

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: **LD4C70D010 EX4C709027 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: LD4C70D010 EX4C709027 4LBSQLI  
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

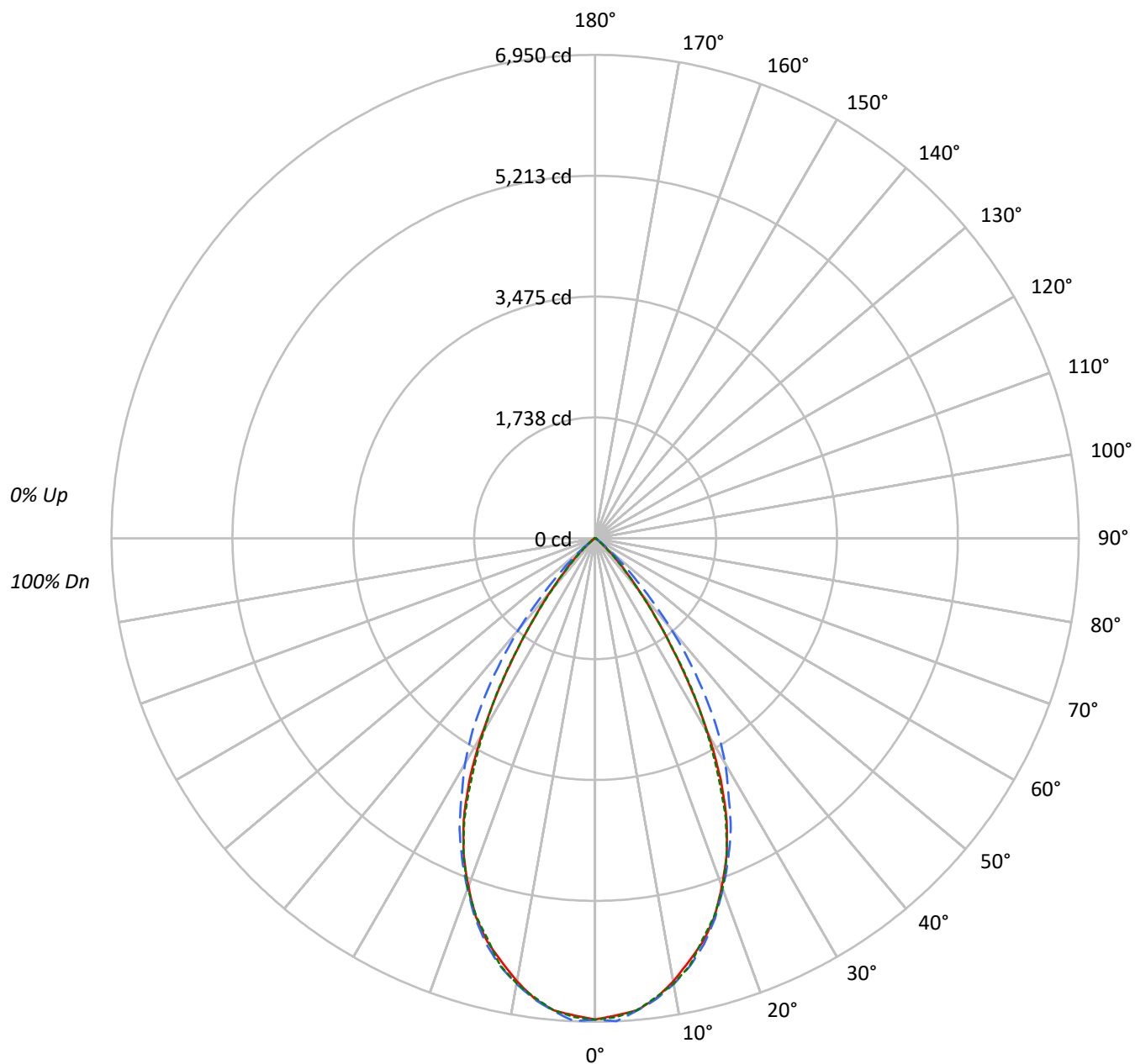
Lumens per Lamp: N/A  
Luminaire Lumens: 6388.1 lumens  
Efficiency: N/A  
Efficacy: 81.9 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 78  
Input Voltage (V):  
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: P#

CATALOG NUMBER: LD4C70D010 EX4C709027 4LBSQLI

### Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C70D010 EX4C709027 4LBSQLI

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

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 |  | 101 | 99  | 98  |  | 97  |
| 2   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 92  |  | 95  | 92  | 90  |  | 92  |
| 3   | 102 | 96  | 91  | 87  | 100 | 94  | 90  | 86  | 92  | 88  | 84  |  | 89  | 86  | 83  |  | 87  |
| 4   | 97  | 89  | 84  | 79  | 95  | 88  | 83  | 79  | 86  | 81  | 78  |  | 84  | 80  | 77  |  | 82  |
| 5   | 92  | 83  | 77  | 73  | 90  | 82  | 77  | 73  | 81  | 76  | 72  |  | 79  | 75  | 71  |  | 77  |
| 6   | 87  | 78  | 72  | 68  | 86  | 77  | 71  | 67  | 76  | 71  | 67  |  | 74  | 70  | 66  |  | 73  |
| 7   | 83  | 73  | 67  | 63  | 81  | 73  | 67  | 63  | 71  | 66  | 62  |  | 70  | 65  | 62  |  | 69  |
| 8   | 79  | 69  | 63  | 59  | 77  | 68  | 62  | 58  | 67  | 62  | 58  |  | 66  | 61  | 58  |  | 65  |
| 9   | 75  | 65  | 59  | 55  | 74  | 64  | 59  | 55  | 63  | 58  | 55  |  | 63  | 58  | 54  |  | 62  |
| 10  | 71  | 61  | 55  | 51  | 70  | 61  | 55  | 51  | 60  | 55  | 51  |  | 59  | 54  | 51  |  | 58  |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 667626 | 667626 | 667626 |
| 5°  | 659958 | 660810 | 659958 |
| 10° | 633561 | 637451 | 636589 |
| 15° | 598966 | 603352 | 595880 |
| 20° | 546624 | 550680 | 549335 |
| 25° | 475967 | 490947 | 472688 |
| 30° | 361945 | 416305 | 356564 |
| 35° | 227832 | 323631 | 229905 |
| 40° | 122922 | 213724 | 120705 |
| 45° | 58185  | 105576 | 57571  |
| 50° | 21781  | 39584  | 21781  |
| 55° | 10346  | 12583  | 9622   |
| 60° | 6793   | 5963   | 6793   |
| 65° | 4018   | 4018   | 4018   |
| 70° | 2483   | 3752   | 2483   |
| 75° | 1678   | 1678   | 1678   |
| 80° | 2500   | 2500   | 2500   |
| 85° | 0      | 0      | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 641.5  | 10.0      |
| 10°-20°   | 1681.3 | 26.3      |
| 20°-30°   | 2053.9 | 32.2      |
| 30°-40°   | 1436.5 | 22.5      |
| 40°-50°   | 470.8  | 7.4       |
| 50°-60°   | 74.9   | 1.2       |
| 60°-70°   | 20.5   | 0.3       |
| 70°-80°   | 6.9    | 0.1       |
| 80°-90°   | 1.9    | 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       |
| <hr/>     |        |           |
| 0°-30°    | 4376.7 | 68.5      |
| 0°-40°    | 5813.2 | 91.0      |
| 0°-60°    | 6358.8 | 99.5      |
| 0°-90°    | 6388.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6388.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 6919 | 6919  | 6919 | 6919  | 6919 |      |
| 5°  | 6814 | 6816  | 6822 | 6781  | 6814 | 639  |
| 15° | 5996 | 6020  | 6040 | 6000  | 5965 | 1673 |
| 25° | 4471 | 4539  | 4611 | 4528  | 4440 | 2008 |
| 35° | 1934 | 2284  | 2748 | 2249  | 1952 | 1234 |
| 45° | 426  | 525   | 774  | 519   | 422  | 358  |
| 55° | 62   | 66    | 75   | 66    | 57   | 61   |
| 65° | 18   | 22    | 18   | 22    | 18   | 20   |
| 75° | 4    | 4     | 4    | 4     | 4    | 6    |
| 85° | 0    | 0     | 0    | 0     | 0    | 2    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P#

CATALOG NUMBER: LD4C70D010 EX4C709027 4LBSQLI

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 |
| 2.5°  | 6866.5 | 6914.9 | 6901.6 | 6932.5 | 6932.5 | 6897.3 | 6906.1 | 6919.2 | 6936.8 | 6950.1 | 6844.4 |
| 5°    | 6813.7 | 6857.7 | 6818.0 | 6862.0 | 6835.6 | 6796.1 | 6862.0 | 6826.8 | 6848.9 | 6822.5 | 6840.1 |
| 7.5°  | 6673.1 | 6743.4 | 6664.3 | 6717.0 | 6699.4 | 6677.4 | 6703.8 | 6695.0 | 6708.2 | 6686.2 | 6637.9 |
| 10°   | 6466.4 | 6523.6 | 6470.9 | 6545.5 | 6510.4 | 6488.5 | 6510.4 | 6532.4 | 6528.0 | 6506.1 | 6532.4 |
| 12.5° | 6229.1 | 6294.9 | 6268.6 | 6312.5 | 6273.0 | 6273.0 | 6325.8 | 6312.5 | 6317.0 | 6299.4 | 6330.1 |
| 15°   | 5996.1 | 6044.5 | 6004.9 | 6062.1 | 6044.5 | 5996.1 | 6018.0 | 6018.0 | 6053.3 | 6040.0 | 6004.9 |
| 17.5° | 5706.0 | 5745.5 | 5701.5 | 5714.8 | 5697.2 | 5688.4 | 5780.6 | 5719.1 | 5754.3 | 5727.9 | 5732.4 |
| 20°   | 5323.5 | 5341.1 | 5327.8 | 5363.0 | 5341.1 | 5367.5 | 5358.7 | 5349.9 | 5349.9 | 5363.0 | 5332.3 |
| 22.5° | 4936.6 | 4936.6 | 4949.9 | 4958.7 | 4976.2 | 4949.9 | 5002.6 | 4958.7 | 4963.0 | 4993.8 | 4985.0 |
| 25°   | 4470.7 | 4457.4 | 4488.3 | 4532.3 | 4549.8 | 4527.8 | 4598.1 | 4562.9 | 4589.3 | 4611.4 | 4562.9 |
| 27.5° | 3903.7 | 3903.7 | 3934.4 | 4009.2 | 4022.3 | 4048.6 | 4145.3 | 4145.3 | 4180.5 | 4149.8 | 4185.0 |
| 30°   | 3248.6 | 3297.0 | 3336.5 | 3433.1 | 3464.0 | 3521.2 | 3622.2 | 3670.6 | 3749.8 | 3736.5 | 3718.9 |
| 32.5° | 2576.0 | 2642.0 | 2646.3 | 2747.5 | 2830.9 | 2927.6 | 3064.0 | 3178.2 | 3235.5 | 3274.9 | 3231.0 |
| 35°   | 1934.2 | 1973.8 | 2009.0 | 2079.3 | 2219.9 | 2347.5 | 2470.5 | 2620.0 | 2721.1 | 2747.5 | 2707.9 |
| 37.5° | 1415.6 | 1424.3 | 1459.5 | 1525.3 | 1630.8 | 1754.1 | 1903.5 | 2066.0 | 2171.7 | 2211.1 | 2167.2 |
| 40°   | 975.9  | 984.7  | 1002.2 | 1059.5 | 1147.4 | 1235.3 | 1354.0 | 1521.0 | 1617.7 | 1696.8 | 1639.6 |
| 42.5° | 654.9  | 663.7  | 681.3  | 725.3  | 773.7  | 857.1  | 949.5  | 1055.0 | 1147.4 | 1182.5 | 1151.7 |
| 45°   | 426.4  | 426.4  | 435.2  | 466.0  | 492.4  | 558.3  | 624.3  | 690.1  | 751.6  | 773.7  | 751.6  |
| 47.5° | 250.6  | 254.9  | 263.7  | 285.8  | 316.4  | 342.8  | 391.2  | 435.2  | 452.8  | 470.4  | 461.6  |
| 50°   | 145.1  | 145.1  | 158.2  | 171.5  | 193.4  | 211.0  | 228.5  | 246.1  | 254.9  | 263.7  | 254.9  |
| 52.5° | 79.1   | 83.6   | 87.9   | 92.4   | 101.2  | 118.8  | 131.9  | 131.9  | 136.3  | 140.6  | 136.3  |
| 55°   | 61.5   | 61.5   | 61.5   | 61.5   | 66.0   | 66.0   | 66.0   | 70.3   | 70.3   | 74.8   | 70.3   |
| 57.5° | 44.0   | 44.0   | 44.0   | 48.4   | 48.4   | 48.4   | 44.0   | 44.0   | 44.0   | 44.0   | 44.0   |
| 60°   | 35.2   | 35.2   | 35.2   | 35.2   | 35.2   | 35.2   | 35.2   | 30.9   | 30.9   | 30.9   | 30.9   |
| 62.5° | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   |
| 65°   | 17.6   | 17.6   | 22.1   | 22.1   | 22.1   | 22.1   | 22.1   | 17.6   | 17.6   | 17.6   | 17.6   |
| 67.5° | 13.3   | 13.3   | 13.3   | 13.3   | 17.6   | 17.6   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   |
| 70°   | 8.8    | 8.8    | 8.8    | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   |
| 72.5° | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    |
| 75°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 77.5° | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 80°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 4.5    | 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° | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 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: P#

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**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 | 6919.2 |
| 2.5°  | 6919.2 | 6844.4 | 6853.2 | 6892.8 | 6870.8 | 6892.8 | 6888.5 | 6888.5 |
| 5°    | 6844.4 | 6822.5 | 6787.3 | 6774.1 | 6800.4 | 6857.7 | 6848.9 | 6813.7 |
| 7.5°  | 6703.8 | 6646.7 | 6686.2 | 6703.8 | 6681.9 | 6717.0 | 6734.6 | 6659.8 |
| 10°   | 6536.7 | 6514.9 | 6506.1 | 6514.9 | 6506.1 | 6541.2 | 6497.3 | 6497.3 |
| 12.5° | 6299.4 | 6264.2 | 6264.2 | 6317.0 | 6286.1 | 6259.8 | 6294.9 | 6290.6 |
| 15°   | 6062.1 | 5991.6 | 5991.6 | 6009.2 | 6022.4 | 6004.9 | 6009.2 | 5965.2 |
| 17.5° | 5710.3 | 5688.4 | 5657.6 | 5706.0 | 5719.1 | 5701.5 | 5714.8 | 5692.7 |
| 20°   | 5380.6 | 5380.6 | 5323.5 | 5345.4 | 5363.0 | 5376.3 | 5385.1 | 5349.9 |
| 22.5° | 4958.7 | 4967.4 | 4927.8 | 4971.8 | 4985.0 | 4941.1 | 4949.9 | 4941.1 |
| 25°   | 4571.7 | 4567.4 | 4536.6 | 4519.0 | 4527.8 | 4510.2 | 4505.9 | 4439.9 |
| 27.5° | 4145.3 | 4101.4 | 4035.5 | 4053.1 | 3978.3 | 3916.8 | 3916.8 | 3815.6 |
| 30°   | 3683.7 | 3609.1 | 3521.2 | 3433.1 | 3367.3 | 3297.0 | 3257.3 | 3200.3 |
| 32.5° | 3143.1 | 3042.1 | 2932.1 | 2813.4 | 2738.7 | 2633.2 | 2576.0 | 2606.9 |
| 35°   | 2606.9 | 2457.3 | 2307.8 | 2189.3 | 2074.8 | 2013.3 | 1943.0 | 1951.8 |
| 37.5° | 2088.1 | 1877.1 | 1745.3 | 1617.7 | 1521.0 | 1441.9 | 1411.1 | 1402.3 |
| 40°   | 1525.3 | 1358.3 | 1226.5 | 1134.1 | 1068.3 | 1006.7 | 971.6  | 958.3  |
| 42.5° | 1055.0 | 936.4  | 830.8  | 756.1  | 712.2  | 672.5  | 654.9  | 650.6  |
| 45°   | 685.8  | 615.5  | 545.2  | 492.4  | 457.3  | 430.9  | 426.4  | 421.9  |
| 47.5° | 430.9  | 395.6  | 351.6  | 312.1  | 281.3  | 263.7  | 250.6  | 250.6  |
| 50°   | 246.1  | 233.0  | 211.0  | 189.1  | 171.5  | 162.7  | 149.4  | 145.1  |
| 52.5° | 131.9  | 131.9  | 123.1  | 105.5  | 92.4   | 83.6   | 83.6   | 79.1   |
| 55°   | 70.3   | 70.3   | 66.0   | 66.0   | 61.5   | 61.5   | 61.5   | 57.2   |
| 57.5° | 44.0   | 44.0   | 48.4   | 48.4   | 44.0   | 44.0   | 44.0   | 44.0   |
| 60°   | 30.9   | 35.2   | 35.2   | 35.2   | 35.2   | 35.2   | 35.2   | 35.2   |
| 62.5° | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   | 26.4   |
| 65°   | 17.6   | 22.1   | 22.1   | 22.1   | 22.1   | 17.6   | 17.6   | 17.6   |
| 67.5° | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   |
| 70°   | 13.3   | 13.3   | 13.3   | 13.3   | 13.3   | 8.8    | 8.8    | 8.8    |
| 72.5° | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    | 8.8    |
| 75°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 77.5° | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 80°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 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° | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 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)