



BSS305-4-35-ND-R-F-AW

Luminaire Description: White rectangular metal housing with diffuse rectangular plastic lens
Lamp: 112 White LEDs
Mounting: Surface – Ceiling
Ballast/Driver: One (1) Signify North America / XI054C150V054BST1

Luminaire



Luminaire Characteristics

Luminous Length: 1.00 in.
 Luminous Width: 44.00 in.

Summary of Results

Integrating Sphere

Luminous Flux: 2785 Lumens
 Efficacy: 96.03 lm/w
 CCT: 3538 K
 CRI (Ra): 92.8

Distribution

Total Luminaire Output: 2722 Lumens
 Luminaire Efficacy: 93.8 lm/w
 Maximum Candela: 1482 Candela

Electrical Data at 120 VAC

Test Temperature: 24.5 °C
 Voltage: 120.1 VAC
 Current: 0.2436 A
 Power: 29.00 W
 Power Factor: 0.991
 Frequency: 60 Hz
 Current THD: 11.2 %



Color Quality - Integrating Sphere

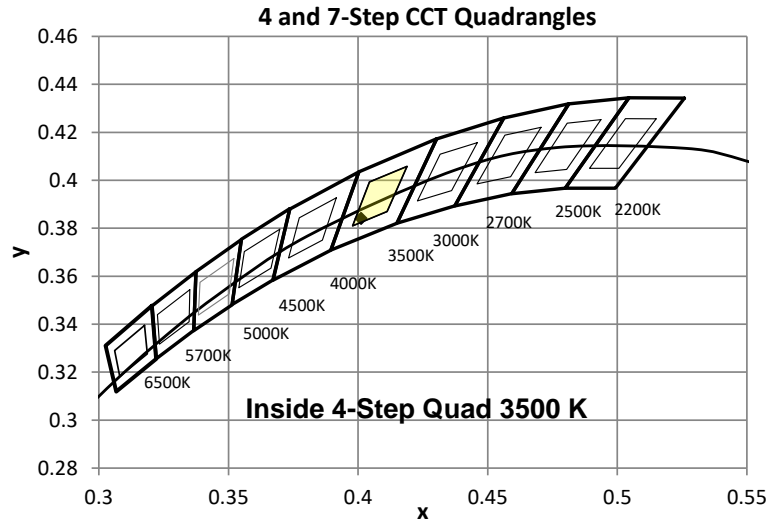
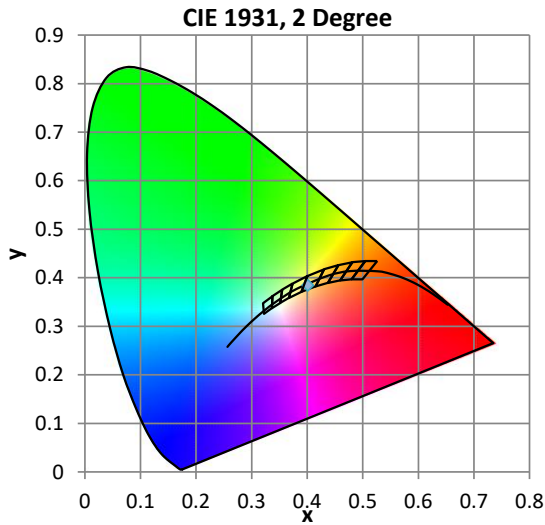
Integrating Sphere Test Conditions

| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 24.5 °C | 120.1 VAC | 0.2436 A | 29.00 W | 0.991 | 60 Hz | 11.2 % |

Summary of Results

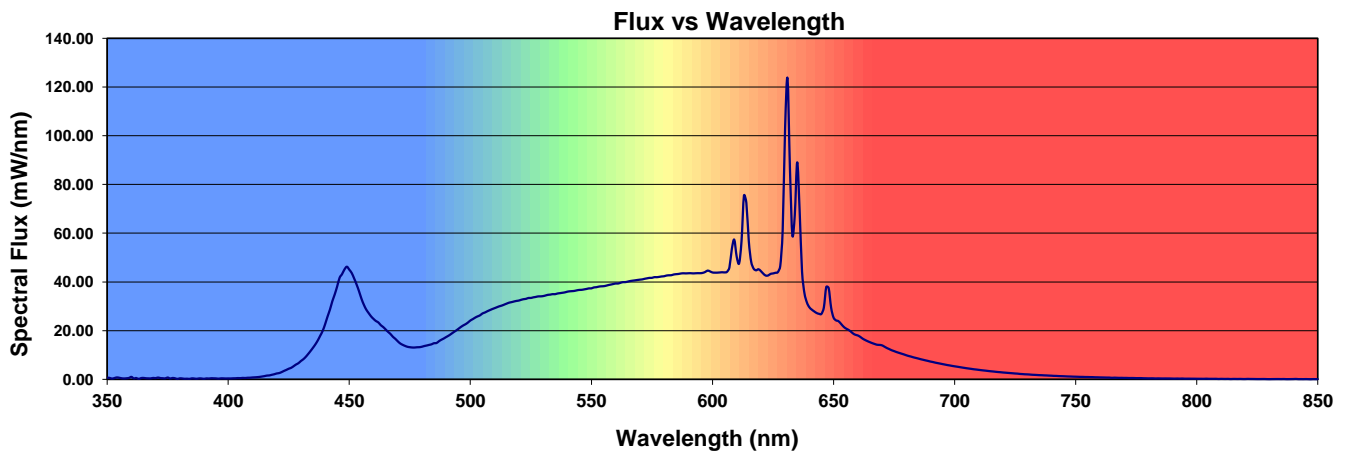
| | | | |
|-----------------------------|-------------|---------------------------|---------|
| Total Output: | 2785 Lumens | Chromaticity (x): | 0.4011 |
| Efficacy: | 96.0 lm/w | Chromaticity (y): | 0.3841 |
| CCT: | 3538 K | Chromaticity (u'): | 0.2357 |
| CRI (Ra): | 92.8 | Chromaticity (v'): | 0.5078 |
| CRI (R9): | 60.7 | TM-30 Rf: | 91 |
| Peak Wavelength: | 631 nm | TM-30 Rg: | 101 |
| Dominant Wavelength: | 582 nm | TM-30 Rcs,h1: | -5% |
| S/P Ratio: | 1.62 | Duv: | -0.0020 |
| M/P Ratio: | 0.64 | | |

WELL Building Standard v2



Color Rendering Index Detail

| Ra (CRI) | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92.8 | 94.4 | 95.3 | 94.6 | 93.8 | 93.7 | 93.7 | 92.6 | 84.4 | 60.7 | 87.4 | 94.2 | 78.8 | 94.5 | 96.1 | 91.0 |





Distribution - Goniophotometer

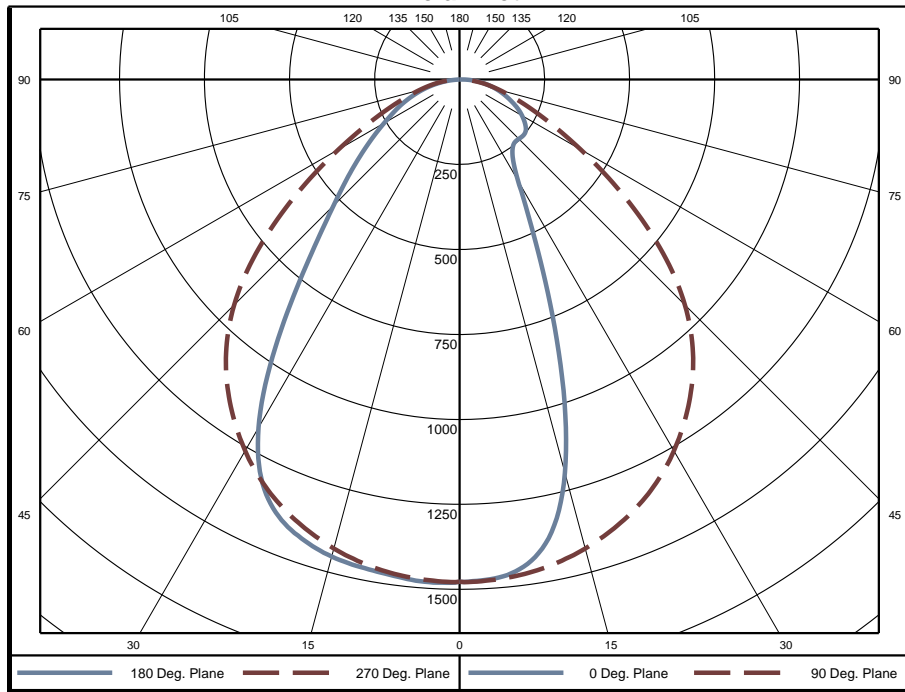
Distribution Test Conditions

| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 24.6 °C | 120.0 VAC | 0.2439 A | 29.02 W | 0.991 | 60 Hz | 11.2 % |

Summary of Results

| | | |
|--|----------------------------|--------------|
| Spacing Criteria | Total Lumen Output: | 2722 Lumens |
| 0-180: 0.71 | Luminaire Efficacy: | 93.8 lm/w |
| 90-270: 1.26 | Maximum Candela: | 1482 Candela |
| Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1) | | |
| Crosswise: 24.7 | Endwise: 26.9 | |

Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5 | 35.2 | 1.3% | 60-65 | 117.8 | 4.3% | 120-125 | 0 | 0.0% |
| 5-10 | 104.4 | 3.8% | 65-70 | 92.4 | 3.4% | 125-130 | 0 | 0.0% |
| 10-15 | 168.0 | 6.2% | 70-75 | 69.9 | 2.6% | 130-135 | 0 | 0.0% |
| 15-20 | 219.3 | 8.1% | 75-80 | 49.2 | 1.8% | 135-140 | 0 | 0.0% |
| 20-25 | 253.0 | 9.3% | 80-85 | 28.7 | 1.1% | 140-145 | 0 | 0.0% |
| 25-30 | 269.9 | 9.9% | 85-90 | 9.1 | 0.3% | 145-150 | 0 | 0.0% |
| 30-35 | 271.6 | 10.0% | 90-95 | 0 | 0.0% | 150-155 | 0 | 0.0% |
| 35-40 | 259.1 | 9.5% | 95-100 | 0 | 0.0% | 155-160 | 0 | 0.0% |
| 40-45 | 237.2 | 8.7% | 100-105 | 0 | 0.0% | 160-165 | 0 | 0.0% |
| 45-50 | 210.4 | 7.7% | 105-110 | 0 | 0.0% | 165-170 | 0 | 0.0% |
| 50-55 | 179.6 | 6.6% | 110-115 | 0 | 0.0% | 170-175 | 0 | 0.0% |
| 55-60 | 147.4 | 5.4% | 115-120 | 0 | 0.0% | 175-180 | 0 | 0.0% |

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-40 | 1581 | 58.1% |
| 0-60 | 2355 | 86.5% |
| 0-90 | 2722 | 100.0% |
| 90-180 | 0 | 0.0% |



Candela Tabulation
Horizontal Angle (Degrees)

| | 0 | 22.5 | 45 | 67.5 | 90 | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 |
|-----|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| 0 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 | 1477 |
| 5 | 1466 | 1465 | 1464 | 1464 | 1472 | 1468 | 1474 | 1481 | 1479 | 1481 | 1474 | 1468 | 1472 | 1464 | 1464 | 1465 |
| 10 | 1400 | 1409 | 1430 | 1445 | 1457 | 1453 | 1463 | 1472 | 1466 | 1472 | 1463 | 1453 | 1457 | 1445 | 1430 | 1409 |
| 15 | 1197 | 1236 | 1342 | 1408 | 1428 | 1429 | 1443 | 1457 | 1452 | 1457 | 1443 | 1429 | 1428 | 1408 | 1342 | 1236 |
| 20 | 853 | 930 | 1164 | 1344 | 1386 | 1396 | 1417 | 1429 | 1419 | 1429 | 1417 | 1396 | 1386 | 1344 | 1164 | 930 |
| 25 | 532 | 608 | 906 | 1244 | 1332 | 1347 | 1368 | 1369 | 1346 | 1369 | 1368 | 1347 | 1332 | 1244 | 906 | 608 |
| 30 | 344 | 396 | 643 | 1099 | 1261 | 1281 | 1291 | 1240 | 1183 | 1240 | 1291 | 1281 | 1261 | 1099 | 643 | 396 |
| 35 | 272 | 292 | 443 | 916 | 1173 | 1200 | 1160 | 1017 | 931 | 1017 | 1160 | 1200 | 1173 | 916 | 443 | 292 |
| 40 | 248 | 252 | 324 | 719 | 1069 | 1096 | 962 | 768 | 689 | 768 | 962 | 1096 | 1069 | 719 | 324 | 252 |
| 45 | 247 | 243 | 264 | 541 | 937 | 941 | 744 | 576 | 524 | 576 | 744 | 941 | 937 | 541 | 264 | 243 |
| 50 | 249 | 242 | 237 | 400 | 769 | 748 | 555 | 444 | 414 | 444 | 555 | 748 | 769 | 400 | 237 | 242 |
| 55 | 237 | 229 | 215 | 299 | 581 | 555 | 407 | 343 | 326 | 343 | 407 | 555 | 581 | 299 | 215 | 229 |
| 60 | 212 | 204 | 190 | 227 | 411 | 392 | 299 | 265 | 256 | 265 | 299 | 392 | 411 | 227 | 190 | 204 |
| 65 | 181 | 175 | 162 | 175 | 281 | 272 | 220 | 205 | 202 | 205 | 220 | 272 | 281 | 175 | 162 | 175 |
| 70 | 147 | 143 | 133 | 135 | 189 | 188 | 161 | 155 | 154 | 155 | 161 | 188 | 189 | 135 | 133 | 143 |
| 75 | 114 | 110 | 103 | 100 | 125 | 126 | 112 | 110 | 108 | 110 | 112 | 126 | 125 | 100 | 103 | 110 |
| 80 | 80 | 77 | 72 | 68 | 76 | 77 | 69 | 66 | 64 | 66 | 69 | 77 | 76 | 68 | 72 | 77 |
| 85 | 46 | 43 | 39 | 34 | 35 | 33 | 28 | 26 | 23 | 26 | 28 | 33 | 35 | 34 | 39 | 43 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

| | 0 | 45 | 90 |
|----|-------|-------|-------|
| 0 | 52020 | 52020 | 52020 |
| 45 | 12300 | 13160 | 46690 |
| 55 | 14550 | 13190 | 35710 |
| 65 | 15060 | 13510 | 23400 |
| 75 | 15520 | 13990 | 16970 |
| 85 | 18440 | 15860 | 14000 |

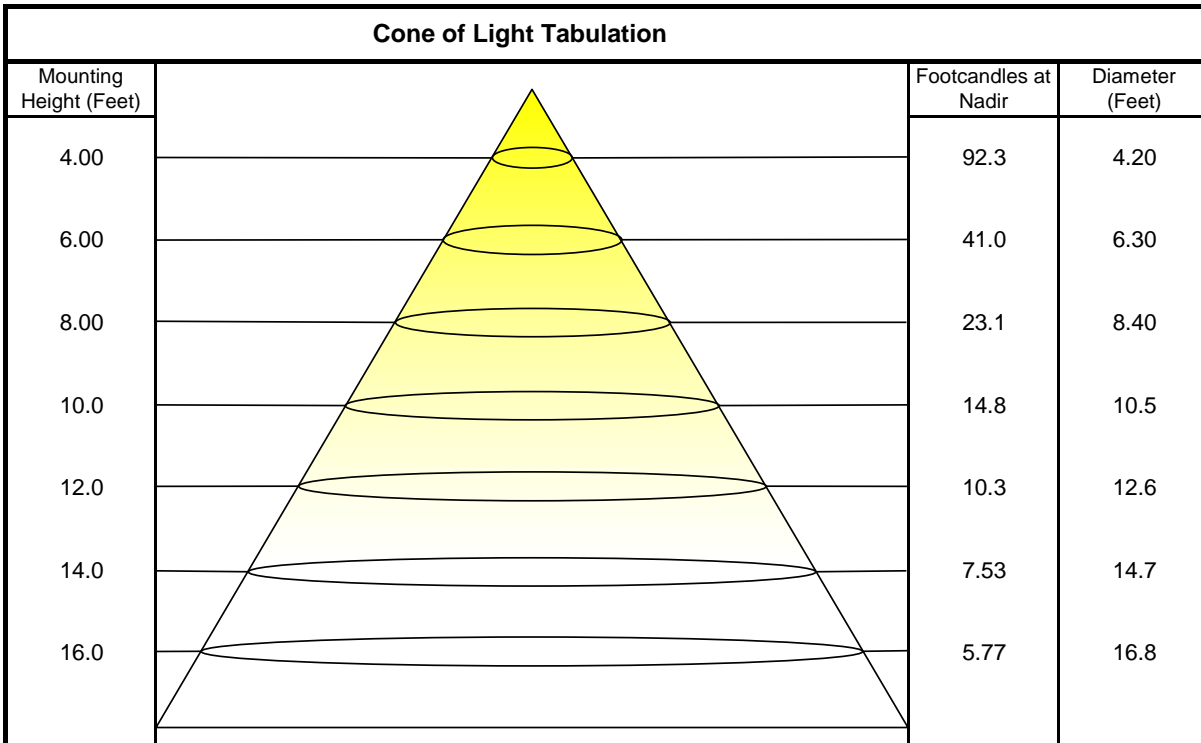


Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

| Ceiling Cavity Reflectance | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Wall Reflectance | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| Room Cavity Ratio (RCR) | ** Values are expressed as percent of total lumen output delivered to the task surface ** | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 94 | 91 | 92 | 90 | 89 | 87 |
| 2 | 102 | 94 | 88 | 83 | 99 | 93 | 87 | 82 | 89 | 84 | 81 | 86 | 82 | 79 | 83 | 80 | 77 | 75 |
| 3 | 94 | 84 | 77 | 72 | 91 | 83 | 76 | 71 | 80 | 74 | 70 | 77 | 73 | 68 | 75 | 71 | 67 | 65 |
| 4 | 87 | 76 | 68 | 62 | 85 | 75 | 68 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 63 | 59 | 58 |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 60 | 55 | 66 | 59 | 54 | 64 | 58 | 54 | 62 | 57 | 53 | 51 |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 54 | 49 | 60 | 53 | 48 | 59 | 53 | 48 | 57 | 52 | 48 | 46 |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 43 | 53 | 47 | 43 | 41 |
| 8 | 66 | 53 | 45 | 40 | 64 | 53 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 37 |
| 9 | 62 | 49 | 42 | 37 | 60 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 36 | 34 |
| 10 | 58 | 46 | 38 | 34 | 57 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 43 | 37 | 33 | 31 |

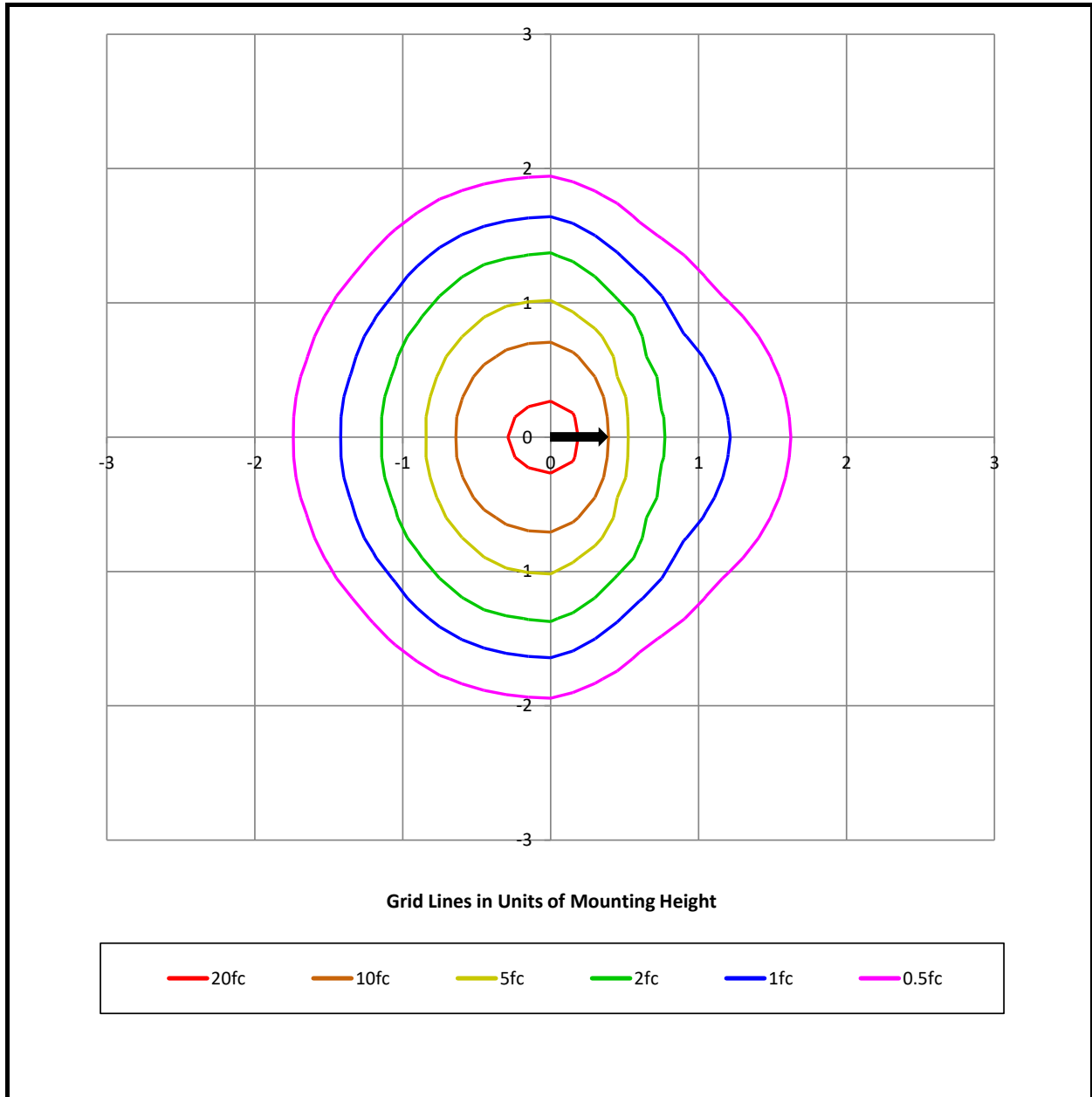
| Beam and Field Information | |
|----------------------------|---------------|
| CIE Type: | Direct |
| Center Beam Intensity: | 1477 Candela |
| Central Cone Intensity: | 1474 Candela |
| Beam Flux: | 1692.4 Lumens |
| Beam Angle (0-180): | 60.5 Degrees |
| Beam Angle (90-270): | 101.6 Degrees |
| Field Angle (0-180): | 140.5 Degrees |
| Field Angle (90-270): | 146.0 Degrees |





ISOFootcandle Plot

Mounting Height - 8 Feet



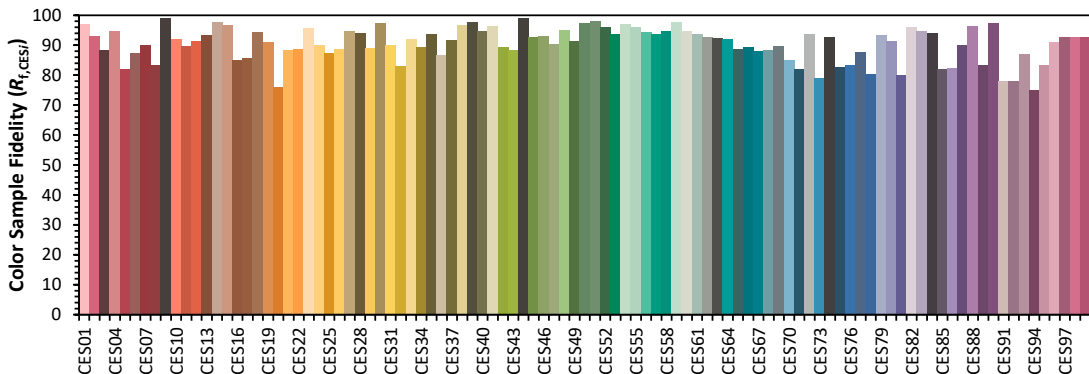
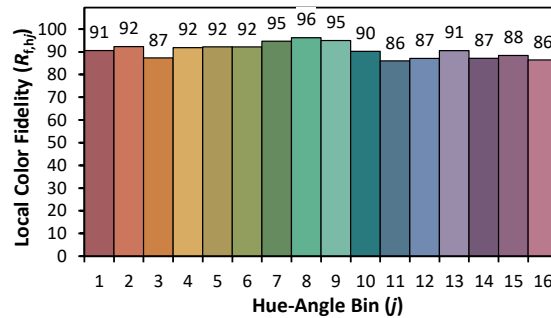
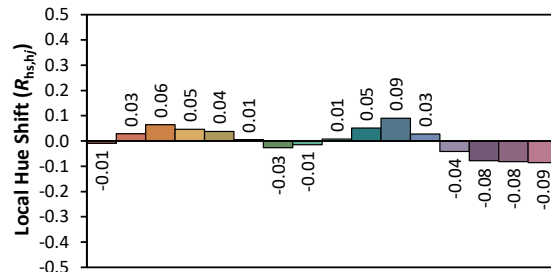
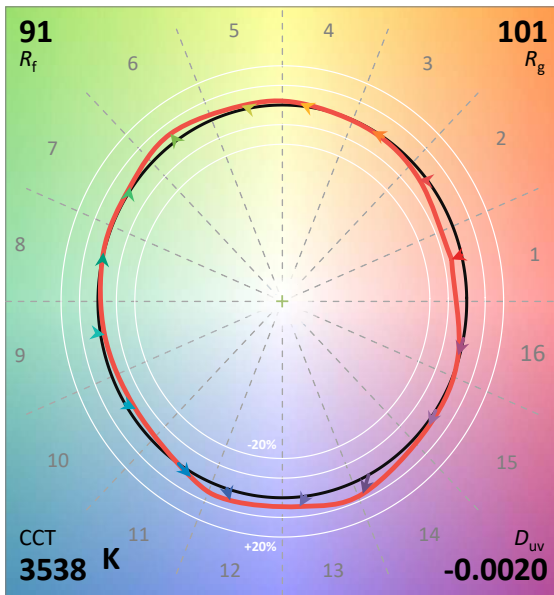
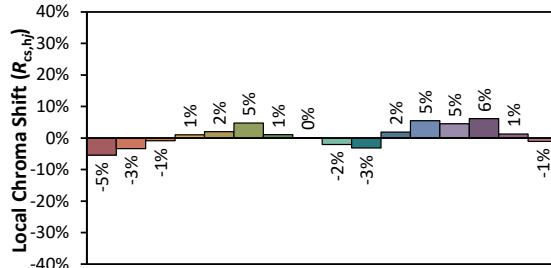
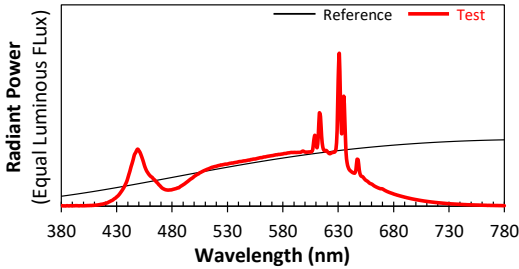
ANSI/IES TM-30-18 Color Rendition Report

Date: 2021-09-01

Manufacturer: BARTCO LIGHTING INC

Model:

BSS305-4-35-ND-R-F-AW



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x **0.4011**
 y **0.3841**
 u' **0.2357**
 v' **0.5078**

| | |
|---------------------|----|
| CIE 13.3-1995 (CRI) | |
| R _a | 93 |
| R ₉ | 61 |

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.