

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: ITL44178

Luminaire Tested: **EIVM-296HO**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: ITL44178  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: EIVM-296HO  
Description: FABRICATED METAL STRIP BALLAST HOUSING WITH WHITE PAINTED SOCKET HOUSINGS, WHITE PAINTED FABRICATED METAL REFLECTOR WITH UP-LIGHT APERTURES, TRIANGULAR RAISED CENTER SECTION, OPEN ENDS AND BOTTOM.  
Light Source: TWO 95-WATT F96T12/CW/HO/WM FLUORESCENTS.  
Ballast/Driver: MAGNETEK UNIVERSAL 480-XLH-TC-P (BALLAST FACTOR 90.8 %).

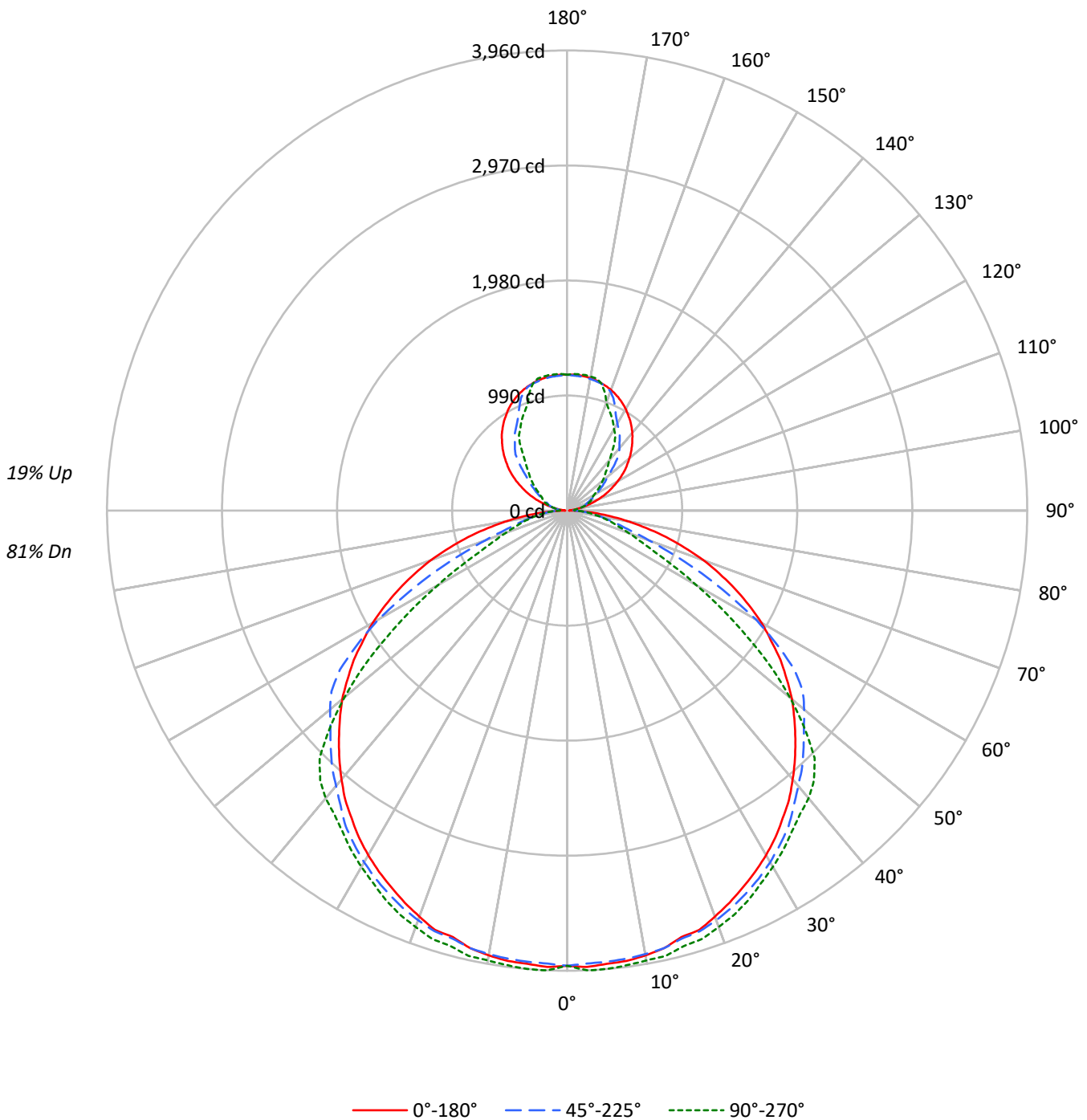
**Summary**

Lumens per Lamp: 8000 (2 lamps)  
Luminaire Lumens: 14282.6 lumens  
Efficiency: 89.3%  
Efficacy: 66.7 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.34 / 1.45  
Luminous Opening: Rectangular (W 1.08' x L: 8' x H: 0')  
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	102	102	102	102	98	98	98	98	90	90	90	82	82	82	75	75	75	72
1	93	89	86	83	89	86	83	80	79	76	74	73	71	69	67	65	64	61
2	85	78	72	67	81	75	70	65	69	65	61	64	60	57	59	56	54	51
3	78	69	62	56	74	66	60	55	61	56	51	56	52	48	52	49	46	43
4	71	61	53	48	68	58	52	46	54	48	44	50	45	41	46	42	39	37
5	65	54	46	41	62	52	45	40	48	42	38	45	40	36	42	37	34	32
6	60	49	41	35	57	47	40	35	44	38	33	41	35	31	38	33	30	28
7	56	44	36	31	53	42	35	30	40	33	29	37	32	28	34	30	26	24
8	52	40	33	28	49	39	32	27	36	30	26	34	28	25	31	27	24	22
9	48	37	29	25	46	35	29	24	33	27	23	31	26	22	29	24	21	19
10	45	34	27	22	43	33	26	22	31	25	21	29	24	20	27	22	19	18

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

	0°	45°	90°
0°	4865	4865	4865
5°	4882	4860	4937
10°	4902	4888	4958
15°	4885	4903	4988
20°	4914	4958	5040
25°	4903	4984	5065
30°	4911	5011	5078
35°	4902	5035	5113
40°	4896	5015	5242
45°	4878	5053	5291
50°	4885	5146	4840
55°	4853	5171	4088
60°	4799	4663	3194
65°	4685	3756	2375
70°	4536	2720	2055
75°	4233	2169	1939
80°	3834	2024	1996
85°	3349	2309	2508



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	372.7	2.6	2.3	0°	3917	3917	3917	3917	3917	
10°-20°	1083.9	7.6	6.8	5°	3916	3887	3898	3924	3960	373
20°-30°	1677.9	11.7	10.5	15°	3799	3799	3813	3846	3879	1078
30°-40°	2076.1	14.5	13.0	25°	3578	3611	3637	3670	3696	1651
40°-50°	2236.8	15.7	14.0	35°	3233	3295	3321	3347	3372	2025
50°-60°	1966.4	13.8	12.3	45°	2777	2873	2877	3023	3012	2145
60°-70°	1282.7	9.0	8.0	55°	2241	2314	2388	2094	1888	1998
70°-80°	634.0	4.4	4.0	65°	1594	1708	1278	948	808	1575
80°-90°	204.7	1.4	1.3	75°	882	849	452	422	404	931
90°-100°	74.1	0.5	0.5	85°	235	180	162	176	176	253
100°-110°	164.6	1.2	1.0	90°	18	65	62	69	66	21
110°-120°	267.7	1.9	1.7	95°	32	71	58	61	62	40
120°-130°	380.2	2.7	2.4	105°	184	139	152	160	155	198
130°-140°	468.0	3.3	2.9	115°	394	294	229	228	234	391
140°-150°	511.0	3.6	3.2	125°	605	516	370	343	328	539
150°-160°	453.0	3.2	2.8	135°	789	697	591	497	472	608
160°-170°	317.7	2.2	2.0	145°	945	932	789	750	710	591
170°-180°	110.9	0.8	0.7	155°	1062	1062	976	912	899	489
0°-30°	3134.5	21.9	19.6	165°	1136	1129	1132	1141	1134	321
0°-40°	5210.6	36.5	32.6	175°	1169	1159	1161	1168	1177	111
0°-60°	9413.8	65.9	58.8	180°	1169	1169	1169	1169	1169	
0°-90°	11535.2	80.8	72.1							
90°-120°	506.4	3.5	3.2							
90°-150°	1865.7	13.1	11.7							
90°-180°	2747.0	19.2	17.2							
0°-180°	14282.6	100.0	89.3							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3917	3917	3917	3917	3917
2.5°	3931	3894	3901	3920	3960
5°	3916	3887	3898	3924	3960
7.5°	3909	3883	3890	3913	3946
10°	3887	3868	3876	3898	3931
12.5°	3857	3843	3857	3887	3924
15°	3799	3799	3813	3846	3879
17.5°	3784	3769	3795	3828	3865
20°	3718	3729	3751	3788	3813
22.5°	3652	3670	3699	3736	3762
25°	3578	3611	3637	3670	3696
27.5°	3505	3541	3571	3593	3615
30°	3424	3464	3494	3519	3541
32.5°	3336	3387	3409	3428	3461
35°	3233	3295	3321	3347	3372
37.5°	3137	3200	3203	3262	3292
40°	3020	3101	3093	3170	3233
42.5°	2902	2983	2994	3090	3145
45°	2777	2873	2877	3023	3012
47.5°	2652	2744	2763	2880	2770
50°	2528	2612	2663	2652	2505
52.5°	2381	2469	2557	2388	2212
55°	2241	2314	2388	2094	1888
57.5°	2079	2164	2138	1785	1587
60°	1932	2013	1877	1481	1286
62.5°	1763	1855	1558	1190	1029
65°	1594	1708	1278	948	808
67.5°	1418	1558	985	738	669
70°	1249	1367	749	602	566
72.5°	1058	1120	562	503	470
75°	882	849	452	422	404
77.5°	698	588	356	353	338
80°	536	382	283	287	279
82.5°	375	261	217	231	213
85°	235	180	162	176	176
87.5°	103	121	118	132	118
90°	18	65	62	69	66
92.5°	16	56	54	60	62
95°	32	71	58	61	62
97.5°	60	87	82	80	74
100°	97	97	109	109	102
102.5°	138	114	132	137	130
105°	184	139	152	160	155
107.5°	236	171	170	184	180
110°	290	207	179	204	203



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	345	245	199	217	221
115°	394	294	229	228	234
117.5°	446	358	261	247	244
120°	503	423	296	277	266
122.5°	554	470	332	311	296
125°	605	516	370	343	328
127.5°	652	565	413	379	364
130°	700	609	460	416	399
132.5°	745	653	521	456	436
135°	789	697	591	497	472
137.5°	831	756	658	548	518
140°	873	817	700	613	564
142.5°	909	880	740	693	634
145°	945	932	789	750	710
147.5°	976	977	826	784	773
150°	1009	1012	865	828	807
152.5°	1037	1039	910	876	857
155°	1062	1062	976	912	899
157.5°	1085	1083	1042	956	938
160°	1105	1101	1090	1030	988
162.5°	1121	1117	1118	1099	1073
165°	1136	1129	1132	1141	1134
167.5°	1148	1138	1141	1154	1165
170°	1157	1147	1150	1160	1171
172.5°	1165	1155	1157	1166	1177
175°	1169	1159	1161	1168	1177
177.5°	1171	1162	1163	1170	1177
180°	1169	1169	1169	1169	1169

(END OF REPORT)