

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: 104P219

Luminaire Tested: **HARD METRIC 2P3GAX-332S36I-2BC-PAF**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 104P219  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HARD METRIC 2P3GAX-332S36I-2BC-PAF  
Description: 600mm X 1200mm Recessed Convertible Body Troffer  
with a 3" deep 18 cell semi-specular low iridescent  
parabolic louver.  
Light Source: Three-F32T8/35K - 2850 Lumens ea. - 32 Watts ea.  
Ballast/Driver: Triad-Utrad B332I120RH Electronic; Ballast Factor 94.1

**Summary**

Lumens per Lamp: 2850 (3 lamps)  
Luminaire Lumens: 6345.7 lumens  
Efficiency: 74.2%  
Efficacy: 69.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.66 / 1.54  
Luminous Opening: Rectangular (W 1.73' x L: 3.75' x H: 0')  
CIE Type: Direct

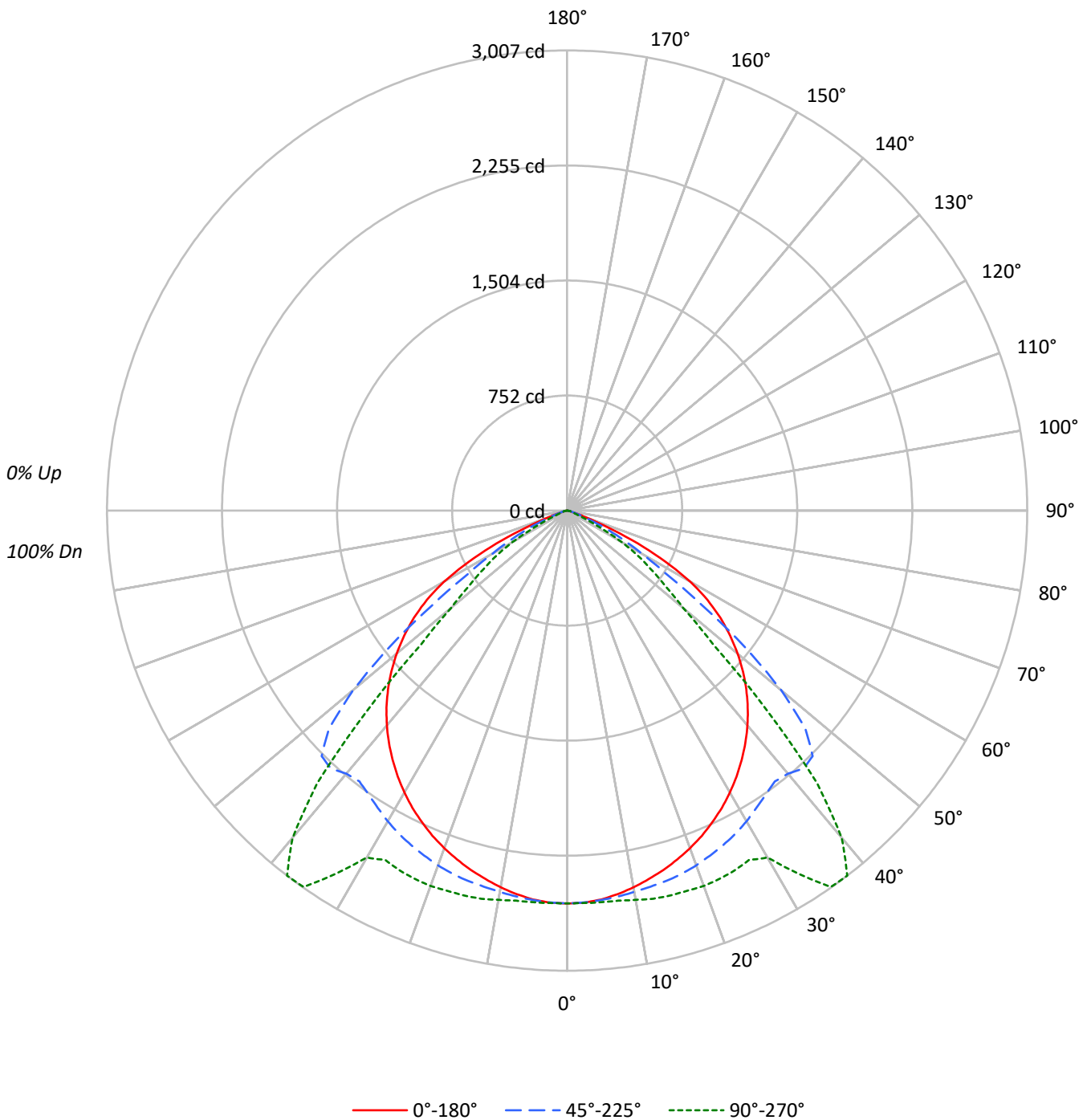
Input Watts (W): 91.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: 104P219

CATALOG NUMBER: HARD METRIC 2P3GAX-332S36I-2BC-PAF

### Luminous Intensity Polar Plot





TEST NUMBER: 104P219

CATALOG NUMBER: HARD METRIC 2P3GAX-332S36I-2BC-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	88	88	88	88	86	86	86	86	82	82	82		79	79	79		76	76	76	74
1	83	80	77	75	81	78	76	74	75	73	72		72	71	69		70	68	67	66
2	76	71	67	64	75	70	66	63	67	64	62		65	62	60		63	61	59	57
3	70	64	59	55	69	63	58	54	61	56	53		59	55	52		57	54	51	50
4	65	57	51	47	63	56	51	47	54	50	46		53	49	46		51	48	45	44
5	60	51	46	41	59	51	45	41	49	44	40		48	43	40		46	43	40	38
6	56	47	41	36	54	46	40	36	45	40	36		43	39	35		42	38	35	34
7	52	42	36	32	50	42	36	32	41	36	32		40	35	32		39	35	31	30
8	48	39	33	29	47	38	33	29	37	32	28		36	32	28		36	31	28	27
9	45	35	30	26	44	35	30	26	34	29	26		33	29	26		33	29	25	24
10	42	33	27	23	41	32	27	23	32	27	23		31	26	23		30	26	23	22

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

	0°	45°	90°
0°	4261	4261	4261
5°	4251	4257	4281
10°	4214	4264	4354
15°	4178	4305	4475
20°	4146	4358	4611
25°	4114	4418	4749
30°	4077	4493	5018
35°	4029	4586	6085
40°	3972	4863	6050
45°	3887	5327	4341
50°	3757	4710	2557
55°	3537	3105	1939
60°	3087	1872	1364
65°	2003	1096	534
70°	626	456	248
75°	199	231	167
80°	105	153	124
85°	38	95	76



TEST NUMBER: 104P219

CATALOG NUMBER: HARD METRIC 2P3GAX-332S36I-2BC-PAF

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	243.3	3.8	2.8	0°	2567	2567	2567	2567	2567	
10°-20°	709.5	11.2	8.3	5°	2551	2550	2555	2562	2569	242
20°-30°	1114.2	17.6	13.0	15°	2431	2445	2505	2570	2604	686
30°-40°	1483.1	23.4	17.3	25°	2246	2294	2412	2527	2593	1035
40°-50°	1490.1	23.5	17.4	35°	1988	2080	2263	2693	3003	1244
50°-60°	923.9	14.6	10.8	45°	1656	1791	2269	2104	1849	1275
60°-70°	333.8	5.3	3.9	55°	1222	1382	1073	694	670	1082
70°-80°	42.1	0.7	0.5	65°	510	474	279	180	136	504
80°-90°	5.6	0.1	0.1	75°	31	36	36	33	26	47
90°-100°	0.0	0.0	0.0	85°	2	3	5	5	4	4
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°	2067.0	32.6	24.2	165°	0	0	0	0	0	0
0°-40°	3550.2	55.9	41.5	175°	0	0	0	0	0	0
0°-60°	5964.1	94.0	69.8	180°	0	0	0	0	0	0
0°-90°	6345.7	100.0	74.2							
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°	6345.7	100.0	74.2							



TEST NUMBER: 104P219

CATALOG NUMBER: HARD METRIC 2P3GAX-332S36I-2BC-PAF

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2567	2567	2567	2567	2567
2.5°	2564	2563	2563	2564	2567
5°	2551	2550	2555	2562	2569
7.5°	2528	2530	2544	2561	2571
10°	2500	2505	2530	2564	2583
12.5°	2466	2476	2517	2570	2598
15°	2431	2445	2505	2570	2604
17.5°	2391	2410	2489	2564	2605
20°	2347	2374	2467	2557	2610
22.5°	2300	2336	2440	2546	2605
25°	2246	2294	2412	2527	2593
27.5°	2190	2247	2381	2501	2574
30°	2127	2197	2344	2478	2618
32.5°	2060	2141	2303	2533	2812
35°	1988	2080	2263	2693	3003
37.5°	1913	2012	2231	2810	3007
40°	1833	1942	2244	2746	2792
42.5°	1747	1870	2286	2495	2419
45°	1656	1791	2269	2104	1849
47.5°	1559	1706	2112	1577	1294
50°	1455	1613	1824	1116	990
52.5°	1343	1508	1461	861	808
55°	1222	1382	1073	694	670
57.5°	1088	1224	760	561	547
60°	930	1017	564	436	411
62.5°	724	756	412	303	258
65°	510	474	279	180	136
67.5°	287	248	170	100	73
70°	129	118	94	64	51
72.5°	58	61	53	45	37
75°	31	36	36	33	26
77.5°	19	23	24	23	19
80°	11	14	16	16	13
82.5°	6	8	10	10	8
85°	2	3	5	5	4
87.5°	0	0	1	1	1
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: 104P219

CATALOG NUMBER: HARD METRIC 2P3GAX-332S36I-2BC-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)