UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

# Integrating Sphere Test Report

Relevant Standards
IES LM-79-2008
ANSI C78.377-2011, ANSI C82.77-2002
CIE 13.3-1995, CIE 15-2004

Prepared For
Elemental LED Inc, DBA Diode LED
Wes Buck
Suite 211,1195 Park Ave.
Emeryville, CA 94608
United States

Catalog Number
FLUID VIEW™ 12v LED Tape Light DI-12V-FV30-80XX

Order Number
10460077
Test Number
758903

Test Date

2014-09-22

Prepared By

Javier Caban, Technician

Approved By

Eric Gaudreau, Engineering Project Handler

UL Verification Services Inc.
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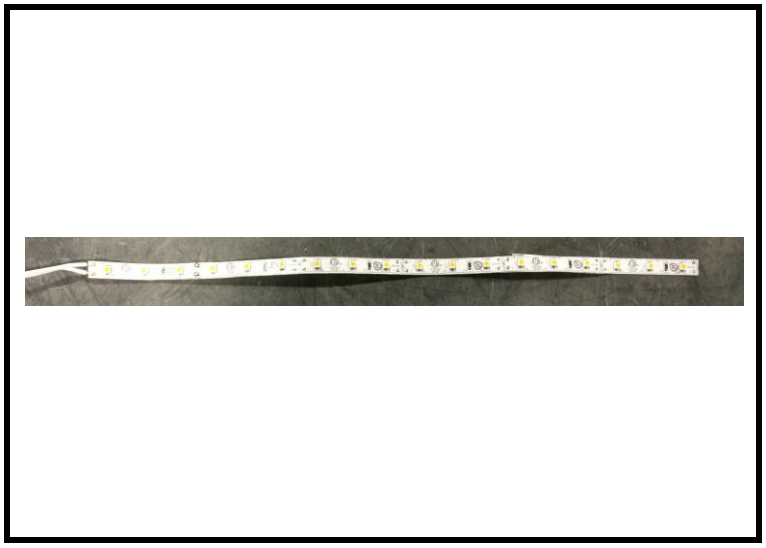
| | |
|---|---|
| Luminaire Description: | LED strip |
| Catalog Number: | FLUID VIEW™ 12v LED Tape Light DI-12V-FV30-80XX |
| Lamp: | 18 white LEDs |
| Mounting: | Surface |
| Ballast/Driver: | One Meanwell LPV-60-12 |

Luminaire



## Summary of Results

| | | |
|---|---|---|
| Radiant Flux: | 440.4 | mW |
| Luminous Flux: | 144.0 | Lumens |
| Luminaire Efficacy: | 64.3 | Lumens/Watt |
| CCT: | 3032 | K |
| CRI (Ra): | 81.2 | |
| Chromaticity (x): | 0.4357 | |
| Chromaticity (y): | 0.4057 | |
| Chromaticity (u): | 0.2491 | |
| Chromaticity (v): | 0.3479 | |
| Duv: | 0.0008 | |

## Test Conditions

| | | |
|---|---|---|
| Test Temperature: | 24.5 | °C |
| Voltage: | 120.0 | VAC |
| Current: | 0.05202 | A |
| Power: | 2.240 | W |
| Power Factor: | 0.360 | |
| Frequency: | 60 | Hz |
| Current THD: | 167 | % |

Testing was performed in a 1-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for this measurement.

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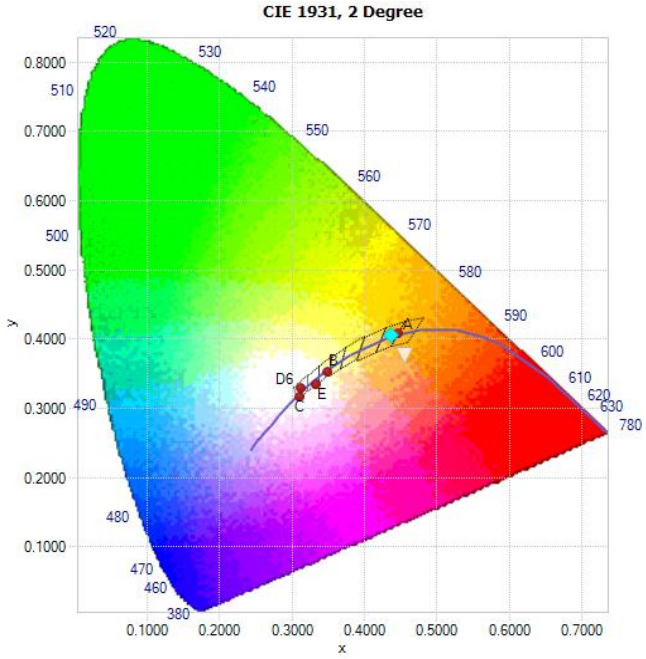
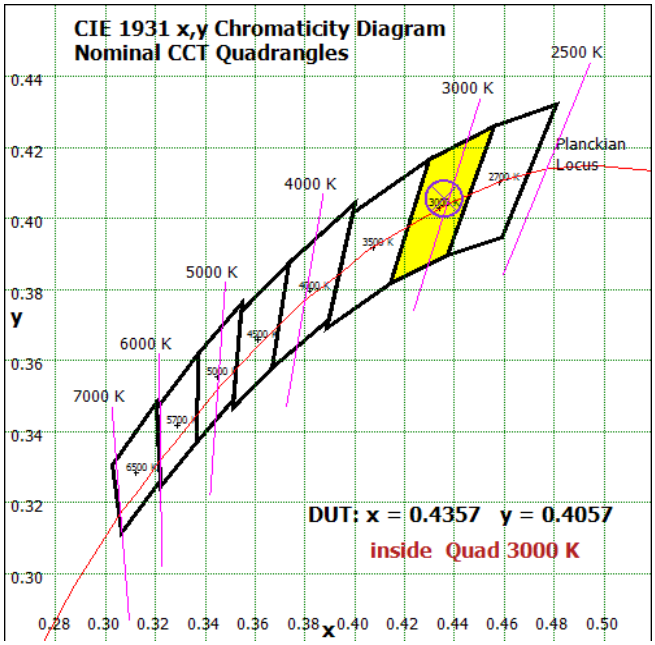
## Chromaticity Coordinates

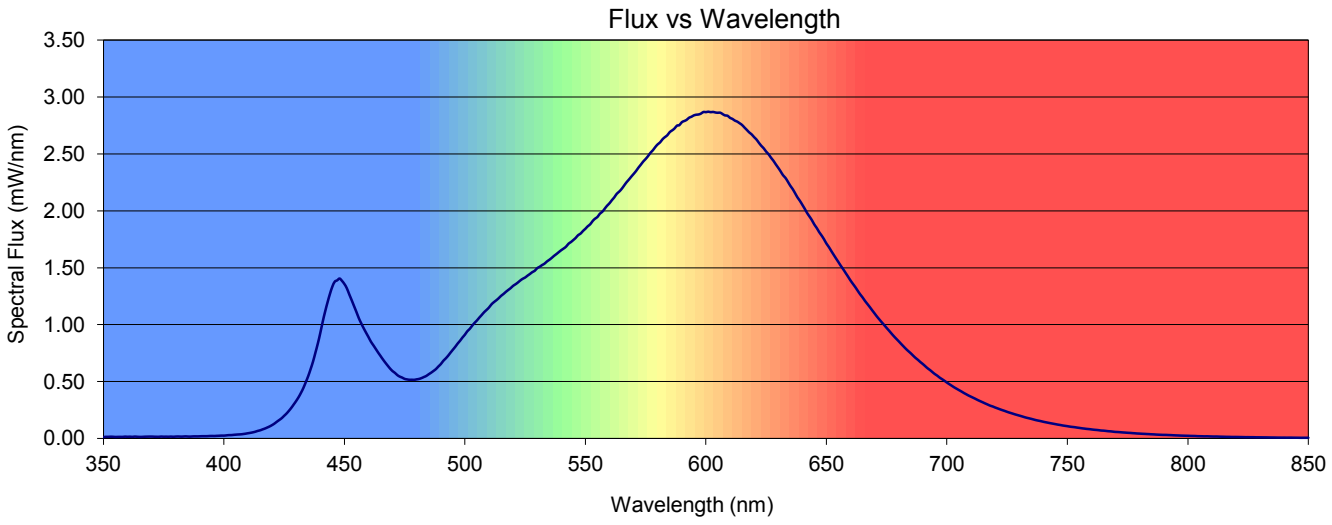
| x | y | u | v | u' | v' | Duv |
|---|---|---|---|---|---|---|
| 0.4357 | 0.4057 | 0.2491 | 0.3479 | 0.2491 | 0.5219 | 0.0008 |

## Color Rendering Index Detail

| Ra (CRI) | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81.2 | 78.9 | 88.8 | 96.6 | 79.2 | 78.9 | 85.7 | 83.4 | 58.6 | 4.2 | 74.4 | 77.6 | 68.6 | 80.9 | 98.3 |



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# Spectral Power Distribution

| λ(nm) | mW/nm | λ(nm) | mW/nm | λ(nm) | mW/nm | λ(nm) | mW/nm | λ(nm) | mW/nm | λ(nm) | mW/nm | λ(nm) | mW/nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 350 | 0.0122 | 422 | 0.148 | 494 | 0.753 | 566 | 2.22 | 638 | 2.12 | 710 | 0.368 | 782 | 0.0409 |
| 351 | 0.0147 | 423 | 0.163 | 495 | 0.779 | 567 | 2.25 | 639 | 2.09 | 711 | 0.357 | 783 | 0.0394 |
| 352 | 0.0148 | 424 | 0.179 | 496 | 0.805 | 568 | 2.27 | 640 | 2.05 | 712 | 0.347 | 784 | 0.0384 |
| 353 | 0.0159 | 425 | 0.199 | 497 | 0.834 | 569 | 2.30 | 641 | 2.02 | 713 | 0.336 | 785 | 0.0369 |
| 354 | 0.0152 | 426 | 0.220 | 498 | 0.859 | 570 | 2.32 | 642 | 1.98 | 714 | 0.326 | 786 | 0.0360 |
| 355 | 0.0137 | 427 | 0.244 | 499 | 0.887 | 571 | 2.35 | 643 | 1.95 | 715 | 0.317 | 787 | 0.0345 |
| 356 | 0.0142 | 428 | 0.270 | 500 | 0.912 | 572 | 2.38 | 644 | 1.92 | 716 | 0.307 | 788 | 0.0334 |
| 357 | 0.0146 | 429 | 0.300 | 501 | 0.942 | 573 | 2.40 | 645 | 1.88 | 717 | 0.298 | 789 | 0.0324 |
| 358 | 0.0143 | 430 | 0.330 | 502 | 0.963 | 574 | 2.43 | 646 | 1.85 | 718 | 0.288 | 790 | 0.0318 |
| 359 | 0.0166 | 431 | 0.364 | 503 | 0.990 | 575 | 2.46 | 647 | 1.81 | 719 | 0.282 | 791 | 0.0316 |
| 360 | 0.0152 | 432 | 0.402 | 504 | 1.02 | 576 | 2.48 | 648 | 1.78 | 720 | 0.273 | 792 | 0.0305 |
| 361 | 0.0161 | 433 | 0.445 | 505 | 1.04 | 577 | 2.51 | 649 | 1.75 | 721 | 0.265 | 793 | 0.0298 |
| 362 | 0.0146 | 434 | 0.496 | 506 | 1.06 | 578 | 2.53 | 650 | 1.71 | 722 | 0.257 | 794 | 0.0284 |
| 363 | 0.0169 | 435 | 0.549 | 507 | 1.09 | 579 | 2.56 | 651 | 1.68 | 723 | 0.249 | 795 | 0.0275 |
| 364 | 0.0155 | 436 | 0.610 | 508 | 1.11 | 580 | 2.58 | 652 | 1.65 | 724 | 0.242 | 796 | 0.0266 |
| 365 | 0.0143 | 437 | 0.677 | 509 | 1.13 | 581 | 2.60 | 653 | 1.61 | 725 | 0.234 | 797 | 0.0256 |
| 366 | 0.0143 | 438 | 0.756 | 510 | 1.15 | 582 | 2.63 | 654 | 1.58 | 726 | 0.227 | 798 | 0.0251 |
| 367 | 0.0157 | 439 | 0.836 | 511 | 1.18 | 583 | 2.65 | 655 | 1.55 | 727 | 0.221 | 799 | 0.0244 |
| 368 | 0.0164 | 440 | 0.927 | 512 | 1.20 | 584 | 2.66 | 656 | 1.52 | 728 | 0.214 | 800 | 0.0238 |
| 369 | 0.0168 | 441 | 1.02 | 513 | 1.21 | 585 | 2.69 | 657 | 1.49 | 729 | 0.208 | 801 | 0.0230 |
| 370 | 0.0170 | 442 | 1.11 | 514 | 1.23 | 586 | 2.71 | 658 | 1.45 | 730 | 0.202 | 802 | 0.0224 |
| 371 | 0.0160 | 443 | 1.20 | 515 | 1.25 | 587 | 2.72 | 659 | 1.42 | 731 | 0.195 | 803 | 0.0219 |
| 372 | 0.0154 | 444 | 1.27 | 516 | 1.27 | 588 | 2.75 | 660 | 1.39 | 732 | 0.189 | 804 | 0.0207 |
| 373 | 0.0153 | 445 | 1.33 | 517 | 1.29 | 589 | 2.75 | 661 | 1.36 | 733 | 0.183 | 805 | 0.0202 |
| 374 | 0.0170 | 446 | 1.38 | 518 | 1.31 | 590 | 2.78 | 662 | 1.33 | 734 | 0.178 | 806 | 0.0197 |
| 375 | 0.0159 | 447 | 1.39 | 519 | 1.32 | 591 | 2.79 | 663 | 1.30 | 735 | 0.173 | 807 | 0.0190 |
| 376 | 0.0164 | 448 | 1.41 | 520 | 1.34 | 592 | 2.80 | 664 | 1.27 | 736 | 0.167 | 808 | 0.0194 |
| 377 | 0.0157 | 449 | 1.38 | 521 | 1.35 | 593 | 2.82 | 665 | 1.24 | 737 | 0.161 | 809 | 0.0186 |
| 378 | 0.0168 | 450 | 1.36 | 522 | 1.37 | 594 | 2.83 | 666 | 1.21 | 738 | 0.157 | 810 | 0.0178 |
| 379 | 0.0154 | 451 | 1.32 | 523 | 1.39 | 595 | 2.84 | 667 | 1.18 | 739 | 0.152 | 811 | 0.0173 |
| 380 | 0.0170 | 452 | 1.27 | 524 | 1.40 | 596 | 2.84 | 668 | 1.16 | 740 | 0.147 | 812 | 0.0175 |
| 381 | 0.0178 | 453 | 1.22 | 525 | 1.41 | 597 | 2.85 | 669 | 1.13 | 741 | 0.143 | 813 | 0.0167 |
| 382 | 0.0168 | 454 | 1.16 | 526 | 1.43 | 598 | 2.85 | 670 | 1.10 | 742 | 0.139 | 814 | 0.0159 |
| 383 | 0.0170 | 455 | 1.11 | 527 | 1.45 | 599 | 2.87 | 671 | 1.07 | 743 | 0.134 | 815 | 0.0155 |
| 384 | 0.0188 | 456 | 1.06 | 528 | 1.46 | 600 | 2.87 | 672 | 1.05 | 744 | 0.130 | 816 | 0.0148 |
| 385 | 0.0175 | 457 | 1.01 | 529 | 1.47 | 601 | 2.87 | 673 | 1.02 | 745 | 0.126 | 817 | 0.0146 |
| 386 | 0.0170 | 458 | 0.969 | 530 | 1.50 | 602 | 2.87 | 674 | 0.996 | 746 | 0.122 | 818 | 0.0139 |
| 387 | 0.0184 | 459 | 0.929 | 531 | 1.51 | 603 | 2.87 | 675 | 0.972 | 747 | 0.119 | 819 | 0.0135 |
| 388 | 0.0189 | 460 | 0.891 | 532 | 1.52 | 604 | 2.86 | 676 | 0.947 | 748 | 0.115 | 820 | 0.0137 |
| 389 | 0.0187 | 461 | 0.851 | 533 | 1.54 | 605 | 2.86 | 677 | 0.923 | 749 | 0.111 | 821 | 0.0132 |
| 390 | 0.0195 | 462 | 0.820 | 534 | 1.55 | 606 | 2.86 | 678 | 0.899 | 750 | 0.108 | 822 | 0.0128 |
| 391 | 0.0204 | 463 | 0.788 | 535 | 1.57 | 607 | 2.85 | 679 | 0.876 | 751 | 0.105 | 823 | 0.0125 |
| 392 | 0.0203 | 464 | 0.755 | 536 | 1.59 | 608 | 2.84 | 680 | 0.855 | 752 | 0.102 | 824 | 0.0118 |
| 393 | 0.0206 | 465 | 0.725 | 537 | 1.60 | 609 | 2.84 | 681 | 0.832 | 753 | 0.0997 | 825 | 0.0120 |
| 394 | 0.0219 | 466 | 0.694 | 538 | 1.62 | 610 | 2.82 | 682 | 0.809 | 754 | 0.0961 | 826 | 0.0114 |
| 395 | 0.0226 | 467 | 0.666 | 539 | 1.64 | 611 | 2.81 | 683 | 0.788 | 755 | 0.0932 | 827 | 0.0115 |
| 396 | 0.0221 | 468 | 0.639 | 540 | 1.65 | 612 | 2.79 | 684 | 0.768 | 756 | 0.0898 | 828 | 0.0108 |
| 397 | 0.0233 | 469 | 0.614 | 541 | 1.67 | 613 | 2.78 | 685 | 0.749 | 757 | 0.0873 | 829 | 0.0105 |
| 398 | 0.0242 | 470 | 0.592 | 542 | 1.69 | 614 | 2.77 | 686 | 0.728 | 758 | 0.0846 | 830 | 0.0104 |
| 399 | 0.0256 | 471 | 0.576 | 543 | 1.71 | 615 | 2.75 | 687 | 0.708 | 759 | 0.0827 | 831 | 0.0102 |
| 400 | 0.0253 | 472 | 0.556 | 544 | 1.73 | 616 | 2.73 | 688 | 0.691 | 760 | 0.0798 | 832 | 0.00994 |
| 401 | 0.0274 | 473 | 0.544 | 545 | 1.74 | 617 | 2.71 | 689 | 0.672 | 761 | 0.0772 | 833 | 0.00963 |
| 402 | 0.0298 | 474 | 0.535 | 546 | 1.76 | 618 | 2.69 | 690 | 0.655 | 762 | 0.0755 | 834 | 0.00904 |
| 403 | 0.0301 | 475 | 0.524 | 547 | 1.79 | 619 | 2.67 | 691 | 0.636 | 763 | 0.0732 | 835 | 0.00882 |
| 404 | 0.0321 | 476 | 0.519 | 548 | 1.80 | 620 | 2.65 | 692 | 0.617 | 764 | 0.0702 | 836 | 0.00872 |
| 405 | 0.0340 | 477 | 0.516 | 549 | 1.82 | 621 | 2.63 | 693 | 0.601 | 765 | 0.0691 | 837 | 0.00814 |
| 406 | 0.0357 | 478 | 0.516 | 550 | 1.84 | 622 | 2.60 | 694 | 0.584 | 766 | 0.0667 | 838 | 0.00801 |
| 407 | 0.0367 | 479 | 0.516 | 551 | 1.86 | 623 | 2.57 | 695 | 0.566 | 767 | 0.0641 | 839 | 0.00783 |
| 408 | 0.0392 | 480 | 0.520 | 552 | 1.88 | 624 | 2.55 | 696 | 0.552 | 768 | 0.0627 | 840 | 0.00792 |
| 409 | 0.0425 | 481 | 0.523 | 553 | 1.91 | 625 | 2.52 | 697 | 0.535 | 769 | 0.0602 | 841 | 0.00743 |
| 410 | 0.0464 | 482 | 0.531 | 554 | 1.93 | 626 | 2.50 | 698 | 0.521 | 770 | 0.0579 | 842 | 0.00765 |
| 411 | 0.0499 | 483 | 0.540 | 555 | 1.95 | 627 | 2.47 | 699 | 0.507 | 771 | 0.0568 | 843 | 0.00767 |
| 412 | 0.0542 | 484 | 0.550 | 556 | 1.97 | 628 | 2.44 | 700 | 0.492 | 772 | 0.0552 | 844 | 0.00724 |
| 413 | 0.0596 | 485 | 0.565 | 557 | 1.99 | 629 | 2.41 | 701 | 0.478 | 773 | 0.0534 | 845 | 0.00693 |
| 414 | 0.0665 | 486 | 0.578 | 558 | 2.02 | 630 | 2.38 | 702 | 0.464 | 774 | 0.0520 | 846 | 0.00688 |
| 415 | 0.0718 | 487 | 0.594 | 559 | 2.04 | 631 | 2.35 | 703 | 0.450 | 775 | 0.0504 | 847 | 0.00628 |
| 416 | 0.0798 | 488 | 0.610 | 560 | 2.07 | 632 | 2.31 | 704 | 0.438 | 776 | 0.0491 | 848 | 0.00657 |
| 417 | 0.0874 | 489 | 0.633 | 561 | 2.09 | 633 | 2.29 | 705 | 0.425 | 777 | 0.0474 | 849 | 0.00647 |
| 418 | 0.0967 | 490 | 0.653 | 562 | 2.12 | 634 | 2.26 | 706 | 0.414 | 778 | 0.0458 | 850 | 0.00656 |
| 419 | 0.106 | 491 | 0.681 | 563 | 2.15 | 635 | 2.22 | 707 | 0.401 | 779 | 0.0441 | | |
| 420 | 0.118 | 492 | 0.702 | 564 | 2.17 | 636 | 2.19 | 708 | 0.389 | 780 | 0.0431 | | |
| 421 | 0.132 | 493 | 0.726 | 565 | 2.19 | 637 | 2.16 | 709 | 0.378 | 781 | 0.0417 | | |

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# Photometric Indoor Test Report

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

Prepared For
Elemental LED Inc, DBA Diode LED
Wes Buck
Suite 211,1195 Park Ave.
Emeryville, CA 94608
United States

Catalog Number
FLUID VIEW™ 12v LED Tape Light DI-12V-FV30-80XX
Project Number
10460077
Test Number
758902

Test Date

2014-09-22

Prepared By

Javier Caban, Technician

Approved By

Eric Gaudreau, Engineering Project Handler

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

| | |
|---|---|
| Luminaire Description: | LED strip |
| Catalog Number: | FLUID VIEW™ 12v LED Tape Light DI-12V-FV30-80XX |
| Lamp: | 18 white LEDs |
| Mounting: | Surface |
| Ballast/Driver: | One Meanwell LPV-60-12 |

Luminaire

Test Conditions

| | | |
|---|---|---|
| Test Temperature: | 24.9 | °C |
| Voltage: | 120.0 | VAC |
| Current: | 0.04935 | A |
| Power: | 2.273 | W |
| Power Factor: | 0.384 | |
| Frequency: | 60 | Hz |
| Current THD: | 162 | % |

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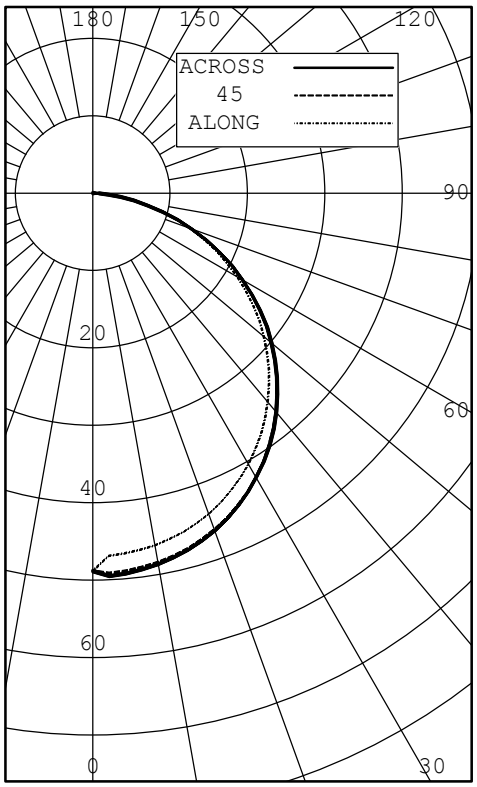


INTENSITY(CANDLEPOWER) SUMMARY

| ANGLE | ALONG | 22.5 | 45 | 67.5 | ACROSS | OUTPUT LUMENS |
|---|---|---|---|---|---|---|
| 0 | 49 | 49 | 49 | 49 | 49 | |
| 5 | 47 | 49 | 49 | 49 | 49 | 5 |
| 10 | 46 | 48 | 48 | 48 | 49 | |
| 15 | 45 | 47 | 48 | 47 | 48 | 13 |
| 20 | 44 | 46 | 46 | 46 | 46 | |
| 25 | 42 | 44 | 44 | 44 | 45 | 20 |
| 30 | 40 | 42 | 42 | 42 | 42 | |
| 35 | 38 | 40 | 40 | 40 | 40 | 25 |
| 40 | 35 | 37 | 37 | 37 | 37 | |
| 45 | 32 | 34 | 34 | 33 | 34 | 26 |
| 50 | 29 | 30 | 30 | 30 | 30 | |
| 55 | 25 | 26 | 26 | 26 | 26 | 23 |
| 60 | 22 | 22 | 22 | 22 | 22 | |
| 65 | 18 | 18 | 18 | 18 | 18 | 18 |
| 70 | 13 | 14 | 14 | 14 | 14 | |
| 75 | 9 | 10 | 10 | 9 | 9 | 10 |
| 80 | 6 | 6 | 6 | 6 | 5 | |
| 85 | 3 | 3 | 3 | 2 | 2 | 3 |
| 90 | 0 | 0 | 0 | 0 | 0 | |

ZONAL LUMENS AND PERCENTAGES

| ZONE | LUMENS | % LUMINAIRE |
|---|---|---|
| 0-30 | 38 | 26.81 |
| 0-40 | 63 | 44.06 |
| 0-60 | 112 | 78.43 |
| 0-90 | 143 | 100.00 |
| 40-90 | 80 | 55.94 |
| 60-90 | 31 | 21.57 |
| 90-180 | 0 | 0.00 |
| 0-180 | 143 | 100.00 |

EFFICACY (LUMENS PER WATT): 62.1

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 12.000 INS
WIDTH: 0.375 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3
SC(ALONG): 1.2, SC(ACROSS): 1.3

| ANGLE | ALONG | 45 | ACROSS |
|---|---|---|---|
| 45 | 15660 | 16429 | 16454 |
| 55 | 15193 | 15914 | 15914 |
| 65 | 14262 | 14844 | 14849 |
| 75 | 12443 | 12724 | 12490 |
| 85 | 9880 | 9905 | 8331 |

TESTED IN ACCORDANCE WITH IES PROCEDURES.

UL Verification Services Inc.
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Allentown, PA 18106
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INTENSITY(CANDLEPOWER) DATA
IN 2.5 DEGREE STEPS

| ANGLE | PLANE | | | | | | OUTPUT |
|---|---|---|---|---|---|---|---|
| | ALONG | 22.5 | 45 | 67.5 | ACROSS | AVERAGE | LUMENS |
| 0.0 | 49 | 49 | 49 | 49 | 49 | 49 | |
| 2.5 | 47 | 49 | 49 | 49 | 50 | 49 | |
| 5.0 | 47 | 49 | 49 | 49 | 49 | 49 | 5 |
| 7.5 | 47 | 49 | 49 | 49 | 49 | 48 | |
| 10.0 | 46 | 48 | 48 | 48 | 49 | 48 | |
| 12.5 | 46 | 48 | 48 | 48 | 48 | 48 | |
| 15.0 | 45 | 47 | 48 | 47 | 48 | 47 | 13 |
| 17.5 | 45 | 47 | 47 | 47 | 47 | 47 | |
| 20.0 | 44 | 46 | 46 | 46 | 46 | 46 | |
| 22.5 | 43 | 45 | 45 | 45 | 46 | 45 | |
| 25.0 | 42 | 44 | 44 | 44 | 45 | 44 | 20 |
| 27.5 | 41 | 43 | 43 | 43 | 44 | 43 | |
| 30.0 | 40 | 42 | 42 | 42 | 42 | 42 | |
| 32.5 | 39 | 41 | 41 | 41 | 41 | 41 | |
| 35.0 | 38 | 40 | 40 | 40 | 40 | 39 | 25 |
| 37.5 | 37 | 38 | 38 | 38 | 38 | 38 | |
| 40.0 | 35 | 37 | 37 | 37 | 37 | 37 | |
| 42.5 | 34 | 35 | 35 | 35 | 35 | 35 | |
| 45.0 | 32 | 34 | 34 | 33 | 34 | 33 | 26 |
| 47.5 | 31 | 32 | 32 | 32 | 32 | 32 | |
| 50.0 | 29 | 30 | 30 | 30 | 30 | 30 | |
| 52.5 | 27 | 28 | 28 | 28 | 28 | 28 | |
| 55.0 | 25 | 26 | 26 | 26 | 26 | 26 | 23 |
| 57.5 | 23 | 24 | 24 | 24 | 24 | 24 | |
| 60.0 | 22 | 22 | 22 | 22 | 22 | 22 | |
| 62.5 | 20 | 20 | 20 | 20 | 20 | 20 | |
| 65.0 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| 67.5 | 15 | 16 | 16 | 16 | 16 | 16 | |
| 70.0 | 13 | 14 | 14 | 14 | 14 | 14 | |
| 72.5 | 11 | 12 | 12 | 12 | 12 | 12 | |
| 75.0 | 9 | 10 | 10 | 9 | 9 | 10 | 10 |
| 77.5 | 7 | 8 | 8 | 7 | 7 | 7 | |
| 80.0 | 6 | 6 | 6 | 6 | 5 | 6 | |
| 82.5 | 4 | 4 | 4 | 4 | 4 | 4 | |
| 85.0 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| 87.5 | 1 | 2 | 1 | 1 | 1 | 1 | |
| 90.0 | 0 | 0 | 0 | 0 | 0 | 0 | |

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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

| CC | 90 | | | | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WALL | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 1.22 | 1.22 | 1.22 | 1.22 | 1.19 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.16 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1 | 1.12 | 1.07 | 1.03 | 0.99 | 1.09 | 1.05 | 1.01 | 0.97 | 1.07 | 1.03 | 0.99 | 0.96 | 0.98 | 0.95 | 0.93 | 0.94 | 0.92 | 0.90 | 0.91 | 0.89 | 0.87 | 0.85 |
| 2 | 1.03 | 0.95 | 0.88 | 0.82 | 1.00 | 0.93 | 0.86 | 0.81 | 0.98 | 0.91 | 0.85 | 0.80 | 0.87 | 0.82 | 0.78 | 0.84 | 0.80 | 0.76 | 0.81 | 0.78 | 0.75 | 0.72 |
| 3 | 0.94 | 0.83 | 0.75 | 0.68 | 0.92 | 0.82 | 0.74 | 0.68 | 0.89 | 0.80 | 0.73 | 0.67 | 0.77 | 0.71 | 0.66 | 0.75 | 0.69 | 0.65 | 0.72 | 0.68 | 0.64 | 0.62 |
| 4 | 0.87 | 0.74 | 0.65 | 0.59 | 0.85 | 0.73 | 0.65 | 0.58 | 0.82 | 0.72 | 0.64 | 0.58 | 0.69 | 0.63 | 0.57 | 0.67 | 0.61 | 0.57 | 0.65 | 0.60 | 0.56 | 0.54 |
| 5 | 0.80 | 0.67 | 0.57 | 0.50 | 0.78 | 0.65 | 0.57 | 0.50 | 0.75 | 0.64 | 0.56 | 0.50 | 0.62 | 0.55 | 0.49 | 0.60 | 0.54 | 0.49 | 0.58 | 0.53 | 0.48 | 0.46 |
| 6 | 0.74 | 0.59 | 0.50 | 0.44 | 0.72 | 0.58 | 0.50 | 0.44 | 0.70 | 0.57 | 0.49 | 0.43 | 0.56 | 0.48 | 0.43 | 0.54 | 0.47 | 0.42 | 0.52 | 0.47 | 0.42 | 0.40 |
| 7 | 0.67 | 0.53 | 0.44 | 0.38 | 0.66 | 0.52 | 0.44 | 0.38 | 0.64 | 0.51 | 0.43 | 0.37 | 0.50 | 0.42 | 0.37 | 0.48 | 0.42 | 0.37 | 0.47 | 0.41 | 0.36 | 0.35 |
| 8 | 0.62 | 0.48 | 0.39 | 0.33 | 0.61 | 0.47 | 0.39 | 0.33 | 0.59 | 0.47 | 0.39 | 0.33 | 0.45 | 0.38 | 0.33 | 0.44 | 0.37 | 0.33 | 0.43 | 0.37 | 0.32 | 0.30 |
| 9 | 0.58 | 0.44 | 0.35 | 0.29 | 0.56 | 0.43 | 0.35 | 0.29 | 0.55 | 0.42 | 0.35 | 0.29 | 0.41 | 0.34 | 0.29 | 0.40 | 0.33 | 0.29 | 0.39 | 0.33 | 0.28 | 0.27 |
| 10 | 0.53 | 0.40 | 0.31 | 0.26 | 0.52 | 0.39 | 0.31 | 0.26 | 0.51 | 0.39 | 0.31 | 0.26 | 0.38 | 0.30 | 0.26 | 0.37 | 0.30 | 0.25 | 0.36 | 0.30 | 0.25 | 0.23 |

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS
BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.
LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD
THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST
LUMINOUS OPENING OF LUMINAIRE.

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

# Cone of Light

**Cone Of Light Tabulation**

| Mounting Height (Feet) | Footcandles at Nadir | Diameter (Feet) |
|---|---|---|
| 4.00 | 3.07 | 5.09 |
| 6.00 | 1.36 | 7.63 |
| 8.00 | 0.766 | 10.2 |
| 10.0 | 0.490 | 12.7 |
| 12.0 | 0.341 | 15.3 |
| 14.0 | 0.250 | 17.8 |
| 16.0 | 0.192 | 20.3 |

**Cone of Light Plot**