

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: ITL44162

Luminaire Tested: **STW-496T8**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: ITL44162  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: STW-496T8  
Description: WHITE PAINTED FABRICATED METAL BALLAST HOUSING WITH FLAT  
WHITE PAINTED REFLECTOR AND WHITE PAINTED END PLATES.  
Light Source: FOUR 59-WATT F96T8/SPX35 FLUORESCENTS.  
Ballast/Driver: TWO MAGNETEK TRIAD B259I120HP (BALLAST FACTORS 96.6 % AND 96.2 %).

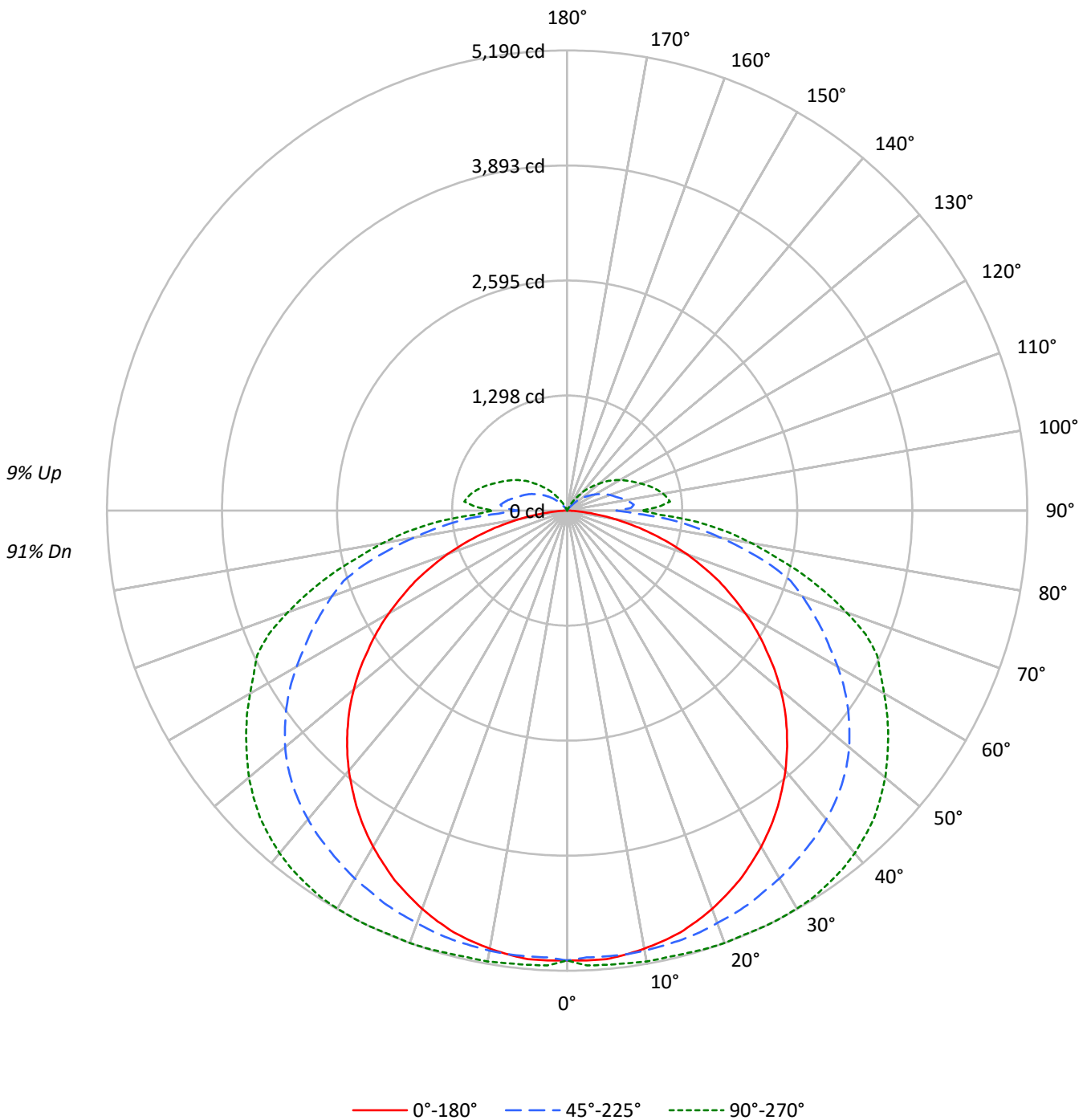
**Summary**

Lumens per Lamp: 5950 (4 lamps)  
Luminaire Lumens: 22297.2 lumens  
Efficiency: 93.7%  
Efficacy: 89.9 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.54 / 1.58  
Luminous Opening: Rectangular w/ Sides (W: 0.77' x L: 8' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 248  
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: ITL44162  
CATALOG NUMBER: STW-496T8

### Luminous Intensity Polar Plot





TEST NUMBER: ITL44162  
 CATALOG NUMBER: STW-496T8

**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	50	30	10	0		
RCR																										
0	109	109	109	109	106	106	106	106	99	99	99	93	93	93	88	88	88	85								
1	98	92	87	83	94	89	85	81	84	80	77	78	76	73	74	71	69	66								
2	88	79	72	65	84	76	70	64	71	66	61	67	62	58	63	59	56	53								
3	79	68	60	53	76	66	58	52	62	55	50	58	52	48	55	50	46	43								
4	72	60	51	44	69	58	50	43	54	47	42	51	45	40	48	43	39	36								
5	66	53	44	37	63	51	43	37	48	41	35	45	39	34	43	37	33	31								
6	61	47	38	32	58	46	38	31	43	36	30	41	34	29	38	33	29	26								
7	56	43	34	28	54	41	33	27	39	32	27	37	31	26	35	29	25	23								
8	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22	20								
9	48	35	27	22	47	34	27	22	33	26	21	31	25	20	29	24	20	18								
10	45	32	25	20	44	32	24	19	30	23	19	29	23	18	27	22	18	16								

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

	0°	45°	90°
0°	8855	8855	8855
5°	8887	8749	8884
10°	8868	8741	8897
15°	8867	8759	8954
20°	8831	8795	9104
25°	8798	8888	9293
30°	8745	9003	9553
35°	8689	9160	9827
40°	8614	9375	10119
45°	8517	9601	10406
50°	8379	9808	10660
55°	8160	9972	10922
60°	7903	10106	11254
65°	7569	10316	11823
70°	7027	10713	11835
75°	6188	10925	11487
80°	4931	10281	11044
85°	2940	9550	10324



TEST NUMBER: ITL44162  
 CATALOG NUMBER: STW-496T8

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	483.2	2.2	2.0	0°	5073	5073	5073	5073	5073	
10°-20°	1420.1	6.4	6.0	5°	5079	5031	5048	5083	5142	483
20°-30°	2255.3	10.1	9.5	15°	4927	4930	5010	5090	5170	1390
30°-40°	2916.8	13.1	12.3	25°	4601	4684	4885	5072	5190	2119
40°-50°	3312.0	14.9	13.9	35°	4122	4316	4677	4996	5135	2578
50°-60°	3356.3	15.1	14.1	45°	3504	3837	4378	4746	4899	2702
60°-70°	3047.3	13.7	12.8	55°	2741	3289	3865	4278	4420	2452
70°-80°	2282.6	10.2	9.6	65°	1894	2630	3171	3688	3858	1864
80°-90°	1149.5	5.2	4.8	75°	971	1724	2380	2703	2734	1029
90°-100°	685.8	3.1	2.9	85°	173	822	1162	1464	1471	217
100°-110°	572.1	2.6	2.4	90°	0	254	554	763	840	7
110°-120°	402.9	1.8	1.7	95°	0	305	754	1052	1164	0
120°-130°	248.7	1.1	1.0	105°	0	198	585	876	1003	0
130°-140°	121.9	0.5	0.5	115°	0	107	442	682	783	0
140°-150°	38.2	0.2	0.2	125°	0	32	288	488	588	0
150°-160°	4.2	0.0	0.0	135°	0	2	142	291	367	0
160°-170°	0.0	0.0	0.0	145°	0	0	31	114	167	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	11	27	0
0°-30°	4158.7	18.7	17.5	165°	0	0	0	0	0	0
0°-40°	7075.5	31.7	29.7	175°	0	0	0	0	0	0
0°-60°	13743.9	61.6	57.7	180°	0	0	0	0	0	0
0°-90°	20223.3	90.7	85.0							
90°-120°	1660.8	7.4	7.0							
90°-150°	2069.6	9.3	8.7							
90°-180°	2074.0	9.3	8.7							
0°-180°	22297.2	100.0	93.7							



TEST NUMBER: ITL44162  
 CATALOG NUMBER: STW-496T8

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5073	5073	5073	5073	5073
2.5°	5079	5031	5045	5072	5135
5°	5079	5031	5048	5083	5142
7.5°	5052	5017	5048	5086	5149
10°	5017	4996	5041	5086	5163
12.5°	4975	4965	5024	5093	5163
15°	4927	4930	5010	5090	5170
17.5°	4857	4878	4986	5086	5183
20°	4781	4826	4951	5086	5190
22.5°	4691	4757	4920	5079	5183
25°	4601	4684	4885	5072	5190
27.5°	4490	4597	4833	5059	5190
30°	4378	4510	4791	5045	5183
32.5°	4254	4417	4736	5024	5170
35°	4122	4316	4677	4996	5135
37.5°	3976	4205	4618	4961	5100
40°	3830	4091	4548	4899	5045
42.5°	3671	3969	4469	4830	4975
45°	3504	3837	4378	4746	4899
47.5°	3331	3702	4274	4653	4795
50°	3143	3570	4153	4545	4684
52.5°	2949	3428	4011	4420	4552
55°	2741	3289	3865	4278	4420
57.5°	2540	3133	3702	4132	4281
60°	2325	2980	3525	3990	4129
62.5°	2103	2807	3338	3827	3983
65°	1894	2630	3171	3688	3858
67.5°	1658	2411	2994	3532	3643
70°	1436	2186	2824	3327	3352
72.5°	1200	1957	2644	3025	3053
75°	971	1724	2380	2703	2734
77.5°	749	1540	2061	2373	2401
80°	534	1360	1752	2085	2109
82.5°	333	1121	1464	1794	1818
85°	173	822	1162	1464	1471
87.5°	49	538	777	1044	1034
90°	0	254	554	763	840
92.5°	0	333	725	997	1037
95°	0	305	754	1052	1164
97.5°	0	270	717	1016	1136
100°	0	246	678	976	1098
102.5°	0	222	630	929	1051
105°	0	198	585	876	1003
107.5°	0	174	546	819	946
110°	0	152	516	770	887



TEST NUMBER: ITL44162  
CATALOG NUMBER: STW-496T8

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	129	478	722	833
115°	0	107	442	682	783
117.5°	0	85	402	635	737
120°	0	67	364	588	692
122.5°	0	47	327	537	637
125°	0	32	288	488	588
127.5°	0	21	251	438	530
130°	0	13	216	389	473
132.5°	0	8	179	340	421
135°	0	2	142	291	367
137.5°	0	0	105	245	317
140°	0	0	73	199	266
142.5°	0	0	49	155	214
145°	0	0	31	114	167
147.5°	0	0	18	77	124
150°	0	0	8	48	85
152.5°	0	0	2	26	50
155°	0	0	0	11	27
157.5°	0	0	0	2	12
160°	0	0	0	0	3
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)