

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: P183609

Luminaire Tested: **LSM80M8030D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27020)
Test Lab: INNOVATION CENTER-P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSM80M8030D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 80 CRI, 3000K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8278.7 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

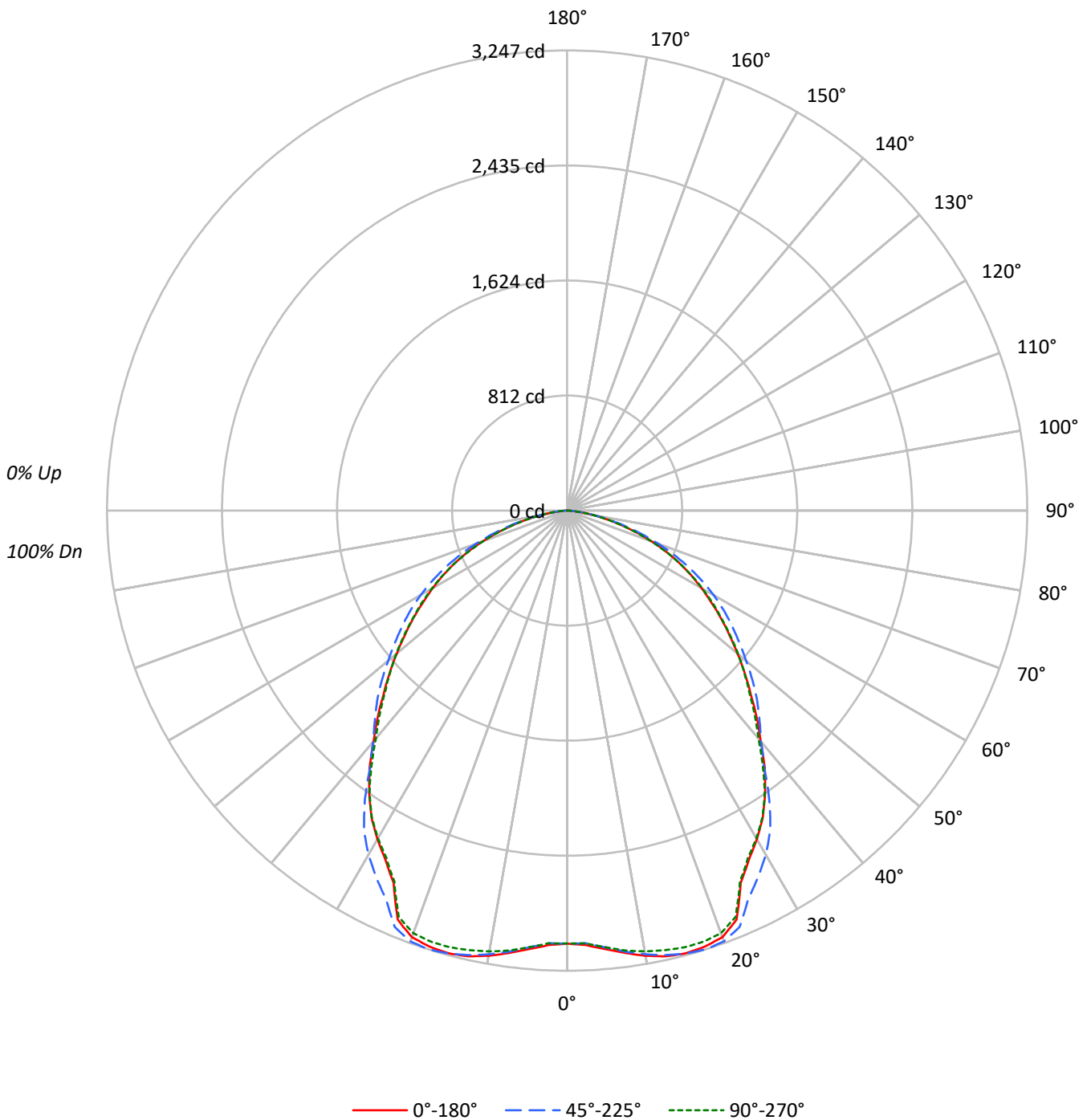
Input Watts (W): 88.06
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P183609

CATALOG NUMBER: LSM80M8030D010TEP

Luminous Intensity Polar Plot





TEST NUMBER: P183609

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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | | 106 | 106 | 106 | | 102 | 102 | 102 | 100 |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | | 95 | 92 | 90 | | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 80 | 98 | 90 | 85 | 79 | 87 | 82 | 78 | | 84 | 80 | 76 | | 81 | 77 | 74 | 72 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | | 74 | 69 | 65 | | 72 | 67 | 64 | 61 |
| 4 | 84 | 73 | 64 | 58 | 82 | 71 | 63 | 57 | 69 | 62 | 57 | | 67 | 61 | 56 | | 64 | 59 | 55 | 53 |
| 5 | 78 | 65 | 56 | 50 | 76 | 64 | 56 | 50 | 62 | 55 | 49 | | 60 | 54 | 49 | | 58 | 53 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 50 | 44 | 56 | 49 | 43 | | 54 | 48 | 43 | | 53 | 47 | 43 | 41 |
| 7 | 67 | 54 | 45 | 39 | 65 | 53 | 45 | 39 | 51 | 44 | 39 | | 50 | 43 | 38 | | 48 | 43 | 38 | 36 |
| 8 | 62 | 49 | 41 | 35 | 61 | 48 | 40 | 35 | 47 | 40 | 35 | | 46 | 39 | 34 | | 45 | 39 | 34 | 32 |
| 9 | 58 | 45 | 37 | 32 | 57 | 44 | 37 | 32 | 43 | 36 | 31 | | 42 | 36 | 31 | | 41 | 35 | 31 | 29 |
| 10 | 55 | 42 | 34 | 29 | 53 | 41 | 34 | 29 | 40 | 33 | 29 | | 39 | 33 | 28 | | 38 | 33 | 28 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 33084 | 33084 | 33084 |
| 5° | 33760 | 33629 | 33617 |
| 10° | 35070 | 34961 | 34731 |
| 15° | 36261 | 36286 | 35768 |
| 20° | 36906 | 37273 | 36563 |
| 25° | 34623 | 36136 | 34492 |
| 30° | 33469 | 35051 | 33373 |
| 35° | 32185 | 32883 | 32127 |
| 40° | 30046 | 30061 | 29688 |
| 45° | 28069 | 29029 | 27850 |
| 50° | 26429 | 27783 | 26540 |
| 55° | 25028 | 26814 | 25132 |
| 60° | 23732 | 25852 | 23923 |
| 65° | 22325 | 24242 | 22297 |
| 70° | 20029 | 21631 | 19924 |
| 75° | 16480 | 17769 | 16526 |
| 80° | 12004 | 12827 | 12347 |
| 85° | 6970 | 7380 | 7243 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 299.6 | 3.6 |
| 10°-20° | 916.0 | 11.1 |
| 20°-30° | 1375.5 | 16.6 |
| 30°-40° | 1505.7 | 18.2 |
| 40°-50° | 1472.9 | 17.8 |
| 50°-60° | 1270.9 | 15.4 |
| 60°-70° | 908.5 | 11.0 |
| 70°-80° | 446.3 | 5.4 |
| 80°-90° | 83.2 | 1.0 |
| 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° | 2591.2 | 31.3 |
| 0°-40° | 4096.9 | 49.5 |
| 0°-60° | 6840.6 | 82.6 |
| 0°-90° | 8278.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 8278.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3055 | 3055 | 3055 | 3055 | 3055 | |
| 5° | 3106 | 3132 | 3094 | 3118 | 3093 | 299 |
| 15° | 3234 | 3278 | 3237 | 3240 | 3190 | 913 |
| 25° | 2898 | 3070 | 3024 | 3050 | 2887 | 1350 |
| 35° | 2435 | 2397 | 2488 | 2369 | 2430 | 1516 |
| 45° | 1833 | 1955 | 1896 | 1933 | 1819 | 1419 |
| 55° | 1326 | 1446 | 1420 | 1431 | 1331 | 1186 |
| 65° | 871 | 919 | 946 | 910 | 870 | 859 |
| 75° | 394 | 416 | 425 | 408 | 395 | 423 |
| 85° | 56 | 59 | 59 | 58 | 58 | 78 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P183609

CATALOG NUMBER: LSM80M8030D010TEP

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 |
| 2.5° | 3069.5 | 3094.8 | 3073.9 | 3069.5 | 3051.9 | 3093.7 | 3078.3 | 3081.6 | 3069.5 | 3071.7 | 3055.2 |
| 5° | 3105.8 | 3132.2 | 3112.4 | 3106.9 | 3089.3 | 3132.2 | 3116.8 | 3119.0 | 3106.9 | 3110.2 | 3093.7 |
| 7.5° | 3148.7 | 3176.2 | 3155.3 | 3152.0 | 3135.5 | 3178.4 | 3164.1 | 3166.3 | 3153.1 | 3155.3 | 3138.8 |
| 10° | 3189.4 | 3219.1 | 3198.2 | 3196.0 | 3179.5 | 3225.7 | 3210.3 | 3212.5 | 3197.1 | 3198.2 | 3179.5 |
| 12.5° | 3221.3 | 3252.1 | 3231.2 | 3231.2 | 3215.8 | 3259.8 | 3247.7 | 3249.9 | 3234.5 | 3234.5 | 3212.5 |
| 15° | 3234.5 | 3266.4 | 3244.4 | 3247.7 | 3232.3 | 3278.5 | 3267.5 | 3268.6 | 3255.4 | 3258.7 | 3236.7 |
| 17.5° | 3226.8 | 3258.7 | 3238.9 | 3241.1 | 3226.8 | 3274.1 | 3263.1 | 3267.5 | 3256.5 | 3265.3 | 3246.6 |
| 20° | 3202.6 | 3231.2 | 3207.0 | 3209.2 | 3198.2 | 3245.5 | 3237.8 | 3245.5 | 3237.8 | 3251.0 | 3234.5 |
| 22.5° | 3124.5 | 3150.9 | 3137.7 | 3152.0 | 3149.8 | 3200.4 | 3196.0 | 3202.6 | 3190.5 | 3197.1 | 3179.5 |
| 25° | 2897.8 | 2932.0 | 2927.6 | 2968.3 | 3006.8 | 3069.5 | 3065.1 | 3067.3 | 3042.0 | 3044.2 | 3024.4 |
| 27.5° | 2776.8 | 2805.4 | 2788.9 | 2791.1 | 2775.7 | 2810.9 | 2813.1 | 2868.1 | 2901.1 | 2930.9 | 2917.6 |
| 30° | 2676.7 | 2698.7 | 2659.1 | 2631.6 | 2592.0 | 2627.2 | 2625.0 | 2673.4 | 2731.7 | 2801.0 | 2803.2 |
| 32.5° | 2568.9 | 2575.5 | 2519.4 | 2482.0 | 2467.7 | 2505.1 | 2502.9 | 2517.2 | 2561.2 | 2636.0 | 2669.0 |
| 35° | 2434.7 | 2440.2 | 2370.9 | 2359.9 | 2359.9 | 2397.3 | 2388.5 | 2392.9 | 2417.1 | 2465.5 | 2487.5 |
| 37.5° | 2290.6 | 2282.9 | 2243.2 | 2245.4 | 2254.2 | 2288.4 | 2281.8 | 2281.8 | 2289.5 | 2311.5 | 2284.0 |
| 40° | 2125.5 | 2134.3 | 2122.2 | 2133.2 | 2140.9 | 2173.9 | 2170.6 | 2172.8 | 2169.5 | 2157.4 | 2126.6 |
| 42.5° | 1979.2 | 2001.2 | 2014.4 | 2027.6 | 2028.7 | 2060.6 | 2058.4 | 2067.2 | 2050.7 | 2018.8 | 2008.9 |
| 45° | 1832.9 | 1859.3 | 1895.6 | 1922.0 | 1924.2 | 1955.0 | 1955.0 | 1957.2 | 1923.1 | 1900.0 | 1895.6 |
| 47.5° | 1700.9 | 1728.4 | 1765.8 | 1805.4 | 1812.0 | 1843.9 | 1843.9 | 1838.4 | 1802.1 | 1787.8 | 1773.5 |
| 50° | 1568.8 | 1604.0 | 1639.3 | 1686.6 | 1689.9 | 1714.1 | 1715.2 | 1709.7 | 1693.2 | 1675.6 | 1649.2 |
| 52.5° | 1443.4 | 1486.3 | 1520.4 | 1558.9 | 1561.1 | 1580.9 | 1576.5 | 1580.9 | 1583.1 | 1563.3 | 1531.4 |
| 55° | 1325.7 | 1369.7 | 1399.4 | 1426.9 | 1432.4 | 1445.6 | 1436.8 | 1451.1 | 1464.3 | 1446.7 | 1420.3 |
| 57.5° | 1204.7 | 1252.0 | 1277.3 | 1296.0 | 1300.4 | 1311.4 | 1302.6 | 1321.3 | 1338.9 | 1327.9 | 1310.3 |
| 60° | 1095.8 | 1133.2 | 1150.8 | 1168.4 | 1169.5 | 1180.5 | 1172.8 | 1191.5 | 1211.3 | 1205.8 | 1193.7 |
| 62.5° | 983.6 | 1010.0 | 1023.2 | 1041.9 | 1036.4 | 1047.4 | 1050.7 | 1067.2 | 1081.5 | 1082.6 | 1072.7 |
| 65° | 871.3 | 885.6 | 896.6 | 907.6 | 909.8 | 918.6 | 921.9 | 928.5 | 950.5 | 952.7 | 946.1 |
| 67.5° | 752.5 | 761.3 | 771.2 | 781.1 | 780.0 | 788.8 | 797.6 | 804.2 | 818.5 | 824.0 | 815.2 |
| 70° | 632.6 | 643.6 | 649.1 | 653.5 | 652.4 | 661.2 | 668.9 | 674.4 | 687.6 | 690.9 | 683.2 |
| 72.5° | 511.6 | 522.6 | 527.0 | 528.1 | 527.0 | 536.9 | 543.5 | 546.8 | 557.8 | 563.3 | 551.2 |
| 75° | 393.9 | 408.2 | 410.4 | 408.2 | 407.1 | 415.9 | 419.2 | 424.7 | 432.4 | 433.5 | 424.7 |
| 77.5° | 287.1 | 299.2 | 301.4 | 298.1 | 295.9 | 302.5 | 304.7 | 310.2 | 314.6 | 316.8 | 308.0 |
| 80° | 192.5 | 204.6 | 203.5 | 202.4 | 199.1 | 203.5 | 206.8 | 209.0 | 212.3 | 212.3 | 205.7 |
| 82.5° | 115.5 | 123.2 | 122.1 | 123.2 | 119.9 | 121.0 | 123.2 | 126.5 | 125.4 | 127.6 | 123.2 |
| 85° | 56.1 | 59.4 | 59.4 | 59.4 | 58.3 | 59.4 | 60.5 | 62.7 | 60.5 | 62.7 | 59.4 |
| 87.5° | 19.8 | 20.9 | 19.8 | 19.8 | 19.8 | 19.8 | 20.9 | 20.9 | 19.8 | 20.9 | 19.8 |
| 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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CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 | 3055.2 |
| 2.5° | 3078.3 | 3060.7 | 3078.3 | 3070.6 | 3080.5 | 3077.2 | 3078.3 | 3090.4 | 3062.9 | 3056.3 |
| 5° | 3116.8 | 3098.1 | 3115.7 | 3110.2 | 3117.9 | 3114.6 | 3116.8 | 3128.9 | 3100.3 | 3092.6 |
| 7.5° | 3160.8 | 3141.0 | 3158.6 | 3150.9 | 3158.6 | 3155.3 | 3156.4 | 3166.3 | 3136.6 | 3130.0 |
| 10° | 3201.5 | 3180.6 | 3196.0 | 3188.3 | 3192.7 | 3189.4 | 3191.6 | 3198.2 | 3166.3 | 3158.6 |
| 12.5° | 3233.4 | 3212.5 | 3227.9 | 3219.1 | 3221.3 | 3216.9 | 3215.8 | 3219.1 | 3186.1 | 3177.3 |
| 15° | 3259.8 | 3238.9 | 3249.9 | 3241.1 | 3240.0 | 3233.4 | 3231.2 | 3232.3 | 3199.3 | 3190.5 |
| 17.5° | 3267.5 | 3243.3 | 3249.9 | 3240.0 | 3236.7 | 3231.2 | 3229.0 | 3231.2 | 3199.3 | 3190.5 |
| 20° | 3252.1 | 3223.5 | 3226.8 | 3214.7 | 3210.3 | 3205.9 | 3205.9 | 3209.2 | 3178.4 | 3172.9 |
| 22.5° | 3199.3 | 3175.1 | 3182.8 | 3175.1 | 3170.7 | 3166.3 | 3158.6 | 3150.9 | 3111.3 | 3103.6 |
| 25° | 3045.3 | 3028.8 | 3057.4 | 3061.8 | 3049.7 | 3026.6 | 2983.7 | 2950.7 | 2893.4 | 2886.8 |
| 27.5° | 2932.0 | 2897.8 | 2863.7 | 2820.8 | 2795.5 | 2785.6 | 2792.2 | 2804.3 | 2774.6 | 2763.6 |
| 30° | 2805.4 | 2731.7 | 2665.7 | 2621.7 | 2605.2 | 2603.0 | 2629.4 | 2661.3 | 2666.8 | 2669.0 |
| 32.5° | 2648.1 | 2554.6 | 2504.0 | 2489.7 | 2478.7 | 2475.4 | 2484.2 | 2520.5 | 2543.6 | 2564.5 |
| 35° | 2469.9 | 2405.0 | 2378.6 | 2379.7 | 2368.7 | 2364.3 | 2358.8 | 2380.8 | 2405.0 | 2430.3 |
| 37.5° | 2303.8 | 2275.2 | 2267.4 | 2271.8 | 2259.7 | 2253.1 | 2246.5 | 2252.0 | 2259.7 | 2268.5 |
| 40° | 2147.5 | 2154.1 | 2158.5 | 2161.8 | 2146.4 | 2142.0 | 2136.5 | 2134.3 | 2121.1 | 2100.2 |
| 42.5° | 2014.4 | 2032.0 | 2051.8 | 2051.8 | 2035.3 | 2033.1 | 2034.2 | 2027.6 | 1988.0 | 1959.4 |
| 45° | 1900.0 | 1906.6 | 1940.7 | 1947.3 | 1933.0 | 1929.7 | 1930.8 | 1909.9 | 1847.2 | 1818.6 |
| 47.5° | 1787.8 | 1791.1 | 1821.9 | 1837.3 | 1821.9 | 1818.6 | 1821.9 | 1777.9 | 1709.7 | 1695.4 |
| 50° | 1674.5 | 1683.3 | 1696.5 | 1710.8 | 1696.5 | 1695.4 | 1692.1 | 1650.3 | 1583.1 | 1575.4 |
| 52.5° | 1560.0 | 1577.6 | 1571.0 | 1574.3 | 1565.5 | 1566.6 | 1569.9 | 1527.0 | 1465.4 | 1452.2 |
| 55° | 1443.4 | 1459.9 | 1443.4 | 1434.6 | 1431.3 | 1434.6 | 1441.2 | 1401.6 | 1353.2 | 1331.2 |
| 57.5° | 1327.9 | 1337.8 | 1320.2 | 1302.6 | 1297.1 | 1304.8 | 1310.3 | 1277.3 | 1235.5 | 1219.0 |
| 60° | 1208.0 | 1205.8 | 1191.5 | 1175.0 | 1164.0 | 1172.8 | 1181.6 | 1151.9 | 1114.5 | 1104.6 |
| 62.5° | 1081.5 | 1079.3 | 1061.7 | 1047.4 | 1036.4 | 1043.0 | 1051.8 | 1023.2 | 997.9 | 989.1 |
| 65° | 951.6 | 949.4 | 930.7 | 919.7 | 909.8 | 912.0 | 921.9 | 895.5 | 880.1 | 870.2 |
| 67.5° | 826.2 | 818.5 | 799.8 | 793.2 | 781.1 | 785.5 | 792.1 | 771.2 | 756.9 | 748.1 |
| 70° | 694.2 | 687.6 | 671.1 | 664.5 | 654.6 | 656.8 | 663.4 | 650.2 | 634.8 | 629.3 |
| 72.5° | 560.0 | 558.9 | 543.5 | 534.7 | 529.2 | 530.3 | 535.8 | 529.2 | 514.9 | 510.5 |
| 75° | 430.2 | 433.5 | 421.4 | 413.7 | 408.2 | 408.2 | 414.8 | 415.9 | 400.5 | 395.0 |
| 77.5° | 316.8 | 316.8 | 306.9 | 308.0 | 299.2 | 299.2 | 303.6 | 308.0 | 291.5 | 288.2 |
| 80° | 212.3 | 211.2 | 207.9 | 204.6 | 200.2 | 201.3 | 204.6 | 210.1 | 196.9 | 198.0 |
| 82.5° | 125.4 | 125.4 | 125.4 | 123.2 | 119.9 | 118.8 | 123.2 | 127.6 | 118.8 | 118.8 |
| 85° | 61.6 | 60.5 | 60.5 | 60.5 | 58.3 | 57.2 | 60.5 | 62.7 | 57.2 | 58.3 |
| 87.5° | 20.9 | 19.8 | 19.8 | 20.9 | 19.8 | 19.8 | 19.8 | 19.8 | 18.7 | 19.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)