

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: 19374B

Luminaire Tested: **433-14-SH-CF1/42**

Issue Date: 3/3/2020

**Test Information**

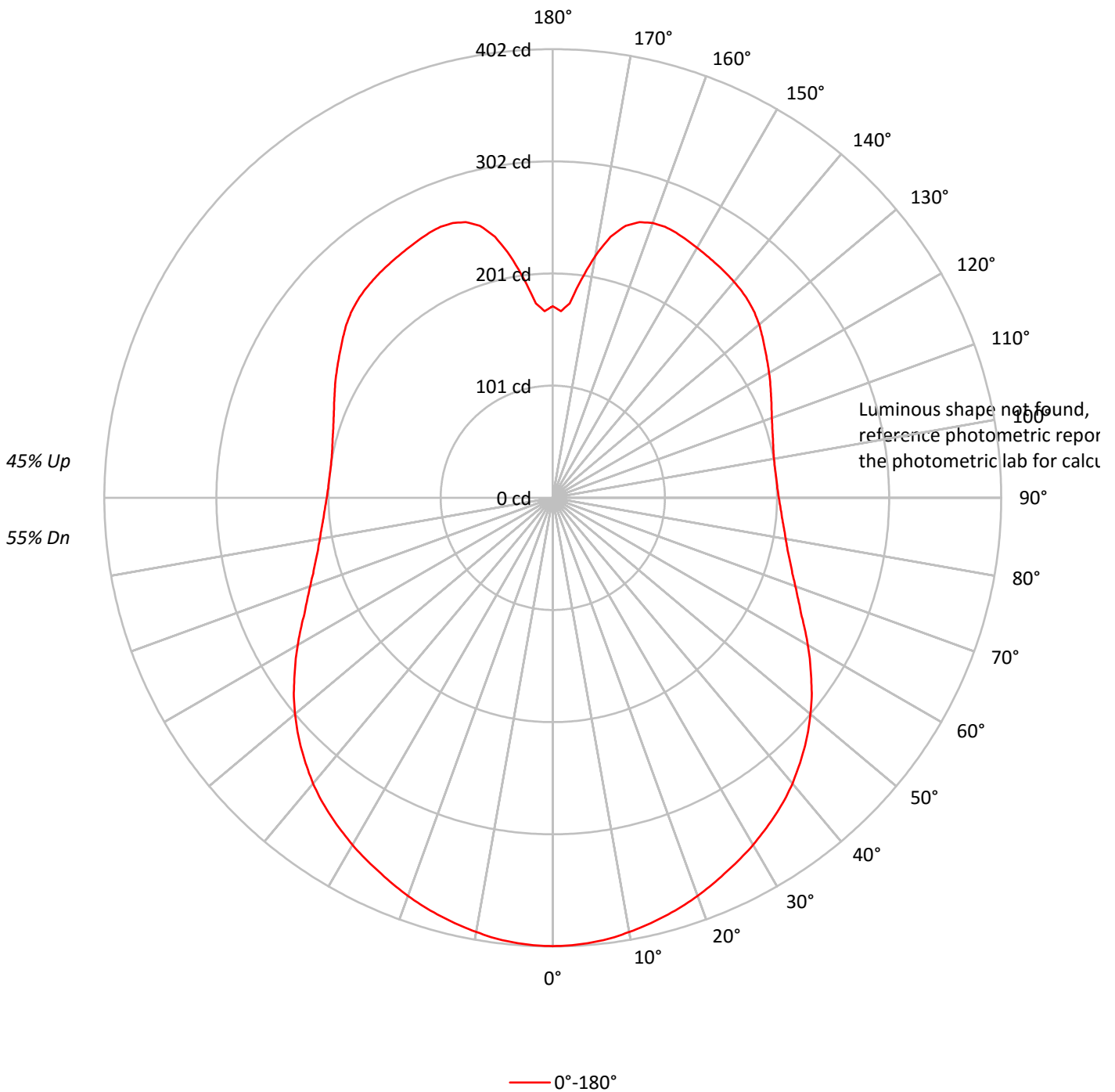
Test Method: LM-66-11  
Report Number: 19374B  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 433-14-SH-CF1/42  
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE GLASS LENS  
  
Light Source: ONE 42 WATT CPFL LAMP. LUMEN RATING = 3200 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3200 (1 lamp)  
Luminaire Lumens: 3160.8 lumens  
Efficiency: 98.8%  
Efficacy: -  
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.5  
Luminous Opening: (L: 0 ' x W: -0.08 ' x H: 0.46 '  
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   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 85 | 85 | 85 |  | 72 | 72 | 72 |  | 60 | 60 | 60 | 54 |
| 1   | 94  | 89  | 84  | 79  | 87 | 82 | 78 | 74 | 70 | 66 | 63 |  | 58 | 56 | 53 |  | 48 | 46 | 44 | 39 |
| 2   | 85  | 76  | 69  | 62  | 78 | 70 | 64 | 58 | 60 | 54 | 50 |  | 50 | 46 | 42 |  | 41 | 38 | 35 | 31 |
| 3   | 77  | 66  | 57  | 51  | 71 | 61 | 53 | 47 | 52 | 46 | 41 |  | 43 | 39 | 35 |  | 35 | 32 | 29 | 25 |
| 4   | 70  | 58  | 49  | 42  | 64 | 53 | 46 | 39 | 45 | 39 | 34 |  | 38 | 33 | 29 |  | 31 | 27 | 24 | 20 |
| 5   | 64  | 51  | 42  | 36  | 59 | 47 | 39 | 33 | 40 | 34 | 29 |  | 34 | 29 | 25 |  | 28 | 24 | 21 | 17 |
| 6   | 59  | 46  | 37  | 31  | 54 | 42 | 34 | 29 | 36 | 30 | 25 |  | 30 | 25 | 21 |  | 25 | 21 | 18 | 15 |
| 7   | 54  | 41  | 33  | 27  | 50 | 38 | 30 | 25 | 33 | 26 | 22 |  | 27 | 22 | 19 |  | 23 | 19 | 16 | 13 |
| 8   | 50  | 37  | 29  | 23  | 46 | 35 | 27 | 22 | 30 | 24 | 19 |  | 25 | 20 | 16 |  | 21 | 17 | 14 | 11 |
| 9   | 47  | 34  | 26  | 21  | 43 | 32 | 24 | 19 | 27 | 21 | 17 |  | 23 | 18 | 15 |  | 19 | 15 | 12 | 10 |
| 10  | 44  | 31  | 23  | 18  | 40 | 29 | 22 | 17 | 25 | 19 | 15 |  | 21 | 16 | 13 |  | 18 | 14 | 11 | 9  |

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





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 38.0   | 1.2       | 1.2    |
| 10°-20°   | 109.7  | 3.5       | 3.4    |
| 20°-30°   | 170.7  | 5.4       | 5.3    |
| 30°-40°   | 217.8  | 6.9       | 6.8    |
| 40°-50°   | 246.2  | 7.8       | 7.7    |
| 50°-60°   | 253.5  | 8.0       | 7.9    |
| 60°-70°   | 244.5  | 7.7       | 7.6    |
| 70°-80°   | 233.4  | 7.4       | 7.3    |
| 80°-90°   | 225.5  | 7.1       | 7.0    |
| 90°-100°  | 219.7  | 7.0       | 6.9    |
| 100°-110° | 216.4  | 6.8       | 6.8    |
| 110°-120° | 214.4  | 6.8       | 6.7    |
| 120°-130° | 208.4  | 6.6       | 6.5    |
| 130°-140° | 191.9  | 6.1       | 6.0    |
| 140°-150° | 160.6  | 5.1       | 5.0    |
| 150°-160° | 120.9  | 3.8       | 3.8    |
| 160°-170° | 70.9   | 2.2       | 2.2    |
| 170°-180° | 18.3   | 0.6       | 0.6    |
| 0°-30°    | 318.5  | 10.1      | 10.0   |
| 0°-40°    | 536.2  | 17.0      | 16.8   |
| 0°-60°    | 1035.9 | 32.8      | 32.4   |
| 0°-90°    | 1739.3 | 55.0      | 54.4   |
| 90°-120°  | 650.4  | 20.6      | 20.3   |
| 90°-150°  | 1211.3 | 38.3      | 37.9   |
| 90°-180°  | 1421.0 | 45.0      | 44.4   |
| 0°-180°   | 3160.8 | 100.0     | 98.8   |

**CANDELA DISTRIBUTION:**

|      | 0°  | Flux |
|------|-----|------|
| 0°   | 402 |      |
| 5°   | 400 | 38   |
| 15°  | 388 | 110  |
| 25°  | 369 | 171  |
| 35°  | 347 | 218  |
| 45°  | 319 | 246  |
| 55°  | 283 | 253  |
| 65°  | 246 | 244  |
| 75°  | 220 | 233  |
| 85°  | 206 | 170  |
| 90°  | 203 | 111  |
| 95°  | 201 | 164  |
| 105° | 204 | 216  |
| 115° | 216 | 214  |
| 125° | 232 | 208  |
| 135° | 248 | 192  |
| 145° | 256 | 161  |
| 155° | 262 | 121  |
| 165° | 252 | 71   |
| 175° | 175 | 18   |
| 180° | 172 |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°     |       |
|--------|-------|
| 0°     | 401.7 |
| 2.5°   | 401.3 |
| 5°     | 400.0 |
| 7.5°   | 398.1 |
| 10°    | 395.0 |
| 12.5°  | 391.8 |
| 15°    | 388.1 |
| 17.5°  | 384.1 |
| 20°    | 379.6 |
| 22.5°  | 374.6 |
| 25°    | 369.3 |
| 27.5°  | 364.4 |
| 30°    | 359.1 |
| 32.5°  | 353.3 |
| 35°    | 347.4 |
| 37.5°  | 341.2 |
| 40°    | 334.2 |
| 42.5°  | 326.5 |
| 45°    | 318.6 |
| 47.5°  | 310.3 |
| 50°    | 301.5 |
| 52.5°  | 292.6 |
| 55°    | 282.8 |
| 57.5°  | 273.5 |
| 60°    | 264.0 |
| 62.5°  | 254.7 |
| 65°    | 245.6 |
| 67.5°  | 238.1 |
| 70°    | 231.4 |
| 72.5°  | 225.2 |
| 75°    | 220.1 |
| 77.5°  | 215.6 |
| 80°    | 212.0 |
| 82.5°  | 209.0 |
| 85°    | 206.3 |
| 87.5°  | 204.3 |
| 90°    | 202.6 |
| 92.5°  | 201.5 |
| 95°    | 201.0 |
| 97.5°  | 200.9 |
| 100°   | 201.3 |
| 102.5° | 202.4 |
| 105°   | 204.3 |
| 107.5° | 206.3 |
| 110°   | 209.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    |
|--------|-------|
| 112.5° | 212.2 |
| 115°   | 215.9 |
| 117.5° | 219.9 |
| 120°   | 223.9 |
| 122.5° | 227.9 |
| 125°   | 232.2 |
| 127.5° | 236.9 |
| 130°   | 241.5 |
| 132.5° | 245.4 |
| 135°   | 248.5 |
| 137.5° | 250.9 |
| 140°   | 252.7 |
| 142.5° | 254.4 |
| 145°   | 255.7 |
| 147.5° | 257.2 |
| 150°   | 258.6 |
| 152.5° | 260.3 |
| 155°   | 262.0 |
| 157.5° | 262.9 |
| 160°   | 262.0 |
| 162.5° | 259.0 |
| 165°   | 252.4 |
| 167.5° | 239.5 |
| 170°   | 220.2 |
| 172.5° | 197.3 |
| 175°   | 174.8 |
| 177.5° | 167.4 |
| 180°   | 171.7 |

(END OF REPORT)