

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: 14259B

Luminaire Tested: **417-CF1/32**

Issue Date: 3/3/2020

**Test Information**

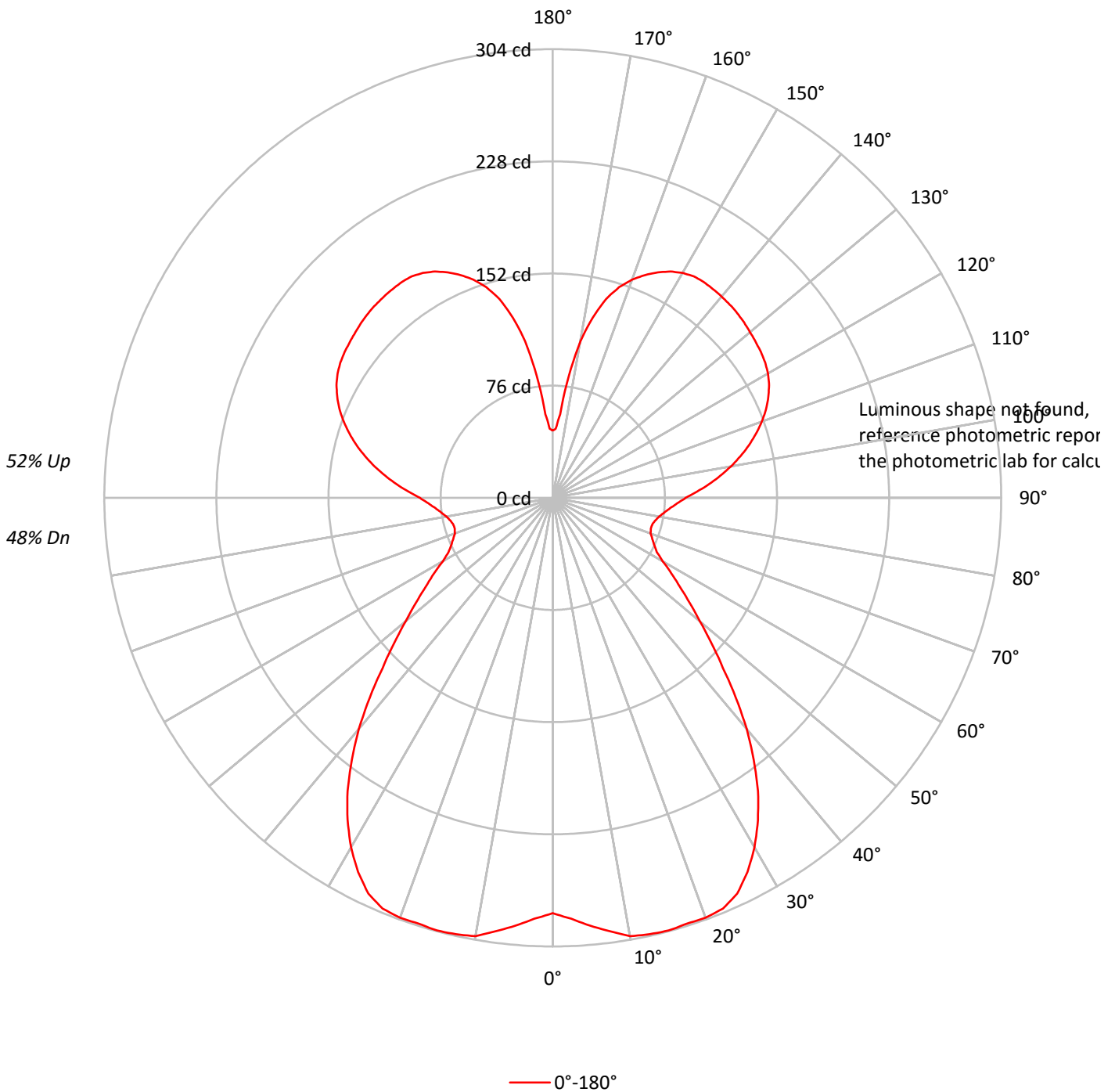
Test Method: LM-66-11  
Report Number: 14259B  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 417-CF1/32  
Description: FLUORESCENT INDOOR PENDANT LUMINAIRE WITH WHITE ACRYLIC BOWL AND NO LENS  
Light Source: ONE 32 WATT CPFL LAMP. LUMEN RATING = 2400 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 2400 (1 lamp)  
Luminaire Lumens: 1808.1 lumens  
Efficiency: 75.3%  
Efficacy: -  
Spacing Criteria (0/90/45): 1.36 / 1.36 / 1.32  
Luminous Opening: (L: 0 ' x W: -0.5 ' x H: 0 '  
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



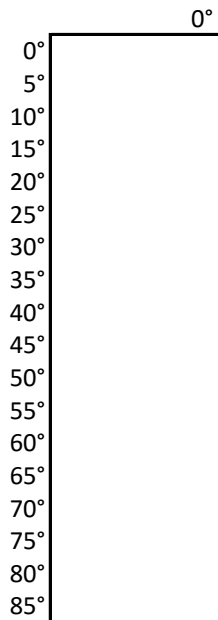


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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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   | 80 | 80 | 80 | 80 | 74 | 74 | 74 | 74 | 62 | 62 | 62 | 51 | 51 | 51 | 41 | 41 | 41 | 36 |
| 1   | 72 | 68 | 65 | 62 | 66 | 63 | 60 | 57 | 52 | 50 | 48 | 43 | 41 | 40 | 34 | 33 | 32 | 28 |
| 2   | 66 | 60 | 55 | 50 | 60 | 55 | 50 | 47 | 46 | 43 | 40 | 38 | 35 | 33 | 30 | 28 | 27 | 23 |
| 3   | 60 | 52 | 47 | 42 | 55 | 48 | 43 | 39 | 40 | 37 | 33 | 33 | 30 | 28 | 27 | 25 | 23 | 20 |
| 4   | 55 | 46 | 40 | 36 | 50 | 43 | 37 | 33 | 36 | 32 | 29 | 30 | 27 | 24 | 24 | 22 | 20 | 17 |
| 5   | 50 | 41 | 35 | 31 | 46 | 38 | 33 | 29 | 32 | 28 | 25 | 27 | 24 | 21 | 22 | 19 | 17 | 15 |
| 6   | 46 | 37 | 31 | 27 | 43 | 34 | 29 | 25 | 29 | 25 | 22 | 24 | 21 | 19 | 20 | 17 | 15 | 13 |
| 7   | 43 | 34 | 28 | 23 | 39 | 31 | 26 | 22 | 27 | 22 | 19 | 22 | 19 | 16 | 18 | 16 | 14 | 12 |
| 8   | 40 | 31 | 25 | 21 | 37 | 28 | 23 | 20 | 24 | 20 | 17 | 20 | 17 | 15 | 17 | 14 | 12 | 11 |
| 9   | 37 | 28 | 22 | 18 | 34 | 26 | 21 | 17 | 22 | 18 | 15 | 19 | 16 | 13 | 15 | 13 | 11 | 10 |
| 10  | 35 | 26 | 20 | 17 | 32 | 24 | 19 | 16 | 21 | 17 | 14 | 17 | 14 | 12 | 14 | 12 | 10 | 9  |

**AVERAGE LUMINANCE (cd/sqm):**





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 28.1   | 1.6       | 1.2    |
| 10°-20°   | 85.8   | 4.7       | 3.6    |
| 20°-30°   | 135.1  | 7.5       | 5.6    |
| 30°-40°   | 150.6  | 8.3       | 6.3    |
| 40°-50°   | 127.0  | 7.0       | 5.3    |
| 50°-60°   | 95.1   | 5.3       | 4.0    |
| 60°-70°   | 76.1   | 4.2       | 3.2    |
| 70°-80°   | 74.7   | 4.1       | 3.1    |
| 80°-90°   | 87.9   | 4.9       | 3.7    |
| 90°-100°  | 115.9  | 6.4       | 4.8    |
| 100°-110° | 145.1  | 8.0       | 6.0    |
| 110°-120° | 159.3  | 8.8       | 6.6    |
| 120°-130° | 154.2  | 8.5       | 6.4    |
| 130°-140° | 136.8  | 7.6       | 5.7    |
| 140°-150° | 111.8  | 6.2       | 4.7    |
| 150°-160° | 77.9   | 4.3       | 3.2    |
| 160°-170° | 39.4   | 2.2       | 1.6    |
| 170°-180° | 7.3    | 0.4       | 0.3    |
| 0°-30°    | 249.0  | 13.8      | 10.4   |
| 0°-40°    | 399.6  | 22.1      | 16.6   |
| 0°-60°    | 621.6  | 34.4      | 25.9   |
| 0°-90°    | 860.3  | 47.6      | 35.8   |
| 90°-120°  | 420.4  | 23.2      | 17.5   |
| 90°-150°  | 823.2  | 45.5      | 34.3   |
| 90°-180°  | 948.0  | 52.4      | 39.5   |
| 0°-180°   | 1808.1 | 100.0     | 75.3   |

**CANDELA DISTRIBUTION:**

|      | 0°  | Flux |
|------|-----|------|
| 0°   | 281 |      |
| 5°   | 291 | 28   |
| 15°  | 304 | 86   |
| 25°  | 296 | 135  |
| 35°  | 242 | 151  |
| 45°  | 163 | 127  |
| 55°  | 105 | 95   |
| 65°  | 76  | 76   |
| 75°  | 70  | 75   |
| 85°  | 80  | 64   |
| 90°  | 90  | 50   |
| 95°  | 106 | 90   |
| 105° | 138 | 145  |
| 115° | 161 | 159  |
| 125° | 172 | 154  |
| 135° | 177 | 137  |
| 145° | 178 | 112  |
| 155° | 168 | 78   |
| 165° | 139 | 39   |
| 175° | 57  | 7    |
| 180° | 46  |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°     |       |
|--------|-------|
| 0°     | 281.4 |
| 2.5°   | 285.5 |
| 5°     | 291.0 |
| 7.5°   | 296.2 |
| 10°    | 301.6 |
| 12.5°  | 302.9 |
| 15°    | 303.5 |
| 17.5°  | 302.5 |
| 20°    | 302.8 |
| 22.5°  | 301.3 |
| 25°    | 295.9 |
| 27.5°  | 285.8 |
| 30°    | 273.5 |
| 32.5°  | 258.8 |
| 35°    | 242.5 |
| 37.5°  | 223.8 |
| 40°    | 204.4 |
| 42.5°  | 183.6 |
| 45°    | 163.2 |
| 47.5°  | 145.8 |
| 50°    | 130.2 |
| 52.5°  | 116.9 |
| 55°    | 105.1 |
| 57.5°  | 95.4  |
| 60°    | 86.0  |
| 62.5°  | 79.6  |
| 65°    | 75.9  |
| 67.5°  | 73.1  |
| 70°    | 70.6  |
| 72.5°  | 69.6  |
| 75°    | 69.8  |
| 77.5°  | 71.1  |
| 80°    | 73.2  |
| 82.5°  | 76.2  |
| 85°    | 79.9  |
| 87.5°  | 84.4  |
| 90°    | 90.1  |
| 92.5°  | 97.9  |
| 95°    | 106.4 |
| 97.5°  | 114.5 |
| 100°   | 122.6 |
| 102.5° | 130.3 |
| 105°   | 137.7 |
| 107.5° | 144.4 |
| 110°   | 150.8 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    |
|--------|-------|
| 112.5° | 156.4 |
| 115°   | 161.2 |
| 117.5° | 165.3 |
| 120°   | 168.4 |
| 122.5° | 170.7 |
| 125°   | 172.2 |
| 127.5° | 173.4 |
| 130°   | 174.6 |
| 132.5° | 175.9 |
| 135°   | 176.9 |
| 137.5° | 177.6 |
| 140°   | 178.0 |
| 142.5° | 178.3 |
| 145°   | 178.5 |
| 147.5° | 177.9 |
| 150°   | 175.9 |
| 152.5° | 172.9 |
| 155°   | 168.5 |
| 157.5° | 163.4 |
| 160°   | 157.3 |
| 162.5° | 149.6 |
| 165°   | 139.4 |
| 167.5° | 125.0 |
| 170°   | 107.7 |
| 172.5° | 83.6  |
| 175°   | 56.8  |
| 177.5° | 46.8  |
| 180°   | 45.6  |

(END OF REPORT)