

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: P529683

Luminaire Tested: **GALN-SA4D-760-U-AFL-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P529683
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-27)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-760-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22829 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G1

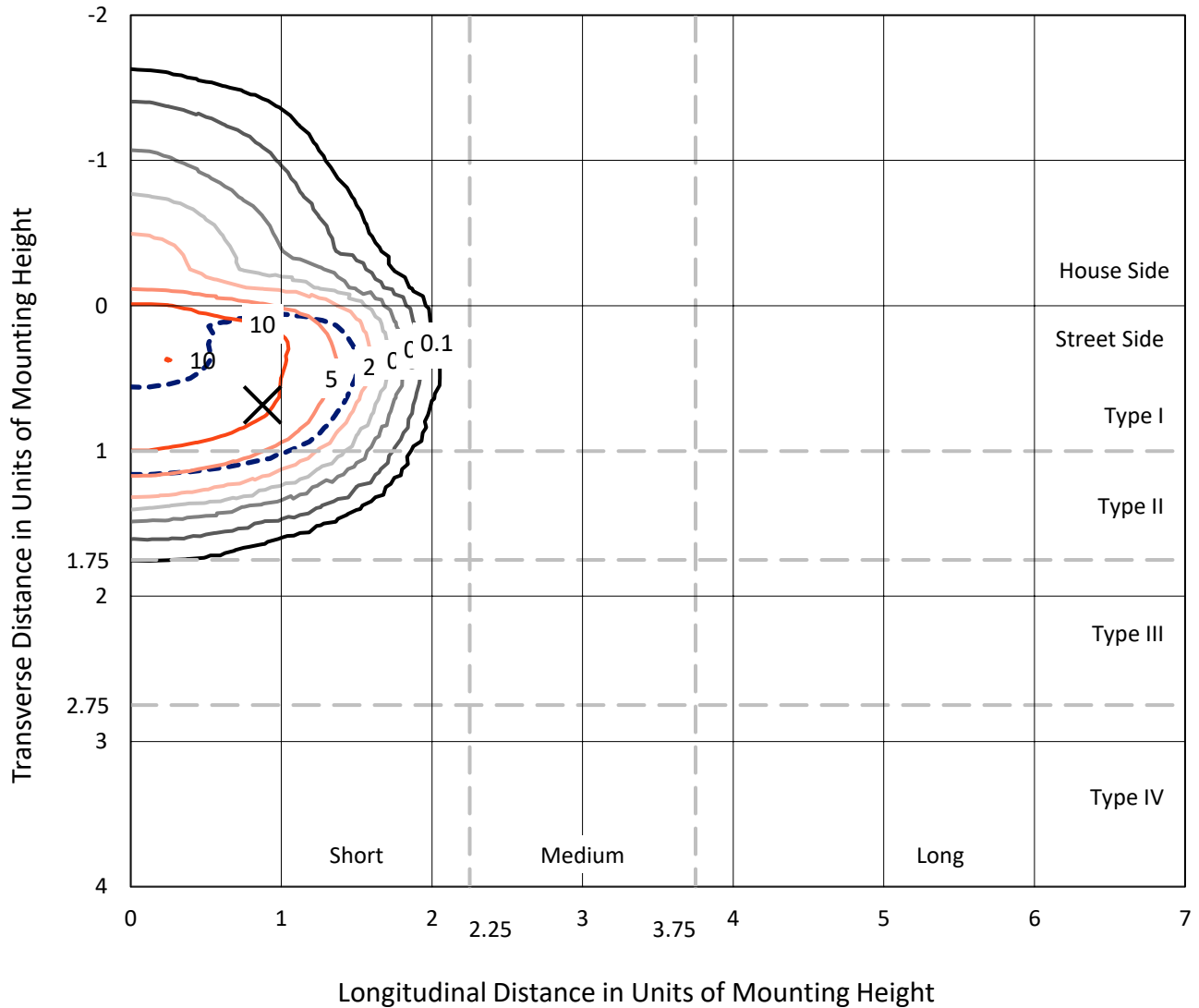
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

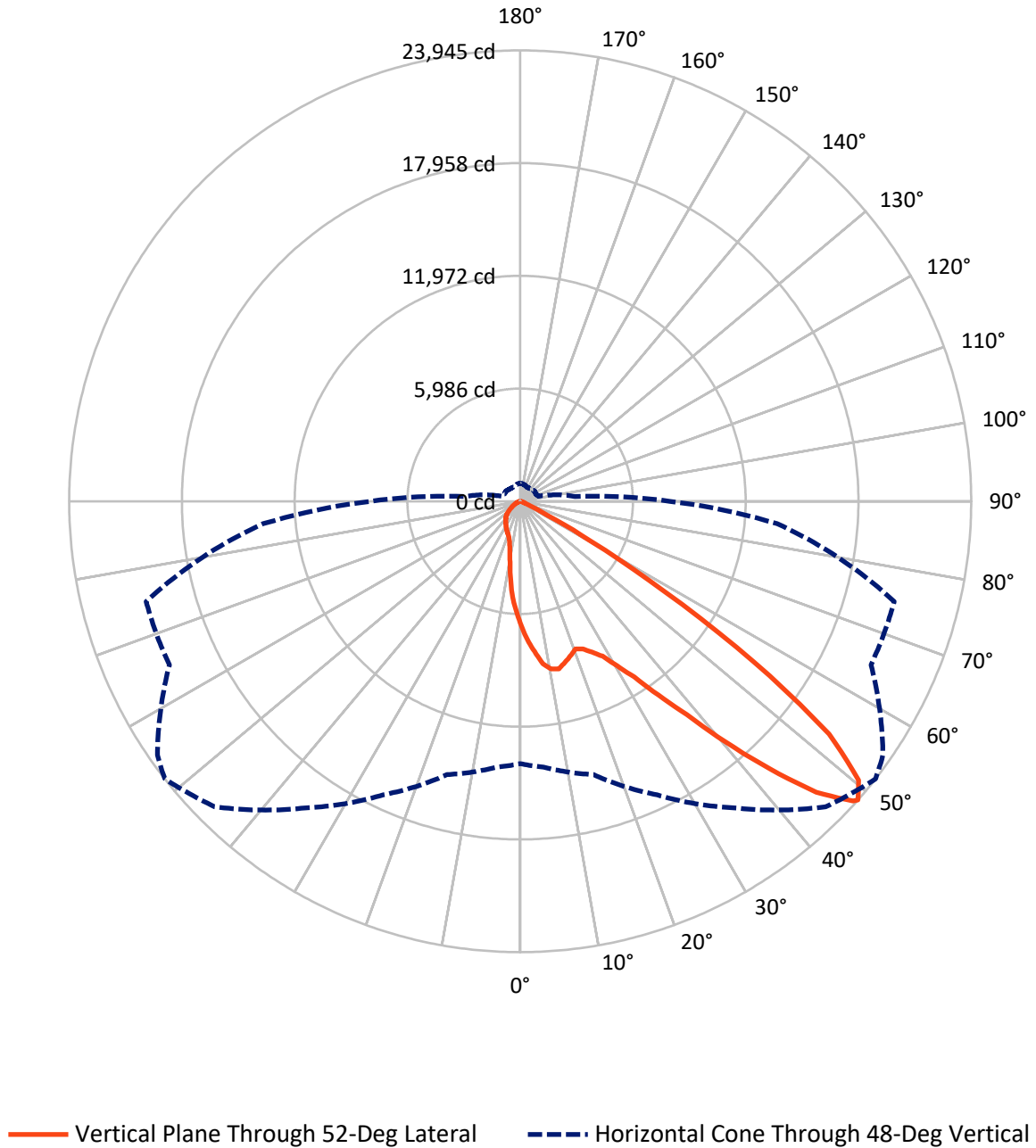
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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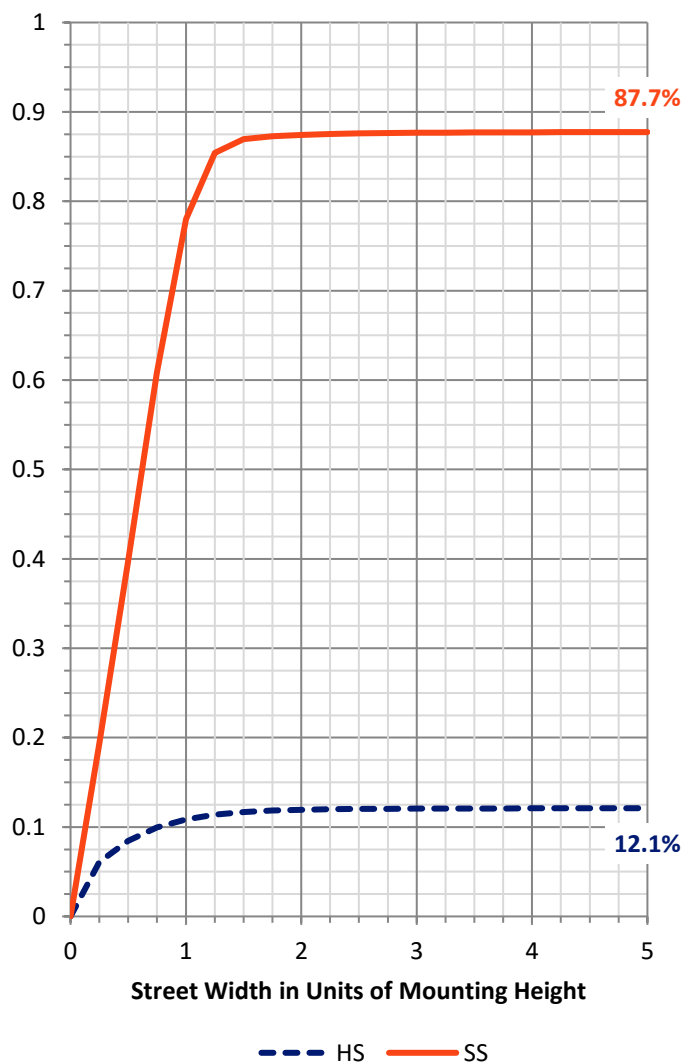
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2779.6 | 0.0 | 2779.6 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| Street Side | Lumens | 20049.4 | 0.0 | 20049.4 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| Total | Lumens | 22829.0 | 0.0 | 22829.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 603.4 | 2.6 |
| 10°-20° | 1576.9 | 6.9 |
| 20°-30° | 2692.5 | 11.8 |
| 30°-40° | 4958.2 | 21.7 |
| 40°-50° | 7700.1 | 33.7 |
| 50°-60° | 4634.2 | 20.3 |
| 60°-70° | 536.0 | 2.3 |
| 70°-80° | 103.7 | 0.5 |
| 80°-90° | 24.0 | 0.1 |
| 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° | 22829.0 | 100.0 |
| 0°-180° | 22829.0 | 100.0 |

Coefficient of Utilization



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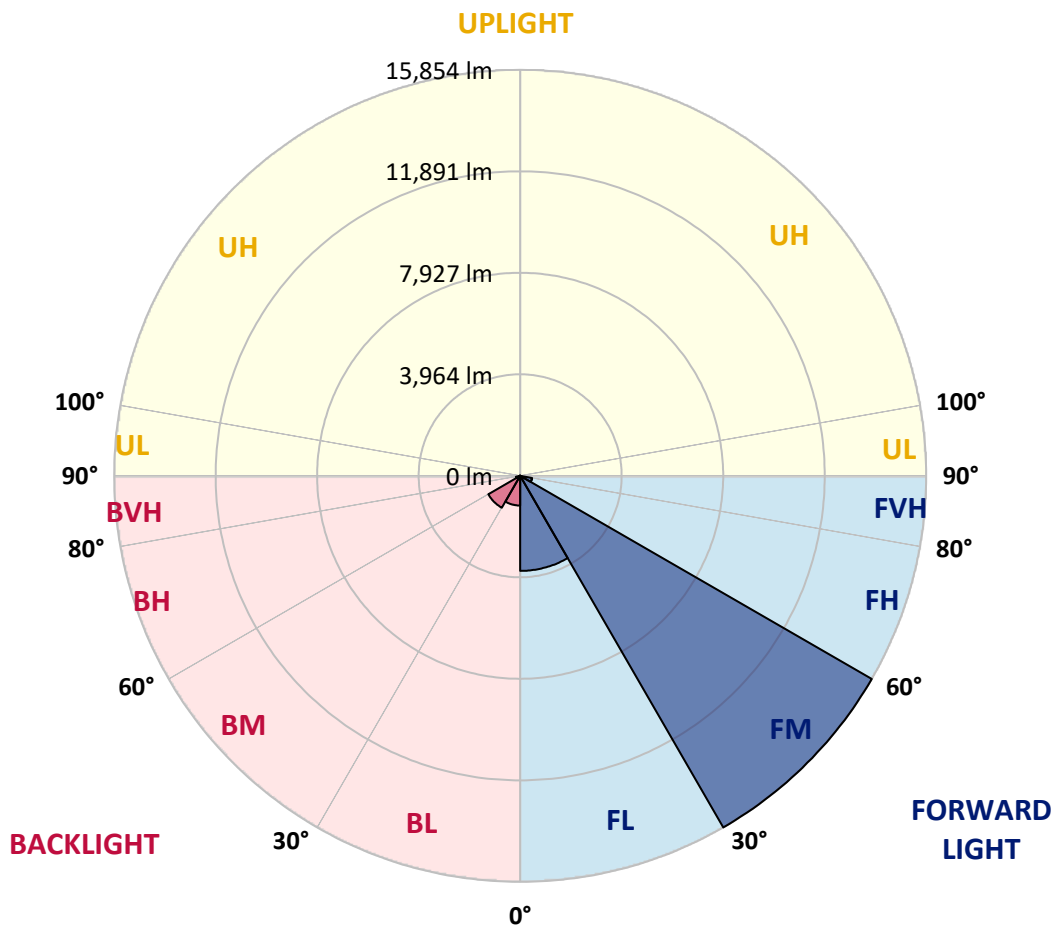
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 3711.7 | 16.3 | | | |
| FM (30°-60°) | 15854.3 | 69.4 | | | |
| FH (60°-80°) | 472.0 | 2.1 | | | G0/660 |
| FVH (80°-90°) | 11.4 | 0.1 | | | G1/100 |
| BL (0°-30°) | 1161.1 | 5.1 | B3/2500 | | |
| BM (30°-60°) | 1438.1 | 6.3 | B2/2500 | | |
| BH (60°-80°) | 167.8 | 0.7 | B1/500 | | G1/500 |
| BVH (80°-90°) | 12.6 | 0.1 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 52° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 |
| 2.5° | 7990.4 | 7807.3 | 7824.0 | 7704.2 | 7634.3 | 7521.1 | 7368.0 | 7338.1 | 7171.7 | 6945.4 | 6715.8 |
| 5° | 8709.2 | 8665.9 | 8722.5 | 8549.5 | 8556.1 | 8369.8 | 8010.3 | 8017.0 | 7634.3 | 7264.9 | 6908.8 |
| 7.5° | 8755.8 | 8656.0 | 8712.5 | 8865.6 | 8955.5 | 8922.2 | 8719.2 | 8542.8 | 8180.1 | 7637.6 | 7118.4 |
| 10° | 7840.6 | 8030.3 | 8090.2 | 8343.1 | 8702.5 | 9081.9 | 9058.6 | 9068.6 | 8765.8 | 8056.9 | 7298.2 |
| 12.5° | 7291.5 | 7165.0 | 7368.0 | 7521.1 | 8063.6 | 8799.1 | 9135.2 | 9208.4 | 9231.7 | 8462.9 | 7477.9 |
| 15° | 7041.9 | 7041.9 | 7075.2 | 7118.4 | 7511.1 | 8190.0 | 8875.6 | 9088.6 | 9591.1 | 8995.4 | 7760.7 |
| 17.5° | 7198.3 | 7191.7 | 7238.3 | 7148.4 | 7294.8 | 7817.3 | 8636.0 | 8878.9 | 9993.8 | 9517.9 | 7983.7 |
| 20° | 7674.2 | 7697.5 | 7667.6 | 7408.0 | 7418.0 | 7810.7 | 8369.8 | 8752.5 | 10266.7 | 9970.5 | 8279.9 |
| 22.5° | 8336.5 | 8349.8 | 8180.1 | 7897.2 | 7814.0 | 8007.0 | 8522.8 | 8815.7 | 10486.3 | 10512.9 | 8369.8 |
| 25° | 9101.9 | 9048.7 | 9015.4 | 8616.0 | 8363.1 | 8529.5 | 8868.9 | 9038.7 | 10622.8 | 10978.9 | 8626.0 |
| 27.5° | 10163.5 | 10057.0 | 9854.0 | 9497.9 | 9311.6 | 9075.3 | 9318.2 | 9597.8 | 11012.1 | 11631.1 | 8905.5 |
| 30° | 11731.0 | 11637.8 | 11241.8 | 10782.5 | 10293.3 | 10060.3 | 10136.9 | 10290.0 | 11714.3 | 12386.6 | 9275.0 |
| 32.5° | 14090.5 | 13894.1 | 13321.7 | 12446.5 | 11780.9 | 11138.6 | 11118.6 | 11281.7 | 12343.3 | 13431.5 | 9714.2 |
| 35° | 16689.6 | 16629.7 | 15787.7 | 14885.8 | 13597.9 | 12606.2 | 12622.9 | 12709.4 | 13548.0 | 14802.6 | 10290.0 |
| 37.5° | 18416.8 | 18746.2 | 18210.5 | 17242.0 | 16160.4 | 14742.7 | 14383.3 | 14413.3 | 15202.0 | 16426.7 | 11328.3 |
| 40° | 19751.3 | 19471.7 | 19535.0 | 19308.7 | 18569.9 | 17604.8 | 16809.4 | 16653.0 | 17115.6 | 18223.8 | 12359.9 |
| 42.5° | 19168.9 | 19182.2 | 19571.6 | 20107.4 | 20290.4 | 20220.5 | 19408.5 | 19112.3 | 18752.9 | 19694.7 | 13341.7 |
| 45° | 17524.9 | 17867.7 | 18373.5 | 19791.2 | 21035.9 | 22204.0 | 22044.2 | 21551.7 | 19884.4 | 20859.5 | 13907.4 |
| 47.5° | 14902.5 | 14889.2 | 15717.8 | 17561.5 | 20327.0 | 23062.6 | 23788.1 | 23442.0 | 20686.4 | 20729.7 | 13791.0 |
| 48° | 13934.1 | 14173.7 | 15028.9 | 17198.8 | 19877.7 | 22936.1 | 23944.5 | 23508.5 | 20550.0 | 20556.6 | 13691.1 |
| 50° | 10300.0 | 10256.7 | 11321.6 | 13984.0 | 17754.5 | 21551.7 | 23285.5 | 23625.0 | 20546.7 | 19681.4 | 12992.3 |
| 52.5° | 5441.2 | 5627.5 | 6402.9 | 8792.4 | 12553.0 | 17638.0 | 20540.0 | 21069.1 | 19821.2 | 18250.4 | 11987.2 |
| 55° | 2312.9 | 2089.9 | 2685.6 | 3970.2 | 7061.9 | 11784.2 | 15068.9 | 16247.0 | 16759.5 | 16150.5 | 10486.3 |
| 57.5° | 825.3 | 901.9 | 1038.3 | 1494.2 | 2968.5 | 6449.5 | 8985.4 | 9900.6 | 11611.2 | 11850.8 | 7145.1 |
| 60° | 529.1 | 539.1 | 582.4 | 685.6 | 1114.9 | 2486.0 | 4263.1 | 4991.9 | 5767.3 | 5953.7 | 3334.6 |
| 62.5° | 409.3 | 412.7 | 432.6 | 449.3 | 529.1 | 965.1 | 1600.7 | 1896.9 | 1970.1 | 1693.9 | 875.2 |
| 65° | 342.8 | 346.1 | 352.8 | 352.8 | 376.1 | 452.6 | 559.1 | 615.7 | 599.0 | 592.4 | 495.9 |
| 67.5° | 262.9 | 269.6 | 282.9 | 282.9 | 296.2 | 276.2 | 309.5 | 329.5 | 372.7 | 452.6 | 422.6 |
| 70° | 206.3 | 209.7 | 219.6 | 226.3 | 226.3 | 199.7 | 223.0 | 242.9 | 272.9 | 336.1 | 332.8 |
| 72.5° | 159.7 | 166.4 | 173.1 | 173.1 | 163.1 | 136.4 | 159.7 | 176.4 | 196.3 | 233.0 | 226.3 |
| 75° | 123.1 | 123.1 | 126.5 | 103.2 | 79.9 | 69.9 | 96.5 | 116.5 | 146.4 | 153.1 | 126.5 |
| 77.5° | 33.3 | 36.6 | 33.3 | 30.0 | 33.3 | 49.9 | 63.2 | 73.2 | 93.2 | 93.2 | 83.2 |
| 80° | 0.0 | 3.3 | 10.0 | 20.0 | 33.3 | 46.6 | 56.6 | 63.2 | 73.2 | 79.9 | 76.5 |
| 82.5° | 0.0 | 3.3 | 10.0 | 20.0 | 30.0 | 36.6 | 49.9 | 53.2 | 59.9 | 69.9 | 69.9 |
| 85° | 0.0 | 3.3 | 6.7 | 13.3 | 20.0 | 23.3 | 23.3 | 20.0 | 20.0 | 16.6 | 13.3 |
| 87.5° | 0.0 | 0.0 | 3.3 | 6.7 | 6.7 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 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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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 | 6592.6 |
| 2.5° | 6625.9 | 6522.7 | 6366.3 | 6120.1 | 5883.8 | 5730.7 | 5584.3 | 5421.2 | 5331.3 | 5324.7 | 5274.8 |
| 5° | 6705.8 | 6472.8 | 6100.1 | 5677.5 | 5224.9 | 4835.5 | 4442.8 | 4186.5 | 3956.9 | 3830.5 | 3807.2 |
| 7.5° | 6749.0 | 6446.2 | 5843.9 | 5135.0 | 4362.9 | 3727.3 | 3288.0 | 2965.2 | 2838.7 | 2745.5 | 2742.2 |
| 10° | 6838.9 | 6399.6 | 5461.1 | 4416.2 | 3461.1 | 2818.8 | 2515.9 | 2369.5 | 2299.6 | 2273.0 | 2233.0 |
| 12.5° | 6905.5 | 6313.1 | 5068.4 | 3677.4 | 2735.6 | 2336.2 | 2203.1 | 2169.8 | 2173.1 | 2186.5 | 2169.8 |
| 15° | 6998.6 | 6236.5 | 4539.3 | 3018.4 | 2296.3 | 2103.3 | 2103.3 | 2109.9 | 2156.5 | 2163.2 | 2159.8 |
| 17.5° | 6992.0 | 6086.8 | 3993.5 | 2486.0 | 2030.0 | 2003.4 | 2013.4 | 2076.6 | 2106.6 | 2116.6 | 2093.3 |
| 20° | 7071.9 | 5947.0 | 3431.1 | 2123.2 | 1880.3 | 1920.2 | 1986.8 | 2003.4 | 2040.0 | 2046.7 | 2020.1 |
| 22.5° | 7048.6 | 5597.6 | 2908.6 | 1837.0 | 1767.1 | 1843.7 | 1910.2 | 1930.2 | 1920.2 | 1900.2 | 1896.9 |
| 25° | 7005.3 | 5298.1 | 2429.4 | 1647.3 | 1683.9 | 1767.1 | 1830.4 | 1793.8 | 1773.8 | 1777.1 | 1780.4 |
| 27.5° | 6928.8 | 4918.7 | 2033.4 | 1514.2 | 1570.8 | 1693.9 | 1690.6 | 1677.3 | 1697.2 | 1680.6 | 1697.2 |
| 30° | 6915.4 | 4539.3 | 1707.2 | 1394.4 | 1487.6 | 1577.4 | 1584.1 | 1607.4 | 1630.7 | 1600.7 | 1630.7 |
| 32.5° | 6935.4 | 4123.3 | 1474.3 | 1321.2 | 1437.7 | 1441.0 | 1514.2 | 1537.5 | 1520.9 | 1454.3 | 1461.0 |
| 35° | 7088.5 | 3803.8 | 1304.5 | 1281.3 | 1357.8 | 1361.1 | 1431.0 | 1401.1 | 1327.8 | 1287.9 | 1311.2 |
| 37.5° | 7411.3 | 3537.6 | 1224.7 | 1244.6 | 1251.3 | 1294.6 | 1297.9 | 1238.0 | 1244.6 | 1241.3 | 1254.6 |
| 40° | 7824.0 | 3334.6 | 1168.1 | 1211.4 | 1204.7 | 1234.7 | 1114.9 | 1148.1 | 1178.1 | 1188.1 | 1194.7 |
| 42.5° | 8106.8 | 3188.2 | 1131.5 | 1158.1 | 1144.8 | 1091.6 | 1025.0 | 1058.3 | 1081.6 | 1118.2 | 1124.8 |
| 45° | 8233.3 | 3071.7 | 1088.2 | 1064.9 | 1064.9 | 968.4 | 941.8 | 948.5 | 1001.7 | 1041.6 | 1035.0 |
| 47.5° | 8027.0 | 2958.5 | 1011.7 | 941.8 | 965.1 | 885.2 | 855.3 | 855.3 | 911.9 | 961.8 | 951.8 |
| 48° | 7947.1 | 2911.9 | 1015.0 | 915.2 | 931.8 | 871.9 | 842.0 | 835.3 | 898.5 | 945.1 | 945.1 |
| 50° | 7551.1 | 2738.9 | 928.5 | 842.0 | 808.7 | 802.0 | 782.1 | 788.7 | 828.7 | 871.9 | 871.9 |
| 52.5° | 6779.0 | 2366.2 | 785.4 | 722.2 | 662.3 | 702.2 | 712.2 | 698.9 | 718.8 | 758.8 | 755.4 |
| 55° | 5657.5 | 1817.1 | 629.0 | 599.0 | 552.4 | 595.7 | 615.7 | 599.0 | 579.1 | 609.0 | 609.0 |
| 57.5° | 3624.1 | 978.4 | 502.5 | 509.2 | 462.6 | 505.8 | 522.5 | 482.6 | 445.9 | 469.2 | 465.9 |
| 60° | 1634.0 | 585.7 | 412.7 | 402.7 | 372.7 | 422.6 | 449.3 | 402.7 | 352.8 | 369.4 | 386.0 |
| 62.5° | 612.3 | 416.0 | 312.8 | 306.2 | 299.5 | 346.1 | 359.4 | 322.8 | 272.9 | 282.9 | 286.2 |
| 65° | 449.3 | 366.1 | 249.6 | 226.3 | 239.6 | 272.9 | 266.2 | 229.6 | 196.3 | 196.3 | 203.0 |
| 67.5° | 382.7 | 319.5 | 203.0 | 176.4 | 176.4 | 179.7 | 166.4 | 146.4 | 136.4 | 143.1 | 149.8 |
| 70° | 299.5 | 252.9 | 159.7 | 136.4 | 123.1 | 109.8 | 96.5 | 93.2 | 83.2 | 93.2 | 89.9 |
| 72.5° | 193.0 | 169.7 | 123.1 | 103.2 | 93.2 | 76.5 | 63.2 | 59.9 | 49.9 | 46.6 | 46.6 |
| 75° | 103.2 | 103.2 | 96.5 | 83.2 | 73.2 | 59.9 | 49.9 | 39.9 | 26.6 | 20.0 | 20.0 |
| 77.5° | 73.2 | 79.9 | 86.5 | 79.9 | 66.6 | 49.9 | 39.9 | 26.6 | 13.3 | 6.7 | 6.7 |
| 80° | 69.9 | 79.9 | 86.5 | 76.5 | 66.6 | 49.9 | 36.6 | 20.0 | 10.0 | 3.3 | 3.3 |
| 82.5° | 63.2 | 73.2 | 79.9 | 69.9 | 59.9 | 43.3 | 33.3 | 20.0 | 10.0 | 3.3 | 3.3 |
| 85° | 13.3 | 16.6 | 20.0 | 20.0 | 23.3 | 30.0 | 23.3 | 16.6 | 6.7 | 3.3 | 3.3 |
| 87.5° | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 6.7 | 6.7 | 3.3 | 3.3 | 3.3 |
| 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)