

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: P688749

Luminaire Tested: SQ4R-PH1-100D-92765-1-UNV-STD-W-4_3000K

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-36)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-PH1-100D-92765-1-UNV-STD-W-4_3000K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS.
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3537.7 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.22 / 1.28
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

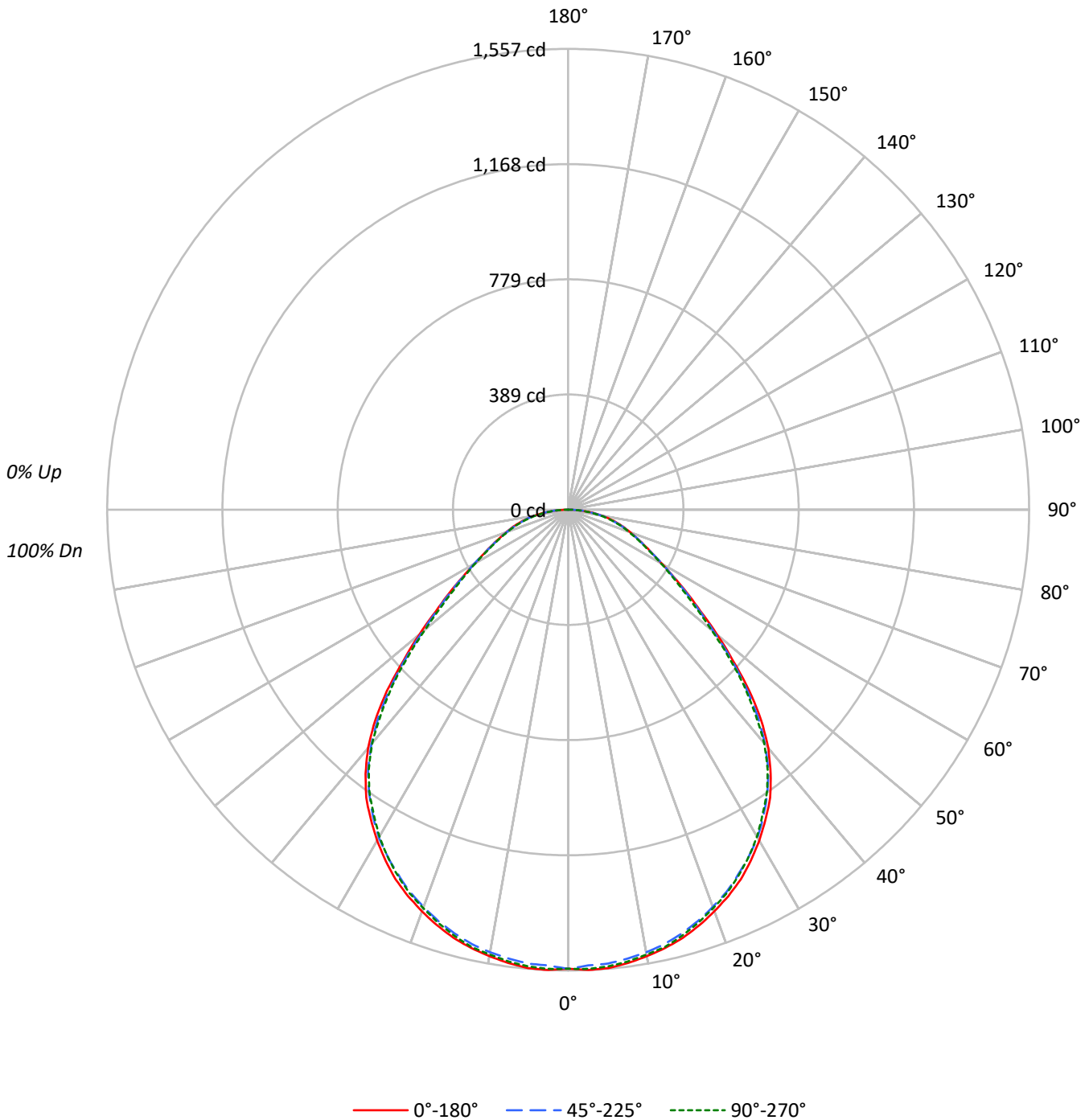
Input Watts (W): 46.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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CATALOG NUMBER: SQ4R-PH1-100D-92765-1-UNV-STD-W-4_3000K

Luminous Intensity Polar Plot



TEST NUMBER: P688749

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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 | 110 | 105 | 102 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 91 | 92 | 90 | 88 | 86 | | | | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 | | | | 74 |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 64 | | | | 64 |
| 4 | 86 | 75 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 69 | 63 | 58 | 66 | 62 | 57 | 55 | | | | 55 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | | | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 | | | | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 | | | | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 43 | 38 | 33 | 32 | | | | 32 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 31 | 29 | | | | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14931 | 14931 | 14931 |
| 5° | 15025 | 14877 | 14970 |
| 10° | 14975 | 14844 | 14918 |
| 15° | 14924 | 14771 | 14847 |
| 20° | 14791 | 14634 | 14673 |
| 25° | 14644 | 14440 | 14482 |
| 30° | 14346 | 14218 | 14176 |
| 35° | 13974 | 13772 | 13750 |
| 40° | 13211 | 12994 | 12946 |
| 45° | 11784 | 11548 | 11418 |
| 50° | 9836 | 9635 | 9434 |
| 55° | 8196 | 8099 | 7906 |
| 60° | 7041 | 7078 | 6932 |
| 65° | 6456 | 6413 | 6324 |
| 70° | 6252 | 6198 | 6091 |
| 75° | 6338 | 6197 | 6056 |
| 80° | 6370 | 6265 | 6049 |
| 85° | 6131 | 6131 | 5711 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11784 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 147.1 | 4.2 |
| 10°-20° | 420.2 | 11.9 |
| 20°-30° | 629.5 | 17.8 |
| 30°-40° | 732.5 | 20.7 |
| 40°-50° | 651.5 | 18.4 |
| 50°-60° | 437.5 | 12.4 |
| 60°-70° | 282.8 | 8.0 |
| 70°-80° | 176.3 | 5.0 |
| 80°-90° | 60.4 | 1.7 |
| 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° | 1196.9 | 33.8 |
| 0°-40° | 1929.4 | 54.5 |
| 0°-60° | 3018.3 | 85.3 |
| 0°-90° | 3537.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3537.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1551 | 1551 | 1551 | 1551 | 1551 | |
| 5° | 1555 | 1551 | 1539 | 1551 | 1549 | 148 |
| 15° | 1497 | 1494 | 1482 | 1492 | 1490 | 422 |
| 25° | 1379 | 1373 | 1359 | 1367 | 1363 | 634 |
| 35° | 1189 | 1183 | 1172 | 1172 | 1170 | 739 |
| 45° | 866 | 862 | 848 | 837 | 839 | 662 |
| 55° | 488 | 488 | 482 | 475 | 471 | 442 |
| 65° | 283 | 285 | 282 | 280 | 278 | 284 |
| 75° | 170 | 168 | 167 | 167 | 163 | 179 |
| 85° | 56 | 57 | 56 | 54 | 52 | 61 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P688749

CATALOG NUMBER: SQ4R-PH1-100D-92765-1-UNV-STD-W-4_3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1550.9 | 1550.9 | 1550.9 | 1550.9 | 1550.9 |
| 2.5° | 1556.7 | 1552.8 | 1541.3 | 1554.7 | 1552.8 |
| 5° | 1554.7 | 1550.9 | 1539.4 | 1550.9 | 1549.0 |
| 7.5° | 1545.2 | 1543.3 | 1529.9 | 1543.3 | 1539.4 |
| 10° | 1531.8 | 1531.8 | 1518.4 | 1529.9 | 1526.0 |
| 12.5° | 1516.5 | 1514.5 | 1503.1 | 1514.5 | 1512.6 |
| 15° | 1497.3 | 1493.5 | 1482.0 | 1491.6 | 1489.6 |
| 17.5° | 1472.4 | 1470.5 | 1457.1 | 1466.7 | 1462.8 |
| 20° | 1443.7 | 1439.9 | 1428.4 | 1436.0 | 1432.2 |
| 22.5° | 1413.1 | 1409.2 | 1397.7 | 1403.5 | 1401.6 |
| 25° | 1378.6 | 1372.9 | 1359.4 | 1367.1 | 1363.3 |
| 27.5° | 1336.5 | 1334.6 | 1321.2 | 1325.0 | 1321.2 |
| 30° | 1290.5 | 1288.6 | 1279.0 | 1279.0 | 1275.2 |
| 32.5° | 1240.7 | 1242.7 | 1227.3 | 1229.2 | 1221.6 |
| 35° | 1189.0 | 1183.3 | 1171.8 | 1171.8 | 1169.9 |
| 37.5° | 1123.9 | 1120.1 | 1110.5 | 1108.6 | 1106.7 |
| 40° | 1051.2 | 1047.3 | 1033.9 | 1030.1 | 1030.1 |
| 42.5° | 965.0 | 961.2 | 947.8 | 942.0 | 934.4 |
| 45° | 865.5 | 861.6 | 848.2 | 836.7 | 838.6 |
| 47.5° | 754.4 | 758.2 | 744.8 | 735.3 | 733.3 |
| 50° | 656.7 | 654.8 | 643.3 | 637.6 | 629.9 |
| 52.5° | 562.9 | 564.8 | 555.3 | 551.4 | 541.9 |
| 55° | 488.3 | 488.3 | 482.5 | 474.8 | 471.0 |
| 57.5° | 421.2 | 425.1 | 419.3 | 415.5 | 411.7 |
| 60° | 365.7 | 367.6 | 367.6 | 360.0 | 360.0 |
| 62.5° | 319.8 | 321.7 | 319.8 | 315.9 | 315.9 |
| 65° | 283.4 | 285.3 | 281.5 | 279.5 | 277.6 |
| 67.5° | 250.8 | 252.7 | 250.8 | 248.9 | 245.1 |
| 70° | 222.1 | 222.1 | 220.2 | 220.2 | 216.4 |
| 72.5° | 197.2 | 195.3 | 193.4 | 193.4 | 191.5 |
| 75° | 170.4 | 168.5 | 166.6 | 166.6 | 162.8 |
| 77.5° | 143.6 | 141.7 | 141.7 | 137.9 | 135.9 |
| 80° | 114.9 | 114.9 | 113.0 | 111.1 | 109.1 |
| 82.5° | 88.1 | 86.2 | 84.2 | 82.3 | 80.4 |
| 85° | 55.5 | 57.4 | 55.5 | 53.6 | 51.7 |
| 87.5° | 24.9 | 26.8 | 26.8 | 26.8 | 24.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)