

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: SHAPER

Report Number: P600565

Luminaire Tested: 235-90-27K-LL4-UNV-STD-X-X-WHHR-BR-X

Issue Date: 7/6/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P600565  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-582-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/6/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: SHAPER  
Catalog Number: 235-90-27K-LL4-UNV-STD-X-X-WHHR-BR-X  
Description: SHAPER PrentaLux 200 SERIES 3D PRINTED LUMINAIRE  
Light Source: 2700K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

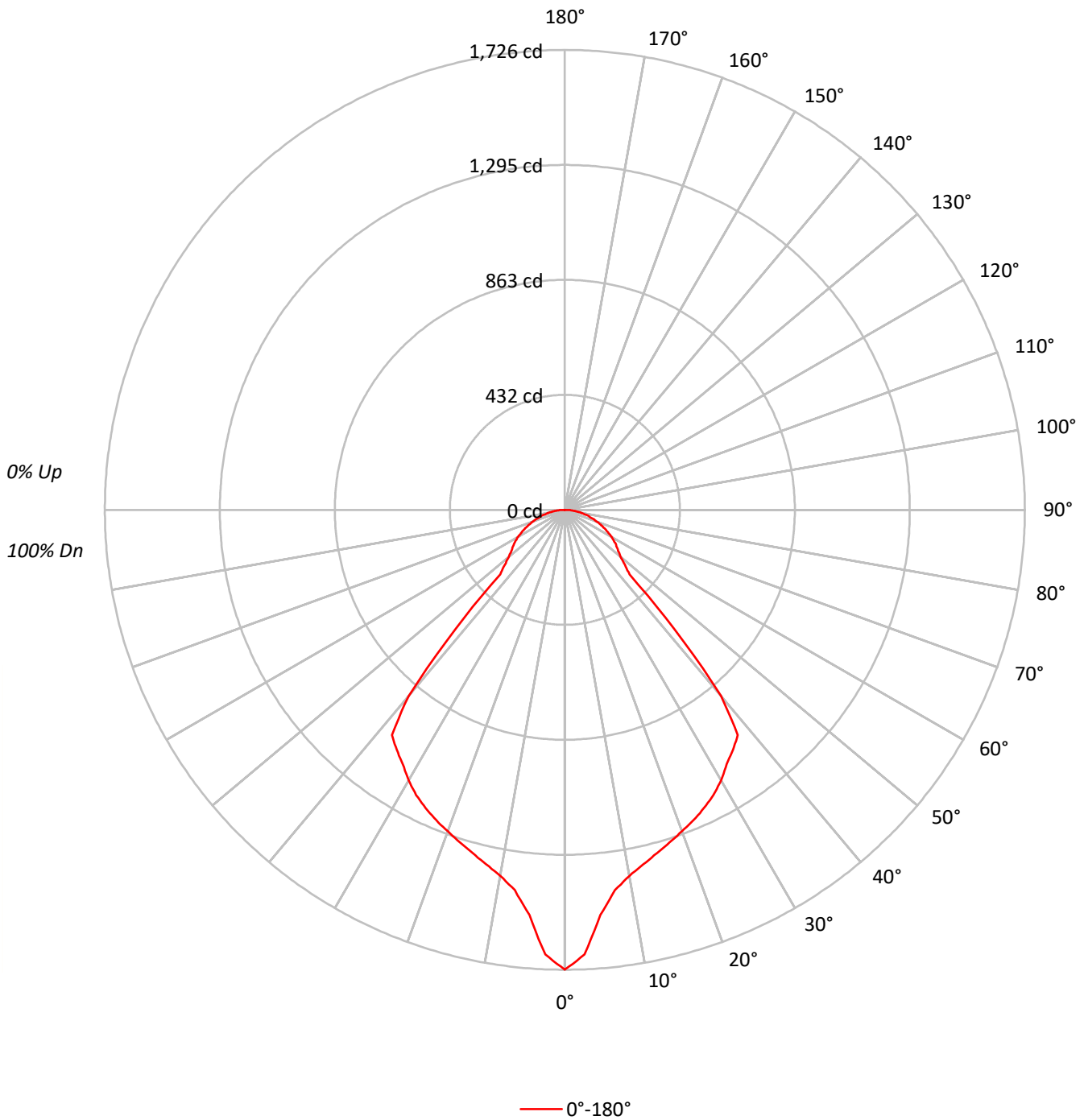
Lumens per Lamp: N/A  
Luminaire Lumens: 2621.1 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.17  
Luminous Opening: Circular (Dia: 1.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.2  
Input Voltage (V): 120  
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: 24 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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 111 | 107 | 103 | 100 | 108 | 105 | 101 | 99  | 100 | 98  | 95  | 97  | 95  | 93  | 93  | 91  | 90  | 88  |
| 2   | 103 | 96  | 90  | 86  | 100 | 94  | 89  | 85  | 91  | 86  | 83  | 88  | 84  | 81  | 85  | 82  | 79  | 77  |
| 3   | 95  | 87  | 80  | 74  | 93  | 85  | 79  | 74  | 82  | 77  | 72  | 80  | 75  | 71  | 77  | 73  | 70  | 68  |
| 4   | 89  | 79  | 71  | 65  | 87  | 77  | 70  | 65  | 75  | 69  | 64  | 73  | 68  | 63  | 71  | 66  | 63  | 61  |
| 5   | 83  | 72  | 64  | 58  | 81  | 71  | 63  | 58  | 69  | 62  | 57  | 67  | 61  | 57  | 65  | 60  | 56  | 54  |
| 6   | 77  | 66  | 58  | 52  | 75  | 65  | 57  | 52  | 63  | 56  | 52  | 61  | 56  | 51  | 60  | 55  | 51  | 49  |
| 7   | 72  | 60  | 53  | 47  | 71  | 60  | 52  | 47  | 58  | 52  | 47  | 57  | 51  | 46  | 56  | 50  | 46  | 44  |
| 8   | 68  | 56  | 48  | 43  | 66  | 55  | 48  | 43  | 54  | 47  | 43  | 53  | 47  | 42  | 52  | 46  | 42  | 41  |
| 9   | 64  | 52  | 44  | 39  | 62  | 51  | 44  | 39  | 50  | 44  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 37  |
| 10  | 60  | 48  | 41  | 36  | 59  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 36  | 45  | 40  | 36  | 34  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 13303 |
| 5°  | 11814 |
| 10° | 10914 |
| 15° | 10646 |
| 20° | 10531 |
| 25° | 10508 |
| 30° | 10435 |
| 35° | 10346 |
| 40° | 9170  |
| 45° | 3733  |
| 50° | 3285  |
| 55° | 3179  |
| 60° | 3111  |
| 65° | 2981  |
| 70° | 2860  |
| 75° | 2746  |
| 80° | 2633  |
| 85° | 2583  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3733 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 142.1  | 5.4       |
| 10°-20°   | 377.1  | 14.4      |
| 20°-30°   | 569.1  | 21.7      |
| 30°-40°   | 678.7  | 25.9      |
| 40°-50°   | 351.0  | 13.4      |
| 50°-60°   | 211.7  | 8.1       |
| 60°-70°   | 162.2  | 6.2       |
| 70°-80°   | 97.3   | 3.7       |
| 80°-90°   | 31.9   | 1.2       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1088.4 | 41.5      |
| 0°-40°    | 1767.1 | 67.4      |
| 0°-60°    | 2329.7 | 88.9      |
| 0°-90°    | 2621.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2621.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1726 |      |
| 5°  | 1527 | 142  |
| 15° | 1334 | 377  |
| 25° | 1235 | 569  |
| 35° | 1099 | 679  |
| 45° | 342  | 351  |
| 55° | 236  | 212  |
| 65° | 163  | 162  |
| 75° | 92   | 97   |
| 85° | 29   | 32   |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1725.6 |
| 2.5°  | 1670.8 |
| 5°    | 1526.6 |
| 7.5°  | 1438.9 |
| 10°   | 1394.2 |
| 12.5° | 1362.2 |
| 15°   | 1333.9 |
| 17.5° | 1308.4 |
| 20°   | 1283.7 |
| 22.5° | 1260.9 |
| 25°   | 1235.3 |
| 27.5° | 1207.0 |
| 30°   | 1172.3 |
| 32.5° | 1131.2 |
| 35°   | 1099.3 |
| 37.5° | 1065.5 |
| 40°   | 911.2  |
| 42.5° | 607.2  |
| 45°   | 342.4  |
| 47.5° | 305.0  |
| 50°   | 273.9  |
| 52.5° | 252.0  |
| 55°   | 236.5  |
| 57.5° | 220.0  |
| 60°   | 201.8  |
| 62.5° | 182.6  |
| 65°   | 163.4  |
| 67.5° | 145.2  |
| 70°   | 126.9  |
| 72.5° | 108.7  |
| 75°   | 92.2   |
| 77.5° | 74.9   |
| 80°   | 59.3   |
| 82.5° | 43.8   |
| 85°   | 29.2   |
| 87.5° | 14.6   |
| 90°   | 0.0    |

(END OF REPORT)