

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: 160P105

Luminaire Tested: **GCASF-140A-PAF**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 160P105  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: GCASF-140A-PAF  
Description: 1 X 4 Recessed Convertible Body Troffer with  
a .095 pattern 12 acrylic lens.  
Light Source: F40CW - 3050 Lumens - 40 Watts  
Ballast/Driver: Advance R-140-1-TP

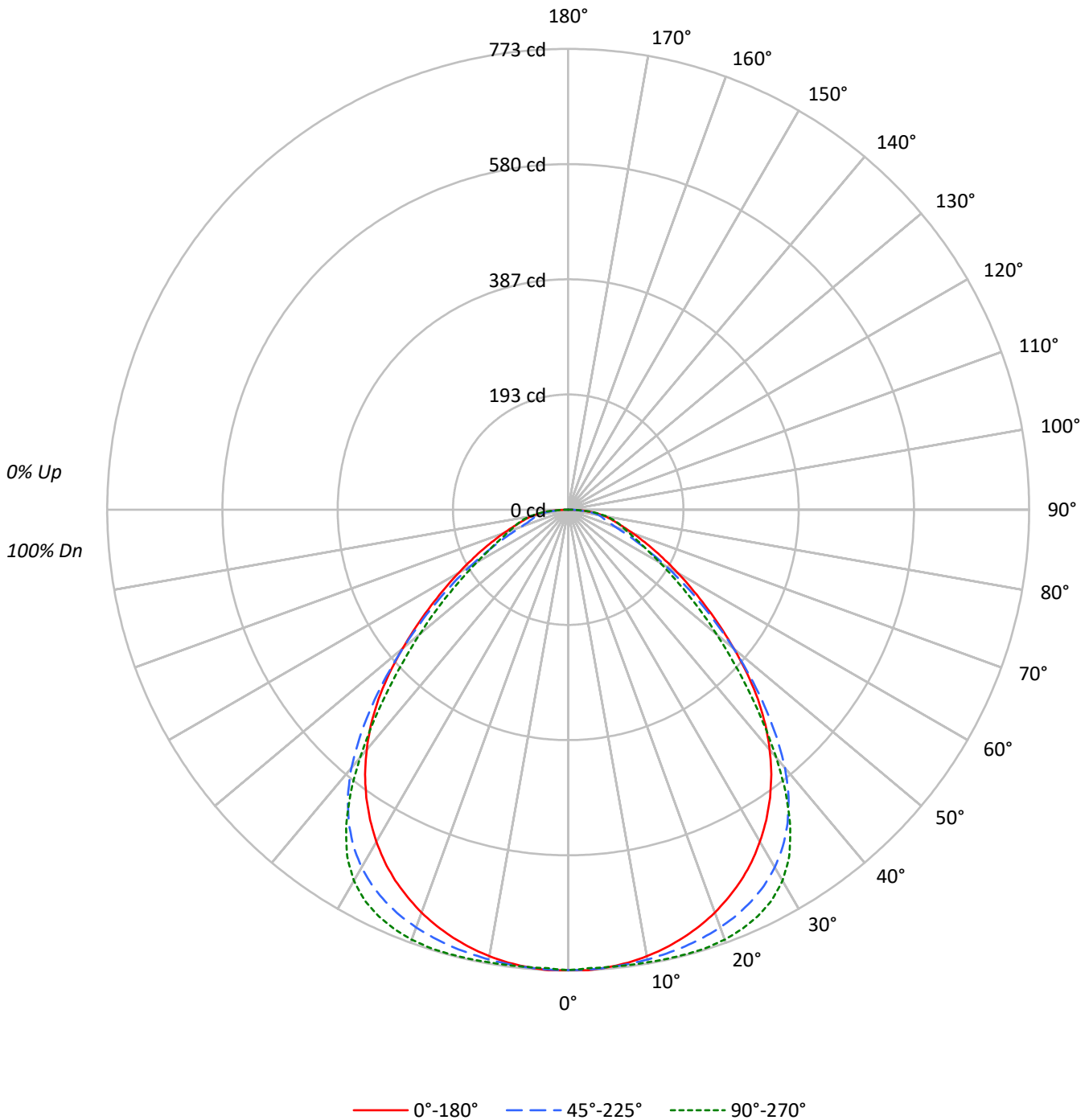
**Summary**

Lumens per Lamp: 3050 (1 lamp)  
Luminaire Lumens: 1852.6 lumens  
Efficiency: 60.7%  
Efficacy: 37.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.33 / 1.33  
Luminous Opening: Rectangular (W 0.69' x L: 3.7' x H: 0')  
CIE Type: Direct

Input Watts (W): 49.4  
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	72	72	72	72	71	71	71	71	67	67	67	65	65	65	62	62	62	61
1	67	64	62	60	65	63	61	59	60	58	57	58	56	55	56	55	53	52
2	61	57	53	50	60	56	52	49	54	51	48	52	49	47	50	48	46	45
3	56	51	46	42	55	50	45	42	48	44	41	46	43	41	45	42	40	39
4	52	45	40	37	51	45	40	36	43	39	36	42	38	35	40	37	35	34
5	48	41	36	32	47	40	35	32	39	35	32	38	34	31	37	34	31	30
6	45	37	32	28	44	37	32	28	35	31	28	34	31	28	34	30	28	26
7	42	34	29	25	41	33	29	25	32	28	25	32	28	25	31	27	25	24
8	39	31	26	23	38	31	26	23	30	26	23	29	25	22	28	25	22	21
9	36	29	24	21	35	28	24	21	28	23	20	27	23	20	26	23	20	19
10	34	26	22	19	33	26	22	19	26	21	19	25	21	19	24	21	18	17

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

	0°	45°	90°
0°	3270	3270	3270
5°	3275	3276	3273
10°	3270	3294	3314
15°	3260	3324	3382
20°	3240	3360	3458
25°	3206	3389	3515
30°	3144	3388	3514
35°	3050	3316	3356
40°	2906	3127	2999
45°	2694	2788	2551
50°	2392	2383	2139
55°	2069	1979	1780
60°	1795	1606	1500
65°	1578	1266	1335
70°	1425	1036	1295
75°	1368	1037	1413
80°	1519	1275	1604
85°	1603	1399	1788



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	73.4	4.0	2.4	0°	772	772	772	772	772	
10°-20°	214.3	11.6	7.0	5°	770	770	771	772	770	73
20°-30°	332.5	17.9	10.9	15°	744	747	758	770	772	210
30°-40°	391.6	21.1	12.8	25°	686	698	725	747	752	316
40°-50°	347.9	18.8	11.4	35°	590	611	642	651	649	368
50°-60°	238.2	12.9	7.8	45°	450	466	466	438	426	345
60°-70°	138.4	7.5	4.5	55°	280	283	268	246	241	253
70°-80°	82.7	4.5	2.7	65°	158	141	126	133	133	158
80°-90°	33.6	1.8	1.1	75°	84	78	63	85	86	90
90°-100°	0.0	0.0	0.0	85°	33	30	29	35	37	33
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	2
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°	620.3	33.5	20.3	165°	0	0	0	0	0	0
0°-40°	1011.9	54.6	33.2	175°	0	0	0	0	0	0
0°-60°	1598.0	86.3	52.4	180°	0	0	0	0	0	0
0°-90°	1852.6	100.0	60.7							
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°	1852.6	100.0	60.7							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	772.4	772.4	772.4	772.4	772.4
2.5°	773.1	771.7	772.1	772.7	769.9
5°	770.5	769.7	770.8	772.5	770.0
7.5°	766.4	766.2	768.8	772.2	770.6
10°	760.6	761.2	766.1	771.5	770.8
12.5°	753.0	754.8	762.5	770.8	771.3
15°	743.7	746.8	758.3	769.8	771.5
17.5°	732.4	737.3	752.6	767.7	770.6
20°	719.2	726.1	745.7	763.4	767.4
22.5°	703.7	713.2	736.8	756.7	761.5
25°	686.3	698.3	725.4	746.9	752.4
27.5°	666.2	680.8	711.2	733.7	738.9
30°	643.1	660.3	692.9	714.1	718.8
32.5°	617.8	636.9	669.9	687.4	689.8
35°	590.0	610.6	641.6	651.4	649.3
37.5°	559.6	580.3	607.0	605.5	599.6
40°	525.7	546.4	565.8	553.1	542.7
42.5°	489.5	507.9	517.2	496.3	483.6
45°	450.0	465.8	465.6	438.5	426.1
47.5°	406.9	421.6	413.3	382.9	372.7
50°	363.2	375.9	361.8	331.5	324.7
52.5°	320.1	329.3	312.6	286.1	281.0
55°	280.3	282.6	268.1	245.5	241.2
57.5°	244.5	238.9	226.8	209.3	206.6
60°	212.0	199.5	189.6	178.7	177.1
62.5°	182.9	166.9	155.7	153.4	152.9
65°	157.5	141.1	126.4	133.4	133.3
67.5°	134.9	120.2	102.6	118.1	117.4
70°	115.1	103.5	83.7	106.2	104.6
72.5°	97.7	89.9	71.2	95.7	94.7
75°	83.6	77.9	63.4	84.6	86.4
77.5°	72.8	65.9	58.1	72.8	77.3
80°	62.3	53.8	52.3	60.4	65.8
82.5°	48.4	41.5	42.4	48.6	52.3
85°	33.0	30.2	28.8	35.1	36.8
87.5°	16.6	16.7	14.2	18.3	17.6
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)