

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: 146P114

Luminaire Tested: **P5GX2048-232S29M/I**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 146P114
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: P5GX2048-232S29M/l
Description: 20 X 48 Recessed Troffer with an 18 cell
specular low iridescent precision cell II
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: 3860.5 lumens
Efficiency: 67.7%
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.8 / 1.45
Luminous Opening: Rectangular (W 1.41' x L: 3.76' x H: 0')
CIE Type: Direct

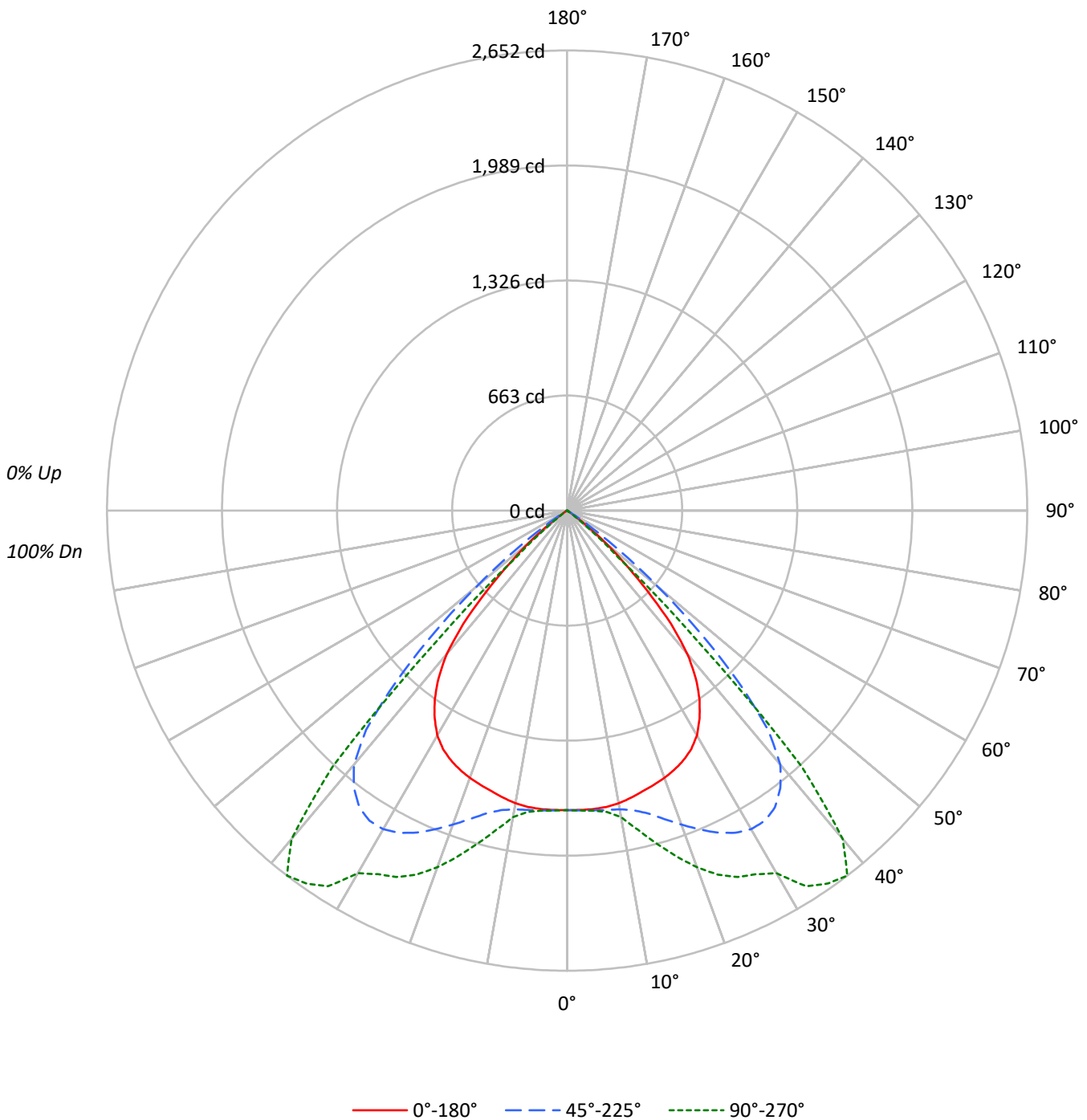
Input Watts (W): 63.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: 146P114

CATALOG NUMBER: P5GX2048-232S29M/I

Luminous Intensity Polar Plot





TEST NUMBER: 146P114

CATALOG NUMBER: P5GX2048-232S29M/I

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	81	81	81	81	79	79	79	79	75	75	75	72	72	72	69	69	69	68				
1	76	74	72	70	74	72	71	69	70	68	67	67	66	65	65	64	63	62				
2	71	67	64	62	70	66	63	61	64	62	59	62	60	58	60	58	57	56				
3	67	62	57	54	65	61	57	54	59	56	53	57	54	52	55	53	51	50				
4	62	56	52	48	61	55	51	48	54	50	47	52	49	47	51	48	46	45				
5	58	51	46	43	57	51	46	43	49	45	42	48	45	42	47	44	42	40				
6	54	47	42	38	53	46	42	38	45	41	38	44	41	38	43	40	37	36				
7	51	43	38	35	50	43	38	35	42	37	34	41	37	34	40	37	34	33				
8	47	40	35	31	46	39	35	31	38	34	31	38	34	31	37	33	31	30				
9	44	37	32	28	44	36	32	28	35	31	28	35	31	28	34	31	28	27				
10	42	34	29	26	41	33	29	26	33	29	26	32	28	26	32	28	26	25				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3518	3518	3518
5°	3534	3548	3552
10°	3543	3618	3713
15°	3537	3813	4189
20°	3555	4175	4744
25°	3569	4606	5240
30°	3521	4990	5679
35°	3309	5195	6527
40°	2868	5085	6572
45°	1874	4018	3076
50°	904	2159	609
55°	124	590	46
60°	29	57	29
65°	19	19	19
70°	18	12	12
75°	8	8	8
80°	0	0	0
85°	0	0	0



TEST NUMBER: 146P114

CATALOG NUMBER: P5GX2048-232S29M/I

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	165.9	4.3	2.9	0°	1726	1726	1726	1726	1726	
10°-20°	519.8	13.5	9.1	5°	1727	1729	1734	1737	1736	164
20°-30°	923.2	23.9	16.2	15°	1676	1702	1807	1941	1985	474
30°-40°	1257.3	32.6	22.1	25°	1587	1714	2048	2286	2330	729
40°-50°	874.7	22.7	15.3	35°	1330	1644	2088	2471	2623	820
50°-60°	114.1	3.0	2.0	45°	650	984	1394	1434	1067	506
60°-70°	4.6	0.1	0.1	55°	35	76	166	49	13	71
70°-80°	1.0	0.0	0.0	65°	4	4	4	4	4	4
80°-90°	0.0	0.0	0.0	75°	1	1	1	0	1	1
90°-100°	0.0	0.0	0.0	85°	0	0	0	0	0	0
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°	1608.9	41.7	28.2	165°	0	0	0	0	0	0
0°-40°	2866.1	74.2	50.3	175°	0	0	0	0	0	0
0°-60°	3854.9	99.9	67.6	180°	0	0	0	0	0	0
0°-90°	3860.5	100.0	67.7							
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°	3860.5	100.0	67.7							



TEST NUMBER: 146P114

CATALOG NUMBER: P5GX2048-232S29M/I

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1726	1726	1726	1726	1726
2.5°	1727	1727	1729	1729	1730
5°	1727	1729	1734	1737	1736
7.5°	1723	1729	1740	1747	1752
10°	1712	1724	1748	1780	1794
12.5°	1696	1714	1768	1848	1884
15°	1676	1702	1807	1941	1985
17.5°	1658	1695	1864	2035	2088
20°	1639	1695	1925	2129	2187
22.5°	1616	1703	1988	2215	2271
25°	1587	1714	2048	2286	2330
27.5°	1549	1722	2094	2329	2362
30°	1496	1719	2120	2341	2413
32.5°	1421	1697	2120	2390	2567
35°	1330	1644	2088	2471	2623
37.5°	1218	1557	2018	2419	2652
40°	1078	1432	1911	2277	2470
42.5°	886	1255	1714	1941	2000
45°	650	984	1394	1434	1067
47.5°	441	674	1032	745	399
50°	285	407	681	312	192
52.5°	134	210	387	157	63
55°	35	76	166	49	13
57.5°	10	19	51	11	9
60°	7	8	14	8	7
62.5°	6	6	5	6	6
65°	4	4	4	4	4
67.5°	3	3	3	3	3
70°	3	3	2	2	2
72.5°	2	2	1	1	1
75°	1	1	1	0	1
77.5°	1	1	0	0	0
80°	0	0	0	0	0
82.5°	0	0	0	0	0
85°	0	0	0	0	0
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: 146P114

CATALOG NUMBER: P5GX2048-232S29M/I

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)