

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: 20070

Luminaire Tested: **273-14-CF2/13**

Issue Date: 3/3/2020

**Test Information**

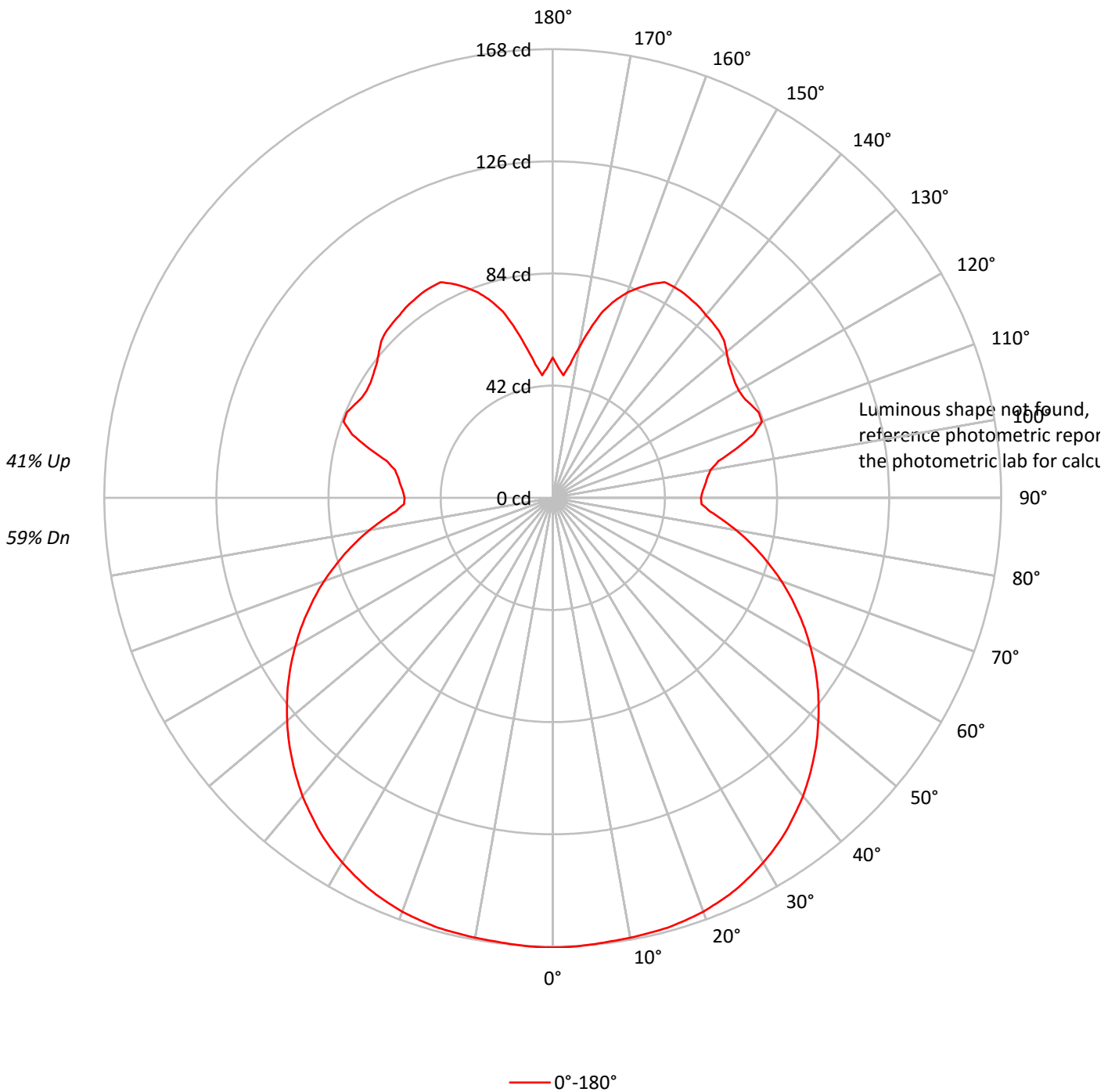
Test Method: LM-66-11  
Report Number: 20070  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 273-14-CF2/13  
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS  
Light Source: TWO SYLVANIA 13 WATT CPFL LAMPS  
  
CF13DS/E/830. LUMEN RATING = 1600 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 1600 (1 lamp)  
Luminaire Lumens: 1183.7 lumens  
Efficiency: 74.0%  
Efficacy: 43.8 lumens/watt  
Spacing Criteria (0/90/45): 1.39 / 1.39 / 1.53  
Luminous Opening: (L: 0' x W: -1.1' x H: 0.35'  
CIE Type: General Diffuse  
  
Input Watts (W): 27  
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	81	81	81	81	75	75	75	75	65	65	65	56	56	56	48	48	48	44
1	72	68	64	61	67	63	60	57	55	52	50	47	45	43	39	38	36	33
2	65	58	53	48	60	54	49	45	47	43	40	40	37	34	33	31	29	26
3	59	51	44	39	54	47	41	37	41	36	33	35	31	28	29	26	24	21
4	53	44	38	33	49	41	35	31	36	31	27	30	27	24	25	23	20	18
5	49	39	33	28	45	37	31	26	32	27	23	27	23	20	23	20	17	15
6	45	35	28	24	41	33	27	22	28	24	20	24	20	17	20	17	15	13
7	41	32	25	21	38	29	24	20	26	21	17	22	18	15	19	15	13	11
8	38	29	22	18	36	27	21	17	23	19	15	20	16	13	17	14	12	10
9	36	26	20	16	33	24	19	15	21	17	14	18	15	12	16	13	10	9
10	33	24	18	14	31	22	17	14	20	15	12	17	13	11	15	12	9	8

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	16.0	1.4	1.0
10°-20°	47.1	4.0	2.9
20°-30°	74.7	6.3	4.7
30°-40°	95.4	8.1	6.0
40°-50°	106.8	9.0	6.7
50°-60°	108.3	9.1	6.8
60°-70°	100.5	8.5	6.3
70°-80°	85.0	7.2	5.3
80°-90°	66.0	5.6	4.1
90°-100°	62.6	5.3	3.9
100°-110°	75.3	6.4	4.7
110°-120°	81.5	6.9	5.1
120°-130°	73.6	6.2	4.6
130°-140°	68.0	5.7	4.2
140°-150°	56.8	4.8	3.5
150°-160°	40.8	3.4	2.5
160°-170°	20.5	1.7	1.3
170°-180°	4.8	0.4	0.3
0°-30°	137.9	11.6	8.6
0°-40°	233.3	19.7	14.6
0°-60°	448.3	37.9	28.0
0°-90°	699.8	59.1	43.7
90°-120°	219.4	18.5	13.7
90°-150°	417.8	35.3	26.1
90°-180°	484.0	40.9	30.3
0°-180°	1183.7	100.0	74.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	168	
5°	168	16
15°	167	47
25°	162	75
35°	152	95
45°	138	107
55°	121	108
65°	101	100
75°	80	85
85°	59	51
90°	56	31
95°	57	47
105°	71	75
115°	82	81
125°	82	74
135°	88	68
145°	90	57
155°	88	41
165°	72	20
175°	46	5
180°	52	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	168.4
2.5°	168.3
5°	167.9
7.5°	167.5
10°	167.3
12.5°	166.9
15°	166.6
17.5°	165.8
20°	164.9
22.5°	163.5
25°	162.0
27.5°	159.9
30°	157.7
32.5°	155.2
35°	152.4
37.5°	149.1
40°	145.8
42.5°	142.1
45°	138.2
47.5°	134.2
50°	129.9
52.5°	125.5
55°	121.0
57.5°	116.3
60°	111.4
62.5°	106.5
65°	101.4
67.5°	96.3
70°	91.2
72.5°	85.7
75°	80.5
77.5°	75.1
80°	69.8
82.5°	64.3
85°	59.2
87.5°	55.8
90°	55.5
92.5°	56.2
95°	57.3
97.5°	58.4
100°	60.0
102.5°	63.6
105°	71.1
107.5°	78.7
110°	83.4



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**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	83.5
115°	82.1
117.5°	80.8
120°	80.4
122.5°	80.8
125°	81.8
127.5°	83.0
130°	85.0
132.5°	87.1
135°	88.2
137.5°	88.8
140°	89.3
142.5°	90.1
145°	90.5
147.5°	91.0
150°	91.1
152.5°	91.0
155°	88.4
157.5°	85.3
160°	81.8
162.5°	77.4
165°	72.2
167.5°	64.8
170°	57.3
172.5°	50.5
175°	46.0
177.5°	48.7
180°	52.5

(END OF REPORT)