

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: McGRAW-EDISON

Report Number: P232782

Luminaire Tested: **CTN-10-9-D-E1-T5N-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232782
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-22)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-10-9-D-E1-T5N-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 103536 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 760
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

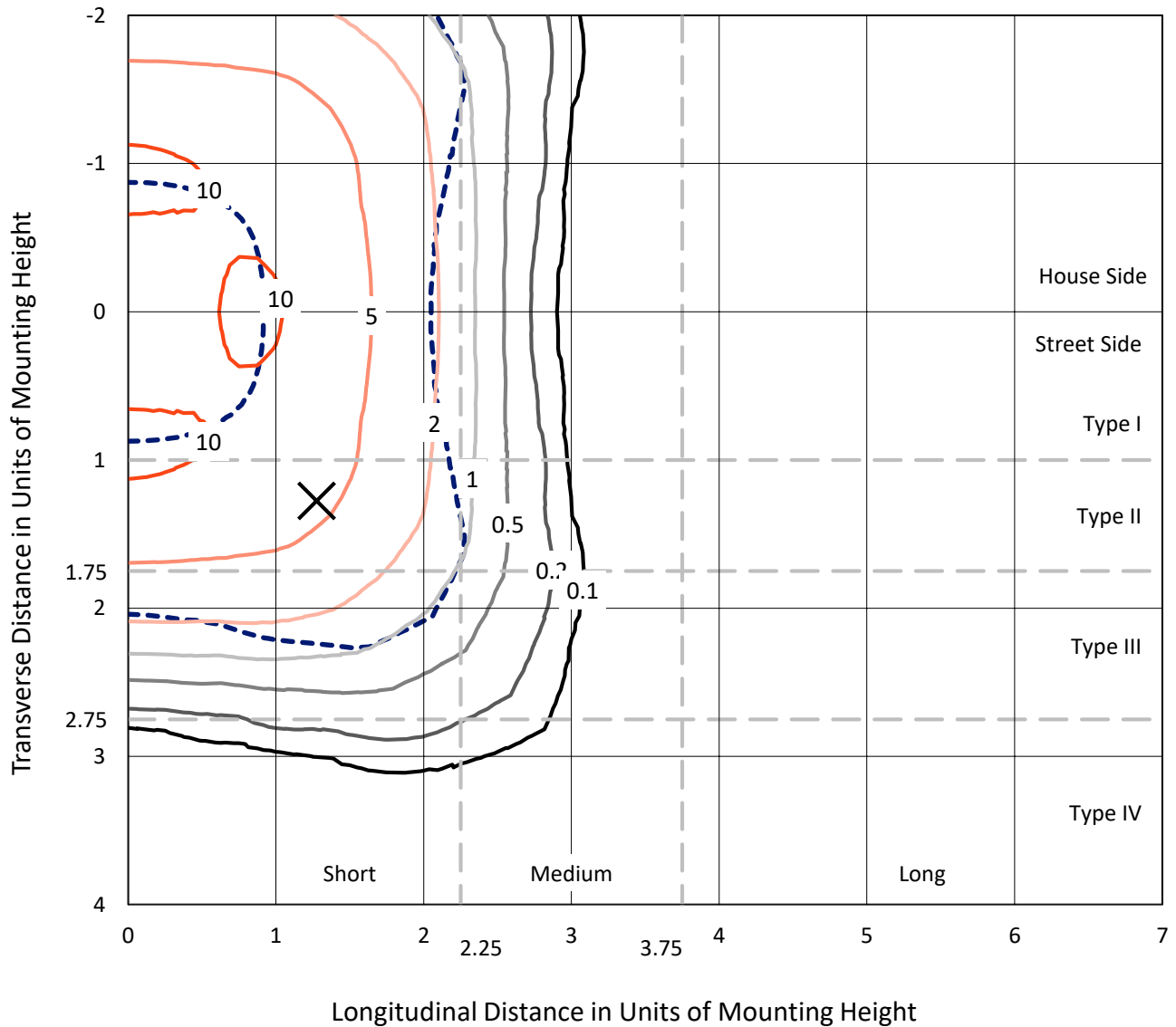


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

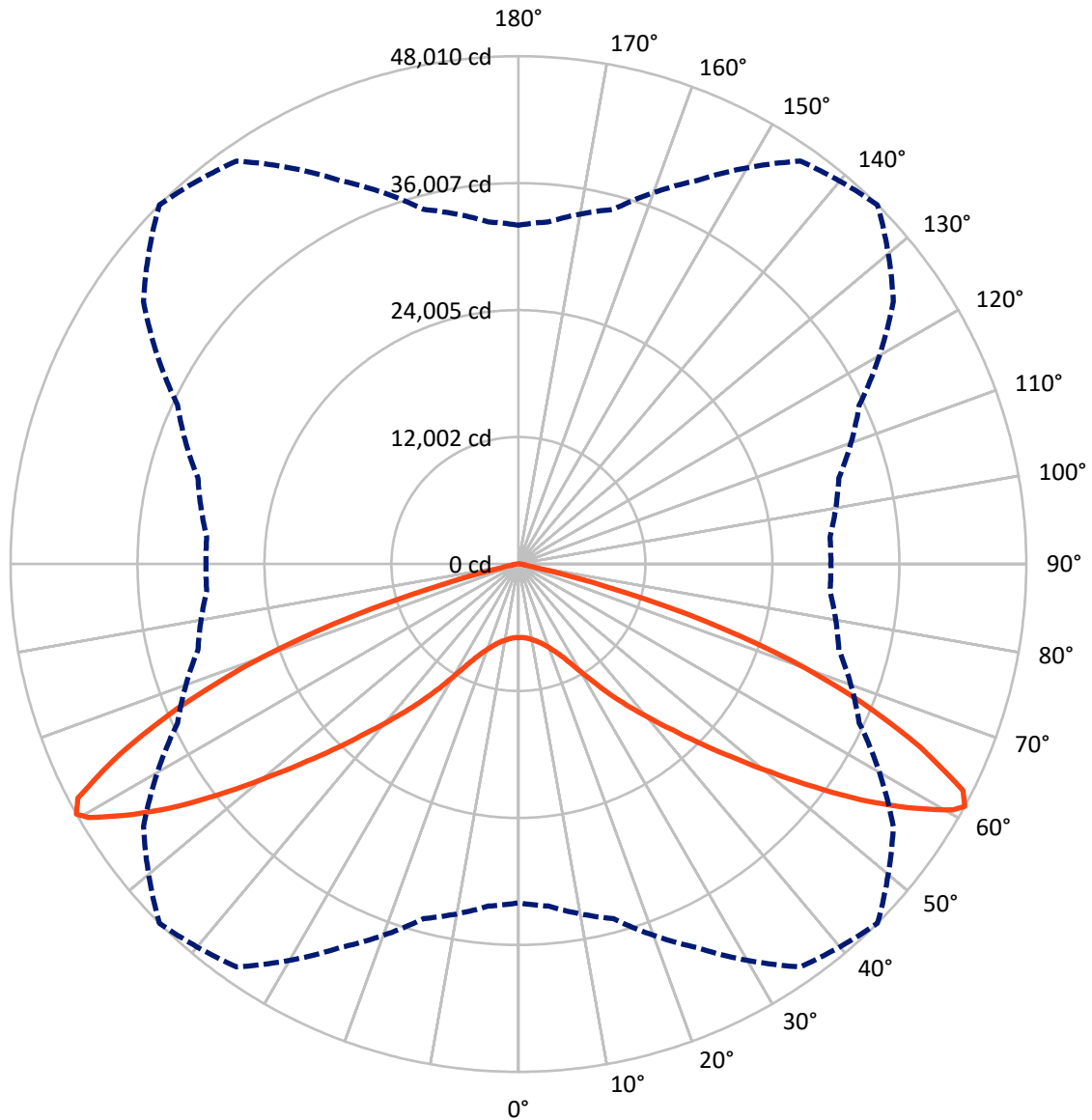


Based on 30 foot mounting height. Maximum calculated value = 11.3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 61-Deg Vertical

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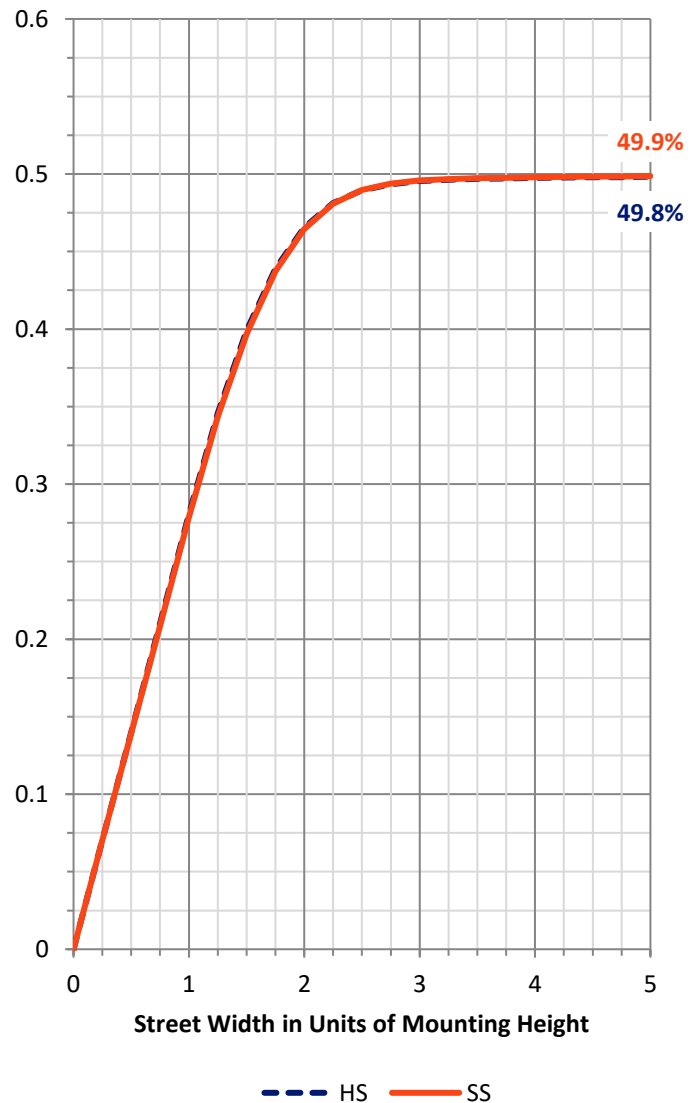
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|----------|
| House Side | Lumens | 51768.0 | 0.0 | 51768.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 51768.0 | 0.0 | 51768.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 103536.0 | 0.0 | 103536.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|----------|-----------|
| 0°-10° | 680.9 | 0.7 |
| 10°-20° | 2231.1 | 2.2 |
| 20°-30° | 4760.3 | 4.6 |
| 30°-40° | 10368.5 | 10.0 |
| 40°-50° | 20050.7 | 19.4 |
| 50°-60° | 31841.2 | 30.8 |
| 60°-70° | 28714.1 | 27.7 |
| 70°-80° | 4494.4 | 4.3 |
| 80°-90° | 394.9 | 0.4 |
| 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°-90° | 103536.0 | 100.0 |
| 0°-180° | 103536.0 | 100.0 |



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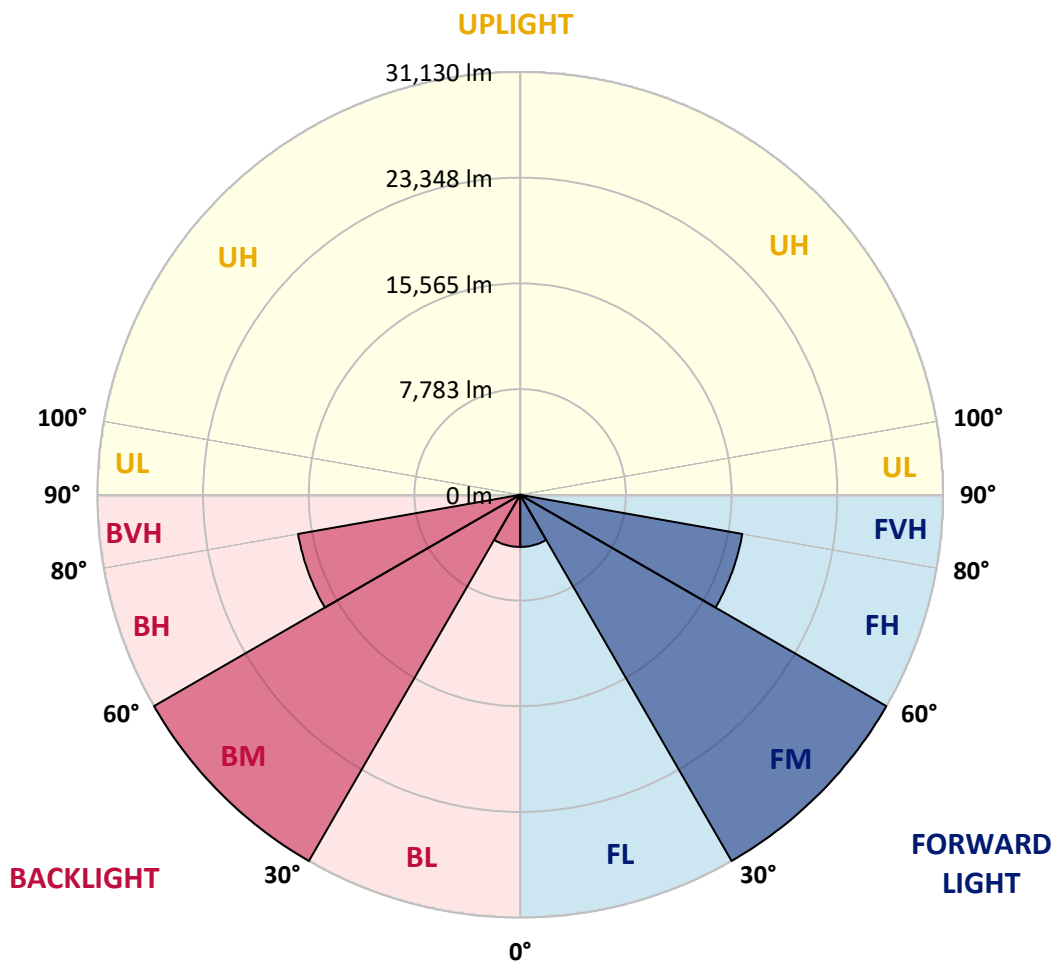
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 3836.1 | 3.7 | | | |
| FM | (30°-60°) | 31130.2 | 30.1 | | | |
| FH | (60°-80°) | 16604.2 | 16.0 | | | G5 |
| FVH | (80°-90°) | 197.5 | 0.2 | | | G2/225 |
| BL | (0°-30°) | 3836.1 | 3.7 | B4/5000 | | |
| BM | (30°-60°) | 31130.2 | 30.1 | B5 | | |
| BH | (60°-80°) | 16604.2 | 16.0 | B5 | | G5 |
| BVH | (80°-90°) | 197.5 | 0.2 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6969.5 | 6969.5 | 6969.5 | 6969.5 | 6969.5 | 6969.5 | 6969.5 | 6969.5 | 6969.5 | 6969.5 | 6969.5 |
| 2.5° | 7017.5 | 7002.5 | 7014.5 | 7023.5 | 6918.5 | 6945.5 | 6942.5 | 7014.5 | 6999.5 | 7032.5 | 7050.5 |
| 5° | 7065.5 | 7041.5 | 7056.5 | 7080.5 | 6981.5 | 7017.5 | 7017.5 | 7083.5 | 7059.5 | 7092.5 | 7125.5 |
| 7.5° | 7152.4 | 7128.5 | 7146.4 | 7176.4 | 7083.5 | 7122.5 | 7125.5 | 7203.4 | 7170.4 | 7197.4 | 7248.4 |
| 10° | 7296.4 | 7281.4 | 7287.4 | 7314.4 | 7227.4 | 7275.4 | 7275.4 | 7359.4 | 7323.4 | 7353.4 | 7416.3 |
| 12.5° | 7464.3 | 7458.3 | 7464.3 | 7500.3 | 7419.3 | 7467.3 | 7467.3 | 7548.3 | 7524.3 | 7560.3 | 7620.3 |
| 15° | 7686.3 | 7680.3 | 7683.3 | 7731.2 | 7665.3 | 7710.2 | 7719.2 | 7803.2 | 7797.2 | 7836.2 | 7890.2 |
| 17.5° | 8001.1 | 8001.1 | 7998.1 | 8040.1 | 7998.1 | 8043.1 | 8061.1 | 8151.1 | 8187.1 | 8235.1 | 8268.0 |
| 20° | 8481.0 | 8454.0 | 8439.0 | 8460.0 | 8427.0 | 8475.0 | 8505.0 | 8651.9 | 8711.9 | 8786.9 | 8813.8 |
| 22.5° | 9107.7 | 9071.8 | 9023.8 | 9002.8 | 8957.8 | 9020.8 | 9080.8 | 9290.7 | 9377.6 | 9500.6 | 9530.6 |
| 25° | 9971.4 | 9911.5 | 9821.5 | 9737.5 | 9635.6 | 9725.5 | 9836.5 | 10124.4 | 10304.3 | 10466.3 | 10490.3 |
| 27.5° | 11153.0 | 11063.0 | 10925.1 | 10763.2 | 10583.2 | 10694.2 | 10856.1 | 11276.0 | 11521.9 | 11779.8 | 11818.8 |
| 30° | 12676.5 | 12661.5 | 12445.6 | 12157.7 | 11917.7 | 11980.7 | 12181.6 | 12700.5 | 13090.3 | 13357.2 | 13432.2 |
| 32.5° | 14709.7 | 14694.7 | 14331.9 | 13846.1 | 13504.2 | 13546.2 | 13732.1 | 14307.9 | 14793.7 | 15228.6 | 15243.6 |
| 35° | 17132.9 | 17084.9 | 16575.1 | 15903.3 | 15354.5 | 15306.5 | 15489.5 | 16062.3 | 16725.0 | 17231.8 | 17282.8 |
| 37.5° | 19900.9 | 19822.9 | 19235.1 | 18218.5 | 17369.8 | 17171.9 | 17300.8 | 18020.6 | 18788.3 | 19361.1 | 19418.1 |
| 40° | 22611.9 | 22551.9 | 21898.2 | 20944.5 | 19703.0 | 19202.1 | 19211.1 | 20131.8 | 20974.5 | 21505.3 | 21622.3 |
| 42.5° | 25224.0 | 25272.0 | 24645.2 | 23673.5 | 22375.0 | 21481.3 | 21493.3 | 22387.0 | 23259.7 | 23811.5 | 23964.4 |
| 45° | 27905.0 | 27863.0 | 27275.3 | 26441.5 | 25245.0 | 24255.3 | 23919.5 | 24813.1 | 25679.8 | 26132.7 | 26297.6 |
| 47.5° | 30100.2 | 30025.3 | 29629.4 | 29188.6 | 28300.9 | 27326.2 | 26735.4 | 27356.2 | 27953.0 | 28258.9 | 28426.8 |
| 50° | 32013.6 | 31953.6 | 31914.6 | 31728.7 | 31530.7 | 30901.0 | 29929.3 | 29890.3 | 30019.3 | 30085.2 | 30238.2 |
| 52.5° | 33633.0 | 33630.0 | 33839.9 | 34295.7 | 34784.6 | 35003.5 | 33321.1 | 32232.5 | 31788.6 | 31461.8 | 31518.7 |
| 55° | 34853.5 | 34838.5 | 35435.3 | 36655.9 | 38383.3 | 39372.9 | 36889.8 | 34259.8 | 33090.2 | 32457.4 | 32451.4 |
| 57.5° | 35480.3 | 35507.3 | 36718.9 | 38929.1 | 42131.9 | 43481.5 | 40320.6 | 36122.1 | 34118.8 | 33156.1 | 33144.2 |
| 60° | 33824.9 | 33938.9 | 36314.0 | 40338.6 | 45445.8 | 47209.1 | 43130.6 | 36508.9 | 33003.2 | 31386.8 | 31344.8 |
| 61° | 32031.6 | 32460.4 | 34706.6 | 40017.7 | 46495.4 | 48009.8 | 43265.5 | 35549.3 | 31359.8 | 29575.4 | 29536.4 |
| 62.5° | 28088.0 | 28489.8 | 31926.6 | 39217.0 | 46423.4 | 47170.1 | 42497.8 | 33824.9 | 28780.7 | 26792.4 | 26711.5 |
| 65° | 20380.7 | 20854.5 | 24555.2 | 34745.6 | 42200.9 | 41757.1 | 38656.2 | 29866.3 | 24135.4 | 21898.2 | 21796.2 |
| 67.5° | 10247.3 | 10853.1 | 15006.6 | 25215.0 | 34286.7 | 35129.4 | 33003.2 | 23646.5 | 17105.9 | 12916.4 | 12904.4 |
| 70° | 2648.1 | 2906.0 | 5410.1 | 13261.3 | 24726.2 | 27515.2 | 25164.0 | 13699.1 | 6651.6 | 4012.6 | 3763.7 |
| 72.5° | 740.7 | 776.7 | 1469.5 | 4831.3 | 14062.0 | 18434.4 | 13642.1 | 4789.3 | 1499.5 | 854.7 | 782.7 |
| 75° | 521.8 | 530.8 | 584.8 | 1223.6 | 5311.1 | 8603.9 | 4396.4 | 1034.6 | 599.8 | 566.8 | 566.8 |
| 77.5° | 464.8 | 470.8 | 506.8 | 659.8 | 1112.6 | 1934.3 | 842.7 | 668.8 | 527.8 | 509.8 | 503.8 |
| 80° | 491.8 | 497.8 | 518.8 | 638.8 | 653.8 | 695.8 | 584.8 | 578.8 | 524.8 | 536.8 | 530.8 |
| 82.5° | 527.8 | 539.8 | 566.8 | 653.8 | 560.8 | 563.8 | 479.8 | 476.8 | 464.8 | 527.8 | 530.8 |
| 85° | 467.8 | 488.8 | 509.8 | 572.8 | 461.8 | 377.9 | 392.9 | 311.9 | 332.9 | 395.9 | 380.9 |
| 87.5° | 260.9 | 257.9 | 248.9 | 260.9 | 233.9 | 188.9 | 158.9 | 143.9 | 132.0 | 149.9 | 146.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)