

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: STREETWORKS

Report Number: P458491

Luminaire Tested: **GLAN-SA9D-830-U-SL2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458491
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA9D-830-U-SL2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55628 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G5

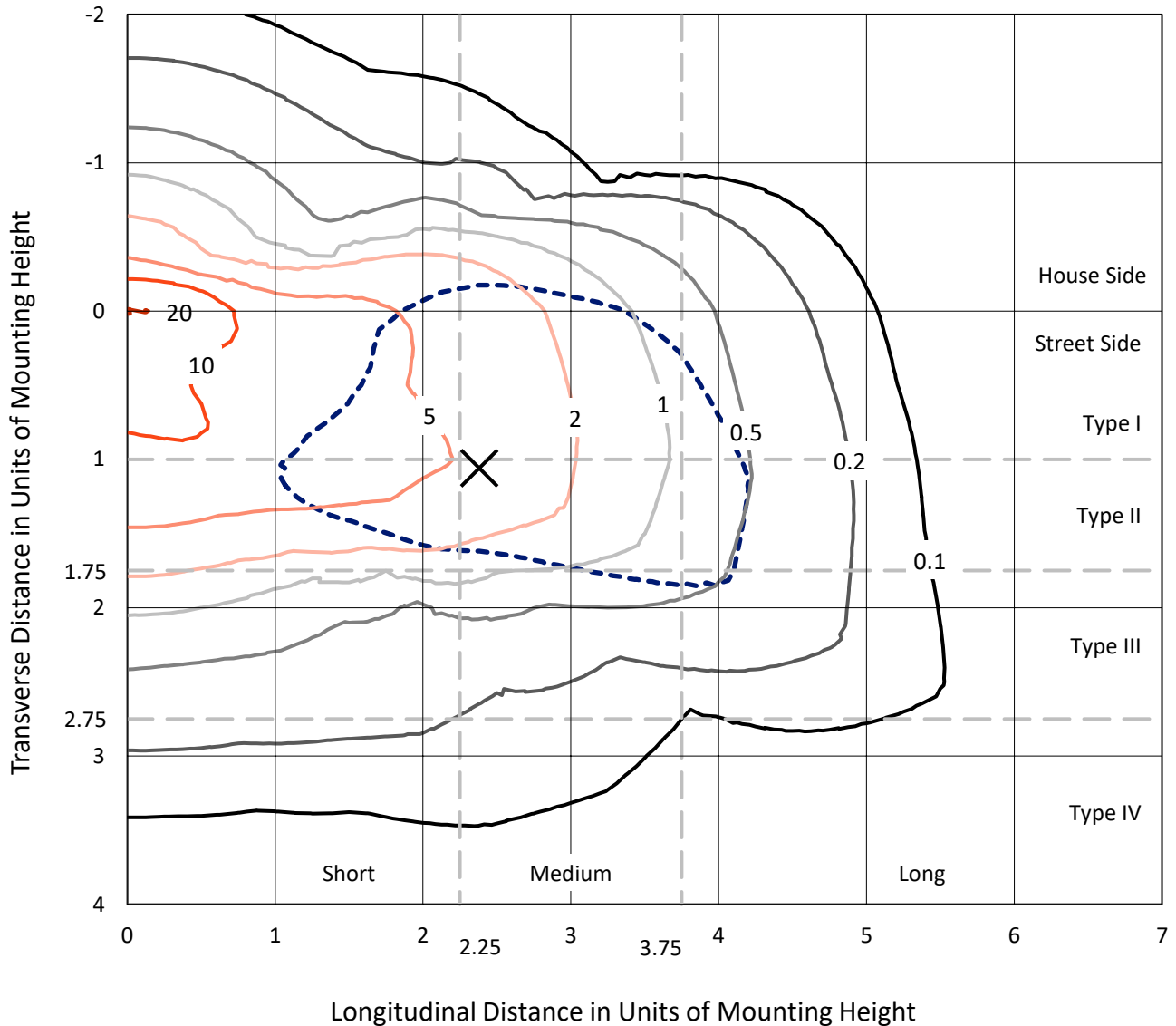
Input Watts (W): 552
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

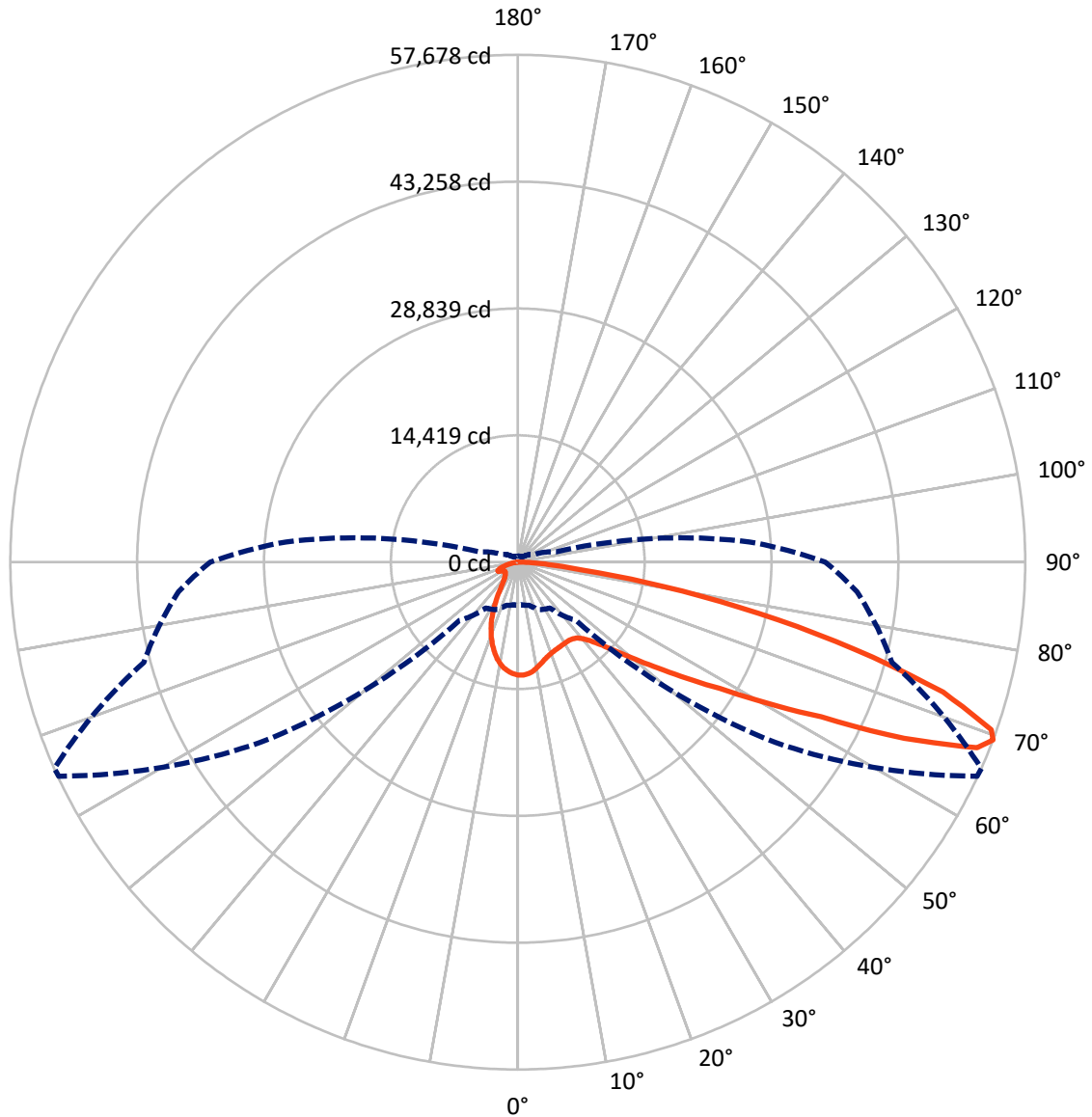
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 20.6 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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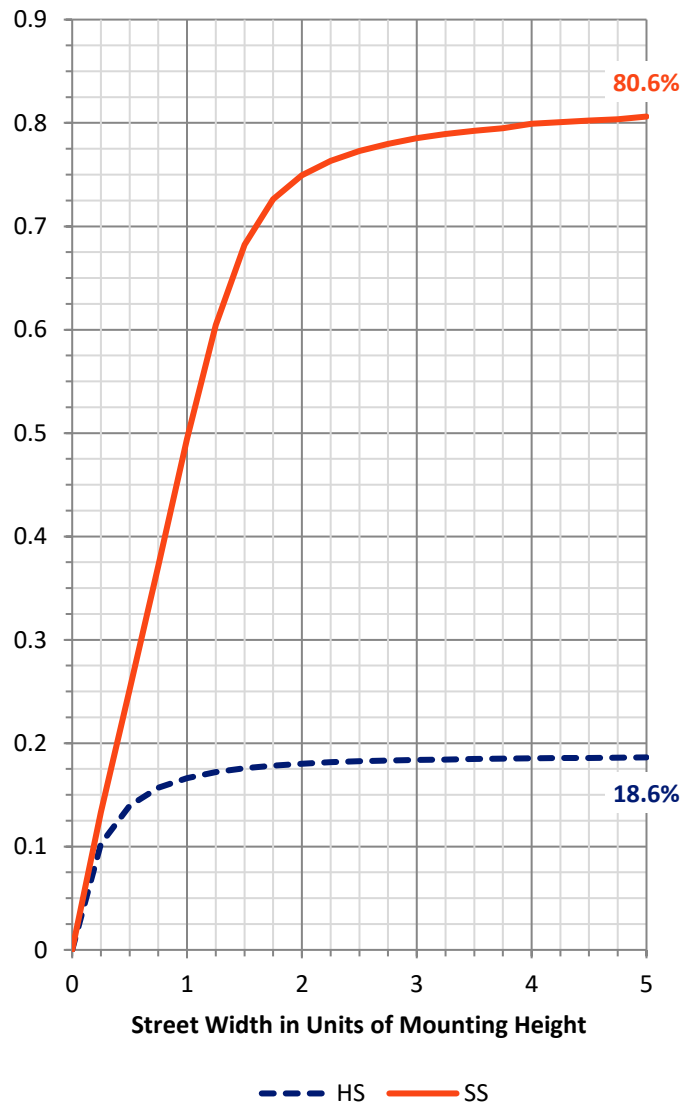
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 10461.5 | 0.0 | 10461.5 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| Street Side | Lumens | 45166.5 | 0.0 | 45166.5 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| Total | Lumens | 55628.0 | 0.0 | 55628.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1115.5 | 2.0 |
| 10°-20° | 2646.0 | 4.8 |
| 20°-30° | 3602.1 | 6.5 |
| 30°-40° | 4840.5 | 8.7 |
| 40°-50° | 7227.7 | 13.0 |
| 50°-60° | 11496.8 | 20.7 |
| 60°-70° | 14140.4 | 25.4 |
| 70°-80° | 9200.4 | 16.5 |
| 80°-90° | 1358.6 | 2.4 |
| 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° | 55628.0 | 100.0 |
| 0°-180° | 55628.0 | 100.0 |



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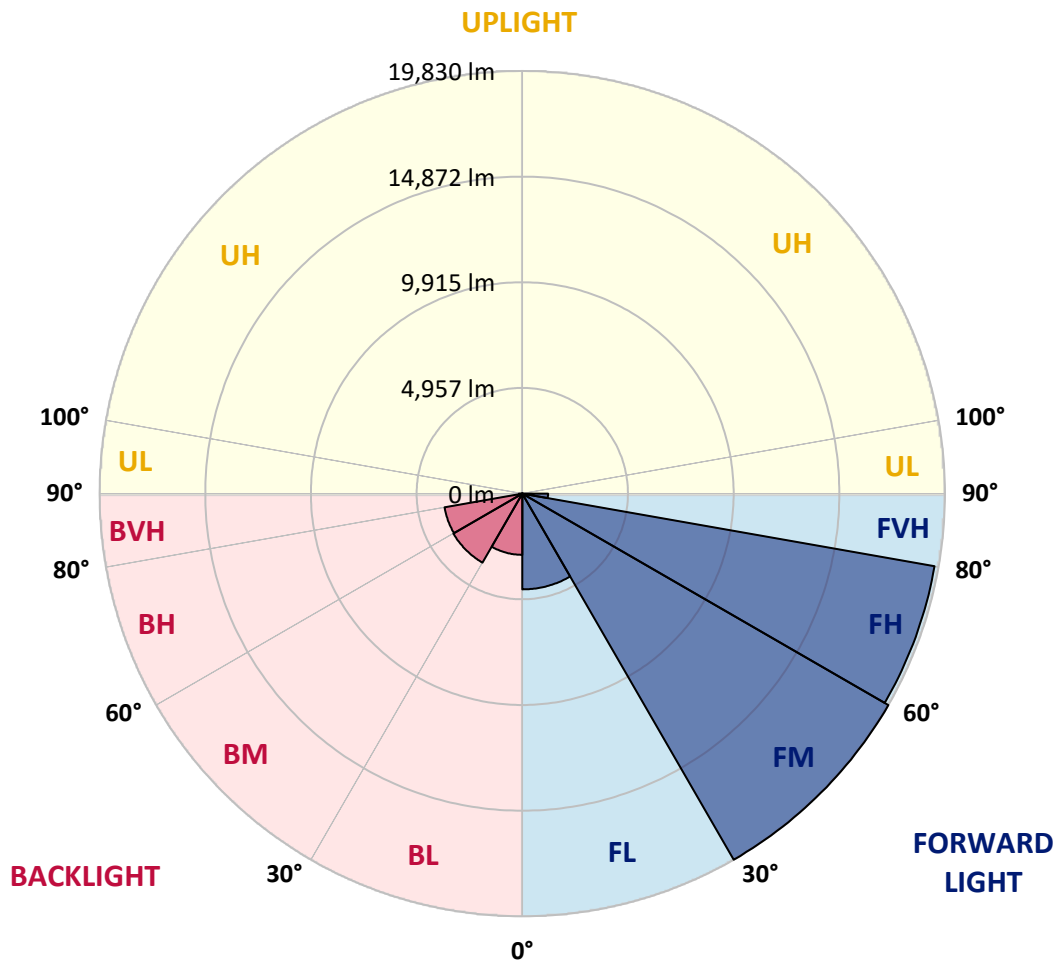
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 4491.9 | 8.1 | | | |
| FM (30°-60°) | 19829.7 | 35.6 | | | |
| FH (60°-80°) | 19637.0 | 35.3 | | | G5 |
| FVH (80°-90°) | 1207.9 | 2.2 | | | G5 |
| BL (0°-30°) | 2871.7 | 5.2 | B4/5000 | | |
| BM (30°-60°) | 3735.2 | 6.7 | B3/5000 | | |
| BH (60°-80°) | 3703.8 | 6.7 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 150.7 | 0.3 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 |
| 2.5° | 12396.3 | 12445.6 | 12501.0 | 12562.6 | 12679.7 | 12744.4 | 12790.6 | 12843.0 | 12849.1 | 12876.9 | 12855.3 |
| 5° | 11481.4 | 11539.9 | 11623.1 | 11740.1 | 11915.7 | 12189.9 | 12473.3 | 12704.3 | 12732.1 | 12861.5 | 12898.4 |
| 7.5° | 10717.4 | 10751.3 | 10819.0 | 11006.9 | 11256.5 | 11561.4 | 11974.2 | 12442.5 | 12510.3 | 12818.3 | 12926.1 |
| 10° | 10095.1 | 10129.0 | 10209.1 | 10403.1 | 10649.6 | 11031.6 | 11484.4 | 12100.5 | 12156.0 | 12685.9 | 12932.3 |
| 12.5° | 9629.9 | 9660.7 | 9747.0 | 9938.0 | 10221.4 | 10578.7 | 11077.8 | 11730.9 | 11811.0 | 12510.3 | 12873.8 |
| 15° | 9275.6 | 9334.2 | 9405.0 | 9562.1 | 9861.0 | 10206.0 | 10689.6 | 11392.0 | 11456.7 | 12325.4 | 12833.7 |
| 17.5° | 9124.7 | 9152.4 | 9201.7 | 9346.5 | 9565.2 | 9904.1 | 10390.8 | 11127.1 | 11204.1 | 12196.0 | 12824.5 |
| 20° | 9130.9 | 9158.6 | 9167.8 | 9247.9 | 9405.0 | 9697.7 | 10178.3 | 10917.6 | 11010.0 | 12082.1 | 12839.9 |
| 22.5° | 9340.3 | 9343.4 | 9309.5 | 9281.8 | 9343.4 | 9586.8 | 10027.3 | 10760.5 | 10868.3 | 12032.8 | 12852.2 |
| 25° | 9663.8 | 9719.3 | 9670.0 | 9540.6 | 9426.6 | 9543.7 | 9968.8 | 10674.2 | 10775.9 | 11961.9 | 12836.8 |
| 27.5° | 10187.5 | 10196.7 | 10156.7 | 9981.1 | 9685.4 | 9599.1 | 9944.1 | 10609.5 | 10695.8 | 11909.6 | 12759.8 |
| 30° | 10889.9 | 10862.2 | 10825.2 | 10631.1 | 10165.9 | 9811.7 | 9996.5 | 10551.0 | 10640.4 | 11832.5 | 12667.4 |
| 32.5° | 11601.5 | 11687.7 | 11653.9 | 11425.9 | 10822.1 | 10224.5 | 10165.9 | 10544.9 | 10618.8 | 11774.0 | 12565.7 |
| 35° | 12356.2 | 12396.3 | 12556.5 | 12439.4 | 11820.2 | 10893.0 | 10483.2 | 10640.4 | 10698.9 | 11777.1 | 12494.9 |
| 37.5° | 12947.7 | 13055.5 | 13431.4 | 13533.0 | 12950.8 | 11777.1 | 10997.7 | 10911.4 | 10936.1 | 11928.0 | 12522.6 |
| 40° | 13662.4 | 13847.2 | 14330.9 | 14746.8 | 14364.8 | 12926.1 | 11872.6 | 11413.6 | 11444.4 | 12291.5 | 12704.3 |
| 42.5° | 14568.1 | 14697.5 | 15347.5 | 15911.2 | 15849.6 | 14444.9 | 12932.3 | 12236.1 | 12251.5 | 13015.5 | 13212.6 |
| 45° | 15627.8 | 15812.7 | 16542.8 | 17389.9 | 17534.7 | 16163.8 | 14463.4 | 13480.7 | 13471.4 | 14139.9 | 14161.5 |
| 47.5° | 16983.3 | 17097.3 | 17821.2 | 18745.4 | 19330.7 | 18323.3 | 16321.0 | 15267.4 | 15168.8 | 15778.8 | 15603.2 |
| 50° | 18230.9 | 18409.6 | 18957.9 | 19968.4 | 21425.5 | 20852.5 | 18763.9 | 17584.0 | 17353.0 | 17922.9 | 17627.1 |
| 52.5° | 18754.6 | 18942.5 | 19404.6 | 20658.4 | 23221.5 | 24124.1 | 21866.0 | 20347.3 | 19962.2 | 20399.7 | 20291.8 |
| 55° | 17845.8 | 18089.2 | 18520.5 | 20045.4 | 24010.1 | 27897.8 | 26049.4 | 23541.9 | 23261.5 | 23073.6 | 23104.4 |
| 57.5° | 15402.9 | 15634.0 | 16216.2 | 17898.2 | 23067.4 | 30636.4 | 32022.7 | 27648.3 | 27047.6 | 26181.9 | 26329.8 |
| 60° | 11724.7 | 11869.5 | 12171.4 | 14035.2 | 20273.3 | 31348.1 | 38806.2 | 32839.1 | 32457.1 | 29277.9 | 29382.6 |
| 62.5° | 8326.8 | 8490.1 | 8699.6 | 9629.9 | 14842.3 | 29342.6 | 44117.1 | 40087.7 | 38723.0 | 32484.8 | 32383.1 |
| 65° | 6761.9 | 6651.0 | 6903.6 | 7338.0 | 8708.8 | 22740.9 | 45312.4 | 50148.9 | 48269.7 | 36708.3 | 35297.4 |
| 67.5° | 5560.5 | 5443.4 | 5692.9 | 6466.2 | 6623.3 | 13200.3 | 41005.7 | 56679.7 | 56303.9 | 41301.4 | 38257.8 |
| 69° | 4922.8 | 4861.2 | 5079.9 | 5960.9 | 6358.3 | 9374.2 | 35722.5 | 57588.5 | 57677.8 | 44009.3 | 38713.7 |
| 70° | 4436.0 | 4460.7 | 4673.3 | 5705.2 | 6238.2 | 7729.2 | 30531.7 | 56334.7 | 57092.5 | 45361.7 | 38220.9 |
| 72.5° | 3265.4 | 3317.8 | 3613.5 | 4725.6 | 6124.2 | 6558.6 | 18169.3 | 49206.2 | 50546.3 | 45441.7 | 34964.7 |
| 75° | 2282.7 | 2258.1 | 2519.9 | 3558.1 | 5785.3 | 6500.0 | 10671.2 | 38054.5 | 39573.2 | 39277.5 | 29379.6 |
| 77.5° | 1494.1 | 1534.1 | 1743.6 | 2513.8 | 4867.3 | 6450.8 | 6956.0 | 26998.3 | 27984.1 | 26268.2 | 17377.6 |
| 80° | 1053.6 | 1050.5 | 1167.5 | 1715.9 | 3610.4 | 6198.1 | 5696.0 | 17017.2 | 16767.6 | 10323.0 | 5153.8 |
| 82.5° | 603.8 | 646.9 | 782.5 | 1207.6 | 2415.2 | 5455.7 | 5240.1 | 8138.9 | 7430.4 | 2942.0 | 1740.5 |
| 85° | 335.8 | 351.2 | 465.2 | 730.1 | 1410.9 | 4109.5 | 4574.7 | 3702.9 | 3493.4 | 1229.2 | 748.6 |
| 87.5° | 107.8 | 117.1 | 194.1 | 369.7 | 640.8 | 1940.8 | 2590.8 | 1709.7 | 1577.3 | 443.6 | 301.9 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 | 12846.1 |
| 2.5° | 12864.5 | 12901.5 | 12802.9 | 12707.4 | 12621.2 | 12501.0 | 12393.2 | 12303.9 | 12242.3 | 12233.0 | 12202.2 |
| 5° | 12907.7 | 12910.7 | 12722.8 | 12470.2 | 12223.8 | 11952.7 | 11672.3 | 11472.1 | 11284.2 | 11179.5 | 11127.1 |
| 7.5° | 12938.5 | 12910.7 | 12571.9 | 12162.2 | 11687.7 | 11194.9 | 10702.0 | 10307.6 | 10002.7 | 9882.5 | 9928.7 |
| 10° | 12926.1 | 12839.9 | 12343.9 | 11687.7 | 10997.7 | 10261.4 | 9552.9 | 8998.4 | 8490.1 | 8228.2 | 8234.4 |
| 12.5° | 12858.4 | 12716.7 | 12005.1 | 11154.8 | 10141.3 | 9155.5 | 8071.1 | 7322.6 | 6734.2 | 6386.1 | 6278.2 |
| 15° | 12799.8 | 12553.4 | 11607.7 | 10430.9 | 9170.9 | 7763.1 | 6441.5 | 5517.3 | 5024.4 | 4750.3 | 4747.2 |
| 17.5° | 12738.2 | 12396.3 | 11173.3 | 9663.8 | 8055.7 | 6244.4 | 4858.1 | 4152.6 | 3921.6 | 3949.3 | 3903.1 |
| 20° | 12673.5 | 12211.4 | 10720.4 | 8810.5 | 6697.2 | 4657.8 | 3638.2 | 3351.7 | 3416.4 | 3542.7 | 3561.2 |
| 22.5° | 12599.6 | 12014.3 | 10233.7 | 7870.9 | 5267.8 | 3505.7 | 2951.2 | 2908.1 | 3074.4 | 3271.6 | 3299.3 |
| 25° | 12485.6 | 11767.8 | 9620.7 | 6888.2 | 4063.3 | 2824.9 | 2584.6 | 2615.4 | 2778.7 | 2945.0 | 2963.5 |
| 27.5° | 12325.4 | 11462.9 | 9001.5 | 5662.1 | 3052.9 | 2424.4 | 2362.8 | 2402.9 | 2483.0 | 2584.6 | 2609.3 |
| 30° | 12109.8 | 11117.8 | 8289.9 | 4602.4 | 2446.0 | 2224.2 | 2199.5 | 2221.1 | 2267.3 | 2310.4 | 2322.8 |
| 32.5° | 11894.1 | 10785.1 | 7572.1 | 3524.2 | 2181.1 | 2091.7 | 2067.1 | 2067.1 | 2067.1 | 2073.2 | 2076.3 |
| 35° | 11693.9 | 10470.9 | 6801.9 | 2744.8 | 2042.4 | 1987.0 | 1953.1 | 1916.1 | 1910.0 | 1888.4 | 1888.4 |
| 37.5° | 11583.0 | 10184.4 | 5982.5 | 2298.1 | 1940.8 | 1900.7 | 1854.5 | 1792.9 | 1759.0 | 1762.1 | 1755.9 |
| 40° | 11604.6 | 9996.5 | 5237.0 | 2045.5 | 1857.6 | 1814.5 | 1743.6 | 1672.8 | 1651.2 | 1651.2 | 1645.0 |
| 42.5° | 11847.9 | 9934.9 | 4522.3 | 1913.0 | 1777.5 | 1728.2 | 1638.9 | 1574.2 | 1561.9 | 1558.8 | 1564.9 |
| 45° | 12408.6 | 10085.8 | 3881.5 | 1826.8 | 1709.7 | 1635.8 | 1546.5 | 1487.9 | 1475.6 | 1475.6 | 1472.5 |
| 47.5° | 13502.2 | 10575.7 | 3422.5 | 1771.3 | 1660.4 | 1564.9 | 1472.5 | 1414.0 | 1392.4 | 1386.3 | 1386.3 |
| 50° | 15202.7 | 11638.5 | 3080.6 | 1722.0 | 1598.8 | 1500.2 | 1404.7 | 1337.0 | 1303.1 | 1300.0 | 1296.9 |
| 52.5° | 17565.5 | 13295.8 | 2948.1 | 1685.1 | 1531.1 | 1432.5 | 1327.7 | 1263.0 | 1219.9 | 1210.7 | 1204.5 |
| 55° | 20328.8 | 15609.3 | 3129.9 | 1657.4 | 1460.2 | 1355.5 | 1247.6 | 1179.9 | 1139.8 | 1121.3 | 1118.3 |
| 57.5° | 23529.5 | 18388.0 | 3819.9 | 1620.4 | 1395.5 | 1272.3 | 1167.5 | 1099.8 | 1056.6 | 1035.1 | 1028.9 |
| 60° | 26403.7 | 21243.7 | 5024.4 | 1598.8 | 1340.1 | 1182.9 | 1075.1 | 1013.5 | 973.5 | 951.9 | 948.8 |
| 62.5° | 29561.3 | 23967.0 | 6463.1 | 1657.4 | 1315.4 | 1096.7 | 988.9 | 933.4 | 899.5 | 878.0 | 878.0 |
| 65° | 32934.6 | 26693.3 | 7415.0 | 1854.5 | 1352.4 | 1028.9 | 896.5 | 850.2 | 819.4 | 804.0 | 801.0 |
| 67.5° | 35208.0 | 27636.0 | 6108.8 | 2057.8 | 1444.8 | 955.0 | 807.1 | 770.1 | 751.7 | 736.3 | 736.3 |
| 69° | 34961.6 | 26443.8 | 4506.9 | 2110.2 | 1472.5 | 918.0 | 757.8 | 730.1 | 705.5 | 699.3 | 693.1 |
| 70° | 34182.2 | 25085.2 | 3776.8 | 2076.3 | 1451.0 | 884.1 | 727.0 | 693.1 | 671.6 | 665.4 | 662.3 |
| 72.5° | 30445.4 | 21755.1 | 2812.6 | 1805.2 | 1235.3 | 767.1 | 643.8 | 613.0 | 594.6 | 585.3 | 585.3 |
| 75° | 25294.7 | 17781.2 | 2196.5 | 1435.6 | 967.3 | 646.9 | 551.4 | 526.8 | 511.4 | 505.2 | 502.1 |
| 77.5° | 14176.9 | 9928.7 | 1577.3 | 1124.4 | 733.2 | 523.7 | 462.1 | 440.5 | 425.1 | 419.0 | 419.0 |
| 80° | 3949.3 | 2837.2 | 927.3 | 742.4 | 499.1 | 397.4 | 366.6 | 351.2 | 329.6 | 314.2 | 323.5 |
| 82.5° | 1487.9 | 1229.2 | 529.9 | 446.7 | 317.3 | 264.9 | 255.7 | 243.4 | 234.1 | 212.6 | 212.6 |
| 85° | 723.9 | 597.6 | 338.9 | 237.2 | 175.6 | 138.6 | 132.5 | 126.3 | 120.1 | 104.7 | 107.8 |
| 87.5° | 249.5 | 264.9 | 147.9 | 86.3 | 52.4 | 33.9 | 27.7 | 15.4 | 15.4 | 15.4 | 15.4 |
| 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)