

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: P600639

Luminaire Tested: 225-90-40K-LL4-UNV-STD-X-X-WHHR-SR-X

Issue Date: 7/6/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P600639  
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: 225-90-40K-LL4-UNV-STD-X-X-WHHR-SR-X  
Description: SHAPER PrentaLux 200 SERIES 3D PRINTED LUMINAIRE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

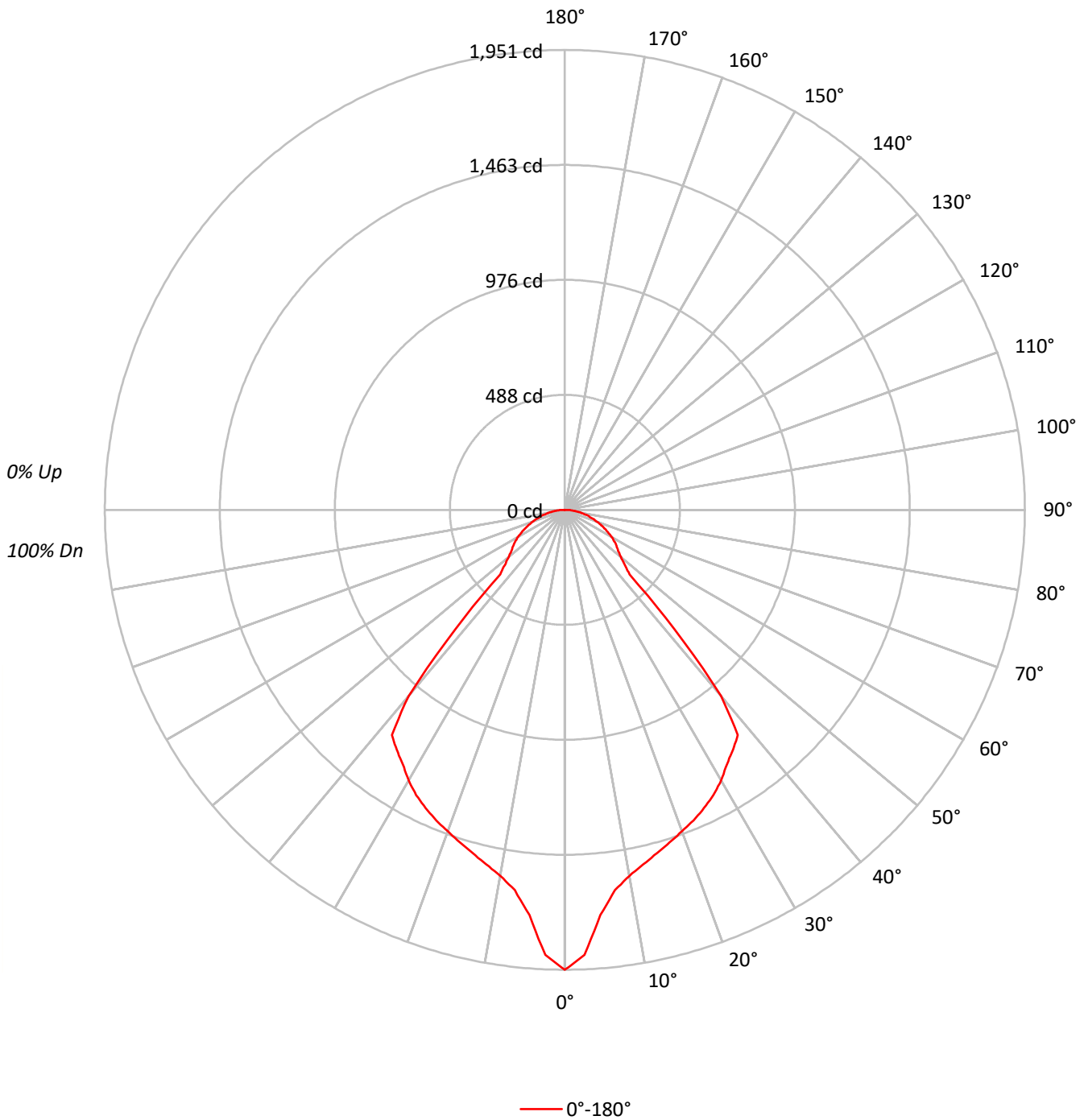
Lumens per Lamp: N/A  
Luminaire Lumens: 2963.4 lumens  
Efficiency: N/A  
Efficacy: 128.3 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.17  
Luminous Opening: Circular (Dia: 1.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.1  
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°  | 15041 |
| 5°  | 13356 |
| 10° | 12339 |
| 15° | 12036 |
| 20° | 11906 |
| 25° | 11880 |
| 30° | 11798 |
| 35° | 11696 |
| 40° | 10367 |
| 45° | 4220  |
| 50° | 3714  |
| 55° | 3594  |
| 60° | 3517  |
| 65° | 3371  |
| 70° | 3234  |
| 75° | 3107  |
| 80° | 2979  |
| 85° | 2919  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4220 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 160.7  | 5.4       |
| 10°-20°   | 426.3  | 14.4      |
| 20°-30°   | 643.4  | 21.7      |
| 30°-40°   | 767.3  | 25.9      |
| 40°-50°   | 396.8  | 13.4      |
| 50°-60°   | 239.3  | 8.1       |
| 60°-70°   | 183.4  | 6.2       |
| 70°-80°   | 110.0  | 3.7       |
| 80°-90°   | 36.1   | 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°    | 1230.5 | 41.5      |
| 0°-40°    | 1997.8 | 67.4      |
| 0°-60°    | 2633.9 | 88.9      |
| 0°-90°    | 2963.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2963.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1951 |      |
| 5°  | 1726 | 161  |
| 15° | 1508 | 426  |
| 25° | 1397 | 643  |
| 35° | 1243 | 767  |
| 45° | 387  | 397  |
| 55° | 267  | 239  |
| 65° | 185  | 183  |
| 75° | 104  | 110  |
| 85° | 33   | 36   |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1951.0 |
| 2.5°  | 1889.0 |
| 5°    | 1725.9 |
| 7.5°  | 1626.8 |
| 10°   | 1576.2 |
| 12.5° | 1540.1 |
| 15°   | 1508.1 |
| 17.5° | 1479.2 |
| 20°   | 1451.3 |
| 22.5° | 1425.5 |
| 25°   | 1396.6 |
| 27.5° | 1364.6 |
| 30°   | 1325.4 |
| 32.5° | 1279.0 |
| 35°   | 1242.8 |
| 37.5° | 1204.6 |
| 40°   | 1030.2 |
| 42.5° | 686.4  |
| 45°   | 387.1  |
| 47.5° | 344.8  |
| 50°   | 309.7  |
| 52.5° | 284.9  |
| 55°   | 267.4  |
| 57.5° | 248.8  |
| 60°   | 228.1  |
| 62.5° | 206.5  |
| 65°   | 184.8  |
| 67.5° | 164.1  |
| 70°   | 143.5  |
| 72.5° | 122.8  |
| 75°   | 104.3  |
| 77.5° | 84.6   |
| 80°   | 67.1   |
| 82.5° | 49.5   |
| 85°   | 33.0   |
| 87.5° | 16.5   |
| 90°   | 0.0    |

(END OF REPORT)