

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: 19377A

Luminaire Tested: **433-14-SP-CF2/32**

Issue Date: 3/3/2020

**Test Information**

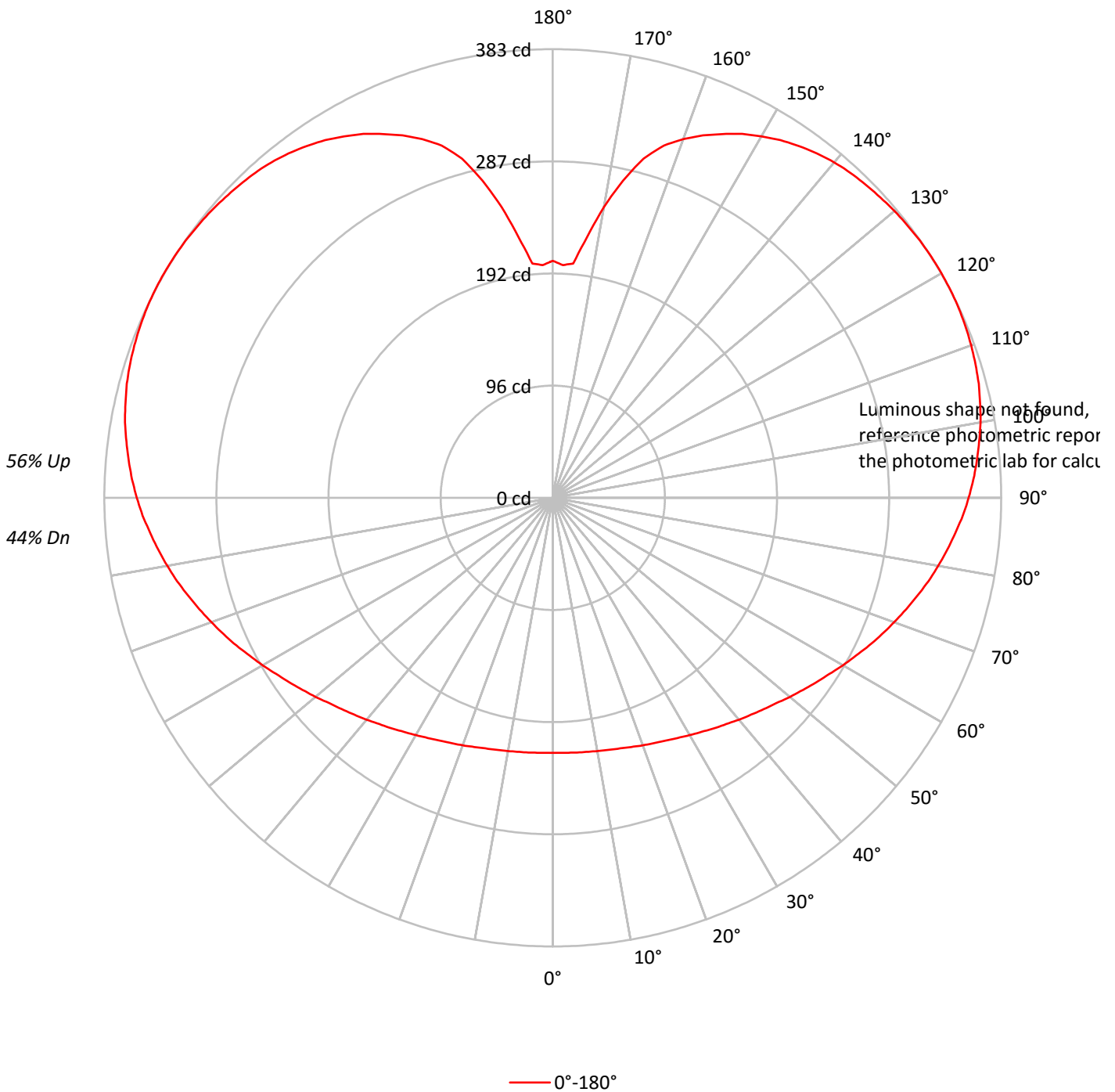
Test Method: LM-66-11  
Report Number: 19377A  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 433-14-SP-CF2/32  
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE GLASS LENS  
  
Light Source: TWO 32 WATT CPFL LAMPS. LUMEN RATING = 4800 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 4800 (1 lamp)  
Luminaire Lumens: 4103.8 lumens  
Efficiency: 85.5%  
Efficacy: -  
Spacing Criteria (0/90/45): 1.71 / 1.71 / 1.96  
Luminous Opening: (L: 0 ' x W: -0.08 ' x H: 0.58 '  
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





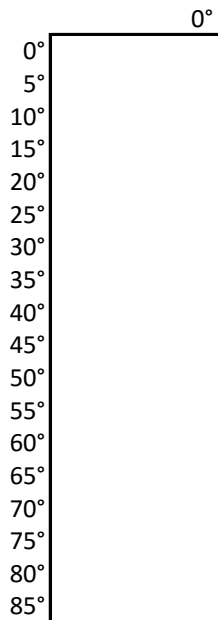
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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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	90	90	90	90	83	83	83	83	68	68	68	55	55	55	43	43	43	37
1	79	73	69	64	71	67	62	59	54	51	48	43	40	38	32	30	29	24
2	70	62	55	50	63	56	50	45	45	41	37	35	32	29	26	24	22	17
3	63	53	46	40	57	48	42	36	39	34	30	30	26	23	22	19	17	13
4	57	47	39	33	52	42	35	30	34	29	24	26	22	19	19	16	14	10
5	52	41	33	27	47	37	30	25	30	25	20	23	19	16	17	14	11	8
6	48	36	29	23	43	33	26	21	27	21	17	21	17	13	15	12	10	7
7	44	33	25	20	40	30	23	18	24	19	15	19	15	12	14	11	8	6
8	41	29	22	17	37	27	20	16	22	17	13	17	13	10	13	10	7	5
9	38	27	20	15	34	24	18	14	20	15	11	16	12	9	12	9	6	4
10	35	24	18	13	32	22	16	12	18	13	10	14	11	8	11	8	6	4

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	20.9	0.5	0.4
10°-20°	62.9	1.5	1.3
20°-30°	106.1	2.6	2.2
30°-40°	151.1	3.7	3.1
40°-50°	197.9	4.8	4.1
50°-60°	246.7	6.0	5.1
60°-70°	296.0	7.2	6.2
70°-80°	341.2	8.3	7.1
80°-90°	376.5	9.2	7.8
90°-100°	396.5	9.7	8.3
100°-110°	397.9	9.7	8.3
110°-120°	379.5	9.2	7.9
120°-130°	343.2	8.4	7.1
130°-140°	292.6	7.1	6.1
140°-150°	230.2	5.6	4.8
150°-160°	158.8	3.9	3.3
160°-170°	84.8	2.1	1.8
170°-180°	21.1	0.5	0.4
0°-30°	189.9	4.6	4.0
0°-40°	341.0	8.3	7.1
0°-60°	785.6	19.1	16.4
0°-90°	1799.3	43.8	37.5
90°-120°	1173.8	28.6	24.5
90°-150°	2039.9	49.7	42.5
90°-180°	2305.0	56.2	48.0
0°-180°	4103.8	100.0	85.5

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	218	
5°	218	21
15°	222	63
25°	229	106
35°	240	151
45°	255	198
55°	275	247
65°	298	296
75°	322	341
85°	345	280
90°	355	195
95°	364	299
105°	377	398
115°	383	379
125°	383	343
135°	378	293
145°	367	230
155°	343	159
165°	300	85
175°	201	21
180°	202	

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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	217.7
2.5°	217.8
5°	218.3
7.5°	218.8
10°	219.5
12.5°	220.4
15°	221.5
17.5°	223.0
20°	224.9
22.5°	226.5
25°	228.7
27.5°	231.1
30°	233.9
32.5°	236.8
35°	240.3
37.5°	243.4
40°	247.2
42.5°	251.0
45°	255.0
47.5°	259.2
50°	264.4
52.5°	269.3
55°	274.6
57.5°	280.0
60°	286.0
62.5°	291.8
65°	298.2
67.5°	304.2
70°	310.3
72.5°	316.4
75°	322.4
77.5°	328.6
80°	334.3
82.5°	339.9
85°	345.0
87.5°	350.6
90°	355.2
92.5°	359.6
95°	363.6
97.5°	367.3
100°	371.0
102.5°	373.8
105°	376.6
107.5°	378.6
110°	380.3



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**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	381.6
115°	382.6
117.5°	383.2
120°	383.3
122.5°	383.2
125°	382.8
127.5°	381.9
130°	381.0
132.5°	379.4
135°	378.0
137.5°	376.3
140°	373.9
142.5°	370.6
145°	366.6
147.5°	362.0
150°	356.2
152.5°	350.2
155°	342.6
157.5°	334.8
160°	325.9
162.5°	315.3
165°	299.8
167.5°	277.3
170°	252.2
172.5°	224.3
175°	200.7
177.5°	198.8
180°	202.3

(END OF REPORT)