

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: P456494

Luminaire Tested: **GALN-SA7D-730-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456494
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA7D-730-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48033 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

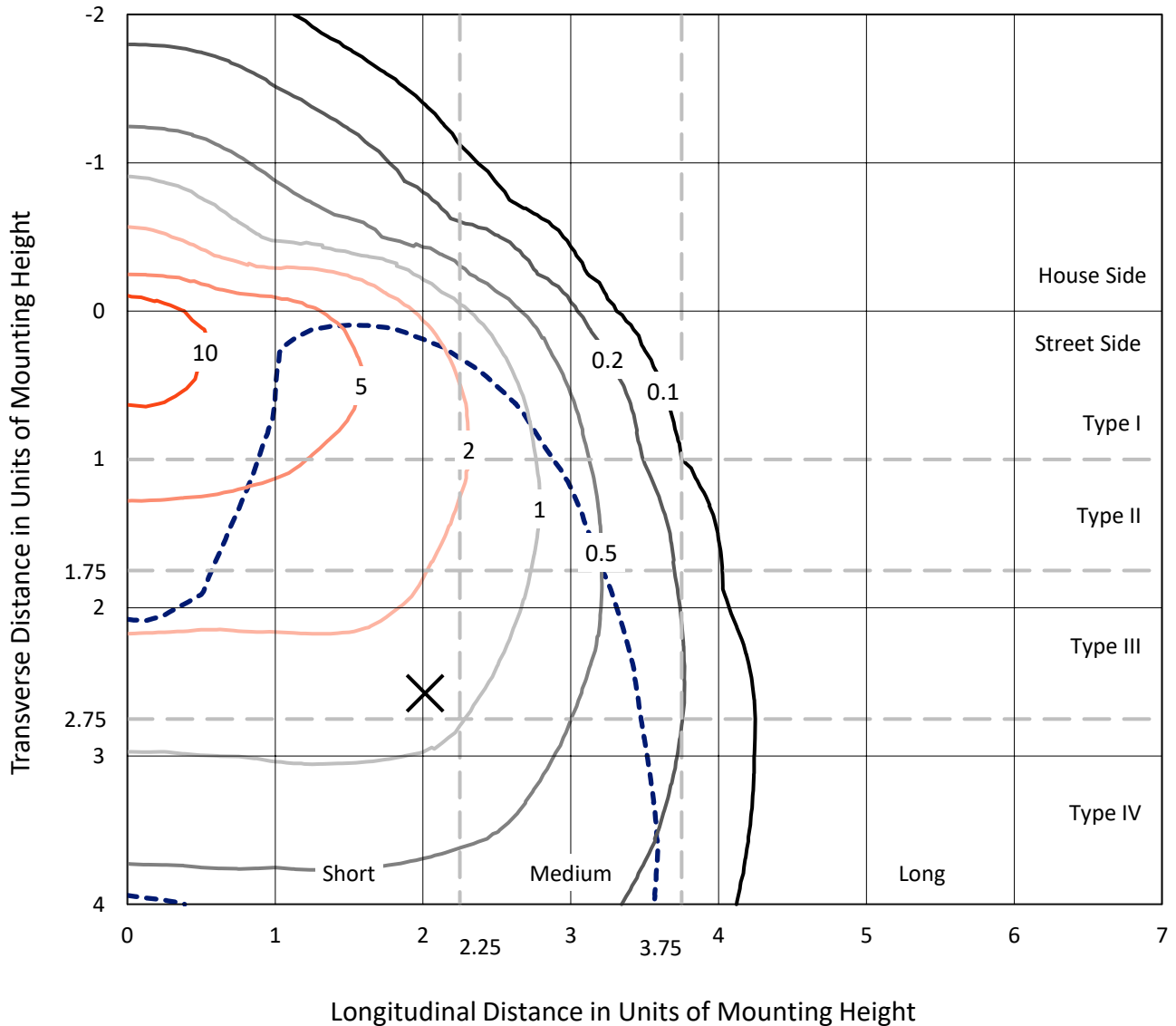
Input Watts (W): 433
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

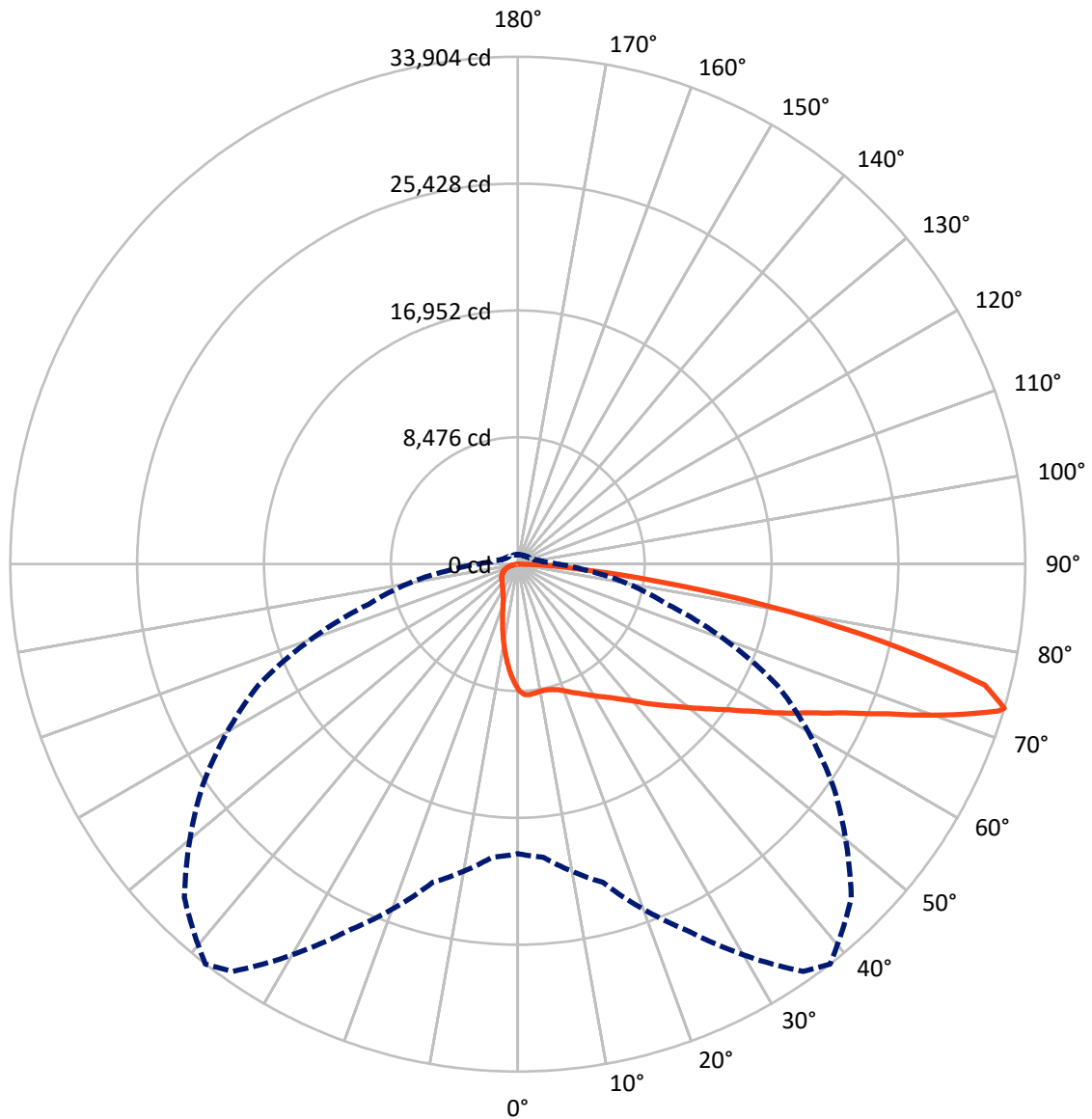
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6457.0 | 0.0 | 6457.0 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 41575.9 | 0.0 | 41575.9 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 48033.0 | 0.0 | 48033.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 736.6 | 1.5 |
| 10°-20° | 1888.9 | 3.9 |
| 20°-30° | 2941.3 | 6.1 |
| 30°-40° | 4314.3 | 9.0 |
| 40°-50° | 6399.7 | 13.3 |
| 50°-60° | 9067.1 | 18.9 |
| 60°-70° | 11501.9 | 23.9 |
| 70°-80° | 9574.5 | 19.9 |
| 80°-90° | 1608.7 | 3.3 |
| 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° | 48033.0 | 100.0 |
| 0°-180° | 48033.0 | 100.0 |

Coefficient of Utilization



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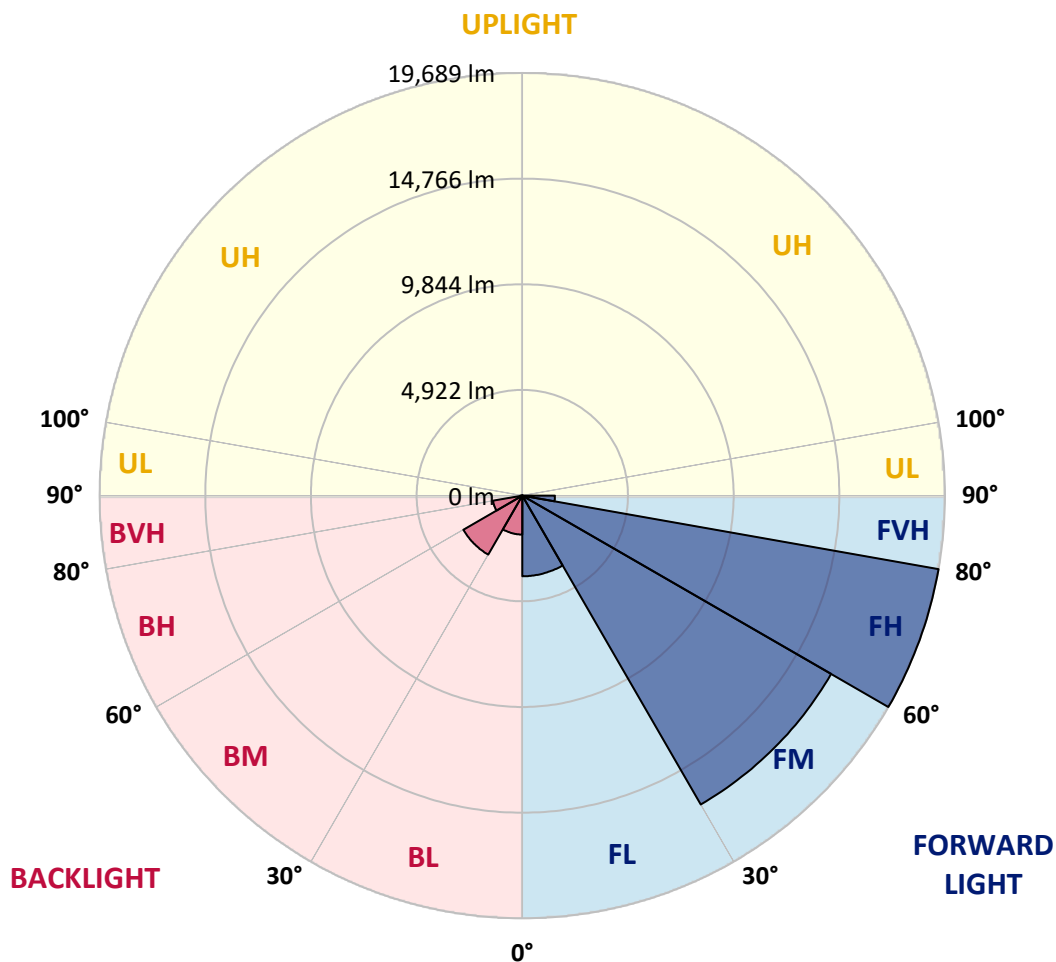
CATALOG NUMBER: GALN-SA7D-730-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3754.9 | 7.8 | | | |
| FM | (30°-60°) | 16611.1 | 34.6 | | | |
| FH | (60°-80°) | 19688.5 | 41.0 | | | G5 |
| FVH | (80°-90°) | 1521.4 | 3.2 | | | G5 |
| BL | (0°-30°) | 1811.9 | 3.8 | B3/2500 | | |
| BM | (30°-60°) | 3170.0 | 6.6 | B3/5000 | | |
| BH | (60°-80°) | 1387.9 | 2.9 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 87.2 | 0.2 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 |
| 2.5° | 8777.6 | 8821.0 | 8799.3 | 8769.5 | 8750.5 | 8731.5 | 8704.4 | 8625.7 | 8563.4 | 8495.5 | 8389.8 |
| 5° | 8842.7 | 8869.9 | 8850.9 | 8812.9 | 8769.5 | 8750.5 | 8699.0 | 8595.9 | 8495.5 | 8381.6 | 8224.3 |
| 7.5° | 8804.8 | 8815.6 | 8793.9 | 8747.8 | 8709.8 | 8674.6 | 8614.9 | 8501.0 | 8378.9 | 8240.6 | 8034.4 |
| 10° | 8669.1 | 8709.8 | 8709.8 | 8671.9 | 8633.9 | 8614.9 | 8555.2 | 8446.7 | 8335.5 | 8178.2 | 7934.1 |
| 12.5° | 8557.9 | 8601.3 | 8636.6 | 8625.7 | 8623.0 | 8623.0 | 8576.9 | 8495.5 | 8365.3 | 8216.2 | 7925.9 |
| 15° | 8482.0 | 8533.5 | 8609.5 | 8652.9 | 8680.0 | 8688.1 | 8669.1 | 8598.6 | 8465.7 | 8292.1 | 7958.5 |
| 17.5° | 8465.7 | 8528.1 | 8666.4 | 8761.4 | 8831.9 | 8829.2 | 8823.8 | 8726.1 | 8579.6 | 8400.6 | 7999.2 |
| 20° | 8538.9 | 8620.3 | 8812.9 | 8962.1 | 9065.2 | 9046.2 | 9016.3 | 8888.9 | 8718.0 | 8517.2 | 8037.1 |
| 22.5° | 8758.7 | 8842.7 | 9054.3 | 9217.1 | 9317.4 | 9317.4 | 9227.9 | 9059.7 | 8878.0 | 8652.9 | 8088.7 |
| 25° | 9073.3 | 9165.5 | 9390.7 | 9556.1 | 9602.2 | 9567.0 | 9477.5 | 9274.0 | 9065.2 | 8848.2 | 8197.2 |
| 27.5° | 9458.5 | 9569.7 | 9778.6 | 9916.9 | 9903.3 | 9876.2 | 9784.0 | 9523.6 | 9314.7 | 9116.7 | 8381.6 |
| 30° | 9938.6 | 10020.0 | 10237.0 | 10269.5 | 10220.7 | 10215.3 | 10085.1 | 9824.7 | 9629.4 | 9477.5 | 8644.7 |
| 32.5° | 10391.6 | 10464.8 | 10638.4 | 10652.0 | 10565.2 | 10576.0 | 10454.0 | 10215.3 | 10104.1 | 10049.8 | 9086.9 |
| 35° | 10871.7 | 10909.7 | 11058.9 | 11042.6 | 10985.6 | 10977.5 | 10928.7 | 10700.8 | 10736.1 | 10833.7 | 9713.5 |
| 37.5° | 11273.1 | 11349.1 | 11433.2 | 11446.7 | 11444.0 | 11471.2 | 11503.7 | 11395.2 | 11598.6 | 11905.2 | 10535.3 |
| 40° | 11642.0 | 11707.1 | 11831.9 | 11875.3 | 11981.1 | 12035.4 | 12146.6 | 12149.3 | 12618.5 | 13123.1 | 11547.1 |
| 42.5° | 11891.6 | 12002.8 | 12236.1 | 12314.7 | 12572.4 | 12735.2 | 12900.6 | 13077.0 | 13757.8 | 14406.1 | 12740.6 |
| 45° | 12108.6 | 12255.1 | 12643.0 | 12887.1 | 13237.0 | 13435.0 | 13784.9 | 14153.8 | 15133.0 | 15982.0 | 13953.1 |
| 47.5° | 12436.8 | 12567.0 | 13011.9 | 13443.1 | 13972.1 | 14199.9 | 14723.4 | 15274.1 | 16554.4 | 17484.8 | 15114.0 |
| 50° | 12892.5 | 12971.2 | 13424.2 | 14126.7 | 14802.1 | 15095.1 | 15786.7 | 16581.5 | 18073.4 | 18968.5 | 16133.9 |
| 52.5° | 13475.7 | 13508.2 | 13869.0 | 14804.8 | 15694.5 | 16058.0 | 16974.8 | 17902.5 | 19402.5 | 20256.9 | 16942.3 |
| 55° | 14164.7 | 14110.4 | 14392.5 | 15523.6 | 16714.4 | 17189.1 | 18173.7 | 19239.8 | 20897.1 | 21298.5 | 17530.9 |
| 57.5° | 14845.5 | 14761.4 | 14986.6 | 16397.1 | 17973.0 | 18545.4 | 19692.7 | 20617.7 | 22231.6 | 22272.3 | 17943.2 |
| 60° | 15567.0 | 15504.6 | 15773.2 | 17422.4 | 19516.4 | 20194.6 | 21255.1 | 22047.2 | 23522.8 | 22950.5 | 18008.3 |
| 62.5° | 16307.5 | 16207.2 | 16589.6 | 18575.2 | 21255.1 | 21870.9 | 22898.9 | 23566.2 | 24789.5 | 23202.7 | 17381.7 |
| 65° | 17026.4 | 16980.2 | 17571.6 | 19945.0 | 23235.3 | 23935.1 | 24933.3 | 25386.3 | 25804.0 | 22823.0 | 15827.4 |
| 67.5° | 17791.3 | 17883.5 | 18827.5 | 21773.2 | 25817.6 | 26696.4 | 27773.3 | 27347.4 | 26094.2 | 21024.6 | 13329.2 |
| 70° | 18957.7 | 19017.3 | 20476.7 | 24168.4 | 29145.8 | 30206.4 | 30727.2 | 28044.5 | 24694.6 | 17609.5 | 10020.0 |
| 72.5° | 19459.5 | 19722.6 | 21949.5 | 26682.9 | 32927.0 | 33575.3 | 31720.0 | 26490.3 | 20571.6 | 11962.1 | 5265.0 |
| 73° | 19348.3 | 19662.9 | 22017.4 | 27065.3 | 33222.7 | 33903.5 | 31508.4 | 25690.1 | 19123.1 | 10302.1 | 4513.6 |
| 75° | 17962.2 | 18350.1 | 21135.8 | 26745.2 | 32647.6 | 32240.8 | 28106.9 | 21895.3 | 12922.3 | 4684.5 | 2056.1 |
| 77.5° | 14172.8 | 14284.0 | 16747.0 | 21596.9 | 25709.1 | 24955.0 | 21035.4 | 13684.6 | 5278.5 | 1741.4 | 1166.4 |
| 80° | 7109.5 | 7519.0 | 9439.5 | 12371.7 | 17191.8 | 16945.0 | 13277.7 | 6472.0 | 2199.8 | 1022.6 | 773.1 |
| 82.5° | 3420.5 | 3710.7 | 4597.7 | 6032.6 | 9499.2 | 9274.0 | 6575.1 | 3537.1 | 1396.9 | 596.7 | 455.7 |
| 85° | 2202.5 | 2419.5 | 2926.8 | 2878.0 | 3906.0 | 3729.7 | 2953.9 | 2677.2 | 827.3 | 311.9 | 317.4 |
| 87.5° | 1453.9 | 1592.2 | 1909.6 | 1527.1 | 1421.3 | 1285.7 | 1304.7 | 1508.1 | 162.7 | 119.3 | 43.4 |
| 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° | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 | 8438.6 |
| 2.5° | 8346.4 | 8311.1 | 8194.5 | 8080.5 | 7972.0 | 7869.0 | 7801.1 | 7711.6 | 7652.0 | 7668.2 | 7692.6 |
| 5° | 8137.5 | 8058.8 | 7852.7 | 7652.0 | 7462.1 | 7236.9 | 7055.2 | 6908.7 | 6797.5 | 6756.8 | 6748.7 |
| 7.5° | 7917.8 | 7784.9 | 7489.2 | 7144.7 | 6821.9 | 6542.5 | 6219.8 | 6059.7 | 5872.6 | 5807.5 | 5785.8 |
| 10° | 7784.9 | 7605.8 | 7190.8 | 6710.7 | 6225.2 | 5761.3 | 5411.4 | 5126.6 | 4868.9 | 4820.1 | 4795.7 |
| 12.5° | 7746.9 | 7510.9 | 6952.1 | 6333.7 | 5688.1 | 5118.5 | 4600.4 | 4226.1 | 3976.5 | 3919.6 | 3835.5 |
| 15° | 7725.2 | 7432.2 | 6729.7 | 5953.9 | 5134.8 | 4440.4 | 3895.1 | 3458.4 | 3230.6 | 3078.7 | 3081.4 |
| 17.5° | 7706.2 | 7342.7 | 6480.2 | 5538.9 | 4657.4 | 3857.2 | 3255.0 | 2861.7 | 2652.8 | 2571.4 | 2563.3 |
| 20° | 7679.1 | 7236.9 | 6192.6 | 5102.2 | 4112.1 | 3325.5 | 2780.3 | 2487.4 | 2346.3 | 2278.5 | 2275.8 |
| 22.5° | 7668.2 | 7133.9 | 5910.5 | 4657.4 | 3629.3 | 2915.9 | 2465.7 | 2259.5 | 2170.0 | 2123.9 | 2123.9 |
| 25° | 7695.4 | 7060.6 | 5614.9 | 4234.2 | 3200.7 | 2566.0 | 2248.7 | 2107.6 | 2056.1 | 2031.7 | 2023.5 |
| 27.5° | 7779.4 | 7028.1 | 5321.9 | 3811.1 | 2807.4 | 2327.3 | 2102.2 | 2004.5 | 1966.6 | 1947.6 | 1950.3 |
| 30° | 7939.5 | 7025.4 | 5034.4 | 3393.3 | 2514.5 | 2145.6 | 1985.5 | 1917.7 | 1887.9 | 1877.0 | 1874.3 |
| 32.5° | 8197.2 | 7085.0 | 4752.3 | 3048.8 | 2267.6 | 1993.7 | 1877.0 | 1828.2 | 1814.7 | 1806.5 | 1803.8 |
| 35° | 8633.9 | 7253.2 | 4472.9 | 2734.2 | 2077.8 | 1858.1 | 1774.0 | 1749.6 | 1730.6 | 1738.7 | 1741.4 |
| 37.5° | 9222.5 | 7543.5 | 4207.1 | 2487.4 | 1934.0 | 1757.7 | 1687.2 | 1665.5 | 1654.6 | 1662.8 | 1670.9 |
| 40° | 10011.8 | 7961.2 | 3984.7 | 2289.3 | 1830.9 | 1673.6 | 1611.2 | 1592.2 | 1581.4 | 1594.9 | 1597.7 |
| 42.5° | 10882.5 | 8444.0 | 3800.2 | 2134.7 | 1746.8 | 1603.1 | 1543.4 | 1521.7 | 1513.6 | 1521.7 | 1524.4 |
| 45° | 11777.7 | 9005.5 | 3705.3 | 2023.5 | 1676.3 | 1551.5 | 1489.2 | 1464.7 | 1445.8 | 1440.3 | 1448.5 |
| 47.5° | 12659.2 | 9493.7 | 3702.6 | 1955.7 | 1619.4 | 1505.4 | 1437.6 | 1410.5 | 1386.1 | 1372.5 | 1369.8 |
| 50° | 13378.0 | 9881.6 | 3767.7 | 1925.9 | 1570.5 | 1453.9 | 1386.1 | 1359.0 | 1326.4 | 1299.3 | 1304.7 |
| 52.5° | 13920.5 | 10133.9 | 3797.5 | 1912.3 | 1543.4 | 1399.6 | 1331.8 | 1307.4 | 1269.4 | 1234.2 | 1234.2 |
| 55° | 14270.5 | 10193.6 | 3724.3 | 1898.7 | 1521.7 | 1342.7 | 1269.4 | 1247.7 | 1209.8 | 1174.5 | 1174.5 |
| 57.5° | 14389.8 | 10009.1 | 3461.1 | 1866.2 | 1500.0 | 1293.9 | 1207.1 | 1188.1 | 1158.2 | 1123.0 | 1117.5 |
| 60° | 14113.1 | 9385.2 | 3000.0 | 1768.5 | 1456.6 | 1242.3 | 1139.2 | 1131.1 | 1120.3 | 1090.4 | 1087.7 |
| 62.5° | 13047.1 | 8061.5 | 2498.2 | 1641.1 | 1383.4 | 1188.1 | 1076.9 | 1090.4 | 1098.6 | 1082.3 | 1079.6 |
| 65° | 11273.1 | 6545.3 | 2134.7 | 1464.7 | 1285.7 | 1112.1 | 1009.0 | 1044.3 | 1066.0 | 1066.0 | 1060.6 |
| 67.5° | 9143.8 | 5026.3 | 1798.4 | 1312.8 | 1163.7 | 1009.0 | 933.1 | 960.2 | 976.5 | 971.1 | 984.6 |
| 70° | 6499.1 | 3404.2 | 1464.7 | 1139.2 | 1009.0 | 892.4 | 835.4 | 835.4 | 824.6 | 819.2 | 819.2 |
| 72.5° | 3151.9 | 1944.9 | 1188.1 | 952.1 | 859.9 | 762.2 | 716.1 | 697.1 | 675.4 | 672.7 | 659.1 |
| 73° | 2633.8 | 1744.1 | 1133.8 | 916.8 | 824.6 | 743.2 | 691.7 | 661.8 | 648.3 | 637.4 | 634.7 |
| 75° | 1603.1 | 1323.7 | 946.7 | 773.1 | 702.5 | 640.1 | 594.0 | 566.9 | 553.3 | 545.2 | 542.5 |
| 77.5° | 1055.2 | 987.3 | 735.1 | 591.3 | 537.1 | 499.1 | 480.1 | 453.0 | 444.8 | 434.0 | 434.0 |
| 80° | 786.6 | 754.1 | 526.2 | 417.7 | 385.2 | 352.6 | 347.2 | 341.8 | 320.1 | 306.5 | 301.1 |
| 82.5° | 507.2 | 537.1 | 358.0 | 279.4 | 244.1 | 217.0 | 219.7 | 227.8 | 206.1 | 187.2 | 181.7 |
| 85° | 360.8 | 387.9 | 217.0 | 127.5 | 103.1 | 89.5 | 100.4 | 89.5 | 92.2 | 73.2 | 59.7 |
| 87.5° | 59.7 | 103.1 | 38.0 | 16.3 | 8.1 | 5.4 | 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 |

(END OF REPORT)