

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: P232432

Luminaire Tested: **2SRS-16-W-UNV-L830-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232432  
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-L830-CD1-U  
Description: WAVESTREAM LED RECESSED 2 FT FIXTURE  
Light Source: -  
Ballast/Driver: -

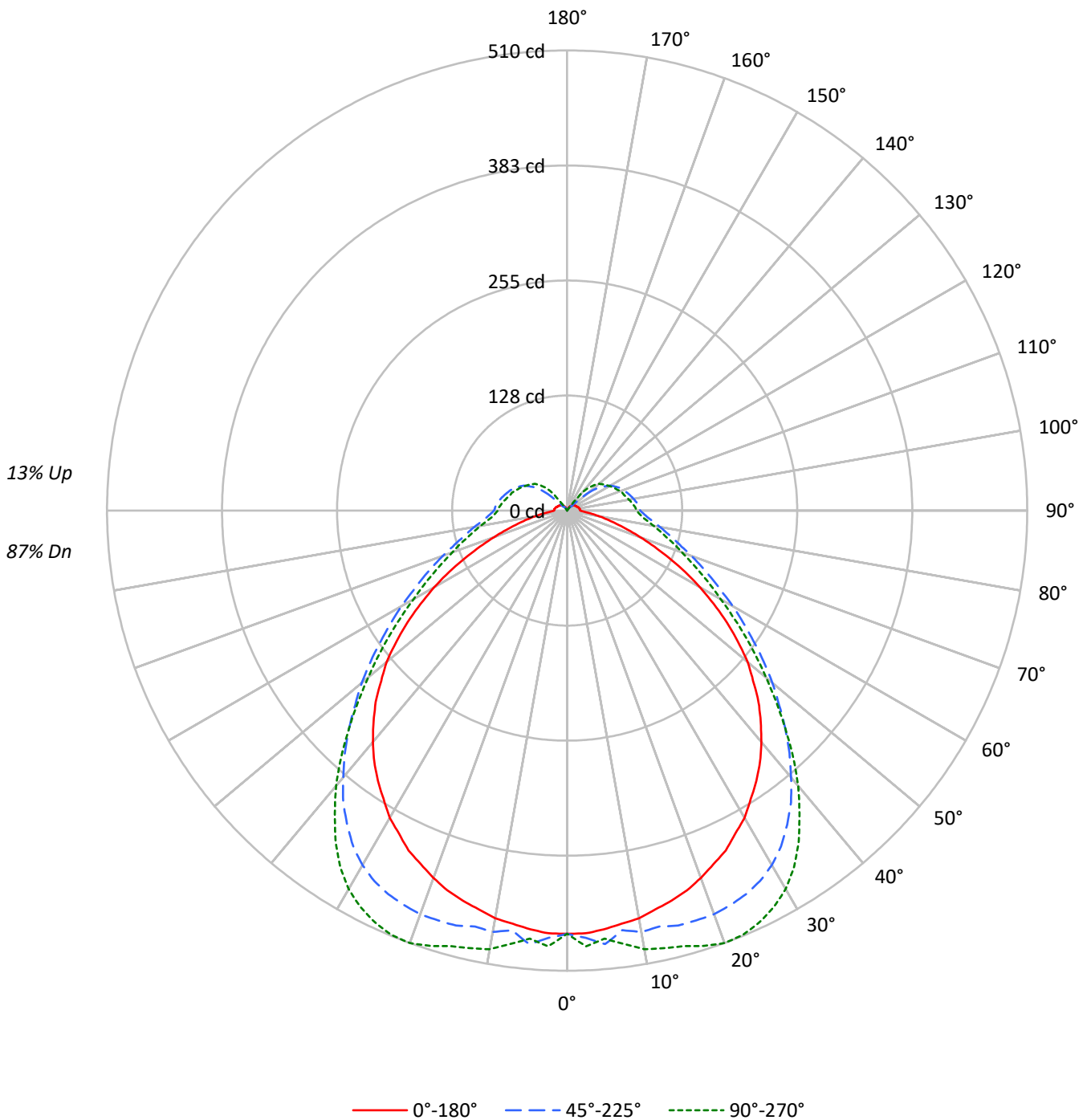
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1707.0 lumens  
Efficiency: N/A  
Efficacy: 138.8 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°	171862	171862	171862
5°	169050	81078	65691
10°	166106	51968	42137
15°	162895	38944	31057
20°	159774	31247	25070
25°	156618	25860	20612
30°	152510	21715	17084
35°	147307	18091	13962
40°	141505	14900	11221
45°	134318	12155	8840
50°	125329	9853	6922
55°	112713	7891	5427
60°	97891	6336	4239
65°	80959	5069	3373
70°	64315	4094	2716
75°	50206	3339	2233
80°	39908	2826	1883
85°	32285	2425	1615



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.4	2.7
10°-20°	134.4	7.9
20°-30°	213.6	12.5
30°-40°	259.0	15.2
40°-50°	254.9	14.9
50°-60°	214.5	12.6
60°-70°	160.9	9.4
70°-80°	114.5	6.7
80°-90°	83.3	4.9
90°-100°	70.3	4.1
100°-110°	60.4	3.5
110°-120°	46.0	2.7
120°-130°	31.3	1.8
130°-140°	14.9	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°	393.4	23.0
0°-40°	652.4	38.2
0°-60°	1121.8	65.7
0°-90°	1480.5	86.7
90°-120°	176.7	10.4
90°-150°	225.7	13.2
90°-180°	226.0	13.2
0°-180°	1707.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	469	469	469	469	469	
5°	466	471	482	478	476	44
15°	448	453	476	497	500	126
25°	416	431	469	498	504	191
35°	366	385	425	446	448	229
45°	300	313	342	346	342	231
55°	216	232	252	245	240	193
65°	125	159	176	167	163	125
75°	56	106	122	117	114	61
85°	22	74	90	85	84	20
90°	14	64	81	77	77	8
95°	14	62	79	74	74	12
105°	13	52	71	67	66	14
115°	11	29	61	59	58	11
125°	10	13	45	51	50	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°	469.0	469.0	469.0	469.0	469.0
2.5°	469.0	467.0	474.1	482.3	483.3
5°	465.9	471.1	482.3	478.2	476.2
7.5°	461.8	474.1	469.0	484.4	484.4
10°	458.8	467.0	474.1	485.4	493.6
12.5°	452.6	455.7	472.1	489.5	496.7
15°	447.5	452.6	476.2	496.7	499.7
17.5°	441.4	449.6	476.2	499.7	505.9
20°	433.2	444.4	476.2	499.7	510.0
22.5°	424.0	437.3	473.1	500.8	509.0
25°	415.8	431.1	469.0	497.7	503.8
27.5°	403.5	422.9	462.9	489.5	495.6
30°	393.2	411.7	453.7	477.2	484.4
32.5°	378.9	398.4	441.4	463.9	468.0
35°	365.6	385.0	425.0	445.5	447.5
37.5°	351.2	369.7	407.6	422.9	422.9
40°	334.9	351.2	386.1	398.4	398.4
42.5°	317.5	332.8	364.6	372.8	370.7
45°	300.0	313.4	342.0	346.1	342.0
47.5°	279.6	292.9	318.5	320.5	314.4
50°	261.1	272.4	297.0	293.9	287.8
52.5°	238.6	251.9	274.4	268.3	263.2
55°	216.1	232.5	251.9	244.7	239.6
57.5°	192.5	213.0	231.4	223.2	217.1
60°	170.0	193.5	212.0	202.8	196.6
62.5°	147.5	175.1	192.5	183.3	179.2
65°	124.9	158.7	176.1	166.9	162.8
67.5°	104.5	142.3	160.8	152.6	148.5
70°	86.0	129.0	146.4	138.2	135.2
72.5°	70.7	116.7	133.1	127.0	124.9
75°	56.3	105.5	121.9	116.7	113.7
77.5°	45.1	95.2	112.6	107.5	105.5
80°	35.8	87.0	104.5	98.3	97.3
82.5°	27.6	79.9	96.3	91.1	90.1
85°	21.5	73.7	90.1	85.0	84.0
87.5°	16.4	68.6	85.0	79.9	79.9
90°	14.3	64.5	80.9	76.8	76.8
92.5°	14.3	63.5	79.9	75.8	75.8
95°	14.3	62.5	78.9	73.7	73.7
97.5°	14.3	60.4	76.8	71.7	71.7
100°	13.3	57.3	74.8	69.6	69.6
102.5°	13.3	55.3	72.7	68.6	67.6
105°	13.3	52.2	70.7	66.6	65.5
107.5°	12.3	48.1	68.6	64.5	64.5
110°	12.3	44.0	66.6	63.5	62.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	11.3	37.9	64.5	61.4	60.4
115°	11.3	28.7	61.4	59.4	58.4
117.5°	11.3	21.5	58.4	57.3	56.3
120°	10.2	16.4	55.3	55.3	54.3
122.5°	10.2	15.4	50.2	53.3	52.2
125°	10.2	13.3	45.1	51.2	50.2
127.5°	9.2	12.3	38.9	49.2	48.1
130°	9.2	11.3	30.7	45.1	46.1
132.5°	8.2	10.2	16.4	39.9	42.0
135°	8.2	9.2	7.2	34.8	37.9
137.5°	7.2	8.2	6.1	26.6	32.8
140°	7.2	7.2	5.1	13.3	25.6
142.5°	6.1	6.1	4.1	1.0	9.2
145°	6.1	6.1	4.1	1.0	0.0
147.5°	5.1	5.1	3.1	0.0	0.0
150°	4.1	4.1	2.0	0.0	0.0
152.5°	4.1	3.1	2.0	0.0	0.0
155°	3.1	3.1	1.0	0.0	0.0
157.5°	3.1	2.0	1.0	0.0	0.0
160°	2.0	2.0	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)