

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: P855203

Luminaire Tested: SQ2-F-0U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855203
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-0U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

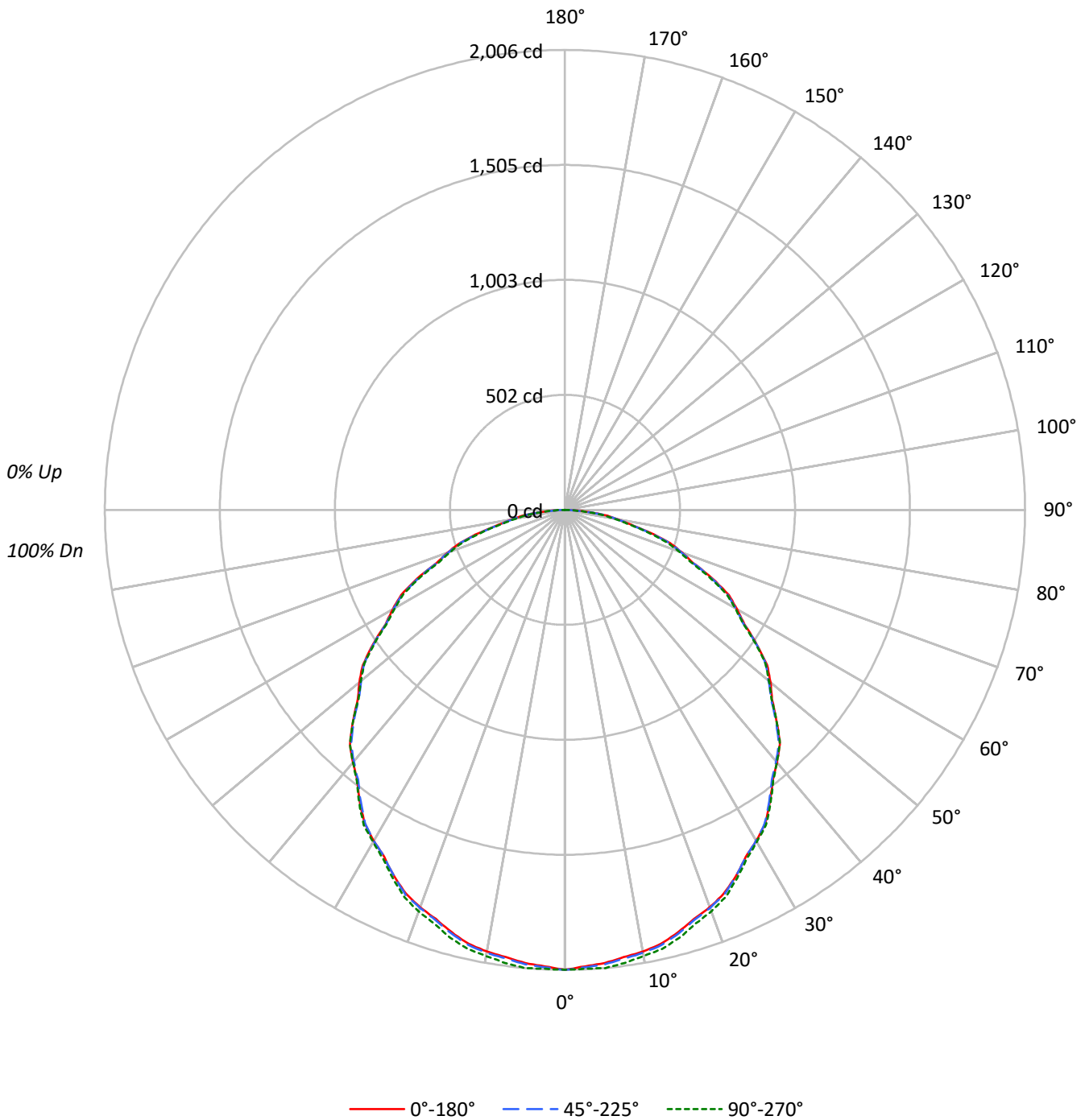
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5631.3 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 49.2
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

TEST NUMBER: P855203
CATALOG NUMBER: SQ2-F-0U-125D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855203

CATALOG NUMBER: SQ2-F-0U-125D-835-UNV-STD-W-4

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 | |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 84 | 84 | 84 | |
| 2 | 99 | 90 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 70 | 70 | 70 | |
| 3 | 90 | 79 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 61 | 59 | 59 | 59 | |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 | 50 | 50 | |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 | 43 | 43 | |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 50 | 44 | 40 | 38 | 38 | 38 | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 33 | 33 | 33 | |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | 30 | 30 | |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 | 27 | 27 | |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 | 24 | 24 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 32389 | 32389 | 32389 |
| 5° | 32157 | 32246 | 32512 |
| 10° | 32083 | 32172 | 32396 |
| 15° | 31886 | 31978 | 32298 |
| 20° | 31696 | 31746 | 32027 |
| 25° | 31404 | 31404 | 31600 |
| 30° | 31083 | 31083 | 31183 |
| 35° | 30705 | 30597 | 30813 |
| 40° | 30300 | 30184 | 30300 |
| 45° | 29830 | 29707 | 29830 |
| 50° | 29381 | 29107 | 29175 |
| 55° | 28696 | 28620 | 28468 |
| 60° | 27978 | 27800 | 27622 |
| 65° | 27148 | 26835 | 26521 |
| 70° | 25549 | 25416 | 24902 |
| 75° | 24036 | 23531 | 22845 |
| 80° | 21348 | 20837 | 20074 |
| 85° | 17210 | 15709 | 14672 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 30013 cd/sqm

TEST NUMBER: P855203

CATALOG NUMBER: SQ2-F-0U-125D-835-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 189.6 | 3.4 |
| 10°-20° | 541.8 | 9.6 |
| 20°-30° | 815.2 | 14.5 |
| 30°-40° | 975.4 | 17.3 |
| 40°-50° | 1006.4 | 17.9 |
| 50°-60° | 907.9 | 16.1 |
| 60°-70° | 692.8 | 12.3 |
| 70°-80° | 398.3 | 7.1 |
| 80°-90° | 103.9 | 1.8 |
| 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° | 1546.6 | 27.5 |
| 0°-40° | 2522.0 | 44.8 |
| 0°-60° | 4436.3 | 78.8 |
| 0°-90° | 5631.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5631.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2006 | 2006 | 2006 | 2006 | 2006 | |
| 5° | 1984 | 2011 | 1990 | 1993 | 2006 | 188 |
| 15° | 1908 | 1932 | 1913 | 1922 | 1932 | 538 |
| 25° | 1763 | 1782 | 1763 | 1766 | 1774 | 812 |
| 35° | 1558 | 1568 | 1552 | 1558 | 1563 | 974 |
| 45° | 1306 | 1314 | 1301 | 1304 | 1306 | 1008 |
| 55° | 1019 | 1025 | 1017 | 1011 | 1011 | 911 |
| 65° | 711 | 708 | 702 | 697 | 694 | 699 |
| 75° | 385 | 383 | 377 | 369 | 366 | 406 |
| 85° | 93 | 88 | 85 | 77 | 79 | 111 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P855203

CATALOG NUMBER: SQ2-F-0U-125D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2006.0 | 2006.0 | 2006.0 | 2006.0 | 2006.0 |
| 2.5° | 1992.9 | 2016.4 | 1997.3 | 2001.7 | 2003.8 |
| 5° | 1984.1 | 2010.9 | 1989.6 | 1992.6 | 2006.0 |
| 7.5° | 1967.7 | 1996.6 | 1973.3 | 1978.5 | 1993.4 |
| 10° | 1956.9 | 1983.6 | 1962.3 | 1965.2 | 1976.0 |
| 12.5° | 1939.3 | 1966.0 | 1944.8 | 1950.0 | 1960.6 |
| 15° | 1907.6 | 1931.6 | 1913.1 | 1921.6 | 1932.2 |
| 17.5° | 1871.0 | 1896.7 | 1876.0 | 1883.2 | 1892.4 |
| 20° | 1844.7 | 1866.1 | 1847.6 | 1850.5 | 1864.0 |
| 22.5° | 1812.0 | 1833.4 | 1816.9 | 1817.7 | 1828.9 |
| 25° | 1762.8 | 1781.5 | 1762.8 | 1765.7 | 1773.8 |
| 27.5° | 1706.4 | 1722.5 | 1706.4 | 1709.4 | 1716.3 |
| 30° | 1667.2 | 1683.1 | 1667.2 | 1669.9 | 1672.6 |
| 32.5° | 1623.4 | 1637.3 | 1621.2 | 1624.2 | 1631.1 |
| 35° | 1557.8 | 1568.5 | 1552.3 | 1558.0 | 1563.3 |
| 37.5° | 1487.8 | 1495.8 | 1482.4 | 1485.2 | 1490.1 |
| 40° | 1437.6 | 1445.6 | 1432.1 | 1434.8 | 1437.6 |
| 42.5° | 1387.3 | 1393.2 | 1379.6 | 1382.4 | 1387.3 |
| 45° | 1306.4 | 1314.4 | 1301.0 | 1303.7 | 1306.4 |
| 47.5° | 1224.3 | 1229.2 | 1217.8 | 1215.7 | 1220.6 |
| 50° | 1169.7 | 1172.4 | 1158.8 | 1158.8 | 1161.5 |
| 52.5° | 1110.7 | 1113.3 | 1104.2 | 1099.9 | 1102.5 |
| 55° | 1019.4 | 1024.7 | 1016.7 | 1011.3 | 1011.3 |
| 57.5° | 927.6 | 932.4 | 922.1 | 919.4 | 918.8 |
| 60° | 866.4 | 869.0 | 860.9 | 858.1 | 855.4 |
| 62.5° | 805.2 | 805.6 | 797.5 | 794.7 | 792.1 |
| 65° | 710.6 | 707.9 | 702.4 | 696.9 | 694.2 |
| 67.5° | 604.5 | 607.3 | 601.8 | 593.1 | 593.1 |
| 70° | 541.2 | 543.8 | 538.4 | 527.5 | 527.5 |
| 72.5° | 479.9 | 478.4 | 475.0 | 466.1 | 461.8 |
| 75° | 385.3 | 382.7 | 377.2 | 368.9 | 366.2 |
| 77.5° | 290.8 | 288.1 | 285.3 | 275.0 | 277.1 |
| 80° | 229.6 | 226.9 | 224.1 | 215.9 | 215.9 |
| 82.5° | 175.0 | 170.1 | 167.3 | 159.1 | 159.1 |
| 85° | 92.9 | 87.6 | 84.8 | 76.6 | 79.2 |
| 87.5° | 26.3 | 24.1 | 21.8 | 17.5 | 17.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

TEST NUMBER: P855203

CATALOG NUMBER: SQ2-F-0U-125D-835-UNV-STD-W-4

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 23.85 | 25.49 | 24.21 | 25.80 | 26.12 | 23.77 | 25.41 | 24.13 | 25.73 | 26.04 |
| | 3H | 25.68 | 27.17 | 26.06 | 27.49 | 27.85 | 25.56 | 27.05 | 25.94 | 27.37 | 27.73 |
| | 4H | 26.37 | 27.77 | 26.77 | 28.12 | 28.50 | 26.22 | 27.62 | 26.62 | 27.97 | 28.34 |
| | 6H | 26.88 | 28.18 | 27.29 | 28.54 | 28.93 | 26.70 | 27.99 | 27.11 | 28.36 | 28.75 |
| | 8H | 27.04 | 28.28 | 27.46 | 28.67 | 29.07 | 26.84 | 28.08 | 27.26 | 28.47 | 28.86 |
| | 12H | 27.14 | 28.33 | 27.57 | 28.71 | 29.14 | 26.92 | 28.10 | 27.34 | 28.49 | 28.91 |
| 4H | 2H | 24.48 | 25.88 | 24.88 | 26.23 | 26.61 | 24.42 | 25.82 | 24.82 | 26.17 | 26.55 |
| | 3H | 26.54 | 27.71 | 26.95 | 28.11 | 28.51 | 26.43 | 27.60 | 26.84 | 28.00 | 28.40 |
| | 4H | 27.36 | 28.42 | 27.79 | 28.83 | 29.27 | 27.22 | 28.28 | 27.65 | 28.69 | 29.13 |
| | 6H | 27.99 | 28.92 | 28.45 | 29.36 | 29.82 | 27.81 | 28.74 | 28.27 | 29.18 | 29.64 |
| | 8H | 28.20 | 29.07 | 28.66 | 29.51 | 29.97 | 28.00 | 28.87 | 28.46 | 29.31 | 29.77 |
| | 12H | 28.34 | 29.12 | 28.82 | 29.59 | 30.06 | 28.11 | 28.89 | 28.59 | 29.37 | 29.84 |
| 8H | 4H | 27.67 | 28.54 | 28.13 | 28.98 | 29.44 | 27.54 | 28.41 | 28.00 | 28.85 | 29.32 |
| | 6H | 28.42 | 29.14 | 28.91 | 29.63 | 30.10 | 28.25 | 28.98 | 28.75 | 29.46 | 29.94 |
| | 8H | 28.70 | 29.34 | 29.20 | 29.85 | 30.34 | 28.50 | 29.15 | 29.01 | 29.66 | 30.14 |
| | 12H | 28.90 | 29.47 | 29.41 | 29.96 | 30.52 | 28.67 | 29.25 | 29.18 | 29.74 | 30.30 |
| 12H | 4H | 27.70 | 28.48 | 28.18 | 28.96 | 29.43 | 27.58 | 28.36 | 28.06 | 28.84 | 29.30 |
| | 6H | 28.47 | 29.12 | 28.98 | 29.63 | 30.11 | 28.31 | 28.96 | 28.82 | 29.47 | 29.95 |
| | 8H | 28.80 | 29.37 | 29.31 | 29.86 | 30.42 | 28.61 | 29.19 | 29.12 | 29.68 | 30.24 |