

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: P588646

Luminaire Tested: **FM15WSCCR-5000K**

Issue Date: 12/1/2021

Test Information

Test Method: LM-79-08
Report Number: P588646
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (MXL1052-15A)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: FM15WSCCR-5000K
Description: FM WS CCT SELECT
Light Source: (1) 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

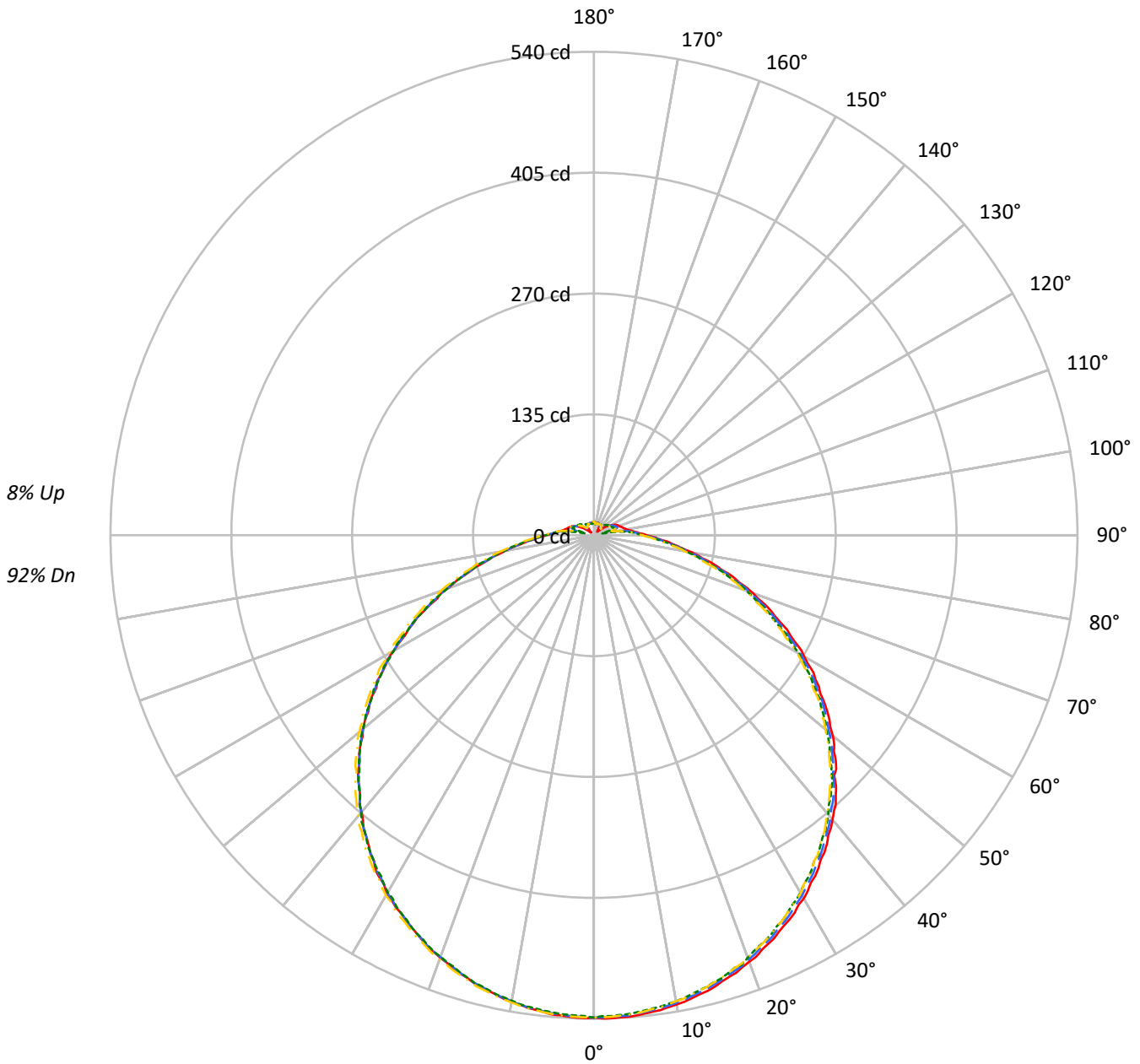
Lumens per Lamp: N/A
Luminaire Lumens: 1846.0 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.25m x L: 1.25m x H: 0.34m)
CIE Type: Direct

Input Watts (W): 21.4
Input Voltage (V): 120
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: 24 FT



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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	95	95	95	92
1	106	100	95	91	102	97	93	89	91	88	85	86	83	81	81	79	77	77	77	77	74
2	95	87	79	73	92	84	77	72	79	74	69	75	70	66	71	67	63	63	63	63	61
3	87	76	67	60	84	73	65	59	69	63	57	66	60	55	62	57	53	53	53	53	51
4	79	67	58	51	76	65	56	50	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	43	55	47	42	52	45	40	49	44	39	39	39	39	37
6	67	53	44	38	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	37	32	27	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	34	29	24	24	24	24	23
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	345	345	345	345
5°	338	336	337	336
10°	330	328	328	327
15°	322	319	320	319
20°	314	311	311	310
25°	306	302	303	303
30°	299	294	295	294
35°	290	286	285	285
40°	282	277	274	275
45°	270	267	265	263
50°	262	254	253	253
55°	248	243	238	241
60°	236	230	224	224
65°	219	211	208	209
70°	202	194	186	187
75°	180	173	167	168
80°	161	152	146	148
85°	148	136	130	136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	2.8
10°-20°	146.3	7.9
20°-30°	223.4	12.1
30°-40°	273.3	14.8
40°-50°	289.4	15.7
50°-60°	270.5	14.7
60°-70°	219.1	11.9
70°-80°	149.0	8.1
80°-90°	84.8	4.6
90°-100°	45.5	2.5
100°-110°	25.7	1.4
110°-120°	24.0	1.3
120°-130°	15.5	0.8
130°-140°	9.1	0.5
140°-150°	7.9	0.4
150°-160°	6.4	0.3
160°-170°	4.0	0.2
170°-180°	1.3	0.1
0°-30°	420.7	22.8
0°-40°	694.0	37.6
0°-60°	1253.9	67.9
0°-90°	1706.8	92.5
90°-120°	95.1	5.2
90°-150°	127.6	6.9
90°-180°	139.0	7.5
0°-180°	1846.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	539	539	539	539	539	
5°	539	535	537	535	539	51
15°	522	517	518	517	522	147
25°	489	482	483	483	489	226
35°	442	437	435	434	442	277
45°	380	375	373	370	380	295
55°	309	302	296	300	309	278
65°	229	221	218	218	229	228
75°	147	141	136	137	147	157
85°	83	76	73	76	83	72
90°	59	56	53	54	59	33
95°	45	40	41	41	45	36
105°	33	14	30	14	33	35
115°	27	22	24	24	27	27
125°	17	19	12	20	17	15
135°	6	16	5	17	6	6
145°	9	14	12	15	9	6
155°	14	13	14	14	14	6
165°	14	14	14	14	14	4
175°	14	14	15	14	14	1
180°	15	15	15	15	15	



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CANDELA DISTRIBUTION (FULL):

	0°	90°	180°	270°	360°
0°	538.8	538.8	538.8	538.8	538.8
1°	539.9	537.3	539.6	537.3	539.9
2°	539.9	537.3	539.2	536.9	539.9
3°	539.3	536.6	538.4	536.4	539.3
4°	539.2	536.4	537.6	535.9	539.2
5°	538.6	535.2	537.2	534.9	538.6
6°	537.3	533.9	535.6	534.1	537.3
7°	536.3	532.6	534.1	532.5	536.3
8°	535.5	531.8	532.9	531.7	535.5
9°	533.6	529.9	530.8	530.2	533.6
10°	532.1	528.4	528.9	527.8	532.1
11°	530.7	526.8	527.5	526.0	530.7
12°	528.4	524.1	524.8	524.4	528.4
13°	526.2	521.7	522.3	521.6	526.2
14°	524.5	520.0	520.3	519.0	524.5
15°	522.0	516.9	517.8	517.2	522.0
16°	518.6	515.0	514.1	513.8	518.6
17°	515.9	511.7	511.8	510.7	515.9
18°	513.9	508.1	508.5	506.8	513.9
19°	510.1	507.3	504.8	504.4	510.1
20°	507.1	502.3	502.3	500.9	507.1
21°	504.6	497.9	498.6	498.3	504.6
22°	499.9	494.2	495.8	494.4	499.9
23°	496.4	491.4	491.1	489.8	496.4
24°	493.5	487.4	487.0	486.9	493.5
25°	488.7	482.3	482.9	482.9	488.7
26°	484.7	479.2	478.7	477.5	484.7
27°	481.6	474.8	474.1	474.2	481.6
28°	477.4	469.3	471.0	469.8	477.4
29°	471.8	465.9	466.0	463.9	471.8
30°	468.5	461.1	462.6	460.5	468.5
31°	463.6	455.1	455.0	455.3	463.6
32°	457.5	451.1	451.3	448.7	457.5
33°	453.8	446.1	447.3	444.9	453.8
34°	448.4	439.5	439.1	439.5	448.4
35°	441.9	436.7	434.9	434.0	441.9
36°	437.8	429.7	427.9	429.9	437.8
37°	432.2	423.8	422.0	422.7	432.2
38°	425.2	419.4	417.5	416.8	425.2
39°	420.7	413.6	409.9	412.2	420.7
40°	414.6	407.3	403.6	404.5	414.6
41°	408.5	399.6	399.0	398.3	408.5
42°	403.8	394.9	390.6	390.1	403.8
43°	396.0	388.4	384.2	385.1	396.0
44°	389.4	383.4	379.2	378.3	389.4



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
45°	379.6	375.2	372.6	370.2	379.6
46°	376.2	368.4	363.8	364.8	376.2
47°	369.3	359.6	358.4	357.9	369.3
48°	360.8	354.3	351.2	350.9	360.8
49°	355.6	347.2	342.3	345.4	355.6
50°	348.4	338.3	336.7	336.5	348.4
51°	339.3	332.7	329.2	328.8	339.3
52°	333.7	325.3	319.8	323.3	333.7
53°	326.1	317.5	314.1	313.7	326.1
54°	318.3	311.8	306.4	306.0	318.3
55°	308.7	302.2	296.5	300.2	308.7
56°	303.1	294.5	292.5	290.1	303.1
57°	294.8	288.3	282.3	282.5	294.8
58°	289.1	278.7	274.4	276.5	289.1
59°	278.9	270.7	268.3	266.2	278.9
60°	271.1	264.5	258.1	258.1	271.1
61°	264.8	254.3	249.6	251.7	264.8
62°	254.4	245.9	239.1	243.5	254.4
63°	245.9	239.5	233.0	233.0	245.9
64°	239.7	229.2	224.2	226.6	239.7
65°	229.0	220.8	218.0	218.3	229.0
66°	220.7	214.5	207.5	207.8	220.7
67°	214.3	206.2	199.0	201.4	214.3
68°	205.9	195.7	188.5	193.4	205.9
69°	195.4	189.2	184.7	183.0	195.4
70°	189.2	181.0	174.0	174.8	189.2
71°	180.7	174.8	166.3	168.5	180.7
72°	170.5	164.5	159.9	158.5	170.5
73°	164.5	156.6	149.9	152.4	164.5
74°	156.5	150.6	142.2	144.6	156.5
75°	146.6	141.2	136.4	136.8	146.6
76°	140.7	133.4	127.0	131.5	140.7
77°	133.1	124.2	119.9	122.5	133.1
78°	123.9	119.2	114.7	115.5	123.9
79°	118.5	111.8	106.1	110.6	118.5
80°	111.5	105.1	100.9	102.5	111.5
81°	103.3	100.6	94.9	96.4	103.3
82°	97.1	93.0	89.0	92.0	97.1
83°	92.4	87.2	81.8	85.0	92.4
84°	86.6	83.2	77.8	79.8	86.6
85°	82.8	76.4	72.8	76.0	82.8
86°	76.2	71.5	67.2	69.7	76.2
87°	71.3	68.0	64.1	65.6	71.3
88°	68.0	62.6	60.1	61.6	68.0
89°	63.1	58.4	55.8	58.5	63.1



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
90°	59.1	55.8	53.1	54.0	59.1
91°	56.6	51.4	50.2	51.2	56.6
92°	52.6	48.3	46.8	48.2	52.6
93°	50.0	46.2	44.9	45.8	50.0
94°	48.1	43.5	42.9	43.8	48.1
95°	45.2	40.5	40.9	41.4	45.2
96°	43.4	38.0	39.7	38.1	43.4
97°	42.1	33.7	37.6	33.7	42.1
98°	40.5	27.4	36.3	30.5	40.5
99°	38.8	23.1	35.3	24.1	38.8
100°	37.6	17.8	34.0	20.4	37.6
101°	36.4	11.9	33.3	14.8	36.4
102°	35.4	9.9	32.5	10.1	35.4
103°	34.6	8.8	31.6	9.3	34.6
104°	33.9	11.6	30.9	9.9	33.9
105°	33.2	14.3	30.5	13.6	33.2
106°	32.5	17.6	29.9	18.1	32.5
107°	31.9	21.1	29.2	20.8	31.9
108°	31.2	23.7	28.9	23.7	31.2
109°	30.6	23.8	28.6	25.2	30.6
110°	30.2	23.4	27.8	25.0	30.2
111°	29.5	23.4	27.2	24.7	29.5
112°	29.2	23.0	26.9	24.4	29.2
113°	28.6	22.8	25.8	24.1	28.6
114°	28.3	22.4	24.8	23.8	28.3
115°	27.4	22.1	24.0	23.5	27.4
116°	26.7	21.7	23.1	23.4	26.7
117°	26.0	21.7	21.7	23.0	26.0
118°	24.5	21.4	20.8	22.8	24.5
119°	23.5	21.1	19.3	22.3	23.5
120°	22.3	21.0	18.7	22.0	22.3
121°	21.3	20.4	17.1	21.8	21.3
122°	20.4	20.1	16.0	21.4	20.4
123°	19.3	20.0	15.3	21.0	19.3
124°	18.6	19.7	13.5	20.5	18.6
125°	17.0	19.3	11.9	20.5	17.0
126°	16.0	19.1	10.9	19.7	16.0
127°	15.0	19.0	9.3	19.7	15.0
128°	14.2	18.4	7.9	19.4	14.2
129°	12.3	18.1	7.1	19.1	12.3
130°	11.5	17.8	5.4	18.8	11.5
131°	10.2	17.4	4.7	18.4	10.2
132°	9.1	17.3	4.4	17.8	9.1
133°	8.2	17.0	4.6	17.7	8.2
134°	7.2	16.7	4.8	17.6	7.2



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
135°	6.4	16.3	5.0	17.1	6.4
136°	5.8	16.2	5.4	16.8	5.8
137°	5.4	15.9	6.5	16.8	5.4
138°	5.4	15.7	7.1	16.7	5.4
139°	5.4	15.5	7.8	16.6	5.4
140°	6.1	15.2	8.8	16.2	6.1
141°	6.8	14.9	9.3	15.9	6.8
142°	6.9	15.0	10.1	15.6	6.9
143°	7.8	14.8	10.8	15.3	7.8
144°	8.5	14.3	11.5	15.3	8.5
145°	9.1	14.2	12.3	14.9	9.1
146°	9.9	14.2	12.9	14.8	9.9
147°	10.5	13.9	13.2	14.6	10.5
148°	10.8	14.0	13.8	14.6	10.8
149°	11.6	13.8	13.6	14.3	11.6
150°	12.2	13.6	13.6	14.3	12.2
151°	12.8	13.6	13.6	14.2	12.8
152°	13.2	13.6	13.6	14.3	13.2
153°	13.5	13.3	13.6	14.0	13.5
154°	13.9	13.5	13.5	14.2	13.9
155°	14.0	13.3	13.6	14.0	14.0
156°	14.0	13.6	13.6	14.0	14.0
157°	14.0	13.8	13.8	13.9	14.0
158°	14.2	13.8	13.9	14.3	14.2
159°	14.2	13.8	13.9	14.2	14.2
160°	14.3	14.0	14.3	14.2	14.3
161°	14.6	14.2	14.3	14.3	14.6
162°	14.6	14.3	14.5	14.5	14.6
163°	14.9	14.5	14.3	14.6	14.9
164°	14.6	14.0	13.8	14.2	14.6
165°	13.9	13.6	13.5	14.0	13.9
166°	13.8	13.5	13.6	13.8	13.8
167°	13.6	13.2	13.5	13.8	13.6
168°	13.2	13.2	13.2	13.6	13.2
169°	13.3	12.9	13.0	13.6	13.3
170°	13.0	12.8	12.9	13.5	13.0
171°	13.0	12.9	13.0	13.2	13.0
172°	12.9	12.8	12.8	13.0	12.9
173°	13.0	12.3	12.8	12.9	13.0
174°	13.0	12.3	13.9	13.3	13.0
175°	13.8	14.0	14.8	14.3	13.8
176°	14.9	14.6	14.9	14.8	14.9
177°	14.9	14.9	14.9	15.0	14.9
178°	15.0	14.9	15.0	15.2	15.0
179°	14.9	15.0	14.9	15.2	14.9



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
180°	14.9	14.9	14.9	14.9	14.9

(END OF REPORT)