

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: 19439

Luminaire Tested: **472-24-CF4/26**

Issue Date: 3/3/2020

**Test Information**

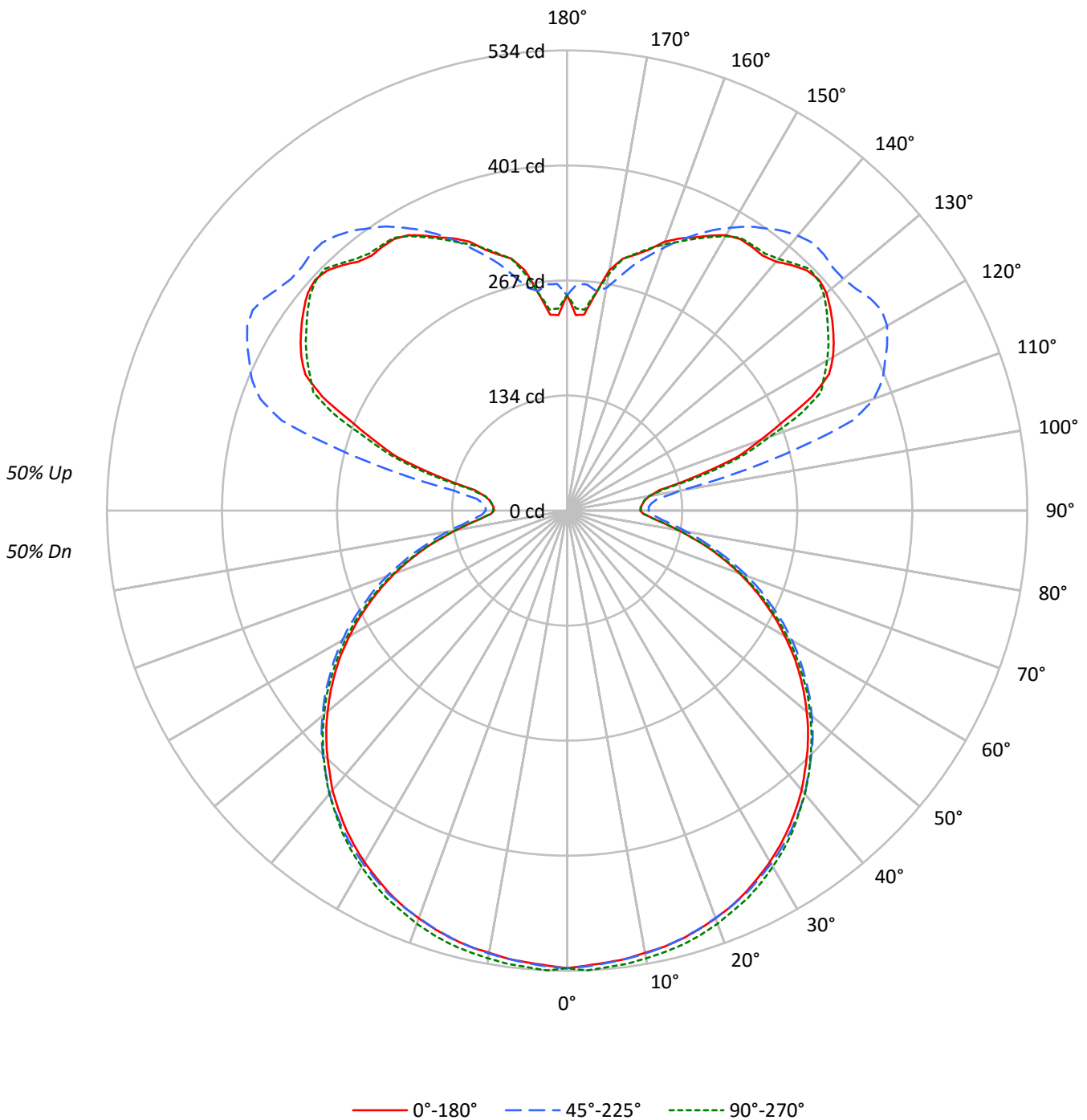
Test Method: LM-66-11  
Report Number: 19439  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 472-24-CF4/26  
Description: INTERIOR SUSPENDED LUMINAIRE WITH WHITE INTERIOR AND FLAT WHITE  
PLASTIC LENS  
Light Source: FOUR SYLVANIA 26 WATT CPFL LAMPS  
  
CF26DD/E/841. LUMEN RATING = 7200 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 7200 (1 lamp)  
Luminaire Lumens: 3767.7 lumens  
Efficiency: 52.3%  
Efficacy: 35.9 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.33 / 1.46  
Luminous Opening: Rectangular w/ Sides (W: 1.92' x L: 1.92' x H: 0.4')  
CIE Type: General Diffuse  
  
Input Watts (W): 105  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	56	56	56	56	52	52	52	52	44	44	44	36	36	36	29	29	29	26
1	50	48	46	43	46	44	42	40	37	36	34	31	30	29	25	24	23	20
2	46	41	38	35	42	38	35	32	32	30	28	26	25	23	21	20	19	17
3	41	36	32	29	38	33	30	27	28	25	23	23	21	19	19	17	16	14
4	38	32	27	24	35	29	25	22	25	22	19	20	18	16	16	15	13	11
5	35	28	24	20	32	26	22	19	22	19	17	18	16	14	15	13	12	10
6	32	25	21	18	29	23	19	16	20	17	14	16	14	12	13	11	10	8
7	29	23	18	15	27	21	17	14	18	15	12	15	12	11	12	10	9	7
8	27	20	16	13	25	19	15	13	16	13	11	14	11	9	11	9	8	7
9	25	19	15	12	23	17	14	11	15	12	10	12	10	8	10	8	7	6
10	24	17	13	11	22	16	12	10	14	11	9	11	9	8	9	8	6	5

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

	0°	45°	90°
0°	1551	1551	1551
5°	1515	1506	1531
10°	1490	1471	1509
15°	1473	1440	1492
20°	1454	1412	1473
25°	1437	1390	1456
30°	1417	1363	1436
35°	1396	1339	1417
40°	1374	1311	1393
45°	1347	1279	1366
50°	1320	1246	1339
55°	1291	1207	1307
60°	1252	1165	1270
65°	1208	1109	1223
70°	1156	1050	1168
75°	1089	967	1099
80°	1011	886	1014
85°	979	827	979



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	50.3	1.3	0.7
10°-20°	145.7	3.9	2.0
20°-30°	226.6	6.0	3.1
30°-40°	283.1	7.5	3.9
40°-50°	308.0	8.2	4.3
50°-60°	299.1	7.9	4.2
60°-70°	256.4	6.8	3.6
70°-80°	187.1	5.0	2.6
80°-90°	117.4	3.1	1.6
90°-100°	108.0	2.9	1.5
100°-110°	233.2	6.2	3.2
110°-120°	359.7	9.5	5.0
120°-130°	362.7	9.6	5.0
130°-140°	314.4	8.3	4.4
140°-150°	242.2	6.4	3.4
150°-160°	163.1	4.3	2.3
160°-170°	86.4	2.3	1.2
170°-180°	24.4	0.6	0.3
0°-30°	422.6	11.2	5.9
0°-40°	705.7	18.7	9.8
0°-60°	1312.8	34.8	18.2
0°-90°	1873.6	49.7	26.0
90°-120°	700.9	18.6	9.7
90°-150°	1620.2	43.0	22.5
90°-180°	1894.0	50.3	26.3
0°-180°	3767.7	100.0	52.3

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	526	529	527	529	532	50
15°	514	515	514	516	521	145
25°	489	491	491	492	496	226
35°	449	451	453	453	456	281
45°	394	398	401	399	400	304
55°	329	335	337	335	333	294
65°	253	259	262	260	256	250
75°	172	178	180	178	173	181
85°	99	105	108	105	99	88
90°	85	91	94	91	86	47
95°	88	97	98	95	88	73
105°	157	257	275	207	170	169
115°	314	390	407	362	325	304
125°	376	419	429	401	369	337
135°	394	415	421	398	397	303
145°	374	390	400	380	376	235
155°	350	359	353	345	348	163
165°	307	306	294	304	309	88
175°	228	251	264	233	234	24
180°	250	250	250	250	250	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	531.1	531.1	531.1	531.1	531.1
2.5°	528.4	530.7	529.5	530.0	534.1
5°	526.4	528.6	527.2	528.9	531.8
7.5°	524.6	526.3	524.7	526.0	530.4
10°	520.9	523.4	521.9	523.1	527.6
12.5°	518.7	519.9	518.3	519.7	524.7
15°	514.5	515.2	514.1	515.5	521.1
17.5°	509.5	510.2	509.0	510.9	516.1
20°	503.5	504.6	503.1	505.1	510.1
22.5°	497.0	497.6	497.2	499.0	502.9
25°	489.3	490.6	490.7	491.7	496.0
27.5°	480.0	481.9	481.9	483.1	487.0
30°	470.8	472.9	473.1	473.6	477.3
32.5°	460.3	462.3	463.6	463.4	466.9
35°	448.8	451.4	453.0	452.9	455.5
37.5°	436.4	439.2	441.3	440.1	442.0
40°	423.5	426.9	429.0	427.6	429.3
42.5°	408.6	412.9	414.4	413.7	414.9
45°	394.3	398.4	401.0	399.2	399.8
47.5°	379.3	383.7	386.6	384.7	384.7
50°	362.8	367.5	370.6	368.9	368.0
52.5°	346.2	351.7	354.6	352.4	351.8
55°	329.0	334.7	336.9	335.1	333.2
57.5°	311.1	316.4	319.7	317.8	315.0
60°	291.7	298.0	301.4	298.6	296.0
62.5°	272.8	279.5	282.5	279.5	276.7
65°	252.9	259.2	261.9	259.5	256.1
67.5°	233.1	239.4	242.7	239.5	235.7
70°	212.9	218.9	222.5	219.2	215.1
72.5°	191.8	198.4	201.0	198.5	194.0
75°	171.6	178.3	180.0	177.9	173.2
77.5°	149.9	156.9	160.0	157.0	151.0
80°	131.1	137.8	140.7	137.7	131.6
82.5°	113.1	119.6	122.3	118.6	113.7
85°	98.8	105.3	107.8	104.8	98.8
87.5°	88.5	95.1	98.3	94.9	89.1
90°	84.8	91.4	94.5	90.8	85.6
92.5°	85.3	92.2	94.7	91.4	85.8
95°	87.8	96.7	98.3	95.0	87.6
97.5°	90.7	108.2	106.0	107.4	90.4
100°	96.6	140.2	133.7	130.3	96.5
102.5°	109.9	187.3	200.2	159.4	114.3
105°	156.9	257.2	275.0	207.4	170.2
107.5°	207.8	296.0	347.6	248.3	215.2
110°	238.0	326.6	378.9	295.8	249.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	272.5	363.7	395.9	343.3	293.0
115°	314.0	390.5	406.9	361.5	325.1
117.5°	342.7	400.7	418.7	373.9	336.1
120°	356.2	407.8	428.7	383.0	348.4
122.5°	366.7	412.8	432.7	391.9	359.6
125°	376.3	418.7	429.2	401.0	369.4
127.5°	385.1	425.3	422.8	408.3	379.8
130°	392.9	427.3	418.2	411.3	389.2
132.5°	396.5	423.6	417.8	407.8	395.4
135°	394.0	415.1	420.9	398.0	397.1
137.5°	386.1	405.6	421.4	389.6	389.1
140°	377.0	397.0	416.4	384.5	381.3
142.5°	372.8	393.5	409.4	383.2	376.3
145°	373.7	390.5	399.9	380.0	375.7
147.5°	373.6	385.9	391.0	372.8	375.1
150°	368.9	378.4	378.9	363.3	367.9
152.5°	359.8	369.5	366.9	354.4	357.7
155°	349.6	359.1	353.2	344.6	347.8
157.5°	341.7	347.2	339.1	335.2	337.6
160°	332.1	334.9	323.7	324.5	328.5
162.5°	317.7	321.3	309.0	313.3	319.0
165°	307.4	306.4	294.3	303.5	308.8
167.5°	299.6	285.2	277.0	293.2	299.2
170°	283.3	268.0	262.4	278.9	278.5
172.5°	253.7	258.3	257.0	257.2	254.5
175°	228.2	251.4	263.5	233.3	234.0
177.5°	227.0	251.3	263.1	240.5	234.7
180°	249.9	249.9	249.9	249.9	249.9

(END OF REPORT)