

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: SHAPER

Report Number: 20066

Luminaire Tested: **694-WP-MH1/70**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 20066
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 694-WP-MH1/70
Description: EXTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND LINEAR
PRISMATIC FLAT GLASS LENS
Light Source: ONE VENTURE 70 WATT MH LAMP

MH70W/U. LUMEN RATING = 5600 LMS.

Ballast/Driver: -

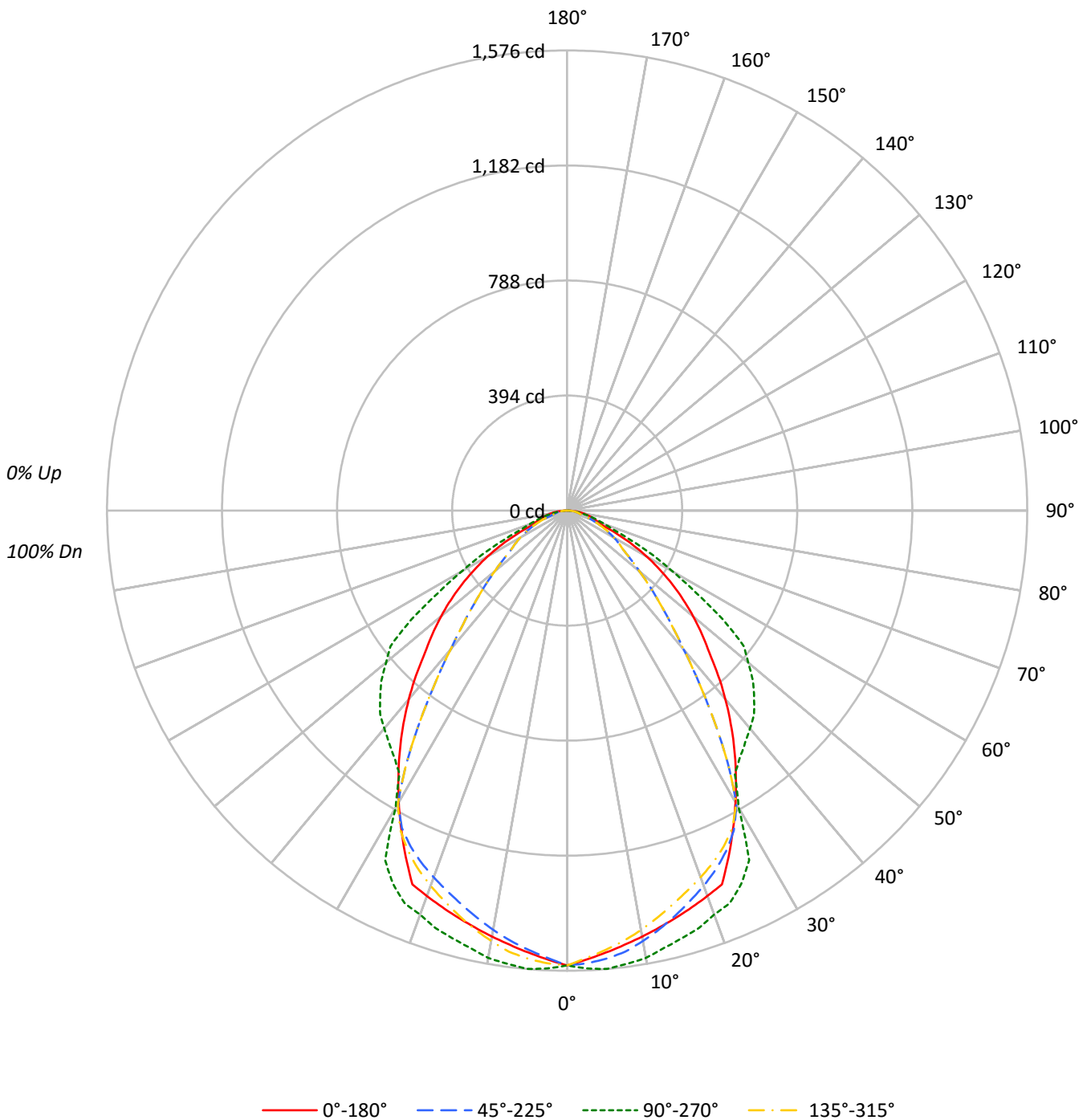
Summary

Lumens per Lamp: 5600 (1 lamp)
Luminaire Lumens: 2730.1 lumens
Efficiency: 48.8%
Efficacy: -
Spacing Criteria (0/90/45): 1.12 / 1.14 / 1.06
Luminous Opening: Rectangular (W 0.46' x L: 1.08' x H: 0')
CIE Type: Direct

Input Watts (W): 0
Input Voltage (V): NR
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: 20066
CATALOG NUMBER: 694-WP-MH1/70

Luminous Intensity Polar Plot





TEST NUMBER: 20066
 CATALOG NUMBER: 694-WP-MH1/70

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 | 58 | 58 | 58 | 58 | 57 | 57 | 57 | 57 | 54 | 54 | 54 | 52 | 52 | 52 | 50 | 50 | 50 | 49 |
| 1 | 54 | 52 | 50 | 49 | 53 | 51 | 50 | 48 | 49 | 48 | 47 | 47 | 46 | 45 | 45 | 45 | 44 | 43 |
| 2 | 50 | 47 | 44 | 42 | 49 | 46 | 43 | 41 | 44 | 42 | 40 | 43 | 41 | 39 | 41 | 40 | 39 | 38 |
| 3 | 46 | 42 | 39 | 36 | 45 | 41 | 38 | 36 | 40 | 37 | 35 | 39 | 36 | 35 | 38 | 36 | 34 | 33 |
| 4 | 43 | 38 | 34 | 32 | 42 | 37 | 34 | 31 | 36 | 33 | 31 | 35 | 33 | 31 | 34 | 32 | 30 | 29 |
| 5 | 40 | 35 | 31 | 28 | 39 | 34 | 31 | 28 | 33 | 30 | 28 | 32 | 29 | 27 | 31 | 29 | 27 | 26 |
| 6 | 37 | 32 | 28 | 25 | 37 | 31 | 28 | 25 | 30 | 27 | 25 | 30 | 27 | 25 | 29 | 26 | 24 | 23 |
| 7 | 35 | 29 | 25 | 23 | 34 | 29 | 25 | 23 | 28 | 25 | 22 | 27 | 24 | 22 | 27 | 24 | 22 | 21 |
| 8 | 33 | 27 | 23 | 21 | 32 | 27 | 23 | 20 | 26 | 23 | 20 | 25 | 22 | 20 | 25 | 22 | 20 | 19 |
| 9 | 31 | 25 | 21 | 19 | 30 | 25 | 21 | 19 | 24 | 21 | 19 | 24 | 21 | 19 | 23 | 20 | 18 | 18 |
| 10 | 29 | 23 | 20 | 17 | 28 | 23 | 20 | 17 | 22 | 19 | 17 | 22 | 19 | 17 | 22 | 19 | 17 | 16 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 33754 | 33754 | 33754 | 33754 |
| 5° | 33050 | 34268 | 33050 | 34268 |
| 10° | 32590 | 34224 | 32590 | 34224 |
| 15° | 32368 | 34014 | 32368 | 34014 |
| 20° | 32388 | 33951 | 32388 | 33951 |
| 25° | 31272 | 33737 | 31272 | 33737 |
| 30° | 28849 | 29397 | 28849 | 29397 |
| 35° | 26402 | 27294 | 26402 | 27294 |
| 40° | 23852 | 27554 | 23852 | 27554 |
| 45° | 21093 | 27745 | 21093 | 27745 |
| 50° | 18997 | 27262 | 18997 | 27262 |
| 55° | 16575 | 24636 | 16575 | 24636 |
| 60° | 13607 | 18018 | 13607 | 18018 |
| 65° | 9700 | 12453 | 9700 | 12453 |
| 70° | 7152 | 8736 | 7152 | 8736 |
| 75° | 7107 | 7141 | 7107 | 7141 |
| 80° | 7112 | 5677 | 7112 | 5677 |
| 85° | 7209 | 4450 | 7209 | 4450 |



TEST NUMBER: 20066
 CATALOG NUMBER: 694-WP-MH1/70

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 145.0 | 5.3 | 2.6 |
| 10°-20° | 406.0 | 14.9 | 7.3 |
| 20°-30° | 585.5 | 21.4 | 10.5 |
| 30°-40° | 559.5 | 20.5 | 10.0 |
| 40°-50° | 451.9 | 16.6 | 8.1 |
| 50°-60° | 318.5 | 11.7 | 5.7 |
| 60°-70° | 164.8 | 6.0 | 2.9 |
| 70°-80° | 73.8 | 2.7 | 1.3 |
| 80°-90° | 25.0 | 0.9 | 0.4 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 1136.5 | 41.6 | 20.3 |
| 0°-40° | 1696.0 | 62.1 | 30.3 |
| 0°-60° | 2466.5 | 90.3 | 44.0 |
| 0°-90° | 2730.1 | 100.0 | 48.8 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 2730.1 | 100.0 | 48.8 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1558 | 1558 | 1558 | 1558 | 1558 | |
| 5° | 1520 | 1576 | 1520 | 1576 | 1520 | 144 |
| 15° | 1443 | 1516 | 1443 | 1516 | 1443 | 408 |
| 25° | 1308 | 1411 | 1308 | 1411 | 1308 | 598 |
| 35° | 998 | 1032 | 998 | 1032 | 998 | 623 |
| 45° | 688 | 906 | 688 | 906 | 688 | 536 |
| 55° | 439 | 652 | 439 | 652 | 439 | 392 |
| 65° | 189 | 243 | 189 | 243 | 189 | 192 |
| 75° | 85 | 85 | 85 | 85 | 85 | 90 |
| 85° | 29 | 18 | 29 | 18 | 29 | 31 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: 20066
 CATALOG NUMBER: 694-WP-MH1/70

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 |
| 2.5° | 1538.7 | 1544.1 | 1551.8 | 1560.9 | 1569.8 | 1536.2 | 1533.6 | 1534.5 | 1538.7 | 1534.5 | 1533.6 |
| 5° | 1519.6 | 1528.8 | 1540.8 | 1556.9 | 1575.6 | 1515.8 | 1510.3 | 1511.8 | 1519.6 | 1511.8 | 1510.3 |
| 7.5° | 1500.4 | 1511.0 | 1523.8 | 1539.3 | 1565.6 | 1491.1 | 1486.2 | 1489.7 | 1500.4 | 1489.7 | 1486.2 |
| 10° | 1481.3 | 1489.8 | 1496.8 | 1517.8 | 1555.6 | 1461.8 | 1458.6 | 1467.1 | 1481.3 | 1467.1 | 1458.6 |
| 12.5° | 1462.1 | 1466.7 | 1467.4 | 1490.3 | 1534.3 | 1430.0 | 1428.0 | 1444.4 | 1462.1 | 1444.4 | 1428.0 |
| 15° | 1443.0 | 1439.2 | 1435.2 | 1461.5 | 1516.4 | 1397.9 | 1396.5 | 1419.8 | 1443.0 | 1419.8 | 1396.5 |
| 17.5° | 1423.8 | 1409.5 | 1401.2 | 1431.4 | 1499.2 | 1366.1 | 1366.3 | 1394.5 | 1423.8 | 1394.5 | 1366.3 |
| 20° | 1404.7 | 1378.9 | 1367.5 | 1394.3 | 1472.5 | 1329.2 | 1336.5 | 1368.8 | 1404.7 | 1368.8 | 1336.5 |
| 22.5° | 1385.5 | 1345.8 | 1330.5 | 1342.6 | 1455.4 | 1273.2 | 1305.0 | 1341.5 | 1385.5 | 1341.5 | 1305.0 |
| 25° | 1308.1 | 1294.8 | 1287.5 | 1261.4 | 1411.2 | 1184.5 | 1269.2 | 1294.8 | 1308.1 | 1294.8 | 1269.2 |
| 27.5° | 1230.6 | 1211.4 | 1235.8 | 1148.0 | 1350.1 | 1073.3 | 1225.3 | 1211.4 | 1230.6 | 1211.4 | 1225.3 |
| 30° | 1153.1 | 1129.1 | 1159.2 | 1021.7 | 1175.0 | 935.8 | 1157.7 | 1129.1 | 1153.1 | 1129.1 | 1157.7 |
| 32.5° | 1075.7 | 1046.1 | 1022.9 | 877.6 | 1068.7 | 750.4 | 1022.9 | 1046.1 | 1075.7 | 1046.1 | 1022.9 |
| 35° | 998.2 | 962.3 | 874.6 | 769.9 | 1031.9 | 627.2 | 874.6 | 962.3 | 998.2 | 962.3 | 874.6 |
| 37.5° | 920.8 | 877.3 | 738.8 | 689.2 | 1001.7 | 564.4 | 738.8 | 877.3 | 920.8 | 877.3 | 738.8 |
| 40° | 843.3 | 791.6 | 619.7 | 618.0 | 974.2 | 522.0 | 619.7 | 791.6 | 843.3 | 791.6 | 619.7 |
| 42.5° | 765.9 | 705.0 | 527.1 | 551.5 | 947.7 | 486.9 | 527.1 | 705.0 | 765.9 | 705.0 | 527.1 |
| 45° | 688.4 | 615.3 | 447.4 | 487.4 | 905.5 | 455.9 | 447.4 | 615.3 | 688.4 | 615.3 | 447.4 |
| 47.5° | 626.0 | 528.4 | 382.3 | 423.5 | 863.3 | 423.5 | 382.3 | 528.4 | 626.0 | 528.4 | 382.3 |
| 50° | 563.6 | 472.3 | 323.9 | 376.9 | 808.8 | 376.9 | 323.9 | 472.3 | 563.6 | 472.3 | 323.9 |
| 52.5° | 501.2 | 417.6 | 275.6 | 328.7 | 762.7 | 328.7 | 275.6 | 417.6 | 501.2 | 417.6 | 275.6 |
| 55° | 438.8 | 363.9 | 234.5 | 278.9 | 652.2 | 278.9 | 234.5 | 363.9 | 438.8 | 363.9 | 234.5 |
| 57.5° | 376.4 | 312.7 | 210.4 | 231.9 | 523.4 | 231.9 | 210.4 | 312.7 | 376.4 | 312.7 | 210.4 |
| 60° | 314.0 | 263.9 | 185.3 | 191.1 | 415.8 | 191.1 | 185.3 | 263.9 | 314.0 | 263.9 | 185.3 |
| 62.5° | 251.6 | 217.2 | 159.2 | 157.8 | 330.5 | 157.8 | 159.2 | 217.2 | 251.6 | 217.2 | 159.2 |
| 65° | 189.2 | 172.3 | 133.4 | 130.2 | 242.9 | 130.2 | 133.4 | 172.3 | 189.2 | 172.3 | 133.4 |
| 67.5° | 126.8 | 129.1 | 108.1 | 107.0 | 172.7 | 107.0 | 108.1 | 129.1 | 126.8 | 129.1 | 108.1 |
| 70° | 112.9 | 98.4 | 83.7 | 90.4 | 137.9 | 90.4 | 83.7 | 98.4 | 112.9 | 98.4 | 83.7 |
| 72.5° | 98.9 | 86.2 | 60.2 | 79.3 | 110.4 | 79.3 | 60.2 | 86.2 | 98.9 | 86.2 | 60.2 |
| 75° | 84.9 | 74.1 | 46.5 | 68.1 | 85.3 | 68.1 | 46.5 | 74.1 | 84.9 | 74.1 | 46.5 |
| 77.5° | 70.9 | 62.1 | 40.0 | 56.8 | 63.7 | 56.8 | 40.0 | 62.1 | 70.9 | 62.1 | 40.0 |
| 80° | 57.0 | 50.1 | 33.1 | 45.7 | 45.5 | 45.7 | 33.1 | 50.1 | 57.0 | 50.1 | 33.1 |
| 82.5° | 43.0 | 38.3 | 25.8 | 34.7 | 30.0 | 34.7 | 25.8 | 38.3 | 43.0 | 38.3 | 25.8 |
| 85° | 29.0 | 26.4 | 18.3 | 24.1 | 17.9 | 24.1 | 18.3 | 26.4 | 29.0 | 26.4 | 18.3 |
| 87.5° | 15.1 | 14.6 | 10.6 | 13.7 | 7.6 | 13.7 | 10.6 | 14.6 | 15.1 | 14.6 | 10.6 |
| 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: 20066
 CATALOG NUMBER: 694-WP-MH1/70

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 | 1557.9 |
| 2.5° | 1536.2 | 1569.8 | 1560.9 | 1551.8 | 1544.1 | 1538.7 |
| 5° | 1515.8 | 1575.6 | 1556.9 | 1540.8 | 1528.8 | 1519.6 |
| 7.5° | 1491.1 | 1565.6 | 1539.3 | 1523.8 | 1511.0 | 1500.4 |
| 10° | 1461.8 | 1555.6 | 1517.8 | 1496.8 | 1489.8 | 1481.3 |
| 12.5° | 1430.0 | 1534.3 | 1490.3 | 1467.4 | 1466.7 | 1462.1 |
| 15° | 1397.9 | 1516.4 | 1461.5 | 1435.2 | 1439.2 | 1443.0 |
| 17.5° | 1366.1 | 1499.2 | 1431.4 | 1401.2 | 1409.5 | 1423.8 |
| 20° | 1329.2 | 1472.5 | 1394.3 | 1367.5 | 1378.9 | 1404.7 |
| 22.5° | 1273.2 | 1455.4 | 1342.6 | 1330.5 | 1345.8 | 1385.5 |
| 25° | 1184.5 | 1411.2 | 1261.4 | 1287.5 | 1294.8 | 1308.1 |
| 27.5° | 1073.3 | 1350.1 | 1148.0 | 1235.8 | 1211.4 | 1230.6 |
| 30° | 935.8 | 1175.0 | 1021.7 | 1159.2 | 1129.1 | 1153.1 |
| 32.5° | 750.4 | 1068.7 | 877.6 | 1022.9 | 1046.1 | 1075.7 |
| 35° | 627.2 | 1031.9 | 769.9 | 874.6 | 962.3 | 998.2 |
| 37.5° | 564.4 | 1001.7 | 689.2 | 738.8 | 877.3 | 920.8 |
| 40° | 522.0 | 974.2 | 618.0 | 619.7 | 791.6 | 843.3 |
| 42.5° | 486.9 | 947.7 | 551.5 | 527.1 | 705.0 | 765.9 |
| 45° | 455.9 | 905.5 | 487.4 | 447.4 | 615.3 | 688.4 |
| 47.5° | 423.5 | 863.3 | 423.5 | 382.3 | 528.4 | 626.0 |
| 50° | 376.9 | 808.8 | 376.9 | 323.9 | 472.3 | 563.6 |
| 52.5° | 328.7 | 762.7 | 328.7 | 275.6 | 417.6 | 501.2 |
| 55° | 278.9 | 652.2 | 278.9 | 234.5 | 363.9 | 438.8 |
| 57.5° | 231.9 | 523.4 | 231.9 | 210.4 | 312.7 | 376.4 |
| 60° | 191.1 | 415.8 | 191.1 | 185.3 | 263.9 | 314.0 |
| 62.5° | 157.8 | 330.5 | 157.8 | 159.2 | 217.2 | 251.6 |
| 65° | 130.2 | 242.9 | 130.2 | 133.4 | 172.3 | 189.2 |
| 67.5° | 107.0 | 172.7 | 107.0 | 108.1 | 129.1 | 126.8 |
| 70° | 90.4 | 137.9 | 90.4 | 83.7 | 98.4 | 112.9 |
| 72.5° | 79.3 | 110.4 | 79.3 | 60.2 | 86.2 | 98.9 |
| 75° | 68.1 | 85.3 | 68.1 | 46.5 | 74.1 | 84.9 |
| 77.5° | 56.8 | 63.7 | 56.8 | 40.0 | 62.1 | 70.9 |
| 80° | 45.7 | 45.5 | 45.7 | 33.1 | 50.1 | 57.0 |
| 82.5° | 34.7 | 30.0 | 34.7 | 25.8 | 38.3 | 43.0 |
| 85° | 24.1 | 17.9 | 24.1 | 18.3 | 26.4 | 29.0 |
| 87.5° | 13.7 | 7.6 | 13.7 | 10.6 | 14.6 | 15.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)