

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: P162330

Luminaire Tested: **EMM-F03-LED-E1-SL2-HSS-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162330
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: EMM-F03-LED-E1-SL2-HSS-8030
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3643.8 lumens
Efficiency: N/A
Efficacy: 46.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

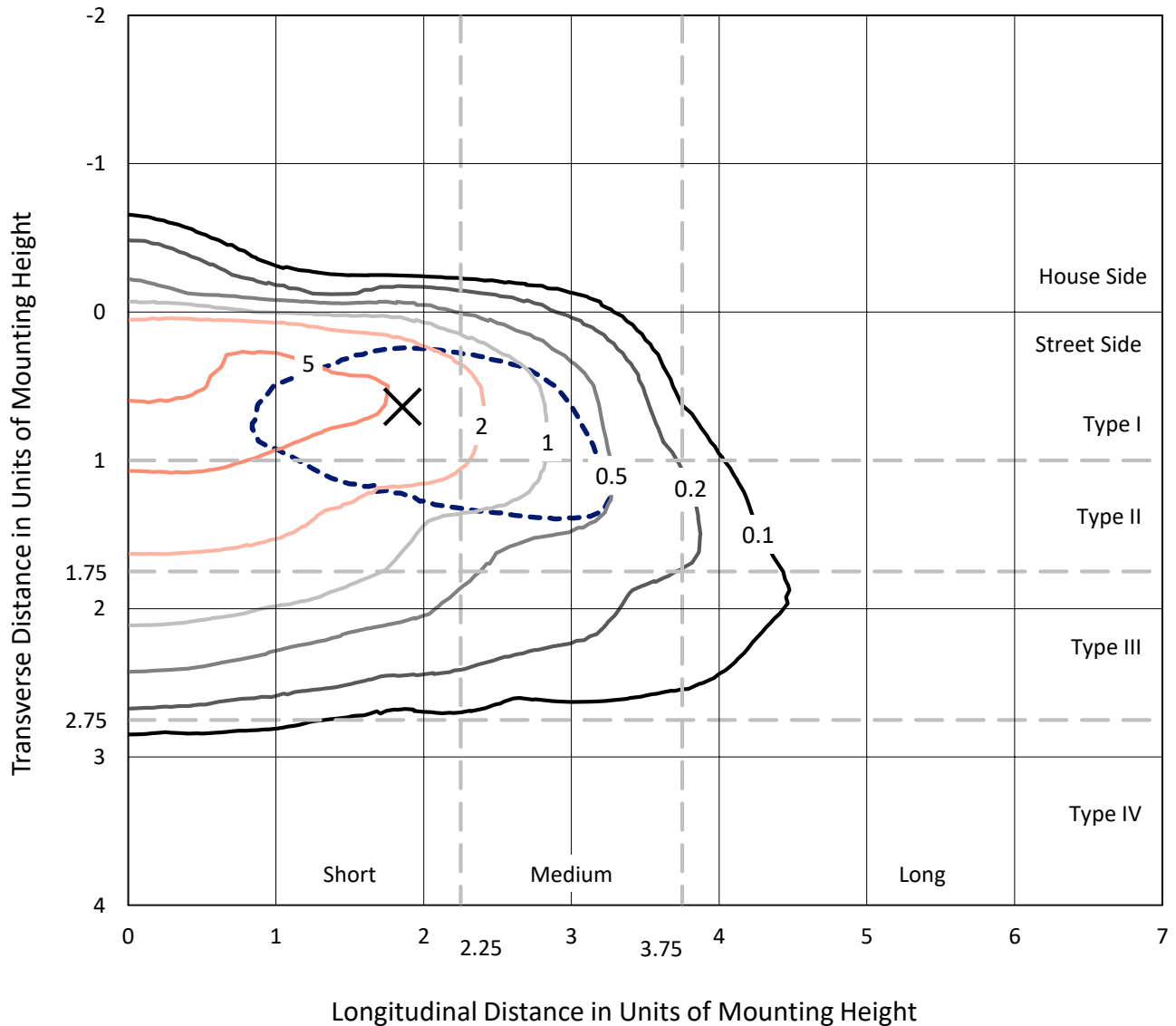
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P162330
 CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

Iso-Footcandle Lines of Horizontal Illumination

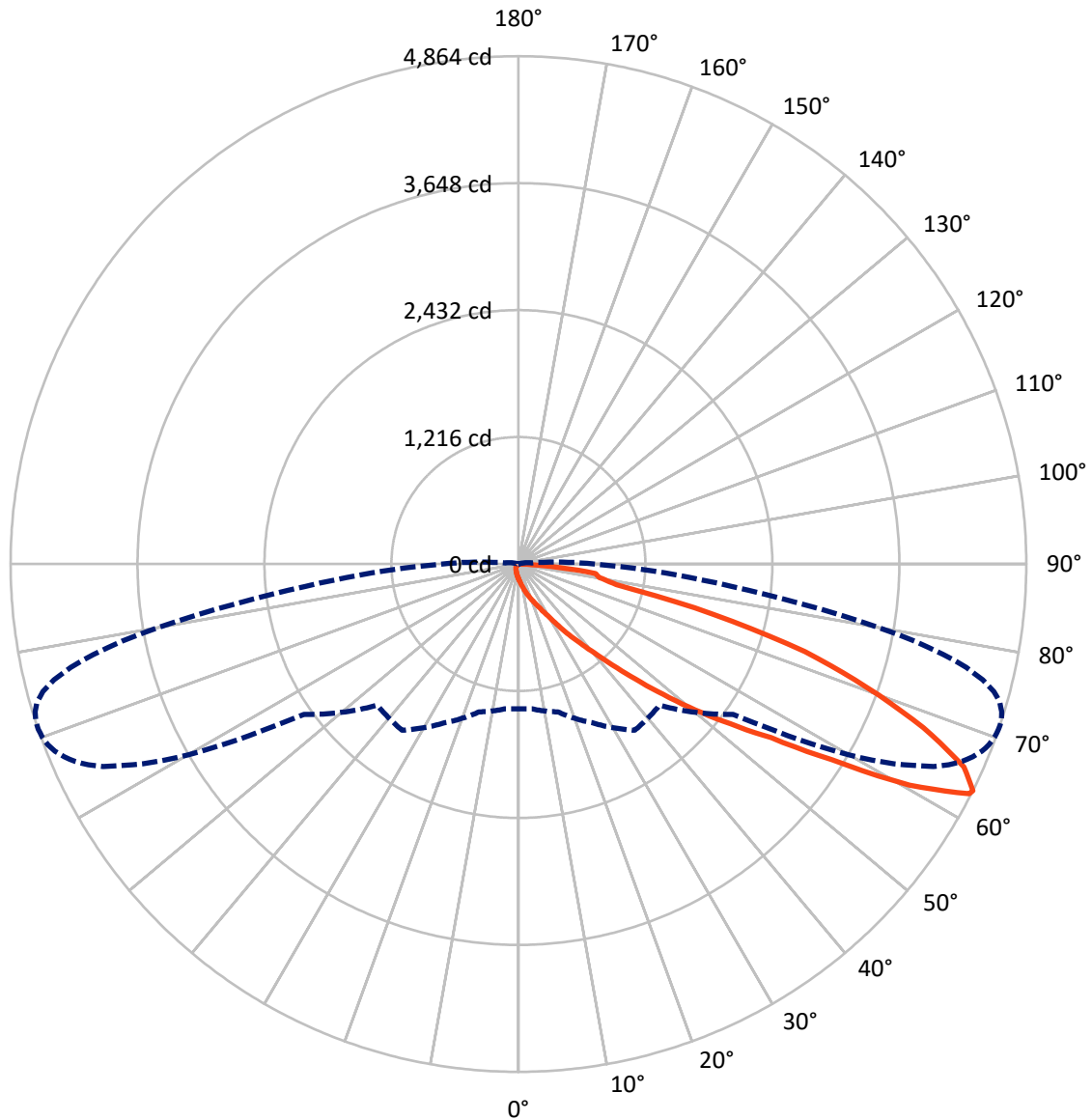
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P162330
CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

REPORT NUMBER: P162330

CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 77.4 | 0.0 | 77.4 |
| | % Fixture | 2.1 | 0.0 | 2.1 |
| Street Side | Lumens | 3566.5 | 0.0 | 3566.5 |
| | % Fixture | 97.9 | 0.0 | 97.9 |
| Total | Lumens | 3643.8 | 0.0 | 3643.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 15.4 | 0.4 |
| 10°-20° | 59.9 | 1.6 |
| 20°-30° | 121.7 | 3.3 |
| 30°-40° | 297.3 | 8.2 |
| 40°-50° | 664.9 | 18.2 |
| 50°-60° | 935.0 | 25.7 |
| 60°-70° | 1099.5 | 30.2 |
| 70°-80° | 397.0 | 10.9 |
| 80°-90° | 53.1 | 1.5 |
| 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° | 3643.8 | 100.0 |
| 0°-180° | 3643.8 | 100.0 |



REPORT NUMBER: P162330

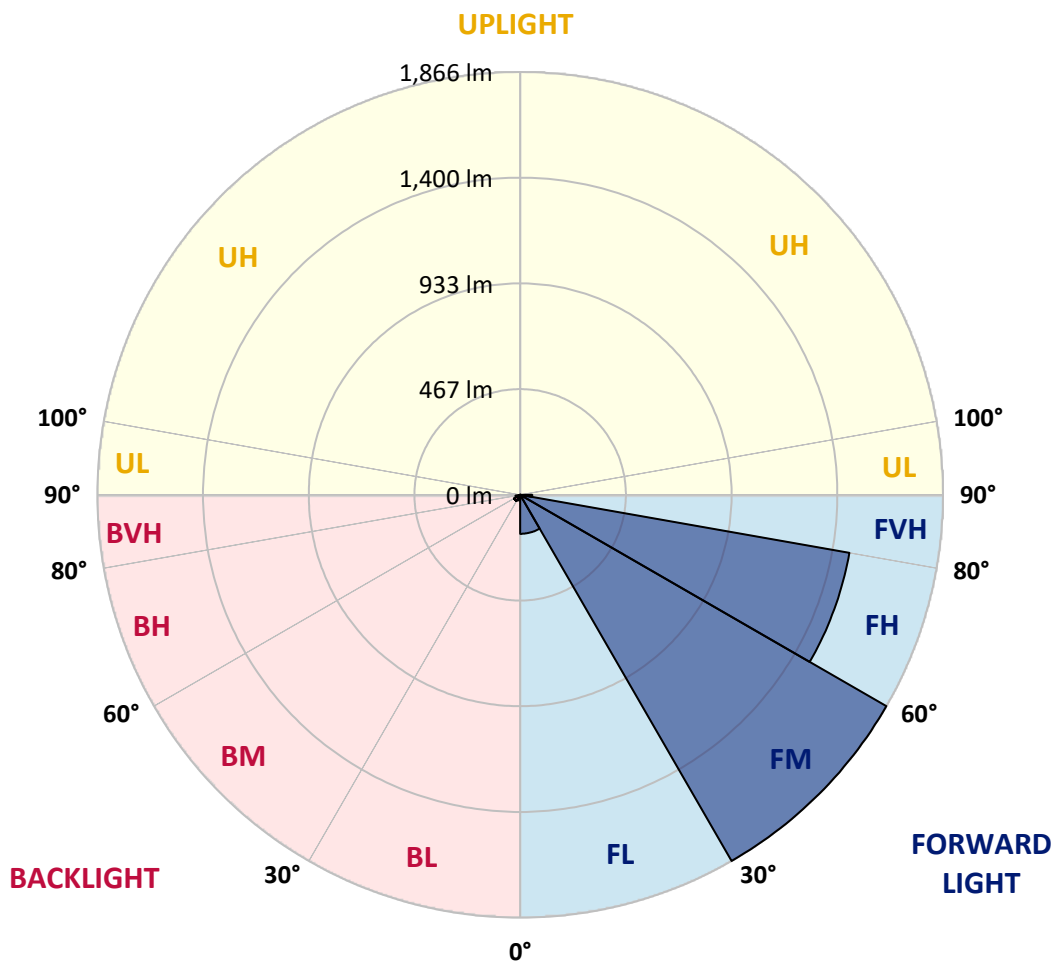
CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 172.2 | 4.7 | | | |
| FM | (30°-60°) | 1866.1 | 51.2 | | | |
| FH | (60°-80°) | 1475.2 | 40.5 | | | G1/1800 |
| FVH | (80°-90°) | 53.0 | 1.5 | | | G1/100 |
| BL | (0°-30°) | 24.9 | 0.7 | B0/110 | | |
| BM | (30°-60°) | 31.2 | 0.9 | B0/220 | | |
| BH | (60°-80°) | 21.2 | 0.6 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.1 | 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 II Short





REPORT NUMBER: P162330

CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 56° | 57° | 58° | 59° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 |
| 2.5° | 182.8 | 184.8 | 183.5 | 180.2 | 176.2 | 170.9 | 166.2 | 166.2 | 165.6 | 163.6 | 164.3 |
| 5° | 239.8 | 240.4 | 237.8 | 229.9 | 222.6 | 211.3 | 198.7 | 197.4 | 196.1 | 194.1 | 193.4 |
| 7.5° | 295.4 | 298.1 | 295.4 | 286.8 | 272.3 | 255.0 | 235.1 | 233.2 | 229.2 | 229.2 | 226.6 |
| 10° | 352.4 | 352.4 | 349.8 | 339.8 | 326.6 | 302.0 | 276.9 | 273.6 | 268.9 | 267.6 | 263.6 |
| 12.5° | 392.8 | 392.8 | 391.5 | 386.2 | 375.6 | 353.7 | 323.3 | 319.9 | 314.0 | 312.0 | 307.4 |
| 15° | 408.7 | 408.7 | 409.4 | 414.0 | 414.7 | 404.7 | 373.0 | 370.3 | 364.3 | 359.0 | 357.1 |
| 17.5° | 418.7 | 418.0 | 418.0 | 424.6 | 436.6 | 443.2 | 422.6 | 420.0 | 413.4 | 410.7 | 404.1 |
| 20° | 440.5 | 439.2 | 435.2 | 435.2 | 446.5 | 469.7 | 469.7 | 469.0 | 461.7 | 459.7 | 456.4 |
| 22.5° | 472.9 | 471.6 | 459.7 | 449.8 | 455.1 | 484.2 | 511.4 | 510.1 | 507.4 | 504.8 | 502.8 |
| 25° | 526.0 | 521.3 | 500.8 | 471.6 | 467.0 | 498.2 | 543.2 | 546.5 | 548.5 | 548.5 | 549.8 |
| 27.5° | 606.1 | 600.2 | 563.7 | 509.4 | 488.9 | 520.7 | 578.3 | 584.9 | 590.9 | 592.2 | 598.1 |
| 30° | 717.4 | 706.8 | 654.5 | 575.0 | 528.0 | 553.8 | 630.0 | 637.2 | 645.9 | 648.5 | 657.8 |
| 32.5° | 900.3 | 894.3 | 844.0 | 724.7 | 624.0 | 618.7 | 702.2 | 711.4 | 722.7 | 727.3 | 738.6 |
| 35° | 1178.5 | 1179.8 | 1138.7 | 1031.4 | 892.3 | 819.4 | 831.3 | 839.3 | 843.3 | 857.2 | 863.1 |
| 37.5° | 1367.3 | 1370.5 | 1379.8 | 1337.5 | 1238.1 | 1163.9 | 1070.5 | 1079.1 | 1058.6 | 1060.6 | 1061.2 |
| 40° | 1470.6 | 1481.2 | 1535.5 | 1576.6 | 1568.6 | 1525.6 | 1450.7 | 1455.3 | 1417.0 | 1408.3 | 1366.6 |
| 42.5° | 1539.5 | 1553.4 | 1640.2 | 1767.3 | 1832.3 | 1871.4 | 1854.2 | 1852.1 | 1822.3 | 1811.1 | 1776.0 |
| 45° | 1582.6 | 1595.1 | 1704.4 | 1891.9 | 2041.6 | 2155.6 | 2202.6 | 2207.9 | 2182.7 | 2171.4 | 2142.3 |
| 47.5° | 1580.5 | 1595.1 | 1712.4 | 1938.2 | 2158.8 | 2341.0 | 2473.5 | 2480.1 | 2495.4 | 2485.5 | 2487.4 |
| 50° | 1493.1 | 1507.0 | 1624.9 | 1859.4 | 2124.4 | 2425.8 | 2668.3 | 2689.5 | 2714.0 | 2730.5 | 2738.4 |
| 52.5° | 1387.1 | 1397.1 | 1501.7 | 1724.3 | 1977.3 | 2390.7 | 2783.5 | 2820.0 | 2856.4 | 2887.6 | 2909.4 |
| 55° | 1348.0 | 1359.3 | 1441.5 | 1626.3 | 1859.4 | 2243.6 | 2837.2 | 2890.8 | 2942.5 | 2993.5 | 3035.3 |
| 57.5° | 1368.6 | 1379.2 | 1438.1 | 1579.9 | 1789.2 | 2088.6 | 2852.4 | 2935.9 | 3020.7 | 3103.5 | 3185.6 |
| 60° | 1444.1 | 1455.3 | 1505.7 | 1623.0 | 1770.7 | 1999.2 | 2792.8 | 2931.2 | 3072.3 | 3216.8 | 3352.6 |
| 62.5° | 1414.3 | 1418.9 | 1493.1 | 1698.4 | 1903.1 | 1923.1 | 2576.2 | 2769.6 | 2984.9 | 3207.5 | 3426.8 |
| 63° | 1385.8 | 1391.1 | 1466.6 | 1677.9 | 1943.5 | 1911.8 | 2509.3 | 2713.3 | 2940.5 | 3180.3 | 3418.8 |
| 65° | 1256.6 | 1257.3 | 1314.9 | 1481.9 | 1898.5 | 1931.6 | 2211.2 | 2406.0 | 2667.0 | 2954.4 | 3255.8 |
| 67.5° | 938.0 | 933.3 | 989.0 | 1116.2 | 1490.5 | 1932.3 | 1897.8 | 2007.2 | 2188.7 | 2443.7 | 2714.0 |
| 70° | 332.6 | 325.2 | 415.3 | 591.5 | 928.7 | 1580.5 | 1630.9 | 1638.2 | 1688.5 | 1826.3 | 1995.9 |
| 72.5° | 108.0 | 109.9 | 132.5 | 216.6 | 427.9 | 1063.8 | 1476.5 | 1454.0 | 1440.8 | 1440.2 | 1462.7 |
| 75° | 43.1 | 43.8 | 53.0 | 96.1 | 192.1 | 512.7 | 1293.1 | 1305.6 | 1310.3 | 1316.9 | 1324.2 |
| 77.5° | 20.6 | 22.5 | 29.8 | 53.6 | 95.4 | 253.7 | 925.4 | 1032.1 | 1093.0 | 1140.1 | 1168.5 |
| 80° | 7.3 | 8.6 | 16.6 | 33.1 | 44.4 | 116.6 | 487.6 | 588.3 | 677.6 | 793.0 | 892.3 |
| 82.5° | 0.0 | 0.0 | 3.3 | 23.2 | 24.5 | 47.0 | 200.0 | 234.5 | 268.3 | 347.7 | 446.5 |
| 85° | 0.0 | 0.0 | 0.0 | 6.6 | 7.3 | 7.9 | 67.6 | 81.4 | 91.4 | 106.7 | 123.2 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 2.0 | 4.0 | 10.0 | 15.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P162330
 CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

| | 60° | 61° | 62° | 64° | 65° | 66° | 67° | 68° | 69° | 70° | 71° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 |
| 2.5° | 163.0 | 162.3 | 162.3 | 160.9 | 160.3 | 159.0 | 158.3 | 156.3 | 155.7 | 155.7 | 155.7 |
| 5° | 192.8 | 190.1 | 188.8 | 185.5 | 183.5 | 182.8 | 179.5 | 178.2 | 176.2 | 176.9 | 173.6 |
| 7.5° | 225.9 | 221.3 | 219.3 | 214.6 | 213.3 | 208.7 | 207.3 | 204.0 | 202.1 | 198.1 | 196.8 |
| 10° | 262.3 | 256.3 | 253.1 | 245.7 | 243.8 | 240.4 | 236.5 | 232.5 | 229.2 | 225.3 | 223.2 |
| 12.5° | 304.1 | 298.8 | 296.1 | 286.1 | 281.6 | 276.9 | 271.6 | 266.3 | 261.0 | 257.7 | 253.1 |
| 15° | 353.1 | 344.5 | 341.8 | 332.6 | 324.6 | 318.6 | 311.4 | 304.7 | 300.7 | 294.1 | 289.5 |
| 17.5° | 401.5 | 392.8 | 390.8 | 376.9 | 368.3 | 364.3 | 356.4 | 347.7 | 340.5 | 333.9 | 326.6 |
| 20° | 449.8 | 443.8 | 438.5 | 425.3 | 416.0 | 409.4 | 398.8 | 390.2 | 384.2 | 374.9 | 365.6 |
| 22.5° | 498.2 | 492.2 | 488.2 | 474.3 | 465.7 | 456.4 | 447.2 | 437.9 | 429.3 | 418.0 | 407.4 |
| 25° | 547.8 | 543.9 | 541.9 | 529.3 | 521.3 | 512.7 | 503.5 | 492.9 | 482.3 | 469.7 | 458.4 |
| 27.5° | 599.5 | 600.8 | 596.8 | 594.2 | 585.6 | 579.6 | 565.1 | 557.7 | 549.8 | 534.6 | 520.7 |
| 30° | 665.1 | 669.1 | 667.8 | 669.7 | 664.4 | 660.4 | 649.1 | 639.9 | 630.6 | 616.1 | 600.2 |
| 32.5° | 747.9 | 753.2 | 755.8 | 763.1 | 760.5 | 759.2 | 755.8 | 742.6 | 736.0 | 710.8 | 704.2 |
| 35° | 875.7 | 873.1 | 884.4 | 890.3 | 887.6 | 886.3 | 882.3 | 875.1 | 867.1 | 849.3 | 832.7 |
| 37.5° | 1042.0 | 1044.6 | 1048.7 | 1036.7 | 1028.7 | 1028.1 | 1016.2 | 1008.9 | 997.6 | 977.7 | 957.9 |
| 40° | 1346.7 | 1330.1 | 1311.6 | 1261.2 | 1239.4 | 1226.8 | 1191.7 | 1181.8 | 1162.6 | 1135.4 | 1114.8 |
| 42.5° | 1742.8 | 1726.3 | 1670.6 | 1586.5 | 1541.5 | 1479.2 | 1450.7 | 1415.6 | 1388.5 | 1344.1 | 1320.2 |
| 45° | 2136.3 | 2088.6 | 2082.0 | 1984.0 | 1928.4 | 1846.2 | 1795.2 | 1736.2 | 1674.6 | 1616.4 | 1573.9 |
| 47.5° | 2468.2 | 2457.6 | 2425.1 | 2365.6 | 2313.9 | 2245.0 | 2179.4 | 2088.6 | 2025.1 | 1942.2 | 1866.1 |
| 50° | 2733.9 | 2733.2 | 2721.2 | 2686.8 | 2643.8 | 2588.1 | 2530.5 | 2453.6 | 2381.4 | 2280.1 | 2198.6 |
| 52.5° | 2932.6 | 2943.2 | 2947.1 | 2936.5 | 2920.0 | 2871.0 | 2841.8 | 2777.5 | 2716.6 | 2630.5 | 2542.4 |
| 55° | 3078.3 | 3117.4 | 3137.3 | 3159.8 | 3155.2 | 3138.0 | 3136.6 | 3094.9 | 3067.0 | 2998.8 | 2936.5 |
| 57.5° | 3258.5 | 3322.7 | 3384.3 | 3493.6 | 3497.6 | 3536.1 | 3555.9 | 3575.8 | 3581.1 | 3553.9 | 3533.4 |
| 60° | 3487.7 | 3618.8 | 3735.4 | 3963.9 | 4023.6 | 4117.6 | 4178.6 | 4244.9 | 4301.2 | 4305.8 | 4304.4 |
| 62.5° | 3649.3 | 3851.3 | 4039.5 | 4378.6 | 4494.6 | 4603.2 | 4684.7 | 4748.9 | 4788.0 | 4827.8 | 4846.4 |
| 63° | 3654.0 | 3875.2 | 4075.3 | 4425.0 | 4546.9 | 4650.2 | 4727.8 | 4787.3 | 4828.4 | 4852.3 | 4864.2 |
| 65° | 3542.0 | 3810.3 | 4048.7 | 4397.2 | 4511.8 | 4615.8 | 4656.2 | 4695.3 | 4715.2 | 4724.4 | 4689.3 |
| 67.5° | 3002.1 | 3264.4 | 3542.7 | 3932.2 | 4030.2 | 4154.8 | 4187.9 | 4207.7 | 4217.0 | 4215.0 | 4185.2 |
| 70° | 2245.0 | 2464.9 | 2774.3 | 3219.4 | 3349.2 | 3471.1 | 3546.7 | 3579.1 | 3589.7 | 3586.4 | 3542.0 |
| 72.5° | 1567.3 | 1696.5 | 1951.5 | 2447.0 | 2623.9 | 2780.2 | 2873.6 | 2922.0 | 2931.9 | 2912.0 | 2871.0 |
| 75° | 1316.3 | 1322.9 | 1380.5 | 1651.4 | 1817.0 | 1984.0 | 2089.3 | 2119.7 | 2099.9 | 2039.6 | 1935.0 |
| 77.5° | 1175.1 | 1189.7 | 1189.7 | 1230.2 | 1262.6 | 1309.0 | 1318.9 | 1244.7 | 1158.6 | 1047.3 | 957.2 |
| 80° | 985.7 | 1036.7 | 1072.5 | 1102.3 | 1105.6 | 1096.3 | 1071.8 | 1030.1 | 963.9 | 879.1 | 785.0 |
| 82.5° | 598.8 | 699.5 | 740.6 | 894.3 | 969.8 | 1020.8 | 1016.8 | 961.2 | 910.8 | 822.7 | 742.6 |
| 85° | 151.1 | 163.0 | 176.9 | 229.9 | 257.7 | 314.6 | 350.5 | 367.0 | 373.0 | 342.4 | 310.0 |
| 87.5° | 14.6 | 10.0 | 16.6 | 12.6 | 17.9 | 13.2 | 17.9 | 16.6 | 20.6 | 21.9 | 23.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P162330
 CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

| | 72° | 73° | 74° | 75° | 76° | 77° | 78° | 79° | 80° | 81° | 82° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 |
| 2.5° | 154.3 | 153.7 | 153.0 | 152.4 | 151.7 | 151.1 | 149.7 | 149.7 | 148.4 | 147.7 | 147.1 |
| 5° | 171.5 | 170.2 | 169.6 | 168.3 | 166.2 | 164.9 | 163.0 | 160.3 | 158.3 | 157.7 | 156.3 |
| 7.5° | 193.4 | 190.1 | 188.8 | 186.8 | 184.1 | 180.2 | 177.5 | 175.6 | 172.2 | 170.2 | 166.2 |
| 10° | 217.9 | 214.6 | 210.6 | 206.7 | 202.7 | 198.1 | 194.7 | 192.1 | 186.8 | 184.1 | 179.5 |
| 12.5° | 249.1 | 243.1 | 238.5 | 233.2 | 227.9 | 222.6 | 218.6 | 210.6 | 206.0 | 200.0 | 196.1 |
| 15° | 280.9 | 275.6 | 270.3 | 263.6 | 255.7 | 247.1 | 243.1 | 235.8 | 229.9 | 220.6 | 215.3 |
| 17.5° | 319.3 | 309.4 | 301.4 | 293.5 | 286.1 | 278.2 | 270.3 | 259.0 | 250.4 | 242.5 | 231.9 |
| 20° | 357.1 | 345.1 | 336.5 | 325.9 | 315.3 | 302.7 | 293.5 | 285.5 | 273.6 | 263.0 | 251.7 |
| 22.5° | 397.5 | 385.5 | 371.6 | 361.0 | 346.4 | 336.5 | 323.9 | 310.7 | 298.8 | 284.8 | 271.0 |
| 25° | 446.5 | 433.9 | 418.0 | 404.1 | 387.5 | 373.6 | 358.4 | 343.1 | 328.6 | 312.7 | 294.8 |
| 27.5° | 506.7 | 493.5 | 476.3 | 459.7 | 437.9 | 420.6 | 406.1 | 385.5 | 367.0 | 347.1 | 326.6 |
| 30° | 583.0 | 568.4 | 547.1 | 523.3 | 501.4 | 482.3 | 461.7 | 434.6 | 414.0 | 390.2 | 363.7 |
| 32.5° | 682.3 | 665.1 | 636.6 | 614.1 | 586.9 | 561.7 | 533.3 | 506.1 | 476.9 | 445.8 | 415.3 |
| 35° | 807.5 | 791.6 | 758.5 | 725.4 | 695.6 | 665.7 | 630.0 | 598.8 | 557.7 | 520.0 | 481.0 |
| 37.5° | 937.3 | 908.8 | 878.4 | 842.6 | 805.5 | 769.8 | 726.0 | 682.9 | 635.9 | 594.9 | 545.8 |
| 40° | 1085.7 | 1051.3 | 1026.1 | 987.7 | 935.4 | 884.4 | 844.0 | 790.3 | 731.3 | 676.3 | 618.7 |
| 42.5° | 1289.1 | 1250.6 | 1205.6 | 1147.3 | 1109.6 | 1050.0 | 997.6 | 934.0 | 856.5 | 794.9 | 725.4 |
| 45° | 1524.2 | 1471.9 | 1428.2 | 1371.9 | 1326.2 | 1252.0 | 1191.1 | 1106.3 | 1028.7 | 947.9 | 863.1 |
| 47.5° | 1792.6 | 1727.6 | 1664.0 | 1608.3 | 1535.5 | 1462.7 | 1385.1 | 1295.0 | 1195.7 | 1106.9 | 1006.2 |
| 50° | 2100.6 | 2008.5 | 1920.4 | 1848.9 | 1748.8 | 1664.7 | 1580.5 | 1479.2 | 1369.2 | 1267.2 | 1152.6 |
| 52.5° | 2443.0 | 2336.4 | 2219.8 | 2109.9 | 1993.9 | 1885.9 | 1784.5 | 1668.0 | 1545.4 | 1420.9 | 1293.1 |
| 55° | 2856.4 | 2776.2 | 2639.1 | 2499.3 | 2344.3 | 2199.9 | 2069.4 | 1925.0 | 1776.0 | 1612.3 | 1477.8 |
| 57.5° | 3503.6 | 3464.5 | 3349.9 | 3210.1 | 3008.1 | 2832.5 | 2611.3 | 2434.4 | 2218.5 | 1993.2 | 1819.7 |
| 60° | 4380.7 | 4332.3 | 4268.0 | 4154.8 | 3994.5 | 3756.0 | 3512.2 | 3237.3 | 2908.7 | 2596.7 | 2300.6 |
| 62.5° | 4848.3 | 4831.1 | 4778.8 | 4700.6 | 4550.9 | 4362.7 | 4117.0 | 3814.9 | 3444.0 | 3065.1 | 2687.4 |
| 63° | 4862.2 | 4840.4 | 4795.4 | 4715.9 | 4584.0 | 4401.8 | 4160.7 | 3867.2 | 3504.2 | 3118.0 | 2732.5 |
| 65° | 4674.1 | 4665.5 | 4619.8 | 4533.0 | 4442.9 | 4303.8 | 4117.0 | 3864.6 | 3559.9 | 3194.9 | 2811.3 |
| 67.5° | 4145.5 | 4119.7 | 4049.4 | 4023.0 | 3960.0 | 3863.3 | 3720.8 | 3547.3 | 3329.4 | 3042.5 | 2711.3 |
| 70° | 3506.3 | 3467.8 | 3379.7 | 3332.7 | 3255.8 | 3194.9 | 3108.1 | 2984.3 | 2849.8 | 2649.7 | 2402.6 |
| 72.5° | 2828.5 | 2749.1 | 2668.3 | 2545.7 | 2438.4 | 2329.7 | 2233.7 | 2146.3 | 1998.5 | 1917.8 | 1730.3 |
| 75° | 1836.9 | 1692.5 | 1554.1 | 1368.6 | 1201.7 | 1054.0 | 910.1 | 837.3 | 685.6 | 624.0 | 535.9 |
| 77.5° | 871.8 | 790.9 | 682.3 | 598.1 | 490.9 | 400.8 | 327.3 | 245.7 | 192.8 | 151.1 | 115.2 |
| 80° | 703.5 | 635.3 | 569.7 | 493.5 | 412.7 | 329.2 | 252.4 | 188.8 | 133.8 | 92.7 | 65.6 |
| 82.5° | 627.3 | 553.1 | 472.3 | 420.0 | 365.0 | 298.8 | 245.1 | 200.0 | 147.7 | 108.0 | 73.5 |
| 85° | 243.8 | 205.3 | 158.3 | 129.2 | 100.7 | 82.8 | 74.8 | 51.7 | 40.4 | 31.8 | 24.5 |
| 87.5° | 21.2 | 17.2 | 13.9 | 9.3 | 10.0 | 5.3 | 6.0 | 4.0 | 3.3 | 3.3 | 2.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P162330
 CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

| | 83° | 84° | 85° | 86° | 87° | 88° | 89° | 90° | 95° | 105° | 115° |
|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| 0° | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 |
| 2.5° | 146.4 | 145.8 | 145.1 | 143.7 | 143.7 | 142.4 | 141.8 | 141.1 | 137.8 | 130.5 | 124.5 |
| 5° | 153.7 | 152.4 | 151.1 | 149.0 | 147.7 | 145.8 | 144.4 | 142.4 | 135.2 | 121.2 | 109.3 |
| 7.5° | 164.3 | 161.6 | 159.6 | 155.7 | 153.7 | 151.1 | 149.0 | 145.8 | 133.8 | 112.6 | 96.1 |
| 10° | 176.9 | 172.2 | 168.9 | 164.3 | 160.3 | 157.0 | 153.7 | 149.0 | 132.5 | 103.3 | 84.1 |
| 12.5° | 192.1 | 186.8 | 180.2 | 174.9 | 169.6 | 164.9 | 160.3 | 154.3 | 130.5 | 95.4 | 74.8 |
| 15° | 207.3 | 199.4 | 194.7 | 187.5 | 180.2 | 173.6 | 166.9 | 161.6 | 131.2 | 86.7 | 66.9 |
| 17.5° | 224.6 | 216.6 | 206.7 | 198.7 | 190.8 | 182.2 | 174.2 | 163.6 | 127.9 | 80.1 | 61.0 |
| 20° | 241.1 | 229.9 | 220.6 | 210.6 | 199.4 | 188.8 | 178.9 | 169.6 | 125.2 | 73.5 | 55.7 |
| 22.5° | 259.0 | 245.7 | 233.8 | 221.3 | 207.3 | 195.4 | 183.5 | 171.5 | 120.5 | 67.6 | 51.0 |
| 25° | 280.9 | 265.7 | 248.4 | 233.2 | 218.6 | 204.0 | 188.8 | 174.2 | 115.9 | 62.3 | 47.7 |
| 27.5° | 307.4 | 287.5 | 270.3 | 251.0 | 230.5 | 211.9 | 195.4 | 179.5 | 111.3 | 58.3 | 44.4 |
| 30° | 341.1 | 318.0 | 293.5 | 268.9 | 247.1 | 225.9 | 202.7 | 182.8 | 106.7 | 54.3 | 41.0 |
| 32.5° | 386.2 | 357.1 | 327.3 | 298.8 | 269.6 | 242.5 | 217.9 | 192.1 | 104.0 | 51.0 | 37.8 |
| 35° | 445.8 | 408.1 | 371.6 | 335.8 | 300.7 | 267.6 | 235.8 | 206.7 | 104.0 | 47.0 | 33.8 |
| 37.5° | 502.1 | 458.4 | 412.0 | 367.7 | 325.9 | 287.5 | 249.7 | 214.6 | 98.7 | 43.8 | 30.4 |
| 40° | 563.0 | 510.7 | 456.4 | 404.1 | 353.7 | 306.1 | 263.0 | 222.6 | 94.1 | 39.7 | 27.2 |
| 42.5° | 656.5 | 590.2 | 519.3 | 458.4 | 398.1 | 339.2 | 285.5 | 237.8 | 88.1 | 35.7 | 23.8 |
| 45° | 779.0 | 694.9 | 611.5 | 537.3 | 460.4 | 388.2 | 324.6 | 265.7 | 86.7 | 32.5 | 20.6 |
| 47.5° | 910.1 | 810.8 | 712.8 | 618.1 | 528.0 | 443.8 | 367.7 | 296.7 | 86.7 | 29.1 | 17.9 |
| 50° | 1040.6 | 916.1 | 811.5 | 701.5 | 600.2 | 500.8 | 410.0 | 329.2 | 87.4 | 26.5 | 14.6 |
| 52.5° | 1158.6 | 1025.5 | 908.2 | 781.0 | 669.1 | 553.8 | 455.1 | 361.0 | 86.1 | 23.2 | 11.9 |
| 55° | 1322.2 | 1165.8 | 1030.1 | 889.7 | 758.5 | 628.7 | 516.7 | 408.7 | 86.7 | 20.6 | 10.0 |
| 57.5° | 1623.6 | 1440.2 | 1276.5 | 1092.3 | 941.3 | 773.7 | 637.9 | 506.7 | 94.8 | 17.2 | 7.3 |
| 60° | 2056.2 | 1817.7 | 1587.9 | 1363.3 | 1171.1 | 971.8 | 795.6 | 641.2 | 111.3 | 13.9 | 5.3 |
| 62.5° | 2347.0 | 2035.0 | 1760.7 | 1513.0 | 1289.7 | 1081.1 | 889.0 | 713.5 | 122.6 | 11.3 | 3.3 |
| 63° | 2376.8 | 2054.2 | 1778.6 | 1522.9 | 1295.0 | 1086.4 | 892.9 | 718.8 | 123.2 | 10.6 | 3.3 |
| 65° | 2433.1 | 2087.3 | 1788.6 | 1524.9 | 1289.7 | 1079.1 | 890.3 | 718.1 | 124.5 | 8.6 | 2.6 |
| 67.5° | 2368.8 | 2036.3 | 1730.9 | 1468.0 | 1243.4 | 1036.0 | 857.2 | 691.6 | 123.9 | 6.0 | 2.0 |
| 70° | 2118.4 | 1842.9 | 1574.6 | 1329.5 | 1125.4 | 938.0 | 780.3 | 630.6 | 113.9 | 4.0 | 1.3 |
| 72.5° | 1555.4 | 1367.9 | 1159.9 | 983.0 | 847.9 | 704.2 | 600.8 | 473.6 | 88.1 | 2.6 | 0.7 |
| 75° | 461.0 | 420.0 | 353.1 | 311.4 | 274.9 | 227.2 | 202.1 | 157.7 | 45.1 | 1.3 | 0.0 |
| 77.5° | 92.1 | 83.5 | 74.8 | 68.2 | 64.2 | 55.0 | 52.3 | 43.1 | 18.5 | 0.7 | 0.0 |
| 80° | 48.4 | 39.7 | 33.8 | 29.8 | 25.8 | 21.2 | 17.9 | 14.6 | 3.3 | 0.0 | 0.0 |
| 82.5° | 46.4 | 31.1 | 22.5 | 18.5 | 15.9 | 12.6 | 10.0 | 7.3 | 2.0 | 0.0 | 0.0 |
| 85° | 17.2 | 13.2 | 10.0 | 7.9 | 6.6 | 6.0 | 4.7 | 4.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.6 | 2.0 | 2.0 | 1.3 | 1.3 | 0.7 | 0.7 | 0.7 | 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 |



REPORT NUMBER: P162330

CATALOG NUMBER: EMM-F03-LED-E1-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

| | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 | 139.8 |
| 2.5° | 118.6 | 113.3 | 110.6 | 107.3 | 107.3 | 106.7 | 108.0 |
| 5° | 98.7 | 91.4 | 86.1 | 82.1 | 82.8 | 80.8 | 81.4 |
| 7.5° | 83.5 | 76.2 | 71.6 | 68.9 | 68.2 | 67.6 | 67.6 |
| 10° | 72.2 | 65.6 | 61.6 | 59.6 | 58.9 | 58.9 | 58.9 |
| 12.5° | 64.2 | 57.6 | 54.3 | 53.0 | 53.0 | 52.3 | 52.3 |
| 15° | 57.6 | 52.3 | 49.1 | 47.7 | 47.7 | 47.0 | 47.7 |
| 17.5° | 52.3 | 47.0 | 44.4 | 43.1 | 43.1 | 42.4 | 42.4 |
| 20° | 47.7 | 43.1 | 40.4 | 38.4 | 38.4 | 37.8 | 38.4 |
| 22.5° | 43.8 | 39.1 | 35.7 | 34.4 | 33.8 | 33.1 | 33.8 |
| 25° | 39.7 | 35.1 | 31.8 | 29.8 | 29.1 | 29.1 | 28.5 |
| 27.5° | 36.4 | 31.8 | 27.8 | 25.8 | 25.2 | 25.2 | 24.5 |
| 30° | 33.1 | 27.8 | 23.8 | 21.9 | 21.2 | 21.2 | 21.2 |
| 32.5° | 29.8 | 23.8 | 20.6 | 18.5 | 17.9 | 17.9 | 17.9 |
| 35° | 26.5 | 20.6 | 17.2 | 15.3 | 14.6 | 14.6 | 14.6 |
| 37.5° | 22.5 | 17.2 | 13.2 | 11.9 | 11.3 | 10.6 | 10.6 |
| 40° | 19.2 | 13.2 | 10.0 | 8.6 | 7.3 | 7.3 | 7.3 |
| 42.5° | 15.9 | 10.6 | 7.3 | 5.3 | 4.7 | 4.0 | 4.7 |
| 45° | 13.2 | 7.9 | 4.7 | 2.6 | 2.0 | 2.0 | 2.0 |
| 47.5° | 10.6 | 5.3 | 2.0 | 0.7 | 0.7 | 0.7 | 0.7 |
| 50° | 7.9 | 3.3 | 0.7 | 0.0 | 0.0 | 0.7 | 0.7 |
| 52.5° | 6.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 3.3 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57.5° | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63° | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 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 |

(END OF REPORT)