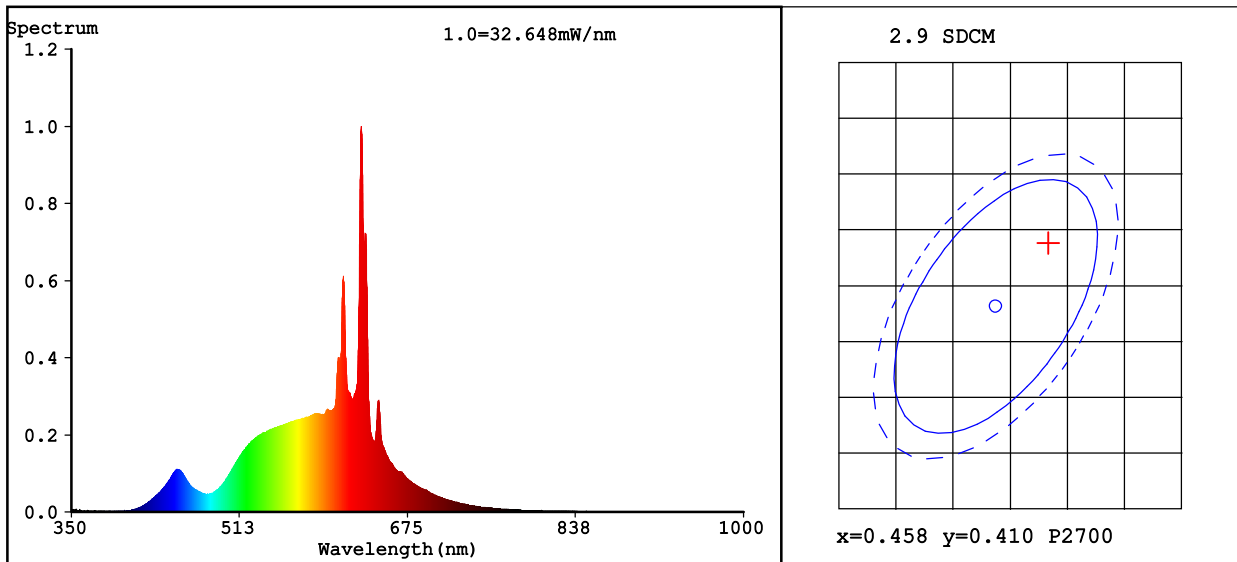


**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4624$   $y=0.4158$  /  $u'=0.2618$   $v'=0.5297$   
 CCT=2705K (Duv=0.0017) Dominant WL:Ld =583.6nm Purity=63.6%  
 Ratio:R=27.5% G=70.6% B=1.8% Peak WL:Lp=630.3nm FWHM=8.2nm  
 Render Index:Ra=94.1  
 R1 =98 R2 =95 R3 =89 R4 =96 R5 =95 R6 =95 R7 =95  
 R8 =89 R9 =70 R10=84 R11=95 R12=80 R13=97 R14=92 R15=94

**Photo Parameters:**

Flux = 565.4 lm Eff. : 107.37 lm/W Fe = 1.672 W

**Electrical parameters:**

V = 120.04 V I = 0.05554 A P = 5.266 W PF = 0.7899

Status: Integral T = 312 ms Ip = 35666 (54%)

|                                 |                  |
|---------------------------------|------------------|
| Model: B11-5-E26-927-F-F        | Number: 1        |
| Tester: XCJ                     | Date: 2018-10-30 |
| Temperature: 26.5Deg            | Humidity: 65.0%  |
| Manufacturer: RAB Lighting Inc. | Remarks:         |

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RAB Lighting Inc.

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Client:

LumCAT: B11-5-E26-927-F-F

Luminaire:

Report No:

Voltage(V): 120.0000

Test No: 255195-01-001

Current(A): 0.0550

LampCAT:

Power (W): 5.2120

Lamp flux(lm)

PF: 0.7881

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): 625.19

Lumens(lm)/Power(W): 119.95

Central intensity(cd): 22.407

Maximum intensity(cd): 73.361

Angle of maximum intensity: C=0.0  $\gamma$ =90.0

Beam Angle(50%Imax): [C0/180]Total=262.3

[C90/270]Total=264.6

Field angle(10%Imax): [C0/180]Total=331.6

[C90/270]Total=312.9

Maximum s/h(1/2): C0\_180=2.82 C90\_270=2.97

Maximum s/h(1/4): C0\_180=2.84 C90\_270=2.94

Up flux rate of LUM(%): 40.80%

Down flux rate of LUM(%): 56.09%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 25.089%

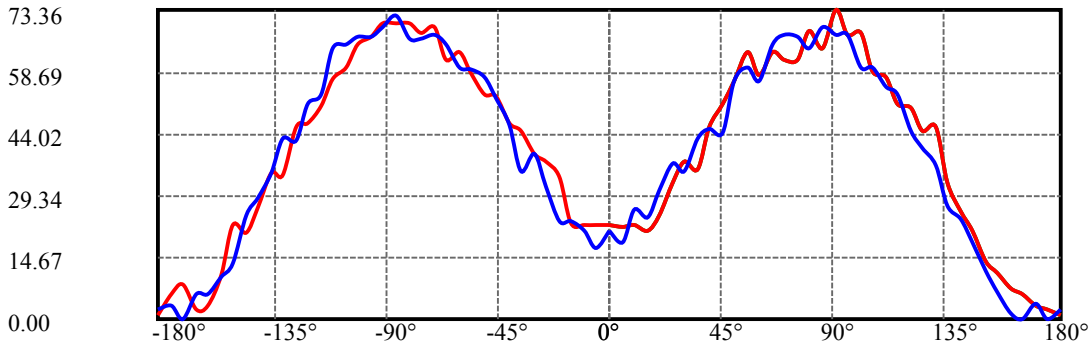
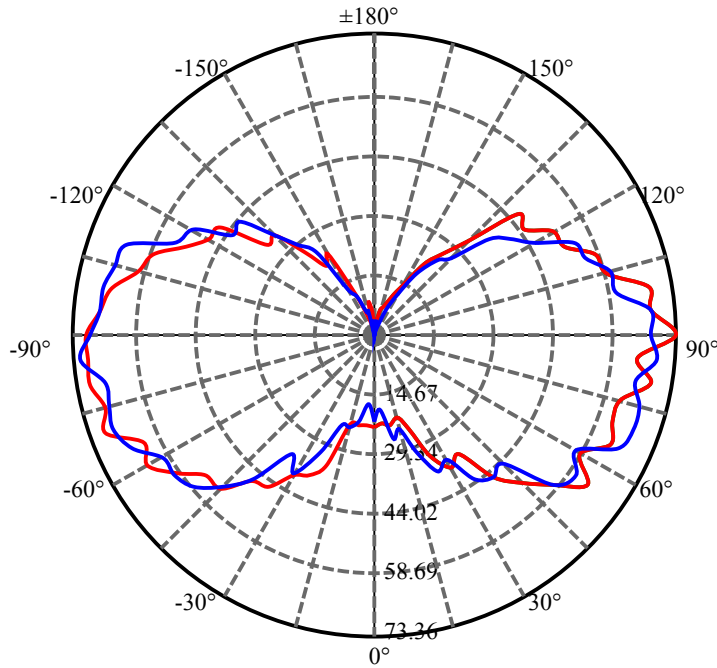
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 21.640        | 0.129       | 0.129     | .021%       | .021%      |
| 5.0                | 19.722        | 0.942       | 1.072     | .151%       | .171%      |
| 10.0               | 22.945        | 2.184       | 3.256     | .349%       | .521%      |
| 15.0               | 22.714        | 3.222       | 6.478     | .515%       | 1.036%     |
| 20.0               | 28.009        | 5.251       | 11.729    | .840%       | 1.876%     |
| 25.0               | 34.455        | 7.982       | 19.711    | 1.277%      | 3.153%     |
| 30.0               | 37.755        | 10.347      | 30.058    | 1.655%      | 4.808%     |
| 35.0               | 39.597        | 12.449      | 42.507    | 1.991%      | 6.799%     |
| 40.0               | 45.736        | 16.114      | 58.621    | 2.578%      | 9.377%     |
| 45.0               | 50.110        | 19.422      | 78.044    | 3.107%      | 12.483%    |
| 50.0               | 55.942        | 23.490      | 101.533   | 3.757%      | 16.240%    |
| 55.0               | 60.239        | 27.048      | 128.581   | 4.326%      | 20.567%    |
| 60.0               | 59.318        | 28.158      | 156.74    | 4.504%      | 25.071%    |
| 65.0               | 63.846        | 31.717      | 188.457   | 5.073%      | 30.144%    |
| 70.0               | 66.455        | 34.230      | 222.686   | 5.475%      | 35.619%    |
| 75.0               | 65.764        | 34.819      | 257.506   | 5.569%      | 41.189%    |
| 80.0               | 67.452        | 36.411      | 293.917   | 5.824%      | 47.013%    |
| 85.0               | 68.757        | 37.545      | 331.462   | 6.005%      | 53.018%    |
| 90.0               | 69.985        | 38.361      | 369.823   | 6.136%      | 59.154%    |
| 95.0               | 67.222        | 36.707      | 406.53    | 5.871%      | 65.025%    |
| 100.0              | 64.920        | 35.044      | 441.575   | 5.605%      | 70.631%    |
| 105.0              | 60.776        | 32.179      | 473.753   | 5.147%      | 75.778%    |
| 110.0              | 58.397        | 30.079      | 503.832   | 4.811%      | 80.589%    |
| 115.0              | 52.182        | 25.923      | 529.755   | 4.146%      | 84.735%    |
| 120.0              | 48.114        | 22.840      | 552.595   | 3.653%      | 88.389%    |
| 125.0              | 43.203        | 19.399      | 571.994   | 3.103%      | 91.492%    |
| 130.0              | 39.827        | 16.723      | 588.717   | 2.675%      | 94.166%    |
| 135.0              | 32.076        | 12.433      | 601.15    | 1.989%      | 96.155%    |
| 140.0              | 26.091        | 9.193       | 610.342   | 1.470%      | 97.625%    |
| 145.0              | 21.103        | 6.635       | 616.977   | 1.061%      | 98.687%    |
| 150.0              | 15.117        | 4.143       | 621.12    | .663%       | 99.349%    |
| 155.0              | 9.439         | 2.187       | 623.307   | .350%       | 99.699%    |
| 160.0              | 4.604         | 0.863       | 624.17    | .138%       | 99.837%    |
| 165.0              | 3.607         | 0.512       | 624.682   | .082%       | 99.919%    |
| 170.0              | 3.760         | 0.358       | 625.039   | .057%       | 99.976%    |
| 175.0              | 2.916         | 0.139       | 625.179   | .022%       | 99.999%    |
| 180.0              | 1.535         | 0.009       | 625.188   | .001%       | 100.000%   |

ZONAL LUMEN SUMMARY

| Zone     | Lumens | %Fixt   |
|----------|--------|---------|
| 0-30     | 30.06  | 4.81%   |
| 0-40     | 58.62  | 9.38%   |
| 0-60     | 156.74 | 25.07%  |
| 0-90     | 369.82 | 59.15%  |
| 0-120    | 552.60 | 88.39%  |
| 0-180    | 625.19 | 100.00% |
| 60-90    | 241.24 | 38.59%  |
| 90-120   | 221.13 | 35.37%  |
| 90-130   | 257.25 | 41.15%  |
| 90-150   | 289.66 | 46.33%  |
| 90-180   | 293.72 | 46.98%  |
| 0-109.39 | 500.15 | 80.00%  |

ZONAL LUMEN SUMMARY

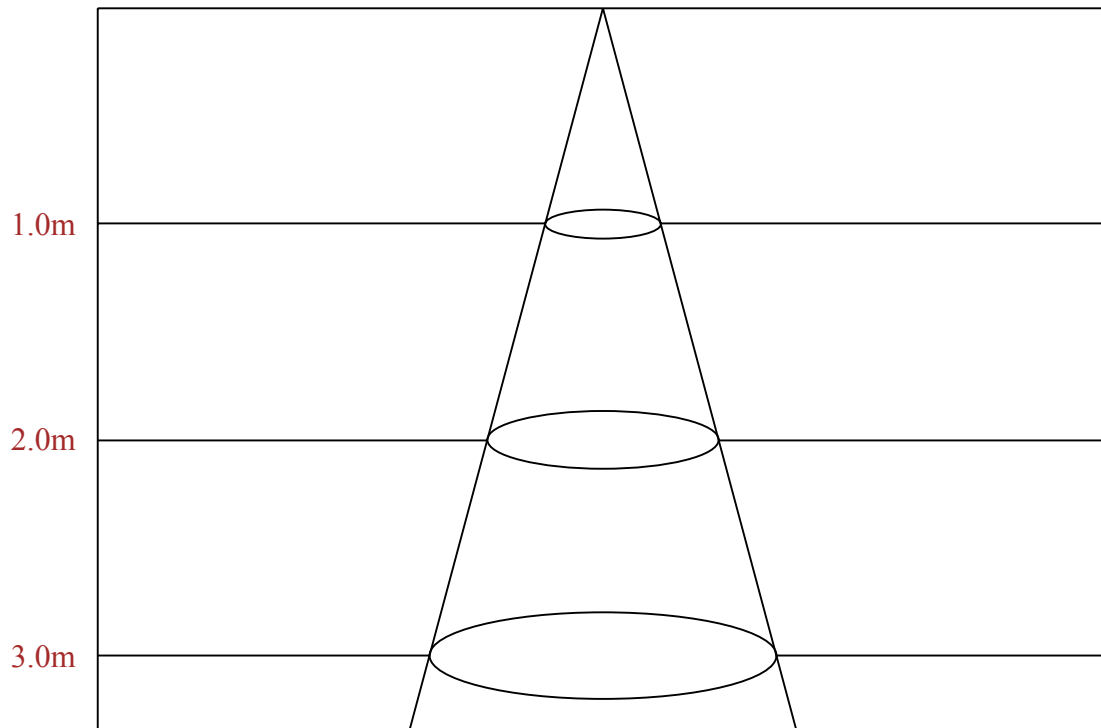
|         |       |
|---------|-------|
| 0-10    | 3.26  |
| 10-20   | 8.47  |
| 20-30   | 18.33 |
| 30-40   | 28.56 |
| 40-50   | 42.91 |
| 50-60   | 55.21 |
| 60-70   | 65.95 |
| 70-80   | 71.23 |
| 80-90   | 75.91 |
| 90-100  | 71.75 |
| 100-110 | 62.26 |
| 110-120 | 48.76 |
| 120-130 | 36.12 |
| 130-140 | 21.63 |
| 140-150 | 10.78 |
| 150-160 | 3.05  |
| 160-170 | 0.87  |
| 170-180 | 0.14  |



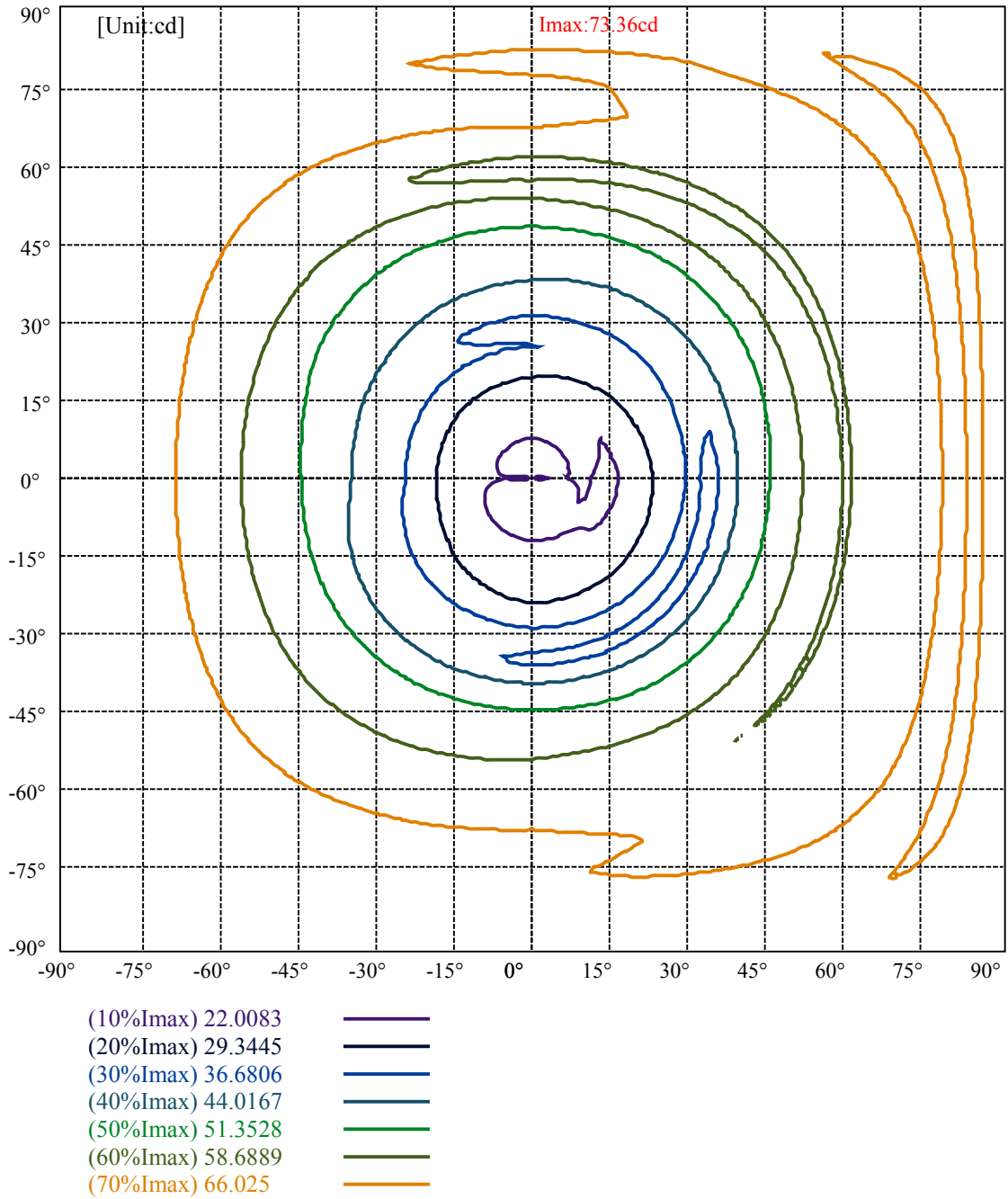
C0(Max): —————  
 C0/C180: —————  
 C90/C270: —————

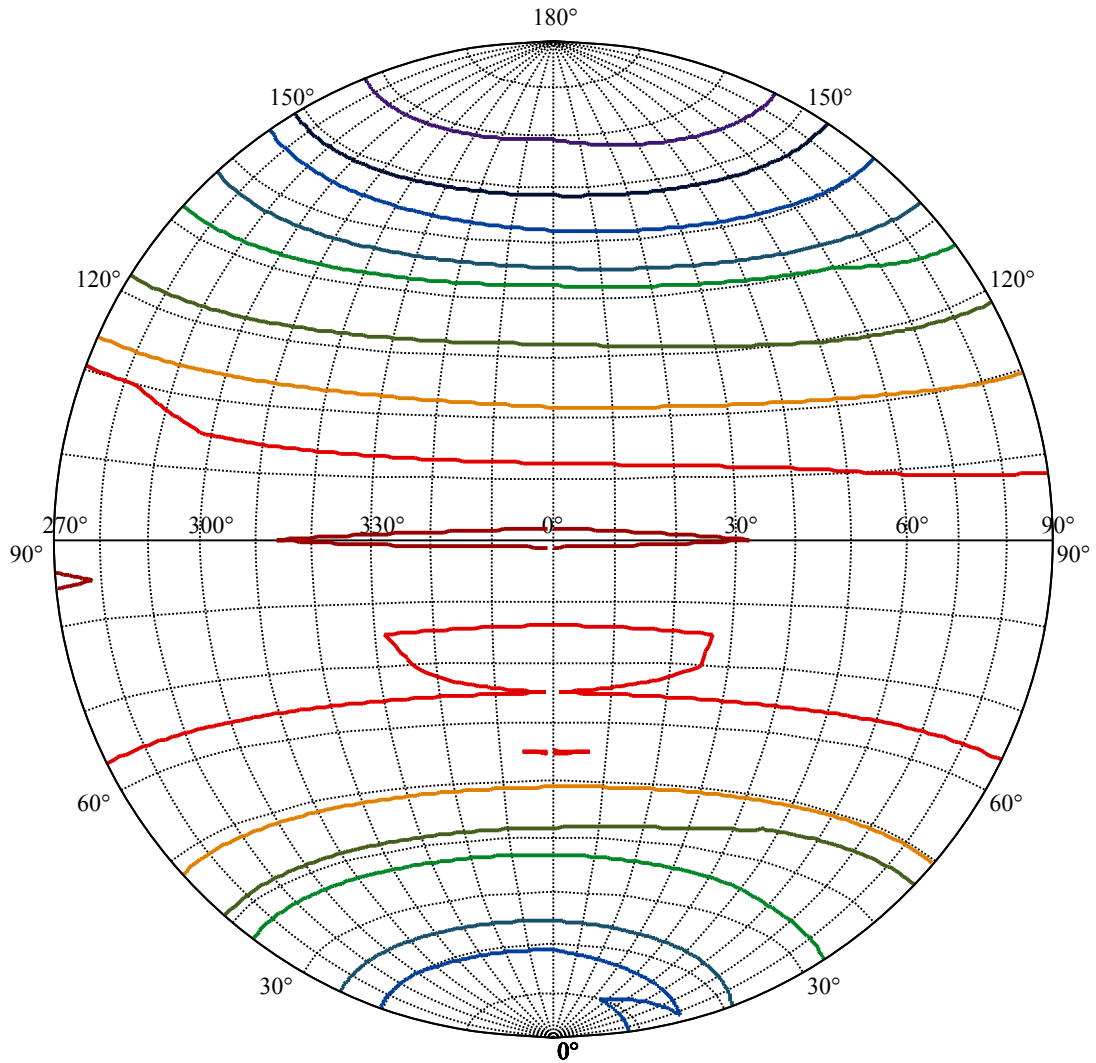
Field angle(10%Imax):C0/180Left:261.5 Right:70.1  
 :C90/270Left:73.7 Right:239.3

Beam Angle(50%Imax):C0/180Left:218.9 Right:43.4  
 :C90/270Left:49.3 Right:215.3



Max , Ave      Beam angle of C0 plane 309.19





House

[Unit:cd]

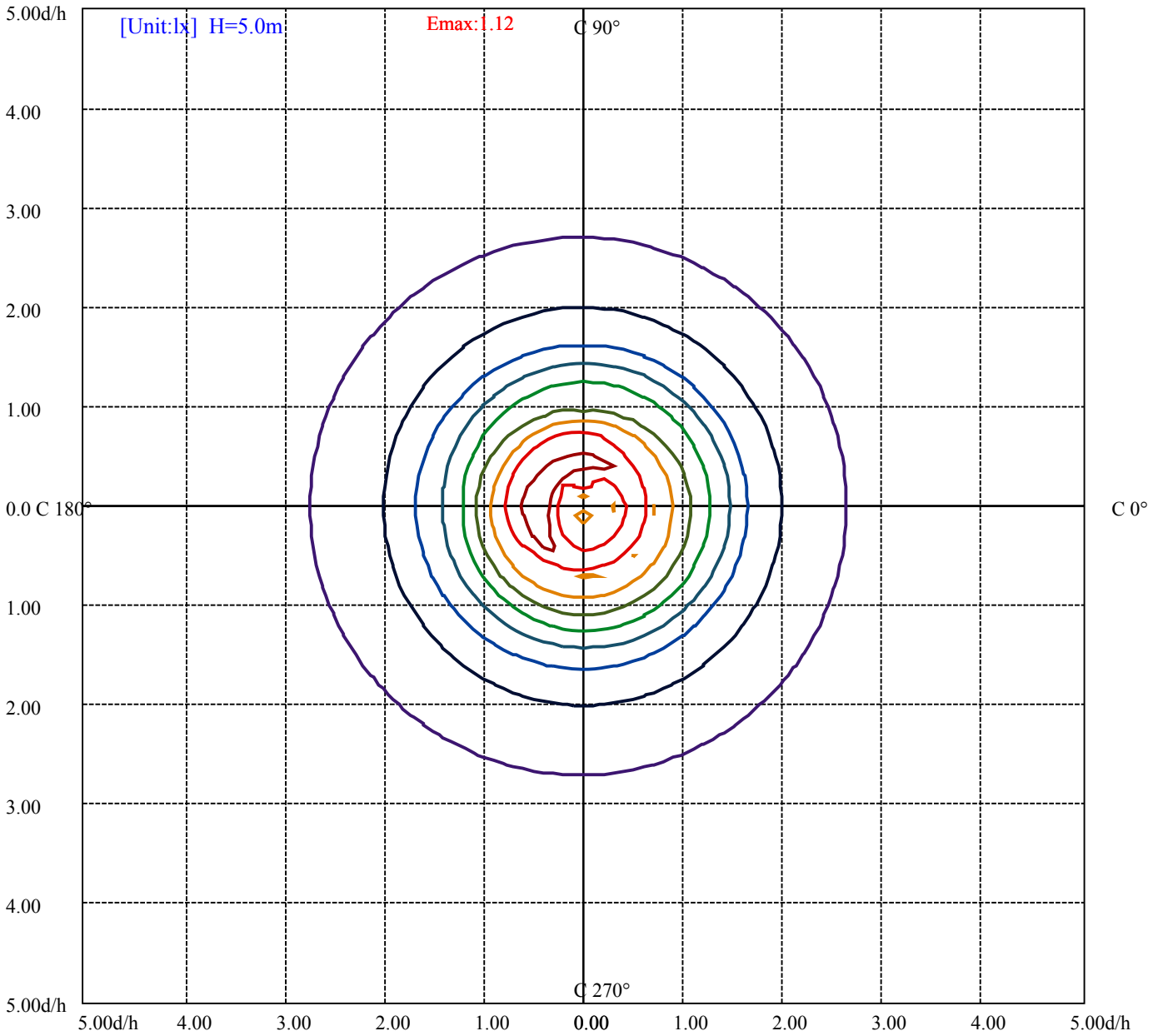
Road

**I<sub>max</sub>:73.36**

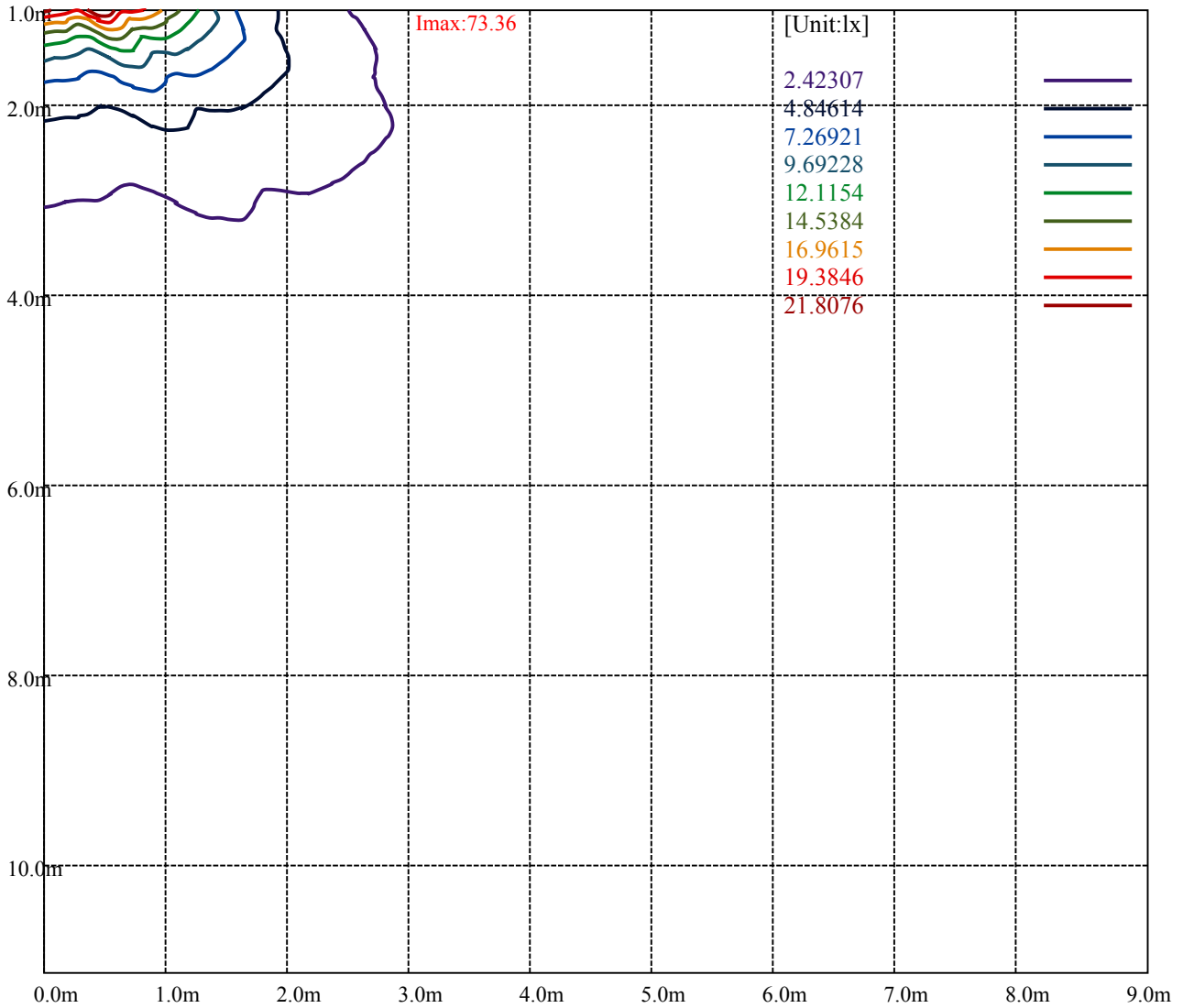
- (10%I<sub>max</sub>) 7.90704
- (20%I<sub>max</sub>) 15.8141
- (30%I<sub>max</sub>) 23.7211
- (40%I<sub>max</sub>) 31.6282
- (50%I<sub>max</sub>) 39.5352
- (60%I<sub>max</sub>) 47.4423
- (70%I<sub>max</sub>) 55.3493
- (80%I<sub>max</sub>) 63.2563
- (90%I<sub>max</sub>) 71.1634







- (10%Emax) 0.1123488
- (20%Emax) 0.2246976
- (30%Emax) 0.3370464
- (40%Emax) 0.449396
- (50%Emax) 0.561744
- (60%Emax) 0.6740921
- (70%Emax) 0.78644
- (80%Emax) 0.898792
- (90%Emax) 1.01114



Luminance Table

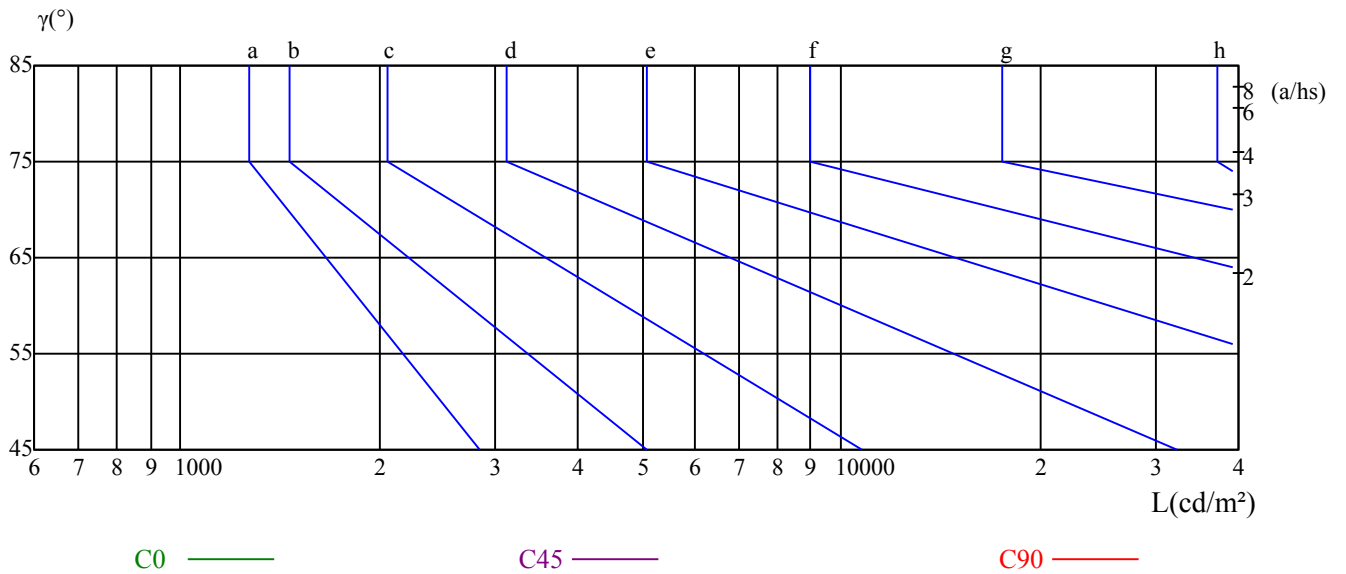
| $\gamma$ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|----|----|----|----|----|----|----|----|----|
| C0       | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C45      | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C90      | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

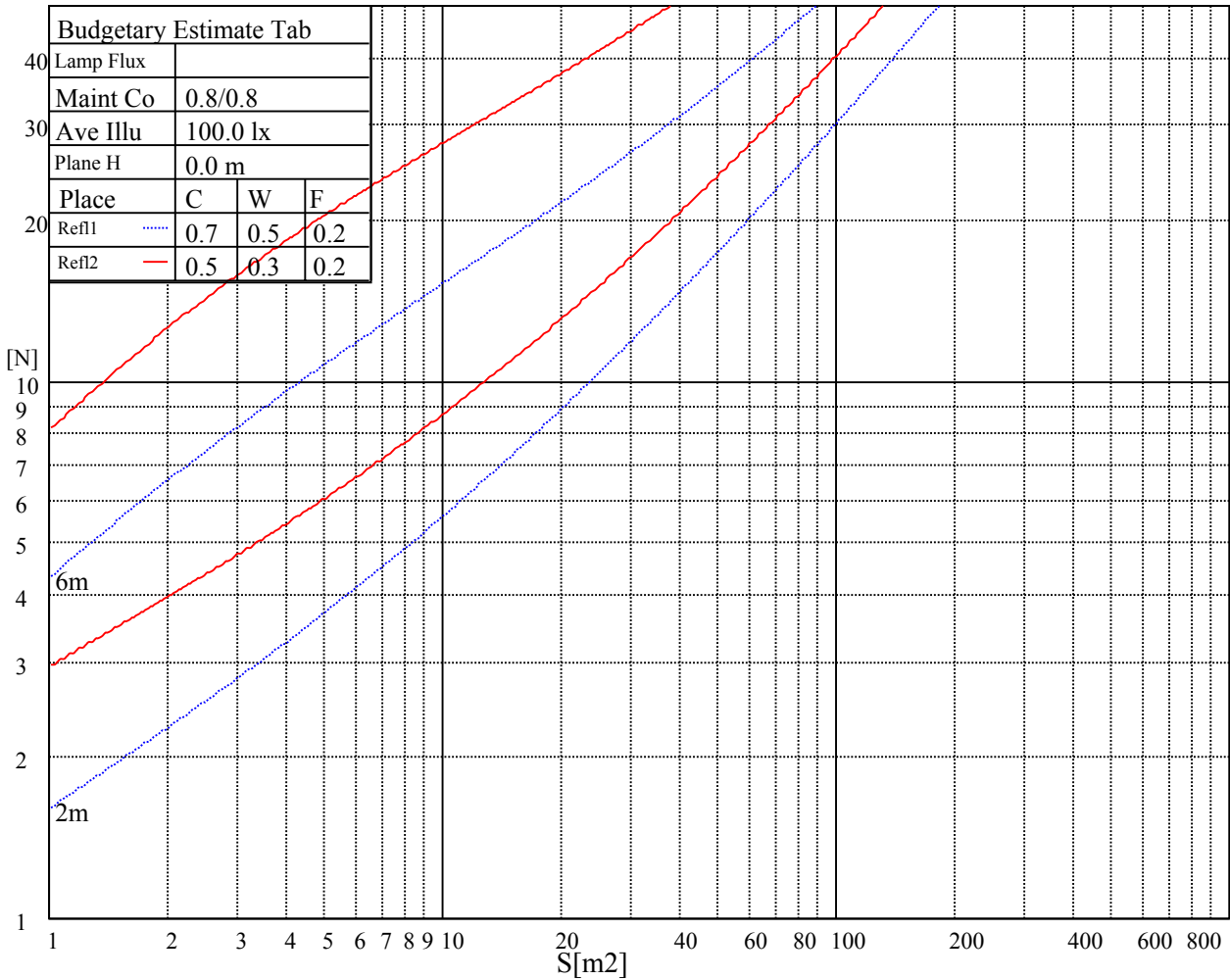
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0          | 0          | 0       | 0          | 0          | 0       | 0     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

Glare Table

| Glare | Quality | Service Values Illuminance(lx) |      |      |       |       |       |       |       |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15  | A       | 2000                           | 1000 | 500  | <=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 RHOFC=20 CU |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0     | 1.09                                    | 1.09 | 1.09 | 1.01 | 1.01 | 1.01 | 0.87 | 0.87 | 0.87 | 0.74 | 0.74 | 0.74 | 0.62 | 0.62 | 0.62 | 0.56 |
| 1     | 0.88                                    | 0.82 | 0.77 | 0.81 | 0.76 | 0.71 | 0.69 | 0.65 | 0.61 | 0.57 | 0.54 | 0.51 | 0.47 | 0.45 | 0.42 | 0.37 |
| 2     | 0.73                                    | 0.65 | 0.58 | 0.68 | 0.60 | 0.54 | 0.57 | 0.51 | 0.46 | 0.47 | 0.42 | 0.38 | 0.38 | 0.34 | 0.31 | 0.26 |
| 3     | 0.62                                    | 0.53 | 0.46 | 0.58 | 0.49 | 0.42 | 0.48 | 0.41 | 0.36 | 0.40 | 0.34 | 0.30 | 0.32 | 0.27 | 0.24 | 0.20 |
| 4     | 0.54                                    | 0.44 | 0.37 | 0.50 | 0.41 | 0.34 | 0.42 | 0.35 | 0.29 | 0.34 | 0.29 | 0.24 | 0.27 | 0.23 | 0.19 | 0.15 |
| 5     | 0.47                                    | 0.38 | 0.30 | 0.44 | 0.35 | 0.28 | 0.37 | 0.29 | 0.24 | 0.30 | 0.24 | 0.20 | 0.24 | 0.19 | 0.16 | 0.12 |
| 6     | 0.42                                    | 0.32 | 0.26 | 0.39 | 0.30 | 0.24 | 0.32 | 0.25 | 0.20 | 0.27 | 0.21 | 0.17 | 0.21 | 0.17 | 0.13 | 0.10 |
| 7     | 0.37                                    | 0.28 | 0.22 | 0.35 | 0.26 | 0.20 | 0.29 | 0.22 | 0.17 | 0.24 | 0.18 | 0.14 | 0.19 | 0.14 | 0.11 | 0.08 |
| 8     | 0.34                                    | 0.25 | 0.19 | 0.31 | 0.23 | 0.18 | 0.26 | 0.20 | 0.15 | 0.22 | 0.16 | 0.12 | 0.17 | 0.13 | 0.10 | 0.07 |
| 9     | 0.31                                    | 0.22 | 0.17 | 0.28 | 0.21 | 0.15 | 0.24 | 0.17 | 0.13 | 0.20 | 0.14 | 0.11 | 0.16 | 0.11 | 0.08 | 0.06 |
| 10    | 0.28                                    | 0.20 | 0.15 | 0.26 | 0.18 | 0.13 | 0.22 | 0.16 | 0.11 | 0.18 | 0.13 | 0.09 | 0.15 | 0.10 | 0.07 | 0.05 |

Intensity data(cd)

|               |              |              |              |              |              |              |              |              |              |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>C/γ(°)</b> | <b>0.0</b>   | <b>5.0</b>   | <b>10.0</b>  | <b>15.0</b>  | <b>20.0</b>  | <b>25.0</b>  | <b>30.0</b>  | <b>35.0</b>  | <b>40.0</b>  |
| <b>0.0</b>    | 22.41        | 21.79        | 22.41        | 20.87        | 24.56        | 32.23        | 37.45        | 35.61        | 45.43        |
| <b>90.0</b>   | 20.87        | 18.11        | 25.78        | 23.94        | 30.39        | 36.83        | 35.30        | 42.67        | 45.12        |
| <b>180.0</b>  | 22.41        | 22.10        | 22.41        | 22.71        | 33.76        | 37.45        | 39.29        | 44.81        | 46.35        |
| <b>270.0</b>  | 20.87        | 16.88        | 21.18        | 23.33        | 23.33        | 31.31        | 38.98        | 35.30        | 46.04        |
| <b>360.0</b>  | 22.41        | 21.79        | 22.41        | 20.87        | 24.56        | 32.23        | 37.45        | 35.61        | 45.43        |
| <b>C/γ(°)</b> | <b>45.0</b>  | <b>50.0</b>  | <b>55.0</b>  | <b>60.0</b>  | <b>65.0</b>  | <b>70.0</b>  | <b>75.0</b>  | <b>80.0</b>  | <b>85.0</b>  |
| <b>0.0</b>    | 50.95        | 56.48        | 63.54        | 57.71        | 63.23        | 61.70        | 61.70        | 68.45        | 64.15        |
| <b>90.0</b>   | 44.20        | 56.48        | 59.86        | 56.48        | 65.38        | 67.22        | 66.92        | 64.46        | 69.06        |
| <b>180.0</b>  | 52.80        | 53.41        | 58.32        | 63.54        | 61.70        | 69.37        | 67.84        | 70.29        | 69.98        |
| <b>270.0</b>  | 52.49        | 57.40        | 59.24        | 59.55        | 65.07        | 67.53        | 66.61        | 66.61        | 71.83        |
| <b>360.0</b>  | 50.95        | 56.48        | 63.54        | 57.71        | 63.23        | 61.70        | 61.70        | 68.45        | 64.15        |
| <b>C/γ(°)</b> | <b>90.0</b>  | <b>95.0</b>  | <b>100.0</b> | <b>105.0</b> | <b>110.0</b> | <b>115.0</b> | <b>120.0</b> | <b>125.0</b> | <b>130.0</b> |
| <b>0.0</b>    | 73.36        | 67.53        | 67.84        | 58.63        | 57.40        | 51.26        | 50.03        | 44.51        | 45.74        |
| <b>90.0</b>   | 67.22        | 67.53        | 59.86        | 59.55        | 54.94        | 53.41        | 44.81        | 40.52        | 36.53        |
| <b>180.0</b>  | 70.29        | 66.92        | 65.07        | 59.55        | 57.09        | 50.65        | 46.66        | 45.43        | 34.07        |
| <b>270.0</b>  | 69.06        | 66.92        | 66.92        | 65.38        | 64.15        | 53.41        | 50.95        | 42.36        | 42.97        |
| <b>360.0</b>  | 73.36        | 67.53        | 67.84        | 58.63        | 57.40        | 51.26        | 50.03        | 44.51        | 45.74        |
| <b>C/γ(°)</b> | <b>135.0</b> | <b>140.0</b> | <b>145.0</b> | <b>150.0</b> | <b>155.0</b> | <b>160.0</b> | <b>165.0</b> | <b>170.0</b> | <b>175.0</b> |
| <b>0.0</b>    | 32.23        | 25.48        | 21.18        | 13.51        | 10.74        | 7.37         | 6.14         | 3.38         | 2.46         |
| <b>90.0</b>   | 26.70        | 23.64        | 18.11        | 11.36        | 6.45         | 1.53         | 0.00         | 3.68         | 0.00         |
| <b>180.0</b>  | 34.69        | 26.40        | 20.57        | 22.41        | 10.44        | 3.38         | 2.46         | 7.98         | 5.83         |
| <b>270.0</b>  | 34.69        | 28.85        | 24.56        | 13.20        | 10.13        | 6.14         | 5.83         | 0.00         | 3.38         |
| <b>360.0</b>  | 32.23        | 25.48        | 21.18        | 13.51        | 10.74        | 7.37         | 6.14         | 3.38         | 2.46         |
| <b>C/γ(°)</b> | <b>180.0</b> |              |              |              |              |              |              |              |              |
| <b>0.0</b>    | 0.92         |              |              |              |              |              |              |              |              |
| <b>90.0</b>   | 2.15         |              |              |              |              |              |              |              |              |
| <b>180.0</b>  | 0.92         |              |              |              |              |              |              |              |              |
| <b>270.0</b>  | 2.15         |              |              |              |              |              |              |              |              |
| <b>360.0</b>  | 0.92         |              |              |              |              |              |              |              |              |