



IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-SAX-5W-LED-05L-50-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LED-11786

[TESTLAB] LSI INDUSTRIES, INC.

[ISSUE DATE] 06/10/2020

[TEST DATE] 04/30/20

[MANUFAC] LSI INDUSTRIES, INC.

[LUMCAT] ENM4-SAX-5W-LED-05L-50-IL

[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

[OTHER] TEST PROCEDURE: IESNA LM-79-08

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] Outdoor

[FACTORED] SCALED FROM ORIGINAL TEST DATA

CHARACTERISTICS

| | |
|---|-----------------------------|
| IES Classification | Type III |
| Longitudinal Classification | Short |
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 3547 |
| Downward Total Efficiency | N.A. (absolute) |
| Total Luminaire Efficiency | N.A. (absolute) |
| Luminaire Efficacy Rating (LER) | 91 |
| Total Luminaire Watts | 39 |
| Ballast Factor | 1.00 |
| Upward Waste Light Ratio | 0.00 |
| Maximum Candela | 2539 |
| Maximum Candela Angle | 45H 67.5V |
| Maximum Candela (<90 Degrees Vertical) | 2539 |
| Maximum Candela Angle (<90 Degrees Vertical) | 45H 67.5V |
| Maximum Candela At 90 Degrees Vertical | 0 (0.0% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | 115 (3.2% Luminaire Lumens) |
| Cutoff Classification (deprecated) | N.A. (absolute) |

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

| | Lumens | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30) | 222.2 | N.A. | 6.3 |
| FM - Front-Medium (30-60) | 1335.6 | N.A. | 37.7 |
| FH - Front-High (60-80) | 1111.3 | N.A. | 31.3 |
| FVH - Front-Very High (80-90) | 12.0 | N.A. | 0.3 |
| BL - Back-Low (0-30) | 219.8 | N.A. | 6.2 |
| BM - Back-Medium (30-60) | 488.9 | N.A. | 13.8 |
| BH - Back-High (60-80) | 155.9 | N.A. | 4.4 |
| BVH - Back-Very High (80-90) | 1.0 | N.A. | 0.0 |
| UL - Uplight-Low (90-100) | 0.0 | N.A. | 0.0 |
| UH - Uplight-High (100-180) | 0.0 | N.A. | 0.0 |
| Total | 3546.7 | N.A. | 100.0 |
| BUG Rating | B1-U0-G1 | | |

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CANDELA TABULATION

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-------------------------|--------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | <u>0.0</u> | <u>5.0</u> | <u>15.0</u> | <u>25.0</u> | <u>35.0</u> | <u>45.0</u> | <u>47.5</u> | <u>55.0</u> | <u>65.0</u> | <u>75.0</u> |
| 0.0 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 |
| 2.5 | 379 | 374 | 374 | 373 | 374 | 375 | 371 | 374 | 376 | 374 |
| 5.0 | 374 | 367 | 370 | 370 | 372 | 373 | 367 | 374 | 376 | 378 |
| 7.5 | 378 | 373 | 373 | 374 | 376 | 377 | 372 | 378 | 381 | 385 |
| 10.0 | 390 | 383 | 385 | 386 | 387 | 390 | 383 | 391 | 392 | 395 |
| 12.5 | 408 | 403 | 405 | 406 | 408 | 409 | 403 | 409 | 408 | 412 |
| 15.0 | 435 | 430 | 432 | 436 | 436 | 438 | 434 | 436 | 434 | 435 |
| 17.5 | 464 | 460 | 464 | 471 | 472 | 475 | 475 | 471 | 465 | 462 |
| 20.0 | 499 | 497 | 501 | 512 | 520 | 521 | 520 | 513 | 503 | 496 |
| 22.5 | 533 | 533 | 543 | 559 | 570 | 576 | 571 | 564 | 546 | 534 |
| 25.0 | 571 | 570 | 586 | 613 | 629 | 635 | 632 | 623 | 596 | 573 |
| 27.5 | 611 | 612 | 634 | 670 | 699 | 702 | 702 | 682 | 649 | 617 |
| 30.0 | 652 | 655 | 686 | 732 | 770 | 774 | 775 | 750 | 703 | 666 |
| 32.5 | 694 | 703 | 736 | 793 | 839 | 846 | 842 | 819 | 763 | 721 |
| 35.0 | 739 | 747 | 785 | 852 | 905 | 924 | 917 | 888 | 827 | 775 |
| 37.5 | 783 | 796 | 836 | 910 | 973 | 1000 | 1002 | 960 | 900 | 835 |
| 40.0 | 837 | 847 | 892 | 972 | 1047 | 1074 | 1080 | 1036 | 965 | 901 |
| 42.5 | 896 | 906 | 957 | 1038 | 1119 | 1148 | 1155 | 1115 | 1039 | 968 |
| 45.0 | 959 | 971 | 1023 | 1104 | 1190 | 1224 | 1232 | 1190 | 1112 | 1044 |
| 47.5 | 1034 | 1045 | 1095 | 1174 | 1270 | 1298 | 1314 | 1268 | 1193 | 1121 |
| 50.0 | 1104 | 1117 | 1173 | 1246 | 1350 | 1387 | 1401 | 1352 | 1268 | 1197 |
| 52.5 | 1177 | 1199 | 1249 | 1330 | 1432 | 1476 | 1486 | 1435 | 1353 | 1289 |
| 55.0 | 1261 | 1285 | 1335 | 1414 | 1528 | 1575 | 1582 | 1526 | 1457 | 1388 |
| 57.5 | 1349 | 1369 | 1424 | 1510 | 1646 | 1709 | 1722 | 1652 | 1562 | 1488 |
| 60.0 | 1417 | 1440 | 1519 | 1632 | 1809 | 1900 | 1929 | 1799 | 1655 | 1550 |
| 62.5 | 1458 | 1472 | 1560 | 1724 | 2005 | 2138 | 2151 | 1956 | 1732 | 1584 |
| 65.0 | 1361 | 1382 | 1515 | 1738 | 2120 | 2372 | 2348 | 2067 | 1776 | 1617 |
| 67.5 | 1005 | 1011 | 1238 | 1588 | 2098 | 2539 | 2523 | 2213 | 1819 | 1568 |
| 70.0 | 289 | 295 | 525 | 1091 | 1825 | 2523 | 2525 | 2175 | 1574 | 1201 |
| 72.5 | 83 | 84 | 114 | 245 | 1042 | 2063 | 2065 | 1719 | 1100 | 743 |
| 75.0 | 37 | 38 | 43 | 78 | 224 | 949 | 1100 | 1003 | 566 | 332 |
| 77.5 | 18 | 18 | 20 | 28 | 67 | 194 | 222 | 356 | 246 | 144 |
| 80.0 | 14 | 14 | 14 | 17 | 26 | 46 | 52 | 87 | 115 | 69 |
| 82.5 | 13 | 13 | 14 | 15 | 19 | 22 | 23 | 31 | 52 | 56 |
| 85.0 | 10 | 10 | 12 | 13 | 16 | 19 | 19 | 22 | 29 | 45 |
| 87.5 | 7 | 7 | 7 | 8 | 10 | 13 | 14 | 16 | 23 | 28 |
| 90.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-------------------------|--------------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | <u>85.0</u> | <u>90.0</u> | <u>95.0</u> | <u>105.0</u> | <u>115.0</u> | <u>125.0</u> | <u>135.0</u> | <u>145.0</u> | <u>155.0</u> | <u>165.0</u> |
| 0.0 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 |
| 2.5 | 376 | 378 | 379 | 378 | 380 | 381 | 382 | 383 | 386 | 386 |
| 5.0 | 380 | 382 | 386 | 387 | 390 | 394 | 396 | 398 | 399 | 402 |
| 7.5 | 388 | 393 | 396 | 400 | 404 | 409 | 413 | 415 | 417 | 418 |
| 10.0 | 401 | 406 | 409 | 417 | 423 | 429 | 432 | 434 | 436 | 435 |
| 12.5 | 418 | 424 | 429 | 439 | 448 | 455 | 455 | 458 | 456 | 455 |
| 15.0 | 440 | 446 | 454 | 463 | 476 | 483 | 483 | 484 | 480 | 477 |
| 17.5 | 465 | 472 | 480 | 496 | 509 | 516 | 519 | 517 | 507 | 498 |
| 20.0 | 498 | 502 | 511 | 528 | 544 | 556 | 559 | 550 | 534 | 518 |
| 22.5 | 531 | 537 | 548 | 569 | 589 | 603 | 603 | 592 | 564 | 532 |
| 25.0 | 568 | 576 | 585 | 608 | 634 | 650 | 648 | 626 | 565 | 498 |
| 27.5 | 608 | 615 | 623 | 653 | 682 | 700 | 695 | 629 | 502 | 399 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 30.0 | 652 | 659 | 669 | 699 | 737 | 759 | 724 | 567 | 386 | 275 |
| 32.5 | 702 | 709 | 719 | 753 | 797 | 815 | 697 | 448 | 261 | 167 |
| 35.0 | 754 | 757 | 770 | 805 | 855 | 850 | 601 | 315 | 161 | 102 |
| 37.5 | 810 | 811 | 827 | 866 | 913 | 837 | 464 | 198 | 98 | 68 |
| 40.0 | 871 | 874 | 886 | 928 | 972 | 753 | 320 | 118 | 66 | 54 |
| 42.5 | 933 | 937 | 948 | 996 | 1024 | 606 | 201 | 75 | 50 | 44 |
| 45.0 | 1001 | 1006 | 1022 | 1069 | 1029 | 441 | 115 | 55 | 41 | 37 |
| 47.5 | 1072 | 1080 | 1097 | 1147 | 970 | 288 | 71 | 42 | 35 | 30 |
| 50.0 | 1156 | 1159 | 1178 | 1227 | 838 | 171 | 49 | 35 | 28 | 23 |
| 52.5 | 1251 | 1262 | 1270 | 1310 | 645 | 99 | 37 | 27 | 21 | 17 |
| 55.0 | 1346 | 1353 | 1367 | 1377 | 446 | 60 | 29 | 21 | 15 | 10 |
| 57.5 | 1425 | 1436 | 1453 | 1379 | 299 | 39 | 23 | 15 | 8 | 4 |
| 60.0 | 1471 | 1476 | 1495 | 1258 | 215 | 29 | 17 | 8 | 4 | 1 |
| 62.5 | 1485 | 1489 | 1501 | 1000 | 181 | 26 | 12 | 4 | 1 | 0 |
| 65.0 | 1503 | 1507 | 1510 | 675 | 171 | 38 | 6 | 1 | 0 | 0 |
| 67.5 | 1415 | 1411 | 1420 | 397 | 162 | 59 | 3 | 1 | 0 | 0 |
| 70.0 | 1008 | 992 | 1009 | 188 | 125 | 75 | 3 | 1 | 1 | 0 |
| 72.5 | 582 | 534 | 543 | 66 | 60 | 65 | 2 | 1 | 0 | 0 |
| 75.0 | 233 | 219 | 216 | 28 | 22 | 27 | 1 | 0 | 0 | 0 |
| 77.5 | 103 | 93 | 82 | 15 | 7 | 10 | 0 | 0 | 0 | 0 |
| 80.0 | 55 | 47 | 35 | 6 | 3 | 3 | 0 | 0 | 0 | 0 |
| 82.5 | 40 | 33 | 20 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| 85.0 | 26 | 20 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 87.5 | 15 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Vert. Horizontal Angles
Angles

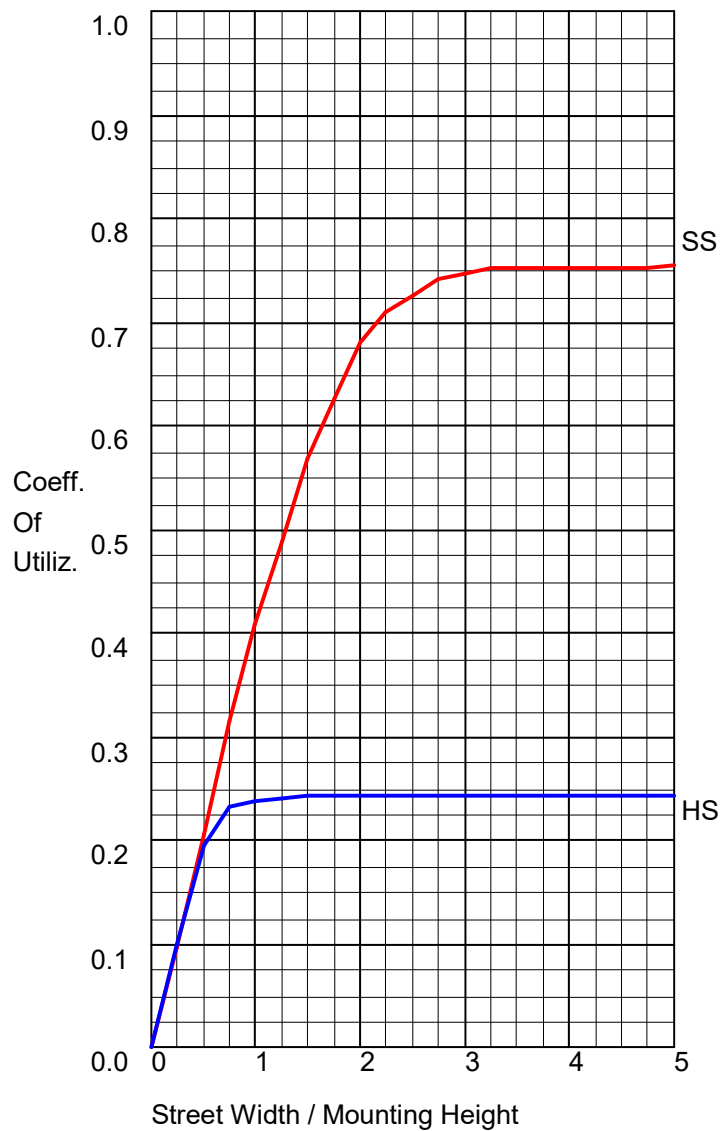
| | <u>175.0</u> | <u>180.0</u> |
|------|---------------------|---------------------|
| 0.0 | 378 | 378 |
| 2.5 | 386 | 386 |
| 5.0 | 402 | 401 |
| 7.5 | 417 | 418 |
| 10.0 | 434 | 438 |
| 12.5 | 453 | 454 |
| 15.0 | 474 | 471 |
| 17.5 | 492 | 492 |
| 20.0 | 508 | 509 |
| 22.5 | 508 | 506 |
| 25.0 | 455 | 449 |
| 27.5 | 342 | 336 |
| 30.0 | 223 | 216 |
| 32.5 | 135 | 131 |
| 35.0 | 83 | 83 |
| 37.5 | 61 | 61 |
| 40.0 | 48 | 48 |
| 42.5 | 41 | 41 |
| 45.0 | 35 | 34 |
| 47.5 | 28 | 27 |
| 50.0 | 21 | 21 |
| 52.5 | 14 | 14 |
| 55.0 | 8 | 7 |
| 57.5 | 3 | 3 |
| 60.0 | 0 | 0 |
| 62.5 | 0 | 0 |
| 65.0 | 0 | 0 |

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CANDELA TABULATION - (Cont.)

| | | |
|-------------|----------|----------|
| 67.5 | 0 | 0 |
| 70.0 | 0 | 0 |
| 72.5 | 0 | 0 |
| 75.0 | 0 | 0 |
| 77.5 | 0 | 0 |
| 80.0 | 0 | 0 |
| 82.5 | 0 | 0 |
| 85.0 | 0 | 0 |
| 87.5 | 0 | 0 |
| 90.0 | 0 | 0 |

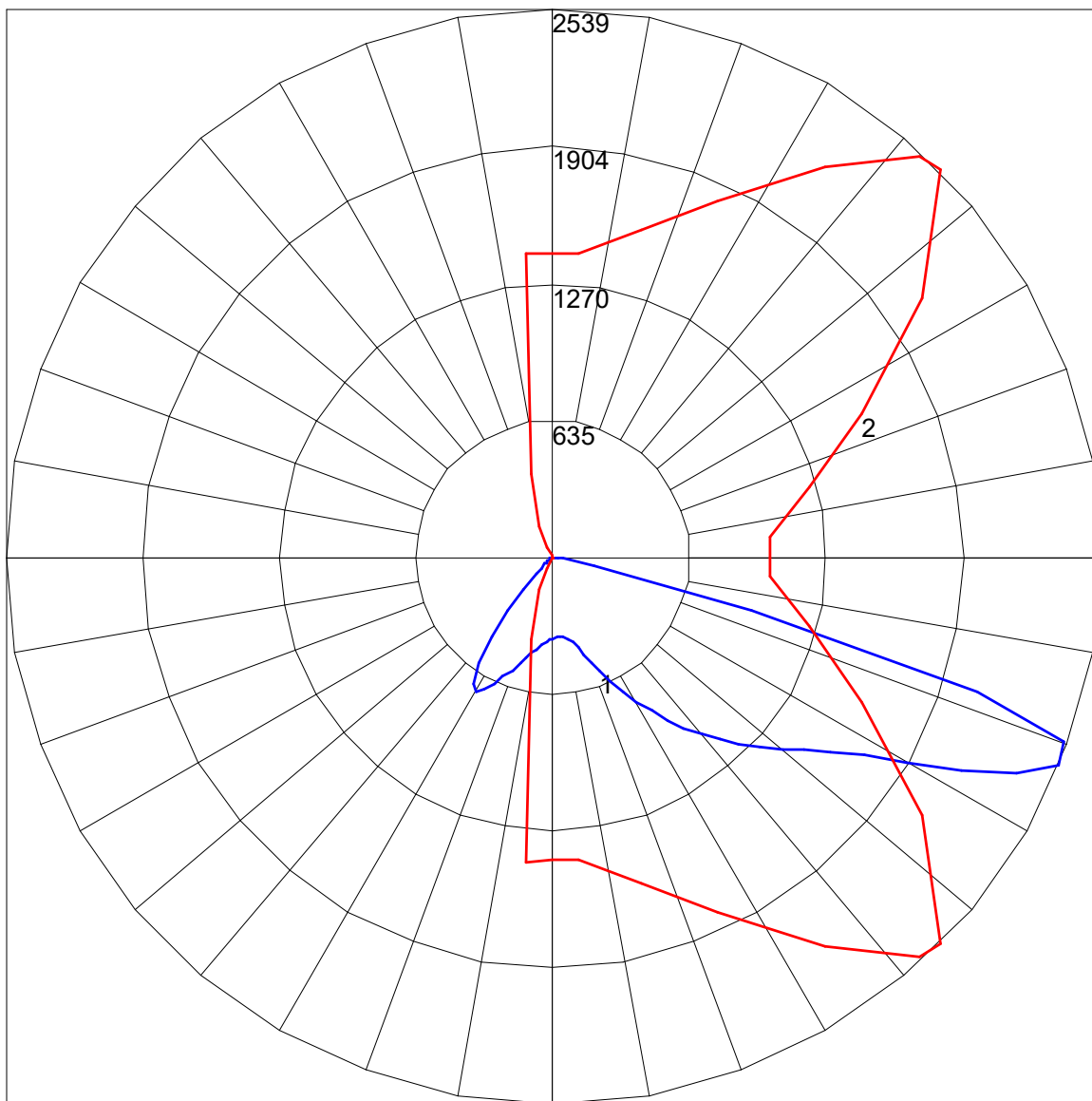
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

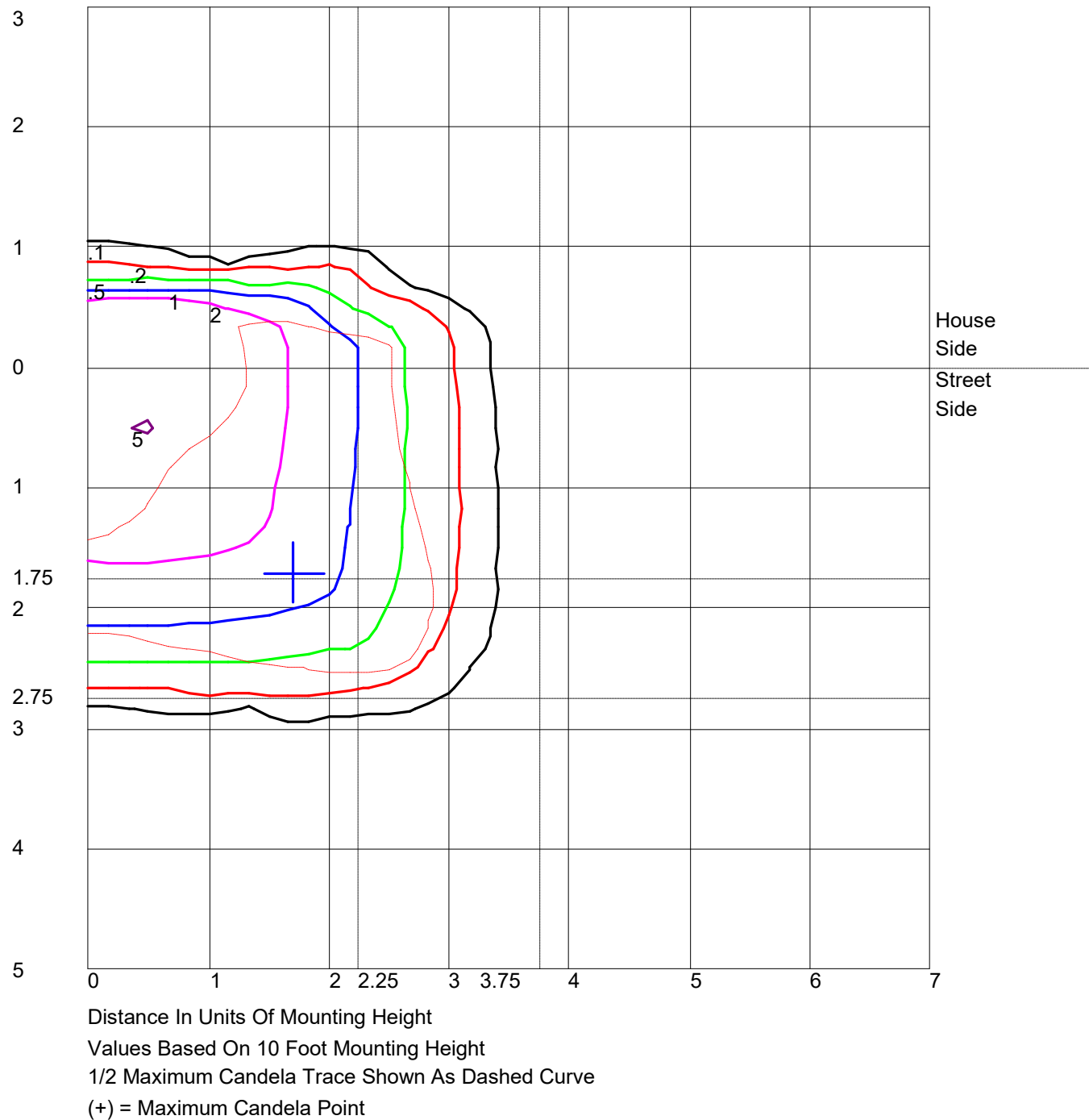
| | Lumens | Percent Of Luminaire |
|----------------------|--------|-------------------------|
| Downward Street Side | 2681.1 | 75.6 |
| Downward House Side | 865.5 | 24.4 |
| Downward Total | 3546.6 | 100.0 |
| Upward Street Side | 0.0 | 0.0 |
| Upward House Side | 0.0 | 0.0 |
| Upward Total | 0.0 | 0.0 |
| Total Flux | 3546.6 | 100.0 |

POLAR GRAPH

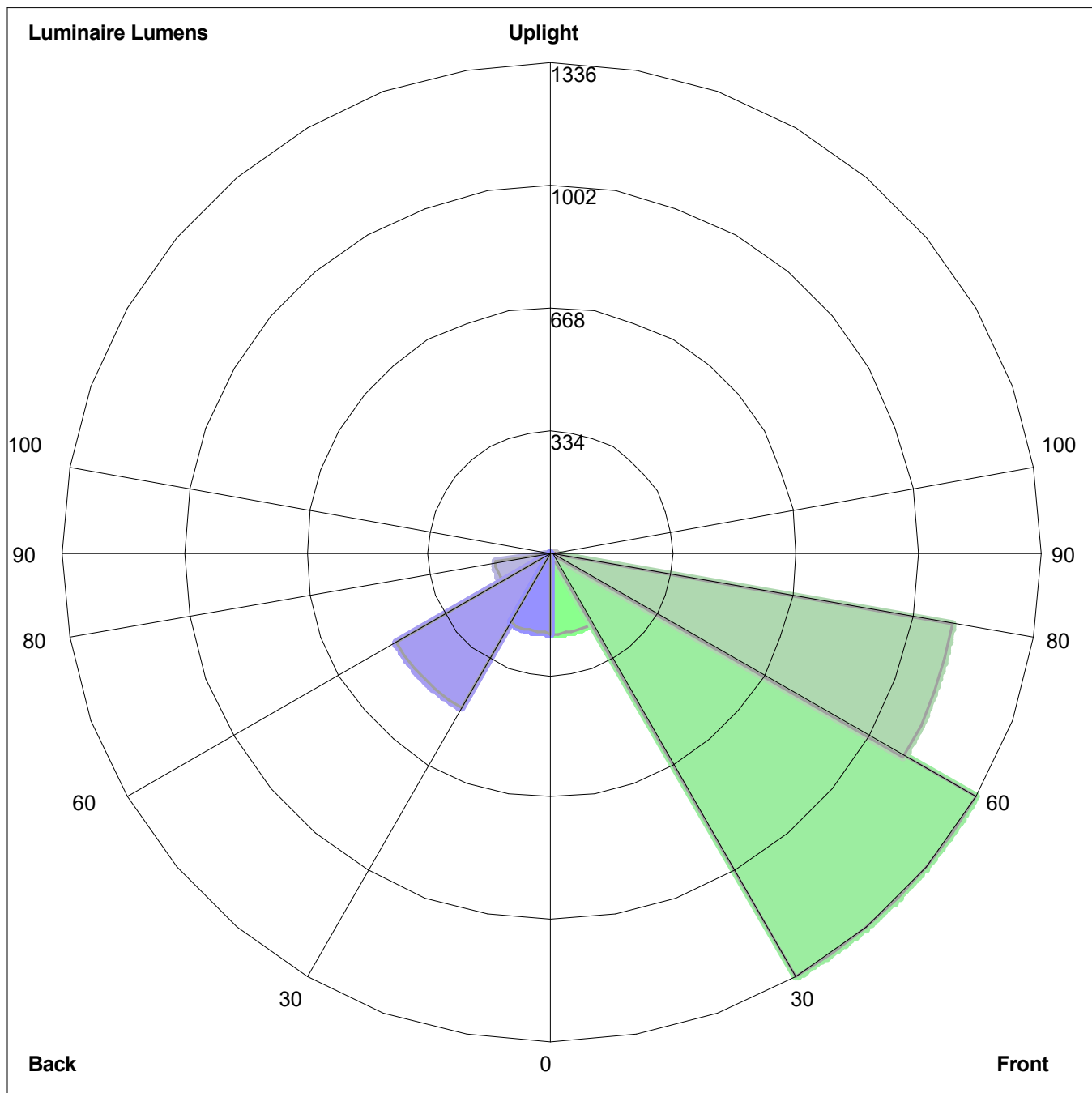


Maximum Candela = 2539 Located At Horizontal Angle = 45, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=222.2, Medium=1335.6, High=1111.3, Very High=12.0
Back: Low=219.8, Medium=488.9, High=155.9, Very High=1.0
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G1