

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: P331954-840

Luminaire Tested: **S123DIP-S560D1195U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331954-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S560D1195U840-4F0-1E-UDD-F4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6706.3 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

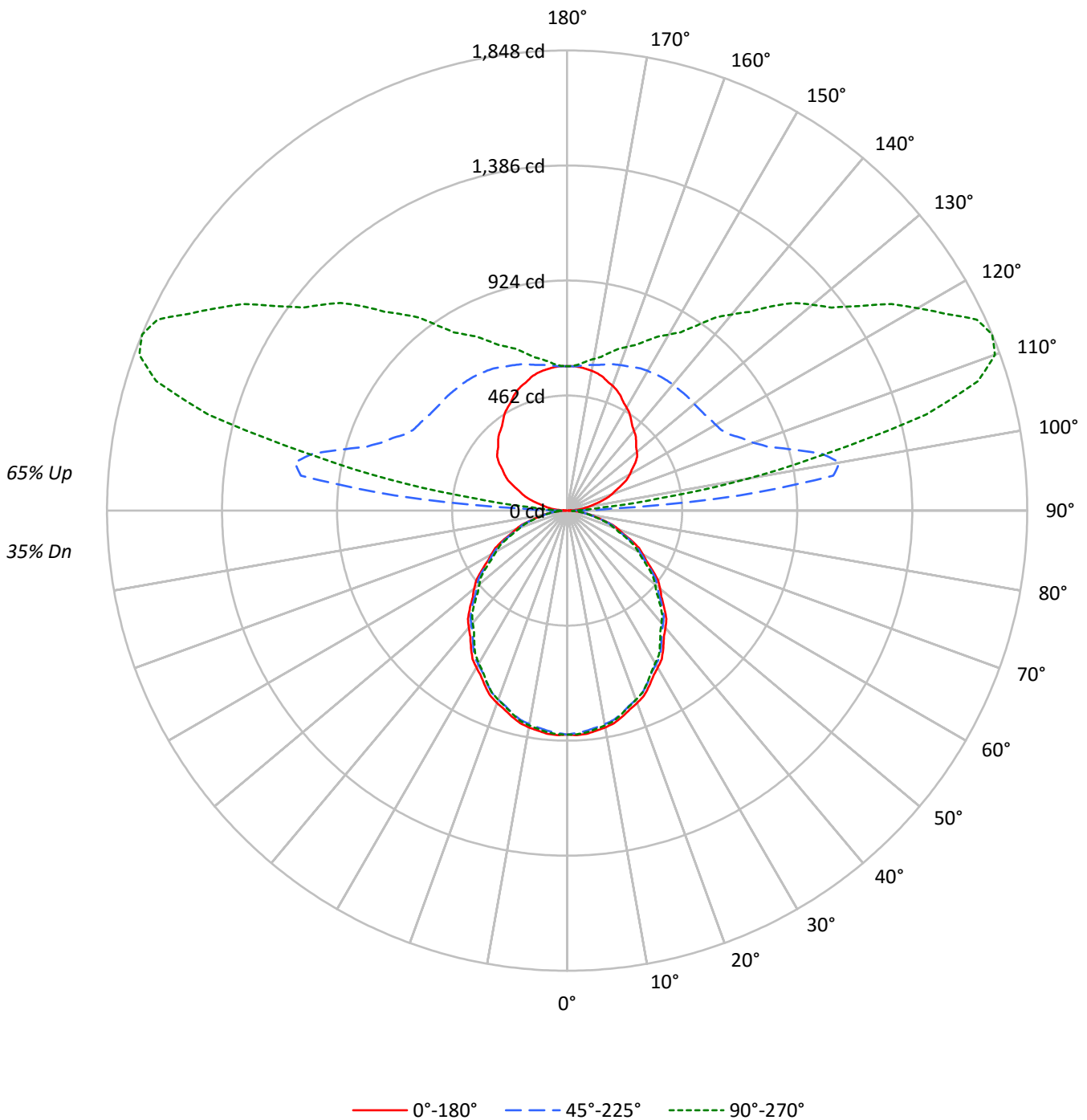
Input Watts (W): 49.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P331954-840

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### Luminous Intensity Polar Plot





TEST NUMBER: P331954-840

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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 | 0  |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 75 | 75 | 75 | 58 | 58 | 58 | 42 | 42 | 42 | 35 |
| 1   | 94  | 90  | 86  | 83  | 85 | 82 | 78 | 75 | 66 | 63 | 61 | 51 | 49 | 48 | 37 | 36 | 36 | 29 |
| 2   | 86  | 79  | 73  | 68  | 77 | 71 | 66 | 62 | 57 | 54 | 51 | 45 | 42 | 40 | 33 | 31 | 30 | 25 |
| 3   | 78  | 69  | 62  | 56  | 70 | 63 | 56 | 52 | 51 | 46 | 43 | 39 | 36 | 34 | 29 | 27 | 25 | 21 |
| 4   | 72  | 61  | 53  | 47  | 64 | 55 | 49 | 44 | 45 | 40 | 36 | 35 | 32 | 29 | 26 | 24 | 22 | 18 |
| 5   | 66  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 40 | 35 | 31 | 31 | 28 | 25 | 23 | 21 | 19 | 15 |
| 6   | 60  | 49  | 41  | 35  | 54 | 44 | 37 | 32 | 36 | 31 | 27 | 28 | 25 | 22 | 21 | 19 | 17 | 14 |
| 7   | 56  | 44  | 36  | 31  | 50 | 40 | 33 | 28 | 33 | 27 | 24 | 26 | 22 | 19 | 19 | 17 | 15 | 12 |
| 8   | 52  | 40  | 32  | 27  | 47 | 36 | 29 | 25 | 30 | 25 | 21 | 23 | 20 | 17 | 18 | 15 | 13 | 11 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 26 | 22 | 27 | 22 | 19 | 22 | 18 | 15 | 16 | 14 | 12 | 10 |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 25 | 20 | 17 | 20 | 16 | 14 | 15 | 13 | 11 | 9  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9684 | 9684 | 9684 |
| 5°  | 9729 | 9596 | 9662 |
| 10° | 9664 | 9512 | 9571 |
| 15° | 9551 | 9404 | 9423 |
| 20° | 9419 | 9251 | 9260 |
| 25° | 9242 | 9069 | 9049 |
| 30° | 9047 | 8866 | 8797 |
| 35° | 8843 | 8650 | 8539 |
| 40° | 8630 | 8413 | 8283 |
| 45° | 8397 | 8196 | 7995 |
| 50° | 8162 | 7927 | 7708 |
| 55° | 7854 | 7651 | 7418 |
| 60° | 7543 | 7326 | 7093 |
| 65° | 7272 | 6976 | 6757 |
| 70° | 6864 | 6571 | 6279 |
| 75° | 6276 | 6047 | 5793 |
| 80° | 5659 | 5424 | 5368 |
| 85° | 4965 | 4780 | 4594 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 84.7   | 1.3       |
| 10°-20°   | 239.3  | 3.6       |
| 20°-30°   | 353.5  | 5.3       |
| 30°-40°   | 412.9  | 6.2       |
| 40°-50°   | 415.1  | 6.2       |
| 50°-60°   | 364.6  | 5.4       |
| 60°-70°   | 271.7  | 4.1       |
| 70°-80°   | 154.8  | 2.3       |
| 80°-90°   | 48.9   | 0.7       |
| 90°-100°  | 322.6  | 4.8       |
| 100°-110° | 913.4  | 13.6      |
| 110°-120° | 898.5  | 13.4      |
| 120°-130° | 716.7  | 10.7      |
| 130°-140° | 565.1  | 8.4       |
| 140°-150° | 421.7  | 6.3       |
| 150°-160° | 294.0  | 4.4       |
| 160°-170° | 172.7  | 2.6       |
| 170°-180° | 56.2   | 0.8       |
| 0°-30°    | 677.5  | 10.1      |
| 0°-40°    | 1090.4 | 16.3      |
| 0°-60°    | 1870.2 | 27.9      |
| 0°-90°    | 2345.5 | 35.0      |
| 90°-120°  | 2134.4 | 31.8      |
| 90°-150°  | 3837.9 | 57.2      |
| 90°-180°  | 4361.0 | 65.0      |
| 0°-180°   | 6706.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 900 | 900   | 900 | 900   | 900  |      |
| 5°   | 900 | 896   | 888 | 895   | 894  | 85   |
| 15°  | 857 | 854   | 844 | 850   | 846  | 242  |
| 25°  | 778 | 773   | 764 | 764   | 762  | 358  |
| 35°  | 673 | 668   | 658 | 654   | 650  | 421  |
| 45°  | 552 | 548   | 538 | 529   | 525  | 426  |
| 55°  | 418 | 417   | 408 | 399   | 395  | 375  |
| 65°  | 286 | 281   | 274 | 268   | 265  | 282  |
| 75°  | 151 | 148   | 145 | 142   | 139  | 161  |
| 85°  | 40  | 39    | 39  | 37    | 37   | 44   |
| 90°  | 2   | 14    | 29  | 33    | 34   | 5    |
| 95°  | 40  | 130   | 696 | 203   | 136  | 43   |
| 105° | 136 | 201   | 943 | 1650  | 1492 | 145  |
| 115° | 240 | 300   | 722 | 1582  | 1815 | 238  |
| 125° | 334 | 395   | 674 | 1220  | 1432 | 297  |
| 135° | 392 | 468   | 664 | 1005  | 1160 | 303  |
| 145° | 447 | 512   | 656 | 824   | 907  | 280  |
| 155° | 508 | 548   | 635 | 722   | 752  | 234  |
| 165° | 555 | 571   | 608 | 645   | 656  | 156  |
| 175° | 578 | 579   | 583 | 591   | 590  | 55   |
| 180° | 580 | 580   | 580 | 580   | 580  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°    | 50°    |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 0°     | 899.7 | 899.7 | 899.7 | 899.7 | 899.7 | 899.7 | 899.7 | 899.7 | 899.7 | 899.7  | 899.7  |
| 2.5°   | 902.7 | 902.2 | 901.7 | 901.1 | 900.6 | 899.5 | 898.0 | 896.5 | 895.0 | 893.5  | 894.8  |
| 5°     | 900.4 | 899.6 | 898.7 | 897.9 | 897.0 | 895.6 | 893.7 | 891.8 | 890.0 | 888.1  | 889.8  |
| 7.5°   | 891.6 | 890.8 | 889.9 | 889.1 | 888.2 | 886.8 | 884.8 | 882.8 | 880.9 | 879.0  | 880.5  |
| 10°    | 884.2 | 883.3 | 882.5 | 881.6 | 880.8 | 879.2 | 877.0 | 874.7 | 872.5 | 870.3  | 871.8  |
| 12.5°  | 874.3 | 873.5 | 872.8 | 872.1 | 871.4 | 870.0 | 867.9 | 865.8 | 863.7 | 861.6  | 862.7  |
| 15°    | 857.1 | 856.5 | 855.8 | 855.1 | 854.3 | 852.9 | 850.7 | 848.5 | 846.2 | 843.9  | 845.4  |
| 17.5°  | 837.2 | 836.3 | 835.4 | 834.5 | 833.5 | 832.0 | 829.8 | 827.6 | 825.4 | 823.0  | 824.0  |
| 20°    | 822.3 | 821.3 | 820.2 | 819.2 | 818.2 | 816.6 | 814.4 | 812.1 | 809.8 | 807.6  | 808.3  |
| 22.5°  | 805.6 | 804.6 | 803.5 | 802.5 | 801.4 | 799.8 | 797.6 | 795.4 | 793.1 | 790.9  | 791.4  |
| 25°    | 778.2 | 777.2 | 776.2 | 775.2 | 774.1 | 772.4 | 770.2 | 768.0 | 765.8 | 763.6  | 763.7  |
| 27.5°  | 749.0 | 748.0 | 747.0 | 746.0 | 745.0 | 743.3 | 740.8 | 738.5 | 736.1 | 733.7  | 733.8  |
| 30°    | 727.9 | 727.1 | 726.2 | 725.4 | 724.5 | 722.9 | 720.4 | 718.0 | 715.7 | 713.3  | 713.3  |
| 32.5°  | 706.9 | 705.8 | 704.6 | 703.5 | 702.4 | 700.8 | 699.0 | 697.1 | 695.3 | 693.5  | 692.5  |
| 35°    | 673.0 | 672.0 | 671.0 | 669.9 | 668.9 | 667.2 | 665.0 | 662.8 | 660.6 | 658.3  | 657.3  |
| 37.5°  | 638.3 | 637.0 | 635.7 | 634.4 | 633.1 | 631.4 | 629.0 | 626.8 | 624.5 | 622.3  | 621.1  |
| 40°    | 614.2 | 613.2 | 612.2 | 611.2 | 610.1 | 608.3 | 605.9 | 603.6 | 601.2 | 598.7  | 597.3  |
| 42.5°  | 590.1 | 589.0 | 587.7 | 586.5 | 585.4 | 583.6 | 581.2 | 578.9 | 576.4 | 574.0  | 572.6  |
| 45°    | 551.6 | 550.9 | 550.2 | 549.5 | 548.8 | 547.3 | 545.1 | 542.9 | 540.7 | 538.4  | 536.3  |
| 47.5°  | 513.3 | 512.3 | 511.4 | 510.4 | 509.4 | 507.8 | 505.7 | 503.6 | 501.5 | 499.4  | 497.4  |
| 50°    | 487.4 | 486.5 | 485.6 | 484.7 | 483.9 | 482.4 | 480.1 | 477.9 | 475.6 | 473.4  | 471.5  |
| 52.5°  | 460.1 | 459.5 | 459.0 | 458.4 | 457.8 | 456.3 | 453.9 | 451.6 | 449.2 | 446.9  | 445.2  |
| 55°    | 418.5 | 418.3 | 418.2 | 418.0 | 417.8 | 416.6 | 414.3 | 412.1 | 409.9 | 407.7  | 405.8  |
| 57.5°  | 378.9 | 378.3 | 377.7 | 377.2 | 376.6 | 375.4 | 373.5 | 371.8 | 370.0 | 368.2  | 366.6  |
| 60°    | 350.4 | 350.2 | 350.1 | 349.9 | 349.7 | 348.6 | 346.6 | 344.5 | 342.4 | 340.3  | 338.8  |
| 62.5°  | 325.1 | 324.6 | 324.2 | 323.8 | 323.3 | 322.0 | 319.9 | 317.9 | 315.8 | 313.8  | 312.3  |
| 65°    | 285.5 | 284.6 | 283.8 | 282.9 | 282.1 | 280.7 | 279.0 | 277.3 | 275.6 | 273.9  | 272.5  |
| 67.5°  | 243.5 | 242.8 | 242.0 | 241.3 | 240.4 | 239.4 | 238.1 | 236.8 | 235.5 | 234.3  | 233.1  |
| 70°    | 218.1 | 217.1 | 216.1 | 215.1 | 214.0 | 213.0 | 212.0 | 211.0 | 209.8 | 208.8  | 207.6  |
| 72.5°  | 191.6 | 190.8 | 190.1 | 189.2 | 188.5 | 187.5 | 186.4 | 185.2 | 184.0 | 182.9  | 181.8  |
| 75°    | 150.9 | 150.2 | 149.5 | 148.8 | 148.1 | 147.5 | 146.9 | 146.4 | 145.9 | 145.4  | 144.6  |
| 77.5°  | 114.8 | 114.4 | 114.0 | 113.7 | 113.3 | 112.8 | 112.2 | 111.6 | 110.9 | 110.3  | 109.8  |
| 80°    | 91.3  | 90.8  | 90.3  | 89.8  | 89.2  | 88.8  | 88.5  | 88.1  | 87.8  | 87.5   | 87.3   |
| 82.5°  | 68.4  | 68.3  | 68.2  | 68.1  | 68.0  | 67.9  | 67.9  | 67.8  | 67.7  | 67.7   | 67.3   |
| 85°    | 40.2  | 39.9  | 39.6  | 39.2  | 38.9  | 38.7  | 38.7  | 38.7  | 38.7  | 38.7   | 38.4   |
| 87.5°  | 16.6  | 16.7  | 16.7  | 17.0  | 17.1  | 17.2  | 17.8  | 18.4  | 18.9  | 19.5   | 19.1   |
| 90°    | 2.3   | 4.6   | 7.1   | 10.6  | 12.9  | 15.2  | 18.8  | 22.3  | 25.9  | 29.3   | 28.2   |
| 92.5°  | 14.5  | 21.6  | 31.4  | 40.6  | 50.5  | 67.9  | 98.6  | 149.1 | 198.5 | 180.5  | 136.1  |
| 95°    | 39.9  | 43.4  | 56.4  | 76.2  | 106.7 | 152.5 | 252.3 | 427.1 | 619.6 | 695.8  | 564.3  |
| 97.5°  | 68.1  | 69.2  | 79.3  | 96.6  | 126.7 | 176.2 | 271.6 | 468.6 | 789.4 | 1078.2 | 1153.6 |
| 100°   | 86.8  | 88.0  | 96.2  | 112.6 | 140.8 | 186.5 | 268.7 | 442.3 | 750.9 | 1111.2 | 1342.3 |
| 102.5° | 106.5 | 108.7 | 115.9 | 131.4 | 156.7 | 198.7 | 272.5 | 419.8 | 694.6 | 1050.2 | 1351.6 |
| 105°   | 136.1 | 139.7 | 146.6 | 160.8 | 183.0 | 219.4 | 282.8 | 403.6 | 625.4 | 943.3  | 1280.1 |
| 107.5° | 167.5 | 171.1 | 177.8 | 191.7 | 212.6 | 246.4 | 302.1 | 402.4 | 581.3 | 849.0  | 1154.8 |
| 110°   | 190.1 | 193.6 | 199.4 | 212.4 | 232.3 | 265.2 | 318.0 | 407.2 | 564.3 | 795.5  | 1075.9 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°    |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 112.5° | 210.8 | 214.3 | 220.2 | 233.0 | 253.0 | 284.9 | 334.0 | 416.6 | 555.0 | 759.8 | 1007.4 |
| 115°   | 240.5 | 245.2 | 252.3 | 264.0 | 284.0 | 315.6 | 360.2 | 431.8 | 551.5 | 721.5 | 924.5  |
| 117.5° | 270.3 | 275.7 | 281.6 | 292.4 | 314.7 | 344.1 | 388.1 | 451.9 | 553.6 | 699.0 | 874.5  |
| 120°   | 290.9 | 294.5 | 300.3 | 312.1 | 334.4 | 363.8 | 406.0 | 467.0 | 557.3 | 688.7 | 848.3  |
| 122.5° | 308.8 | 312.4 | 318.2 | 330.8 | 352.2 | 383.4 | 424.7 | 481.1 | 563.9 | 682.2 | 826.7  |
| 125°   | 334.4 | 336.8 | 343.8 | 356.7 | 379.0 | 410.6 | 451.7 | 503.3 | 573.7 | 673.5 | 799.0  |
| 127.5° | 353.9 | 357.4 | 366.1 | 379.2 | 403.8 | 435.6 | 475.1 | 521.7 | 585.0 | 669.2 | 774.7  |
| 130°   | 366.1 | 369.6 | 380.1 | 394.3 | 418.9 | 450.5 | 489.3 | 533.8 | 592.5 | 666.4 | 761.4  |
| 132.5° | 375.5 | 379.9 | 391.4 | 408.3 | 432.9 | 463.7 | 501.5 | 545.1 | 598.1 | 665.5 | 749.3  |
| 135°   | 391.9 | 396.6 | 409.5 | 427.1 | 451.7 | 483.4 | 519.8 | 559.7 | 606.6 | 664.1 | 733.4  |
| 137.5° | 407.4 | 412.3 | 425.0 | 443.7 | 468.2 | 497.5 | 532.4 | 570.5 | 612.3 | 661.5 | 719.4  |
| 140°   | 417.7 | 423.5 | 435.3 | 454.0 | 477.6 | 506.9 | 540.9 | 576.1 | 616.0 | 660.6 | 711.0  |
| 142.5° | 429.0 | 433.9 | 446.6 | 463.4 | 487.0 | 514.4 | 547.4 | 581.7 | 618.8 | 658.7 | 703.5  |
| 145°   | 447.1 | 450.5 | 461.1 | 478.7 | 498.7 | 525.6 | 556.1 | 587.8 | 620.7 | 655.9 | 693.5  |
| 147.5° | 465.3 | 467.5 | 477.8 | 493.0 | 512.3 | 535.2 | 563.2 | 591.6 | 620.7 | 651.5 | 683.6  |
| 150°   | 477.6 | 478.7 | 488.1 | 503.3 | 519.8 | 540.9 | 567.8 | 592.5 | 620.7 | 647.6 | 677.0  |
| 152.5° | 489.8 | 490.0 | 499.4 | 512.7 | 527.3 | 547.4 | 570.7 | 594.4 | 617.8 | 643.0 | 669.5  |
| 155°   | 508.1 | 508.1 | 515.1 | 526.8 | 539.7 | 556.1 | 576.1 | 594.9 | 614.8 | 634.8 | 658.2  |
| 157.5° | 522.6 | 523.5 | 529.2 | 539.5 | 550.5 | 563.2 | 579.2 | 596.0 | 610.9 | 627.5 | 645.5  |
| 160°   | 533.8 | 533.8 | 538.6 | 548.0 | 556.1 | 567.8 | 582.0 | 596.0 | 608.9 | 621.9 | 637.1  |
| 162.5° | 542.3 | 542.3 | 546.0 | 553.6 | 560.9 | 570.7 | 582.9 | 595.1 | 605.2 | 616.2 | 628.6  |
| 165°   | 555.0 | 553.8 | 556.1 | 562.0 | 566.7 | 574.9 | 584.3 | 592.5 | 599.6 | 607.7 | 617.1  |
| 167.5° | 564.6 | 563.2 | 564.3 | 568.9 | 572.1 | 577.2 | 584.1 | 590.7 | 593.9 | 599.4 | 606.1  |
| 170°   | 570.3 | 567.8 | 569.1 | 572.6 | 574.9 | 577.2 | 583.1 | 587.8 | 590.2 | 593.7 | 599.6  |
| 172.5° | 574.0 | 572.6 | 572.8 | 575.4 | 576.8 | 578.2 | 583.1 | 586.9 | 587.3 | 589.0 | 593.0  |
| 175°   | 578.5 | 577.2 | 576.1 | 578.5 | 578.5 | 579.7 | 582.0 | 584.3 | 583.1 | 583.1 | 585.5  |
| 177.5° | 580.6 | 579.7 | 578.7 | 579.7 | 579.7 | 579.7 | 580.6 | 582.4 | 580.6 | 579.7 | 580.6  |
| 180°   | 579.7 | 579.7 | 579.7 | 579.7 | 579.7 | 579.7 | 579.7 | 579.7 | 579.7 | 579.7 | 579.7  |



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**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 899.7  | 899.7  | 899.7  | 899.7  | 899.7  | 899.7  | 899.7  | 899.7  |
| 2.5°   | 896.3  | 897.6  | 899.0  | 899.6  | 899.5  | 899.3  | 899.2  | 899.1  |
| 5°     | 891.5  | 893.2  | 894.9  | 895.6  | 895.2  | 894.9  | 894.6  | 894.2  |
| 7.5°   | 882.0  | 883.5  | 885.1  | 885.8  | 885.6  | 885.3  | 885.1  | 884.9  |
| 10°    | 873.3  | 874.9  | 876.5  | 877.1  | 876.8  | 876.4  | 876.1  | 875.7  |
| 12.5°  | 863.8  | 865.1  | 866.2  | 866.6  | 866.4  | 866.2  | 866.0  | 865.8  |
| 15°    | 846.8  | 848.1  | 849.5  | 849.6  | 848.6  | 847.6  | 846.6  | 845.6  |
| 17.5°  | 825.1  | 826.0  | 827.0  | 827.2  | 826.9  | 826.5  | 826.1  | 825.7  |
| 20°    | 809.0  | 809.7  | 810.3  | 810.4  | 809.9  | 809.4  | 808.9  | 808.4  |
| 22.5°  | 792.0  | 792.5  | 793.1  | 793.0  | 792.4  | 791.7  | 791.1  | 790.4  |
| 25°    | 763.9  | 764.1  | 764.2  | 764.1  | 763.6  | 763.1  | 762.4  | 761.9  |
| 27.5°  | 734.0  | 734.1  | 734.2  | 734.0  | 733.3  | 732.7  | 732.0  | 731.3  |
| 30°    | 713.3  | 713.3  | 713.3  | 712.7  | 711.4  | 710.2  | 709.0  | 707.8  |
| 32.5°  | 691.6  | 690.5  | 689.5  | 688.7  | 688.1  | 687.5  | 686.8  | 686.2  |
| 35°    | 656.2  | 655.2  | 654.2  | 653.3  | 652.4  | 651.6  | 650.7  | 649.8  |
| 37.5°  | 619.8  | 618.5  | 617.3  | 616.4  | 615.9  | 615.3  | 614.8  | 614.2  |
| 40°    | 596.0  | 594.6  | 593.3  | 592.2  | 591.5  | 590.9  | 590.2  | 589.5  |
| 42.5°  | 571.3  | 569.9  | 568.5  | 567.4  | 566.7  | 566.1  | 565.4  | 564.7  |
| 45°    | 534.3  | 532.2  | 530.2  | 528.7  | 527.9  | 526.9  | 526.1  | 525.2  |
| 47.5°  | 495.3  | 493.3  | 491.3  | 489.9  | 489.2  | 488.4  | 487.7  | 486.9  |
| 50°    | 469.7  | 467.8  | 465.9  | 464.4  | 463.3  | 462.3  | 461.3  | 460.3  |
| 52.5°  | 443.6  | 442.0  | 440.4  | 439.0  | 438.0  | 437.0  | 436.0  | 434.9  |
| 55°    | 403.8  | 402.0  | 400.1  | 398.7  | 397.9  | 397.0  | 396.2  | 395.3  |
| 57.5°  | 364.9  | 363.1  | 361.5  | 360.1  | 359.1  | 358.2  | 357.2  | 356.2  |
| 60°    | 337.3  | 335.8  | 334.2  | 333.0  | 332.1  | 331.2  | 330.4  | 329.5  |
| 62.5°  | 310.6  | 309.1  | 307.6  | 306.5  | 305.9  | 305.4  | 304.8  | 304.2  |
| 65°    | 271.0  | 269.7  | 268.3  | 267.4  | 266.9  | 266.4  | 265.9  | 265.3  |
| 67.5°  | 231.9  | 230.7  | 229.4  | 228.4  | 227.7  | 227.0  | 226.3  | 225.6  |
| 70°    | 206.4  | 205.3  | 204.1  | 203.0  | 202.2  | 201.3  | 200.5  | 199.5  |
| 72.5°  | 180.8  | 179.7  | 178.6  | 177.8  | 177.4  | 176.9  | 176.5  | 176.0  |
| 75°    | 143.7  | 142.9  | 142.0  | 141.3  | 140.8  | 140.3  | 139.8  | 139.3  |
| 77.5°  | 109.2  | 108.6  | 108.0  | 107.7  | 107.7  | 107.7  | 107.7  | 107.7  |
| 80°    | 87.1   | 86.8   | 86.7   | 86.6   | 86.6   | 86.6   | 86.6   | 86.6   |
| 82.5°  | 67.0   | 66.7   | 66.3   | 66.1   | 66.0   | 65.8   | 65.7   | 65.6   |
| 85°    | 38.0   | 37.7   | 37.3   | 37.2   | 37.2   | 37.2   | 37.2   | 37.2   |
| 87.5°  | 19.2   | 19.3   | 19.4   | 19.8   | 19.6   | 19.8   | 20.0   | 19.8   |
| 90°    | 29.3   | 30.5   | 31.7   | 34.0   | 32.8   | 34.0   | 35.2   | 34.0   |
| 92.5°  | 98.8   | 78.4   | 69.2   | 63.1   | 61.0   | 57.5   | 58.7   | 56.6   |
| 95°    | 422.4  | 286.3  | 224.1  | 181.9  | 159.6  | 149.1  | 140.8  | 136.1  |
| 97.5°  | 1052.9 | 843.3  | 692.1  | 551.7  | 465.1  | 412.3  | 380.6  | 370.5  |
| 100°   | 1383.3 | 1288.3 | 1151.0 | 984.4  | 865.9  | 780.2  | 734.5  | 735.7  |
| 102.5° | 1493.2 | 1490.1 | 1410.1 | 1304.4 | 1212.2 | 1144.5 | 1106.2 | 1079.2 |
| 105°   | 1525.3 | 1642.6 | 1665.0 | 1634.5 | 1580.4 | 1535.9 | 1498.3 | 1492.5 |
| 107.5° | 1432.8 | 1623.4 | 1726.2 | 1768.0 | 1768.9 | 1753.8 | 1741.2 | 1730.4 |
| 110°   | 1344.6 | 1560.5 | 1708.4 | 1790.5 | 1823.3 | 1832.7 | 1830.4 | 1828.1 |





TEST NUMBER: P331954-840

CATALOG NUMBER: S123DIP-S560D1195U840-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 1257.3 | 1477.9 | 1643.6 | 1749.2 | 1809.3 | 1838.4 | 1847.2 | 1847.8 |
| 115°   | 1141.7 | 1345.7 | 1518.2 | 1646.2 | 1734.1 | 1785.7 | 1809.3 | 1815.1 |
| 117.5° | 1057.8 | 1234.1 | 1389.0 | 1518.7 | 1610.5 | 1669.6 | 1703.4 | 1711.4 |
| 120°   | 1013.7 | 1172.2 | 1312.9 | 1431.5 | 1524.1 | 1589.8 | 1618.0 | 1625.1 |
| 122.5° | 979.0  | 1122.4 | 1252.8 | 1362.9 | 1445.3 | 1504.4 | 1535.4 | 1544.3 |
| 125°   | 932.8  | 1060.7 | 1173.3 | 1267.2 | 1342.3 | 1393.9 | 1423.2 | 1431.5 |
| 127.5° | 892.4  | 1006.4 | 1108.0 | 1193.5 | 1260.4 | 1304.4 | 1331.0 | 1338.5 |
| 130°   | 867.1  | 972.7  | 1067.7 | 1147.5 | 1209.7 | 1251.9 | 1276.6 | 1286.0 |
| 132.5° | 843.6  | 940.8  | 1029.3 | 1105.3 | 1163.7 | 1205.9 | 1227.8 | 1234.4 |
| 135°   | 811.9  | 895.2  | 971.5  | 1038.3 | 1095.9 | 1131.0 | 1152.2 | 1160.4 |
| 137.5° | 783.0  | 851.3  | 917.1  | 975.0  | 1023.4 | 1059.0 | 1076.8 | 1082.3 |
| 140°   | 766.2  | 826.0  | 882.3  | 932.8  | 977.3  | 1010.3 | 1029.0 | 1027.8 |
| 142.5° | 750.2  | 801.6  | 850.4  | 894.3  | 932.3  | 961.4  | 978.3  | 977.1  |
| 145°   | 730.9  | 769.7  | 807.3  | 841.2  | 870.6  | 895.2  | 904.6  | 907.0  |
| 147.5° | 715.3  | 746.0  | 776.3  | 800.4  | 822.7  | 839.4  | 848.3  | 849.2  |
| 150°   | 704.0  | 730.9  | 755.6  | 777.9  | 795.5  | 808.4  | 815.5  | 815.5  |
| 152.5° | 693.7  | 716.9  | 738.7  | 757.3  | 771.1  | 783.0  | 787.3  | 787.3  |
| 155°   | 678.1  | 696.9  | 714.6  | 728.6  | 739.2  | 748.6  | 750.9  | 752.0  |
| 157.5° | 661.8  | 677.5  | 691.1  | 702.1  | 711.2  | 718.3  | 720.1  | 719.9  |
| 160°   | 652.4  | 665.3  | 677.0  | 685.2  | 693.5  | 700.4  | 700.4  | 699.3  |
| 162.5° | 641.1  | 652.2  | 662.9  | 670.1  | 675.6  | 681.7  | 681.7  | 680.5  |
| 165°   | 626.5  | 633.6  | 641.8  | 647.6  | 652.4  | 657.0  | 655.9  | 655.9  |
| 167.5° | 613.9  | 619.2  | 624.0  | 628.2  | 630.3  | 633.6  | 632.4  | 632.4  |
| 170°   | 605.4  | 608.9  | 613.6  | 616.0  | 617.1  | 619.6  | 618.3  | 618.3  |
| 172.5° | 597.9  | 600.5  | 604.3  | 605.6  | 605.9  | 608.2  | 606.1  | 605.2  |
| 175°   | 587.8  | 589.0  | 591.4  | 591.4  | 591.4  | 592.5  | 591.4  | 590.2  |
| 177.5° | 581.5  | 582.4  | 583.4  | 583.4  | 582.4  | 583.4  | 581.5  | 581.5  |
| 180°   | 579.7  | 579.7  | 579.7  | 579.7  | 579.7  | 579.7  | 579.7  | 579.7  |

(END OF REPORT)