

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/4/18-120V-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/4/18-120V-30
Description: SHAPER CLASSIC 307 30" GLASS PENDANT WITH FOUR 18W COMPACT
FLUORESCENT LAMPS
Light Source: FOUR - CF18TTT/841 - 1200 LUMENS - 18 WATTS
Ballast/Driver: (2) C2642UNVSE
PRORATED FROM 253P306

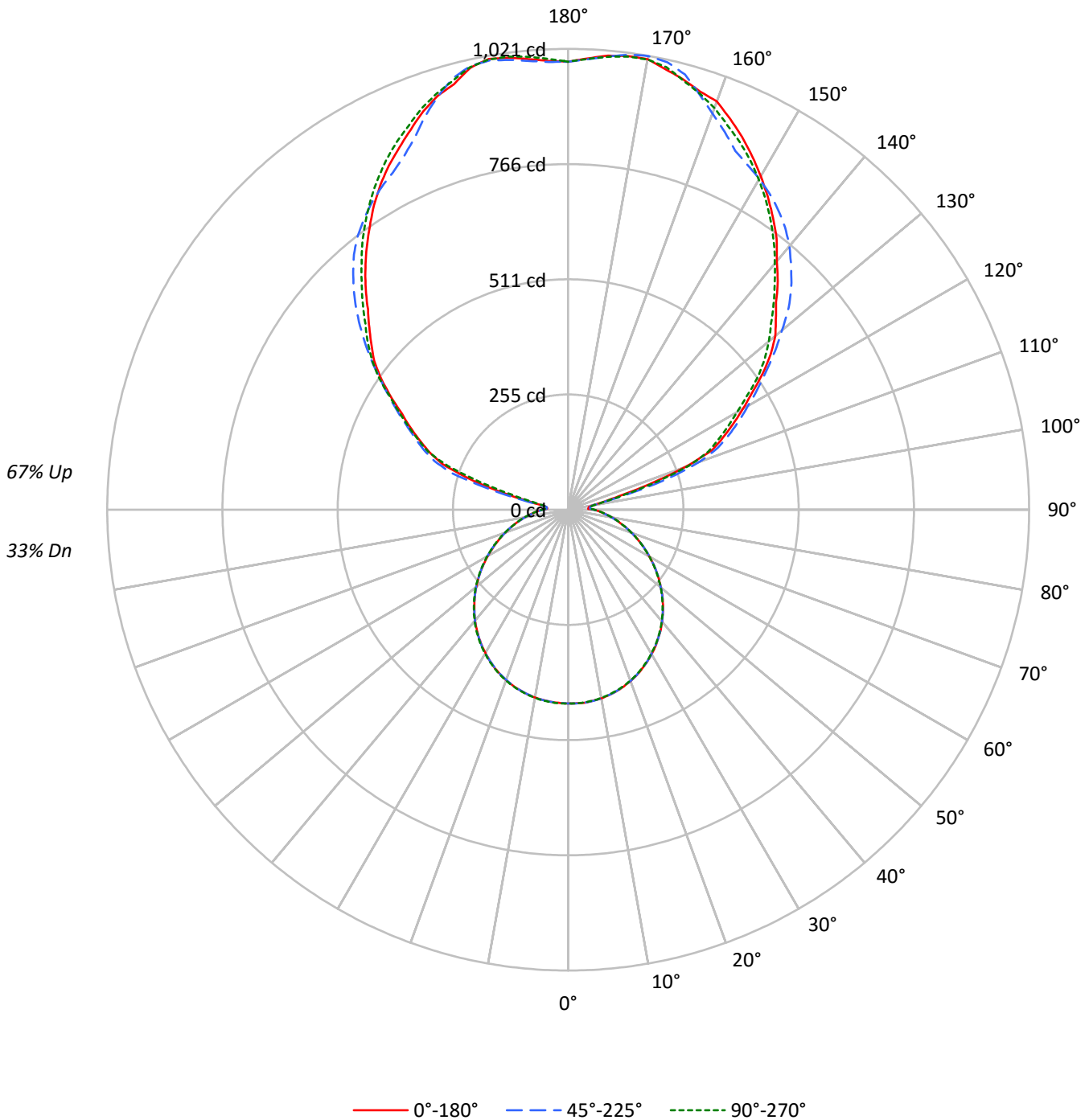
Summary

Lumens per Lamp: 1200 (4 lamps)
Luminaire Lumens: 4229.7 lumens
Efficiency: 88.1%
Efficacy: 4229.7 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): 1
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	65	65	65	50	50	50	35	35	35	29
1	82	78	74	71	74	70	67	65	56	54	52	43	41	40	30	29	29	23
2	74	68	62	58	67	61	56	52	49	45	42	37	35	33	26	25	24	19
3	68	59	53	48	61	53	48	43	43	39	35	32	30	27	23	21	20	15
4	62	52	45	40	55	47	41	37	38	33	30	29	26	23	20	18	17	13
5	57	46	39	34	51	42	36	31	33	29	25	26	22	20	18	16	15	11
6	52	41	34	29	47	37	31	27	30	25	22	23	20	17	17	14	13	10
7	48	37	30	25	43	34	28	23	27	23	19	21	18	15	15	13	11	9
8	44	34	27	22	40	31	25	20	25	20	17	19	16	13	14	12	10	8
9	41	31	24	20	37	28	22	18	22	18	15	17	14	12	13	11	9	7
10	38	28	22	18	35	25	20	16	21	16	13	16	13	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	942	942	942
5°	920	918	916
10°	897	894	893
15°	873	870	868
20°	848	845	843
25°	822	819	817
30°	794	792	788
35°	766	764	760
40°	736	733	731
45°	704	701	696
50°	669	667	663
55°	633	631	627
60°	595	594	588
65°	557	556	551
70°	519	519	513
75°	483	484	480
80°	453	455	449
85°	423	428	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	40.7	1.0	0.8
10°-20°	117.1	2.8	2.4
20°-30°	178.4	4.2	3.7
30°-40°	216.8	5.1	4.5
40°-50°	228.0	5.4	4.8
50°-60°	212.4	5.0	4.4
60°-70°	176.1	4.2	3.7
70°-80°	129.5	3.1	2.7
80°-90°	83.3	2.0	1.7
90°-100°	55.1	1.3	1.1
100°-110°	172.4	4.1	3.6
110°-120°	370.9	8.8	7.7
120°-130°	465.2	11.0	9.7
130°-140°	510.4	12.1	10.6
140°-150°	489.5	11.6	10.2
150°-160°	409.6	9.7	8.5
160°-170°	278.0	6.6	5.8
170°-180°	96.2	2.3	2.0
0°-30°	336.2	7.9	7.0
0°-40°	553.1	13.1	11.5
0°-60°	993.4	23.5	20.7
0°-90°	1382.4	32.7	28.8
90°-120°	598.5	14.1	12.5
90°-150°	2063.5	48.8	43.0
90°-180°	2847.0	67.3	59.3
0°-180°	4229.7	100.0	88.1

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	429	429	429	429	429	
5°	429	429	428	428	428	41
15°	416	416	415	414	414	117
25°	388	388	387	386	386	179
35°	348	348	347	345	345	218
45°	297	297	296	294	294	229
55°	238	239	238	236	236	213
65°	178	179	178	177	176	177
75°	122	122	123	121	122	130
85°	76	75	77	75	76	67
90°	57	57	58	56	57	31
95°	45	49	49	48	47	38
105°	116	149	131	191	163	143
115°	378	393	366	373	362	370
125°	526	535	513	510	505	469
135°	651	699	643	670	627	506
145°	791	811	782	788	766	494
155°	911	877	899	862	885	420
165°	986	998	985	989	976	279
175°	1010	1008	1007	998	1002	96
180°	993	993	993	993	993	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	429.4	429.4	429.4	429.4	429.4	429.4	429.4	429.4	429.4
2.5°	429.4	429.8	429.8	429.8	429.8	428.3	428.3	428.3	428.6
5°	429.4	429.0	429.0	429.0	428.3	427.9	427.5	427.9	427.5
7.5°	426.7	427.1	427.1	426.7	426.4	425.6	425.6	425.6	425.2
10°	424.5	424.1	424.1	424.1	423.3	422.9	422.2	422.6	422.6
12.5°	420.3	420.3	420.3	420.3	419.5	418.8	418.4	418.8	418.8
15°	416.1	415.7	415.7	415.3	415.0	414.2	413.8	413.8	413.8
17.5°	410.4	410.0	410.0	410.0	409.3	408.5	408.1	408.1	408.5
20°	403.9	403.6	403.6	403.6	402.8	402.0	401.3	401.7	401.7
22.5°	396.7	396.3	396.3	396.3	395.6	394.4	394.1	394.1	394.4
25°	388.4	388.4	388.0	387.6	387.2	386.5	385.7	386.1	386.1
27.5°	379.2	379.2	378.9	378.5	378.1	377.0	376.6	376.6	376.6
30°	369.4	369.4	369.4	369.0	368.2	367.5	367.1	367.1	366.7
32.5°	359.5	359.1	358.7	358.3	358.0	357.2	356.8	356.4	356.4
35°	347.7	347.7	347.7	347.3	346.9	345.8	345.4	345.4	345.0
37.5°	336.3	335.9	335.9	335.5	334.8	334.0	333.6	333.3	332.9
40°	323.4	323.4	323.4	323.4	322.2	321.9	321.1	320.7	321.1
42.5°	310.5	310.1	310.1	310.1	309.3	308.2	307.8	307.8	307.8
45°	296.8	296.8	296.8	296.4	295.6	294.9	294.1	294.5	293.7
47.5°	283.1	282.7	282.7	282.0	281.6	280.8	280.4	280.1	280.1
50°	267.9	267.9	267.9	267.5	267.1	266.4	266.0	265.6	265.6
52.5°	253.1	253.1	253.5	253.1	252.3	251.6	251.2	250.8	250.8
55°	238.3	238.3	238.6	238.3	237.5	237.1	236.4	236.0	236.0
57.5°	223.1	223.4	223.4	223.1	222.3	221.9	221.5	221.2	220.8
60°	207.9	208.2	208.2	207.9	207.5	207.1	206.7	206.3	205.6
62.5°	192.7	192.7	193.4	193.0	192.3	191.9	191.9	191.1	190.8
65°	178.2	178.2	178.6	178.2	177.8	177.5	177.1	176.7	176.3
67.5°	163.8	163.8	163.8	163.8	163.4	163.0	162.3	162.3	161.9
70°	149.3	149.3	149.3	149.7	149.3	149.0	148.6	148.2	147.8
72.5°	136.0	135.7	135.7	136.0	136.0	135.3	134.5	134.5	134.5
75°	122.4	122.4	122.4	122.7	122.7	122.0	121.2	121.6	121.6
77.5°	110.2	109.8	109.4	110.2	110.6	109.4	108.7	109.1	109.1
80°	98.4	97.7	97.7	98.4	98.8	98.0	96.9	97.3	97.7
82.5°	86.6	86.3	85.9	86.6	87.4	86.3	85.1	85.9	86.3
85°	76.0	76.0	75.2	76.4	76.8	76.0	74.9	75.6	76.0
87.5°	66.5	65.7	65.7	66.5	66.9	66.1	65.0	65.7	66.5
90°	57.4	56.6	56.6	57.4	57.8	57.4	56.2	56.6	57.4
92.5°	44.5	46.0	48.6	50.2	49.8	48.6	47.9	46.7	46.4
95°	45.2	46.4	48.6	49.4	49.0	48.3	47.9	47.1	46.7
97.5°	46.4	47.5	49.4	49.8	49.8	49.0	48.3	48.3	49.4
100°	53.6	53.2	55.5	55.9	57.4	59.3	64.6	62.3	62.7
102.5°	77.1	82.8	82.5	88.9	81.7	96.1	114.0	109.8	96.1
105°	115.5	141.4	149.0	155.4	131.1	155.0	190.8	179.7	162.6
107.5°	188.5	215.1	236.0	229.5	205.2	223.4	269.8	249.3	232.9
110°	274.7	291.5	309.3	299.4	283.5	286.1	315.4	308.6	296.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	344.7	348.8	359.1	348.1	335.5	326.8	345.8	344.3	332.5
115°	378.5	386.8	393.3	381.5	366.3	359.9	372.8	375.1	362.1
117.5°	411.5	422.9	426.0	416.9	398.6	394.4	403.2	405.1	393.7
120°	446.9	460.2	459.4	452.6	431.7	431.7	436.6	439.7	425.2
122.5°	483.0	499.7	497.4	491.3	469.7	470.8	471.6	477.7	465.1
125°	525.9	538.5	535.4	530.5	512.6	508.8	509.6	515.7	505.4
127.5°	565.1	576.1	577.2	565.1	548.3	544.9	551.8	550.6	541.5
130°	598.9	611.0	618.3	603.4	580.3	581.8	592.0	584.1	568.9
132.5°	623.6	640.7	662.3	640.7	609.1	617.9	631.6	614.5	597.4
135°	651.3	674.9	698.8	671.5	643.3	651.7	669.9	646.0	627.0
137.5°	687.0	701.5	730.7	699.6	676.8	681.7	704.9	676.0	663.9
140°	718.6	731.9	762.3	726.9	712.1	711.4	738.3	704.9	698.8
142.5°	758.1	760.4	788.9	751.6	748.2	740.6	765.3	733.8	733.0
145°	790.8	786.6	810.9	776.0	782.0	769.5	787.7	762.7	766.1
147.5°	822.3	814.3	830.3	801.8	814.3	800.7	808.3	792.7	800.3
150°	853.1	843.2	846.6	831.4	844.4	832.2	825.7	820.8	831.4
152.5°	882.7	873.6	860.7	861.5	872.9	861.8	841.7	850.1	859.9
155°	911.2	904.0	876.7	888.1	898.7	890.0	862.2	879.3	885.0
157.5°	937.1	932.1	905.9	914.3	921.9	915.4	890.0	906.7	911.6
160°	962.5	957.2	934.0	948.1	947.0	938.6	927.2	936.3	939.0
162.5°	971.3	974.7	965.6	970.9	967.1	968.2	959.9	956.5	961.4
165°	986.5	989.5	998.3	990.3	984.6	987.2	989.1	980.0	976.2
167.5°	999.0	1007.8	1015.4	1010.4	1004.3	1002.4	1006.2	1004.3	1002.8
170°	1013.5	1018.0	1020.7	1016.9	1012.7	1009.3	1010.4	1010.8	1014.2
172.5°	1013.8	1019.2	1016.5	1014.6	1012.3	1007.0	1005.1	1007.4	1010.0
175°	1009.7	1010.8	1007.8	1008.9	1007.4	1001.3	997.9	1000.2	1002.1
177.5°	1000.9	1002.1	999.0	999.4	999.4	996.0	992.6	993.7	995.2
180°	992.6	992.6	992.6	992.6	992.6	992.6	992.6	992.6	992.6

(END OF REPORT)