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: STREETWORKS

Report Number: P1224048

Luminaire Tested: **FFX-CLB-20-740-U-VM8-T4-HSS**

Issue Date: 01/27/2026

Report Generated By 670245763

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P1224048 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 01/27/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | STREETWORKS |
| Catalog Number: | FFX-CLB-20-740-U-VM8-T4-HSS |
| Description: | FAIRFAX POST TOP FIXTURE w/ ULA ACORN 8 INCH NECK TYPE 4 DISTRIBUTION AND HOUSE SIDE SHIELD |
| Light Source: | (6) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 3011.1 lumens |
| Efficiency: | N/A |
| Efficacy: | 152.1 lumens/watt |
| Luminous Opening: | Vertical Cylinder (Dia: 1.17' x H: 1.67') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B1 - U4 - G3 |

| | |
|---|---|
| Input Watts (W): | 19.8 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.99 |
| Total Harmonic Distortion (THDi): | 9.1% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

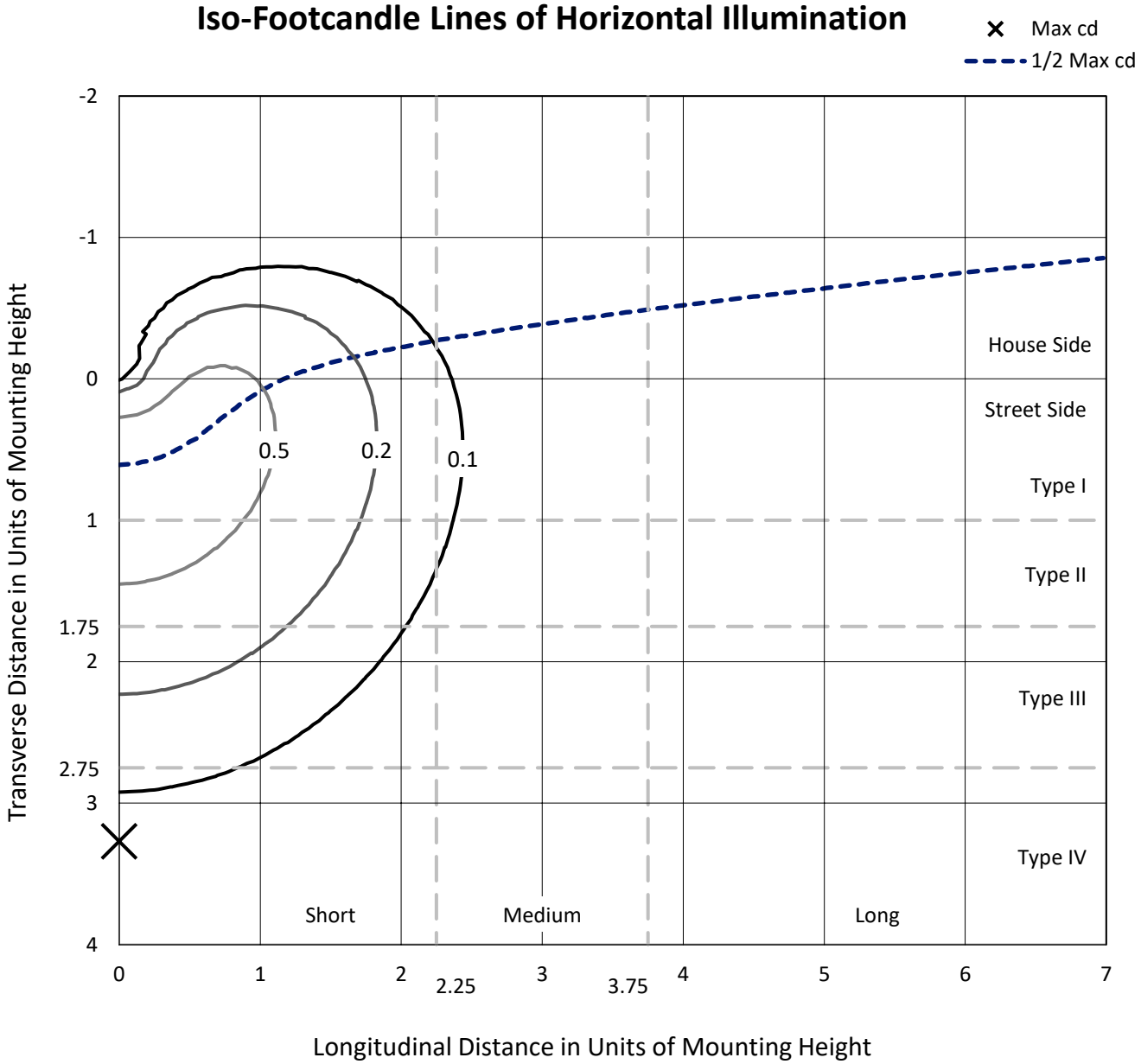


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REPORT NUMBER: P1224048
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## Iso-Footcandle Lines of Horizontal Illumination



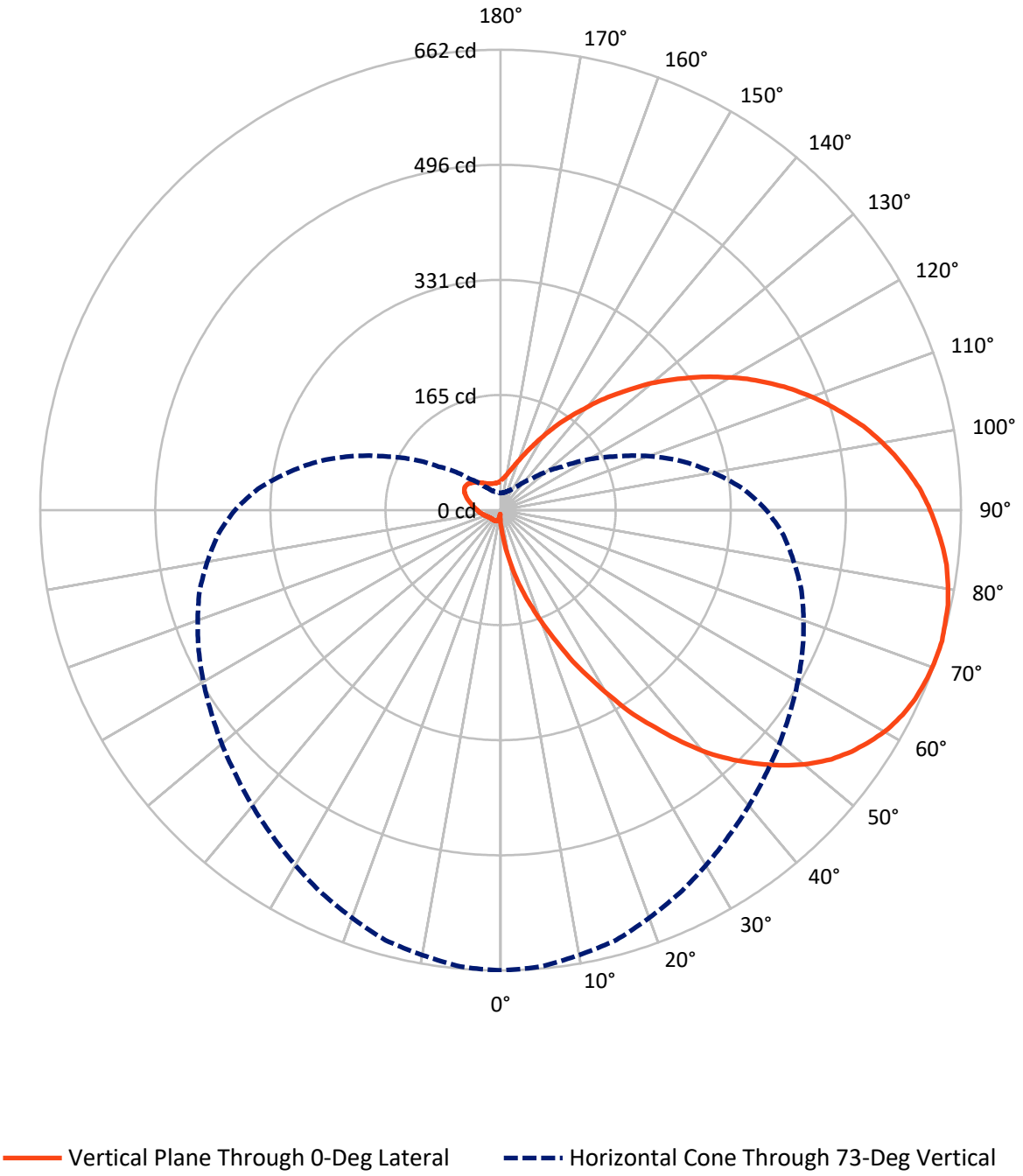

Based on 15 foot mounting height. Maximum calculated value = 0.9 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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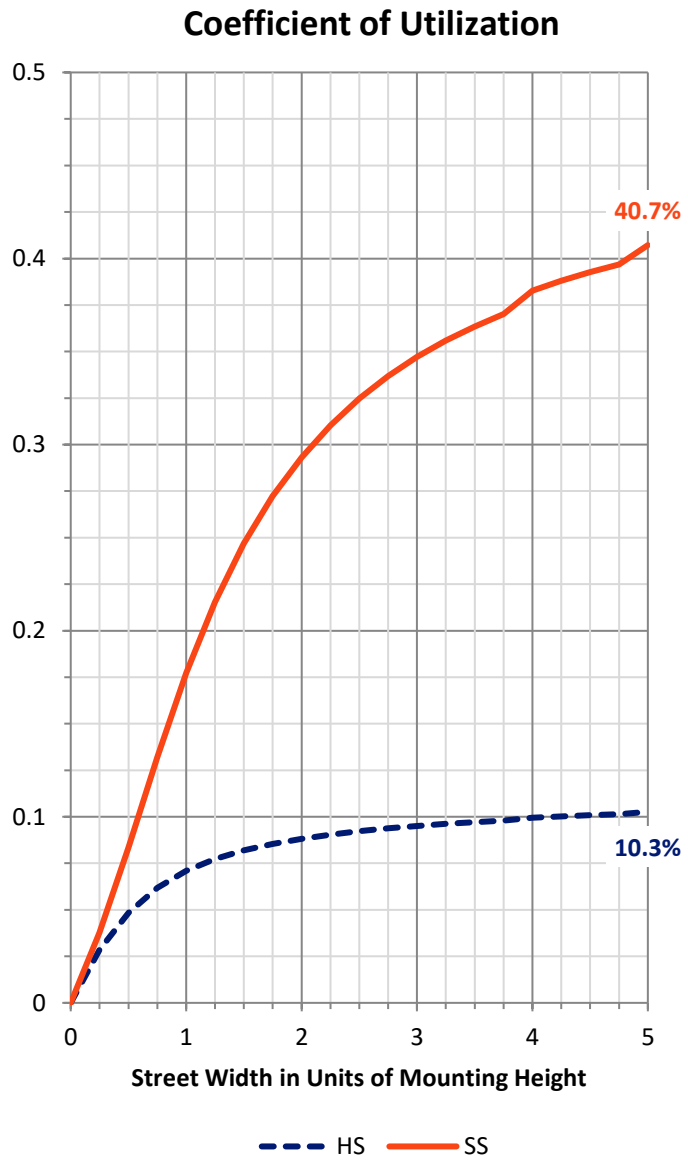
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 333.5 | 327.7 | 661.2 |
| | % Fixture | 11.1 | 10.9 | 22.0 |
| **Street Side** | Lumens | 1406.2 | 943.6 | 2349.8 |
| | % Fixture | 46.7 | 31.3 | 78.0 |
| **Total** | Lumens | 1739.7 | 1271.4 | 3011.1 |
| | % Fixture | 57.8 | 42.2 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 3.1 | 0.1 |
| 10°-20° | 21.3 | 0.7 |
| 20°-30° | 64.5 | 2.1 |
| 30°-40° | 134.3 | 4.5 |
| 40°-50° | 212.8 | 7.1 |
| 50°-60° | 279.5 | 9.3 |
| 60°-70° | 325.7 | 10.8 |
| 70°-80° | 349.1 | 11.6 |
| 80°-90° | 349.4 | 11.6 |
| 90°-100° | 327.6 | 10.9 |
| 100°-110° | 288.2 | 9.6 |
| 110°-120° | 238.0 | 7.9 |
| 120°-130° | 179.1 | 5.9 |
| 130°-140° | 118.2 | 3.9 |
| 140°-150° | 67.8 | 2.3 |
| 150°-160° | 33.6 | 1.1 |
| 160°-170° | 14.7 | 0.5 |
| 170°-180° | 4.1 | 0.1 |
| 0°-90° | 1739.7 | 57.8 |
| 0°-180° | 3011.1 | 100.0 |



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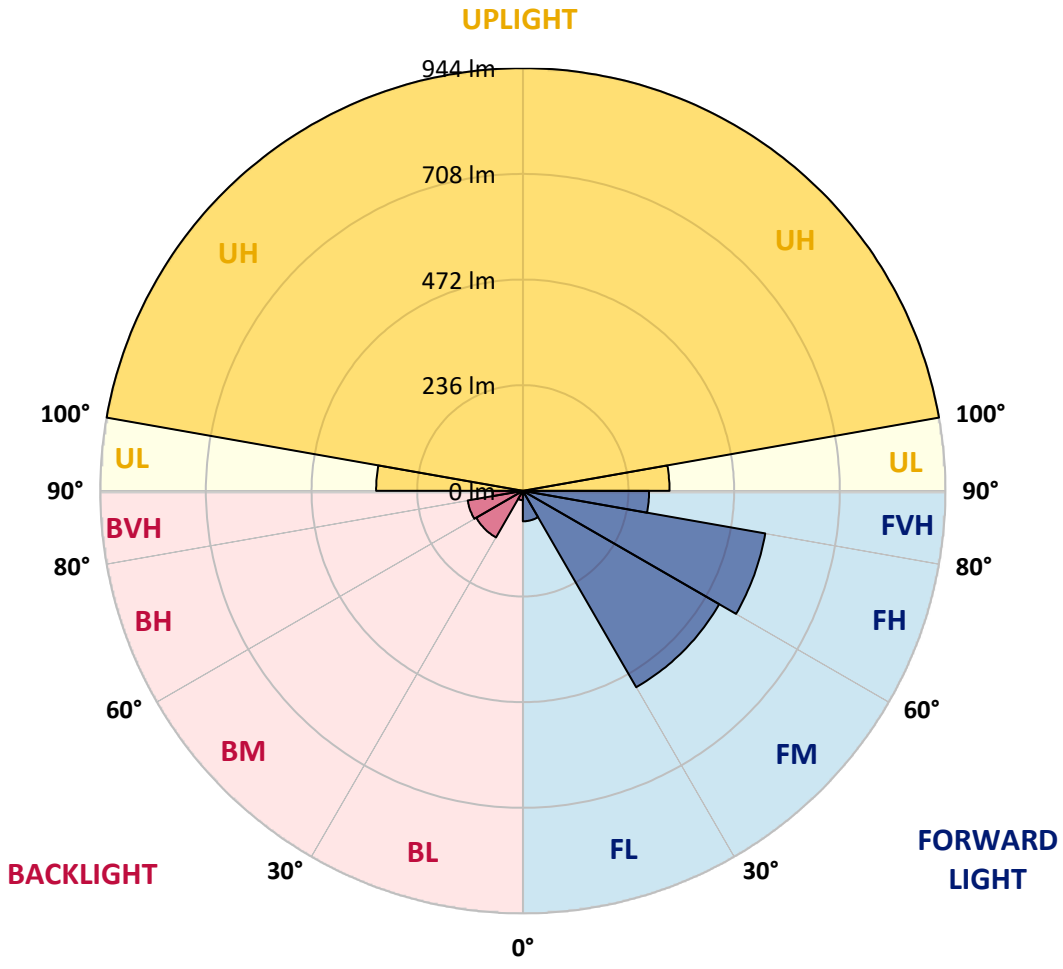
Scaled Data Report

REPORT NUMBER: P1224048
CATALOG NUMBER: FFX-CLB-20-740-U-VM8-T4-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 68.1 | 2.3 | | | |
| FM | (30°-60°) | 506.4 | 16.8 | | | |
| FH | (60°-80°) | 549.7 | 18.3 | | | G0/660 |
| FVH | (80°-90°) | 281.9 | 9.4 | | | G3/500 |
| BL | (0°-30°) | 20.8 | 0.7 | B0/110 | | |
| BM | (30°-60°) | 120.2 | 4.0 | B0/220 | | |
| BH | (60°-80°) | 125.1 | 4.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 67.4 | 2.2 | | | G1/100 |
| UL | (90°-100°) | 327.6 | 10.9 | | U3/500 | |
| UH | (100°-180°) | 943.7 | 31.3 | | U4/1000 | |

**BUG Rating: B1-U4-G3**
Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 |
| 2.5° | 27.2 | 27.4 | 27.2 | 27.6 | 26.5 | 26.5 | 25.7 | 24.9 | 23.9 | 22.6 | 21.8 |
| 5° | 40.3 | 40.1 | 40.1 | 40.3 | 39.7 | 37.9 | 35.8 | 32.9 | 30.5 | 27.8 | 26.3 |
| 7.5° | 58.0 | 57.2 | 56.4 | 56.2 | 54.1 | 51.4 | 48.6 | 45.3 | 41.8 | 38.1 | 35.4 |
| 10° | 76.6 | 77.2 | 76.4 | 74.1 | 71.6 | 68.5 | 64.8 | 60.3 | 55.8 | 50.6 | 47.5 |
| 12.5° | 100.4 | 98.8 | 96.7 | 94.5 | 92.0 | 89.1 | 83.1 | 78.0 | 71.6 | 65.2 | 61.1 |
| 15° | 123.7 | 122.2 | 122.2 | 119.4 | 115.5 | 111.1 | 105.6 | 99.2 | 90.3 | 80.3 | 76.6 |
| 17.5° | 147.6 | 147.8 | 145.7 | 142.4 | 138.9 | 133.4 | 127.4 | 118.3 | 109.3 | 98.8 | 92.4 |
| 20° | 175.5 | 174.7 | 173.3 | 170.8 | 164.6 | 159.7 | 152.3 | 142.2 | 129.9 | 117.1 | 109.3 |
| 22.5° | 204.6 | 205.0 | 205.0 | 201.1 | 195.3 | 188.5 | 180.1 | 168.5 | 153.9 | 137.5 | 128.0 |
| 25° | 240.8 | 240.6 | 236.7 | 232.1 | 227.6 | 220.6 | 209.9 | 195.9 | 179.9 | 160.1 | 149.0 |
| 27.5° | 273.7 | 273.5 | 272.7 | 268.6 | 261.8 | 252.7 | 240.2 | 224.9 | 206.6 | 183.0 | 169.8 |
| 30° | 310.3 | 311.2 | 308.9 | 305.4 | 296.6 | 287.3 | 272.7 | 254.8 | 233.2 | 207.6 | 192.8 |
| 32.5° | 350.1 | 348.4 | 346.6 | 342.0 | 332.4 | 319.4 | 302.9 | 284.4 | 260.7 | 231.5 | 215.3 |
| 35° | 384.4 | 387.5 | 384.6 | 377.6 | 365.7 | 351.9 | 333.8 | 313.0 | 287.3 | 256.0 | 237.5 |
| 37.5° | 423.1 | 422.5 | 418.2 | 411.4 | 399.9 | 382.4 | 363.2 | 339.2 | 310.3 | 277.8 | 257.2 |
| 40° | 459.1 | 456.7 | 454.2 | 444.1 | 429.5 | 412.0 | 388.3 | 363.8 | 334.2 | 297.6 | 276.8 |
| 42.5° | 491.0 | 490.8 | 484.2 | 474.2 | 455.8 | 436.5 | 412.0 | 384.6 | 353.8 | 315.9 | 292.4 |
| 45° | 520.5 | 519.8 | 513.5 | 498.4 | 481.1 | 457.9 | 432.4 | 404.0 | 371.5 | 331.5 | 309.1 |
| 47.5° | 548.2 | 546.6 | 537.7 | 522.5 | 500.7 | 476.2 | 449.9 | 420.0 | 386.5 | 345.5 | 322.1 |
| 50° | 573.6 | 572.1 | 561.8 | 542.5 | 519.2 | 493.1 | 464.3 | 433.4 | 400.7 | 359.5 | 334.2 |
| 52.5° | 595.2 | 592.7 | 580.8 | 560.0 | 533.4 | 505.8 | 475.8 | 444.9 | 411.8 | 369.4 | 344.9 |
| 55° | 612.4 | 609.8 | 597.0 | 573.8 | 546.0 | 516.1 | 485.7 | 455.0 | 420.4 | 378.3 | 353.1 |
| 57.5° | 626.9 | 624.8 | 610.8 | 585.3 | 555.6 | 525.0 | 494.1 | 462.8 | 428.5 | 386.5 | 360.3 |
| 60° | 639.4 | 636.9 | 621.1 | 594.7 | 563.5 | 531.8 | 500.3 | 469.0 | 435.3 | 392.9 | 366.9 |
| 62.5° | 648.3 | 646.4 | 629.7 | 601.5 | 569.0 | 536.9 | 504.4 | 474.2 | 440.4 | 398.6 | 371.9 |
| 65° | 654.6 | 652.4 | 635.5 | 605.7 | 572.5 | 539.4 | 507.5 | 476.4 | 443.7 | 402.1 | 375.6 |
| 67.5° | 658.3 | 656.7 | 639.0 | 608.5 | 574.0 | 540.6 | 508.9 | 478.7 | 446.4 | 405.0 | 378.5 |
| 70° | 660.8 | 658.3 | 640.4 | 609.2 | 573.6 | 540.4 | 508.9 | 478.9 | 447.8 | 407.1 | 380.1 |
| 72.5° | 661.4 | 658.8 | 640.2 | 608.1 | 572.3 | 538.4 | 507.9 | 479.1 | 448.2 | 408.1 | 381.8 |
| 73° | 661.6 | 658.8 | 640.0 | 607.7 | 571.7 | 538.2 | 507.7 | 478.7 | 447.8 | 407.9 | 381.8 |
| 75° | 659.4 | 657.5 | 638.4 | 605.2 | 569.6 | 536.1 | 506.3 | 477.7 | 447.8 | 408.1 | 381.5 |
| 77.5° | 657.1 | 654.2 | 634.3 | 601.7 | 564.9 | 532.4 | 503.2 | 475.6 | 446.4 | 407.7 | 381.3 |
| 80° | 651.8 | 648.9 | 628.9 | 595.2 | 558.9 | 527.0 | 498.8 | 472.3 | 443.7 | 405.4 | 379.7 |
| 82.5° | 645.6 | 642.3 | 621.5 | 587.5 | 551.7 | 520.3 | 493.3 | 468.0 | 440.2 | 402.7 | 377.2 |
| 85° | 636.5 | 634.1 | 612.9 | 578.3 | 543.5 | 513.3 | 486.9 | 462.8 | 435.7 | 398.6 | 373.5 |
| 87.5° | 626.0 | 624.0 | 602.0 | 567.8 | 533.0 | 504.2 | 479.5 | 456.0 | 430.5 | 394.1 | 369.4 |
| 90° | 615.1 | 612.7 | 590.6 | 555.9 | 522.7 | 494.3 | 470.9 | 448.8 | 424.1 | 388.5 | 364.1 |
| 92.5° | 602.6 | 599.7 | 577.5 | 543.7 | 511.4 | 484.2 | 462.4 | 440.8 | 416.9 | 382.2 | 358.5 |
| 95° | 587.3 | 584.7 | 562.6 | 528.9 | 497.2 | 472.5 | 451.3 | 431.3 | 408.5 | 374.5 | 351.7 |
| 97.5° | 571.1 | 568.6 | 546.4 | 514.1 | 483.4 | 459.1 | 439.4 | 421.3 | 399.4 | 367.1 | 344.1 |
| 100° | 553.6 | 550.3 | 528.3 | 497.2 | 466.9 | 444.9 | 427.2 | 411.0 | 389.6 | 357.9 | 335.9 |
| 102.5° | 535.1 | 532.0 | 511.0 | 480.5 | 452.1 | 430.7 | 414.7 | 398.8 | 379.3 | 349.4 | 327.8 |
| 105° | 514.1 | 512.4 | 491.2 | 461.8 | 435.3 | 415.5 | 400.5 | 386.7 | 368.2 | 339.2 | 319.4 |
| 107.5° | 493.3 | 490.0 | 470.2 | 442.0 | 417.1 | 399.2 | 386.3 | 373.5 | 356.6 | 328.9 | 310.1 |

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**CANDELA DISTRIBUTION (continued):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 110° | *471.3* | 468.0 | 450.3 | 423.3 | 400.3 | 383.2 | 371.3 | 359.9 | 344.7 | 318.8 | 301.1 |
| 112.5° | *449.0* | 445.3 | 427.8 | 403.2 | 380.7 | 366.7 | 355.8 | 346.4 | 332.6 | 308.7 | 291.2 |
| 115° | *425.0* | 423.5 | 406.4 | 382.8 | 363.0 | 349.9 | 340.4 | 331.7 | 318.8 | 297.8 | 281.7 |
| 117.5° | *401.3* | 398.6 | 383.8 | 362.0 | 343.7 | 331.3 | 324.1 | 316.5 | 304.8 | 285.0 | 271.0 |
| 120° | *375.8* | 375.2 | 361.0 | 340.6 | 323.5 | 313.8 | 306.8 | 300.5 | 290.2 | 272.3 | 259.1 |
| 122.5° | *351.7* | 350.5 | 336.9 | 318.6 | 304.4 | 295.3 | 289.8 | 284.2 | 275.4 | 258.7 | 246.3 |
| 125° | *326.2* | 324.7 | 314.0 | 299.0 | 285.4 | 276.8 | 271.4 | 267.1 | 259.1 | 244.1 | 232.5 |
| 127.5° | *302.5* | 301.1 | 291.4 | 277.0 | 266.3 | 258.5 | 253.5 | 249.6 | 241.6 | 228.6 | 218.6 |
| 130° | *279.1* | 276.6 | 268.2 | 256.6 | 245.9 | 240.6 | 235.6 | 232.8 | 224.5 | 212.4 | 203.5 |
| 132.5° | *254.0* | 252.7 | 246.7 | 236.0 | 227.4 | 221.8 | 217.5 | 213.8 | 207.4 | 196.3 | 188.3 |
| 135° | *231.7* | 230.5 | 224.9 | 215.9 | 209.9 | 204.8 | 200.9 | 196.9 | 190.4 | 179.7 | 172.9 |
| 137.5° | *210.5* | 209.5 | 204.6 | 198.4 | 190.8 | 187.7 | 185.0 | 180.3 | 174.5 | 164.8 | 158.7 |
| 140° | *188.3* | 188.7 | 184.8 | 179.2 | 174.5 | 170.8 | 168.1 | 164.2 | 158.5 | 150.2 | 144.1 |
| 142.5° | *170.0* | 170.6 | 165.9 | 162.0 | 157.6 | 154.8 | 152.1 | 148.8 | 143.2 | 135.8 | 131.1 |
| 145° | *152.7* | 151.3 | 149.4 | 145.7 | 141.6 | 139.7 | 137.1 | 134.2 | 129.9 | 122.4 | 118.5 |
| 147.5° | *135.2* | 134.8 | 132.9 | 130.5 | 127.2 | 124.3 | 122.2 | 120.6 | 116.3 | 110.1 | 106.6 |
| 150° | *119.4* | 118.9 | 117.9 | 116.1 | 113.2 | 111.3 | 109.7 | 107.4 | 103.3 | 98.6 | 95.5 |
| 152.5° | *105.4* | 105.4 | 104.7 | 102.3 | 101.0 | 99.0 | 96.9 | 95.7 | 91.6 | 87.7 | 85.0 |
| 155° | *93.2* | 93.2 | 92.4 | 91.2 | 88.9 | 87.7 | 86.4 | 84.6 | 81.7 | 78.6 | 76.1 |
| 157.5° | *82.7* | 82.9 | 81.9 | 80.9 | 79.2 | 78.2 | 77.0 | 75.1 | 73.3 | 70.4 | 68.5 |
| 160° | *73.5* | 73.7 | 73.3 | 72.4 | 70.8 | 69.8 | 68.7 | 67.3 | 65.6 | 63.4 | 61.7 |
| 162.5° | *66.1* | 65.9 | 65.4 | 64.6 | 63.6 | 63.0 | 61.7 | 60.7 | 59.3 | 57.6 | 56.2 |
| 165° | *60.3* | 59.7 | 59.5 | 58.9 | 57.8 | 57.2 | 56.2 | 55.4 | 54.3 | 52.7 | 52.1 |
| 167.5° | *55.2* | 55.2 | 54.7 | 54.3 | 53.5 | 52.7 | 51.9 | 51.2 | 50.4 | 49.4 | 48.6 |
| 170° | *51.0* | 51.0 | 50.6 | 50.2 | 49.4 | 49.0 | 48.4 | 47.7 | 47.1 | 46.3 | 45.9 |
| 172.5° | *47.7* | 47.7 | 47.5 | 46.9 | 46.5 | 45.9 | 45.7 | 45.1 | 44.5 | 44.0 | 43.6 |
| 175° | *45.3* | 45.3 | 44.9 | 44.5 | 44.0 | 43.6 | 43.2 | 43.0 | 42.8 | 42.4 | 42.2 |
| 177.5° | *43.4* | 43.2 | 43.0 | 42.6 | 42.2 | 42.0 | 41.8 | 41.6 | 41.6 | 41.4 | 41.2 |
| 180° | *41.0* | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 |

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**CANDELA DISTRIBUTION (continued):**

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 |
| 2.5° | 21.0 | 19.1 | 17.1 | 15.2 | 14.2 | 12.8 | 11.9 | 11.5 | 11.9 | 11.3 |
| 5° | 24.9 | 21.6 | 18.3 | 15.8 | 13.2 | 11.1 | 9.3 | 7.4 | 6.2 | 6.0 |
| 7.5° | 33.1 | 29.4 | 24.9 | 20.8 | 17.1 | 13.8 | 10.9 | 8.6 | 7.0 | 6.8 |
| 10° | 43.8 | 38.3 | 32.5 | 26.8 | 21.4 | 17.1 | 13.6 | 11.1 | 10.3 | 10.1 |
| 12.5° | 57.2 | 49.2 | 41.2 | 33.5 | 27.0 | 21.2 | 17.3 | 14.6 | 13.4 | 13.2 |
| 15° | 71.2 | 61.1 | 50.8 | 41.0 | 32.1 | 25.1 | 20.2 | 17.3 | 15.8 | 15.6 |
| 17.5° | 86.2 | 73.1 | 59.1 | 47.5 | 37.0 | 28.6 | 22.4 | 18.5 | 16.9 | 16.5 |
| 20° | 101.5 | 85.0 | 68.9 | 53.9 | 41.2 | 30.9 | 23.7 | 19.1 | 17.1 | 16.7 |
| 22.5° | 118.5 | 98.8 | 78.8 | 60.1 | 44.9 | 33.1 | 24.7 | 19.6 | 17.3 | 16.9 |
| 25° | 137.9 | 112.8 | 89.1 | 67.3 | 49.0 | 35.2 | 25.7 | 20.2 | 17.5 | 17.1 |
| 27.5° | 157.6 | 128.4 | 99.6 | 73.7 | 52.5 | 36.6 | 26.5 | 20.4 | 17.7 | 17.3 |
| 30° | 177.6 | 144.1 | 110.3 | 79.8 | 55.6 | 38.3 | 27.0 | 20.6 | 17.7 | 17.5 |
| 32.5° | 198.4 | 158.7 | 120.6 | 85.6 | 58.2 | 39.3 | 27.4 | 20.8 | 17.9 | 17.5 |
| 35° | 217.1 | 174.1 | 130.3 | 91.2 | 60.7 | 40.1 | 27.6 | 20.8 | 17.9 | 17.5 |
| 37.5° | 235.0 | 187.3 | 139.1 | 95.7 | 62.6 | 40.7 | 27.8 | 20.8 | 17.9 | 17.5 |
| 40° | 253.7 | 201.3 | 147.1 | 99.8 | 64.0 | 41.2 | 27.8 | 20.8 | 17.9 | 17.7 |
| 42.5° | 269.0 | 213.0 | 153.9 | 102.7 | 65.0 | 41.2 | 27.8 | 20.8 | 18.1 | 17.7 |
| 45° | 282.8 | 222.7 | 160.5 | 105.4 | 65.6 | 41.2 | 27.6 | 21.0 | 18.1 | 17.9 |
| 47.5° | 294.7 | 232.3 | 165.5 | 107.2 | 65.9 | 41.2 | 27.6 | 21.0 | 18.3 | 18.1 |
| 50° | 305.8 | 240.2 | 169.8 | 108.7 | 66.1 | 41.0 | 27.6 | 21.2 | 18.5 | 18.1 |
| 52.5° | 315.3 | 246.5 | 173.3 | 109.5 | 65.6 | 40.5 | 27.6 | 21.4 | 18.9 | 18.5 |
| 55° | 323.3 | 252.5 | 175.7 | 109.9 | 65.2 | 40.3 | 27.6 | 21.6 | 19.1 | 18.9 |
| 57.5° | 329.9 | 257.2 | 178.0 | 110.1 | 64.8 | 40.1 | 27.8 | 22.0 | 19.8 | 19.6 |
| 60° | 335.9 | 261.2 | 179.7 | 110.1 | 64.4 | 39.9 | 28.0 | 22.4 | 20.2 | 20.0 |
| 62.5° | 340.6 | 264.2 | 180.9 | 109.9 | 64.2 | 39.9 | 28.4 | 23.0 | 20.8 | 20.6 |
| 65° | 343.9 | 266.5 | 181.5 | 109.5 | 63.8 | 40.1 | 28.8 | 23.7 | 21.6 | 21.4 |
| 67.5° | 347.0 | 268.6 | 181.9 | 109.3 | 63.6 | 40.3 | 29.4 | 24.5 | 22.4 | 22.2 |
| 70° | 348.8 | 269.8 | 182.1 | 109.1 | 63.4 | 40.7 | 30.0 | 25.3 | 23.5 | 23.3 |
| 72.5° | 349.6 | 270.6 | 182.3 | 108.7 | 63.6 | 41.2 | 30.9 | 26.1 | 24.5 | 24.3 |
| 73° | *349.9* | *270.6* | *182.1* | *108.7* | *63.6* | *41.4* | *31.1* | *26.5* | *24.7* | *24.5* |
| 75° | 350.3 | 270.6 | 181.9 | 108.5 | 63.8 | 41.8 | 31.7 | 27.4 | 25.5 | 25.5 |
| 77.5° | 349.6 | 270.2 | 181.5 | 108.2 | 64.0 | 42.6 | 32.7 | 28.4 | 26.8 | 26.5 |
| 80° | 348.4 | 269.2 | 180.9 | 108.2 | 64.4 | 43.4 | 34.0 | 29.6 | 28.0 | 27.8 |
| 82.5° | 345.7 | 267.3 | 180.1 | 108.0 | 65.0 | 44.5 | 35.2 | 30.9 | 29.4 | 29.2 |
| 85° | 343.1 | 265.1 | 178.8 | 108.0 | 65.9 | 45.7 | 36.4 | 32.3 | 30.9 | 30.7 |
| 87.5° | 338.9 | 262.4 | 177.6 | 107.8 | 66.7 | 46.7 | 37.7 | 33.8 | 32.1 | 32.1 |
| 90° | 334.2 | 259.5 | 176.4 | 108.0 | 67.5 | 48.2 | 39.3 | 35.4 | 33.8 | 33.5 |
| 92.5° | 329.5 | 256.2 | 174.9 | 108.5 | 68.9 | 49.6 | 41.0 | 37.0 | 35.4 | 35.0 |
| 95° | 323.1 | 251.7 | 173.3 | 108.7 | 70.2 | 51.2 | 42.6 | 38.7 | 37.0 | 37.0 |
| 97.5° | 316.5 | 247.6 | 171.4 | 109.3 | 71.8 | 53.3 | 44.9 | 40.7 | 39.1 | 39.1 |
| 100° | 309.5 | 243.3 | 170.2 | 109.9 | 73.5 | 55.6 | 46.9 | 42.8 | 41.2 | 41.2 |
| 102.5° | 302.1 | 238.5 | 169.0 | 111.1 | 75.9 | 57.8 | 49.4 | 45.3 | 43.4 | 43.4 |
| 105° | 294.5 | 234.0 | 167.7 | 112.6 | 78.4 | 60.7 | 52.1 | 48.0 | 46.1 | 46.1 |
| 107.5° | 287.1 | 229.7 | 166.7 | 114.4 | 81.1 | 63.6 | 54.7 | 50.6 | 48.8 | 48.4 |

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

Scaled Data Report

REPORT NUMBER: P1224048
CATALOG NUMBER: FFX-CLB-20-740-U-VM8-T4-HSS

**CANDELA DISTRIBUTION (continued):**

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|
| 110° | 279.3 | 225.1 | 165.9 | 116.3 | 84.2 | 66.9 | 58.0 | 53.3 | 51.2 | 51.2 |
| 112.5° | 270.8 | 220.4 | 165.3 | 118.1 | 87.5 | 70.2 | 60.9 | 56.2 | 54.1 | 53.7 |
| 115° | 262.0 | 215.7 | 164.0 | 120.2 | 90.3 | 73.5 | 64.0 | 58.7 | 56.4 | 56.2 |
| 117.5° | 253.3 | 210.1 | 162.6 | 121.6 | 93.0 | 76.1 | 66.5 | 61.1 | 58.7 | 58.4 |
| 120° | 243.3 | 203.9 | 160.1 | 122.0 | 95.1 | 78.2 | 68.5 | 62.8 | 60.3 | 59.9 |
| 122.5° | 232.1 | 195.9 | 156.6 | 121.6 | 96.1 | 79.6 | 69.8 | 64.0 | 61.1 | 60.9 |
| 125° | 219.6 | 187.1 | 152.1 | 120.2 | 96.3 | 80.3 | 70.2 | 64.2 | 61.5 | 61.1 |
| 127.5° | 206.4 | 178.2 | 146.1 | 117.3 | 95.1 | 79.8 | 69.8 | 63.8 | 60.9 | 60.7 |
| 130° | 192.8 | 167.7 | 139.1 | 113.6 | 93.0 | 78.4 | 68.7 | 62.8 | 59.9 | 59.7 |
| 132.5° | 179.2 | 156.6 | 131.5 | 108.7 | 90.1 | 76.1 | 66.9 | 61.1 | 58.4 | 58.0 |
| 135° | 164.6 | 145.7 | 123.7 | 103.5 | 86.2 | 73.7 | 64.6 | 59.1 | 56.4 | 56.2 |
| 137.5° | 151.3 | 134.4 | 115.7 | 97.8 | 82.5 | 70.4 | 62.2 | 57.0 | 54.7 | 54.3 |
| 140° | 138.1 | 123.5 | 107.0 | 91.6 | 77.8 | 67.1 | 59.3 | 54.7 | 52.5 | 52.3 |
| 142.5° | 125.9 | 113.4 | 99.4 | 85.6 | 73.5 | 63.8 | 56.8 | 52.5 | 50.6 | 50.2 |
| 145° | 113.4 | 102.9 | 91.4 | 79.4 | 68.7 | 60.3 | 54.1 | 50.2 | 48.6 | 48.2 |
| 147.5° | 102.5 | 93.2 | 83.3 | 73.3 | 64.4 | 56.8 | 51.4 | 48.2 | 46.7 | 46.5 |
| 150° | 92.2 | 84.4 | 75.7 | 67.5 | 59.7 | 53.5 | 49.0 | 46.1 | 44.9 | 44.7 |
| 152.5° | 82.9 | 76.1 | 69.1 | 62.2 | 55.6 | 50.6 | 46.7 | 44.2 | 43.2 | 43.2 |
| 155° | 74.3 | 68.7 | 63.2 | 57.4 | 52.3 | 48.2 | 45.1 | 43.0 | 42.2 | 42.0 |
| 157.5° | 66.9 | 62.6 | 58.0 | 53.3 | 49.4 | 45.9 | 43.4 | 42.0 | 41.2 | 41.2 |
| 160° | 60.5 | 57.2 | 53.5 | 50.0 | 46.9 | 44.0 | 42.2 | 41.0 | 40.3 | 40.3 |
| 162.5° | 55.4 | 52.7 | 49.8 | 47.1 | 44.5 | 42.6 | 41.2 | 40.3 | 39.9 | 39.9 |
| 165° | 51.0 | 49.2 | 47.1 | 44.9 | 43.0 | 41.6 | 40.5 | 39.9 | 39.7 | 39.7 |
| 167.5° | 48.0 | 46.3 | 44.7 | 43.2 | 42.0 | 40.7 | 40.1 | 39.7 | 39.7 | 39.5 |
| 170° | 45.3 | 44.2 | 42.8 | 41.8 | 40.7 | 40.1 | 39.7 | 39.5 | 39.5 | 39.3 |
| 172.5° | 43.2 | 42.4 | 41.6 | 40.7 | 40.1 | 39.7 | 39.5 | 39.5 | 39.5 | 39.5 |
| 175° | 42.0 | 41.4 | 40.7 | 40.3 | 39.9 | 39.5 | 39.5 | 39.7 | 39.7 | 39.7 |
| 177.5° | 41.0 | 40.7 | 40.3 | 40.1 | 39.9 | 39.9 | 39.9 | 40.1 | 40.3 | 40.3 |
| 180° | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 |

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

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

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2501-332-1

Test Date: 03/20/2025

Luminaire Tested: FFX-CLB-100-740-U-FR-T5

Data in this report applies to families of products including FFX-CLB-100-740-U-FR-T5

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

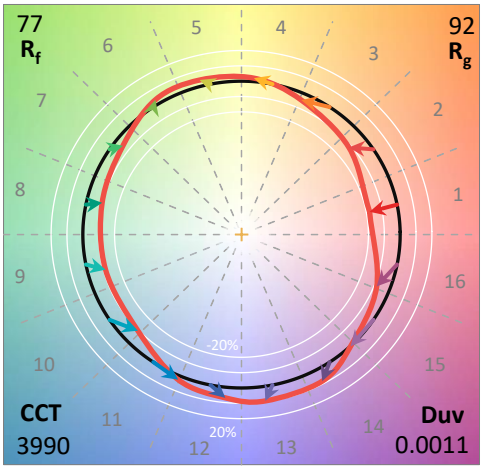
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2501-332-1 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 03/31/2025 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | Streetworks |
| Catalog Number: | **FFX-CLB-100-740-U-FR-T5** |
| Description: | FAIRFAX ACORN W/ FAIRFAX REFRACTOR 100W T5 |

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 3990 | CRI (Ra): | 73.9 | | |
| CIE u': | 0.2247 | R1: | 69.6 | R9: | -36.4 |
| CIE v': | 0.5031 | R2: | 83.0 | R10: | 60.9 |
| Duv: | 0.0011 | R3: | 93.1 | R11: | 66.8 |
| CIE x: | 0.3816 | R4: | 70.6 | R12: | 52.5 |
| CIE y: | 0.3798 | R5: | 70.6 | R13: | 72.5 |
| CIE z: | 0.2386 | R6: | 76.4 | R14: | 96.4 |
| Peak Wavelength (nm): | 450 | R7: | 79.8 | R15: | 61.3 |
| Dominant Wavelength (nm): | 578 | R8: | 48.1 | | |
| Purity: | 28.50862 | | | | |

| | |
|---|---|
| Rf: | 77.5 |
| Rg: | 91.9 |




## Test Conditions

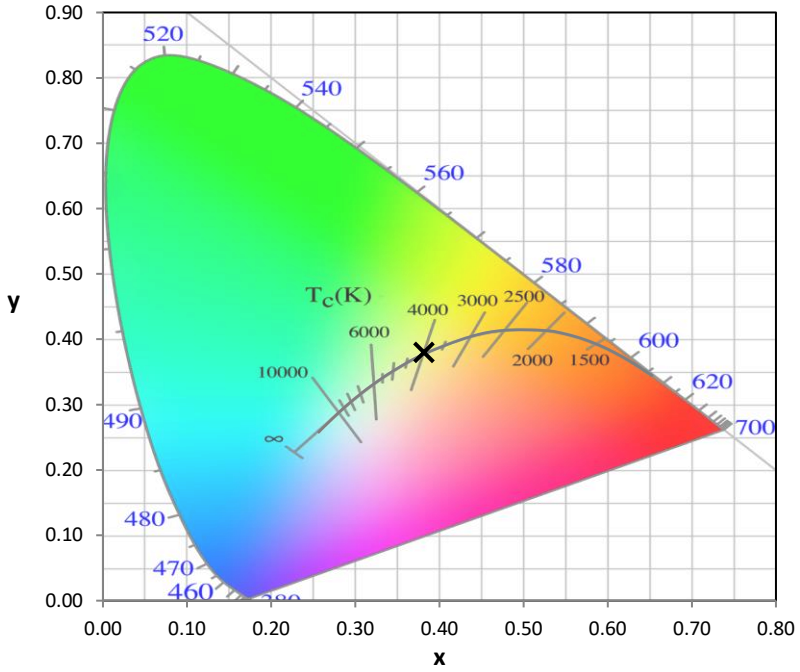
| | |
|---|---|
| Stabilization Time: | 70M |
| Operation Time: | 2H 10M |
| Sphere Temperature (°C): | 25.0 |

REPORT NUMBER: SP1-2501-332-1

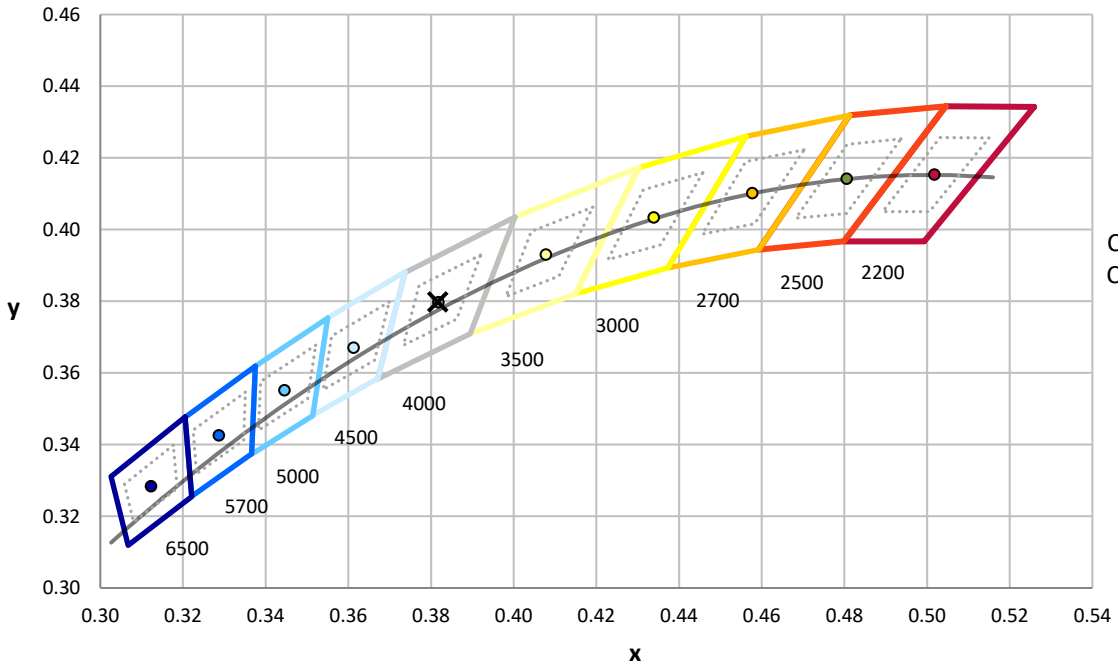
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 12/16/2024 | 6/16/2025 |
| Power Meter | INXT2011004 | 1/21/2025 | 1/21/2026 |
| AC Power Source | IN0063 | 10/22/2024 | 10/22/2025 |
| DC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

REPORT NUMBER: SP1-2501-332-1

## CIE 1931 Chromaticity Diagram




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

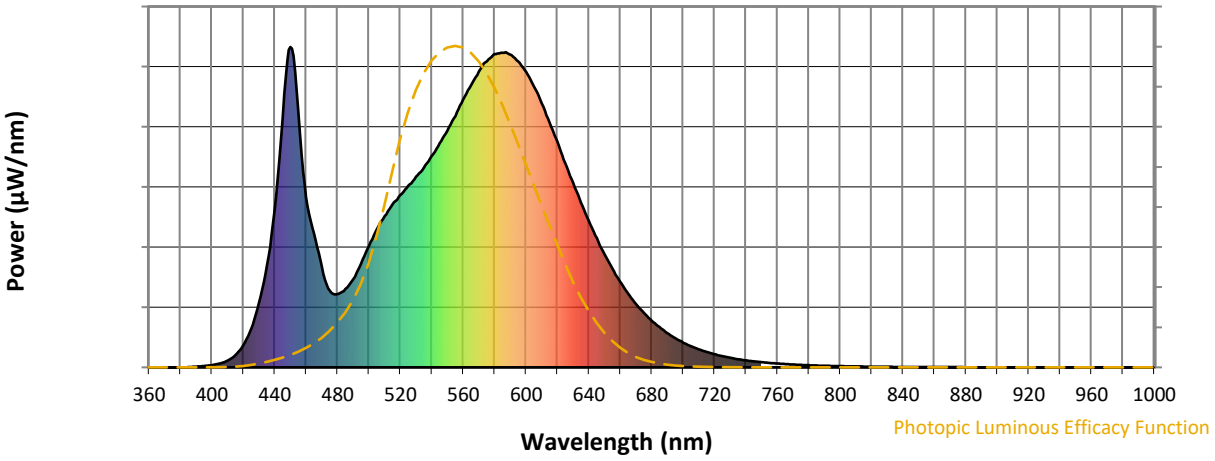



CCT = 3990K
CIE x = 0.3816
CIE y = 0.3798
Duv = 0.0011

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2501-332-1

## Photopic Flux vs. Wavelength

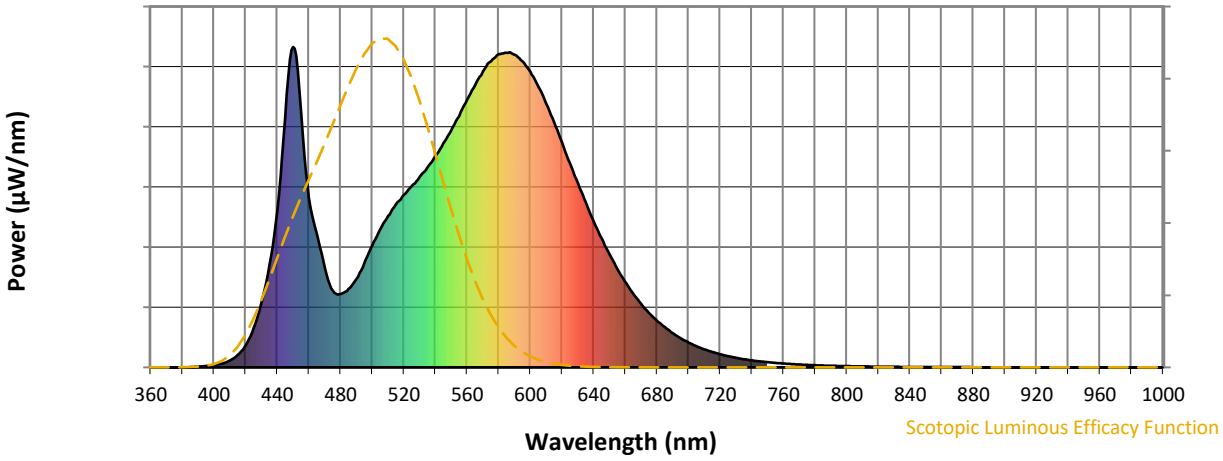



## Photopic Lumens: NR

| 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 | 275 | NR | 620 | 703 | NR | 750 | 16 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 324 | NR | 625 | 637 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 380 | NR | 630 | 576 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 431 | NR | 635 | 514 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 472 | NR | 640 | 456 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 508 | NR | 645 | 403 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 538 | NR | 650 | 353 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 567 | NR | 655 | 307 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 595 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 12 | NR | 535 | 624 | NR | 665 | 230 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 21 | NR | 540 | 660 | NR | 670 | 198 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 39 | NR | 545 | 700 | NR | 675 | 170 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 739 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 121 | NR | 555 | 784 | NR | 685 | 125 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 202 | NR | 560 | 836 | NR | 690 | 107 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 319 | NR | 565 | 881 | NR | 695 | 91 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 492 | NR | 570 | 923 | NR | 700 | 77 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 777 | NR | 575 | 955 | NR | 705 | 66 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 978 | NR | 710 | 56 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 797 | NR | 585 | 982 | NR | 715 | 48 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 530 | NR | 590 | 976 | NR | 720 | 41 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 418 | NR | 595 | 955 | NR | 725 | 35 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 311 | NR | 600 | 922 | NR | 730 | 30 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 239 | NR | 605 | 877 | NR | 735 | 25 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 229 | NR | 610 | 823 | NR | 740 | 22 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 245 | NR | 615 | 764 | NR | 745 | 19 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2501-332-1

## Scotopic Flux vs. Wavelength

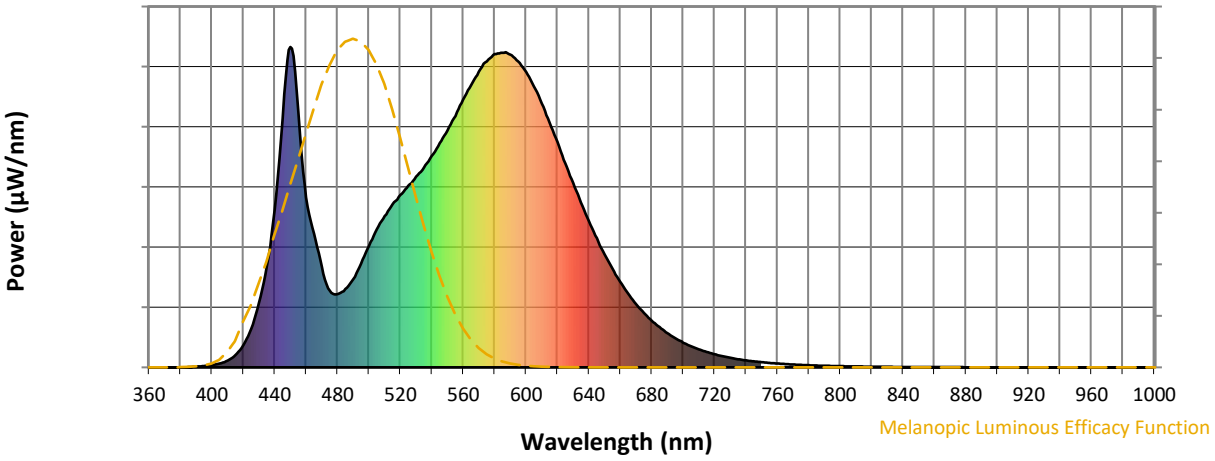



**Scotopic Lumens: NR** **S/P: 1.59**

| 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 | 275 | NR | 620 | 703 | NR | 750 | 16 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 324 | NR | 625 | 637 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 380 | NR | 630 | 576 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 431 | NR | 635 | 514 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 472 | NR | 640 | 456 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 508 | NR | 645 | 403 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 538 | NR | 650 | 353 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 567 | NR | 655 | 307 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 595 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 12 | NR | 535 | 624 | NR | 665 | 230 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 21 | NR | 540 | 660 | NR | 670 | 198 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 39 | NR | 545 | 700 | NR | 675 | 170 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 739 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 121 | NR | 555 | 784 | NR | 685 | 125 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 202 | NR | 560 | 836 | NR | 690 | 107 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 319 | NR | 565 | 881 | NR | 695 | 91 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 492 | NR | 570 | 923 | NR | 700 | 77 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 777 | NR | 575 | 955 | NR | 705 | 66 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 978 | NR | 710 | 56 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 797 | NR | 585 | 982 | NR | 715 | 48 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 530 | NR | 590 | 976 | NR | 720 | 41 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 418 | NR | 595 | 955 | NR | 725 | 35 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 311 | NR | 600 | 922 | NR | 730 | 30 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 239 | NR | 605 | 877 | NR | 735 | 25 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 229 | NR | 610 | 823 | NR | 740 | 22 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 245 | NR | 615 | 764 | NR | 745 | 19 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2501-332-1

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.21**

| 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 | 275 | NR | 620 | 703 | NR | 750 | 16 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 324 | NR | 625 | 637 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 380 | NR | 630 | 576 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 431 | NR | 635 | 514 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 472 | NR | 640 | 456 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 508 | NR | 645 | 403 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 538 | NR | 650 | 353 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 567 | NR | 655 | 307 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 595 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 12 | NR | 535 | 624 | NR | 665 | 230 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 21 | NR | 540 | 660 | NR | 670 | 198 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 39 | NR | 545 | 700 | NR | 675 | 170 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 739 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 121 | NR | 555 | 784 | NR | 685 | 125 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 202 | NR | 560 | 836 | NR | 690 | 107 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 319 | NR | 565 | 881 | NR | 695 | 91 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 492 | NR | 570 | 923 | NR | 700 | 77 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 777 | NR | 575 | 955 | NR | 705 | 66 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 978 | NR | 710 | 56 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 797 | NR | 585 | 982 | NR | 715 | 48 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 530 | NR | 590 | 976 | NR | 720 | 41 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 418 | NR | 595 | 955 | NR | 725 | 35 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 311 | NR | 600 | 922 | NR | 730 | 30 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 239 | NR | 605 | 877 | NR | 735 | 25 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 229 | NR | 610 | 823 | NR | 740 | 22 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 245 | NR | 615 | 764 | NR | 745 | 19 | NR | 875 | 1 | NR | | | |

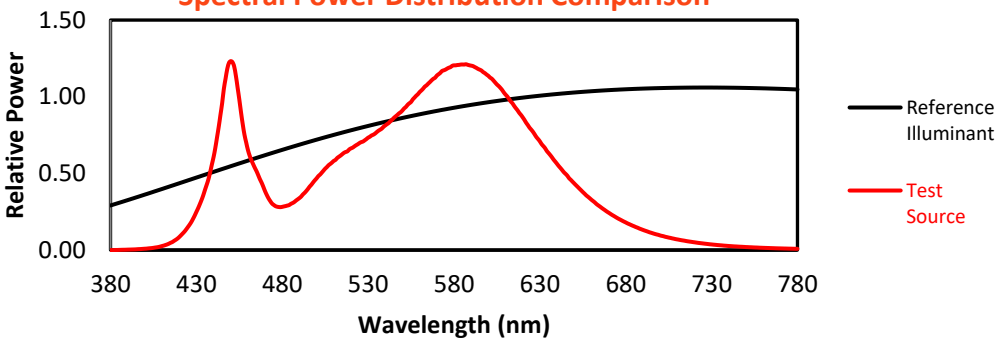
REPORT NUMBER: SP1-2501-332-1

# TM-30-18

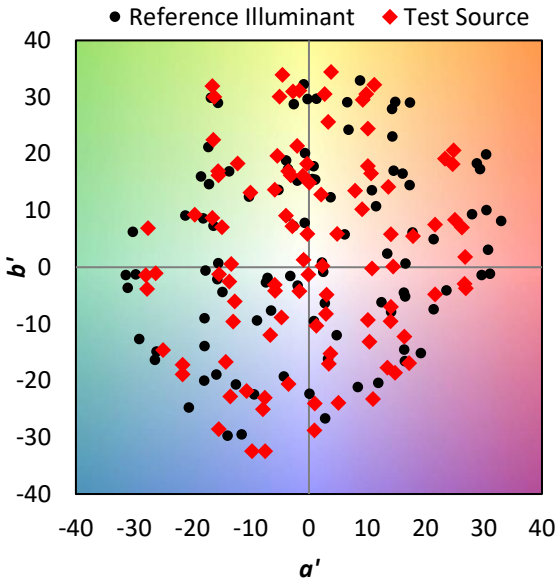
## Summary

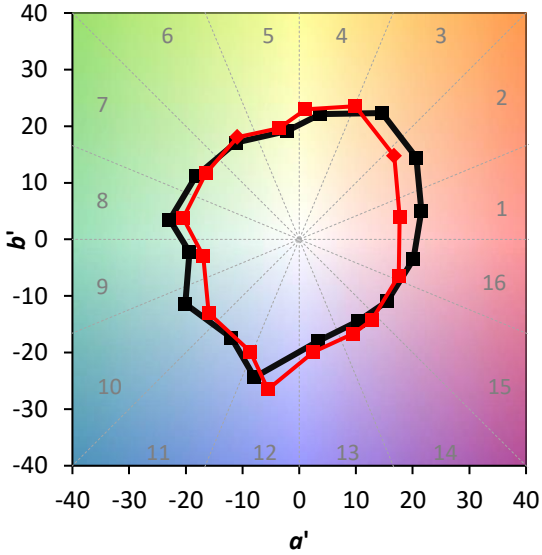
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$R_g$ = 91.9
CIE $R_a$ = 73.9
$R_9$ = -36.4

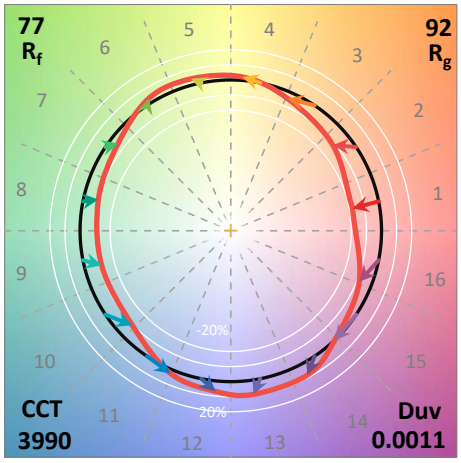
## Spectral Power Distribution Comparison

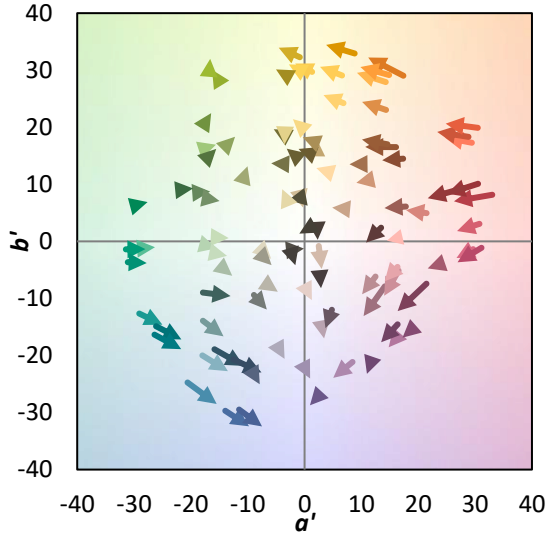



## Color Vector Graphics



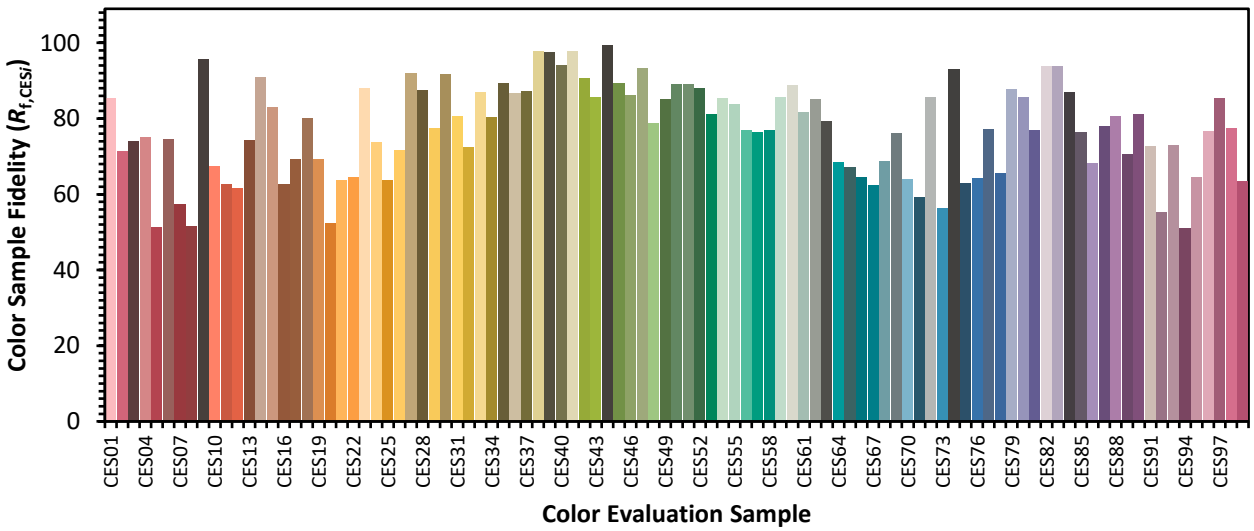



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**Individual Sample Fidelity Index ($R_{f,i}$)**

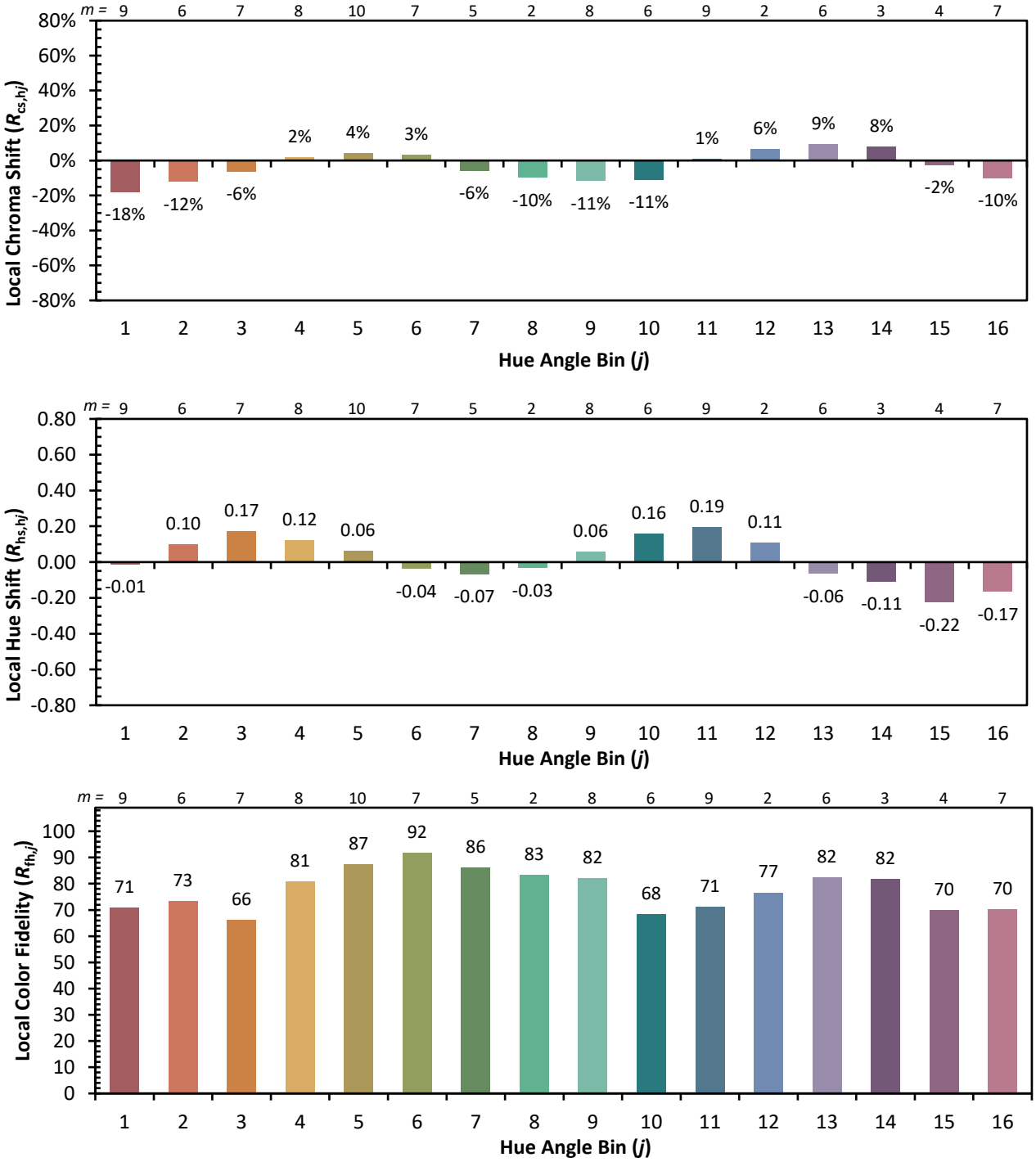
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 72 | CES51 = 89 | CES76 = 64 |
| CES02 = 61 | CES27 = 92 | CES52 = 88 | CES77 = 77 |
| CES03 = 30 | CES28 = 88 | CES53 = 81 | CES78 = 65 |
| CES04 = 70 | CES29 = 78 | CES54 = 85 | CES79 = 88 |
| CES05 = 47 | CES30 = 92 | CES55 = 84 | CES80 = 86 |
| CES06 = 50 | CES31 = 81 | CES56 = 77 | CES81 = 77 |
| CES07 = 40 | CES32 = 72 | CES57 = 76 | CES82 = 94 |
| CES08 = 39 | CES33 = 87 | CES58 = 77 | CES83 = 94 |
| CES09 = 29 | CES34 = 80 | CES59 = 86 | CES84 = 87 |
| CES10 = 74 | CES35 = 89 | CES60 = 89 | CES85 = 76 |
| CES11 = 57 | CES36 = 87 | CES61 = 82 | CES86 = 68 |
| CES12 = 63 | CES37 = 87 | CES62 = 85 | CES87 = 78 |
| CES13 = 42 | CES38 = 98 | CES63 = 79 | CES88 = 81 |
| CES14 = 74 | CES39 = 98 | CES64 = 68 | CES89 = 71 |
| CES15 = 71 | CES40 = 94 | CES65 = 67 | CES90 = 81 |
| CES16 = 46 | CES41 = 98 | CES66 = 65 | CES91 = 73 |
| CES17 = 49 | CES42 = 91 | CES67 = 62 | CES92 = 55 |
| CES18 = 56 | CES43 = 86 | CES68 = 69 | CES93 = 73 |
| CES19 = 72 | CES44 = 99 | CES69 = 76 | CES94 = 51 |
| CES20 = 65 | CES45 = 89 | CES70 = 64 | CES95 = 65 |
| CES21 = 86 | CES46 = 86 | CES71 = 59 | CES96 = 77 |
| CES22 = 78 | CES47 = 93 | CES72 = 86 | CES97 = 85 |
| CES23 = 92 | CES48 = 79 | CES73 = 56 | CES98 = 77 |
| CES24 = 91 | CES49 = 85 | CES74 = 93 | CES99 = 63 |
| CES25 = 72 | CES50 = 89 | CES75 = 63 | |



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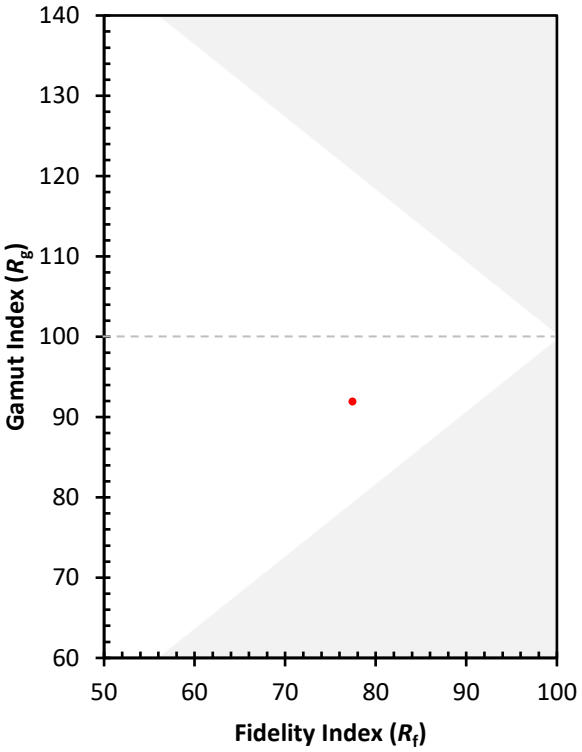
## Color Rendition by Hue-Angle Bin

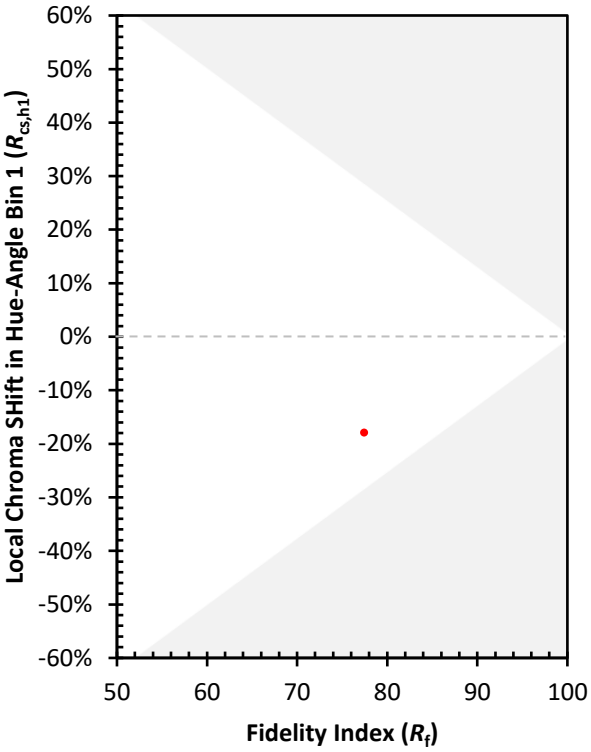


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## Measure Comparisons




(END OF REPORT)