

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: 17159B

Luminaire Tested: **420-RP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 17159B
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 420-RP
Description: RECESSED LUMINAIRE WITH SUSPENDED BOWL - PORTFOLIO
WITH SEMI-SPECULAR REFLECTOR AND WHITE MINI CELL LOUVER

Light Source: TWO 32 WATT CPFL LAMPS. LUMEN RATING = 4800 LMS.

Ballast/Driver: -

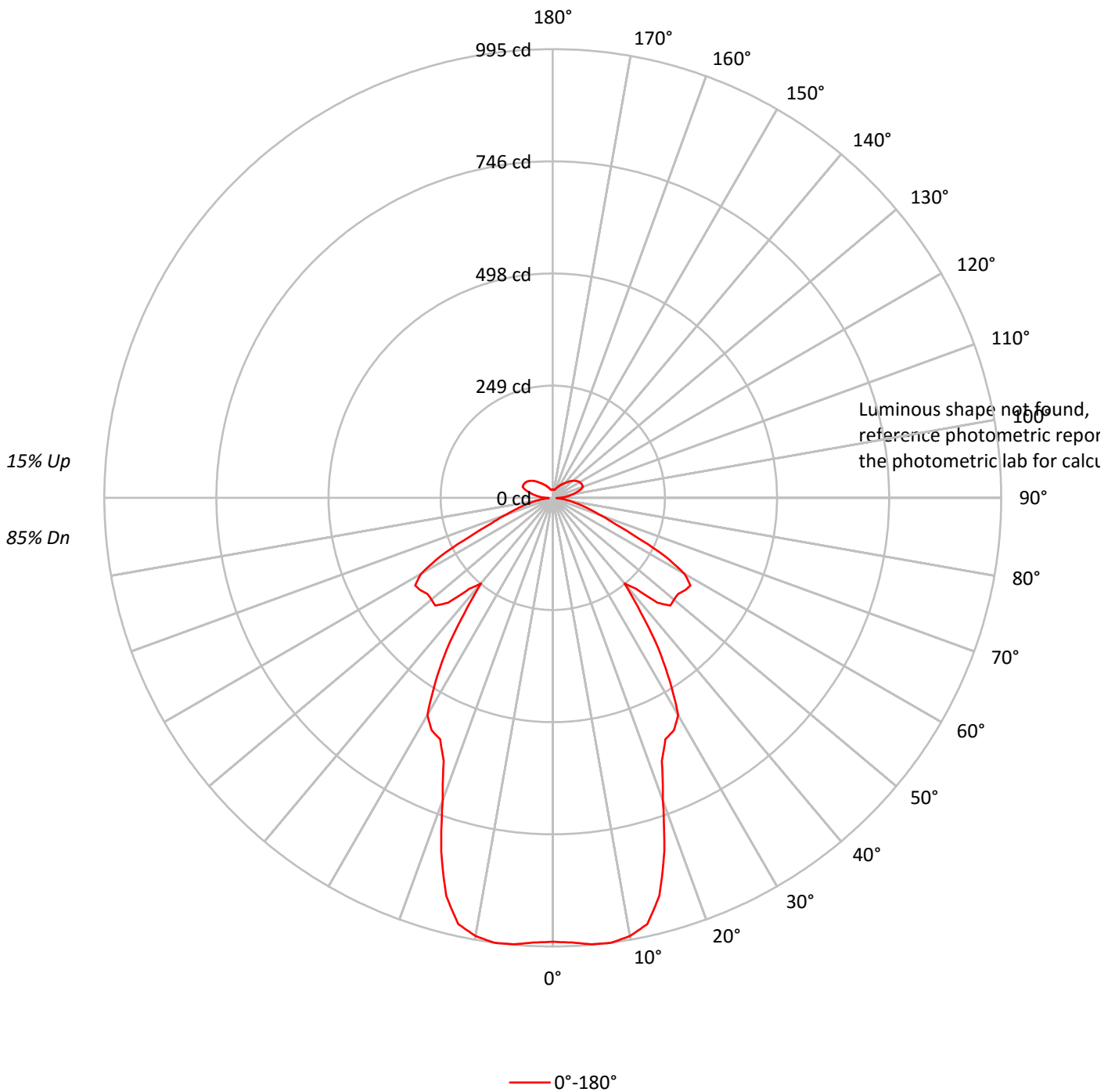
Summary

Lumens per Lamp: 4800 (1 lamp)
Luminaire Lumens: 2044.7 lumens
Efficiency: 42.6%
Efficacy: -
Spacing Criteria (0/90/45): 0.84 / 0.84 / 0.96
Luminous Opening: (L: 0 ' x W: -1.08 ' x H: 0 '
CIE Type: Semi-Direct

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	49	49	49	49	47	47	47	47	44	44	44	41	41	41	38	38	38	36
1	45	43	42	40	43	42	40	39	39	38	37	36	35	34	34	33	32	31
2	41	38	36	33	40	37	34	32	34	32	31	32	30	29	30	29	28	26
3	38	34	31	28	36	33	30	27	31	28	26	29	27	25	27	25	24	23
4	35	30	27	24	33	29	26	24	27	25	23	26	23	22	24	22	21	20
5	32	27	24	21	31	26	23	21	25	22	20	23	21	19	22	20	18	17
6	30	25	21	18	29	24	21	18	22	20	17	21	19	17	20	18	16	15
7	28	22	19	16	27	22	19	16	21	18	16	19	17	15	18	16	15	14
8	26	21	17	15	25	20	17	15	19	16	14	18	16	14	17	15	13	12
9	24	19	16	14	23	19	15	13	18	15	13	17	14	13	16	14	12	11
10	23	18	14	12	22	17	14	12	16	14	12	16	13	12	15	13	11	10

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	94.7	4.6	2.0
10°-20°	247.9	12.1	5.2
20°-30°	280.5	13.7	5.8
30°-40°	250.0	12.2	5.2
40°-50°	244.5	12.0	5.1
50°-60°	317.3	15.5	6.6
60°-70°	210.7	10.3	4.4
70°-80°	73.5	3.6	1.5
80°-90°	19.2	0.9	0.4
90°-100°	32.8	1.6	0.7
100°-110°	62.6	3.1	1.3
110°-120°	70.2	3.4	1.5
120°-130°	58.0	2.8	1.2
130°-140°	39.5	1.9	0.8
140°-150°	23.5	1.1	0.5
150°-160°	12.5	0.6	0.3
160°-170°	5.6	0.3	0.1
170°-180°	1.8	0.1	0.0
0°-30°	623.0	30.5	13.0
0°-40°	873.0	42.7	18.2
0°-60°	1434.8	70.2	29.9
0°-90°	1738.2	85.0	36.2
90°-120°	165.6	8.1	3.4
90°-150°	286.5	14.0	6.0
90°-180°	306.0	15.0	6.4
0°-180°	2044.7	100.0	42.6

CANDELA DISTRIBUTION:

	0°	Flux
0°	985	
5°	994	95
15°	914	248
25°	591	280
35°	409	250
45°	329	245
55°	358	317
65°	201	211
75°	67	74
85°	13	16
90°	14	8
95°	30	28
105°	60	63
115°	71	70
125°	65	58
135°	51	40
145°	37	23
155°	26	13
165°	19	6
175°	19	2
180°	18	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	984.7
2.5°	986.9
5°	994.0
7.5°	995.3
10°	986.7
12.5°	968.3
15°	913.7
17.5°	822.3
20°	714.2
22.5°	632.1
25°	590.8
27.5°	581.5
30°	556.5
32.5°	484.3
35°	409.0
37.5°	320.7
40°	248.0
42.5°	273.8
45°	329.0
47.5°	353.6
50°	351.3
52.5°	350.2
55°	357.9
57.5°	362.0
60°	337.7
62.5°	282.4
65°	201.3
67.5°	146.3
70°	112.8
72.5°	87.1
75°	67.4
77.5°	50.2
80°	36.0
82.5°	23.0
85°	13.4
87.5°	8.9
90°	14.4
92.5°	22.7
95°	30.3
97.5°	37.7
100°	45.1
102.5°	52.2
105°	60.0
107.5°	66.8
110°	71.0



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	71.3
115°	71.0
117.5°	70.3
120°	69.1
122.5°	67.3
125°	64.9
127.5°	61.9
130°	58.7
132.5°	55.0
135°	50.7
137.5°	46.8
140°	43.1
142.5°	39.9
145°	36.9
147.5°	34.3
150°	31.7
152.5°	29.2
155°	26.5
157.5°	24.3
160°	22.5
162.5°	20.7
165°	19.2
167.5°	18.3
170°	18.4
172.5°	19.3
175°	19.0
177.5°	17.8
180°	18.0

(END OF REPORT)