

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: P232434

Luminaire Tested: **2SRS-16-W-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232434  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1706-124-1)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2SRS-16-W-UNV-L840-CD1-U  
Description: WAVESTREAM LED RECESSED 2 FT FIXTURE  
Light Source: -  
Ballast/Driver: -

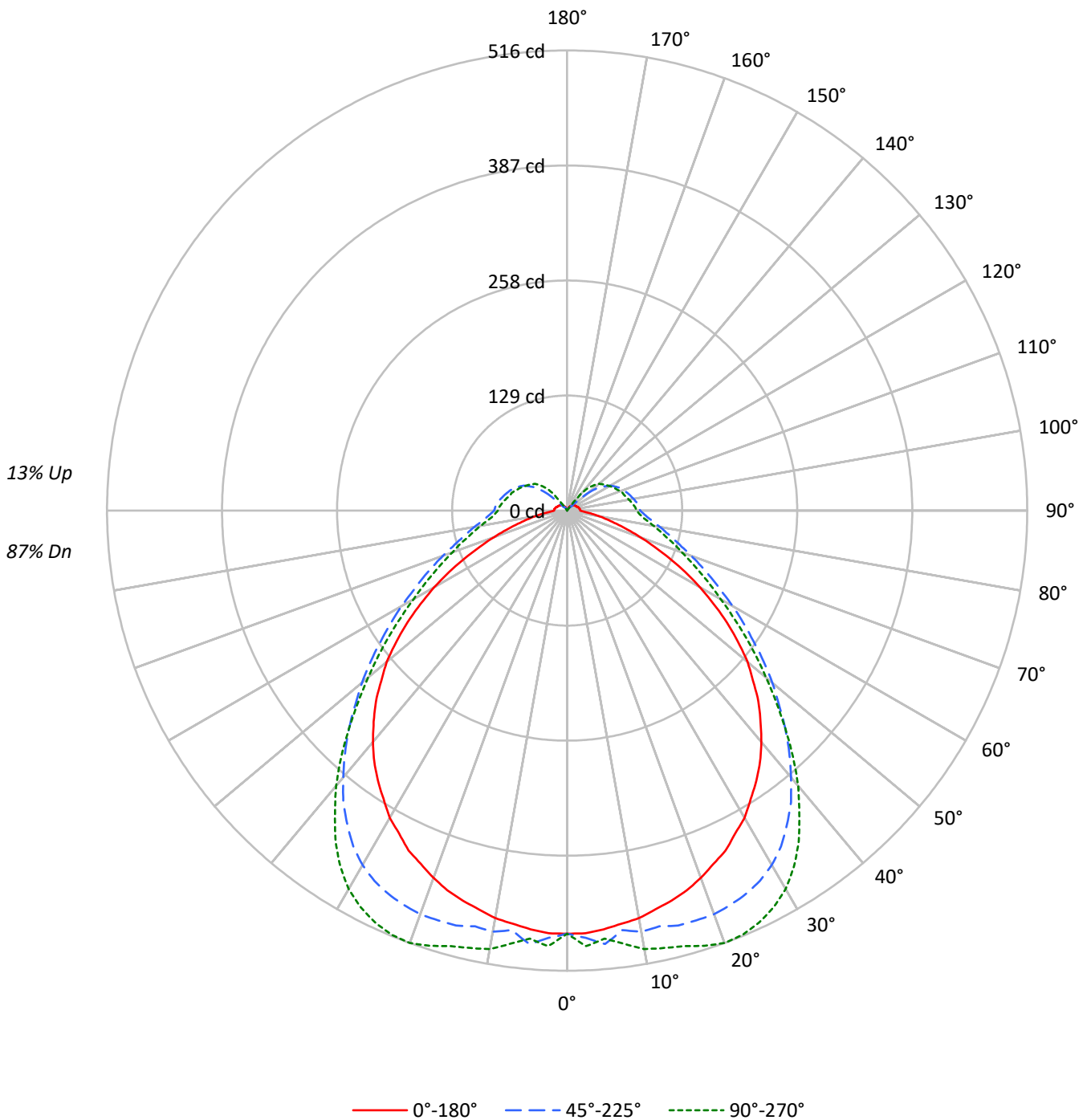
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1726.7 lumens  
Efficiency: N/A  
Efficacy: 140.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.44 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.02' x L: 1.88' x H: 0.3')  
CIE Type: Semi-Direct

Input Watts (W): 12.3  
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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87
1	105	99	95	90	100	96	92	88	89	86	83	83	80	78	77	75	73	70
2	95	86	79	73	91	83	77	71	78	72	68	72	68	64	67	64	61	58
3	87	76	68	61	83	73	66	60	68	62	57	64	59	54	60	55	52	49
4	79	67	58	52	76	65	57	51	61	54	48	57	51	46	53	48	44	42
5	73	60	51	44	70	58	50	44	54	47	42	51	45	40	48	43	39	36
6	67	54	45	39	64	52	44	38	49	42	37	46	40	35	44	38	34	32
7	62	49	40	34	60	47	39	34	45	38	32	42	36	31	40	34	30	28
8	58	45	36	30	56	43	35	30	41	34	29	39	32	28	37	31	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	34	28	24	22
10	51	38	30	25	49	37	29	24	35	28	24	33	27	23	31	26	22	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	173841	173841	173841
5°	171009	82019	66450
10°	168025	52570	42624
15°	164788	39393	31417
20°	161618	31608	25360
25°	158426	26158	20850
30°	154295	21964	17281
35°	148999	18299	14124
40°	143110	15070	11351
45°	135885	12298	8944
50°	126769	9965	7002
55°	114017	7982	5491
60°	99043	6408	4288
65°	81931	5129	3412
70°	65063	4142	2746
75°	50830	3378	2259
80°	40465	2859	1905
85°	32736	2454	1632



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.9	2.7
10°-20°	136.0	7.9
20°-30°	216.1	12.5
30°-40°	262.0	15.2
40°-50°	257.8	14.9
50°-60°	217.0	12.6
60°-70°	162.7	9.4
70°-80°	115.9	6.7
80°-90°	84.2	4.9
90°-100°	71.1	4.1
100°-110°	61.1	3.5
110°-120°	46.6	2.7
120°-130°	31.6	1.8
130°-140°	15.1	0.9
140°-150°	2.8	0.2
150°-160°	0.7	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	397.9	23.0
0°-40°	659.9	38.2
0°-60°	1134.8	65.7
0°-90°	1497.6	86.7
90°-120°	178.7	10.4
90°-150°	228.3	13.2
90°-180°	229.0	13.3
0°-180°	1726.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	474	474	474	474	474	
5°	471	476	488	484	482	45
15°	453	458	482	502	506	128
25°	421	436	474	503	510	193
35°	370	390	430	451	453	231
45°	304	317	346	350	346	233
55°	219	235	255	248	242	195
65°	126	161	178	169	165	126
75°	57	107	123	118	115	62
85°	22	75	91	86	85	21
90°	14	65	82	78	78	8
95°	14	63	80	75	75	12
105°	14	53	72	67	66	14
115°	11	29	62	60	59	11
125°	10	14	46	52	51	9
135°	8	9	7	35	38	6
145°	6	6	4	1	0	4
155°	3	3	1	0	0	2
165°	1	1	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	474.4	474.4	474.4	474.4	474.4
2.5°	474.4	472.4	479.6	487.9	488.9
5°	471.3	476.5	487.9	483.7	481.7
7.5°	467.2	479.6	474.4	490.0	490.0
10°	464.1	472.4	479.6	491.0	499.3
12.5°	457.9	461.0	477.5	495.1	502.4
15°	452.7	457.9	481.7	502.4	505.5
17.5°	446.5	454.7	481.7	505.5	511.7
20°	438.2	449.6	481.7	505.5	515.9
22.5°	428.8	442.3	478.6	506.5	514.8
25°	420.6	436.1	474.4	503.4	509.6
27.5°	408.1	427.8	468.2	495.1	501.4
30°	397.8	416.4	458.9	482.7	490.0
32.5°	383.3	403.0	446.5	469.2	473.4
35°	369.8	389.5	429.9	450.6	452.7
37.5°	355.3	373.9	412.3	427.8	427.8
40°	338.7	355.3	390.5	403.0	403.0
42.5°	321.1	336.7	368.8	377.1	375.0
45°	303.5	317.0	346.0	350.1	346.0
47.5°	282.8	296.3	322.2	324.2	318.0
50°	264.1	275.5	300.4	297.3	291.1
52.5°	241.4	254.8	277.6	271.4	266.2
55°	218.6	235.1	254.8	247.6	242.4
57.5°	194.7	215.5	234.1	225.8	219.6
60°	172.0	195.8	214.4	205.1	198.9
62.5°	149.2	177.1	194.7	185.4	181.3
65°	126.4	160.6	178.2	168.8	164.7
67.5°	105.7	144.0	162.6	154.3	150.2
70°	87.0	130.5	148.1	139.8	136.7
72.5°	71.5	118.1	134.7	128.4	126.4
75°	57.0	106.7	123.3	118.1	115.0
77.5°	45.6	96.3	113.9	108.8	106.7
80°	36.3	88.0	105.7	99.4	98.4
82.5°	28.0	80.8	97.4	92.2	91.2
85°	21.8	74.6	91.2	86.0	84.9
87.5°	16.6	69.4	86.0	80.8	80.8
90°	14.5	65.3	81.8	77.7	77.7
92.5°	14.5	64.2	80.8	76.7	76.7
95°	14.5	63.2	79.8	74.6	74.6
97.5°	14.5	61.1	77.7	72.5	72.5
100°	13.5	58.0	75.6	70.4	70.4
102.5°	13.5	55.9	73.5	69.4	68.4
105°	13.5	52.8	71.5	67.3	66.3
107.5°	12.4	48.7	69.4	65.3	65.3
110°	12.4	44.5	67.3	64.2	63.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	11.4	38.3	65.3	62.2	61.1
115°	11.4	29.0	62.2	60.1	59.0
117.5°	11.4	21.8	59.0	58.0	57.0
120°	10.4	16.6	55.9	55.9	54.9
122.5°	10.4	15.5	50.8	53.9	52.8
125°	10.4	13.5	45.6	51.8	50.8
127.5°	9.3	12.4	39.4	49.7	48.7
130°	9.3	11.4	31.1	45.6	46.6
132.5°	8.3	10.4	16.6	40.4	42.5
135°	8.3	9.3	7.3	35.2	38.3
137.5°	7.3	8.3	6.2	26.9	33.1
140°	7.3	7.3	5.2	13.5	25.9
142.5°	6.2	6.2	4.1	1.0	9.3
145°	6.2	6.2	4.1	1.0	0.0
147.5°	5.2	5.2	3.1	0.0	0.0
150°	4.1	4.1	2.1	0.0	0.0
152.5°	4.1	3.1	2.1	0.0	0.0
155°	3.1	3.1	1.0	0.0	0.0
157.5°	3.1	2.1	1.0	0.0	0.0
160°	2.1	2.1	1.0	0.0	0.0
162.5°	1.0	1.0	0.0	0.0	0.0
165°	1.0	1.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)