

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: P600590

Luminaire Tested: 235-90-30K-LL4-UNV-STD-X-X-WHHR-FL-X

Issue Date: 7/6/2022

Test Information

Test Method: LM-79-2019
Report Number: P600590
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: 235-90-30K-LL4-UNV-STD-X-X-WHHR-FL-X
Description: SHAPER PrentaLux 200 SERIES 3D PRINTED LUMINAIRE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

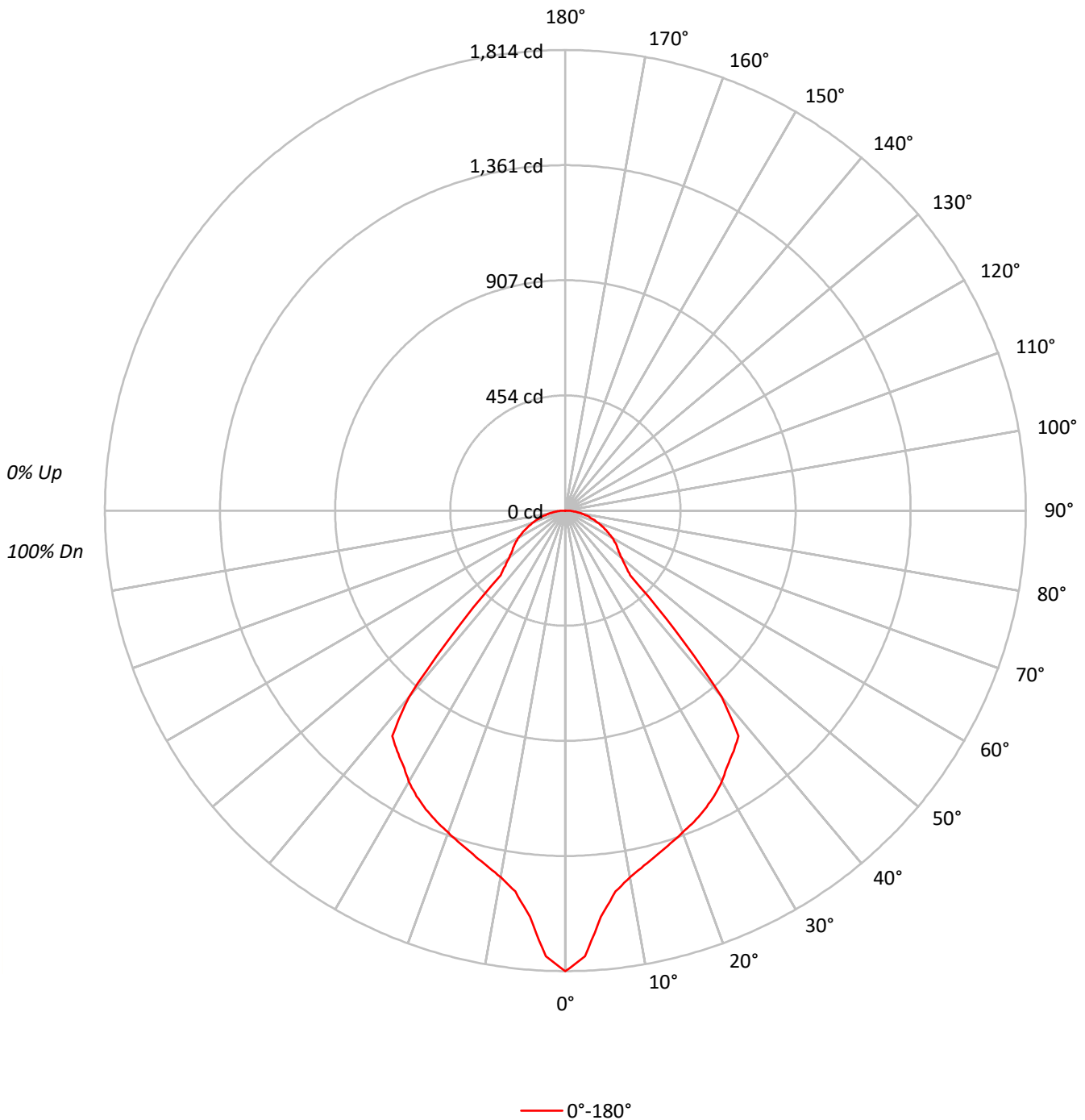
Lumens per Lamp: N/A
Luminaire Lumens: 2755.6 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.17
Luminous Opening: Circular (Dia: 1.33' x H: 0')
CIE Type: Direct

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° | 13986 |
| 5° | 12420 |
| 10° | 11474 |
| 15° | 11193 |
| 20° | 11072 |
| 25° | 11047 |
| 30° | 10971 |
| 35° | 10876 |
| 40° | 9641 |
| 45° | 3925 |
| 50° | 3454 |
| 55° | 3341 |
| 60° | 3270 |
| 65° | 3134 |
| 70° | 3007 |
| 75° | 2886 |
| 80° | 2770 |
| 85° | 2715 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3925 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 149.4 | 5.4 |
| 10°-20° | 396.4 | 14.4 |
| 20°-30° | 598.3 | 21.7 |
| 30°-40° | 713.5 | 25.9 |
| 40°-50° | 369.0 | 13.4 |
| 50°-60° | 222.5 | 8.1 |
| 60°-70° | 170.5 | 6.2 |
| 70°-80° | 102.3 | 3.7 |
| 80°-90° | 33.6 | 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° | 1144.2 | 41.5 |
| 0°-40° | 1857.8 | 67.4 |
| 0°-60° | 2449.3 | 88.9 |
| 0°-90° | 2755.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2755.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1814 | |
| 5° | 1605 | 149 |
| 15° | 1402 | 396 |
| 25° | 1299 | 598 |
| 35° | 1156 | 714 |
| 45° | 360 | 369 |
| 55° | 249 | 223 |
| 65° | 172 | 171 |
| 75° | 97 | 102 |
| 85° | 31 | 34 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1814.2 |
| 2.5° | 1756.6 |
| 5° | 1604.9 |
| 7.5° | 1512.8 |
| 10° | 1465.7 |
| 12.5° | 1432.1 |
| 15° | 1402.4 |
| 17.5° | 1375.5 |
| 20° | 1349.6 |
| 22.5° | 1325.6 |
| 25° | 1298.7 |
| 27.5° | 1269.0 |
| 30° | 1232.5 |
| 32.5° | 1189.3 |
| 35° | 1155.7 |
| 37.5° | 1120.2 |
| 40° | 958.0 |
| 42.5° | 638.3 |
| 45° | 360.0 |
| 47.5° | 320.6 |
| 50° | 288.0 |
| 52.5° | 264.9 |
| 55° | 248.6 |
| 57.5° | 231.3 |
| 60° | 212.1 |
| 62.5° | 192.0 |
| 65° | 171.8 |
| 67.5° | 152.6 |
| 70° | 133.4 |
| 72.5° | 114.2 |
| 75° | 96.9 |
| 77.5° | 78.7 |
| 80° | 62.4 |
| 82.5° | 46.1 |
| 85° | 30.7 |
| 87.5° | 15.4 |
| 90° | 0.0 |

(END OF REPORT)