

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: P401002

Luminaire Tested: **ENT-SA1A-760-U-SL3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401002
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-760-U-SL3
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2682 lumens
Efficiency: N/A
Efficacy: 133.4 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

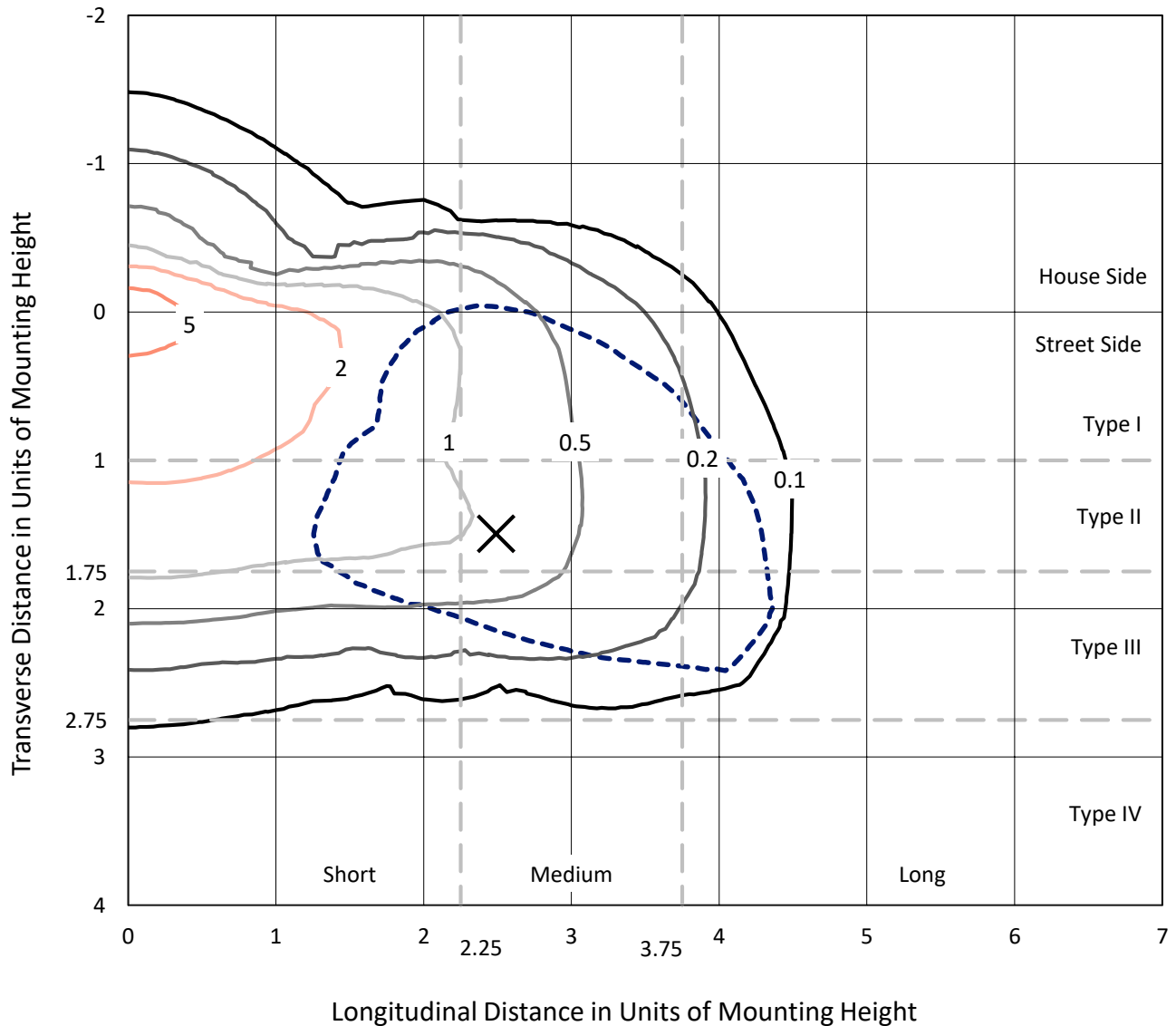
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

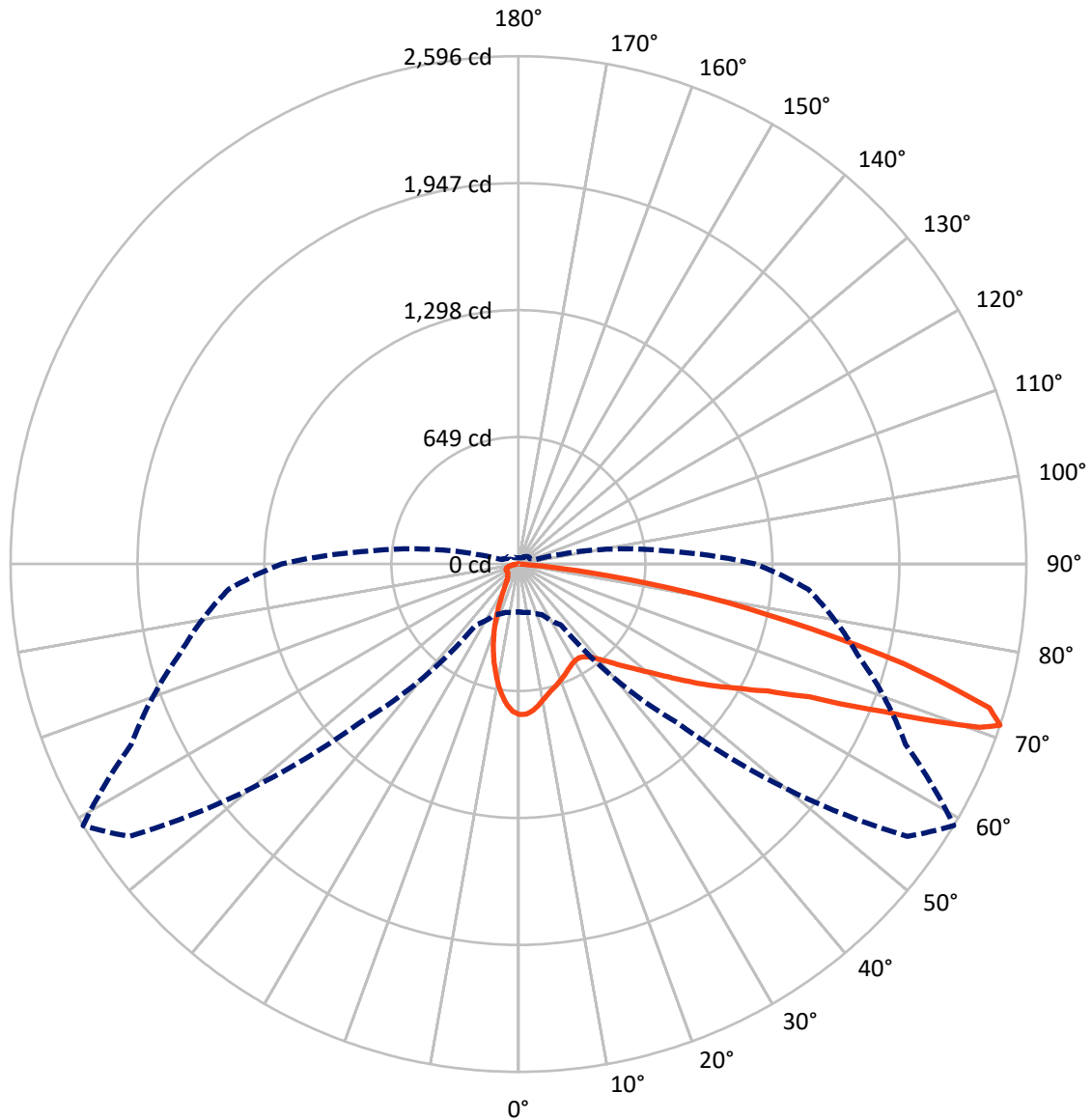
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 455.2 | 0.0 | 455.2 |
| | % Fixture | 17.0 | 0.0 | 17.0 |
| Street Side | Lumens | 2226.8 | 0.0 | 2226.8 |
| | % Fixture | 83.0 | 0.0 | 83.0 |
| Total | Lumens | 2682.0 | 0.0 | 2682.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 66.5 | 2.5 |
| 10°-20° | 149.4 | 5.6 |
| 20°-30° | 189.8 | 7.1 |
| 30°-40° | 242.7 | 9.0 |
| 40°-50° | 336.8 | 12.6 |
| 50°-60° | 498.6 | 18.6 |
| 60°-70° | 673.9 | 25.1 |
| 70°-80° | 477.9 | 17.8 |
| 80°-90° | 46.4 | 1.7 |
| 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° | 2682.0 | 100.0 |
| 0°-180° | 2682.0 | 100.0 |



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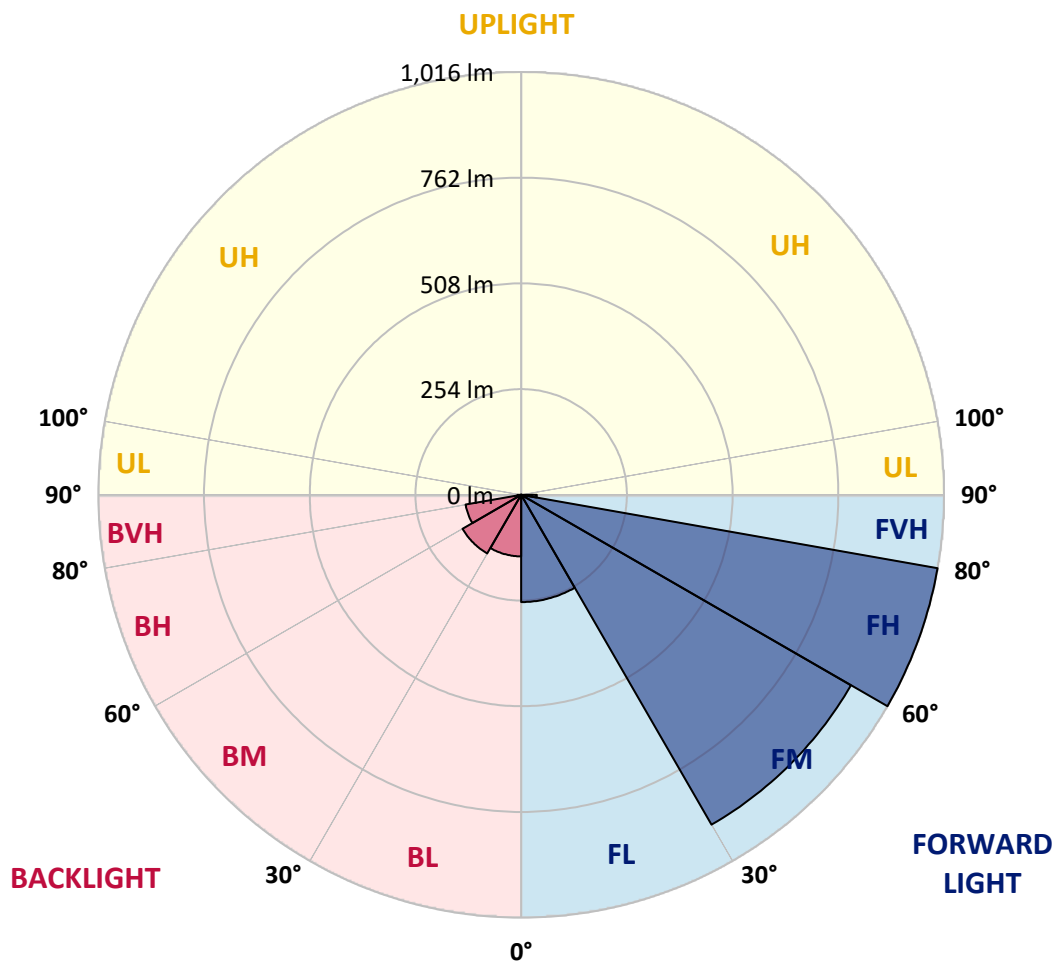
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 257.8 | 9.6 | | | |
| FM | (30°-60°) | 915.3 | 34.1 | | | |
| FH | (60°-80°) | 1016.2 | 37.9 | | | G1/1800 |
| FVH | (80°-90°) | 37.6 | 1.4 | | | G1/100 |
| BL | (0°-30°) | 147.9 | 5.5 | B1/500 | | |
| BM | (30°-60°) | 162.8 | 6.1 | B0/220 | | |
| BH | (60°-80°) | 135.7 | 5.1 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 8.8 | 0.3 | | | G0/10 |
| 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° | 59° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 |
| 2.5° | 762.9 | 765.6 | 766.7 | 768.7 | 768.7 | 769.5 | 768.7 | 768.3 | 769.8 | 768.3 | 764.0 |
| 5° | 729.0 | 730.2 | 733.7 | 737.6 | 741.5 | 749.6 | 752.0 | 753.5 | 757.0 | 757.8 | 753.5 |
| 7.5° | 683.2 | 687.5 | 692.1 | 697.2 | 705.3 | 716.6 | 726.3 | 730.2 | 736.8 | 740.7 | 734.5 |
| 10° | 644.3 | 646.7 | 649.0 | 657.9 | 670.8 | 686.3 | 696.4 | 703.8 | 714.3 | 719.3 | 713.5 |
| 12.5° | 605.5 | 607.4 | 612.1 | 624.1 | 637.3 | 656.0 | 674.2 | 680.1 | 692.5 | 702.6 | 698.0 |
| 15° | 575.5 | 575.5 | 579.0 | 592.3 | 606.2 | 631.1 | 652.5 | 661.4 | 677.0 | 691.3 | 685.5 |
| 17.5° | 549.1 | 550.3 | 552.6 | 561.2 | 580.6 | 606.6 | 633.8 | 645.1 | 664.5 | 683.2 | 675.4 |
| 20° | 534.3 | 533.6 | 535.1 | 539.4 | 554.9 | 582.5 | 615.2 | 628.4 | 652.5 | 678.1 | 665.7 |
| 22.5° | 529.3 | 528.5 | 527.4 | 527.0 | 537.1 | 560.4 | 595.4 | 611.7 | 641.6 | 675.4 | 656.8 |
| 25° | 533.2 | 533.2 | 529.7 | 523.1 | 527.7 | 543.7 | 577.5 | 595.0 | 629.6 | 673.5 | 648.6 |
| 27.5° | 543.7 | 543.7 | 538.6 | 530.1 | 528.1 | 535.1 | 561.9 | 580.6 | 619.5 | 674.6 | 642.0 |
| 30° | 558.1 | 557.7 | 552.6 | 545.2 | 539.4 | 537.1 | 554.6 | 571.7 | 612.5 | 679.7 | 638.9 |
| 32.5° | 574.4 | 573.6 | 571.3 | 566.2 | 559.2 | 549.1 | 555.3 | 570.5 | 610.9 | 688.6 | 639.3 |
| 35° | 593.8 | 592.6 | 593.8 | 591.1 | 584.5 | 573.6 | 569.7 | 581.8 | 618.7 | 705.3 | 645.9 |
| 37.5° | 610.9 | 610.1 | 616.0 | 617.5 | 616.0 | 601.6 | 596.5 | 604.3 | 636.9 | 731.8 | 659.5 |
| 40° | 625.3 | 626.1 | 636.6 | 647.8 | 650.2 | 637.7 | 634.2 | 640.8 | 666.5 | 764.0 | 684.0 |
| 42.5° | 641.2 | 643.5 | 659.1 | 679.3 | 687.1 | 678.9 | 680.9 | 685.5 | 703.8 | 807.9 | 719.3 |
| 45° | 656.8 | 661.8 | 683.2 | 709.2 | 729.0 | 729.0 | 735.6 | 740.3 | 752.0 | 863.1 | 771.0 |
| 47.5° | 684.0 | 687.5 | 710.8 | 742.3 | 772.6 | 782.3 | 800.5 | 799.0 | 807.9 | 923.7 | 831.6 |
| 50° | 719.3 | 725.2 | 748.9 | 781.5 | 820.0 | 847.6 | 868.6 | 871.7 | 875.2 | 985.9 | 903.5 |
| 52.5° | 768.3 | 775.3 | 794.7 | 825.0 | 870.5 | 915.6 | 959.9 | 957.9 | 953.3 | 1053.5 | 985.9 |
| 55° | 817.6 | 825.0 | 843.3 | 867.8 | 921.4 | 990.6 | 1062.9 | 1060.1 | 1038.8 | 1122.7 | 1062.1 |
| 57.5° | 867.8 | 874.0 | 893.0 | 914.4 | 977.8 | 1079.2 | 1171.7 | 1173.6 | 1129.7 | 1199.7 | 1137.5 |
| 60° | 888.8 | 898.1 | 945.1 | 986.3 | 1065.6 | 1177.5 | 1282.8 | 1287.9 | 1224.1 | 1277.4 | 1220.6 |
| 62.5° | 793.9 | 805.2 | 882.9 | 994.1 | 1186.1 | 1367.2 | 1427.4 | 1430.5 | 1338.0 | 1363.3 | 1311.6 |
| 65° | 587.6 | 587.2 | 667.6 | 834.0 | 1162.0 | 1621.7 | 1685.0 | 1636.1 | 1479.5 | 1477.1 | 1431.7 |
| 67.5° | 336.5 | 346.6 | 372.3 | 497.4 | 885.3 | 1668.7 | 2143.6 | 2015.8 | 1730.1 | 1654.3 | 1591.8 |
| 70° | 271.3 | 268.9 | 276.7 | 310.1 | 482.7 | 1372.2 | 2442.5 | 2500.7 | 2086.1 | 1798.9 | 1555.6 |
| 71° | 244.4 | 247.9 | 255.7 | 286.0 | 380.8 | 1144.9 | 2427.7 | 2596.0 | 2183.2 | 1795.0 | 1486.8 |
| 72.5° | 210.2 | 211.0 | 228.9 | 264.6 | 312.8 | 807.5 | 2244.6 | 2517.5 | 2285.1 | 1744.1 | 1385.8 |
| 75° | 143.0 | 145.0 | 172.9 | 213.0 | 285.6 | 383.6 | 1606.1 | 2036.3 | 2079.9 | 1629.9 | 1144.5 |
| 77.5° | 82.0 | 83.6 | 103.8 | 155.8 | 243.3 | 270.5 | 985.9 | 1407.2 | 1495.4 | 1191.9 | 613.6 |
| 80° | 42.4 | 44.3 | 57.5 | 98.3 | 185.8 | 218.8 | 565.4 | 884.9 | 850.7 | 411.9 | 142.2 |
| 82.5° | 11.3 | 12.8 | 16.7 | 35.4 | 89.8 | 142.6 | 250.7 | 366.1 | 261.5 | 85.5 | 51.7 |
| 85° | 0.0 | 0.0 | 0.0 | 0.4 | 0.8 | 19.8 | 52.9 | 65.7 | 36.5 | 16.7 | 14.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.8 | 0.8 | 0.8 | 0.8 | 1.2 | 1.6 |
| 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° | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 | 769.5 |
| 2.5° | 763.2 | 763.2 | 760.9 | 757.4 | 753.5 | 744.6 | 746.1 | 739.1 | 739.9 | 739.1 | 739.1 |
| 5° | 750.0 | 747.7 | 741.9 | 731.0 | 718.9 | 703.0 | 700.7 | 687.9 | 680.5 | 678.1 | 680.9 |
| 7.5° | 731.8 | 725.2 | 710.4 | 691.3 | 668.4 | 647.8 | 628.8 | 611.7 | 598.9 | 593.4 | 591.1 |
| 10° | 707.7 | 699.5 | 675.4 | 642.0 | 610.5 | 578.3 | 548.3 | 528.9 | 503.3 | 495.5 | 493.2 |
| 12.5° | 687.9 | 673.9 | 637.7 | 591.1 | 542.1 | 499.4 | 459.0 | 418.2 | 393.7 | 376.2 | 373.5 |
| 15° | 670.8 | 650.9 | 599.2 | 539.0 | 478.0 | 418.9 | 364.1 | 309.3 | 274.8 | 260.0 | 249.5 |
| 17.5° | 655.6 | 629.9 | 560.8 | 482.7 | 407.3 | 329.2 | 262.3 | 209.9 | 188.1 | 176.8 | 177.2 |
| 20° | 640.1 | 607.4 | 520.7 | 426.3 | 337.3 | 250.7 | 185.4 | 160.9 | 150.0 | 147.7 | 146.5 |
| 22.5° | 625.3 | 581.8 | 478.4 | 370.7 | 265.8 | 184.2 | 149.2 | 137.2 | 134.5 | 134.5 | 134.5 |
| 25° | 608.6 | 555.7 | 435.6 | 314.0 | 201.3 | 145.3 | 128.2 | 124.0 | 124.7 | 126.3 | 126.7 |
| 27.5° | 595.0 | 533.2 | 393.3 | 248.3 | 156.2 | 123.6 | 114.6 | 113.9 | 117.0 | 120.5 | 120.5 |
| 30° | 582.9 | 512.6 | 347.4 | 193.9 | 124.4 | 108.4 | 105.3 | 106.5 | 109.6 | 112.7 | 113.9 |
| 32.5° | 574.8 | 493.9 | 306.2 | 150.8 | 106.1 | 97.9 | 97.2 | 98.7 | 101.8 | 103.4 | 104.5 |
| 35° | 571.3 | 480.3 | 261.9 | 121.6 | 94.4 | 90.2 | 89.8 | 90.9 | 92.5 | 92.9 | 92.5 |
| 37.5° | 575.2 | 471.0 | 216.5 | 103.0 | 87.0 | 84.7 | 84.3 | 84.3 | 84.3 | 84.7 | 84.3 |
| 40° | 586.4 | 467.5 | 175.7 | 90.9 | 82.4 | 80.4 | 79.3 | 78.1 | 77.3 | 77.3 | 76.9 |
| 42.5° | 610.1 | 472.9 | 141.1 | 83.9 | 78.9 | 76.6 | 74.2 | 72.7 | 71.5 | 71.1 | 71.1 |
| 45° | 648.2 | 488.1 | 117.4 | 79.3 | 75.8 | 72.3 | 69.6 | 68.0 | 66.8 | 67.2 | 66.8 |
| 47.5° | 700.7 | 513.4 | 103.8 | 76.2 | 72.7 | 68.0 | 65.3 | 63.7 | 63.3 | 64.5 | 64.9 |
| 50° | 760.1 | 549.1 | 95.6 | 73.8 | 70.3 | 64.5 | 61.4 | 60.2 | 60.6 | 63.0 | 63.3 |
| 52.5° | 830.1 | 595.4 | 92.1 | 72.3 | 68.4 | 61.4 | 58.7 | 57.5 | 58.3 | 61.0 | 61.4 |
| 55° | 905.5 | 648.2 | 97.2 | 73.1 | 66.5 | 59.5 | 56.3 | 54.8 | 56.0 | 58.3 | 58.7 |
| 57.5° | 982.0 | 713.5 | 114.3 | 73.4 | 64.1 | 57.9 | 54.0 | 51.7 | 52.5 | 54.4 | 54.8 |
| 60° | 1059.4 | 778.4 | 143.8 | 73.8 | 63.3 | 56.3 | 52.1 | 48.6 | 49.0 | 50.1 | 50.5 |
| 62.5° | 1150.3 | 860.8 | 182.6 | 75.4 | 64.1 | 55.2 | 48.6 | 44.7 | 44.7 | 45.5 | 45.5 |
| 65° | 1288.3 | 983.6 | 208.3 | 74.6 | 66.1 | 54.0 | 45.1 | 41.2 | 40.8 | 41.2 | 41.2 |
| 67.5° | 1387.4 | 999.9 | 145.3 | 70.3 | 67.2 | 54.4 | 43.1 | 38.1 | 37.3 | 36.9 | 36.9 |
| 70° | 1282.4 | 841.4 | 96.0 | 66.5 | 65.3 | 55.2 | 41.6 | 36.1 | 34.6 | 33.4 | 33.0 |
| 71° | 1209.8 | 758.2 | 89.0 | 64.9 | 63.7 | 54.4 | 40.8 | 35.0 | 33.4 | 32.6 | 32.3 |
| 72.5° | 1102.1 | 676.6 | 82.0 | 62.6 | 60.2 | 52.9 | 39.6 | 33.8 | 31.9 | 30.7 | 30.3 |
| 75° | 870.9 | 518.8 | 71.9 | 57.5 | 52.1 | 43.5 | 36.5 | 31.5 | 29.5 | 28.0 | 27.6 |
| 77.5° | 393.7 | 206.4 | 55.2 | 49.7 | 42.4 | 34.6 | 31.9 | 29.1 | 26.8 | 25.6 | 25.3 |
| 80° | 110.0 | 78.5 | 40.4 | 39.3 | 31.9 | 26.8 | 25.6 | 24.9 | 24.1 | 22.5 | 22.5 |
| 82.5° | 50.9 | 45.9 | 28.8 | 27.6 | 21.8 | 19.0 | 20.2 | 20.6 | 20.6 | 19.0 | 18.7 |
| 85° | 14.0 | 15.2 | 13.2 | 14.8 | 14.0 | 12.8 | 14.8 | 15.9 | 16.7 | 15.2 | 14.0 |
| 87.5° | 1.2 | 2.7 | 3.5 | 5.8 | 7.0 | 7.4 | 9.3 | 11.3 | 11.7 | 9.3 | 9.7 |
| 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)