

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: P243267

Luminaire Tested: S122RDRP-H290D930-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243267
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-68)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H290D930-X4F0-XX-UDD-A-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

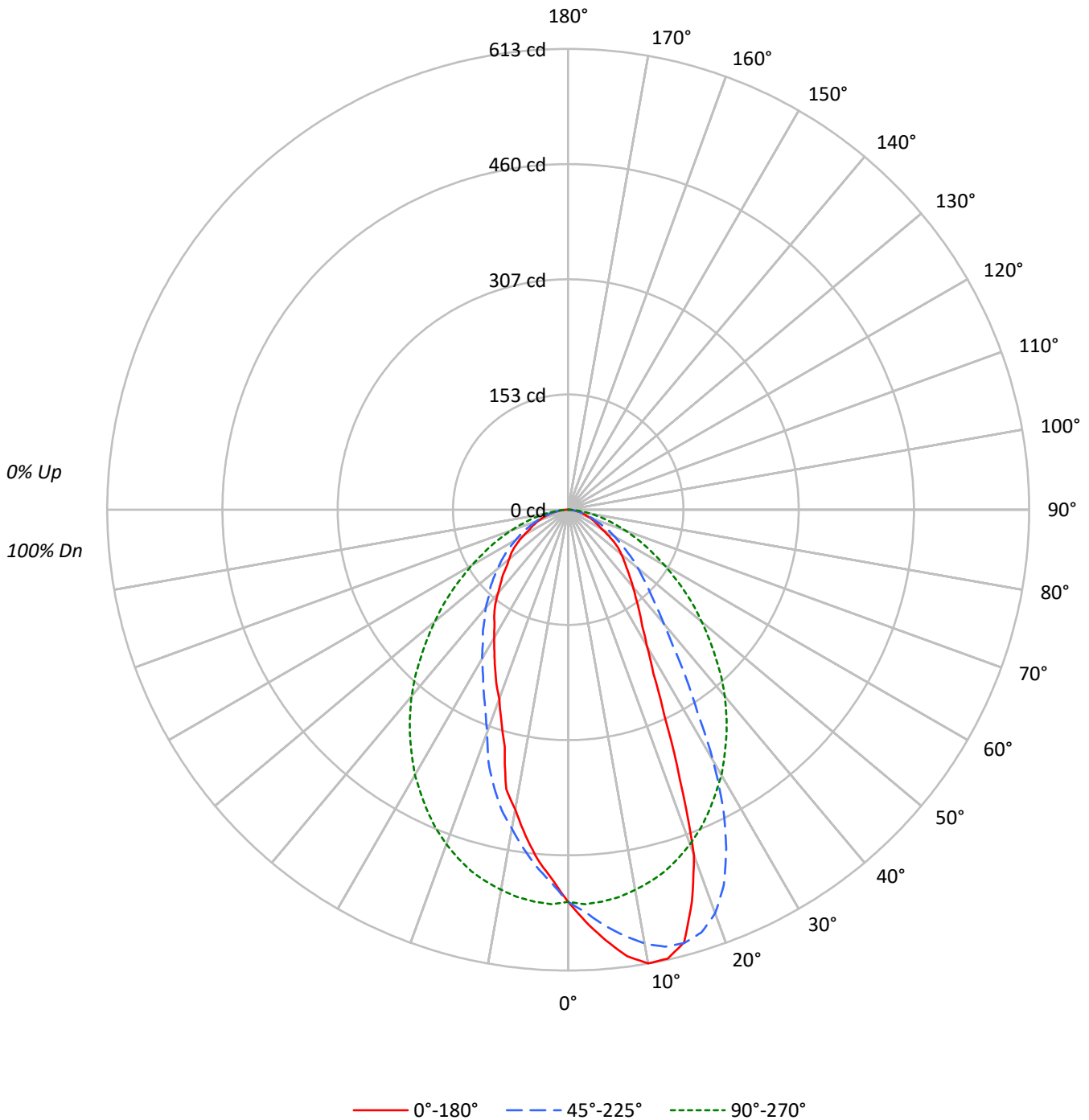
Lumens per Lamp: N/A
Luminaire Lumens: 879.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 1.17 / 0.99
Luminous Opening: Rectangular (W 3.88' x L: 0.15' x H: 0')
CIE Type: Direct

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: P243267

CATALOG NUMBER: S122RDRP-H290D930-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P243267

CATALOG NUMBER: S122RDRP-H290D930-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 | 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 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | | | | | 87 | | | | |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 84 | 80 | 78 | | | | | 76 | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 84 | 77 | 72 | 81 | 75 | 70 | 78 | 73 | 69 | 76 | 72 | 68 | | | | | 66 | | | | |
| 4 | 87 | 77 | 69 | 63 | 85 | 76 | 68 | 63 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | | | | | 58 | | | | |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 54 | | | | | 52 | | | | |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 55 | 50 | 61 | 54 | 49 | 60 | 54 | 49 | 58 | 53 | 49 | | | | | 47 | | | | |
| 7 | 71 | 59 | 51 | 45 | 69 | 58 | 50 | 45 | 56 | 50 | 45 | 55 | 49 | 44 | 54 | 48 | 44 | | | | | 42 | | | | |
| 8 | 66 | 54 | 46 | 41 | 65 | 53 | 46 | 41 | 52 | 45 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | | | | | 38 | | | | |
| 9 | 62 | 50 | 43 | 38 | 61 | 50 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 46 | 41 | 37 | | | | | 35 | | | | |
| 10 | 59 | 47 | 39 | 35 | 58 | 46 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 44 | 38 | 34 | | | | | 33 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|-------|-------|-------|------|------|
| 0° | 9933 | 9933 | 9933 | 9933 | 9933 |
| 5° | 10996 | 10612 | 10002 | 9126 | 8927 |
| 10° | 11851 | 11336 | 9932 | 8334 | 7829 |
| 15° | 11745 | 11769 | 9816 | 7519 | 6435 |
| 20° | 9908 | 11582 | 9600 | 6385 | 5430 |
| 25° | 6370 | 10452 | 9304 | 5588 | 4836 |
| 30° | 4601 | 8477 | 8961 | 5035 | 4331 |
| 35° | 3834 | 6346 | 8529 | 4595 | 3983 |
| 40° | 3327 | 4918 | 8054 | 4239 | 3608 |
| 45° | 2969 | 4119 | 7451 | 3944 | 3300 |
| 50° | 2741 | 3586 | 6863 | 3621 | 3034 |
| 55° | 2461 | 3095 | 6270 | 3377 | 2889 |
| 60° | 1962 | 2724 | 5642 | 3070 | 2602 |
| 65° | 1798 | 2317 | 5070 | 2817 | 2398 |
| 70° | 1654 | 1910 | 4478 | 2501 | 2283 |
| 75° | 1509 | 1707 | 3915 | 2377 | 2164 |
| 80° | 1305 | 1503 | 3258 | 2172 | 2018 |
| 85° | 1049 | 1224 | 2601 | 1967 | 1858 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 75°
 Vertical Angle: 45°
 Luminance: 9865 cd/sqm



TEST NUMBER: P243267

CATALOG NUMBER: S122RDRP-H290D930-X4F0-XX-UDD-A-W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 49.4 | 5.6 |
| 10°-20° | 135.1 | 15.4 |
| 20°-30° | 170.3 | 19.4 |
| 30°-40° | 163.5 | 18.6 |
| 40°-50° | 140.8 | 16.0 |
| 50°-60° | 107.6 | 12.2 |
| 60°-70° | 68.5 | 7.8 |
| 70°-80° | 34.7 | 4.0 |
| 80°-90° | 9.2 | 1.0 |
| 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° | 354.7 | 40.4 |
| 0°-40° | 518.2 | 59.0 |
| 0°-60° | 766.6 | 87.2 |
| 0°-90° | 879.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 879.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 522 | 522 | 522 | 522 | 522 | |
| 5° | 575 | 555 | 523 | 477 | 467 | 56 |
| 15° | 596 | 597 | 498 | 381 | 326 | 162 |
| 25° | 303 | 497 | 443 | 266 | 230 | 145 |
| 35° | 165 | 273 | 367 | 198 | 171 | 104 |
| 45° | 110 | 153 | 277 | 146 | 122 | 86 |
| 55° | 74 | 93 | 189 | 102 | 87 | 65 |
| 65° | 40 | 51 | 112 | 62 | 53 | 40 |
| 75° | 20 | 23 | 53 | 32 | 29 | 22 |
| 85° | 5 | 6 | 12 | 9 | 8 | 6 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P243267

CATALOG NUMBER: S122RDRP-H290D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 |
| 2.5° | 549.2 | 549.9 | 550.2 | 549.4 | 547.5 | 547.7 | 545.9 | 543.0 | 539.5 | 536.2 | 538.1 |
| 5° | 575.1 | 576.0 | 575.8 | 574.3 | 572.4 | 570.7 | 567.8 | 563.7 | 559.4 | 555.0 | 554.1 |
| 7.5° | 599.0 | 600.9 | 600.4 | 597.5 | 596.1 | 593.7 | 588.8 | 584.2 | 577.7 | 571.4 | 568.8 |
| 10° | 612.7 | 614.2 | 613.4 | 612.7 | 611.1 | 608.7 | 604.3 | 599.9 | 592.7 | 586.1 | 582.3 |
| 12.5° | 611.6 | 613.0 | 613.7 | 614.4 | 613.9 | 613.0 | 611.1 | 607.4 | 601.6 | 595.4 | 590.7 |
| 15° | 595.6 | 593.4 | 591.9 | 596.1 | 597.7 | 603.5 | 604.8 | 605.3 | 601.4 | 596.8 | 595.6 |
| 17.5° | 546.8 | 547.5 | 559.3 | 557.4 | 559.9 | 574.1 | 579.7 | 587.4 | 590.7 | 589.6 | 591.7 |
| 20° | 488.8 | 480.8 | 486.6 | 495.1 | 503.1 | 523.8 | 537.4 | 549.5 | 563.5 | 571.4 | 578.9 |
| 22.5° | 387.7 | 387.9 | 401.9 | 415.9 | 434.0 | 456.3 | 477.2 | 500.4 | 525.3 | 540.5 | 558.1 |
| 25° | 303.1 | 311.3 | 317.4 | 323.6 | 349.9 | 371.4 | 406.0 | 434.2 | 468.5 | 497.3 | 526.8 |
| 27.5° | 245.1 | 253.6 | 254.6 | 268.4 | 284.0 | 301.4 | 324.1 | 368.5 | 403.6 | 445.9 | 482.5 |
| 30° | 209.2 | 210.9 | 214.5 | 218.1 | 229.5 | 245.8 | 270.2 | 298.0 | 337.1 | 385.4 | 434.3 |
| 32.5° | 183.3 | 182.9 | 186.5 | 192.2 | 198.5 | 209.4 | 223.2 | 246.3 | 281.6 | 320.0 | 377.2 |
| 35° | 164.9 | 164.3 | 166.9 | 169.0 | 172.7 | 181.6 | 194.0 | 209.2 | 234.7 | 272.9 | 317.3 |
| 37.5° | 147.5 | 148.5 | 150.0 | 152.2 | 157.2 | 162.8 | 171.2 | 183.8 | 203.9 | 229.2 | 271.7 |
| 40° | 133.8 | 135.0 | 136.7 | 138.2 | 142.0 | 146.6 | 152.2 | 162.3 | 175.8 | 197.8 | 230.4 |
| 42.5° | 121.5 | 122.0 | 123.4 | 125.6 | 128.3 | 132.4 | 137.9 | 145.6 | 156.8 | 172.2 | 200.7 |
| 45° | 110.2 | 110.2 | 111.8 | 113.8 | 115.5 | 119.5 | 123.7 | 131.1 | 139.8 | 152.9 | 173.2 |
| 47.5° | 100.7 | 100.9 | 101.7 | 102.1 | 103.9 | 107.5 | 112.1 | 117.9 | 125.1 | 135.2 | 154.1 |
| 50° | 92.5 | 93.2 | 93.5 | 94.0 | 94.7 | 96.6 | 99.8 | 104.3 | 112.1 | 121.0 | 133.6 |
| 52.5° | 84.0 | 84.8 | 85.5 | 86.5 | 87.5 | 87.7 | 90.1 | 93.0 | 98.5 | 107.7 | 117.9 |
| 55° | 74.1 | 74.7 | 76.1 | 77.0 | 78.3 | 79.5 | 81.4 | 83.5 | 87.0 | 93.2 | 103.8 |
| 57.5° | 62.8 | 63.0 | 64.3 | 65.2 | 67.9 | 70.7 | 72.4 | 74.6 | 77.1 | 81.4 | 89.4 |
| 60° | 51.5 | 52.1 | 52.2 | 52.9 | 55.3 | 58.2 | 61.6 | 65.0 | 67.8 | 71.5 | 77.1 |
| 62.5° | 45.4 | 45.6 | 46.1 | 46.8 | 46.9 | 48.3 | 49.3 | 53.4 | 58.2 | 61.9 | 65.7 |
| 65° | 39.9 | 40.1 | 40.1 | 40.6 | 41.3 | 42.0 | 42.5 | 44.0 | 46.1 | 51.4 | 56.0 |
| 67.5° | 34.8 | 34.6 | 35.0 | 35.5 | 35.7 | 36.2 | 37.0 | 37.9 | 39.3 | 40.8 | 45.6 |
| 70° | 29.7 | 29.7 | 29.5 | 30.0 | 30.5 | 30.7 | 31.2 | 32.1 | 32.9 | 34.3 | 35.8 |
| 72.5° | 24.6 | 24.9 | 24.9 | 25.3 | 25.4 | 26.1 | 26.5 | 26.8 | 28.0 | 28.7 | 29.9 |
| 75° | 20.5 | 20.3 | 20.8 | 20.6 | 21.0 | 21.2 | 21.7 | 22.2 | 22.5 | 23.2 | 24.2 |
| 77.5° | 16.4 | 16.0 | 16.4 | 16.2 | 16.6 | 16.9 | 16.9 | 17.4 | 17.7 | 18.4 | 18.9 |
| 80° | 11.9 | 11.9 | 12.1 | 12.5 | 12.5 | 12.6 | 13.0 | 12.8 | 13.5 | 13.7 | 14.2 |
| 82.5° | 8.2 | 8.4 | 8.4 | 8.5 | 8.5 | 8.5 | 8.9 | 8.9 | 9.0 | 9.4 | 9.6 |
| 85° | 4.8 | 4.6 | 4.8 | 4.8 | 4.8 | 4.9 | 5.1 | 4.9 | 5.3 | 5.6 | 5.6 |
| 87.5° | 1.4 | 1.4 | 1.5 | 1.7 | 1.7 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.2 |
| 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: P243267

CATALOG NUMBER: S122RDRP-H290D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 |
| 2.5° | 538.1 | 537.2 | 535.0 | 533.0 | 529.2 | 526.1 | 525.1 | 525.3 | 520.7 | 515.9 | 514.5 |
| 5° | 552.9 | 549.9 | 545.4 | 540.8 | 535.2 | 529.6 | 526.0 | 523.1 | 515.9 | 508.7 | 504.6 |
| 7.5° | 565.2 | 560.3 | 553.8 | 546.5 | 539.1 | 530.8 | 525.0 | 519.5 | 509.6 | 499.9 | 494.6 |
| 10° | 576.5 | 569.5 | 560.6 | 551.1 | 541.3 | 530.4 | 522.1 | 513.5 | 501.1 | 490.1 | 481.1 |
| 12.5° | 587.2 | 576.2 | 567.1 | 553.3 | 542.5 | 527.7 | 516.2 | 506.4 | 491.7 | 478.0 | 468.0 |
| 15° | 588.3 | 580.4 | 568.3 | 554.0 | 537.6 | 523.8 | 509.4 | 497.8 | 481.1 | 465.9 | 448.7 |
| 17.5° | 588.1 | 582.0 | 569.3 | 554.6 | 535.0 | 516.9 | 501.4 | 486.2 | 467.1 | 449.4 | 434.5 |
| 20° | 582.0 | 577.7 | 566.8 | 549.4 | 529.6 | 508.7 | 491.5 | 473.6 | 451.2 | 433.0 | 416.8 |
| 22.5° | 567.4 | 568.5 | 559.9 | 544.4 | 523.1 | 499.9 | 479.9 | 459.2 | 436.4 | 415.4 | 394.9 |
| 25° | 542.9 | 553.8 | 551.2 | 536.7 | 514.0 | 488.6 | 465.9 | 442.7 | 418.1 | 395.8 | 376.8 |
| 27.5° | 512.3 | 532.8 | 537.2 | 526.0 | 504.3 | 475.8 | 450.0 | 424.8 | 399.7 | 375.6 | 356.2 |
| 30° | 476.1 | 506.7 | 518.0 | 511.8 | 491.8 | 462.0 | 432.1 | 407.4 | 379.9 | 354.3 | 333.8 |
| 32.5° | 430.6 | 473.4 | 493.2 | 495.1 | 478.7 | 446.6 | 413.5 | 386.9 | 358.7 | 334.5 | 312.5 |
| 35° | 379.7 | 432.3 | 464.5 | 473.2 | 461.5 | 429.7 | 394.9 | 366.8 | 336.7 | 312.3 | 290.1 |
| 37.5° | 328.5 | 390.3 | 432.6 | 449.5 | 441.7 | 411.0 | 374.1 | 345.6 | 315.9 | 291.0 | 270.2 |
| 40° | 281.4 | 340.1 | 395.1 | 421.5 | 419.1 | 390.6 | 353.4 | 323.9 | 293.7 | 270.7 | 247.8 |
| 42.5° | 239.3 | 295.9 | 356.3 | 391.8 | 393.7 | 368.8 | 330.7 | 301.0 | 272.0 | 249.2 | 225.3 |
| 45° | 206.0 | 255.8 | 315.7 | 358.0 | 366.2 | 345.8 | 307.2 | 276.6 | 250.2 | 228.7 | 204.8 |
| 47.5° | 179.4 | 218.1 | 273.7 | 323.4 | 337.9 | 320.0 | 283.1 | 254.1 | 229.2 | 210.8 | 188.2 |
| 50° | 156.3 | 192.7 | 239.9 | 285.9 | 307.2 | 293.7 | 259.2 | 231.6 | 209.1 | 191.3 | 171.5 |
| 52.5° | 135.8 | 164.0 | 205.0 | 249.0 | 277.7 | 265.4 | 236.0 | 210.6 | 189.4 | 172.9 | 156.3 |
| 55° | 119.0 | 142.5 | 178.7 | 217.9 | 244.4 | 237.6 | 211.4 | 188.8 | 170.1 | 154.4 | 141.0 |
| 57.5° | 101.5 | 121.3 | 150.5 | 185.5 | 211.4 | 210.4 | 188.9 | 167.1 | 152.4 | 137.6 | 127.8 |
| 60° | 86.4 | 102.4 | 126.1 | 155.8 | 181.9 | 182.1 | 165.4 | 148.1 | 135.5 | 122.7 | 113.5 |
| 62.5° | 72.9 | 85.7 | 106.3 | 130.2 | 151.0 | 156.3 | 143.9 | 128.8 | 118.6 | 108.7 | 100.9 |
| 65° | 61.3 | 70.8 | 86.4 | 108.0 | 124.4 | 131.6 | 123.4 | 112.5 | 103.9 | 95.1 | 88.1 |
| 67.5° | 50.5 | 57.5 | 68.9 | 86.0 | 102.4 | 107.7 | 104.3 | 95.9 | 89.8 | 82.4 | 77.1 |
| 70° | 39.8 | 45.7 | 53.8 | 66.6 | 80.0 | 87.4 | 86.4 | 80.4 | 75.3 | 70.0 | 65.0 |
| 72.5° | 31.6 | 35.0 | 41.1 | 50.3 | 61.1 | 69.3 | 69.6 | 66.6 | 62.3 | 57.9 | 54.6 |
| 75° | 25.4 | 27.0 | 29.9 | 37.0 | 45.6 | 52.4 | 54.8 | 53.2 | 49.8 | 47.1 | 44.9 |
| 77.5° | 19.6 | 21.0 | 22.9 | 26.3 | 32.9 | 38.2 | 41.1 | 41.3 | 39.3 | 36.9 | 35.2 |
| 80° | 14.7 | 15.2 | 16.6 | 18.3 | 21.7 | 26.3 | 29.7 | 29.7 | 28.5 | 27.3 | 26.3 |
| 82.5° | 10.1 | 10.6 | 11.3 | 12.1 | 13.8 | 16.6 | 19.6 | 20.1 | 19.5 | 19.1 | 17.7 |
| 85° | 5.6 | 6.1 | 6.5 | 7.0 | 7.7 | 9.0 | 11.3 | 11.9 | 12.1 | 11.1 | 10.4 |
| 87.5° | 2.2 | 2.2 | 2.4 | 2.6 | 2.7 | 3.2 | 4.1 | 5.1 | 5.1 | 4.6 | 4.4 |
| 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: P243267

CATALOG NUMBER: S122RDRP-H290D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 | 521.5 |
| 2.5° | 512.8 | 510.4 | 507.4 | 504.6 | 500.9 | 497.1 | 496.5 | 497.8 | 498.2 | 496.5 | 497.0 |
| 5° | 500.7 | 496.3 | 492.5 | 486.4 | 482.5 | 477.3 | 473.9 | 473.9 | 473.9 | 471.4 | 469.0 |
| 7.5° | 488.1 | 482.1 | 474.9 | 469.1 | 461.1 | 454.5 | 451.2 | 449.7 | 446.6 | 444.1 | 441.2 |
| 10° | 473.4 | 465.1 | 456.2 | 447.1 | 440.1 | 430.9 | 425.5 | 422.0 | 416.8 | 414.5 | 410.3 |
| 12.5° | 456.2 | 447.8 | 437.1 | 422.4 | 420.3 | 409.1 | 401.4 | 395.1 | 388.6 | 383.3 | 381.4 |
| 15° | 442.4 | 427.8 | 413.5 | 403.1 | 387.9 | 381.3 | 370.0 | 369.0 | 363.7 | 348.1 | 336.0 |
| 17.5° | 420.0 | 407.0 | 391.2 | 379.6 | 367.4 | 352.6 | 340.6 | 328.9 | 317.6 | 306.7 | 306.3 |
| 20° | 400.2 | 385.0 | 370.0 | 357.4 | 336.2 | 315.0 | 307.7 | 297.0 | 290.3 | 281.6 | 279.0 |
| 22.5° | 378.5 | 362.7 | 343.9 | 325.5 | 300.7 | 287.4 | 279.4 | 270.8 | 264.2 | 260.3 | 256.3 |
| 25° | 356.7 | 340.8 | 315.9 | 293.2 | 276.3 | 265.9 | 259.1 | 249.8 | 245.1 | 241.7 | 236.5 |
| 27.5° | 335.3 | 315.2 | 288.9 | 270.8 | 257.2 | 245.4 | 239.3 | 231.8 | 226.5 | 222.0 | 218.8 |
| 30° | 314.2 | 286.5 | 264.2 | 250.2 | 236.2 | 228.9 | 220.8 | 215.2 | 211.3 | 207.2 | 201.9 |
| 32.5° | 291.0 | 262.0 | 247.5 | 230.2 | 222.0 | 211.4 | 205.6 | 199.8 | 194.7 | 191.8 | 189.9 |
| 35° | 264.0 | 240.6 | 227.7 | 215.0 | 204.6 | 197.6 | 189.4 | 185.8 | 183.1 | 177.5 | 175.1 |
| 37.5° | 241.1 | 224.2 | 210.6 | 199.3 | 189.8 | 182.3 | 178.5 | 172.4 | 168.4 | 166.6 | 164.0 |
| 40° | 222.2 | 207.2 | 195.4 | 184.0 | 176.0 | 170.5 | 163.8 | 160.6 | 155.5 | 153.6 | 151.5 |
| 42.5° | 205.8 | 192.0 | 179.7 | 171.0 | 164.0 | 156.5 | 153.1 | 147.6 | 145.4 | 140.8 | 139.1 |
| 45° | 189.3 | 177.0 | 166.2 | 157.7 | 151.0 | 146.4 | 140.3 | 136.9 | 132.9 | 130.6 | 125.9 |
| 47.5° | 172.7 | 161.8 | 152.9 | 145.7 | 139.9 | 134.3 | 129.2 | 126.3 | 121.3 | 118.8 | 116.4 |
| 50° | 159.9 | 149.3 | 141.0 | 133.8 | 127.8 | 122.2 | 119.0 | 114.2 | 109.7 | 106.8 | 106.0 |
| 52.5° | 144.7 | 135.5 | 127.8 | 122.4 | 116.4 | 112.3 | 107.9 | 102.6 | 100.3 | 97.4 | 96.8 |
| 55° | 131.2 | 123.7 | 117.2 | 111.4 | 106.3 | 101.7 | 96.6 | 92.8 | 91.1 | 89.8 | 88.7 |
| 57.5° | 118.6 | 111.4 | 105.5 | 100.2 | 95.7 | 91.0 | 86.7 | 84.5 | 82.9 | 81.4 | 80.4 |
| 60° | 106.2 | 99.7 | 94.2 | 89.8 | 85.2 | 80.6 | 77.5 | 75.6 | 74.4 | 72.2 | 71.5 |
| 62.5° | 95.1 | 89.1 | 83.5 | 79.4 | 75.1 | 71.5 | 68.9 | 66.4 | 64.5 | 62.8 | 59.2 |
| 65° | 82.9 | 77.7 | 73.4 | 69.3 | 65.2 | 62.5 | 59.6 | 56.7 | 54.3 | 54.3 | 54.3 |
| 67.5° | 72.2 | 67.6 | 63.1 | 59.6 | 56.0 | 52.7 | 49.8 | 49.7 | 48.8 | 48.5 | 48.0 |
| 70° | 61.3 | 58.0 | 53.9 | 50.0 | 46.4 | 44.9 | 44.4 | 43.5 | 42.5 | 42.3 | 41.6 |
| 72.5° | 51.4 | 47.6 | 43.9 | 40.4 | 39.8 | 39.1 | 38.1 | 37.2 | 36.5 | 36.0 | 35.7 |
| 75° | 42.0 | 38.2 | 35.2 | 34.3 | 33.4 | 32.3 | 31.4 | 30.7 | 30.4 | 30.4 | 30.2 |
| 77.5° | 32.1 | 29.9 | 28.5 | 27.1 | 26.5 | 25.8 | 25.3 | 24.9 | 24.4 | 24.6 | 24.2 |
| 80° | 23.6 | 22.9 | 21.7 | 20.8 | 20.5 | 19.8 | 19.5 | 19.3 | 18.9 | 18.9 | 18.8 |
| 82.5° | 16.9 | 15.7 | 15.2 | 14.7 | 14.3 | 14.0 | 14.2 | 14.0 | 13.8 | 13.7 | 13.8 |
| 85° | 9.7 | 9.6 | 9.2 | 9.2 | 9.2 | 9.0 | 9.0 | 9.0 | 8.9 | 8.7 | 8.7 |
| 87.5° | 4.3 | 4.4 | 4.4 | 4.1 | 4.6 | 4.6 | 4.4 | 4.4 | 4.3 | 4.6 | 4.3 |
| 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: P243267

CATALOG NUMBER: S122RDRP-H290D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|-------|-------|-------|-------|-------|
| 0° | 521.5 | 521.5 | 521.5 | 521.5 |
| 2.5° | 494.7 | 494.6 | 493.6 | 491.8 |
| 5° | 468.0 | 467.3 | 465.6 | 466.9 |
| 7.5° | 439.3 | 437.4 | 435.7 | 436.6 |
| 10° | 408.6 | 407.9 | 406.9 | 404.8 |
| 12.5° | 374.6 | 377.3 | 374.4 | 380.9 |
| 15° | 324.3 | 336.4 | 321.2 | 326.3 |
| 17.5° | 299.2 | 299.3 | 297.3 | 294.9 |
| 20° | 275.6 | 269.6 | 271.9 | 267.9 |
| 22.5° | 252.9 | 251.6 | 250.9 | 249.5 |
| 25° | 232.6 | 230.1 | 229.2 | 230.1 |
| 27.5° | 217.6 | 216.4 | 213.2 | 212.6 |
| 30° | 198.8 | 198.3 | 197.3 | 196.9 |
| 32.5° | 187.0 | 184.8 | 184.3 | 182.3 |
| 35° | 173.9 | 172.7 | 171.9 | 171.3 |
| 37.5° | 160.8 | 160.1 | 158.5 | 159.4 |
| 40° | 150.0 | 146.6 | 145.2 | 145.1 |
| 42.5° | 138.2 | 136.4 | 133.6 | 132.8 |
| 45° | 124.6 | 123.7 | 122.9 | 122.5 |
| 47.5° | 112.6 | 112.1 | 111.1 | 110.6 |
| 50° | 104.1 | 102.7 | 102.6 | 102.4 |
| 52.5° | 95.9 | 95.4 | 94.9 | 95.6 |
| 55° | 88.2 | 87.5 | 87.0 | 87.0 |
| 57.5° | 79.9 | 78.7 | 77.7 | 77.8 |
| 60° | 70.1 | 69.5 | 68.6 | 68.3 |
| 62.5° | 58.9 | 58.9 | 58.7 | 58.7 |
| 65° | 53.6 | 53.2 | 53.1 | 53.2 |
| 67.5° | 47.8 | 47.4 | 46.9 | 47.1 |
| 70° | 41.1 | 41.0 | 41.1 | 41.0 |
| 72.5° | 35.2 | 35.0 | 35.2 | 35.5 |
| 75° | 29.7 | 29.5 | 29.4 | 29.4 |
| 77.5° | 24.1 | 23.9 | 23.6 | 23.9 |
| 80° | 18.8 | 18.6 | 18.4 | 18.4 |
| 82.5° | 13.3 | 13.5 | 13.3 | 13.3 |
| 85° | 8.7 | 8.9 | 8.7 | 8.5 |
| 87.5° | 4.4 | 4.6 | 4.3 | 4.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P243267
 CATALOG NUMBER: S122RDRP-H290D930-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 | 12.82 | 14.27 | 13.18 | 14.59 | 14.90 | 19.15 | 20.60 | 19.51 | 20.92 | 21.23 |
| | 3H | 13.99 | 15.29 | 14.37 | 15.62 | 15.98 | 20.40 | 21.70 | 20.78 | 22.03 | 22.39 |
| | 4H | 14.45 | 15.67 | 14.85 | 16.02 | 16.40 | 20.83 | 22.05 | 21.23 | 22.40 | 22.78 |
| | 6H | 14.78 | 15.90 | 15.19 | 16.27 | 16.66 | 21.13 | 22.25 | 21.54 | 22.62 | 23.01 |
| | 8H | 14.88 | 15.95 | 15.30 | 16.34 | 16.74 | 21.21 | 22.28 | 21.64 | 22.67 | 23.07 |
| | 12H | 14.93 | 15.95 | 15.36 | 16.34 | 16.77 | 21.26 | 22.28 | 21.69 | 22.67 | 23.10 |
| 4H | 2H | 13.54 | 14.76 | 13.94 | 15.11 | 15.49 | 19.13 | 20.35 | 19.53 | 20.70 | 21.08 |
| | 3H | 14.87 | 15.88 | 15.28 | 16.28 | 16.68 | 20.52 | 21.53 | 20.93 | 21.93 | 22.33 |
| | 4H | 15.42 | 16.33 | 15.85 | 16.75 | 17.19 | 21.05 | 21.95 | 21.48 | 22.37 | 22.81 |
| | 6H | 15.85 | 16.64 | 16.31 | 17.08 | 17.55 | 21.46 | 22.25 | 21.92 | 22.69 | 23.16 |
| | 8H | 15.98 | 16.72 | 16.45 | 17.16 | 17.63 | 21.59 | 22.33 | 22.06 | 22.77 | 23.24 |
| | 12H | 16.07 | 16.72 | 16.55 | 17.20 | 17.67 | 21.69 | 22.34 | 22.17 | 22.82 | 23.29 |
| 8H | 4H | 15.77 | 16.50 | 16.23 | 16.95 | 17.42 | 21.04 | 21.78 | 21.51 | 22.22 | 22.69 |
| | 6H | 16.29 | 16.90 | 16.79 | 17.39 | 17.87 | 21.51 | 22.11 | 22.01 | 22.61 | 23.09 |
| | 8H | 16.48 | 17.02 | 16.99 | 17.53 | 18.02 | 21.68 | 22.22 | 22.19 | 22.73 | 23.22 |
| | 12H | 16.61 | 17.09 | 17.12 | 17.58 | 18.15 | 21.82 | 22.30 | 22.33 | 22.79 | 23.36 |
| 12H | 4H | 15.81 | 16.46 | 16.29 | 16.94 | 17.42 | 21.02 | 21.68 | 21.51 | 22.16 | 22.63 |
| | 6H | 16.35 | 16.90 | 16.87 | 17.41 | 17.90 | 21.49 | 22.03 | 22.00 | 22.54 | 23.03 |
| | 8H | 16.59 | 17.07 | 17.10 | 17.56 | 18.13 | 21.69 | 22.17 | 22.20 | 22.66 | 23.23 |