

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: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C08D010 EX4C089040 4LBSQLI**

Issue Date: 2/9/2022



**Test Information**

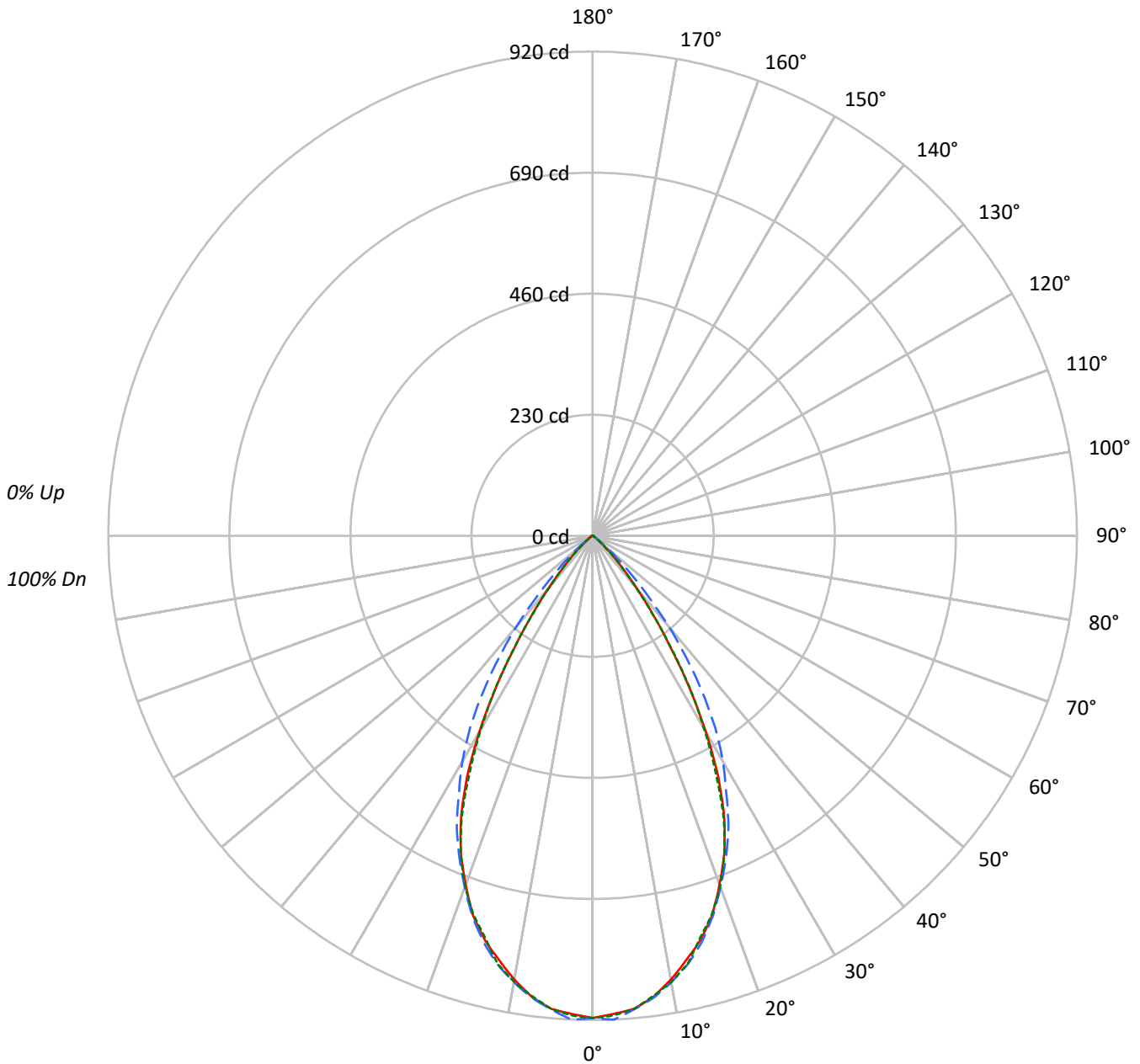
Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209151)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/9/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C08D010 EX4C089040 4LBSQLI  
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 846.0 lumens  
Efficiency: N/A  
Efficacy: 85.5 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 9.9  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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

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CATALOG NUMBER: LD4C08D010 EX4C089040 4LBSQLI

### Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C08D010 EX4C089040 4LBSQLI

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |   |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 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 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 92  | 95  | 92  | 90  | 92  | 90  | 88  | 87  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 102 | 96  | 91  | 87  | 100 | 94  | 90  | 86  | 92  | 88  | 84  | 89  | 86  | 83  | 87  | 84  | 82  | 80  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 97  | 89  | 84  | 79  | 95  | 88  | 83  | 79  | 86  | 81  | 78  | 84  | 80  | 77  | 82  | 79  | 76  | 75  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 92  | 83  | 77  | 73  | 90  | 82  | 77  | 73  | 81  | 76  | 72  | 79  | 75  | 71  | 77  | 74  | 71  | 69  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 87  | 78  | 72  | 68  | 86  | 77  | 71  | 67  | 76  | 71  | 67  | 74  | 70  | 66  | 73  | 69  | 66  | 64  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 83  | 73  | 67  | 63  | 81  | 73  | 67  | 63  | 71  | 66  | 62  | 70  | 65  | 62  | 69  | 65  | 62  | 60  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 79  | 69  | 63  | 59  | 77  | 68  | 62  | 58  | 67  | 62  | 58  | 66  | 61  | 58  | 65  | 61  | 58  | 56  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 75  | 65  | 59  | 55  | 74  | 64  | 59  | 55  | 63  | 58  | 55  | 63  | 58  | 54  | 62  | 57  | 54  | 53  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 71  | 61  | 55  | 51  | 70  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 58  | 54  | 51  | 50  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 88413 | 88413 | 88413 |
| 5°  | 87404 | 87511 | 87404 |
| 10° | 83908 | 84417 | 84310 |
| 15° | 79325 | 79904 | 78915 |
| 20° | 72390 | 72935 | 72750 |
| 25° | 63037 | 65017 | 62601 |
| 30° | 47931 | 55129 | 47218 |
| 35° | 30178 | 42864 | 30449 |
| 40° | 16274 | 28303 | 15984 |
| 45° | 7710  | 13987 | 7628  |
| 50° | 2882  | 5239  | 2882  |
| 55° | 1363  | 1665  | 1278  |
| 60° | 907   | 791   | 907   |
| 65° | 525   | 525   | 525   |
| 70° | 339   | 508   | 339   |
| 75° | 224   | 224   | 224   |
| 80° | 333   | 333   | 333   |
| 85° | 0     | 0     | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 85.0   | 10.0      |
| 10°-20°   | 222.7  | 26.3      |
| 20°-30°   | 272.0  | 32.2      |
| 30°-40°   | 190.2  | 22.5      |
| 40°-50°   | 62.3   | 7.4       |
| 50°-60°   | 9.9    | 1.2       |
| 60°-70°   | 2.7    | 0.3       |
| 70°-80°   | 0.9    | 0.1       |
| 80°-90°   | 0.3    | 0.0       |
| 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°    | 579.6  | 68.5      |
| 0°-40°    | 769.9  | 91.0      |
| 0°-60°    | 842.1  | 99.5      |
| 0°-90°    | 846.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 846.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 916 | 916   | 916 | 916   | 916 |      |
| 5°  | 902 | 903   | 904 | 898   | 902 | 85   |
| 15° | 794 | 797   | 800 | 795   | 790 | 222  |
| 25° | 592 | 601   | 611 | 600   | 588 | 266  |
| 35° | 256 | 302   | 364 | 298   | 258 | 163  |
| 45° | 56  | 70    | 102 | 69    | 56  | 47   |
| 55° | 8   | 9     | 10  | 9     | 8   | 8    |
| 65° | 2   | 3     | 2   | 3     | 2   | 3    |
| 75° | 1   | 1     | 1   | 1     | 1   | 1    |
| 85° | 0   | 0     | 0   | 0     | 0   | 0    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P#

CATALOG NUMBER: LD4C08D010 EX4C089040 4LBSQLI

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 |
| 2.5°  | 909.4 | 915.8 | 914.0 | 918.1 | 918.1 | 913.5 | 914.6 | 916.3 | 918.7 | 920.4 | 906.4 |
| 5°    | 902.4 | 908.2 | 903.0 | 908.8 | 905.3 | 900.1 | 908.8 | 904.1 | 907.0 | 903.5 | 905.9 |
| 7.5°  | 883.8 | 893.1 | 882.6 | 889.6 | 887.2 | 884.3 | 887.8 | 886.7 | 888.4 | 885.5 | 879.1 |
| 10°   | 856.4 | 864.0 | 857.0 | 866.9 | 862.2 | 859.3 | 862.2 | 865.1 | 864.5 | 861.6 | 865.1 |
| 12.5° | 825.0 | 833.7 | 830.2 | 836.0 | 830.8 | 830.8 | 837.8 | 836.0 | 836.6 | 834.3 | 838.3 |
| 15°   | 794.1 | 800.5 | 795.3 | 802.8 | 800.5 | 794.1 | 797.0 | 797.0 | 801.7 | 799.9 | 795.3 |
| 17.5° | 755.7 | 760.9 | 755.1 | 756.8 | 754.5 | 753.3 | 765.6 | 757.4 | 762.1 | 758.6 | 759.2 |
| 20°   | 705.0 | 707.4 | 705.6 | 710.3 | 707.4 | 710.8 | 709.7 | 708.5 | 708.5 | 710.3 | 706.2 |
| 22.5° | 653.8 | 653.8 | 655.5 | 656.7 | 659.0 | 655.5 | 662.5 | 656.7 | 657.3 | 661.4 | 660.2 |
| 25°   | 592.1 | 590.3 | 594.4 | 600.2 | 602.6 | 599.6 | 609.0 | 604.3 | 607.8 | 610.7 | 604.3 |
| 27.5° | 517.0 | 517.0 | 521.0 | 531.0 | 532.7 | 536.2 | 549.0 | 549.0 | 553.6 | 549.6 | 554.2 |
| 30°   | 430.2 | 436.6 | 441.9 | 454.7 | 458.8 | 466.3 | 479.7 | 486.1 | 496.6 | 494.8 | 492.5 |
| 32.5° | 341.2 | 349.9 | 350.5 | 363.9 | 374.9 | 387.7 | 405.8 | 420.9 | 428.5 | 433.7 | 427.9 |
| 35°   | 256.2 | 261.4 | 266.1 | 275.4 | 294.0 | 310.9 | 327.2 | 347.0 | 360.4 | 363.9 | 358.6 |
| 37.5° | 187.5 | 188.6 | 193.3 | 202.0 | 216.0 | 232.3 | 252.1 | 273.6 | 287.6 | 292.8 | 287.0 |
| 40°   | 129.2 | 130.4 | 132.7 | 140.3 | 152.0 | 163.6 | 179.3 | 201.4 | 214.2 | 224.7 | 217.1 |
| 42.5° | 86.7  | 87.9  | 90.2  | 96.1  | 102.5 | 113.5 | 125.7 | 139.7 | 152.0 | 156.6 | 152.5 |
| 45°   | 56.5  | 56.5  | 57.6  | 61.7  | 65.2  | 73.9  | 82.7  | 91.4  | 99.5  | 102.5 | 99.5  |
| 47.5° | 33.2  | 33.8  | 34.9  | 37.8  | 41.9  | 45.4  | 51.8  | 57.6  | 60.0  | 62.3  | 61.1  |
| 50°   | 19.2  | 19.2  | 21.0  | 22.7  | 25.6  | 27.9  | 30.3  | 32.6  | 33.8  | 34.9  | 33.8  |
| 52.5° | 10.5  | 11.1  | 11.6  | 12.2  | 13.4  | 15.7  | 17.5  | 17.5  | 18.1  | 18.6  | 18.1  |
| 55°   | 8.1   | 8.1   | 8.1   | 8.1   | 8.7   | 8.7   | 8.7   | 9.3   | 9.3   | 9.9   | 9.3   |
| 57.5° | 5.8   | 5.8   | 5.8   | 6.4   | 6.4   | 6.4   | 5.8   | 5.8   | 5.8   | 5.8   | 5.8   |
| 60°   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   | 4.1   | 4.1   | 4.1   | 4.1   |
| 62.5° | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |
| 65°   | 2.3   | 2.3   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.3   | 2.3   | 2.3   | 2.3   |
| 67.5° | 1.8   | 1.8   | 1.8   | 1.8   | 2.3   | 2.3   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   |
| 70°   | 1.2   | 1.2   | 1.2   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   |
| 72.5° | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   |
| 75°   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 77.5° | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 80°   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 82.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.6   | 0.0   | 0.0   | 0.0   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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CATALOG NUMBER: LD4C08D010 EX4C089040 4LBSQLI

**CANDELA DISTRIBUTION (continued):**

|       | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 | 916.3 |
| 2.5°  | 916.3 | 906.4 | 907.6 | 912.9 | 909.9 | 912.9 | 912.3 | 912.3 |
| 5°    | 906.4 | 903.5 | 898.9 | 897.1 | 900.6 | 908.2 | 907.0 | 902.4 |
| 7.5°  | 887.8 | 880.3 | 885.5 | 887.8 | 884.9 | 889.6 | 891.9 | 882.0 |
| 10°   | 865.7 | 862.8 | 861.6 | 862.8 | 861.6 | 866.3 | 860.5 | 860.5 |
| 12.5° | 834.3 | 829.6 | 829.6 | 836.6 | 832.5 | 829.0 | 833.7 | 833.1 |
| 15°   | 802.8 | 793.5 | 793.5 | 795.8 | 797.6 | 795.3 | 795.8 | 790.0 |
| 17.5° | 756.2 | 753.3 | 749.3 | 755.7 | 757.4 | 755.1 | 756.8 | 753.9 |
| 20°   | 712.6 | 712.6 | 705.0 | 707.9 | 710.3 | 712.0 | 713.2 | 708.5 |
| 22.5° | 656.7 | 657.9 | 652.6 | 658.4 | 660.2 | 654.4 | 655.5 | 654.4 |
| 25°   | 605.5 | 604.9 | 600.8 | 598.5 | 599.6 | 597.3 | 596.7 | 588.0 |
| 27.5° | 549.0 | 543.2 | 534.4 | 536.8 | 526.9 | 518.7 | 518.7 | 505.3 |
| 30°   | 487.9 | 478.0 | 466.3 | 454.7 | 446.0 | 436.6 | 431.4 | 423.8 |
| 32.5° | 416.3 | 402.9 | 388.3 | 372.6 | 362.7 | 348.7 | 341.2 | 345.2 |
| 35°   | 345.2 | 325.4 | 305.6 | 289.9 | 274.8 | 266.6 | 257.3 | 258.5 |
| 37.5° | 276.5 | 248.6 | 231.1 | 214.2 | 201.4 | 191.0 | 186.9 | 185.7 |
| 40°   | 202.0 | 179.9 | 162.4 | 150.2 | 141.5 | 133.3 | 128.7 | 126.9 |
| 42.5° | 139.7 | 124.0 | 110.0 | 100.1 | 94.3  | 89.1  | 86.7  | 86.2  |
| 45°   | 90.8  | 81.5  | 72.2  | 65.2  | 60.6  | 57.1  | 56.5  | 55.9  |
| 47.5° | 57.1  | 52.4  | 46.6  | 41.3  | 37.3  | 34.9  | 33.2  | 33.2  |
| 50°   | 32.6  | 30.9  | 27.9  | 25.0  | 22.7  | 21.5  | 19.8  | 19.2  |
| 52.5° | 17.5  | 17.5  | 16.3  | 14.0  | 12.2  | 11.1  | 11.1  | 10.5  |
| 55°   | 9.3   | 9.3   | 8.7   | 8.7   | 8.1   | 8.1   | 8.1   | 7.6   |
| 57.5° | 5.8   | 5.8   | 6.4   | 6.4   | 5.8   | 5.8   | 5.8   | 5.8   |
| 60°   | 4.1   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   |
| 62.5° | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |
| 65°   | 2.3   | 2.9   | 2.9   | 2.9   | 2.9   | 2.3   | 2.3   | 2.3   |
| 67.5° | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   |
| 70°   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.2   | 1.2   | 1.2   |
| 72.5° | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   |
| 75°   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 77.5° | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 80°   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 82.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°









(END OF REPORT)