

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: 253P306

Luminaire Tested: **307-30-CFL/4/42-120V-30**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: 253P306  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 307-30-CFL/4/42-120V-30  
Description: SHAPER CLASSIC 307 30" GLASS PENDANT WITH FOUR 42W COMPACT  
FLUORESCENT LAMPS  
Light Source: FOUR - CF42TTT/841 - 3200 LUMENS - 42 WATTS  
Ballast/Driver: (2) C2642UNVSE

**Summary**

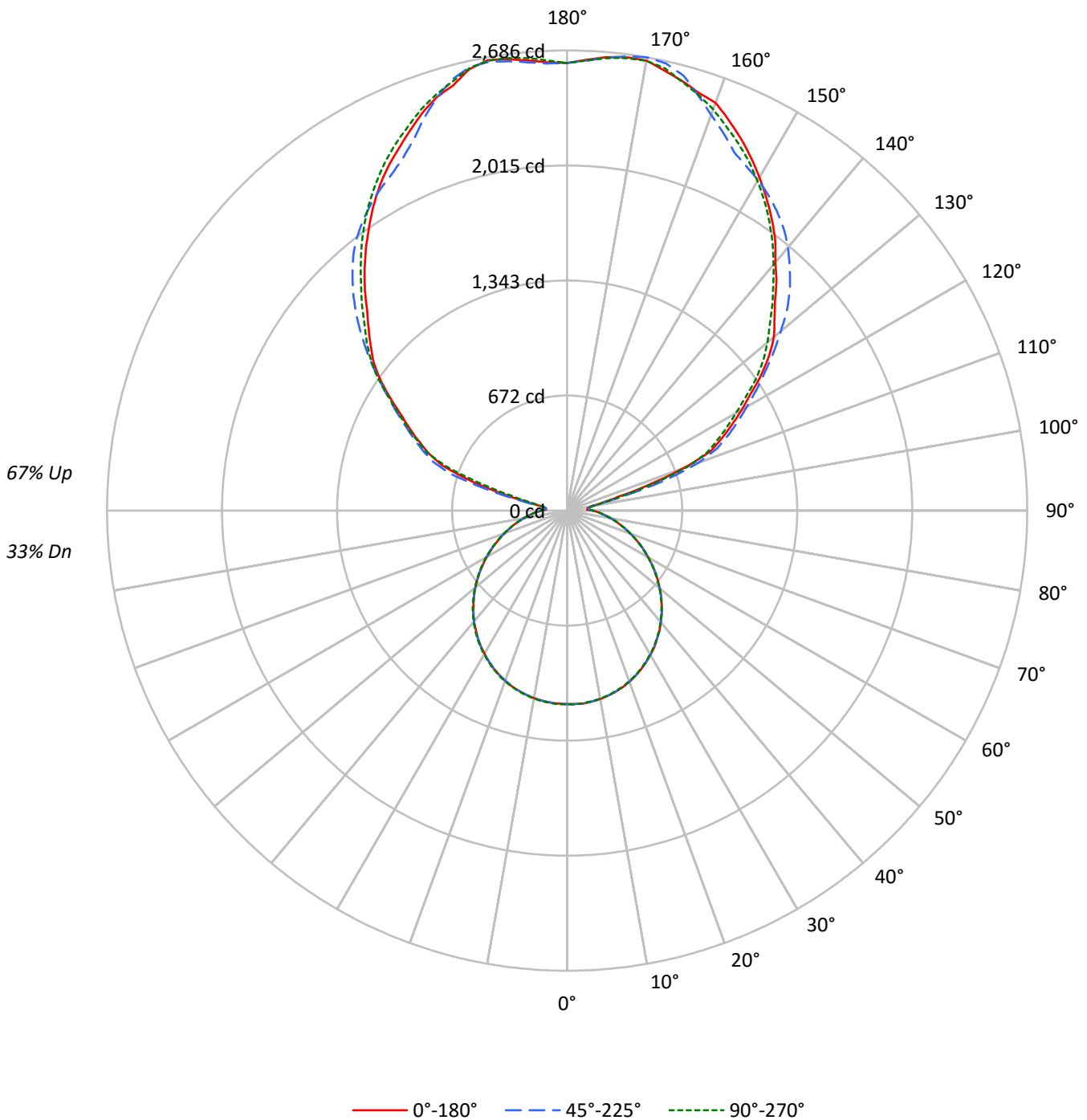
Lumens per Lamp: 3200 (4 lamps)  
Luminaire Lumens: 11130.8 lumens  
Efficiency: 87.0%  
Efficacy: 58.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.4  
Luminous Opening: Vertical Cylinder (Dia: 2.5' x H: 0.6')  
CIE Type: Semi-Indirect

Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	90	90	90	90	81	81	81	81	64	64	64	49	49	49	35	35	35	28
1	81	77	73	70	73	69	66	64	55	53	51	42	41	39	30	29	28	23
2	73	67	61	57	66	60	56	52	48	45	42	36	34	32	26	24	23	18
3	67	59	52	47	60	53	47	43	42	38	35	32	29	27	23	21	19	15
4	61	52	45	39	55	47	41	36	37	33	29	28	25	23	20	18	17	13
5	56	46	39	34	50	41	35	31	33	29	25	25	22	20	18	16	14	11
6	51	41	34	29	46	37	31	26	30	25	22	23	20	17	16	14	12	10
7	47	37	30	25	42	33	27	23	27	22	19	21	17	15	15	13	11	9
8	44	33	27	22	39	30	24	20	24	20	17	19	16	13	14	11	10	8
9	41	30	24	19	37	27	22	18	22	18	15	17	14	12	13	10	9	7
10	38	28	21	17	34	25	20	16	20	16	13	16	13	11	12	9	8	6

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	2478	2478	2478
5°	2422	2416	2411
10°	2359	2353	2349
15°	2296	2290	2284
20°	2231	2224	2218
25°	2162	2156	2150
30°	2090	2083	2075
35°	2015	2011	2000
40°	1936	1929	1922
45°	1852	1845	1833
50°	1760	1755	1745
55°	1665	1660	1649
60°	1565	1562	1548
65°	1466	1463	1450
70°	1365	1365	1351
75°	1270	1274	1262
80°	1191	1196	1182
85°	1114	1125	1114



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	107.2	1.0	0.8
10°-20°	308.1	2.8	2.4
20°-30°	469.5	4.2	3.7
30°-40°	570.7	5.1	4.5
40°-50°	600.0	5.4	4.7
50°-60°	558.8	5.0	4.4
60°-70°	463.5	4.2	3.6
70°-80°	340.9	3.1	2.7
80°-90°	219.2	2.0	1.7
90°-100°	145.1	1.3	1.1
100°-110°	453.8	4.1	3.5
110°-120°	976.1	8.8	7.6
120°-130°	1224.1	11.0	9.6
130°-140°	1343.1	12.1	10.5
140°-150°	1288.1	11.6	10.1
150°-160°	1077.8	9.7	8.4
160°-170°	731.6	6.6	5.7
170°-180°	253.3	2.3	2.0
0°-30°	884.8	7.9	6.9
0°-40°	1455.4	13.1	11.4
0°-60°	2614.3	23.5	20.4
0°-90°	3637.8	32.7	28.4
90°-120°	1575.0	14.1	12.3
90°-150°	5430.3	48.8	42.4
90°-180°	7493.0	67.3	58.5
0°-180°	11130.8	100.0	87.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1130	1130	1130	1130	1130	
5°	1130	1129	1127	1125	1125	107
15°	1095	1094	1092	1089	1089	309
25°	1022	1021	1019	1015	1016	471
35°	915	915	913	909	908	573
45°	781	781	778	774	773	603
55°	627	628	625	622	621	561
65°	469	470	468	466	464	465
75°	322	322	323	319	320	342
85°	200	198	202	197	200	176
90°	151	149	152	148	151	81
95°	119	128	129	126	123	101
105°	304	392	345	502	428	377
115°	996	1035	964	981	953	974
125°	1384	1409	1349	1341	1330	1234
135°	1714	1839	1693	1763	1650	1332
145°	2081	2134	2058	2073	2016	1301
155°	2398	2307	2365	2269	2329	1104
165°	2596	2627	2591	2603	2569	734
175°	2657	2652	2651	2626	2637	254
180°	2612	2612	2612	2612	2612	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1130	1130	1130	1130	1130	1130	1130	1130	1130
2.5°	1130	1131	1131	1131	1131	1127	1127	1127	1128
5°	1130	1129	1129	1129	1127	1126	1125	1126	1125
7.5°	1123	1124	1124	1123	1122	1120	1120	1120	1119
10°	1117	1116	1116	1116	1114	1113	1111	1112	1112
12.5°	1106	1106	1106	1106	1104	1102	1101	1102	1102
15°	1095	1094	1094	1093	1092	1090	1089	1089	1089
17.5°	1080	1079	1079	1079	1077	1075	1074	1074	1075
20°	1063	1062	1062	1062	1060	1058	1056	1057	1057
22.5°	1044	1043	1043	1043	1041	1038	1037	1037	1038
25°	1022	1022	1021	1020	1019	1017	1015	1016	1016
27.5°	998	998	997	996	995	992	991	991	991
30°	972	972	972	971	969	967	966	966	965
32.5°	946	945	944	943	942	940	939	938	938
35°	915	915	915	914	913	910	909	909	908
37.5°	885	884	884	883	881	879	878	877	876
40°	851	851	851	851	848	847	845	844	845
42.5°	817	816	816	816	814	811	810	810	810
45°	781	781	781	780	778	776	774	775	773
47.5°	745	744	744	742	741	739	738	737	737
50°	705	705	705	704	703	701	700	699	699
52.5°	666	666	667	666	664	662	661	660	660
55°	627	627	628	627	625	624	622	621	621
57.5°	587	588	588	587	585	584	583	582	581
60°	547	548	548	547	546	545	544	543	541
62.5°	507	507	509	508	506	505	505	503	502
65°	469	469	470	469	468	467	466	465	464
67.5°	431	431	431	431	430	429	427	427	426
70°	393	393	393	394	393	392	391	390	389
72.5°	358	357	357	358	358	356	354	354	354
75°	322	322	322	323	323	321	319	320	320
77.5°	290	289	288	290	291	288	286	287	287
80°	259	257	257	259	260	258	255	256	257
82.5°	228	227	226	228	230	227	224	226	227
85°	200	200	198	201	202	200	197	199	200
87.5°	175	173	173	175	176	174	171	173	175
90°	151	149	149	151	152	151	148	149	151
92.5°	117	121	128	132	131	128	126	123	122
95°	119	122	128	130	129	127	126	124	123
97.5°	122	125	130	131	131	129	127	127	130
100°	141	140	146	147	151	156	170	164	165
102.5°	203	218	217	234	215	253	300	289	253
105°	304	372	392	409	345	408	502	473	428
107.5°	496	566	621	604	540	588	710	656	613
110°	723	767	814	788	746	753	830	812	781



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	907	918	945	916	883	860	910	906	875
115°	996	1018	1035	1004	964	947	981	987	953
117.5°	1083	1113	1121	1097	1049	1038	1061	1066	1036
120°	1176	1211	1209	1191	1136	1136	1149	1157	1119
122.5°	1271	1315	1309	1293	1236	1239	1241	1257	1224
125°	1384	1417	1409	1396	1349	1339	1341	1357	1330
127.5°	1487	1516	1519	1487	1443	1434	1452	1449	1425
130°	1576	1608	1627	1588	1527	1531	1558	1537	1497
132.5°	1641	1686	1743	1686	1603	1626	1662	1617	1572
135°	1714	1776	1839	1767	1693	1715	1763	1700	1650
137.5°	1808	1846	1923	1841	1781	1794	1855	1779	1747
140°	1891	1926	2006	1913	1874	1872	1943	1855	1839
142.5°	1995	2001	2076	1978	1969	1949	2014	1931	1929
145°	2081	2070	2134	2042	2058	2025	2073	2007	2016
147.5°	2164	2143	2185	2110	2143	2107	2127	2086	2106
150°	2245	2219	2228	2188	2222	2190	2173	2160	2188
152.5°	2323	2299	2265	2267	2297	2268	2215	2237	2263
155°	2398	2379	2307	2337	2365	2342	2269	2314	2329
157.5°	2466	2453	2384	2406	2426	2409	2342	2386	2399
160°	2533	2519	2458	2495	2492	2470	2440	2464	2471
162.5°	2556	2565	2541	2555	2545	2548	2526	2517	2530
165°	2596	2604	2627	2606	2591	2598	2603	2579	2569
167.5°	2629	2652	2672	2659	2643	2638	2648	2643	2639
170°	2667	2679	2686	2676	2665	2656	2659	2660	2669
172.5°	2668	2682	2675	2670	2664	2650	2645	2651	2658
175°	2657	2660	2652	2655	2651	2635	2626	2632	2637
177.5°	2634	2637	2629	2630	2630	2621	2612	2615	2619
180°	2612	2612	2612	2612	2612	2612	2612	2612	2612

(END OF REPORT)