

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: INVUE

Report Number: P1442104

Luminaire Tested: LXB-C2-740-X-U-S-GM

Issue Date: 4/23/2026

Test Information

Test Method: LM-79-2024
Report Number: P1442104
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-539-24)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/24/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: INVUE
Catalog Number: LXB-C2-740-X-U-S-GM
Description: LuxeScape OUTDOOR ARCHITECTURAL BOLLARD LUMINAIRE
SYMMETRIC OPTIC, GRAPHITE METALLIC PAINTED FINISH
Light Source: 2200K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

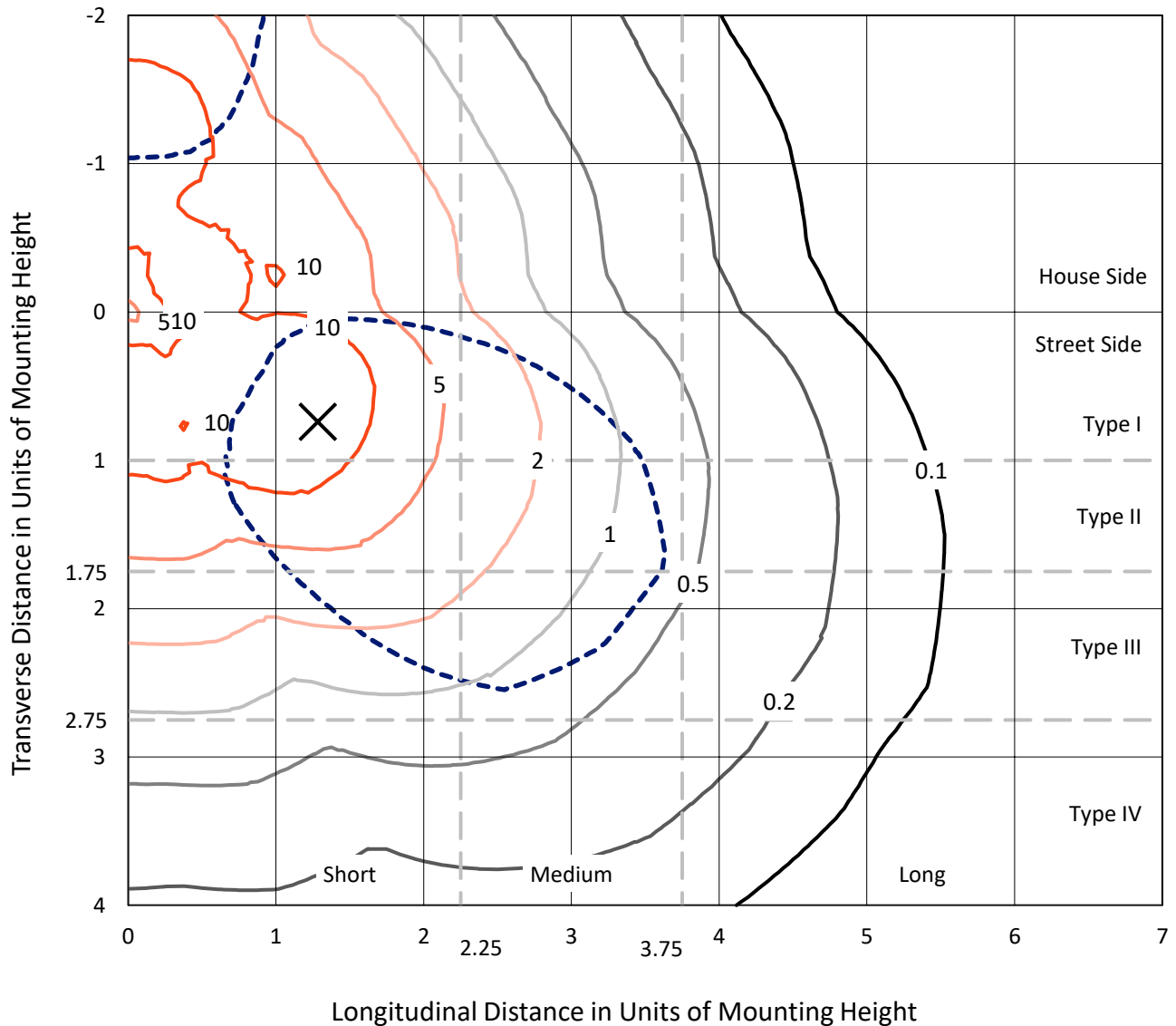
Lumens per Lamp: N/A
Luminaire Lumens: 1578.9 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Luminous Opening: Circular (Dia: 0.4' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9937
Total Harmonic Distortion (THDi): 0.088476
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

REPORT NUMBER: P1442104
 CATALOG NUMBER: LXB-C2-740-X-U-S-GM

Iso-Footcandle Lines of Horizontal Illumination

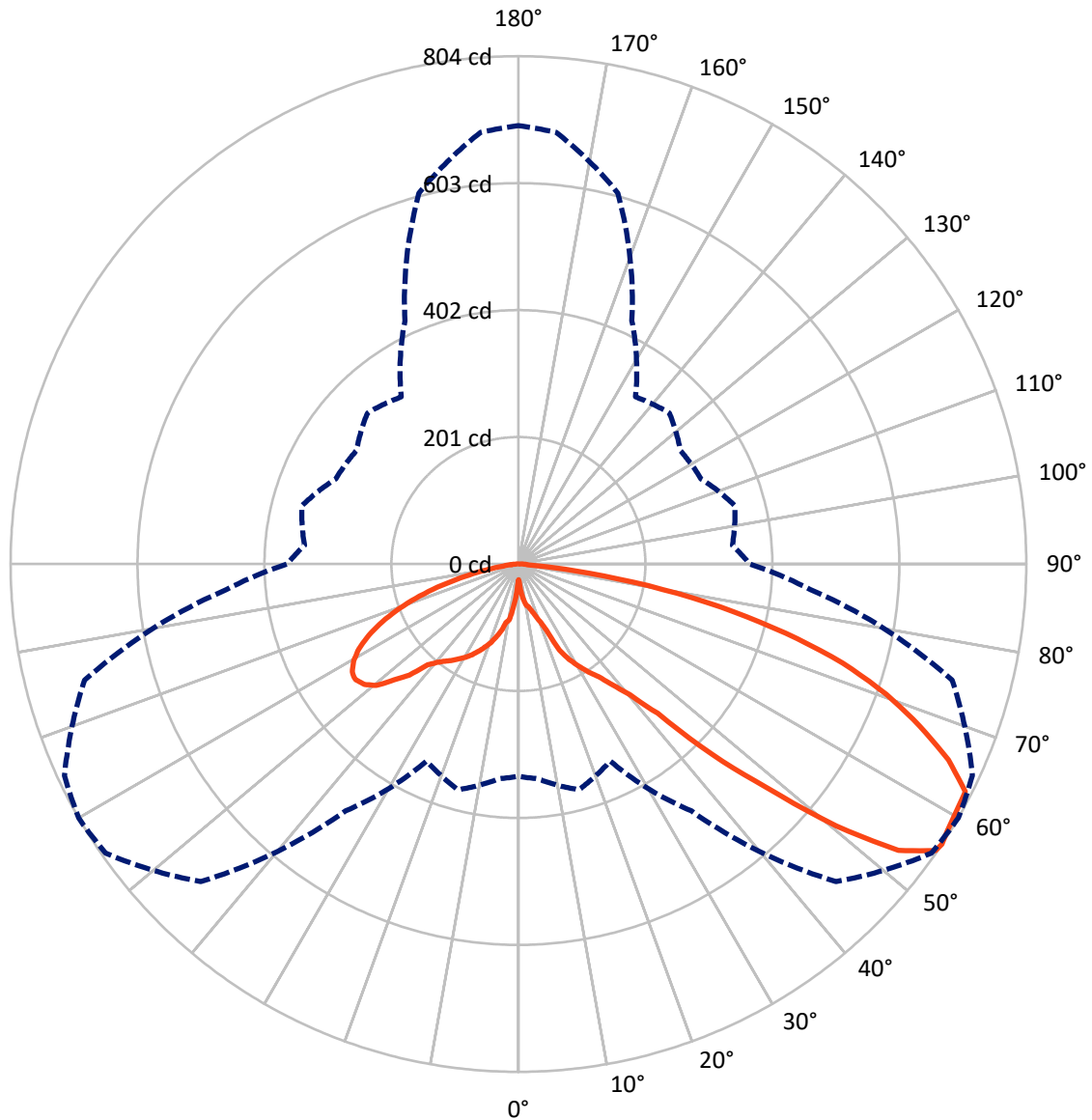
× Max cd
 - - - 1/2 Max cd



Based on 3 foot mounting height. Maximum calculated value = 19.1 fc
 Type III - Short - N/A

REPORT NUMBER: P1442104
CATALOG NUMBER: LXB-C2-740-X-U-S-GM

Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

REPORT NUMBER: P1442104

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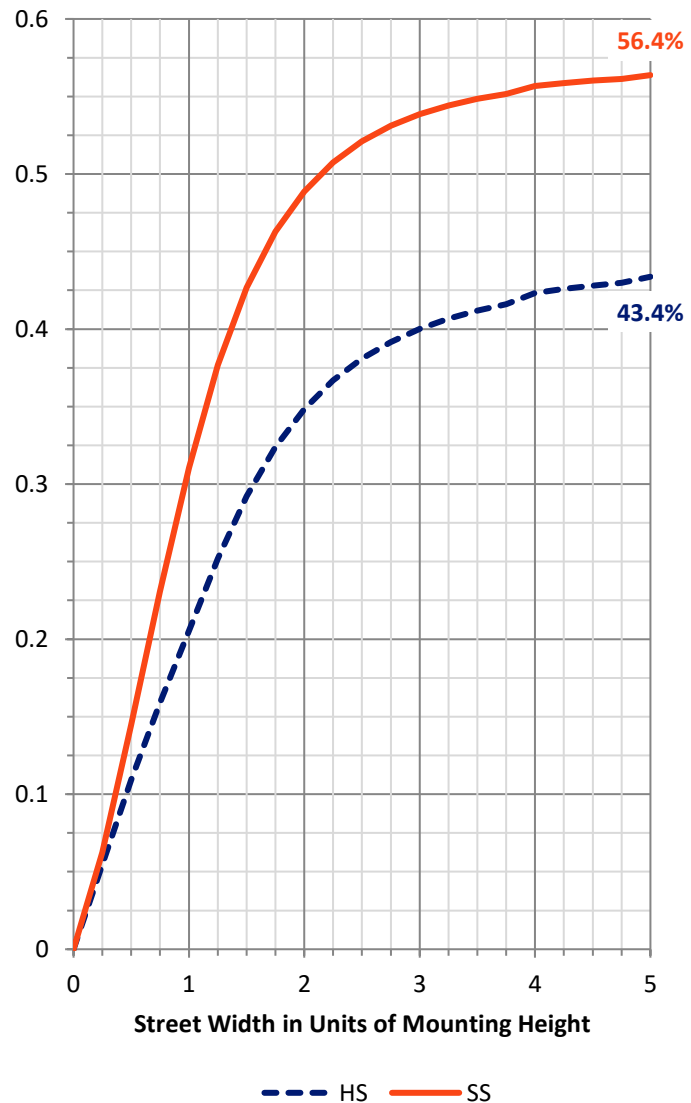
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 686.3 | 0.0 | 686.3 |
| | % Fixture | 43.5 | 0.0 | 43.5 |
| Street Side | Lumens | 892.6 | 0.0 | 892.6 |
| | % Fixture | 56.5 | 0.0 | 56.5 |
| Total | Lumens | 1578.9 | 0.0 | 1578.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 5.6 | 0.4 |
| 10°-20° | 27.8 | 1.8 |
| 20°-30° | 65.8 | 4.2 |
| 30°-40° | 119.6 | 7.6 |
| 40°-50° | 236.8 | 15.0 |
| 50°-60° | 419.9 | 26.6 |
| 60°-70° | 422.1 | 26.7 |
| 70°-80° | 248.0 | 15.7 |
| 80°-90° | 33.2 | 2.1 |
| 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° | 1578.9 | 100.0 |
| 0°-180° | 1578.9 | 100.0 |



REPORT NUMBER: P1442104

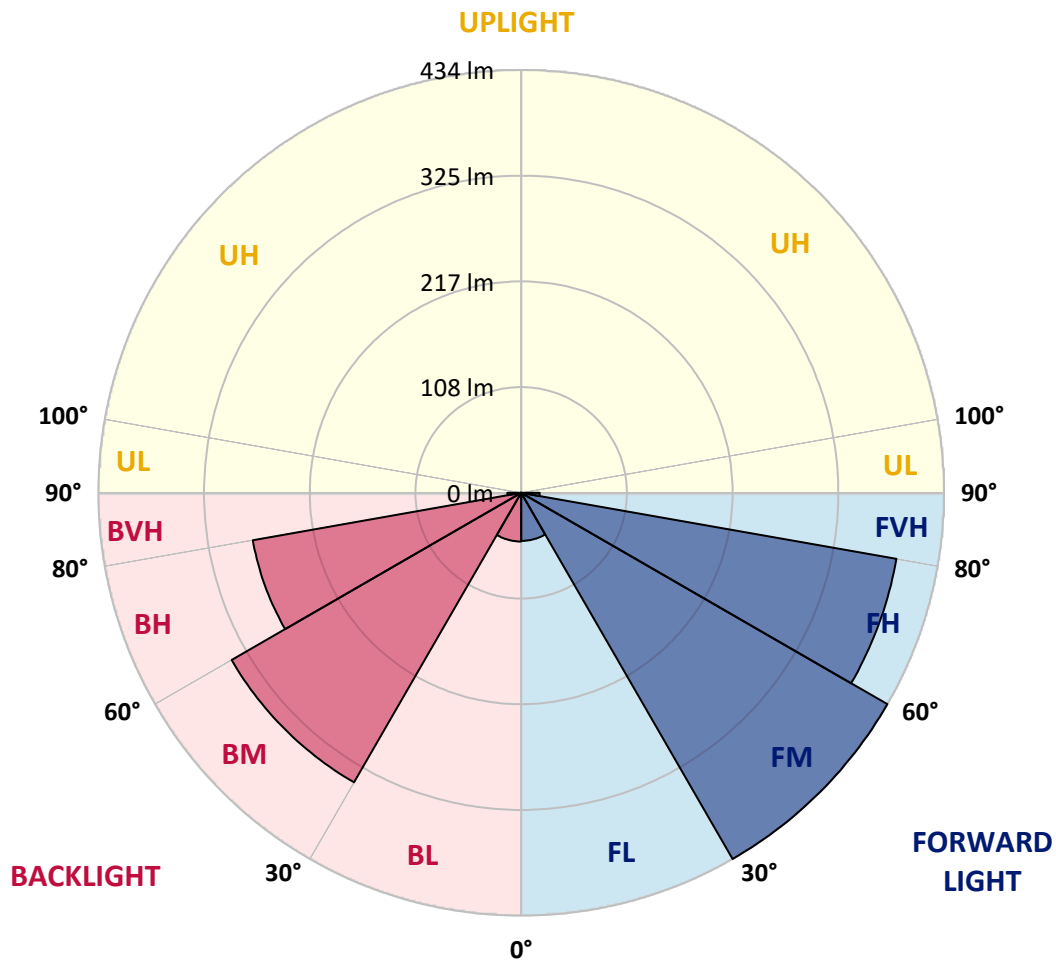
CATALOG NUMBER: LXB-C2-740-X-U-S-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 49.3 | 3.1 | | | |
| FM (30°-60°) | 433.6 | 27.5 | | | |
| FH (60°-80°) | 390.7 | 24.7 | | | G0/660 |
| FVH (80°-90°) | 19.0 | 1.2 | | | G1/100 |
| BL (0°-30°) | 49.9 | 3.2 | B0/110 | | |
| BM (30°-60°) | 342.8 | 21.7 | B1/1000 | | |
| BH (60°-80°) | 279.4 | 17.7 | B1/500 | | G1/500 |
| BVH (80°-90°) | 14.1 | 0.9 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type III Short





REPORT NUMBER: P1442104

CATALOG NUMBER: LXB-C2-740-X-U-S-GM

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0° | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 2.5° | 36 | 34 | 31 | 32 | 31 | 31 | 29 | 29 | 28 | 30 | 33 |
| 5° | 58 | 58 | 49 | 43 | 44 | 45 | 43 | 44 | 43 | 44 | 46 |
| 7.5° | 75 | 73 | 74 | 67 | 64 | 63 | 59 | 56 | 56 | 61 | 64 |
| 10° | 86 | 86 | 88 | 88 | 77 | 69 | 67 | 66 | 65 | 68 | 73 |
| 12.5° | 92 | 97 | 99 | 98 | 88 | 76 | 69 | 69 | 68 | 76 | 83 |
| 15° | 113 | 108 | 111 | 107 | 99 | 85 | 77 | 76 | 77 | 83 | 93 |
| 17.5° | 125 | 128 | 121 | 113 | 105 | 94 | 88 | 85 | 84 | 89 | 103 |
| 20° | 137 | 139 | 134 | 123 | 113 | 101 | 98 | 97 | 97 | 100 | 107 |
| 22.5° | 149 | 151 | 145 | 132 | 122 | 112 | 112 | 113 | 109 | 110 | 117 |
| 25° | 159 | 161 | 154 | 141 | 134 | 131 | 143 | 151 | 141 | 128 | 131 |
| 27.5° | 171 | 171 | 166 | 152 | 146 | 154 | 167 | 171 | 168 | 149 | 144 |
| 30° | 179 | 179 | 176 | 163 | 157 | 170 | 185 | 187 | 184 | 171 | 154 |
| 32.5° | 187 | 186 | 185 | 170 | 167 | 187 | 202 | 204 | 201 | 189 | 164 |
| 35° | 196 | 194 | 193 | 178 | 176 | 205 | 217 | 219 | 218 | 204 | 174 |
| 37.5° | 206 | 202 | 202 | 188 | 190 | 224 | 239 | 243 | 239 | 224 | 187 |
| 40° | 217 | 212 | 212 | 198 | 205 | 251 | 266 | 272 | 265 | 250 | 202 |
| 42.5° | 232 | 228 | 231 | 217 | 230 | 295 | 312 | 323 | 308 | 296 | 224 |
| 45° | 268 | 265 | 277 | 261 | 285 | 390 | 421 | 430 | 414 | 388 | 279 |
| 47.5° | 293 | 293 | 306 | 288 | 333 | 486 | 522 | 528 | 503 | 496 | 325 |
| 50° | 320 | 322 | 343 | 324 | 404 | 593 | 648 | 652 | 639 | 601 | 394 |
| 52.5° | 331 | 336 | 365 | 343 | 449 | 665 | 744 | 753 | 735 | 670 | 436 |
| 55° | 336 | 342 | 373 | 346 | 473 | 704 | 792 | 801 | 786 | 704 | 458 |
| 56° | 336 | 341 | 370 | 344 | 477 | 711 | 798 | 804 | 793 | 711 | 464 |
| 57.5° | 332 | 338 | 364 | 338 | 480 | 715 | 797 | 800 | 795 | 716 | 470 |
| 60° | 319 | 326 | 351 | 324 | 477 | 708 | 792 | 796 | 792 | 715 | 472 |
| 62.5° | 299 | 306 | 332 | 306 | 466 | 693 | 787 | 794 | 788 | 697 | 461 |
| 65° | 274 | 280 | 303 | 280 | 442 | 662 | 743 | 748 | 747 | 660 | 434 |
| 67.5° | 242 | 248 | 271 | 248 | 410 | 615 | 682 | 685 | 687 | 608 | 402 |
| 70° | 207 | 212 | 234 | 213 | 372 | 550 | 611 | 618 | 621 | 544 | 360 |
| 72.5° | 167 | 170 | 193 | 176 | 321 | 472 | 528 | 537 | 541 | 466 | 308 |
| 75° | 126 | 125 | 148 | 136 | 260 | 382 | 429 | 437 | 444 | 378 | 245 |
| 77.5° | 85 | 83 | 102 | 96 | 191 | 289 | 327 | 327 | 339 | 281 | 180 |
| 80° | 49 | 47 | 59 | 57 | 117 | 181 | 209 | 208 | 223 | 180 | 109 |
| 82.5° | 24 | 21 | 27 | 26 | 47 | 71 | 89 | 89 | 104 | 70 | 42 |
| 85° | 10 | 10 | 11 | 7 | 11 | 14 | 15 | 15 | 17 | 14 | 11 |
| 87.5° | 7 | 7 | 8 | 4 | 8 | 10 | 11 | 11 | 12 | 10 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



REPORT NUMBER: P1442104

CATALOG NUMBER: LXB-C2-740-X-U-S-GM

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-----|-----|------|------|------|------|------|------|------|------|------|
| 0° | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 2.5° | 34 | 33 | 33 | 31 | 33 | 33 | 33 | 32 | 32 | 30 | 30 |
| 5° | 48 | 49 | 51 | 55 | 51 | 49 | 47 | 46 | 48 | 42 | 43 |
| 7.5° | 63 | 64 | 70 | 74 | 70 | 74 | 69 | 67 | 66 | 61 | 60 |
| 10° | 76 | 78 | 83 | 86 | 94 | 86 | 85 | 77 | 73 | 70 | 69 |
| 12.5° | 87 | 89 | 91 | 96 | 93 | 94 | 93 | 84 | 77 | 71 | 72 |
| 15° | 97 | 99 | 106 | 112 | 107 | 104 | 104 | 97 | 87 | 78 | 77 |
| 17.5° | 105 | 110 | 117 | 122 | 120 | 117 | 111 | 105 | 92 | 87 | 84 |
| 20° | 112 | 118 | 132 | 133 | 132 | 127 | 121 | 111 | 100 | 95 | 94 |
| 22.5° | 122 | 130 | 142 | 143 | 141 | 135 | 133 | 119 | 110 | 106 | 108 |
| 25° | 133 | 139 | 150 | 151 | 152 | 143 | 142 | 131 | 124 | 130 | 134 |
| 27.5° | 145 | 149 | 160 | 160 | 162 | 153 | 150 | 142 | 143 | 150 | 152 |
| 30° | 155 | 158 | 169 | 170 | 169 | 162 | 158 | 151 | 155 | 164 | 165 |
| 32.5° | 162 | 167 | 176 | 179 | 175 | 169 | 164 | 161 | 168 | 181 | 181 |
| 35° | 169 | 175 | 183 | 188 | 182 | 179 | 171 | 170 | 183 | 196 | 197 |
| 37.5° | 179 | 184 | 191 | 195 | 190 | 188 | 179 | 181 | 202 | 215 | 216 |
| 40° | 189 | 192 | 201 | 204 | 199 | 198 | 186 | 195 | 224 | 241 | 242 |
| 42.5° | 208 | 207 | 218 | 217 | 212 | 213 | 199 | 214 | 255 | 274 | 278 |
| 45° | 251 | 249 | 263 | 249 | 244 | 252 | 236 | 263 | 331 | 361 | 367 |
| 47.5° | 283 | 273 | 294 | 273 | 265 | 275 | 258 | 298 | 397 | 434 | 435 |
| 50° | 328 | 313 | 329 | 300 | 292 | 311 | 297 | 366 | 502 | 542 | 545 |
| 52.5° | 354 | 337 | 352 | 313 | 306 | 332 | 317 | 402 | 556 | 618 | 619 |
| 55° | 366 | 342 | 357 | 319 | 313 | 341 | 324 | 422 | 598 | 678 | 684 |
| 56° | 366 | 340 | 355 | 319 | 313 | 338 | 323 | 425 | 608 | 686 | 694 |
| 57.5° | 362 | 333 | 349 | 317 | 310 | 333 | 318 | 429 | 614 | 688 | 695 |
| 60° | 353 | 322 | 337 | 306 | 299 | 321 | 307 | 428 | 615 | 683 | 687 |
| 62.5° | 339 | 305 | 320 | 289 | 283 | 304 | 290 | 420 | 606 | 679 | 688 |
| 65° | 315 | 281 | 293 | 265 | 260 | 278 | 267 | 398 | 580 | 651 | 666 |
| 67.5° | 284 | 249 | 260 | 236 | 233 | 247 | 239 | 365 | 540 | 602 | 610 |
| 70° | 250 | 215 | 224 | 202 | 200 | 213 | 206 | 326 | 487 | 540 | 545 |
| 72.5° | 211 | 179 | 185 | 165 | 164 | 173 | 171 | 281 | 425 | 470 | 478 |
| 75° | 167 | 140 | 140 | 125 | 126 | 132 | 134 | 226 | 348 | 382 | 393 |
| 77.5° | 120 | 99 | 99 | 86 | 87 | 92 | 95 | 166 | 261 | 284 | 294 |
| 80° | 71 | 60 | 57 | 52 | 53 | 55 | 58 | 101 | 167 | 179 | 187 |
| 82.5° | 30 | 29 | 27 | 26 | 28 | 27 | 28 | 42 | 73 | 77 | 84 |
| 85° | 8 | 9 | 11 | 12 | 12 | 12 | 8 | 12 | 17 | 18 | 19 |
| 87.5° | 4 | 5 | 8 | 8 | 8 | 8 | 4 | 8 | 12 | 13 | 13 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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

Report Prepared for

Cooper Lighting Solutions

Invue

Report Number: SP1-2509-539-9

Test Date: 04/14/2026

Luminaire Tested: Luxscape Bollard

Data in this report applies to families of products including ;Luxscape

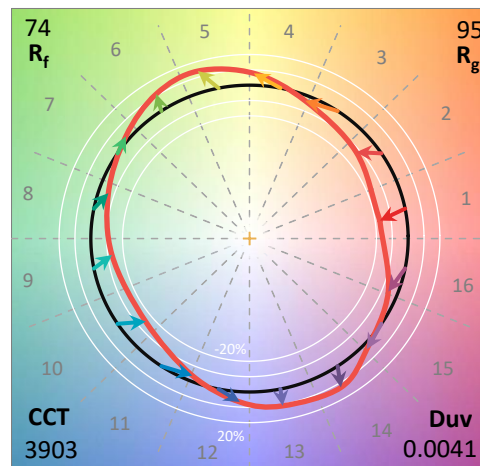
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2509-539-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 04/15/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Invue
 Catalog Number: **Luxscape Bollard**
 Description: ARB-C1-740-LED-XX-Dx-S-GM-SPECULAR REFLECTOR

Spectral Parameters

CCT (K): 3903
 CIE u': 0.2247
 CIE v': 0.5085
 Duv: 0.0041
 CIE x: 0.3880
 CIE y: 0.3902
 CIE z: 0.2218
 Peak Wavelength (nm): 442
 Dominant Wavelength (nm): 577
 Purity: 33.55395
 Rf: 74.1
 Rg: 95.4

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 71.4 | | |
| R1: | 67.8 | R9: | -38.3 |
| R2: | 77.2 | R10: | 48.5 |
| R3: | 87.2 | R11: | 70.3 |
| R4: | 72.2 | R12: | 48.8 |
| R5: | 68.6 | R13: | 68.9 |
| R6: | 70.0 | R14: | 92.8 |
| R7: | 79.2 | R15: | 58.3 |
| R8: | 49.3 | | |



Test Conditions

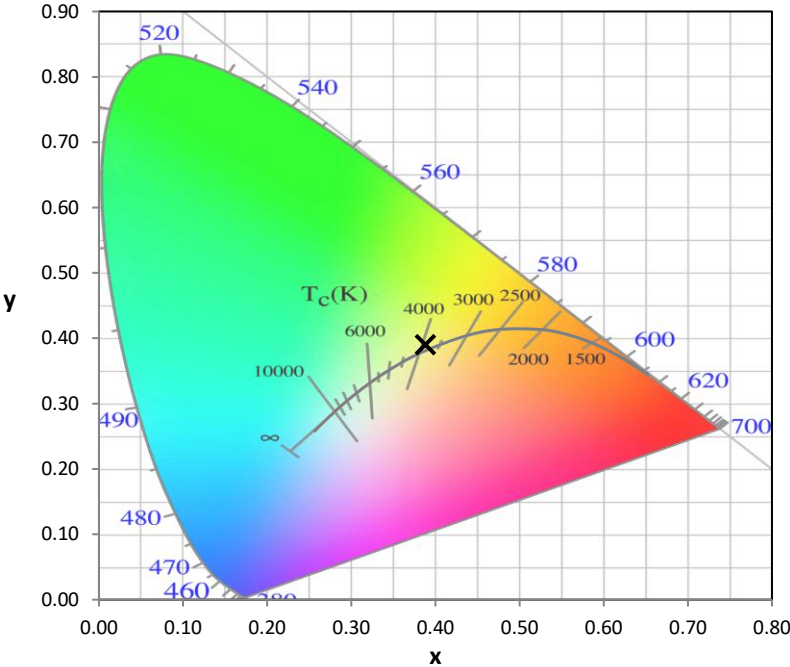
Stabilization Time: 24M
 Operation Time: 1H 24M
 Sphere Temperature (°C): 25.1

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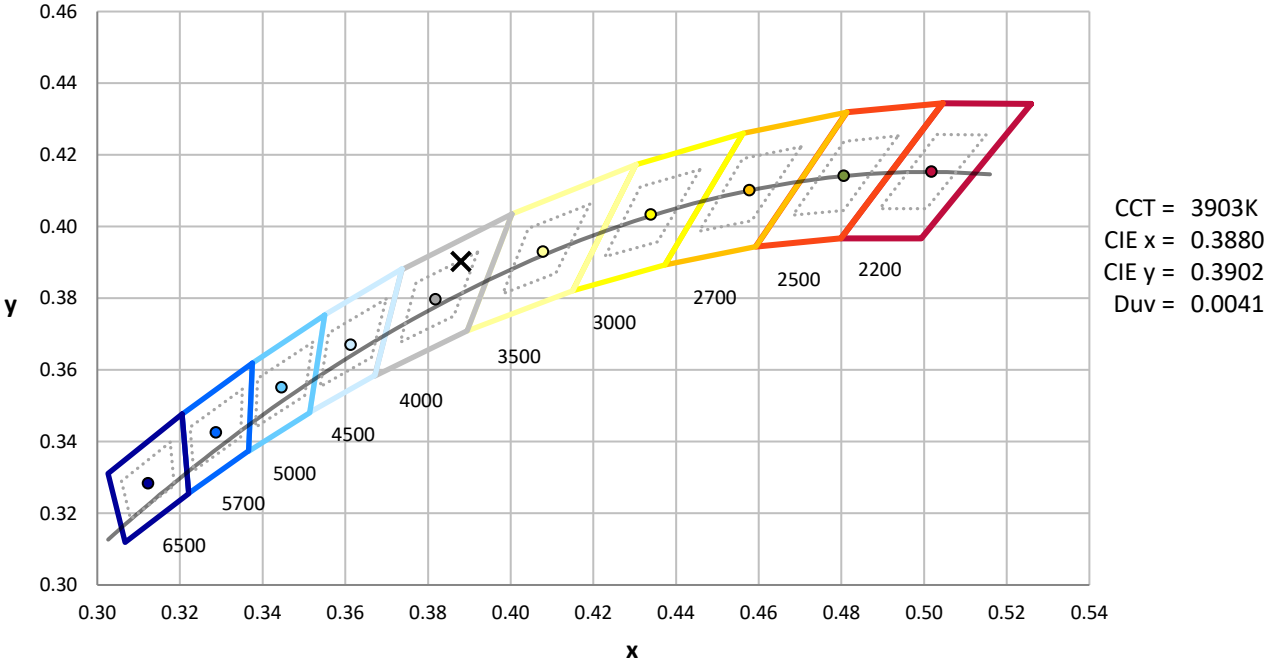
| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 12/16/2025 | 6/16/2026 |
| Power Meter |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

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CIE 1931 Chromaticity Diagram



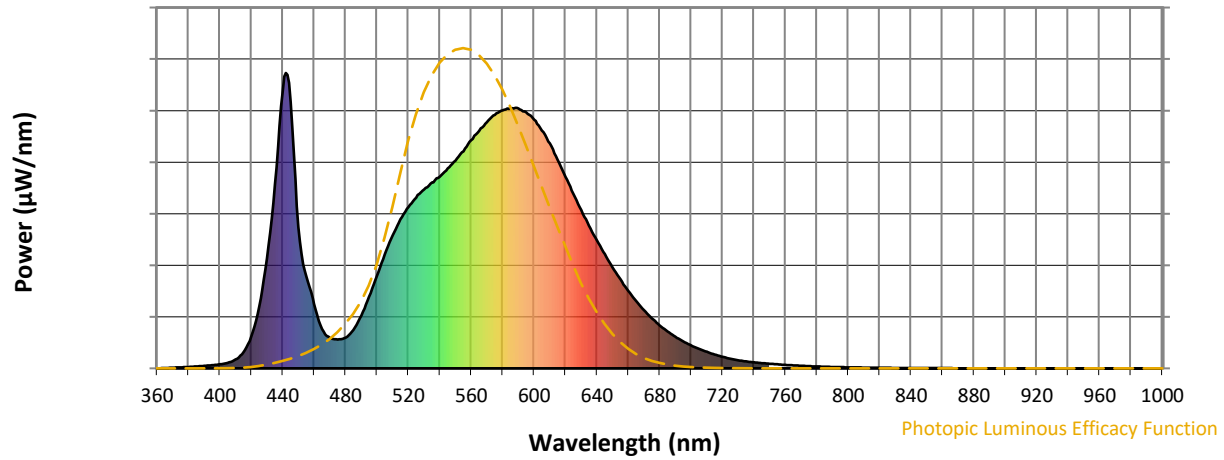
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

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Photopic Flux vs. Wavelength

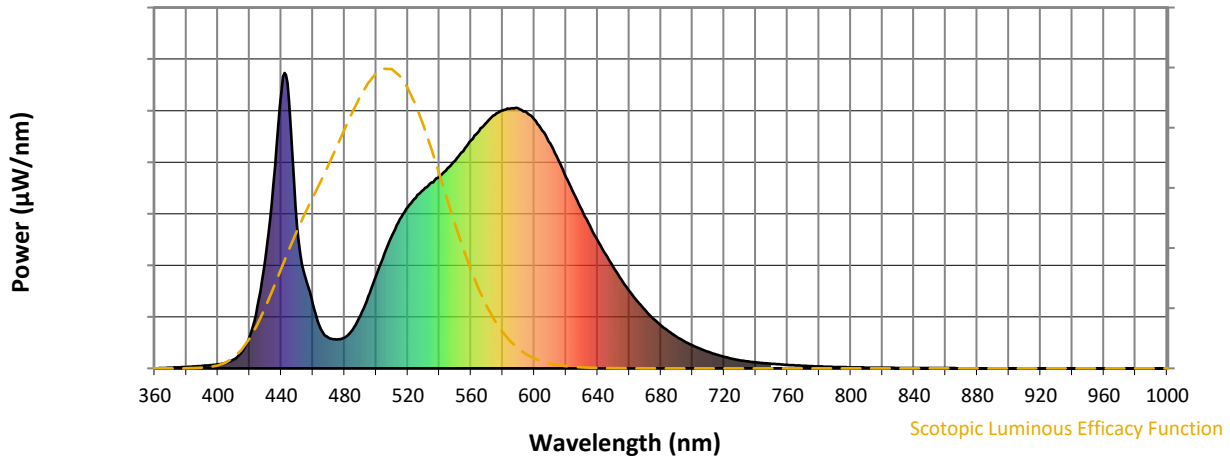


Photopic Lumens: NR

| 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 | 179 | NR | 620 | 648 | NR | 750 | 16 | NR | 880 | 0 | NR |
| 365 | 1 | NR | 495 | 243 | NR | 625 | 592 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 2 | NR | 500 | 314 | NR | 630 | 536 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 3 | NR | 505 | 386 | NR | 635 | 483 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 5 | NR | 510 | 450 | NR | 640 | 433 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 7 | NR | 515 | 505 | NR | 645 | 387 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 8 | NR | 520 | 546 | NR | 650 | 341 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 11 | NR | 525 | 577 | NR | 655 | 301 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 14 | NR | 530 | 605 | NR | 660 | 262 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 19 | NR | 535 | 630 | NR | 665 | 227 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 30 | NR | 540 | 649 | NR | 670 | 197 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 677 | NR | 675 | 169 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 109 | NR | 550 | 703 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 210 | NR | 555 | 735 | NR | 685 | 125 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 373 | NR | 560 | 772 | NR | 690 | 107 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 624 | NR | 565 | 804 | NR | 695 | 91 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 936 | NR | 570 | 833 | NR | 700 | 78 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 901 | NR | 575 | 858 | NR | 705 | 66 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 478 | NR | 580 | 873 | NR | 710 | 56 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 311 | NR | 585 | 879 | NR | 715 | 47 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 218 | NR | 590 | 880 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 134 | NR | 595 | 867 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 103 | NR | 600 | 842 | NR | 730 | 27 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 98 | NR | 605 | 806 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 762 | NR | 740 | 20 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 130 | NR | 615 | 707 | NR | 745 | 18 | NR | 875 | 0 | NR | | | |

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Scotopic Flux vs. Wavelength



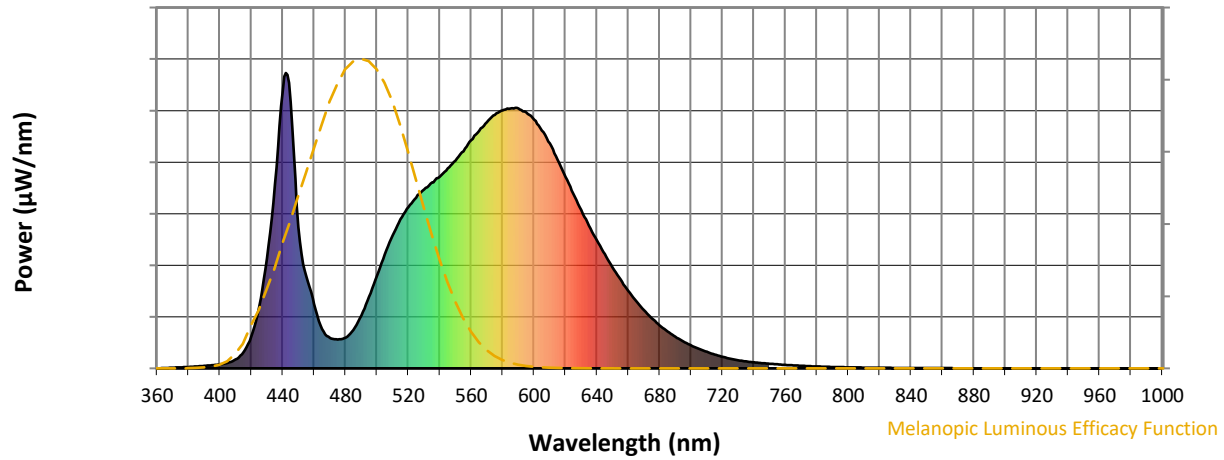
Scotopic Lumens: NR

S/P: 1.48

| 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 | 179 | NR | 620 | 648 | NR | 750 | 16 | NR | 880 | 0 | NR |
| 365 | 1 | NR | 495 | 243 | NR | 625 | 592 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 2 | NR | 500 | 314 | NR | 630 | 536 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 3 | NR | 505 | 386 | NR | 635 | 483 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 5 | NR | 510 | 450 | NR | 640 | 433 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 7 | NR | 515 | 505 | NR | 645 | 387 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 8 | NR | 520 | 546 | NR | 650 | 341 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 11 | NR | 525 | 577 | NR | 655 | 301 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 14 | NR | 530 | 605 | NR | 660 | 262 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 19 | NR | 535 | 630 | NR | 665 | 227 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 30 | NR | 540 | 649 | NR | 670 | 197 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 677 | NR | 675 | 169 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 109 | NR | 550 | 703 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 210 | NR | 555 | 735 | NR | 685 | 125 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 373 | NR | 560 | 772 | NR | 690 | 107 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 624 | NR | 565 | 804 | NR | 695 | 91 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 936 | NR | 570 | 833 | NR | 700 | 78 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 901 | NR | 575 | 858 | NR | 705 | 66 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 478 | NR | 580 | 873 | NR | 710 | 56 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 311 | NR | 585 | 879 | NR | 715 | 47 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 218 | NR | 590 | 880 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 134 | NR | 595 | 867 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 103 | NR | 600 | 842 | NR | 730 | 27 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 98 | NR | 605 | 806 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 762 | NR | 740 | 20 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 130 | NR | 615 | 707 | NR | 745 | 18 | NR | 875 | 0 | NR | | | |

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Melanopic Flux vs. Wavelength



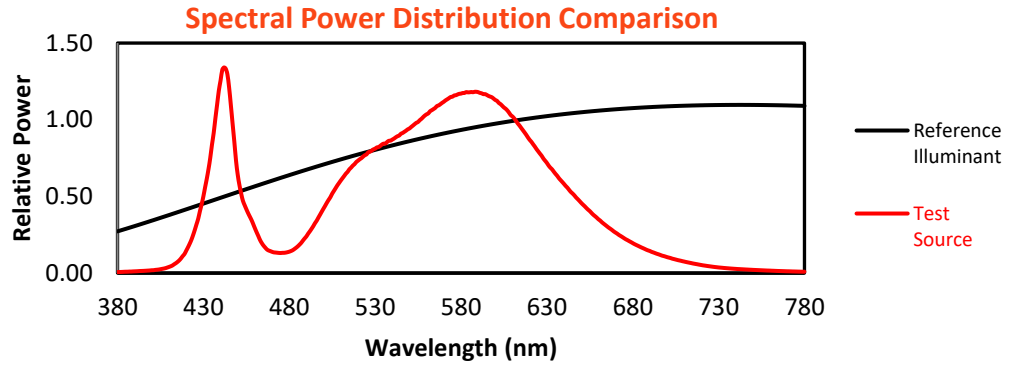
Melanopic Lumens: NR

M/P: 2.81

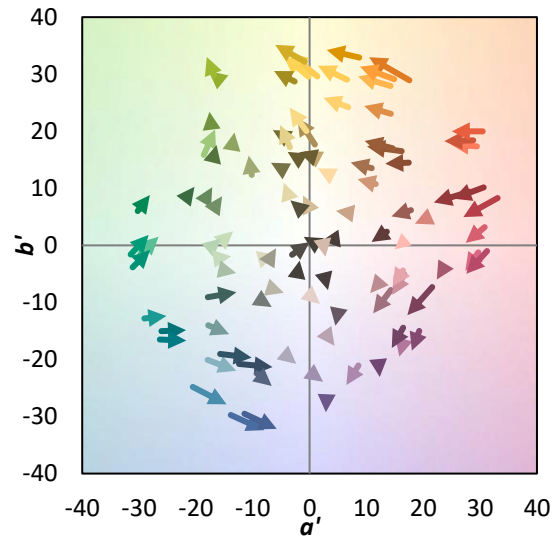
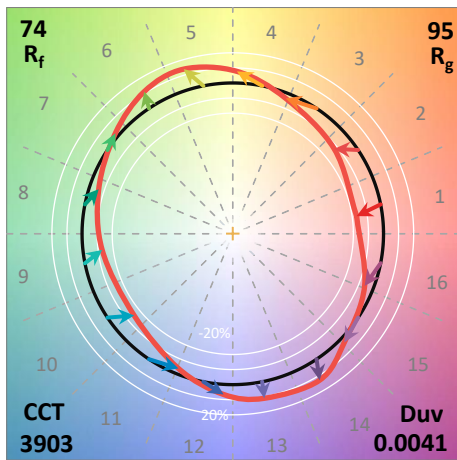
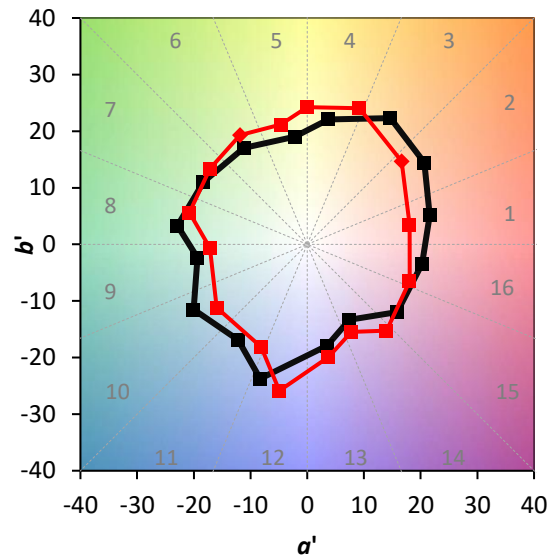
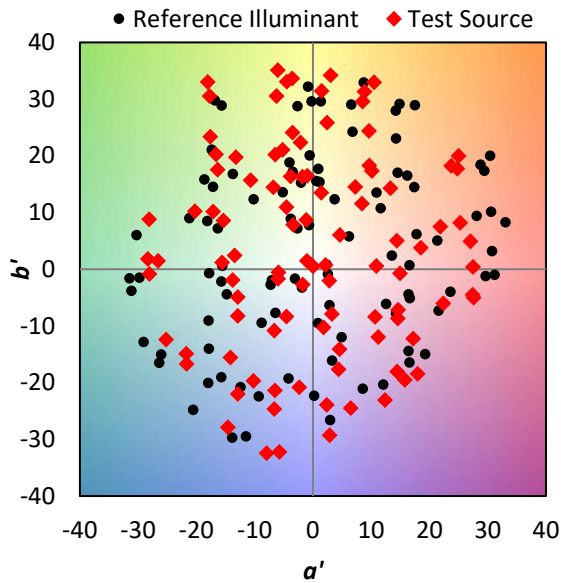
| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 179 | NR | 620 | 648 | NR | 750 | 16 | NR | 880 | 0 | NR |
| 365 | 1 | NR | 495 | 243 | NR | 625 | 592 | NR | 755 | 14 | NR | 885 | 0 | NR |
| 370 | 2 | NR | 500 | 314 | NR | 630 | 536 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 3 | NR | 505 | 386 | NR | 635 | 483 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 5 | NR | 510 | 450 | NR | 640 | 433 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 7 | NR | 515 | 505 | NR | 645 | 387 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 8 | NR | 520 | 546 | NR | 650 | 341 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 11 | NR | 525 | 577 | NR | 655 | 301 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 14 | NR | 530 | 605 | NR | 660 | 262 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 19 | NR | 535 | 630 | NR | 665 | 227 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 30 | NR | 540 | 649 | NR | 670 | 197 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 677 | NR | 675 | 169 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 109 | NR | 550 | 703 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 210 | NR | 555 | 735 | NR | 685 | 125 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 373 | NR | 560 | 772 | NR | 690 | 107 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 624 | NR | 565 | 804 | NR | 695 | 91 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 936 | NR | 570 | 833 | NR | 700 | 78 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 901 | NR | 575 | 858 | NR | 705 | 66 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 478 | NR | 580 | 873 | NR | 710 | 56 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 311 | NR | 585 | 879 | NR | 715 | 47 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 218 | NR | 590 | 880 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 134 | NR | 595 | 867 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 103 | NR | 600 | 842 | NR | 730 | 27 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 98 | NR | 605 | 806 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 762 | NR | 740 | 20 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 130 | NR | 615 | 707 | NR | 745 | 18 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 74.1$
 $R_g = 95.4$
 CIE $R_a = 71.4$
 $R_g = -38.3$

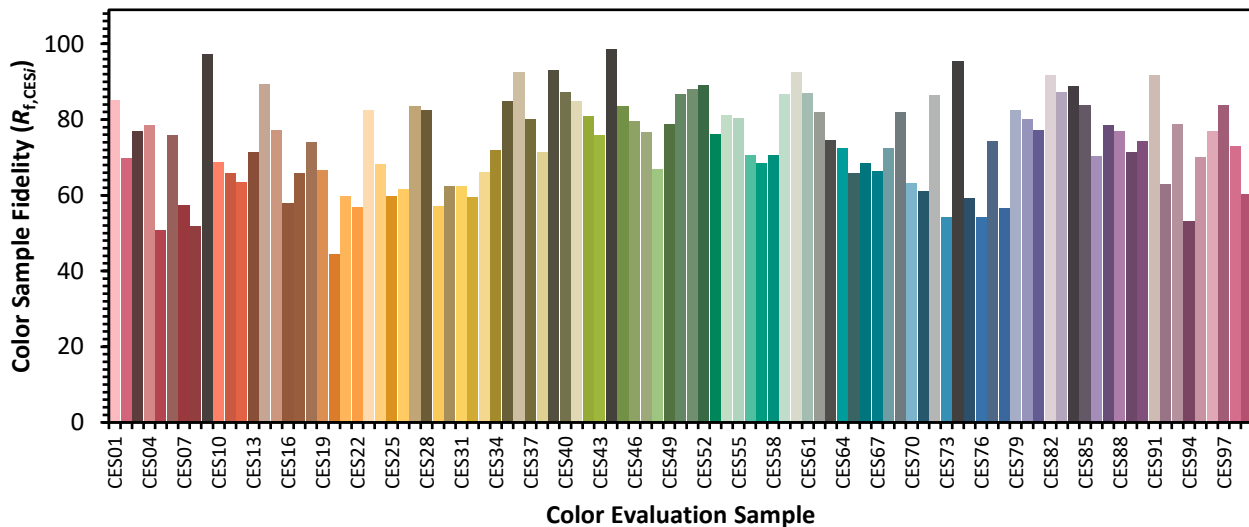


Color Vector Graphics

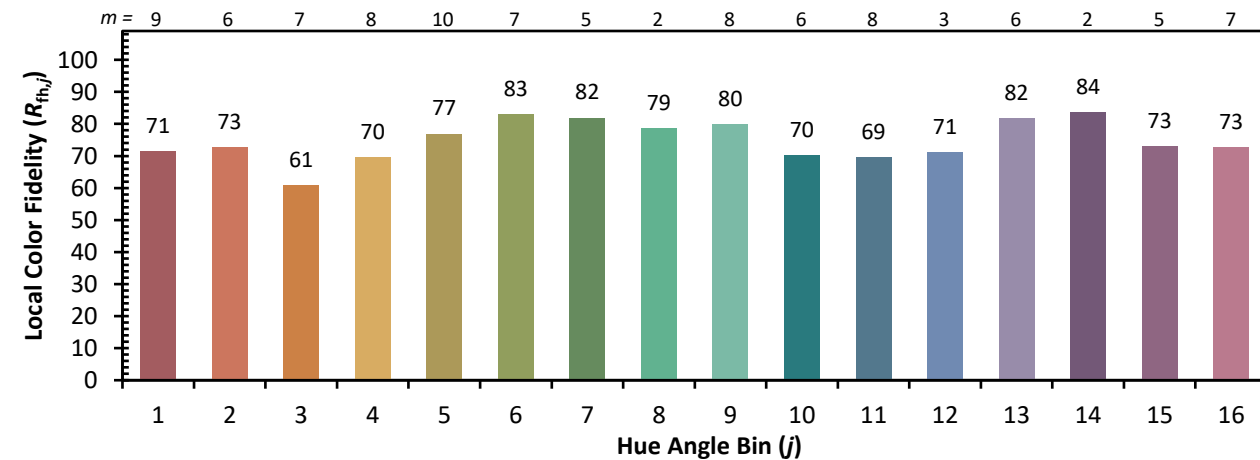
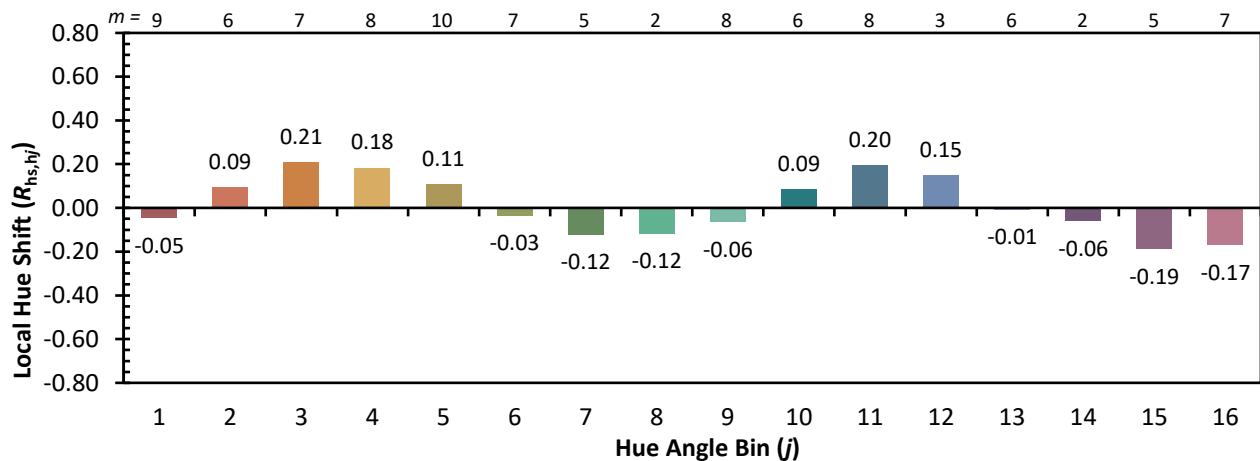
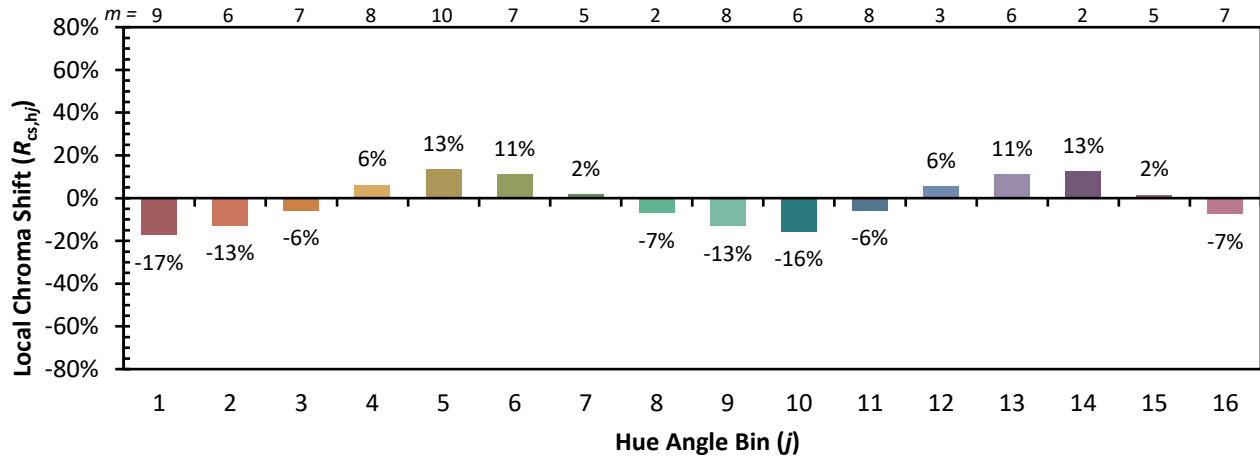


Individual Sample Fidelity Index ($R_{f,i}$)

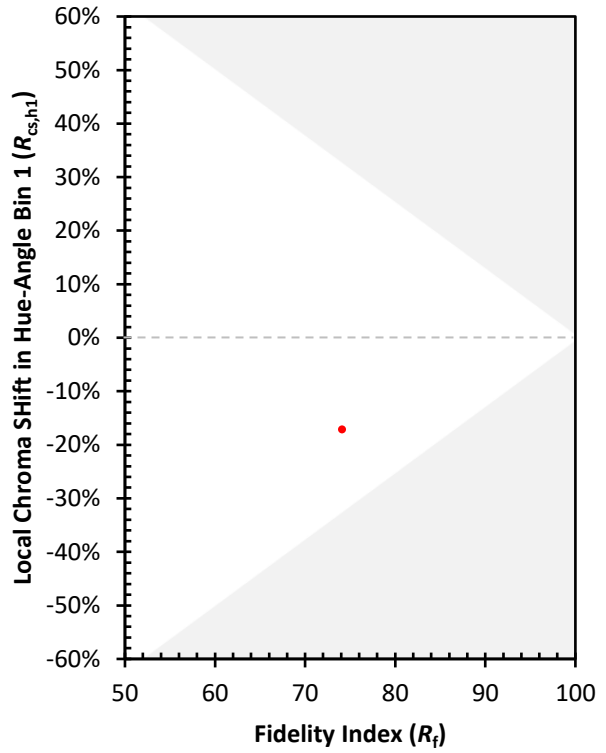
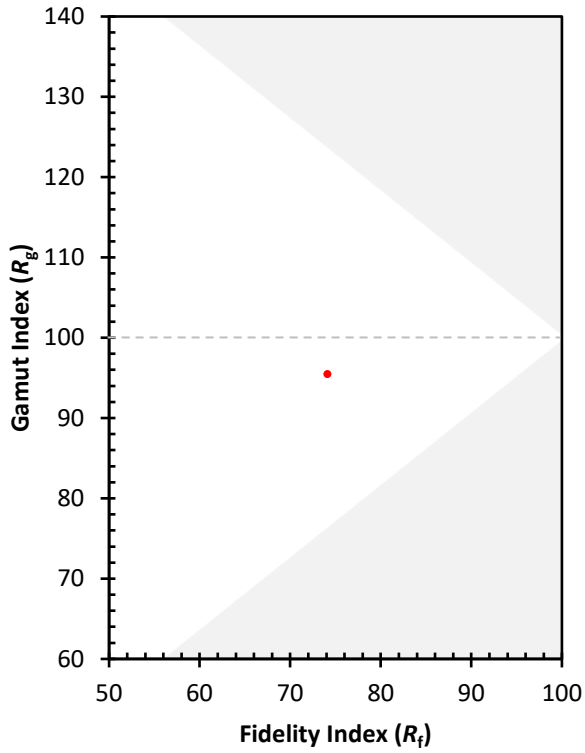
| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 62 | CES51 = 88 | CES76 = 54 |
| CES02 = 61 | CES27 = 84 | CES52 = 89 | CES77 = 74 |
| CES03 = 30 | CES28 = 83 | CES53 = 76 | CES78 = 57 |
| CES04 = 70 | CES29 = 57 | CES54 = 81 | CES79 = 82 |
| CES05 = 47 | CES30 = 62 | CES55 = 80 | CES80 = 80 |
| CES06 = 50 | CES31 = 62 | CES56 = 70 | CES81 = 77 |
| CES07 = 40 | CES32 = 60 | CES57 = 69 | CES82 = 92 |
| CES08 = 39 | CES33 = 66 | CES58 = 71 | CES83 = 87 |
| CES09 = 29 | CES34 = 72 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 85 | CES60 = 92 | CES85 = 84 |
| CES11 = 57 | CES36 = 93 | CES61 = 87 | CES86 = 70 |
| CES12 = 63 | CES37 = 80 | CES62 = 82 | CES87 = 78 |
| CES13 = 42 | CES38 = 72 | CES63 = 74 | CES88 = 77 |
| CES14 = 74 | CES39 = 93 | CES64 = 72 | CES89 = 71 |
| CES15 = 71 | CES40 = 87 | CES65 = 66 | CES90 = 74 |
| CES16 = 46 | CES41 = 85 | CES66 = 69 | CES91 = 92 |
| CES17 = 49 | CES42 = 81 | CES67 = 66 | CES92 = 63 |
| CES18 = 56 | CES43 = 76 | CES68 = 73 | CES93 = 79 |
| CES19 = 72 | CES44 = 99 | CES69 = 82 | CES94 = 53 |
| CES20 = 65 | CES45 = 84 | CES70 = 63 | CES95 = 70 |
| CES21 = 86 | CES46 = 80 | CES71 = 61 | CES96 = 77 |
| CES22 = 78 | CES47 = 77 | CES72 = 86 | CES97 = 84 |
| CES23 = 92 | CES48 = 67 | CES73 = 54 | CES98 = 73 |
| CES24 = 91 | CES49 = 79 | CES74 = 96 | CES99 = 60 |
| CES25 = 72 | CES50 = 87 | CES75 = 59 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)