

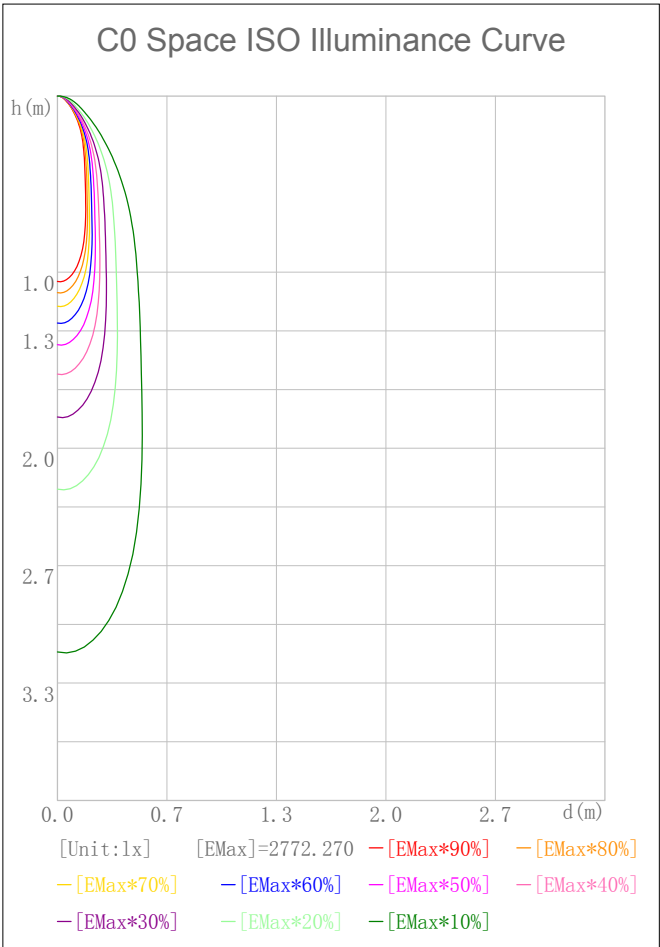
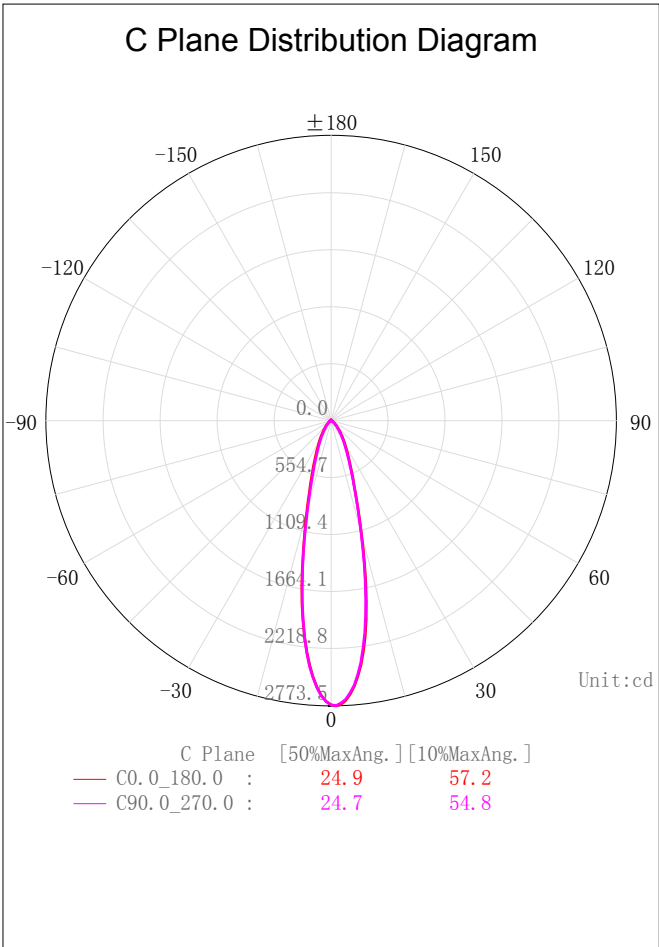
Indoor Luminaire Photometric Data

Description Information

| | | | |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name: MD10-13-SL-03 2700K RA97 24D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2020/01/02 |
| 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):0.498m*0.498m*0.650m | | Lum. Area (m2):0.572 | 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): 892.260 | Luminary Flux(lm): 893.260 | Field Angle(10%Imax): 57.2(°) | |
| Rated Power(W): | Luminary Efficiency: 100.11% | Down Lumens&Percent: 871.530lm 97.57% | |
| Rated Voltage(V): | Luminary EER(lm/W): 69.191 | Up Lumens&Percent: 21.730lm 2.43% | |
| Tested Power(W): 12.910 | Max. Candela(cd): 2773.537 | S/MH: C0_a180=0.422 C90_270=0.418 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=0.0 γ=1.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):240.1, 0.056 | Beam Angle(50%Imax): 24.9(°) | ErP ϕ use(90°): 798.877lm | |
| Lamp Size (W*L*H):0.498m*0.498m*0.650m | Left=-11.5°, Right=13.4° | IRF(%): 668.136 | |



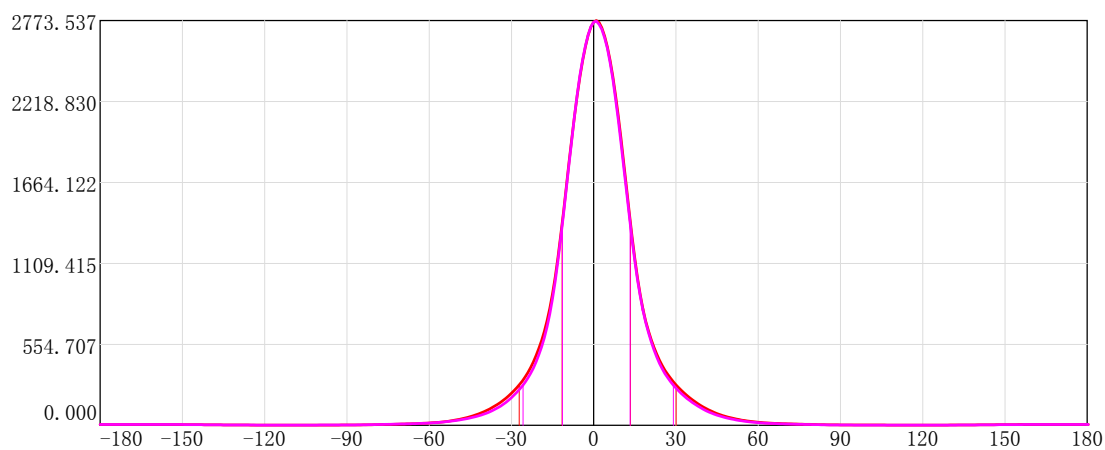
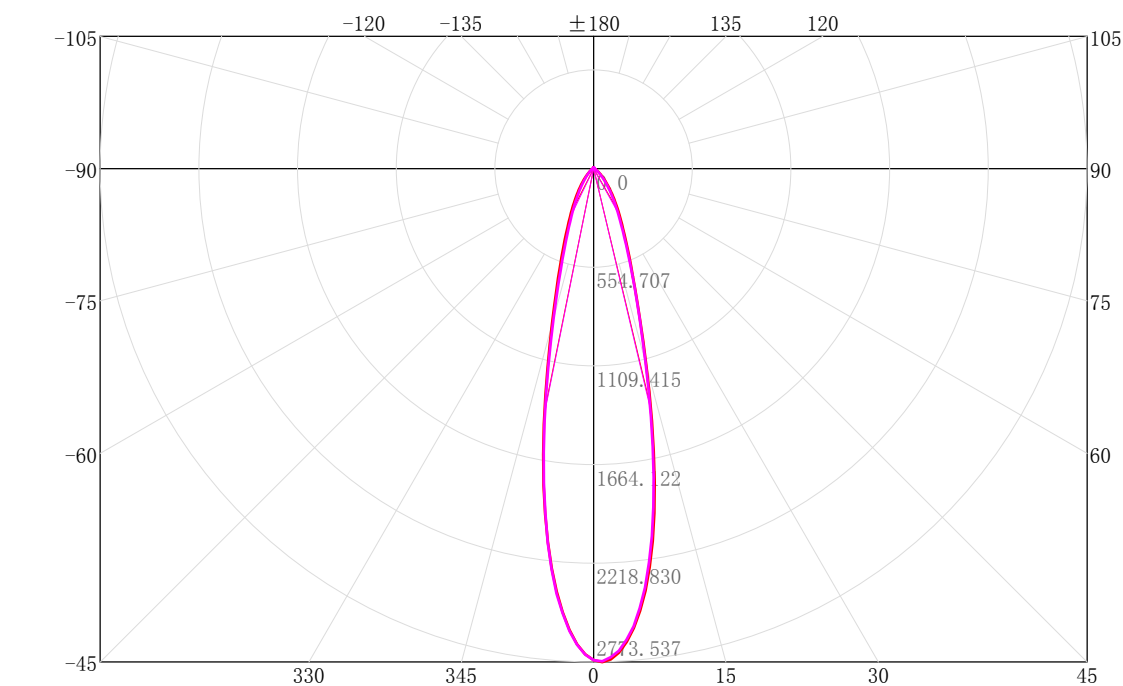
IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

2D Plane Light Intensity Distribution Curve

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

C Plane Distribution Diagram



C Plane [50%MaxAng.] [10%MaxAng.]
— C0.0_180.0 : 24.9 57.2
— C90.0_270.0 : 24.7 54.8

Unit:cd

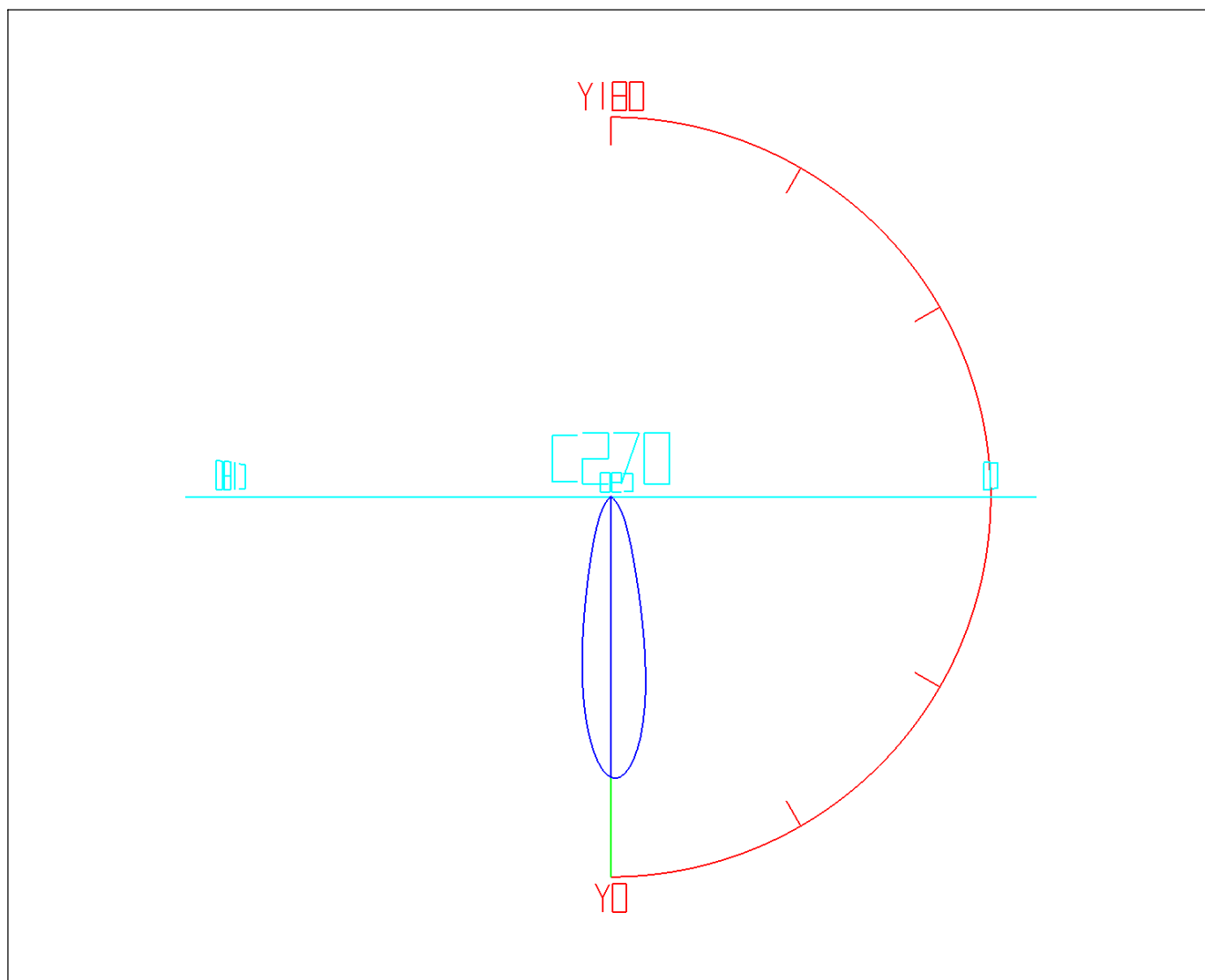
IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

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 (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 2.64 | 2.64 | 0.30 | 0.30 | 47.0-48.0 | 4.28 | 811.61 | 0.48 | 90.96 |
| 1.0-2.0 | 7.85 | 10.48 | 0.88 | 1.17 | 48.0-49.0 | 3.98 | 815.58 | 0.45 | 91.41 |
| 2.0-3.0 | 12.85 | 23.34 | 1.44 | 2.62 | 49.0-50.0 | 3.70 | 819.28 | 0.41 | 91.82 |
| 3.0-4.0 | 17.54 | 40.87 | 1.97 | 4.58 | 50.0-51.0 | 3.44 | 822.72 | 0.39 | 92.21 |
| 4.0-5.0 | 21.81 | 62.68 | 2.44 | 7.02 | 51.0-52.0 | 3.19 | 825.92 | 0.36 | 92.56 |
| 5.0-6.0 | 25.57 | 88.25 | 2.87 | 9.89 | 52.0-53.0 | 2.97 | 828.88 | 0.33 | 92.90 |
| 6.0-7.0 | 28.70 | 116.95 | 3.22 | 13.11 | 53.0-54.0 | 2.75 | 831.64 | 0.31 | 93.21 |
| 7.0-8.0 | 31.13 | 148.08 | 3.49 | 16.60 | 54.0-55.0 | 2.56 | 834.20 | 0.29 | 93.49 |
| 8.0-9.0 | 32.84 | 180.92 | 3.68 | 20.28 | 55.0-56.0 | 2.38 | 836.58 | 0.27 | 93.76 |
| 9.0-10.0 | 33.82 | 214.75 | 3.79 | 24.07 | 56.0-57.0 | 2.22 | 838.81 | 0.25 | 94.01 |
| 10.0-11.0 | 34.04 | 248.79 | 3.82 | 27.88 | 57.0-58.0 | 2.08 | 840.88 | 0.23 | 94.24 |
| 11.0-12.0 | 33.56 | 282.35 | 3.76 | 31.64 | 58.0-59.0 | 1.94 | 842.83 | 0.22 | 94.46 |
| 12.0-13.0 | 32.55 | 314.90 | 3.65 | 35.29 | 59.0-60.0 | 1.82 | 844.65 | 0.20 | 94.66 |
| 13.0-14.0 | 31.16 | 346.06 | 3.49 | 38.78 | 60.0-61.0 | 1.72 | 846.37 | 0.19 | 94.86 |
| 14.0-15.0 | 29.56 | 375.62 | 3.31 | 42.10 | 61.0-62.0 | 1.62 | 847.99 | 0.18 | 95.04 |
| 15.0-16.0 | 27.90 | 403.52 | 3.13 | 45.22 | 62.0-63.0 | 1.53 | 849.52 | 0.17 | 95.21 |
| 16.0-17.0 | 26.27 | 429.79 | 2.94 | 48.17 | 63.0-64.0 | 1.45 | 850.97 | 0.16 | 95.37 |
| 17.0-18.0 | 24.76 | 454.54 | 2.77 | 50.94 | 64.0-65.0 | 1.38 | 852.36 | 0.16 | 95.53 |
| 18.0-19.0 | 23.36 | 477.91 | 2.62 | 53.56 | 65.0-66.0 | 1.32 | 853.67 | 0.15 | 95.68 |
| 19.0-20.0 | 22.09 | 500.00 | 2.48 | 56.04 | 66.0-67.0 | 1.26 | 854.93 | 0.14 | 95.82 |
| 20.0-21.0 | 20.92 | 520.92 | 2.34 | 58.38 | 67.0-68.0 | 1.20 | 856.13 | 0.13 | 95.95 |
| 21.0-22.0 | 19.84 | 540.76 | 2.22 | 60.61 | 68.0-69.0 | 1.14 | 857.27 | 0.13 | 96.08 |
| 22.0-23.0 | 18.82 | 559.57 | 2.11 | 62.71 | 69.0-70.0 | 1.09 | 858.37 | 0.12 | 96.20 |
| 23.0-24.0 | 17.86 | 577.44 | 2.00 | 64.72 | 70.0-71.0 | 1.04 | 859.41 | 0.12 | 96.32 |
| 24.0-25.0 | 16.97 | 594.41 | 1.90 | 66.62 | 71.0-72.0 | 1.00 | 860.40 | 0.11 | 96.43 |
| 25.0-26.0 | 16.15 | 610.56 | 1.81 | 68.43 | 72.0-73.0 | 0.95 | 861.35 | 0.11 | 96.54 |
| 26.0-27.0 | 15.38 | 625.94 | 1.72 | 70.15 | 73.0-74.0 | 0.90 | 862.26 | 0.10 | 96.64 |
| 27.0-28.0 | 14.66 | 640.59 | 1.64 | 71.79 | 74.0-75.0 | 0.86 | 863.12 | 0.10 | 96.73 |
| 28.0-29.0 | 13.96 | 654.56 | 1.56 | 73.36 | 75.0-76.0 | 0.82 | 863.94 | 0.09 | 96.83 |
| 29.0-30.0 | 13.29 | 667.85 | 1.49 | 74.85 | 76.0-77.0 | 0.78 | 864.71 | 0.09 | 96.91 |
| 30.0-31.0 | 12.64 | 680.49 | 1.42 | 76.27 | 77.0-78.0 | 0.74 | 865.45 | 0.08 | 97.00 |
| 31.0-32.0 | 11.99 | 692.48 | 1.34 | 77.61 | 78.0-79.0 | 0.70 | 866.15 | 0.08 | 97.07 |
| 32.0-33.0 | 11.37 | 703.84 | 1.27 | 78.88 | 79.0-80.0 | 0.66 | 866.81 | 0.07 | 97.15 |
| 33.0-34.0 | 10.75 | 714.60 | 1.21 | 80.09 | 80.0-81.0 | 0.62 | 867.43 | 0.07 | 97.22 |
| 34.0-35.0 | 10.15 | 724.75 | 1.14 | 81.23 | 81.0-82.0 | 0.58 | 868.01 | 0.06 | 97.28 |
| 35.0-36.0 | 9.57 | 734.33 | 1.07 | 82.30 | 82.0-83.0 | 0.54 | 868.55 | 0.06 | 97.34 |
| 36.0-37.0 | 9.01 | 743.34 | 1.01 | 83.31 | 83.0-84.0 | 0.50 | 869.06 | 0.06 | 97.40 |
| 37.0-38.0 | 8.47 | 751.81 | 0.95 | 84.26 | 84.0-85.0 | 0.47 | 869.53 | 0.05 | 97.45 |
| 38.0-39.0 | 7.95 | 759.75 | 0.89 | 85.15 | 85.0-86.0 | 0.44 | 869.97 | 0.05 | 97.50 |
| 39.0-40.0 | 7.45 | 767.20 | 0.83 | 85.98 | 86.0-87.0 | 0.42 | 870.39 | 0.05 | 97.55 |
| 40.0-41.0 | 6.98 | 774.18 | 0.78 | 86.77 | 87.0-88.0 | 0.40 | 870.78 | 0.04 | 97.59 |
| 41.0-42.0 | 6.52 | 780.70 | 0.73 | 87.50 | 88.0-89.0 | 0.38 | 871.16 | 0.04 | 97.64 |
| 42.0-43.0 | 6.09 | 786.80 | 0.68 | 88.18 | 89.0-90.0 | 0.37 | 871.53 | 0.04 | 97.68 |
| 43.0-44.0 | 5.69 | 792.48 | 0.64 | 88.82 | 90.0-91.0 | 0.36 | 871.89 | 0.04 | 97.72 |
| 44.0-45.0 | 5.30 | 797.79 | 0.59 | 89.41 | 91.0-92.0 | 0.35 | 872.24 | 0.04 | 97.76 |
| 45.0-46.0 | 4.94 | 802.73 | 0.55 | 89.97 | 92.0-93.0 | 0.34 | 872.58 | 0.04 | 97.79 |
| 46.0-47.0 | 4.60 | 807.33 | 0.52 | 90.48 | 93.0-94.0 | 0.33 | 872.91 | 0.04 | 97.83 |

Zonal Flux Tabulation - (Cont.)

| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-------------|-------------------|-------------------|-----------|-----------|-------------|-------------------|-------------------|-----------|-----------|
| 94.0-95.0 | 0.32 | 873.23 | 0.04 | 97.87 | 141.0-142.0 | 0.30 | 885.35 | 0.03 | 99.23 |
| 95.0-96.0 | 0.32 | 873.55 | 0.04 | 97.90 | 142.0-143.0 | 0.30 | 885.65 | 0.03 | 99.26 |
| 96.0-97.0 | 0.31 | 873.86 | 0.03 | 97.94 | 143.0-144.0 | 0.31 | 885.96 | 0.03 | 99.29 |
| 97.0-98.0 | 0.30 | 874.16 | 0.03 | 97.97 | 144.0-145.0 | 0.31 | 886.27 | 0.03 | 99.33 |
| 98.0-99.0 | 0.30 | 874.46 | 0.03 | 98.00 | 145.0-146.0 | 0.31 | 886.59 | 0.04 | 99.36 |
| 99.0-100.0 | 0.29 | 874.75 | 0.03 | 98.04 | 146.0-147.0 | 0.31 | 886.90 | 0.04 | 99.40 |
| 100.0-101.0 | 0.28 | 875.03 | 0.03 | 98.07 | 147.0-148.0 | 0.32 | 887.22 | 0.04 | 99.43 |
| 101.0-102.0 | 0.28 | 875.31 | 0.03 | 98.10 | 148.0-149.0 | 0.31 | 887.53 | 0.04 | 99.47 |
| 102.0-103.0 | 0.27 | 875.59 | 0.03 | 98.13 | 149.0-150.0 | 0.31 | 887.85 | 0.04 | 99.51 |
| 103.0-104.0 | 0.27 | 875.86 | 0.03 | 98.16 | 150.0-151.0 | 0.31 | 888.16 | 0.03 | 99.54 |
| 104.0-105.0 | 0.27 | 876.12 | 0.03 | 98.19 | 151.0-152.0 | 0.31 | 888.46 | 0.03 | 99.57 |
| 105.0-106.0 | 0.26 | 876.38 | 0.03 | 98.22 | 152.0-153.0 | 0.30 | 888.77 | 0.03 | 99.61 |
| 106.0-107.0 | 0.26 | 876.64 | 0.03 | 98.25 | 153.0-154.0 | 0.30 | 889.06 | 0.03 | 99.64 |
| 107.0-108.0 | 0.25 | 876.90 | 0.03 | 98.28 | 154.0-155.0 | 0.29 | 889.36 | 0.03 | 99.67 |
| 108.0-109.0 | 0.25 | 877.15 | 0.03 | 98.31 | 155.0-156.0 | 0.28 | 889.64 | 0.03 | 99.71 |
| 109.0-110.0 | 0.25 | 877.40 | 0.03 | 98.33 | 156.0-157.0 | 0.28 | 889.92 | 0.03 | 99.74 |
| 110.0-111.0 | 0.25 | 877.64 | 0.03 | 98.36 | 157.0-158.0 | 0.27 | 890.19 | 0.03 | 99.77 |
| 111.0-112.0 | 0.24 | 877.88 | 0.03 | 98.39 | 158.0-159.0 | 0.26 | 890.45 | 0.03 | 99.80 |
| 112.0-113.0 | 0.24 | 878.13 | 0.03 | 98.42 | 159.0-160.0 | 0.25 | 890.70 | 0.03 | 99.83 |
| 113.0-114.0 | 0.24 | 878.36 | 0.03 | 98.44 | 160.0-161.0 | 0.24 | 890.94 | 0.03 | 99.85 |
| 114.0-115.0 | 0.24 | 878.60 | 0.03 | 98.47 | 161.0-162.0 | 0.23 | 891.17 | 0.03 | 99.88 |
| 115.0-116.0 | 0.23 | 878.83 | 0.03 | 98.50 | 162.0-163.0 | 0.22 | 891.39 | 0.02 | 99.90 |
| 116.0-117.0 | 0.23 | 879.07 | 0.03 | 98.52 | 163.0-164.0 | 0.21 | 891.60 | 0.02 | 99.93 |
| 117.0-118.0 | 0.23 | 879.30 | 0.03 | 98.55 | 164.0-165.0 | 0.20 | 891.80 | 0.02 | 99.95 |
| 118.0-119.0 | 0.23 | 879.53 | 0.03 | 98.57 | 165.0-166.0 | 0.19 | 891.99 | 0.02 | 99.97 |
| 119.0-120.0 | 0.23 | 879.76 | 0.03 | 98.60 | 166.0-167.0 | 0.17 | 892.16 | 0.02 | 99.99 |
| 120.0-121.0 | 0.23 | 879.99 | 0.03 | 98.62 | 167.0-168.0 | 0.16 | 892.32 | 0.02 | 100.01 |
| 121.0-122.0 | 0.23 | 880.21 | 0.03 | 98.65 | 168.0-169.0 | 0.15 | 892.47 | 0.02 | 100.02 |
| 122.0-123.0 | 0.23 | 880.44 | 0.03 | 98.68 | 169.0-170.0 | 0.14 | 892.61 | 0.02 | 100.04 |
| 123.0-124.0 | 0.23 | 880.67 | 0.03 | 98.70 | 170.0-171.0 | 0.12 | 892.73 | 0.01 | 100.05 |
| 124.0-125.0 | 0.23 | 880.90 | 0.03 | 98.73 | 171.0-172.0 | 0.11 | 892.84 | 0.01 | 100.07 |
| 125.0-126.0 | 0.23 | 881.13 | 0.03 | 98.75 | 172.0-173.0 | 0.10 | 892.94 | 0.01 | 100.08 |
| 126.0-127.0 | 0.23 | 881.36 | 0.03 | 98.78 | 173.0-174.0 | 0.08 | 893.02 | 0.01 | 100.09 |
| 127.0-128.0 | 0.24 | 881.60 | 0.03 | 98.81 | 174.0-175.0 | 0.07 | 893.10 | 0.01 | 100.09 |
| 128.0-129.0 | 0.24 | 881.84 | 0.03 | 98.83 | 175.0-176.0 | 0.06 | 893.16 | 0.01 | 100.10 |
| 129.0-130.0 | 0.24 | 882.08 | 0.03 | 98.86 | 176.0-177.0 | 0.05 | 893.20 | 0.01 | 100.11 |
| 130.0-131.0 | 0.24 | 882.32 | 0.03 | 98.89 | 177.0-178.0 | 0.03 | 893.23 | 0.00 | 100.11 |
| 131.0-132.0 | 0.25 | 882.57 | 0.03 | 98.91 | 178.0-179.0 | 0.02 | 893.25 | 0.00 | 100.11 |
| 132.0-133.0 | 0.25 | 882.83 | 0.03 | 98.94 | 179.0-180.0 | 0.01 | 893.26 | 0.00 | 100.11 |
| 133.0-134.0 | 0.26 | 883.08 | 0.03 | 98.97 | | | | | |
| 134.0-135.0 | 0.26 | 883.35 | 0.03 | 99.00 | | | | | |
| 135.0-136.0 | 0.27 | 883.62 | 0.03 | 99.03 | | | | | |
| 136.0-137.0 | 0.27 | 883.89 | 0.03 | 99.06 | | | | | |
| 137.0-138.0 | 0.28 | 884.17 | 0.03 | 99.09 | | | | | |
| 138.0-139.0 | 0.29 | 884.46 | 0.03 | 99.13 | | | | | |
| 139.0-140.0 | 0.29 | 884.75 | 0.03 | 99.16 | | | | | |
| 140.0-141.0 | 0.30 | 885.05 | 0.03 | 99.19 | | | | | |

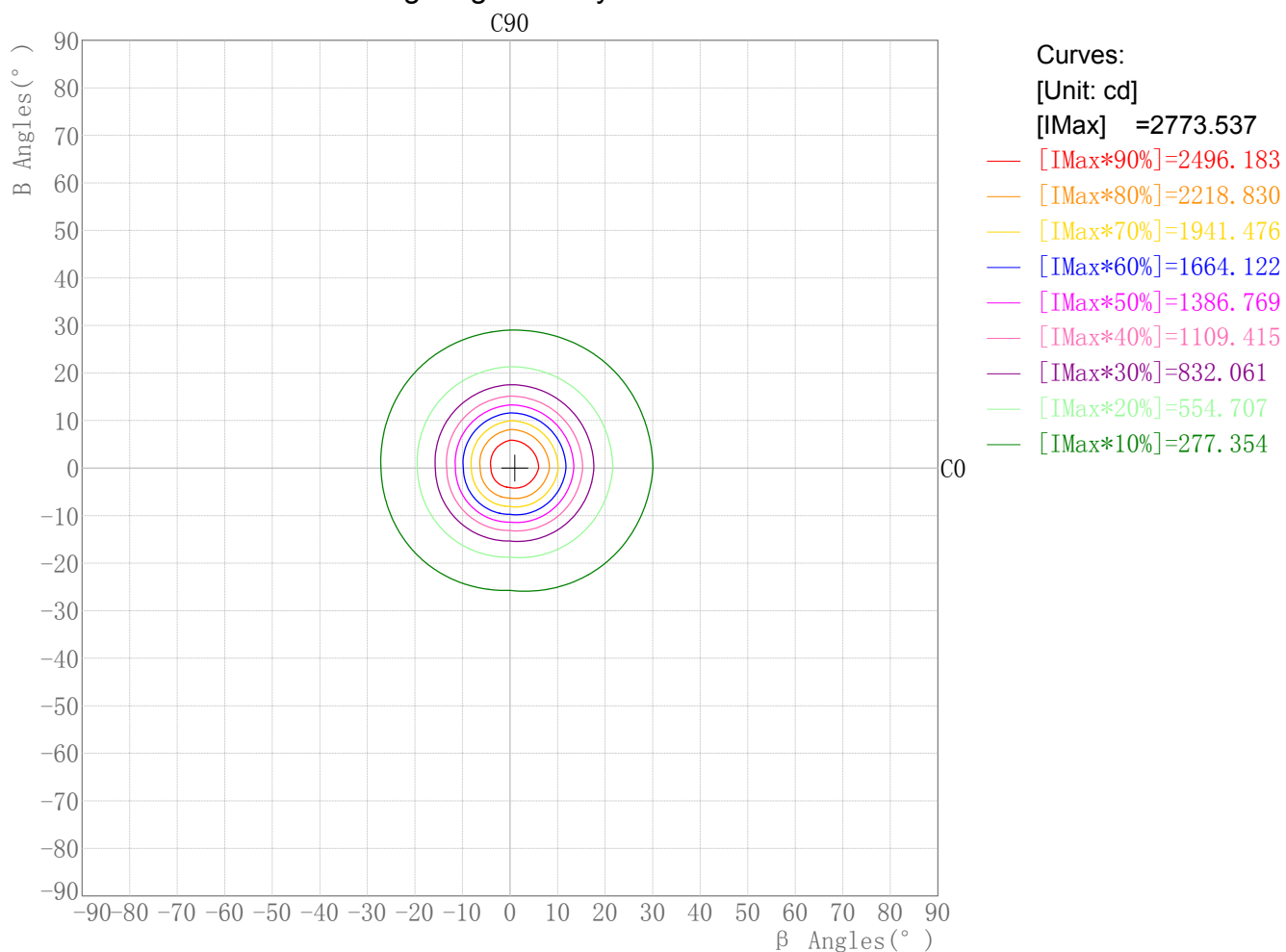
IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

Rectangle ISO Lighting Intensity Diagram

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

ISO Lighting Intensity Curve



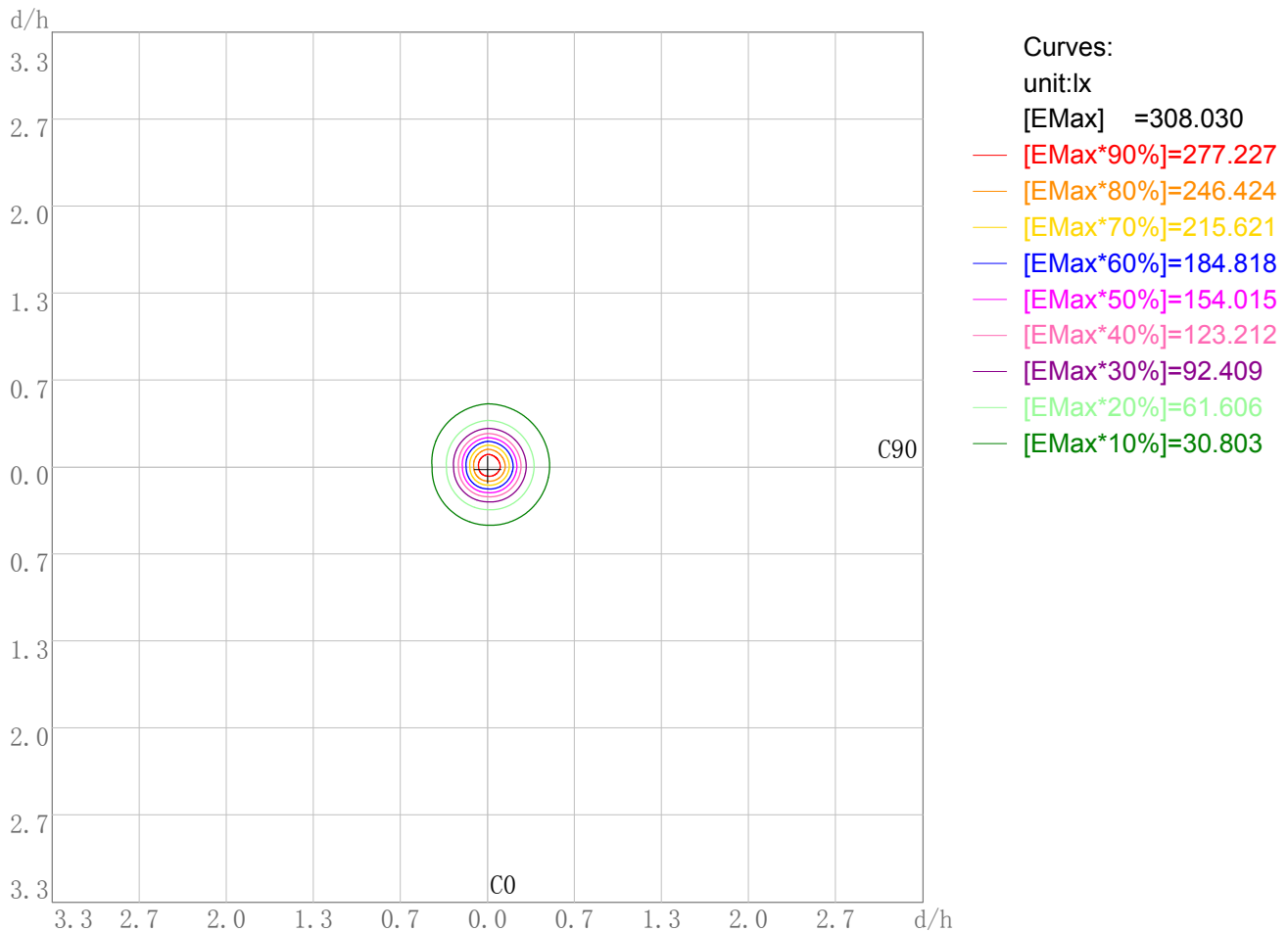
Maximum Light Intensity(cd): 2773.54

Maximum Cand.@Angle: H=1.0°,V=0.0°

Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 308.03

Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

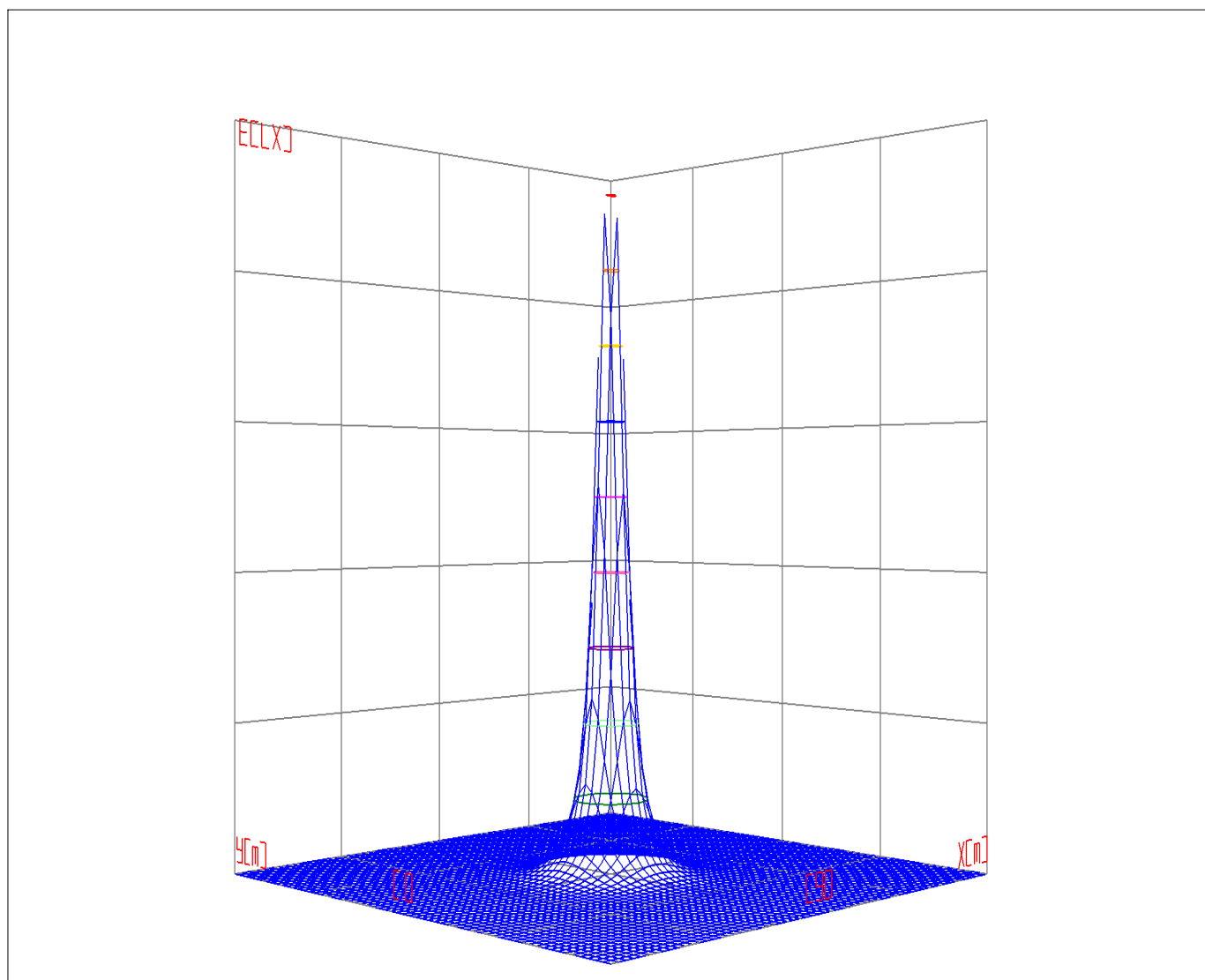
IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

3D Plane Illuminance Modal

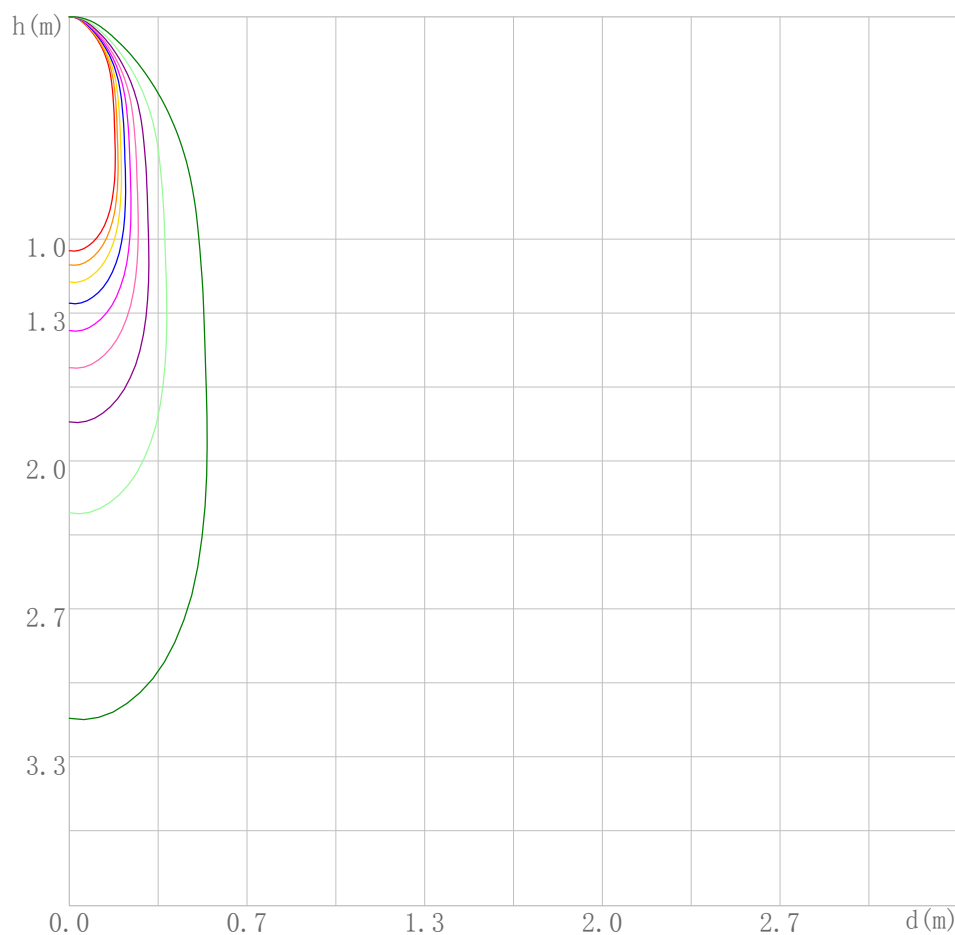


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

Space ISO Illuminance Curve



Curves:

[Unit: lx]

[EMax] =2772.270

— [EMax*90%]=2495.043

— [EMax*80%]=2217.816

— [EMax*70%]=1940.589

— [EMax*60%]=1663.362

— [EMax*50%]=1386.135

— [EMax*40%]=1108.908

— [EMax*30%]=831.681

— [EMax*20%]=554.454

— [EMax*10%]=277.227

Space Plane Maximum Illuminance and @Angle:2772.27lx,1.0deg

Plane Maximum Lighting Intensity and @Angle:2773.537cd,0deg

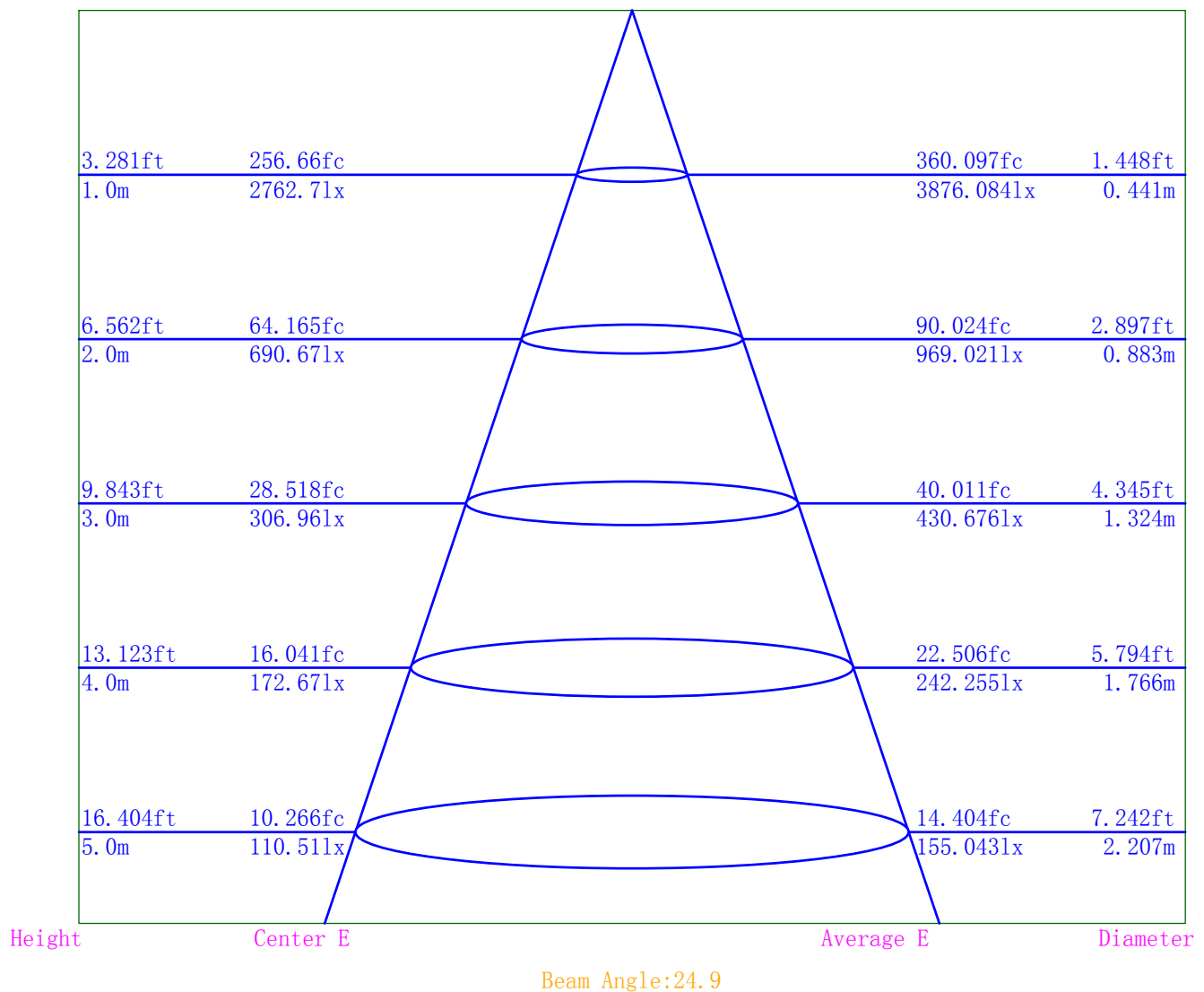
IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

Illuminance-Distance Diagram

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

Illuminance-Distance Curve



IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

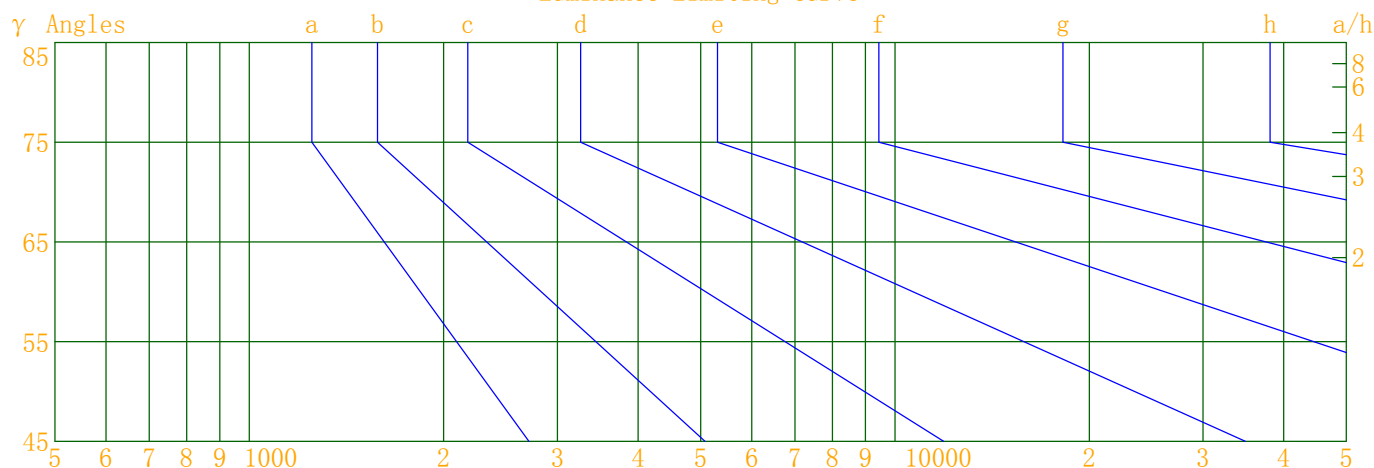
Glare Grade Table

| 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 | 201 | 142 | 102 | 77 | 65 | 61 | 61 | 69 | 98 |
| C90 | 175 | 122 | 87 | 66 | 56 | 52 | 52 | 58 | 80 |

Luminance Limiting Curve



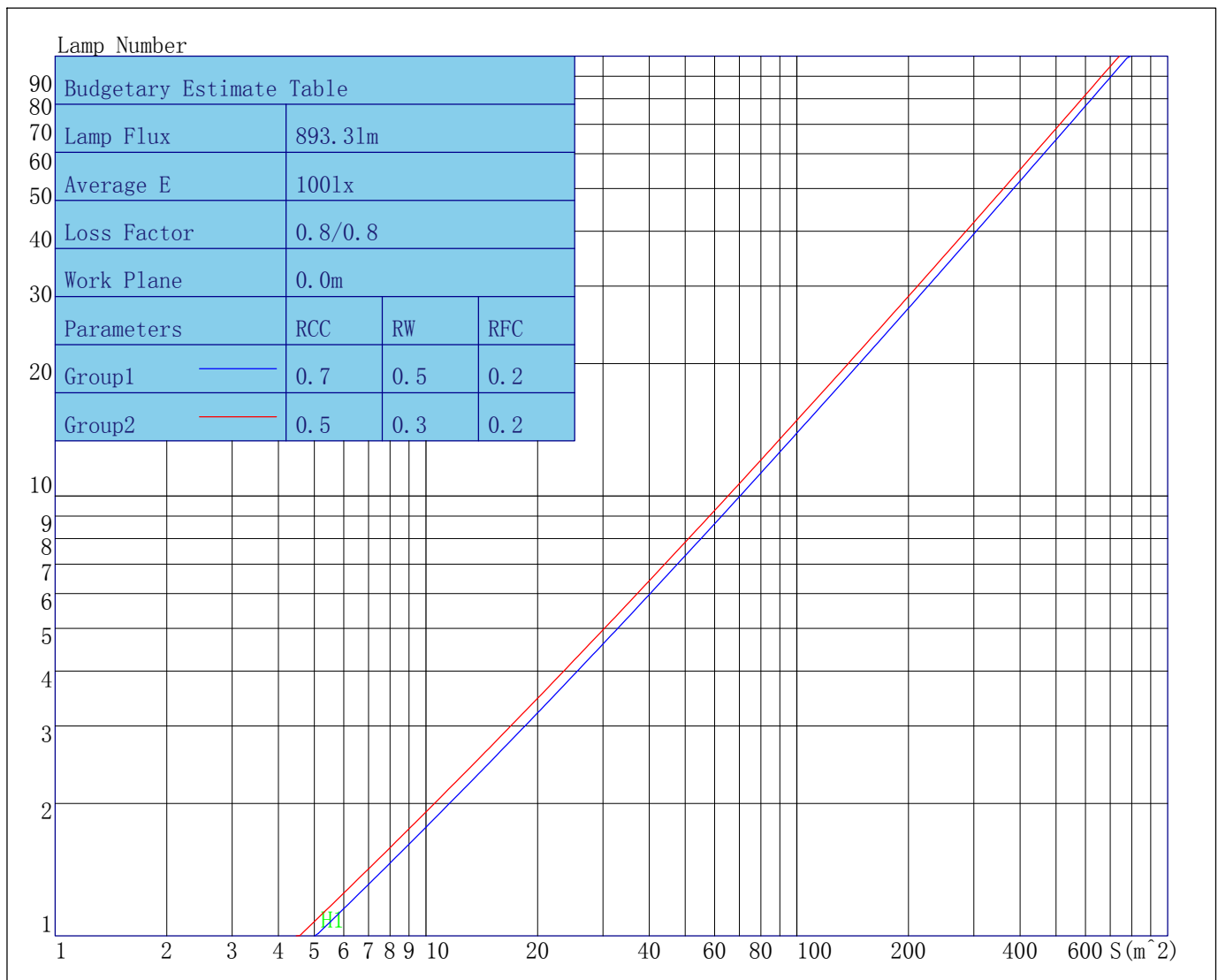
Luminous Size: Length(m)=0.498 Width(m)=0.498 Height(m)=0.650 Area(m²)=0.571704
Luminous Type: Without Luminous Side
Luminous Curves: C0-C180 Color: — C90-C270 Color: —

IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |



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 data values.

Unified Glare Rating Table

| | | |
|---|-----------------------|----------------------------|
| Lum. Name: MD10-13-SL-03 2700K RA97 24D | 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: 2020/01/02 |

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 | 1.6 | 2.6 | 2.0 | 3.0 | 3.3 | 1.0 | 2.0 | 1.4 | 2.4 | 2.8 |
| | 1.9 | 2.8 | 2.3 | 3.2 | 3.6 | 1.3 | 2.2 | 1.7 | 2.6 | 3.0 |
| | 2.1 | 2.9 | 2.6 | 3.4 | 3.8 | 1.5 | 2.3 | 1.9 | 2.7 | 3.2 |
| | 2.4 | 3.1 | 2.8 | 3.5 | 4.0 | 1.7 | 2.4 | 2.1 | 2.9 | 3.3 |
| | 2.5 | 3.2 | 3.0 | 3.7 | 4.1 | 1.8 | 2.5 | 2.3 | 3.0 | 3.4 |
| | 2.7 | 3.4 | 3.1 | 3.8 | 4.3 | 1.9 | 2.6 | 2.4 | 3.0 | 3.5 |
| X=4H Y=2H | 1.6 | 2.4 | 2.0 | 2.8 | 3.2 | 1.0 | 1.9 | 1.5 | 2.3 | 2.7 |
| | 2.0 | 2.7 | 2.5 | 3.2 | 3.6 | 1.5 | 2.1 | 1.9 | 2.6 | 3.1 |
| | 2.4 | 3.0 | 2.8 | 3.4 | 4.0 | 1.7 | 2.4 | 2.2 | 2.8 | 3.3 |
| | 2.8 | 3.3 | 3.3 | 3.8 | 4.3 | 2.1 | 2.6 | 2.6 | 3.1 | 3.7 |
| | 3.0 | 3.5 | 3.5 | 4.0 | 4.5 | 2.3 | 2.8 | 2.8 | 3.3 | 3.8 |
| | 3.3 | 3.7 | 3.8 | 4.2 | 4.8 | 2.5 | 2.9 | 3.0 | 3.5 | 4.0 |
| X=8H Y=4H | 2.4 | 2.9 | 2.9 | 3.4 | 3.9 | 1.8 | 2.3 | 2.3 | 2.8 | 3.3 |
| | 3.0 | 3.4 | 3.5 | 3.9 | 4.5 | 2.3 | 2.7 | 2.9 | 3.2 | 3.8 |
| | 3.3 | 3.7 | 3.9 | 4.2 | 4.8 | 2.6 | 3.0 | 3.2 | 3.5 | 4.1 |
| | 3.7 | 4.0 | 4.3 | 4.6 | 5.2 | 3.0 | 3.3 | 3.5 | 3.8 | 4.5 |
| X=12H Y=4H | 2.4 | 2.8 | 2.9 | 3.4 | 3.9 | 1.8 | 2.2 | 2.3 | 2.8 | 3.3 |
| | 3.0 | 3.3 | 3.6 | 3.9 | 4.5 | 2.3 | 2.7 | 2.9 | 3.2 | 3.8 |
| | 3.4 | 3.7 | 4.0 | 4.3 | 4.9 | 2.7 | 3.0 | 3.3 | 3.6 | 4.2 |
| Variations with the objerver position at spacings | | | | | | | | | | |
| S=1.0H | 0.2/-0.2 | | | | | 0.3/-0.3 | | | | |
| S=1.5H | 0.4/-0.4 | | | | | 0.4/-0.5 | | | | |
| S=2.0H | 0.5/-0.5 | | | | | 0.6/-0.6 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 1.7 | | | | | 1.6 | | | | |

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 | 2762.67 | 2762.67 | 2762.67 | 2762.67 |
| γ 1.0 | 2773.54 | 2769.33 | 2729.76 | 2731.53 |
| γ 2.0 | 2760.04 | 2747.05 | 2674.69 | 2677.51 |
| γ 3.0 | 2724.30 | 2713.32 | 2596.07 | 2602.34 |
| γ 4.0 | 2665.44 | 2652.78 | 2497.61 | 2504.76 |
| γ 5.0 | 2591.41 | 2581.57 | 2385.66 | 2397.36 |
| γ 6.0 | 2499.24 | 2482.88 | 2257.81 | 2263.46 |
| γ 7.0 | 2389.82 | 2372.40 | 2114.35 | 2116.56 |
| γ 8.0 | 2260.96 | 2234.21 | 1960.79 | 1951.77 |
| γ 9.0 | 2119.43 | 2091.18 | 1802.49 | 1788.71 |
| γ 10.0 | 1965.44 | 1932.20 | 1632.34 | 1618.92 |
| γ 11.0 | 1797.61 | 1767.19 | 1464.07 | 1449.55 |
| γ 12.0 | 1623.82 | 1596.91 | 1300.82 | 1281.97 |
| γ 13.0 | 1454.72 | 1432.53 | 1151.49 | 1127.85 |
| γ 14.0 | 1293.51 | 1270.81 | 1017.75 | 988.17 |
| γ 15.0 | 1145.23 | 1126.81 | 902.60 | 867.94 |
| γ 16.0 | 1010.83 | 996.91 | 802.50 | 762.62 |
| γ 17.0 | 895.73 | 885.45 | 718.07 | 675.74 |
| γ 18.0 | 796.65 | 788.24 | 645.00 | 600.91 |
| γ 19.0 | 714.71 | 706.40 | 581.65 | 538.08 |
| γ 20.0 | 645.56 | 633.73 | 526.02 | 482.17 |
| γ 21.0 | 586.40 | 572.71 | 477.53 | 434.25 |
| γ 22.0 | 534.72 | 517.06 | 433.64 | 391.90 |
| γ 23.0 | 488.68 | 469.24 | 395.76 | 356.27 |
| γ 24.0 | 446.94 | 425.66 | 361.61 | 323.97 |
| γ 25.0 | 410.94 | 388.67 | 331.93 | 295.97 |
| γ 26.0 | 378.54 | 355.30 | 304.42 | 270.45 |
| γ 27.0 | 350.01 | 327.19 | 280.79 | 247.93 |
| γ 28.0 | 324.33 | 300.29 | 258.62 | 226.59 |
| γ 29.0 | 300.59 | 277.85 | 238.49 | 207.76 |
| γ 30.0 | 278.71 | 256.02 | 220.15 | 189.82 |
| γ 31.0 | 258.62 | 236.59 | 202.94 | 173.63 |
| γ 32.0 | 239.56 | 218.19 | 186.71 | 158.23 |
| γ 33.0 | 222.16 | 201.55 | 172.07 | 144.68 |
| γ 34.0 | 205.62 | 185.32 | 158.02 | 132.01 |
| γ 35.0 | 189.92 | 170.88 | 145.17 | 120.77 |
| γ 36.0 | 175.54 | 156.93 | 133.29 | 110.18 |
| γ 37.0 | 161.95 | 144.20 | 122.41 | 100.74 |
| γ 38.0 | 149.17 | 132.13 | 112.12 | 92.11 |
| γ 39.0 | 137.20 | 121.23 | 102.84 | 84.58 |
| γ 40.0 | 126.10 | 110.79 | 94.23 | 77.51 |
| γ 41.0 | 115.85 | 101.40 | 86.39 | 71.30 |
| γ 42.0 | 106.14 | 92.54 | 79.06 | 65.60 |
| γ 43.0 | 97.23 | 84.69 | 72.26 | 60.49 |
| γ 44.0 | 89.04 | 77.24 | 66.06 | 55.72 |
| γ 45.0 | 81.43 | 70.59 | 60.47 | 51.40 |
| γ 46.0 | 74.44 | 64.34 | 55.29 | 47.39 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 68.10 | 58.81 | 50.44 | 43.78 |
| γ 48.0 | 62.19 | 53.73 | 45.95 | 40.27 |
| γ 49.0 | 56.98 | 49.21 | 41.86 | 37.23 |
| γ 50.0 | 52.29 | 44.94 | 38.15 | 34.35 |
| γ 51.0 | 47.87 | 41.12 | 34.76 | 31.78 |
| γ 52.0 | 43.78 | 37.56 | 31.62 | 29.32 |
| γ 53.0 | 40.11 | 34.33 | 28.90 | 27.09 |
| γ 54.0 | 36.65 | 31.32 | 26.46 | 25.10 |
| γ 55.0 | 33.56 | 28.67 | 24.35 | 23.32 |
| γ 56.0 | 30.79 | 26.25 | 22.45 | 21.70 |
| γ 57.0 | 28.26 | 24.06 | 20.85 | 20.17 |
| γ 58.0 | 25.96 | 22.09 | 19.41 | 18.80 |
| γ 59.0 | 23.92 | 20.40 | 18.09 | 17.59 |
| γ 60.0 | 22.12 | 18.84 | 16.89 | 16.53 |
| γ 61.0 | 20.57 | 17.47 | 15.85 | 15.58 |
| γ 62.0 | 19.13 | 16.27 | 14.88 | 14.70 |
| γ 63.0 | 17.86 | 15.25 | 14.05 | 13.95 |
| γ 64.0 | 16.72 | 14.29 | 13.26 | 13.22 |
| γ 65.0 | 15.70 | 13.45 | 12.56 | 12.59 |
| γ 66.0 | 14.79 | 12.65 | 11.87 | 11.99 |
| γ 67.0 | 13.98 | 11.94 | 11.25 | 11.43 |
| γ 68.0 | 13.22 | 11.30 | 10.64 | 10.88 |
| γ 69.0 | 12.52 | 10.70 | 10.08 | 10.39 |
| γ 70.0 | 11.87 | 10.12 | 9.55 | 9.89 |
| γ 71.0 | 11.25 | 9.60 | 9.03 | 9.44 |
| γ 72.0 | 10.65 | 9.07 | 8.54 | 8.97 |
| γ 73.0 | 10.10 | 8.60 | 8.08 | 8.56 |
| γ 74.0 | 9.58 | 8.14 | 7.63 | 8.12 |
| γ 75.0 | 9.08 | 7.71 | 7.19 | 7.73 |
| γ 76.0 | 8.60 | 7.28 | 6.78 | 7.33 |
| γ 77.0 | 8.13 | 6.88 | 6.41 | 6.96 |
| γ 78.0 | 7.68 | 6.48 | 6.03 | 6.57 |
| γ 79.0 | 7.26 | 6.13 | 5.66 | 6.20 |
| γ 80.0 | 6.85 | 5.75 | 5.26 | 5.83 |
| γ 81.0 | 6.43 | 5.39 | 4.89 | 5.43 |
| γ 82.0 | 6.02 | 5.00 | 4.50 | 5.07 |
| γ 83.0 | 5.58 | 4.62 | 4.22 | 4.78 |
| γ 84.0 | 5.22 | 4.30 | 3.89 | 4.46 |
| γ 85.0 | 4.89 | 4.00 | 3.64 | 4.21 |
| γ 86.0 | 4.56 | 3.71 | 3.39 | 3.97 |
| γ 87.0 | 4.29 | 3.48 | 3.22 | 3.80 |
| γ 88.0 | 4.05 | 3.27 | 3.11 | 3.67 |
| γ 89.0 | 3.87 | 3.14 | 3.04 | 3.57 |
| γ 90.0 | 3.77 | 3.04 | 2.95 | 3.47 |
| γ 91.0 | 3.66 | 2.97 | 2.88 | 3.38 |
| γ 92.0 | 3.57 | 2.90 | 2.81 | 3.30 |
| γ 93.0 | 3.49 | 2.84 | 2.74 | 3.22 |

IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0 | 3.41 | 2.78 | 2.67 | 3.13 |
| γ 95.0 | 3.33 | 2.71 | 2.62 | 3.06 |
| γ 96.0 | 3.25 | 2.66 | 2.56 | 3.00 |
| γ 97.0 | 3.19 | 2.61 | 2.51 | 2.94 |
| γ 98.0 | 3.13 | 2.55 | 2.46 | 2.88 |
| γ 99.0 | 3.06 | 2.51 | 2.42 | 2.83 |
| γ 100.0 | 3.02 | 2.47 | 2.38 | 2.77 |
| γ 101.0 | 2.96 | 2.43 | 2.35 | 2.74 |
| γ 102.0 | 2.91 | 2.39 | 2.31 | 2.68 |
| γ 103.0 | 2.88 | 2.37 | 2.30 | 2.66 |
| γ 104.0 | 2.83 | 2.34 | 2.28 | 2.63 |
| γ 105.0 | 2.79 | 2.31 | 2.26 | 2.59 |
| γ 106.0 | 2.75 | 2.29 | 2.24 | 2.58 |
| γ 107.0 | 2.72 | 2.26 | 2.24 | 2.56 |
| γ 108.0 | 2.69 | 2.24 | 2.23 | 2.54 |
| γ 109.0 | 2.66 | 2.22 | 2.24 | 2.53 |
| γ 110.0 | 2.63 | 2.21 | 2.24 | 2.52 |
| γ 111.0 | 2.60 | 2.19 | 2.24 | 2.52 |
| γ 112.0 | 2.59 | 2.16 | 2.24 | 2.52 |
| γ 113.0 | 2.56 | 2.15 | 2.26 | 2.52 |
| γ 114.0 | 2.53 | 2.14 | 2.28 | 2.52 |
| γ 115.0 | 2.52 | 2.13 | 2.30 | 2.53 |
| γ 116.0 | 2.50 | 2.11 | 2.31 | 2.54 |
| γ 117.0 | 2.48 | 2.11 | 2.33 | 2.56 |
| γ 118.0 | 2.47 | 2.10 | 2.36 | 2.58 |
| γ 119.0 | 2.47 | 2.11 | 2.40 | 2.61 |
| γ 120.0 | 2.46 | 2.11 | 2.43 | 2.62 |
| γ 121.0 | 2.46 | 2.12 | 2.47 | 2.66 |
| γ 122.0 | 2.46 | 2.12 | 2.52 | 2.68 |
| γ 123.0 | 2.48 | 2.14 | 2.57 | 2.74 |
| γ 124.0 | 2.51 | 2.17 | 2.62 | 2.79 |
| γ 125.0 | 2.53 | 2.20 | 2.68 | 2.85 |
| γ 126.0 | 2.56 | 2.24 | 2.76 | 2.89 |
| γ 127.0 | 2.60 | 2.29 | 2.83 | 2.97 |
| γ 128.0 | 2.65 | 2.35 | 2.89 | 3.05 |
| γ 129.0 | 2.72 | 2.40 | 3.00 | 3.13 |
| γ 130.0 | 2.78 | 2.48 | 3.09 | 3.21 |
| γ 131.0 | 2.85 | 2.56 | 3.20 | 3.31 |
| γ 132.0 | 2.94 | 2.65 | 3.32 | 3.42 |
| γ 133.0 | 3.03 | 2.76 | 3.44 | 3.55 |
| γ 134.0 | 3.13 | 2.87 | 3.57 | 3.68 |
| γ 135.0 | 3.24 | 2.98 | 3.71 | 3.82 |
| γ 136.0 | 3.36 | 3.11 | 3.86 | 3.96 |
| γ 137.0 | 3.48 | 3.24 | 4.01 | 4.11 |
| γ 138.0 | 3.63 | 3.37 | 4.16 | 4.26 |
| γ 139.0 | 3.77 | 3.54 | 4.33 | 4.42 |
| γ 140.0 | 3.91 | 3.68 | 4.50 | 4.57 |

IES Indoor Report

Photometric Filename:MD10-13-SL-03 2700K RA97 24D.IES

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 4.06 | 3.84 | 4.66 | 4.75 |
| γ 142.0 | 4.22 | 4.00 | 4.82 | 4.90 |
| γ 143.0 | 4.38 | 4.16 | 4.99 | 5.07 |
| γ 144.0 | 4.54 | 4.32 | 5.15 | 5.22 |
| γ 145.0 | 4.70 | 4.51 | 5.31 | 5.38 |
| γ 146.0 | 4.87 | 4.67 | 5.46 | 5.51 |
| γ 147.0 | 5.02 | 4.83 | 5.60 | 5.67 |
| γ 148.0 | 5.18 | 4.99 | 5.74 | 5.79 |
| γ 149.0 | 5.32 | 5.14 | 5.89 | 5.92 |
| γ 150.0 | 5.48 | 5.28 | 5.99 | 6.04 |
| γ 151.0 | 5.62 | 5.41 | 6.11 | 6.14 |
| γ 152.0 | 5.74 | 5.55 | 6.20 | 6.22 |
| γ 153.0 | 5.86 | 5.66 | 6.31 | 6.32 |
| γ 154.0 | 5.98 | 5.78 | 6.39 | 6.39 |
| γ 155.0 | 6.09 | 5.89 | 6.46 | 6.46 |
| γ 156.0 | 6.19 | 5.97 | 6.54 | 6.53 |
| γ 157.0 | 6.27 | 6.07 | 6.61 | 6.58 |
| γ 158.0 | 6.36 | 6.14 | 6.68 | 6.63 |
| γ 159.0 | 6.43 | 6.22 | 6.73 | 6.68 |
| γ 160.0 | 6.52 | 6.28 | 6.78 | 6.71 |
| γ 161.0 | 6.56 | 6.35 | 6.82 | 6.75 |
| γ 162.0 | 6.63 | 6.41 | 6.85 | 6.77 |
| γ 163.0 | 6.68 | 6.46 | 6.89 | 6.79 |
| γ 164.0 | 6.73 | 6.51 | 6.91 | 6.81 |
| γ 165.0 | 6.76 | 6.56 | 6.94 | 6.83 |
| γ 166.0 | 6.80 | 6.61 | 6.94 | 6.83 |
| γ 167.0 | 6.83 | 6.64 | 6.97 | 6.83 |
| γ 168.0 | 6.87 | 6.66 | 6.96 | 6.83 |
| γ 169.0 | 6.88 | 6.68 | 6.96 | 6.82 |
| γ 170.0 | 6.88 | 6.70 | 6.93 | 6.80 |
| γ 171.0 | 6.89 | 6.71 | 6.93 | 6.79 |
| γ 172.0 | 6.90 | 6.71 | 6.92 | 6.77 |
| γ 173.0 | 6.90 | 6.71 | 6.92 | 6.76 |
| γ 174.0 | 6.91 | 6.73 | 6.90 | 6.76 |
| γ 175.0 | 6.89 | 6.72 | 6.90 | 6.75 |
| γ 176.0 | 6.89 | 6.72 | 6.90 | 6.76 |
| γ 177.0 | 6.90 | 6.75 | 6.92 | 6.78 |
| γ 178.0 | 6.92 | 6.76 | 6.93 | 6.80 |
| γ 179.0 | 6.94 | 6.77 | 6.93 | 6.81 |
| γ 180.0 | 6.89 | 6.89 | 6.89 | 6.89 |