

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: 108P131

Luminaire Tested: **2GC-232A With Retrofit Reflector**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 108P131
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2GC-232A With Retrofit Reflector
Description: 2 X 4 Recessed Convertible Body Troffer with a Harris
Mfg. 420 series (Silver Aluminum) retrofit reflector
and a .095 pattern 12 acrylic lens.
Light Source: Two-F32T8/31K - 2900 Lumens ea. - 32 Watts ea.
Ballast/Driver: Triad-Utrad B2321120 Electronic

Summary

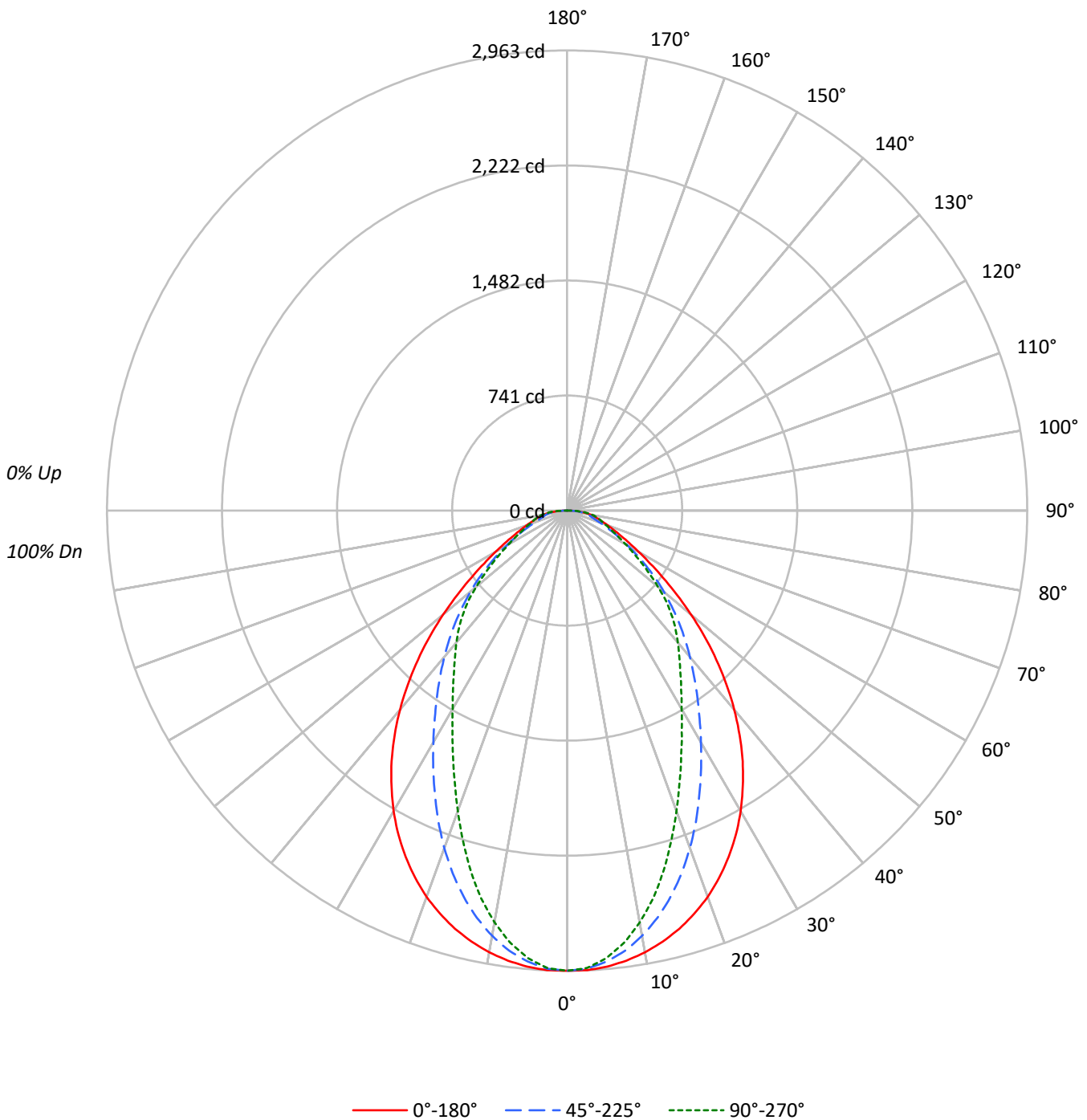
Lumens per Lamp: 2900 (2 lamps)
Luminaire Lumens: 4957.6 lumens
Efficiency: 85.5%
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 0.83 / 1.03
Luminous Opening: Rectangular (W 1.79' x L: 3.81' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	102	102	102	102	99	99	99	99	95	95	95	91	91	91	87	87	87	85
1	94	91	87	85	92	89	86	83	85	83	81	82	80	78	79	77	76	74
2	87	81	76	71	85	79	75	71	76	72	69	74	70	67	71	68	66	64
3	80	72	66	61	78	71	65	61	69	64	60	66	62	59	64	61	58	56
4	74	65	59	54	73	64	58	53	62	57	53	60	56	52	59	55	51	50
5	69	59	53	47	68	58	52	47	57	51	47	55	50	46	54	49	46	44
6	64	54	47	42	63	53	47	42	52	46	42	51	45	42	49	45	41	40
7	60	50	43	38	59	49	43	38	48	42	38	47	41	38	46	41	37	36
8	56	46	39	35	55	45	39	35	44	39	34	43	38	34	42	38	34	33
9	53	43	36	32	52	42	36	32	41	35	32	40	35	31	39	35	31	30
10	50	40	33	29	49	39	33	29	38	33	29	38	32	29	37	32	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4683	4683	4683
5°	4677	4624	4589
10°	4635	4463	4322
15°	4561	4213	3927
20°	4452	3888	3461
25°	4291	3514	3031
30°	4079	3144	2690
35°	3803	2817	2450
40°	3456	2535	2288
45°	3037	2271	2128
50°	2559	1999	1878
55°	2075	1711	1598
60°	1678	1429	1372
65°	1414	1189	1238
70°	1280	1017	1206
75°	1258	1001	1307
80°	1411	1192	1538
85°	1614	1396	1850



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	274.2	5.5	4.7	0°	2963	2963	2963	2963	2963	
10°-20°	723.0	14.6	12.5	5°	2948	2935	2915	2894	2893	279
20°-30°	945.4	19.1	16.3	15°	2788	2717	2575	2447	2400	785
30°-40°	962.9	19.4	16.6	25°	2461	2310	2015	1805	1738	1130
40°-50°	832.8	16.8	14.4	35°	1971	1766	1460	1308	1270	1227
50°-60°	578.7	11.7	10.0	45°	1359	1201	1016	955	952	1046
60°-70°	343.7	6.9	5.9	55°	753	693	621	583	580	682
70°-80°	207.3	4.2	3.6	65°	378	355	318	333	331	384
80°-90°	89.7	1.8	1.5	75°	206	195	164	208	214	222
90°-100°	0.0	0.0	0.0	85°	89	80	77	96	102	86
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°	1942.6	39.2	33.5	165°	0	0	0	0	0	0
0°-40°	2905.5	58.6	50.1	175°	0	0	0	0	0	0
0°-60°	4317.0	87.1	74.4	180°	0	0	0	0	0	0
0°-90°	4957.6	100.0	85.5							
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°	4957.6	100.0	85.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2963	2963	2963	2963	2963
2.5°	2962	2956	2952	2943	2948
5°	2948	2935	2915	2894	2893
7.5°	2923	2901	2859	2817	2807
10°	2888	2852	2781	2715	2693
12.5°	2843	2791	2686	2591	2558
15°	2788	2717	2575	2447	2400
17.5°	2722	2632	2449	2290	2229
20°	2647	2535	2312	2124	2058
22.5°	2559	2427	2167	1961	1892
25°	2461	2310	2015	1805	1738
27.5°	2353	2182	1867	1661	1598
30°	2235	2048	1723	1530	1474
32.5°	2105	1909	1586	1412	1367
35°	1971	1766	1460	1308	1270
37.5°	1825	1624	1342	1214	1186
40°	1675	1482	1229	1127	1109
42.5°	1518	1340	1122	1041	1033
45°	1359	1201	1016	955	952
47.5°	1200	1065	912	865	864
50°	1041	934	813	770	764
52.5°	890	809	716	673	668
55°	753	693	621	583	580
57.5°	633	589	533	505	502
60°	531	498	452	437	434
62.5°	448	420	380	381	377
65°	378	355	318	333	331
67.5°	323	302	264	294	292
70°	277	259	220	262	261
72.5°	238	225	187	235	235
75°	206	195	164	208	214
77.5°	180	167	147	181	194
80°	155	140	131	155	169
82.5°	126	110	108	127	140
85°	89	80	77	96	102
87.5°	48	45	43	56	58
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)