



NATA LIGHTING CO.,LTD.
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NT

Client:

LumCAT: 2-2689-L

Luminaire: 92.70.411.00

Report No: 2024424-B015

Ballast type: AC

Test No: 2024424-C015

Voltage(V): 36.490

LampCAT: NICHIA NFCWJ130B-V3

Current(A): 0.576

Lamp flux(lm): 2924.0

Power (W): 21.018

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2403.24, Efficiency(%): 82.19% , Luminous Efficacy(lm/W): 114.34

Central intensity(cd): 4556.182, Maximum intensity(cd): 4556.182

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=42.6

[C90/270]Total=42.6

Field angle(10%Imax): [C0/180]Total=66.4

[C90/270]Total=66.4

Maximum s/h(1/2): C0_180=0.68 C90_270=0.68

Maximum s/h(1/4): C0_180=0.67 C90_270=0.67

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 82.19%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.544%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/4/24
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 4556.181 | 0.000 | 0 | 0.00% | 0.00% |
| 1.0 | 4551.061 | 4.358 | 4.358 | 0.15% | 0.18% |
| 2.0 | 4538.552 | 13.046 | 17.404 | 0.45% | 0.72% |
| 3.0 | 4516.167 | 21.656 | 39.06 | 0.74% | 1.63% |
| 4.0 | 4481.712 | 30.119 | 69.179 | 1.03% | 2.88% |
| 5.0 | 4432.772 | 38.350 | 107.528 | 1.31% | 4.47% |
| 6.0 | 4367.007 | 46.245 | 153.773 | 1.58% | 6.40% |
| 7.0 | 4286.320 | 53.711 | 207.484 | 1.84% | 8.63% |
| 8.0 | 4196.634 | 60.711 | 268.195 | 2.08% | 11.16% |
| 9.0 | 4097.219 | 67.217 | 335.413 | 2.30% | 13.96% |
| 10.0 | 3974.248 | 73.044 | 408.456 | 2.50% | 17.00% |
| 11.0 | 3852.302 | 78.203 | 486.66 | 2.67% | 20.25% |
| 12.0 | 3711.190 | 82.680 | 569.339 | 2.83% | 23.69% |
| 13.0 | 3565.322 | 86.354 | 655.693 | 2.95% | 27.28% |
| 14.0 | 3408.116 | 89.259 | 744.953 | 3.05% | 31.00% |
| 15.0 | 3265.395 | 91.617 | 836.57 | 3.13% | 34.81% |
| 16.0 | 3111.992 | 93.447 | 930.016 | 3.20% | 38.70% |
| 17.0 | 2958.664 | 94.536 | 1024.553 | 3.23% | 42.63% |
| 18.0 | 2808.480 | 95.088 | 1119.64 | 3.25% | 46.59% |
| 19.0 | 2652.957 | 95.018 | 1214.658 | 3.25% | 50.54% |
| 20.0 | 2492.239 | 94.171 | 1308.83 | 3.22% | 54.46% |
| 21.0 | 2324.353 | 92.488 | 1401.318 | 3.16% | 58.31% |
| 22.0 | 2166.561 | 90.247 | 1491.565 | 3.09% | 62.06% |
| 23.0 | 1999.480 | 87.415 | 1578.979 | 2.99% | 65.70% |
| 24.0 | 1825.595 | 83.630 | 1662.609 | 2.86% | 69.18% |
| 25.0 | 1629.859 | 78.569 | 1741.179 | 2.69% | 72.45% |
| 26.0 | 1417.605 | 71.936 | 1813.115 | 2.46% | 75.44% |
| 27.0 | 1286.837 | 66.165 | 1879.279 | 2.26% | 78.20% |
| 28.0 | 1154.049 | 61.798 | 1941.077 | 2.11% | 80.77% |
| 29.0 | 999.542 | 56.344 | 1997.421 | 1.93% | 83.11% |
| 30.0 | 847.581 | 49.872 | 2047.293 | 1.71% | 85.19% |
| 31.0 | 704.333 | 43.188 | 2090.481 | 1.48% | 86.99% |
| 32.0 | 589.665 | 37.072 | 2127.552 | 1.27% | 88.53% |
| 33.0 | 473.506 | 31.321 | 2158.874 | 1.07% | 89.83% |
| 34.0 | 379.965 | 25.829 | 2184.702 | 0.88% | 90.91% |
| 35.0 | 307.177 | 21.340 | 2206.042 | 0.73% | 91.79% |
| 36.0 | 257.243 | 17.971 | 2224.014 | 0.61% | 92.54% |
| 37.0 | 207.513 | 15.158 | 2239.171 | 0.52% | 93.17% |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0 | 161.888 | 12.330 | 2251.502 | 0.42% | 93.69% |
| 39.0 | 120.242 | 9.630 | 2261.131 | 0.33% | 94.09% |
| 40.0 | 98.888 | 7.642 | 2268.774 | 0.26% | 94.40% |
| 41.0 | 83.226 | 6.485 | 2275.259 | 0.22% | 94.67% |
| 42.0 | 72.831 | 5.670 | 2280.929 | 0.19% | 94.91% |
| 43.0 | 65.370 | 5.119 | 2286.048 | 0.18% | 95.12% |
| 44.0 | 59.525 | 4.714 | 2290.762 | 0.16% | 95.32% |
| 45.0 | 55.362 | 4.415 | 2295.177 | 0.15% | 95.50% |
| 46.0 | 51.851 | 4.193 | 2299.37 | 0.14% | 95.68% |
| 47.0 | 48.961 | 4.010 | 2303.38 | 0.14% | 95.84% |
| 48.0 | 46.299 | 3.851 | 2307.231 | 0.13% | 96.01% |
| 49.0 | 44.002 | 3.708 | 2310.939 | 0.13% | 96.16% |
| 50.0 | 41.741 | 3.575 | 2314.514 | 0.12% | 96.31% |
| 51.0 | 39.715 | 3.446 | 2317.96 | 0.12% | 96.45% |
| 52.0 | 37.879 | 3.330 | 2321.29 | 0.11% | 96.59% |
| 53.0 | 36.050 | 3.216 | 2324.505 | 0.11% | 96.72% |
| 54.0 | 34.484 | 3.109 | 2327.614 | 0.11% | 96.85% |
| 55.0 | 32.948 | 3.010 | 2330.624 | 0.10% | 96.98% |
| 56.0 | 31.456 | 2.910 | 2333.535 | 0.10% | 97.10% |
| 57.0 | 29.993 | 2.810 | 2336.344 | 0.10% | 97.22% |
| 58.0 | 28.713 | 2.715 | 2339.059 | 0.09% | 97.33% |
| 59.0 | 27.476 | 2.627 | 2341.686 | 0.09% | 97.44% |
| 60.0 | 26.108 | 2.532 | 2344.217 | 0.09% | 97.54% |
| 61.0 | 25.011 | 2.440 | 2346.657 | 0.08% | 97.65% |
| 62.0 | 23.819 | 2.353 | 2349.01 | 0.08% | 97.74% |
| 63.0 | 22.751 | 2.265 | 2351.275 | 0.08% | 97.84% |
| 64.0 | 21.865 | 2.189 | 2353.464 | 0.07% | 97.93% |
| 65.0 | 21.112 | 2.127 | 2355.591 | 0.07% | 98.02% |
| 66.0 | 20.593 | 2.081 | 2357.672 | 0.07% | 98.10% |
| 67.0 | 20.527 | 2.068 | 2359.739 | 0.07% | 98.19% |
| 68.0 | 20.717 | 2.089 | 2361.829 | 0.07% | 98.28% |
| 69.0 | 20.988 | 2.128 | 2363.956 | 0.07% | 98.37% |
| 70.0 | 21.448 | 2.179 | 2366.136 | 0.07% | 98.46% |
| 71.0 | 22.136 | 2.253 | 2368.388 | 0.08% | 98.55% |
| 72.0 | 22.721 | 2.332 | 2370.721 | 0.08% | 98.65% |
| 73.0 | 23.299 | 2.407 | 2373.127 | 0.08% | 98.75% |
| 74.0 | 23.716 | 2.472 | 2375.599 | 0.08% | 98.85% |
| 75.0 | 23.702 | 2.505 | 2378.104 | 0.09% | 98.95% |

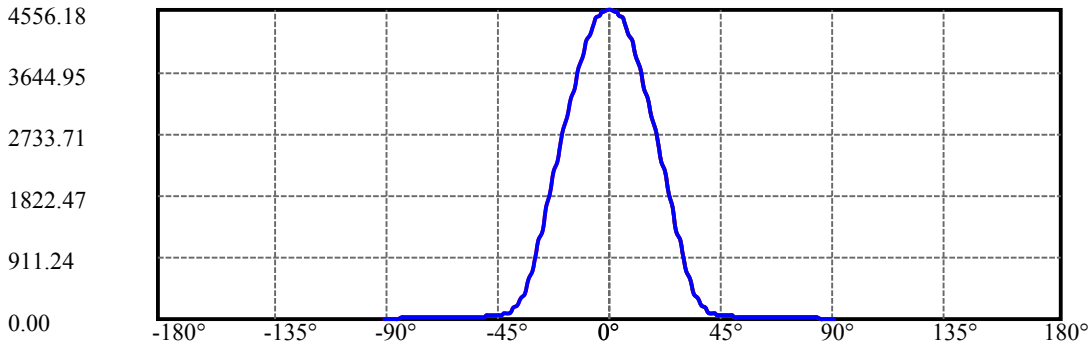
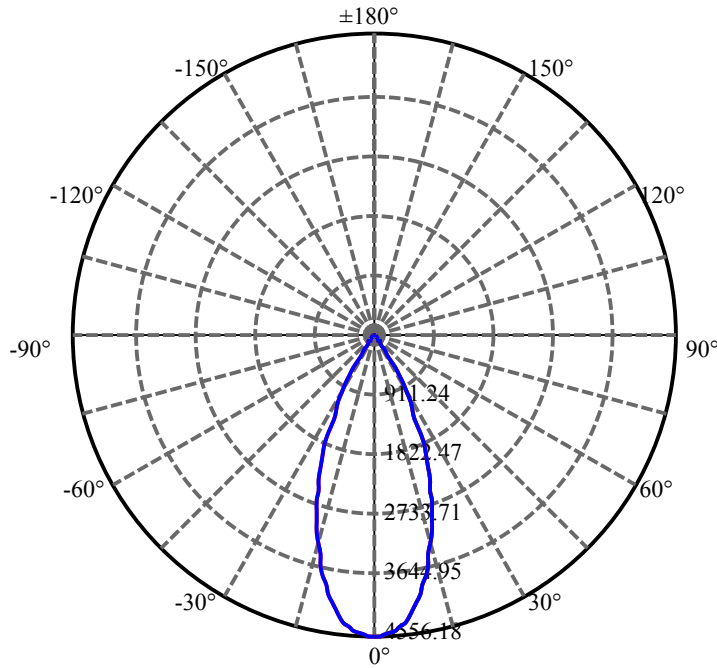
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0 | 23.226 | 2.491 | 2380.595 | 0.09% | 99.06% |
| 77.0 | 22.122 | 2.418 | 2383.013 | 0.08% | 99.16% |
| 78.0 | 20.680 | 2.291 | 2385.304 | 0.08% | 99.25% |
| 79.0 | 19.042 | 2.134 | 2387.439 | 0.07% | 99.34% |
| 80.0 | 17.037 | 1.945 | 2389.384 | 0.07% | 99.42% |
| 81.0 | 15.362 | 1.752 | 2391.136 | 0.06% | 99.50% |
| 82.0 | 14.645 | 1.627 | 2392.763 | 0.06% | 99.56% |
| 83.0 | 14.177 | 1.567 | 2394.33 | 0.05% | 99.63% |
| 84.0 | 13.636 | 1.515 | 2395.845 | 0.05% | 99.69% |
| 85.0 | 12.721 | 1.439 | 2397.284 | 0.05% | 99.75% |
| 86.0 | 11.427 | 1.320 | 2398.604 | 0.05% | 99.81% |
| 87.0 | 10.834 | 1.218 | 2399.822 | 0.04% | 99.86% |
| 88.0 | 10.454 | 1.166 | 2400.988 | 0.04% | 99.91% |
| 89.0 | 10.227 | 1.134 | 2402.122 | 0.04% | 99.95% |
| 90.0 | 10.139 | 1.117 | 2403.238 | 0.04% | 100.00% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 2047.29 | 70.02% | 85.19% |
| 0-40 | 2268.77 | 77.59% | 94.40% |
| 0-60 | 2344.22 | 80.17% | 97.54% |
| 0-90 | 2402.12 | 82.15% | 99.95% |
| 0-120 | 2402.12 | 82.15% | 99.95% |
| 0-180 | 2403.24 | 82.19% | 100.00% |
| 60-90 | 57.90 | 1.98% | 2.41% |
| 90-120 | 0.00 | 0.00% | 0.00% |
| 90-130 | 0.00 | 0.00% | 0.00% |
| 90-150 | 0.00 | 0.00% | 0.00% |
| 90-180 | 0.00 | 0.00% | 0.00% |
| 0-27.70 | 1922.59 | 65.75% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 408.46 |
| 10-20 | 900.37 |
| 20-30 | 738.46 |
| 30-40 | 221.48 |
| 40-50 | 45.74 |
| 50-60 | 29.70 |
| 60-70 | 21.92 |
| 70-80 | 23.25 |
| 80-90 | 12.74 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |



C0(Max): —————

C0/C180: —————

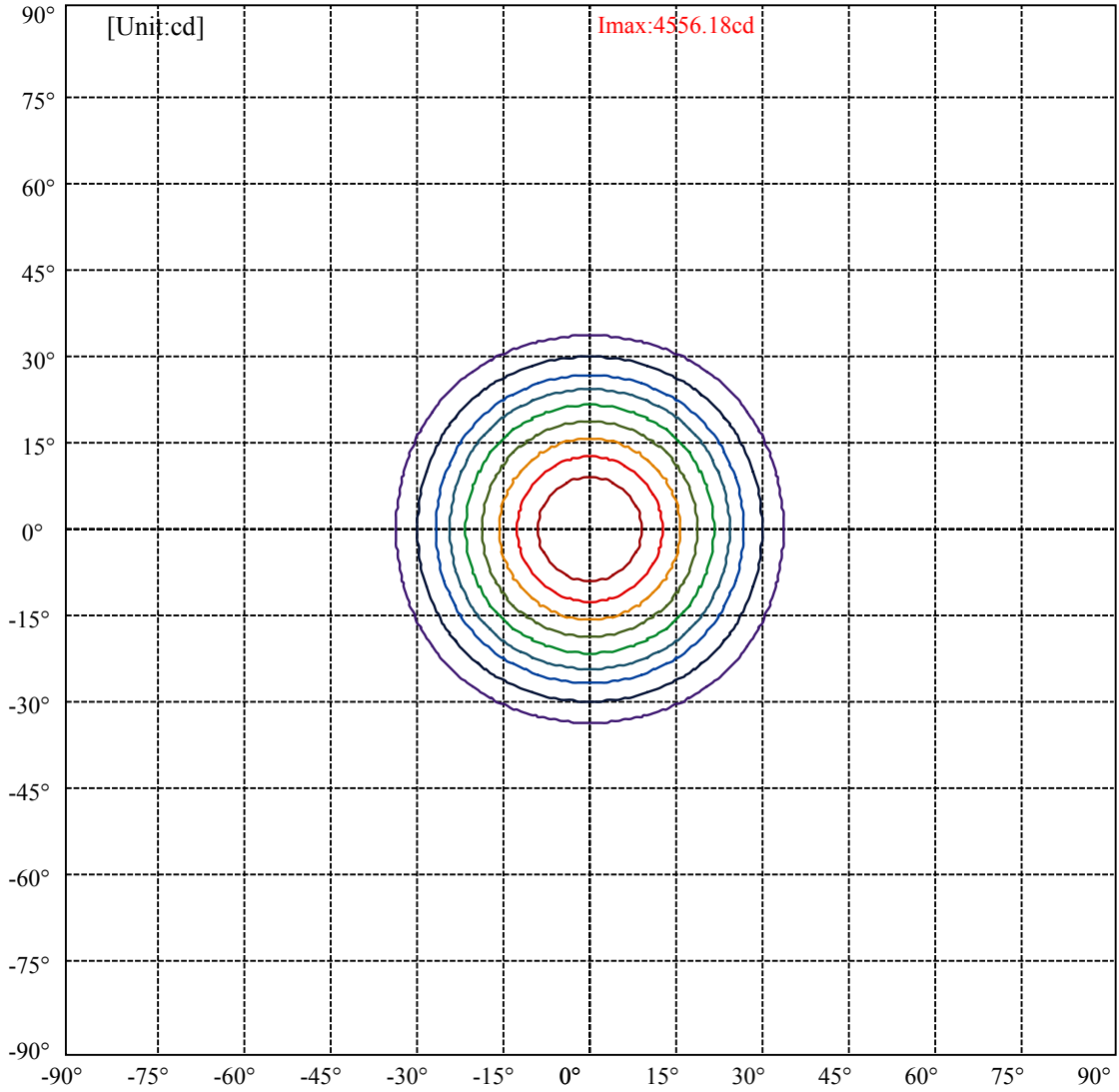
C90/C270: —————

Field angle(10%Imax):C0/180Left:33.2 Right:33.2

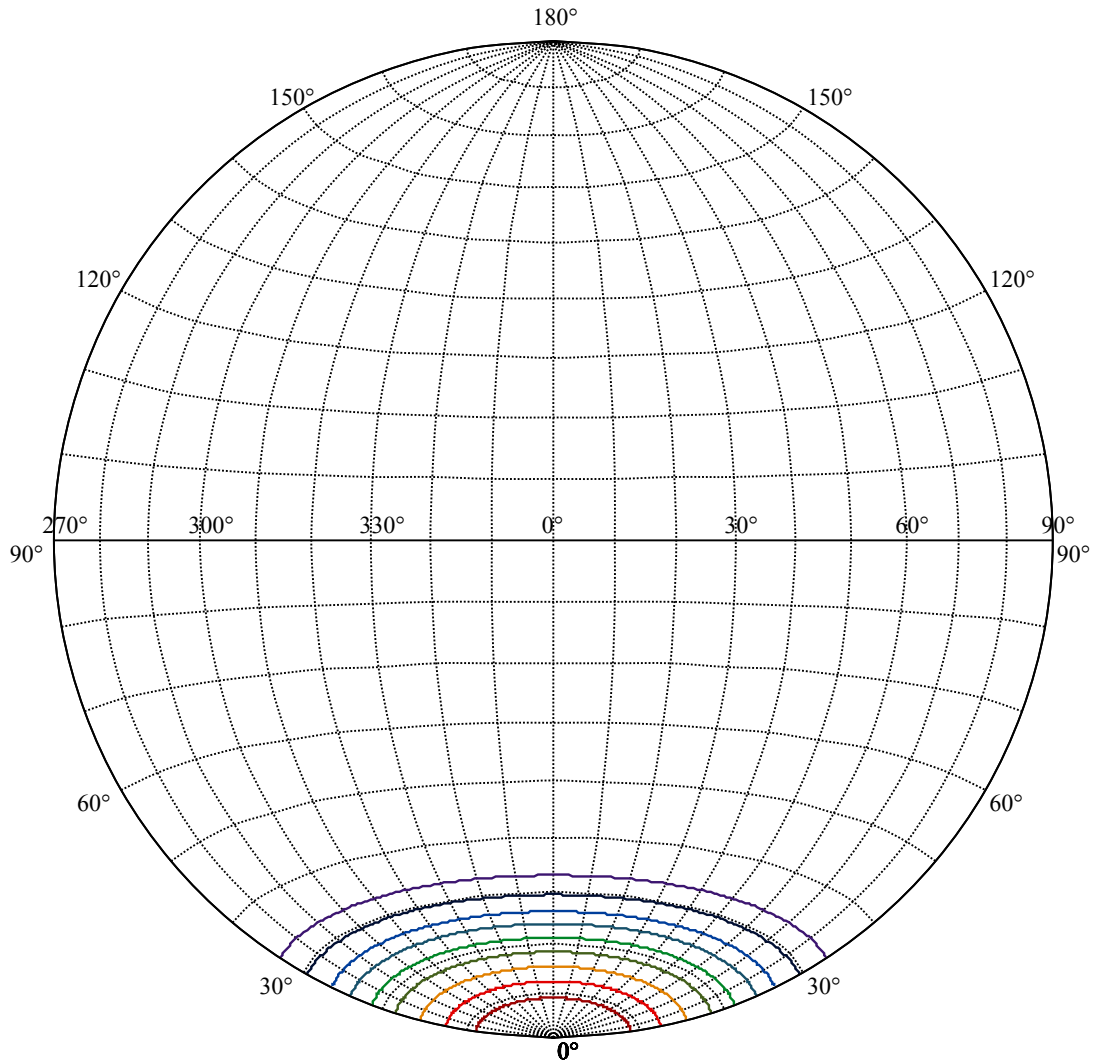
:C90/270Left:33.2 Right:33.2

Beam Angle(50%Imax):C0/180Left:21.3 Right:21.3

:C90/270Left:21.3 Right:21.3



| | |
|-------------------|---|
| (10%Imax) 455.618 | — |
| (20%Imax) 911.236 | — |
| (30%Imax) 1366.85 | — |
| (40%Imax) 1822.47 | — |
| (50%Imax) 2278.09 | — |
| (60%Imax) 2733.71 | — |
| (70%Imax) 3189.33 | — |
| (80%Imax) 3644.95 | — |
| (90%Imax) 4100.56 | — |



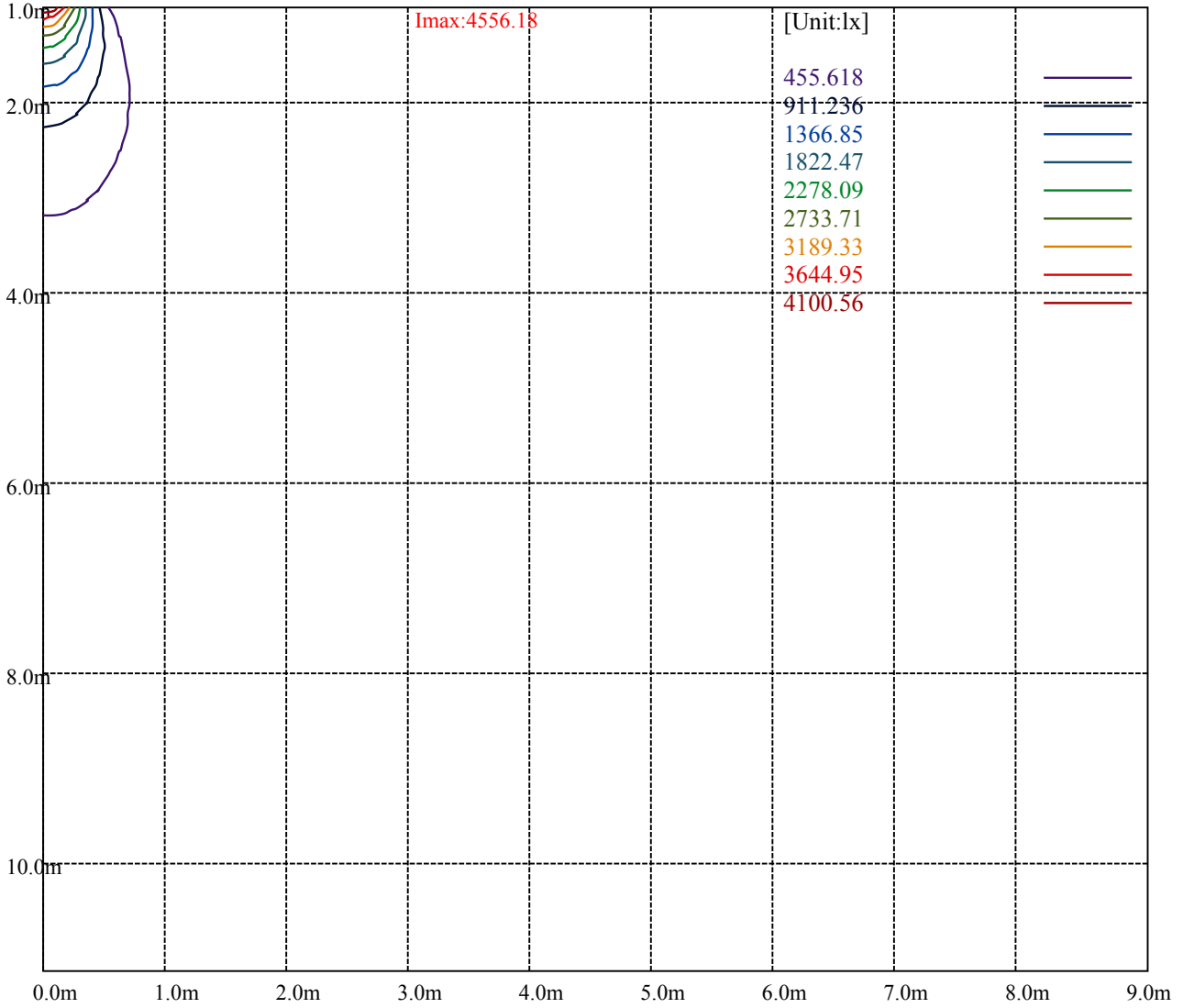
House

[Unit:cd]

Road

Imax:4556.18

| | |
|-------------------|---|
| (10%Imax) 455.618 | — |
| (20%Imax) 911.236 | — |
| (30%Imax) 1366.85 | — |
| (40%Imax) 1822.47 | — |
| (50%Imax) 2278.09 | — |
| (60%Imax) 2733.71 | — |
| (70%Imax) 3189.33 | — |
| (80%Imax) 3644.95 | — |
| (90%Imax) 4100.56 | — |



Luminance Table

| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|----|----|----|----|----|----|----|----|----|
| C0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

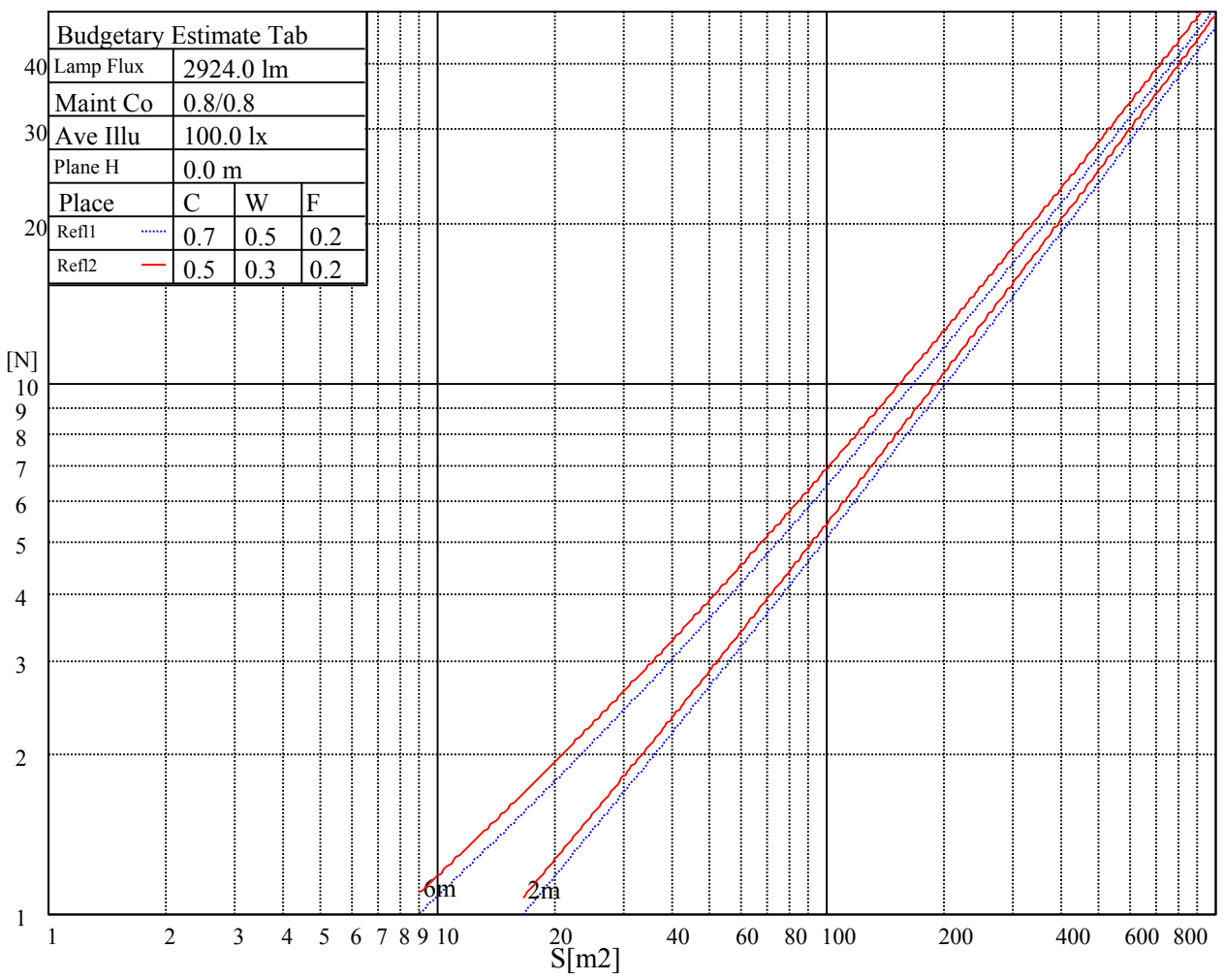
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Glare Table

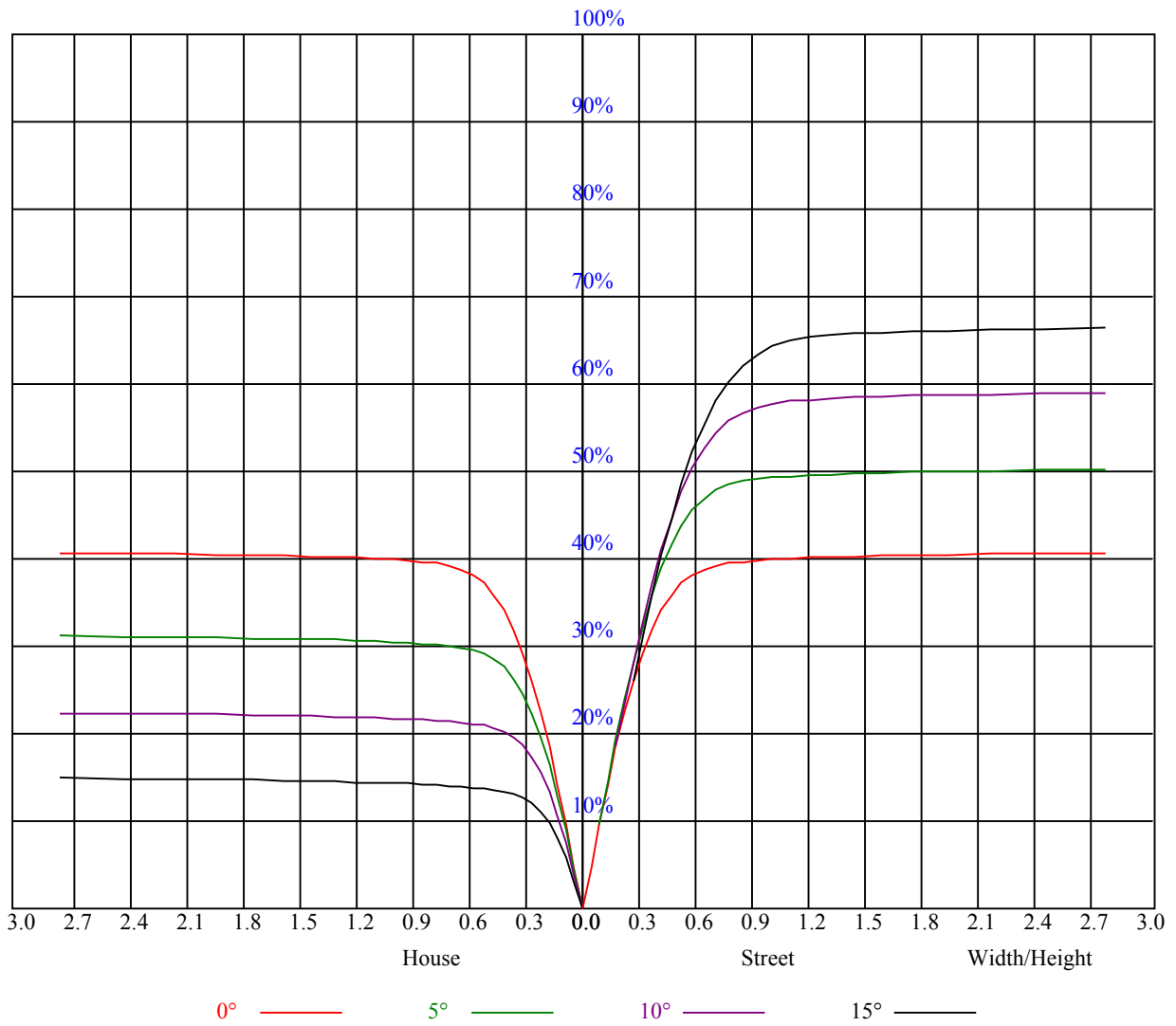
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 500 | <=300 | | |
| 2.2 | D | | | | 2000 | 1000 | 500 | <=300 | |
| 2.55 | E | | | | | 2000 | 1000 | 500 | <=300 |
| | | a | b | c | d | e | f | g | h |

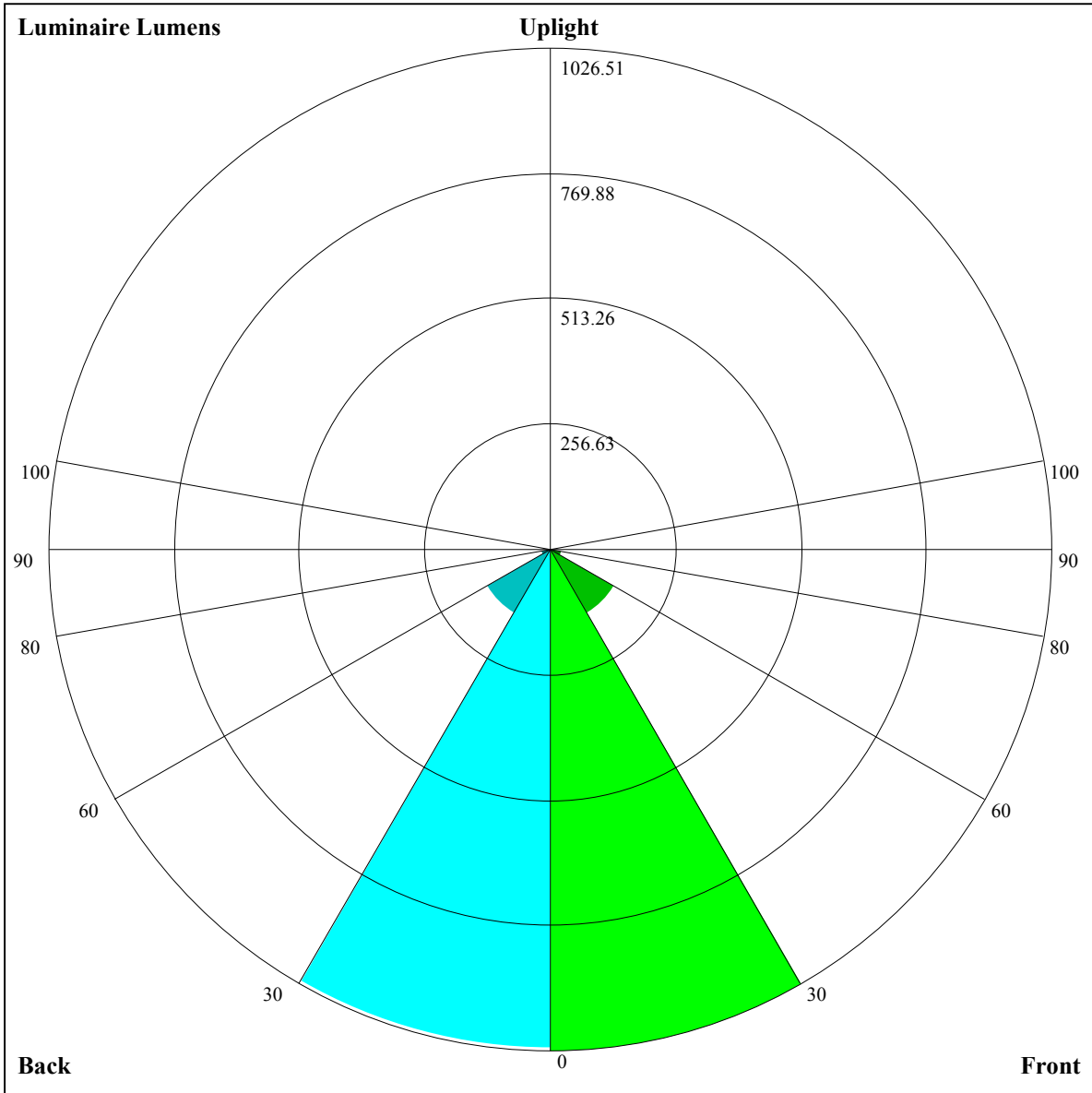
Luminance Limiting Curve





| RHOCC | 80 | | | 70 | | | 50 | | | 30 | | | 10 | | | 0 |
|-------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| RHOW | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | COEFFICIENTS OF UTILIZATION RHOF=20 CU | | | | | | | | | | | | | | | |
| 0 | 0.98 | 0.98 | 0.98 | 0.96 | 0.96 | 0.96 | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.84 | 0.84 | 0.84 | 0.82 |
| 1 | 0.91 | 0.89 | 0.87 | 0.89 | 0.88 | 0.86 | 0.86 | 0.85 | 0.83 | 0.83 | 0.82 | 0.81 | 0.80 | 0.79 | 0.79 | 0.77 |
| 2 | 0.86 | 0.82 | 0.80 | 0.84 | 0.81 | 0.79 | 0.81 | 0.79 | 0.77 | 0.79 | 0.77 | 0.76 | 0.77 | 0.75 | 0.74 | 0.73 |
| 3 | 0.81 | 0.77 | 0.74 | 0.79 | 0.76 | 0.73 | 0.77 | 0.74 | 0.72 | 0.75 | 0.73 | 0.71 | 0.74 | 0.72 | 0.70 | 0.69 |
| 4 | 0.76 | 0.72 | 0.69 | 0.75 | 0.71 | 0.68 | 0.73 | 0.70 | 0.68 | 0.72 | 0.69 | 0.67 | 0.70 | 0.68 | 0.66 | 0.65 |
| 5 | 0.72 | 0.68 | 0.65 | 0.71 | 0.67 | 0.64 | 0.70 | 0.66 | 0.64 | 0.69 | 0.66 | 0.63 | 0.67 | 0.65 | 0.63 | 0.62 |
| 6 | 0.69 | 0.64 | 0.61 | 0.68 | 0.64 | 0.61 | 0.67 | 0.63 | 0.60 | 0.66 | 0.62 | 0.60 | 0.65 | 0.62 | 0.60 | 0.59 |
| 7 | 0.65 | 0.61 | 0.58 | 0.65 | 0.61 | 0.58 | 0.64 | 0.60 | 0.57 | 0.63 | 0.60 | 0.57 | 0.62 | 0.59 | 0.57 | 0.56 |
| 8 | 0.62 | 0.58 | 0.55 | 0.62 | 0.58 | 0.55 | 0.61 | 0.57 | 0.55 | 0.60 | 0.57 | 0.54 | 0.59 | 0.56 | 0.54 | 0.53 |
| 9 | 0.60 | 0.55 | 0.52 | 0.59 | 0.55 | 0.52 | 0.58 | 0.55 | 0.52 | 0.58 | 0.54 | 0.52 | 0.57 | 0.54 | 0.52 | 0.51 |
| 10 | 0.57 | 0.53 | 0.50 | 0.57 | 0.53 | 0.50 | 0.56 | 0.52 | 0.50 | 0.55 | 0.52 | 0.50 | 0.55 | 0.52 | 0.50 | 0.49 |





Luminaire Lumens:

FL=1026.51,FM=150.46,FH=23.69,FVH=7.08

BL=1020.47,BM=149.76,BH=21.4,BVH=6.97

UL=0,UH=0

BUG Rating:B3-U0-G0

Intensity data(cd)

| | | | | | | | | | |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| C/γ(°) | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 |
| 0.0 | 4564.81 | 4561.30 | 4555.45 | 4536.14 | 4505.71 | 4454.21 | 4391.59 | 4296.20 | 4204.31 |
| 45.0 | 4551.94 | 4560.13 | 4561.89 | 4549.01 | 4529.70 | 4510.97 | 4459.47 | 4401.54 | 4324.29 |
| 90.0 | 4557.21 | 4553.69 | 4542.57 | 4518.00 | 4483.47 | 4441.92 | 4377.54 | 4312.58 | 4233.58 |
| 135.0 | 4550.77 | 4548.43 | 4534.97 | 4522.68 | 4488.73 | 4454.21 | 4407.39 | 4327.21 | 4261.67 |
| 180.0 | 4564.81 | 4556.04 | 4536.14 | 4513.90 | 4485.81 | 4430.21 | 4367.59 | 4296.20 | 4196.12 |
| 225.0 | 4551.94 | 4531.46 | 4503.36 | 4464.74 | 4412.66 | 4342.43 | 4242.94 | 4153.40 | 4057.42 |
| 270.0 | 4557.21 | 4553.69 | 4543.16 | 4518.00 | 4481.13 | 4428.46 | 4363.50 | 4266.35 | 4177.39 |
| 315.0 | 4550.77 | 4543.75 | 4530.87 | 4506.88 | 4466.50 | 4399.78 | 4326.04 | 4237.09 | 4118.29 |
| 360.0 | 4564.81 | 4561.30 | 4555.45 | 4536.14 | 4505.71 | 4454.21 | 4391.59 | 4296.20 | 4204.31 |
| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
| 0.0 | 4110.68 | 3960.28 | 3836.79 | 3699.27 | 3517.26 | 3379.15 | 3225.82 | 3081.27 | 2905.70 |
| 45.0 | 4241.18 | 4152.82 | 4046.30 | 3900.00 | 3767.15 | 3634.31 | 3493.27 | 3308.34 | 3163.20 |
| 90.0 | 4144.62 | 4016.46 | 3904.68 | 3777.69 | 3640.74 | 3466.35 | 3325.31 | 3147.98 | 3011.63 |
| 135.0 | 4183.83 | 4066.20 | 3959.11 | 3808.12 | 3681.12 | 3547.11 | 3402.56 | 3231.09 | 3088.29 |
| 180.0 | 4101.90 | 3978.42 | 3866.64 | 3739.06 | 3573.44 | 3430.06 | 3289.61 | 3150.91 | 2973.59 |
| 225.0 | 3911.12 | 3792.32 | 3664.15 | 3493.85 | 3351.64 | 3176.07 | 3040.30 | 2907.46 | 2765.83 |
| 270.0 | 4076.74 | 3970.22 | 3813.97 | 3679.37 | 3539.50 | 3363.35 | 3218.21 | 3078.93 | 2910.97 |
| 315.0 | 4007.68 | 3857.28 | 3726.77 | 3592.17 | 3451.72 | 3268.54 | 3128.09 | 2989.97 | 2850.10 |
| 360.0 | 4110.68 | 3960.28 | 3836.79 | 3699.27 | 3517.26 | 3379.15 | 3225.82 | 3081.27 | 2905.70 |
| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
| 0.0 | 2761.15 | 2607.24 | 2454.49 | 2260.20 | 2105.11 | 1908.48 | 1752.22 | 1596.55 | 1158.16 |
| 45.0 | 3027.43 | 2856.54 | 2711.41 | 2558.08 | 2364.37 | 2212.21 | 2017.33 | 1860.49 | 1699.55 |
| 90.0 | 2872.34 | 2693.26 | 2546.37 | 2389.53 | 2236.79 | 2040.15 | 1882.14 | 1723.55 | 1525.15 |
| 135.0 | 2953.10 | 2817.33 | 2634.16 | 2486.68 | 2336.86 | 2185.87 | 1996.85 | 1841.18 | 1644.54 |
| 180.0 | 2838.40 | 2695.02 | 2538.76 | 2342.13 | 2187.63 | 2041.32 | 1887.41 | 1708.33 | 1512.28 |
| 225.0 | 2576.22 | 2422.89 | 2271.32 | 2120.91 | 1969.34 | 1778.56 | 1625.23 | 1167.17 | 1167.17 |
| 270.0 | 2770.51 | 2616.60 | 2422.89 | 2270.73 | 2117.99 | 1969.34 | 1778.56 | 1633.42 | 1478.34 |
| 315.0 | 2668.68 | 2514.77 | 2358.52 | 2166.56 | 2014.40 | 1859.90 | 1665.02 | 1508.18 | 1155.64 |
| 360.0 | 2761.15 | 2607.24 | 2454.49 | 2260.20 | 2105.11 | 1908.48 | 1752.22 | 1596.55 | 1158.16 |
| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
| 0.0 | 1158.16 | 1082.61 | 936.95 | 771.09 | 652.00 | 542.50 | 444.24 | 340.54 | 274.94 |
| 45.0 | 1536.86 | 1333.79 | 1175.19 | 1022.45 | 881.41 | 752.66 | 606.35 | 501.01 | 407.38 |
| 90.0 | 1162.08 | 1162.08 | 1045.91 | 901.13 | 737.50 | 617.94 | 482.46 | 390.35 | 313.45 |
| 135.0 | 1481.85 | 1322.08 | 1127.79 | 979.14 | 841.03 | 715.20 | 569.48 | 466.48 | 376.94 |
| 180.0 | 1359.54 | 1217.91 | 1066.34 | 874.97 | 740.95 | 628.59 | 522.08 | 400.94 | 319.59 |
| 225.0 | 1127.26 | 974.93 | 800.12 | 673.18 | 532.15 | 434.18 | 352.66 | 286.53 | 219.05 |
| 270.0 | 1313.30 | 1134.81 | 984.41 | 831.08 | 671.31 | 554.27 | 428.44 | 345.93 | 310.23 |
| 315.0 | 1155.64 | 1004.19 | 859.64 | 727.61 | 578.32 | 471.98 | 382.33 | 307.95 | 235.85 |
| 360.0 | 1158.16 | 1082.61 | 936.95 | 771.09 | 652.00 | 542.50 | 444.24 | 340.54 | 274.94 |
| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
| 0.0 | 221.51 | 169.36 | 137.24 | 112.77 | 95.04 | 79.59 | 71.16 | 63.73 | 59.17 |
| 45.0 | 312.57 | 295.60 | 295.60 | 149.00 | 121.14 | 100.42 | 82.52 | 72.92 | 65.90 |
| 90.0 | 237.84 | 190.14 | 152.39 | 123.13 | 97.56 | 83.28 | 73.15 | 65.95 | 59.28 |
| 135.0 | 303.79 | 303.79 | 179.14 | 143.03 | 110.49 | 92.70 | 79.71 | 70.81 | 63.03 |
| 180.0 | 304.38 | 236.78 | 157.84 | 127.70 | 105.52 | 86.26 | 75.49 | 67.13 | 59.81 |
| 225.0 | 177.50 | 143.67 | 118.51 | 95.51 | 82.28 | 72.10 | 64.55 | 58.05 | 54.43 |
| 270.0 | 310.23 | 166.73 | 134.48 | 110.43 | 92.99 | 77.78 | 69.17 | 62.79 | 57.94 |
| 315.0 | 190.14 | 154.03 | 119.91 | 100.37 | 86.09 | 73.68 | 66.89 | 61.57 | 56.65 |
| 360.0 | 221.51 | 169.36 | 137.24 | 112.77 | 95.04 | 79.59 | 71.16 | 63.73 | 59.17 |

Intensity data(cd)

| | | | | | | | | | |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C/γ(°) | 45.0 | 46.0 | 47.0 | 48.0 | 49.0 | 50.0 | 51.0 | 52.0 | 53.0 |
| 0.0 | 55.60 | 51.73 | 49.10 | 46.70 | 44.54 | 42.49 | 40.20 | 38.51 | 36.87 |
| 45.0 | 59.46 | 55.60 | 52.38 | 49.51 | 46.41 | 44.07 | 41.96 | 40.09 | 37.86 |
| 90.0 | 55.30 | 51.97 | 49.16 | 46.06 | 43.77 | 41.26 | 39.44 | 37.34 | 35.70 |
| 135.0 | 58.52 | 53.96 | 50.97 | 48.34 | 45.94 | 43.13 | 41.20 | 39.39 | 37.22 |
| 180.0 | 55.71 | 52.32 | 48.81 | 46.41 | 44.13 | 41.49 | 39.62 | 37.75 | 35.99 |
| 225.0 | 51.32 | 47.93 | 45.59 | 42.84 | 40.91 | 39.03 | 37.28 | 35.29 | 33.71 |
| 270.0 | 53.49 | 50.56 | 48.05 | 45.12 | 43.01 | 41.02 | 38.80 | 37.10 | 35.05 |
| 315.0 | 53.49 | 50.74 | 47.64 | 45.41 | 43.31 | 41.43 | 39.21 | 37.57 | 35.99 |
| 360.0 | 55.60 | 51.73 | 49.10 | 46.70 | 44.54 | 42.49 | 40.20 | 38.51 | 36.87 |
| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
| 0.0 | 35.00 | 33.53 | 32.19 | 30.55 | 29.32 | 28.09 | 26.69 | 25.98 | 25.52 |
| 45.0 | 36.28 | 34.70 | 32.89 | 31.54 | 30.08 | 28.79 | 27.51 | 26.34 | 24.70 |
| 90.0 | 34.18 | 32.71 | 31.02 | 29.67 | 28.38 | 27.21 | 25.75 | 24.46 | 23.35 |
| 135.0 | 35.70 | 34.24 | 32.77 | 31.08 | 29.79 | 28.56 | 26.98 | 25.75 | 24.29 |
| 180.0 | 34.41 | 32.54 | 31.13 | 29.79 | 28.27 | 27.10 | 25.57 | 24.46 | 23.35 |
| 225.0 | 32.25 | 30.84 | 29.26 | 28.09 | 26.92 | 25.40 | 24.23 | 23.12 | 21.71 |
| 270.0 | 33.59 | 32.25 | 30.90 | 29.32 | 28.27 | 27.10 | 26.04 | 24.93 | 23.64 |
| 315.0 | 34.47 | 32.77 | 31.49 | 29.90 | 28.68 | 27.56 | 26.10 | 25.05 | 23.99 |
| 360.0 | 35.00 | 33.53 | 32.19 | 30.55 | 29.32 | 28.09 | 26.69 | 25.98 | 25.52 |
| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
| 0.0 | 25.28 | 25.22 | 25.46 | 26.04 | 27.21 | 28.15 | 29.38 | 30.55 | 31.95 |
| 45.0 | 23.58 | 22.53 | 21.36 | 20.07 | 19.31 | 18.73 | 18.14 | 17.79 | 17.44 |
| 90.0 | 21.95 | 20.83 | 19.78 | 18.90 | 18.38 | 17.97 | 17.50 | 17.21 | 17.56 |
| 135.0 | 23.06 | 21.95 | 20.83 | 19.78 | 19.20 | 18.79 | 18.32 | 17.97 | 18.02 |
| 180.0 | 21.95 | 20.78 | 19.84 | 19.20 | 18.79 | 19.31 | 20.01 | 21.07 | 22.53 |
| 225.0 | 20.54 | 19.72 | 19.02 | 18.55 | 18.20 | 17.79 | 17.44 | 17.21 | 16.91 |
| 270.0 | 22.65 | 21.59 | 20.83 | 20.37 | 20.72 | 21.42 | 22.41 | 23.94 | 25.28 |
| 315.0 | 23.00 | 22.30 | 21.77 | 21.83 | 22.41 | 23.58 | 24.70 | 25.87 | 27.39 |
| 360.0 | 25.28 | 25.22 | 25.46 | 26.04 | 27.21 | 28.15 | 29.38 | 30.55 | 31.95 |
| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
| 0.0 | 32.48 | 32.36 | 31.78 | 30.96 | 29.61 | 28.27 | 25.75 | 22.06 | 17.79 |
| 45.0 | 17.09 | 16.80 | 16.50 | 16.21 | 16.04 | 15.80 | 15.63 | 15.39 | 15.27 |
| 90.0 | 18.32 | 19.49 | 20.42 | 21.07 | 21.01 | 20.48 | 20.01 | 19.49 | 17.50 |
| 135.0 | 18.67 | 19.96 | 20.95 | 21.65 | 22.18 | 21.89 | 21.24 | 20.07 | 18.08 |
| 180.0 | 23.58 | 23.99 | 24.05 | 23.70 | 23.12 | 22.36 | 21.77 | 20.42 | 17.91 |
| 225.0 | 16.62 | 16.44 | 16.27 | 16.09 | 15.98 | 15.80 | 15.74 | 15.63 | 15.51 |
| 270.0 | 26.57 | 27.80 | 29.14 | 29.50 | 28.62 | 26.63 | 22.77 | 20.01 | 17.97 |
| 315.0 | 28.44 | 29.55 | 30.61 | 30.43 | 29.26 | 25.75 | 22.53 | 19.25 | 16.27 |
| 360.0 | 32.48 | 32.36 | 31.78 | 30.96 | 29.61 | 28.27 | 25.75 | 22.06 | 17.79 |
| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
| 0.0 | 15.27 | 14.46 | 13.87 | 13.05 | 12.41 | 11.35 | 10.77 | 10.59 | 10.12 |
| 45.0 | 15.10 | 14.86 | 14.51 | 14.16 | 13.58 | 12.58 | 11.29 | 10.77 | 10.53 |
| 90.0 | 15.63 | 14.10 | 13.64 | 13.17 | 12.06 | 11.35 | 10.77 | 10.53 | 10.24 |
| 135.0 | 15.68 | 14.86 | 14.05 | 13.40 | 12.35 | 11.65 | 11.06 | 10.59 | 10.42 |
| 180.0 | 15.16 | 13.93 | 13.46 | 12.99 | 12.00 | 11.18 | 10.71 | 10.42 | 10.12 |
| 225.0 | 15.16 | 14.86 | 14.46 | 13.64 | 11.24 | 10.77 | 10.53 | 10.12 | 10.18 |
| 270.0 | 15.74 | 15.39 | 15.04 | 14.75 | 14.40 | 11.35 | 10.83 | 10.36 | 10.12 |
| 315.0 | 15.16 | 14.69 | 14.40 | 13.93 | 13.75 | 11.18 | 10.71 | 10.24 | 10.07 |
| 360.0 | 15.27 | 14.46 | 13.87 | 13.05 | 12.41 | 11.35 | 10.77 | 10.59 | 10.12 |

Intensity data(cd)

| | |
|----------------------------|-------|
| C/ γ ($^{\circ}$) | 90.0 |
| 0.0 | 10.12 |
| 45.0 | 10.12 |
| 90.0 | 10.07 |
| 135.0 | 10.07 |
| 180.0 | 10.12 |
| 225.0 | 10.18 |
| 270.0 | 10.24 |
| 315.0 | 10.18 |
| 360.0 | 10.12 |