

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: 19450A

Luminaire Tested: **416-CF1/32**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19450A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 416-CF1/32
Description: INTERIOR SUSPENDED LUMINAIRE WITH WHITE PLASTIC CONE LENS

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

Ballast/Driver: -

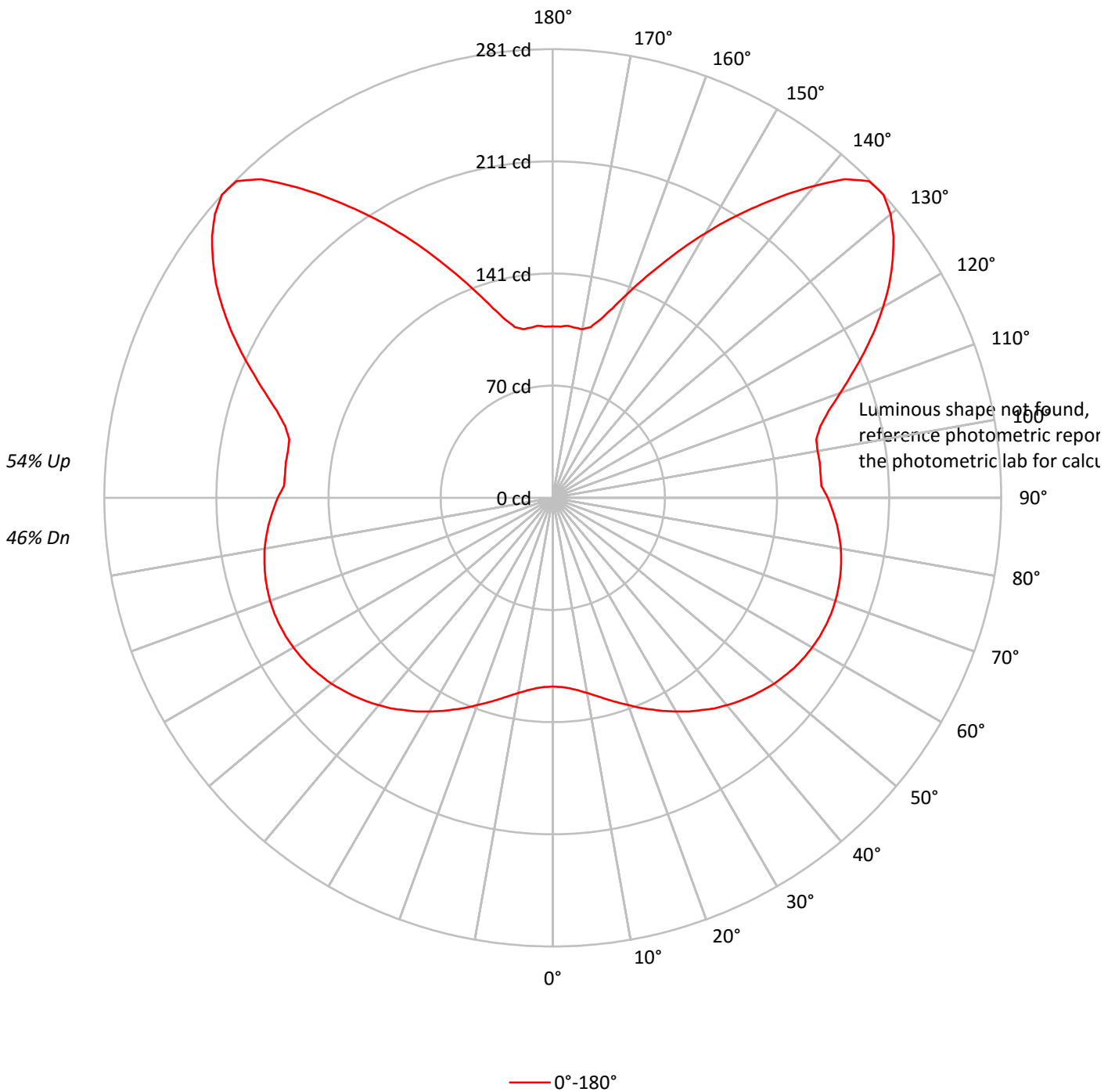
Summary

Lumens per Lamp: 2400 (1 lamp)
Luminaire Lumens: 2389.1 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°	11.6	0.5	0.5
10°-20°	37.3	1.6	1.6
20°-30°	68.0	2.8	2.8
30°-40°	102.1	4.3	4.3
40°-50°	136.1	5.7	5.7
50°-60°	165.8	6.9	6.9
60°-70°	187.2	7.8	7.8
70°-80°	197.1	8.2	8.2
80°-90°	194.4	8.1	8.1
90°-100°	184.4	7.7	7.7
100°-110°	186.1	7.8	7.8
110°-120°	213.3	8.9	8.9
120°-130°	232.3	9.7	9.7
130°-140°	212.8	8.9	8.9
140°-150°	140.9	5.9	5.9
150°-160°	75.8	3.2	3.2
160°-170°	33.8	1.4	1.4
170°-180°	10.3	0.4	0.4
0°-30°	116.8	4.9	4.9
0°-40°	218.9	9.2	9.1
0°-60°	520.9	21.8	21.7
0°-90°	1099.5	46.0	45.8
90°-120°	583.7	24.4	24.3
90°-150°	1169.7	49.0	48.7
90°-180°	1290.0	54.0	53.8
0°-180°	2389.1	100.0	99.5

CANDELA DISTRIBUTION:

0°	Flux
0°	118
5°	120
15°	131
25°	146
35°	162
45°	176
55°	185
65°	189
75°	187
85°	178
90°	172
95°	168
105°	174
115°	215
125°	260
135°	280
145°	223
155°	161
165°	116
175°	108
180°	107



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CANDELA DISTRIBUTION (FULL):

0°	
0°	118.2
2.5°	118.6
5°	119.7
7.5°	121.6
10°	124.1
12.5°	127.1
15°	130.6
17.5°	134.3
20°	138.1
22.5°	142.3
25°	146.3
27.5°	150.5
30°	154.5
32.5°	158.6
35°	162.3
37.5°	166.3
40°	169.5
42.5°	172.8
45°	175.8
47.5°	178.4
50°	181.1
52.5°	183.1
55°	185.1
57.5°	186.5
60°	187.6
62.5°	188.5
65°	188.8
67.5°	188.9
70°	188.5
72.5°	187.7
75°	186.6
77.5°	185.1
80°	183.3
82.5°	181.0
85°	178.4
87.5°	175.4
90°	172.4
92.5°	168.5
95°	168.4
97.5°	168.7
100°	168.5
102.5°	169.1
105°	173.5
107.5°	181.2
110°	191.6



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	202.9
115°	215.2
117.5°	227.3
120°	239.0
122.5°	250.2
125°	260.0
127.5°	269.1
130°	276.3
132.5°	281.1
135°	280.4
137.5°	270.6
140°	255.0
142.5°	239.1
145°	222.7
147.5°	207.2
150°	191.3
152.5°	176.2
155°	161.3
157.5°	147.9
160°	135.6
162.5°	124.4
165°	115.7
167.5°	109.5
170°	107.2
172.5°	107.4
175°	108.2
177.5°	107.3
180°	107.4

(END OF REPORT)