

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P331476-830

Luminaire Tested: **S122DIW-S290D710U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331476-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIW-S290D710U830-4F0-1E-UDD-F1  
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 290 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 710 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3453.7 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

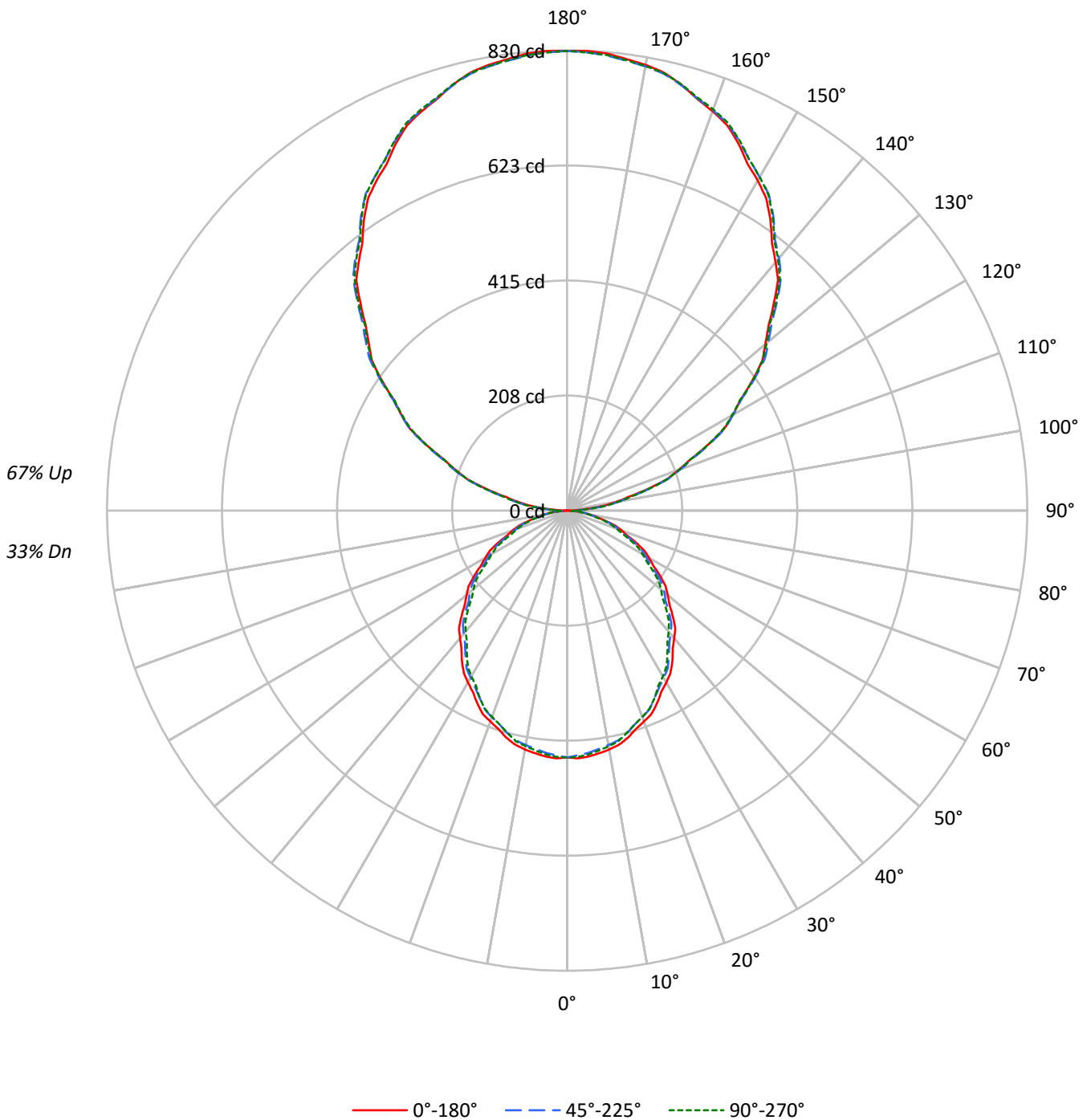
Input Watts (W): 30.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P331476-830

CATALOG NUMBER: S122DIW-S290D710U830-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P331476-830

CATALOG NUMBER: S122DIW-S290D710U830-4F0-1E-UDD-F1

**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 | 0  |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 56 | 56 | 56 | 40 | 40 | 40 | 33 |
| 1   | 94  | 90  | 86  | 82  | 84 | 81 | 78 | 75 | 65 | 62 | 60 | 50 | 48 | 47 | 36 | 35 | 34 | 28 |
| 2   | 85  | 78  | 72  | 67  | 77 | 71 | 66 | 61 | 57 | 53 | 50 | 43 | 41 | 39 | 31 | 30 | 29 | 23 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 38 | 35 | 33 | 28 | 26 | 24 | 20 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 48 | 43 | 44 | 39 | 36 | 34 | 31 | 28 | 25 | 23 | 21 | 17 |
| 5   | 65  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 39 | 34 | 31 | 31 | 27 | 24 | 22 | 20 | 18 | 15 |
| 6   | 60  | 48  | 40  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 28 | 24 | 21 | 20 | 18 | 16 | 13 |
| 7   | 55  | 44  | 36  | 30  | 50 | 40 | 33 | 28 | 32 | 27 | 23 | 25 | 21 | 19 | 18 | 16 | 14 | 11 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 23 | 19 | 17 | 17 | 15 | 13 | 10 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 26 | 22 | 27 | 22 | 18 | 21 | 17 | 15 | 16 | 13 | 11 | 9  |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 25 | 20 | 16 | 19 | 16 | 13 | 14 | 12 | 10 | 8  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7190 | 7190 | 7190 |
| 5°  | 7217 | 7112 | 7156 |
| 10° | 7174 | 7040 | 7076 |
| 15° | 7086 | 6950 | 6944 |
| 20° | 6959 | 6813 | 6806 |
| 25° | 6834 | 6645 | 6645 |
| 30° | 6674 | 6490 | 6434 |
| 35° | 6524 | 6303 | 6211 |
| 40° | 6336 | 6119 | 6001 |
| 45° | 6149 | 5934 | 5786 |
| 50° | 5948 | 5745 | 5541 |
| 55° | 5737 | 5520 | 5315 |
| 60° | 5503 | 5254 | 5060 |
| 65° | 5249 | 4989 | 4760 |
| 70° | 4928 | 4669 | 4447 |
| 75° | 4485 | 4298 | 4192 |
| 80° | 3980 | 3868 | 3663 |
| 85° | 3242 | 3094 | 2779 |



TEST NUMBER: P331476-830

CATALOG NUMBER: S122DIW-S290D710U830-4F0-1E-UDD-F1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 41.9   | 1.2       |
| 10°-20°   | 117.8  | 3.4       |
| 20°-30°   | 173.2  | 5.0       |
| 30°-40°   | 201.2  | 5.8       |
| 40°-50°   | 200.9  | 5.8       |
| 50°-60°   | 175.2  | 5.1       |
| 60°-70°   | 129.6  | 3.8       |
| 70°-80°   | 73.4   | 2.1       |
| 80°-90°   | 23.0   | 0.7       |
| 90°-100°  | 52.5   | 1.5       |
| 100°-110° | 163.1  | 4.7       |
| 110°-120° | 278.8  | 8.1       |
| 120°-130° | 366.6  | 10.6      |
| 130°-140° | 411.5  | 11.9      |
| 140°-150° | 403.5  | 11.7      |
| 150°-160° | 338.4  | 9.8       |
| 160°-170° | 224.5  | 6.5       |
| 170°-180° | 78.5   | 2.3       |
| 0°-30°    | 332.9  | 9.6       |
| 0°-40°    | 534.0  | 15.5      |
| 0°-60°    | 910.2  | 26.4      |
| 0°-90°    | 1136.2 | 32.9      |
| 90°-120°  | 494.4  | 14.3      |
| 90°-150°  | 1676.1 | 48.5      |
| 90°-180°  | 2317.0 | 67.1      |
| 0°-180°   | 3453.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 445 | 445   | 445 | 445   | 445 |      |
| 5°   | 445 | 443   | 439 | 442   | 442 | 42   |
| 15°  | 424 | 421   | 416 | 417   | 415 | 119  |
| 25°  | 384 | 380   | 373 | 374   | 373 | 176  |
| 35°  | 331 | 327   | 320 | 317   | 315 | 207  |
| 45°  | 269 | 266   | 260 | 255   | 253 | 208  |
| 55°  | 204 | 201   | 196 | 191   | 189 | 182  |
| 65°  | 137 | 135   | 131 | 127   | 125 | 136  |
| 75°  | 72  | 71    | 69  | 66    | 67  | 77   |
| 85°  | 18  | 17    | 17  | 16    | 15  | 20   |
| 90°  | 1   | 10    | 24  | 23    | 24  | 3    |
| 95°  | 36  | 43    | 45  | 45    | 43  | 42   |
| 105° | 150 | 152   | 154 | 155   | 155 | 159  |
| 115° | 280 | 284   | 283 | 282   | 280 | 277  |
| 125° | 407 | 413   | 411 | 409   | 408 | 364  |
| 135° | 527 | 534   | 536 | 535   | 533 | 407  |
| 145° | 639 | 644   | 648 | 649   | 646 | 399  |
| 155° | 731 | 733   | 735 | 738   | 736 | 336  |
| 165° | 795 | 795   | 795 | 799   | 796 | 224  |
| 175° | 827 | 825   | 824 | 828   | 825 | 79   |
| 180° | 829 | 829   | 829 | 829   | 829 |      |



TEST NUMBER: P331476-830

CATALOG NUMBER: S122DIW-S290D710U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 |
| 2.5°   | 447.3 | 447.0 | 446.6 | 446.2 | 445.8 | 445.3 | 444.4 | 443.6 | 442.7 | 441.9 | 442.6 |
| 5°     | 445.3 | 444.9 | 444.5 | 444.1 | 443.7 | 443.1 | 442.1 | 441.0 | 439.9 | 438.8 | 439.6 |
| 7.5°   | 441.4 | 440.7 | 440.2 | 439.6 | 439.0 | 438.2 | 437.2 | 436.0 | 435.0 | 433.9 | 434.7 |
| 10°    | 437.6 | 437.0 | 436.3 | 435.6 | 434.9 | 434.0 | 432.9 | 431.8 | 430.6 | 429.4 | 430.2 |
| 12.5°  | 432.4 | 431.9 | 431.3 | 430.6 | 430.1 | 429.2 | 428.1 | 427.0 | 425.8 | 424.7 | 425.2 |
| 15°    | 423.9 | 423.3 | 422.7 | 422.2 | 421.6 | 420.8 | 419.4 | 418.2 | 417.0 | 415.8 | 416.1 |
| 17.5°  | 412.9 | 412.4 | 411.8 | 411.2 | 410.7 | 409.7 | 408.5 | 407.2 | 406.0 | 404.7 | 405.1 |
| 20°    | 405.0 | 404.4 | 403.9 | 403.3 | 402.7 | 401.8 | 400.5 | 399.2 | 397.8 | 396.5 | 396.8 |
| 22.5°  | 397.2 | 396.3 | 395.6 | 394.7 | 394.0 | 392.9 | 391.7 | 390.4 | 389.2 | 388.0 | 388.0 |
| 25°    | 383.6 | 382.9 | 382.1 | 381.4 | 380.6 | 379.4 | 377.8 | 376.2 | 374.6 | 373.0 | 373.2 |
| 27.5°  | 368.3 | 367.6 | 366.8 | 366.2 | 365.5 | 364.5 | 363.3 | 361.9 | 360.7 | 359.4 | 359.1 |
| 30°    | 358.0 | 357.2 | 356.5 | 355.7 | 354.9 | 353.8 | 352.4 | 351.0 | 349.5 | 348.1 | 347.8 |
| 32.5°  | 346.9 | 346.4 | 345.8 | 345.2 | 344.6 | 343.5 | 342.0 | 340.5 | 339.0 | 337.5 | 337.0 |
| 35°    | 331.0 | 330.0 | 329.0 | 328.1 | 327.2 | 325.9 | 324.4 | 322.9 | 321.4 | 319.8 | 319.2 |
| 37.5°  | 312.9 | 312.1 | 311.2 | 310.4 | 309.5 | 308.4 | 306.9 | 305.4 | 303.8 | 302.3 | 301.6 |
| 40°    | 300.6 | 299.8 | 299.1 | 298.3 | 297.6 | 296.4 | 294.8 | 293.3 | 291.8 | 290.3 | 289.5 |
| 42.5°  | 288.6 | 287.9 | 287.1 | 286.3 | 285.6 | 284.4 | 282.9 | 281.3 | 279.8 | 278.3 | 277.4 |
| 45°    | 269.3 | 268.6 | 268.0 | 267.3 | 266.6 | 265.6 | 264.2 | 262.8 | 261.4 | 259.9 | 258.8 |
| 47.5°  | 250.2 | 249.5 | 248.9 | 248.3 | 247.6 | 246.6 | 245.1 | 243.6 | 242.1 | 240.6 | 239.5 |
| 50°    | 236.8 | 236.3 | 235.8 | 235.4 | 234.9 | 233.9 | 232.6 | 231.3 | 230.0 | 228.7 | 227.3 |
| 52.5°  | 223.8 | 223.1 | 222.5 | 221.9 | 221.2 | 220.3 | 219.0 | 217.8 | 216.5 | 215.3 | 214.1 |
| 55°    | 203.8 | 203.2 | 202.6 | 202.1 | 201.5 | 200.7 | 199.5 | 198.4 | 197.3 | 196.1 | 194.9 |
| 57.5°  | 183.8 | 183.3 | 182.9 | 182.4 | 181.9 | 181.1 | 179.8 | 178.6 | 177.3 | 176.1 | 174.9 |
| 60°    | 170.4 | 170.0 | 169.7 | 169.3 | 168.9 | 168.1 | 166.7 | 165.4 | 164.0 | 162.7 | 161.6 |
| 62.5°  | 157.4 | 156.7 | 156.2 | 155.6 | 155.0 | 154.1 | 153.1 | 152.1 | 151.1 | 150.1 | 149.0 |
| 65°    | 137.4 | 136.9 | 136.3 | 135.7 | 135.2 | 134.4 | 133.5 | 132.5 | 131.6 | 130.6 | 129.7 |
| 67.5°  | 117.2 | 116.7 | 116.2 | 115.7 | 115.4 | 114.7 | 113.8 | 112.9 | 112.1 | 111.2 | 110.6 |
| 70°    | 104.4 | 104.1 | 103.7 | 103.3 | 102.9 | 102.4 | 101.5 | 100.7 | 99.7  | 98.9  | 98.2  |
| 72.5°  | 91.4  | 91.0  | 90.7  | 90.3  | 89.9  | 89.4  | 88.9  | 88.4  | 87.8  | 87.3  | 86.6  |
| 75°    | 71.9  | 71.7  | 71.5  | 71.4  | 71.2  | 70.9  | 70.4  | 69.8  | 69.4  | 68.9  | 68.3  |
| 77.5°  | 54.5  | 54.1  | 53.8  | 53.5  | 53.2  | 52.9  | 52.7  | 52.5  | 52.3  | 52.1  | 51.8  |
| 80°    | 42.8  | 42.7  | 42.6  | 42.5  | 42.4  | 42.3  | 42.1  | 41.9  | 41.8  | 41.6  | 41.3  |
| 82.5°  | 31.9  | 31.9  | 31.9  | 31.8  | 31.8  | 31.7  | 31.6  | 31.5  | 31.4  | 31.3  | 30.9  |
| 85°    | 17.5  | 17.4  | 17.3  | 17.2  | 17.2  | 17.1  | 17.0  | 16.9  | 16.8  | 16.7  | 16.4  |
| 87.5°  | 6.3   | 6.5   | 6.8   | 7.0   | 7.2   | 7.5   | 8.1   | 8.7   | 9.1   | 9.7   | 9.4   |
| 90°    | 0.7   | 2.5   | 4.4   | 6.3   | 8.2   | 10.8  | 14.2  | 17.6  | 21.0  | 24.5  | 24.1  |
| 92.5°  | 12.4  | 13.9  | 15.2  | 16.6  | 17.9  | 19.0  | 19.8  | 20.6  | 21.4  | 22.2  | 22.3  |
| 95°    | 36.4  | 37.9  | 39.5  | 41.0  | 42.6  | 43.5  | 43.8  | 44.1  | 44.5  | 44.8  | 44.8  |
| 97.5°  | 66.4  | 67.8  | 69.2  | 70.5  | 71.9  | 72.9  | 73.5  | 74.1  | 74.6  | 75.2  | 75.2  |
| 100°   | 88.8  | 90.1  | 91.3  | 92.6  | 93.8  | 94.6  | 95.1  | 95.6  | 96.0  | 96.5  | 96.5  |
| 102.5° | 112.4 | 113.3 | 114.3 | 115.3 | 116.3 | 117.1 | 117.7 | 118.3 | 118.9 | 119.4 | 119.6 |
| 105°   | 150.3 | 150.8 | 151.3 | 151.7 | 152.2 | 152.6 | 153.0 | 153.3 | 153.5 | 153.9 | 154.2 |
| 107.5° | 188.7 | 189.4 | 190.1 | 190.8 | 191.4 | 191.8 | 191.8 | 191.8 | 191.8 | 191.8 | 191.9 |
| 110°   | 213.3 | 214.2 | 215.2 | 216.1 | 217.1 | 217.5 | 217.5 | 217.5 | 217.5 | 217.5 | 217.5 |



TEST NUMBER: P331476-830

CATALOG NUMBER: S122DIW-S290D710U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 240.2 | 241.1 | 242.0 | 243.0 | 243.9 | 244.3 | 244.2 | 244.0 | 243.9 | 243.8 | 243.5 |
| 115°   | 279.7 | 280.7 | 281.6 | 282.6 | 283.5 | 283.8 | 283.5 | 283.1 | 282.9 | 282.6 | 282.4 |
| 117.5° | 319.2 | 320.5 | 321.7 | 322.9 | 324.1 | 324.3 | 323.5 | 322.6 | 321.8 | 320.9 | 320.6 |
| 120°   | 345.5 | 346.8 | 348.0 | 349.2 | 350.4 | 350.4 | 349.2 | 348.0 | 346.8 | 345.5 | 345.5 |
| 122.5° | 369.6 | 371.1 | 372.6 | 374.0 | 375.5 | 375.9 | 374.9 | 374.1 | 373.2 | 372.4 | 372.0 |
| 125°   | 407.1 | 408.5 | 409.8 | 411.2 | 412.6 | 413.1 | 412.6 | 412.2 | 411.7 | 411.2 | 410.8 |
| 127.5° | 443.6 | 445.4 | 447.1 | 448.8 | 450.6 | 451.3 | 450.7 | 450.2 | 449.6 | 449.0 | 448.5 |
| 130°   | 466.5 | 468.5 | 470.5 | 472.6 | 474.6 | 475.4 | 475.1 | 474.9 | 474.5 | 474.2 | 473.9 |
| 132.5° | 492.3 | 493.9 | 495.6 | 497.2 | 498.8 | 499.7 | 499.7 | 499.8 | 499.9 | 499.9 | 499.3 |
| 135°   | 526.7 | 528.4 | 530.1 | 531.8 | 533.5 | 534.5 | 534.8 | 535.2 | 535.5 | 535.7 | 535.6 |
| 137.5° | 562.9 | 564.3 | 565.7 | 567.1 | 568.4 | 569.4 | 569.8 | 570.2 | 570.6 | 571.0 | 570.9 |
| 140°   | 584.8 | 586.1 | 587.5 | 588.9 | 590.3 | 591.4 | 592.2 | 593.0 | 593.7 | 594.5 | 594.5 |
| 142.5° | 607.1 | 608.5 | 609.9 | 611.3 | 612.7 | 613.7 | 614.2 | 614.7 | 615.2 | 615.8 | 615.9 |
| 145°   | 639.2 | 640.4 | 641.4 | 642.5 | 643.7 | 644.6 | 645.5 | 646.5 | 647.4 | 648.4 | 648.5 |
| 147.5° | 668.0 | 669.2 | 670.5 | 671.8 | 673.2 | 674.1 | 674.8 | 675.3 | 676.0 | 676.7 | 676.9 |
| 150°   | 687.5 | 688.4 | 689.4 | 690.3 | 691.3 | 692.0 | 692.7 | 693.2 | 693.9 | 694.6 | 695.0 |
| 152.5° | 704.8 | 705.8 | 706.7 | 707.7 | 708.6 | 709.5 | 710.2 | 711.0 | 711.7 | 712.5 | 713.0 |
| 155°   | 730.8 | 731.3 | 731.8 | 732.3 | 732.7 | 733.2 | 733.7 | 734.1 | 734.6 | 735.1 | 735.8 |
| 157.5° | 753.1 | 753.5 | 753.8 | 754.0 | 754.4 | 754.7 | 755.0 | 755.3 | 755.5 | 755.8 | 756.9 |
| 160°   | 766.6 | 766.9 | 767.1 | 767.5 | 767.8 | 768.1 | 768.2 | 768.4 | 768.5 | 768.6 | 769.6 |
| 162.5° | 778.8 | 778.9 | 779.0 | 779.0 | 779.1 | 779.2 | 779.4 | 779.6 | 779.7 | 779.9 | 780.9 |
| 165°   | 795.2 | 795.0 | 794.9 | 794.8 | 794.7 | 794.6 | 794.6 | 794.6 | 794.6 | 794.6 | 795.6 |
| 167.5° | 809.0 | 808.5 | 808.0 | 807.6 | 807.1 | 806.8 | 806.8 | 806.7 | 806.7 | 806.7 | 807.8 |
| 170°   | 816.2 | 815.8 | 815.3 | 814.8 | 814.4 | 814.1 | 813.9 | 813.7 | 813.6 | 813.4 | 814.5 |
| 172.5° | 821.2 | 820.8 | 820.3 | 819.8 | 819.4 | 819.1 | 818.9 | 818.8 | 818.6 | 818.4 | 819.5 |
| 175°   | 827.4 | 827.0 | 826.5 | 826.0 | 825.6 | 825.2 | 824.8 | 824.5 | 824.3 | 823.9 | 825.0 |
| 177.5° | 829.9 | 829.5 | 829.2 | 828.8 | 828.4 | 828.1 | 827.8 | 827.6 | 827.4 | 827.1 | 827.8 |
| 180°   | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 |



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CATALOG NUMBER: S122DIW-S290D710U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 | 445.3 |
| 2.5°   | 443.4 | 444.1 | 444.9 | 445.3 | 445.1 | 444.9 | 444.8 | 444.6 |
| 5°     | 440.5 | 441.2 | 442.0 | 442.2 | 442.1 | 441.9 | 441.7 | 441.5 |
| 7.5°   | 435.5 | 436.2 | 437.0 | 437.2 | 437.1 | 436.8 | 436.6 | 436.4 |
| 10°    | 431.0 | 431.8 | 432.5 | 432.7 | 432.4 | 432.2 | 431.9 | 431.6 |
| 12.5°  | 425.7 | 426.2 | 426.8 | 427.0 | 426.8 | 426.5 | 426.3 | 426.1 |
| 15°    | 416.5 | 416.9 | 417.3 | 417.3 | 416.8 | 416.3 | 415.8 | 415.4 |
| 17.5°  | 405.6 | 406.0 | 406.4 | 406.4 | 406.0 | 405.6 | 405.1 | 404.6 |
| 20°    | 397.1 | 397.4 | 397.7 | 397.6 | 397.2 | 396.8 | 396.4 | 396.1 |
| 22.5°  | 388.0 | 388.1 | 388.1 | 388.0 | 387.9 | 387.6 | 387.4 | 387.2 |
| 25°    | 373.3 | 373.5 | 373.7 | 373.7 | 373.5 | 373.3 | 373.2 | 373.0 |
| 27.5°  | 358.8 | 358.5 | 358.3 | 357.9 | 357.4 | 356.9 | 356.6 | 356.1 |
| 30°    | 347.5 | 347.2 | 346.9 | 346.7 | 346.3 | 345.9 | 345.5 | 345.1 |
| 32.5°  | 336.5 | 335.9 | 335.5 | 335.0 | 334.6 | 334.2 | 333.8 | 333.5 |
| 35°    | 318.7 | 318.1 | 317.5 | 317.1 | 316.6 | 316.1 | 315.7 | 315.1 |
| 37.5°  | 300.9 | 300.2 | 299.4 | 298.9 | 298.4 | 297.9 | 297.6 | 297.1 |
| 40°    | 288.6 | 287.8 | 286.9 | 286.3 | 285.9 | 285.5 | 285.1 | 284.7 |
| 42.5°  | 276.4 | 275.5 | 274.6 | 273.8 | 273.3 | 272.8 | 272.3 | 271.7 |
| 45°    | 257.8 | 256.7 | 255.7 | 255.0 | 254.6 | 254.2 | 253.8 | 253.4 |
| 47.5°  | 238.5 | 237.3 | 236.2 | 235.4 | 234.9 | 234.3 | 233.8 | 233.2 |
| 50°    | 226.0 | 224.6 | 223.3 | 222.4 | 222.0 | 221.5 | 221.0 | 220.6 |
| 52.5°  | 213.1 | 212.0 | 210.8 | 210.0 | 209.3 | 208.8 | 208.1 | 207.5 |
| 55°    | 193.8 | 192.7 | 191.5 | 190.8 | 190.3 | 189.7 | 189.3 | 188.8 |
| 57.5°  | 173.8 | 172.7 | 171.5 | 170.8 | 170.5 | 170.1 | 169.8 | 169.4 |
| 60°    | 160.6 | 159.6 | 158.5 | 157.9 | 157.6 | 157.3 | 157.0 | 156.7 |
| 62.5°  | 148.1 | 147.1 | 146.2 | 145.5 | 145.2 | 144.8 | 144.4 | 144.0 |
| 65°    | 128.8 | 128.0 | 127.1 | 126.5 | 126.0 | 125.5 | 125.1 | 124.6 |
| 67.5°  | 109.9 | 109.2 | 108.6 | 108.0 | 107.6 | 107.3 | 106.9 | 106.5 |
| 70°    | 97.6  | 96.9  | 96.2  | 95.8  | 95.4  | 94.9  | 94.5  | 94.2  |
| 72.5°  | 86.0  | 85.3  | 84.6  | 84.1  | 83.8  | 83.5  | 83.2  | 82.8  |
| 75°    | 67.8  | 67.2  | 66.6  | 66.4  | 66.6  | 66.8  | 67.0  | 67.2  |
| 77.5°  | 51.6  | 51.3  | 51.0  | 50.7  | 50.4  | 50.2  | 50.0  | 49.7  |
| 80°    | 41.0  | 40.7  | 40.4  | 40.2  | 40.0  | 39.8  | 39.6  | 39.4  |
| 82.5°  | 30.5  | 30.2  | 29.8  | 29.6  | 29.6  | 29.5  | 29.5  | 29.5  |
| 85°    | 16.1  | 15.8  | 15.6  | 15.4  | 15.3  | 15.2  | 15.1  | 15.0  |
| 87.5°  | 9.1   | 8.9   | 8.5   | 8.4   | 8.3   | 8.3   | 8.2   | 8.2   |
| 90°    | 23.8  | 23.6  | 23.3  | 23.2  | 23.3  | 23.5  | 23.7  | 23.8  |
| 92.5°  | 22.3  | 22.4  | 22.5  | 22.5  | 22.5  | 22.6  | 22.6  | 22.6  |
| 95°    | 44.8  | 44.8  | 44.8  | 44.6  | 44.3  | 44.0  | 43.6  | 43.4  |
| 97.5°  | 75.2  | 75.2  | 75.2  | 75.2  | 75.2  | 75.2  | 75.1  | 75.1  |
| 100°   | 96.5  | 96.5  | 96.5  | 96.4  | 96.3  | 96.1  | 96.0  | 95.9  |
| 102.5° | 119.7 | 119.8 | 120.0 | 120.0 | 119.8 | 119.6 | 119.5 | 119.3 |
| 105°   | 154.5 | 154.8 | 155.1 | 155.2 | 155.2 | 155.2 | 155.2 | 155.2 |
| 107.5° | 192.0 | 192.2 | 192.3 | 192.0 | 191.2 | 190.6 | 189.8 | 189.2 |
| 110°   | 217.5 | 217.5 | 217.5 | 217.3 | 216.8 | 216.3 | 215.8 | 215.5 |





TEST NUMBER: P331476-830

CATALOG NUMBER: S122DIW-S290D710U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 243.1 | 242.7 | 242.3 | 242.0 | 241.7 | 241.3 | 240.9 | 240.6 |
| 115°   | 282.3 | 282.1 | 281.9 | 281.6 | 281.2 | 280.7 | 280.2 | 279.7 |
| 117.5° | 320.2 | 319.8 | 319.4 | 319.0 | 318.5 | 318.0 | 317.5 | 317.1 |
| 120°   | 345.5 | 345.5 | 345.5 | 345.3 | 344.8 | 344.3 | 343.8 | 343.4 |
| 122.5° | 371.6 | 371.3 | 370.9 | 370.5 | 370.1 | 369.9 | 369.5 | 369.2 |
| 125°   | 410.3 | 409.8 | 409.3 | 409.1 | 409.0 | 408.8 | 408.6 | 408.5 |
| 127.5° | 447.9 | 447.3 | 446.8 | 446.3 | 445.7 | 445.3 | 444.8 | 444.3 |
| 130°   | 473.6 | 473.3 | 473.0 | 472.5 | 471.8 | 471.3 | 470.6 | 470.0 |
| 132.5° | 498.6 | 497.9 | 497.2 | 496.6 | 496.2 | 495.6 | 495.1 | 494.6 |
| 135°   | 535.5 | 535.3 | 535.2 | 534.8 | 534.3 | 533.9 | 533.4 | 532.9 |
| 137.5° | 570.7 | 570.6 | 570.5 | 570.1 | 569.5 | 568.9 | 568.3 | 567.6 |
| 140°   | 594.5 | 594.5 | 594.5 | 594.2 | 593.6 | 593.0 | 592.3 | 591.7 |
| 142.5° | 616.0 | 616.1 | 616.2 | 616.0 | 615.4 | 614.7 | 614.2 | 613.5 |
| 145°   | 648.7 | 648.8 | 648.9 | 648.8 | 648.1 | 647.5 | 646.9 | 646.3 |
| 147.5° | 677.3 | 677.6 | 678.0 | 677.9 | 677.3 | 676.7 | 676.1 | 675.5 |
| 150°   | 695.4 | 695.9 | 696.4 | 696.4 | 695.9 | 695.4 | 695.0 | 694.6 |
| 152.5° | 713.6 | 714.2 | 714.8 | 714.8 | 714.2 | 713.6 | 713.0 | 712.5 |
| 155°   | 736.6 | 737.4 | 738.2 | 738.4 | 737.9 | 737.4 | 737.0 | 736.5 |
| 157.5° | 757.9 | 758.9 | 760.0 | 760.2 | 759.4 | 758.7 | 757.9 | 757.1 |
| 160°   | 770.5 | 771.5 | 772.4 | 772.5 | 771.9 | 771.3 | 770.7 | 770.1 |
| 162.5° | 781.9 | 783.1 | 784.1 | 784.2 | 783.4 | 782.8 | 782.0 | 781.3 |
| 165°   | 796.7 | 797.8 | 798.9 | 799.1 | 798.2 | 797.5 | 796.7 | 796.0 |
| 167.5° | 808.9 | 809.9 | 811.1 | 811.2 | 810.4 | 809.5 | 808.8 | 807.9 |
| 170°   | 815.6 | 816.7 | 817.7 | 817.8 | 816.9 | 816.0 | 815.0 | 814.1 |
| 172.5° | 820.7 | 821.7 | 822.8 | 822.8 | 822.0 | 821.0 | 820.1 | 819.2 |
| 175°   | 826.0 | 827.2 | 828.3 | 828.3 | 827.4 | 826.5 | 825.6 | 824.6 |
| 177.5° | 828.6 | 829.3 | 830.1 | 830.1 | 829.3 | 828.6 | 827.8 | 827.1 |
| 180°   | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 |

(END OF REPORT)