

**LUMINAIRE:** CWW4-930XWG-2WW-EDU  
 CWW Contemporary Wallwash, Recessed Architectural  
 3" x 48" led with frosted acrylic prisms lens  
**BALLAST:** XI040C110V054BPT1  
**BALLAST FACTOR:** 1.00  
**LAMP:** Led  
**FIXTURE LUMENS:** 1935  
**WATTS:** 19.00  
**MOUNTING:** Recessed  
**SHIELDING ANGLE:** 0° = 90 90° = 90  
**SPACING CRITERION:** 0° = 1.17 90° = 1.26  
**LUMINOUS OPENING IN FEET**  
 LENGTH: 0.25  
 WIDTH: 3.92  
 HEIGHT: 0.00

TEST #16.01164  
 DATE: 11/6/2017

**TOTAL LUMINAIRE EFFICIENCY = 100.0**  
**TOTAL LUMENS PER WATT = 102**

**ANSI/IESNA RP-1-2004 COMPLIANCE: YES-VDT NORMAL USE**  
**COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$2.35**  
**BASED ON 3000 HRS. AND \$.08 PER KWH**

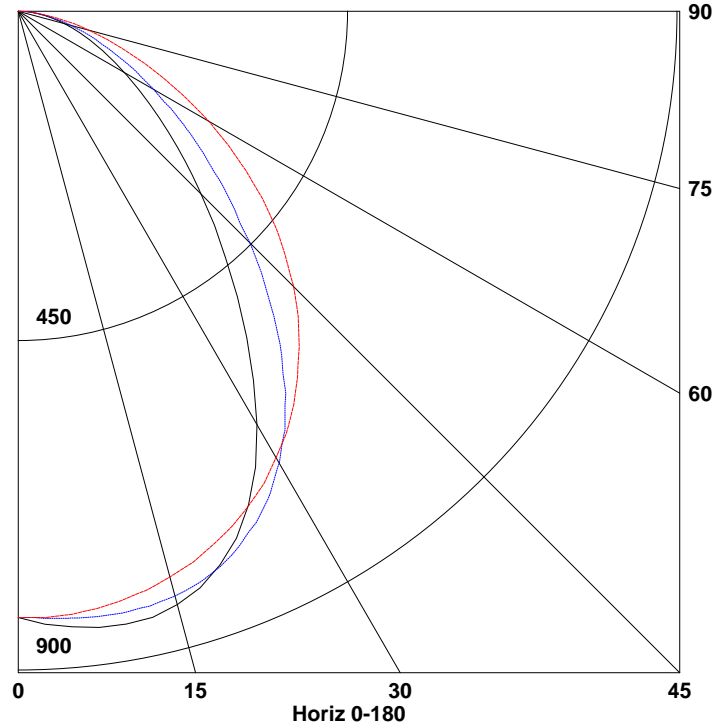
**ZONAL LUMENS**

| ZONE  | LUMENS | % LAMP | % FIXTURE |
|-------|--------|--------|-----------|
| 0-30  | 657    | 34.0   | 34.0      |
| 0-40  | 1045   | 54.0   | 54.0      |
| 0-60  | 1657   | 85.7   | 85.7      |
| 0-90  | 1935   | 100.0  | 100.0     |
| 0-180 | 1935   | 100.0  | 100.0     |

**AVERAGE LUMINANCE**

| ANGLE | CANDELA/SQ M |      |      |      |      |      |
|-------|--------------|------|------|------|------|------|
|       | 0.0          | 20.0 | 35.0 | 55.0 | 70.0 | 90.0 |
| 0     | 9094         | 9094 | 9094 | 9094 | 9094 | 9094 |
| 30    | 8269         | 8561 | 8878 | 9195 | 9119 | 8929 |
| 40    | 6323         | 6624 | 7298 | 8402 | 8775 | 8560 |
| 45    | 5483         | 5716 | 6369 | 7736 | 8403 | 8264 |
| 50    | 4767         | 4972 | 5502 | 6903 | 7809 | 7843 |
| 55    | 4136         | 4347 | 4806 | 6070 | 7124 | 7277 |
| 60    | 3669         | 3844 | 4240 | 5338 | 6327 | 6612 |
| 65    | 3301         | 3431 | 3717 | 4652 | 5510 | 5770 |
| 70    | 3019         | 3115 | 3308 | 4046 | 4721 | 4978 |
| 75    | 2758         | 2843 | 3013 | 3480 | 4032 | 4244 |
| 80    | 2530         | 2593 | 2657 | 2973 | 3289 | 3416 |
| 85    | 2395         | 2521 | 2521 | 2521 | 2647 | 2773 |

**INDOOR CANDELA PLOT**



0.0 ——— 45.0 ——— 90.0 ———

**COEFFICIENTS OF UTILIZATION (%)**

**EFFECTIVE FLOOR CAVITY REFLECTANCE = 20%**

**ZONAL CAVITY METHOD**

| RC | EFFECTIVE FLOOR CAVITY REFLECTANCE = 20% |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | 80%                                      |     |     |     | 70% |     |     |     | 50% |     |     |     | 30% |     |     |     |     |     |     |
| RW | 70%                                      | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0%  |     |
| 0  | 119                                      | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 100 |
| 1  | 110                                      | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  | 86  |
| 2  | 101                                      | 94  | 87  | 82  | 98  | 92  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 78  | 82  | 79  | 76  | 74  | 74  |
| 3  | 93                                       | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 74  | 69  | 66  | 64  | 64  |
| R  | 4  | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  | 69  | 63  | 58  | 66  | 62  | 57  | 55  |
| C  | 5  | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  | 49  |
| R  | 6  | 73  | 61  | 53  | 46  | 72  | 60  | 52  | 46  | 58  | 51  | 46  | 57  | 50  | 46  | 55  | 50  | 45  | 43  |
|    | 7  | 68  | 56  | 47  | 41  | 67  | 55  | 47  | 41  | 53  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 40  | 39  |
|    | 8  | 64  | 51  | 43  | 37  | 62  | 50  | 43  | 37  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 37  | 35  |
|    | 9  | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |
|    | 10                                       | 56  | 43  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 40  | 35  | 30  | 29  |

RCR = ROOM CAVITY RATIO RC = EFFECTIVE CEILING CAVITY REFLECTANCE RW = WALL REFLECTANCE

THE DATA IN THIS REPORT ARE BASED ON ABSOLUTE MEASUREMENTS.  
 ANSI/IESNA RP-1 COMPLIANCE IS BASED ON ABSOLUTE MEASUREMENTS.  
 THIS TEST RUN IN ACCORDANCE WITH CURRENT I.E.S.N.A. PUBLISHED PROCEDURES.

APPROVED BY: \_\_\_\_\_

**LUMINAIRE:** CWW4-930XWG-2WW-EDU  
CWW Contemporary Wallwash, Recessed Architectural  
3" x 48" led with frosted acylic prised lens

TEST #16.01164  
DATE: 11/6/2017

**CANDELA VALUES**

| ANGLE | 0.0  | 5.0 | 10.0 | 15.0 | 20.0 | 22.5 | 25.0 | 30.0 | 35.0 | 40.0 | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 67.5 | 70.0 |
|-------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0.0   | 828  | 828 | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  | 828  |
| 2.5   | 838  | 835 | 833  | 830  | 827  | 830  | 824  | 825  | 829  | 828  | 830  | 826  | 825  | 824  | 824  | 825  | 822  |
| 5.0   | 844  | 838 | 836  | 834  | 829  | 835  | 826  | 827  | 830  | 829  | 832  | 825  | 824  | 823  | 821  | 825  | 820  |
| 7.5   | 849  | 843 | 840  | 838  | 833  | 839  | 830  | 829  | 833  | 831  | 834  | 825  | 823  | 821  | 819  | 823  | 816  |
| 10.0  | 850* | 845 | 842  | 839  | 834  | 840  | 831  | 831  | 833  | 832  | 834  | 824  | 821  | 819  | 816  | 820  | 812  |
| 12.5  | 848  | 844 | 841  | 838  | 833  | 838  | 830  | 829  | 831  | 830  | 832  | 822  | 818  | 815  | 811  | 816  | 807  |
| 15.0  | 839  | 837 | 834  | 831  | 827  | 830  | 824  | 824  | 827  | 827  | 827  | 817  | 813  | 809  | 805  | 810  | 800  |
| 17.5  | 826  | 825 | 822  | 819  | 816  | 818  | 814  | 815  | 818  | 819  | 819  | 810  | 806  | 802  | 797  | 802  | 792  |
| 20.0  | 805  | 806 | 805  | 803  | 800  | 801  | 799  | 800  | 804  | 806  | 807  | 801  | 797  | 792  | 787  | 792  | 782  |
| 22.5  | 779  | 784 | 782  | 780  | 778  | 777  | 778  | 780  | 786  | 791  | 790  | 786  | 783  | 781  | 775  | 779  | 770  |
| 25.0  | 744  | 751 | 752  | 753  | 752  | 748  | 753  | 757  | 762  | 768  | 770  | 769  | 768  | 765  | 761  | 764  | 755  |
| 27.5  | 702  | 714 | 714  | 716  | 717  | 710  | 720  | 727  | 735  | 742  | 744  | 748  | 748  | 747  | 744  | 747  | 738  |
| 30.0  | 652  | 665 | 668  | 670  | 675  | 666  | 681  | 688  | 700  | 711  | 713  | 721  | 725  | 726  | 724  | 727  | 719  |
| 32.5  | 598  | 611 | 615  | 619  | 626  | 619  | 633  | 645  | 658  | 672  | 678  | 691  | 696  | 699  | 700  | 702  | 696  |
| 35.0  | 544  | 557 | 559  | 565  | 573  | 568  | 581  | 597  | 614  | 629  | 637  | 656  | 665  | 670  | 674  | 676  | 672  |
| 37.5  | 492  | 498 | 501  | 509  | 516  | 514  | 528  | 543  | 560  | 581  | 591  | 617  | 628  | 637  | 642  | 645  | 643  |
| 40.0  | 441  | 443 | 447  | 452  | 462  | 464  | 472  | 490  | 509  | 532  | 543  | 571  | 586  | 599  | 607  | 611  | 612  |
| 42.5  | 397  | 396 | 399  | 404  | 413  | 418  | 422  | 439  | 459  | 479  | 495  | 524  | 543  | 559  | 571  | 574  | 578  |
| 45.0  | 353  | 352 | 355  | 360  | 368  | 375  | 376  | 392  | 410  | 430  | 448  | 477  | 498  | 516  | 531  | 535  | 541  |
| 47.5  | 315  | 312 | 314  | 319  | 325  | 334  | 336  | 347  | 362  | 383  | 401  | 426  | 448  | 472  | 487  | 491  | 500  |
| 50.0  | 279  | 279 | 281  | 285  | 291  | 299  | 298  | 309  | 322  | 338  | 359  | 383  | 404  | 426  | 446  | 448  | 457  |
| 52.5  | 247  | 247 | 250  | 254  | 259  | 265  | 265  | 275  | 286  | 299  | 319  | 339  | 361  | 382  | 400  | 405  | 415  |
| 55.0  | 216  | 217 | 219  | 222  | 227  | 231  | 233  | 242  | 251  | 263  | 281  | 298  | 317  | 337  | 357  | 361  | 372  |
| 57.5  | 190  | 191 | 192  | 195  | 199  | 203  | 204  | 212  | 221  | 233  | 247  | 261  | 277  | 296  | 315  | 319  | 329  |
| 60.0  | 167  | 167 | 169  | 171  | 175  | 178  | 179  | 186  | 193  | 201  | 214  | 227  | 243  | 259  | 274  | 280  | 288  |
| 62.5  | 146  | 146 | 147  | 149  | 152  | 153  | 156  | 160  | 166  | 175  | 185  | 196  | 209  | 222  | 235  | 242  | 250  |
| 65.0  | 127  | 127 | 128  | 130  | 132  | 133  | 135  | 138  | 143  | 150  | 158  | 168  | 179  | 190  | 200  | 206  | 212  |
| 67.5  | 110  | 110 | 111  | 112  | 113  | 115  | 116  | 119  | 122  | 127  | 134  | 142  | 151  | 160  | 169  | 173  | 178  |
| 70.0  | 94   | 94  | 95   | 96   | 97   | 97   | 98   | 101  | 103  | 107  | 113  | 119  | 126  | 133  | 141  | 144  | 147  |
| 72.5  | 79   | 79  | 80   | 80   | 81   | 82   | 82   | 84   | 87   | 90   | 93   | 97   | 102  | 108  | 114  | 116  | 120  |
| 75.0  | 65   | 66  | 66   | 66   | 67   | 67   | 67   | 69   | 71   | 72   | 75   | 78   | 82   | 86   | 91   | 92   | 95   |
| 77.5  | 52   | 52  | 53   | 53   | 54   | 54   | 54   | 55   | 56   | 57   | 59   | 61   | 63   | 66   | 69   | 70   | 71   |
| 80.0  | 40   | 40  | 40   | 41   | 41   | 41   | 41   | 42   | 42   | 43   | 44   | 46   | 47   | 48   | 50   | 51   | 52   |
| 82.5  | 29   | 29  | 29   | 30   | 30   | 30   | 30   | 30   | 31   | 31   | 31   | 32   | 32   | 34   | 34   | 34   | 35   |
| 85.0  | 19   | 20  | 20   | 20   | 20   | 20   | 19   | 20   | 20   | 20   | 20   | 20   | 20   | 20   | 21   | 21   | 21   |
| 87.5  | 11   | 11  | 11   | 11   | 11   | 11   | 10   | 11   | 11   | 11   | 11   | 10   | 10   | 10   | 10   | 10   | 10   |
| 90.0  | 0    | 0   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

\*MAXIMUM CANDELA VALUE



**LUMINAIRE:** CWW4-930XWG-2WW-EDU  
CWW Contemporary Wallwash, Recessed Architectural  
3" x 48" led with frosted acrylic prisms lens

TEST #16.01164  
DATE: 11/6/2017

**CANDELA VALUES**

| ANGLE | 75.0 | 80.0 | 85.0 | 90.0 |
|-------|------|------|------|------|
| 0.0   | 828  | 828  | 828  | 828  |
| 2.5   | 821  | 821  | 825  | 829  |
| 5.0   | 818  | 818  | 823  | 827  |
| 7.5   | 815  | 814  | 819  | 823  |
| 10.0  | 810  | 808  | 813  | 817  |
| 12.5  | 803  | 801  | 805  | 810  |
| 15.0  | 796  | 792  | 796  | 800  |
| 17.5  | 786  | 783  | 786  | 790  |
| 20.0  | 775  | 770  | 772  | 776  |
| 22.5  | 763  | 757  | 758  | 762  |
| 25.0  | 747  | 741  | 741  | 745  |
| 27.5  | 731  | 724  | 722  | 727  |
| 30.0  | 711  | 703  | 701  | 704  |
| 32.5  | 689  | 681  | 678  | 682  |
| 35.0  | 665  | 656  | 654  | 656  |
| 37.5  | 638  | 629  | 626  | 627  |
| 40.0  | 609  | 599  | 597  | 597  |
| 42.5  | 576  | 568  | 564  | 566  |
| 45.0  | 541  | 535  | 531  | 532  |
| 47.5  | 504  | 498  | 495  | 495  |
| 50.0  | 465  | 461  | 458  | 459  |
| 52.5  | 425  | 423  | 419  | 421  |
| 55.0  | 381  | 381  | 379  | 380  |
| 57.5  | 341  | 341  | 340  | 340  |
| 60.0  | 300  | 302  | 300  | 301  |
| 62.5  | 259  | 262  | 261  | 260  |
| 65.0  | 220  | 224  | 223  | 222  |
| 67.5  | 186  | 190  | 189  | 188  |
| 70.0  | 154  | 158  | 157  | 155  |
| 72.5  | 125  | 127  | 128  | 126  |
| 75.0  | 98   | 100  | 100  | 100  |
| 77.5  | 74   | 77   | 77   | 77   |
| 80.0  | 53   | 55   | 55   | 54   |
| 82.5  | 35   | 36   | 37   | 36   |
| 85.0  | 21   | 21   | 21   | 22   |
| 87.5  | 10   | 9    | 10   | 10   |
| 90.0  | 0    | 0    | 0    | 0    |