

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: ITL44152

Luminaire Tested: **STN-296HO**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: ITL44152  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: STN-296HO  
Description: WHITE PAINTED FABRICATED METAL STRIP BALLAST HOUSING.  
Light Source: TWO 95-WATT F96T12/CW/HO/WM FLUORESCENT.  
Ballast/Driver: MAGNETEK UNIVERSAL 480-XLH-TC-P (BALLAST FACTOR 90.8 %).

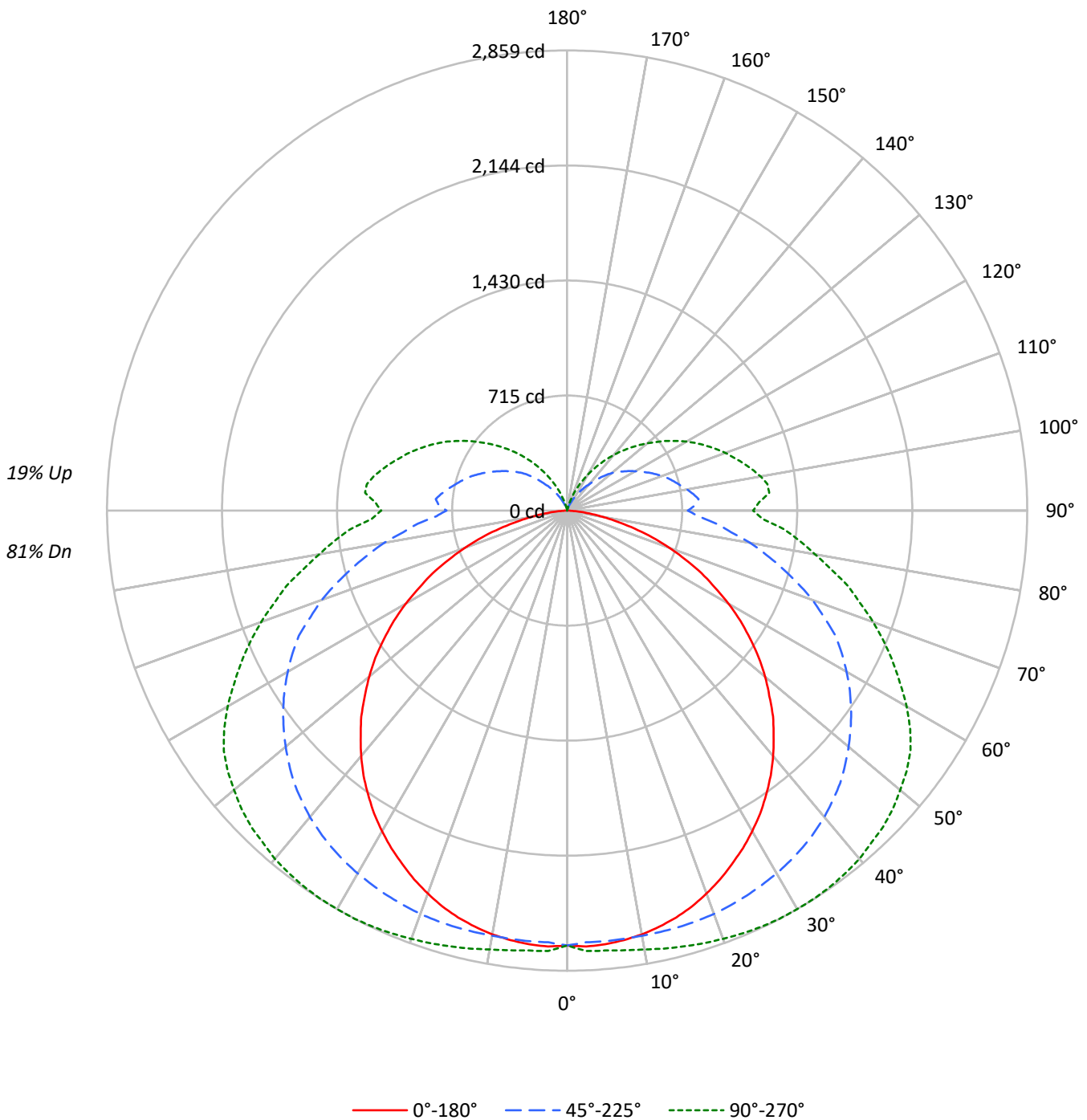
**Summary**

Lumens per Lamp: 8000 (2 lamps)  
Luminaire Lumens: 14170.9 lumens  
Efficiency: 88.6%  
Efficacy: 66.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.6 / 1.61  
Luminous Opening: Rectangular w/ Sides (W: 0.36' x L: 8' x H: 0.15')  
CIE Type: Semi-Direct

Input Watts (W): 214  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	101	101	101	101	97	97	97	97	89	89	89	82	82	82	75	75	75	72
1	90	85	80	76	86	81	77	73	74	71	68	68	65	63	62	60	58	55
2	81	72	65	59	77	69	63	57	63	58	54	58	54	50	53	49	46	43
3	73	62	54	48	69	60	52	47	55	49	44	50	45	41	46	42	38	35
4	66	55	46	40	63	52	45	39	48	41	36	44	38	34	40	36	32	29
5	61	48	40	34	57	46	39	33	43	36	31	39	33	29	36	31	27	25
6	56	43	35	29	53	41	34	28	38	31	27	35	29	25	32	27	23	21
7	51	39	31	25	49	37	30	24	34	28	23	32	26	22	29	24	21	18
8	48	35	27	22	45	34	27	22	31	25	20	29	23	19	27	22	18	16
9	44	32	25	20	42	31	24	19	29	23	18	27	21	17	25	20	16	14
10	41	30	22	18	40	28	22	17	26	20	16	25	19	15	23	18	15	13

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

	0°	45°	90°
0°	9971	9971	9971
5°	10004	9699	9821
10°	9988	9552	9693
15°	9950	9484	9672
20°	9878	9456	9705
25°	9783	9447	9791
30°	9699	9475	9898
35°	9590	9529	10034
40°	9447	9596	10190
45°	9272	9659	10353
50°	9024	9692	10502
55°	8710	9744	10664
60°	8292	9787	10622
65°	7748	9827	10506
70°	6926	9657	10401
75°	5794	9368	10326
80°	4391	9162	10171
85°	2488	9001	10314



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	257.4	1.8	1.6	0°	2702	2702	2702	2702	2702	
10°-20°	761.0	5.4	4.8	5°	2705	2674	2686	2708	2744	257
20°-30°	1217.0	8.6	7.6	15°	2617	2617	2679	2749	2803	738
30°-40°	1582.6	11.2	9.9	25°	2423	2484	2640	2774	2853	1118
40°-50°	1811.2	12.8	11.3	35°	2156	2291	2553	2752	2851	1348
50°-60°	1868.9	13.2	11.7	45°	1809	2041	2398	2655	2777	1392
60°-70°	1711.1	12.1	10.7	55°	1389	1734	2154	2479	2604	1241
70°-80°	1365.9	9.6	8.5	65°	922	1368	1839	2142	2235	907
80°-90°	934.8	6.6	5.8	75°	434	964	1382	1715	1805	464
90°-100°	775.4	5.5	4.8	85°	71	518	931	1263	1357	91
100°-110°	666.4	4.7	4.2	90°	0	328	749	1045	1155	3
110°-120°	512.1	3.6	3.2	95°	0	337	820	1148	1260	0
120°-130°	355.5	2.5	2.2	105°	0	254	691	1005	1134	0
130°-140°	213.6	1.5	1.3	115°	0	192	557	836	953	0
140°-150°	103.0	0.7	0.6	125°	0	130	424	650	755	0
150°-160°	31.9	0.2	0.2	135°	0	66	287	467	549	0
160°-170°	3.0	0.0	0.0	145°	0	20	157	291	354	0
170°-180°	0.0	0.0	0.0	155°	0	0	57	116	174	0
0°-30°	2235.5	15.8	14.0	165°	0	0	0	8	29	0
0°-40°	3818.1	26.9	23.9	175°	0	0	0	0	0	0
0°-60°	7498.2	52.9	46.9	180°	0	0	0	0	0	0
0°-90°	11510.0	81.2	71.9							
90°-120°	1954.0	13.8	12.2							
90°-150°	2626.1	18.5	16.4							
90°-180°	2661.0	18.8	16.6							
0°-180°	14170.9	100.0	88.6							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2702	2702	2702	2702	2702
2.5°	2711	2677	2685	2704	2739
5°	2705	2674	2686	2708	2744
7.5°	2692	2665	2684	2713	2755
10°	2674	2653	2682	2724	2769
12.5°	2648	2636	2681	2737	2787
15°	2617	2617	2679	2749	2803
17.5°	2579	2590	2674	2758	2819
20°	2532	2561	2667	2765	2831
22.5°	2482	2522	2654	2770	2844
25°	2423	2484	2640	2774	2853
27.5°	2365	2442	2622	2775	2859
30°	2300	2395	2603	2771	2859
32.5°	2232	2347	2580	2764	2858
35°	2156	2291	2553	2752	2851
37.5°	2077	2235	2522	2736	2840
40°	1991	2175	2486	2714	2825
42.5°	1899	2105	2443	2687	2798
45°	1809	2041	2398	2655	2777
47.5°	1704	1964	2342	2620	2744
50°	1606	1892	2283	2581	2701
52.5°	1501	1816	2220	2533	2659
55°	1389	1734	2154	2479	2604
57.5°	1276	1651	2083	2420	2527
60°	1159	1561	2005	2342	2436
62.5°	1034	1462	1924	2243	2334
65°	922	1368	1839	2142	2235
67.5°	795	1265	1726	2041	2131
70°	674	1168	1622	1930	2023
72.5°	557	1064	1503	1822	1908
75°	434	964	1382	1715	1805
77.5°	318	857	1267	1594	1677
80°	228	746	1154	1470	1564
82.5°	140	625	1026	1371	1460
85°	71	518	931	1263	1357
87.5°	21	414	813	1140	1216
90°	0	328	749	1045	1155
92.5°	0	359	798	1101	1194
95°	0	337	820	1148	1260
97.5°	0	315	789	1125	1255
100°	0	296	757	1087	1221
102.5°	0	273	721	1045	1178
105°	0	254	691	1005	1134
107.5°	0	236	661	963	1089
110°	0	221	628	923	1047



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	206	593	880	1000
115°	0	192	557	836	953
117.5°	0	177	523	790	906
120°	0	162	489	744	858
122.5°	0	147	457	695	805
125°	0	130	424	650	755
127.5°	0	111	393	602	700
130°	0	95	362	558	650
132.5°	0	80	327	510	600
135°	0	66	287	467	549
137.5°	0	54	249	421	501
140°	0	42	213	381	453
142.5°	0	30	186	336	401
145°	0	20	157	291	354
147.5°	0	11	129	249	305
150°	0	4	103	202	260
152.5°	0	0	79	155	213
155°	0	0	57	116	174
157.5°	0	0	37	82	133
160°	0	0	20	50	94
162.5°	0	0	6	26	59
165°	0	0	0	8	29
167.5°	0	0	0	0	7
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)