

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: P521776

Luminaire Tested: SQ4-WB-050U-075D-92765-1D-UNV-STD-W-4_6500K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521776
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-WB-050U-075D-92765-1D-UNV-STD-W-4_6500K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5134.1 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

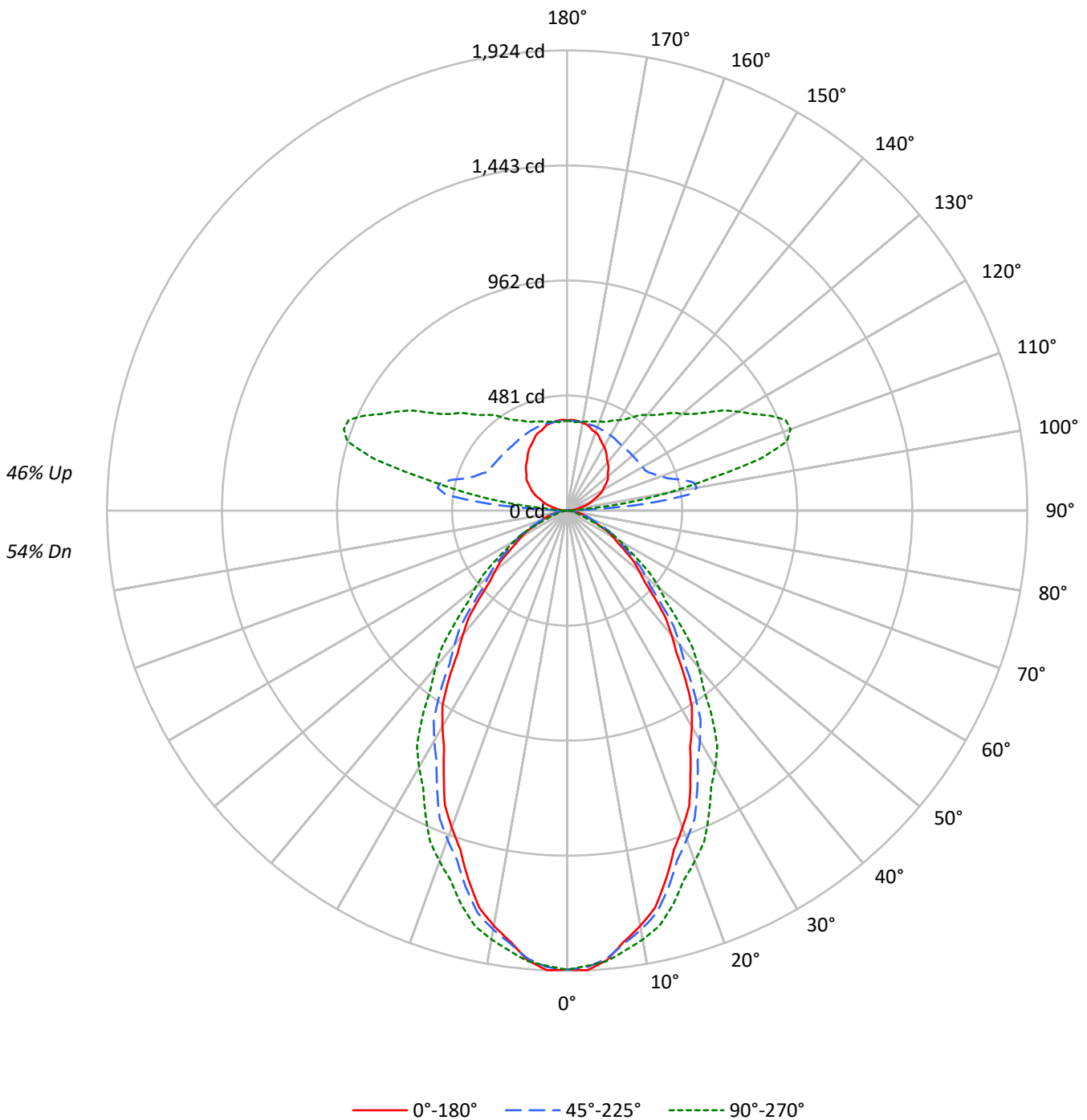
Input Watts (W): 47.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P521776

CATALOG NUMBER: SQ4-WB-050U-075D-92765-1D-UNV-STD-W-4_6500K

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 | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 86 | 86 | 86 | | 72 | 72 | 72 | | 60 | 60 | 60 | 54 |
| 1 | 100 | 96 | 93 | 90 | 93 | 90 | 87 | 84 | 77 | 75 | 73 | | 66 | 64 | 63 | | 55 | 54 | 53 | 48 |
| 2 | 92 | 85 | 80 | 75 | 85 | 80 | 75 | 71 | 69 | 66 | 63 | | 59 | 57 | 55 | | 50 | 48 | 47 | 43 |
| 3 | 85 | 76 | 70 | 64 | 79 | 71 | 66 | 61 | 62 | 58 | 54 | | 54 | 50 | 48 | | 46 | 43 | 41 | 38 |
| 4 | 78 | 69 | 61 | 56 | 73 | 64 | 58 | 53 | 56 | 51 | 47 | | 49 | 45 | 42 | | 42 | 39 | 37 | 34 |
| 5 | 73 | 62 | 54 | 49 | 67 | 58 | 51 | 46 | 51 | 46 | 42 | | 44 | 41 | 37 | | 38 | 35 | 33 | 30 |
| 6 | 67 | 56 | 49 | 43 | 63 | 53 | 46 | 41 | 47 | 41 | 37 | | 41 | 37 | 34 | | 35 | 32 | 30 | 27 |
| 7 | 63 | 51 | 44 | 38 | 58 | 48 | 42 | 37 | 43 | 37 | 34 | | 38 | 33 | 30 | | 33 | 30 | 27 | 25 |
| 8 | 58 | 47 | 40 | 35 | 54 | 44 | 38 | 33 | 39 | 34 | 30 | | 35 | 31 | 28 | | 30 | 27 | 25 | 23 |
| 9 | 55 | 43 | 36 | 31 | 51 | 41 | 34 | 30 | 36 | 31 | 28 | | 32 | 28 | 25 | | 28 | 25 | 23 | 21 |
| 10 | 51 | 40 | 33 | 28 | 48 | 38 | 32 | 27 | 34 | 29 | 25 | | 30 | 26 | 23 | | 26 | 23 | 21 | 19 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17704 | 17704 | 17704 |
| 5° | 17483 | 17421 | 17522 |
| 10° | 16518 | 16668 | 17054 |
| 15° | 15248 | 15602 | 16302 |
| 20° | 13847 | 14368 | 15319 |
| 25° | 12420 | 13098 | 14271 |
| 30° | 11105 | 11832 | 13186 |
| 35° | 9711 | 10413 | 11902 |
| 40° | 8173 | 8822 | 10304 |
| 45° | 6746 | 7328 | 8602 |
| 50° | 5632 | 6139 | 7167 |
| 55° | 4781 | 5268 | 5918 |
| 60° | 4085 | 4567 | 4724 |
| 65° | 3253 | 3842 | 3052 |
| 70° | 2884 | 2997 | 1861 |
| 75° | 2670 | 2431 | 1141 |
| 80° | 2460 | 2237 | 983 |
| 85° | 2223 | 2054 | 805 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8602 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 176.0 | 3.4 |
| 10°-20° | 457.8 | 8.9 |
| 20°-30° | 593.0 | 11.5 |
| 30°-40° | 580.7 | 11.3 |
| 40°-50° | 444.5 | 8.7 |
| 50°-60° | 296.2 | 5.8 |
| 60°-70° | 161.6 | 3.1 |
| 70°-80° | 67.3 | 1.3 |
| 80°-90° | 19.1 | 0.4 |
| 90°-100° | 171.5 | 3.3 |
| 100°-110° | 488.0 | 9.5 |
| 110°-120° | 467.6 | 9.1 |
| 120°-130° | 370.1 | 7.2 |
| 130°-140° | 297.0 | 5.8 |
| 140°-150° | 232.5 | 4.5 |
| 150°-160° | 170.1 | 3.3 |
| 160°-170° | 105.4 | 2.1 |
| 170°-180° | 35.8 | 0.7 |
| 0°-30° | 1226.8 | 23.9 |
| 0°-40° | 1807.5 | 35.2 |
| 0°-60° | 2548.1 | 49.6 |
| 0°-90° | 2796.1 | 54.5 |
| 90°-120° | 1127.1 | 22.0 |
| 90°-150° | 2026.7 | 39.5 |
| 90°-180° | 2338.0 | 45.5 |
| 0°-180° | 5134.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1919 | 1919 | 1919 | 1919 | 1919 | |
| 5° | 1888 | 1869 | 1881 | 1885 | 1892 | 176 |
| 15° | 1596 | 1591 | 1633 | 1678 | 1707 | 446 |
| 25° | 1220 | 1223 | 1287 | 1343 | 1402 | 561 |
| 35° | 862 | 866 | 924 | 987 | 1057 | 536 |
| 45° | 517 | 527 | 562 | 604 | 659 | 403 |
| 55° | 297 | 310 | 328 | 340 | 368 | 269 |
| 65° | 149 | 161 | 176 | 154 | 140 | 155 |
| 75° | 75 | 75 | 68 | 47 | 32 | 80 |
| 85° | 21 | 21 | 19 | 12 | 8 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | 2 |
| 95° | 19 | 74 | 332 | 115 | 71 | 21 |
| 105° | 76 | 115 | 497 | 878 | 835 | 80 |
| 115° | 141 | 170 | 377 | 799 | 938 | 139 |
| 125° | 199 | 221 | 360 | 597 | 714 | 178 |
| 135° | 243 | 264 | 356 | 504 | 570 | 188 |
| 145° | 287 | 302 | 358 | 437 | 476 | 179 |
| 155° | 328 | 335 | 367 | 395 | 411 | 151 |
| 165° | 362 | 364 | 371 | 379 | 385 | 102 |
| 175° | 379 | 377 | 376 | 374 | 371 | 36 |
| 180° | 376 | 376 | 376 | 376 | 376 | |

TEST NUMBER: P521776

CATALOG NUMBER: SQ4-WB-050U-075D-92765-1D-UNV-STD-W-4_6500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1918.9 | 1918.9 | 1918.9 | 1918.9 | 1918.9 |
| 2.5° | 1923.6 | 1906.5 | 1910.8 | 1910.7 | 1905.4 |
| 5° | 1887.7 | 1868.8 | 1881.0 | 1885.4 | 1891.9 |
| 7.5° | 1817.7 | 1803.3 | 1825.6 | 1842.1 | 1855.4 |
| 10° | 1763.1 | 1750.8 | 1779.1 | 1803.1 | 1820.4 |
| 12.5° | 1699.8 | 1689.4 | 1724.6 | 1756.7 | 1779.3 |
| 15° | 1596.4 | 1590.6 | 1633.4 | 1677.9 | 1706.7 |
| 17.5° | 1485.8 | 1483.0 | 1532.1 | 1583.9 | 1620.8 |
| 20° | 1410.3 | 1409.5 | 1463.4 | 1517.4 | 1560.2 |
| 22.5° | 1334.2 | 1336.0 | 1392.6 | 1448.8 | 1497.6 |
| 25° | 1220.0 | 1223.3 | 1286.6 | 1342.6 | 1401.9 |
| 27.5° | 1114.4 | 1115.9 | 1181.3 | 1240.5 | 1303.7 |
| 30° | 1042.4 | 1046.5 | 1110.6 | 1171.9 | 1237.7 |
| 32.5° | 970.3 | 975.1 | 1037.8 | 1101.2 | 1168.3 |
| 35° | 862.2 | 866.3 | 924.5 | 986.7 | 1056.7 |
| 37.5° | 750.7 | 756.3 | 808.0 | 866.8 | 935.6 |
| 40° | 678.6 | 686.9 | 732.5 | 787.9 | 855.5 |
| 42.5° | 609.3 | 619.5 | 661.8 | 714.4 | 775.3 |
| 45° | 517.0 | 526.9 | 561.6 | 604.1 | 659.3 |
| 47.5° | 437.5 | 448.9 | 475.6 | 512.2 | 559.2 |
| 50° | 392.4 | 403.1 | 427.7 | 454.8 | 499.3 |
| 52.5° | 352.6 | 363.3 | 385.3 | 406.2 | 444.1 |
| 55° | 297.2 | 309.6 | 327.5 | 340.0 | 367.9 |
| 57.5° | 251.8 | 263.6 | 277.9 | 283.5 | 300.4 |
| 60° | 221.4 | 234.6 | 247.5 | 246.9 | 256.0 |
| 62.5° | 193.8 | 205.0 | 217.9 | 209.0 | 209.5 |
| 65° | 149.0 | 161.4 | 176.0 | 153.8 | 139.8 |
| 67.5° | 120.4 | 123.0 | 138.1 | 107.2 | 90.6 |
| 70° | 106.9 | 106.9 | 111.1 | 83.0 | 69.0 |
| 72.5° | 94.1 | 94.1 | 90.3 | 67.5 | 52.9 |
| 75° | 74.9 | 74.9 | 68.2 | 46.8 | 32.0 |
| 77.5° | 57.8 | 57.1 | 52.2 | 34.9 | 23.2 |
| 80° | 46.3 | 46.3 | 42.1 | 27.6 | 18.5 |
| 82.5° | 36.2 | 36.2 | 32.7 | 21.5 | 13.8 |
| 85° | 21.0 | 21.0 | 19.4 | 12.5 | 7.6 |
| 87.5° | 7.4 | 7.4 | 6.7 | 4.0 | 3.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 5.7 | 30.4 | 70.4 | 20.5 | 15.5 |
| 95° | 18.6 | 73.9 | 332.0 | 114.9 | 70.8 |
| 97.5° | 34.2 | 86.5 | 511.3 | 365.9 | 250.7 |
| 100° | 45.1 | 94.1 | 550.3 | 557.4 | 429.3 |
| 102.5° | 57.1 | 102.2 | 541.7 | 713.5 | 601.6 |
| 105° | 75.8 | 115.0 | 497.3 | 878.4 | 835.1 |
| 107.5° | 94.9 | 130.0 | 445.5 | 925.0 | 963.6 |
| 110° | 108.1 | 140.9 | 415.7 | 907.2 | 993.9 |

TEST NUMBER: P521776

CATALOG NUMBER: SQ4-WB-050U-075D-92765-1D-UNV-STD-W-4_6500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 120.6 | 151.8 | 395.7 | 865.1 | 988.8 |
| 115° | 141.0 | 170.4 | 377.1 | 798.9 | 938.1 |
| 117.5° | 158.9 | 186.4 | 366.1 | 726.5 | 874.0 |
| 120° | 173.2 | 196.3 | 364.9 | 685.1 | 826.5 |
| 122.5° | 184.6 | 207.7 | 362.1 | 648.9 | 780.1 |
| 125° | 198.9 | 220.6 | 359.9 | 597.3 | 714.1 |
| 127.5° | 214.5 | 234.8 | 358.8 | 566.5 | 662.8 |
| 130° | 222.5 | 242.8 | 357.1 | 545.0 | 629.0 |
| 132.5° | 231.1 | 250.9 | 357.1 | 528.3 | 605.5 |
| 135° | 243.3 | 263.6 | 355.6 | 504.5 | 570.3 |
| 137.5° | 254.7 | 274.5 | 355.5 | 484.4 | 541.3 |
| 140° | 263.3 | 283.6 | 354.9 | 467.8 | 522.4 |
| 142.5° | 273.1 | 290.0 | 356.6 | 454.5 | 503.5 |
| 145° | 286.9 | 301.6 | 358.5 | 436.7 | 475.8 |
| 147.5° | 298.8 | 313.1 | 361.6 | 418.7 | 452.5 |
| 150° | 309.1 | 318.9 | 362.8 | 412.7 | 436.5 |
| 152.5° | 317.1 | 327.5 | 363.9 | 404.7 | 426.8 |
| 155° | 327.7 | 335.4 | 367.1 | 394.6 | 410.7 |
| 157.5° | 340.9 | 345.5 | 367.8 | 390.1 | 401.6 |
| 160° | 347.8 | 351.3 | 370.7 | 386.6 | 396.4 |
| 162.5° | 351.8 | 355.8 | 371.2 | 383.7 | 391.3 |
| 165° | 362.1 | 363.5 | 371.4 | 379.4 | 385.0 |
| 167.5° | 369.1 | 367.8 | 374.7 | 378.3 | 380.5 |
| 170° | 371.4 | 370.7 | 373.5 | 374.3 | 377.1 |
| 172.5° | 376.5 | 374.2 | 375.2 | 373.1 | 375.4 |
| 175° | 379.2 | 377.1 | 375.7 | 373.5 | 370.7 |
| 177.5° | 380.4 | 377.0 | 375.2 | 373.0 | 373.5 |
| 180° | 376.4 | 376.4 | 376.4 | 376.4 | 376.4 |

(END OF REPORT)