

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: 160P109

Luminaire Tested: **GCASF-232A-PAF**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 160P109
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: GCASF-232A-PAF
Description: 1 X 4 Recessed Troffer with a
.095 pattern 12 acrylic lens.
Light Source: Two-F32T8/35K - 2850 Lumens ea. - 32 Watts ea.
Ballast/Driver: Triad-Utrad B232I120RH Electronic

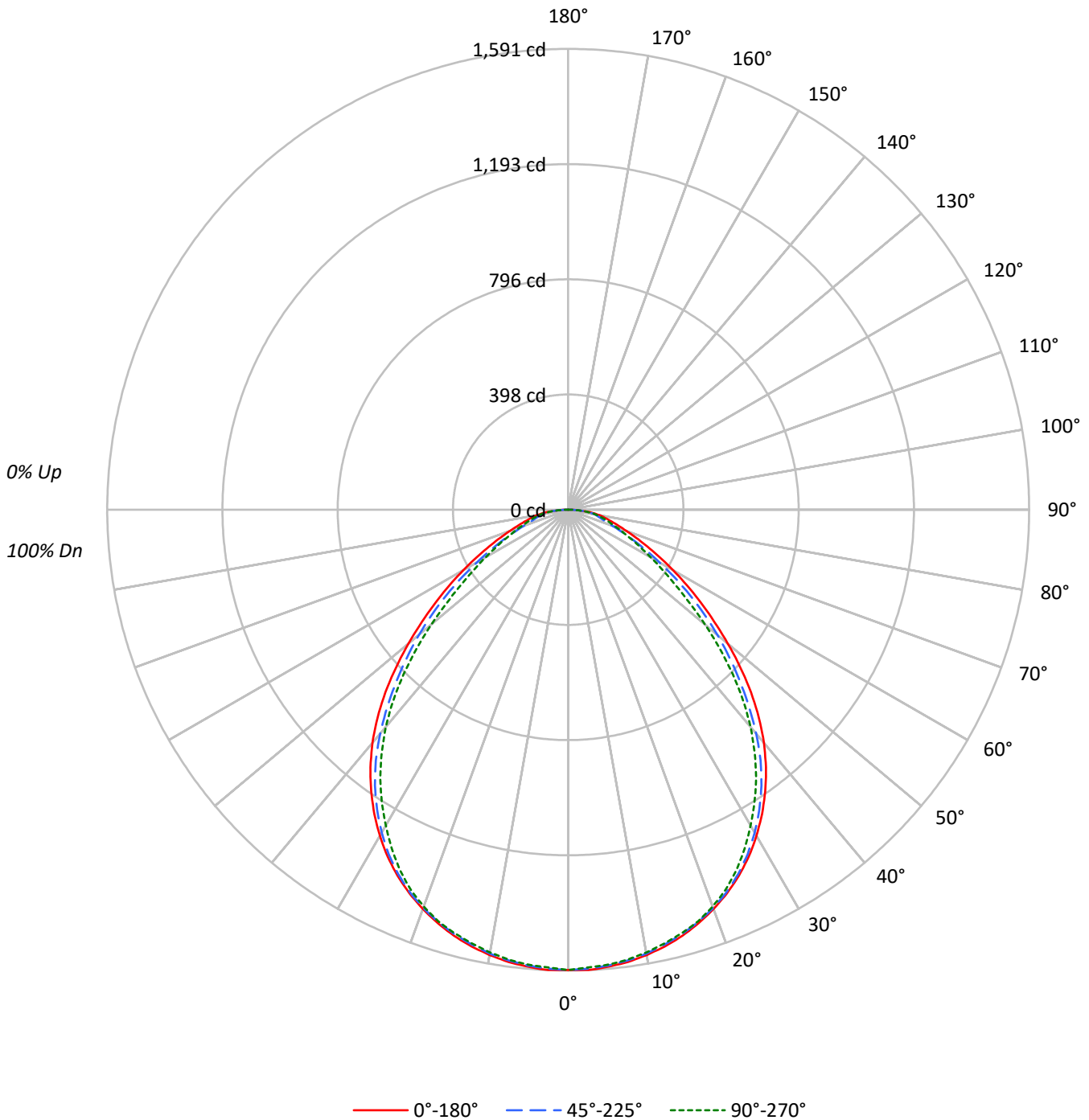
Summary

Lumens per Lamp: 2850 (2 lamps)
Luminaire Lumens: 3504.9 lumens
Efficiency: 61.5%
Efficacy: 57.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.26
Luminous Opening: Rectangular (W 0.69' x L: 3.7' x H: 0')
CIE Type: Direct

Input Watts (W): 60.8
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

TEST NUMBER: 160P109
CATALOG NUMBER: GCASF-232A-PAF

Luminous Intensity Polar Plot





TEST NUMBER: 160P109

CATALOG NUMBER: GCASF-232A-PAF

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	73	73	73	73	71	71	71	71	68	68	68	65	65	65	63	63	63	61
1	68	65	63	61	66	64	62	60	61	59	58	59	57	56	57	55	54	53
2	62	58	54	51	61	57	53	50	54	52	49	52	50	48	51	49	47	46
3	57	51	47	43	56	51	46	43	49	45	42	47	44	42	46	43	41	40
4	53	46	41	38	52	45	41	37	44	40	37	43	39	36	41	38	36	35
5	49	42	37	33	48	41	36	33	40	36	32	39	35	32	38	34	32	30
6	45	38	33	29	44	37	32	29	36	32	29	35	31	28	34	31	28	27
7	42	35	30	26	41	34	29	26	33	29	26	32	28	26	32	28	25	24
8	40	32	27	23	39	31	27	23	31	26	23	30	26	23	29	26	23	22
9	37	29	24	21	36	29	24	21	28	24	21	28	24	21	27	23	21	20
10	35	27	22	19	34	27	22	19	26	22	19	26	22	19	25	22	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6728	6728	6728
5°	6732	6715	6702
10°	6711	6690	6672
15°	6676	6649	6636
20°	6610	6592	6569
25°	6512	6484	6414
30°	6356	6292	6155
35°	6130	6011	5846
40°	5809	5582	5411
45°	5341	5018	4808
50°	4736	4426	4057
55°	4119	3765	3322
60°	3540	3074	2786
65°	3016	2475	2404
70°	2637	2018	2191
75°	2487	1914	2159
80°	2682	2268	2365
85°	2769	2526	2478



TEST NUMBER: 160P109

CATALOG NUMBER: GCASF-232A-PAF

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	150.1	4.3	2.6	0°	1589	1589	1589	1589	1589	
10°-20°	428.2	12.2	7.5	5°	1584	1581	1580	1582	1577	150
20°-30°	637.0	18.2	11.2	15°	1523	1519	1517	1519	1514	429
30°-40°	722.5	20.6	12.7	25°	1394	1391	1388	1382	1373	641
40°-50°	649.4	18.5	11.4	35°	1186	1178	1163	1140	1131	739
50°-60°	455.9	13.0	8.0	45°	892	878	838	813	803	685
60°-70°	261.7	7.5	4.6	55°	558	545	510	466	450	502
70°-80°	144.4	4.1	2.5	65°	301	275	247	243	240	303
80°-90°	55.6	1.6	1.0	75°	152	141	117	138	132	165
90°-100°	0.0	0.0	0.0	85°	57	54	52	51	51	58
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	4
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°	1215.3	34.7	21.3	165°	0	0	0	0	0	0
0°-40°	1937.8	55.3	34.0	175°	0	0	0	0	0	0
0°-60°	3043.1	86.8	53.4	180°	0	0	0	0	0	0
0°-90°	3504.9	100.0	61.5							
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°	3504.9	100.0	61.5							



TEST NUMBER: 160P109

CATALOG NUMBER: GCASF-232A-PAF

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1589	1589	1589	1589	1589
2.5°	1591	1587	1586	1588	1582
5°	1584	1581	1580	1582	1577
7.5°	1575	1571	1570	1572	1567
10°	1561	1558	1556	1557	1552
12.5°	1544	1540	1538	1540	1534
15°	1523	1519	1517	1519	1514
17.5°	1497	1493	1492	1495	1490
20°	1467	1464	1463	1464	1458
22.5°	1433	1430	1429	1427	1420
25°	1394	1391	1388	1382	1373
27.5°	1350	1347	1341	1330	1319
30°	1300	1296	1287	1272	1259
32.5°	1245	1240	1228	1208	1197
35°	1186	1178	1163	1140	1131
37.5°	1121	1111	1091	1066	1057
40°	1051	1039	1010	987	979
42.5°	974	961	924	902	894
45°	892	878	838	813	803
47.5°	806	793	754	724	709
50°	719	708	672	633	616
52.5°	636	626	591	546	527
55°	558	545	510	466	450
57.5°	486	468	434	396	385
60°	418	395	363	335	329
62.5°	355	330	302	285	281
65°	301	275	247	243	240
67.5°	253	230	201	208	206
70°	213	193	163	180	177
72.5°	180	165	135	158	153
75°	152	141	117	138	132
77.5°	130	120	104	118	115
80°	110	99	93	97	97
82.5°	86	77	77	74	75
85°	57	54	52	51	51
87.5°	29	29	23	24	23
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



TEST NUMBER: 160P109

CATALOG NUMBER: GCASF-232A-PAF

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)