

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: 19380A

Luminaire Tested: **460-A--CF1/18**

Issue Date: 3/3/2020

**Test Information**

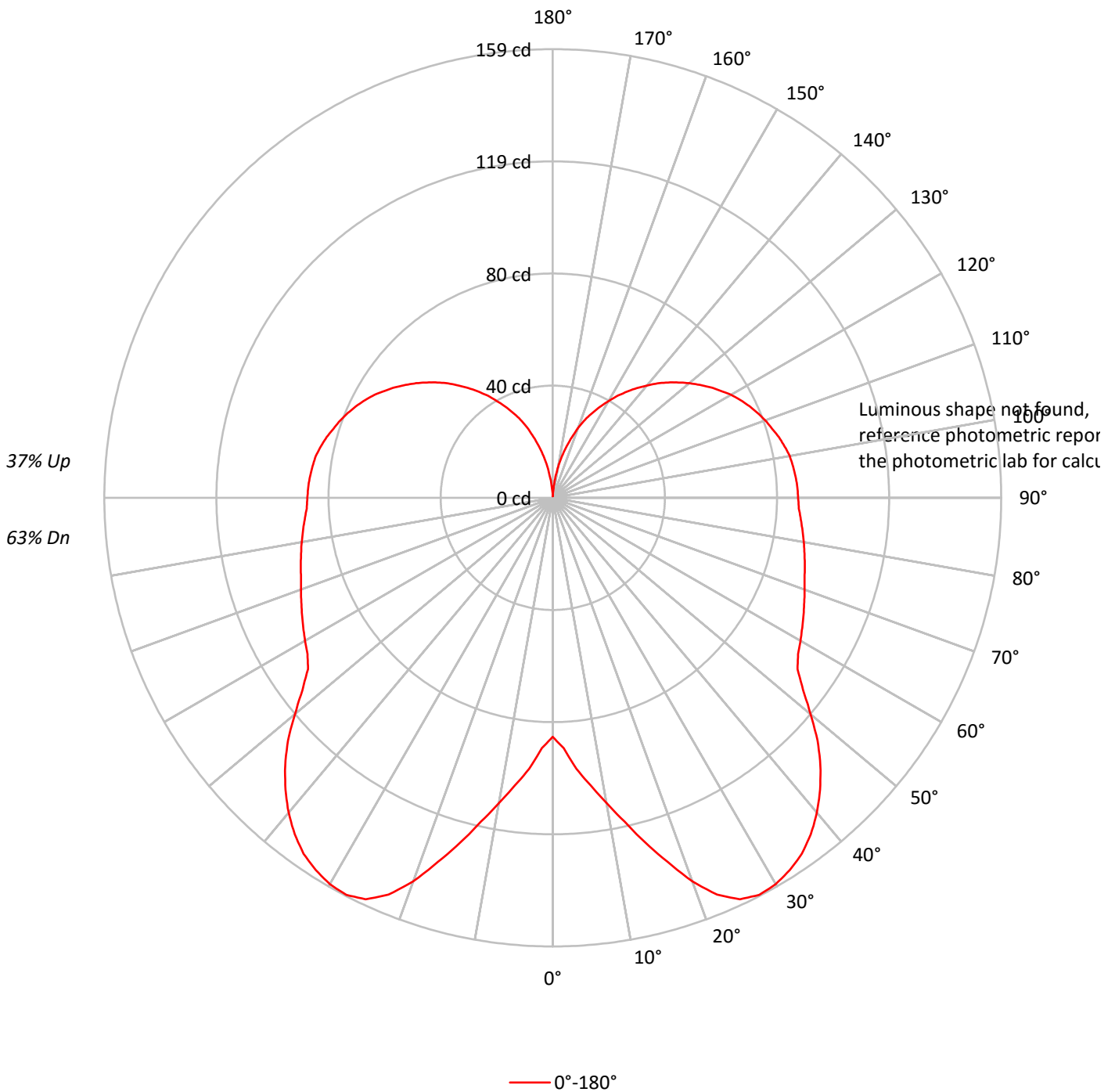
Test Method: LM-66-11  
Report Number: 19380A  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 460-A--CF1/18  
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE PLASTIC LENS  
  
Light Source: ONE 18 WATT CPFL LAMP. LUMEN RATING = 1250 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 1250 (1 lamp)  
Luminaire Lumens: 1120.1 lumens  
Efficiency: 89.6%  
Efficacy: -  
Spacing Criteria (0/90/45): 2.11 / 2.11 / 1.98  
Luminous Opening: (L: 0 ' x W: -0.5 ' x H: 0.7 '  
CIE Type: Semi-Direct  
  
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	99	99	99	99	93	93	93	93	81	81	81	71	71	71	61	61	61	56
1	87	81	76	72	81	76	72	68	66	62	59	57	54	52	48	46	44	40
2	78	69	62	56	72	65	58	53	56	51	47	48	44	41	41	38	35	31
3	70	60	52	45	65	56	49	43	48	43	38	42	37	33	35	32	29	25
4	64	52	44	38	59	49	41	36	42	36	32	36	32	28	31	27	24	21
5	58	46	38	32	54	43	36	30	38	31	27	32	27	23	27	23	20	17
6	54	41	33	27	50	39	31	26	34	28	23	29	24	20	25	21	17	15
7	49	37	29	24	46	35	27	22	30	24	20	26	21	18	22	18	15	13
8	46	34	26	21	42	31	24	20	28	22	17	24	19	15	20	16	13	11
9	43	30	23	18	40	29	22	17	25	19	15	22	17	14	19	15	12	10
10	40	28	21	16	37	26	20	15	23	18	14	20	15	12	17	13	11	9

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	9.6	0.9	0.8
10°-20°	36.4	3.2	2.9
20°-30°	71.8	6.4	5.7
30°-40°	96.1	8.6	7.7
40°-50°	103.2	9.2	8.3
50°-60°	96.6	8.6	7.7
60°-70°	97.4	8.7	7.8
70°-80°	97.9	8.7	7.8
80°-90°	96.4	8.6	7.7
90°-100°	94.2	8.4	7.5
100°-110°	87.7	7.8	7.0
110°-120°	76.3	6.8	6.1
120°-130°	61.2	5.5	4.9
130°-140°	44.8	4.0	3.6
140°-150°	29.0	2.6	2.3
150°-160°	15.5	1.4	1.2
160°-170°	5.6	0.5	0.4
170°-180°	0.6	0.1	0.0
0°-30°	117.8	10.5	9.4
0°-40°	213.9	19.1	17.1
0°-60°	413.6	36.9	33.1
0°-90°	705.3	63.0	56.4
90°-120°	258.1	23.0	20.6
90°-150°	393.1	35.1	31.5
90°-180°	415.0	37.0	33.2
0°-180°	1120.1	100.0	89.6

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	85	
5°	96	10
15°	126	36
25°	157	72
35°	154	96
45°	134	103
55°	106	97
65°	98	97
75°	92	98
85°	88	73
90°	87	48
95°	86	70
105°	83	88
115°	77	76
125°	68	61
135°	58	45
145°	46	29
155°	33	16
165°	19	6
175°	4	1
180°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	84.7
2.5°	88.8
5°	96.4
7.5°	102.8
10°	109.8
12.5°	117.5
15°	126.4
17.5°	135.3
20°	144.6
22.5°	152.2
25°	157.0
27.5°	158.6
30°	158.1
32.5°	156.4
35°	154.0
37.5°	150.3
40°	145.7
42.5°	140.3
45°	134.2
47.5°	127.3
50°	119.3
52.5°	111.8
55°	105.9
57.5°	103.1
60°	101.4
62.5°	99.7
65°	98.1
67.5°	96.5
70°	95.0
72.5°	93.6
75°	92.5
77.5°	91.4
80°	90.4
82.5°	89.3
85°	88.3
87.5°	87.3
90°	87.0
92.5°	86.8
95°	86.4
97.5°	85.9
100°	85.3
102.5°	84.2
105°	83.0
107.5°	81.5
110°	80.2



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**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	78.6
115°	76.9
117.5°	75.0
120°	73.0
122.5°	70.6
125°	68.3
127.5°	65.7
130°	63.2
132.5°	60.5
135°	57.8
137.5°	55.0
140°	51.9
142.5°	49.0
145°	45.9
147.5°	42.9
150°	39.6
152.5°	36.4
155°	33.2
157.5°	30.0
160°	26.5
162.5°	22.5
165°	18.9
167.5°	15.1
170°	11.4
172.5°	7.5
175°	4.1
177.5°	1.0
180°	0.5

(END OF REPORT)