

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: ITL44160

Luminaire Tested: **STW-396T8**

Issue Date: 3/3/2020



**Test Information**

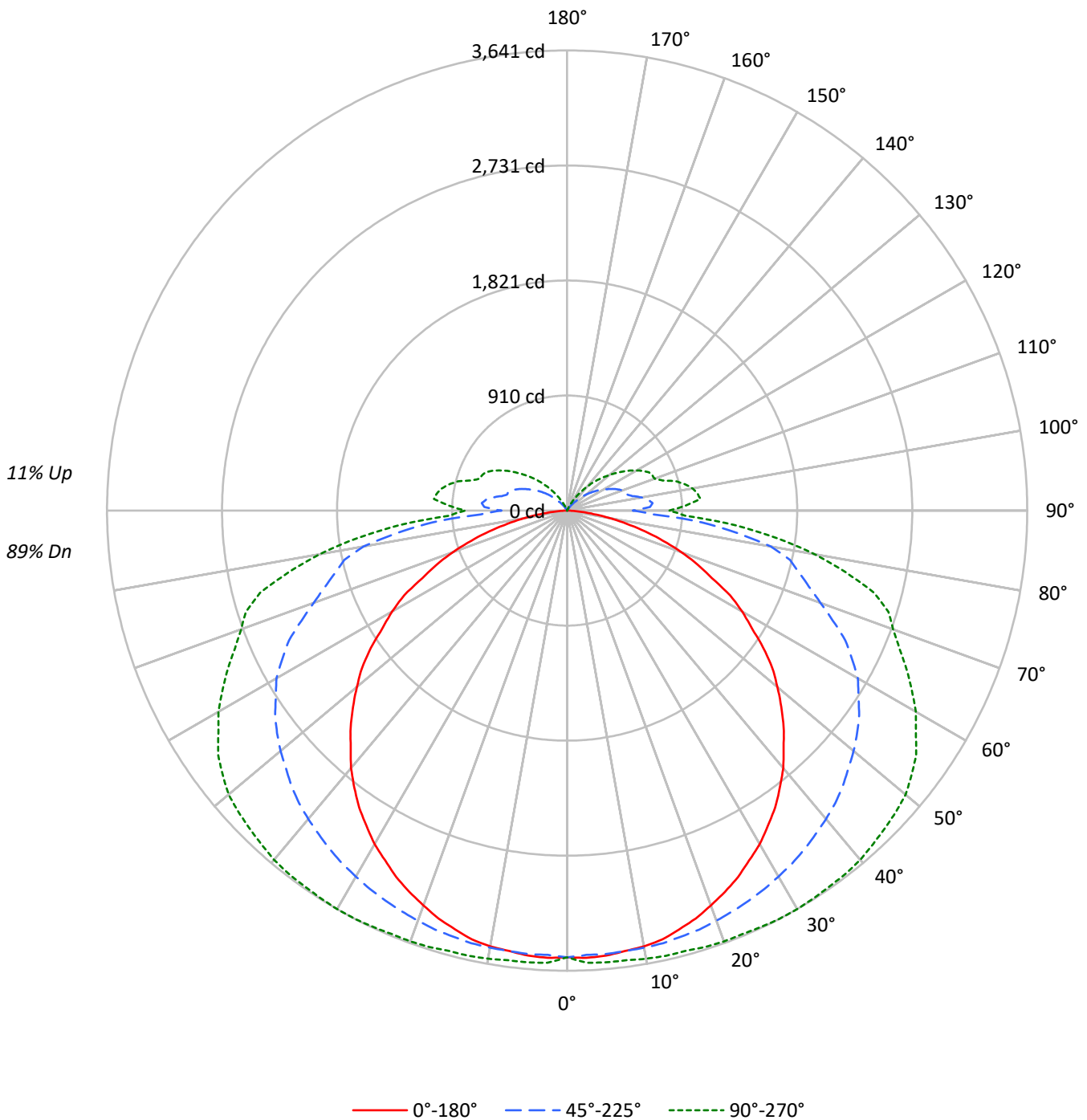
Test Method: LM-41-14  
Report Number: ITL44160  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: STW-396T8  
Description: WHITE PAINTED FABRICATED METAL BALLAST HOUSING WITH FLAT  
WHITE PAINTED REFLECTOR AND WHITE PAINTED END PLATES.  
Light Source: THREE 59-WATT F96T8/SPX35 FLUORESCENTS.  
Ballast/Driver: TWO MAGNETEK TRIAD B259I120HP (BALLAST FACTORS 110.6 % ONE LAMP,  
96.6 % TWO LAMP).

**Summary**

Lumens per Lamp: 5950 (3 lamps)  
Luminaire Lumens: 16798.9 lumens  
Efficiency: 94.1%  
Efficacy: 85.5 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.56 / 1.6  
Luminous Opening: Rectangular w/ Sides (W: 0.77' x L: 8' x H: 0.12')  
CIE Type: Semi-Direct  
  
Input Watts (W): 196.4  
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: ITL44160  
CATALOG NUMBER: STW-396T8

### Luminous Intensity Polar Plot





TEST NUMBER: ITL44160  
 CATALOG NUMBER: STW-396T8

**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	110	110	110	110	106	106	106	106	99	99	99		92	92	92		86	86	86	84
1	97	92	87	82	93	88	84	80	82	79	75		77	74	71		72	69	67	64
2	87	78	70	64	83	75	68	62	70	64	59		65	61	56		61	57	54	51
3	78	67	58	52	75	65	57	50	60	54	48		56	51	46		53	48	44	41
4	71	59	50	43	68	57	48	42	53	46	40		49	43	38		46	41	37	34
5	65	52	43	36	62	50	42	35	47	40	34		44	38	33		41	36	31	29
6	60	46	37	31	57	45	36	30	42	35	29		39	33	28		37	31	27	25
7	55	42	33	27	53	40	32	26	38	31	25		36	29	25		34	28	24	21
8	51	38	29	24	49	37	29	23	35	28	22		33	26	22		31	25	21	19
9	48	35	26	21	46	34	26	21	32	25	20		30	24	19		28	23	19	17
10	45	32	24	19	43	31	24	19	29	23	18		28	22	17		26	21	17	15

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

	0°	45°	90°
0°	6171	6171	6171
5°	6186	6104	6199
10°	6190	6090	6205
15°	6173	6100	6249
20°	6142	6134	6362
25°	6117	6193	6507
30°	6089	6284	6711
35°	6050	6408	6941
40°	5983	6567	7237
45°	5889	6763	7551
50°	5791	6988	7956
55°	5644	7278	8330
60°	5439	7614	8684
65°	5052	7902	9077
70°	4703	8091	9692
75°	4072	8717	10567
80°	3158	9583	10410
85°	1903	8794	9377



TEST NUMBER: ITL44160  
 CATALOG NUMBER: STW-396T8

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	336.9	2.0	1.9	0°	3535	3535	3535	3535	3535	
10°-20°	990.3	5.9	5.5	5°	3535	3506	3522	3545	3588	336
20°-30°	1574.1	9.4	8.8	15°	3430	3433	3489	3552	3608	969
30°-40°	2042.4	12.2	11.4	25°	3199	3259	3404	3545	3634	1474
40°-50°	2347.9	14.0	13.2	35°	2870	3002	3272	3512	3627	1793
50°-60°	2447.9	14.6	13.7	45°	2423	2670	3084	3417	3555	1868
60°-70°	2281.1	13.6	12.8	55°	1896	2281	2821	3232	3371	1691
70°-80°	1877.5	11.2	10.5	65°	1264	1847	2429	2831	2962	1266
80°-90°	1027.8	6.1	5.8	75°	639	1323	1899	2416	2515	677
90°-100°	621.4	3.7	3.5	85°	112	727	1070	1343	1336	139
100°-110°	500.0	3.0	2.8	90°	0	235	520	740	809	5
110°-120°	365.3	2.2	2.0	95°	0	260	678	954	1058	0
120°-130°	229.7	1.4	1.3	105°	0	181	491	754	893	0
130°-140°	113.8	0.7	0.6	115°	0	97	405	627	715	0
140°-150°	37.6	0.2	0.2	125°	0	32	266	452	539	0
150°-160°	5.3	0.0	0.0	135°	0	2	132	271	345	0
160°-170°	0.0	0.0	0.0	145°	0	0	35	112	161	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	18	36	0
0°-30°	2901.2	17.3	16.3	165°	0	0	0	0	0	0
0°-40°	4943.6	29.4	27.7	175°	0	0	0	0	0	0
0°-60°	9739.4	58.0	54.6	180°	0	0	0	0	0	0
0°-90°	14925.9	88.9	83.6							
90°-120°	1486.7	8.8	8.3							
90°-150°	1867.7	11.1	10.5							
90°-180°	1873.0	11.1	10.5							
0°-180°	16798.9	100.0	94.1							



TEST NUMBER: ITL44160  
 CATALOG NUMBER: STW-396T8

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3535	3535	3535	3535	3535
2.5°	3542	3502	3519	3542	3581
5°	3535	3506	3522	3545	3588
7.5°	3515	3502	3515	3548	3588
10°	3502	3483	3512	3548	3601
12.5°	3476	3460	3506	3548	3608
15°	3430	3433	3489	3552	3608
17.5°	3384	3400	3476	3552	3621
20°	3325	3357	3453	3552	3627
22.5°	3265	3311	3430	3552	3627
25°	3199	3259	3404	3545	3634
27.5°	3120	3203	3377	3542	3641
30°	3048	3140	3344	3535	3641
32.5°	2956	3074	3311	3525	3634
35°	2870	3002	3272	3512	3627
37.5°	2765	2926	3229	3492	3621
40°	2660	2841	3186	3469	3608
42.5°	2535	2762	3140	3443	3581
45°	2423	2670	3084	3417	3555
47.5°	2298	2571	3018	3377	3529
50°	2172	2479	2959	3341	3496
52.5°	2047	2383	2893	3292	3436
55°	1896	2281	2821	3232	3371
57.5°	1731	2169	2732	3134	3272
60°	1600	2074	2656	3061	3186
62.5°	1455	1955	2541	2949	3074
65°	1264	1847	2429	2831	2962
67.5°	1119	1731	2275	2712	2844
70°	961	1613	2133	2600	2745
72.5°	797	1485	2008	2505	2666
75°	639	1323	1899	2416	2515
77.5°	481	1139	1807	2215	2258
80°	342	974	1633	1942	1988
82.5°	211	876	1356	1666	1679
85°	112	727	1070	1343	1336
87.5°	33	471	685	938	935
90°	0	235	520	740	809
92.5°	0	291	656	898	941
95°	0	260	678	954	1058
97.5°	0	220	648	933	1039
100°	0	220	599	889	1008
102.5°	0	200	529	830	957
105°	0	181	491	754	893
107.5°	0	158	489	673	792
110°	0	138	469	667	736



TEST NUMBER: ITL44160  
CATALOG NUMBER: STW-396T8

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	116	437	655	729
115°	0	97	405	627	715
117.5°	0	78	368	585	679
120°	0	61	333	544	636
122.5°	0	45	300	497	589
125°	0	32	266	452	539
127.5°	0	21	230	404	487
130°	0	14	198	360	438
132.5°	0	7	166	316	390
135°	0	2	132	271	345
137.5°	0	0	100	229	298
140°	0	0	71	190	251
142.5°	0	0	50	148	205
145°	0	0	35	112	161
147.5°	0	0	23	77	120
150°	0	0	13	52	85
152.5°	0	0	6	32	55
155°	0	0	0	18	36
157.5°	0	0	0	5	19
160°	0	0	0	0	7
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)