

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



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

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P642108

Luminaire Tested: GWS-SA6C-730-U-SL4-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P642108
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-35)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA6C-730-U-SL4-W
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS
Light Source: (96) 3000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24832.6 lumens
Efficiency: N/A
Efficacy: 131.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

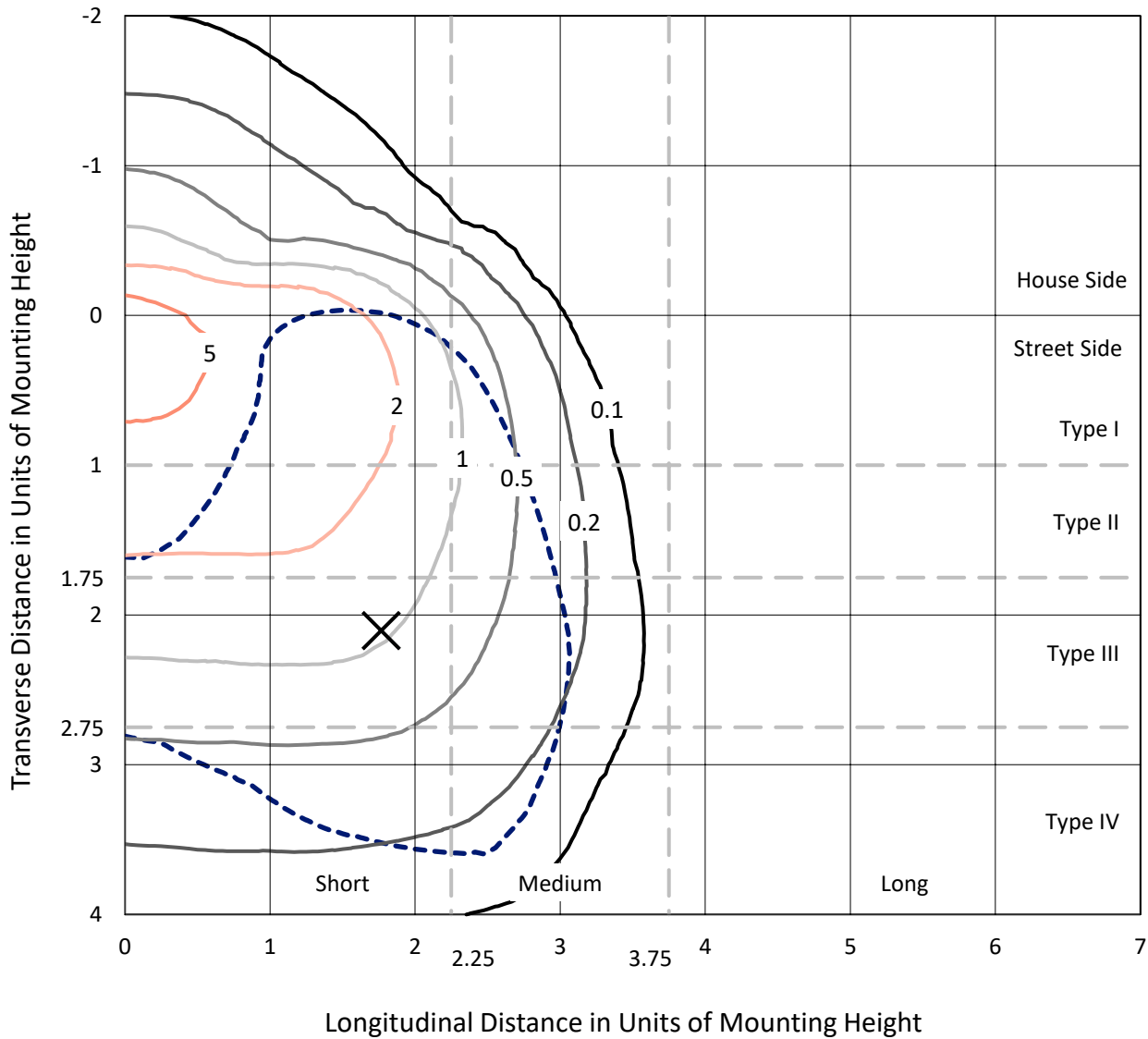
Input Watts (W): 189.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P642108
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Iso-Footcandle Lines of Horizontal Illumination

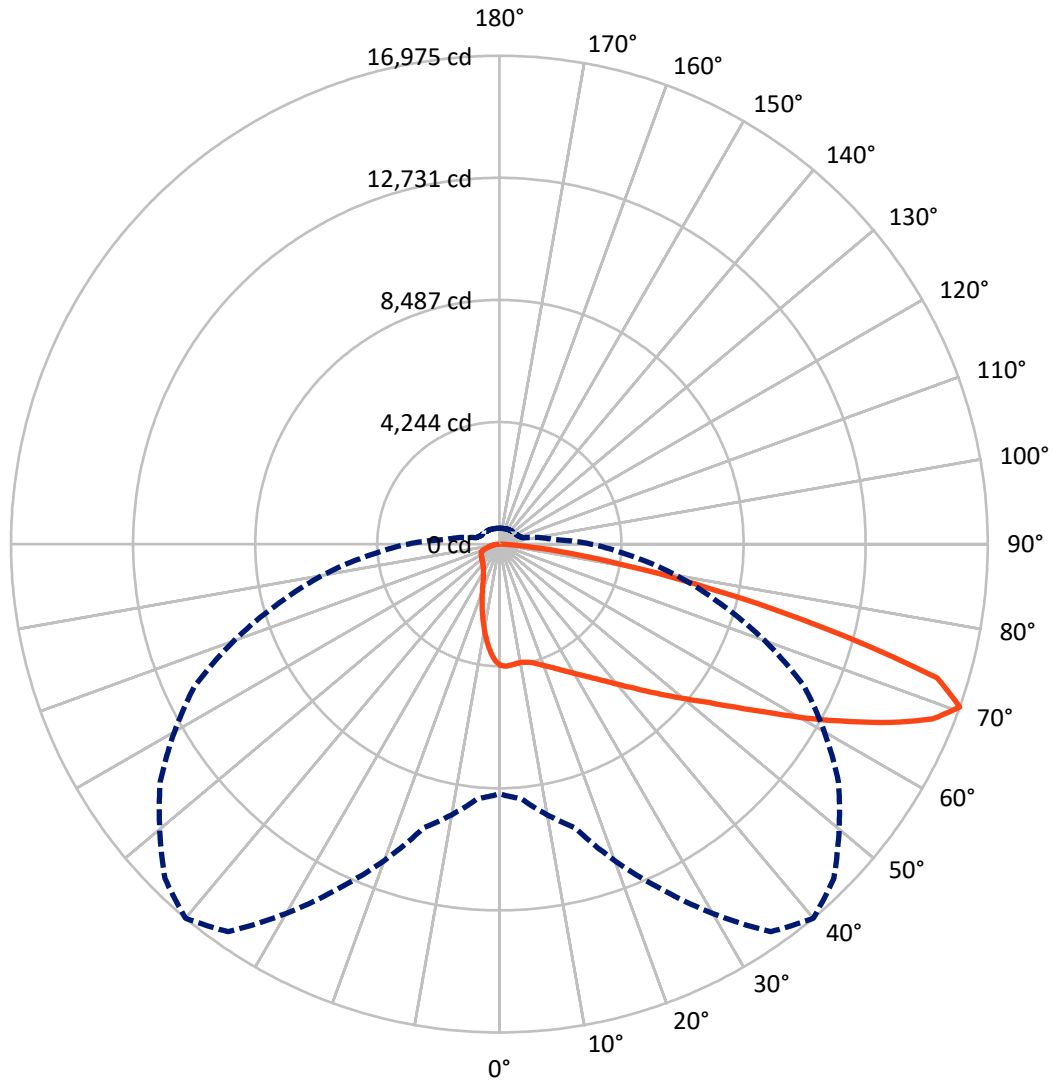
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - N/A

REPORT NUMBER: P642108
CATALOG NUMBER: GWS-SA6C-730-U-SL4-W

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P642108

CATALOG NUMBER: GWS-SA6C-730-U-SL4-W

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3824.9 | 0.0 | 3824.9 |
| | % Fixture | 15.4 | 0.0 | 15.4 |
| Street Side | Lumens | 21007.7 | 0.0 | 21007.7 |
| | % Fixture | 84.6 | 0.0 | 84.6 |
| Total | Lumens | 24832.6 | 0.0 | 24832.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 372.5 | 1.5 |
| 10°-20° | 971.0 | 3.9 |
| 20°-30° | 1524.7 | 6.1 |
| 30°-40° | 2292.4 | 9.2 |
| 40°-50° | 3538.3 | 14.2 |
| 50°-60° | 5254.7 | 21.2 |
| 60°-70° | 6623.5 | 26.7 |
| 70°-80° | 3830.3 | 15.4 |
| 80°-90° | 425.1 | 1.7 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 24832.6 | 100.0 |
| 0°-180° | 24832.6 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P642108

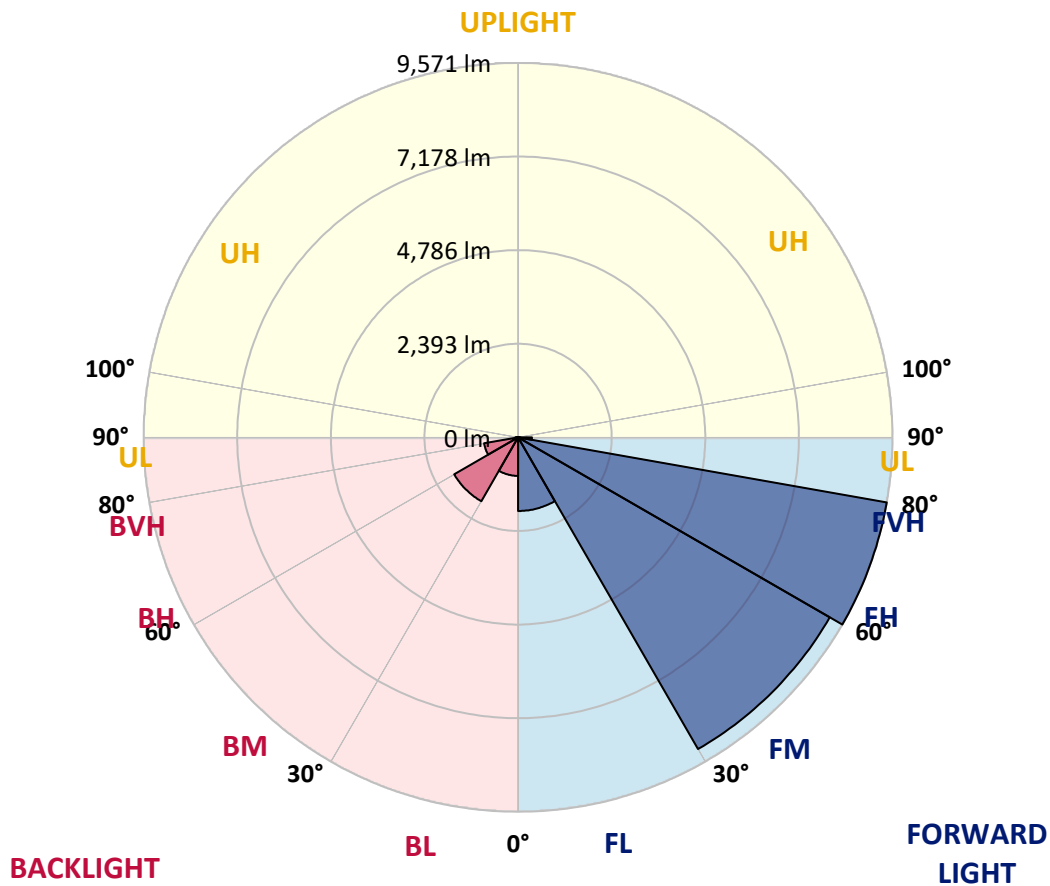
CATALOG NUMBER: GWS-SA6C-730-U-SL4-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1882.5 | 7.6 | | | |
| FM (30°-60°) | 9200.2 | 37.0 | | | |
| FH (60°-80°) | 9571.1 | 38.5 | | | G4/12000 |
| FVH (80°-90°) | 354.0 | 1.4 | | | G3/500 |
| BL (0°-30°) | 985.7 | 4.0 | B2/1000 | | |
| BM (30°-60°) | 1885.3 | 7.6 | B2/2500 | | |
| BH (60°-80°) | 882.8 | 3.6 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 71.1 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 |
| 2.5° | 4242.8 | 4250.2 | 4255.8 | 4263.2 | 4259.5 | 4248.4 | 4257.6 | 4257.6 | 4237.2 | 4215.0 | 4194.6 |
| 5° | 4248.4 | 4257.6 | 4255.8 | 4253.9 | 4239.1 | 4220.6 | 4220.6 | 4209.4 | 4174.2 | 4139.0 | 4105.6 |
| 7.5° | 4237.2 | 4235.4 | 4233.5 | 4228.0 | 4211.3 | 4190.9 | 4187.2 | 4165.0 | 4118.6 | 4070.4 | 4022.2 |
| 10° | 4187.2 | 4185.3 | 4190.9 | 4203.9 | 4200.2 | 4181.6 | 4181.6 | 4161.3 | 4107.5 | 4048.2 | 3985.2 |
| 12.5° | 4146.4 | 4146.4 | 4168.7 | 4203.9 | 4216.9 | 4209.4 | 4211.3 | 4196.5 | 4135.3 | 4064.9 | 3990.7 |
| 15° | 4152.0 | 4153.8 | 4202.0 | 4259.5 | 4283.6 | 4278.0 | 4279.9 | 4263.2 | 4194.6 | 4124.2 | 4024.1 |
| 17.5° | 4189.1 | 4198.3 | 4281.7 | 4361.4 | 4392.9 | 4385.5 | 4372.6 | 4344.8 | 4266.9 | 4187.2 | 4064.9 |
| 20° | 4266.9 | 4281.7 | 4389.2 | 4489.3 | 4526.4 | 4509.7 | 4487.5 | 4431.9 | 4346.6 | 4259.5 | 4109.4 |
| 22.5° | 4420.8 | 4430.0 | 4548.6 | 4646.9 | 4676.5 | 4656.2 | 4611.7 | 4532.0 | 4433.7 | 4342.9 | 4163.1 |
| 25° | 4637.6 | 4648.7 | 4761.8 | 4852.6 | 4845.2 | 4821.1 | 4760.0 | 4661.7 | 4544.9 | 4448.6 | 4241.0 |
| 27.5° | 4895.3 | 4913.8 | 5025.0 | 5097.3 | 5049.1 | 5013.9 | 4945.3 | 4826.7 | 4695.1 | 4608.0 | 4359.6 |
| 30° | 5177.0 | 5184.4 | 5279.0 | 5351.2 | 5277.1 | 5228.9 | 5145.5 | 5017.6 | 4899.0 | 4834.1 | 4537.5 |
| 32.5° | 5449.5 | 5456.9 | 5538.5 | 5579.2 | 5501.4 | 5466.2 | 5393.9 | 5258.6 | 5175.2 | 5139.9 | 4802.6 |
| 35° | 5736.8 | 5734.9 | 5801.7 | 5836.9 | 5757.2 | 5742.3 | 5668.2 | 5564.4 | 5549.6 | 5595.9 | 5190.0 |
| 37.5° | 6024.1 | 6007.4 | 6042.6 | 6089.0 | 6044.5 | 6059.3 | 6011.1 | 5975.9 | 6033.4 | 6153.8 | 5705.3 |
| 40° | 6253.9 | 6253.9 | 6291.0 | 6348.5 | 6363.3 | 6428.2 | 6400.4 | 6446.7 | 6632.1 | 6919.4 | 6342.9 |
| 42.5° | 6457.8 | 6459.7 | 6537.5 | 6626.5 | 6734.0 | 6834.1 | 6856.3 | 6976.8 | 7360.5 | 7810.9 | 7143.6 |
| 45° | 6671.0 | 6672.8 | 6778.5 | 6908.2 | 7136.2 | 7327.1 | 7371.6 | 7642.2 | 8190.9 | 8739.6 | 8013.0 |
| 47.5° | 6917.5 | 6897.1 | 7043.5 | 7260.4 | 7584.8 | 7859.1 | 7974.0 | 8357.7 | 9051.0 | 9725.7 | 8832.2 |
| 50° | 7195.5 | 7152.9 | 7316.0 | 7690.4 | 8090.8 | 8467.1 | 8659.9 | 9099.2 | 9974.0 | 10635.8 | 9603.3 |
| 52.5° | 7508.8 | 7484.7 | 7655.2 | 8111.2 | 8722.9 | 9156.6 | 9418.0 | 9994.4 | 10871.2 | 11542.1 | 10215.0 |
| 55° | 7898.0 | 7840.6 | 8087.1 | 8667.3 | 9464.3 | 10016.7 | 10326.2 | 10880.4 | 11851.7 | 12365.1 | 10682.1 |
| 57.5° | 8324.4 | 8261.3 | 8591.3 | 9362.4 | 10428.2 | 11034.3 | 11421.7 | 11877.6 | 12774.8 | 12995.3 | 10956.4 |
| 60° | 8784.0 | 8763.7 | 9154.8 | 10177.9 | 11577.4 | 12281.7 | 12561.6 | 12975.0 | 13577.4 | 13360.5 | 10887.8 |
| 62.5° | 9204.8 | 9197.4 | 9766.4 | 11062.1 | 12795.2 | 13569.9 | 13792.4 | 13901.7 | 14155.7 | 13336.4 | 10342.9 |
| 65° | 9647.8 | 9710.8 | 10480.1 | 12087.1 | 14190.9 | 14950.9 | 15043.5 | 14765.5 | 14350.3 | 12704.3 | 9227.0 |
| 67.5° | 9703.4 | 9825.7 | 10928.6 | 13047.2 | 15514.3 | 16231.7 | 16157.5 | 15093.6 | 13775.7 | 10945.3 | 7232.6 |
| 70° | 8678.4 | 8891.6 | 10213.1 | 13193.7 | 16446.7 | 16974.9 | 16439.3 | 14387.4 | 11690.4 | 7929.6 | 4548.6 |
| 72.5° | 7251.1 | 7434.6 | 8602.4 | 11251.1 | 15243.7 | 15916.6 | 15191.8 | 12177.9 | 8261.3 | 4548.6 | 2317.0 |
| 75° | 5644.1 | 5857.3 | 6934.2 | 8943.5 | 11412.4 | 11681.2 | 11317.9 | 8493.0 | 4541.2 | 1875.8 | 1052.8 |
| 77.5° | 3443.9 | 3597.8 | 4435.6 | 6059.3 | 7985.2 | 7582.9 | 6426.3 | 4761.8 | 1992.6 | 899.0 | 650.6 |
| 80° | 1523.6 | 1618.2 | 2185.4 | 3254.9 | 4613.5 | 4361.4 | 3438.4 | 2033.4 | 1089.9 | 570.9 | 454.1 |
| 82.5° | 817.4 | 878.6 | 1076.9 | 1288.2 | 2025.9 | 2118.6 | 1718.3 | 1171.5 | 585.7 | 326.2 | 259.5 |
| 85° | 359.6 | 394.8 | 489.3 | 467.1 | 665.4 | 654.3 | 659.9 | 804.4 | 279.9 | 150.1 | 168.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 1.9 | 20.4 | 107.5 | 27.8 | 44.5 | 38.9 |
| 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: GWS-SA6C-730-U-SL4-W

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 | 4216.9 |
| 2.5° | 4172.4 | 4139.0 | 4129.7 | 4118.6 | 4098.2 | 4063.0 | 4037.1 | 4007.4 | 3994.4 | 3979.6 | 3981.5 |
| 5° | 4068.6 | 4027.8 | 3988.9 | 3938.8 | 3875.8 | 3805.4 | 3757.2 | 3701.6 | 3671.9 | 3644.1 | 3651.5 |
| 7.5° | 3979.6 | 3916.6 | 3836.9 | 3731.2 | 3618.2 | 3492.1 | 3390.2 | 3310.5 | 3256.7 | 3219.6 | 3238.2 |
| 10° | 3924.0 | 3849.9 | 3710.8 | 3538.5 | 3347.5 | 3154.8 | 3008.3 | 2871.2 | 2785.9 | 2719.2 | 2715.5 |
| 12.5° | 3912.9 | 3816.5 | 3614.5 | 3364.2 | 3088.0 | 2830.4 | 2615.4 | 2430.0 | 2317.0 | 2233.5 | 2265.1 |
| 15° | 3924.0 | 3801.7 | 3531.0 | 3203.0 | 2854.5 | 2506.0 | 2239.1 | 2025.9 | 1890.6 | 1814.6 | 1809.1 |
| 17.5° | 3937.0 | 3786.8 | 3436.5 | 3028.7 | 2609.8 | 2211.3 | 1901.8 | 1675.6 | 1536.6 | 1460.6 | 1462.5 |
| 20° | 3948.1 | 3764.6 | 3325.3 | 2837.8 | 2361.4 | 1937.0 | 1616.3 | 1401.3 | 1277.1 | 1221.5 | 1230.8 |
| 22.5° | 3966.6 | 3742.3 | 3206.7 | 2633.9 | 2107.5 | 1671.9 | 1390.2 | 1215.9 | 1141.8 | 1104.7 | 1106.6 |
| 25° | 4001.8 | 3729.4 | 3084.3 | 2411.5 | 1857.3 | 1460.6 | 1234.5 | 1117.7 | 1071.4 | 1049.1 | 1047.3 |
| 27.5° | 4074.1 | 3740.5 | 2956.4 | 2196.5 | 1631.1 | 1299.3 | 1134.4 | 1058.4 | 1026.9 | 1012.0 | 1010.2 |
| 30° | 4194.6 | 3785.0 | 2845.2 | 1977.8 | 1436.5 | 1173.3 | 1065.8 | 1019.5 | 1000.9 | 988.0 | 986.1 |
| 32.5° | 4378.1 | 3868.4 | 2724.7 | 1773.9 | 1279.0 | 1080.6 | 1012.0 | 988.0 | 975.0 | 967.6 | 967.6 |
| 35° | 4656.2 | 4020.4 | 2606.1 | 1595.9 | 1156.6 | 1008.3 | 969.4 | 960.1 | 949.0 | 945.3 | 949.0 |
| 37.5° | 5056.5 | 4263.2 | 2498.6 | 1440.2 | 1069.5 | 952.7 | 923.1 | 926.8 | 917.5 | 923.1 | 928.6 |
| 40° | 5564.4 | 4587.6 | 2407.8 | 1312.3 | 1004.6 | 912.0 | 882.3 | 895.3 | 889.7 | 895.3 | 904.5 |
| 42.5° | 6207.6 | 4989.8 | 2339.2 | 1212.2 | 958.3 | 878.6 | 850.8 | 863.8 | 860.1 | 867.5 | 876.7 |
| 45° | 6924.9 | 5519.9 | 2307.7 | 1141.8 | 924.9 | 854.5 | 824.8 | 834.1 | 830.4 | 836.0 | 845.2 |
| 47.5° | 7612.6 | 6001.8 | 2335.5 | 1101.0 | 897.1 | 834.1 | 802.6 | 806.3 | 804.4 | 802.6 | 808.2 |
| 50° | 8205.7 | 6385.5 | 2415.2 | 1088.0 | 878.6 | 813.7 | 784.1 | 785.9 | 780.4 | 769.2 | 772.9 |
| 52.5° | 8689.5 | 6693.2 | 2463.4 | 1088.0 | 869.3 | 791.5 | 763.7 | 765.5 | 754.4 | 739.6 | 741.4 |
| 55° | 9008.3 | 6817.4 | 2424.5 | 1086.2 | 865.6 | 772.9 | 743.3 | 745.1 | 734.0 | 715.5 | 717.3 |
| 57.5° | 9099.2 | 6696.9 | 2261.3 | 1065.8 | 861.9 | 758.1 | 722.9 | 726.6 | 719.2 | 698.8 | 698.8 |
| 60° | 8845.2 | 6255.8 | 1962.9 | 1019.5 | 852.6 | 748.8 | 708.1 | 713.6 | 709.9 | 689.5 | 689.5 |
| 62.5° | 8179.8 | 5471.7 | 1607.0 | 949.0 | 826.7 | 737.7 | 695.1 | 706.2 | 715.5 | 704.4 | 702.5 |
| 65° | 6934.2 | 4383.7 | 1306.8 | 871.2 | 793.3 | 719.2 | 676.6 | 704.4 | 724.7 | 739.6 | 739.6 |
| 67.5° | 5203.0 | 3138.1 | 1065.8 | 789.6 | 743.3 | 682.1 | 652.5 | 678.4 | 693.2 | 702.5 | 708.1 |
| 70° | 3171.4 | 1846.2 | 839.7 | 695.1 | 671.0 | 626.5 | 604.3 | 578.3 | 557.9 | 554.2 | 556.1 |
| 72.5° | 1551.4 | 1056.5 | 682.1 | 591.3 | 572.8 | 532.0 | 481.9 | 470.8 | 461.5 | 456.0 | 454.1 |
| 75° | 854.5 | 735.9 | 563.5 | 491.2 | 457.8 | 407.8 | 396.7 | 378.1 | 374.4 | 367.0 | 368.9 |
| 77.5° | 604.3 | 580.2 | 465.2 | 398.5 | 348.5 | 322.5 | 328.1 | 315.1 | 315.1 | 309.5 | 307.7 |
| 80° | 454.1 | 456.0 | 357.7 | 291.0 | 257.6 | 248.4 | 253.9 | 253.9 | 250.2 | 248.4 | 246.5 |
| 82.5° | 287.3 | 324.4 | 241.0 | 187.2 | 183.5 | 185.4 | 183.5 | 181.6 | 185.4 | 179.8 | 177.9 |
| 85° | 198.3 | 233.5 | 146.4 | 111.2 | 111.2 | 109.4 | 113.1 | 111.2 | 114.9 | 109.4 | 109.4 |
| 87.5° | 44.5 | 103.8 | 53.8 | 33.4 | 35.2 | 33.4 | 35.2 | 37.1 | 40.8 | 42.6 | 42.6 |
| 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



LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-2-R4

Test Date: 10/03/2019

Luminaire Tested: SA1C-730-U-5WQ

Data in this report applies to families of products SA1C-730-U-5WQ .

Test Information

Test Method: LM-79-2008
 Report Number: SP1-1908-441-2-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-730-U-5WQ**
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-2-R3. TO UPDATE THE CATALOG INFORMATION.TESTED IN SITU. (1) 70 CRI, 3000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

CCT (K): 2993
 CIE u': 0.2508
 CIE v': 0.5215
 Duv: 0.0000
 CIE x: 0.4374
 CIE y: 0.4043
 CIE z: 0.1583
 Peak Wavelength (nm): 593
 Dominant Wavelength (nm): 582
 Purity: 53

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 71.8 | | |
| R1: | 67.5 | R9: | -38.3 |
| R2: | 82.9 | R10: | 62.5 |
| R3: | 94.7 | R11: | 63.7 |
| R4: | 67.7 | R12: | 57.8 |
| R5: | 67.9 | R13: | 70.4 |
| R6: | 77.6 | R14: | 97.3 |
| R7: | 76.0 | | |
| R8: | 40.5 | | |

Rf: 75.7
 Rg: 93.9



Test Conditions

Stabilization Time: 53M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.0./44%
 Sphere Temperature (°C): 25.7

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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 3000K 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

Scotopic Flux vs. Wavelength



Scotopic Lumens: 8494.8

S/P: 1.23

| 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

Melanopic Flux vs. Wavelength



Melanopic Lumens: 3101.5 M/P: 0.45

| 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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Summary

$R_f = 75.7$
 $R_g = 93.9$
 CIE $R_a = 71.8$
 $R_9 = -38.3$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 67 | CES51 = 87 | CES76 = 63 |
| CES02 = 63 | CES27 = 88 | CES52 = 86 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 66 | CES54 = 84 | CES79 = 87 |
| CES05 = 49 | CES30 = 73 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 70 | CES56 = 75 | CES81 = 71 |
| CES07 = 41 | CES32 = 65 | CES57 = 74 | CES82 = 94 |
| CES08 = 40 | CES33 = 73 | CES58 = 76 | CES83 = 90 |
| CES09 = 29 | CES34 = 79 | CES59 = 85 | CES84 = 89 |
| CES10 = 76 | CES35 = 89 | CES60 = 93 | CES85 = 77 |
| CES11 = 59 | CES36 = 97 | CES61 = 84 | CES86 = 61 |
| CES12 = 65 | CES37 = 87 | CES62 = 91 | CES87 = 78 |
| CES13 = 43 | CES38 = 81 | CES63 = 77 | CES88 = 77 |
| CES14 = 74 | CES39 = 95 | CES64 = 72 | CES89 = 67 |
| CES15 = 71 | CES40 = 92 | CES65 = 68 | CES90 = 76 |
| CES16 = 47 | CES41 = 88 | CES66 = 69 | CES91 = 89 |
| CES17 = 50 | CES42 = 89 | CES67 = 67 | CES92 = 58 |
| CES18 = 56 | CES43 = 79 | CES68 = 72 | CES93 = 74 |
| CES19 = 73 | CES44 = 99 | CES69 = 81 | CES94 = 49 |
| CES20 = 66 | CES45 = 85 | CES70 = 66 | CES95 = 68 |
| CES21 = 87 | CES46 = 80 | CES71 = 67 | CES96 = 76 |
| CES22 = 79 | CES47 = 82 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 69 | CES73 = 59 | CES98 = 75 |
| CES24 = 91 | CES49 = 80 | CES74 = 95 | CES99 = 62 |
| CES25 = 73 | CES50 = 87 | CES75 = 69 | |



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Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)