

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: P456503

Luminaire Tested: **GALN-SA7D-730-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456503
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
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-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50010 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G5

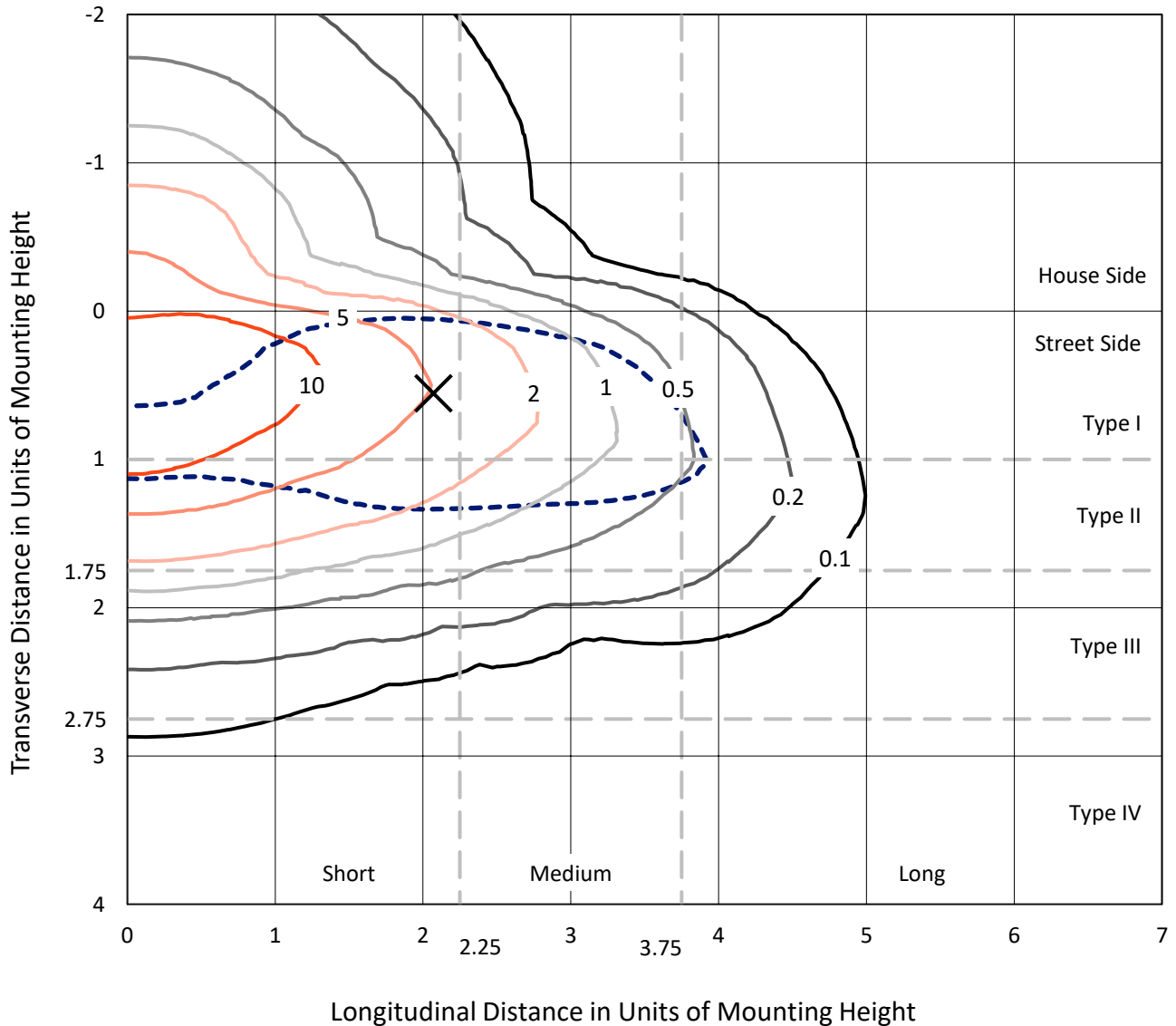
Input Watts (W): 433
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

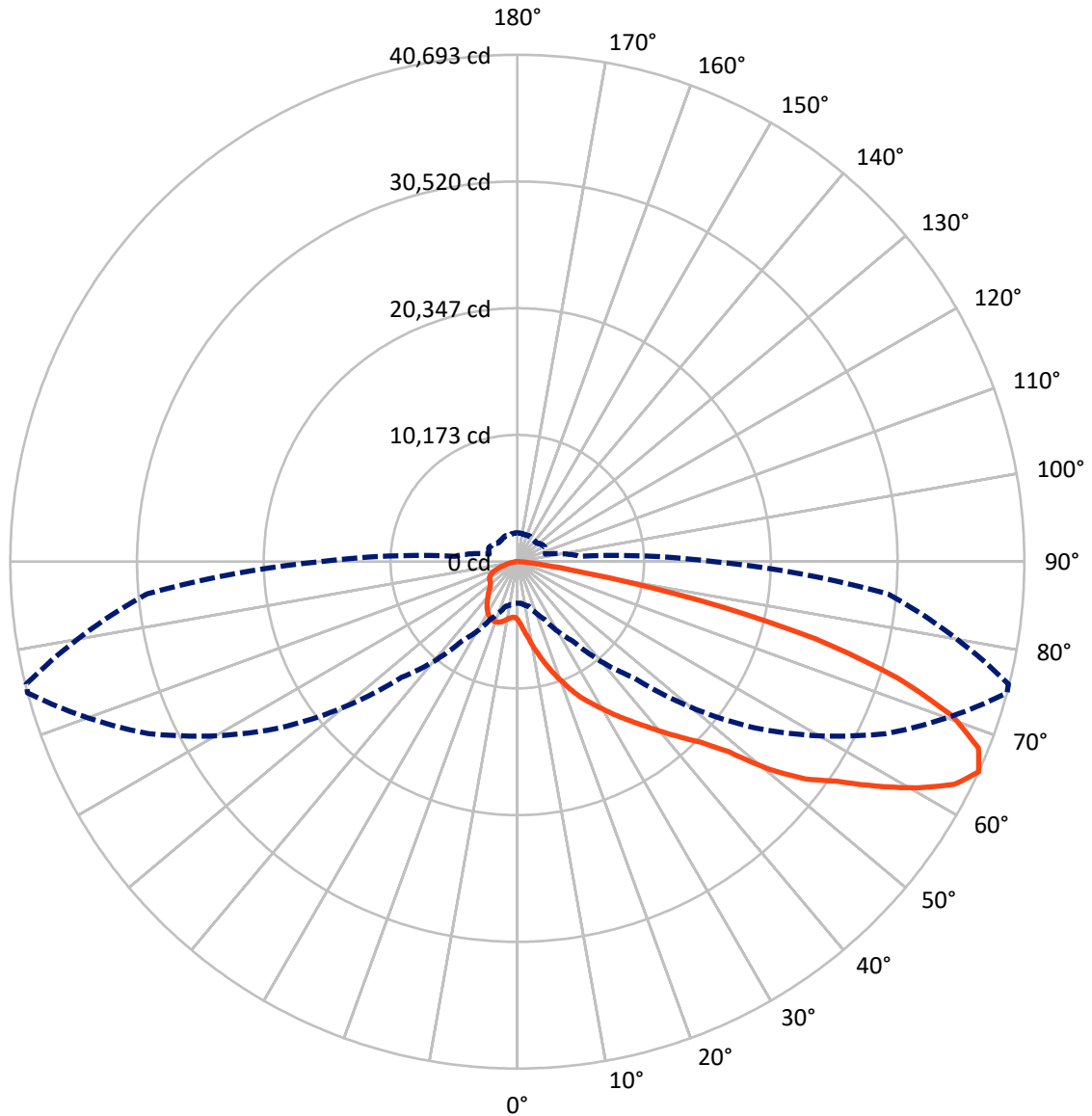
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8407.3 | 0.0 | 8407.3 |
| | % Fixture | 16.8 | 0.0 | 16.8 |
| Street Side | Lumens | 41602.7 | 0.0 | 41602.7 |
| | % Fixture | 83.2 | 0.0 | 83.2 |
| Total | Lumens | 50010.0 | 0.0 | 50010.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 564.5 | 1.1 |
| 10°-20° | 2211.2 | 4.4 |
| 20°-30° | 4271.4 | 8.5 |
| 30°-40° | 6938.0 | 13.9 |
| 40°-50° | 9543.8 | 19.1 |
| 50°-60° | 11268.0 | 22.5 |
| 60°-70° | 9872.6 | 19.7 |
| 70°-80° | 4713.3 | 9.4 |
| 80°-90° | 627.2 | 1.3 |
| 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° | 50010.0 | 100.0 |
| 0°-180° | 50010.0 | 100.0 |



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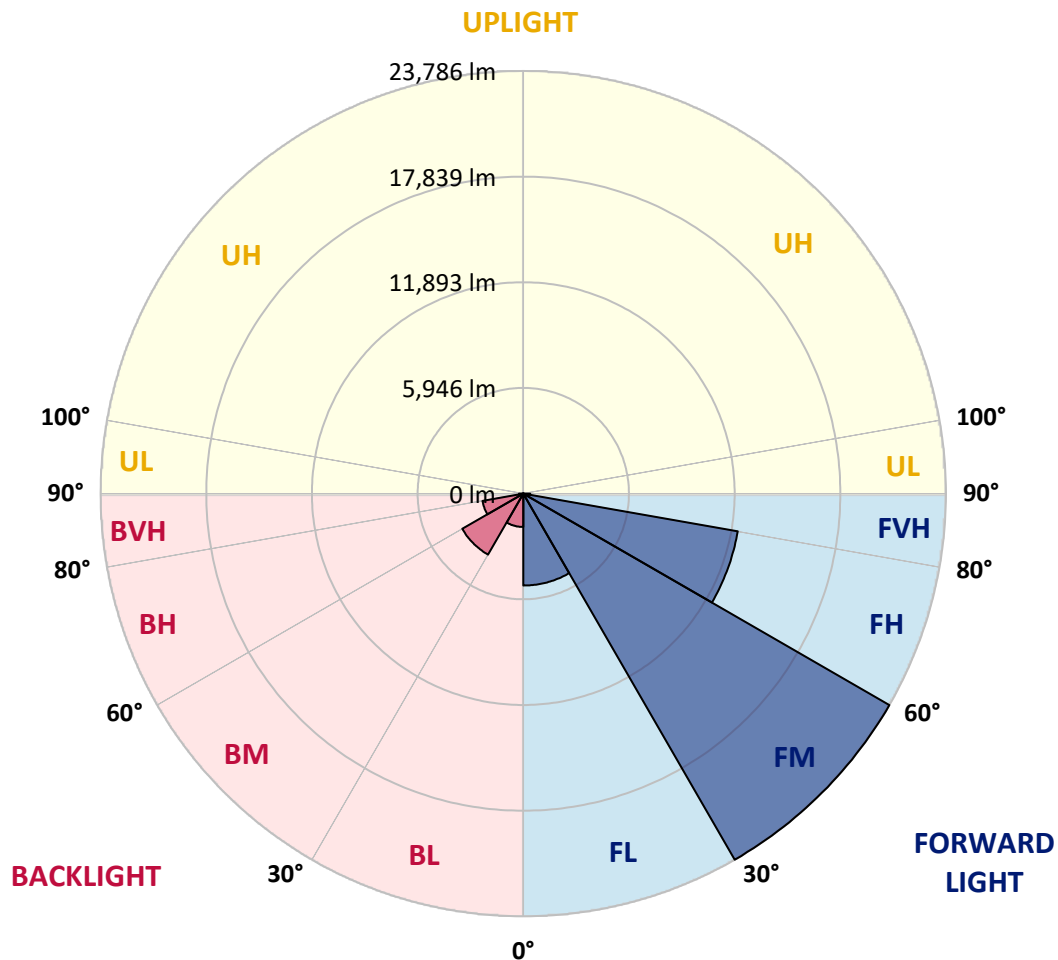
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 5170.2 | 10.3 | | | |
| FM | (30°-60°) | 23785.8 | 47.6 | | | |
| FH | (60°-80°) | 12254.7 | 24.5 | | | G5 |
| FVH | (80°-90°) | 391.9 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 1876.9 | 3.8 | B3/2500 | | |
| BM | (30°-60°) | 3964.0 | 7.9 | B3/5000 | | |
| BH | (60°-80°) | 2331.2 | 4.7 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 235.2 | 0.5 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 |
| 2.5° | 6173.7 | 6133.0 | 6089.6 | 5970.3 | 5842.8 | 5699.0 | 5492.9 | 5294.9 | 5031.7 | 5023.6 | 4828.3 |
| 5° | 7885.3 | 7858.2 | 7665.6 | 7554.4 | 7258.7 | 6865.4 | 6531.8 | 6013.7 | 5533.6 | 5476.6 | 5096.8 |
| 7.5° | 9458.6 | 9352.8 | 9279.6 | 9078.8 | 8785.9 | 8281.3 | 7635.8 | 6935.9 | 6133.0 | 6057.1 | 5427.8 |
| 10° | 10644.0 | 10633.1 | 10595.1 | 10421.5 | 10201.8 | 9700.0 | 8983.9 | 7980.3 | 6892.5 | 6743.3 | 5829.2 |
| 12.5° | 11531.0 | 11539.1 | 11533.7 | 11531.0 | 11373.6 | 10947.8 | 10172.0 | 9114.1 | 7660.2 | 7554.4 | 6293.1 |
| 15° | 12114.2 | 12195.5 | 12228.1 | 12363.7 | 12377.3 | 12092.5 | 11425.2 | 10210.0 | 8525.5 | 8368.1 | 6792.2 |
| 17.5° | 12499.3 | 12540.0 | 12691.9 | 12922.5 | 13109.6 | 13058.1 | 12464.1 | 11224.4 | 9409.8 | 9146.6 | 7310.3 |
| 20° | 12868.2 | 12938.8 | 13055.4 | 13370.1 | 13701.0 | 13852.9 | 13435.2 | 12263.3 | 10285.9 | 10117.7 | 7882.6 |
| 22.5° | 13635.9 | 13736.2 | 13776.9 | 13937.0 | 14219.1 | 14487.6 | 14297.7 | 13258.8 | 11246.1 | 11018.3 | 8490.2 |
| 25° | 14935.2 | 15041.0 | 14927.0 | 14889.1 | 14981.3 | 15114.2 | 15073.5 | 14197.4 | 12152.1 | 11826.6 | 9065.3 |
| 27.5° | 16627.8 | 16641.4 | 16418.9 | 16207.4 | 15979.5 | 15911.7 | 15786.9 | 15030.1 | 12938.8 | 12667.5 | 9643.0 |
| 30° | 18445.2 | 18380.1 | 18011.2 | 17628.7 | 17243.5 | 16863.8 | 16505.7 | 15833.0 | 13814.9 | 13503.0 | 10210.0 |
| 32.5° | 20132.4 | 20097.1 | 19687.5 | 19093.5 | 18442.5 | 18084.4 | 17360.2 | 16644.1 | 14753.4 | 14452.3 | 10793.1 |
| 35° | 21396.4 | 21448.0 | 20997.7 | 20349.4 | 19638.7 | 19321.3 | 18407.2 | 17495.8 | 15724.5 | 15396.3 | 11427.9 |
| 37.5° | 22294.3 | 22267.1 | 21868.4 | 21306.9 | 20683.0 | 20406.3 | 19630.6 | 18426.2 | 16768.8 | 16454.2 | 12122.3 |
| 40° | 22614.3 | 22598.1 | 22302.4 | 21892.8 | 21496.8 | 21399.1 | 20910.9 | 19429.8 | 17965.1 | 17596.2 | 12957.7 |
| 42.5° | 22410.9 | 22446.2 | 22250.9 | 22139.7 | 22066.4 | 22136.9 | 22183.1 | 20745.4 | 19269.8 | 18930.7 | 13863.7 |
| 45° | 21787.0 | 21768.0 | 21740.9 | 21922.7 | 22335.0 | 22798.8 | 23441.7 | 21987.8 | 20688.5 | 20417.2 | 15078.9 |
| 47.5° | 20672.2 | 20807.8 | 20875.6 | 21377.4 | 22278.0 | 23376.6 | 24890.2 | 23653.2 | 22747.3 | 22511.3 | 16931.6 |
| 50° | 19112.5 | 19221.0 | 19622.4 | 20514.9 | 21857.6 | 23593.6 | 26306.1 | 26376.6 | 26181.3 | 25739.2 | 18944.3 |
| 52.5° | 16676.6 | 16844.8 | 17672.1 | 19307.8 | 20995.0 | 23504.1 | 27163.3 | 28712.1 | 28969.8 | 28638.9 | 20927.2 |
| 55° | 13950.5 | 14186.5 | 15060.0 | 17205.6 | 19806.9 | 23015.8 | 27754.6 | 30065.7 | 31093.7 | 30787.2 | 22836.8 |
| 57.5° | 11281.4 | 11531.0 | 12428.8 | 14506.6 | 17734.5 | 21936.2 | 28142.5 | 31573.8 | 33985.3 | 33586.5 | 25212.9 |
| 60° | 8455.0 | 8715.4 | 9485.7 | 11625.9 | 14783.3 | 19825.9 | 27879.4 | 32881.3 | 36874.1 | 36703.2 | 27591.8 |
| 62.5° | 5454.9 | 5742.4 | 6412.4 | 8183.7 | 11362.8 | 16942.5 | 26471.6 | 33602.8 | 39375.1 | 39168.9 | 29327.9 |
| 65° | 3322.8 | 3355.4 | 3724.3 | 5080.6 | 7776.8 | 13117.8 | 23251.8 | 32645.3 | 40693.3 | 40631.0 | 29856.8 |
| 67.5° | 2148.3 | 2199.9 | 2368.0 | 3043.5 | 4662.8 | 9111.4 | 18591.7 | 29485.2 | 39923.0 | 39901.3 | 28763.6 |
| 70° | 1814.7 | 1831.0 | 1906.9 | 2053.4 | 2709.8 | 5525.4 | 13055.4 | 24448.0 | 36996.2 | 36996.2 | 26135.2 |
| 72.5° | 1622.1 | 1643.8 | 1670.9 | 1717.0 | 1934.0 | 3130.3 | 7790.4 | 19031.1 | 31942.7 | 32154.3 | 22245.4 |
| 75° | 1472.9 | 1467.5 | 1483.8 | 1491.9 | 1649.2 | 2045.2 | 4028.1 | 14075.3 | 24711.1 | 24288.0 | 16109.7 |
| 77.5° | 1261.3 | 1269.5 | 1261.3 | 1296.6 | 1456.6 | 1557.0 | 2045.2 | 9445.0 | 14975.9 | 14427.9 | 8086.0 |
| 80° | 1036.2 | 1049.7 | 1063.3 | 1085.0 | 1245.1 | 1182.7 | 1228.8 | 4304.8 | 5539.0 | 5422.3 | 2498.2 |
| 82.5° | 778.5 | 797.5 | 819.2 | 870.7 | 979.2 | 781.2 | 775.8 | 1839.1 | 1999.1 | 1831.0 | 919.5 |
| 85° | 314.7 | 371.6 | 561.5 | 613.0 | 615.7 | 428.6 | 477.4 | 767.6 | 816.5 | 797.5 | 360.8 |
| 87.5° | 73.2 | 86.8 | 181.7 | 274.0 | 252.3 | 160.0 | 176.3 | 249.6 | 284.8 | 263.1 | 122.1 |
| 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° | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 | 4646.6 |
| 2.5° | 4738.8 | 4643.8 | 4481.1 | 4356.3 | 4266.8 | 4188.1 | 4139.3 | 4109.5 | 4098.6 | 4095.9 | 4098.6 |
| 5° | 4898.8 | 4730.6 | 4473.0 | 4310.2 | 4220.7 | 4169.2 | 4139.3 | 4136.6 | 4139.3 | 4142.0 | 4133.9 |
| 7.5° | 5118.5 | 4877.1 | 4540.8 | 4388.9 | 4321.1 | 4283.1 | 4269.5 | 4264.1 | 4266.8 | 4264.1 | 4264.1 |
| 10° | 5411.5 | 5080.6 | 4673.7 | 4516.4 | 4459.4 | 4416.0 | 4394.3 | 4380.7 | 4369.9 | 4359.0 | 4353.6 |
| 12.5° | 5734.3 | 5305.7 | 4817.4 | 4665.5 | 4584.2 | 4516.4 | 4467.5 | 4432.3 | 4407.9 | 4383.4 | 4378.0 |
| 15° | 6095.1 | 5544.4 | 4977.5 | 4765.9 | 4649.3 | 4548.9 | 4464.8 | 4407.9 | 4364.5 | 4329.2 | 4326.5 |
| 17.5° | 6439.5 | 5769.5 | 5086.0 | 4812.0 | 4641.1 | 4500.1 | 4388.9 | 4310.2 | 4256.0 | 4209.8 | 4204.4 |
| 20° | 6808.4 | 5983.8 | 5134.8 | 4782.2 | 4559.8 | 4388.9 | 4242.4 | 4147.5 | 4085.1 | 4033.5 | 4025.4 |
| 22.5° | 7180.1 | 6165.6 | 5129.4 | 4687.2 | 4418.7 | 4218.0 | 4063.4 | 3963.0 | 3889.8 | 3838.2 | 3819.2 |
| 25° | 7535.4 | 6312.1 | 5061.6 | 4535.3 | 4223.4 | 4014.5 | 3857.2 | 3765.0 | 3699.9 | 3637.5 | 3637.5 |
| 27.5° | 7855.5 | 6398.9 | 4934.1 | 4350.9 | 4022.7 | 3803.0 | 3678.2 | 3594.1 | 3534.4 | 3493.7 | 3469.3 |
| 30° | 8170.1 | 6439.5 | 4760.5 | 4117.6 | 3811.1 | 3623.9 | 3523.6 | 3474.7 | 3420.5 | 3374.4 | 3369.0 |
| 32.5° | 8452.2 | 6431.4 | 4543.5 | 3889.8 | 3610.4 | 3477.5 | 3436.8 | 3398.8 | 3341.8 | 3276.7 | 3260.5 |
| 35° | 8726.2 | 6377.2 | 4285.8 | 3640.2 | 3442.2 | 3390.7 | 3401.5 | 3347.3 | 3244.2 | 3162.8 | 3149.2 |
| 37.5° | 9024.6 | 6279.5 | 4003.7 | 3436.8 | 3301.1 | 3350.0 | 3377.1 | 3257.7 | 3089.6 | 2962.1 | 2932.2 |
| 40° | 9369.1 | 6168.3 | 3710.7 | 3233.3 | 3189.9 | 3312.0 | 3312.0 | 3092.3 | 2861.7 | 2783.1 | 2761.4 |
| 42.5° | 9773.2 | 6076.1 | 3466.6 | 3062.4 | 3097.7 | 3219.8 | 3206.2 | 2872.6 | 2777.6 | 2736.9 | 2726.1 |
| 45° | 10413.4 | 6043.5 | 3214.3 | 2913.3 | 3021.8 | 3111.3 | 3000.1 | 2796.6 | 2742.4 | 2709.8 | 2699.0 |
| 47.5° | 11425.2 | 6081.5 | 2991.9 | 2802.0 | 2935.0 | 3002.8 | 2769.5 | 2745.1 | 2707.1 | 2661.0 | 2655.6 |
| 50° | 12363.7 | 6046.2 | 2834.6 | 2739.7 | 2859.0 | 2872.6 | 2674.6 | 2682.7 | 2661.0 | 2609.5 | 2598.6 |
| 52.5° | 13131.3 | 5935.0 | 2734.2 | 2707.1 | 2793.9 | 2644.7 | 2585.0 | 2614.9 | 2606.7 | 2541.6 | 2530.8 |
| 55° | 13974.9 | 5867.2 | 2685.4 | 2707.1 | 2750.5 | 2446.7 | 2501.0 | 2544.4 | 2533.5 | 2487.4 | 2484.7 |
| 57.5° | 14997.6 | 5880.8 | 2650.1 | 2715.2 | 2707.1 | 2346.3 | 2416.9 | 2468.4 | 2465.7 | 2452.1 | 2452.1 |
| 60° | 16044.6 | 5886.2 | 2595.9 | 2712.5 | 2655.6 | 2267.7 | 2330.1 | 2403.3 | 2408.7 | 2416.9 | 2416.9 |
| 62.5° | 16391.8 | 5650.2 | 2490.1 | 2663.7 | 2541.6 | 2191.7 | 2248.7 | 2349.0 | 2343.6 | 2365.3 | 2368.0 |
| 65° | 15743.5 | 4996.5 | 2332.8 | 2552.5 | 2395.2 | 2137.5 | 2186.3 | 2278.5 | 2248.7 | 2305.6 | 2316.5 |
| 67.5° | 14330.3 | 4133.9 | 2088.6 | 2351.8 | 2232.4 | 2080.5 | 2145.6 | 2180.9 | 2126.6 | 2237.8 | 2240.5 |
| 70° | 12385.4 | 3227.9 | 1779.4 | 2066.9 | 2048.0 | 2020.8 | 2113.1 | 2058.8 | 1982.9 | 2118.5 | 2091.4 |
| 72.5° | 10356.4 | 2465.7 | 1421.4 | 1689.9 | 1801.1 | 1931.3 | 2056.1 | 1901.5 | 1795.7 | 1836.4 | 1787.6 |
| 75° | 7779.5 | 1822.8 | 1142.0 | 1323.7 | 1500.0 | 1803.8 | 2004.6 | 1711.6 | 1548.9 | 1510.9 | 1500.0 |
| 77.5° | 3965.7 | 1190.8 | 854.4 | 990.1 | 1125.7 | 1630.2 | 1934.0 | 1489.2 | 1283.0 | 1223.4 | 1196.2 |
| 80° | 1415.9 | 740.5 | 602.2 | 683.6 | 759.5 | 1402.4 | 1689.9 | 1231.5 | 995.5 | 984.6 | 995.5 |
| 82.5° | 656.4 | 477.4 | 404.2 | 447.6 | 450.3 | 935.8 | 1288.5 | 919.5 | 756.8 | 1150.1 | 971.1 |
| 85° | 282.1 | 238.7 | 227.9 | 222.4 | 206.2 | 417.7 | 724.2 | 493.7 | 770.4 | 344.5 | 317.4 |
| 87.5° | 84.1 | 94.9 | 84.1 | 62.4 | 46.1 | 46.1 | 73.2 | 27.1 | 19.0 | 13.6 | 13.6 |
| 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)