

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: ITL44163

Luminaire Tested: **STW-496HO**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: ITL44163  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: STW-496HO  
Description: WHITE PAINTED FABRICATED METAL BALLAST HOUSING WITH FLAT  
WHITE PAINTED REFLECTOR AND WHITE PAINTED END PLATES.  
Light Source: FOUR 95-WATT F96T12/CW/HO/WM FLUORESCENTS.  
Ballast/Driver: TWO MAGNETEK UNIVERSAL 480-XLH-TC-P (BALLAST FACTORS 90.8 %  
AND 83.9 %).

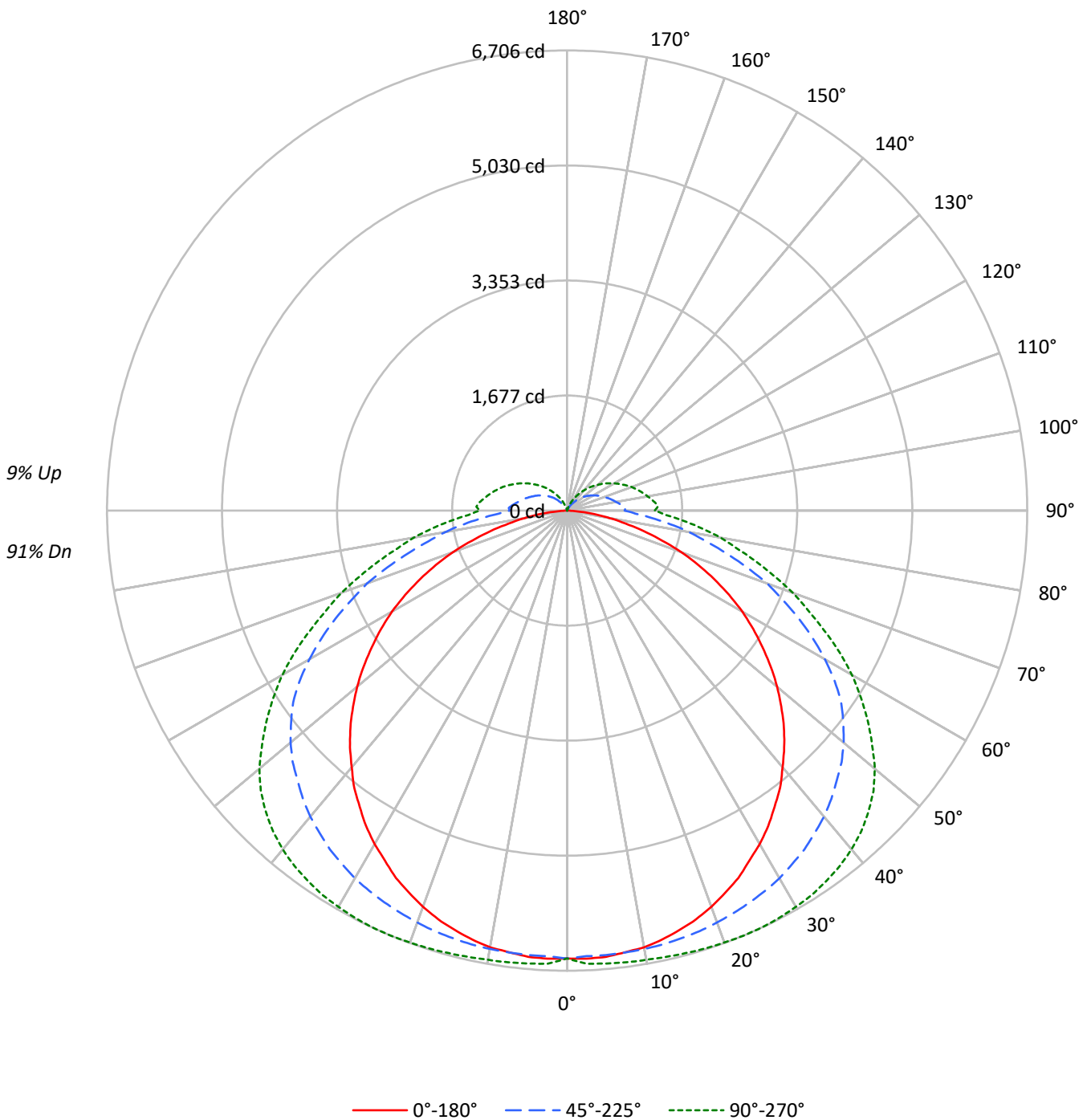
**Summary**

Lumens per Lamp: 8000 (4 lamps)  
Luminaire Lumens: 27275.6 lumens  
Efficiency: 85.2%  
Efficacy: 65.6 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.53 / 1.57  
Luminous Opening: Rectangular w/ Sides (W: 0.77' x L: 8' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 416  
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	50	30	10	0	
RCR																						
0	100	100	100	100	96	96	96	96	90	90	90	85	85	85	80	80	80	80	80	80	77	
1	89	85	80	77	86	82	78	75	77	74	71	72	69	67	68	66	64	68	66	64	61	
2	80	73	66	61	77	70	64	59	66	61	57	62	58	54	58	55	52	58	55	52	50	
3	73	63	55	49	70	61	54	48	57	51	47	54	49	45	51	47	43	51	47	43	41	
4	66	55	47	41	64	54	46	40	50	44	39	47	42	38	45	40	36	45	40	36	34	
5	61	49	41	35	58	48	40	34	45	38	33	42	37	32	40	35	31	40	35	31	29	
6	56	44	36	30	54	43	35	30	40	34	29	38	32	28	36	31	27	36	31	27	25	
7	51	39	32	26	49	38	31	26	36	30	25	34	29	24	33	28	24	33	28	24	22	
8	48	36	28	23	46	35	28	23	33	27	22	31	26	22	30	25	21	30	25	21	19	
9	45	33	26	21	43	32	25	20	30	24	20	29	23	19	27	22	19	27	22	19	17	
10	42	30	23	19	40	29	23	18	28	22	18	27	21	17	25	21	17	25	21	17	15	

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

	0°	45°	90°
0°	11393	11393	11393
5°	11420	11251	11420
10°	11417	11210	11402
15°	11380	11217	11484
20°	11336	11265	11643
25°	11279	11356	11869
30°	11190	11499	12119
35°	11087	11649	12397
40°	10959	11817	12678
45°	10832	11966	12892
50°	10616	12162	12973
55°	10307	12270	12819
60°	9980	12080	12606
65°	9397	11702	12150
70°	8608	11281	11748
75°	7300	10448	11220
80°	5804	9901	10999
85°	3315	9265	10793



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	622.0	2.3	1.9	0°	6527	6527	6527	6527	6527	
10°-20°	1829.7	6.7	5.7	5°	6528	6469	6503	6536	6625	621
20°-30°	2907.1	10.7	9.1	15°	6328	6340	6451	6566	6677	1787
30°-40°	3744.8	13.7	11.7	25°	5906	6021	6299	6554	6706	2719
40°-50°	4217.2	15.5	13.2	35°	5269	5547	6028	6414	6588	3300
50°-60°	4176.9	15.3	13.1	45°	4468	4924	5558	6047	6210	3441
60°-70°	3540.0	13.0	11.1	55°	3475	4168	4876	5261	5350	3110
70°-80°	2446.8	9.0	7.6	65°	2364	3242	3724	4098	4135	2338
80°-90°	1289.7	4.7	4.0	75°	1156	2038	2397	2786	2838	1233
90°-100°	790.8	2.9	2.5	85°	200	785	1238	1641	1704	259
100°-110°	632.3	2.3	2.0	90°	0	371	836	1161	1276	7
110°-120°	470.3	1.7	1.5	95°	0	319	813	1151	1290	0
120°-130°	316.5	1.2	1.0	105°	0	226	652	964	1097	0
130°-140°	182.2	0.7	0.6	115°	0	159	511	775	896	0
140°-150°	82.7	0.3	0.3	125°	0	97	376	590	689	0
150°-160°	23.7	0.1	0.1	135°	0	40	244	406	485	0
160°-170°	2.9	0.0	0.0	145°	0	16	119	236	296	0
170°-180°	0.0	0.0	0.0	155°	0	0	39	84	129	0
0°-30°	5358.7	19.6	16.7	165°	0	0	5	14	27	0
0°-40°	9103.5	33.4	28.4	175°	0	0	0	0	3	0
0°-60°	17497.6	64.2	54.7	180°	0	0	0	0	0	0
0°-90°	24774.2	90.8	77.4							
90°-120°	1893.4	6.9	5.9							
90°-150°	2474.7	9.1	7.7							
90°-180°	2501.0	9.2	7.8							
0°-180°	27275.6	100.0	85.2							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6527	6527	6527	6527	6527
2.5°	6536	6477	6499	6528	6610
5°	6528	6469	6503	6536	6625
7.5°	6491	6454	6495	6547	6640
10°	6462	6428	6488	6558	6647
12.5°	6402	6388	6473	6566	6662
15°	6328	6340	6451	6566	6677
17.5°	6247	6280	6425	6566	6691
20°	6143	6206	6388	6566	6699
22.5°	6025	6121	6347	6562	6706
25°	5906	6021	6299	6554	6706
27.5°	5750	5917	6247	6532	6691
30°	5610	5802	6188	6506	6669
32.5°	5454	5673	6106	6462	6640
35°	5269	5547	6028	6414	6588
37.5°	5098	5402	5925	6343	6528
40°	4883	5246	5824	6262	6447
42.5°	4683	5076	5699	6173	6343
45°	4468	4924	5558	6047	6210
47.5°	4231	4743	5424	5899	6054
50°	3994	4550	5261	5724	5854
52.5°	3742	4372	5072	5513	5602
55°	3475	4168	4876	5261	5350
57.5°	3216	3950	4624	5002	5076
60°	2949	3738	4339	4728	4794
62.5°	2660	3494	4039	4417	4476
65°	2364	3242	3724	4098	4135
67.5°	2067	2975	3398	3772	3801
70°	1771	2697	3101	3438	3498
72.5°	1452	2379	2742	3112	3157
75°	1156	2038	2397	2786	2838
77.5°	867	1712	2071	2479	2527
80°	637	1408	1804	2197	2268
82.5°	408	1074	1512	1916	1979
85°	200	785	1238	1641	1704
87.5°	52	556	997	1389	1438
90°	0	371	836	1161	1276
92.5°	0	351	853	1195	1323
95°	0	319	813	1151	1290
97.5°	0	290	768	1105	1240
100°	0	264	725	1057	1190
102.5°	0	244	688	1008	1146
105°	0	226	652	964	1097
107.5°	0	206	613	918	1046
110°	0	192	578	872	1002



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	175	542	821	946
115°	0	159	511	775	896
117.5°	0	143	475	729	843
120°	0	127	441	683	794
122.5°	0	113	410	637	741
125°	0	97	376	590	689
127.5°	0	80	343	540	637
130°	0	64	311	496	584
132.5°	0	51	279	451	537
135°	0	40	244	406	485
137.5°	0	33	206	361	440
140°	0	26	172	320	388
142.5°	0	20	142	276	339
145°	0	16	119	236	296
147.5°	0	11	92	197	248
150°	0	8	69	160	208
152.5°	0	4	52	123	165
155°	0	0	39	84	129
157.5°	0	0	27	54	90
160°	0	0	20	38	64
162.5°	0	0	11	25	42
165°	0	0	5	14	27
167.5°	0	0	0	5	13
170°	0	0	0	0	7
172.5°	0	0	0	0	2
175°	0	0	0	0	3
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)