

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: **LD4C05D010 EX4C059027 4LBCSSQMMS**

Issue Date: 5/25/2022



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)
Test Lab: INNOVATION CENTER
Issue Date: 5/25/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C05D010 EX4C059027 4LBCSSQMMS
Description: 4 INCH 500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

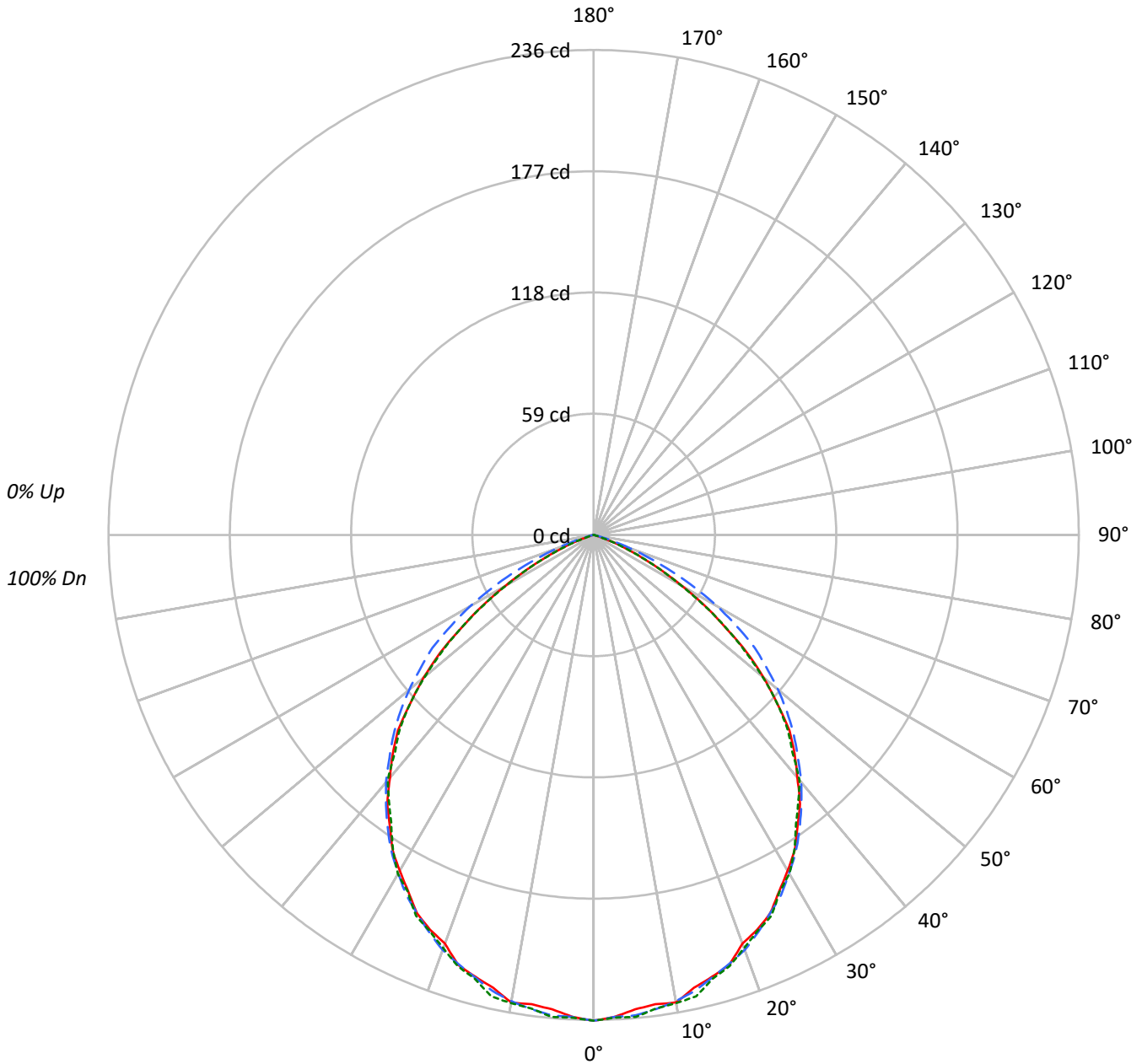
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 505.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
Input Voltage (V):
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: 25 FT

TEST NUMBER: P#
CATALOG NUMBER: LD4C05D010 EX4C059027 4LBCSSQMMS

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C05D010 EX4C059027 4LBCSSQMMS

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 | 111 | 108 | 104 | 101 | 109 | 105 | 102 | 100 | 101 | 99 | 96 | 97 | 95 | 94 | 94 | 92 | 91 | 89 | | | | | | | | | | | | | | | | | | | |
| 2 | 103 | 96 | 91 | 86 | 100 | 94 | 89 | 85 | 91 | 87 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 77 | | | | | | | | | | | | | | | | | | | |
| 3 | 95 | 86 | 79 | 74 | 93 | 85 | 78 | 73 | 82 | 76 | 72 | 79 | 74 | 71 | 77 | 73 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 4 | 88 | 77 | 70 | 64 | 86 | 76 | 69 | 63 | 74 | 67 | 63 | 71 | 66 | 62 | 69 | 65 | 61 | 59 | | | | | | | | | | | | | | | | | | | |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 54 | 52 | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 57 | 52 | 48 | 46 | | | | | | | | | | | | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 43 | 53 | 47 | 43 | 41 | | | | | | | | | | | | | | | | | | | |
| 8 | 65 | 53 | 45 | 40 | 64 | 52 | 45 | 39 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | | | | | | | | | | | | | | | |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | | | | | | | | | | | | | | | |
| 10 | 57 | 45 | 38 | 33 | 56 | 44 | 37 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 31 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 22810 | 22810 | 22810 |
| 5° | 22442 | 22732 | 22800 |
| 10° | 22633 | 22574 | 22672 |
| 15° | 22236 | 22276 | 22336 |
| 20° | 21727 | 22066 | 21964 |
| 25° | 21633 | 21633 | 21772 |
| 30° | 21024 | 21180 | 21214 |
| 35° | 20366 | 20566 | 20213 |
| 40° | 19410 | 19788 | 19624 |
| 45° | 18381 | 18790 | 18190 |
| 50° | 16182 | 17593 | 16077 |
| 55° | 13105 | 16099 | 13155 |
| 60° | 9591 | 13354 | 9398 |
| 65° | 5822 | 9498 | 5685 |
| 70° | 2285 | 5106 | 2172 |
| 75° | 261 | 1379 | 261 |
| 80° | 167 | 167 | 167 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: LD4C05D010 EX4C059027 4LBCSSQMMS

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 22.3 | 4.4 |
| 10°-20° | 63.1 | 12.5 |
| 20°-30° | 93.7 | 18.6 |
| 30°-40° | 108.6 | 21.5 |
| 40°-50° | 104.1 | 20.6 |
| 50°-60° | 76.5 | 15.2 |
| 60°-70° | 33.1 | 6.5 |
| 70°-80° | 3.6 | 0.7 |
| 80°-90° | 0.0 | 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° | 179.2 | 35.5 |
| 0°-40° | 287.7 | 57.0 |
| 0°-60° | 468.3 | 92.7 |
| 0°-90° | 505.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 505.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 236 | 236 | 236 | 236 | 236 | |
| 5° | 232 | 234 | 235 | 235 | 235 | 22 |
| 15° | 223 | 224 | 223 | 223 | 224 | 63 |
| 25° | 203 | 203 | 203 | 204 | 204 | 93 |
| 35° | 173 | 174 | 175 | 174 | 172 | 108 |
| 45° | 135 | 135 | 138 | 136 | 133 | 102 |
| 55° | 78 | 86 | 96 | 86 | 78 | 70 |
| 65° | 26 | 32 | 42 | 32 | 25 | 26 |
| 75° | 1 | 1 | 4 | 1 | 1 | 2 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P#

CATALOG NUMBER: LD4C05D010 EX4C059027 4LBCSSQMMS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 |
| 2.5° | 234.7 | 237.4 | 237.7 | 236.1 | 235.4 | 234.4 | 236.7 | 235.1 | 235.7 | 235.1 | 234.7 |
| 5° | 231.7 | 234.7 | 235.1 | 235.1 | 234.4 | 234.0 | 235.1 | 234.7 | 234.4 | 233.7 | 234.7 |
| 7.5° | 230.4 | 232.0 | 233.7 | 231.7 | 232.7 | 232.4 | 234.7 | 233.7 | 233.4 | 233.4 | 232.7 |
| 10° | 231.0 | 230.7 | 232.0 | 230.0 | 230.7 | 230.0 | 232.0 | 232.0 | 231.4 | 230.7 | 230.4 |
| 12.5° | 225.7 | 228.3 | 228.3 | 228.0 | 227.3 | 226.3 | 228.3 | 229.7 | 227.7 | 227.7 | 227.3 |
| 15° | 222.6 | 223.3 | 223.6 | 223.6 | 223.3 | 224.0 | 225.0 | 223.6 | 224.0 | 222.3 | 223.0 |
| 17.5° | 219.3 | 217.9 | 218.9 | 218.3 | 218.6 | 219.3 | 220.6 | 220.6 | 218.6 | 218.3 | 218.9 |
| 20° | 211.6 | 215.6 | 215.9 | 213.9 | 214.2 | 214.2 | 216.6 | 214.6 | 215.9 | 214.2 | 214.9 |
| 22.5° | 207.9 | 210.5 | 210.9 | 208.2 | 209.9 | 207.9 | 210.2 | 207.2 | 210.5 | 208.2 | 209.2 |
| 25° | 203.2 | 202.8 | 203.8 | 202.5 | 202.8 | 202.8 | 204.5 | 203.2 | 204.2 | 202.8 | 203.2 |
| 27.5° | 195.4 | 198.1 | 197.8 | 196.4 | 197.1 | 196.8 | 200.1 | 196.4 | 198.5 | 196.8 | 197.5 |
| 30° | 188.7 | 191.1 | 190.4 | 189.1 | 189.1 | 188.0 | 191.7 | 190.7 | 190.4 | 190.4 | 190.1 |
| 32.5° | 182.0 | 182.3 | 181.7 | 182.0 | 182.3 | 181.0 | 184.0 | 182.7 | 182.3 | 182.7 | 183.0 |
| 35° | 172.9 | 172.9 | 173.6 | 172.6 | 173.9 | 173.9 | 176.6 | 174.9 | 174.6 | 173.6 | 174.6 |
| 37.5° | 164.9 | 163.9 | 164.2 | 164.2 | 164.9 | 165.5 | 166.9 | 166.2 | 166.2 | 165.2 | 165.9 |
| 40° | 154.1 | 153.5 | 154.5 | 154.5 | 155.5 | 155.5 | 156.8 | 156.1 | 157.1 | 157.1 | 157.1 |
| 42.5° | 144.7 | 144.7 | 144.1 | 145.1 | 145.4 | 145.1 | 147.4 | 147.1 | 147.4 | 146.7 | 147.1 |
| 45° | 134.7 | 134.7 | 134.0 | 133.7 | 135.3 | 135.0 | 137.7 | 136.7 | 138.0 | 137.3 | 137.7 |
| 47.5° | 120.9 | 122.6 | 121.6 | 122.6 | 124.6 | 124.9 | 126.6 | 125.9 | 127.3 | 126.3 | 127.6 |
| 50° | 107.8 | 107.8 | 108.8 | 110.1 | 112.2 | 112.5 | 114.5 | 115.9 | 116.5 | 116.9 | 117.2 |
| 52.5° | 94.0 | 93.7 | 94.7 | 96.4 | 98.1 | 99.4 | 101.4 | 103.4 | 104.8 | 106.8 | 105.8 |
| 55° | 77.9 | 78.6 | 79.6 | 81.6 | 84.3 | 86.0 | 87.6 | 90.3 | 92.7 | 93.7 | 95.7 |
| 57.5° | 64.1 | 63.5 | 64.1 | 66.8 | 69.8 | 71.2 | 73.5 | 76.2 | 79.6 | 81.6 | 82.3 |
| 60° | 49.7 | 50.0 | 50.7 | 53.1 | 55.4 | 57.4 | 58.4 | 62.8 | 65.8 | 67.8 | 69.2 |
| 62.5° | 36.6 | 37.3 | 38.0 | 40.0 | 42.3 | 44.0 | 45.7 | 49.4 | 52.0 | 54.1 | 55.4 |
| 65° | 25.5 | 25.9 | 26.9 | 27.9 | 30.2 | 31.9 | 33.2 | 36.3 | 39.0 | 40.6 | 41.6 |
| 67.5° | 15.8 | 16.1 | 16.8 | 18.1 | 19.8 | 21.2 | 22.5 | 24.5 | 26.9 | 28.5 | 28.9 |
| 70° | 8.1 | 8.4 | 8.7 | 9.7 | 11.1 | 11.8 | 12.8 | 14.4 | 16.1 | 17.5 | 18.1 |
| 72.5° | 2.7 | 2.7 | 3.0 | 3.7 | 4.4 | 5.0 | 5.4 | 7.1 | 8.4 | 9.1 | 9.4 |
| 75° | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 1.0 | 1.0 | 2.0 | 2.7 | 3.4 | 3.7 |
| 77.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.7 | 0.7 |
| 80° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 82.5° | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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#

CATALOG NUMBER: LD4C05D010 EX4C059027 4LBCSSQMMS

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 | 236.4 |
| 2.5° | 236.4 | 235.7 | 235.4 | 235.7 | 235.7 | 235.4 | 236.4 | 237.7 | 239.4 | 235.1 |
| 5° | 236.1 | 235.4 | 236.1 | 234.0 | 235.1 | 234.4 | 235.7 | 235.4 | 236.7 | 235.4 |
| 7.5° | 235.1 | 233.7 | 234.0 | 233.0 | 234.4 | 232.7 | 233.7 | 235.7 | 234.4 | 232.4 |
| 10° | 231.7 | 231.0 | 233.4 | 230.0 | 229.4 | 230.7 | 233.4 | 231.4 | 230.7 | 231.4 |
| 12.5° | 228.3 | 228.3 | 229.4 | 226.7 | 227.0 | 227.7 | 229.0 | 227.7 | 228.3 | 230.0 |
| 15° | 224.7 | 224.0 | 225.7 | 223.6 | 223.3 | 222.6 | 224.0 | 224.0 | 224.7 | 223.6 |
| 17.5° | 220.3 | 219.3 | 219.3 | 218.6 | 218.3 | 220.0 | 220.6 | 221.0 | 221.3 | 220.0 |
| 20° | 214.9 | 214.6 | 215.6 | 214.6 | 214.9 | 215.3 | 215.3 | 214.6 | 217.6 | 213.9 |
| 22.5° | 209.2 | 210.2 | 208.9 | 208.2 | 208.9 | 209.5 | 209.5 | 209.9 | 209.2 | 208.5 |
| 25° | 203.5 | 204.2 | 204.5 | 202.5 | 203.5 | 202.5 | 204.8 | 205.2 | 203.8 | 204.5 |
| 27.5° | 198.5 | 197.5 | 197.1 | 195.8 | 196.4 | 196.1 | 196.4 | 196.4 | 198.5 | 195.8 |
| 30° | 190.7 | 189.7 | 190.1 | 189.1 | 189.4 | 189.1 | 189.4 | 189.4 | 190.7 | 190.4 |
| 32.5° | 183.3 | 182.3 | 182.7 | 181.7 | 181.7 | 182.0 | 181.3 | 181.3 | 182.3 | 181.7 |
| 35° | 176.3 | 173.9 | 174.3 | 173.9 | 174.3 | 172.9 | 172.9 | 172.6 | 173.3 | 171.6 |
| 37.5° | 166.2 | 165.2 | 164.9 | 164.5 | 164.9 | 164.2 | 164.9 | 163.9 | 164.9 | 163.5 |
| 40° | 157.1 | 156.5 | 156.8 | 154.8 | 154.8 | 155.1 | 154.5 | 154.1 | 154.5 | 155.8 |
| 42.5° | 148.1 | 146.7 | 146.1 | 145.4 | 145.7 | 144.7 | 144.4 | 143.7 | 144.4 | 143.0 |
| 45° | 137.3 | 137.3 | 137.0 | 135.3 | 135.7 | 135.7 | 134.3 | 133.0 | 133.3 | 133.3 |
| 47.5° | 127.6 | 126.9 | 126.6 | 124.9 | 124.6 | 124.3 | 122.9 | 121.9 | 121.9 | 120.9 |
| 50° | 116.9 | 116.2 | 115.2 | 113.5 | 112.8 | 110.8 | 109.8 | 108.5 | 107.1 | 107.1 |
| 52.5° | 106.8 | 104.4 | 103.1 | 100.4 | 99.4 | 98.4 | 95.7 | 94.7 | 93.7 | 92.7 |
| 55° | 94.7 | 92.7 | 90.0 | 87.0 | 85.6 | 83.9 | 81.3 | 79.2 | 77.9 | 78.2 |
| 57.5° | 82.9 | 79.6 | 76.9 | 72.9 | 71.2 | 70.2 | 67.5 | 64.8 | 63.5 | 63.5 |
| 60° | 68.5 | 65.8 | 62.5 | 58.8 | 57.4 | 55.7 | 52.4 | 50.7 | 49.7 | 48.7 |
| 62.5° | 54.7 | 52.7 | 49.7 | 45.0 | 44.0 | 42.3 | 40.0 | 38.0 | 36.9 | 36.9 |
| 65° | 41.0 | 39.0 | 36.3 | 32.9 | 31.6 | 30.2 | 28.2 | 26.2 | 25.2 | 24.9 |
| 67.5° | 28.9 | 26.5 | 24.2 | 21.5 | 20.5 | 19.8 | 17.8 | 16.5 | 15.8 | 15.4 |
| 70° | 17.5 | 16.1 | 14.4 | 12.4 | 11.4 | 10.7 | 9.4 | 8.4 | 8.1 | 7.7 |
| 72.5° | 9.1 | 8.1 | 6.7 | 5.4 | 4.7 | 4.0 | 3.4 | 2.7 | 2.4 | 2.4 |
| 75° | 3.4 | 2.7 | 1.7 | 1.0 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 77.5° | 0.7 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 80° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 82.5° | 0.0 | 0.0 | 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 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 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)