# LEDALITE - BLOOMBOX

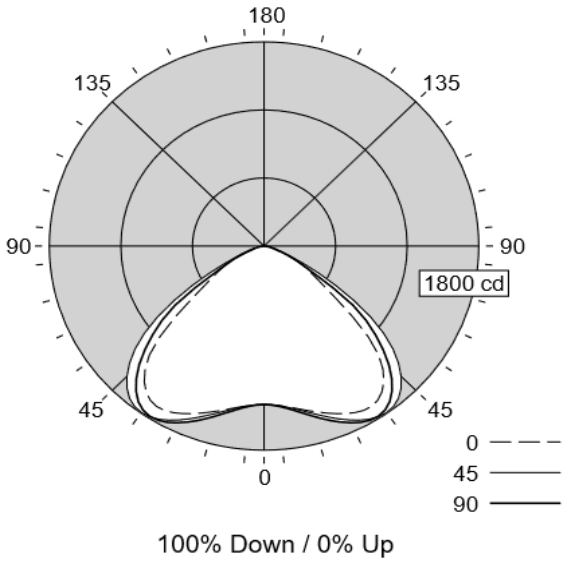
LEDALITE by signify

| | | | |
|---|---|---|---|
| **TEST DATE:** | 17 Oct 2023 | **CATALOG NO:** | **BB22D1STL93550Y1DE** |
| **Lamp Type:** | LED | **Description:** | 5000LM BLOOMBOX 935 |
| **No. of Lamps:** | 1 | | |
| **Rated Lamp Lumens:** | -1 | **Flux (lm), Efficiency (%):** | 4869 lm 100% |
| **Input Watts:** | 120 VAC 29.5 | **Up/Dn Ratio, Efficacy (lm/W):** | 100% Down / 0% Up 165.1 |
| **CIE-IES Classification:** | Direct | **Report:** | LNG12226 |

## CANDELA DISTRIBUTION

| | 0 | 22.5 | 45 | 67.5 | 90 | Flux Lumens |
|---|---|---|---|---|---|---|
| 0 | 1398 | 1398 | 1398 | 1398 | 1398 | |
| 5 | 1413 | 1411 | 1412 | 1416 | 1418 | 136 |
| 15 | 1506 | 1511 | 1525 | 1543 | 1551 | 436 |
| 25 | 1630 | 1651 | 1693 | 1718 | 1719 | 780 |
| 35 | 1661 | 1718 | 1793 | 1791 | 1767 | 1092 |
| 45 | 1358 | 1489 | 1626 | 1554 | 1480 | 1158 |
| 55 | 611 | 739 | 1091 | 1029 | 911 | 807 |
| 65 | 294 | 336 | 364 | 332 | 290 | 337 |
| 75 | 94 | 93 | 91 | 82 | 77 | 100 |
| 85 | 23 | 22 | 19 | 16 | 15 | 23 |
| 90 | 0 | 0 | 0 | 0 | 0 | |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | |

## POLAR CANDELA PLOT




## CHARACTERISTICS

| | | | | |
|---|---|---|---|---|
| RP1 | | | | None |
| Direct: Peak Candela & Angle (0°) | | | 1677.0 | 32.5 |
| Direct: Peak Candela & Angle (90°) | | | 1781.2 | 32.5 |
| Spacing Criteria (0°, 90°, 180°) | | 1.68 | 1.75 | N/A |
| Beam (H, V), Field (H, V) | 108.6 | 100.2 | 139.6 | 135.4 |
| Indirect: Peak Candela & Angle(°) | | | N/A | N/A |
| Indirect: Zenith Candela, Peak to Zenith | | | N/A | N/A |
| Luminous Width, Length, Height (ft) | | 1.69 | 1.87 | 0.00 |
| DLC, UGR (4H x 8H, 1.0H), MDER | | N/A | 18.6 | 0.557 |
| x, y, CCT, $D_{uv}$ | 0.4130 | 0.3929 | 3355 | -0.0007 |
| CRI ($R_a$), $R_9$, $G_a$, $C_9$ | 93 | 62 | 99 | 93 |
| TM-30-18 $R_f$, $R_{f,h1}$, $R_g$, $R_{cs,h1}$ | 91 | 90 | 100 | -5% |
| 120V: P(W), I(A), THD(%), PF | 29.5 | 0.247 | 5.9 | 0.997 |
| 277V: P(W), I(A), THD(%), PF | 29.2 | 0.107 | 8.8 | 0.984 |
| 347V: P(W), I(A), THD(%), PF | N/A | N/A | N/A | N/A |

## COEFFICIENTS OF UTILIZATION (%)

| Pc--- | 80 | | | | 70 | | | 50 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pw--- | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111 | 100 |
| 1 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 100 | 97 | 95 | 87 |
| 2 | 102 | 94 | 88 | 83 | 99 | 92 | 87 | 89 | 84 | 80 | 75 |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 79 | 73 | 68 | 64 |
| 4 | 85 | 74 | 66 | 60 | 83 | 73 | 65 | 71 | 64 | 59 | 55 |
| 5 | 79 | 67 | 58 | 52 | 77 | 65 | 57 | 63 | 56 | 51 | 48 |
| 6 | 73 | 60 | 51 | 45 | 71 | 59 | 51 | 57 | 50 | 45 | 42 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 52 | 45 | 39 | 37 |
| 8 | 62 | 49 | 41 | 35 | 61 | 48 | 41 | 47 | 40 | 35 | 33 |
| 9 | 58 | 45 | 37 | 31 | 57 | 44 | 37 | 43 | 36 | 31 | 29 |
| 10 | 54 | 41 | 33 | 28 | 53 | 41 | 33 | 40 | 33 | 28 | 26 |

*Based on a floor reflectance of 0.2

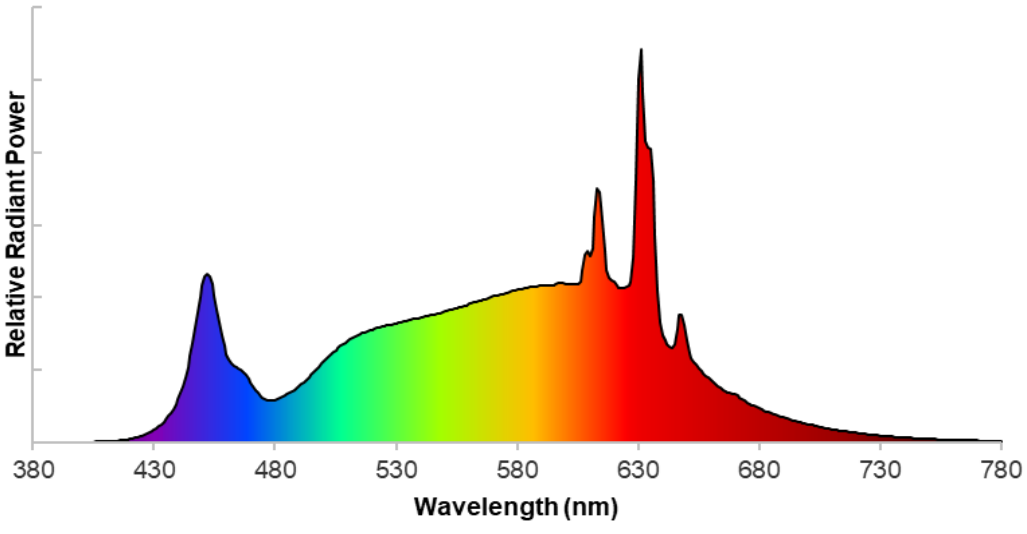
## ZONAL LUMENS (lm)

| Zone | Lumens | %Fixture | %Lamp |
|---|---|---|---|
| 0-30 | 1352 | 27.8% | 27.8% |
| 0-40 | 2444 | 50.2% | 50.2% |
| 0-60 | 4408 | 90.5% | 90.5% |
| 0-90 | 4869 | 100.0% | 100.0% |
| 90-130 | 0 | 0.0% | 0.0% |
| 90-150 | 0 | 0.0% | 0.0% |
| 90-180 | 0 | 0.0% | 0.0% |
| 0-180 | 4869 | 100.0% | 100.0% |

## AVG LUMINANCE (cd/m²)

| | 0 | 45 | 90 |
|---|---|---|---|
| 0 | 4759 | 4759 | 4759 |
| 5 | 4829 | 4826 | 4847 |
| 15 | 5309 | 5374 | 5465 |
| 25 | 6123 | 6358 | 6457 |
| 35 | 6904 | 7453 | 7346 |
| 45 | 6541 | 7827 | 7127 |
| 55 | 3625 | 6473 | 5406 |
| 65 | 2369 | 2936 | 2335 |
| 75 | 1231 | 1202 | 1016 |
| 85 | 902 | 746 | 594 |

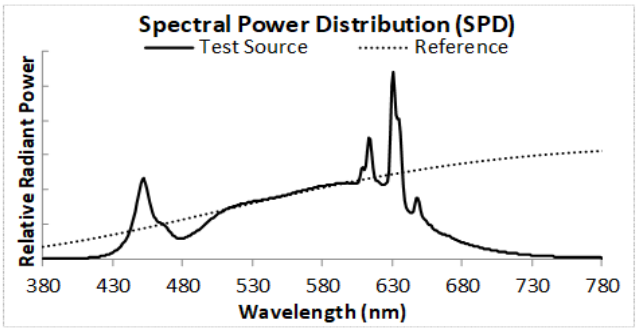
## SPECTRAL POWER DISTRIBUTION

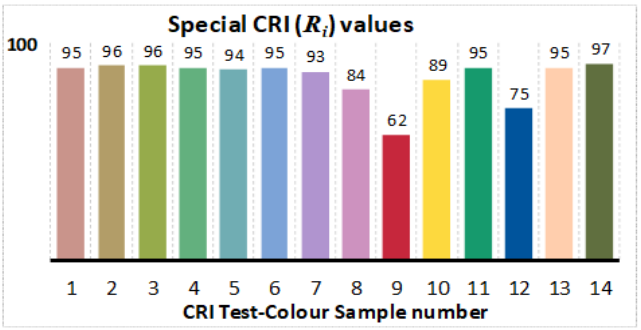


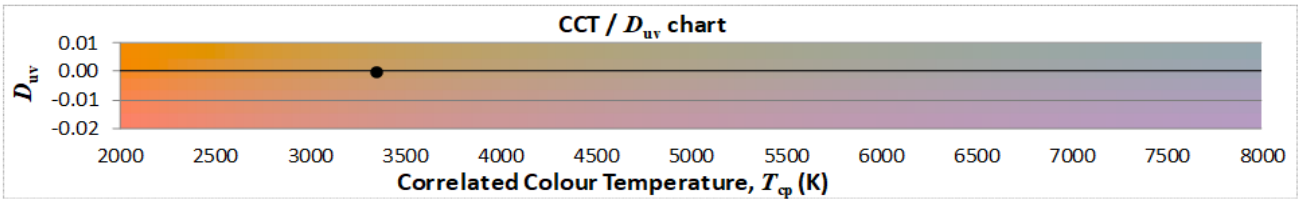
# Output of GLA Calculation Tool for CIE 13.3 CRI and Associated CRI-based Colour Rendition Properties

| | | | |
|---|---|---|---|
| **Test Number:** | F44619 | **Manufacturer:** | Ledalite by Signify |
| **Date:** | 29 Sep 2023 | **Model:** | BloomBox |

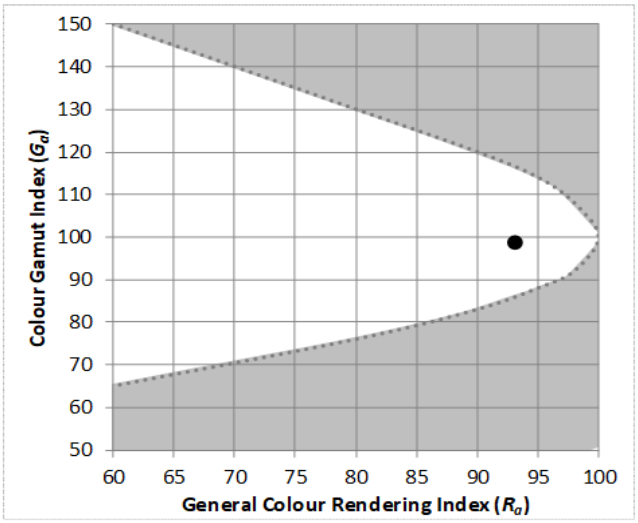
| | | | |
|---|---|---|---|
| **Correlated Colour Temperature ($T_{cp}$) in K** | 3355 | **CIE1931 chromaticity coordinate, $x$** | 0.4130 |
| **Distance to Blackbody Locus ($D_{uv}$)** | -0.0007 | **CIE1931 chromaticity coordinate, $y$** | 0.3929 |
| **General Colour Rendering Index ($R_a$)** | 93 | **CIE1976 chromaticity coordinate, $u'$** | 0.2398 |
| **Red Rendering Index ($R_9$)** | 62 | **CIE1976 chromaticity coordinate, $v'$** | 0.5133 |
| **Colour Gamut Index ($G_a$)** | 99 | | |
| **Red Chroma Index ($C_9$)** | 93 | | |



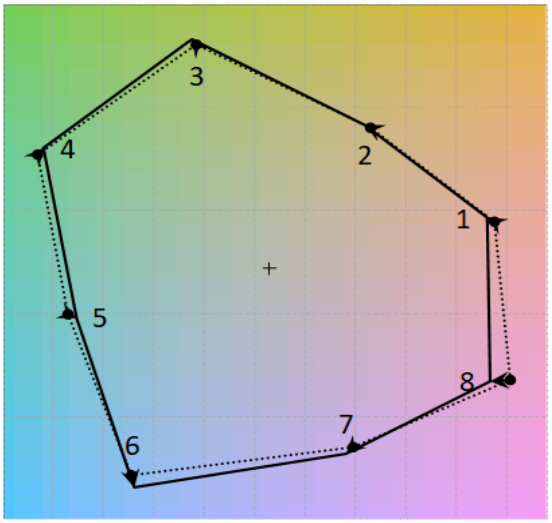



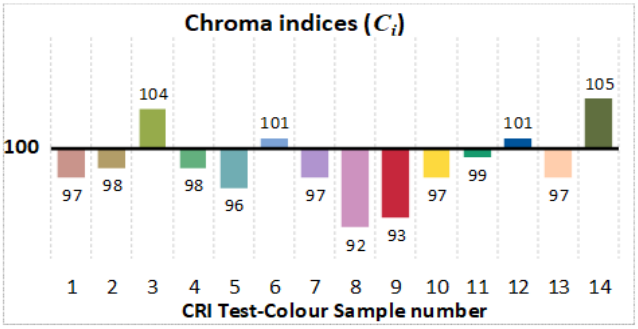



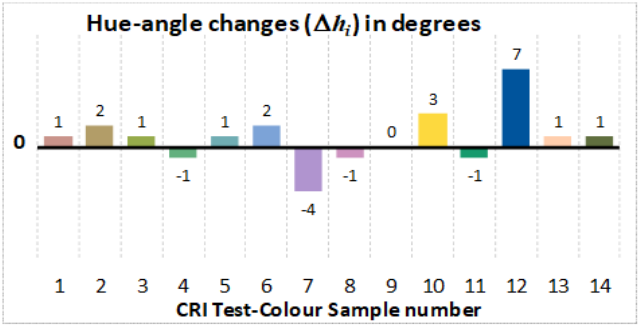

Two-dimensional $R_a$-$G_a$ Graphic




Colour-shift graphic



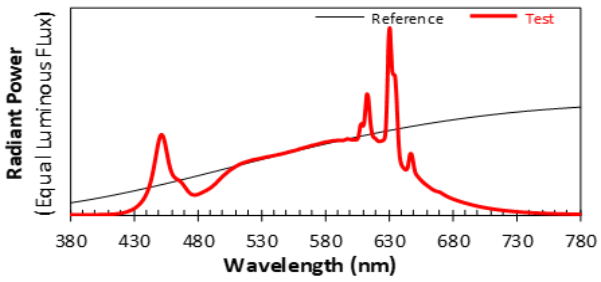



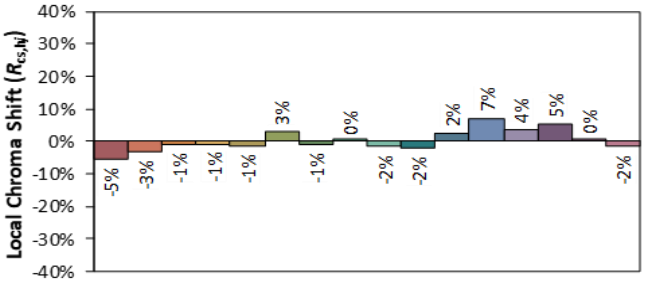



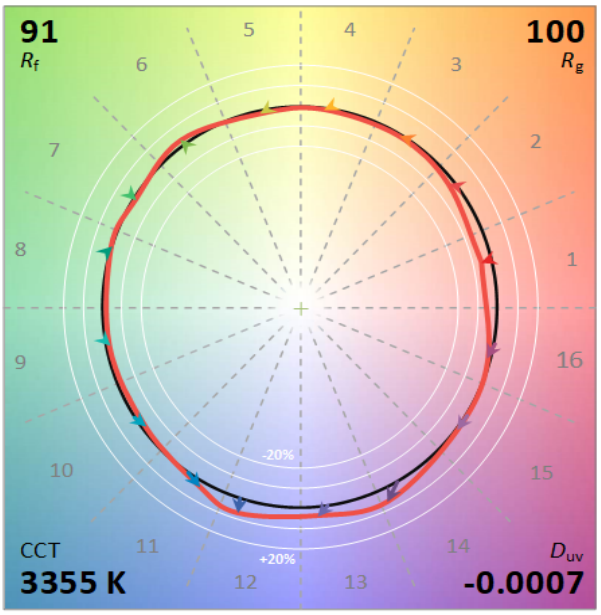
# ANSI/IES TM-30-18 Color Rendition Report

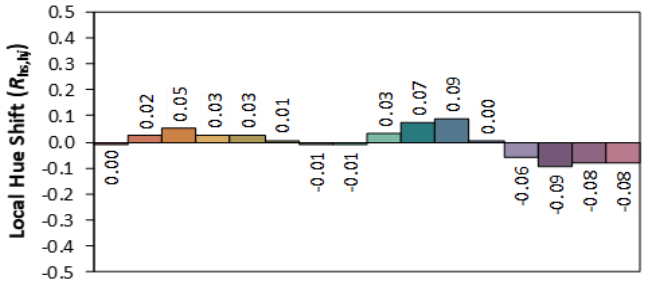
**Source:** F44619 **Manufacturer:** Ledalite by Signify

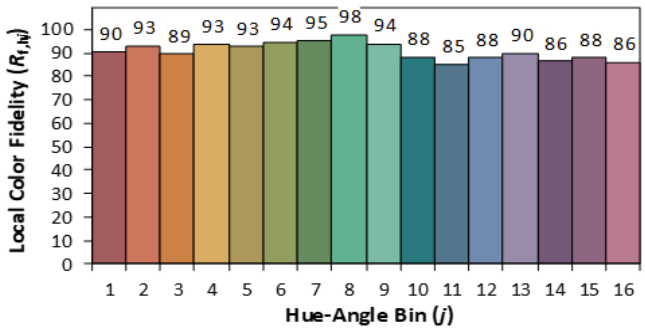
**Date:** 29 Sep 2023 **Model:** BloomBox

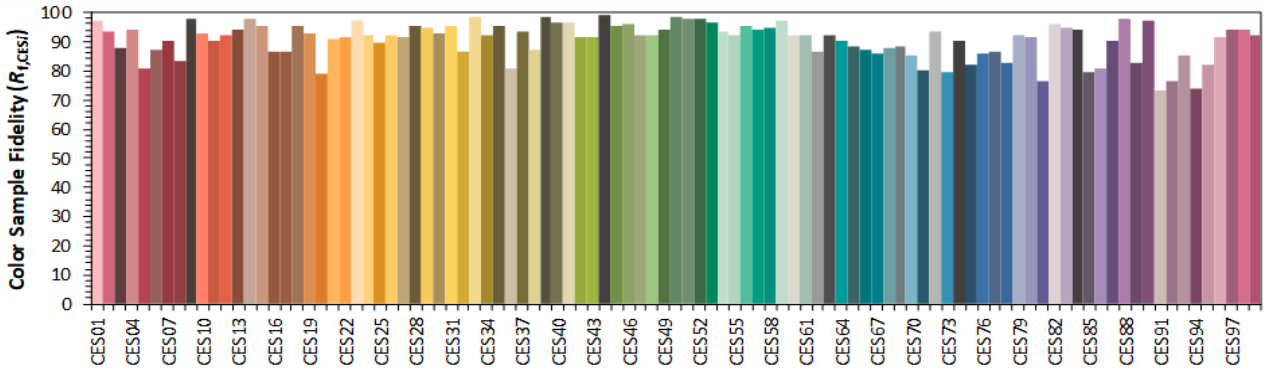



**Notes:** This is a recommended method for displaying ANSI/IES TM-30-18 information.

| | |
|---|---|
| $x$ | **0.4130** |
| $y$ | **0.3929** |
| $u'$ | **0.2398** |
| $v'$ | **0.5133** |

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.

## SPECTRAL POWER DISTRIBUTION

| λ (nm) | SPD | λ (nm) | SPD | λ (nm) | SPD | λ (nm) | SPD | λ (nm) | SPD | λ (nm) | SPD | λ (nm) | SPD | λ (nm) | SPD | λ (nm) | SPD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 380 | 0.00020 | 425 | 0.00200 | 470 | 0.01810 | 515 | 0.03250 | 560 | 0.04160 | 605 | 0.04750 | 650 | 0.03050 | 695 | 0.00650 | 740 | 0.00150 |
| 381 | 0.00020 | 426 | 0.00230 | 471 | 0.01690 | 516 | 0.03290 | 561 | 0.04180 | 606 | 0.04830 | 651 | 0.02700 | 696 | 0.00630 | 741 | 0.00150 |
| 382 | 0.00020 | 427 | 0.00260 | 472 | 0.01580 | 517 | 0.03310 | 562 | 0.04200 | 607 | 0.05180 | 652 | 0.02530 | 697 | 0.00610 | 742 | 0.00140 |
| 383 | 0.00020 | 428 | 0.00300 | 473 | 0.01480 | 518 | 0.03340 | 563 | 0.04230 | 608 | 0.05650 | 653 | 0.02430 | 698 | 0.00590 | 743 | 0.00140 |
| 384 | 0.00020 | 429 | 0.00340 | 474 | 0.01400 | 519 | 0.03370 | 564 | 0.04250 | 609 | 0.05760 | 654 | 0.02330 | 699 | 0.00570 | 744 | 0.00140 |
| 385 | 0.00020 | 430 | 0.00380 | 475 | 0.01330 | 520 | 0.03390 | 565 | 0.04270 | 610 | 0.05610 | 655 | 0.02240 | 700 | 0.00560 | 745 | 0.00130 |
| 386 | 0.00020 | 431 | 0.00430 | 476 | 0.01290 | 521 | 0.03410 | 566 | 0.04290 | 611 | 0.05820 | 656 | 0.02160 | 701 | 0.00540 | 746 | 0.00130 |
| 387 | 0.00020 | 432 | 0.00490 | 477 | 0.01270 | 522 | 0.03440 | 567 | 0.04310 | 612 | 0.06780 | 657 | 0.02080 | 702 | 0.00520 | 747 | 0.00120 |
| 388 | 0.00020 | 433 | 0.00550 | 478 | 0.01260 | 523 | 0.03460 | 568 | 0.04340 | 613 | 0.07620 | 658 | 0.02000 | 703 | 0.00500 | 748 | 0.00120 |
| 389 | 0.00020 | 434 | 0.00620 | 479 | 0.01270 | 524 | 0.03480 | 569 | 0.04360 | 614 | 0.07500 | 659 | 0.01940 | 704 | 0.00490 | 749 | 0.00120 |
| 390 | 0.00020 | 435 | 0.00700 | 480 | 0.01280 | 525 | 0.03500 | 570 | 0.04390 | 615 | 0.06670 | 660 | 0.01880 | 705 | 0.00470 | 750 | 0.00110 |
| 391 | 0.00020 | 436 | 0.00790 | 481 | 0.01310 | 526 | 0.03510 | 571 | 0.04400 | 616 | 0.05750 | 661 | 0.01820 | 706 | 0.00460 | 751 | 0.00110 |
| 392 | 0.00020 | 437 | 0.00900 | 482 | 0.01350 | 527 | 0.03530 | 572 | 0.04420 | 617 | 0.05180 | 662 | 0.01760 | 707 | 0.00440 | 752 | 0.00110 |
| 393 | 0.00010 | 438 | 0.01010 | 483 | 0.01390 | 528 | 0.03540 | 573 | 0.04430 | 618 | 0.04940 | 663 | 0.01700 | 708 | 0.00430 | 753 | 0.00100 |
| 394 | 0.00020 | 439 | 0.01140 | 484 | 0.01420 | 529 | 0.03560 | 574 | 0.04460 | 619 | 0.04870 | 664 | 0.01640 | 709 | 0.00420 | 754 | 0.00100 |
| 395 | 0.00020 | 440 | 0.01300 | 485 | 0.01470 | 530 | 0.03580 | 575 | 0.04480 | 620 | 0.04810 | 665 | 0.01590 | 710 | 0.00400 | 755 | 0.00100 |
| 396 | 0.00020 | 441 | 0.01480 | 486 | 0.01500 | 531 | 0.03600 | 576 | 0.04500 | 621 | 0.04720 | 666 | 0.01550 | 711 | 0.00390 | 756 | 0.00090 |
| 397 | 0.00020 | 442 | 0.01690 | 487 | 0.01540 | 532 | 0.03620 | 577 | 0.04530 | 622 | 0.04650 | 667 | 0.01510 | 712 | 0.00380 | 757 | 0.00090 |
| 398 | 0.00020 | 443 | 0.01950 | 488 | 0.01590 | 533 | 0.03640 | 578 | 0.04550 | 623 | 0.04630 | 668 | 0.01490 | 713 | 0.00370 | 758 | 0.00090 |
| 399 | 0.00020 | 444 | 0.02250 | 489 | 0.01640 | 534 | 0.03650 | 579 | 0.04570 | 624 | 0.04650 | 669 | 0.01470 | 714 | 0.00360 | 759 | 0.00090 |
| 400 | 0.00020 | 445 | 0.02600 | 490 | 0.01690 | 535 | 0.03670 | 580 | 0.04590 | 625 | 0.04680 | 670 | 0.01450 | 715 | 0.00340 | 760 | 0.00080 |
| 401 | 0.00020 | 446 | 0.03000 | 491 | 0.01750 | 536 | 0.03680 | 581 | 0.04610 | 626 | 0.04710 | 671 | 0.01410 | 716 | 0.00330 | 761 | 0.00080 |
| 402 | 0.00020 | 447 | 0.03440 | 492 | 0.01810 | 537 | 0.03700 | 582 | 0.04610 | 627 | 0.04830 | 672 | 0.01360 | 717 | 0.00320 | 762 | 0.00080 |
| 403 | 0.00020 | 448 | 0.03910 | 493 | 0.01880 | 538 | 0.03710 | 583 | 0.04630 | 628 | 0.05540 | 673 | 0.01310 | 718 | 0.00310 | 763 | 0.00080 |
| 404 | 0.00020 | 449 | 0.04350 | 494 | 0.01950 | 539 | 0.03730 | 584 | 0.04650 | 629 | 0.07870 | 674 | 0.01260 | 719 | 0.00300 | 764 | 0.00070 |
| 405 | 0.00020 | 450 | 0.04720 | 495 | 0.02030 | 540 | 0.03750 | 585 | 0.04660 | 630 | 0.10900 | 675 | 0.01210 | 720 | 0.00290 | 765 | 0.00070 |
| 406 | 0.00020 | 451 | 0.04980 | 496 | 0.02120 | 541 | 0.03760 | 586 | 0.04680 | 631 | 0.11800 | 676 | 0.01170 | 721 | 0.00280 | 766 | 0.00070 |
| 407 | 0.00030 | 452 | 0.05070 | 497 | 0.02200 | 542 | 0.03780 | 587 | 0.04690 | 632 | 0.10500 | 677 | 0.01130 | 722 | 0.00270 | 767 | 0.00070 |
| 408 | 0.00030 | 453 | 0.05000 | 498 | 0.02280 | 543 | 0.03800 | 588 | 0.04690 | 633 | 0.09050 | 678 | 0.01100 | 723 | 0.00270 | 768 | 0.00070 |
| 409 | 0.00030 | 454 | 0.04760 | 499 | 0.02360 | 544 | 0.03820 | 589 | 0.04700 | 634 | 0.08840 | 679 | 0.01060 | 724 | 0.00260 | 769 | 0.00060 |
| 410 | 0.00030 | 455 | 0.04410 | 500 | 0.02440 | 545 | 0.03830 | 590 | 0.04700 | 635 | 0.08810 | 680 | 0.01030 | 725 | 0.00250 | 770 | 0.00060 |
| 411 | 0.00040 | 456 | 0.04000 | 501 | 0.02510 | 546 | 0.03850 | 591 | 0.04710 | 636 | 0.07850 | 681 | 0.01000 | 726 | 0.00240 | 771 | 0.00060 |
| 412 | 0.00040 | 457 | 0.03590 | 502 | 0.02580 | 547 | 0.03870 | 592 | 0.04700 | 637 | 0.06190 | 682 | 0.00970 | 727 | 0.00230 | 772 | 0.00060 |
| 413 | 0.00050 | 458 | 0.03210 | 503 | 0.02650 | 548 | 0.03890 | 593 | 0.04700 | 638 | 0.04550 | 683 | 0.00940 | 728 | 0.00230 | 773 | 0.00060 |
| 414 | 0.00050 | 459 | 0.02900 | 504 | 0.02720 | 549 | 0.03910 | 594 | 0.04700 | 639 | 0.03600 | 684 | 0.00910 | 729 | 0.00220 | 774 | 0.00050 |
| 415 | 0.00060 | 460 | 0.02660 | 505 | 0.02780 | 550 | 0.03930 | 595 | 0.04710 | 640 | 0.03220 | 685 | 0.00880 | 730 | 0.00210 | 775 | 0.00050 |
| 416 | 0.00070 | 461 | 0.02500 | 506 | 0.02840 | 551 | 0.03960 | 596 | 0.04740 | 641 | 0.03050 | 686 | 0.00860 | 731 | 0.00210 | 776 | 0.00050 |
| 417 | 0.00070 | 462 | 0.02390 | 507 | 0.02900 | 552 | 0.03980 | 597 | 0.04780 | 642 | 0.02950 | 687 | 0.00830 | 732 | 0.00200 | 777 | 0.00050 |
| 418 | 0.00080 | 463 | 0.02320 | 508 | 0.02950 | 553 | 0.04000 | 598 | 0.04800 | 643 | 0.02880 | 688 | 0.00810 | 733 | 0.00190 | 778 | 0.00050 |
| 419 | 0.00100 | 464 | 0.02270 | 509 | 0.03000 | 554 | 0.04010 | 599 | 0.04780 | 644 | 0.02850 | 689 | 0.00780 | 734 | 0.00190 | 779 | 0.00050 |
| 420 | 0.00110 | 465 | 0.02220 | 510 | 0.03050 | 555 | 0.04040 | 600 | 0.04770 | 645 | 0.02970 | 690 | 0.00760 | 735 | 0.00180 | 780 | 0.00050 |
| 421 | 0.00120 | 466 | 0.02170 | 511 | 0.03100 | 556 | 0.04060 | 601 | 0.04750 | 646 | 0.03410 | 691 | 0.00740 | 736 | 0.00170 | | |
| 422 | 0.00140 | 467 | 0.02100 | 512 | 0.03140 | 557 | 0.04080 | 602 | 0.04750 | 647 | 0.03850 | 692 | 0.00720 | 737 | 0.00170 | | |
| 423 | 0.00160 | 468 | 0.02020 | 513 | 0.03190 | 558 | 0.04100 | 603 | 0.04750 | 648 | 0.03850 | 693 | 0.00690 | 738 | 0.00160 | | |
| 424 | 0.00180 | 469 | 0.01920 | 514 | 0.03220 | 559 | 0.04120 | 604 | 0.04750 | 649 | 0.03520 | 694 | 0.00670 | 739 | 0.00160 | | |

## UNIFIED GLARE RATING

| Reflectances | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ceiling Cavity | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room Size | | UGR Viewed Crosswise | | | | | UGR Viewed Endwise | | | | |
| X=2H | Y=2H | 15.6 | 17.2 | 16.0 | 17.5 | 17.8 | 17.9 | 19.5 | 18.3 | 19.8 | 20.1 |
| | 3H | 16.2 | 17.5 | 16.6 | 17.9 | 18.2 | 18.3 | 19.6 | 18.6 | 19.9 | 20.3 |
| | 4H | 16.3 | 17.6 | 16.7 | 17.9 | 18.3 | 18.3 | 19.6 | 18.7 | 19.9 | 20.3 |
| | 6H | 16.4 | 17.6 | 16.8 | 18.0 | 18.3 | 18.3 | 19.4 | 18.7 | 19.8 | 20.2 |
| | 8H | 16.4 | 17.6 | 16.8 | 17.9 | 18.3 | 18.2 | 19.4 | 18.7 | 19.8 | 20.2 |
| | 12H | 16.4 | 17.5 | 16.9 | 17.9 | 18.3 | 18.2 | 19.3 | 18.7 | 19.7 | 20.1 |
| 4H | 2H | 16.1 | 17.4 | 16.5 | 17.7 | 18.1 | 18.1 | 19.4 | 18.5 | 19.8 | 20.1 |
| | 3H | 16.7 | 17.8 | 17.1 | 18.2 | 18.6 | 18.5 | 19.6 | 18.9 | 20.0 | 20.4 |
| | 4H | 16.9 | 17.8 | 17.3 | 18.3 | 18.7 | 18.6 | 19.5 | 19.0 | 19.9 | 20.3 |
| | 6H | 17.1 | 17.9 | 17.5 | 18.3 | 18.8 | 18.6 | 19.4 | 19.0 | 19.8 | 20.3 |
| | 8H | 17.1 | 17.9 | 17.6 | 18.3 | 18.8 | 18.6 | 19.3 | 19.0 | 19.8 | 20.2 |
| | 12H | 17.1 | 17.8 | 17.6 | 18.3 | 18.8 | 18.5 | 19.2 | 19.0 | 19.7 | 20.2 |
| 8H | 4H | 17.0 | 17.7 | 17.4 | 18.1 | 18.6 | 18.5 | 19.3 | 19.0 | 19.7 | 20.2 |
| | 6H | 17.1 | 17.8 | 17.6 | 18.3 | 18.7 | 18.6 | 19.2 | 19.1 | 19.7 | 20.2 |
| | 8H | 17.2 | 17.8 | 17.7 | 18.3 | 18.8 | 18.5 | 19.1 | 19.1 | 19.6 | 20.1 |
| | 12H | 17.3 | 17.8 | 17.8 | 18.3 | 18.8 | 18.5 | 19.1 | 19.1 | 19.5 | 20.1 |
| 12H | 4H | 16.9 | 17.6 | 17.4 | 18.1 | 18.5 | 18.5 | 19.2 | 19.0 | 19.7 | 20.1 |
| | 6H | 17.1 | 17.7 | 17.6 | 18.2 | 18.7 | 18.5 | 19.1 | 19.1 | 19.6 | 20.1 |
| | 8H | 17.2 | 17.7 | 17.7 | 18.2 | 18.8 | 18.5 | 19.1 | 19.0 | 19.5 | 20.1 |

The UGR values have been calculated according to CIE Publ. 117.

Spacing-to-Height-Ratio = 1.00.

The highlighted value refers to the UGR value which the luminaire would have in a reference situation with room dimensions of 4H/8H and degrees of reflectance of 20% for the floor, 50% for the walls and 70% for the ceiling, as recommended by DLC.

The UGR value may vary depending on application specific parameters.