

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: P1191301

Luminaire Tested: SQ2-FA-0U-050D-L840-UNV-STD-W-4

Issue Date: 9/23/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1191301  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2502-345-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/23/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-0U-050D-L840-UNV-STD-W-4  
Description: CORELITE SQ2 LED LUMINAIRE  
FROSTED CONTINUOUS ASYMMETRIC ROLL LENS  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

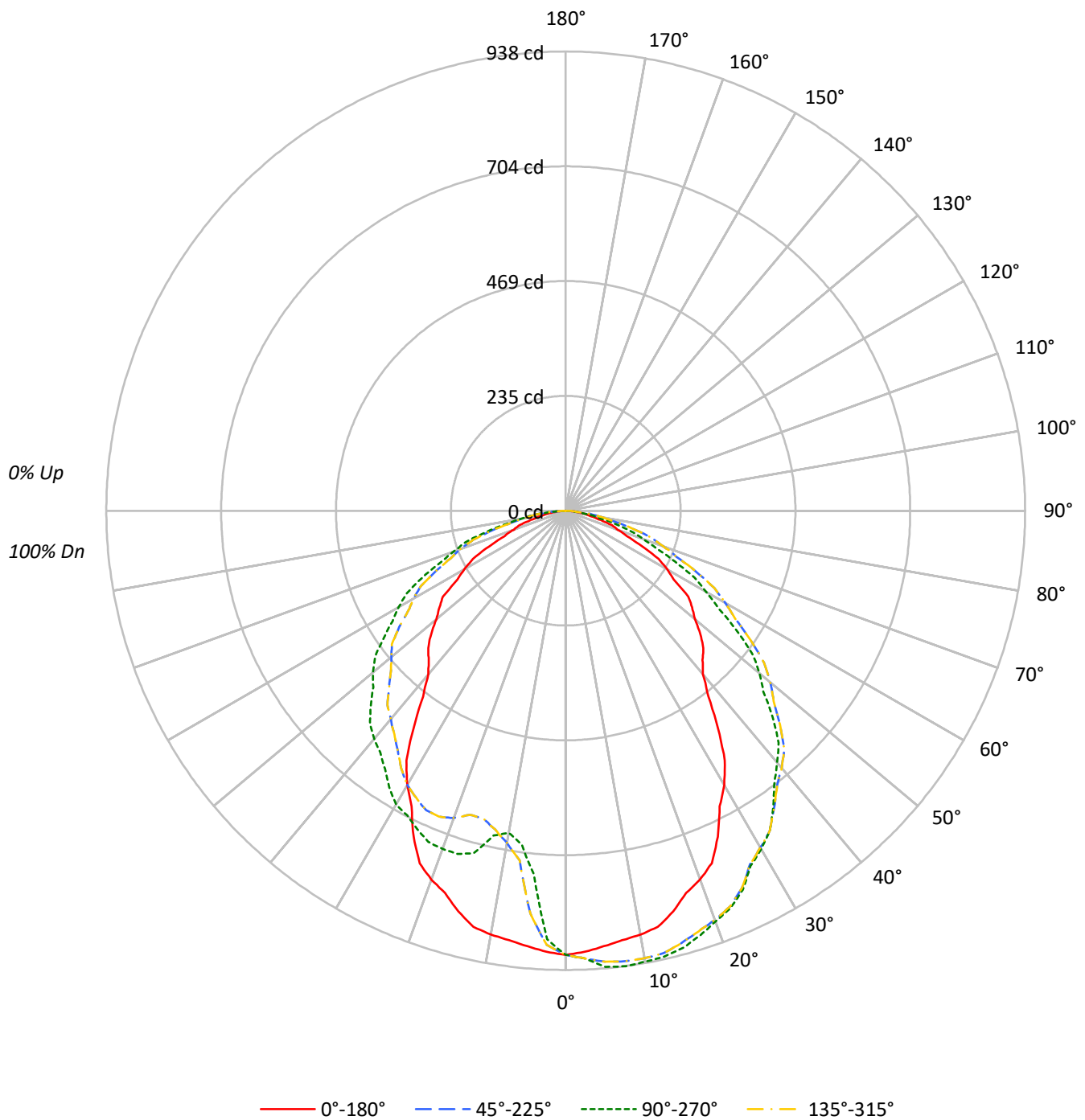
Lumens per Lamp: N/A  
Luminaire Lumens: 2253.0 lumens  
Efficiency: N/A  
Efficacy: 126.6 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.23 / 1.34  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 17.8  
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: P1191301

CATALOG NUMBER: SQ2-FA-0U-050D-L840-UNV-STD-W-4

### 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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 105 | 101 | 97  | 107 | 102 | 99  | 95  | 98  | 95  | 92  |  | 94  | 92  | 90  |  | 91  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  |  | 83  | 79  | 75  |  | 80  |
| 3   | 91  | 81  | 73  | 66  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 73  | 68  | 64  |  | 71  |
| 4   | 83  | 72  | 63  | 57  | 81  | 70  | 62  | 56  | 68  | 61  | 55  |  | 66  | 60  | 55  |  | 63  |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  |  | 59  | 53  | 47  |  | 57  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  | 55  | 48  | 42  |  | 53  | 47  | 42  |  | 52  |
| 7   | 66  | 53  | 44  | 38  | 64  | 52  | 43  | 38  | 50  | 43  | 37  |  | 49  | 42  | 37  |  | 47  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  |  | 45  | 38  | 33  |  | 44  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  |  | 41  | 35  | 30  |  | 40  |
| 10  | 54  | 41  | 33  | 28  | 53  | 40  | 33  | 28  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 90°   | 180°  | 270°  |
|-----|-------|-------|-------|-------|
| 0°  | 14648 | 14648 | 14648 | 14648 |
| 5°  | 14475 | 15159 | 14475 | 12081 |
| 10° | 14411 | 15334 | 14411 | 10953 |
| 15° | 14165 | 15457 | 14165 | 12107 |
| 20° | 13775 | 15345 | 13775 | 12627 |
| 25° | 13092 | 15221 | 13092 | 12779 |
| 30° | 12062 | 14881 | 12062 | 12914 |
| 35° | 10673 | 14554 | 10673 | 12684 |
| 40° | 9190  | 14155 | 9190  | 12821 |
| 45° | 9072  | 13648 | 9072  | 12846 |
| 50° | 8656  | 12984 | 8656  | 12896 |
| 55° | 8611  | 11978 | 8611  | 12769 |
| 60° | 7721  | 10672 | 7721  | 12716 |
| 65° | 6583  | 9402  | 6583  | 12359 |
| 70° | 5311  | 7969  | 5311  | 11452 |
| 75° | 4604  | 6581  | 4604  | 10530 |
| 80° | 3924  | 4900  | 3924  | 8498  |
| 85° | 2612  | 2612  | 2612  | 5206  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 14129 cd/sqm

TEST NUMBER: P1191301

CATALOG NUMBER: SQ2-FA-0U-050D-L840-UNV-STD-W-4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 81.6   | 3.6       |
| 10°-20°   | 228.1  | 10.1      |
| 20°-30°   | 346.4  | 15.4      |
| 30°-40°   | 406.6  | 18.0      |
| 40°-50°   | 412.6  | 18.3      |
| 50°-60°   | 361.5  | 16.0      |
| 60°-70°   | 256.4  | 11.4      |
| 70°-80°   | 132.0  | 5.9       |
| 80°-90°   | 27.7   | 1.2       |
| 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°    | 656.1  | 29.1      |
| 0°-40°    | 1062.7 | 47.2      |
| 0°-60°    | 1836.8 | 81.5      |
| 0°-90°    | 2253.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2253.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 90° | 180° | 270° | 360° | Flux |
|-----|-----|-----|------|------|------|------|
| 0°  | 907 | 907 | 907  | 907  | 907  |      |
| 5°  | 893 | 935 | 893  | 745  | 893  | 85   |
| 15° | 847 | 925 | 847  | 724  | 847  | 238  |
| 25° | 735 | 854 | 735  | 717  | 735  | 335  |
| 35° | 542 | 738 | 542  | 644  | 542  | 337  |
| 45° | 397 | 598 | 397  | 563  | 397  | 304  |
| 55° | 306 | 426 | 306  | 454  | 306  | 265  |
| 65° | 172 | 246 | 172  | 324  | 172  | 172  |
| 75° | 74  | 106 | 74   | 169  | 74   | 80   |
| 85° | 14  | 14  | 14   | 28   | 14   | 18   |
| 90° | 0   | 0   | 0    | 0    | 0    |      |

TEST NUMBER: P1191301

CATALOG NUMBER: SQ2-FA-0U-050D-L840-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  | 202.5° | 225°  |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0°    | 907.2 | 907.2 | 907.2 | 907.2 | 907.2 | 907.2  | 907.2 | 907.2  | 907.2 | 907.2  | 907.2 |
| 2.5°  | 901.5 | 915.3 | 915.6 | 915.6 | 915.6 | 915.6  | 915.6 | 915.3  | 901.5 | 901.5  | 887.5 |
| 5°    | 893.1 | 917.2 | 924.7 | 928.4 | 935.3 | 928.4  | 924.7 | 917.2  | 893.1 | 882.8  | 826.3 |
| 7.5°  | 884.7 | 917.0 | 928.3 | 934.7 | 938.1 | 934.7  | 928.3 | 917.0  | 884.7 | 838.6  | 720.1 |
| 10°   | 879.0 | 916.9 | 928.3 | 931.9 | 935.3 | 931.9  | 928.3 | 916.9  | 879.0 | 786.2  | 689.2 |
| 12.5° | 870.6 | 911.2 | 925.5 | 929.0 | 932.5 | 929.0  | 925.5 | 911.2  | 870.6 | 739.3  | 666.7 |
| 15°   | 847.4 | 902.4 | 914.2 | 921.3 | 924.7 | 921.3  | 914.2 | 902.4  | 847.4 | 699.6  | 650.5 |
| 17.5° | 818.6 | 885.3 | 900.8 | 907.2 | 910.0 | 907.2  | 900.8 | 885.3  | 818.6 | 663.9  | 651.2 |
| 20°   | 801.7 | 873.9 | 889.6 | 893.1 | 893.1 | 889.6  | 873.9 | 801.7  | 647.0 | 668.1  | 668.1 |
| 22.5° | 779.2 | 859.6 | 875.5 | 876.3 | 879.0 | 876.3  | 875.5 | 859.6  | 779.2 | 627.2  | 676.5 |
| 25°   | 734.9 | 827.7 | 850.9 | 847.6 | 854.4 | 847.6  | 850.9 | 827.7  | 734.9 | 600.8  | 675.1 |
| 27.5° | 680.7 | 797.6 | 814.3 | 817.9 | 817.9 | 814.3  | 797.6 | 680.7  | 574.8 | 661.0  | 661.0 |
| 30°   | 647.0 | 777.6 | 794.7 | 798.2 | 798.2 | 794.7  | 777.6 | 647.0  | 557.6 | 647.0  | 647.0 |
| 32.5° | 604.8 | 760.2 | 775.0 | 775.7 | 775.7 | 775.0  | 760.2 | 604.8  | 540.1 | 624.5  | 624.5 |
| 35°   | 541.5 | 730.6 | 741.9 | 741.8 | 738.4 | 741.8  | 741.9 | 730.6  | 541.5 | 514.0  | 597.7 |
| 37.5° | 478.2 | 692.7 | 708.2 | 703.2 | 699.7 | 703.2  | 708.2 | 692.7  | 478.2 | 487.1  | 575.2 |
| 40°   | 436.0 | 669.8 | 685.7 | 675.0 | 671.6 | 675.0  | 685.7 | 669.8  | 436.0 | 466.9  | 555.6 |
| 42.5° | 413.5 | 644.5 | 660.3 | 646.9 | 643.5 | 646.9  | 660.3 | 644.5  | 413.5 | 447.2  | 538.7 |
| 45°   | 397.3 | 603.6 | 618.8 | 604.6 | 597.7 | 604.6  | 618.8 | 603.6  | 397.3 | 418.0  | 509.8 |
| 47.5° | 372.7 | 554.2 | 575.9 | 554.7 | 547.8 | 554.7  | 575.9 | 554.2  | 372.7 | 387.8  | 483.8 |
| 50°   | 344.6 | 523.4 | 545.0 | 523.8 | 516.9 | 523.8  | 545.0 | 523.4  | 344.6 | 365.2  | 464.1 |
| 52.5° | 324.9 | 492.7 | 511.2 | 487.2 | 480.3 | 487.2  | 511.2 | 492.7  | 324.9 | 337.3  | 447.3 |
| 55°   | 305.9 | 446.9 | 460.6 | 435.8 | 425.5 | 435.8  | 460.6 | 446.9  | 305.9 | 295.6  | 414.9 |
| 57.5° | 261.6 | 395.7 | 410.0 | 381.6 | 369.9 | 381.6  | 410.0 | 395.7  | 261.6 | 252.7  | 381.2 |
| 60°   | 239.1 | 359.4 | 376.2 | 347.7 | 330.5 | 347.7  | 376.2 | 359.4  | 239.1 | 221.9  | 358.6 |
| 62.5° | 213.8 | 320.4 | 342.5 | 314.0 | 296.8 | 314.0  | 342.5 | 320.4  | 213.8 | 202.1  | 333.3 |
| 65°   | 172.3 | 265.1 | 291.8 | 263.3 | 246.1 | 263.3  | 291.8 | 265.1  | 172.3 | 179.2  | 291.8 |
| 67.5° | 135.0 | 214.8 | 244.7 | 213.5 | 199.7 | 213.5  | 244.7 | 214.8  | 135.0 | 157.7  | 253.9 |
| 70°   | 112.5 | 181.3 | 211.0 | 182.5 | 168.8 | 182.5  | 211.0 | 181.3  | 112.5 | 143.5  | 228.6 |
| 72.5° | 98.5  | 150.7 | 182.8 | 151.6 | 140.6 | 151.6  | 182.8 | 150.7  | 98.5  | 129.4  | 197.6 |
| 75°   | 73.8  | 104.8 | 140.6 | 112.4 | 105.5 | 112.4  | 140.6 | 104.8  | 73.8  | 104.8  | 154.7 |
| 77.5° | 53.4  | 67.9  | 99.2  | 75.2  | 72.4  | 75.2   | 99.2  | 67.9   | 53.4  | 78.9   | 112.5 |
| 80°   | 42.2  | 45.6  | 73.8  | 52.7  | 52.7  | 52.7   | 73.8  | 45.6   | 42.2  | 59.4   | 84.4  |
| 82.5° | 28.1  | 31.6  | 51.3  | 35.8  | 33.1  | 35.8   | 51.3  | 31.6   | 28.1  | 42.6   | 59.1  |
| 85°   | 14.1  | 14.1  | 21.1  | 14.1  | 14.1  | 14.1   | 21.1  | 14.1   | 14.1  | 20.9   | 28.1  |
| 87.5° | 2.8   | 2.8   | 5.6   | 2.8   | 2.8   | 2.8    | 5.6   | 2.8    | 2.8   | 5.6    | 5.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0    | 0.0   | 0.0    | 0.0   |

TEST NUMBER: P1191301

CATALOG NUMBER: SQ2-FA-0U-050D-L840-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°  | 292.5° | 315°  | 337.5° | 360°  |
|-------|--------|-------|--------|-------|--------|-------|
| 0°    | 907.2  | 907.2 | 907.2  | 907.2 | 907.2  | 907.2 |
| 2.5°  | 879.0  | 876.2 | 879.0  | 887.5 | 901.5  | 901.5 |
| 5°    | 762.6  | 745.4 | 762.6  | 826.3 | 882.8  | 893.1 |
| 7.5°  | 693.3  | 687.8 | 693.3  | 720.1 | 838.6  | 884.7 |
| 10°   | 668.1  | 668.1 | 668.1  | 689.2 | 786.2  | 879.0 |
| 12.5° | 665.6  | 679.3 | 665.6  | 666.7 | 739.3  | 870.6 |
| 15°   | 707.1  | 724.3 | 707.1  | 650.5 | 699.6  | 847.4 |
| 17.5° | 721.1  | 734.9 | 721.1  | 651.2 | 663.9  | 818.6 |
| 20°   | 721.1  | 734.9 | 721.1  | 668.1 | 647.0  | 801.7 |
| 22.5° | 718.3  | 732.1 | 718.3  | 676.5 | 627.2  | 779.2 |
| 25°   | 710.4  | 717.3 | 710.4  | 675.1 | 600.8  | 734.9 |
| 27.5° | 696.3  | 701.1 | 696.3  | 661.0 | 574.8  | 680.7 |
| 30°   | 682.4  | 692.7 | 682.4  | 647.0 | 557.6  | 647.0 |
| 32.5° | 668.1  | 670.2 | 668.1  | 624.5 | 540.1  | 604.8 |
| 35°   | 646.9  | 643.5 | 646.9  | 597.7 | 514.0  | 541.5 |
| 37.5° | 618.2  | 622.4 | 618.2  | 575.2 | 487.1  | 478.2 |
| 40°   | 601.4  | 608.3 | 601.4  | 555.6 | 466.9  | 436.0 |
| 42.5° | 584.5  | 591.4 | 584.5  | 538.7 | 447.2  | 413.5 |
| 45°   | 559.1  | 562.6 | 559.1  | 509.8 | 418.0  | 397.3 |
| 47.5° | 529.6  | 533.0 | 529.6  | 483.8 | 387.8  | 372.7 |
| 50°   | 509.9  | 513.4 | 509.9  | 464.1 | 365.2  | 344.6 |
| 52.5° | 487.4  | 490.9 | 487.4  | 447.3 | 337.3  | 324.9 |
| 55°   | 453.6  | 453.6 | 453.6  | 414.9 | 295.6  | 305.9 |
| 57.5° | 415.0  | 419.1 | 415.0  | 381.2 | 252.7  | 261.6 |
| 60°   | 386.9  | 393.8 | 386.9  | 358.6 | 221.9  | 239.1 |
| 62.5° | 361.6  | 365.7 | 361.6  | 333.3 | 202.1  | 213.8 |
| 65°   | 320.0  | 323.5 | 320.0  | 291.8 | 179.2  | 172.3 |
| 67.5° | 273.6  | 276.4 | 273.6  | 253.9 | 157.7  | 135.0 |
| 70°   | 242.6  | 242.6 | 242.6  | 228.6 | 143.5  | 112.5 |
| 72.5° | 211.7  | 214.5 | 211.7  | 197.6 | 129.4  | 98.5  |
| 75°   | 165.3  | 168.8 | 165.3  | 154.7 | 104.8  | 73.8  |
| 77.5° | 118.9  | 122.4 | 118.9  | 112.5 | 78.9   | 53.4  |
| 80°   | 88.0   | 91.4  | 88.0   | 84.4  | 59.4   | 42.2  |
| 82.5° | 62.6   | 63.3  | 62.6   | 59.1  | 42.6   | 28.1  |
| 85°   | 28.1   | 28.1  | 28.1   | 28.1  | 20.9   | 14.1  |
| 87.5° | 5.6    | 5.6   | 5.6    | 5.6   | 5.6    | 2.8   |
| 90°   | 0.0    | 0.0   | 0.0    | 0.0   | 0.0    | 0.0   |

TEST NUMBER: P1191301

CATALOG NUMBER: SQ2-FA-0U-050D-L840-UNV-STD-W-4

**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 | 19.50            | 21.11 | 19.87 | 21.43 | 21.74 | 20.73          | 22.34 | 21.09 | 22.65 | 22.96 |
|                 | 3H   | 20.65            | 22.09 | 21.02 | 22.42 | 22.78 | 22.02          | 23.47 | 22.40 | 23.80 | 24.16 |
|                 | 4H   | 21.03            | 22.39 | 21.43 | 22.74 | 23.12 | 22.45          | 23.81 | 22.85 | 24.16 | 24.53 |
|                 | 6H   | 21.23            | 22.49 | 21.64 | 22.86 | 23.25 | 22.64          | 23.90 | 23.06 | 24.27 | 24.66 |
|                 | 8H   | 21.29            | 22.49 | 21.71 | 22.88 | 23.28 | 22.69          | 23.89 | 23.11 | 24.28 | 24.68 |
|                 | 12H  | 21.31            | 22.46 | 21.74 | 22.84 | 23.27 | 22.70          | 23.85 | 23.13 | 24.23 | 24.66 |
| 4H              | 2H   | 20.52            | 21.88 | 20.92 | 22.23 | 22.60 | 21.43          | 22.79 | 21.83 | 23.14 | 23.51 |
|                 | 3H   | 21.95            | 23.09 | 22.36 | 23.49 | 23.89 | 22.95          | 24.08 | 23.36 | 24.48 | 24.88 |
|                 | 4H   | 22.43            | 23.45 | 22.86 | 23.87 | 24.30 | 23.44          | 24.47 | 23.87 | 24.88 | 25.32 |
|                 | 6H   | 22.70            | 23.59 | 23.15 | 24.03 | 24.49 | 23.71          | 24.60 | 24.16 | 25.04 | 25.50 |
|                 | 8H   | 22.77            | 23.60 | 23.23 | 24.05 | 24.51 | 23.77          | 24.60 | 24.23 | 25.05 | 25.51 |
|                 | 12H  | 22.81            | 23.55 | 23.29 | 24.03 | 24.50 | 23.79          | 24.54 | 24.27 | 25.02 | 25.49 |
| 8H              | 4H   | 22.88            | 23.72 | 23.35 | 24.16 | 24.63 | 23.71          | 24.55 | 24.17 | 24.99 | 25.45 |
|                 | 6H   | 23.26            | 23.95 | 23.75 | 24.44 | 24.92 | 24.05          | 24.74 | 24.55 | 25.23 | 25.71 |
|                 | 8H   | 23.38            | 24.00 | 23.89 | 24.51 | 25.00 | 24.15          | 24.77 | 24.66 | 25.28 | 25.77 |
|                 | 12H  | 23.45            | 24.00 | 23.96 | 24.49 | 25.05 | 24.20          | 24.75 | 24.71 | 25.24 | 25.80 |
| 12H             | 4H   | 22.92            | 23.67 | 23.40 | 24.15 | 24.62 | 23.71          | 24.46 | 24.19 | 24.94 | 25.41 |
|                 | 6H   | 23.34            | 23.96 | 23.85 | 24.47 | 24.95 | 24.08          | 24.70 | 24.59 | 25.21 | 25.69 |
|                 | 8H   | 23.52            | 24.06 | 24.02 | 24.55 | 25.12 | 24.22          | 24.77 | 24.73 | 25.26 | 25.82 |

END OF REPORT