

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: P191591

Luminaire Tested: **GAN-AF-03-LED-U-5MQ-7050-600-ADJ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191591
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: GAN-AF-03-LED-U-5MQ-7050-600-ADJ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12578 lumens
Efficiency: N/A
Efficacy: 131.0 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): 96
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

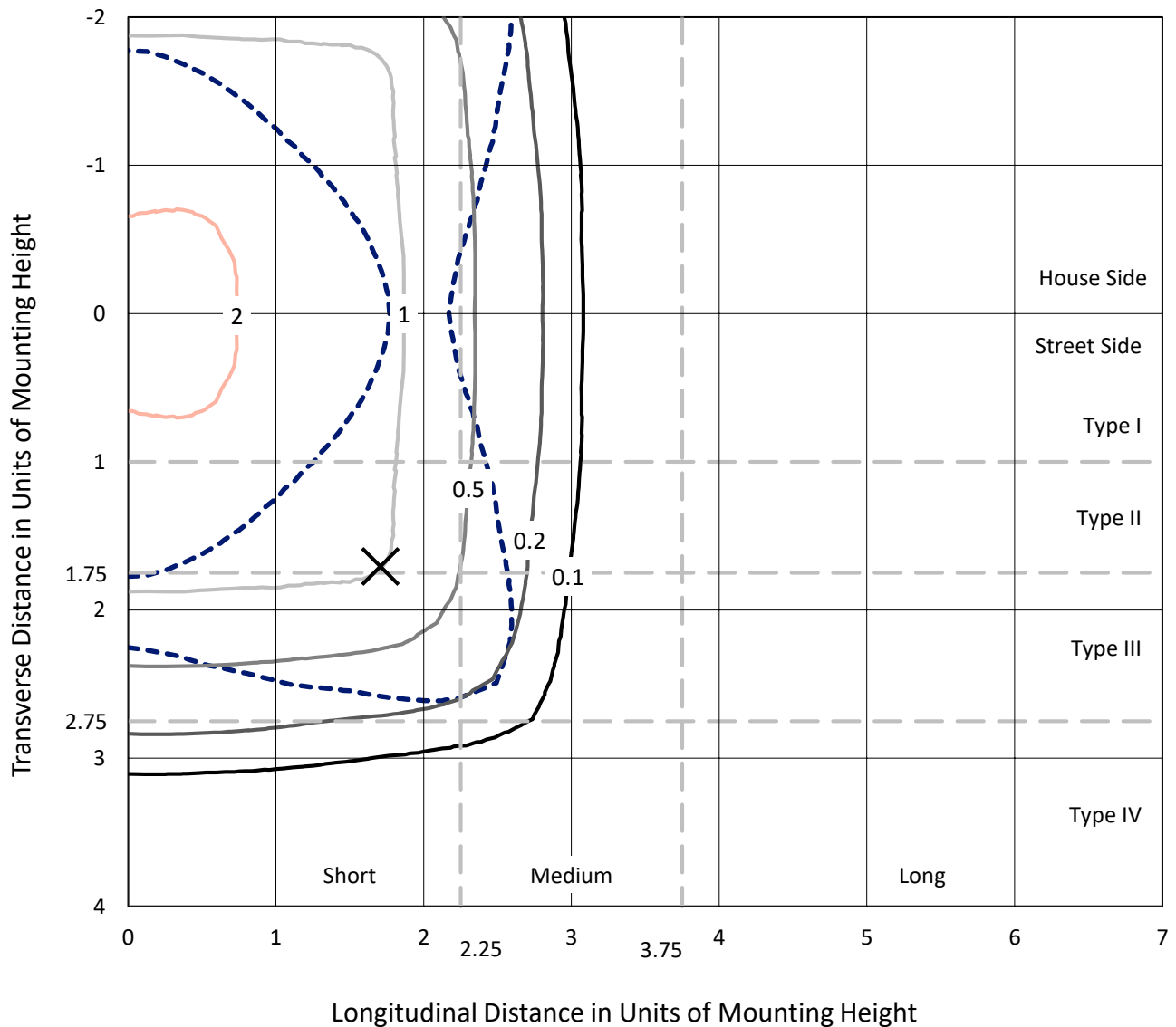


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

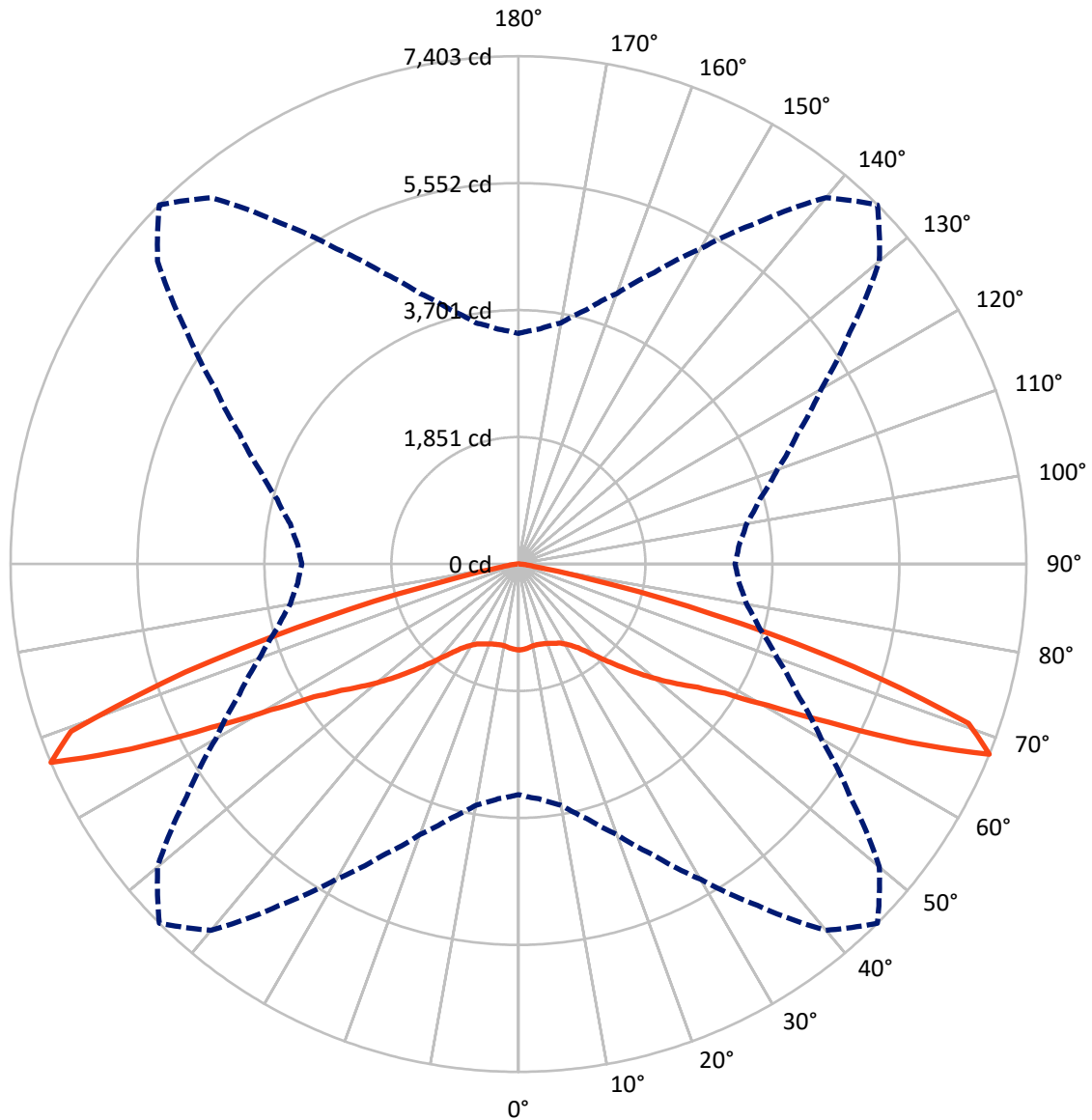


Based on 20 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Full Cutoff

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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 | 6289.0 | 0.0 | 6289.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6289.0 | 0.0 | 6289.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 12578.0 | 0.0 | 12578.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 117.3 | 0.9 |
| 10°-20° | 340.4 | 2.7 |
| 20°-30° | 578.7 | 4.6 |
| 30°-40° | 946.0 | 7.5 |
| 40°-50° | 1688.9 | 13.4 |
| 50°-60° | 2847.5 | 22.6 |
| 60°-70° | 4418.8 | 35.1 |
| 70°-80° | 1552.6 | 12.3 |
| 80°-90° | 87.7 | 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° | 12578.0 | 100.0 |
| 0°-180° | 12578.0 | 100.0 |



REPORT NUMBER: P191591

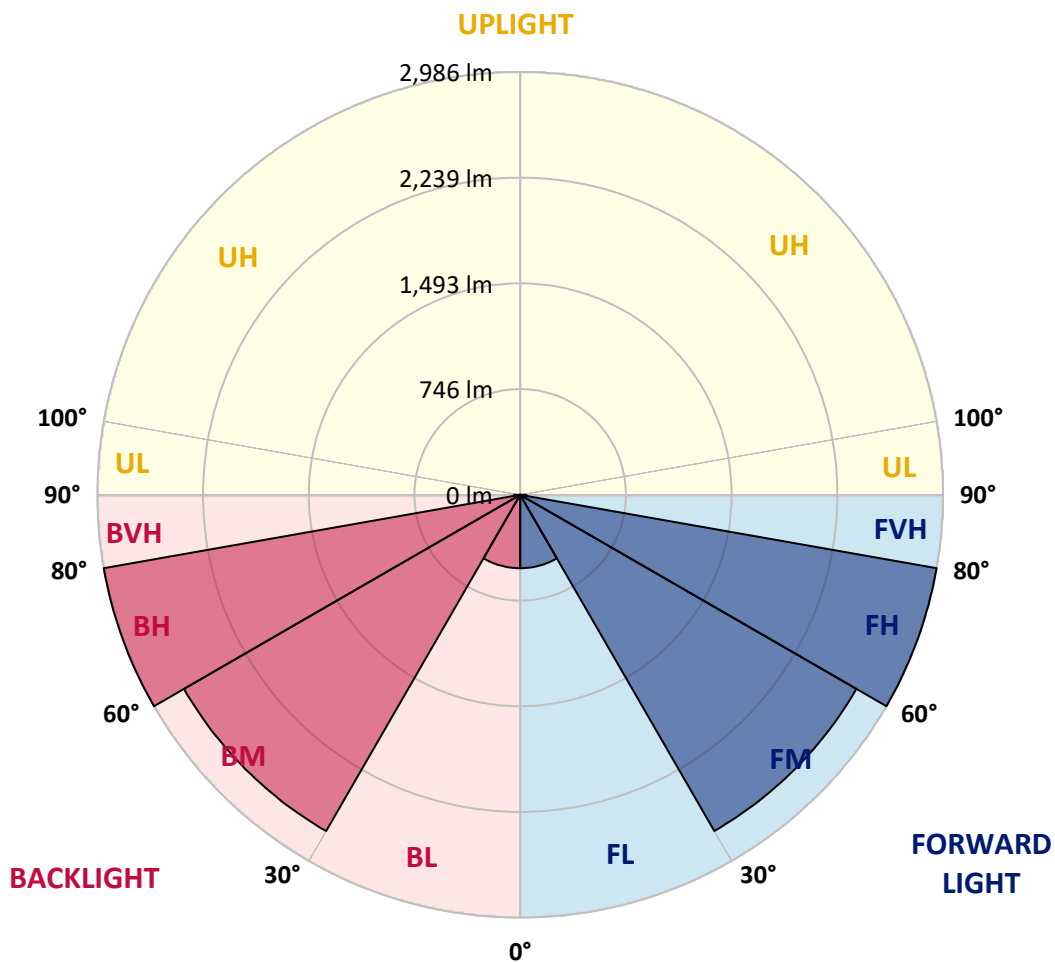
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 518.2 | 4.1 | | | |
| FM | (30°-60°) | 2741.2 | 21.8 | | | |
| FH | (60°-80°) | 2985.7 | 23.7 | | | G2/5000 |
| FVH | (80°-90°) | 43.9 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 518.2 | 4.1 | B2/1000 | | |
| BM | (30°-60°) | 2741.2 | 21.8 | B3/5000 | | |
| BH | (60°-80°) | 2985.7 | 23.7 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 43.9 | 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° | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 |
| 2.5° | 1248.8 | 1250.0 | 1250.0 | 1250.0 | 1249.4 | 1249.4 | 1248.2 | 1249.4 | 1248.8 | 1247.1 | 1247.7 |
| 5° | 1238.4 | 1239.6 | 1239.6 | 1239.0 | 1240.7 | 1240.1 | 1238.4 | 1239.6 | 1239.0 | 1237.8 | 1238.4 |
| 7.5° | 1223.4 | 1225.1 | 1225.1 | 1224.5 | 1226.3 | 1225.7 | 1224.5 | 1225.1 | 1225.1 | 1223.4 | 1223.4 |
| 10° | 1206.6 | 1207.8 | 1207.8 | 1207.2 | 1210.1 | 1210.1 | 1209.5 | 1211.2 | 1211.8 | 1210.1 | 1208.9 |
| 12.5° | 1191.0 | 1192.7 | 1192.7 | 1195.0 | 1197.9 | 1199.1 | 1202.0 | 1204.3 | 1206.6 | 1206.0 | 1203.7 |
| 15° | 1181.7 | 1182.9 | 1185.2 | 1188.1 | 1192.7 | 1196.8 | 1201.4 | 1206.6 | 1211.2 | 1212.4 | 1208.9 |
| 17.5° | 1175.9 | 1177.7 | 1181.1 | 1185.2 | 1191.6 | 1198.5 | 1205.4 | 1212.4 | 1218.7 | 1221.1 | 1217.0 |
| 20° | 1174.2 | 1175.4 | 1178.8 | 1185.8 | 1194.5 | 1204.9 | 1214.7 | 1222.8 | 1231.5 | 1234.4 | 1231.5 |
| 22.5° | 1177.7 | 1180.0 | 1184.0 | 1192.1 | 1203.7 | 1217.0 | 1228.6 | 1239.6 | 1250.6 | 1255.8 | 1251.7 |
| 25° | 1193.3 | 1195.6 | 1200.8 | 1211.2 | 1224.0 | 1237.8 | 1251.1 | 1263.9 | 1273.7 | 1278.9 | 1276.0 |
| 27.5° | 1222.2 | 1225.1 | 1231.5 | 1241.9 | 1255.8 | 1270.8 | 1285.3 | 1295.7 | 1303.8 | 1305.5 | 1302.0 |
| 30° | 1265.6 | 1272.0 | 1279.5 | 1291.0 | 1307.2 | 1320.0 | 1334.4 | 1343.7 | 1353.5 | 1353.5 | 1350.6 |
| 32.5° | 1333.3 | 1339.6 | 1347.7 | 1358.7 | 1371.4 | 1385.3 | 1398.1 | 1406.2 | 1416.6 | 1417.1 | 1410.2 |
| 35° | 1434.5 | 1437.4 | 1444.3 | 1451.3 | 1462.8 | 1475.0 | 1486.0 | 1491.2 | 1499.9 | 1500.4 | 1494.1 |
| 37.5° | 1568.1 | 1568.7 | 1573.3 | 1575.6 | 1586.0 | 1599.3 | 1609.8 | 1613.2 | 1621.3 | 1620.2 | 1613.8 |
| 40° | 1723.7 | 1726.6 | 1728.3 | 1731.8 | 1742.8 | 1755.5 | 1766.5 | 1768.3 | 1776.9 | 1775.2 | 1767.1 |
| 42.5° | 1903.6 | 1904.8 | 1914.6 | 1919.8 | 1930.2 | 1936.6 | 1950.5 | 1952.2 | 1962.6 | 1958.0 | 1948.7 |
| 45° | 2105.5 | 2115.9 | 2125.1 | 2135.6 | 2146.5 | 2154.1 | 2165.1 | 2162.7 | 2169.7 | 2162.7 | 2157.5 |
| 47.5° | 2317.8 | 2325.3 | 2346.1 | 2362.3 | 2380.2 | 2386.6 | 2402.2 | 2395.3 | 2402.2 | 2392.4 | 2390.6 |
| 50° | 2551.4 | 2564.7 | 2582.7 | 2601.2 | 2620.3 | 2630.7 | 2650.9 | 2642.3 | 2651.5 | 2642.3 | 2637.0 |
| 52.5° | 2781.7 | 2785.1 | 2824.5 | 2851.6 | 2878.3 | 2890.4 | 2902.5 | 2898.5 | 2899.1 | 2898.5 | 2893.3 |
| 55° | 3000.3 | 3008.4 | 3047.7 | 3084.7 | 3131.0 | 3165.2 | 3186.0 | 3183.7 | 3178.5 | 3173.2 | 3164.6 |
| 57.5° | 3246.7 | 3254.8 | 3299.9 | 3345.6 | 3398.3 | 3446.8 | 3489.1 | 3532.5 | 3549.2 | 3553.9 | 3534.8 |
| 60° | 3579.9 | 3579.3 | 3639.5 | 3695.0 | 3770.2 | 3842.5 | 3935.0 | 4029.3 | 4137.5 | 4187.8 | 4121.3 |
| 62.5° | 3918.8 | 3932.7 | 4019.5 | 4117.8 | 4272.8 | 4423.8 | 4594.4 | 4762.2 | 4933.4 | 5072.8 | 4924.7 |
| 65° | 3878.4 | 3931.6 | 4060.6 | 4283.3 | 4569.6 | 4909.7 | 5277.6 | 5666.8 | 6018.5 | 6260.3 | 5989.0 |
| 67.5° | 3361.2 | 3437.0 | 3568.3 | 3839.0 | 4197.1 | 4687.6 | 5305.3 | 6075.2 | 6970.0 | 7402.7 | 6866.5 |
| 70° | 2436.3 | 2521.9 | 2659.6 | 2923.9 | 3278.5 | 3744.7 | 4415.7 | 5340.0 | 6524.7 | 6960.8 | 6370.2 |
| 72.5° | 1212.4 | 1258.7 | 1343.7 | 1512.0 | 1780.4 | 2158.7 | 2767.2 | 3655.7 | 4703.8 | 5104.0 | 4564.4 |
| 75° | 411.8 | 433.2 | 447.7 | 502.7 | 587.7 | 736.3 | 1038.9 | 1598.2 | 2438.1 | 2922.8 | 2403.4 |
| 77.5° | 237.7 | 238.3 | 248.1 | 258.0 | 272.4 | 288.6 | 329.1 | 432.1 | 747.3 | 1061.4 | 773.4 |
| 80° | 153.9 | 153.3 | 161.4 | 168.9 | 178.7 | 186.8 | 189.1 | 200.1 | 230.8 | 273.6 | 244.7 |
| 82.5° | 79.8 | 89.7 | 107.6 | 117.4 | 135.9 | 139.4 | 134.8 | 130.7 | 138.2 | 143.4 | 146.9 |
| 85° | 44.0 | 38.2 | 57.3 | 74.0 | 82.1 | 83.3 | 83.3 | 78.7 | 81.6 | 79.8 | 86.8 |
| 87.5° | 20.2 | 18.5 | 22.6 | 36.4 | 38.8 | 33.0 | 34.7 | 30.7 | 22.0 | 21.4 | 24.3 |
| 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° | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 | 1253.5 |
| 2.5° | 1247.7 | 1248.2 | 1248.2 | 1250.0 | 1250.6 | 1251.7 | 1252.9 | 1253.5 |
| 5° | 1237.8 | 1239.6 | 1238.4 | 1240.1 | 1240.1 | 1241.3 | 1241.3 | 1241.9 |
| 7.5° | 1223.4 | 1225.1 | 1225.1 | 1225.1 | 1224.5 | 1226.3 | 1226.3 | 1226.3 |
| 10° | 1208.3 | 1209.5 | 1208.9 | 1207.8 | 1206.6 | 1208.3 | 1207.8 | 1207.2 |
| 12.5° | 1203.7 | 1200.8 | 1198.5 | 1197.3 | 1195.0 | 1195.6 | 1193.9 | 1193.9 |
| 15° | 1206.6 | 1201.4 | 1197.3 | 1195.6 | 1193.3 | 1192.1 | 1191.0 | 1191.6 |
| 17.5° | 1214.1 | 1207.8 | 1202.5 | 1199.7 | 1196.8 | 1195.0 | 1192.7 | 1193.3 |
| 20° | 1227.4 | 1219.9 | 1212.4 | 1206.6 | 1201.4 | 1198.5 | 1196.8 | 1196.2 |
| 22.5° | 1247.1 | 1236.1 | 1225.1 | 1216.4 | 1209.5 | 1205.4 | 1203.7 | 1202.5 |
| 25° | 1269.6 | 1257.5 | 1244.8 | 1234.9 | 1228.0 | 1222.8 | 1219.3 | 1219.3 |
| 27.5° | 1298.0 | 1288.2 | 1276.6 | 1265.0 | 1258.7 | 1253.5 | 1251.1 | 1250.0 |
| 30° | 1345.4 | 1336.2 | 1326.9 | 1315.9 | 1307.8 | 1302.6 | 1298.6 | 1295.1 |
| 32.5° | 1406.2 | 1398.6 | 1391.1 | 1383.0 | 1375.5 | 1368.6 | 1362.2 | 1359.3 |
| 35° | 1491.8 | 1486.0 | 1480.8 | 1471.5 | 1468.6 | 1464.6 | 1461.1 | 1458.2 |
| 37.5° | 1609.8 | 1607.4 | 1607.4 | 1597.6 | 1595.3 | 1593.6 | 1590.1 | 1590.7 |
| 40° | 1764.8 | 1767.1 | 1764.2 | 1760.7 | 1759.0 | 1754.4 | 1754.4 | 1758.4 |
| 42.5° | 1948.1 | 1949.9 | 1956.2 | 1950.5 | 1956.8 | 1951.0 | 1947.6 | 1950.5 |
| 45° | 2161.0 | 2167.4 | 2180.1 | 2174.3 | 2178.4 | 2168.5 | 2156.4 | 2157.0 |
| 47.5° | 2399.9 | 2405.7 | 2410.9 | 2406.8 | 2407.4 | 2391.2 | 2375.0 | 2371.0 |
| 50° | 2648.0 | 2650.4 | 2653.2 | 2647.5 | 2648.6 | 2630.7 | 2612.2 | 2612.8 |
| 52.5° | 2893.3 | 2904.3 | 2915.8 | 2900.2 | 2896.8 | 2876.5 | 2850.5 | 2840.1 |
| 55° | 3173.8 | 3189.4 | 3176.1 | 3149.0 | 3121.8 | 3094.6 | 3060.5 | 3054.7 |
| 57.5° | 3519.7 | 3493.1 | 3451.5 | 3400.0 | 3362.4 | 3324.2 | 3289.5 | 3275.1 |
| 60° | 4001.0 | 3900.9 | 3825.7 | 3749.4 | 3701.4 | 3654.5 | 3608.8 | 3601.9 |
| 62.5° | 4681.2 | 4508.3 | 4358.4 | 4200.5 | 4071.5 | 3970.9 | 3890.5 | 3867.9 |
| 65° | 5533.8 | 5124.9 | 4770.3 | 4439.4 | 4151.9 | 3935.0 | 3798.5 | 3738.4 |
| 67.5° | 5900.5 | 5093.0 | 4485.1 | 4015.4 | 3639.5 | 3376.9 | 3229.4 | 3155.9 |
| 70° | 5185.0 | 4223.7 | 3562.5 | 3092.3 | 2749.8 | 2469.9 | 2336.3 | 2257.6 |
| 72.5° | 3567.2 | 2686.8 | 2124.6 | 1734.1 | 1460.5 | 1226.3 | 1133.7 | 1126.8 |
| 75° | 1601.7 | 1060.8 | 731.1 | 563.4 | 474.3 | 412.4 | 393.3 | 378.9 |
| 77.5° | 448.3 | 331.4 | 295.6 | 276.5 | 258.0 | 236.6 | 228.5 | 230.2 |
| 80° | 218.1 | 205.9 | 197.8 | 185.7 | 168.9 | 151.0 | 142.9 | 146.3 |
| 82.5° | 144.6 | 142.9 | 148.1 | 139.4 | 115.1 | 97.8 | 82.1 | 75.2 |
| 85° | 87.9 | 89.1 | 90.8 | 91.4 | 77.5 | 54.4 | 37.0 | 41.6 |
| 87.5° | 34.7 | 39.9 | 43.4 | 45.1 | 42.2 | 26.0 | 20.8 | 21.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)