

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: P242392

Luminaire Tested: S122RDRP-S290D830-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242392
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-29)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D830-X4F0-XX-UDD-A-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

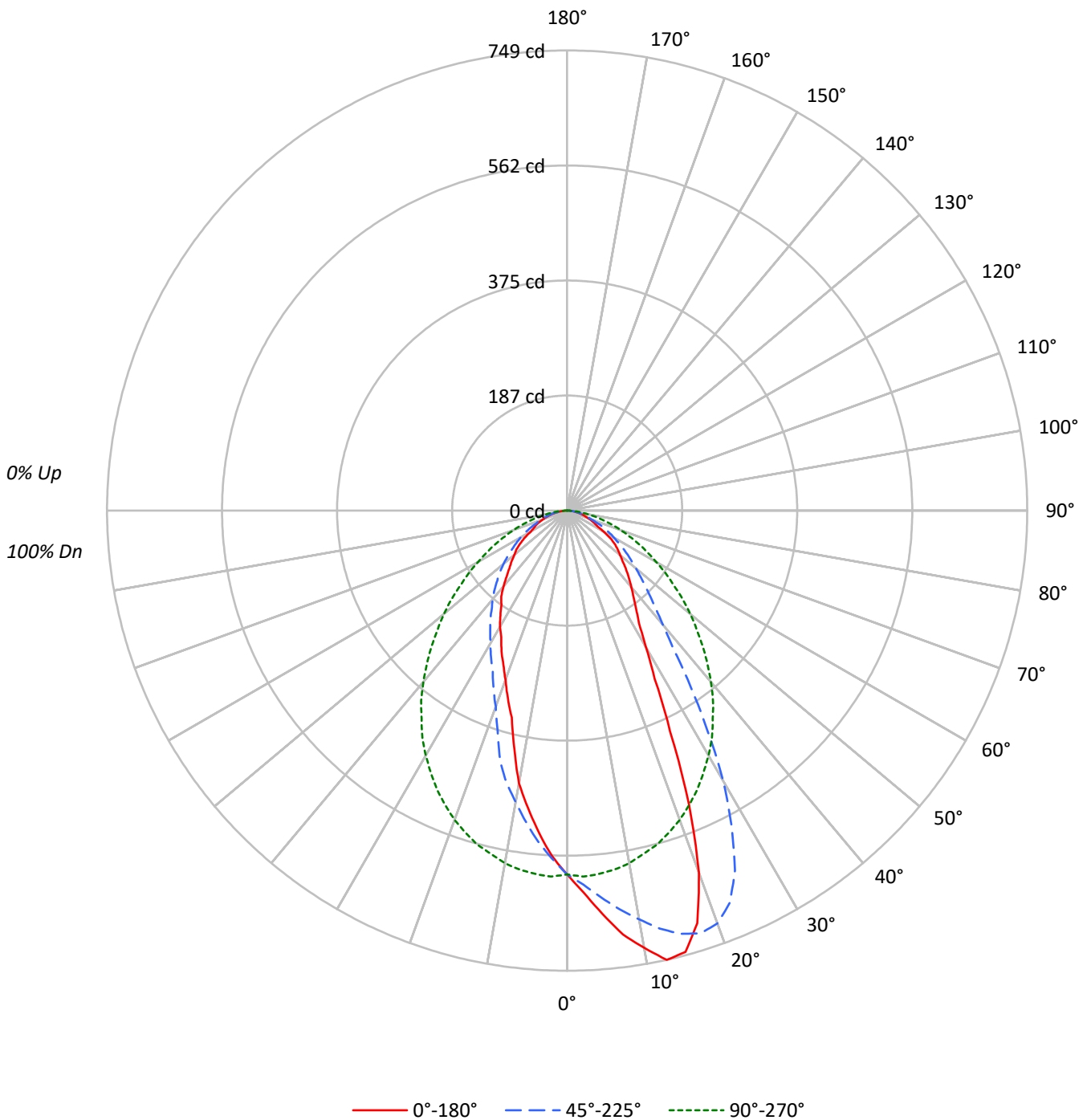
Lumens per Lamp: N/A
Luminaire Lumens: 1023.4 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 1.16 / 1.02
Luminous Opening: Rectangular (W 3.88' x L: 0.15' x H: 0')
CIE Type: Direct

Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): 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: P242392

CATALOG NUMBER: S122RDRP-S290D830-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P242392

CATALOG NUMBER: S122RDRP-S290D830-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 | 111 | 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 | 87 | 83 | 80 | 84 | 81 | 78 | | | | | 76 | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 73 | 69 | 76 | 72 | 68 | | | | | 66 | | | | |
| 4 | 87 | 77 | 69 | 63 | 85 | 76 | 68 | 63 | 73 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | | | | | 59 | | | | |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 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 | | | | | 39 | | | | |
| 9 | 62 | 50 | 43 | 38 | 61 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 47 | 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° | 11280 | 11280 | 11280 | 11280 | 11280 |
| 5° | 12598 | 12078 | 11352 | 10344 | 10065 |
| 10° | 13978 | 13067 | 11272 | 9321 | 8725 |
| 15° | 14665 | 14064 | 11106 | 8314 | 6874 |
| 20° | 12713 | 14499 | 10861 | 6886 | 5947 |
| 25° | 8337 | 13585 | 10527 | 6030 | 5311 |
| 30° | 5613 | 11184 | 10120 | 5490 | 4806 |
| 35° | 4546 | 8169 | 9608 | 5062 | 4334 |
| 40° | 4043 | 6002 | 9051 | 4672 | 4011 |
| 45° | 3658 | 4989 | 8399 | 4329 | 3580 |
| 50° | 3331 | 4323 | 7749 | 4000 | 3316 |
| 55° | 3128 | 3826 | 7030 | 3616 | 3088 |
| 60° | 2617 | 3333 | 6373 | 3314 | 2587 |
| 65° | 2208 | 2966 | 5787 | 2948 | 2506 |
| 70° | 2038 | 2361 | 5168 | 2601 | 2361 |
| 75° | 1906 | 2134 | 4497 | 2451 | 2178 |
| 80° | 1766 | 1942 | 3697 | 2139 | 1942 |
| 85° | 1617 | 1661 | 2929 | 1705 | 1705 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 70°
 Vertical Angle: 45°
 Luminance: 12235 cd/sqm



TEST NUMBER: P242392

CATALOG NUMBER: S122RDRP-S290D830-X4F0-XX-UDD-A-W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.2 | 5.5 |
| 10°-20° | 156.8 | 15.3 |
| 20°-30° | 201.8 | 19.7 |
| 30°-40° | 191.4 | 18.7 |
| 40°-50° | 164.0 | 16.0 |
| 50°-60° | 124.9 | 12.2 |
| 60°-70° | 78.8 | 7.7 |
| 70°-80° | 39.3 | 3.8 |
| 80°-90° | 10.1 | 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° | 414.7 | 40.5 |
| 0°-40° | 606.2 | 59.2 |
| 0°-60° | 895.2 | 87.5 |
| 0°-90° | 1023.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1023.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 592 | 592 | 592 | 592 | 592 | |
| 5° | 659 | 632 | 594 | 541 | 526 | 65 |
| 15° | 744 | 713 | 563 | 422 | 349 | 202 |
| 25° | 397 | 646 | 501 | 287 | 253 | 187 |
| 35° | 196 | 351 | 413 | 218 | 186 | 124 |
| 45° | 136 | 185 | 312 | 161 | 133 | 105 |
| 55° | 94 | 115 | 212 | 109 | 93 | 83 |
| 65° | 49 | 66 | 128 | 65 | 56 | 50 |
| 75° | 26 | 29 | 61 | 33 | 30 | 27 |
| 85° | 7 | 8 | 13 | 8 | 8 | 8 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P242392

CATALOG NUMBER: S122RDRP-S290D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 |
| 2.5° | 622.3 | 622.9 | 623.5 | 622.1 | 622.1 | 620.8 | 618.2 | 616.1 | 610.3 | 609.5 | 609.5 |
| 5° | 658.9 | 658.5 | 659.3 | 656.6 | 652.9 | 652.1 | 648.2 | 643.1 | 637.7 | 631.7 | 630.5 |
| 7.5° | 695.9 | 693.5 | 692.4 | 693.7 | 689.8 | 684.4 | 677.8 | 671.7 | 662.4 | 654.8 | 650.1 |
| 10° | 722.7 | 729.5 | 725.4 | 718.2 | 719.6 | 709.9 | 704.8 | 695.9 | 688.5 | 675.6 | 672.7 |
| 12.5° | 749.0 | 750.7 | 750.1 | 746.8 | 744.1 | 738.1 | 730.7 | 723.3 | 708.1 | 696.8 | 684.8 |
| 15° | 743.7 | 747.6 | 748.6 | 747.4 | 748.4 | 748.0 | 744.3 | 737.9 | 726.0 | 713.2 | 702.1 |
| 17.5° | 704.2 | 708.7 | 712.4 | 715.7 | 720.8 | 730.9 | 734.0 | 735.2 | 730.3 | 721.3 | 712.0 |
| 20° | 627.2 | 622.7 | 641.6 | 651.3 | 659.5 | 680.1 | 697.8 | 704.6 | 715.5 | 715.3 | 713.2 |
| 22.5° | 518.2 | 520.6 | 538.3 | 550.3 | 578.2 | 598.8 | 619.6 | 649.9 | 673.5 | 691.0 | 701.7 |
| 25° | 396.7 | 404.6 | 422.5 | 438.1 | 464.9 | 503.1 | 537.9 | 578.2 | 616.3 | 646.4 | 675.0 |
| 27.5° | 308.7 | 309.7 | 326.0 | 341.8 | 358.3 | 391.4 | 437.9 | 486.3 | 540.6 | 579.7 | 629.1 |
| 30° | 255.2 | 253.9 | 259.9 | 268.7 | 282.3 | 306.6 | 339.5 | 386.9 | 441.0 | 508.5 | 568.6 |
| 32.5° | 217.3 | 217.7 | 221.8 | 227.8 | 238.5 | 252.9 | 272.9 | 309.1 | 359.5 | 425.6 | 498.6 |
| 35° | 195.5 | 195.3 | 198.6 | 203.3 | 208.0 | 218.5 | 234.0 | 254.1 | 289.3 | 351.3 | 423.3 |
| 37.5° | 177.4 | 178.4 | 179.9 | 182.9 | 188.7 | 194.9 | 204.5 | 218.7 | 245.5 | 284.0 | 348.6 |
| 40° | 162.6 | 163.0 | 165.2 | 167.7 | 170.8 | 175.3 | 182.9 | 193.8 | 212.2 | 241.4 | 285.6 |
| 42.5° | 149.0 | 149.4 | 150.8 | 153.1 | 155.4 | 159.9 | 165.9 | 174.9 | 188.9 | 210.1 | 244.7 |
| 45° | 135.8 | 135.8 | 137.3 | 138.3 | 141.0 | 145.1 | 150.2 | 158.0 | 168.3 | 185.2 | 209.5 |
| 47.5° | 123.1 | 123.1 | 124.1 | 125.9 | 127.8 | 131.1 | 136.4 | 143.0 | 150.4 | 164.2 | 185.8 |
| 50° | 112.4 | 112.6 | 113.2 | 114.6 | 115.6 | 118.5 | 122.4 | 128.0 | 135.8 | 145.9 | 163.2 |
| 52.5° | 103.7 | 103.5 | 104.3 | 104.7 | 105.4 | 107.2 | 109.9 | 114.6 | 121.4 | 129.8 | 143.4 |
| 55° | 94.2 | 93.4 | 94.7 | 95.7 | 96.3 | 97.1 | 98.8 | 101.9 | 107.8 | 115.2 | 125.9 |
| 57.5° | 83.1 | 82.7 | 83.3 | 84.4 | 86.2 | 88.3 | 89.3 | 91.4 | 94.5 | 100.2 | 111.5 |
| 60° | 68.7 | 68.7 | 70.6 | 71.2 | 73.5 | 76.3 | 79.2 | 80.9 | 84.0 | 87.5 | 95.3 |
| 62.5° | 56.0 | 56.2 | 56.8 | 57.4 | 58.4 | 62.1 | 66.5 | 70.6 | 73.5 | 76.8 | 81.3 |
| 65° | 49.0 | 49.4 | 49.4 | 49.8 | 50.6 | 51.4 | 53.1 | 56.0 | 61.1 | 65.8 | 69.8 |
| 67.5° | 42.8 | 42.8 | 43.0 | 43.4 | 43.6 | 44.7 | 45.3 | 46.7 | 47.7 | 53.1 | 58.4 |
| 70° | 36.6 | 37.2 | 37.0 | 37.5 | 37.7 | 38.1 | 38.9 | 39.5 | 41.4 | 42.4 | 45.3 |
| 72.5° | 30.9 | 31.3 | 31.3 | 31.5 | 32.1 | 32.1 | 32.7 | 33.3 | 34.4 | 35.2 | 36.4 |
| 75° | 25.9 | 25.7 | 25.9 | 26.3 | 26.5 | 26.8 | 26.8 | 27.6 | 28.2 | 29.0 | 30.0 |
| 77.5° | 21.0 | 21.2 | 21.2 | 21.2 | 21.2 | 21.6 | 21.6 | 22.0 | 22.6 | 23.0 | 23.7 |
| 80° | 16.1 | 16.3 | 16.1 | 16.3 | 16.5 | 16.7 | 16.5 | 16.7 | 17.3 | 17.7 | 17.7 |
| 82.5° | 11.5 | 11.5 | 11.7 | 11.7 | 11.7 | 11.7 | 12.1 | 12.1 | 12.6 | 12.3 | 12.6 |
| 85° | 7.4 | 7.2 | 7.2 | 7.2 | 7.4 | 7.6 | 7.4 | 7.4 | 7.6 | 7.6 | 7.6 |
| 87.5° | 3.3 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.7 | 3.5 | 3.7 | 3.5 |
| 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: P242392

CATALOG NUMBER: S122RDRP-S290D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 |
| 2.5° | 609.9 | 608.3 | 606.8 | 603.1 | 601.3 | 597.2 | 596.6 | 596.3 | 591.0 | 585.9 | 584.4 |
| 5° | 627.2 | 623.9 | 619.0 | 613.2 | 607.3 | 601.1 | 597.0 | 593.7 | 585.4 | 577.6 | 573.1 |
| 7.5° | 644.3 | 638.3 | 630.5 | 620.6 | 612.2 | 602.3 | 595.5 | 589.4 | 578.0 | 567.7 | 561.0 |
| 10° | 663.8 | 652.3 | 641.0 | 626.0 | 614.3 | 602.7 | 592.0 | 582.8 | 569.6 | 554.8 | 544.3 |
| 12.5° | 676.0 | 663.0 | 646.4 | 631.7 | 615.7 | 600.3 | 585.0 | 572.5 | 556.4 | 541.0 | 528.0 |
| 15° | 686.7 | 673.1 | 654.2 | 633.2 | 613.6 | 594.5 | 578.0 | 563.2 | 543.1 | 524.7 | 509.5 |
| 17.5° | 696.6 | 677.8 | 658.3 | 634.0 | 612.4 | 589.1 | 568.4 | 549.8 | 527.8 | 506.2 | 488.9 |
| 20° | 700.9 | 682.4 | 658.9 | 634.6 | 607.9 | 579.3 | 556.4 | 535.8 | 511.8 | 487.7 | 467.1 |
| 22.5° | 698.2 | 684.8 | 658.1 | 627.8 | 600.3 | 570.0 | 543.5 | 518.8 | 491.4 | 466.7 | 442.0 |
| 25° | 684.2 | 679.3 | 654.6 | 622.9 | 591.6 | 556.8 | 527.0 | 500.9 | 470.4 | 444.1 | 418.1 |
| 27.5° | 658.5 | 665.7 | 648.2 | 613.8 | 580.1 | 542.6 | 510.1 | 480.7 | 449.6 | 420.2 | 394.3 |
| 30° | 617.7 | 642.2 | 635.7 | 604.4 | 565.5 | 528.9 | 491.2 | 460.1 | 426.4 | 395.9 | 370.4 |
| 32.5° | 562.0 | 606.4 | 616.1 | 591.2 | 550.7 | 509.5 | 469.6 | 438.7 | 403.1 | 370.6 | 345.9 |
| 35° | 502.1 | 562.6 | 590.4 | 573.7 | 533.4 | 490.0 | 449.2 | 413.2 | 377.8 | 346.1 | 321.4 |
| 37.5° | 431.1 | 511.8 | 554.6 | 552.7 | 514.2 | 470.0 | 425.8 | 390.2 | 353.7 | 322.5 | 296.7 |
| 40° | 362.4 | 451.7 | 512.0 | 525.4 | 494.1 | 445.3 | 400.4 | 364.0 | 328.6 | 298.2 | 267.5 |
| 42.5° | 300.6 | 389.5 | 467.1 | 492.8 | 469.6 | 421.2 | 376.2 | 337.7 | 303.5 | 275.1 | 243.6 |
| 45° | 253.1 | 330.9 | 412.6 | 454.2 | 440.4 | 395.5 | 348.0 | 311.8 | 279.4 | 254.5 | 224.5 |
| 47.5° | 219.2 | 275.7 | 357.9 | 412.2 | 410.5 | 367.9 | 320.6 | 285.8 | 255.4 | 232.3 | 206.8 |
| 50° | 191.0 | 238.7 | 305.6 | 369.4 | 374.7 | 340.4 | 295.9 | 261.5 | 233.6 | 209.1 | 189.5 |
| 52.5° | 165.7 | 202.9 | 261.3 | 321.8 | 339.5 | 310.9 | 268.1 | 237.1 | 210.1 | 188.1 | 172.0 |
| 55° | 144.3 | 174.7 | 220.4 | 277.6 | 300.6 | 279.7 | 241.4 | 211.7 | 189.7 | 170.8 | 156.4 |
| 57.5° | 125.5 | 149.4 | 187.5 | 235.4 | 261.5 | 247.3 | 214.6 | 190.1 | 170.6 | 152.9 | 141.4 |
| 60° | 108.0 | 126.8 | 157.8 | 196.3 | 225.9 | 216.7 | 189.7 | 167.3 | 151.2 | 136.4 | 125.7 |
| 62.5° | 91.6 | 107.0 | 132.5 | 161.9 | 188.5 | 186.0 | 165.2 | 147.3 | 133.8 | 120.6 | 111.9 |
| 65° | 76.3 | 88.1 | 108.9 | 133.3 | 155.2 | 157.0 | 141.2 | 128.4 | 115.9 | 105.2 | 97.1 |
| 67.5° | 63.2 | 71.2 | 86.8 | 108.4 | 125.1 | 130.9 | 120.2 | 109.9 | 99.6 | 91.0 | 83.8 |
| 70° | 51.2 | 57.4 | 68.1 | 84.8 | 99.8 | 106.0 | 100.4 | 92.8 | 84.2 | 77.4 | 71.4 |
| 72.5° | 39.1 | 45.1 | 52.3 | 63.4 | 75.7 | 82.5 | 81.5 | 76.5 | 70.0 | 64.6 | 59.1 |
| 75° | 31.3 | 33.1 | 38.5 | 46.7 | 56.8 | 62.6 | 64.0 | 61.1 | 55.6 | 51.2 | 47.9 |
| 77.5° | 24.3 | 25.5 | 28.4 | 33.3 | 40.3 | 45.5 | 47.7 | 47.3 | 43.2 | 40.3 | 37.2 |
| 80° | 18.5 | 19.1 | 20.4 | 22.2 | 27.2 | 32.3 | 33.7 | 33.7 | 31.1 | 30.0 | 27.0 |
| 82.5° | 13.0 | 13.4 | 14.0 | 14.8 | 16.5 | 20.8 | 22.4 | 22.8 | 21.4 | 20.0 | 17.7 |
| 85° | 8.0 | 7.8 | 8.2 | 8.8 | 9.3 | 10.5 | 13.0 | 13.4 | 13.0 | 11.3 | 10.7 |
| 87.5° | 3.5 | 3.7 | 3.7 | 3.5 | 3.7 | 3.9 | 4.9 | 6.0 | 5.1 | 4.5 | 4.1 |
| 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: P242392

CATALOG NUMBER: S122RDRP-S290D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 | 592.2 |
| 2.5° | 581.7 | 580.3 | 577.6 | 573.5 | 571.0 | 566.7 | 563.8 | 565.5 | 565.9 | 565.5 | 565.1 |
| 5° | 568.2 | 563.8 | 557.9 | 552.1 | 546.8 | 541.0 | 537.7 | 536.3 | 533.4 | 531.7 | 530.9 |
| 7.5° | 552.7 | 546.3 | 537.9 | 528.6 | 520.0 | 511.8 | 508.1 | 505.2 | 499.8 | 497.0 | 494.3 |
| 10° | 535.0 | 523.3 | 514.9 | 501.7 | 493.7 | 481.9 | 473.9 | 474.1 | 466.1 | 461.6 | 458.3 |
| 12.5° | 515.5 | 502.3 | 486.9 | 475.4 | 463.4 | 454.6 | 444.5 | 439.5 | 430.9 | 426.6 | 416.3 |
| 15° | 493.5 | 478.4 | 463.6 | 447.6 | 436.3 | 421.6 | 407.6 | 390.6 | 376.8 | 364.8 | 361.6 |
| 17.5° | 470.0 | 451.5 | 436.9 | 420.4 | 402.7 | 376.2 | 358.9 | 348.4 | 340.2 | 334.0 | 329.0 |
| 20° | 445.7 | 426.8 | 410.9 | 382.5 | 356.4 | 339.7 | 327.8 | 320.2 | 311.5 | 304.8 | 301.1 |
| 22.5° | 420.2 | 400.2 | 377.2 | 344.7 | 325.7 | 313.2 | 302.9 | 293.9 | 288.7 | 283.8 | 280.5 |
| 25° | 396.3 | 374.7 | 339.1 | 317.3 | 300.8 | 286.9 | 279.4 | 274.1 | 267.9 | 260.7 | 257.4 |
| 27.5° | 371.4 | 337.1 | 310.1 | 294.3 | 277.4 | 268.5 | 262.2 | 253.3 | 247.8 | 245.1 | 241.4 |
| 30° | 342.8 | 308.5 | 288.5 | 270.8 | 259.7 | 249.6 | 241.8 | 237.3 | 231.9 | 226.4 | 224.1 |
| 32.5° | 310.9 | 285.2 | 266.3 | 252.3 | 241.0 | 232.7 | 227.0 | 218.9 | 215.5 | 212.6 | 207.2 |
| 35° | 285.6 | 264.8 | 247.3 | 235.4 | 224.7 | 217.7 | 210.5 | 206.2 | 199.2 | 196.3 | 194.5 |
| 37.5° | 262.6 | 244.5 | 231.3 | 218.1 | 209.9 | 201.7 | 197.5 | 190.3 | 187.7 | 183.1 | 179.4 |
| 40° | 243.6 | 225.9 | 213.4 | 203.1 | 193.6 | 187.9 | 182.3 | 176.8 | 172.2 | 170.4 | 165.7 |
| 42.5° | 224.3 | 210.7 | 198.2 | 186.6 | 181.1 | 174.9 | 167.5 | 163.8 | 159.1 | 155.8 | 153.3 |
| 45° | 206.8 | 194.0 | 183.3 | 174.1 | 167.1 | 160.7 | 156.2 | 149.4 | 146.7 | 140.8 | 138.3 |
| 47.5° | 191.4 | 179.0 | 168.7 | 159.7 | 152.7 | 149.0 | 142.4 | 136.4 | 132.7 | 128.6 | 125.1 |
| 50° | 174.7 | 164.8 | 155.0 | 147.1 | 141.0 | 135.0 | 128.2 | 125.5 | 118.9 | 117.1 | 115.2 |
| 52.5° | 159.5 | 150.2 | 141.4 | 133.8 | 127.6 | 121.8 | 116.1 | 112.4 | 108.4 | 106.6 | 105.4 |
| 55° | 145.5 | 136.4 | 127.8 | 121.0 | 114.8 | 108.9 | 105.2 | 100.8 | 98.8 | 97.3 | 95.7 |
| 57.5° | 131.1 | 122.9 | 116.1 | 109.1 | 102.9 | 98.0 | 93.4 | 91.0 | 88.9 | 87.3 | 85.0 |
| 60° | 117.5 | 109.7 | 103.7 | 97.3 | 91.0 | 87.0 | 83.8 | 80.7 | 78.2 | 75.3 | 74.5 |
| 62.5° | 103.1 | 96.5 | 91.2 | 85.0 | 79.6 | 76.1 | 73.1 | 70.2 | 67.1 | 62.6 | 61.3 |
| 65° | 90.1 | 84.8 | 79.0 | 73.9 | 68.9 | 65.4 | 60.9 | 57.6 | 56.4 | 56.0 | 55.8 |
| 67.5° | 78.2 | 73.1 | 68.1 | 62.8 | 58.2 | 54.3 | 51.7 | 51.2 | 50.4 | 50.2 | 49.6 |
| 70° | 66.3 | 61.5 | 56.6 | 51.7 | 47.3 | 46.7 | 45.9 | 45.1 | 44.0 | 43.6 | 43.2 |
| 72.5° | 55.6 | 50.6 | 45.7 | 42.0 | 40.7 | 39.9 | 39.1 | 38.3 | 37.7 | 37.2 | 37.0 |
| 75° | 44.2 | 39.7 | 36.4 | 35.0 | 34.0 | 33.3 | 32.1 | 31.5 | 31.1 | 30.5 | 30.2 |
| 77.5° | 33.7 | 30.9 | 29.2 | 28.4 | 27.2 | 26.5 | 25.7 | 25.1 | 24.5 | 24.5 | 24.1 |
| 80° | 24.3 | 23.0 | 22.0 | 20.8 | 20.4 | 19.5 | 19.3 | 18.7 | 18.9 | 18.3 | 18.3 |
| 82.5° | 17.5 | 15.8 | 15.0 | 14.6 | 14.2 | 13.6 | 13.4 | 13.2 | 13.2 | 12.8 | 12.8 |
| 85° | 9.7 | 9.3 | 8.8 | 8.4 | 8.4 | 7.8 | 8.0 | 7.8 | 7.8 | 7.4 | 7.2 |
| 87.5° | 3.9 | 3.7 | 3.3 | 3.3 | 3.3 | 3.1 | 3.1 | 2.9 | 2.9 | 2.9 | 2.7 |
| 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: P242392

CATALOG NUMBER: S122RDRP-S290D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|-------|-------|-------|-------|-------|
| 0° | 592.2 | 592.2 | 592.2 | 592.2 |
| 2.5° | 562.8 | 563.2 | 562.6 | 563.0 |
| 5° | 529.9 | 527.4 | 527.0 | 526.4 |
| 7.5° | 491.0 | 490.8 | 489.5 | 488.1 |
| 10° | 453.7 | 452.7 | 452.5 | 451.1 |
| 12.5° | 410.1 | 402.1 | 401.3 | 397.2 |
| 15° | 356.6 | 355.4 | 351.3 | 348.6 |
| 17.5° | 326.8 | 322.7 | 321.2 | 320.6 |
| 20° | 298.2 | 294.5 | 293.9 | 293.4 |
| 22.5° | 278.4 | 274.5 | 272.7 | 271.2 |
| 25° | 255.4 | 253.9 | 253.1 | 252.7 |
| 27.5° | 237.3 | 233.6 | 233.1 | 232.1 |
| 30° | 222.2 | 221.2 | 219.8 | 218.5 |
| 32.5° | 204.5 | 203.7 | 202.5 | 202.1 |
| 35° | 192.4 | 189.5 | 188.3 | 186.4 |
| 37.5° | 179.0 | 177.4 | 175.3 | 176.1 |
| 40° | 163.0 | 161.9 | 161.5 | 161.3 |
| 42.5° | 150.2 | 146.9 | 145.7 | 145.7 |
| 45° | 137.3 | 134.6 | 132.7 | 132.9 |
| 47.5° | 123.3 | 123.5 | 122.2 | 122.6 |
| 50° | 113.8 | 112.6 | 111.7 | 111.9 |
| 52.5° | 104.7 | 103.7 | 103.1 | 104.1 |
| 55° | 94.7 | 93.4 | 93.2 | 93.0 |
| 57.5° | 83.8 | 83.1 | 82.1 | 81.5 |
| 60° | 71.8 | 70.2 | 68.1 | 67.9 |
| 62.5° | 60.9 | 60.9 | 60.9 | 60.9 |
| 65° | 55.4 | 55.1 | 55.4 | 55.6 |
| 67.5° | 49.6 | 49.2 | 48.8 | 49.0 |
| 70° | 42.8 | 42.6 | 42.4 | 42.4 |
| 72.5° | 36.2 | 36.2 | 36.0 | 35.8 |
| 75° | 30.0 | 29.6 | 29.6 | 29.6 |
| 77.5° | 24.1 | 23.9 | 23.7 | 23.5 |
| 80° | 18.1 | 17.9 | 17.7 | 17.7 |
| 82.5° | 12.8 | 12.6 | 12.6 | 12.3 |
| 85° | 7.4 | 7.6 | 7.4 | 7.8 |
| 87.5° | 2.7 | 2.5 | 2.7 | 2.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P242392
 CATALOG NUMBER: S122RDRP-S290D830-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 | 13.95 | 15.41 | 14.32 | 15.72 | 16.03 | 19.85 | 21.30 | 20.22 | 21.62 | 21.93 |
| | 3H | 15.06 | 16.36 | 15.44 | 16.69 | 17.06 | 21.01 | 22.31 | 21.39 | 22.64 | 23.00 |
| | 4H | 15.52 | 16.74 | 15.92 | 17.09 | 17.47 | 21.40 | 22.62 | 21.81 | 22.97 | 23.35 |
| | 6H | 15.89 | 17.01 | 16.30 | 17.38 | 17.77 | 21.67 | 22.79 | 22.08 | 23.16 | 23.55 |
| | 8H | 16.01 | 17.08 | 16.44 | 17.47 | 17.87 | 21.74 | 22.81 | 22.17 | 23.20 | 23.60 |
| | 12H | 16.09 | 17.11 | 16.52 | 17.49 | 17.92 | 21.78 | 22.80 | 22.21 | 23.18 | 23.61 |
| 4H | 2H | 14.66 | 15.88 | 15.07 | 16.23 | 16.61 | 19.82 | 21.03 | 20.22 | 21.38 | 21.76 |
| | 3H | 15.93 | 16.94 | 16.34 | 17.34 | 17.74 | 21.11 | 22.12 | 21.52 | 22.52 | 22.92 |
| | 4H | 16.48 | 17.39 | 16.92 | 17.80 | 18.24 | 21.61 | 22.51 | 22.04 | 22.93 | 23.37 |
| | 6H | 16.96 | 17.74 | 17.42 | 18.18 | 18.65 | 21.99 | 22.78 | 22.45 | 23.22 | 23.68 |
| | 8H | 17.12 | 17.85 | 17.58 | 18.29 | 18.76 | 22.10 | 22.84 | 22.57 | 23.28 | 23.75 |
| | 12H | 17.23 | 17.89 | 17.72 | 18.37 | 18.84 | 22.18 | 22.83 | 22.67 | 23.31 | 23.79 |
| 8H | 4H | 16.83 | 17.56 | 17.29 | 18.00 | 18.47 | 21.59 | 22.32 | 22.06 | 22.77 | 23.24 |
| | 6H | 17.40 | 18.00 | 17.90 | 18.49 | 18.97 | 22.02 | 22.62 | 22.52 | 23.11 | 23.59 |
| | 8H | 17.62 | 18.16 | 18.14 | 18.67 | 19.16 | 22.17 | 22.71 | 22.68 | 23.22 | 23.71 |
| | 12H | 17.81 | 18.28 | 18.32 | 18.78 | 19.34 | 22.29 | 22.77 | 22.80 | 23.26 | 23.83 |
| 12H | 4H | 16.87 | 17.52 | 17.35 | 18.00 | 18.47 | 21.57 | 22.22 | 22.05 | 22.70 | 23.17 |
| | 6H | 17.46 | 18.00 | 17.98 | 18.51 | 19.00 | 21.99 | 22.53 | 22.51 | 23.04 | 23.53 |
| | 8H | 17.74 | 18.22 | 18.25 | 18.71 | 19.28 | 22.17 | 22.65 | 22.69 | 23.14 | 23.71 |