

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



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: INVUE

Report Number: P1442145

Luminaire Tested: LXW-C2-835-X-U-A-GM

Issue Date: 4/23/2026

Test Information

Test Method: LM-79-2024
Report Number: P1442145
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-539-27)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/24/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: INVUE
Catalog Number: LXW-C2-835-X-U-A-GM
Description: LuxeScape OUTDOOR ARCHITECTURAL WALL MOUNT LUMINAIRE
ASYMMETRIC OPTIC, GRAPHITE METALLIC PAINTED FINISH
Light Source: 2200K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

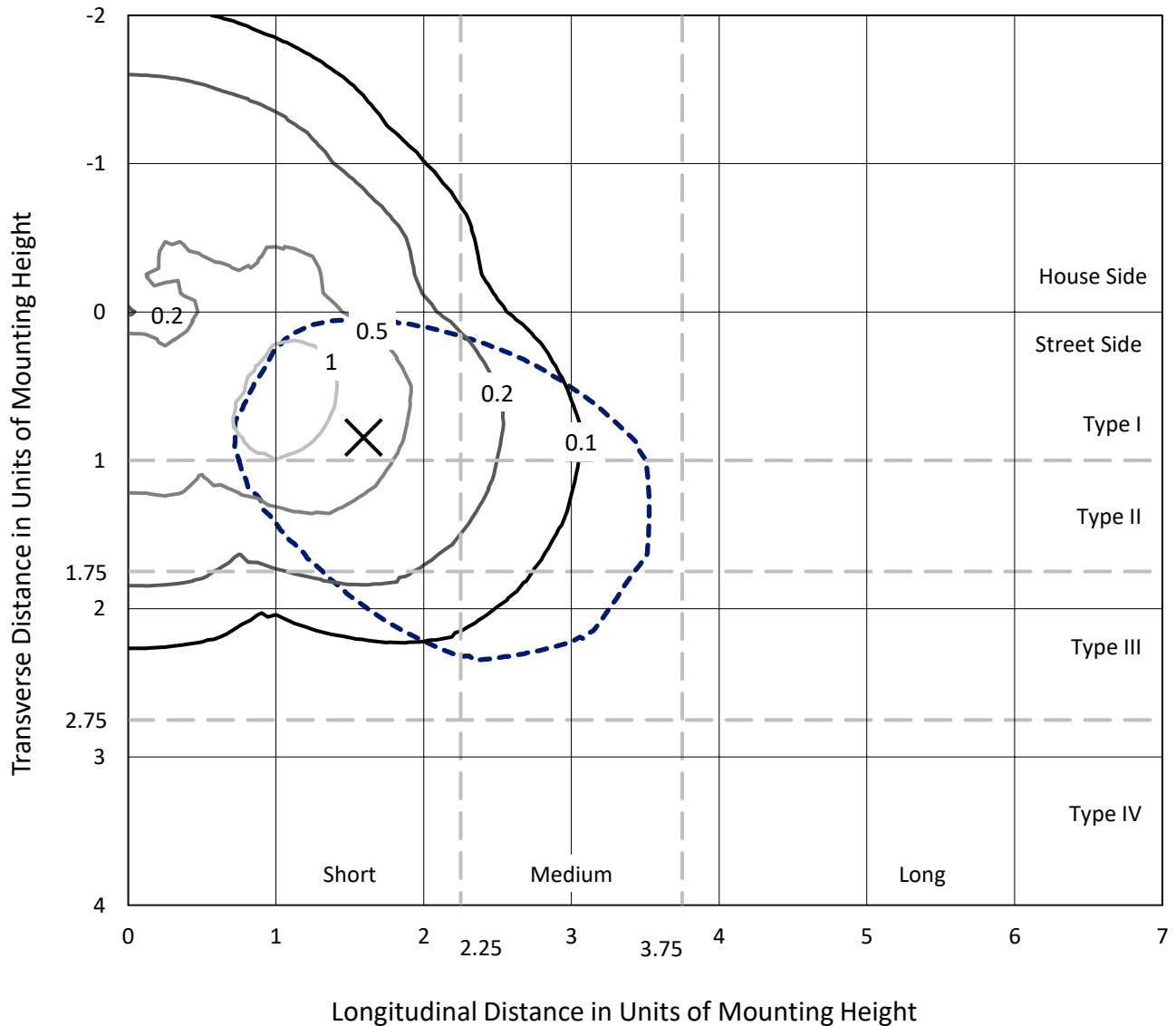
Lumens per Lamp: N/A
Luminaire Lumens: 914.4 lumens
Efficiency: N/A
Efficacy: 48.1 lumens/watt
Luminous Opening: Circular (Dia: 0.4' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 19
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.991
Total Harmonic Distortion (THDi): 0.090488
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

REPORT NUMBER: P1442145
 CATALOG NUMBER: LXW-C2-835-X-U-A-GM

Iso-Footcandle Lines of Horizontal Illumination

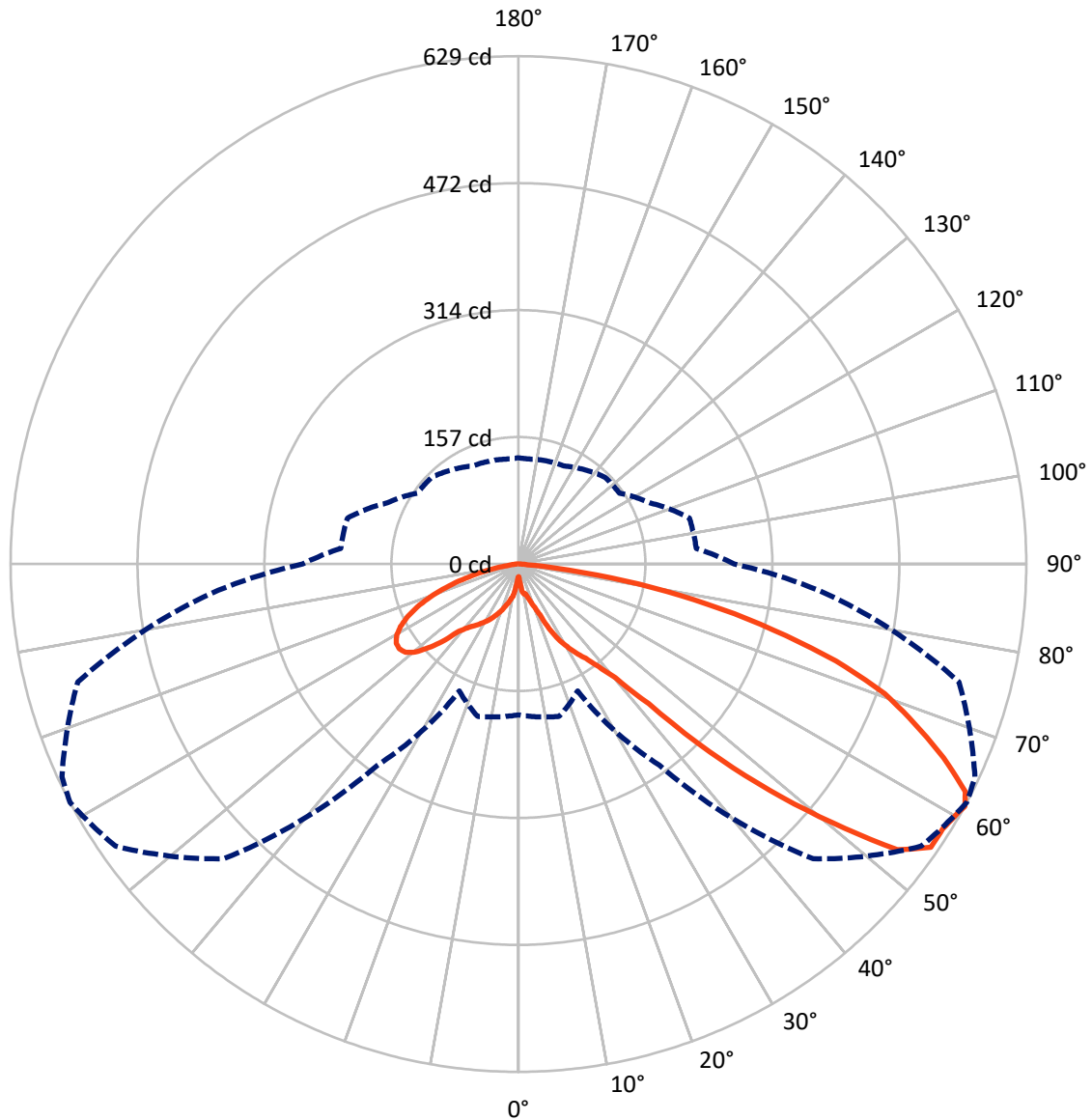
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.3 fc
 Type III - Short - N/A

REPORT NUMBER: P1442145
CATALOG NUMBER: LXW-C2-835-X-U-A-GM

Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 61-Deg Vertical

REPORT NUMBER: P1442145

CATALOG NUMBER: LXW-C2-835-X-U-A-GM

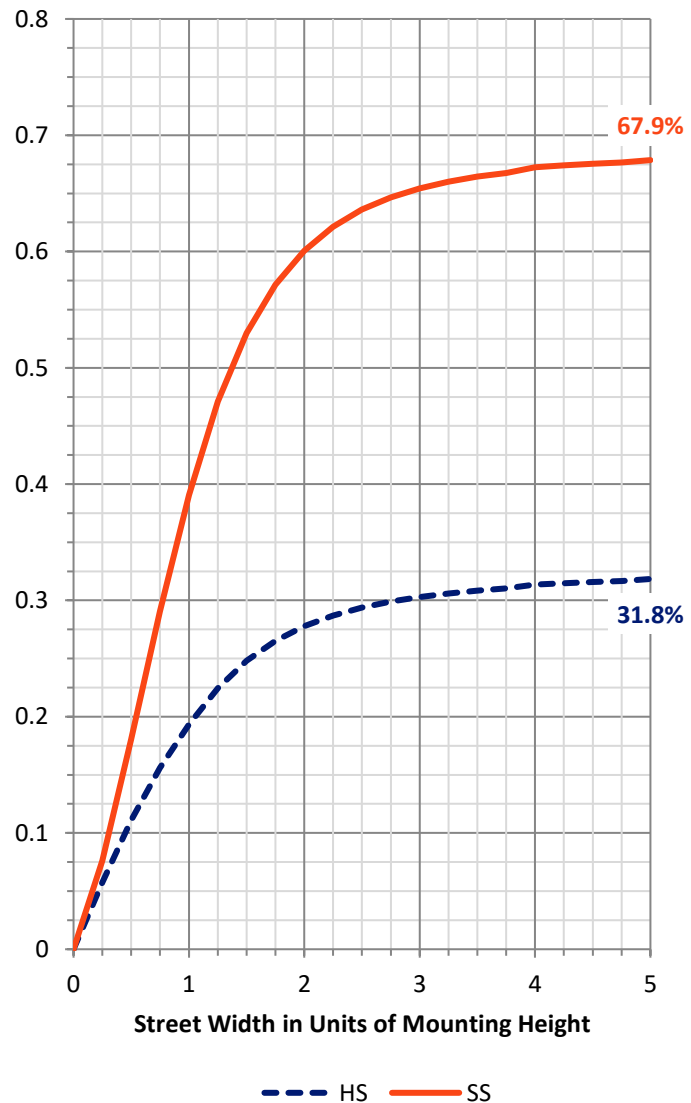
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 292.8 | 0.0 | 292.8 |
| | % Fixture | 32.0 | 0.0 | 32.0 |
| Street Side | Lumens | 621.5 | 0.0 | 621.5 |
| | % Fixture | 68.0 | 0.0 | 68.0 |
| Total | Lumens | 914.4 | 0.0 | 914.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 3.1 | 0.3 |
| 10°-20° | 15.3 | 1.7 |
| 20°-30° | 35.8 | 3.9 |
| 30°-40° | 66.3 | 7.2 |
| 40°-50° | 141.5 | 15.5 |
| 50°-60° | 248.6 | 27.2 |
| 60°-70° | 246.4 | 26.9 |
| 70°-80° | 139.7 | 15.3 |
| 80°-90° | 17.7 | 1.9 |
| 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° | 914.4 | 100.0 |
| 0°-180° | 914.4 | 100.0 |



REPORT NUMBER: P1442145

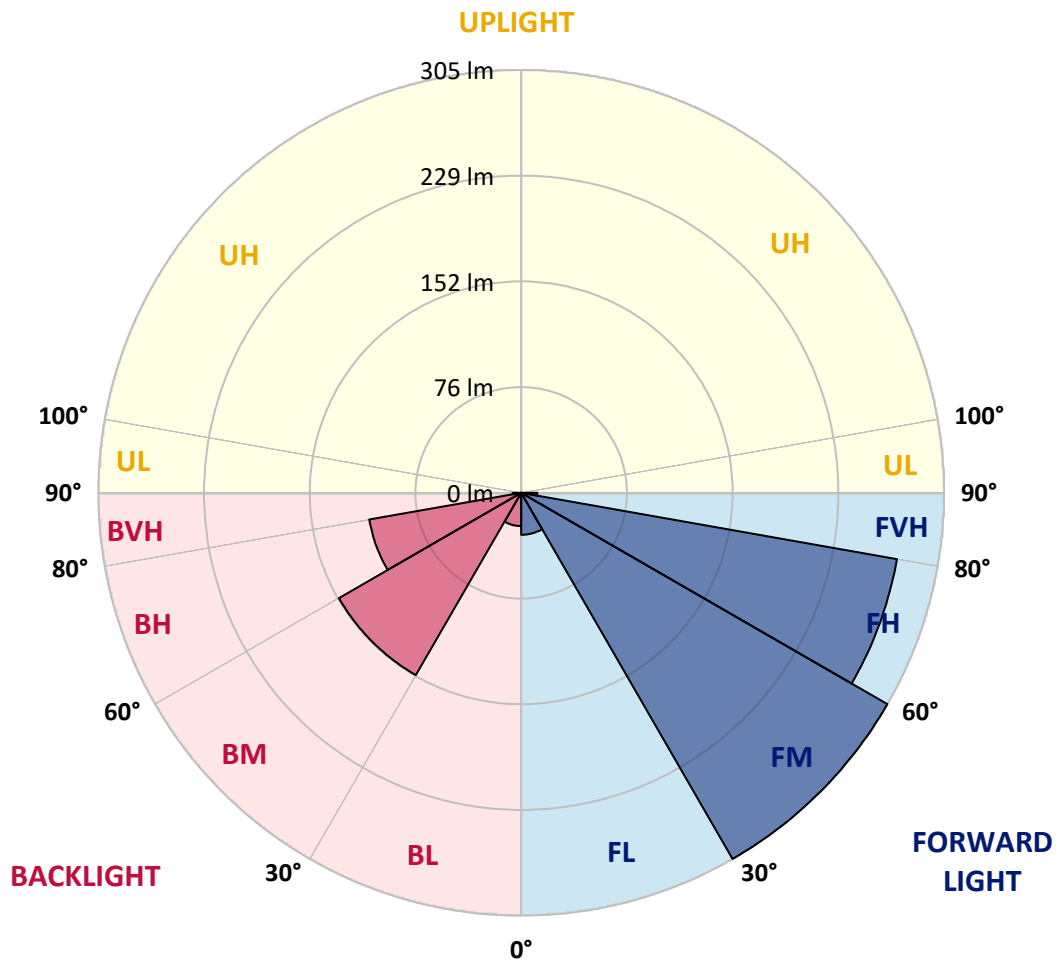
CATALOG NUMBER: LXW-C2-835-X-U-A-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 30.2 | 3.3 | | | |
| FM | (30°-60°) | 304.7 | 33.3 | | | |
| FH | (60°-80°) | 274.9 | 30.1 | | | G0/660 |
| FVH | (80°-90°) | 11.7 | 1.3 | | | G1/100 |
| BL | (0°-30°) | 24.0 | 2.6 | B0/110 | | |
| BM | (30°-60°) | 151.7 | 16.6 | B0/220 | | |
| BH | (60°-80°) | 111.2 | 12.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 6.1 | 0.7 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type III Short





REPORT NUMBER: P1442145

CATALOG NUMBER: LXW-C2-835-X-U-A-GM

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 |
| 2.5° | 18.8 | 18.8 | 19.6 | 20.5 | 18.8 | 17.9 | 17.9 | 17.9 | 17.9 | 16.2 | 16.2 |
| 5° | 31.6 | 32.4 | 33.3 | 29.9 | 29.9 | 30.7 | 26.4 | 25.6 | 23.9 | 23.0 | 20.5 |
| 7.5° | 51.2 | 47.8 | 53.7 | 49.5 | 44.4 | 40.1 | 36.7 | 35.0 | 34.1 | 31.6 | 30.7 |
| 10° | 62.3 | 65.7 | 59.7 | 58.0 | 55.4 | 47.8 | 41.8 | 37.5 | 36.7 | 35.0 | 32.4 |
| 12.5° | 73.4 | 68.2 | 67.4 | 67.4 | 59.7 | 51.2 | 42.6 | 37.5 | 36.7 | 35.0 | 33.3 |
| 15° | 76.8 | 78.5 | 77.6 | 73.4 | 65.7 | 53.7 | 45.2 | 41.8 | 40.1 | 37.5 | 39.2 |
| 17.5° | 85.3 | 85.3 | 85.3 | 75.1 | 68.2 | 57.2 | 51.2 | 48.6 | 47.8 | 43.5 | 44.4 |
| 20° | 93.0 | 93.0 | 93.0 | 78.5 | 71.7 | 64.0 | 59.7 | 57.2 | 56.3 | 52.0 | 48.6 |
| 22.5° | 98.1 | 100.7 | 98.1 | 85.3 | 77.6 | 69.9 | 69.1 | 68.2 | 66.5 | 60.6 | 57.2 |
| 25° | 104.9 | 105.8 | 102.4 | 88.7 | 83.6 | 80.2 | 87.9 | 88.7 | 87.0 | 71.7 | 68.2 |
| 27.5° | 110.9 | 111.7 | 106.6 | 96.4 | 89.6 | 92.1 | 105.8 | 105.8 | 104.9 | 86.2 | 77.6 |
| 30° | 116.9 | 116.9 | 111.7 | 100.7 | 94.7 | 105.8 | 117.7 | 118.6 | 117.7 | 104.9 | 87.0 |
| 32.5° | 121.1 | 120.3 | 116.0 | 104.9 | 100.7 | 118.6 | 129.7 | 131.4 | 131.4 | 117.7 | 95.5 |
| 35° | 124.5 | 124.5 | 120.3 | 108.3 | 106.6 | 129.7 | 142.5 | 143.3 | 143.3 | 131.4 | 104.9 |
| 37.5° | 129.7 | 128.8 | 125.4 | 112.6 | 115.2 | 145.9 | 159.5 | 161.2 | 161.2 | 148.4 | 116.9 |
| 40° | 135.6 | 133.9 | 131.4 | 119.4 | 126.2 | 166.3 | 180.8 | 185.1 | 183.4 | 170.6 | 132.2 |
| 42.5° | 145.9 | 143.3 | 145.9 | 129.7 | 145.9 | 207.3 | 228.6 | 236.3 | 228.6 | 213.2 | 162.9 |
| 45° | 169.7 | 168.0 | 174.0 | 157.0 | 186.0 | 290.9 | 327.6 | 331.8 | 331.0 | 296.8 | 214.1 |
| 47.5° | 181.7 | 180.8 | 191.9 | 170.6 | 220.1 | 360.8 | 404.3 | 418.8 | 410.3 | 382.1 | 263.6 |
| 50° | 197.0 | 196.2 | 209.0 | 188.5 | 262.7 | 435.0 | 493.0 | 503.3 | 501.6 | 459.8 | 310.5 |
| 52.5° | 200.5 | 203.0 | 218.4 | 197.9 | 290.9 | 491.3 | 571.5 | 587.7 | 583.5 | 521.2 | 343.8 |
| 55° | 203.0 | 206.4 | 218.4 | 196.2 | 302.8 | 518.6 | 606.5 | 619.3 | 615.9 | 554.4 | 365.9 |
| 57.5° | 200.5 | 203.9 | 210.7 | 186.8 | 309.6 | 523.7 | 606.5 | 619.3 | 615.9 | 563.8 | 376.2 |
| 60° | 191.9 | 194.5 | 200.5 | 177.4 | 306.2 | 518.6 | 605.6 | 625.2 | 619.3 | 564.7 | 376.2 |
| 61° | 186.8 | 189.4 | 195.3 | 173.2 | 303.7 | 516.1 | 609.0 | 628.7 | 623.5 | 564.7 | 372.8 |
| 62.5° | 179.1 | 180.8 | 185.1 | 163.8 | 295.1 | 507.5 | 604.8 | 621.0 | 619.3 | 557.0 | 364.2 |
| 65° | 161.2 | 162.9 | 165.5 | 146.7 | 278.1 | 480.2 | 571.5 | 578.3 | 580.0 | 526.3 | 341.2 |
| 67.5° | 141.6 | 142.5 | 144.2 | 128.0 | 256.8 | 441.9 | 520.3 | 529.7 | 528.0 | 483.7 | 313.1 |
| 70° | 118.6 | 118.6 | 120.3 | 106.6 | 228.6 | 392.4 | 469.2 | 481.1 | 478.5 | 432.5 | 278.9 |
| 72.5° | 93.0 | 93.8 | 93.8 | 85.3 | 192.8 | 333.5 | 401.8 | 411.1 | 412.9 | 371.9 | 234.6 |
| 75° | 66.5 | 65.7 | 66.5 | 62.3 | 151.0 | 262.7 | 322.4 | 325.8 | 331.0 | 299.4 | 182.5 |
| 77.5° | 42.6 | 42.6 | 40.9 | 40.9 | 106.6 | 188.5 | 237.1 | 239.7 | 244.0 | 219.2 | 125.4 |
| 80° | 23.0 | 22.2 | 21.3 | 23.0 | 59.7 | 111.7 | 151.0 | 151.0 | 156.1 | 141.6 | 69.9 |
| 82.5° | 11.1 | 10.2 | 9.4 | 10.2 | 20.5 | 35.8 | 63.1 | 63.1 | 68.2 | 59.7 | 23.9 |
| 85° | 5.1 | 5.1 | 5.1 | 3.4 | 5.1 | 6.0 | 11.9 | 11.1 | 12.8 | 11.9 | 5.1 |
| 87.5° | 3.4 | 3.4 | 3.4 | 1.7 | 3.4 | 4.3 | 5.1 | 5.1 | 5.1 | 5.1 | 3.4 |
| 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: P1442145

CATALOG NUMBER: LXW-C2-835-X-U-A-GM

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 |
| 2.5° | 15.4 | 16.2 | 17.1 | 17.1 | 17.9 | 17.9 | 17.1 | 16.2 | 15.4 | 14.5 | 13.6 |
| 5° | 20.5 | 19.6 | 19.6 | 23.9 | 23.9 | 25.6 | 26.4 | 26.4 | 24.7 | 23.9 | 23.9 |
| 7.5° | 30.7 | 29.0 | 29.0 | 30.7 | 34.1 | 39.2 | 40.1 | 36.7 | 31.6 | 30.7 | 30.7 |
| 10° | 32.4 | 31.6 | 33.3 | 37.5 | 47.8 | 49.5 | 49.5 | 44.4 | 40.9 | 39.2 | 38.4 |
| 12.5° | 33.3 | 33.3 | 35.8 | 40.1 | 52.0 | 52.9 | 52.9 | 49.5 | 44.4 | 40.9 | 40.1 |
| 15° | 39.2 | 39.2 | 40.9 | 47.8 | 54.6 | 57.2 | 57.2 | 55.4 | 49.5 | 39.2 | 39.2 |
| 17.5° | 44.4 | 46.1 | 49.5 | 52.9 | 58.0 | 62.3 | 60.6 | 58.0 | 49.5 | 41.8 | 40.1 |
| 20° | 49.5 | 52.9 | 59.7 | 59.7 | 61.4 | 64.8 | 64.0 | 59.7 | 49.5 | 41.8 | 40.9 |
| 22.5° | 57.2 | 60.6 | 65.7 | 65.7 | 64.8 | 66.5 | 69.1 | 62.3 | 49.5 | 43.5 | 41.8 |
| 25° | 67.4 | 69.1 | 72.5 | 70.8 | 70.8 | 69.9 | 72.5 | 67.4 | 56.3 | 48.6 | 47.8 |
| 27.5° | 76.8 | 76.8 | 79.3 | 76.8 | 75.9 | 74.2 | 75.1 | 70.8 | 59.7 | 53.7 | 52.9 |
| 30° | 83.6 | 83.6 | 87.0 | 82.7 | 79.3 | 77.6 | 78.5 | 74.2 | 63.1 | 58.0 | 57.2 |
| 32.5° | 91.3 | 91.3 | 92.1 | 87.9 | 83.6 | 81.0 | 81.0 | 76.8 | 65.7 | 62.3 | 61.4 |
| 35° | 98.1 | 98.1 | 98.1 | 93.8 | 87.0 | 84.4 | 83.6 | 78.5 | 69.1 | 65.7 | 64.8 |
| 37.5° | 104.9 | 104.9 | 104.9 | 98.9 | 92.1 | 88.7 | 87.0 | 81.0 | 72.5 | 69.9 | 69.1 |
| 40° | 115.2 | 114.3 | 113.4 | 105.8 | 98.1 | 93.8 | 90.4 | 84.4 | 76.8 | 75.1 | 74.2 |
| 42.5° | 134.8 | 131.4 | 130.5 | 116.0 | 107.5 | 103.2 | 97.2 | 90.4 | 84.4 | 81.9 | 81.9 |
| 45° | 173.2 | 162.1 | 162.1 | 139.0 | 126.2 | 123.7 | 116.9 | 107.5 | 101.5 | 98.1 | 98.1 |
| 47.5° | 206.4 | 189.4 | 189.4 | 157.0 | 140.7 | 137.3 | 129.7 | 119.4 | 112.6 | 110.0 | 110.0 |
| 50° | 238.0 | 213.2 | 213.2 | 174.0 | 153.5 | 150.1 | 142.5 | 133.9 | 126.2 | 122.8 | 123.7 |
| 52.5° | 262.7 | 229.5 | 229.5 | 184.2 | 161.2 | 158.7 | 150.1 | 140.7 | 133.1 | 130.5 | 130.5 |
| 55° | 273.0 | 235.4 | 235.4 | 188.5 | 163.8 | 162.1 | 153.5 | 144.2 | 136.5 | 134.8 | 133.9 |
| 57.5° | 273.0 | 231.2 | 230.3 | 188.5 | 161.2 | 159.5 | 151.0 | 139.9 | 136.5 | 134.8 | 134.8 |
| 60° | 268.7 | 223.5 | 222.6 | 183.4 | 155.2 | 153.5 | 145.9 | 135.6 | 133.9 | 132.2 | 132.2 |
| 61° | 267.0 | 220.9 | 219.2 | 179.1 | 152.7 | 151.8 | 142.5 | 133.9 | 132.2 | 130.5 | 131.4 |
| 62.5° | 261.0 | 215.0 | 211.5 | 173.2 | 147.6 | 146.7 | 138.2 | 130.5 | 128.8 | 127.1 | 127.1 |
| 65° | 243.1 | 197.0 | 193.6 | 159.5 | 134.8 | 134.8 | 128.0 | 122.0 | 120.3 | 119.4 | 119.4 |
| 67.5° | 220.1 | 176.6 | 171.5 | 142.5 | 120.3 | 120.3 | 115.2 | 110.9 | 110.0 | 110.0 | 110.0 |
| 70° | 192.8 | 152.7 | 147.6 | 122.0 | 103.2 | 104.1 | 100.7 | 98.1 | 98.9 | 98.1 | 98.1 |
| 72.5° | 162.1 | 126.2 | 120.3 | 98.9 | 84.4 | 87.0 | 84.4 | 85.3 | 85.3 | 85.3 | 85.3 |
| 75° | 126.2 | 95.5 | 91.3 | 75.1 | 64.8 | 66.5 | 67.4 | 69.9 | 70.8 | 69.9 | 69.9 |
| 77.5° | 87.0 | 65.7 | 60.6 | 51.2 | 46.1 | 48.6 | 49.5 | 52.0 | 53.7 | 53.7 | 52.9 |
| 80° | 49.5 | 38.4 | 34.1 | 29.9 | 28.1 | 30.7 | 32.4 | 35.0 | 36.7 | 36.7 | 36.7 |
| 82.5° | 18.8 | 16.2 | 15.4 | 14.5 | 14.5 | 15.4 | 16.2 | 18.8 | 20.5 | 21.3 | 20.5 |
| 85° | 5.1 | 5.1 | 6.0 | 6.0 | 6.0 | 6.0 | 5.1 | 6.0 | 8.5 | 8.5 | 8.5 |
| 87.5° | 1.7 | 2.6 | 3.4 | 4.3 | 4.3 | 4.3 | 2.6 | 4.3 | 6.0 | 6.8 | 6.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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

Invue

Report Number: SP1-2509-539-7

Test Date: 04/15/2026

Luminaire Tested: Luxscape Bollard

Data in this report applies to families of products including ;Luxscape

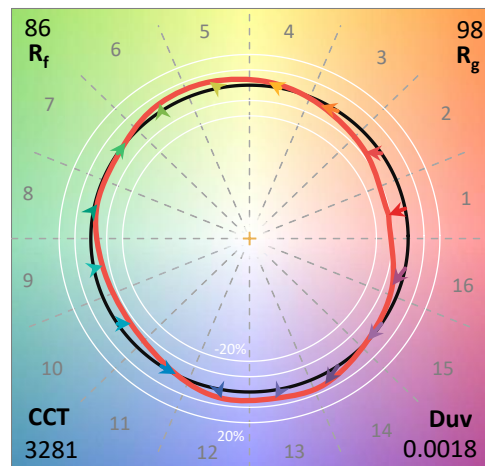
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2509-539-7
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 04/15/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Invue
 Catalog Number: **Luxscape Bollard**
 Description: ARB-C1-835-LED-XX-Dx-S-GM-SPECULAR REFLECTOR

Spectral Parameters

CCT (K): 3281
 CIE u': 0.2408
 CIE v': 0.5181
 Duv: 0.0018
 CIE x: 0.4204
 CIE y: 0.4020
 CIE z: 0.1776
 Peak Wavelength (nm): 601
 Dominant Wavelength (nm): 581
 Purity: 46.84629
 Rf: 85.8
 Rg: 97.6

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 83.9 | | |
| R1: | 82.0 | R9: | 9.4 |
| R2: | 89.5 | R10: | 76.7 |
| R3: | 96.9 | R11: | 85.1 |
| R4: | 84.3 | R12: | 73.1 |
| R5: | 82.6 | R13: | 83.6 |
| R6: | 87.7 | R14: | 98.3 |
| R7: | 85.4 | R15: | 74.0 |
| R8: | 62.6 | | |



Test Conditions

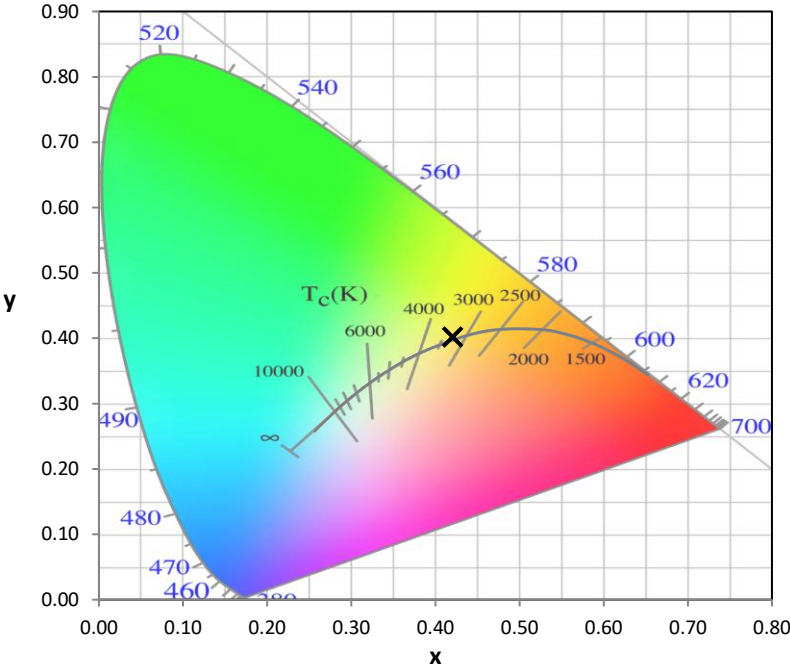
Stabilization Time: 31M
 Operation Time: 1H 31M
 Sphere Temperature (°C): 25.1

REPORT NUMBER: SP1-2509-539-7

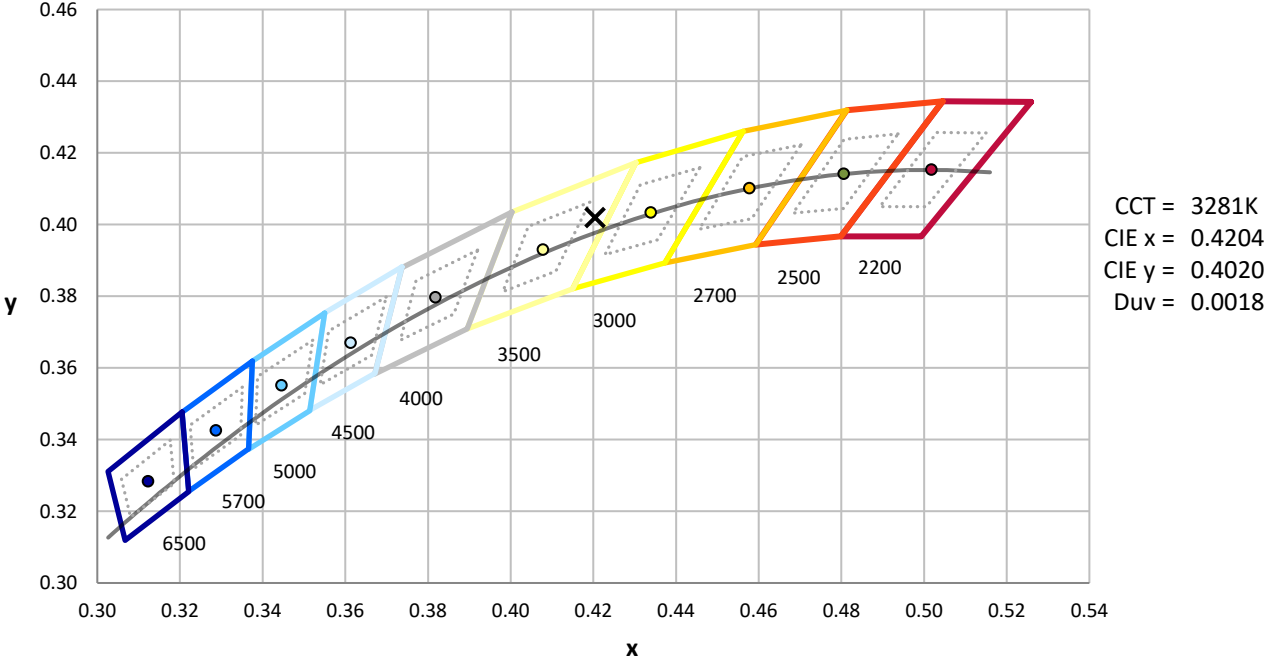
| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 12/16/2025 | 6/16/2026 |
| Power Meter | 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: SP1-2509-539-7

CIE 1931 Chromaticity Diagram



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

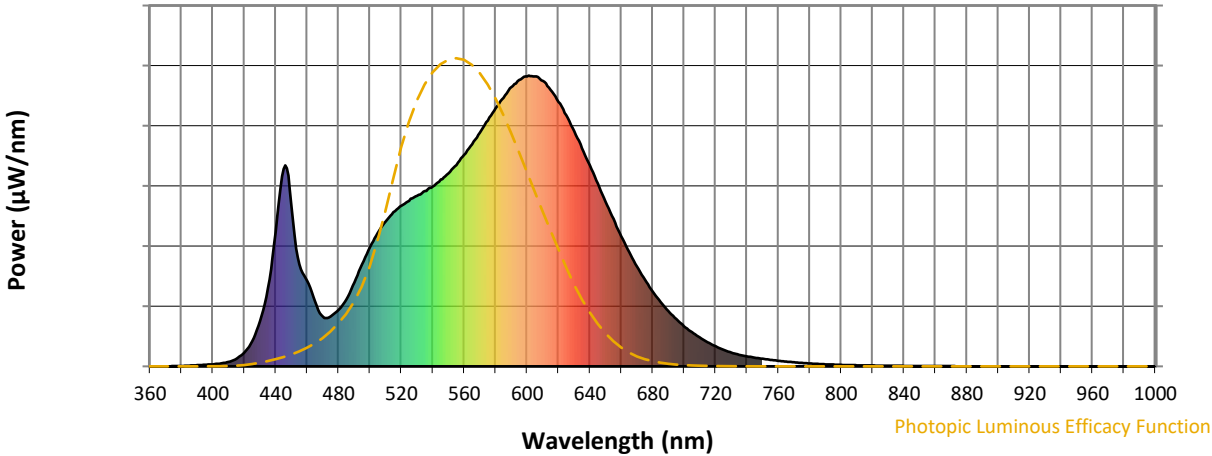


CCT = 3281K
 CIE x = 0.4204
 CIE y = 0.4020
 Duv = 0.0018

Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2509-539-7

Photopic Flux vs. Wavelength

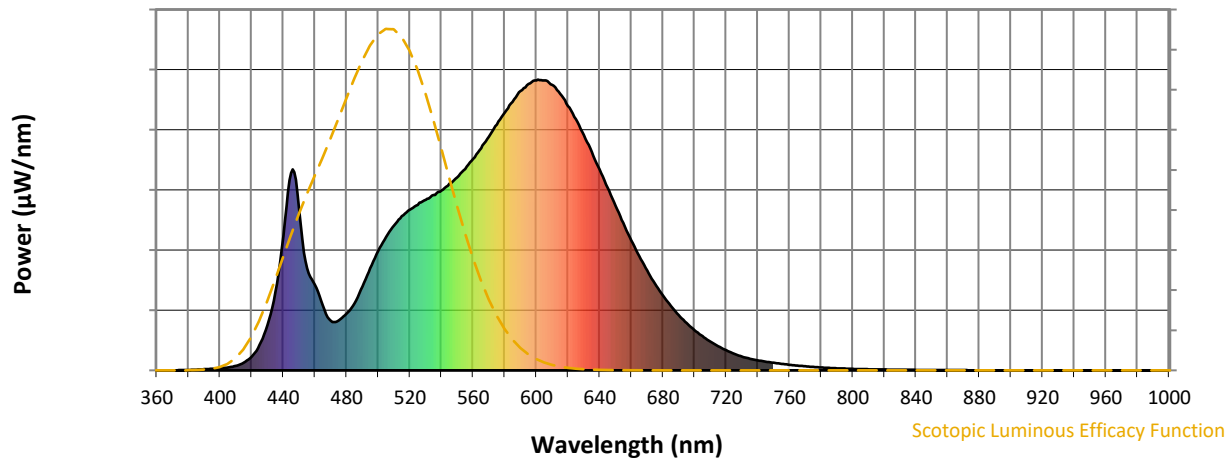


Photopic Lumens: NR

| 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 | 288 | NR | 620 | 909 | NR | 750 | 26 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 351 | NR | 625 | 864 | NR | 755 | 22 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 411 | NR | 630 | 809 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 1 | NR | 505 | 459 | NR | 635 | 750 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 2 | NR | 510 | 498 | NR | 640 | 691 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 3 | NR | 515 | 530 | NR | 645 | 629 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 553 | NR | 650 | 566 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 569 | NR | 655 | 507 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 586 | NR | 660 | 447 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 603 | NR | 665 | 393 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 619 | NR | 670 | 343 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 27 | NR | 545 | 642 | NR | 675 | 298 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 48 | NR | 550 | 663 | NR | 680 | 257 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 87 | NR | 555 | 692 | NR | 685 | 221 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 155 | NR | 560 | 728 | NR | 690 | 190 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 270 | NR | 565 | 763 | NR | 695 | 163 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 462 | NR | 570 | 804 | NR | 700 | 138 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 679 | NR | 575 | 845 | NR | 705 | 117 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 553 | NR | 580 | 886 | NR | 710 | 99 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 351 | NR | 585 | 924 | NR | 715 | 82 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 295 | NR | 590 | 960 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 223 | NR | 595 | 985 | NR | 725 | 57 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 170 | NR | 600 | 997 | NR | 730 | 47 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 171 | NR | 605 | 997 | NR | 735 | 40 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 195 | NR | 610 | 982 | NR | 740 | 34 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 230 | NR | 615 | 951 | NR | 745 | 30 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2509-539-7

Scotopic Flux vs. Wavelength



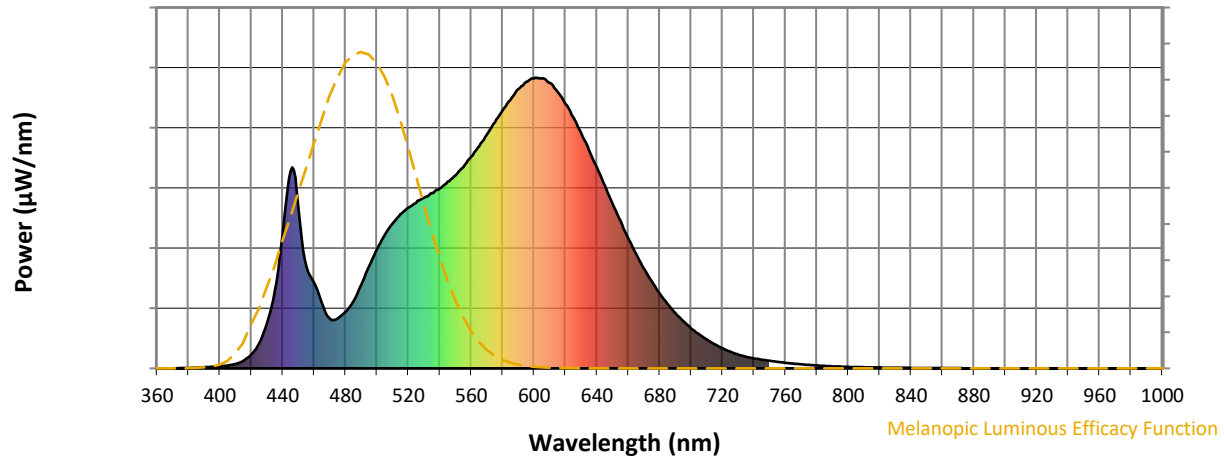
Scotopic Lumens: NR

S/P: 1.44

| 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 | 288 | NR | 620 | 909 | NR | 750 | 26 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 351 | NR | 625 | 864 | NR | 755 | 22 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 411 | NR | 630 | 809 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 1 | NR | 505 | 459 | NR | 635 | 750 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 2 | NR | 510 | 498 | NR | 640 | 691 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 3 | NR | 515 | 530 | NR | 645 | 629 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 553 | NR | 650 | 566 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 569 | NR | 655 | 507 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 586 | NR | 660 | 447 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 603 | NR | 665 | 393 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 619 | NR | 670 | 343 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 27 | NR | 545 | 642 | NR | 675 | 298 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 48 | NR | 550 | 663 | NR | 680 | 257 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 87 | NR | 555 | 692 | NR | 685 | 221 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 155 | NR | 560 | 728 | NR | 690 | 190 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 270 | NR | 565 | 763 | NR | 695 | 163 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 462 | NR | 570 | 804 | NR | 700 | 138 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 679 | NR | 575 | 845 | NR | 705 | 117 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 553 | NR | 580 | 886 | NR | 710 | 99 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 351 | NR | 585 | 924 | NR | 715 | 82 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 295 | NR | 590 | 960 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 223 | NR | 595 | 985 | NR | 725 | 57 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 170 | NR | 600 | 997 | NR | 730 | 47 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 171 | NR | 605 | 997 | NR | 735 | 40 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 195 | NR | 610 | 982 | NR | 740 | 34 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 230 | NR | 615 | 951 | NR | 745 | 30 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2509-539-7

Melanopic Flux vs. Wavelength



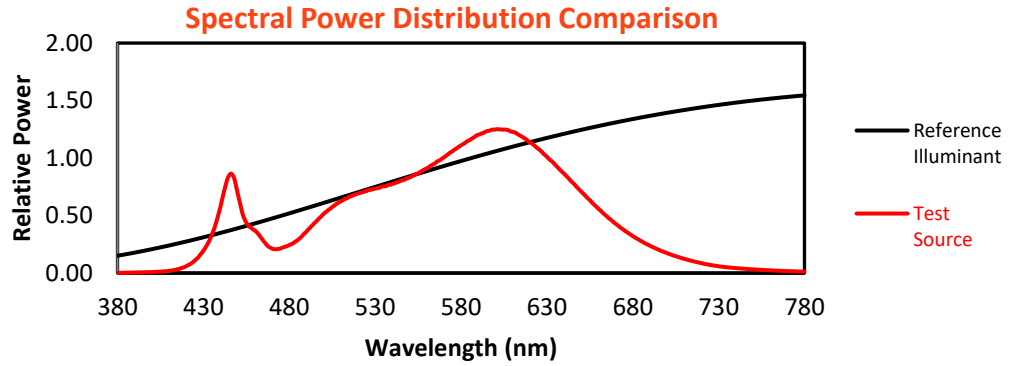
Melanopic Lumens: NR

M/P: 2.79

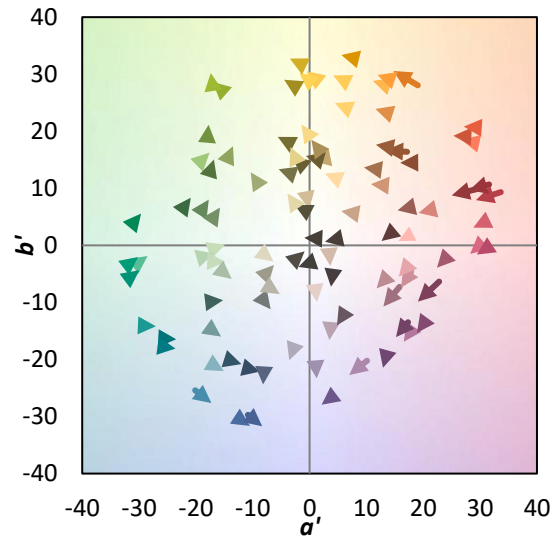
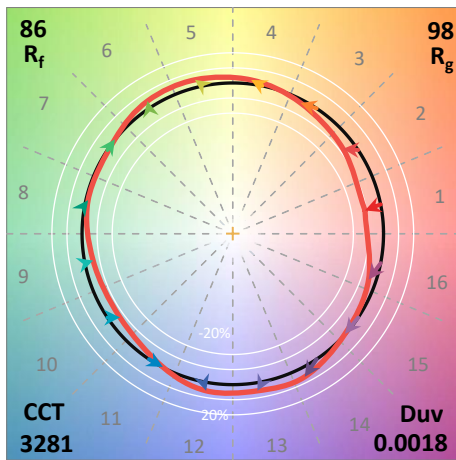
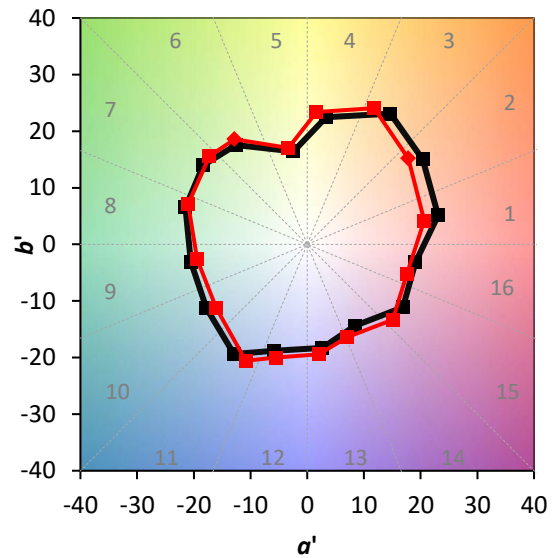
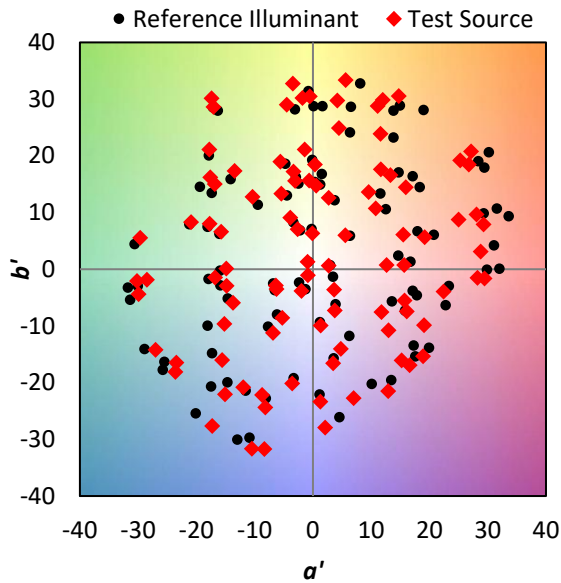
| λ (nm) | Power W ² /nm | Lumens (φ/nm) | λ (nm) | Power W ² /nm | Lumens (φ/nm) | λ (nm) | Power W ² /nm | Lumens (φ/nm) | λ (nm) | Power W ² /nm | Lumens (φ/nm) | λ (nm) | Power W ² /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 288 | NR | 620 | 909 | NR | 750 | 26 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 351 | NR | 625 | 864 | NR | 755 | 22 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 411 | NR | 630 | 809 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 1 | NR | 505 | 459 | NR | 635 | 750 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 2 | NR | 510 | 498 | NR | 640 | 691 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 3 | NR | 515 | 530 | NR | 645 | 629 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 553 | NR | 650 | 566 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 569 | NR | 655 | 507 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 586 | NR | 660 | 447 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 603 | NR | 665 | 393 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 619 | NR | 670 | 343 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 27 | NR | 545 | 642 | NR | 675 | 298 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 48 | NR | 550 | 663 | NR | 680 | 257 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 87 | NR | 555 | 692 | NR | 685 | 221 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 155 | NR | 560 | 728 | NR | 690 | 190 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 270 | NR | 565 | 763 | NR | 695 | 163 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 462 | NR | 570 | 804 | NR | 700 | 138 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 679 | NR | 575 | 845 | NR | 705 | 117 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 553 | NR | 580 | 886 | NR | 710 | 99 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 351 | NR | 585 | 924 | NR | 715 | 82 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 295 | NR | 590 | 960 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 223 | NR | 595 | 985 | NR | 725 | 57 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 170 | NR | 600 | 997 | NR | 730 | 47 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 171 | NR | 605 | 997 | NR | 735 | 40 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 195 | NR | 610 | 982 | NR | 740 | 34 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 230 | NR | 615 | 951 | NR | 745 | 30 | NR | 875 | 1 | NR | | | |

Summary

$R_f = 85.8$
 $R_g = 97.6$
 $CIE R_a = 83.9$
 $R_9 = 9.4$

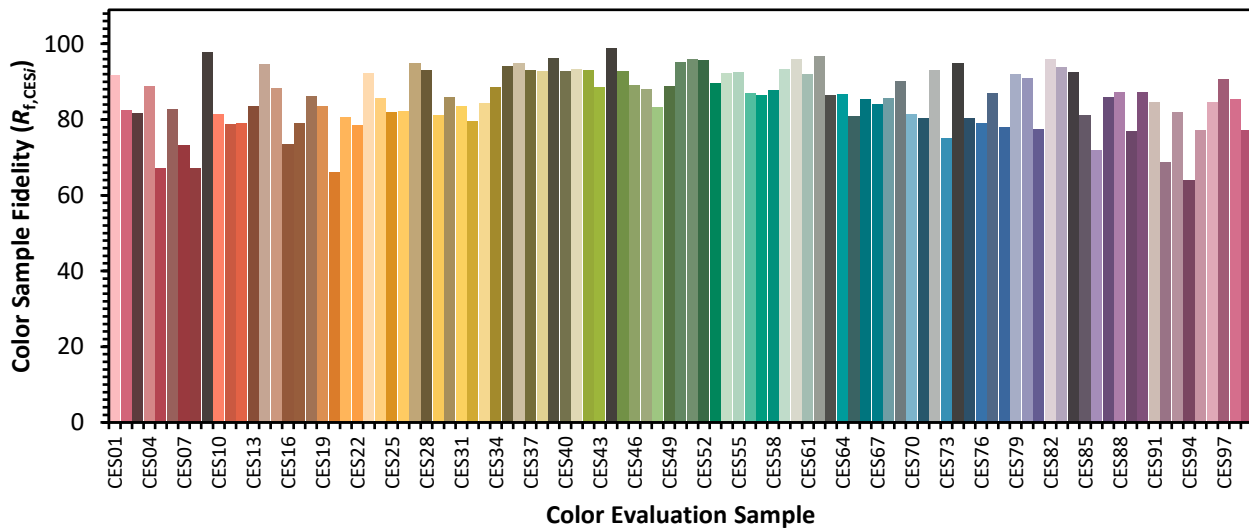


Color Vector Graphics

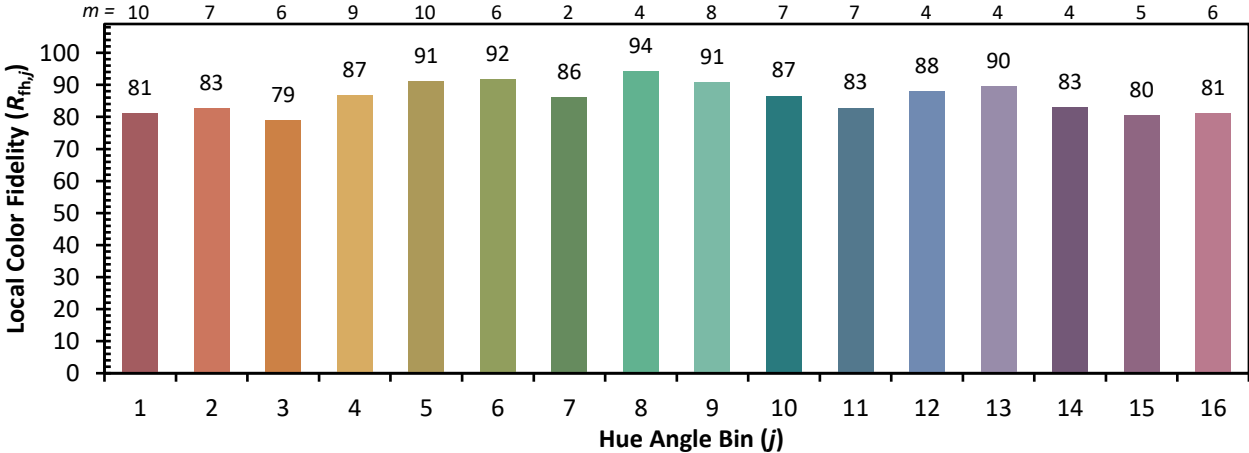
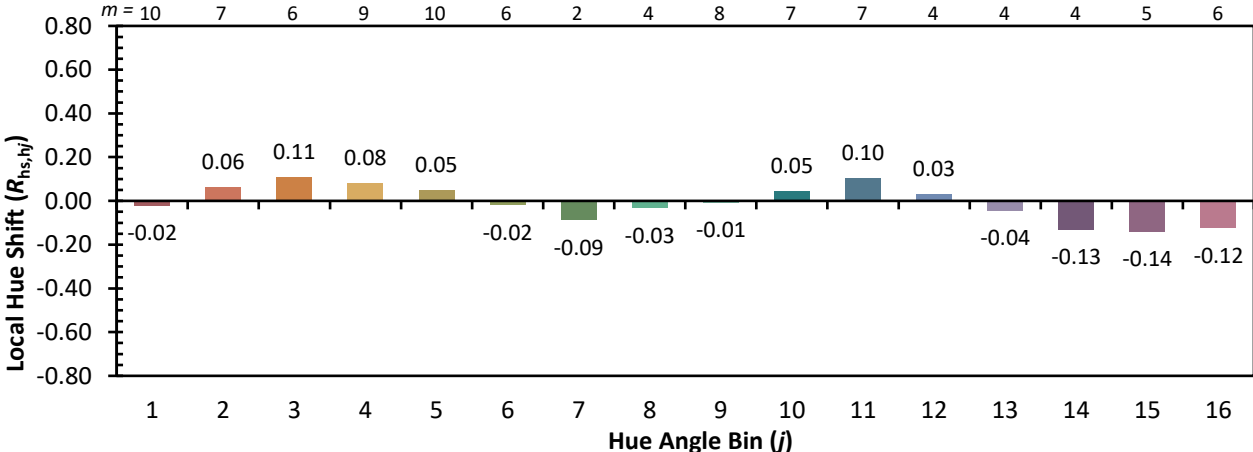
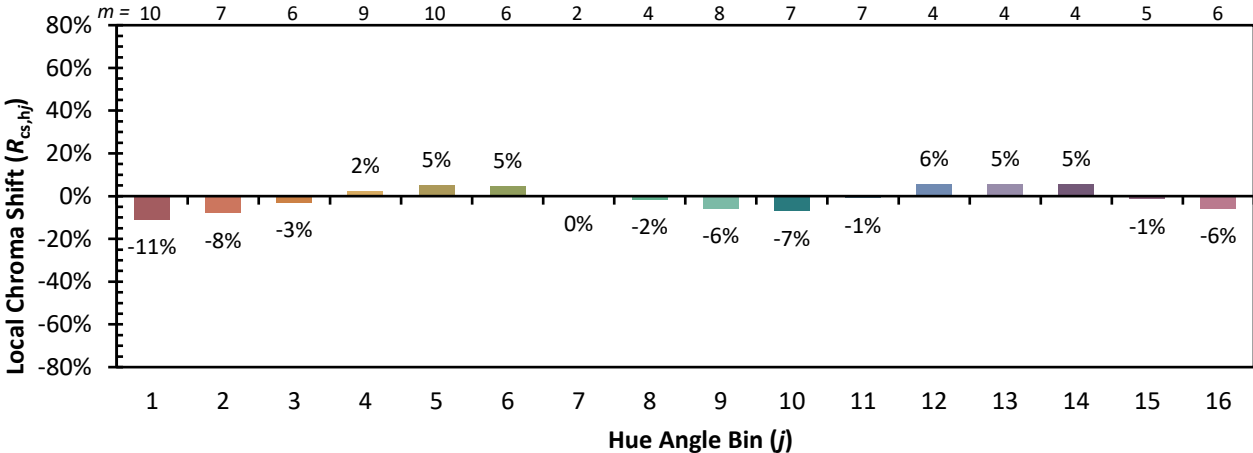


Individual Sample Fidelity Index ($R_{f,i}$)

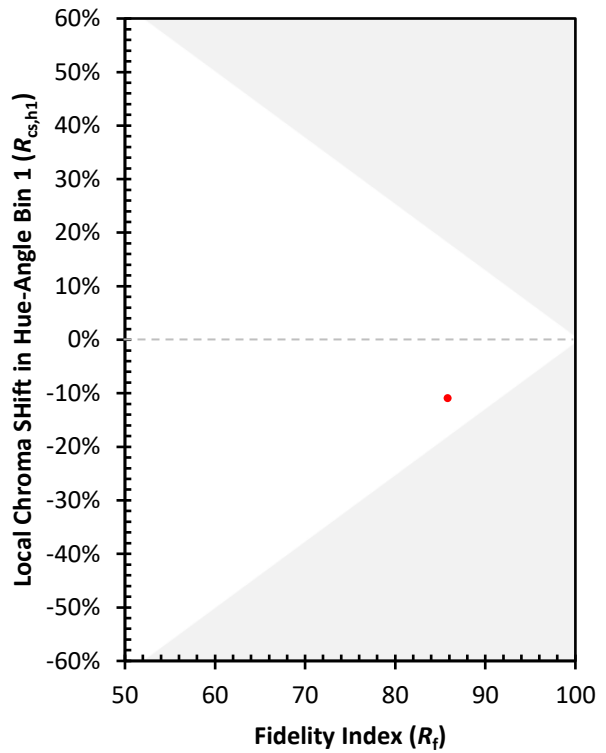
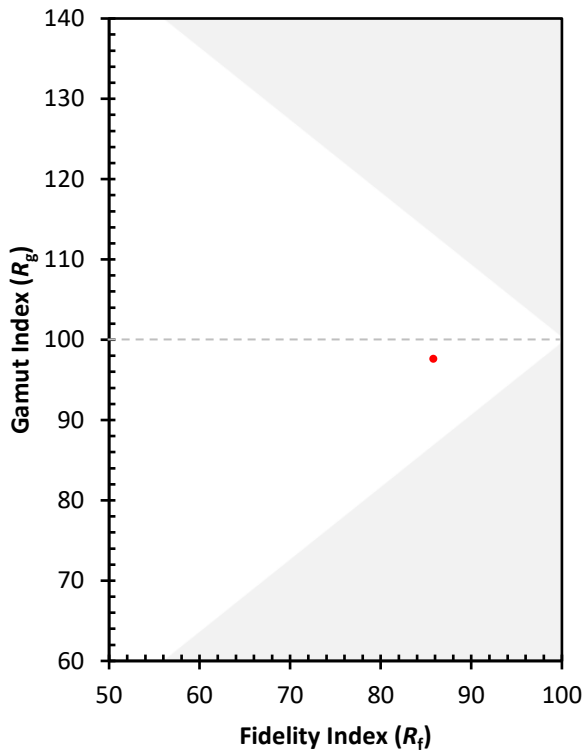
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 82 | CES51 = 96 | CES76 = 79 |
| CES02 = 62 | CES27 = 95 | CES52 = 96 | CES77 = 87 |
| CES03 = 31 | CES28 = 93 | CES53 = 90 | CES78 = 78 |
| CES04 = 70 | CES29 = 81 | CES54 = 92 | CES79 = 92 |
| CES05 = 49 | CES30 = 86 | CES55 = 92 | CES80 = 91 |
| CES06 = 51 | CES31 = 84 | CES56 = 87 | CES81 = 77 |
| CES07 = 42 | CES32 = 80 | CES57 = 86 | CES82 = 96 |
| CES08 = 40 | CES33 = 84 | CES58 = 88 | CES83 = 94 |
| CES09 = 29 | CES34 = 89 | CES59 = 93 | CES84 = 93 |
| CES10 = 75 | CES35 = 94 | CES60 = 96 | CES85 = 81 |
| CES11 = 58 | CES36 = 95 | CES61 = 92 | CES86 = 72 |
| CES12 = 64 | CES37 = 93 | CES62 = 97 | CES87 = 86 |
| CES13 = 43 | CES38 = 93 | CES63 = 87 | CES88 = 87 |
| CES14 = 74 | CES39 = 96 | CES64 = 87 | CES89 = 77 |
| CES15 = 71 | CES40 = 93 | CES65 = 81 | CES90 = 87 |
| CES16 = 47 | CES41 = 93 | CES66 = 85 | CES91 = 85 |
| CES17 = 50 | CES42 = 93 | CES67 = 84 | CES92 = 69 |
| CES18 = 56 | CES43 = 89 | CES68 = 86 | CES93 = 82 |
| CES19 = 72 | CES44 = 99 | CES69 = 90 | CES94 = 64 |
| CES20 = 66 | CES45 = 93 | CES70 = 81 | CES95 = 77 |
| CES21 = 86 | CES46 = 89 | CES71 = 80 | CES96 = 85 |
| CES22 = 79 | CES47 = 88 | CES72 = 93 | CES97 = 91 |
| CES23 = 92 | CES48 = 83 | CES73 = 75 | CES98 = 85 |
| CES24 = 91 | CES49 = 89 | CES74 = 95 | CES99 = 77 |
| CES25 = 72 | CES50 = 95 | CES75 = 80 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)