

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: 227P123

Luminaire Tested: **SM-354-SYM**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P123
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-354-SYM
Description: Cricket Series Luminaire with a white symmetric reflector.
Light Source: Three - F54T5/830 H0 - 4400 Lumens ea. - 54 Watts ea.
Ballast/Driver: Two - Triad B254PUNV-D Electronic

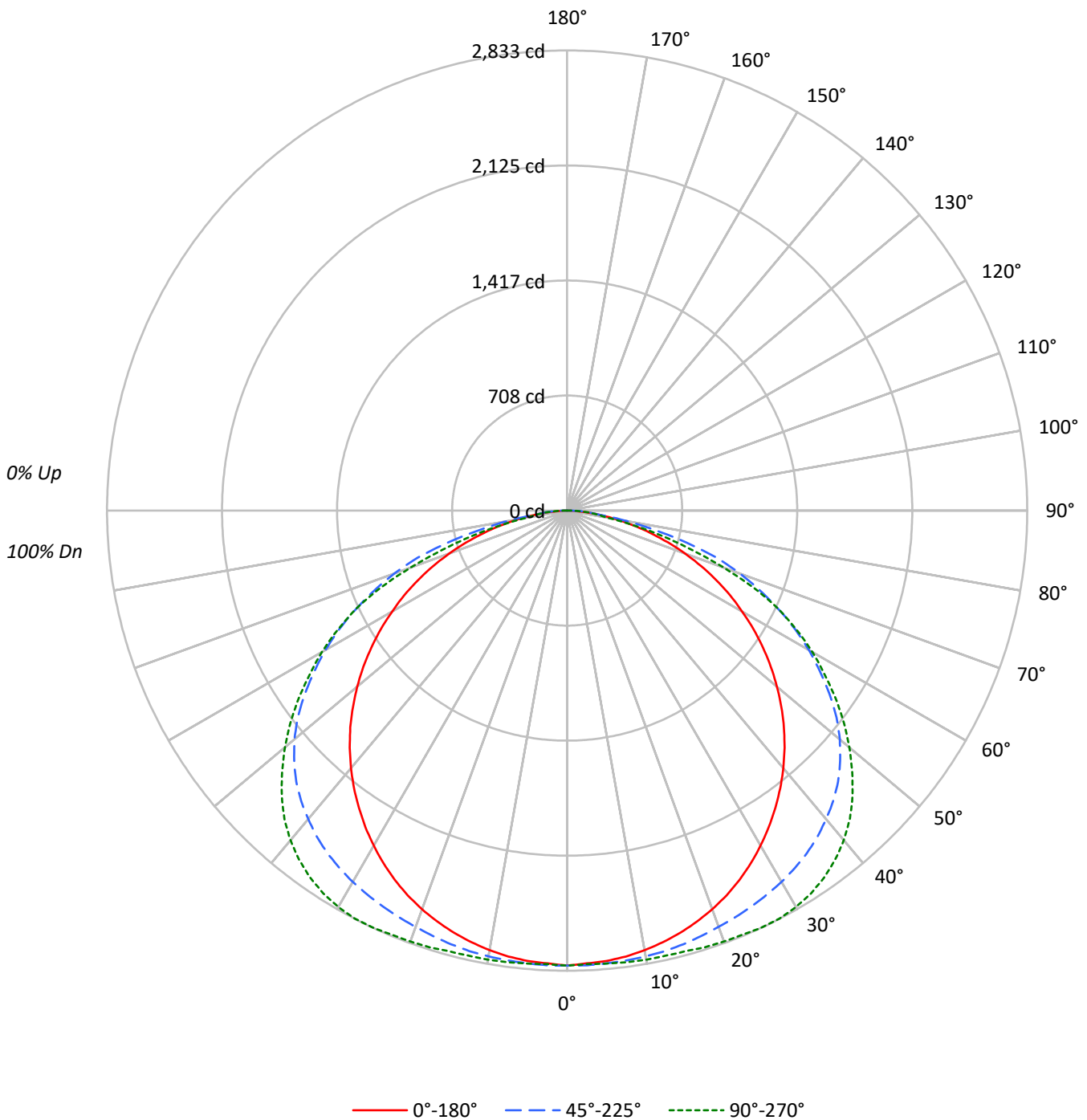
Summary

Lumens per Lamp: 4400 (3 lamps)
Luminaire Lumens: 9546.7 lumens
Efficiency: 72.3%
Efficacy: 59.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.49 / 1.55
Luminous Opening: Rectangular w/ Sides (W: 0.47' x L: 3.76' x H: 0.1')
CIE Type: Direct

Input Watts (W): 160
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	86	86	86	86	84	84	84	84	80	80	80	77	77	77	74	74	74	72				
1	78	75	72	69	76	73	70	68	70	68	65	67	65	63	65	63	61	60				
2	71	65	59	55	69	63	59	54	61	57	53	58	55	52	56	53	51	49				
3	64	56	50	45	62	55	49	45	53	48	44	51	47	43	49	46	43	41				
4	59	50	43	38	57	49	42	38	47	41	37	45	40	37	43	39	36	34				
5	54	44	37	32	52	43	37	32	42	36	32	40	35	31	39	35	31	29				
6	49	39	33	28	48	39	32	28	37	32	28	36	31	27	35	31	27	25				
7	46	36	29	24	44	35	29	24	34	28	24	33	28	24	32	27	24	22				
8	42	32	26	22	41	32	26	22	31	25	21	30	25	21	29	25	21	20				
9	40	30	23	19	39	29	23	19	28	23	19	28	23	19	27	22	19	18				
10	37	27	21	17	36	27	21	17	26	21	17	25	21	17	25	20	17	16				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17061	17061	17061
5°	16976	16858	16801
10°	16917	16738	16733
15°	16849	16673	16758
20°	16768	16650	16983
25°	16662	16744	17321
30°	16500	16915	17651
35°	16315	17111	17848
40°	16100	17267	17879
45°	15842	17379	17650
50°	15495	17277	17144
55°	15060	16873	16436
60°	14499	16193	15533
65°	13812	15185	14232
70°	12779	13736	11509
75°	11347	10990	7962
80°	9296	6711	3894
85°	6056	3215	2688



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	266.7	2.8	2.0	0°	2801	2801	2801	2801	2801	
10°-20°	781.2	8.2	5.9	5°	2783	2793	2798	2809	2799	265
20°-30°	1239.3	13.0	9.4	15°	2691	2721	2764	2807	2809	760
30°-40°	1587.7	16.6	12.0	25°	2510	2573	2688	2803	2833	1156
40°-50°	1752.7	18.4	13.3	35°	2235	2352	2574	2725	2758	1398
50°-60°	1672.6	17.5	12.7	45°	1888	2084	2359	2471	2485	1455
60°-70°	1343.4	14.1	10.2	55°	1472	1762	1973	2011	2018	1315
70°-80°	734.4	7.7	5.6	65°	1013	1356	1436	1445	1438	1001
80°-90°	168.6	1.8	1.3	75°	530	800	762	642	607	562
90°-100°	0.0	0.0	0.0	85°	113	176	135	133	132	133
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	5
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	2287.1	24.0	17.3	165°	0	0	0	0	0	0
0°-40°	3874.9	40.6	29.4	175°	0	0	0	0	0	0
0°-60°	7300.2	76.5	55.3	180°	0	0	0	0	0	0
0°-90°	9546.7	100.0	72.3							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	9546.7	100.0	72.3							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2801	2801	2801	2801	2801
2.5°	2790	2801	2802	2806	2795
5°	2783	2793	2798	2809	2799
7.5°	2769	2782	2793	2810	2804
10°	2748	2766	2787	2809	2807
12.5°	2722	2745	2778	2808	2807
15°	2691	2721	2764	2807	2809
17.5°	2654	2693	2746	2805	2819
20°	2612	2658	2727	2804	2823
22.5°	2564	2618	2709	2804	2825
25°	2510	2573	2688	2803	2833
27.5°	2449	2524	2665	2797	2831
30°	2382	2470	2640	2783	2818
32.5°	2311	2413	2609	2759	2794
35°	2235	2352	2574	2725	2758
37.5°	2155	2289	2531	2680	2710
40°	2070	2223	2480	2621	2650
42.5°	1981	2155	2425	2552	2576
45°	1888	2084	2359	2471	2485
47.5°	1789	2010	2280	2375	2380
50°	1687	1932	2191	2261	2268
52.5°	1581	1850	2091	2142	2149
55°	1472	1762	1973	2011	2018
57.5°	1361	1669	1847	1878	1881
60°	1245	1574	1719	1743	1745
62.5°	1132	1469	1582	1596	1595
65°	1013	1356	1436	1445	1438
67.5°	893	1238	1285	1280	1247
70°	770	1104	1130	1073	1024
72.5°	649	954	965	851	806
75°	530	800	762	642	607
77.5°	414	639	554	459	422
80°	305	493	375	270	245
82.5°	204	324	207	184	184
85°	113	176	135	133	132
87.5°	39	89	81	72	70
90°	0	0	0	0	0
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)