

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: P232452

Luminaire Tested: **4SRS-40-W-UNV-L830-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232452  
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-40-W-UNV-L830-CD1-U  
Description: WAVESTREAM LED RECESSED 4 FT FIXTURE  
Light Source: -  
Ballast/Driver: -

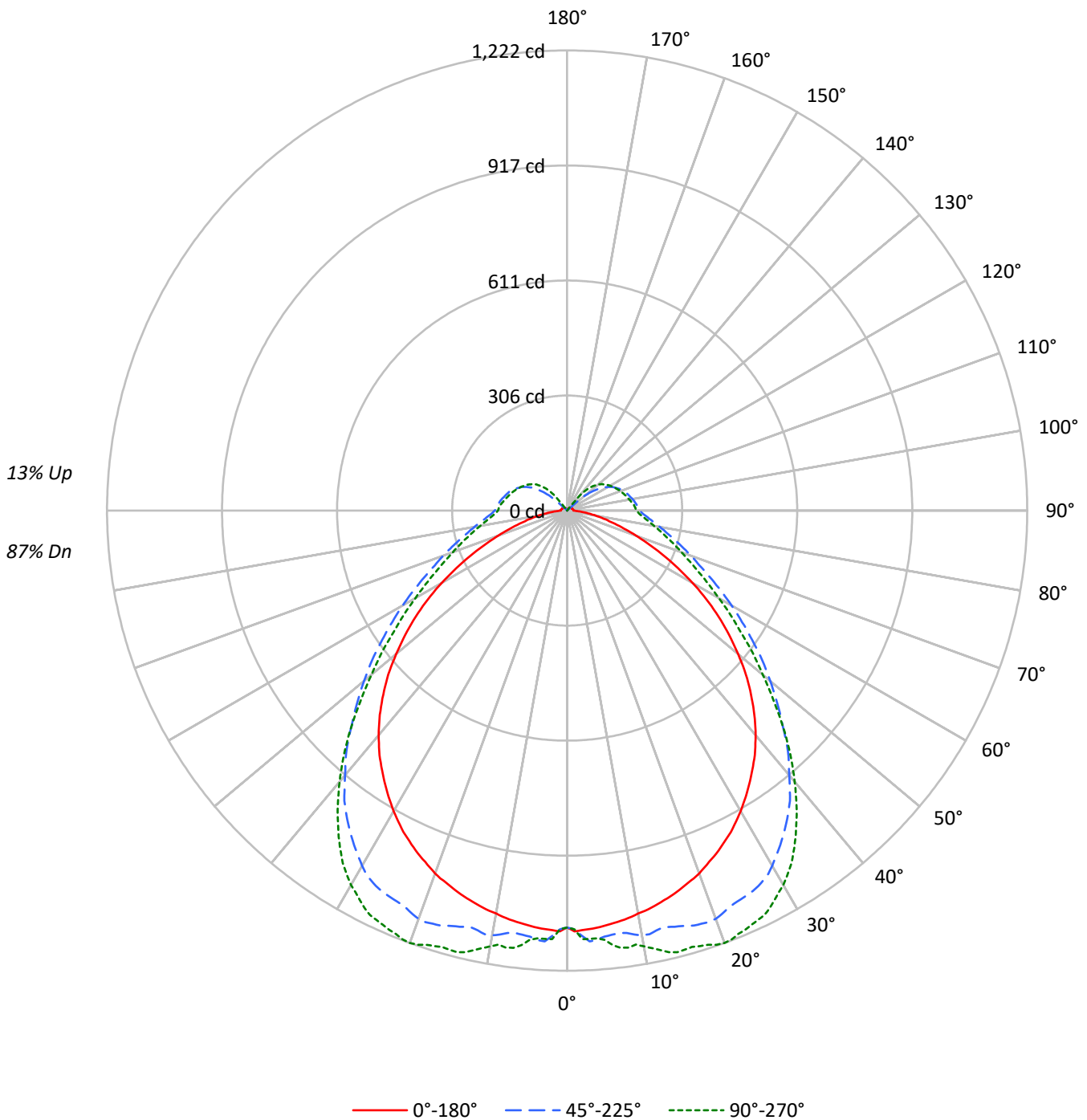
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4018.5 lumens  
Efficiency: N/A  
Efficacy: 148.8 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): 27  
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°	196859	196859	196859
5°	196405	92855	76604
10°	193568	61083	48669
15°	191291	45512	36410
20°	188803	36864	29138
25°	185319	30281	23808
30°	181234	25386	19648
35°	175929	21031	16016
40°	169825	17243	12852
45°	161369	14029	10163
50°	150211	11375	7917
55°	137227	9154	6183
60°	120779	7348	4870
65°	102118	5864	3872
70°	83439	4756	3148
75°	66550	3920	2609
80°	54648	3289	2203
85°	42035	2823	1898



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.3	2.7
10°-20°	322.4	8.0
20°-30°	509.6	12.7
30°-40°	614.9	15.3
40°-50°	602.8	15.0
50°-60°	506.4	12.6
60°-70°	380.0	9.5
70°-80°	273.0	6.8
80°-90°	197.2	4.9
90°-100°	163.0	4.1
100°-110°	138.8	3.5
110°-120°	102.5	2.5
120°-130°	67.7	1.7
130°-140°	28.2	0.7
140°-150°	3.0	0.1
150°-160°	0.8	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	940.3	23.4
0°-40°	1555.2	38.7
0°-60°	2664.4	66.3
0°-90°	3514.5	87.5
90°-120°	404.2	10.1
90°-150°	503.1	12.5
90°-180°	504.0	12.5
0°-180°	4018.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1107	1107	1107	1107	1107	
5°	1108	1127	1136	1138	1144	105
15°	1060	1080	1143	1200	1207	299
25°	978	1022	1128	1181	1199	451
35°	854	919	1014	1056	1058	534
45°	691	746	810	820	810	532
55°	491	553	600	578	563	438
65°	282	378	418	394	385	282
75°	124	253	294	278	274	136
85°	39	175	215	204	204	40
90°	17	149	192	184	184	10
95°	16	141	185	176	177	13
105°	16	113	167	159	159	16
115°	14	48	142	143	141	14
125°	12	16	100	122	121	11
135°	10	11	7	77	87	8
145°	7	6	4	0	0	4
155°	4	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°	1107.2	1107.2	1107.2	1107.2	1107.2
1°	1117.7	1105.9	1112.1	1114.6	1112.1
2°	1115.2	1109.0	1130.2	1142.6	1138.9
3°	1112.8	1116.5	1145.7	1144.5	1138.9
4°	1110.9	1123.3	1142.6	1140.8	1138.9
5°	1107.8	1127.1	1135.8	1138.3	1144.5
6°	1104.0	1125.2	1132.7	1147.0	1160.1
7°	1100.3	1119.6	1130.2	1159.4	1170.0
8°	1096.6	1114.0	1132.7	1166.9	1171.9
9°	1092.2	1109.0	1140.1	1165.0	1166.9
10°	1086.6	1104.7	1145.1	1160.7	1175.0
11°	1082.9	1098.4	1146.4	1166.9	1183.7
12°	1077.9	1091.0	1139.5	1175.6	1193.7
13°	1072.3	1085.4	1135.8	1186.2	1203.6
14°	1066.1	1081.0	1139.5	1194.3	1208.6
15°	1060.5	1079.8	1143.2	1199.9	1207.4
16°	1054.3	1079.1	1147.0	1198.6	1205.5
17°	1046.8	1077.9	1152.6	1193.7	1209.2
18°	1039.3	1076.0	1153.8	1193.7	1212.3
19°	1033.1	1072.9	1155.7	1196.1	1219.2
20°	1025.6	1066.1	1153.8	1198.6	1221.7
21°	1015.7	1057.4	1147.6	1201.1	1219.8
22°	1006.3	1047.4	1139.5	1199.3	1213.0
23°	997.6	1036.8	1133.9	1194.3	1209.8
24°	988.3	1029.4	1130.8	1186.2	1204.2
25°	978.3	1022.5	1127.7	1180.6	1199.3
26°	967.7	1015.7	1124.0	1175.0	1194.9
27°	957.8	1008.8	1119.0	1168.1	1184.9
28°	946.0	1000.1	1111.5	1161.3	1171.9
29°	933.5	990.8	1102.2	1151.3	1159.4
30°	921.7	981.4	1089.1	1136.4	1148.2
32.5°	888.7	953.4	1053.6	1100.3	1109.6
35°	853.9	919.2	1014.4	1055.5	1058.0
37.5°	818.4	881.2	972.1	1001.4	1001.4
40°	778.6	835.8	917.3	943.5	940.4
42.5°	736.2	792.2	868.2	883.7	876.9
45°	690.8	745.6	810.3	819.6	810.3
47.5°	644.1	697.6	756.8	757.4	741.8
50°	592.5	649.7	703.9	693.9	678.4
52.5°	542.1	601.8	653.5	633.5	621.1
55°	491.0	553.3	599.9	578.2	562.6
57.5°	438.1	505.3	550.8	527.1	513.4
60°	384.6	460.5	504.7	478.0	465.5
62.5°	331.7	416.3	459.3	433.8	423.2
65°	282.5	377.8	418.2	393.9	385.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	236.5	340.4	380.9	359.1	351.6
70°	194.2	308.1	349.1	328.6	323.0
72.5°	158.1	278.8	320.5	301.8	297.5
75°	124.5	253.3	293.7	277.6	273.8
77.5°	99.6	230.9	270.1	255.8	253.3
80°	76.5	210.4	249.6	236.5	234.6
82.5°	56.0	191.7	230.9	218.4	217.8
85°	38.6	174.9	215.3	203.5	203.5
87.5°	24.9	161.2	201.6	190.4	191.7
90°	16.8	148.7	192.3	183.6	183.6
92.5°	16.8	146.3	189.2	180.5	181.1
95°	16.2	141.3	184.8	176.1	177.4
97.5°	16.2	135.7	180.5	171.1	172.4
100°	15.6	128.8	176.1	166.8	168.0
102.5°	15.6	121.4	171.1	163.1	163.1
105°	15.6	112.6	166.8	158.7	159.3
107.5°	14.9	102.7	162.4	155.0	155.0
110°	14.3	89.0	157.5	151.2	150.6
112.5°	14.3	71.6	150.6	147.5	146.3
115°	13.7	48.5	142.5	143.1	141.3
117.5°	13.1	21.2	135.7	138.8	136.9
120°	12.4	19.3	125.7	134.4	131.9
122.5°	12.4	17.4	113.9	128.8	127.0
125°	11.8	15.6	100.2	122.0	121.4
127.5°	11.8	14.3	82.8	113.9	115.1
130°	11.2	13.1	61.0	104.6	107.7
132.5°	10.6	11.8	12.4	92.7	98.3
135°	10.0	10.6	6.8	77.2	87.1
137.5°	9.3	9.3	6.2	57.9	72.2
140°	8.7	8.1	5.0	8.7	53.5
142.5°	7.5	7.5	4.4	0.6	1.9
145°	6.8	6.2	3.7	0.0	0.0
147.5°	6.2	5.6	3.1	0.0	0.0
150°	5.6	5.0	2.5	0.0	0.0
152.5°	5.0	3.7	1.9	0.0	0.0
155°	3.7	3.1	1.2	0.0	0.0
157.5°	3.1	2.5	0.6	0.0	0.0
160°	2.5	1.9	0.6	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)