

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: ITL44155

Luminaire Tested: **STM-296PG**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44155
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: STM-296PG
Description: WHITE PAINTED FABRICATED METAL STRIP BALLAST HOUSING WITH
WHITE PAINTED SOCKET HOUSINGS.
Light Source: TWO 215-WATT F96PG17/CW FLUORESCENTS.
Ballast/Driver: MAGNETEK UNIVERSAL 931-LH-TC-P (BALLAST FACTOR 90.2 %).

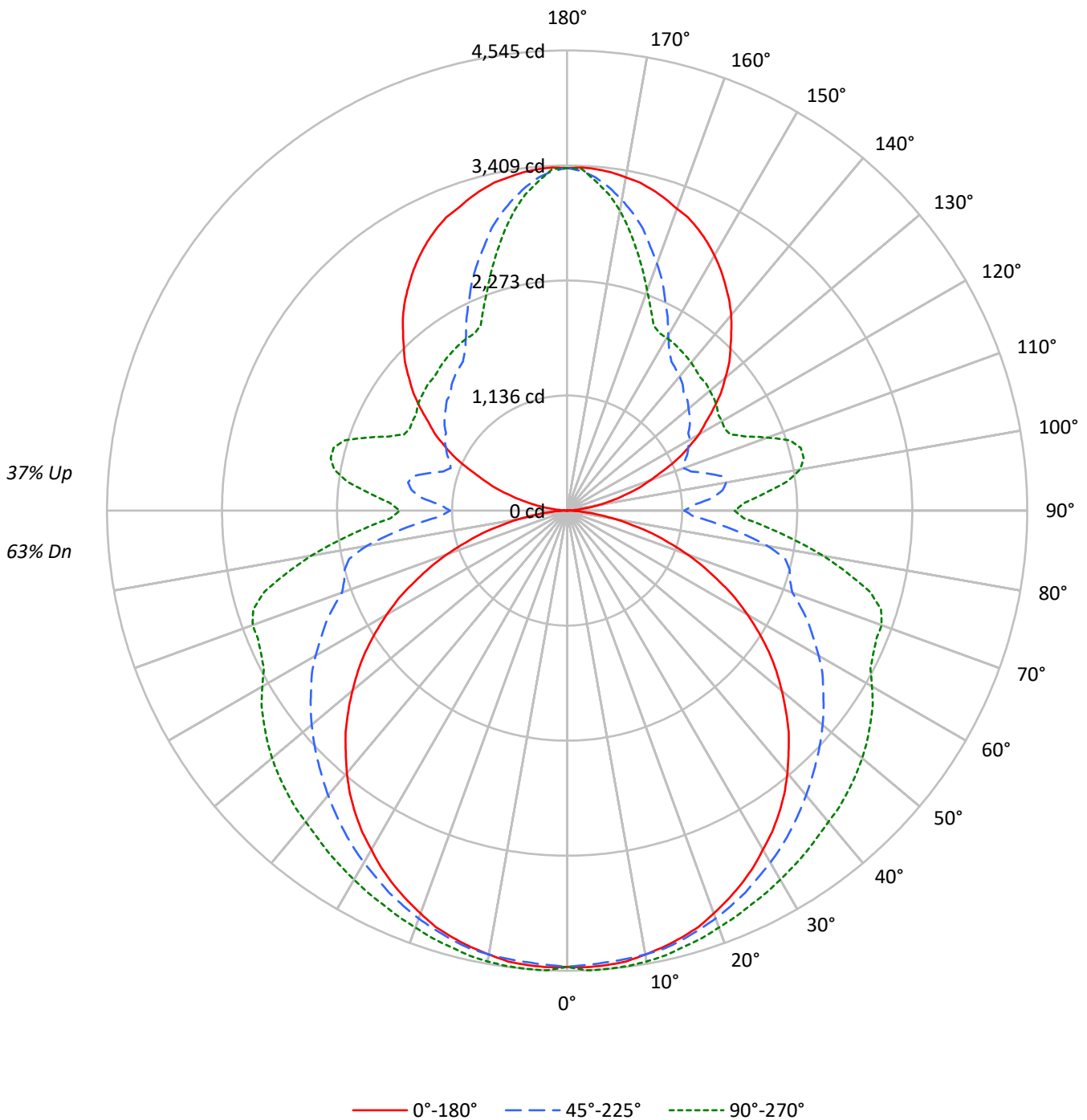
Summary

Lumens per Lamp: 15300 (2 lamps)
Luminaire Lumens: 28302.0 lumens
Efficiency: 92.5%
Efficacy: 70.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.41 / 1.49
Luminous Opening: Rectangular w/ Sides (W: 0.68' x L: 8' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 399
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	102	102	102	102	96	96	96	96	84	84	84	73	73	73	63	63	63	58
1	91	86	81	77	85	80	76	72	70	67	64	60	58	56	52	50	48	44
2	82	73	67	61	76	69	63	57	60	55	51	52	48	45	44	41	39	35
3	74	64	56	50	69	60	53	47	52	46	42	45	40	37	38	35	32	28
4	67	56	48	41	62	52	45	39	46	40	35	39	35	31	34	30	27	24
5	61	49	41	35	57	46	39	33	41	34	30	35	30	26	30	26	23	20
6	57	44	36	30	52	42	34	29	36	30	26	32	27	23	27	23	20	17
7	52	40	32	26	49	37	30	25	33	27	22	29	24	20	25	21	17	15
8	48	36	28	23	45	34	27	22	30	24	20	26	21	18	23	19	16	13
9	45	33	25	20	42	31	24	19	27	22	18	24	19	16	21	17	14	12
10	42	30	23	18	39	28	22	17	25	20	16	22	17	14	19	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8954	8954	8954
5°	8968	8754	8829
10°	8942	8625	8655
15°	8920	8493	8477
20°	8870	8351	8334
25°	8817	8224	8239
30°	8742	8109	8204
35°	8694	8021	8219
40°	8591	7952	8280
45°	8477	7925	8431
50°	8300	7950	8609
55°	8127	8001	8805
60°	7826	8097	9018
65°	7397	8217	9457
70°	6849	8343	10414
75°	6054	9300	11068
80°	4817	9853	10701
85°	3023	9165	10124



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	428.0	1.5	1.4	0°	4506	4506	4506	4506	4506	
10°-20°	1242.1	4.4	4.1	5°	4506	4471	4479	4499	4545	429
20°-30°	1926.0	6.8	6.3	15°	4366	4362	4389	4417	4460	1232
30°-40°	2424.5	8.6	7.9	25°	4070	4101	4163	4245	4296	1876
40°-50°	2704.2	9.6	8.8	35°	3649	3715	3852	4031	4117	2281
50°-60°	2748.6	9.7	9.0	45°	3095	3220	3485	3793	3922	2382
60°-70°	2555.5	9.0	8.4	55°	2433	2647	3087	3505	3657	2168
70°-80°	2237.8	7.9	7.3	65°	1661	2027	2631	3119	3337	1647
80°-90°	1494.4	5.3	4.9	75°	865	1427	2277	2904	3095	908
90°-100°	1363.4	4.8	4.5	85°	172	916	1485	1934	2004	205
100°-110°	1492.1	5.3	4.9	90°	0	530	1156	1614	1653	11
110°-120°	1349.4	4.8	4.4	95°	93	717	1438	1912	1957	126
120°-130°	1394.8	4.9	4.6	105°	584	694	1426	2112	2389	624
130°-140°	1391.7	4.9	4.5	115°	1204	963	1310	1619	1779	1178
140°-150°	1297.9	4.6	4.2	125°	1772	1251	1479	1716	1805	1584
150°-160°	1119.0	4.0	3.7	135°	2281	1666	1628	1793	1860	1764
160°-170°	821.5	2.9	2.7	145°	2724	2234	1796	1898	1942	1705
170°-180°	311.1	1.1	1.0	155°	3065	2745	2291	2097	2019	1411
0°-30°	3596.1	12.7	11.8	165°	3277	3113	2885	2748	2660	924
0°-40°	6020.6	21.3	19.7	175°	3384	3344	3299	3295	3263	322
0°-60°	11473.4	40.5	37.5	180°	3383	3383	3383	3383	3383	
0°-90°	17761.1	62.8	58.0							
90°-120°	4204.8	14.9	13.7							
90°-150°	8289.4	29.3	27.1							
90°-180°	10541.0	37.2	34.4							
0°-180°	28302.0	100.0	92.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4506	4506	4506	4506	4506
2.5°	4514	4479	4491	4499	4545
5°	4506	4471	4479	4499	4545
7.5°	4491	4456	4467	4491	4538
10°	4452	4436	4452	4479	4522
12.5°	4413	4405	4432	4448	4499
15°	4366	4362	4389	4417	4460
17.5°	4312	4312	4339	4378	4428
20°	4234	4261	4288	4335	4382
22.5°	4156	4183	4226	4288	4343
25°	4070	4101	4163	4245	4296
27.5°	3976	4015	4085	4191	4257
30°	3867	3929	4015	4140	4210
32.5°	3766	3820	3937	4085	4163
35°	3649	3715	3852	4031	4117
37.5°	3524	3602	3762	3968	4062
40°	3384	3485	3672	3910	4015
42.5°	3236	3349	3579	3848	3976
45°	3095	3220	3485	3793	3922
47.5°	2932	3080	3392	3723	3867
50°	2768	2939	3294	3657	3805
52.5°	2604	2799	3193	3586	3735
55°	2433	2647	3087	3505	3657
57.5°	2245	2495	2990	3419	3579
60°	2058	2339	2869	3333	3477
62.5°	1871	2175	2744	3224	3376
65°	1661	2027	2631	3119	3337
67.5°	1466	1875	2499	3068	3306
70°	1263	1731	2366	3048	3306
72.5°	1053	1591	2308	3029	3251
75°	865	1427	2277	2904	3095
77.5°	655	1267	2206	2709	2830
80°	483	1134	2012	2472	2565
82.5°	312	1084	1750	2214	2277
85°	172	916	1485	1934	2004
87.5°	55	694	1244	1692	1746
90°	0	530	1156	1614	1653
92.5°	28	649	1250	1709	1753
95°	93	717	1438	1912	1957
97.5°	197	680	1550	2076	2191
100°	321	615	1595	2156	2337
102.5°	446	640	1565	2165	2392
105°	584	694	1426	2112	2389
107.5°	741	761	1283	1984	2306
110°	870	810	1225	1785	2107



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1023	877	1250	1638	1911
115°	1204	963	1310	1619	1779
117.5°	1351	1048	1349	1637	1752
120°	1503	1118	1401	1667	1766
122.5°	1623	1173	1419	1683	1767
125°	1772	1251	1479	1716	1805
127.5°	1917	1324	1525	1737	1825
130°	2039	1410	1566	1761	1841
132.5°	2174	1543	1611	1787	1859
135°	2281	1666	1628	1793	1860
137.5°	2400	1824	1689	1827	1882
140°	2521	1958	1729	1852	1908
142.5°	2627	2101	1762	1874	1925
145°	2724	2234	1796	1898	1942
147.5°	2821	2374	1875	1920	1960
150°	2910	2503	1995	1931	1968
152.5°	2992	2628	2150	1970	1975
155°	3065	2745	2291	2097	2019
157.5°	3130	2851	2455	2261	2158
160°	3172	2947	2596	2413	2309
162.5°	3228	3032	2732	2584	2485
165°	3277	3113	2885	2748	2660
167.5°	3318	3190	3006	2925	2837
170°	3343	3254	3115	3054	3006
172.5°	3368	3307	3215	3178	3151
175°	3384	3344	3299	3295	3263
177.5°	3392	3364	3356	3368	3375
180°	3383	3383	3383	3383	3383

(END OF REPORT)