

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: ITL44156

Luminaire Tested: **STM-396T8**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44156
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: STM-396T8
Description: WHITE PAINTED FABRICATED METAL STRIP BALLAST HOUSING WITH
WHITE PAINTED SOCKET HOUSINGS.
Light Source: THREE 59-WATT F96T8/SPX35 FLUORESCENTS.
Ballast/Driver: TWO MAGNETEK TRIAD B259I120HP (BALLAST FACTORS 110.6 % ONE
LAMP, 96.6 % TWO LAMP).

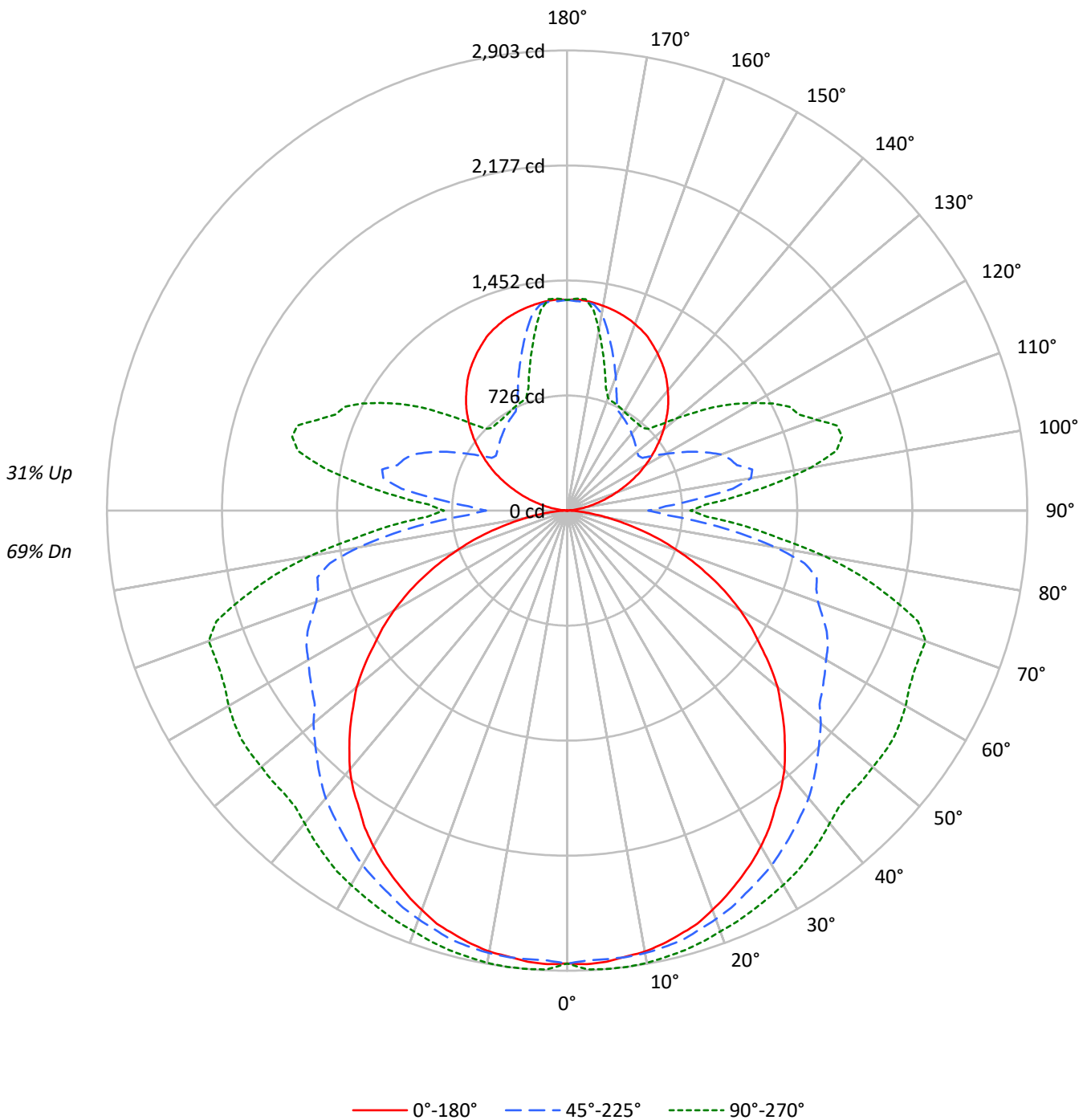
Summary

Lumens per Lamp: 5950 (3 lamps)
Luminaire Lumens: 16757.6 lumens
Efficiency: 93.9%
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.43 / 1.5
Luminous Opening: Rectangular w/ Sides (W: 0.58' x L: 8' x H: 0.16')
CIE Type: Semi-Direct

Input Watts (W): 197.3
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	105	105	105	105	99	99	99	99	88	88	88	78	78	78	69	69	69	64
1	93	88	83	79	88	83	79	75	73	70	67	65	62	60	57	55	53	49
2	84	75	68	62	78	71	64	59	63	58	53	55	51	48	48	45	42	39
3	76	65	57	50	71	61	54	48	54	48	43	48	43	39	42	38	35	31
4	69	57	48	42	64	54	46	40	48	41	36	42	37	33	37	33	29	26
5	63	50	42	35	59	48	40	34	42	36	31	37	32	28	33	28	25	22
6	58	45	37	30	54	43	35	29	38	31	27	34	28	24	30	25	22	19
7	53	41	32	26	50	38	31	25	34	28	23	30	25	21	27	22	19	17
8	50	37	29	23	46	35	27	22	31	25	20	28	22	19	25	20	17	15
9	46	34	26	21	43	32	25	20	29	22	18	26	20	17	23	18	15	13
10	43	31	23	18	40	29	22	18	26	20	16	24	19	15	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6590	6590	6590
5°	6604	6463	6568
10°	6594	6411	6479
15°	6571	6352	6397
20°	6535	6269	6318
25°	6482	6196	6287
30°	6440	6157	6290
35°	6359	6108	6309
40°	6316	6097	6333
45°	6191	6046	6494
50°	6077	6035	6846
55°	5833	6124	7303
60°	5632	6435	7767
65°	5275	6872	8364
70°	4769	7287	9346
75°	4070	8265	9411
80°	3133	8231	8688
85°	1990	6793	7329



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	272.1	1.6	1.5	0°	2857	2857	2857	2857	2857	
10°-20°	793.3	4.7	4.4	5°	2857	2835	2841	2864	2903	271
20°-30°	1233.7	7.4	6.9	15°	2766	2772	2805	2838	2871	781
30°-40°	1554.6	9.3	8.7	25°	2570	2612	2665	2733	2779	1186
40°-50°	1727.3	10.3	9.7	35°	2289	2370	2478	2602	2661	1436
50°-60°	1791.8	10.7	10.0	45°	1935	2050	2230	2413	2524	1493
60°-70°	1737.5	10.4	9.7	55°	1491	1677	1965	2351	2511	1338
70°-80°	1533.1	9.1	8.6	65°	1007	1246	1808	2240	2413	995
80°-90°	864.5	5.2	4.8	75°	490	935	1631	2070	2112	522
90°-100°	799.9	4.8	4.5	85°	92	592	853	1102	1125	109
100°-110°	1078.7	6.4	6.0	90°	0	244	512	718	777	5
110°-120°	882.0	5.3	4.9	95°	28	506	817	1075	1093	42
120°-130°	657.4	3.9	3.7	105°	213	397	1108	1645	1796	226
130°-140°	520.7	3.1	2.9	115°	448	341	879	1366	1548	443
140°-150°	472.7	2.8	2.6	125°	682	455	580	952	1141	610
150°-160°	404.3	2.4	2.3	135°	898	561	604	675	729	691
160°-170°	309.7	1.8	1.7	145°	1073	768	664	696	709	670
170°-180°	124.3	0.7	0.7	155°	1207	1044	742	733	738	555
0°-30°	2299.1	13.7	12.9	165°	1287	1270	1075	979	918	363
0°-40°	3853.7	23.0	21.6	175°	1329	1317	1322	1332	1339	126
0°-60°	7372.8	44.0	41.3	180°	1329	1329	1329	1329	1329	
0°-90°	11507.9	68.7	64.5							
90°-120°	2760.6	16.5	15.5							
90°-150°	4411.3	26.3	24.7							
90°-180°	5250.0	31.3	29.4							
0°-180°	16757.6	100.0	93.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2857	2857	2857	2857	2857
2.5°	2864	2835	2841	2864	2897
5°	2857	2835	2841	2864	2903
7.5°	2838	2825	2841	2864	2903
10°	2825	2812	2835	2864	2897
12.5°	2799	2799	2821	2851	2884
15°	2766	2772	2805	2838	2871
17.5°	2733	2743	2772	2818	2851
20°	2681	2710	2743	2789	2825
22.5°	2629	2665	2710	2763	2805
25°	2570	2612	2665	2733	2779
27.5°	2511	2553	2625	2704	2753
30°	2445	2501	2583	2674	2727
32.5°	2374	2439	2530	2645	2700
35°	2289	2370	2478	2602	2661
37.5°	2217	2295	2423	2557	2622
40°	2132	2217	2370	2504	2576
42.5°	2034	2138	2302	2459	2537
45°	1935	2050	2230	2413	2524
47.5°	1831	1958	2158	2390	2524
50°	1733	1864	2089	2377	2517
52.5°	1615	1775	2007	2364	2517
55°	1491	1677	1965	2351	2511
57.5°	1380	1586	1926	2341	2491
60°	1262	1474	1886	2311	2465
62.5°	1138	1363	1854	2272	2432
65°	1007	1246	1808	2240	2413
67.5°	876	1134	1743	2213	2406
70°	745	1049	1684	2207	2406
72.5°	621	987	1648	2207	2321
75°	490	935	1631	2070	2112
77.5°	366	850	1533	1854	1896
80°	262	768	1334	1618	1648
82.5°	163	739	1102	1347	1354
85°	92	592	853	1102	1125
87.5°	33	376	624	863	883
90°	0	244	512	718	777
92.5°	7	366	623	856	876
95°	28	506	817	1075	1093
97.5°	69	491	1053	1307	1327
100°	111	484	1178	1533	1561
102.5°	158	446	1196	1630	1739
105°	213	397	1108	1645	1796
107.5°	270	348	1078	1563	1784
110°	326	311	1035	1460	1675



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	386	316	957	1432	1582
115°	448	341	879	1366	1548
117.5°	510	368	794	1263	1462
120°	568	395	714	1160	1357
122.5°	626	428	640	1057	1251
125°	682	455	580	952	1141
127.5°	740	485	567	848	1018
130°	794	511	577	755	907
132.5°	846	538	591	689	807
135°	898	561	604	675	729
137.5°	944	595	619	679	706
140°	988	639	633	683	706
142.5°	1033	701	649	688	706
145°	1073	768	664	696	709
147.5°	1109	834	677	704	714
150°	1143	901	690	714	720
152.5°	1174	975	704	723	730
155°	1207	1044	742	733	738
157.5°	1231	1115	813	740	744
160°	1252	1176	896	783	755
162.5°	1272	1232	983	878	813
165°	1287	1270	1075	979	918
167.5°	1300	1294	1169	1096	1032
170°	1312	1307	1261	1203	1154
172.5°	1321	1312	1310	1303	1276
175°	1329	1317	1322	1332	1339
177.5°	1333	1319	1322	1328	1338
180°	1329	1329	1329	1329	1329

(END OF REPORT)