

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: 19373A

Luminaire Tested: **233-12-SH-CF2/32**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19373A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 233-12-SH-CF2/32
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE GLASS LENS

Light Source: TWO 32 WATT CPFL LAMPS. LUMEN RATING = 4800 LMS.

Ballast/Driver: -

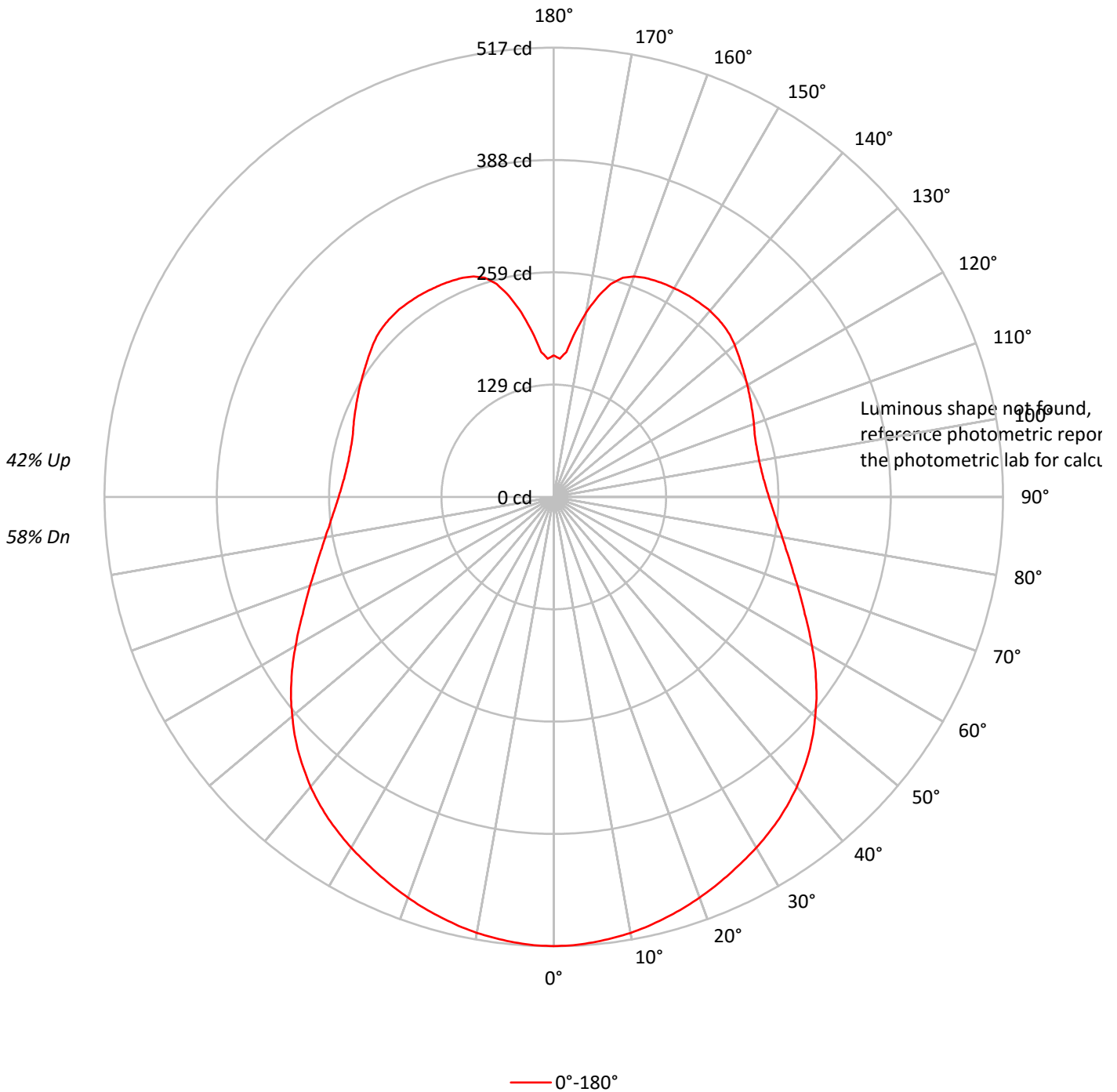
Summary

Lumens per Lamp: 4800 (1 lamp)
Luminaire Lumens: 3852.3 lumens
Efficiency: 80.3%
Efficacy: -
Spacing Criteria (0/90/45): 1.35 / 1.35 / 1.52
Luminous Opening: (L: 0 ' x W: -0.08 ' x H: 0.38 '
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	88	88	88	88	82	82	82	82	71	71	71		60	60	60		51	51	51	47
1	77	73	68	65	72	67	64	60	58	55	52		49	47	45		41	39	38	34
2	69	62	56	51	64	58	52	48	49	45	42		42	38	36		35	32	30	26
3	63	54	47	41	58	50	44	39	43	38	34		36	32	29		30	27	25	21
4	57	47	40	34	53	44	37	32	38	32	28		32	28	24		26	23	21	18
5	52	42	34	29	48	39	32	27	33	28	24		28	24	21		24	20	18	15
6	48	37	30	25	44	35	28	23	30	25	21		25	21	18		21	18	15	13
7	44	34	27	22	41	31	25	20	27	22	18		23	19	16		19	16	13	11
8	41	30	24	19	38	28	22	18	25	19	16		21	17	14		18	14	12	10
9	38	28	21	17	35	26	20	16	22	18	14		19	15	12		16	13	11	9
10	36	25	19	15	33	24	18	14	21	16	13		18	14	11		15	12	10	8

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	49.0	1.3	1.0
10°-20°	141.6	3.7	3.0
20°-30°	221.2	5.7	4.6
30°-40°	283.3	7.4	5.9
40°-50°	320.9	8.3	6.7
50°-60°	330.1	8.6	6.9
60°-70°	316.9	8.2	6.6
70°-80°	297.7	7.7	6.2
80°-90°	279.5	7.3	5.8
90°-100°	264.9	6.9	5.5
100°-110°	255.4	6.6	5.3
110°-120°	249.0	6.5	5.2
120°-130°	236.9	6.2	4.9
130°-140°	214.3	5.6	4.5
140°-150°	175.2	4.5	3.6
150°-160°	127.1	3.3	2.6
160°-170°	71.5	1.9	1.5
170°-180°	17.8	0.5	0.4
0°-30°	411.7	10.7	8.6
0°-40°	695.0	18.0	14.5
0°-60°	1346.0	34.9	28.0
0°-90°	2240.2	58.2	46.7
90°-120°	769.3	20.0	16.0
90°-150°	1395.7	36.2	29.1
90°-180°	1612.0	41.8	33.6
0°-180°	3852.3	100.0	80.3

CANDELA DISTRIBUTION:

0°	Flux
0°	517
5°	515
15°	501
25°	479
35°	452
45°	416
55°	368
65°	319
75°	281
85°	256
90°	248
95°	242
105°	241
115°	251
125°	264
135°	278
145°	279
155°	275
165°	254
175°	168
180°	163



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CANDELA DISTRIBUTION (FULL):

0°	
0°	516.8
2.5°	516.3
5°	514.6
7.5°	512.2
10°	509.4
12.5°	505.5
15°	500.8
17.5°	496.2
20°	490.6
22.5°	484.8
25°	478.6
27.5°	472.3
30°	466.1
32.5°	459.3
35°	452.1
37.5°	444.0
40°	435.3
42.5°	425.5
45°	415.5
47.5°	404.7
50°	392.7
52.5°	381.2
55°	368.5
57.5°	356.1
60°	343.0
62.5°	330.8
65°	318.8
67.5°	308.1
70°	298.3
72.5°	289.0
75°	281.0
77.5°	273.4
80°	267.0
82.5°	260.8
85°	255.7
87.5°	251.2
90°	247.5
92.5°	244.5
95°	242.2
97.5°	240.8
100°	239.9
102.5°	240.1
105°	240.7
107.5°	242.4
110°	245.1



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	247.8
115°	250.8
117.5°	253.9
120°	257.2
122.5°	260.5
125°	264.0
127.5°	267.9
130°	271.9
132.5°	275.3
135°	277.5
137.5°	278.8
140°	279.7
142.5°	279.3
145°	279.1
147.5°	278.3
150°	277.3
152.5°	276.2
155°	274.8
157.5°	273.0
160°	270.0
162.5°	264.6
165°	253.6
167.5°	236.4
170°	215.6
172.5°	191.8
175°	167.6
177.5°	159.2
180°	162.9

(END OF REPORT)