

Scaled data based on original data using
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact
Fluorescent Lamps

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: 253P251

Luminaire Tested: **1215-XX-44-CFL/4/70-T5C/1/40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 253P251
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1215-XX-44-CFL/4/70-T5C/1/40
Description: SHAPER 44 INCH 1215 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
WITH SHALLOW BOWL
Light Source: FOUR 70 WATT COMPACT FLUORESCENT LAMP AND ONE 40 WATTS T5 CIRCLINE
(4)F70BX/840 - 5200 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS
Ballast/Driver: -

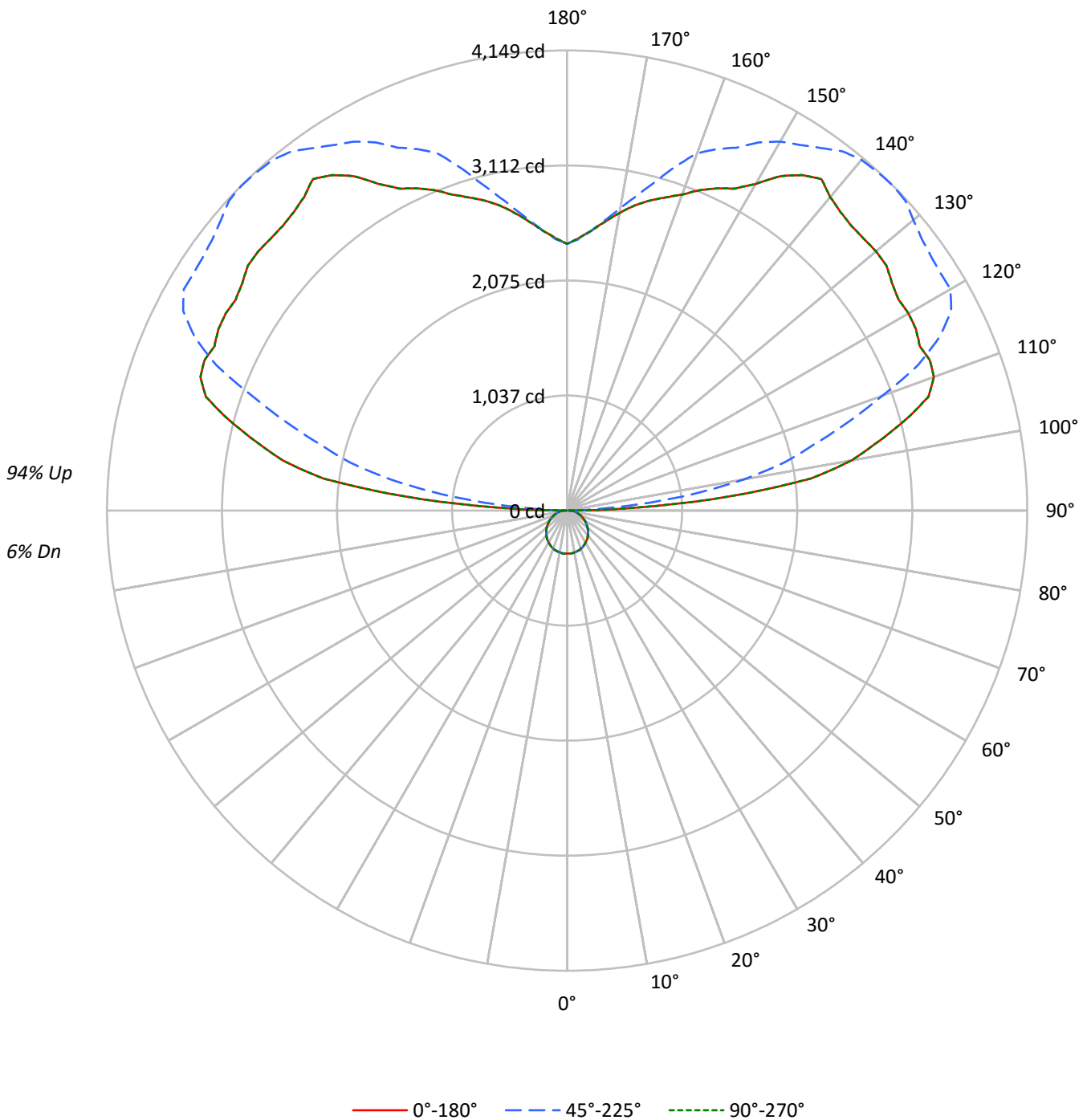
Summary

Lumens per Lamp: 24100 (1 lamp)
Luminaire Lumens: 20246.4 lumens
Efficiency: 84.0%
Efficacy: 470.8 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Vertical Cylinder (Dia: 3.67' x H: 0.69')
CIE Type: Indirect

Input Watts (W): 43
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: 253P251
CATALOG NUMBER: 1215-XX-44-CFL/4/70-T5C/1/40

Luminous Intensity Polar Plot





TEST NUMBER: 253P251

CATALOG NUMBER: 1215-XX-44-CFL/4/70-T5C/1/40

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	81	81	81	81	70	70	70	70	49	49	49	31	31	31	13	13	13	5
1	74	70	67	65	64	61	58	56	43	41	40	27	26	25	11	11	11	4
2	67	61	57	52	58	53	49	46	38	35	33	23	22	21	10	10	9	3
3	61	54	48	44	52	47	42	38	33	30	28	20	19	17	9	8	8	3
4	56	47	41	37	48	41	36	32	29	26	23	18	16	15	8	7	7	2
5	51	42	36	31	44	36	31	27	26	22	20	16	14	13	7	6	6	2
6	47	37	31	26	40	32	27	23	23	20	17	14	12	11	6	5	5	2
7	43	33	27	23	37	29	24	20	21	17	15	13	11	9	6	5	4	2
8	40	30	24	20	34	26	21	18	19	15	13	12	10	8	5	4	4	1
9	37	27	21	17	32	24	19	15	17	14	11	11	9	7	5	4	3	1
10	34	25	19	15	29	22	17	14	16	12	10	10	8	6	4	4	3	1

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	396	396	396
5°	389	389	389
10°	380	380	380
15°	373	373	373
20°	364	364	364
25°	355	355	355
30°	344	344	344
35°	335	335	335
40°	323	323	323
45°	311	311	311
50°	298	298	298
55°	282	282	282
60°	265	265	265
65°	249	249	249
70°	232	232	232
75°	215	215	215
80°	200	200	200
85°	185	185	185



TEST NUMBER: 253P251

CATALOG NUMBER: 1215-XX-44-CFL/4/70-T5C/1/40

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	36.9	0.2	0.2
10°-20°	106.1	0.5	0.4
20°-30°	161.6	0.8	0.7
30°-40°	196.3	1.0	0.8
40°-50°	205.9	1.0	0.9
50°-60°	190.3	0.9	0.8
60°-70°	154.6	0.8	0.6
70°-80°	109.4	0.5	0.5
80°-90°	59.9	0.3	0.2
90°-100°	1021.0	5.0	4.2
100°-110°	2704.7	13.4	11.2
110°-120°	3502.3	17.3	14.5
120°-130°	3512.3	17.3	14.6
130°-140°	3105.6	15.3	12.9
140°-150°	2460.1	12.2	10.2
150°-160°	1614.7	8.0	6.7
160°-170°	856.5	4.2	3.6
170°-180°	248.4	1.2	1.0
0°-30°	304.5	1.5	1.3
0°-40°	500.8	2.5	2.1
0°-60°	896.9	4.4	3.7
0°-90°	1220.9	6.0	5.1
90°-120°	7227.9	35.7	30.0
90°-150°	16305.9	80.5	67.7
90°-180°	19025.0	94.0	78.9
0°-180°	20246.4	100.0	84.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	388	388	388	388	388	
5°	388	388	388	388	388	37
15°	376	376	376	376	376	106
25°	351	351	351	351	351	162
35°	314	314	314	314	314	196
45°	267	267	267	267	267	206
55°	213	213	213	213	213	190
65°	156	156	156	156	156	155
75°	103	103	103	103	103	109
85°	59	59	59	59	59	53
90°	5	4	3	4	5	95
95°	1477	766	653	915	1477	1446
105°	3158	2396	2305	2432	3158	3304
115°	3509	3492	3706	3542	3509	3506
125°	3575	3990	4002	4088	3575	3216
135°	3628	4024	4149	4178	3628	2820
145°	3693	3932	3990	4114	3693	2294
155°	3205	3492	3610	3632	3205	1488
165°	2895	2980	3067	3022	2895	823
175°	2535	2528	2535	2532	2535	248
180°	2404	2404	2404	2404	2404	



TEST NUMBER: 253P251

CATALOG NUMBER: 1215-XX-44-CFL/4/70-T5C/1/40

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	388	388	388	388	388	388	388	388	388	388	388
2.5°	388	388	388	388	388	388	388	388	388	388	388
5°	388	388	388	388	388	388	388	388	388	388	388
7.5°	386	386	386	386	386	386	386	386	386	386	386
10°	383	383	383	383	383	383	383	383	383	383	383
12.5°	380	380	380	380	380	380	380	380	380	380	380
15°	376	376	376	376	376	376	376	376	376	376	376
17.5°	371	371	371	371	371	371	371	371	371	371	371
20°	365	365	365	365	365	365	365	365	365	365	365
22.5°	358	358	358	358	358	358	358	358	358	358	358
25°	351	351	351	351	351	351	351	351	351	351	351
27.5°	342	342	342	342	342	342	342	342	342	342	342
30°	333	333	333	333	333	333	333	333	333	333	333
32.5°	324	324	324	324	324	324	324	324	324	324	324
35°	314	314	314	314	314	314	314	314	314	314	314
37.5°	303	303	303	303	303	303	303	303	303	303	303
40°	291	291	291	291	291	291	291	291	291	291	291
42.5°	279	279	279	279	279	279	279	279	279	279	279
45°	267	267	267	267	267	267	267	267	267	267	267
47.5°	254	254	254	254	254	254	254	254	254	254	254
50°	241	241	241	241	241	241	241	241	241	241	241
52.5°	227	227	227	227	227	227	227	227	227	227	227
55°	213	213	213	213	213	213	213	213	213	213	213
57.5°	198	198	198	198	198	198	198	198	198	198	198
60°	184	184	184	184	184	184	184	184	184	184	184
62.5°	170	170	170	170	170	170	170	170	170	170	170
65°	156	156	156	156	156	156	156	156	156	156	156
67.5°	142	142	142	142	142	142	142	142	142	142	142
70°	129	129	129	129	129	129	129	129	129	129	129
72.5°	116	116	116	116	116	116	116	116	116	116	116
75°	103	103	103	103	103	103	103	103	103	103	103
77.5°	91	91	91	91	91	91	91	91	91	91	91
80°	80	80	80	80	80	80	80	80	80	80	80
82.5°	69	69	69	69	69	69	69	69	69	69	69
85°	59	59	59	59	59	59	59	59	59	59	59
87.5°	50	50	50	50	50	50	50	50	50	50	50
90°	5	5	5	4	4	4	4	3	3	3	3
92.5°	636	530	424	317	211	160	164	169	173	177	194
95°	1477	1311	1144	978	811	720	703	686	670	653	707
97.5°	2218	1999	1780	1561	1342	1223	1205	1188	1170	1152	1222
100°	2603	2400	2198	1995	1792	1682	1665	1648	1631	1614	1692
102.5°	2872	2701	2530	2359	2188	2092	2071	2050	2029	2008	2052
105°	3158	2979	2801	2622	2443	2349	2338	2327	2316	2305	2325
107.5°	3416	3237	3058	2879	2700	2615	2626	2637	2647	2658	2661
110°	3519	3390	3262	3133	3004	2949	2967	2985	3003	3021	3019



TEST NUMBER: 253P251

CATALOG NUMBER: 1215-XX-44-CFL/4/70-T5C/1/40

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	3540	3470	3400	3331	3261	3248	3292	3336	3380	3424	3402
115°	3509	3502	3495	3488	3481	3503	3554	3605	3655	3706	3668
117.5°	3545	3581	3617	3654	3690	3730	3773	3817	3860	3904	3865
120°	3555	3622	3689	3756	3823	3872	3902	3931	3961	3991	3966
122.5°	3543	3635	3727	3818	3910	3960	3967	3975	3982	3990	3996
125°	3575	3673	3771	3868	3966	4014	4011	4008	4005	4002	4030
127.5°	3629	3721	3813	3906	3998	4042	4039	4035	4032	4028	4054
130°	3636	3732	3828	3924	4020	4069	4070	4072	4073	4075	4097
132.5°	3627	3723	3819	3914	4010	4067	4084	4101	4119	4136	4148
135°	3628	3720	3812	3903	3995	4053	4077	4101	4125	4149	4163
137.5°	3649	3732	3816	3899	3982	4037	4063	4088	4114	4140	4175
140°	3690	3774	3858	3943	4027	4076	4089	4102	4115	4128	4155
142.5°	3767	3827	3886	3946	4005	4040	4051	4061	4072	4082	4113
145°	3693	3749	3804	3860	3915	3948	3959	3969	3980	3990	4025
147.5°	3574	3621	3668	3715	3762	3799	3826	3853	3881	3908	3926
150°	3400	3471	3542	3613	3684	3733	3760	3787	3814	3841	3820
152.5°	3271	3349	3427	3505	3583	3635	3662	3689	3715	3742	3726
155°	3205	3271	3337	3403	3469	3514	3538	3562	3586	3610	3621
157.5°	3127	3181	3236	3290	3345	3389	3424	3458	3493	3527	3515
160°	3031	3074	3117	3160	3203	3248	3293	3338	3383	3428	3402
162.5°	2961	2991	3021	3052	3082	3114	3149	3184	3218	3253	3243
165°	2895	2914	2933	2952	2971	2990	3009	3028	3048	3067	3058
167.5°	2819	2828	2836	2845	2854	2864	2875	2886	2898	2909	2900
170°	2725	2729	2733	2737	2741	2746	2751	2756	2762	2767	2762
172.5°	2629	2629	2629	2629	2629	2630	2633	2636	2639	2642	2640
175°	2535	2533	2531	2530	2528	2528	2530	2531	2533	2535	2534
177.5°	2459	2456	2452	2449	2446	2445	2446	2448	2449	2451	2449
180°	2404	2404	2404	2404	2404	2404	2404	2404	2404	2404	2404



TEST NUMBER: 253P251

CATALOG NUMBER: 1215-XX-44-CFL/4/70-T5C/1/40

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	388	388	388	388	388	388	388	388
2.5°	388	388	388	388	388	388	388	388
5°	388	388	388	388	388	388	388	388
7.5°	386	386	386	386	386	386	386	386
10°	383	383	383	383	383	383	383	383
12.5°	380	380	380	380	380	380	380	380
15°	376	376	376	376	376	376	376	376
17.5°	371	371	371	371	371	371	371	371
20°	365	365	365	365	365	365	365	365
22.5°	358	358	358	358	358	358	358	358
25°	351	351	351	351	351	351	351	351
27.5°	342	342	342	342	342	342	342	342
30°	333	333	333	333	333	333	333	333
32.5°	324	324	324	324	324	324	324	324
35°	314	314	314	314	314	314	314	314
37.5°	303	303	303	303	303	303	303	303
40°	291	291	291	291	291	291	291	291
42.5°	279	279	279	279	279	279	279	279
45°	267	267	267	267	267	267	267	267
47.5°	254	254	254	254	254	254	254	254
50°	241	241	241	241	241	241	241	241
52.5°	227	227	227	227	227	227	227	227
55°	213	213	213	213	213	213	213	213
57.5°	198	198	198	198	198	198	198	198
60°	184	184	184	184	184	184	184	184
62.5°	170	170	170	170	170	170	170	170
65°	156	156	156	156	156	156	156	156
67.5°	142	142	142	142	142	142	142	142
70°	129	129	129	129	129	129	129	129
72.5°	116	116	116	116	116	116	116	116
75°	103	103	103	103	103	103	103	103
77.5°	91	91	91	91	91	91	91	91
80°	80	80	80	80	80	80	80	80
82.5°	69	69	69	69	69	69	69	69
85°	59	59	59	59	59	59	59	59
87.5°	50	50	50	50	50	50	50	50
90°	3	4	4	4	4	5	5	5
92.5°	210	227	244	295	380	465	551	636
95°	761	815	869	961	1090	1219	1348	1477
97.5°	1292	1362	1432	1550	1717	1884	2051	2218
100°	1769	1847	1924	2034	2176	2319	2461	2603
102.5°	2096	2141	2185	2281	2429	2576	2724	2872
105°	2345	2364	2384	2479	2649	2818	2988	3158
107.5°	2665	2668	2671	2756	2921	3086	3251	3416
110°	3017	3014	3012	3067	3180	3293	3406	3519



TEST NUMBER: 253P251

CATALOG NUMBER: 1215-XX-44-CFL/4/70-T5C/1/40

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	3379	3357	3334	3347	3395	3444	3492	3540
115°	3630	3591	3553	3531	3526	3520	3515	3509
117.5°	3827	3788	3749	3709	3668	3627	3586	3545
120°	3942	3917	3892	3844	3772	3699	3627	3555
122.5°	4002	4009	4015	3965	3860	3754	3649	3543
125°	4057	4085	4112	4065	3942	3820	3697	3575
127.5°	4080	4105	4131	4087	3972	3858	3743	3629
130°	4119	4140	4162	4113	3994	3875	3755	3636
132.5°	4160	4172	4184	4127	4002	3877	3752	3627
135°	4178	4192	4207	4149	4019	3888	3758	3628
137.5°	4210	4245	4280	4225	4081	3937	3793	3649
140°	4181	4208	4235	4186	4062	3938	3814	3690
142.5°	4144	4175	4206	4171	4070	3969	3868	3767
145°	4061	4096	4131	4098	3997	3896	3794	3693
147.5°	3944	3961	3979	3942	3850	3758	3666	3574
150°	3798	3777	3756	3707	3630	3553	3477	3400
152.5°	3709	3693	3676	3624	3536	3447	3359	3271
155°	3632	3643	3654	3609	3508	3407	3306	3205
157.5°	3504	3492	3481	3436	3359	3282	3204	3127
160°	3376	3351	3325	3281	3218	3156	3093	3031
162.5°	3233	3223	3213	3181	3126	3071	3016	2961
165°	3049	3040	3031	3012	2983	2954	2924	2895
167.5°	2890	2881	2872	2862	2851	2840	2830	2819
170°	2757	2752	2747	2742	2738	2733	2729	2725
172.5°	2638	2635	2633	2632	2631	2630	2630	2629
175°	2534	2533	2532	2532	2533	2534	2534	2535
177.5°	2447	2445	2443	2444	2448	2451	2455	2459
180°	2404	2404	2404	2404	2404	2404	2404	2404

(END OF REPORT)