

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P686317

Luminaire Tested: SQ4R-F-125D-92765-1-UNV-STD-W-4_3000K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686317
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-27)
Test Lab: INNOVATION CENTER
Issue Date: 5/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-F-125D-92765-1-UNV-STD-W-4_3000K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 2700K-6500I
1250 LUMENS PER FOOT
Light Source: 2700K AND 6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

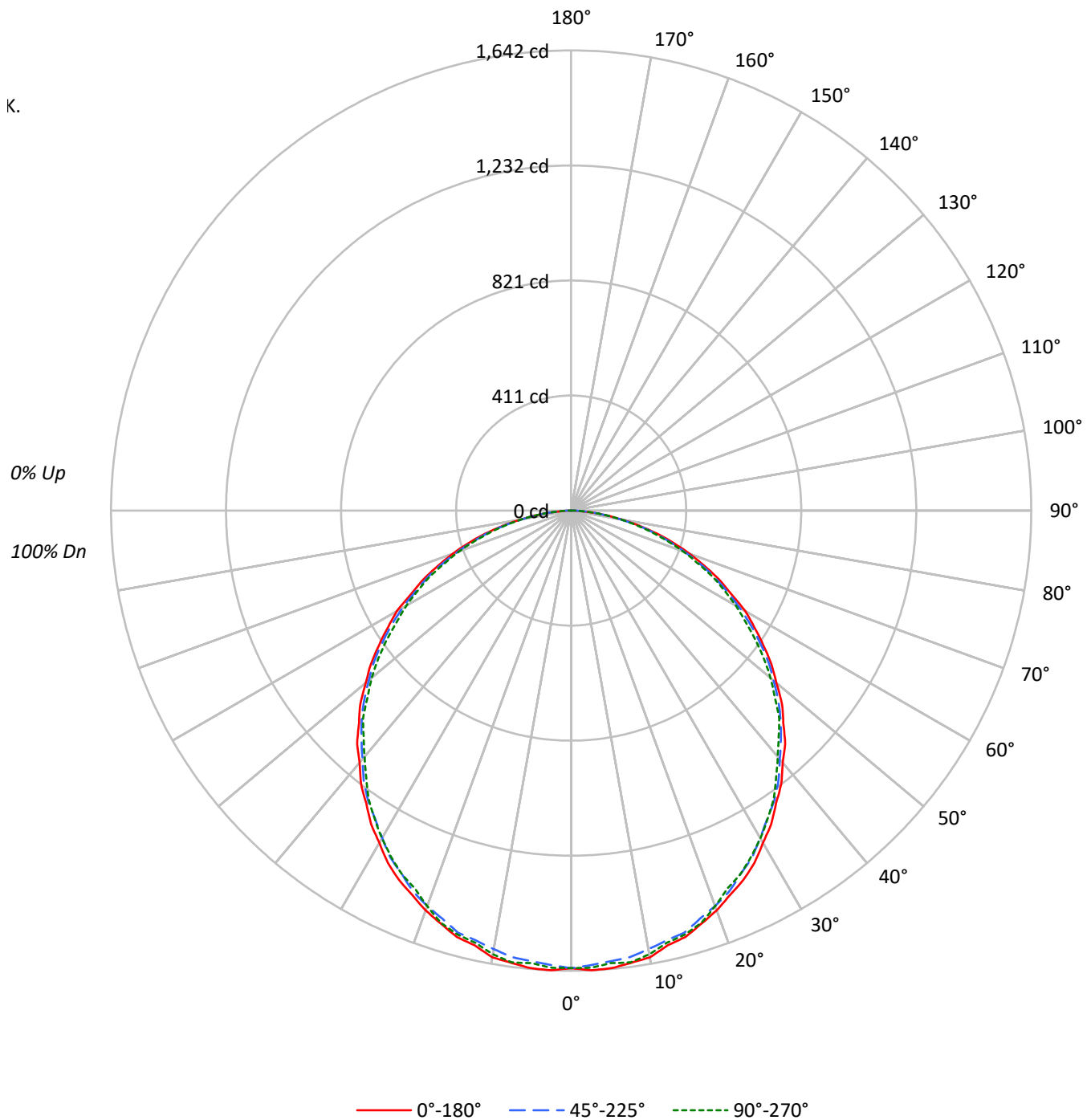
Lumens per Lamp: N/A
Luminaire Lumens: 4565.4 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 61
Input Voltage (V): 120
Input Current (A_{in}): 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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 70 |
| 3 | 90 | 79 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 59 |
| 4 | 82 | 70 | 62 | 55 | 80 | 69 | 61 | 54 | 67 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 38 |
| 7 | 65 | 51 | 43 | 36 | 63 | 51 | 42 | 36 | 49 | 41 | 36 | 48 | 41 | 36 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 44 | 37 | 32 | 42 | 36 | 32 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 32 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 15718 | 15718 | 15718 |
| 5° | 15844 | 15601 | 15667 |
| 10° | 15825 | 15534 | 15714 |
| 15° | 15701 | 15540 | 15609 |
| 20° | 15552 | 15387 | 15387 |
| 25° | 15443 | 15199 | 15199 |
| 30° | 15218 | 14989 | 15014 |
| 35° | 14984 | 14849 | 14794 |
| 40° | 14754 | 14553 | 14409 |
| 45° | 14579 | 14393 | 14299 |
| 50° | 14321 | 14115 | 13910 |
| 55° | 14047 | 13817 | 13470 |
| 60° | 13819 | 13378 | 13068 |
| 65° | 13267 | 12903 | 12693 |
| 70° | 12650 | 12135 | 11941 |
| 75° | 11769 | 11345 | 11003 |
| 80° | 10040 | 9791 | 9791 |
| 85° | 7346 | 7600 | 7346 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 14610 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 154.6 | 3.4 |
| 10°-20° | 441.1 | 9.7 |
| 20°-30° | 662.8 | 14.5 |
| 30°-40° | 791.2 | 17.3 |
| 40°-50° | 816.4 | 17.9 |
| 50°-60° | 735.3 | 16.1 |
| 60°-70° | 559.4 | 12.3 |
| 70°-80° | 321.2 | 7.0 |
| 80°-90° | 83.6 | 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° | 1258.5 | 27.6 |
| 0°-40° | 2049.7 | 44.9 |
| 0°-60° | 3601.3 | 78.9 |
| 0°-90° | 4565.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4565.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1633 | 1633 | 1633 | 1633 | 1633 | |
| 5° | 1640 | 1633 | 1614 | 1633 | 1621 | 156 |
| 15° | 1575 | 1568 | 1559 | 1564 | 1566 | 444 |
| 25° | 1454 | 1442 | 1431 | 1435 | 1431 | 669 |
| 35° | 1275 | 1273 | 1263 | 1259 | 1259 | 799 |
| 45° | 1071 | 1073 | 1057 | 1048 | 1050 | 828 |
| 55° | 837 | 839 | 823 | 816 | 802 | 749 |
| 65° | 582 | 576 | 566 | 555 | 557 | 574 |
| 75° | 316 | 307 | 305 | 298 | 296 | 333 |
| 85° | 66 | 69 | 69 | 69 | 66 | 83 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1632.6 | 1632.6 | 1632.6 | 1632.6 | 1632.6 |
| 2.5° | 1641.8 | 1641.8 | 1623.4 | 1634.9 | 1632.6 |
| 5° | 1639.5 | 1632.6 | 1614.3 | 1632.6 | 1621.1 |
| 7.5° | 1628.0 | 1616.6 | 1607.4 | 1618.8 | 1625.7 |
| 10° | 1618.8 | 1616.6 | 1589.0 | 1602.8 | 1607.4 |
| 12.5° | 1589.0 | 1600.5 | 1570.7 | 1579.9 | 1579.9 |
| 15° | 1575.3 | 1568.4 | 1559.2 | 1563.8 | 1566.1 |
| 17.5° | 1545.5 | 1540.9 | 1527.1 | 1538.6 | 1543.2 |
| 20° | 1518.0 | 1511.1 | 1501.9 | 1504.2 | 1501.9 |
| 22.5° | 1483.6 | 1479.0 | 1472.1 | 1472.1 | 1458.3 |
| 25° | 1453.8 | 1442.3 | 1430.8 | 1435.4 | 1430.8 |
| 27.5° | 1417.1 | 1407.9 | 1396.4 | 1398.7 | 1391.8 |
| 30° | 1368.9 | 1371.2 | 1348.3 | 1348.3 | 1350.6 |
| 32.5° | 1327.6 | 1318.5 | 1302.4 | 1302.4 | 1304.7 |
| 35° | 1274.9 | 1272.6 | 1263.4 | 1258.8 | 1258.8 |
| 37.5° | 1231.3 | 1231.3 | 1215.3 | 1208.4 | 1201.5 |
| 40° | 1174.0 | 1176.3 | 1158.0 | 1155.7 | 1146.5 |
| 42.5° | 1130.4 | 1125.9 | 1107.5 | 1105.2 | 1096.0 |
| 45° | 1070.8 | 1073.1 | 1057.1 | 1047.9 | 1050.2 |
| 47.5° | 1020.4 | 1013.5 | 1002.0 | 992.9 | 986.0 |
| 50° | 956.2 | 953.9 | 942.4 | 935.5 | 928.7 |
| 52.5° | 901.1 | 894.3 | 887.4 | 871.3 | 866.7 |
| 55° | 836.9 | 839.2 | 823.2 | 816.3 | 802.5 |
| 57.5° | 775.0 | 772.7 | 759.0 | 747.5 | 736.0 |
| 60° | 717.7 | 710.8 | 694.8 | 683.3 | 678.7 |
| 62.5° | 642.0 | 639.7 | 628.3 | 619.1 | 614.5 |
| 65° | 582.4 | 575.5 | 566.4 | 554.9 | 557.2 |
| 67.5° | 513.6 | 509.0 | 499.9 | 490.7 | 486.1 |
| 70° | 449.4 | 442.5 | 431.1 | 426.5 | 424.2 |
| 72.5° | 382.9 | 376.0 | 366.9 | 357.7 | 360.0 |
| 75° | 316.4 | 307.3 | 305.0 | 298.1 | 295.8 |
| 77.5° | 247.6 | 243.1 | 238.5 | 236.2 | 233.9 |
| 80° | 181.1 | 183.4 | 176.6 | 174.3 | 176.6 |
| 82.5° | 123.8 | 123.8 | 121.5 | 119.2 | 121.5 |
| 85° | 66.5 | 68.8 | 68.8 | 68.8 | 66.5 |
| 87.5° | 22.9 | 27.5 | 29.8 | 29.8 | 27.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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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 | 21.40 | 23.04 | 21.76 | 23.35 | 23.67 | 21.16 | 22.80 | 21.52 | 23.11 | 23.42 |
| | 3H | 23.23 | 24.72 | 23.61 | 25.04 | 25.40 | 22.96 | 24.44 | 23.34 | 24.77 | 25.13 |
| | 4H | 23.92 | 25.32 | 24.32 | 25.67 | 26.04 | 23.63 | 25.03 | 24.03 | 25.37 | 25.75 |
| | 6H | 24.41 | 25.70 | 24.82 | 26.07 | 26.46 | 24.12 | 25.41 | 24.53 | 25.78 | 26.17 |
| | 8H | 24.55 | 25.79 | 24.97 | 26.18 | 26.58 | 24.26 | 25.50 | 24.69 | 25.89 | 26.29 |
| | 12H | 24.63 | 25.82 | 25.06 | 26.20 | 26.63 | 24.35 | 25.54 | 24.78 | 25.92 | 26.35 |
| 4H | 2H | 22.01 | 23.41 | 22.41 | 23.76 | 24.13 | 21.82 | 23.22 | 22.22 | 23.57 | 23.94 |
| | 3H | 24.06 | 25.24 | 24.47 | 25.63 | 26.03 | 23.84 | 25.01 | 24.25 | 25.41 | 25.81 |
| | 4H | 24.88 | 25.94 | 25.31 | 26.35 | 26.79 | 24.63 | 25.70 | 25.07 | 26.11 | 26.54 |
| | 6H | 25.49 | 26.42 | 25.95 | 26.86 | 27.31 | 25.24 | 26.17 | 25.69 | 26.61 | 27.06 |
| | 8H | 25.68 | 26.55 | 26.14 | 26.99 | 27.46 | 25.43 | 26.30 | 25.89 | 26.74 | 27.21 |
| | 12H | 25.80 | 26.58 | 26.28 | 27.06 | 27.52 | 25.56 | 26.34 | 26.04 | 26.81 | 27.28 |
| 8H | 4H | 25.18 | 26.04 | 25.64 | 26.49 | 26.95 | 24.96 | 25.83 | 25.42 | 26.27 | 26.74 |
| | 6H | 25.91 | 26.63 | 26.40 | 27.11 | 27.59 | 25.68 | 26.40 | 26.17 | 26.89 | 27.36 |
| | 8H | 26.16 | 26.81 | 26.67 | 27.32 | 27.80 | 25.94 | 26.59 | 26.45 | 27.09 | 27.58 |
| | 12H | 26.34 | 26.92 | 26.85 | 27.41 | 27.97 | 26.13 | 26.70 | 26.64 | 27.19 | 27.75 |
| 12H | 4H | 25.21 | 25.99 | 25.69 | 26.46 | 26.93 | 25.00 | 25.78 | 25.48 | 26.25 | 26.72 |
| | 6H | 25.95 | 26.60 | 26.46 | 27.11 | 27.59 | 25.74 | 26.39 | 26.24 | 26.89 | 27.38 |
| | 8H | 26.27 | 26.84 | 26.77 | 27.33 | 27.89 | 26.05 | 26.62 | 26.56 | 27.12 | 27.68 |