

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/4/32-120V-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/4/32-120V-30  
Description: SHAPER CLASSIC 307 30" GLASS PENDANT WITH FOUR 32W COMPACT  
FLUORESCENT LAMPS  
Light Source: FOUR - CF32TTT/841 - 2400 LUMENS - 32 WATTS  
Ballast/Driver: (2) C2642UNVSE  
PRORATED FROM 253P306

**Summary**

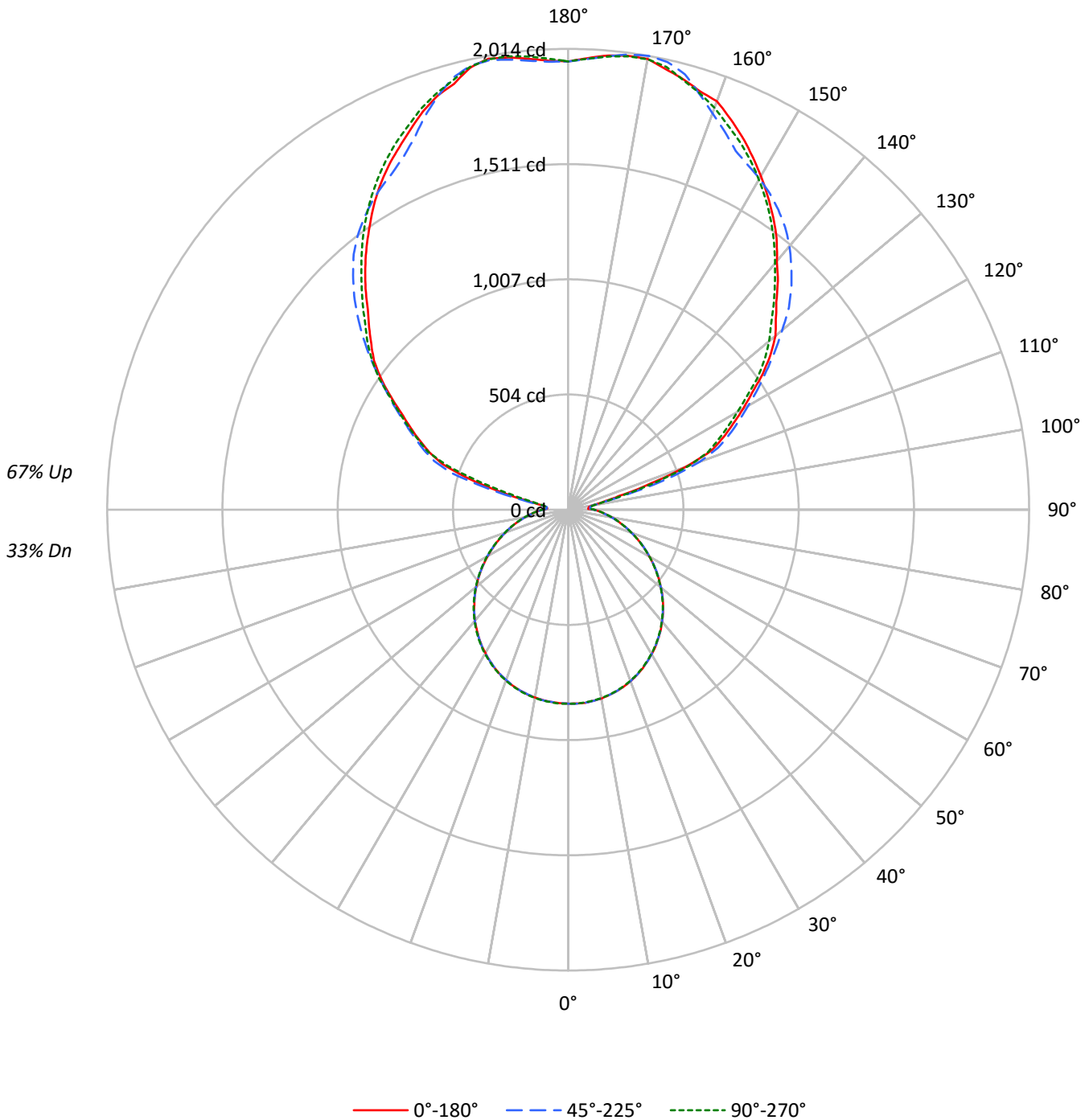
Lumens per Lamp: 2400 (4 lamps)  
Luminaire Lumens: 8348.1 lumens  
Efficiency: 87.0%  
Efficacy: 8348.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.4  
Luminous Opening: Vertical Cylinder (Dia: 2.5' x H: 0.6')  
CIE Type: Semi-Indirect

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	90	90	90	90	81	81	81	81	64	64	64	49	49	49	35	35	35	28
1	81	77	73	70	73	69	66	64	55	53	51	42	41	39	30	29	28	23
2	73	67	61	57	66	60	56	52	48	45	42	36	34	32	26	24	23	18
3	67	59	52	47	60	53	47	43	42	38	35	32	29	27	23	21	19	15
4	61	52	45	39	55	47	41	36	37	33	29	28	25	23	20	18	17	13
5	56	46	39	34	50	41	35	31	33	29	25	25	22	20	18	16	14	11
6	51	41	34	29	46	37	31	26	30	25	22	23	20	17	16	14	12	10
7	47	37	30	25	42	33	27	23	27	22	19	21	17	15	15	13	11	9
8	44	33	27	22	39	30	24	20	24	20	17	19	16	13	14	11	10	8
9	41	30	24	19	37	27	22	18	22	18	15	17	14	12	13	10	9	7
10	38	28	21	17	34	25	20	16	20	16	13	16	13	11	12	9	8	6

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

	0°	90°	180°
0°	1858	1858	1858
5°	1817	1812	1809
10°	1769	1765	1761
15°	1722	1718	1713
20°	1673	1668	1664
25°	1622	1617	1612
30°	1567	1563	1556
35°	1511	1508	1500
40°	1452	1447	1442
45°	1389	1384	1375
50°	1320	1316	1308
55°	1249	1245	1237
60°	1174	1172	1161
65°	1100	1097	1088
70°	1024	1024	1014
75°	952	955	946
80°	893	897	887
85°	835	844	835



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	80.4	1.0	0.8
10°-20°	231.1	2.8	2.4
20°-30°	352.1	4.2	3.7
30°-40°	428.0	5.1	4.5
40°-50°	450.0	5.4	4.7
50°-60°	419.1	5.0	4.4
60°-70°	347.6	4.2	3.6
70°-80°	255.7	3.1	2.7
80°-90°	164.4	2.0	1.7
90°-100°	108.8	1.3	1.1
100°-110°	340.4	4.1	3.5
110°-120°	732.1	8.8	7.6
120°-130°	918.1	11.0	9.6
130°-140°	1007.3	12.1	10.5
140°-150°	966.1	11.6	10.1
150°-160°	808.4	9.7	8.4
160°-170°	548.7	6.6	5.7
170°-180°	189.9	2.3	2.0
0°-30°	663.6	7.9	6.9
0°-40°	1091.6	13.1	11.4
0°-60°	1960.7	23.5	20.4
0°-90°	2728.4	32.7	28.4
90°-120°	1181.3	14.1	12.3
90°-150°	4072.7	48.8	42.4
90°-180°	5620.0	67.3	58.5
0°-180°	8348.1	100.0	87.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	848	848	848	848	848	
5°	848	847	845	844	844	81
15°	821	820	819	817	817	232
25°	766	766	764	761	762	353
35°	686	686	685	682	681	430
45°	586	586	584	580	580	452
55°	470	471	469	466	466	421
65°	352	352	351	350	348	349
75°	242	242	242	239	240	257
85°	150	148	152	148	150	132
90°	113	112	114	111	113	61
95°	89	96	97	94	92	76
105°	228	294	259	376	321	283
115°	747	776	723	736	715	730
125°	1038	1057	1012	1006	998	926
135°	1286	1379	1270	1322	1238	999
145°	1561	1600	1544	1555	1512	975
155°	1798	1730	1774	1702	1747	828
165°	1947	1970	1943	1952	1927	550
175°	1993	1989	1988	1970	1978	190
180°	1959	1959	1959	1959	1959	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	847.5	847.5	847.5	847.5	847.5	847.5	847.5	847.5	847.5
2.5°	847.5	848.2	848.2	848.2	848.2	845.2	845.2	845.2	846.0
5°	847.5	846.8	846.8	846.8	845.2	844.5	843.8	844.5	843.8
7.5°	842.2	843.0	843.0	842.2	841.5	840.0	840.0	840.0	839.2
10°	837.8	837.0	837.0	837.0	835.5	834.8	833.2	834.0	834.0
12.5°	829.5	829.5	829.5	829.5	828.0	826.5	825.8	826.5	826.5
15°	821.2	820.5	820.5	819.8	819.0	817.5	816.8	816.8	816.8
17.5°	810.0	809.2	809.2	809.2	807.8	806.2	805.5	805.5	806.2
20°	797.2	796.5	796.5	796.5	795.0	793.5	792.0	792.8	792.8
22.5°	783.0	782.2	782.2	782.2	780.8	778.5	777.8	777.8	778.5
25°	766.5	766.5	765.8	765.0	764.2	762.8	761.2	762.0	762.0
27.5°	748.5	748.5	747.8	747.0	746.2	744.0	743.2	743.2	743.2
30°	729.0	729.0	729.0	728.2	726.8	725.2	724.5	724.5	723.8
32.5°	709.5	708.8	708.0	707.2	706.5	705.0	704.2	703.5	703.5
35°	686.2	686.2	686.2	685.5	684.8	682.5	681.8	681.8	681.0
37.5°	663.8	663.0	663.0	662.2	660.8	659.2	658.5	657.8	657.0
40°	638.2	638.2	638.2	638.2	636.0	635.2	633.8	633.0	633.8
42.5°	612.8	612.0	612.0	612.0	610.5	608.2	607.5	607.5	607.5
45°	585.8	585.8	585.8	585.0	583.5	582.0	580.5	581.2	579.8
47.5°	558.8	558.0	558.0	556.5	555.8	554.2	553.5	552.8	552.8
50°	528.8	528.8	528.8	528.0	527.2	525.8	525.0	524.2	524.2
52.5°	499.5	499.5	500.2	499.5	498.0	496.5	495.8	495.0	495.0
55°	470.2	470.2	471.0	470.2	468.8	468.0	466.5	465.8	465.8
57.5°	440.2	441.0	441.0	440.2	438.8	438.0	437.2	436.5	435.8
60°	410.2	411.0	411.0	410.2	409.5	408.8	408.0	407.2	405.8
62.5°	380.2	380.2	381.8	381.0	379.5	378.8	378.8	377.2	376.5
65°	351.8	351.8	352.5	351.8	351.0	350.2	349.5	348.8	348.0
67.5°	323.2	323.2	323.2	323.2	322.5	321.8	320.2	320.2	319.5
70°	294.8	294.8	294.8	295.5	294.8	294.0	293.2	292.5	291.8
72.5°	268.5	267.8	267.8	268.5	268.5	267.0	265.5	265.5	265.5
75°	241.5	241.5	241.5	242.2	242.2	240.8	239.2	240.0	240.0
77.5°	217.5	216.8	216.0	217.5	218.2	216.0	214.5	215.2	215.2
80°	194.2	192.8	192.8	194.2	195.0	193.5	191.2	192.0	192.8
82.5°	171.0	170.2	169.5	171.0	172.5	170.2	168.0	169.5	170.2
85°	150.0	150.0	148.5	150.8	151.5	150.0	147.8	149.2	150.0
87.5°	131.2	129.8	129.8	131.2	132.0	130.5	128.2	129.8	131.2
90°	113.2	111.8	111.8	113.2	114.0	113.2	111.0	111.8	113.2
92.5°	87.8	90.8	96.0	99.0	98.2	96.0	94.5	92.2	91.5
95°	89.2	91.5	96.0	97.5	96.8	95.2	94.5	93.0	92.2
97.5°	91.5	93.8	97.5	98.2	98.2	96.8	95.2	95.2	97.5
100°	105.8	105.0	109.5	110.2	113.2	117.0	127.5	123.0	123.8
102.5°	152.2	163.5	162.8	175.5	161.2	189.8	225.0	216.8	189.8
105°	228.0	279.0	294.0	306.8	258.8	306.0	376.5	354.8	321.0
107.5°	372.0	424.5	465.8	453.0	405.0	441.0	532.5	492.0	459.8
110°	542.2	575.2	610.5	591.0	559.5	564.8	622.5	609.0	585.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	680.2	688.5	708.8	687.0	662.2	645.0	682.5	679.5	656.2
115°	747.0	763.5	776.2	753.0	723.0	710.2	735.8	740.2	714.8
117.5°	812.2	834.8	840.8	822.8	786.8	778.5	795.8	799.5	777.0
120°	882.0	908.2	906.8	893.2	852.0	852.0	861.8	867.8	839.2
122.5°	953.2	986.2	981.8	969.8	927.0	929.2	930.8	942.8	918.0
125°	1038.0	1062.8	1056.8	1047.0	1011.8	1004.2	1005.8	1017.8	997.5
127.5°	1115.2	1137.0	1139.2	1115.2	1082.2	1075.5	1089.0	1086.8	1068.8
130°	1182.0	1206.0	1220.2	1191.0	1145.2	1148.2	1168.5	1152.8	1122.8
132.5°	1230.8	1264.5	1307.2	1264.5	1202.2	1219.5	1246.5	1212.8	1179.0
135°	1285.5	1332.0	1379.2	1325.2	1269.8	1286.2	1322.2	1275.0	1237.5
137.5°	1356.0	1384.5	1442.2	1380.8	1335.8	1345.5	1391.2	1334.2	1310.2
140°	1418.2	1444.5	1504.5	1434.8	1405.5	1404.0	1457.2	1391.2	1379.2
142.5°	1496.2	1500.8	1557.0	1483.5	1476.8	1461.8	1510.5	1448.2	1446.8
145°	1560.8	1552.5	1600.5	1531.5	1543.5	1518.8	1554.8	1505.2	1512.0
147.5°	1623.0	1607.2	1638.8	1582.5	1607.2	1580.2	1595.2	1564.5	1579.5
150°	1683.8	1664.2	1671.0	1641.0	1666.5	1642.5	1629.8	1620.0	1641.0
152.5°	1742.2	1724.2	1698.8	1700.2	1722.8	1701.0	1661.2	1677.8	1697.2
155°	1798.5	1784.2	1730.2	1752.8	1773.8	1756.5	1701.8	1735.5	1746.8
157.5°	1849.5	1839.8	1788.0	1804.5	1819.5	1806.8	1756.5	1789.5	1799.2
160°	1899.8	1889.2	1843.5	1871.2	1869.0	1852.5	1830.0	1848.0	1853.2
162.5°	1917.0	1923.8	1905.8	1916.2	1908.8	1911.0	1894.5	1887.8	1897.5
165°	1947.0	1953.0	1970.2	1954.5	1943.2	1948.5	1952.2	1934.2	1926.8
167.5°	1971.8	1989.0	2004.0	1994.2	1982.2	1978.5	1986.0	1982.2	1979.2
170°	2000.2	2009.2	2014.5	2007.0	1998.8	1992.0	1994.2	1995.0	2001.8
172.5°	2001.0	2011.5	2006.2	2002.5	1998.0	1987.5	1983.8	1988.2	1993.5
175°	1992.8	1995.0	1989.0	1991.2	1988.2	1976.2	1969.5	1974.0	1977.8
177.5°	1975.5	1977.8	1971.8	1972.5	1972.5	1965.8	1959.0	1961.2	1964.2
180°	1959.0	1959.0	1959.0	1959.0	1959.0	1959.0	1959.0	1959.0	1959.0

(END OF REPORT)