



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZX-EX-B-80W-4000K-D40.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] HZX-EX-B-80W-4000K-D40

[TESTLAB] Standard-Tech Co. Ltd Testing Center

[TESTDATE] 07 February 2018

[ISSUEDATE] 2018-02-07 11:54:48

[NEARFIELD]

[LAMPPOSITION] 0,0

[OTHER] EVERFINE GO-R5000\_V2 SYSTEM

[MANUFAC] BELUCE CANADA INC.

[LUMINAIRE] HZX-EX-B-80W-4000K-D40

[LUMCAT] HZX-EX-B-80W-4000K-D40

[LAMP] 10370 LUMENS

[\_SEARCH\_SOURCE] LED

[OTHER]

[OTHER] Gamma(deg) Fz(lm) Ft(lm) %Lum %Lamp

[OTHER] 0- 10 1173.69 1173.69 11.32 11.32

[OTHER] 10- 20 2602.97 3776.66 36.42 36.42

[OTHER] 20- 30 2541.74 6318.40 60.93 60.93

[OTHER] 30- 40 1806.03 8124.43 78.34 78.34

[OTHER] 40- 50 1082.83 9207.26 88.79 88.79

[OTHER] 50- 60 609.71 9816.97 94.66 94.66

[OTHER] 60- 70 347.11 10164.08 98.01 98.01

[OTHER] 70- 80 156.07 10320.15 99.52 99.52

[OTHER] 80- 90 19.28 10339.43 99.70 99.70

[OTHER] 90-100 0.64 10340.07 99.71 99.71

[OTHER] 100-110 0.80 10340.86 99.72 99.72

[OTHER] 110-120 1.32 10342.18 99.73 99.73

[OTHER] 120-130 2.37 10344.55 99.75 99.75

[OTHER] 130-140 3.89 10348.44 99.79 99.79

[OTHER] 140-150 5.81 10354.25 99.85 99.85

[OTHER] 150-160 7.29 10361.54 99.92 99.92

[OTHER] 160-170 6.13 10367.67 99.97 99.97

[OTHER] 170-180 2.61 10370.27 100.00 100.00

[OTHER]

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**CHARACTERISTICS**

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 10370           |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 128             |
| Total Luminaire Watts           | 81              |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 0.72            |
| Spacing Criterion (90-270)      | 0.70            |
| Spacing Criterion (Diagonal)    | 0.74            |
| Basic Luminous Shape            | Point           |
| Luminous Length (0-180)         | 0.00 m          |
| Luminous Width (90-270)         | 0.00 m          |
| Luminous Height                 | 0.00 m          |

**LUMINANCE DATA (cd/sq.m)**

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 0                | 0                 | 0                 |
| 55                  | 0                | 0                 | 0                 |
| 65                  | 0                | 0                 | 0                 |
| 75                  | 0                | 0                 | 0                 |
| 85                  | 0                | 0                 | 0                 |

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**CANDELA TABULATION**

|    | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> | <u>202.5</u> |
|----|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| 0  | 13241.75   | 13241.75    | 13241.75    | 13241.75    | 13241.75    | 13241.75     | 13241.75     | 13241.75     | 13241.75     | 13241.75     |
| 1  | 13250.88   | 13242.45    | 13244.94    | 13237.11    | 13227.82    | 13210.59     | 13205.51     | 13193.99     | 13199.97     | 13208.32     |
| 2  | 13215.33   | 13201.06    | 13200.53    | 13191.06    | 13170.68    | 13141.41     | 13121.58     | 13112.96     | 13108.39     | 13123.11     |
| 3  | 13137.55   | 13125.43    | 13113.90    | 13102.51    | 13066.92    | 13040.33     | 12999.59     | 12989.48     | 12985.56     | 13001.22     |
| 4  | 13023.27   | 13005.33    | 12984.63    | 12972.69    | 12927.37    | 12893.52     | 12846.17     | 12819.35     | 12828.19     | 12838.39     |
| 5  | 12866.07   | 12844.39    | 12822.84    | 12799.45    | 12755.87    | 12709.35     | 12658.51     | 12637.10     | 12634.39     | 12635.38     |
| 6  | 12677.43   | 12645.83    | 12613.25    | 12592.32    | 12548.81    | 12486.34     | 12434.20     | 12418.60     | 12405.09     | 12402.97     |
| 7  | 12448.28   | 12423.59    | 12375.69    | 12350.53    | 12308.22    | 12238.87     | 12176.92     | 12153.26     | 12146.04     | 12134.98     |
| 8  | 12201.19   | 12169.77    | 12112.79    | 12083.52    | 12027.33    | 11952.17     | 11892.98     | 11856.91     | 11860.84     | 11845.18     |
| 9  | 11926.01   | 11886.99    | 11825.79    | 11790.47    | 11723.00    | 11647.71     | 11591.94     | 11549.87     | 11540.87     | 11524.66     |
| 10 | 11616.72   | 11578.10    | 11498.24    | 11467.52    | 11399.29    | 11311.49     | 11257.10     | 11203.26     | 11195.85     | 11181.32     |
| 11 | 11274.33   | 11230.55    | 11140.11    | 11116.79    | 11045.17    | 10942.43     | 10891.61     | 10828.06     | 10819.85     | 10807.89     |
| 12 | 10903.30   | 10868.55    | 10747.11    | 10734.63    | 10672.57    | 10558.82     | 10505.05     | 10434.41     | 10423.88     | 10423.71     |
| 13 | 10511.27   | 10470.22    | 10351.94    | 10331.60    | 10262.89    | 10146.92     | 10088.62     | 10036.76     | 10012.02     | 10010.69     |
| 14 | 10095.23   | 10059.23    | 9934.41     | 9912.39     | 9850.82     | 9732.83      | 9672.67      | 9603.68      | 9582.38      | 9591.83      |
| 15 | 9676.55    | 9633.58     | 9507.95     | 9483.03     | 9432.19     | 9319.06      | 9250.48      | 9177.28      | 9162.83      | 9177.07      |
| 16 | 9247.79    | 9206.56     | 9077.88     | 9050.65     | 8999.04     | 8888.44      | 8822.35      | 8759.11      | 8729.94      | 8747.05      |
| 17 | 8825.34    | 8785.88     | 8649.52     | 8625.20     | 8573.86     | 8461.14      | 8398.00      | 8335.14      | 8309.76      | 8329.84      |
| 18 | 8412.80    | 8369.79     | 8244.32     | 8195.98     | 8154.78     | 8050.06      | 7975.86      | 7925.40      | 7896.22      | 7911.09      |
| 19 | 7997.26    | 7950.12     | 7835.10     | 7782.00     | 7753.97     | 7642.34      | 7577.73      | 7524.03      | 7493.35      | 7511.83      |
| 20 | 7598.57    | 7546.72     | 7439.74     | 7382.65     | 7359.27     | 7256.32      | 7180.95      | 7132.11      | 7106.67      | 7125.55      |
| 21 | 7205.40    | 7152.34     | 7056.28     | 6992.42     | 6973.38     | 6884.09      | 6802.62      | 6748.08      | 6729.75      | 6745.49      |
| 22 | 6826.76    | 6763.02     | 6678.79     | 6612.62     | 6608.39     | 6517.20      | 6436.07      | 6389.74      | 6372.26      | 6384.66      |
| 23 | 6452.43    | 6392.17     | 6313.78     | 6241.36     | 6241.53     | 6157.66      | 6077.09      | 6031.15      | 6018.90      | 6028.92      |
| 24 | 6093.19    | 6035.35     | 5967.38     | 5898.57     | 5899.42     | 5812.36      | 5733.62      | 5688.95      | 5678.35      | 5687.76      |
| 25 | 5751.78    | 5696.01     | 5632.62     | 5558.56     | 5556.31     | 5478.61      | 5398.54      | 5351.25      | 5345.61      | 5351.49      |
| 26 | 5417.43    | 5359.98     | 5304.23     | 5236.45     | 5230.87     | 5157.08      | 5078.01      | 5025.93      | 5022.80      | 5029.20      |
| 27 | 5101.48    | 5041.90     | 4990.32     | 4926.94     | 4916.03     | 4837.17      | 4767.61      | 4717.03      | 4712.67      | 4719.68      |
| 28 | 4793.65    | 4738.25     | 4683.70     | 4623.83     | 4606.17     | 4536.71      | 4474.46      | 4421.58      | 4417.63      | 4419.35      |
| 29 | 4494.14    | 4445.84     | 4393.22     | 4336.86     | 4324.97     | 4251.07      | 4193.88      | 4139.67      | 4136.02      | 4137.15      |
| 30 | 4213.63    | 4167.05     | 4114.31     | 4056.88     | 4044.20     | 3977.57      | 3925.21      | 3872.39      | 3870.40      | 3871.14      |
| 31 | 3945.05    | 3900.94     | 3853.76     | 3800.22     | 3785.74     | 3721.56      | 3675.68      | 3621.24      | 3618.13      | 3624.03      |
| 32 | 3687.27    | 3650.77     | 3605.98     | 3554.13     | 3545.48     | 3485.75      | 3441.77      | 3392.03      | 3387.83      | 3392.04      |
| 33 | 3444.77    | 3412.43     | 3368.32     | 3322.90     | 3305.22     | 3249.93      | 3207.85      | 3162.82      | 3157.53      | 3160.05      |
| 34 | 3216.26    | 3187.01     | 3142.79     | 3101.63     | 3065.13     | 3014.30      | 2974.03      | 2933.79      | 2927.32      | 2928.16      |
| 35 | 2994.62    | 2972.53     | 2931.09     | 2894.00     | 2856.07     | 2811.17      | 2773.54      | 2736.95      | 2728.67      | 2730.62      |
| 36 | 2793.88    | 2768.84     | 2731.62     | 2697.14     | 2656.72     | 2621.83      | 2585.45      | 2552.85      | 2538.47      | 2544.71      |
| 37 | 2598.84    | 2580.17     | 2549.17     | 2512.47     | 2473.80     | 2443.95      | 2404.37      | 2375.74      | 2361.94      | 2369.57      |
| 38 | 2417.88    | 2404.04     | 2370.19     | 2334.73     | 2301.32     | 2273.33      | 2237.39      | 2210.48      | 2194.01      | 2206.17      |
| 39 | 2245.71    | 2232.45     | 2202.03     | 2170.89     | 2144.40     | 2111.72      | 2079.81      | 2055.21      | 2039.75      | 2051.89      |
| 40 | 2091.01    | 2073.77     | 2047.75     | 2020.53     | 1994.49     | 1962.48      | 1932.13      | 1910.01      | 1895.30      | 1903.40      |
| 41 | 1942.44    | 1925.74     | 1902.89     | 1878.70     | 1853.09     | 1825.25      | 1796.18      | 1775.57      | 1761.59      | 1768.70      |
| 42 | 1801.81    | 1789.01     | 1766.50     | 1744.32     | 1723.22     | 1694.65      | 1667.42      | 1647.48      | 1637.48      | 1641.24      |
| 43 | 1681.52    | 1669.60     | 1640.67     | 1623.50     | 1600.08     | 1572.54      | 1549.65      | 1531.22      | 1520.35      | 1524.21      |
| 44 | 1561.53    | 1550.50     | 1515.05     | 1502.96     | 1488.94     | 1461.31      | 1441.10      | 1423.37      | 1414.46      | 1416.35      |
| 45 | 1441.54    | 1431.40     | 1409.79     | 1396.58     | 1383.70     | 1358.63      | 1339.34      | 1323.16      | 1315.56      | 1316.47      |
| 46 | 1339.24    | 1331.22     | 1311.69     | 1297.67     | 1285.42     | 1262.99      | 1244.72      | 1230.31      | 1223.00      | 1225.81      |
| 47 | 1244.03    | 1237.00     | 1218.89     | 1207.87     | 1194.45     | 1173.96      | 1156.05      | 1142.91      | 1138.38      | 1138.28      |
| 48 | 1154.58    | 1148.68     | 1133.32     | 1122.79     | 1109.99     | 1092.38      | 1075.46      | 1062.96      | 1058.56      | 1060.65      |
| 49 | 1071.68    | 1066.83     | 1052.16     | 1041.92     | 1031.03     | 1015.28      | 998.26       | 987.07       | 983.60       | 984.90       |
| 50 | 994.77     | 990.90      | 978.20      | 967.13      | 957.42      | 943.21       | 927.92       | 917.59       | 913.96       | 915.95       |
| 51 | 921.77     | 920.03      | 909.21      | 899.46      | 888.69      | 877.25       | 864.12       | 853.34       | 850.35       | 851.72       |
| 52 | 855.68     | 854.73      | 844.80      | 835.54      | 826.76      | 816.80       | 803.46       | 794.75       | 790.58       | 792.37       |
| 53 | 795.46     | 793.97      | 785.34      | 777.15      | 769.45      | 761.77       | 751.42       | 740.64       | 736.96       | 738.71       |

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**CANDELA TABULATION - (Cont.)**

|     |        |        |        |        |        |        |        |        |        |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 54  | 740.12 | 738.97 | 730.89 | 723.46 | 718.74 | 710.49 | 700.75 | 690.80 | 687.39 | 688.69 |
| 55  | 689.92 | 689.03 | 682.66 | 675.49 | 670.92 | 664.66 | 656.31 | 646.28 | 643.26 | 643.85 |
| 56  | 643.74 | 643.18 | 637.88 | 631.80 | 627.87 | 622.20 | 614.05 | 605.16 | 601.71 | 601.81 |
| 57  | 601.51 | 601.02 | 596.50 | 592.08 | 587.59 | 582.91 | 575.78 | 566.38 | 563.96 | 564.07 |
| 58  | 562.49 | 562.59 | 557.97 | 553.61 | 549.68 | 546.40 | 538.99 | 531.36 | 528.37 | 529.25 |
| 59  | 527.40 | 526.78 | 523.05 | 519.02 | 515.69 | 513.66 | 505.79 | 498.73 | 495.47 | 496.83 |
| 60  | 494.20 | 493.89 | 490.84 | 486.12 | 483.82 | 482.70 | 474.73 | 468.15 | 465.17 | 467.08 |
| 61  | 462.69 | 463.29 | 460.67 | 456.62 | 453.57 | 452.84 | 445.67 | 439.32 | 435.65 | 438.16 |
| 62  | 433.79 | 434.98 | 431.86 | 428.53 | 425.64 | 424.98 | 418.45 | 412.11 | 408.58 | 411.06 |
| 63  | 405.99 | 407.54 | 404.67 | 401.29 | 398.77 | 398.35 | 392.06 | 385.96 | 382.37 | 385.43 |
| 64  | 379.70 | 381.71 | 378.76 | 375.70 | 373.33 | 372.99 | 366.70 | 360.87 | 358.04 | 361.31 |
| 65  | 355.23 | 357.59 | 354.48 | 351.57 | 347.97 | 348.90 | 342.61 | 337.35 | 334.73 | 337.95 |
| 66  | 331.98 | 334.26 | 331.25 | 328.35 | 324.62 | 325.75 | 319.47 | 315.04 | 312.75 | 315.75 |
| 67  | 309.90 | 311.91 | 308.94 | 306.04 | 302.30 | 304.02 | 297.96 | 293.97 | 291.69 | 294.42 |
| 68  | 287.90 | 290.18 | 287.33 | 284.42 | 281.22 | 282.98 | 276.73 | 272.86 | 270.65 | 273.26 |
| 69  | 267.34 | 269.01 | 266.92 | 263.96 | 260.70 | 262.00 | 256.28 | 252.85 | 250.71 | 252.78 |
| 70  | 247.53 | 248.79 | 247.12 | 244.17 | 240.44 | 242.29 | 236.21 | 233.32 | 231.09 | 233.26 |
| 71  | 228.27 | 228.46 | 227.70 | 224.70 | 220.94 | 222.01 | 216.29 | 213.47 | 211.70 | 213.00 |
| 72  | 209.30 | 209.78 | 208.72 | 205.61 | 202.00 | 202.72 | 197.09 | 194.82 | 192.50 | 193.64 |
| 73  | 190.72 | 190.88 | 189.54 | 186.86 | 183.19 | 182.87 | 178.39 | 175.75 | 173.51 | 174.05 |
| 74  | 172.60 | 172.23 | 170.76 | 168.57 | 164.69 | 164.05 | 159.48 | 156.80 | 155.17 | 155.31 |
| 75  | 154.48 | 154.10 | 152.46 | 150.13 | 146.28 | 145.23 | 140.98 | 138.47 | 136.90 | 136.69 |
| 76  | 136.98 | 136.01 | 134.58 | 133.03 | 128.22 | 127.34 | 122.88 | 120.70 | 119.25 | 119.21 |
| 77  | 119.76 | 119.04 | 117.28 | 115.85 | 111.16 | 110.02 | 106.06 | 103.87 | 101.69 | 102.35 |
| 78  | 103.08 | 102.35 | 100.57 | 99.30  | 94.90  | 93.70  | 89.92  | 87.25  | 84.63  | 86.01  |
| 79  | 86.83  | 85.86  | 84.27  | 83.31  | 79.25  | 79.52  | 74.50  | 71.13  | 68.22  | 69.90  |
| 80  | 70.11  | 69.72  | 69.44  | 68.47  | 64.59  | 62.74  | 60.38  | 55.37  | 52.45  | 54.29  |
| 81  | 53.83  | 54.38  | 55.60  | 54.50  | 50.73  | 48.52  | 46.13  | 40.44  | 37.82  | 40.02  |
| 82  | 38.75  | 40.46  | 42.78  | 42.01  | 38.83  | 36.63  | 33.43  | 27.44  | 24.55  | 27.12  |
| 83  | 24.91  | 27.76  | 31.25  | 30.89  | 28.32  | 26.43  | 22.81  | 16.84  | 14.00  | 16.90  |
| 84  | 13.28  | 16.25  | 20.26  | 21.13  | 19.19  | 17.60  | 13.65  | 8.54   | 6.70   | 8.49   |
| 85  | 5.87   | 7.99   | 11.74  | 13.56  | 11.82  | 10.79  | 7.21   | 3.93   | 3.23   | 3.82   |
| 86  | 2.99   | 3.55   | 5.74   | 7.70   | 6.78   | 6.02   | 3.32   | 1.72   | 1.24   | 1.72   |
| 87  | 1.40   | 1.69   | 2.60   | 3.77   | 3.46   | 2.85   | 2.92   | 0.81   | 0.71   | 0.76   |
| 88  | 0.94   | 0.99   | 1.28   | 1.89   | 1.34   | 0.86   | 2.51   | 0.44   | 0.49   | 0.71   |
| 89  | 0.82   | 0.88   | 0.88   | 0.80   | 0.38   | 0.60   | 2.11   | 0.45   | 0.48   | 0.65   |
| 90  | 0.61   | 0.66   | 0.60   | 0.71   | 0.40   | 0.59   | 1.70   | 0.47   | 0.47   | 0.60   |
| 91  | 0.55   | 0.66   | 0.60   | 0.55   | 0.41   | 0.58   | 1.30   | 0.49   | 0.46   | 0.55   |
| 92  | 0.55   | 0.50   | 0.58   | 0.55   | 0.43   | 0.57   | 0.90   | 0.51   | 0.46   | 0.49   |
| 93  | 0.60   | 0.55   | 0.56   | 0.49   | 0.45   | 0.57   | 0.84   | 0.53   | 0.45   | 0.49   |
| 94  | 0.57   | 0.56   | 0.55   | 0.47   | 0.46   | 0.58   | 0.78   | 0.53   | 0.44   | 0.60   |
| 95  | 0.55   | 0.58   | 0.53   | 0.44   | 0.48   | 0.58   | 0.72   | 0.53   | 0.49   | 0.55   |
| 96  | 0.52   | 0.59   | 0.53   | 0.42   | 0.50   | 0.59   | 0.72   | 0.54   | 0.44   | 0.55   |
| 97  | 0.49   | 0.61   | 0.53   | 0.39   | 0.51   | 0.60   | 0.73   | 0.54   | 0.55   | 0.65   |
| 98  | 0.50   | 0.63   | 0.53   | 0.37   | 0.53   | 0.62   | 0.74   | 0.54   | 0.49   | 0.60   |
| 99  | 0.51   | 0.64   | 0.53   | 0.34   | 0.55   | 0.64   | 0.74   | 0.54   | 0.55   | 0.62   |
| 100 | 0.51   | 0.66   | 0.54   | 0.32   | 0.49   | 0.66   | 0.75   | 0.55   | 0.58   | 0.64   |
| 101 | 0.52   | 0.68   | 0.54   | 0.29   | 0.60   | 0.69   | 0.76   | 0.65   | 0.61   | 0.67   |
| 102 | 0.53   | 0.69   | 0.54   | 0.27   | 0.60   | 0.74   | 0.76   | 0.60   | 0.64   | 0.69   |
| 103 | 0.53   | 0.71   | 0.54   | 0.38   | 0.66   | 0.78   | 0.77   | 0.60   | 0.68   | 0.71   |
| 104 | 0.54   | 0.73   | 0.55   | 0.33   | 0.71   | 0.83   | 0.87   | 0.65   | 0.72   | 0.71   |
| 105 | 0.55   | 0.74   | 0.65   | 0.60   | 0.77   | 0.88   | 0.93   | 0.71   | 0.75   | 0.77   |
| 106 | 0.65   | 0.77   | 0.71   | 0.66   | 0.82   | 0.93   | 0.87   | 0.82   | 0.79   | 0.77   |
| 107 | 0.76   | 0.79   | 0.82   | 0.66   | 0.88   | 0.87   | 0.98   | 0.86   | 0.84   | 0.88   |
| 108 | 0.77   | 0.82   | 0.76   | 0.76   | 1.04   | 0.93   | 1.04   | 0.91   | 0.89   | 0.93   |
| 109 | 0.82   | 0.85   | 0.87   | 0.83   | 1.04   | 1.09   | 1.09   | 0.95   | 0.94   | 1.04   |

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**CANDELA TABULATION - (Cont.)**

|     |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110 | 0.85  | 0.87  | 0.82  | 0.90  | 1.09  | 1.20  | 1.04  | 0.99  | 0.99  | 1.04  |
| 111 | 0.88  | 0.82  | 0.87  | 0.96  | 1.15  | 1.26  | 1.20  | 1.03  | 1.04  | 1.09  |
| 112 | 0.92  | 0.82  | 0.87  | 1.03  | 1.09  | 1.36  | 1.20  | 1.07  | 1.09  | 1.09  |
| 113 | 0.95  | 0.98  | 1.14  | 1.09  | 1.20  | 1.31  | 1.25  | 1.11  | 1.15  | 1.20  |
| 114 | 0.98  | 1.09  | 1.20  | 1.15  | 1.36  | 1.42  | 1.37  | 1.15  | 1.21  | 1.24  |
| 115 | 1.15  | 1.15  | 1.25  | 1.15  | 1.37  | 1.58  | 1.47  | 1.19  | 1.26  | 1.27  |
| 116 | 1.31  | 1.20  | 1.41  | 1.36  | 1.43  | 1.59  | 1.53  | 1.23  | 1.31  | 1.30  |
| 117 | 1.37  | 1.31  | 1.58  | 1.64  | 1.64  | 1.75  | 1.59  | 1.27  | 1.37  | 1.33  |
| 118 | 1.37  | 1.42  | 1.69  | 1.64  | 1.69  | 1.80  | 1.75  | 1.31  | 1.42  | 1.37  |
| 119 | 1.47  | 1.53  | 1.74  | 1.75  | 1.69  | 1.80  | 1.91  | 1.58  | 1.58  | 1.42  |
| 120 | 1.64  | 1.64  | 1.80  | 1.80  | 1.81  | 2.02  | 1.97  | 1.80  | 1.59  | 1.75  |
| 121 | 1.75  | 1.75  | 1.90  | 2.07  | 1.97  | 2.13  | 2.07  | 1.96  | 1.91  | 1.86  |
| 122 | 2.07  | 2.23  | 2.02  | 2.19  | 2.02  | 2.13  | 2.02  | 2.07  | 2.14  | 2.19  |
| 123 | 2.50  | 2.56  | 2.07  | 2.45  | 2.13  | 2.29  | 2.18  | 2.19  | 2.30  | 2.30  |
| 124 | 2.78  | 2.62  | 2.39  | 2.57  | 2.35  | 2.35  | 2.29  | 2.46  | 2.62  | 2.46  |
| 125 | 2.95  | 2.79  | 2.45  | 2.73  | 2.35  | 2.57  | 2.51  | 2.67  | 2.68  | 2.62  |
| 126 | 3.27  | 3.00  | 2.67  | 2.89  | 2.57  | 2.68  | 2.57  | 2.84  | 3.11  | 2.90  |
| 127 | 3.39  | 3.44  | 2.78  | 3.28  | 2.68  | 3.00  | 2.68  | 3.11  | 3.12  | 2.96  |
| 128 | 3.60  | 3.44  | 2.89  | 3.49  | 3.01  | 3.12  | 3.01  | 3.33  | 3.29  | 3.23  |
| 129 | 3.88  | 3.66  | 3.05  | 3.55  | 3.23  | 3.28  | 3.22  | 3.50  | 3.67  | 3.39  |
| 130 | 4.15  | 4.10  | 3.32  | 3.77  | 3.50  | 3.55  | 3.27  | 3.93  | 3.99  | 3.61  |
| 131 | 4.31  | 4.26  | 3.43  | 3.99  | 3.78  | 3.71  | 3.49  | 4.04  | 4.10  | 3.99  |
| 132 | 4.53  | 4.43  | 3.65  | 4.32  | 4.05  | 3.94  | 3.71  | 4.42  | 4.32  | 4.21  |
| 133 | 4.70  | 4.92  | 3.98  | 4.48  | 4.37  | 4.32  | 3.93  | 4.64  | 4.54  | 4.43  |
| 134 | 5.35  | 5.35  | 4.25  | 4.70  | 4.65  | 4.64  | 4.21  | 5.08  | 4.93  | 4.81  |
| 135 | 5.62  | 5.62  | 4.41  | 5.02  | 5.03  | 4.86  | 4.48  | 5.46  | 5.26  | 5.03  |
| 136 | 6.11  | 6.06  | 4.63  | 5.46  | 5.41  | 5.13  | 4.80  | 5.84  | 5.74  | 5.30  |
| 137 | 6.39  | 6.39  | 5.12  | 5.96  | 5.69  | 5.57  | 4.86  | 6.11  | 6.17  | 5.63  |
| 138 | 6.77  | 6.93  | 5.23  | 6.28  | 6.18  | 5.84  | 5.24  | 6.54  | 6.39  | 6.07  |
| 139 | 6.94  | 7.27  | 5.50  | 6.56  | 6.50  | 6.39  | 5.41  | 6.93  | 6.84  | 6.51  |
| 140 | 7.42  | 7.85  | 5.72  | 6.93  | 6.88  | 6.78  | 5.79  | 7.32  | 7.39  | 7.06  |
| 141 | 7.81  | 8.19  | 5.83  | 7.21  | 7.43  | 7.22  | 6.06  | 7.81  | 7.77  | 7.61  |
| 142 | 7.92  | 9.02  | 5.99  | 7.76  | 7.92  | 7.82  | 6.51  | 8.25  | 8.21  | 8.32  |
| 143 | 7.98  | 9.50  | 6.26  | 8.14  | 8.41  | 8.25  | 6.88  | 8.63  | 8.64  | 8.81  |
| 144 | 8.14  | 9.94  | 6.81  | 8.68  | 9.08  | 8.69  | 7.26  | 9.28  | 8.80  | 9.19  |
| 145 | 9.15  | 10.48 | 7.61  | 9.23  | 9.69  | 9.22  | 7.77  | 9.84  | 9.22  | 10.01 |
| 146 | 10.53 | 11.19 | 8.44  | 9.88  | 10.38 | 9.89  | 8.47  | 10.59 | 10.13 | 10.40 |
| 147 | 11.50 | 11.68 | 9.19  | 10.37 | 10.92 | 10.55 | 9.12  | 11.13 | 11.10 | 11.00 |
| 148 | 12.39 | 12.45 | 10.18 | 11.19 | 11.63 | 11.19 | 9.77  | 11.62 | 11.69 | 11.64 |
| 149 | 12.93 | 12.90 | 11.12 | 11.69 | 12.41 | 11.95 | 10.58 | 12.05 | 11.91 | 12.13 |
| 150 | 13.70 | 13.70 | 11.92 | 12.29 | 13.11 | 12.61 | 11.41 | 12.82 | 12.63 | 12.79 |
| 151 | 14.26 | 14.31 | 12.97 | 12.99 | 13.82 | 13.27 | 12.17 | 13.42 | 13.40 | 13.56 |
| 152 | 15.06 | 14.90 | 13.98 | 13.77 | 14.42 | 13.99 | 12.84 | 13.92 | 14.22 | 14.44 |
| 153 | 15.84 | 15.67 | 15.09 | 14.52 | 15.08 | 14.80 | 13.65 | 14.68 | 14.93 | 15.15 |
| 154 | 16.64 | 16.37 | 16.26 | 15.17 | 15.46 | 15.36 | 14.42 | 15.34 | 15.36 | 15.64 |
| 155 | 17.37 | 17.09 | 17.15 | 15.90 | 15.84 | 16.15 | 15.11 | 15.76 | 15.58 | 15.85 |
| 156 | 17.70 | 17.76 | 17.93 | 16.67 | 16.22 | 16.65 | 15.83 | 16.42 | 16.18 | 15.90 |
| 157 | 18.45 | 18.24 | 19.00 | 17.43 | 16.60 | 17.31 | 16.44 | 16.92 | 16.90 | 15.98 |
| 158 | 19.01 | 18.96 | 19.89 | 17.87 | 17.26 | 17.80 | 17.14 | 17.40 | 17.62 | 16.64 |
| 159 | 19.28 | 19.49 | 20.63 | 18.25 | 18.02 | 18.17 | 17.75 | 17.74 | 18.58 | 17.72 |
| 160 | 19.83 | 20.10 | 21.30 | 18.64 | 18.73 | 18.46 | 18.40 | 18.39 | 19.26 | 18.38 |
| 161 | 20.31 | 20.64 | 22.00 | 18.96 | 19.50 | 18.83 | 18.89 | 18.99 | 20.07 | 19.03 |
| 162 | 20.60 | 20.92 | 22.55 | 19.29 | 20.26 | 19.16 | 19.38 | 19.69 | 20.71 | 19.74 |
| 163 | 20.98 | 21.53 | 22.89 | 19.51 | 20.70 | 19.55 | 20.14 | 20.14 | 21.16 | 20.45 |
| 164 | 21.14 | 21.80 | 23.37 | 19.99 | 21.19 | 20.22 | 20.52 | 20.95 | 21.48 | 20.94 |
| 165 | 21.36 | 22.34 | 23.65 | 20.27 | 21.69 | 21.15 | 21.02 | 21.51 | 21.53 | 21.38 |

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

|     |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 166 | 21.79 | 22.72 | 24.13 | 20.60 | 22.34 | 21.96 | 21.45 | 22.22 | 21.54 | 21.65 |
| 167 | 22.18 | 23.49 | 25.17 | 21.10 | 23.16 | 22.88 | 22.01 | 23.21 | 22.17 | 22.00 |
| 168 | 23.14 | 25.15 | 26.14 | 21.97 | 23.70 | 23.64 | 22.92 | 24.56 | 24.12 | 23.36 |
| 169 | 24.24 | 26.16 | 26.91 | 22.41 | 24.36 | 24.14 | 23.75 | 26.03 | 25.98 | 24.85 |
| 170 | 25.52 | 26.70 | 27.36 | 22.84 | 25.39 | 25.18 | 24.62 | 26.84 | 27.61 | 26.59 |
| 171 | 27.12 | 27.25 | 27.74 | 23.28 | 26.54 | 26.47 | 25.43 | 27.77 | 27.90 | 28.38 |
| 172 | 28.41 | 27.76 | 28.29 | 23.72 | 27.08 | 26.90 | 26.13 | 28.68 | 28.19 | 30.11 |
| 173 | 29.22 | 27.92 | 28.45 | 23.83 | 27.03 | 26.96 | 26.19 | 28.90 | 28.47 | 30.82 |
| 174 | 29.83 | 27.98 | 28.51 | 23.99 | 27.14 | 27.13 | 26.30 | 28.85 | 28.76 | 31.20 |
| 175 | 30.69 | 28.67 | 28.93 | 24.65 | 27.30 | 27.39 | 26.73 | 28.90 | 29.05 | 31.25 |
| 176 | 31.36 | 28.85 | 29.16 | 25.46 | 27.24 | 27.33 | 26.78 | 28.73 | 29.34 | 31.14 |
| 177 | 31.37 | 28.85 | 29.16 | 25.63 | 26.75 | 26.96 | 26.51 | 28.51 | 29.00 | 30.65 |
| 178 | 31.37 | 28.91 | 29.16 | 25.63 | 26.75 | 26.79 | 26.13 | 27.97 | 28.24 | 30.43 |
| 179 | 31.21 | 28.75 | 29.16 | 25.52 | 26.32 | 26.69 | 25.97 | 27.98 | 27.54 | 30.17 |
| 180 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 |

**Vert.  
Angles**

**Horizontal Angles**

|    | <u>225.0</u> | <u>247.5</u> | <u>270.0</u> | <u>292.5</u> | <u>315.0</u> | <u>337.5</u> | <u>360.0</u> |
|----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0  | 13241.75     | 13241.75     | 13241.75     | 13241.75     | 13241.75     | 13241.75     | 13241.75     |
| 1  | 13201.77     | 13210.51     | 13227.32     | 13241.82     | 13238.98     | 13247.48     | 13250.88     |
| 2  | 13108.73     | 13140.01     | 13175.52     | 13193.90     | 13205.15     | 13216.71     | 13215.33     |
| 3  | 12988.91     | 13034.81     | 13078.34     | 13120.70     | 13126.13     | 13134.69     | 13137.55     |
| 4  | 12827.42     | 12883.09     | 12942.72     | 13003.18     | 13006.05     | 13020.62     | 13023.27     |
| 5  | 12634.71     | 12702.12     | 12775.32     | 12846.55     | 12854.75     | 12869.50     | 12866.07     |
| 6  | 12407.71     | 12488.20     | 12575.74     | 12639.03     | 12664.68     | 12676.99     | 12677.43     |
| 7  | 12153.54     | 12232.72     | 12332.76     | 12408.73     | 12441.05     | 12448.93     | 12448.28     |
| 8  | 11861.95     | 11945.22     | 12063.66     | 12149.20     | 12182.82     | 12190.79     | 12201.19     |
| 9  | 11547.50     | 11641.83     | 11762.79     | 11860.18     | 11892.74     | 11904.93     | 11926.01     |
| 10 | 11204.63     | 11304.86     | 11429.39     | 11534.30     | 11583.65     | 11605.95     | 11616.72     |
| 11 | 10833.10     | 10945.73     | 11071.79     | 11190.17     | 11237.03     | 11263.66     | 11274.33     |
| 12 | 10447.62     | 10568.73     | 10692.72     | 10821.26     | 10863.36     | 10898.46     | 10903.30     |
| 13 | 10040.92     | 10163.85     | 10285.21     | 10420.62     | 10472.99     | 10500.44     | 10511.27     |
| 14 | 9621.06      | 9750.80      | 9872.45      | 10007.64     | 10059.43     | 10099.96     | 10095.23     |
| 15 | 9195.04      | 9332.19      | 9453.74      | 9585.10      | 9641.41      | 9688.33      | 9676.55      |
| 16 | 8763.80      | 8913.17      | 9020.45      | 9155.36      | 9215.07      | 9261.05      | 9247.79      |
| 17 | 8342.30      | 8488.09      | 8598.36      | 8725.91      | 8792.18      | 8837.74      | 8825.34      |
| 18 | 7929.69      | 8066.84      | 8171.95      | 8304.88      | 8380.92      | 8422.51      | 8412.80      |
| 19 | 7535.62      | 7661.48      | 7772.27      | 7887.58      | 7974.19      | 8014.77      | 7997.26      |
| 20 | 7143.04      | 7266.30      | 7377.94      | 7481.87      | 7579.85      | 7613.12      | 7598.57      |
| 21 | 6768.40      | 6881.50      | 7001.07      | 7093.30      | 7192.64      | 7224.77      | 7205.40      |
| 22 | 6406.34      | 6515.28      | 6626.12      | 6717.41      | 6804.13      | 6837.91      | 6826.76      |
| 23 | 6053.70      | 6156.31      | 6259.82      | 6349.73      | 6442.12      | 6463.27      | 6452.43      |
| 24 | 5715.76      | 5807.66      | 5907.09      | 5997.66      | 6079.46      | 6106.25      | 6093.19      |
| 25 | 5385.27      | 5476.80      | 5570.89      | 5656.87      | 5742.32      | 5757.40      | 5751.78      |
| 26 | 5061.25      | 5147.24      | 5244.28      | 5322.57      | 5406.65      | 5422.14      | 5417.43      |
| 27 | 4752.98      | 4835.16      | 4929.42      | 5009.16      | 5082.37      | 5099.78      | 5101.48      |
| 28 | 4451.23      | 4531.66      | 4625.42      | 4704.39      | 4777.86      | 4792.60      | 4793.65      |
| 29 | 4170.59      | 4243.04      | 4332.00      | 4408.38      | 4480.69      | 4495.40      | 4494.14      |
| 30 | 3902.29      | 3967.18      | 4052.58      | 4131.54      | 4201.20      | 4209.10      | 4213.63      |
| 31 | 3652.98      | 3709.60      | 3792.94      | 3867.55      | 3933.11      | 3940.13      | 3945.05      |
| 32 | 3421.23      | 3474.10      | 3546.86      | 3618.46      | 3679.85      | 3687.17      | 3687.27      |
| 33 | 3189.49      | 3238.59      | 3311.94      | 3380.10      | 3427.47      | 3447.66      | 3444.77      |
| 34 | 2957.84      | 3003.19      | 3089.68      | 3157.87      | 3200.15      | 3216.09      | 3216.26      |
| 35 | 2758.16      | 2801.64      | 2879.41      | 2944.27      | 2978.50      | 3000.76      | 2994.62      |
| 36 | 2567.97      | 2615.36      | 2682.09      | 2745.12      | 2777.92      | 2791.98      | 2793.88      |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HZX-EX-B-80W-4000K-D40.IES**

**CANDELA TABULATION - (Cont.)**

|    |         |         |         |         |         |         |         |
|----|---------|---------|---------|---------|---------|---------|---------|
| 37 | 2389.44 | 2432.16 | 2497.79 | 2557.24 | 2583.79 | 2602.72 | 2598.84 |
| 38 | 2224.05 | 2267.51 | 2323.10 | 2381.17 | 2405.46 | 2418.83 | 2417.88 |
| 39 | 2066.67 | 2107.26 | 2159.86 | 2209.67 | 2236.46 | 2247.41 | 2245.71 |
| 40 | 1921.40 | 1959.94 | 2010.82 | 2056.13 | 2076.30 | 2091.99 | 2091.01 |
| 41 | 1788.40 | 1819.08 | 1866.20 | 1908.73 | 1927.90 | 1940.94 | 1942.44 |
| 42 | 1657.80 | 1688.42 | 1734.35 | 1771.45 | 1790.44 | 1804.51 | 1801.81 |
| 43 | 1541.98 | 1567.00 | 1612.52 | 1646.57 | 1670.67 | 1682.67 | 1681.52 |
| 44 | 1430.74 | 1457.94 | 1490.82 | 1521.88 | 1551.17 | 1561.04 | 1561.53 |
| 45 | 1331.29 | 1354.13 | 1385.12 | 1415.39 | 1431.66 | 1439.41 | 1441.54 |
| 46 | 1236.89 | 1257.77 | 1285.93 | 1314.97 | 1330.18 | 1337.89 | 1339.24 |
| 47 | 1151.05 | 1168.92 | 1195.12 | 1220.99 | 1234.82 | 1241.98 | 1244.03 |
| 48 | 1067.74 | 1087.10 | 1109.68 | 1133.49 | 1146.51 | 1152.46 | 1154.58 |
| 49 | 993.52  | 1009.05 | 1029.76 | 1051.12 | 1064.26 | 1069.65 | 1071.68 |
| 50 | 921.82  | 936.08  | 956.98  | 976.48  | 987.75  | 991.62  | 994.77  |
| 51 | 856.49  | 868.92  | 887.96  | 906.13  | 916.77  | 919.67  | 921.77  |
| 52 | 796.69  | 806.11  | 824.35  | 841.16  | 851.24  | 853.40  | 855.68  |
| 53 | 741.35  | 750.39  | 766.44  | 781.53  | 790.86  | 791.67  | 795.46  |
| 54 | 690.66  | 698.67  | 713.50  | 727.04  | 735.66  | 736.60  | 740.12  |
| 55 | 645.73  | 651.41  | 665.42  | 677.91  | 685.54  | 685.07  | 689.92  |
| 56 | 604.29  | 608.41  | 621.63  | 632.99  | 640.15  | 639.50  | 643.74  |
| 57 | 566.63  | 569.60  | 582.06  | 590.96  | 597.67  | 597.90  | 601.51  |
| 58 | 531.18  | 533.62  | 543.83  | 552.79  | 559.32  | 558.81  | 562.49  |
| 59 | 498.03  | 500.44  | 509.54  | 518.31  | 524.21  | 524.22  | 527.40  |
| 60 | 467.27  | 469.29  | 477.03  | 485.88  | 491.08  | 490.93  | 494.20  |
| 61 | 437.71  | 438.81  | 446.99  | 455.18  | 459.52  | 458.56  | 462.69  |
| 62 | 410.40  | 411.27  | 418.94  | 427.14  | 430.83  | 430.31  | 433.79  |
| 63 | 384.83  | 384.91  | 392.61  | 399.84  | 403.40  | 403.49  | 405.99  |
| 64 | 360.56  | 360.58  | 367.58  | 374.57  | 378.02  | 377.81  | 379.70  |
| 65 | 337.27  | 337.40  | 344.11  | 350.67  | 353.92  | 353.52  | 355.23  |
| 66 | 315.04  | 315.37  | 321.49  | 328.22  | 331.15  | 330.41  | 331.98  |
| 67 | 294.44  | 294.40  | 299.42  | 306.06  | 309.05  | 308.37  | 309.90  |
| 68 | 273.35  | 273.52  | 278.08  | 284.35  | 287.41  | 286.91  | 287.90  |
| 69 | 253.29  | 253.47  | 258.30  | 263.92  | 266.76  | 266.82  | 267.34  |
| 70 | 233.55  | 234.23  | 238.42  | 244.04  | 246.52  | 246.90  | 247.53  |
| 71 | 213.56  | 215.04  | 218.49  | 225.06  | 227.50  | 227.84  | 228.27  |
| 72 | 194.30  | 196.19  | 199.51  | 205.76  | 208.62  | 208.81  | 209.30  |
| 73 | 175.13  | 177.31  | 180.94  | 186.93  | 189.54  | 190.10  | 190.72  |
| 74 | 156.24  | 159.07  | 162.79  | 168.29  | 170.85  | 171.86  | 172.60  |
| 75 | 137.76  | 141.04  | 144.53  | 150.29  | 152.48  | 153.83  | 154.48  |
| 76 | 120.33  | 124.25  | 127.20  | 132.65  | 135.44  | 136.53  | 136.98  |
| 77 | 104.01  | 108.16  | 110.63  | 115.83  | 117.99  | 119.77  | 119.76  |
| 78 | 88.16   | 92.17   | 94.20   | 99.14   | 101.76  | 103.03  | 103.08  |
| 79 | 72.91   | 76.97   | 78.97   | 83.38   | 85.70   | 86.77   | 86.83   |
| 80 | 58.55   | 61.93   | 64.44   | 68.23   | 70.78   | 70.61   | 70.11   |
| 81 | 45.22   | 48.48   | 51.24   | 54.44   | 57.04   | 54.75   | 53.83   |
| 82 | 32.77   | 36.69   | 39.39   | 42.20   | 43.92   | 40.29   | 38.75   |
| 83 | 22.33   | 26.49   | 28.56   | 31.02   | 31.44   | 27.39   | 24.91   |
| 84 | 13.48   | 17.61   | 19.57   | 21.13   | 20.20   | 15.51   | 13.28   |
| 85 | 7.30    | 10.80   | 12.30   | 13.47   | 11.23   | 7.07    | 5.87    |
| 86 | 3.22    | 5.99    | 6.73    | 7.65    | 5.25    | 3.15    | 2.99    |
| 87 | 1.19    | 2.65    | 3.57    | 3.57    | 2.25    | 1.46    | 1.40    |
| 88 | 0.75    | 2.23    | 1.29    | 1.50    | 0.95    | 0.99    | 0.94    |
| 89 | 0.49    | 1.81    | 0.83    | 0.87    | 0.72    | 0.72    | 0.82    |
| 90 | 0.44    | 1.39    | 0.66    | 0.71    | 0.71    | 0.66    | 0.61    |
| 91 | 0.44    | 0.97    | 0.49    | 0.66    | 0.60    | 0.49    | 0.55    |
| 92 | 0.49    | 0.88    | 0.54    | 0.65    | 0.61    | 0.49    | 0.55    |

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

|     |       |       |       |      |       |       |       |
|-----|-------|-------|-------|------|-------|-------|-------|
| 93  | 0.53  | 0.80  | 0.49  | 0.64 | 0.61  | 0.51  | 0.60  |
| 94  | 0.56  | 0.71  | 0.51  | 0.63 | 0.61  | 0.52  | 0.57  |
| 95  | 0.59  | 0.69  | 0.52  | 0.62 | 0.62  | 0.54  | 0.55  |
| 96  | 0.62  | 0.67  | 0.53  | 0.61 | 0.62  | 0.56  | 0.52  |
| 97  | 0.66  | 0.65  | 0.55  | 0.60 | 0.62  | 0.58  | 0.49  |
| 98  | 0.71  | 0.62  | 0.56  | 0.59 | 0.63  | 0.59  | 0.50  |
| 99  | 0.71  | 0.60  | 0.57  | 0.58 | 0.63  | 0.61  | 0.51  |
| 100 | 0.74  | 0.63  | 0.59  | 0.57 | 0.64  | 0.63  | 0.51  |
| 101 | 0.77  | 0.66  | 0.60  | 0.56 | 0.64  | 0.64  | 0.52  |
| 102 | 0.81  | 0.68  | 0.61  | 0.56 | 0.64  | 0.66  | 0.53  |
| 103 | 0.84  | 0.71  | 0.63  | 0.55 | 0.65  | 0.68  | 0.53  |
| 104 | 0.87  | 0.74  | 0.64  | 0.65 | 0.65  | 0.69  | 0.54  |
| 105 | 0.98  | 0.77  | 0.65  | 0.71 | 0.65  | 0.71  | 0.55  |
| 106 | 0.93  | 0.87  | 0.66  | 0.82 | 0.76  | 0.73  | 0.65  |
| 107 | 0.95  | 0.88  | 0.87  | 0.86 | 0.82  | 0.75  | 0.76  |
| 108 | 0.98  | 0.93  | 0.82  | 0.90 | 0.87  | 0.76  | 0.77  |
| 109 | 1.01  | 0.99  | 0.82  | 0.95 | 0.92  | 0.82  | 0.82  |
| 110 | 1.04  | 1.20  | 0.87  | 0.99 | 0.96  | 0.93  | 0.85  |
| 111 | 1.06  | 1.20  | 1.09  | 1.03 | 1.01  | 0.87  | 0.88  |
| 112 | 1.09  | 1.26  | 1.15  | 1.09 | 1.05  | 0.87  | 0.92  |
| 113 | 1.31  | 1.32  | 1.25  | 1.15 | 1.10  | 0.93  | 0.95  |
| 114 | 1.31  | 1.39  | 1.36  | 1.46 | 1.14  | 0.93  | 0.98  |
| 115 | 1.47  | 1.45  | 1.58  | 1.64 | 1.25  | 0.98  | 1.15  |
| 116 | 1.42  | 1.52  | 1.58  | 1.69 | 1.31  | 1.03  | 1.31  |
| 117 | 1.58  | 1.58  | 1.64  | 1.80 | 1.58  | 1.09  | 1.37  |
| 118 | 1.74  | 1.53  | 1.69  | 1.80 | 1.79  | 1.14  | 1.37  |
| 119 | 1.80  | 1.59  | 1.75  | 1.85 | 1.89  | 1.20  | 1.47  |
| 120 | 1.91  | 1.70  | 1.86  | 1.86 | 1.99  | 1.58  | 1.64  |
| 121 | 1.91  | 1.86  | 2.17  | 2.07 | 2.09  | 1.74  | 1.75  |
| 122 | 2.02  | 1.92  | 2.35  | 2.24 | 2.19  | 1.85  | 2.07  |
| 123 | 2.07  | 2.08  | 2.67  | 2.50 | 2.29  | 2.34  | 2.50  |
| 124 | 2.07  | 2.19  | 2.62  | 2.62 | 2.40  | 2.56  | 2.78  |
| 125 | 2.34  | 2.35  | 2.73  | 2.84 | 2.56  | 2.67  | 2.95  |
| 126 | 2.51  | 2.52  | 2.94  | 2.94 | 2.67  | 2.78  | 3.27  |
| 127 | 2.57  | 2.68  | 3.33  | 3.27 | 2.62  | 3.00  | 3.39  |
| 128 | 3.05  | 2.85  | 3.54  | 3.38 | 2.62  | 3.32  | 3.60  |
| 129 | 3.11  | 3.12  | 3.87  | 3.65 | 2.78  | 3.49  | 3.88  |
| 130 | 3.33  | 3.28  | 3.99  | 3.82 | 3.00  | 3.86  | 4.15  |
| 131 | 3.54  | 3.44  | 4.36  | 4.09 | 3.21  | 4.35  | 4.31  |
| 132 | 3.82  | 3.67  | 4.64  | 4.20 | 3.38  | 4.47  | 4.53  |
| 133 | 3.98  | 3.99  | 4.86  | 4.52 | 3.54  | 4.74  | 4.70  |
| 134 | 4.09  | 4.32  | 5.24  | 4.80 | 3.98  | 5.12  | 5.35  |
| 135 | 4.36  | 4.49  | 5.72  | 5.12 | 4.25  | 5.50  | 5.62  |
| 136 | 4.47  | 4.87  | 5.89  | 5.40 | 4.47  | 6.04  | 6.11  |
| 137 | 4.69  | 5.25  | 6.28  | 5.84 | 4.69  | 6.22  | 6.39  |
| 138 | 4.85  | 5.58  | 6.70  | 6.11 | 5.06  | 6.64  | 6.77  |
| 139 | 5.13  | 6.07  | 6.99  | 6.49 | 5.29  | 6.92  | 6.94  |
| 140 | 5.40  | 6.46  | 7.36  | 6.86 | 5.66  | 7.40  | 7.42  |
| 141 | 5.73  | 7.06  | 7.86  | 7.09 | 6.10  | 8.01  | 7.81  |
| 142 | 6.34  | 7.39  | 8.44  | 7.48 | 6.38  | 8.67  | 7.92  |
| 143 | 6.83  | 7.72  | 8.94  | 7.69 | 7.13  | 9.15  | 7.98  |
| 144 | 7.59  | 8.26  | 9.50  | 7.80 | 7.80  | 9.92  | 8.14  |
| 145 | 8.32  | 8.76  | 9.87  | 8.34 | 8.33  | 10.35 | 9.15  |
| 146 | 9.23  | 9.31  | 10.53 | 8.73 | 9.05  | 10.95 | 10.53 |
| 147 | 10.05 | 9.96  | 11.06 | 9.33 | 9.79  | 11.38 | 11.50 |
| 148 | 10.96 | 10.60 | 11.57 | 9.87 | 10.84 | 11.72 | 12.39 |



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HZX-EX-B-80W-4000K-D40.IES**

**CANDELA TABULATION - (Cont.)**

|            |       |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|-------|
| <b>149</b> | 12.18 | 11.23 | 12.12 | 10.41 | 11.67 | 12.32 | 12.93 |
| <b>150</b> | 13.03 | 11.92 | 12.92 | 11.17 | 12.69 | 12.91 | 13.70 |
| <b>151</b> | 13.80 | 12.41 | 13.43 | 11.73 | 13.63 | 13.63 | 14.26 |
| <b>152</b> | 14.57 | 12.91 | 13.96 | 12.16 | 14.70 | 14.22 | 15.06 |
| <b>153</b> | 15.16 | 13.51 | 14.78 | 12.98 | 15.64 | 15.25 | 15.84 |
| <b>154</b> | 15.59 | 14.17 | 15.11 | 13.62 | 16.56 | 16.32 | 16.64 |
| <b>155</b> | 15.86 | 14.76 | 15.45 | 14.18 | 17.55 | 17.06 | 17.37 |
| <b>156</b> | 16.30 | 15.53 | 15.61 | 14.79 | 18.22 | 17.61 | 17.70 |
| <b>157</b> | 16.92 | 16.30 | 16.04 | 15.59 | 18.96 | 18.20 | 18.45 |
| <b>158</b> | 17.68 | 16.85 | 16.48 | 16.53 | 19.63 | 18.81 | 19.01 |
| <b>159</b> | 18.26 | 17.62 | 16.91 | 17.07 | 20.43 | 19.45 | 19.28 |
| <b>160</b> | 18.60 | 18.33 | 17.68 | 17.78 | 21.21 | 19.95 | 19.83 |
| <b>161</b> | 19.03 | 18.98 | 18.54 | 18.27 | 21.86 | 20.33 | 20.31 |
| <b>162</b> | 19.57 | 19.90 | 19.47 | 19.03 | 22.46 | 20.87 | 20.60 |
| <b>163</b> | 19.96 | 20.67 | 20.42 | 19.53 | 22.96 | 21.37 | 20.98 |
| <b>164</b> | 20.40 | 21.16 | 21.01 | 20.02 | 23.45 | 21.85 | 21.14 |
| <b>165</b> | 20.79 | 21.60 | 21.56 | 20.51 | 23.78 | 21.92 | 21.36 |
| <b>166</b> | 21.33 | 21.93 | 21.88 | 21.10 | 24.26 | 21.87 | 21.79 |
| <b>167</b> | 22.27 | 22.72 | 22.92 | 21.61 | 25.20 | 22.08 | 22.18 |
| <b>168</b> | 23.67 | 24.23 | 23.52 | 22.20 | 26.27 | 23.73 | 23.14 |
| <b>169</b> | 24.93 | 25.49 | 24.28 | 23.01 | 26.83 | 25.11 | 24.24 |
| <b>170</b> | 26.35 | 26.41 | 24.41 | 23.30 | 27.00 | 26.01 | 25.52 |
| <b>171</b> | 26.65 | 27.28 | 25.26 | 23.73 | 27.43 | 26.81 | 27.12 |
| <b>172</b> | 26.96 | 28.31 | 25.39 | 24.44 | 27.87 | 26.94 | 28.41 |
| <b>173</b> | 27.26 | 28.47 | 25.44 | 24.77 | 28.09 | 27.10 | 29.22 |
| <b>174</b> | 27.57 | 28.70 | 25.44 | 25.10 | 28.10 | 27.16 | 29.83 |
| <b>175</b> | 27.87 | 29.07 | 26.24 | 25.79 | 28.95 | 27.79 | 30.69 |
| <b>176</b> | 28.18 | 29.02 | 27.28 | 26.73 | 29.40 | 28.08 | 31.36 |
| <b>177</b> | 28.07 | 28.96 | 27.51 | 27.01 | 29.51 | 28.08 | 31.37 |
| <b>178</b> | 27.96 | 28.69 | 27.46 | 26.96 | 29.41 | 28.14 | 31.37 |
| <b>179</b> | 27.86 | 28.48 | 27.09 | 26.91 | 28.93 | 27.93 | 31.21 |
| <b>180</b> | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 | 31.02 |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HZX-EX-B-80W-4000K-D40.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens   | %Lamp | %Fixt  |
|---------|----------|-------|--------|
| 0-20    | 3776.66  | N.A.  | 36.40  |
| 0-30    | 6318.39  | N.A.  | 60.90  |
| 0-40    | 8124.41  | N.A.  | 78.30  |
| 0-60    | 9816.94  | N.A.  | 94.70  |
| 0-80    | 10320.13 | N.A.  | 99.50  |
| 0-90    | 10339.4  | N.A.  | 99.70  |
| 10-90   | 9165.71  | N.A.  | 88.40  |
| 20-40   | 4347.75  | N.A.  | 41.90  |
| 20-50   | 5430.58  | N.A.  | 52.40  |
| 40-70   | 2039.65  | N.A.  | 19.70  |
| 60-80   | 503.18   | N.A.  | 4.90   |
| 70-80   | 156.07   | N.A.  | 1.50   |
| 80-90   | 19.28    | N.A.  | 0.20   |
| 90-110  | 1.44     | N.A.  | 0.00   |
| 90-120  | 2.75     | N.A.  | 0.00   |
| 90-130  | 5.12     | N.A.  | 0.00   |
| 90-150  | 14.82    | N.A.  | 0.10   |
| 90-180  | 30.85    | N.A.  | 0.30   |
| 110-180 | 29.41    | N.A.  | 0.30   |
| 0-180   | 10370.25 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  |
|---------|---------|
| 0-10    | 1173.69 |
| 10-20   | 2602.96 |
| 20-30   | 2541.73 |
| 30-40   | 1806.02 |
| 40-50   | 1082.83 |
| 50-60   | 609.71  |
| 60-70   | 347.11  |
| 70-80   | 156.07  |
| 80-90   | 19.28   |
| 90-100  | 0.64    |
| 100-110 | 0.80    |
| 110-120 | 1.32    |
| 120-130 | 2.37    |
| 130-140 | 3.89    |
| 140-150 | 5.81    |
| 150-160 | 7.29    |
| 160-170 | 6.13    |
| 170-180 | 2.61    |

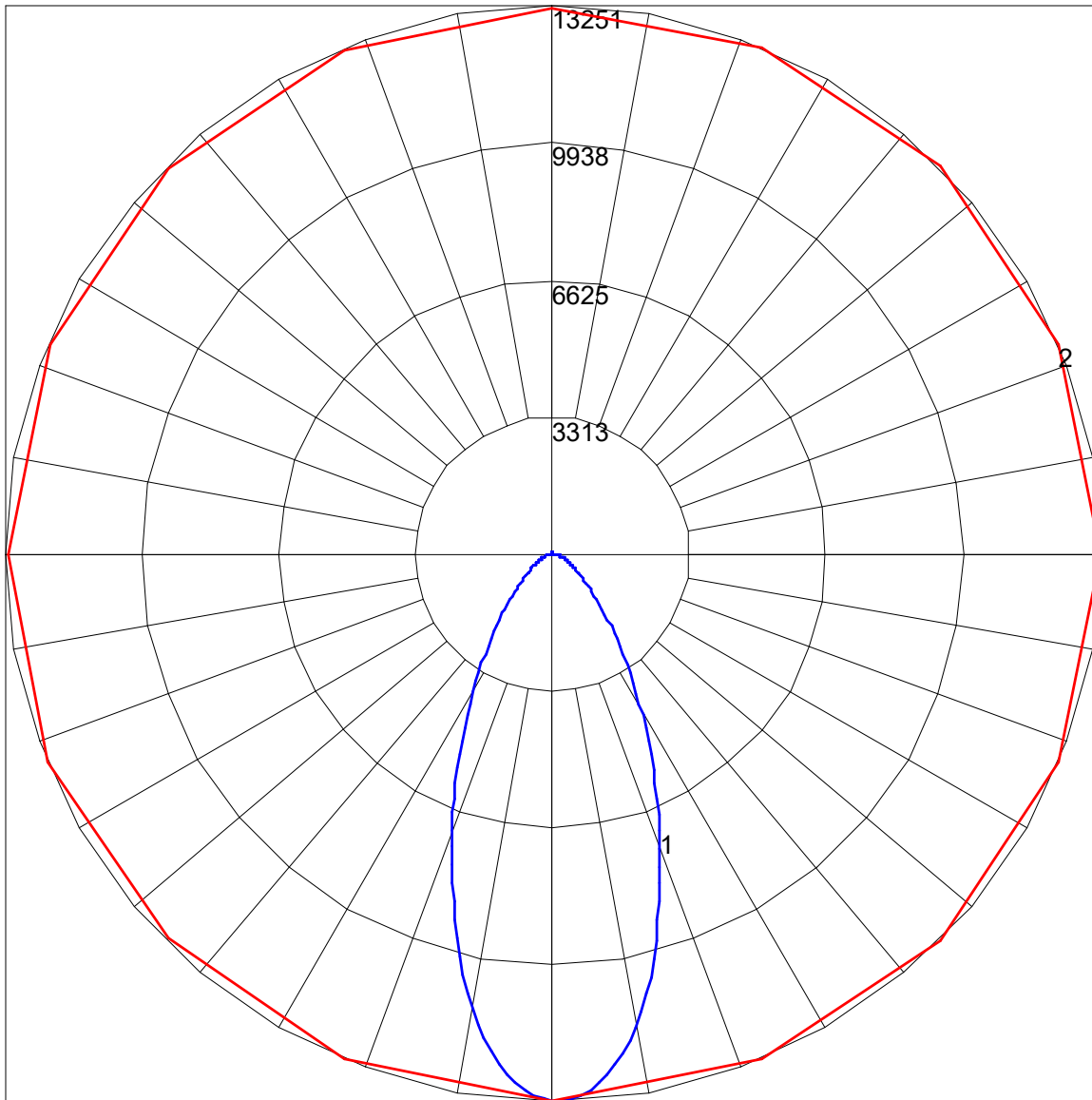
IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : HZX-EX-B-80W-4000K-D40.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC | 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  | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1  | 112 | 109 | 106 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99  | 99  | 97  | 96  | 96  | 94  | 93  | 91  |
| 2  | 106 | 100 | 96  | 92  | 104 | 99  | 94  | 91  | 95  | 92  | 89  | 92  | 89  | 87  | 89  | 87  | 85  | 83  |
| 3  | 100 | 92  | 87  | 82  | 98  | 91  | 86  | 82  | 88  | 84  | 80  | 86  | 82  | 79  | 83  | 80  | 78  | 76  |
| 4  | 94  | 86  | 79  | 75  | 92  | 84  | 79  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 74  | 71  | 70  |
| 5  | 89  | 79  | 73  | 68  | 87  | 78  | 72  | 68  | 77  | 71  | 67  | 75  | 70  | 67  | 73  | 69  | 66  | 64  |
| 6  | 84  | 74  | 68  | 63  | 82  | 73  | 67  | 63  | 72  | 66  | 62  | 70  | 65  | 62  | 69  | 64  | 61  | 60  |
| 7  | 80  | 69  | 63  | 58  | 78  | 69  | 62  | 58  | 67  | 62  | 58  | 66  | 61  | 57  | 65  | 60  | 57  | 55  |
| 8  | 75  | 65  | 59  | 54  | 74  | 65  | 58  | 54  | 63  | 58  | 54  | 62  | 57  | 54  | 61  | 57  | 53  | 52  |
| 9  | 72  | 61  | 55  | 51  | 71  | 61  | 55  | 51  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 50  | 49  |
| 10 | 68  | 58  | 52  | 48  | 67  | 58  | 52  | 48  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 46  |

POLAR GRAPH



Maximum Candela = 13250.88 Located At Horizontal Angle = 0, Vertical Angle = 1  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)