

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: 122P109

Luminaire Tested: **SNF-228T5-UNV-EBT-1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 122P109
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SNF-228T5-UNV-EBT-1
Description: COMMERCIAL NARROW STRIP, T5 LAMP
Light Source: TWO T5 LINEAR FLUORESCENT LAMPS
F28T5/835 28 WATTS
Ballast/Driver: -

Summary

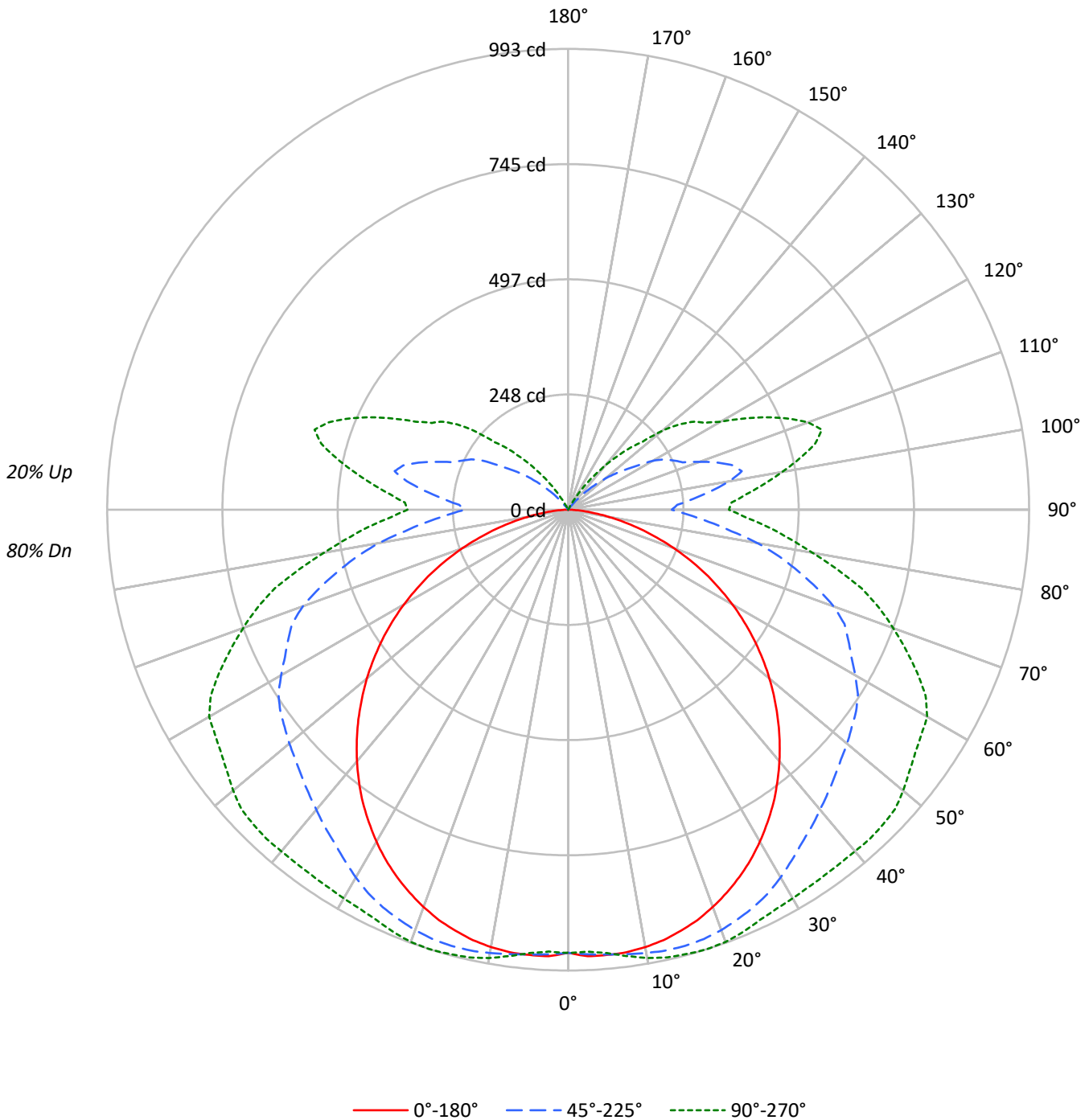
Lumens per Lamp: 2600 (2 lamps)
Luminaire Lumens: 5083.4 lumens
Efficiency: 97.8%
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.54 / 1.58
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 67
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				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	112	112	112	112	107	107	107	107	98	98	98		89	89	89		81	81	81	78
1	99	93	88	84	94	89	85	80	81	78	74		74	71	68		67	65	63	59
2	89	80	72	66	84	76	69	63	69	64	59		63	58	54		57	54	50	47
3	80	69	60	53	76	66	58	51	60	53	48		55	49	45		50	45	41	38
4	73	60	51	44	69	58	49	43	53	45	40		48	42	37		44	39	35	32
5	67	53	44	37	63	51	42	36	47	39	34		43	36	32		39	34	29	27
6	61	48	38	32	58	46	37	31	42	35	29		38	32	27		35	30	26	23
7	57	43	34	28	54	41	33	27	38	31	25		35	28	24		32	26	22	20
8	53	39	30	24	50	37	29	24	34	27	22		32	26	21		29	24	20	18
9	49	36	27	22	46	34	26	21	32	25	20		29	23	19		27	22	18	16
10	46	33	25	19	43	31	24	19	29	22	18		27	21	17		25	20	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11214	11214	11214
5°	11351	11339	11304
10°	11411	11566	11697
15°	11415	11828	12047
20°	11384	12046	12384
25°	11311	12244	12645
30°	11200	12406	13112
35°	11052	12572	13790
40°	10853	12937	14731
45°	10611	13484	15925
50°	10340	14322	17208
55°	10011	15498	18691
60°	9605	16768	20972
65°	9058	18505	23034
70°	8308	20874	25578
75°	7304	23274	29672
80°	5951	27996	36110
85°	4446	41092	58338



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	92.1	1.8	1.8	0°	955	955	955	955	955	
10°-20°	274.1	5.4	5.3	5°	963	961	962	965	959	92
20°-30°	432.3	8.5	8.3	15°	939	949	973	991	991	265
30°-40°	550.1	10.8	10.6	25°	873	906	945	972	976	402
40°-50°	626.5	12.3	12.0	35°	771	824	877	940	962	482
50°-60°	651.2	12.8	12.5	45°	639	710	812	922	959	493
60°-70°	617.0	12.1	11.9	55°	489	578	757	872	913	437
70°-80°	495.6	9.7	9.5	65°	326	459	666	795	829	322
80°-90°	305.0	6.0	5.9	75°	161	346	513	620	654	171
90°-100°	264.8	5.2	5.1	85°	33	168	305	400	433	38
100°-110°	326.5	6.4	6.3	90°	2	95	223	313	346	2
110°-120°	236.0	4.6	4.5	95°	1	144	270	356	386	0
120°-130°	137.2	2.7	2.6	105°	0	117	368	521	551	0
130°-140°	60.6	1.2	1.2	115°	0	53	251	409	471	0
140°-150°	13.9	0.3	0.3	125°	1	5	151	291	331	1
150°-160°	0.4	0.0	0.0	135°	1	1	59	152	189	1
160°-170°	0.0	0.0	0.0	145°	1	1	1	43	67	1
170°-180°	0.0	0.0	0.0	155°	1	1	1	0	0	0
0°-30°	798.5	15.7	15.4	165°	0	0	0	0	0	0
0°-40°	1348.6	26.5	25.9	175°	0	0	0	0	0	0
0°-60°	2626.3	51.7	50.5	180°	0	0	0	0	0	0
0°-90°	4044.0	79.6	77.8							
90°-120°	827.3	16.3	15.9							
90°-150°	1039.0	20.4	20.0							
90°-180°	1039.0	20.4	20.0							
0°-180°	5083.4	100.0	97.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	955	955	955	955	955
2.5°	963	959	959	958	953
5°	963	961	962	965	959
7.5°	962	960	966	973	970
10°	957	958	970	982	981
12.5°	950	954	973	989	988
15°	939	949	973	991	991
17.5°	927	941	970	991	993
20°	911	932	964	988	991
22.5°	893	920	955	981	985
25°	873	906	945	972	976
27.5°	851	888	932	961	970
30°	826	869	915	953	967
32.5°	799	848	896	947	964
35°	771	824	877	940	962
37.5°	740	798	861	934	961
40°	708	771	844	930	961
42.5°	674	741	828	926	962
45°	639	710	812	922	959
47.5°	603	676	797	917	955
50°	566	643	784	908	942
52.5°	528	609	770	891	926
55°	489	578	757	872	913
57.5°	449	546	740	856	902
60°	409	514	714	843	893
62.5°	367	485	688	828	868
65°	326	459	666	795	829
67.5°	284	436	644	754	787
70°	242	414	608	709	745
72.5°	201	383	562	665	702
75°	161	346	513	620	654
77.5°	123	312	466	564	593
80°	88	263	414	504	534
82.5°	58	215	355	448	481
85°	33	168	305	400	433
87.5°	13	125	260	351	383
90°	2	95	223	313	346
92.5°	1	110	235	321	352
95°	1	144	270	356	386
97.5°	0	167	311	397	426
100°	0	149	353	440	468
102.5°	0	125	383	483	511
105°	0	117	368	521	551
107.5°	0	104	338	519	573
110°	0	81	302	490	550



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	67	267	451	513
115°	0	53	251	409	471
117.5°	0	39	235	366	425
120°	1	26	211	330	379
122.5°	1	14	176	316	348
125°	1	5	151	291	331
127.5°	1	1	127	258	302
130°	1	1	104	214	265
132.5°	1	1	81	183	216
135°	1	1	59	152	189
137.5°	1	1	39	123	155
140°	1	1	20	95	125
142.5°	1	1	6	68	95
145°	1	1	1	43	67
147.5°	1	1	1	21	40
150°	1	1	1	4	17
152.5°	1	1	1	0	2
155°	1	1	1	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)