

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: 19370

Luminaire Tested: **226-CF2/13**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19370
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 226-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: -

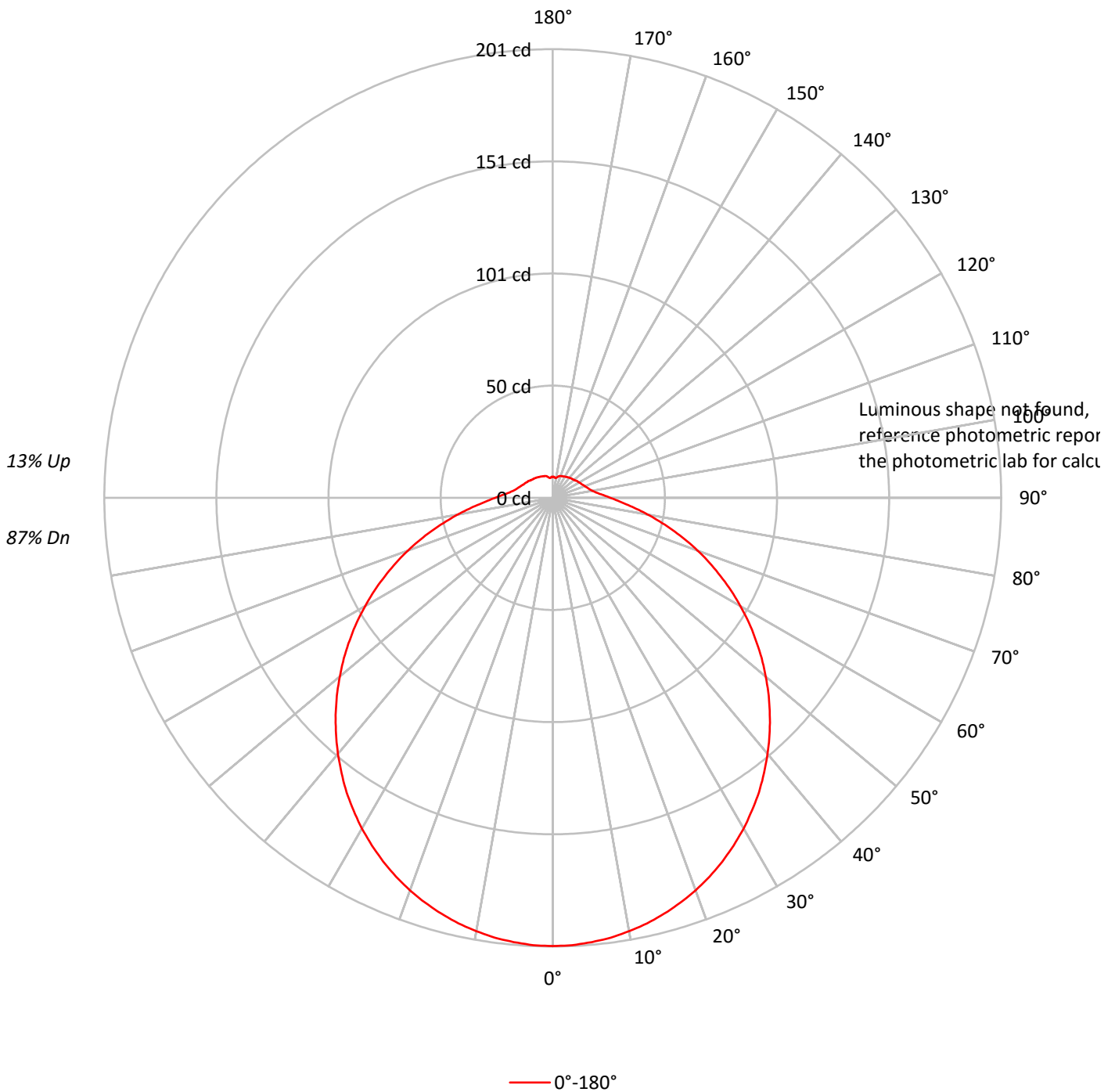
Summary

Lumens per Lamp: 1600 (1 lamp)
Luminaire Lumens: 732.3 lumens
Efficiency: 45.8%
Efficacy: 29.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
Luminous Opening: (L: 0' x W: -0.08' x H: 0.21'
CIE Type: Semi-Direct

Input Watts (W): 25
Input Voltage (V): NR
Input Current (A_{in}): 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	53	53	53	53	51	51	51	51	48	48	48	44	44	44	41	41	41	40
1	48	45	43	41	46	44	42	40	41	39	37	38	37	35	35	34	33	32
2	43	39	36	33	41	38	35	32	35	33	30	33	31	29	31	29	27	26
3	39	34	30	27	37	33	29	26	31	28	25	29	26	24	27	25	23	22
4	36	30	26	23	34	29	25	22	27	24	21	25	23	20	24	21	20	18
5	33	27	23	19	31	26	22	19	24	21	18	23	20	18	21	19	17	16
6	30	24	20	17	29	23	19	17	22	18	16	21	18	15	19	17	15	14
7	28	22	18	15	27	21	17	15	20	16	14	19	16	14	18	15	13	12
8	26	20	16	13	25	19	16	13	18	15	13	17	14	12	16	14	12	11
9	24	18	14	12	23	18	14	12	17	13	11	16	13	11	15	12	11	10
10	23	17	13	11	22	16	13	10	15	12	10	15	12	10	14	11	10	9

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	19.0	2.6	1.2
10°-20°	54.5	7.4	3.4
20°-30°	82.9	11.3	5.2
30°-40°	100.7	13.8	6.3
40°-50°	106.2	14.5	6.6
50°-60°	99.4	13.6	6.2
60°-70°	82.3	11.2	5.1
70°-80°	58.8	8.0	3.7
80°-90°	36.7	5.0	2.3
90°-100°	23.3	3.2	1.5
100°-110°	17.5	2.4	1.1
110°-120°	14.3	2.0	0.9
120°-130°	11.8	1.6	0.7
130°-140°	9.4	1.3	0.6
140°-150°	7.1	1.0	0.4
150°-160°	4.9	0.7	0.3
160°-170°	2.8	0.4	0.2
170°-180°	0.9	0.1	0.1
0°-30°	156.3	21.3	9.8
0°-40°	257.1	35.1	16.1
0°-60°	462.7	63.2	28.9
0°-90°	640.4	87.4	40.0
90°-120°	55.1	7.5	3.4
90°-150°	83.3	11.4	5.2
90°-180°	92.0	12.6	5.8
0°-180°	732.3	100.0	45.8

CANDELA DISTRIBUTION:

	0°	Flux
0°	201	
5°	200	19
15°	193	54
25°	180	83
35°	161	101
45°	138	106
55°	111	99
65°	83	82
75°	56	59
85°	33	29
90°	26	14
95°	21	17
105°	16	17
115°	14	14
125°	13	12
135°	12	9
145°	11	7
155°	11	5
165°	10	3
175°	9	1
180°	9	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	200.8
2.5°	200.6
5°	199.8
7.5°	198.8
10°	197.1
12.5°	195.3
15°	192.9
17.5°	190.2
20°	187.1
22.5°	183.7
25°	179.8
27.5°	175.6
30°	171.1
32.5°	166.1
35°	161.1
37.5°	155.5
40°	149.8
42.5°	143.8
45°	137.6
47.5°	131.3
50°	124.6
52.5°	118.0
55°	111.1
57.5°	104.3
60°	97.1
62.5°	90.2
65°	82.9
67.5°	76.0
70°	69.1
72.5°	62.1
75°	55.5
77.5°	49.0
80°	43.3
82.5°	37.8
85°	33.1
87.5°	29.0
90°	25.8
92.5°	23.2
95°	20.9
97.5°	19.3
100°	18.0
102.5°	17.1
105°	16.4
107.5°	15.8
110°	15.3



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	14.8
115°	14.3
117.5°	14.1
120°	13.7
122.5°	13.4
125°	13.2
127.5°	12.7
130°	12.5
132.5°	12.2
135°	12.1
137.5°	11.9
140°	11.7
142.5°	11.5
145°	11.3
147.5°	11.1
150°	11.0
152.5°	10.8
155°	10.6
157.5°	10.5
160°	10.4
162.5°	10.2
165°	10.0
167.5°	9.5
170°	9.1
172.5°	8.9
175°	9.2
177.5°	9.5
180°	9.3

(END OF REPORT)