

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: 19428A

Luminaire Tested: **415-D-CF4/42+INC**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19428A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 415-D-CF4/42+INC
Description: INTERIOR SUSPENDED LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC BOWL LENS
Light Source: 4 - 42W CPFL & 1 70W PAR30 FL. LUMEN RATING = 17200 LMS.

Ballast/Driver: -

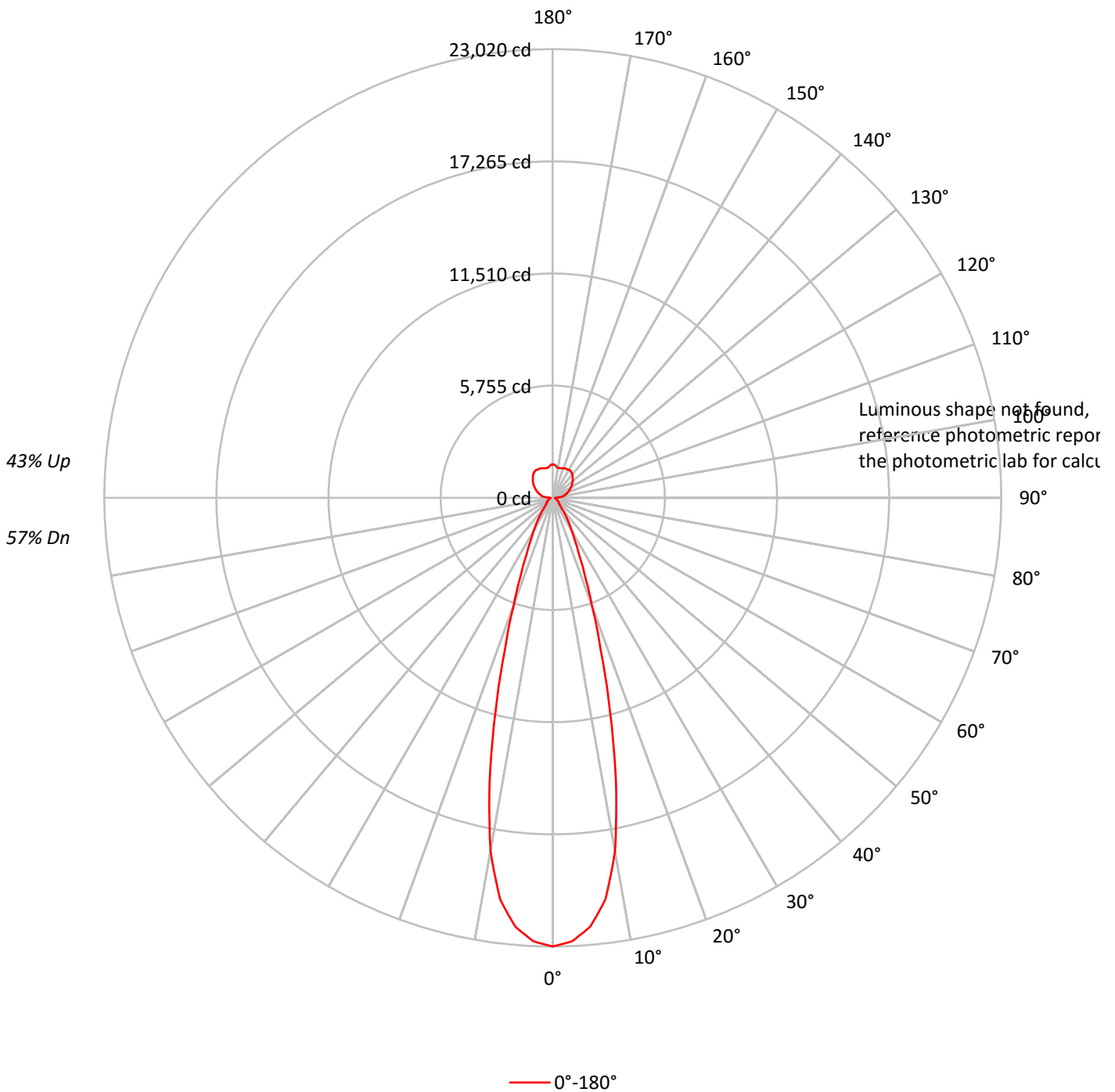
Summary

Lumens per Lamp: 17200 (1 lamp)
Luminaire Lumens: 15373.5 lumens
Efficiency: 89.4%
Efficacy: -
Spacing Criteria (0/90/45): 0.5 / 0.5 / 0.49
Luminous Opening: (L: 0' x W: -3' 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	97	97	97	97	90	90	90	90	78	78	78		66	66	66		56	56	56	51
1	91	88	85	82	85	82	80	77	71	70	68		61	60	59		52	52	51	47
2	85	80	75	72	79	75	71	68	66	63	61		57	55	54		49	48	47	44
3	80	73	68	64	75	69	64	61	61	58	55		54	51	49		47	45	44	41
4	75	67	62	58	70	64	59	55	57	53	50		51	48	46		45	43	41	39
5	71	62	57	53	66	59	54	51	53	50	47		48	45	43		43	41	39	37
6	67	58	53	48	63	56	50	47	50	46	44		45	42	40		41	39	37	35
7	63	55	49	45	60	52	47	44	48	44	41		43	40	38		39	37	35	33
8	60	51	46	42	57	49	44	41	45	41	38		41	38	36		38	35	34	32
9	57	49	43	40	54	47	42	39	43	39	36		39	36	34		36	34	32	31
10	55	46	41	37	52	44	40	36	41	37	35		38	35	33		35	33	31	30

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	1995.2	13.0	11.6
10°-20°	3118.4	20.3	18.1
20°-30°	1547.7	10.1	9.0
30°-40°	786.3	5.1	4.6
40°-50°	407.6	2.7	2.4
50°-60°	309.5	2.0	1.8
60°-70°	243.6	1.6	1.4
70°-80°	186.9	1.2	1.1
80°-90°	133.4	0.9	0.8
90°-100°	389.5	2.5	2.3
100°-110°	731.1	4.8	4.3
110°-120°	940.7	6.1	5.5
120°-130°	1083.5	7.0	6.3
130°-140°	1119.6	7.3	6.5
140°-150°	1021.0	6.6	5.9
150°-160°	758.6	4.9	4.4
160°-170°	446.9	2.9	2.6
170°-180°	154.2	1.0	0.9
0°-30°	6661.2	43.3	38.7
0°-40°	7447.5	48.4	43.3
0°-60°	8164.5	53.1	47.5
0°-90°	8728.4	56.8	50.7
90°-120°	2061.3	13.4	12.0
90°-150°	5285.4	34.4	30.7
90°-180°	6645.0	43.2	38.6
0°-180°	15373.5	100.0	89.4

CANDELA DISTRIBUTION:

	0°	Flux
0°	23020	
5°	22086	###
15°	11346	3118
25°	3187	1548
35°	1240	786
45°	504	408
55°	345	309
65°	244	244
75°	177	187
85°	119	103
90°	110	72
95°	374	348
105°	688	731
115°	948	941
125°	1213	1083
135°	1449	1120
145°	1637	1021
155°	1644	759
165°	1566	447
175°	1647	154
180°	1702	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	23020.3
2.5°	22775.3
5°	22086.3
7.5°	20763.1
10°	18403.4
12.5°	14970.7
15°	11346.0
17.5°	8192.5
20°	5860.2
22.5°	4279.2
25°	3186.9
27.5°	2456.8
30°	1937.2
32.5°	1555.9
35°	1240.0
37.5°	964.9
40°	740.3
42.5°	593.0
45°	504.3
47.5°	449.6
50°	410.2
52.5°	376.8
55°	344.6
57.5°	314.4
60°	287.1
62.5°	263.5
65°	243.9
67.5°	227.1
70°	210.8
72.5°	193.0
75°	176.8
77.5°	160.2
80°	144.7
82.5°	130.5
85°	119.4
87.5°	111.9
90°	110.2
92.5°	191.8
95°	374.0
97.5°	520.8
100°	577.3
102.5°	628.0
105°	688.1
107.5°	753.0
110°	820.5

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CANDELA DISTRIBUTION (continued):

	0°
112.5°	885.2
115°	948.1
117.5°	1013.6
120°	1080.6
122.5°	1148.9
125°	1212.8
127.5°	1272.8
130°	1331.0
132.5°	1388.1
135°	1449.4
137.5°	1510.6
140°	1564.5
142.5°	1602.8
145°	1636.7
147.5°	1660.4
150°	1653.4
152.5°	1640.7
155°	1643.6
157.5°	1635.9
160°	1609.8
162.5°	1586.0
165°	1565.5
167.5°	1557.8
170°	1562.3
172.5°	1585.2
175°	1646.8
177.5°	1715.2
180°	1701.5

(END OF REPORT)