

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: P188131

Luminaire Tested: **24SR-LD2-39-UNV-EL14W-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188131
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-LD2-39-UNV-EL14W-L835-CD1-U
Description: METALUX SKYRIDGE 2X4 TROFFER

Light Source: EATON LED 3500K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1247.6 lumens
Efficiency: N/A
Efficacy: 97.5 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

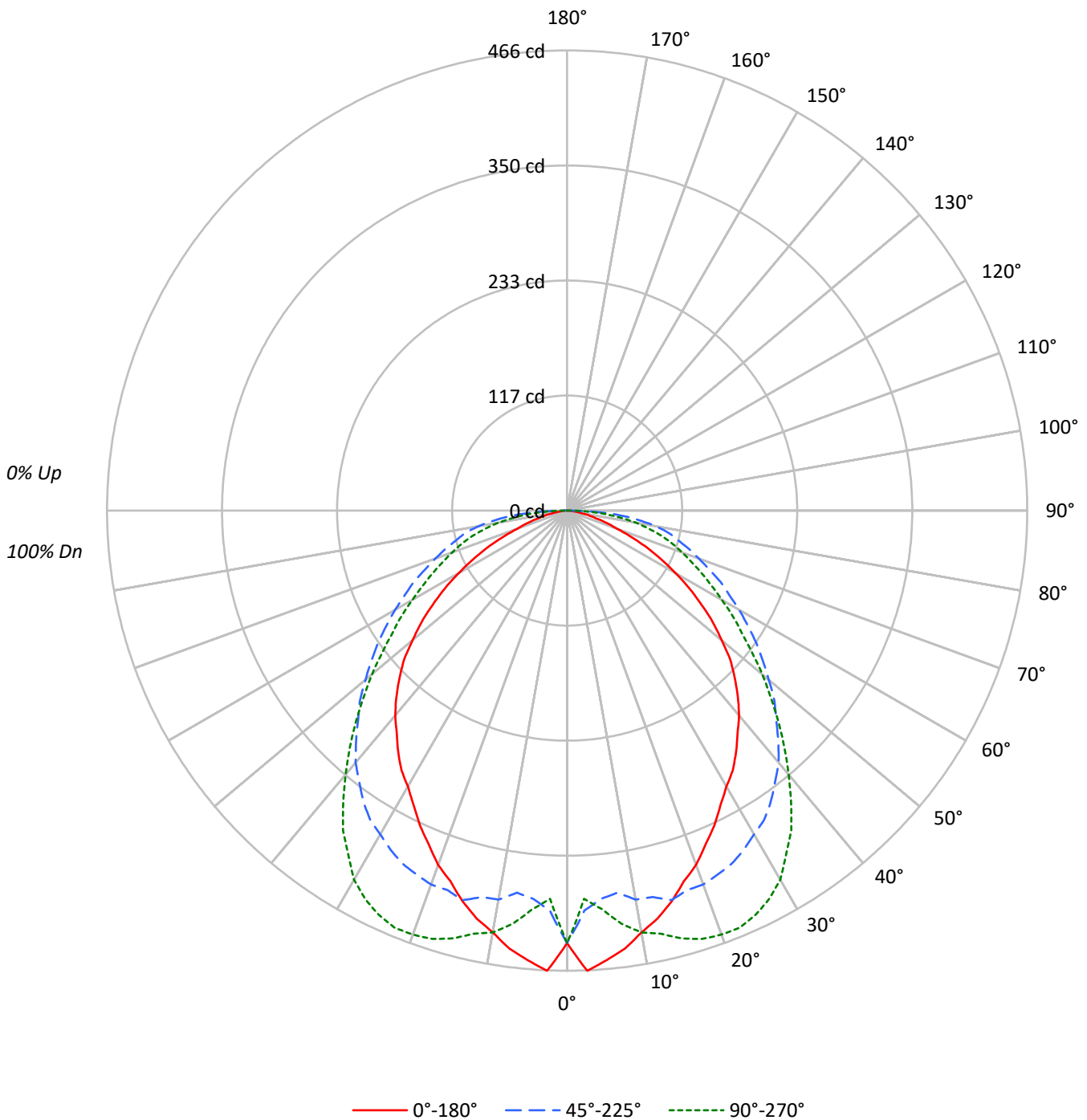
Input Watts (W): 12.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	589	589	589
5°	609	526	544
10°	578	532	585
15°	549	546	613
20°	519	546	637
25°	490	546	649
30°	462	540	643
35°	445	533	618
40°	424	518	578
45°	399	493	536
50°	364	471	497
55°	322	449	458
60°	273	427	432
65°	218	410	414
70°	151	391	406
75°	103	384	406
80°	59	376	389
85°	24	295	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.0	3.1
10°-20°	114.5	9.2
20°-30°	178.4	14.3
30°-40°	214.5	17.2
40°-50°	215.1	17.2
50°-60°	189.0	15.2
60°-70°	148.4	11.9
70°-80°	104.0	8.3
80°-90°	44.9	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°	331.8	26.6
0°-40°	546.2	43.8
0°-60°	950.4	76.2
0°-90°	1247.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1247.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	438	438	438	438	438	
5°	457	395	395	410	405	43
15°	409	360	408	441	448	115
25°	352	335	395	441	452	162
35°	298	298	360	391	396	186
45°	240	252	299	307	302	185
55°	166	201	234	224	216	148
65°	90	150	171	156	150	89
75°	31	103	116	103	99	34
85°	4	55	53	41	37	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°	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9
2.5°	466.5	464.4	459.1	454.9	449.6	445.3	442.2	432.7	424.2	416.8	405.2
5°	457.0	450.6	435.8	421.0	402.0	394.6	390.3	385.1	386.1	390.3	394.6
7.5°	447.5	434.8	406.2	382.9	374.5	376.6	381.9	392.5	396.7	394.6	390.3
10°	433.7	415.7	378.7	363.9	375.5	381.9	387.2	385.1	382.9	390.3	399.9
12.5°	423.1	395.6	354.4	360.7	374.5	373.4	371.3	377.6	391.4	398.8	400.9
15°	409.4	373.4	340.6	358.6	358.6	359.7	366.0	384.0	388.2	397.7	408.3
17.5°	393.5	350.1	331.1	345.9	345.9	357.5	367.1	375.5	388.2	398.8	403.0
20°	381.9	329.0	324.8	330.0	343.8	354.4	358.6	373.4	384.0	392.5	403.0
22.5°	366.0	311.0	316.3	317.4	338.5	342.7	352.3	368.1	376.6	389.3	398.8
25°	352.3	294.1	303.6	311.0	325.8	335.3	345.9	357.5	371.3	381.9	394.6
27.5°	336.4	280.3	288.8	303.6	317.4	329.0	335.3	350.1	361.8	374.5	387.2
30°	322.6	268.7	275.0	294.1	311.0	318.4	325.8	340.6	355.4	366.0	378.7
32.5°	312.1	258.1	263.4	282.4	301.5	307.8	316.3	332.2	344.9	357.5	371.3
35°	298.3	249.6	254.9	272.9	289.8	298.3	305.7	321.6	335.3	348.0	359.7
37.5°	283.5	239.1	245.4	262.3	278.2	285.6	294.1	309.9	321.6	335.3	345.9
40°	270.8	230.6	237.0	252.8	267.6	275.0	283.5	297.3	309.9	321.6	333.2
42.5°	256.0	219.0	226.4	241.2	254.9	264.5	270.8	284.6	296.2	306.8	316.3
45°	240.1	206.3	213.7	227.4	243.3	251.8	258.1	272.9	282.4	292.0	299.4
47.5°	224.3	194.6	201.0	215.8	231.7	238.0	245.4	258.1	268.7	278.2	284.6
50°	204.2	180.9	188.3	204.2	219.0	226.4	233.8	246.5	254.9	261.3	266.6
52.5°	186.2	165.0	176.7	191.5	206.3	214.7	221.1	232.7	241.2	246.5	249.6
55°	166.1	152.3	162.9	178.8	193.6	201.0	208.4	219.0	226.4	231.7	233.8
57.5°	147.0	136.5	151.3	166.1	181.9	188.3	194.6	206.3	211.6	215.8	216.9
60°	126.9	120.6	136.5	153.4	168.2	175.6	181.9	190.4	195.7	201.0	201.0
62.5°	107.9	106.8	123.8	141.8	156.6	162.9	169.3	177.7	183.0	185.1	185.1
65°	89.9	94.1	112.1	130.1	143.9	150.2	155.5	164.0	169.3	171.4	171.4
67.5°	70.9	80.4	99.4	117.4	132.2	138.6	143.9	151.3	154.4	156.6	155.5
70°	53.9	67.7	87.8	106.8	120.6	125.9	131.2	138.6	141.8	143.9	141.8
72.5°	42.3	56.1	77.2	96.3	109.0	114.2	118.5	124.8	129.1	130.1	129.1
75°	30.7	46.5	68.8	85.7	98.4	102.6	106.8	113.2	117.4	118.5	116.4
77.5°	22.2	39.1	59.2	77.2	88.9	93.1	97.3	103.7	105.8	106.8	105.8
80°	13.8	30.7	49.7	66.6	76.2	81.5	84.6	89.9	93.1	94.1	91.0
82.5°	8.5	24.3	41.3	56.1	65.6	68.8	71.9	77.2	78.3	77.2	73.0
85°	4.2	19.0	32.8	44.4	52.9	55.0	57.1	59.2	59.2	58.2	52.9
87.5°	3.2	11.6	21.2	28.6	33.9	32.8	32.8	36.0	34.9	31.7	28.6
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°	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9
2.5°	399.9	399.9	398.8	397.7	396.7	395.6	396.7	395.6	394.6	393.5
5°	399.9	406.2	408.3	410.4	410.4	410.4	409.4	408.3	407.3	405.2
7.5°	390.3	397.7	404.1	410.4	413.6	414.7	417.8	422.1	422.1	422.1
10°	407.3	414.7	416.8	421.0	423.1	425.3	428.4	432.7	432.7	433.7
12.5°	409.4	422.1	429.5	433.7	434.8	435.8	437.9	440.1	440.1	439.0
15°	415.7	422.1	431.6	439.0	441.1	443.2	447.5	449.6	448.5	448.5
17.5°	415.7	425.3	431.6	440.1	443.2	446.4	451.7	453.8	454.9	454.9
20°	412.6	425.3	434.8	441.1	444.3	446.4	451.7	455.9	455.9	457.0
22.5°	412.6	423.1	432.7	442.2	444.3	447.5	452.8	455.9	457.0	457.0
25°	407.3	418.9	427.4	437.9	441.1	445.3	449.6	451.7	451.7	451.7
27.5°	402.0	413.6	423.1	429.5	432.7	434.8	440.1	442.2	443.2	443.2
30°	394.6	404.1	412.6	420.0	422.1	424.2	428.4	430.5	431.6	431.6
32.5°	384.0	393.5	400.9	407.3	408.3	410.4	412.6	413.6	413.6	412.6
35°	372.4	379.8	387.2	389.3	391.4	392.5	394.6	395.6	394.6	395.6
37.5°	356.5	361.8	367.1	370.2	371.3	372.4	375.5	373.4	372.4	372.4
40°	339.6	345.9	348.0	350.1	350.1	350.1	352.3	351.2	349.1	349.1
42.5°	322.6	325.8	329.0	329.0	329.0	327.9	327.9	327.9	327.9	325.8
45°	304.7	306.8	306.8	306.8	306.8	306.8	304.7	304.7	302.5	302.5
47.5°	287.7	287.7	287.7	286.7	285.6	284.6	284.6	281.4	281.4	279.3
50°	267.6	268.7	267.6	265.5	264.5	262.3	261.3	259.2	258.1	258.1
52.5°	250.7	250.7	247.5	246.5	243.3	243.3	241.2	239.1	237.0	235.9
55°	233.8	232.7	229.6	226.4	224.3	224.3	221.1	217.9	217.9	215.8
57.5°	217.9	215.8	211.6	207.3	205.2	205.2	202.0	199.9	198.9	198.9
60°	199.9	195.7	192.5	189.4	188.3	186.2	185.1	181.9	180.9	180.9
62.5°	183.0	180.9	176.7	172.4	171.4	170.3	168.2	167.1	165.0	165.0
65°	168.2	164.0	160.8	157.6	155.5	154.4	153.4	151.3	150.2	150.2
67.5°	153.4	149.2	146.0	142.8	141.8	139.6	138.6	138.6	137.5	136.5
70°	139.6	135.4	131.2	129.1	126.9	125.9	124.8	124.8	124.8	123.8
72.5°	124.8	121.7	118.5	116.4	115.3	114.2	113.2	113.2	112.1	112.1
75°	114.2	110.0	106.8	103.7	102.6	102.6	100.5	100.5	99.4	99.4
77.5°	101.6	97.3	94.1	91.0	88.9	88.9	87.8	85.7	84.6	84.6
80°	85.7	81.5	78.3	75.1	74.0	73.0	70.9	70.9	70.9	70.9
82.5°	67.7	64.5	60.3	58.2	57.1	56.1	55.0	55.0	55.0	53.9
85°	49.7	45.5	43.4	41.3	41.3	39.1	39.1	39.1	39.1	37.0
87.5°	25.4	23.3	22.2	21.2	21.2	21.2	20.1	19.0	20.1	19.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)