

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: 253P304

Luminaire Tested: **307-30-INC/4/100-120v-30**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 253P304
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 307-30-INC/4/100-120v-30
Description: SHAPER CLASSIC 307 30" GLASS PENDANT WITH FOUR 100W
INCANDESCENT LAMPS
Light Source: FOUR - 100WA19 - 1710 LUMENS - 100 WATTS
Ballast/Driver: -

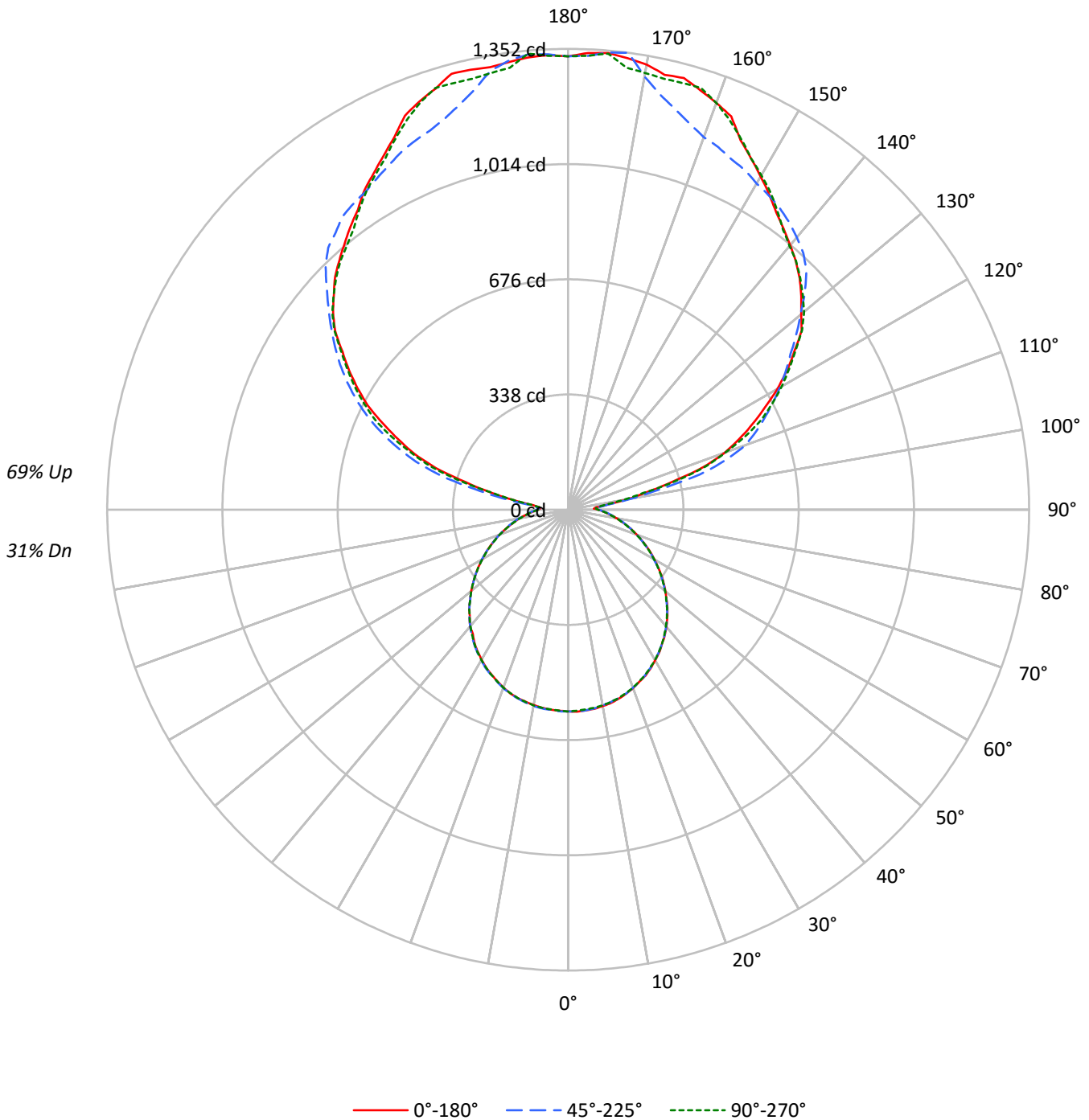
Summary

Lumens per Lamp: 1710 (4 lamps)
Luminaire Lumens: 6225.5 lumens
Efficiency: 91.0%
Efficacy: 16.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Vertical Cylinder (Dia: 2.5' x H: 0.6')
CIE Type: Semi-Indirect

Input Watts (W): 388
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

TEST NUMBER: 253P304
CATALOG NUMBER: 307-30-INC/4/100-120v-30

Luminous Intensity Polar Plot





TEST NUMBER: 253P304

CATALOG NUMBER: 307-30-INC/4/100-120v-30

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	93	93	93	93	84	84	84	84	66	66	66		50	50	50		35	35	35	28
1	84	80	77	73	76	72	69	66	57	55	53		43	42	40		30	29	28	22
2	77	70	64	59	68	63	58	54	49	46	43		37	35	33		26	25	23	18
3	70	61	54	49	62	55	49	44	43	39	36		33	30	28		23	21	20	15
4	64	54	47	41	57	48	42	37	38	34	30		29	26	23		20	18	17	13
5	58	48	40	35	52	43	37	32	34	29	26		26	23	20		18	16	14	11
6	53	43	35	30	48	38	32	27	31	26	22		23	20	17		16	14	13	10
7	49	38	31	26	44	35	28	24	28	23	20		21	18	15		15	13	11	8
8	46	35	28	23	41	31	25	21	25	20	17		19	16	13		14	11	10	7
9	42	31	25	20	38	28	23	19	23	18	15		18	14	12		13	10	9	7
10	39	29	22	18	35	26	20	16	21	17	14		16	13	11		12	9	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1298	1298	1298
5°	1267	1260	1263
10°	1236	1231	1229
15°	1204	1200	1200
20°	1169	1167	1165
25°	1136	1130	1128
30°	1097	1094	1092
35°	1057	1057	1055
40°	1019	1015	1019
45°	977	972	972
50°	929	926	926
55°	884	879	879
60°	835	833	833
65°	791	785	788
70°	743	740	743
75°	702	694	698
80°	662	658	662
85°	629	629	629



TEST NUMBER: 253P304

CATALOG NUMBER: 307-30-INC/4/100-120v-30

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	56.1	0.9	0.8
10°-20°	161.6	2.6	2.4
20°-30°	246.5	4.0	3.6
30°-40°	300.2	4.8	4.4
40°-50°	316.4	5.1	4.6
50°-60°	296.5	4.8	4.3
60°-70°	249.7	4.0	3.7
70°-80°	188.4	3.0	2.8
80°-90°	126.0	2.0	1.8
90°-100°	114.7	1.8	1.7
100°-110°	374.0	6.0	5.5
110°-120°	619.7	10.0	9.1
120°-130°	727.8	11.7	10.6
130°-140°	749.0	12.0	11.0
140°-150°	675.9	10.9	9.9
150°-160°	540.2	8.7	7.9
160°-170°	355.9	5.7	5.2
170°-180°	126.9	2.0	1.9
0°-30°	464.2	7.5	6.8
0°-40°	764.4	12.3	11.2
0°-60°	1377.4	22.1	20.1
0°-90°	1941.4	31.2	28.4
90°-120°	1108.4	17.8	16.2
90°-150°	3261.1	52.4	47.7
90°-180°	4284.0	68.8	62.6
0°-180°	6225.5	100.0	91.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	592	592	592	592	592	
5°	591	591	588	590	589	56
15°	574	572	572	573	572	162
25°	537	535	534	535	533	247
35°	480	480	480	481	479	301
45°	412	410	410	410	410	317
55°	333	331	331	331	331	298
65°	253	251	251	252	252	251
75°	178	178	176	179	177	188
85°	113	116	113	117	113	99
90°	88	90	87	90	88	48
95°	82	91	85	99	85	88
105°	315	400	329	387	311	342
115°	598	635	625	650	600	592
125°	810	796	814	835	808	724
135°	960	988	962	1006	967	740
145°	1064	1081	1070	1097	1075	669
155°	1196	1134	1200	1158	1206	554
165°	1311	1215	1296	1230	1324	368
175°	1345	1346	1343	1341	1332	128
180°	1330	1330	1330	1330	1330	



TEST NUMBER: 253P304

CATALOG NUMBER: 307-30-INC/4/100-120v-30

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	592	592	592	592	592	592	592	592	592
2.5°	593	591	592	591	590	593	592	592	590
5°	591	589	591	589	588	591	590	591	589
7.5°	589	586	588	587	586	589	588	589	586
10°	585	582	583	583	583	584	585	584	582
12.5°	581	578	578	578	578	578	579	579	577
15°	574	572	572	571	572	573	573	573	572
17.5°	566	564	565	564	564	566	566	565	565
20°	557	555	556	556	556	556	557	557	555
22.5°	546	545	546	545	545	546	546	547	544
25°	537	534	535	534	534	535	535	536	533
27.5°	524	521	523	522	522	523	524	523	522
30°	510	508	509	509	509	510	510	510	508
32.5°	497	494	495	494	495	495	496	496	494
35°	480	479	480	479	480	480	481	480	479
37.5°	465	464	464	463	463	463	465	465	459
40°	448	446	447	446	446	447	447	447	448
42.5°	430	428	429	428	428	428	429	429	427
45°	412	410	410	410	410	411	410	411	410
47.5°	392	390	391	391	390	392	390	391	390
50°	372	371	371	371	371	371	371	371	371
52.5°	353	351	351	351	351	352	351	352	351
55°	333	331	331	331	331	332	331	332	331
57.5°	312	310	311	311	311	312	311	312	312
60°	292	291	290	291	291	291	292	292	291
62.5°	273	271	271	271	271	272	272	272	272
65°	253	251	251	251	251	252	252	253	252
67.5°	233	232	232	232	232	233	233	233	233
70°	214	213	214	213	213	214	214	215	214
72.5°	196	195	196	195	194	196	196	196	195
75°	178	178	178	177	176	178	179	179	177
77.5°	160	161	162	160	159	161	162	161	160
80°	144	144	146	144	143	145	146	145	144
82.5°	128	129	131	129	127	129	131	130	128
85°	113	115	116	114	113	115	117	116	113
87.5°	100	101	102	101	100	101	103	102	100
90°	88	89	90	88	87	89	90	89	88
92.5°	75	76	79	80	81	83	85	84	82
95°	82	89	91	91	85	89	99	91	85
97.5°	117	120	118	118	106	113	122	122	104
100°	176	184	188	180	161	171	197	185	164
102.5°	234	271	270	266	225	256	282	271	231
105°	315	367	400	384	329	367	387	356	311
107.5°	416	454	484	467	424	450	467	441	407
110°	488	516	553	528	491	516	533	501	481



TEST NUMBER: 253P304

CATALOG NUMBER: 307-30-INC/4/100-120v-30

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	543	571	595	596	562	587	593	563	539
115°	598	613	635	641	625	641	650	630	600
117.5°	651	655	675	686	675	689	701	683	663
120°	708	701	717	728	723	733	748	728	713
122.5°	761	749	757	772	768	778	793	773	762
125°	810	796	796	816	814	822	835	818	808
127.5°	863	842	843	855	864	863	876	860	862
130°	892	883	889	896	903	905	917	903	900
132.5°	927	919	941	932	933	942	960	939	932
135°	960	954	988	966	962	972	1006	974	967
137.5°	988	982	1021	994	989	998	1042	1004	993
140°	1013	1010	1043	1020	1010	1023	1061	1031	1020
142.5°	1038	1037	1064	1049	1035	1053	1086	1056	1048
145°	1064	1068	1081	1077	1070	1081	1097	1082	1075
147.5°	1097	1100	1094	1105	1104	1109	1106	1111	1112
150°	1129	1117	1105	1127	1133	1133	1122	1140	1140
152.5°	1162	1138	1123	1146	1162	1155	1139	1161	1172
155°	1196	1151	1134	1164	1200	1169	1158	1176	1206
157.5°	1249	1162	1151	1181	1237	1186	1172	1191	1251
160°	1270	1180	1163	1204	1270	1207	1184	1214	1275
162.5°	1290	1211	1187	1231	1297	1228	1203	1247	1295
165°	1311	1251	1215	1259	1296	1257	1230	1275	1324
167.5°	1307	1282	1247	1278	1295	1280	1263	1299	1322
170°	1326	1315	1290	1300	1301	1295	1308	1327	1318
172.5°	1336	1332	1352	1318	1308	1334	1329	1336	1325
175°	1345	1337	1346	1347	1343	1358	1341	1335	1332
177.5°	1341	1333	1333	1336	1333	1338	1337	1337	1335
180°	1330	1330	1330	1330	1330	1330	1330	1330	1330

(END OF REPORT)