

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: P188146

Luminaire Tested: **24SR-LD2-39-UNV-EL7W-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188146
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-EL7W-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: 643.4 lumens
Efficiency: N/A
Efficacy: 103.8 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

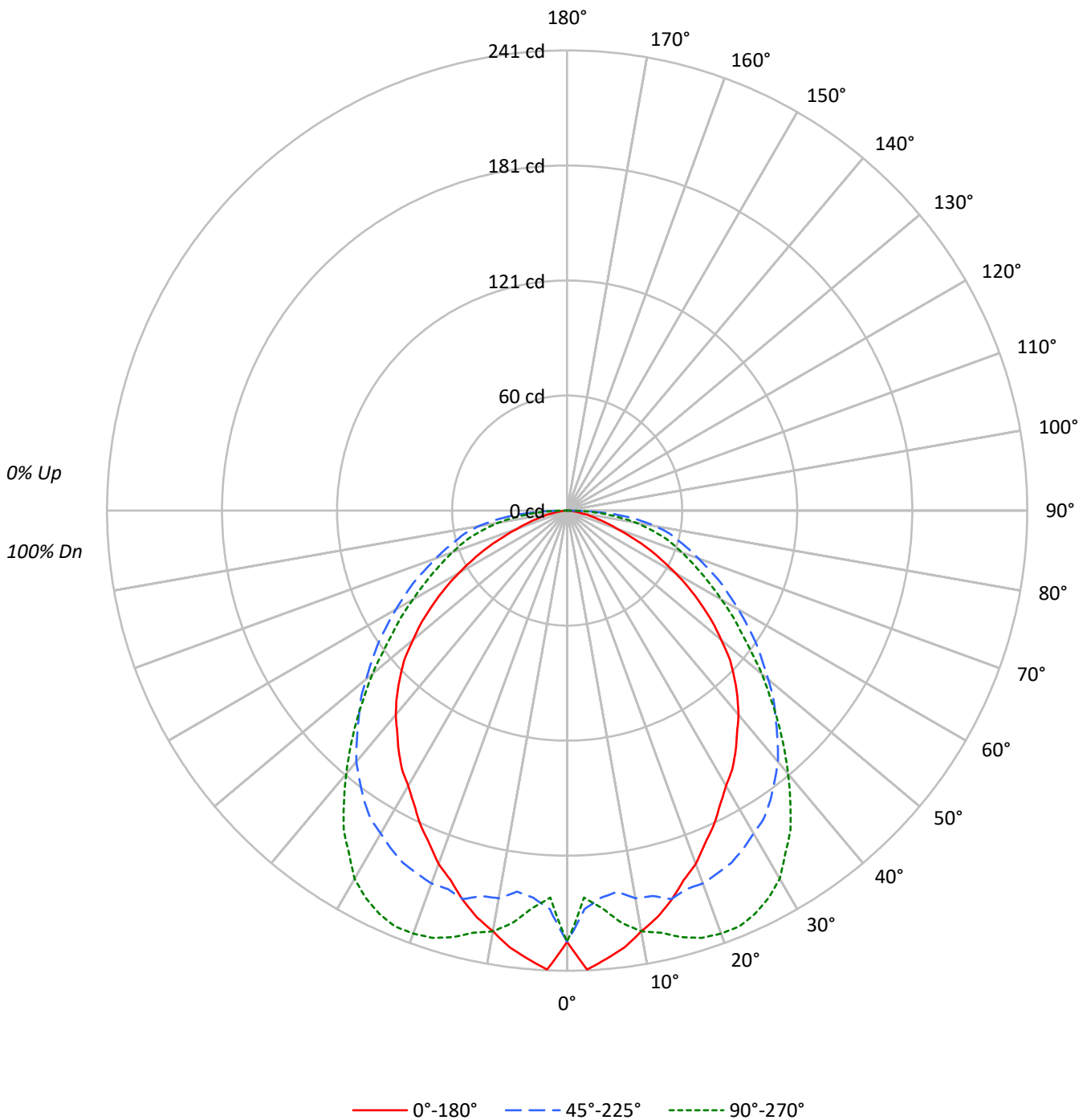
Input Watts (W): 6.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	304	304	304
5°	314	271	280
10°	298	274	302
15°	283	282	316
20°	268	282	329
25°	253	282	334
30°	238	279	332
35°	229	275	319
40°	218	267	298
45°	206	254	277
50°	188	243	256
55°	166	232	236
60°	141	220	223
65°	113	211	213
70°	78	202	209
75°	53	198	210
80°	30	194	200
85°	13	152	161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.1	3.1
10°-20°	59.0	9.2
20°-30°	92.0	14.3
30°-40°	110.6	17.2
40°-50°	110.9	17.2
50°-60°	97.5	15.2
60°-70°	76.5	11.9
70°-80°	53.6	8.3
80°-90°	23.1	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°	171.1	26.6
0°-40°	281.7	43.8
0°-60°	490.1	76.2
0°-90°	643.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	643.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	226	226	226	226	226	
5°	236	204	204	212	209	22
15°	211	186	211	228	231	59
25°	182	173	204	228	233	84
35°	154	154	186	202	204	96
45°	124	130	154	158	156	95
55°	86	104	121	116	111	77
65°	46	78	88	80	78	46
75°	16	53	60	53	51	18
85°	2	28	27	21	19	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°	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8
2.5°	240.6	239.5	236.7	234.6	231.8	229.7	228.0	223.1	218.7	214.9	208.9
5°	235.7	232.4	224.7	217.1	207.3	203.5	201.3	198.6	199.1	201.3	203.5
7.5°	230.7	224.2	209.5	197.5	193.1	194.2	196.9	202.4	204.6	203.5	201.3
10°	223.7	214.4	195.3	187.7	193.7	196.9	199.7	198.6	197.5	201.3	206.2
12.5°	218.2	204.0	182.7	186.0	193.1	192.6	191.5	194.7	201.8	205.7	206.7
15°	211.1	192.6	175.7	184.9	184.9	185.5	188.7	198.0	200.2	205.1	210.6
17.5°	202.9	180.6	170.7	178.4	178.4	184.4	189.3	193.7	200.2	205.7	207.8
20°	196.9	169.7	167.5	170.2	177.3	182.7	184.9	192.6	198.0	202.4	207.8
22.5°	188.7	160.4	163.1	163.7	174.6	176.7	181.7	189.8	194.2	200.7	205.7
25°	181.7	151.6	156.6	160.4	168.0	172.9	178.4	184.4	191.5	196.9	203.5
27.5°	173.5	144.6	148.9	156.6	163.7	169.7	172.9	180.6	186.6	193.1	199.7
30°	166.4	138.6	141.8	151.6	160.4	164.2	168.0	175.7	183.3	188.7	195.3
32.5°	160.9	133.1	135.8	145.6	155.5	158.7	163.1	171.3	177.8	184.4	191.5
35°	153.8	128.7	131.5	140.7	149.5	153.8	157.7	165.8	172.9	179.5	185.5
37.5°	146.2	123.3	126.6	135.3	143.5	147.3	151.6	159.8	165.8	172.9	178.4
40°	139.6	118.9	122.2	130.4	138.0	141.8	146.2	153.3	159.8	165.8	171.8
42.5°	132.0	112.9	116.7	124.4	131.5	136.4	139.6	146.7	152.7	158.2	163.1
45°	123.8	106.4	110.2	117.3	125.5	129.8	133.1	140.7	145.6	150.6	154.4
47.5°	115.6	100.4	103.6	111.3	119.5	122.7	126.6	133.1	138.6	143.5	146.7
50°	105.3	93.3	97.1	105.3	112.9	116.7	120.6	127.1	131.5	134.7	137.5
52.5°	96.0	85.1	91.1	98.7	106.4	110.7	114.0	120.0	124.4	127.1	128.7
55°	85.6	78.6	84.0	92.2	99.8	103.6	107.5	112.9	116.7	119.5	120.6
57.5°	75.8	70.4	78.0	85.6	93.8	97.1	100.4	106.4	109.1	111.3	111.8
60°	65.5	62.2	70.4	79.1	86.7	90.6	93.8	98.2	100.9	103.6	103.6
62.5°	55.6	55.1	63.8	73.1	80.7	84.0	87.3	91.6	94.4	95.5	95.5
65°	46.4	48.5	57.8	67.1	74.2	77.5	80.2	84.6	87.3	88.4	88.4
67.5°	36.5	41.5	51.3	60.6	68.2	71.5	74.2	78.0	79.6	80.7	80.2
70°	27.8	34.9	45.3	55.1	62.2	64.9	67.6	71.5	73.1	74.2	73.1
72.5°	21.8	28.9	39.8	49.6	56.2	58.9	61.1	64.4	66.6	67.1	66.6
75°	15.8	24.0	35.5	44.2	50.7	52.9	55.1	58.4	60.6	61.1	60.0
77.5°	11.5	20.2	30.5	39.8	45.8	48.0	50.2	53.5	54.6	55.1	54.6
80°	7.1	15.8	25.6	34.4	39.3	42.0	43.6	46.4	48.0	48.5	46.9
82.5°	4.4	12.5	21.3	28.9	33.8	35.5	37.1	39.8	40.4	39.8	37.6
85°	2.2	9.8	16.9	22.9	27.3	28.4	29.5	30.5	30.5	30.0	27.3
87.5°	1.6	6.0	10.9	14.7	17.5	16.9	16.9	18.5	18.0	16.4	14.7
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°	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8
2.5°	206.2	206.2	205.7	205.1	204.6	204.0	204.6	204.0	203.5	202.9
5°	206.2	209.5	210.6	211.7	211.7	211.7	211.1	210.6	210.0	208.9
7.5°	201.3	205.1	208.4	211.7	213.3	213.8	215.5	217.7	217.7	217.7
10°	210.0	213.8	214.9	217.1	218.2	219.3	220.9	223.1	223.1	223.7
12.5°	211.1	217.7	221.5	223.7	224.2	224.7	225.8	226.9	226.9	226.4
15°	214.4	217.7	222.6	226.4	227.5	228.6	230.7	231.8	231.3	231.3
17.5°	214.4	219.3	222.6	226.9	228.6	230.2	232.9	234.0	234.6	234.6
20°	212.7	219.3	224.2	227.5	229.1	230.2	232.9	235.1	235.1	235.7
22.5°	212.7	218.2	223.1	228.0	229.1	230.7	233.5	235.1	235.7	235.7
25°	210.0	216.0	220.4	225.8	227.5	229.7	231.8	232.9	232.9	232.9
27.5°	207.3	213.3	218.2	221.5	223.1	224.2	226.9	228.0	228.6	228.6
30°	203.5	208.4	212.7	216.6	217.7	218.7	220.9	222.0	222.6	222.6
32.5°	198.0	202.9	206.7	210.0	210.6	211.7	212.7	213.3	213.3	212.7
35°	192.0	195.8	199.7	200.7	201.8	202.4	203.5	204.0	203.5	204.0
37.5°	183.8	186.6	189.3	190.9	191.5	192.0	193.7	192.6	192.0	192.0
40°	175.1	178.4	179.5	180.6	180.6	180.6	181.7	181.1	180.0	180.0
42.5°	166.4	168.0	169.7	169.7	169.7	169.1	169.1	169.1	169.1	168.0
45°	157.1	158.2	158.2	158.2	158.2	158.2	157.1	157.1	156.0	156.0
47.5°	148.4	148.4	148.4	147.8	147.3	146.7	146.7	145.1	145.1	144.0
50°	138.0	138.6	138.0	136.9	136.4	135.3	134.7	133.6	133.1	133.1
52.5°	129.3	129.3	127.6	127.1	125.5	125.5	124.4	123.3	122.2	121.6
55°	120.6	120.0	118.4	116.7	115.6	115.6	114.0	112.4	112.4	111.3
57.5°	112.4	111.3	109.1	106.9	105.8	105.8	104.2	103.1	102.6	102.6
60°	103.1	100.9	99.3	97.6	97.1	96.0	95.5	93.8	93.3	93.3
62.5°	94.4	93.3	91.1	88.9	88.4	87.8	86.7	86.2	85.1	85.1
65°	86.7	84.6	82.9	81.3	80.2	79.6	79.1	78.0	77.5	77.5
67.5°	79.1	76.9	75.3	73.6	73.1	72.0	71.5	71.5	70.9	70.4
70°	72.0	69.8	67.6	66.6	65.5	64.9	64.4	64.4	64.4	63.8
72.5°	64.4	62.7	61.1	60.0	59.5	58.9	58.4	58.4	57.8	57.8
75°	58.9	56.7	55.1	53.5	52.9	52.9	51.8	51.8	51.3	51.3
77.5°	52.4	50.2	48.5	46.9	45.8	45.8	45.3	44.2	43.6	43.6
80°	44.2	42.0	40.4	38.7	38.2	37.6	36.5	36.5	36.5	36.5
82.5°	34.9	33.3	31.1	30.0	29.5	28.9	28.4	28.4	28.4	27.8
85°	25.6	23.5	22.4	21.3	21.3	20.2	20.2	20.2	20.2	19.1
87.5°	13.1	12.0	11.5	10.9	10.9	10.9	10.4	9.8	10.4	9.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)