

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: P188168

Luminaire Tested: **24SR-LD2-53-UNV-EL7W-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188168
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-EL7W-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: 672.2 lumens
Efficiency: N/A
Efficacy: 108.4 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

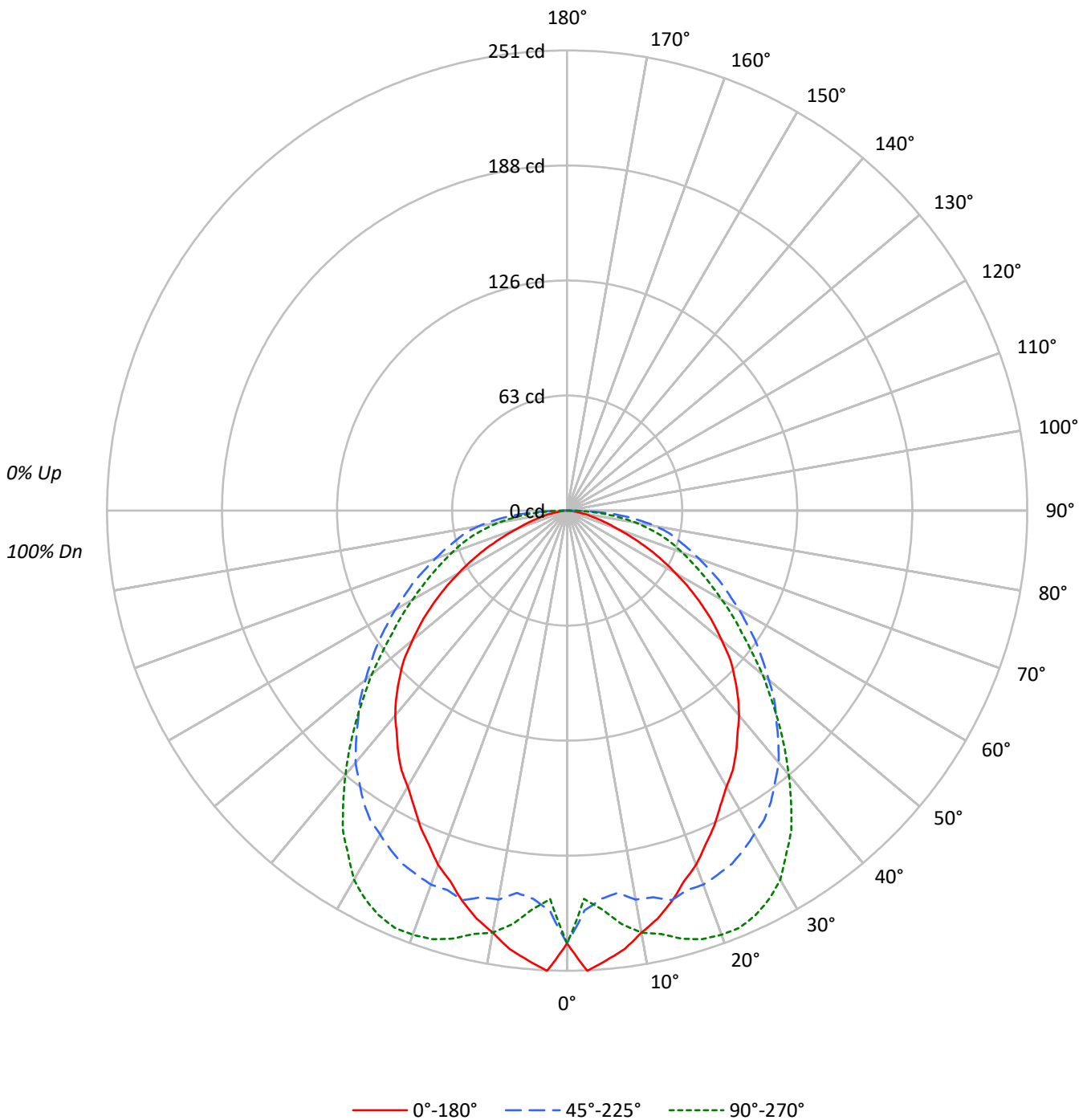
Input Watts (W): 6.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	318	318	318
5°	328	283	293
10°	311	286	315
15°	296	294	330
20°	280	294	343
25°	264	294	349
30°	249	291	347
35°	239	287	333
40°	228	279	311
45°	215	266	289
50°	196	254	268
55°	174	242	247
60°	147	230	233
65°	117	221	223
70°	82	211	219
75°	56	207	219
80°	31	202	209
85°	13	159	168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.0	3.1
10°-20°	61.7	9.2
20°-30°	96.1	14.3
30°-40°	115.5	17.2
40°-50°	115.9	17.2
50°-60°	101.9	15.2
60°-70°	80.0	11.9
70°-80°	56.0	8.3
80°-90°	24.2	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°	178.8	26.6
0°-40°	294.3	43.8
0°-60°	512.0	76.2
0°-90°	672.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	672.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	236	236	236	236	236	
5°	246	213	213	221	218	23
15°	221	194	220	238	242	62
25°	190	181	213	238	243	87
35°	161	161	194	211	213	100
45°	129	136	161	165	163	100
55°	90	108	126	121	116	80
65°	48	81	92	84	81	48
75°	16	55	63	55	54	18
85°	2	30	28	22	20	3
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°	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0
2.5°	251.3	250.2	247.4	245.1	242.2	239.9	238.2	233.1	228.5	224.6	218.3
5°	246.2	242.8	234.8	226.8	216.6	212.6	210.3	207.5	208.0	210.3	212.6
7.5°	241.1	234.2	218.9	206.3	201.8	202.9	205.7	211.4	213.7	212.6	210.3
10°	233.7	224.0	204.0	196.1	202.3	205.7	208.6	207.5	206.3	210.3	215.4
12.5°	228.0	213.2	190.9	194.3	201.8	201.2	200.0	203.5	210.9	214.9	216.0
15°	220.6	201.2	183.5	193.2	193.2	193.8	197.2	206.9	209.2	214.3	220.0
17.5°	212.0	188.6	178.4	186.4	186.4	192.6	197.8	202.3	209.2	214.9	217.1
20°	205.7	177.3	175.0	177.8	185.2	190.9	193.2	201.2	206.9	211.4	217.1
22.5°	197.2	167.6	170.4	171.0	182.4	184.7	189.8	198.3	202.9	209.7	214.9
25°	189.8	158.4	163.6	167.6	175.5	180.7	186.4	192.6	200.0	205.7	212.6
27.5°	181.2	151.0	155.6	163.6	171.0	177.3	180.7	188.6	194.9	201.8	208.6
30°	173.8	144.8	148.2	158.4	167.6	171.6	175.5	183.5	191.5	197.2	204.0
32.5°	168.1	139.1	141.9	152.2	162.4	165.9	170.4	179.0	185.8	192.6	200.0
35°	160.7	134.5	137.4	147.0	156.2	160.7	164.7	173.3	180.7	187.5	193.8
37.5°	152.7	128.8	132.2	141.3	149.9	153.9	158.4	167.0	173.3	180.7	186.4
40°	145.9	124.2	127.7	136.2	144.2	148.2	152.7	160.2	167.0	173.3	179.5
42.5°	137.9	118.0	122.0	129.9	137.4	142.5	145.9	153.3	159.6	165.3	170.4
45°	129.4	111.1	115.1	122.5	131.1	135.6	139.1	147.0	152.2	157.3	161.3
47.5°	120.8	104.9	108.3	116.3	124.8	128.2	132.2	139.1	144.8	149.9	153.3
50°	110.0	97.5	101.4	110.0	118.0	122.0	126.0	132.8	137.4	140.8	143.6
52.5°	100.3	88.9	95.2	103.2	111.1	115.7	119.1	125.4	129.9	132.8	134.5
55°	89.5	82.1	87.8	96.3	104.3	108.3	112.3	118.0	122.0	124.8	126.0
57.5°	79.2	73.5	81.5	89.5	98.0	101.4	104.9	111.1	114.0	116.3	116.8
60°	68.4	65.0	73.5	82.6	90.6	94.6	98.0	102.6	105.4	108.3	108.3
62.5°	58.1	57.6	66.7	76.4	84.4	87.8	91.2	95.7	98.6	99.7	99.7
65°	48.4	50.7	60.4	70.1	77.5	80.9	83.8	88.3	91.2	92.3	92.3
67.5°	38.2	43.3	53.6	63.3	71.2	74.7	77.5	81.5	83.2	84.4	83.8
70°	29.1	36.5	47.3	57.6	65.0	67.8	70.7	74.7	76.4	77.5	76.4
72.5°	22.8	30.2	41.6	51.9	58.7	61.6	63.8	67.3	69.5	70.1	69.5
75°	16.5	25.1	37.0	46.2	53.0	55.3	57.6	61.0	63.3	63.8	62.7
77.5°	12.0	21.1	31.9	41.6	47.9	50.2	52.4	55.9	57.0	57.6	57.0
80°	7.4	16.5	26.8	35.9	41.0	43.9	45.6	48.4	50.2	50.7	49.0
82.5°	4.6	13.1	22.2	30.2	35.3	37.0	38.8	41.6	42.2	41.6	39.3
85°	2.3	10.3	17.7	23.9	28.5	29.6	30.8	31.9	31.9	31.3	28.5
87.5°	1.7	6.3	11.4	15.4	18.2	17.7	17.7	19.4	18.8	17.1	15.4
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°	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0
2.5°	215.4	215.4	214.9	214.3	213.7	213.2	213.7	213.2	212.6	212.0
5°	215.4	218.9	220.0	221.1	221.1	221.1	220.6	220.0	219.4	218.3
7.5°	210.3	214.3	217.7	221.1	222.8	223.4	225.1	227.4	227.4	227.4
10°	219.4	223.4	224.6	226.8	228.0	229.1	230.8	233.1	233.1	233.7
12.5°	220.6	227.4	231.4	233.7	234.2	234.8	236.0	237.1	237.1	236.5
15°	224.0	227.4	232.5	236.5	237.7	238.8	241.1	242.2	241.7	241.7
17.5°	224.0	229.1	232.5	237.1	238.8	240.5	243.4	244.5	245.1	245.1
20°	222.3	229.1	234.2	237.7	239.4	240.5	243.4	245.6	245.6	246.2
22.5°	222.3	228.0	233.1	238.2	239.4	241.1	243.9	245.6	246.2	246.2
25°	219.4	225.7	230.3	236.0	237.7	239.9	242.2	243.4	243.4	243.4
27.5°	216.6	222.8	228.0	231.4	233.1	234.2	237.1	238.2	238.8	238.8
30°	212.6	217.7	222.3	226.3	227.4	228.5	230.8	232.0	232.5	232.5
32.5°	206.9	212.0	216.0	219.4	220.0	221.1	222.3	222.8	222.8	222.3
35°	200.6	204.6	208.6	209.7	210.9	211.4	212.6	213.2	212.6	213.2
37.5°	192.1	194.9	197.8	199.5	200.0	200.6	202.3	201.2	200.6	200.6
40°	182.9	186.4	187.5	188.6	188.6	188.6	189.8	189.2	188.1	188.1
42.5°	173.8	175.5	177.3	177.3	177.3	176.7	176.7	176.7	176.7	175.5
45°	164.1	165.3	165.3	165.3	165.3	165.3	164.1	164.1	163.0	163.0
47.5°	155.0	155.0	155.0	154.5	153.9	153.3	153.3	151.6	151.6	150.5
50°	144.2	144.8	144.2	143.1	142.5	141.3	140.8	139.6	139.1	139.1
52.5°	135.1	135.1	133.4	132.8	131.1	131.1	129.9	128.8	127.7	127.1
55°	126.0	125.4	123.7	122.0	120.8	120.8	119.1	117.4	117.4	116.3
57.5°	117.4	116.3	114.0	111.7	110.6	110.6	108.9	107.7	107.1	107.1
60°	107.7	105.4	103.7	102.0	101.4	100.3	99.7	98.0	97.5	97.5
62.5°	98.6	97.5	95.2	92.9	92.3	91.8	90.6	90.1	88.9	88.9
65°	90.6	88.3	86.6	84.9	83.8	83.2	82.6	81.5	80.9	80.9
67.5°	82.6	80.4	78.7	76.9	76.4	75.2	74.7	74.7	74.1	73.5
70°	75.2	73.0	70.7	69.5	68.4	67.8	67.3	67.3	67.3	66.7
72.5°	67.3	65.5	63.8	62.7	62.1	61.6	61.0	61.0	60.4	60.4
75°	61.6	59.3	57.6	55.9	55.3	55.3	54.1	54.1	53.6	53.6
77.5°	54.7	52.4	50.7	49.0	47.9	47.9	47.3	46.2	45.6	45.6
80°	46.2	43.9	42.2	40.5	39.9	39.3	38.2	38.2	38.2	38.2
82.5°	36.5	34.8	32.5	31.3	30.8	30.2	29.6	29.6	29.6	29.1
85°	26.8	24.5	23.4	22.2	22.2	21.1	21.1	21.1	21.1	19.9
87.5°	13.7	12.5	12.0	11.4	11.4	11.4	10.8	10.3	10.8	10.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)