



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.  
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Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.06

LampCAT:

Current(A): 2.0160

Lamp flux(lm): -1.0

Power (W): 241.64

Number of Lamps: 1

PF: 0.9983

Length(mm): 865

Width(mm): 310

Phm Type: C

Height(mm): 0

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#### Photometric Results

Lumens(lm): 39121.69, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 161.90

Central intensity(cd): 16931.930, Maximum intensity(cd): 17198.970

Angle of maximum intensity: C=90.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=91.1

[C90/270]Total=95.0

Field angle(10%Imax): [C0/180]Total=147.4

[C90/270]Total=149.1

Maximum s/h(1/2): C0\_180=1.22 C90\_270=1.28

Maximum s/h(1/4): C0\_180=1.24 C90\_270=1.33

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.26%

Down flux rate of LUM(%): 99.74%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 86.206%

## Zonal flux distribution table

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| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 16931.930     | 0.000       | 0         | 0.00%       | 0.00%      |
| 5.0                | 16874.781     | 404.150     | 404.15    | 0.00%       | 1.03%      |
| 10.0               | 16657.430     | 1199.553    | 1603.702  | 0.00%       | 4.10%      |
| 15.0               | 16291.907     | 1954.532    | 3558.235  | 0.00%       | 9.10%      |
| 20.0               | 15827.431     | 2647.085    | 6205.319  | 0.00%       | 15.86%     |
| 25.0               | 15219.161     | 3256.214    | 9461.534  | 0.00%       | 24.18%     |
| 30.0               | 14430.321     | 3752.167    | 13213.7   | 0.00%       | 33.78%     |
| 35.0               | 13318.693     | 4086.236    | 17299.937 | 0.00%       | 44.22%     |
| 40.0               | 11667.803     | 4168.808    | 21468.745 | 0.00%       | 54.88%     |
| 45.0               | 9496.213      | 3918.689    | 25387.434 | 0.00%       | 64.89%     |
| 50.0               | 7195.719      | 3372.849    | 28760.283 | 0.00%       | 73.51%     |
| 55.0               | 5474.089      | 2754.838    | 31515.121 | 0.00%       | 80.56%     |
| 60.0               | 4087.627      | 2210.164    | 33725.284 | 0.00%       | 86.21%     |
| 65.0               | 2944.369      | 1709.492    | 35434.776 | 0.00%       | 90.58%     |
| 70.0               | 2242.189      | 1313.270    | 36748.046 | 0.00%       | 93.93%     |
| 75.0               | 1631.888      | 1012.621    | 37760.667 | 0.00%       | 96.52%     |
| 80.0               | 1058.787      | 719.950     | 38480.617 | 0.00%       | 98.36%     |
| 85.0               | 452.673       | 410.700     | 38891.317 | 0.00%       | 99.41%     |
| 90.0               | 15.413        | 128.165     | 39019.482 | 0.00%       | 99.74%     |
| 95.0               | 7.006         | 6.138       | 39025.621 | 0.00%       | 99.75%     |
| 100.0              | 6.708         | 3.726       | 39029.347 | 0.00%       | 99.76%     |
| 105.0              | 7.601         | 3.829       | 39033.175 | 0.00%       | 99.77%     |
| 110.0              | 8.810         | 4.290       | 39037.465 | 0.00%       | 99.78%     |
| 115.0              | 11.034        | 5.025       | 39042.49  | 0.00%       | 99.80%     |
| 120.0              | 13.433        | 5.948       | 39048.438 | 0.00%       | 99.81%     |
| 125.0              | 16.166        | 6.842       | 39055.279 | 0.00%       | 99.83%     |
| 130.0              | 18.933        | 7.632       | 39062.911 | 0.00%       | 99.85%     |
| 135.0              | 21.542        | 8.179       | 39071.09  | 0.00%       | 99.87%     |
| 140.0              | 24.065        | 8.445       | 39079.534 | 0.00%       | 99.89%     |
| 145.0              | 26.481        | 8.433       | 39087.967 | 0.00%       | 99.91%     |
| 150.0              | 28.531        | 8.101       | 39096.068 | 0.00%       | 99.93%     |
| 155.0              | 30.125        | 7.423       | 39103.491 | 0.00%       | 99.95%     |
| 160.0              | 30.913        | 6.402       | 39109.893 | 0.00%       | 99.97%     |
| 165.0              | 30.878        | 5.092       | 39114.985 | 0.00%       | 99.98%     |
| 170.0              | 31.070        | 3.675       | 39118.66  | 0.00%       | 99.99%     |
| 175.0              | 31.893        | 2.252       | 39120.912 | 0.00%       | 100.00%    |
| 180.0              | 33.281        | 0.779       | 39121.692 | 0.00%       | 100.00%    |

Equipment: GMS-3000  
Temperature( $^{\circ}\text{C}$ ): 25

Date:  
Humidity(%): 58%

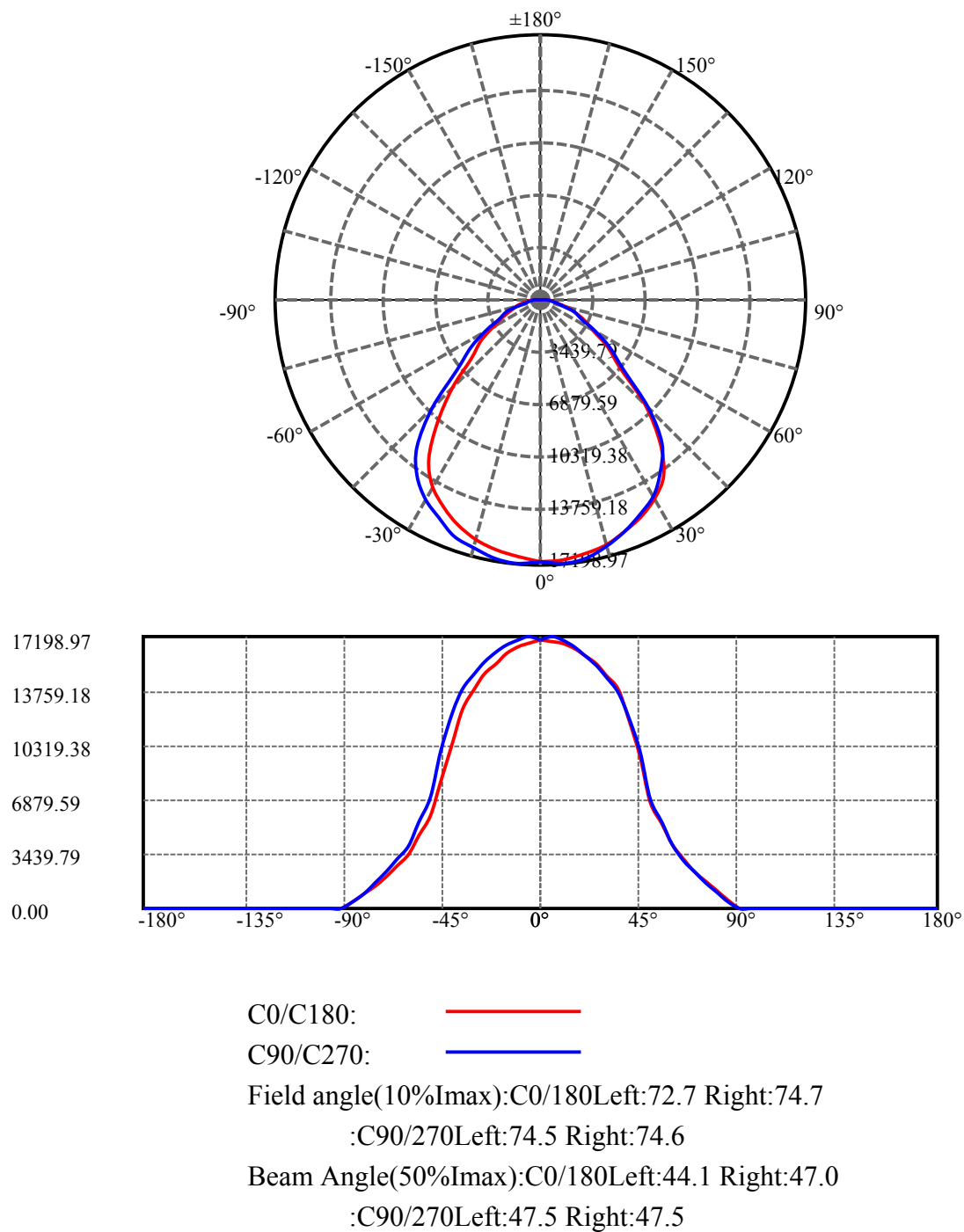
Operator: Sam

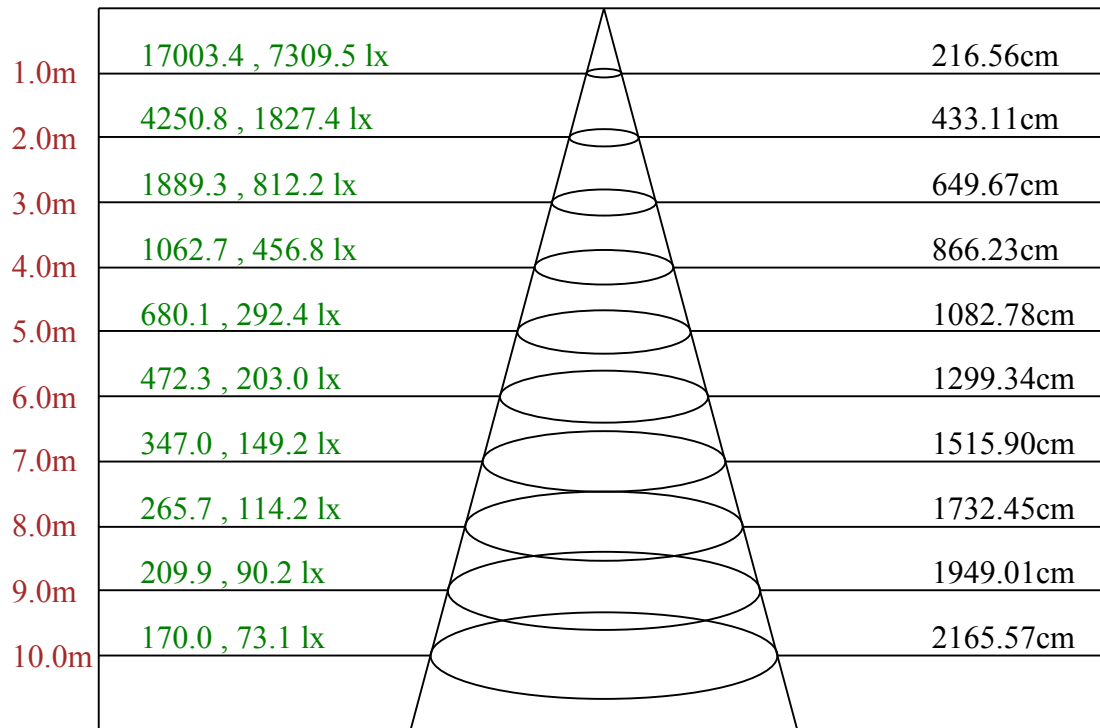
## ZONAL LUMEN SUMMARY

| Zone    | Lumens   | %Lamp | %Fixt   |
|---------|----------|-------|---------|
| 0-30    | 13213.70 | N.A.  | 33.78%  |
| 0-40    | 21468.74 | N.A.  | 54.88%  |
| 0-60    | 33725.28 | N.A.  | 86.21%  |
| 0-90    | 39019.48 | N.A.  | 99.74%  |
| 0-120   | 39048.44 | N.A.  | 99.81%  |
| 0-180   | 39121.69 | N.A.  | 100.00% |
| 60-90   | 5294.20  | N.A.  | 13.53%  |
| 90-120  | 28.96    | N.A.  | 0.07%   |
| 90-130  | 43.43    | N.A.  | 0.11%   |
| 90-150  | 76.59    | N.A.  | 0.20%   |
| 90-180  | 101.43   | N.A.  | 0.26%   |
| 0-54.60 | 31297.35 | N.A.  | 80.00%  |

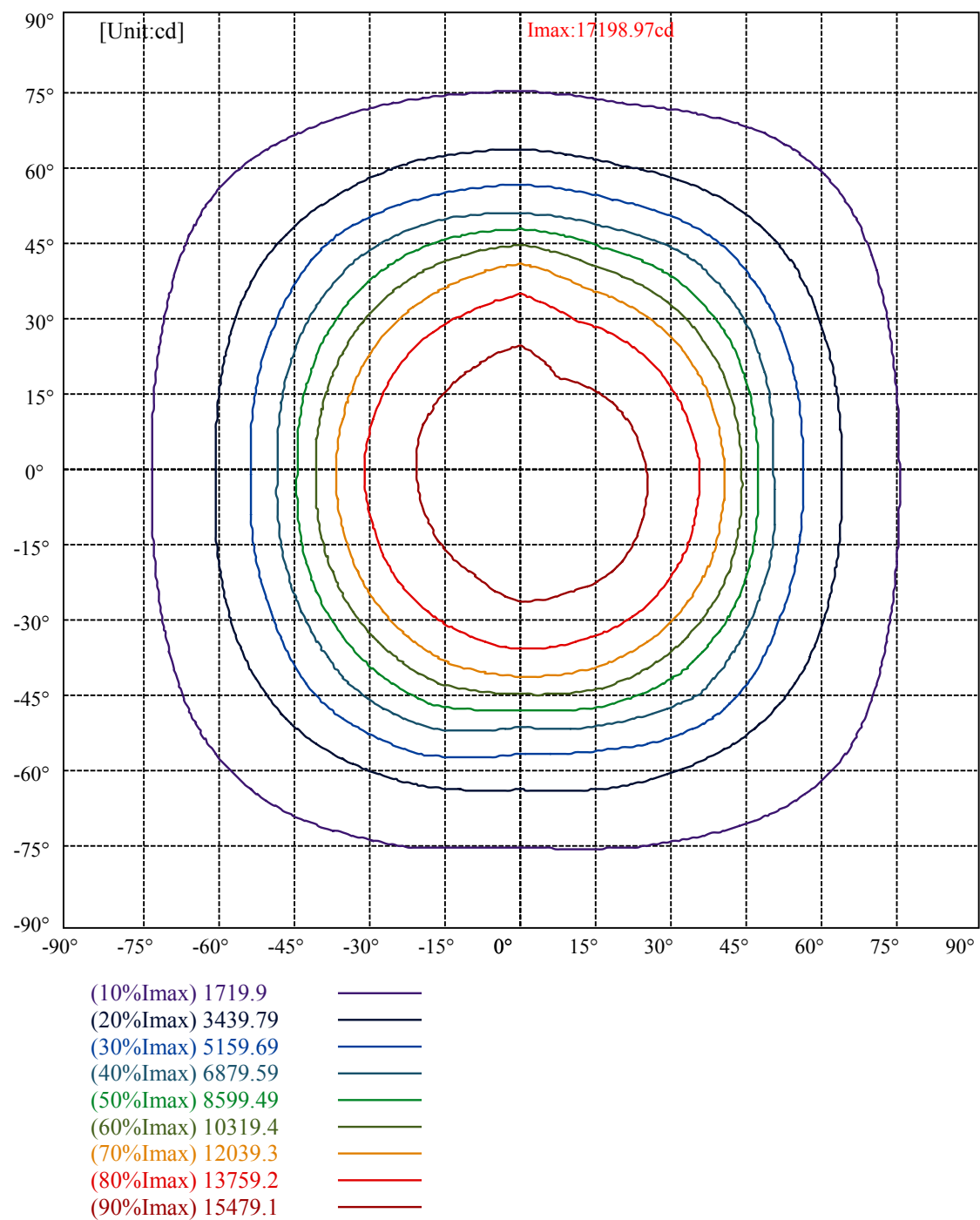
## ZONAL LUMEN SUMMARY

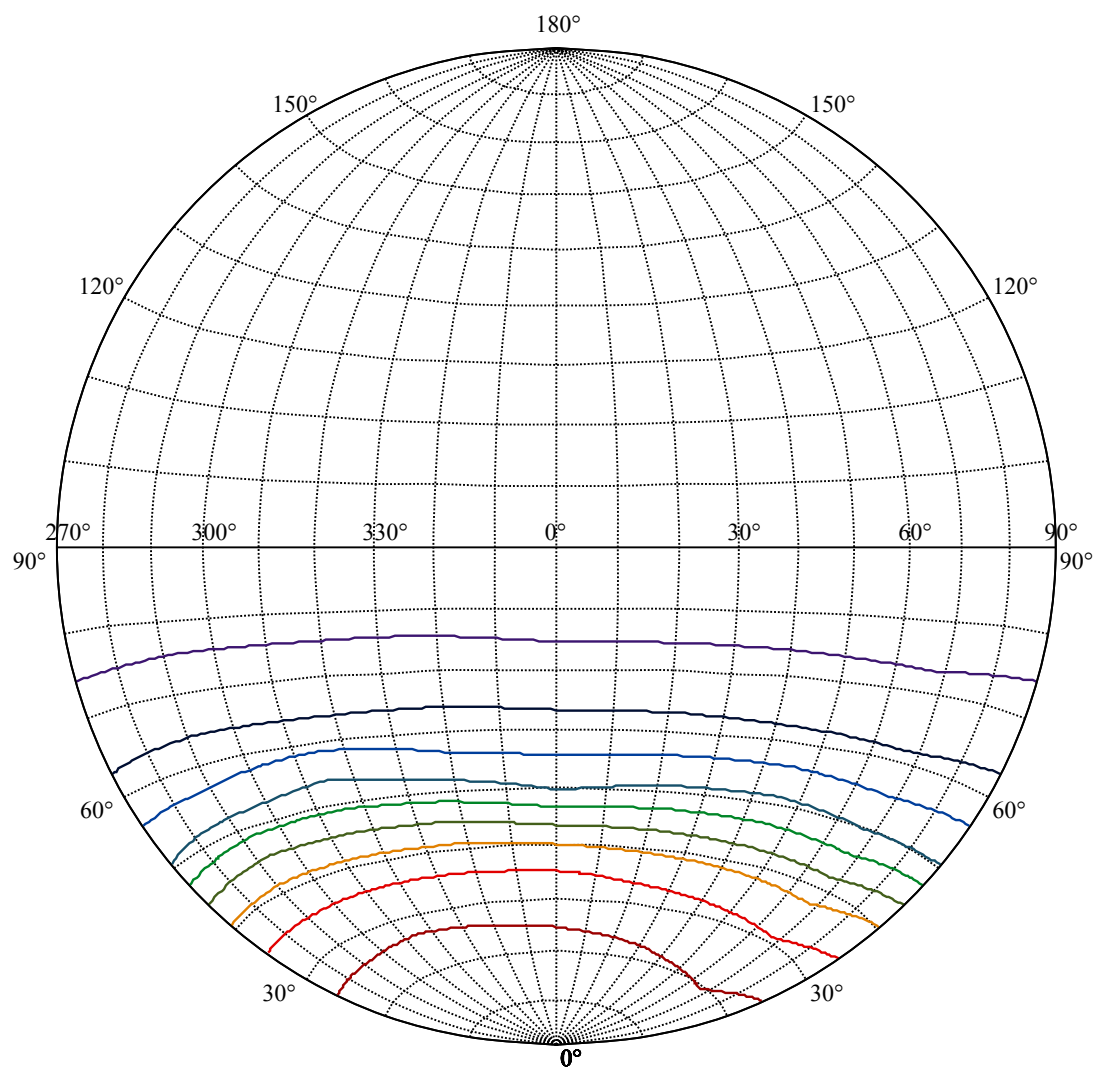
|         |         |
|---------|---------|
| 0-10    | 1603.70 |
| 10-20   | 4601.62 |
| 20-30   | 7008.38 |
| 30-40   | 8255.04 |
| 40-50   | 7291.54 |
| 50-60   | 4965.00 |
| 60-70   | 3022.76 |
| 70-80   | 1732.57 |
| 80-90   | 538.87  |
| 90-100  | 9.86    |
| 100-110 | 8.12    |
| 110-120 | 10.97   |
| 120-130 | 14.47   |
| 130-140 | 16.62   |
| 140-150 | 16.53   |
| 150-160 | 13.82   |
| 160-170 | 8.77    |
| 170-180 | 2.25    |





Max , Ave      Beam angle of C90 plane 94.55





House

[Unit:cd]

Road

|               |         |
|---------------|---------|
| Imax:17198.97 |         |
| (10%Imax)     | 1719.9  |
| (20%Imax)     | 3439.79 |
| (30%Imax)     | 5159.69 |
| (40%Imax)     | 6879.59 |
| (50%Imax)     | 8599.49 |
| (60%Imax)     | 10319.4 |
| (70%Imax)     | 12039.3 |
| (80%Imax)     | 13759.2 |
| (90%Imax)     | 15479.1 |

# Luminance Limiting Curve(no luminous side)

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Luminance Table

| $\gamma$ | 45    | 50    | 55    | 60    | 65    | 70    | 75    | 80    | 85    |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C0       | 50478 | 39206 | 34472 | 30381 | 27438 | 25562 | 23863 | 24115 | 21955 |
| C45      | 49266 | 42897 | 36210 | 30112 | 25074 | 23793 | 23168 | 22002 | 16067 |
| C90      | 52222 | 40507 | 35228 | 30212 | 26694 | 25193 | 23641 | 23140 | 20036 |

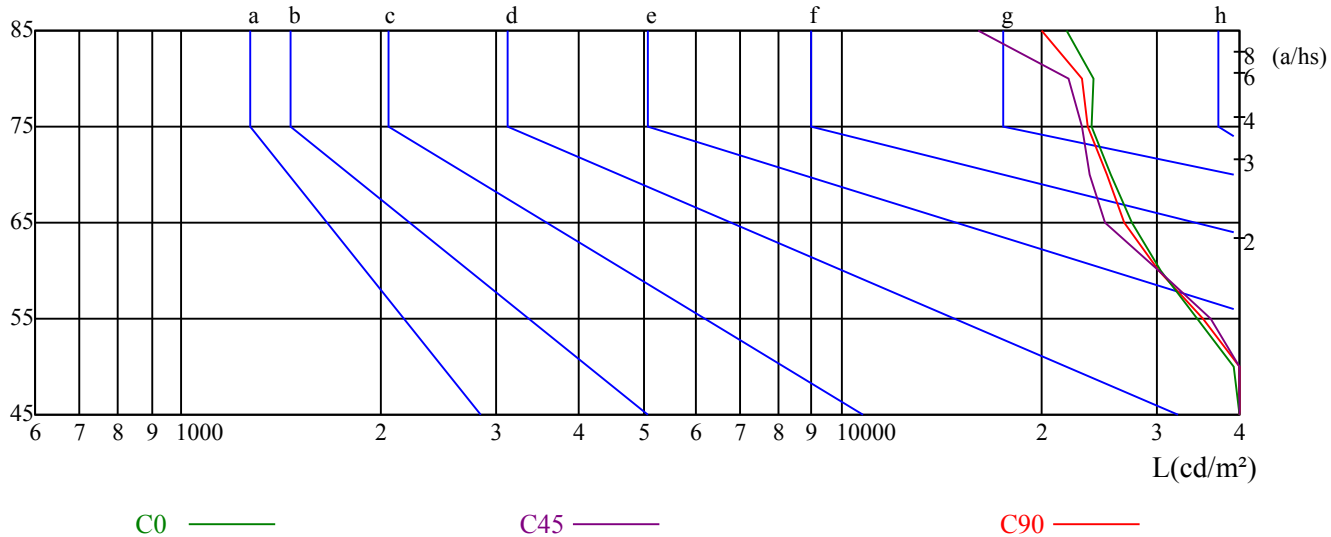
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 25310      | 26827      | 25520   | 22278      | 23494      | 23679   | 19377      | 18801      | 20381   |

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

$\gamma(^{\circ})$



Equipment: GMS-3000  
Temperature( $^{\circ}$ C): 25

Date:  
Humidity(%): 58%

Operator: Sam

| 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  | 23.48            | 24.98 | 23.85 | 25.30 | 25.62 | 23.10          | 24.60 | 23.47 | 24.92 | 25.24 |
|                                                   | 3H  | 24.87            | 26.22 | 25.26 | 26.56 | 26.91 | 24.45          | 25.79 | 24.83 | 26.14 | 26.49 |
|                                                   | 4H  | 25.44            | 26.70 | 25.83 | 27.05 | 27.42 | 25.03          | 26.29 | 25.43 | 26.65 | 27.01 |
|                                                   | 6H  | 25.94            | 27.11 | 26.35 | 27.48 | 27.88 | 25.53          | 26.70 | 25.94 | 27.07 | 27.47 |
|                                                   | 8H  | 26.11            | 27.23 | 26.52 | 27.61 | 28.02 | 25.69          | 26.82 | 26.11 | 27.20 | 27.61 |
|                                                   | 12H | 26.21            | 27.29 | 26.64 | 27.68 | 28.10 | 25.79          | 26.86 | 26.21 | 27.25 | 27.67 |
| 4H                                                | 2H  | 23.82            | 25.08 | 24.22 | 25.44 | 25.81 | 23.50          | 24.76 | 23.90 | 25.12 | 25.49 |
|                                                   | 3H  | 25.46            | 26.52 | 25.88 | 26.91 | 27.33 | 25.06          | 26.12 | 25.48 | 26.51 | 26.93 |
|                                                   | 4H  | 26.23            | 27.17 | 26.67 | 27.59 | 28.03 | 25.81          | 26.75 | 26.25 | 27.17 | 27.61 |
|                                                   | 6H  | 26.83            | 27.66 | 27.29 | 28.11 | 28.56 | 26.38          | 27.22 | 26.85 | 27.66 | 28.11 |
|                                                   | 8H  | 27.08            | 27.86 | 27.56 | 28.31 | 28.78 | 26.61          | 27.39 | 27.09 | 27.84 | 28.31 |
|                                                   | 12H | 27.26            | 27.98 | 27.74 | 28.43 | 28.94 | 26.76          | 27.49 | 27.25 | 27.93 | 28.45 |
| 8H                                                | 4H  | 26.44            | 27.22 | 26.91 | 27.67 | 28.14 | 26.06          | 26.84 | 26.54 | 27.30 | 27.76 |
|                                                   | 6H  | 27.17            | 27.82 | 27.66 | 28.29 | 28.80 | 26.74          | 27.40 | 27.24 | 27.87 | 28.37 |
|                                                   | 8H  | 27.54            | 28.11 | 28.06 | 28.63 | 29.12 | 27.07          | 27.64 | 27.59 | 28.15 | 28.65 |
|                                                   | 12H | 27.79            | 28.27 | 28.32 | 28.78 | 29.30 | 27.25          | 27.73 | 27.78 | 28.24 | 28.76 |
| 12H                                               | 4H  | 26.45            | 27.18 | 26.93 | 27.62 | 28.13 | 26.10          | 26.82 | 26.58 | 27.27 | 27.78 |
|                                                   | 6H  | 27.26            | 27.83 | 27.78 | 28.34 | 28.84 | 26.85          | 27.42 | 27.37 | 27.94 | 28.43 |
|                                                   | 8H  | 27.63            | 28.11 | 28.15 | 28.62 | 29.14 | 27.16          | 27.64 | 27.69 | 28.16 | 28.67 |
| Variation with the observer position at spacings: |     |                  |       |       |       |       |                |       |       |       |       |
| S = 1.0H                                          |     | 0.2/-0.6         |       |       |       |       | 0.2/-0.7       |       |       |       |       |
| S = 1.5H                                          |     | 0.7/-1.1         |       |       |       |       | 0.7/-1.1       |       |       |       |       |
| S = 2.0H                                          |     | 1.6/-1.3         |       |       |       |       | 1.4/-1.2       |       |       |       |       |
| Standard tables:                                  |     | BK3              |       |       |       |       | BK3            |       |       |       |       |
| Uncorrected UGR                                   |     | 9.2              |       |       |       |       | 9.4            |       |       |       |       |

UGR calculation is based on CIE Publ. 117 ,S/H = 1

| C/ $\gamma$ (°) | 0.0      | 5.0      | 10.0     | 15.0     | 20.0     | 25.0     | 30.0     | 35.0     | 40.0     |
|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.0             | 16931.93 | 16882.31 | 16730.99 | 16414.33 | 15999.59 | 15453.15 | 14791.81 | 13855.85 | 12096.03 |
| 22.5            | 16931.93 | 16834.67 | 16635.71 | 16313.45 | 15865.09 | 15268.20 | 14514.39 | 13471.94 | 11770.96 |
| 45.0            | 16931.93 | 16672.14 | 16445.16 | 16086.46 | 15610.08 | 15046.82 | 14262.18 | 13141.27 | 11501.94 |
| 67.5            | 16931.93 | 16593.68 | 16335.87 | 15898.71 | 15416.72 | 14811.43 | 13965.14 | 12861.05 | 11174.08 |
| 90.0            | 16931.93 | 17198.97 | 16980.39 | 16554.45 | 16022.01 | 15405.51 | 14626.48 | 13640.08 | 12191.30 |
| 112.5           | 16931.93 | 17025.23 | 16747.80 | 16296.64 | 15741.79 | 15136.49 | 14264.99 | 13102.04 | 11546.78 |
| 135.0           | 16931.93 | 16929.95 | 16652.53 | 16187.35 | 15604.47 | 14937.53 | 14063.22 | 12790.99 | 11017.15 |
| 157.5           | 16931.93 | 16873.90 | 16602.08 | 16164.93 | 15618.49 | 14856.27 | 13881.07 | 12496.75 | 10596.81 |
| 180.0           | 16931.93 | 16756.21 | 16506.81 | 16086.46 | 15534.42 | 14825.44 | 13934.32 | 12555.60 | 10428.67 |
| 202.5           | 16931.93 | 16753.41 | 16489.99 | 16061.25 | 15554.03 | 14861.87 | 14023.99 | 12732.14 | 10832.20 |
| 225.0           | 16931.93 | 16644.12 | 16403.12 | 16027.62 | 15624.09 | 15083.25 | 14304.22 | 13163.69 | 11457.11 |
| 247.5           | 16931.93 | 16621.70 | 16414.33 | 16153.72 | 15769.81 | 15228.97 | 14497.58 | 13519.58 | 12104.43 |
| 270.0           | 16931.93 | 17173.75 | 17014.02 | 16711.37 | 16274.22 | 15621.29 | 14895.50 | 13867.06 | 12381.86 |
| 292.5           | 16931.93 | 17047.65 | 16887.92 | 16632.91 | 16237.79 | 15626.89 | 14895.50 | 13889.48 | 12552.79 |
| 315.0           | 16931.93 | 17002.81 | 16829.07 | 16562.85 | 16206.96 | 15744.59 | 15021.60 | 14018.39 | 12564.00 |
| 337.5           | 16931.93 | 16986.00 | 16843.08 | 16518.02 | 16159.33 | 15598.87 | 14943.14 | 13993.17 | 12468.73 |
| 360.0           | 16931.93 | 16882.31 | 16730.99 | 16414.33 | 15999.59 | 15453.15 | 14791.81 | 13855.85 | 12096.03 |

| C/ $\gamma$ (°) | 45.0     | 50.0    | 55.0    | 60.0    | 65.0    | 70.0    | 75.0    | 80.0    | 85.0   |
|-----------------|----------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0.0             | 9571.17  | 6757.69 | 5301.91 | 4073.39 | 3109.41 | 2344.38 | 1656.15 | 1122.87 | 513.10 |
| 22.5            | 9571.17  | 7295.73 | 5491.06 | 4136.16 | 3060.09 | 2362.88 | 1669.04 | 1045.25 | 442.20 |
| 45.0            | 9341.39  | 7393.81 | 5569.24 | 4037.24 | 2841.51 | 2182.13 | 1607.95 | 1024.51 | 375.51 |
| 67.5            | 8979.89  | 6791.32 | 5189.54 | 3804.65 | 2712.60 | 2076.21 | 1486.61 | 887.76  | 261.17 |
| 90.0            | 9901.84  | 6981.87 | 5418.20 | 4050.69 | 3025.06 | 2310.48 | 1640.73 | 1077.48 | 468.26 |
| 112.5           | 9506.72  | 7222.87 | 5308.91 | 4064.70 | 2887.75 | 2173.17 | 1590.29 | 997.61  | 394.28 |
| 135.0           | 9069.57  | 7026.71 | 5451.83 | 3750.85 | 2593.51 | 2013.44 | 1500.62 | 984.44  | 402.13 |
| 157.5           | 8528.73  | 6483.07 | 4899.78 | 3680.79 | 2652.35 | 2055.47 | 1506.22 | 941.57  | 366.26 |
| 180.0           | 8060.75  | 5905.80 | 4633.56 | 3392.16 | 2627.13 | 2005.03 | 1436.17 | 944.65  | 392.60 |
| 202.5           | 8775.33  | 6634.39 | 5037.09 | 3871.34 | 2831.70 | 2159.15 | 1551.06 | 999.57  | 442.76 |
| 225.0           | 9447.87  | 7433.04 | 5959.04 | 4291.69 | 3005.44 | 2237.62 | 1679.96 | 1147.25 | 558.49 |
| 247.5           | 10100.80 | 8077.56 | 6138.39 | 4625.16 | 3111.93 | 2302.07 | 1766.84 | 1213.39 | 613.42 |
| 270.0           | 9887.83  | 7060.33 | 5440.90 | 3990.44 | 3055.32 | 2333.74 | 1620.28 | 1014.42 | 410.53 |
| 292.5           | 10490.32 | 7976.68 | 5561.68 | 4516.71 | 3218.98 | 2432.38 | 1782.25 | 1146.13 | 487.88 |
| 315.0           | 10428.67 | 8273.72 | 6617.58 | 4675.04 | 3127.90 | 2376.05 | 1785.05 | 1206.66 | 569.14 |
| 337.5           | 10277.35 | 7816.95 | 5566.72 | 4441.05 | 3249.24 | 2510.84 | 1831.01 | 1187.04 | 545.04 |
| 360.0           | 9571.17  | 6757.69 | 5301.91 | 4073.39 | 3109.41 | 2344.38 | 1656.15 | 1122.87 | 513.10 |

| C/ $\gamma$ (°) | 90.0  | 95.0 | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |
|-----------------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| 0.0             | 16.53 | 7.01 | 6.45  | 6.73  | 7.85  | 9.81  | 12.33 | 14.85 | 17.65 |
| 22.5            | 9.53  | 6.73 | 6.73  | 7.57  | 8.41  | 10.09 | 12.89 | 15.97 | 18.50 |
| 45.0            | 8.69  | 7.57 | 7.29  | 8.13  | 9.25  | 11.49 | 14.29 | 16.81 | 19.62 |
| 67.5            | 8.41  | 7.57 | 7.29  | 8.41  | 9.81  | 12.61 | 14.85 | 17.94 | 20.74 |
| 90.0            | 8.97  | 6.17 | 6.17  | 7.57  | 8.97  | 11.21 | 14.01 | 17.09 | 19.90 |
| 112.5           | 8.69  | 6.45 | 6.17  | 8.13  | 9.25  | 12.05 | 14.29 | 16.81 | 19.90 |
| 135.0           | 8.69  | 6.73 | 6.45  | 7.57  | 9.25  | 12.05 | 14.29 | 16.81 | 19.90 |
| 157.5           | 8.69  | 6.45 | 6.45  | 7.57  | 8.69  | 11.49 | 14.29 | 16.81 | 19.62 |
| 180.0           | 7.85  | 5.89 | 6.45  | 7.29  | 8.41  | 10.65 | 12.89 | 15.97 | 19.06 |
| 202.5           | 12.05 | 6.45 | 6.45  | 7.57  | 8.41  | 10.09 | 12.61 | 15.69 | 18.22 |
| 225.0           | 26.62 | 7.57 | 7.01  | 7.57  | 8.69  | 10.93 | 12.61 | 15.69 | 17.94 |
| 247.5           | 61.93 | 7.29 | 6.73  | 7.85  | 8.69  | 10.65 | 12.89 | 15.69 | 18.22 |
| 270.0           | 8.41  | 7.57 | 7.01  | 7.85  | 9.81  | 11.77 | 14.57 | 17.09 | 20.46 |
| 292.5           | 10.09 | 7.57 | 7.29  | 7.85  | 8.97  | 11.21 | 13.17 | 15.69 | 18.50 |
| 315.0           | 17.94 | 7.57 | 7.01  | 7.29  | 8.41  | 10.65 | 12.89 | 15.13 | 17.65 |
| 337.5           | 23.54 | 7.57 | 6.45  | 6.73  | 8.13  | 9.81  | 12.05 | 14.57 | 17.09 |
| 360.0           | 16.53 | 7.01 | 6.45  | 6.73  | 7.85  | 9.81  | 12.33 | 14.85 | 17.65 |

| C/ $\gamma(^{\circ})$ | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0                   | 19.90 | 22.14 | 24.94 | 26.34 | 28.30 | 29.14 | 29.42 | 29.98 | 32.23 |
| 22.5                  | 21.02 | 22.98 | 24.94 | 27.46 | 28.86 | 29.70 | 30.27 | 30.55 | 32.51 |
| 45.0                  | 22.42 | 24.66 | 27.18 | 29.14 | 30.27 | 31.67 | 31.67 | 31.95 | 32.23 |
| 67.5                  | 23.82 | 26.06 | 29.14 | 30.55 | 31.67 | 31.95 | 31.95 | 31.67 | 32.51 |
| 90.0                  | 22.70 | 25.50 | 28.02 | 30.27 | 31.95 | 32.51 | 31.95 | 31.95 | 31.11 |
| 112.5                 | 22.98 | 26.06 | 28.30 | 30.27 | 31.95 | 32.79 | 31.67 | 31.95 | 31.11 |
| 135.0                 | 22.98 | 25.50 | 27.46 | 29.42 | 31.11 | 31.39 | 31.95 | 31.67 | 31.67 |
| 157.5                 | 21.86 | 24.38 | 26.34 | 28.58 | 29.70 | 30.55 | 30.55 | 30.83 | 31.67 |
| 180.0                 | 21.02 | 23.54 | 26.06 | 27.74 | 29.14 | 29.98 | 29.70 | 30.27 | 31.11 |
| 202.5                 | 20.18 | 22.98 | 25.50 | 28.02 | 29.42 | 29.98 | 29.70 | 29.98 | 30.83 |
| 225.0                 | 20.46 | 22.98 | 25.50 | 27.74 | 29.70 | 30.83 | 30.27 | 30.83 | 30.83 |
| 247.5                 | 21.02 | 24.38 | 26.34 | 29.14 | 30.55 | 31.67 | 31.39 | 30.83 | 31.95 |
| 270.0                 | 23.54 | 26.06 | 28.30 | 29.98 | 31.67 | 31.95 | 32.51 | 32.51 | 33.63 |
| 292.5                 | 21.30 | 24.38 | 26.90 | 28.58 | 30.27 | 31.11 | 31.11 | 31.67 | 32.23 |
| 315.0                 | 19.90 | 21.86 | 24.94 | 26.90 | 29.14 | 30.27 | 30.55 | 30.55 | 32.51 |
| 337.5                 | 19.62 | 21.58 | 23.82 | 26.34 | 28.30 | 29.14 | 29.42 | 29.98 | 32.23 |
| 360.0                 | 19.90 | 22.14 | 24.94 | 26.34 | 28.30 | 29.14 | 29.42 | 29.98 | 32.23 |

|                       |       |
|-----------------------|-------|
| C/ $\gamma(^{\circ})$ | 180.0 |
| 0.0                   | 33.28 |
| 22.5                  | 33.28 |
| 45.0                  | 33.28 |
| 67.5                  | 33.28 |
| 90.0                  | 33.28 |
| 112.5                 | 33.28 |
| 135.0                 | 33.28 |
| 157.5                 | 33.28 |
| 180.0                 | 33.28 |
| 202.5                 | 33.28 |
| 225.0                 | 33.28 |
| 247.5                 | 33.28 |
| 270.0                 | 33.28 |
| 292.5                 | 33.28 |
| 315.0                 | 33.28 |
| 337.5                 | 33.28 |
| 360.0                 | 33.28 |