

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: P319173

Luminaire Tested: **GLEON-SA9C-827-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P319173
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-18)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9C-827-U-T4W
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46160 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

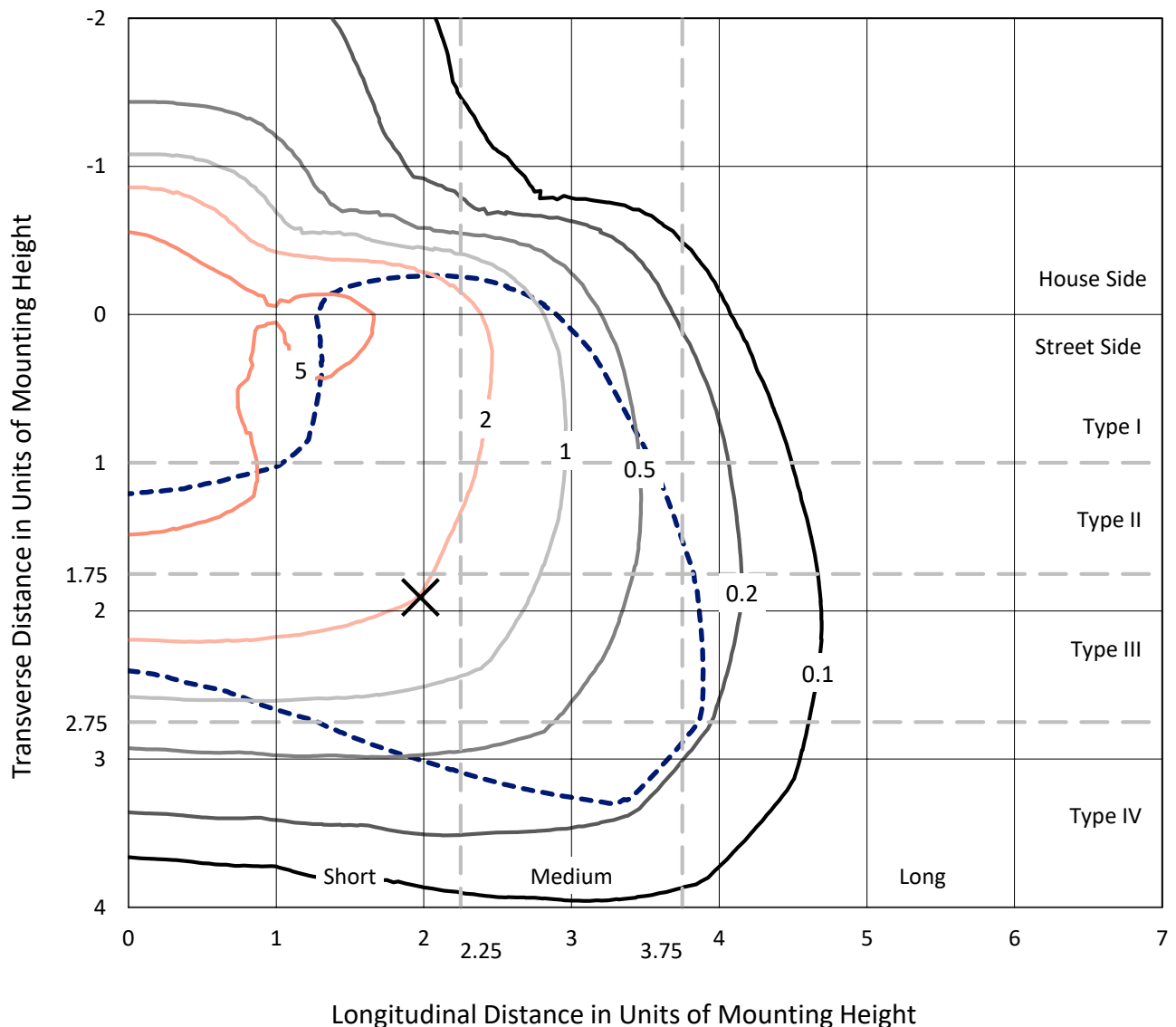
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

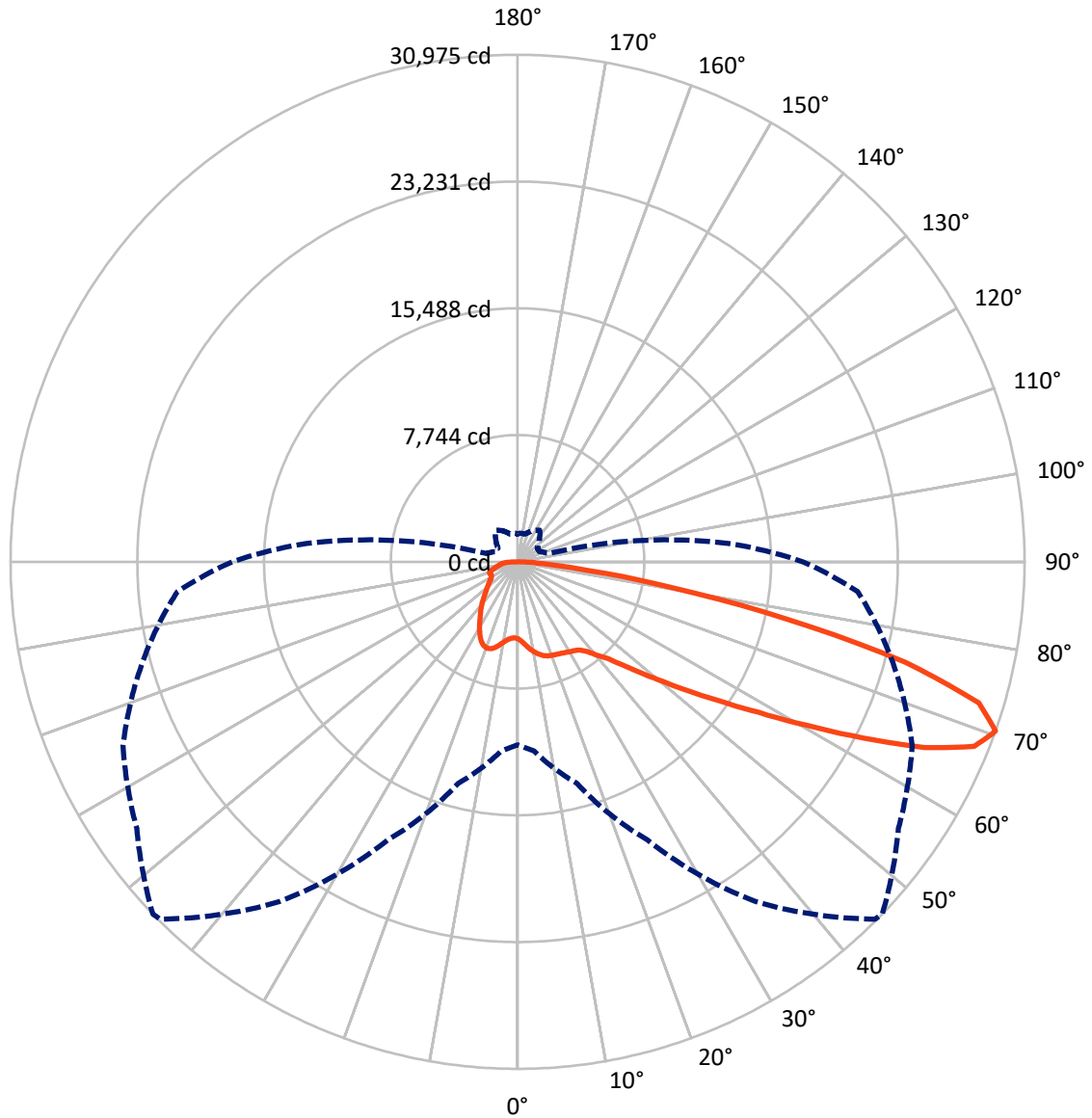
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 10579.7 | 0.0 | 10579.7 |
| | % Fixture | 22.9 | 0.0 | 22.9 |
| Street Side | Lumens | 35580.3 | 0.0 | 35580.3 |
| | % Fixture | 77.1 | 0.0 | 77.1 |
| Total | Lumens | 46160.0 | 0.0 | 46160.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 479.4 | 1.0 |
| 10°-20° | 1597.3 | 3.5 |
| 20°-30° | 2663.3 | 5.8 |
| 30°-40° | 3779.3 | 8.2 |
| 40°-50° | 5559.2 | 12.0 |
| 50°-60° | 9414.5 | 20.4 |
| 60°-70° | 13363.7 | 29.0 |
| 70°-80° | 8118.6 | 17.6 |
| 80°-90° | 1184.8 | 2.6 |
| 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° | 46160.0 | 100.0 |
| 0°-180° | 46160.0 | 100.0 |

Coefficient of Utilization

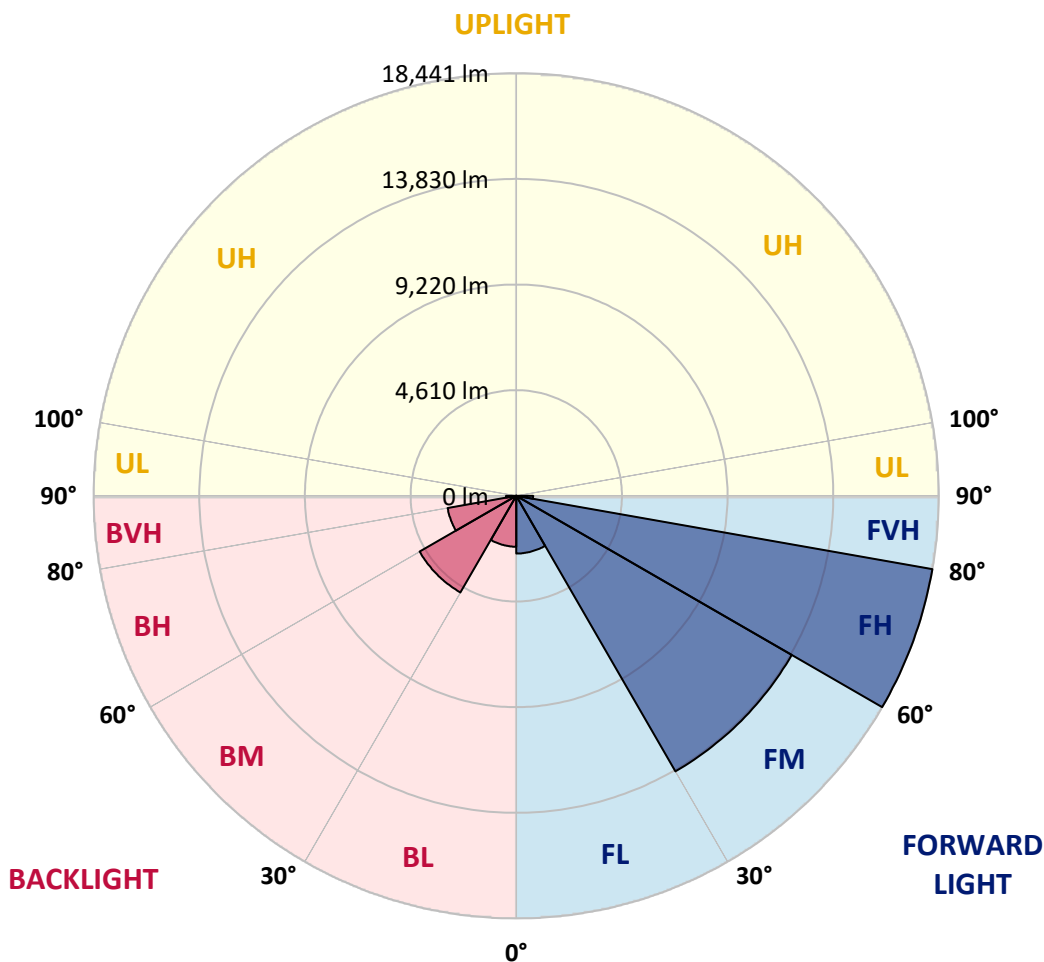


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2518.7 | 5.5 | | | |
| FM (30°-60°) | 13882.9 | 30.1 | | | |
| FH (60°-80°) | 18440.7 | 39.9 | | | G5 |
| FVH (80°-90°) | 738.0 | 1.6 | | | G4/750 |
| BL (0°-30°) | 2221.2 | 4.8 | B3/2500 | | |
| BM (30°-60°) | 4870.1 | 10.6 | B3/5000 | | |
| BH (60°-80°) | 3041.6 | 6.6 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 446.8 | 1.0 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 |
| 2.5° | 4938.2 | 4941.3 | 4947.7 | 4931.9 | 4887.6 | 4875.0 | 4870.2 | 4824.4 | 4794.4 | 4750.2 | 4712.3 |
| 5° | 5333.1 | 5336.3 | 5326.8 | 5282.6 | 5184.6 | 5111.9 | 5105.6 | 5001.4 | 4906.6 | 4805.5 | 4729.7 |
| 7.5° | 5745.4 | 5750.1 | 5720.1 | 5636.4 | 5499.0 | 5372.6 | 5364.7 | 5222.5 | 5078.8 | 4925.5 | 4811.8 |
| 10° | 6110.3 | 6091.4 | 6042.4 | 5925.5 | 5762.8 | 5608.0 | 5601.7 | 5453.2 | 5287.3 | 5102.5 | 4950.8 |
| 12.5° | 6353.6 | 6337.8 | 6274.6 | 6132.4 | 5953.9 | 5811.8 | 5799.1 | 5661.7 | 5500.6 | 5298.4 | 5116.7 |
| 15° | 6487.9 | 6498.9 | 6413.6 | 6252.5 | 6078.7 | 5958.7 | 5947.6 | 5849.7 | 5705.9 | 5502.1 | 5293.6 |
| 17.5° | 6505.3 | 6514.7 | 6432.6 | 6273.0 | 6130.9 | 6048.7 | 6044.0 | 5979.2 | 5874.9 | 5679.1 | 5461.1 |
| 20° | 6404.1 | 6410.5 | 6342.5 | 6211.4 | 6118.2 | 6092.9 | 6091.4 | 6062.9 | 5985.5 | 5811.8 | 5600.1 |
| 22.5° | 6257.2 | 6262.0 | 6213.0 | 6118.2 | 6086.6 | 6126.1 | 6137.2 | 6126.1 | 6070.8 | 5908.1 | 5709.1 |
| 25° | 6220.9 | 6217.7 | 6167.2 | 6070.8 | 6097.7 | 6181.4 | 6195.6 | 6200.4 | 6162.5 | 6020.3 | 5848.1 |
| 27.5° | 6396.3 | 6385.2 | 6288.8 | 6134.0 | 6151.4 | 6252.5 | 6271.5 | 6317.3 | 6293.6 | 6168.8 | 6006.1 |
| 30° | 6903.3 | 6884.4 | 6686.9 | 6374.1 | 6288.8 | 6341.0 | 6364.7 | 6437.3 | 6442.1 | 6337.8 | 6216.2 |
| 32.5° | 7759.5 | 7735.8 | 7382.0 | 6822.8 | 6521.0 | 6431.0 | 6453.1 | 6562.1 | 6620.6 | 6540.0 | 6408.9 |
| 35° | 8841.6 | 8814.8 | 8350.4 | 7585.8 | 6909.7 | 6603.2 | 6619.0 | 6705.9 | 6822.8 | 6709.0 | 6535.3 |
| 37.5° | 9969.6 | 9904.8 | 9457.7 | 8483.0 | 7527.3 | 6971.3 | 6971.3 | 6982.3 | 7037.6 | 6800.7 | 6683.8 |
| 40° | 11091.2 | 11026.4 | 10622.0 | 9538.3 | 8326.7 | 7551.0 | 7514.7 | 7269.8 | 7225.6 | 7021.8 | 6982.3 |
| 42.5° | 12133.8 | 12114.8 | 11876.3 | 10731.0 | 9265.0 | 8121.3 | 8070.7 | 7655.3 | 7664.8 | 7538.4 | 7540.0 |
| 45° | 13242.7 | 13242.7 | 13048.4 | 11934.7 | 10358.2 | 9037.5 | 8987.0 | 8375.6 | 8470.4 | 8412.0 | 8552.6 |
| 47.5° | 14147.9 | 14176.3 | 14149.5 | 13189.0 | 11629.8 | 10201.8 | 10110.2 | 9374.0 | 9639.4 | 9840.0 | 10249.2 |
| 50° | 15072.0 | 15116.3 | 15121.0 | 14564.9 | 13166.9 | 11585.6 | 11481.3 | 10699.4 | 11291.8 | 11866.8 | 12670.9 |
| 52.5° | 16413.2 | 16512.7 | 16116.2 | 15937.7 | 15049.9 | 13228.5 | 13125.8 | 12403.9 | 13392.8 | 14200.0 | 15585.4 |
| 55° | 17656.4 | 17569.5 | 17286.8 | 17397.4 | 17065.6 | 15098.9 | 15021.5 | 14388.0 | 15733.9 | 16782.9 | 18582.1 |
| 57.5° | 18329.4 | 18323.1 | 18607.4 | 19081.3 | 19239.3 | 17405.3 | 17340.5 | 16724.4 | 18373.6 | 19161.9 | 21395.6 |
| 60° | 19119.2 | 19130.3 | 19834.9 | 20910.6 | 21561.5 | 20277.2 | 20248.7 | 19781.1 | 20937.5 | 21383.0 | 23602.5 |
| 62.5° | 19229.8 | 19428.9 | 20642.1 | 22493.5 | 23735.2 | 23632.5 | 23695.7 | 22534.6 | 23231.2 | 23155.4 | 25250.1 |
| 65° | 17958.2 | 18220.4 | 20416.2 | 22972.2 | 25896.2 | 27302.2 | 27360.6 | 25303.8 | 25040.0 | 24670.4 | 25839.3 |
| 67.5° | 15351.6 | 15740.2 | 18125.6 | 21931.1 | 26608.7 | 30014.5 | 30096.7 | 27450.6 | 26540.7 | 25183.8 | 24420.8 |
| 70° | 11171.7 | 11603.0 | 14004.1 | 18730.6 | 25338.6 | 30881.8 | 30975.0 | 28400.0 | 26597.6 | 23722.5 | 20847.4 |
| 72.5° | 6748.5 | 7086.6 | 9066.0 | 13789.3 | 21386.1 | 29302.1 | 29467.9 | 27196.3 | 24283.3 | 20093.9 | 15394.3 |
| 75° | 2963.5 | 3184.7 | 4383.7 | 7945.9 | 15310.6 | 24243.8 | 24450.8 | 23278.6 | 19730.6 | 14602.9 | 9099.1 |
| 77.5° | 1262.2 | 1325.4 | 1797.7 | 3451.7 | 8655.2 | 16566.4 | 16850.8 | 17008.8 | 13386.5 | 7945.9 | 3845.0 |
| 80° | 786.7 | 812.0 | 1017.3 | 1562.3 | 4050.4 | 9304.5 | 9611.0 | 10007.5 | 6647.4 | 2920.9 | 1342.8 |
| 82.5° | 478.7 | 507.1 | 676.1 | 944.7 | 2108.9 | 4217.8 | 4364.7 | 4644.4 | 2579.7 | 1262.2 | 695.1 |
| 85° | 287.5 | 308.0 | 413.9 | 597.1 | 1200.6 | 1658.7 | 1657.1 | 1832.5 | 1214.8 | 812.0 | 366.5 |
| 87.5° | 137.4 | 153.2 | 221.2 | 309.6 | 605.0 | 622.4 | 582.9 | 660.3 | 737.7 | 532.4 | 184.8 |
| 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° | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 | 4702.8 |
| 2.5° | 4699.6 | 4693.3 | 4672.8 | 4657.0 | 4653.8 | 4644.4 | 4636.5 | 4641.2 | 4647.5 | 4649.1 | 4649.1 |
| 5° | 4698.1 | 4680.7 | 4653.8 | 4642.8 | 4657.0 | 4675.9 | 4699.6 | 4731.2 | 4750.2 | 4764.4 | 4773.9 |
| 7.5° | 4773.9 | 4740.7 | 4710.7 | 4704.4 | 4732.8 | 4783.4 | 4837.1 | 4903.4 | 4949.2 | 4980.8 | 4987.1 |
| 10° | 4900.3 | 4859.2 | 4829.2 | 4835.5 | 4886.0 | 4958.7 | 5034.5 | 5119.8 | 5189.4 | 5232.0 | 5235.2 |
| 12.5° | 5045.6 | 5006.1 | 4977.7 | 5004.5 | 5088.3 | 5176.7 | 5255.7 | 5329.9 | 5393.1 | 5435.8 | 5435.8 |
| 15° | 5213.0 | 5184.6 | 5151.4 | 5213.0 | 5326.8 | 5405.8 | 5438.9 | 5475.3 | 5510.0 | 5541.6 | 5535.3 |
| 17.5° | 5374.2 | 5347.3 | 5329.9 | 5402.6 | 5521.1 | 5557.4 | 5535.3 | 5508.5 | 5508.5 | 5525.8 | 5529.0 |
| 20° | 5513.2 | 5489.5 | 5500.6 | 5571.6 | 5633.3 | 5595.3 | 5513.2 | 5427.9 | 5393.1 | 5402.6 | 5412.1 |
| 22.5° | 5634.8 | 5623.8 | 5656.9 | 5690.1 | 5645.9 | 5513.2 | 5361.5 | 5246.2 | 5203.6 | 5200.4 | 5203.6 |
| 25° | 5777.0 | 5775.4 | 5816.5 | 5756.5 | 5560.6 | 5315.7 | 5111.9 | 4999.8 | 4976.1 | 4995.0 | 5026.6 |
| 27.5° | 5953.9 | 5971.3 | 5991.8 | 5772.3 | 5386.8 | 5017.2 | 4810.2 | 4732.8 | 4756.5 | 4802.3 | 4832.3 |
| 30° | 6179.8 | 6227.2 | 6183.0 | 5732.8 | 5137.2 | 4675.9 | 4478.5 | 4456.4 | 4521.1 | 4585.9 | 4617.5 |
| 32.5° | 6399.4 | 6473.7 | 6366.2 | 5630.1 | 4815.0 | 4314.2 | 4161.0 | 4154.6 | 4233.6 | 4296.8 | 4341.0 |
| 35° | 6576.3 | 6723.3 | 6503.7 | 5426.3 | 4442.1 | 3980.9 | 3868.7 | 3826.1 | 3854.5 | 3928.7 | 3979.3 |
| 37.5° | 6807.0 | 7051.8 | 6598.5 | 5115.1 | 4037.7 | 3706.0 | 3574.9 | 3476.9 | 3451.7 | 3481.7 | 3507.0 |
| 40° | 7228.8 | 7552.6 | 6642.7 | 4680.7 | 3642.8 | 3431.1 | 3298.4 | 3154.7 | 3055.2 | 2982.5 | 2984.1 |
| 42.5° | 7917.5 | 8205.0 | 6614.3 | 4153.1 | 3277.9 | 3162.6 | 3012.5 | 2846.6 | 2685.5 | 2521.2 | 2508.6 |
| 45° | 9035.9 | 9175.0 | 6528.9 | 3593.8 | 2957.2 | 2881.4 | 2740.8 | 2574.9 | 2360.1 | 2173.7 | 2156.3 |
| 47.5° | 10825.8 | 10517.7 | 6396.3 | 3105.7 | 2674.5 | 2642.9 | 2513.3 | 2322.2 | 2094.7 | 1944.6 | 1932.0 |
| 50° | 13266.4 | 12456.0 | 6331.5 | 2717.1 | 2424.9 | 2434.3 | 2328.5 | 2126.3 | 1911.5 | 1800.9 | 1788.2 |
| 52.5° | 16185.7 | 14713.4 | 6456.3 | 2417.0 | 2224.2 | 2257.4 | 2178.4 | 1988.9 | 1808.8 | 1721.9 | 1709.2 |
| 55° | 19214.0 | 17051.4 | 6590.6 | 2199.0 | 2034.7 | 2099.4 | 2072.6 | 1916.2 | 1753.5 | 1672.9 | 1661.9 |
| 57.5° | 21806.3 | 18797.0 | 6322.0 | 2022.0 | 1865.6 | 1966.7 | 1990.4 | 1870.4 | 1725.0 | 1652.4 | 1639.7 |
| 60° | 23438.2 | 19500.0 | 5617.5 | 1856.2 | 1731.4 | 1860.9 | 1943.0 | 1857.7 | 1736.1 | 1729.8 | 1720.3 |
| 62.5° | 24212.2 | 19438.3 | 4560.6 | 1725.0 | 1647.6 | 1815.1 | 1977.8 | 1928.8 | 1862.5 | 1919.3 | 1924.1 |
| 65° | 23864.7 | 18509.5 | 3396.4 | 1638.2 | 1587.6 | 1832.5 | 2082.1 | 2063.1 | 1898.8 | 1955.7 | 1963.6 |
| 67.5° | 21577.3 | 16293.1 | 2514.9 | 1562.3 | 1521.3 | 1881.4 | 2271.6 | 2107.3 | 1827.7 | 1868.8 | 1843.5 |
| 70° | 17440.0 | 12917.3 | 1939.9 | 1477.0 | 1453.3 | 1875.1 | 2356.9 | 2080.5 | 1750.3 | 1759.8 | 1691.9 |
| 72.5° | 12026.3 | 8808.5 | 1578.1 | 1398.0 | 1355.4 | 1709.2 | 2296.9 | 2014.1 | 1685.6 | 1612.9 | 1522.8 |
| 75° | 6540.0 | 4728.1 | 1341.2 | 1315.9 | 1183.2 | 1500.7 | 2186.3 | 1966.7 | 1627.1 | 1530.7 | 1480.2 |
| 77.5° | 2573.3 | 1962.0 | 1164.2 | 1203.7 | 1034.7 | 1325.4 | 2063.1 | 1876.7 | 1546.5 | 1420.2 | 1394.9 |
| 80° | 1050.5 | 1001.5 | 965.2 | 1041.0 | 889.4 | 1159.5 | 1914.6 | 1770.9 | 1450.2 | 1317.5 | 1266.9 |
| 82.5° | 595.6 | 622.4 | 750.4 | 821.4 | 721.9 | 1067.9 | 1843.5 | 1685.6 | 1334.9 | 1180.0 | 1120.0 |
| 85° | 304.9 | 364.9 | 522.9 | 589.2 | 530.8 | 908.3 | 1698.2 | 1475.5 | 1071.0 | 903.6 | 908.3 |
| 87.5° | 146.9 | 203.8 | 330.2 | 369.7 | 344.4 | 657.2 | 1268.5 | 1069.5 | 834.1 | 660.3 | 639.8 |
| 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)