

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: P976711

Luminaire Tested: 24SR-LD2-C-64-UNV-L930-CD1-BR-U

Issue Date: 03/18/2025

Test Information

Test Method: LM-79-2019
Report Number: P976711
Test Lab: INNOVATION CENTER(P3)
Issue Date: 03/18/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24SR-LD2-C-64-UNV-L930-CD1-BR-U
Description: METALUX SKYRIDGE 2x4 6400LM PACKAGE 90CRI 3000K TROFFER with Belladonna Rose SKYT
Light Source: 3000K CCT, 90+ CRI LEDS
Ballast/Driver: -

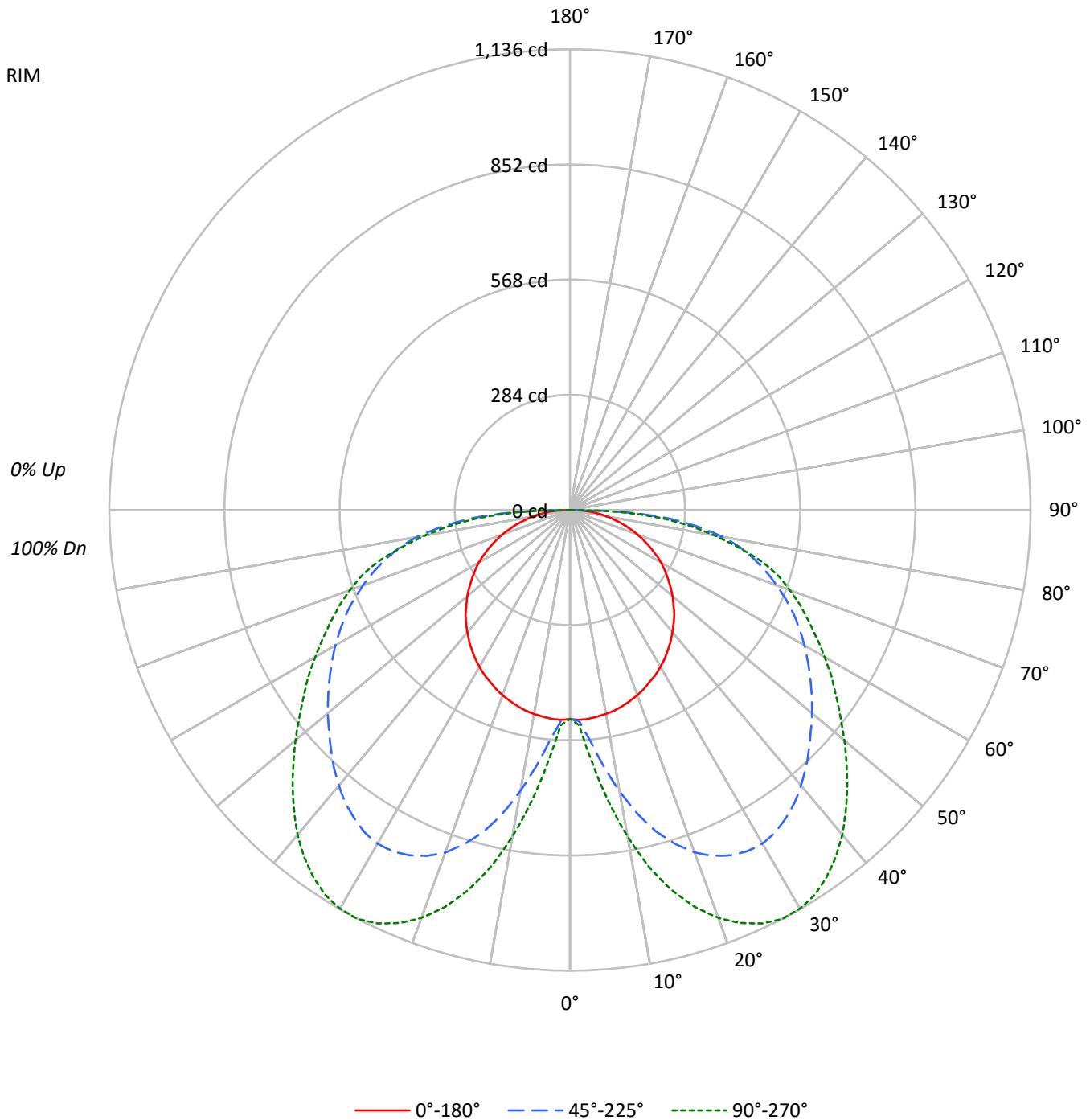
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3574.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 2.29 / 2.08
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 47.6
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: P976711
CATALOG NUMBER: 24SR-LD2-C-64-UNV-L930-CD1-BR-U

Luminous Intensity Polar Plot





TEST NUMBER: P976711

CATALOG NUMBER: 24SR-LD2-C-64-UNV-L930-CD1-BR-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 | 102 | 102 | 102 | 100 |
| 1 | 106 | 100 | 94 | 90 | 103 | 97 | 93 | 88 | 93 | 89 | 85 | 89 | 86 | 83 | 85 | 83 | 80 | 85 | 83 | 80 | 78 |
| 2 | 95 | 85 | 77 | 70 | 92 | 83 | 75 | 69 | 79 | 73 | 67 | 76 | 70 | 66 | 73 | 68 | 64 | 73 | 68 | 64 | 62 |
| 3 | 85 | 73 | 64 | 56 | 83 | 71 | 63 | 56 | 68 | 61 | 55 | 65 | 59 | 54 | 63 | 57 | 53 | 63 | 57 | 53 | 50 |
| 4 | 77 | 64 | 54 | 46 | 75 | 62 | 53 | 46 | 60 | 52 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 55 | 49 | 44 | 41 |
| 5 | 71 | 56 | 46 | 39 | 68 | 55 | 46 | 39 | 53 | 45 | 38 | 51 | 44 | 38 | 49 | 42 | 37 | 49 | 42 | 37 | 35 |
| 6 | 65 | 50 | 40 | 33 | 63 | 49 | 40 | 33 | 47 | 39 | 33 | 46 | 38 | 33 | 44 | 37 | 32 | 44 | 37 | 32 | 30 |
| 7 | 60 | 45 | 36 | 29 | 58 | 44 | 35 | 29 | 43 | 35 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 40 | 33 | 28 | 26 |
| 8 | 56 | 41 | 32 | 25 | 54 | 40 | 31 | 25 | 39 | 31 | 25 | 38 | 30 | 25 | 36 | 30 | 25 | 36 | 30 | 25 | 23 |
| 9 | 52 | 37 | 29 | 23 | 50 | 37 | 28 | 22 | 36 | 28 | 22 | 34 | 27 | 22 | 33 | 27 | 22 | 33 | 27 | 22 | 20 |
| 10 | 48 | 34 | 26 | 20 | 47 | 34 | 26 | 20 | 33 | 25 | 20 | 32 | 25 | 20 | 31 | 24 | 20 | 31 | 24 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-----|------|------|
| 0° | 693 | 693 | 693 |
| 5° | 698 | 769 | 843 |
| 10° | 698 | 961 | 1117 |
| 15° | 697 | 1143 | 1352 |
| 20° | 696 | 1286 | 1532 |
| 25° | 693 | 1395 | 1669 |
| 30° | 693 | 1476 | 1763 |
| 35° | 692 | 1524 | 1813 |
| 40° | 691 | 1557 | 1836 |
| 45° | 693 | 1587 | 1841 |
| 50° | 691 | 1632 | 1850 |
| 55° | 692 | 1698 | 1880 |
| 60° | 699 | 1798 | 1952 |
| 65° | 697 | 1940 | 2070 |
| 70° | 699 | 2137 | 2270 |
| 75° | 702 | 2449 | 2542 |
| 80° | 728 | 2968 | 2809 |
| 85° | 838 | 3829 | 3466 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 4667 cd/sqm



TEST NUMBER: P976711
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 57.9 | 1.6 |
| 10°-20° | 221.0 | 6.2 |
| 20°-30° | 404.0 | 11.3 |
| 30°-40° | 537.3 | 15.0 |
| 40°-50° | 591.5 | 16.6 |
| 50°-60° | 586.3 | 16.4 |
| 60°-70° | 536.7 | 15.0 |
| 70°-80° | 432.1 | 12.1 |
| 80°-90° | 207.3 | 5.8 |
| 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° | 682.8 | 19.1 |
| 0°-40° | 1220.1 | 34.1 |
| 0°-60° | 2397.8 | 67.1 |
| 0°-90° | 3574.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3574.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|------|------|
| 0° | 515 | 515 | 515 | 515 | 515 | |
| 5° | 517 | 521 | 570 | 608 | 624 | 49 |
| 15° | 501 | 630 | 821 | 930 | 970 | 141 |
| 25° | 467 | 700 | 940 | 1075 | 1124 | 216 |
| 35° | 421 | 688 | 928 | 1058 | 1104 | 264 |
| 45° | 364 | 620 | 834 | 934 | 967 | 280 |
| 55° | 295 | 547 | 724 | 784 | 802 | 264 |
| 65° | 219 | 473 | 609 | 636 | 650 | 217 |
| 75° | 135 | 368 | 471 | 484 | 489 | 142 |
| 85° | 54 | 201 | 248 | 228 | 224 | 56 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P976711
 CATALOG NUMBER: 24SR-LD2-C-64-UNV-L930-CD1-BR-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 |
| 2.5° | 518.1 | 518.1 | 516.7 | 516.7 | 516.7 | 516.7 | 516.7 | 516.7 | 518.1 | 521.1 | 522.7 |
| 5° | 516.7 | 516.7 | 516.7 | 516.7 | 518.1 | 524.1 | 531.4 | 543.2 | 554.9 | 569.7 | 582.7 |
| 7.5° | 513.8 | 513.8 | 513.8 | 518.1 | 531.4 | 551.9 | 571.1 | 593.0 | 615.1 | 637.0 | 654.8 |
| 10° | 510.8 | 510.8 | 513.8 | 530.0 | 556.4 | 587.2 | 616.5 | 645.9 | 673.7 | 703.1 | 728.0 |
| 12.5° | 506.5 | 506.5 | 515.2 | 544.6 | 582.7 | 621.0 | 659.1 | 694.3 | 729.6 | 766.3 | 794.2 |
| 15° | 500.6 | 500.6 | 519.7 | 559.2 | 606.2 | 653.2 | 697.2 | 739.9 | 780.9 | 820.6 | 851.4 |
| 17.5° | 493.3 | 496.2 | 524.1 | 574.0 | 626.7 | 681.2 | 729.6 | 778.0 | 822.0 | 863.1 | 899.8 |
| 20° | 485.9 | 490.3 | 528.4 | 585.7 | 644.5 | 704.5 | 757.5 | 807.4 | 854.4 | 898.4 | 936.5 |
| 22.5° | 477.1 | 483.0 | 531.4 | 594.5 | 657.7 | 720.7 | 776.6 | 829.3 | 879.3 | 923.3 | 963.0 |
| 25° | 466.8 | 475.7 | 532.9 | 598.9 | 668.0 | 731.0 | 788.3 | 842.6 | 893.9 | 939.5 | 979.2 |
| 27.5° | 457.9 | 469.8 | 531.4 | 601.9 | 672.3 | 736.9 | 795.6 | 849.9 | 902.8 | 948.4 | 989.5 |
| 30° | 446.3 | 460.9 | 528.4 | 600.5 | 670.8 | 736.9 | 794.2 | 849.9 | 902.8 | 949.8 | 989.5 |
| 32.5° | 434.6 | 452.2 | 521.1 | 594.5 | 666.4 | 729.6 | 788.3 | 844.1 | 895.5 | 942.5 | 980.6 |
| 35° | 421.4 | 441.9 | 512.4 | 585.7 | 656.2 | 719.3 | 776.6 | 830.9 | 883.6 | 927.7 | 966.0 |
| 37.5° | 408.1 | 430.1 | 500.6 | 574.0 | 642.9 | 704.5 | 760.4 | 814.7 | 864.7 | 910.1 | 945.4 |
| 40° | 393.3 | 418.4 | 488.9 | 560.8 | 626.7 | 687.0 | 742.8 | 795.6 | 844.1 | 886.6 | 920.4 |
| 42.5° | 378.7 | 405.2 | 475.7 | 546.2 | 610.7 | 668.0 | 723.7 | 773.6 | 820.6 | 861.7 | 892.5 |
| 45° | 364.1 | 390.6 | 459.5 | 530.0 | 591.6 | 648.8 | 701.8 | 751.5 | 795.6 | 833.9 | 863.1 |
| 47.5° | 346.3 | 375.8 | 444.9 | 512.4 | 572.4 | 629.7 | 681.2 | 728.0 | 772.1 | 805.8 | 833.9 |
| 50° | 330.3 | 361.2 | 428.7 | 494.6 | 553.5 | 610.7 | 660.5 | 706.1 | 747.2 | 779.6 | 804.4 |
| 52.5° | 312.8 | 345.0 | 412.5 | 478.6 | 537.3 | 591.6 | 641.5 | 684.0 | 720.7 | 751.5 | 775.0 |
| 55° | 295.0 | 328.8 | 397.9 | 460.9 | 519.7 | 574.0 | 621.0 | 662.1 | 697.2 | 723.7 | 745.8 |
| 57.5° | 277.4 | 312.8 | 381.7 | 446.3 | 503.5 | 556.4 | 601.9 | 638.6 | 672.3 | 695.8 | 714.8 |
| 60° | 259.9 | 296.6 | 364.1 | 428.7 | 487.3 | 537.3 | 581.3 | 616.5 | 645.9 | 668.0 | 684.0 |
| 62.5° | 239.3 | 279.0 | 347.9 | 411.1 | 468.4 | 516.7 | 559.2 | 591.6 | 619.4 | 638.6 | 651.8 |
| 65° | 218.8 | 261.2 | 330.3 | 393.3 | 449.2 | 496.2 | 535.9 | 566.7 | 591.6 | 609.2 | 618.0 |
| 67.5° | 198.2 | 243.7 | 312.8 | 375.8 | 428.7 | 472.7 | 510.8 | 540.2 | 562.2 | 577.0 | 584.3 |
| 70° | 177.7 | 223.1 | 292.0 | 353.8 | 405.2 | 446.3 | 483.0 | 510.8 | 530.0 | 543.2 | 548.9 |
| 72.5° | 155.6 | 202.6 | 270.1 | 330.3 | 378.7 | 419.8 | 453.6 | 480.0 | 497.6 | 507.9 | 512.4 |
| 75° | 135.1 | 180.5 | 246.6 | 303.9 | 349.3 | 387.6 | 419.8 | 446.3 | 463.8 | 471.1 | 475.7 |
| 77.5° | 112.9 | 158.6 | 221.7 | 274.5 | 317.1 | 352.3 | 383.1 | 408.1 | 424.3 | 431.6 | 436.0 |
| 80° | 94.0 | 135.1 | 192.3 | 240.7 | 280.4 | 314.2 | 342.0 | 368.5 | 381.7 | 383.1 | 378.7 |
| 82.5° | 73.5 | 111.6 | 161.5 | 204.0 | 237.7 | 270.1 | 296.6 | 314.2 | 320.1 | 320.1 | 315.5 |
| 85° | 54.3 | 83.7 | 126.2 | 159.9 | 189.4 | 212.9 | 229.1 | 243.7 | 246.6 | 248.0 | 242.3 |
| 87.5° | 30.8 | 47.0 | 74.8 | 97.0 | 114.5 | 130.7 | 142.4 | 149.7 | 149.7 | 151.3 | 148.3 |
| 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: P976711

CATALOG NUMBER: 24SR-LD2-C-64-UNV-L930-CD1-BR-U

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 | 515.2 |
| 2.5° | 522.7 | 525.4 | 525.4 | 528.4 | 530.0 | 530.0 | 531.4 | 531.4 |
| 5° | 588.6 | 600.5 | 604.8 | 612.1 | 616.5 | 622.4 | 625.4 | 624.0 |
| 7.5° | 668.0 | 685.6 | 694.3 | 704.5 | 716.4 | 719.3 | 723.7 | 723.7 |
| 10° | 747.2 | 767.7 | 780.9 | 792.8 | 805.8 | 811.8 | 817.7 | 817.7 |
| 12.5° | 819.1 | 839.6 | 857.4 | 872.0 | 885.2 | 893.9 | 899.8 | 901.4 |
| 15° | 877.9 | 904.4 | 921.9 | 938.1 | 952.7 | 961.4 | 968.9 | 970.3 |
| 17.5° | 926.3 | 951.2 | 974.7 | 992.4 | 1005.5 | 1018.7 | 1023.2 | 1026.2 |
| 20° | 964.4 | 990.8 | 1015.9 | 1033.5 | 1048.1 | 1061.3 | 1067.3 | 1070.2 |
| 22.5° | 992.4 | 1020.3 | 1045.1 | 1064.3 | 1078.9 | 1092.1 | 1099.4 | 1102.4 |
| 25° | 1010.0 | 1039.2 | 1065.7 | 1084.8 | 1101.0 | 1114.3 | 1121.6 | 1124.5 |
| 27.5° | 1021.7 | 1051.1 | 1076.0 | 1095.1 | 1111.3 | 1124.5 | 1131.8 | 1136.2 |
| 30° | 1021.7 | 1051.1 | 1076.0 | 1095.1 | 1111.3 | 1124.5 | 1131.8 | 1134.8 |
| 32.5° | 1013.0 | 1042.2 | 1067.3 | 1084.8 | 1101.0 | 1114.3 | 1121.6 | 1124.5 |
| 35° | 996.8 | 1026.2 | 1049.7 | 1067.3 | 1083.5 | 1095.1 | 1102.4 | 1104.0 |
| 37.5° | 974.7 | 1002.7 | 1024.6 | 1042.2 | 1057.0 | 1068.6 | 1076.0 | 1077.5 |
| 40° | 949.8 | 976.2 | 996.8 | 1013.0 | 1026.2 | 1036.5 | 1043.8 | 1045.1 |
| 42.5° | 920.4 | 945.4 | 963.0 | 979.2 | 990.8 | 1001.1 | 1008.4 | 1007.0 |
| 45° | 889.6 | 913.0 | 927.7 | 940.9 | 954.1 | 961.4 | 967.3 | 967.3 |
| 47.5° | 858.7 | 877.9 | 891.1 | 902.8 | 913.0 | 920.4 | 924.9 | 924.9 |
| 50° | 826.6 | 842.6 | 854.4 | 864.7 | 873.4 | 879.3 | 883.6 | 883.6 |
| 52.5° | 794.2 | 808.8 | 817.7 | 826.6 | 833.9 | 838.2 | 842.6 | 841.2 |
| 55° | 761.8 | 773.6 | 779.6 | 788.3 | 794.2 | 800.1 | 803.1 | 801.5 |
| 57.5° | 729.6 | 736.9 | 742.8 | 750.1 | 756.1 | 761.8 | 763.4 | 764.8 |
| 60° | 694.3 | 701.8 | 706.1 | 713.4 | 719.3 | 723.7 | 726.6 | 725.3 |
| 62.5° | 660.5 | 665.0 | 669.4 | 675.3 | 679.7 | 685.6 | 687.0 | 687.0 |
| 65° | 624.0 | 628.3 | 632.7 | 638.6 | 642.9 | 648.8 | 651.8 | 650.2 |
| 67.5° | 588.6 | 593.0 | 597.5 | 601.9 | 607.8 | 613.7 | 615.1 | 615.1 |
| 70° | 551.9 | 556.4 | 559.2 | 565.1 | 569.7 | 575.4 | 577.0 | 577.0 |
| 72.5° | 516.7 | 519.7 | 522.7 | 528.4 | 531.4 | 535.9 | 538.7 | 538.7 |
| 75° | 477.1 | 480.0 | 483.0 | 485.9 | 487.3 | 488.9 | 490.3 | 488.9 |
| 77.5° | 433.0 | 430.1 | 427.1 | 427.1 | 424.3 | 425.7 | 427.1 | 425.7 |
| 80° | 372.8 | 369.8 | 367.1 | 365.5 | 362.5 | 362.5 | 364.1 | 362.5 |
| 82.5° | 309.8 | 303.9 | 300.9 | 299.5 | 296.6 | 296.6 | 296.6 | 296.6 |
| 85° | 233.4 | 230.4 | 229.1 | 226.1 | 223.1 | 221.7 | 223.1 | 224.5 |
| 87.5° | 145.3 | 142.4 | 139.4 | 136.4 | 135.1 | 133.7 | 136.4 | 132.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P976711
 CATALOG NUMBER: 24SR-LD2-C-64-UNV-L930-CD1-BR-U

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 | 12.0 | 13.8 | 12.4 | 14.1 | 14.4 | 15.0 | 16.8 | 15.4 | 17.1 | 17.4 |
| | 3H | 14.0 | 15.6 | 14.4 | 16.0 | 16.3 | 17.7 | 19.3 | 18.0 | 19.6 | 20.0 |
| | 4H | 14.8 | 16.3 | 15.2 | 16.7 | 17.0 | 18.9 | 20.5 | 19.3 | 20.8 | 21.2 |
| | 6H | 15.4 | 16.8 | 15.8 | 17.2 | 17.6 | 20.0 | 21.5 | 20.4 | 21.8 | 22.2 |
| | 8H | 15.6 | 17.0 | 16.0 | 17.4 | 17.8 | 20.5 | 21.9 | 20.9 | 22.3 | 22.7 |
| | 12H | 15.8 | 17.1 | 16.2 | 17.5 | 17.9 | 20.9 | 22.3 | 21.4 | 22.7 | 23.1 |
| 4H | 2H | 13.7 | 15.3 | 14.1 | 15.7 | 16.0 | 15.8 | 17.3 | 16.2 | 17.7 | 18.1 |
| | 3H | 16.3 | 17.6 | 16.7 | 18.0 | 18.4 | 18.7 | 20.0 | 19.1 | 20.4 | 20.8 |
| | 4H | 17.3 | 18.6 | 17.8 | 19.0 | 19.4 | 20.1 | 21.4 | 20.6 | 21.8 | 22.2 |
| | 6H | 18.3 | 19.3 | 18.7 | 19.8 | 20.2 | 21.4 | 22.5 | 21.9 | 23.0 | 23.4 |
| | 8H | 18.6 | 19.6 | 19.0 | 20.1 | 20.5 | 22.0 | 23.0 | 22.4 | 23.5 | 23.9 |
| | 12H | 18.8 | 19.8 | 19.3 | 20.2 | 20.7 | 22.5 | 23.4 | 23.0 | 23.9 | 24.4 |
| 8H | 4H | 18.5 | 19.6 | 19.0 | 20.0 | 20.5 | 20.7 | 21.7 | 21.1 | 22.1 | 22.6 |
| | 6H | 19.9 | 20.8 | 20.4 | 21.2 | 21.7 | 22.2 | 23.1 | 22.7 | 23.5 | 24.0 |
| | 8H | 20.5 | 21.3 | 21.0 | 21.8 | 22.2 | 22.9 | 23.7 | 23.4 | 24.2 | 24.7 |
| | 12H | 20.9 | 21.7 | 21.4 | 22.1 | 22.7 | 23.6 | 24.3 | 24.1 | 24.8 | 25.3 |
| 12H | 4H | 18.8 | 19.7 | 19.3 | 20.2 | 20.7 | 20.8 | 21.7 | 21.3 | 22.2 | 22.6 |
| | 6H | 20.3 | 21.1 | 20.8 | 21.6 | 22.1 | 22.4 | 23.2 | 22.9 | 23.6 | 24.2 |
| | 8H | 21.1 | 21.8 | 21.6 | 22.3 | 22.8 | 23.2 | 23.9 | 23.7 | 24.4 | 24.9 |

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-457-5

Test Date: 07/02/2025

Luminaire Tested: 24SR-LD2-64-C-UNV-L930-CD1-U

Data in this report applies to families of products including 24SR-LD2-64-C-UNV-L930-CD1-U

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-457-5
 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-L930-CD1-U**
 Description: 2X4 SKYRIDGE 6400LM Fixture with new LTN chip

Spectral Parameters

CCT (K): 2935
 CIE u': 0.2530
 CIE v': 0.5224
 Duv: -0.0002
 CIE x: 0.4413
 CIE y: 0.4049
 CIE z: 0.1538
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 583
 Purity: 53.99297
 Rf: 91.8
 Rg: 99.6

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 93.5 | | |
| R1: | 94.7 | R9: | 55.1 |
| R2: | 97.2 | R10: | 92.3 |
| R3: | 98.6 | R11: | 97.0 |
| R4: | 95.2 | R12: | 86.4 |
| R5: | 94.7 | R13: | 95.3 |
| R6: | 96.8 | R14: | 98.2 |
| R7: | 90.9 | R15: | 89.3 |
| R8: | 80.4 | | |



Test Conditions

Stabilization Time: 40M
 Operation Time: 1H 40M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-457-5

| 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 3000K 7-step quadrangle

REPORT NUMBER: SP1-2506-457-5

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 | 108 | NR | 620 | 338 | NR | 750 | 8 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 129 | NR | 625 | 339 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 151 | NR | 630 | 1000 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 168 | NR | 635 | 695 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 179 | NR | 640 | 225 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 187 | NR | 645 | 214 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 194 | NR | 650 | 190 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 199 | NR | 655 | 160 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 205 | NR | 660 | 136 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 2 | NR | 535 | 213 | NR | 665 | 115 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 4 | NR | 540 | 219 | NR | 670 | 106 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 7 | NR | 545 | 228 | NR | 675 | 87 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 12 | NR | 550 | 236 | NR | 680 | 74 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 20 | NR | 555 | 247 | NR | 685 | 64 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 32 | NR | 560 | 257 | NR | 690 | 55 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 50 | NR | 565 | 267 | NR | 695 | 47 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 79 | NR | 570 | 277 | NR | 700 | 40 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 133 | NR | 575 | 287 | NR | 705 | 34 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 194 | NR | 580 | 297 | NR | 710 | 29 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 168 | NR | 585 | 308 | NR | 715 | 24 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 117 | NR | 590 | 315 | NR | 720 | 20 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 101 | NR | 595 | 320 | NR | 725 | 17 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 327 | NR | 730 | 14 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 331 | NR | 735 | 12 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 77 | NR | 610 | 367 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 91 | NR | 615 | 398 | NR | 745 | 9 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-457-5

Scotopic Flux vs. Wavelength



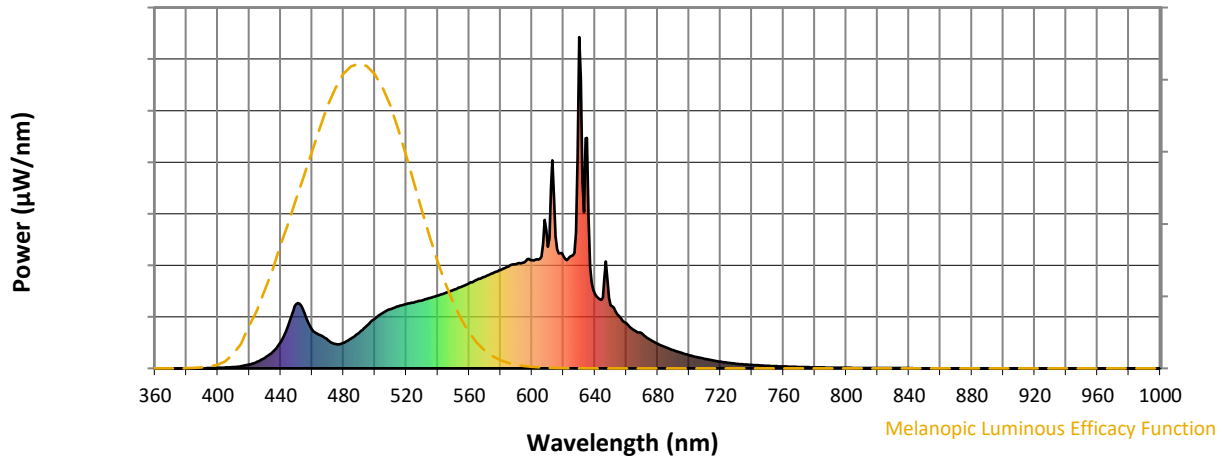
Scotopic Lumens: NR

S/P: 1.4

| 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 | 108 | NR | 620 | 338 | NR | 750 | 8 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 129 | NR | 625 | 339 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 151 | NR | 630 | 1000 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 168 | NR | 635 | 695 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 179 | NR | 640 | 225 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 187 | NR | 645 | 214 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 194 | NR | 650 | 190 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 199 | NR | 655 | 160 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 205 | NR | 660 | 136 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 2 | NR | 535 | 213 | NR | 665 | 115 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 4 | NR | 540 | 219 | NR | 670 | 106 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 7 | NR | 545 | 228 | NR | 675 | 87 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 12 | NR | 550 | 236 | NR | 680 | 74 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 20 | NR | 555 | 247 | NR | 685 | 64 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 32 | NR | 560 | 257 | NR | 690 | 55 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 50 | NR | 565 | 267 | NR | 695 | 47 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 79 | NR | 570 | 277 | NR | 700 | 40 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 133 | NR | 575 | 287 | NR | 705 | 34 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 194 | NR | 580 | 297 | NR | 710 | 29 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 168 | NR | 585 | 308 | NR | 715 | 24 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 117 | NR | 590 | 315 | NR | 720 | 20 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 101 | NR | 595 | 320 | NR | 725 | 17 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 327 | NR | 730 | 14 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 331 | NR | 735 | 12 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 77 | NR | 610 | 367 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 91 | NR | 615 | 398 | NR | 745 | 9 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-457-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.72

| 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 | 108 | NR | 620 | 338 | NR | 750 | 8 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 129 | NR | 625 | 339 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 151 | NR | 630 | 1000 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 168 | NR | 635 | 695 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 179 | NR | 640 | 225 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 187 | NR | 645 | 214 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 194 | NR | 650 | 190 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 199 | NR | 655 | 160 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 205 | NR | 660 | 136 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 2 | NR | 535 | 213 | NR | 665 | 115 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 4 | NR | 540 | 219 | NR | 670 | 106 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 7 | NR | 545 | 228 | NR | 675 | 87 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 12 | NR | 550 | 236 | NR | 680 | 74 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 20 | NR | 555 | 247 | NR | 685 | 64 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 32 | NR | 560 | 257 | NR | 690 | 55 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 50 | NR | 565 | 267 | NR | 695 | 47 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 79 | NR | 570 | 277 | NR | 700 | 40 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 133 | NR | 575 | 287 | NR | 705 | 34 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 194 | NR | 580 | 297 | NR | 710 | 29 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 168 | NR | 585 | 308 | NR | 715 | 24 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 117 | NR | 590 | 315 | NR | 720 | 20 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 101 | NR | 595 | 320 | NR | 725 | 17 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 327 | NR | 730 | 14 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 331 | NR | 735 | 12 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 77 | NR | 610 | 367 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 91 | NR | 615 | 398 | NR | 745 | 9 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 91.8$
 $R_g = 99.6$
 $CIE R_a = 93.5$
 $R_9 = 55.1$

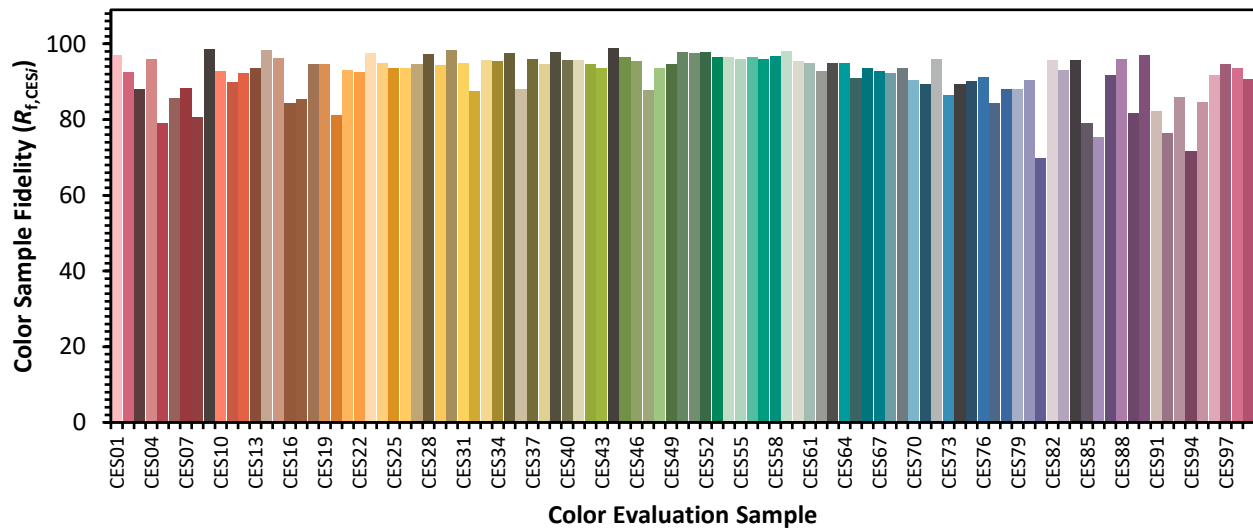


Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 94 | CES51 = 97 | CES76 = 91 |
| CES02 = 63 | CES27 = 95 | CES52 = 98 | CES77 = 84 |
| CES03 = 32 | CES28 = 97 | CES53 = 97 | CES78 = 88 |
| CES04 = 70 | CES29 = 94 | CES54 = 96 | CES79 = 88 |
| CES05 = 51 | CES30 = 98 | CES55 = 96 | CES80 = 90 |
| CES06 = 51 | CES31 = 95 | CES56 = 97 | CES81 = 70 |
| CES07 = 44 | CES32 = 87 | CES57 = 96 | CES82 = 96 |
| CES08 = 42 | CES33 = 96 | CES58 = 97 | CES83 = 93 |
| CES09 = 29 | CES34 = 95 | CES59 = 98 | CES84 = 96 |
| CES10 = 76 | CES35 = 97 | CES60 = 95 | CES85 = 79 |
| CES11 = 59 | CES36 = 88 | CES61 = 95 | CES86 = 75 |
| CES12 = 65 | CES37 = 96 | CES62 = 93 | CES87 = 92 |
| CES13 = 44 | CES38 = 95 | CES63 = 95 | CES88 = 96 |
| CES14 = 74 | CES39 = 98 | CES64 = 95 | CES89 = 82 |
| CES15 = 72 | CES40 = 96 | CES65 = 91 | CES90 = 97 |
| CES16 = 48 | CES41 = 96 | CES66 = 94 | CES91 = 82 |
| CES17 = 50 | CES42 = 95 | CES67 = 93 | CES92 = 77 |
| CES18 = 57 | CES43 = 94 | CES68 = 92 | CES93 = 86 |
| CES19 = 72 | CES44 = 99 | CES69 = 93 | CES94 = 72 |
| CES20 = 67 | CES45 = 97 | CES70 = 91 | CES95 = 85 |
| CES21 = 86 | CES46 = 95 | CES71 = 89 | CES96 = 92 |
| CES22 = 79 | CES47 = 88 | CES72 = 96 | CES97 = 95 |
| CES23 = 92 | CES48 = 94 | CES73 = 86 | CES98 = 94 |
| CES24 = 91 | CES49 = 95 | CES74 = 89 | CES99 = 91 |
| CES25 = 72 | CES50 = 98 | CES75 = 90 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)