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: McGRAW-EDISON

Report Number: P1212002

Luminaire Tested: **GKO-PB1E-735-U-T1**

Issue Date: 11/5/2025

Report Generated By 670245763

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P1212002 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 11/5/2025 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GKO-PB1E-735-U-T1 |
| Description: | GEKKO WALL PACK 5000LM PACKAGE 70CRI 3500K FIXTURE w/ TYPE I DISTRIBUTION OPTIC |
| Light Source: | (10) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 5193.4 lumens |
| Efficiency: | N/A |
| Efficacy: | 134.2 lumens/watt |
| Luminous Opening: | Rectangular (W 0.33' x L: 0.33' x H: 0') |
| IES Classification: | Type I - Short |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 38.7 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | 9% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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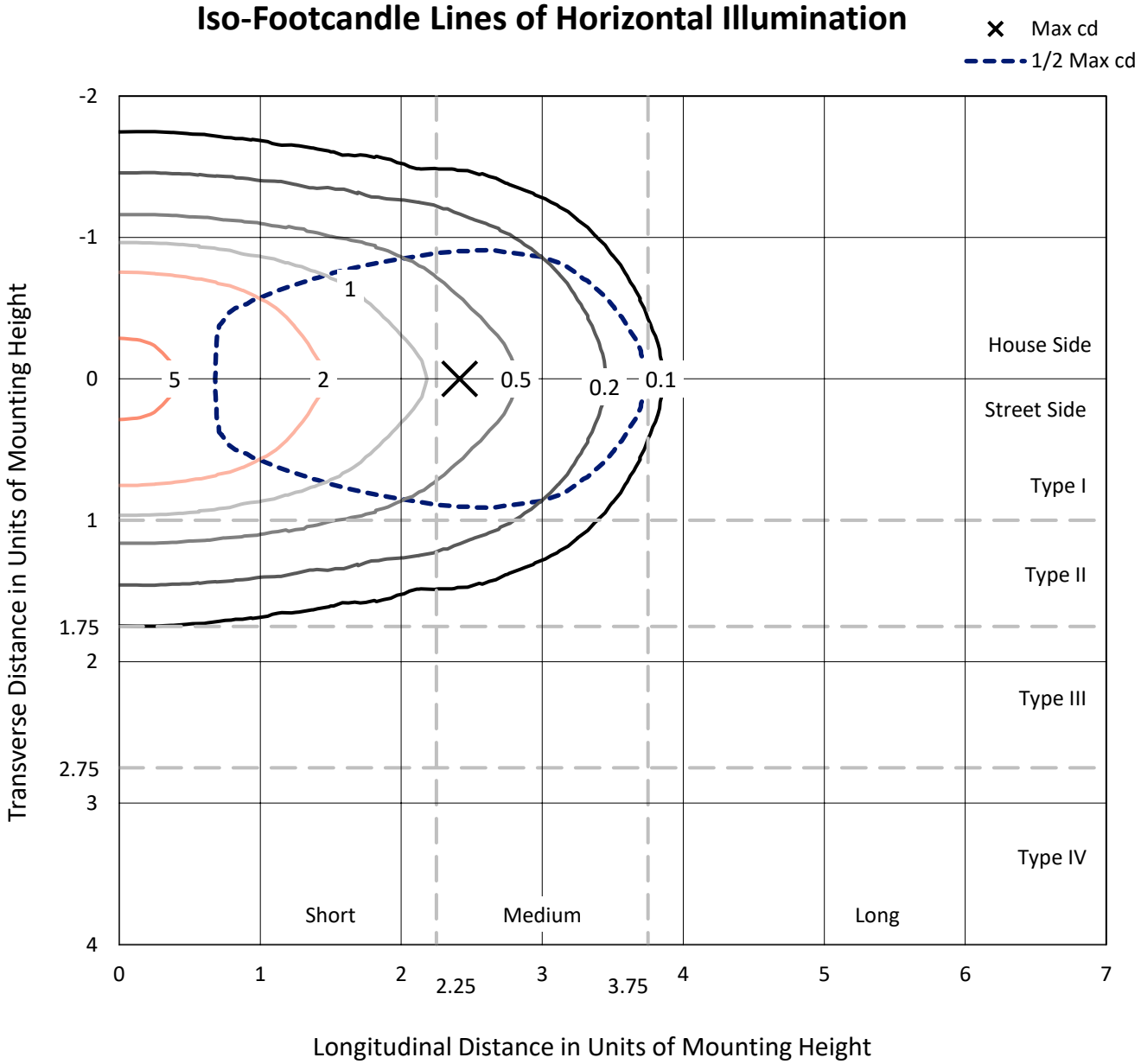
Scaled Data Report

REPORT NUMBER: P1212002
CATALOG NUMBER: GKO-PB1E-735-U-T1

## Iso-Footcandle Lines of Horizontal Illumination




Based on 15 foot mounting height. Maximum calculated value = 5.7 fc
Type I - Short - N/A

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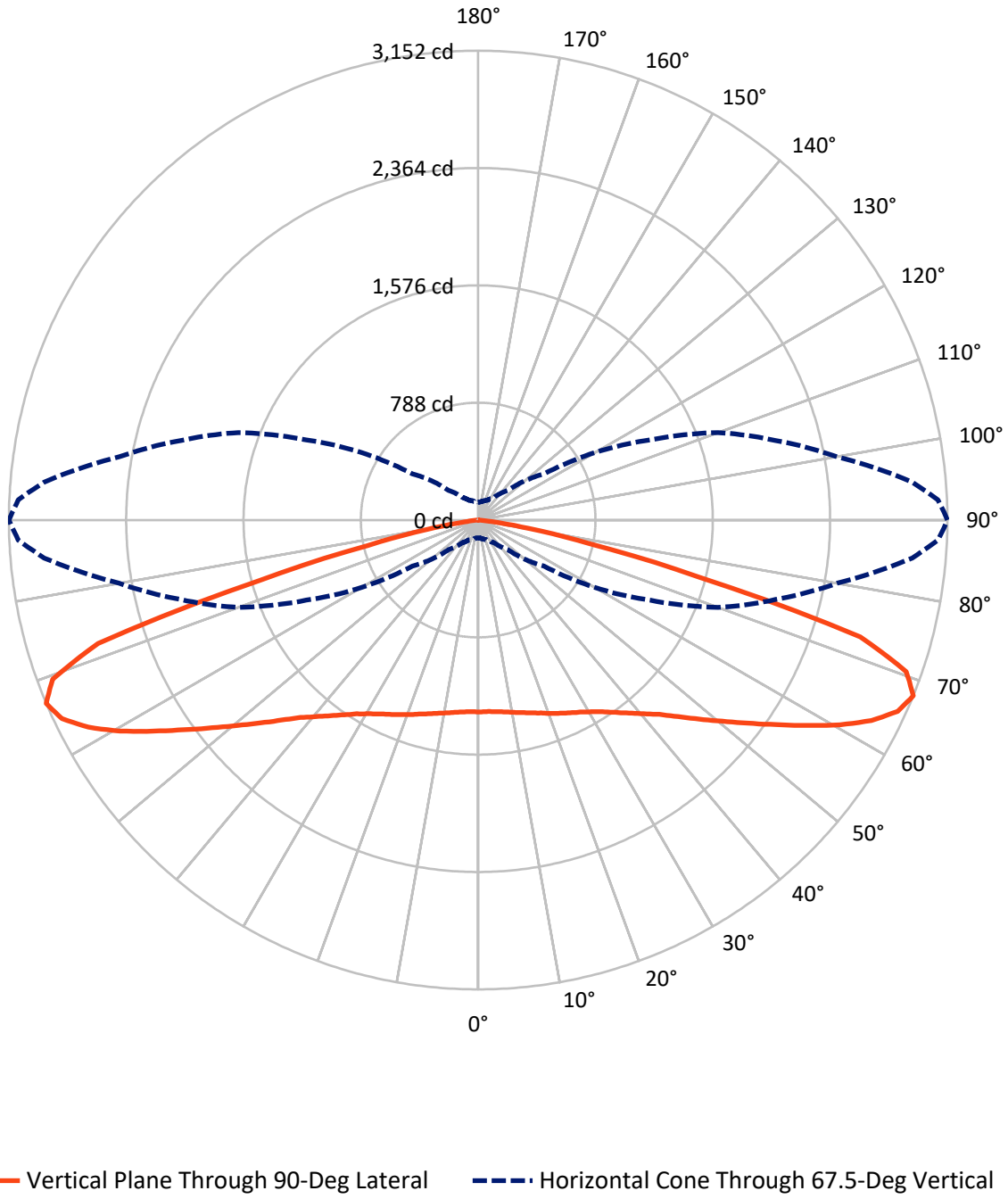
## Luminous Intensity Polar Plot



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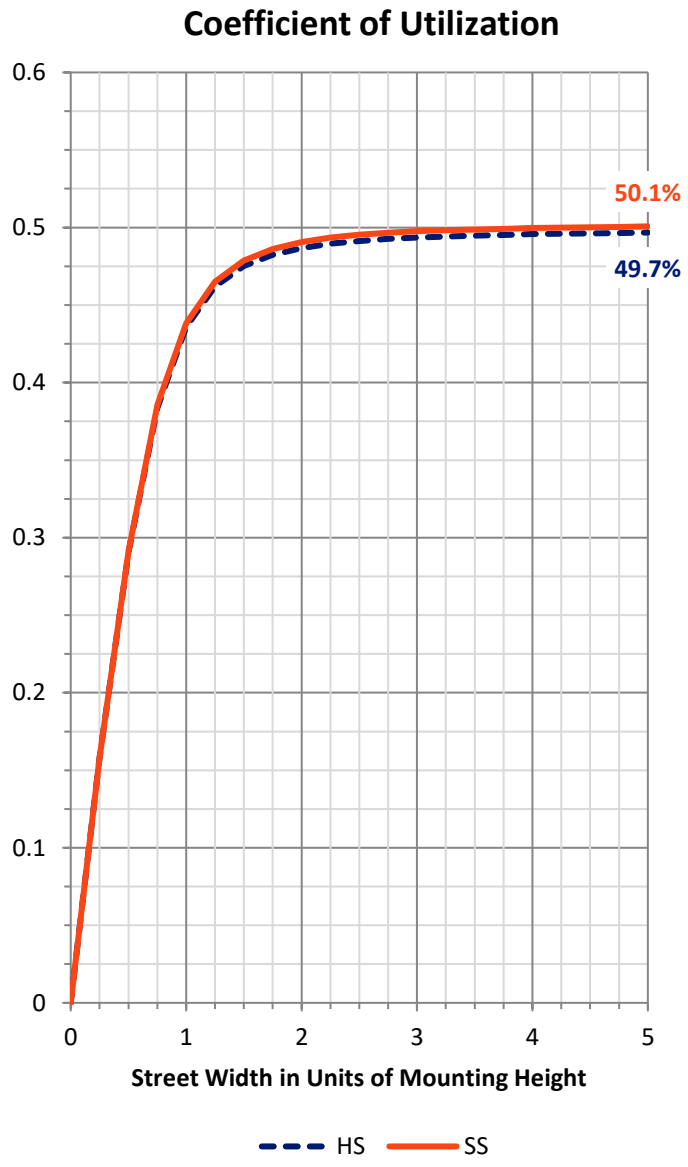
CATALOG NUMBER: GKO-PB1E-735-U-T1

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2596.7 | 0.0 | 2596.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Street Side** | Lumens | 2596.7 | 0.0 | 2596.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Total** | Lumens | 5193.4 | 0.0 | 5193.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 123.6 | 2.4 |
| 10°-20° | 372.4 | 7.2 |
| 20°-30° | 619.3 | 11.9 |
| 30°-40° | 822.7 | 15.8 |
| 40°-50° | 927.5 | 17.9 |
| 50°-60° | 953.8 | 18.4 |
| 60°-70° | 901.3 | 17.4 |
| 70°-80° | 441.2 | 8.5 |
| 80°-90° | 31.6 | 0.6 |
| 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° | 5193.4 | 100.0 |
| 0°-180° | 5193.4 | 100.0 |



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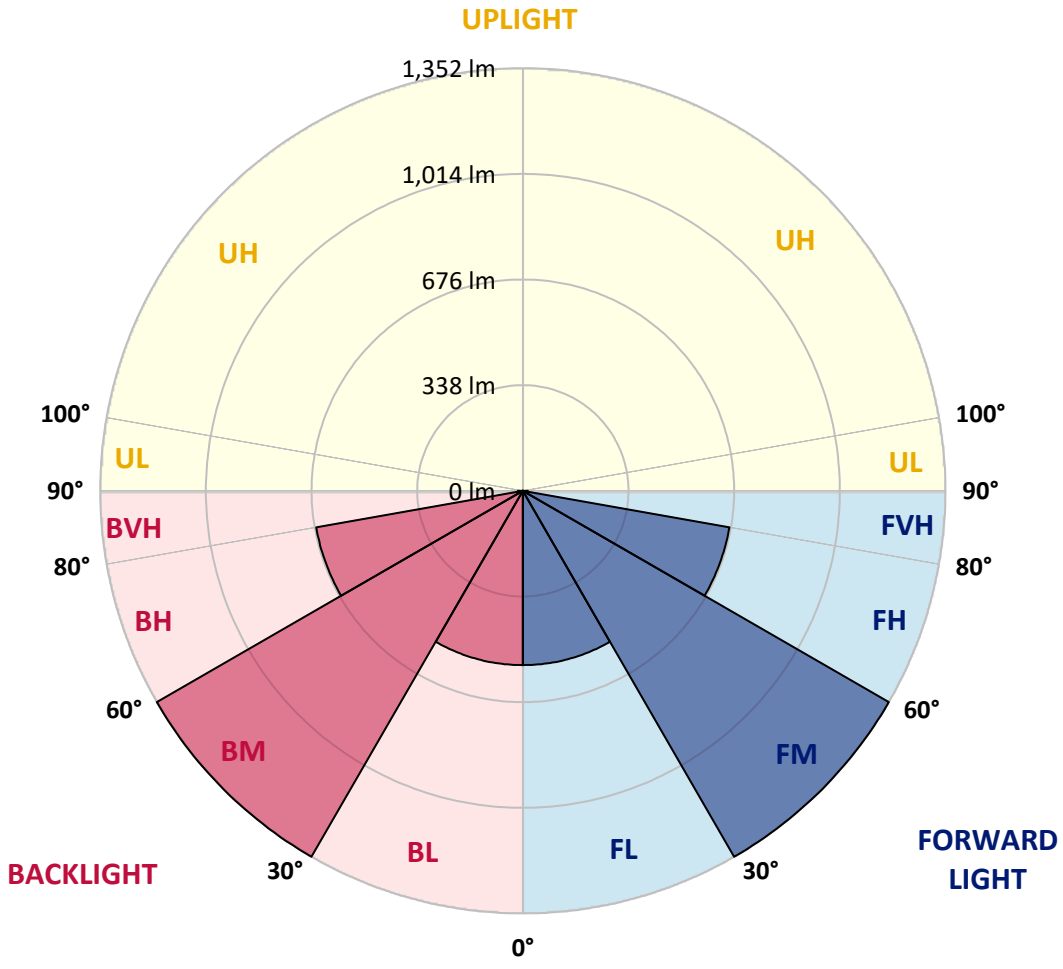
REPORT NUMBER: P1212002
CATALOG NUMBER: GKO-PB1E-735-U-T1

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 557.7 | 10.7 | | | |
| FM | (30°-60°) | 1352.0 | 26.0 | | | |
| FH | (60°-80°) | 671.3 | 12.9 | | | G1/1800 |
| FVH | (80°-90°) | 15.8 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 557.7 | 10.7 | B2/1000 | | |
| BM | (30°-60°) | 1352.0 | 26.0 | B2/2500 | | |
| BH | (60°-80°) | 671.3 | 12.9 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 15.8 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G2**
Type I Short



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CATALOG NUMBER: GKO-PB1E-735-U-T1

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 80° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1288.7 | 1288.7 | 1288.7 | 1288.7 | 1288.7 | 1288.7 | 1288.7 | 1288.7 | 1288.7 | 1288.7 | 1288.7 |
| 2.5° | 1289.7 | 1291.6 | 1287.7 | 1287.7 | 1289.7 | 1290.6 | 1290.6 | 1291.6 | 1289.7 | 1289.7 | 1288.7 |
| 5° | 1289.7 | 1290.6 | 1288.7 | 1288.7 | 1290.6 | 1293.5 | 1292.5 | 1294.4 | 1294.4 | 1293.5 | 1293.5 |
| 7.5° | 1288.7 | 1290.6 | 1288.7 | 1289.7 | 1292.5 | 1298.3 | 1298.3 | 1298.3 | 1300.2 | 1302.1 | 1302.1 |
| 10° | 1287.7 | 1289.7 | 1290.6 | 1291.6 | 1295.4 | 1304.0 | 1305.9 | 1306.9 | 1309.8 | 1312.6 | 1312.6 |
| 12.5° | 1283.0 | 1284.9 | 1287.7 | 1291.6 | 1298.3 | 1309.8 | 1313.6 | 1316.5 | 1321.3 | 1324.1 | 1326.0 |
| 15° | 1276.3 | 1277.2 | 1283.9 | 1291.6 | 1302.1 | 1316.5 | 1324.1 | 1328.9 | 1335.6 | 1339.4 | 1342.3 |
| 17.5° | 1266.7 | 1267.6 | 1278.2 | 1289.7 | 1305.0 | 1325.1 | 1337.5 | 1345.2 | 1351.9 | 1357.6 | 1361.5 |
| 20° | 1254.2 | 1257.1 | 1269.6 | 1287.7 | 1309.8 | 1333.7 | 1351.9 | 1365.3 | 1372.0 | 1377.7 | 1383.5 |
| 22.5° | 1238.9 | 1241.8 | 1257.1 | 1283.0 | 1314.6 | 1345.2 | 1369.1 | 1386.4 | 1395.0 | 1402.6 | 1409.3 |
| 25° | 1215.9 | 1219.8 | 1238.0 | 1271.5 | 1316.5 | 1357.6 | 1388.3 | 1410.3 | 1418.0 | 1427.5 | 1433.3 |
| 27.5° | 1180.5 | 1183.4 | 1205.4 | 1248.5 | 1310.7 | 1371.0 | 1410.3 | 1436.1 | 1444.8 | 1455.3 | 1461.0 |
| 30° | 1125.0 | 1130.7 | 1157.5 | 1211.2 | 1296.4 | 1381.6 | 1436.1 | 1462.0 | 1472.5 | 1483.1 | 1490.7 |
| 32.5° | 1053.2 | 1061.8 | 1091.5 | 1160.4 | 1268.6 | 1385.4 | 1463.9 | 1493.6 | 1507.0 | 1518.5 | 1528.1 |
| 35° | 964.1 | 972.8 | 1008.2 | 1095.3 | 1224.6 | 1377.7 | 1491.7 | 1530.0 | 1546.3 | 1561.6 | 1573.1 |
| 37.5° | 862.6 | 870.3 | 913.4 | 1013.0 | 1161.4 | 1353.8 | 1513.7 | 1570.2 | 1592.2 | 1612.3 | 1627.6 |
| 40° | 760.2 | 768.8 | 815.7 | 922.0 | 1084.8 | 1307.9 | 1523.3 | 1614.2 | 1642.0 | 1667.8 | 1687.0 |
| 42.5° | 649.1 | 659.7 | 712.3 | 825.3 | 995.7 | 1244.7 | 1515.6 | 1657.3 | 1691.8 | 1727.2 | 1755.9 |
| 45° | 550.5 | 552.4 | 609.9 | 719.0 | 898.1 | 1163.3 | 1488.8 | 1698.5 | 1745.4 | 1795.2 | 1836.4 |
| 47.5° | 455.7 | 459.6 | 509.4 | 617.5 | 796.6 | 1071.4 | 1440.0 | 1731.0 | 1805.7 | 1869.9 | 1930.2 |
| 50° | 371.5 | 376.3 | 421.3 | 518.0 | 695.1 | 970.8 | 1373.9 | 1750.2 | 1857.4 | 1944.5 | 2028.8 |
| 52.5° | 302.5 | 308.3 | 345.6 | 430.8 | 592.7 | 865.5 | 1292.5 | 1753.1 | 1904.3 | 2019.2 | 2131.2 |
| 55° | 251.8 | 255.6 | 284.4 | 352.3 | 494.0 | 756.4 | 1199.7 | 1738.7 | 1935.0 | 2086.2 | 2235.6 |
| 57.5° | 212.5 | 216.4 | 236.5 | 290.1 | 405.0 | 644.4 | 1086.7 | 1705.2 | 1951.2 | 2144.6 | 2340.9 |
| 60° | 184.8 | 187.7 | 202.0 | 240.3 | 333.2 | 539.0 | 965.1 | 1645.8 | 1946.5 | 2181.0 | 2428.0 |
| 62.5° | 164.7 | 165.6 | 178.1 | 204.9 | 274.8 | 439.5 | 828.2 | 1556.8 | 1907.2 | 2185.8 | 2487.4 |
| 65° | 146.5 | 147.4 | 155.1 | 174.3 | 226.0 | 353.3 | 685.5 | 1434.2 | 1832.5 | 2152.3 | 2496.0 |
| 67.5° | *118.7* | *120.6* | *132.1* | *146.5* | *185.7* | *279.6* | *540.0* | *1273.4* | *1715.7* | *2065.2* | *2447.2* |
| 70° | 94.8 | 95.7 | 107.2 | 123.5 | 151.3 | 220.2 | 414.6 | 1057.0 | 1532.8 | 1923.5 | 2320.8 |
| 72.5° | 70.8 | 72.8 | 83.3 | 99.6 | 123.5 | 170.4 | 299.7 | 799.5 | 1225.5 | 1621.9 | 2021.1 |
| 75° | 56.5 | 57.4 | 61.3 | 76.6 | 95.7 | 129.3 | 202.0 | 484.5 | 738.2 | 1003.4 | 1238.9 |
| 77.5° | 47.9 | 48.8 | 48.8 | 59.4 | 70.8 | 87.1 | 107.2 | 192.4 | 312.1 | 444.2 | 588.8 |
| 80° | 39.3 | 41.2 | 37.3 | 44.0 | 50.7 | 50.7 | 49.8 | 91.9 | 147.4 | 208.7 | 273.8 |
| 82.5° | 28.7 | 30.6 | 28.7 | 30.6 | 30.6 | 27.8 | 25.9 | 34.5 | 46.9 | 64.1 | 69.9 |
| 85° | 20.1 | 21.1 | 23.0 | 21.1 | 20.1 | 16.3 | 12.4 | 9.6 | 5.7 | 6.7 | 9.6 |
| 87.5° | 13.4 | 16.3 | 19.1 | 18.2 | 15.3 | 12.4 | 8.6 | 5.7 | 2.9 | 3.8 | 3.8 |
| 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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REPORT NUMBER: P1212002
CATALOG NUMBER: GKO-PB1E-735-U-T1

**CANDELA DISTRIBUTION (continued):**

| | 85° | 87.5° | 90° |
|---|---|---|---|
| 0° | 1288.7 | 1288.7 | *1288.7* |
| 2.5° | 1289.7 | 1288.7 | *1287.7* |
| 5° | 1294.4 | 1293.5 | *1292.5* |
| 7.5° | 1301.2 | 1301.2 | *1301.2* |
| 10° | 1311.7 | 1313.6 | *1313.6* |
| 12.5° | 1325.1 | 1327.0 | *1327.0* |
| 15° | 1341.4 | 1342.3 | *1344.2* |
| 17.5° | 1361.5 | 1362.4 | *1362.4* |
| 20° | 1385.4 | 1384.4 | *1386.4* |
| 22.5° | 1409.3 | 1409.3 | *1409.3* |
| 25° | 1434.2 | 1434.2 | *1434.2* |
| 27.5° | 1463.0 | 1463.0 | *1461.0* |
| 30° | 1494.6 | 1494.6 | *1494.6* |
| 32.5° | 1532.8 | 1533.8 | *1534.8* |
| 35° | 1581.7 | 1583.6 | *1586.5* |
| 37.5° | 1637.2 | 1642.0 | *1644.9* |
| 40° | 1703.3 | 1705.2 | *1710.0* |
| 42.5° | 1777.0 | 1782.7 | *1783.7* |
| 45° | 1868.9 | 1878.5 | *1882.3* |
| 47.5° | 1977.1 | 1990.5 | *1997.2* |
| 50° | 2097.7 | 2113.1 | *2122.6* |
| 52.5° | 2228.9 | 2253.8 | *2265.3* |
| 55° | 2368.7 | 2411.8 | *2424.2* |
| 57.5° | 2526.7 | 2585.1 | *2602.3* |
| 60° | 2681.8 | 2764.1 | *2791.9* |
| 62.5° | 2813.9 | 2929.7 | *2964.2* |
| 65° | 2906.8 | 3046.5 | *3097.3* |
| 67.5° | *2925.9* | *3091.5* | *3151.9* |
| 70° | 2811.0 | 2980.5 | *3050.4* |
| 72.5° | 2444.3 | 2597.5 | *2684.6* |
| 75° | 1443.8 | 1553.9 | *1527.1* |
| 77.5° | 724.8 | 756.4 | *761.2* |
| 80° | 317.9 | 337.0 | *344.7* |
| 82.5° | 78.5 | 80.4 | *91.0* |
| 85° | 10.5 | 12.4 | *11.5* |
| 87.5° | 3.8 | 3.8 | *4.8* |
| 90° | 0.0 | 0.0 | *0.0* |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2511-595-2

Test Date: 01/09/2026

Luminaire Tested: GKO-PB1C-735-U-T4W

Data in this report applies to families of products including GKO-PB1C

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

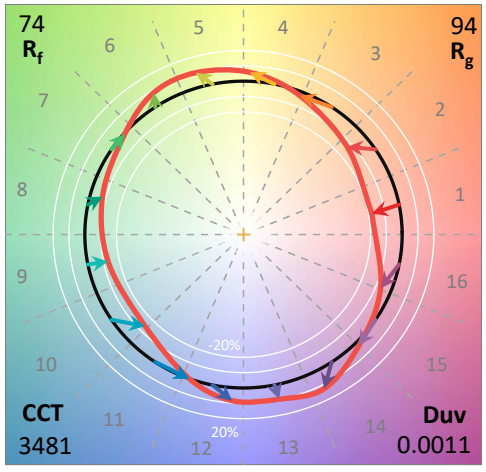
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2511-595-2 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 01/09/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GKO-PB1C-735-U-T4W** |
| Description: | Gekko Wedge Wall Pack Fixture 1 SQ w/ T4W distribution |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3481 |
| CIE u': | 0.2357 |
| CIE v': | 0.5131 |
| Duv: | 0.0011 |
| CIE x: | 0.4076 |
| CIE y: | 0.3944 |
| CIE z: | 0.1981 |
| Peak Wavelength (nm): | 589 |
| Dominant Wavelength (nm): | 580 |
| Purity: | 40.6853 |
| Rf: | 73.8 |
| Rg: | 93.8 |

| | | | | | |
|---|---|---|---|---|---|
| CRI (Ra): | 71.1 | | | | |
| R1: | 67.5 | R9: | -37.9 | | |
| R2: | 79.5 | R10: | 52.4 | | |
| R3: | 90.0 | R11: | 64.5 | | |
| R4: | 69.0 | R12: | 43.0 | | |
| R5: | 67.0 | R13: | 69.5 | | |
| R6: | 71.2 | R14: | 94.3 | | |
| R7: | 78.9 | R15: | 59.3 | | |
| R8: | 45.9 | | | | |




## Test Conditions

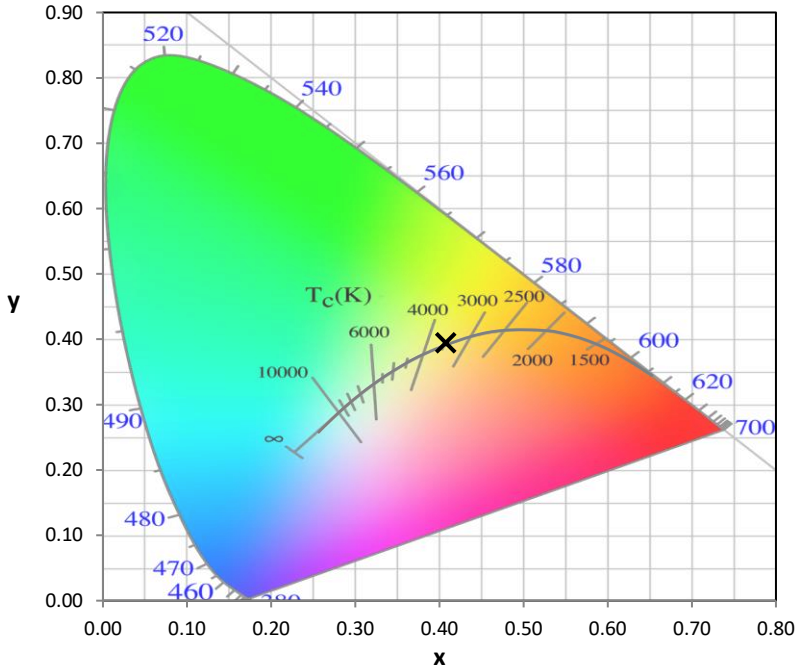
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.1 |

REPORT NUMBER: SP1-2511-595-2

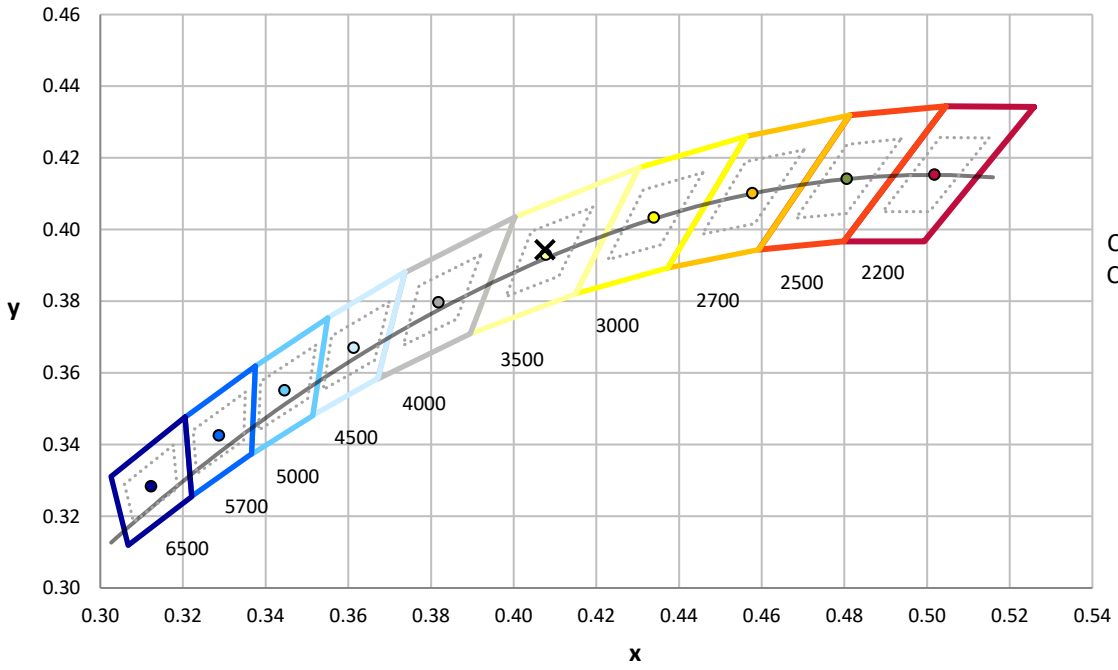
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 12/16/2025 | 6/16/2026 |
| Power Meter | XITRON INXT2011004 | 10/21/2025 | 10/21/2026 |
| AC Power Source | CHROMA 61603 IN0063 | 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: SP1-2511-595-2

**CIE 1931 Chromaticity Diagram**




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

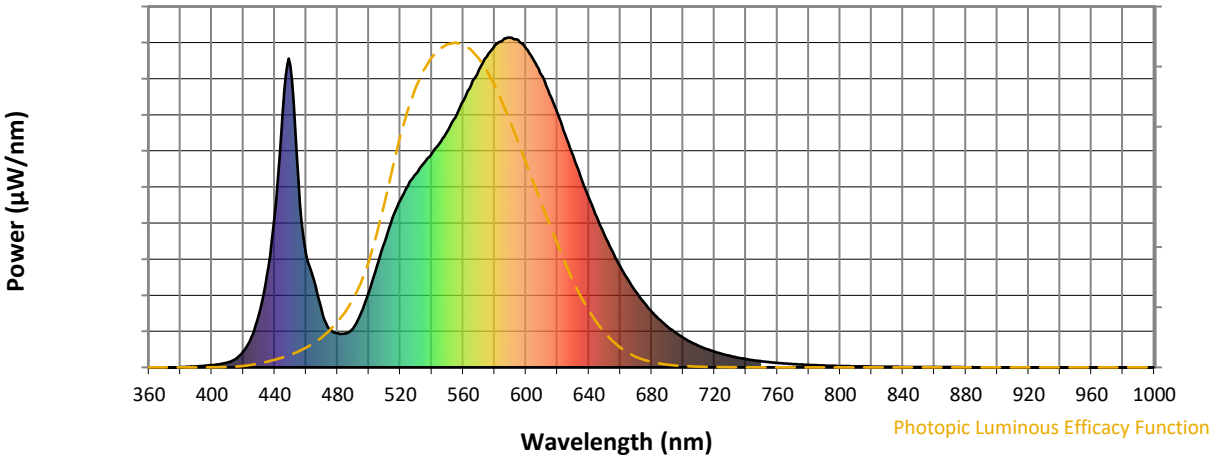



CCT = 3481K
CIE x = 0.4076
CIE y = 0.3944
Duv = 0.0011

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2511-595-2

## Photopic Flux vs. Wavelength

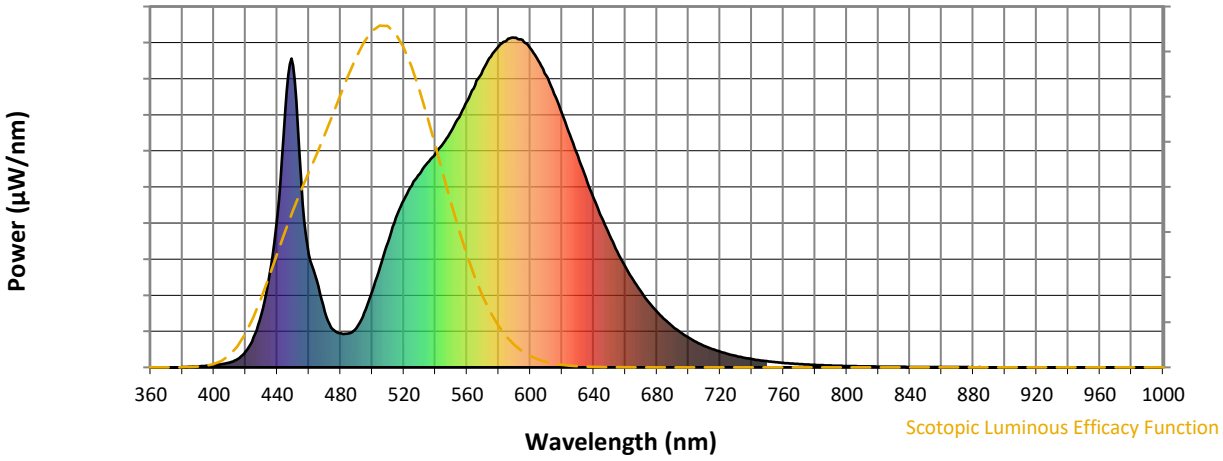



## Photopic Lumens: NR

| 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 | 119 | NR | 620 | 771 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 165 | NR | 625 | 705 | NR | 755 | 16 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 641 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 305 | NR | 635 | 575 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 380 | NR | 640 | 513 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 453 | NR | 645 | 455 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 507 | NR | 650 | 401 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 551 | NR | 655 | 351 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 587 | NR | 660 | 305 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 620 | NR | 665 | 265 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 15 | NR | 540 | 648 | NR | 670 | 229 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 25 | NR | 545 | 680 | NR | 675 | 197 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 48 | NR | 550 | 716 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 90 | NR | 555 | 757 | NR | 685 | 145 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 161 | NR | 560 | 807 | NR | 690 | 124 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 279 | NR | 565 | 856 | NR | 695 | 106 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 460 | NR | 570 | 901 | NR | 700 | 90 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 771 | NR | 575 | 942 | NR | 705 | 77 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 915 | NR | 580 | 974 | NR | 710 | 65 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 572 | NR | 585 | 991 | NR | 715 | 56 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 342 | NR | 590 | 999 | NR | 720 | 48 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 264 | NR | 595 | 992 | NR | 725 | 40 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 169 | NR | 600 | 966 | NR | 730 | 35 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 115 | NR | 605 | 931 | NR | 735 | 29 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 103 | NR | 610 | 885 | NR | 740 | 25 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 103 | NR | 615 | 829 | NR | 745 | 21 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2511-595-2

## Scotopic Flux vs. Wavelength

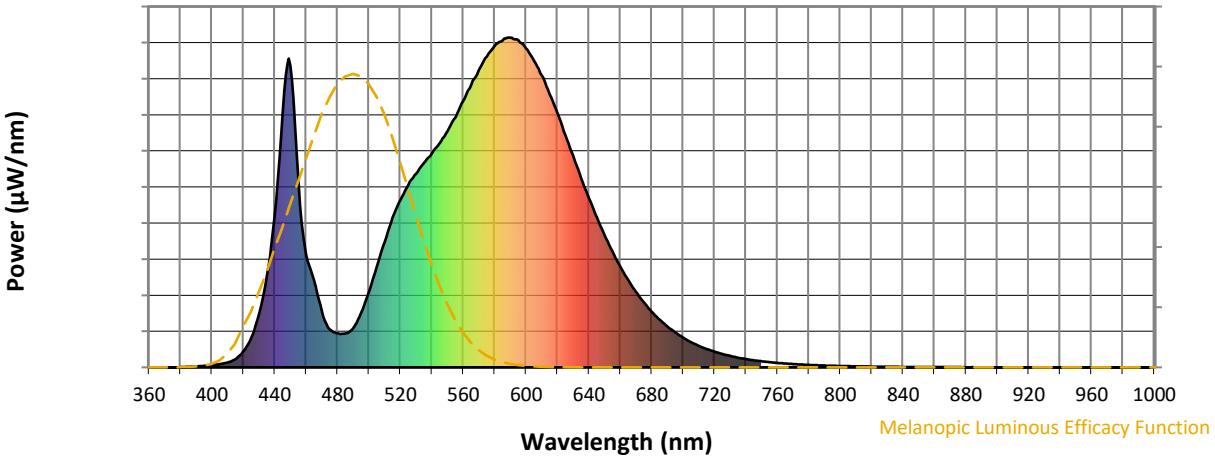



**Scotopic Lumens: NR** **S/P: 1.36**

| 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 | 119 | NR | 620 | 771 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 165 | NR | 625 | 705 | NR | 755 | 16 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 641 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 305 | NR | 635 | 575 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 380 | NR | 640 | 513 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 453 | NR | 645 | 455 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 507 | NR | 650 | 401 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 551 | NR | 655 | 351 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 587 | NR | 660 | 305 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 620 | NR | 665 | 265 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 15 | NR | 540 | 648 | NR | 670 | 229 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 25 | NR | 545 | 680 | NR | 675 | 197 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 48 | NR | 550 | 716 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 90 | NR | 555 | 757 | NR | 685 | 145 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 161 | NR | 560 | 807 | NR | 690 | 124 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 279 | NR | 565 | 856 | NR | 695 | 106 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 460 | NR | 570 | 901 | NR | 700 | 90 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 771 | NR | 575 | 942 | NR | 705 | 77 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 915 | NR | 580 | 974 | NR | 710 | 65 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 572 | NR | 585 | 991 | NR | 715 | 56 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 342 | NR | 590 | 999 | NR | 720 | 48 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 264 | NR | 595 | 992 | NR | 725 | 40 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 169 | NR | 600 | 966 | NR | 730 | 35 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 115 | NR | 605 | 931 | NR | 735 | 29 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 103 | NR | 610 | 885 | NR | 740 | 25 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 103 | NR | 615 | 829 | NR | 745 | 21 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2511-595-2

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.56**

| 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 | 119 | NR | 620 | 771 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 165 | NR | 625 | 705 | NR | 755 | 16 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 641 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 305 | NR | 635 | 575 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 380 | NR | 640 | 513 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 453 | NR | 645 | 455 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 507 | NR | 650 | 401 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 551 | NR | 655 | 351 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 587 | NR | 660 | 305 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 620 | NR | 665 | 265 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 15 | NR | 540 | 648 | NR | 670 | 229 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 25 | NR | 545 | 680 | NR | 675 | 197 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 48 | NR | 550 | 716 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 90 | NR | 555 | 757 | NR | 685 | 145 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 161 | NR | 560 | 807 | NR | 690 | 124 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 279 | NR | 565 | 856 | NR | 695 | 106 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 460 | NR | 570 | 901 | NR | 700 | 90 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 771 | NR | 575 | 942 | NR | 705 | 77 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 915 | NR | 580 | 974 | NR | 710 | 65 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 572 | NR | 585 | 991 | NR | 715 | 56 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 342 | NR | 590 | 999 | NR | 720 | 48 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 264 | NR | 595 | 992 | NR | 725 | 40 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 169 | NR | 600 | 966 | NR | 730 | 35 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 115 | NR | 605 | 931 | NR | 735 | 29 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 103 | NR | 610 | 885 | NR | 740 | 25 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 103 | NR | 615 | 829 | NR | 745 | 21 | NR | 875 | 1 | NR | | | |

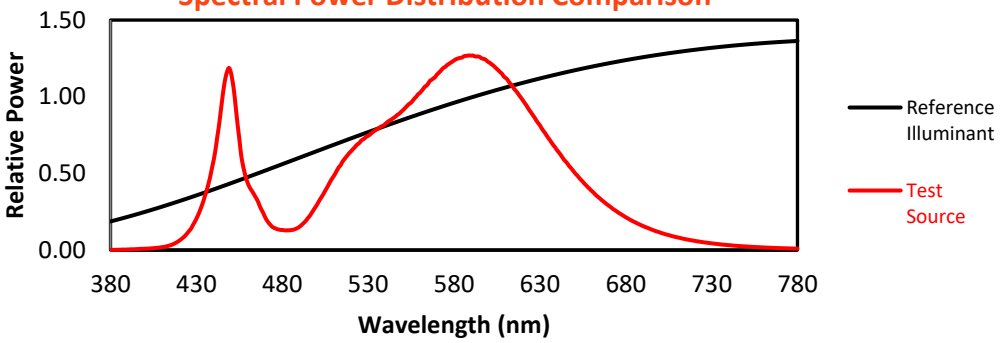
REPORT NUMBER: SP1-2511-595-2

# TM-30-18

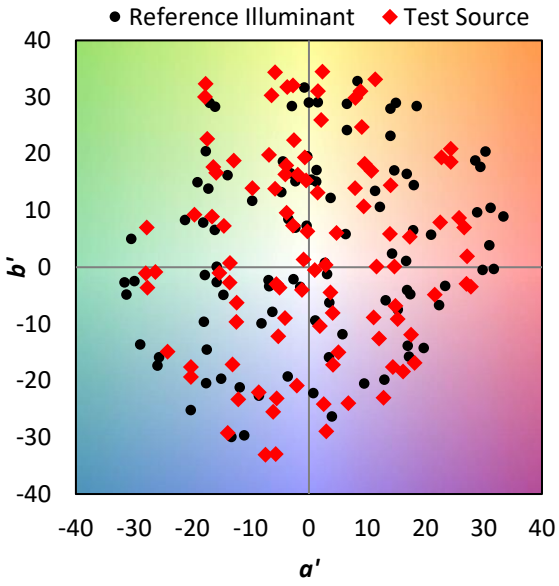
## Summary

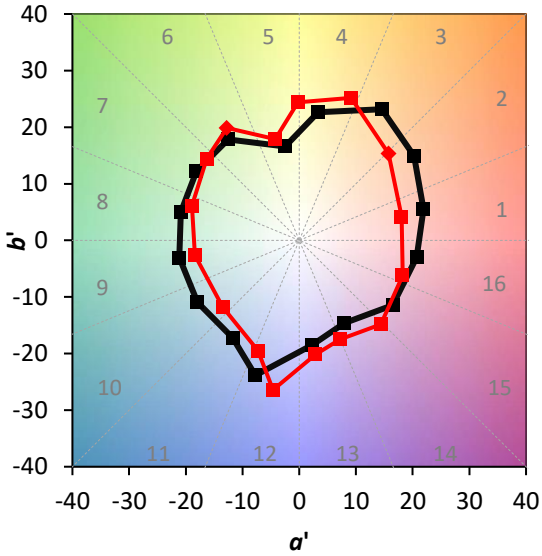
$R_f$ = 73.8
$R_g$ = 93.8
CIE $R_a$ = 71.1
$R_9$ = -37.9

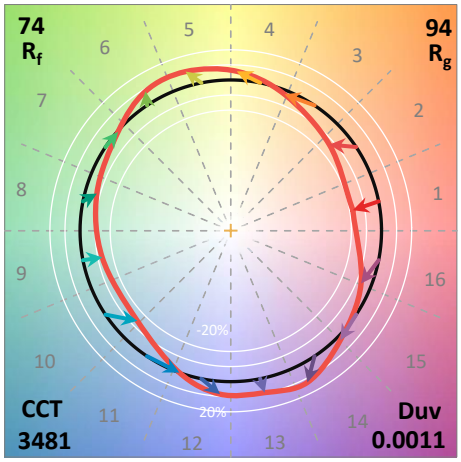
## Spectral Power Distribution Comparison

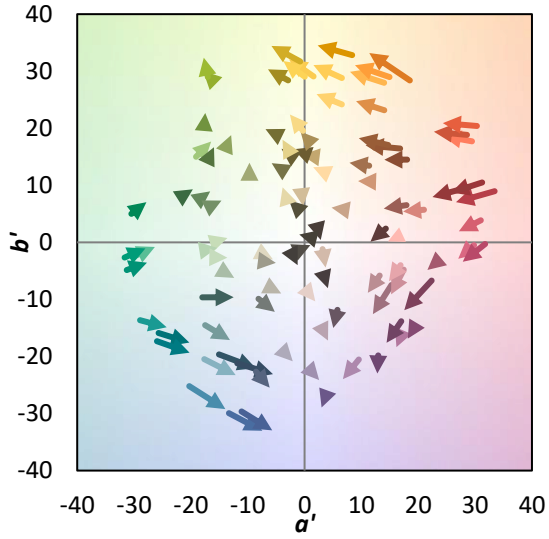



## Color Vector Graphics



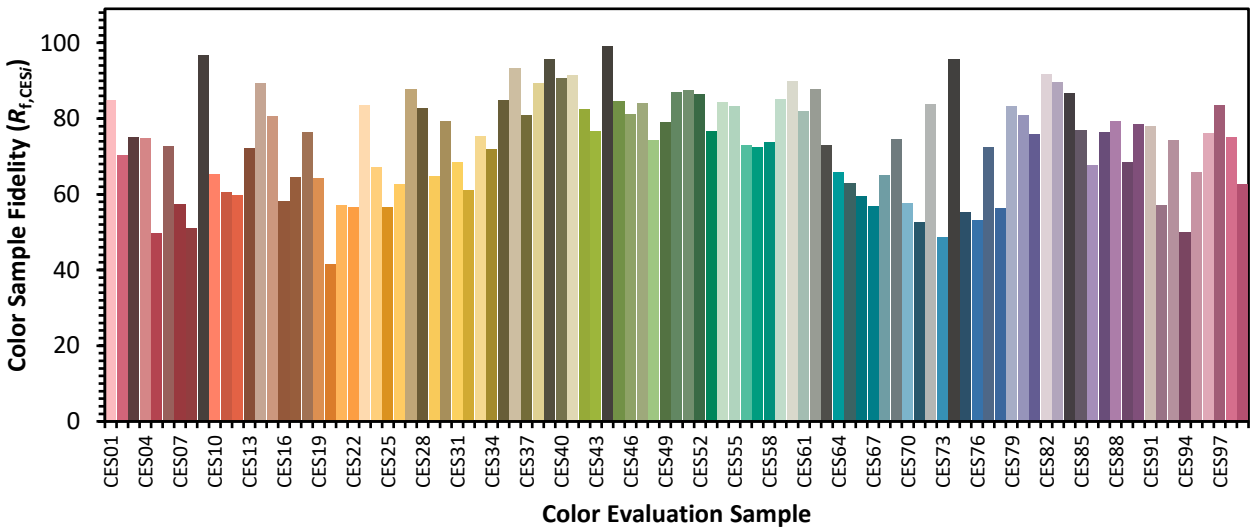



REPORT NUMBER: SP1-2511-595-2

# TM-30-18

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

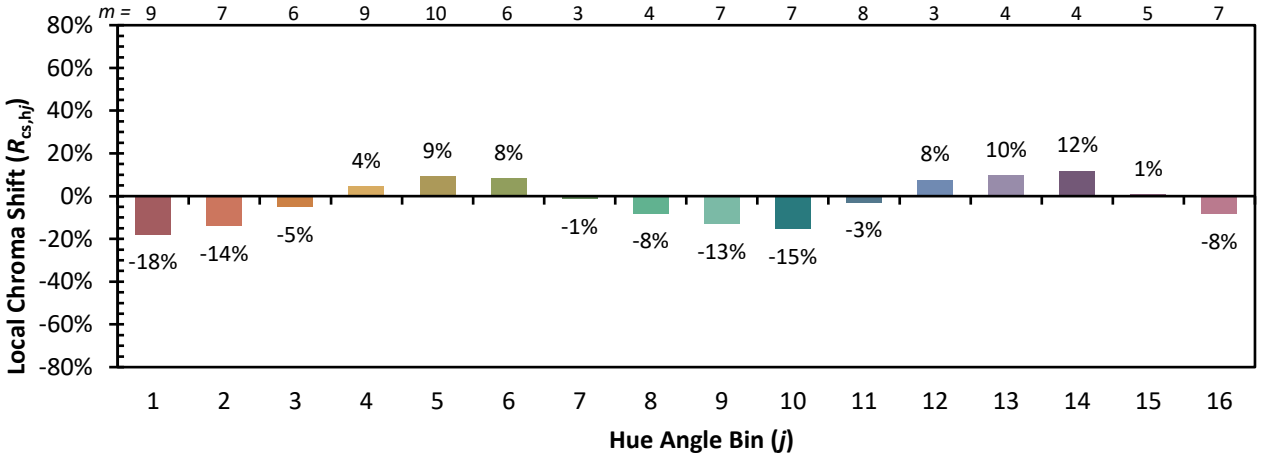
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 63 | CES51 = 88 | CES76 = 53 |
| CES02 = 61 | CES27 = 88 | CES52 = 87 | CES77 = 73 |
| CES03 = 31 | CES28 = 83 | CES53 = 77 | CES78 = 56 |
| CES04 = 70 | CES29 = 65 | CES54 = 84 | CES79 = 83 |
| CES05 = 48 | CES30 = 79 | CES55 = 83 | CES80 = 81 |
| CES06 = 51 | CES31 = 69 | CES56 = 73 | CES81 = 76 |
| CES07 = 40 | CES32 = 61 | CES57 = 72 | CES82 = 92 |
| CES08 = 39 | CES33 = 75 | CES58 = 74 | CES83 = 90 |
| CES09 = 29 | CES34 = 72 | CES59 = 85 | CES84 = 87 |
| CES10 = 75 | CES35 = 85 | CES60 = 90 | CES85 = 77 |
| CES11 = 58 | CES36 = 93 | CES61 = 82 | CES86 = 68 |
| CES12 = 64 | CES37 = 81 | CES62 = 88 | CES87 = 77 |
| CES13 = 42 | CES38 = 89 | CES63 = 73 | CES88 = 79 |
| CES14 = 74 | CES39 = 96 | CES64 = 66 | CES89 = 68 |
| CES15 = 71 | CES40 = 91 | CES65 = 63 | CES90 = 79 |
| CES16 = 47 | CES41 = 92 | CES66 = 60 | CES91 = 78 |
| CES17 = 50 | CES42 = 83 | CES67 = 57 | CES92 = 57 |
| CES18 = 56 | CES43 = 77 | CES68 = 65 | CES93 = 74 |
| CES19 = 72 | CES44 = 99 | CES69 = 75 | CES94 = 50 |
| CES20 = 65 | CES45 = 85 | CES70 = 58 | CES95 = 66 |
| CES21 = 87 | CES46 = 81 | CES71 = 53 | CES96 = 76 |
| CES22 = 79 | CES47 = 84 | CES72 = 84 | CES97 = 83 |
| CES23 = 92 | CES48 = 74 | CES73 = 49 | CES98 = 75 |
| CES24 = 91 | CES49 = 79 | CES74 = 96 | CES99 = 63 |
| CES25 = 72 | CES50 = 87 | CES75 = 55 | |

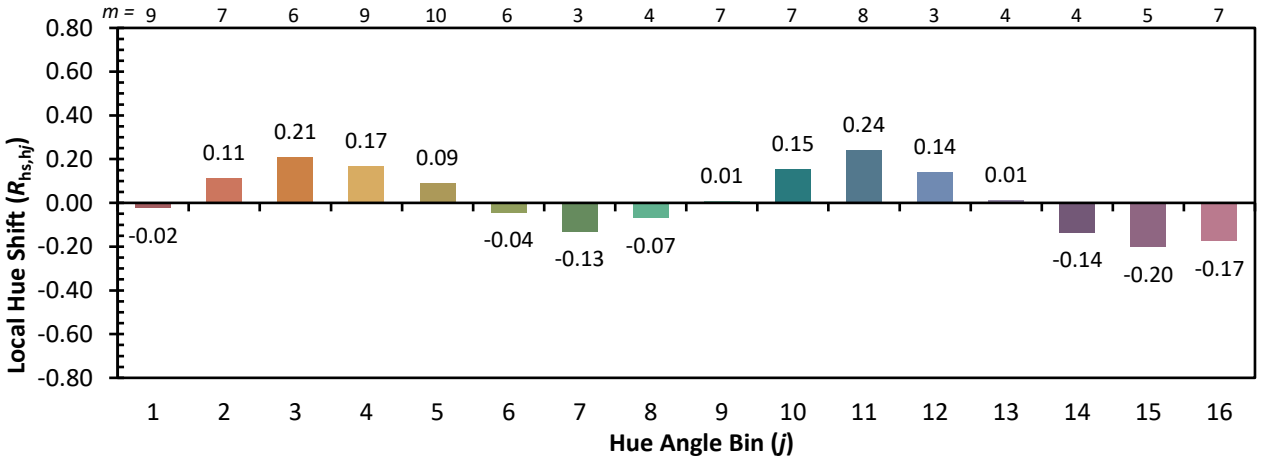


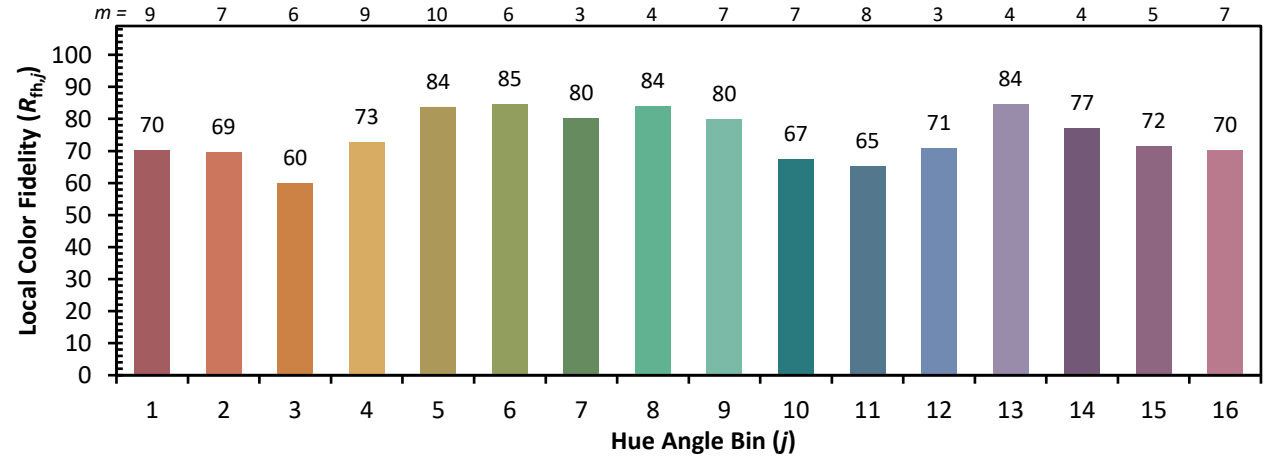
REPORT NUMBER: SP1-2511-595-2

**TM-30-18**

## Color Rendition by Hue-Angle Bin



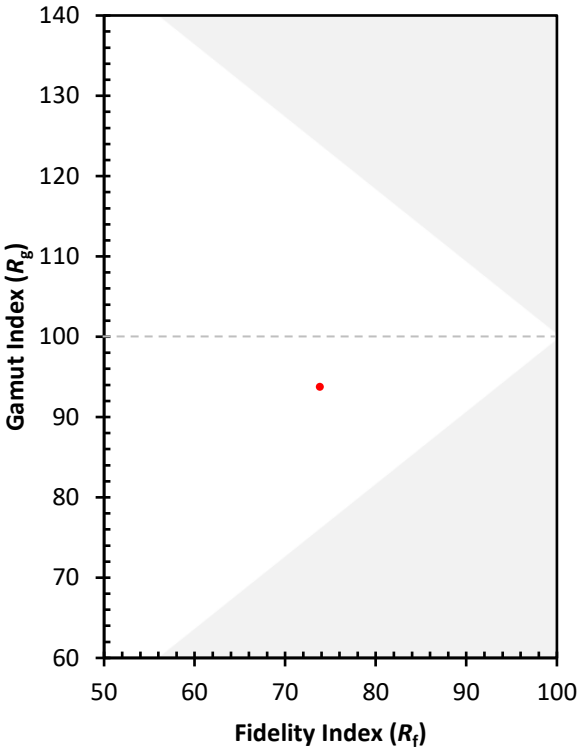



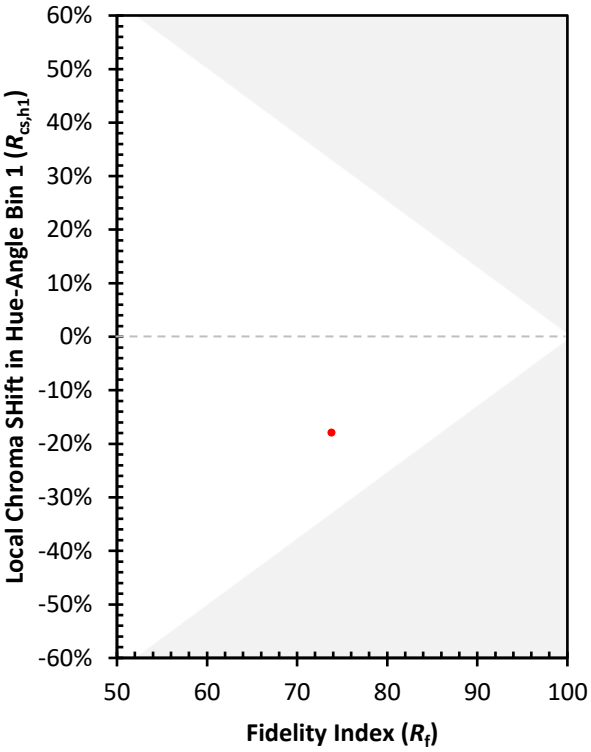



REPORT NUMBER: SP1-2511-595-2

# TM-30-18

## Measure Comparisons




(END OF REPORT)