

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: 19853

Luminaire Tested: **210-D-CF3/13+CF1/13**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19853
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 210-D-CF3/13+CF1/13
Description: INTERIOR SUSPENDED LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC
BOWL LENS WITH OPEN CENTER
Light Source: 4 SYL 13 W CPFL LAMPS

3-CF13DS + 1-CF13DD/E/830. LUMEN RATING = 3300 LMS.

Ballast/Driver: -

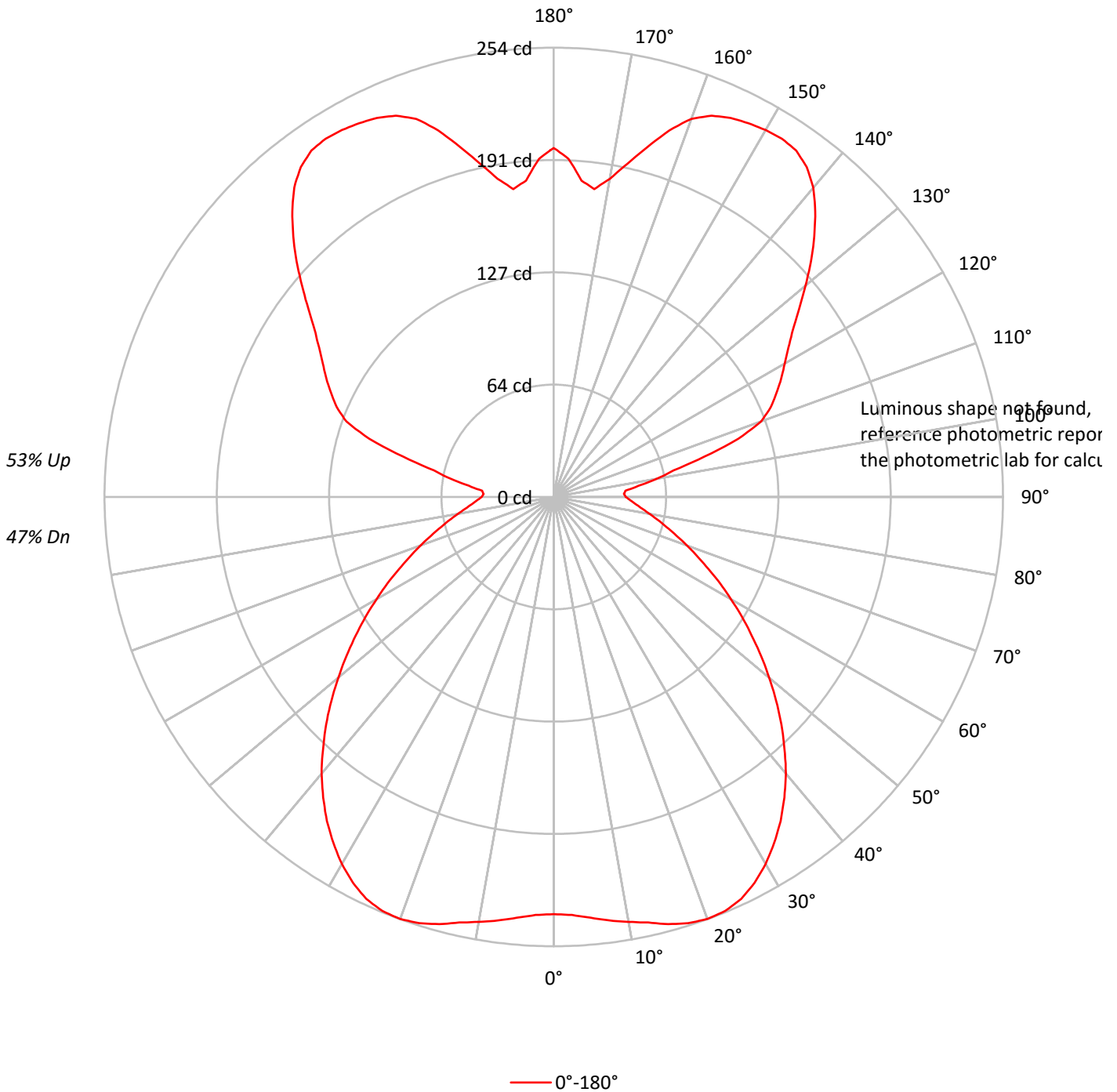
Summary

Lumens per Lamp: 3300 (1 lamp)
Luminaire Lumens: 1753.4 lumens
Efficiency: 53.1%
Efficacy: 30.8 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.44 / 1.47
Luminous Opening: (L: 0' x W: -0.33' x H: 0.42'
CIE Type: General Diffuse

Input Watts (W): 57
Input Voltage (V): NR
Input Current (A_{in}): 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





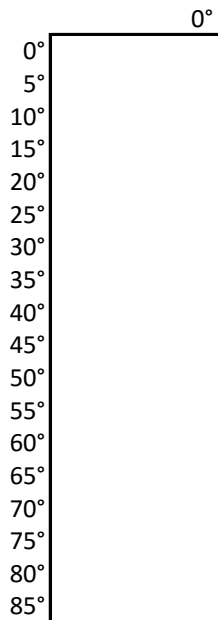
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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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	57	57	57	57	52	52	52	52	43	43	43	36	36	36	28	28	28	25
1	51	49	46	44	47	45	43	41	37	36	35	31	30	29	24	24	23	20
2	46	42	39	36	42	39	36	33	32	30	28	27	25	24	21	20	19	16
3	42	37	33	30	39	34	30	28	29	26	24	23	21	20	19	17	16	14
4	39	33	28	25	35	30	26	23	25	22	20	21	19	17	17	15	14	12
5	35	29	25	21	32	27	23	20	23	19	17	19	16	14	15	13	12	10
6	33	26	22	18	30	24	20	17	20	17	15	17	14	13	13	12	10	9
7	30	23	19	16	27	22	18	15	18	15	13	15	13	11	12	11	9	8
8	28	21	17	14	25	20	16	13	17	14	12	14	12	10	11	10	8	7
9	26	19	15	13	24	18	14	12	15	12	10	13	10	9	10	9	7	6
10	24	18	14	11	22	16	13	11	14	11	9	12	10	8	10	8	7	6

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	23.0	1.3	0.7
10°-20°	70.9	4.0	2.1
20°-30°	115.1	6.6	3.5
30°-40°	139.6	8.0	4.2
40°-50°	140.3	8.0	4.3
50°-60°	122.5	7.0	3.7
60°-70°	96.1	5.5	2.9
70°-80°	70.5	4.0	2.1
80°-90°	51.2	2.9	1.6
90°-100°	48.7	2.8	1.5
100°-110°	94.7	5.4	2.9
110°-120°	137.5	7.8	4.2
120°-130°	148.9	8.5	4.5
130°-140°	160.5	9.2	4.9
140°-150°	148.8	8.5	4.5
150°-160°	109.1	6.2	3.3
160°-170°	58.8	3.4	1.8
170°-180°	17.3	1.0	0.5
0°-30°	209.0	11.9	6.3
0°-40°	348.5	19.9	10.6
0°-60°	611.4	34.9	18.5
0°-90°	829.2	47.3	25.1
90°-120°	280.9	16.0	8.5
90°-150°	739.1	42.2	22.4
90°-180°	924.0	52.7	28.0
0°-180°	1753.4	100.0	53.1

CANDELA DISTRIBUTION:

0°	Flux
0°	236
5°	239
15°	250
25°	251
35°	224
45°	182
55°	137
65°	96
75°	66
85°	46
90°	41
95°	41
105°	88
115°	139
125°	165
135°	208
145°	239
155°	236
165°	205
175°	180
180°	197



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CANDELA DISTRIBUTION (FULL):

0°	
0°	235.8
2.5°	236.5
5°	238.8
7.5°	241.5
10°	243.9
12.5°	246.4
15°	250.0
17.5°	252.6
20°	253.9
22.5°	253.3
25°	250.7
27.5°	245.9
30°	239.6
32.5°	231.9
35°	223.6
37.5°	214.1
40°	204.2
42.5°	193.1
45°	182.0
47.5°	170.6
50°	158.9
52.5°	147.8
55°	136.6
57.5°	126.2
60°	115.7
62.5°	106.1
65°	96.4
67.5°	87.9
70°	80.1
72.5°	72.7
75°	66.2
77.5°	60.3
80°	55.0
82.5°	50.3
85°	46.4
87.5°	43.3
90°	40.7
92.5°	39.7
95°	40.7
97.5°	48.4
100°	59.3
102.5°	69.3
105°	88.2
107.5°	109.4
110°	124.8

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CANDELA DISTRIBUTION (continued):

	0°
112.5°	132.9
115°	138.9
117.5°	145.0
120°	150.7
122.5°	157.3
125°	165.0
127.5°	174.9
130°	185.7
132.5°	197.3
135°	208.3
137.5°	218.8
140°	228.3
142.5°	235.0
145°	239.0
147.5°	240.1
150°	239.5
152.5°	238.2
155°	236.5
157.5°	233.3
160°	227.5
162.5°	217.3
165°	204.8
167.5°	193.0
170°	182.6
172.5°	175.5
175°	179.5
177.5°	191.4
180°	197.3

(END OF REPORT)