

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: LUMARK

Report Number: P143717

Luminaire Tested: **LDRC-5MQ-F04-E-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143717
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33697)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRC-5MQ-F04-E-7060
Description: RC LED ROADWAY SMALL CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (28) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10529.7 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

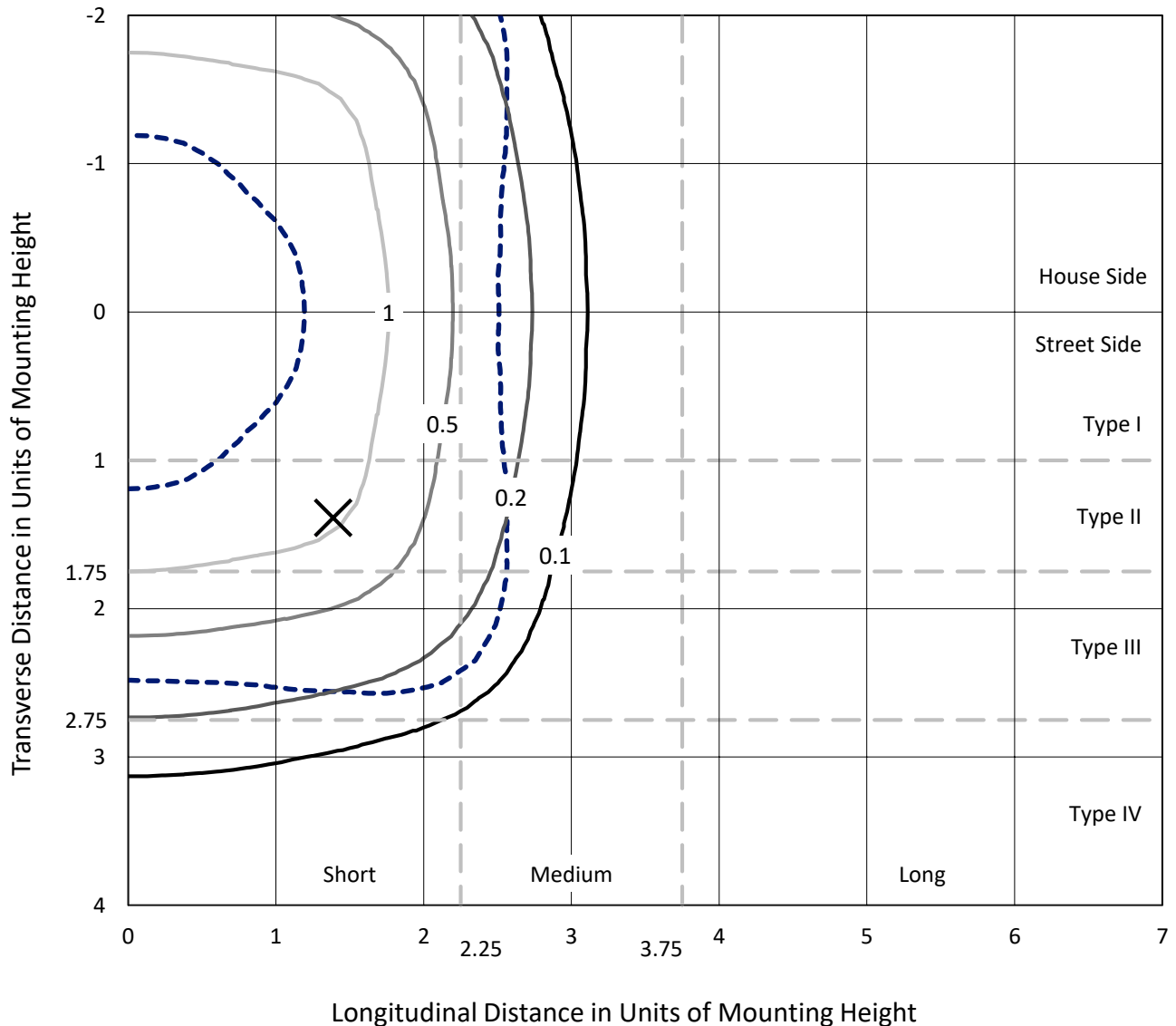
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

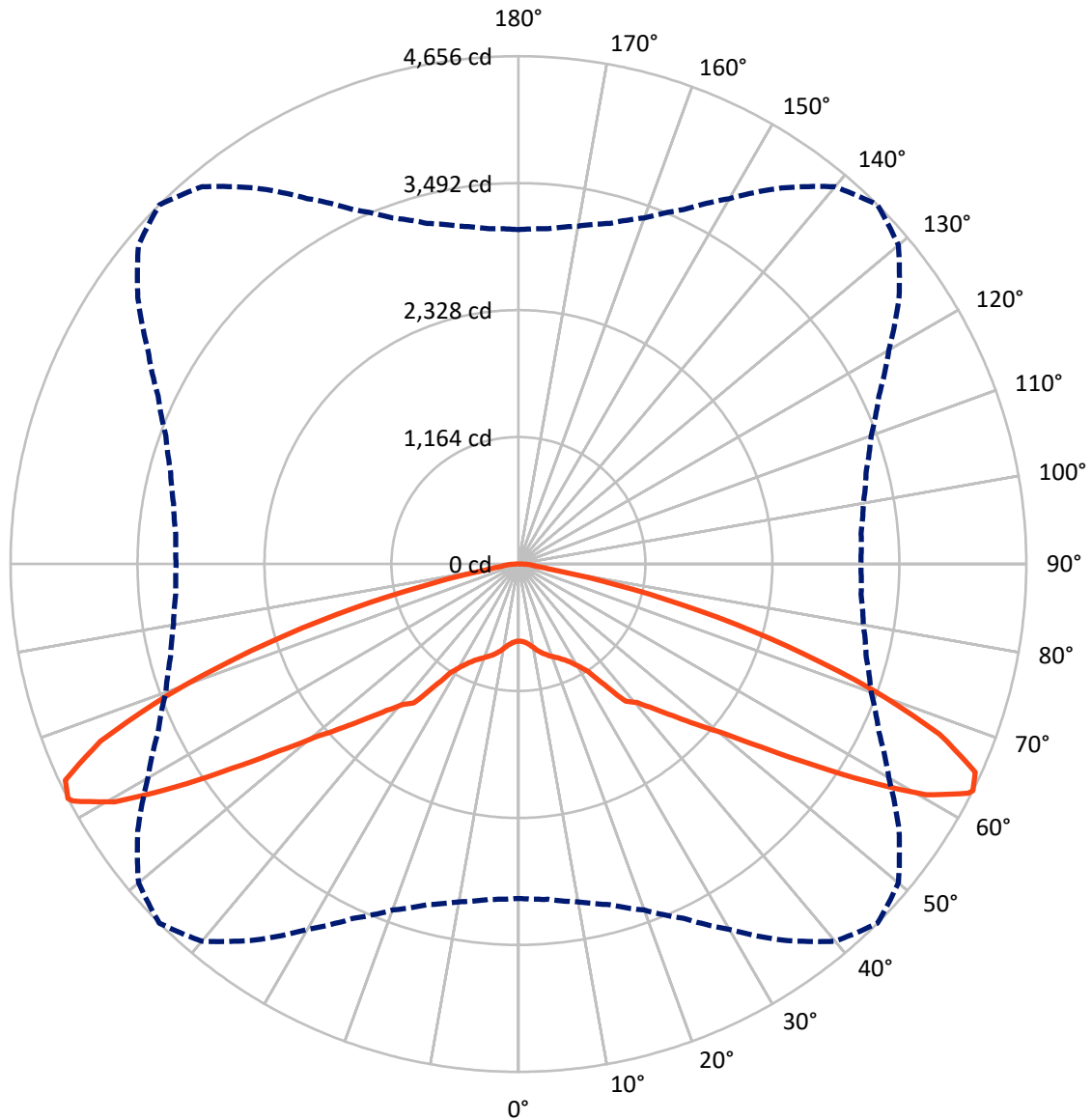
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5264.9 | 0.0 | 5264.9 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5264.9 | 0.0 | 5264.9 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10529.7 | 0.0 | 10529.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 71.2 | 0.7 |
| 10°-20° | 243.1 | 2.3 |
| 20°-30° | 464.3 | 4.4 |
| 30°-40° | 884.6 | 8.4 |
| 40°-50° | 1523.2 | 14.5 |
| 50°-60° | 2721.9 | 25.8 |
| 60°-70° | 3315.3 | 31.5 |
| 70°-80° | 1180.9 | 11.2 |
| 80°-90° | 125.2 | 1.2 |
| 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° | 10529.7 | 100.0 |
| 0°-180° | 10529.7 | 100.0 |



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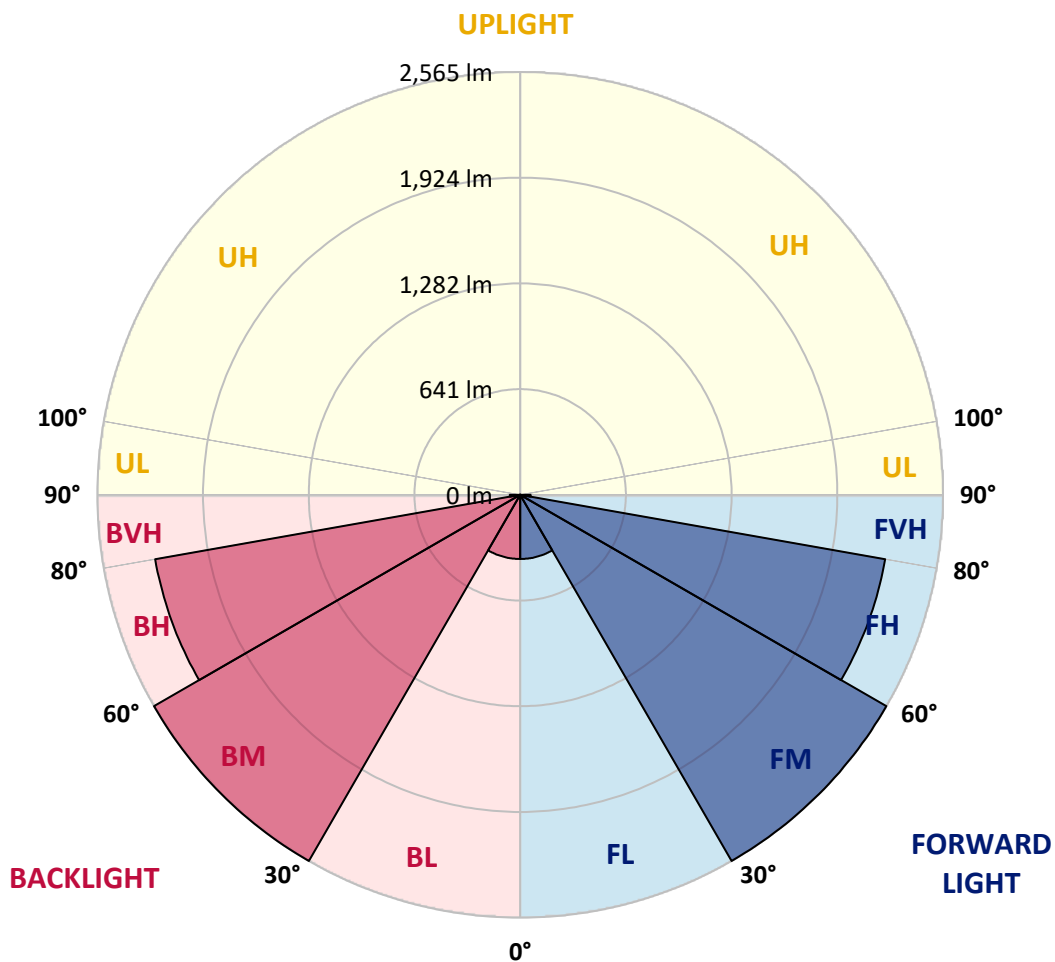
CATALOG NUMBER: LDRC-5MQ-F04-E-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 389.3 | 3.7 | | | |
| FM (30°-60°) | 2564.8 | 24.4 | | | |
| FH (60°-80°) | 2248.1 | 21.4 | | | G2/5000 |
| FVH (80°-90°) | 62.6 | 0.6 | | | G1/100 |
| BL (0°-30°) | 389.3 | 3.7 | B1/500 | | |
| BM (30°-60°) | 2564.8 | 24.4 | B3/5000 | | |
| BH (60°-80°) | 2248.1 | 21.4 | B3/2500 | | G2/5000 |
| BVH (80°-90°) | 62.6 | 0.6 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 |
| 2.5° | 712.2 | 711.5 | 712.2 | 710.9 | 710.9 | 710.2 | 710.2 | 710.2 | 708.8 | 710.2 | 708.8 |
| 5° | 727.1 | 726.5 | 727.1 | 725.8 | 725.8 | 724.4 | 724.4 | 724.4 | 723.1 | 724.4 | 723.7 |
| 7.5° | 752.9 | 754.2 | 752.9 | 751.5 | 751.5 | 750.2 | 749.5 | 749.5 | 748.8 | 748.1 | 749.5 |
| 10° | 788.8 | 790.2 | 788.1 | 786.8 | 786.1 | 785.4 | 784.1 | 783.4 | 783.4 | 780.7 | 781.3 |
| 12.5° | 826.7 | 826.7 | 824.7 | 824.0 | 824.0 | 822.7 | 820.0 | 819.3 | 819.3 | 817.9 | 816.6 |
| 15° | 860.6 | 860.6 | 859.3 | 856.6 | 857.2 | 855.2 | 853.2 | 851.8 | 851.8 | 850.5 | 849.1 |
| 17.5° | 891.8 | 891.8 | 889.8 | 887.1 | 885.7 | 885.0 | 882.3 | 881.0 | 881.0 | 879.6 | 878.2 |
| 20° | 923.0 | 924.3 | 920.9 | 918.2 | 915.5 | 912.8 | 910.1 | 908.7 | 906.7 | 907.4 | 906.7 |
| 22.5° | 960.2 | 960.9 | 955.5 | 952.1 | 946.7 | 943.3 | 939.2 | 937.9 | 935.2 | 935.2 | 936.5 |
| 25° | 1007.7 | 1007.0 | 1000.9 | 994.8 | 988.7 | 981.9 | 975.8 | 974.5 | 971.8 | 971.1 | 971.8 |
| 27.5° | 1070.0 | 1069.3 | 1061.9 | 1053.8 | 1045.6 | 1035.5 | 1028.0 | 1023.9 | 1021.9 | 1019.2 | 1020.6 |
| 30° | 1146.6 | 1148.0 | 1139.1 | 1129.7 | 1119.5 | 1107.3 | 1097.8 | 1092.4 | 1088.3 | 1085.6 | 1087.0 |
| 32.5° | 1302.5 | 1301.1 | 1287.6 | 1267.2 | 1245.5 | 1217.1 | 1194.0 | 1184.6 | 1177.1 | 1174.4 | 1176.4 |
| 35° | 1459.0 | 1457.6 | 1452.2 | 1446.1 | 1440.7 | 1422.4 | 1405.5 | 1385.8 | 1369.6 | 1359.4 | 1362.1 |
| 37.5° | 1532.9 | 1532.9 | 1528.8 | 1527.4 | 1527.4 | 1538.3 | 1551.8 | 1576.2 | 1595.2 | 1596.6 | 1590.5 |
| 40° | 1648.1 | 1648.1 | 1641.3 | 1637.9 | 1635.9 | 1639.3 | 1648.1 | 1656.9 | 1666.4 | 1668.4 | 1661.6 |
| 42.5° | 1783.6 | 1777.5 | 1772.8 | 1766.0 | 1765.3 | 1768.7 | 1778.2 | 1789.0 | 1798.5 | 1806.6 | 1792.4 |
| 45° | 1930.0 | 1924.6 | 1919.8 | 1915.7 | 1918.5 | 1927.3 | 1940.1 | 1959.1 | 1972.7 | 1984.9 | 1973.3 |
| 47.5° | 2093.3 | 2081.8 | 2086.5 | 2082.5 | 2089.2 | 2106.8 | 2129.9 | 2158.3 | 2172.6 | 2194.3 | 2176.0 |
| 50° | 2296.6 | 2299.3 | 2296.6 | 2296.6 | 2304.7 | 2327.8 | 2361.6 | 2400.3 | 2424.7 | 2436.9 | 2426.0 |
| 52.5° | 2598.8 | 2590.7 | 2572.4 | 2577.8 | 2588.7 | 2625.3 | 2669.3 | 2723.5 | 2754.7 | 2783.8 | 2749.9 |
| 55° | 2929.5 | 2930.9 | 2928.2 | 2935.6 | 2956.6 | 2993.9 | 3049.5 | 3131.5 | 3170.8 | 3221.6 | 3180.9 |
| 57.5° | 3203.3 | 3212.8 | 3229.1 | 3251.4 | 3296.8 | 3359.2 | 3468.3 | 3593.6 | 3698.0 | 3752.9 | 3689.2 |
| 60° | 3292.1 | 3301.6 | 3340.9 | 3403.2 | 3488.6 | 3616.0 | 3792.9 | 4007.7 | 4195.4 | 4293.0 | 4209.6 |
| 62.5° | 3121.3 | 3138.9 | 3197.2 | 3283.3 | 3424.2 | 3623.5 | 3886.4 | 4204.2 | 4493.6 | 4627.1 | 4526.1 |
| 63° | 3065.7 | 3085.4 | 3145.0 | 3232.4 | 3376.1 | 3584.1 | 3868.1 | 4208.3 | 4514.6 | 4655.5 | 4546.4 |
| 65° | 2819.1 | 2831.9 | 2895.0 | 2994.6 | 3154.5 | 3371.4 | 3687.2 | 4089.7 | 4438.7 | 4602.0 | 4486.1 |
| 67.5° | 2430.8 | 2447.7 | 2505.3 | 2591.4 | 2746.6 | 2976.3 | 3286.7 | 3687.8 | 4031.4 | 4162.2 | 4063.3 |
| 70° | 1949.6 | 1968.6 | 2016.0 | 2096.0 | 2218.0 | 2430.8 | 2696.4 | 3071.2 | 3329.3 | 3431.7 | 3326.0 |
| 72.5° | 1370.2 | 1378.4 | 1412.9 | 1497.0 | 1588.4 | 1757.9 | 1968.6 | 2260.0 | 2508.0 | 2575.1 | 2473.5 |
| 75° | 580.1 | 580.8 | 626.2 | 679.7 | 794.2 | 963.0 | 1146.6 | 1397.3 | 1620.3 | 1724.6 | 1595.9 |
| 77.5° | 185.7 | 187.7 | 200.6 | 220.2 | 258.2 | 333.4 | 468.9 | 606.5 | 811.2 | 910.1 | 789.5 |
| 80° | 155.2 | 157.9 | 163.3 | 167.4 | 170.1 | 174.2 | 189.7 | 211.4 | 266.3 | 309.7 | 250.1 |
| 82.5° | 133.5 | 138.2 | 150.4 | 155.2 | 157.9 | 159.3 | 161.3 | 160.6 | 157.2 | 155.9 | 156.5 |
| 85° | 101.6 | 113.2 | 126.7 | 137.6 | 138.9 | 139.6 | 143.7 | 145.0 | 134.2 | 123.3 | 134.2 |
| 87.5° | 44.0 | 56.9 | 87.4 | 96.9 | 94.9 | 88.1 | 94.2 | 99.6 | 90.8 | 66.4 | 88.8 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 | 706.8 |
| 2.5° | 709.5 | 710.9 | 710.9 | 710.9 | 710.9 | 711.5 | 712.2 | 711.5 |
| 5° | 724.4 | 725.8 | 725.1 | 725.8 | 725.8 | 726.5 | 727.1 | 726.5 |
| 7.5° | 750.2 | 750.2 | 750.2 | 751.5 | 751.5 | 752.9 | 752.9 | 752.9 |
| 10° | 782.0 | 781.3 | 781.3 | 782.7 | 784.1 | 784.7 | 786.1 | 785.4 |
| 12.5° | 816.6 | 815.2 | 815.9 | 817.3 | 818.6 | 819.3 | 820.6 | 820.0 |
| 15° | 847.8 | 847.1 | 847.1 | 849.1 | 849.8 | 850.5 | 853.2 | 853.2 |
| 17.5° | 877.6 | 877.6 | 877.6 | 880.3 | 881.0 | 883.7 | 885.7 | 885.7 |
| 20° | 907.4 | 907.4 | 907.4 | 910.1 | 912.1 | 916.2 | 920.3 | 919.6 |
| 22.5° | 937.9 | 938.6 | 939.9 | 942.6 | 947.4 | 953.5 | 956.9 | 956.9 |
| 25° | 975.8 | 978.5 | 981.3 | 985.3 | 992.1 | 1000.2 | 1005.6 | 1007.7 |
| 27.5° | 1024.6 | 1030.7 | 1037.5 | 1043.6 | 1051.1 | 1061.2 | 1068.7 | 1070.0 |
| 30° | 1091.0 | 1099.8 | 1110.7 | 1118.8 | 1128.3 | 1139.8 | 1148.6 | 1153.4 |
| 32.5° | 1185.2 | 1206.9 | 1221.1 | 1250.3 | 1267.9 | 1287.6 | 1303.8 | 1310.6 |
| 35° | 1379.0 | 1400.7 | 1419.7 | 1439.4 | 1443.4 | 1450.2 | 1459.0 | 1461.0 |
| 37.5° | 1570.8 | 1553.2 | 1536.3 | 1535.6 | 1530.8 | 1532.2 | 1534.9 | 1538.3 |
| 40° | 1654.2 | 1648.7 | 1639.9 | 1643.3 | 1644.0 | 1644.0 | 1649.4 | 1650.1 |
| 42.5° | 1788.3 | 1775.5 | 1765.3 | 1773.4 | 1774.8 | 1776.1 | 1781.6 | 1787.7 |
| 45° | 1959.1 | 1939.5 | 1926.6 | 1921.8 | 1926.6 | 1925.2 | 1932.7 | 1934.0 |
| 47.5° | 2154.3 | 2128.5 | 2099.4 | 2089.9 | 2087.2 | 2081.1 | 2094.0 | 2092.6 |
| 50° | 2393.5 | 2352.2 | 2316.9 | 2303.4 | 2296.6 | 2293.2 | 2296.6 | 2296.6 |
| 52.5° | 2696.4 | 2655.1 | 2607.0 | 2591.4 | 2586.0 | 2593.4 | 2582.6 | 2594.1 |
| 55° | 3113.2 | 3046.1 | 2980.4 | 2959.3 | 2956.0 | 2952.6 | 2953.9 | 2958.7 |
| 57.5° | 3582.1 | 3462.8 | 3374.7 | 3323.2 | 3290.0 | 3273.8 | 3256.2 | 3253.4 |
| 60° | 4034.8 | 3817.9 | 3650.6 | 3536.7 | 3456.1 | 3395.1 | 3363.9 | 3353.1 |
| 62.5° | 4253.0 | 3935.9 | 3675.6 | 3481.8 | 3361.9 | 3262.3 | 3207.4 | 3193.1 |
| 63° | 4259.1 | 3920.9 | 3645.1 | 3440.5 | 3300.9 | 3211.4 | 3153.2 | 3138.2 |
| 65° | 4145.9 | 3761.0 | 3437.8 | 3212.8 | 3065.1 | 2971.5 | 2899.7 | 2884.1 |
| 67.5° | 3733.9 | 3360.5 | 3029.8 | 2801.4 | 2641.5 | 2566.3 | 2487.0 | 2485.0 |
| 70° | 3064.4 | 2731.0 | 2452.5 | 2242.4 | 2108.9 | 2034.3 | 1953.7 | 1955.7 |
| 72.5° | 2240.3 | 1944.2 | 1752.4 | 1588.4 | 1447.5 | 1377.0 | 1301.1 | 1308.6 |
| 75° | 1348.5 | 1084.3 | 911.5 | 769.1 | 624.1 | 537.4 | 479.1 | 445.9 |
| 77.5° | 576.7 | 394.4 | 283.3 | 225.0 | 189.7 | 175.5 | 168.7 | 166.7 |
| 80° | 200.6 | 177.5 | 167.4 | 164.7 | 162.6 | 159.9 | 155.2 | 150.4 |
| 82.5° | 162.6 | 162.6 | 157.2 | 156.5 | 150.4 | 145.7 | 133.5 | 127.4 |
| 85° | 144.3 | 141.6 | 136.9 | 134.9 | 133.5 | 123.3 | 107.7 | 99.6 |
| 87.5° | 95.6 | 88.8 | 84.7 | 86.7 | 84.0 | 75.2 | 46.1 | 36.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)