



SGSO

Address: LIT by CARDI

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Client:

LumCAT: 0017440225 KAI 5W 4000K 600lm

Luminaire:

Report No:

Voltage(V): 230.0000

Test No: KYZ-A250930027-03-005

Current(A): 0.0260

LampCAT: LED

Power (W): 5.0000

Lamp flux(lm)

PF: 0.8430

Number of Lamps: 1

Ballast type:

Length(mm): -126

Width(mm): -126

Phm Type: C

Height(mm): 0

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Photometric Results

Lumens(lm): 600.00

Lumens(lm)/Power(W): 120.00

Central intensity(cd): 304.193

Maximum intensity(cd): 316.546

Angle of maximum intensity:  $C=112.5$   $\gamma=5.0$ 

Beam Angle(50%Imax): [C0/180]Total=84.1

[C90/270]Total=87.6

Field angle(10%Imax): [C0/180]Total=142.2

[C90/270]Total=141.2

Maximum s/h(1/2): C0\_180=1.19 C90\_270=1.20

Maximum s/h(1/4): C0\_180=1.19 C90\_270=1.25

Up flux rate of LUM(%): 1.19%

Down flux rate of LUM(%): 98.81%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 87.859%

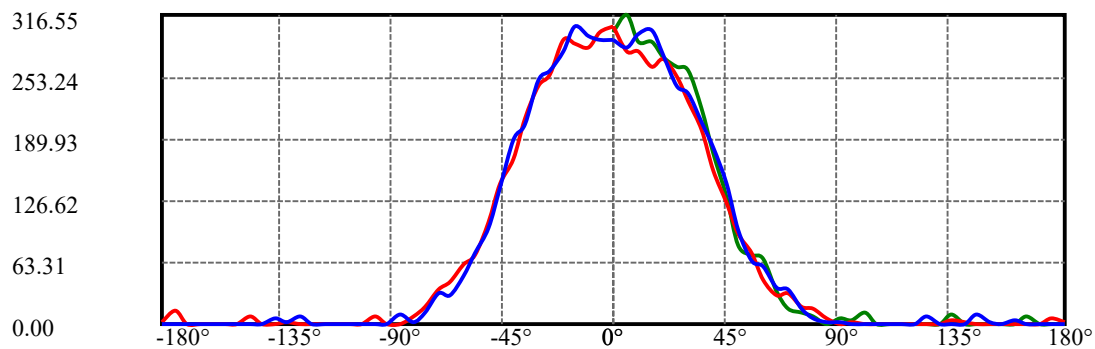
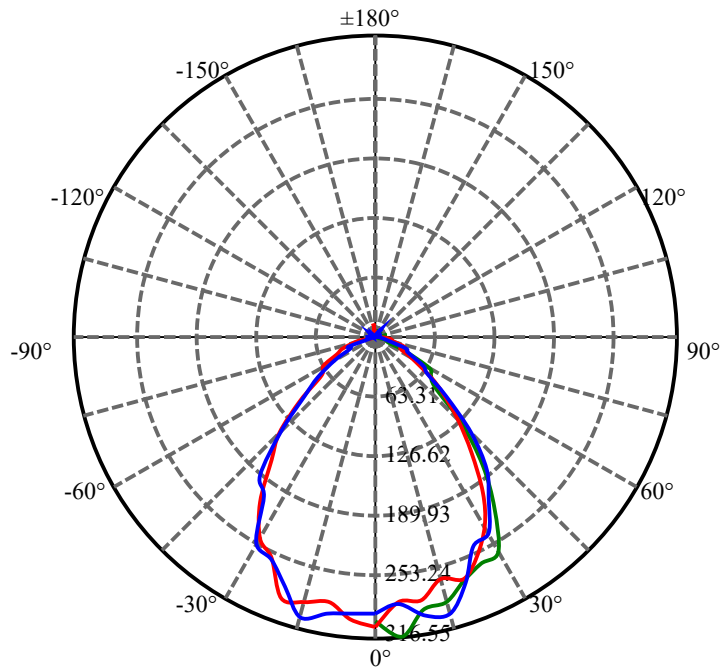
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 305.291       | 0.000       | 0         | .000%       | .000%      |
| 5.0                | 305.190       | 7.009       | 7.009     | 1.168%      | 1.168%     |
| 10.0               | 302.879       | 20.890      | 27.899    | 3.482%      | 4.650%     |
| 15.0               | 297.779       | 34.219      | 62.118    | 5.703%      | 10.353%    |
| 20.0               | 284.187       | 46.061      | 108.179   | 7.677%      | 18.030%    |
| 25.0               | 270.521       | 55.873      | 164.052   | 9.312%      | 27.342%    |
| 30.0               | 246.805       | 62.873      | 226.926   | 10.479%     | 37.821%    |
| 35.0               | 215.854       | 65.430      | 292.355   | 10.905%     | 48.726%    |
| 40.0               | 179.124       | 63.287      | 355.643   | 10.548%     | 59.274%    |
| 45.0               | 142.320       | 57.159      | 412.802   | 9.527%      | 68.800%    |
| 50.0               | 104.435       | 47.884      | 460.686   | 7.981%      | 76.781%    |
| 55.0               | 74.413        | 37.346      | 498.033   | 6.224%      | 83.005%    |
| 60.0               | 56.777        | 29.123      | 527.155   | 4.854%      | 87.859%    |
| 65.0               | 38.086        | 22.147      | 549.303   | 3.691%      | 91.550%    |
| 70.0               | 30.298        | 16.629      | 565.932   | 2.772%      | 94.322%    |
| 75.0               | 19.571        | 12.518      | 578.45    | 2.086%      | 96.408%    |
| 80.0               | 12.134        | 8.147       | 586.597   | 1.358%      | 97.766%    |
| 85.0               | 5.577         | 4.622       | 591.219   | .770%       | 98.537%    |
| 90.0               | 0.729         | 1.658       | 592.877   | .276%       | 98.813%    |
| 95.0               | 1.357         | 0.548       | 593.425   | .091%       | 98.904%    |
| 100.0              | 1.583         | 0.767       | 594.192   | .128%       | 99.032%    |
| 105.0              | 0.955         | 0.652       | 594.844   | .109%       | 99.141%    |
| 110.0              | 1.080         | 0.511       | 595.355   | .085%       | 99.226%    |
| 115.0              | 0.854         | 0.470       | 595.826   | .078%       | 99.304%    |
| 120.0              | 0.779         | 0.381       | 596.207   | .064%       | 99.368%    |
| 125.0              | 1.382         | 0.480       | 596.687   | .080%       | 99.448%    |
| 130.0              | 0.628         | 0.420       | 597.106   | .070%       | 99.518%    |
| 135.0              | 2.462         | 0.600       | 597.706   | .100%       | 99.618%    |
| 140.0              | 0.075         | 0.451       | 598.157   | .075%       | 99.693%    |
| 145.0              | 1.507         | 0.254       | 598.411   | .042%       | 99.735%    |
| 150.0              | 2.060         | 0.505       | 598.915   | .084%       | 99.819%    |
| 155.0              | 0.276         | 0.284       | 599.199   | .047%       | 99.867%    |
| 160.0              | 2.336         | 0.263       | 599.462   | .044%       | 99.910%    |
| 165.0              | 1.055         | 0.268       | 599.731   | .045%       | 99.955%    |
| 170.0              | 0.955         | 0.114       | 599.845   | .019%       | 99.974%    |
| 175.0              | 2.085         | 0.104       | 599.95    | .017%       | 99.992%    |
| 180.0              | 2.261         | 0.050       | 600       | .008%       | 100.000%   |

## ZONAL LUMEN SUMMARY

| Zone    | Lumens | %Fixt   |
|---------|--------|---------|
| 0-30    | 226.93 | 37.82%  |
| 0-40    | 355.64 | 59.27%  |
| 0-60    | 527.16 | 87.86%  |
| 0-90    | 592.88 | 98.81%  |
| 0-120   | 596.21 | 99.37%  |
| 0-180   | 600.00 | 100.00% |
| 60-90   | 94.84  | 15.81%  |
| 90-120  | 4.99   | 0.83%   |
| 90-130  | 5.89   | 0.98%   |
| 90-150  | 7.70   | 1.28%   |
| 90-180  | 8.73   | 1.46%   |
| 0-52.59 | 480.00 | 80.00%  |

## ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 27.90  |
| 10-20   | 80.28  |
| 20-30   | 118.75 |
| 30-40   | 128.72 |
| 40-50   | 105.04 |
| 50-60   | 66.47  |
| 60-70   | 38.78  |
| 70-80   | 20.67  |
| 80-90   | 6.28   |
| 90-100  | 1.32   |
| 100-110 | 1.16   |
| 110-120 | 0.85   |
| 120-130 | 0.90   |
| 130-140 | 1.05   |
| 140-150 | 0.76   |
| 150-160 | 0.55   |
| 160-170 | 0.38   |
| 170-180 | 0.10   |



C112.5(Max):

C0/C180:

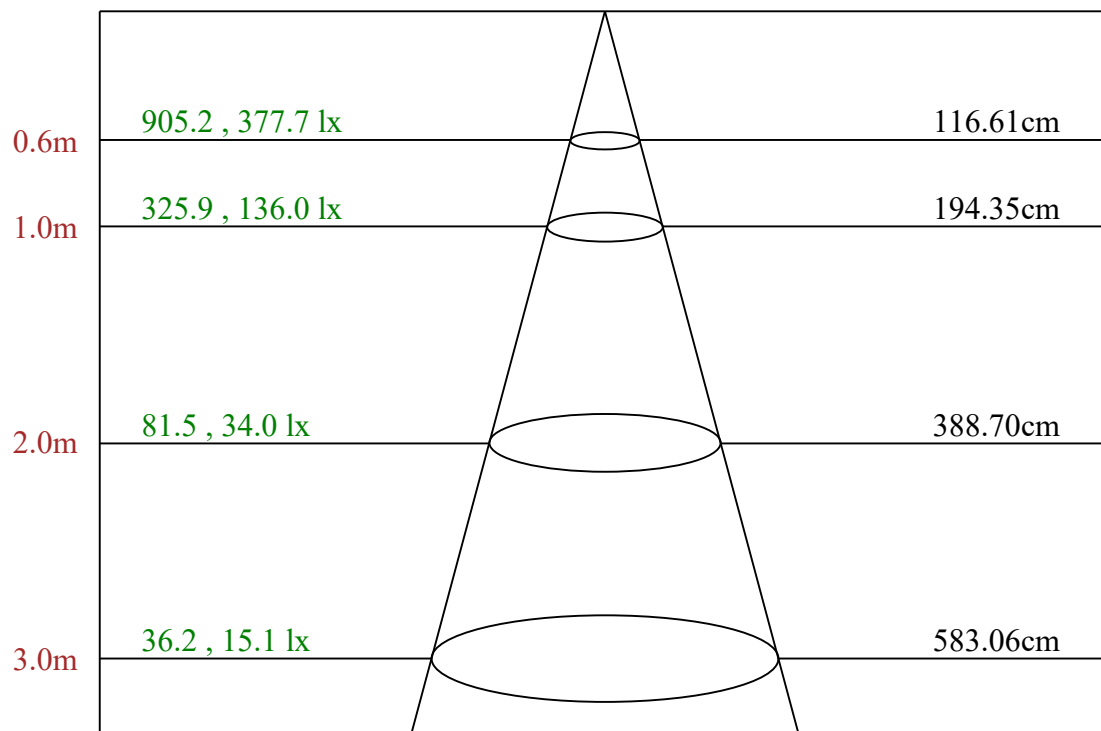
C90/C270:

Field angle(10%Imax):C0/180Left:71.6 Right:70.6

:C90/270Left:55.0 Right:86.2

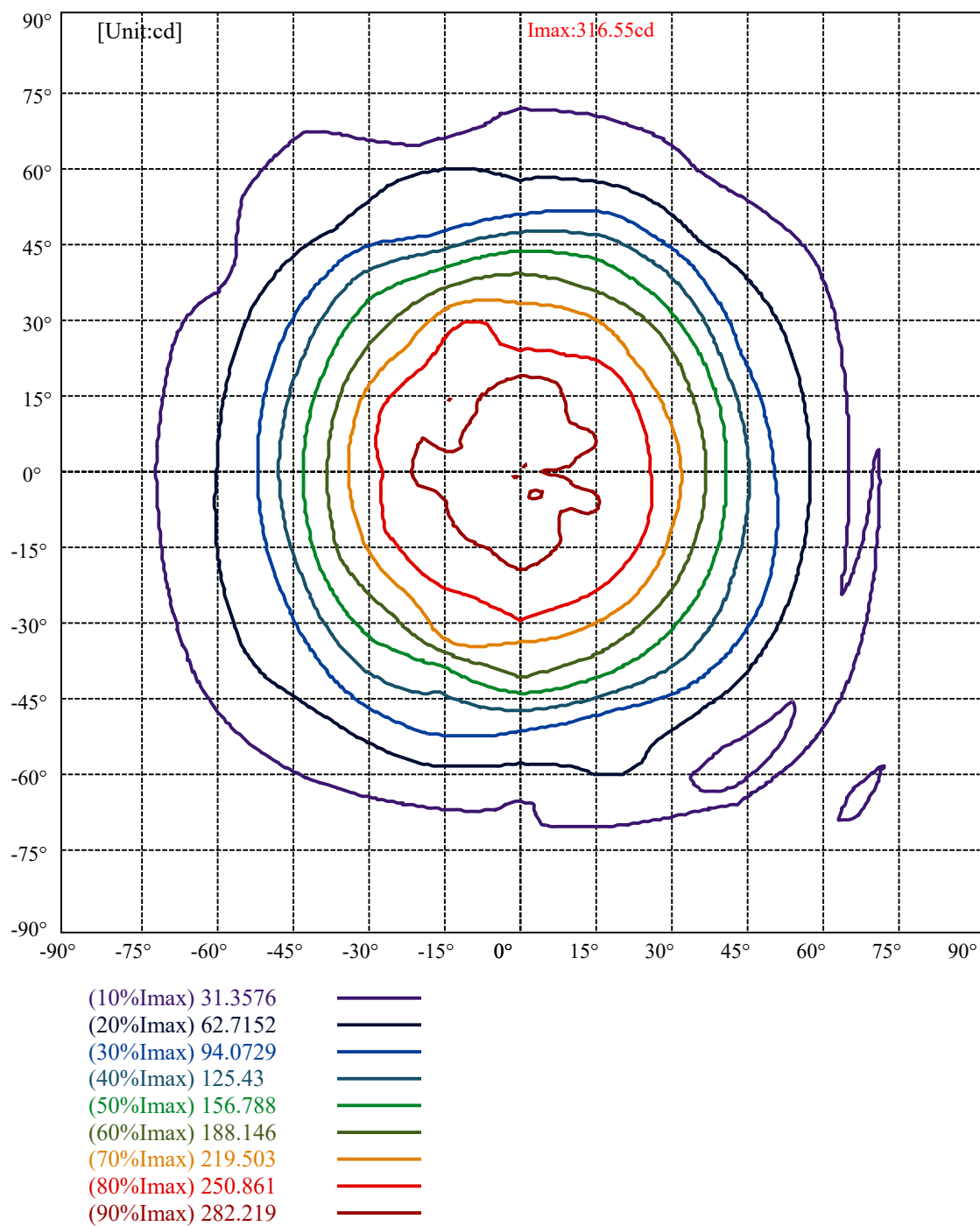
Beam Angle(50%Imax):C0/180Left:43.4 Right:40.7

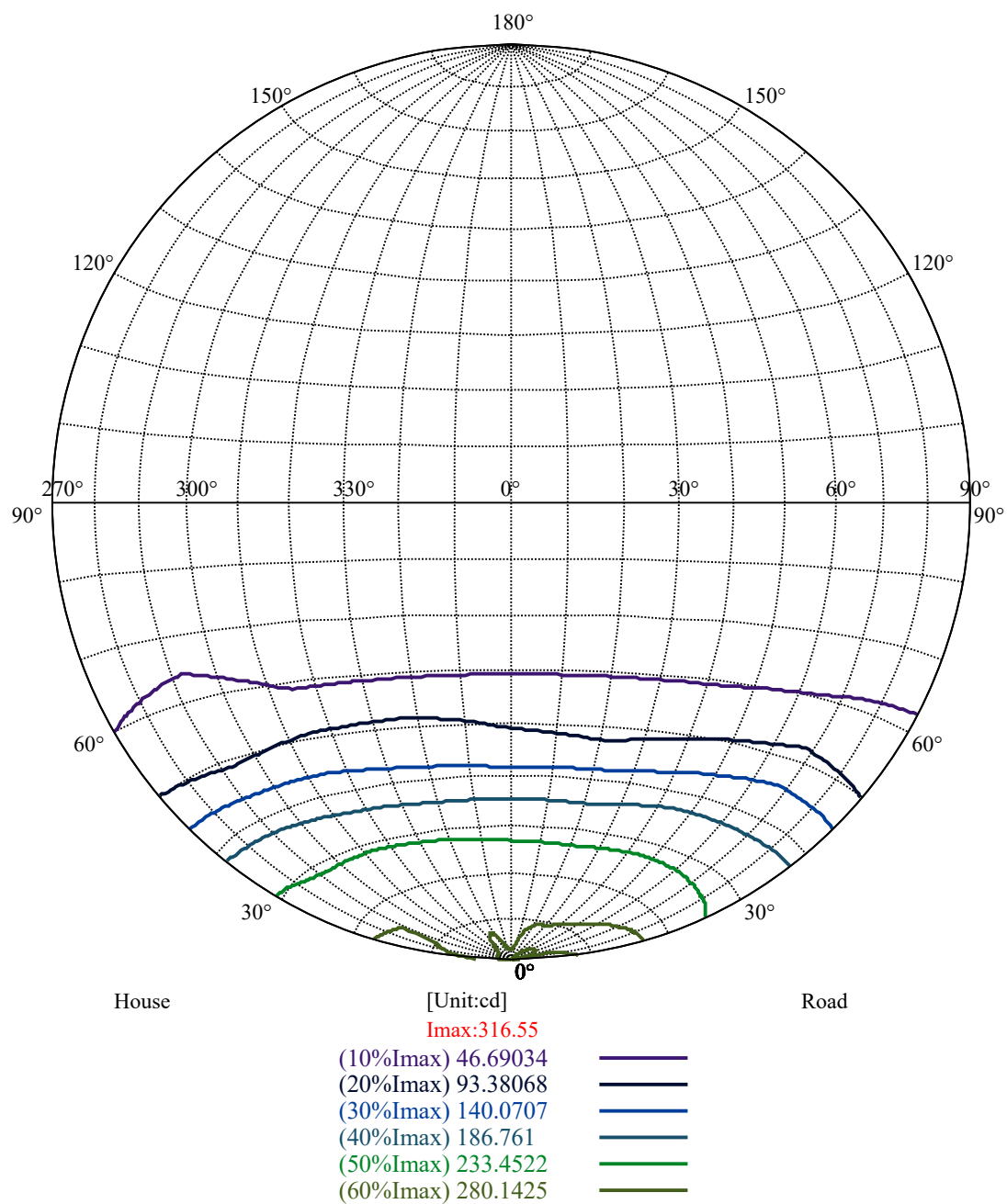
:C90/270Left:28.8 Right:58.8

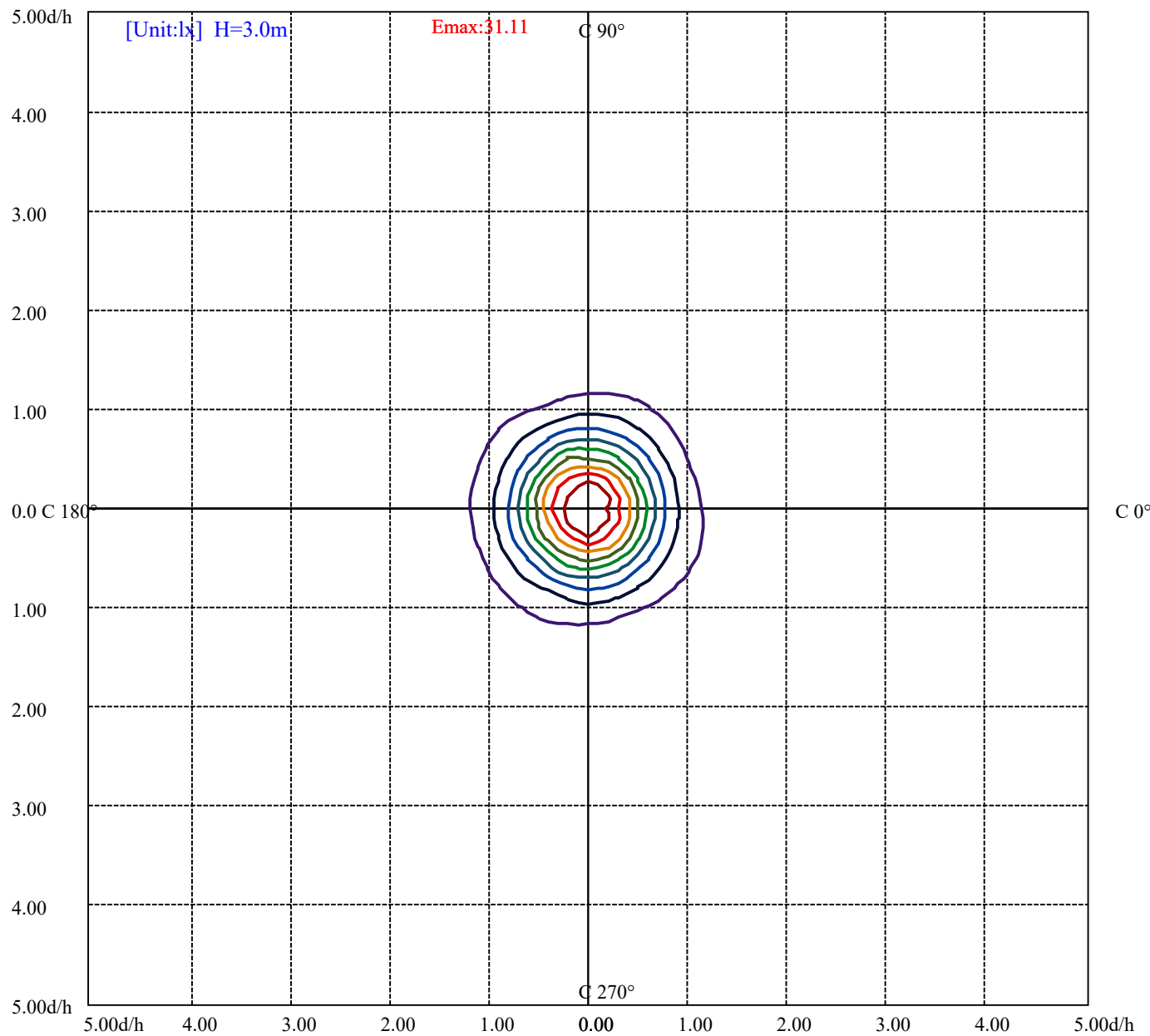


Max , Ave

Beam angle of C112.5 plane 88.36

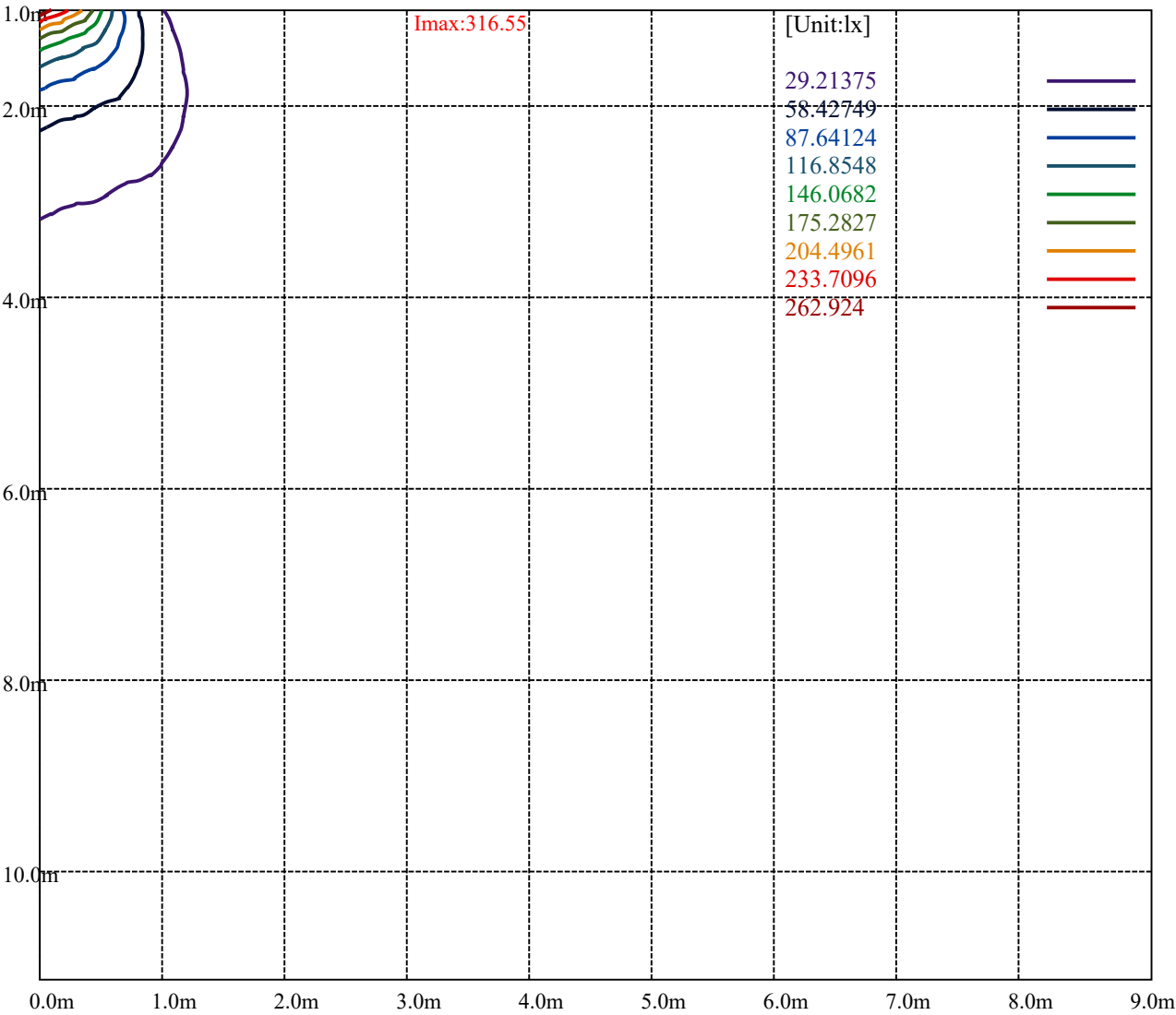






|           |          |   |
|-----------|----------|---|
| (10%Emax) | 3.110997 | — |
| (20%Emax) | 6.221994 | — |
| (30%Emax) | 9.332993 | — |
| (40%Emax) | 12.44403 | — |
| (50%Emax) | 15.55499 | — |
| (60%Emax) | 18.66594 | — |
| (70%Emax) | 21.777   | — |
| (80%Emax) | 24.88796 | — |
| (90%Emax) | 27.99902 | — |





Luminance Table

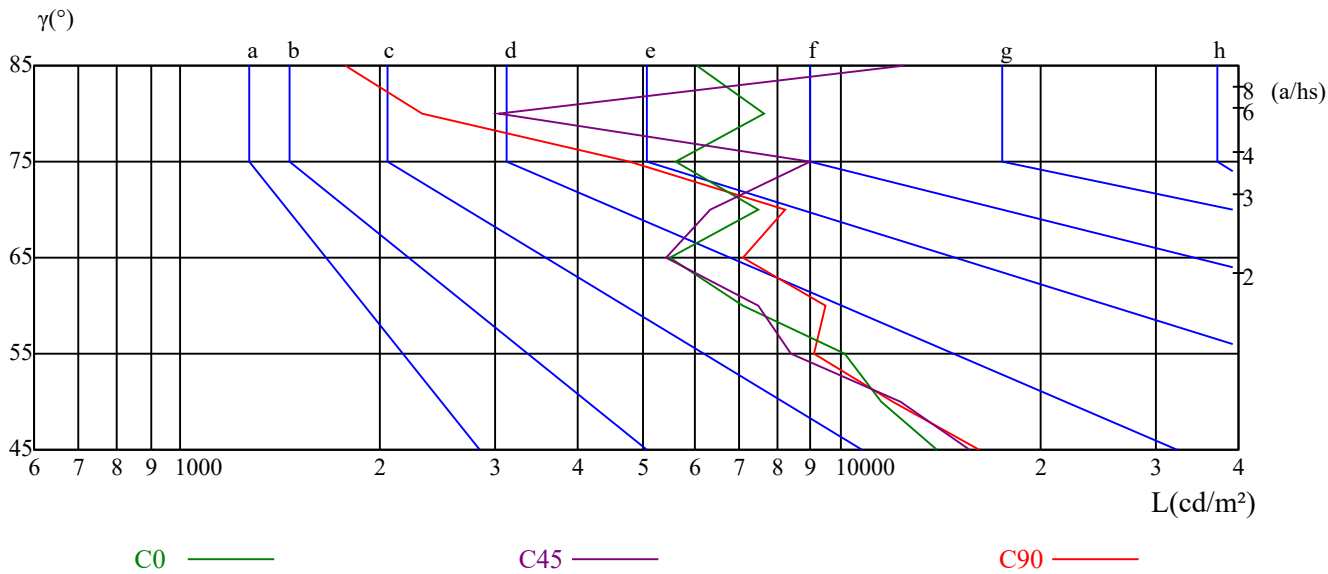
| $\gamma$ | 45    | 50    | 55    | 60   | 65   | 70   | 75   | 80   | 85    |
|----------|-------|-------|-------|------|------|------|------|------|-------|
| C0       | 14011 | 11511 | 10148 | 7121 | 5494 | 7513 | 5622 | 7666 | 6038  |
| C45      | 15674 | 12282 | 8420  | 7492 | 5421 | 6336 | 8971 | 3031 | 12433 |
| C90      | 16200 | 11993 | 9122  | 9474 | 7106 | 8237 | 4785 | 2318 | 1776  |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 6886       | 6337       | 6923    | 5682       | 4366       | 7715    | 3019       | 5151       | 6305    |

Glare Table

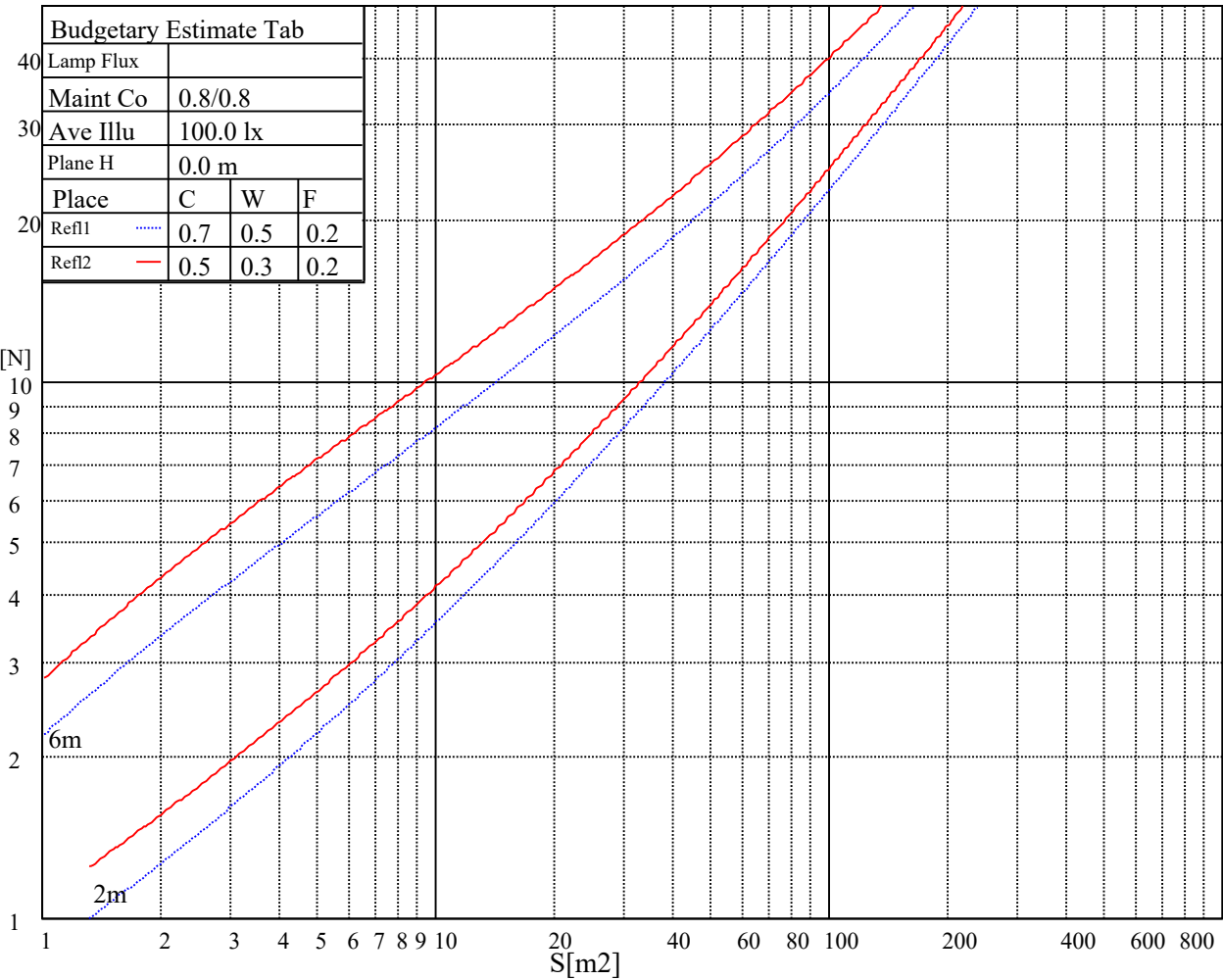
| Glare | Quality | Service Values Illuminance(lx) |      |      |            |            |            |            |            |
|-------|---------|--------------------------------|------|------|------------|------------|------------|------------|------------|
| 1.15  | A       | 2000                           | 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

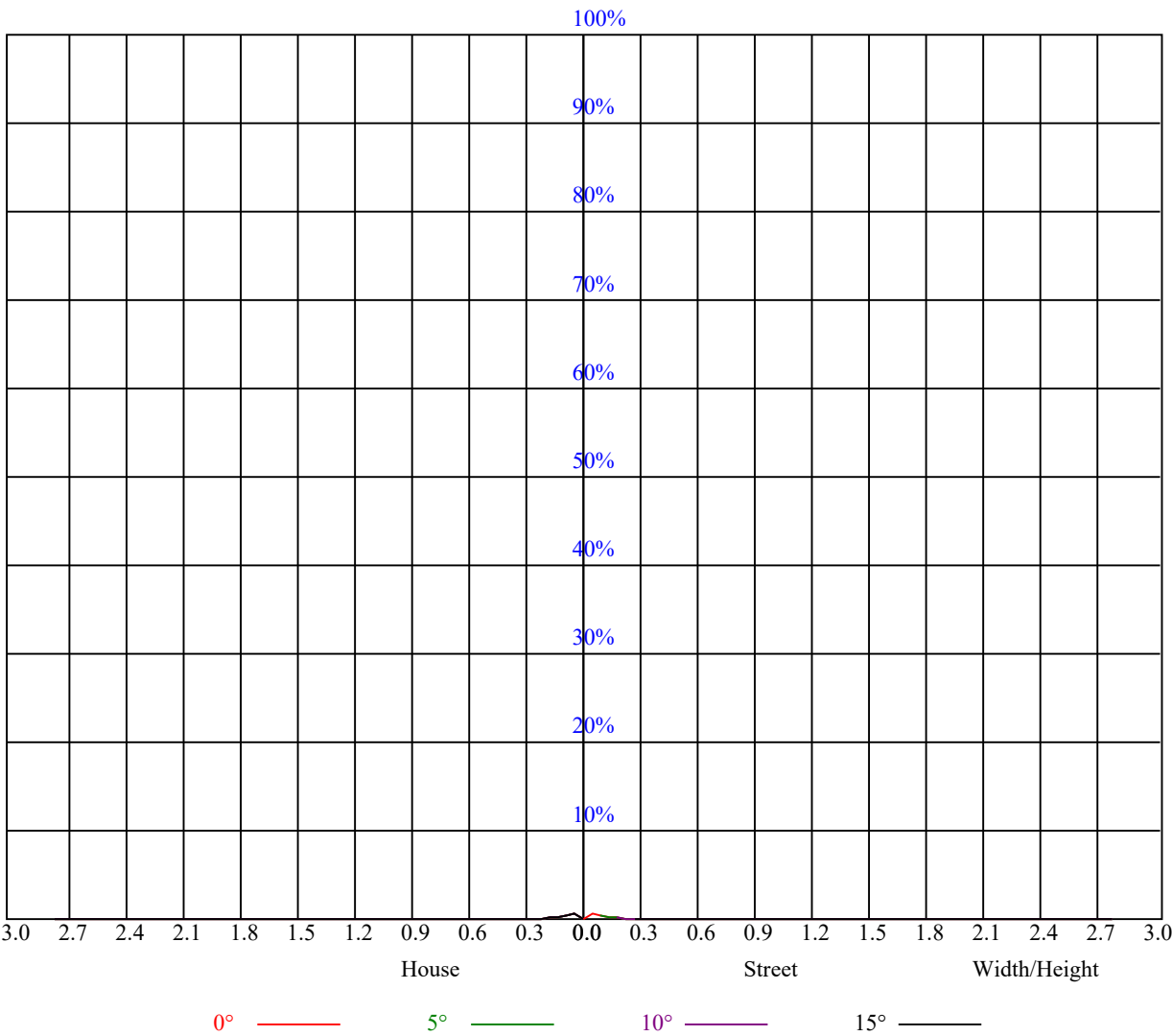


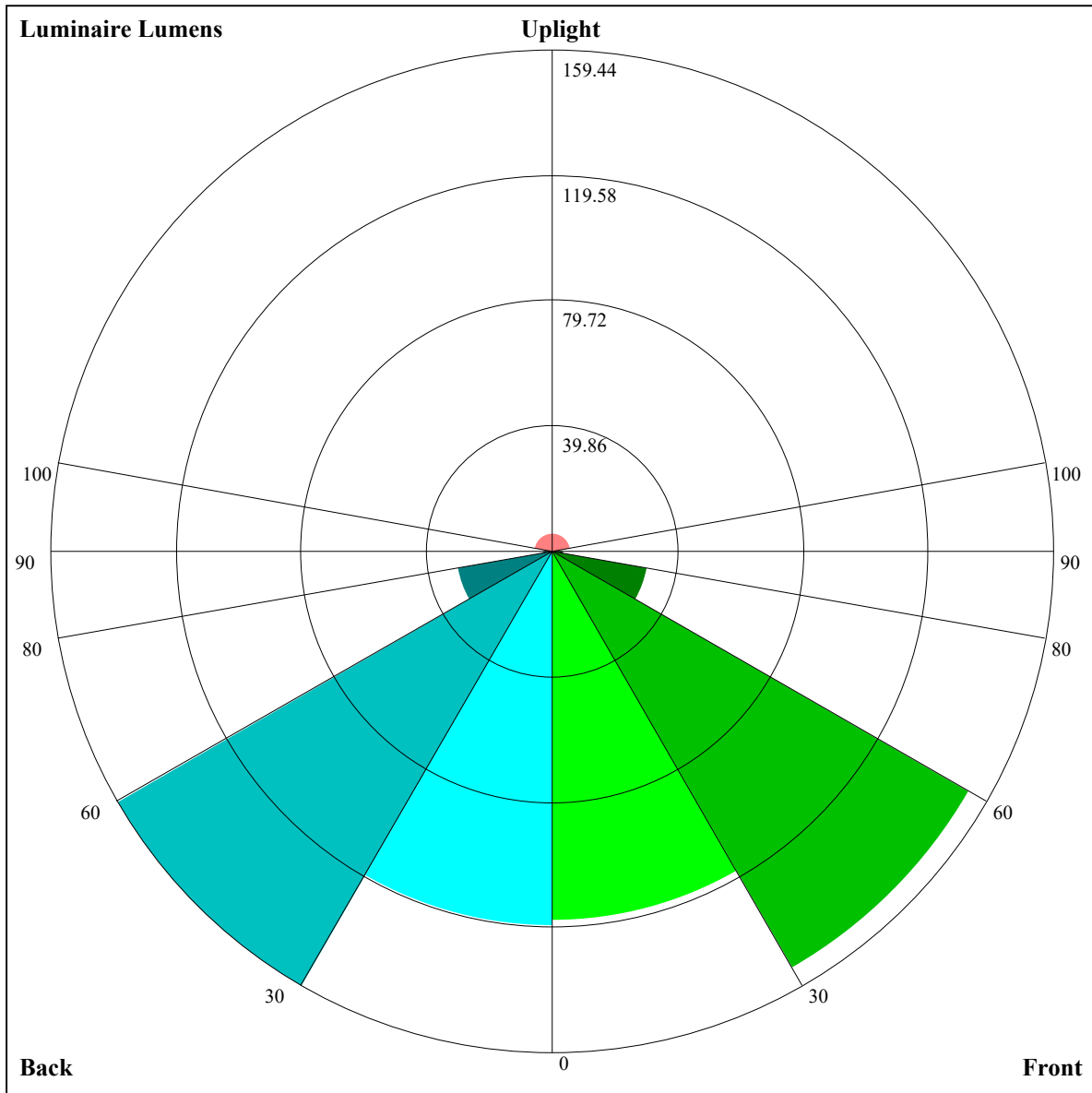
| Illumination assessment according UGR             |     |                  |       |       |       |       |                |       |       |       |       |
|---------------------------------------------------|-----|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Rf of Ceiling                                     |     | 70               | 70    | 50    | 50    | 30    | 70             | 70    | 50    | 50    | 30    |
| Rf of Wall                                        |     | 50               | 30    | 50    | 30    | 30    | 50             | 30    | 50    | 30    | 30    |
| Rf of Floor                                       |     | 20               | 20    | 20    | 20    | 20    | 20             | 20    | 20    | 20    | 20    |
| Room dimensions                                   |     | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X                                                 | Y   |                  |       |       |       |       |                |       |       |       |       |
| 2H                                                | 2H  | 14.73            | 16.14 | 15.11 | 16.48 | 16.82 | 15.57          | 16.98 | 15.95 | 17.32 | 17.67 |
|                                                   | 3H  | 15.58            | 16.85 | 15.98 | 17.21 | 17.58 | 16.49          | 17.76 | 16.90 | 18.12 | 18.49 |
|                                                   | 4H  | 16.07            | 17.25 | 16.48 | 17.62 | 18.02 | 16.86          | 18.04 | 17.27 | 18.42 | 18.81 |
|                                                   | 6H  | 16.56            | 17.66 | 16.99 | 18.05 | 18.47 | 16.98          | 18.07 | 17.41 | 18.46 | 18.89 |
|                                                   | 8H  | 16.74            | 17.79 | 17.17 | 18.19 | 18.62 | 16.95          | 18.01 | 17.39 | 18.41 | 18.84 |
|                                                   | 12H | 16.82            | 17.82 | 17.26 | 18.23 | 18.67 | 16.93          | 17.94 | 17.37 | 18.35 | 18.79 |
| 4H                                                | 2H  | 15.03            | 16.21 | 15.44 | 16.58 | 16.98 | 15.75          | 16.94 | 16.17 | 17.31 | 17.70 |
|                                                   | 3H  | 16.11            | 17.10 | 16.54 | 17.51 | 17.95 | 16.92          | 17.92 | 17.36 | 18.33 | 18.77 |
|                                                   | 4H  | 16.87            | 17.74 | 17.33 | 18.19 | 18.65 | 17.57          | 18.45 | 18.03 | 18.89 | 19.36 |
|                                                   | 6H  | 17.48            | 18.25 | 17.96 | 18.72 | 19.19 | 17.78          | 18.55 | 18.26 | 19.02 | 19.49 |
|                                                   | 8H  | 17.71            | 18.43 | 18.20 | 18.90 | 19.39 | 17.82          | 18.55 | 18.32 | 19.02 | 19.51 |
|                                                   | 12H | 17.82            | 18.50 | 18.32 | 18.96 | 19.50 | 17.88          | 18.55 | 18.38 | 19.02 | 19.55 |
| 8H                                                | 4H  | 17.17            | 17.90 | 17.67 | 18.37 | 18.86 | 17.79          | 18.51 | 18.28 | 18.98 | 19.48 |
|                                                   | 6H  | 17.83            | 18.44 | 18.35 | 18.93 | 19.46 | 18.08          | 18.68 | 18.59 | 19.17 | 19.70 |
|                                                   | 8H  | 18.13            | 18.66 | 18.67 | 19.19 | 19.71 | 18.30          | 18.82 | 18.83 | 19.36 | 19.87 |
|                                                   | 12H | 18.25            | 18.69 | 18.80 | 19.22 | 19.76 | 18.54          | 18.98 | 19.08 | 19.51 | 20.05 |
| 12H                                               | 4H  | 17.17            | 17.84 | 17.67 | 18.31 | 18.85 | 17.78          | 18.46 | 18.28 | 18.92 | 19.46 |
|                                                   | 6H  | 17.90            | 18.43 | 18.44 | 18.96 | 19.48 | 18.14          | 18.67 | 18.68 | 19.20 | 19.72 |
|                                                   | 8H  | 18.20            | 18.64 | 18.74 | 19.17 | 19.71 | 18.40          | 18.84 | 18.95 | 19.37 | 19.91 |
| Variation with the observer position at spacings: |     |                  |       |       |       |       |                |       |       |       |       |
| S = 1.0H                                          |     | 0.3/-0.9         |       |       |       |       | 0.5/-0.7       |       |       |       |       |
| S = 1.5H                                          |     | 0.9/-1.2         |       |       |       |       | 0.7/-1.3       |       |       |       |       |
| S = 2.0H                                          |     | 1.9/-1.7         |       |       |       |       | 2.0/-1.5       |       |       |       |       |
| Standard tables:                                  |     | BK3              |       |       |       |       | BK3            |       |       |       |       |
| Uncorrected UGR                                   |     | 4.5              |       |       |       |       | 4.0            |       |       |       |       |

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



| 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    | 1.19                                   | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.10 | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.01 | 1.01 | 1.01 | 0.99 |
| 1    | 1.06                                   | 1.03 | 0.99 | 1.04 | 1.01 | 0.98 | 1.00 | 0.97 | 0.94 | 0.96 | 0.93 | 0.91 | 0.92 | 0.90 | 0.89 | 0.86 |
| 2    | 0.95                                   | 0.89 | 0.84 | 0.93 | 0.88 | 0.83 | 0.89 | 0.85 | 0.81 | 0.86 | 0.82 | 0.79 | 0.83 | 0.80 | 0.77 | 0.75 |
| 3    | 0.85                                   | 0.78 | 0.72 | 0.84 | 0.77 | 0.72 | 0.80 | 0.75 | 0.70 | 0.78 | 0.73 | 0.69 | 0.75 | 0.71 | 0.68 | 0.66 |
| 4    | 0.77                                   | 0.69 | 0.63 | 0.75 | 0.68 | 0.63 | 0.73 | 0.67 | 0.62 | 0.70 | 0.65 | 0.61 | 0.68 | 0.64 | 0.60 | 0.58 |
| 5    | 0.70                                   | 0.62 | 0.56 | 0.68 | 0.61 | 0.55 | 0.66 | 0.60 | 0.55 | 0.64 | 0.59 | 0.54 | 0.62 | 0.57 | 0.53 | 0.51 |
| 6    | 0.63                                   | 0.55 | 0.50 | 0.62 | 0.55 | 0.49 | 0.61 | 0.54 | 0.49 | 0.59 | 0.53 | 0.48 | 0.57 | 0.52 | 0.48 | 0.46 |
| 7    | 0.58                                   | 0.50 | 0.45 | 0.57 | 0.50 | 0.44 | 0.56 | 0.49 | 0.44 | 0.54 | 0.48 | 0.44 | 0.53 | 0.47 | 0.43 | 0.41 |
| 8    | 0.53                                   | 0.46 | 0.40 | 0.53 | 0.45 | 0.40 | 0.51 | 0.45 | 0.40 | 0.50 | 0.44 | 0.40 | 0.49 | 0.43 | 0.39 | 0.38 |
| 9    | 0.49                                   | 0.42 | 0.37 | 0.49 | 0.42 | 0.37 | 0.48 | 0.41 | 0.36 | 0.46 | 0.40 | 0.36 | 0.45 | 0.40 | 0.36 | 0.34 |
| 10   | 0.46                                   | 0.38 | 0.34 | 0.45 | 0.38 | 0.33 | 0.44 | 0.38 | 0.33 | 0.43 | 0.37 | 0.33 | 0.42 | 0.37 | 0.33 | 0.31 |





Luminaire Lumens:

FL=117.28,FM=153.09,FH=30.46,FVH=3.4

BL=119,BM=159.44,BH=30.84,BVH=2.9

UL=1.37,UH=6.04

BUG Rating:B1-U1-G0

## Intensity data(cd)

| C/γ(°) | 0.0    | 5.0    | 10.0   | 15.0   | 20.0   | 25.0   | 30.0   | 35.0   | 40.0   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0    | 304.19 | 278.72 | 279.49 | 263.66 | 270.61 | 252.85 | 228.53 | 198.42 | 157.12 |
| 22.5   | 290.30 | 308.83 | 287.59 | 287.21 | 268.68 | 254.01 | 221.97 | 196.10 | 165.22 |
| 45.0   | 274.08 | 296.09 | 294.16 | 277.94 | 265.59 | 264.05 | 221.20 | 210.00 | 171.01 |
| 67.5   | 291.45 | 293.77 | 309.21 | 289.91 | 279.87 | 247.45 | 235.48 | 209.62 | 172.56 |
| 90.0   | 290.68 | 282.19 | 296.47 | 301.11 | 275.24 | 243.20 | 236.64 | 206.91 | 181.82 |
| 112.5  | 298.79 | 316.55 | 289.91 | 288.37 | 272.54 | 262.50 | 259.80 | 219.27 | 175.64 |
| 135.0  | 299.95 | 289.14 | 302.65 | 276.40 | 282.96 | 268.29 | 234.71 | 204.21 | 176.80 |
| 157.5  | 296.09 | 299.95 | 284.89 | 279.49 | 280.26 | 275.63 | 248.99 | 211.16 | 172.56 |
| 180.0  | 304.19 | 298.02 | 283.35 | 287.21 | 291.07 | 255.94 | 243.59 | 210.77 | 169.47 |
| 202.5  | 290.30 | 286.44 | 285.28 | 284.89 | 265.98 | 257.48 | 248.60 | 204.21 | 182.59 |
| 225.0  | 274.08 | 296.09 | 295.70 | 295.31 | 259.80 | 266.75 | 232.39 | 200.35 | 166.77 |
| 247.5  | 291.45 | 293.77 | 290.30 | 287.98 | 264.05 | 255.55 | 233.55 | 229.69 | 160.98 |
| 270.0  | 290.68 | 291.84 | 295.70 | 304.19 | 278.33 | 259.03 | 249.38 | 204.98 | 189.54 |
| 292.5  | 298.79 | 279.87 | 289.91 | 288.75 | 269.06 | 268.68 | 232.00 | 210.00 | 177.58 |
| 315.0  | 299.95 | 281.03 | 284.89 | 272.54 | 274.47 | 262.12 | 236.25 | 203.44 | 167.15 |
| 337.5  | 296.09 | 297.24 | 284.51 | 290.68 | 268.29 | 263.27 | 229.30 | 197.65 | 165.61 |
| 360.0  | 304.19 | 278.72 | 279.49 | 263.66 | 270.61 | 252.85 | 228.53 | 198.42 | 157.12 |
|        |        |        |        |        |        |        |        |        |        |
| C/γ(°) | 45.0   | 50.0   | 55.0   | 60.0   | 65.0   | 70.0   | 75.0   | 80.0   | 85.0   |
| 0.0    | 123.53 | 92.26  | 72.57  | 44.39  | 28.95  | 32.04  | 18.14  | 16.60  | 6.56   |
| 22.5   | 115.42 | 77.98  | 68.71  | 44.78  | 33.59  | 24.32  | 25.48  | 13.13  | 0.00   |
| 45.0   | 138.20 | 98.44  | 60.22  | 46.71  | 28.57  | 27.02  | 28.95  | 6.56   | 13.51  |
| 67.5   | 151.32 | 111.56 | 80.29  | 50.57  | 37.83  | 30.50  | 27.79  | 10.81  | 13.13  |
| 90.0   | 142.83 | 96.12  | 65.24  | 59.06  | 37.44  | 35.13  | 15.44  | 5.02   | 1.93   |
| 112.5  | 129.71 | 80.29  | 71.42  | 66.01  | 33.59  | 15.06  | 11.20  | 7.33   | 0.00   |
| 135.0  | 150.55 | 112.72 | 67.56  | 55.59  | 50.57  | 41.69  | 22.78  | 12.35  | 0.39   |
| 157.5  | 139.36 | 105.00 | 74.50  | 59.45  | 29.34  | 25.86  | 7.33   | 3.47   | 5.02   |
| 180.0  | 143.99 | 103.84 | 69.87  | 61.77  | 43.62  | 35.90  | 18.53  | 6.95   | 0.00   |
| 202.5  | 135.50 | 100.37 | 69.10  | 69.49  | 43.62  | 30.50  | 10.04  | 22.00  | 3.47   |
| 225.0  | 149.01 | 107.70 | 83.00  | 51.34  | 43.24  | 23.55  | 18.92  | 16.60  | 7.33   |
| 247.5  | 125.46 | 116.97 | 83.77  | 59.06  | 43.62  | 13.13  | 25.48  | 15.44  | 15.06  |
| 270.0  | 140.52 | 98.05  | 72.96  | 48.25  | 29.34  | 30.50  | 12.74  | 2.32   | 9.26   |
| 292.5  | 135.50 | 86.09  | 66.01  | 69.10  | 45.17  | 33.20  | 13.51  | 10.04  | 0.00   |
| 315.0  | 139.36 | 105.00 | 67.17  | 43.24  | 23.55  | 32.81  | 28.95  | 0.00   | 6.18   |
| 337.5  | 126.62 | 112.34 | 71.03  | 43.62  | 33.20  | 34.36  | 15.44  | 37.83  | 3.86   |
| 360.0  | 123.53 | 92.26  | 72.57  | 44.39  | 28.95  | 32.04  | 18.14  | 16.60  | 6.56   |
|        |        |        |        |        |        |        |        |        |        |
| C/γ(°) | 90.0   | 95.0   | 100.0  | 105.0  | 110.0  | 115.0  | 120.0  | 125.0  | 130.0  |
| 0.0    | 0.00   | 1.93   | 0.77   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| 22.5   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 3.09   | 0.00   |
| 45.0   | 0.77   | 0.00   | 0.00   | 0.00   | 0.00   | 2.70   | 0.00   | 0.00   | 0.00   |
| 67.5   | 0.00   | 0.00   | 3.86   | 0.00   | 3.09   | 0.00   | 0.00   | 0.00   | 0.00   |
| 90.0   | 1.54   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 6.95   | 0.00   |
| 112.5  | 5.79   | 3.09   | 12.35  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| 135.0  | 0.77   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 6.95   |
| 157.5  | 0.00   | 3.47   | 0.00   | 0.00   | 0.00   | 0.00   | 0.77   | 0.00   | 0.00   |
| 180.0  | 0.00   | 8.11   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1.16   |
| 202.5  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1.54   | 0.00   | 0.00   | 0.00   |
| 225.0  | 0.00   | 1.54   | 0.00   | 0.00   | 2.32   | 0.00   | 5.02   | 0.00   | 0.00   |
| 247.5  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| 270.0  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 8.11   | 1.54   |
| 292.5  | 0.00   | 2.70   | 0.00   | 0.00   | 8.49   | 3.86   | 0.00   | 0.00   | 0.00   |
| 315.0  | 0.39   | 0.00   | 0.00   | 6.56   | 2.70   | 0.00   | 0.00   | 0.00   | 0.00   |
| 337.5  | 1.93   | 0.00   | 7.33   | 8.11   | 0.00   | 5.02   | 6.18   | 3.09   | 0.00   |
| 360.0  | 0.00   | 1.93   | 0.77   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |



## Intensity data(cd)

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| C/γ(°) | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0    | 4.63  | 1.16  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 6.56  |
| 22.5   | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.39  | 0.00  |
| 45.0   | 2.32  | 0.00  | 0.77  | 0.00  | 0.00  | 5.79  | 0.00  | 0.00  | 2.32  |
| 67.5   | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 4.63  | 0.00  | 0.00  | 0.00  |
| 90.0   | 0.00  | 0.00  | 9.65  | 1.54  | 0.00  | 3.09  | 0.00  | 0.00  | 0.00  |
| 112.5  | 9.26  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 8.11  | 0.00  | 0.00  |
| 135.0  | 15.44 | 0.00  | 0.00  | 0.00  | 0.00  | 9.65  | 0.77  | 0.00  | 0.00  |
| 157.5  | 0.00  | 0.00  | 0.00  | 0.00  | 0.39  | 0.00  | 2.70  | 0.00  | 0.00  |
| 180.0  | 0.00  | 0.00  | 6.95  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 14.28 |
| 202.5  | 0.00  | 0.00  | 0.00  | 0.00  | 3.86  | 0.00  | 0.00  | 0.00  | 0.00  |
| 225.0  | 0.00  | 0.00  | 2.70  | 12.74 | 0.00  | 11.97 | 2.70  | 0.00  | 0.00  |
| 247.5  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.77  | 8.88  |
| 270.0  | 5.40  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| 292.5  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 13.51 | 0.00  |
| 315.0  | 0.77  | 0.00  | 0.00  | 8.11  | 0.00  | 0.00  | 1.93  | 0.00  | 0.00  |
| 337.5  | 0.00  | 0.00  | 3.09  | 9.26  | 0.00  | 0.77  | 0.00  | 0.00  | 0.00  |
| 360.0  | 4.63  | 1.16  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 6.56  |
| C/γ(°) | 180.0 |       |       |       |       |       |       |       |       |
| 0.0    | 2.70  |       |       |       |       |       |       |       |       |
| 22.5   | 0.00  |       |       |       |       |       |       |       |       |
| 45.0   | 0.00  |       |       |       |       |       |       |       |       |
| 67.5   | 13.51 |       |       |       |       |       |       |       |       |
| 90.0   | 0.00  |       |       |       |       |       |       |       |       |
| 112.5  | 0.00  |       |       |       |       |       |       |       |       |
| 135.0  | 1.16  |       |       |       |       |       |       |       |       |
| 157.5  | 0.00  |       |       |       |       |       |       |       |       |
| 180.0  | 2.70  |       |       |       |       |       |       |       |       |
| 202.5  | 0.00  |       |       |       |       |       |       |       |       |
| 225.0  | 0.00  |       |       |       |       |       |       |       |       |
| 247.5  | 13.51 |       |       |       |       |       |       |       |       |
| 270.0  | 0.00  |       |       |       |       |       |       |       |       |
| 292.5  | 0.00  |       |       |       |       |       |       |       |       |
| 315.0  | 1.16  |       |       |       |       |       |       |       |       |
| 337.5  | 0.00  |       |       |       |       |       |       |       |       |
| 360.0  | 2.70  |       |       |       |       |       |       |       |       |