

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: ITL44157

Luminaire Tested: **STM-496T8**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44157
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: STM-496T8
Description: WHITE PAINTED FABRICATED METAL STRIP BALLAST HOUSING WITH
WHITE PAINTED SOCKET HOUSINGS.
Light Source: FOUR 59-WATT F96T8/SPX35 FLUORESCENTS.
Ballast/Driver: TWO MAGNETEK TRIAD B259I120HP (BALLAST FACTORS 96.6 % AND
96.2 %).

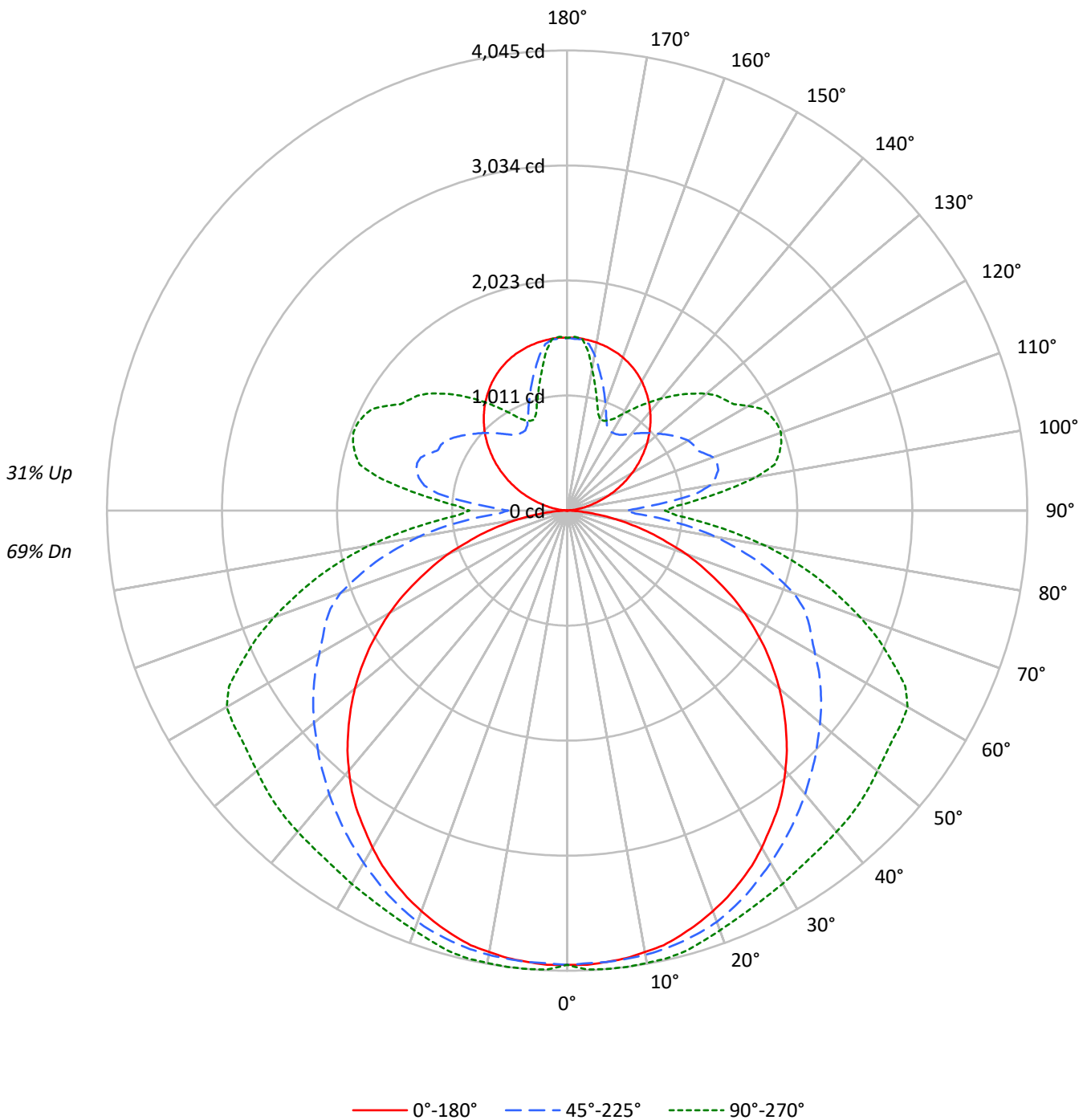
Summary

Lumens per Lamp: 5950 (4 lamps)
Luminaire Lumens: 21945.9 lumens
Efficiency: 92.2%
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.43 / 1.49
Luminous Opening: Rectangular w/ Sides (W: 0.58' x L: 8' x H: 0.16')
CIE Type: Semi-Direct

Input Watts (W): 250
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	103	103	103	103	97	97	97	97	87	87	87	77	77	77	68	68	68	64
1	92	87	83	79	87	82	79	75	73	70	67	65	63	60	57	55	54	50
2	83	75	68	63	78	71	65	60	63	58	54	56	52	49	49	46	43	40
3	75	65	57	51	70	61	54	49	55	49	44	48	44	40	42	39	36	33
4	68	57	49	42	64	54	46	41	48	42	37	43	38	33	37	33	30	27
5	63	50	42	36	59	48	40	34	43	36	31	38	33	29	33	29	26	23
6	57	45	37	31	54	43	35	30	38	32	27	34	29	25	30	26	22	20
7	53	41	33	27	50	39	31	26	35	28	24	31	26	22	27	23	20	17
8	49	37	29	24	46	35	28	23	31	25	21	28	23	19	25	21	17	15
9	46	34	26	21	43	32	25	20	29	23	19	26	21	17	23	19	16	14
10	43	31	24	19	40	29	23	18	27	21	17	24	19	15	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9211	9211	9211
5°	9207	9061	9152
10°	9199	8968	9031
15°	9182	8880	8937
20°	9133	8795	8783
25°	9082	8662	8713
30°	9010	8527	8740
35°	8945	8433	8835
40°	8840	8370	9059
45°	8703	8353	9355
50°	8543	8389	9683
55°	8333	8477	10171
60°	8050	8581	10890
65°	7596	8913	10943
70°	7105	9174	10647
75°	6280	8828	10142
80°	5226	8175	9289
85°	3159	6689	7817



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	380.4	1.7	1.6	0°	3993	3993	3993	3993	3993	
10°-20°	1108.9	5.1	4.7	5°	3983	3962	3983	3997	4045	379
20°-30°	1718.6	7.8	7.2	15°	3865	3879	3921	3969	4011	1091
30°-40°	2163.0	9.9	9.1	25°	3601	3657	3726	3782	3851	1660
40°-50°	2418.8	11.0	10.2	35°	3220	3320	3421	3594	3726	2013
50°-60°	2475.4	11.3	10.4	45°	2720	2866	3081	3407	3636	2099
60°-70°	2303.0	10.5	9.7	55°	2130	2321	2720	3195	3497	1900
70°-80°	1744.9	8.0	7.3	65°	1450	1766	2345	2928	3157	1439
80°-90°	891.1	4.1	3.7	75°	756	1228	1742	2151	2276	798
90°-100°	875.5	4.0	3.7	85°	146	524	840	1135	1200	182
100°-110°	1280.9	5.8	5.4	90°	0	232	519	755	859	9
110°-120°	1214.4	5.5	5.1	95°	36	561	898	1155	1179	52
120°-130°	1015.3	4.6	4.3	105°	252	627	1375	1794	1930	270
130°-140°	803.0	3.7	3.4	115°	523	601	1254	1797	1973	518
140°-150°	608.0	2.8	2.6	125°	789	582	1144	1563	1696	705
150°-160°	459.6	2.1	1.9	135°	1031	639	964	1294	1447	795
160°-170°	344.5	1.6	1.4	145°	1230	847	812	1017	1126	769
170°-180°	140.5	0.6	0.6	155°	1379	1143	828	842	875	635
0°-30°	3207.9	14.6	13.5	165°	1471	1427	1183	1074	1011	416
0°-40°	5370.9	24.5	22.6	175°	1516	1504	1510	1516	1515	144
0°-60°	10265.1	46.8	43.1	180°	1517	1517	1517	1517	1517	
0°-90°	15204.1	69.3	63.9							
90°-120°	3370.8	15.4	14.2							
90°-150°	5797.2	26.4	24.4							
90°-180°	6742.0	30.7	28.3							
0°-180°	21945.9	100.0	92.2							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3993	3993	3993	3993	3993
2.5°	3997	3966	3983	3997	4038
5°	3983	3962	3983	3997	4045
7.5°	3969	3959	3976	4004	4045
10°	3941	3938	3966	3997	4038
12.5°	3914	3910	3948	3986	4032
15°	3865	3879	3921	3969	4011
17.5°	3809	3837	3889	3931	3969
20°	3747	3789	3848	3896	3927
22.5°	3678	3723	3789	3834	3886
25°	3601	3657	3726	3782	3851
27.5°	3518	3584	3650	3733	3816
30°	3421	3497	3577	3692	3789
32.5°	3317	3411	3501	3646	3754
35°	3220	3320	3421	3594	3726
37.5°	3109	3213	3338	3542	3705
40°	2984	3105	3254	3497	3685
42.5°	2859	2987	3164	3452	3664
45°	2720	2866	3081	3407	3636
47.5°	2581	2724	2987	3355	3601
50°	2436	2595	2904	3303	3560
52.5°	2283	2460	2814	3251	3525
55°	2130	2321	2720	3195	3497
57.5°	1964	2186	2623	3143	3483
60°	1804	2054	2515	3102	3456
62.5°	1631	1901	2422	3043	3352
65°	1450	1766	2345	2928	3157
67.5°	1277	1627	2252	2769	2963
70°	1110	1481	2120	2592	2741
72.5°	916	1350	1929	2390	2505
75°	756	1228	1742	2151	2276
77.5°	583	1096	1527	1919	2026
80°	437	930	1325	1672	1762
82.5°	278	739	1093	1405	1478
85°	146	524	840	1135	1200
87.5°	56	337	600	871	958
90°	0	232	519	755	859
92.5°	7	405	672	922	967
95°	36	561	898	1155	1179
97.5°	83	629	1144	1409	1427
100°	135	645	1276	1649	1684
102.5°	191	618	1336	1752	1868
105°	252	627	1375	1794	1930
107.5°	320	634	1383	1838	1973
110°	386	625	1369	1846	2000



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	455	611	1310	1830	1997
115°	523	601	1254	1797	1973
117.5°	592	595	1251	1718	1934
120°	659	589	1231	1623	1840
122.5°	725	586	1190	1589	1739
125°	789	582	1144	1563	1696
127.5°	853	588	1097	1505	1660
130°	915	600	1052	1439	1599
132.5°	974	619	1008	1365	1522
135°	1031	639	964	1294	1447
137.5°	1086	671	922	1221	1367
140°	1136	713	881	1153	1285
142.5°	1185	776	842	1082	1204
145°	1230	847	812	1017	1126
147.5°	1272	920	797	954	1052
150°	1312	992	792	900	981
152.5°	1347	1067	794	862	915
155°	1379	1143	828	842	875
157.5°	1407	1218	896	837	854
160°	1433	1293	988	877	849
162.5°	1454	1368	1082	963	901
165°	1471	1427	1183	1074	1011
167.5°	1487	1471	1283	1193	1129
170°	1499	1493	1391	1316	1263
172.5°	1509	1501	1475	1454	1412
175°	1516	1504	1510	1516	1515
177.5°	1522	1506	1511	1515	1529
180°	1517	1517	1517	1517	1517

(END OF REPORT)