

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

(formerly Eaton)

Brand: CORELITE

Report Number: P519956

Luminaire Tested: **SQ4-F-050U-125D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519956
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G3-1910-536-20)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-050U-125D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

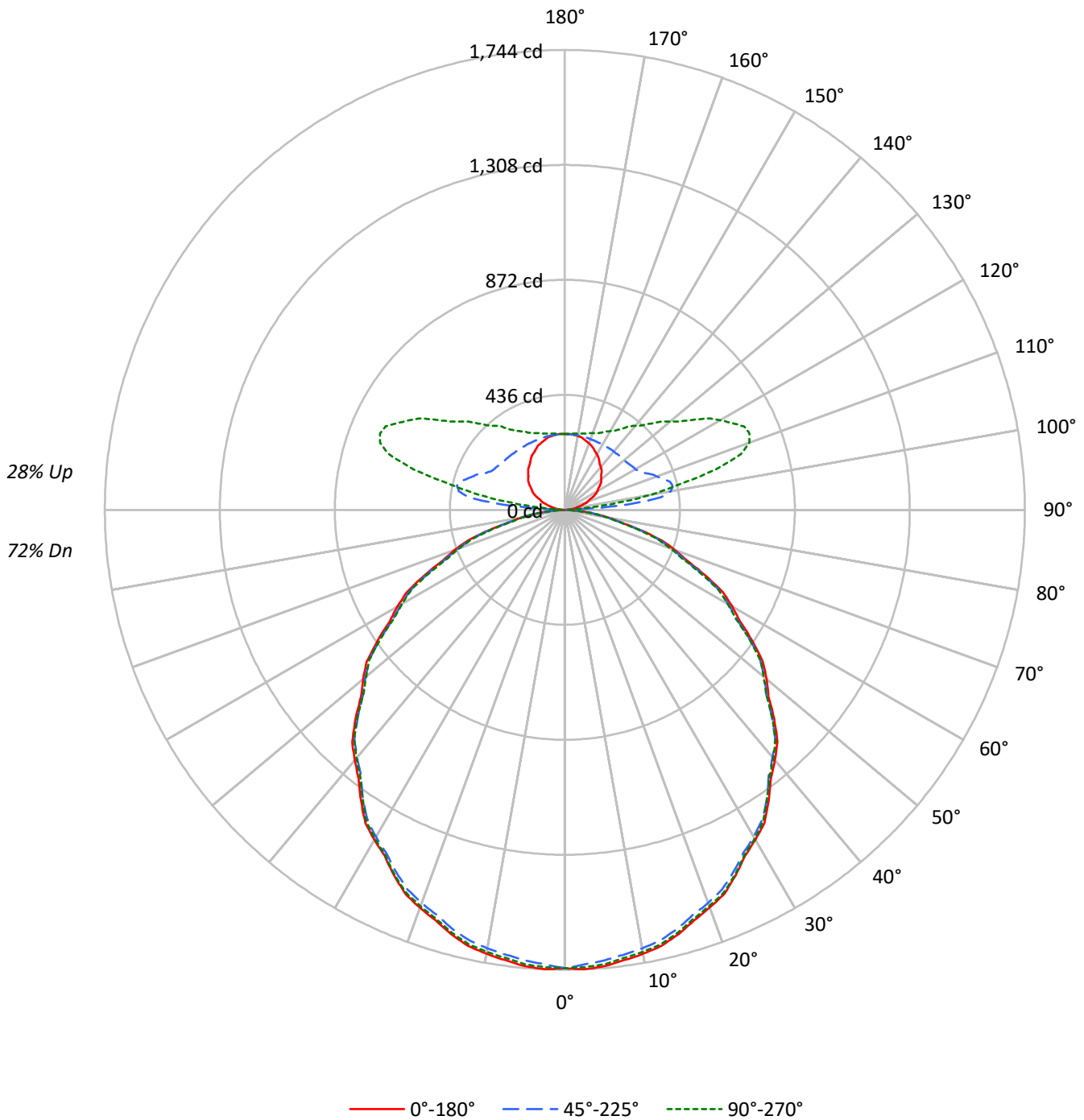
Lumens per Lamp: N/A
Luminaire Lumens: 6623.7 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 55.9
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





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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 | 112 | 112 | 112 | 112 | 106 | 106 | 106 | 106 | 95 | 95 | 95 | 85 | 85 | 85 | 76 | 76 | 76 | 72 |
| 1 | 103 | 98 | 94 | 90 | 97 | 93 | 90 | 86 | 84 | 81 | 78 | 75 | 73 | 71 | 67 | 66 | 64 | 60 |
| 2 | 93 | 86 | 79 | 74 | 88 | 81 | 76 | 71 | 73 | 69 | 65 | 66 | 62 | 59 | 59 | 56 | 54 | 50 |
| 3 | 85 | 75 | 68 | 61 | 80 | 72 | 65 | 59 | 65 | 59 | 54 | 58 | 54 | 50 | 52 | 49 | 46 | 42 |
| 4 | 78 | 67 | 58 | 52 | 73 | 63 | 56 | 50 | 57 | 51 | 46 | 52 | 47 | 43 | 47 | 43 | 39 | 36 |
| 5 | 72 | 59 | 51 | 45 | 67 | 57 | 49 | 43 | 51 | 45 | 40 | 46 | 41 | 37 | 42 | 38 | 34 | 31 |
| 6 | 66 | 53 | 45 | 39 | 62 | 51 | 43 | 37 | 46 | 40 | 35 | 42 | 37 | 32 | 38 | 34 | 30 | 28 |
| 7 | 61 | 48 | 40 | 34 | 58 | 46 | 38 | 33 | 42 | 36 | 31 | 38 | 33 | 29 | 35 | 30 | 27 | 24 |
| 8 | 57 | 44 | 36 | 30 | 54 | 42 | 34 | 29 | 38 | 32 | 27 | 35 | 30 | 26 | 32 | 27 | 24 | 22 |
| 9 | 53 | 40 | 32 | 27 | 50 | 38 | 31 | 26 | 35 | 29 | 25 | 32 | 27 | 23 | 29 | 25 | 22 | 20 |
| 10 | 49 | 37 | 29 | 24 | 47 | 35 | 28 | 24 | 33 | 26 | 22 | 30 | 25 | 21 | 27 | 23 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16038 | 16038 | 16038 |
| 5° | 16090 | 15886 | 16020 |
| 10° | 16016 | 15819 | 15944 |
| 15° | 15908 | 15716 | 15844 |
| 20° | 15761 | 15583 | 15704 |
| 25° | 15581 | 15417 | 15544 |
| 30° | 15390 | 15257 | 15339 |
| 35° | 15171 | 15042 | 15052 |
| 40° | 14920 | 14759 | 14806 |
| 45° | 14642 | 14479 | 14504 |
| 50° | 14322 | 14158 | 14115 |
| 55° | 13957 | 13756 | 13727 |
| 60° | 13505 | 13203 | 13134 |
| 65° | 12802 | 12531 | 12365 |
| 70° | 11923 | 11613 | 11459 |
| 75° | 10609 | 10366 | 10060 |
| 80° | 8645 | 8384 | 8336 |
| 85° | 5166 | 5865 | 5865 |



TEST NUMBER: P519956

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 164.0 | 2.5 |
| 10°-20° | 467.1 | 7.1 |
| 20°-30° | 701.8 | 10.6 |
| 30°-40° | 837.3 | 12.6 |
| 40°-50° | 858.3 | 13.0 |
| 50°-60° | 765.0 | 11.5 |
| 60°-70° | 569.5 | 8.6 |
| 70°-80° | 308.5 | 4.7 |
| 80°-90° | 71.9 | 1.1 |
| 90°-100° | 138.2 | 2.1 |
| 100°-110° | 375.5 | 5.7 |
| 110°-120° | 386.1 | 5.8 |
| 120°-130° | 308.7 | 4.7 |
| 130°-140° | 242.6 | 3.7 |
| 140°-150° | 186.0 | 2.8 |
| 150°-160° | 133.7 | 2.0 |
| 160°-170° | 81.8 | 1.2 |
| 170°-180° | 27.6 | 0.4 |
| 0°-30° | 1332.9 | 20.1 |
| 0°-40° | 2170.2 | 32.8 |
| 0°-60° | 3793.5 | 57.3 |
| 0°-90° | 4743.5 | 71.6 |
| 90°-120° | 899.9 | 13.6 |
| 90°-150° | 1637.1 | 24.7 |
| 90°-180° | 1880.0 | 28.4 |
| 0°-180° | 6623.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1738 | 1738 | 1738 | 1738 | 1738 | |
| 5° | 1737 | 1734 | 1715 | 1731 | 1730 | 165 |
| 15° | 1666 | 1662 | 1645 | 1660 | 1659 | 470 |
| 25° | 1531 | 1528 | 1514 | 1523 | 1527 | 705 |
| 35° | 1347 | 1346 | 1336 | 1336 | 1336 | 842 |
| 45° | 1122 | 1119 | 1110 | 1108 | 1112 | 865 |
| 55° | 868 | 865 | 855 | 849 | 853 | 775 |
| 65° | 586 | 583 | 574 | 570 | 566 | 581 |
| 75° | 298 | 298 | 291 | 285 | 282 | 316 |
| 85° | 49 | 55 | 55 | 56 | 55 | 67 |
| 90° | 1 | 4 | 6 | 8 | 8 | 3 |
| 95° | 20 | 76 | 241 | 105 | 70 | 22 |
| 105° | 67 | 104 | 413 | 629 | 592 | 71 |
| 115° | 118 | 144 | 331 | 658 | 749 | 117 |
| 125° | 163 | 186 | 299 | 504 | 594 | 145 |
| 135° | 196 | 218 | 291 | 410 | 463 | 152 |
| 145° | 227 | 243 | 287 | 349 | 375 | 142 |
| 155° | 256 | 266 | 285 | 313 | 322 | 118 |
| 165° | 278 | 281 | 286 | 298 | 299 | 78 |
| 175° | 288 | 289 | 287 | 291 | 290 | 27 |
| 180° | 288 | 288 | 288 | 288 | 288 | |

TEST NUMBER: P519956

CATALOG NUMBER: SQ4-F-050U-125D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1738.3 | 1738.3 | 1738.3 | 1738.3 | 1738.3 |
| 2.5° | 1743.6 | 1740.6 | 1725.2 | 1738.2 | 1736.0 |
| 5° | 1737.3 | 1734.4 | 1715.3 | 1730.6 | 1729.7 |
| 7.5° | 1722.6 | 1719.0 | 1701.5 | 1715.8 | 1714.2 |
| 10° | 1709.5 | 1706.8 | 1688.5 | 1702.8 | 1701.9 |
| 12.5° | 1693.5 | 1690.6 | 1672.4 | 1686.8 | 1686.6 |
| 15° | 1665.5 | 1661.8 | 1645.4 | 1659.7 | 1658.8 |
| 17.5° | 1632.1 | 1627.7 | 1611.6 | 1622.9 | 1624.8 |
| 20° | 1605.3 | 1602.5 | 1587.1 | 1597.6 | 1599.5 |
| 22.5° | 1577.7 | 1574.2 | 1558.0 | 1570.1 | 1572.0 |
| 25° | 1530.6 | 1527.9 | 1514.4 | 1523.1 | 1526.9 |
| 27.5° | 1479.0 | 1479.0 | 1466.6 | 1472.7 | 1475.0 |
| 30° | 1444.6 | 1444.6 | 1432.1 | 1436.1 | 1439.8 |
| 32.5° | 1407.8 | 1404.8 | 1393.1 | 1396.2 | 1400.0 |
| 35° | 1347.0 | 1346.1 | 1335.5 | 1335.5 | 1336.4 |
| 37.5° | 1284.0 | 1281.4 | 1269.8 | 1270.7 | 1275.2 |
| 40° | 1238.8 | 1237.0 | 1225.4 | 1225.5 | 1229.3 |
| 42.5° | 1192.9 | 1191.1 | 1181.1 | 1179.6 | 1181.1 |
| 45° | 1122.2 | 1119.3 | 1109.7 | 1107.9 | 1111.6 |
| 47.5° | 1046.8 | 1047.5 | 1036.0 | 1033.4 | 1035.5 |
| 50° | 997.8 | 997.8 | 986.4 | 980.7 | 983.4 |
| 52.5° | 946.5 | 945.0 | 933.4 | 927.2 | 933.7 |
| 55° | 867.7 | 864.8 | 855.2 | 848.6 | 853.4 |
| 57.5° | 786.9 | 782.6 | 773.0 | 765.7 | 768.3 |
| 60° | 731.9 | 725.3 | 715.5 | 709.9 | 711.8 |
| 62.5° | 674.4 | 670.8 | 660.5 | 651.8 | 655.8 |
| 65° | 586.4 | 582.7 | 574.0 | 570.1 | 566.4 |
| 67.5° | 500.2 | 497.7 | 487.9 | 483.9 | 481.4 |
| 70° | 442.0 | 437.3 | 430.5 | 425.7 | 424.8 |
| 72.5° | 385.3 | 379.9 | 373.1 | 369.0 | 366.6 |
| 75° | 297.6 | 297.6 | 290.8 | 285.0 | 282.2 |
| 77.5° | 214.0 | 214.7 | 209.1 | 207.2 | 205.8 |
| 80° | 162.7 | 162.7 | 157.8 | 156.0 | 156.9 |
| 82.5° | 113.6 | 115.8 | 114.2 | 111.5 | 110.2 |
| 85° | 48.8 | 55.3 | 55.4 | 56.5 | 55.4 |
| 87.5° | 8.6 | 14.4 | 15.9 | 14.7 | 13.2 |
| 90° | 0.9 | 3.6 | 6.5 | 8.3 | 8.3 |
| 92.5° | 8.3 | 37.9 | 65.7 | 28.3 | 23.8 |
| 95° | 20.4 | 75.6 | 240.7 | 104.8 | 70.4 |
| 97.5° | 33.7 | 83.5 | 369.1 | 287.1 | 201.7 |
| 100° | 42.6 | 88.8 | 408.3 | 413.9 | 334.2 |
| 102.5° | 51.5 | 94.0 | 418.7 | 511.9 | 441.7 |
| 105° | 66.6 | 103.8 | 412.9 | 628.8 | 591.6 |
| 107.5° | 82.4 | 115.2 | 389.1 | 689.2 | 699.5 |
| 110° | 93.5 | 123.3 | 371.3 | 701.0 | 745.4 |

TEST NUMBER: P519956

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------------|-------|-------|-------|-------|
| 112.5° | <i>103.1</i> | 131.6 | 353.6 | 691.1 | 757.9 |
| 115° | <i>118.5</i> | 143.9 | 330.6 | 657.7 | 749.0 |
| 117.5° | <i>133.0</i> | 157.2 | 315.9 | 610.1 | 713.1 |
| 120° | <i>142.6</i> | 166.1 | 309.3 | 578.3 | 680.5 |
| 122.5° | <i>150.7</i> | 174.3 | 304.8 | 546.3 | 645.0 |
| 125° | <i>163.0</i> | 185.6 | 299.1 | 503.9 | 594.5 |
| 127.5° | <i>173.9</i> | 196.4 | 296.0 | 471.8 | 549.4 |
| 130° | <i>180.6</i> | 202.2 | 294.5 | 451.6 | 521.3 |
| 132.5° | <i>187.2</i> | 208.9 | 292.9 | 434.3 | 496.1 |
| 135° | <i>196.3</i> | 218.0 | 290.8 | 410.5 | 463.0 |
| 137.5° | <i>206.1</i> | 225.9 | 289.6 | 389.4 | 433.5 |
| 140° | <i>212.1</i> | 231.1 | 288.9 | 375.9 | 415.8 |
| 142.5° | <i>217.9</i> | 235.5 | 288.1 | 365.3 | 398.7 |
| 145° | <i>226.9</i> | 243.2 | 287.0 | 348.7 | 374.9 |
| 147.5° | <i>236.9</i> | 250.8 | 286.1 | 335.6 | 356.3 |
| 150° | <i>243.6</i> | 255.3 | 286.1 | 328.1 | 344.4 |
| 152.5° | <i>248.7</i> | 259.1 | 285.4 | 321.4 | 334.8 |
| 155° | <i>256.5</i> | 265.5 | 285.2 | 313.1 | 322.3 |
| 157.5° | <i>264.1</i> | 271.1 | 285.2 | 307.5 | 314.4 |
| 160° | <i>268.5</i> | 274.9 | 285.2 | 303.8 | 309.3 |
| 162.5° | <i>273.0</i> | 277.8 | 285.9 | 300.9 | 304.8 |
| 165° | <i>277.8</i> | 281.4 | 286.1 | 298.1 | 299.1 |
| 167.5° | <i>282.8</i> | 284.6 | 287.0 | 295.0 | 295.8 |
| 170° | <i>284.3</i> | 286.0 | 287.0 | 293.5 | 293.5 |
| 172.5° | <i>285.8</i> | 286.8 | 287.0 | 292.0 | 292.0 |
| 175° | <i>287.9</i> | 288.9 | 287.0 | 290.8 | 289.8 |
| 177.5° | <i>288.7</i> | 288.7 | 286.4 | 289.4 | 287.9 |
| 180° | <i>287.9</i> | 287.9 | 287.9 | 287.9 | 287.9 |

(END OF REPORT)