

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: P600589

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

Issue Date: 7/6/2022

Test Information

Test Method: LM-79-2019
Report Number: P600589
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-BR-X
Description: SHAPER PrentaLux 200 SERIES 3D PRINTED LUMINAIRE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

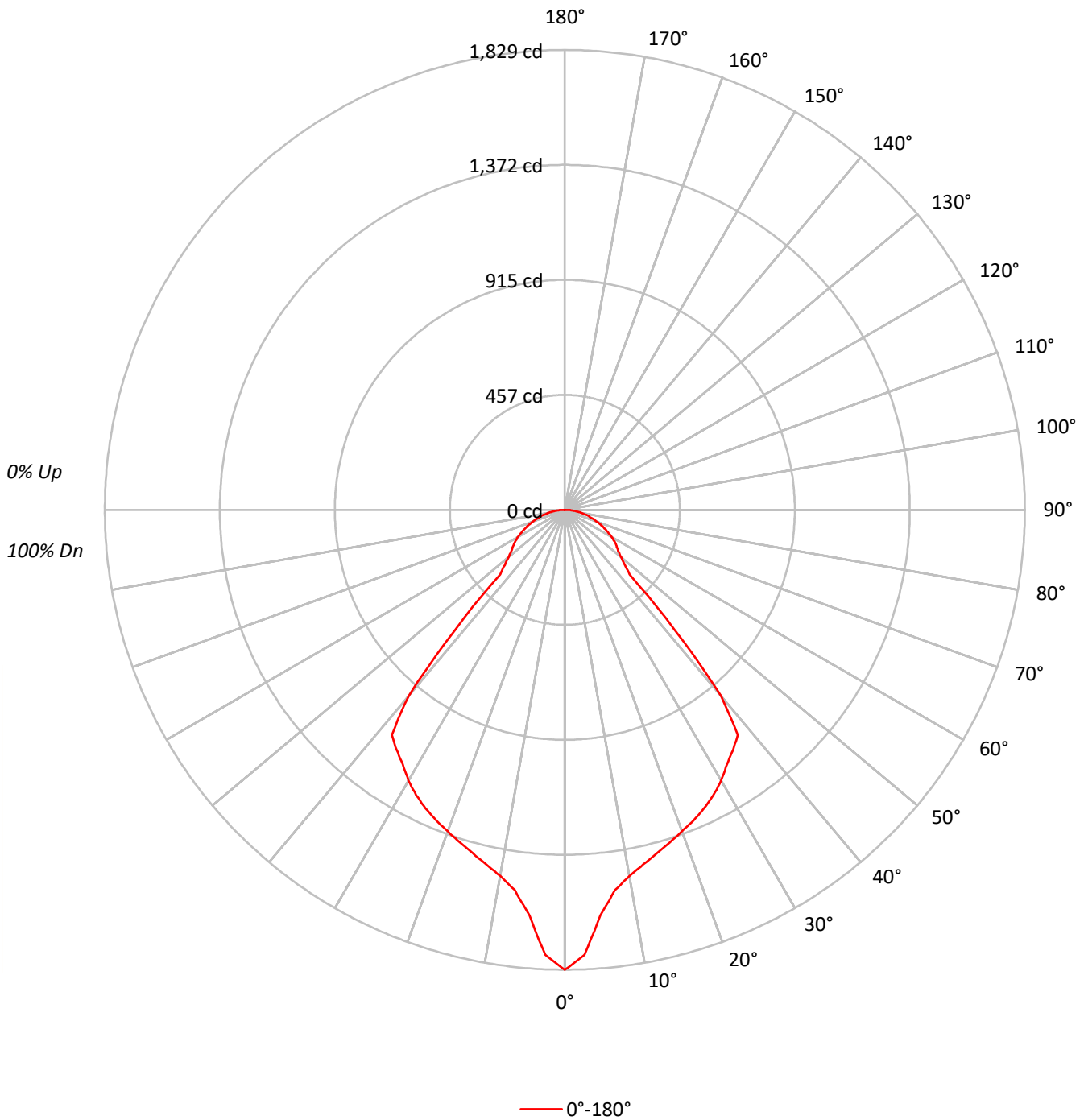
Lumens per Lamp: N/A
Luminaire Lumens: 2778.8 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.17
Luminous Opening: Circular (Dia: 1.33' x H: 0')
CIE Type: Direct

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° | 14103 |
| 5° | 12524 |
| 10° | 11570 |
| 15° | 11286 |
| 20° | 11165 |
| 25° | 11140 |
| 30° | 11063 |
| 35° | 10968 |
| 40° | 9721 |
| 45° | 3958 |
| 50° | 3483 |
| 55° | 3370 |
| 60° | 3298 |
| 65° | 3161 |
| 70° | 3032 |
| 75° | 2913 |
| 80° | 2792 |
| 85° | 2742 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3958 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 150.7 | 5.4 |
| 10°-20° | 399.8 | 14.4 |
| 20°-30° | 603.4 | 21.7 |
| 30°-40° | 719.5 | 25.9 |
| 40°-50° | 372.1 | 13.4 |
| 50°-60° | 224.4 | 8.1 |
| 60°-70° | 172.0 | 6.2 |
| 70°-80° | 103.2 | 3.7 |
| 80°-90° | 33.9 | 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° | 1153.8 | 41.5 |
| 0°-40° | 1873.3 | 67.4 |
| 0°-60° | 2469.8 | 88.9 |
| 0°-90° | 2778.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2778.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1829 | |
| 5° | 1618 | 151 |
| 15° | 1414 | 400 |
| 25° | 1310 | 603 |
| 35° | 1165 | 720 |
| 45° | 363 | 372 |
| 55° | 251 | 224 |
| 65° | 173 | 172 |
| 75° | 98 | 103 |
| 85° | 31 | 34 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1829.4 |
| 2.5° | 1771.3 |
| 5° | 1618.4 |
| 7.5° | 1525.5 |
| 10° | 1478.0 |
| 12.5° | 1444.2 |
| 15° | 1414.1 |
| 17.5° | 1387.0 |
| 20° | 1360.9 |
| 22.5° | 1336.7 |
| 25° | 1309.6 |
| 27.5° | 1279.6 |
| 30° | 1242.8 |
| 32.5° | 1199.3 |
| 35° | 1165.4 |
| 37.5° | 1129.6 |
| 40° | 966.0 |
| 42.5° | 643.7 |
| 45° | 363.0 |
| 47.5° | 323.3 |
| 50° | 290.4 |
| 52.5° | 267.1 |
| 55° | 250.7 |
| 57.5° | 233.3 |
| 60° | 213.9 |
| 62.5° | 193.6 |
| 65° | 173.3 |
| 67.5° | 153.9 |
| 70° | 134.5 |
| 72.5° | 115.2 |
| 75° | 97.8 |
| 77.5° | 79.4 |
| 80° | 62.9 |
| 82.5° | 46.5 |
| 85° | 31.0 |
| 87.5° | 15.5 |
| 90° | 0.0 |

(END OF REPORT)