

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: P321705

Luminaire Tested: **GLEON-SA1A-827-U-T3R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA1A-827-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 80 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE III ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2758 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B0 - U0 - G1

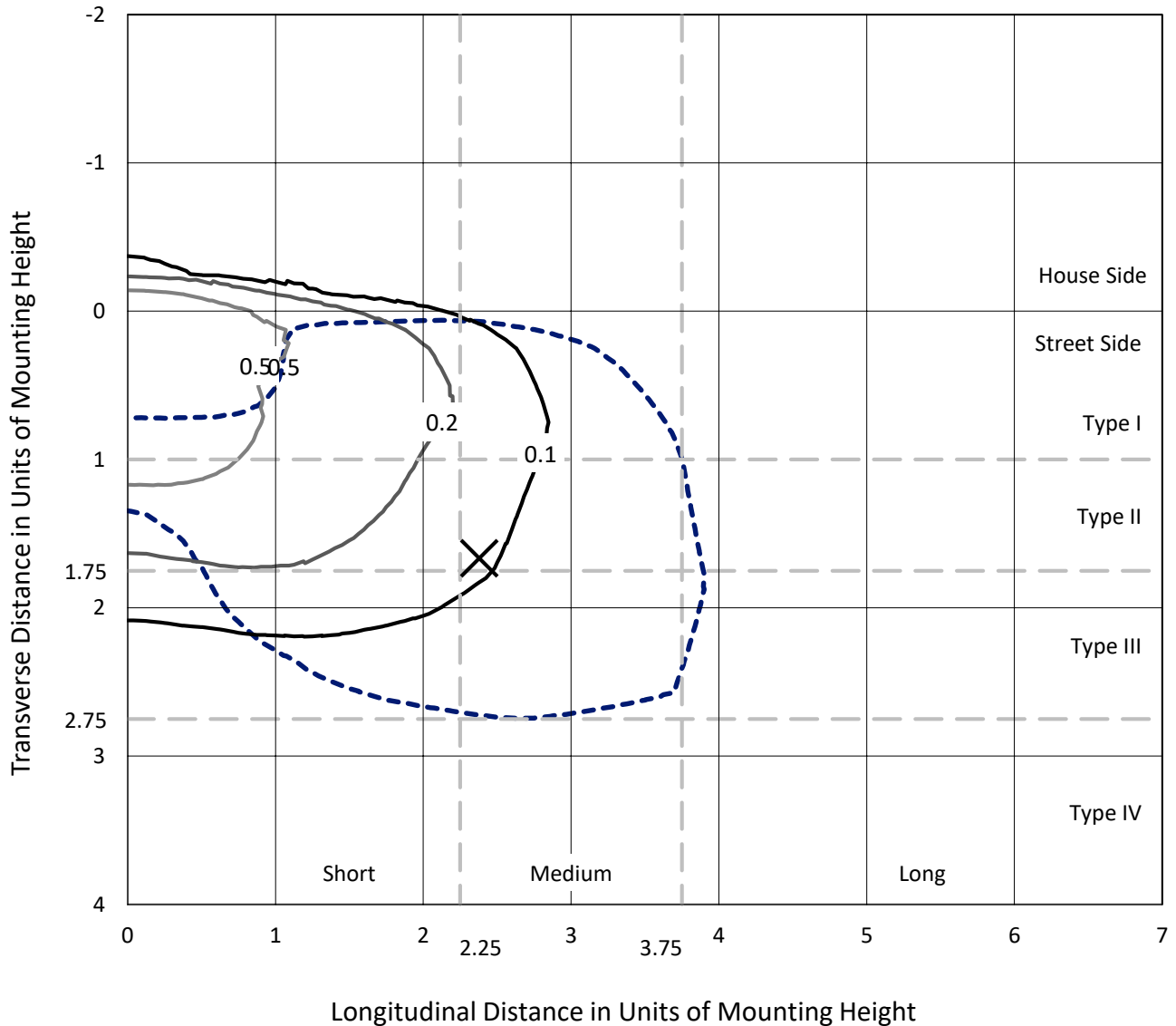
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

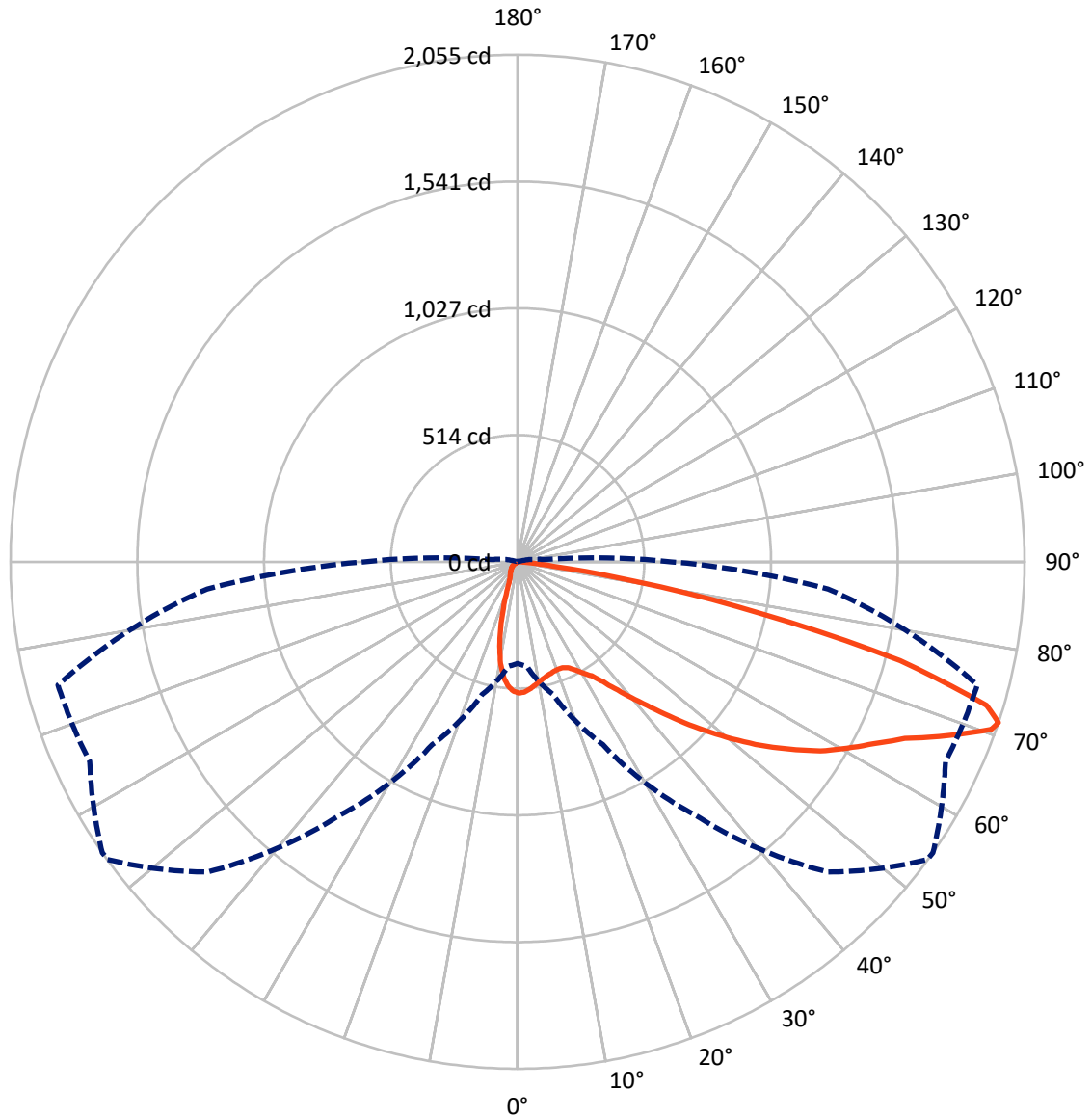
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 218.4 | 0.0 | 218.4 |
| | % Fixture | 7.9 | 0.0 | 7.9 |
| Street Side | Lumens | 2539.6 | 0.0 | 2539.6 |
| | % Fixture | 92.1 | 0.0 | 92.1 |
| Total | Lumens | 2758.0 | 0.0 | 2758.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 45.4 | 1.6 |
| 10°-20° | 102.4 | 3.7 |
| 20°-30° | 164.5 | 6.0 |
| 30°-40° | 279.5 | 10.1 |
| 40°-50° | 433.9 | 15.7 |
| 50°-60° | 583.4 | 21.2 |
| 60°-70° | 713.6 | 25.9 |
| 70°-80° | 417.3 | 15.1 |
| 80°-90° | 18.0 | 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° | 2758.0 | 100.0 |
| 0°-180° | 2758.0 | 100.0 |

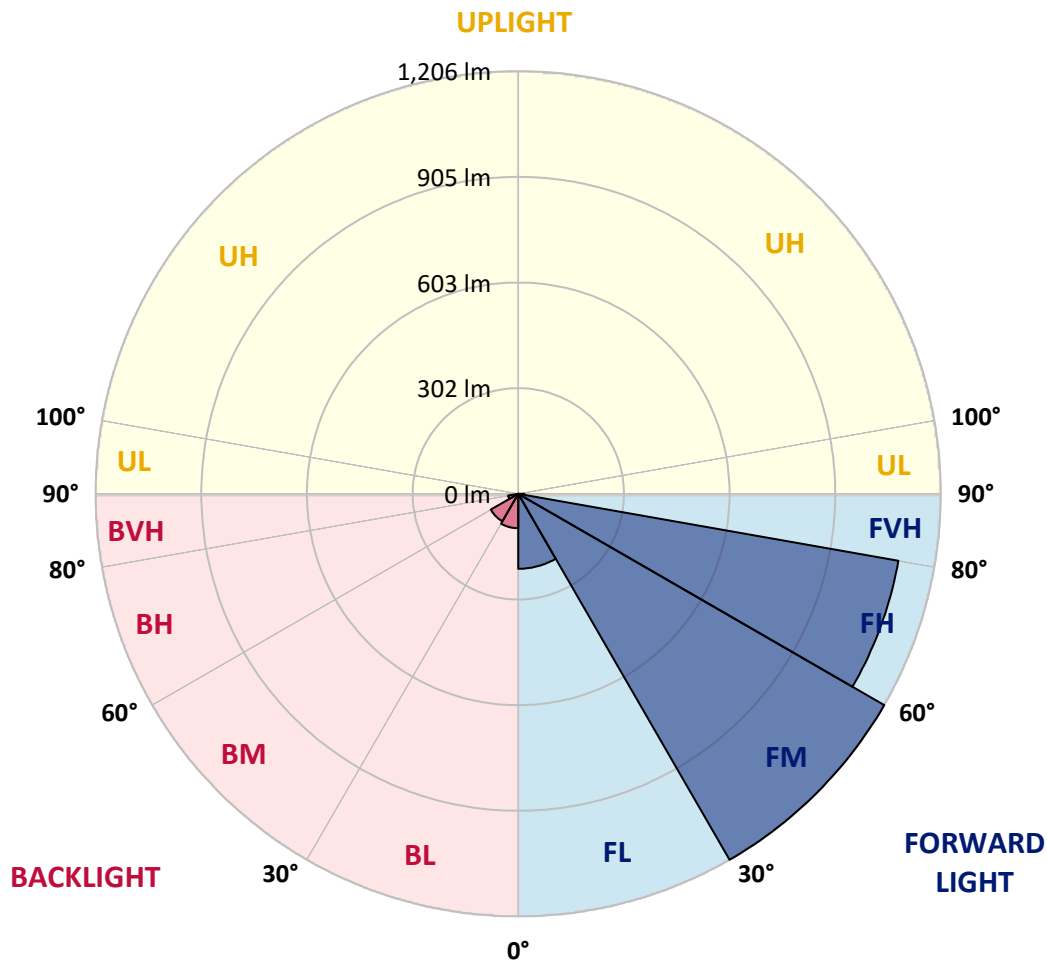


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 214.0 | 7.8 | | | |
| FM (30°-60°) | 1206.3 | 43.7 | | | |
| FH (60°-80°) | 1101.6 | 39.9 | | | G1/1800 |
| FVH (80°-90°) | 17.8 | 0.6 | | | G1/100 |
| BL (0°-30°) | 98.3 | 3.6 | B0/110 | | |
| BM (30°-60°) | 90.5 | 3.3 | B0/220 | | |
| BH (60°-80°) | 29.3 | 1.1 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.3 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 |
| 2.5° | 516.3 | 516.9 | 519.1 | 520.1 | 522.5 | 526.4 | 528.4 | 528.5 | 531.8 | 533.0 | 534.0 |
| 5° | 479.8 | 483.5 | 487.2 | 491.1 | 498.3 | 507.9 | 517.3 | 518.1 | 528.5 | 536.2 | 540.3 |
| 7.5° | 448.3 | 451.6 | 456.1 | 462.4 | 472.6 | 487.6 | 503.3 | 505.1 | 524.8 | 542.3 | 551.5 |
| 10° | 416.0 | 418.7 | 425.1 | 434.4 | 448.4 | 468.5 | 489.7 | 492.8 | 521.5 | 550.5 | 566.6 |
| 12.5° | 381.4 | 383.0 | 390.8 | 404.2 | 424.8 | 450.3 | 478.1 | 482.2 | 519.4 | 559.9 | 584.4 |
| 15° | 355.2 | 355.9 | 363.3 | 377.2 | 400.7 | 433.9 | 469.2 | 474.2 | 519.9 | 571.1 | 603.8 |
| 17.5° | 348.5 | 348.9 | 352.8 | 362.4 | 383.2 | 419.3 | 462.2 | 468.2 | 521.4 | 582.2 | 623.4 |
| 20° | 375.6 | 373.0 | 368.9 | 367.4 | 376.3 | 410.5 | 458.0 | 464.8 | 523.3 | 592.0 | 641.0 |
| 22.5° | 450.0 | 442.4 | 425.4 | 402.7 | 389.0 | 411.1 | 459.1 | 465.9 | 529.7 | 604.0 | 661.3 |
| 25° | 560.5 | 549.8 | 521.0 | 476.4 | 433.6 | 429.0 | 468.4 | 475.3 | 541.9 | 618.3 | 680.7 |
| 27.5° | 686.2 | 675.7 | 640.4 | 576.7 | 503.7 | 464.3 | 489.7 | 496.1 | 560.1 | 631.1 | 695.6 |
| 30° | 806.6 | 803.6 | 762.0 | 689.7 | 591.8 | 521.5 | 517.2 | 522.6 | 573.6 | 638.8 | 707.4 |
| 32.5° | 908.6 | 903.9 | 870.5 | 800.1 | 692.8 | 590.2 | 549.5 | 551.1 | 583.8 | 648.7 | 722.7 |
| 35° | 1003.2 | 997.4 | 968.1 | 901.6 | 796.3 | 674.2 | 599.3 | 596.9 | 605.9 | 668.6 | 745.0 |
| 37.5° | 1085.8 | 1091.1 | 1058.6 | 995.3 | 889.2 | 761.5 | 666.4 | 659.3 | 640.6 | 701.1 | 777.3 |
| 40° | 1154.9 | 1154.9 | 1138.0 | 1085.2 | 989.5 | 851.8 | 742.3 | 733.0 | 692.8 | 751.1 | 818.3 |
| 42.5° | 1179.8 | 1185.1 | 1191.5 | 1161.6 | 1079.3 | 945.6 | 826.9 | 817.2 | 766.2 | 822.0 | 870.1 |
| 45° | 1181.3 | 1189.7 | 1222.0 | 1221.9 | 1160.4 | 1038.9 | 922.2 | 917.6 | 860.3 | 913.2 | 934.2 |
| 47.5° | 1160.4 | 1170.9 | 1224.2 | 1254.4 | 1224.6 | 1125.7 | 1026.5 | 1020.8 | 970.9 | 1024.9 | 1001.4 |
| 50° | 1128.1 | 1139.7 | 1201.6 | 1267.1 | 1268.4 | 1201.2 | 1136.4 | 1127.8 | 1092.6 | 1152.6 | 1070.7 |
| 52.5° | 1070.2 | 1092.8 | 1181.4 | 1270.1 | 1297.1 | 1266.5 | 1240.9 | 1237.2 | 1228.9 | 1275.5 | 1125.9 |
| 55° | 946.5 | 971.5 | 1130.8 | 1271.1 | 1323.7 | 1324.3 | 1338.8 | 1339.8 | 1356.5 | 1390.5 | 1167.1 |
| 57.5° | 888.1 | 902.2 | 1042.4 | 1275.8 | 1363.2 | 1390.0 | 1438.6 | 1446.3 | 1472.2 | 1499.6 | 1214.0 |
| 60° | 851.3 | 868.0 | 998.8 | 1269.4 | 1425.3 | 1476.0 | 1531.2 | 1533.8 | 1561.5 | 1612.1 | 1277.5 |
| 62.5° | 821.9 | 838.4 | 971.3 | 1244.6 | 1495.0 | 1579.6 | 1621.6 | 1621.8 | 1642.6 | 1746.3 | 1349.7 |
| 65° | 749.5 | 763.3 | 915.7 | 1216.7 | 1541.1 | 1682.0 | 1726.6 | 1725.0 | 1741.9 | 1887.7 | 1433.6 |
| 67.5° | 644.7 | 655.4 | 802.1 | 1111.1 | 1523.7 | 1775.1 | 1885.1 | 1879.8 | 1859.2 | 2009.9 | 1466.5 |
| 70° | 498.5 | 502.3 | 632.2 | 925.9 | 1361.2 | 1810.9 | 2038.3 | 2035.5 | 1931.2 | 1988.0 | 1345.8 |
| 71° | 412.0 | 424.6 | 557.2 | 817.2 | 1252.4 | 1777.8 | 2053.1 | 2054.7 | 1913.1 | 1928.3 | 1262.7 |
| 72.5° | 239.3 | 250.0 | 403.8 | 627.6 | 1063.3 | 1639.9 | 1976.1 | 1987.7 | 1828.6 | 1753.9 | 1078.5 |
| 75° | 51.3 | 54.9 | 149.7 | 303.8 | 584.9 | 1149.4 | 1559.8 | 1601.2 | 1490.4 | 1193.2 | 650.0 |
| 77.5° | 35.7 | 38.5 | 64.1 | 137.8 | 193.3 | 567.9 | 968.9 | 1015.7 | 890.4 | 448.4 | 208.1 |
| 80° | 28.2 | 31.5 | 50.0 | 68.1 | 52.3 | 183.2 | 453.9 | 482.5 | 297.0 | 100.1 | 35.0 |
| 82.5° | 15.7 | 18.7 | 39.0 | 36.8 | 20.1 | 34.8 | 127.1 | 143.7 | 59.4 | 20.2 | 8.3 |
| 85° | 4.6 | 5.6 | 25.1 | 26.7 | 8.5 | 6.7 | 21.7 | 26.9 | 11.3 | 5.3 | 3.7 |
| 87.5° | 0.0 | 0.0 | 12.1 | 10.3 | 2.5 | 1.0 | 2.0 | 2.2 | 2.2 | 2.2 | 2.5 |
| 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° | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 | 531.9 |
| 2.5° | 534.0 | 534.9 | 531.8 | 527.7 | 523.3 | 518.0 | 512.4 | 508.1 | 508.0 | 505.9 | 503.8 |
| 5° | 540.6 | 540.1 | 531.5 | 518.5 | 503.2 | 487.2 | 472.0 | 454.7 | 449.0 | 442.0 | 439.6 |
| 7.5° | 552.7 | 549.2 | 531.1 | 502.7 | 469.0 | 435.5 | 401.0 | 366.2 | 351.3 | 338.0 | 335.6 |
| 10° | 567.9 | 561.4 | 528.8 | 478.9 | 417.1 | 355.4 | 303.3 | 256.0 | 235.2 | 219.2 | 218.5 |
| 12.5° | 583.8 | 573.7 | 522.2 | 443.0 | 349.1 | 262.4 | 202.4 | 155.8 | 138.5 | 127.3 | 128.3 |
| 15° | 600.4 | 585.4 | 508.1 | 394.6 | 271.7 | 178.1 | 124.3 | 97.0 | 90.0 | 87.2 | 87.9 |
| 17.5° | 617.3 | 593.4 | 488.4 | 336.2 | 195.3 | 114.9 | 86.1 | 78.4 | 78.4 | 79.0 | 79.3 |
| 20° | 632.1 | 597.8 | 459.4 | 270.8 | 132.4 | 83.7 | 75.3 | 74.2 | 74.8 | 75.8 | 75.9 |
| 22.5° | 646.7 | 598.0 | 421.7 | 204.6 | 92.6 | 73.3 | 71.7 | 71.2 | 71.6 | 72.7 | 72.8 |
| 25° | 658.6 | 595.0 | 374.4 | 145.5 | 73.9 | 69.1 | 68.4 | 68.1 | 68.4 | 69.7 | 69.7 |
| 27.5° | 663.4 | 584.3 | 316.7 | 102.3 | 66.3 | 64.4 | 64.1 | 64.4 | 64.8 | 65.8 | 65.9 |
| 30° | 663.9 | 565.5 | 253.7 | 74.1 | 60.1 | 58.1 | 58.6 | 59.4 | 59.1 | 58.8 | 59.1 |
| 32.5° | 665.1 | 543.7 | 192.4 | 60.9 | 54.9 | 51.8 | 51.1 | 51.1 | 49.7 | 48.8 | 48.3 |
| 35° | 669.2 | 518.0 | 139.6 | 54.7 | 49.5 | 45.9 | 43.6 | 40.9 | 38.0 | 36.5 | 36.2 |
| 37.5° | 675.7 | 491.1 | 99.9 | 50.7 | 44.8 | 40.7 | 36.3 | 31.5 | 27.4 | 26.3 | 26.3 |
| 40° | 687.4 | 463.4 | 73.9 | 47.4 | 41.1 | 36.0 | 29.3 | 23.0 | 19.3 | 18.7 | 18.7 |
| 42.5° | 706.0 | 434.2 | 58.9 | 44.6 | 37.9 | 31.2 | 22.4 | 16.7 | 14.0 | 13.6 | 13.5 |
| 45° | 725.3 | 402.0 | 51.5 | 41.9 | 34.4 | 25.6 | 16.6 | 12.4 | 10.8 | 10.4 | 10.4 |
| 47.5° | 744.6 | 367.7 | 47.9 | 39.3 | 31.1 | 19.9 | 12.4 | 9.8 | 9.0 | 9.0 | 9.2 |
| 50° | 761.0 | 331.9 | 45.3 | 36.4 | 26.7 | 15.1 | 9.8 | 8.3 | 8.0 | 8.5 | 8.7 |
| 52.5° | 765.1 | 296.7 | 42.1 | 32.8 | 21.4 | 11.5 | 8.0 | 7.3 | 7.3 | 7.3 | 7.3 |
| 55° | 762.6 | 269.5 | 37.9 | 28.4 | 15.9 | 9.2 | 6.9 | 6.4 | 6.3 | 6.3 | 6.3 |
| 57.5° | 771.0 | 253.4 | 30.3 | 22.0 | 11.4 | 7.4 | 6.1 | 5.7 | 5.4 | 5.3 | 5.3 |
| 60° | 788.0 | 242.8 | 21.7 | 15.9 | 8.5 | 6.2 | 5.2 | 4.8 | 4.5 | 4.2 | 4.2 |
| 62.5° | 810.5 | 233.7 | 16.1 | 11.8 | 6.6 | 5.0 | 4.3 | 4.0 | 3.5 | 3.2 | 3.2 |
| 65° | 827.9 | 217.3 | 12.3 | 8.8 | 5.0 | 4.0 | 3.3 | 3.2 | 2.5 | 2.2 | 2.1 |
| 67.5° | 801.4 | 181.4 | 9.9 | 6.4 | 3.7 | 3.1 | 2.6 | 2.5 | 1.5 | 1.2 | 1.2 |
| 70° | 687.3 | 126.3 | 7.9 | 4.7 | 2.7 | 2.5 | 2.1 | 1.6 | 1.1 | 1.0 | 1.0 |
| 71° | 623.3 | 105.5 | 7.2 | 4.0 | 2.4 | 2.4 | 2.0 | 1.4 | 1.0 | 0.9 | 0.9 |
| 72.5° | 517.8 | 74.9 | 6.1 | 3.1 | 2.1 | 2.5 | 2.1 | 1.2 | 1.0 | 0.9 | 0.7 |
| 75° | 300.6 | 31.3 | 4.2 | 2.1 | 1.6 | 3.0 | 2.7 | 1.1 | 0.7 | 0.6 | 0.6 |
| 77.5° | 90.4 | 11.5 | 2.4 | 1.4 | 1.2 | 2.6 | 3.1 | 1.0 | 0.4 | 0.1 | 0.1 |
| 80° | 16.5 | 5.0 | 1.5 | 0.9 | 0.9 | 1.6 | 2.4 | 0.5 | 0.0 | 0.0 | 0.0 |
| 82.5° | 5.8 | 2.5 | 0.9 | 0.5 | 0.4 | 0.7 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 3.3 | 1.7 | 0.5 | 0.2 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.2 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)