LightLab INTERNATIONAL ALLENTOWN LLC

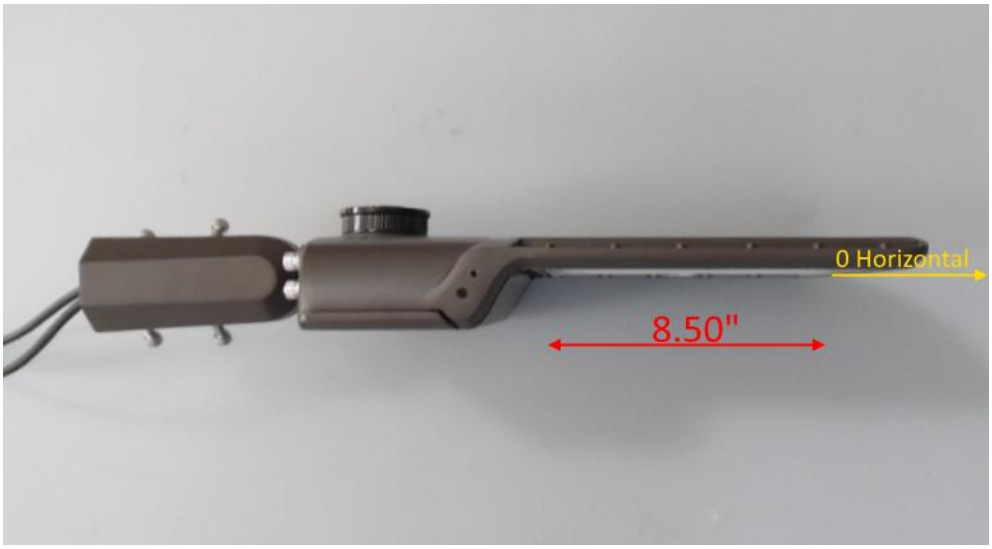
NVLAP TESTING Lab Code: 201079-0

# Report of Test

## LLIA002251-008

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: ARL-150PCS-T5 - 100W Setting - 4000K Setting
Pole mounted, cast aluminum housing, white LED board with
frosted plastic enclosure with clear optic sections below LEDs.
364 white LEDs, 182 CW LEDs and 182 WW LEDs
One Sosen SS-160NH-E260BH LED driver




Prepared For:
Topaz Lighting Corp
925 Waverly Avenue
Holtsville, NY 11742, USA

| Performance Summary | | | | | |
|---|---|---|---|---|---|
| Input Voltage | 120.0 | Vac | Luminous Flux | 16017.0 | Lumens |
| Input Current | 0.8168 | A | Total Efficacy | 163.7 | Lm/W |
| Input Power | 97.83 | W | | | |
| Frequency | 60.00 | Hz | | | |
| Power Factor | 0.998 | | Roadway Type | Area Light | |
| Current THD | 5.1 | % | | | |

This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 11/08/2023
Report date: 11/10/2023

Signed: Michael L. Grather Digitally signed by Michael L. Grather Date: 2023.11.15 14:10:25 -05'00'

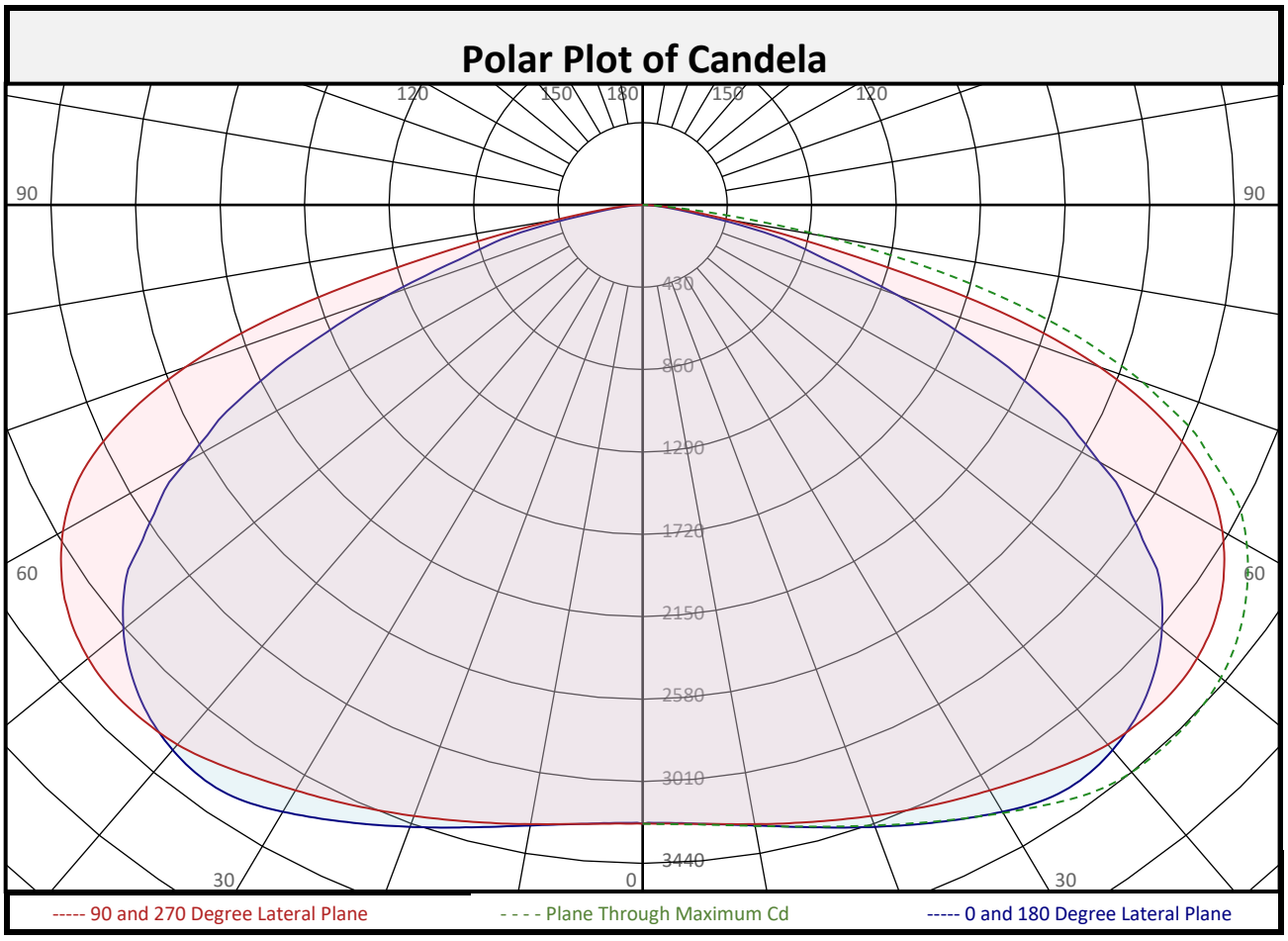
*North America (issuing laboratory)*
LightLab International Allentown, LLC
905 Harrison Street, Suite 135
Allentown, PA 18103 USA
Ph: +1 484-273-0705
Fx: +1 484-209-5779
www.lightlaballentown.com



*Australasia & S.E. Asia*
LightLab International
50 Redcliffe Gardens Drive
Clontarf - Queensland, 4019, Australia
Ph : +61 7 3283 7862
Fx : +61 7 3283 8751
www.lightlabint.com

# Report of Test

## LLIA002251-008

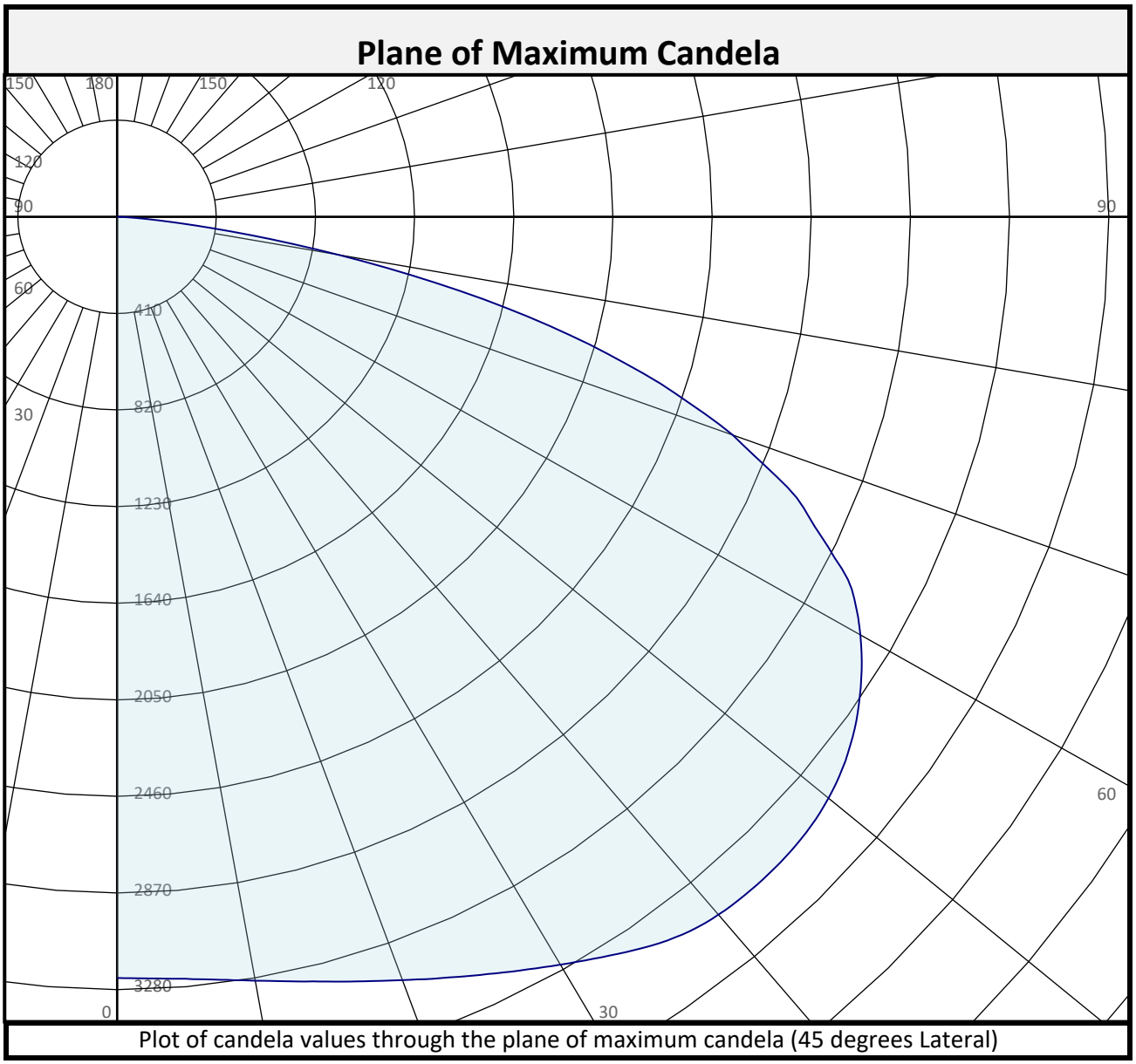



Zonal Flux Summary

| Zone (Deg Vert) | Flux (Lumens) | Percent of Total | Zone (Deg Vert) | Flux (Lumens) | Percent of Total | Zone (Deg Vert) | Flux (Lumens) | Percent of Total |
|---|---|---|---|---|---|---|---|---|
| 0-10 | 311.5 | 1.9% | 90-100 | 0.0 | 0.0% | 0-20 | 1266 | 7.9% |
| 10-20 | 954.6 | 6.0% | 100-110 | 0.0 | 0.0% | 0-30 | 2904 | 18.1% |
| 20-30 | 1638 | 10.2% | 110-120 | 0.0 | 0.0% | 0-40 | 5246 | 32.8% |
| 30-40 | 2341 | 14.6% | 120-130 | 0.0 | 0.0% | 0-60 | 11317 | 70.7% |
| 40-50 | 2912 | 18.2% | 130-140 | 0.0 | 0.0% | 0-80 | 15765 | 98.4% |
| 50-60 | 3160 | 19.7% | 140-150 | 0.0 | 0.0% | 10-90 | 15705 | 98.1% |
| 60-70 | 2828 | 17.7% | 150-160 | 0.0 | 0.0% | 20-50 | 6891 | 43.0% |
| 70-80 | 1620 | 10.1% | 160-170 | 0.0 | 0.0% | 40-90 | 10771 | 67.2% |
| 80-90 | 251.6 | 1.6% | 170-180 | 0.0 | 0.0% | 60-90 | 4700 | 29.3% |
| 0-90 | 16017 | 100.0% | 90-180 | 0.0 | 0.0% | 0-180 | 16017 | 100.0% |

# Report of Test

## LLIA002251-008

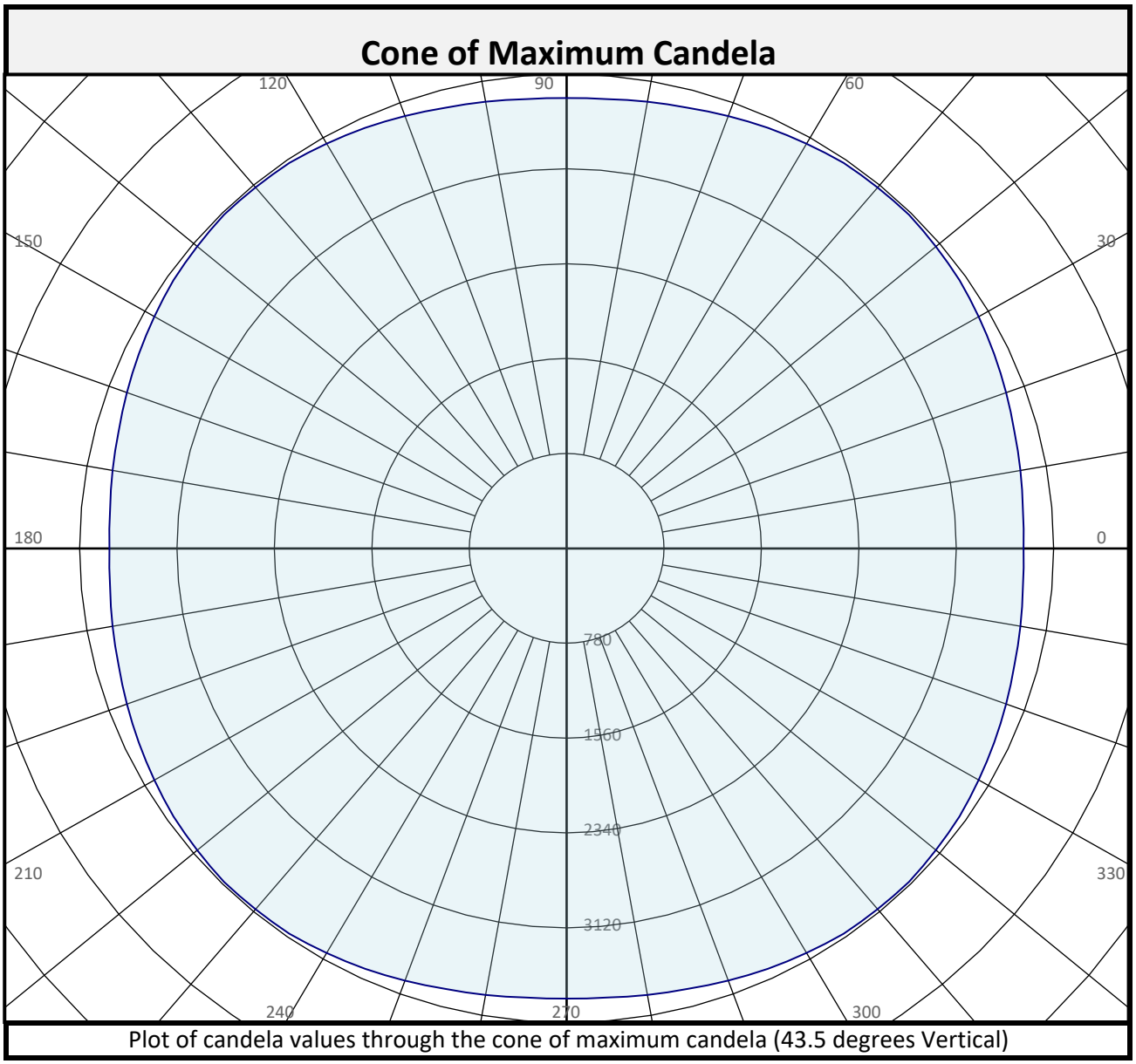



Plot of candela values through the plane of maximum candela (45 degrees Lateral)

| Street and House Side Flux Summary | | | | | | |
|---|---|---|---|---|---|---|
| | Downward | | Upward | | Total | |
| | Lumens | % of Total | Lumens | % of Total | Lumens | % of Total |
| Street Side | 8008.5 | 50.0% | 0.0 | 0.0% | 8008.5 | 50.0% |
| House Side | 8008.5 | 50.0% | 0.0 | 0.0% | 8008.5 | 50.0% |
| Total | 16017.0 | 100.0% | 0.0 | 0.0% | 16017.0 | 100.0% |

# Report of Test

## LLIA002251-008



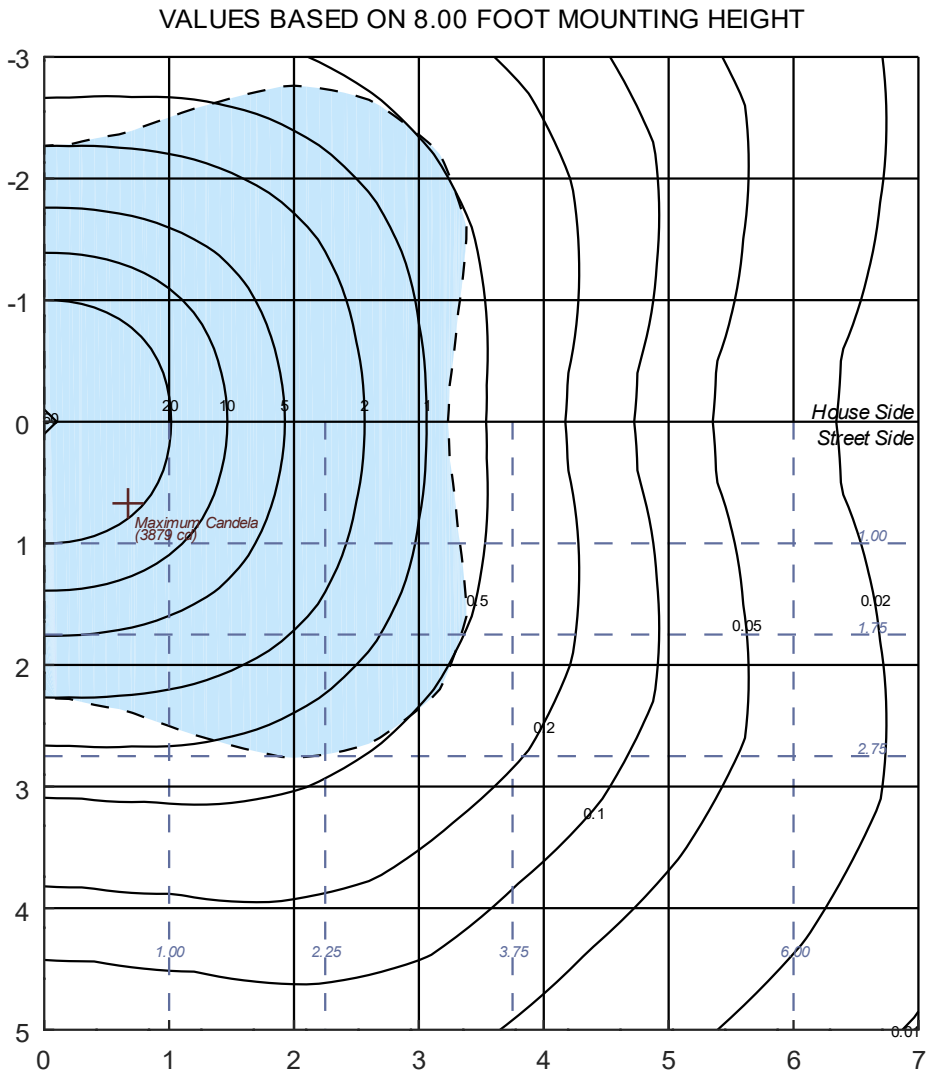

Plot of candela values through the cone of maximum candela (43.5 degrees Vertical)

| Street and House Side Flux Summary | | | | | | |
|---|---|---|---|---|---|---|
| | Downward | | Upward | | Total | |
| | Lumens | % of Total | Lumens | % of Total | Lumens | % of Total |
| Street Side | 8008.5 | 50.0% | 0.0 | 0.0% | 8008.5 | 50.0% |
| House Side | 8008.5 | 50.0% | 0.0 | 0.0% | 8008.5 | 50.0% |
| Total | 16017.0 | 100.0% | 0.0 | 0.0% | 16017.0 | 100.0% |

# Report of Test

## LLIA002251-008

### Iso-Illuminance Plot

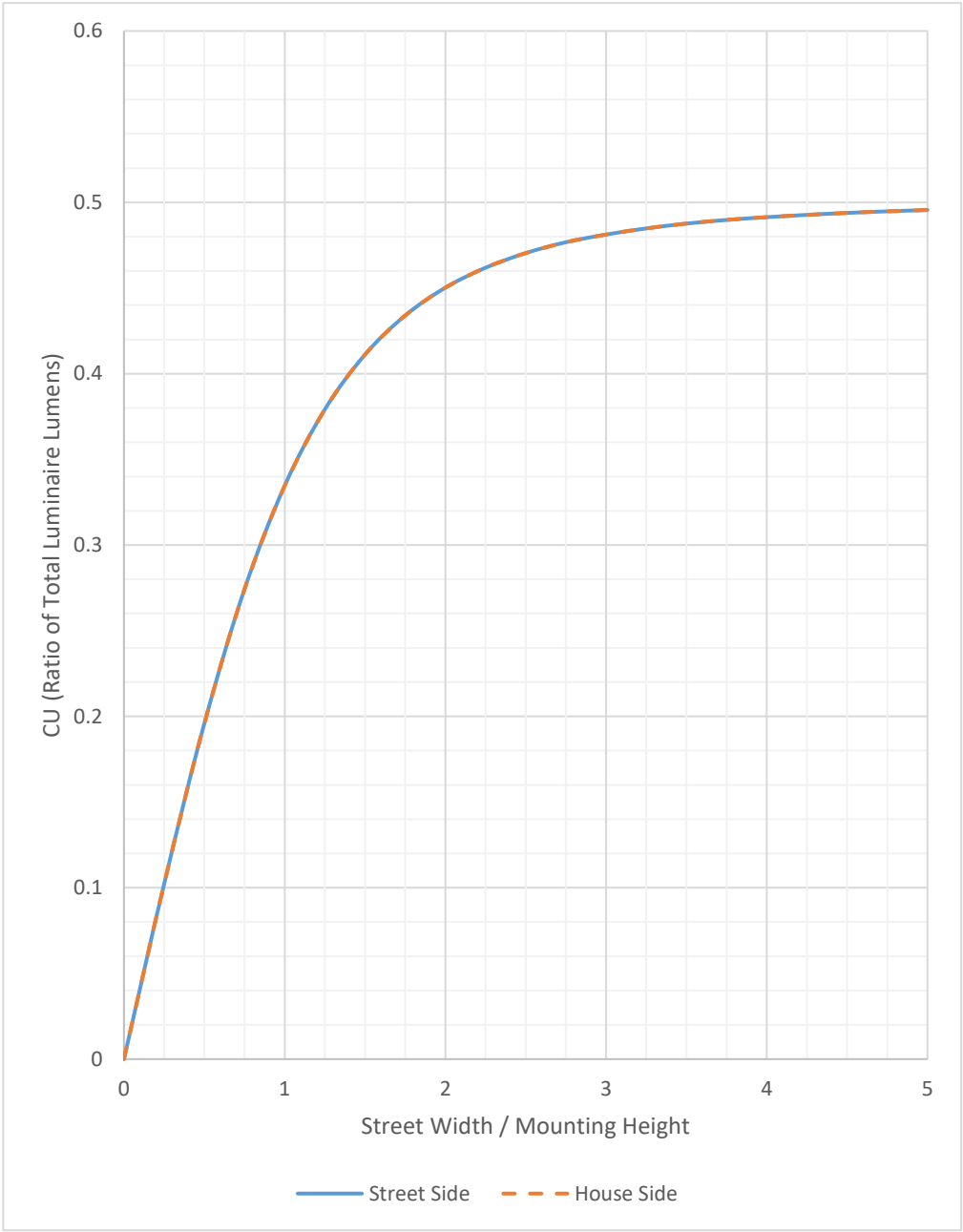



The isofootcandle values shown in the plot above are based on a mounting height of h = 8.0 feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.

# Report of Test

## LLIA002251-008

### Coefficients of Utilization Plot



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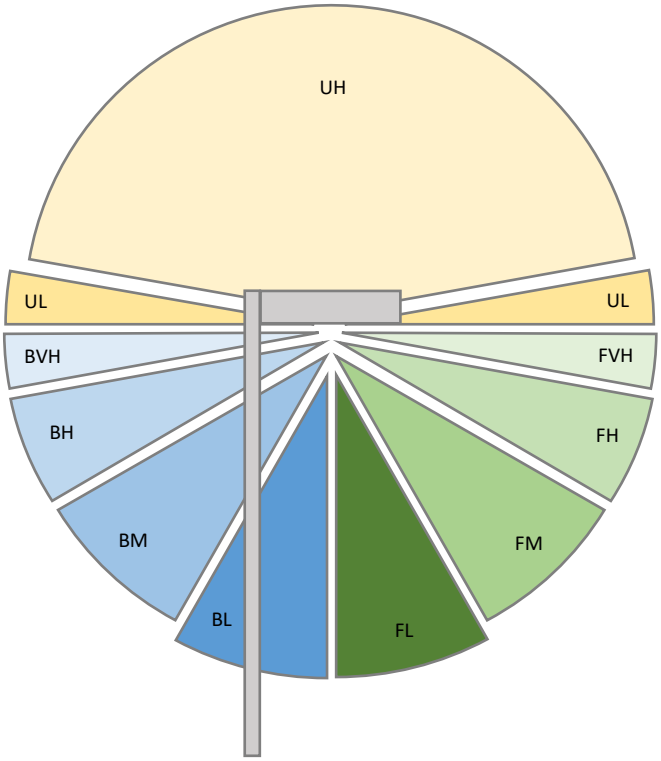
## LLIA002251-008

### LCS Tables and Bug Classification




| Back Light | |
|---|---|
| BL - Back Low (0°-30°) | 1452.2 Lm |
| BM - Back Mid (30°-60°) | 4206.5 Lm |
| BH - Back High (60°-80°) | 2224.0 Lm |
| BVH - Back Very High (80°-90°) | 125.8 Lm |

| Forward Light | |
|---|---|
| FL - Forward Low (0°-30°) | 1452.2 Lm |
| FM - Forward Mid (30°-60°) | 4206.5 Lm |
| FH - Forward High (60°-80°) | 2224.0 Lm |
| FVH - Forward Very High (80°-90°) | 125.8 Lm |

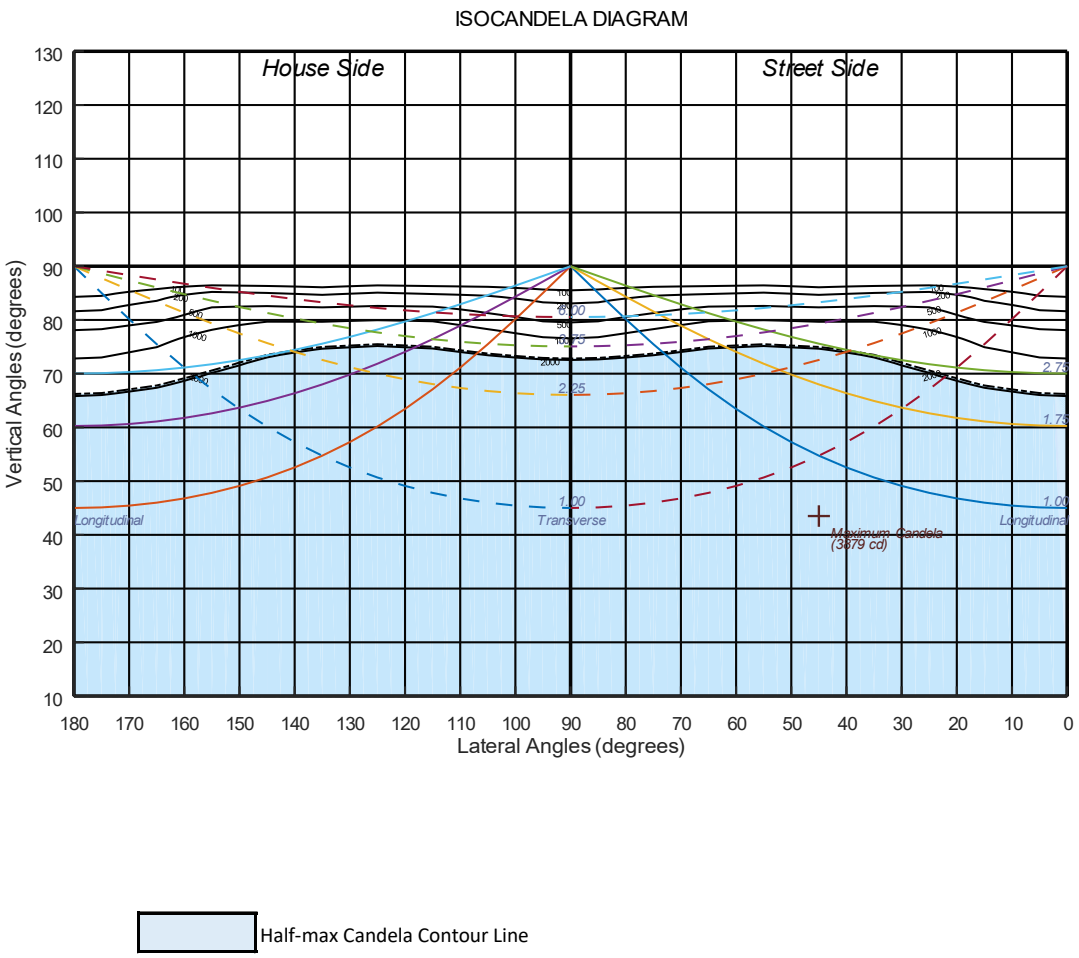
| Uplight | |
|---|---|
| UL - Upward Low (90°-100°) | 0.0 Lm |
| UH - Upward High (100°-180°) | 0.0 Lm |

| | |
|---|---|
| BUG Rating: Asymmetrical Luminaire (Type I, II, III, and IV) | B3 - U0 - G3 |
| BUG Rating: Quadrilateral Symmetrical Luminaire (Type V, Type VS) | B3 - U0 - G2 |

# Report of Test

## LLIA002251-008

## Iso-Candela Plot



# Report of Test

## LLIA002251-008

Luminous Intensity (Candela) Table

| Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown. | Lateral (C-Plane) Angles | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 5 | 15 | 25 | 35 | 45 | 55 | 65 | 75 | 85 | 90 |
| 0 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 |
| 2.5 | 3230 | 3233 | 3236 | 3236 | 3237 | 3237 | 3236 | 3236 | 3234 | 3234 | 3233 |
| 5 | 3244 | 3246 | 3248 | 3248 | 3248 | 3247 | 3247 | 3247 | 3246 | 3244 | 3245 |
| 7.5 | 3263 | 3267 | 3268 | 3269 | 3268 | 3267 | 3265 | 3265 | 3263 | 3261 | 3261 |
| 10 | 3291 | 3294 | 3295 | 3296 | 3294 | 3293 | 3290 | 3288 | 3286 | 3283 | 3283 |
| 12.5 | 3325 | 3327 | 3330 | 3329 | 3328 | 3324 | 3320 | 3317 | 3313 | 3308 | 3309 |
| 15 | 3365 | 3368 | 3369 | 3369 | 3366 | 3361 | 3355 | 3348 | 3341 | 3335 | 3335 |
| 17.5 | 3410 | 3413 | 3415 | 3415 | 3410 | 3403 | 3394 | 3383 | 3372 | 3365 | 3365 |
| 20 | 3456 | 3460 | 3464 | 3464 | 3458 | 3448 | 3436 | 3420 | 3406 | 3396 | 3395 |
| 22.5 | 3505 | 3509 | 3514 | 3517 | 3510 | 3498 | 3481 | 3461 | 3442 | 3428 | 3428 |
| 25 | 3556 | 3559 | 3567 | 3572 | 3566 | 3551 | 3529 | 3503 | 3479 | 3461 | 3461 |
| 27.5 | 3607 | 3612 | 3621 | 3629 | 3624 | 3607 | 3580 | 3548 | 3518 | 3497 | 3495 |
| 30 | 3659 | 3663 | 3675 | 3687 | 3685 | 3666 | 3634 | 3596 | 3558 | 3532 | 3530 |
| 32.5 | 3706 | 3712 | 3725 | 3744 | 3746 | 3727 | 3691 | 3647 | 3601 | 3570 | 3567 |
| 35 | 3735 | 3741 | 3761 | 3789 | 3801 | 3789 | 3752 | 3700 | 3645 | 3611 | 3606 |
| 37.5 | 3737 | 3743 | 3771 | 3810 | 3839 | 3840 | 3808 | 3751 | 3690 | 3653 | 3647 |
| 40 | 3718 | 3723 | 3758 | 3808 | 3851 | 3867 | 3846 | 3790 | 3727 | 3686 | 3680 |
| 42.5 | 3680 | 3687 | 3729 | 3790 | 3848 | 3877 | 3865 | 3811 | 3747 | 3704 | 3697 |
| 45 | 3624 | 3634 | 3683 | 3758 | 3832 | 3877 | 3872 | 3819 | 3752 | 3709 | 3706 |
| 47.5 | 3547 | 3557 | 3616 | 3709 | 3802 | 3866 | 3872 | 3817 | 3746 | 3705 | 3703 |
| 50 | 3448 | 3460 | 3528 | 3638 | 3756 | 3840 | 3857 | 3802 | 3728 | 3689 | 3683 |
| 52.5 | 3325 | 3338 | 3419 | 3550 | 3687 | 3796 | 3826 | 3767 | 3690 | 3652 | 3647 |
| 55 | 3133 | 3151 | 3283 | 3442 | 3603 | 3731 | 3774 | 3711 | 3630 | 3593 | 3591 |
| 57.5 | 2927 | 2944 | 3061 | 3274 | 3502 | 3648 | 3701 | 3633 | 3548 | 3513 | 3509 |
| 60 | 2680 | 2703 | 2865 | 3075 | 3350 | 3549 | 3607 | 3533 | 3442 | 3409 | 3407 |
| 62.5 | 2432 | 2451 | 2582 | 2846 | 3148 | 3425 | 3488 | 3405 | 3308 | 3276 | 3273 |
| 65 | 2108 | 2133 | 2308 | 2607 | 2923 | 3213 | 3341 | 3245 | 3130 | 3088 | 3083 |
| 67.5 | 1742 | 1771 | 1983 | 2317 | 2672 | 3000 | 3151 | 3029 | 2885 | 2829 | 2821 |
| 70 | 1383 | 1411 | 1635 | 2021 | 2380 | 2710 | 2852 | 2742 | 2565 | 2485 | 2476 |
| 72.5 | 1043 | 1068 | 1284 | 1689 | 2071 | 2357 | 2484 | 2379 | 2167 | 2034 | 2010 |
| 75 | 811 | 831 | 994 | 1351 | 1719 | 1935 | 2026 | 1942 | 1685 | 1427 | 1378 |
| 77.5 | 567 | 587 | 755 | 1088 | 1362 | 1450 | 1561 | 1461 | 1157 | 855 | 813 |
| 80 | 289 | 303 | 452 | 755 | 940 | 932 | 988 | 951 | 684 | 467 | 444 |
| 82.5 | 161 | 169 | 260 | 485 | 511 | 475 | 516 | 497 | 364 | 245 | 232 |
| 85 | 81 | 86 | 131 | 220 | 202 | 170 | 207 | 183 | 166 | 124 | 118 |
| 87.5 | 28 | 29 | 35 | 41 | 42 | 39 | 47 | 46 | 45 | 43 | 42 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Report of Test

## LLIA002251-008

Luminous Intensity (Candela) Table

| | | Lateral (C-Plane) Angles | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 5 | 15 | 25 | 35 | 45 | 55 | 65 | 75 | 85 | 90 |
| Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown. | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 92.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 97.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 102.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 107.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 112.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 117.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 122.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 127.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 132.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 137.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 142.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 147.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 152.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 155 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 157.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 162.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 167.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 172.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 177.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Report of Test

## LLIA002251-008

Luminous Intensity (Candela) Table

| Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown. | Lateral (C-Plane) Angles | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 90 | 95 | 105 | 115 | 125 | 135 | 145 | 155 | 165 | 175 | 180 |
| 0 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 | 3231 |
| 2.5 | 3233 | 3234 | 3234 | 3236 | 3236 | 3237 | 3237 | 3236 | 3236 | 3233 | 3230 |
| 5 | 3245 | 3244 | 3246 | 3247 | 3247 | 3247 | 3248 | 3248 | 3248 | 3246 | 3244 |
| 7.5 | 3261 | 3261 | 3263 | 3265 | 3265 | 3267 | 3268 | 3269 | 3268 | 3267 | 3263 |
| 10 | 3283 | 3283 | 3286 | 3288 | 3290 | 3293 | 3294 | 3296 | 3295 | 3294 | 3291 |
| 12.5 | 3309 | 3308 | 3313 | 3317 | 3320 | 3324 | 3328 | 3329 | 3330 | 3327 | 3325 |
| 15 | 3335 | 3335 | 3341 | 3348 | 3355 | 3361 | 3366 | 3369 | 3369 | 3368 | 3365 |
| 17.5 | 3365 | 3365 | 3372 | 3383 | 3394 | 3403 | 3410 | 3415 | 3415 | 3413 | 3410 |
| 20 | 3395 | 3396 | 3406 | 3420 | 3436 | 3448 | 3458 | 3464 | 3464 | 3460 | 3456 |
| 22.5 | 3428 | 3428 | 3442 | 3461 | 3481 | 3498 | 3510 | 3517 | 3514 | 3509 | 3505 |
| 25 | 3461 | 3461 | 3479 | 3503 | 3529 | 3551 | 3566 | 3572 | 3567 | 3559 | 3556 |
| 27.5 | 3495 | 3497 | 3518 | 3548 | 3580 | 3607 | 3624 | 3629 | 3621 | 3612 | 3607 |
| 30 | 3530 | 3532 | 3558 | 3596 | 3634 | 3666 | 3685 | 3687 | 3675 | 3663 | 3659 |
| 32.5 | 3567 | 3570 | 3601 | 3647 | 3691 | 3727 | 3746 | 3744 | 3725 | 3712 | 3706 |
| 35 | 3606 | 3611 | 3645 | 3700 | 3752 | 3789 | 3801 | 3789 | 3761 | 3741 | 3735 |
| 37.5 | 3647 | 3653 | 3690 | 3751 | 3808 | 3840 | 3839 | 3810 | 3771 | 3743 | 3737 |
| 40 | 3680 | 3686 | 3727 | 3790 | 3846 | 3867 | 3851 | 3808 | 3758 | 3723 | 3718 |
| 42.5 | 3697 | 3704 | 3747 | 3811 | 3865 | 3877 | 3848 | 3790 | 3729 | 3687 | 3680 |
| 45 | 3706 | 3709 | 3752 | 3819 | 3872 | 3877 | 3832 | 3758 | 3683 | 3634 | 3624 |
| 47.5 | 3703 | 3705 | 3746 | 3817 | 3872 | 3866 | 3802 | 3709 | 3616 | 3557 | 3547 |
| 50 | 3683 | 3689 | 3728 | 3802 | 3857 | 3840 | 3756 | 3638 | 3528 | 3460 | 3448 |
| 52.5 | 3647 | 3652 | 3690 | 3767 | 3826 | 3796 | 3687 | 3550 | 3419 | 3338 | 3325 |
| 55 | 3591 | 3593 | 3630 | 3711 | 3774 | 3731 | 3603 | 3442 | 3283 | 3151 | 3133 |
| 57.5 | 3509 | 3513 | 3548 | 3633 | 3701 | 3648 | 3502 | 3274 | 3061 | 2944 | 2927 |
| 60 | 3407 | 3409 | 3442 | 3533 | 3607 | 3549 | 3350 | 3075 | 2865 | 2703 | 2680 |
| 62.5 | 3273 | 3276 | 3308 | 3405 | 3488 | 3425 | 3148 | 2846 | 2582 | 2451 | 2432 |
| 65 | 3083 | 3088 | 3130 | 3245 | 3341 | 3213 | 2923 | 2607 | 2308 | 2133 | 2108 |
| 67.5 | 2821 | 2829 | 2885 | 3029 | 3151 | 3000 | 2672 | 2317 | 1983 | 1771 | 1742 |
| 70 | 2476 | 2485 | 2565 | 2742 | 2852 | 2710 | 2380 | 2021 | 1635 | 1411 | 1383 |
| 72.5 | 2010 | 2034 | 2167 | 2379 | 2484 | 2357 | 2071 | 1689 | 1284 | 1068 | 1043 |
| 75 | 1378 | 1427 | 1685 | 1942 | 2026 | 1935 | 1719 | 1351 | 994 | 831 | 811 |
| 77.5 | 813 | 855 | 1157 | 1461 | 1561 | 1450 | 1362 | 1088 | 755 | 587 | 567 |
| 80 | 444 | 467 | 684 | 951 | 988 | 932 | 940 | 755 | 452 | 303 | 289 |
| 82.5 | 232 | 245 | 364 | 497 | 516 | 475 | 511 | 485 | 260 | 169 | 161 |
| 85 | 118 | 124 | 166 | 183 | 207 | 170 | 202 | 220 | 131 | 86 | 81 |
| 87.5 | 42 | 43 | 45 | 46 | 47 | 39 | 42 | 41 | 35 | 29 | 28 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Report of Test

## LLIA002251-008

Luminous Intensity (Candela) Table

| Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown. | Lateral (C-Plane) Angles | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 90 | 95 | 105 | 115 | 125 | 135 | 145 | 155 | 165 | 175 | 180 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 92.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 97.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 102.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 107.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 112.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 117.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 122.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 127.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 132.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 137.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 142.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 147.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 152.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 157.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 162.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 167.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 172.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 177.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Report of Test

## LLIA002251-008

## Additional Pictures of Test Subject

# Report of Test

## LLIA002251-008

| | |
|---|---|
| Test Distance | 9.5 m |
| Ambient Temperature | 24.7 °C |

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-19. Format of reports and angular increments based on IES LM-31-20 and LM-10-20.

The luminous intensity values, and other derived quantities, contained in this report are based on absolute data.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the IES C-Type spherical coordinate system as defined in IES LM-75-19.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ‡ are not covered.

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.

The device under test emits no detectable uplight, as defined by ANSI/IES LM-31-20. For the purpose of this report, certain non-zero uplight readings, attributable to instrument artifacts, have been assigned a zero value.