



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

*Mercury Typed Notes Added:

The LR205 (4" Depth) and the LR105 (3" Depth) use the same reflector & lens.
The LED distance to the lens is the same so the photometrics would be equal.

Prepared For **Mercury Lighting**

Stephen Bambush
20 Audrey Pl
Fairfield, NJ 07004-3416

Catalog Number
LR205-24G-7500-35K-1%-UNI-XXXX

Order Number
11321901
Test Number
1261248

Test Date

2016-06-22

Prepared By

Kevin Rodriguez, Technician

Approved By

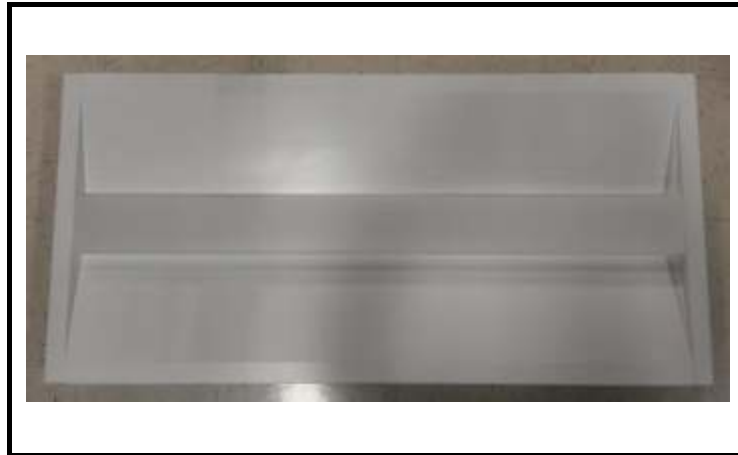
Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed white enamel steel housing / reflector, frosted plastic lens enclosure
Lamp: 88 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance XI075C200V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 20.50 in.

Summary of Results

| | |
|-------------------------|--------------|
| Total Luminaire Output: | 7305 Lumens |
| Luminaire Efficacy: | 102.9 lm/w |
| Maximum Candela: | 2540 Candela |

Test Conditions

| | |
|-------------------|-----------|
| Test Temperature: | 25.7 °C |
| Voltage: | 120.0 VAC |
| Current: | 0.5930 A |
| Power: | 71.00 W |
| Power Factor: | 0.997 |
| Frequency: | 60 Hz |
| Current THD: | 5.09 % |

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

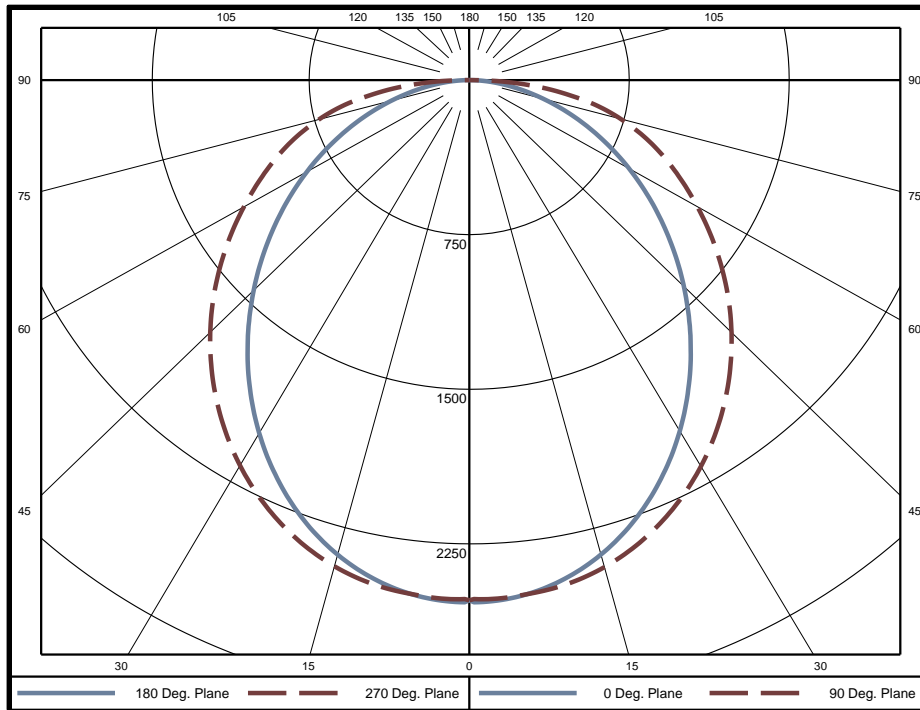
| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 25.7 °C | 120.0 VAC | 0.5930 A | 71.00 W | 0.997 | 60 Hz | 5.09 % |

Summary of Results

Spacing Criteria
 0-180: 1.17
 90-270: 1.17

Total Lumen Output: 7305 Lumens
Luminaire Efficacy: 102.9 lm/w
Maximum Candela: 2540 Candela

Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5 | 60.4 | 0.8% | 60-65 | 485.8 | 6.7% | 120-125 | 0 | 0.0% |
| 5-10 | 178.9 | 2.4% | 65-70 | 422.1 | 5.8% | 125-130 | 0 | 0.0% |
| 10-15 | 290.8 | 4.0% | 70-75 | 351.8 | 4.8% | 130-135 | 0 | 0.0% |
| 15-20 | 391.5 | 5.4% | 75-80 | 272.6 | 3.7% | 135-140 | 0 | 0.0% |
| 20-25 | 477.4 | 6.5% | 80-85 | 178.6 | 2.4% | 140-145 | 0 | 0.0% |
| 25-30 | 545.4 | 7.5% | 85-90 | 65.1 | 0.9% | 145-150 | 0 | 0.0% |
| 30-35 | 593.5 | 8.1% | 90-95 | 0 | 0.0% | 150-155 | 0 | 0.0% |
| 35-40 | 620.9 | 8.5% | 95-100 | 0 | 0.0% | 155-160 | 0 | 0.0% |
| 40-45 | 627.8 | 8.6% | 100-105 | 0 | 0.0% | 160-165 | 0 | 0.0% |
| 45-50 | 615.6 | 8.4% | 105-110 | 0 | 0.0% | 165-170 | 0 | 0.0% |
| 50-55 | 585.9 | 8.0% | 110-115 | 0 | 0.0% | 170-175 | 0 | 0.0% |
| 55-60 | 541.5 | 7.4% | 115-120 | 0 | 0.0% | 175-180 | 0 | 0.0% |

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-40 | 3159 | 43.2% |
| 0-60 | 5530 | 75.7% |
| 0-90 | 7306 | 100.0% |
| 90-180 | 0 | 0.0% |



Candela Tabulation

Horizontal Angle (Degrees)

| Vertical Angle (Degrees) | 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 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 | 2524 |
| 5 | 2518 | 2526 | 2520 | 2517 | 2513 | 2517 | 2520 | 2526 | 2518 | 2526 | 2520 | 2517 | 2513 | 2517 | 2520 | 2526 |
| 10 | 2468 | 2478 | 2480 | 2491 | 2491 | 2491 | 2480 | 2478 | 2468 | 2478 | 2480 | 2491 | 2491 | 2491 | 2480 | 2478 |
| 15 | 2385 | 2398 | 2421 | 2443 | 2445 | 2443 | 2421 | 2398 | 2385 | 2398 | 2421 | 2443 | 2445 | 2443 | 2421 | 2398 |
| 20 | 2272 | 2296 | 2337 | 2371 | 2373 | 2371 | 2337 | 2296 | 2272 | 2296 | 2337 | 2371 | 2373 | 2371 | 2337 | 2296 |
| 25 | 2133 | 2170 | 2230 | 2276 | 2278 | 2276 | 2230 | 2170 | 2133 | 2170 | 2230 | 2276 | 2278 | 2276 | 2230 | 2170 |
| 30 | 1975 | 2024 | 2104 | 2161 | 2164 | 2161 | 2104 | 2024 | 1975 | 2024 | 2104 | 2161 | 2164 | 2161 | 2104 | 2024 |
| 35 | 1801 | 1862 | 1960 | 2028 | 2032 | 2028 | 1960 | 1862 | 1801 | 1862 | 1960 | 2028 | 2032 | 2028 | 1960 | 1862 |
| 40 | 1618 | 1690 | 1802 | 1879 | 1888 | 1879 | 1802 | 1690 | 1618 | 1690 | 1802 | 1879 | 1888 | 1879 | 1802 | 1690 |
| 45 | 1430 | 1510 | 1635 | 1719 | 1732 | 1719 | 1635 | 1510 | 1430 | 1510 | 1635 | 1719 | 1732 | 1719 | 1635 | 1510 |
| 50 | 1241 | 1329 | 1462 | 1551 | 1568 | 1551 | 1462 | 1329 | 1241 | 1329 | 1462 | 1551 | 1568 | 1551 | 1462 | 1329 |
| 55 | 1057 | 1147 | 1285 | 1379 | 1399 | 1379 | 1285 | 1147 | 1057 | 1147 | 1285 | 1379 | 1399 | 1379 | 1285 | 1147 |
| 60 | 874 | 969 | 1111 | 1207 | 1231 | 1207 | 1111 | 969 | 874 | 969 | 1111 | 1207 | 1231 | 1207 | 1111 | 969 |
| 65 | 699 | 796 | 942 | 1041 | 1069 | 1041 | 942 | 796 | 699 | 796 | 942 | 1041 | 1069 | 1041 | 942 | 796 |
| 70 | 530 | 632 | 782 | 881 | 909 | 881 | 782 | 632 | 530 | 632 | 782 | 881 | 909 | 881 | 782 | 632 |
| 75 | 371 | 479 | 627 | 712 | 735 | 712 | 627 | 479 | 371 | 479 | 627 | 712 | 735 | 712 | 627 | 479 |
| 80 | 228 | 338 | 460 | 517 | 531 | 517 | 460 | 338 | 228 | 338 | 460 | 517 | 531 | 517 | 460 | 338 |
| 85 | 105 | 193 | 253 | 278 | 283 | 278 | 253 | 193 | 105 | 193 | 253 | 278 | 283 | 278 | 253 | 193 |
| 90 | 1 | 5 | 13 | 20 | 22 | 20 | 13 | 5 | 1 | 5 | 13 | 20 | 22 | 20 | 13 | 5 |
| 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)

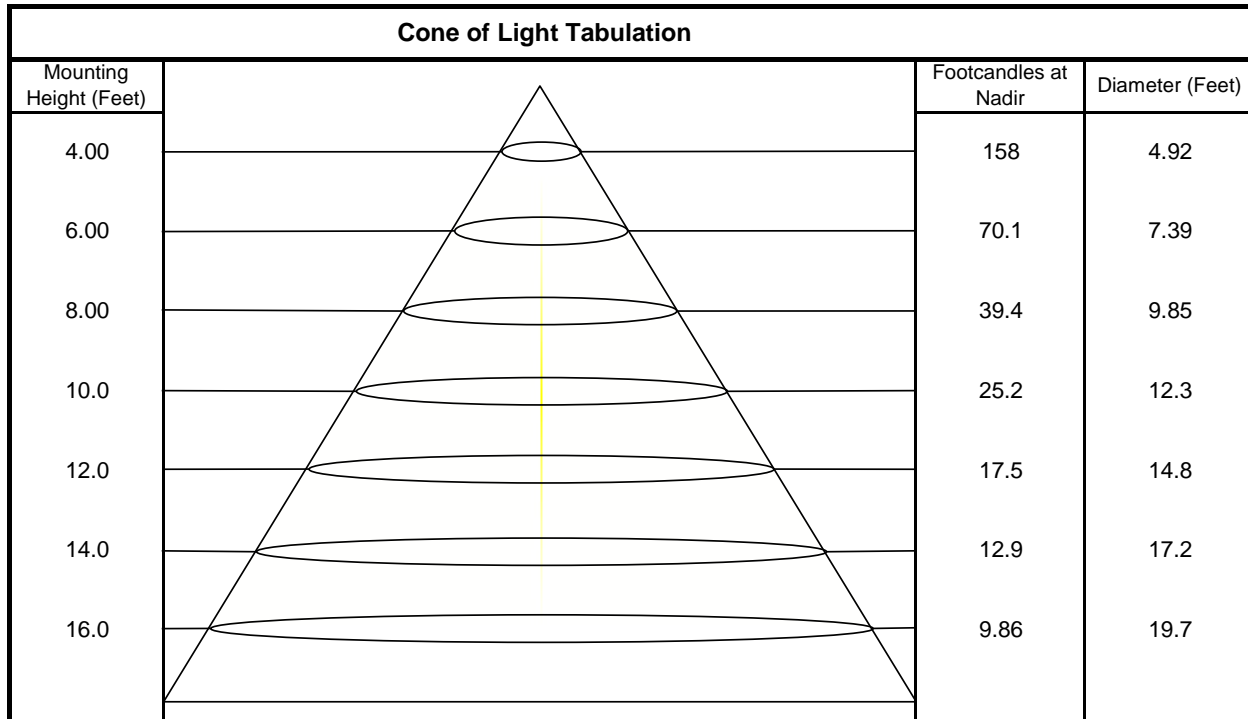
| Vertical Angle (Degrees) | Horizontal Angle (Degrees) | | |
|--------------------------|----------------------------|------|------|
| | 0 | 45 | 90 |
| 0 | 4240 | 4240 | 4240 |
| 45 | 3397 | 3886 | 4116 |
| 55 | 3095 | 3765 | 4099 |
| 65 | 2778 | 3746 | 4248 |
| 75 | 2411 | 4073 | 4770 |
| 85 | 2022 | 4885 | 5446 |



Utilization of Lumens - 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 Lumens delivered to the task surface ** | | | | | | | | | | | | | | | | | |
| 0 | 8697 | 8697 | 8697 | 8697 | 8495 | 8495 | 8495 | 8495 | 8117 | 8117 | 8117 | 7772 | 7772 | 7772 | 7455 | 7455 | 7455 | 7305 |
| 1 | 7881 | 7504 | 7167 | 6862 | 7678 | 7336 | 7029 | 6750 | 7022 | 6768 | 6535 | 6734 | 6526 | 6333 | 6468 | 6300 | 6144 | 5986 |
| 2 | 7142 | 6506 | 5981 | 5539 | 6945 | 6366 | 5882 | 5472 | 6103 | 5695 | 5342 | 5861 | 5519 | 5219 | 5636 | 5353 | 5101 | 4937 |
| 3 | 6498 | 5697 | 5076 | 4582 | 6313 | 5579 | 5003 | 4539 | 5358 | 4864 | 4457 | 5154 | 4732 | 4378 | 4964 | 4607 | 4301 | 4136 |
| 4 | 5944 | 5040 | 4378 | 3872 | 5773 | 4941 | 4322 | 3844 | 4755 | 4216 | 3789 | 4582 | 4115 | 3736 | 4421 | 4018 | 3684 | 3521 |
| 5 | 5465 | 4501 | 3827 | 3329 | 5308 | 4418 | 3784 | 3310 | 4260 | 3701 | 3273 | 4114 | 3622 | 3236 | 3977 | 3546 | 3200 | 3040 |
| 6 | 5047 | 4052 | 3384 | 2905 | 4904 | 3981 | 3350 | 2891 | 3848 | 3284 | 2864 | 3723 | 3221 | 2838 | 3606 | 3160 | 2812 | 2658 |
| 7 | 4680 | 3674 | 3022 | 2565 | 4551 | 3614 | 2995 | 2555 | 3500 | 2942 | 2535 | 3393 | 2891 | 2516 | 3293 | 2841 | 2497 | 2349 |
| 8 | 4358 | 3354 | 2722 | 2289 | 4241 | 3302 | 2700 | 2281 | 3204 | 2657 | 2266 | 3112 | 2615 | 2251 | 3026 | 2574 | 2237 | 2095 |
| 9 | 4073 | 3079 | 2471 | 2060 | 3968 | 3035 | 2452 | 2054 | 2950 | 2417 | 2043 | 2871 | 2382 | 2031 | 2795 | 2348 | 2020 | 1885 |
| 10 | 3820 | 2842 | 2258 | 1869 | 3725 | 2804 | 2242 | 1864 | 2731 | 2212 | 1855 | 2661 | 2183 | 1846 | 2596 | 2155 | 1837 | 1708 |

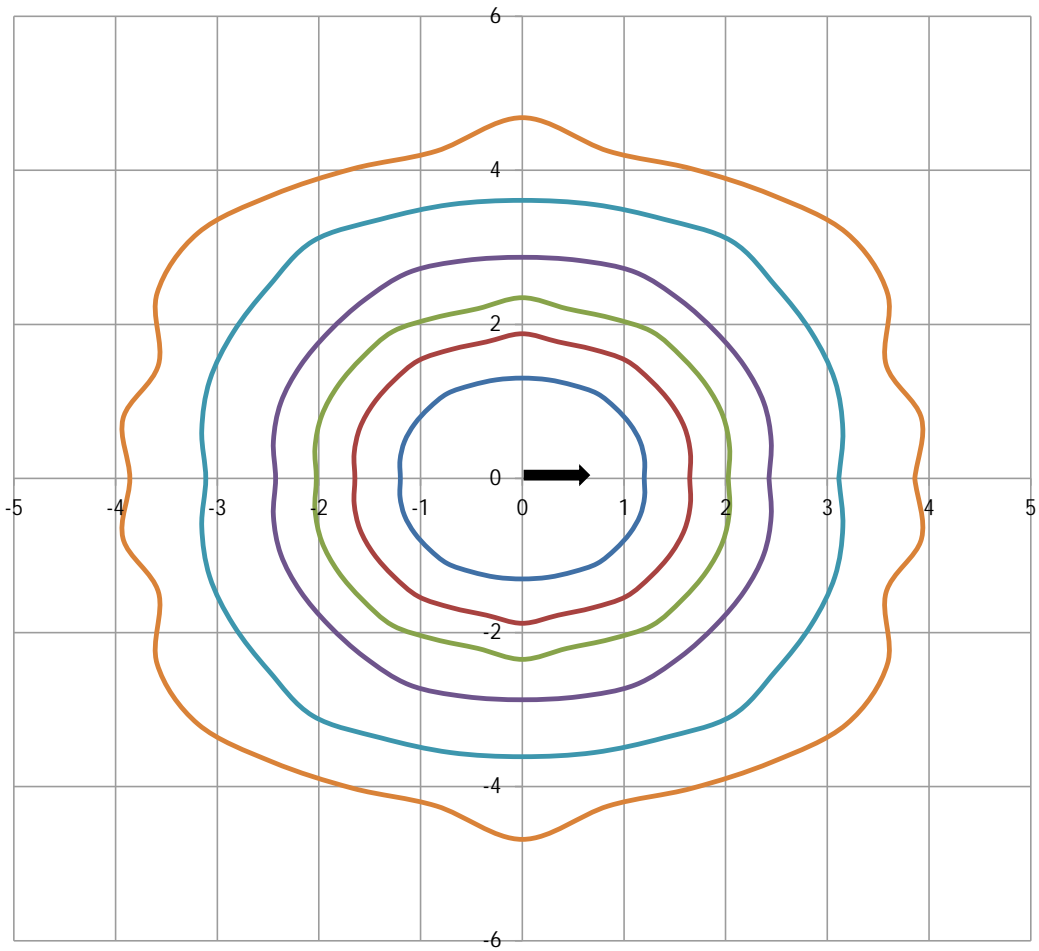
| Beam and Field Information | |
|----------------------------|---------------|
| CIE Type: | Direct |
| Center Beam Intensity: | 2524 Candela |
| Central Cone Intensity: | 2525 Candela |
| Beam Flux: | 5016.7 Lumens |
| Beam Angle (0-180): | 98.9 Degrees |
| Beam Angle (90-270): | 118.1 Degrees |
| Field Angle (0-180): | 158.2 Degrees |
| Field Angle (90-270): | 171.1 Degrees |





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

