

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: METALUX

Report Number: P976941

Luminaire Tested: 24SR-LD2-C-53-UNV-L835-CD1-SO-U

Issue Date: 03/18/2025

Test Information

Test Method: LM-79-2019
Report Number: P976941
Test Lab: INNOVATION CENTER(P3)
Issue Date: 03/18/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24SR-LD2-C-53-UNV-L835-CD1-SO-U
Description: METALUX SKYRIDGE 2x4 5300LM PACKAGE 80CRI 3500K TROFFER with Storaro Orange SKYTR
Light Source: 3500K CCT, 80+ CRI LEDS
Ballast/Driver: -

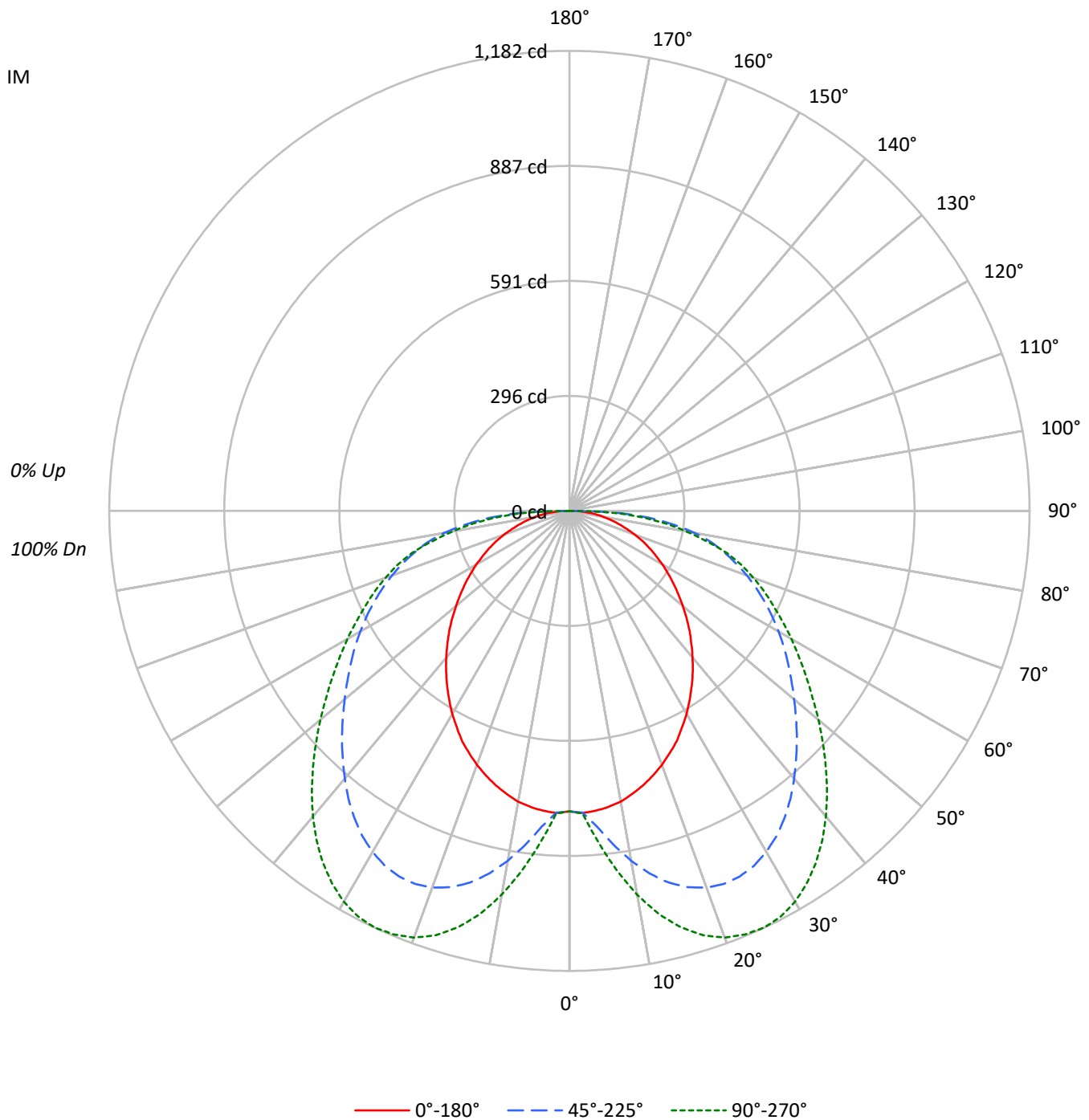
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3568.0 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.85 / 1.72
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

TEST NUMBER: P976941
CATALOG NUMBER: 24SR-LD2-C-53-UNV-L835-CD1-SO-U

Luminous Intensity Polar Plot





TEST NUMBER: P976941

CATALOG NUMBER: 24SR-LD2-C-53-UNV-L835-CD1-SO-U

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 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | 100 |
| 1 | 107 | 101 | 96 | 91 | 104 | 99 | 94 | 90 | 94 | 90 | 87 | 90 | 87 | 84 | 87 | 84 | 82 | 79 | 79 | 79 | 79 |
| 2 | 96 | 87 | 79 | 72 | 93 | 85 | 77 | 71 | 81 | 75 | 70 | 78 | 73 | 68 | 74 | 70 | 66 | 64 | 64 | 64 | 64 |
| 3 | 87 | 75 | 66 | 59 | 84 | 74 | 65 | 58 | 70 | 63 | 57 | 68 | 61 | 56 | 65 | 60 | 55 | 53 | 53 | 53 | 53 |
| 4 | 79 | 66 | 56 | 49 | 77 | 65 | 56 | 49 | 62 | 54 | 48 | 60 | 53 | 47 | 57 | 52 | 47 | 44 | 44 | 44 | 44 |
| 5 | 72 | 59 | 49 | 42 | 70 | 57 | 48 | 42 | 55 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 38 | 38 | 38 | 38 |
| 6 | 67 | 53 | 43 | 36 | 65 | 52 | 43 | 36 | 50 | 42 | 36 | 48 | 41 | 35 | 46 | 40 | 35 | 33 | 33 | 33 | 33 |
| 7 | 62 | 47 | 38 | 32 | 60 | 47 | 38 | 32 | 45 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | 29 | 29 | 29 |
| 8 | 57 | 43 | 34 | 28 | 56 | 42 | 34 | 28 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 27 | 25 | 25 | 25 | 25 |
| 9 | 53 | 39 | 31 | 25 | 52 | 39 | 31 | 25 | 38 | 30 | 25 | 37 | 30 | 25 | 35 | 29 | 24 | 23 | 23 | 23 | 23 |
| 10 | 50 | 36 | 28 | 23 | 49 | 36 | 28 | 22 | 35 | 27 | 22 | 34 | 27 | 22 | 33 | 27 | 22 | 20 | 20 | 20 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1039 | 1039 | 1039 |
| 5° | 1044 | 1099 | 1154 |
| 10° | 1036 | 1247 | 1368 |
| 15° | 1017 | 1378 | 1543 |
| 20° | 994 | 1475 | 1671 |
| 25° | 969 | 1538 | 1754 |
| 30° | 935 | 1571 | 1801 |
| 35° | 899 | 1582 | 1813 |
| 40° | 864 | 1577 | 1800 |
| 45° | 831 | 1572 | 1772 |
| 50° | 795 | 1577 | 1748 |
| 55° | 767 | 1609 | 1742 |
| 60° | 744 | 1669 | 1773 |
| 65° | 722 | 1763 | 1841 |
| 70° | 704 | 1907 | 1980 |
| 75° | 686 | 2141 | 2180 |
| 80° | 688 | 2532 | 2370 |
| 85° | 761 | 3179 | 2875 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 4035 cd/sqm



TEST NUMBER: P976941

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 80.1 | 2.2 |
| 10°-20° | 269.8 | 7.6 |
| 20°-30° | 451.7 | 12.7 |
| 30°-40° | 565.6 | 15.9 |
| 40°-50° | 593.4 | 16.6 |
| 50°-60° | 560.7 | 15.7 |
| 60°-70° | 490.8 | 13.8 |
| 70°-80° | 379.1 | 10.6 |
| 80°-90° | 176.9 | 5.0 |
| 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° | 801.6 | 22.5 |
| 0°-40° | 1367.2 | 38.3 |
| 0°-60° | 2521.3 | 70.7 |
| 0°-90° | 3568.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3568.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|------|-------|------|------|
| 0° | 772 | 772 | 772 | 772 | 772 | |
| 5° | 773 | 773 | 814 | 845 | 855 | 73 |
| 15° | 730 | 832 | 989 | 1078 | 1108 | 206 |
| 25° | 652 | 837 | 1036 | 1141 | 1182 | 300 |
| 35° | 548 | 765 | 963 | 1067 | 1104 | 343 |
| 45° | 437 | 649 | 826 | 906 | 931 | 337 |
| 55° | 327 | 539 | 686 | 730 | 742 | 293 |
| 65° | 227 | 442 | 554 | 569 | 578 | 225 |
| 75° | 132 | 330 | 412 | 416 | 419 | 140 |
| 85° | 49 | 174 | 206 | 191 | 186 | 52 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P976941

CATALOG NUMBER: 24SR-LD2-C-53-UNV-L835-CD1-SO-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 0° | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 |
| 2.5° | 777.0 | 775.8 | 774.5 | 772.0 | 770.9 | 770.9 | 770.9 | 770.9 | 772.0 | 775.8 | 778.2 |
| 5° | 773.3 | 773.3 | 770.9 | 769.5 | 770.9 | 774.5 | 780.6 | 790.6 | 800.4 | 814.0 | 825.1 |
| 7.5° | 767.2 | 765.9 | 764.7 | 765.9 | 777.0 | 793.1 | 809.0 | 827.6 | 844.9 | 864.6 | 880.5 |
| 10° | 758.6 | 757.2 | 758.6 | 768.4 | 790.6 | 816.5 | 839.9 | 863.3 | 886.7 | 912.6 | 934.8 |
| 12.5° | 745.0 | 745.0 | 749.8 | 772.0 | 802.9 | 834.9 | 865.8 | 895.3 | 925.0 | 954.6 | 980.5 |
| 15° | 730.2 | 731.4 | 743.6 | 775.8 | 814.0 | 851.0 | 886.7 | 921.4 | 955.9 | 989.1 | 1017.5 |
| 17.5° | 712.9 | 715.3 | 736.3 | 775.8 | 819.0 | 862.1 | 902.8 | 941.0 | 978.0 | 1013.8 | 1043.3 |
| 20° | 694.3 | 696.8 | 727.7 | 773.3 | 821.5 | 868.3 | 911.4 | 953.4 | 992.9 | 1029.9 | 1060.6 |
| 22.5° | 673.4 | 677.1 | 716.6 | 765.9 | 819.0 | 869.4 | 913.9 | 957.1 | 997.7 | 1037.2 | 1068.1 |
| 25° | 652.4 | 657.3 | 703.0 | 756.1 | 811.5 | 863.3 | 910.3 | 953.4 | 996.6 | 1036.0 | 1066.7 |
| 27.5° | 626.5 | 635.1 | 686.9 | 741.1 | 800.4 | 852.2 | 899.1 | 944.8 | 987.9 | 1027.4 | 1058.1 |
| 30° | 601.9 | 613.0 | 667.3 | 723.9 | 784.5 | 836.2 | 883.0 | 928.7 | 971.8 | 1011.3 | 1042.2 |
| 32.5° | 574.7 | 588.3 | 645.1 | 704.3 | 763.4 | 814.0 | 862.1 | 907.8 | 950.9 | 990.4 | 1020.0 |
| 35° | 547.6 | 563.6 | 621.7 | 682.1 | 740.0 | 790.6 | 837.4 | 883.0 | 925.0 | 963.2 | 991.6 |
| 37.5° | 520.4 | 537.7 | 595.8 | 657.3 | 712.9 | 762.2 | 809.0 | 853.5 | 896.6 | 932.3 | 960.7 |
| 40° | 492.1 | 511.8 | 569.7 | 629.0 | 684.6 | 732.5 | 779.5 | 822.6 | 863.3 | 897.8 | 925.0 |
| 42.5° | 463.7 | 485.9 | 543.8 | 601.9 | 654.9 | 701.8 | 748.6 | 790.6 | 828.8 | 862.1 | 888.0 |
| 45° | 436.6 | 458.9 | 515.5 | 573.5 | 625.3 | 672.1 | 717.7 | 758.6 | 795.4 | 826.3 | 851.0 |
| 47.5° | 408.2 | 433.0 | 489.6 | 546.3 | 595.8 | 642.6 | 686.9 | 725.2 | 760.9 | 789.3 | 812.8 |
| 50° | 379.9 | 406.9 | 462.5 | 517.9 | 568.6 | 614.2 | 657.3 | 694.3 | 727.7 | 753.6 | 775.8 |
| 52.5° | 352.7 | 381.0 | 437.8 | 492.1 | 541.5 | 587.1 | 629.0 | 664.8 | 695.7 | 719.1 | 738.8 |
| 55° | 326.8 | 356.5 | 413.2 | 466.2 | 516.8 | 561.1 | 600.6 | 635.1 | 663.5 | 685.7 | 703.0 |
| 57.5° | 300.9 | 333.1 | 389.7 | 443.9 | 492.1 | 536.5 | 574.7 | 606.7 | 632.6 | 653.7 | 668.5 |
| 60° | 276.3 | 309.5 | 367.6 | 420.5 | 468.7 | 511.8 | 548.8 | 578.3 | 603.1 | 620.3 | 631.5 |
| 62.5° | 250.4 | 286.1 | 344.0 | 398.3 | 446.4 | 487.2 | 522.9 | 551.3 | 572.2 | 587.1 | 596.9 |
| 65° | 226.9 | 262.7 | 321.9 | 376.2 | 421.9 | 461.2 | 494.5 | 521.8 | 541.5 | 553.8 | 559.9 |
| 67.5° | 203.5 | 240.5 | 299.7 | 352.7 | 397.1 | 435.3 | 466.2 | 492.1 | 509.3 | 519.3 | 524.1 |
| 70° | 178.9 | 218.2 | 276.3 | 328.1 | 371.2 | 406.9 | 437.8 | 460.0 | 476.1 | 484.8 | 487.2 |
| 72.5° | 154.2 | 194.8 | 252.9 | 303.4 | 344.0 | 378.7 | 406.9 | 428.0 | 442.8 | 448.9 | 450.2 |
| 75° | 131.9 | 170.3 | 226.9 | 275.0 | 314.5 | 346.5 | 374.9 | 394.6 | 405.8 | 411.9 | 413.2 |
| 77.5° | 109.7 | 146.7 | 201.0 | 246.6 | 281.1 | 312.0 | 339.2 | 357.6 | 368.7 | 373.7 | 373.7 |
| 80° | 88.8 | 123.3 | 172.6 | 213.4 | 246.6 | 275.0 | 299.7 | 318.1 | 328.1 | 326.8 | 321.9 |
| 82.5° | 69.0 | 101.1 | 143.1 | 178.9 | 208.4 | 234.3 | 259.1 | 270.2 | 273.8 | 270.2 | 266.4 |
| 85° | 49.3 | 75.2 | 108.5 | 138.1 | 164.0 | 183.7 | 199.8 | 208.4 | 209.6 | 205.9 | 202.3 |
| 87.5° | 28.4 | 42.0 | 61.7 | 83.8 | 97.4 | 109.7 | 123.3 | 128.3 | 128.3 | 130.8 | 123.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P976941

CATALOG NUMBER: 24SR-LD2-C-53-UNV-L835-CD1-SO-U

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 | 772.0 |
| 2.5° | 777.0 | 778.2 | 778.2 | 780.6 | 782.0 | 782.0 | 780.6 | 778.2 |
| 5° | 828.8 | 836.2 | 841.1 | 848.5 | 852.2 | 856.0 | 857.1 | 854.7 |
| 7.5° | 889.2 | 900.3 | 910.3 | 921.4 | 926.2 | 930.0 | 934.8 | 931.2 |
| 10° | 947.3 | 962.0 | 974.3 | 986.6 | 994.1 | 999.0 | 1002.7 | 1001.5 |
| 12.5° | 996.6 | 1013.8 | 1027.4 | 1039.7 | 1049.5 | 1057.0 | 1060.6 | 1060.6 |
| 15° | 1034.7 | 1054.5 | 1071.7 | 1085.3 | 1095.1 | 1102.6 | 1107.6 | 1107.6 |
| 17.5° | 1064.4 | 1084.0 | 1102.6 | 1116.2 | 1126.0 | 1136.0 | 1140.8 | 1143.3 |
| 20° | 1081.7 | 1102.6 | 1121.0 | 1136.0 | 1147.1 | 1158.0 | 1163.0 | 1166.7 |
| 22.5° | 1090.3 | 1111.2 | 1131.0 | 1147.1 | 1159.4 | 1169.1 | 1175.3 | 1177.8 |
| 25° | 1090.3 | 1112.4 | 1133.5 | 1149.4 | 1161.8 | 1173.0 | 1179.1 | 1181.6 |
| 27.5° | 1082.8 | 1106.2 | 1127.3 | 1142.1 | 1155.7 | 1166.7 | 1173.0 | 1175.3 |
| 30° | 1068.1 | 1091.5 | 1112.4 | 1127.3 | 1140.8 | 1150.7 | 1156.9 | 1159.4 |
| 32.5° | 1044.7 | 1069.2 | 1089.0 | 1103.8 | 1117.4 | 1127.3 | 1133.5 | 1134.6 |
| 35° | 1017.5 | 1040.9 | 1059.4 | 1074.2 | 1087.8 | 1096.5 | 1101.4 | 1103.8 |
| 37.5° | 984.3 | 1006.3 | 1024.9 | 1038.5 | 1050.8 | 1060.6 | 1065.6 | 1066.7 |
| 40° | 948.4 | 969.3 | 985.4 | 997.7 | 1010.2 | 1018.8 | 1023.6 | 1024.9 |
| 42.5° | 910.3 | 930.0 | 944.8 | 955.9 | 966.8 | 974.3 | 978.0 | 979.3 |
| 45° | 870.8 | 888.0 | 901.6 | 911.4 | 921.4 | 927.5 | 931.2 | 931.2 |
| 47.5° | 831.3 | 847.4 | 858.3 | 865.8 | 874.4 | 880.5 | 884.4 | 883.0 |
| 50° | 791.8 | 805.4 | 814.0 | 821.5 | 828.8 | 832.4 | 836.2 | 834.9 |
| 52.5° | 752.3 | 764.7 | 769.5 | 775.8 | 782.0 | 785.6 | 789.3 | 786.8 |
| 55° | 714.1 | 722.7 | 727.7 | 732.5 | 737.5 | 741.1 | 743.6 | 742.5 |
| 57.5° | 677.1 | 683.2 | 686.9 | 691.9 | 695.7 | 698.0 | 700.5 | 699.3 |
| 60° | 637.6 | 642.6 | 645.1 | 650.0 | 653.7 | 656.2 | 658.7 | 658.7 |
| 62.5° | 600.6 | 604.4 | 605.6 | 610.5 | 613.0 | 615.4 | 619.2 | 617.8 |
| 65° | 561.1 | 564.9 | 567.4 | 571.0 | 573.5 | 576.0 | 579.7 | 578.3 |
| 67.5° | 524.1 | 527.9 | 529.1 | 532.9 | 536.5 | 540.2 | 541.5 | 541.5 |
| 70° | 487.2 | 489.6 | 490.9 | 495.9 | 497.0 | 500.7 | 503.2 | 503.2 |
| 72.5° | 450.2 | 451.4 | 453.9 | 457.5 | 460.0 | 462.5 | 465.0 | 463.7 |
| 75° | 410.7 | 413.2 | 414.4 | 416.9 | 416.9 | 419.4 | 419.4 | 419.4 |
| 77.5° | 370.1 | 366.3 | 365.1 | 363.8 | 362.6 | 362.6 | 362.6 | 361.3 |
| 80° | 314.5 | 310.8 | 309.5 | 307.2 | 307.2 | 307.2 | 307.2 | 305.9 |
| 82.5° | 260.2 | 255.2 | 252.9 | 251.6 | 250.4 | 250.4 | 250.4 | 249.1 |
| 85° | 197.3 | 192.3 | 191.2 | 189.9 | 189.9 | 188.7 | 187.5 | 186.2 |
| 87.5° | 122.1 | 118.3 | 117.2 | 114.7 | 116.0 | 113.5 | 113.5 | 113.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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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 | 11.9 | 13.7 | 12.3 | 14.0 | 14.3 | 14.5 | 16.3 | 14.9 | 16.6 | 16.9 |
| | 3H | 13.8 | 15.4 | 14.2 | 15.7 | 16.1 | 17.0 | 18.6 | 17.4 | 18.9 | 19.3 |
| | 4H | 14.5 | 16.0 | 14.9 | 16.4 | 16.8 | 18.1 | 19.6 | 18.5 | 20.0 | 20.4 |
| | 6H | 15.1 | 16.5 | 15.5 | 16.9 | 17.2 | 19.2 | 20.6 | 19.6 | 20.9 | 21.3 |
| | 8H | 15.3 | 16.6 | 15.7 | 17.0 | 17.4 | 19.6 | 21.0 | 20.0 | 21.3 | 21.7 |
| | 12H | 15.4 | 16.7 | 15.9 | 17.1 | 17.6 | 20.0 | 21.3 | 20.4 | 21.7 | 22.1 |
| 4H | 2H | 13.5 | 15.0 | 13.9 | 15.3 | 15.7 | 15.3 | 16.8 | 15.7 | 17.1 | 17.5 |
| | 3H | 15.9 | 17.1 | 16.3 | 17.5 | 17.9 | 18.0 | 19.3 | 18.4 | 19.7 | 20.1 |
| | 4H | 16.9 | 18.1 | 17.3 | 18.5 | 18.9 | 19.3 | 20.5 | 19.7 | 20.9 | 21.3 |
| | 6H | 17.7 | 18.8 | 18.2 | 19.2 | 19.7 | 20.5 | 21.6 | 21.0 | 22.0 | 22.5 |
| | 8H | 18.0 | 19.0 | 18.5 | 19.5 | 19.9 | 21.1 | 22.0 | 21.5 | 22.5 | 22.9 |
| | 12H | 18.3 | 19.2 | 18.8 | 19.6 | 20.1 | 21.5 | 22.4 | 22.0 | 22.9 | 23.4 |
| 8H | 4H | 18.0 | 18.9 | 18.4 | 19.4 | 19.8 | 19.8 | 20.8 | 20.3 | 21.3 | 21.7 |
| | 6H | 19.2 | 20.1 | 19.7 | 20.5 | 21.0 | 21.3 | 22.1 | 21.7 | 22.6 | 23.0 |
| | 8H | 19.8 | 20.5 | 20.3 | 21.0 | 21.5 | 21.9 | 22.7 | 22.4 | 23.2 | 23.7 |
| | 12H | 20.2 | 20.9 | 20.7 | 21.4 | 21.9 | 22.6 | 23.2 | 23.1 | 23.7 | 24.3 |
| 12H | 4H | 18.2 | 19.1 | 18.6 | 19.5 | 20.0 | 19.9 | 20.8 | 20.4 | 21.3 | 21.8 |
| | 6H | 19.6 | 20.3 | 20.1 | 20.8 | 21.3 | 21.5 | 22.2 | 22.0 | 22.7 | 23.2 |
| | 8H | 20.3 | 21.0 | 20.8 | 21.5 | 22.0 | 22.2 | 22.9 | 22.7 | 23.4 | 23.9 |

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-457-6

Test Date: 07/01/2025

Luminaire Tested: 24SR-LD2-64-C-UNV-L935-CD1-U

Data in this report applies to families of products including 24SR-LD2-64-C-UNV-L935-CD1-U

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-457-6
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 07/02/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Metalux
 Catalog Number: **24SR-LD2-64-C-UNV-L935-CD1-U**
 Description: 2X4 SKYRIDGE 6400LM Fixture with new LTN chip

Spectral Parameters

CCT (K): 3329
 CIE u': 0.2411
 CIE v': 0.5118
 Duv: -0.0021
 CIE x: 0.4128
 CIE y: 0.3894
 CIE z: 0.1979
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 582
 Purity: 40.74075
 Rf: 91.4
 Rg: 100.2

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 93.9 | | |
| R1: | 95.4 | R9: | 60.5 |
| R2: | 97.4 | R10: | 92.5 |
| R3: | 97.7 | R11: | 95.9 |
| R4: | 94.9 | R12: | 82.0 |
| R5: | 95.1 | R13: | 96.0 |
| R6: | 95.7 | R14: | 98.0 |
| R7: | 91.7 | R15: | 91.5 |
| R8: | 83.2 | | |



Test Conditions

Stabilization Time: 48M
 Operation Time: 1H 48M
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2506-457-6

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 6/16/2025 | 12/16/2025 |
| Power Meter | XITRON INXT2011004 | 1/21/2025 | 1/21/2026 |
| AC Power Source | CHROMA 61603 IN0063 | 10/22/2024 | 10/22/2025 |
| DC Power Source | AGILENT E3634A IN0208 | 10/22/2024 | 10/22/2025 |
| Sphere Thermometer | ONSET IN0085 | 10/22/2024 | 10/22/2025 |
| Room Thermometer | ONSET IN0046 | 10/22/2024 | 10/22/2025 |

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CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2506-457-6

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 | 143 | NR | 620 | 358 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 166 | NR | 625 | 357 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 191 | NR | 630 | 1000 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 210 | NR | 635 | 705 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 223 | NR | 640 | 239 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 233 | NR | 645 | 226 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 240 | NR | 650 | 201 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 246 | NR | 655 | 170 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 251 | NR | 660 | 145 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 260 | NR | 665 | 123 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 6 | NR | 540 | 267 | NR | 670 | 113 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 9 | NR | 545 | 276 | NR | 675 | 93 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 16 | NR | 550 | 284 | NR | 680 | 80 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 28 | NR | 555 | 294 | NR | 685 | 69 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 46 | NR | 560 | 303 | NR | 690 | 59 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 75 | NR | 565 | 313 | NR | 695 | 51 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 120 | NR | 570 | 319 | NR | 700 | 43 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 203 | NR | 575 | 327 | NR | 705 | 37 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 311 | NR | 580 | 336 | NR | 710 | 31 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 290 | NR | 585 | 344 | NR | 715 | 26 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 197 | NR | 590 | 349 | NR | 720 | 22 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 163 | NR | 595 | 350 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 135 | NR | 600 | 355 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 110 | NR | 605 | 357 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 108 | NR | 610 | 391 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 123 | NR | 615 | 421 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-457-6

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.57

| 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 | 143 | NR | 620 | 358 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 166 | NR | 625 | 357 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 191 | NR | 630 | 1000 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 210 | NR | 635 | 705 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 223 | NR | 640 | 239 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 233 | NR | 645 | 226 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 240 | NR | 650 | 201 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 246 | NR | 655 | 170 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 251 | NR | 660 | 145 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 260 | NR | 665 | 123 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 6 | NR | 540 | 267 | NR | 670 | 113 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 9 | NR | 545 | 276 | NR | 675 | 93 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 16 | NR | 550 | 284 | NR | 680 | 80 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 28 | NR | 555 | 294 | NR | 685 | 69 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 46 | NR | 560 | 303 | NR | 690 | 59 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 75 | NR | 565 | 313 | NR | 695 | 51 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 120 | NR | 570 | 319 | NR | 700 | 43 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 203 | NR | 575 | 327 | NR | 705 | 37 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 311 | NR | 580 | 336 | NR | 710 | 31 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 290 | NR | 585 | 344 | NR | 715 | 26 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 197 | NR | 590 | 349 | NR | 720 | 22 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 163 | NR | 595 | 350 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 135 | NR | 600 | 355 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 110 | NR | 605 | 357 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 108 | NR | 610 | 391 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 123 | NR | 615 | 421 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-457-6

Melanopic Flux vs. Wavelength



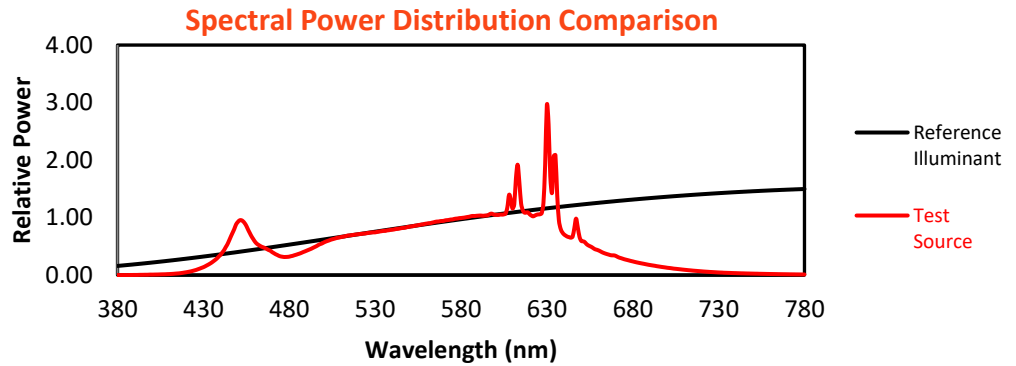
Melanopic Lumens: NR

M/P: 3.17

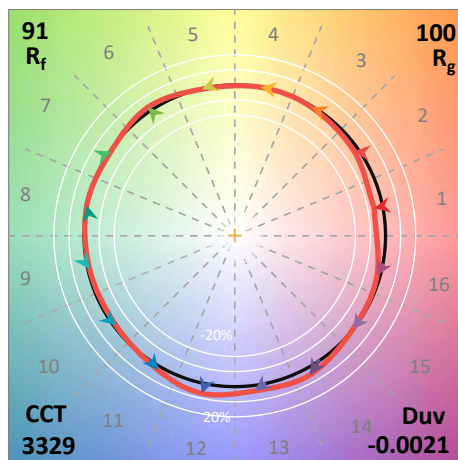
| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 143 | NR | 620 | 358 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 166 | NR | 625 | 357 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 191 | NR | 630 | 1000 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 210 | NR | 635 | 705 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 223 | NR | 640 | 239 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 233 | NR | 645 | 226 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 240 | NR | 650 | 201 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 246 | NR | 655 | 170 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 251 | NR | 660 | 145 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 260 | NR | 665 | 123 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 6 | NR | 540 | 267 | NR | 670 | 113 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 9 | NR | 545 | 276 | NR | 675 | 93 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 16 | NR | 550 | 284 | NR | 680 | 80 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 28 | NR | 555 | 294 | NR | 685 | 69 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 46 | NR | 560 | 303 | NR | 690 | 59 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 75 | NR | 565 | 313 | NR | 695 | 51 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 120 | NR | 570 | 319 | NR | 700 | 43 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 203 | NR | 575 | 327 | NR | 705 | 37 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 311 | NR | 580 | 336 | NR | 710 | 31 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 290 | NR | 585 | 344 | NR | 715 | 26 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 197 | NR | 590 | 349 | NR | 720 | 22 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 163 | NR | 595 | 350 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 135 | NR | 600 | 355 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 110 | NR | 605 | 357 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 108 | NR | 610 | 391 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 123 | NR | 615 | 421 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 91.4$
 $R_g = 100.2$
 $CIE R_a = 93.9$
 $R_9 = 60.5$



Color Vector Graphics

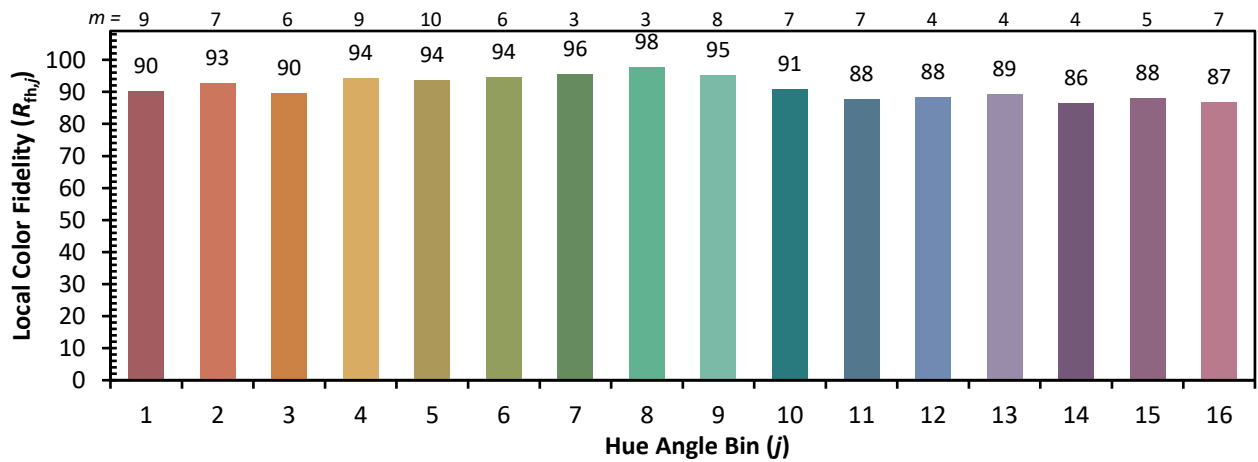


Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 93 | CES51 = 98 | CES76 = 88 |
| CES02 = 63 | CES27 = 93 | CES52 = 98 | CES77 = 87 |
| CES03 = 31 | CES28 = 96 | CES53 = 97 | CES78 = 85 |
| CES04 = 70 | CES29 = 95 | CES54 = 95 | CES79 = 91 |
| CES05 = 50 | CES30 = 96 | CES55 = 94 | CES80 = 92 |
| CES06 = 51 | CES31 = 95 | CES56 = 96 | CES81 = 75 |
| CES07 = 43 | CES32 = 87 | CES57 = 95 | CES82 = 96 |
| CES08 = 42 | CES33 = 97 | CES58 = 96 | CES83 = 94 |
| CES09 = 29 | CES34 = 94 | CES59 = 98 | CES84 = 95 |
| CES10 = 75 | CES35 = 96 | CES60 = 94 | CES85 = 80 |
| CES11 = 58 | CES36 = 84 | CES61 = 93 | CES86 = 79 |
| CES12 = 64 | CES37 = 95 | CES62 = 89 | CES87 = 91 |
| CES13 = 44 | CES38 = 91 | CES63 = 94 | CES88 = 97 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 83 |
| CES15 = 72 | CES40 = 97 | CES65 = 90 | CES90 = 98 |
| CES16 = 48 | CES41 = 97 | CES66 = 90 | CES91 = 77 |
| CES17 = 49 | CES42 = 93 | CES67 = 89 | CES92 = 77 |
| CES18 = 56 | CES43 = 92 | CES68 = 89 | CES93 = 86 |
| CES19 = 71 | CES44 = 99 | CES69 = 91 | CES94 = 74 |
| CES20 = 67 | CES45 = 96 | CES70 = 88 | CES95 = 84 |
| CES21 = 86 | CES46 = 96 | CES71 = 84 | CES96 = 92 |
| CES22 = 78 | CES47 = 91 | CES72 = 94 | CES97 = 95 |
| CES23 = 91 | CES48 = 94 | CES73 = 83 | CES98 = 94 |
| CES24 = 90 | CES49 = 94 | CES74 = 91 | CES99 = 92 |
| CES25 = 71 | CES50 = 98 | CES75 = 86 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)