

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: 17159A

Luminaire Tested: **420-RP**

Issue Date: 3/3/2020

**Test Information**

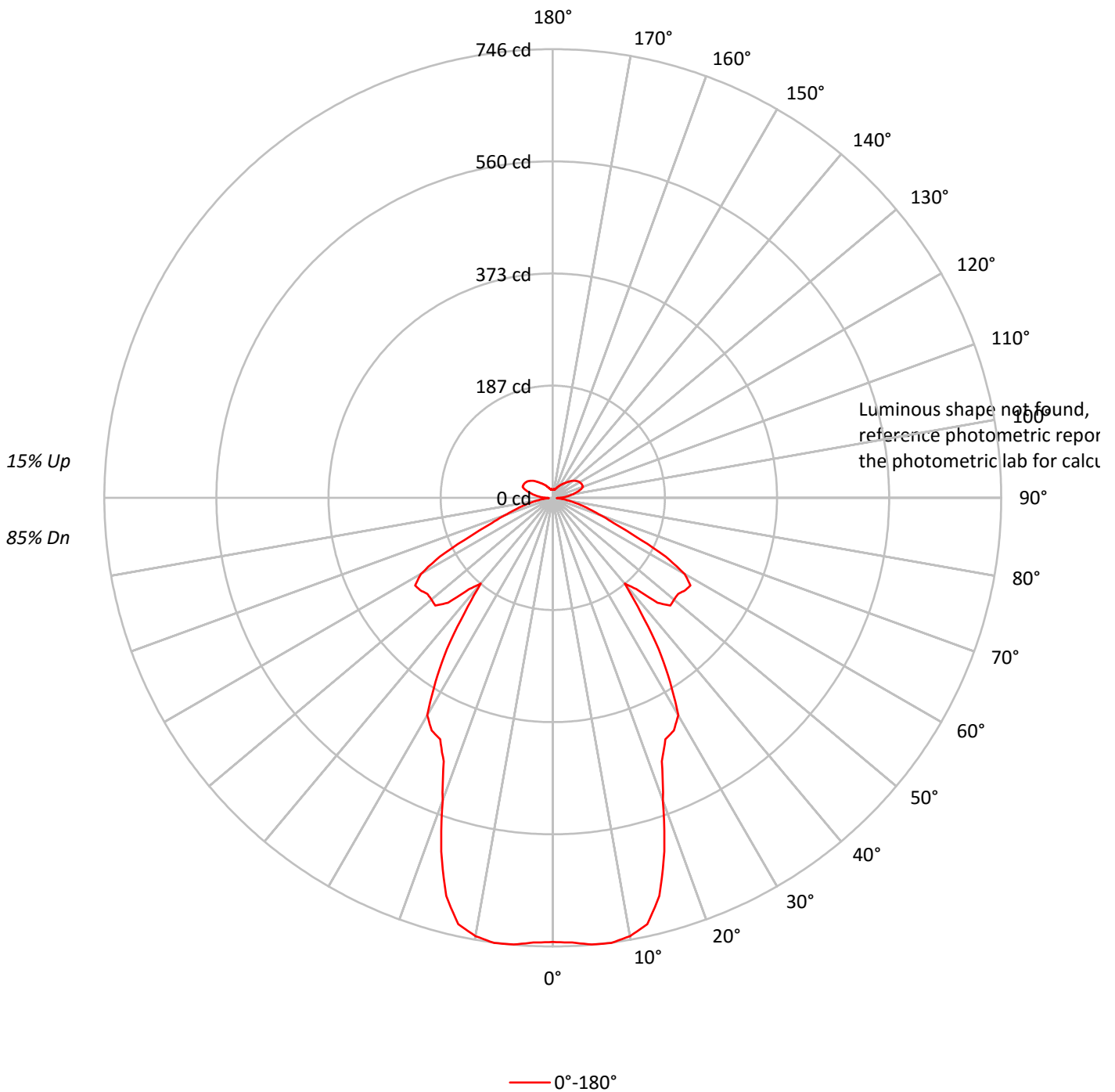
Test Method: LM-66-11  
Report Number: 17159A  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 420-RP  
Description: RECESSED LUMINAIRE WITH SUSPENDED BOWL - PORTFOLIO  
WITH SEMI-SPECULAR REFLECTOR AND WHITE MINI CELL LOUVER  
  
Light Source: TWO 26 WATT CPFL LAMPS. LUMEN RATING = 3600 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3600 (1 lamp)  
Luminaire Lumens: 1533.6 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



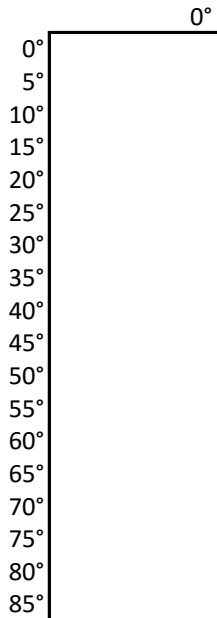


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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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°	71.0	4.6	2.0
10°-20°	185.9	12.1	5.2
20°-30°	210.4	13.7	5.8
30°-40°	187.5	12.2	5.2
40°-50°	183.4	12.0	5.1
50°-60°	237.9	15.5	6.6
60°-70°	158.0	10.3	4.4
70°-80°	55.2	3.6	1.5
80°-90°	14.4	0.9	0.4
90°-100°	24.6	1.6	0.7
100°-110°	47.0	3.1	1.3
110°-120°	52.6	3.4	1.5
120°-130°	43.5	2.8	1.2
130°-140°	29.7	1.9	0.8
140°-150°	17.6	1.1	0.5
150°-160°	9.4	0.6	0.3
160°-170°	4.2	0.3	0.1
170°-180°	1.3	0.1	0.0
0°-30°	467.3	30.5	13.0
0°-40°	654.7	42.7	18.2
0°-60°	1076.1	70.2	29.9
0°-90°	1303.7	85.0	36.2
90°-120°	124.2	8.1	3.4
90°-150°	215.0	14.0	6.0
90°-180°	230.0	15.0	6.4
0°-180°	1533.6	100.0	42.6

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	738	
5°	746	71
15°	685	186
25°	443	210
35°	307	187
45°	247	183
55°	268	238
65°	151	158
75°	51	55
85°	10	12
90°	11	6
95°	23	21
105°	45	47
115°	53	53
125°	49	43
135°	38	30
145°	28	18
155°	20	9
165°	14	4
175°	14	1
180°	14	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	738.5
2.5°	740.1
5°	745.5
7.5°	746.5
10°	740.0
12.5°	726.2
15°	685.3
17.5°	616.7
20°	535.7
22.5°	474.1
25°	443.1
27.5°	436.1
30°	417.4
32.5°	363.2
35°	306.8
37.5°	240.5
40°	186.0
42.5°	205.4
45°	246.7
47.5°	265.2
50°	263.4
52.5°	262.6
55°	268.4
57.5°	271.5
60°	253.3
62.5°	211.8
65°	151.0
67.5°	109.7
70°	84.6
72.5°	65.3
75°	50.6
77.5°	37.7
80°	27.0
82.5°	17.3
85°	10.1
87.5°	6.7
90°	10.8
92.5°	17.0
95°	22.8
97.5°	28.2
100°	33.9
102.5°	39.2
105°	45.0
107.5°	50.1
110°	53.3



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**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	53.5
115°	53.2
117.5°	52.7
120°	51.8
122.5°	50.5
125°	48.7
127.5°	46.4
130°	44.1
132.5°	41.3
135°	38.1
137.5°	35.1
140°	32.3
142.5°	29.9
145°	27.7
147.5°	25.8
150°	23.8
152.5°	21.9
155°	19.9
157.5°	18.3
160°	16.8
162.5°	15.5
165°	14.4
167.5°	13.7
170°	13.8
172.5°	14.5
175°	14.2
177.5°	13.4
180°	13.5

(END OF REPORT)