

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: 253P254

Luminaire Tested: **1250-XX-44-CFL/4/40-T5C/1/40**

Issue Date: 3/3/2020

**Test Information**

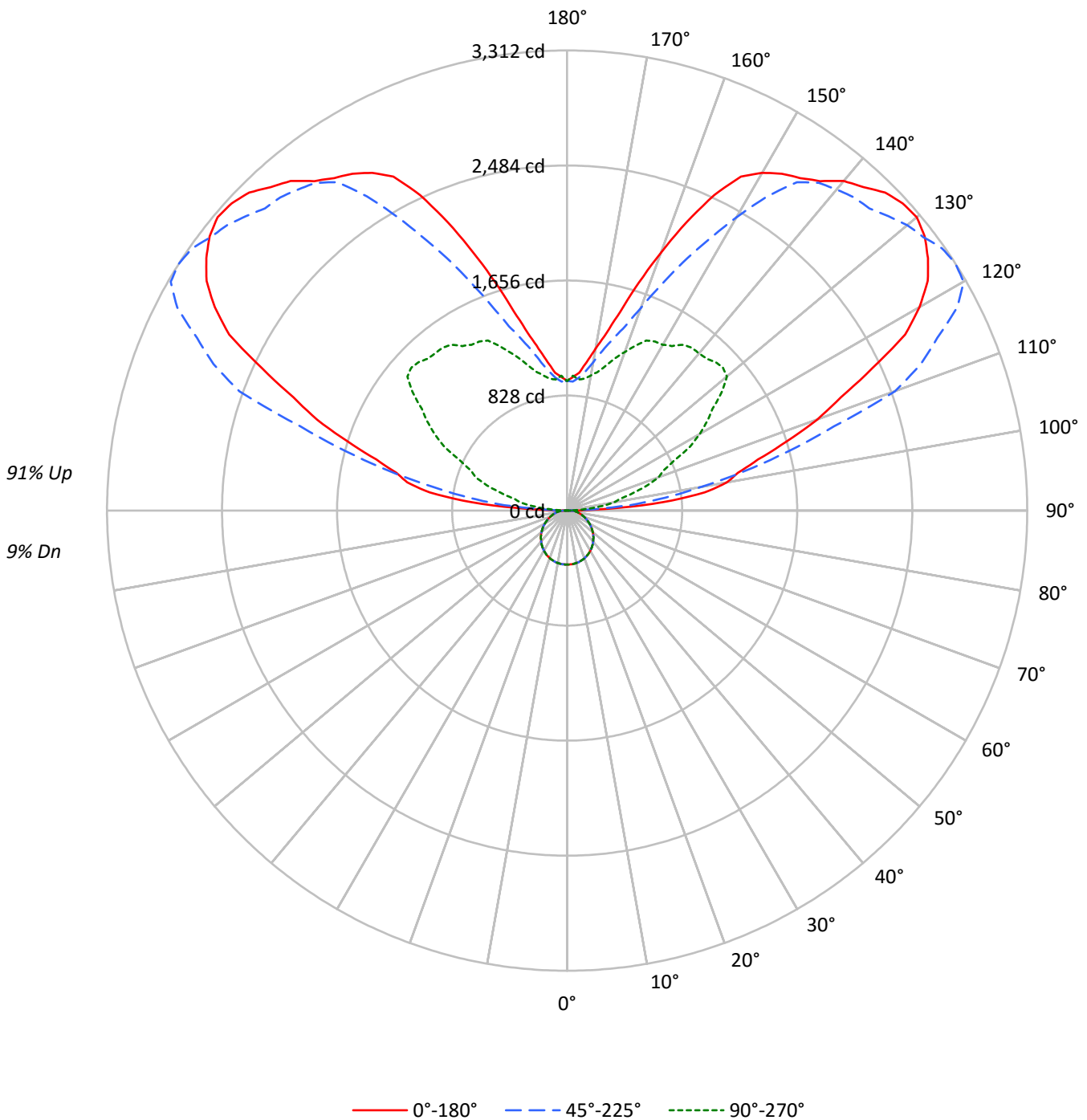
Test Method: LM-66-11  
Report Number: 253P254  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 1250-XX-44-CFL/4/40-T5C/1/40  
Description: SHAPER 44 INCH 1250 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE  
WITH SHALLOW BOWL  
Light Source: FOUR 40 WATT BIAx COMPACT FLUORESCENT LAMPS AND ONE 40 WATT T5 CIRCLINE  
(4)F40BX - 3150 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 15900 (1 lamp)  
Luminaire Lumens: 13165.1 lumens  
Efficiency: 82.8%  
Efficacy: 306.2 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

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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	81	81	81	81	70	70	70	70	50	50	50	32	32	32	16	16	16	8
1	73	70	67	64	63	61	58	56	44	42	41	28	27	26	13	13	13	6
2	67	61	56	52	58	53	49	46	38	36	33	24	23	22	12	11	11	5
3	61	53	48	43	52	46	42	38	33	30	28	21	20	18	10	10	9	4
4	55	47	41	36	48	41	36	32	30	26	24	19	17	15	9	8	8	4
5	51	42	35	31	44	36	31	27	26	23	20	17	15	13	8	7	7	3
6	46	37	31	26	40	32	27	23	23	20	17	15	13	11	7	6	6	3
7	43	33	27	23	37	29	24	20	21	18	15	14	12	10	7	6	5	2
8	39	30	24	20	34	26	21	18	19	16	13	12	10	9	6	5	4	2
9	37	27	21	17	32	24	19	15	17	14	12	11	9	8	6	5	4	2
10	34	25	19	15	29	22	17	14	16	12	10	10	8	7	5	4	3	2

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	36.9	0.3	0.2
10°-20°	106.1	0.8	0.7
20°-30°	161.6	1.2	1.0
30°-40°	196.3	1.5	1.2
40°-50°	205.9	1.6	1.3
50°-60°	190.3	1.4	1.2
60°-70°	154.6	1.2	1.0
70°-80°	109.4	0.8	0.7
80°-90°	59.9	0.5	0.4
90°-100°	486.2	3.7	3.1
100°-110°	1529.0	11.6	9.6
110°-120°	2320.0	17.6	14.6
120°-130°	2539.8	19.3	16.0
130°-140°	2142.2	16.3	13.5
140°-150°	1548.4	11.8	9.7
150°-160°	907.2	6.9	5.7
160°-170°	375.4	2.9	2.4
170°-180°	95.9	0.7	0.6
0°-30°	304.5	2.3	1.9
0°-40°	500.8	3.8	3.1
0°-60°	896.9	6.8	5.6
0°-90°	1220.9	9.3	7.7
90°-120°	4335.2	32.9	27.3
90°-150°	10565.7	80.3	66.5
90°-180°	11944.0	90.7	75.1
0°-180°	13165.1	100.0	82.8

**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°	3	6	4	2	2	48
95°	694	516	455	393	153	660
105°	1422	1708	1645	1388	497	1552
115°	2423	2782	2940	2010	845	2405
125°	3170	3345	3293	2537	1277	2823
135°	3237	3262	3076	2314	1511	2492
145°	2922	2945	2885	1902	1457	1847
155°	2506	2354	1968	1556	1351	1152
165°	1484	1404	1278	1144	1079	443
175°	995	980	959	946	947	101
180°	932	932	932	932	932	



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CATALOG NUMBER: 1250-XX-44-CFL/4/40-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°	3	4	4	5	6	6	5	5	4	4	4
92.5°	295	264	233	202	171	152	145	138	132	125	130
95°	694	653	611	570	529	502	490	479	467	455	444
97.5°	999	967	935	903	871	839	807	775	743	711	698
100°	1168	1171	1173	1176	1179	1158	1113	1069	1024	980	965
102.5°	1258	1302	1346	1389	1433	1438	1405	1372	1338	1305	1282
105°	1422	1490	1559	1627	1696	1721	1702	1683	1664	1645	1597
107.5°	1658	1751	1844	1937	2030	2069	2055	2042	2028	2014	1921
110°	1915	2006	2096	2187	2278	2344	2385	2427	2468	2510	2334



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CATALOG NUMBER: 1250-XX-44-CFL/4/40-T5C/1/40

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	2132	2221	2309	2398	2487	2556	2606	2655	2705	2755	2549
115°	2423	2505	2588	2670	2753	2810	2843	2875	2908	2940	2737
117.5°	2743	2801	2859	2916	2974	3021	3057	3092	3128	3164	2952
120°	2928	2975	3022	3069	3116	3157	3192	3226	3261	3295	3070
122.5°	3078	3119	3160	3201	3242	3268	3279	3290	3301	3312	3119
125°	3170	3212	3254	3296	3338	3352	3337	3322	3308	3293	3132
127.5°	3243	3281	3318	3356	3393	3392	3352	3313	3273	3233	3098
130°	3285	3312	3339	3366	3393	3383	3336	3289	3242	3195	3057
132.5°	3274	3293	3313	3332	3351	3336	3286	3236	3186	3136	2984
135°	3237	3245	3254	3262	3271	3253	3209	3164	3120	3076	2907
137.5°	3157	3168	3178	3189	3200	3189	3156	3123	3090	3057	2868
140°	3097	3095	3093	3090	3088	3079	3063	3048	3032	3016	2813
142.5°	2989	2990	2990	2991	2992	2990	2986	2981	2977	2973	2756
145°	2922	2928	2934	2941	2947	2943	2928	2914	2899	2885	2659
147.5°	2875	2875	2875	2874	2874	2853	2810	2767	2724	2681	2479
150°	2807	2803	2799	2795	2791	2750	2671	2593	2514	2436	2274
152.5°	2710	2690	2670	2651	2631	2573	2478	2383	2288	2193	2071
155°	2506	2475	2445	2414	2383	2324	2235	2146	2057	1968	1874
157.5°	2245	2213	2181	2149	2117	2062	1983	1904	1826	1747	1678
160°	1976	1948	1919	1891	1862	1815	1749	1683	1617	1551	1504
162.5°	1721	1696	1670	1645	1620	1583	1535	1486	1438	1390	1356
165°	1484	1467	1449	1432	1415	1392	1363	1335	1306	1278	1247
167.5°	1306	1296	1286	1275	1265	1251	1233	1215	1197	1179	1155
170°	1182	1175	1168	1161	1154	1143	1128	1113	1099	1084	1069
172.5°	1076	1072	1067	1063	1058	1051	1041	1030	1020	1010	1002
175°	995	992	988	985	982	978	973	968	964	959	956
177.5°	963	957	950	944	937	934	933	932	931	930	931
180°	932	932	932	932	932	932	932	932	932	932	932



TEST NUMBER: 253P254

CATALOG NUMBER: 1250-XX-44-CFL/4/40-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	3	2	2	2	2	2	2
92.5°	136	141	146	137	114	91	68	45
95°	432	421	410	376	320	265	209	153
97.5°	684	671	658	607	519	432	344	256
100°	949	934	919	848	722	595	469	343
102.5°	1259	1236	1213	1112	931	750	570	389
105°	1549	1500	1452	1325	1118	911	704	497
107.5°	1828	1735	1642	1486	1266	1045	825	605
110°	2157	1981	1804	1603	1377	1152	926	700





TEST NUMBER: 253P254

CATALOG NUMBER: 1250-XX-44-CFL/4/40-T5C/1/40

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	2342	2136	1929	1706	1466	1226	986	746
115°	2533	2330	2127	1894	1632	1369	1107	845
117.5°	2739	2527	2314	2074	1805	1536	1267	998
120°	2845	2620	2395	2151	1888	1625	1363	1100
122.5°	2926	2733	2540	2304	2027	1749	1472	1194
125°	2971	2810	2649	2425	2138	1851	1564	1277
127.5°	2964	2829	2694	2491	2220	1948	1677	1405
130°	2919	2781	2643	2455	2216	1978	1739	1501
132.5°	2832	2680	2528	2349	2142	1935	1729	1522
135°	2738	2569	2400	2227	2048	1869	1690	1511
137.5°	2678	2489	2300	2125	1964	1804	1643	1483
140°	2611	2408	2205	2034	1895	1756	1616	1477
142.5°	2540	2323	2106	1940	1824	1708	1592	1476
145°	2433	2208	1982	1823	1732	1640	1549	1457
147.5°	2277	2075	1873	1731	1649	1568	1486	1404
150°	2112	1950	1788	1670	1597	1524	1451	1378
152.5°	1949	1827	1705	1614	1553	1492	1432	1371
155°	1779	1685	1590	1522	1479	1436	1394	1351
157.5°	1609	1540	1471	1419	1385	1352	1318	1284
160°	1457	1410	1363	1325	1298	1270	1243	1215
162.5°	1322	1287	1253	1226	1207	1188	1169	1150
165°	1217	1186	1155	1133	1120	1106	1093	1079
167.5°	1131	1108	1084	1067	1056	1045	1034	1023
170°	1054	1039	1024	1014	1007	1000	994	987
172.5°	994	985	977	971	968	964	961	957
175°	953	950	947	946	946	947	947	947
177.5°	933	934	935	940	948	955	963	971
180°	932	932	932	932	932	932	932	932

(END OF REPORT)