

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: P588644

Luminaire Tested: **FM15WSCCR-3000K**

Issue Date: 12/1/2021

Test Information

Test Method: LM-79-08
Report Number: P588644
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-3000K
Description: FM WS CCT SELECT
Light Source: (1) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

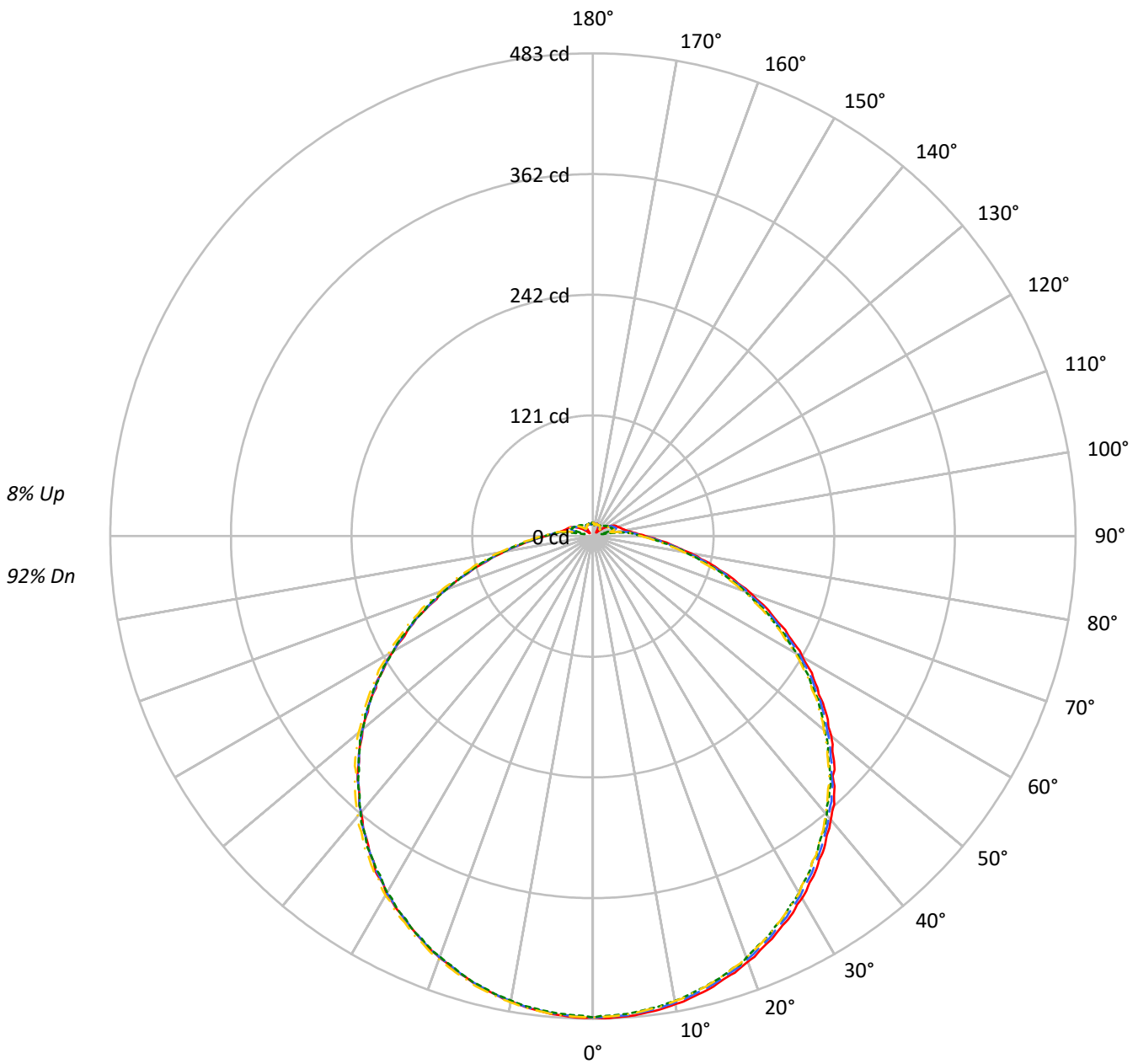
Lumens per Lamp: N/A
Luminaire Lumens: 1650.0 lumens
Efficiency: N/A
Efficacy: 75.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.25m x L: 1.25m x H: 0.34m)
CIE Type: Direct

Input Watts (W): 22
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	95
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°	308	308	308	308
5°	302	300	301	300
10°	295	293	293	293
15°	288	285	286	285
20°	281	278	278	277
25°	274	270	270	270
30°	267	263	264	263
35°	259	256	255	255
40°	252	248	245	246
45°	241	239	237	235
50°	234	227	226	226
55°	222	217	213	215
60°	211	205	201	201
65°	196	189	186	186
70°	181	173	166	167
75°	161	155	149	150
80°	144	136	131	133
85°	132	122	116	121



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.6	2.8
10°-20°	130.8	7.9
20°-30°	199.7	12.1
30°-40°	244.3	14.8
40°-50°	258.7	15.7
50°-60°	241.8	14.7
60°-70°	195.9	11.9
70°-80°	133.2	8.1
80°-90°	75.8	4.6
90°-100°	40.7	2.5
100°-110°	22.9	1.4
110°-120°	21.4	1.3
120°-130°	13.9	0.8
130°-140°	8.1	0.5
140°-150°	7.1	0.4
150°-160°	5.7	0.3
160°-170°	3.5	0.2
170°-180°	1.2	0.1
0°-30°	376.0	22.8
0°-40°	620.3	37.6
0°-60°	1120.8	67.9
0°-90°	1525.6	92.5
90°-120°	85.0	5.2
90°-150°	114.0	6.9
90°-180°	124.0	7.5
0°-180°	1650.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	482	482	482	482	482	
5°	481	478	480	478	481	46
15°	467	462	463	462	467	132
25°	437	431	432	432	437	202
35°	395	390	389	388	395	248
45°	339	335	333	331	339	264
55°	276	270	265	268	276	248
65°	205	197	195	195	205	204
75°	131	126	122	122	131	140
85°	74	68	65	68	74	65
90°	53	50	47	48	53	29
95°	40	36	36	37	40	32
105°	30	13	27	12	30	32
115°	24	20	22	21	24	24
125°	15	17	11	18	15	14
135°	6	15	4	15	6	5
145°	8	13	11	13	8	5
155°	12	12	12	12	12	6
165°	12	12	12	12	12	4
175°	12	12	13	13	12	1
180°	13	13	13	13	13	



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CANDELA DISTRIBUTION (FULL):

	0°	90°	180°	270°	360°
0°	481.6	481.6	481.6	481.6	481.6
1°	482.6	480.2	482.3	480.2	482.6
2°	482.6	480.2	481.9	479.9	482.6
3°	482.0	479.6	481.2	479.4	482.0
4°	481.9	479.4	480.5	479.0	481.9
5°	481.4	478.3	480.1	478.1	481.4
6°	480.2	477.3	478.7	477.4	480.2
7°	479.3	476.1	477.4	476.0	479.3
8°	478.6	475.4	476.4	475.3	478.6
9°	477.0	473.6	474.5	473.9	477.0
10°	475.6	472.3	472.7	471.8	475.6
11°	474.4	470.8	471.5	470.1	474.4
12°	472.3	468.4	469.0	468.7	472.3
13°	470.3	466.3	466.9	466.2	470.3
14°	468.8	464.8	465.1	463.9	468.8
15°	466.6	462.0	462.8	462.3	466.6
16°	463.5	460.3	459.5	459.2	463.5
17°	461.1	457.4	457.5	456.5	461.1
18°	459.3	454.2	454.5	453.0	459.3
19°	456.0	453.4	451.2	450.8	456.0
20°	453.3	448.9	448.9	447.8	453.3
21°	451.0	445.1	445.7	445.4	451.0
22°	446.9	441.7	443.2	441.9	446.9
23°	443.7	439.2	438.9	437.8	443.7
24°	441.1	435.7	435.3	435.2	441.1
25°	436.8	431.1	431.6	431.6	436.8
26°	433.2	428.4	427.9	426.8	433.2
27°	430.4	424.4	423.8	423.9	430.4
28°	426.7	419.4	421.0	419.9	426.7
29°	421.7	416.5	416.5	414.7	421.7
30°	418.7	412.1	413.5	411.6	418.7
31°	414.4	406.8	406.7	407.0	414.4
32°	408.9	403.2	403.4	401.0	408.9
33°	405.6	398.8	399.8	397.7	405.6
34°	400.8	392.8	392.5	392.8	400.8
35°	395.0	390.3	388.8	388.0	395.0
36°	391.3	384.1	382.5	384.3	391.3
37°	386.3	378.8	377.2	377.9	386.3
38°	380.0	374.9	373.2	372.5	380.0
39°	376.0	369.6	366.4	368.5	376.0
40°	370.5	364.1	360.7	361.5	370.5
41°	365.1	357.2	356.7	356.0	365.1
42°	360.9	353.0	349.2	348.7	360.9
43°	353.9	347.2	343.4	344.2	353.9
44°	348.1	342.7	339.0	338.2	348.1



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
45°	339.3	335.4	333.0	330.9	339.3
46°	336.3	329.3	325.2	326.1	336.3
47°	330.0	321.4	320.3	319.9	330.0
48°	322.5	316.7	313.9	313.6	322.5
49°	317.9	310.3	306.0	308.8	317.9
50°	311.4	302.4	300.9	300.7	311.4
51°	303.3	297.4	294.2	293.9	303.3
52°	298.3	290.7	285.8	289.0	298.3
53°	291.4	283.8	280.7	280.4	291.4
54°	284.5	278.7	273.9	273.5	284.5
55°	275.9	270.2	265.0	268.3	275.9
56°	270.9	263.2	261.4	259.3	270.9
57°	263.5	257.7	252.3	252.5	263.5
58°	258.4	249.1	245.3	247.2	258.4
59°	249.3	241.9	239.8	238.0	249.3
60°	242.3	236.4	230.7	230.7	242.3
61°	236.7	227.3	223.1	225.0	236.7
62°	227.4	219.8	213.7	217.7	227.4
63°	219.8	214.0	208.3	208.3	219.8
64°	214.2	204.8	200.4	202.5	214.2
65°	204.7	197.4	194.8	195.1	204.7
66°	197.3	191.8	185.5	185.7	197.3
67°	191.6	184.3	177.9	180.0	191.6
68°	184.0	174.9	168.5	172.8	184.0
69°	174.6	169.1	165.1	163.5	174.6
70°	169.1	161.8	155.5	156.2	169.1
71°	161.6	156.2	148.7	150.6	161.6
72°	152.4	147.0	142.9	141.7	152.4
73°	147.0	140.0	133.9	136.2	147.0
74°	139.9	134.6	127.1	129.3	139.9
75°	131.1	126.2	122.0	122.3	131.1
76°	125.7	119.2	113.5	117.5	125.7
77°	119.0	111.0	107.2	109.5	119.0
78°	110.8	106.5	102.6	103.3	110.8
79°	105.9	99.9	94.8	98.9	105.9
80°	99.7	93.9	90.2	91.6	99.7
81°	92.4	89.9	84.8	86.1	92.4
82°	86.8	83.2	79.6	82.3	86.8
83°	82.6	77.9	73.2	75.9	82.6
84°	77.4	74.3	69.5	71.3	77.4
85°	74.0	68.3	65.0	67.9	74.0
86°	68.1	64.0	60.1	62.3	68.1
87°	63.8	60.8	57.3	58.6	63.8
88°	60.8	55.9	53.8	55.0	60.8
89°	56.4	52.2	49.9	52.3	56.4



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
90°	52.9	49.9	47.4	48.3	52.9
91°	50.6	45.9	44.8	45.7	50.6
92°	47.0	43.2	41.9	43.1	47.0
93°	44.6	41.3	40.1	41.0	44.6
94°	43.0	38.9	38.3	39.1	43.0
95°	40.4	36.2	36.5	37.0	40.4
96°	38.8	34.0	35.4	34.1	38.8
97°	37.6	30.1	33.6	30.1	37.6
98°	36.2	24.5	32.5	27.2	36.2
99°	34.6	20.7	31.6	21.6	34.6
100°	33.6	15.9	30.4	18.2	33.6
101°	32.6	10.6	29.8	13.3	32.6
102°	31.7	8.8	29.0	9.0	31.7
103°	30.9	7.8	28.2	8.3	30.9
104°	30.3	10.4	27.6	8.8	30.3
105°	29.7	12.8	27.2	12.2	29.7
106°	29.0	15.7	26.7	16.1	29.0
107°	28.5	18.9	26.1	18.6	28.5
108°	27.9	21.2	25.8	21.2	27.9
109°	27.3	21.3	25.5	22.6	27.3
110°	27.0	20.9	24.8	22.4	27.0
111°	26.3	20.9	24.4	22.1	26.3
112°	26.1	20.6	24.1	21.8	26.1
113°	25.5	20.4	23.1	21.6	25.5
114°	25.3	20.0	22.2	21.3	25.3
115°	24.5	19.8	21.5	21.0	24.5
116°	23.9	19.4	20.7	20.9	23.9
117°	23.3	19.4	19.4	20.6	23.3
118°	21.9	19.1	18.6	20.4	21.9
119°	21.0	18.9	17.2	19.9	21.0
120°	19.9	18.8	16.7	19.7	19.9
121°	19.0	18.2	15.2	19.5	19.0
122°	18.2	18.0	14.3	19.1	18.2
123°	17.2	17.9	13.7	18.8	17.2
124°	16.6	17.6	12.1	18.3	16.6
125°	15.2	17.2	10.6	18.3	15.2
126°	14.3	17.0	9.7	17.6	14.3
127°	13.4	17.0	8.3	17.6	13.4
128°	12.7	16.4	7.0	17.3	12.7
129°	11.0	16.1	6.3	17.0	11.0
130°	10.3	15.9	4.9	16.8	10.3
131°	9.1	15.5	4.2	16.4	9.1
132°	8.1	15.4	4.0	15.9	8.1
133°	7.3	15.2	4.1	15.8	7.3
134°	6.4	14.9	4.3	15.7	6.4



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
135°	5.7	14.6	4.5	15.2	5.7
136°	5.1	14.5	4.9	15.0	5.1
137°	4.9	14.3	5.8	15.0	4.9
138°	4.9	14.1	6.3	14.9	4.9
139°	4.9	13.9	6.9	14.8	4.9
140°	5.4	13.6	7.8	14.5	5.4
141°	6.0	13.3	8.3	14.3	6.0
142°	6.1	13.4	9.0	14.0	6.1
143°	6.9	13.3	9.7	13.7	6.9
144°	7.6	12.8	10.3	13.7	7.6
145°	8.1	12.7	11.0	13.3	8.1
146°	8.8	12.7	11.5	13.3	8.8
147°	9.4	12.4	11.8	13.1	9.4
148°	9.7	12.5	12.4	13.1	9.7
149°	10.4	12.4	12.2	12.8	10.4
150°	10.9	12.2	12.2	12.8	10.9
151°	11.5	12.2	12.2	12.7	11.5
152°	11.8	12.2	12.2	12.8	11.8
153°	12.1	11.9	12.2	12.5	12.1
154°	12.4	12.1	12.1	12.7	12.4
155°	12.5	11.9	12.2	12.5	12.5
156°	12.5	12.2	12.2	12.5	12.5
157°	12.5	12.4	12.4	12.4	12.5
158°	12.7	12.4	12.4	12.8	12.7
159°	12.7	12.4	12.4	12.7	12.7
160°	12.8	12.5	12.8	12.7	12.8
161°	13.1	12.7	12.8	12.8	13.1
162°	13.1	12.8	13.0	13.0	13.1
163°	13.3	13.0	12.8	13.1	13.3
164°	13.1	12.5	12.4	12.7	13.1
165°	12.4	12.2	12.1	12.5	12.4
166°	12.4	12.1	12.2	12.4	12.4
167°	12.2	11.8	12.1	12.4	12.2
168°	11.8	11.8	11.8	12.2	11.8
169°	11.9	11.5	11.6	12.2	11.9
170°	11.6	11.5	11.5	12.1	11.6
171°	11.6	11.5	11.6	11.8	11.6
172°	11.5	11.5	11.5	11.6	11.5
173°	11.6	11.0	11.5	11.5	11.6
174°	11.6	11.0	12.4	11.9	11.6
175°	12.4	12.5	13.3	12.8	12.4
176°	13.3	13.1	13.3	13.3	13.3
177°	13.3	13.3	13.3	13.4	13.3
178°	13.4	13.3	13.4	13.6	13.4
179°	13.3	13.4	13.3	13.6	13.3



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
180°	13.3	13.3	13.3	13.3	13.3

(END OF REPORT)