

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: P31267

Luminaire Tested: **2GR5-224T5A-UNV-EBT1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P31267
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2GR5-224T5A-UNV-EBT1-U
Description: METALUX 2' X 2' COMMERCIAL T5HO TROFFER WITH ACRYLIC PRISMATIC LENS
Light Source: (2) BIPIN T5 DOUBLE ENDED LINEAR FLUORESCENT LAMP 3500K
F24W/T5/841/ECO
Ballast/Driver: -
B224PUNV-C

Summary

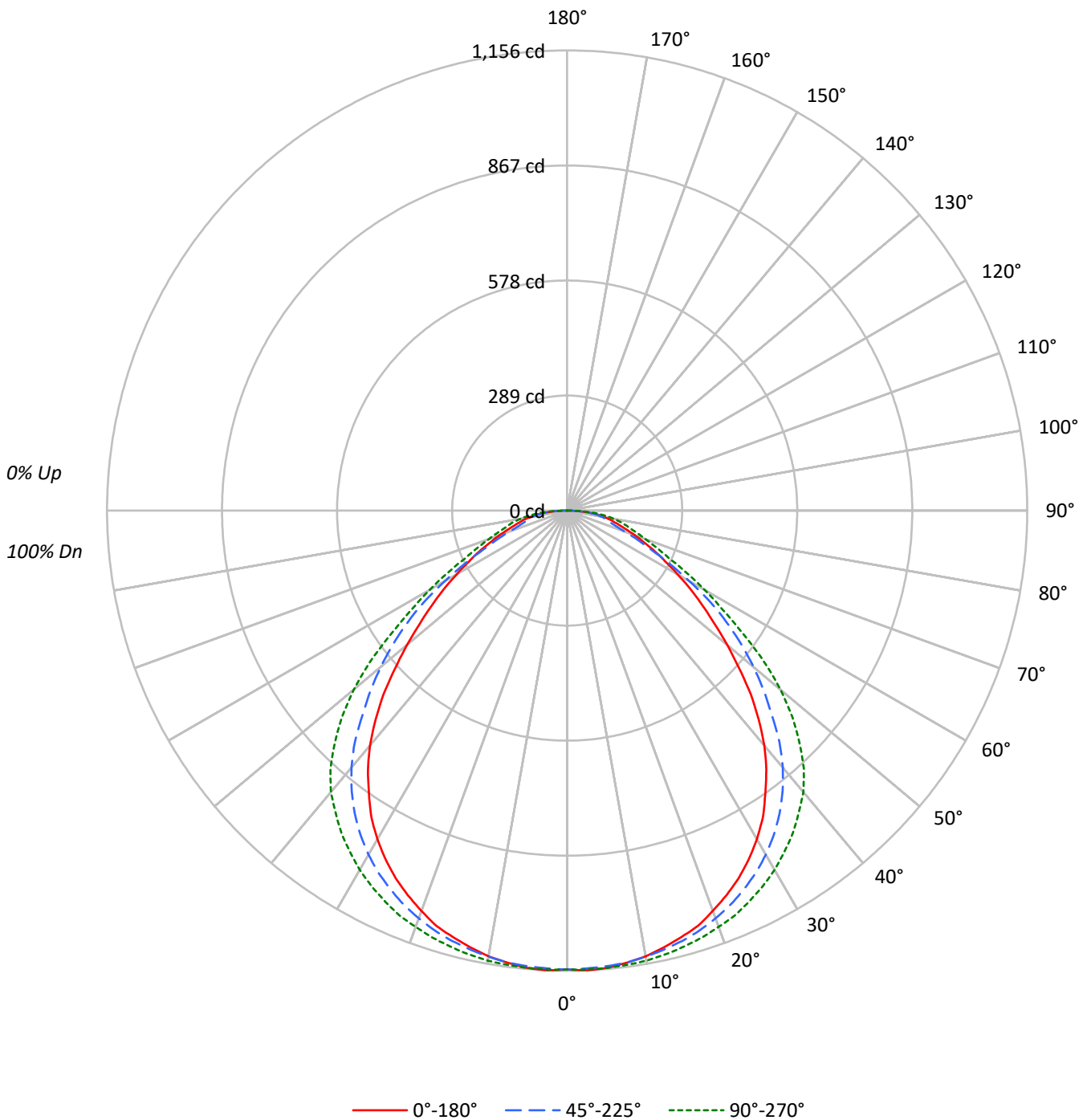
Lumens per Lamp: 2000 (2 lamps)
Luminaire Lumens: 2935.7 lumens
Efficiency: 73.4%
Efficacy: 59.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.35
Luminous Opening: Rectangular (W 1.77' x L: 1.77' x H: 0')
CIE Type: Direct

Input Watts (W): 49
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	50	30	10	0													
RCR																																					
0	87	87	87	87	85	85	85	85	82	82	82	78	78	78	75	75	75	73						73													
1	80	77	74	71	78	75	73	70	72	70	68	69	68	66	67	65	64	63						63													
2	74	68	63	59	72	67	62	59	64	60	57	62	59	56	59	57	55	53						53													
3	68	60	55	50	66	59	54	50	57	52	49	55	51	48	53	50	47	46						46													
4	62	54	48	43	60	53	47	43	51	46	42	49	45	42	48	44	41	39						39													
5	57	48	42	37	56	47	42	37	46	41	37	45	40	36	43	39	36	34						34													
6	53	44	37	33	52	43	37	33	42	36	32	40	36	32	39	35	32	30						30													
7	49	40	34	29	48	39	33	29	38	33	29	37	32	29	36	32	28	27						27													
8	46	36	30	26	45	36	30	26	35	30	26	34	29	26	33	29	26	24						24													
9	43	33	28	24	42	33	27	24	32	27	23	31	27	23	31	26	23	22						22													
10	40	31	25	21	39	30	25	21	30	25	21	29	24	21	28	24	21	20						20													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3958	3958	3958
5°	3973	3959	3973
10°	3963	3966	4001
15°	3941	3977	4030
20°	3909	3982	4066
25°	3859	3977	4102
30°	3777	3956	4130
35°	3637	3897	4144
40°	3455	3777	4136
45°	3165	3529	4010
50°	2804	3263	3738
55°	2484	2926	3226
60°	2204	2430	2746
65°	1982	1901	2282
70°	1806	1536	2098
75°	1737	1459	2109
80°	1878	1740	2352
85°	2048	2009	2717



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	109.5	3.7	2.7	0°	1153	1153	1153	1153	1153	
10°-20°	316.3	10.8	7.9	5°	1153	1150	1149	1151	1153	110
20°-30°	484.0	16.5	12.1	15°	1109	1111	1119	1129	1134	313
30°-40°	579.8	19.8	14.5	25°	1019	1029	1050	1074	1083	469
40°-50°	563.1	19.2	14.1	35°	868	890	930	970	989	542
50°-60°	429.4	14.6	10.7	45°	652	675	727	792	826	500
60°-70°	252.8	8.6	6.3	55°	415	436	489	521	539	373
70°-80°	142.3	4.8	3.6	65°	244	230	234	268	281	243
80°-90°	58.4	2.0	1.5	75°	131	125	110	151	159	142
90°-100°	0.0	0.0	0.0	85°	52	49	51	65	69	56
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°	909.9	31.0	22.7							
0°-40°	1489.7	50.7	37.2							
0°-60°	2482.2	84.6	62.1							
0°-90°	2935.7	100.0	73.4							
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°	2935.7	100.0	73.4							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1153	1153	1153	1153	1153
2.5°	1156	1153	1151	1153	1154
5°	1153	1150	1149	1151	1153
7.5°	1146	1145	1145	1149	1151
10°	1137	1136	1138	1144	1148
12.5°	1124	1124	1129	1138	1142
15°	1109	1111	1119	1129	1134
17.5°	1094	1094	1106	1118	1125
20°	1070	1076	1090	1106	1113
22.5°	1046	1055	1072	1091	1101
25°	1019	1029	1050	1074	1083
27.5°	988	998	1026	1053	1064
30°	953	966	998	1028	1042
32.5°	915	931	966	999	1016
35°	868	890	930	970	989
37.5°	822	842	889	935	956
40°	771	789	843	892	923
42.5°	712	733	790	843	880
45°	652	675	727	792	826
47.5°	585	615	670	725	767
50°	525	554	611	660	700
52.5°	466	494	551	598	624
55°	415	436	489	521	539
57.5°	367	371	425	451	463
60°	321	319	354	378	400
62.5°	279	274	290	319	338
65°	244	230	234	268	281
67.5°	209	197	191	230	242
70°	180	169	153	198	209
72.5°	154	145	127	173	181
75°	131	125	110	151	159
77.5°	114	106	99	129	141
80°	95	86	88	109	119
82.5°	76	67	73	88	95
85°	52	49	51	65	69
87.5°	29	28	29	35	35
90°	0	0	0	0	0

(END OF REPORT)