

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: 109P163

Luminaire Tested: **2PGX-3BX40S34I-PAF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 109P163
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2PGX-3BX40S34I-PAF
Description: 2 X 2 Recessed Troffer with a 4" deep 12 cell
semi-specular low iridescent parabolic louver.
Light Source: Three-F40BX/SPX35/RS - 3150 Lumens ea. - 40 Watts ea.
Ballast/Driver: Two-Triad-Utrad B232I120RH Electronic

Summary

Lumens per Lamp: 3150 (3 lamps)
Luminaire Lumens: 6495.7 lumens
Efficiency: 68.7%
Efficacy: 58.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.64 / 1.5
Luminous Opening: Rectangular (W 1.74' x L: 1.76' x H: 0')
CIE Type: Direct

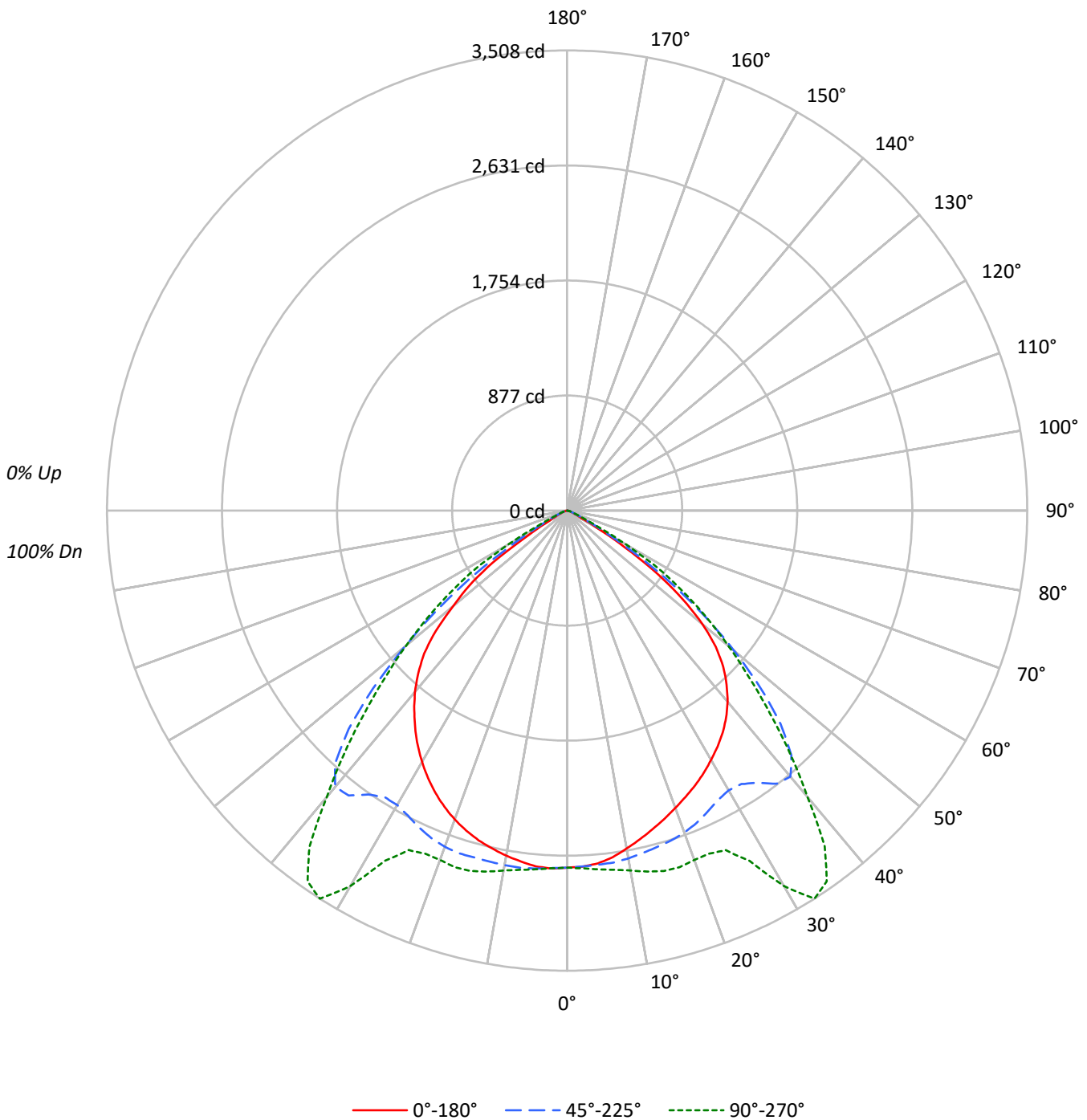
Input Watts (W): 110.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: 109P163

CATALOG NUMBER: 2PGX-3BX40S34I-PAF

Luminous Intensity Polar Plot





TEST NUMBER: 109P163

CATALOG NUMBER: 2PGX-3BX40S34I-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	82	82	82	82	80	80	80	80	76	76	76	73	73	73	70	70	70	69		
1	77	74	72	70	75	73	71	69	70	68	67	67	66	65	65	64	63	62		
2	71	67	63	60	70	66	62	59	63	60	58	61	59	57	59	57	56	54		
3	66	60	56	52	64	59	55	51	57	54	51	55	52	50	54	51	49	48		
4	61	54	49	45	60	53	49	45	52	48	44	50	47	44	49	46	43	42		
5	57	49	44	40	55	48	43	39	47	42	39	46	42	39	44	41	38	37		
6	52	44	39	35	51	44	39	35	43	38	35	41	37	34	40	37	34	33		
7	49	40	35	31	48	40	35	31	39	34	31	38	34	31	37	33	30	29		
8	45	37	32	28	44	36	31	28	36	31	28	35	31	28	34	30	27	26		
9	42	34	29	25	42	34	29	25	33	28	25	32	28	25	31	28	25	24		
10	40	31	26	23	39	31	26	23	30	26	23	30	26	23	29	25	23	21		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9567	9567	9567
5°	9523	9685	9608
10°	9337	9943	9537
15°	9152	10349	9472
20°	9022	10600	9374
25°	8959	11076	9215
30°	8905	13414	8978
35°	8869	14803	8672
40°	8732	13081	8277
45°	8371	10876	7655
50°	7366	8776	6217
55°	5166	6612	4265
60°	1793	3677	1111
65°	624	973	574
70°	391	524	360
75°	272	353	244
80°	182	243	182
85°	81	121	81



TEST NUMBER: 109P163

CATALOG NUMBER: 2PGX-3BX40S34I-PAF

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	259.9	4.0	2.7	0°	2722	2722	2722	2722	2722	
10°-20°	763.4	11.8	8.1	5°	2699	2710	2745	2739	2723	255
20°-30°	1210.8	18.6	12.8	15°	2515	2655	2844	2737	2603	710
30°-40°	1662.9	25.6	17.6	25°	2310	2533	2856	2667	2376	1065
40°-50°	1575.0	24.2	16.7	35°	2067	2531	3450	2642	2021	1290
50°-60°	852.1	13.1	9.0	45°	1684	2300	2188	2355	1540	1281
60°-70°	139.3	2.1	1.5	55°	843	976	1079	910	696	726
70°-80°	28.1	0.4	0.3	65°	75	106	117	101	69	96
80°-90°	4.3	0.1	0.0	75°	20	26	26	27	18	23
90°-100°	0.0	0.0	0.0	85°	2	3	3	3	2	3
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	0
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°	2234.0	34.4	23.6	165°	0	0	0	0	0	0
0°-40°	3896.9	60.0	41.2	175°	0	0	0	0	0	0
0°-60°	6324.1	97.4	66.9	180°	0	0	0	0	0	0
0°-90°	6495.7	100.0	68.7							
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°	6495.7	100.0	68.7							



TEST NUMBER: 109P163

CATALOG NUMBER: 2PGX-3BX40S34I-PAF

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2722	2722	2722	2722	2722	2722	2722	2722	2722
2.5°	2717	2710	2715	2724	2730	2729	2727	2727	2731
5°	2699	2694	2710	2731	2745	2746	2739	2730	2723
7.5°	2665	2666	2706	2741	2762	2764	2746	2718	2698
10°	2616	2628	2692	2754	2786	2783	2744	2698	2672
12.5°	2566	2588	2673	2773	2819	2808	2740	2677	2639
15°	2515	2547	2655	2786	2844	2831	2737	2652	2603
17.5°	2464	2506	2637	2782	2850	2836	2740	2622	2558
20°	2412	2464	2612	2755	2834	2820	2727	2584	2506
22.5°	2361	2423	2578	2721	2831	2800	2704	2543	2444
25°	2310	2384	2533	2703	2856	2797	2667	2494	2376
27.5°	2255	2337	2488	2734	3010	2839	2624	2438	2298
30°	2194	2297	2462	2909	3305	3027	2591	2372	2212
32.5°	2134	2245	2472	3132	3508	3266	2590	2297	2121
35°	2067	2187	2531	3191	3450	3345	2642	2213	2021
37.5°	1990	2120	2625	3050	3226	3209	2737	2120	1915
40°	1903	2047	2648	2777	2851	2934	2750	2023	1804
42.5°	1800	1976	2530	2411	2519	2551	2618	1925	1681
45°	1684	1913	2300	2086	2188	2204	2355	1833	1540
47.5°	1536	1842	1997	1770	1877	1876	2006	1731	1359
50°	1347	1703	1659	1486	1605	1568	1619	1586	1137
52.5°	1112	1417	1325	1225	1340	1291	1265	1314	945
55°	843	1011	976	980	1079	1027	910	929	696
57.5°	524	604	632	743	837	777	571	551	346
60°	255	302	354	498	523	520	314	271	158
62.5°	117	146	184	253	246	264	166	137	100
65°	75	87	106	124	117	124	101	89	69
67.5°	53	60	71	76	73	77	70	63	49
70°	38	43	50	53	51	53	50	46	35
72.5°	28	32	36	38	36	38	36	33	25
75°	20	23	26	27	26	28	27	24	18
77.5°	14	16	18	19	18	20	19	17	13
80°	9	11	12	13	12	13	13	11	9
82.5°	6	6	7	7	7	8	7	7	5
85°	2	2	3	3	3	4	3	3	2
87.5°	0	0	0	0	0	1	0	0	0
90°	0	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0



TEST NUMBER: 109P163

CATALOG NUMBER: 2PGX-3BX40S34I-PAF

CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)