

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: LUMARK

Report Number: P1449790

Luminaire Tested: **AXCS4ARL-GRF-W**

Issue Date: 5/12/2026

Test Information

Test Method: LM-79-08
Report Number: P1449790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1901-095-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/12/2026
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: AXCS4ARL-GRF-W
Description: 4A AXCENT LED REFRACTIVE LENS WALLPACK WITH 3000K 80CRI LEDS AND GLARE REDUCTING LENS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4743 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 0.5' x H: 0.17')
IES Classification: Type IV - Short
BUG Rating: B1 - U4 - G3

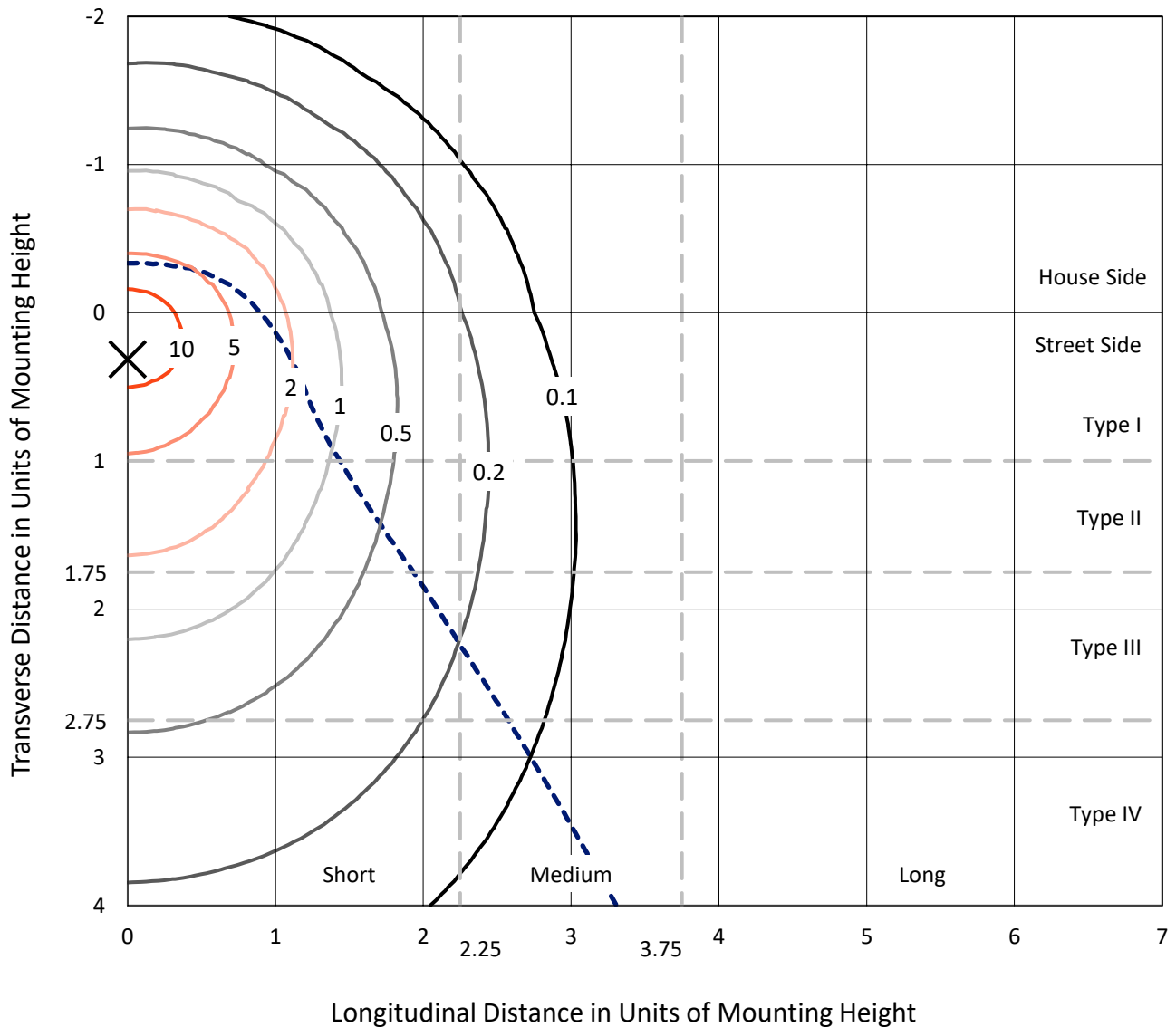
Input Watts (W): 37.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

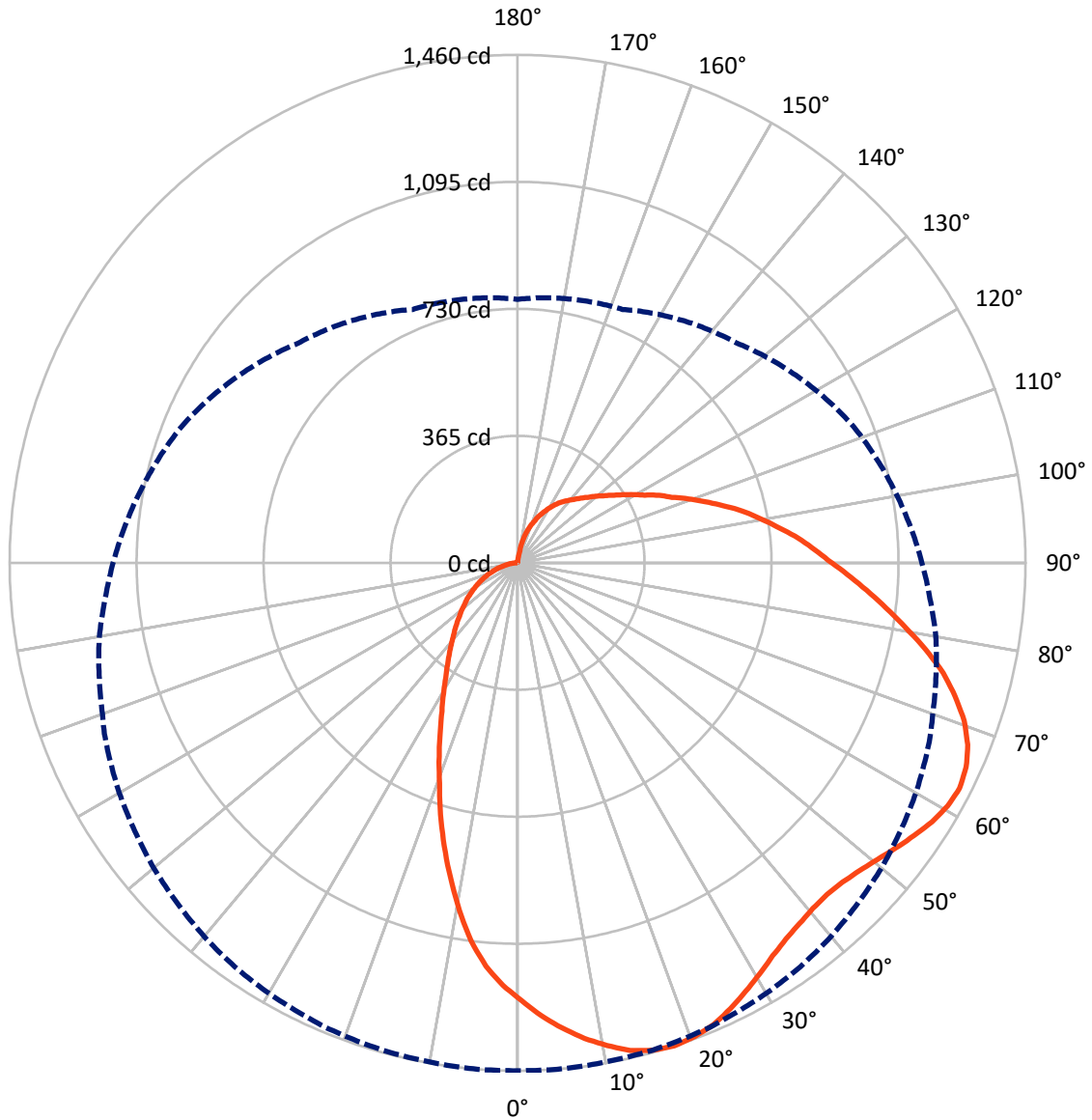
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 17.5-Deg Vertical

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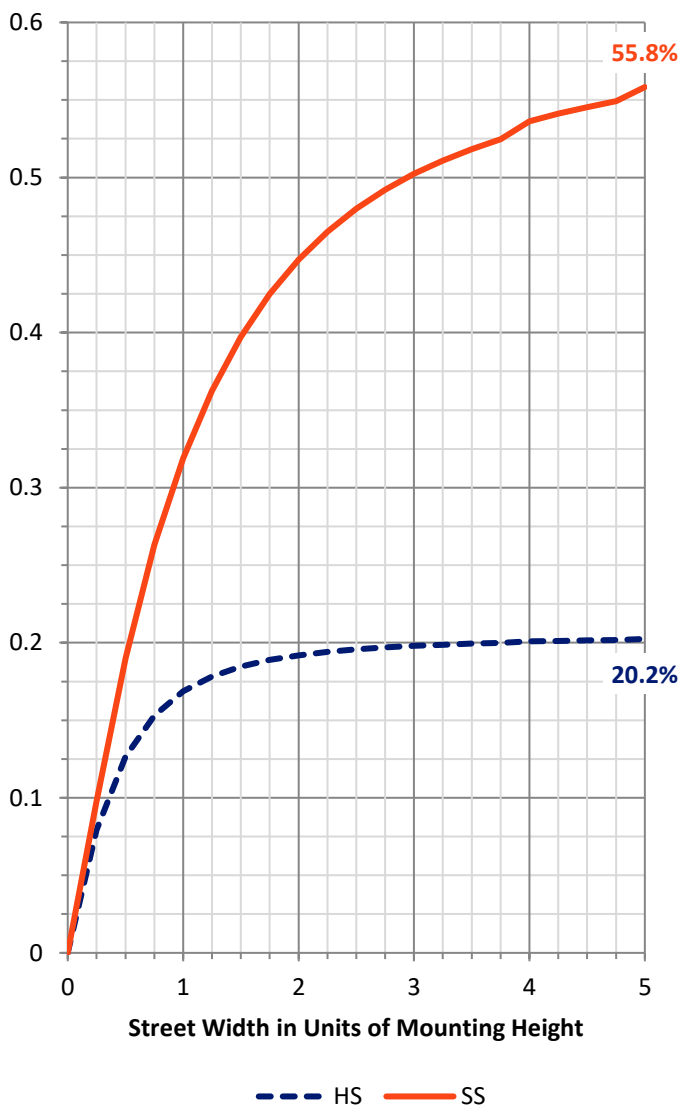
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 976.6 | 66.8 | 1043.4 |
| | % Fixture | 20.6 | 1.4 | 22.0 |
| Street Side | Lumens | 2871.1 | 828.4 | 3699.6 |
| | % Fixture | 60.5 | 17.5 | 78.0 |
| Total | Lumens | 3847.7 | 895.2 | 4743.0 |
| | % Fixture | 81.1 | 18.9 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 118.5 | 2.5 |
| 10°-20° | 329.4 | 6.9 |
| 20°-30° | 470.7 | 9.9 |
| 30°-40° | 536.0 | 11.3 |
| 40°-50° | 551.4 | 11.6 |
| 50°-60° | 546.1 | 11.5 |
| 60°-70° | 516.7 | 10.9 |
| 70°-80° | 440.3 | 9.3 |
| 80°-90° | 338.6 | 7.1 |
| 90°-100° | 267.8 | 5.6 |
| 100°-110° | 210.5 | 4.4 |
| 110°-120° | 154.6 | 3.3 |
| 120°-130° | 109.7 | 2.3 |
| 130°-140° | 75.2 | 1.6 |
| 140°-150° | 46.8 | 1.0 |
| 150°-160° | 23.5 | 0.5 |
| 160°-170° | 6.9 | 0.1 |
| 170°-180° | 0.4 | 0.0 |
| 0°-90° | 3847.7 | 81.1 |
| 0°-180° | 4743.0 | 100.0 |

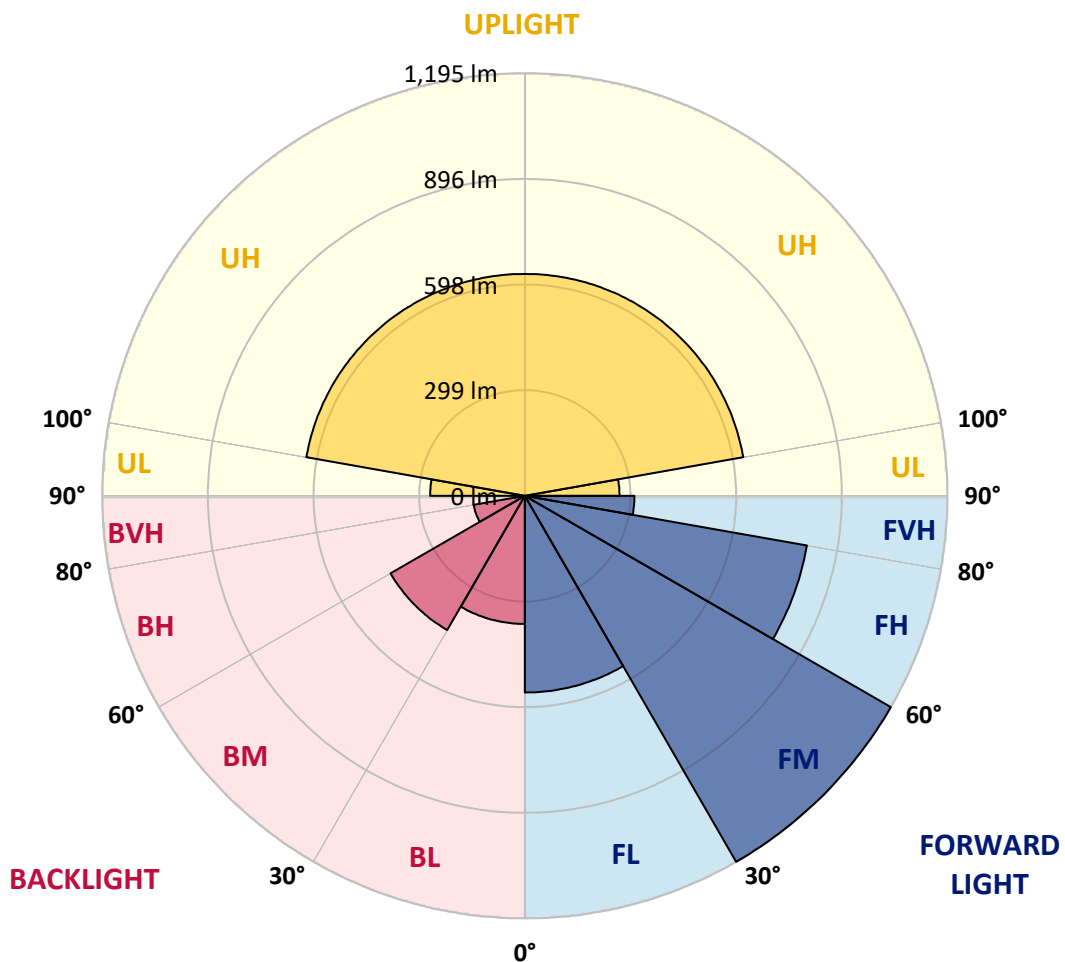


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|---------|---------|
| | | | B | U | G |
| FL (0°-30°) | 556.2 | 11.7 | | | |
| FM (30°-60°) | 1195.1 | 25.2 | | | |
| FH (60°-80°) | 810.1 | 17.1 | | | G1/1800 |
| FVH (80°-90°) | 309.8 | 6.5 | | | G3/500 |
| BL (0°-30°) | 362.3 | 7.6 | B1/500 | | |
| BM (30°-60°) | 438.4 | 9.2 | B1/1000 | | |
| BH (60°-80°) | 147.0 | 3.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 28.9 | 0.6 | | | G1/100 |
| UL (90°-100°) | 267.8 | 5.6 | | U3/500 | |
| UH (100°-180°) | 627.4 | 13.2 | | U4/1000 | |

BUG Rating: B1-U4-G3
 Type IV Short





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CATALOG NUMBER: AXCS4ARL-GRF-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 |
| 2.5° | 1303.6 | 1303.6 | 1303.6 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1294.4 | 1294.4 | 1291.3 |
| 5° | 1343.5 | 1343.5 | 1343.5 | 1340.4 | 1340.4 | 1337.3 | 1334.3 | 1331.2 | 1328.1 | 1322.0 | 1318.9 |
| 7.5° | 1380.3 | 1377.2 | 1377.2 | 1374.2 | 1371.1 | 1371.1 | 1368.0 | 1361.9 | 1355.8 | 1346.6 | 1340.4 |
| 10° | 1411.0 | 1411.0 | 1407.9 | 1404.8 | 1401.8 | 1398.7 | 1395.6 | 1386.4 | 1377.2 | 1368.0 | 1358.8 |
| 12.5° | 1438.6 | 1435.5 | 1435.5 | 1429.4 | 1423.2 | 1420.2 | 1417.1 | 1411.0 | 1398.7 | 1386.4 | 1371.1 |
| 15° | 1453.9 | 1453.9 | 1450.8 | 1444.7 | 1438.6 | 1435.5 | 1432.4 | 1423.2 | 1411.0 | 1395.6 | 1380.3 |
| 17.5° | 1460.0 | 1460.0 | 1457.0 | 1453.9 | 1447.8 | 1444.7 | 1438.6 | 1429.4 | 1417.1 | 1401.8 | 1383.4 |
| 20° | 1453.9 | 1453.9 | 1450.8 | 1447.8 | 1444.7 | 1438.6 | 1435.5 | 1426.3 | 1414.0 | 1398.7 | 1380.3 |
| 22.5° | 1441.6 | 1441.6 | 1438.6 | 1435.5 | 1429.4 | 1426.3 | 1423.2 | 1414.0 | 1401.8 | 1386.4 | 1368.0 |
| 25° | 1420.2 | 1417.1 | 1417.1 | 1414.0 | 1407.9 | 1404.8 | 1401.8 | 1392.6 | 1380.3 | 1368.0 | 1349.6 |
| 27.5° | 1395.6 | 1392.6 | 1389.5 | 1386.4 | 1383.4 | 1377.2 | 1374.2 | 1368.0 | 1355.8 | 1340.4 | 1322.0 |
| 30° | 1371.1 | 1368.0 | 1368.0 | 1361.9 | 1355.8 | 1352.7 | 1346.6 | 1337.3 | 1325.1 | 1306.7 | 1291.3 |
| 32.5° | 1346.6 | 1346.6 | 1340.4 | 1337.3 | 1328.1 | 1322.0 | 1318.9 | 1303.6 | 1291.3 | 1272.9 | 1251.5 |
| 35° | 1328.1 | 1328.1 | 1322.0 | 1315.9 | 1303.6 | 1297.5 | 1291.3 | 1272.9 | 1257.6 | 1236.1 | 1211.6 |
| 37.5° | 1315.9 | 1312.8 | 1306.7 | 1294.4 | 1282.1 | 1276.0 | 1266.8 | 1245.3 | 1223.9 | 1199.3 | 1174.8 |
| 40° | 1306.7 | 1303.6 | 1294.4 | 1285.2 | 1266.8 | 1257.6 | 1245.3 | 1220.8 | 1193.2 | 1162.5 | 1131.8 |
| 42.5° | 1303.6 | 1300.5 | 1291.3 | 1276.0 | 1254.5 | 1242.3 | 1226.9 | 1196.3 | 1165.6 | 1128.8 | 1092.0 |
| 45° | 1309.7 | 1303.6 | 1291.3 | 1272.9 | 1245.3 | 1230.0 | 1214.7 | 1177.8 | 1138.0 | 1098.1 | 1055.2 |
| 47.5° | 1322.0 | 1315.9 | 1300.5 | 1279.1 | 1248.4 | 1226.9 | 1208.5 | 1165.6 | 1116.5 | 1070.5 | 1018.3 |
| 50° | 1340.4 | 1331.2 | 1315.9 | 1288.3 | 1251.5 | 1230.0 | 1205.5 | 1153.3 | 1098.1 | 1042.9 | 987.7 |
| 52.5° | 1361.9 | 1352.7 | 1334.3 | 1303.6 | 1260.7 | 1236.1 | 1208.5 | 1147.2 | 1085.8 | 1021.4 | 957.0 |
| 55° | 1383.4 | 1377.2 | 1352.7 | 1318.9 | 1269.9 | 1242.3 | 1211.6 | 1144.1 | 1073.6 | 999.9 | 929.4 |
| 57.5° | 1404.8 | 1395.6 | 1374.2 | 1334.3 | 1282.1 | 1251.5 | 1214.7 | 1141.0 | 1061.3 | 981.5 | 904.9 |
| 60° | 1420.2 | 1411.0 | 1386.4 | 1343.5 | 1288.3 | 1251.5 | 1214.7 | 1134.9 | 1049.0 | 963.1 | 877.3 |
| 62.5° | 1426.3 | 1414.0 | 1389.5 | 1346.6 | 1285.2 | 1251.5 | 1211.6 | 1125.7 | 1033.7 | 938.6 | 852.7 |
| 65° | 1417.1 | 1407.9 | 1383.4 | 1340.4 | 1276.0 | 1239.2 | 1199.3 | 1110.4 | 1015.3 | 917.1 | 825.1 |
| 67.5° | 1395.6 | 1386.4 | 1361.9 | 1318.9 | 1257.6 | 1217.7 | 1177.8 | 1085.8 | 987.7 | 889.5 | 794.4 |
| 70° | 1361.9 | 1355.8 | 1328.1 | 1288.3 | 1223.9 | 1187.1 | 1147.2 | 1055.2 | 957.0 | 858.8 | 763.8 |
| 72.5° | 1315.9 | 1309.7 | 1285.2 | 1242.3 | 1184.0 | 1147.2 | 1107.3 | 1018.3 | 923.3 | 825.1 | 727.0 |
| 75° | 1263.7 | 1251.5 | 1226.9 | 1190.1 | 1134.9 | 1098.1 | 1061.3 | 975.4 | 883.4 | 785.2 | 693.2 |
| 77.5° | 1199.3 | 1193.2 | 1168.6 | 1134.9 | 1076.6 | 1046.0 | 1009.1 | 926.3 | 837.4 | 745.4 | 656.4 |
| 80° | 1131.8 | 1128.8 | 1110.4 | 1070.5 | 1021.4 | 990.7 | 953.9 | 877.3 | 791.4 | 702.4 | 616.5 |
| 82.5° | 1067.4 | 1064.4 | 1046.0 | 1009.1 | 960.1 | 932.5 | 901.8 | 825.1 | 745.4 | 662.5 | 582.8 |
| 85° | 1006.1 | 999.9 | 984.6 | 950.9 | 904.9 | 877.3 | 846.6 | 776.0 | 699.3 | 625.7 | 546.0 |
| 87.5° | 947.8 | 941.7 | 923.3 | 892.6 | 852.7 | 822.0 | 794.4 | 730.0 | 659.5 | 588.9 | 518.4 |
| 90° | 892.6 | 889.5 | 871.1 | 846.6 | 803.6 | 779.1 | 751.5 | 693.2 | 625.7 | 558.3 | 490.8 |
| 92.5° | 846.6 | 843.5 | 828.2 | 797.5 | 760.7 | 739.2 | 711.6 | 659.5 | 598.1 | 533.7 | 475.4 |
| 95° | 800.6 | 794.4 | 779.1 | 757.6 | 720.8 | 702.4 | 674.8 | 625.7 | 570.5 | 512.2 | 454.0 |
| 97.5° | 751.5 | 748.4 | 736.2 | 711.6 | 680.9 | 662.5 | 641.1 | 592.0 | 542.9 | 490.8 | 438.6 |
| 100° | 705.5 | 702.4 | 693.2 | 671.7 | 641.1 | 622.7 | 604.3 | 561.3 | 515.3 | 466.2 | 417.2 |
| 102.5° | 662.5 | 656.4 | 647.2 | 625.7 | 601.2 | 582.8 | 567.5 | 527.6 | 484.6 | 438.6 | 398.8 |
| 105° | 613.5 | 610.4 | 598.1 | 585.9 | 558.3 | 546.0 | 527.6 | 493.8 | 454.0 | 414.1 | 374.2 |
| 107.5° | 567.5 | 564.4 | 555.2 | 542.9 | 521.4 | 506.1 | 490.8 | 460.1 | 426.4 | 389.5 | 352.7 |
| 110° | 524.5 | 521.4 | 515.3 | 503.0 | 481.6 | 472.4 | 460.1 | 432.5 | 401.8 | 368.1 | 334.3 |



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 CATALOG NUMBER: AXCS4ARL-GRF-W

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 481.6 | 481.6 | 475.4 | 466.2 | 447.8 | 435.6 | 426.4 | 401.8 | 374.2 | 346.6 | 315.9 |
| 115° | 450.9 | 444.8 | 441.7 | 429.4 | 417.2 | 408.0 | 398.8 | 374.2 | 352.7 | 325.1 | 300.6 |
| 117.5° | 414.1 | 414.1 | 408.0 | 398.8 | 386.5 | 377.3 | 371.1 | 349.7 | 328.2 | 306.7 | 282.2 |
| 120° | 386.5 | 383.4 | 380.3 | 371.1 | 358.9 | 352.7 | 346.6 | 328.2 | 309.8 | 288.3 | 266.9 |
| 122.5° | 358.9 | 355.8 | 352.7 | 346.6 | 337.4 | 331.3 | 325.1 | 309.8 | 291.4 | 273.0 | 254.6 |
| 125° | 334.3 | 334.3 | 331.3 | 325.1 | 315.9 | 309.8 | 303.7 | 291.4 | 276.1 | 257.7 | 239.3 |
| 127.5° | 312.9 | 312.9 | 309.8 | 303.7 | 297.5 | 291.4 | 285.3 | 276.1 | 260.7 | 245.4 | 230.0 |
| 130° | 294.5 | 291.4 | 291.4 | 285.3 | 279.1 | 273.0 | 269.9 | 257.7 | 245.4 | 233.1 | 217.8 |
| 132.5° | 276.1 | 276.1 | 273.0 | 266.9 | 263.8 | 257.7 | 254.6 | 245.4 | 233.1 | 220.8 | 205.5 |
| 135° | 260.7 | 260.7 | 257.7 | 254.6 | 248.5 | 245.4 | 242.3 | 233.1 | 220.8 | 208.6 | 196.3 |
| 137.5° | 245.4 | 245.4 | 242.3 | 239.3 | 236.2 | 233.1 | 227.0 | 220.8 | 208.6 | 196.3 | 184.0 |
| 140° | 233.1 | 233.1 | 230.0 | 227.0 | 220.8 | 217.8 | 214.7 | 208.6 | 199.4 | 187.1 | 174.8 |
| 142.5° | 220.8 | 220.8 | 217.8 | 214.7 | 208.6 | 205.5 | 202.4 | 196.3 | 187.1 | 174.8 | 162.6 |
| 145° | 208.6 | 205.5 | 205.5 | 202.4 | 196.3 | 193.2 | 190.2 | 184.0 | 174.8 | 162.6 | 150.3 |
| 147.5° | 193.2 | 193.2 | 190.2 | 187.1 | 181.0 | 177.9 | 174.8 | 168.7 | 159.5 | 150.3 | 138.0 |
| 150° | 177.9 | 177.9 | 174.8 | 171.8 | 168.7 | 165.6 | 162.6 | 156.4 | 147.2 | 138.0 | 125.8 |
| 152.5° | 162.6 | 162.6 | 159.5 | 156.4 | 153.4 | 150.3 | 147.2 | 141.1 | 131.9 | 125.8 | 116.6 |
| 155° | 147.2 | 147.2 | 144.2 | 141.1 | 138.0 | 135.0 | 131.9 | 125.8 | 119.6 | 110.4 | 104.3 |
| 157.5° | 128.8 | 128.8 | 128.8 | 125.8 | 122.7 | 119.6 | 116.6 | 110.4 | 104.3 | 98.2 | 92.0 |
| 160° | 113.5 | 113.5 | 110.4 | 110.4 | 107.4 | 104.3 | 101.2 | 98.2 | 92.0 | 85.9 | 79.8 |
| 162.5° | 98.2 | 95.1 | 95.1 | 92.0 | 92.0 | 89.0 | 85.9 | 82.8 | 76.7 | 73.6 | 58.3 |
| 165° | 79.8 | 79.8 | 79.8 | 76.7 | 73.6 | 73.6 | 70.5 | 64.4 | 52.1 | 42.9 | 33.7 |
| 167.5° | 55.2 | 55.2 | 52.1 | 46.0 | 42.9 | 39.9 | 36.8 | 30.7 | 27.6 | 24.5 | 24.5 |
| 170° | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 18.4 | 18.4 |
| 172.5° | 15.3 | 15.3 | 15.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 9.2 | 9.2 |
| 175° | 3.1 | 3.1 | 3.1 | 3.1 | 6.1 | 3.1 | 6.1 | 6.1 | 3.1 | 3.1 | 3.1 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449790

CATALOG NUMBER: AXCS4ARL-GRF-W

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 112.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 | 1257.6 |
| 2.5° | 1288.3 | 1282.1 | 1282.1 | 1276.0 | 1276.0 | 1272.9 | 1269.9 | 1263.7 | 1260.7 | 1257.6 | 1236.1 |
| 5° | 1312.8 | 1306.7 | 1297.5 | 1291.3 | 1288.3 | 1282.1 | 1276.0 | 1266.8 | 1260.7 | 1251.5 | 1214.7 |
| 7.5° | 1331.2 | 1322.0 | 1309.7 | 1300.5 | 1294.4 | 1288.3 | 1276.0 | 1266.8 | 1254.5 | 1242.3 | 1190.1 |
| 10° | 1346.6 | 1334.3 | 1322.0 | 1306.7 | 1300.5 | 1291.3 | 1276.0 | 1260.7 | 1245.3 | 1226.9 | 1159.4 |
| 12.5° | 1358.8 | 1343.5 | 1325.1 | 1306.7 | 1300.5 | 1291.3 | 1269.9 | 1251.5 | 1233.1 | 1211.6 | 1122.6 |
| 15° | 1365.0 | 1346.6 | 1325.1 | 1303.6 | 1294.4 | 1282.1 | 1260.7 | 1236.1 | 1214.7 | 1190.1 | 1082.8 |
| 17.5° | 1365.0 | 1343.5 | 1322.0 | 1297.5 | 1285.2 | 1269.9 | 1245.3 | 1220.8 | 1190.1 | 1162.5 | 1039.8 |
| 20° | 1358.8 | 1334.3 | 1309.7 | 1282.1 | 1269.9 | 1254.5 | 1226.9 | 1196.3 | 1165.6 | 1131.8 | 990.7 |
| 22.5° | 1346.6 | 1322.0 | 1294.4 | 1263.7 | 1248.4 | 1233.1 | 1202.4 | 1168.6 | 1134.9 | 1098.1 | 938.6 |
| 25° | 1325.1 | 1300.5 | 1269.9 | 1242.3 | 1223.9 | 1205.5 | 1171.7 | 1134.9 | 1098.1 | 1058.2 | 883.4 |
| 27.5° | 1300.5 | 1272.9 | 1245.3 | 1211.6 | 1193.2 | 1174.8 | 1134.9 | 1098.1 | 1058.2 | 1018.3 | 831.2 |
| 30° | 1266.8 | 1239.2 | 1208.5 | 1174.8 | 1156.4 | 1138.0 | 1098.1 | 1058.2 | 1015.3 | 969.3 | 779.1 |
| 32.5° | 1230.0 | 1202.4 | 1168.6 | 1134.9 | 1113.4 | 1095.0 | 1055.2 | 1012.2 | 969.3 | 923.3 | 720.8 |
| 35° | 1190.1 | 1159.4 | 1125.7 | 1088.9 | 1070.5 | 1049.0 | 1006.1 | 963.1 | 920.2 | 874.2 | 668.7 |
| 37.5° | 1144.1 | 1113.4 | 1079.7 | 1042.9 | 1021.4 | 1003.0 | 957.0 | 914.1 | 868.1 | 819.0 | 616.5 |
| 40° | 1101.2 | 1067.4 | 1030.6 | 993.8 | 972.3 | 950.9 | 907.9 | 861.9 | 812.8 | 766.8 | 570.5 |
| 42.5° | 1055.2 | 1018.3 | 981.5 | 941.7 | 920.2 | 895.7 | 852.7 | 806.7 | 760.7 | 711.6 | 521.4 |
| 45° | 1012.2 | 972.3 | 929.4 | 889.5 | 868.1 | 846.6 | 797.5 | 754.6 | 705.5 | 659.5 | 478.5 |
| 47.5° | 972.3 | 926.3 | 883.4 | 837.4 | 815.9 | 794.4 | 748.4 | 702.4 | 656.4 | 613.5 | 438.6 |
| 50° | 932.5 | 883.4 | 834.3 | 788.3 | 766.8 | 745.4 | 696.3 | 653.3 | 604.3 | 561.3 | 401.8 |
| 52.5° | 895.7 | 840.4 | 788.3 | 742.3 | 717.8 | 696.3 | 650.3 | 601.2 | 558.3 | 515.3 | 365.0 |
| 55° | 861.9 | 800.6 | 745.4 | 693.2 | 671.7 | 650.3 | 601.2 | 555.2 | 512.2 | 469.3 | 334.3 |
| 57.5° | 831.2 | 763.8 | 705.5 | 653.3 | 625.7 | 604.3 | 558.3 | 512.2 | 469.3 | 426.4 | 303.7 |
| 60° | 800.6 | 730.0 | 665.6 | 610.4 | 585.9 | 561.3 | 515.3 | 472.4 | 429.4 | 389.5 | 276.1 |
| 62.5° | 766.8 | 696.3 | 628.8 | 573.6 | 546.0 | 521.4 | 475.4 | 432.5 | 389.5 | 349.7 | 248.5 |
| 65° | 736.2 | 662.5 | 595.1 | 536.8 | 509.2 | 484.6 | 438.6 | 395.7 | 352.7 | 315.9 | 223.9 |
| 67.5° | 705.5 | 628.8 | 561.3 | 500.0 | 472.4 | 447.8 | 401.8 | 358.9 | 319.0 | 285.3 | 199.4 |
| 70° | 674.8 | 595.1 | 524.5 | 469.3 | 441.7 | 414.1 | 368.1 | 325.1 | 285.3 | 251.5 | 177.9 |
| 72.5° | 641.1 | 564.4 | 496.9 | 435.6 | 408.0 | 383.4 | 337.4 | 294.5 | 254.6 | 223.9 | 156.4 |
| 75° | 607.3 | 530.6 | 463.2 | 404.9 | 377.3 | 352.7 | 303.7 | 263.8 | 223.9 | 193.2 | 138.0 |
| 77.5° | 570.5 | 496.9 | 432.5 | 374.2 | 349.7 | 322.1 | 276.1 | 233.1 | 196.3 | 168.7 | 116.6 |
| 80° | 539.8 | 466.2 | 404.9 | 346.6 | 322.1 | 297.5 | 248.5 | 208.6 | 171.8 | 147.2 | 101.2 |
| 82.5° | 506.1 | 435.6 | 374.2 | 319.0 | 294.5 | 269.9 | 223.9 | 184.0 | 147.2 | 122.7 | 85.9 |
| 85° | 475.4 | 411.0 | 349.7 | 297.5 | 273.0 | 248.5 | 205.5 | 162.6 | 128.8 | 107.4 | 73.6 |
| 87.5° | 450.9 | 389.5 | 331.3 | 279.1 | 254.6 | 233.1 | 187.1 | 147.2 | 113.5 | 92.0 | 64.4 |
| 90° | 429.4 | 371.1 | 315.9 | 266.9 | 245.4 | 220.8 | 177.9 | 138.0 | 104.3 | 85.9 | 55.2 |
| 92.5° | 417.2 | 361.9 | 309.8 | 263.8 | 239.3 | 217.8 | 174.8 | 135.0 | 101.2 | 82.8 | 55.2 |
| 95° | 401.8 | 349.7 | 300.6 | 254.6 | 233.1 | 211.6 | 168.7 | 131.9 | 101.2 | 82.8 | 55.2 |
| 97.5° | 386.5 | 337.4 | 291.4 | 248.5 | 227.0 | 205.5 | 165.6 | 128.8 | 98.2 | 79.8 | 52.1 |
| 100° | 371.1 | 325.1 | 279.1 | 239.3 | 217.8 | 199.4 | 159.5 | 125.8 | 95.1 | 76.7 | 52.1 |
| 102.5° | 352.7 | 309.8 | 269.9 | 230.0 | 211.6 | 190.2 | 156.4 | 122.7 | 95.1 | 76.7 | 52.1 |
| 105° | 334.3 | 294.5 | 257.7 | 220.8 | 202.4 | 184.0 | 150.3 | 116.6 | 92.0 | 73.6 | 49.1 |
| 107.5° | 319.0 | 282.2 | 245.4 | 211.6 | 193.2 | 177.9 | 144.2 | 113.5 | 89.0 | 70.5 | 49.1 |
| 110° | 300.6 | 266.9 | 236.2 | 202.4 | 187.1 | 171.8 | 141.1 | 110.4 | 85.9 | 67.5 | 49.1 |



REPORT NUMBER: P1449790
 CATALOG NUMBER: AXCS4ARL-GRF-W

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 112.5° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|
| 112.5° | 285.3 | 254.6 | 223.9 | 196.3 | 177.9 | 162.6 | 135.0 | 107.4 | 82.8 | 64.4 | 46.0 |
| 115° | 269.9 | 242.3 | 214.7 | 187.1 | 171.8 | 156.4 | 128.8 | 101.2 | 76.7 | 61.3 | 42.9 |
| 117.5° | 257.7 | 230.0 | 205.5 | 177.9 | 162.6 | 150.3 | 122.7 | 98.2 | 73.6 | 58.3 | 42.9 |
| 120° | 245.4 | 220.8 | 196.3 | 168.7 | 156.4 | 144.2 | 116.6 | 92.0 | 70.5 | 55.2 | 39.9 |
| 122.5° | 233.1 | 208.6 | 187.1 | 162.6 | 150.3 | 138.0 | 113.5 | 89.0 | 67.5 | 52.1 | 36.8 |
| 125° | 220.8 | 199.4 | 177.9 | 156.4 | 144.2 | 131.9 | 107.4 | 85.9 | 64.4 | 49.1 | 36.8 |
| 127.5° | 211.6 | 190.2 | 168.7 | 147.2 | 135.0 | 125.8 | 101.2 | 79.8 | 61.3 | 46.0 | 33.7 |
| 130° | 199.4 | 181.0 | 162.6 | 141.1 | 128.8 | 119.6 | 95.1 | 76.7 | 55.2 | 42.9 | 33.7 |
| 132.5° | 190.2 | 171.8 | 153.4 | 131.9 | 122.7 | 110.4 | 92.0 | 70.5 | 52.1 | 39.9 | 30.7 |
| 135° | 181.0 | 162.6 | 144.2 | 125.8 | 113.5 | 104.3 | 85.9 | 67.5 | 49.1 | 39.9 | 27.6 |
| 137.5° | 168.7 | 153.4 | 135.0 | 116.6 | 107.4 | 98.2 | 79.8 | 61.3 | 46.0 | 36.8 | 27.6 |
| 140° | 159.5 | 144.2 | 125.8 | 110.4 | 101.2 | 92.0 | 73.6 | 58.3 | 39.9 | 33.7 | 24.5 |
| 142.5° | 147.2 | 131.9 | 116.6 | 101.2 | 95.1 | 85.9 | 67.5 | 52.1 | 36.8 | 30.7 | 21.5 |
| 145° | 138.0 | 125.8 | 110.4 | 95.1 | 85.9 | 79.8 | 64.4 | 49.1 | 33.7 | 27.6 | 21.5 |
| 147.5° | 125.8 | 113.5 | 101.2 | 85.9 | 79.8 | 70.5 | 58.3 | 42.9 | 27.6 | 24.5 | 18.4 |
| 150° | 116.6 | 104.3 | 92.0 | 79.8 | 70.5 | 64.4 | 52.1 | 39.9 | 24.5 | 21.5 | 15.3 |
| 152.5° | 104.3 | 95.1 | 82.8 | 70.5 | 61.3 | 55.2 | 46.0 | 33.7 | 21.5 | 18.4 | 15.3 |
| 155° | 95.1 | 85.9 | 73.6 | 58.3 | 52.1 | 49.1 | 39.9 | 30.7 | 18.4 | 15.3 | 12.3 |
| 157.5° | 82.8 | 73.6 | 58.3 | 49.1 | 46.0 | 42.9 | 33.7 | 24.5 | 15.3 | 12.3 | 9.2 |
| 160° | 70.5 | 55.2 | 42.9 | 39.9 | 39.9 | 36.8 | 27.6 | 18.4 | 12.3 | 12.3 | 9.2 |
| 162.5° | 46.0 | 36.8 | 36.8 | 33.7 | 30.7 | 27.6 | 21.5 | 15.3 | 9.2 | 9.2 | 6.1 |
| 165° | 30.7 | 30.7 | 27.6 | 24.5 | 24.5 | 21.5 | 15.3 | 9.2 | 9.2 | 6.1 | 6.1 |
| 167.5° | 24.5 | 21.5 | 21.5 | 18.4 | 15.3 | 12.3 | 9.2 | 6.1 | 6.1 | 6.1 | 3.1 |
| 170° | 15.3 | 15.3 | 12.3 | 9.2 | 9.2 | 9.2 | 6.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| 172.5° | 9.2 | 9.2 | 6.1 | 6.1 | 6.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 0.0 |
| 175° | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449790
 CATALOG NUMBER: AXCS4ARL-GRF-W

CANDELA DISTRIBUTION (continued):

| | 135° | 157.5° | 180° |
|--------|--------|--------|--------|
| 0° | 1257.6 | 1257.6 | 1257.6 |
| 2.5° | 1220.8 | 1211.6 | 1214.7 |
| 5° | 1184.0 | 1162.5 | 1162.5 |
| 7.5° | 1141.0 | 1104.2 | 1095.0 |
| 10° | 1085.8 | 1027.6 | 1012.2 |
| 12.5° | 1027.6 | 953.9 | 926.3 |
| 15° | 960.1 | 868.1 | 840.4 |
| 17.5° | 892.6 | 788.3 | 757.6 |
| 20° | 825.1 | 711.6 | 671.7 |
| 22.5° | 757.6 | 638.0 | 601.2 |
| 25° | 693.2 | 573.6 | 536.8 |
| 27.5° | 631.9 | 515.3 | 478.5 |
| 30° | 573.6 | 466.2 | 432.5 |
| 32.5° | 524.5 | 423.3 | 389.5 |
| 35° | 475.4 | 380.3 | 355.8 |
| 37.5° | 432.5 | 349.7 | 325.1 |
| 40° | 398.8 | 322.1 | 297.5 |
| 42.5° | 361.9 | 294.5 | 273.0 |
| 45° | 331.3 | 269.9 | 251.5 |
| 47.5° | 303.7 | 248.5 | 230.0 |
| 50° | 279.1 | 230.0 | 211.6 |
| 52.5° | 257.7 | 211.6 | 193.2 |
| 55° | 233.1 | 193.2 | 177.9 |
| 57.5° | 214.7 | 174.8 | 159.5 |
| 60° | 196.3 | 159.5 | 144.2 |
| 62.5° | 174.8 | 144.2 | 128.8 |
| 65° | 159.5 | 128.8 | 113.5 |
| 67.5° | 141.1 | 113.5 | 98.2 |
| 70° | 125.8 | 98.2 | 82.8 |
| 72.5° | 110.4 | 82.8 | 70.5 |
| 75° | 95.1 | 70.5 | 58.3 |
| 77.5° | 79.8 | 58.3 | 42.9 |
| 80° | 67.5 | 46.0 | 33.7 |
| 82.5° | 55.2 | 36.8 | 24.5 |
| 85° | 46.0 | 27.6 | 15.3 |
| 87.5° | 36.8 | 18.4 | 6.1 |
| 90° | 27.6 | 6.1 | 0.0 |
| 92.5° | 27.6 | 6.1 | 0.0 |
| 95° | 27.6 | 6.1 | 0.0 |
| 97.5° | 27.6 | 6.1 | 0.0 |
| 100° | 27.6 | 6.1 | 0.0 |
| 102.5° | 24.5 | 6.1 | 0.0 |
| 105° | 24.5 | 6.1 | 0.0 |
| 107.5° | 24.5 | 6.1 | 0.0 |
| 110° | 24.5 | 6.1 | 0.0 |



REPORT NUMBER: P1449790
CATALOG NUMBER: AXCS4ARL-GRF-W

CANDELA DISTRIBUTION (continued):

| | 135° | 157.5° | 180° |
|--------|------|--------|------|
| 112.5° | 24.5 | 6.1 | 0.0 |
| 115° | 21.5 | 6.1 | 0.0 |
| 117.5° | 21.5 | 6.1 | 0.0 |
| 120° | 21.5 | 3.1 | 0.0 |
| 122.5° | 18.4 | 3.1 | 0.0 |
| 125° | 18.4 | 3.1 | 0.0 |
| 127.5° | 18.4 | 3.1 | 0.0 |
| 130° | 15.3 | 3.1 | 0.0 |
| 132.5° | 15.3 | 3.1 | 0.0 |
| 135° | 15.3 | 3.1 | 0.0 |
| 137.5° | 12.3 | 3.1 | 0.0 |
| 140° | 12.3 | 0.0 | 0.0 |
| 142.5° | 9.2 | 0.0 | 0.0 |
| 145° | 9.2 | 0.0 | 0.0 |
| 147.5° | 9.2 | 0.0 | 0.0 |
| 150° | 6.1 | 0.0 | 0.0 |
| 152.5° | 6.1 | 0.0 | 0.0 |
| 155° | 6.1 | 0.0 | 0.0 |
| 157.5° | 3.1 | 0.0 | 0.0 |
| 160° | 3.1 | 0.0 | 0.0 |
| 162.5° | 3.1 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 |

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2512-637-1

Test Date: 01/12/2026

Luminaire Tested: AXCS4A-W

Data in this report applies to families of products including AXCS4A-W

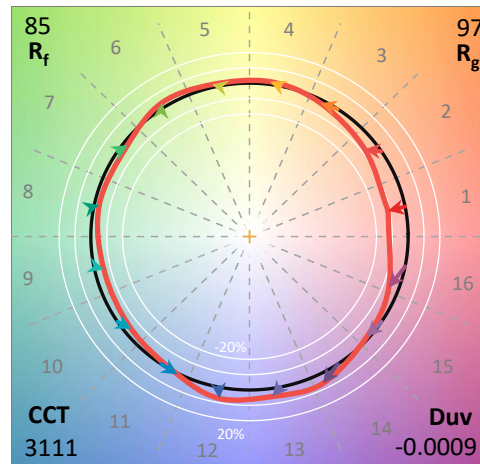
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2512-637-1
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 01/13/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **AXCS4A-W**
 Description: 4A AXCENT SMALL WALLPACK, FULL CUTOFF, 3000K

Spectral Parameters

CCT (K): 3111
 CIE u': 0.2472
 CIE v': 0.5179
 Duv: -0.0009
 CIE x: 0.4280
 CIE y: 0.3986
 CIE z: 0.1733
 Peak Wavelength (nm): 601
 Dominant Wavelength (nm): 582
 Purity: 48.11977
 Rf: 85.3
 Rg: 96.7

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 83.4 | | |
| R1: | 82.0 | R9: | 8.9 |
| R2: | 91.4 | R10: | 80.6 |
| R3: | 96.3 | R11: | 81.8 |
| R4: | 81.9 | R12: | 73.2 |
| R5: | 82.5 | R13: | 84.3 |
| R6: | 89.7 | R14: | 98.6 |
| R7: | 83.1 | R15: | 74.6 |
| R8: | 60.2 | | |



Test Conditions

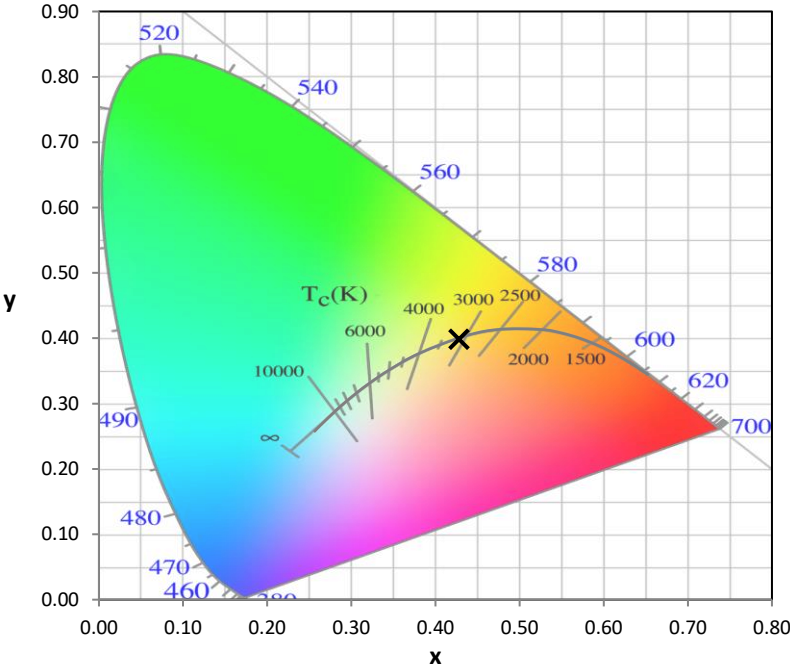
Stabilization Time: 52M
 Operation Time: 1H 52M
 Sphere Temperature (°C): 25.1

REPORT NUMBER: SP1-2512-637-1

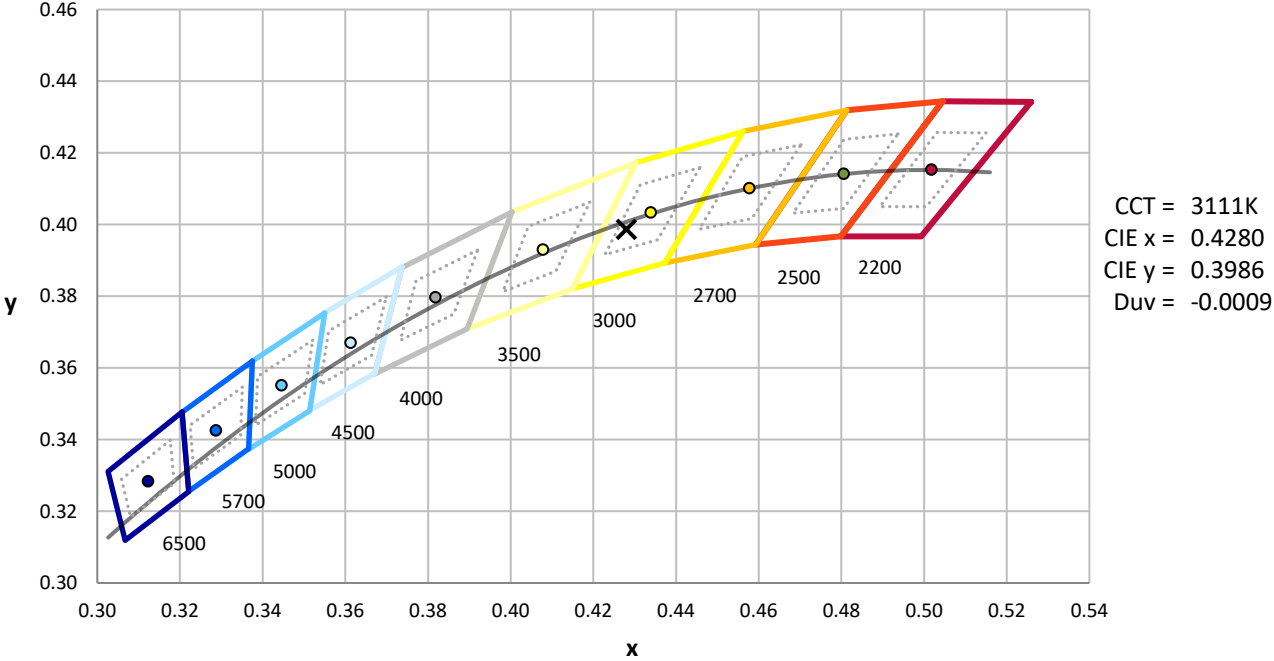
| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 12/16/2025 | 6/16/2026 |
| Power Meter | XITRON INXT2011004 | 10/21/2025 | 10/21/2026 |
| AC Power Source | CHROMA 61603 IN0063 | 10/21/2025 | 10/21/2026 |
| DC Power Source | AGILENT E3634A IN0208 | 10/21/2025 | 10/21/2026 |
| Sphere Thermometer | ONSET IN0085 | 10/21/2025 | 10/21/2026 |
| Room Thermometer | ONSET IN0046 | 10/21/2025 | 10/21/2026 |

REPORT NUMBER: SP1-2512-637-1

CIE 1931 Chromaticity Diagram



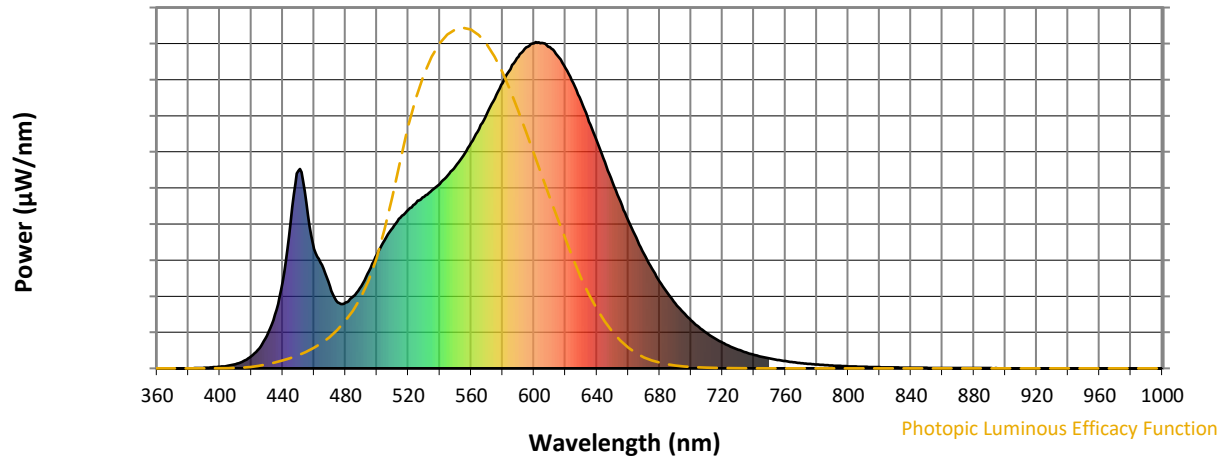
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2512-637-1

Photopic Flux vs. Wavelength

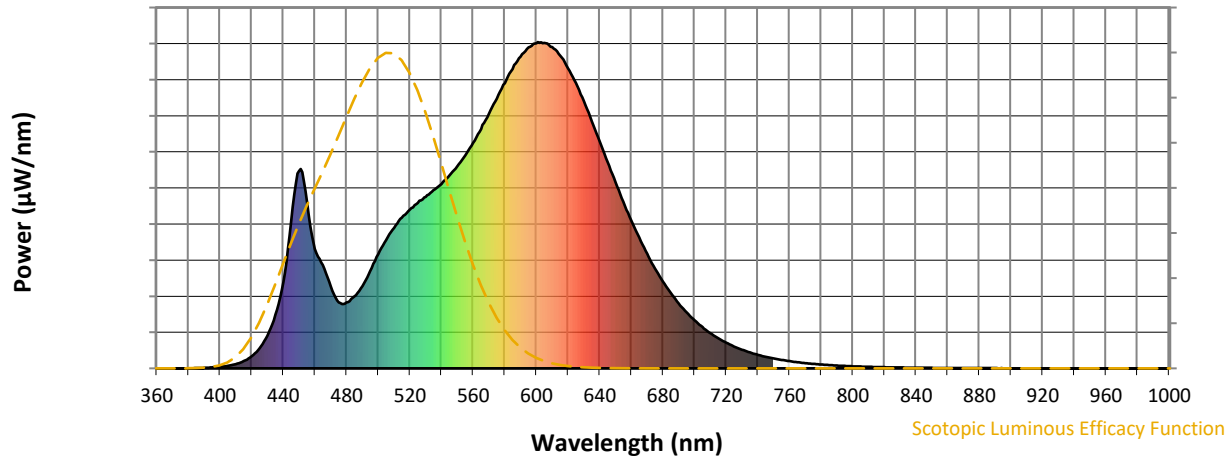


Photopic Lumens: NR

| λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) |
|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|
| 360 | 0 | NR | 490 | 252 | NR | 620 | 920 | NR | 750 | 30 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 298 | NR | 625 | 875 | NR | 755 | 26 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 349 | NR | 630 | 819 | NR | 760 | 22 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 394 | NR | 635 | 756 | NR | 765 | 19 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 696 | NR | 770 | 16 | NR | 900 | 1 | NR |
| 385 | 1 | NR | 515 | 462 | NR | 645 | 633 | NR | 775 | 14 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 487 | NR | 650 | 570 | NR | 780 | 12 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 507 | NR | 655 | 511 | NR | 785 | 10 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 525 | NR | 660 | 453 | NR | 790 | 9 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 546 | NR | 665 | 401 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 565 | NR | 670 | 352 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 591 | NR | 675 | 306 | NR | 805 | 6 | NR | 935 | 0 | NR |
| 420 | 38 | NR | 550 | 619 | NR | 680 | 266 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 61 | NR | 555 | 652 | NR | 685 | 230 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 100 | NR | 560 | 691 | NR | 690 | 199 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 165 | NR | 565 | 734 | NR | 695 | 171 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 265 | NR | 570 | 780 | NR | 700 | 147 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 450 | NR | 575 | 826 | NR | 705 | 126 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 605 | NR | 580 | 874 | NR | 710 | 108 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 508 | NR | 585 | 917 | NR | 715 | 92 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 366 | NR | 590 | 956 | NR | 720 | 79 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 317 | NR | 595 | 983 | NR | 725 | 67 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 251 | NR | 600 | 997 | NR | 730 | 57 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 202 | NR | 605 | 997 | NR | 735 | 49 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 202 | NR | 610 | 984 | NR | 740 | 42 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 220 | NR | 615 | 958 | NR | 745 | 35 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2512-637-1

Scotopic Flux vs. Wavelength



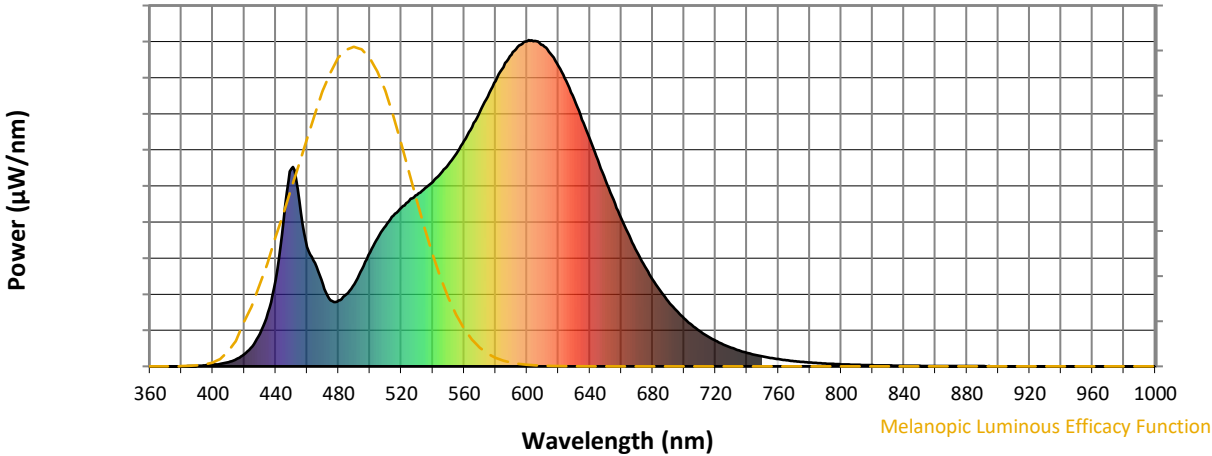
Scotopic Lumens: NR

S/P: 1.4

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 252 | NR | 620 | 920 | NR | 750 | 30 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 298 | NR | 625 | 875 | NR | 755 | 26 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 349 | NR | 630 | 819 | NR | 760 | 22 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 394 | NR | 635 | 756 | NR | 765 | 19 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 696 | NR | 770 | 16 | NR | 900 | 1 | NR |
| 385 | 1 | NR | 515 | 462 | NR | 645 | 633 | NR | 775 | 14 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 487 | NR | 650 | 570 | NR | 780 | 12 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 507 | NR | 655 | 511 | NR | 785 | 10 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 525 | NR | 660 | 453 | NR | 790 | 9 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 546 | NR | 665 | 401 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 565 | NR | 670 | 352 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 591 | NR | 675 | 306 | NR | 805 | 6 | NR | 935 | 0 | NR |
| 420 | 38 | NR | 550 | 619 | NR | 680 | 266 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 61 | NR | 555 | 652 | NR | 685 | 230 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 100 | NR | 560 | 691 | NR | 690 | 199 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 165 | NR | 565 | 734 | NR | 695 | 171 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 265 | NR | 570 | 780 | NR | 700 | 147 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 450 | NR | 575 | 826 | NR | 705 | 126 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 605 | NR | 580 | 874 | NR | 710 | 108 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 508 | NR | 585 | 917 | NR | 715 | 92 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 366 | NR | 590 | 956 | NR | 720 | 79 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 317 | NR | 595 | 983 | NR | 725 | 67 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 251 | NR | 600 | 997 | NR | 730 | 57 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 202 | NR | 605 | 997 | NR | 735 | 49 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 202 | NR | 610 | 984 | NR | 740 | 42 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 220 | NR | 615 | 958 | NR | 745 | 35 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2512-637-1

Melanopic Flux vs. Wavelength



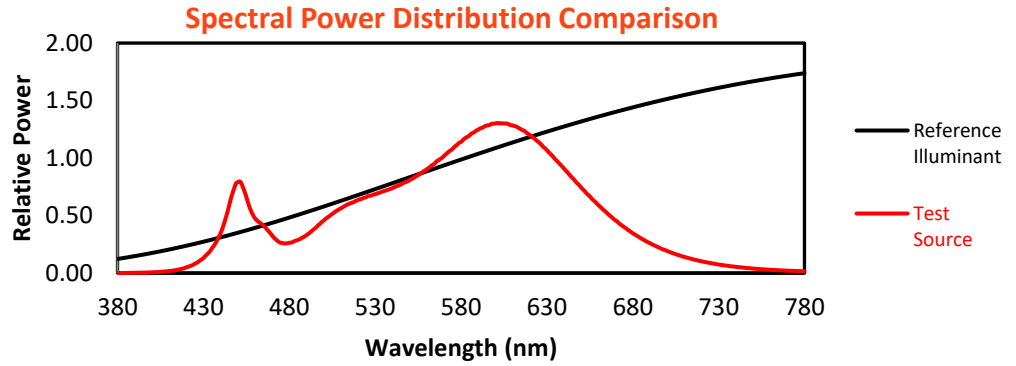
Melanopic Lumens: NR

M/P: 2.73

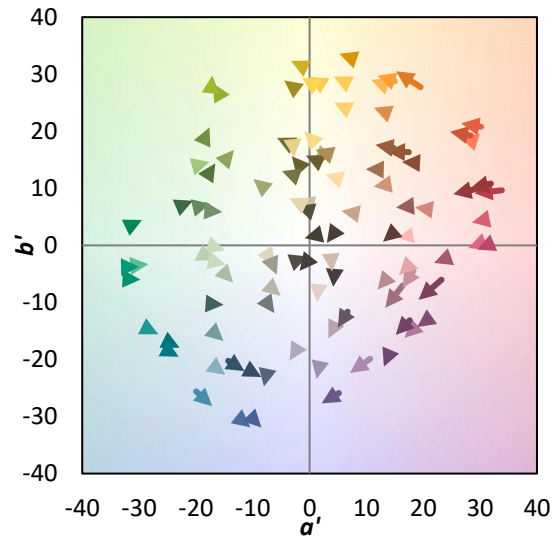
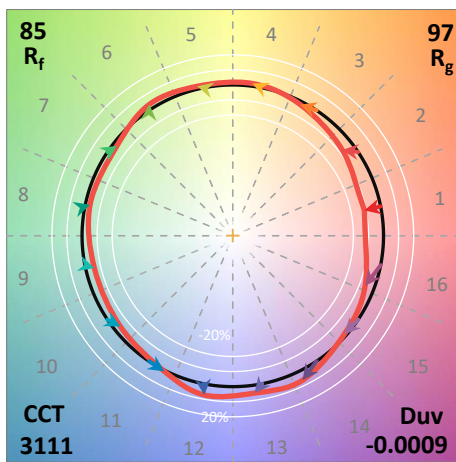
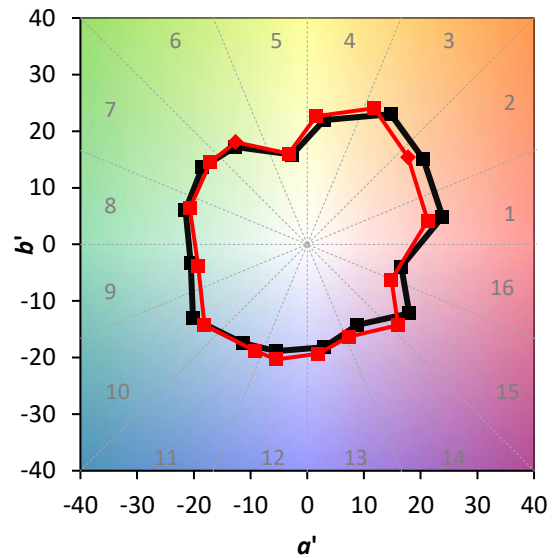
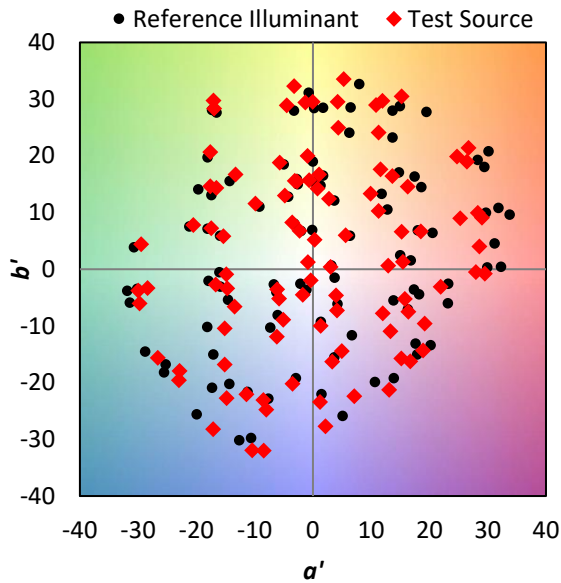
| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 252 | NR | 620 | 920 | NR | 750 | 30 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 298 | NR | 625 | 875 | NR | 755 | 26 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 349 | NR | 630 | 819 | NR | 760 | 22 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 394 | NR | 635 | 756 | NR | 765 | 19 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 696 | NR | 770 | 16 | NR | 900 | 1 | NR |
| 385 | 1 | NR | 515 | 462 | NR | 645 | 633 | NR | 775 | 14 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 487 | NR | 650 | 570 | NR | 780 | 12 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 507 | NR | 655 | 511 | NR | 785 | 10 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 525 | NR | 660 | 453 | NR | 790 | 9 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 546 | NR | 665 | 401 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 565 | NR | 670 | 352 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 591 | NR | 675 | 306 | NR | 805 | 6 | NR | 935 | 0 | NR |
| 420 | 38 | NR | 550 | 619 | NR | 680 | 266 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 61 | NR | 555 | 652 | NR | 685 | 230 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 100 | NR | 560 | 691 | NR | 690 | 199 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 165 | NR | 565 | 734 | NR | 695 | 171 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 265 | NR | 570 | 780 | NR | 700 | 147 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 450 | NR | 575 | 826 | NR | 705 | 126 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 605 | NR | 580 | 874 | NR | 710 | 108 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 508 | NR | 585 | 917 | NR | 715 | 92 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 366 | NR | 590 | 956 | NR | 720 | 79 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 317 | NR | 595 | 983 | NR | 725 | 67 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 251 | NR | 600 | 997 | NR | 730 | 57 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 202 | NR | 605 | 997 | NR | 735 | 49 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 202 | NR | 610 | 984 | NR | 740 | 42 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 220 | NR | 615 | 958 | NR | 745 | 35 | NR | 875 | 1 | NR | | | |

Summary

$R_f = 85.3$
 $R_g = 96.7$
 $CIE R_a = 83.4$
 $R_9 = 8.9$

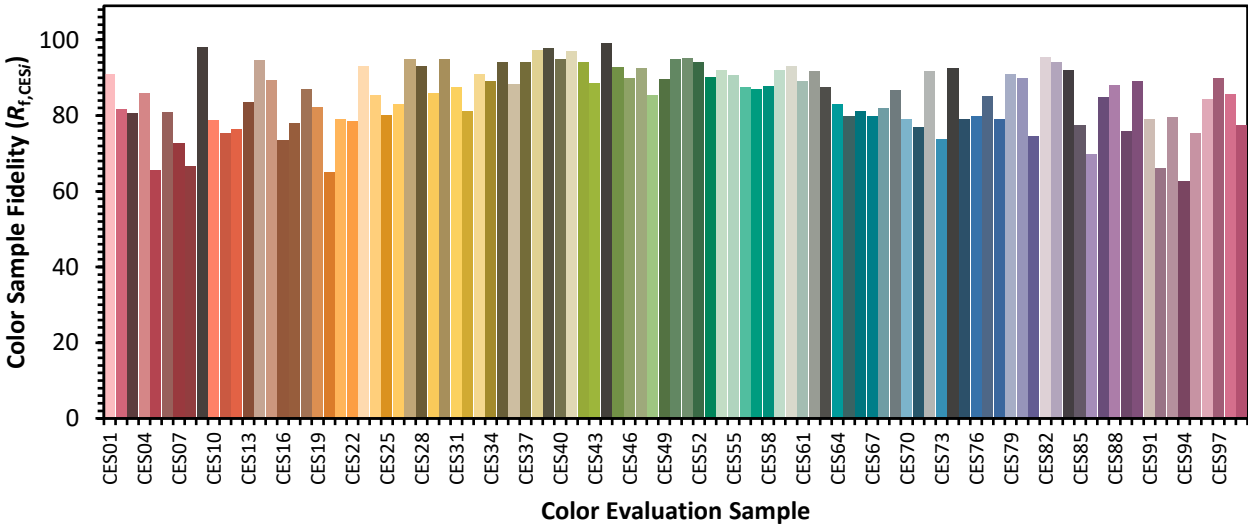


Color Vector Graphics

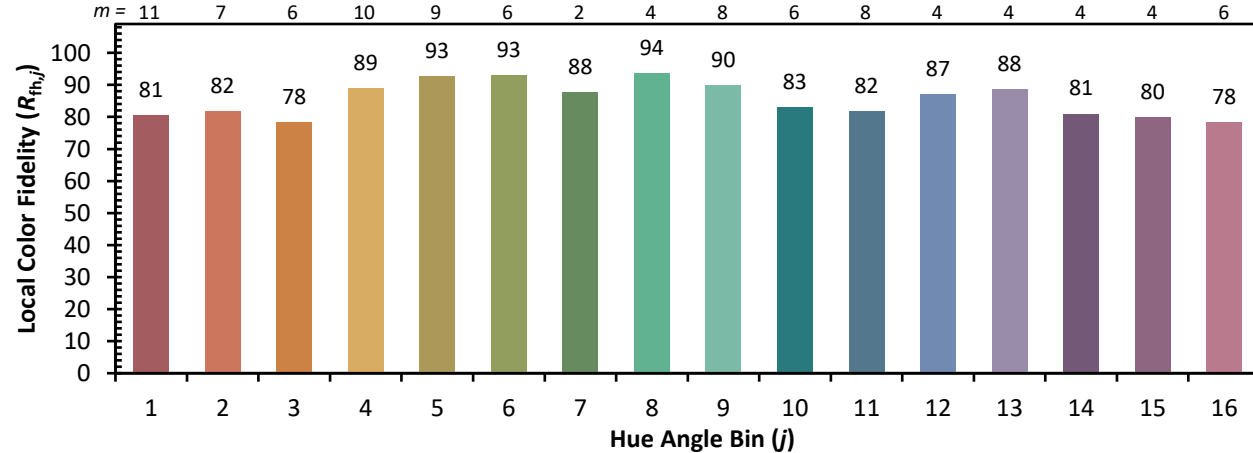
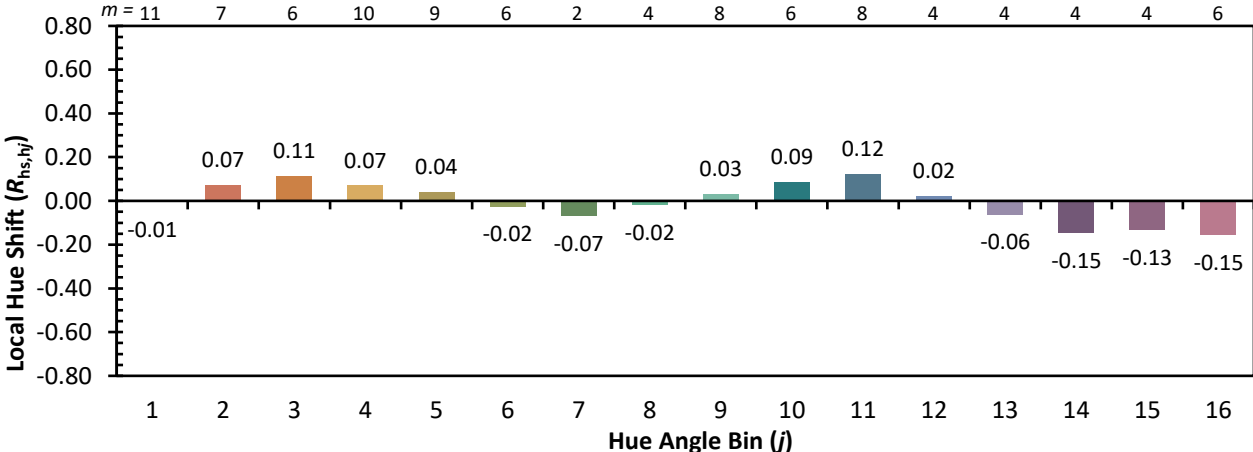
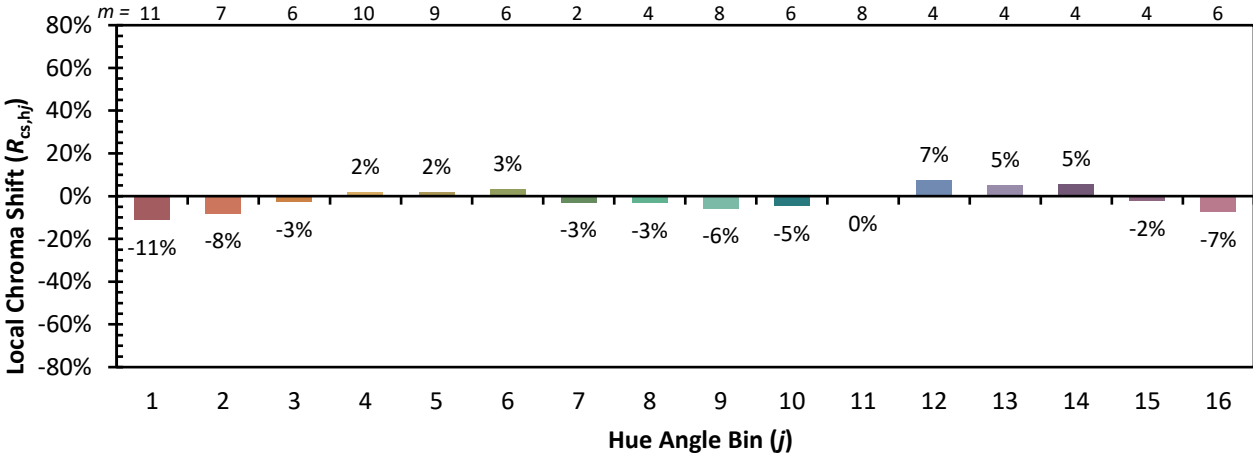


Individual Sample Fidelity Index ($R_{f,i}$)

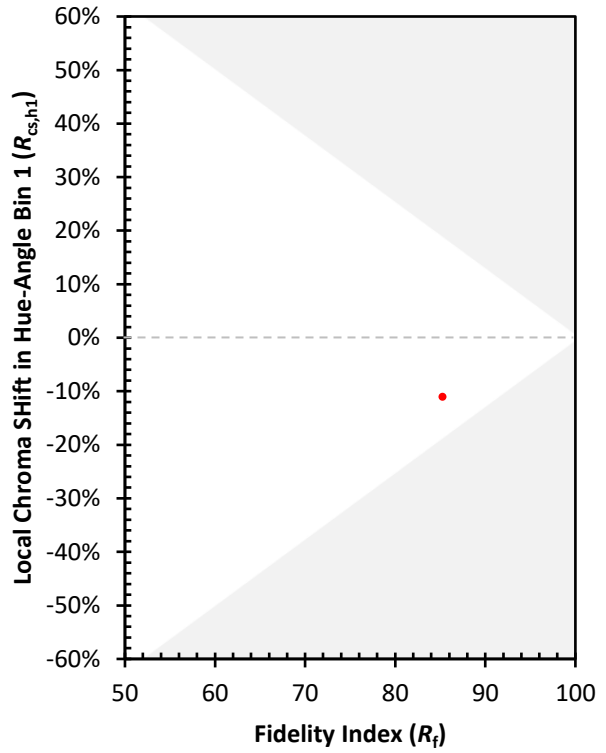
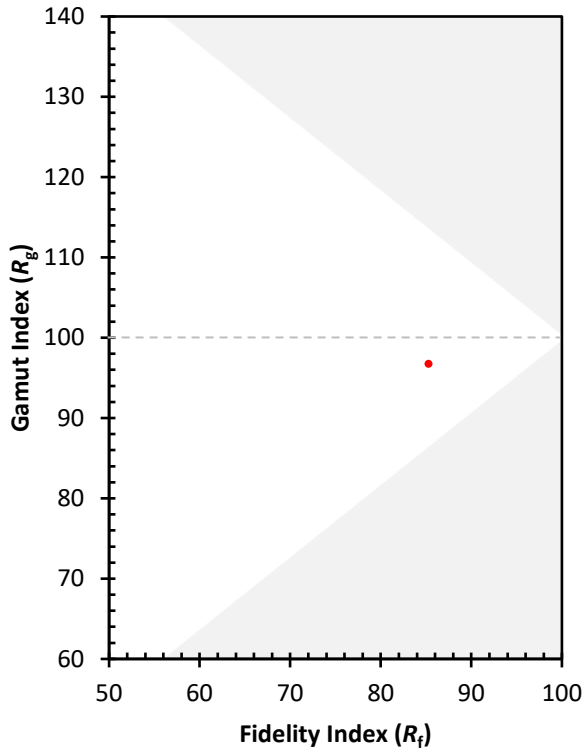
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 83 | CES51 = 95 | CES76 = 80 |
| CES02 = 63 | CES27 = 95 | CES52 = 94 | CES77 = 85 |
| CES03 = 31 | CES28 = 93 | CES53 = 90 | CES78 = 79 |
| CES04 = 70 | CES29 = 86 | CES54 = 92 | CES79 = 91 |
| CES05 = 49 | CES30 = 95 | CES55 = 91 | CES80 = 90 |
| CES06 = 51 | CES31 = 87 | CES56 = 88 | CES81 = 74 |
| CES07 = 42 | CES32 = 81 | CES57 = 87 | CES82 = 95 |
| CES08 = 41 | CES33 = 91 | CES58 = 88 | CES83 = 94 |
| CES09 = 29 | CES34 = 89 | CES59 = 92 | CES84 = 92 |
| CES10 = 76 | CES35 = 94 | CES60 = 93 | CES85 = 78 |
| CES11 = 59 | CES36 = 88 | CES61 = 89 | CES86 = 70 |
| CES12 = 65 | CES37 = 94 | CES62 = 92 | CES87 = 85 |
| CES13 = 43 | CES38 = 97 | CES63 = 87 | CES88 = 88 |
| CES14 = 74 | CES39 = 98 | CES64 = 83 | CES89 = 76 |
| CES15 = 71 | CES40 = 95 | CES65 = 80 | CES90 = 89 |
| CES16 = 47 | CES41 = 97 | CES66 = 81 | CES91 = 79 |
| CES17 = 50 | CES42 = 94 | CES67 = 80 | CES92 = 66 |
| CES18 = 56 | CES43 = 89 | CES68 = 82 | CES93 = 80 |
| CES19 = 72 | CES44 = 99 | CES69 = 87 | CES94 = 63 |
| CES20 = 66 | CES45 = 93 | CES70 = 79 | CES95 = 75 |
| CES21 = 87 | CES46 = 90 | CES71 = 77 | CES96 = 84 |
| CES22 = 79 | CES47 = 93 | CES72 = 92 | CES97 = 90 |
| CES23 = 92 | CES48 = 86 | CES73 = 74 | CES98 = 86 |
| CES24 = 91 | CES49 = 90 | CES74 = 93 | CES99 = 77 |
| CES25 = 72 | CES50 = 95 | CES75 = 79 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)