

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: 158P103

Luminaire Tested: **P5GX2024-2U1-5/8S24M/I**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 158P103  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: P5GX2024-2U1-5/8S24M/I  
Description: 20" X 24" Recessed Convertible Body Troffer  
with an 8 cell specular low iridescent  
precision cell II parabolic louver.  
Light Source: Two-FBO31/35K - 2800 Lumens ea. - 31 Watts ea.  
Ballast/Driver: Triad-Utrad B232I120 Electronic

**Summary**

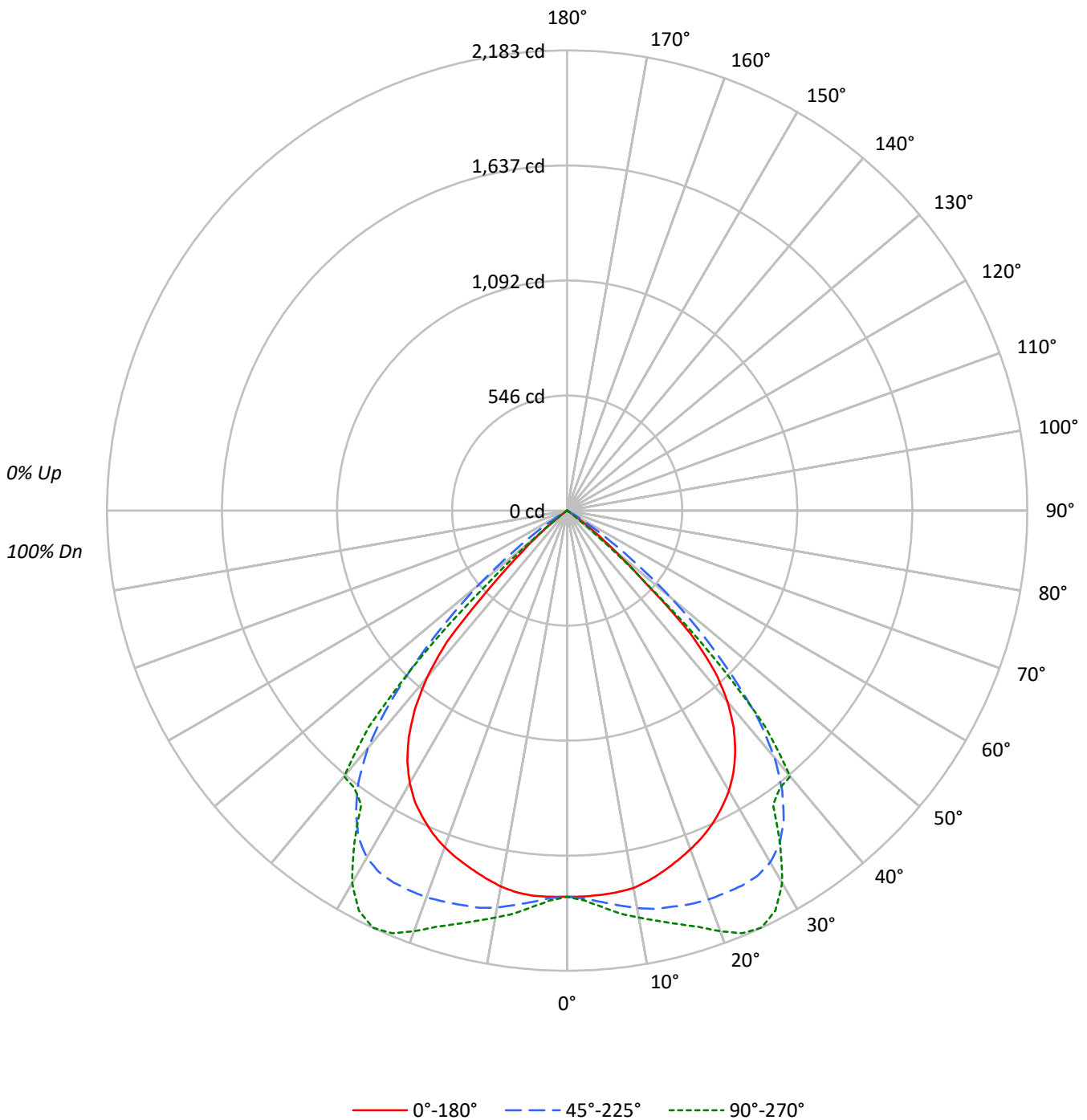
Lumens per Lamp: 2800 (2 lamps)  
Luminaire Lumens: 3482.3 lumens  
Efficiency: 62.2%  
Efficacy: 60.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.42 / 1.35  
Luminous Opening: Rectangular (W 1.4' x L: 1.75' x H: 0')  
CIE Type: Direct

Input Watts (W): 57.8  
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: 158P103  
CATALOG NUMBER: P5GX2024-2U1-5/8S24M/I

### Luminous Intensity Polar Plot





TEST NUMBER: 158P103

CATALOG NUMBER: P5GX2024-2U1-5/8S24M/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	74	74	74	74	72	72	72	72	69	69	69	66	66	66	63	63	63	62				
1	70	68	66	65	68	67	65	64	64	63	62	62	61	60	60	59	58	57				
2	66	62	59	57	64	61	58	56	59	57	55	57	55	54	55	54	53	52				
3	62	57	53	50	60	56	53	50	54	51	49	53	50	48	51	49	48	47				
4	58	52	48	45	56	51	48	45	50	47	44	49	46	44	47	45	43	42				
5	54	48	43	40	53	47	43	40	46	42	40	45	42	39	44	41	39	38				
6	50	44	39	36	49	43	39	36	42	39	36	41	38	36	41	38	35	34				
7	47	40	36	33	46	40	36	33	39	35	33	38	35	32	38	35	32	31				
8	44	37	33	30	43	37	33	30	36	32	30	35	32	30	35	32	29	28				
9	42	35	30	27	41	34	30	27	34	30	27	33	30	27	32	29	27	26				
10	39	32	28	25	38	32	28	25	31	28	25	31	27	25	30	27	25	24				

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

	0°	90°	180°
0°	8043	8043	8043
5°	8065	8316	8083
10°	8105	8742	8073
15°	8045	9227	7995
20°	7989	9919	7938
25°	7925	10575	7814
30°	7782	10342	7569
35°	7450	9127	7016
40°	6780	9433	5932
45°	5153	6035	3222
50°	1892	1270	1052
55°	344	69	69
60°	53	44	44
65°	42	31	31
70°	39	13	13
75°	17	0	17
80°	0	0	0
85°	0	0	0



TEST NUMBER: 158P103

CATALOG NUMBER: P5GX2024-2U1-5/8S24M/I

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	178.9	5.1	3.2	0°	1832	1832	1832	1832	1832	
10°-20°	545.2	15.7	9.7	5°	1830	1864	1887	1863	1834	174
20°-30°	889.7	25.5	15.9	15°	1770	1945	2030	1937	1759	500
30°-40°	1032.1	29.6	18.4	25°	1636	1963	2183	1947	1613	753
40°-50°	718.7	20.6	12.8	35°	1390	1791	1703	1747	1309	862
50°-60°	112.9	3.2	2.0	45°	830	1104	972	1010	519	587
60°-70°	3.9	0.1	0.1	55°	45	228	9	173	9	75
70°-80°	0.7	0.0	0.0	65°	4	4	3	3	3	4
80°-90°	0.2	0.0	0.0	75°	1	1	0	1	1	1
90°-100°	0.0	0.0	0.0	85°	0	0	0	2	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°	1613.7	46.3	28.8	165°	0	0	0	0	0	0
0°-40°	2645.8	76.0	47.2	175°	0	0	0	0	0	0
0°-60°	3477.5	99.9	62.1	180°	0	0	0	0	0	0
0°-90°	3482.3	100.0	62.2							
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°	3482.3	100.0	62.2							



TEST NUMBER: 158P103

CATALOG NUMBER: P5GX2024-2U1-5/8S24M/I

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1832	1832	1832	1832	1832	1832	1832	1832	1832
2.5°	1832	1830	1841	1848	1851	1847	1840	1831	1834
5°	1830	1839	1864	1880	1887	1880	1863	1839	1834
7.5°	1826	1849	1889	1918	1928	1917	1887	1847	1827
10°	1818	1854	1915	1950	1961	1951	1912	1848	1811
12.5°	1797	1852	1935	1977	1994	1978	1930	1842	1786
15°	1770	1842	1945	2012	2030	2013	1937	1831	1759
17.5°	1741	1829	1957	2041	2071	2042	1945	1821	1731
20°	1710	1815	1963	2081	2123	2078	1952	1808	1699
22.5°	1676	1797	1963	2121	2170	2112	1951	1787	1661
25°	1636	1772	1963	2143	2183	2129	1947	1758	1613
27.5°	1589	1739	1954	2129	2139	2109	1933	1721	1561
30°	1535	1697	1927	2062	2040	2041	1901	1673	1493
32.5°	1470	1642	1875	1951	1881	1932	1841	1609	1411
35°	1390	1572	1791	1797	1703	1779	1747	1519	1309
37.5°	1298	1480	1676	1604	1658	1594	1627	1412	1186
40°	1183	1373	1531	1507	1646	1490	1470	1283	1035
42.5°	1041	1229	1344	1383	1391	1356	1259	1087	843
45°	830	1002	1104	1099	972	1057	1010	834	519
47.5°	484	719	868	741	496	711	768	510	288
50°	277	424	639	388	186	370	543	301	154
52.5°	149	252	416	164	52	158	336	168	48
55°	45	123	228	50	9	47	173	50	9
57.5°	9	27	89	9	7	9	62	8	6
60°	6	8	24	6	5	6	16	6	5
62.5°	5	6	6	4	4	4	4	4	4
65°	4	4	4	3	3	3	3	3	3
67.5°	3	3	3	2	2	2	2	2	2
70°	3	3	2	2	1	2	2	2	1
72.5°	2	1	1	1	1	1	1	1	1
75°	1	1	1	0	0	0	1	0	1
77.5°	1	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	1	0	0
82.5°	0	0	0	0	0	0	2	0	0
85°	0	0	0	0	0	0	2	0	0
87.5°	0	0	0	0	0	0	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: 158P103

CATALOG NUMBER: P5GX2024-2U1-5/8S24M/I

**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)