

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: P232444

Luminaire Tested: **2SRS-28-W-UNV-L830-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232444  
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-28-W-UNV-L830-CD1-U  
Description: WAVESTREAM LED RECESSED 2 FT FIXTURE  
Light Source: -  
Ballast/Driver: -

**Summary**

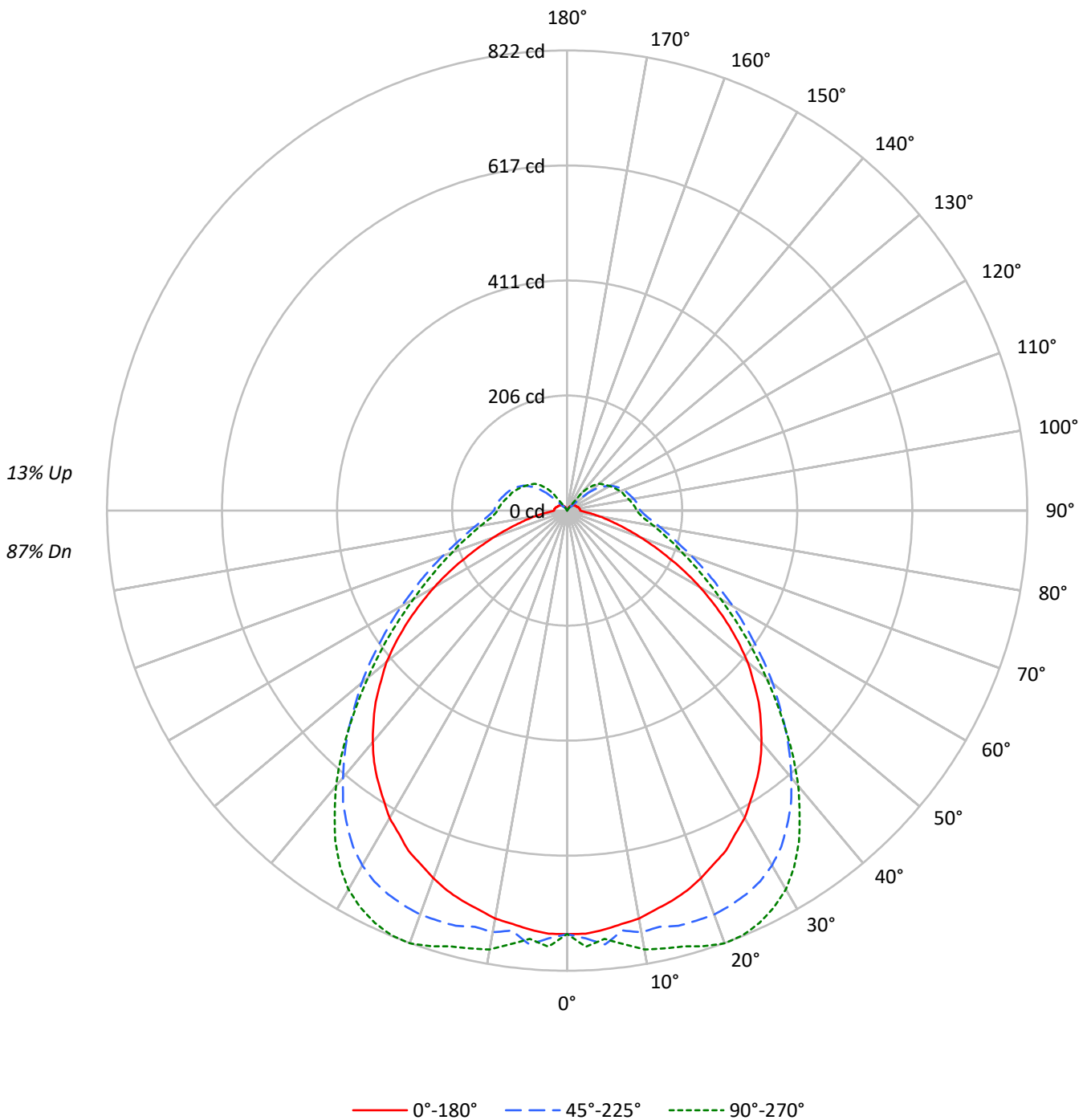
Lumens per Lamp: N/A  
Luminaire Lumens: 2753.2 lumens  
Efficiency: N/A  
Efficacy: 129.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.44 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.02' x L: 1.88' x H: 0.3')  
CIE Type: Semi-Direct

Input Watts (W): 21.3  
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	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°	277215	277215	277215
5°	272678	130770	105945
10°	267877	83821	67961
15°	262744	62807	50094
20°	257696	50394	40431
25°	252593	41713	33246
30°	245987	35020	27551
35°	237561	29175	22520
40°	228208	24031	18097
45°	216655	19609	14261
50°	202178	15890	11163
55°	181770	12727	8755
60°	157893	10218	6837
65°	130610	8177	5441
70°	103727	6605	4379
75°	80971	5383	3600
80°	64432	4558	3037
85°	52107	3910	2603



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	2.7
10°-20°	216.8	7.9
20°-30°	344.5	12.5
30°-40°	417.7	15.2
40°-50°	411.1	14.9
50°-60°	346.0	12.6
60°-70°	259.5	9.4
70°-80°	184.7	6.7
80°-90°	134.3	4.9
90°-100°	113.4	4.1
100°-110°	97.4	3.5
110°-120°	74.2	2.7
120°-130°	50.4	1.8
130°-140°	24.1	0.9
140°-150°	4.5	0.2
150°-160°	1.1	0.0
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	634.5	23.0
0°-40°	1052.2	38.2
0°-60°	1809.3	65.7
0°-90°	2387.8	86.7
90°-120°	285.0	10.4
90°-150°	364.1	13.2
90°-180°	365.0	13.3
0°-180°	2753.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	752	760	778	771	768	71
15°	722	730	768	801	806	204
25°	671	695	756	803	813	308
35°	590	621	685	718	722	369
45°	484	505	552	558	552	372
55°	348	375	406	395	386	311
65°	202	256	284	269	263	201
75°	91	170	196	188	183	99
85°	35	119	145	137	135	33
90°	23	104	130	124	124	13
95°	23	101	127	119	119	19
105°	22	84	114	107	106	22
115°	18	46	99	96	94	18
125°	16	22	73	83	81	14
135°	13	15	12	56	61	10
145°	10	10	7	2	0	6
155°	5	5	2	0	0	3
165°	2	2	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°	756.5	756.5	756.5	756.5	756.5
2.5°	756.5	753.2	764.7	777.9	779.6
5°	751.5	759.8	777.9	771.3	768.0
7.5°	744.9	764.7	756.5	781.2	781.2
10°	739.9	753.2	764.7	782.9	796.1
12.5°	730.0	735.0	761.4	789.5	801.1
15°	721.8	730.0	768.0	801.1	806.0
17.5°	711.9	725.1	768.0	806.0	815.9
20°	698.7	716.8	768.0	806.0	822.5
22.5°	683.8	705.3	763.1	807.7	820.9
25°	670.6	695.4	756.5	802.7	812.6
27.5°	650.8	682.1	746.6	789.5	799.4
30°	634.2	664.0	731.7	769.7	781.2
32.5°	611.1	642.5	711.9	748.2	754.8
35°	589.6	621.0	685.4	718.5	721.8
37.5°	566.5	596.3	657.4	682.1	682.1
40°	540.1	566.5	622.7	642.5	642.5
42.5°	512.0	536.8	588.0	601.2	597.9
45°	483.9	505.4	551.7	558.3	551.7
47.5°	450.9	472.4	513.7	517.0	507.1
50°	421.2	439.3	479.0	474.0	464.1
52.5°	384.8	406.3	442.6	432.7	424.5
55°	348.5	374.9	406.3	394.7	386.5
57.5°	310.5	343.5	373.3	360.1	350.2
60°	274.2	312.2	341.9	327.0	317.1
62.5°	237.8	282.4	310.5	295.6	289.0
65°	201.5	256.0	284.1	269.2	262.6
67.5°	168.5	229.6	259.3	246.1	239.5
70°	138.7	208.1	236.2	223.0	218.0
72.5°	114.0	188.3	214.7	204.8	201.5
75°	90.8	170.1	196.5	188.3	183.3
77.5°	72.7	153.6	181.7	173.4	170.1
80°	57.8	140.4	168.5	158.6	156.9
82.5°	44.6	128.8	155.3	147.0	145.3
85°	34.7	118.9	145.3	137.1	135.4
87.5°	26.4	110.7	137.1	128.8	128.8
90°	23.1	104.1	130.5	123.9	123.9
92.5°	23.1	102.4	128.8	122.2	122.2
95°	23.1	100.8	127.2	118.9	118.9
97.5°	23.1	97.4	123.9	115.6	115.6
100°	21.5	92.5	120.6	112.3	112.3
102.5°	21.5	89.2	117.3	110.7	109.0
105°	21.5	84.2	114.0	107.4	105.7
107.5°	19.8	77.6	110.7	104.1	104.1
110°	19.8	71.0	107.4	102.4	100.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	18.2	61.1	104.1	99.1	97.4
115°	18.2	46.2	99.1	95.8	94.1
117.5°	18.2	34.7	94.1	92.5	90.8
120°	16.5	26.4	89.2	89.2	87.5
122.5°	16.5	24.8	80.9	85.9	84.2
125°	16.5	21.5	72.7	82.6	80.9
127.5°	14.9	19.8	62.8	79.3	77.6
130°	14.9	18.2	49.6	72.7	74.3
132.5°	13.2	16.5	26.4	64.4	67.7
135°	13.2	14.9	11.6	56.2	61.1
137.5°	11.6	13.2	9.9	42.9	52.9
140°	11.6	11.6	8.3	21.5	41.3
142.5°	9.9	9.9	6.6	1.7	14.9
145°	9.9	9.9	6.6	1.7	0.0
147.5°	8.3	8.3	5.0	0.0	0.0
150°	6.6	6.6	3.3	0.0	0.0
152.5°	6.6	5.0	3.3	0.0	0.0
155°	5.0	5.0	1.7	0.0	0.0
157.5°	5.0	3.3	1.7	0.0	0.0
160°	3.3	3.3	1.7	0.0	0.0
162.5°	1.7	1.7	0.0	0.0	0.0
165°	1.7	1.7	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)