

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: P232449

Luminaire Tested: **4SRS-32-W-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232449
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-L835-CD1-U
Description: WAVESTREAM LED RECESSED 4 FT FIXTURE
Light Source: -
Ballast/Driver: -

Summary

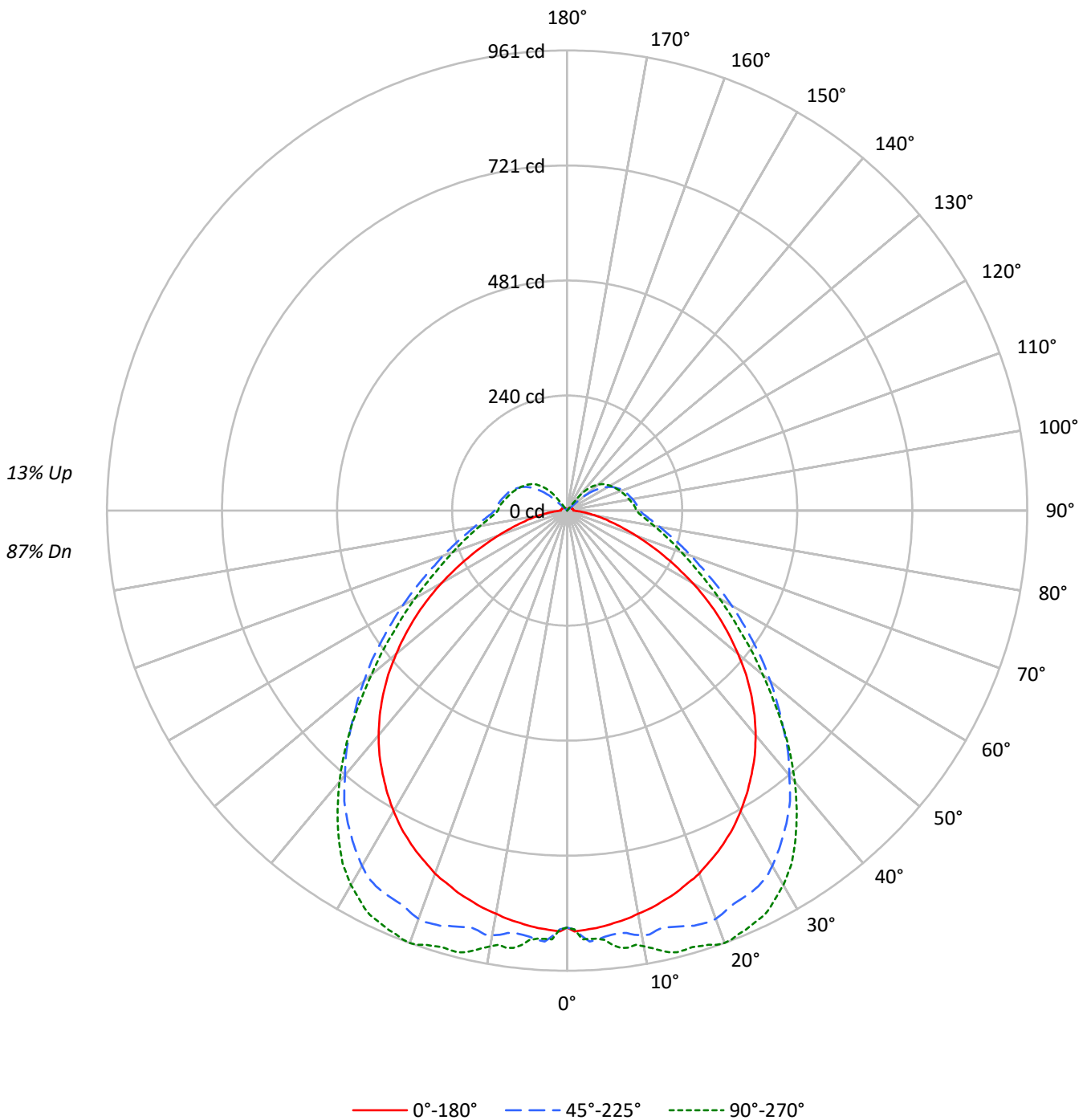
Lumens per Lamp: N/A
Luminaire Lumens: 3161.0 lumens
Efficiency: N/A
Efficacy: 150.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.44 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.02' x L: 3.88' x H: 0.3')
CIE Type: Semi-Direct

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°	154845	154845	154845
5°	154493	73038	60259
10°	152257	48051	38285
15°	150471	35802	28639
20°	148524	28998	22920
25°	145785	23820	18728
30°	142557	19969	15456
35°	138390	16545	12598
40°	133574	13564	10109
45°	126937	11035	7994
50°	118141	8948	6227
55°	107965	7201	4863
60°	94997	5780	3831
65°	80357	4614	3046
70°	65608	3741	2477
75°	52331	3084	2053
80°	43004	2587	1734
85°	33105	2221	1493



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.2	2.7
10°-20°	253.6	8.0
20°-30°	400.9	12.7
30°-40°	483.7	15.3
40°-50°	474.1	15.0
50°-60°	398.4	12.6
60°-70°	298.9	9.5
70°-80°	214.7	6.8
80°-90°	155.1	4.9
90°-100°	128.2	4.1
100°-110°	109.1	3.5
110°-120°	80.6	2.6
120°-130°	53.3	1.7
130°-140°	22.2	0.7
140°-150°	2.4	0.1
150°-160°	0.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	739.6	23.4
0°-40°	1223.3	38.7
0°-60°	2095.9	66.3
0°-90°	2764.6	87.5
90°-120°	317.9	10.1
90°-150°	395.8	12.5
90°-180°	396.0	12.5
0°-180°	3161.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	871	887	893	895	900	83
15°	834	849	899	944	950	235
25°	770	804	887	929	943	354
35°	672	723	798	830	832	420
45°	543	586	637	645	637	418
55°	386	435	472	455	442	344
65°	222	297	329	310	303	222
75°	98	199	231	218	215	107
85°	30	138	169	160	160	31
90°	13	117	151	144	144	8
95°	13	111	145	138	140	10
105°	12	89	131	125	125	13
115°	11	38	112	113	111	11
125°	9	12	79	96	96	8
135°	8	8	5	61	68	6
145°	5	5	3	0	0	3
155°	3	2	1	0	0	1
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°	870.9	870.9	870.9	870.9	870.9
1°	879.2	869.9	874.8	876.8	874.8
2°	877.3	872.4	889.0	898.8	895.9
3°	875.3	878.2	901.3	900.3	895.9
4°	873.8	883.6	898.8	897.3	895.9
5°	871.4	886.6	893.4	895.4	900.3
6°	868.5	885.1	891.0	902.2	912.5
7°	865.5	880.7	889.0	912.0	920.3
8°	862.6	876.3	891.0	917.9	921.8
9°	859.2	872.4	896.8	916.4	917.9
10°	854.7	868.9	900.8	913.0	924.3
11°	851.8	864.0	901.7	917.9	931.1
12°	847.9	858.2	896.4	924.7	938.9
13°	843.5	853.8	893.4	933.1	946.8
14°	838.6	850.3	896.4	939.4	950.7
15°	834.2	849.4	899.3	943.8	949.7
16°	829.3	848.9	902.2	942.9	948.2
17°	823.4	847.9	906.6	938.9	951.2
18°	817.5	846.4	907.6	938.9	953.6
19°	812.6	844.0	909.1	940.9	959.0
20°	806.8	838.6	907.6	942.9	961.0
21°	798.9	831.7	902.7	944.8	959.5
22°	791.6	823.9	896.4	943.4	954.1
23°	784.7	815.6	892.0	939.4	951.7
24°	777.4	809.7	889.5	933.1	947.3
25°	769.6	804.3	887.1	928.7	943.4
26°	761.2	798.9	884.1	924.3	939.9
27°	753.4	793.6	880.2	918.9	932.1
28°	744.1	786.7	874.3	913.5	921.8
29°	734.3	779.4	867.0	905.7	912.0
30°	725.0	772.0	856.7	893.9	903.2
32.5°	699.1	750.0	828.8	865.5	872.9
35°	671.7	723.1	798.0	830.3	832.2
37.5°	643.8	693.2	764.7	787.7	787.7
40°	612.4	657.5	721.6	742.1	739.7
42.5°	579.1	623.2	682.9	695.2	689.8
45°	543.4	586.5	637.4	644.7	637.4
47.5°	506.7	548.8	595.3	595.8	583.5
50°	466.0	511.1	553.7	545.8	533.6
52.5°	426.4	473.4	514.0	498.4	488.6
55°	386.3	435.2	471.9	454.8	442.5
57.5°	344.6	397.5	433.2	414.6	403.9
60°	302.5	362.3	397.0	376.0	366.2
62.5°	260.9	327.5	361.3	341.2	332.9
65°	222.3	297.2	329.0	309.9	303.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
67.5°	186.0	267.8	299.6	282.5	276.6
70°	152.7	242.3	274.6	258.5	254.1
72.5°	124.3	219.3	252.1	237.4	234.0
75°	97.9	199.2	231.1	218.3	215.4
77.5°	78.3	181.6	212.5	201.2	199.2
80°	60.2	165.5	196.3	186.0	184.6
82.5°	44.1	150.8	181.6	171.8	171.3
85°	30.4	137.6	169.4	160.1	160.1
87.5°	19.6	126.8	158.6	149.8	150.8
90°	13.2	117.0	151.3	144.4	144.4
92.5°	13.2	115.0	148.8	142.0	142.5
95°	12.7	111.1	145.4	138.5	139.5
97.5°	12.7	106.7	142.0	134.6	135.6
100°	12.2	101.3	138.5	131.2	132.2
102.5°	12.2	95.5	134.6	128.3	128.3
105°	12.2	88.6	131.2	124.8	125.3
107.5°	11.7	80.8	127.8	121.9	121.9
110°	11.3	70.0	123.9	119.0	118.5
112.5°	11.3	56.3	118.5	116.0	115.0
115°	10.8	38.2	112.1	112.6	111.1
117.5°	10.3	16.6	106.7	109.2	107.7
120°	9.8	15.2	98.9	105.7	103.8
122.5°	9.8	13.7	89.6	101.3	99.9
125°	9.3	12.2	78.8	96.0	95.5
127.5°	9.3	11.3	65.1	89.6	90.6
130°	8.8	10.3	48.0	82.2	84.7
132.5°	8.3	9.3	9.8	72.9	77.3
135°	7.8	8.3	5.4	60.7	68.5
137.5°	7.3	7.3	4.9	45.5	56.8
140°	6.9	6.4	3.9	6.9	42.1
142.5°	5.9	5.9	3.4	0.5	1.5
145°	5.4	4.9	2.9	0.0	0.0
147.5°	4.9	4.4	2.4	0.0	0.0
150°	4.4	3.9	2.0	0.0	0.0
152.5°	3.9	2.9	1.5	0.0	0.0
155°	2.9	2.4	1.0	0.0	0.0
157.5°	2.4	2.0	0.5	0.0	0.0
160°	2.0	1.5	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)