

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: P232441

Luminaire Tested: **2SRS-24-W-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232441  
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-24-W-UNV-L835-CD1-U  
Description: WAVESTREAM LED RECESSED 2 FT FIXTURE  
Light Source: -  
Ballast/Driver: -

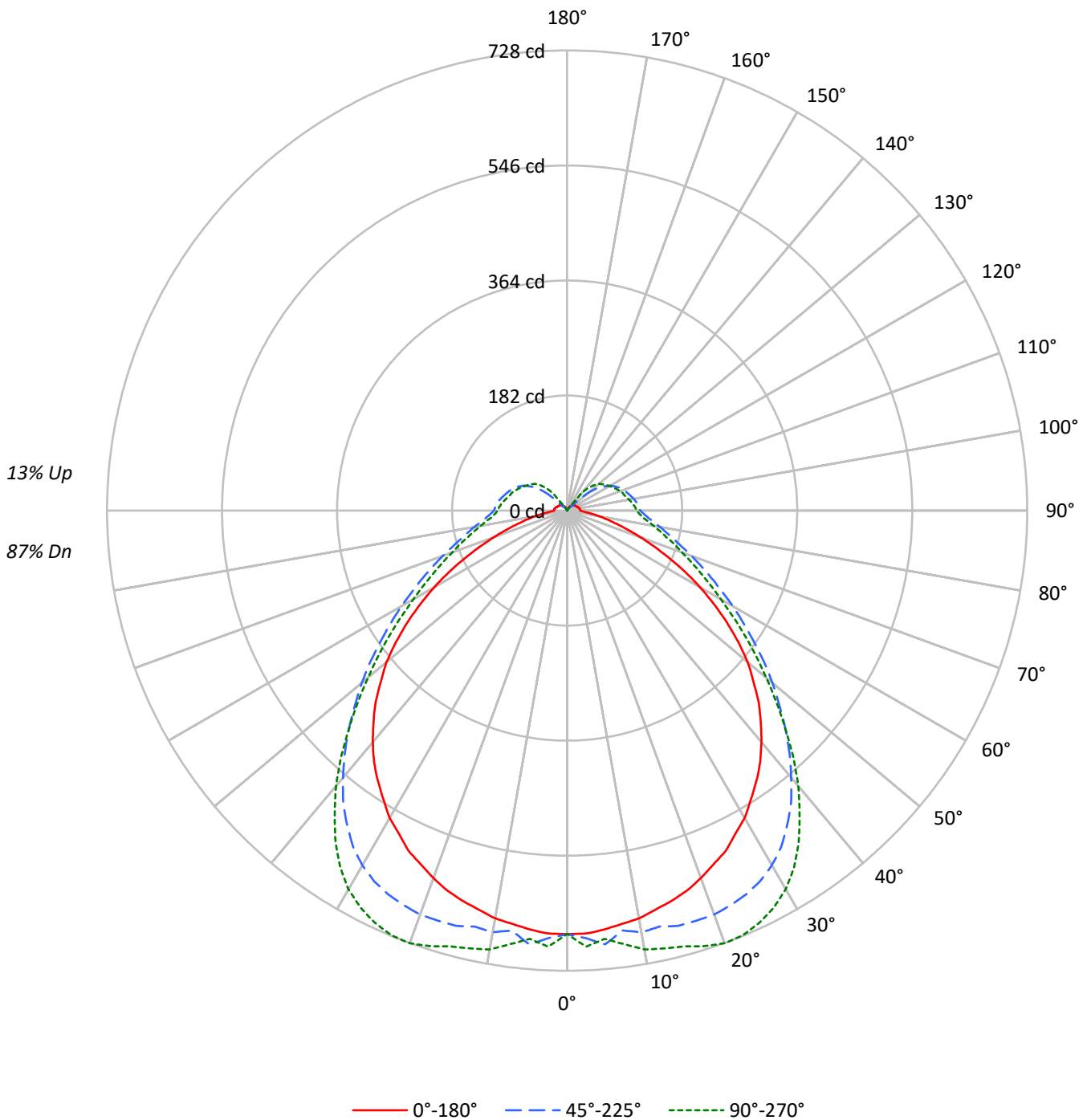
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2438.0 lumens  
Efficiency: N/A  
Efficacy: 137.0 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): 17.8  
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

TEST NUMBER: P232441  
CATALOG NUMBER: 2SRS-24-W-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P232441

CATALOG NUMBER: 2SRS-24-W-UNV-L835-CD1-U

**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°	245481	245481	245481
5°	241473	115809	93819
10°	237212	74230	60184
15°	232640	55618	44357
20°	228191	44626	35805
25°	223665	36938	29441
30°	217828	31009	24398
35°	210364	25838	19940
40°	202095	21279	16024
45°	191851	17362	12627
50°	179042	14069	9886
55°	160959	11271	7751
60°	139812	9050	6054
65°	115637	7242	4817
70°	91911	5847	3879
75°	71697	4767	3188
80°	57075	4036	2688
85°	46101	3464	2305



TEST NUMBER: P232441

CATALOG NUMBER: 2SRS-24-W-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.8	2.7
10°-20°	192.0	7.9
20°-30°	305.1	12.5
30°-40°	369.9	15.2
40°-50°	364.0	14.9
50°-60°	306.4	12.6
60°-70°	229.8	9.4
70°-80°	163.6	6.7
80°-90°	118.9	4.9
90°-100°	100.4	4.1
100°-110°	86.3	3.5
110°-120°	65.7	2.7
120°-130°	44.7	1.8
130°-140°	21.3	0.9
140°-150°	4.0	0.2
150°-160°	1.0	0.0
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	561.9	23.0
0°-40°	931.8	38.2
0°-60°	1602.2	65.7
0°-90°	2114.5	86.7
90°-120°	252.4	10.4
90°-150°	322.4	13.2
90°-180°	324.0	13.3
0°-180°	2438.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	670	670	670	670	670	
5°	666	673	689	683	680	63
15°	639	646	680	709	714	180
25°	594	616	670	711	720	273
35°	522	550	607	636	639	326
45°	428	448	488	494	488	329
55°	309	332	360	350	342	275
65°	178	227	252	238	232	178
75°	80	151	174	167	162	88
85°	31	105	129	121	120	29
90°	20	92	116	110	110	12
95°	20	89	113	105	105	17
105°	19	75	101	95	94	20
115°	16	41	88	85	83	16
125°	15	19	64	73	72	13
135°	12	13	10	50	54	9
145°	9	9	6	2	0	5
155°	4	4	2	0	0	2
165°	2	2	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232441

CATALOG NUMBER: 2SRS-24-W-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	669.9	669.9	669.9	669.9	669.9
2.5°	669.9	666.9	677.2	688.9	690.3
5°	665.5	672.8	688.9	683.0	680.1
7.5°	659.6	677.2	669.9	691.8	691.8
10°	655.2	666.9	677.2	693.3	705.0
12.5°	646.5	650.8	674.2	699.1	709.4
15°	639.1	646.5	680.1	709.4	713.7
17.5°	630.4	642.1	680.1	713.7	722.5
20°	618.7	634.8	680.1	713.7	728.4
22.5°	605.5	624.5	675.7	715.2	726.9
25°	593.8	615.7	669.9	710.8	719.6
27.5°	576.3	604.0	661.1	699.1	707.9
30°	561.6	588.0	647.9	681.6	691.8
32.5°	541.2	568.9	630.4	662.5	668.4
35°	522.1	549.9	607.0	636.2	639.1
37.5°	501.7	528.0	582.1	604.0	604.0
40°	478.3	501.7	551.4	568.9	568.9
42.5°	453.4	475.3	520.7	532.4	529.5
45°	428.5	447.5	488.5	494.4	488.5
47.5°	399.3	418.3	454.9	457.8	449.0
50°	373.0	389.0	424.1	419.8	411.0
52.5°	340.8	359.8	392.0	383.2	375.9
55°	308.6	332.0	359.8	349.6	342.2
57.5°	275.0	304.2	330.5	318.8	310.1
60°	242.8	276.4	302.8	289.6	280.8
62.5°	210.6	250.1	275.0	261.8	256.0
65°	178.4	226.7	251.6	238.4	232.5
67.5°	149.2	203.3	229.6	217.9	212.1
70°	122.9	184.3	209.1	197.4	193.1
72.5°	100.9	166.7	190.1	181.4	178.4
75°	80.4	150.6	174.0	166.7	162.3
77.5°	64.4	136.0	160.9	153.6	150.6
80°	51.2	124.3	149.2	140.4	138.9
82.5°	39.5	114.1	137.5	130.2	128.7
85°	30.7	105.3	128.7	121.4	119.9
87.5°	23.4	98.0	121.4	114.1	114.1
90°	20.5	92.1	115.5	109.7	109.7
92.5°	20.5	90.7	114.1	108.2	108.2
95°	20.5	89.2	112.6	105.3	105.3
97.5°	20.5	86.3	109.7	102.4	102.4
100°	19.0	81.9	106.8	99.5	99.5
102.5°	19.0	79.0	103.8	98.0	96.5
105°	19.0	74.6	100.9	95.1	93.6
107.5°	17.6	68.7	98.0	92.1	92.1
110°	17.6	62.9	95.1	90.7	89.2



TEST NUMBER: P232441

CATALOG NUMBER: 2SRS-24-W-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	16.1	54.1	92.1	87.8	86.3
115°	16.1	41.0	87.8	84.8	83.4
117.5°	16.1	30.7	83.4	81.9	80.4
120°	14.6	23.4	79.0	79.0	77.5
122.5°	14.6	21.9	71.7	76.1	74.6
125°	14.6	19.0	64.4	73.1	71.7
127.5°	13.2	17.6	55.6	70.2	68.7
130°	13.2	16.1	43.9	64.4	65.8
132.5°	11.7	14.6	23.4	57.0	60.0
135°	11.7	13.2	10.2	49.7	54.1
137.5°	10.2	11.7	8.8	38.0	46.8
140°	10.2	10.2	7.3	19.0	36.6
142.5°	8.8	8.8	5.9	1.5	13.2
145°	8.8	8.8	5.9	1.5	0.0
147.5°	7.3	7.3	4.4	0.0	0.0
150°	5.9	5.9	2.9	0.0	0.0
152.5°	5.9	4.4	2.9	0.0	0.0
155°	4.4	4.4	1.5	0.0	0.0
157.5°	4.4	2.9	1.5	0.0	0.0
160°	2.9	2.9	1.5	0.0	0.0
162.5°	1.5	1.5	0.0	0.0	0.0
165°	1.5	1.5	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)