

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: 163P102

Luminaire Tested: **GCASF2048-340A-PAF**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 163P102  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: GCASF2048-340A-PAF  
Description: 20" X 48" Recessed Convertible Body Troffer  
with a .095 pattern 12 acrylic lens.  
Light Source: Three-F40CW - 3050 Lumens ea. - 40 Watts ea.  
Ballast/Driver: Advance R-2S40-1-TP

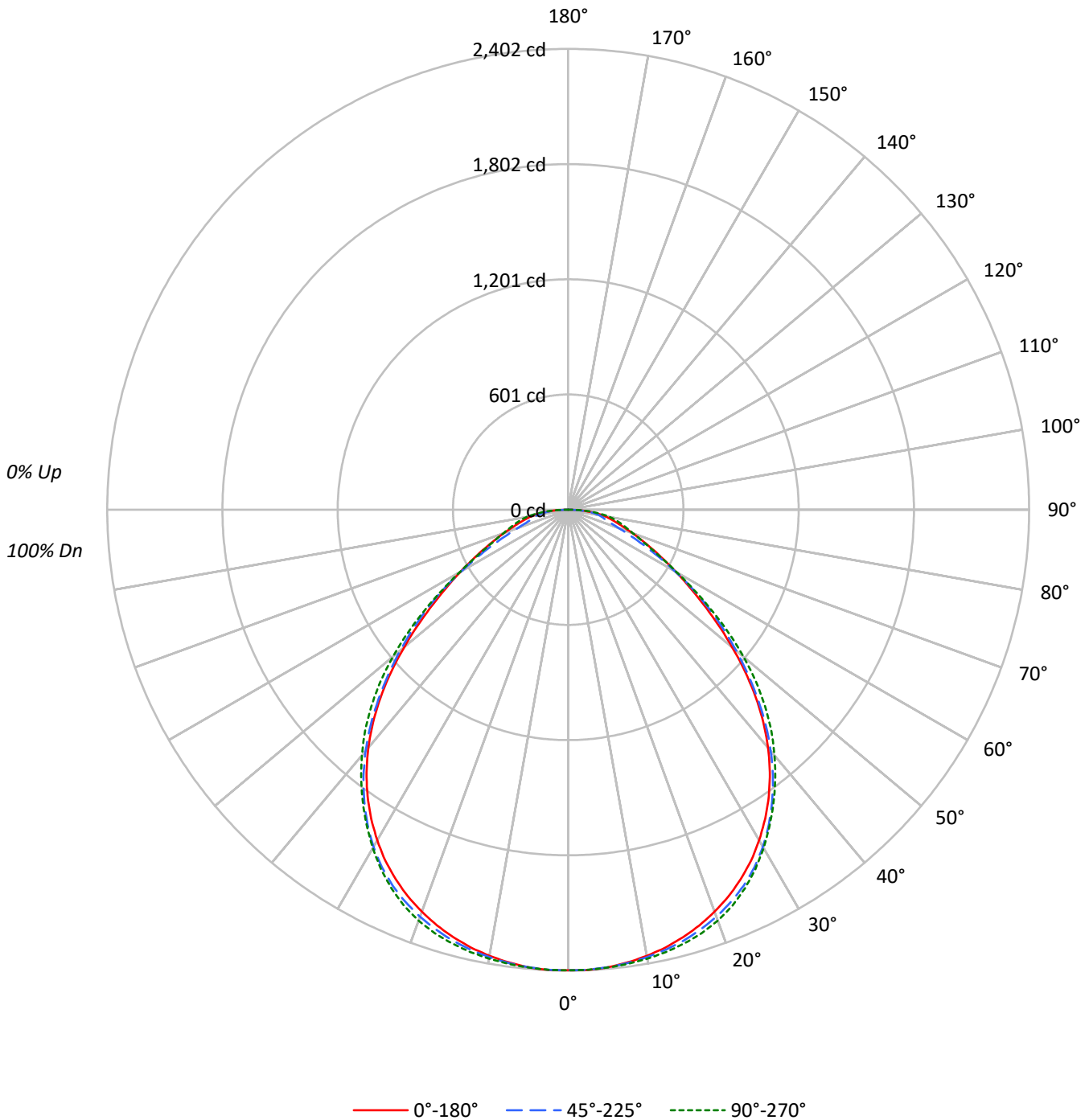
**Summary**

Lumens per Lamp: 3050 (3 lamps)  
Luminaire Lumens: 5735.4 lumens  
Efficiency: 62.7%  
Efficacy: 43.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.31  
Luminous Opening: Rectangular (W 1.35' x L: 3.7' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 130.6  
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	0
RCR																		
0	75	75	75	75	73	73	73	73	70	70	70	67	67	67	64	64	64	63
1	69	66	64	61	67	65	62	60	62	60	58	60	58	57	57	56	55	54
2	63	58	54	51	62	57	54	51	55	52	49	53	50	48	51	49	47	46
3	58	52	47	43	57	51	47	43	49	45	42	47	44	42	46	43	41	40
4	53	46	41	37	52	46	41	37	44	40	37	43	39	36	41	38	36	34
5	49	42	37	33	48	41	36	32	40	35	32	39	35	32	37	34	31	30
6	46	38	33	29	45	37	32	29	36	32	28	35	31	28	34	31	28	27
7	43	35	29	26	42	34	29	26	33	29	25	32	28	25	31	28	25	24
8	40	32	27	23	39	31	26	23	30	26	23	30	26	23	29	25	23	21
9	37	29	24	21	36	29	24	21	28	24	21	27	23	21	27	23	20	19
10	35	27	22	19	34	27	22	19	26	22	19	25	22	19	25	21	19	18

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5154	5154	5154
5°	5158	5158	5160
10°	5146	5161	5179
15°	5129	5166	5200
20°	5094	5158	5206
25°	5035	5123	5158
30°	4932	5029	5046
35°	4777	4858	4887
40°	4539	4601	4688
45°	4195	4244	4407
50°	3723	3813	3984
55°	3218	3338	3409
60°	2782	2760	2803
65°	2443	2184	2387
70°	2228	1751	2253
75°	2156	1667	2388
80°	2386	2015	2719
85°	2512	2290	2980



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	227.6	4.0	2.5	0°	2401	2401	2401	2401	2401	
10°-20°	655.8	11.4	7.2	5°	2394	2391	2394	2393	2395	227
20°-30°	991.9	17.3	10.8	15°	2308	2311	2325	2334	2340	651
30°-40°	1152.6	20.1	12.6	25°	2126	2138	2163	2175	2178	978
40°-50°	1080.5	18.8	11.8	35°	1823	1837	1854	1858	1865	1136
50°-60°	792.6	13.8	8.7	45°	1382	1386	1398	1425	1452	1061
60°-70°	462.4	8.1	5.1	55°	860	862	892	898	911	775
70°-80°	264.8	4.6	2.9	65°	481	451	430	470	470	484
80°-90°	107.1	1.9	1.2	75°	260	243	201	272	288	281
90°-100°	0.0	0.0	0.0	85°	102	93	93	114	121	102
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	7
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°	1875.4	32.7	20.5	165°	0	0	0	0	0	0
0°-40°	3028.0	52.8	33.1	175°	0	0	0	0	0	0
0°-60°	4901.0	85.5	53.6	180°	0	0	0	0	0	0
0°-90°	5735.4	100.0	62.7							
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°	5735.4	100.0	62.7							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2401	2401	2401	2401	2401
2.5°	2402	2399	2400	2398	2400
5°	2394	2391	2394	2393	2395
7.5°	2380	2380	2383	2385	2388
10°	2361	2362	2368	2373	2376
12.5°	2338	2339	2349	2356	2361
15°	2308	2311	2325	2334	2340
17.5°	2272	2278	2294	2308	2314
20°	2230	2238	2258	2273	2279
22.5°	2182	2191	2214	2229	2235
25°	2126	2138	2163	2175	2178
27.5°	2063	2077	2101	2109	2112
30°	1990	2007	2029	2032	2036
32.5°	1910	1927	1946	1948	1953
35°	1823	1837	1854	1858	1865
37.5°	1726	1739	1752	1761	1772
40°	1620	1630	1642	1656	1673
42.5°	1506	1512	1524	1544	1567
45°	1382	1386	1398	1425	1452
47.5°	1251	1253	1270	1298	1327
50°	1115	1121	1142	1166	1193
52.5°	985	988	1017	1034	1053
55°	860	862	892	898	911
57.5°	748	741	767	769	774
60°	648	629	643	651	653
62.5°	559	532	530	551	552
65°	481	451	430	470	470
67.5°	415	383	343	407	408
70°	355	327	279	356	359
72.5°	303	282	231	312	320
75°	260	243	201	272	288
77.5°	227	205	183	233	256
80°	193	166	163	195	220
82.5°	150	129	133	156	174
85°	102	93	93	114	121
87.5°	52	51	48	61	63
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)