

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: P518974

Luminaire Tested: **SQ4-WB-025U-050D-830-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518974
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-32, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-WB-025U-050D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

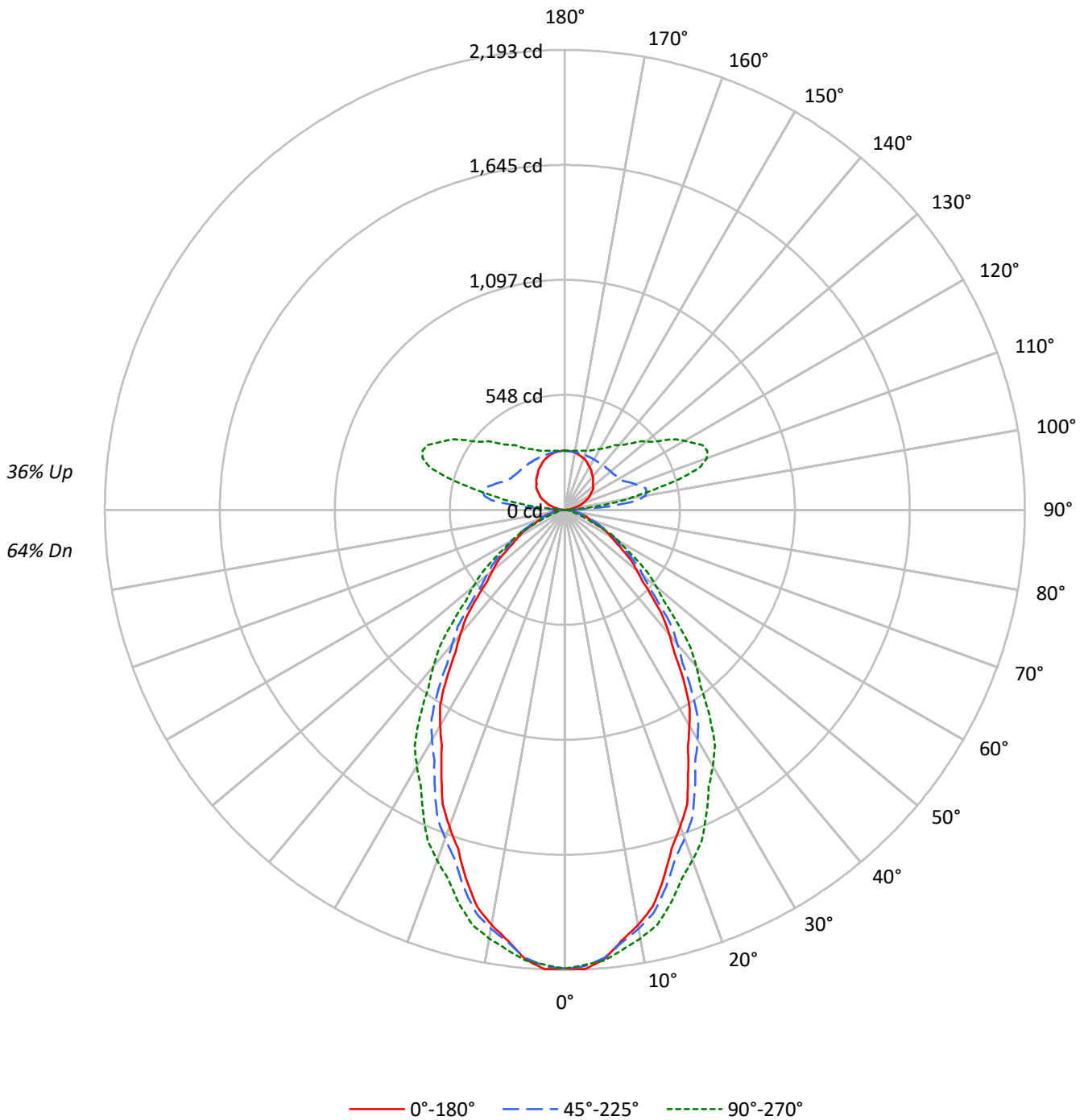
Lumens per Lamp: N/A
Luminaire Lumens: 5012.1 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.7
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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 110 | 110 | 110 | 110 | 104 | 104 | 104 | 104 | 91 | 91 | 91 | 79 | 79 | 79 | 69 | 69 | 69 | 64 | | | | |
| 1 | 102 | 98 | 95 | 92 | 96 | 93 | 90 | 87 | 82 | 80 | 78 | 72 | 70 | 69 | 63 | 62 | 61 | 56 | | | | |
| 2 | 94 | 88 | 82 | 78 | 89 | 83 | 78 | 74 | 74 | 70 | 67 | 65 | 62 | 60 | 57 | 55 | 54 | 50 | | | | |
| 3 | 87 | 79 | 72 | 67 | 82 | 74 | 68 | 64 | 66 | 62 | 58 | 59 | 56 | 53 | 52 | 50 | 47 | 44 | | | | |
| 4 | 81 | 71 | 63 | 58 | 76 | 67 | 61 | 56 | 60 | 55 | 51 | 54 | 50 | 47 | 48 | 45 | 42 | 39 | | | | |
| 5 | 75 | 64 | 56 | 51 | 70 | 61 | 54 | 49 | 55 | 49 | 45 | 49 | 45 | 41 | 44 | 41 | 38 | 35 | | | | |
| 6 | 69 | 58 | 51 | 45 | 65 | 55 | 48 | 44 | 50 | 44 | 40 | 45 | 41 | 37 | 40 | 37 | 34 | 32 | | | | |
| 7 | 65 | 53 | 46 | 40 | 61 | 51 | 44 | 39 | 46 | 40 | 36 | 42 | 37 | 34 | 37 | 34 | 31 | 29 | | | | |
| 8 | 60 | 49 | 41 | 36 | 57 | 47 | 40 | 35 | 42 | 37 | 33 | 38 | 34 | 31 | 35 | 31 | 28 | 26 | | | | |
| 9 | 57 | 45 | 38 | 33 | 53 | 43 | 37 | 32 | 39 | 34 | 30 | 36 | 31 | 28 | 32 | 29 | 26 | 24 | | | | |
| 10 | 53 | 42 | 35 | 30 | 50 | 40 | 34 | 29 | 37 | 31 | 28 | 33 | 29 | 26 | 30 | 27 | 24 | 22 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10090 | 10090 | 10090 |
| 5° | 9964 | 9928 | 9986 |
| 10° | 9414 | 9499 | 9719 |
| 15° | 8690 | 8892 | 9291 |
| 20° | 7891 | 8188 | 8730 |
| 25° | 7078 | 7464 | 8133 |
| 30° | 6329 | 6743 | 7515 |
| 35° | 5535 | 5935 | 6783 |
| 40° | 4658 | 5028 | 5872 |
| 45° | 3845 | 4176 | 4903 |
| 50° | 3209 | 3499 | 4084 |
| 55° | 2725 | 3002 | 3373 |
| 60° | 2329 | 2604 | 2692 |
| 65° | 1855 | 2190 | 1739 |
| 70° | 1644 | 1709 | 1061 |
| 75° | 1522 | 1385 | 651 |
| 80° | 1403 | 1275 | 561 |
| 85° | 1270 | 1170 | 455 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 200.6 | 4.0 |
| 10°-20° | 521.8 | 10.4 |
| 20°-30° | 675.9 | 13.5 |
| 30°-40° | 661.9 | 13.2 |
| 40°-50° | 506.6 | 10.1 |
| 50°-60° | 337.6 | 6.7 |
| 60°-70° | 184.2 | 3.7 |
| 70°-80° | 76.8 | 1.5 |
| 80°-90° | 23.2 | 0.5 |
| 90°-100° | 137.1 | 2.7 |
| 100°-110° | 360.4 | 7.2 |
| 110°-120° | 373.8 | 7.5 |
| 120°-130° | 299.8 | 6.0 |
| 130°-140° | 235.2 | 4.7 |
| 140°-150° | 180.5 | 3.6 |
| 150°-160° | 130.0 | 2.6 |
| 160°-170° | 79.6 | 1.6 |
| 170°-180° | 26.9 | 0.5 |
| 0°-30° | 1398.3 | 27.9 |
| 0°-40° | 2060.2 | 41.1 |
| 0°-60° | 2904.4 | 57.9 |
| 0°-90° | 3188.7 | 63.6 |
| 90°-120° | 871.3 | 17.4 |
| 90°-150° | 1586.9 | 31.7 |
| 90°-180° | 1823.0 | 36.4 |
| 0°-180° | 5012.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2187 | 2187 | 2187 | 2187 | 2187 | |
| 5° | 2152 | 2130 | 2144 | 2149 | 2156 | 200 |
| 15° | 1820 | 1813 | 1862 | 1912 | 1945 | 508 |
| 25° | 1391 | 1394 | 1466 | 1530 | 1598 | 640 |
| 35° | 983 | 987 | 1054 | 1125 | 1204 | 611 |
| 45° | 589 | 600 | 640 | 689 | 752 | 460 |
| 55° | 339 | 353 | 373 | 388 | 419 | 307 |
| 65° | 170 | 184 | 201 | 175 | 159 | 177 |
| 75° | 85 | 85 | 78 | 53 | 36 | 91 |
| 85° | 24 | 24 | 22 | 14 | 9 | 26 |
| 90° | 2 | 5 | 14 | 7 | 7 | 3 |
| 95° | 18 | 71 | 236 | 122 | 83 | 20 |
| 105° | 65 | 98 | 398 | 605 | 564 | 69 |
| 115° | 115 | 140 | 319 | 637 | 727 | 114 |
| 125° | 160 | 180 | 290 | 491 | 579 | 142 |
| 135° | 191 | 211 | 281 | 396 | 449 | 148 |
| 145° | 222 | 236 | 278 | 338 | 364 | 139 |
| 155° | 251 | 258 | 278 | 305 | 314 | 115 |
| 165° | 270 | 274 | 278 | 289 | 292 | 76 |
| 175° | 281 | 281 | 280 | 283 | 283 | 27 |
| 180° | 281 | 281 | 281 | 281 | 281 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2187.2 | 2187.2 | 2187.2 | 2187.2 | 2187.2 |
| 2.5° | 2192.6 | 2173.1 | 2178.0 | 2177.9 | 2171.8 |
| 5° | 2151.7 | 2130.1 | 2144.0 | 2149.0 | 2156.5 |
| 7.5° | 2071.8 | 2055.5 | 2080.9 | 2099.6 | 2114.8 |
| 10° | 2009.7 | 1995.6 | 2027.9 | 2055.2 | 2074.9 |
| 12.5° | 1937.5 | 1925.7 | 1965.7 | 2002.4 | 2028.1 |
| 15° | 1819.6 | 1813.1 | 1861.9 | 1912.5 | 1945.4 |
| 17.5° | 1693.5 | 1690.3 | 1746.3 | 1805.4 | 1847.5 |
| 20° | 1607.5 | 1606.6 | 1668.0 | 1729.6 | 1778.4 |
| 22.5° | 1520.8 | 1522.8 | 1587.4 | 1651.4 | 1707.0 |
| 25° | 1390.6 | 1394.4 | 1466.5 | 1530.4 | 1597.9 |
| 27.5° | 1270.3 | 1272.0 | 1346.5 | 1414.0 | 1486.0 |
| 30° | 1188.1 | 1192.8 | 1265.9 | 1335.7 | 1410.8 |
| 32.5° | 1106.0 | 1111.4 | 1182.9 | 1255.1 | 1331.7 |
| 35° | 982.8 | 987.4 | 1053.8 | 1124.7 | 1204.4 |
| 37.5° | 855.7 | 862.1 | 920.9 | 988.0 | 1066.4 |
| 40° | 773.5 | 782.9 | 835.0 | 898.1 | 975.1 |
| 42.5° | 694.5 | 706.1 | 754.3 | 814.3 | 883.7 |
| 45° | 589.3 | 600.5 | 640.1 | 688.6 | 751.5 |
| 47.5° | 498.7 | 511.6 | 542.0 | 583.8 | 637.4 |
| 50° | 447.2 | 459.4 | 487.5 | 518.4 | 569.1 |
| 52.5° | 401.9 | 414.1 | 439.2 | 463.0 | 506.2 |
| 55° | 338.8 | 352.9 | 373.3 | 387.5 | 419.4 |
| 57.5° | 287.0 | 300.5 | 316.7 | 323.1 | 342.4 |
| 60° | 252.4 | 267.4 | 282.2 | 281.4 | 291.8 |
| 62.5° | 220.9 | 233.7 | 248.4 | 238.2 | 238.8 |
| 65° | 169.9 | 183.9 | 200.6 | 175.3 | 159.3 |
| 67.5° | 137.2 | 140.2 | 157.4 | 122.2 | 103.3 |
| 70° | 121.9 | 121.9 | 126.7 | 94.6 | 78.7 |
| 72.5° | 107.3 | 107.3 | 102.9 | 77.0 | 60.3 |
| 75° | 85.4 | 85.4 | 77.7 | 53.4 | 36.5 |
| 77.5° | 65.8 | 65.1 | 59.5 | 39.8 | 26.5 |
| 80° | 52.8 | 52.8 | 48.0 | 31.4 | 21.1 |
| 82.5° | 41.3 | 41.3 | 37.2 | 24.6 | 15.7 |
| 85° | 24.0 | 24.0 | 22.1 | 14.3 | 8.6 |
| 87.5° | 8.8 | 9.5 | 10.6 | 6.0 | 5.3 |
| 90° | 1.8 | 5.3 | 14.4 | 7.2 | 7.2 |
| 92.5° | 7.6 | 36.5 | 80.8 | 35.8 | 23.1 |
| 95° | 18.0 | 70.9 | 236.2 | 121.7 | 83.0 |
| 97.5° | 31.4 | 77.9 | 353.5 | 281.1 | 207.0 |
| 100° | 41.5 | 83.8 | 389.5 | 394.7 | 306.6 |
| 102.5° | 50.1 | 89.6 | 399.6 | 491.7 | 416.2 |
| 105° | 64.9 | 98.4 | 398.5 | 605.0 | 564.5 |
| 107.5° | 80.1 | 111.1 | 375.8 | 663.9 | 673.7 |
| 110° | 90.2 | 118.4 | 357.1 | 679.0 | 721.4 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 100.3 | 127.1 | 339.8 | 669.4 | 734.3 |
| 115° | 115.4 | 140.1 | 319.2 | 636.8 | 726.8 |
| 117.5° | 130.2 | 152.8 | 305.1 | 591.6 | 691.4 |
| 120° | 138.9 | 160.0 | 299.4 | 561.3 | 658.2 |
| 122.5° | 147.5 | 168.7 | 295.0 | 530.9 | 626.5 |
| 125° | 160.5 | 179.9 | 290.3 | 490.7 | 578.9 |
| 127.5° | 171.0 | 190.7 | 286.4 | 458.3 | 532.7 |
| 130° | 176.7 | 197.9 | 284.9 | 438.0 | 506.7 |
| 132.5° | 182.5 | 203.7 | 283.5 | 420.5 | 482.2 |
| 135° | 191.2 | 210.6 | 281.3 | 396.1 | 449.0 |
| 137.5° | 200.2 | 219.2 | 281.0 | 377.9 | 421.3 |
| 140° | 207.4 | 225.0 | 279.5 | 363.4 | 404.0 |
| 142.5° | 213.2 | 229.4 | 279.5 | 353.2 | 388.1 |
| 145° | 221.8 | 235.9 | 277.7 | 337.8 | 364.3 |
| 147.5° | 230.5 | 244.2 | 277.7 | 325.1 | 347.0 |
| 150° | 236.2 | 248.6 | 277.7 | 317.8 | 335.4 |
| 152.5° | 242.0 | 251.5 | 277.7 | 311.9 | 325.3 |
| 155° | 250.7 | 257.7 | 277.7 | 305.0 | 313.8 |
| 157.5° | 257.2 | 263.9 | 277.7 | 298.8 | 305.1 |
| 160° | 261.5 | 266.8 | 277.7 | 295.8 | 299.4 |
| 162.5° | 265.8 | 269.7 | 277.7 | 292.9 | 296.5 |
| 165° | 270.5 | 274.0 | 277.7 | 288.6 | 292.1 |
| 167.5° | 274.8 | 276.6 | 279.5 | 286.8 | 288.2 |
| 170° | 277.7 | 279.5 | 279.5 | 286.7 | 286.7 |
| 172.5° | 279.2 | 279.5 | 279.5 | 285.3 | 283.9 |
| 175° | 281.3 | 281.3 | 279.5 | 283.1 | 283.1 |
| 177.5° | 281.3 | 281.3 | 279.9 | 282.7 | 281.3 |
| 180° | 281.3 | 281.3 | 281.3 | 281.3 | 281.3 |

(END OF REPORT)