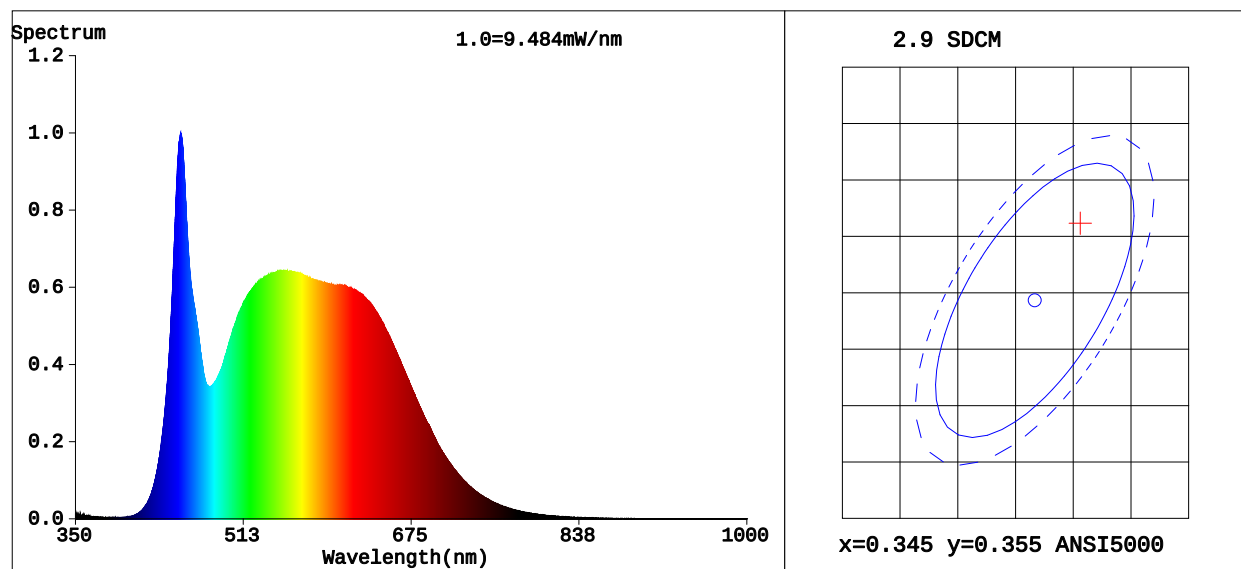


## Spectrum Test Report



## Color Parameters:

Chromaticity Coordinate:  $x=0.3486$   $y=0.3621$   $u'=0.2098$   $v'=0.4902$

CCT=4908K(Duv=0.0038) Dominant WL:Ld =570.6nm Purity=13.3%

Ratio:R=16.9% G=78.1% B=5.0% Peak WL:Lp=451.8nm FWHM=25.8nm

Render Index:Ra=91.4

|        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|
| R1 =91 | R2 =94 | R3 =94 | R4 =91 | R5 =89 | R6 =89 | R7 =96 |        |
| R8 =87 | R9 =64 | R10=84 | R11=90 | R12=65 | R13=92 | R14=97 | R15=89 |

## Photo Parameters:

Flux = 413.0 lm Eff. : 113.58 lm/W Fe = 1.425 W

## Electrical parameters:

V = 120.01 V I = 0.03937 A P = 3.636 W PF = 0.7707

Status: Integral T = 1724 ms Ip = 38789 (59%)

Model:G25-3-E26-950-F-C  
Tester:XCJ  
Temperature:25.3Deg  
Manufacturer:RAB Lighting Inc.

Number:1  
Date:2018-09-30  
Humidity:65.0%  
Remarks:

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## RAB Lighting Inc.

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Client:

LumCAT: G25-3-E26-950-F-C

Luminaire:

Report No:

Voltage(V): 120.0100

Test No: 255188-01-001

Current(A): 0.0400

LampCAT:

Power (W): 3.6860

Lamp flux(lm)

PF: 0.7686

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 389.38

Lumens(lm)/Power(W): 105.64

Central intensity(cd): 6.139

Maximum intensity(cd): 44.815

Angle of maximum intensity: C=180.0  $\gamma$ =105.0

Beam Angle(50%Imax): [C0/180]Total=285.1

[C90/270]Total=277.7

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=346.1

Maximum s/h(1/2): C0\_180=4.01 C90\_270=3.40

Maximum s/h(1/4): C0\_180=3.72 C90\_270=3.29

Up flux rate of LUM(%): 43.72%

Down flux rate of LUM(%): 53.53%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 25.911%

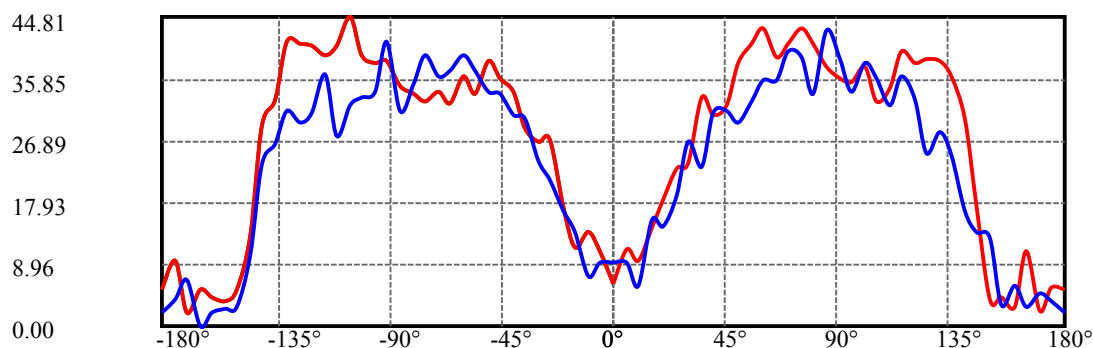
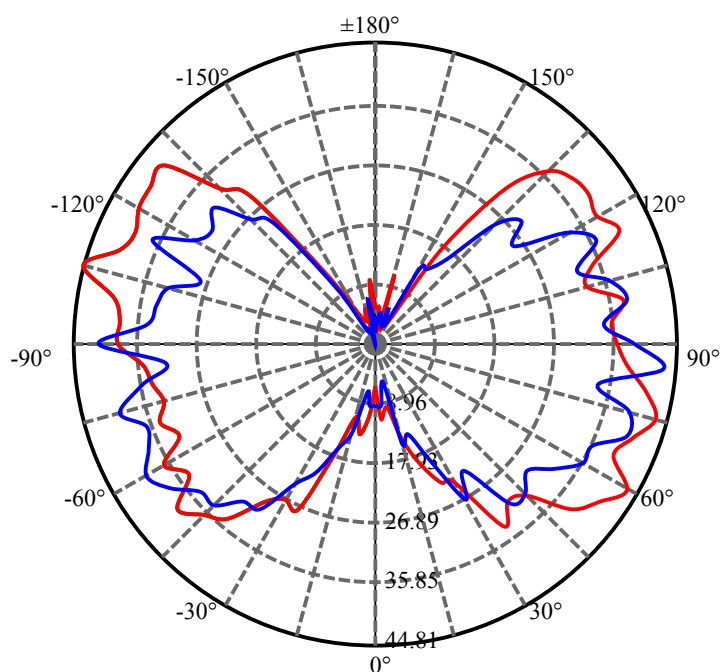
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 7.674         | 0.046       | 0.046     | .012%       | .012%      |
| 5.0                | 10.053        | 0.480       | 0.526     | .123%       | .135%      |
| 10.0               | 9.055         | 0.862       | 1.388     | .221%       | .356%      |
| 15.0               | 13.583        | 1.927       | 3.315     | .495%       | .851%      |
| 20.0               | 16.652        | 3.122       | 6.437     | .802%       | 1.653%     |
| 25.0               | 22.484        | 5.209       | 11.645    | 1.338%      | 2.991%     |
| 30.0               | 25.247        | 6.919       | 18.565    | 1.777%      | 4.768%     |
| 35.0               | 28.700        | 9.023       | 27.588    | 2.317%      | 7.085%     |
| 40.0               | 31.616        | 11.139      | 38.727    | 2.861%      | 9.946%     |
| 45.0               | 33.227        | 12.879      | 51.606    | 3.307%      | 13.253%    |
| 50.0               | 34.992        | 14.693      | 66.299    | 3.773%      | 17.027%    |
| 55.0               | 36.067        | 16.194      | 82.493    | 4.159%      | 21.186%    |
| 60.0               | 38.599        | 18.323      | 100.816   | 4.706%      | 25.891%    |
| 65.0               | 35.990        | 17.879      | 118.695   | 4.592%      | 30.483%    |
| 70.0               | 37.755        | 19.447      | 138.142   | 4.994%      | 35.477%    |
| 75.0               | 38.522        | 20.396      | 158.538   | 5.238%      | 40.715%    |
| 80.0               | 35.836        | 19.345      | 177.883   | 4.968%      | 45.683%    |
| 85.0               | 36.604        | 19.988      | 197.871   | 5.133%      | 50.816%    |
| 90.0               | 38.522        | 21.115      | 218.986   | 5.423%      | 56.239%    |
| 95.0               | 35.376        | 19.317      | 238.303   | 4.961%      | 61.200%    |
| 100.0              | 36.988        | 19.966      | 258.27    | 5.128%      | 66.328%    |
| 105.0              | 36.297        | 19.218      | 277.487   | 4.935%      | 71.263%    |
| 110.0              | 33.611        | 17.312      | 294.8     | 4.446%      | 75.709%    |
| 115.0              | 37.985        | 18.870      | 313.67    | 4.846%      | 80.556%    |
| 120.0              | 35.606        | 16.902      | 330.572   | 4.341%      | 84.896%    |
| 125.0              | 33.534        | 15.057      | 345.63    | 3.867%      | 88.763%    |
| 130.0              | 34.762        | 14.597      | 360.226   | 3.749%      | 92.512%    |
| 135.0              | 30.081        | 11.659      | 371.885   | 2.994%      | 95.506%    |
| 140.0              | 24.710        | 8.706       | 380.591   | 2.236%      | 97.742%    |
| 145.0              | 13.659        | 4.294       | 384.886   | 1.103%      | 98.845%    |
| 150.0              | 6.216         | 1.704       | 386.589   | .437%       | 99.282%    |
| 155.0              | 3.376         | 0.782       | 387.371   | .201%       | 99.483%    |
| 160.0              | 3.683         | 0.691       | 388.062   | .177%       | 99.661%    |
| 165.0              | 4.681         | 0.664       | 388.726   | .171%       | 99.831%    |
| 170.0              | 3.837         | 0.365       | 389.091   | .094%       | 99.925%    |
| 175.0              | 5.679         | 0.271       | 389.363   | .070%       | 99.995%    |
| 180.0              | 3.530         | 0.021       | 389.384   | .005%       | 100.000%   |

## ZONAL LUMEN SUMMARY

| Zone     | Lumens | %Fixt   |
|----------|--------|---------|
| 0-30     | 18.56  | 4.77%   |
| 0-40     | 38.73  | 9.95%   |
| 0-60     | 100.82 | 25.89%  |
| 0-90     | 218.99 | 56.24%  |
| 0-120    | 330.57 | 84.90%  |
| 0-180    | 389.38 | 100.00% |
| 60-90    | 136.49 | 35.05%  |
| 90-120   | 132.70 | 34.08%  |
| 90-130   | 162.36 | 41.70%  |
| 90-150   | 188.72 | 48.47%  |
| 90-180   | 191.49 | 49.18%  |
| 0-114.43 | 311.51 | 80.00%  |

## ZONAL LUMEN SUMMARY

|         |       |
|---------|-------|
| 0-10    | 1.39  |
| 10-20   | 5.05  |
| 20-30   | 12.13 |
| 30-40   | 20.16 |
| 40-50   | 27.57 |
| 50-60   | 34.52 |
| 60-70   | 37.33 |
| 70-80   | 39.74 |
| 80-90   | 41.10 |
| 90-100  | 39.28 |
| 100-110 | 36.53 |
| 110-120 | 35.77 |
| 120-130 | 29.65 |
| 130-140 | 20.37 |
| 140-150 | 6.00  |
| 150-160 | 1.47  |
| 160-170 | 1.03  |
| 170-180 | 0.27  |



C180(Max): —————

C0/C180: —————

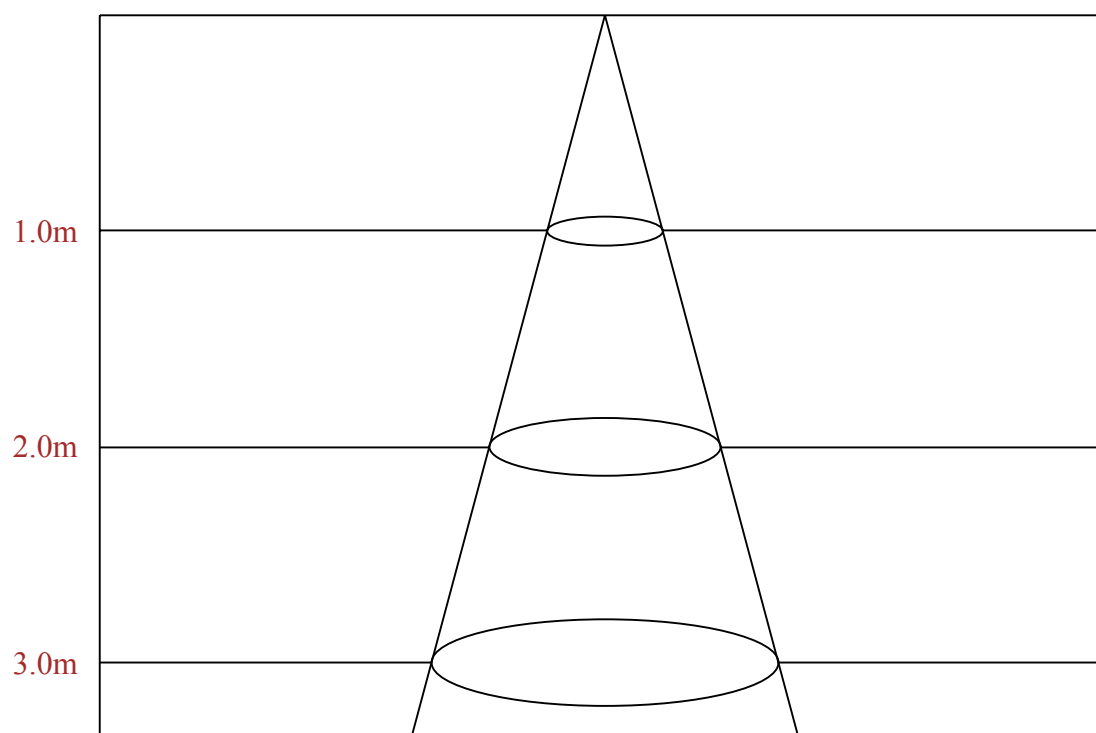
C90/C270: —————

Field angle(10%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:259.4 Right:86.7

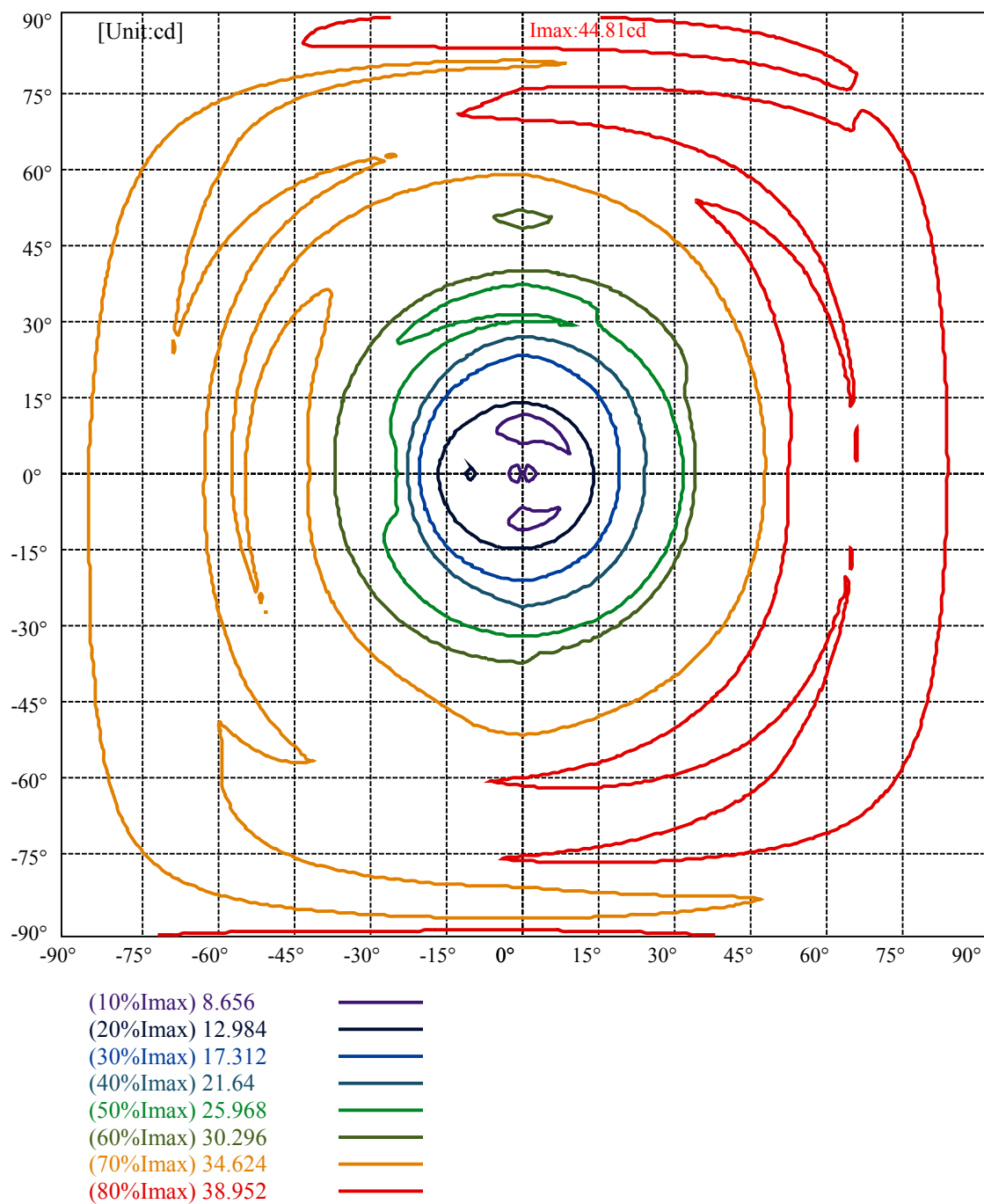
Beam Angle(50%Imax):C0/180Left:37.1 Right:248.0

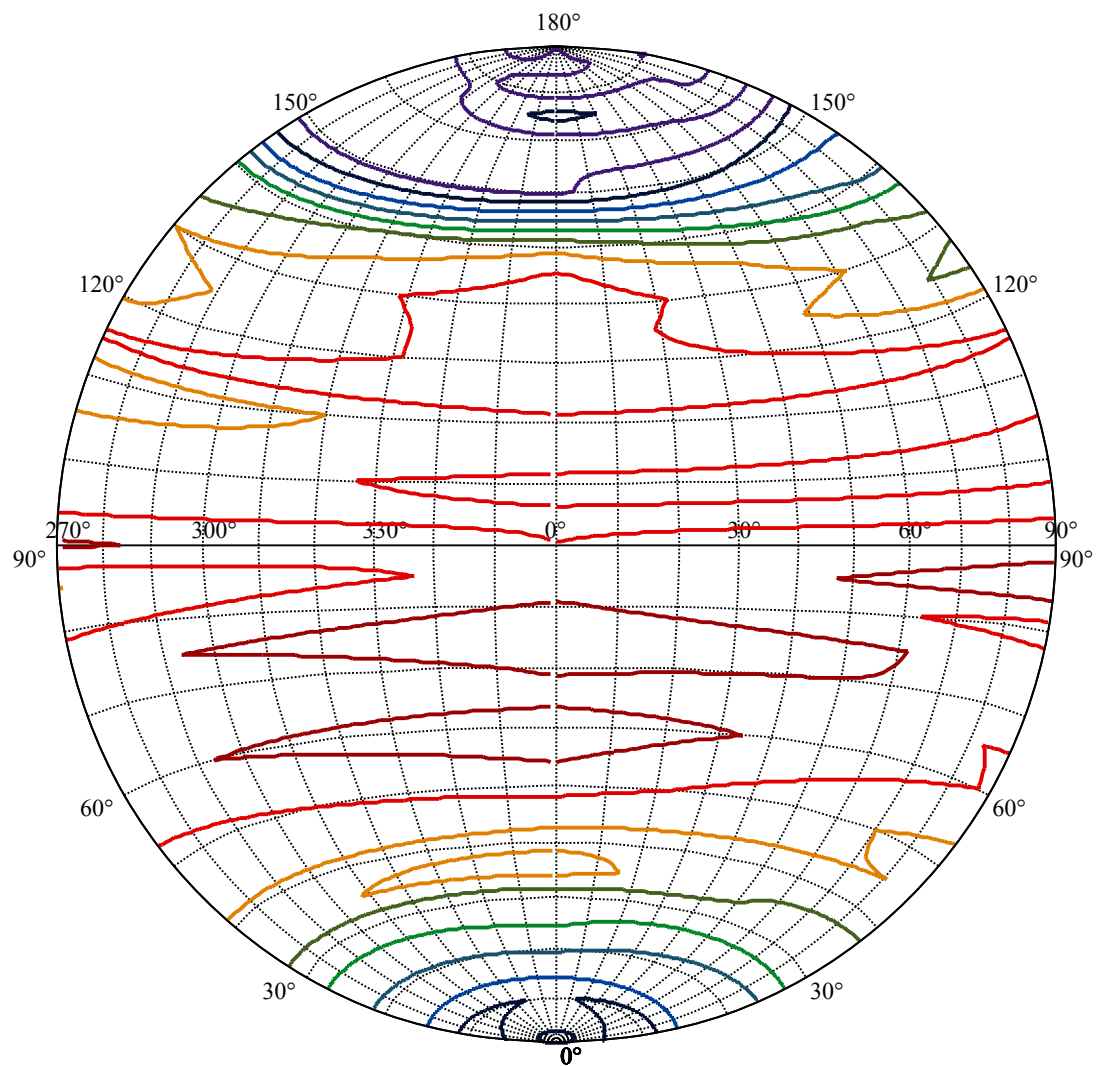
:C90/270Left:225.7 Right:52.0



Max , Ave

Beam angle of C180 plane 329.07





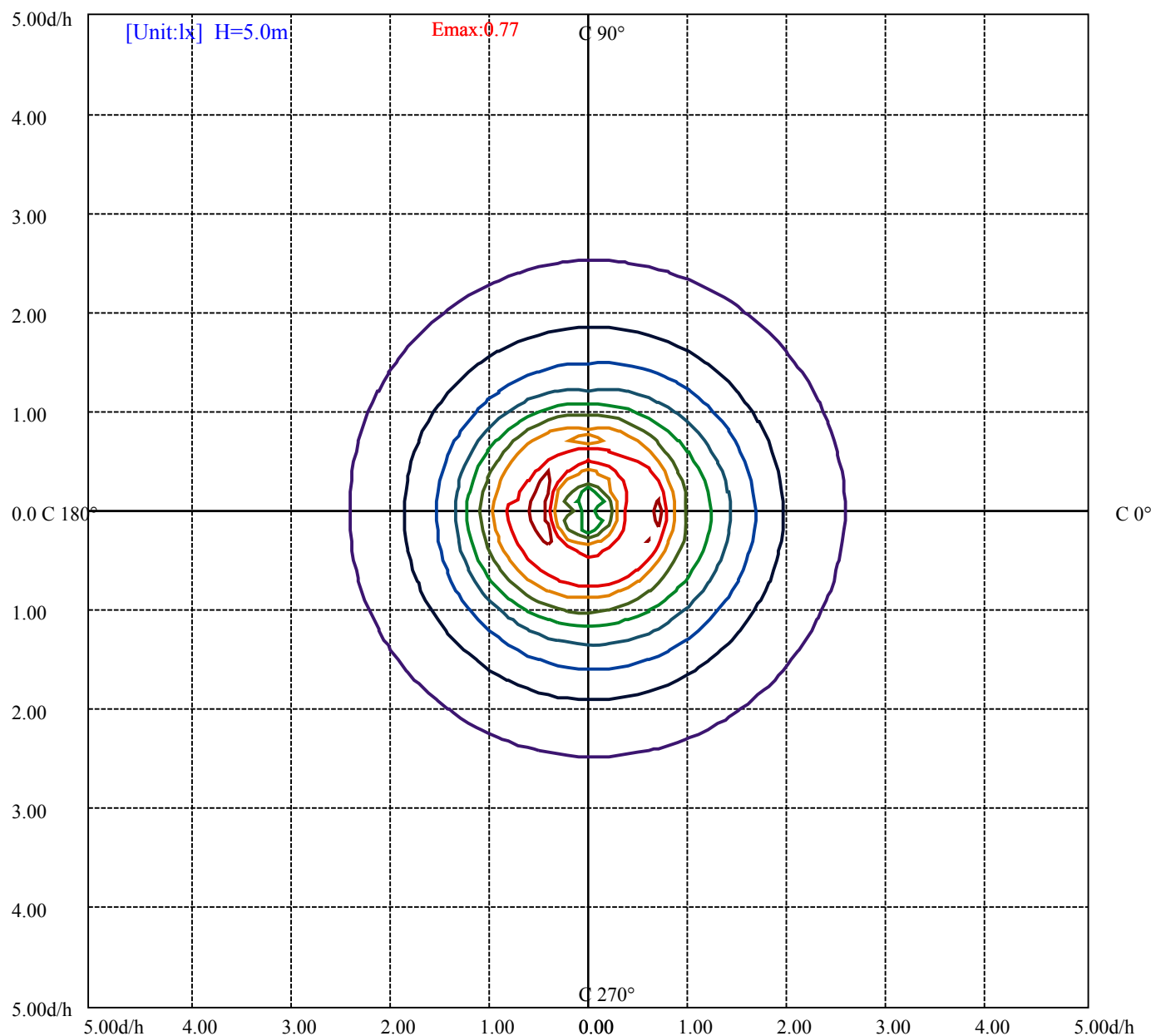
House

[Unit:cd]

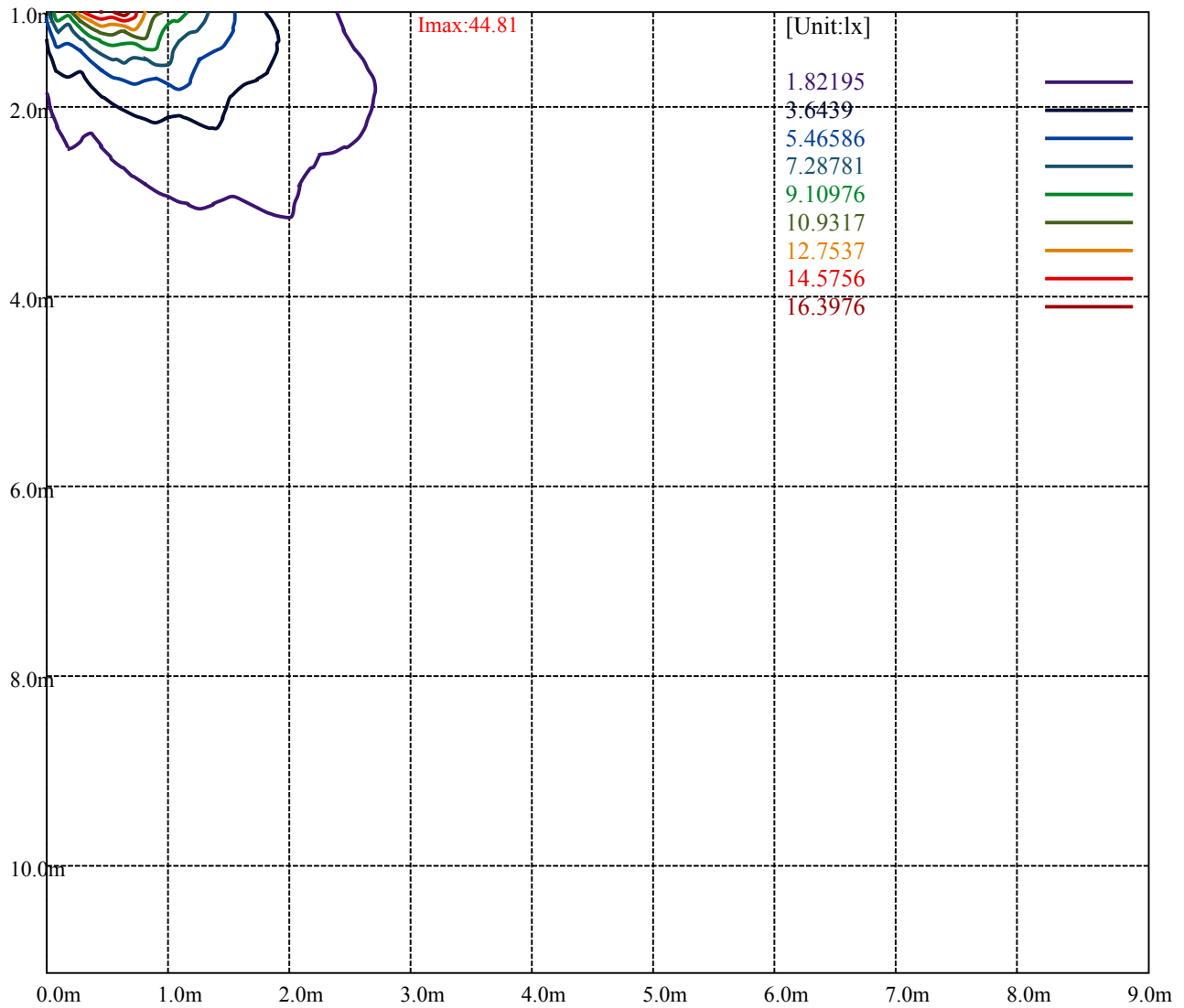
Road

**Imax:44.81**  
 (10%Imax) 4.48148  
 (20%Imax) 8.96295  
 (30%Imax) 13.4444  
 (40%Imax) 17.9259  
 (50%Imax) 22.4074  
 (60%Imax) 26.8889  
 (70%Imax) 31.3703  
 (80%Imax) 35.8518  
 (90%Imax) 40.3333





|                     |   |
|---------------------|---|
| (10%Emax) 0.0770316 | — |
| (20%Emax) 0.1540636 | — |
| (30%Emax) 0.2310952 | — |
| (40%Emax) 0.3081268 | — |
| (50%Emax) 0.3851588 | — |
| (60%Emax) 0.462192  | — |
| (70%Emax) 0.539224  | — |
| (80%Emax) 0.616252  | — |
| (90%Emax) 0.693284  | — |



Luminance Table

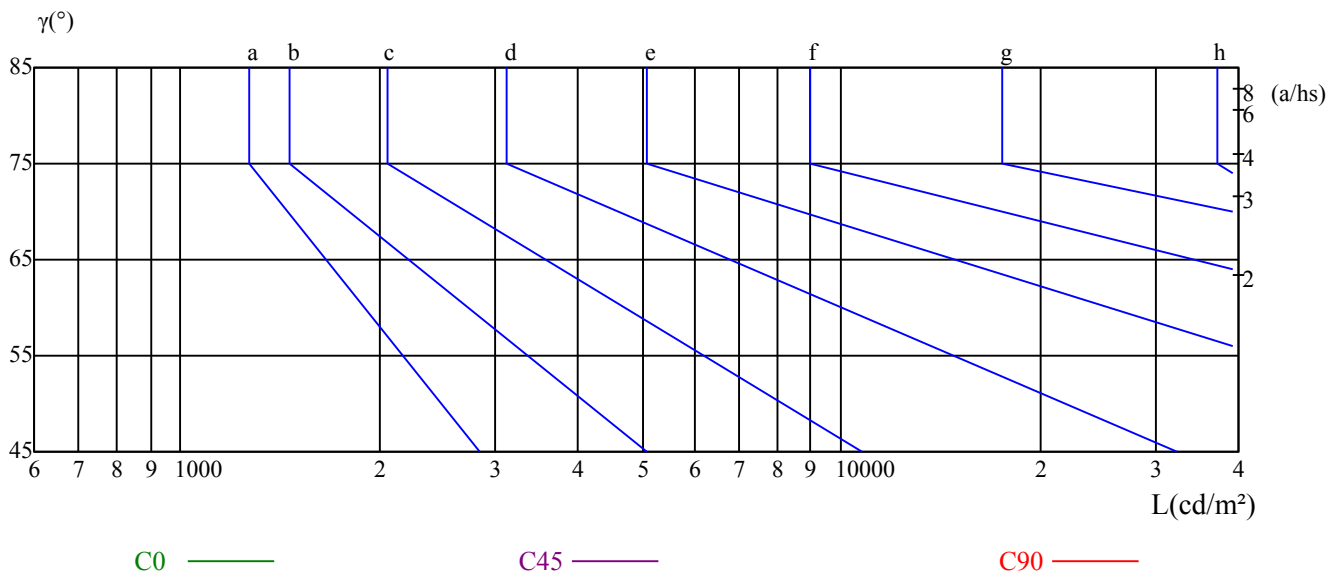
| $\gamma$ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|----|----|----|----|----|----|----|----|----|
| C0       | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C45      | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C90      | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

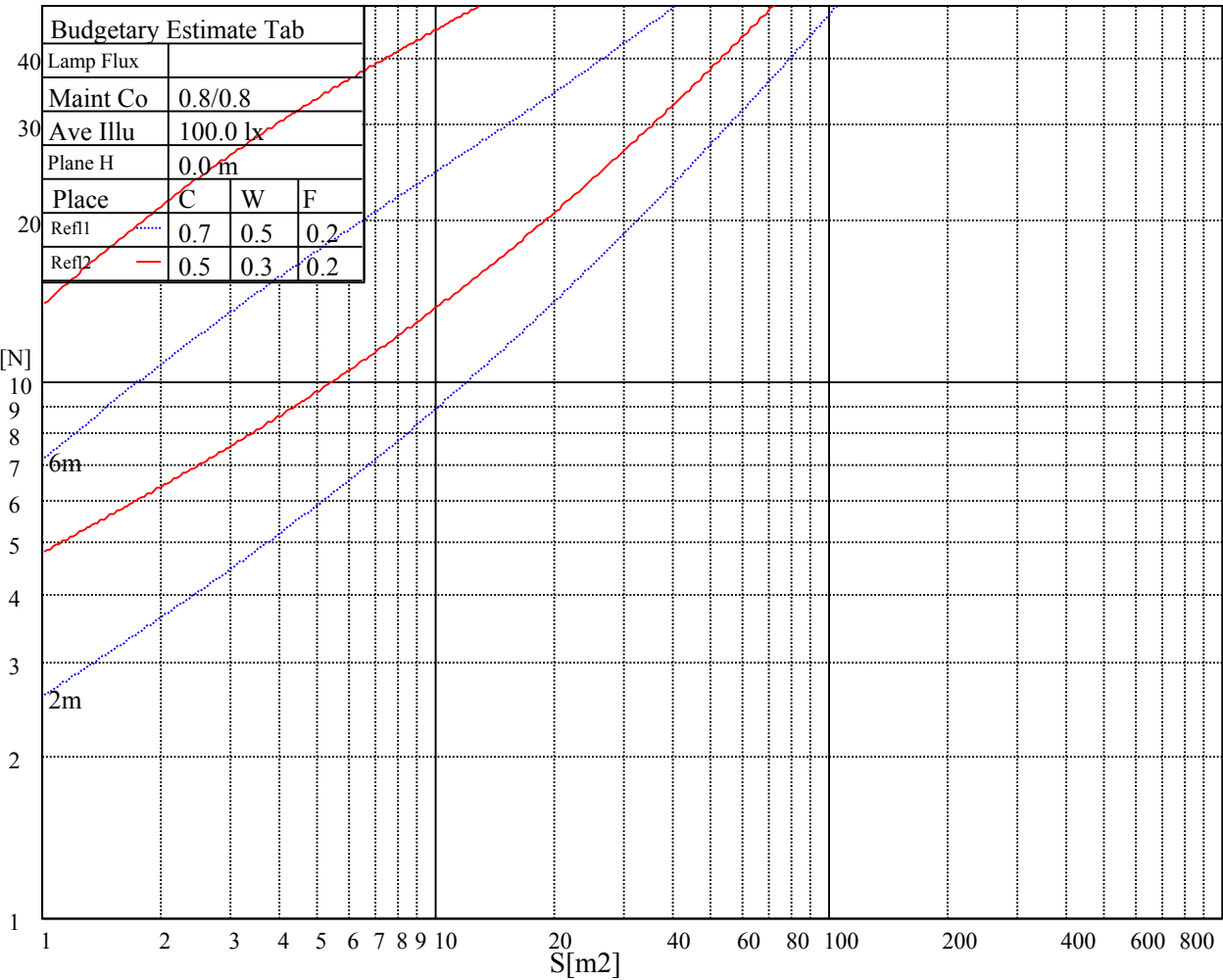
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0          | 0          | 0       | 0          | 0          | 0       | 0     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

Glare Table

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

Luminance Limiting Curve





| RHOC | 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    | 1.08                                   | 1.08 | 1.08 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 | 0.72 | 0.72 | 0.72 | 0.59 | 0.59 | 0.59 | 0.54 |
| 1    | 0.88                                   | 0.83 | 0.78 | 0.81 | 0.76 | 0.72 | 0.68 | 0.65 | 0.61 | 0.57 | 0.54 | 0.51 | 0.46 | 0.44 | 0.42 | 0.36 |
| 2    | 0.74                                   | 0.66 | 0.59 | 0.68 | 0.61 | 0.55 | 0.57 | 0.51 | 0.47 | 0.47 | 0.42 | 0.39 | 0.37 | 0.34 | 0.31 | 0.26 |
| 3    | 0.63                                   | 0.54 | 0.47 | 0.58 | 0.50 | 0.43 | 0.48 | 0.42 | 0.37 | 0.40 | 0.35 | 0.30 | 0.31 | 0.27 | 0.24 | 0.20 |
| 4    | 0.55                                   | 0.45 | 0.38 | 0.50 | 0.42 | 0.35 | 0.42 | 0.35 | 0.30 | 0.34 | 0.29 | 0.25 | 0.27 | 0.23 | 0.19 | 0.16 |
| 5    | 0.48                                   | 0.39 | 0.32 | 0.44 | 0.36 | 0.29 | 0.37 | 0.30 | 0.25 | 0.30 | 0.25 | 0.20 | 0.24 | 0.19 | 0.16 | 0.12 |
| 6    | 0.43                                   | 0.33 | 0.27 | 0.39 | 0.31 | 0.25 | 0.33 | 0.26 | 0.21 | 0.27 | 0.21 | 0.17 | 0.21 | 0.17 | 0.13 | 0.10 |
| 7    | 0.38                                   | 0.29 | 0.23 | 0.35 | 0.27 | 0.21 | 0.29 | 0.23 | 0.18 | 0.24 | 0.18 | 0.14 | 0.19 | 0.15 | 0.11 | 0.09 |
| 8    | 0.34                                   | 0.26 | 0.20 | 0.32 | 0.24 | 0.18 | 0.26 | 0.20 | 0.15 | 0.22 | 0.16 | 0.13 | 0.17 | 0.13 | 0.10 | 0.07 |
| 9    | 0.31                                   | 0.23 | 0.17 | 0.29 | 0.21 | 0.16 | 0.24 | 0.18 | 0.13 | 0.20 | 0.15 | 0.11 | 0.16 | 0.11 | 0.08 | 0.06 |
| 10   | 0.28                                   | 0.20 | 0.15 | 0.26 | 0.19 | 0.14 | 0.22 | 0.16 | 0.12 | 0.18 | 0.13 | 0.10 | 0.14 | 0.10 | 0.07 | 0.05 |

RAB Lighting Inc. G25-3-E26-950-F-C

| Intensity data(cd) |       |       |       |       |       |       |       |       |       | Appendix Page: 13 Total:13 |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|
| C/γ(°)             | 0.0   | 5.0   | 10.0  | 15.0  | 20.0  | 25.0  | 30.0  | 35.0  | 40.0  |                            |
| 0.0                | 6.14  | 11.05 | 9.52  | 14.12 | 18.42 | 22.71 | 23.64 | 33.15 | 30.70 |                            |
| 90.0               | 9.21  | 9.21  | 5.83  | 15.35 | 14.43 | 19.03 | 26.70 | 23.02 | 31.00 |                            |
| 180.0              | 6.14  | 10.74 | 13.51 | 11.36 | 17.19 | 27.01 | 26.70 | 28.55 | 34.07 |                            |
| 270.0              | 9.21  | 9.21  | 7.37  | 13.51 | 16.58 | 21.18 | 23.94 | 30.08 | 30.70 |                            |
| 360.0              | 6.14  | 11.05 | 9.52  | 14.12 | 18.42 | 22.71 | 23.64 | 33.15 | 30.70 |                            |
| C/γ(°)             | 45.0  | 50.0  | 55.0  | 60.0  | 65.0  | 70.0  | 75.0  | 80.0  | 85.0  |                            |
| 0.0                | 31.92 | 38.06 | 40.82 | 43.28 | 38.98 | 40.82 | 43.28 | 40.82 | 37.45 |                            |
| 90.0               | 31.31 | 29.47 | 32.54 | 35.61 | 35.61 | 39.90 | 38.98 | 33.76 | 42.97 |                            |
| 180.0              | 35.91 | 38.37 | 33.76 | 36.22 | 32.23 | 34.07 | 32.54 | 33.76 | 34.69 |                            |
| 270.0              | 33.76 | 34.07 | 37.14 | 39.29 | 37.14 | 36.22 | 39.29 | 34.99 | 31.31 |                            |
| 360.0              | 31.92 | 38.06 | 40.82 | 43.28 | 38.98 | 40.82 | 43.28 | 40.82 | 37.45 |                            |
| C/γ(°)             | 90.0  | 95.0  | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |                            |
| 0.0                | 35.91 | 35.30 | 37.45 | 32.54 | 34.38 | 39.90 | 38.06 | 38.68 | 38.37 |                            |
| 90.0               | 38.68 | 34.07 | 38.06 | 35.91 | 31.92 | 36.22 | 32.84 | 25.17 | 28.24 |                            |
| 180.0              | 38.37 | 38.06 | 39.29 | 44.81 | 40.52 | 39.29 | 40.52 | 40.82 | 41.13 |                            |
| 270.0              | 41.13 | 34.07 | 33.15 | 31.92 | 27.63 | 36.53 | 31.00 | 29.47 | 31.31 |                            |
| 360.0              | 35.91 | 35.30 | 37.45 | 32.54 | 34.38 | 39.90 | 38.06 | 38.68 | 38.37 |                            |
| C/γ(°)             | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |                            |
| 0.0                | 36.22 | 30.08 | 17.50 | 3.99  | 4.30  | 2.76  | 10.74 | 2.15  | 5.53  |                            |
| 90.0               | 24.86 | 16.58 | 13.51 | 12.89 | 3.07  | 5.83  | 2.76  | 4.60  | 3.68  |                            |
| 180.0              | 32.84 | 28.85 | 13.20 | 5.22  | 3.68  | 4.30  | 5.22  | 1.84  | 9.52  |                            |
| 270.0              | 26.40 | 23.33 | 10.44 | 2.76  | 2.46  | 1.84  | 0.00  | 6.75  | 3.99  |                            |
| 360.0              | 36.22 | 30.08 | 17.50 | 3.99  | 4.30  | 2.76  | 10.74 | 2.15  | 5.53  |                            |
| C/γ(°)             | 180.0 |       |       |       |       |       |       |       |       |                            |
| 0.0                | 5.22  |       |       |       |       |       |       |       |       |                            |
| 90.0               | 1.84  |       |       |       |       |       |       |       |       |                            |
| 180.0              | 5.22  |       |       |       |       |       |       |       |       |                            |
| 270.0              | 1.84  |       |       |       |       |       |       |       |       |                            |
| 360.0              | 5.22  |       |       |       |       |       |       |       |       |                            |