

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: 19359

Luminaire Tested: **248-EL-20-CF4/27**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19359
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 248-EL-20-CF4/27
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE
PLASTIC BOWL LENS
Light Source: FOUR SYLVANIA 27 WATT CPFL LAMPS

FT24DL/830. LUMEN RATING = 7200 LMS.

Ballast/Driver: -

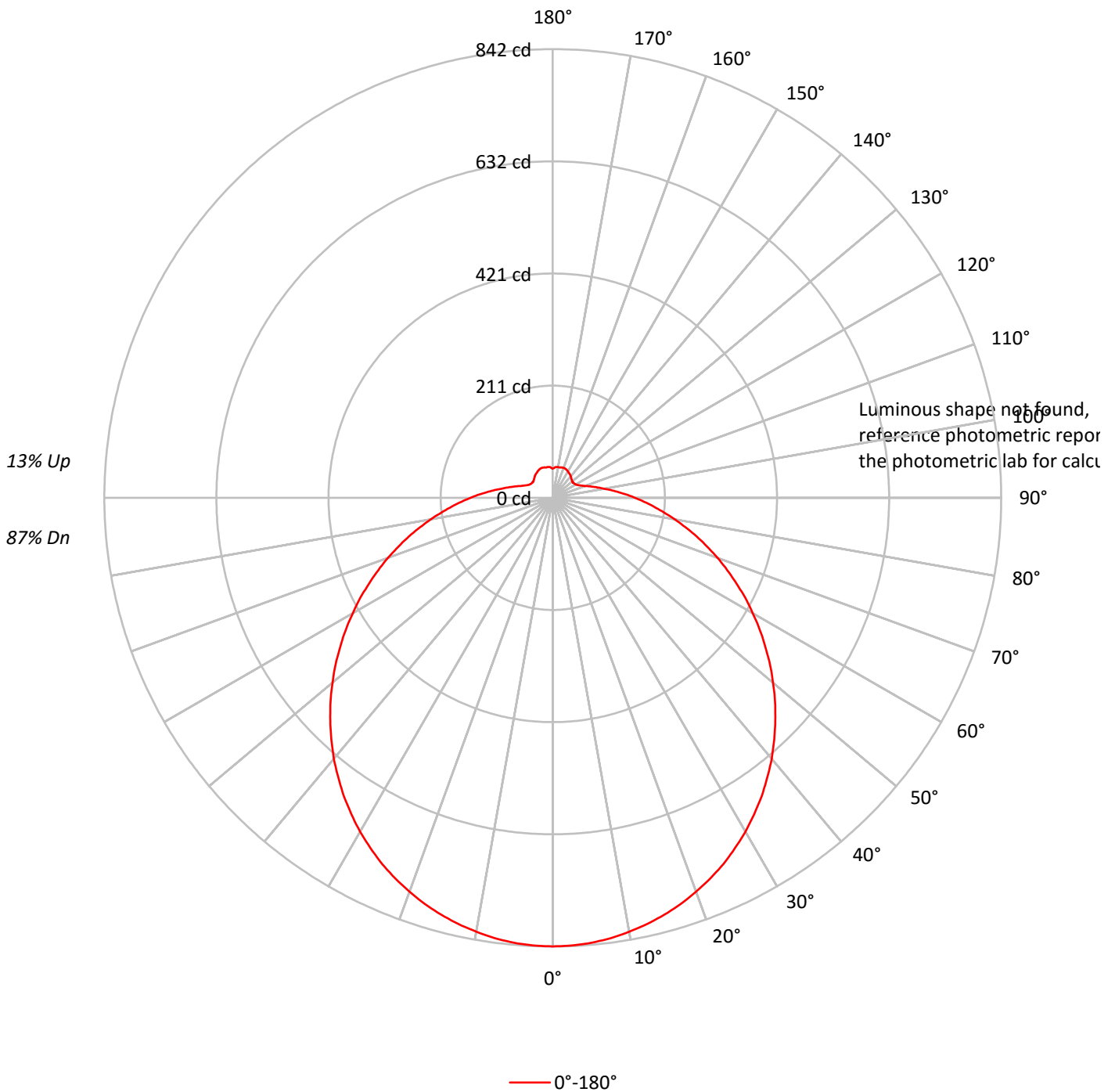
Summary

Lumens per Lamp: 7200 (1 lamp)
Luminaire Lumens: 3302.5 lumens
Efficiency: 45.9%
Efficacy: 50.8 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.41
Luminous Opening: (L: 0' x W: -0.08' x H: 0.33'
CIE Type: Semi-Direct

Input Watts (W): 65
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





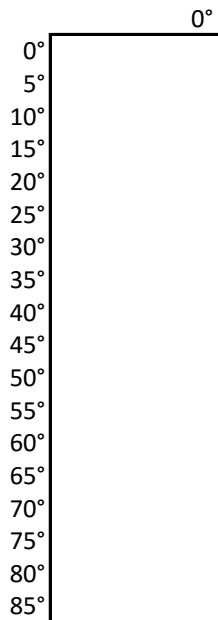
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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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	53	53	53	53	51	51	51	51	48	48	48	44	44	44	41	41	41	40
1	47	45	42	40	45	43	41	39	40	38	37	37	36	34	34	33	32	31
2	43	38	35	32	41	37	34	31	34	32	29	32	30	28	30	28	26	25
3	39	33	29	26	37	32	29	26	30	27	24	28	25	23	26	24	22	21
4	35	29	25	22	34	28	25	21	26	23	20	25	22	20	23	21	19	17
5	32	26	22	19	31	25	21	18	24	20	18	22	19	17	21	18	16	15
6	30	24	19	16	29	23	19	16	21	18	15	20	17	15	19	16	14	13
7	28	21	17	14	26	21	17	14	19	16	13	18	15	13	17	14	12	11
8	26	19	15	13	25	19	15	12	18	14	12	17	14	11	16	13	11	10
9	24	18	14	11	23	17	14	11	16	13	11	15	12	10	14	12	10	9
10	22	16	13	10	22	16	12	10	15	12	10	14	11	9	13	11	9	8

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	79.7	2.4	1.1
10°-20°	228.7	6.9	3.2
20°-30°	349.5	10.6	4.9
30°-40°	427.8	13.0	5.9
40°-50°	456.2	13.8	6.3
50°-60°	436.2	13.2	6.1
60°-70°	377.5	11.4	5.2
70°-80°	295.5	8.9	4.1
80°-90°	208.8	6.3	2.9
90°-100°	136.0	4.1	1.9
100°-110°	85.0	2.6	1.2
110°-120°	55.8	1.7	0.8
120°-130°	43.3	1.3	0.6
130°-140°	38.6	1.2	0.5
140°-150°	34.4	1.0	0.5
150°-160°	27.2	0.8	0.4
160°-170°	16.8	0.5	0.2
170°-180°	5.5	0.2	0.1
0°-30°	657.8	19.9	9.1
0°-40°	1085.7	32.9	15.1
0°-60°	1978.1	59.9	27.5
0°-90°	2859.9	86.6	39.7
90°-120°	276.8	8.4	3.8
90°-150°	393.1	11.9	5.5
90°-180°	443.0	13.4	6.2
0°-180°	3302.5	100.0	45.9

CANDELA DISTRIBUTION:

	0°	Flux
0°	842	
5°	838	80
15°	810	229
25°	758	349
35°	684	428
45°	591	456
55°	487	436
65°	380	378
75°	279	295
85°	191	164
90°	154	85
95°	123	96
105°	79	85
115°	56	56
125°	48	43
135°	50	39
145°	55	34
155°	59	27
165°	59	17
175°	58	6
180°	55	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	842.0
2.5°	840.8
5°	838.3
7.5°	833.7
10°	826.9
12.5°	819.3
15°	810.0
17.5°	799.3
20°	786.6
22.5°	773.0
25°	758.2
27.5°	741.2
30°	723.5
32.5°	703.8
35°	683.8
37.5°	661.6
40°	639.5
42.5°	615.2
45°	590.9
47.5°	566.0
50°	540.0
52.5°	514.3
55°	487.0
57.5°	460.9
60°	433.7
62.5°	407.6
65°	380.3
67.5°	354.6
70°	329.3
72.5°	303.4
75°	279.4
77.5°	254.8
80°	232.6
82.5°	210.4
85°	190.6
87.5°	171.5
90°	154.4
92.5°	138.4
95°	123.3
97.5°	110.4
100°	98.3
102.5°	88.4
105°	79.2
107.5°	71.7
110°	64.7



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	59.6
115°	55.5
117.5°	52.0
120°	50.0
122.5°	48.6
125°	48.0
127.5°	47.6
130°	47.8
132.5°	48.6
135°	49.6
137.5°	51.1
140°	52.5
142.5°	53.8
145°	54.9
147.5°	55.9
150°	57.2
152.5°	58.1
155°	59.1
157.5°	59.6
160°	59.8
162.5°	59.5
165°	59.2
167.5°	58.2
170°	58.5
172.5°	58.4
175°	57.8
177.5°	56.0
180°	54.8

(END OF REPORT)