

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 EX4C089050 4LBCSSQMW**

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: LD4C08D010 EX4C089050 4LBCSSQMW
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

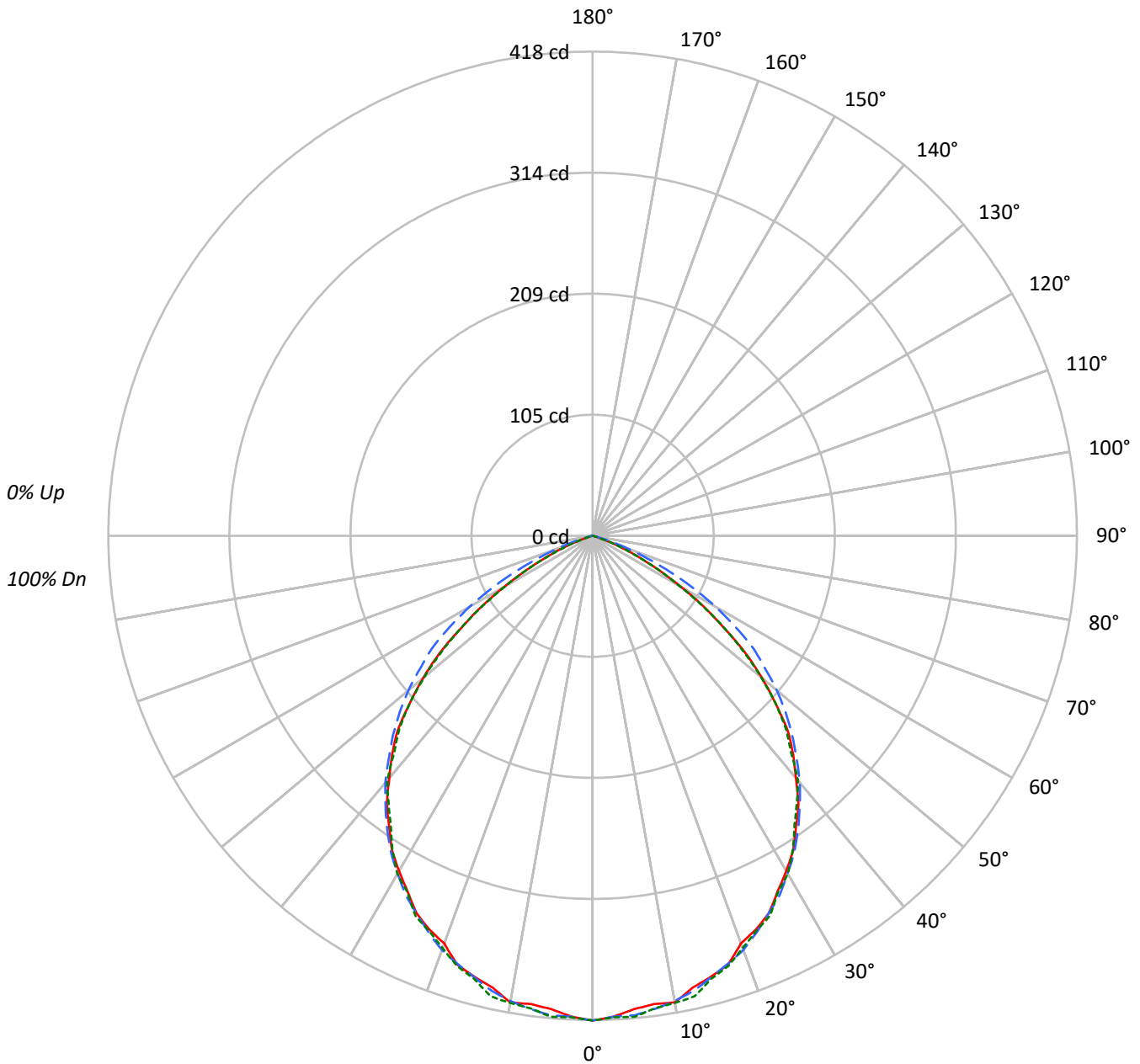
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 894.0 lumens
Efficiency: N/A
Efficacy: 90.6 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): 9.87
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#
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Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C08D010 EX4C089050 4LBCSSQMW

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 | 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° | 40381 | 40381 | 40381 |
| 5° | 39731 | 40244 | 40361 |
| 10° | 40073 | 39955 | 40132 |
| 15° | 39368 | 39428 | 39548 |
| 20° | 38454 | 39070 | 38885 |
| 25° | 38284 | 38284 | 38540 |
| 30° | 37224 | 37491 | 37558 |
| 35° | 36056 | 36409 | 35785 |
| 40° | 34374 | 35041 | 34739 |
| 45° | 32531 | 33254 | 32204 |
| 50° | 28641 | 31148 | 28461 |
| 55° | 23198 | 28497 | 23299 |
| 60° | 16982 | 23640 | 16635 |
| 65° | 10320 | 16827 | 10046 |
| 70° | 4034 | 9056 | 3865 |
| 75° | 447 | 2423 | 447 |
| 80° | 333 | 333 | 333 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 39.5 | 4.4 |
| 10°-20° | 111.8 | 12.5 |
| 20°-30° | 165.9 | 18.6 |
| 30°-40° | 192.2 | 21.5 |
| 40°-50° | 184.3 | 20.6 |
| 50°-60° | 135.5 | 15.2 |
| 60°-70° | 58.5 | 6.5 |
| 70°-80° | 6.3 | 0.7 |
| 80°-90° | 0.1 | 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° | 317.2 | 35.5 |
| 0°-40° | 509.3 | 57.0 |
| 0°-60° | 829.1 | 92.7 |
| 0°-90° | 894.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 894.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 418 | 418 | 418 | 418 | 418 | |
| 5° | 410 | 414 | 416 | 416 | 417 | 39 |
| 15° | 394 | 396 | 395 | 395 | 396 | 111 |
| 25° | 360 | 359 | 360 | 360 | 362 | 165 |
| 35° | 306 | 308 | 309 | 308 | 304 | 191 |
| 45° | 238 | 239 | 244 | 240 | 236 | 181 |
| 55° | 138 | 152 | 169 | 152 | 138 | 124 |
| 65° | 45 | 56 | 74 | 56 | 44 | 46 |
| 75° | 1 | 2 | 6 | 1 | 1 | 4 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P#

CATALOG NUMBER: LD4C08D010 EX4C089050 4LBCSSQMW

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 |
| 2.5° | 415.5 | 420.3 | 420.9 | 417.9 | 416.7 | 414.9 | 419.1 | 416.1 | 417.3 | 416.1 | 415.5 |
| 5° | 410.2 | 415.5 | 416.1 | 416.1 | 414.9 | 414.3 | 416.1 | 415.5 | 414.9 | 413.8 | 415.5 |
| 7.5° | 407.8 | 410.8 | 413.8 | 410.2 | 412.0 | 411.4 | 415.5 | 413.8 | 413.1 | 413.1 | 412.0 |
| 10° | 409.0 | 408.4 | 410.8 | 407.2 | 408.4 | 407.2 | 410.8 | 410.8 | 409.6 | 408.4 | 407.8 |
| 12.5° | 399.5 | 404.2 | 404.2 | 403.6 | 402.5 | 400.7 | 404.2 | 406.6 | 403.0 | 403.0 | 402.5 |
| 15° | 394.1 | 395.3 | 395.9 | 395.9 | 395.3 | 396.5 | 398.3 | 395.9 | 396.5 | 393.5 | 394.7 |
| 17.5° | 388.2 | 385.8 | 387.6 | 386.4 | 387.0 | 388.2 | 390.6 | 390.6 | 387.0 | 386.4 | 387.6 |
| 20° | 374.5 | 381.6 | 382.2 | 378.7 | 379.3 | 379.3 | 383.4 | 379.9 | 382.2 | 379.3 | 380.5 |
| 22.5° | 368.0 | 372.7 | 373.3 | 368.6 | 371.5 | 368.0 | 372.1 | 366.8 | 372.7 | 368.6 | 370.3 |
| 25° | 359.6 | 359.1 | 360.8 | 358.5 | 359.1 | 359.1 | 362.0 | 359.6 | 361.4 | 359.1 | 359.6 |
| 27.5° | 346.0 | 350.7 | 350.1 | 347.8 | 348.9 | 348.4 | 354.3 | 347.8 | 351.3 | 348.4 | 349.6 |
| 30° | 334.1 | 338.3 | 337.1 | 334.7 | 334.7 | 332.9 | 339.4 | 337.6 | 337.1 | 337.1 | 336.5 |
| 32.5° | 322.2 | 322.8 | 321.6 | 322.2 | 322.8 | 320.4 | 325.8 | 323.4 | 322.8 | 323.4 | 324.0 |
| 35° | 306.1 | 306.1 | 307.3 | 305.6 | 307.9 | 307.9 | 312.7 | 309.7 | 309.1 | 307.3 | 309.1 |
| 37.5° | 291.9 | 290.1 | 290.7 | 290.7 | 291.9 | 293.1 | 295.4 | 294.3 | 294.3 | 292.5 | 293.7 |
| 40° | 272.9 | 271.7 | 273.4 | 273.4 | 275.2 | 275.2 | 277.6 | 276.4 | 278.2 | 278.2 | 278.2 |
| 42.5° | 256.2 | 256.2 | 255.0 | 256.8 | 257.4 | 256.8 | 261.0 | 260.4 | 261.0 | 259.8 | 260.4 |
| 45° | 238.4 | 238.4 | 237.2 | 236.6 | 239.6 | 239.0 | 243.7 | 241.9 | 244.3 | 243.1 | 243.7 |
| 47.5° | 214.0 | 217.0 | 215.2 | 217.0 | 220.5 | 221.2 | 224.1 | 222.9 | 225.3 | 223.5 | 225.9 |
| 50° | 190.8 | 190.8 | 192.6 | 195.0 | 198.5 | 199.2 | 202.7 | 205.1 | 206.3 | 206.9 | 207.5 |
| 52.5° | 166.5 | 165.9 | 167.6 | 170.6 | 173.6 | 176.0 | 179.5 | 183.1 | 185.5 | 189.0 | 187.2 |
| 55° | 137.9 | 139.1 | 140.9 | 144.5 | 149.2 | 152.2 | 155.2 | 159.9 | 164.1 | 165.9 | 169.4 |
| 57.5° | 113.5 | 112.3 | 113.5 | 118.3 | 123.6 | 126.0 | 130.2 | 135.0 | 140.9 | 144.5 | 145.6 |
| 60° | 88.0 | 88.6 | 89.8 | 93.9 | 98.1 | 101.7 | 103.4 | 111.2 | 116.5 | 120.1 | 122.5 |
| 62.5° | 64.8 | 66.0 | 67.2 | 70.7 | 74.9 | 77.9 | 80.8 | 87.4 | 92.1 | 95.7 | 98.1 |
| 65° | 45.2 | 45.8 | 47.6 | 49.3 | 53.5 | 56.5 | 58.8 | 64.2 | 69.0 | 71.9 | 73.7 |
| 67.5° | 27.9 | 28.5 | 29.7 | 32.1 | 35.1 | 37.4 | 39.8 | 43.4 | 47.6 | 50.5 | 51.1 |
| 70° | 14.3 | 14.9 | 15.5 | 17.2 | 19.6 | 20.8 | 22.6 | 25.6 | 28.5 | 30.9 | 32.1 |
| 72.5° | 4.8 | 4.8 | 5.4 | 6.5 | 7.7 | 8.9 | 9.5 | 12.5 | 14.9 | 16.1 | 16.6 |
| 75° | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.8 | 1.8 | 3.6 | 4.8 | 5.9 | 6.5 |
| 77.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.2 | 1.2 |
| 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 | 0.0 | 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: LD4C08D010 EX4C089050 4LBCSSQMW

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 | 418.5 |
| 2.5° | 418.5 | 417.3 | 416.7 | 417.3 | 417.3 | 416.7 | 418.5 | 420.9 | 423.8 | 416.1 |
| 5° | 417.9 | 416.7 | 417.9 | 414.3 | 416.1 | 414.9 | 417.3 | 416.7 | 419.1 | 416.7 |
| 7.5° | 416.1 | 413.8 | 414.3 | 412.6 | 414.9 | 412.0 | 413.8 | 417.3 | 414.9 | 411.4 |
| 10° | 410.2 | 409.0 | 413.1 | 407.2 | 406.0 | 408.4 | 413.1 | 409.6 | 408.4 | 409.6 |
| 12.5° | 404.2 | 404.2 | 406.0 | 401.3 | 401.8 | 403.0 | 405.4 | 403.0 | 404.2 | 407.2 |
| 15° | 397.7 | 396.5 | 399.5 | 395.9 | 395.3 | 394.1 | 396.5 | 396.5 | 397.7 | 395.9 |
| 17.5° | 390.0 | 388.2 | 388.2 | 387.0 | 386.4 | 389.4 | 390.6 | 391.2 | 391.8 | 389.4 |
| 20° | 380.5 | 379.9 | 381.6 | 379.9 | 380.5 | 381.1 | 381.1 | 379.9 | 385.2 | 378.7 |
| 22.5° | 370.3 | 372.1 | 369.8 | 368.6 | 369.8 | 370.9 | 370.9 | 371.5 | 370.3 | 369.2 |
| 25° | 360.3 | 361.4 | 362.0 | 358.5 | 360.3 | 358.5 | 362.6 | 363.2 | 360.8 | 362.0 |
| 27.5° | 351.3 | 349.6 | 348.9 | 346.6 | 347.8 | 347.2 | 347.8 | 347.8 | 351.3 | 346.6 |
| 30° | 337.6 | 335.9 | 336.5 | 334.7 | 335.3 | 334.7 | 335.3 | 335.3 | 337.6 | 337.1 |
| 32.5° | 324.6 | 322.8 | 323.4 | 321.6 | 321.6 | 322.2 | 321.0 | 321.0 | 322.8 | 321.6 |
| 35° | 312.1 | 307.9 | 308.5 | 307.9 | 308.5 | 306.1 | 306.1 | 305.6 | 306.7 | 303.8 |
| 37.5° | 294.3 | 292.5 | 291.9 | 291.3 | 291.9 | 290.7 | 291.9 | 290.1 | 291.9 | 289.5 |
| 40° | 278.2 | 277.0 | 277.6 | 274.1 | 274.1 | 274.6 | 273.4 | 272.9 | 273.4 | 275.8 |
| 42.5° | 262.2 | 259.8 | 258.6 | 257.4 | 258.0 | 256.2 | 255.6 | 254.4 | 255.6 | 253.2 |
| 45° | 243.1 | 243.1 | 242.5 | 239.6 | 240.2 | 240.2 | 237.8 | 235.4 | 236.0 | 236.0 |
| 47.5° | 225.9 | 224.7 | 224.1 | 221.2 | 220.5 | 220.0 | 217.6 | 215.8 | 215.8 | 214.0 |
| 50° | 206.9 | 205.7 | 203.9 | 200.9 | 199.7 | 196.2 | 194.4 | 192.0 | 189.6 | 189.6 |
| 52.5° | 189.0 | 184.9 | 182.5 | 177.7 | 176.0 | 174.2 | 169.4 | 167.6 | 165.9 | 164.1 |
| 55° | 167.6 | 164.1 | 159.3 | 154.0 | 151.6 | 148.6 | 143.9 | 140.3 | 137.9 | 138.5 |
| 57.5° | 146.8 | 140.9 | 136.1 | 129.0 | 126.0 | 124.2 | 119.5 | 114.7 | 112.3 | 112.3 |
| 60° | 121.3 | 116.5 | 110.6 | 104.0 | 101.7 | 98.7 | 92.7 | 89.8 | 88.0 | 86.2 |
| 62.5° | 96.9 | 93.3 | 88.0 | 79.7 | 77.9 | 74.9 | 70.7 | 67.2 | 65.4 | 65.4 |
| 65° | 72.5 | 69.0 | 64.2 | 58.3 | 55.9 | 53.5 | 49.9 | 46.4 | 44.6 | 44.0 |
| 67.5° | 51.1 | 47.0 | 42.8 | 38.1 | 36.3 | 35.1 | 31.5 | 29.1 | 27.9 | 27.3 |
| 70° | 30.9 | 28.5 | 25.6 | 22.0 | 20.2 | 19.0 | 16.6 | 14.9 | 14.3 | 13.7 |
| 72.5° | 16.1 | 14.3 | 11.9 | 9.5 | 8.3 | 7.1 | 5.9 | 4.8 | 4.2 | 4.2 |
| 75° | 5.9 | 4.8 | 3.0 | 1.8 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 77.5° | 1.2 | 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 |
| 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)