

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: P845514

Luminaire Tested: SQ2R-FA-125D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845514
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-FA-125D-930-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
1250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

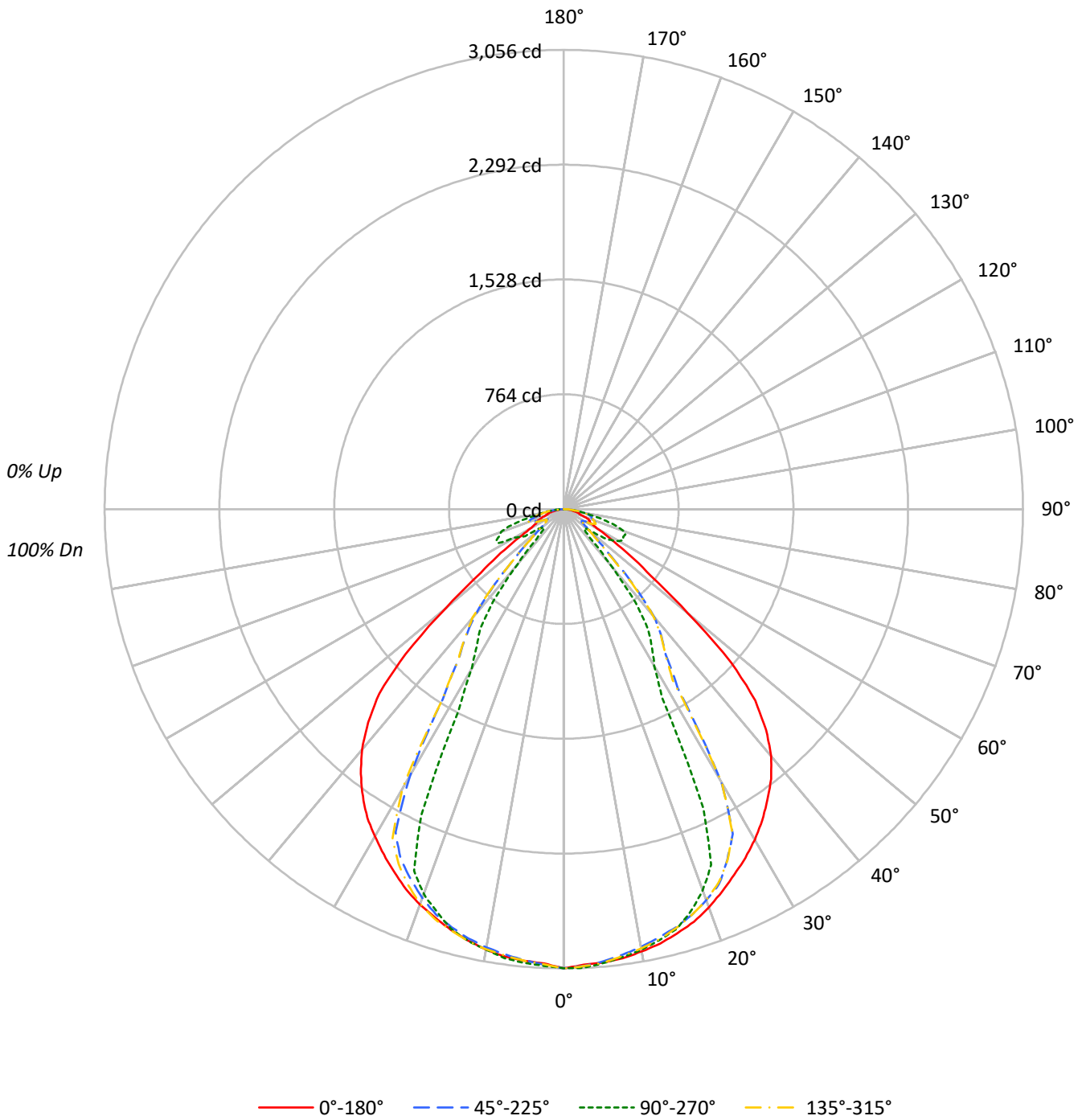
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4458.1 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 0.95 / 0.93
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 49.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9979
Total Harmonic Distortion (THDi): 0.0523
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





TEST NUMBER: P845514

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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 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 94 | 92 | 90 | 88 | | | | 88 |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 92 | 87 | 84 | 88 | 85 | 82 | 86 | 83 | 80 | 78 | | | | 78 |
| 3 | 96 | 88 | 81 | 76 | 94 | 86 | 80 | 75 | 84 | 78 | 74 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | | 70 |
| 4 | 90 | 80 | 73 | 68 | 88 | 79 | 72 | 67 | 77 | 71 | 66 | 75 | 70 | 66 | 73 | 68 | 65 | 63 | | | | 63 |
| 5 | 84 | 74 | 66 | 61 | 82 | 73 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 59 | 67 | 63 | 59 | 57 | | | | 57 |
| 6 | 79 | 68 | 61 | 55 | 77 | 67 | 60 | 55 | 65 | 59 | 55 | 64 | 58 | 54 | 62 | 58 | 54 | 52 | | | | 52 |
| 7 | 74 | 63 | 56 | 50 | 73 | 62 | 55 | 50 | 61 | 55 | 50 | 60 | 54 | 50 | 58 | 53 | 49 | 48 | | | | 48 |
| 8 | 70 | 59 | 51 | 46 | 69 | 58 | 51 | 46 | 57 | 50 | 46 | 56 | 50 | 46 | 55 | 49 | 46 | 44 | | | | 44 |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 42 | 51 | 46 | 42 | 41 | | | | 41 |
| 10 | 63 | 51 | 44 | 40 | 61 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 43 | 39 | 48 | 43 | 39 | 38 | | | | 38 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 49337 | 49337 | 49337 | 49337 |
| 5° | 49078 | 49153 | 48890 | 49115 |
| 10° | 49003 | 48814 | 48814 | 48814 |
| 15° | 48844 | 48343 | 48458 | 48343 |
| 20° | 48465 | 46405 | 48108 | 46842 |
| 25° | 47828 | 39166 | 47500 | 39986 |
| 30° | 47388 | 22469 | 46874 | 22771 |
| 35° | 46558 | 19304 | 45967 | 19032 |
| 40° | 45269 | 10151 | 44004 | 10054 |
| 45° | 41149 | 4368 | 39676 | 4368 |
| 50° | 27148 | 5267 | 25759 | 4921 |
| 55° | 15178 | 9731 | 14401 | 8822 |
| 60° | 8186 | 13692 | 8037 | 12277 |
| 65° | 7221 | 16638 | 7572 | 18930 |
| 70° | 6746 | 19907 | 6420 | 20998 |
| 75° | 6326 | 17105 | 6469 | 17679 |
| 80° | 5356 | 12218 | 5356 | 12859 |
| 85° | 4687 | 6836 | 4261 | 8114 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 41149 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 287.8 | 6.5 |
| 10°-20° | 816.6 | 18.3 |
| 20°-30° | 1117.0 | 25.1 |
| 30°-40° | 935.5 | 21.0 |
| 40°-50° | 524.4 | 11.8 |
| 50°-60° | 278.1 | 6.2 |
| 60°-70° | 259.3 | 5.8 |
| 70°-80° | 190.7 | 4.3 |
| 80°-90° | 48.8 | 1.1 |
| 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° | 2221.4 | 49.8 |
| 0°-40° | 3156.9 | 70.8 |
| 0°-60° | 3959.3 | 88.8 |
| 0°-90° | 4458.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4458.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 3056 | 3056 | 3056 | 3056 | 3056 | |
| 5° | 3028 | 3033 | 3016 | 3030 | 3028 | 288 |
| 15° | 2922 | 2892 | 2899 | 2892 | 2922 | 824 |
| 25° | 2685 | 2198 | 2666 | 2244 | 2685 | 1238 |
| 35° | 2362 | 979 | 2332 | 966 | 2362 | 1476 |
| 45° | 1802 | 191 | 1738 | 191 | 1802 | 1329 |
| 55° | 539 | 346 | 512 | 313 | 539 | 509 |
| 65° | 189 | 436 | 198 | 496 | 189 | 189 |
| 75° | 101 | 274 | 104 | 283 | 101 | 104 |
| 85° | 25 | 37 | 23 | 44 | 25 | 29 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 |
| 2.5° | 3035.0 | 3092.6 | 3041.9 | 3035.0 | 3055.7 | 3051.1 | 3044.2 | 3071.9 | 3025.8 | 3071.9 | 3035.0 |
| 5° | 3028.1 | 3081.1 | 3021.2 | 3005.0 | 3032.7 | 3014.2 | 3030.4 | 3062.6 | 3016.5 | 3058.0 | 3011.9 |
| 7.5° | 3014.2 | 3062.6 | 2991.2 | 2979.7 | 3007.3 | 2991.2 | 2998.1 | 3041.9 | 3002.7 | 3030.4 | 2988.9 |
| 10° | 2988.9 | 3030.4 | 2958.9 | 2952.0 | 2977.4 | 2961.2 | 2968.1 | 3014.2 | 2977.4 | 3002.7 | 2961.2 |
| 12.5° | 2961.2 | 2991.2 | 2919.8 | 2917.5 | 2938.2 | 2929.0 | 2931.3 | 2968.1 | 2940.5 | 2965.8 | 2926.7 |
| 15° | 2922.1 | 2952.0 | 2880.6 | 2869.1 | 2892.1 | 2882.9 | 2887.5 | 2922.1 | 2899.0 | 2915.1 | 2880.6 |
| 17.5° | 2878.3 | 2901.3 | 2832.2 | 2806.8 | 2809.1 | 2820.7 | 2832.2 | 2873.7 | 2850.6 | 2871.4 | 2827.6 |
| 20° | 2820.7 | 2848.3 | 2770.0 | 2705.4 | 2700.8 | 2712.4 | 2770.0 | 2811.4 | 2799.9 | 2823.0 | 2753.8 |
| 22.5° | 2753.8 | 2770.0 | 2700.8 | 2581.0 | 2562.6 | 2574.1 | 2691.6 | 2742.3 | 2740.0 | 2753.8 | 2664.0 |
| 25° | 2684.7 | 2703.1 | 2574.1 | 2422.0 | 2198.5 | 2408.2 | 2578.7 | 2666.3 | 2666.3 | 2680.1 | 2567.2 |
| 27.5° | 2615.6 | 2620.2 | 2435.8 | 1631.6 | 1410.3 | 1564.7 | 2431.2 | 2574.1 | 2592.5 | 2590.2 | 2424.3 |
| 30° | 2541.8 | 2525.7 | 2099.4 | 1255.9 | 1205.2 | 1237.5 | 2101.7 | 2477.3 | 2514.2 | 2488.8 | 2046.4 |
| 32.5° | 2456.6 | 2403.6 | 1412.6 | 1129.2 | 1090.0 | 1117.7 | 1348.1 | 2362.1 | 2433.5 | 2371.3 | 1500.2 |
| 35° | 2362.1 | 2242.2 | 1182.2 | 1020.9 | 979.4 | 1016.3 | 1173.0 | 2203.1 | 2332.1 | 2184.6 | 1221.4 |
| 37.5° | 2265.3 | 1871.2 | 1067.0 | 868.8 | 785.8 | 855.0 | 1062.4 | 1864.3 | 2219.2 | 1786.0 | 1071.6 |
| 40° | 2147.8 | 1385.0 | 935.6 | 596.9 | 481.6 | 562.3 | 928.7 | 1320.5 | 2087.8 | 1424.2 | 912.6 |
| 42.5° | 1991.1 | 1170.7 | 705.2 | 324.9 | 248.9 | 292.7 | 668.3 | 1152.2 | 1926.5 | 1182.2 | 679.8 |
| 45° | 1802.1 | 1041.6 | 444.8 | 207.4 | 191.3 | 200.5 | 410.2 | 1023.2 | 1737.6 | 1000.1 | 454.0 |
| 47.5° | 1514.0 | 836.5 | 301.9 | 175.1 | 189.0 | 175.1 | 292.7 | 811.2 | 1428.8 | 795.0 | 301.9 |
| 50° | 1080.8 | 619.9 | 221.2 | 177.4 | 209.7 | 177.4 | 214.3 | 599.2 | 1025.5 | 656.8 | 218.9 |
| 52.5° | 730.5 | 495.5 | 170.5 | 198.2 | 262.7 | 202.8 | 165.9 | 483.9 | 693.6 | 500.1 | 159.0 |
| 55° | 539.2 | 410.2 | 145.2 | 255.8 | 345.7 | 262.7 | 145.2 | 398.7 | 511.6 | 394.1 | 140.6 |
| 57.5° | 364.1 | 322.6 | 142.9 | 324.9 | 387.1 | 331.8 | 145.2 | 311.1 | 348.0 | 313.4 | 126.7 |
| 60° | 253.5 | 242.0 | 163.6 | 350.3 | 424.0 | 354.9 | 165.9 | 232.8 | 248.9 | 230.4 | 138.3 |
| 62.5° | 198.2 | 177.4 | 205.1 | 387.1 | 444.8 | 373.3 | 209.7 | 168.2 | 209.7 | 159.0 | 156.7 |
| 65° | 189.0 | 122.1 | 232.8 | 384.8 | 435.5 | 384.8 | 235.1 | 115.2 | 198.2 | 124.4 | 207.4 |
| 67.5° | 177.4 | 92.2 | 228.1 | 380.2 | 442.5 | 384.8 | 221.2 | 87.6 | 170.5 | 85.3 | 202.8 |
| 70° | 142.9 | 80.7 | 212.0 | 389.5 | 421.7 | 375.6 | 212.0 | 78.4 | 136.0 | 76.0 | 248.9 |
| 72.5° | 112.9 | 76.0 | 193.6 | 352.6 | 361.8 | 338.8 | 195.9 | 76.0 | 115.2 | 66.8 | 230.4 |
| 75° | 101.4 | 76.0 | 189.0 | 288.1 | 274.2 | 274.2 | 184.4 | 73.7 | 103.7 | 69.1 | 182.1 |
| 77.5° | 80.7 | 69.1 | 163.6 | 200.5 | 189.0 | 189.0 | 161.3 | 66.8 | 76.0 | 62.2 | 154.4 |
| 80° | 57.6 | 62.2 | 129.0 | 138.3 | 131.4 | 131.4 | 124.4 | 59.9 | 57.6 | 57.6 | 122.1 |
| 82.5° | 41.5 | 50.7 | 92.2 | 92.2 | 87.6 | 85.3 | 89.9 | 50.7 | 41.5 | 46.1 | 87.6 |
| 85° | 25.3 | 36.9 | 53.0 | 43.8 | 36.9 | 34.6 | 50.7 | 34.6 | 23.0 | 34.6 | 50.7 |
| 87.5° | 11.5 | 20.7 | 9.2 | 9.2 | 9.2 | 9.2 | 9.2 | 20.7 | 11.5 | 18.4 | 11.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 | 3055.7 |
| 2.5° | 3025.8 | 3041.9 | 3041.9 | 3032.7 | 3078.8 | 3035.0 |
| 5° | 3000.4 | 3030.4 | 3016.5 | 3016.5 | 3062.6 | 3028.1 |
| 7.5° | 2984.3 | 3014.2 | 3000.4 | 2995.8 | 3041.9 | 3014.2 |
| 10° | 2956.6 | 2977.4 | 2968.1 | 2975.1 | 3016.5 | 2988.9 |
| 12.5° | 2917.5 | 2942.8 | 2933.6 | 2945.1 | 2982.0 | 2961.2 |
| 15° | 2871.4 | 2892.1 | 2896.7 | 2901.3 | 2945.1 | 2922.1 |
| 17.5° | 2799.9 | 2809.1 | 2834.5 | 2859.8 | 2903.6 | 2878.3 |
| 20° | 2712.4 | 2726.2 | 2740.0 | 2795.3 | 2848.3 | 2820.7 |
| 22.5° | 2613.3 | 2604.0 | 2640.9 | 2707.7 | 2776.9 | 2753.8 |
| 25° | 2422.0 | 2244.5 | 2440.4 | 2604.0 | 2691.6 | 2684.7 |
| 27.5° | 1779.0 | 1520.9 | 1746.8 | 2468.1 | 2606.3 | 2615.6 |
| 30° | 1327.4 | 1221.4 | 1325.1 | 2145.5 | 2509.6 | 2541.8 |
| 32.5° | 1140.7 | 1076.2 | 1129.2 | 1504.8 | 2387.4 | 2456.6 |
| 35° | 1016.3 | 965.6 | 1016.3 | 1221.4 | 2219.2 | 2362.1 |
| 37.5° | 866.5 | 769.7 | 868.8 | 1083.1 | 1878.1 | 2265.3 |
| 40° | 608.4 | 477.0 | 589.9 | 944.8 | 1419.5 | 2147.8 |
| 42.5° | 354.9 | 265.0 | 331.8 | 693.6 | 1175.3 | 1991.1 |
| 45° | 218.9 | 191.3 | 209.7 | 449.4 | 995.5 | 1802.1 |
| 47.5° | 172.8 | 177.4 | 172.8 | 299.6 | 792.7 | 1514.0 |
| 50° | 163.6 | 195.9 | 163.6 | 218.9 | 631.4 | 1080.8 |
| 52.5° | 182.1 | 216.6 | 179.7 | 161.3 | 488.5 | 730.5 |
| 55° | 200.5 | 313.4 | 202.8 | 140.6 | 380.2 | 539.2 |
| 57.5° | 285.8 | 345.7 | 290.4 | 131.4 | 311.1 | 364.1 |
| 60° | 295.0 | 380.2 | 292.7 | 140.6 | 228.1 | 253.5 |
| 62.5° | 361.8 | 493.2 | 361.8 | 165.9 | 154.4 | 198.2 |
| 65° | 449.4 | 495.5 | 454.0 | 205.1 | 119.8 | 189.0 |
| 67.5° | 428.6 | 463.2 | 424.0 | 212.0 | 83.0 | 177.4 |
| 70° | 419.4 | 444.8 | 414.8 | 251.2 | 76.0 | 142.9 |
| 72.5° | 384.8 | 382.5 | 375.6 | 228.1 | 66.8 | 112.9 |
| 75° | 304.2 | 283.4 | 292.7 | 200.5 | 69.1 | 101.4 |
| 77.5° | 200.5 | 191.3 | 193.6 | 159.0 | 62.2 | 80.7 |
| 80° | 142.9 | 138.3 | 136.0 | 129.0 | 57.6 | 57.6 |
| 82.5° | 96.8 | 92.2 | 89.9 | 92.2 | 46.1 | 41.5 |
| 85° | 48.4 | 43.8 | 41.5 | 57.6 | 34.6 | 25.3 |
| 87.5° | 11.5 | 11.5 | 9.2 | 11.5 | 16.1 | 11.5 |
| 90° | 0.0 | 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 | 17.53 | 18.84 | 17.89 | 19.15 | 19.46 | 16.37 | 17.68 | 16.74 | 17.99 | 18.31 |
| | 3H | 18.25 | 19.42 | 18.63 | 19.75 | 20.11 | 22.57 | 23.74 | 22.95 | 24.07 | 24.44 |
| | 4H | 18.68 | 19.77 | 19.08 | 20.12 | 20.51 | 23.87 | 24.97 | 24.27 | 25.32 | 25.70 |
| | 6H | 19.05 | 20.06 | 19.47 | 20.43 | 20.83 | 24.50 | 25.51 | 24.91 | 25.88 | 26.27 |
| | 8H | 19.18 | 20.14 | 19.61 | 20.53 | 20.93 | 24.63 | 25.59 | 25.06 | 25.98 | 26.39 |
| | 12H | 19.27 | 20.18 | 19.70 | 20.56 | 20.99 | 24.69 | 25.60 | 25.12 | 25.98 | 26.41 |
| 4H | 2H | 17.97 | 19.06 | 18.37 | 19.41 | 19.80 | 16.95 | 18.05 | 17.36 | 18.40 | 18.78 |
| | 3H | 18.99 | 19.90 | 19.40 | 20.30 | 20.70 | 23.33 | 24.24 | 23.74 | 24.64 | 25.04 |
| | 4H | 19.56 | 20.38 | 19.99 | 20.80 | 21.24 | 24.79 | 25.61 | 25.23 | 26.03 | 26.47 |
| | 6H | 20.06 | 20.77 | 20.52 | 21.21 | 21.68 | 25.55 | 26.26 | 26.01 | 26.70 | 27.17 |
| | 8H | 20.23 | 20.90 | 20.70 | 21.34 | 21.81 | 25.72 | 26.38 | 26.19 | 26.83 | 27.30 |
| | 12H | 20.37 | 20.96 | 20.86 | 21.44 | 21.91 | 25.80 | 26.39 | 26.29 | 26.87 | 27.35 |
| 8H | 4H | 20.69 | 21.35 | 21.16 | 21.80 | 22.27 | 24.94 | 25.60 | 25.41 | 26.05 | 26.52 |
| | 6H | 21.31 | 21.86 | 21.81 | 22.35 | 22.83 | 25.83 | 26.37 | 26.33 | 26.87 | 27.35 |
| | 8H | 21.55 | 22.03 | 22.07 | 22.55 | 23.04 | 26.08 | 26.56 | 26.60 | 27.08 | 27.57 |
| | 12H | 21.74 | 22.17 | 22.26 | 22.66 | 23.23 | 26.22 | 26.65 | 26.74 | 27.14 | 27.71 |
| 12H | 4H | 20.86 | 21.44 | 21.34 | 21.93 | 22.40 | 24.92 | 25.51 | 25.40 | 25.99 | 26.46 |
| | 6H | 21.59 | 22.07 | 22.11 | 22.59 | 23.08 | 25.84 | 26.32 | 26.36 | 26.84 | 27.33 |
| | 8H | 21.91 | 22.33 | 22.42 | 22.83 | 23.40 | 26.14 | 26.57 | 26.65 | 27.06 | 27.63 |