

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: 253p307

Luminaire Tested: **307-24-CFL/4/26-120V-24**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: 253p307  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 307-24-CFL/4/26-120V-24  
Description: SHAPER CLASSIC 307 24" GLASS PENDANT WITH FOUR 26W COMPACT  
FLUORESCENT LAMPS  
Light Source: FOUR - CF26TTT/841 - 1800 LUMENS - 26 WATTS  
Ballast/Driver: (2) C2642UNVSE

**Summary**

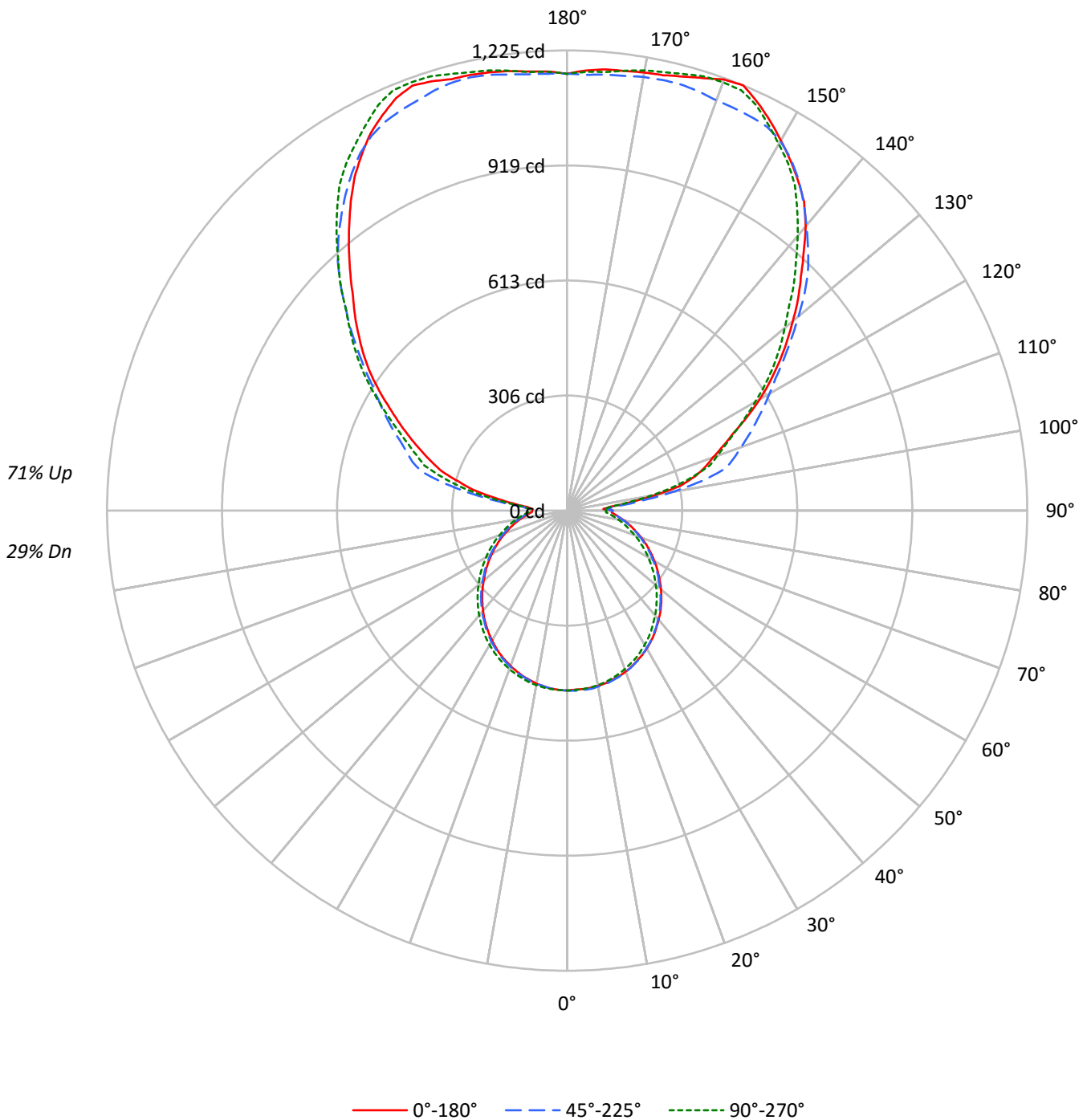
Lumens per Lamp: 1800 (4 lamps)  
Luminaire Lumens: 5616.7 lumens  
Efficiency: 78.0%  
Efficacy: 51.5 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.41  
Luminous Opening: Vertical Cylinder (Dia: 2' x H: 0.58')  
CIE Type: Semi-Indirect

Input Watts (W): 109  
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	80	80	80	80	72	72	72	72	56	56	56	42	42	42	29	29	29	23
1	72	68	65	62	64	61	59	56	48	46	44	36	34	33	24	24	23	18
2	65	59	54	50	58	53	49	45	42	39	36	31	29	27	21	20	19	14
3	59	52	46	41	53	46	41	38	36	33	30	27	25	23	18	17	16	12
4	54	46	39	35	48	41	36	32	32	28	25	24	21	19	16	15	13	10
5	49	40	34	29	44	36	31	27	29	25	22	21	19	16	15	13	11	9
6	45	36	30	25	40	32	27	23	26	22	19	19	16	14	13	11	10	7
7	42	32	26	22	37	29	24	20	23	19	16	17	15	12	12	10	9	6
8	39	29	23	19	35	26	21	18	21	17	14	16	13	11	11	9	8	6
9	36	27	21	17	32	24	19	16	19	15	13	14	12	10	10	8	7	5
10	34	24	19	15	30	22	17	14	18	14	11	13	11	9	9	8	6	5

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

	0°	90°	180°
0°	1641	1641	1641
5°	1589	1589	1586
10°	1548	1541	1528
15°	1503	1490	1471
20°	1465	1442	1413
25°	1421	1395	1360
30°	1381	1345	1300
35°	1338	1295	1245
40°	1292	1241	1187
45°	1251	1191	1131
50°	1205	1138	1072
55°	1159	1089	1019
60°	1118	1038	967
65°	1079	993	916
70°	1041	947	868
75°	1004	910	832
80°	985	877	794
85°	967	854	780



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	45.4	0.8	0.6
10°-20°	130.6	2.3	1.8
20°-30°	199.6	3.6	2.8
30°-40°	244.1	4.3	3.4
40°-50°	260.4	4.6	3.6
50°-60°	250.0	4.5	3.5
60°-70°	219.2	3.9	3.0
70°-80°	175.6	3.1	2.4
80°-90°	129.7	2.3	1.8
90°-100°	155.0	2.8	2.2
100°-110°	383.3	6.8	5.3
110°-120°	511.2	9.1	7.1
120°-130°	609.9	10.9	8.5
130°-140°	666.4	11.9	9.3
140°-150°	650.8	11.6	9.0
150°-160°	537.0	9.6	7.5
160°-170°	336.5	6.0	4.7
170°-180°	112.1	2.0	1.6
0°-30°	375.6	6.7	5.2
0°-40°	619.7	11.0	8.6
0°-60°	1130.1	20.1	15.7
0°-90°	1654.5	29.5	23.0
90°-120°	1049.6	18.7	14.6
90°-150°	2976.6	53.0	41.3
90°-180°	3962.0	70.5	55.0
0°-180°	5616.7	100.0	78.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	479	479	479	479	479	
5°	477	480	477	476	476	45
15°	466	468	462	457	456	132
25°	441	442	433	424	422	204
35°	403	401	390	378	375	252
45°	354	351	337	324	320	273
55°	297	294	279	265	261	266
65°	239	235	220	207	203	237
75°	181	179	164	155	150	192
85°	129	128	114	109	104	111
90°	121	122	104	101	93	63
95°	115	130	116	122	106	123
105°	352	438	345	401	300	363
115°	489	554	492	512	462	490
125°	689	704	671	657	640	616
135°	880	907	854	854	806	682
145°	1072	1074	1057	1028	1004	670
155°	1199	1157	1191	1143	1162	551
165°	1196	1174	1203	1180	1189	340
175°	1179	1165	1172	1166	1173	113
180°	1163	1163	1163	1163	1163	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	479	479	479	479	479	479	479	479	479
2.5°	477	481	480	480	478	478	478	478	478
5°	477	481	480	479	477	477	476	476	476
7.5°	476	480	479	477	475	474	472	472	472
10°	474	477	476	475	472	470	468	468	468
12.5°	471	474	473	471	468	466	463	462	462
15°	466	470	468	466	462	460	457	456	456
17.5°	462	465	463	460	456	453	450	449	448
20°	456	459	457	454	449	446	442	441	440
22.5°	449	452	450	446	441	438	434	432	431
25°	441	444	442	438	433	428	424	422	422
27.5°	433	436	433	429	423	419	414	411	411
30°	424	427	423	419	413	408	403	400	399
32.5°	414	416	413	408	402	396	391	388	388
35°	403	405	401	396	390	384	378	376	375
37.5°	391	394	390	384	377	371	365	362	362
40°	379	381	377	371	364	358	352	349	348
42.5°	367	368	364	358	351	344	338	335	334
45°	354	355	351	344	337	330	324	320	320
47.5°	340	341	337	330	323	316	309	306	305
50°	326	327	322	316	308	301	294	291	290
52.5°	312	313	308	301	294	286	279	276	275
55°	297	298	294	287	279	272	265	262	261
57.5°	283	283	279	272	264	256	250	247	246
60°	268	269	264	257	249	242	236	233	232
62.5°	254	254	250	243	235	228	221	218	217
65°	239	240	235	228	220	213	207	204	203
67.5°	225	225	221	214	206	199	194	190	189
70°	210	210	207	199	191	185	180	177	175
72.5°	195	196	193	185	177	172	167	164	162
75°	181	182	179	172	164	159	155	151	150
77.5°	168	169	166	158	151	146	143	139	137
80°	155	155	153	145	138	134	131	127	125
82.5°	141	143	140	133	126	122	119	116	114
85°	129	130	128	121	114	111	109	105	104
87.5°	119	119	116	110	104	101	98	96	94
90°	121	122	122	111	104	101	101	95	93
92.5°	96	98	103	98	98	99	100	95	92
95°	115	120	130	121	116	118	122	113	106
97.5°	168	178	198	184	162	173	182	167	144
100°	240	254	284	260	224	240	256	236	194
102.5°	311	321	371	327	290	305	333	297	258
105°	352	377	438	393	345	365	401	344	300
107.5°	385	417	466	442	398	415	432	392	352
110°	413	454	492	473	425	446	454	427	386



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	449	490	523	505	456	475	480	462	423
115°	489	531	554	541	492	510	512	495	462
117.5°	540	575	587	579	534	546	544	529	503
120°	591	620	622	621	578	587	577	573	545
122.5°	641	669	659	663	625	632	613	617	593
125°	689	717	704	705	671	675	657	660	640
127.5°	737	762	752	746	714	717	703	703	683
130°	784	805	804	787	756	759	752	743	724
132.5°	834	847	858	837	800	810	800	781	766
135°	880	891	907	879	854	854	854	825	806
137.5°	932	935	949	924	902	899	904	868	854
140°	988	982	991	964	955	943	947	913	904
142.5°	1036	1023	1034	1008	1006	988	988	959	953
145°	1072	1058	1074	1047	1057	1030	1028	1004	1004
147.5°	1106	1090	1109	1084	1095	1069	1066	1045	1053
150°	1138	1122	1136	1116	1127	1108	1100	1085	1094
152.5°	1170	1156	1152	1150	1159	1142	1126	1118	1133
155°	1199	1185	1157	1176	1191	1168	1143	1146	1162
157.5°	1225	1198	1160	1192	1211	1187	1154	1172	1189
160°	1221	1194	1162	1195	1213	1195	1162	1184	1204
162.5°	1207	1186	1169	1196	1212	1198	1173	1181	1198
165°	1196	1179	1174	1194	1203	1194	1180	1180	1189
167.5°	1187	1177	1174	1190	1195	1191	1182	1183	1188
170°	1184	1176	1172	1183	1190	1186	1178	1180	1185
172.5°	1180	1174	1167	1175	1181	1179	1171	1176	1180
175°	1179	1173	1165	1168	1172	1171	1166	1170	1173
177.5°	1173	1167	1161	1166	1169	1169	1164	1167	1170
180°	1163	1163	1163	1163	1163	1163	1163	1163	1163

(END OF REPORT)