

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: P944761

Luminaire Tested: **GALN-SB9D-840-U-SL4-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P944761
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SB9D-840-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY HIGH DENSITY LED LUMINAIRE
(9) 80 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 61887 lumens
Efficiency: N/A
Efficacy: 94.1 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

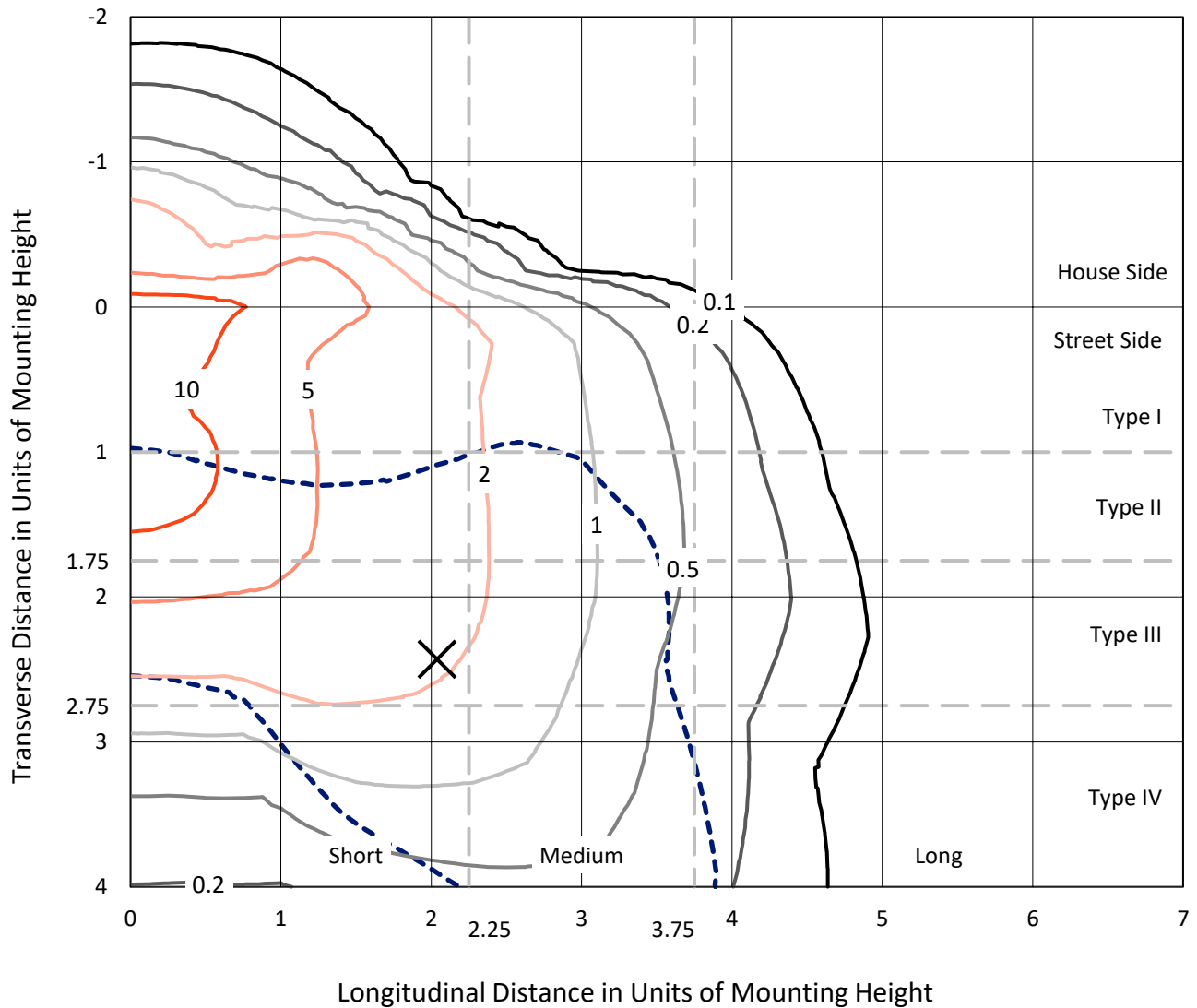
Input Watts (W): 658
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

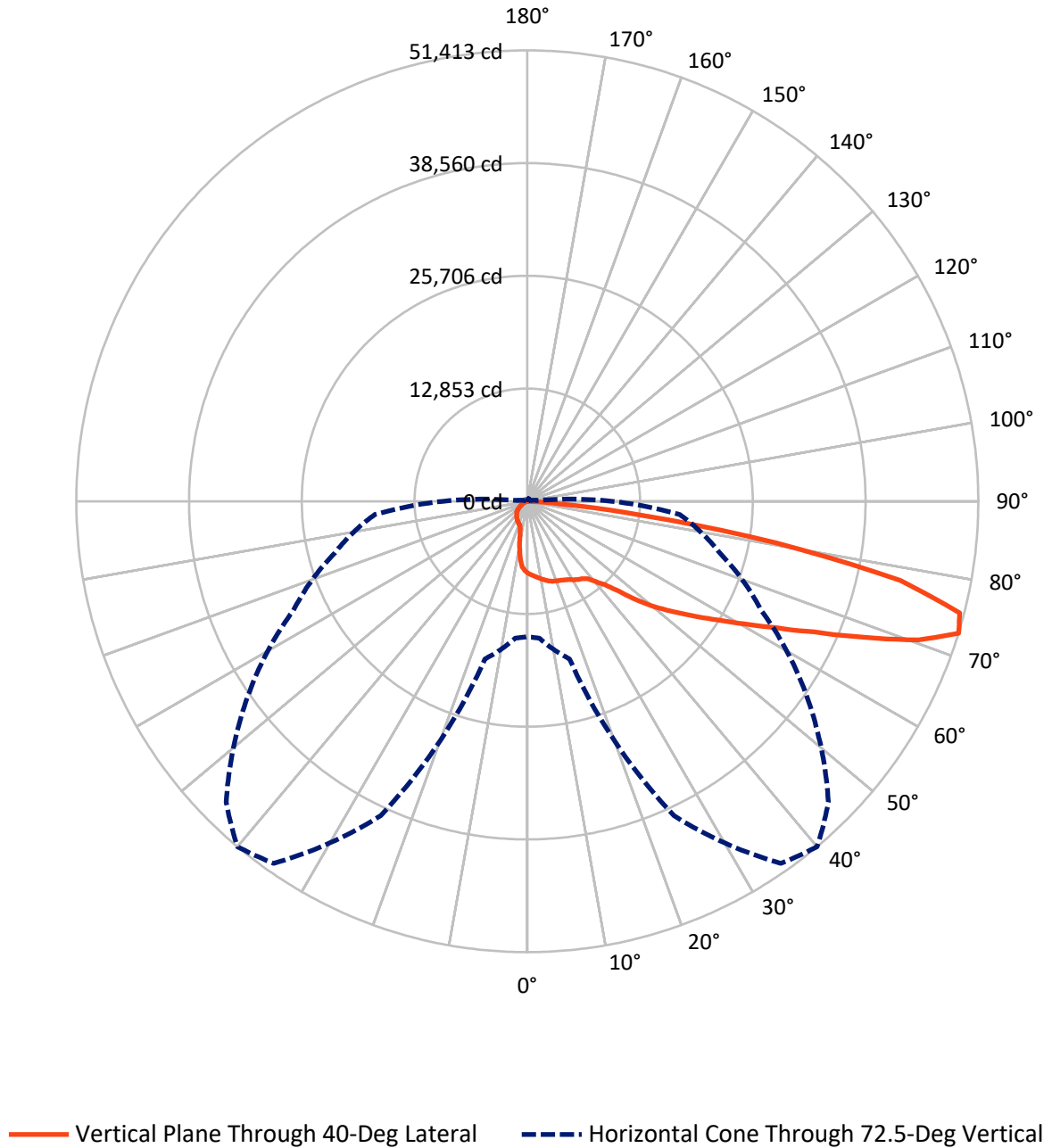
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7992.0 | 0.0 | 7992.0 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 53894.9 | 0.0 | 53894.9 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 61887.0 | 0.0 | 61887.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 748.4 | 1.2 |
| 10°-20° | 2032.3 | 3.3 |
| 20°-30° | 3288.4 | 5.3 |
| 30°-40° | 4854.9 | 7.8 |
| 40°-50° | 8170.9 | 13.2 |
| 50°-60° | 12687.2 | 20.5 |
| 60°-70° | 15875.3 | 25.7 |
| 70°-80° | 12997.1 | 21.0 |
| 80°-90° | 1232.4 | 2.0 |
| 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°-90° | 61887.0 | 100.0 |
| 0°-180° | 61887.0 | 100.0 |

Coefficient of Utilization



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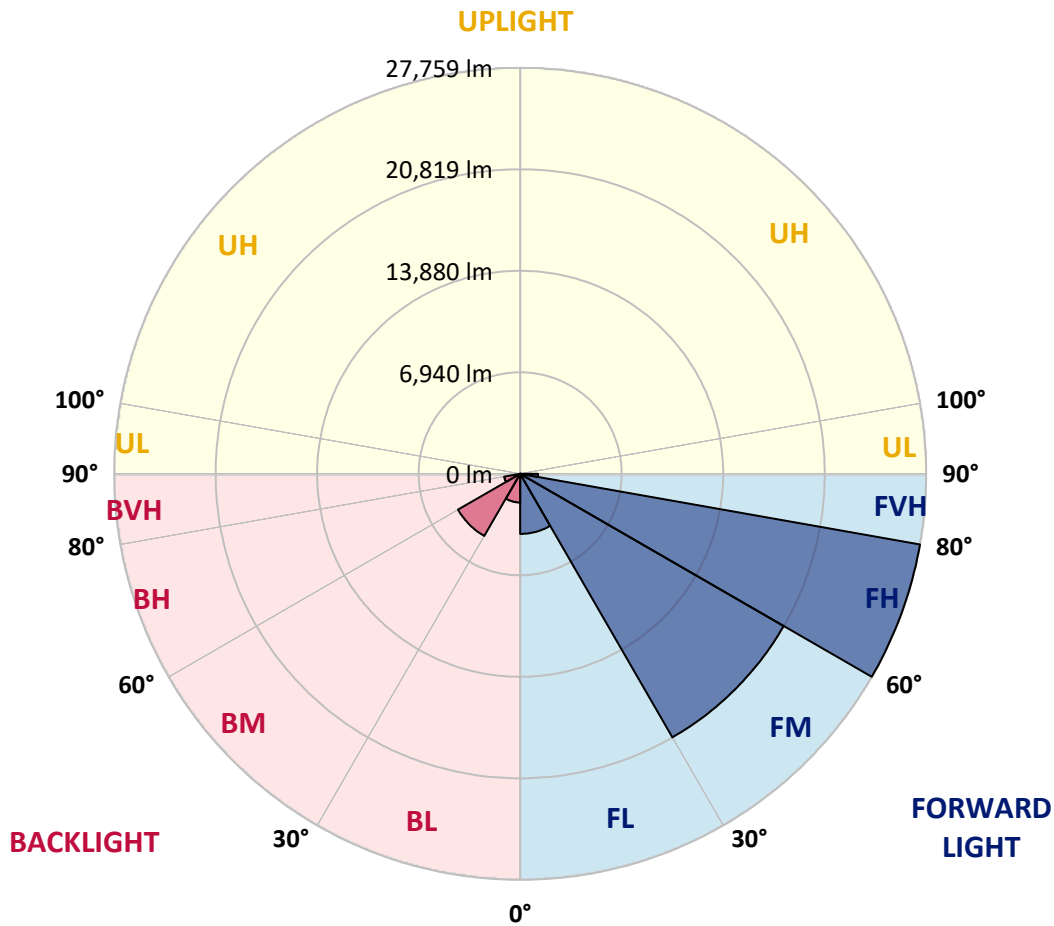
CATALOG NUMBER: GALN-SB9D-840-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 4107.5 | 6.6 | | | |
| FM (30°-60°) | 20805.4 | 33.6 | | | |
| FH (60°-80°) | 27759.1 | 44.9 | | | G5 |
| FVH (80°-90°) | 1223.0 | 2.0 | | | G5 |
| BL (0°-30°) | 1961.6 | 3.2 | B3/2500 | | |
| BM (30°-60°) | 4907.7 | 7.9 | B3/5000 | | |
| BH (60°-80°) | 1113.4 | 1.8 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 9.4 | 0.0 | | | G0/10 |
| 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° | 40° | 45° | 55° | 65° | 75° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 |
| 2.5° | 8441.4 | 8474.0 | 8455.4 | 8418.1 | 8408.8 | 8390.1 | 8366.8 | 8357.5 | 8324.9 | 8296.9 |
| 5° | 8679.1 | 8711.7 | 8688.4 | 8637.2 | 8613.8 | 8590.5 | 8557.9 | 8529.9 | 8464.7 | 8404.1 |
| 7.5° | 8940.1 | 8968.1 | 8940.1 | 8865.5 | 8828.3 | 8800.3 | 8753.7 | 8711.7 | 8637.2 | 8548.6 |
| 10° | 9229.1 | 9252.4 | 9210.5 | 9112.6 | 9052.0 | 9010.0 | 8968.1 | 8921.5 | 8851.6 | 8753.7 |
| 12.5° | 9499.5 | 9527.4 | 9462.2 | 9345.7 | 9275.7 | 9233.8 | 9187.2 | 9149.9 | 9080.0 | 8986.7 |
| 15° | 9746.5 | 9788.5 | 9676.6 | 9550.7 | 9471.5 | 9438.9 | 9392.3 | 9369.0 | 9322.3 | 9257.1 |
| 17.5° | 9933.0 | 9960.9 | 9844.4 | 9695.2 | 9606.7 | 9583.4 | 9550.7 | 9564.7 | 9555.4 | 9522.8 |
| 20° | 10091.4 | 10110.1 | 9956.3 | 9774.5 | 9676.6 | 9681.3 | 9671.9 | 9718.5 | 9737.2 | 9737.2 |
| 22.5° | 10287.2 | 10291.9 | 10096.1 | 9867.7 | 9751.2 | 9783.8 | 9797.8 | 9849.1 | 9886.3 | 9923.6 |
| 25° | 10543.6 | 10534.2 | 10301.2 | 9988.9 | 9886.3 | 9933.0 | 9965.6 | 9984.2 | 10026.2 | 10086.8 |
| 27.5° | 10925.8 | 10897.8 | 10599.5 | 10184.7 | 10063.5 | 10105.4 | 10166.0 | 10156.7 | 10138.0 | 10184.7 |
| 30° | 11410.5 | 11373.3 | 10977.1 | 10459.7 | 10347.8 | 10385.1 | 10403.7 | 10319.8 | 10184.7 | 10226.6 |
| 32.5° | 12179.6 | 12114.4 | 11564.4 | 10767.3 | 10594.8 | 10636.8 | 10613.5 | 10441.0 | 10240.6 | 10282.5 |
| 35° | 13517.4 | 13358.9 | 12580.5 | 11410.5 | 10874.5 | 10827.9 | 10772.0 | 10604.2 | 10357.1 | 10315.2 |
| 37.5° | 16360.7 | 16081.0 | 14752.6 | 12664.4 | 11508.4 | 11205.5 | 11033.0 | 10865.2 | 10483.0 | 10315.2 |
| 40° | 19567.6 | 19283.3 | 17749.7 | 14761.9 | 12561.9 | 12049.1 | 11638.9 | 11172.8 | 10613.5 | 10375.8 |
| 42.5° | 22914.3 | 22602.0 | 21026.5 | 17362.9 | 14067.4 | 13014.0 | 12249.6 | 11419.9 | 10827.9 | 10562.2 |
| 45° | 26652.6 | 26261.0 | 24200.8 | 20075.7 | 16253.5 | 14617.4 | 13233.1 | 11927.9 | 11200.8 | 10893.2 |
| 47.5° | 30595.9 | 30087.9 | 27365.7 | 22709.2 | 18607.4 | 16836.2 | 15032.3 | 12836.9 | 11750.8 | 11387.2 |
| 50° | 34091.8 | 33588.4 | 30633.2 | 25464.0 | 20807.5 | 18947.7 | 17083.2 | 14095.4 | 12575.8 | 12086.4 |
| 52.5° | 36604.2 | 36222.0 | 33607.1 | 28307.3 | 23096.1 | 20928.7 | 18943.0 | 15559.0 | 13619.9 | 12981.4 |
| 55° | 38286.9 | 37937.3 | 35713.9 | 31001.5 | 25757.6 | 23110.1 | 20774.8 | 17148.5 | 14878.5 | 14053.4 |
| 57.5° | 39307.7 | 39107.2 | 37238.1 | 33406.6 | 28395.9 | 25496.6 | 22872.4 | 18896.4 | 16360.7 | 15316.6 |
| 60° | 39671.2 | 39508.1 | 38184.3 | 35699.9 | 31584.1 | 28363.2 | 25338.1 | 20868.1 | 18159.9 | 16752.3 |
| 62.5° | 38701.7 | 38734.3 | 38864.9 | 38417.4 | 34944.8 | 31719.3 | 28293.3 | 23235.9 | 20154.9 | 18379.0 |
| 65° | 34138.4 | 34408.8 | 36888.5 | 41428.5 | 39396.2 | 35923.7 | 32054.9 | 26125.9 | 22438.9 | 20229.5 |
| 67.5° | 28265.3 | 28656.9 | 31742.6 | 43190.4 | 44141.3 | 41381.9 | 37294.0 | 29808.2 | 25161.0 | 22112.6 |
| 70° | 21637.2 | 22056.7 | 25794.9 | 42822.2 | 48583.4 | 47348.2 | 43773.1 | 34492.7 | 27981.0 | 23417.7 |
| 72.5° | 15442.5 | 15656.9 | 18602.7 | 39545.4 | 50405.9 | 51412.7 | 48546.1 | 38930.1 | 29421.3 | 22695.2 |
| 75° | 10851.2 | 10813.9 | 12767.0 | 31845.1 | 47567.3 | 50918.6 | 46872.7 | 36529.6 | 26624.6 | 18029.4 |
| 77.5° | 4726.4 | 4735.8 | 6376.5 | 19339.2 | 37965.2 | 43488.7 | 38962.7 | 22881.7 | 18560.8 | 9555.4 |
| 80° | 1225.9 | 1263.2 | 2339.9 | 7700.3 | 22858.4 | 28703.5 | 23762.7 | 10058.8 | 8576.6 | 2330.6 |
| 82.5° | 433.5 | 461.5 | 1076.7 | 2419.1 | 8432.1 | 13163.2 | 10580.9 | 3216.2 | 2237.4 | 666.5 |
| 85° | 125.9 | 149.2 | 578.0 | 741.1 | 1743.3 | 3719.6 | 2568.3 | 624.6 | 550.0 | 344.9 |
| 87.5° | 0.0 | 18.6 | 116.5 | 102.5 | 102.5 | 69.9 | 130.5 | 69.9 | 88.6 | 42.0 |
| 90° | 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):

| 85° | | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° |
|---------|-------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| 8194.3 | 0° | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 | 8194.3 |
| 8264.3 | 2.5° | 8236.3 | 8203.7 | 8133.7 | 8059.2 | 7989.2 | 7924.0 | 7905.3 | 7835.4 | 7802.8 | 7807.5 |
| 8329.5 | 5° | 8278.2 | 8217.6 | 8082.5 | 7919.3 | 7751.5 | 7560.4 | 7401.9 | 7178.2 | 6987.1 | 6963.8 |
| 8455.4 | 7.5° | 8390.1 | 8292.2 | 8073.2 | 7756.2 | 7336.7 | 6810.0 | 6320.5 | 5835.8 | 5560.8 | 5411.6 |
| 8641.8 | 10° | 8562.6 | 8432.1 | 8096.5 | 7490.5 | 6600.2 | 5658.7 | 4917.5 | 4306.9 | 3994.6 | 3850.1 |
| 8870.2 | 12.5° | 8767.7 | 8623.2 | 8133.7 | 7038.4 | 5649.3 | 4414.1 | 3612.4 | 3239.5 | 3174.3 | 3164.9 |
| 9149.9 | 15° | 9056.7 | 8898.2 | 8175.7 | 6427.8 | 4619.2 | 3360.7 | 2992.5 | 2997.1 | 3048.4 | 3076.4 |
| 9452.9 | 17.5° | 9378.3 | 9219.8 | 8115.1 | 5682.0 | 3603.1 | 2871.3 | 2862.0 | 2903.9 | 2978.5 | 3006.5 |
| 9732.5 | 20° | 9704.6 | 9555.4 | 7900.7 | 4805.7 | 2913.2 | 2736.1 | 2773.4 | 2820.0 | 2894.6 | 2931.9 |
| 10007.5 | 22.5° | 10040.2 | 9909.7 | 7560.4 | 3873.4 | 2628.9 | 2638.2 | 2684.8 | 2731.4 | 2815.3 | 2857.3 |
| 10277.9 | 25° | 10399.1 | 10287.2 | 7108.3 | 3104.3 | 2507.7 | 2535.7 | 2596.3 | 2652.2 | 2740.8 | 2792.0 |
| 10506.3 | 27.5° | 10762.6 | 10678.7 | 6595.6 | 2591.6 | 2395.8 | 2428.5 | 2498.4 | 2573.0 | 2661.5 | 2722.1 |
| 10706.7 | 30° | 11158.8 | 11112.2 | 6185.4 | 2400.5 | 2288.6 | 2316.6 | 2395.8 | 2479.7 | 2577.6 | 2652.2 |
| 10907.1 | 32.5° | 11564.4 | 11555.0 | 5984.9 | 2540.3 | 2190.8 | 2209.4 | 2279.3 | 2363.2 | 2484.4 | 2577.6 |
| 11074.9 | 35° | 11965.2 | 11983.9 | 5868.4 | 2936.5 | 2158.1 | 2106.8 | 2153.5 | 2228.0 | 2372.5 | 2489.1 |
| 11266.1 | 37.5° | 12478.0 | 12524.6 | 5863.8 | 3365.4 | 2237.4 | 2004.3 | 2036.9 | 2088.2 | 2214.1 | 2349.2 |
| 11564.4 | 40° | 13242.4 | 13489.4 | 6162.1 | 3733.6 | 2377.2 | 1911.1 | 1920.4 | 1929.7 | 1995.0 | 2106.8 |
| 11960.6 | 42.5° | 14258.5 | 14981.0 | 7238.8 | 3985.3 | 2433.1 | 1827.2 | 1794.6 | 1743.3 | 1734.0 | 1794.6 |
| 12501.3 | 45° | 15521.7 | 16784.9 | 9131.2 | 4125.1 | 2377.2 | 1734.0 | 1645.4 | 1510.2 | 1458.9 | 1500.9 |
| 13233.1 | 47.5° | 17008.6 | 18761.2 | 11373.3 | 4157.8 | 2284.0 | 1617.4 | 1458.9 | 1281.8 | 1239.9 | 1253.9 |
| 14216.6 | 50° | 18458.2 | 20243.5 | 13344.9 | 3887.4 | 2130.2 | 1468.3 | 1253.9 | 1104.7 | 1076.7 | 1081.4 |
| 15377.2 | 52.5° | 19740.1 | 20751.5 | 13904.3 | 3248.8 | 1925.1 | 1286.5 | 1076.7 | 974.2 | 955.5 | 955.5 |
| 16659.0 | 55° | 20588.4 | 20201.5 | 12398.7 | 2484.4 | 1668.7 | 1100.0 | 922.9 | 871.6 | 862.3 | 857.7 |
| 18090.0 | 57.5° | 20765.5 | 18411.6 | 9364.3 | 1794.6 | 1305.1 | 927.6 | 820.4 | 792.4 | 773.8 | 755.1 |
| 19558.3 | 60° | 20131.6 | 15428.5 | 5961.6 | 1253.9 | 978.8 | 792.4 | 727.1 | 708.5 | 671.2 | 633.9 |
| 20938.0 | 62.5° | 18761.2 | 11652.9 | 3300.1 | 871.6 | 787.7 | 675.9 | 643.2 | 619.9 | 550.0 | 489.4 |
| 22033.4 | 65° | 16920.1 | 7746.9 | 1458.9 | 680.5 | 643.2 | 568.7 | 550.0 | 517.4 | 433.5 | 363.6 |
| 22448.2 | 67.5° | 15069.6 | 4460.7 | 657.2 | 545.4 | 517.4 | 466.1 | 452.1 | 428.8 | 368.2 | 303.0 |
| 21390.1 | 70° | 12958.1 | 2260.7 | 452.1 | 433.5 | 400.9 | 354.2 | 368.2 | 363.6 | 303.0 | 247.0 |
| 17446.8 | 72.5° | 9648.6 | 1123.3 | 340.3 | 326.3 | 289.0 | 251.7 | 303.0 | 298.3 | 237.7 | 186.4 |
| 10758.0 | 75° | 5462.9 | 554.7 | 247.0 | 228.4 | 172.5 | 186.4 | 242.4 | 228.4 | 163.1 | 121.2 |
| 4540.0 | 77.5° | 2167.4 | 284.3 | 163.1 | 139.8 | 102.5 | 125.9 | 177.1 | 153.8 | 83.9 | 51.3 |
| 867.0 | 80° | 498.7 | 139.8 | 83.9 | 60.6 | 46.6 | 74.6 | 93.2 | 55.9 | 23.3 | 4.7 |
| 233.1 | 82.5° | 139.8 | 60.6 | 28.0 | 23.3 | 23.3 | 28.0 | 23.3 | 9.3 | 0.0 | 0.0 |
| 60.6 | 85° | 46.6 | 28.0 | 9.3 | 4.7 | 4.7 | 4.7 | 4.7 | 0.0 | 0.0 | 0.0 |
| 18.6 | 87.5° | 18.6 | 9.3 | 0.0 | 0.0 | 0.0 | 0.0 | 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 |

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| |
|-------------|
| <u>180°</u> |
| 8194.3 |
| 7802.8 |
| 6949.8 |
| 5402.3 |
| 3822.2 |
| 3160.3 |
| 3071.7 |
| 3001.8 |
| 2931.9 |
| 2857.3 |
| 2792.0 |
| 2726.8 |
| 2661.5 |
| 2587.0 |
| 2507.7 |
| 2372.5 |
| 2144.1 |
| 1827.2 |
| 1500.9 |
| 1249.2 |
| 1081.4 |
| 950.9 |
| 848.3 |
| 745.8 |
| 619.9 |
| 470.8 |
| 349.6 |
| 293.7 |
| 237.7 |
| 177.1 |
| 111.9 |
| 46.6 |
| 0.0 |
| 0.0 |
| 0.0 |
| 0.0 |
| 0.0 |

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