

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



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: PrentaLux

Report Number: P878933

Luminaire Tested: PRLX-206-927-LL3-C-U-S-X-X-WHHR-SR-X

Issue Date: 9/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P878933
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2405-094-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PrentaLux
Catalog Number: PRLX-206-927-LL3-C-U-S-X-X-WHHR-SR-X
Description: PrentaLux 200 SERIES 3D PRINTED LUMINAIRE, 206 SHADE, CLEAR LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

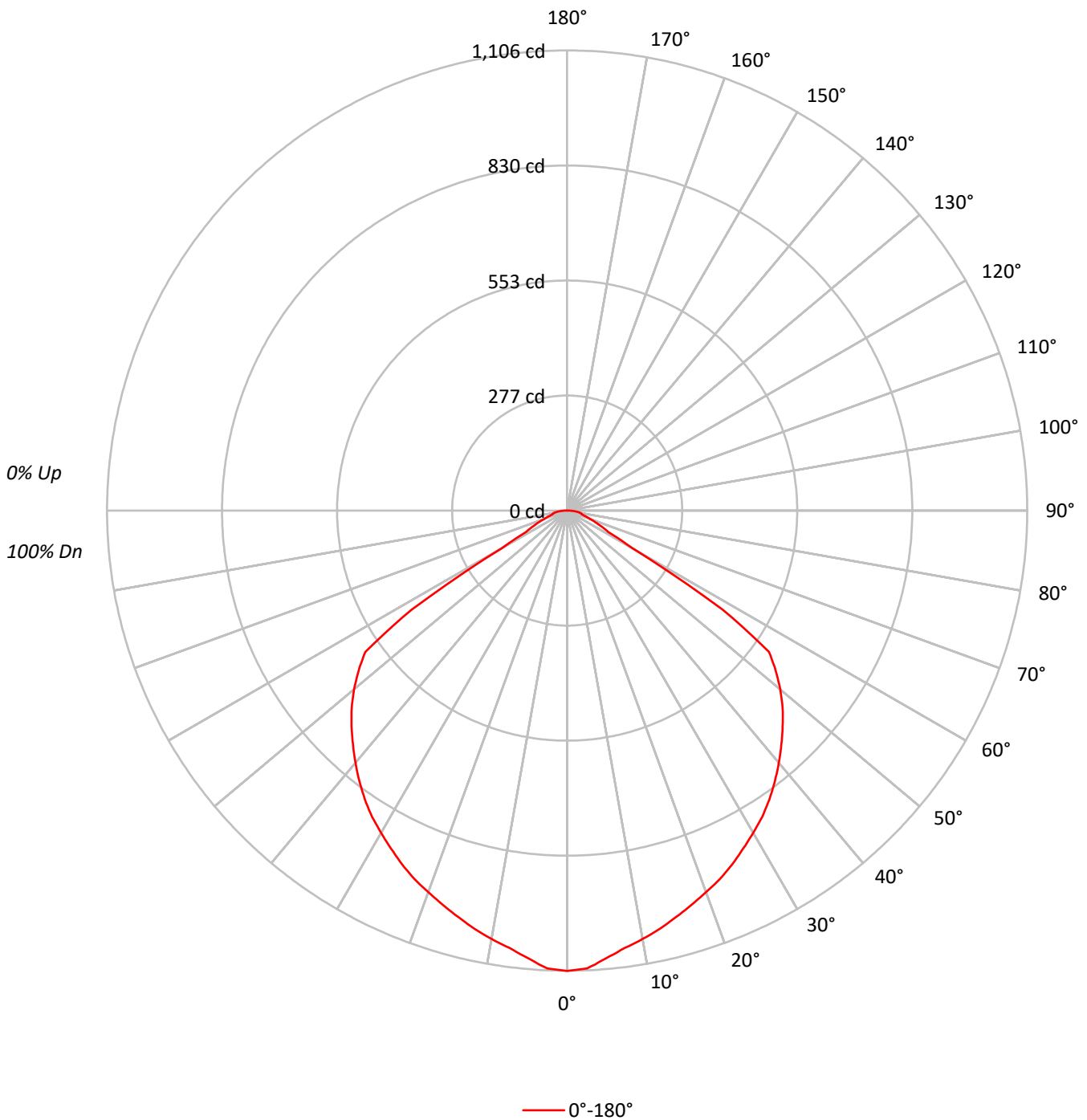
Lumens per Lamp: N/A
Luminaire Lumens: 2541.7 lumens
Efficiency: N/A
Efficacy: 146.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.37
Luminous Opening: Circular (Dia: 0.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P878933

CATALOG NUMBER: PRLX-206-927-LL3-C-U-S-X-X-WHHR-SR-X

Luminous Intensity Polar Plot





TEST NUMBER: P878933

CATALOG NUMBER: PRLX-206-927-LL3-C-U-S-X-X-WHHR-SR-X

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 105 | 101 | 99 | 100 | 98 | 95 | 97 | 95 | 93 | 93 | 91 | 90 | 88 |
| 2 | 102 | 95 | 89 | 85 | 100 | 93 | 88 | 84 | 90 | 86 | 82 | 87 | 83 | 80 | 84 | 81 | 78 | 76 |
| 3 | 94 | 85 | 78 | 72 | 92 | 83 | 77 | 72 | 81 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 66 |
| 4 | 87 | 76 | 68 | 62 | 85 | 75 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 63 | 59 | 57 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 60 | 54 | 65 | 59 | 53 | 63 | 57 | 53 | 62 | 56 | 52 | 50 |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 48 | 42 | 54 | 47 | 42 | 53 | 46 | 42 | 51 | 46 | 41 | 39 |
| 8 | 64 | 51 | 43 | 38 | 63 | 51 | 43 | 38 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 59 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 43 | 38 | 33 | 32 |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 34 | 30 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 19807 |
| 5° | 19405 |
| 10° | 19005 |
| 15° | 18741 |
| 20° | 18584 |
| 25° | 18536 |
| 30° | 18487 |
| 35° | 18520 |
| 40° | 18495 |
| 45° | 18548 |
| 50° | 18614 |
| 55° | 18479 |
| 60° | 6466 |
| 65° | 3914 |
| 70° | 3077 |
| 75° | 2614 |
| 80° | 3247 |
| 85° | 3882 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 47.5°
 Luminance: 18616 cd/sqm

TEST NUMBER: P878933

CATALOG NUMBER: PRLX-206-927-LL3-C-U-S-X-X-WHHR-SR-X

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.0 | 4.0 |
| 10°-20° | 285.7 | 11.2 |
| 20°-30° | 432.6 | 17.0 |
| 30°-40° | 530.1 | 20.9 |
| 40°-50° | 565.5 | 22.2 |
| 50°-60° | 465.2 | 18.3 |
| 60°-70° | 98.0 | 3.9 |
| 70°-80° | 43.3 | 1.7 |
| 80°-90° | 19.3 | 0.8 |
| 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°-30° | 820.3 | 32.3 |
| 0°-40° | 1350.4 | 53.1 |
| 0°-60° | 2381.1 | 93.7 |
| 0°-90° | 2541.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2541.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1106 | |
| 5° | 1080 | 102 |
| 15° | 1011 | 286 |
| 25° | 938 | 433 |
| 35° | 848 | 530 |
| 45° | 733 | 565 |
| 55° | 592 | 465 |
| 65° | 92 | 98 |
| 75° | 38 | 43 |
| 85° | 19 | 19 |
| 90° | 0 | |

TEST NUMBER: P878933

CATALOG NUMBER: PRLX-206-927-LL3-C-U-S-X-X-WHHR-SR-X

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1106.5 |
| 2.5° | 1101.6 |
| 5° | 1079.9 |
| 7.5° | 1060.3 |
| 10° | 1045.6 |
| 12.5° | 1029.5 |
| 15° | 1011.3 |
| 17.5° | 993.8 |
| 20° | 975.6 |
| 22.5° | 958.8 |
| 25° | 938.5 |
| 27.5° | 916.1 |
| 30° | 894.4 |
| 32.5° | 872.7 |
| 35° | 847.5 |
| 37.5° | 820.2 |
| 40° | 791.5 |
| 42.5° | 762.1 |
| 45° | 732.7 |
| 47.5° | 702.6 |
| 50° | 668.4 |
| 52.5° | 632.0 |
| 55° | 592.1 |
| 57.5° | 442.3 |
| 60° | 180.6 |
| 62.5° | 111.3 |
| 65° | 92.4 |
| 67.5° | 74.2 |
| 70° | 58.8 |
| 72.5° | 46.2 |
| 75° | 37.8 |
| 77.5° | 35.0 |
| 80° | 31.5 |
| 82.5° | 26.6 |
| 85° | 18.9 |
| 87.5° | 9.8 |
| 90° | 0.0 |



TEST NUMBER: P878933
 CATALOG NUMBER: PRLX-206-927-LL3-C-U-S-X-X-WHHR-SR-X

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 21.60 | 23.10 | 21.96 | 23.41 | 23.73 | 21.60 | 23.10 | 21.96 | 23.41 | 23.73 |
| | 3H | 21.65 | 22.98 | 22.03 | 23.31 | 23.67 | 21.65 | 22.98 | 22.03 | 23.31 | 23.67 |
| | 4H | 21.65 | 22.89 | 22.05 | 23.24 | 23.62 | 21.65 | 22.89 | 22.05 | 23.24 | 23.62 |
| | 6H | 21.68 | 22.82 | 22.09 | 23.19 | 23.58 | 21.68 | 22.82 | 22.09 | 23.19 | 23.58 |
| | 8H | 21.70 | 22.78 | 22.12 | 23.17 | 23.57 | 21.70 | 22.78 | 22.12 | 23.17 | 23.57 |
| | 12H | 21.71 | 22.75 | 22.15 | 23.13 | 23.56 | 21.71 | 22.75 | 22.15 | 23.13 | 23.56 |
| 4H | 2H | 21.50 | 22.74 | 21.90 | 23.09 | 23.47 | 21.50 | 22.74 | 21.90 | 23.09 | 23.47 |
| | 3H | 21.61 | 22.62 | 22.03 | 23.02 | 23.42 | 21.61 | 22.62 | 22.03 | 23.02 | 23.42 |
| | 4H | 21.64 | 22.54 | 22.08 | 22.96 | 23.40 | 21.64 | 22.54 | 22.08 | 22.96 | 23.40 |
| | 6H | 21.73 | 22.51 | 22.19 | 22.95 | 23.41 | 21.73 | 22.51 | 22.19 | 22.95 | 23.41 |
| | 8H | 21.77 | 22.50 | 22.24 | 22.95 | 23.42 | 21.77 | 22.50 | 22.24 | 22.95 | 23.42 |
| | 12H | 21.83 | 22.48 | 22.31 | 22.96 | 23.43 | 21.83 | 22.48 | 22.31 | 22.96 | 23.43 |
| 8H | 4H | 21.59 | 22.32 | 22.06 | 22.77 | 23.23 | 21.59 | 22.32 | 22.06 | 22.77 | 23.23 |
| | 6H | 21.71 | 22.32 | 22.21 | 22.81 | 23.29 | 21.71 | 22.32 | 22.21 | 22.81 | 23.29 |
| | 8H | 21.80 | 22.35 | 22.31 | 22.86 | 23.35 | 21.80 | 22.35 | 22.31 | 22.86 | 23.35 |
| | 12H | 21.91 | 22.40 | 22.42 | 22.90 | 23.46 | 21.91 | 22.40 | 22.42 | 22.90 | 23.46 |
| 12H | 4H | 21.57 | 22.22 | 22.05 | 22.70 | 23.17 | 21.57 | 22.22 | 22.05 | 22.70 | 23.17 |
| | 6H | 21.69 | 22.24 | 22.21 | 22.75 | 23.24 | 21.69 | 22.24 | 22.21 | 22.75 | 23.24 |
| | 8H | 21.82 | 22.31 | 22.33 | 22.81 | 23.37 | 21.82 | 22.31 | 22.33 | 22.81 | 23.37 |

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



Test Information

Test Method: LM-79-2019
 Report Number: SP1-2203-582-1
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 05/25/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: SHAPER
 Catalog Number: **205-90-27K-27L-UNV-STD-X-X-WHHR-SR-X**
 Description: Shaper 3D PRINTED 200 Series Pendants

Spectral Parameters

CCT (K): 2678
 CIE u': 0.2631
 CIE v': 0.5293
 Duv: 0.0011
 CIE x: 0.4634
 CIE y: 0.4143
 CIE z: 0.1223
 Peak Wavelength (nm): 627
 Dominant Wavelength (nm): 583
 Purity: 64
 Rf: 92.6
 Rg: 98.1

CRI (Ra): 93.5

| | |
|----------|-----------|
| R1: 93.5 | R9: 61.4 |
| R2: 96.8 | R10: 91.9 |
| R3: 99.0 | R11: 95.1 |
| R4: 93.7 | R12: 84.7 |
| R5: 93.3 | R13: 94.4 |
| R6: 97.0 | R14: 98.6 |
| R7: 92.3 | |
| R8: 82.3 | |



Test Conditions

Stabilization Time: 101M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.7/43%
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2203-582-1

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 2/7/2022 | 8/7/2022 |
| Power Meter | XITRON 2801 IN0071 | 11/29/2021 | 11/29/2022 |
| AC Power Source | CHROMA 61603 IN0063 | 11/29/2021 | 11/29/2022 |
| DC Power Source | AGILENT E3634A IN0208 | 11/29/2021 | 11/29/2022 |
| Sphere Thermometer | ONSET IN0085 | 11/29/2021 | 11/29/2022 |
| Room Thermometer | ONSET IN0046 | 11/29/2021 | 11/29/2022 |

REPORT NUMBER: SP1-2203-582-1

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-2203-582-1

Photopic Flux vs. Wavelength

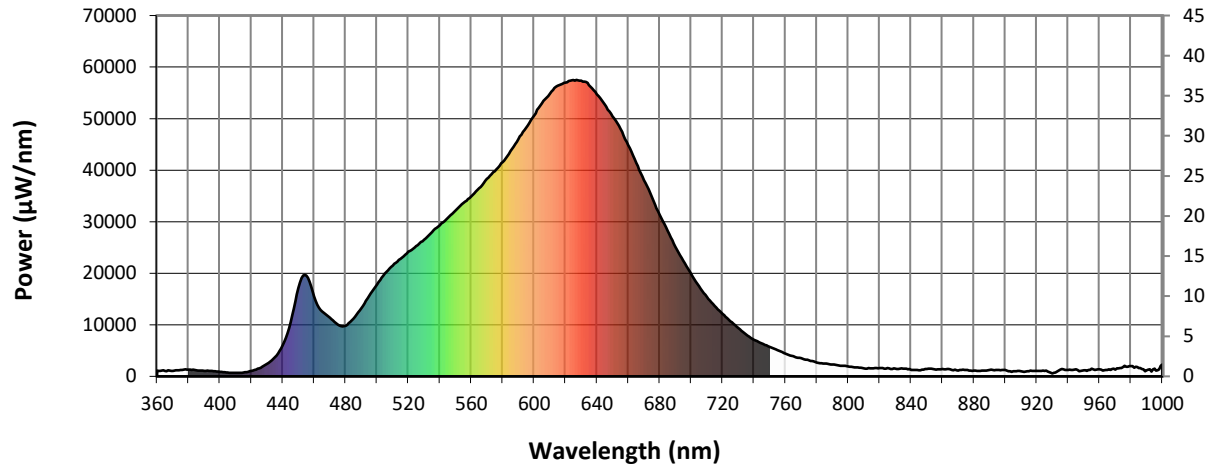


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| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 1145 | NR | 490 | 13228 | NR | 620 | 56980 | NR | 750 | 5727 | NR | 880 | 1140 | NR |
| 365 | 1066 | NR | 495 | 15565 | NR | 625 | 57502 | NR | 755 | 5083 | NR | 885 | 1142 | NR |
| 370 | 1064 | NR | 500 | 17841 | NR | 630 | 57383 | NR | 760 | 4389 | NR | 890 | 1233 | NR |
| 375 | 1275 | NR | 505 | 19900 | NR | 635 | 56464 | NR | 765 | 3893 | NR | 895 | 1246 | NR |
| 380 | 1305 | NR | 510 | 21497 | NR | 640 | 54698 | NR | 770 | 3545 | NR | 900 | 1222 | NR |
| 385 | 1170 | NR | 515 | 22798 | NR | 645 | 52709 | NR | 775 | 3080 | NR | 905 | 1024 | NR |
| 390 | 1068 | NR | 520 | 24188 | NR | 650 | 50431 | NR | 780 | 2657 | NR | 910 | 1001 | NR |
| 395 | 1049 | NR | 525 | 25262 | NR | 655 | 47985 | NR | 785 | 2483 | NR | 915 | 1020 | NR |
| 400 | 887 | NR | 530 | 26504 | NR | 660 | 44844 | NR | 790 | 2269 | NR | 920 | 1035 | NR |
| 405 | 748 | NR | 535 | 28006 | NR | 665 | 41434 | NR | 795 | 2071 | NR | 925 | 1080 | NR |
| 410 | 664 | NR | 540 | 29329 | NR | 670 | 38083 | NR | 800 | 1908 | NR | 930 | 589 | NR |
| 415 | 736 | NR | 545 | 30733 | NR | 675 | 34738 | NR | 805 | 1728 | NR | 935 | 1304 | NR |
| 420 | 1059 | NR | 550 | 32166 | NR | 680 | 31367 | NR | 810 | 1556 | NR | 940 | 1248 | NR |
| 425 | 1573 | NR | 555 | 33621 | NR | 685 | 28264 | NR | 815 | 1534 | NR | 945 | 1376 | NR |
| 430 | 2410 | NR | 560 | 34870 | NR | 690 | 25133 | NR | 820 | 1615 | NR | 950 | 1168 | NR |
| 435 | 3705 | NR | 565 | 36475 | NR | 695 | 22417 | NR | 825 | 1601 | NR | 955 | 1472 | NR |
| 440 | 5998 | NR | 570 | 38315 | NR | 700 | 19911 | NR | 830 | 1464 | NR | 960 | 1357 | NR |
| 445 | 10483 | NR | 575 | 39818 | NR | 705 | 17515 | NR | 835 | 1513 | NR | 965 | 1256 | NR |
| 450 | 17148 | NR | 580 | 41512 | NR | 710 | 15418 | NR | 840 | 1274 | NR | 970 | 1326 | NR |
| 455 | 19572 | NR | 585 | 43674 | NR | 715 | 13677 | NR | 845 | 1187 | NR | 975 | 1776 | NR |
| 460 | 15531 | NR | 590 | 46057 | NR | 720 | 12091 | NR | 850 | 1450 | NR | 980 | 1995 | NR |
| 465 | 12608 | NR | 595 | 48226 | NR | 725 | 10699 | NR | 855 | 1390 | NR | 985 | 1613 | NR |
| 470 | 11345 | NR | 600 | 50613 | NR | 730 | 9375 | NR | 860 | 1425 | NR | 990 | 1171 | NR |
| 475 | 10065 | NR | 605 | 52959 | NR | 735 | 8139 | NR | 865 | 1380 | NR | 995 | 1479 | NR |
| 480 | 9832 | NR | 610 | 54812 | NR | 740 | 7087 | NR | 870 | 1138 | NR | 1000 | 2308 | NR |
| 485 | 11206 | NR | 615 | 56339 | NR | 745 | 6418 | NR | 875 | 1228 | NR | | | |

REPORT NUMBER: SP1-2203-582-1

Scotopic Flux vs. Wavelength



Scotopic Lumens: 3318.5

S/P: 1.27

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 1145 | NR | 490 | 13228 | NR | 620 | 56980 | NR | 750 | 5727 | NR | 880 | 1140 | NR |
| 365 | 1066 | NR | 495 | 15565 | NR | 625 | 57502 | NR | 755 | 5083 | NR | 885 | 1142 | NR |
| 370 | 1064 | NR | 500 | 17841 | NR | 630 | 57383 | NR | 760 | 4389 | NR | 890 | 1233 | NR |
| 375 | 1275 | NR | 505 | 19900 | NR | 635 | 56464 | NR | 765 | 3893 | NR | 895 | 1246 | NR |
| 380 | 1305 | NR | 510 | 21497 | NR | 640 | 54698 | NR | 770 | 3545 | NR | 900 | 1222 | NR |
| 385 | 1170 | NR | 515 | 22798 | NR | 645 | 52709 | NR | 775 | 3080 | NR | 905 | 1024 | NR |
| 390 | 1068 | NR | 520 | 24188 | NR | 650 | 50431 | NR | 780 | 2657 | NR | 910 | 1001 | NR |
| 395 | 1049 | NR | 525 | 25262 | NR | 655 | 47985 | NR | 785 | 2483 | NR | 915 | 1020 | NR |
| 400 | 887 | NR | 530 | 26504 | NR | 660 | 44844 | NR | 790 | 2269 | NR | 920 | 1035 | NR |
| 405 | 748 | NR | 535 | 28006 | NR | 665 | 41434 | NR | 795 | 2071 | NR | 925 | 1080 | NR |
| 410 | 664 | NR | 540 | 29329 | NR | 670 | 38083 | NR | 800 | 1908 | NR | 930 | 589 | NR |
| 415 | 736 | NR | 545 | 30733 | NR | 675 | 34738 | NR | 805 | 1728 | NR | 935 | 1304 | NR |
| 420 | 1059 | NR | 550 | 32166 | NR | 680 | 31367 | NR | 810 | 1556 | NR | 940 | 1248 | NR |
| 425 | 1573 | NR | 555 | 33621 | NR | 685 | 28264 | NR | 815 | 1534 | NR | 945 | 1376 | NR |
| 430 | 2410 | NR | 560 | 34870 | NR | 690 | 25133 | NR | 820 | 1615 | NR | 950 | 1168 | NR |
| 435 | 3705 | NR | 565 | 36475 | NR | 695 | 22417 | NR | 825 | 1601 | NR | 955 | 1472 | NR |
| 440 | 5998 | NR | 570 | 38315 | NR | 700 | 19911 | NR | 830 | 1464 | NR | 960 | 1357 | NR |
| 445 | 10483 | NR | 575 | 39818 | NR | 705 | 17515 | NR | 835 | 1513 | NR | 965 | 1256 | NR |
| 450 | 17148 | NR | 580 | 41512 | NR | 710 | 15418 | NR | 840 | 1274 | NR | 970 | 1326 | NR |
| 455 | 19572 | NR | 585 | 43674 | NR | 715 | 13677 | NR | 845 | 1187 | NR | 975 | 1776 | NR |
| 460 | 15531 | NR | 590 | 46057 | NR | 720 | 12091 | NR | 850 | 1450 | NR | 980 | 1995 | NR |
| 465 | 12608 | NR | 595 | 48226 | NR | 725 | 10699 | NR | 855 | 1390 | NR | 985 | 1613 | NR |
| 470 | 11345 | NR | 600 | 50613 | NR | 730 | 9375 | NR | 860 | 1425 | NR | 990 | 1171 | NR |
| 475 | 10065 | NR | 605 | 52959 | NR | 735 | 8139 | NR | 865 | 1380 | NR | 995 | 1479 | NR |
| 480 | 9832 | NR | 610 | 54812 | NR | 740 | 7087 | NR | 870 | 1138 | NR | 1000 | 2308 | NR |
| 485 | 11206 | NR | 615 | 56339 | NR | 745 | 6418 | NR | 875 | 1228 | NR | | | |

REPORT NUMBER: SP1-2203-582-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: 1235.2 S/P: 0.47

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 1145 | NR | 490 | 13228 | NR | 620 | 56980 | NR | 750 | 5727 | NR | 880 | 1140 | NR |
| 365 | 1066 | NR | 495 | 15565 | NR | 625 | 57502 | NR | 755 | 5083 | NR | 885 | 1142 | NR |
| 370 | 1064 | NR | 500 | 17841 | NR | 630 | 57383 | NR | 760 | 4389 | NR | 890 | 1233 | NR |
| 375 | 1275 | NR | 505 | 19900 | NR | 635 | 56464 | NR | 765 | 3893 | NR | 895 | 1246 | NR |
| 380 | 1305 | NR | 510 | 21497 | NR | 640 | 54698 | NR | 770 | 3545 | NR | 900 | 1222 | NR |
| 385 | 1170 | NR | 515 | 22798 | NR | 645 | 52709 | NR | 775 | 3080 | NR | 905 | 1024 | NR |
| 390 | 1068 | NR | 520 | 24188 | NR | 650 | 50431 | NR | 780 | 2657 | NR | 910 | 1001 | NR |
| 395 | 1049 | NR | 525 | 25262 | NR | 655 | 47985 | NR | 785 | 2483 | NR | 915 | 1020 | NR |
| 400 | 887 | NR | 530 | 26504 | NR | 660 | 44844 | NR | 790 | 2269 | NR | 920 | 1035 | NR |
| 405 | 748 | NR | 535 | 28006 | NR | 665 | 41434 | NR | 795 | 2071 | NR | 925 | 1080 | NR |
| 410 | 664 | NR | 540 | 29329 | NR | 670 | 38083 | NR | 800 | 1908 | NR | 930 | 589 | NR |
| 415 | 736 | NR | 545 | 30733 | NR | 675 | 34738 | NR | 805 | 1728 | NR | 935 | 1304 | NR |
| 420 | 1059 | NR | 550 | 32166 | NR | 680 | 31367 | NR | 810 | 1556 | NR | 940 | 1248 | NR |
| 425 | 1573 | NR | 555 | 33621 | NR | 685 | 28264 | NR | 815 | 1534 | NR | 945 | 1376 | NR |
| 430 | 2410 | NR | 560 | 34870 | NR | 690 | 25133 | NR | 820 | 1615 | NR | 950 | 1168 | NR |
| 435 | 3705 | NR | 565 | 36475 | NR | 695 | 22417 | NR | 825 | 1601 | NR | 955 | 1472 | NR |
| 440 | 5998 | NR | 570 | 38315 | NR | 700 | 19911 | NR | 830 | 1464 | NR | 960 | 1357 | NR |
| 445 | 10483 | NR | 575 | 39818 | NR | 705 | 17515 | NR | 835 | 1513 | NR | 965 | 1256 | NR |
| 450 | 17148 | NR | 580 | 41512 | NR | 710 | 15418 | NR | 840 | 1274 | NR | 970 | 1326 | NR |
| 455 | 19572 | NR | 585 | 43674 | NR | 715 | 13677 | NR | 845 | 1187 | NR | 975 | 1776 | NR |
| 460 | 15531 | NR | 590 | 46057 | NR | 720 | 12091 | NR | 850 | 1450 | NR | 980 | 1995 | NR |
| 465 | 12608 | NR | 595 | 48226 | NR | 725 | 10699 | NR | 855 | 1390 | NR | 985 | 1613 | NR |
| 470 | 11345 | NR | 600 | 50613 | NR | 730 | 9375 | NR | 860 | 1425 | NR | 990 | 1171 | NR |
| 475 | 10065 | NR | 605 | 52959 | NR | 735 | 8139 | NR | 865 | 1380 | NR | 995 | 1479 | NR |
| 480 | 9832 | NR | 610 | 54812 | NR | 740 | 7087 | NR | 870 | 1138 | NR | 1000 | 2308 | NR |
| 485 | 11206 | NR | 615 | 56339 | NR | 745 | 6418 | NR | 875 | 1228 | NR | | | |

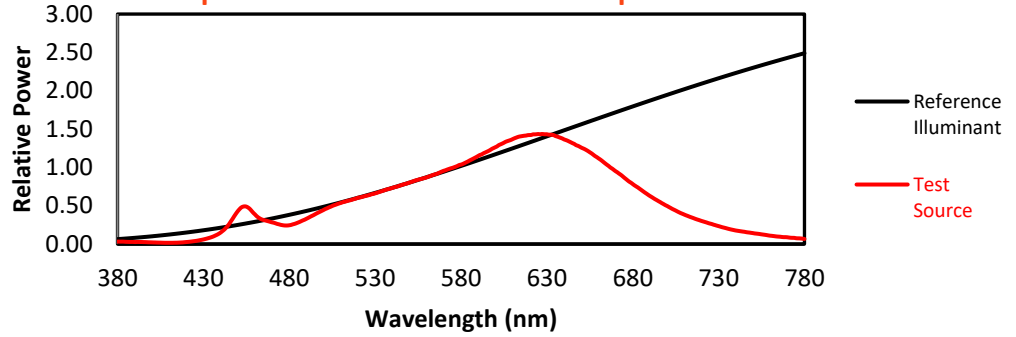
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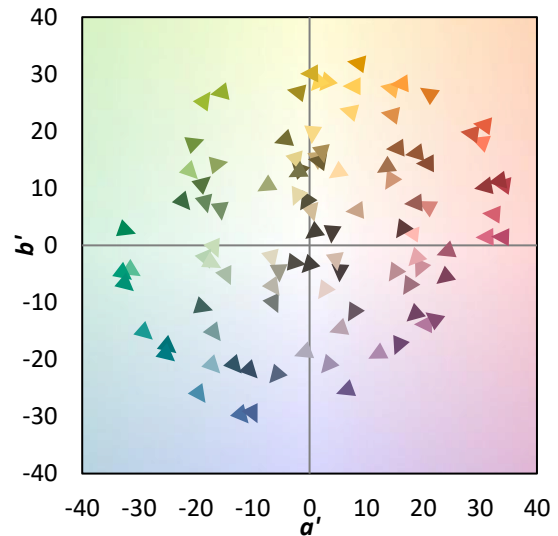
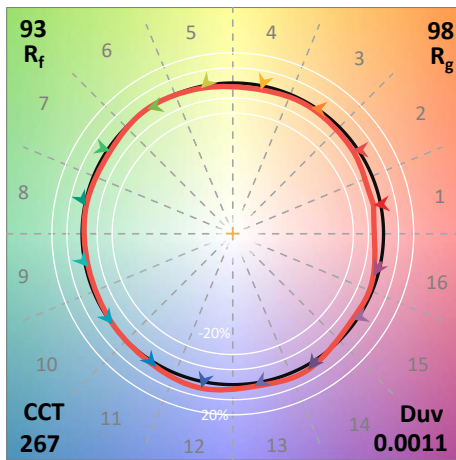
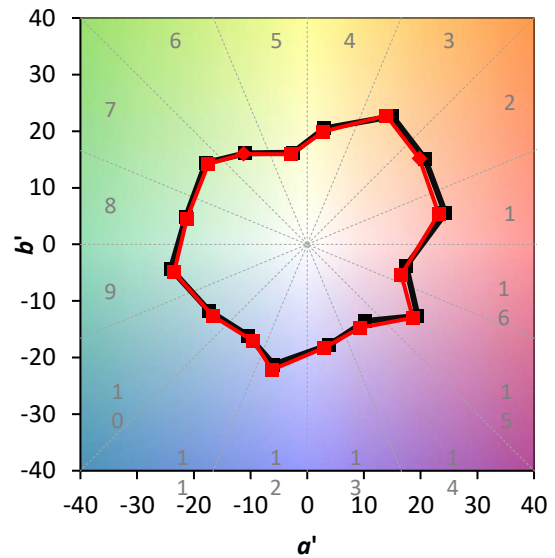
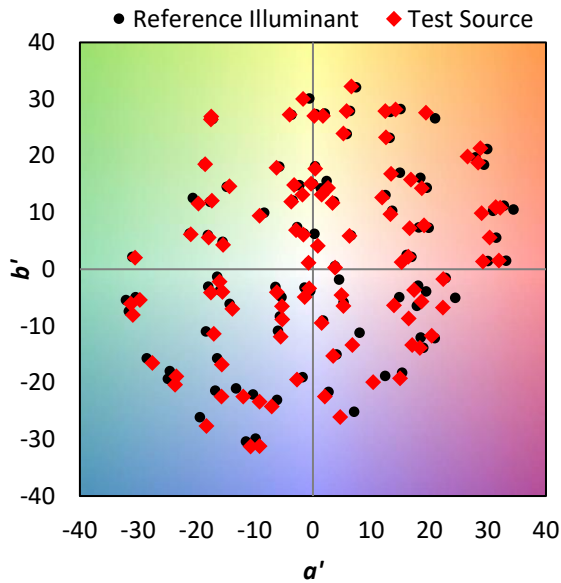
Summary

$R_f = 92.6$
 $R_g = 98.1$
 CIE $R_a = 93.5$
 $R_9 = 61.4$

Spectral Power Distribution Comparison



Color Vector Graphics



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

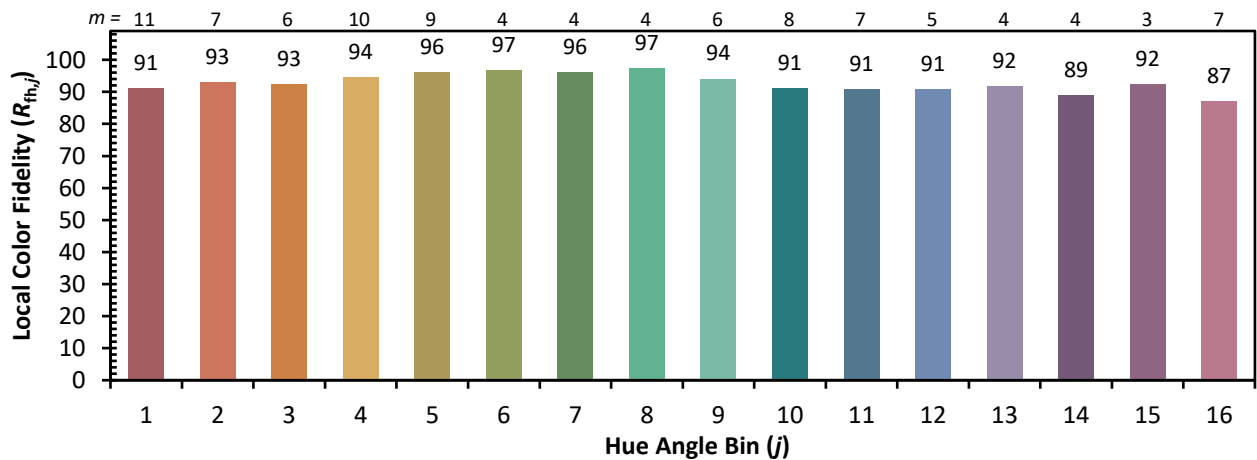
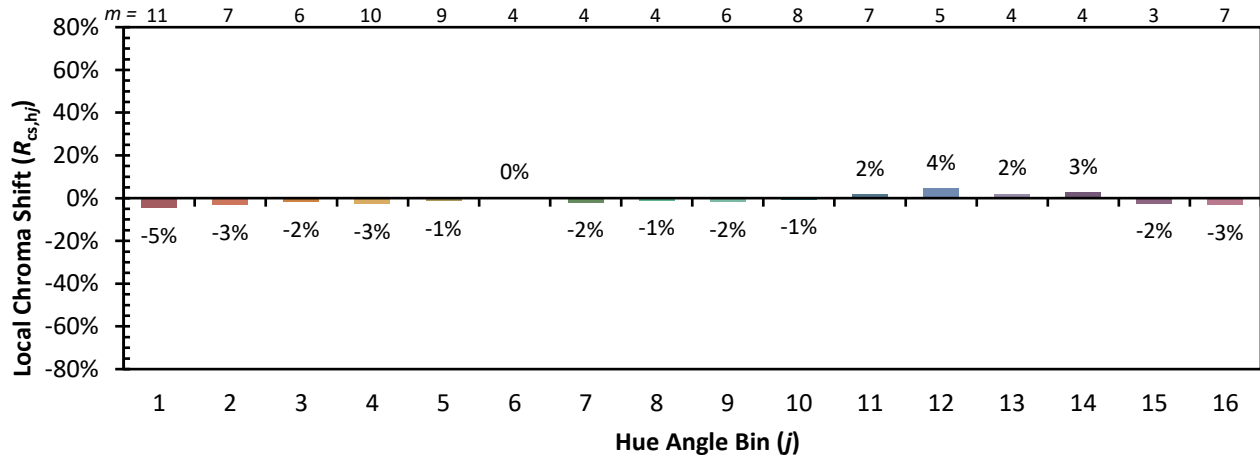
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 96 | CES51 = 97 | CES76 = 92 |
| CES02 = 64 | CES27 = 93 | CES52 = 98 | CES77 = 89 |
| CES03 = 32 | CES28 = 98 | CES53 = 97 | CES78 = 90 |
| CES04 = 71 | CES29 = 97 | CES54 = 94 | CES79 = 93 |
| CES05 = 51 | CES30 = 92 | CES55 = 93 | CES80 = 93 |
| CES06 = 52 | CES31 = 97 | CES56 = 94 | CES81 = 82 |
| CES07 = 44 | CES32 = 93 | CES57 = 93 | CES82 = 97 |
| CES08 = 43 | CES33 = 97 | CES58 = 94 | CES83 = 96 |
| CES09 = 29 | CES34 = 97 | CES59 = 97 | CES84 = 96 |
| CES10 = 77 | CES35 = 98 | CES60 = 94 | CES85 = 83 |
| CES11 = 59 | CES36 = 85 | CES61 = 94 | CES86 = 84 |
| CES12 = 66 | CES37 = 96 | CES62 = 89 | CES87 = 93 |
| CES13 = 44 | CES38 = 88 | CES63 = 95 | CES88 = 95 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 86 |
| CES15 = 72 | CES40 = 98 | CES65 = 90 | CES90 = 95 |
| CES16 = 48 | CES41 = 96 | CES66 = 90 | CES91 = 82 |
| CES17 = 50 | CES42 = 98 | CES67 = 89 | CES92 = 82 |
| CES18 = 57 | CES43 = 97 | CES68 = 91 | CES93 = 89 |
| CES19 = 72 | CES44 = 99 | CES69 = 92 | CES94 = 80 |
| CES20 = 68 | CES45 = 99 | CES70 = 90 | CES95 = 87 |
| CES21 = 87 | CES46 = 97 | CES71 = 87 | CES96 = 93 |
| CES22 = 79 | CES47 = 93 | CES72 = 96 | CES97 = 96 |
| CES23 = 92 | CES48 = 91 | CES73 = 87 | CES98 = 94 |
| CES24 = 91 | CES49 = 97 | CES74 = 90 | CES99 = 91 |
| CES25 = 72 | CES50 = 97 | CES75 = 89 | |



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Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)