

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: SHAPER

Report Number: 253P305

Luminaire Tested: **307-36-INC/4/150-120V-36**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 253P305
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 307-36-INC/4/150-120V-36
Description: SHAPER CLASSIC 307 36" GLASS PENDANT WITH FOUR 150W
INCANDESCENT LAMPS
Light Source: FOUR - 150WA21 - 2780 LUMENS - 150 WATTS
Ballast/Driver: -

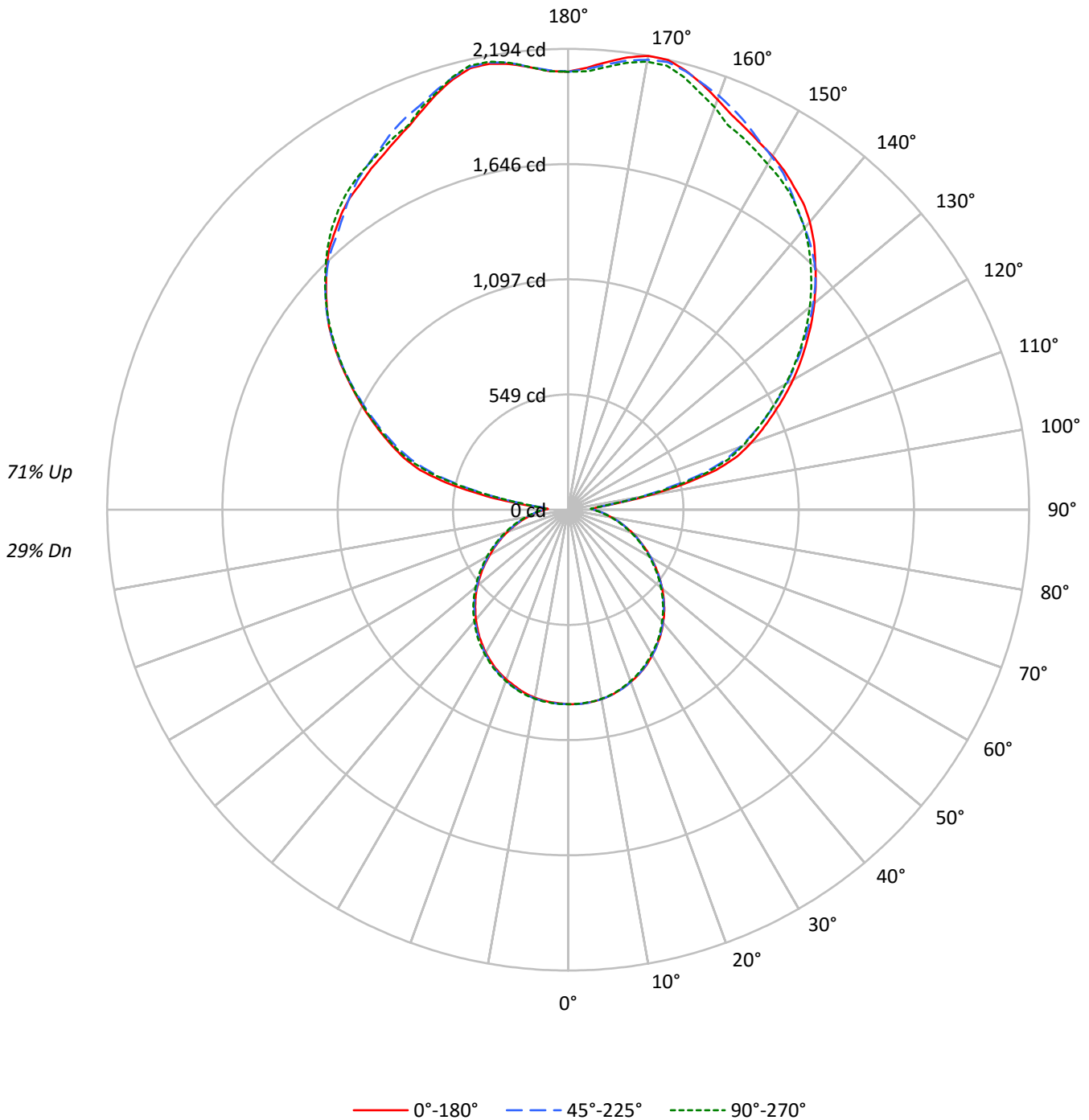
Summary

Lumens per Lamp: 2780 (4 lamps)
Luminaire Lumens: 10259.5 lumens
Efficiency: 92.3%
Efficacy: 2051.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.4
Luminous Opening: Vertical Cylinder (Dia: 3' x H: 0.67')
CIE Type: Semi-Indirect

Input Watts (W): 5
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	94	94	94	94	84	84	84	84	66	66	66	49	49	49	34	34	34	27
1	85	81	77	74	76	73	70	67	57	55	53	42	41	40	29	28	27	21
2	77	70	65	60	69	63	58	54	49	46	43	37	35	33	25	24	23	17
3	70	62	55	50	63	55	50	45	43	39	36	32	30	27	22	20	19	14
4	64	54	47	42	57	49	43	38	38	34	30	29	26	23	20	18	16	12
5	59	48	41	35	52	43	37	32	34	30	26	26	22	20	18	16	14	10
6	54	43	36	30	48	39	32	28	31	26	22	23	20	17	16	14	12	9
7	50	39	32	26	44	35	29	24	28	23	20	21	18	15	14	12	11	8
8	46	35	28	23	41	32	25	21	25	21	17	19	16	13	13	11	10	7
9	43	32	25	20	38	29	23	19	23	18	15	17	14	12	12	10	9	6
10	40	29	22	18	36	26	21	17	21	17	14	16	13	11	11	9	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1410	1410	1410
5°	1380	1377	1372
10°	1349	1346	1339
15°	1316	1313	1301
20°	1281	1275	1264
25°	1248	1239	1228
30°	1209	1200	1186
35°	1170	1161	1144
40°	1129	1116	1099
45°	1084	1071	1049
50°	1035	1020	997
55°	981	968	942
60°	928	912	881
65°	870	854	823
70°	817	799	764
75°	761	744	707
80°	707	694	653
85°	669	656	615



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	87.8	0.9	0.8
10°-20°	252.7	2.5	2.3
20°-30°	384.8	3.8	3.5
30°-40°	467.4	4.6	4.2
40°-50°	491.4	4.8	4.4
50°-60°	456.3	4.4	4.1
60°-70°	376.6	3.7	3.4
70°-80°	274.4	2.7	2.5
80°-90°	174.0	1.7	1.6
90°-100°	191.4	1.9	1.7
100°-110°	707.1	6.9	6.4
110°-120°	1033.8	10.1	9.3
120°-130°	1214.8	11.8	10.9
130°-140°	1267.0	12.3	11.4
140°-150°	1150.3	11.2	10.3
150°-160°	920.8	9.0	8.3
160°-170°	604.7	5.9	5.4
170°-180°	204.1	2.0	1.8
0°-30°	725.3	7.1	6.5
0°-40°	1192.7	11.6	10.7
0°-60°	2140.4	20.9	19.2
0°-90°	2965.4	28.9	26.7
90°-120°	1932.4	18.8	17.4
90°-150°	5564.5	54.2	50.0
90°-180°	7294.0	71.1	65.6
0°-180°	10259.5	100.0	92.3

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	926	926	926	926	926	
5°	925	925	923	922	920	88
15°	898	899	896	894	888	254
25°	841	840	835	833	827	387
35°	754	753	748	742	737	472
45°	646	644	638	632	625	499
55°	519	517	512	503	498	465
65°	388	386	381	372	367	386
75°	266	266	260	253	247	282
85°	162	164	159	155	149	143
90°	122	123	119	116	111	69
95°	143	141	139	121	139	169
105°	728	662	683	663	730	735
115°	1076	1038	1036	1025	1043	1068
125°	1384	1363	1352	1357	1359	1239
135°	1663	1659	1633	1623	1626	1285
145°	1875	1849	1840	1815	1812	1175
155°	2002	2020	1958	1984	1941	926
165°	2164	2161	2132	2129	2121	609
175°	2140	2128	2116	2115	2115	206
180°	2085	2085	2085	2085	2085	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	926	926	926	926	926	926	926	926	926
2.5°	926	927	927	923	926	927	925	924	923
5°	925	925	925	921	923	925	922	922	920
7.5°	921	922	922	918	920	920	918	917	916
10°	916	916	916	913	914	915	913	912	909
12.5°	909	908	908	904	906	906	904	903	900
15°	898	899	899	895	896	895	894	892	888
17.5°	886	887	886	882	883	881	881	879	874
20°	872	875	872	868	868	868	867	865	860
22.5°	858	859	857	852	853	852	849	849	844
25°	841	841	840	835	835	833	833	830	827
27.5°	822	821	820	814	815	814	811	810	806
30°	800	800	800	794	794	793	790	788	785
32.5°	778	778	778	772	772	769	767	764	761
35°	754	755	753	748	748	745	742	740	737
37.5°	730	729	727	723	722	719	717	714	710
40°	703	703	701	696	695	692	690	686	684
42.5°	676	675	673	668	668	664	661	658	654
45°	646	646	644	639	638	633	632	628	625
47.5°	616	616	613	609	607	604	600	597	596
50°	584	584	583	577	576	572	568	565	563
52.5°	552	552	550	546	544	540	536	533	531
55°	519	519	517	512	512	507	503	500	498
57.5°	487	486	485	481	478	474	470	467	464
60°	454	453	453	448	446	442	437	435	431
62.5°	422	420	420	415	413	409	405	401	400
65°	388	388	386	383	381	377	372	369	367
67.5°	358	358	356	353	350	347	342	339	337
70°	326	325	325	321	319	316	311	307	305
72.5°	295	295	294	291	289	285	281	278	276
75°	266	267	266	263	260	257	253	250	247
77.5°	238	238	239	235	233	230	227	223	220
80°	210	211	211	208	206	204	200	196	194
82.5°	186	187	187	184	181	180	177	173	171
85°	162	163	164	161	159	157	155	151	149
87.5°	141	142	142	140	138	137	135	131	129
90°	122	122	123	121	119	118	116	113	111
92.5°	117	116	114	111	107	103	99	96	96
95°	143	135	141	130	139	127	121	123	139
97.5°	229	231	217	206	208	214	211	226	268
100°	383	383	347	358	355	375	354	379	427
102.5°	561	573	489	557	530	558	511	556	594
105°	728	734	662	711	683	712	663	702	730
107.5°	843	851	782	817	799	816	776	801	819
110°	924	928	869	891	881	889	863	875	892



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	1000	997	954	963	958	963	945	951	967
115°	1076	1075	1038	1039	1036	1043	1025	1029	1043
117.5°	1156	1151	1120	1114	1115	1121	1107	1107	1121
120°	1236	1228	1201	1193	1195	1201	1190	1191	1199
122.5°	1311	1301	1281	1272	1274	1283	1275	1271	1280
125°	1384	1374	1363	1348	1352	1357	1357	1345	1359
127.5°	1459	1442	1443	1419	1429	1427	1433	1425	1435
130°	1529	1509	1521	1499	1501	1501	1505	1507	1500
132.5°	1598	1590	1596	1582	1569	1579	1567	1584	1563
135°	1663	1666	1659	1659	1633	1648	1623	1645	1626
137.5°	1731	1729	1708	1720	1695	1699	1671	1690	1684
140°	1789	1771	1752	1764	1750	1738	1710	1727	1727
142.5°	1839	1808	1794	1810	1797	1773	1760	1768	1774
145°	1875	1855	1849	1858	1840	1821	1815	1815	1812
147.5°	1914	1902	1903	1898	1873	1869	1863	1857	1840
150°	1945	1940	1939	1932	1899	1910	1901	1899	1875
152.5°	1970	1977	1975	1966	1929	1949	1938	1942	1905
155°	2002	2023	2020	2010	1958	1989	1984	1995	1941
157.5°	2034	2067	2061	2058	1983	2030	2021	2046	1978
160°	2078	2117	2097	2103	2039	2076	2052	2079	2026
162.5°	2123	2143	2127	2141	2082	2115	2092	2111	2077
165°	2164	2164	2161	2165	2132	2136	2129	2147	2121
167.5°	2193	2180	2183	2175	2165	2160	2159	2159	2153
170°	2194	2178	2175	2175	2166	2162	2162	2159	2156
172.5°	2172	2153	2157	2152	2146	2146	2147	2146	2140
175°	2140	2124	2128	2127	2116	2114	2115	2119	2115
177.5°	2107	2099	2100	2100	2089	2091	2094	2099	2090
180°	2085	2085	2085	2085	2085	2085	2085	2085	2085

(END OF REPORT)