

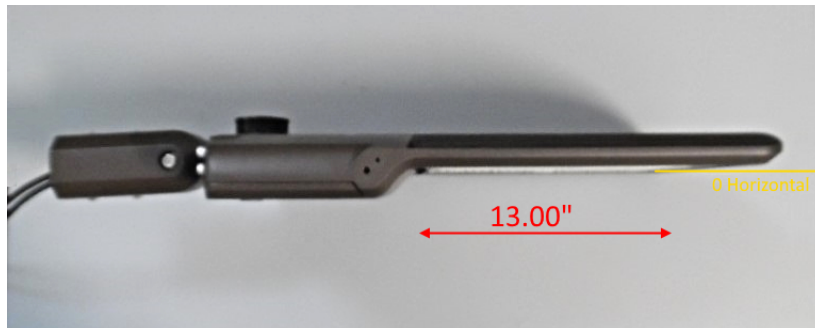


Report of Test

LLIA002251-019

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: ARL-480PCS-T3 -350W Setting - 4000K Setting
Pole mounted, cast aluminum housing, white LED board with
frosted plastic enclosure with clear optic sections below LEDs.
1120 white LEDs, 560 CW LEDs and 560 WW LEDs
Two Sosen SS-240NH-E260BH LED driver



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

| Performance Summary | | | |
|---------------------|-----------|----------------|----------------|
| Input Voltage | 120.0 Vac | Luminous Flux | 55261.0 Lumens |
| Input Current | 2.856 A | Total Efficacy | 161.6 Lm/W |
| Input Power | 342.0 W | | |
| Frequency | 60.00 Hz | Roadway Throw | Medium |
| Power Factor | 0.998 | Roadway Type | Type IV |
| Current THD | 4.2 % | | |

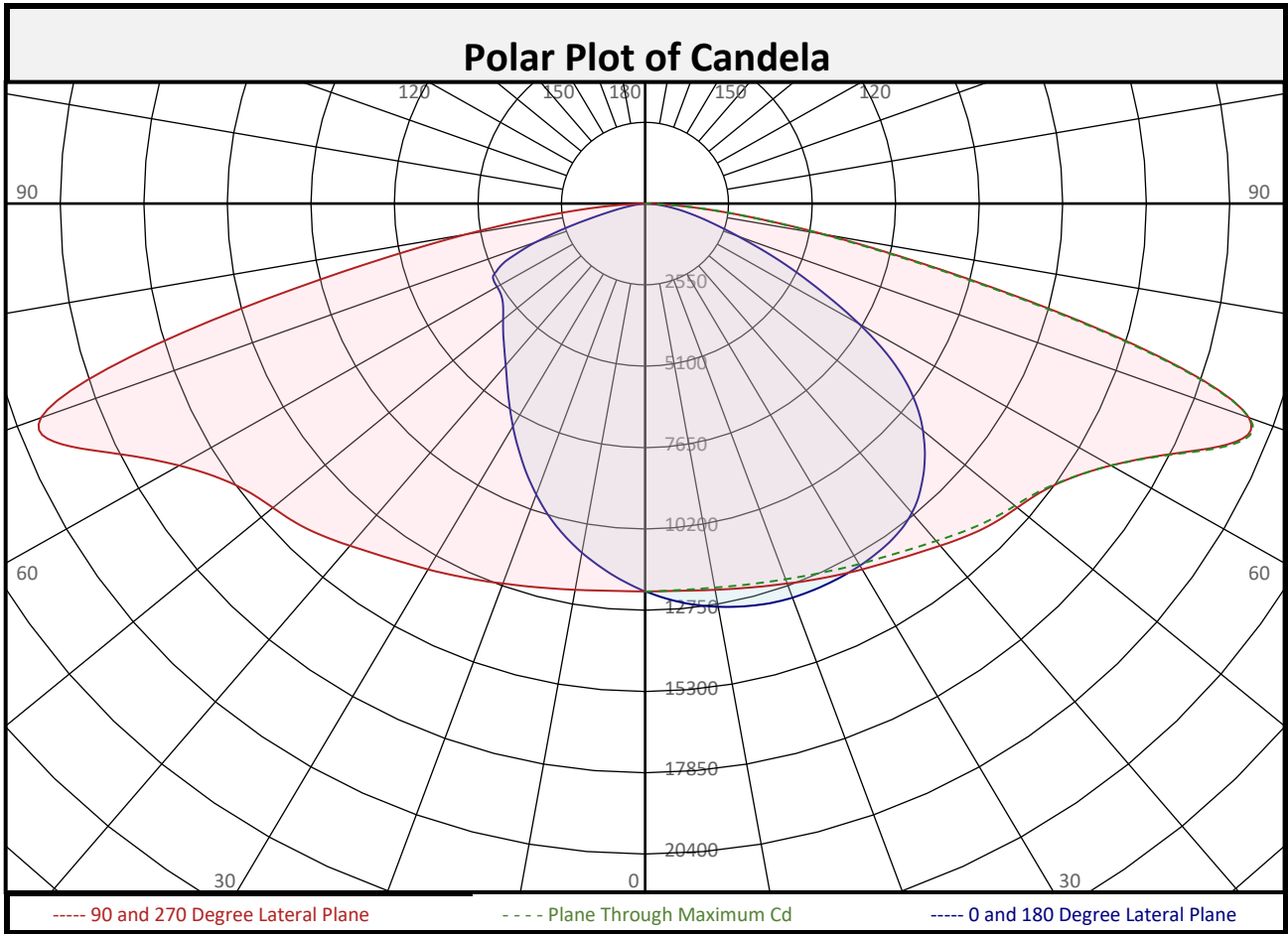
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 11/29/2023
Report date: 12/05/2023

Signed: _____



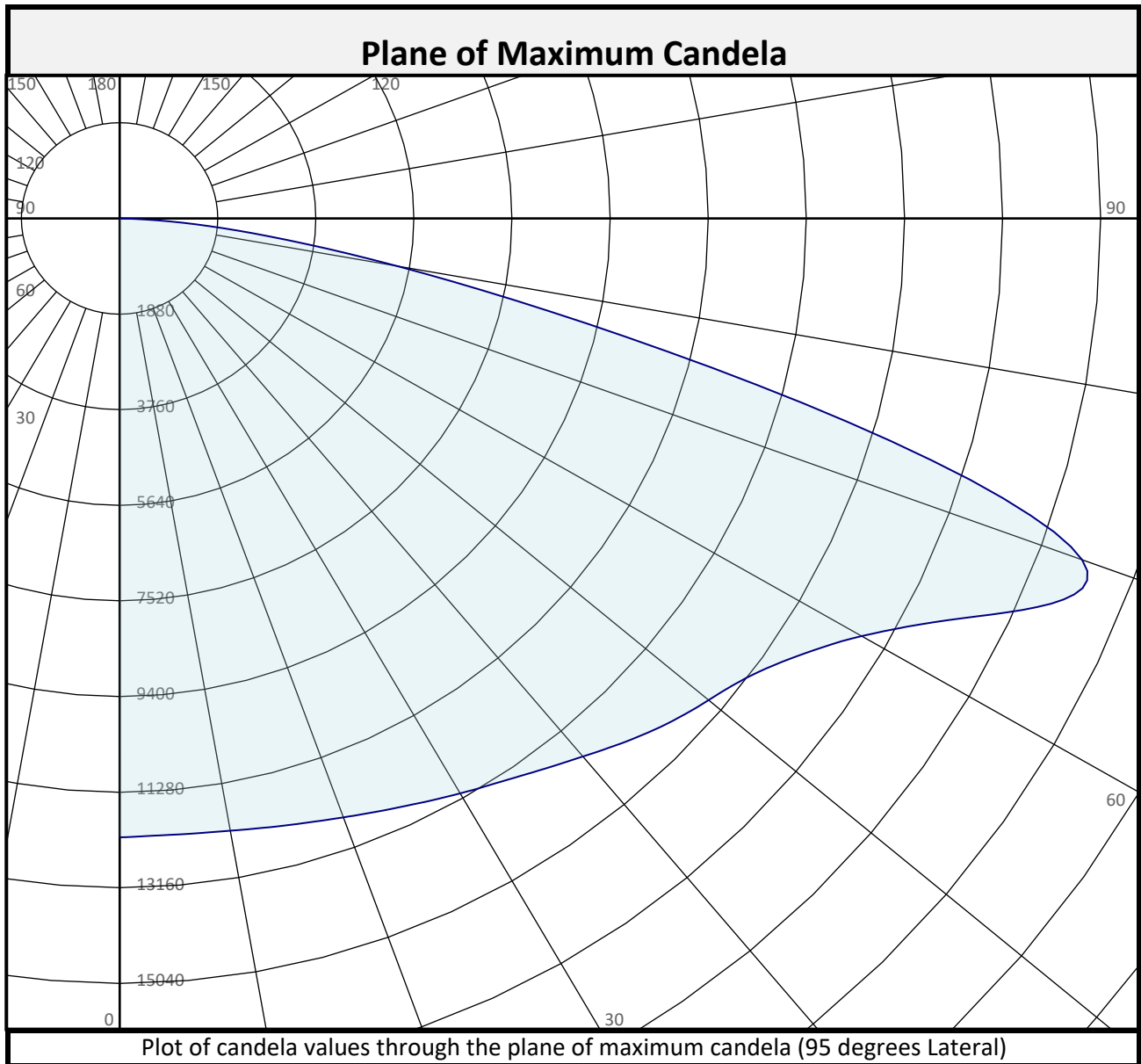
Report of Test
LLIA002251-019



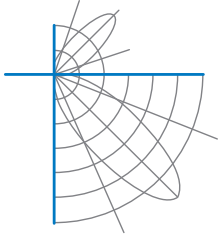
| Zonal Flux Summary | | | | | | | | | | |
|--------------------|---------------|------------------|--|-----------------|---------------|------------------|--|-----------------|---------------|------------------|
| Zone (Deg Vert) | Flux (Lumens) | Percent of Total | | Zone (Deg Vert) | Flux (Lumens) | Percent of Total | | Zone (Deg Vert) | Flux (Lumens) | Percent of Total |
| 0-10 | 1161 | 2.1% | | 90-100 | 0.0 | 0.0% | | 0-20 | 4597 | 8.3% |
| 10-20 | 3436 | 6.2% | | 100-110 | 0.0 | 0.0% | | 0-30 | 10169 | 18.4% |
| 20-30 | 5572 | 10.1% | | 110-120 | 0.0 | 0.0% | | 0-40 | 17639 | 31.9% |
| 30-40 | 7470 | 13.5% | | 120-130 | 0.0 | 0.0% | | 0-60 | 36422 | 65.9% |
| 40-50 | 8983 | 16.3% | | 130-140 | 0.0 | 0.0% | | 0-80 | 53693 | 97.2% |
| 50-60 | 9800 | 17.7% | | 140-150 | 0.0 | 0.0% | | 10-90 | 54100 | 97.9% |
| 60-70 | 9966 | 18.0% | | 150-160 | 0.0 | 0.0% | | 20-50 | 22025 | 39.9% |
| 70-80 | 7306 | 13.2% | | 160-170 | 0.0 | 0.0% | | 40-90 | 37622 | 68.1% |
| 80-90 | 1568 | 2.8% | | 170-180 | 0.0 | 0.0% | | 60-90 | 18839 | 34.1% |
| 0-90 | 55261 | 100.0% | | 90-180 | 0.0 | 0.0% | | 0-180 | 55261 | 100.0% |



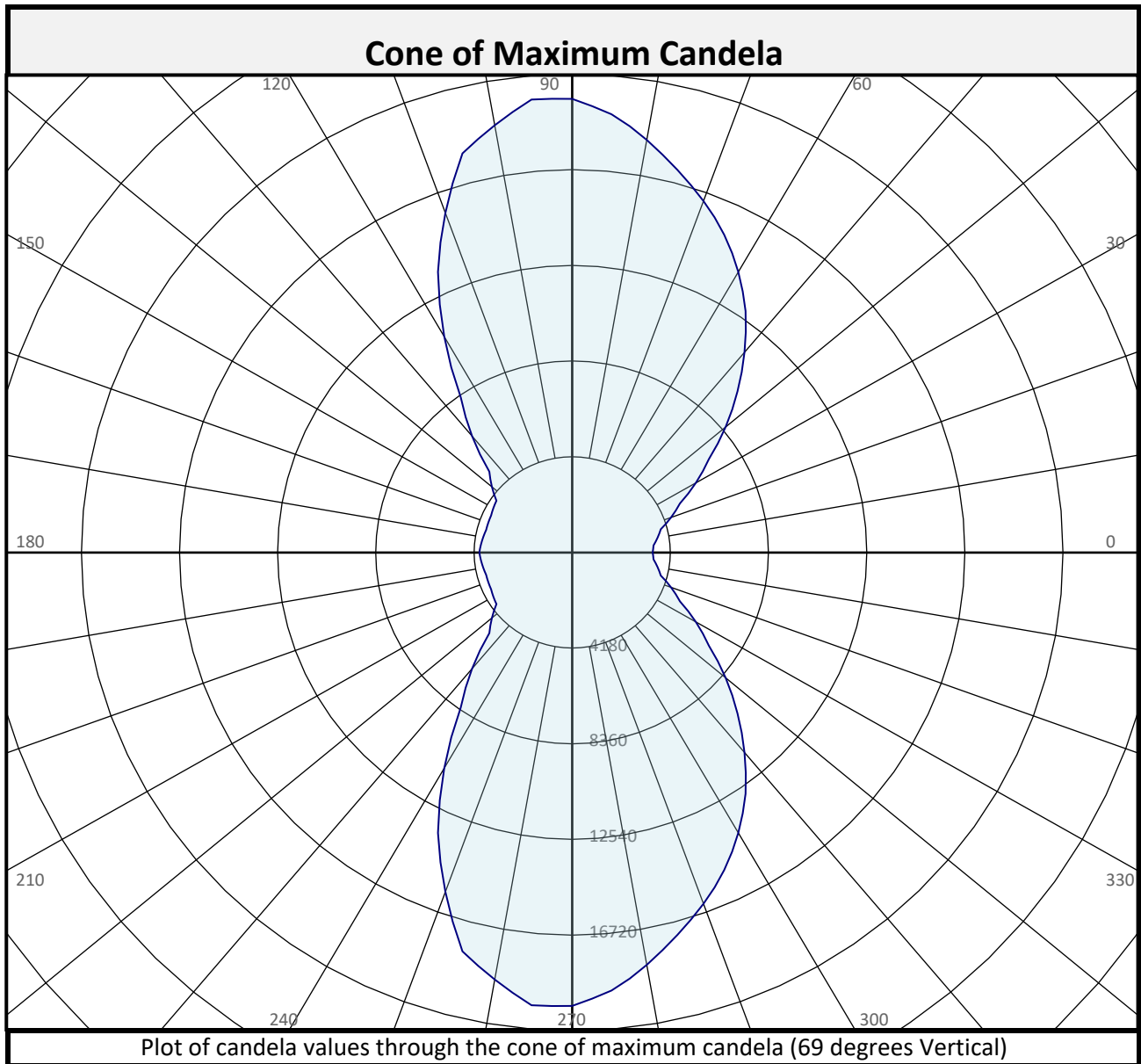
Report of Test
LLIA002251-019



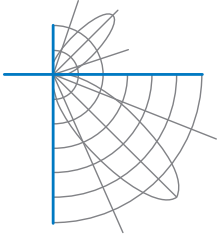
| Street and House Side Flux Summary | | | | | | |
|------------------------------------|----------------|---------------|------------|-------------|----------------|---------------|
| | Downward | | Upward | | Total | |
| | Lumens | % of Total | Lumens | % of Total | Lumens | % of Total |
| Street Side | 31651.3 | 57.3% | 0.0 | 0.0% | 31651.3 | 57.3% |
| House Side | 23609.7 | 42.7% | 0.0 | 0.0% | 23609.7 | 42.7% |
| Total | 55261.0 | 100.0% | 0.0 | 0.0% | 55261.0 | 100.0% |



Report of Test
LLIA002251-019

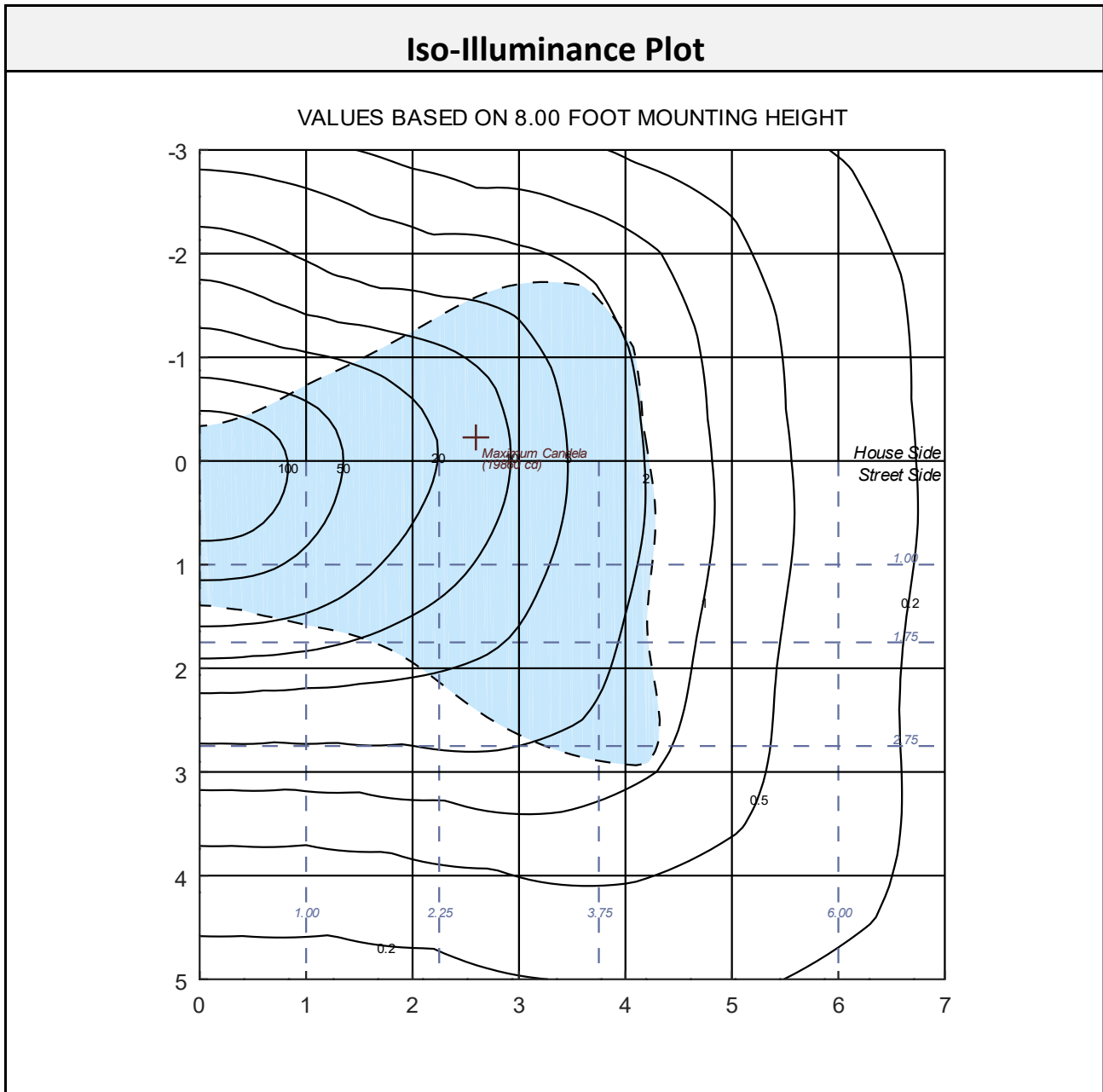


| Street and House Side Flux Summary | | | | | | |
|------------------------------------|----------------|---------------|------------|-------------|----------------|---------------|
| | Downward | | Upward | | Total | |
| | Lumens | % of Total | Lumens | % of Total | Lumens | % of Total |
| Street Side | 31651.3 | 57.3% | 0.0 | 0.0% | 31651.3 | 57.3% |
| House Side | 23609.7 | 42.7% | 0.0 | 0.0% | 23609.7 | 42.7% |
| Total | 55261.0 | 100.0% | 0.0 | 0.0% | 55261.0 | 100.0% |



Report of Test

LLIA002251-019

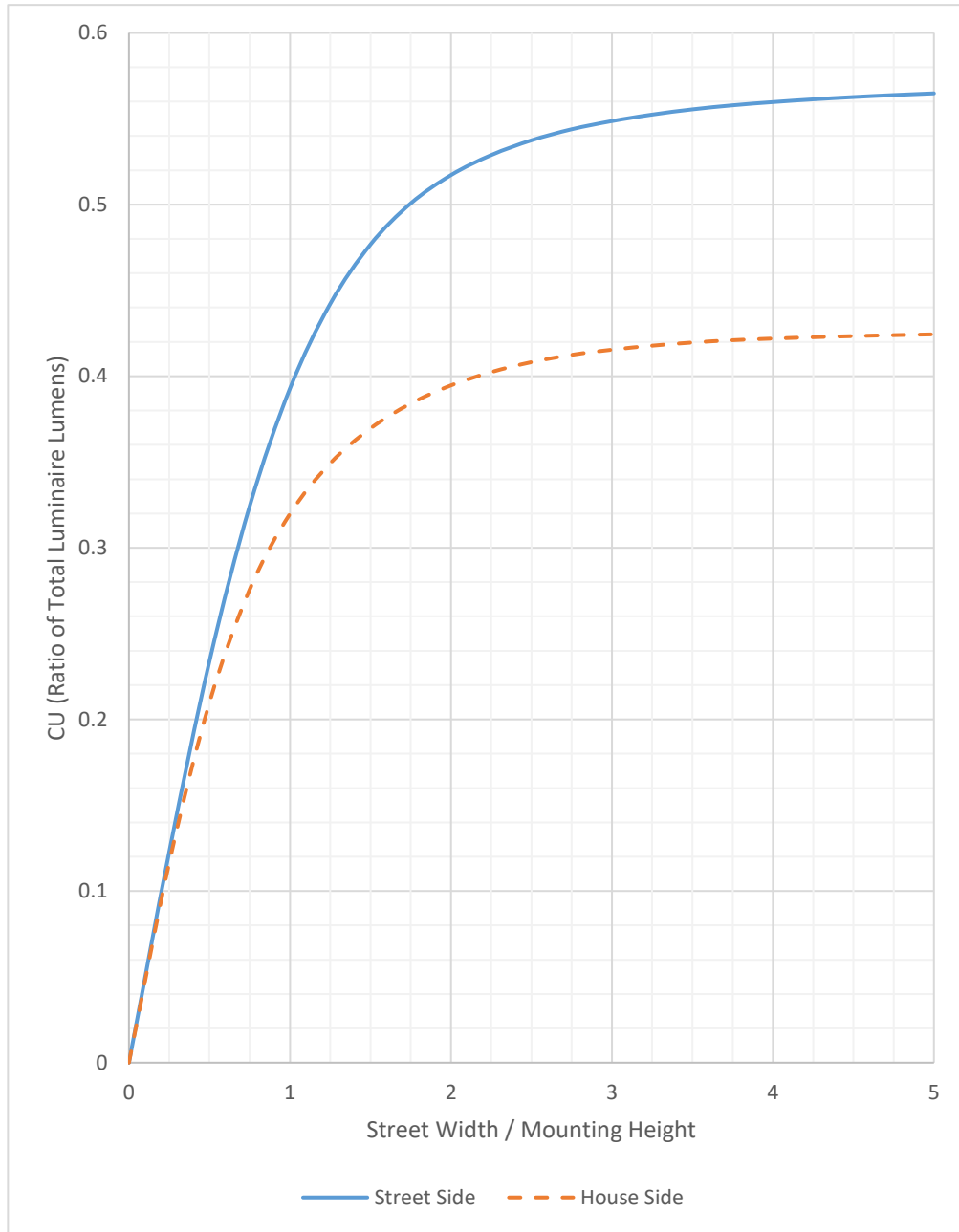


The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



Report of Test LLIA002251-019

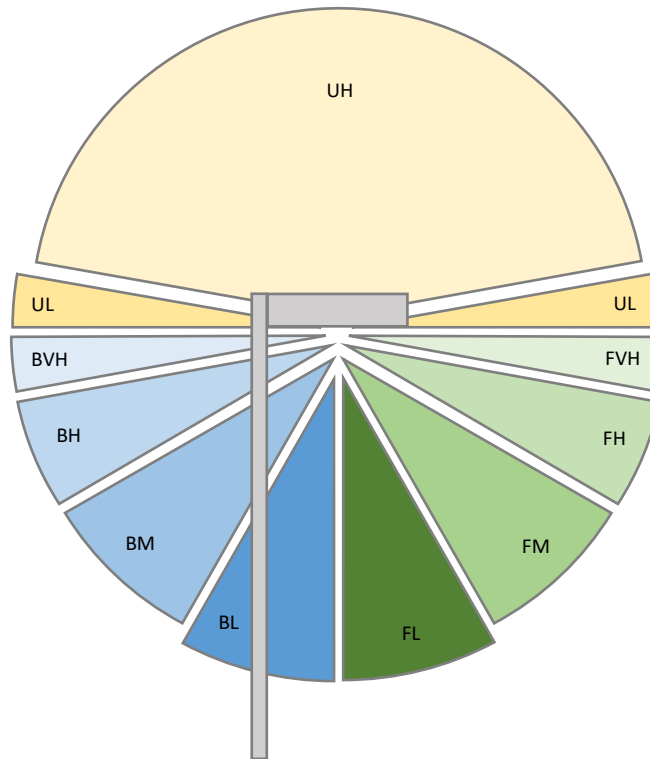
Coefficients of Utilization Plot





Report of Test
LLIA002251-019

LCS Tables and Bug Classification



Back Light

| | |
|--------------------------------|------------|
| BL - Back Low (0°-30°) | 4626.3 Lm |
| BM - Back Mid (30°-60°) | 10819.8 Lm |
| BH - Back High (60°-80°) | 7603.8 Lm |
| BVH - Back Very High (80°-90°) | 559.7 Lm |

Forward Light

| | |
|-----------------------------------|------------|
| FL - Forward Low (0°-30°) | 5542.9 Lm |
| FM - Forward Mid (30°-60°) | 15432.6 Lm |
| FH - Forward High (60°-80°) | 9667.9 Lm |
| FVH - Forward Very High (80°-90°) | 1008.0 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)

B5 - U0 - G5

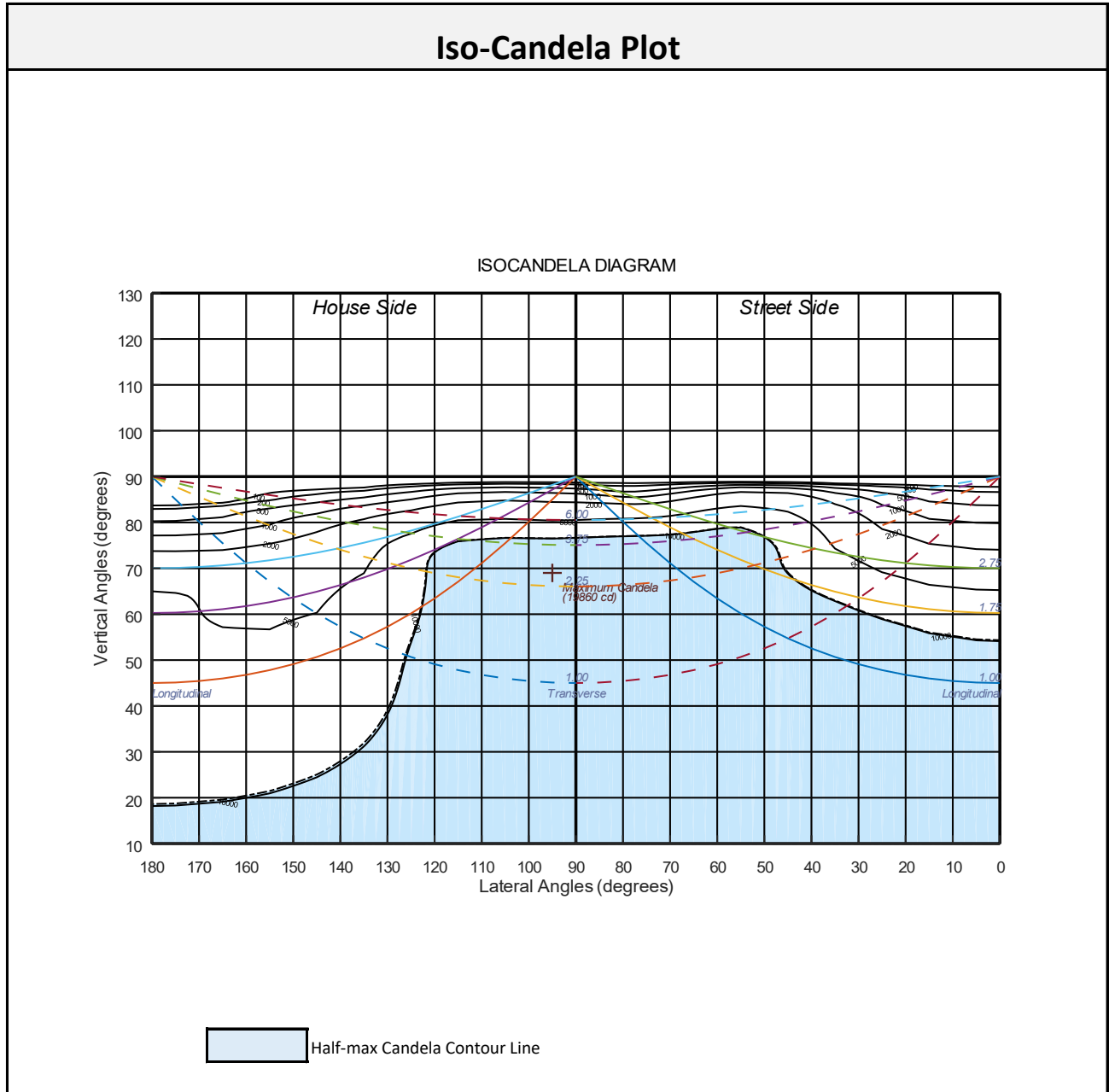
BUG Rating: Quadrilateral Symmetrical Luminaire (Type V, Type VS)

B5 - U0 - G5



Report of Test
LLIA002251-019

Iso-Candela Plot





Report of Test

LLIA002251-019

Luminous Intensity (Candela) Table

| | Lateral (C-Plane) Angles | | | | | | | | | | | | | | |
|------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0 | 5 | 15 | 25 | 35 | 45 | 55 | 57.5 | 60 | 62.5 | 65 | 67.5 | 70 | 72.5 | 75 |
| 0 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 |
| 2.5 | 12361 | 12379 | 12378 | 12368 | 12351 | 12324 | 12296 | 12292 | 12283 | 12277 | 12267 | 12260 | 12252 | 12243 | 12233 |
| 5 | 12545 | 12566 | 12556 | 12540 | 12514 | 12477 | 12432 | 12417 | 12402 | 12388 | 12376 | 12358 | 12341 | 12328 | 12313 |
| 7.5 | 12703 | 12722 | 12716 | 12698 | 12668 | 12622 | 12563 | 12544 | 12527 | 12511 | 12489 | 12474 | 12444 | 12423 | 12401 |
| 10 | 12835 | 12850 | 12852 | 12833 | 12810 | 12765 | 12703 | 12683 | 12659 | 12640 | 12616 | 12592 | 12564 | 12539 | 12507 |
| 12.5 | 12945 | 12961 | 12963 | 12956 | 12941 | 12908 | 12843 | 12825 | 12802 | 12773 | 12752 | 12723 | 12689 | 12657 | 12624 |
| 15 | 13037 | 13049 | 13062 | 13069 | 13070 | 13046 | 12991 | 12970 | 12948 | 12920 | 12893 | 12861 | 12826 | 12793 | 12749 |
| 17.5 | 13106 | 13124 | 13146 | 13176 | 13196 | 13189 | 13141 | 13124 | 13100 | 13073 | 13043 | 13011 | 12973 | 12930 | 12891 |
| 20 | 13149 | 13164 | 13210 | 13272 | 13327 | 13339 | 13299 | 13281 | 13258 | 13237 | 13202 | 13170 | 13131 | 13084 | 13039 |
| 22.5 | 13160 | 13180 | 13248 | 13356 | 13454 | 13494 | 13467 | 13449 | 13423 | 13399 | 13372 | 13335 | 13292 | 13243 | 13198 |
| 25 | 13158 | 13184 | 13277 | 13432 | 13579 | 13653 | 13631 | 13614 | 13590 | 13568 | 13532 | 13499 | 13451 | 13403 | 13351 |
| 27.5 | 13144 | 13174 | 13302 | 13505 | 13702 | 13803 | 13792 | 13772 | 13748 | 13725 | 13686 | 13647 | 13607 | 13555 | 13505 |
| 30 | 13109 | 13147 | 13315 | 13582 | 13816 | 13947 | 13940 | 13923 | 13894 | 13864 | 13833 | 13794 | 13749 | 13698 | 13649 |
| 32.5 | 13055 | 13103 | 13310 | 13655 | 13940 | 14083 | 14083 | 14062 | 14036 | 14007 | 13970 | 13931 | 13891 | 13846 | 13794 |
| 35 | 12980 | 13030 | 13286 | 13711 | 14055 | 14210 | 14219 | 14199 | 14171 | 14144 | 14112 | 14076 | 14038 | 13995 | 13951 |
| 37.5 | 12861 | 12913 | 13223 | 13735 | 14139 | 14314 | 14338 | 14329 | 14306 | 14286 | 14257 | 14223 | 14190 | 14154 | 14118 |
| 40 | 12668 | 12730 | 13094 | 13692 | 14167 | 14374 | 14430 | 14431 | 14421 | 14409 | 14390 | 14365 | 14340 | 14312 | 14287 |
| 42.5 | 12387 | 12451 | 12873 | 13570 | 14124 | 14374 | 14476 | 14487 | 14492 | 14494 | 14491 | 14483 | 14473 | 14458 | 14441 |
| 45 | 12021 | 12091 | 12559 | 13361 | 14002 | 14311 | 14460 | 14491 | 14512 | 14529 | 14545 | 14551 | 14556 | 14566 | 14566 |
| 47.5 | 11592 | 11660 | 12157 | 13060 | 13796 | 14191 | 14410 | 14452 | 14495 | 14528 | 14559 | 14586 | 14605 | 14623 | 14637 |
| 50 | 11081 | 11155 | 11661 | 12653 | 13518 | 14023 | 14322 | 14391 | 14447 | 14497 | 14545 | 14584 | 14615 | 14651 | 14680 |
| 52.5 | 10469 | 10537 | 11058 | 12129 | 13142 | 13793 | 14209 | 14290 | 14367 | 14438 | 14498 | 14559 | 14613 | 14657 | 14717 |
| 55 | 9712 | 9767 | 10296 | 11459 | 12663 | 13497 | 14039 | 14144 | 14244 | 14340 | 14427 | 14519 | 14603 | 14689 | 14783 |
| 57.5 | 8744 | 8799 | 9335 | 10592 | 12038 | 13113 | 13827 | 13965 | 14101 | 14238 | 14373 | 14516 | 14651 | 14791 | 14943 |
| 60 | 7555 | 7611 | 8151 | 9495 | 11216 | 12619 | 13588 | 13782 | 13975 | 14176 | 14378 | 14588 | 14795 | 15009 | 15230 |
| 62.5 | 6274 | 6330 | 6840 | 8198 | 10165 | 11979 | 13327 | 13610 | 13886 | 14180 | 14473 | 14782 | 15084 | 15382 | 15691 |
| 65 | 5110 | 5160 | 5618 | 6877 | 8960 | 11182 | 13063 | 13481 | 13892 | 14302 | 14717 | 15126 | 15530 | 15919 | 16312 |
| 67.5 | 4032 | 4081 | 4530 | 5704 | 7759 | 10389 | 12872 | 13450 | 14013 | 14560 | 15090 | 15606 | 16095 | 16564 | 17034 |
| 70 | 3072 | 3119 | 3521 | 4638 | 6691 | 9725 | 12869 | 13585 | 14234 | 14827 | 15370 | 15879 | 16358 | 16832 | 17308 |
| 72.5 | 2358 | 2394 | 2712 | 3678 | 5687 | 9360 | 12870 | 13588 | 14183 | 14632 | 14973 | 15264 | 15537 | 15830 | 16124 |
| 75 | 1804 | 1831 | 2076 | 2897 | 4756 | 8926 | 12621 | 13090 | 13326 | 13346 | 13259 | 13149 | 13073 | 13065 | 13077 |
| 77.5 | 1352 | 1372 | 1554 | 2248 | 3980 | 7872 | 11278 | 11358 | 11199 | 10866 | 10468 | 10088 | 9783 | 9579 | 9424 |
| 80 | 976 | 991 | 1125 | 1703 | 3266 | 6455 | 8873 | 8772 | 8464 | 8014 | 7502 | 7011 | 6617 | 6361 | 6173 |
| 82.5 | 646 | 656 | 763 | 1240 | 2505 | 4899 | 6226 | 6024 | 5675 | 5214 | 4708 | 4215 | 3810 | 3532 | 3351 |
| 85 | 359 | 366 | 450 | 784 | 1608 | 3110 | 3591 | 3315 | 3022 | 2689 | 2346 | 2013 | 1725 | 1505 | 1350 |
| 87.5 | 122 | 126 | 161 | 276 | 512 | 1023 | 1173 | 1053 | 912 | 775 | 650 | 535 | 440 | 375 | 325 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.

North America (issuing laboratory)

Australasia & S.E. Asia



Report of Test

LLIA002251-019

Luminous Intensity (Candela) Table

| | Lateral (C-Plane) Angles | | | | | | | | | | | | | | | |
|------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 77.5 | 80 | 82.5 | 85 | 90 | 95 | 105 | 115 | 125 | 135 | 145 | 155 | 165 | 175 | 180 | |
| 0 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | 12169 | |
| 2.5 | 12224 | 12211 | 12203 | 12194 | 12165 | 12156 | 12116 | 12076 | 12041 | 12010 | 11978 | 11954 | 11938 | 11932 | 11924 | |
| 5 | 12293 | 12278 | 12258 | 12235 | 12186 | 12163 | 12079 | 11998 | 11918 | 11849 | 11780 | 11732 | 11691 | 11677 | 11673 | |
| 7.5 | 12377 | 12354 | 12324 | 12299 | 12232 | 12186 | 12061 | 11930 | 11806 | 11685 | 11580 | 11493 | 11439 | 11407 | 11399 | |
| 10 | 12476 | 12442 | 12407 | 12375 | 12296 | 12224 | 12056 | 11879 | 11699 | 11528 | 11374 | 11254 | 11165 | 11119 | 11113 | |
| 12.5 | 12587 | 12547 | 12506 | 12466 | 12371 | 12283 | 12073 | 11842 | 11605 | 11381 | 11173 | 10997 | 10880 | 10813 | 10802 | |
| 15 | 12710 | 12665 | 12615 | 12567 | 12461 | 12354 | 12099 | 11821 | 11530 | 11234 | 10964 | 10735 | 10569 | 10487 | 10470 | |
| 17.5 | 12844 | 12795 | 12743 | 12683 | 12563 | 12435 | 12144 | 11812 | 11455 | 11092 | 10740 | 10443 | 10230 | 10118 | 10105 | |
| 20 | 12987 | 12934 | 12873 | 12811 | 12677 | 12534 | 12196 | 11810 | 11380 | 10929 | 10496 | 10125 | 9865 | 9731 | 9711 | |
| 22.5 | 13140 | 13084 | 13023 | 12954 | 12809 | 12644 | 12265 | 11810 | 11293 | 10747 | 10227 | 9790 | 9481 | 9326 | 9309 | |
| 25 | 13297 | 13237 | 13171 | 13100 | 12945 | 12766 | 12342 | 11820 | 11203 | 10547 | 9937 | 9433 | 9087 | 8913 | 8891 | |
| 27.5 | 13444 | 13385 | 13322 | 13254 | 13090 | 12906 | 12438 | 11830 | 11105 | 10335 | 9628 | 9065 | 8687 | 8500 | 8479 | |
| 30 | 13592 | 13533 | 13473 | 13402 | 13245 | 13054 | 12546 | 11851 | 10995 | 10111 | 9306 | 8680 | 8284 | 8091 | 8067 | |
| 32.5 | 13739 | 13686 | 13628 | 13560 | 13403 | 13208 | 12672 | 11874 | 10890 | 9876 | 8970 | 8293 | 7882 | 7695 | 7670 | |
| 35 | 13903 | 13849 | 13794 | 13733 | 13580 | 13384 | 12816 | 11921 | 10787 | 9639 | 8621 | 7886 | 7477 | 7309 | 7291 | |
| 37.5 | 14077 | 14032 | 13981 | 13920 | 13781 | 13589 | 12975 | 11987 | 10697 | 9391 | 8260 | 7472 | 7083 | 6950 | 6936 | |
| 40 | 14256 | 14219 | 14180 | 14135 | 14005 | 13811 | 13165 | 12075 | 10611 | 9137 | 7876 | 7051 | 6708 | 6625 | 6620 | |
| 42.5 | 14431 | 14408 | 14387 | 14353 | 14246 | 14058 | 13366 | 12174 | 10534 | 8873 | 7488 | 6648 | 6370 | 6343 | 6347 | |
| 45 | 14569 | 14572 | 14560 | 14549 | 14477 | 14304 | 13591 | 12282 | 10458 | 8599 | 7098 | 6282 | 6069 | 6093 | 6103 | |
| 47.5 | 14666 | 14681 | 14698 | 14705 | 14669 | 14529 | 13813 | 12400 | 10378 | 8302 | 6718 | 5952 | 5798 | 5861 | 5879 | |
| 50 | 14716 | 14763 | 14792 | 14820 | 14832 | 14734 | 14027 | 12509 | 10271 | 7982 | 6351 | 5661 | 5553 | 5640 | 5659 | |
| 52.5 | 14780 | 14839 | 14907 | 14959 | 15028 | 14967 | 14253 | 12592 | 10108 | 7626 | 5989 | 5396 | 5330 | 5436 | 5460 | |
| 55 | 14888 | 14996 | 15100 | 15201 | 15335 | 15313 | 14520 | 12648 | 9885 | 7242 | 5646 | 5153 | 5138 | 5283 | 5313 | |
| 57.5 | 15104 | 15268 | 15433 | 15582 | 15792 | 15792 | 14859 | 12689 | 9611 | 6840 | 5325 | 4931 | 4983 | 5195 | 5235 | |
| 60 | 15467 | 15702 | 15928 | 16137 | 16424 | 16423 | 15304 | 12752 | 9324 | 6445 | 5035 | 4730 | 4877 | 5165 | 5218 | |
| 62.5 | 16008 | 16315 | 16616 | 16880 | 17267 | 17291 | 15913 | 12855 | 9044 | 6058 | 4766 | 4555 | 4798 | 5149 | 5212 | |
| 65 | 16704 | 17100 | 17493 | 17846 | 18373 | 18432 | 16699 | 13001 | 8763 | 5669 | 4492 | 4375 | 4639 | 4935 | 5000 | |
| 67.5 | 17505 | 17985 | 18456 | 18891 | 19515 | 19580 | 17633 | 13258 | 8471 | 5255 | 4188 | 4055 | 4218 | 4417 | 4472 | |
| 70 | 17777 | 18255 | 18715 | 19096 | 19619 | 19629 | 18059 | 13691 | 8123 | 4801 | 3750 | 3573 | 3483 | 3545 | 3587 | |
| 72.5 | 16413 | 16687 | 16913 | 17068 | 17198 | 17090 | 16258 | 13325 | 7638 | 4246 | 3242 | 2920 | 2559 | 2496 | 2522 | |
| 75 | 13094 | 13113 | 13104 | 13042 | 12829 | 12634 | 12537 | 11032 | 6664 | 3607 | 2690 | 2126 | 1637 | 1539 | 1545 | |
| 77.5 | 9311 | 9226 | 9128 | 8995 | 8651 | 8441 | 8730 | 8154 | 5036 | 2990 | 2097 | 1395 | 1031 | 939 | 934 | |
| 80 | 6040 | 5962 | 5892 | 5797 | 5546 | 5410 | 5751 | 5458 | 3441 | 2238 | 1490 | 924 | 642 | 541 | 532 | |
| 82.5 | 3262 | 3257 | 3278 | 3293 | 3255 | 3225 | 3518 | 3273 | 2062 | 1381 | 868 | 594 | 356 | 266 | 258 | |
| 85 | 1294 | 1338 | 1428 | 1523 | 1655 | 1704 | 1882 | 1642 | 1011 | 605 | 374 | 176 | 43 | 3 | 3 | |
| 87.5 | 295 | 288 | 306 | 353 | 456 | 517 | 574 | 491 | 273 | 111 | 74 | 49 | 7 | 1 | 1 | |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.

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Report of Test

LLIA002251-019

Luminous Intensity (Candela) Table

| | Lateral (C-Plane) Angles | | | | | | | | | | | | | | | |
|--|--------------------------|---|----|----|----|----|----|------|----|------|----|------|----|------|----|---|
| | 0 | 5 | 15 | 25 | 35 | 45 | 55 | 57.5 | 60 | 62.5 | 65 | 67.5 | 70 | 72.5 | 75 | |
| 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 | 0 | 0 | 0 | 0 |
| | 92.5 | 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 |
| | 97.5 | 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 |
| | 102.5 | 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 |
| | 107.5 | 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 |
| | 112.5 | 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 |
| | 117.5 | 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 |
| | 122.5 | 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 |
| | 127.5 | 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 |
| | 132.5 | 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 |
| | 137.5 | 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 |
| | 142.5 | 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 |
| | 147.5 | 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 |
| | 152.5 | 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 |
| | 157.5 | 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 |
| | 162.5 | 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 |
| | 167.5 | 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 |
| 172.5 | 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 | |
| 177.5 | 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 | |

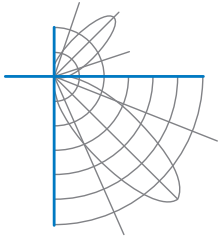


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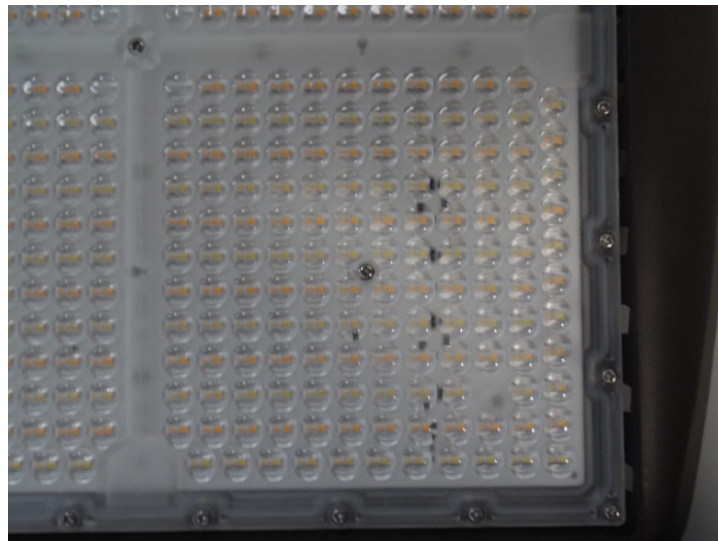
Luminous Intensity (Candela) Table

| | Lateral (C-Plane) Angles | | | | | | | | | | | | | | | |
|--|--------------------------|----|------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| | 77.5 | 80 | 82.5 | 85 | 90 | 95 | 105 | 115 | 125 | 135 | 145 | 155 | 165 | 175 | 180 | |
| 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 | 0 | 0 | 0 | 0 |
| | 92.5 | 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 |
| | 97.5 | 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 |
| | 102.5 | 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 |
| | 107.5 | 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 |
| | 112.5 | 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 |
| | 117.5 | 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 |
| | 122.5 | 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 |
| | 127.5 | 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 |
| | 132.5 | 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 |
| | 137.5 | 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 |
| | 142.5 | 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 |
| | 147.5 | 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 |
| | 152.5 | 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 |
| | 157.5 | 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 |
| | 162.5 | 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 | |
| 167.5 | 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 | |
| 172.5 | 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 | |
| 177.5 | 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 | |



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Additional Pictures of Test Subject





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Test Distance 9.5 m
Ambient Temperature 25.7 °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.