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

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Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P1201611

Luminaire Tested: GWC-SB1B-830-U-RW

Issue Date: 10/30/2025

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1201611 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-19) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB1B-830-U-RW |
| Description: | GALLEON WALL LUMINAIRE |
| | (1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND RECTANGULAR WIDE OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 5238 lumens |
| Efficiency: | N/A |
| Efficacy: | 131.6 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 39.8 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.33 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.996 |
| Total Harmonic Distortion (THDi): | 5.305 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

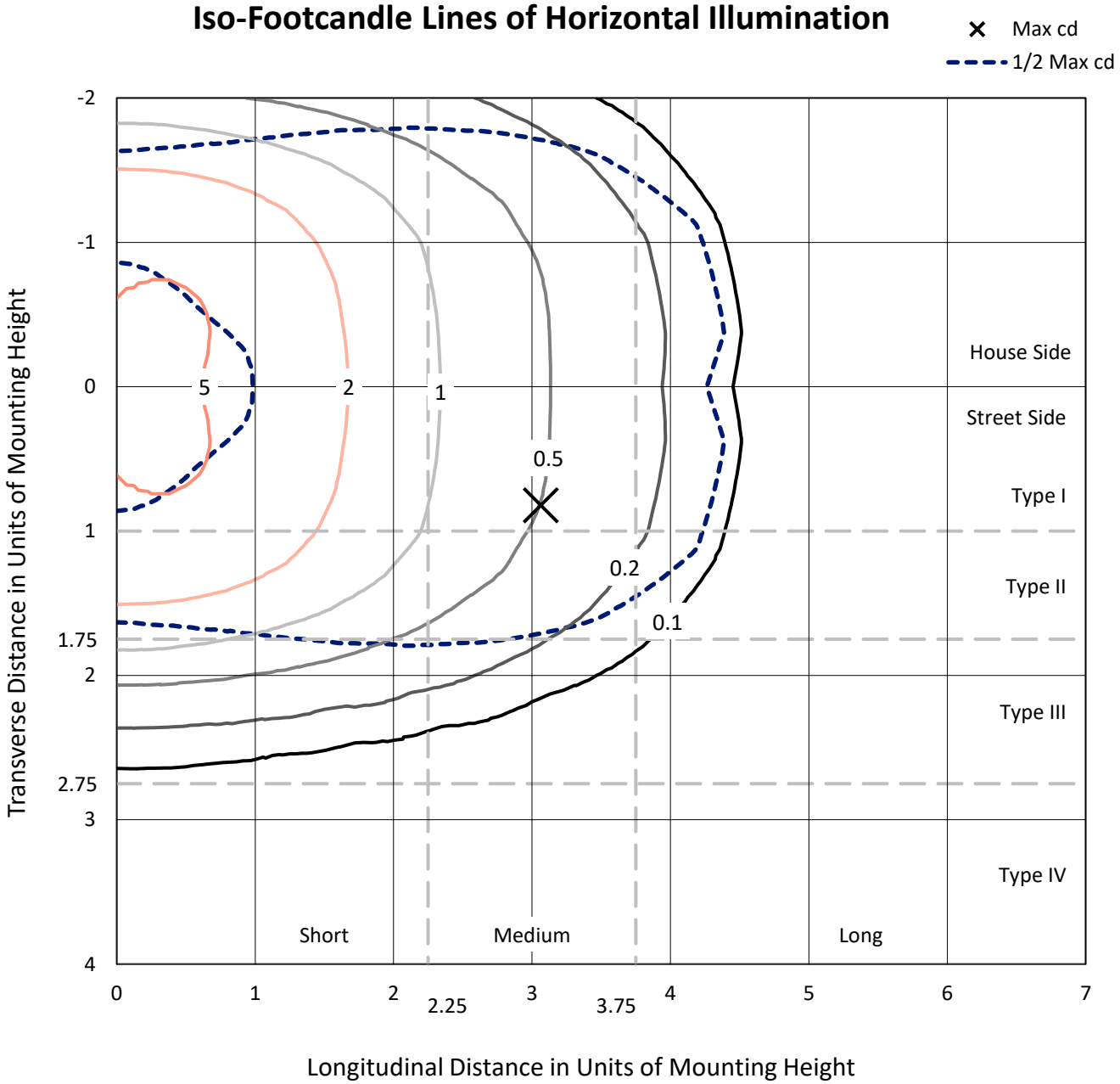


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Scaled Data Report

REPORT NUMBER: P1201611
CATALOG NUMBER: GWC-SB1B-830-U-RW

## Iso-Footcandle Lines of Horizontal Illumination



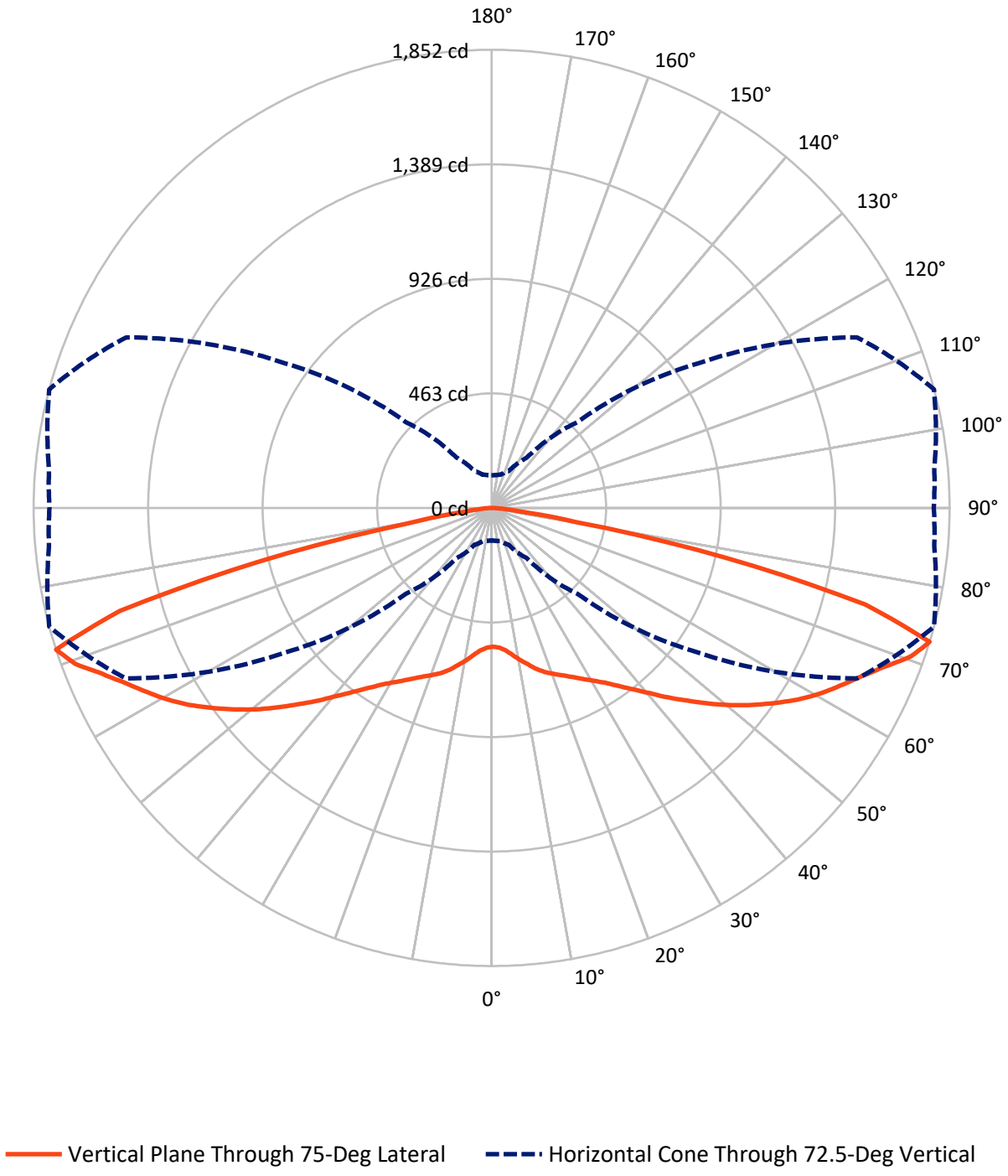

Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

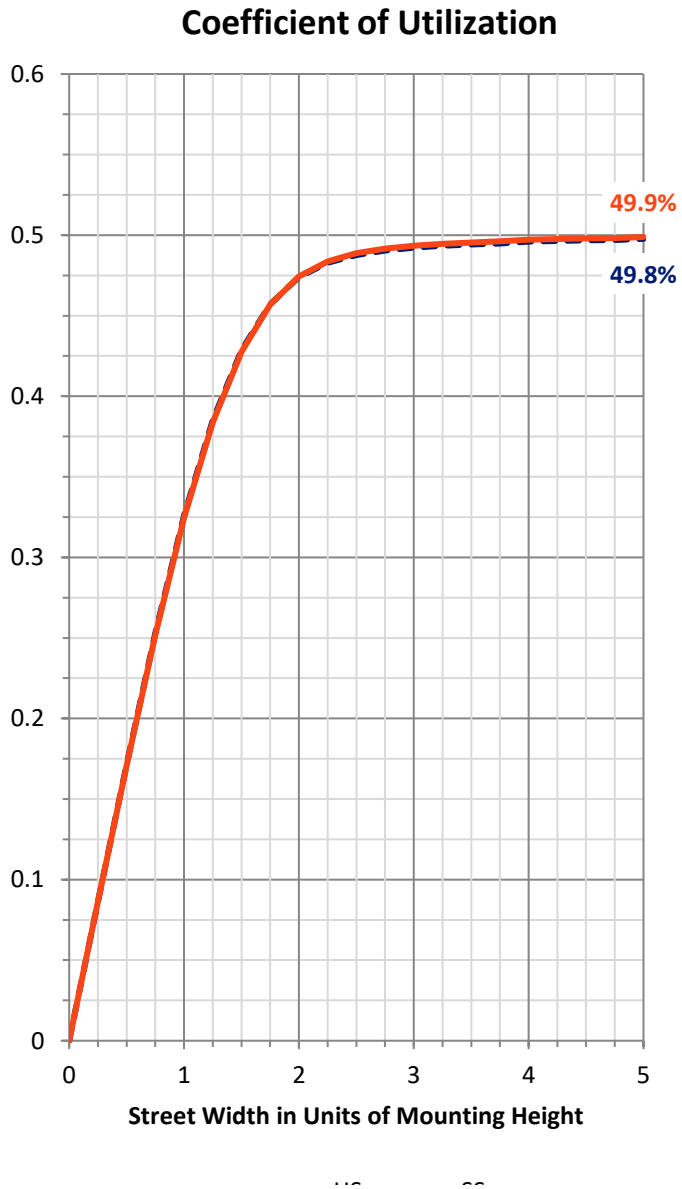
REPORT NUMBER: P1201611
CATALOG NUMBER: GWC-SB1B-830-U-RW

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2619.0 | 0.0 | 2619.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Street Side** | Lumens | 2619.0 | 0.0 | 2619.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Total** | Lumens | 5238.0 | 0.0 | 5238.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 55.0 | 1.0 |
| 10°-20° | 181.3 | 3.5 |
| 20°-30° | 350.3 | 6.7 |
| 30°-40° | 591.5 | 11.3 |
| 40°-50° | 938.0 | 17.9 |
| 50°-60° | 1255.9 | 24.0 |
| 60°-70° | 1195.2 | 22.8 |
| 70°-80° | 623.7 | 11.9 |
| 80°-90° | 47.2 | 0.9 |
| 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° | 5238.0 | 100.0 |
| 0°-180° | 5238.0 | 100.0 |



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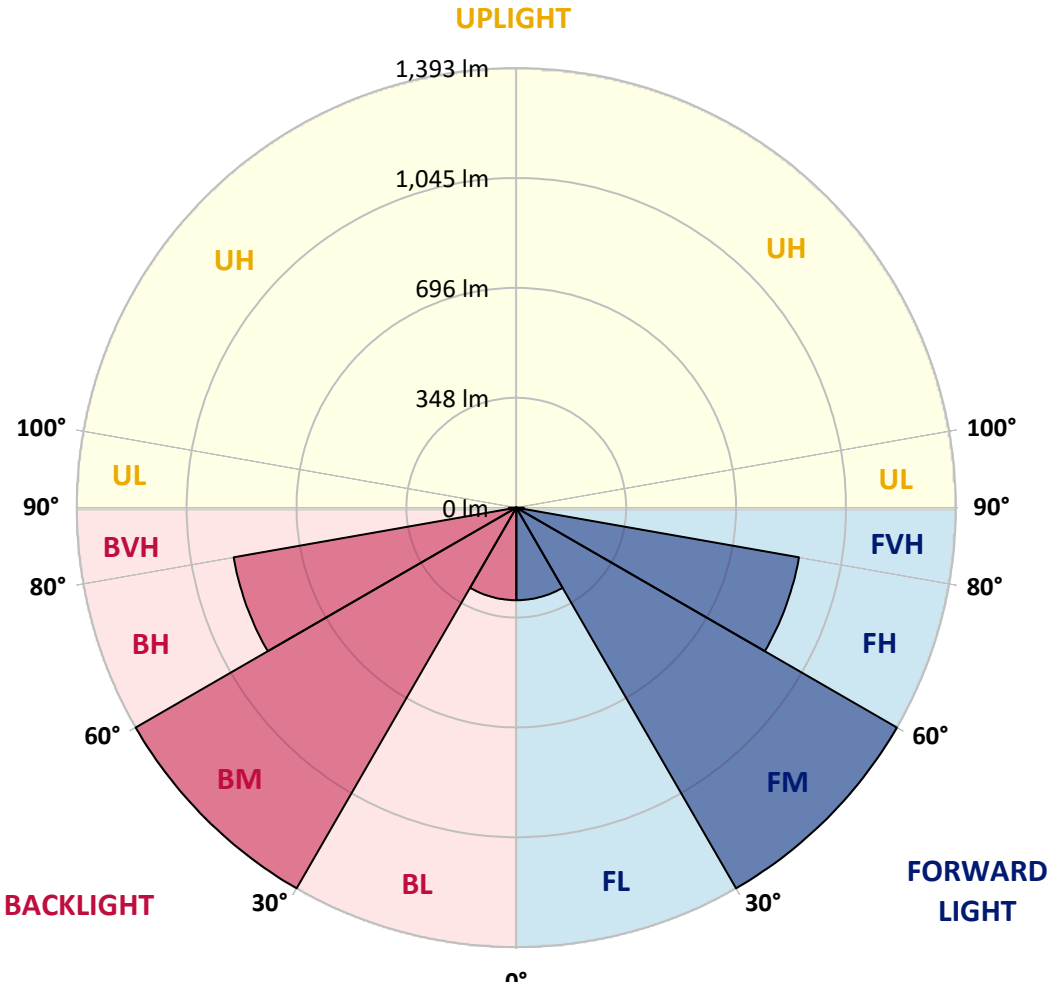
Scaled Data Report

REPORT NUMBER: P1201611
CATALOG NUMBER: GWC-SB1B-830-U-RW

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 293.3 | 5.6 | | | |
| FM | (30°-60°) | 1392.7 | 26.6 | | | |
| FH | (60°-80°) | 909.4 | 17.4 | | | G1/1800 |
| FVH | (80°-90°) | 23.6 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 293.3 | 5.6 | B1/500 | | |
| BM | (30°-60°) | 1392.7 | 26.6 | B2/2500 | | |
| BH | (60°-80°) | 909.4 | 17.4 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 23.6 | 0.5 | | | 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 III Medium



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Scaled Data Report

REPORT NUMBER: P1201611
CATALOG NUMBER: GWC-SB1B-830-U-RW

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 561.1 | 561.1 | 561.1 | 561.1 | 561.1 | 561.1 | 561.1 | 561.1 | *561.1* | 561.1 | 561.1 |
| 2.5° | 561.1 | 560.5 | 561.1 | 561.6 | 561.4 | 561.4 | 562.7 | 563.5 | *565.1* | 564.8 | 564.6 |
| 5° | 557.3 | 557.1 | 559.2 | 561.6 | 563.5 | 566.7 | 570.7 | 573.7 | *577.4* | 578.2 | 578.2 |
| 7.5° | 555.5 | 554.7 | 558.4 | 562.7 | 568.6 | 576.6 | 584.4 | 592.4 | *598.8* | 600.9 | 601.5 |
| 10° | 556.8 | 557.1 | 562.2 | 570.2 | 579.5 | 590.8 | 601.7 | 615.4 | *624.5* | 626.6 | 628.7 |
| 12.5° | 563.0 | 562.4 | 571.0 | 583.8 | 596.7 | 610.8 | 623.7 | 638.6 | *648.5* | 653.6 | 655.8 |
| 15° | 574.2 | 573.1 | 585.2 | 604.1 | 622.9 | 639.4 | 649.9 | 664.0 | *675.5* | 682.0 | 684.4 |
| 17.5° | 587.6 | 588.1 | 603.9 | 628.5 | 653.1 | 671.8 | 681.7 | 688.9 | *697.7* | 703.4 | 706.0 |
| 20° | 611.1 | 612.2 | 629.8 | 659.0 | 687.0 | 708.4 | 716.5 | 713.8 | *716.2* | 720.5 | 723.7 |
| 22.5° | 642.7 | 643.2 | 663.0 | 694.5 | 724.0 | 747.5 | 752.8 | 741.9 | *735.2* | 738.1 | 740.3 |
| 25° | 679.3 | 682.8 | 702.6 | 734.9 | 765.1 | 787.6 | 790.0 | 773.4 | *756.8* | 757.7 | 759.0 |
| 27.5° | 724.0 | 727.2 | 747.2 | 779.3 | 810.1 | 829.6 | 829.3 | 807.1 | *782.8* | 776.6 | 778.5 |
| 30° | 772.4 | 775.8 | 796.4 | 829.6 | 858.2 | 875.3 | 871.6 | 845.1 | *810.3* | 798.8 | 800.2 |
| 32.5° | 829.9 | 832.0 | 852.9 | 886.0 | 912.5 | 926.1 | 918.4 | 885.8 | *842.4* | 829.3 | 832.5 |
| 35° | 899.4 | 902.6 | 918.1 | 949.4 | 972.7 | 983.9 | 970.8 | 932.3 | *883.6* | 868.9 | 871.0 |
| 37.5° | 978.8 | 976.7 | 994.3 | 1022.1 | 1041.4 | 1048.4 | 1030.4 | 984.7 | *930.7* | 913.3 | 916.5 |
| 40° | 1061.7 | 1060.7 | 1079.9 | 1106.7 | 1117.1 | 1121.4 | 1094.9 | 1044.9 | *985.0* | 966.3 | 972.4 |
| 42.5° | 1136.9 | 1136.1 | 1162.0 | 1191.7 | 1204.3 | 1199.5 | 1166.0 | 1108.8 | *1047.8* | 1026.4 | 1031.8 |
| 45° | 1197.0 | 1196.0 | 1227.8 | 1269.5 | 1294.1 | 1286.1 | 1241.2 | 1179.4 | *1111.5* | 1089.3 | 1094.4 |
| 47.5° | 1243.3 | 1243.9 | 1278.1 | 1329.7 | 1372.8 | 1375.7 | 1317.9 | 1251.3 | *1181.5* | 1156.4 | 1163.9 |
| 50° | 1276.7 | 1278.4 | 1315.0 | 1372.2 | 1431.1 | 1457.0 | 1396.3 | 1325.2 | *1254.0* | 1225.7 | 1234.2 |
| 52.5° | 1285.0 | 1288.0 | 1332.1 | 1399.2 | 1468.5 | 1518.0 | 1476.0 | 1396.0 | *1322.7* | 1295.7 | 1302.7 |
| 55° | 1240.9 | 1246.8 | 1302.7 | 1397.1 | 1491.5 | 1558.1 | 1546.1 | 1468.0 | *1392.0* | 1364.2 | 1372.0 |
| 57.5° | 1139.6 | 1147.8 | 1213.1 | 1336.4 | 1486.4 | 1585.6 | 1600.3 | 1537.0 | *1461.3* | 1434.5 | 1440.7 |
| 60° | 997.5 | 1007.4 | 1070.0 | 1204.5 | 1414.7 | 1595.8 | 1638.6 | 1604.1 | *1524.9* | 1499.0 | 1504.6 |
| 62.5° | 783.3 | 796.2 | 871.0 | 1028.8 | 1263.4 | 1548.5 | 1671.2 | 1664.8 | *1582.2* | 1549.8 | 1553.5 |
| 65° | 502.5 | 516.2 | 595.0 | 781.5 | 1061.5 | 1403.5 | 1681.4 | 1723.9 | *1642.6* | 1597.4 | 1603.0 |
| 67.5° | 303.0 | 309.2 | 348.2 | 473.6 | 775.8 | 1185.0 | 1595.3 | 1789.4 | *1713.2* | 1657.0 | 1661.3 |
| 70° | 193.9 | 197.4 | 220.6 | 278.1 | 438.6 | 864.6 | 1381.8 | 1801.7 | *1798.8* | 1718.3 | 1717.8 |
| 72.5° | *131.6* | *132.6* | *138.8* | *164.7* | *248.2* | *491.3* | *1019.2* | *1631.1* | *1852.3* | *1797.2* | *1788.6* |
| 75° | 96.3 | 102.2 | 112.1 | 116.6 | 140.9 | 245.5 | 584.1 | 1146.0 | *1561.0* | 1585.1 | 1526.8 |
| 77.5° | 71.7 | 71.9 | 85.6 | 90.9 | 100.6 | 130.8 | 247.1 | 639.7 | *969.2* | 1017.6 | 907.7 |
| 80° | 60.7 | 57.5 | 57.2 | 73.3 | 75.7 | 81.6 | 110.5 | 220.9 | *347.1* | 210.5 | 159.1 |
| 82.5° | 50.5 | 47.1 | 42.5 | 57.2 | 51.6 | 50.0 | 47.9 | 89.9 | *110.5* | 54.3 | 46.3 |
| 85° | 35.3 | 33.7 | 32.1 | 37.4 | 29.4 | 25.1 | 23.0 | 42.0 | *46.5* | 23.0 | 20.3 |
| 87.5° | 15.2 | 15.8 | 16.0 | 16.6 | 12.3 | 8.8 | 8.8 | 11.8 | *11.8* | 9.1 | 6.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 | 0.0 |


HS
SS

0

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

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

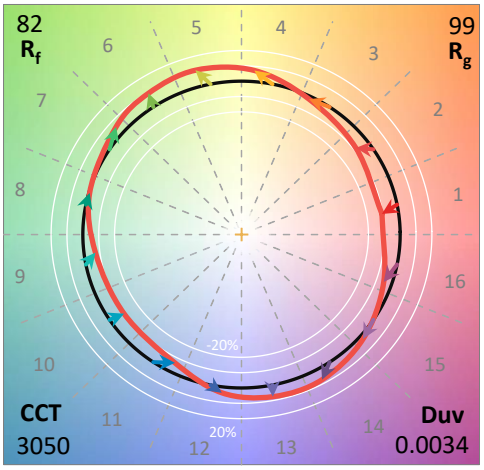
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2408-195-9 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 08/07/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | MCGRAW EDISON |
| Catalog Number: | **GALN-SB1A-830-U-5WQ** |
| Description: | GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS |

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 3050 | CRI (Ra): | 81.0 | | |
| CIE u': | 0.2476 | R1: | 79.6 | R9: | 7.1 |
| CIE v': | 0.5251 | R2: | 85.6 | R10: | 67.0 |
| Duv: | 0.0034 | R3: | 92.0 | R11: | 82.7 |
| CIE x: | 0.4383 | R4: | 82.6 | R12: | 63.2 |
| CIE y: | 0.4131 | R5: | 78.9 | R13: | 80.3 |
| CIE z: | 0.1487 | R6: | 81.7 | R14: | 95.0 |
| Peak Wavelength (nm): | 603 | R7: | 85.2 | R15: | 71.7 |
| Dominant Wavelength (nm): | 581 | R8: | 62.0 | | |
| Purity: | 55.55201 | | | | |
| Rf: | 81.5 | | | | |
| Rg: | 99.2 | | | | |




## Test Conditions

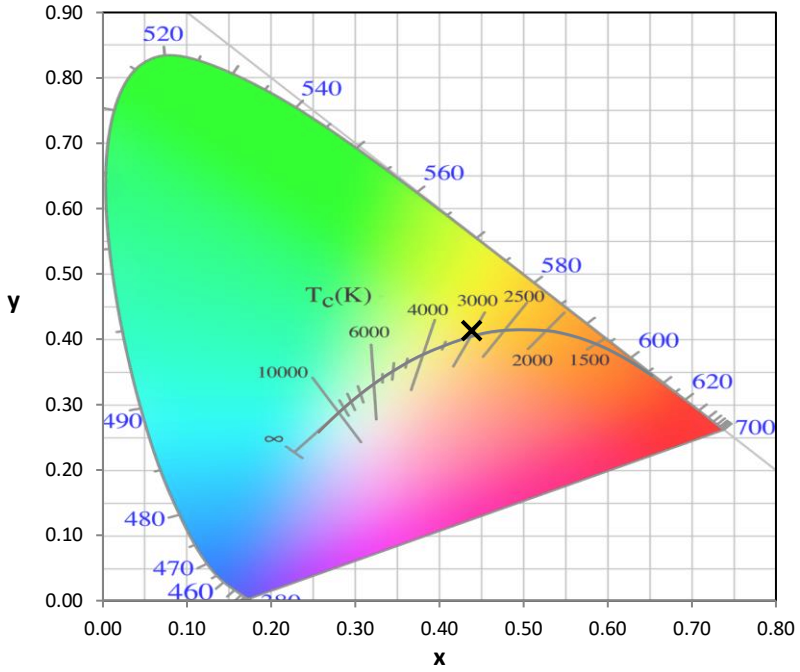
| | |
|---|---|
| Stabilization Time: | 20M |
| Operation Time: | 1H 20M |
| Sphere Temperature (°C): | 24.2 |

REPORT NUMBER: SP1-2408-195-9

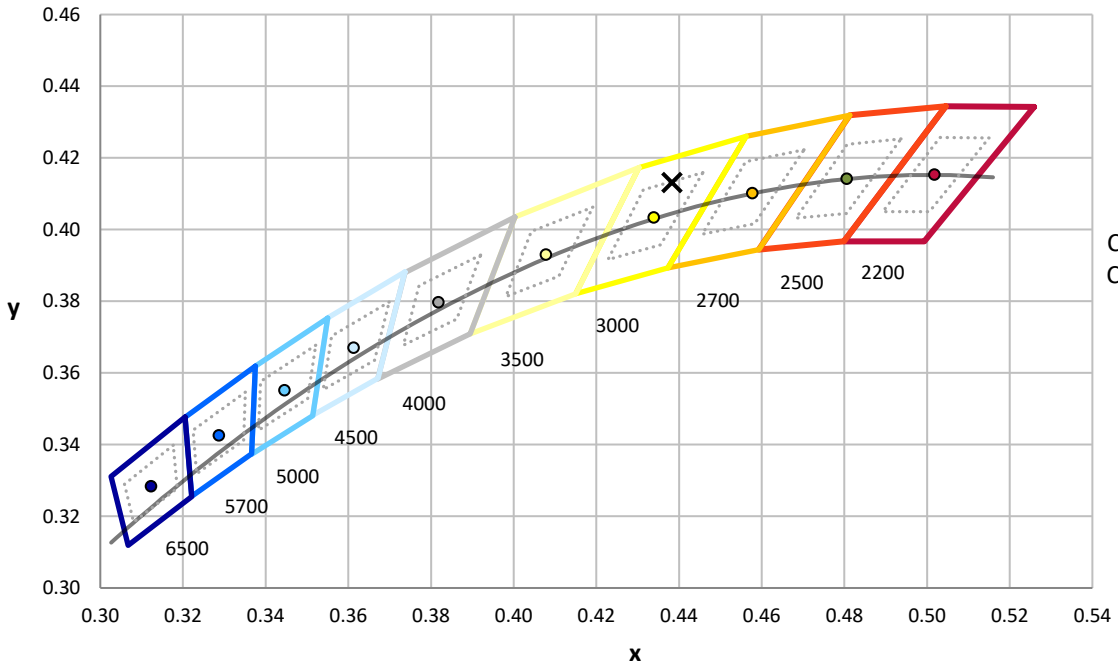
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

REPORT NUMBER: SP1-2408-195-9

## CIE 1931 Chromaticity Diagram




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

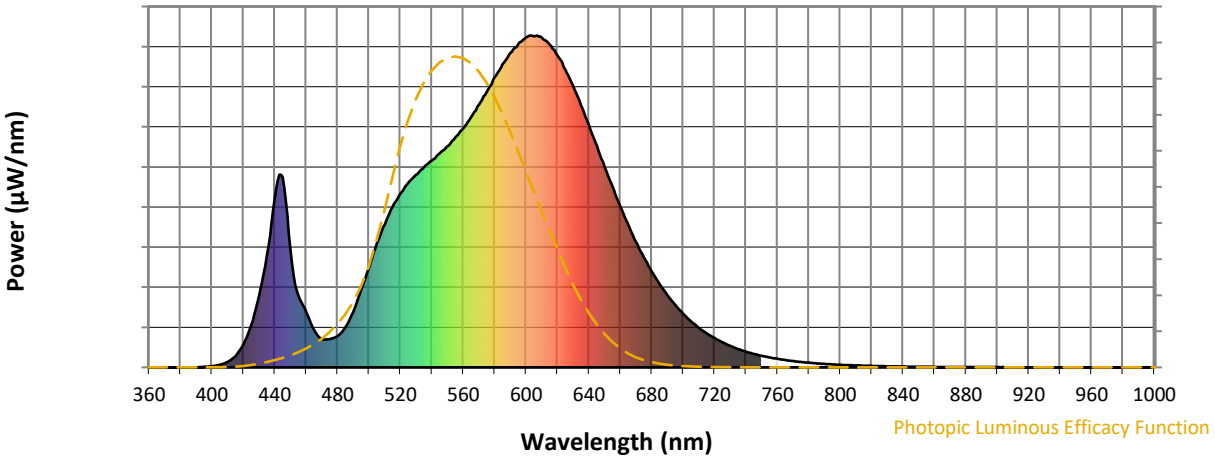



CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

## Photopic Flux vs. Wavelength

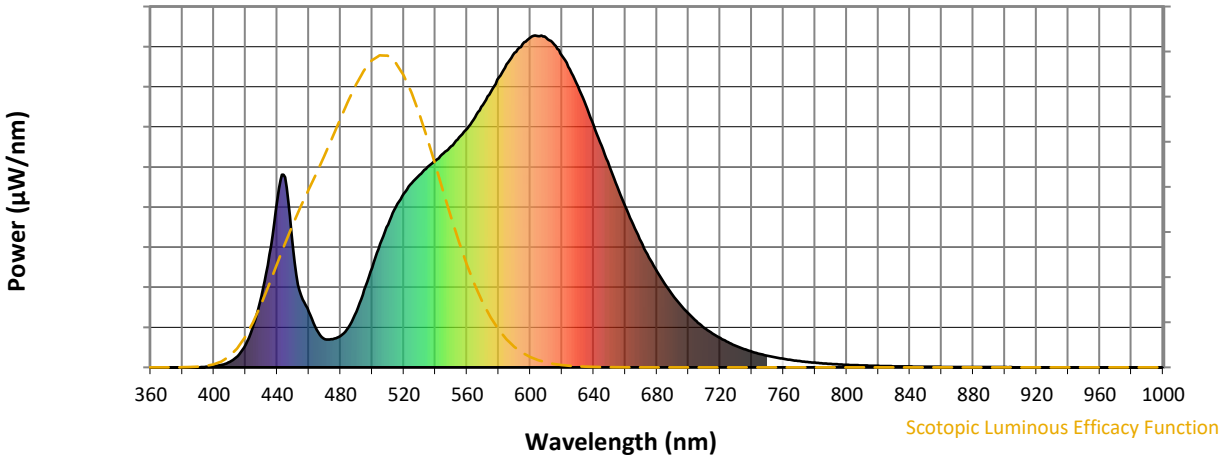



## Photopic Lumens: NR

| 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 | 168 | NR | 620 | 940 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 233 | NR | 625 | 897 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 300 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 372 | NR | 635 | 790 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 430 | NR | 640 | 730 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 483 | NR | 645 | 668 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 524 | NR | 650 | 605 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 555 | NR | 655 | 545 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 581 | NR | 660 | 485 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 604 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 17 | NR | 540 | 623 | NR | 670 | 378 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 645 | NR | 675 | 331 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 68 | NR | 550 | 667 | NR | 680 | 290 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 128 | NR | 555 | 693 | NR | 685 | 251 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 214 | NR | 560 | 719 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 339 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 507 | NR | 570 | 791 | NR | 700 | 162 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 573 | NR | 575 | 830 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 356 | NR | 580 | 873 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 217 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 168 | NR | 590 | 948 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 113 | NR | 595 | 974 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 85 | NR | 605 | 998 | NR | 735 | 55 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 94 | NR | 610 | 994 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 120 | NR | 615 | 973 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2408-195-9

## Scotopic Flux vs. Wavelength

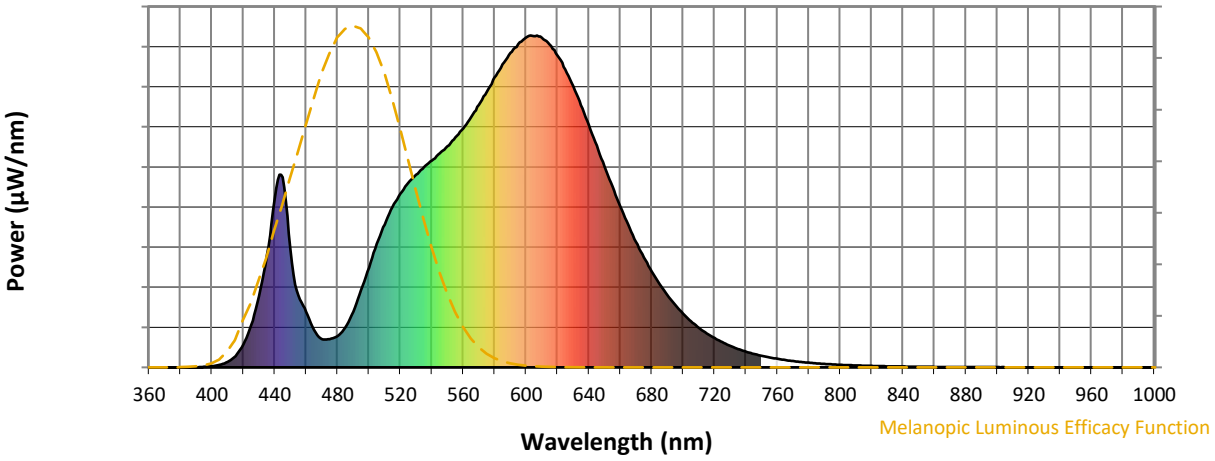



**Scotopic Lumens: NR** **S/P: 1.27**

| 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 | 168 | NR | 620 | 940 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 233 | NR | 625 | 897 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 300 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 372 | NR | 635 | 790 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 430 | NR | 640 | 730 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 483 | NR | 645 | 668 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 524 | NR | 650 | 605 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 555 | NR | 655 | 545 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 581 | NR | 660 | 485 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 604 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 17 | NR | 540 | 623 | NR | 670 | 378 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 645 | NR | 675 | 331 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 68 | NR | 550 | 667 | NR | 680 | 290 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 128 | NR | 555 | 693 | NR | 685 | 251 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 214 | NR | 560 | 719 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 339 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 507 | NR | 570 | 791 | NR | 700 | 162 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 573 | NR | 575 | 830 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 356 | NR | 580 | 873 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 217 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 168 | NR | 590 | 948 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 113 | NR | 595 | 974 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 85 | NR | 605 | 998 | NR | 735 | 55 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 94 | NR | 610 | 994 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 120 | NR | 615 | 973 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.32**

| 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 | 168 | NR | 620 | 940 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 233 | NR | 625 | 897 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 300 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 372 | NR | 635 | 790 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 430 | NR | 640 | 730 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 483 | NR | 645 | 668 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 524 | NR | 650 | 605 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 555 | NR | 655 | 545 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 581 | NR | 660 | 485 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 604 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 17 | NR | 540 | 623 | NR | 670 | 378 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 645 | NR | 675 | 331 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 68 | NR | 550 | 667 | NR | 680 | 290 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 128 | NR | 555 | 693 | NR | 685 | 251 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 214 | NR | 560 | 719 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 339 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 507 | NR | 570 | 791 | NR | 700 | 162 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 573 | NR | 575 | 830 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 356 | NR | 580 | 873 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 217 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 168 | NR | 590 | 948 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 113 | NR | 595 | 974 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 85 | NR | 605 | 998 | NR | 735 | 55 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 94 | NR | 610 | 994 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 120 | NR | 615 | 973 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

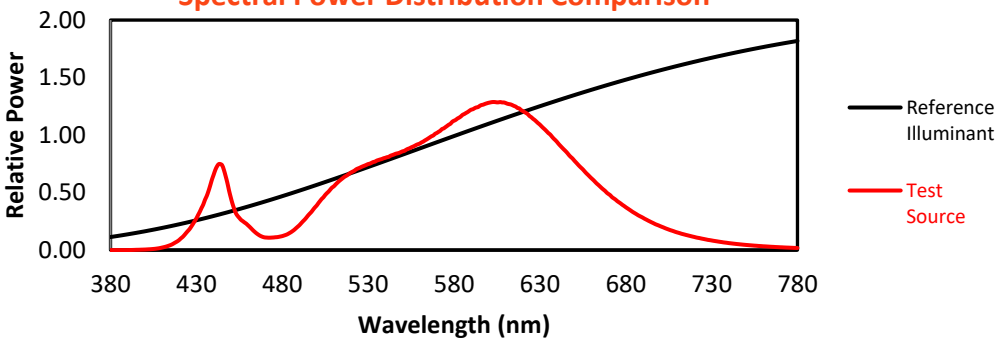
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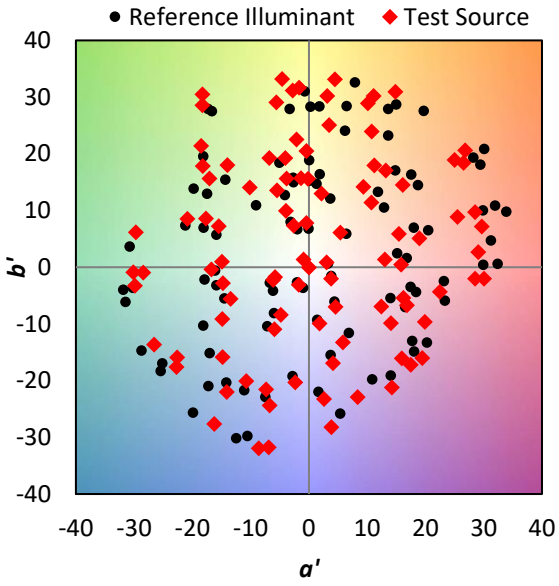
## Summary

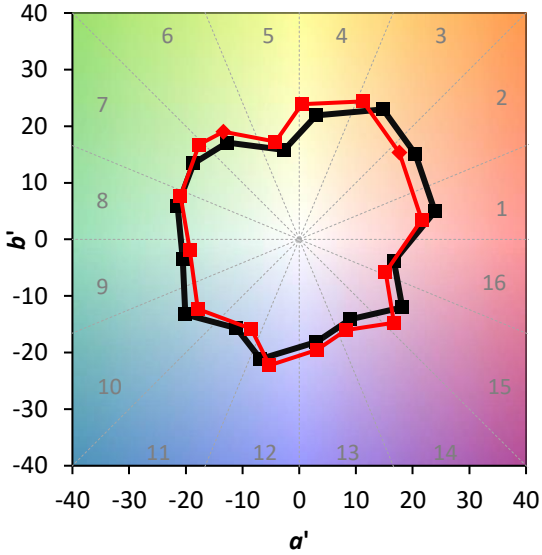
$R_f$ = 81.5
$R_g$ = 99.2
CIE $R_a$ = 81.0
$R_9$ = 7.1

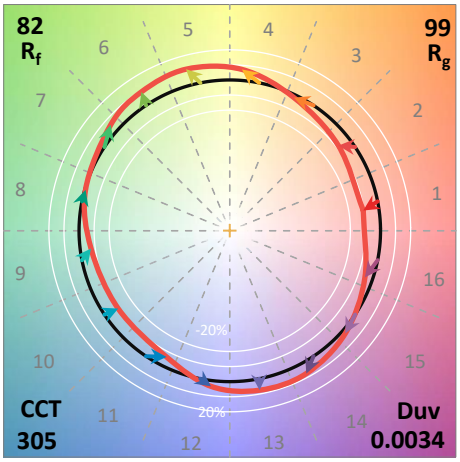
## Spectral Power Distribution Comparison

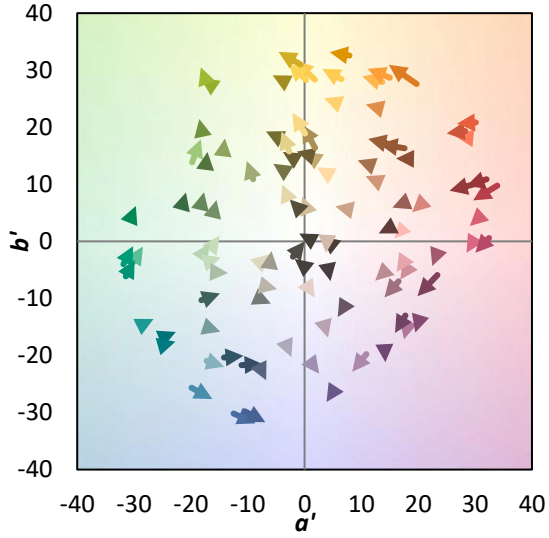



## Color Vector Graphics



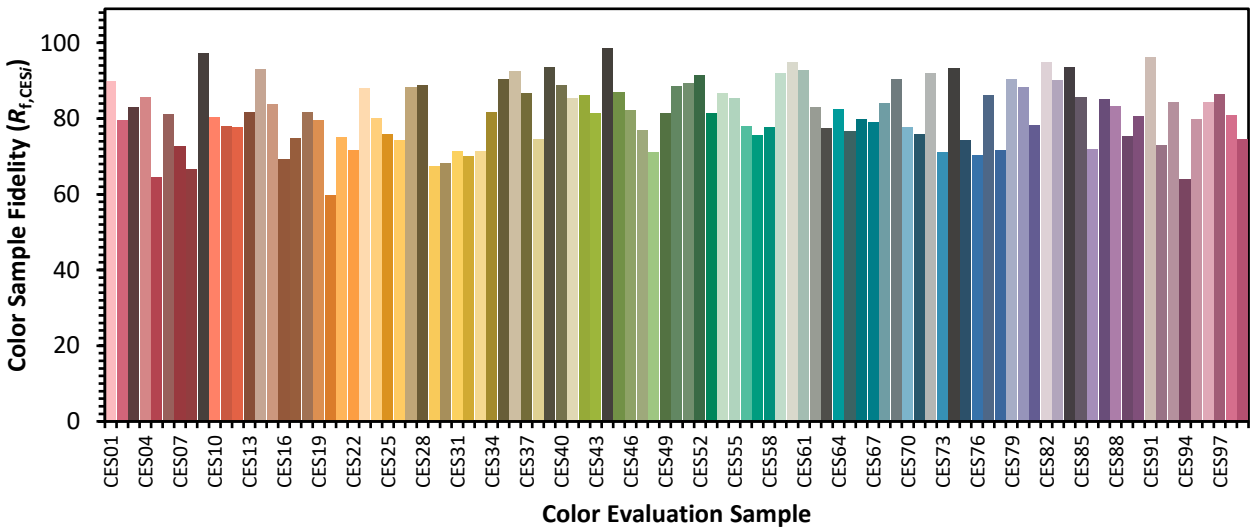



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**Individual Sample Fidelity Index ($R_{f,i}$)**

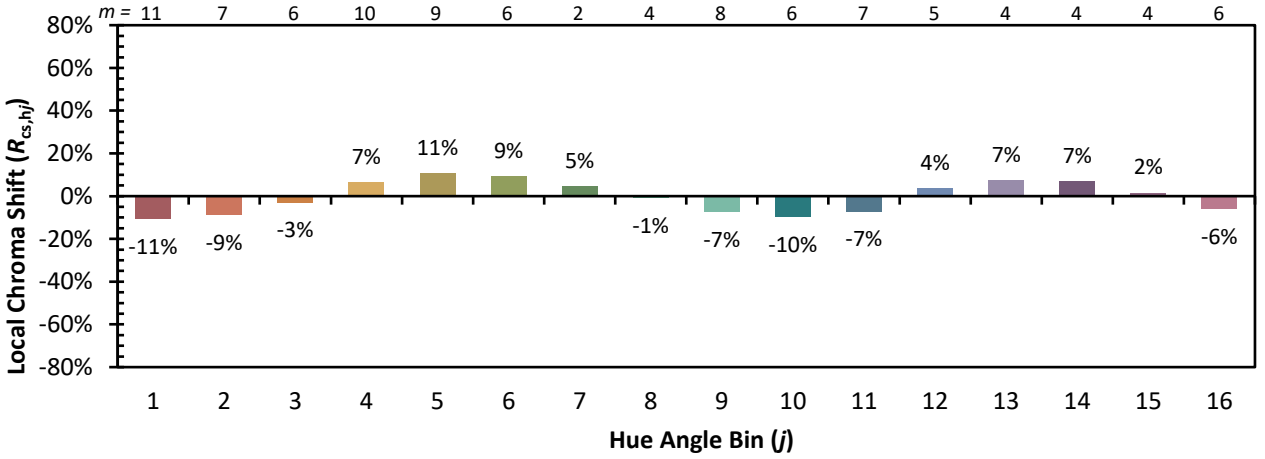
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 74 | CES51 = 89 | CES76 = 70 |
| CES02 = 63 | CES27 = 88 | CES52 = 92 | CES77 = 86 |
| CES03 = 31 | CES28 = 89 | CES53 = 81 | CES78 = 72 |
| CES04 = 70 | CES29 = 67 | CES54 = 87 | CES79 = 90 |
| CES05 = 50 | CES30 = 68 | CES55 = 85 | CES80 = 88 |
| CES06 = 51 | CES31 = 71 | CES56 = 78 | CES81 = 78 |
| CES07 = 42 | CES32 = 70 | CES57 = 76 | CES82 = 95 |
| CES08 = 41 | CES33 = 71 | CES58 = 78 | CES83 = 90 |
| CES09 = 29 | CES34 = 82 | CES59 = 92 | CES84 = 94 |
| CES10 = 76 | CES35 = 90 | CES60 = 95 | CES85 = 86 |
| CES11 = 59 | CES36 = 93 | CES61 = 93 | CES86 = 72 |
| CES12 = 65 | CES37 = 87 | CES62 = 83 | CES87 = 85 |
| CES13 = 43 | CES38 = 75 | CES63 = 77 | CES88 = 83 |
| CES14 = 74 | CES39 = 94 | CES64 = 83 | CES89 = 75 |
| CES15 = 71 | CES40 = 89 | CES65 = 77 | CES90 = 81 |
| CES16 = 47 | CES41 = 85 | CES66 = 80 | CES91 = 96 |
| CES17 = 50 | CES42 = 86 | CES67 = 79 | CES92 = 73 |
| CES18 = 56 | CES43 = 81 | CES68 = 84 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 91 | CES94 = 64 |
| CES20 = 66 | CES45 = 87 | CES70 = 78 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 76 | CES96 = 84 |
| CES22 = 79 | CES47 = 77 | CES72 = 92 | CES97 = 87 |
| CES23 = 92 | CES48 = 71 | CES73 = 71 | CES98 = 81 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 74 |
| CES25 = 72 | CES50 = 89 | CES75 = 74 | |

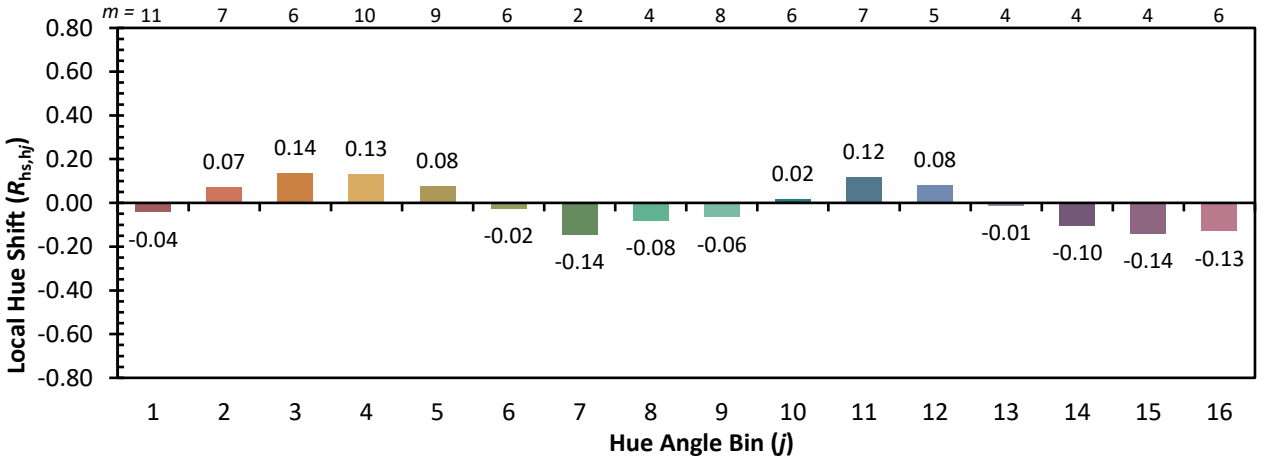


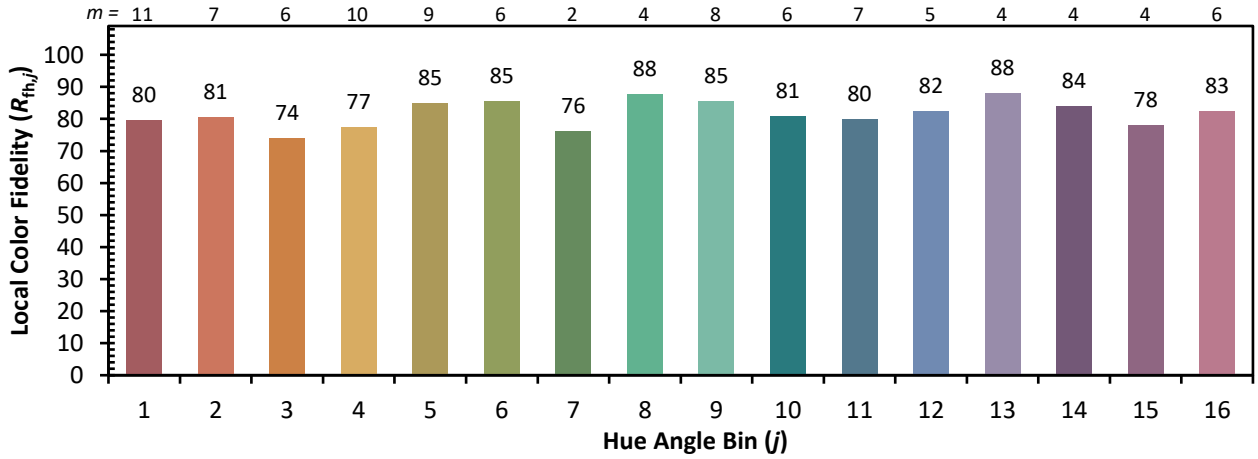
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## Color Rendition by Hue-Angle Bin



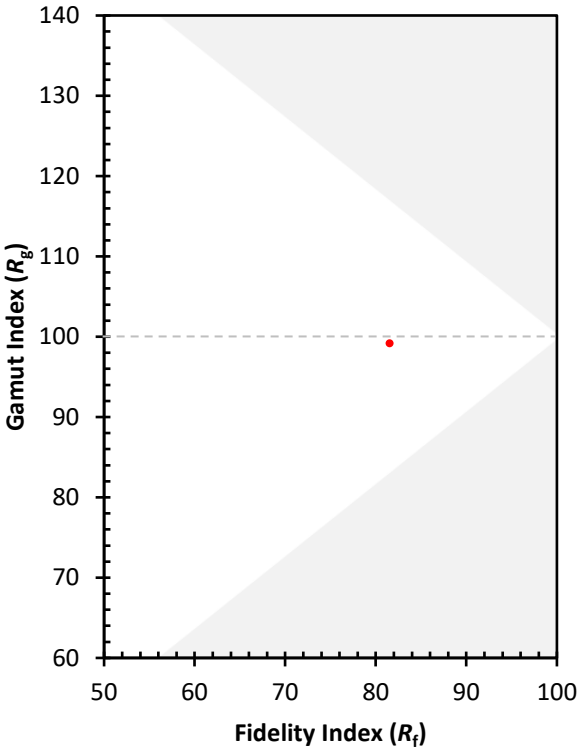



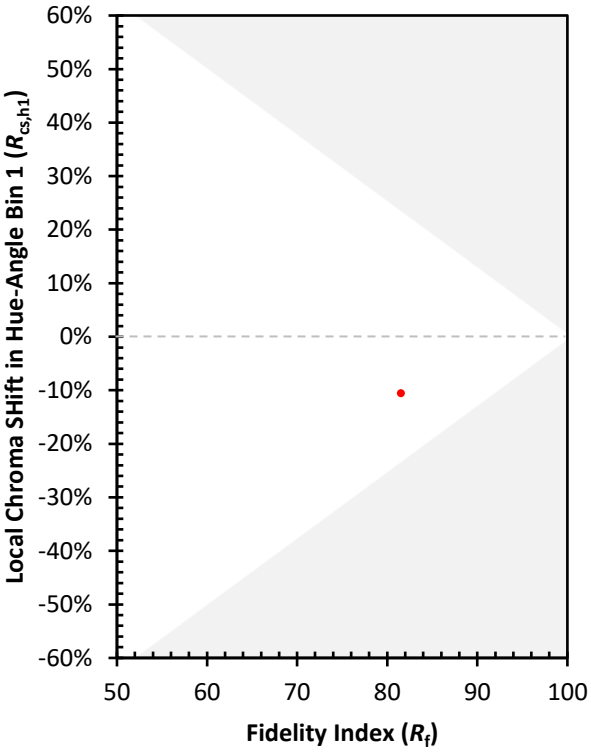



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## Measure Comparisons




(END OF REPORT)