

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: P651662

Luminaire Tested: **GALN-SA1A-840-U-AFL-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P651662
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-SA1A-840-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 80 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2903.1 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G0

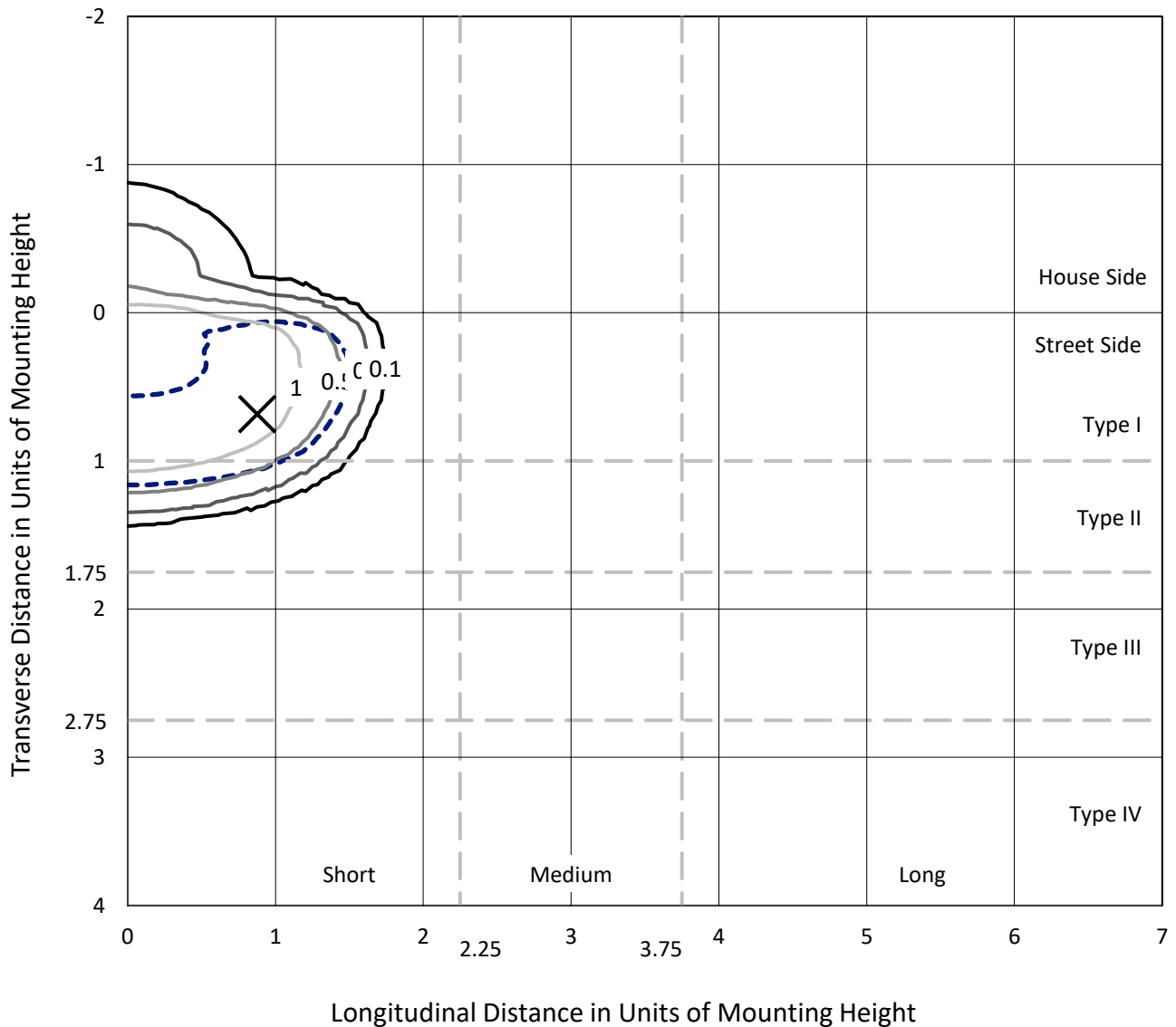
Input Watts (W): 33
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

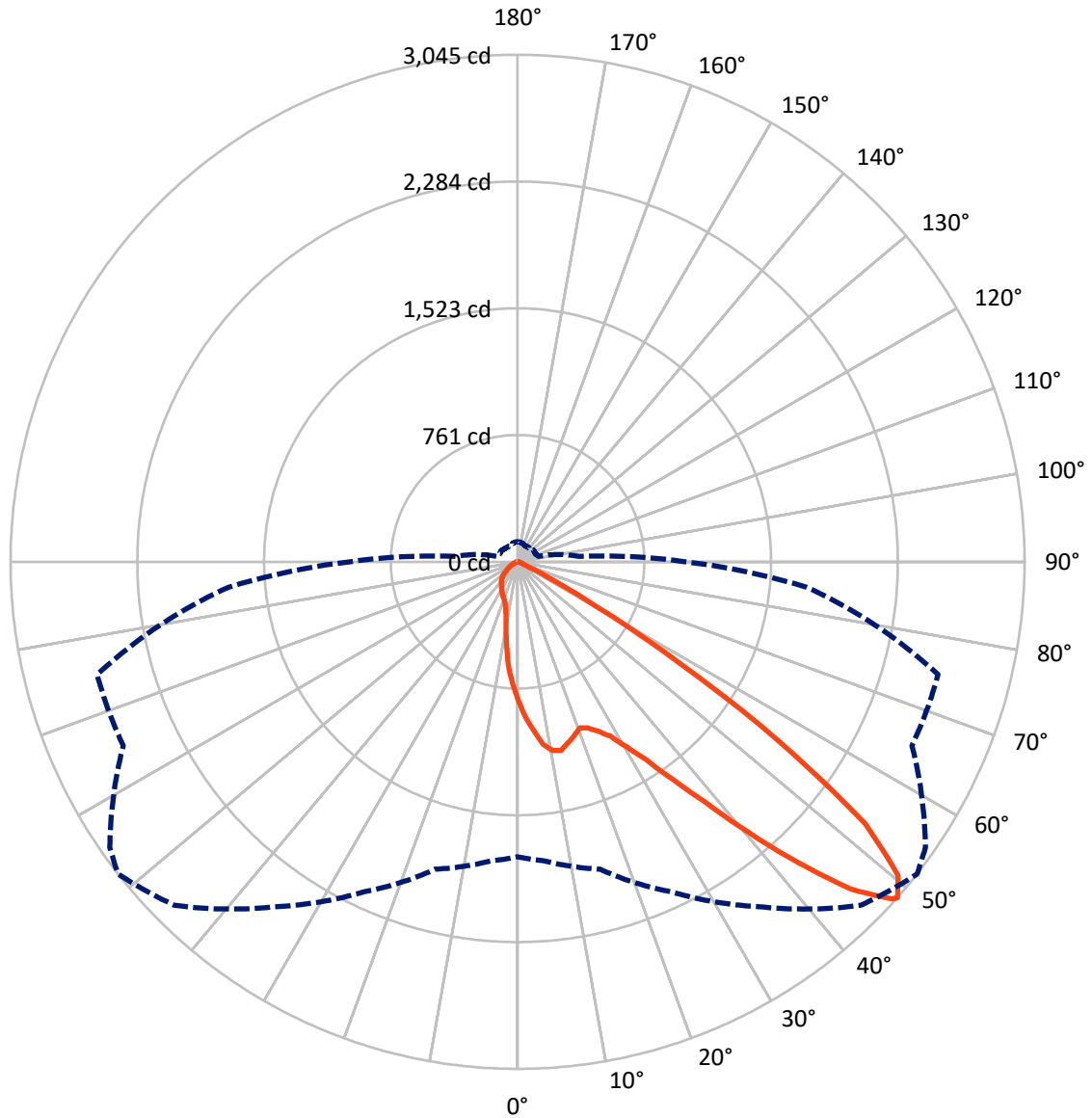
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 52-Deg Lateral - - - Horizontal Cone Through 48-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 353.5 | 0.0 | 353.5 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| Street Side | Lumens | 2549.6 | 0.0 | 2549.6 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| Total | Lumens | 2903.1 | 0.0 | 2903.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 76.7 | 2.6 |
| 10°-20° | 200.5 | 6.9 |
| 20°-30° | 342.4 | 11.8 |
| 30°-40° | 630.5 | 21.7 |
| 40°-50° | 979.2 | 33.7 |
| 50°-60° | 589.3 | 20.3 |
| 60°-70° | 68.2 | 2.3 |
| 70°-80° | 13.2 | 0.5 |
| 80°-90° | 3.0 | 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° | 2903.1 | 100.0 |
| 0°-180° | 2903.1 | 100.0 |

Coefficient of Utilization

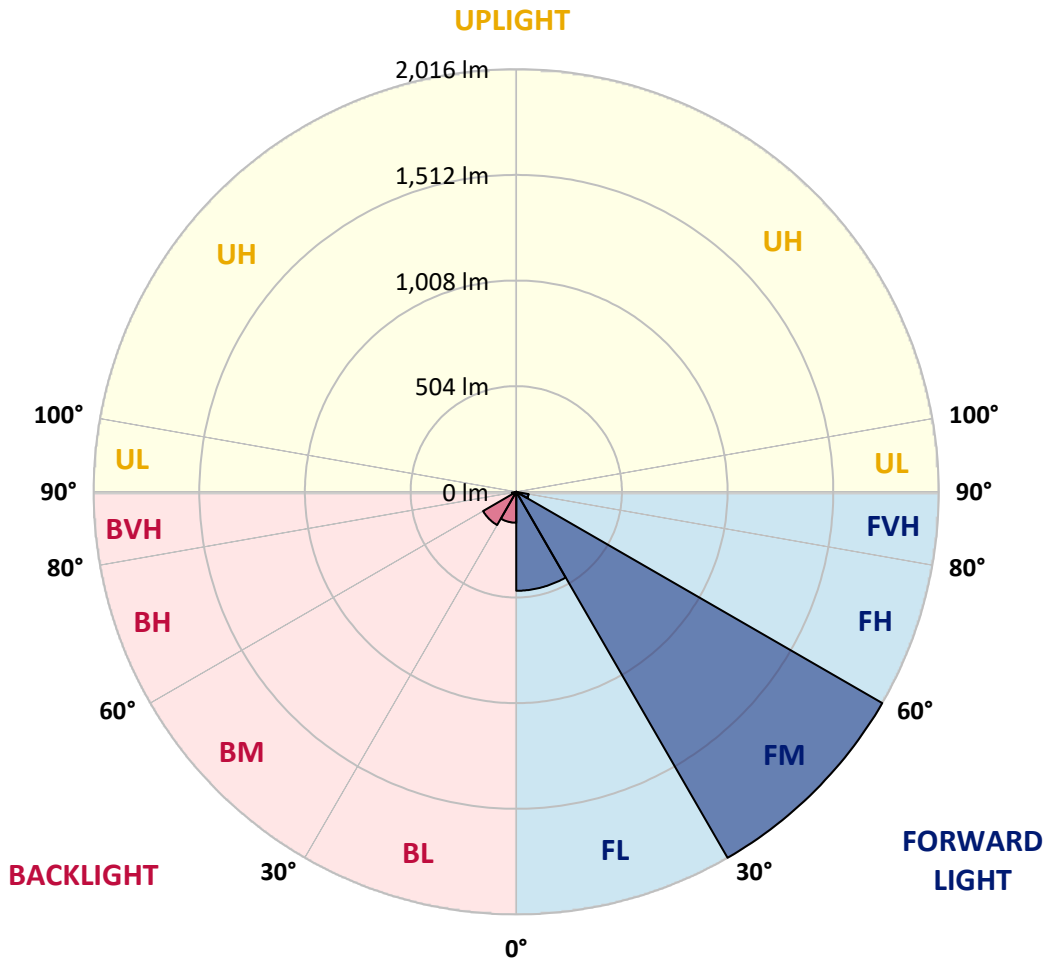


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 472.0 | 16.3 | | | |
| FM (30°-60°) | 2016.2 | 69.4 | | | |
| FH (60°-80°) | 60.0 | 2.1 | | | G0/660 |
| FVH (80°-90°) | 1.4 | 0.0 | | | G0/10 |
| BL (0°-30°) | 147.7 | 5.1 | B1/500 | | |
| BM (30°-60°) | 182.9 | 6.3 | B0/220 | | |
| BH (60°-80°) | 21.3 | 0.7 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.6 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G0
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 52° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 |
| 2.5° | 1016.1 | 992.9 | 995.0 | 979.8 | 970.9 | 956.5 | 937.0 | 933.2 | 912.0 | 883.2 | 854.0 |
| 5° | 1107.5 | 1102.0 | 1109.2 | 1087.2 | 1088.1 | 1064.4 | 1018.7 | 1019.5 | 970.9 | 923.8 | 878.6 |
| 7.5° | 1113.5 | 1100.8 | 1107.9 | 1127.4 | 1138.9 | 1134.6 | 1108.8 | 1086.4 | 1040.2 | 971.3 | 905.3 |
| 10° | 997.1 | 1021.2 | 1028.8 | 1061.0 | 1106.7 | 1154.9 | 1152.0 | 1153.3 | 1114.7 | 1024.6 | 928.1 |
| 12.5° | 927.3 | 911.1 | 937.0 | 956.5 | 1025.4 | 1119.0 | 1161.7 | 1171.0 | 1174.0 | 1076.2 | 950.9 |
| 15° | 895.5 | 895.5 | 899.7 | 905.3 | 955.2 | 1041.5 | 1128.7 | 1155.8 | 1219.7 | 1143.9 | 986.9 |
| 17.5° | 915.4 | 914.6 | 920.5 | 909.0 | 927.7 | 994.1 | 1098.3 | 1129.1 | 1270.9 | 1210.4 | 1015.3 |
| 20° | 975.9 | 978.8 | 975.1 | 942.1 | 943.3 | 993.3 | 1064.4 | 1113.1 | 1305.6 | 1267.9 | 1052.9 |
| 22.5° | 1060.2 | 1061.8 | 1040.2 | 1004.2 | 993.7 | 1018.2 | 1083.8 | 1121.1 | 1333.5 | 1336.9 | 1064.4 |
| 25° | 1157.5 | 1150.7 | 1146.5 | 1095.7 | 1063.5 | 1084.7 | 1127.9 | 1149.4 | 1350.9 | 1396.1 | 1096.9 |
| 27.5° | 1292.4 | 1278.9 | 1253.1 | 1207.8 | 1184.1 | 1154.1 | 1185.0 | 1220.5 | 1400.4 | 1479.2 | 1132.5 |
| 30° | 1491.8 | 1480.0 | 1429.6 | 1371.2 | 1309.0 | 1279.3 | 1289.1 | 1308.6 | 1489.7 | 1575.2 | 1179.5 |
| 32.5° | 1791.8 | 1766.9 | 1694.1 | 1582.8 | 1498.2 | 1416.5 | 1414.0 | 1434.7 | 1569.6 | 1708.1 | 1235.3 |
| 35° | 2122.4 | 2114.8 | 2007.7 | 1893.0 | 1729.3 | 1603.1 | 1605.2 | 1616.2 | 1722.9 | 1882.4 | 1308.6 |
| 37.5° | 2342.0 | 2383.9 | 2315.8 | 2192.7 | 2055.1 | 1874.8 | 1829.1 | 1832.9 | 1933.2 | 2089.0 | 1440.6 |
| 40° | 2511.7 | 2476.2 | 2484.2 | 2455.5 | 2361.5 | 2238.7 | 2137.7 | 2117.7 | 2176.6 | 2317.5 | 1571.8 |
| 42.5° | 2437.7 | 2439.4 | 2488.9 | 2557.1 | 2580.3 | 2571.4 | 2468.2 | 2430.5 | 2384.7 | 2504.6 | 1696.6 |
| 45° | 2228.6 | 2272.2 | 2336.6 | 2516.9 | 2675.1 | 2823.7 | 2803.3 | 2740.7 | 2528.6 | 2652.7 | 1768.6 |
| 47.5° | 1895.1 | 1893.4 | 1998.8 | 2233.3 | 2585.0 | 2932.8 | 3025.1 | 2981.1 | 2630.6 | 2636.2 | 1753.7 |
| 48° | 1772.0 | 1802.4 | 1911.2 | 2187.1 | 2527.8 | 2916.8 | 3045.0 | 2989.6 | 2613.3 | 2614.2 | 1741.1 |
| 50° | 1309.9 | 1304.3 | 1439.8 | 1778.3 | 2257.8 | 2740.7 | 2961.2 | 3004.4 | 2612.9 | 2502.8 | 1652.2 |
| 52.5° | 692.0 | 715.6 | 814.3 | 1118.1 | 1596.3 | 2243.0 | 2612.1 | 2679.3 | 2520.6 | 2320.9 | 1524.4 |
| 55° | 294.1 | 265.8 | 341.5 | 504.9 | 898.0 | 1498.6 | 1916.3 | 2066.1 | 2131.3 | 2053.8 | 1333.5 |
| 57.5° | 105.0 | 114.7 | 132.0 | 190.0 | 377.5 | 820.1 | 1142.7 | 1259.1 | 1476.5 | 1507.1 | 908.6 |
| 60° | 67.3 | 68.5 | 74.1 | 87.2 | 141.8 | 316.1 | 542.1 | 634.8 | 733.4 | 757.2 | 424.0 |
| 62.5° | 52.1 | 52.5 | 55.0 | 57.1 | 67.3 | 122.7 | 203.5 | 241.2 | 250.5 | 215.4 | 111.3 |
| 65° | 43.6 | 44.0 | 44.8 | 44.8 | 47.9 | 57.5 | 71.1 | 78.3 | 76.2 | 75.4 | 63.1 |
| 67.5° | 33.5 | 34.3 | 36.0 | 36.0 | 37.7 | 35.2 | 39.4 | 41.9 | 47.4 | 57.5 | 53.7 |
| 70° | 26.2 | 26.7 | 27.9 | 28.8 | 28.8 | 25.4 | 28.3 | 30.9 | 34.7 | 42.7 | 42.3 |
| 72.5° | 20.4 | 21.2 | 22.0 | 22.0 | 20.8 | 17.3 | 20.4 | 22.5 | 25.0 | 29.6 | 28.8 |
| 75° | 15.6 | 15.6 | 16.1 | 13.1 | 10.2 | 8.9 | 12.3 | 14.8 | 18.6 | 19.4 | 16.1 |
| 77.5° | 4.2 | 4.6 | 4.2 | 3.8 | 4.2 | 6.3 | 8.1 | 9.3 | 11.9 | 11.9 | 10.6 |
| 80° | 0.0 | 0.4 | 1.3 | 2.5 | 4.2 | 5.9 | 7.2 | 8.1 | 9.3 | 10.2 | 9.8 |
| 82.5° | 0.0 | 0.4 | 1.3 | 2.5 | 3.8 | 4.6 | 6.3 | 6.8 | 7.7 | 8.9 | 8.9 |
| 85° | 0.0 | 0.4 | 0.8 | 1.7 | 2.5 | 2.9 | 2.9 | 2.5 | 2.5 | 2.1 | 1.7 |
| 87.5° | 0.0 | 0.0 | 0.4 | 0.8 | 0.8 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 | 838.4 |
| 2.5° | 842.6 | 829.5 | 809.6 | 778.3 | 748.2 | 728.7 | 710.1 | 689.4 | 678.0 | 677.2 | 670.8 |
| 5° | 852.8 | 823.2 | 775.7 | 722.0 | 664.5 | 614.9 | 565.0 | 532.4 | 503.2 | 487.1 | 484.2 |
| 7.5° | 858.2 | 819.7 | 743.2 | 653.0 | 554.8 | 474.0 | 418.1 | 377.1 | 361.0 | 349.2 | 348.8 |
| 10° | 869.7 | 813.8 | 694.5 | 561.6 | 440.1 | 358.4 | 319.9 | 301.3 | 292.4 | 289.1 | 284.0 |
| 12.5° | 878.2 | 802.8 | 644.5 | 467.7 | 347.8 | 297.1 | 280.1 | 275.9 | 276.4 | 278.0 | 275.9 |
| 15° | 890.0 | 793.1 | 577.3 | 383.8 | 292.0 | 267.4 | 267.4 | 268.3 | 274.3 | 275.1 | 274.7 |
| 17.5° | 889.2 | 774.1 | 507.9 | 316.1 | 258.2 | 254.7 | 256.0 | 264.1 | 267.9 | 269.1 | 266.2 |
| 20° | 899.3 | 756.3 | 436.3 | 270.0 | 239.1 | 244.2 | 252.6 | 254.7 | 259.4 | 260.3 | 256.9 |
| 22.5° | 896.3 | 711.8 | 369.9 | 233.6 | 224.7 | 234.5 | 242.9 | 245.5 | 244.2 | 241.6 | 241.2 |
| 25° | 890.9 | 673.7 | 309.0 | 209.5 | 214.1 | 224.7 | 232.8 | 228.1 | 225.6 | 226.0 | 226.4 |
| 27.5° | 881.1 | 625.5 | 258.6 | 192.6 | 199.7 | 215.4 | 215.0 | 213.3 | 215.8 | 213.7 | 215.8 |
| 30° | 879.4 | 577.3 | 217.1 | 177.3 | 189.1 | 200.6 | 201.4 | 204.4 | 207.4 | 203.5 | 207.4 |
| 32.5° | 882.0 | 524.4 | 187.5 | 168.0 | 182.8 | 183.3 | 192.6 | 195.5 | 193.4 | 184.9 | 185.8 |
| 35° | 901.5 | 483.7 | 165.9 | 162.9 | 172.7 | 173.1 | 182.0 | 178.2 | 168.9 | 163.7 | 166.8 |
| 37.5° | 942.5 | 449.9 | 155.8 | 158.3 | 159.1 | 164.7 | 165.1 | 157.4 | 158.3 | 157.9 | 159.5 |
| 40° | 995.0 | 424.0 | 148.5 | 154.1 | 153.2 | 157.0 | 141.8 | 146.0 | 149.8 | 151.0 | 152.0 |
| 42.5° | 1030.9 | 405.4 | 143.9 | 147.3 | 145.6 | 138.8 | 130.4 | 134.6 | 137.5 | 142.2 | 143.1 |
| 45° | 1047.0 | 390.6 | 138.4 | 135.4 | 135.4 | 123.1 | 119.8 | 120.6 | 127.4 | 132.5 | 131.6 |
| 47.5° | 1020.8 | 376.3 | 128.7 | 119.8 | 122.7 | 112.6 | 108.7 | 108.7 | 116.0 | 122.3 | 121.0 |
| 48° | 1010.6 | 370.3 | 129.1 | 116.4 | 118.5 | 110.8 | 107.1 | 106.2 | 114.3 | 120.2 | 120.2 |
| 50° | 960.3 | 348.3 | 118.1 | 107.1 | 102.9 | 102.0 | 99.5 | 100.3 | 105.4 | 110.8 | 110.8 |
| 52.5° | 862.1 | 300.9 | 99.9 | 91.8 | 84.2 | 89.3 | 90.6 | 88.9 | 91.4 | 96.5 | 96.0 |
| 55° | 719.5 | 231.1 | 80.0 | 76.2 | 70.2 | 75.8 | 78.3 | 76.2 | 73.7 | 77.5 | 77.5 |
| 57.5° | 460.9 | 124.4 | 63.9 | 64.8 | 58.8 | 64.3 | 66.4 | 61.4 | 56.7 | 59.7 | 59.3 |
| 60° | 207.8 | 74.5 | 52.5 | 51.2 | 47.4 | 53.7 | 57.1 | 51.2 | 44.8 | 47.0 | 49.1 |
| 62.5° | 77.9 | 52.9 | 39.8 | 38.9 | 38.1 | 44.0 | 45.7 | 41.0 | 34.7 | 36.0 | 36.4 |
| 65° | 57.1 | 46.6 | 31.7 | 28.8 | 30.4 | 34.7 | 33.9 | 29.2 | 25.0 | 25.0 | 25.8 |
| 67.5° | 48.7 | 40.6 | 25.8 | 22.5 | 22.5 | 22.9 | 21.2 | 18.6 | 17.3 | 18.2 | 19.0 |
| 70° | 38.1 | 32.1 | 20.4 | 17.3 | 15.6 | 14.0 | 12.3 | 11.9 | 10.6 | 11.9 | 11.4 |
| 72.5° | 24.6 | 21.6 | 15.6 | 13.1 | 11.9 | 9.8 | 8.1 | 7.7 | 6.3 | 5.9 | 5.9 |
| 75° | 13.1 | 13.1 | 12.3 | 10.6 | 9.3 | 7.7 | 6.3 | 5.0 | 3.4 | 2.5 | 2.5 |
| 77.5° | 9.3 | 10.2 | 11.0 | 10.2 | 8.5 | 6.3 | 5.0 | 3.4 | 1.7 | 0.8 | 0.8 |
| 80° | 8.9 | 10.2 | 11.0 | 9.8 | 8.5 | 6.3 | 4.6 | 2.5 | 1.3 | 0.4 | 0.4 |
| 82.5° | 8.1 | 9.3 | 10.2 | 8.9 | 7.7 | 5.5 | 4.2 | 2.5 | 1.3 | 0.4 | 0.4 |
| 85° | 1.7 | 2.1 | 2.5 | 2.5 | 2.9 | 3.8 | 2.9 | 2.1 | 0.8 | 0.4 | 0.4 |
| 87.5° | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 |
| 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)