

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: P299648

Luminaire Tested: **GAA-AF-03-LED-U-5MQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-03-LED-U-5MQ-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14867 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 124
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: 28.75 FT

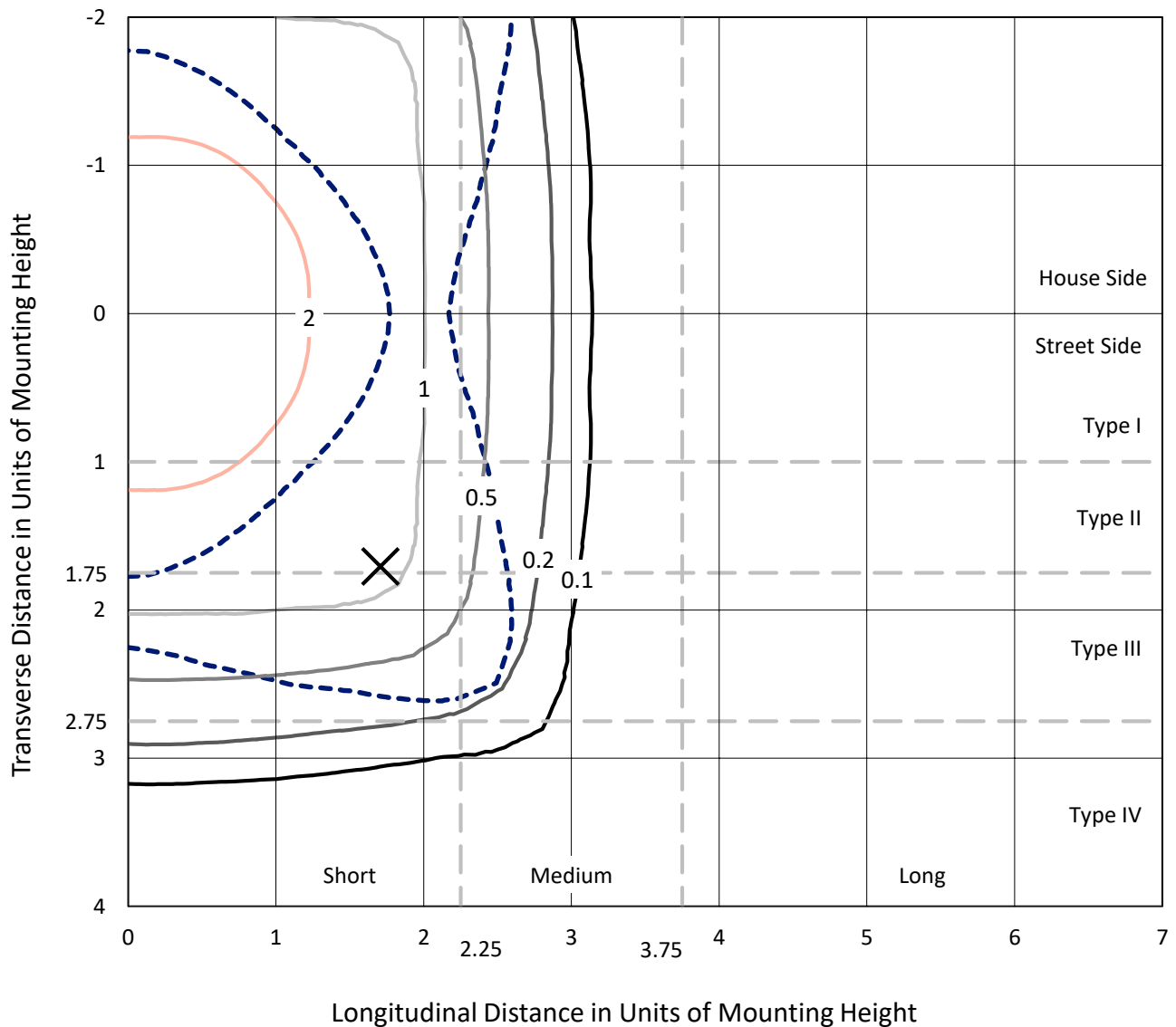


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

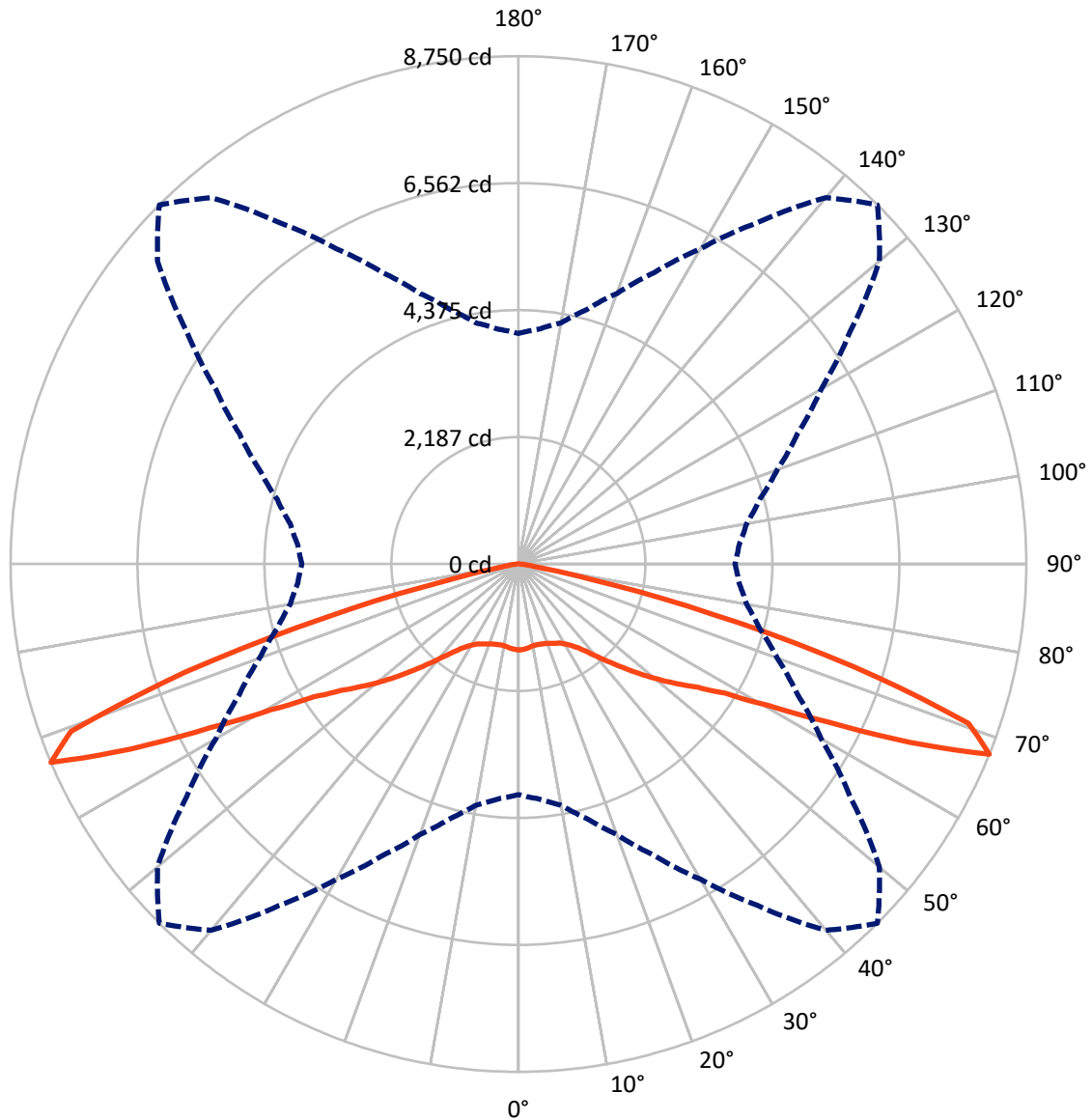


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7433.5 | 0.0 | 7433.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 7433.5 | 0.0 | 7433.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 14867.0 | 0.0 | 14867.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 138.7 | 0.9 |
| 10°-20° | 402.4 | 2.7 |
| 20°-30° | 684.0 | 4.6 |
| 30°-40° | 1118.2 | 7.5 |
| 40°-50° | 1996.2 | 13.4 |
| 50°-60° | 3365.7 | 22.6 |
| 60°-70° | 5223.0 | 35.1 |
| 70°-80° | 1835.1 | 12.3 |
| 80°-90° | 103.7 | 0.7 |
| 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° | 14867.0 | 100.0 |
| 0°-180° | 14867.0 | 100.0 |



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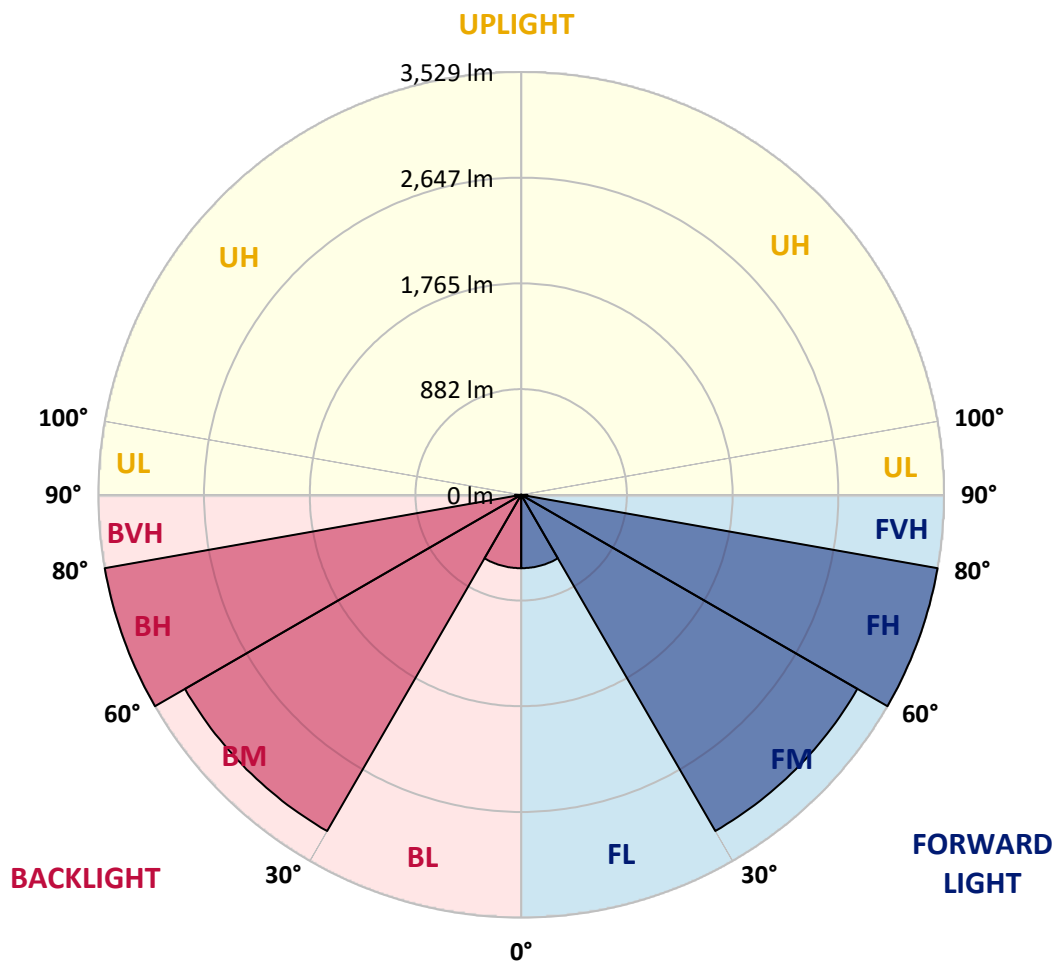
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 612.6 | 4.1 | | | |
| FM (30°-60°) | 3240.0 | 21.8 | | | |
| FH (60°-80°) | 3529.1 | 23.7 | | | G2/5000 |
| FVH (80°-90°) | 51.9 | 0.3 | | | G1/100 |
| BL (0°-30°) | 612.6 | 4.1 | B2/1000 | | |
| BM (30°-60°) | 3240.0 | 21.8 | B3/5000 | | |
| BH (60°-80°) | 3529.1 | 23.7 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 51.9 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 |
| 2.5° | 1476.1 | 1477.5 | 1477.5 | 1477.5 | 1476.8 | 1476.8 | 1475.4 | 1476.8 | 1476.1 | 1474.0 | 1474.7 |
| 5° | 1463.8 | 1465.2 | 1465.2 | 1464.5 | 1466.5 | 1465.8 | 1463.8 | 1465.2 | 1464.5 | 1463.1 | 1463.8 |
| 7.5° | 1446.0 | 1448.1 | 1448.1 | 1447.4 | 1449.4 | 1448.7 | 1447.4 | 1448.1 | 1448.1 | 1446.0 | 1446.0 |
| 10° | 1426.2 | 1427.5 | 1427.5 | 1426.9 | 1430.3 | 1430.3 | 1429.6 | 1431.7 | 1432.3 | 1430.3 | 1428.9 |
| 12.5° | 1407.7 | 1409.8 | 1409.8 | 1412.5 | 1415.9 | 1417.3 | 1420.7 | 1423.4 | 1426.2 | 1425.5 | 1422.8 |
| 15° | 1396.8 | 1398.2 | 1400.9 | 1404.3 | 1409.8 | 1414.6 | 1420.0 | 1426.2 | 1431.7 | 1433.0 | 1428.9 |
| 17.5° | 1389.9 | 1392.0 | 1396.1 | 1400.9 | 1408.4 | 1416.6 | 1424.8 | 1433.0 | 1440.5 | 1443.3 | 1438.5 |
| 20° | 1387.9 | 1389.3 | 1393.4 | 1401.6 | 1411.8 | 1424.1 | 1435.8 | 1445.3 | 1455.6 | 1459.0 | 1455.6 |
| 22.5° | 1392.0 | 1394.7 | 1399.5 | 1409.1 | 1422.8 | 1438.5 | 1452.2 | 1465.2 | 1478.1 | 1484.3 | 1479.5 |
| 25° | 1410.5 | 1413.2 | 1419.3 | 1431.7 | 1446.7 | 1463.1 | 1478.8 | 1493.9 | 1505.5 | 1511.6 | 1508.2 |
| 27.5° | 1444.6 | 1448.1 | 1455.6 | 1467.9 | 1484.3 | 1502.1 | 1519.2 | 1531.5 | 1541.0 | 1543.1 | 1539.0 |
| 30° | 1495.9 | 1503.4 | 1512.3 | 1526.0 | 1545.1 | 1560.2 | 1577.3 | 1588.2 | 1599.8 | 1599.8 | 1596.4 |
| 32.5° | 1575.9 | 1583.4 | 1593.0 | 1606.0 | 1621.0 | 1637.4 | 1652.5 | 1662.1 | 1674.4 | 1675.0 | 1666.8 |
| 35° | 1695.6 | 1699.0 | 1707.2 | 1715.4 | 1729.1 | 1743.4 | 1756.4 | 1762.6 | 1772.8 | 1773.5 | 1766.0 |
| 37.5° | 1853.5 | 1854.2 | 1859.6 | 1862.4 | 1874.7 | 1890.4 | 1902.7 | 1906.8 | 1916.4 | 1915.0 | 1907.5 |
| 40° | 2037.4 | 2040.8 | 2042.9 | 2047.0 | 2060.0 | 2075.0 | 2088.0 | 2090.0 | 2100.3 | 2098.3 | 2088.7 |
| 42.5° | 2250.0 | 2251.4 | 2263.0 | 2269.2 | 2281.5 | 2289.0 | 2305.4 | 2307.5 | 2319.8 | 2314.3 | 2303.4 |
| 45° | 2488.6 | 2500.9 | 2511.9 | 2524.2 | 2537.2 | 2546.1 | 2559.1 | 2556.3 | 2564.5 | 2556.3 | 2550.2 |
| 47.5° | 2739.6 | 2748.4 | 2773.1 | 2792.2 | 2813.4 | 2820.9 | 2839.4 | 2831.2 | 2839.4 | 2827.8 | 2825.7 |
| 50° | 3015.8 | 3031.5 | 3052.7 | 3074.6 | 3097.1 | 3109.4 | 3133.4 | 3123.1 | 3134.0 | 3123.1 | 3117.0 |
| 52.5° | 3287.9 | 3292.0 | 3338.5 | 3370.6 | 3402.1 | 3416.4 | 3430.8 | 3426.0 | 3426.7 | 3426.0 | 3419.8 |
| 55° | 3546.3 | 3555.9 | 3602.4 | 3646.1 | 3700.8 | 3741.2 | 3765.8 | 3763.0 | 3756.9 | 3750.7 | 3740.5 |
| 57.5° | 3837.6 | 3847.1 | 3900.5 | 3954.5 | 4016.7 | 4074.1 | 4124.0 | 4175.3 | 4195.1 | 4200.6 | 4178.0 |
| 60° | 4231.4 | 4230.7 | 4301.8 | 4367.4 | 4456.3 | 4541.8 | 4651.2 | 4762.6 | 4890.5 | 4949.9 | 4871.3 |
| 62.5° | 4632.0 | 4648.4 | 4751.0 | 4867.2 | 5050.4 | 5228.9 | 5430.6 | 5628.8 | 5831.2 | 5996.0 | 5821.0 |
| 65° | 4584.2 | 4647.1 | 4799.5 | 5062.7 | 5401.2 | 5803.2 | 6238.0 | 6698.1 | 7113.8 | 7399.6 | 7079.0 |
| 67.5° | 3972.9 | 4062.5 | 4217.7 | 4537.7 | 4960.9 | 5540.6 | 6270.8 | 7180.8 | 8238.5 | 8749.9 | 8116.1 |
| 70° | 2879.7 | 2980.9 | 3143.6 | 3456.1 | 3875.2 | 4426.2 | 5219.3 | 6311.8 | 7712.1 | 8227.6 | 7529.5 |
| 72.5° | 1433.0 | 1487.7 | 1588.2 | 1787.2 | 2104.4 | 2551.5 | 3270.8 | 4320.9 | 5559.8 | 6032.9 | 5395.0 |
| 75° | 486.8 | 512.1 | 529.2 | 594.1 | 694.6 | 870.3 | 1227.9 | 1889.0 | 2881.8 | 3454.7 | 2840.7 |
| 77.5° | 281.0 | 281.7 | 293.3 | 304.9 | 322.0 | 341.2 | 389.0 | 510.7 | 883.3 | 1254.6 | 914.1 |
| 80° | 181.9 | 181.2 | 190.8 | 199.6 | 211.3 | 220.8 | 223.6 | 236.6 | 272.8 | 323.4 | 289.2 |
| 82.5° | 94.3 | 106.0 | 127.2 | 138.8 | 160.7 | 164.8 | 159.3 | 154.5 | 163.4 | 169.6 | 173.7 |
| 85° | 52.0 | 45.1 | 67.7 | 87.5 | 97.1 | 98.5 | 98.5 | 93.0 | 96.4 | 94.3 | 102.6 |
| 87.5° | 23.9 | 21.9 | 26.7 | 43.1 | 45.8 | 39.0 | 41.0 | 36.2 | 26.0 | 25.3 | 28.7 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 | 1481.6 |
| 2.5° | 1474.7 | 1475.4 | 1475.4 | 1477.5 | 1478.1 | 1479.5 | 1480.9 | 1481.6 |
| 5° | 1463.1 | 1465.2 | 1463.8 | 1465.8 | 1465.8 | 1467.2 | 1467.2 | 1467.9 |
| 7.5° | 1446.0 | 1448.1 | 1448.1 | 1448.1 | 1447.4 | 1449.4 | 1449.4 | 1449.4 |
| 10° | 1428.2 | 1429.6 | 1428.9 | 1427.5 | 1426.2 | 1428.2 | 1427.5 | 1426.9 |
| 12.5° | 1422.8 | 1419.3 | 1416.6 | 1415.2 | 1412.5 | 1413.2 | 1411.1 | 1411.1 |
| 15° | 1426.2 | 1420.0 | 1415.2 | 1413.2 | 1410.5 | 1409.1 | 1407.7 | 1408.4 |
| 17.5° | 1435.1 | 1427.5 | 1421.4 | 1418.0 | 1414.6 | 1412.5 | 1409.8 | 1410.5 |
| 20° | 1450.8 | 1441.9 | 1433.0 | 1426.2 | 1420.0 | 1416.6 | 1414.6 | 1413.9 |
| 22.5° | 1474.0 | 1461.1 | 1448.1 | 1437.8 | 1429.6 | 1424.8 | 1422.8 | 1421.4 |
| 25° | 1500.7 | 1486.3 | 1471.3 | 1459.7 | 1451.5 | 1445.3 | 1441.2 | 1441.2 |
| 27.5° | 1534.2 | 1522.6 | 1508.9 | 1495.2 | 1487.7 | 1481.6 | 1478.8 | 1477.5 |
| 30° | 1590.3 | 1579.3 | 1568.4 | 1555.4 | 1545.8 | 1539.7 | 1534.9 | 1530.8 |
| 32.5° | 1662.1 | 1653.2 | 1644.3 | 1634.7 | 1625.8 | 1617.6 | 1610.1 | 1606.7 |
| 35° | 1763.2 | 1756.4 | 1750.3 | 1739.3 | 1735.9 | 1731.1 | 1727.0 | 1723.6 |
| 37.5° | 1902.7 | 1900.0 | 1900.0 | 1888.4 | 1885.6 | 1883.6 | 1879.5 | 1880.2 |
| 40° | 2085.9 | 2088.7 | 2085.3 | 2081.2 | 2079.1 | 2073.6 | 2073.6 | 2078.4 |
| 42.5° | 2302.7 | 2304.7 | 2312.2 | 2305.4 | 2312.9 | 2306.1 | 2302.0 | 2305.4 |
| 45° | 2554.3 | 2561.8 | 2576.8 | 2570.0 | 2574.8 | 2563.2 | 2548.8 | 2549.5 |
| 47.5° | 2836.6 | 2843.5 | 2849.6 | 2844.8 | 2845.5 | 2826.4 | 2807.2 | 2802.5 |
| 50° | 3129.9 | 3132.7 | 3136.1 | 3129.3 | 3130.6 | 3109.4 | 3087.6 | 3088.2 |
| 52.5° | 3419.8 | 3432.8 | 3446.5 | 3428.0 | 3423.9 | 3400.0 | 3369.2 | 3356.9 |
| 55° | 3751.4 | 3769.9 | 3754.2 | 3722.0 | 3689.9 | 3657.8 | 3617.4 | 3610.6 |
| 57.5° | 4160.3 | 4128.8 | 4079.6 | 4018.7 | 3974.3 | 3929.2 | 3888.2 | 3871.1 |
| 60° | 4729.1 | 4610.8 | 4521.9 | 4431.7 | 4374.9 | 4319.6 | 4265.6 | 4257.4 |
| 62.5° | 5533.1 | 5328.7 | 5151.6 | 4965.0 | 4812.5 | 4693.5 | 4598.5 | 4571.9 |
| 65° | 6540.9 | 6057.5 | 5638.4 | 5247.3 | 4907.5 | 4651.2 | 4489.8 | 4418.7 |
| 67.5° | 6974.3 | 6019.9 | 5301.4 | 4746.2 | 4301.8 | 3991.4 | 3817.1 | 3730.2 |
| 70° | 6128.6 | 4992.3 | 4210.9 | 3655.0 | 3250.3 | 2919.4 | 2761.4 | 2668.5 |
| 72.5° | 4216.3 | 3175.8 | 2511.2 | 2049.7 | 1726.3 | 1449.4 | 1340.0 | 1331.8 |
| 75° | 1893.1 | 1253.9 | 864.2 | 665.9 | 560.6 | 487.5 | 464.9 | 447.8 |
| 77.5° | 529.9 | 391.8 | 349.4 | 326.8 | 304.9 | 279.6 | 270.1 | 272.1 |
| 80° | 257.8 | 243.4 | 233.8 | 219.5 | 199.6 | 178.4 | 168.9 | 173.0 |
| 82.5° | 170.9 | 168.9 | 175.0 | 164.8 | 136.1 | 115.5 | 97.1 | 88.9 |
| 85° | 103.9 | 105.3 | 107.3 | 108.0 | 91.6 | 64.3 | 43.8 | 49.2 |
| 87.5° | 41.0 | 47.2 | 51.3 | 53.3 | 49.9 | 30.8 | 24.6 | 25.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)