

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: 253P256

Luminaire Tested: **1250-XX-44-CFL/4/50-T5C/1/40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 253P256
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1250-XX-44-CFL/4/50-T5C/1/40
Description: SHAPER 44 INCH 1250 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
WITH SHALLOW BOWL
Light Source: FOUR 50 WATT BIAX COMPACT FLUORESCENT LAMPS AND ONE 40 WATT T5 CIRCLINE
(4)F50BX/SPX41 - 4000 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS
Ballast/Driver: -

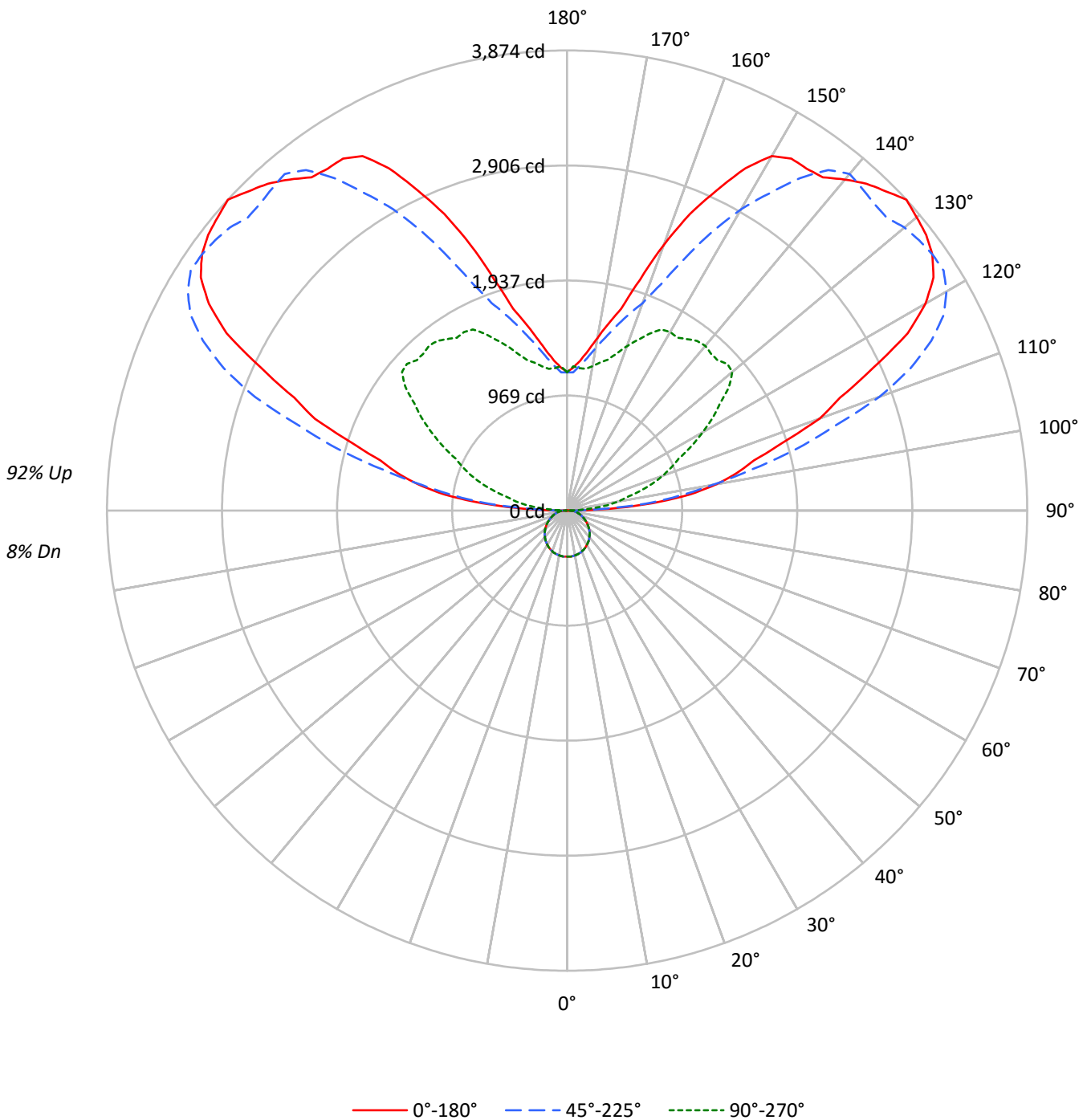
Summary

Lumens per Lamp: 19300 (1 lamp)
Luminaire Lumens: 15370.1 lumens
Efficiency: 79.6%
Efficacy: 357.4 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	77	77	77	77	67	67	67	67	48	48	48	30	30	30	14	14	14	6
1	70	67	64	61	61	58	56	54	41	40	39	26	25	25	12	12	11	5
2	64	58	54	50	55	51	47	44	36	34	32	23	22	20	11	10	10	4
3	58	51	46	41	50	44	40	36	32	29	27	20	18	17	9	9	8	3
4	53	45	39	35	46	39	34	31	28	25	22	18	16	15	8	7	7	3
5	49	40	34	29	42	35	30	26	25	22	19	16	14	12	7	7	6	3
6	44	36	30	25	38	31	26	22	22	19	16	14	12	11	7	6	5	2
7	41	32	26	22	35	28	23	19	20	17	14	13	11	9	6	5	4	2
8	38	29	23	19	33	25	20	17	18	15	12	12	10	8	5	5	4	2
9	35	26	20	17	30	23	18	15	16	13	11	11	9	7	5	4	4	2
10	33	24	18	15	28	21	16	13	15	12	10	10	8	6	5	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	36.9	0.2	0.2
10°-20°	106.1	0.7	0.5
20°-30°	161.6	1.1	0.8
30°-40°	196.3	1.3	1.0
40°-50°	205.9	1.3	1.1
50°-60°	190.3	1.2	1.0
60°-70°	154.6	1.0	0.8
70°-80°	109.4	0.7	0.6
80°-90°	60.2	0.4	0.3
90°-100°	619.6	4.0	3.2
100°-110°	1786.5	11.6	9.3
110°-120°	2692.5	17.5	14.0
120°-130°	2966.6	19.3	15.4
130°-140°	2534.4	16.5	13.1
140°-150°	1869.3	12.2	9.7
150°-160°	1096.2	7.1	5.7
160°-170°	462.2	3.0	2.4
170°-180°	121.7	0.8	0.6
0°-30°	304.5	2.0	1.6
0°-40°	500.8	3.3	2.6
0°-60°	896.9	5.8	4.6
0°-90°	1221.2	7.9	6.3
90°-120°	5098.6	33.2	26.4
90°-150°	12468.8	81.1	64.6
90°-180°	14149.0	92.1	73.3
0°-180°	15370.1	100.0	79.6

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°	2	8	9	5	4	57
95°	725	657	666	500	213	704
105°	1626	1852	1995	1707	630	1784
115°	2844	3273	3382	2324	1038	2829
125°	3754	3923	3756	2970	1571	3335
135°	3799	3811	3655	2800	1790	2935
145°	3514	3553	3418	2301	1762	2217
155°	2971	2815	2342	1900	1644	1384
165°	1759	1715	1609	1446	1315	533
175°	1267	1242	1222	1200	1203	127
180°	1164	1164	1164	1164	1164	



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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°	2	3	5	6	7	8	8	9	9	9	8
92.5°	363	345	327	309	291	279	272	266	259	253	241
95°	725	709	693	676	660	654	657	660	663	666	631
97.5°	1044	1048	1052	1057	1061	1051	1026	1002	977	953	925
100°	1277	1301	1326	1350	1375	1371	1339	1306	1274	1242	1223
102.5°	1466	1494	1522	1551	1579	1592	1591	1589	1588	1586	1567
105°	1626	1677	1729	1780	1831	1872	1903	1934	1964	1995	1942
107.5°	1901	1982	2063	2144	2225	2275	2294	2314	2333	2353	2258
110°	2259	2334	2410	2485	2560	2620	2664	2707	2751	2795	2635



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	2488	2581	2675	2768	2861	2933	2982	3031	3081	3130	2921
115°	2844	2944	3044	3143	3243	3303	3323	3342	3362	3382	3150
117.5°	3232	3308	3384	3461	3537	3575	3575	3575	3575	3575	3330
120°	3483	3548	3612	3677	3742	3764	3745	3726	3707	3688	3459
122.5°	3657	3707	3758	3808	3859	3870	3842	3814	3786	3758	3556
125°	3754	3796	3838	3881	3923	3923	3881	3840	3798	3756	3590
127.5°	3811	3844	3877	3910	3943	3934	3885	3835	3786	3736	3588
130°	3841	3875	3908	3942	3975	3960	3897	3834	3770	3707	3549
132.5°	3874	3884	3894	3905	3915	3890	3830	3769	3709	3649	3478
135°	3799	3804	3809	3814	3819	3803	3766	3729	3692	3655	3467
137.5°	3732	3730	3728	3726	3724	3718	3708	3697	3687	3677	3464
140°	3638	3629	3621	3612	3603	3610	3633	3655	3678	3700	3450
142.5°	3536	3548	3560	3572	3584	3593	3598	3603	3608	3613	3347
145°	3514	3525	3536	3547	3558	3548	3515	3483	3450	3418	3162
147.5°	3513	3514	3515	3516	3517	3478	3400	3321	3243	3165	2950
150°	3446	3428	3409	3391	3372	3315	3219	3122	3026	2930	2753
152.5°	3249	3218	3188	3157	3126	3059	2956	2853	2749	2646	2508
155°	2971	2941	2911	2880	2850	2780	2671	2561	2452	2342	2241
157.5°	2703	2672	2641	2610	2579	2507	2395	2283	2171	2059	1995
160°	2381	2347	2313	2280	2246	2188	2106	2024	1942	1860	1812
162.5°	2036	2010	1984	1957	1931	1897	1856	1814	1773	1731	1686
165°	1759	1750	1741	1732	1723	1707	1682	1658	1633	1609	1572
167.5°	1612	1605	1597	1590	1583	1569	1550	1531	1512	1493	1466
170°	1476	1470	1465	1459	1454	1444	1431	1417	1404	1390	1371
172.5°	1356	1353	1349	1346	1343	1336	1326	1315	1305	1295	1284
175°	1267	1261	1256	1250	1245	1240	1235	1231	1226	1222	1217
177.5°	1206	1198	1190	1182	1174	1169	1168	1167	1166	1165	1165
180°	1164	1164	1164	1164	1164	1164	1164	1164	1164	1164	1164



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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°	7	6	5	5	5	4	4	4
92.5°	230	218	207	187	158	130	101	73
95°	596	561	526	475	410	344	279	213
97.5°	897	868	840	772	663	555	446	338
100°	1204	1185	1166	1077	916	756	595	435
102.5°	1549	1530	1511	1392	1171	951	730	510
105°	1889	1836	1783	1631	1381	1130	880	630
107.5°	2163	2068	1973	1795	1534	1273	1011	750
110°	2475	2316	2156	1940	1669	1397	1126	854



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	2713	2504	2295	2053	1777	1501	1225	949
115°	2918	2687	2455	2194	1905	1616	1327	1038
117.5°	3085	2840	2595	2330	2043	1757	1470	1184
120°	3230	3001	2772	2509	2212	1914	1617	1319
122.5°	3354	3151	2949	2693	2383	2072	1762	1452
125°	3424	3257	3091	2848	2529	2210	1890	1571
127.5°	3439	3291	3142	2918	2619	2319	2020	1720
130°	3391	3234	3076	2866	2603	2340	2078	1815
132.5°	3307	3136	2965	2762	2529	2295	2062	1828
135°	3279	3091	2903	2696	2469	2243	2016	1790
137.5°	3250	3037	2824	2614	2409	2203	1998	1792
140°	3200	2950	2700	2490	2320	2149	1979	1809
142.5°	3081	2814	2548	2347	2210	2073	1937	1800
145°	2906	2649	2393	2209	2097	1986	1874	1762
147.5°	2735	2520	2305	2145	2040	1935	1831	1726
150°	2576	2399	2222	2090	2001	1913	1824	1736
152.5°	2370	2231	2093	1990	1922	1855	1787	1719
155°	2141	2040	1939	1862	1807	1753	1698	1644
157.5°	1930	1866	1801	1745	1698	1650	1603	1555
160°	1763	1715	1666	1623	1586	1549	1511	1474
162.5°	1641	1596	1551	1512	1480	1449	1417	1385
165°	1536	1499	1462	1430	1401	1372	1344	1315
167.5°	1439	1412	1385	1361	1340	1318	1297	1275
170°	1353	1334	1315	1298	1282	1266	1250	1234
172.5°	1274	1263	1252	1242	1233	1223	1214	1204
175°	1211	1206	1201	1199	1200	1201	1202	1203
177.5°	1165	1165	1165	1171	1182	1193	1205	1216
180°	1164	1164	1164	1164	1164	1164	1164	1164

(END OF REPORT)