

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: P140596

Luminaire Tested: **ECM-F02-LED-E1-5XQ-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140596
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33688)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F02-LED-E1-5XQ-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5051.2 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B3 - U0 - G2

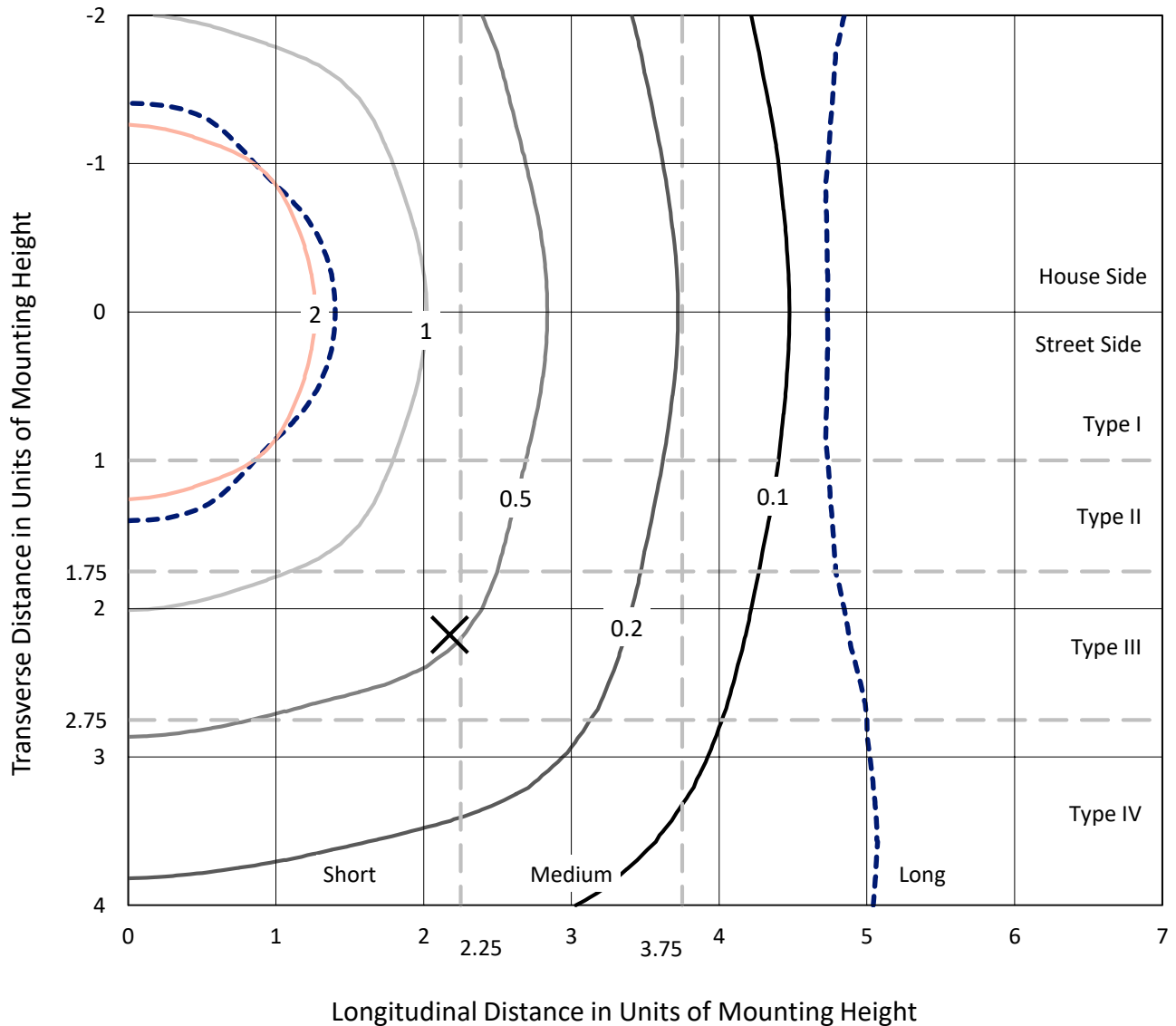
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

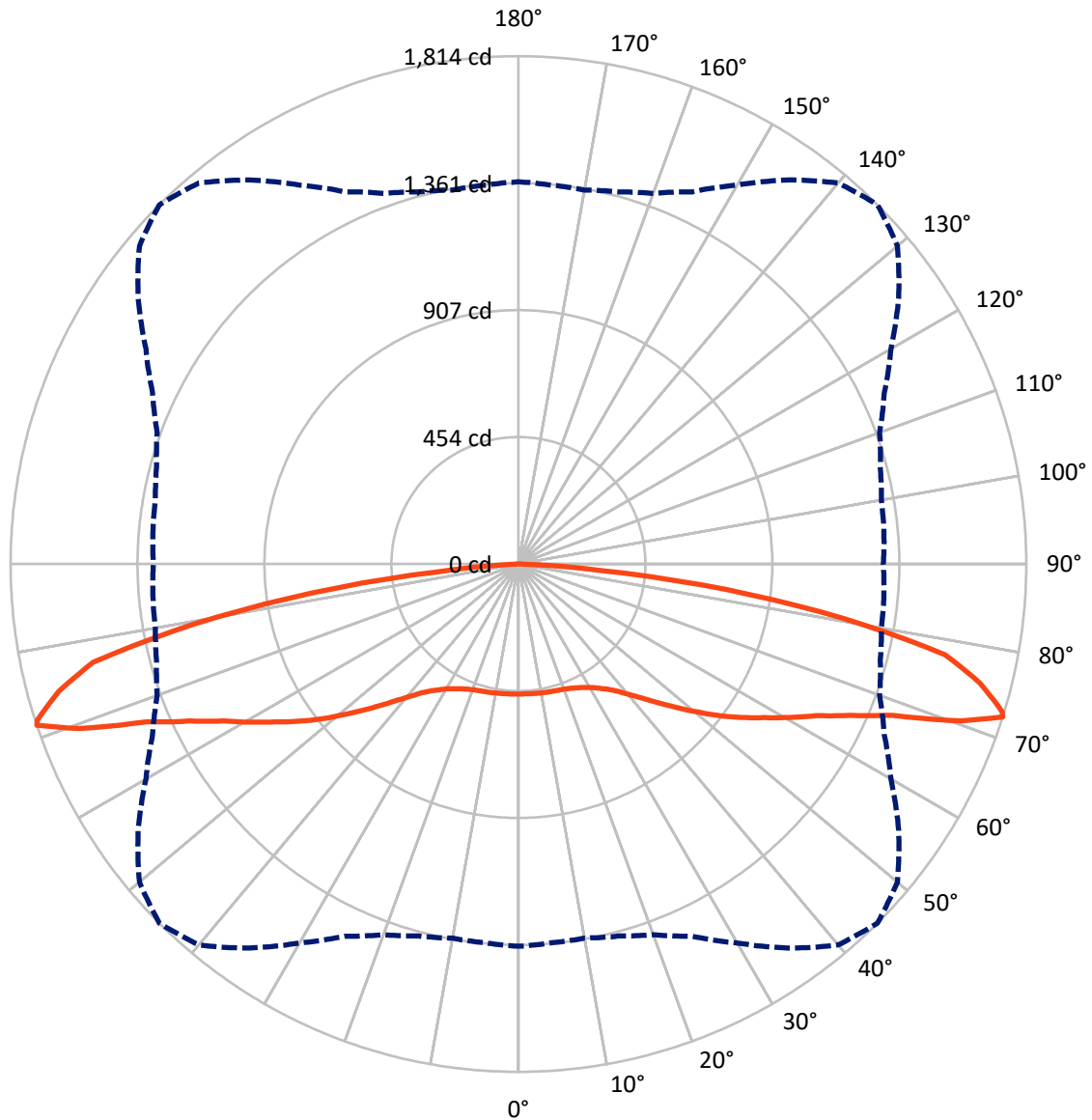
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2525.6 | 0.0 | 2525.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 2525.6 | 0.0 | 2525.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 5051.2 | 0.0 | 5051.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 44.5 | 0.9 |
| 10°-20° | 134.0 | 2.7 |
| 20°-30° | 226.7 | 4.5 |
| 30°-40° | 345.0 | 6.8 |
| 40°-50° | 546.1 | 10.8 |
| 50°-60° | 836.9 | 16.6 |
| 60°-70° | 1228.7 | 24.3 |
| 70°-80° | 1393.8 | 27.6 |
| 80°-90° | 295.3 | 5.8 |
| 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° | 5051.2 | 100.0 |
| 0°-180° | 5051.2 | 100.0 |



REPORT NUMBER: P140596

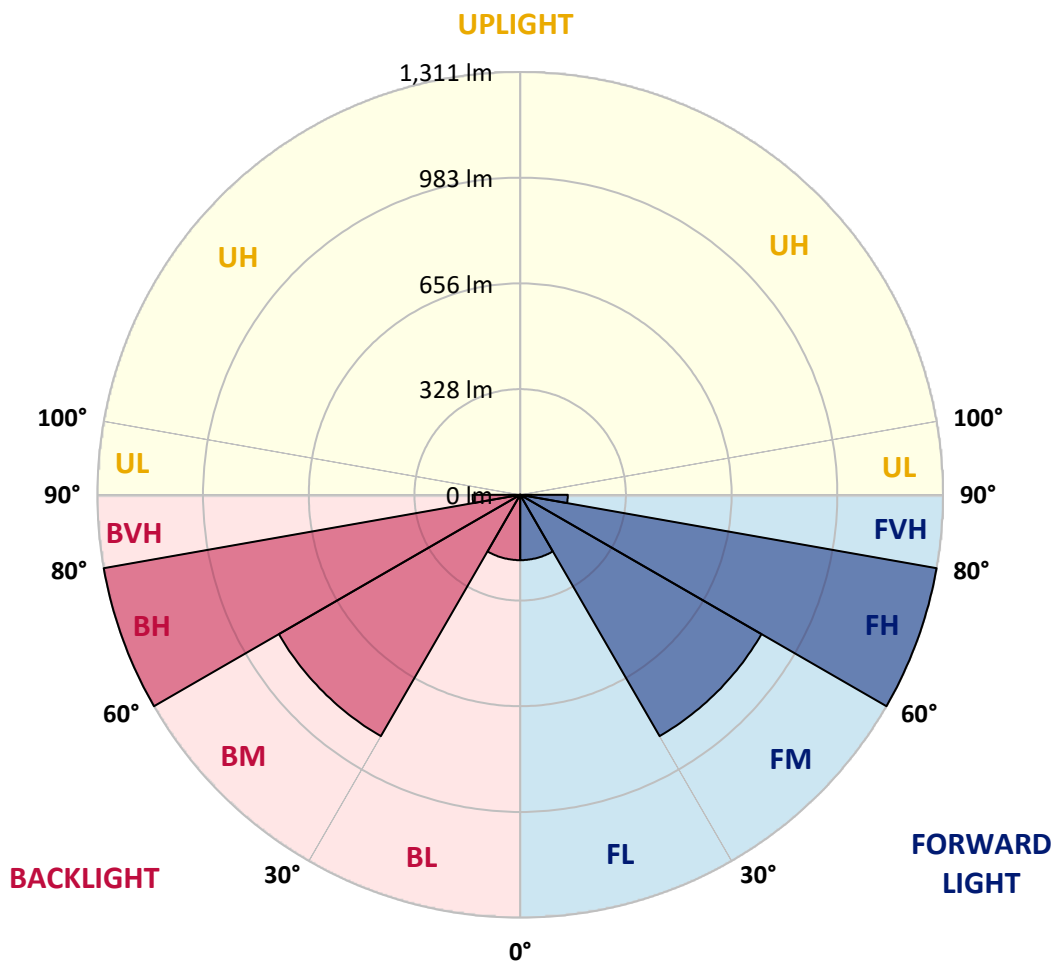
CATALOG NUMBER: ECM-F02-LED-E1-5XQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 202.6 | 4.0 | | | |
| FM (30°-60°) | 864.0 | 17.1 | | | |
| FH (60°-80°) | 1311.3 | 26.0 | | | G1/1800 |
| FVH (80°-90°) | 147.6 | 2.9 | | | G2/225 |
| BL (0°-30°) | 202.6 | 4.0 | B1/500 | | |
| BM (30°-60°) | 864.0 | 17.1 | B1/1000 | | |
| BH (60°-80°) | 1311.3 | 26.0 | B3/2500 | | G1/1800 |
| BVH (80°-90°) | 147.6 | 2.9 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type V Short





REPORT NUMBER: P140596

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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 |
| 2.5° | 465.9 | 466.5 | 465.9 | 465.3 | 465.3 | 464.8 | 464.8 | 464.8 | 465.3 | 464.2 | 464.2 |
| 5° | 467.0 | 467.6 | 467.0 | 465.9 | 465.9 | 465.9 | 465.3 | 465.3 | 465.9 | 465.3 | 465.3 |
| 7.5° | 468.7 | 469.3 | 468.7 | 467.6 | 467.6 | 467.0 | 466.5 | 466.5 | 467.6 | 466.5 | 466.5 |
| 10° | 470.4 | 471.5 | 470.4 | 469.3 | 469.3 | 468.7 | 468.2 | 468.2 | 468.7 | 467.6 | 467.6 |
| 12.5° | 473.2 | 473.2 | 472.7 | 472.1 | 472.1 | 471.5 | 471.0 | 470.4 | 469.8 | 469.3 | 468.7 |
| 15° | 475.5 | 476.1 | 474.9 | 474.4 | 473.8 | 473.2 | 472.7 | 472.7 | 471.5 | 471.0 | 471.0 |
| 17.5° | 478.3 | 478.9 | 477.8 | 476.6 | 476.6 | 475.5 | 474.9 | 474.9 | 473.8 | 473.2 | 472.7 |
| 20° | 481.1 | 481.7 | 480.6 | 480.0 | 479.4 | 478.9 | 477.8 | 478.3 | 477.8 | 476.6 | 476.6 |
| 22.5° | 484.5 | 484.5 | 484.0 | 483.4 | 483.4 | 482.8 | 482.3 | 483.4 | 482.3 | 482.3 | 481.7 |
| 25° | 487.9 | 488.5 | 487.9 | 487.9 | 488.5 | 488.5 | 489.0 | 490.2 | 490.2 | 489.6 | 489.0 |
| 27.5° | 495.3 | 495.3 | 495.3 | 495.3 | 497.0 | 497.0 | 497.5 | 499.2 | 499.8 | 499.8 | 499.8 |
| 30° | 504.9 | 505.4 | 504.9 | 504.9 | 506.6 | 507.1 | 508.8 | 510.5 | 511.6 | 511.6 | 512.2 |
| 32.5° | 519.0 | 518.4 | 519.0 | 520.1 | 521.2 | 522.4 | 524.1 | 526.9 | 528.6 | 529.1 | 529.1 |
| 35° | 537.0 | 537.6 | 537.0 | 537.6 | 539.9 | 541.6 | 543.3 | 546.6 | 547.8 | 548.9 | 549.5 |
| 37.5° | 563.6 | 565.3 | 564.2 | 564.2 | 567.0 | 568.1 | 570.4 | 573.2 | 575.4 | 576.6 | 576.0 |
| 40° | 602.0 | 601.4 | 600.3 | 600.9 | 601.4 | 602.6 | 604.8 | 610.5 | 613.3 | 613.3 | 613.3 |
| 42.5° | 646.0 | 646.6 | 644.9 | 644.3 | 644.9 | 646.0 | 649.4 | 653.9 | 658.5 | 657.3 | 657.9 |
| 45° | 696.3 | 692.3 | 693.5 | 692.3 | 692.9 | 696.9 | 702.5 | 704.8 | 709.3 | 709.3 | 710.4 |
| 47.5° | 745.4 | 743.7 | 743.2 | 742.6 | 744.3 | 748.3 | 755.0 | 762.4 | 766.3 | 768.6 | 770.3 |
| 50° | 800.8 | 797.9 | 797.4 | 797.9 | 798.5 | 799.6 | 812.6 | 820.0 | 829.6 | 831.3 | 830.7 |
| 52.5° | 854.4 | 852.2 | 851.0 | 851.0 | 853.3 | 857.2 | 870.8 | 882.7 | 893.4 | 900.2 | 897.3 |
| 55° | 912.6 | 912.6 | 909.2 | 908.1 | 911.5 | 915.4 | 934.0 | 947.6 | 962.8 | 967.9 | 960.0 |
| 57.5° | 972.4 | 971.9 | 966.8 | 965.1 | 967.9 | 978.1 | 993.9 | 1014.8 | 1031.2 | 1035.7 | 1031.2 |
| 60° | 1031.2 | 1031.2 | 1028.3 | 1027.2 | 1030.0 | 1042.5 | 1061.7 | 1084.8 | 1104.6 | 1113.1 | 1105.7 |
| 62.5° | 1098.4 | 1098.4 | 1091.0 | 1094.4 | 1098.4 | 1108.0 | 1132.3 | 1162.2 | 1188.7 | 1193.2 | 1186.5 |
| 65° | 1174.6 | 1178.0 | 1172.4 | 1171.2 | 1176.3 | 1194.4 | 1222.0 | 1259.9 | 1290.9 | 1302.8 | 1292.6 |
| 67.5° | 1290.9 | 1285.9 | 1279.1 | 1276.3 | 1284.2 | 1301.1 | 1335.0 | 1384.7 | 1430.4 | 1441.7 | 1429.9 |
| 70° | 1411.8 | 1406.7 | 1404.5 | 1413.5 | 1430.4 | 1466.0 | 1518.0 | 1587.4 | 1651.2 | 1678.3 | 1653.5 |
| 72° | 1365.5 | 1358.7 | 1357.0 | 1376.2 | 1409.0 | 1467.1 | 1563.1 | 1675.0 | 1776.6 | 1814.4 | 1767.6 |
| 72.5° | 1341.8 | 1336.1 | 1335.6 | 1353.6 | 1389.2 | 1447.9 | 1542.2 | 1657.4 | 1766.4 | 1807.7 | 1757.4 |
| 75° | 1245.8 | 1240.1 | 1245.8 | 1266.1 | 1301.7 | 1364.9 | 1460.9 | 1568.8 | 1667.0 | 1704.9 | 1655.8 |
| 77.5° | 1113.1 | 1102.9 | 1108.0 | 1136.2 | 1175.7 | 1244.6 | 1346.3 | 1473.9 | 1568.8 | 1558.6 | 1485.8 |
| 80° | 888.3 | 865.7 | 890.0 | 898.5 | 943.6 | 989.9 | 1088.2 | 1145.2 | 1178.0 | 1179.7 | 1127.7 |
| 82.5° | 388.0 | 397.0 | 427.5 | 452.9 | 485.1 | 538.7 | 578.3 | 639.8 | 711.5 | 744.9 | 704.8 |
| 85° | 25.4 | 31.6 | 50.3 | 59.9 | 83.0 | 101.1 | 145.1 | 211.2 | 254.7 | 291.4 | 245.7 |
| 87.5° | 4.5 | 6.2 | 11.3 | 13.6 | 14.7 | 16.4 | 16.4 | 22.6 | 23.7 | 19.2 | 21.5 |
| 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: P140596

CATALOG NUMBER: ECM-F02-LED-E1-5XQ-7050

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 | 464.2 |
| 2.5° | 464.2 | 464.2 | 464.8 | 464.2 | 464.2 | 464.2 | 463.6 | 463.6 |
| 5° | 464.8 | 464.8 | 465.3 | 465.3 | 464.8 | 464.8 | 464.8 | 464.8 |
| 7.5° | 466.5 | 465.9 | 466.5 | 466.5 | 465.9 | 465.9 | 465.3 | 465.9 |
| 10° | 467.0 | 467.0 | 467.6 | 467.6 | 467.0 | 467.0 | 467.0 | 467.0 |
| 12.5° | 468.7 | 468.7 | 468.7 | 469.3 | 468.7 | 468.7 | 469.3 | 468.7 |
| 15° | 470.4 | 469.8 | 469.8 | 469.8 | 469.8 | 470.4 | 470.4 | 471.0 |
| 17.5° | 472.1 | 472.1 | 471.5 | 472.1 | 472.1 | 472.7 | 472.7 | 472.7 |
| 20° | 475.5 | 474.9 | 473.8 | 474.9 | 474.9 | 474.9 | 474.9 | 475.5 |
| 22.5° | 480.6 | 479.4 | 478.3 | 478.3 | 477.8 | 478.3 | 477.8 | 477.8 |
| 25° | 487.9 | 486.2 | 484.5 | 484.0 | 483.4 | 482.8 | 482.3 | 482.8 |
| 27.5° | 498.6 | 496.4 | 494.1 | 493.0 | 492.4 | 491.3 | 490.7 | 490.7 |
| 30° | 510.5 | 508.8 | 505.4 | 504.3 | 502.6 | 500.9 | 500.9 | 500.3 |
| 32.5° | 528.6 | 526.3 | 522.4 | 520.7 | 517.8 | 516.2 | 515.6 | 515.6 |
| 35° | 547.2 | 544.4 | 542.7 | 540.4 | 537.0 | 535.4 | 534.8 | 534.8 |
| 37.5° | 575.4 | 572.1 | 569.8 | 567.0 | 566.4 | 564.2 | 564.2 | 564.2 |
| 40° | 612.2 | 609.3 | 606.5 | 604.2 | 602.6 | 600.9 | 598.6 | 598.6 |
| 42.5° | 657.3 | 652.8 | 651.1 | 648.3 | 646.0 | 644.3 | 643.2 | 643.2 |
| 45° | 707.0 | 703.1 | 700.8 | 696.9 | 696.3 | 695.2 | 692.9 | 692.9 |
| 47.5° | 762.9 | 757.3 | 752.8 | 751.6 | 748.8 | 746.0 | 744.9 | 745.4 |
| 50° | 823.9 | 814.3 | 808.1 | 808.1 | 804.7 | 800.8 | 801.3 | 800.8 |
| 52.5° | 886.6 | 875.9 | 868.0 | 862.3 | 858.4 | 857.8 | 858.4 | 857.8 |
| 55° | 949.9 | 938.6 | 929.0 | 922.7 | 918.8 | 914.8 | 914.3 | 914.3 |
| 57.5° | 1015.4 | 1001.2 | 986.0 | 980.3 | 976.4 | 974.1 | 974.1 | 974.7 |
| 60° | 1089.3 | 1066.2 | 1047.0 | 1039.6 | 1036.8 | 1037.9 | 1037.4 | 1037.9 |
| 62.5° | 1164.4 | 1137.9 | 1115.3 | 1106.8 | 1102.9 | 1102.3 | 1106.8 | 1108.5 |
| 65° | 1259.3 | 1226.6 | 1201.2 | 1185.3 | 1185.3 | 1183.6 | 1188.7 | 1186.5 |
| 67.5° | 1383.0 | 1336.7 | 1305.6 | 1280.2 | 1280.8 | 1282.5 | 1289.8 | 1289.2 |
| 70° | 1593.6 | 1511.7 | 1454.1 | 1410.7 | 1393.7 | 1382.4 | 1380.2 | 1380.2 |
| 72° | 1658.6 | 1536.6 | 1441.7 | 1373.4 | 1338.4 | 1316.9 | 1310.7 | 1303.9 |
| 72.5° | 1641.6 | 1516.3 | 1420.3 | 1349.1 | 1313.0 | 1291.5 | 1281.9 | 1273.4 |
| 75° | 1534.9 | 1394.9 | 1290.4 | 1215.8 | 1175.7 | 1149.8 | 1144.7 | 1140.7 |
| 77.5° | 1354.2 | 1230.0 | 1122.1 | 1044.7 | 1004.6 | 971.3 | 957.8 | 956.6 |
| 80° | 1044.2 | 932.3 | 849.3 | 788.9 | 752.8 | 727.9 | 729.0 | 721.1 |
| 82.5° | 616.1 | 521.8 | 450.6 | 369.9 | 316.8 | 286.3 | 267.1 | 264.9 |
| 85° | 181.3 | 123.1 | 78.5 | 56.5 | 40.7 | 30.5 | 22.6 | 20.3 |
| 87.5° | 16.4 | 13.0 | 10.7 | 9.0 | 8.5 | 7.3 | 4.5 | 3.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)