.2	405.3	409.4	409.4	409.4
10°	395.0	402.2	404.3	408.4	410.4	412.5	415.6	419.7	419.7	420.7
12.5°	397.1	409.4	416.6	420.7	421.7	422.8	424.8	426.9	426.9	425.8
15°	403.3	409.4	418.6	425.8	427.9	429.9	434.0	436.1	435.1	435.1
17.5°	403.3	412.5	418.6	426.9	429.9	433.0	438.1	440.2	441.2	441.2
20°	400.2	412.5	421.7	427.9	431.0	433.0	438.1	442.3	442.3	443.3
22.5°	400.2	410.4	419.7	428.9	431.0	434.0	439.2	442.3	443.3	443.3
25°	395.0	406.3	414.5	424.8	427.9	432.0	436.1	438.1	438.1	438.1
27.5°	389.9	401.2	410.4	416.6	419.7	421.7	426.9	428.9	429.9	429.9
30°	382.7	392.0	400.2	407.4	409.4	411.5	415.6	417.6	418.6	418.6
32.5°	372.5	381.7	388.9	395.0	396.1	398.1	400.2	401.2	401.2	400.2
35°	361.2	368.4	375.6	377.6	379.7	380.7	382.7	383.8	382.7	383.8
37.5°	345.8	350.9	356.1	359.1	360.2	361.2	364.3	362.2	361.2	361.2
40°	329.4	335.5	337.6	339.6	339.6	339.6	341.7	340.7	338.6	338.6
42.5°	313.0	316.0	319.1	319.1	319.1	318.1	318.1	318.1	318.1	316.0
45°	295.5	297.6	297.6	297.6	297.6	297.6	295.5	295.5	293.5	293.5
47.5°	279.1	279.1	279.1	278.1	277.0	276.0	276.0	272.9	272.9	270.9
50°	259.6	260.6	259.6	257.6	256.5	254.5	253.4	251.4	250.4	250.4
52.5°	243.2	243.2	240.1	239.1	236.0	236.0	234.0	231.9	229.8	228.8
55°	226.8	225.7	222.7	219.6	217.5	217.5	214.5	211.4	211.4	209.3
57.5°	211.4	209.3	205.2	201.1	199.1	199.1	196.0	193.9	192.9	192.9
60°	193.9	189.8	186.8	183.7	182.6	180.6	179.6	176.5	175.5	175.5
62.5°	177.5	175.5	171.4	167.3	166.2	165.2	163.2	162.1	160.1	160.1
65°	163.2	159.0	156.0	152.9	150.8	149.8	148.8	146.7	145.7	145.7
67.5°	148.8	144.7	141.6	138.5	137.5	135.4	134.4	134.4	133.4	132.4
70°	135.4	131.3	127.2	125.2	123.1	122.1	121.1	121.1	121.1	120.1
72.5°	121.1	118.0	114.9	112.9	111.8	110.8	109.8	109.8	108.8	108.8
75°	110.8	106.7	103.6	100.6	99.5	99.5	97.5	97.5	96.5	96.5
77.5°	98.5	94.4	91.3	88.2	86.2	86.2	85.2	83.1	82.1	82.1
80°	83.1	79.0	75.9	72.9	71.8	70.8	68.7	68.7	68.7	68.7
82.5°	65.7	62.6	58.5	56.4	55.4	54.4	53.4	53.4	53.4	52.3
85°	48.2	44.1	42.1	40.0	40.0	38.0	38.0	38.0	38.0	35.9
87.5°	24.6	22.6	21.5	20.5	20.5	20.5	19.5	18.5	19.5	18.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)