

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: 14257A

Luminaire Tested: **431-CF4/42**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 14257A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 431-CF4/42
Description: FLUORESCENT INDOOR PENDANT LUMINAIRE WITH WHITE ACRYLIC BOWL AND
HEXCEL LOUVER
Light Source: FOUR 42 WATT CPFL LAMPS. LUMEN RATING = 12800 LMS.

Ballast/Driver: -

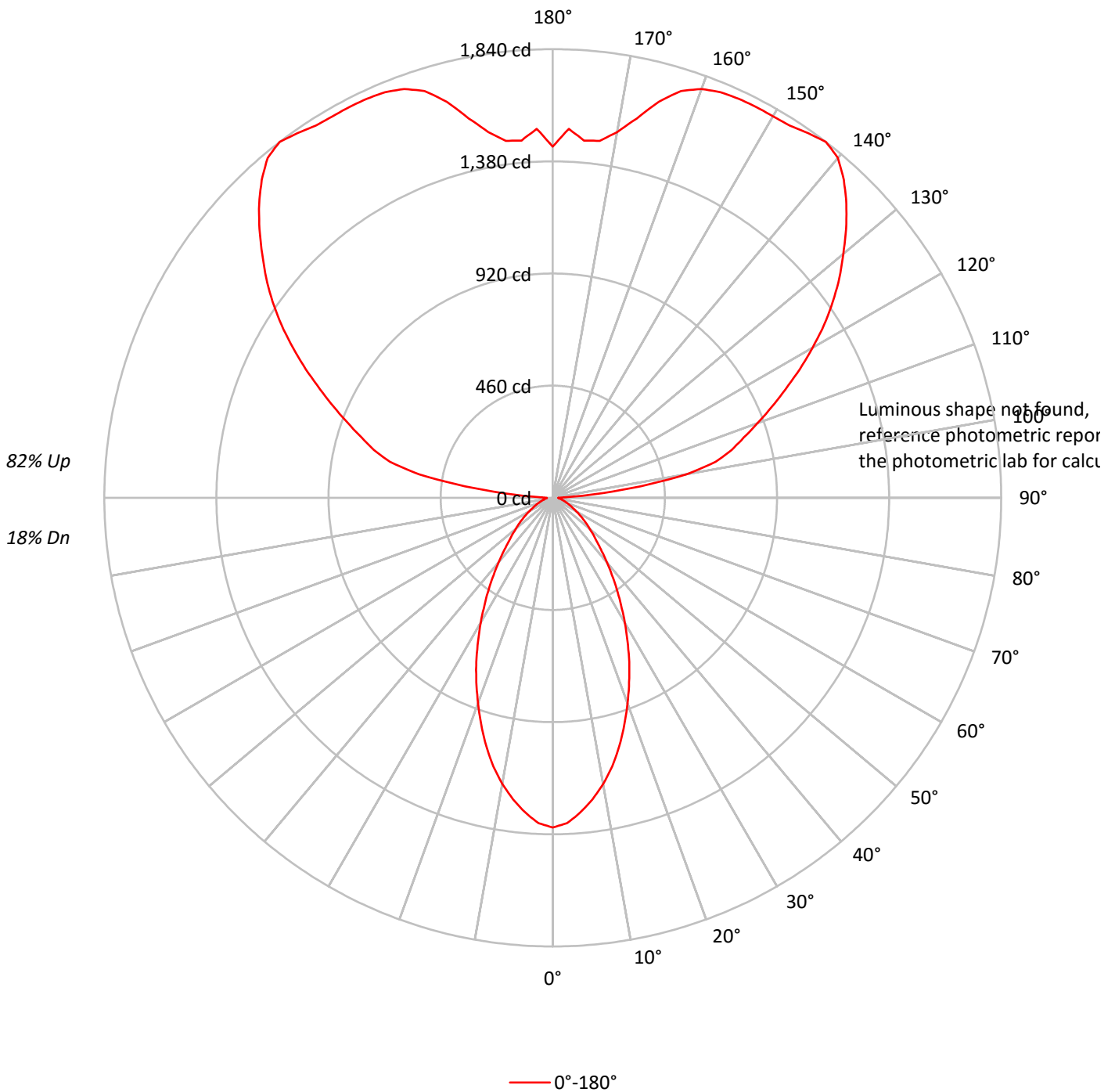
Summary

Lumens per Lamp: 12800 (1 lamp)
Luminaire Lumens: 8783.6 lumens
Efficiency: 68.6%
Efficacy: -
Spacing Criteria (0/90/45): 0.8 / 0.8 / 0.87
Luminous Opening: (L: 0 ' x W: -1.04 ' x H: 0 '
CIE Type: Semi-Indirect

Input Watts (W): 0
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



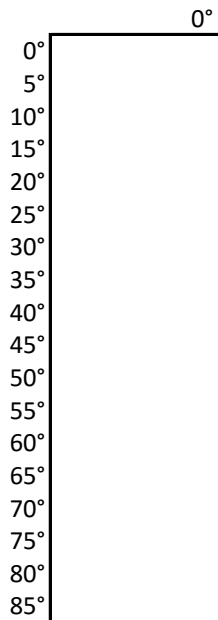


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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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	68	68	68	68	60	60	60	60	45	45	45	31	31	31	18	18	18	12
1	62	60	57	55	55	53	51	49	39	38	37	27	27	26	16	16	16	11
2	57	52	49	45	50	46	43	40	35	33	31	24	23	22	15	14	14	9
3	52	46	42	38	46	41	37	34	31	29	27	22	20	19	13	13	12	8
4	48	41	36	32	42	36	32	29	28	25	23	20	18	17	12	11	11	8
5	44	37	32	28	39	33	28	25	25	22	20	18	16	15	11	10	10	7
6	41	33	28	24	36	29	25	22	23	20	17	16	14	13	10	9	9	6
7	37	30	25	21	33	27	22	19	20	18	15	15	13	12	9	9	8	6
8	35	27	22	19	31	24	20	17	19	16	14	14	12	10	9	8	7	5
9	32	25	20	17	29	22	18	15	17	14	12	13	11	9	8	7	7	5
10	30	23	18	15	27	20	16	14	16	13	11	12	10	9	8	7	6	5

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	120.4	1.4	0.9
10°-20°	293.4	3.3	2.3
20°-30°	339.3	3.9	2.7
30°-40°	286.9	3.3	2.2
40°-50°	202.5	2.3	1.6
50°-60°	136.6	1.6	1.1
60°-70°	84.2	1.0	0.7
70°-80°	50.5	0.6	0.4
80°-90°	31.4	0.4	0.2
90°-100°	237.1	2.7	1.9
100°-110°	790.0	9.0	6.2
110°-120°	1047.2	11.9	8.2
120°-130°	1253.1	14.3	9.8
130°-140°	1312.2	14.9	10.3
140°-150°	1145.1	13.0	8.9
150°-160°	834.4	9.5	6.5
160°-170°	477.3	5.4	3.7
170°-180°	142.1	1.6	1.1
0°-30°	753.2	8.6	5.9
0°-40°	1040.1	11.8	8.1
0°-60°	1379.1	15.7	10.8
0°-90°	1545.2	17.6	12.1
90°-120°	2074.3	23.6	16.2
90°-150°	5784.6	65.9	45.2
90°-180°	7238.0	82.4	56.5
0°-180°	8783.6	100.0	68.6

CANDELA DISTRIBUTION:

	0°	Flux
0°	1352	
5°	1296	120
15°	1054	293
25°	742	339
35°	458	287
45°	258	202
55°	152	137
65°	84	84
75°	47	51
85°	28	25
90°	24	17
95°	168	227
105°	760	790
115°	1053	1047
125°	1403	1253
135°	1704	1312
145°	1826	1145
155°	1806	834
165°	1682	477
175°	1471	142
180°	1440	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	1352.0
2.5°	1335.7
5°	1295.6
7.5°	1247.4
10°	1191.1
12.5°	1128.0
15°	1054.1
17.5°	975.8
20°	896.2
22.5°	818.7
25°	742.2
27.5°	663.8
30°	591.3
32.5°	520.8
35°	458.2
37.5°	398.0
40°	346.1
42.5°	298.0
45°	257.9
47.5°	225.8
50°	198.1
52.5°	173.8
55°	151.5
57.5°	131.4
60°	112.8
62.5°	97.1
65°	83.6
67.5°	72.3
70°	62.6
72.5°	54.2
75°	47.0
77.5°	40.9
80°	35.9
82.5°	31.7
85°	28.3
87.5°	25.3
90°	23.6
92.5°	48.9
95°	168.5
97.5°	364.2
100°	557.3
102.5°	684.7
105°	759.5
107.5°	821.9
110°	893.5



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	971.4
115°	1053.2
117.5°	1142.1
120°	1230.4
122.5°	1320.3
125°	1403.4
127.5°	1482.3
130°	1555.9
132.5°	1632.6
135°	1703.8
137.5°	1767.5
140°	1820.2
142.5°	1840.2
145°	1825.5
147.5°	1809.8
150°	1806.4
152.5°	1807.2
155°	1805.5
157.5°	1800.4
160°	1784.0
162.5°	1749.5
165°	1681.8
167.5°	1593.4
170°	1522.5
172.5°	1476.4
175°	1470.6
177.5°	1514.2
180°	1439.8

(END OF REPORT)