

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: P232451

Luminaire Tested: **4SRS-32-W-UNV-L850-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1706-124-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SRS-32-W-UNV-L850-CD1-U
Description: WAVESTREAM LED RECESSED 4 FT FIXTURE
Light Source: -
Ballast/Driver: -

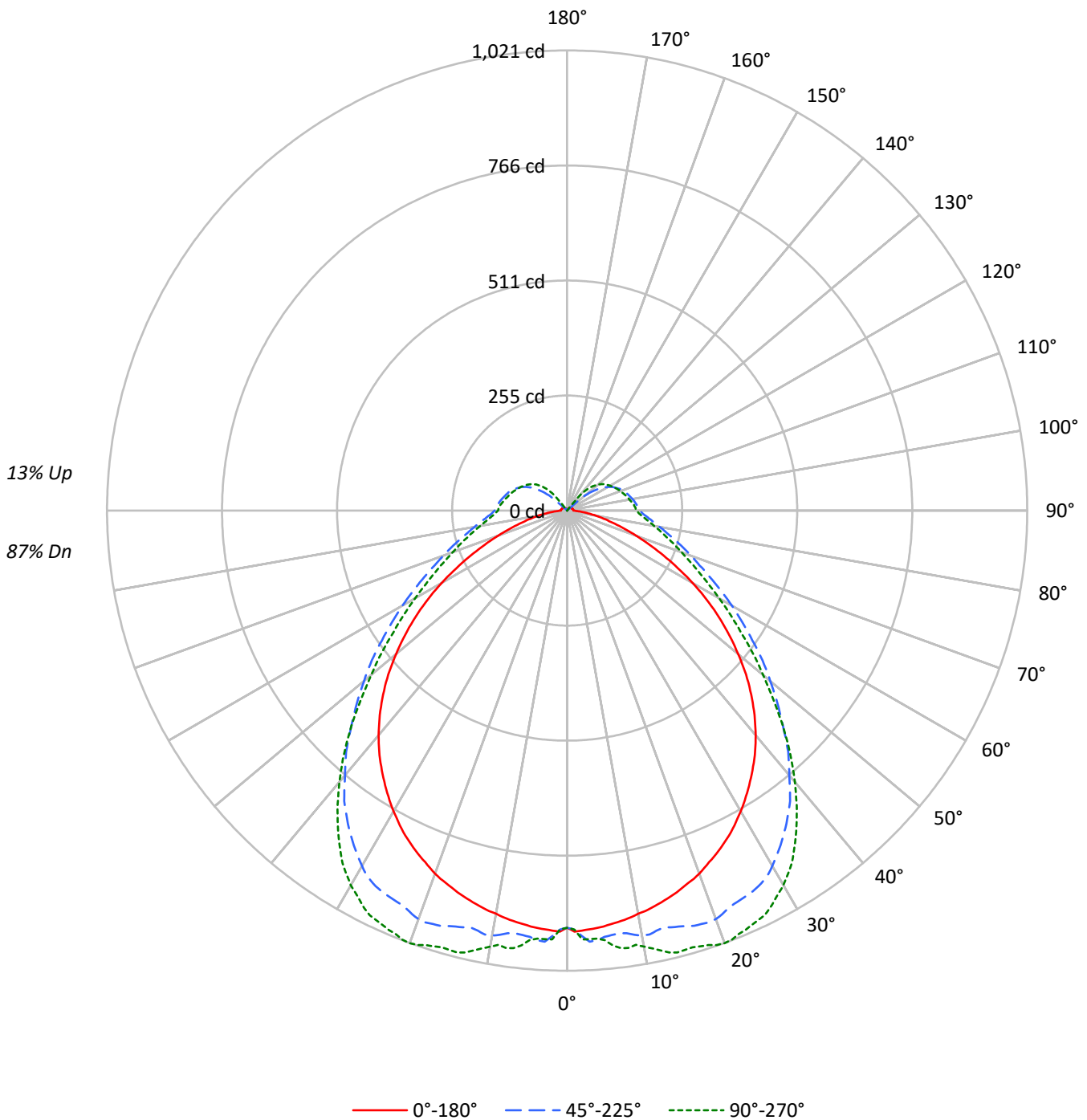
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3359.7 lumens
Efficiency: N/A
Efficacy: 160.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.44 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.02' x L: 3.88' x H: 0.3')
CIE Type: Semi-Direct

Input Watts (W): 21
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	91	91	91	87
1	105	100	95	91	101	96	92	88	89	86	83	83	81	78	78	76	74	71
2	95	87	79	73	91	84	77	72	78	73	68	73	68	65	68	65	61	59
3	87	76	68	61	83	73	66	60	69	62	57	64	59	55	60	56	52	49
4	79	67	58	52	76	65	57	51	61	54	49	57	51	47	54	49	45	42
5	73	60	51	45	70	58	50	44	55	48	42	51	45	41	48	43	39	37
6	67	54	45	39	65	53	44	38	49	42	37	47	40	36	44	39	34	32
7	62	49	40	34	60	48	39	34	45	38	33	42	36	32	40	35	30	28
8	58	45	36	30	56	43	36	30	41	34	29	39	33	28	37	31	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	34	29	25	23
10	51	38	30	25	49	37	29	24	35	28	24	33	27	23	32	26	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	164570	164570	164570
5°	164208	77632	64048
10°	161841	51071	40691
15°	159923	38052	30439
20°	157857	30822	24361
25°	154935	25316	19905
30°	151523	21226	16428
35°	147084	17583	13390
40°	141972	14416	10744
45°	134926	11730	8497
50°	125569	9510	6618
55°	114729	7654	5170
60°	100995	6144	4071
65°	85381	4904	3238
70°	69733	3977	2632
75°	55645	3278	2181
80°	45719	2749	1843
85°	35174	2360	1586



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	2.7
10°-20°	269.5	8.0
20°-30°	426.1	12.7
30°-40°	514.1	15.3
40°-50°	503.9	15.0
50°-60°	423.4	12.6
60°-70°	317.7	9.5
70°-80°	228.2	6.8
80°-90°	164.8	4.9
90°-100°	136.2	4.1
100°-110°	116.0	3.5
110°-120°	85.7	2.5
120°-130°	56.6	1.7
130°-140°	23.6	0.7
140°-150°	2.5	0.1
150°-160°	0.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	786.1	23.4
0°-40°	1300.2	38.7
0°-60°	2227.6	66.3
0°-90°	2938.4	87.5
90°-120°	337.9	10.1
90°-150°	420.6	12.5
90°-180°	421.0	12.5
0°-180°	3359.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	926	942	950	952	957	88
15°	887	903	956	1003	1009	250
25°	818	855	943	987	1003	377
35°	714	768	848	882	884	446
45°	578	623	678	685	678	445
55°	410	463	502	483	470	366
65°	236	316	350	329	322	236
75°	104	212	246	232	229	114
85°	32	146	180	170	170	33
90°	14	124	161	154	154	9
95°	14	118	154	147	148	11
105°	13	94	139	133	133	13
115°	11	41	119	120	118	11
125°	10	13	84	102	102	9
135°	8	9	6	64	73	6
145°	6	5	3	0	0	4
155°	3	3	1	0	0	2
165°	0	0	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°	925.6	925.6	925.6	925.6	925.6
1°	934.5	924.6	929.8	931.9	929.8
2°	932.4	927.2	944.9	955.3	952.2
3°	930.3	933.4	957.9	956.9	952.2
4°	928.8	939.2	955.3	953.7	952.2
5°	926.2	942.3	949.6	951.7	956.9
6°	923.0	940.7	947.0	958.9	969.9
7°	919.9	936.1	944.9	969.4	978.2
8°	916.8	931.4	947.0	975.6	979.8
9°	913.2	927.2	953.2	974.0	975.6
10°	908.5	923.6	957.4	970.4	982.4
11°	905.4	918.4	958.4	975.6	989.6
12°	901.2	912.1	952.7	982.9	998.0
13°	896.5	907.4	949.6	991.7	1006.3
14°	891.3	903.8	952.7	998.5	1010.5
15°	886.6	902.8	955.8	1003.2	1009.4
16°	881.4	902.2	958.9	1002.1	1007.9
17°	875.2	901.2	963.6	998.0	1011.0
18°	868.9	899.6	964.7	998.0	1013.6
19°	863.7	897.0	966.2	1000.0	1019.3
20°	857.5	891.3	964.7	1002.1	1021.4
21°	849.2	884.0	959.5	1004.2	1019.8
22°	841.4	875.7	952.7	1002.7	1014.1
23°	834.1	866.8	948.0	998.5	1011.5
24°	826.3	860.6	945.4	991.7	1006.8
25°	817.9	854.9	942.8	987.0	1002.7
26°	809.1	849.2	939.7	982.4	999.0
27°	800.8	843.4	935.5	976.6	990.7
28°	790.9	836.1	929.3	970.9	979.8
29°	780.5	828.3	921.5	962.6	969.4
30°	770.6	820.5	910.6	950.1	960.0
32.5°	743.0	797.1	880.9	919.9	927.7
35°	713.9	768.5	848.1	882.5	884.5
37.5°	684.2	736.8	812.7	837.2	837.2
40°	650.9	698.8	766.9	788.8	786.2
42.5°	615.5	662.4	725.8	738.9	733.1
45°	577.6	623.3	677.5	685.3	677.5
47.5°	538.5	583.3	632.7	633.2	620.2
50°	495.3	543.2	588.5	580.2	567.1
52.5°	453.2	503.1	546.3	529.7	519.3
55°	410.5	462.6	501.6	483.4	470.4
57.5°	366.3	422.5	460.5	440.7	429.3
60°	321.6	385.0	422.0	399.6	389.2
62.5°	277.3	348.1	384.0	362.7	353.8
65°	236.2	315.8	349.7	329.4	322.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
67.5°	197.7	284.6	318.4	300.2	294.0
70°	162.3	257.6	291.9	274.7	270.0
72.5°	132.2	233.1	268.0	252.4	248.7
75°	104.1	211.8	245.6	232.1	228.9
77.5°	83.3	193.0	225.8	213.9	211.8
80°	64.0	175.9	208.6	197.7	196.2
82.5°	46.8	160.3	193.0	182.6	182.1
85°	32.3	146.2	180.0	170.1	170.1
87.5°	20.8	134.8	168.6	159.2	160.3
90°	14.0	124.4	160.8	153.5	153.5
92.5°	14.0	122.3	158.2	150.9	151.4
95°	13.5	118.1	154.5	147.2	148.3
97.5°	13.5	113.4	150.9	143.1	144.1
100°	13.0	107.7	147.2	139.4	140.5
102.5°	13.0	101.5	143.1	136.3	136.3
105°	13.0	94.2	139.4	132.7	133.2
107.5°	12.5	85.9	135.8	129.6	129.6
110°	12.0	74.4	131.6	126.4	125.9
112.5°	12.0	59.8	125.9	123.3	122.3
115°	11.4	40.6	119.2	119.7	118.1
117.5°	10.9	17.7	113.4	116.0	114.5
120°	10.4	16.1	105.1	112.4	110.3
122.5°	10.4	14.6	95.2	107.7	106.1
125°	9.9	13.0	83.8	102.0	101.5
127.5°	9.9	12.0	69.2	95.2	96.3
130°	9.4	10.9	51.0	87.4	90.0
132.5°	8.8	9.9	10.4	77.5	82.2
135°	8.3	8.8	5.7	64.5	72.8
137.5°	7.8	7.8	5.2	48.4	60.4
140°	7.3	6.8	4.2	7.3	44.7
142.5°	6.2	6.2	3.6	0.5	1.6
145°	5.7	5.2	3.1	0.0	0.0
147.5°	5.2	4.7	2.6	0.0	0.0
150°	4.7	4.2	2.1	0.0	0.0
152.5°	4.2	3.1	1.6	0.0	0.0
155°	3.1	2.6	1.0	0.0	0.0
157.5°	2.6	2.1	0.5	0.0	0.0
160°	2.1	1.6	0.5	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)