

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: P588640

Luminaire Tested: **FM11WSCCR-5000K**

Issue Date: 12/1/2021

Test Information

Test Method: LM-79-08
Report Number: P588640
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (MXL1052-11A)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: FM11WSCCR-5000K
Description: FM WS CCT SELECT
Light Source: (1) 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

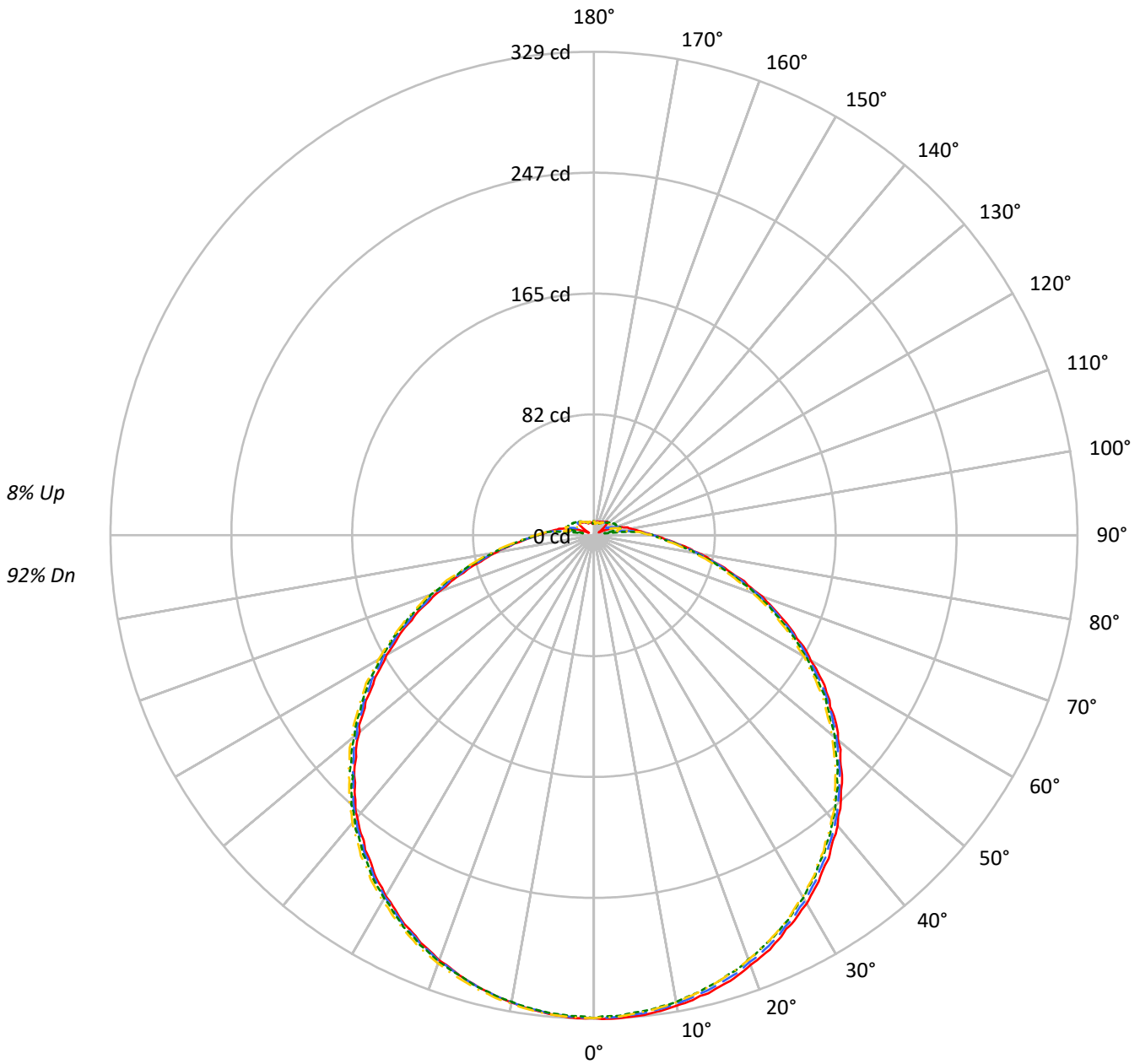
Lumens per Lamp: N/A
Luminaire Lumens: 1172.0 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.92m x L: 0.92m x H: 0.25m)
CIE Type: Direct

Input Watts (W): 13.8
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	113	113	113	113	107	107	107	100	100	100	95	95	95	95	95	95	92
1	105	100	95	90	102	97	92	88	91	87	84	85	83	80	81	78	76	76	76	76	73
2	95	86	79	72	92	83	77	71	78	73	68	74	69	65	70	66	62	62	62	62	60
3	86	75	66	59	83	73	65	58	69	62	56	65	59	54	61	56	52	52	52	52	50
4	79	66	57	50	76	64	56	49	61	53	47	57	51	46	54	49	44	44	44	44	42
5	72	59	49	43	69	57	48	42	54	47	41	51	45	40	49	43	38	38	38	38	36
6	67	53	44	37	64	51	43	36	49	41	35	46	40	34	44	38	34	34	34	34	31
7	62	48	39	32	59	47	38	32	44	37	31	42	35	30	40	34	30	30	30	30	27
8	57	43	35	29	55	42	34	28	40	33	28	38	32	27	37	31	26	26	26	26	24
9	53	40	31	26	52	39	31	25	37	30	25	35	29	24	34	28	24	24	24	24	22
10	50	37	29	23	48	36	28	23	34	27	23	33	26	22	31	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	391	391	391	391
5°	383	380	382	381
10°	374	372	372	371
15°	367	363	363	363
20°	358	354	354	356
25°	351	346	345	347
30°	344	338	336	339
35°	334	328	326	329
40°	326	319	316	320
45°	316	309	305	307
50°	303	299	290	297
55°	292	287	278	285
60°	275	270	263	272
65°	260	253	243	252
70°	242	233	224	234
75°	217	210	202	212
80°	199	189	182	187
85°	182	173	167	172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	2.7
10°-20°	89.6	7.6
20°-30°	137.5	11.7
30°-40°	169.4	14.5
40°-50°	180.7	15.4
50°-60°	170.7	14.6
60°-70°	140.7	12.0
70°-80°	98.0	8.4
80°-90°	58.1	5.0
90°-100°	30.7	2.6
100°-110°	18.6	1.6
110°-120°	12.0	1.0
120°-130°	10.6	0.9
130°-140°	9.7	0.8
140°-150°	6.8	0.6
150°-160°	4.4	0.4
160°-170°	2.6	0.2
170°-180°	0.8	0.1
0°-30°	258.2	22.0
0°-40°	427.6	36.5
0°-60°	779.0	66.5
0°-90°	1075.8	91.8
90°-120°	61.3	5.2
90°-150°	88.4	7.5
90°-180°	96.0	8.2
0°-180°	1172.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	329	329	329	329	329	
5°	328	326	327	327	328	31
15°	320	316	316	317	320	90
25°	302	297	296	298	302	139
35°	274	269	267	270	274	172
45°	239	234	231	232	239	184
55°	196	192	186	191	196	175
65°	146	142	137	142	146	145
75°	95	92	89	93	95	102
85°	55	52	50	52	55	48
90°	40	41	38	38	40	22
95°	32	26	30	28	32	25
105°	21	19	18	19	21	22
115°	8	17	4	18	8	9
125°	7	14	11	15	7	6
135°	13	12	12	13	13	10
145°	11	10	11	11	11	7
155°	10	9	9	10	10	5
165°	10	9	9	10	10	3
175°	9	8	8	8	9	1
180°	10	10	10	10	10	



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CANDELA DISTRIBUTION (FULL):

	0°	90°	180°	270°	360°
0°	328.6	328.6	328.6	328.6	328.6
1°	329.3	327.5	328.9	327.7	329.3
2°	329.2	327.5	328.8	327.5	329.2
3°	329.2	327.4	328.5	327.4	329.2
4°	328.8	326.6	327.8	326.9	328.8
5°	328.5	325.9	327.4	326.6	328.5
6°	328.2	325.6	326.6	325.9	328.2
7°	327.4	325.0	325.8	325.2	327.4
8°	326.9	323.9	325.2	324.5	326.9
9°	325.9	323.4	324.0	323.6	325.9
10°	325.0	322.5	322.9	322.3	325.0
11°	324.3	320.9	321.8	321.5	324.3
12°	323.4	319.9	320.6	320.6	323.4
13°	321.7	318.8	319.1	319.0	321.7
14°	321.4	317.2	318.0	318.0	321.4
15°	319.6	316.0	316.2	316.6	319.6
16°	318.2	314.6	314.7	314.7	318.2
17°	317.2	312.5	313.1	313.1	317.2
18°	315.3	311.6	311.0	312.0	315.3
19°	313.5	309.7	309.1	310.1	313.5
20°	311.2	307.1	307.8	308.9	311.2
21°	309.8	305.7	305.3	306.7	309.8
22°	307.9	303.4	303.1	304.5	307.9
23°	306.3	301.4	301.4	303.0	306.3
24°	303.6	299.7	298.5	300.1	303.6
25°	301.5	297.3	296.2	298.2	301.5
26°	298.1	294.7	294.3	296.3	298.1
27°	296.7	292.8	291.5	293.3	296.7
28°	294.3	289.8	288.4	290.7	294.3
29°	291.5	286.9	285.5	287.4	291.5
30°	289.6	285.0	283.5	285.5	289.6
31°	286.4	281.7	280.0	282.4	286.4
32°	283.5	278.9	277.6	280.1	283.5
33°	280.9	276.5	274.5	277.2	280.9
34°	277.1	272.3	270.4	273.5	277.1
35°	274.1	269.3	267.3	270.1	274.1
36°	271.8	266.9	264.8	267.7	271.8
37°	267.8	262.8	260.2	263.5	267.8
38°	264.0	260.2	257.6	260.2	264.0
39°	261.4	256.5	254.2	257.7	261.4
40°	258.0	252.8	250.4	253.1	258.0
41°	253.5	250.2	247.5	249.4	253.5
42°	250.5	245.6	242.6	246.7	250.5
43°	246.5	241.6	238.9	241.8	246.5
44°	241.9	238.8	234.0	237.8	241.9



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
45°	238.8	233.7	230.7	232.0	238.8
46°	234.7	230.6	226.4	231.0	234.7
47°	229.5	226.4	221.2	225.6	229.5
48°	225.6	221.5	218.0	222.3	225.6
49°	222.4	217.1	213.5	217.8	222.4
50°	216.8	214.1	208.0	212.6	216.8
51°	213.7	209.4	205.8	209.2	213.7
52°	209.2	204.0	200.1	204.8	209.2
53°	204.7	200.4	195.3	199.1	204.7
54°	198.7	195.7	191.9	195.7	198.7
55°	195.7	192.3	186.1	191.0	195.7
56°	190.8	186.6	181.2	186.4	190.8
57°	187.1	181.6	177.6	183.0	187.1
58°	181.2	175.8	171.7	177.0	181.2
59°	176.3	171.8	166.6	171.8	176.3
60°	170.3	167.4	163.0	168.4	170.3
61°	166.3	161.2	157.0	162.0	166.3
62°	161.6	157.5	152.2	157.1	161.6
63°	155.0	152.5	148.2	153.4	155.0
64°	151.2	147.6	143.0	147.0	151.2
65°	146.2	142.4	136.8	141.9	146.2
66°	141.0	137.3	133.0	138.1	141.0
67°	135.8	132.3	127.9	131.6	135.8
68°	130.9	128.4	121.5	126.4	130.9
69°	125.9	122.1	117.8	122.9	125.9
70°	121.9	117.0	112.5	117.7	121.9
71°	115.4	113.2	106.2	111.3	115.4
72°	110.3	107.0	102.4	107.5	110.3
73°	106.9	102.1	97.8	102.6	106.9
74°	100.2	98.5	92.3	96.4	100.2
75°	95.3	92.4	88.8	92.9	95.3
76°	91.8	87.8	84.1	88.1	91.8
77°	85.9	84.4	78.7	82.5	85.9
78°	81.5	80.0	75.4	79.0	81.5
79°	78.1	74.5	71.5	74.5	78.1
80°	74.0	70.4	67.5	69.4	74.0
81°	68.6	67.4	64.9	66.6	68.6
82°	66.0	62.6	60.3	62.5	66.0
83°	62.2	59.7	56.7	58.1	62.2
84°	57.5	56.2	54.5	55.5	57.5
85°	54.8	52.1	50.3	52.0	54.8
86°	51.7	49.0	47.6	49.0	51.7
87°	47.9	46.9	45.4	46.1	47.9
88°	46.0	43.5	42.3	43.2	46.0
89°	43.5	41.7	40.0	41.2	43.5



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
90°	40.2	40.9	38.2	37.9	40.2
91°	38.7	36.7	35.9	36.8	38.7
92°	36.4	34.4	34.1	35.2	36.4
93°	34.5	33.3	33.0	33.1	34.5
94°	33.3	31.2	31.5	31.5	33.3
95°	31.5	26.5	29.8	28.1	31.5
96°	30.0	23.0	28.9	22.1	30.0
97°	29.2	18.1	27.6	18.4	29.2
98°	27.6	11.9	26.3	13.4	27.6
99°	26.6	8.9	25.1	9.2	26.6
100°	25.6	7.2	24.7	7.6	25.6
101°	24.7	9.2	23.3	8.2	24.7
102°	24.0	11.7	21.7	11.3	24.0
103°	23.5	15.0	20.7	13.5	23.5
104°	22.2	18.3	19.2	17.4	22.2
105°	20.9	18.7	17.6	19.4	20.9
106°	19.9	18.7	16.4	19.8	19.9
107°	18.7	18.4	14.9	19.4	18.7
108°	17.6	18.3	13.0	18.8	17.6
109°	15.5	17.9	11.9	18.8	15.5
110°	15.5	17.7	10.3	18.5	15.5
111°	13.6	17.4	8.2	18.4	13.6
112°	12.3	17.3	7.0	18.3	12.3
113°	10.9	17.2	5.6	18.1	10.9
114°	9.8	16.8	4.1	17.9	9.8
115°	8.4	16.6	3.8	17.6	8.4
116°	7.5	16.4	3.7	17.4	7.5
117°	5.7	16.4	4.0	17.2	5.7
118°	4.8	16.4	4.5	16.8	4.8
119°	3.8	15.8	5.3	16.5	3.8
120°	3.8	15.7	6.7	16.4	3.8
121°	4.0	15.4	7.2	16.4	4.0
122°	4.8	15.3	8.6	16.0	4.8
123°	5.2	14.7	9.0	15.7	5.2
124°	6.1	14.7	10.1	15.5	6.1
125°	6.7	14.4	11.3	15.4	6.7
126°	7.2	14.2	12.3	14.9	7.2
127°	8.1	13.8	12.8	15.0	8.1
128°	8.7	13.6	13.6	14.6	8.7
129°	9.7	13.5	13.4	14.4	9.7
130°	10.8	13.4	13.4	14.4	10.8
131°	11.3	13.0	13.0	13.9	11.3
132°	12.3	12.8	13.1	13.6	12.3
133°	12.8	12.5	12.7	13.6	12.8
134°	13.1	12.5	12.4	13.5	13.1



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
135°	13.0	12.0	12.4	13.0	13.0
136°	12.8	11.7	12.0	13.1	12.8
137°	12.4	11.7	11.7	12.8	12.4
138°	12.4	11.7	11.6	12.5	12.4
139°	12.3	11.4	11.7	12.3	12.3
140°	11.7	11.1	11.6	12.0	11.7
141°	11.6	10.9	11.1	11.7	11.6
142°	11.7	10.8	11.3	11.6	11.7
143°	11.4	10.6	11.1	11.4	11.4
144°	11.1	10.3	10.9	11.3	11.1
145°	10.9	10.1	10.8	11.3	10.9
146°	10.8	10.1	10.5	11.1	10.8
147°	10.6	10.0	10.5	10.8	10.6
148°	10.6	10.0	10.3	10.6	10.6
149°	10.5	9.8	10.1	10.6	10.5
150°	10.5	9.7	9.7	10.3	10.5
151°	10.1	9.4	9.8	10.1	10.1
152°	10.0	9.0	9.5	9.8	10.0
153°	10.0	9.2	9.4	10.0	10.0
154°	9.7	9.0	9.0	9.8	9.7
155°	10.0	8.9	9.2	9.7	10.0
156°	9.8	9.0	8.9	9.7	9.8
157°	9.5	8.9	9.0	9.4	9.5
158°	9.5	8.9	9.0	9.5	9.5
159°	9.7	8.7	9.0	9.4	9.7
160°	9.4	8.9	9.0	9.4	9.4
161°	9.5	8.7	8.7	9.4	9.5
162°	9.5	8.7	9.0	9.7	9.5
163°	9.7	8.7	9.0	9.8	9.7
164°	9.8	9.0	9.0	9.7	9.8
165°	9.7	9.0	9.4	9.7	9.7
166°	9.8	9.0	9.0	9.5	9.8
167°	9.7	8.9	8.7	9.4	9.7
168°	9.5	8.6	8.6	9.0	9.5
169°	9.2	8.4	8.6	9.0	9.2
170°	9.4	8.4	8.2	8.9	9.4
171°	9.2	8.2	8.6	8.6	9.2
172°	9.2	8.2	8.4	8.6	9.2
173°	8.9	8.1	7.9	8.4	8.9
174°	8.6	7.9	7.9	8.2	8.6
175°	8.7	7.8	7.8	7.9	8.7
176°	8.6	8.2	8.7	7.9	8.6
177°	8.7	9.4	9.4	8.9	8.7
178°	9.4	9.5	9.4	9.5	9.4
179°	9.5	9.4	9.4	9.7	9.5



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CANDELA DISTRIBUTION (continued):

	0°	90°	180°	270°	360°
180°	9.5	9.5	9.5	9.5	9.5

(END OF REPORT)