

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: STREETWORKS

Report Number: P879843

Luminaire Tested: **MEM2-HSN-VA-40-750-U-RW**

Issue Date: 10/01/2024



Test Information

Test Method: LM-79-08
Report Number: P879843
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/01/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HSN-VA-40-750-U-RW
Description: EPIC MODERN SHORT HOUSING 40W 70CRI 5000K VISUAL COMFORT FIXTURE w/
RECTANGULAR WIDE DISTRIBUTION OPTIC
Light Source: (1) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

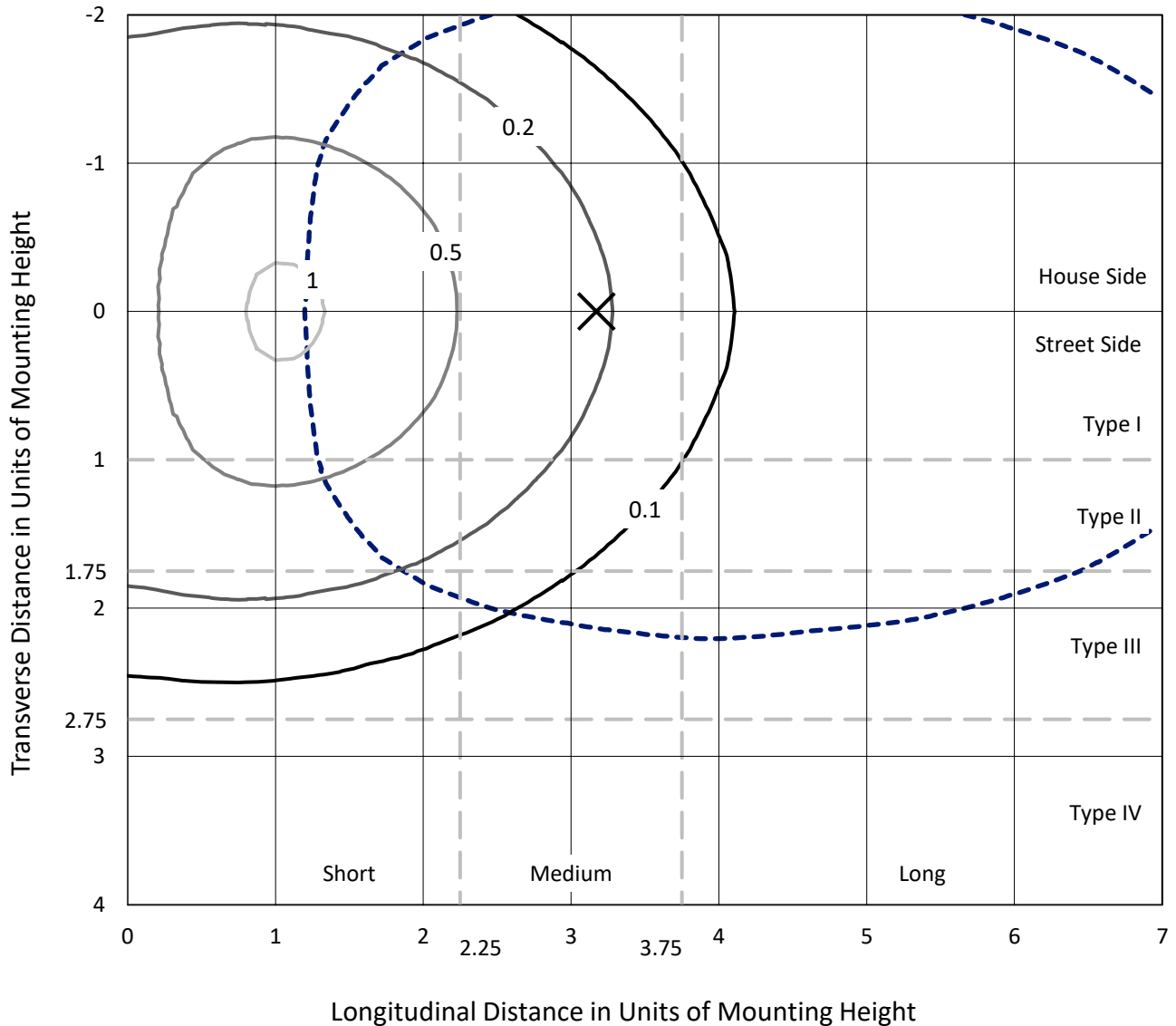
Lumens per Lamp: N/A
Luminaire Lumens: 3428.9 lumens
Efficiency: N/A
Efficacy: 88.8 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 38.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 7%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

REPORT NUMBER: P879843
 CATALOG NUMBER: MEM2-HSN-VA-40-750-U-RW

Iso-Footcandle Lines of Horizontal Illumination

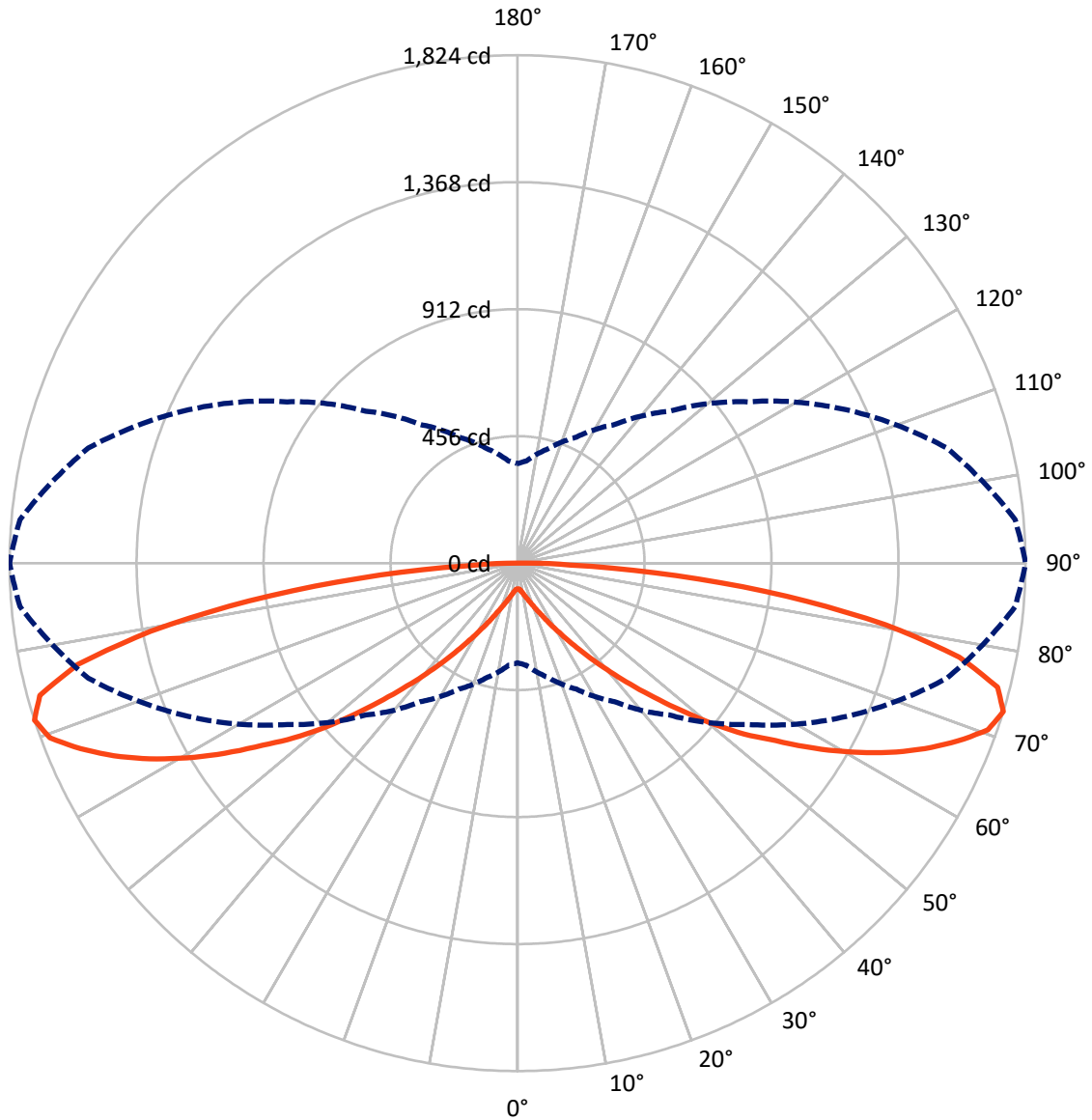
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.1 fc
 Type III - Short - N/A

REPORT NUMBER: P879843
CATALOG NUMBER: MEM2-HSN-VA-40-750-U-RW

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P879843
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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1714.5 | 0.0 | 1714.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 1714.5 | 0.0 | 1714.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 3428.9 | 0.0 | 3428.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 9.4 | 0.3 |
| 10°-20° | 35.1 | 1.0 |
| 20°-30° | 81.1 | 2.4 |
| 30°-40° | 173.8 | 5.1 |
| 40°-50° | 358.8 | 10.5 |
| 50°-60° | 659.0 | 19.2 |
| 60°-70° | 939.6 | 27.4 |
| 70°-80° | 874.0 | 25.5 |
| 80°-90° | 298.0 | 8.7 |
| 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° | 3428.9 | 100.0 |
| 0°-180° | 3428.9 | 100.0 |

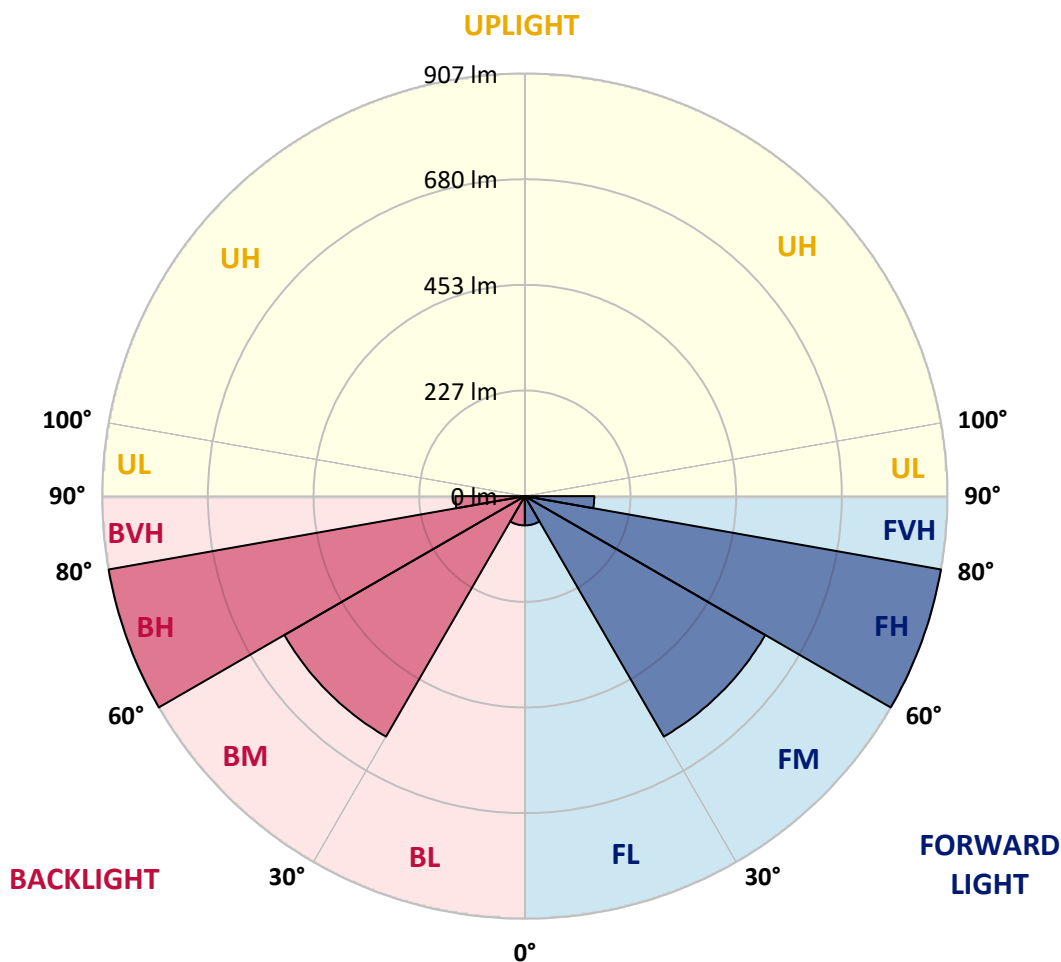


REPORT NUMBER: P879843
 CATALOG NUMBER: MEM2-HSN-VA-40-750-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 62.8 | 1.8 | | | |
| FM (30°-60°) | 595.8 | 17.4 | | | |
| FH (60°-80°) | 906.8 | 26.4 | | | G1/1800 |
| FVH (80°-90°) | 149.0 | 4.3 | | | G2/225 |
| BL (0°-30°) | 62.8 | 1.8 | B0/110 | | |
| BM (30°-60°) | 595.8 | 17.4 | B1/1000 | | |
| BH (60°-80°) | 906.8 | 26.4 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 149.0 | 4.3 | | | G2/225 |
| 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 Short





REPORT NUMBER: P879843

CATALOG NUMBER: MEM2-HSN-VA-40-750-U-RW

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 0° | 92.3 | 92.3 | 92.3 | 92.3 | 92.3 | 92.3 | 92.3 | 92.3 | 92.3 | 92.3 | 92.3 |
| 2.5° | 92.7 | 92.7 | 92.7 | 92.7 | 93.2 | 93.2 | 93.2 | 93.2 | 93.2 | 93.2 | 93.2 |
| 5° | 94.0 | 94.0 | 94.0 | 94.5 | 95.3 | 95.8 | 96.2 | 96.2 | 96.6 | 96.6 | 96.6 |
| 7.5° | 96.2 | 96.2 | 96.6 | 97.9 | 98.8 | 100.1 | 101.4 | 101.9 | 103.2 | 103.2 | 103.2 |
| 10° | 99.3 | 99.3 | 100.1 | 101.4 | 103.6 | 106.2 | 108.4 | 110.1 | 111.0 | 111.4 | 111.4 |
| 12.5° | 103.2 | 103.2 | 104.5 | 106.7 | 110.1 | 113.2 | 116.7 | 118.8 | 121.0 | 121.9 | 121.9 |
| 15° | 108.0 | 108.0 | 109.7 | 112.7 | 116.7 | 121.0 | 125.8 | 129.7 | 132.8 | 134.1 | 134.5 |
| 17.5° | 112.7 | 113.2 | 115.4 | 119.3 | 124.5 | 130.2 | 136.3 | 141.5 | 146.3 | 148.0 | 148.9 |
| 20° | 118.8 | 118.8 | 121.5 | 126.7 | 133.2 | 141.0 | 149.3 | 156.3 | 162.4 | 165.9 | 166.3 |
| 22.5° | 125.8 | 126.2 | 128.9 | 135.4 | 143.7 | 153.7 | 164.6 | 174.1 | 182.8 | 187.2 | 186.8 |
| 25° | 132.8 | 133.2 | 137.1 | 145.0 | 155.4 | 169.3 | 183.3 | 195.9 | 207.6 | 212.9 | 212.9 |
| 27.5° | 141.0 | 141.5 | 146.3 | 155.4 | 169.3 | 186.8 | 205.0 | 223.3 | 235.1 | 242.9 | 245.5 |
| 30° | 151.1 | 151.5 | 157.1 | 168.9 | 185.0 | 206.8 | 231.2 | 254.7 | 270.3 | 281.7 | 282.1 |
| 32.5° | 161.9 | 162.8 | 169.8 | 183.3 | 204.2 | 231.6 | 262.1 | 291.2 | 313.0 | 327.4 | 326.9 |
| 35° | 176.7 | 177.6 | 187.2 | 202.4 | 227.7 | 260.3 | 297.3 | 336.9 | 362.2 | 378.7 | 380.5 |
| 37.5° | 192.0 | 193.7 | 204.6 | 224.6 | 255.1 | 294.3 | 340.9 | 385.3 | 422.7 | 437.9 | 442.3 |
| 40° | 209.8 | 211.6 | 225.1 | 249.4 | 284.7 | 334.8 | 392.2 | 446.6 | 489.7 | 510.6 | 513.7 |
| 42.5° | 230.3 | 233.3 | 249.0 | 277.3 | 321.7 | 379.6 | 446.6 | 513.7 | 568.1 | 595.5 | 593.8 |
| 45° | 259.4 | 262.1 | 282.1 | 313.9 | 363.9 | 430.5 | 511.9 | 596.0 | 654.7 | 686.5 | 686.1 |
| 47.5° | 287.3 | 290.8 | 314.7 | 354.8 | 412.7 | 490.2 | 585.9 | 681.7 | 749.2 | 784.4 | 790.5 |
| 50° | 316.0 | 320.8 | 351.3 | 396.1 | 464.9 | 559.8 | 667.3 | 770.1 | 851.9 | 895.4 | 905.9 |
| 52.5° | 364.8 | 369.1 | 401.4 | 448.4 | 521.9 | 626.9 | 750.5 | 865.8 | 956.4 | 1002.5 | 1019.5 |
| 55° | 397.9 | 404.8 | 445.8 | 504.5 | 588.1 | 699.1 | 834.9 | 968.1 | 1070.4 | 1115.7 | 1125.3 |
| 57.5° | 408.8 | 416.2 | 465.4 | 538.1 | 641.7 | 775.3 | 923.3 | 1066.1 | 1177.1 | 1238.5 | 1253.7 |
| 60° | 409.2 | 418.3 | 471.4 | 550.2 | 667.8 | 828.8 | 1002.1 | 1171.4 | 1297.2 | 1364.7 | 1377.8 |
| 62.5° | 423.1 | 433.6 | 490.2 | 563.7 | 680.8 | 853.7 | 1055.6 | 1260.7 | 1414.8 | 1483.1 | 1497.5 |
| 65° | 438.8 | 451.0 | 511.1 | 592.9 | 710.4 | 880.2 | 1089.6 | 1325.1 | 1520.6 | 1600.2 | 1607.2 |
| 67.5° | 422.7 | 433.1 | 496.3 | 581.1 | 703.5 | 885.4 | 1113.5 | 1365.2 | 1584.1 | 1699.5 | 1705.1 |
| 70° | 396.1 | 407.0 | 467.1 | 544.6 | 664.7 | 845.8 | 1086.1 | 1365.2 | 1621.6 | 1766.5 | 1792.6 |
| 72.5° | 357.4 | 368.3 | 425.3 | 499.3 | 607.3 | 771.4 | 1009.9 | 1302.5 | 1595.9 | 1793.5 | 1824.0 |
| 75° | 309.9 | 320.0 | 372.6 | 440.1 | 534.6 | 683.0 | 899.4 | 1183.2 | 1495.8 | 1743.4 | 1780.0 |
| 77.5° | 258.6 | 267.7 | 312.6 | 367.0 | 447.1 | 579.0 | 764.4 | 1021.3 | 1320.8 | 1574.5 | 1622.0 |
| 80° | 203.3 | 212.4 | 246.8 | 289.5 | 353.9 | 454.9 | 608.6 | 821.4 | 1080.5 | 1292.9 | 1339.5 |
| 82.5° | 152.4 | 156.7 | 181.1 | 212.0 | 253.4 | 328.2 | 441.4 | 607.3 | 801.0 | 953.3 | 974.2 |
| 85° | 95.8 | 99.7 | 116.2 | 137.6 | 162.4 | 201.6 | 272.1 | 371.8 | 484.1 | 569.8 | 571.1 |
| 87.5° | 29.6 | 34.4 | 39.6 | 52.2 | 59.6 | 71.8 | 86.2 | 121.5 | 159.8 | 201.6 | 189.4 |
| 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

Streetworks

Report Number: SP1-2407-176-6

Test Date: 09/26/2024

Luminaire Tested: MEM2-HTN-VA-30-750-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-750-U-WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-176-6
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 09/27/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Streetworks
 Catalog Number: **MEM2-HTN-VA-30-750-U-WQ**
 Description: EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K): 4786
 CIE u': 0.2093
 CIE v': 0.4953
 Duv: 0.0066
 CIE x: 0.3533
 CIE y: 0.3716
 CIE z: 0.2751
 Peak Wavelength (nm): 449
 Dominant Wavelength (nm): 570
 Purity: 17.53512
 Rf: 73
 Rg: 94.6

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 70.9 | | |
| R1: | 67.8 | R9: | -29.8 |
| R2: | 75.1 | R10: | 40.9 |
| R3: | 80.6 | R11: | 67.4 |
| R4: | 71.6 | R12: | 35.3 |
| R5: | 67.8 | R13: | 68.5 |
| R6: | 65.4 | R14: | 89.0 |
| R7: | 82.0 | R15: | 60.9 |
| R8: | 57.0 | | |



Test Conditions

Stabilization Time: 45M
 Operation Time: 1H 45M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-176-6

| 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: SP1-2407-176-6

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 5000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-6

Photopic Flux vs. Wavelength

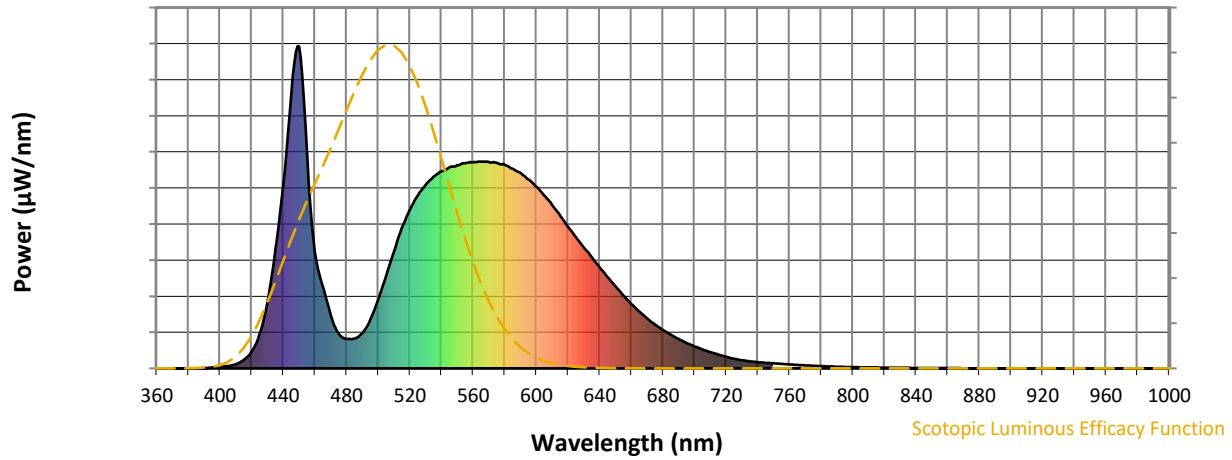


Photopic Lumens: NR

| 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 | 110 | NR | 620 | 440 | NR | 750 | 16 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 150 | NR | 625 | 407 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 213 | NR | 630 | 375 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 288 | NR | 635 | 345 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 364 | NR | 640 | 314 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 436 | NR | 645 | 283 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 492 | NR | 650 | 254 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 537 | NR | 655 | 227 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 570 | NR | 660 | 200 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 595 | NR | 665 | 177 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 611 | NR | 670 | 155 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 25 | NR | 545 | 624 | NR | 675 | 136 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 52 | NR | 550 | 631 | NR | 680 | 119 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 106 | NR | 555 | 637 | NR | 685 | 104 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 204 | NR | 560 | 640 | NR | 690 | 91 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 642 | NR | 695 | 79 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 573 | NR | 570 | 641 | NR | 700 | 68 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 844 | NR | 575 | 638 | NR | 705 | 59 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 999 | NR | 580 | 632 | NR | 710 | 50 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 668 | NR | 585 | 620 | NR | 715 | 43 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 361 | NR | 590 | 607 | NR | 720 | 36 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 255 | NR | 595 | 586 | NR | 725 | 30 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 165 | NR | 600 | 564 | NR | 730 | 25 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 106 | NR | 605 | 537 | NR | 735 | 22 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 91 | NR | 610 | 507 | NR | 740 | 19 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 93 | NR | 615 | 474 | NR | 745 | 17 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2407-176-6

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.69

| 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 | 110 | NR | 620 | 440 | NR | 750 | 16 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 150 | NR | 625 | 407 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 213 | NR | 630 | 375 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 288 | NR | 635 | 345 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 364 | NR | 640 | 314 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 436 | NR | 645 | 283 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 492 | NR | 650 | 254 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 537 | NR | 655 | 227 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 570 | NR | 660 | 200 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 595 | NR | 665 | 177 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 611 | NR | 670 | 155 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 25 | NR | 545 | 624 | NR | 675 | 136 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 52 | NR | 550 | 631 | NR | 680 | 119 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 106 | NR | 555 | 637 | NR | 685 | 104 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 204 | NR | 560 | 640 | NR | 690 | 91 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 642 | NR | 695 | 79 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 573 | NR | 570 | 641 | NR | 700 | 68 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 844 | NR | 575 | 638 | NR | 705 | 59 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 999 | NR | 580 | 632 | NR | 710 | 50 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 668 | NR | 585 | 620 | NR | 715 | 43 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 361 | NR | 590 | 607 | NR | 720 | 36 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 255 | NR | 595 | 586 | NR | 725 | 30 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 165 | NR | 600 | 564 | NR | 730 | 25 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 106 | NR | 605 | 537 | NR | 735 | 22 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 91 | NR | 610 | 507 | NR | 740 | 19 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 93 | NR | 615 | 474 | NR | 745 | 17 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2407-176-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.36

| 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 | 110 | NR | 620 | 440 | NR | 750 | 16 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 150 | NR | 625 | 407 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 213 | NR | 630 | 375 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 288 | NR | 635 | 345 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 364 | NR | 640 | 314 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 436 | NR | 645 | 283 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 492 | NR | 650 | 254 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 537 | NR | 655 | 227 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 570 | NR | 660 | 200 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 595 | NR | 665 | 177 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 611 | NR | 670 | 155 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 25 | NR | 545 | 624 | NR | 675 | 136 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 52 | NR | 550 | 631 | NR | 680 | 119 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 106 | NR | 555 | 637 | NR | 685 | 104 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 204 | NR | 560 | 640 | NR | 690 | 91 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 642 | NR | 695 | 79 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 573 | NR | 570 | 641 | NR | 700 | 68 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 844 | NR | 575 | 638 | NR | 705 | 59 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 999 | NR | 580 | 632 | NR | 710 | 50 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 668 | NR | 585 | 620 | NR | 715 | 43 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 361 | NR | 590 | 607 | NR | 720 | 36 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 255 | NR | 595 | 586 | NR | 725 | 30 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 165 | NR | 600 | 564 | NR | 730 | 25 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 106 | NR | 605 | 537 | NR | 735 | 22 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 91 | NR | 610 | 507 | NR | 740 | 19 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 93 | NR | 615 | 474 | NR | 745 | 17 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 73$
 $R_g = 94.6$
 $CIE R_a = 70.9$
 $R_g = -29.8$

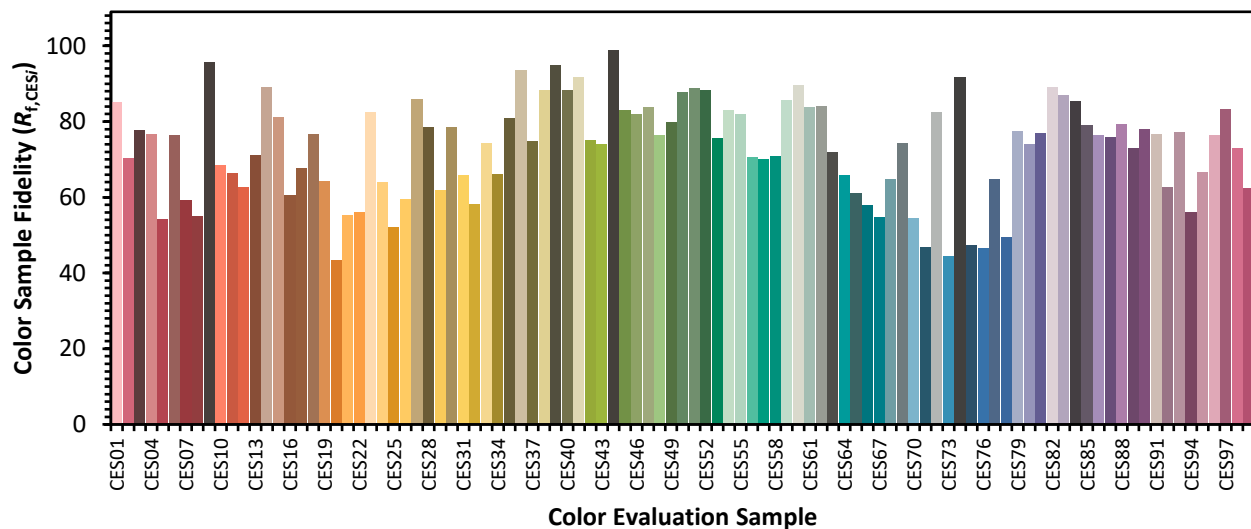


Color Vector Graphics

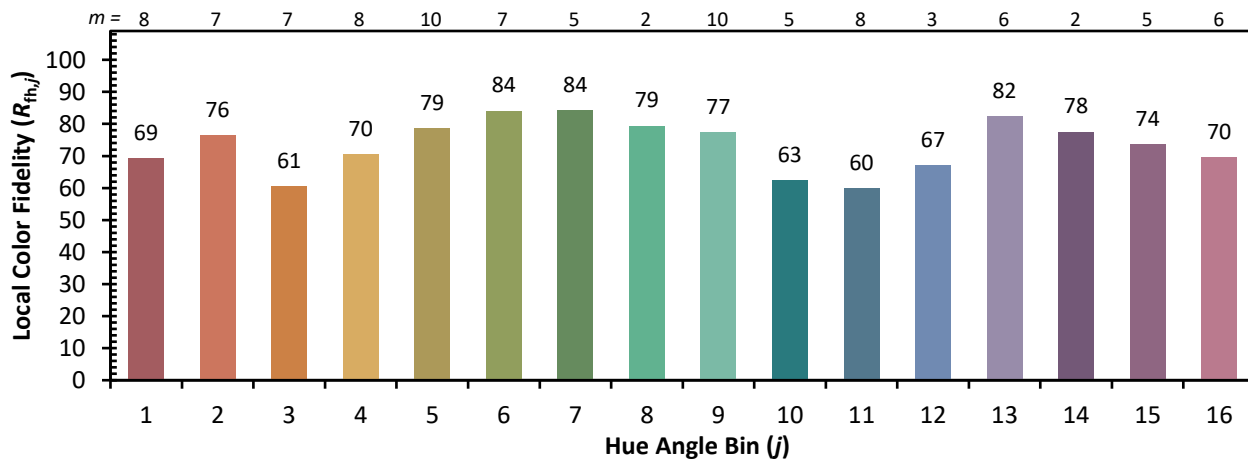
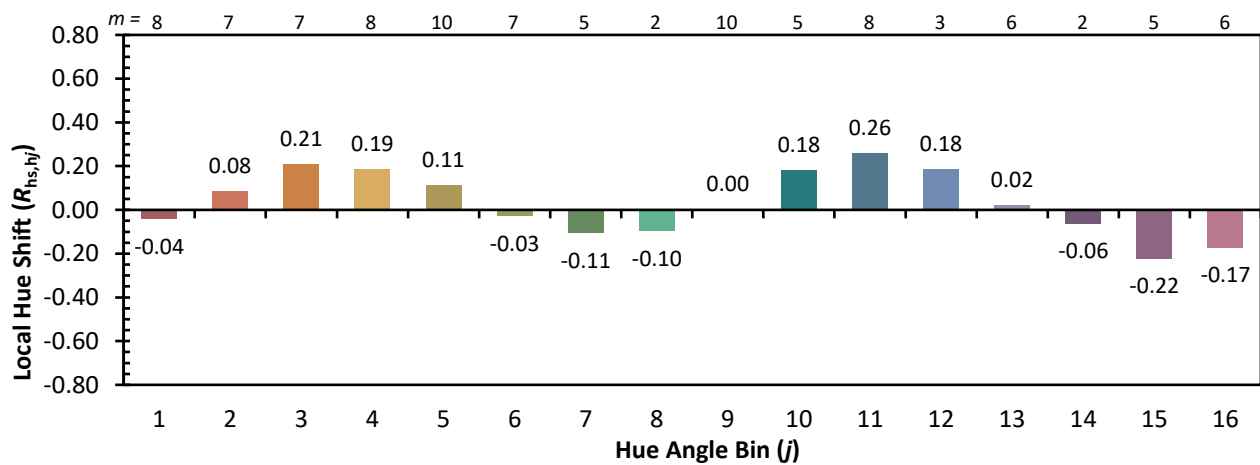
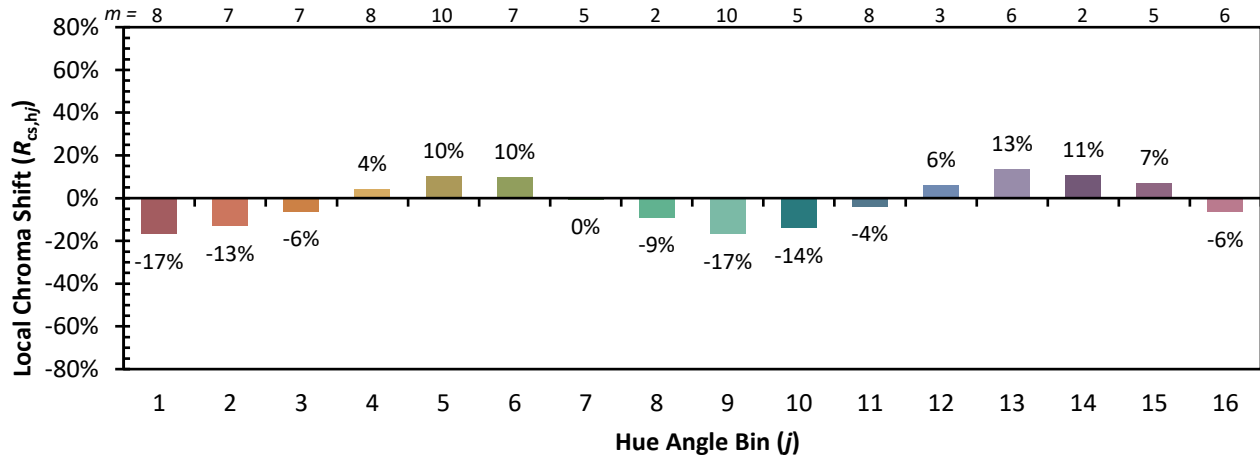


Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 60 | CES51 = 89 | CES76 = 46 |
| CES02 = 59 | CES27 = 86 | CES52 = 88 | CES77 = 65 |
| CES03 = 30 | CES28 = 78 | CES53 = 76 | CES78 = 49 |
| CES04 = 69 | CES29 = 62 | CES54 = 83 | CES79 = 78 |
| CES05 = 46 | CES30 = 79 | CES55 = 82 | CES80 = 74 |
| CES06 = 50 | CES31 = 66 | CES56 = 71 | CES81 = 77 |
| CES07 = 39 | CES32 = 58 | CES57 = 70 | CES82 = 89 |
| CES08 = 38 | CES33 = 74 | CES58 = 71 | CES83 = 87 |
| CES09 = 29 | CES34 = 66 | CES59 = 86 | CES84 = 86 |
| CES10 = 72 | CES35 = 81 | CES60 = 90 | CES85 = 79 |
| CES11 = 56 | CES36 = 94 | CES61 = 84 | CES86 = 76 |
| CES12 = 61 | CES37 = 75 | CES62 = 84 | CES87 = 76 |
| CES13 = 41 | CES38 = 88 | CES63 = 72 | CES88 = 79 |
| CES14 = 74 | CES39 = 95 | CES64 = 66 | CES89 = 73 |
| CES15 = 70 | CES40 = 88 | CES65 = 61 | CES90 = 78 |
| CES16 = 46 | CES41 = 92 | CES66 = 58 | CES91 = 77 |
| CES17 = 49 | CES42 = 75 | CES67 = 55 | CES92 = 63 |
| CES18 = 55 | CES43 = 74 | CES68 = 65 | CES93 = 77 |
| CES19 = 71 | CES44 = 99 | CES69 = 74 | CES94 = 56 |
| CES20 = 64 | CES45 = 83 | CES70 = 55 | CES95 = 67 |
| CES21 = 85 | CES46 = 82 | CES71 = 47 | CES96 = 76 |
| CES22 = 77 | CES47 = 84 | CES72 = 82 | CES97 = 83 |
| CES23 = 91 | CES48 = 76 | CES73 = 44 | CES98 = 73 |
| CES24 = 90 | CES49 = 80 | CES74 = 92 | CES99 = 62 |
| CES25 = 71 | CES50 = 88 | CES75 = 47 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)