

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: 19438B

Luminaire Tested: **464-CF1/42**

Issue Date: 3/3/2020

**Test Information**

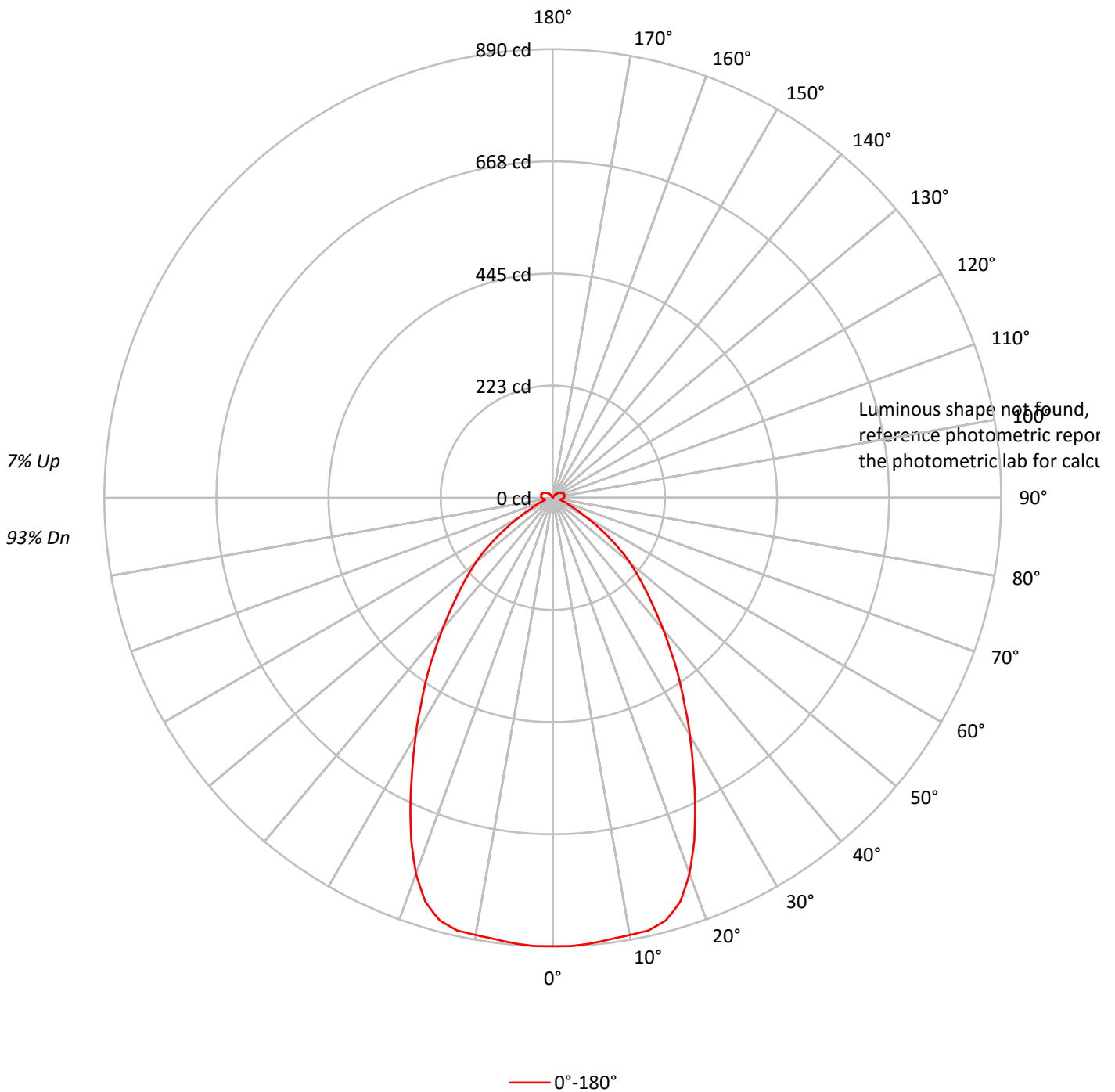
Test Method: LM-66-11  
Report Number: 19438B  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 464-CF1/42  
Description: INTERIOR SUSPENDED LUMINAIRE WITH WHITE PLASTIC CONE AND WHITE PLASTIC SHADE  
Light Source: ONE 42 WATT CPFL LAMP. LUMEN RATING = 3200 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3200 (1 lamp)  
Luminaire Lumens: 1416.4 lumens  
Efficiency: 44.3%  
Efficacy: -  
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.02  
Luminous Opening: (L: 0 ' x W: -1.17 ' x H: 0 '  
CIE Type: 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

TEST NUMBER: 19438B  
CATALOG NUMBER: 464-CF1/42

### Luminous Intensity Polar Plot



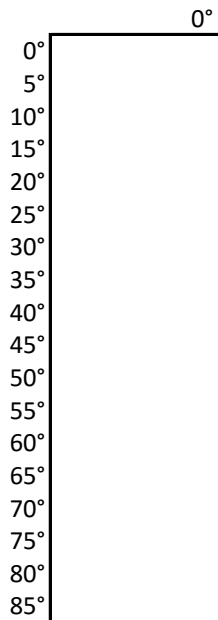


TEST NUMBER: 19438B  
 CATALOG NUMBER: 464-CF1/42

**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   | 52 | 52 | 52 | 52 | 50 | 50 | 50 | 50 | 47 | 47 | 47 | 45 | 45 | 45 | 42 | 42 | 42 | 41 |
| 1   | 49 | 47 | 45 | 44 | 47 | 46 | 44 | 43 | 43 | 42 | 41 | 41 | 40 | 39 | 39 | 38 | 38 | 37 |
| 2   | 45 | 42 | 40 | 38 | 44 | 41 | 39 | 37 | 39 | 38 | 36 | 37 | 36 | 35 | 36 | 35 | 34 | 33 |
| 3   | 42 | 38 | 36 | 33 | 41 | 38 | 35 | 33 | 36 | 34 | 32 | 34 | 33 | 31 | 33 | 31 | 30 | 29 |
| 4   | 39 | 35 | 32 | 30 | 38 | 34 | 31 | 29 | 33 | 30 | 29 | 32 | 29 | 28 | 30 | 29 | 27 | 26 |
| 5   | 37 | 32 | 29 | 26 | 36 | 31 | 28 | 26 | 30 | 28 | 26 | 29 | 27 | 25 | 28 | 26 | 25 | 24 |
| 6   | 34 | 29 | 26 | 24 | 33 | 29 | 26 | 24 | 28 | 25 | 23 | 27 | 25 | 23 | 26 | 24 | 22 | 22 |
| 7   | 32 | 27 | 24 | 22 | 31 | 27 | 24 | 21 | 26 | 23 | 21 | 25 | 23 | 21 | 24 | 22 | 20 | 20 |
| 8   | 30 | 25 | 22 | 20 | 29 | 25 | 22 | 20 | 24 | 21 | 19 | 23 | 21 | 19 | 23 | 20 | 19 | 18 |
| 9   | 29 | 23 | 20 | 18 | 28 | 23 | 20 | 18 | 22 | 20 | 18 | 22 | 19 | 18 | 21 | 19 | 17 | 17 |
| 10  | 27 | 22 | 19 | 17 | 26 | 22 | 19 | 17 | 21 | 18 | 16 | 20 | 18 | 16 | 20 | 18 | 16 | 15 |

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





TEST NUMBER: 19438B  
 CATALOG NUMBER: 464-CF1/42

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 84.4   | 6.0       | 2.6    |
| 10°-20°   | 241.5  | 17.0      | 7.5    |
| 20°-30°   | 306.0  | 21.6      | 9.6    |
| 30°-40°   | 272.7  | 19.3      | 8.5    |
| 40°-50°   | 203.9  | 14.4      | 6.4    |
| 50°-60°   | 121.0  | 8.5       | 3.8    |
| 60°-70°   | 44.8   | 3.2       | 1.4    |
| 70°-80°   | 18.9   | 1.3       | 0.6    |
| 80°-90°   | 21.7   | 1.5       | 0.7    |
| 90°-100°  | 25.1   | 1.8       | 0.8    |
| 100°-110° | 24.9   | 1.8       | 0.8    |
| 110°-120° | 21.6   | 1.5       | 0.7    |
| 120°-130° | 16.0   | 1.1       | 0.5    |
| 130°-140° | 9.5    | 0.7       | 0.3    |
| 140°-150° | 3.8    | 0.3       | 0.1    |
| 150°-160° | 0.8    | 0.1       | 0.0    |
| 160°-170° | 0.0    | 0.0       | 0.0    |
| 170°-180° | 0.0    | 0.0       | 0.0    |
| 0°-30°    | 631.8  | 44.6      | 19.7   |
| 0°-40°    | 904.5  | 63.9      | 28.3   |
| 0°-60°    | 1229.4 | 86.8      | 38.4   |
| 0°-90°    | 1314.7 | 92.8      | 41.1   |
| 90°-120°  | 71.6   | 5.1       | 2.2    |
| 90°-150°  | 100.8  | 7.1       | 3.2    |
| 90°-180°  | 102.0  | 7.2       | 3.2    |
| 0°-180°   | 1416.4 | 100.0     | 44.3   |

**CANDELA DISTRIBUTION:**

|      | 0°  | Flux |
|------|-----|------|
| 0°   | 890 |      |
| 5°   | 887 | 84   |
| 15°  | 868 | 241  |
| 25°  | 668 | 306  |
| 35°  | 436 | 273  |
| 45°  | 262 | 204  |
| 55°  | 134 | 121  |
| 65°  | 42  | 45   |
| 75°  | 16  | 19   |
| 85°  | 20  | 16   |
| 90°  | 22  | 12   |
| 95°  | 23  | 19   |
| 105° | 24  | 25   |
| 115° | 22  | 22   |
| 125° | 18  | 16   |
| 135° | 12  | 9    |
| 145° | 6   | 4    |
| 155° | 2   | 1    |
| 165° | 0   | 0    |
| 175° | 0   | 0    |
| 180° | 0   |      |



TEST NUMBER: 19438B  
CATALOG NUMBER: 464-CF1/42

**CANDELA DISTRIBUTION (FULL):**

| 0°     |       |
|--------|-------|
| 0°     | 889.6 |
| 2.5°   | 890.0 |
| 5°     | 887.1 |
| 7.5°   | 882.9 |
| 10°    | 880.5 |
| 12.5°  | 878.9 |
| 15°    | 867.7 |
| 17.5°  | 840.6 |
| 20°    | 793.3 |
| 22.5°  | 733.9 |
| 25°    | 668.2 |
| 27.5°  | 602.9 |
| 30°    | 544.2 |
| 32.5°  | 487.2 |
| 35°    | 436.4 |
| 37.5°  | 385.9 |
| 40°    | 340.9 |
| 42.5°  | 298.6 |
| 45°    | 262.2 |
| 47.5°  | 229.6 |
| 50°    | 199.5 |
| 52.5°  | 167.8 |
| 55°    | 134.3 |
| 57.5°  | 104.0 |
| 60°    | 76.7  |
| 62.5°  | 55.5  |
| 65°    | 41.6  |
| 67.5°  | 33.3  |
| 70°    | 25.8  |
| 72.5°  | 18.8  |
| 75°    | 15.9  |
| 77.5°  | 15.4  |
| 80°    | 17.2  |
| 82.5°  | 18.8  |
| 85°    | 20.2  |
| 87.5°  | 21.0  |
| 90°    | 21.8  |
| 92.5°  | 22.5  |
| 95°    | 23.3  |
| 97.5°  | 23.5  |
| 100°   | 23.6  |
| 102.5° | 23.5  |
| 105°   | 23.8  |
| 107.5° | 23.6  |
| 110°   | 23.1  |



TEST NUMBER: 19438B  
CATALOG NUMBER: 464-CF1/42

**CANDELA DISTRIBUTION (continued):**

|        | 0°   |
|--------|------|
| 112.5° | 22.4 |
| 115°   | 21.8 |
| 117.5° | 21.0 |
| 120°   | 20.1 |
| 122.5° | 19.1 |
| 125°   | 17.9 |
| 127.5° | 16.4 |
| 130°   | 15.0 |
| 132.5° | 13.6 |
| 135°   | 12.3 |
| 137.5° | 10.7 |
| 140°   | 8.9  |
| 142.5° | 7.5  |
| 145°   | 5.8  |
| 147.5° | 4.5  |
| 150°   | 3.4  |
| 152.5° | 2.6  |
| 155°   | 1.5  |
| 157.5° | 0.6  |
| 160°   | 0.1  |
| 162.5° | 0.0  |
| 165°   | 0.0  |
| 167.5° | 0.0  |
| 170°   | 0.0  |
| 172.5° | 0.0  |
| 175°   | 0.0  |
| 177.5° | 0.0  |
| 180°   | 0.0  |

(END OF REPORT)