

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: 19450B

Luminaire Tested: **416-CF1/42**

Issue Date: 3/3/2020

**Test Information**

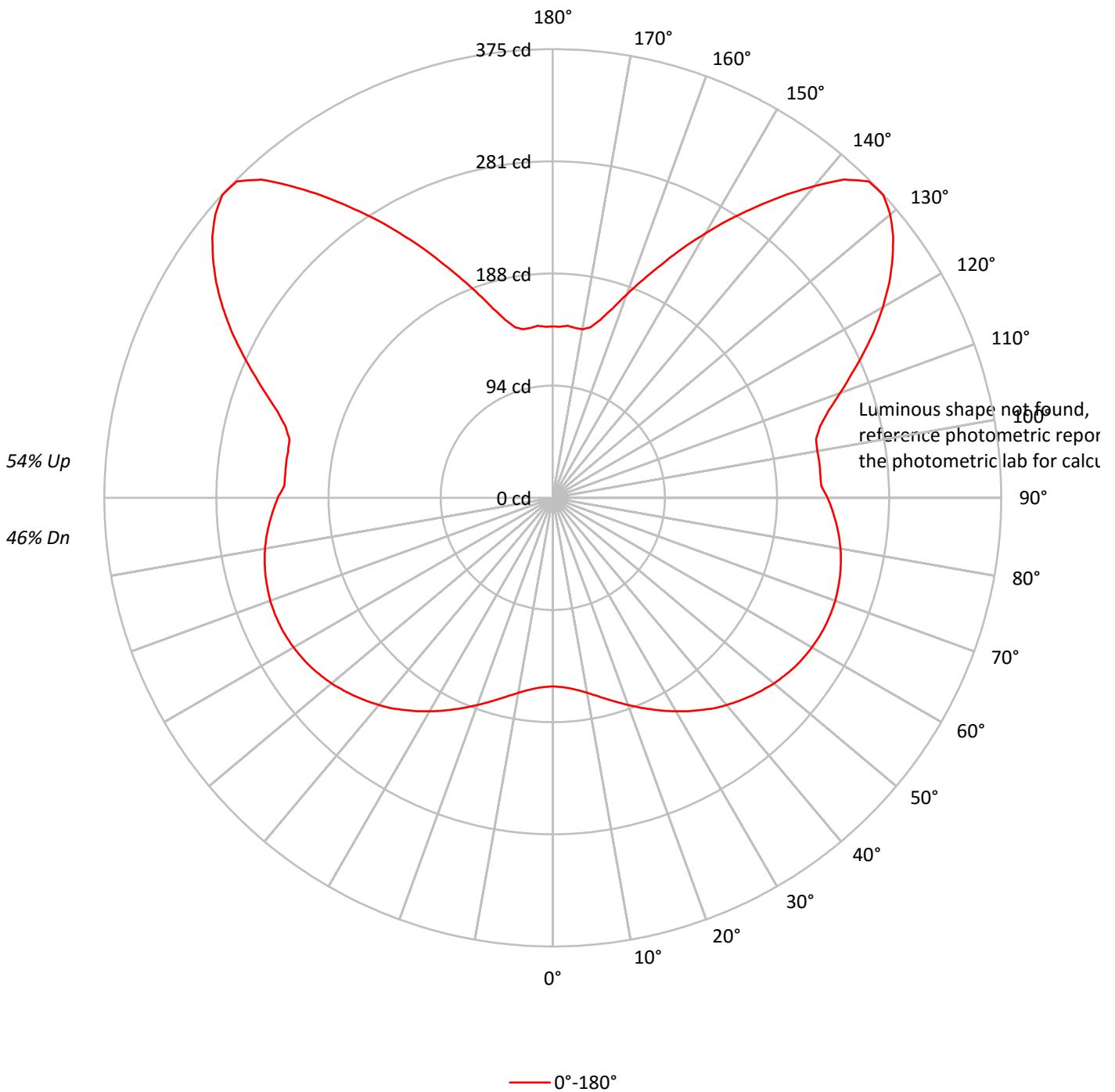
Test Method: LM-66-11  
Report Number: 19450B  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 416-CF1/42  
Description: INTERIOR SUSPENDED LUMINAIRE WITH WHITE PLASTIC CONE LENS  
  
Light Source: ONE 42 WATT CPFL LAMP. LUMEN RATING = 3200 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3200 (1 lamp)  
Luminaire Lumens: 3185.5 lumens  
Efficiency: 99.5%  
Efficacy: -  
Spacing Criteria (0/90/45): 2.08 / 2.08 / 2.2  
Luminous Opening: (L: 0 ' x W: -0.08 ' x H: 0.75 '  
CIE Type: General Diffuse  
  
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	106	106	106	106	97	97	97	97	81	81	81		66	66	66		52	52	52	46
1	92	86	81	76	84	79	74	70	65	61	58		52	49	47		40	38	36	30
2	82	73	65	59	75	67	60	54	54	49	45		43	39	36		33	30	27	22
3	74	63	54	47	67	57	49	43	47	41	36		37	32	28		28	24	21	17
4	67	55	46	39	61	50	42	35	41	34	29		32	27	23		24	20	17	13
5	61	48	39	32	55	44	36	30	36	29	24		28	23	19		21	17	14	11
6	56	43	34	27	51	39	31	25	32	25	21		25	20	16		19	15	12	9
7	52	38	30	24	47	35	27	22	29	22	18		23	18	14		17	13	10	8
8	48	35	26	20	43	32	24	19	26	20	15		20	16	12		15	12	9	7
9	44	31	23	18	40	29	21	16	24	18	14		19	14	11		14	11	8	6
10	41	29	21	16	38	26	19	15	22	16	12		17	13	10		13	10	7	5

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	15.4	0.5	0.5
10°-20°	49.7	1.6	1.6
20°-30°	90.6	2.8	2.8
30°-40°	136.2	4.3	4.3
40°-50°	181.4	5.7	5.7
50°-60°	221.1	6.9	6.9
60°-70°	249.6	7.8	7.8
70°-80°	262.8	8.2	8.2
80°-90°	259.1	8.1	8.1
90°-100°	245.9	7.7	7.7
100°-110°	248.1	7.8	7.8
110°-120°	284.4	8.9	8.9
120°-130°	309.7	9.7	9.7
130°-140°	283.7	8.9	8.9
140°-150°	187.9	5.9	5.9
150°-160°	101.1	3.2	3.2
160°-170°	45.1	1.4	1.4
170°-180°	13.7	0.4	0.4
0°-30°	155.8	4.9	4.9
0°-40°	292.0	9.2	9.1
0°-60°	694.5	21.8	21.7
0°-90°	1466.0	46.0	45.8
90°-120°	778.4	24.4	24.3
90°-150°	1559.6	49.0	48.7
90°-180°	1719.0	54.0	53.7
0°-180°	3185.5	100.0	99.5

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	158	
5°	160	15
15°	174	50
25°	195	91
35°	216	136
45°	234	181
55°	247	221
65°	252	250
75°	249	263
85°	238	196
90°	230	126
95°	224	184
105°	231	248
115°	287	284
125°	347	310
135°	374	284
145°	297	188
155°	215	101
165°	154	45
175°	144	14
180°	143	

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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	157.6
2.5°	158.2
5°	159.7
7.5°	162.2
10°	165.5
12.5°	169.5
15°	174.1
17.5°	179.1
20°	184.2
22.5°	189.7
25°	195.1
27.5°	200.7
30°	206.0
32.5°	211.5
35°	216.4
37.5°	221.7
40°	226.1
42.5°	230.3
45°	234.3
47.5°	237.9
50°	241.4
52.5°	244.2
55°	246.8
57.5°	248.7
60°	250.2
62.5°	251.3
65°	251.8
67.5°	251.8
70°	251.4
72.5°	250.2
75°	248.8
77.5°	246.8
80°	244.3
82.5°	241.3
85°	237.8
87.5°	233.9
90°	229.9
92.5°	224.7
95°	224.5
97.5°	224.9
100°	224.7
102.5°	225.5
105°	231.3
107.5°	241.7
110°	255.5



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**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	270.6
115°	286.9
117.5°	303.1
120°	318.7
122.5°	333.5
125°	346.7
127.5°	358.8
130°	368.4
132.5°	374.8
135°	373.9
137.5°	360.8
140°	340.0
142.5°	318.8
145°	296.9
147.5°	276.3
150°	255.0
152.5°	235.0
155°	215.1
157.5°	197.2
160°	180.8
162.5°	165.8
165°	154.2
167.5°	146.0
170°	143.0
172.5°	143.2
175°	144.3
177.5°	143.1
180°	143.2

(END OF REPORT)