

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: 253P303

Luminaire Tested: **307-24-INC/4/75-120V-24**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 253P303
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 307-24-INC/4/75-120V-24
Description: SHAPER CLASSIC 307 24" GLASS PENDANT WITH FOUR 75W
INCANDESCENT LAMPS
Light Source: FOUR - 75WA19 - 1170 LUMENS - 75 WATTS
Ballast/Driver: -

Summary

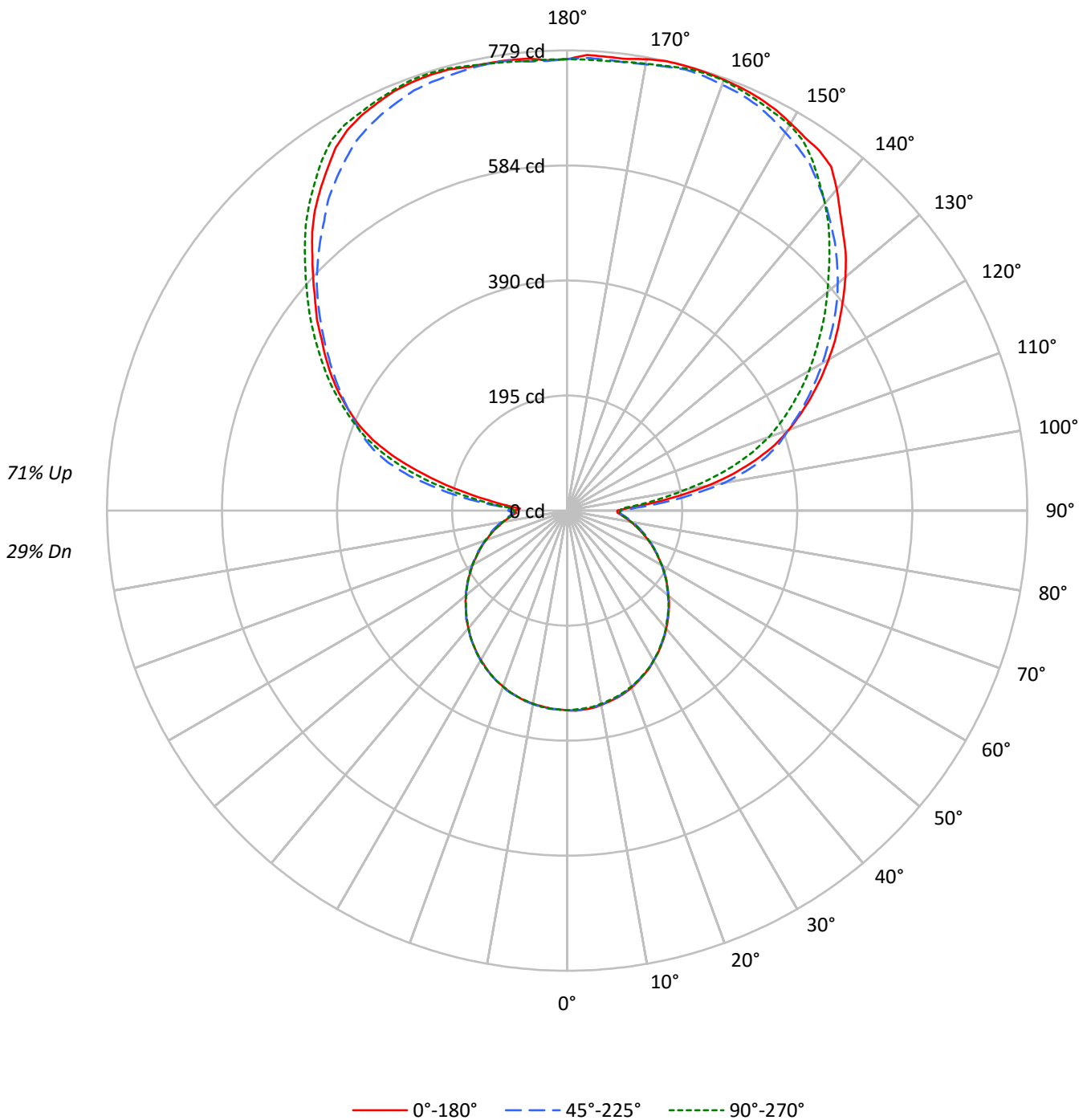
Lumens per Lamp: 1170 (4 lamps)
Luminaire Lumens: 4177.5 lumens
Efficiency: 89.3%
Efficacy: 13.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.42
Luminous Opening: Vertical Cylinder (Dia: 2' x H: 0.58')
CIE Type: Semi-Indirect

Input Watts (W): 302
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	91	91	91	91	82	82	82	82	64	64	64	48	48	48	33	33	33	26
1	82	78	74	71	73	70	67	64	55	52	50	40	39	38	28	27	26	20
2	74	68	62	57	66	60	56	52	47	44	41	35	33	31	24	22	21	16
3	68	59	52	47	60	53	47	43	41	37	34	31	28	26	21	19	17	13
4	62	52	45	39	55	47	40	36	36	32	29	27	24	22	18	16	15	11
5	56	46	39	33	50	41	35	30	32	28	24	24	21	18	16	14	13	9
6	52	41	34	29	46	37	31	26	29	24	21	22	18	16	15	13	11	8
7	48	37	30	25	42	33	27	23	26	22	18	20	16	14	13	11	10	7
8	44	33	26	22	39	30	24	20	24	19	16	18	15	12	12	10	9	6
9	41	30	24	19	37	27	21	18	22	17	14	16	13	11	11	9	8	6
10	38	28	21	17	34	25	19	16	20	16	13	15	12	10	10	8	7	5

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1158	1158	1158
5°	1126	1119	1119
10°	1091	1084	1084
15°	1058	1052	1052
20°	1025	1018	1018
25°	989	986	986
30°	955	955	951
35°	923	920	920
40°	890	887	887
45°	859	855	855
50°	828	824	828
55°	800	796	800
60°	771	771	771
65°	745	749	745
70°	724	729	724
75°	705	710	710
80°	692	699	699
85°	697	697	697



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	32.0	0.8	0.7
10°-20°	92.2	2.2	2.0
20°-30°	141.2	3.4	3.0
30°-40°	173.6	4.2	3.7
40°-50°	187.1	4.5	4.0
50°-60°	182.9	4.4	3.9
60°-70°	164.7	3.9	3.5
70°-80°	136.5	3.3	2.9
80°-90°	105.9	2.5	2.3
90°-100°	163.1	3.9	3.5
100°-110°	330.5	7.9	7.1
110°-120°	423.9	10.1	9.1
120°-130°	472.6	11.3	10.1
130°-140°	484.1	11.6	10.3
140°-150°	445.2	10.7	9.5
150°-160°	350.2	8.4	7.5
160°-170°	218.6	5.2	4.7
170°-180°	73.2	1.8	1.6
0°-30°	265.5	6.4	5.7
0°-40°	439.2	10.5	9.4
0°-60°	809.2	19.4	17.3
0°-90°	1216.2	29.1	26.0
90°-120°	917.5	22.0	19.6
90°-150°	2319.4	55.5	49.6
90°-180°	2961.0	70.9	63.3
0°-180°	4177.5	100.0	89.3

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	338	338	338	338	338	
5°	338	337	336	337	336	32
15°	328	327	326	326	326	93
25°	307	306	306	306	306	142
35°	278	277	277	278	277	174
45°	243	242	242	242	242	188
55°	205	204	204	204	205	183
65°	165	166	166	167	165	164
75°	127	130	128	131	128	134
85°	93	96	93	97	93	79
90°	85	91	90	100	89	49
95°	144	168	127	138	104	138
105°	330	348	291	313	264	345
115°	456	449	419	410	410	452
125°	563	550	524	502	508	504
135°	661	641	628	597	610	512
145°	744	716	724	683	707	464
155°	770	758	765	741	761	356
165°	779	773	775	763	773	221
175°	771	766	764	763	768	74
180°	764	764	764	764	764	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	338	338	338	338	338	338	338	338	338
2.5°	339	337	339	338	337	338	337	338	337
5°	338	336	337	337	336	337	337	337	336
7.5°	337	335	336	336	335	335	335	336	334
10°	334	332	333	333	332	333	333	334	332
12.5°	331	329	331	330	329	330	330	331	330
15°	328	326	327	327	326	327	326	328	326
17.5°	324	321	323	323	322	323	323	323	322
20°	319	316	318	318	317	318	318	319	317
22.5°	313	311	312	312	312	313	312	313	312
25°	307	305	306	307	306	306	306	307	306
27.5°	301	298	300	300	300	300	300	301	299
30°	293	291	293	293	293	293	293	293	292
32.5°	286	284	285	285	285	286	285	286	285
35°	278	276	277	277	277	278	278	278	277
37.5°	270	268	269	269	269	270	269	270	269
40°	261	259	260	260	260	261	260	261	260
42.5°	252	250	251	251	251	252	252	252	252
45°	243	241	242	242	242	243	242	243	242
47.5°	234	231	232	233	233	233	233	234	233
50°	224	222	223	223	223	224	224	224	224
52.5°	214	213	213	214	214	215	214	215	214
55°	205	203	204	204	204	205	204	205	205
57.5°	195	193	194	195	195	195	195	195	194
60°	185	184	185	185	185	186	186	186	185
62.5°	175	175	176	176	175	176	176	176	175
65°	165	165	166	166	166	167	167	167	165
67.5°	156	155	157	157	156	157	157	157	156
70°	146	146	148	148	147	148	148	148	146
72.5°	136	137	139	138	137	139	139	138	137
75°	127	128	130	129	128	130	131	129	128
77.5°	118	119	121	120	119	121	122	121	118
80°	109	110	113	112	110	112	113	112	110
82.5°	101	102	104	103	102	103	105	103	101
85°	93	94	96	95	93	96	97	95	93
87.5°	85	86	89	89	89	90	91	89	86
90°	85	89	91	92	90	97	100	98	89
92.5°	103	118	118	107	93	96	97	91	80
95°	144	171	168	153	127	136	138	129	104
97.5°	190	226	217	204	163	184	184	175	135
100°	241	273	269	253	203	232	227	222	174
102.5°	288	313	311	295	248	273	274	264	219
105°	330	348	348	331	291	307	313	299	264
107.5°	368	379	376	362	329	337	344	330	310
110°	399	404	398	390	363	363	368	359	350



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	428	429	424	415	392	387	388	384	383
115°	456	453	449	440	419	409	410	408	410
117.5°	484	478	474	464	447	433	432	433	437
120°	511	504	499	489	473	457	455	457	462
122.5°	538	531	524	514	498	481	478	481	485
125°	563	558	550	539	524	507	502	506	508
127.5°	589	584	575	565	550	533	526	531	534
130°	615	607	598	590	575	560	551	557	557
132.5°	640	632	620	616	601	586	575	583	583
135°	661	656	641	641	628	610	597	606	610
137.5°	684	677	660	661	655	636	619	631	639
140°	710	696	680	685	679	661	640	655	664
142.5°	734	710	698	707	701	684	664	680	686
145°	744	721	716	723	724	703	683	701	707
147.5°	749	737	728	733	743	719	701	718	729
150°	757	750	739	747	754	731	719	726	744
152.5°	765	761	749	760	759	744	731	738	754
155°	770	769	758	770	765	755	741	748	761
157.5°	774	775	764	776	770	764	749	758	768
160°	776	778	767	778	775	769	757	762	771
162.5°	778	778	771	778	776	772	761	763	773
165°	779	775	773	777	775	773	763	764	773
167.5°	779	771	770	775	771	772	766	766	769
170°	776	769	767	770	768	768	768	767	769
172.5°	771	766	765	770	766	764	768	767	769
175°	771	767	766	766	764	764	763	762	768
177.5°	772	767	767	767	764	763	762	760	763
180°	764	764	764	764	764	764	764	764	764

(END OF REPORT)