

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: 108P125

Luminaire Tested: **2GC-440K19/156-PAF**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 108P125
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2GC-440K19/156-PAF
Description: 2 X 4 Recessed Convertible Body Troffer with a
KSH .156 pattern 19 acrylic lens.
Light Source: Four-F40CW - 3050 Lumens ea. - 40 Watts ea.
Ballast/Driver: -

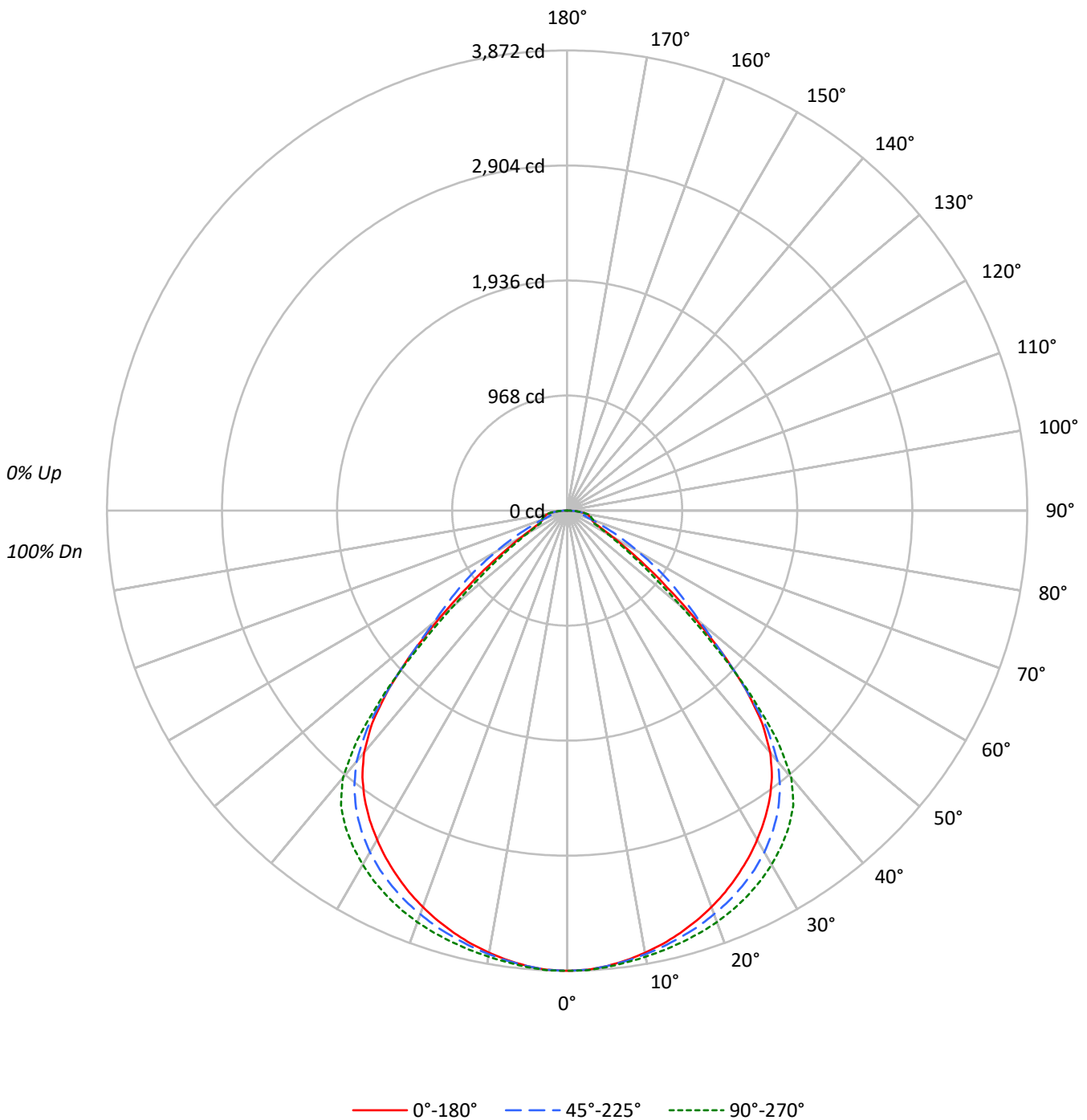
Summary

Lumens per Lamp: 3050 (4 lamps)
Luminaire Lumens: 8244.5 lumens
Efficiency: 67.6%
Efficacy: 49.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.32 / 1.31
Luminous Opening: Rectangular (W 1.79' x L: 3.81' x H: 0')
CIE Type: Direct

Input Watts (W): 166.3
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	80	80	80	80	79	79	79	79	75	75	75	72	72	72	69	69	69	68				
1	75	72	70	68	73	71	68	66	68	66	64	65	64	62	63	62	61	59				
2	69	65	61	57	68	63	60	57	61	58	55	59	56	54	57	55	53	52				
3	64	58	53	49	62	57	53	49	55	51	48	53	50	47	52	49	47	45				
4	59	52	47	43	58	51	47	43	50	46	42	48	45	42	47	44	41	40				
5	55	47	42	38	54	47	42	38	45	41	37	44	40	37	43	39	37	35				
6	51	43	38	34	50	42	37	34	41	37	33	40	36	33	39	36	33	32				
7	48	39	34	30	47	39	34	30	38	33	30	37	33	30	36	32	30	28				
8	45	36	31	27	44	36	31	27	35	30	27	34	30	27	33	30	27	26				
9	42	33	28	25	41	33	28	25	32	28	25	32	27	24	31	27	24	23				
10	39	31	26	23	38	31	26	23	30	26	22	29	25	22	29	25	22	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6119	6119	6119
5°	6103	6104	6117
10°	6063	6084	6117
15°	6019	6075	6147
20°	5972	6080	6197
25°	5911	6080	6244
30°	5838	6057	6279
35°	5728	5961	6274
40°	5484	5686	6057
45°	4745	4760	4848
50°	3400	3592	3054
55°	2199	2934	1907
60°	1378	2184	1230
65°	980	1522	916
70°	1007	970	1077
75°	1166	898	1270
80°	1538	1511	1629
85°	1578	1596	1686



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	365.5	4.4	3.0	0°	3872	3872	3872	3872	3872	
10°-20°	1049.2	12.7	8.6	5°	3847	3843	3848	3850	3856	365
20°-30°	1606.3	19.5	13.2	15°	3679	3683	3713	3741	3757	1038
30°-40°	1932.0	23.4	15.8	25°	3390	3418	3487	3552	3581	1562
40°-50°	1646.8	20.0	13.5	35°	2969	3013	3090	3199	3252	1849
50°-60°	876.9	10.6	7.2	45°	2123	2182	2130	2227	2169	1599
60°-70°	422.1	5.1	3.5	55°	798	1074	1065	955	692	744
70°-80°	242.7	2.9	2.0	65°	262	519	407	451	245	284
80°-90°	103.0	1.2	0.8	75°	191	286	147	274	208	204
90°-100°	0.0	0.0	0.0	85°	87	110	88	114	93	88
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°	3020.9	36.6	24.8	165°	0	0	0	0	0	0
0°-40°	4953.0	60.1	40.6	175°	0	0	0	0	0	0
0°-60°	7476.7	90.7	61.3	180°	0	0	0	0	0	0
0°-90°	8244.5	100.0	67.6							
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°	8244.5	100.0	67.6							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3872	3872	3872	3872	3872
2.5°	3868	3863	3866	3866	3871
5°	3847	3843	3848	3850	3856
7.5°	3817	3814	3822	3828	3834
10°	3778	3777	3791	3803	3812
12.5°	3733	3733	3755	3773	3786
15°	3679	3683	3713	3741	3757
17.5°	3618	3629	3669	3704	3724
20°	3551	3566	3615	3662	3685
22.5°	3475	3497	3555	3611	3638
25°	3390	3418	3487	3552	3581
27.5°	3299	3332	3409	3482	3516
30°	3199	3237	3319	3403	3441
32.5°	3090	3132	3214	3308	3352
35°	2969	3013	3090	3199	3252
37.5°	2830	2874	2943	3072	3126
40°	2658	2703	2756	2897	2936
42.5°	2430	2477	2491	2621	2611
45°	2123	2182	2130	2227	2169
47.5°	1757	1832	1751	1802	1676
50°	1383	1504	1461	1441	1242
52.5°	1057	1263	1253	1176	924
55°	798	1074	1065	955	692
57.5°	588	913	872	779	518
60°	436	773	691	647	389
62.5°	328	639	536	539	297
65°	262	519	407	451	245
67.5°	234	429	294	387	234
70°	218	371	210	346	233
72.5°	200	328	159	311	217
75°	191	286	147	274	208
77.5°	189	234	174	233	201
80°	169	176	166	188	179
82.5°	133	137	133	148	141
85°	87	110	88	114	93
87.5°	40	61	41	60	45
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)