

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P243434

Luminaire Tested: S123RDRP-H340D840-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243434
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-69)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-H340D840-X4F0-XX-UDD-A-W
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

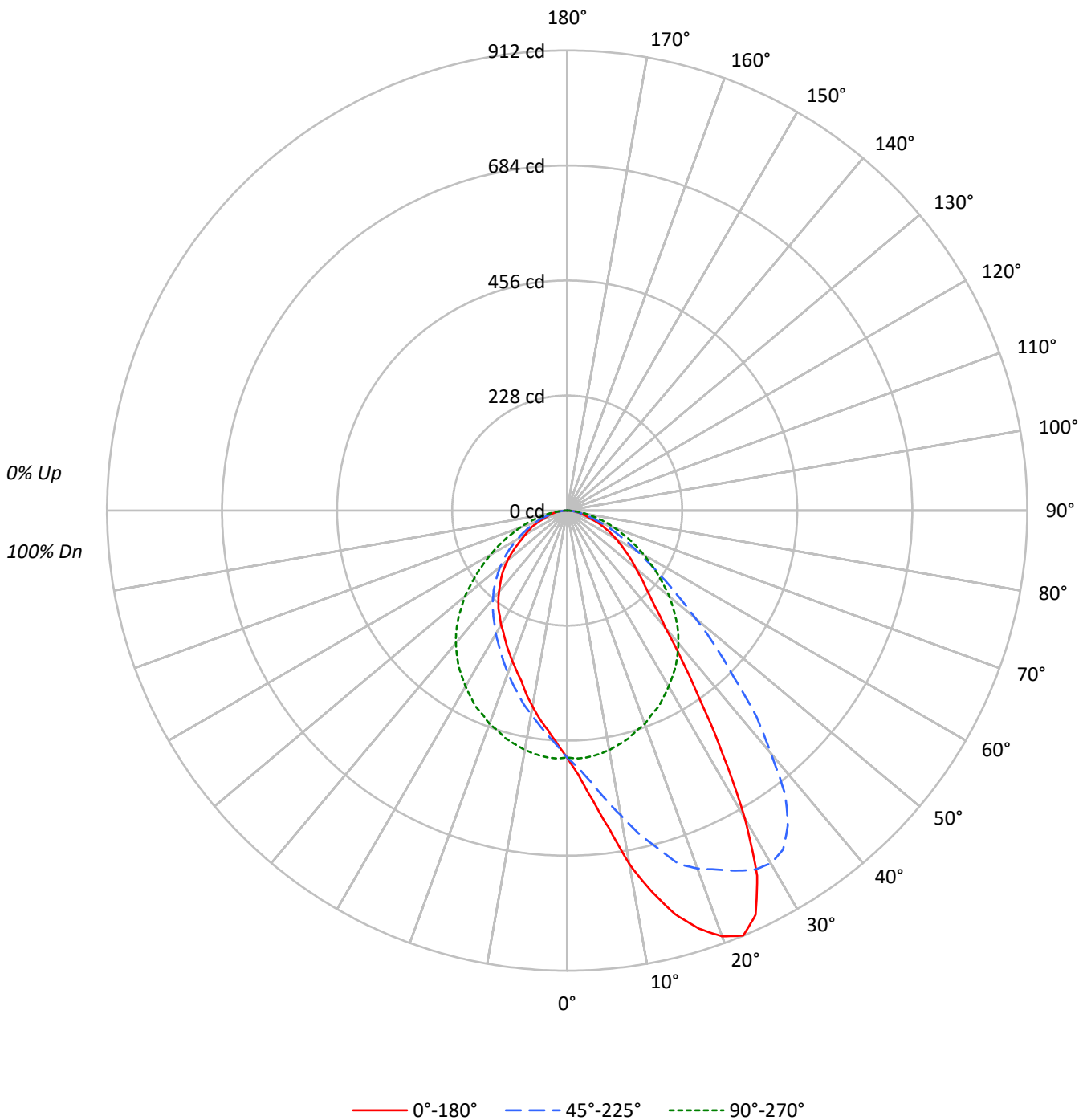
Lumens per Lamp: N/A
Luminaire Lumens: 1275.6 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.22 / 1.4
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 11.2
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: P243434

CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P243434

CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

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 | 106 | 102 | 99 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | | | | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 86 | 82 | 89 | 84 | 80 | 85 | 81 | 78 | 82 | 79 | 76 | 74 | | | | 74 |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 56 | | | | 56 |
| 5 | 79 | 68 | 59 | 53 | 77 | 66 | 59 | 53 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 55 | 51 | 49 | | | | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 55 | 50 | 46 | 44 | | | | 44 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 47 | 42 | 54 | 47 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | 39 |
| 8 | 64 | 51 | 43 | 38 | 62 | 51 | 43 | 37 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 | | | | 35 |
| 9 | 60 | 47 | 39 | 34 | 59 | 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° | 135° | 180° |
|-----|-------|-------|------|------|------|
| 0° | 5933 | 5933 | 5933 | 5933 | 5933 |
| 5° | 6995 | 6566 | 5967 | 5424 | 5314 |
| 10° | 8757 | 7550 | 5931 | 5041 | 4849 |
| 15° | 10393 | 8686 | 5873 | 4716 | 4392 |
| 20° | 11582 | 9736 | 5802 | 4426 | 4090 |
| 25° | 11823 | 10531 | 5731 | 4161 | 3850 |
| 30° | 9852 | 11298 | 5634 | 3955 | 3663 |
| 35° | 6805 | 11281 | 5555 | 3772 | 3510 |
| 40° | 4783 | 9934 | 5429 | 3619 | 3324 |
| 45° | 3842 | 8000 | 5235 | 3456 | 3146 |
| 50° | 3349 | 6263 | 4986 | 3264 | 2910 |
| 55° | 3001 | 4833 | 4613 | 3052 | 2591 |
| 60° | 2715 | 3847 | 4264 | 2766 | 2347 |
| 65° | 2378 | 3158 | 3929 | 2504 | 2194 |
| 70° | 1917 | 2569 | 3537 | 2300 | 1857 |
| 75° | 1663 | 2018 | 3077 | 1939 | 1822 |
| 80° | 1536 | 1654 | 2625 | 1857 | 1829 |
| 85° | 1349 | 1405 | 2114 | 1669 | 1585 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 55°
 Vertical Angle: 45°
 Luminance: 10026 cd/sqm



TEST NUMBER: P243434

CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.0 | 3.8 |
| 10°-20° | 151.2 | 11.9 |
| 20°-30° | 242.2 | 19.0 |
| 30°-40° | 263.0 | 20.6 |
| 40°-50° | 225.3 | 17.7 |
| 50°-60° | 170.8 | 13.4 |
| 60°-70° | 109.1 | 8.6 |
| 70°-80° | 52.2 | 4.1 |
| 80°-90° | 13.7 | 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° | 441.4 | 34.6 |
| 0°-40° | 704.4 | 55.2 |
| 0°-60° | 1100.5 | 86.3 |
| 0°-90° | 1275.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1275.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 490 | 490 | 490 | 490 | 490 | |
| 5° | 575 | 540 | 490 | 446 | 437 | 59 |
| 15° | 828 | 692 | 468 | 376 | 350 | 235 |
| 25° | 884 | 787 | 428 | 311 | 288 | 392 |
| 35° | 460 | 762 | 375 | 255 | 237 | 295 |
| 45° | 224 | 467 | 305 | 202 | 184 | 177 |
| 55° | 142 | 229 | 218 | 144 | 123 | 128 |
| 65° | 83 | 110 | 137 | 87 | 76 | 82 |
| 75° | 36 | 43 | 66 | 41 | 39 | 38 |
| 85° | 10 | 10 | 15 | 12 | 11 | 11 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P243434

CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 |
| 2.5° | 524.6 | 525.3 | 524.2 | 524.0 | 523.8 | 520.4 | 519.3 | 517.7 | 511.7 | 510.3 | 509.2 |
| 5° | 574.9 | 573.2 | 575.1 | 571.6 | 567.5 | 565.2 | 561.4 | 553.0 | 545.6 | 539.6 | 535.8 |
| 7.5° | 634.5 | 635.2 | 633.3 | 629.9 | 621.9 | 618.5 | 608.1 | 598.0 | 588.3 | 576.0 | 566.9 |
| 10° | 711.5 | 706.4 | 707.5 | 696.9 | 688.4 | 678.3 | 664.1 | 647.9 | 630.7 | 613.4 | 600.5 |
| 12.5° | 772.8 | 776.4 | 773.8 | 768.8 | 752.5 | 742.6 | 729.7 | 706.0 | 678.9 | 655.7 | 636.0 |
| 15° | 828.2 | 823.3 | 823.9 | 811.7 | 805.8 | 796.7 | 775.3 | 751.9 | 734.3 | 692.2 | 669.0 |
| 17.5° | 868.7 | 868.3 | 867.7 | 857.3 | 850.1 | 831.1 | 809.3 | 785.2 | 763.3 | 734.1 | 704.9 |
| 20° | 897.9 | 901.1 | 900.2 | 891.8 | 879.1 | 860.7 | 847.6 | 817.6 | 781.4 | 754.8 | 719.1 |
| 22.5° | 911.9 | 912.1 | 912.5 | 908.5 | 900.0 | 888.2 | 869.6 | 845.5 | 813.4 | 769.8 | 730.1 |
| 25° | 884.0 | 885.0 | 890.5 | 893.9 | 896.2 | 890.9 | 881.2 | 859.4 | 831.8 | 787.4 | 746.1 |
| 27.5° | 815.5 | 818.9 | 825.0 | 845.3 | 853.5 | 864.9 | 869.0 | 860.3 | 839.8 | 802.8 | 755.9 |
| 30° | 703.9 | 713.4 | 719.3 | 742.3 | 774.7 | 805.1 | 819.5 | 833.7 | 831.8 | 807.2 | 759.7 |
| 32.5° | 576.2 | 582.3 | 599.5 | 624.2 | 649.8 | 694.4 | 744.2 | 778.5 | 797.7 | 796.5 | 762.8 |
| 35° | 459.9 | 468.8 | 483.4 | 502.2 | 537.5 | 583.8 | 640.2 | 694.1 | 742.3 | 762.4 | 750.4 |
| 37.5° | 373.3 | 374.1 | 387.9 | 414.5 | 436.5 | 477.3 | 528.2 | 594.8 | 658.0 | 710.4 | 722.0 |
| 40° | 302.3 | 308.2 | 315.4 | 332.1 | 358.1 | 397.2 | 431.0 | 496.5 | 562.0 | 627.8 | 674.7 |
| 42.5° | 257.5 | 257.5 | 265.5 | 276.1 | 293.4 | 316.8 | 357.2 | 416.6 | 475.6 | 556.3 | 609.2 |
| 45° | 224.1 | 226.2 | 229.8 | 236.5 | 248.8 | 267.0 | 298.2 | 338.6 | 398.9 | 466.7 | 546.2 |
| 47.5° | 200.0 | 199.7 | 202.9 | 206.9 | 216.4 | 230.2 | 248.6 | 281.3 | 325.9 | 399.1 | 469.2 |
| 50° | 177.6 | 178.4 | 180.7 | 184.1 | 190.4 | 200.2 | 211.8 | 236.5 | 274.2 | 332.1 | 405.6 |
| 52.5° | 160.2 | 160.0 | 161.9 | 164.0 | 168.9 | 174.4 | 184.7 | 203.1 | 229.1 | 275.2 | 336.3 |
| 55° | 142.0 | 142.9 | 145.2 | 146.5 | 150.5 | 154.1 | 162.8 | 173.1 | 194.0 | 228.7 | 284.3 |
| 57.5° | 126.4 | 127.5 | 128.7 | 130.0 | 132.7 | 136.3 | 143.5 | 149.9 | 165.1 | 190.0 | 234.4 |
| 60° | 112.0 | 111.6 | 113.1 | 115.2 | 116.7 | 119.8 | 123.9 | 130.4 | 141.0 | 158.7 | 191.3 |
| 62.5° | 97.7 | 97.9 | 98.1 | 99.3 | 102.1 | 104.8 | 108.4 | 113.3 | 119.6 | 132.7 | 155.8 |
| 65° | 82.9 | 83.1 | 83.5 | 84.8 | 87.5 | 89.2 | 93.0 | 97.2 | 102.3 | 110.1 | 126.2 |
| 67.5° | 69.8 | 70.6 | 70.6 | 71.7 | 72.7 | 74.4 | 77.2 | 80.3 | 84.5 | 90.3 | 100.6 |
| 70° | 54.1 | 53.9 | 55.0 | 57.1 | 58.1 | 61.1 | 63.0 | 65.1 | 68.9 | 72.5 | 81.4 |
| 72.5° | 43.5 | 43.5 | 43.5 | 44.4 | 44.6 | 45.2 | 46.5 | 50.9 | 53.9 | 57.5 | 62.4 |
| 75° | 35.5 | 35.7 | 35.7 | 35.9 | 36.1 | 36.8 | 37.2 | 38.5 | 39.3 | 43.1 | 46.1 |
| 77.5° | 28.3 | 28.5 | 28.5 | 28.7 | 29.0 | 29.2 | 30.0 | 30.0 | 30.6 | 31.5 | 32.8 |
| 80° | 22.0 | 21.8 | 21.8 | 22.0 | 22.0 | 22.6 | 22.6 | 23.0 | 23.3 | 23.7 | 24.3 |
| 82.5° | 15.6 | 15.4 | 15.6 | 15.4 | 15.6 | 15.9 | 16.3 | 16.1 | 16.5 | 16.9 | 17.1 |
| 85° | 9.7 | 9.9 | 9.9 | 10.4 | 10.1 | 9.9 | 10.1 | 10.1 | 10.1 | 10.1 | 10.6 |
| 87.5° | 4.2 | 4.7 | 4.7 | 4.4 | 4.7 | 4.7 | 4.2 | 4.7 | 4.7 | 4.7 | 4.9 |
| 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: P243434

CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 |
| 2.5° | 508.6 | 507.7 | 504.5 | 501.6 | 497.1 | 495.2 | 492.7 | 491.7 | 488.3 | 483.6 | 481.5 |
| 5° | 532.2 | 525.9 | 519.8 | 512.4 | 506.2 | 499.1 | 495.0 | 490.4 | 483.2 | 476.6 | 472.0 |
| 7.5° | 557.4 | 548.1 | 536.7 | 524.4 | 513.4 | 503.1 | 494.2 | 486.8 | 477.5 | 468.4 | 461.2 |
| 10° | 585.1 | 569.2 | 550.8 | 535.2 | 519.3 | 504.3 | 493.1 | 481.9 | 469.9 | 458.5 | 449.8 |
| 12.5° | 614.9 | 592.5 | 570.3 | 546.8 | 523.1 | 505.8 | 489.1 | 474.7 | 461.2 | 449.2 | 438.8 |
| 15° | 645.7 | 615.1 | 586.8 | 560.3 | 527.4 | 504.1 | 485.7 | 468.0 | 451.1 | 436.3 | 426.1 |
| 17.5° | 667.7 | 632.6 | 596.9 | 559.5 | 531.2 | 502.4 | 479.6 | 457.2 | 441.6 | 426.3 | 412.6 |
| 20° | 688.0 | 648.3 | 605.8 | 570.9 | 531.4 | 496.3 | 471.4 | 449.8 | 428.0 | 411.8 | 400.1 |
| 22.5° | 696.7 | 660.8 | 617.8 | 569.4 | 529.9 | 494.0 | 461.8 | 437.5 | 418.1 | 400.3 | 385.1 |
| 25° | 698.4 | 658.2 | 614.2 | 567.5 | 524.2 | 485.3 | 452.8 | 428.5 | 403.1 | 384.7 | 372.9 |
| 27.5° | 705.8 | 650.8 | 607.7 | 561.2 | 517.2 | 476.6 | 442.4 | 415.3 | 391.7 | 372.0 | 356.8 |
| 30° | 707.7 | 647.6 | 593.7 | 549.4 | 504.1 | 464.4 | 429.7 | 402.5 | 376.7 | 356.6 | 342.8 |
| 32.5° | 708.5 | 643.4 | 579.2 | 530.5 | 487.4 | 450.0 | 418.3 | 388.7 | 364.2 | 343.1 | 328.9 |
| 35° | 705.6 | 637.5 | 561.6 | 509.2 | 467.8 | 431.0 | 401.6 | 375.4 | 348.1 | 328.3 | 313.3 |
| 37.5° | 693.9 | 628.2 | 551.7 | 484.3 | 444.7 | 410.1 | 385.1 | 359.3 | 334.2 | 312.6 | 297.2 |
| 40° | 672.0 | 614.7 | 533.1 | 463.3 | 418.5 | 387.4 | 364.2 | 343.1 | 317.7 | 297.0 | 281.8 |
| 42.5° | 636.9 | 596.3 | 516.0 | 439.7 | 392.5 | 363.1 | 343.7 | 325.5 | 302.7 | 283.0 | 266.3 |
| 45° | 584.9 | 570.5 | 493.1 | 415.6 | 364.2 | 336.5 | 319.6 | 305.4 | 284.7 | 266.8 | 251.3 |
| 47.5° | 528.6 | 531.8 | 470.1 | 391.0 | 338.4 | 312.0 | 297.2 | 284.7 | 269.1 | 249.8 | 235.7 |
| 50° | 463.8 | 481.1 | 437.8 | 366.3 | 312.6 | 286.6 | 272.0 | 264.4 | 249.8 | 233.8 | 220.5 |
| 52.5° | 404.4 | 431.8 | 405.0 | 339.3 | 287.3 | 261.7 | 248.2 | 240.5 | 230.8 | 217.5 | 204.0 |
| 55° | 342.8 | 377.7 | 358.3 | 310.1 | 261.5 | 235.7 | 224.3 | 218.3 | 210.3 | 200.0 | 187.7 |
| 57.5° | 291.9 | 329.1 | 316.8 | 279.4 | 236.3 | 213.1 | 202.9 | 196.2 | 191.3 | 181.8 | 171.8 |
| 60° | 242.0 | 276.5 | 271.6 | 244.1 | 211.4 | 189.2 | 181.4 | 175.9 | 171.8 | 164.9 | 155.1 |
| 62.5° | 195.3 | 228.7 | 231.7 | 210.1 | 187.1 | 167.0 | 159.8 | 156.0 | 152.8 | 147.3 | 138.4 |
| 65° | 154.9 | 184.3 | 190.4 | 174.0 | 161.5 | 146.3 | 139.3 | 137.0 | 134.6 | 128.3 | 121.5 |
| 67.5° | 121.3 | 144.4 | 152.4 | 143.1 | 134.2 | 125.3 | 119.8 | 116.7 | 115.0 | 111.2 | 106.5 |
| 70° | 92.8 | 112.7 | 119.4 | 115.4 | 109.5 | 106.1 | 101.9 | 99.8 | 98.1 | 93.2 | 90.7 |
| 72.5° | 69.5 | 83.1 | 91.5 | 90.3 | 89.0 | 86.7 | 84.1 | 83.5 | 81.0 | 77.8 | 75.5 |
| 75° | 50.9 | 58.8 | 66.4 | 69.1 | 68.7 | 69.5 | 66.8 | 65.7 | 64.3 | 61.9 | 60.0 |
| 77.5° | 36.6 | 41.2 | 46.5 | 49.9 | 51.6 | 51.8 | 51.8 | 51.2 | 50.1 | 48.4 | 46.9 |
| 80° | 25.4 | 26.4 | 31.3 | 34.5 | 36.1 | 37.4 | 37.4 | 37.6 | 36.6 | 35.9 | 34.9 |
| 82.5° | 17.5 | 18.2 | 19.2 | 21.8 | 23.9 | 25.4 | 25.6 | 25.4 | 24.9 | 24.7 | 23.3 |
| 85° | 11.0 | 10.8 | 10.8 | 11.4 | 13.1 | 14.6 | 14.8 | 15.2 | 15.0 | 14.8 | 13.3 |
| 87.5° | 4.7 | 4.7 | 4.9 | 4.7 | 5.3 | 5.5 | 5.9 | 7.0 | 6.8 | 5.7 | 5.3 |
| 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: P243434

CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 | 489.5 |
| 2.5° | 480.2 | 477.5 | 475.0 | 472.2 | 468.8 | 465.7 | 465.2 | 464.8 | 465.9 | 463.8 | 462.9 |
| 5° | 468.4 | 463.1 | 459.1 | 454.0 | 450.4 | 445.8 | 443.2 | 442.6 | 442.4 | 441.1 | 439.4 |
| 7.5° | 455.5 | 449.8 | 444.1 | 438.4 | 432.5 | 427.6 | 424.9 | 423.4 | 422.1 | 420.0 | 418.3 |
| 10° | 443.5 | 436.3 | 430.1 | 422.3 | 416.0 | 409.6 | 407.1 | 405.0 | 403.7 | 400.8 | 398.4 |
| 12.5° | 429.9 | 420.8 | 414.1 | 405.6 | 399.9 | 394.4 | 390.4 | 386.4 | 383.4 | 379.0 | 377.1 |
| 15° | 418.1 | 408.6 | 397.2 | 392.1 | 384.1 | 375.8 | 371.4 | 371.4 | 365.3 | 361.7 | 359.3 |
| 17.5° | 402.2 | 394.0 | 386.0 | 375.6 | 364.2 | 359.3 | 354.3 | 349.8 | 345.6 | 344.5 | 340.3 |
| 20° | 388.3 | 378.6 | 370.3 | 359.1 | 348.8 | 343.1 | 337.1 | 332.3 | 329.1 | 326.1 | 323.8 |
| 22.5° | 374.6 | 364.8 | 352.1 | 341.2 | 334.2 | 326.6 | 320.2 | 316.0 | 313.3 | 308.8 | 306.7 |
| 25° | 360.2 | 348.6 | 337.1 | 326.4 | 317.7 | 311.1 | 304.6 | 302.3 | 297.4 | 295.1 | 292.1 |
| 27.5° | 345.8 | 331.9 | 321.1 | 311.8 | 302.1 | 295.7 | 291.3 | 287.0 | 282.8 | 281.5 | 279.9 |
| 30° | 329.7 | 316.8 | 306.5 | 297.4 | 288.1 | 282.6 | 277.3 | 273.5 | 269.9 | 267.2 | 265.3 |
| 32.5° | 313.7 | 302.9 | 293.0 | 282.4 | 273.9 | 268.0 | 263.6 | 260.2 | 258.5 | 253.9 | 252.2 |
| 35° | 298.9 | 287.9 | 277.3 | 267.4 | 260.6 | 254.9 | 250.9 | 247.7 | 244.1 | 241.2 | 239.5 |
| 37.5° | 283.7 | 273.7 | 262.9 | 254.5 | 246.9 | 242.2 | 237.8 | 233.6 | 230.8 | 229.1 | 227.0 |
| 40° | 268.9 | 258.3 | 250.1 | 240.8 | 234.0 | 228.7 | 224.1 | 220.9 | 217.5 | 216.0 | 213.3 |
| 42.5° | 254.9 | 244.8 | 235.3 | 226.8 | 220.7 | 215.6 | 211.2 | 207.6 | 204.8 | 202.1 | 200.6 |
| 45° | 238.9 | 230.0 | 221.3 | 212.9 | 207.1 | 201.6 | 196.8 | 193.6 | 189.8 | 187.5 | 186.6 |
| 47.5° | 225.3 | 216.0 | 206.7 | 198.9 | 193.0 | 187.1 | 183.0 | 179.2 | 176.1 | 173.7 | 172.5 |
| 50° | 209.3 | 200.6 | 193.0 | 185.2 | 179.5 | 173.1 | 168.3 | 164.7 | 161.1 | 159.4 | 157.3 |
| 52.5° | 195.5 | 187.1 | 177.8 | 170.8 | 164.2 | 158.7 | 154.3 | 151.3 | 148.2 | 145.6 | 144.2 |
| 55° | 178.4 | 170.2 | 162.8 | 155.4 | 148.8 | 144.4 | 140.8 | 135.7 | 133.0 | 130.4 | 126.4 |
| 57.5° | 163.4 | 155.6 | 147.7 | 140.6 | 134.4 | 129.1 | 124.7 | 121.3 | 117.7 | 115.8 | 113.1 |
| 60° | 147.5 | 139.3 | 132.1 | 126.6 | 119.8 | 114.1 | 111.2 | 107.2 | 104.2 | 101.2 | 100.4 |
| 62.5° | 131.9 | 124.3 | 117.1 | 111.4 | 105.3 | 100.8 | 97.0 | 95.1 | 92.2 | 89.8 | 89.0 |
| 65° | 115.6 | 109.3 | 102.5 | 96.2 | 92.4 | 87.3 | 85.2 | 82.0 | 80.3 | 79.3 | 79.1 |
| 67.5° | 99.6 | 93.8 | 87.7 | 82.9 | 79.3 | 75.9 | 73.3 | 72.1 | 70.4 | 69.1 | 68.1 |
| 70° | 85.0 | 79.5 | 74.2 | 70.2 | 67.4 | 64.9 | 63.2 | 60.9 | 59.2 | 57.5 | 55.2 |
| 72.5° | 70.6 | 66.2 | 61.7 | 58.6 | 55.8 | 54.3 | 52.0 | 48.4 | 46.7 | 46.3 | 46.1 |
| 75° | 57.3 | 52.4 | 49.2 | 47.6 | 45.0 | 41.4 | 39.9 | 39.5 | 39.3 | 38.9 | 38.9 |
| 77.5° | 44.2 | 41.2 | 39.1 | 35.5 | 34.2 | 34.0 | 33.0 | 32.8 | 32.3 | 32.6 | 32.6 |
| 80° | 32.1 | 30.4 | 27.9 | 26.8 | 26.4 | 26.6 | 26.2 | 26.4 | 26.0 | 26.2 | 25.8 |
| 82.5° | 21.3 | 19.9 | 20.3 | 19.7 | 19.7 | 20.1 | 19.9 | 19.2 | 19.2 | 19.0 | 19.0 |
| 85° | 12.7 | 12.5 | 12.9 | 12.9 | 12.7 | 12.0 | 12.5 | 12.3 | 11.6 | 11.8 | 11.8 |
| 87.5° | 5.5 | 5.5 | 5.5 | 5.3 | 5.5 | 5.3 | 5.3 | 5.3 | 4.7 | 4.7 | 4.7 |
| 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: P243434

CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|-------|-------|-------|-------|-------|
| 0° | 489.5 | 489.5 | 489.5 | 489.5 |
| 2.5° | 463.3 | 462.9 | 462.3 | 461.6 |
| 5° | 439.4 | 437.5 | 437.3 | 436.7 |
| 7.5° | 417.0 | 416.2 | 414.7 | 416.4 |
| 10° | 396.5 | 397.2 | 395.7 | 394.0 |
| 12.5° | 375.2 | 373.9 | 371.6 | 372.9 |
| 15° | 356.4 | 354.3 | 353.0 | 350.0 |
| 17.5° | 336.7 | 335.0 | 335.0 | 333.1 |
| 20° | 319.6 | 317.9 | 318.3 | 317.1 |
| 22.5° | 305.2 | 304.0 | 302.1 | 302.3 |
| 25° | 291.7 | 289.8 | 287.7 | 287.9 |
| 27.5° | 276.7 | 275.0 | 274.6 | 273.1 |
| 30° | 263.4 | 261.9 | 261.7 | 261.7 |
| 32.5° | 250.5 | 249.8 | 248.8 | 248.2 |
| 35° | 239.3 | 238.4 | 236.7 | 237.2 |
| 37.5° | 225.3 | 224.5 | 224.3 | 224.1 |
| 40° | 212.2 | 211.6 | 209.9 | 210.1 |
| 42.5° | 199.1 | 198.1 | 197.0 | 196.6 |
| 45° | 185.0 | 184.7 | 183.0 | 183.5 |
| 47.5° | 171.4 | 171.0 | 170.2 | 169.1 |
| 50° | 156.4 | 156.2 | 155.6 | 154.3 |
| 52.5° | 141.8 | 141.2 | 139.9 | 138.7 |
| 55° | 125.3 | 123.4 | 123.7 | 122.6 |
| 57.5° | 111.8 | 111.0 | 109.3 | 108.6 |
| 60° | 98.7 | 97.9 | 97.7 | 96.8 |
| 62.5° | 87.7 | 86.9 | 86.2 | 86.2 |
| 65° | 77.8 | 76.7 | 76.5 | 76.5 |
| 67.5° | 66.8 | 65.7 | 65.5 | 65.1 |
| 70° | 53.1 | 52.8 | 52.4 | 52.4 |
| 72.5° | 45.7 | 45.4 | 45.7 | 44.8 |
| 75° | 38.9 | 38.7 | 38.7 | 38.9 |
| 77.5° | 32.3 | 32.3 | 32.1 | 32.1 |
| 80° | 25.6 | 25.8 | 25.6 | 26.2 |
| 82.5° | 19.2 | 18.8 | 19.0 | 18.6 |
| 85° | 11.8 | 11.8 | 11.4 | 11.4 |
| 87.5° | 4.7 | 4.7 | 4.7 | 4.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P243434
 CATALOG NUMBER: S123RDRP-H340D840-X4F0-XX-UDD-A-W

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 | 14.57 | 16.07 | 14.94 | 16.39 | 16.70 | 17.27 | 18.78 | 17.64 | 19.09 | 19.40 |
| | 3H | 15.76 | 17.11 | 16.14 | 17.43 | 17.80 | 18.70 | 20.04 | 19.08 | 20.37 | 20.73 |
| | 4H | 16.11 | 17.37 | 16.51 | 17.72 | 18.10 | 19.20 | 20.46 | 19.60 | 20.81 | 21.19 |
| | 6H | 16.39 | 17.55 | 16.80 | 17.92 | 18.31 | 19.55 | 20.71 | 19.96 | 21.08 | 21.47 |
| | 8H | 16.48 | 17.58 | 16.90 | 17.97 | 18.38 | 19.65 | 20.76 | 20.08 | 21.15 | 21.55 |
| | 12H | 16.54 | 17.60 | 16.97 | 17.98 | 18.41 | 19.71 | 20.77 | 20.14 | 21.15 | 21.58 |
| 4H | 2H | 15.52 | 16.78 | 15.92 | 17.13 | 17.51 | 17.55 | 18.81 | 17.95 | 19.16 | 19.54 |
| | 3H | 16.79 | 17.84 | 17.20 | 18.24 | 18.64 | 19.27 | 20.31 | 19.68 | 20.71 | 21.12 |
| | 4H | 17.20 | 18.14 | 17.63 | 18.55 | 18.99 | 19.88 | 20.82 | 20.32 | 21.24 | 21.68 |
| | 6H | 17.55 | 18.36 | 18.00 | 18.80 | 19.26 | 20.34 | 21.16 | 20.80 | 21.60 | 22.06 |
| | 8H | 17.66 | 18.42 | 18.12 | 18.87 | 19.33 | 20.48 | 21.24 | 20.94 | 21.69 | 22.15 |
| | 12H | 17.75 | 18.43 | 18.23 | 18.91 | 19.38 | 20.57 | 21.25 | 21.06 | 21.73 | 22.20 |
| 8H | 4H | 17.56 | 18.32 | 18.02 | 18.77 | 19.23 | 19.94 | 20.71 | 20.41 | 21.15 | 21.62 |
| | 6H | 17.98 | 18.61 | 18.48 | 19.10 | 19.58 | 20.47 | 21.10 | 20.97 | 21.59 | 22.07 |
| | 8H | 18.14 | 18.71 | 18.66 | 19.22 | 19.71 | 20.66 | 21.23 | 21.18 | 21.74 | 22.23 |
| | 12H | 18.29 | 18.79 | 18.80 | 19.28 | 19.85 | 20.81 | 21.31 | 21.32 | 21.81 | 22.37 |
| 12H | 4H | 17.59 | 18.27 | 18.07 | 18.75 | 19.22 | 19.93 | 20.61 | 20.41 | 21.09 | 21.56 |
| | 6H | 18.03 | 18.59 | 18.54 | 19.10 | 19.59 | 20.46 | 21.03 | 20.98 | 21.54 | 22.03 |
| | 8H | 18.24 | 18.74 | 18.75 | 19.23 | 19.79 | 20.69 | 21.19 | 21.20 | 21.68 | 22.25 |