

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: ITL44175

Luminaire Tested: **EIM-296PG**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: ITL44175  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: EIM-296PG  
Description: FABRICATED METAL STRIP BALLAST HOUSING WITH WHITE PAINTED  
SOCKET HOUSINGS, WHITE PAINTED FABRICATED METAL REFLECTOR WITH  
UP-LIGHT APERTURES, OPEN ENDS AND BOTTOM.  
Light Source: TWO 215-WATT F96PG17/CW FLUORESCENTS.  
Ballast/Driver: MAGNETEK UNIVERSAL 931-LH-TC-P (BALLAST FACTOR 90.2 %).

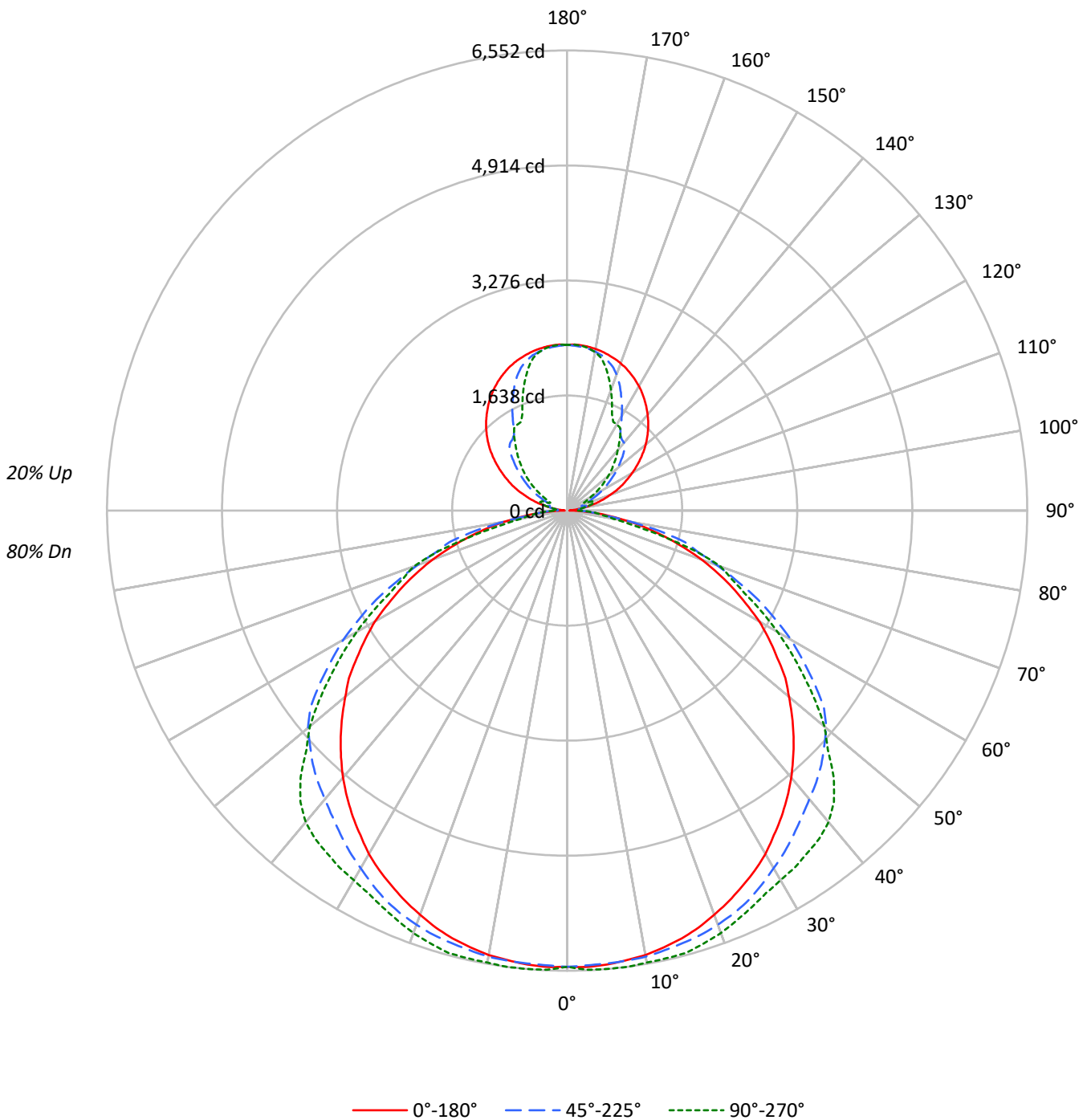
**Summary**

Lumens per Lamp: 15300 (2 lamps)  
Luminaire Lumens: 26765.0 lumens  
Efficiency: 87.5%  
Efficacy: 67.9 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.41 / 1.5  
Luminous Opening: Rectangular (W 1.08' x L: 8' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 394  
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	100	100	100	100	96	96	96	96	88	88	88	80	80	80	73	73	73	70
1	91	87	83	79	87	83	80	76	76	73	71	70	68	66	64	62	61	58
2	82	75	69	64	78	72	66	62	66	62	58	61	57	54	56	53	50	48
3	75	65	58	53	71	63	56	51	58	52	48	53	49	45	49	45	42	40
4	68	58	50	44	65	55	48	43	51	45	40	47	42	38	43	39	36	33
5	62	51	43	38	59	49	42	37	45	39	35	42	37	33	39	34	31	29
6	57	46	38	33	55	44	37	32	41	35	30	38	33	29	35	30	27	25
7	53	41	34	28	51	40	33	28	37	31	26	34	29	25	32	27	24	22
8	49	38	30	25	47	36	29	25	34	28	23	31	26	22	29	25	21	19
9	46	34	27	22	44	33	26	22	31	25	21	29	24	20	27	22	19	17
10	43	32	25	20	41	30	24	20	28	23	19	27	22	18	25	20	17	16

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

	0°	45°	90°
0°	8068	8068	8068
5°	8090	8070	8169
10°	8103	8133	8243
15°	8109	8196	8385
20°	8093	8293	8460
25°	8087	8387	8534
30°	8099	8434	8714
35°	8068	8532	9032
40°	8048	8699	9388
45°	8008	8991	9431
50°	7965	9308	9238
55°	7910	9313	8908
60°	7852	9144	8602
65°	7632	8811	8194
70°	7383	8236	8450
75°	6934	8326	6709
80°	6366	6559	4771
85°	5886	5658	6000



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	618.2	2.3	2.0	0°	6496	6496	6496	6496	6496	
10°-20°	1805.1	6.7	5.9	5°	6489	6457	6473	6497	6552	617
20°-30°	2809.5	10.5	9.2	15°	6306	6318	6374	6449	6521	1780
30°-40°	3544.5	13.2	11.6	25°	5901	5988	6120	6183	6227	2723
40°-50°	3903.7	14.6	12.8	35°	5321	5520	5627	5849	5957	3330
50°-60°	3668.5	13.7	12.0	45°	4559	4829	5119	5397	5369	3517
60°-70°	2904.5	10.9	9.5	55°	3653	3987	4301	4241	4114	3270
70°-80°	1741.7	6.5	5.7	65°	2597	3149	2998	2907	2788	2569
80°-90°	514.0	1.9	1.7	75°	1445	1918	1735	1648	1398	1531
90°-100°	163.2	0.6	0.5	85°	413	536	397	437	421	431
100°-110°	334.8	1.3	1.1	90°	37	127	144	165	154	40
110°-120°	481.2	1.8	1.6	95°	81	128	134	154	159	102
120°-130°	727.1	2.7	2.4	105°	448	281	263	370	375	472
130°-140°	908.8	3.4	3.0	115°	869	623	403	295	264	856
140°-150°	949.0	3.5	3.1	125°	1268	922	754	642	580	1133
150°-160°	848.8	3.2	2.8	135°	1629	1314	1128	998	939	1256
160°-170°	619.9	2.3	2.0	145°	1922	1779	1318	1364	1321	1203
170°-180°	222.7	0.8	0.7	155°	2147	2097	1818	1610	1512	990
0°-30°	5232.7	19.6	17.1	165°	2291	2270	2215	2162	2118	647
0°-40°	8777.2	32.8	28.7	175°	2361	2344	2340	2344	2355	225
0°-60°	16349.4	61.1	53.4	180°	2359	2359	2359	2359	2359	
0°-90°	21509.6	80.4	70.3							
90°-120°	979.2	3.7	3.2							
90°-150°	3564.1	13.3	11.6							
90°-180°	5255.0	19.6	17.2							
0°-180°	26765.0	100.0	87.5							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6496	6496	6496	6496	6496
2.5°	6505	6461	6481	6501	6544
5°	6489	6457	6473	6497	6552
7.5°	6457	6429	6465	6497	6552
10°	6425	6401	6449	6489	6536
12.5°	6370	6366	6413	6465	6529
15°	6306	6318	6374	6449	6521
17.5°	6227	6255	6334	6409	6465
20°	6123	6175	6274	6354	6401
22.5°	6020	6084	6207	6270	6314
25°	5901	5988	6120	6183	6227
27.5°	5782	5877	6004	6092	6139
30°	5647	5766	5881	5996	6076
32.5°	5480	5647	5762	5913	6028
35°	5321	5520	5627	5849	5957
37.5°	5147	5365	5492	5770	5893
40°	4964	5198	5365	5683	5790
42.5°	4765	5020	5250	5568	5623
45°	4559	4829	5119	5397	5369
47.5°	4344	4630	4964	5123	5035
50°	4122	4416	4817	4841	4781
52.5°	3916	4221	4610	4567	4456
55°	3653	3987	4301	4241	4114
57.5°	3407	3769	3983	3908	3788
60°	3161	3578	3681	3586	3463
62.5°	2867	3368	3336	3244	3129
65°	2597	3149	2998	2907	2788
67.5°	2319	2891	2617	2561	2526
70°	2033	2577	2268	2331	2327
72.5°	1731	2268	1946	2101	1914
75°	1445	1918	1735	1648	1398
77.5°	1168	1545	1342	1144	937
80°	890	1171	917	747	667
82.5°	635	905	552	552	524
85°	413	536	397	437	421
87.5°	183	278	274	318	286
90°	37	127	144	165	154
92.5°	33	100	131	151	153
95°	81	128	134	154	159
97.5°	158	143	179	187	174
100°	242	148	244	256	235
102.5°	346	202	282	330	312
105°	448	281	263	370	375
107.5°	549	364	212	362	406
110°	651	452	240	280	384



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	765	539	318	248	287
115°	869	623	403	295	264
117.5°	967	718	490	375	318
120°	1068	819	578	464	399
122.5°	1170	886	665	552	485
125°	1268	922	754	642	580
127.5°	1366	979	846	734	673
130°	1459	1069	937	823	763
132.5°	1547	1187	1030	912	854
135°	1629	1314	1128	998	939
137.5°	1708	1435	1218	1090	1033
140°	1782	1551	1261	1179	1121
142.5°	1855	1674	1277	1284	1216
145°	1922	1779	1318	1364	1321
147.5°	1987	1876	1419	1380	1401
150°	2045	1965	1554	1390	1415
152.5°	2099	2041	1689	1468	1423
155°	2147	2097	1818	1610	1512
157.5°	2192	2152	1949	1766	1665
160°	2231	2198	2060	1910	1827
162.5°	2264	2237	2151	2053	1973
165°	2291	2270	2215	2162	2118
167.5°	2317	2297	2265	2247	2229
170°	2336	2316	2298	2294	2292
172.5°	2352	2332	2323	2325	2332
175°	2361	2344	2340	2344	2355
177.5°	2367	2350	2349	2354	2365
180°	2359	2359	2359	2359	2359

(END OF REPORT)