

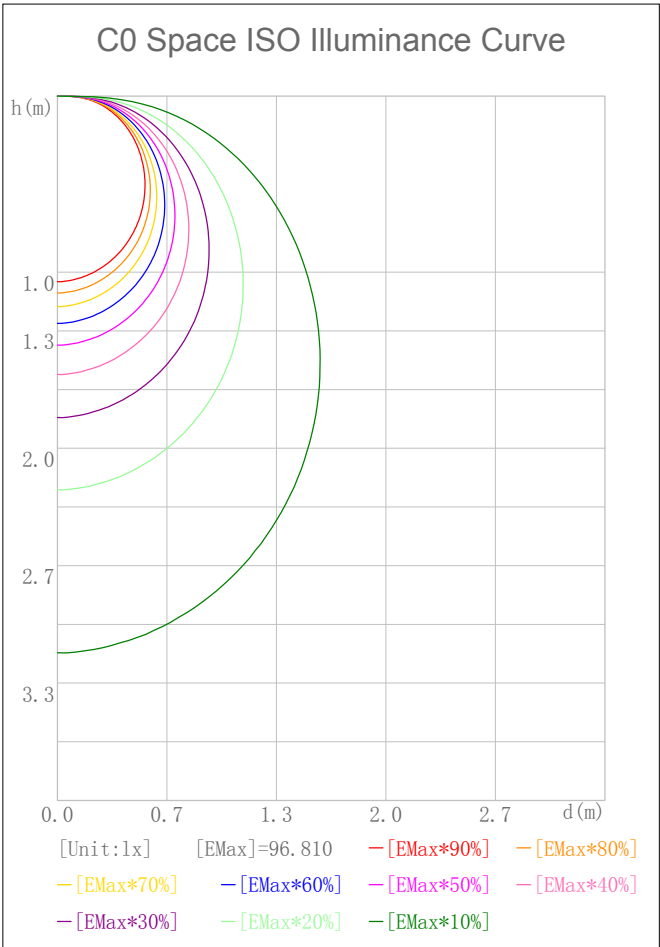
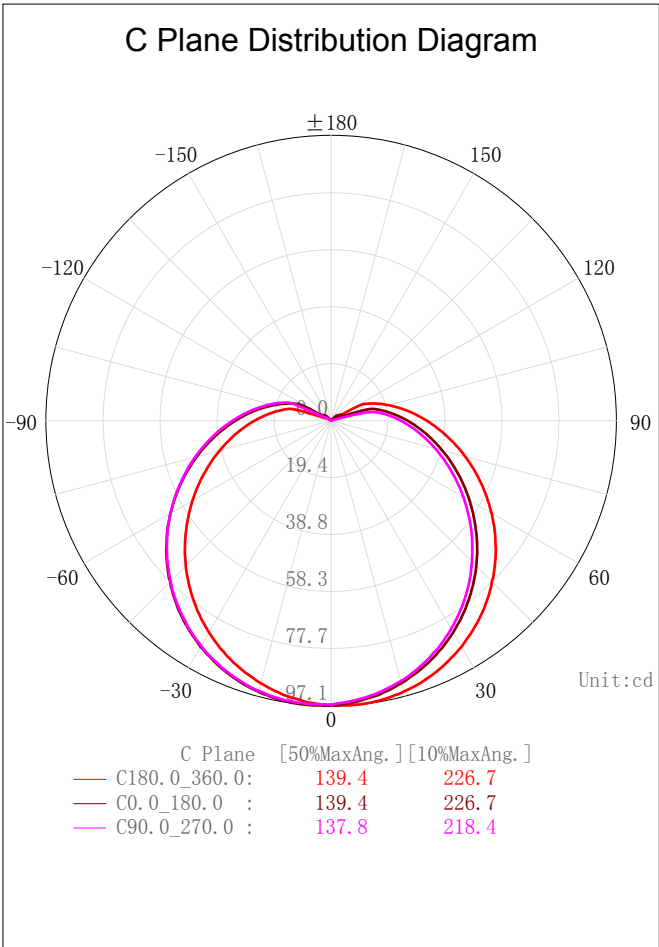
Indoor Luminaire Photometric Data

Description Information

|   |                         |                      |                       |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:WL02-06-XX-03 2700K RA90 150D |                         | Lum. Catalog:        | Test ID: 01           |
| Lamp Name:                                  |                         | Lamp Catalog: LED    | Test Date: 2022/02/21 |
| Manufacture: Shenzhen Norming Lightin       |                         | Shld. Ang(°):        | Test Machine:GON-2000 |
| Test Lab: Quality Department                |                         | Frequency (Hz):      | Lamp CCT (K): Ra:     |
| Lum. Size (W*L*H):0.100m*0.000m*-0.100m     |                         | Lum. Area (m2):0.063 | Lum. W (kg): 0.000    |
| Test System: C, γ                           | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25       | Humidity(%):          |

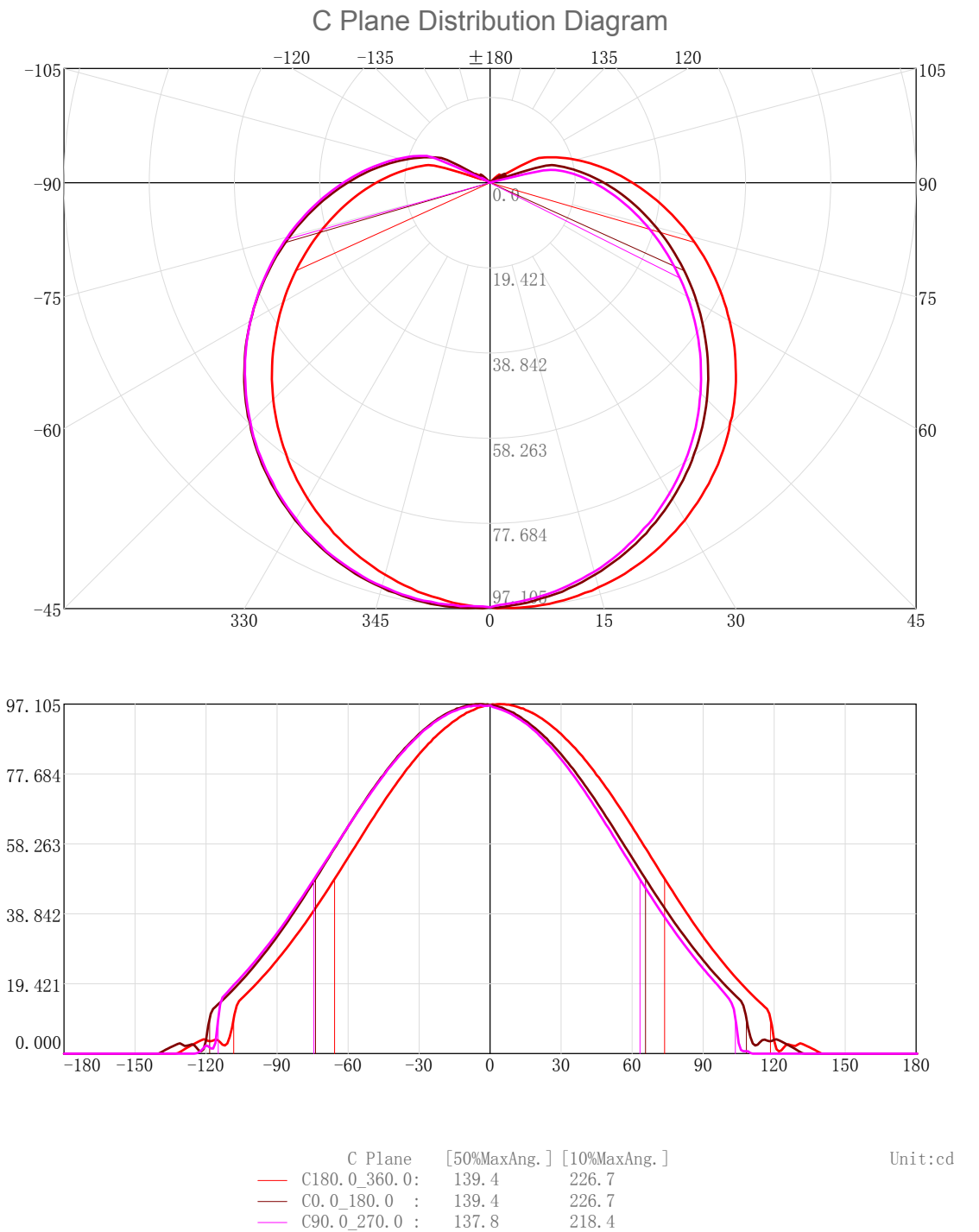
Character Parameter

| Lamp Speciality Parameter                |                                  | Luminaire Speciality Parameter        |  |
|--|----------------------------------|---------------------------------------|--|
| Rated Flux(lm): 426.430                  | Luminary Flux(lm): 426.425       | Field Angle(10%Imax): 226.7(°)        |  |
| Rated Power(W):                          | Luminary Efficiency: 100.00%     | Down Lumens&Percent: 375.050lm 87.95% |  |
| Rated Voltage(V):                        | Luminary EER(lm/W): 70.124       | Up Lumens&Percent: 51.375lm 12.05%    |  |
| Tested Power(W): 6.081                   | Max. Candela(cd): 97.105         | S/MH: C0_a180=1.324 C90_270=1.312     |  |
| Lamps' Inside: 1                         | Max Cand@Ang. (°): C=180.0 γ=4.0 | CIE Type: General Diffuse             |  |
| Tested Electrics (V, A, pf):241.2, 0.029 | Beam Angle(50%Imax): 139.4(°)    | ErP ϕ use(120°): 240.641lm            |  |
| Lamp Size (W*L*H):0.100m*0.000m*-0.100m  | Left=-65.7°, Right=73.7°         | IRF(%): 101.767                       |  |



2D Plane Light Intensity Distribution Curve

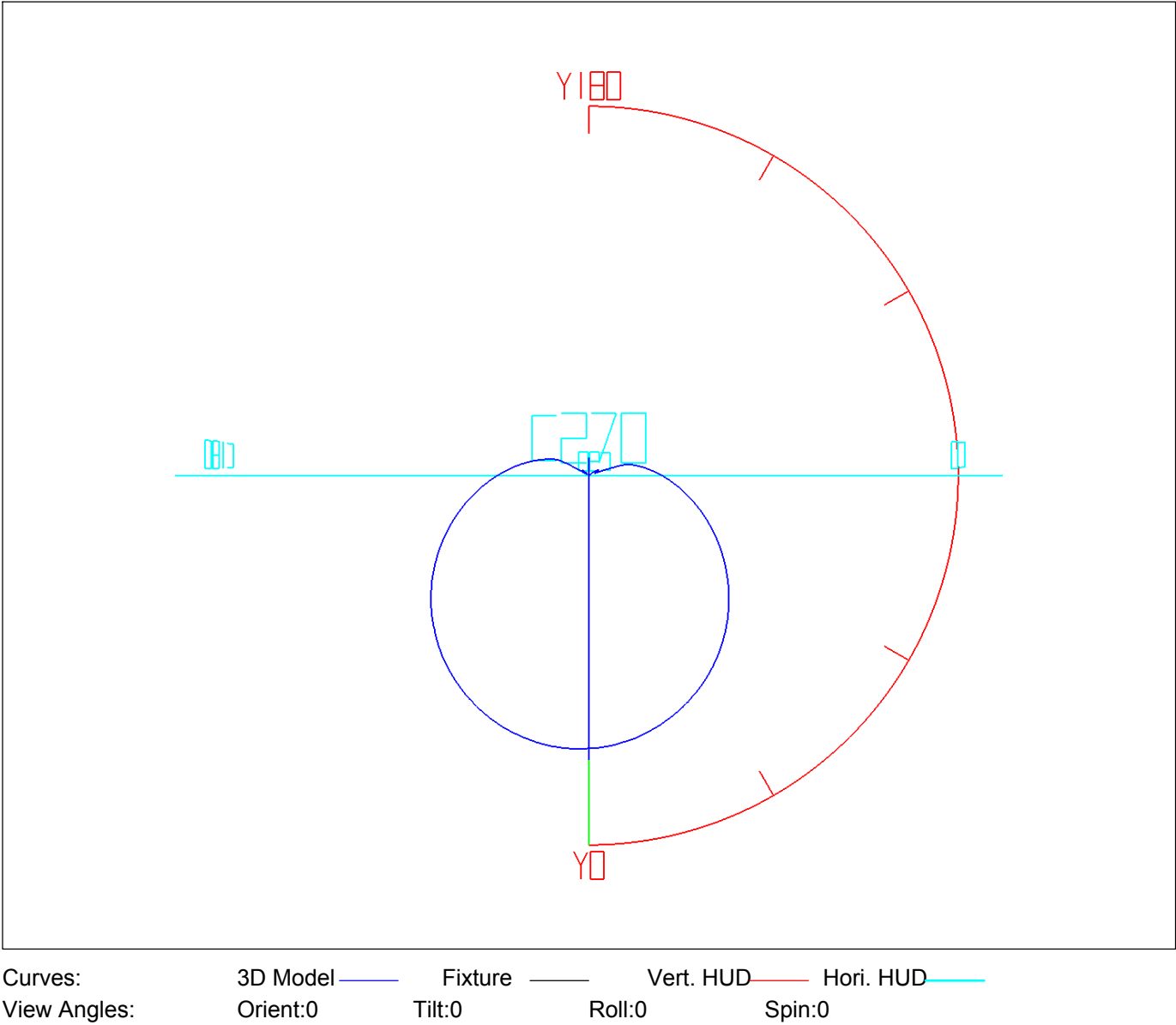
|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |



3D Light Intensity Distribution Modal

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:WL02-06-XX-03 2700K RA90 150D.IES

Zonal Flux Tabulation

| Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0   | 0.09              | 0.09              | 0.02      | 0.02      | 47.0-48.0 | 5.72              | 172.90            | 1.34      | 40.55     |
| 1.0-2.0   | 0.28              | 0.37              | 0.07      | 0.09      | 48.0-49.0 | 5.73              | 178.63            | 1.34      | 41.89     |
| 2.0-3.0   | 0.46              | 0.83              | 0.11      | 0.20      | 49.0-50.0 | 5.74              | 184.37            | 1.35      | 43.24     |
| 3.0-4.0   | 0.65              | 1.48              | 0.15      | 0.35      | 50.0-51.0 | 5.74              | 190.11            | 1.35      | 44.58     |
| 4.0-5.0   | 0.83              | 2.31              | 0.19      | 0.54      | 51.0-52.0 | 5.74              | 195.84            | 1.34      | 45.93     |
| 5.0-6.0   | 1.01              | 3.32              | 0.24      | 0.78      | 52.0-53.0 | 5.73              | 201.57            | 1.34      | 47.27     |
| 6.0-7.0   | 1.19              | 4.51              | 0.28      | 1.06      | 53.0-54.0 | 5.71              | 207.28            | 1.34      | 48.61     |
| 7.0-8.0   | 1.37              | 5.88              | 0.32      | 1.38      | 54.0-55.0 | 5.69              | 212.97            | 1.34      | 49.94     |
| 8.0-9.0   | 1.55              | 7.44              | 0.36      | 1.74      | 55.0-56.0 | 5.67              | 218.65            | 1.33      | 51.27     |
| 9.0-10.0  | 1.73              | 9.16              | 0.41      | 2.15      | 56.0-57.0 | 5.65              | 224.29            | 1.32      | 52.60     |
| 10.0-11.0 | 1.90              | 11.07             | 0.45      | 2.60      | 57.0-58.0 | 5.62              | 229.91            | 1.32      | 53.92     |
| 11.0-12.0 | 2.08              | 13.14             | 0.49      | 3.08      | 58.0-59.0 | 5.58              | 235.49            | 1.31      | 55.22     |
| 12.0-13.0 | 2.25              | 15.39             | 0.53      | 3.61      | 59.0-60.0 | 5.54              | 241.03            | 1.30      | 56.52     |
| 13.0-14.0 | 2.41              | 17.80             | 0.57      | 4.17      | 60.0-61.0 | 5.50              | 246.53            | 1.29      | 57.81     |
| 14.0-15.0 | 2.58              | 20.38             | 0.60      | 4.78      | 61.0-62.0 | 5.45              | 251.98            | 1.28      | 59.09     |
| 15.0-16.0 | 2.74              | 23.12             | 0.64      | 5.42      | 62.0-63.0 | 5.40              | 257.38            | 1.27      | 60.36     |
| 16.0-17.0 | 2.90              | 26.02             | 0.68      | 6.10      | 63.0-64.0 | 5.35              | 262.73            | 1.25      | 61.61     |
| 17.0-18.0 | 3.06              | 29.08             | 0.72      | 6.82      | 64.0-65.0 | 5.29              | 268.02            | 1.24      | 62.85     |
| 18.0-19.0 | 3.21              | 32.29             | 0.75      | 7.57      | 65.0-66.0 | 5.23              | 273.25            | 1.23      | 64.08     |
| 19.0-20.0 | 3.36              | 35.65             | 0.79      | 8.36      | 66.0-67.0 | 5.17              | 278.41            | 1.21      | 65.29     |
| 20.0-21.0 | 3.51              | 39.16             | 0.82      | 9.18      | 67.0-68.0 | 5.10              | 283.51            | 1.20      | 66.48     |
| 21.0-22.0 | 3.65              | 42.81             | 0.86      | 10.04     | 68.0-69.0 | 5.03              | 288.54            | 1.18      | 67.66     |
| 22.0-23.0 | 3.79              | 46.59             | 0.89      | 10.93     | 69.0-70.0 | 4.96              | 293.50            | 1.16      | 68.83     |
| 23.0-24.0 | 3.92              | 50.52             | 0.92      | 11.85     | 70.0-71.0 | 4.89              | 298.39            | 1.15      | 69.97     |
| 24.0-25.0 | 4.05              | 54.57             | 0.95      | 12.80     | 71.0-72.0 | 4.81              | 303.20            | 1.13      | 71.10     |
| 25.0-26.0 | 4.18              | 58.75             | 0.98      | 13.78     | 72.0-73.0 | 4.73              | 307.93            | 1.11      | 72.21     |
| 26.0-27.0 | 4.30              | 63.05             | 1.01      | 14.78     | 73.0-74.0 | 4.65              | 312.58            | 1.09      | 73.30     |
| 27.0-28.0 | 4.42              | 67.46             | 1.04      | 15.82     | 74.0-75.0 | 4.57              | 317.15            | 1.07      | 74.37     |
| 28.0-29.0 | 4.53              | 71.99             | 1.06      | 16.88     | 75.0-76.0 | 4.49              | 321.64            | 1.05      | 75.43     |
| 29.0-30.0 | 4.64              | 76.63             | 1.09      | 17.97     | 76.0-77.0 | 4.40              | 326.04            | 1.03      | 76.46     |
| 30.0-31.0 | 4.74              | 81.37             | 1.11      | 19.08     | 77.0-78.0 | 4.32              | 330.36            | 1.01      | 77.47     |
| 31.0-32.0 | 4.84              | 86.21             | 1.13      | 20.22     | 78.0-79.0 | 4.23              | 334.58            | 0.99      | 78.46     |
| 32.0-33.0 | 4.93              | 91.15             | 1.16      | 21.37     | 79.0-80.0 | 4.14              | 338.72            | 0.97      | 79.43     |
| 33.0-34.0 | 5.02              | 96.17             | 1.18      | 22.55     | 80.0-81.0 | 4.05              | 342.77            | 0.95      | 80.38     |
| 34.0-35.0 | 5.11              | 101.27            | 1.20      | 23.75     | 81.0-82.0 | 3.96              | 346.72            | 0.93      | 81.31     |
| 35.0-36.0 | 5.18              | 106.46            | 1.22      | 24.96     | 82.0-83.0 | 3.87              | 350.59            | 0.91      | 82.21     |
| 36.0-37.0 | 5.26              | 111.71            | 1.23      | 26.20     | 83.0-84.0 | 3.77              | 354.36            | 0.89      | 83.10     |
| 37.0-38.0 | 5.33              | 117.04            | 1.25      | 27.45     | 84.0-85.0 | 3.68              | 358.04            | 0.86      | 83.96     |
| 38.0-39.0 | 5.39              | 122.43            | 1.26      | 28.71     | 85.0-86.0 | 3.59              | 361.63            | 0.84      | 84.80     |
| 39.0-40.0 | 5.45              | 127.88            | 1.28      | 29.99     | 86.0-87.0 | 3.49              | 365.13            | 0.82      | 85.62     |
| 40.0-41.0 | 5.50              | 133.38            | 1.29      | 31.28     | 87.0-88.0 | 3.40              | 368.53            | 0.80      | 86.42     |
| 41.0-42.0 | 5.55              | 138.93            | 1.30      | 32.58     | 88.0-89.0 | 3.31              | 371.84            | 0.78      | 87.20     |
| 42.0-43.0 | 5.59              | 144.52            | 1.31      | 33.89     | 89.0-90.0 | 3.21              | 375.05            | 0.75      | 87.95     |
| 43.0-44.0 | 5.63              | 150.14            | 1.32      | 35.21     | 90.0-91.0 | 3.12              | 378.17            | 0.73      | 88.68     |
| 44.0-45.0 | 5.66              | 155.80            | 1.33      | 36.54     | 91.0-92.0 | 3.03              | 381.20            | 0.71      | 89.39     |
| 45.0-46.0 | 5.68              | 161.48            | 1.33      | 37.87     | 92.0-93.0 | 2.94              | 384.14            | 0.69      | 90.08     |
| 46.0-47.0 | 5.70              | 167.18            | 1.34      | 39.20     | 93.0-94.0 | 2.85              | 386.98            | 0.67      | 90.75     |

IES Indoor Report

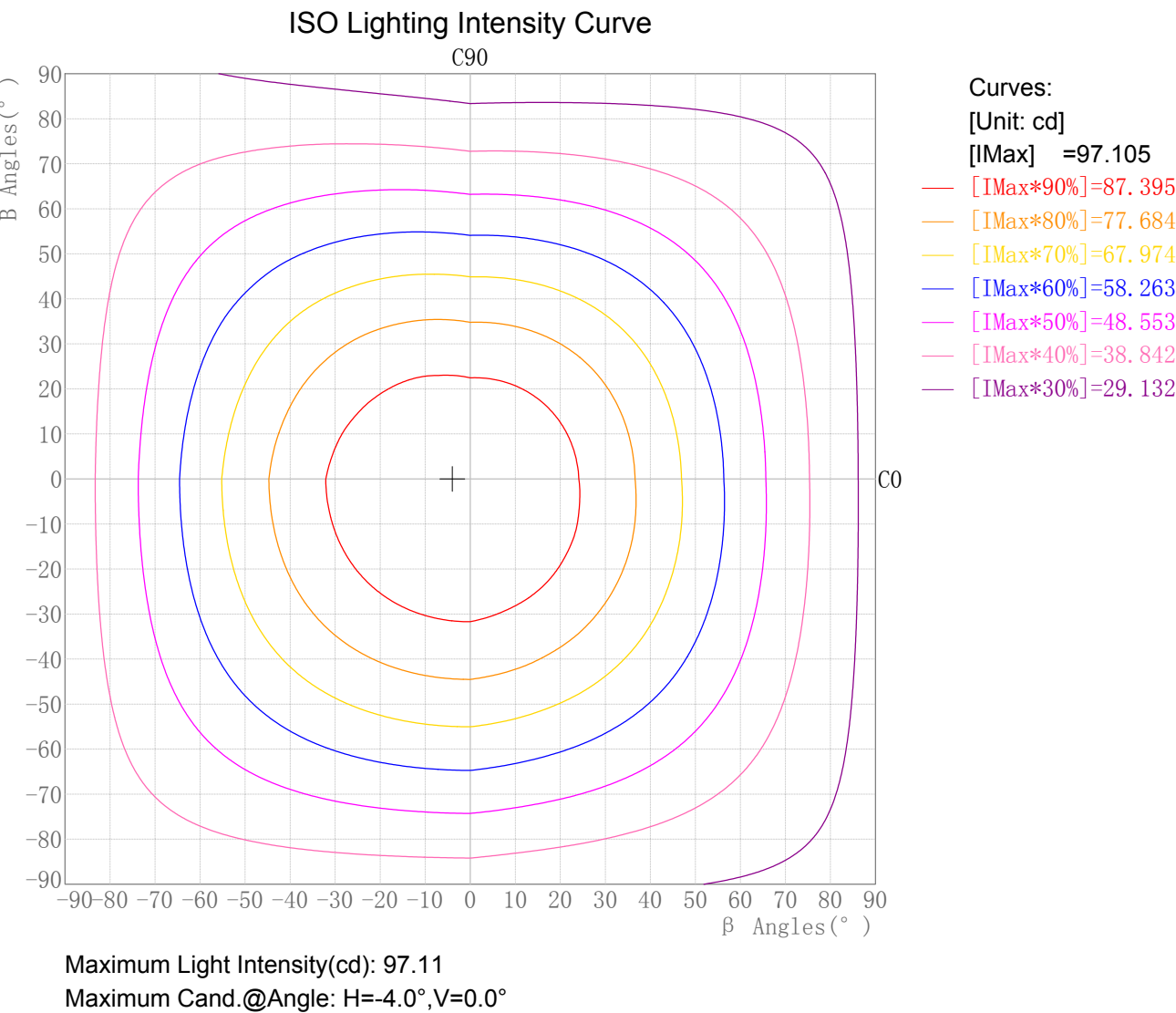
Photometric Filename:WL02-06-XX-03 2700K RA90 150D.IES

Zonal Flux Tabulation - (Cont.)

| Zone(γ)     | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone(γ)     | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|-------------|-------------------|-------------------|-----------|-----------|-------------|-------------------|-------------------|-----------|-----------|
| 94.0-95.0   | 2.76              | 389.74            | 0.65      | 91.40     | 141.0-142.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 95.0-96.0   | 2.67              | 392.41            | 0.63      | 92.02     | 142.0-143.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 96.0-97.0   | 2.58              | 394.98            | 0.60      | 92.63     | 143.0-144.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 97.0-98.0   | 2.48              | 397.47            | 0.58      | 93.21     | 144.0-145.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 98.0-99.0   | 2.39              | 399.86            | 0.56      | 93.77     | 145.0-146.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 99.0-100.0  | 2.30              | 402.17            | 0.54      | 94.31     | 146.0-147.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 100.0-101.0 | 2.21              | 404.38            | 0.52      | 94.83     | 147.0-148.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 101.0-102.0 | 2.12              | 406.50            | 0.50      | 95.33     | 148.0-149.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 102.0-103.0 | 2.02              | 408.52            | 0.47      | 95.80     | 149.0-150.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 103.0-104.0 | 1.87              | 410.40            | 0.44      | 96.24     | 150.0-151.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 104.0-105.0 | 1.68              | 412.08            | 0.39      | 96.64     | 151.0-152.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 105.0-106.0 | 1.53              | 413.61            | 0.36      | 96.99     | 152.0-153.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 106.0-107.0 | 1.43              | 415.03            | 0.33      | 97.33     | 153.0-154.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 107.0-108.0 | 1.33              | 416.36            | 0.31      | 97.64     | 154.0-155.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 108.0-109.0 | 1.21              | 417.57            | 0.28      | 97.92     | 155.0-156.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 109.0-110.0 | 1.08              | 418.64            | 0.25      | 98.17     | 156.0-157.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 110.0-111.0 | 0.97              | 419.61            | 0.23      | 98.40     | 157.0-158.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 111.0-112.0 | 0.89              | 420.51            | 0.21      | 98.61     | 158.0-159.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 112.0-113.0 | 0.85              | 421.36            | 0.20      | 98.81     | 159.0-160.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 113.0-114.0 | 0.81              | 422.16            | 0.19      | 99.00     | 160.0-161.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 114.0-115.0 | 0.71              | 422.88            | 0.17      | 99.17     | 161.0-162.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 115.0-116.0 | 0.57              | 423.45            | 0.13      | 99.30     | 162.0-163.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 116.0-117.0 | 0.46              | 423.91            | 0.11      | 99.41     | 163.0-164.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 117.0-118.0 | 0.41              | 424.31            | 0.10      | 99.50     | 164.0-165.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 118.0-119.0 | 0.36              | 424.67            | 0.08      | 99.59     | 165.0-166.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 119.0-120.0 | 0.28              | 424.95            | 0.07      | 99.65     | 166.0-167.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 120.0-121.0 | 0.20              | 425.14            | 0.05      | 99.70     | 167.0-168.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 121.0-122.0 | 0.14              | 425.28            | 0.03      | 99.73     | 168.0-169.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 122.0-123.0 | 0.11              | 425.40            | 0.03      | 99.76     | 169.0-170.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 123.0-124.0 | 0.11              | 425.50            | 0.03      | 99.78     | 170.0-171.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 124.0-125.0 | 0.11              | 425.62            | 0.03      | 99.81     | 171.0-172.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 125.0-126.0 | 0.11              | 425.73            | 0.03      | 99.84     | 172.0-173.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 126.0-127.0 | 0.10              | 425.83            | 0.02      | 99.86     | 173.0-174.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 127.0-128.0 | 0.09              | 425.92            | 0.02      | 99.88     | 174.0-175.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 128.0-129.0 | 0.08              | 426.00            | 0.02      | 99.90     | 175.0-176.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 129.0-130.0 | 0.07              | 426.07            | 0.02      | 99.92     | 176.0-177.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 130.0-131.0 | 0.07              | 426.14            | 0.02      | 99.93     | 177.0-178.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 131.0-132.0 | 0.06              | 426.21            | 0.01      | 99.95     | 178.0-179.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 132.0-133.0 | 0.05              | 426.26            | 0.01      | 99.96     | 179.0-180.0 | 0.00              | 426.43            | 0.00      | 100.00    |
| 133.0-134.0 | 0.04              | 426.30            | 0.01      | 99.97     |             |                   |                   |           |           |
| 134.0-135.0 | 0.04              | 426.34            | 0.01      | 99.98     |             |                   |                   |           |           |
| 135.0-136.0 | 0.03              | 426.37            | 0.01      | 99.99     |             |                   |                   |           |           |
| 136.0-137.0 | 0.02              | 426.39            | 0.01      | 99.99     |             |                   |                   |           |           |
| 137.0-138.0 | 0.02              | 426.41            | 0.00      | 100.00    |             |                   |                   |           |           |
| 138.0-139.0 | 0.01              | 426.42            | 0.00      | 100.00    |             |                   |                   |           |           |
| 139.0-140.0 | 0.00              | 426.43            | 0.00      | 100.00    |             |                   |                   |           |           |
| 140.0-141.0 | 0.00              | 426.43            | 0.00      | 100.00    |             |                   |                   |           |           |

Rectangle ISO Lighting Intensity Diagram

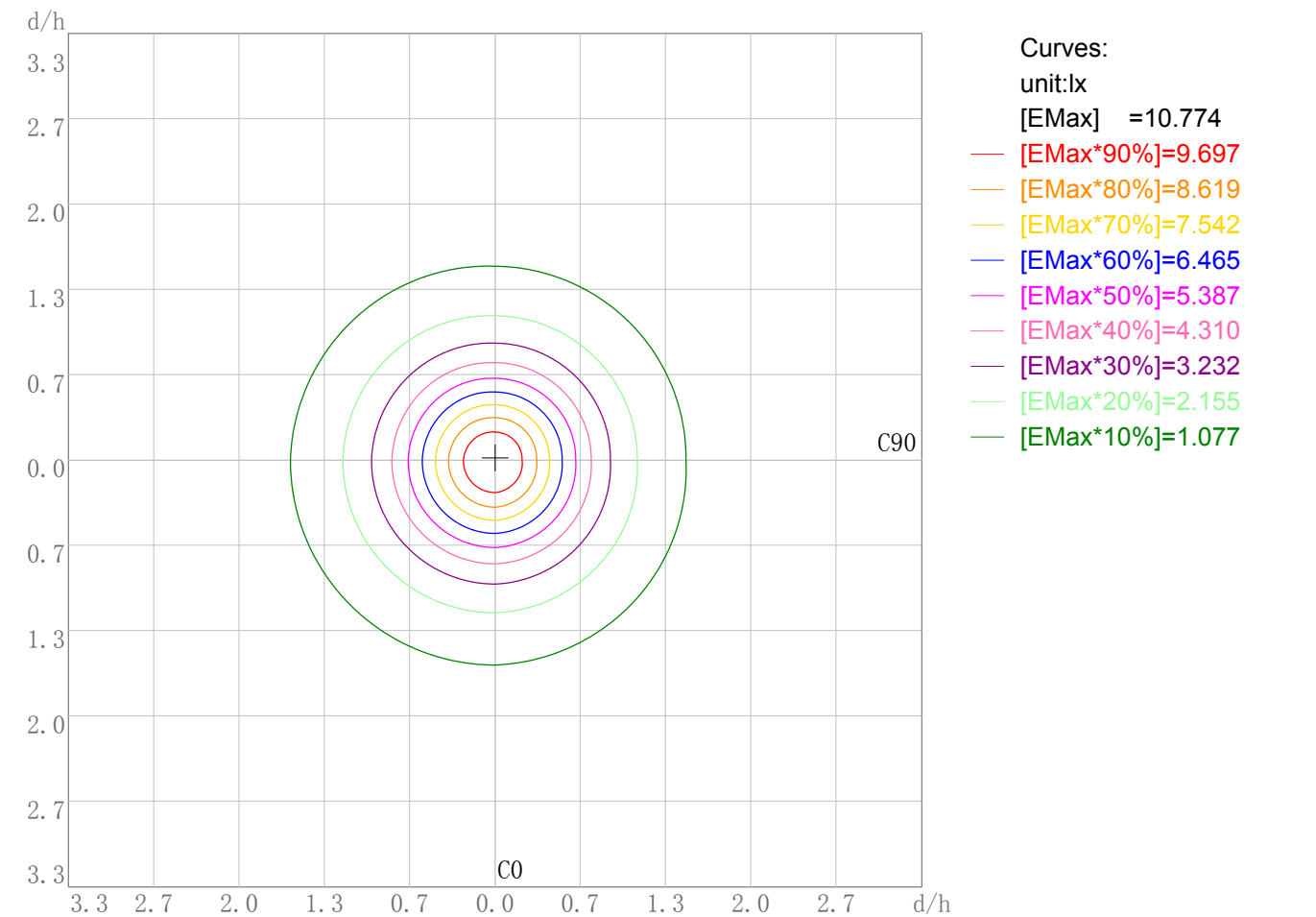
|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |



Plane ISO-Illuminance Diagram

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |

Plane ISO-Illuminance Curve

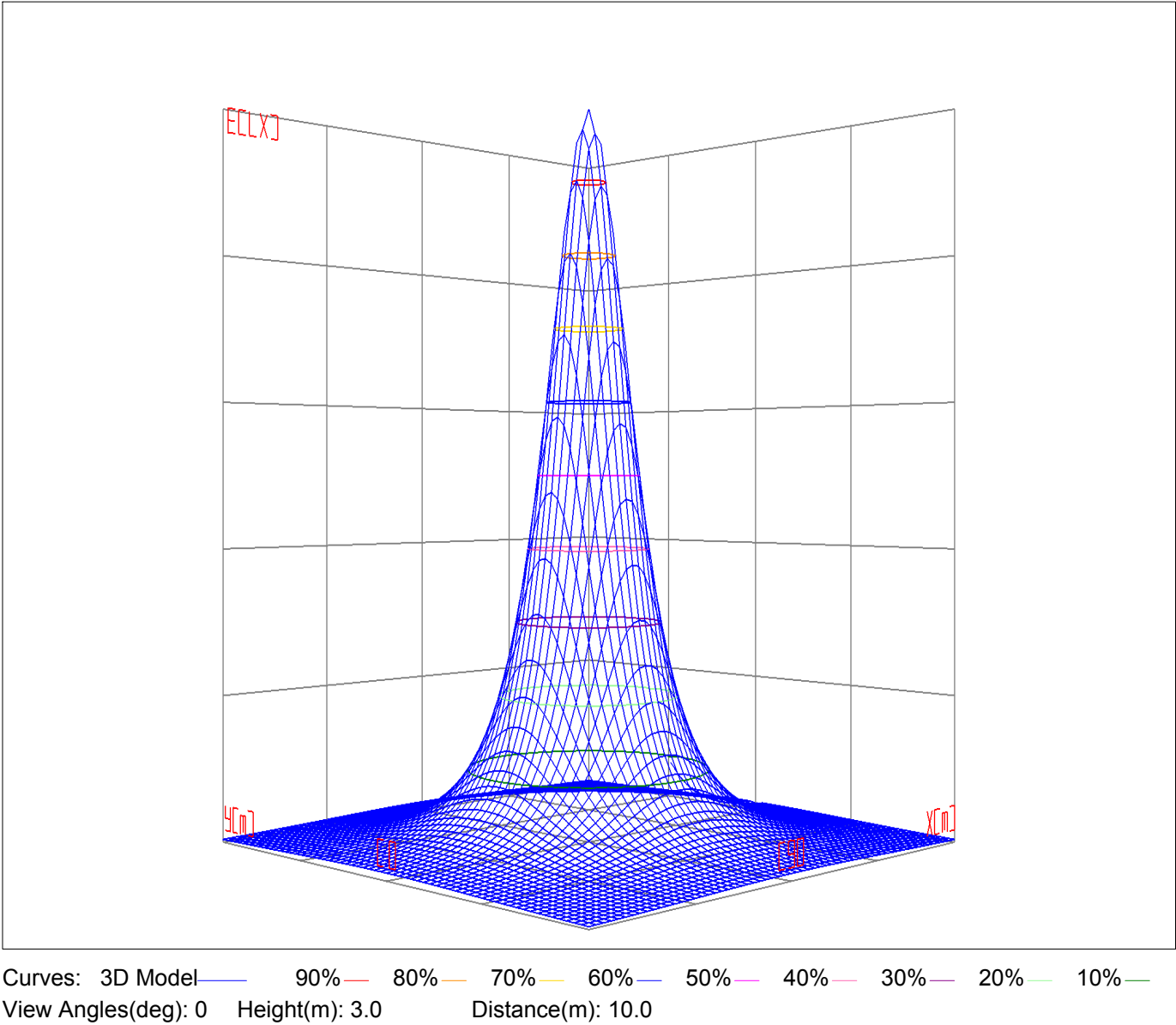


Working Plane Luminaire Mounting Height(m): 3.00  
Working Plane Maximum Illuminance(lx): 10.77  
Working Plane Maximum Illuminance Position(d/h):H0.0 V-0.0

3D Plane ISO Illuminance Diagram

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |

3D Plane Illuminance Modal

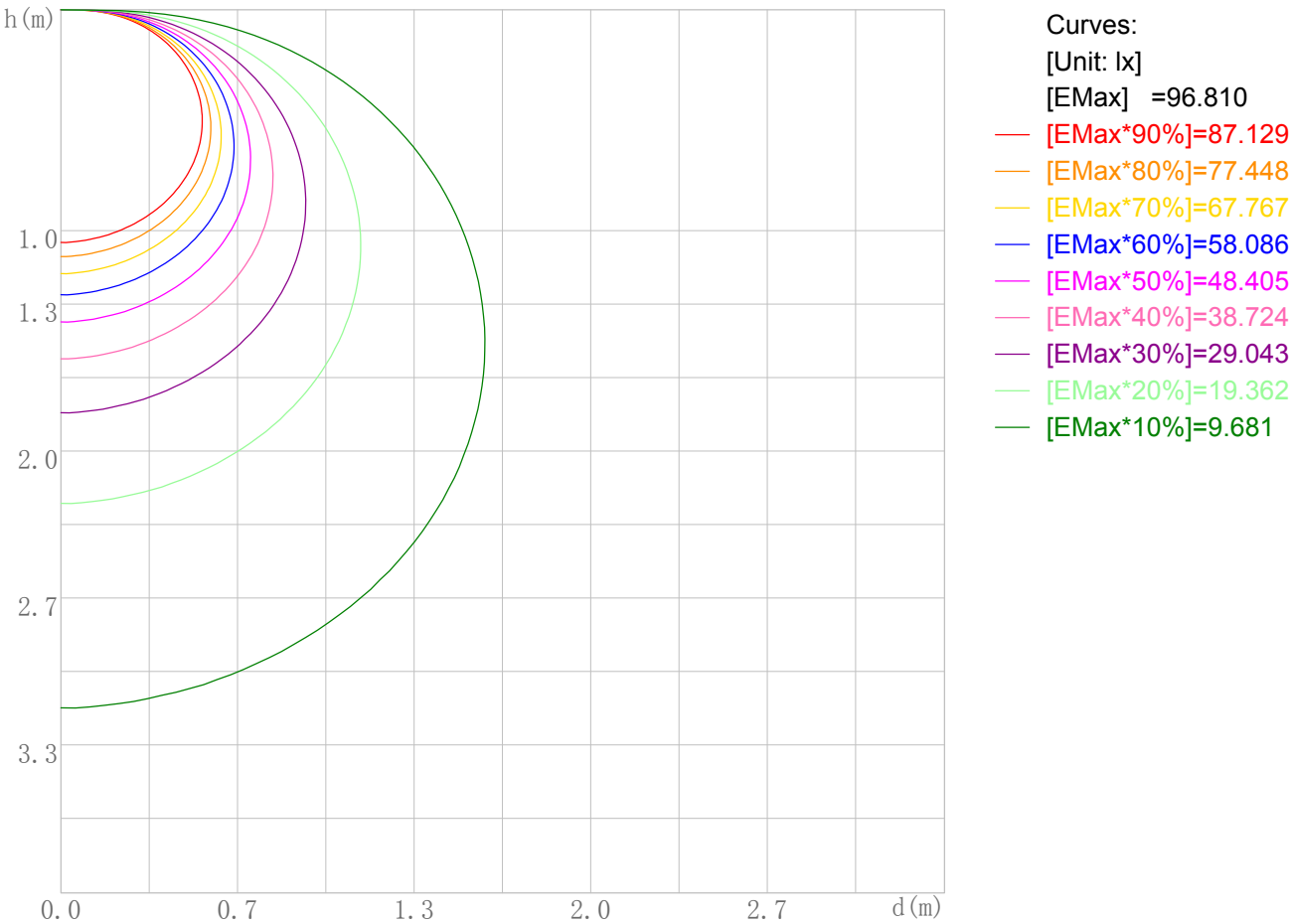




Space ISO Illuminance Diagram

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |

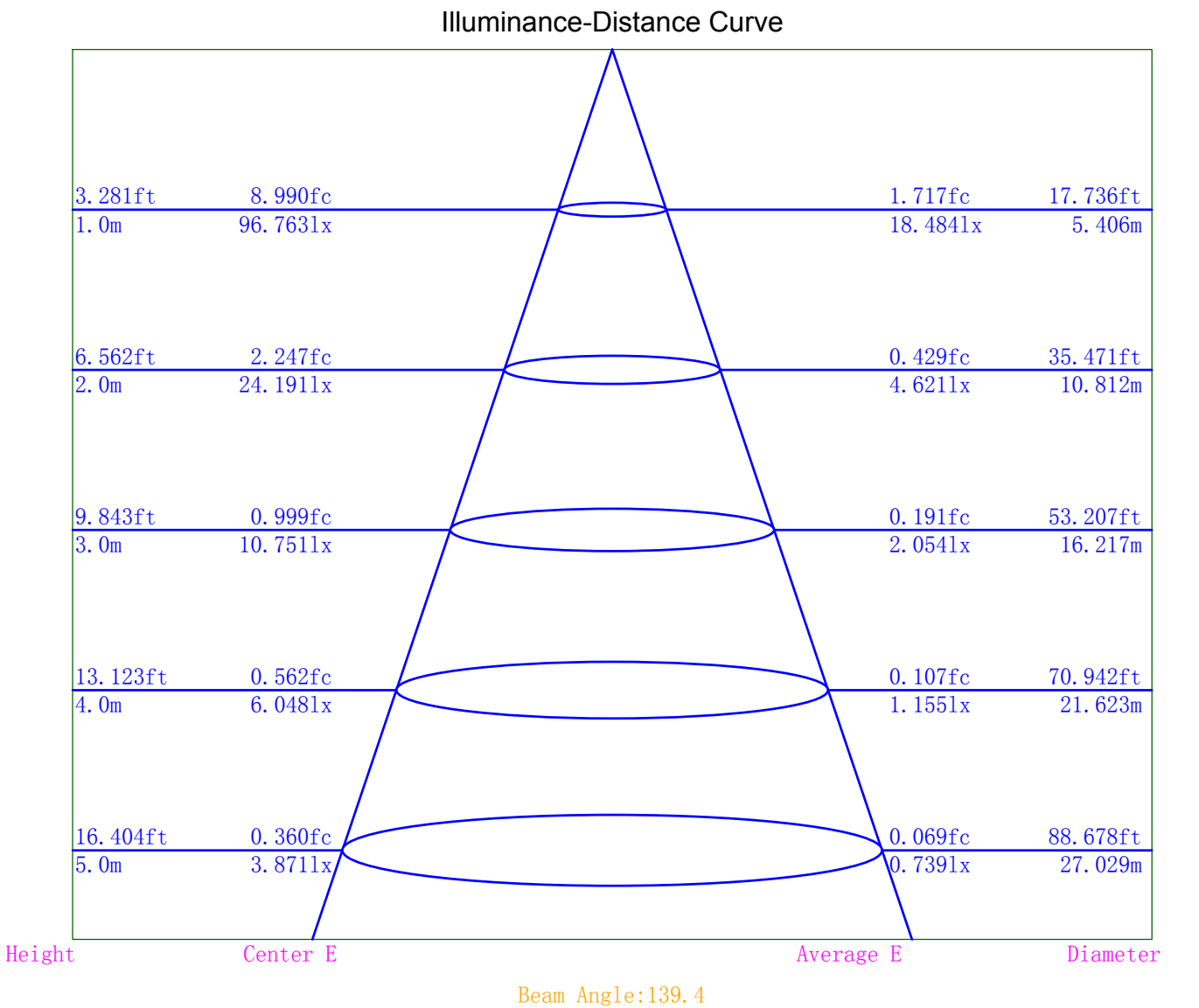
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:96.81lx,1.0deg  
Plane Maximum Lighting Intensity and @Angle:96.854cd,0deg

Illuminance-Distance Diagram

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |



Indoor Luminance Limiting Curves

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |

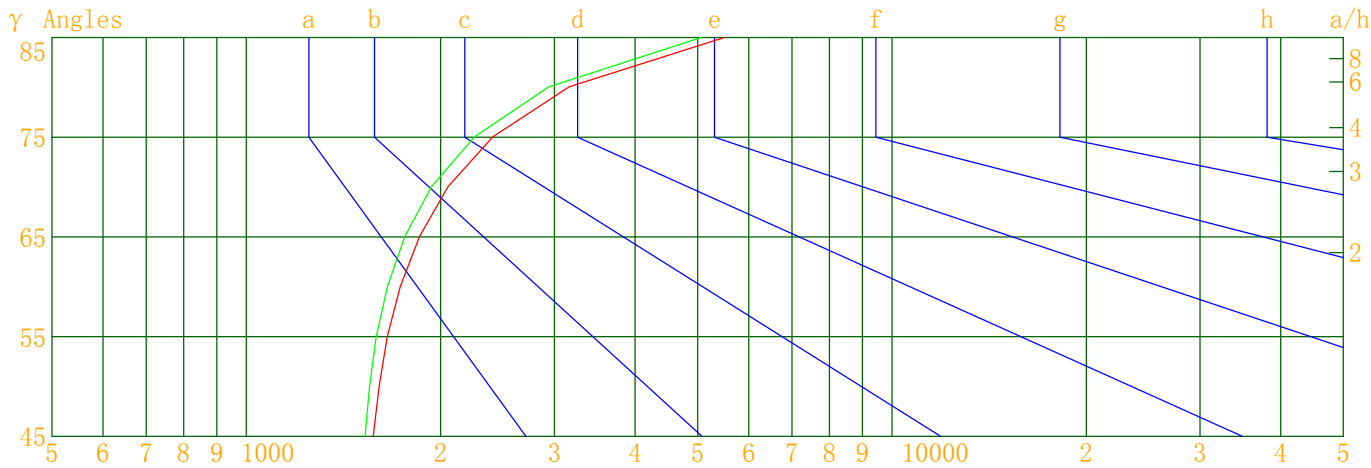
Glare Grade Table

| GI   | Quality | Using Illuminance |      |      |       |       |       |       |       |
|------|---------|-------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A       | 2000              | 1000 | 500  | <=300 |       |       |       |       |
| 1.5  | B       |                   | 2000 | 1000 | 500   | <=300 |       |       |       |
| 1.85 | C       |                   |      | 2000 | 1000  | 500   | <=300 |       |       |
| 2.2  | D       |                   |      |      | 2000  | 1000  | 500   | <=300 |       |
| 2.55 | E       | a                 |      |      |       | 2000  | 1000  | 500   | <=300 |
|      |         |                   | b    | c    | d     | e     | f     | g     | h     |

Luminance Table

| Gama(deg) | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   |
|-----------|------|------|------|------|------|------|------|------|------|
| C0        | 1573 | 1605 | 1654 | 1732 | 1854 | 2053 | 2409 | 3163 | 5497 |
| C90       | 1527 | 1551 | 1589 | 1654 | 1759 | 1936 | 2257 | 2941 | 5065 |

Luminance Limiting Curve



Luminous Size:

Length(m)=0.000

Width(m)=-0.100

Height(m)=-0.100

Area(m^2)=0.062832

Luminous Type:

Without Luminous Side

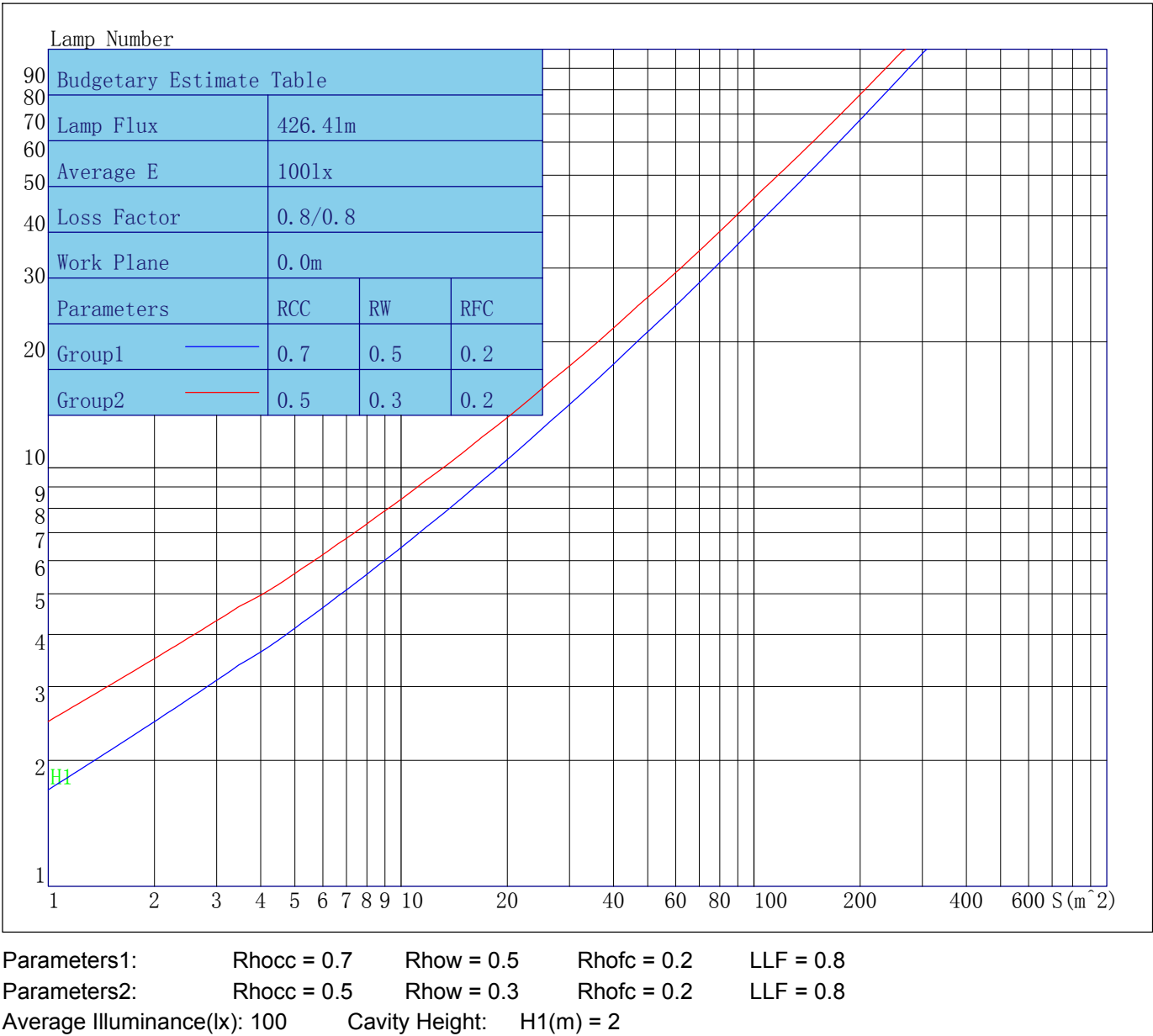
Luminous Curves:

C0-C180 Color: —

C90-C270 Color: —

Indoor Budgetary Estimate Table

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |



Indoor Coefficient of Utilization Table

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |

| Coefficients of Utilization - Zonal Cavity Method |   |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| Coef.   | Effective Floor Cavity Reflectance RFC=0.20 |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| RhoCC (%)   | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30 |    |    | 10 |    |    | 0  |
| RhoW (%)  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR   | Coefficient of Utilization(%)               |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 0   | 116   | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 104 | 104 | 104 | 97 | 97 | 97 | 91 | 91 | 91 | 88 |
| 1   | 102   | 96  | 91  | 86  | 98  | 93  | 88  | 83  | 86  | 82  | 78  | 80 | 77 | 74 | 74 | 72 | 69 | 66 |
| 2   | 92  | 82  | 74  | 67  | 88  | 79  | 72  | 65  | 73  | 67  | 62  | 68 | 63 | 59 | 63 | 59 | 55 | 52 |
| 3   | 83  | 71  | 62  | 54  | 79  | 68  | 60  | 53  | 64  | 56  | 50  | 59 | 53 | 48 | 55 | 50 | 46 | 43 |
| 4   | 76  | 62  | 53  | 45  | 72  | 60  | 51  | 44  | 56  | 48  | 42  | 52 | 46 | 40 | 48 | 43 | 38 | 36 |
| 5   | 69  | 55  | 45  | 38  | 66  | 53  | 44  | 37  | 50  | 42  | 36  | 46 | 40 | 34 | 43 | 38 | 33 | 30 |
| 6   | 64  | 49  | 40  | 33  | 61  | 48  | 39  | 32  | 45  | 37  | 31  | 42 | 35 | 30 | 39 | 33 | 29 | 26 |
| 7   | 59  | 45  | 35  | 29  | 56  | 43  | 34  | 28  | 40  | 33  | 27  | 38 | 31 | 26 | 36 | 30 | 25 | 23 |
| 8   | 55  | 41  | 32  | 25  | 52  | 39  | 31  | 25  | 37  | 29  | 24  | 35 | 28 | 23 | 33 | 27 | 22 | 20 |
| 9   | 51  | 37  | 29  | 23  | 49  | 36  | 28  | 22  | 34  | 27  | 22  | 32 | 25 | 21 | 30 | 24 | 20 | 18 |
| 10  | 48  | 34  | 26  | 20  | 46  | 33  | 25  | 20  | 31  | 24  | 19  | 30 | 23 | 19 | 28 | 22 | 18 | 16 |

Unified Glare Rating Table

|  |                       |                              |
|--|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-03 2700K RA90 150D | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                               | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lightin    | Test Machine:GON-2000 | Test Date: 2022/02/21        |

Unified Glare Rating Table

|   |                 |      |      |      |      |               |      |      |      |      |
|---|-----------------|------|------|------|------|---------------|------|------|------|------|
| Ceiling RCC                                       | 0.70            | 0.70 | 0.50 | 0.50 | 0.30 | 0.70          | 0.70 | 0.50 | 0.50 | 0.30 |
| Wall RW   | 0.50            | 0.30 | 0.50 | 0.30 | 0.30 | 0.50          | 0.30 | 0.50 | 0.30 | 0.30 |
| Floor RFC   | 0.20            | 0.20 | 0.20 | 0.20 | 0.20 | 0.20          | 0.20 | 0.20 | 0.20 | 0.20 |
| Room Size   | Vewed crosswise |      |      |      |      | Vewed endwise |      |      |      |      |
| X=2H    Y=2H                                      | 13.0            | 14.5 | 13.5 | 15.0 | 15.6 | 12.8          | 14.3 | 13.3 | 14.8 | 15.4 |
|   | Y=3H            | 15.4 | 16.8 | 15.9 | 17.3 | 17.9          | 15.1 | 16.5 | 15.7 | 17.1 |
|   | Y=4H            | 16.7 | 18.0 | 17.2 | 18.6 | 19.2          | 16.4 | 17.7 | 16.9 | 18.3 |
|   | Y=6H            | 18.1 | 19.3 | 18.7 | 19.9 | 20.6          | 17.7 | 19.0 | 18.3 | 19.5 |
|   | Y=8H            | 18.9 | 20.0 | 19.4 | 20.6 | 21.3          | 18.5 | 19.7 | 19.1 | 20.3 |
|   | Y=12H           | 19.7 | 20.9 | 20.3 | 21.5 | 22.2          | 19.3 | 20.5 | 19.9 | 21.1 |
| X=4H    Y=2H                                      | 14.0            | 15.3 | 14.5 | 15.9 | 16.5 | 13.8          | 15.1 | 14.4 | 15.7 | 16.3 |
|   | Y=3H            | 16.6 | 17.7 | 17.2 | 18.3 | 19.0          | 16.4 | 17.5 | 17.0 | 18.1 |
|   | Y=4H            | 18.1 | 19.1 | 18.7 | 19.7 | 20.4          | 17.8 | 18.8 | 18.4 | 19.4 |
|   | Y=6H            | 19.7 | 20.6 | 20.3 | 21.2 | 21.9          | 19.3 | 20.3 | 19.9 | 20.9 |
|   | Y=8H            | 20.5 | 21.4 | 21.1 | 22.0 | 22.8          | 20.2 | 21.1 | 20.8 | 21.7 |
|   | Y=12H           | 21.5 | 22.3 | 22.2 | 23.0 | 23.7          | 21.1 | 21.9 | 21.8 | 22.6 |
| X=8H    Y=4H                                      | 18.7            | 19.6 | 19.4 | 20.3 | 21.0 | 18.5          | 19.4 | 19.1 | 20.0 | 20.7 |
|   | Y=6H            | 20.6 | 21.4 | 21.3 | 22.0 | 22.9          | 20.3 | 21.1 | 21.0 | 21.7 |
|   | Y=8H            | 21.7 | 22.3 | 22.3 | 23.0 | 23.8          | 21.3 | 22.0 | 22.0 | 22.7 |
|   | Y=12H           | 22.9 | 23.5 | 23.5 | 24.2 | 25.0          | 22.5 | 23.1 | 23.2 | 23.8 |
| X=12H    Y=4H                                     | 18.9            | 19.7 | 19.6 | 20.4 | 21.1 | 18.7          | 19.5 | 19.3 | 20.2 | 20.9 |
|   | Y=6H            | 20.9 | 21.6 | 21.6 | 22.2 | 23.0          | 20.6 | 21.3 | 21.3 | 22.0 |
|   | Y=8H            | 22.1 | 22.7 | 22.7 | 23.3 | 24.1          | 21.7 | 22.4 | 22.4 | 23.0 |
| Variations with the objerver position at spacings |                 |      |      |      |      |               |      |      |      |      |
| S=1.0H  | 0.1/-0.1        |      |      |      |      | 0.1/-0.1      |      |      |      |      |
| S=1.5H  | 0.1/-0.2        |      |      |      |      | 0.2/-0.2      |      |      |      |      |
| S=2.0H  | 0.1/-0.1        |      |      |      |      | 0.1/-0.1      |      |      |      |      |
| Reduced UGR Table:                                |                 |      |      |      |      |               |      |      |      |      |
| Nordic Standard Table:                            | BK0             |      |      |      |      | BK0           |      |      |      |      |
| Correction Value                                  | 5.6             |      |      |      |      | 5.5           |      |      |      |      |

o the CIE Pub.117, data has been corrected, refers to the lamp’s lumens 8.2flm.

Candela Tabulation

| V/H    | C0.0  | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 0.0  | 96.76 | 96.76 | 96.76  | 96.76  |
| γ 1.0  | 96.85 | 96.34 | 97.01  | 96.59  |
| γ 2.0  | 96.68 | 96.14 | 96.94  | 96.61  |
| γ 3.0  | 96.45 | 95.95 | 97.07  | 96.62  |
| γ 4.0  | 96.30 | 95.72 | 97.11  | 96.79  |
| γ 5.0  | 96.13 | 95.50 | 97.08  | 96.60  |
| γ 6.0  | 95.80 | 95.23 | 97.07  | 96.63  |
| γ 7.0  | 95.46 | 94.95 | 96.97  | 96.63  |
| γ 8.0  | 95.24 | 94.64 | 96.94  | 96.44  |
| γ 9.0  | 94.92 | 94.33 | 96.74  | 96.48  |
| γ 10.0 | 94.68 | 93.93 | 96.64  | 96.32  |
| γ 11.0 | 94.17 | 93.53 | 96.46  | 96.10  |
| γ 12.0 | 93.84 | 93.09 | 96.23  | 95.97  |
| γ 13.0 | 93.41 | 92.69 | 95.94  | 95.71  |
| γ 14.0 | 92.89 | 92.18 | 95.86  | 95.41  |
| γ 15.0 | 92.47 | 91.78 | 95.46  | 95.19  |
| γ 16.0 | 92.03 | 91.31 | 95.24  | 94.96  |
| γ 17.0 | 91.46 | 90.74 | 94.91  | 94.65  |
| γ 18.0 | 90.94 | 90.17 | 94.61  | 94.30  |
| γ 19.0 | 90.45 | 89.61 | 94.28  | 93.88  |
| γ 20.0 | 89.86 | 89.01 | 93.83  | 93.52  |
| γ 21.0 | 89.26 | 88.28 | 93.42  | 93.12  |
| γ 22.0 | 88.72 | 87.72 | 93.03  | 92.69  |
| γ 23.0 | 88.05 | 87.01 | 92.54  | 92.28  |
| γ 24.0 | 87.49 | 86.24 | 92.08  | 91.84  |
| γ 25.0 | 86.66 | 85.71 | 91.56  | 91.21  |
| γ 26.0 | 86.11 | 84.97 | 91.05  | 90.74  |
| γ 27.0 | 85.34 | 84.18 | 90.45  | 90.22  |
| γ 28.0 | 84.65 | 83.35 | 89.96  | 89.74  |
| γ 29.0 | 83.90 | 82.57 | 89.34  | 89.13  |
| γ 30.0 | 83.15 | 81.79 | 88.82  | 88.42  |
| γ 31.0 | 82.36 | 80.97 | 88.11  | 87.82  |
| γ 32.0 | 81.54 | 80.14 | 87.45  | 87.21  |
| γ 33.0 | 80.81 | 79.29 | 86.86  | 86.52  |
| γ 34.0 | 79.91 | 78.38 | 86.17  | 85.87  |
| γ 35.0 | 79.15 | 77.50 | 85.45  | 85.19  |
| γ 36.0 | 78.26 | 76.61 | 84.81  | 84.35  |
| γ 37.0 | 77.29 | 75.69 | 84.02  | 83.70  |
| γ 38.0 | 76.47 | 74.74 | 83.30  | 82.99  |
| γ 39.0 | 75.55 | 73.81 | 82.58  | 82.20  |
| γ 40.0 | 74.62 | 72.90 | 81.71  | 81.41  |
| γ 41.0 | 73.73 | 71.87 | 80.93  | 80.68  |
| γ 42.0 | 72.76 | 70.90 | 80.10  | 79.83  |
| γ 43.0 | 71.80 | 69.86 | 79.25  | 79.08  |
| γ 44.0 | 70.88 | 68.79 | 78.41  | 78.15  |
| γ 45.0 | 69.87 | 67.85 | 77.39  | 77.25  |
| γ 46.0 | 68.85 | 66.77 | 76.71  | 76.36  |

IES Indoor Report

Photometric Filename:WL02-06-XX-03 2700K RA90 150D.IES

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Candela Tabulation - (Cont.)

| V/H    | C0.0  | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 67.89 | 65.74 | 75.76  | 75.50  |
| γ 48.0 | 66.92 | 64.70 | 74.88  | 74.60  |
| γ 49.0 | 65.84 | 63.63 | 73.93  | 73.68  |
| γ 50.0 | 64.84 | 62.66 | 73.03  | 72.74  |
| γ 51.0 | 63.82 | 61.62 | 72.10  | 71.78  |
| γ 52.0 | 62.80 | 60.49 | 71.12  | 70.91  |
| γ 53.0 | 61.71 | 59.47 | 70.07  | 69.94  |
| γ 54.0 | 60.68 | 58.37 | 69.13  | 69.03  |
| γ 55.0 | 59.59 | 57.28 | 68.16  | 68.02  |
| γ 56.0 | 58.59 | 56.21 | 67.20  | 67.07  |
| γ 57.0 | 57.54 | 55.15 | 66.18  | 66.10  |
| γ 58.0 | 56.51 | 54.13 | 65.10  | 65.06  |
| γ 59.0 | 55.47 | 53.04 | 64.07  | 64.08  |
| γ 60.0 | 54.41 | 51.97 | 63.08  | 63.07  |
| γ 61.0 | 53.39 | 50.92 | 61.93  | 62.02  |
| γ 62.0 | 52.35 | 49.88 | 61.00  | 61.04  |
| γ 63.0 | 51.29 | 48.77 | 59.88  | 59.98  |
| γ 64.0 | 50.26 | 47.69 | 58.87  | 58.98  |
| γ 65.0 | 49.23 | 46.71 | 57.78  | 57.99  |
| γ 66.0 | 48.19 | 45.65 | 56.75  | 56.97  |
| γ 67.0 | 47.18 | 44.60 | 55.71  | 55.91  |
| γ 68.0 | 46.10 | 43.63 | 54.59  | 54.90  |
| γ 69.0 | 45.11 | 42.59 | 53.58  | 53.88  |
| γ 70.0 | 44.11 | 41.60 | 52.56  | 52.90  |
| γ 71.0 | 43.14 | 40.62 | 51.48  | 51.91  |
| γ 72.0 | 42.15 | 39.62 | 50.37  | 50.92  |
| γ 73.0 | 41.13 | 38.61 | 49.34  | 49.85  |
| γ 74.0 | 40.13 | 37.64 | 48.28  | 48.84  |
| γ 75.0 | 39.18 | 36.71 | 47.26  | 47.82  |
| γ 76.0 | 38.21 | 35.74 | 46.22  | 46.88  |
| γ 77.0 | 37.26 | 34.84 | 45.25  | 45.83  |
| γ 78.0 | 36.33 | 33.88 | 44.18  | 44.87  |
| γ 79.0 | 35.42 | 32.97 | 43.14  | 43.81  |
| γ 80.0 | 34.51 | 32.09 | 42.15  | 42.87  |
| γ 81.0 | 33.60 | 31.17 | 41.11  | 41.90  |
| γ 82.0 | 32.74 | 30.28 | 40.11  | 40.93  |
| γ 83.0 | 31.84 | 29.45 | 39.12  | 39.95  |
| γ 84.0 | 30.96 | 28.59 | 38.19  | 39.03  |
| γ 85.0 | 30.10 | 27.74 | 37.15  | 38.08  |
| γ 86.0 | 29.26 | 26.90 | 36.18  | 37.08  |
| γ 87.0 | 28.43 | 26.09 | 35.27  | 36.18  |
| γ 88.0 | 27.59 | 25.27 | 34.33  | 35.24  |
| γ 89.0 | 26.79 | 24.46 | 33.40  | 34.33  |
| γ 90.0 | 25.96 | 23.65 | 32.49  | 33.45  |
| γ 91.0 | 25.17 | 22.90 | 31.55  | 32.53  |
| γ 92.0 | 24.37 | 22.12 | 30.70  | 31.69  |
| γ 93.0 | 23.58 | 21.37 | 29.82  | 30.83  |



IES Indoor Report

Photometric Filename:WL02-06-XX-03 2700K RA90 150D.IES

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Candela Tabulation - (Cont.)

| V/H     | C0.0  | C90.0 | C180.0 | C270.0 |
|---------|-------|-------|--------|--------|
| γ 94.0  | 22.83 | 20.64 | 28.94  | 30.00  |
| γ 95.0  | 22.09 | 19.90 | 28.12  | 29.19  |
| γ 96.0  | 21.36 | 19.17 | 27.31  | 28.32  |
| γ 97.0  | 20.64 | 18.36 | 26.45  | 27.52  |
| γ 98.0  | 19.92 | 17.58 | 25.65  | 26.69  |
| γ 99.0  | 19.25 | 16.82 | 24.82  | 25.86  |
| γ 100.0 | 18.54 | 16.02 | 24.02  | 25.09  |
| γ 101.0 | 17.87 | 15.21 | 23.26  | 24.32  |
| γ 102.0 | 17.22 | 14.09 | 22.48  | 23.57  |
| γ 103.0 | 16.57 | 12.41 | 21.71  | 22.83  |
| γ 104.0 | 15.91 | 8.12  | 20.98  | 22.08  |
| γ 105.0 | 15.29 | 2.96  | 20.25  | 21.33  |
| γ 106.0 | 14.62 | 0.98  | 19.53  | 20.62  |
| γ 107.0 | 13.34 | 0.70  | 18.84  | 19.91  |
| γ 108.0 | 10.81 | 0.68  | 18.16  | 19.25  |
| γ 109.0 | 7.20  | 0.64  | 17.46  | 18.54  |
| γ 110.0 | 4.64  | 0.18  | 16.80  | 17.79  |
| γ 111.0 | 2.84  | 0.00  | 16.14  | 17.06  |
| γ 112.0 | 2.26  | 0.00  | 15.48  | 16.33  |
| γ 113.0 | 2.48  | 0.00  | 14.87  | 15.63  |
| γ 114.0 | 3.18  | 0.00  | 14.25  | 13.70  |
| γ 115.0 | 3.77  | 0.00  | 13.65  | 8.73   |
| γ 116.0 | 3.90  | 0.00  | 13.03  | 2.99   |
| γ 117.0 | 3.66  | 0.00  | 12.45  | 1.41   |
| γ 118.0 | 3.46  | 0.00  | 11.08  | 1.47   |
| γ 119.0 | 3.54  | 0.00  | 7.92   | 2.03   |
| γ 120.0 | 3.86  | 0.00  | 3.59   | 2.30   |
| γ 121.0 | 4.00  | 0.00  | 1.22   | 1.57   |
| γ 122.0 | 3.71  | 0.00  | 0.64   | 0.89   |
| γ 123.0 | 3.41  | 0.00  | 0.87   | 0.38   |
| γ 124.0 | 3.06  | 0.00  | 1.64   | 0.10   |
| γ 125.0 | 2.73  | 0.00  | 2.39   | 0.00   |
| γ 126.0 | 2.36  | 0.00  | 2.61   | 0.00   |
| γ 127.0 | 2.00  | 0.00  | 2.39   | 0.00   |
| γ 128.0 | 1.63  | 0.00  | 2.21   | 0.00   |
| γ 129.0 | 1.25  | 0.00  | 2.15   | 0.00   |
| γ 130.0 | 0.86  | 0.00  | 2.52   | 0.00   |
| γ 131.0 | 0.47  | 0.00  | 2.89   | 0.00   |
| γ 132.0 | 0.10  | 0.00  | 2.70   | 0.00   |
| γ 133.0 | 0.00  | 0.00  | 2.39   | 0.00   |
| γ 134.0 | 0.00  | 0.00  | 2.08   | 0.00   |
| γ 135.0 | 0.00  | 0.00  | 1.75   | 0.00   |
| γ 136.0 | 0.00  | 0.00  | 1.42   | 0.00   |
| γ 137.0 | 0.00  | 0.00  | 1.10   | 0.00   |
| γ 138.0 | 0.00  | 0.00  | 0.75   | 0.00   |
| γ 139.0 | 0.00  | 0.00  | 0.39   | 0.00   |
| γ 140.0 | 0.00  | 0.00  | 0.03   | 0.00   |

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Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 142.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 143.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 144.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 145.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 146.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 147.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 148.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 149.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 150.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 151.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 152.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 153.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 154.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 155.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 156.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 157.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 158.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 159.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 160.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 161.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 162.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 163.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 164.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 165.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 166.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 167.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 168.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 169.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 170.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 171.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 172.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 173.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 174.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 175.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 176.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 177.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 178.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 179.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 180.0 | 0.00 | 0.00  | 0.00   | 0.00   |