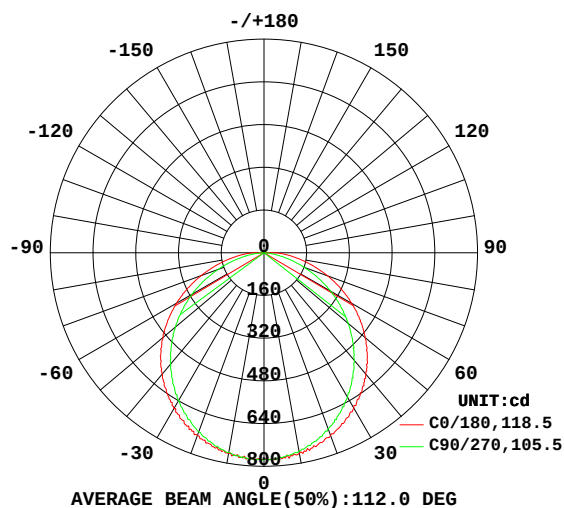


## LUMINAIRE PHOTOMETRIC TEST REPORT

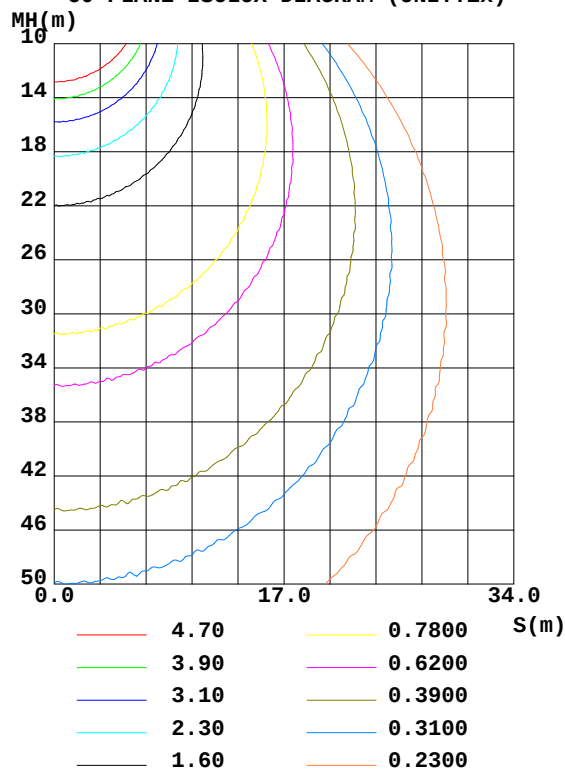
|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |

| DATA OF LAMP     |                                    | PHOTOMETRIC DATA      |        |                    |           | Eff: 80.26 lm/W |
|------------------|------------------------------------|-----------------------|--------|--------------------|-----------|-----------------|
| MODEL            | VN27-24-25S-952C5-MVTD-SB002-5000K | I <sub>max</sub> (cd) | 778.2  | S/MH(C0/180)       | 1.29      |                 |
| NOMINAL POWER(W) | 30                                 | LOR(%)                | 100.0  | S/MH(C90/270)      | 1.23      |                 |
| RATED VOLTAGE(V) | 120                                | TOTAL FLUX(lm)        | 2220.7 | η UP, DN(C0-180)   | 0.1, 49.1 |                 |
| NOMINAL FLUX(lm) | 2220.72                            | CIE CLASS             | DIRECT | η UP, DN(C180-360) | 0.2, 50.6 |                 |
| LAMPS INSIDE     | 1                                  | η up(%)               | 0.3    | CIBSE SHR NOM      | 1.25      |                 |
| TEST VOLTAGE(V)  | 120                                | η down(%)             | 99.7   | CIBSE SHR MAX      | 1.35      |                 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.1DEG  
Operators:Wilson  
Test Date:2022-11-21

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
Humidity:60.5%  
Test Distance:2.678m [K=1.0000]  
Remarks: File No.: WT-F-504-3206-01-A

Checker: Near Gao

Assessor: Akin Xu

### ZONAL FLUX DIAGRAM

**ZONAL FLUX DIAGRAM:**

| γ   | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | γ       | Φ zone  | Φ total | %lum, lamp |
|-----|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|------------|
| 10  | 762.6                 | 758.3  | 754.3  | 760.9  | 764.0  | 761.8  | 759.5  | 761.1  | 0- 10   | 73.21   | 73.21   | 3.3,3.3    |
| 20  | 728.5                 | 713.0  | 702.4  | 713.6  | 728.7  | 722.7  | 714.7  | 722.4  | 10- 20  | 209.4   | 282.6   | 12.7,12.7  |
| 30  | 672.6                 | 646.8  | 624.3  | 647.1  | 675.3  | 659.2  | 639.8  | 654.5  | 20- 30  | 316.7   | 599.3   | 27,27      |
| 40  | 593.6                 | 556.8  | 526.1  | 553.7  | 593.3  | 570.3  | 543.7  | 568.9  | 30- 40  | 381.1   | 980.4   | 44.1,44.1  |
| 50  | 495.2                 | 450.5  | 411.3  | 445.7  | 494.0  | 465.4  | 432.7  | 462.2  | 40- 50  | 394.7   | 1375    | 61.9,61.9  |
| 60  | 380.1                 | 330.0  | 288.1  | 323.2  | 378.0  | 343.0  | 310.8  | 343.1  | 50- 60  | 355.8   | 1731    | 77.9,77.9  |
| 70  | 253.8                 | 202.5  | 161.4  | 196.2  | 250.2  | 214.3  | 182.6  | 215.2  | 60- 70  | 270.5   | 2001    | 90.1,90.1  |
| 80  | 134.1                 | 86.75  | 49.41  | 82.71  | 129.6  | 96.03  | 66.43  | 99.73  | 70- 80  | 157.1   | 2159    | 97.2,97.2  |
| 90  | 38.63                 | 12.48  | 0.1302 | 13.71  | 40.51  | 18.16  | 0.4724 | 21.40  | 80- 90  | 55.49   | 2214    | 99.7,99.7  |
| 100 | 1.988                 | 0.2444 | 0.2181 | 0.2510 | 1.225  | 0.1467 | 0.1167 | 0.1415 | 90-100  | 4.065   | 2218    | 99.9,99.9  |
| 110 | 0.3165                | 0.3185 | 0.3005 | 0.3350 | 0.2332 | 0.2239 | 0.1808 | 0.2153 | 100-110 | 0.2554  | 2218    | 99.9,99.9  |
| 120 | 0.4305                | 0.4290 | 0.4114 | 0.4301 | 0.3630 | 0.3777 | 0.3530 | 0.3433 | 110-120 | 0.3192  | 2219    | 99.9,99.9  |
| 130 | 0.5641                | 0.5642 | 0.5643 | 0.5509 | 0.5465 | 0.5915 | 0.5850 | 0.5287 | 120-130 | 0.4261  | 2219    | 99.9,99.9  |
| 140 | 0.6282                | 0.6346 | 0.6523 | 0.6279 | 0.7128 | 0.7756 | 0.7599 | 0.7160 | 130-140 | 0.4961  | 2220    | 100,100    |
| 150 | 0.6991                | 0.6877 | 0.7390 | 0.7111 | 0.7831 | 0.8163 | 0.7524 | 0.7609 | 140-150 | 0.4535  | 2220    | 100,100    |
| 160 | 0.7537                | 0.7404 | 0.7857 | 0.7992 | 0.7814 | 0.8093 | 0.7578 | 0.7406 | 150-160 | 0.3515  | 2220    | 100,100    |
| 170 | 0.8347                | 0.8612 | 0.9263 | 0.8821 | 0.7350 | 0.7957 | 0.7511 | 0.7075 | 160-170 | 0.2203  | 2221    | 100,100    |
| 180 | 0.8777                | 0.9202 | 0.9673 | 0.8773 | 0.8866 | 0.9191 | 0.9673 | 0.8843 | 170-180 | 0.0816  | 2221    | 100,100    |
| DEG | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |        |         | UNIT:lm |         |            |

Conical surface Flux(90deg): 1179.4 lm

%lum = 53.1%

%lamp = 53.1%

Conical surface Flux(120deg): 1730.9 lm

%lum = 77.9%

%lamp = 77.9%

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Wilson  
 Test Date:2022-11-21

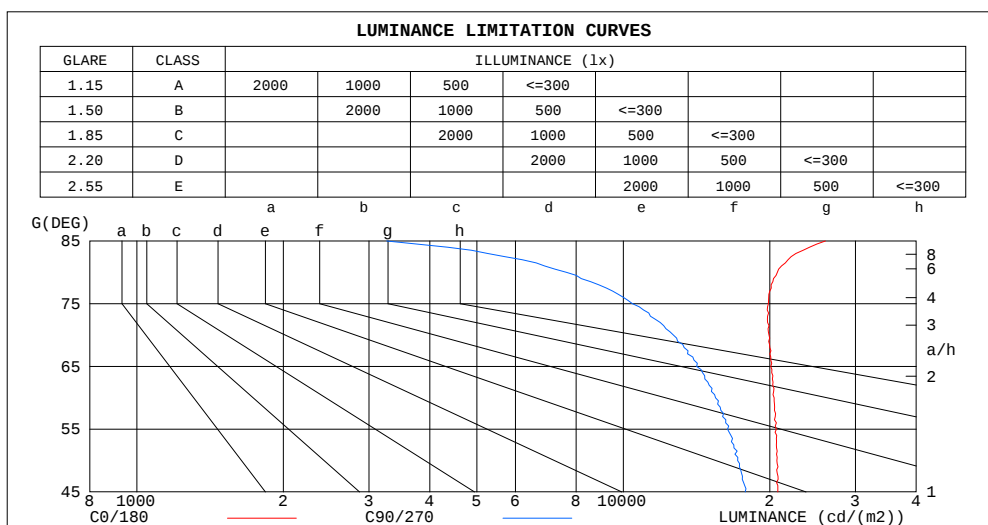
γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
 Humidity:60.5%  
 Test Distance:2.678m [K=1.0000]  
 Remarks: File No.: WT-F-504-3206-01-A

Checker: Near Gao

Assessor: Akin Xu

### LUMINANCE LIMITATION CURVES

|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 26021  | 3262    |
| 80                | 20732  | 7642    |
| 75                | 19873  | 10445   |
| 70                | 19929  | 12677   |
| 65                | 20097  | 14154   |
| 60                | 20412  | 15479   |
| 55                | 20628  | 16372   |
| 50                | 20686  | 17184   |
| 45                | 20780  | 17802   |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.1DEG  
 Operators: Wilson  
 Test Date: 2022-11-21

Checker: Near Gao

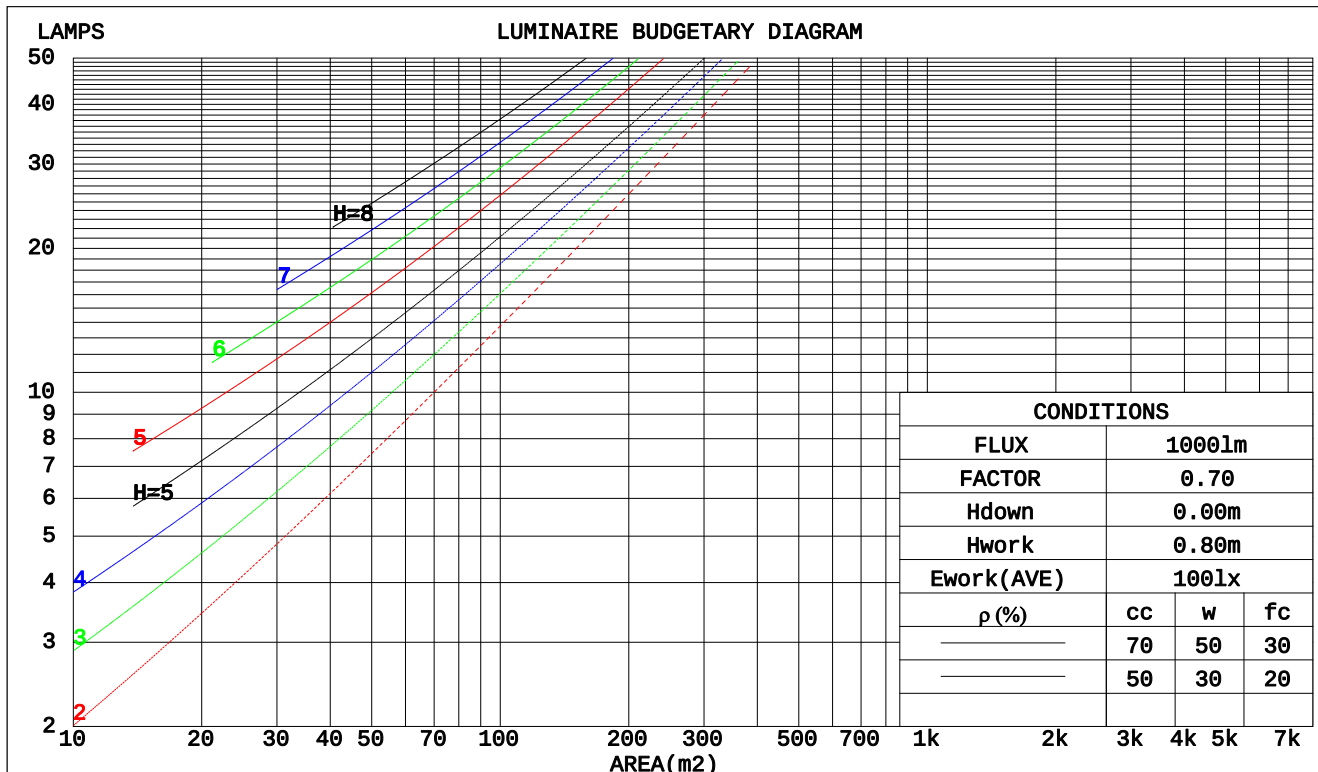
γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
 Humidity: 60.5%  
 Test Distance: 2.678m [K=1.0000]  
 Remarks: File No.: WT-F-504-3206-01-A

Assessor: Akin Xu

### CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |

| $\rho_{CC}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0   |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|-----|
| $\rho_W$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0   |
| $\rho_{fc}$ | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0   |
| RCR         | RCR:Room Cavity Ratio |      |      |      |      |      | Coefficients of Utilization(CU) |      |      |      |      |      |      |      |      |     |
| 0.0         | 1.19                  | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.11                            | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | .00 |
| 1.0         | 1.03                  | .99  | .95  | 1.01 | .97  | .94  | .97                             | .94  | .91  | .93  | .90  | .88  | .89  | .87  | .85  | .83 |
| 2.0         | .90                   | .83  | .77  | .88  | .82  | .76  | .84                             | .79  | .74  | .81  | .77  | .73  | .78  | .74  | .71  | .69 |
| 3.0         | .79                   | .71  | .64  | .77  | .70  | .63  | .74                             | .68  | .62  | .72  | .66  | .61  | .69  | .64  | .60  | .58 |
| 4.0         | .70                   | .61  | .54  | .69  | .60  | .54  | .66                             | .59  | .53  | .64  | .57  | .52  | .61  | .56  | .52  | .49 |
| 5.0         | .62                   | .53  | .47  | .61  | .53  | .46  | .59                             | .52  | .46  | .57  | .50  | .45  | .55  | .49  | .45  | .43 |
| 6.0         | .56                   | .47  | .41  | .55  | .47  | .40  | .53                             | .46  | .40  | .52  | .45  | .40  | .50  | .44  | .39  | .37 |
| 7.0         | .51                   | .42  | .36  | .50  | .42  | .36  | .49                             | .41  | .35  | .47  | .40  | .35  | .46  | .40  | .35  | .33 |
| 8.0         | .46                   | .38  | .32  | .46  | .38  | .32  | .44                             | .37  | .32  | .43  | .36  | .31  | .42  | .36  | .31  | .29 |
| 9.0         | .43                   | .34  | .29  | .42  | .34  | .29  | .41                             | .34  | .29  | .40  | .33  | .28  | .39  | .33  | .28  | .26 |
| 10.0        | .39                   | .31  | .26  | .39  | .31  | .26  | .38                             | .31  | .26  | .37  | .30  | .26  | .36  | .30  | .26  | .24 |



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.1DEG  
 Operators: Wilson  
 Test Date: 2022-11-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
 Humidity: 60.5%  
 Test Distance: 2.678m [K=1.0000]  
 Remarks: File No.: WT-F-504-3206-01-A

Checker: Near Gao

Assessor: Akin Xu

### WEC AND CCEC

|                                                                                     |  |  |  |       |  |  |  |                  |  |  |  |
|-------------------------------------------------------------------------------------|--|--|--|-------|--|--|--|------------------|--|--|--|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |  |  |  |       |  |  |  |                  |  |  |  |
| NAME:                                                                               |  |  |  | TYPE: |  |  |  | WEIGHT:          |  |  |  |
| SPEC.:                                                                              |  |  |  | DIM.: |  |  |  | SERIAL No.:      |  |  |  |
| MFR.:                                                                               |  |  |  | SUR.: |  |  |  | Shielding Angle: |  |  |  |

| ρcc  | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |  |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|--|
| ρw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |  |
| ρfc  | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |  |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |  |
| 1.0  | .316                  | .180 | .057 | .309 | .176 | .056 | .296                            | .170 | .054 | .283 | .163 | .052 | .272 | .158 | .051 |   |  |
| 2.0  | .295                  | .162 | .050 | .289 | .159 | .049 | .277                            | .154 | .048 | .266 | .149 | .047 | .256 | .145 | .046 |   |  |
| 3.0  | .272                  | .145 | .043 | .266 | .143 | .043 | .256                            | .139 | .042 | .246 | .135 | .041 | .237 | .131 | .041 |   |  |
| 4.0  | .250                  | .130 | .038 | .246 | .128 | .038 | .236                            | .125 | .037 | .228 | .122 | .037 | .219 | .119 | .036 |   |  |
| 5.0  | .231                  | .118 | .034 | .227 | .116 | .034 | .219                            | .114 | .034 | .211 | .111 | .033 | .204 | .109 | .033 |   |  |
| 6.0  | .214                  | .107 | .031 | .210 | .106 | .031 | .203                            | .104 | .030 | .196 | .102 | .030 | .190 | .100 | .030 |   |  |
| 7.0  | .199                  | .099 | .028 | .196 | .098 | .028 | .189                            | .096 | .028 | .183 | .094 | .027 | .177 | .092 | .027 |   |  |
| 8.0  | .186                  | .091 | .026 | .183 | .090 | .025 | .177                            | .088 | .025 | .171 | .087 | .025 | .166 | .085 | .025 |   |  |
| 9.0  | .174                  | .084 | .024 | .172 | .084 | .023 | .166                            | .082 | .023 | .161 | .081 | .023 | .156 | .079 | .023 |   |  |
| 10.0 | .164                  | .079 | .022 | .161 | .078 | .022 | .157                            | .077 | .022 | .152 | .075 | .021 | .148 | .074 | .021 |   |  |

| ρ <sub>CC</sub> | 80%                   |      |      | 70%  |      |      | 50%                                        |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-----------------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| ρ <sub>W</sub>  | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                        | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| ρ <sub>fc</sub> | 20%                   |      |      | 20%  |      |      | 20%                                        |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR             | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0             | .193                  | .193 | .193 | .165 | .165 | .165 | .112                                       | .112 | .112 | .065 | .065 | .065 | .021 | .021 | .021 |   |
| 1.0             | .183                  | .158 | .136 | .157 | .136 | .117 | .107                                       | .094 | .081 | .062 | .054 | .047 | .020 | .017 | .015 |   |
| 2.0             | .175                  | .134 | .100 | .150 | .116 | .086 | .103                                       | .080 | .060 | .059 | .046 | .035 | .019 | .015 | .012 |   |
| 3.0             | .167                  | .117 | .076 | .143 | .101 | .066 | .098                                       | .070 | .046 | .057 | .041 | .027 | .018 | .013 | .009 |   |
| 4.0             | .160                  | .103 | .060 | .137 | .089 | .053 | .094                                       | .062 | .037 | .054 | .036 | .022 | .018 | .012 | .007 |   |
| 5.0             | .152                  | .093 | .049 | .131 | .080 | .043 | .090                                       | .056 | .030 | .052 | .033 | .018 | .017 | .011 | .006 |   |
| 6.0             | .145                  | .085 | .041 | .124 | .073 | .036 | .086                                       | .051 | .026 | .050 | .030 | .015 | .016 | .010 | .005 |   |
| 7.0             | .138                  | .078 | .036 | .119 | .067 | .031 | .082                                       | .047 | .022 | .048 | .028 | .013 | .015 | .009 | .004 |   |
| 8.0             | .131                  | .072 | .031 | .113 | .062 | .027 | .078                                       | .044 | .019 | .046 | .026 | .011 | .015 | .008 | .004 |   |
| 9.0             | .125                  | .067 | .028 | .108 | .058 | .024 | .075                                       | .041 | .017 | .044 | .024 | .010 | .014 | .008 | .003 |   |
| 10.0            | .120                  | .063 | .025 | .103 | .054 | .022 | .072                                       | .038 | .015 | .042 | .023 | .009 | .014 | .007 | .003 |   |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Wilson  
 Test Date:2022-11-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
 Humidity:60.5%  
 Test Distance:2.678m [K=1.0000]  
 Remarks: File No.: WT-F-504-3206-01-A

Checker: Near Gao

Assessor: Akin Xu

### UGR(Unified Glare Rating) Table

|                                                                                     |                  |      |      |      |       |                |      |                  |      |      |
|-------------------------------------------------------------------------------------|------------------|------|------|------|-------|----------------|------|------------------|------|------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |                  |      |      |      |       |                |      |                  |      |      |
| NAME:                                                                               |                  |      |      |      | TYPE: |                |      | WEIGHT:          |      |      |
| SPEC.:                                                                              |                  |      |      |      | DIM.: |                |      | SERIAL No.:      |      |      |
| MFR.:                                                                               |                  |      |      |      | SUR.: |                |      | Shielding Angle: |      |      |
| ceiling/cavity                                                                      | 0.7              | 0.7  | 0.5  | 0.5  | 0.3   | 0.7            | 0.7  | 0.5              | 0.5  | 0.3  |
| walls                                                                               | 0.5              | 0.3  | 0.5  | 0.3  | 0.3   | 0.5            | 0.3  | 0.5              | 0.3  | 0.3  |
| working plane                                                                       | 0.2              | 0.2  | 0.2  | 0.2  | 0.2   | 0.2            | 0.2  | 0.2              | 0.2  | 0.2  |
| Room dimensions                                                                     | Viewed crosswise |      |      |      |       | Viewed endwise |      |                  |      |      |
| x = 2H y = 2H                                                                       | 23.5             | 25.0 | 23.7 | 25.2 | 25.4  | 22.3           | 23.9 | 22.6             | 24.1 | 24.3 |
| 3H                                                                                  | 25.2             | 26.6 | 25.5 | 26.8 | 27.1  | 23.6           | 25.0 | 23.9             | 25.2 | 25.5 |
| 4H                                                                                  | 26.0             | 27.3 | 26.3 | 27.5 | 27.8  | 24.0           | 25.3 | 24.3             | 25.6 | 25.8 |
| 6H                                                                                  | 26.6             | 27.9 | 27.0 | 28.2 | 28.5  | 24.2           | 25.5 | 24.5             | 25.7 | 26.0 |
| 8H                                                                                  | 26.9             | 28.1 | 27.3 | 28.4 | 28.7  | 24.2           | 25.4 | 24.6             | 25.7 | 26.0 |
| 12H                                                                                 | 27.2             | 28.4 | 27.6 | 28.7 | 29.0  | 24.2           | 25.4 | 24.5             | 25.7 | 26.0 |
| 4H 2H                                                                               | 23.9             | 25.3 | 24.2 | 25.5 | 25.8  | 23.1           | 24.4 | 23.4             | 24.7 | 24.9 |
| 3H                                                                                  | 25.9             | 27.0 | 26.2 | 27.3 | 27.6  | 24.5           | 25.6 | 24.8             | 25.9 | 26.3 |
| 4H                                                                                  | 26.8             | 27.8 | 27.1 | 28.2 | 28.5  | 25.0           | 26.1 | 25.4             | 26.4 | 26.7 |
| 6H                                                                                  | 27.6             | 28.6 | 28.0 | 28.9 | 29.3  | 25.3           | 26.2 | 25.7             | 26.6 | 27.0 |
| 8H                                                                                  | 28.0             | 28.9 | 28.4 | 29.2 | 29.6  | 25.3           | 26.2 | 25.8             | 26.6 | 27.0 |
| 12H                                                                                 | 28.4             | 29.2 | 28.8 | 29.6 | 30.0  | 25.3           | 26.2 | 25.8             | 26.5 | 27.0 |
| 8H 4H                                                                               | 26.9             | 27.8 | 27.4 | 28.2 | 28.6  | 25.4           | 26.2 | 25.8             | 26.6 | 27.0 |
| 6H                                                                                  | 27.9             | 28.7 | 28.4 | 29.1 | 29.5  | 25.8           | 26.5 | 26.2             | 26.9 | 27.4 |
| 8H                                                                                  | 28.5             | 29.1 | 28.9 | 29.5 | 30.0  | 25.9           | 26.6 | 26.4             | 27.0 | 27.4 |
| 12H                                                                                 | 29.0             | 29.6 | 29.5 | 30.0 | 30.5  | 25.9           | 26.5 | 26.4             | 27.0 | 27.4 |
| 12H 4H                                                                              | 26.9             | 27.7 | 27.4 | 28.1 | 28.5  | 25.4           | 26.2 | 25.8             | 26.6 | 27.0 |
| 6H                                                                                  | 28.0             | 28.6 | 28.4 | 29.1 | 29.5  | 25.9           | 26.6 | 26.4             | 27.0 | 27.5 |
| 8H                                                                                  | 28.5             | 29.1 | 29.0 | 29.6 | 30.0  | 26.1           | 26.6 | 26.5             | 27.1 | 27.6 |
| Variations with the observer position at spacings(CIE Pub.117):                     |                  |      |      |      |       |                |      |                  |      |      |
| S = 1.0H                                                                            | + 0.1 / - 0.2    |      |      |      |       | + 0.2 / - 0.2  |      |                  |      |      |
| 1.5H                                                                                | + 0.2 / - 0.3    |      |      |      |       | + 0.2 / - 0.4  |      |                  |      |      |
| 2.0H                                                                                | + 0.1 / - 0.3    |      |      |      |       | + 0.2 / - 0.4  |      |                  |      |      |

CIE Pub.117, 2221 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 2.8$ )  
 Area: 0.0372 m<sup>2</sup>

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Wilson  
 Test Date:2022-11-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
 Humidity:60.5%  
 Test Distance:2.678m [K=1.0000]  
 Remarks: File No.: WT-F-504-3206-01-A

Checker: Near Gao

Assessor: Akin Xu

**UTILIZATION FACTORS TABLE**

|                                                                                                   |              |                         |
|---------------------------------------------------------------------------------------------------|--------------|-------------------------|
| <b>Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz</b><br><b>Lamp Flux:2220.72x1 lm</b> |              |                         |
| <b>NAME:</b>                                                                                      | <b>TYPE:</b> | <b>WEIGHT:</b>          |
| <b>SPEC.:</b>                                                                                     | <b>DIM.:</b> | <b>SERIAL No.:</b>      |
| <b>MFR.:</b>                                                                                      | <b>SUR.:</b> | <b>Shielding Angle:</b> |

| REFLECTANCE                      |                                                                       |     |           |     |     |     |     |              |     |               |
|----------------------------------|-----------------------------------------------------------------------|-----|-----------|-----|-----|-----|-----|--------------|-----|---------------|
| Ceiling                          | 0.8                                                                   | 0.8 | 0.8       | 0.7 | 0.7 | 0.7 | 0.5 | 0.5          | 0.5 | 0             |
| Walls                            | 0.7                                                                   | 0.5 | 0.3       | 0.7 | 0.5 | 0.3 | 0.7 | 0.5          | 0.3 | 0             |
| Working plane                    | 0.2                                                                   | 0.2 | 0.2       | 0.2 | 0.2 | 0.2 | 0.2 | 0.2          | 0.2 | 0             |
| <b>ROOM INDEX</b>                | <b>UTILIZATION FACTORS(PERCENT) <math>k(RI) \times RCR = 5</math></b> |     |           |     |     |     |     |              |     |               |
| <b>k = 0.60</b>                  | 57                                                                    | 46  | 39        | 56  | 45  | 38  | 55  | 45           | 38  | 32            |
| <b>0.80</b>                      | 67                                                                    | 56  | 48        | 66  | 55  | 48  | 64  | 54           | 48  | 41            |
| <b>1.00</b>                      | 76                                                                    | 64  | 57        | 74  | 64  | 57  | 72  | 65           | 56  | 49            |
| <b>1.25</b>                      | 83                                                                    | 72  | 65        | 81  | 71  | 64  | 79  | 70           | 64  | 56            |
| <b>1.50</b>                      | 88                                                                    | 78  | 71        | 86  | 77  | 70  | 83  | 75           | 69  | 61            |
| <b>2.00</b>                      | 95                                                                    | 86  | 79        | 93  | 85  | 79  | 89  | 82           | 77  | 69            |
| <b>2.50</b>                      | 98                                                                    | 91  | 84        | 96  | 89  | 84  | 92  | 86           | 82  | 73            |
| <b>3.00</b>                      | 102                                                                   | 95  | 89        | 100 | 93  | 88  | 96  | 90           | 86  | 77            |
| <b>4.00</b>                      | 106                                                                   | 100 | 95        | 103 | 98  | 94  | 99  | 95           | 91  | 82            |
| <b>5.00</b>                      | 108                                                                   | 103 | 99        | 106 | 101 | 98  | 101 | 98           | 94  | 85            |
| <b>ROOM INDEX</b>                | <b>UF(total)</b>                                                      |     |           |     |     |     |     |              |     | <b>Direct</b> |
| According to DIN EN 13032-2 2004 |                                                                       |     | Suspended |     |     |     |     | SHRNM = 1.25 |     |               |

**C Range: 0 - 360DEG**  
**C Interval: 22.5DEG**  
**Test Speed: HIGH**  
**Temperature:25.1DEG**  
**Operators:Wilson**  
**Test Date:2022-11-21**

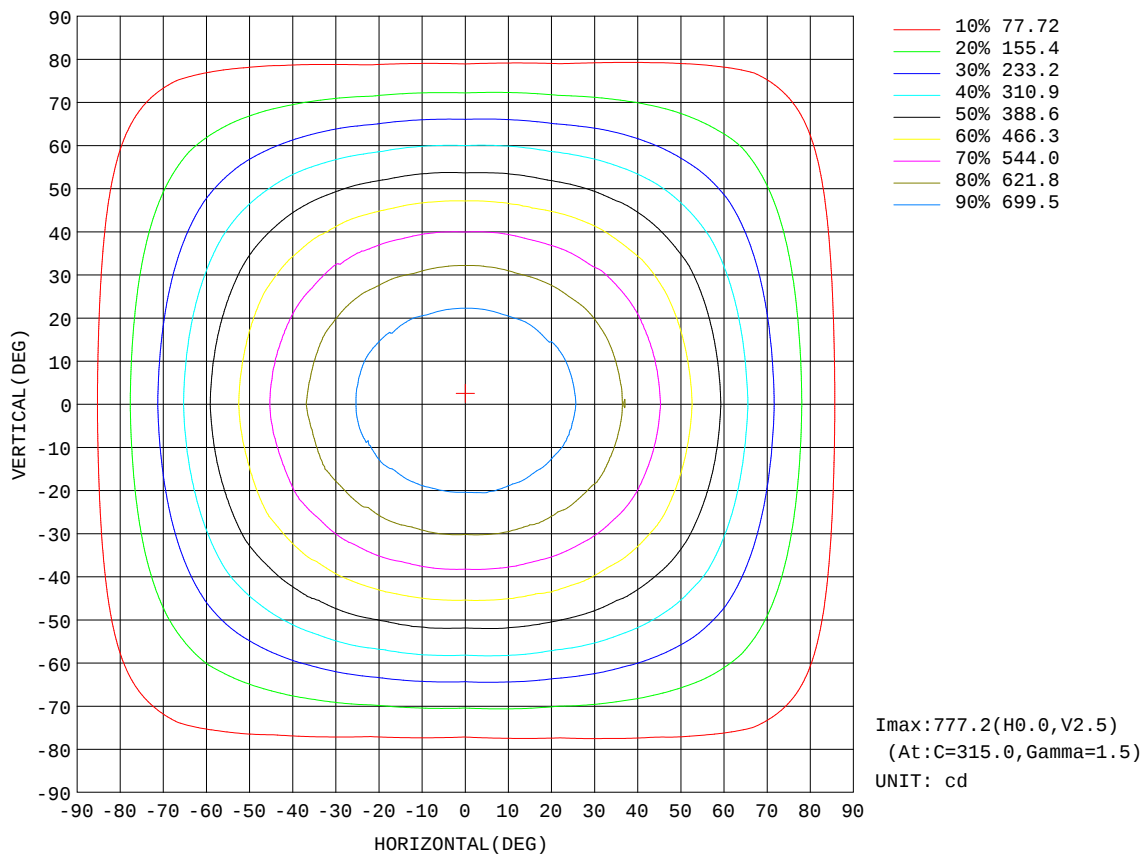
**Checker: Near Gao**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 0.5DEG**  
**Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444**  
**Humidity:60.5%**  
**Test Distance:2.678m [K=1.0000]**  
**Remarks: File No.: WT-F-504-3206-01-A**

**Assessor: Akin Xu**

### ISOCANDELA DIAGRAM

|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.1DEG  
Operators:Wilson  
Test Date:2022-11-21

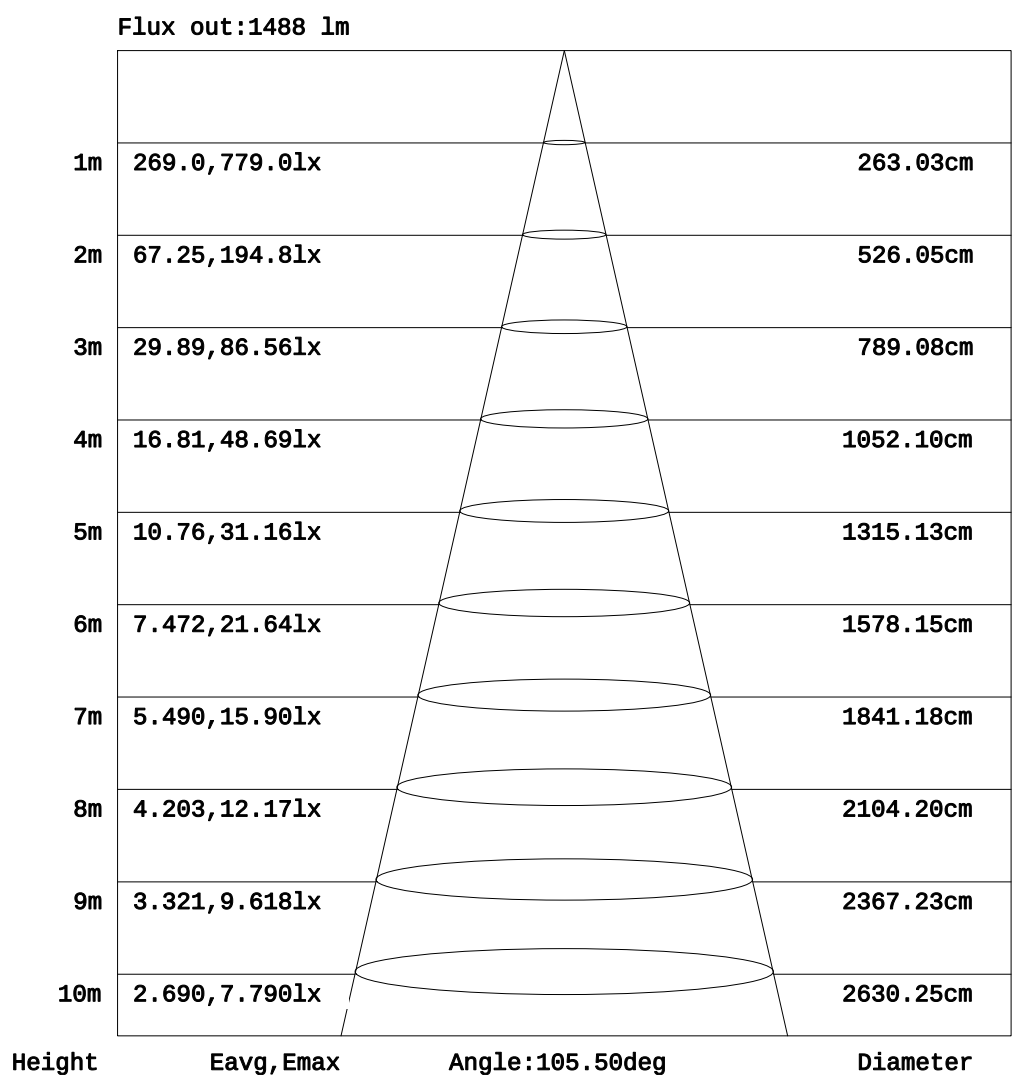
Checker: Near Gao

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
Humidity:60.5%  
Test Distance:2.678m [K=1.0000]  
Remarks: File No.: WT-F-504-3206-01-A

Assessor: Akin Xu

### AAI Figure

|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.1DEG  
 Operators: Wilson  
 Test Date: 2022-11-21

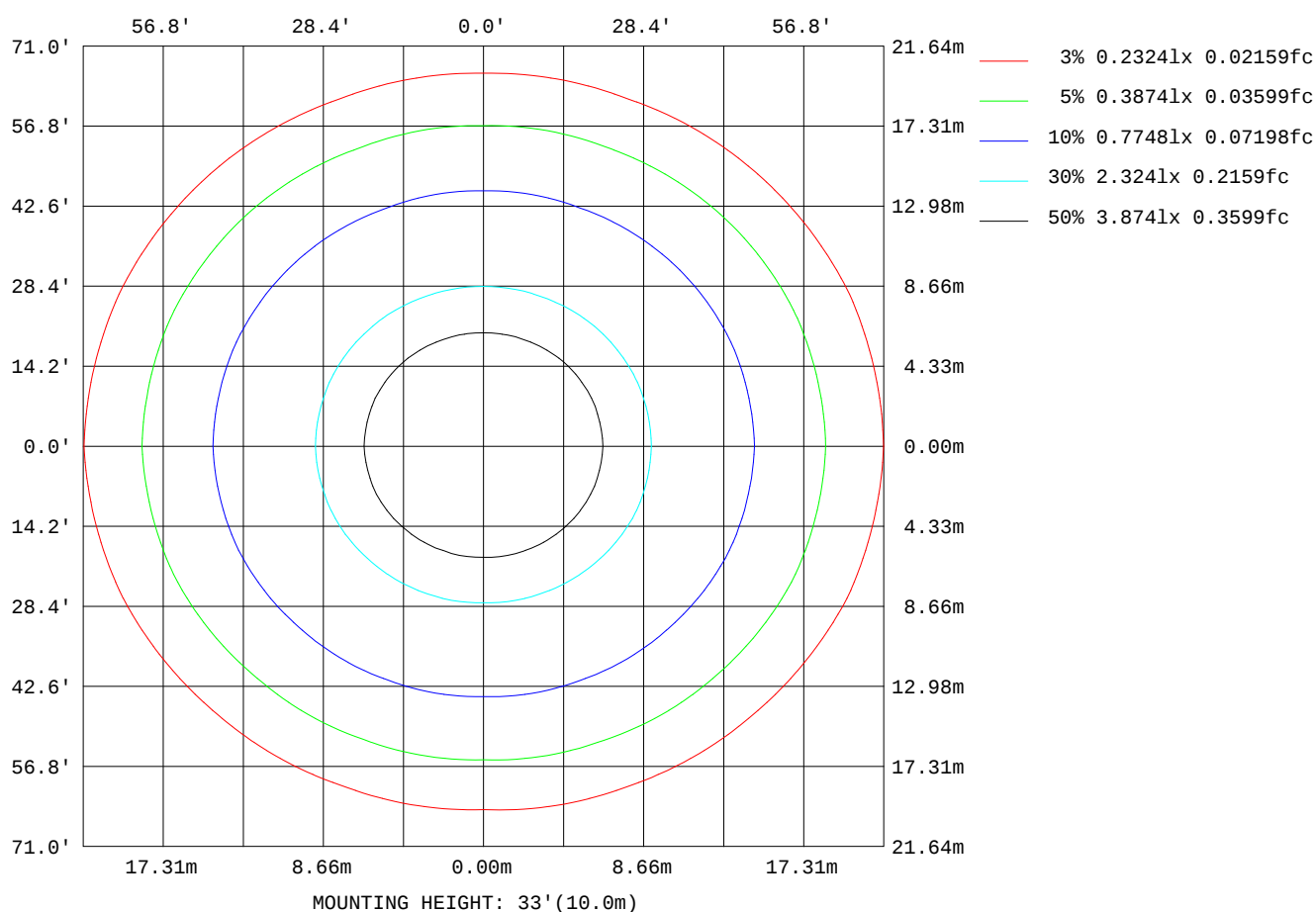
γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
 Humidity: 60.5%  
 Test Distance: 2.678m [K=1.0000]  
 Remarks: File No.: WT-F-504-3206-01-A

Checker: Near Gao

Assessor: Akin Xu

### ISOLUX DIAGRAM

|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.1DEG  
Operators:Wilson  
Test Date:2022-11-21

Checker: Near Gao

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
Humidity:60.5%  
Test Distance:2.678m [K=1.0000]  
Remarks: File No.: WT-F-504-3206-01-A

Assessor: Akin Xu

### LED Avg.L Report

|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |

| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 20114 |
| L_0~180(75)av  | 19656 |
| L_0~180(85)av  | 25419 |
| L_90~270(65)av | 14981 |
| L_90~270(75)av | 11559 |
| L_90~270(85)av | 5143  |
| L_45(65)av     | 17337 |
| L_45(75)av     | 15181 |
| L_45(85)av     | 14738 |

Standard: GB/T 29293-2012

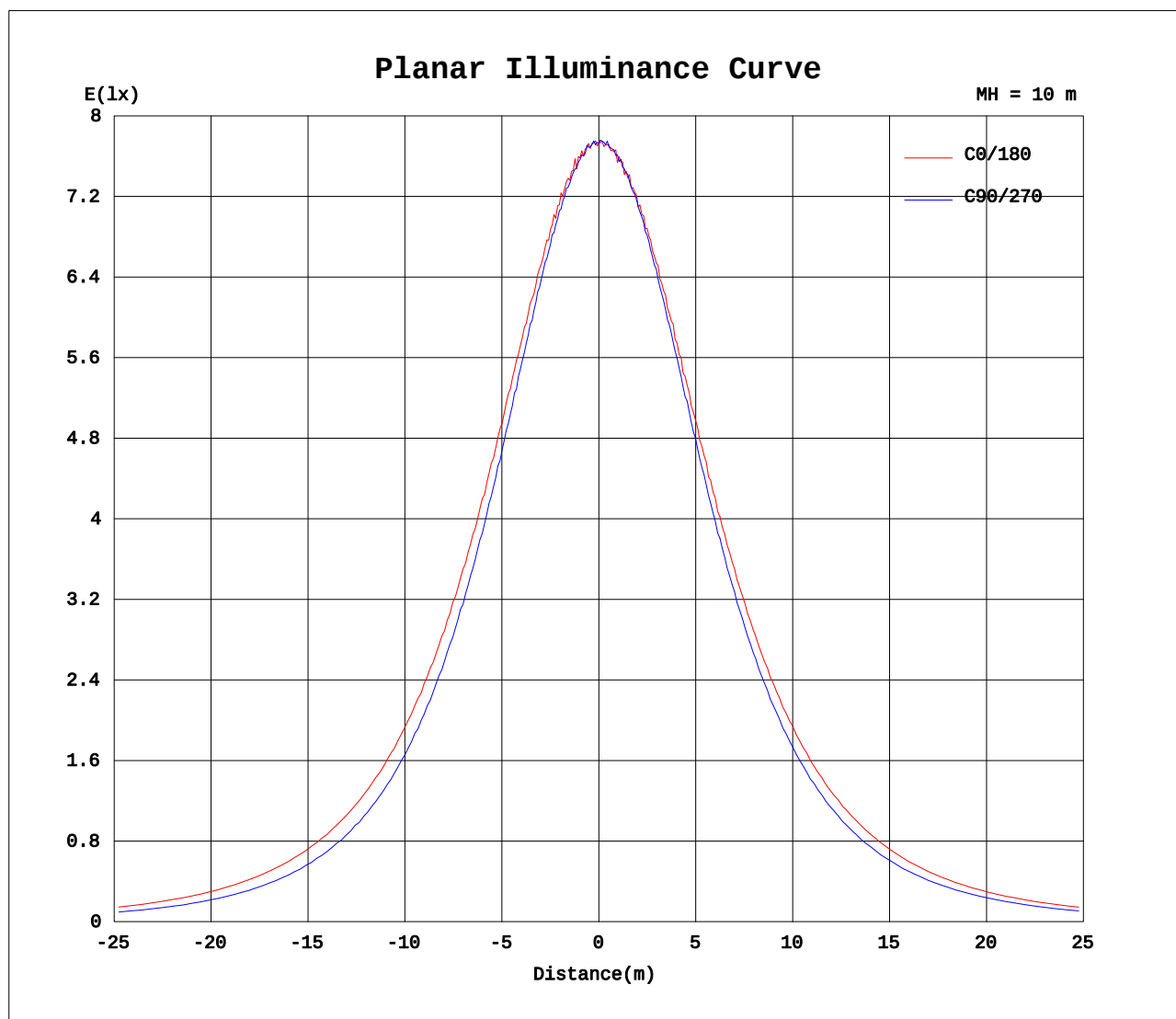
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Wilson  
 Test Date:2022-11-21

Checker: Near Gao

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
 Humidity:60.5%  
 Test Distance:2.678m [K=1.0000]  
 Remarks: File No.: WT-F-504-3206-01-A

Assessor: Akin Xu

## Planar Illuminance Curve



**C Range:** 0 - 360DEG  
**C Interval:** 22.5DEG  
**Test Speed:** HIGH  
**Temperature:** 25.1DEG  
**Operators:** Wilson  
**Test Date:** 2022-11-21

**Checker:** Near Gao

**γ Range:** 0 - 180DEG  
**γ Interval:** 0.5DEG  
**Test System:** EVERFINE G0-R5000\_V2 SYSTEM V2.00.444  
**Humidity:** 60.5%  
**Test Distance:** 2.678m [K=1.0000]  
**Remarks:** File No.: WT-F-504-3206-01-A

**Assessor:** Akin Xu

**LUMINOUS DISTRIBUTION INTENSITY DATA**

|                                                                                     |       |                  |
|-------------------------------------------------------------------------------------|-------|------------------|
| Test:U:120.11V I:0.2324A P:27.669W PF:0.9913 Freq:60.00Hz<br>Lamp Flux:2220.72x1 lm |       |                  |
| NAME:                                                                               | TYPE: | WEIGHT:          |
| SPEC.:                                                                              | DIM.: | SERIAL No.:      |
| MFR.:                                                                               | SUR.: | Shielding Angle: |

**Table--1**
**UNIT: cd**

| C(°) \ γ (°) | 0    | 22.5 | 45   | 67.5 | 90   | 112.5 | 135  | 157.5 | 180  | 202.5 | 225  | 247.5 | 270  | 292.5 | 315  | 337.5 |  |  |  |
|--------------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|--|--|--|
| 0            | 774  | 774  | 774  | 774  | 774  | 774   | 774  | 774   | 774  | 774   | 774  | 774   | 774  | 774   | 774  | 774   |  |  |  |
| 5            | 775  | 772  | 771  | 770  | 771  | 763   | 772  | 773   | 776  | 773   | 777  | 771   | 770  | 766   | 777  | 774   |  |  |  |
| 10           | 763  | 759  | 758  | 757  | 754  | 751   | 761  | 759   | 764  | 759   | 762  | 757   | 760  | 758   | 761  | 765   |  |  |  |
| 15           | 752  | 747  | 739  | 737  | 731  | 728   | 743  | 748   | 752  | 746   | 749  | 741   | 741  | 736   | 748  | 752   |  |  |  |
| 20           | 729  | 724  | 713  | 707  | 702  | 702   | 714  | 722   | 729  | 728   | 723  | 713   | 715  | 712   | 722  | 728   |  |  |  |
| 25           | 705  | 697  | 685  | 673  | 665  | 664   | 685  | 697   | 707  | 701   | 694  | 683   | 680  | 678   | 695  | 703   |  |  |  |
| 30           | 673  | 663  | 647  | 632  | 624  | 628   | 647  | 660   | 675  | 666   | 659  | 642   | 640  | 641   | 655  | 666   |  |  |  |
| 35           | 638  | 627  | 605  | 588  | 574  | 580   | 605  | 624   | 638  | 631   | 618  | 598   | 597  | 595   | 617  | 632   |  |  |  |
| 40           | 594  | 582  | 557  | 536  | 526  | 531   | 554  | 578   | 593  | 586   | 570  | 549   | 544  | 548   | 569  | 586   |  |  |  |
| 45           | 547  | 533  | 505  | 484  | 469  | 474   | 503  | 531   | 550  | 538   | 522  | 496   | 491  | 492   | 520  | 541   |  |  |  |
| 50           | 495  | 480  | 451  | 425  | 411  | 418   | 446  | 477   | 494  | 483   | 465  | 442   | 433  | 438   | 462  | 487   |  |  |  |
| 55           | 441  | 424  | 390  | 367  | 350  | 358   | 389  | 420   | 439  | 428   | 408  | 380   | 374  | 378   | 406  | 432   |  |  |  |
| 60           | 380  | 363  | 330  | 303  | 288  | 297   | 323  | 357   | 378  | 366   | 343  | 318   | 311  | 318   | 343  | 370   |  |  |  |
| 65           | 316  | 301  | 265  | 239  | 223  | 233   | 261  | 295   | 316  | 303   | 282  | 253   | 248  | 254   | 282  | 308   |  |  |  |
| 70           | 254  | 235  | 203  | 173  | 161  | 169   | 196  | 229   | 250  | 238   | 214  | 191   | 183  | 192   | 215  | 244   |  |  |  |
| 75           | 192  | 174  | 141  | 114  | 101  | 109   | 136  | 167   | 187  | 176   | 152  | 128   | 122  | 130   | 156  | 182   |  |  |  |
| 80           | 134  | 117  | 86.8 | 60.9 | 49.4 | 58.0  | 82.7 | 112   | 130  | 119   | 96.0 | 72.4  | 66.4 | 74.9  | 99.7 | 125   |  |  |  |
| 85           | 84.5 | 70.2 | 43.4 | 21.9 | 10.6 | 21.9  | 42.1 | 66.0  | 80.4 | 70.3  | 50.2 | 28.8  | 22.8 | 32.0  | 55.4 | 76.7  |  |  |  |
| 90           | 38.6 | 29.5 | 12.5 | 1.99 | 0.13 | 1.56  | 13.7 | 29.2  | 40.5 | 33.0  | 18.2 | 4.12  | 0.47 | 7.53  | 21.4 | 35.7  |  |  |  |
| 95           | 1.64 | 2.05 | 2.03 | 0.17 | 0.18 | 0.17  | 1.20 | 0.30  | 0.14 | 0.15  | 1.13 | 0.12  | 0.10 | 0.12  | 2.02 | 0.19  |  |  |  |
| 100          | 1.99 | 0.66 | 0.24 | 0.22 | 0.22 | 0.22  | 0.25 | 0.49  | 1.23 | 0.60  | 0.15 | 0.13  | 0.12 | 0.13  | 0.14 | 0.45  |  |  |  |
| 105          | 0.28 | 0.27 | 0.28 | 0.26 | 0.26 | 0.26  | 0.29 | 0.28  | 0.19 | 0.19  | 0.18 | 0.16  | 0.14 | 0.15  | 0.17 | 0.18  |  |  |  |
| 110          | 0.32 | 0.30 | 0.32 | 0.30 | 0.30 | 0.31  | 0.33 | 0.32  | 0.23 | 0.24  | 0.22 | 0.20  | 0.18 | 0.19  | 0.22 | 0.22  |  |  |  |
| 115          | 0.36 | 0.35 | 0.37 | 0.36 | 0.35 | 0.37  | 0.38 | 0.37  | 0.29 | 0.30  | 0.29 | 0.27  | 0.26 | 0.26  | 0.28 | 0.27  |  |  |  |
| 120          | 0.43 | 0.41 | 0.43 | 0.42 | 0.41 | 0.43  | 0.43 | 0.43  | 0.36 | 0.38  | 0.38 | 0.36  | 0.35 | 0.35  | 0.34 | 0.34  |  |  |  |
| 125          | 0.50 | 0.49 | 0.50 | 0.50 | 0.48 | 0.50  | 0.49 | 0.50  | 0.45 | 0.48  | 0.49 | 0.47  | 0.46 | 0.44  | 0.43 | 0.43  |  |  |  |
| 130          | 0.56 | 0.56 | 0.56 | 0.58 | 0.56 | 0.57  | 0.55 | 0.57  | 0.55 | 0.58  | 0.59 | 0.61  | 0.59 | 0.57  | 0.53 | 0.54  |  |  |  |
| 135          | 0.59 | 0.61 | 0.59 | 0.63 | 0.61 | 0.61  | 0.60 | 0.61  | 0.66 | 0.70  | 0.73 | 0.74  | 0.73 | 0.69  | 0.67 | 0.66  |  |  |  |
| 140          | 0.63 | 0.62 | 0.63 | 0.65 | 0.65 | 0.63  | 0.63 | 0.64  | 0.71 | 0.75  | 0.78 | 0.79  | 0.76 | 0.73  | 0.72 | 0.71  |  |  |  |
| 145          | 0.67 | 0.66 | 0.68 | 0.69 | 0.71 | 0.67  | 0.68 | 0.67  | 0.74 | 0.77  | 0.82 | 0.80  | 0.79 | 0.77  | 0.76 | 0.75  |  |  |  |
| 150          | 0.70 | 0.69 | 0.69 | 0.71 | 0.74 | 0.70  | 0.71 | 0.70  | 0.78 | 0.79  | 0.82 | 0.80  | 0.75 | 0.77  | 0.76 | 0.77  |  |  |  |
| 155          | 0.73 | 0.72 | 0.75 | 0.73 | 0.76 | 0.73  | 0.79 | 0.74  | 0.79 | 0.78  | 0.82 | 0.78  | 0.81 | 0.73  | 0.77 | 0.76  |  |  |  |
| 160          | 0.75 | 0.74 | 0.74 | 0.75 | 0.79 | 0.78  | 0.80 | 0.76  | 0.78 | 0.79  | 0.81 | 0.80  | 0.76 | 0.75  | 0.74 | 0.75  |  |  |  |
| 165          | 0.78 | 0.80 | 0.79 | 0.75 | 0.86 | 0.80  | 0.83 | 0.81  | 0.75 | 0.78  | 0.79 | 0.75  | 0.76 | 0.69  | 0.71 | 0.74  |  |  |  |
| 170          | 0.83 | 0.86 | 0.86 | 0.84 | 0.93 | 0.85  | 0.88 | 0.85  | 0.74 | 0.78  | 0.80 | 0.74  | 0.75 | 0.70  | 0.71 | 0.75  |  |  |  |
| 175          | 0.95 | 0.96 | 0.97 | 0.95 | 1.00 | 0.95  | 0.96 | 0.94  | 0.84 | 0.87  | 0.90 | 0.86  | 0.87 | 0.81  | 0.83 | 0.83  |  |  |  |
| 180          | 0.88 | 0.90 | 0.92 | 0.91 | 0.97 | 0.86  | 0.88 | 0.86  | 0.89 | 0.91  | 0.92 | 0.91  | 0.97 | 0.86  | 0.88 | 0.86  |  |  |  |

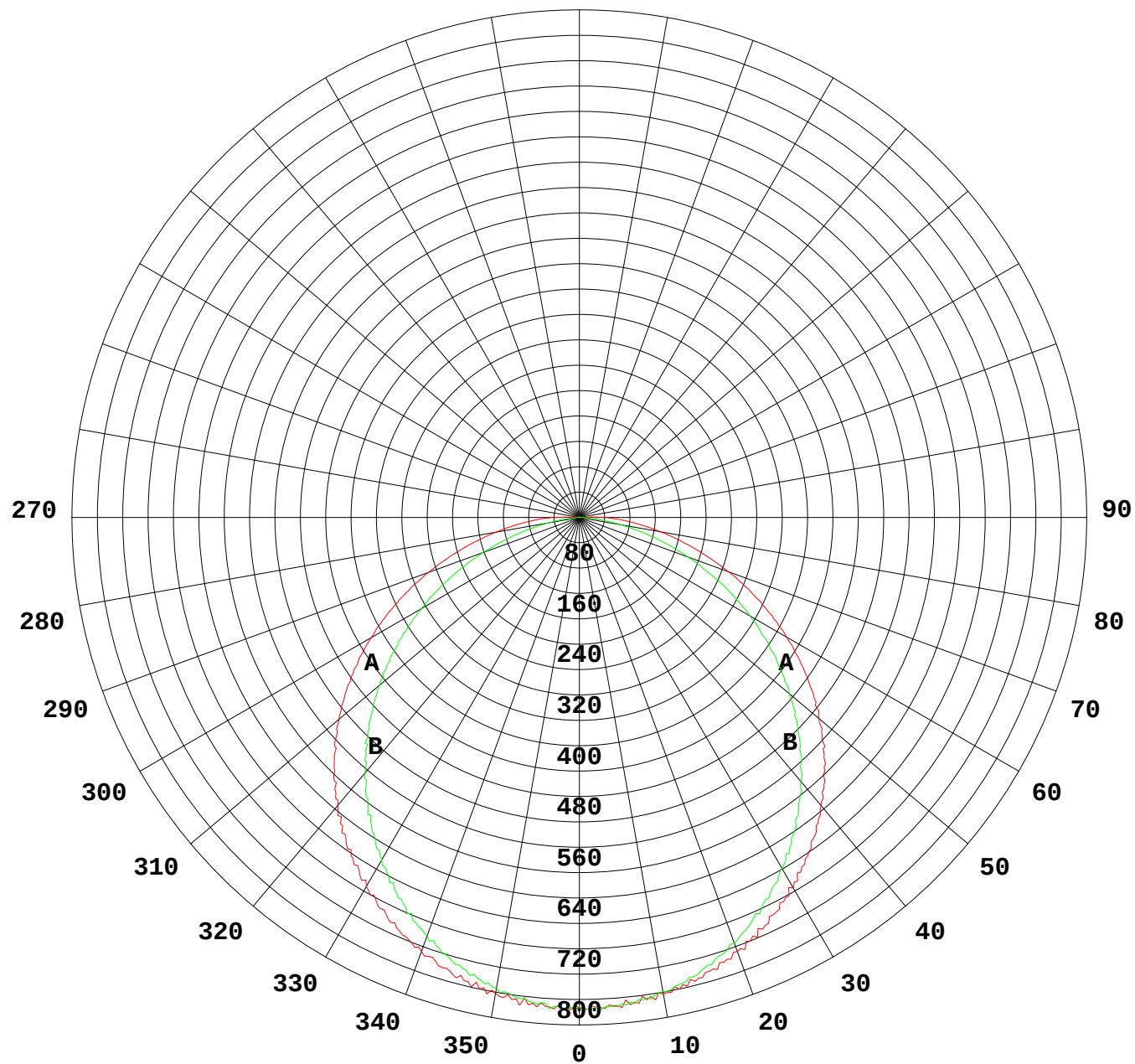
C Range: 0 - 360DEG  
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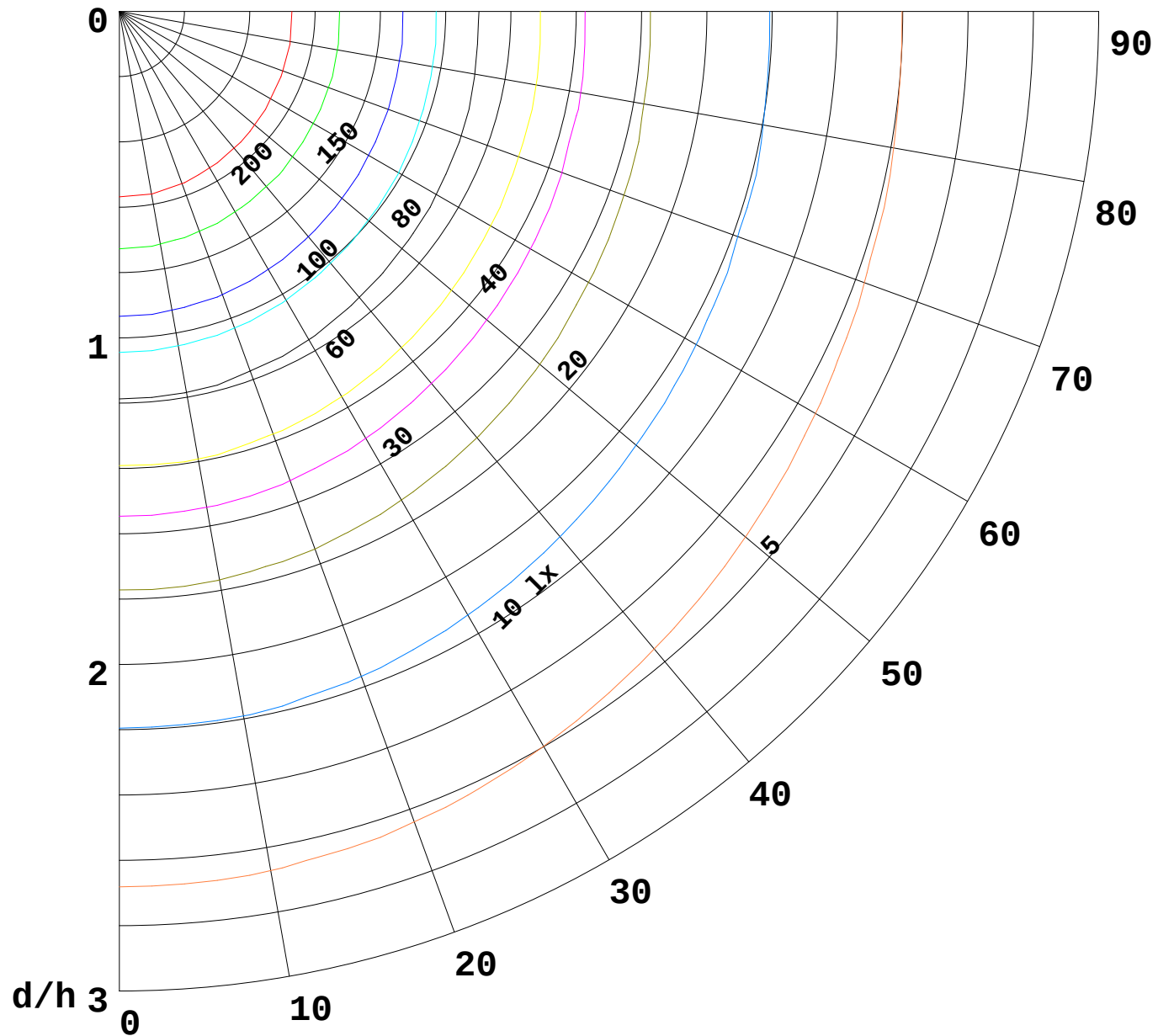
Assessor: Akin Xu

**I(cd)**



1000 lm

K = 1



F = 1000 lm  
 K = 0.7  
 Hcc = 0.8 m  
 Hfc = 0.0 m  
 Eave = 100 lx

|       | Pcc | Pw | Pfc |
|-------|-----|----|-----|
| ————— | 70  | 50 | 30  |
| ————— | 50  | 30 | 20  |

