

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: ITL44153

Luminaire Tested: **STM-296T8**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44153
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: STM-296T8
Description: WHITE PAINTED FABRICATED METAL STRIP BALLAST HOUSING WITH
WHITE PAINTED SOCKET HOUSINGS.
Light Source: TWO 59-WATT F96T8/SPX35 FLUORESCENTS.
Ballast/Driver: MAGNETEK TRIAD B259I120HP (BALLAST FACTOR 96.2 %).

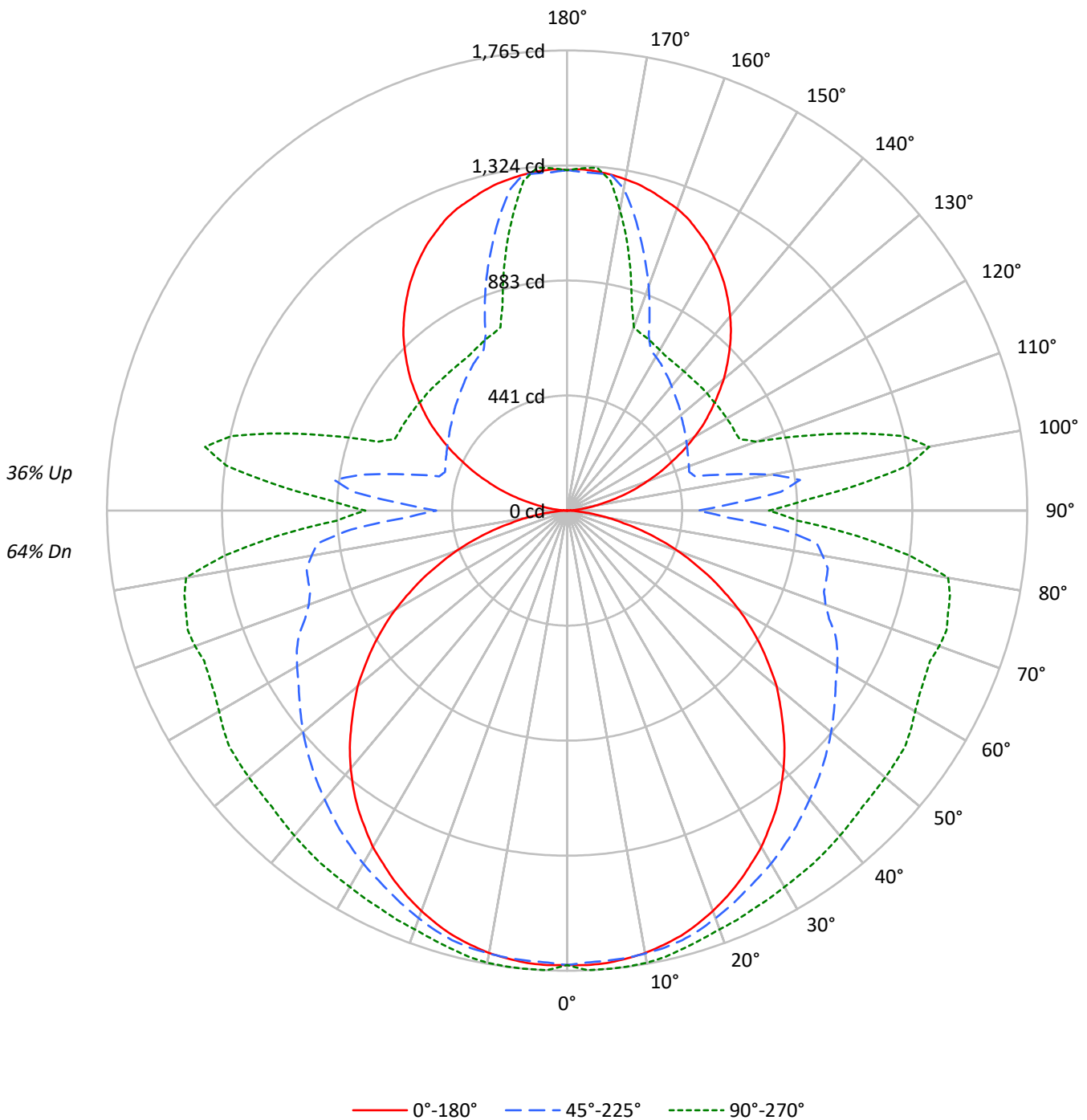
Summary

Lumens per Lamp: 5950 (2 lamps)
Luminaire Lumens: 11660.9 lumens
Efficiency: 98.0%
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.45 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.58' x L: 8' x H: 0.16')
CIE Type: Semi-Direct

Input Watts (W): 123.7
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

TEST NUMBER: ITL44153
CATALOG NUMBER: STM-296T8

Luminous Intensity Polar Plot





TEST NUMBER: ITL44153
 CATALOG NUMBER: STM-296T8

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	108	108	108	108	102	102	102	102	89	89	89	78	78	78	67	67	67	62
1	96	90	85	80	89	84	80	76	73	70	67	64	61	58	55	53	51	46
2	86	77	69	63	80	72	65	59	63	57	53	54	50	46	46	43	40	36
3	78	66	58	51	72	62	54	48	54	48	43	47	42	38	40	36	33	29
4	71	58	49	42	65	55	46	40	48	41	36	41	36	32	35	31	27	24
5	64	52	42	36	60	48	40	34	42	35	30	37	31	27	31	27	23	20
6	59	46	37	31	55	43	35	29	38	31	26	33	27	23	28	24	20	17
7	55	41	33	27	51	39	31	25	34	28	23	30	24	20	26	21	18	15
8	51	37	29	23	47	35	28	22	31	25	20	27	22	18	23	19	16	13
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	30	22	18	26	20	16	23	18	14	20	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4021	4021	4021
5°	4027	3943	3993
10°	4022	3901	3939
15°	4010	3864	3870
20°	3983	3803	3822
25°	3952	3750	3817
30°	3924	3728	3845
35°	3884	3717	3912
40°	3825	3722	4002
45°	3747	3757	4127
50°	3679	3819	4333
55°	3552	3908	4598
60°	3400	4081	4856
65°	3175	4318	5248
70°	2893	4561	5901
75°	2450	5215	6742
80°	1937	6139	7824
85°	1125	6625	7257



TEST NUMBER: ITL44153
 CATALOG NUMBER: STM-296T8

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	165.7	1.4	1.4	0°	1743	1743	1743	1743	1743	
10°-20°	481.7	4.1	4.0	5°	1742	1728	1733	1743	1765	166
20°-30°	748.4	6.4	6.3	15°	1688	1686	1706	1719	1737	476
30°-40°	949.8	8.1	8.0	25°	1567	1587	1613	1656	1687	722
40°-50°	1071.8	9.2	9.0	35°	1398	1434	1508	1601	1650	874
50°-60°	1119.7	9.6	9.4	45°	1171	1234	1386	1535	1604	904
60°-70°	1089.7	9.3	9.2	55°	908	1018	1254	1485	1581	811
70°-80°	1032.3	8.9	8.7	65°	606	796	1136	1403	1514	599
80°-90°	777.9	6.7	6.5	75°	295	593	1029	1394	1513	315
90°-100°	726.4	6.2	6.1	85°	52	433	832	1086	1114	66
100°-110°	646.4	5.5	5.4	90°	0	237	502	718	774	4
110°-120°	518.9	4.4	4.4	95°	34	335	823	1077	1113	45
120°-130°	525.9	4.5	4.4	105°	214	254	508	939	1144	227
130°-140°	505.3	4.3	4.2	115°	441	338	511	659	711	439
140°-150°	467.3	4.0	3.9	125°	675	449	548	661	703	604
150°-160°	401.0	3.4	3.4	135°	882	555	596	666	697	680
160°-170°	309.6	2.7	2.6	145°	1054	770	652	683	700	659
170°-180°	122.8	1.1	1.0	155°	1184	1038	740	721	729	546
0°-30°	1395.9	12.0	11.7	165°	1265	1257	1085	991	941	357
0°-40°	2345.7	20.1	19.7	175°	1306	1294	1299	1308	1320	124
0°-60°	4537.3	38.9	38.1	180°	1306	1306	1306	1306	1306	
0°-90°	7437.2	63.8	62.5							
90°-120°	1891.7	16.2	15.9							
90°-150°	3390.2	29.1	28.5							
90°-180°	4224.0	36.2	35.5							
0°-180°	11660.9	100.0	98.0							



TEST NUMBER: ITL44153
 CATALOG NUMBER: STM-296T8

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1743	1743	1743	1743	1743
2.5°	1745	1729	1735	1743	1764
5°	1742	1728	1733	1743	1765
7.5°	1734	1722	1731	1742	1764
10°	1723	1713	1725	1738	1761
12.5°	1707	1702	1718	1730	1752
15°	1688	1686	1706	1719	1737
17.5°	1663	1667	1687	1702	1723
20°	1634	1644	1664	1684	1709
22.5°	1602	1616	1640	1669	1700
25°	1567	1587	1613	1656	1687
27.5°	1528	1552	1588	1640	1678
30°	1490	1516	1564	1627	1667
32.5°	1443	1475	1536	1612	1658
35°	1398	1434	1508	1601	1650
37.5°	1346	1384	1477	1585	1639
40°	1291	1337	1447	1570	1628
42.5°	1234	1285	1417	1553	1616
45°	1171	1234	1386	1535	1604
47.5°	1109	1180	1354	1518	1598
50°	1049	1129	1322	1506	1593
52.5°	977	1074	1288	1496	1587
55°	908	1018	1254	1485	1581
57.5°	835	961	1222	1474	1563
60°	762	909	1196	1452	1541
62.5°	682	852	1169	1423	1524
65°	606	796	1136	1403	1514
67.5°	525	737	1088	1390	1507
70°	452	683	1054	1385	1519
72.5°	373	636	1033	1400	1526
75°	295	593	1029	1394	1513
77.5°	221	529	1024	1377	1504
80°	162	484	995	1366	1484
82.5°	100	469	966	1293	1325
85°	52	433	832	1086	1114
87.5°	17	355	616	866	883
90°	0	237	502	718	774
92.5°	9	351	639	874	912
95°	34	335	823	1077	1113
97.5°	70	235	901	1253	1318
100°	114	226	794	1260	1410
102.5°	159	239	640	1119	1319
105°	214	254	508	939	1144
107.5°	270	274	491	745	954
110°	325	291	497	664	772



TEST NUMBER: ITL44153
CATALOG NUMBER: STM-296T8

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	386	314	504	658	716
115°	441	338	511	659	711
117.5°	504	365	519	660	710
120°	563	391	529	660	707
122.5°	622	420	537	660	705
125°	675	449	548	661	703
127.5°	729	479	558	661	700
130°	784	507	570	664	700
132.5°	833	533	584	664	699
135°	882	555	596	666	697
137.5°	930	584	609	670	696
140°	973	635	623	673	697
142.5°	1014	701	639	678	698
145°	1054	770	652	683	700
147.5°	1091	838	668	692	703
150°	1125	905	681	702	711
152.5°	1157	974	694	712	719
155°	1184	1038	740	721	729
157.5°	1212	1104	826	730	736
160°	1233	1161	915	787	748
162.5°	1248	1217	999	888	823
165°	1265	1257	1085	991	941
167.5°	1280	1277	1173	1100	1059
170°	1290	1285	1253	1203	1169
172.5°	1299	1291	1298	1295	1276
175°	1306	1294	1299	1308	1320
177.5°	1310	1297	1299	1304	1314
180°	1306	1306	1306	1306	1306

(END OF REPORT)