

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: INVUE

Report Number: P400992

Luminaire Tested: **ENT-SA1A-750-U-T2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400992
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-750-U-T2
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2721 lumens
Efficiency: N/A
Efficacy: 135.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

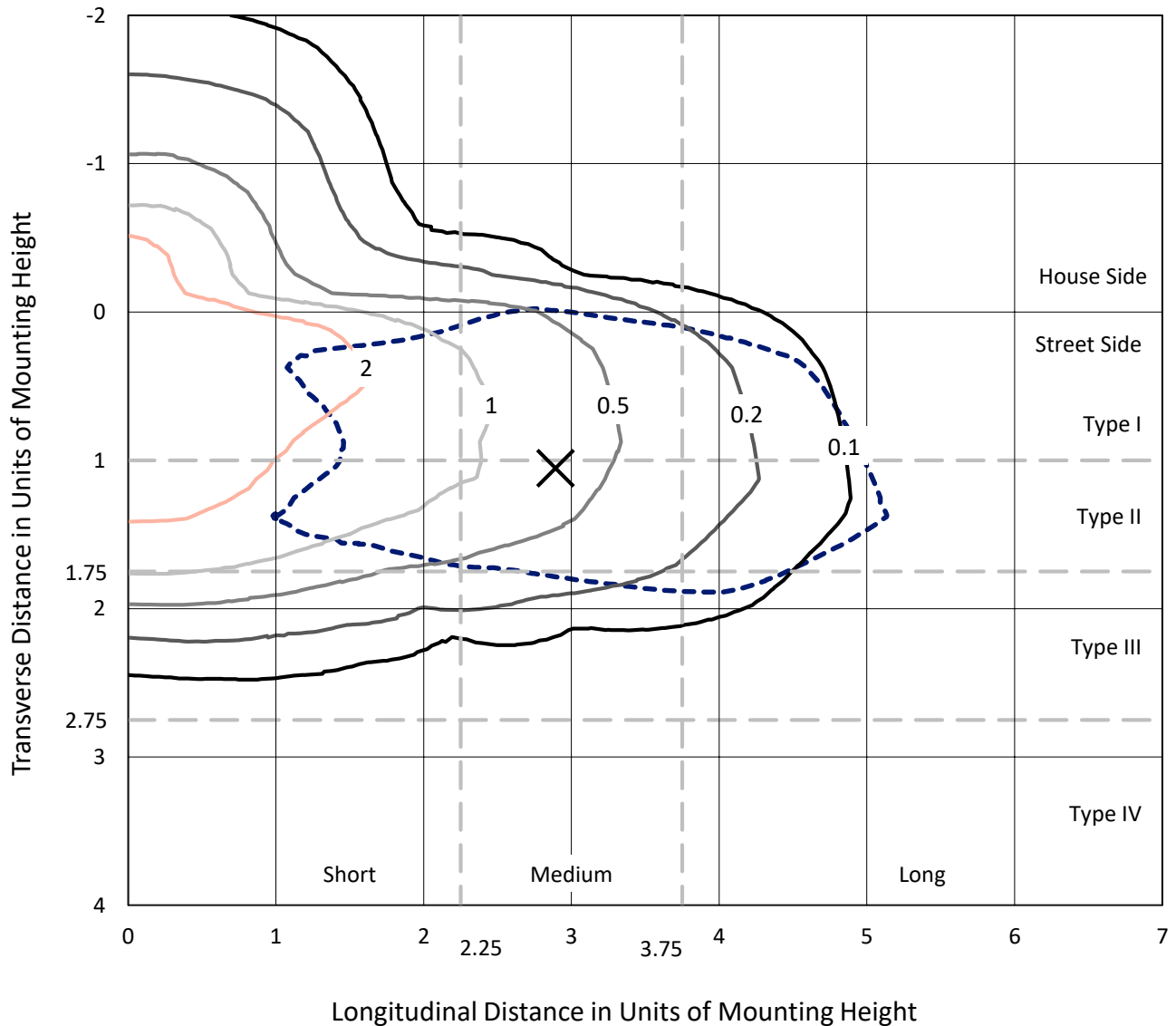
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

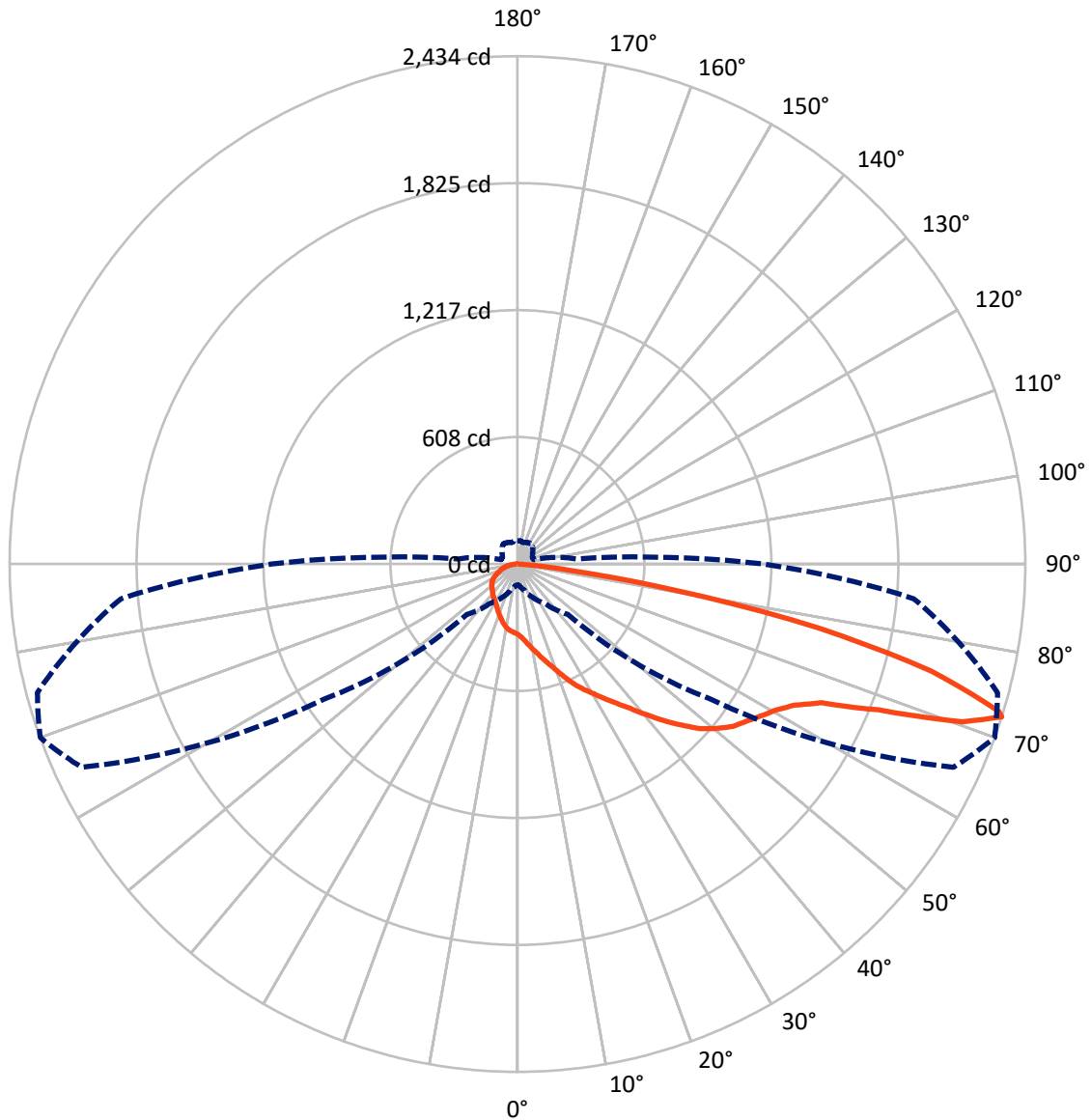
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 505.6 | 0.0 | 505.6 |
| | % Fixture | 18.6 | 0.0 | 18.6 |
| Street Side | Lumens | 2215.4 | 0.0 | 2215.4 |
| | % Fixture | 81.4 | 0.0 | 81.4 |
| Total | Lumens | 2721.0 | 0.0 | 2721.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 33.9 | 1.2 |
| 10°-20° | 108.7 | 4.0 |
| 20°-30° | 192.4 | 7.1 |
| 30°-40° | 286.1 | 10.5 |
| 40°-50° | 415.0 | 15.3 |
| 50°-60° | 567.0 | 20.8 |
| 60°-70° | 620.8 | 22.8 |
| 70°-80° | 441.6 | 16.2 |
| 80°-90° | 55.4 | 2.0 |
| 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° | 2721.0 | 100.0 |
| 0°-180° | 2721.0 | 100.0 |



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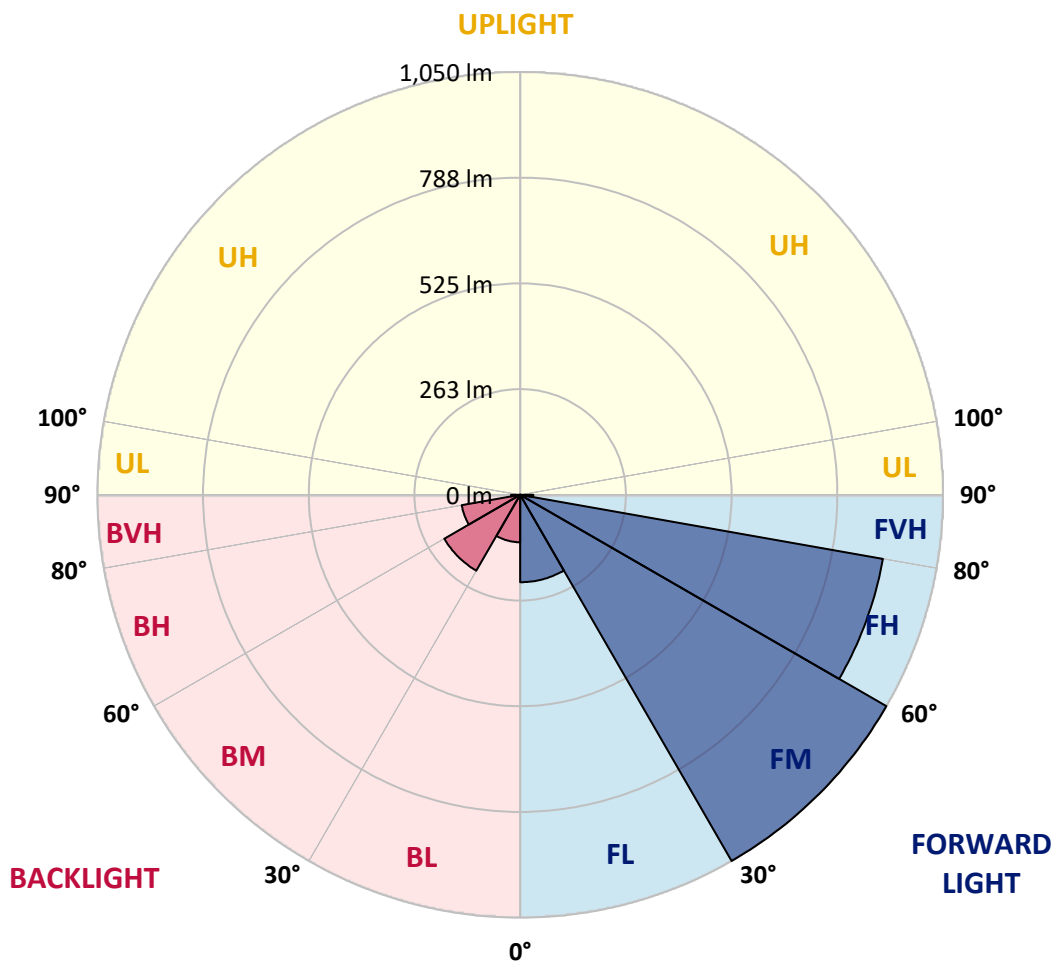
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 217.2 | 8.0 | | | |
| FM | (30°-60°) | 1050.5 | 38.6 | | | |
| FH | (60°-80°) | 915.0 | 33.6 | | | G1/1800 |
| FVH | (80°-90°) | 32.7 | 1.2 | | | G1/100 |
| BL | (0°-30°) | 117.8 | 4.3 | B1/500 | | |
| BM | (30°-60°) | 217.7 | 8.0 | B0/220 | | |
| BH | (60°-80°) | 147.4 | 5.4 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 22.7 | 0.8 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 |
| 2.5° | 374.7 | 372.7 | 373.1 | 369.6 | 367.7 | 363.0 | 358.0 | 352.5 | 349.8 | 347.9 | 341.3 |
| 5° | 411.2 | 411.2 | 412.8 | 410.0 | 402.7 | 394.9 | 385.9 | 373.9 | 368.8 | 361.9 | 348.6 |
| 7.5° | 441.5 | 442.3 | 442.3 | 441.5 | 434.9 | 426.4 | 414.7 | 399.9 | 391.8 | 381.7 | 361.1 |
| 10° | 457.1 | 459.0 | 460.6 | 461.7 | 461.0 | 455.9 | 442.7 | 427.5 | 416.3 | 403.1 | 375.5 |
| 12.5° | 464.8 | 465.6 | 468.3 | 474.2 | 478.8 | 482.7 | 473.0 | 455.1 | 443.9 | 427.9 | 391.0 |
| 15° | 473.4 | 473.4 | 476.1 | 483.5 | 492.4 | 502.9 | 501.8 | 487.8 | 475.7 | 455.9 | 410.8 |
| 17.5° | 478.8 | 480.4 | 485.4 | 493.2 | 505.7 | 523.1 | 532.1 | 524.3 | 508.8 | 487.8 | 432.2 |
| 20° | 475.7 | 476.9 | 487.0 | 502.2 | 518.1 | 540.6 | 563.2 | 563.2 | 548.4 | 524.3 | 455.9 |
| 22.5° | 481.6 | 483.5 | 490.5 | 504.9 | 526.6 | 555.8 | 592.7 | 605.5 | 592.7 | 566.3 | 483.5 |
| 25° | 504.1 | 503.3 | 509.2 | 515.0 | 533.6 | 569.8 | 618.0 | 651.0 | 639.4 | 610.2 | 510.3 |
| 27.5° | 536.8 | 536.8 | 539.9 | 539.5 | 546.1 | 581.4 | 640.1 | 691.1 | 681.3 | 646.4 | 532.5 |
| 30° | 574.5 | 575.2 | 574.5 | 574.1 | 572.9 | 597.4 | 660.0 | 726.8 | 721.8 | 687.2 | 552.7 |
| 32.5° | 620.3 | 622.3 | 619.2 | 611.4 | 606.7 | 620.3 | 676.7 | 766.8 | 768.4 | 727.6 | 572.5 |
| 35° | 677.8 | 680.9 | 669.3 | 658.0 | 646.4 | 652.6 | 696.1 | 804.5 | 820.1 | 773.5 | 596.6 |
| 37.5° | 735.4 | 740.4 | 738.5 | 708.2 | 691.8 | 691.4 | 724.9 | 851.6 | 877.6 | 833.3 | 630.8 |
| 40° | 783.9 | 788.2 | 790.6 | 763.0 | 740.4 | 739.6 | 767.2 | 900.5 | 948.4 | 902.1 | 671.2 |
| 42.5° | 816.2 | 820.1 | 827.1 | 810.8 | 789.8 | 799.5 | 813.9 | 949.1 | 1024.5 | 986.1 | 721.0 |
| 45° | 851.2 | 854.3 | 858.6 | 849.2 | 838.4 | 866.3 | 873.0 | 1003.2 | 1100.7 | 1076.2 | 779.3 |
| 47.5° | 888.5 | 891.6 | 893.9 | 886.9 | 883.1 | 922.3 | 930.9 | 1058.3 | 1177.7 | 1169.5 | 836.0 |
| 50° | 929.7 | 930.9 | 933.2 | 929.7 | 930.9 | 973.2 | 978.7 | 1106.9 | 1238.7 | 1266.7 | 895.1 |
| 52.5° | 1000.4 | 1002.0 | 1002.8 | 986.1 | 980.2 | 1005.5 | 1017.1 | 1158.6 | 1292.3 | 1347.5 | 947.2 |
| 55° | 1056.4 | 1061.8 | 1086.3 | 1075.4 | 1061.5 | 1028.4 | 1049.0 | 1200.2 | 1330.4 | 1422.9 | 1001.6 |
| 57.5° | 1010.5 | 1023.0 | 1084.0 | 1135.3 | 1174.6 | 1095.7 | 1086.7 | 1243.0 | 1374.3 | 1487.8 | 1065.0 |
| 60° | 877.2 | 895.5 | 984.1 | 1091.0 | 1218.1 | 1250.0 | 1164.1 | 1296.2 | 1422.1 | 1555.5 | 1133.0 |
| 62.5° | 608.3 | 626.9 | 749.4 | 920.0 | 1144.6 | 1338.2 | 1375.9 | 1390.7 | 1488.6 | 1624.6 | 1221.6 |
| 65° | 291.5 | 310.5 | 411.6 | 591.6 | 904.0 | 1281.4 | 1622.7 | 1586.5 | 1600.5 | 1712.5 | 1352.2 |
| 67.5° | 185.4 | 195.5 | 235.1 | 322.2 | 525.9 | 998.1 | 1711.3 | 1976.8 | 1865.6 | 1915.0 | 1612.2 |
| 70° | 135.6 | 138.0 | 172.2 | 223.1 | 312.1 | 583.0 | 1511.1 | 2350.3 | 2263.2 | 2257.8 | 1925.9 |
| 72° | 100.3 | 104.2 | 130.6 | 178.0 | 230.9 | 340.9 | 1124.4 | 2304.8 | 2433.5 | 2381.8 | 1907.2 |
| 72.5° | 94.4 | 97.6 | 120.5 | 168.3 | 218.0 | 299.3 | 1007.4 | 2252.0 | 2412.5 | 2385.3 | 1871.4 |
| 75° | 68.8 | 71.1 | 82.4 | 119.7 | 168.7 | 173.3 | 537.9 | 1728.4 | 2048.7 | 2277.2 | 1696.5 |
| 77.5° | 47.4 | 49.0 | 54.8 | 73.5 | 115.4 | 117.4 | 228.1 | 1180.0 | 1478.5 | 1820.9 | 1304.8 |
| 80° | 28.8 | 29.5 | 33.0 | 40.0 | 73.5 | 69.6 | 94.1 | 616.8 | 771.5 | 989.9 | 605.2 |
| 82.5° | 12.0 | 12.4 | 14.4 | 15.9 | 31.1 | 33.0 | 38.1 | 201.3 | 255.4 | 309.4 | 174.5 |
| 85° | 0.0 | 0.0 | 0.4 | 0.4 | 0.8 | 3.5 | 5.4 | 24.9 | 37.7 | 45.1 | 31.5 |
| 87.5° | 0.0 | 0.0 | 0.4 | 0.4 | 0.4 | 0.8 | 0.8 | 1.2 | 1.6 | 1.6 | 2.3 |
| 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° | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 | 337.0 |
| 2.5° | 338.1 | 336.6 | 331.9 | 328.0 | 324.9 | 319.9 | 319.5 | 315.6 | 315.6 | 314.4 | 313.7 |
| 5° | 343.6 | 338.5 | 329.2 | 320.7 | 314.4 | 307.0 | 303.6 | 299.3 | 296.6 | 295.0 | 295.4 |
| 7.5° | 350.6 | 342.0 | 326.1 | 311.7 | 300.1 | 290.7 | 285.3 | 281.8 | 279.8 | 279.1 | 279.1 |
| 10° | 360.3 | 347.1 | 321.0 | 299.3 | 284.5 | 277.5 | 274.8 | 274.4 | 274.8 | 275.2 | 275.6 |
| 12.5° | 371.2 | 350.6 | 311.7 | 284.5 | 272.8 | 270.1 | 271.7 | 275.2 | 278.3 | 279.5 | 279.5 |
| 15° | 382.5 | 352.9 | 298.9 | 270.9 | 263.9 | 266.6 | 272.1 | 278.7 | 283.7 | 286.8 | 287.6 |
| 17.5° | 394.1 | 353.3 | 285.3 | 258.5 | 256.1 | 263.1 | 272.8 | 283.3 | 291.5 | 296.6 | 297.3 |
| 20° | 406.5 | 352.5 | 269.3 | 247.2 | 248.4 | 260.0 | 273.6 | 288.0 | 298.9 | 305.5 | 306.3 |
| 22.5° | 420.2 | 349.4 | 253.8 | 236.3 | 241.8 | 256.9 | 272.8 | 289.6 | 301.2 | 309.0 | 310.5 |
| 25° | 433.4 | 343.2 | 238.3 | 226.6 | 237.1 | 253.8 | 269.0 | 283.3 | 294.6 | 302.0 | 303.9 |
| 27.5° | 440.4 | 330.0 | 223.5 | 219.2 | 233.6 | 249.1 | 260.0 | 269.7 | 276.0 | 280.6 | 282.6 |
| 30° | 441.5 | 311.3 | 211.4 | 214.2 | 229.7 | 242.5 | 248.7 | 250.3 | 249.1 | 250.7 | 248.7 |
| 32.5° | 439.2 | 291.1 | 201.7 | 210.3 | 223.5 | 233.2 | 234.8 | 230.1 | 223.1 | 213.4 | 213.8 |
| 35° | 437.6 | 269.0 | 193.9 | 204.8 | 215.3 | 221.5 | 218.8 | 211.4 | 198.2 | 186.6 | 185.8 |
| 37.5° | 440.4 | 248.7 | 187.3 | 197.8 | 204.8 | 207.5 | 203.7 | 193.9 | 182.3 | 172.2 | 171.0 |
| 40° | 448.1 | 234.0 | 181.1 | 190.1 | 193.6 | 195.5 | 190.8 | 182.3 | 177.6 | 170.2 | 169.1 |
| 42.5° | 463.3 | 223.9 | 175.3 | 181.5 | 183.1 | 185.0 | 180.3 | 174.5 | 178.8 | 177.2 | 177.2 |
| 45° | 484.3 | 219.2 | 170.2 | 173.3 | 174.9 | 178.0 | 175.3 | 170.2 | 174.9 | 166.0 | 164.4 |
| 47.5° | 511.5 | 220.8 | 166.7 | 165.2 | 169.8 | 175.3 | 172.2 | 166.0 | 164.4 | 148.5 | 145.8 |
| 50° | 540.3 | 228.9 | 163.2 | 158.6 | 164.4 | 171.8 | 167.9 | 158.2 | 148.9 | 140.7 | 139.1 |
| 52.5° | 574.1 | 242.5 | 160.1 | 151.2 | 158.2 | 167.9 | 165.2 | 154.7 | 145.0 | 139.1 | 138.0 |
| 55° | 611.4 | 255.7 | 156.2 | 142.6 | 150.0 | 166.7 | 166.0 | 152.4 | 139.5 | 136.8 | 136.0 |
| 57.5° | 653.4 | 266.6 | 151.6 | 132.9 | 141.9 | 163.2 | 162.5 | 146.9 | 138.0 | 135.6 | 135.3 |
| 60° | 705.8 | 279.5 | 143.4 | 121.7 | 133.7 | 156.6 | 155.9 | 144.2 | 134.5 | 132.5 | 131.8 |
| 62.5° | 777.3 | 303.2 | 129.4 | 111.2 | 125.2 | 145.0 | 149.6 | 138.8 | 129.4 | 129.0 | 129.0 |
| 65° | 895.1 | 349.0 | 115.0 | 102.2 | 115.4 | 133.7 | 141.5 | 132.5 | 124.8 | 126.7 | 126.7 |
| 67.5° | 1117.8 | 410.8 | 100.3 | 93.7 | 106.1 | 122.8 | 134.5 | 126.3 | 119.7 | 123.6 | 123.6 |
| 70° | 1289.6 | 387.9 | 88.6 | 85.5 | 96.8 | 113.1 | 125.5 | 119.7 | 113.5 | 120.1 | 119.3 |
| 72° | 1176.5 | 284.1 | 80.8 | 78.9 | 89.0 | 104.9 | 117.8 | 113.5 | 106.9 | 112.3 | 110.8 |
| 72.5° | 1129.5 | 258.1 | 78.5 | 77.0 | 86.7 | 103.4 | 116.2 | 111.9 | 104.9 | 110.4 | 108.1 |
| 75° | 985.3 | 217.7 | 68.4 | 67.6 | 77.0 | 92.9 | 106.1 | 103.8 | 96.8 | 99.9 | 97.6 |
| 77.5° | 815.4 | 183.5 | 57.5 | 59.1 | 65.7 | 82.8 | 95.6 | 93.3 | 86.7 | 86.3 | 85.9 |
| 80° | 382.5 | 102.2 | 47.4 | 48.6 | 55.2 | 70.7 | 82.4 | 80.8 | 74.6 | 73.8 | 72.7 |
| 82.5° | 110.8 | 49.0 | 36.5 | 37.3 | 44.3 | 57.9 | 70.7 | 70.0 | 65.3 | 64.1 | 61.4 |
| 85° | 20.6 | 15.9 | 19.8 | 23.3 | 32.3 | 48.2 | 64.5 | 63.0 | 56.0 | 50.9 | 47.0 |
| 87.5° | 1.2 | 3.1 | 6.6 | 11.3 | 20.6 | 36.1 | 52.1 | 50.9 | 44.7 | 38.5 | 38.9 |
| 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)