

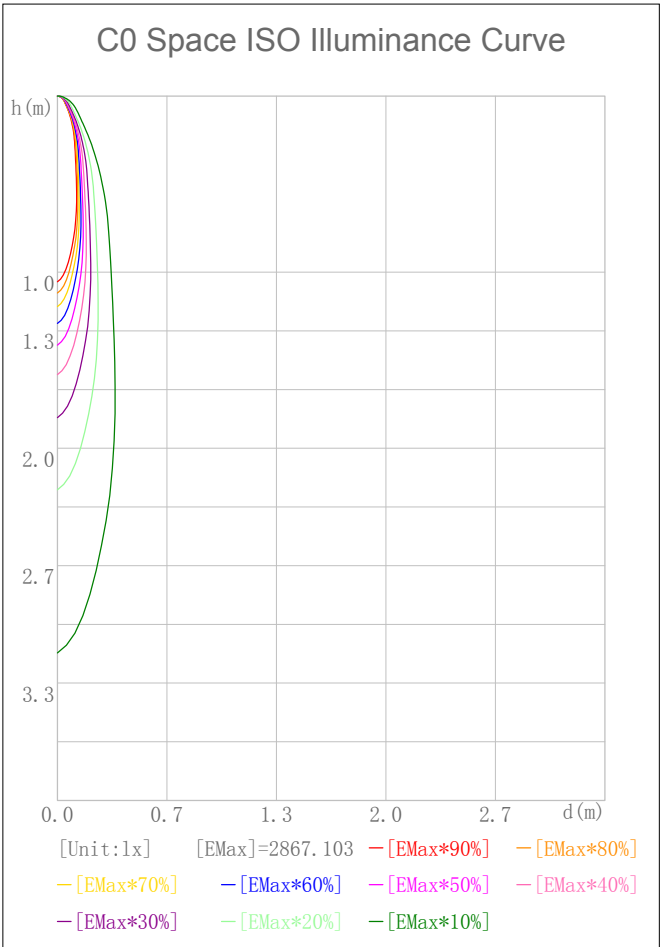
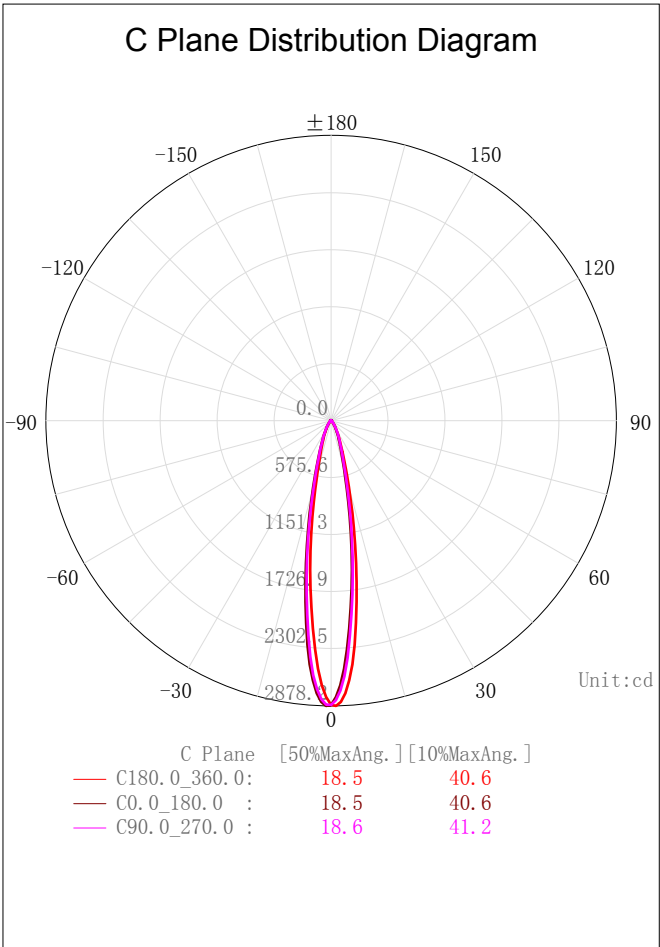
Indoor Luminaire Photometric Data

Description Information

|   |                         |                       |
|---|-------------------------|-----------------------|
| Luminary Name: MD10-06-XX-01 3000K RA90 15D     | Lum. Catalog:           | Test ID: 01           |
| Lamp Name:                                      | Lamp Catalog: LED       | Test Date: 2019/11/30 |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Shld.Ang(°):            | Test Machine:GON-2000 |
| Test Lab: QUality peatment                      | Frequency (Hz):         | Lamp CCT(K): Ra:      |
| Lum. Size (W*L*H):0.050m*0.050m*0.450m          | Lum. Area (m2):0.025    | Lum. W(kg): 0.000     |
| Test System: C, γ                               | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25        |
|   |                         | Humidity(%): 50.0     |

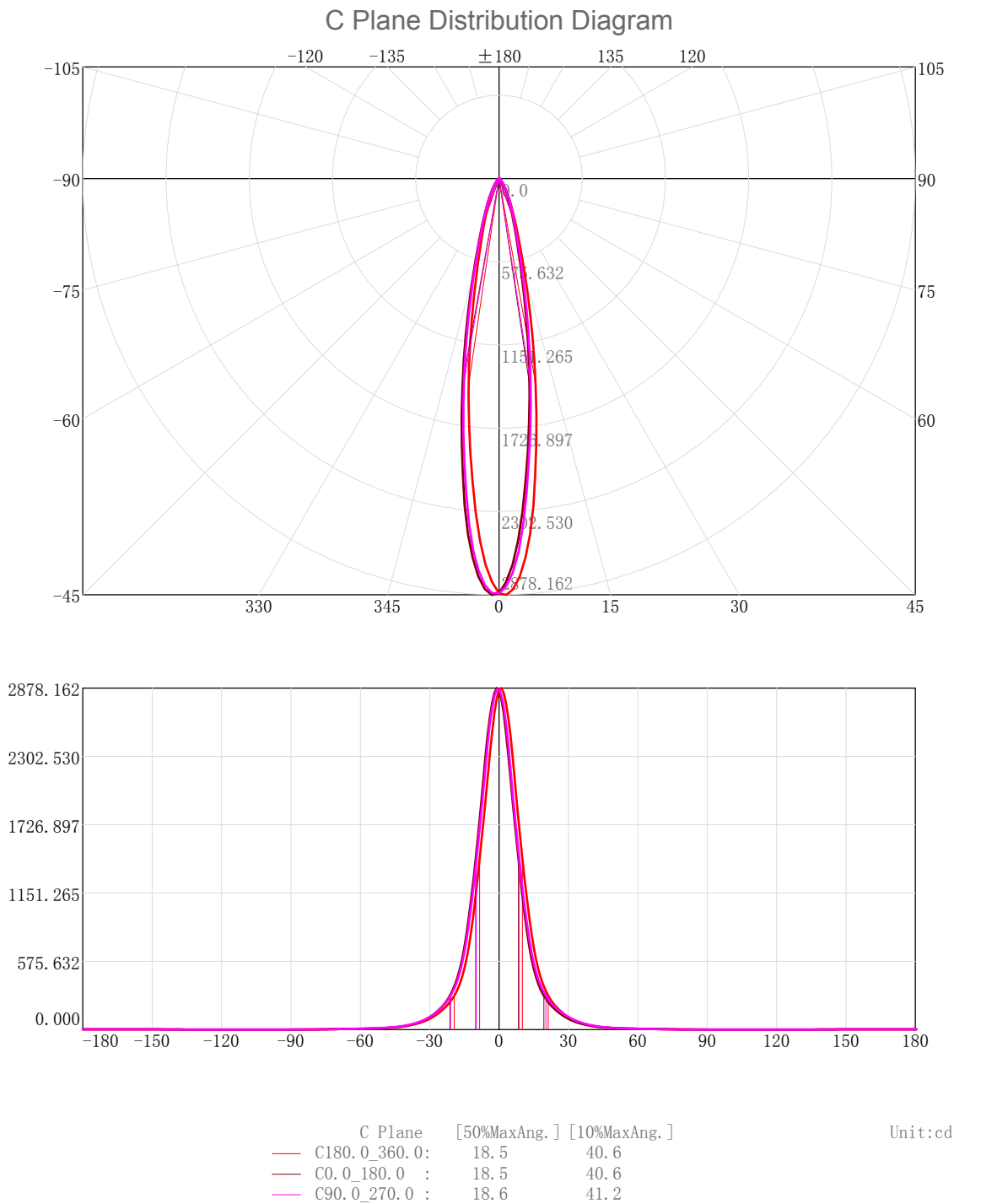
Character Parameter

| Lamp Speciality Parameter                       | Luminaire Speciality Parameter   |                                       |
|---|----------------------------------|---------------------------------------|
| Rated Flux(lm): 532.660                         | Luminary Flux(lm): 532.659       | Field Angle(10%Imax): 40.6(°)         |
| Rated Power(W):                                 | Luminary Efficiency: 100.00%     | Down Lumens&Percent: 522.568lm 98.11% |
| Rated Voltage(V):                               | Luminary EER(lm/W): 96.900       | Up Lumens&Percent: 10.091lm 1.89%     |
| Tested Power(W): 5.497                          | Max. Candela(cd): 2878.162       | S/MH: C0_a180=0.317 C90_270=0.316     |
| Lamps' Inside: 1                                | Max Cand@Ang. (°): C=180.0 γ=1.0 | CIE Type: Semi-Direct                 |
| Tested Electrics (V, A, pf):240.3, 0.026, 0.868 | Beam Angle(50%Imax): 18.5(°)     | ErP Φ use(90°): 497.820lm             |
| Lamp Size(W*L*H):0.050m*0.050m*0.450m           | Left=-8.4°, Right=10.1°          | IRF(%): 1235.786                      |



2D Plane Light Intensity Distribution Curve

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |



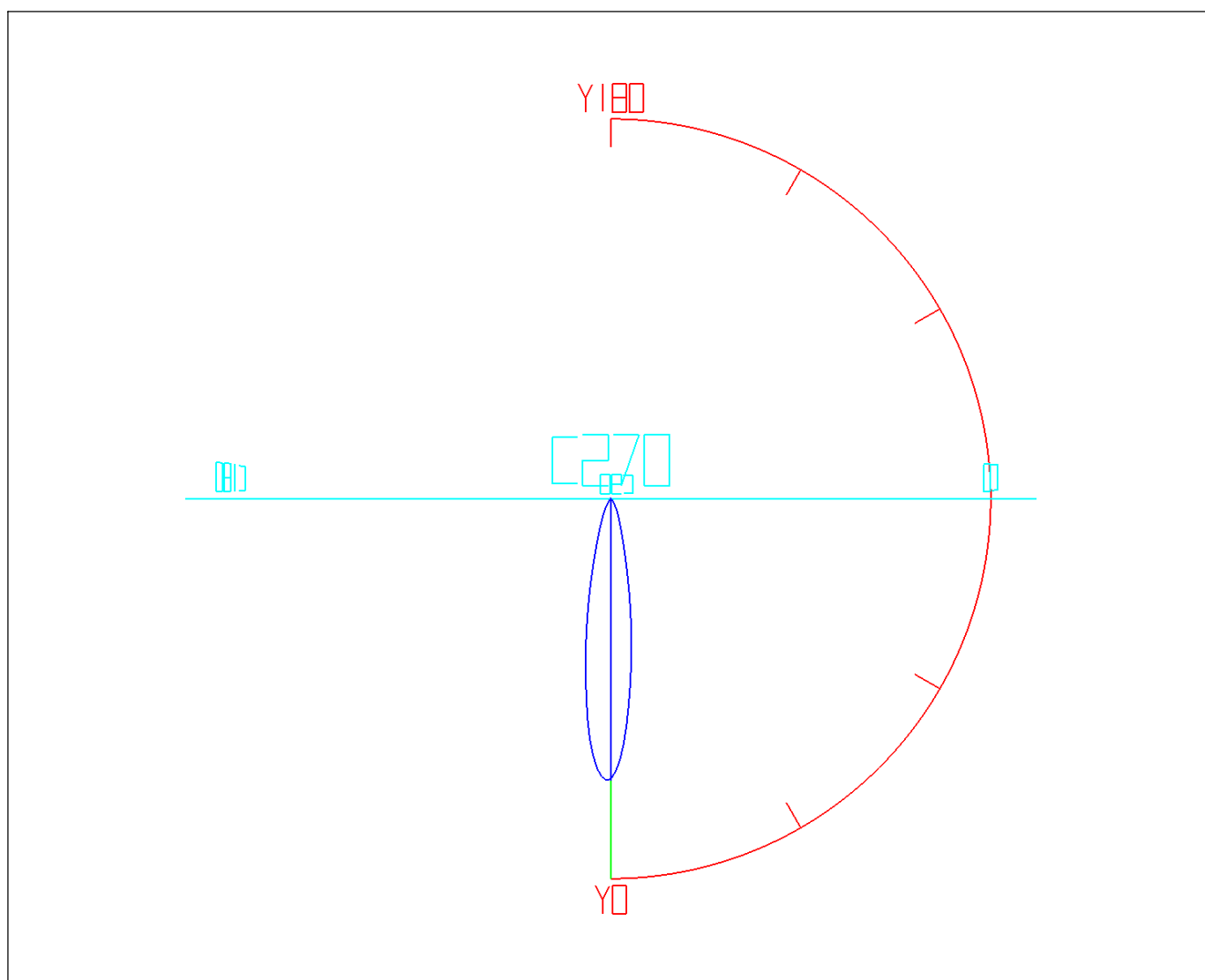
# IES Indoor Report

Photometric Filename:MD10-06-XX-01 3000K RA90 15D.IES

## 3D Light Intensity Distribution Modal

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |

## 3D Light Intensity Distribution Modal



Curves: 3D Model — Fixture — Vert. HUD — Hori. HUD —  
View Angles: Orient:0 Tilt:0 Roll:0 Spin:0

Zonal Flux Tabulation

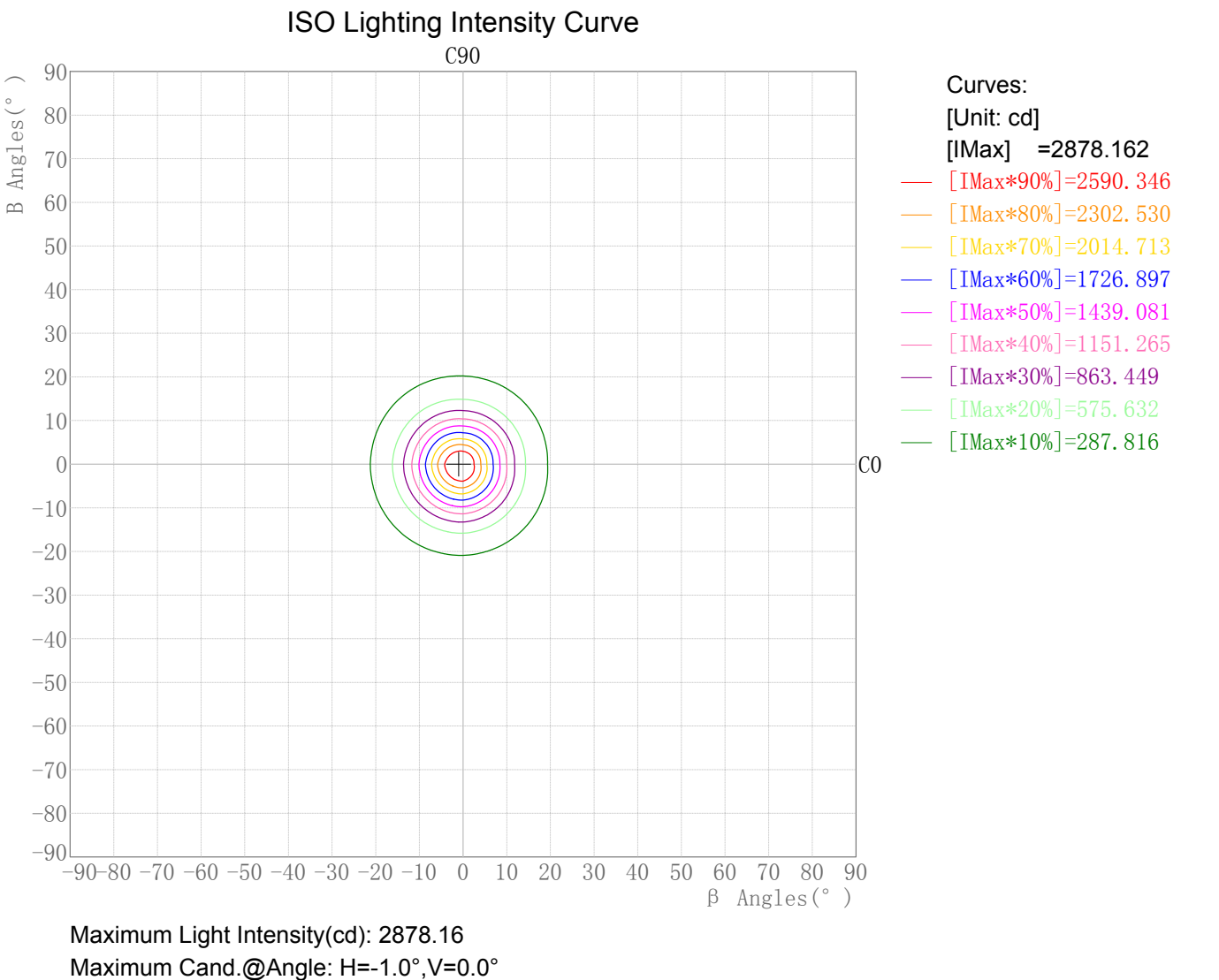
| Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0   | 2.73              | 2.73              | 0.51      | 0.51      | 47.0-48.0 | 1.39              | 497.85            | 0.26      | 93.47     |
| 1.0-2.0   | 8.04              | 10.77             | 1.51      | 2.02      | 48.0-49.0 | 1.31              | 499.16            | 0.25      | 93.71     |
| 2.0-3.0   | 12.92             | 23.68             | 2.42      | 4.45      | 49.0-50.0 | 1.23              | 500.39            | 0.23      | 93.94     |
| 3.0-4.0   | 17.12             | 40.81             | 3.21      | 7.66      | 50.0-51.0 | 1.17              | 501.56            | 0.22      | 94.16     |
| 4.0-5.0   | 20.49             | 61.30             | 3.85      | 11.51     | 51.0-52.0 | 1.11              | 502.67            | 0.21      | 94.37     |
| 5.0-6.0   | 22.94             | 84.23             | 4.31      | 15.81     | 52.0-53.0 | 1.06              | 503.74            | 0.20      | 94.57     |
| 6.0-7.0   | 24.54             | 108.77            | 4.61      | 20.42     | 53.0-54.0 | 1.02              | 504.75            | 0.19      | 94.76     |
| 7.0-8.0   | 25.43             | 134.20            | 4.77      | 25.20     | 54.0-55.0 | 0.98              | 505.73            | 0.18      | 94.94     |
| 8.0-9.0   | 25.66             | 159.86            | 4.82      | 30.01     | 55.0-56.0 | 0.94              | 506.67            | 0.18      | 95.12     |
| 9.0-10.0  | 25.26             | 185.12            | 4.74      | 34.75     | 56.0-57.0 | 0.91              | 507.58            | 0.17      | 95.29     |
| 10.0-11.0 | 24.33             | 209.45            | 4.57      | 39.32     | 57.0-58.0 | 0.88              | 508.45            | 0.16      | 95.46     |
| 11.0-12.0 | 23.00             | 232.45            | 4.32      | 43.64     | 58.0-59.0 | 0.85              | 509.30            | 0.16      | 95.61     |
| 12.0-13.0 | 21.42             | 253.87            | 4.02      | 47.66     | 59.0-60.0 | 0.82              | 510.12            | 0.15      | 95.77     |
| 13.0-14.0 | 19.72             | 273.60            | 3.70      | 51.36     | 60.0-61.0 | 0.79              | 510.91            | 0.15      | 95.92     |
| 14.0-15.0 | 18.04             | 291.64            | 3.39      | 54.75     | 61.0-62.0 | 0.76              | 511.67            | 0.14      | 96.06     |
| 15.0-16.0 | 16.48             | 308.11            | 3.09      | 57.84     | 62.0-63.0 | 0.73              | 512.40            | 0.14      | 96.20     |
| 16.0-17.0 | 15.09             | 323.20            | 2.83      | 60.68     | 63.0-64.0 | 0.71              | 513.11            | 0.13      | 96.33     |
| 17.0-18.0 | 13.88             | 337.08            | 2.61      | 63.28     | 64.0-65.0 | 0.68              | 513.79            | 0.13      | 96.46     |
| 18.0-19.0 | 12.82             | 349.90            | 2.41      | 65.69     | 65.0-66.0 | 0.65              | 514.44            | 0.12      | 96.58     |
| 19.0-20.0 | 11.89             | 361.79            | 2.23      | 67.92     | 66.0-67.0 | 0.63              | 515.07            | 0.12      | 96.70     |
| 20.0-21.0 | 11.05             | 372.84            | 2.08      | 70.00     | 67.0-68.0 | 0.59              | 515.66            | 0.11      | 96.81     |
| 21.0-22.0 | 10.30             | 383.14            | 1.93      | 71.93     | 68.0-69.0 | 0.56              | 516.22            | 0.11      | 96.91     |
| 22.0-23.0 | 9.63              | 392.78            | 1.81      | 73.74     | 69.0-70.0 | 0.53              | 516.75            | 0.10      | 97.01     |
| 23.0-24.0 | 9.03              | 401.81            | 1.70      | 75.43     | 70.0-71.0 | 0.50              | 517.25            | 0.09      | 97.11     |
| 24.0-25.0 | 8.47              | 410.28            | 1.59      | 77.02     | 71.0-72.0 | 0.48              | 517.73            | 0.09      | 97.20     |
| 25.0-26.0 | 7.93              | 418.21            | 1.49      | 78.51     | 72.0-73.0 | 0.45              | 518.18            | 0.08      | 97.28     |
| 26.0-27.0 | 7.39              | 425.60            | 1.39      | 79.90     | 73.0-74.0 | 0.42              | 518.60            | 0.08      | 97.36     |
| 27.0-28.0 | 6.86              | 432.46            | 1.29      | 81.19     | 74.0-75.0 | 0.39              | 519.00            | 0.07      | 97.44     |
| 28.0-29.0 | 6.35              | 438.81            | 1.19      | 82.38     | 75.0-76.0 | 0.36              | 519.36            | 0.07      | 97.50     |
| 29.0-30.0 | 5.87              | 444.68            | 1.10      | 83.48     | 76.0-77.0 | 0.33              | 519.69            | 0.06      | 97.57     |
| 30.0-31.0 | 5.43              | 450.11            | 1.02      | 84.50     | 77.0-78.0 | 0.30              | 519.99            | 0.06      | 97.62     |
| 31.0-32.0 | 5.01              | 455.12            | 0.94      | 85.44     | 78.0-79.0 | 0.27              | 520.26            | 0.05      | 97.67     |
| 32.0-33.0 | 4.62              | 459.73            | 0.87      | 86.31     | 79.0-80.0 | 0.26              | 520.52            | 0.05      | 97.72     |
| 33.0-34.0 | 4.25              | 463.99            | 0.80      | 87.11     | 80.0-81.0 | 0.25              | 520.76            | 0.05      | 97.77     |
| 34.0-35.0 | 3.91              | 467.90            | 0.73      | 87.84     | 81.0-82.0 | 0.24              | 521.00            | 0.04      | 97.81     |
| 35.0-36.0 | 3.60              | 471.50            | 0.68      | 88.52     | 82.0-83.0 | 0.23              | 521.22            | 0.04      | 97.85     |
| 36.0-37.0 | 3.31              | 474.81            | 0.62      | 89.14     | 83.0-84.0 | 0.22              | 521.44            | 0.04      | 97.89     |
| 37.0-38.0 | 3.05              | 477.86            | 0.57      | 89.71     | 84.0-85.0 | 0.21              | 521.65            | 0.04      | 97.93     |
| 38.0-39.0 | 2.80              | 480.66            | 0.53      | 90.24     | 85.0-86.0 | 0.20              | 521.85            | 0.04      | 97.97     |
| 39.0-40.0 | 2.57              | 483.23            | 0.48      | 90.72     | 86.0-87.0 | 0.19              | 522.04            | 0.04      | 98.01     |
| 40.0-41.0 | 2.37              | 485.60            | 0.44      | 91.16     | 87.0-88.0 | 0.18              | 522.23            | 0.03      | 98.04     |
| 41.0-42.0 | 2.18              | 487.78            | 0.41      | 91.57     | 88.0-89.0 | 0.17              | 522.40            | 0.03      | 98.07     |
| 42.0-43.0 | 2.01              | 489.79            | 0.38      | 91.95     | 89.0-90.0 | 0.17              | 522.57            | 0.03      | 98.11     |
| 43.0-44.0 | 1.86              | 491.65            | 0.35      | 92.30     | 90.0-91.0 | 0.16              | 522.73            | 0.03      | 98.14     |
| 44.0-45.0 | 1.72              | 493.37            | 0.32      | 92.62     | 91.0-92.0 | 0.16              | 522.89            | 0.03      | 98.17     |
| 45.0-46.0 | 1.60              | 494.97            | 0.30      | 92.92     | 92.0-93.0 | 0.15              | 523.04            | 0.03      | 98.19     |
| 46.0-47.0 | 1.49              | 496.46            | 0.28      | 93.20     | 93.0-94.0 | 0.15              | 523.18            | 0.03      | 98.22     |

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   | 0.14              | 523.32            | 0.03      | 98.25     | 141.0-142.0 | 0.15              | 528.21            | 0.03      | 99.17     |
| 95.0-96.0   | 0.14              | 523.46            | 0.03      | 98.27     | 142.0-143.0 | 0.16              | 528.37            | 0.03      | 99.20     |
| 96.0-97.0   | 0.13              | 523.59            | 0.02      | 98.30     | 143.0-144.0 | 0.16              | 528.54            | 0.03      | 99.23     |
| 97.0-98.0   | 0.13              | 523.71            | 0.02      | 98.32     | 144.0-145.0 | 0.17              | 528.70            | 0.03      | 99.26     |
| 98.0-99.0   | 0.12              | 523.84            | 0.02      | 98.34     | 145.0-146.0 | 0.17              | 528.87            | 0.03      | 99.29     |
| 99.0-100.0  | 0.12              | 523.96            | 0.02      | 98.37     | 146.0-147.0 | 0.17              | 529.05            | 0.03      | 99.32     |
| 100.0-101.0 | 0.12              | 524.07            | 0.02      | 98.39     | 147.0-148.0 | 0.18              | 529.22            | 0.03      | 99.35     |
| 101.0-102.0 | 0.11              | 524.18            | 0.02      | 98.41     | 148.0-149.0 | 0.18              | 529.40            | 0.03      | 99.39     |
| 102.0-103.0 | 0.11              | 524.29            | 0.02      | 98.43     | 149.0-150.0 | 0.18              | 529.58            | 0.03      | 99.42     |
| 103.0-104.0 | 0.11              | 524.40            | 0.02      | 98.45     | 150.0-151.0 | 0.18              | 529.75            | 0.03      | 99.45     |
| 104.0-105.0 | 0.10              | 524.50            | 0.02      | 98.47     | 151.0-152.0 | 0.18              | 529.93            | 0.03      | 99.49     |
| 105.0-106.0 | 0.10              | 524.61            | 0.02      | 98.49     | 152.0-153.0 | 0.17              | 530.10            | 0.03      | 99.52     |
| 106.0-107.0 | 0.10              | 524.71            | 0.02      | 98.51     | 153.0-154.0 | 0.17              | 530.27            | 0.03      | 99.55     |
| 107.0-108.0 | 0.10              | 524.81            | 0.02      | 98.53     | 154.0-155.0 | 0.17              | 530.44            | 0.03      | 99.58     |
| 108.0-109.0 | 0.10              | 524.90            | 0.02      | 98.54     | 155.0-156.0 | 0.16              | 530.60            | 0.03      | 99.61     |
| 109.0-110.0 | 0.10              | 525.00            | 0.02      | 98.56     | 156.0-157.0 | 0.16              | 530.76            | 0.03      | 99.64     |
| 110.0-111.0 | 0.09              | 525.09            | 0.02      | 98.58     | 157.0-158.0 | 0.15              | 530.92            | 0.03      | 99.67     |
| 111.0-112.0 | 0.09              | 525.18            | 0.02      | 98.60     | 158.0-159.0 | 0.15              | 531.07            | 0.03      | 99.70     |
| 112.0-113.0 | 0.09              | 525.27            | 0.02      | 98.61     | 159.0-160.0 | 0.14              | 531.21            | 0.03      | 99.73     |
| 113.0-114.0 | 0.09              | 525.36            | 0.02      | 98.63     | 160.0-161.0 | 0.14              | 531.35            | 0.03      | 99.75     |
| 114.0-115.0 | 0.09              | 525.45            | 0.02      | 98.65     | 161.0-162.0 | 0.13              | 531.48            | 0.02      | 99.78     |
| 115.0-116.0 | 0.09              | 525.53            | 0.02      | 98.66     | 162.0-163.0 | 0.13              | 531.61            | 0.02      | 99.80     |
| 116.0-117.0 | 0.08              | 525.62            | 0.02      | 98.68     | 163.0-164.0 | 0.12              | 531.73            | 0.02      | 99.82     |
| 117.0-118.0 | 0.08              | 525.70            | 0.02      | 98.69     | 164.0-165.0 | 0.11              | 531.84            | 0.02      | 99.85     |
| 118.0-119.0 | 0.08              | 525.79            | 0.02      | 98.71     | 165.0-166.0 | 0.11              | 531.94            | 0.02      | 99.87     |
| 119.0-120.0 | 0.08              | 525.87            | 0.02      | 98.73     | 166.0-167.0 | 0.10              | 532.04            | 0.02      | 99.88     |
| 120.0-121.0 | 0.08              | 525.95            | 0.02      | 98.74     | 167.0-168.0 | 0.09              | 532.14            | 0.02      | 99.90     |
| 121.0-122.0 | 0.08              | 526.03            | 0.02      | 98.76     | 168.0-169.0 | 0.08              | 532.22            | 0.02      | 99.92     |
| 122.0-123.0 | 0.08              | 526.12            | 0.02      | 98.77     | 169.0-170.0 | 0.08              | 532.30            | 0.01      | 99.93     |
| 123.0-124.0 | 0.08              | 526.20            | 0.02      | 98.79     | 170.0-171.0 | 0.07              | 532.37            | 0.01      | 99.94     |
| 124.0-125.0 | 0.08              | 526.29            | 0.02      | 98.80     | 171.0-172.0 | 0.06              | 532.43            | 0.01      | 99.96     |
| 125.0-126.0 | 0.09              | 526.37            | 0.02      | 98.82     | 172.0-173.0 | 0.05              | 532.48            | 0.01      | 99.97     |
| 126.0-127.0 | 0.09              | 526.46            | 0.02      | 98.84     | 173.0-174.0 | 0.05              | 532.53            | 0.01      | 99.98     |
| 127.0-128.0 | 0.09              | 526.55            | 0.02      | 98.85     | 174.0-175.0 | 0.04              | 532.57            | 0.01      | 99.98     |
| 128.0-129.0 | 0.09              | 526.64            | 0.02      | 98.87     | 175.0-176.0 | 0.03              | 532.60            | 0.01      | 99.99     |
| 129.0-130.0 | 0.09              | 526.74            | 0.02      | 98.89     | 176.0-177.0 | 0.03              | 532.63            | 0.00      | 99.99     |
| 130.0-131.0 | 0.10              | 526.83            | 0.02      | 98.91     | 177.0-178.0 | 0.02              | 532.64            | 0.00      | 100.00    |
| 131.0-132.0 | 0.10              | 526.93            | 0.02      | 98.93     | 178.0-179.0 | 0.01              | 532.66            | 0.00      | 100.00    |
| 132.0-133.0 | 0.11              | 527.04            | 0.02      | 98.94     | 179.0-180.0 | 0.00              | 532.66            | 0.00      | 100.00    |
| 133.0-134.0 | 0.11              | 527.15            | 0.02      | 98.97     |             |                   |                   |           |           |
| 134.0-135.0 | 0.11              | 527.26            | 0.02      | 98.99     |             |                   |                   |           |           |
| 135.0-136.0 | 0.12              | 527.38            | 0.02      | 99.01     |             |                   |                   |           |           |
| 136.0-137.0 | 0.12              | 527.51            | 0.02      | 99.03     |             |                   |                   |           |           |
| 137.0-138.0 | 0.13              | 527.64            | 0.02      | 99.06     |             |                   |                   |           |           |
| 138.0-139.0 | 0.14              | 527.77            | 0.03      | 99.08     |             |                   |                   |           |           |
| 139.0-140.0 | 0.14              | 527.92            | 0.03      | 99.11     |             |                   |                   |           |           |
| 140.0-141.0 | 0.15              | 528.06            | 0.03      | 99.14     |             |                   |                   |           |           |

Rectangle ISO Lighting Intensity Diagram

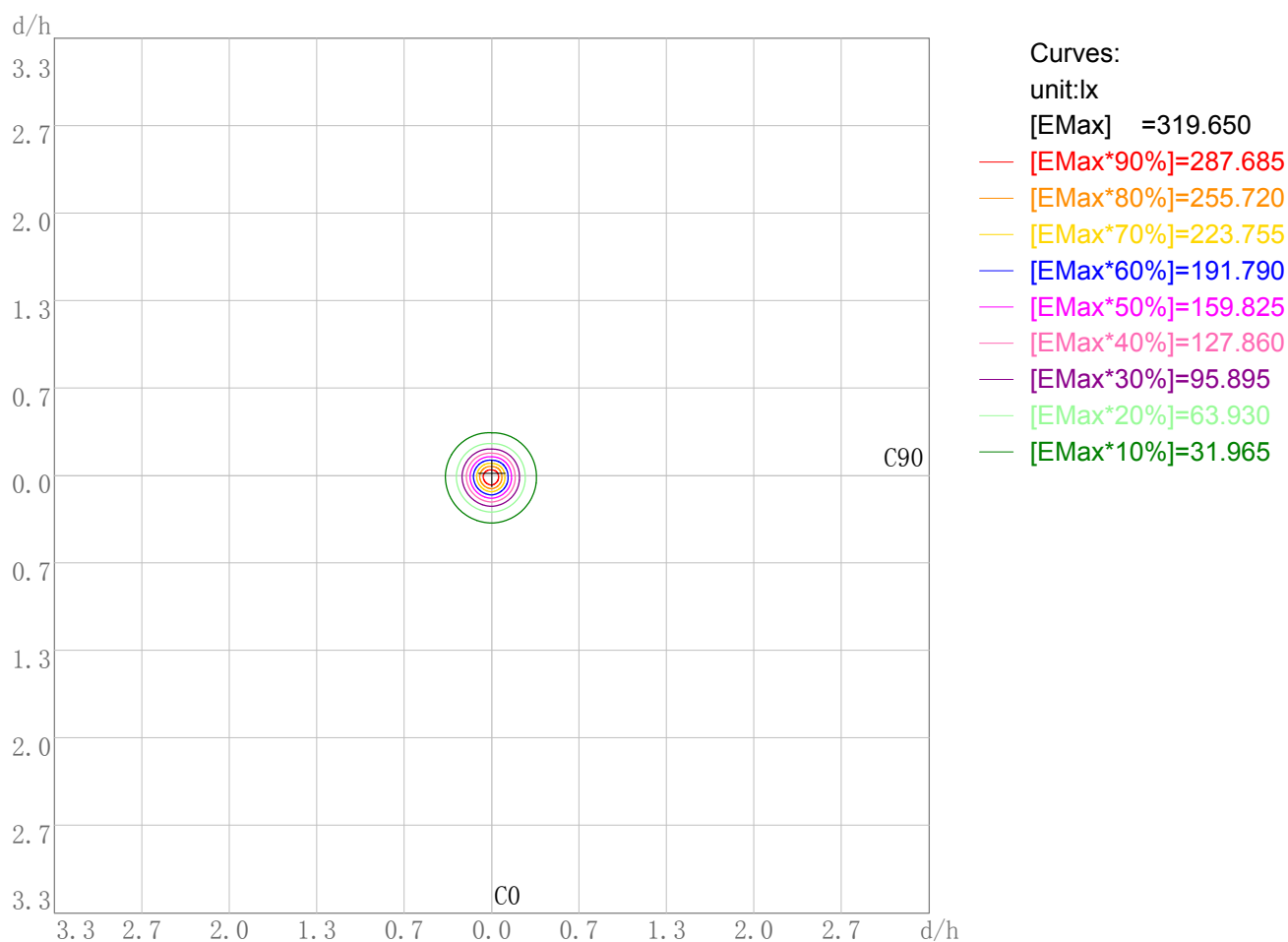
|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name:MD10-06-XX-01 3000K RA90 15D          | Lum. Catalog:         | Test ID:01                 |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |



## Plane ISO-Illuminance Diagram

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |

## Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 319.65

Working Plane Maximum Illuminance Position(d/h):H0.0 V-0.0

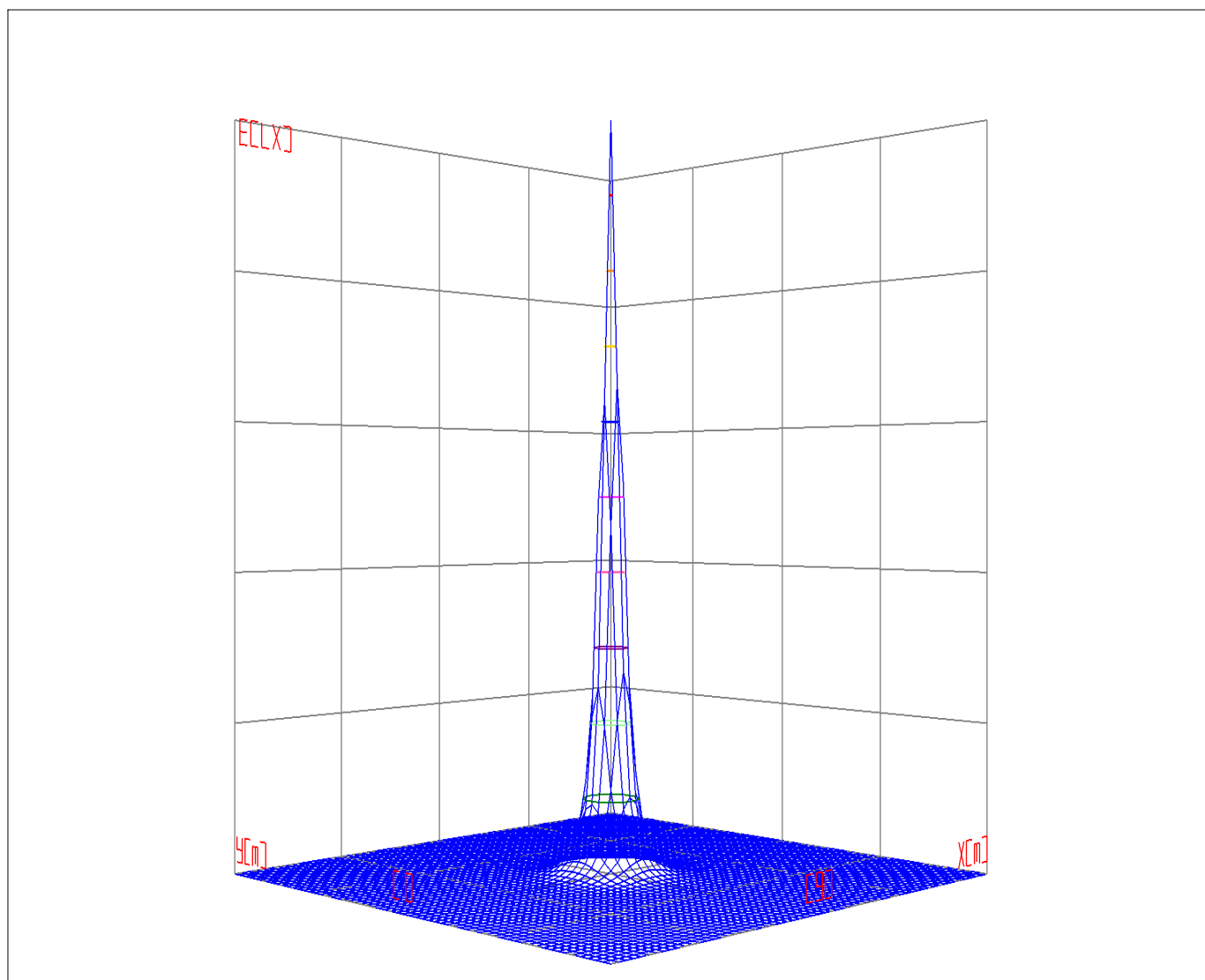
# IES Indoor Report

Photometric Filename:MD10-06-XX-01 3000K RA90 15D.IES

## 3D Plane ISO Illuminance Diagram

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |

## 3D Plane Illuminance Modal



Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —  
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0



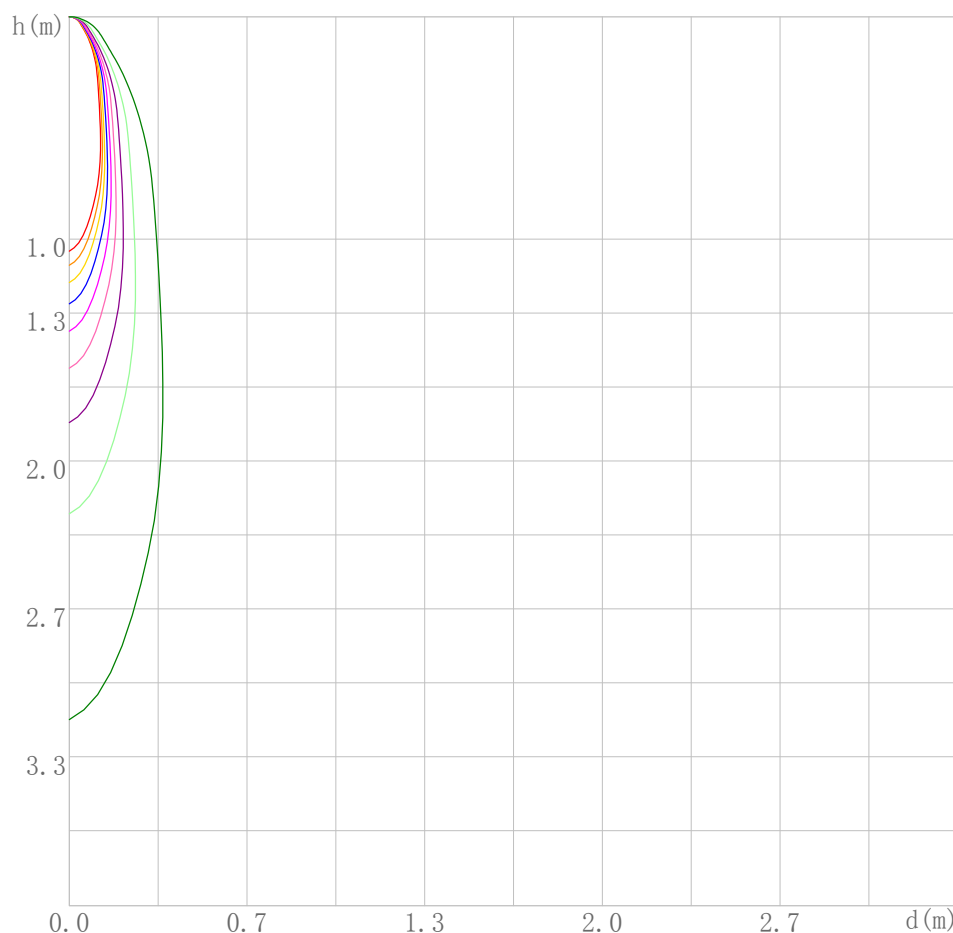
# IES Indoor Report

Photometric Filename:MD10-06-XX-01 3000K RA90 15D.IES

## Space ISO Illuminance Diagram

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |

## Space ISO Illuminance Curve



Curves:

[Unit: lx]

[EMax] =2867.103

— [EMax\*90%]=2580.393

— [EMax\*80%]=2293.682

— [EMax\*70%]=2006.972

— [EMax\*60%]=1720.262

— [EMax\*50%]=1433.552

— [EMax\*40%]=1146.841

— [EMax\*30%]=860.131

— [EMax\*20%]=573.421

— [EMax\*10%]=286.710

Space Plane Maximum Illuminance and @Angle:2867.10lx,0.0deg

Plane Maximum Lighting Intensity and @Angle:2867.103cd,0deg

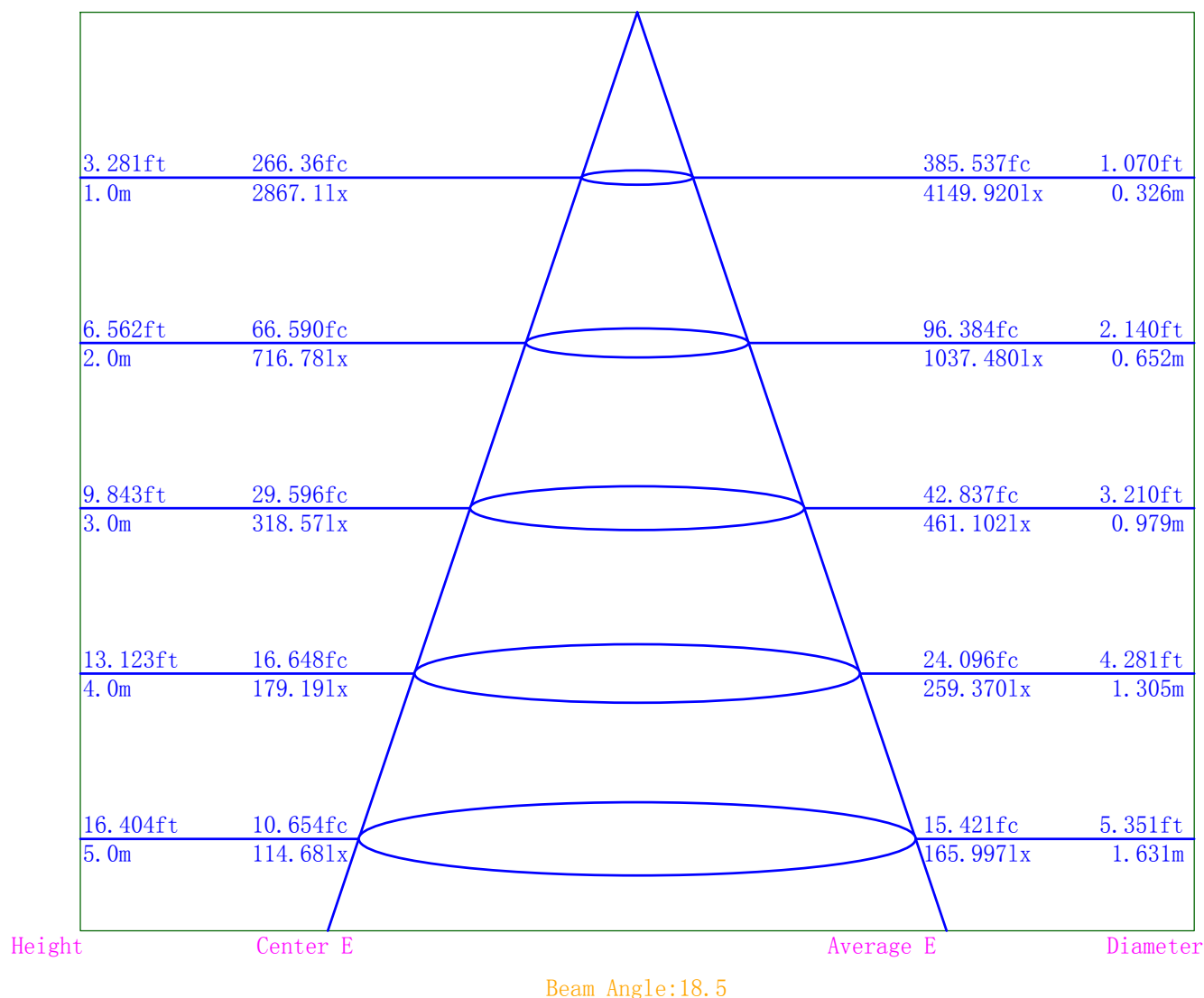
# IES Indoor Report

Photometric Filename:MD10-06-XX-01 3000K RA90 15D.IES

## Illuminance-Distance Diagram

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |

Illuminance-Distance Curve



# IES Indoor Report

Photometric Filename:MD10-06-XX-01 3000K RA90 15D.IES

## Indoor Luminance Limiting Curves

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog: LED     | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |

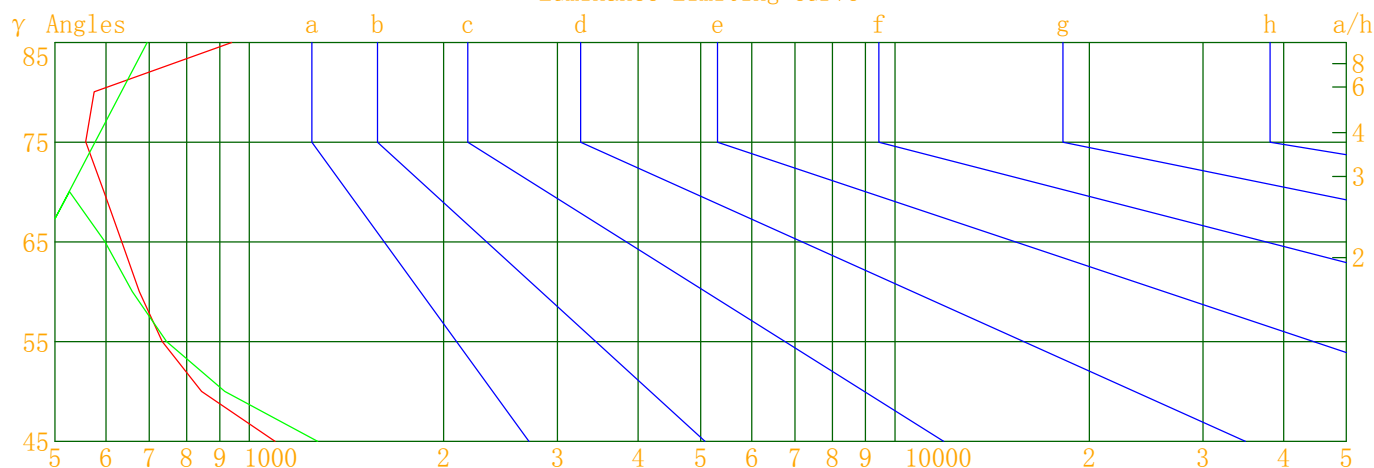
Glare Grade Table

| 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        | 1096 | 844 | 733 | 675 | 634 | 595 | 558 | 575 | 939 |
| C90       | 1276 | 916 | 744 | 659 | 598 | 527 | 478 | 437 | 695 |

Luminance Limiting Curve



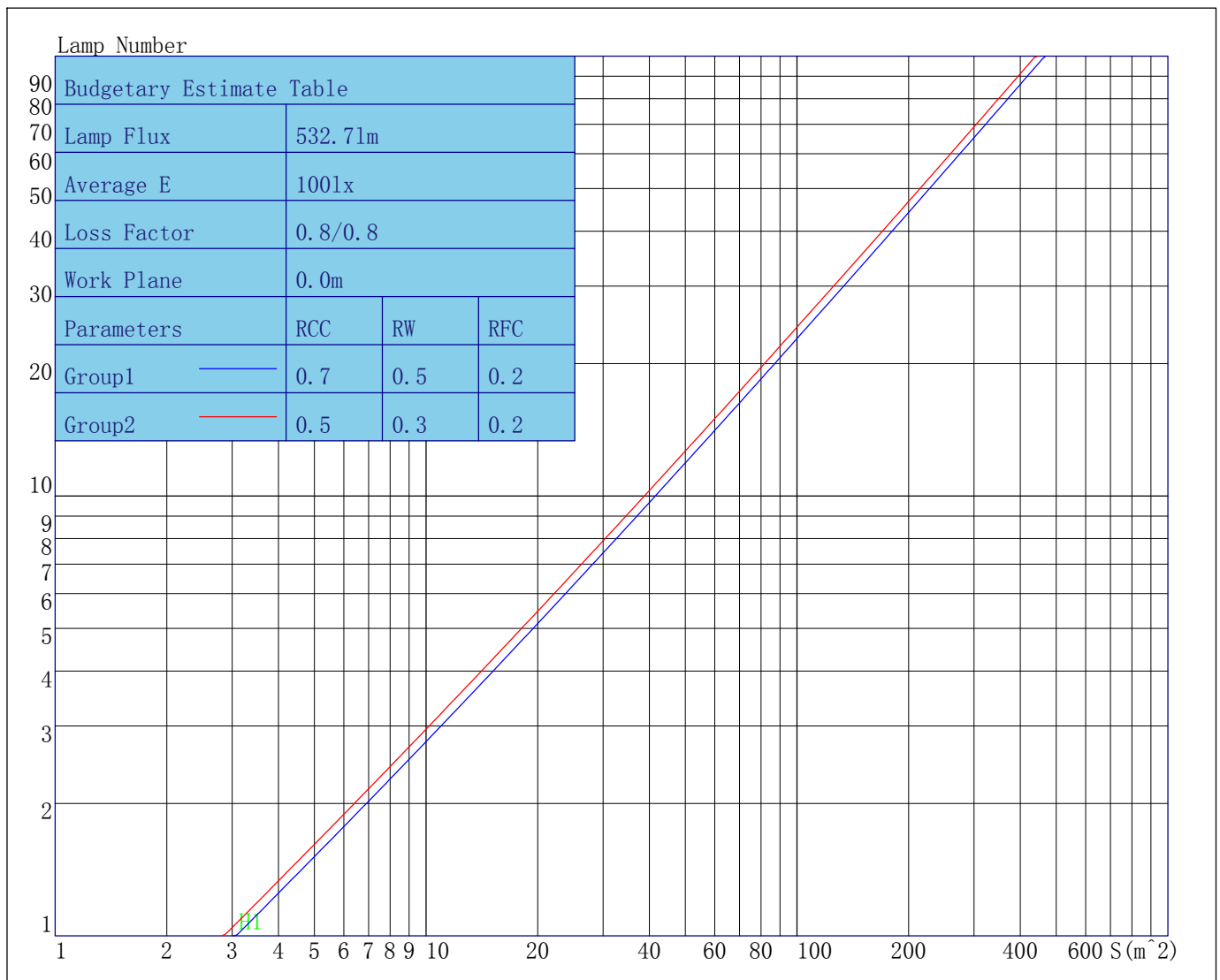
Luminous Size: Length(m)=0.050 Width(m)=0.050 Height(m)=0.450 Area(m^2)=0.025000  
 Luminous Type: Without Luminous Side  
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

# IES Indoor Report

Photometric Filename:MD10-06-XX-01 3000K RA90 15D.IES

## Indoor Budgetary Estimate Table

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catalog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |



Parameters1: Rhocc = 0.7 Rhow = 0.5 Rhofc = 0.2 LLF = 0.8  
Parameters2: Rhocc = 0.5 Rhow = 0.3 Rhofc = 0.2 LLF = 0.8  
Average Illuminance(lx): 100 Cavity Height: H1(m) = 2

Indoor Coefficient of Utilization Table

Table with 3 columns: Lum. Name, Lum. Catalog, Test ID; Lamp Name, Lamp Catalog, Test Lab; Manufacture, Test Machine, Test Date.

Table with 7 columns: Coef., Effective Floor Cavity Reflectance RFC=0.20, RhoCC (%), RhoW (%), RCR, Coefficient of Utilization(%), and numerical values for RCR from 0 to 10.

Unified Glare Rating Table

|   |                       |                            |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-06-XX-01 3000K RA90 15D         | Lum. Catelog:         | Test ID: 01                |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: QQualty peatment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2019/11/30      |

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                                      | 6.3             | 7.3  | 6.7  | 7.6  | 8.0  | 6.7           | 7.7  | 7.1  | 8.0  | 8.4  |
|   | 7.1             | 7.9  | 7.5  | 8.3  | 8.7  | 7.3           | 8.1  | 7.7  | 8.5  | 8.9  |
|   | 7.4             | 8.2  | 7.9  | 8.6  | 9.0  | 7.5           | 8.3  | 7.9  | 8.7  | 9.1  |
|   | 7.7             | 8.4  | 8.2  | 8.8  | 9.3  | 7.6           | 8.3  | 8.1  | 8.8  | 9.2  |
|   | 7.9             | 8.6  | 8.4  | 9.0  | 9.5  | 7.7           | 8.4  | 8.2  | 8.8  | 9.3  |
|   | 8.2             | 8.8  | 8.6  | 9.2  | 9.7  | 7.8           | 8.5  | 8.3  | 8.9  | 9.4  |
| X=4H    Y=2H                                      | 6.6             | 7.3  | 7.0  | 7.7  | 8.2  | 6.8           | 7.6  | 7.3  | 8.0  | 8.4  |
|   | 7.5             | 8.1  | 8.0  | 8.6  | 9.0  | 7.6           | 8.2  | 8.0  | 8.6  | 9.1  |
|   | 8.0             | 8.5  | 8.5  | 9.0  | 9.5  | 7.9           | 8.5  | 8.4  | 8.9  | 9.4  |
|   | 8.4             | 8.9  | 8.9  | 9.4  | 9.9  | 8.2           | 8.6  | 8.7  | 9.1  | 9.6  |
|   | 8.7             | 9.1  | 9.2  | 9.6  | 10.1 | 8.3           | 8.7  | 8.8  | 9.2  | 9.8  |
|   | 9.0             | 9.4  | 9.6  | 9.9  | 10.5 | 8.5           | 8.9  | 9.0  | 9.4  | 9.9  |
| X=8H    Y=4H                                      | 8.1             | 8.5  | 8.6  | 9.0  | 9.6  | 8.0           | 8.4  | 8.5  | 8.9  | 9.4  |
|   | 8.7             | 9.0  | 9.2  | 9.6  | 10.1 | 8.4           | 8.7  | 8.9  | 9.2  | 9.8  |
|   | 9.1             | 9.4  | 9.6  | 9.9  | 10.5 | 8.6           | 8.9  | 9.2  | 9.5  | 10.0 |
|   | 9.6             | 9.9  | 10.2 | 10.4 | 11.0 | 9.0           | 9.2  | 9.5  | 9.8  | 10.4 |
| X=12H    Y=4H                                     | 8.1             | 8.5  | 8.6  | 9.0  | 9.5  | 8.0           | 8.3  | 8.5  | 8.9  | 9.4  |
|   | 8.7             | 9.0  | 9.3  | 9.5  | 10.1 | 8.4           | 8.7  | 9.0  | 9.2  | 9.8  |
|   | 9.2             | 9.5  | 9.8  | 10.0 | 10.6 | 8.7           | 9.0  | 9.3  | 9.5  | 10.1 |
| Variations with the objerver position at spacings |                 |      |      |      |      |               |      |      |      |      |
| S=1.0H  | 0.2/-0.1        |      |      |      |      | 0.3/-0.3      |      |      |      |      |
| S=1.5H  | 0.5/-0.5        |      |      |      |      | 0.7/-0.7      |      |      |      |      |
| S=2.0H  | 0.7/-0.7        |      |      |      |      | 0.9/-1.0      |      |      |      |      |
| Reduced UGR Table:                                |                 |      |      |      |      |               |      |      |      |      |
| Nordic Standard Table:                            | BK0             |      |      |      |      | BK0           |      |      |      |      |
| Correction Value                                  | 2.3             |      |      |      |      | 1.8           |      |      |      |      |

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  | 2867.10 | 2867.10 | 2867.10 | 2867.10 |
| γ 1.0  | 2789.38 | 2819.28 | 2878.16 | 2865.11 |
| γ 2.0  | 2671.76 | 2724.03 | 2838.56 | 2811.60 |
| γ 3.0  | 2506.51 | 2582.88 | 2753.44 | 2712.19 |
| γ 4.0  | 2312.61 | 2396.93 | 2625.04 | 2574.21 |
| γ 5.0  | 2104.28 | 2180.73 | 2468.66 | 2390.36 |
| γ 6.0  | 1898.65 | 1963.79 | 2273.03 | 2178.76 |
| γ 7.0  | 1704.31 | 1766.15 | 2056.54 | 1971.67 |
| γ 8.0  | 1517.99 | 1576.23 | 1848.27 | 1772.48 |
| γ 9.0  | 1329.07 | 1389.99 | 1650.19 | 1578.14 |
| γ 10.0 | 1150.07 | 1213.59 | 1458.78 | 1393.91 |
| γ 11.0 | 985.23  | 1049.61 | 1276.26 | 1214.26 |
| γ 12.0 | 834.25  | 901.27  | 1108.21 | 1048.05 |
| γ 13.0 | 706.17  | 768.92  | 954.52  | 898.36  |
| γ 14.0 | 600.15  | 655.58  | 813.22  | 766.14  |
| γ 15.0 | 513.91  | 561.43  | 692.79  | 652.98  |
| γ 16.0 | 443.42  | 484.24  | 591.53  | 558.24  |
| γ 17.0 | 386.14  | 422.21  | 508.80  | 480.85  |
| γ 18.0 | 338.74  | 371.25  | 441.31  | 417.20  |
| γ 19.0 | 299.54  | 329.32  | 384.89  | 365.02  |
| γ 20.0 | 266.75  | 294.12  | 337.30  | 321.20  |
| γ 21.0 | 238.92  | 263.89  | 296.33  | 284.08  |
| γ 22.0 | 214.69  | 237.82  | 261.97  | 252.90  |
| γ 23.0 | 193.85  | 215.47  | 233.27  | 226.71  |
| γ 24.0 | 174.92  | 195.80  | 208.49  | 204.28  |
| γ 25.0 | 157.70  | 177.79  | 187.18  | 184.03  |
| γ 26.0 | 141.74  | 161.22  | 167.87  | 165.85  |
| γ 27.0 | 126.90  | 145.83  | 150.05  | 149.16  |
| γ 28.0 | 113.64  | 131.50  | 133.59  | 133.56  |
| γ 29.0 | 101.89  | 118.56  | 118.42  | 119.53  |
| γ 30.0 | 91.59   | 107.18  | 105.33  | 107.04  |
| γ 31.0 | 82.21   | 96.80   | 93.95   | 95.87   |
| γ 32.0 | 73.65   | 87.27   | 83.72   | 85.92   |
| γ 33.0 | 65.98   | 78.61   | 74.83   | 76.93   |
| γ 34.0 | 59.12   | 70.60   | 66.86   | 69.08   |
| γ 35.0 | 53.10   | 63.47   | 59.68   | 62.06   |
| γ 36.0 | 47.72   | 57.07   | 53.33   | 55.85   |
| γ 37.0 | 43.03   | 51.27   | 47.58   | 50.37   |
| γ 38.0 | 38.69   | 46.11   | 42.49   | 45.42   |
| γ 39.0 | 34.81   | 41.52   | 38.06   | 40.98   |
| γ 40.0 | 31.27   | 37.33   | 34.20   | 37.02   |
| γ 41.0 | 28.19   | 33.62   | 30.78   | 33.51   |
| γ 42.0 | 25.50   | 30.33   | 27.79   | 30.37   |
| γ 43.0 | 23.12   | 27.38   | 25.06   | 27.60   |
| γ 44.0 | 21.08   | 24.84   | 22.63   | 25.15   |
| γ 45.0 | 19.38   | 22.56   | 20.54   | 22.97   |
| γ 46.0 | 17.84   | 20.56   | 18.68   | 20.98   |

Candela Tabulation - (Cont.)

| V/H    | C0.0  | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 16.57 | 18.80 | 17.11  | 19.29  |
| γ 48.0 | 15.42 | 17.26 | 15.70  | 17.79  |
| γ 49.0 | 14.44 | 15.91 | 14.48  | 16.48  |
| γ 50.0 | 13.56 | 14.72 | 13.42  | 15.39  |
| γ 51.0 | 12.81 | 13.71 | 12.53  | 14.39  |
| γ 52.0 | 12.15 | 12.79 | 11.76  | 13.54  |
| γ 53.0 | 11.54 | 11.99 | 11.09  | 12.78  |
| γ 54.0 | 11.01 | 11.28 | 10.48  | 12.10  |
| γ 55.0 | 10.51 | 10.67 | 9.95   | 11.49  |
| γ 56.0 | 10.05 | 10.11 | 9.49   | 10.95  |
| γ 57.0 | 9.63  | 9.60  | 9.08   | 10.46  |
| γ 58.0 | 9.23  | 9.11  | 8.69   | 9.99   |
| γ 59.0 | 8.84  | 8.65  | 8.33   | 9.57   |
| γ 60.0 | 8.44  | 8.23  | 8.01   | 9.16   |
| γ 61.0 | 8.07  | 7.82  | 7.69   | 8.77   |
| γ 62.0 | 7.70  | 7.41  | 7.38   | 8.38   |
| γ 63.0 | 7.36  | 7.03  | 7.06   | 8.02   |
| γ 64.0 | 7.02  | 6.66  | 6.75   | 7.67   |
| γ 65.0 | 6.70  | 6.31  | 6.47   | 7.33   |
| γ 66.0 | 6.39  | 5.97  | 6.18   | 7.01   |
| γ 67.0 | 6.05  | 5.61  | 5.89   | 6.67   |
| γ 68.0 | 5.68  | 5.17  | 5.58   | 6.26   |
| γ 69.0 | 5.38  | 4.81  | 5.17   | 5.86   |
| γ 70.0 | 5.09  | 4.50  | 4.89   | 5.56   |
| γ 71.0 | 4.80  | 4.22  | 4.61   | 5.26   |
| γ 72.0 | 4.52  | 3.94  | 4.34   | 4.98   |
| γ 73.0 | 4.22  | 3.66  | 4.08   | 4.69   |
| γ 74.0 | 3.93  | 3.39  | 3.80   | 4.41   |
| γ 75.0 | 3.61  | 3.10  | 3.53   | 4.13   |
| γ 76.0 | 3.24  | 2.76  | 3.25   | 3.81   |
| γ 77.0 | 2.85  | 2.38  | 2.94   | 3.48   |
| γ 78.0 | 2.70  | 2.09  | 2.58   | 3.09   |
| γ 79.0 | 2.59  | 1.99  | 2.25   | 2.87   |
| γ 80.0 | 2.50  | 1.90  | 2.12   | 2.76   |
| γ 81.0 | 2.41  | 1.82  | 2.03   | 2.65   |
| γ 82.0 | 2.30  | 1.74  | 1.95   | 2.53   |
| γ 83.0 | 2.21  | 1.65  | 1.87   | 2.43   |
| γ 84.0 | 2.12  | 1.58  | 1.78   | 2.34   |
| γ 85.0 | 2.05  | 1.51  | 1.70   | 2.24   |
| γ 86.0 | 1.96  | 1.44  | 1.63   | 2.15   |
| γ 87.0 | 1.88  | 1.36  | 1.54   | 2.06   |
| γ 88.0 | 1.80  | 1.30  | 1.47   | 1.95   |
| γ 89.0 | 1.76  | 1.24  | 1.38   | 1.86   |
| γ 90.0 | 1.70  | 1.21  | 1.30   | 1.79   |
| γ 91.0 | 1.65  | 1.17  | 1.25   | 1.72   |
| γ 92.0 | 1.60  | 1.12  | 1.21   | 1.66   |
| γ 93.0 | 1.55  | 1.10  | 1.16   | 1.60   |



Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0  | 1.52 | 1.06  | 1.11   | 1.53   |
| γ 95.0  | 1.47 | 1.03  | 1.05   | 1.48   |
| γ 96.0  | 1.44 | 1.00  | 1.01   | 1.42   |
| γ 97.0  | 1.40 | 0.97  | 0.97   | 1.37   |
| γ 98.0  | 1.37 | 0.94  | 0.93   | 1.32   |
| γ 99.0  | 1.34 | 0.92  | 0.91   | 1.28   |
| γ 100.0 | 1.30 | 0.90  | 0.87   | 1.25   |
| γ 101.0 | 1.28 | 0.90  | 0.85   | 1.21   |
| γ 102.0 | 1.26 | 0.87  | 0.83   | 1.19   |
| γ 103.0 | 1.23 | 0.85  | 0.81   | 1.16   |
| γ 104.0 | 1.21 | 0.83  | 0.79   | 1.14   |
| γ 105.0 | 1.19 | 0.83  | 0.78   | 1.12   |
| γ 106.0 | 1.16 | 0.81  | 0.77   | 1.10   |
| γ 107.0 | 1.14 | 0.80  | 0.76   | 1.09   |
| γ 108.0 | 1.13 | 0.79  | 0.76   | 1.08   |
| γ 109.0 | 1.10 | 0.78  | 0.76   | 1.07   |
| γ 110.0 | 1.09 | 0.77  | 0.75   | 1.05   |
| γ 111.0 | 1.07 | 0.74  | 0.75   | 1.05   |
| γ 112.0 | 1.04 | 0.74  | 0.75   | 1.04   |
| γ 113.0 | 1.02 | 0.72  | 0.76   | 1.04   |
| γ 114.0 | 1.00 | 0.71  | 0.76   | 1.03   |
| γ 115.0 | 0.98 | 0.69  | 0.76   | 1.03   |
| γ 116.0 | 0.97 | 0.69  | 0.77   | 1.03   |
| γ 117.0 | 0.96 | 0.67  | 0.78   | 1.04   |
| γ 118.0 | 0.95 | 0.67  | 0.79   | 1.04   |
| γ 119.0 | 0.93 | 0.66  | 0.80   | 1.05   |
| γ 120.0 | 0.93 | 0.67  | 0.82   | 1.07   |
| γ 121.0 | 0.93 | 0.67  | 0.84   | 1.08   |
| γ 122.0 | 0.93 | 0.68  | 0.86   | 1.09   |
| γ 123.0 | 0.94 | 0.69  | 0.89   | 1.11   |
| γ 124.0 | 0.95 | 0.70  | 0.90   | 1.12   |
| γ 125.0 | 0.98 | 0.74  | 0.93   | 1.16   |
| γ 126.0 | 1.01 | 0.77  | 0.96   | 1.17   |
| γ 127.0 | 1.04 | 0.81  | 0.99   | 1.20   |
| γ 128.0 | 1.08 | 0.84  | 1.04   | 1.23   |
| γ 129.0 | 1.13 | 0.89  | 1.08   | 1.28   |
| γ 130.0 | 1.17 | 0.95  | 1.13   | 1.32   |
| γ 131.0 | 1.24 | 1.01  | 1.18   | 1.38   |
| γ 132.0 | 1.30 | 1.08  | 1.24   | 1.44   |
| γ 133.0 | 1.38 | 1.15  | 1.31   | 1.51   |
| γ 134.0 | 1.46 | 1.23  | 1.39   | 1.57   |
| γ 135.0 | 1.55 | 1.32  | 1.48   | 1.67   |
| γ 136.0 | 1.65 | 1.42  | 1.58   | 1.77   |
| γ 137.0 | 1.75 | 1.52  | 1.67   | 1.86   |
| γ 138.0 | 1.86 | 1.64  | 1.78   | 1.96   |
| γ 139.0 | 1.98 | 1.75  | 1.90   | 2.08   |
| γ 140.0 | 2.11 | 1.86  | 2.03   | 2.19   |

# IES Indoor Report

Photometric Filename:MD10-06-XX-01 3000K RA90 15D.IES

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## Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 2.23 | 1.98  | 2.16   | 2.32   |
| γ 142.0 | 2.35 | 2.13  | 2.29   | 2.44   |
| γ 143.0 | 2.49 | 2.25  | 2.42   | 2.58   |
| γ 144.0 | 2.61 | 2.39  | 2.55   | 2.70   |
| γ 145.0 | 2.74 | 2.51  | 2.68   | 2.82   |
| γ 146.0 | 2.86 | 2.62  | 2.81   | 2.94   |
| γ 147.0 | 2.97 | 2.75  | 2.93   | 3.05   |
| γ 148.0 | 3.08 | 2.85  | 3.05   | 3.15   |
| γ 149.0 | 3.18 | 2.95  | 3.15   | 3.25   |
| γ 150.0 | 3.28 | 3.04  | 3.26   | 3.34   |
| γ 151.0 | 3.36 | 3.12  | 3.35   | 3.42   |
| γ 152.0 | 3.43 | 3.20  | 3.43   | 3.50   |
| γ 153.0 | 3.50 | 3.26  | 3.50   | 3.56   |
| γ 154.0 | 3.57 | 3.31  | 3.58   | 3.61   |
| γ 155.0 | 3.63 | 3.38  | 3.64   | 3.66   |
| γ 156.0 | 3.69 | 3.42  | 3.69   | 3.69   |
| γ 157.0 | 3.73 | 3.46  | 3.73   | 3.73   |
| γ 158.0 | 3.76 | 3.49  | 3.79   | 3.77   |
| γ 159.0 | 3.79 | 3.52  | 3.81   | 3.80   |
| γ 160.0 | 3.82 | 3.54  | 3.84   | 3.81   |
| γ 161.0 | 3.85 | 3.58  | 3.88   | 3.83   |
| γ 162.0 | 3.86 | 3.61  | 3.91   | 3.85   |
| γ 163.0 | 3.89 | 3.64  | 3.91   | 3.86   |
| γ 164.0 | 3.91 | 3.67  | 3.94   | 3.87   |
| γ 165.0 | 3.91 | 3.69  | 3.95   | 3.87   |
| γ 166.0 | 3.92 | 3.71  | 3.95   | 3.88   |
| γ 167.0 | 3.92 | 3.72  | 3.96   | 3.87   |
| γ 168.0 | 3.92 | 3.73  | 3.97   | 3.86   |
| γ 169.0 | 3.92 | 3.73  | 3.97   | 3.85   |
| γ 170.0 | 3.90 | 3.72  | 3.97   | 3.83   |
| γ 171.0 | 3.88 | 3.72  | 3.95   | 3.80   |
| γ 172.0 | 3.87 | 3.71  | 3.93   | 3.79   |
| γ 173.0 | 3.84 | 3.69  | 3.91   | 3.75   |
| γ 174.0 | 3.82 | 3.68  | 3.88   | 3.73   |
| γ 175.0 | 3.81 | 3.67  | 3.86   | 3.71   |
| γ 176.0 | 3.80 | 3.65  | 3.84   | 3.69   |
| γ 177.0 | 3.80 | 3.64  | 3.82   | 3.67   |
| γ 178.0 | 3.79 | 3.63  | 3.80   | 3.67   |
| γ 179.0 | 3.79 | 3.61  | 3.79   | 3.68   |
| γ 180.0 | 3.74 | 3.74  | 3.74   | 3.74   |