

**LUMINAIRE:** CRW4-LSCS (5000K, 40W)  
 CRW Round Wrap, Wraps  
 CRW Round Wrap 4ft 5000K 40W  
**BALLAST:** EDU  
**BALLAST FACTOR:** 1.00  
**LAMP:**  
**FIXTURE LUMENS:** 5408  
**WATTS:** 39.69  
**MOUNTING:** Surface  
**SHIELDING ANGLE:** 0° = 90 90° = 90  
**SPACING CRITERION:** 0° = 1.20 90° = 1.25  
**LUMINOUS OPENING IN FEET**  
 LENGTH: 3.80  
 WIDTH: 0.77  
 HEIGHT: 0.00

TEST #23880

DATE: 1/22/2020

**TOTAL LUMINAIRE EFFICIENCY = 100.0**

**TOTAL LUMENS PER WATT = 136**

**ANSI/IESNA RP-1-2004 COMPLIANCE: NONCOMPLIANT**

**COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$1.78**

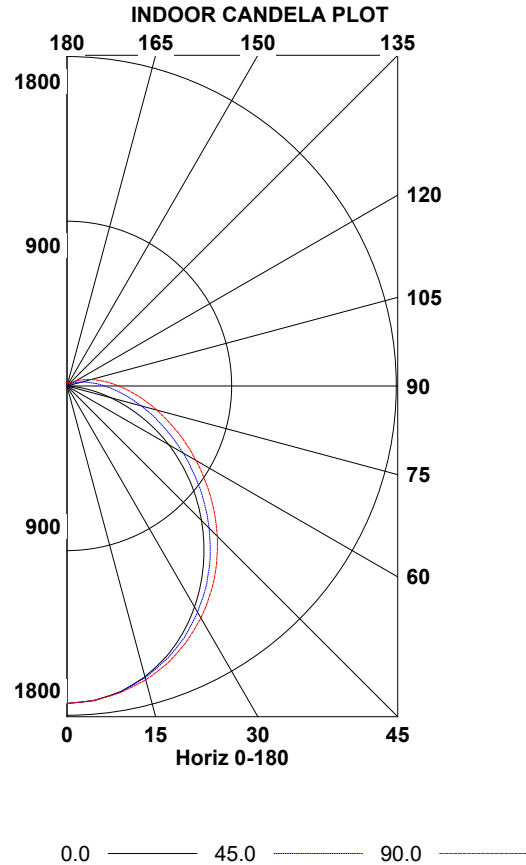
**BASED ON 3000 HRS. AND \$.08 PER KWH**

**ZONAL LUMENS**

| ZONE   | LUMENS | % LAMP | % FIXTURE |
|--------|--------|--------|-----------|
| 0-30   | 1328   | 24.6   | 24.6      |
| 0-40   | 2159   | 39.9   | 39.9      |
| 0-60   | 3775   | 69.8   | 69.8      |
| 0-90   | 5076   | 93.9   | 93.9      |
| 90-120 | 272    | 5.0    | 5.0       |
| 90-130 | 291    | 5.4    | 5.4       |
| 90-150 | 314    | 5.8    | 5.8       |
| 90-180 | 331    | 6.1    | 6.1       |
| 0-180  | 5408   | 100.0  | 100.0     |

**AVERAGE LUMINANCE**

| ANGLE | CANDELA/SQ M |      |       |       |       |
|-------|--------------|------|-------|-------|-------|
|       | 0.0          | 22.5 | 45.0  | 67.5  | 90.0  |
| 0     | 6379         | 6379 | 6379  | 6379  | 6379  |
| 30    | 5921         | 5968 | 6062  | 6176  | 6219  |
| 40    | 5599         | 5676 | 5844  | 6036  | 6104  |
| 45    | 5411         | 5515 | 5712  | 5957  | 6045  |
| 50    | 5197         | 5334 | 5586  | 5895  | 5986  |
| 55    | 4983         | 5150 | 5471  | 5856  | 5958  |
| 60    | 4716         | 4922 | 5393  | 5864  | 5989  |
| 65    | 4413         | 4718 | 5379  | 5980  | 6137  |
| 70    | 4001         | 4561 | 5529  | 6271  | 6464  |
| 75    | 3482         | 4548 | 5970  | 6950  | 7221  |
| 80    | 2818         | 4873 | 7139  | 8601  | 8961  |
| 85    | 1942         | 6711 | 11228 | 14056 | 14689 |



**COEFFICIENTS OF UTILIZATION (%)**

**ZONAL CAVITY METHOD**

EFFECTIVE FLOOR CAVITY REFLECTANCE = 20%

| RC | EFFECTIVE FLOOR CAVITY REFLECTANCE = 20% |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
|----|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
|    | 80%                                      |     |     |     | 70% |     |     |     | 50% |     |     |     | 30% |     |     |     | 10% |    | 0% |
| RW | 70%                                      | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0% |    |
| 0  | 118                                      | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 96  | 96  | 96  | 94 |    |
| 1  | 106                                      | 101 | 96  | 92  | 103 | 98  | 93  | 89  | 92  | 89  | 85  | 87  | 84  | 82  | 83  | 80  | 78  | 76 |    |
| 2  | 96                                       | 87  | 80  | 74  | 93  | 85  | 78  | 72  | 80  | 75  | 70  | 76  | 71  | 67  | 72  | 68  | 65  | 62 |    |
| 3  | 87                                       | 76  | 68  | 61  | 84  | 74  | 66  | 60  | 70  | 64  | 58  | 67  | 61  | 56  | 63  | 59  | 55  | 52 |    |
| R  | 4  | 80  | 68  | 59  | 52  | 77  | 66  | 57  | 51  | 62  | 55  | 50  | 59  | 53  | 48  | 57  | 51  | 47 | 44 |
| C  | 5  | 73  | 60  | 51  | 44  | 71  | 59  | 50  | 44  | 56  | 48  | 43  | 53  | 47  | 42  | 51  | 45  | 41 | 38 |
| R  | 6  | 68  | 54  | 45  | 39  | 65  | 53  | 44  | 38  | 51  | 43  | 37  | 48  | 42  | 37  | 46  | 40  | 36 | 34 |
|    | 7  | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 34  | 46  | 39  | 33  | 44  | 37  | 32  | 42  | 36  | 32 | 30 |
|    | 8  | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 42  | 35  | 30  | 40  | 34  | 29  | 39  | 33  | 28 | 26 |
|    | 9  | 55  | 41  | 33  | 27  | 53  | 40  | 32  | 27  | 39  | 32  | 27  | 37  | 31  | 26  | 36  | 30  | 26 | 24 |
|    | 10                                       | 51  | 38  | 30  | 25  | 50  | 37  | 30  | 25  | 36  | 29  | 24  | 35  | 28  | 24  | 33  | 28  | 23 | 22 |

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: CRW4-LSCS (5000K, 40W)**  
CRW Round Wrap, Wraps  
CRW Round Wrap 4ft 5000K 40W

TEST #23880  
DATE: 1/22/2020

**CANDELA VALUES**

| ANGLE | 0.0   | 22.5 | 45.0 | 67.5 | 90.0 |
|-------|-------|------|------|------|------|
| 0.0   | 1734* | 1734 | 1734 | 1734 | 1734 |
| 2.5   | 1729  | 1728 | 1729 | 1729 | 1729 |
| 5.0   | 1725  | 1723 | 1723 | 1723 | 1724 |
| 7.5   | 1710  | 1708 | 1710 | 1710 | 1712 |
| 10.0  | 1695  | 1693 | 1696 | 1697 | 1700 |
| 12.5  | 1670  | 1669 | 1673 | 1678 | 1681 |
| 15.0  | 1645  | 1645 | 1650 | 1658 | 1662 |
| 17.5  | 1611  | 1613 | 1620 | 1631 | 1636 |
| 20.0  | 1577  | 1581 | 1589 | 1605 | 1610 |
| 22.5  | 1536  | 1540 | 1553 | 1569 | 1576 |
| 25.0  | 1494  | 1499 | 1517 | 1534 | 1543 |
| 27.5  | 1444  | 1452 | 1472 | 1494 | 1503 |
| 30.0  | 1394  | 1405 | 1427 | 1454 | 1464 |
| 32.5  | 1339  | 1351 | 1378 | 1406 | 1418 |
| 35.0  | 1284  | 1298 | 1329 | 1359 | 1372 |
| 37.5  | 1225  | 1240 | 1273 | 1308 | 1322 |
| 40.0  | 1166  | 1182 | 1217 | 1257 | 1271 |
| 42.5  | 1103  | 1121 | 1157 | 1201 | 1217 |
| 45.0  | 1040  | 1060 | 1098 | 1145 | 1162 |
| 47.5  | 974   | 996  | 1037 | 1088 | 1104 |
| 50.0  | 908   | 932  | 976  | 1030 | 1046 |
| 52.5  | 843   | 868  | 915  | 971  | 988  |
| 55.0  | 777   | 803  | 853  | 913  | 929  |
| 57.5  | 709   | 736  | 793  | 855  | 872  |
| 60.0  | 641   | 669  | 733  | 797  | 814  |
| 62.5  | 574   | 605  | 675  | 742  | 760  |
| 65.0  | 507   | 542  | 618  | 687  | 705  |
| 67.5  | 440   | 483  | 566  | 635  | 653  |
| 70.0  | 372   | 424  | 514  | 583  | 601  |
| 72.5  | 309   | 372  | 467  | 536  | 554  |
| 75.0  | 245   | 320  | 420  | 489  | 508  |
| 77.5  | 189   | 275  | 378  | 448  | 466  |
| 80.0  | 133   | 230  | 337  | 406  | 423  |
| 82.5  | 90    | 194  | 301  | 369  | 386  |
| 85.0  | 46    | 159  | 266  | 333  | 348  |
| 87.5  | 26    | 132  | 236  | 301  | 315  |
| 90.0  | 6     | 105  | 206  | 269  | 282  |
| 92.5  | 3     | 85   | 182  | 241  | 254  |
| 95.0  | 0     | 65   | 157  | 214  | 226  |
| 97.5  | 1     | 51   | 136  | 190  | 202  |
| 100.0 | 1     | 37   | 116  | 167  | 177  |
| 102.5 | 1     | 29   | 99   | 147  | 156  |
| 105.0 | 2     | 20   | 82   | 128  | 136  |
| 107.5 | 3     | 16   | 69   | 111  | 119  |
| 110.0 | 4     | 11   | 56   | 94   | 102  |
| 112.5 | 5     | 10   | 46   | 81   | 88   |
| 115.0 | 5     | 8    | 37   | 67   | 74   |
| 117.5 | 6     | 8    | 30   | 57   | 63   |
| 120.0 | 7     | 8    | 24   | 46   | 51   |
| 122.5 | 8     | 9    | 21   | 39   | 44   |
| 125.0 | 9     | 9    | 17   | 32   | 36   |
| 127.5 | 10    | 10   | 16   | 27   | 31   |
| 130.0 | 11    | 11   | 14   | 22   | 25   |
| 132.5 | 12    | 12   | 15   | 20   | 22   |
| 135.0 | 12    | 13   | 15   | 18   | 20   |
| 137.5 | 13    | 14   | 15   | 18   | 19   |
| 140.0 | 14    | 15   | 16   | 17   | 18   |
| 142.5 | 15    | 16   | 16   | 18   | 18   |
| 145.0 | 15    | 17   | 17   | 18   | 18   |
| 147.5 | 16    | 18   | 18   | 19   | 19   |
| 150.0 | 17    | 19   | 19   | 19   | 20   |
| 152.5 | 18    | 20   | 20   | 20   | 20   |
| 155.0 | 19    | 20   | 21   | 21   | 21   |
| 157.5 | 19    | 21   | 22   | 22   | 21   |
| 160.0 | 20    | 22   | 23   | 22   | 20   |
| 162.5 | 20    | 21   | 23   | 23   | 20   |
| 165.0 | 20    | 21   | 23   | 23   | 19   |
| 167.5 | 21    | 22   | 23   | 21   | 20   |
| 170.0 | 22    | 22   | 23   | 19   | 20   |
| 172.5 | 23    | 23   | 23   | 20   | 21   |
| 175.0 | 24    | 23   | 23   | 21   | 22   |
| 177.5 | 12    | 12   | 11   | 11   | 11   |
| 180.0 | 0     | 0    | 0    | 0    | 0    |

\*MAXIMUM CANDELA VALUE