

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: McGRAW-EDISON

Report Number: P438932

Luminaire Tested: **ISW-SA1F-760-U-T3-HSS**

Issue Date: 12/10/2020

Test Information

Test Method: LM-79-08
Report Number: P438932
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/10/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: ISW-SA1F-760-U-T3-HSS
Description: IMPACT ELITE LED WEDGE LUMINAIRE
(1) 70 CRI, 5700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5511 lumens
Efficiency: N/A
Efficacy: 83.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

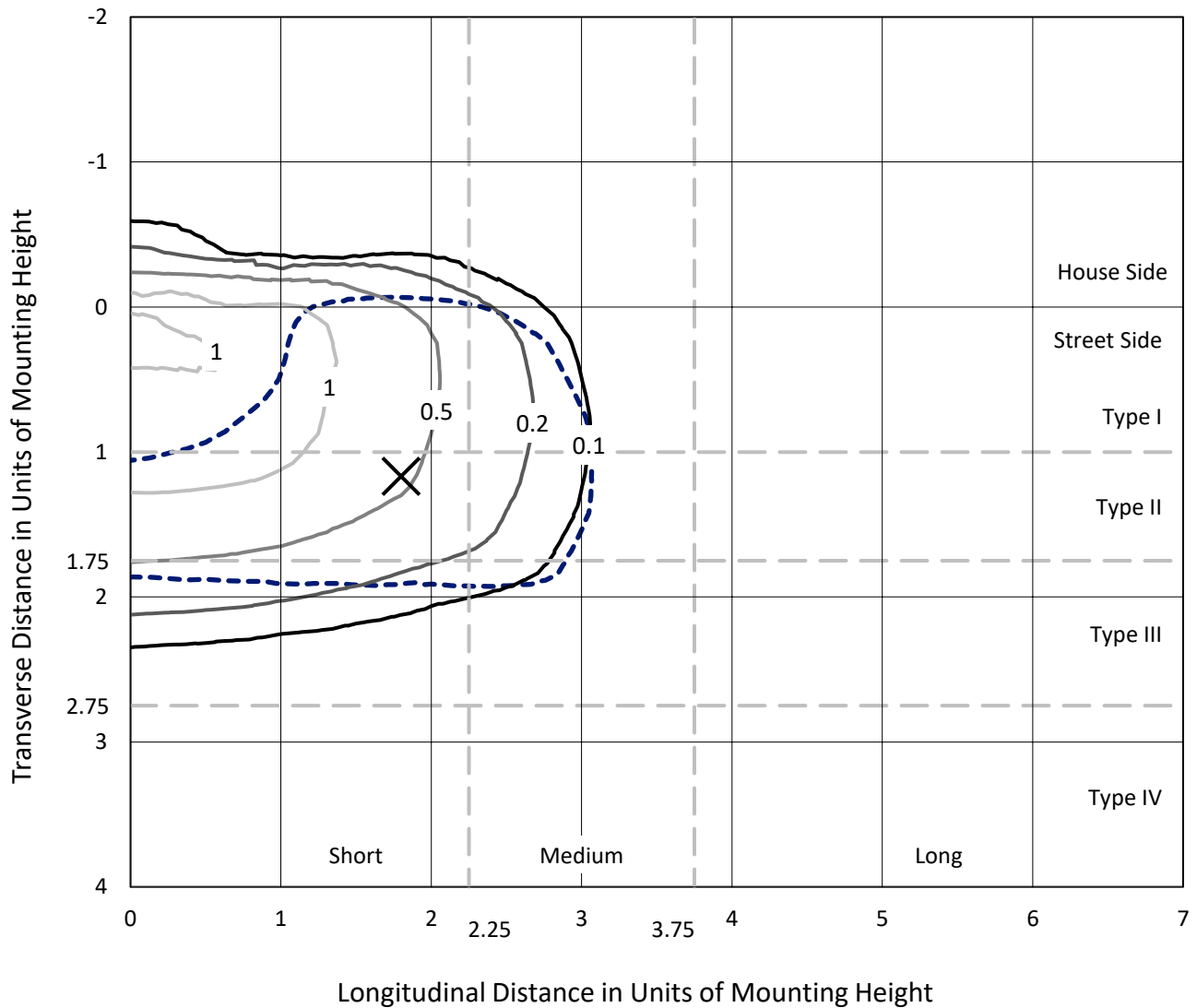
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

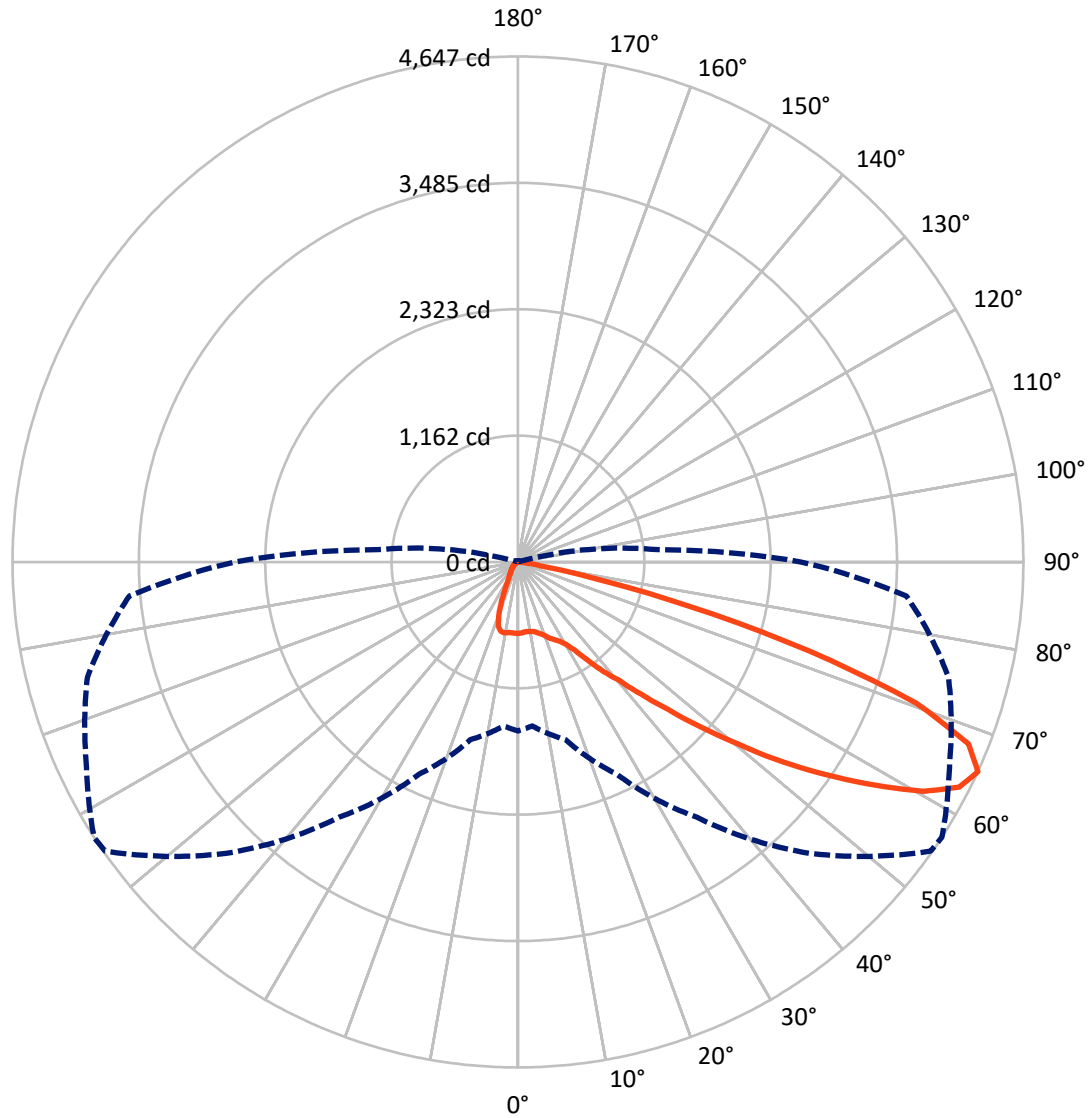
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type III - Short - N/A

REPORT NUMBER: P438932
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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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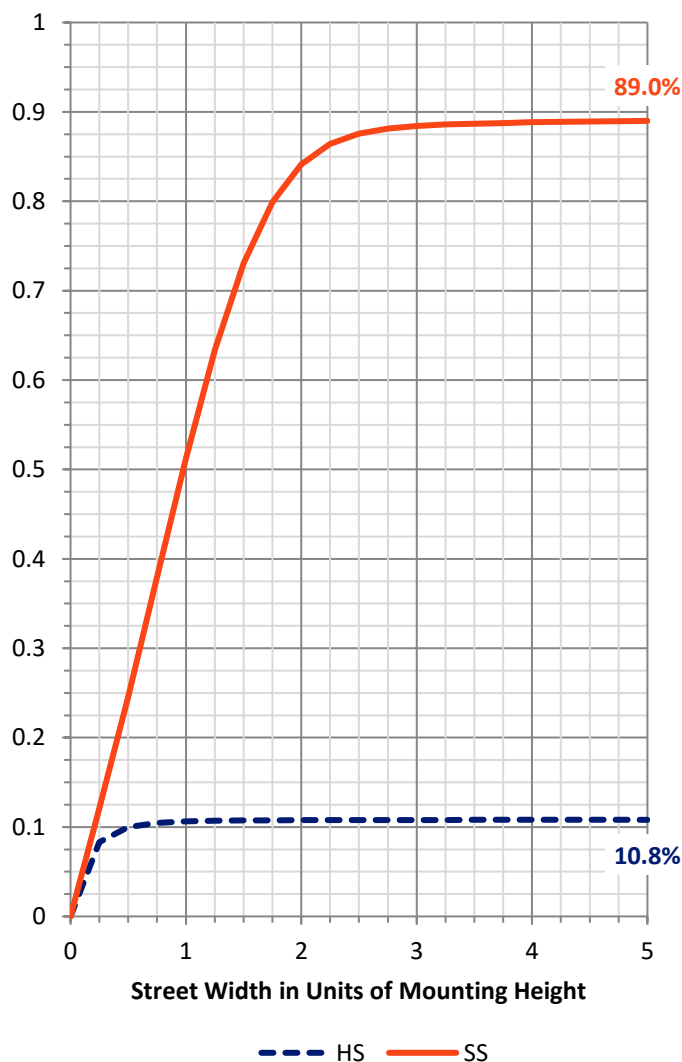
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 601.1 | 0.0 | 601.1 |
| | % Fixture | 10.9 | 0.0 | 10.9 |
| Street Side | Lumens | 4909.9 | 0.0 | 4909.9 |
| | % Fixture | 89.1 | 0.0 | 89.1 |
| Total | Lumens | 5511.0 | 0.0 | 5511.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 61.0 | 1.1 |
| 10°-20° | 164.9 | 3.0 |
| 20°-30° | 284.8 | 5.2 |
| 30°-40° | 504.5 | 9.2 |
| 40°-50° | 915.0 | 16.6 |
| 50°-60° | 1541.2 | 28.0 |
| 60°-70° | 1584.8 | 28.8 |
| 70°-80° | 439.2 | 8.0 |
| 80°-90° | 15.6 | 0.3 |
| 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° | 5511.0 | 100.0 |
| 0°-180° | 5511.0 | 100.0 |

Coefficient of Utilization



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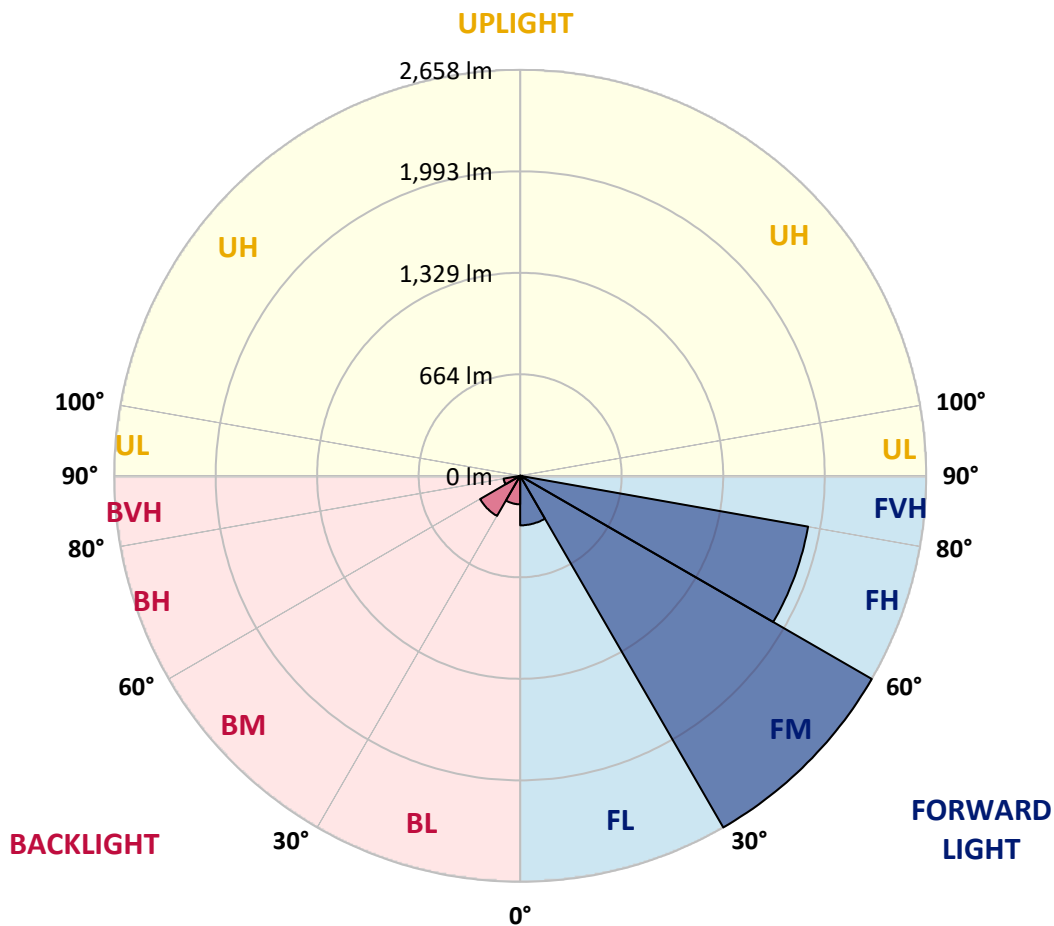
CATALOG NUMBER: ISW-SA1F-760-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 324.1 | 5.9 | | | |
| FM (30°-60°) | 2657.7 | 48.2 | | | |
| FH (60°-80°) | 1913.7 | 34.7 | | | G2/5000 |
| FVH (80°-90°) | 14.4 | 0.3 | | | G1/100 |
| BL (0°-30°) | 186.6 | 3.4 | B1/500 | | |
| BM (30°-60°) | 303.1 | 5.5 | B1/1000 | | |
| BH (60°-80°) | 110.2 | 2.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.1 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 |
| 2.5° | 636.9 | 636.9 | 642.3 | 645.0 | 645.0 | 647.7 | 650.4 | 653.0 | 653.0 | 653.0 | 658.4 |
| 5° | 604.7 | 602.0 | 607.4 | 612.7 | 620.8 | 631.5 | 639.6 | 645.0 | 653.0 | 661.1 | 663.8 |
| 7.5° | 575.1 | 575.1 | 580.5 | 588.5 | 604.7 | 620.8 | 636.9 | 645.0 | 658.4 | 674.5 | 679.9 |
| 10° | 567.0 | 564.4 | 572.4 | 580.5 | 596.6 | 615.4 | 639.6 | 650.4 | 669.2 | 690.7 | 698.7 |
| 12.5° | 561.7 | 561.7 | 564.4 | 577.8 | 593.9 | 618.1 | 647.7 | 655.7 | 685.3 | 709.5 | 728.3 |
| 15° | 559.0 | 559.0 | 564.4 | 575.1 | 593.9 | 620.8 | 661.1 | 674.5 | 709.5 | 744.4 | 760.5 |
| 17.5° | 580.5 | 577.8 | 575.1 | 580.5 | 599.3 | 628.9 | 682.6 | 696.0 | 739.0 | 782.0 | 800.9 |
| 20° | 645.0 | 642.3 | 634.2 | 615.4 | 615.4 | 650.4 | 709.5 | 725.6 | 782.0 | 825.0 | 835.8 |
| 22.5° | 765.9 | 774.0 | 744.4 | 696.0 | 661.1 | 677.2 | 744.4 | 763.2 | 827.7 | 873.4 | 873.4 |
| 25° | 940.6 | 929.8 | 903.0 | 822.4 | 752.5 | 720.2 | 774.0 | 792.8 | 870.7 | 924.5 | 913.7 |
| 27.5° | 1123.3 | 1126.0 | 1088.4 | 997.0 | 884.2 | 798.2 | 806.2 | 827.7 | 916.4 | 978.2 | 954.0 |
| 30° | 1268.5 | 1257.7 | 1238.9 | 1163.7 | 1040.0 | 921.8 | 868.0 | 881.5 | 967.5 | 1037.3 | 1015.8 |
| 32.5° | 1397.5 | 1392.1 | 1367.9 | 1303.4 | 1193.2 | 1066.9 | 970.2 | 972.8 | 1040.0 | 1126.0 | 1099.2 |
| 35° | 1513.0 | 1518.4 | 1507.6 | 1435.1 | 1335.6 | 1217.4 | 1107.2 | 1115.3 | 1166.3 | 1255.0 | 1201.3 |
| 37.5° | 1658.1 | 1658.1 | 1639.3 | 1572.1 | 1496.9 | 1378.6 | 1273.8 | 1276.5 | 1303.4 | 1376.0 | 1308.8 |
| 40° | 1784.4 | 1789.8 | 1787.1 | 1736.1 | 1663.5 | 1556.0 | 1429.7 | 1429.7 | 1437.8 | 1523.8 | 1488.8 |
| 42.5° | 1956.4 | 1964.5 | 1961.8 | 1913.4 | 1857.0 | 1779.1 | 1671.6 | 1663.5 | 1658.1 | 1765.6 | 1728.0 |
| 45° | 2176.8 | 2195.6 | 2203.7 | 2144.6 | 2093.5 | 2047.8 | 1964.5 | 1932.3 | 1945.7 | 2045.1 | 2015.6 |
| 47.5° | 2386.4 | 2407.9 | 2445.6 | 2416.0 | 2391.8 | 2391.8 | 2278.9 | 2273.6 | 2252.1 | 2367.6 | 2287.0 |
| 50° | 2585.3 | 2588.0 | 2641.7 | 2687.4 | 2760.0 | 2746.5 | 2671.3 | 2639.0 | 2606.8 | 2684.7 | 2539.6 |
| 52.5° | 2698.2 | 2730.4 | 2800.3 | 2932.0 | 3090.5 | 3155.0 | 3077.1 | 3058.3 | 2993.8 | 2983.0 | 2784.2 |
| 55° | 2803.0 | 2803.0 | 2913.2 | 3141.6 | 3410.3 | 3547.4 | 3482.9 | 3461.4 | 3332.4 | 3294.8 | 3036.8 |
| 57.5° | 2837.9 | 2827.2 | 2975.0 | 3265.2 | 3668.3 | 3907.5 | 3920.9 | 3872.6 | 3692.5 | 3577.0 | 3294.8 |
| 60° | 2663.2 | 2644.4 | 2800.3 | 3184.6 | 3738.2 | 4168.2 | 4313.3 | 4281.1 | 4004.3 | 3851.1 | 3566.2 |
| 62.5° | 2160.7 | 2184.9 | 2383.7 | 2800.3 | 3491.0 | 4141.3 | 4574.0 | 4555.2 | 4235.4 | 4036.5 | 3673.7 |
| 65° | 1553.3 | 1513.0 | 1690.4 | 2152.6 | 2864.8 | 3786.6 | 4633.1 | 4646.6 | 4377.8 | 4098.3 | 3585.0 |
| 67.5° | 870.7 | 833.1 | 980.9 | 1333.0 | 2037.1 | 3106.7 | 4391.2 | 4466.5 | 4275.7 | 3945.1 | 3203.4 |
| 70° | 333.2 | 354.7 | 456.9 | 658.4 | 1201.3 | 2144.6 | 3778.5 | 3886.0 | 3749.0 | 3292.1 | 2386.4 |
| 72.5° | 118.2 | 134.4 | 188.1 | 292.9 | 556.3 | 1155.6 | 2641.7 | 2803.0 | 2762.7 | 2287.0 | 1365.2 |
| 75° | 69.9 | 72.6 | 96.7 | 142.4 | 244.6 | 451.5 | 1491.5 | 1625.9 | 1561.4 | 1131.4 | 564.4 |
| 77.5° | 48.4 | 48.4 | 61.8 | 86.0 | 139.7 | 180.1 | 583.2 | 661.1 | 679.9 | 408.5 | 166.6 |
| 80° | 29.6 | 32.2 | 43.0 | 56.4 | 80.6 | 83.3 | 180.1 | 212.3 | 198.9 | 145.1 | 59.1 |
| 82.5° | 13.4 | 13.4 | 24.2 | 37.6 | 40.3 | 34.9 | 56.4 | 61.8 | 72.6 | 64.5 | 26.9 |
| 85° | 0.0 | 0.0 | 8.1 | 13.4 | 10.7 | 8.1 | 18.8 | 18.8 | 24.2 | 29.6 | 13.4 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 5.4 | 2.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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 CATALOG NUMBER: ISW-SA1F-760-U-T3-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 | 655.7 |
| 2.5° | 658.4 | 661.1 | 658.4 | 655.7 | 655.7 | 653.0 | 653.0 | 653.0 | 653.0 | 653.0 | 653.0 |
| 5° | 663.8 | 666.5 | 663.8 | 658.4 | 653.0 | 647.7 | 642.3 | 642.3 | 642.3 | 642.3 | 647.7 |
| 7.5° | 679.9 | 679.9 | 674.5 | 663.8 | 650.4 | 645.0 | 634.2 | 631.5 | 626.2 | 623.5 | 626.2 |
| 10° | 704.1 | 704.1 | 693.4 | 677.2 | 655.7 | 634.2 | 615.4 | 588.5 | 572.4 | 561.7 | 559.0 |
| 12.5° | 728.3 | 725.6 | 712.2 | 690.7 | 655.7 | 607.4 | 545.5 | 478.4 | 438.0 | 408.5 | 403.1 |
| 15° | 760.5 | 757.9 | 736.4 | 698.7 | 639.6 | 537.5 | 416.6 | 325.2 | 276.8 | 255.3 | 252.6 |
| 17.5° | 795.5 | 790.1 | 760.5 | 704.1 | 588.5 | 405.8 | 274.1 | 212.3 | 193.5 | 188.1 | 188.1 |
| 20° | 833.1 | 825.0 | 779.4 | 696.0 | 486.4 | 276.8 | 190.8 | 177.4 | 174.7 | 172.0 | 172.0 |
| 22.5° | 862.7 | 849.2 | 792.8 | 655.7 | 362.8 | 190.8 | 169.3 | 166.6 | 163.9 | 161.2 | 161.2 |
| 25° | 894.9 | 873.4 | 803.5 | 567.0 | 239.2 | 163.9 | 158.6 | 155.9 | 150.5 | 147.8 | 147.8 |
| 27.5° | 932.5 | 900.3 | 819.7 | 446.1 | 166.6 | 147.8 | 142.4 | 139.7 | 131.7 | 126.3 | 126.3 |
| 30° | 980.9 | 940.6 | 827.7 | 325.2 | 139.7 | 129.0 | 123.6 | 118.2 | 107.5 | 102.1 | 102.1 |
| 32.5° | 1058.8 | 1023.9 | 811.6 | 217.7 | 126.3 | 115.6 | 107.5 | 96.7 | 86.0 | 80.6 | 77.9 |
| 35° | 1158.3 | 1109.9 | 755.2 | 153.2 | 112.9 | 102.1 | 88.7 | 75.2 | 67.2 | 64.5 | 64.5 |
| 37.5° | 1268.5 | 1204.0 | 669.2 | 123.6 | 102.1 | 88.7 | 75.2 | 61.8 | 53.7 | 51.1 | 51.1 |
| 40° | 1424.3 | 1324.9 | 550.9 | 107.5 | 88.7 | 75.2 | 61.8 | 51.1 | 45.7 | 43.0 | 43.0 |
| 42.5° | 1628.6 | 1478.1 | 416.6 | 99.4 | 80.6 | 64.5 | 51.1 | 43.0 | 37.6 | 34.9 | 34.9 |
| 45° | 1857.0 | 1639.3 | 303.7 | 88.7 | 69.9 | 53.7 | 40.3 | 34.9 | 29.6 | 26.9 | 26.9 |
| 47.5° | 2085.4 | 1754.9 | 209.6 | 80.6 | 59.1 | 45.7 | 34.9 | 26.9 | 21.5 | 21.5 | 18.8 |
| 50° | 2284.3 | 1816.7 | 150.5 | 69.9 | 53.7 | 37.6 | 26.9 | 21.5 | 18.8 | 16.1 | 16.1 |
| 52.5° | 2459.0 | 1843.6 | 115.6 | 61.8 | 45.7 | 32.2 | 21.5 | 18.8 | 16.1 | 16.1 | 16.1 |
| 55° | 2606.8 | 1822.1 | 91.4 | 53.7 | 40.3 | 26.9 | 18.8 | 16.1 | 13.4 | 13.4 | 13.4 |
| 57.5° | 2751.9 | 1757.6 | 72.6 | 45.7 | 32.2 | 18.8 | 16.1 | 13.4 | 10.7 | 10.7 | 10.7 |
| 60° | 2827.2 | 1674.3 | 59.1 | 37.6 | 26.9 | 16.1 | 13.4 | 10.7 | 10.7 | 8.1 | 8.1 |
| 62.5° | 2776.1 | 1505.0 | 48.4 | 32.2 | 18.8 | 13.4 | 10.7 | 8.1 | 8.1 | 5.4 | 5.4 |
| 65° | 2604.1 | 1290.0 | 37.6 | 24.2 | 13.4 | 10.7 | 8.1 | 8.1 | 5.4 | 2.7 | 2.7 |
| 67.5° | 2195.6 | 1010.5 | 29.6 | 18.8 | 10.7 | 8.1 | 5.4 | 5.4 | 2.7 | 0.0 | 0.0 |
| 70° | 1569.5 | 666.5 | 24.2 | 13.4 | 8.1 | 8.1 | 5.4 | 2.7 | 0.0 | 0.0 | 0.0 |
| 72.5° | 905.7 | 322.5 | 18.8 | 8.1 | 5.4 | 5.4 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 |
| 75° | 338.6 | 112.9 | 16.1 | 8.1 | 5.4 | 2.7 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 |
| 77.5° | 112.9 | 45.7 | 13.4 | 10.7 | 8.1 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 34.9 | 21.5 | 5.4 | 5.4 | 5.4 | 5.4 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 18.8 | 10.7 | 2.7 | 2.7 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 8.1 | 5.4 | 2.7 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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



Test Information

Test Method: LM-79-2008
 Report Number: SP1-1908-441-9-R4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/28/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGRAW-EDISON
 Catalog Number: **SA1C-760-U-5WQ**
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

| | | | | | |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K): | 5474 | CRI (Ra): | 71.7 | R9: | -27.1 |
| CIE u': | 0.2052 | R1: | 70.6 | R10: | 40.8 |
| CIE v': | 0.4804 | R2: | 74.6 | R11: | 74.6 |
| Duv: | 0.0025 | R3: | 78.3 | R12: | 50.4 |
| CIE x: | 0.3330 | R4: | 73.8 | R13: | 70.0 |
| CIE y: | 0.3466 | R5: | 72.4 | R14: | 87.8 |
| CIE z: | 0.3204 | R6: | 67.5 | | |
| Peak Wavelength (nm): | 442 | R7: | 77.5 | | |
| Dominant Wavelength (nm): | 554 | R8: | 58.9 | | |
| Purity: | 4.1 | | | | |
| Rf: | 72.1 | | | | |
| Rg: | 97.2 | | | | |



Test Conditions

Stabilization Time: 240M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.6/31%
 Sphere Temperature (°C): 25.9

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| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

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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 5700K 4-step quadrangle

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Photopic Flux vs. Wavelength



#####

| λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360 | 3540 | NR | 490 | 33363 | NR | 620 | 80193 | NR | 750 | 4663 | NR | 880 | 4678 | NR |
| 365 | 2862 | NR | 495 | 44177 | NR | 625 | 73091 | NR | 755 | 4147 | NR | 885 | 4128 | NR |
| 370 | 2865 | NR | 500 | 57019 | NR | 630 | 66269 | NR | 760 | 4040 | NR | 890 | 4504 | NR |
| 375 | 3254 | NR | 505 | 70030 | NR | 635 | 60012 | NR | 765 | 3474 | NR | 895 | 4371 | NR |
| 380 | 3076 | NR | 510 | 81972 | NR | 640 | 53914 | NR | 770 | 3469 | NR | 900 | 4082 | NR |
| 385 | 2904 | NR | 515 | 92590 | NR | 645 | 48385 | NR | 775 | 3181 | NR | 905 | 2982 | NR |
| 390 | 2689 | NR | 520 | 100305 | NR | 650 | 43219 | NR | 780 | 2969 | NR | 910 | 4351 | NR |
| 395 | 2619 | NR | 525 | 107452 | NR | 655 | 38562 | NR | 785 | 3132 | NR | 915 | 3365 | NR |
| 400 | 2679 | NR | 530 | 111373 | NR | 660 | 34110 | NR | 790 | 2507 | NR | 920 | 3430 | NR |
| 405 | 3515 | NR | 535 | 114505 | NR | 665 | 30085 | NR | 795 | 2968 | NR | 925 | 4264 | NR |
| 410 | 6934 | NR | 540 | 116408 | NR | 670 | 26205 | NR | 800 | 2758 | NR | 930 | 4095 | NR |
| 415 | 14943 | NR | 545 | 118700 | NR | 675 | 22906 | NR | 805 | 2872 | NR | 935 | 5048 | NR |
| 420 | 31939 | NR | 550 | 119209 | NR | 680 | 20058 | NR | 810 | 3094 | NR | 940 | 4074 | NR |
| 425 | 64701 | NR | 555 | 120742 | NR | 685 | 17413 | NR | 815 | 3222 | NR | 945 | 4949 | NR |
| 430 | 110939 | NR | 560 | 121594 | NR | 690 | 15447 | NR | 820 | 3238 | NR | 950 | 4387 | NR |
| 435 | 164597 | NR | 565 | 121913 | NR | 695 | 13398 | NR | 825 | 3524 | NR | 955 | 4978 | NR |
| 440 | 207696 | NR | 570 | 122147 | NR | 700 | 11777 | NR | 830 | 2921 | NR | 960 | 4706 | NR |
| 445 | 201830 | NR | 575 | 121605 | NR | 705 | 10412 | NR | 835 | 3595 | NR | 965 | 5083 | NR |
| 450 | 145410 | NR | 580 | 120248 | NR | 710 | 9544 | NR | 840 | 3016 | NR | 970 | 4522 | NR |
| 455 | 89594 | NR | 585 | 117717 | NR | 715 | 8940 | NR | 845 | 4032 | NR | 975 | 4740 | NR |
| 460 | 58321 | NR | 590 | 114359 | NR | 720 | 7897 | NR | 850 | 3579 | NR | 980 | 6122 | NR |
| 465 | 39318 | NR | 595 | 109974 | NR | 725 | 7045 | NR | 855 | 4571 | NR | 985 | 6450 | NR |
| 470 | 27693 | NR | 600 | 105269 | NR | 730 | 6483 | NR | 860 | 4485 | NR | 990 | 4875 | NR |
| 475 | 23081 | NR | 605 | 99453 | NR | 735 | 5838 | NR | 865 | 3978 | NR | 995 | 4764 | NR |
| 480 | 23002 | NR | 610 | 92921 | NR | 740 | 5261 | NR | 870 | 4298 | NR | 1000 | 3640 | NR |
| 485 | 26201 | NR | 615 | 86989 | NR | 745 | 4760 | NR | 875 | 4356 | NR | | | |

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Scotopic Flux vs. Wavelength

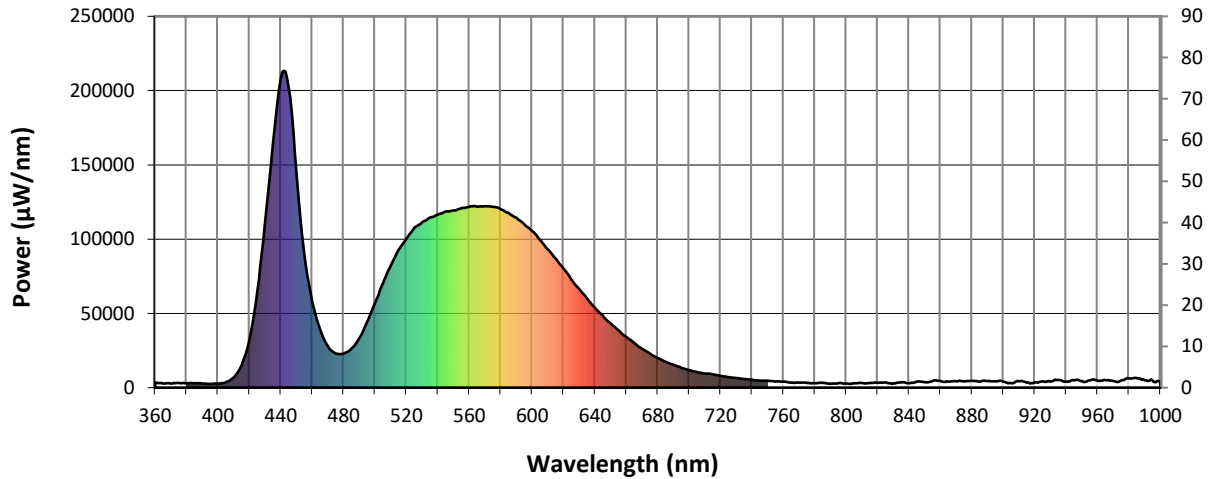


Scotopic Lumens: 13759.3 S/P: 1.85

| 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 | 3540 | NR | 490 | 33363 | NR | 620 | 80193 | NR | 750 | 4663 | NR | 880 | 4678 | NR |
| 365 | 2862 | NR | 495 | 44177 | NR | 625 | 73091 | NR | 755 | 4147 | NR | 885 | 4128 | NR |
| 370 | 2865 | NR | 500 | 57019 | NR | 630 | 66269 | NR | 760 | 4040 | NR | 890 | 4504 | NR |
| 375 | 3254 | NR | 505 | 70030 | NR | 635 | 60012 | NR | 765 | 3474 | NR | 895 | 4371 | NR |
| 380 | 3076 | NR | 510 | 81972 | NR | 640 | 53914 | NR | 770 | 3469 | NR | 900 | 4082 | NR |
| 385 | 2904 | NR | 515 | 92590 | NR | 645 | 48385 | NR | 775 | 3181 | NR | 905 | 2982 | NR |
| 390 | 2689 | NR | 520 | 100305 | NR | 650 | 43219 | NR | 780 | 2969 | NR | 910 | 4351 | NR |
| 395 | 2619 | NR | 525 | 107452 | NR | 655 | 38562 | NR | 785 | 3132 | NR | 915 | 3365 | NR |
| 400 | 2679 | NR | 530 | 111373 | NR | 660 | 34110 | NR | 790 | 2507 | NR | 920 | 3430 | NR |
| 405 | 3515 | NR | 535 | 114505 | NR | 665 | 30085 | NR | 795 | 2968 | NR | 925 | 4264 | NR |
| 410 | 6934 | NR | 540 | 116408 | NR | 670 | 26205 | NR | 800 | 2758 | NR | 930 | 4095 | NR |
| 415 | 14943 | NR | 545 | 118700 | NR | 675 | 22906 | NR | 805 | 2872 | NR | 935 | 5048 | NR |
| 420 | 31939 | NR | 550 | 119209 | NR | 680 | 20058 | NR | 810 | 3094 | NR | 940 | 4074 | NR |
| 425 | 64701 | NR | 555 | 120742 | NR | 685 | 17413 | NR | 815 | 3222 | NR | 945 | 4949 | NR |
| 430 | 110939 | NR | 560 | 121594 | NR | 690 | 15447 | NR | 820 | 3238 | NR | 950 | 4387 | NR |
| 435 | 164597 | NR | 565 | 121913 | NR | 695 | 13398 | NR | 825 | 3524 | NR | 955 | 4978 | NR |
| 440 | 207696 | NR | 570 | 122147 | NR | 700 | 11777 | NR | 830 | 2921 | NR | 960 | 4706 | NR |
| 445 | 201830 | NR | 575 | 121605 | NR | 705 | 10412 | NR | 835 | 3595 | NR | 965 | 5083 | NR |
| 450 | 145410 | NR | 580 | 120248 | NR | 710 | 9544 | NR | 840 | 3016 | NR | 970 | 4522 | NR |
| 455 | 89594 | NR | 585 | 117717 | NR | 715 | 8940 | NR | 845 | 4032 | NR | 975 | 4740 | NR |
| 460 | 58321 | NR | 590 | 114359 | NR | 720 | 7897 | NR | 850 | 3579 | NR | 980 | 6122 | NR |
| 465 | 39318 | NR | 595 | 109974 | NR | 725 | 7045 | NR | 855 | 4571 | NR | 985 | 6450 | NR |
| 470 | 27693 | NR | 600 | 105269 | NR | 730 | 6483 | NR | 860 | 4485 | NR | 990 | 4875 | NR |
| 475 | 23081 | NR | 605 | 99453 | NR | 735 | 5838 | NR | 865 | 3978 | NR | 995 | 4764 | NR |
| 480 | 23002 | NR | 610 | 92921 | NR | 740 | 5261 | NR | 870 | 4298 | NR | 1000 | 3640 | NR |
| 485 | 26201 | NR | 615 | 86989 | NR | 745 | 4760 | NR | 875 | 4356 | NR | | | |

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Melanopic Flux vs. Wavelength



Melanopic Lumens: 5527.6 M/P: 0.74

| 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 | 3540 | NR | 490 | 33363 | NR | 620 | 80193 | NR | 750 | 4663 | NR | 880 | 4678 | NR |
| 365 | 2862 | NR | 495 | 44177 | NR | 625 | 73091 | NR | 755 | 4147 | NR | 885 | 4128 | NR |
| 370 | 2865 | NR | 500 | 57019 | NR | 630 | 66269 | NR | 760 | 4040 | NR | 890 | 4504 | NR |
| 375 | 3254 | NR | 505 | 70030 | NR | 635 | 60012 | NR | 765 | 3474 | NR | 895 | 4371 | NR |
| 380 | 3076 | NR | 510 | 81972 | NR | 640 | 53914 | NR | 770 | 3469 | NR | 900 | 4082 | NR |
| 385 | 2904 | NR | 515 | 92590 | NR | 645 | 48385 | NR | 775 | 3181 | NR | 905 | 2982 | NR |
| 390 | 2689 | NR | 520 | 100305 | NR | 650 | 43219 | NR | 780 | 2969 | NR | 910 | 4351 | NR |
| 395 | 2619 | NR | 525 | 107452 | NR | 655 | 38562 | NR | 785 | 3132 | NR | 915 | 3365 | NR |
| 400 | 2679 | NR | 530 | 111373 | NR | 660 | 34110 | NR | 790 | 2507 | NR | 920 | 3430 | NR |
| 405 | 3515 | NR | 535 | 114505 | NR | 665 | 30085 | NR | 795 | 2968 | NR | 925 | 4264 | NR |
| 410 | 6934 | NR | 540 | 116408 | NR | 670 | 26205 | NR | 800 | 2758 | NR | 930 | 4095 | NR |
| 415 | 14943 | NR | 545 | 118700 | NR | 675 | 22906 | NR | 805 | 2872 | NR | 935 | 5048 | NR |
| 420 | 31939 | NR | 550 | 119209 | NR | 680 | 20058 | NR | 810 | 3094 | NR | 940 | 4074 | NR |
| 425 | 64701 | NR | 555 | 120742 | NR | 685 | 17413 | NR | 815 | 3222 | NR | 945 | 4949 | NR |
| 430 | 110939 | NR | 560 | 121594 | NR | 690 | 15447 | NR | 820 | 3238 | NR | 950 | 4387 | NR |
| 435 | 164597 | NR | 565 | 121913 | NR | 695 | 13398 | NR | 825 | 3524 | NR | 955 | 4978 | NR |
| 440 | 207696 | NR | 570 | 122147 | NR | 700 | 11777 | NR | 830 | 2921 | NR | 960 | 4706 | NR |
| 445 | 201830 | NR | 575 | 121605 | NR | 705 | 10412 | NR | 835 | 3595 | NR | 965 | 5083 | NR |
| 450 | 145410 | NR | 580 | 120248 | NR | 710 | 9544 | NR | 840 | 3016 | NR | 970 | 4522 | NR |
| 455 | 89594 | NR | 585 | 117717 | NR | 715 | 8940 | NR | 845 | 4032 | NR | 975 | 4740 | NR |
| 460 | 58321 | NR | 590 | 114359 | NR | 720 | 7897 | NR | 850 | 3579 | NR | 980 | 6122 | NR |
| 465 | 39318 | NR | 595 | 109974 | NR | 725 | 7045 | NR | 855 | 4571 | NR | 985 | 6450 | NR |
| 470 | 27693 | NR | 600 | 105269 | NR | 730 | 6483 | NR | 860 | 4485 | NR | 990 | 4875 | NR |
| 475 | 23081 | NR | 605 | 99453 | NR | 735 | 5838 | NR | 865 | 3978 | NR | 995 | 4764 | NR |
| 480 | 23002 | NR | 610 | 92921 | NR | 740 | 5261 | NR | 870 | 4298 | NR | 1000 | 3640 | NR |
| 485 | 26201 | NR | 615 | 86989 | NR | 745 | 4760 | NR | 875 | 4356 | NR | | | |

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

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 54 | CES51 = 88 | CES76 = 43 |
| CES02 = 59 | CES27 = 79 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 50 | CES54 = 81 | CES79 = 74 |
| CES05 = 46 | CES30 = 59 | CES55 = 80 | CES80 = 70 |
| CES06 = 50 | CES31 = 55 | CES56 = 70 | CES81 = 71 |
| CES07 = 38 | CES32 = 52 | CES57 = 68 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 82 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 84 |
| CES11 = 55 | CES36 = 90 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 72 | CES62 = 81 | CES87 = 75 |
| CES13 = 41 | CES38 = 68 | CES63 = 75 | CES88 = 77 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 84 | CES66 = 66 | CES91 = 92 |
| CES17 = 48 | CES42 = 70 | CES67 = 64 | CES92 = 70 |
| CES18 = 55 | CES43 = 69 | CES68 = 71 | CES93 = 83 |
| CES19 = 70 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 73 |
| CES21 = 85 | CES46 = 78 | CES71 = 55 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 68 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 78 | CES74 = 94 | CES99 = 62 |
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Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)