

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: P31051

Luminaire Tested: **2GR5-228T5A-UNV-EBT1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P31051
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2GR5-228T5A-UNV-EBT1
Description: METALUX 2' X 4' COMMERCIAL T5HO TROFFER WITH ACRYLIC PRISMATIC LENS
Light Source: (2) DOUBLE BIPIN T5 LINEAR FLUORESCENT LAMPS 3500K
GE F28W/T5/835/ECO
Ballast/Driver: -
GE228MVPS-A

Summary

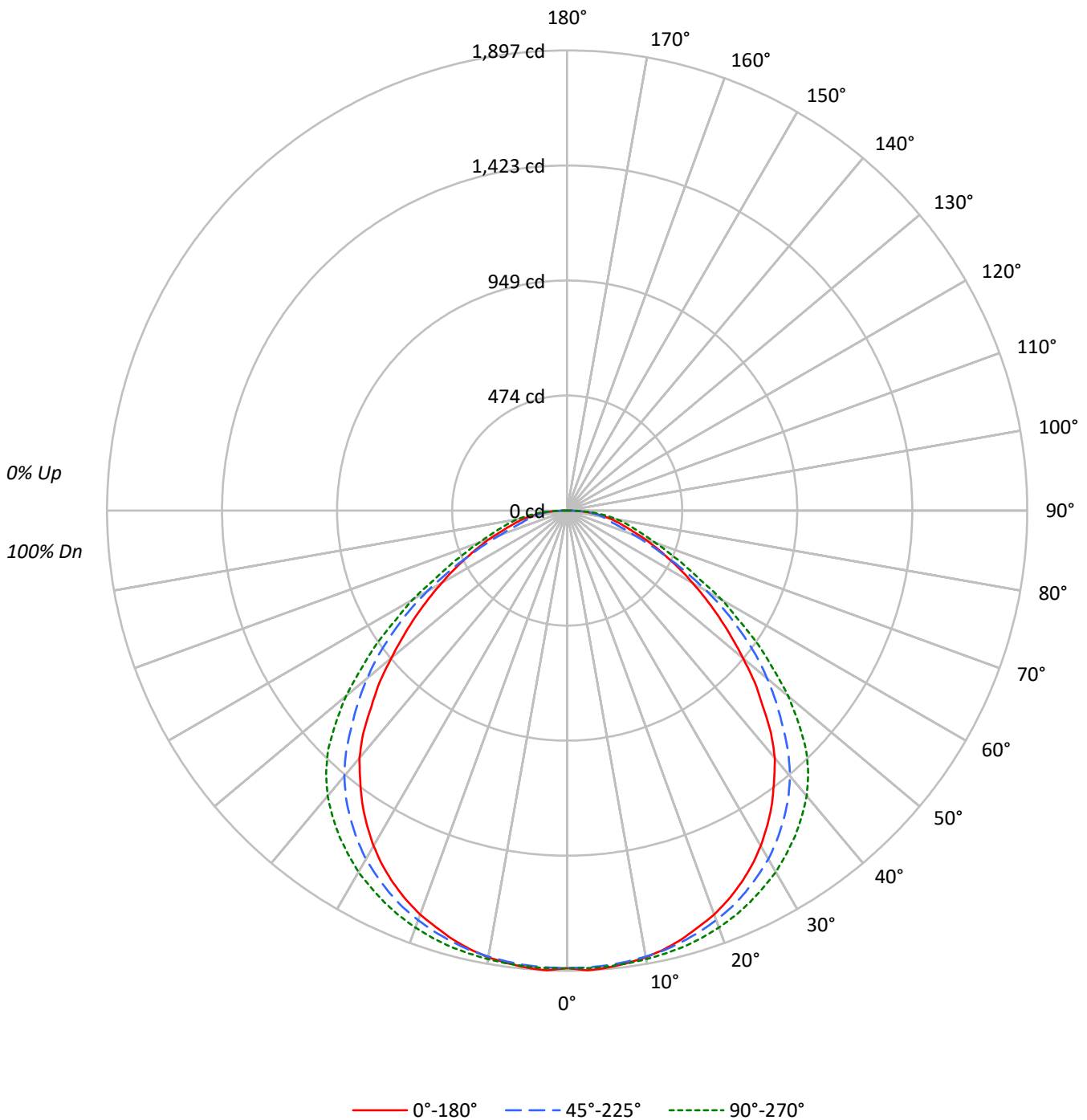
Lumens per Lamp: 2900 (2 lamps)
Luminaire Lumens: 5046.7 lumens
Efficiency: 87.0%
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.35 / 1.38
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 61.1
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: P31051

CATALOG NUMBER: 2GR5-228T5A-UNV-EBT1

Luminous Intensity Polar Plot





TEST NUMBER: P31051

CATALOG NUMBER: 2GR5-228T5A-UNV-EBT1

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	104	104	104	104	101	101	101	101	97	97	97		93	93	93		89	89	89	87
1	95	91	88	84	93	89	86	83	85	83	80		82	80	78		79	77	76	74
2	87	80	74	70	85	78	73	69	75	71	67		73	69	66		70	67	64	62
3	80	71	64	59	78	69	63	58	67	62	57		65	60	56		62	58	55	53
4	73	63	56	50	71	62	55	50	60	54	49		58	53	48		56	51	48	46
5	67	57	49	43	66	56	48	43	54	47	43		52	47	42		50	46	42	40
6	62	51	43	38	61	50	43	38	49	42	38		47	42	37		46	41	37	35
7	58	46	39	34	56	46	39	34	44	38	33		43	37	33		42	37	33	31
8	54	42	35	30	53	42	35	30	41	34	30		40	34	30		39	33	29	28
9	50	39	32	27	49	38	32	27	37	31	27		36	31	27		36	30	27	25
10	47	36	29	25	46	35	29	25	35	29	24		34	28	24		33	28	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3026	3026	3026
5°	3047	3031	3039
10°	3047	3042	3060
15°	3038	3055	3091
20°	3026	3068	3123
25°	3001	3075	3155
30°	2957	3074	3189
35°	2885	3048	3209
40°	2790	2993	3217
45°	2589	2850	3161
50°	2361	2688	2971
55°	2134	2453	2686
60°	1916	2137	2362
65°	1724	1731	2024
70°	1586	1375	1806
75°	1494	1209	1773
80°	1589	1368	1922
85°	1712	1675	2191



TEST NUMBER: P31051

CATALOG NUMBER: 2GR5-228T5A-UNV-EBT1

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	179.3	3.6	3.1	0°	1886	1886	1886	1886	1886	
10°-20°	519.9	10.3	9.0	5°	1892	1883	1882	1880	1887	180
20°-30°	800.1	15.9	13.8	15°	1829	1828	1839	1851	1861	516
30°-40°	970.9	19.2	16.7	25°	1695	1705	1737	1765	1782	780
40°-50°	969.8	19.2	16.7	35°	1473	1500	1556	1606	1638	919
50°-60°	773.3	15.3	13.3	45°	1141	1176	1256	1338	1393	881
60°-70°	473.6	9.4	8.2	55°	763	793	877	933	960	684
70°-80°	255.5	5.1	4.4	65°	454	431	456	503	533	455
80°-90°	104.3	2.1	1.8	75°	241	222	195	268	286	260
90°-100°	0.0	0.0	0.0	85°	93	89	91	114	119	100
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1499.3	29.7	25.8							
0°-40°	2470.2	48.9	42.6							
0°-60°	4213.3	83.5	72.6							
0°-90°	5046.7	100.0	87.0							
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°	5046.7	100.0	87.0							



TEST NUMBER: P31051

CATALOG NUMBER: 2GR5-228T5A-UNV-EBT1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1886	1886	1886	1886	1886
2.5°	1897	1887	1885	1882	1888
5°	1892	1883	1882	1880	1887
7.5°	1882	1875	1876	1877	1883
10°	1870	1862	1867	1870	1878
12.5°	1852	1847	1856	1861	1870
15°	1829	1828	1839	1851	1861
17.5°	1800	1803	1820	1836	1847
20°	1772	1774	1797	1817	1829
22.5°	1736	1740	1770	1793	1808
25°	1695	1705	1737	1765	1782
27.5°	1649	1662	1699	1733	1752
30°	1596	1613	1659	1696	1721
32.5°	1537	1562	1610	1655	1680
35°	1473	1500	1556	1606	1638
37.5°	1401	1429	1497	1555	1589
40°	1332	1356	1429	1497	1536
42.5°	1244	1271	1349	1426	1471
45°	1141	1176	1256	1338	1393
47.5°	1049	1079	1168	1254	1292
50°	946	989	1077	1154	1190
52.5°	851	891	982	1044	1069
55°	763	793	877	933	960
57.5°	677	697	776	819	837
60°	597	604	666	704	736
62.5°	525	510	557	591	619
65°	454	431	456	503	533
67.5°	395	360	368	423	453
70°	338	304	293	360	385
72.5°	284	259	236	311	329
75°	241	222	195	268	286
77.5°	205	188	168	229	247
80°	172	155	148	191	208
82.5°	136	123	125	156	167
85°	93	89	91	114	119
87.5°	54	54	52	68	67
90°	0	0	0	0	0

(END OF REPORT)