

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: ITL44159

Luminaire Tested: **STW-296HO**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: ITL44159  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: STW-296HO  
Description: WHITE PAINTED FABRICATED METAL BALLAST HOUSING WITH FLAT  
WHITE PAINTED REFLECTOR AND WHITE PAINTED END PLATES.  
Light Source: TWO 95-WATT F96T12/CW/HO/WM FLUORESCENTS.  
Ballast/Driver: MAGNETEK UNIVERSAL 480-XLH-TC-P (BALLAST FACTOR 90.8 %).

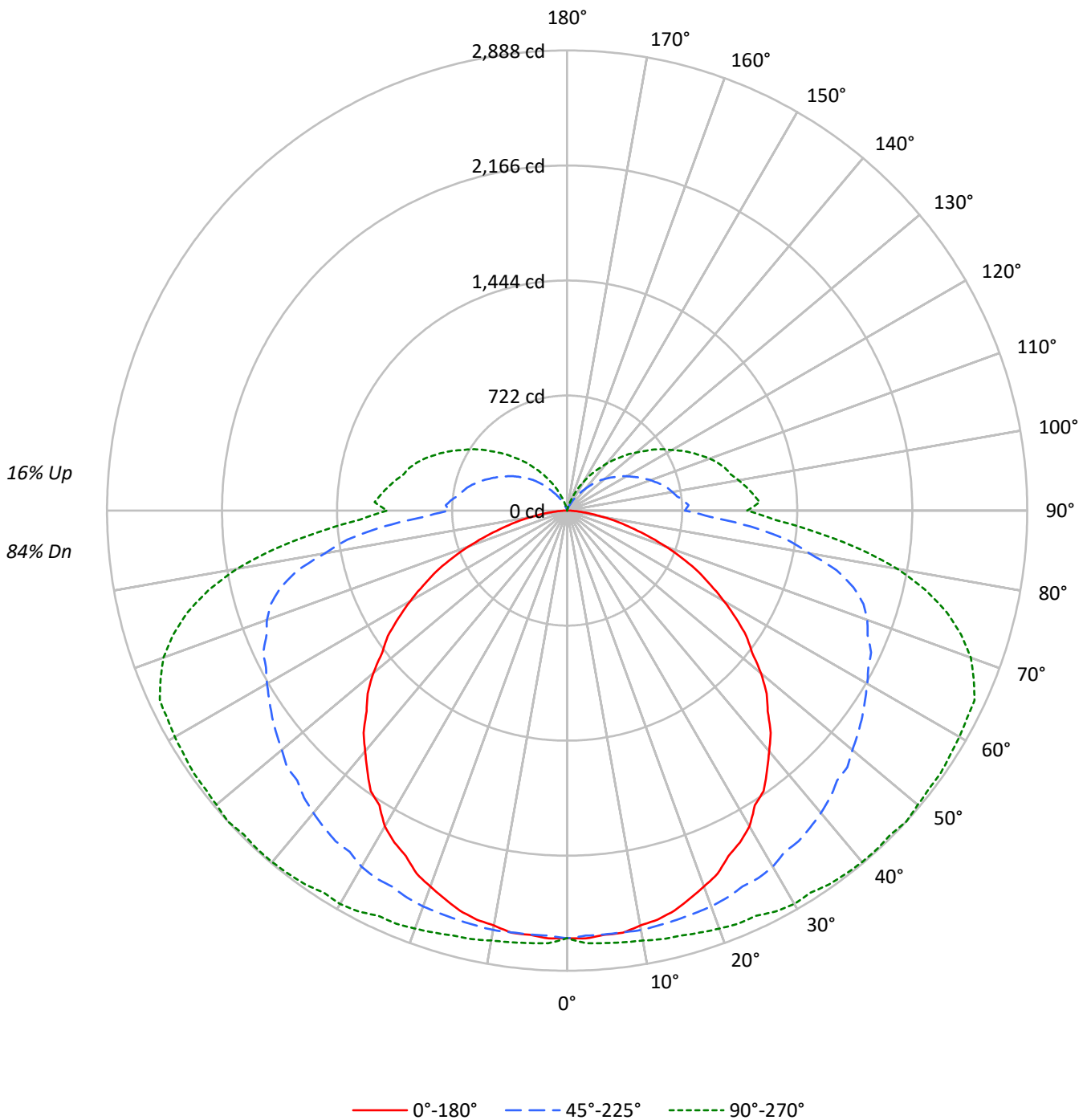
**Summary**

Lumens per Lamp: 8000 (2 lamps)  
Luminaire Lumens: 14854.9 lumens  
Efficiency: 92.8%  
Efficacy: 69.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.63 / 1.63  
Luminous Opening: Rectangular w/ Sides (W: 0.77' x L: 8' x H: 0.15')  
CIE Type: Semi-Direct

Input Watts (W): 215  
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	107	107	107	107	103	103	103	103	95	95	95	88	88	88	81	81	81	78
1	94	88	83	78	90	85	80	76	78	74	70	72	69	66	66	63	61	58
2	84	75	67	61	80	72	65	59	66	60	55	60	56	52	55	52	48	45
3	76	64	55	48	72	62	54	47	57	50	44	52	46	42	48	43	39	36
4	69	56	47	40	65	54	45	39	49	42	37	45	39	35	42	37	32	30
5	63	49	40	34	59	48	39	33	44	36	31	40	34	29	37	32	28	25
6	58	44	35	29	55	42	34	28	39	32	27	36	30	25	33	28	24	21
7	53	40	31	25	51	38	30	24	35	28	23	33	27	22	30	25	21	19
8	49	36	28	22	47	35	27	21	32	25	20	30	24	19	28	22	18	16
9	46	33	25	19	44	32	24	19	29	23	18	27	21	17	25	20	16	14
10	43	30	22	17	41	29	22	17	27	21	16	25	20	15	24	18	15	13

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

	0°	45°	90°
0°	4685	4685	4685
5°	4676	4619	4697
10°	4671	4618	4700
15°	4676	4624	4751
20°	4634	4663	4852
25°	4570	4693	4966
30°	4566	4796	5181
35°	4522	4895	5391
40°	4426	5028	5664
45°	4315	5158	5964
50°	4221	5402	6367
55°	4075	5687	6865
60°	3848	6055	7476
65°	3609	6614	8289
70°	3193	7294	9054
75°	2614	8112	9753
80°	2023	8468	10209
85°	1227	8652	9963



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	255.8	1.7	1.6	0°	2684	2684	2684	2684	2684	
10°-20°	754.6	5.1	4.7	5°	2673	2659	2670	2688	2725	255
20°-30°	1206.1	8.1	7.5	15°	2600	2611	2659	2714	2762	732
30°-40°	1577.5	10.6	9.9	25°	2393	2459	2603	2729	2806	1109
40°-50°	1837.8	12.4	11.5	35°	2149	2282	2533	2758	2865	1336
50°-60°	1967.8	13.2	12.3	45°	1780	2012	2396	2732	2873	1380
60°-70°	1977.7	13.3	12.4	55°	1374	1721	2260	2692	2865	1219
70°-80°	1770.8	11.9	11.1	65°	908	1436	2105	2633	2821	892
80°-90°	1140.2	7.7	7.1	75°	414	1119	1861	2341	2467	451
90°-100°	714.9	4.8	4.5	85°	74	672	1156	1540	1573	95
100°-110°	595.6	4.0	3.7	90°	0	308	739	1022	1130	4
110°-120°	453.1	3.0	2.8	95°	0	288	733	1046	1173	0
120°-130°	308.3	2.1	1.9	105°	0	219	620	908	1028	0
130°-140°	180.9	1.2	1.1	115°	0	157	493	746	860	0
140°-150°	84.8	0.6	0.5	125°	0	100	368	568	668	0
150°-160°	25.7	0.2	0.2	135°	0	45	247	397	472	0
160°-170°	3.2	0.0	0.0	145°	0	18	126	239	296	0
170°-180°	0.0	0.0	0.0	155°	0	4	42	93	134	0
0°-30°	2216.5	14.9	13.9	165°	0	0	6	15	28	0
0°-40°	3794.0	25.5	23.7	175°	0	0	0	0	0	0
0°-60°	7599.7	51.2	47.5	180°	0	0	0	0	0	0
0°-90°	12488.4	84.1	78.1							
90°-120°	1763.6	11.9	11.0							
90°-150°	2337.6	15.7	14.6							
90°-180°	2367.0	15.9	14.8							
0°-180°	14854.9	100.0	92.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2684	2684	2684	2684	2684
2.5°	2688	2666	2670	2688	2718
5°	2673	2659	2670	2688	2725
7.5°	2673	2651	2670	2699	2732
10°	2644	2640	2673	2703	2740
12.5°	2629	2625	2666	2710	2755
15°	2600	2611	2659	2714	2762
17.5°	2555	2585	2651	2721	2777
20°	2511	2548	2644	2732	2792
22.5°	2467	2518	2629	2744	2806
25°	2393	2459	2603	2729	2806
27.5°	2348	2430	2600	2751	2836
30°	2289	2385	2581	2758	2851
32.5°	2193	2319	2540	2744	2843
35°	2149	2282	2533	2758	2865
37.5°	2060	2223	2507	2755	2873
40°	1972	2164	2478	2755	2880
42.5°	1891	2094	2444	2751	2880
45°	1780	2012	2396	2732	2873
47.5°	1699	1961	2385	2736	2888
50°	1588	1868	2337	2718	2873
52.5°	1462	1798	2300	2707	2865
55°	1374	1721	2260	2692	2865
57.5°	1255	1643	2216	2677	2851
60°	1137	1566	2175	2662	2843
62.5°	1019	1488	2131	2640	2828
65°	908	1436	2105	2633	2821
67.5°	783	1344	2042	2588	2762
70°	657	1259	2005	2533	2696
72.5°	532	1193	1950	2456	2592
75°	414	1119	1861	2341	2467
77.5°	325	1060	1732	2197	2304
80°	222	971	1543	2012	2105
82.5°	148	857	1392	1802	1854
85°	74	672	1156	1540	1573
87.5°	30	495	897	1274	1300
90°	0	308	739	1022	1130
92.5°	0	305	762	1083	1210
95°	0	288	733	1046	1173
97.5°	0	272	694	1008	1134
100°	0	253	671	962	1093
102.5°	0	234	648	936	1051
105°	0	219	620	908	1028
107.5°	0	202	587	870	993
110°	0	187	558	830	953



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	171	524	788	905
115°	0	157	493	746	860
117.5°	0	142	460	698	812
120°	0	129	431	656	760
122.5°	0	114	401	612	716
125°	0	100	368	568	668
127.5°	0	85	339	524	614
130°	0	70	309	482	567
132.5°	0	57	280	440	524
135°	0	45	247	397	472
137.5°	0	36	212	356	430
140°	0	29	179	317	385
142.5°	0	23	151	277	337
145°	0	18	126	239	296
147.5°	0	14	101	201	255
150°	0	10	80	165	210
152.5°	0	7	58	129	174
155°	0	4	42	93	134
157.5°	0	1	30	61	98
160°	0	0	21	39	69
162.5°	0	0	13	25	43
165°	0	0	6	15	28
167.5°	0	0	4	9	16
170°	0	0	1	3	7
172.5°	0	0	0	0	2
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)