

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: CORELITE

Report Number: P689004

Luminaire Tested: SQ4R-PW1-125D-93050-1-UNV-STD-W-4_3500K

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P689004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-35)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-PW1-125D-93050-1-UNV-STD-W-4_3500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS.
1250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4899.4 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

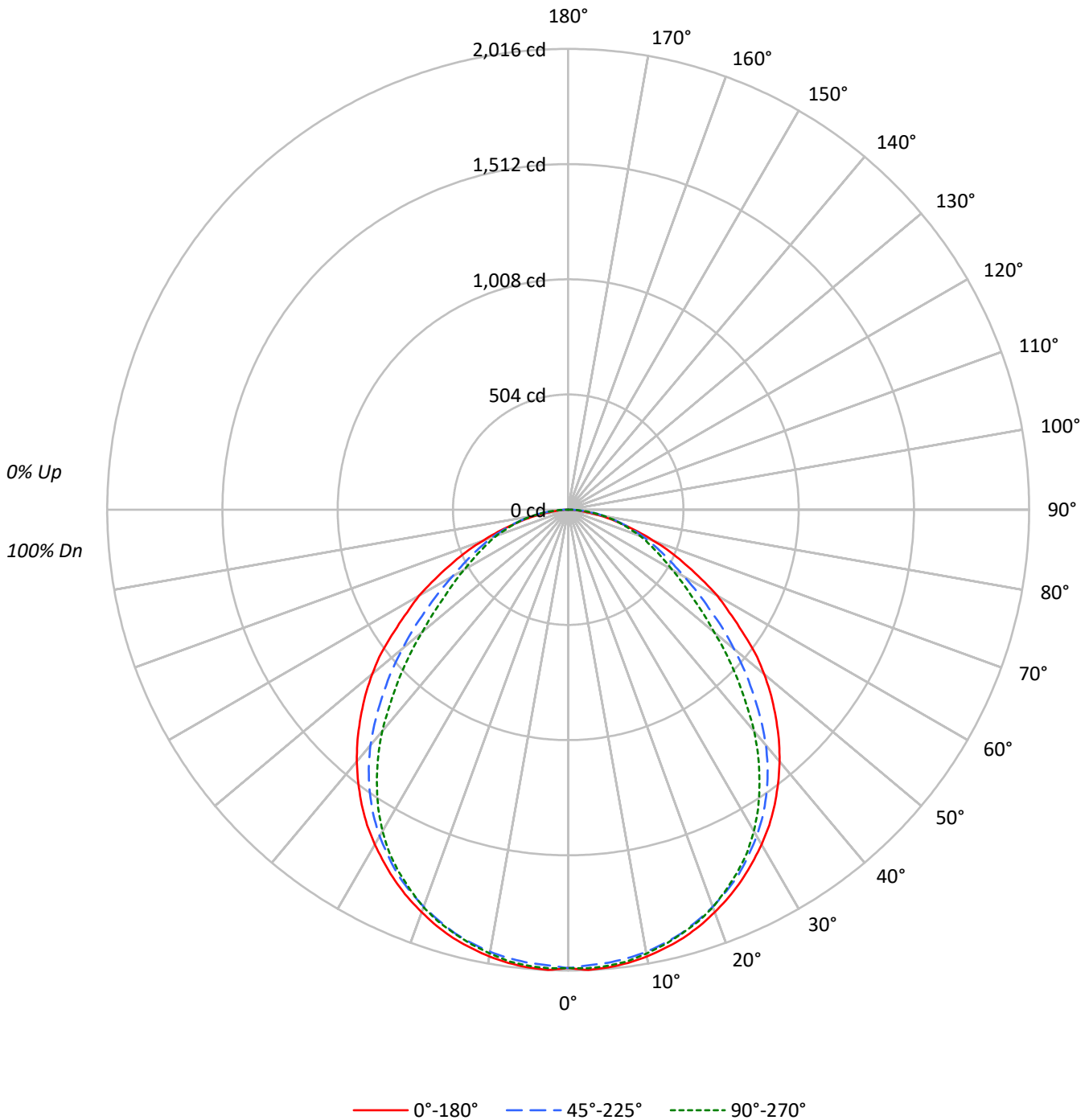
Input Watts (W): 61.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



TEST NUMBER: P689004

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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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | 85 |
| 2 | 100 | 92 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 77 | 74 | 72 | | | | 72 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | 62 | | | | 62 |
| 4 | 85 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 63 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 54 | | | | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 50 | 63 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 47 | | | | 47 |
| 6 | 72 | 59 | 51 | 45 | 70 | 59 | 50 | 44 | 57 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 43 | 41 | | | | 41 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | 37 |
| 8 | 63 | 50 | 41 | 36 | 61 | 49 | 41 | 36 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 33 | | | | 33 |
| 9 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 30 | | | | 30 |
| 10 | 55 | 42 | 34 | 29 | 54 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 | | | | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19305 | 19305 | 19305 |
| 5° | 19429 | 19229 | 19353 |
| 10° | 19401 | 19200 | 19275 |
| 15° | 19344 | 19113 | 19138 |
| 20° | 19197 | 18933 | 18960 |
| 25° | 19028 | 18727 | 18590 |
| 30° | 18796 | 18337 | 18050 |
| 35° | 18508 | 17781 | 17145 |
| 40° | 18075 | 16908 | 15904 |
| 45° | 17475 | 15615 | 14247 |
| 50° | 16754 | 14167 | 12469 |
| 55° | 15575 | 12589 | 11031 |
| 60° | 14491 | 11266 | 10124 |
| 65° | 12857 | 10452 | 9570 |
| 70° | 11172 | 9939 | 9433 |
| 75° | 9203 | 9396 | 9013 |
| 80° | 7285 | 8860 | 8860 |
| 85° | 5413 | 7975 | 8251 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17475 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 190.2 | 3.9 |
| 10°-20° | 543.4 | 11.1 |
| 20°-30° | 813.9 | 16.6 |
| 30°-40° | 945.7 | 19.3 |
| 40°-50° | 892.3 | 18.2 |
| 50°-60° | 696.1 | 14.2 |
| 60°-70° | 472.6 | 9.6 |
| 70°-80° | 266.1 | 5.4 |
| 80°-90° | 79.0 | 1.6 |
| 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° | 1547.6 | 31.6 |
| 0°-40° | 2493.3 | 50.9 |
| 0°-60° | 4081.7 | 83.3 |
| 0°-90° | 4899.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4899.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2005 | 2005 | 2005 | 2005 | 2005 | |
| 5° | 2010 | 2005 | 1990 | 2005 | 2003 | 191 |
| 15° | 1941 | 1933 | 1918 | 1928 | 1920 | 547 |
| 25° | 1791 | 1784 | 1763 | 1758 | 1750 | 825 |
| 35° | 1575 | 1559 | 1513 | 1479 | 1459 | 984 |
| 45° | 1284 | 1245 | 1147 | 1075 | 1046 | 990 |
| 55° | 928 | 874 | 750 | 678 | 657 | 833 |
| 65° | 564 | 513 | 459 | 430 | 420 | 564 |
| 75° | 247 | 258 | 253 | 242 | 242 | 269 |
| 85° | 49 | 70 | 72 | 72 | 75 | 59 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P689004

CATALOG NUMBER: SQ4R-PW1-125D-93050-1-UNV-STD-W-4_3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2005.2 | 2005.2 | 2005.2 | 2005.2 | 2005.2 |
| 2.5° | 2015.5 | 2010.4 | 1994.9 | 2010.4 | 2007.8 |
| 5° | 2010.4 | 2005.2 | 1989.7 | 2005.2 | 2002.6 |
| 7.5° | 2000.0 | 1997.5 | 1979.4 | 1994.9 | 1992.3 |
| 10° | 1984.6 | 1982.0 | 1964.0 | 1976.8 | 1971.7 |
| 12.5° | 1964.0 | 1961.4 | 1943.3 | 1953.7 | 1948.5 |
| 15° | 1940.8 | 1933.0 | 1917.6 | 1927.9 | 1920.1 |
| 17.5° | 1909.8 | 1902.1 | 1884.1 | 1891.8 | 1889.2 |
| 20° | 1873.8 | 1866.0 | 1848.0 | 1855.7 | 1850.6 |
| 22.5° | 1835.1 | 1827.4 | 1806.7 | 1809.3 | 1801.6 |
| 25° | 1791.3 | 1783.5 | 1762.9 | 1757.8 | 1750.0 |
| 27.5° | 1742.3 | 1737.2 | 1706.2 | 1701.1 | 1693.3 |
| 30° | 1690.8 | 1683.0 | 1649.5 | 1639.2 | 1623.7 |
| 32.5° | 1636.6 | 1621.2 | 1585.1 | 1564.5 | 1546.4 |
| 35° | 1574.8 | 1559.3 | 1512.9 | 1479.4 | 1458.8 |
| 37.5° | 1507.8 | 1484.6 | 1433.0 | 1386.6 | 1366.0 |
| 40° | 1438.2 | 1412.4 | 1345.4 | 1283.5 | 1265.5 |
| 42.5° | 1363.4 | 1332.5 | 1247.4 | 1183.0 | 1152.1 |
| 45° | 1283.5 | 1244.9 | 1146.9 | 1074.8 | 1046.4 |
| 47.5° | 1203.6 | 1154.7 | 1049.0 | 971.7 | 940.7 |
| 50° | 1118.6 | 1059.3 | 945.9 | 863.4 | 832.5 |
| 52.5° | 1031.0 | 966.5 | 850.5 | 765.5 | 742.3 |
| 55° | 927.9 | 873.7 | 750.0 | 677.8 | 657.2 |
| 57.5° | 835.1 | 775.8 | 667.5 | 605.7 | 590.2 |
| 60° | 752.6 | 680.4 | 585.1 | 538.7 | 525.8 |
| 62.5° | 657.2 | 592.8 | 518.1 | 482.0 | 469.1 |
| 65° | 564.4 | 512.9 | 458.8 | 430.4 | 420.1 |
| 67.5° | 484.5 | 440.7 | 404.6 | 381.5 | 376.3 |
| 70° | 396.9 | 373.7 | 353.1 | 335.1 | 335.1 |
| 72.5° | 322.2 | 314.4 | 301.6 | 291.2 | 283.5 |
| 75° | 247.4 | 257.7 | 252.6 | 242.3 | 242.3 |
| 77.5° | 188.1 | 203.6 | 206.2 | 201.0 | 203.6 |
| 80° | 131.4 | 154.6 | 159.8 | 157.2 | 159.8 |
| 82.5° | 82.5 | 110.8 | 116.0 | 116.0 | 118.6 |
| 85° | 49.0 | 69.6 | 72.2 | 72.2 | 74.7 |
| 87.5° | 20.6 | 33.5 | 36.1 | 36.1 | 36.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)