

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: 19372A

Luminaire Tested: **233-12-SH-CF1/32**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19372A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 233-12-SH-CF1/32
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE GLASS LENS

Light Source: ONE 32 WATT CPFL LAMP. LUMEN RATING = 2400 LMS.

Ballast/Driver: -

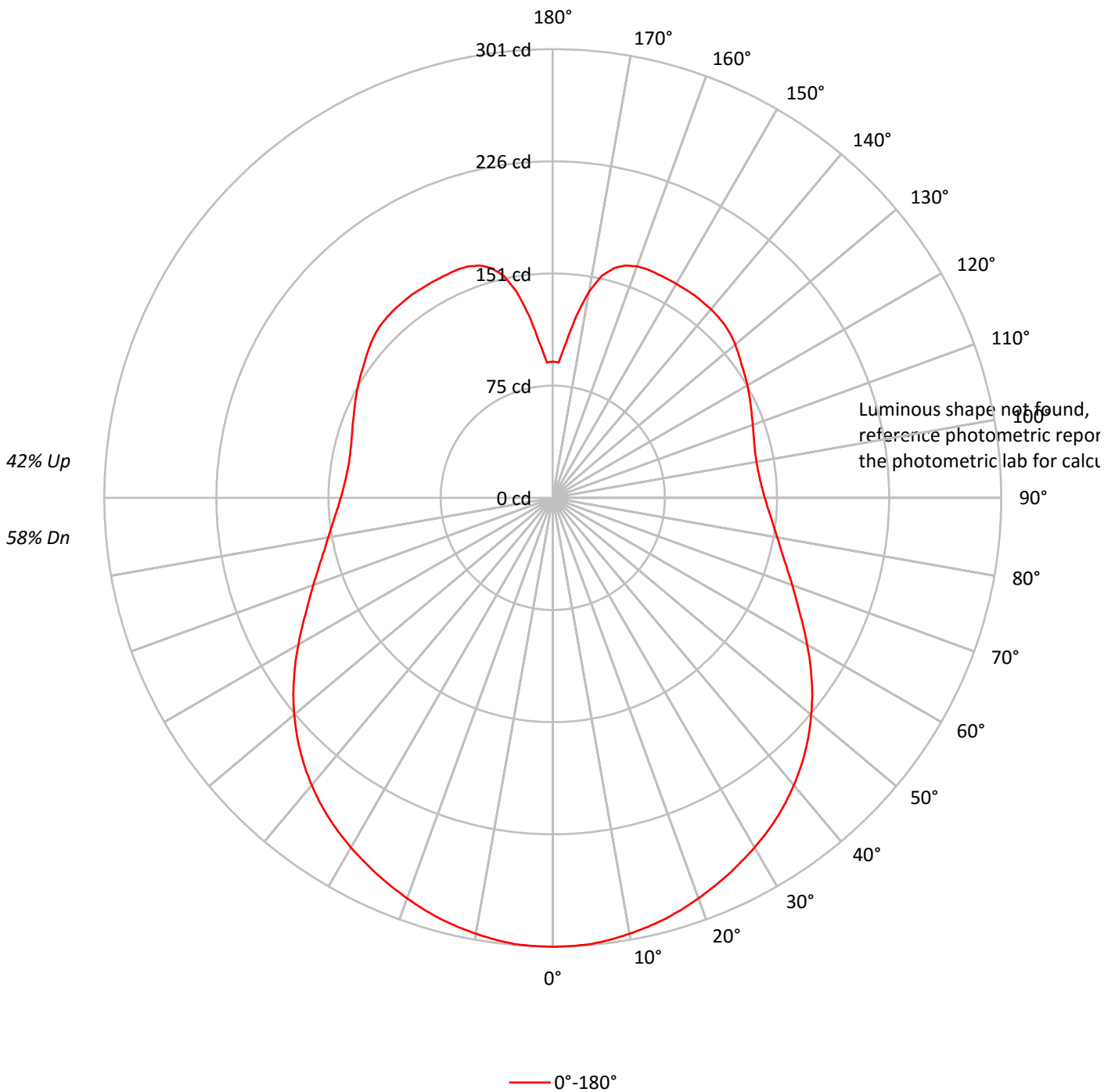
Summary

Lumens per Lamp: 2400 (1 lamp)
Luminaire Lumens: 2241.3 lumens
Efficiency: 93.4%
Efficacy: -
Spacing Criteria (0/90/45): 1.35 / 1.35 / 1.51
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	102	102	102	102	95	95	95	95	82	82	82	70	70	70	59	59	59	54
1	90	84	80	75	83	78	74	70	67	64	61	57	54	52	47	45	44	39
2	81	72	65	59	74	67	61	56	57	52	48	48	45	41	40	37	35	31
3	73	63	55	48	67	58	51	45	50	44	39	42	38	34	35	31	28	25
4	66	55	46	40	61	51	43	38	44	38	33	37	32	28	31	27	24	20
5	61	49	40	34	56	45	38	32	39	33	28	33	28	24	27	23	20	17
6	56	43	35	29	51	40	33	27	35	29	24	29	25	21	25	21	18	15
7	52	39	31	25	48	36	29	24	31	25	21	27	22	18	22	18	15	13
8	48	35	28	22	44	33	26	21	29	23	18	24	20	16	20	17	14	11
9	44	32	25	20	41	30	23	19	26	20	16	22	18	14	19	15	12	10
10	42	29	22	18	38	28	21	17	24	19	15	21	16	13	17	14	11	9

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	28.6	1.3	1.2
10°-20°	82.6	3.7	3.4
20°-30°	128.7	5.7	5.4
30°-40°	164.2	7.3	6.8
40°-50°	185.3	8.3	7.7
50°-60°	190.0	8.5	7.9
60°-70°	181.9	8.1	7.6
70°-80°	170.6	7.6	7.1
80°-90°	160.5	7.2	6.7
90°-100°	152.7	6.8	6.4
100°-110°	148.4	6.6	6.2
110°-120°	145.6	6.5	6.1
120°-130°	139.1	6.2	5.8
130°-140°	126.3	5.6	5.3
140°-150°	104.0	4.6	4.3
150°-160°	76.7	3.4	3.2
160°-170°	44.9	2.0	1.9
170°-180°	11.2	0.5	0.5
0°-30°	239.9	10.7	10.0
0°-40°	404.1	18.0	16.8
0°-60°	779.3	34.8	32.5
0°-90°	1292.3	57.7	53.8
90°-120°	446.7	19.9	18.6
90°-150°	816.2	36.4	34.0
90°-180°	949.0	42.3	39.5
0°-180°	2241.3	100.0	93.4

CANDELA DISTRIBUTION:

	0°	Flux
0°	301	
5°	300	29
15°	292	83
25°	279	129
35°	262	164
45°	240	185
55°	212	190
65°	183	182
75°	161	171
85°	147	121
90°	142	78
95°	140	114
105°	140	148
115°	147	146
125°	155	139
135°	164	126
145°	166	104
155°	166	77
165°	160	45
175°	105	11
180°	91	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	301.2
2.5°	301.0
5°	300.4
7.5°	298.9
10°	296.9
12.5°	294.8
15°	292.3
17.5°	289.3
20°	285.9
22.5°	282.4
25°	278.8
27.5°	274.8
30°	270.9
32.5°	266.6
35°	262.1
37.5°	257.1
40°	251.7
42.5°	246.0
45°	239.8
47.5°	233.4
50°	226.4
52.5°	219.5
55°	212.1
57.5°	204.7
60°	197.1
62.5°	190.0
65°	182.9
67.5°	176.7
70°	171.1
72.5°	165.6
75°	160.9
77.5°	156.6
80°	153.0
82.5°	149.7
85°	146.9
87.5°	144.3
90°	142.3
92.5°	140.7
95°	139.6
97.5°	139.0
100°	138.8
102.5°	139.2
105°	140.0
107.5°	141.3
110°	142.9



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	144.6
115°	146.6
117.5°	148.7
120°	150.8
122.5°	152.9
125°	154.9
127.5°	157.4
130°	159.9
132.5°	162.0
135°	163.6
137.5°	164.5
140°	165.2
142.5°	165.4
145°	165.9
147.5°	165.7
150°	165.8
152.5°	165.7
155°	165.8
157.5°	165.9
160°	165.2
162.5°	163.4
165°	159.6
167.5°	152.6
170°	140.6
172.5°	123.5
175°	105.0
177.5°	90.9
180°	91.4

(END OF REPORT)