

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 227P121

Luminaire Tested: **SM-354**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P121
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-354
Description: Cricket Series Luminaire Plain
Light Source: Three - F54T5/830 H0 - 4400 Lumens ea. - 54 Watts ea.
Ballast/Driver: Two - Triad B254PUNV-D Electronic

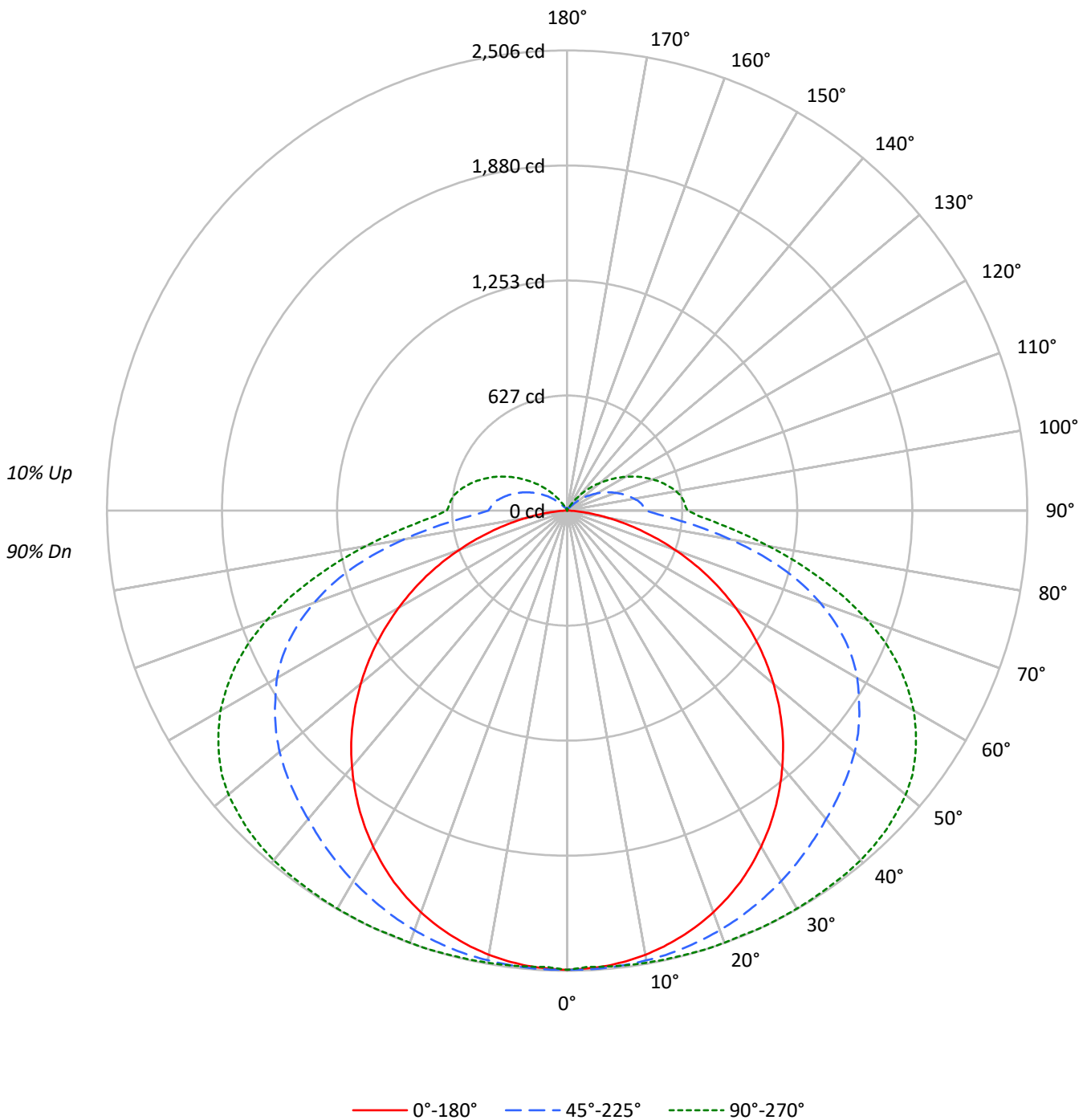
Summary

Lumens per Lamp: 4400 (3 lamps)
Luminaire Lumens: 11204.4 lumens
Efficiency: 84.9%
Efficacy: 66.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.53 / 1.58
Luminous Opening: Rectangular w/ Sides (W: 0.35' x L: 3.76' x H: 0.07')
CIE Type: Semi-Direct

Input Watts (W): 169
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	50	30	10	0	
RCR																						
0	99	99	99	99	96	96	96	96	89	89	89	84	84	84	79	79	79	76				
1	88	83	79	75	85	80	76	73	75	72	69	70	68	65	66	64	62	59				
2	79	71	64	59	76	69	62	57	64	59	55	60	56	52	56	53	50	47				
3	71	61	54	47	68	59	52	46	55	49	44	52	47	43	49	44	41	38				
4	65	54	46	39	62	52	44	39	49	42	37	46	40	36	43	38	34	32				
5	59	48	39	33	57	46	38	33	43	37	31	41	35	30	38	33	29	27				
6	55	42	34	29	52	41	34	28	39	32	27	36	31	26	34	29	25	23				
7	50	38	30	25	48	37	30	24	35	28	24	33	27	23	31	26	22	20				
8	47	35	27	22	45	34	27	22	32	25	21	30	24	20	28	23	20	18				
9	44	32	24	20	42	31	24	19	29	23	19	28	22	18	26	21	18	16				
10	41	29	22	18	39	28	22	17	27	21	17	26	20	16	24	19	16	14				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20456	20456	20456
5°	20403	20244	20109
10°	20331	20108	20056
15°	20239	20051	20117
20°	20127	20041	20316
25°	19970	20085	20679
30°	19744	20211	21193
35°	19486	20407	21861
40°	19165	20736	22729
45°	18783	21279	23694
50°	18262	21963	24733
55°	17641	22697	25689
60°	16798	23549	26486
65°	15745	24274	26967
70°	14219	24607	26839
75°	12204	24269	25859
80°	9458	22639	24564
85°	5804	20723	23733



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	238.0	2.1	1.8	0°	2501	2501	2501	2501	2501	
10°-20°	696.6	6.2	5.3	5°	2489	2496	2499	2505	2492	237
20°-30°	1099.5	9.8	8.3	15°	2402	2428	2466	2504	2503	678
30°-40°	1413.9	12.6	10.7	25°	2232	2288	2386	2480	2505	1028
40°-50°	1617.0	14.4	12.3	35°	1977	2079	2265	2440	2496	1236
50°-60°	1671.8	14.9	12.7	45°	1654	1817	2124	2377	2458	1274
60°-70°	1535.9	13.7	11.6	55°	1270	1518	1943	2226	2316	1133
70°-80°	1151.7	10.3	8.7	65°	846	1223	1670	1914	1991	836
80°-90°	622.9	5.6	4.7	75°	413	871	1211	1378	1429	439
90°-100°	398.3	3.6	3.0	85°	75	376	611	775	831	92
100°-110°	319.8	2.9	2.4	90°	4	192	429	597	655	5
110°-120°	221.1	2.0	1.7	95°	4	164	408	576	636	4
120°-130°	129.4	1.2	1.0	105°	5	108	328	495	553	5
130°-140°	59.7	0.5	0.5	115°	6	54	235	381	434	6
140°-150°	18.0	0.2	0.1	125°	6	19	142	258	300	5
150°-160°	6.9	0.1	0.1	135°	7	19	53	140	172	6
160°-170°	3.2	0.0	0.0	145°	9	16	19	37	54	6
170°-180°	0.8	0.0	0.0	155°	10	13	18	16	13	5
0°-30°	2034.0	18.2	15.4	165°	11	12	12	10	7	3
0°-40°	3448.0	30.8	26.1	175°	12	12	9	5	0	1
0°-60°	6736.8	60.1	51.0	180°	8	8	8	8	8	
0°-90°	10047.4	89.7	76.1							
90°-120°	939.1	8.4	7.1							
90°-150°	1146.2	10.2	8.7							
90°-180°	1157.0	10.3	8.8							
0°-180°	11204.4	100.0	84.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2501	2501	2501	2501	2501
2.5°	2496	2503	2502	2502	2488
5°	2489	2496	2499	2505	2492
7.5°	2475	2485	2494	2506	2497
10°	2456	2470	2487	2505	2500
12.5°	2432	2451	2479	2505	2502
15°	2402	2428	2466	2504	2503
17.5°	2368	2400	2450	2500	2506
20°	2328	2368	2432	2492	2504
22.5°	2282	2330	2411	2486	2502
25°	2232	2288	2386	2480	2505
27.5°	2175	2242	2359	2472	2504
30°	2113	2191	2331	2462	2503
32.5°	2047	2137	2299	2451	2500
35°	1977	2079	2265	2440	2496
37.5°	1902	2017	2230	2428	2493
40°	1823	1953	2194	2414	2486
42.5°	1741	1886	2160	2397	2474
45°	1654	1817	2124	2377	2458
47.5°	1562	1745	2086	2352	2434
50°	1467	1671	2044	2318	2407
52.5°	1369	1594	1997	2278	2369
55°	1270	1518	1943	2226	2316
57.5°	1166	1442	1883	2164	2252
60°	1060	1369	1825	2097	2180
62.5°	954	1296	1754	2013	2091
65°	846	1223	1670	1914	1991
67.5°	736	1146	1575	1807	1875
70°	625	1063	1466	1680	1739
72.5°	518	973	1348	1535	1589
75°	413	871	1211	1378	1429
77.5°	313	760	1060	1217	1270
80°	222	641	902	1060	1113
82.5°	141	513	751	911	965
85°	75	376	611	775	831
87.5°	26	259	497	662	721
90°	4	192	429	597	655
92.5°	4	177	417	584	643
95°	4	164	408	576	636
97.5°	5	150	392	563	623
100°	5	136	371	544	603
102.5°	5	123	350	520	579
105°	5	108	328	495	553
107.5°	5	95	305	468	526
110°	5	81	282	439	495



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5	68	259	410	465
115°	6	54	235	381	434
117.5°	6	41	211	350	401
120°	6	30	187	319	368
122.5°	6	23	164	288	335
125°	6	19	142	258	300
127.5°	6	18	119	228	267
130°	7	18	96	198	235
132.5°	7	18	74	169	204
135°	7	19	53	140	172
137.5°	8	18	36	112	142
140°	8	18	25	85	111
142.5°	9	17	20	59	82
145°	9	16	19	37	54
147.5°	9	16	19	23	31
150°	10	15	19	17	19
152.5°	10	14	19	16	14
155°	10	13	18	16	13
157.5°	10	13	17	16	13
160°	10	12	15	15	12
162.5°	11	12	14	13	10
165°	11	12	12	10	7
167.5°	11	12	10	8	5
170°	11	12	10	6	3
172.5°	11	12	9	5	1
175°	12	12	9	5	0
177.5°	12	12	9	5	0
180°	8	8	8	8	8

(END OF REPORT)