

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: 160P100

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

Issue Date: 3/3/2020



**Test Information**

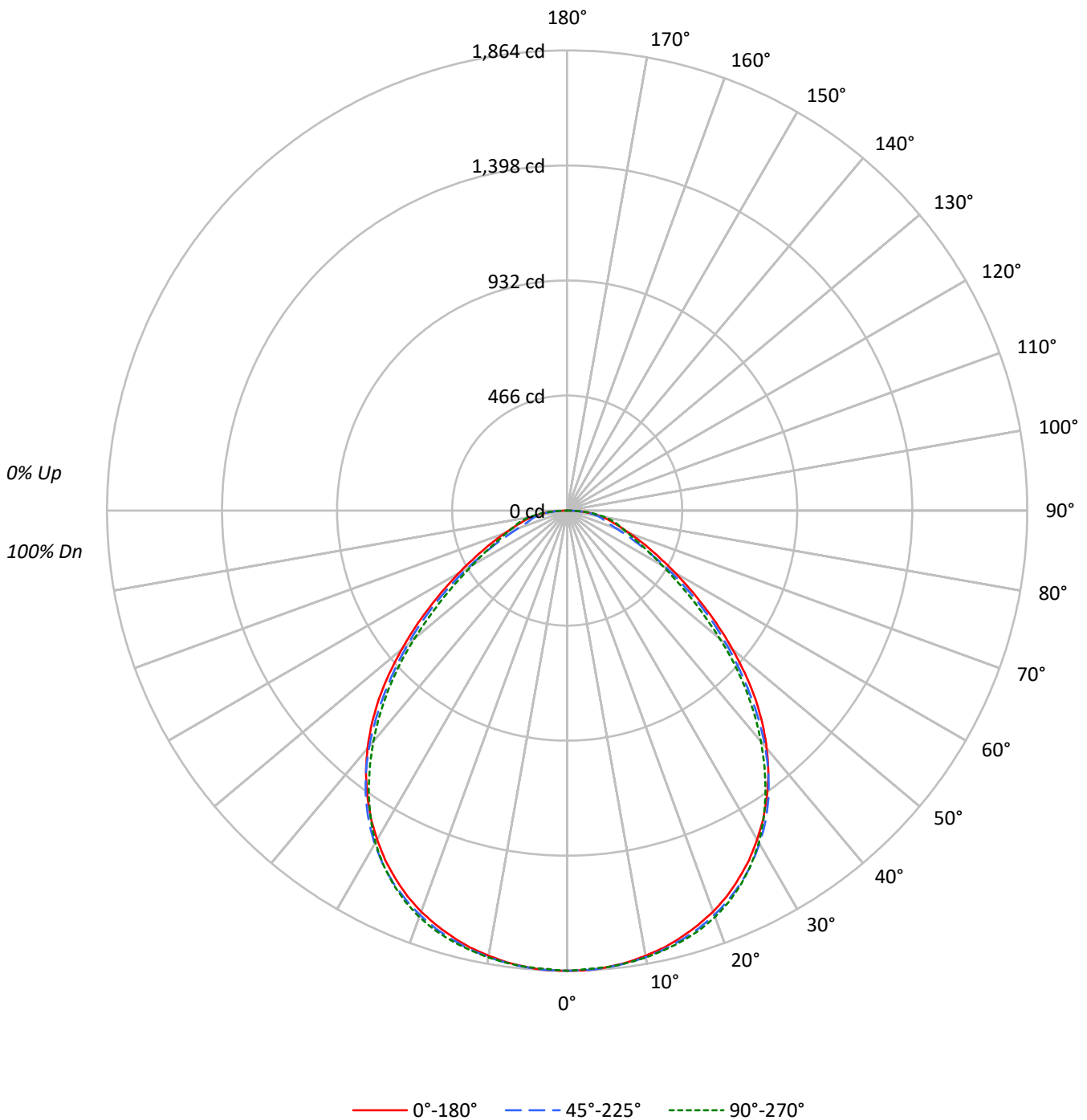
Test Method: LM-41-14  
Report Number: 160P100  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: GC-232A-PAF  
Description: 1 X 4 Recessed Convertible Body Troffer  
with a .095 pattern 12 acrylic lens.  
Light Source: Two-F32T8/35K - 2900 Lumens ea. - 32 Watts ea.  
Ballast/Driver: Triad-Utrad B232I120RH Electronic

**Summary**

Lumens per Lamp: 2900 (2 lamps)  
Luminaire Lumens: 4328.0 lumens  
Efficiency: 74.6%  
Efficacy: 71.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.23 / 1.29  
Luminous Opening: Rectangular (W 0.78' x L: 3.8' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 60.2  
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	89	89	89	89	87	87	87	87	83	83	83	79	79	79	76	76	76	75				
1	82	79	76	73	80	77	74	72	74	72	70	71	69	68	68	67	66	64				
2	75	70	65	61	73	68	64	60	66	62	59	63	60	58	61	59	56	55				
3	69	62	56	52	67	61	56	51	59	54	51	57	53	50	55	52	49	47				
4	64	56	49	45	62	55	49	45	53	48	44	51	47	43	49	46	43	41				
5	59	50	44	39	58	49	43	39	48	43	39	46	42	38	45	41	38	36				
6	55	45	39	35	53	45	39	34	43	38	34	42	37	34	41	37	34	32				
7	51	41	35	31	50	41	35	31	40	34	31	39	34	30	38	33	30	29				
8	48	38	32	28	46	37	32	28	36	31	28	36	31	27	35	30	27	26				
9	45	35	29	25	43	35	29	25	34	29	25	33	28	25	32	28	25	23				
10	42	32	27	23	41	32	27	23	31	26	23	31	26	23	30	26	23	21				

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

	0°	45°	90°
0°	6754	6754	6754
5°	6755	6758	6751
10°	6737	6759	6763
15°	6711	6749	6771
20°	6667	6721	6756
25°	6577	6657	6673
30°	6439	6523	6498
35°	6242	6290	6197
40°	5951	5903	5776
45°	5524	5355	5242
50°	4927	4747	4549
55°	4277	4081	3822
60°	3667	3363	3225
65°	3181	2709	2838
70°	2850	2235	2723
75°	2744	2198	2926
80°	3005	2629	3297
85°	3201	2910	3617



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	176.6	4.1	3.0	0°	1864	1864	1864	1864	1864	
10°-20°	507.4	11.7	8.7	5°	1857	1853	1858	1859	1856	176
20°-30°	764.1	17.7	13.2	15°	1789	1790	1799	1807	1805	505
30°-40°	880.4	20.3	15.2	25°	1645	1652	1665	1672	1669	757
40°-50°	805.3	18.6	13.9	35°	1411	1417	1422	1408	1401	880
50°-60°	575.8	13.3	9.9	45°	1078	1069	1045	1026	1023	827
60°-70°	339.1	7.8	5.8	55°	677	662	646	612	605	609
70°-80°	198.5	4.6	3.4	65°	371	343	316	331	331	373
80°-90°	80.7	1.9	1.4	75°	196	185	157	199	209	212
90°-100°	0.0	0.0	0.0	85°	77	73	70	84	87	76
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°	1448.1	33.5	25.0	165°	0	0	0	0	0	0
0°-40°	2328.5	53.8	40.1	175°	0	0	0	0	0	0
0°-60°	3709.7	85.7	64.0	180°	0	0	0	0	0	0
0°-90°	4328.0	100.0	74.6							
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°	4328.0	100.0	74.6							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1864	1864	1864	1864	1864
2.5°	1864	1861	1863	1863	1859
5°	1857	1853	1858	1859	1856
7.5°	1846	1845	1849	1852	1849
10°	1831	1831	1837	1841	1838
12.5°	1813	1813	1820	1826	1823
15°	1789	1790	1799	1807	1805
17.5°	1761	1763	1774	1783	1782
20°	1729	1732	1743	1753	1752
22.5°	1691	1695	1707	1717	1714
25°	1645	1652	1665	1672	1669
27.5°	1596	1603	1616	1619	1615
30°	1539	1547	1559	1558	1553
32.5°	1479	1485	1495	1488	1481
35°	1411	1417	1422	1408	1401
37.5°	1339	1341	1339	1321	1314
40°	1258	1258	1248	1228	1221
42.5°	1171	1167	1148	1128	1124
45°	1078	1069	1045	1026	1023
47.5°	977	968	942	921	917
50°	874	864	842	815	807
52.5°	774	761	744	710	701
55°	677	662	646	612	605
57.5°	588	567	552	525	519
60°	506	481	464	449	445
62.5°	434	406	385	384	383
65°	371	343	316	331	331
67.5°	316	291	257	289	290
70°	269	249	211	256	257
72.5°	229	215	178	227	230
75°	196	185	157	199	209
77.5°	170	158	142	172	186
80°	144	130	126	145	158
82.5°	112	101	103	118	125
85°	77	73	70	84	87
87.5°	40	40	35	44	43
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)