

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: P452993

Luminaire Tested: **GLAN-SA4A-727-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452993
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA4A-727-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12113 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

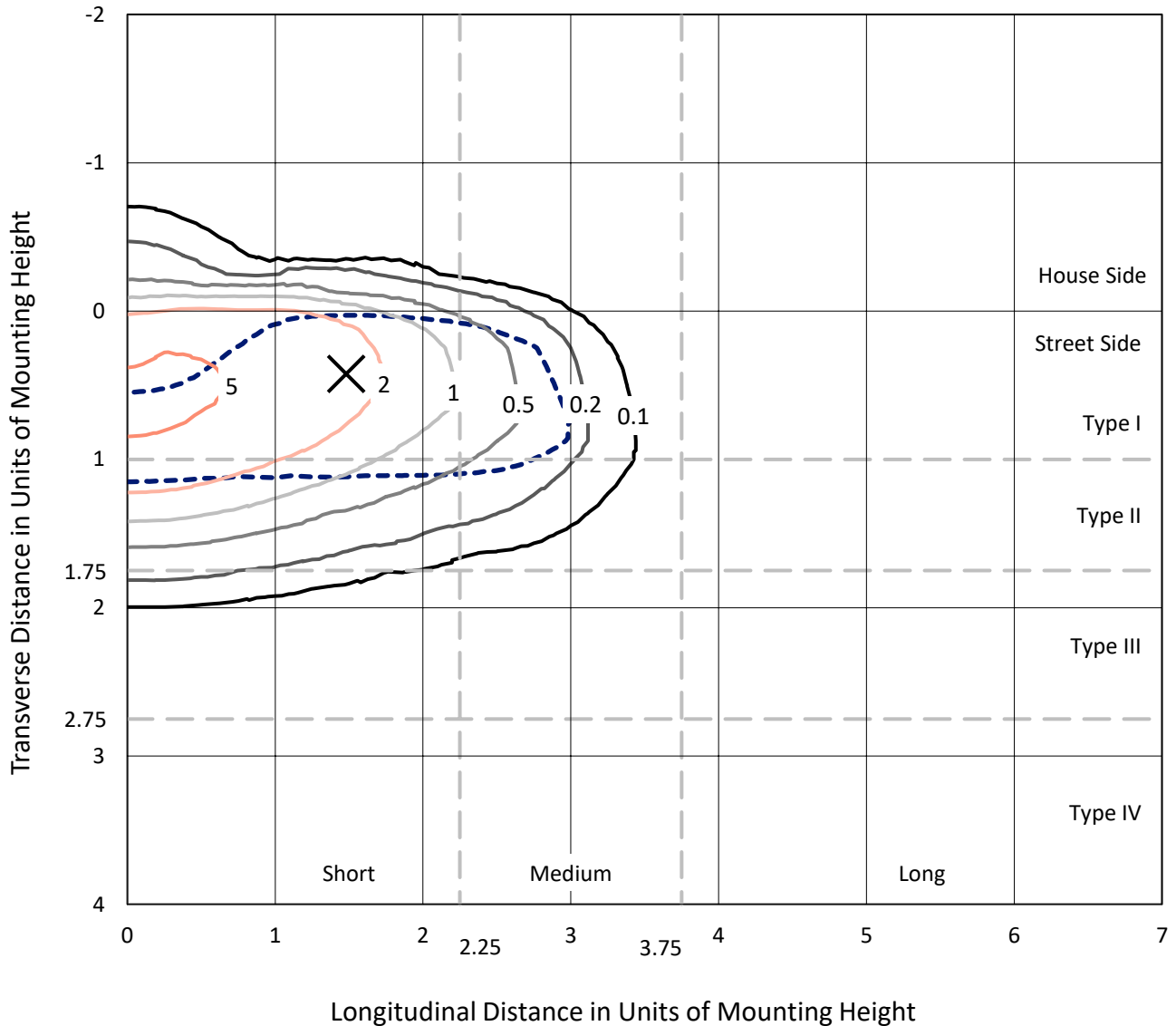
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

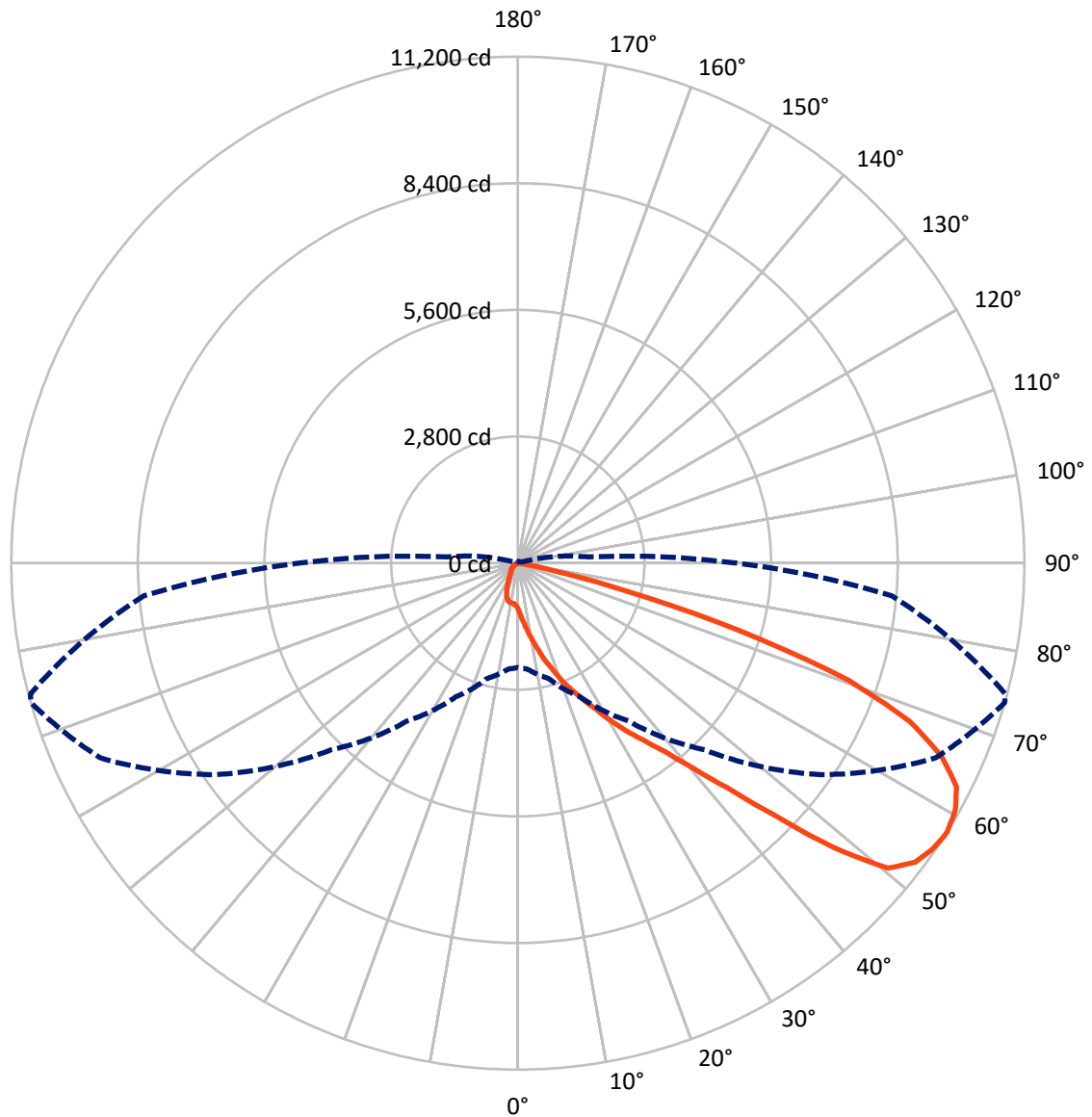
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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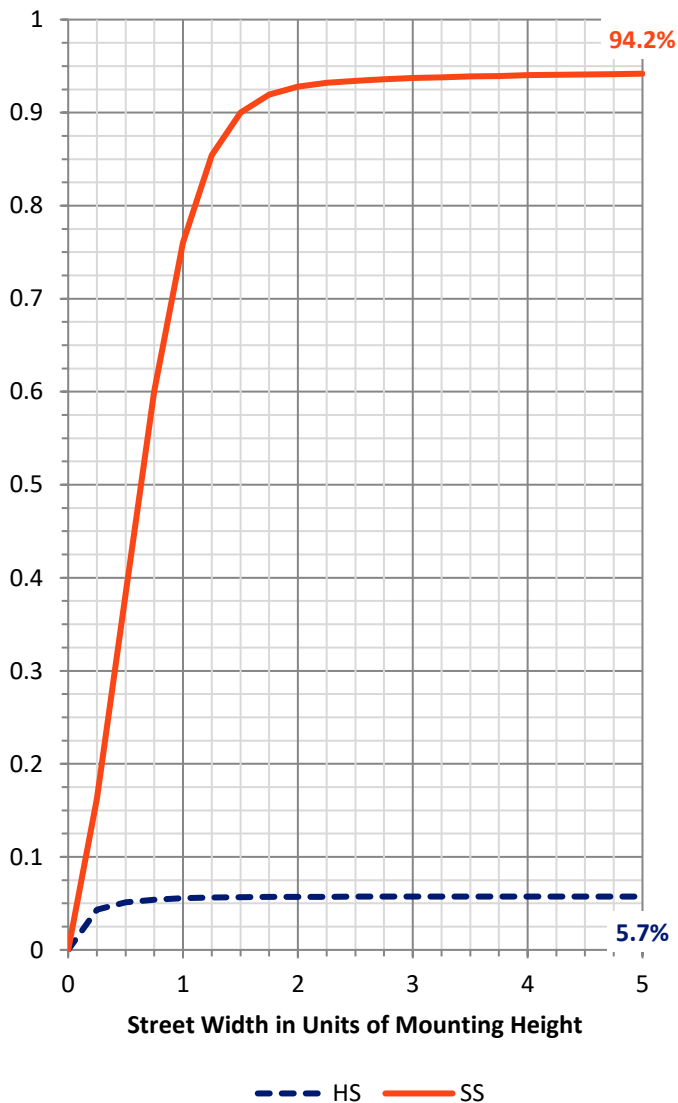
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 698.6 | 0.0 | 698.6 |
| | % Fixture | 5.8 | 0.0 | 5.8 |
| Street Side | Lumens | 11414.4 | 0.0 | 11414.4 |
| | % Fixture | 94.2 | 0.0 | 94.2 |
| Total | Lumens | 12113.0 | 0.0 | 12113.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 122.4 | 1.0 |
| 10°-20° | 482.6 | 4.0 |
| 20°-30° | 1032.7 | 8.5 |
| 30°-40° | 1898.1 | 15.7 |
| 40°-50° | 2909.9 | 24.0 |
| 50°-60° | 3078.2 | 25.4 |
| 60°-70° | 2010.2 | 16.6 |
| 70°-80° | 549.2 | 4.5 |
| 80°-90° | 29.6 | 0.2 |
| 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° | 12113.0 | 100.0 |
| 0°-180° | 12113.0 | 100.0 |

Coefficient of Utilization

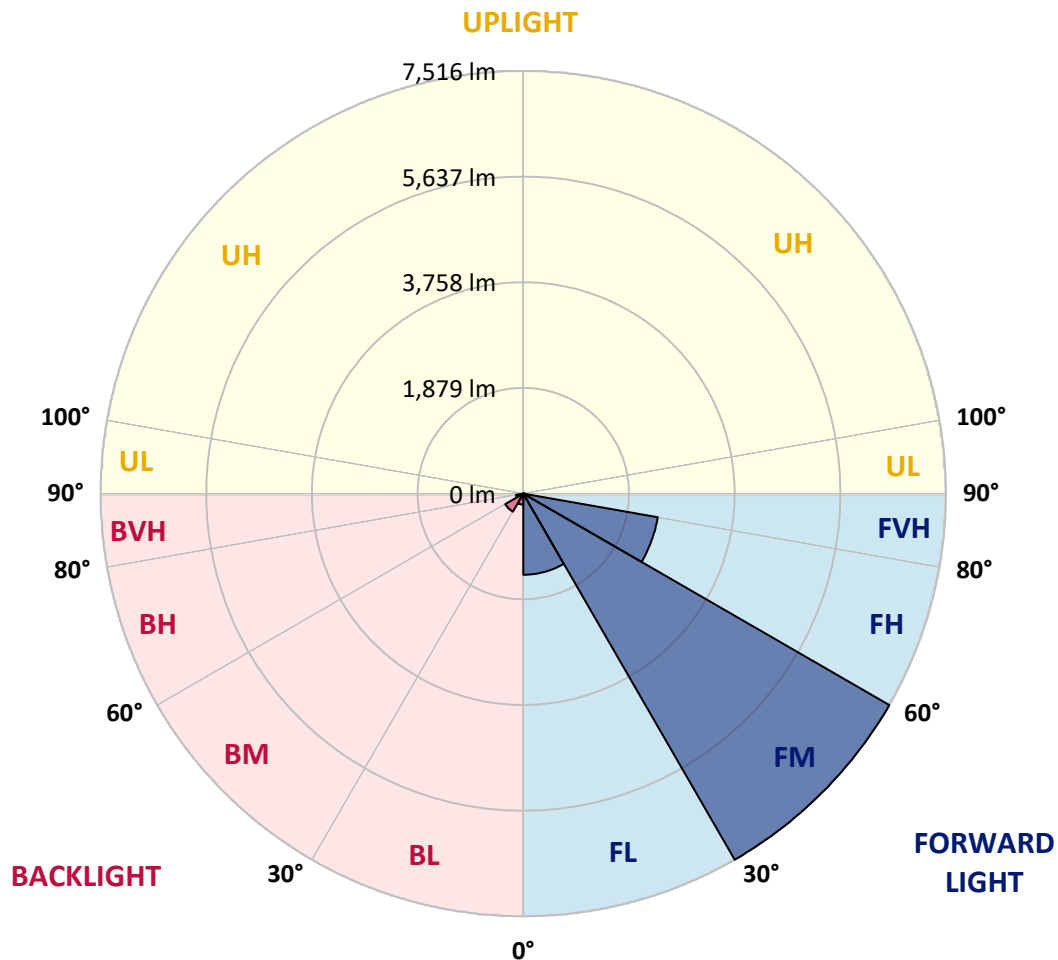


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1442.6 | 11.9 | | | |
| FM (30°-60°) | 7516.3 | 62.1 | | | |
| FH (60°-80°) | 2428.3 | 20.0 | | | G2/5000 |
| FVH (80°-90°) | 27.1 | 0.2 | | | G1/100 |
| BL (0°-30°) | 195.2 | 1.6 | B1/500 | | |
| BM (30°-60°) | 369.9 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 131.2 | 1.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.4 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| 0° | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 |
| 2.5° | 1484.5 | 1471.1 | 1444.3 | 1435.1 | 1395.8 | 1334.8 | 1281.2 | 1209.3 | 1152.4 | 1146.6 | 1078.0 |
| 5° | 1987.9 | 1957.8 | 1945.3 | 1885.1 | 1790.5 | 1701.9 | 1549.7 | 1434.3 | 1301.3 | 1291.3 | 1153.3 |
| 7.5° | 2473.0 | 2431.2 | 2418.6 | 2361.7 | 2251.4 | 2111.7 | 1914.3 | 1704.4 | 1493.7 | 1474.4 | 1254.5 |
| 10° | 2824.2 | 2830.1 | 2807.5 | 2769.9 | 2680.4 | 2538.2 | 2294.8 | 2008.0 | 1707.8 | 1683.5 | 1368.2 |
| 12.5° | 3076.0 | 3075.1 | 3079.3 | 3078.5 | 3030.8 | 2922.9 | 2667.0 | 2336.7 | 1943.6 | 1895.9 | 1498.7 |
| 15° | 3239.9 | 3242.4 | 3254.9 | 3298.4 | 3303.4 | 3236.5 | 3023.3 | 2651.1 | 2217.1 | 2157.7 | 1640.0 |
| 17.5° | 3405.5 | 3423.0 | 3443.1 | 3484.1 | 3520.9 | 3494.1 | 3343.6 | 2978.9 | 2464.6 | 2420.3 | 1791.4 |
| 20° | 3678.9 | 3703.2 | 3691.5 | 3716.6 | 3735.8 | 3738.3 | 3622.1 | 3281.7 | 2764.9 | 2690.4 | 1964.5 |
| 22.5° | 4116.3 | 4115.5 | 4085.4 | 4040.2 | 4002.6 | 4000.9 | 3895.5 | 3592.8 | 3037.5 | 2965.6 | 2138.5 |
| 25° | 4669.1 | 4671.6 | 4613.1 | 4484.3 | 4390.6 | 4276.1 | 4154.8 | 3865.4 | 3329.4 | 3240.7 | 2321.6 |
| 27.5° | 5303.1 | 5287.2 | 5198.5 | 5021.2 | 4835.6 | 4639.9 | 4465.1 | 4182.4 | 3638.8 | 3565.2 | 2531.5 |
| 30° | 5872.6 | 5866.7 | 5763.0 | 5546.4 | 5302.2 | 5105.7 | 4852.3 | 4579.7 | 4039.4 | 3949.1 | 2766.5 |
| 32.5° | 6402.8 | 6411.2 | 6267.3 | 6043.2 | 5807.4 | 5580.7 | 5313.1 | 4959.3 | 4432.5 | 4304.5 | 3022.4 |
| 35° | 6816.8 | 6825.2 | 6676.3 | 6489.8 | 6247.3 | 6059.1 | 5804.0 | 5364.1 | 4820.5 | 4712.6 | 3316.8 |
| 37.5° | 7037.6 | 7048.4 | 6962.3 | 6821.8 | 6670.4 | 6575.9 | 6338.4 | 5885.1 | 5292.2 | 5227.0 | 3664.7 |
| 40° | 7079.4 | 7091.9 | 7054.3 | 7016.7 | 7008.3 | 7076.0 | 7006.6 | 6499.0 | 5946.2 | 5844.2 | 4183.2 |
| 42.5° | 6953.9 | 6970.7 | 6987.4 | 7071.0 | 7241.6 | 7490.0 | 7731.7 | 7332.0 | 6788.4 | 6651.2 | 4817.2 |
| 45° | 6624.4 | 6622.8 | 6688.8 | 6905.4 | 7287.6 | 7817.9 | 8489.4 | 8374.8 | 7935.8 | 7772.7 | 5712.9 |
| 47.5° | 6060.8 | 6052.4 | 6195.4 | 6504.0 | 7099.5 | 7878.1 | 9107.5 | 9641.0 | 9400.2 | 9249.6 | 6675.5 |
| 50° | 5201.9 | 5242.8 | 5467.8 | 5898.5 | 6632.0 | 7695.8 | 9298.1 | 10471.5 | 10601.9 | 10442.2 | 7453.2 |
| 52.5° | 4195.8 | 4194.1 | 4547.0 | 5131.6 | 5939.5 | 7294.3 | 9165.2 | 10622.0 | 10992.5 | 10870.4 | 7836.3 |
| 55° | 3105.2 | 3127.0 | 3494.1 | 4083.7 | 5040.5 | 6561.7 | 8731.1 | 10467.3 | 11141.4 | 11055.2 | 8088.8 |
| 57° | 2309.9 | 2348.4 | 2642.7 | 3266.6 | 4257.7 | 5836.6 | 8153.2 | 10190.5 | 11199.9 | 11153.1 | 8298.7 |
| 57.5° | 2156.0 | 2157.7 | 2444.5 | 3011.6 | 4028.5 | 5558.1 | 7987.6 | 10075.1 | 11198.2 | 11172.3 | 8333.0 |
| 60° | 1327.2 | 1369.0 | 1567.3 | 2035.6 | 2948.8 | 4338.0 | 6877.8 | 9411.9 | 11111.3 | 11148.9 | 8479.4 |
| 62.5° | 794.5 | 812.1 | 940.9 | 1226.9 | 1900.9 | 3166.3 | 5628.4 | 8563.0 | 10884.6 | 10999.2 | 8469.3 |
| 65° | 511.0 | 515.2 | 573.7 | 742.6 | 1188.4 | 2140.1 | 4337.1 | 7441.5 | 10298.4 | 10509.1 | 8138.2 |
| 67.5° | 394.7 | 401.4 | 424.8 | 487.6 | 689.1 | 1333.1 | 3067.6 | 6244.8 | 9350.0 | 9621.8 | 7335.3 |
| 70° | 350.4 | 353.8 | 362.1 | 382.2 | 455.8 | 752.7 | 1908.5 | 4878.2 | 7753.5 | 7830.4 | 5740.5 |
| 72.5° | 286.0 | 295.2 | 321.1 | 327.8 | 361.3 | 470.0 | 1062.1 | 3274.2 | 5209.4 | 5228.6 | 3211.4 |
| 75° | 221.6 | 223.3 | 261.8 | 281.0 | 304.4 | 323.7 | 474.2 | 1650.9 | 2502.2 | 2368.4 | 1237.7 |
| 77.5° | 165.6 | 173.1 | 190.7 | 214.9 | 248.4 | 231.7 | 212.4 | 622.2 | 776.9 | 762.7 | 359.6 |
| 80° | 106.2 | 110.4 | 133.0 | 161.4 | 193.2 | 151.4 | 119.6 | 182.3 | 170.6 | 175.6 | 86.1 |
| 82.5° | 53.5 | 54.4 | 85.3 | 131.3 | 122.9 | 76.1 | 75.3 | 74.4 | 63.6 | 62.7 | 40.1 |
| 85° | 5.9 | 12.5 | 55.2 | 75.3 | 55.2 | 25.1 | 35.1 | 34.3 | 33.5 | 34.3 | 23.4 |
| 87.5° | 0.8 | 0.8 | 9.2 | 10.9 | 7.5 | 8.4 | 10.0 | 10.9 | 13.4 | 12.5 | 10.0 |
| 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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CATALOG NUMBER: GLAN-SA4A-727-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 | 1014.4 |
| 2.5° | 1044.6 | 1011.1 | 949.2 | 889.8 | 845.5 | 817.1 | 780.3 | 766.9 | 747.7 | 745.2 | 736.0 |
| 5° | 1089.7 | 1026.2 | 918.3 | 833.0 | 764.4 | 712.5 | 667.4 | 629.7 | 599.6 | 592.9 | 596.3 |
| 7.5° | 1154.1 | 1059.6 | 909.1 | 792.8 | 697.5 | 608.8 | 536.9 | 492.6 | 460.8 | 449.1 | 450.8 |
| 10° | 1226.9 | 1103.9 | 907.4 | 750.2 | 604.7 | 495.9 | 417.3 | 378.0 | 359.6 | 352.9 | 345.4 |
| 12.5° | 1313.0 | 1154.9 | 903.2 | 684.1 | 502.6 | 395.6 | 339.5 | 316.1 | 298.6 | 293.5 | 293.5 |
| 15° | 1410.0 | 1209.3 | 883.1 | 602.1 | 408.1 | 327.0 | 289.4 | 271.0 | 265.1 | 260.1 | 260.1 |
| 17.5° | 1511.2 | 1262.8 | 841.3 | 501.0 | 338.7 | 280.2 | 256.7 | 245.9 | 237.5 | 231.7 | 231.7 |
| 20° | 1626.6 | 1315.5 | 774.4 | 411.5 | 286.0 | 250.1 | 231.7 | 219.1 | 212.4 | 207.4 | 205.7 |
| 22.5° | 1736.2 | 1358.2 | 689.1 | 337.9 | 249.2 | 225.0 | 208.2 | 194.9 | 188.2 | 185.7 | 185.7 |
| 25° | 1849.9 | 1384.1 | 586.3 | 279.3 | 227.5 | 204.1 | 185.7 | 174.8 | 168.9 | 167.3 | 166.4 |
| 27.5° | 1960.3 | 1399.2 | 495.9 | 244.2 | 207.4 | 184.8 | 167.3 | 158.9 | 153.0 | 151.4 | 152.2 |
| 30° | 2094.1 | 1401.7 | 408.1 | 219.1 | 189.8 | 166.4 | 150.5 | 143.0 | 139.7 | 138.0 | 137.2 |
| 32.5° | 2229.6 | 1398.3 | 342.9 | 204.1 | 173.1 | 150.5 | 137.2 | 131.3 | 128.8 | 126.3 | 126.3 |
| 35° | 2381.8 | 1380.8 | 291.9 | 189.0 | 157.2 | 137.2 | 125.4 | 120.4 | 117.1 | 114.6 | 113.7 |
| 37.5° | 2570.8 | 1371.6 | 262.6 | 172.3 | 143.0 | 124.6 | 113.7 | 108.7 | 106.2 | 102.9 | 102.0 |
| 40° | 2868.6 | 1412.5 | 253.4 | 157.2 | 128.8 | 112.9 | 102.9 | 97.0 | 93.7 | 90.3 | 89.5 |
| 42.5° | 3239.9 | 1484.5 | 238.3 | 142.2 | 116.2 | 102.0 | 92.0 | 85.3 | 79.4 | 75.3 | 73.6 |
| 45° | 3720.8 | 1579.0 | 214.9 | 126.3 | 105.4 | 90.3 | 81.1 | 72.8 | 65.2 | 61.9 | 61.1 |
| 47.5° | 4225.1 | 1670.1 | 194.0 | 113.7 | 93.7 | 80.3 | 70.3 | 61.1 | 54.4 | 51.9 | 51.0 |
| 50° | 4534.5 | 1688.5 | 180.6 | 99.5 | 82.0 | 69.4 | 59.4 | 51.0 | 46.8 | 44.3 | 44.3 |
| 52.5° | 4675.8 | 1659.2 | 162.2 | 87.0 | 71.1 | 61.1 | 51.0 | 44.3 | 41.8 | 40.1 | 39.3 |
| 55° | 4774.5 | 1614.1 | 138.0 | 75.3 | 61.1 | 51.9 | 45.2 | 40.1 | 36.8 | 35.1 | 34.3 |
| 57° | 4832.2 | 1553.0 | 119.6 | 66.1 | 52.7 | 45.2 | 40.1 | 36.0 | 32.6 | 29.3 | 29.3 |
| 57.5° | 4834.7 | 1529.6 | 114.6 | 65.2 | 50.2 | 43.5 | 39.3 | 35.1 | 30.9 | 27.6 | 26.8 |
| 60° | 4760.3 | 1369.0 | 92.0 | 55.2 | 40.1 | 36.8 | 32.6 | 27.6 | 21.7 | 18.4 | 17.6 |
| 62.5° | 4521.1 | 1165.0 | 76.1 | 46.8 | 32.6 | 28.4 | 23.4 | 20.9 | 15.1 | 10.9 | 10.9 |
| 65° | 4159.0 | 945.0 | 65.2 | 37.6 | 26.8 | 20.9 | 15.9 | 15.1 | 9.2 | 5.0 | 4.2 |
| 67.5° | 3635.5 | 736.0 | 55.2 | 30.9 | 22.6 | 15.1 | 10.9 | 10.0 | 5.0 | 1.7 | 0.0 |
| 70° | 2769.9 | 501.8 | 46.0 | 25.1 | 16.7 | 10.9 | 7.5 | 5.9 | 3.3 | 0.8 | 0.0 |
| 72.5° | 1596.5 | 276.0 | 38.5 | 19.2 | 12.5 | 8.4 | 5.9 | 3.3 | 3.3 | 0.0 | 0.0 |
| 75° | 570.4 | 118.8 | 29.3 | 14.2 | 10.0 | 6.7 | 4.2 | 1.7 | 2.5 | 0.8 | 0.0 |
| 77.5° | 181.5 | 63.6 | 19.2 | 10.9 | 8.4 | 5.0 | 3.3 | 1.7 | 1.7 | 0.8 | 0.0 |
| 80° | 53.5 | 33.5 | 11.7 | 9.2 | 5.9 | 4.2 | 2.5 | 0.8 | 1.7 | 0.8 | 0.0 |
| 82.5° | 29.3 | 16.7 | 9.2 | 6.7 | 5.9 | 3.3 | 2.5 | 0.8 | 0.8 | 0.8 | 0.0 |
| 85° | 15.1 | 10.0 | 7.5 | 6.7 | 5.9 | 3.3 | 2.5 | 0.8 | 0.0 | 0.8 | 0.8 |
| 87.5° | 8.4 | 7.5 | 7.5 | 6.7 | 5.9 | 4.2 | 2.5 | 0.8 | 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)