

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: 115P140

Luminaire Tested: **PGAX-232S29I-PAF**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 115P140  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: PGAX-232S29I-PAF  
Description: 1 X 4 Recessed Troffer with an 18 cell  
semi-specular low iridescent parabolic louver.  
Light Source: Two-F32T8/35K - 2850 Lumens ea. - 32 Watts ea.  
Ballast/Driver: Triad-Utrad B232I120RH Electronic

**Summary**

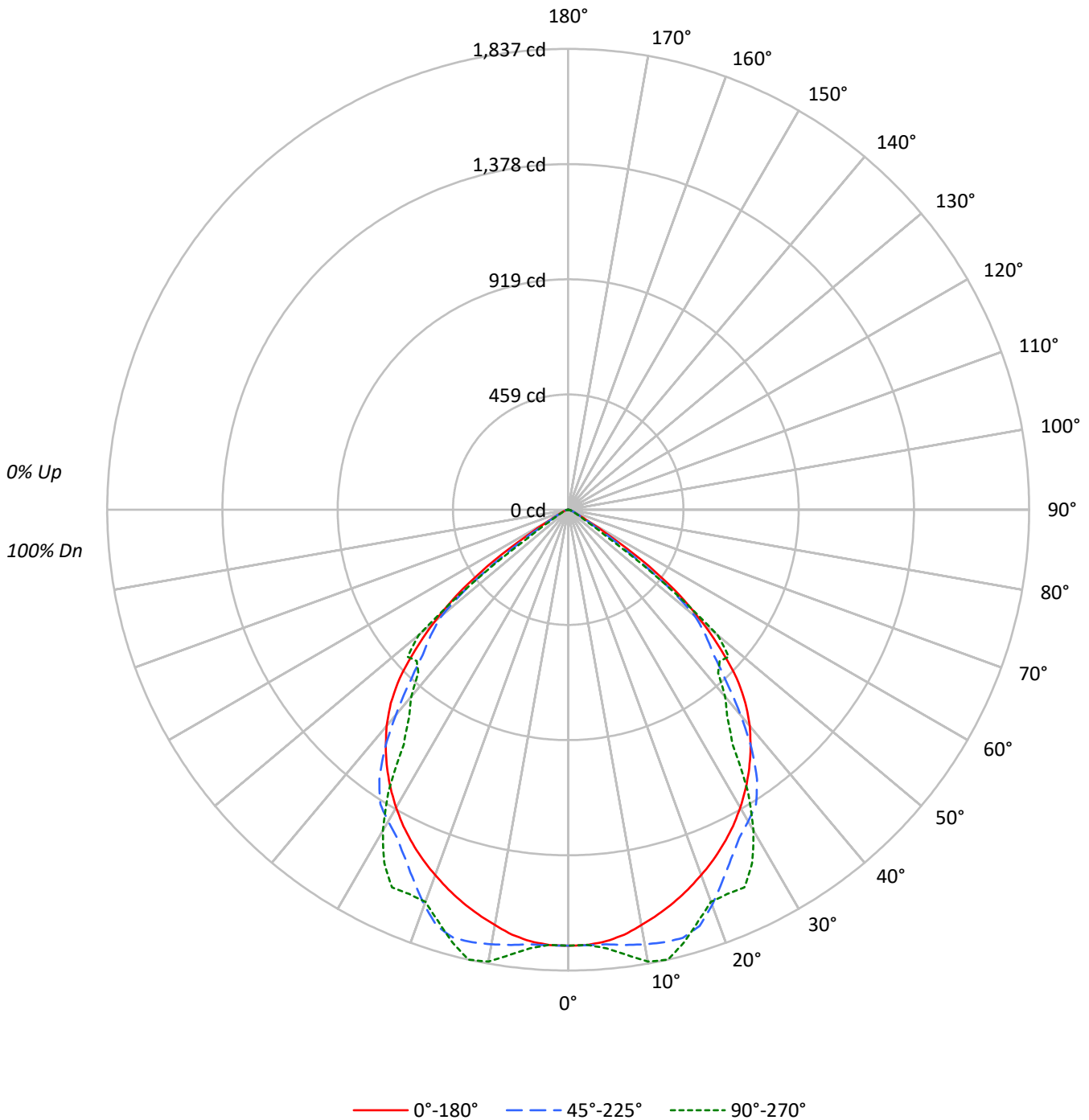
Lumens per Lamp: 2850 (2 lamps)  
Luminaire Lumens: 3173.2 lumens  
Efficiency: 55.7%  
Efficacy: 51.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.23  
Luminous Opening: Rectangular (W 0.74' x L: 3.75' x H: 0')  
CIE Type: Direct

Input Watts (W): 61.6  
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: 115P140  
CATALOG NUMBER: PGAX-232S29I-PAF

### Luminous Intensity Polar Plot





TEST NUMBER: 115P140

CATALOG NUMBER: PGAX-232S29I-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	66	66	66	66	65	65	65	65	62	62	62		59	59	59		57	57	57	56
1	62	61	59	57	61	59	58	56	57	56	55		55	54	53		53	52	52	50
2	58	55	52	50	57	54	51	49	52	50	48		50	49	47		49	47	46	45
3	54	50	46	44	53	49	46	43	48	45	43		46	44	42		45	43	41	40
4	51	45	42	39	50	45	41	38	43	40	38		42	40	37		41	39	37	36
5	47	41	37	34	46	41	37	34	40	36	34		39	36	34		38	35	33	32
6	44	38	34	31	43	37	34	31	37	33	30		36	33	30		35	32	30	29
7	41	35	31	28	40	34	30	28	34	30	28		33	30	27		32	29	27	26
8	39	32	28	25	38	32	28	25	31	28	25		30	27	25		30	27	25	24
9	36	30	26	23	36	29	26	23	29	25	23		28	25	23		28	25	23	22
10	34	28	24	21	33	27	24	21	27	23	21		26	23	21		26	23	21	20

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

	0°	45°	90°
0°	6745	6745	6745
5°	6728	6775	6837
10°	6625	6932	7208
15°	6517	7100	7172
20°	6402	6926	6868
25°	6286	6577	7113
30°	6144	6426	6619
35°	5960	6216	5411
40°	5700	5416	4924
45°	5214	4501	4682
50°	4202	3985	4691
55°	2652	1881	1286
60°	745	574	427
65°	340	321	257
70°	216	216	170
75°	150	165	120
80°	112	112	89
85°	45	45	45



TEST NUMBER: 115P140

CATALOG NUMBER: PGAX-232S29I-PAF

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	166.8	5.3	2.9	0°	1738	1738	1738	1738	1738	
10°-20°	485.8	15.3	8.5	5°	1727	1730	1739	1754	1755	163
20°-30°	718.0	22.6	12.6	15°	1622	1664	1767	1798	1785	457
30°-40°	782.7	24.7	13.7	25°	1468	1563	1536	1603	1661	676
40°-50°	674.2	21.2	11.8	35°	1258	1315	1312	1194	1142	785
50°-60°	294.0	9.3	5.2	45°	950	972	820	807	853	718
60°-70°	38.6	1.2	0.7	55°	392	339	278	281	190	344
70°-80°	11.3	0.4	0.2	65°	37	38	35	32	28	43
80°-90°	1.8	0.1	0.0	75°	10	11	11	10	8	11
90°-100°	0.0	0.0	0.0	85°	1	2	1	1	1	2
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°	1370.6	43.2	24.0	165°	0	0	0	0	0	0
0°-40°	2153.3	67.9	37.8	175°	0	0	0	0	0	0
0°-60°	3121.6	98.4	54.8	180°	0	0	0	0	0	0
0°-90°	3173.2	100.0	55.7							
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°	3173.2	100.0	55.7							



TEST NUMBER: 115P140

CATALOG NUMBER: PGAX-232S29I-PAF

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1738	1738	1738	1738	1738
2.5°	1737	1737	1738	1740	1736
5°	1727	1730	1739	1754	1755
7.5°	1709	1716	1750	1783	1790
10°	1681	1698	1759	1814	1829
12.5°	1653	1681	1766	1833	1837
15°	1622	1664	1767	1798	1785
17.5°	1587	1644	1740	1728	1721
20°	1550	1621	1677	1660	1663
22.5°	1511	1594	1604	1606	1658
25°	1468	1563	1536	1603	1661
27.5°	1422	1520	1475	1569	1588
30°	1371	1463	1434	1473	1477
32.5°	1317	1393	1393	1350	1333
35°	1258	1315	1312	1194	1142
37.5°	1194	1235	1201	1029	1040
40°	1125	1154	1069	937	972
42.5°	1046	1069	936	870	884
45°	950	972	820	807	853
47.5°	826	841	743	754	868
50°	696	676	660	680	777
52.5°	559	503	492	514	487
55°	392	339	278	281	190
57.5°	210	194	129	118	87
60°	96	99	74	66	55
62.5°	55	56	49	44	38
65°	37	38	35	32	28
67.5°	26	28	26	23	21
70°	19	20	19	17	15
72.5°	14	15	14	13	12
75°	10	11	11	10	8
77.5°	7	8	8	7	6
80°	5	5	5	5	4
82.5°	3	3	3	3	2
85°	1	2	1	1	1
87.5°	0	0	0	0	0
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: 115P140

CATALOG NUMBER: PGAX-232S29I-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)