

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: ITL44154

Luminaire Tested: **STM-296HO**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44154
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: STM-296HO
Description: WHITE PAINTED FABRICATED METAL STRIP BALLAST HOUSING WITH
WHITE PAINTED SOCKET HOUSINGS.
Light Source: TWO 95-WATT F96T12/CW/HO/WM FLUORESCENTS.
Ballast/Driver: MAGNETEK UNIVERSAL 480-XLH-TC-P (BALLAST FACTOR 90.8 %).

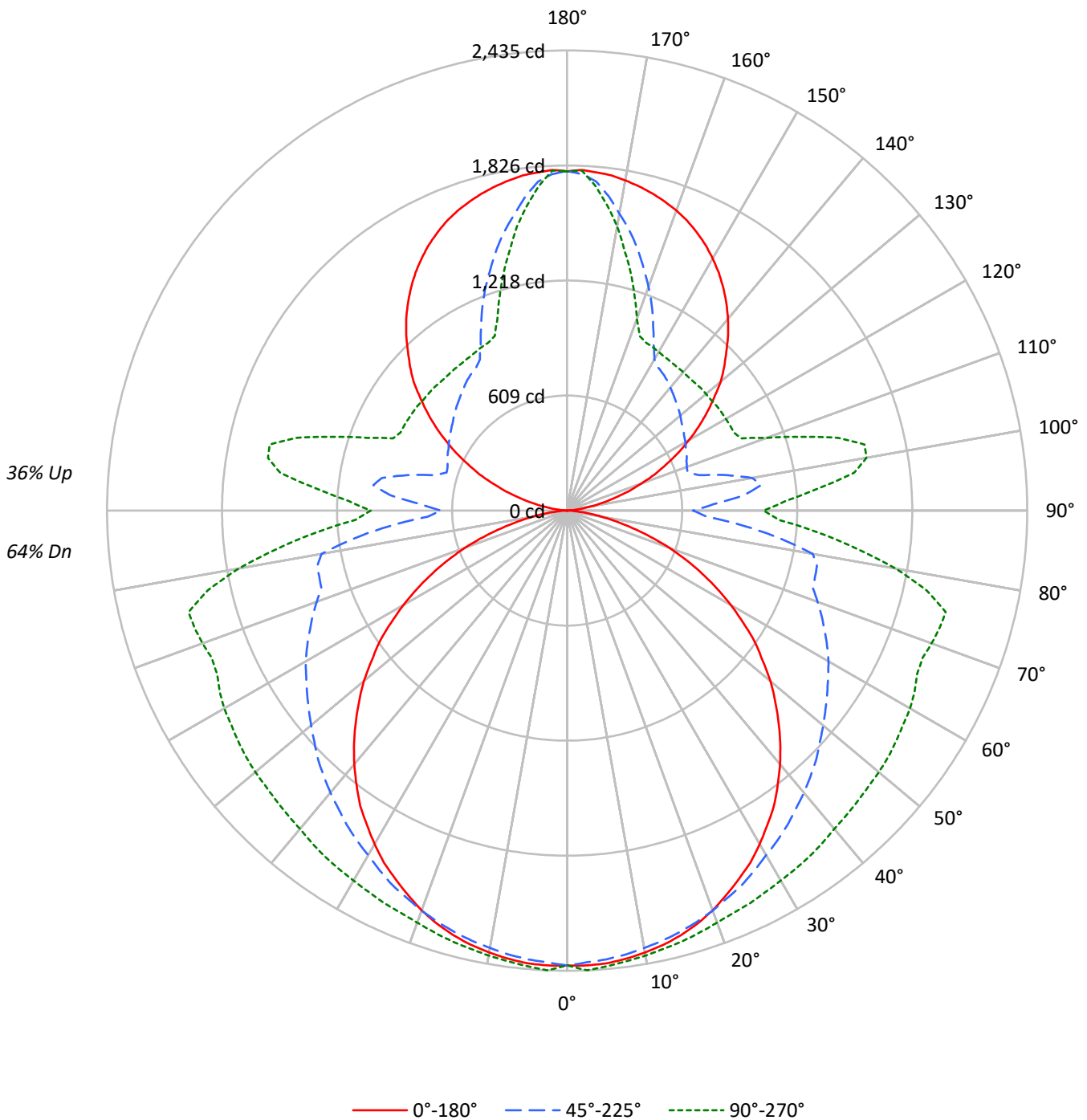
Summary

Lumens per Lamp: 8000 (2 lamps)
Luminaire Lumens: 15472.1 lumens
Efficiency: 96.7%
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.43 / 1.5
Luminous Opening: Rectangular w/ Sides (W: 0.62' x L: 8' x H: 0.16')
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	100	100	100	100	88	88	88	77	77	77	67	67	67	62
1	95	89	84	80	88	83	79	75	73	69	66	63	61	58	54	52	50	46
2	85	76	69	63	79	71	65	59	62	57	53	54	50	46	46	43	40	36
3	77	66	57	51	71	62	54	48	54	48	43	46	42	38	40	36	33	29
4	70	58	49	42	65	54	46	40	47	41	36	41	36	32	35	31	27	24
5	64	51	42	36	59	48	40	34	42	35	30	36	31	27	31	27	23	20
6	59	46	37	31	55	43	35	29	38	31	26	33	27	23	28	24	20	18
7	54	41	33	27	50	39	31	25	34	27	23	30	24	20	26	21	18	15
8	50	37	29	23	47	35	28	22	31	25	20	27	22	18	23	19	16	14
9	47	34	26	21	44	32	25	20	28	22	18	25	20	16	22	17	14	12
10	44	31	24	19	41	29	22	18	26	20	16	23	18	14	20	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5182	5182	5182
5°	5188	5067	5118
10°	5172	4970	5006
15°	5157	4894	4927
20°	5121	4824	4872
25°	5063	4771	4876
30°	5010	4716	4911
35°	4947	4711	4998
40°	4844	4722	5108
45°	4724	4766	5295
50°	4598	4828	5555
55°	4429	4956	5880
60°	4169	5169	6294
65°	3848	5434	6777
70°	3429	5824	7659
75°	2768	6600	8923
80°	2031	7863	9043
85°	1070	7342	8546



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	227.4	1.5	1.4	0°	2407	2407	2407	2407	2407	
10°-20°	655.6	4.2	4.1	5°	2405	2381	2384	2393	2420	229
20°-30°	1014.8	6.6	6.3	15°	2326	2304	2308	2328	2359	656
30°-40°	1282.3	8.3	8.0	25°	2151	2144	2187	2243	2292	992
40°-50°	1441.8	9.3	9.0	35°	1908	1921	2032	2165	2235	1191
50°-60°	1499.4	9.7	9.4	45°	1582	1647	1864	2073	2174	1221
60°-70°	1453.3	9.4	9.1	55°	1213	1350	1680	2001	2126	1079
70°-80°	1360.7	8.8	8.5	65°	787	1032	1503	1902	2044	778
80°-90°	938.5	6.1	5.9	75°	357	758	1358	1885	2074	386
90°-100°	869.2	5.6	5.4	85°	53	544	945	1274	1335	72
100°-110°	846.9	5.5	5.3	90°	0	286	666	945	1039	3
110°-120°	707.1	4.6	4.4	95°	32	403	940	1280	1330	49
120°-130°	715.0	4.6	4.5	105°	263	339	723	1242	1485	283
130°-140°	692.0	4.5	4.3	115°	577	457	698	902	974	574
140°-150°	641.5	4.1	4.0	125°	902	603	750	906	966	806
150°-160°	548.6	3.5	3.4	135°	1191	765	815	914	956	921
160°-170°	414.6	2.7	2.6	145°	1440	1076	884	935	959	900
170°-180°	163.5	1.1	1.0	155°	1624	1371	1077	974	982	748
0°-30°	1897.8	12.3	11.9	165°	1738	1613	1436	1349	1301	491
0°-40°	3180.2	20.6	19.9	175°	1796	1777	1748	1746	1723	171
0°-60°	6121.3	39.6	38.3	180°	1795	1795	1795	1795	1795	
0°-90°	9873.7	63.8	61.7							
90°-120°	2423.2	15.7	15.1							
90°-150°	4471.7	28.9	27.9							
90°-180°	5598.0	36.2	35.0							
0°-180°	15472.1	100.0	96.7							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2407	2407	2407	2407	2407
2.5°	2409	2387	2393	2405	2435
5°	2405	2381	2384	2393	2420
7.5°	2392	2370	2369	2378	2405
10°	2374	2354	2350	2363	2391
12.5°	2354	2330	2331	2345	2374
15°	2326	2304	2308	2328	2359
17.5°	2292	2271	2282	2308	2340
20°	2251	2234	2252	2287	2320
22.5°	2202	2188	2218	2263	2303
25°	2151	2144	2187	2243	2292
27.5°	2100	2091	2147	2224	2275
30°	2038	2039	2106	2204	2261
32.5°	1972	1981	2070	2185	2248
35°	1908	1921	2032	2165	2235
37.5°	1831	1854	1988	2145	2218
40°	1752	1787	1949	2121	2199
42.5°	1670	1717	1906	2095	2187
45°	1582	1647	1864	2073	2174
47.5°	1493	1568	1814	2053	2162
50°	1405	1499	1769	2035	2153
52.5°	1303	1427	1724	2018	2142
55°	1213	1350	1680	2001	2126
57.5°	1105	1269	1637	1978	2108
60°	1001	1195	1597	1953	2095
62.5°	894	1111	1551	1930	2073
65°	787	1032	1503	1902	2044
67.5°	679	954	1458	1868	2036
70°	574	882	1410	1864	2053
72.5°	464	823	1364	1878	2067
75°	357	758	1358	1885	2074
77.5°	265	683	1354	1865	1947
80°	182	616	1320	1692	1764
82.5°	114	588	1142	1491	1548
85°	53	544	945	1274	1335
87.5°	16	381	739	1068	1120
90°	0	286	666	945	1039
92.5°	9	396	775	1084	1156
95°	32	403	940	1280	1330
97.5°	76	315	1035	1433	1531
100°	132	297	994	1472	1608
102.5°	194	315	866	1406	1612
105°	263	339	723	1242	1485
107.5°	341	368	669	1069	1298
110°	417	394	673	930	1126



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	502	424	684	900	998
115°	577	457	698	902	974
117.5°	663	493	708	904	973
120°	744	529	723	904	970
122.5°	824	567	734	906	968
125°	902	603	750	906	966
127.5°	979	637	763	907	961
130°	1060	670	782	909	960
132.5°	1127	705	798	912	959
135°	1191	765	815	914	956
137.5°	1261	839	832	917	954
140°	1324	919	850	923	956
142.5°	1384	998	869	929	957
145°	1440	1076	884	935	959
147.5°	1493	1153	897	944	963
150°	1540	1228	923	954	969
152.5°	1585	1301	992	961	977
155°	1624	1371	1077	974	982
157.5°	1660	1437	1171	1051	1001
160°	1690	1496	1260	1147	1079
162.5°	1715	1557	1345	1251	1188
165°	1738	1613	1436	1349	1301
167.5°	1757	1669	1519	1457	1407
170°	1774	1718	1595	1555	1527
172.5°	1789	1756	1678	1648	1627
175°	1796	1777	1748	1746	1723
177.5°	1804	1785	1783	1790	1801
180°	1795	1795	1795	1795	1795

(END OF REPORT)