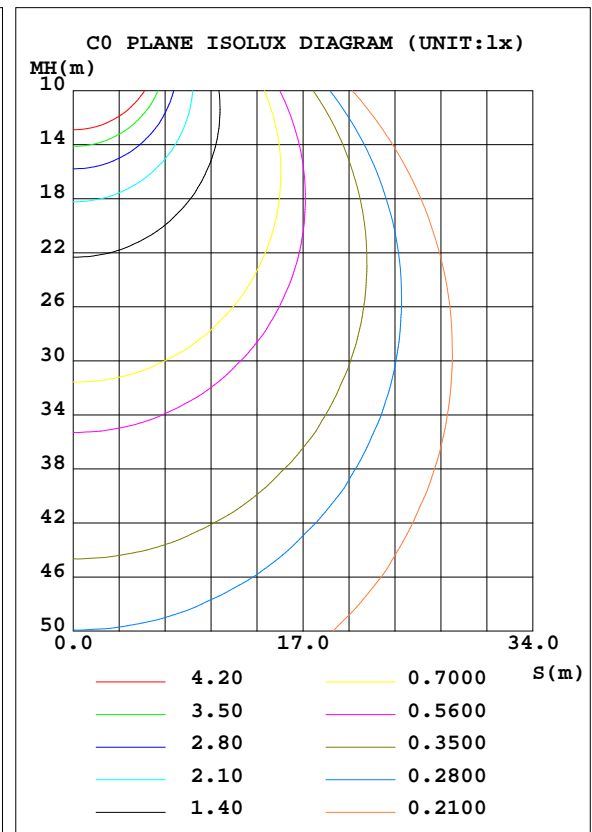
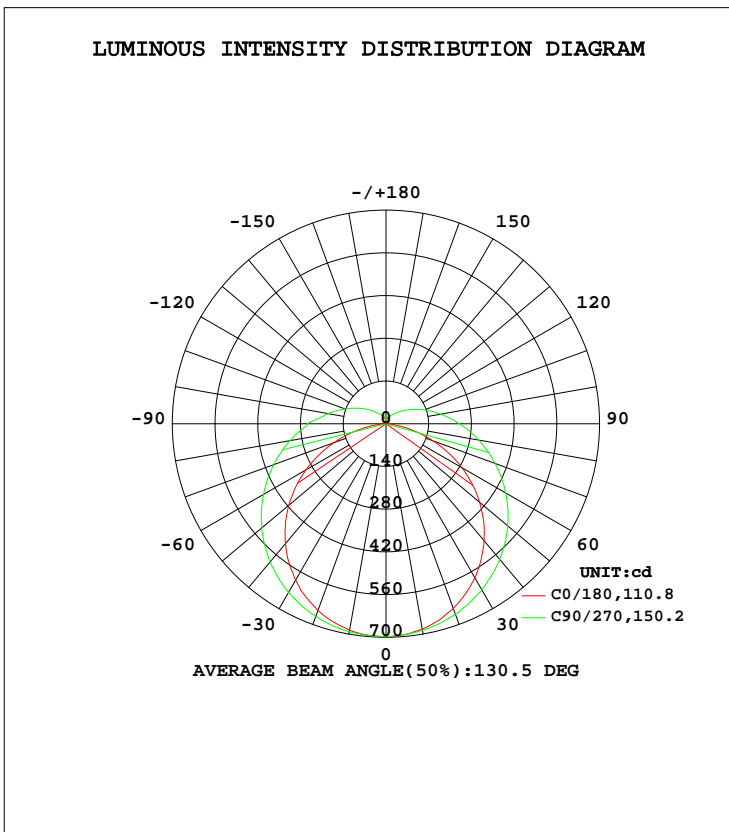


LUMINAIRE PHOTOMETRIC TEST REPORT

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |

| DATA OF LAMP                     |      | PHOTOMETRIC DATA Eff: 80 lm/W |         |                    |          |
|----------------------------------|------|-------------------------------|---------|--------------------|----------|
| MODEL ASD-LVF21-36D30CC-NK 3000K |      | Imax(cd)                      | 698.5   | S/MH(C0/180)       | 1.24     |
| NOMINAL POWER(W)                 |      | LOR(%)                        | 100.0   | S/MH(C90/270)      | 1.35     |
| RATED VOLTAGE(V)                 | 120  | TOTAL FLUX(lm)                | 2400    | η UP, DN(C0-180)   | 7.1,43.7 |
| NOMINAL FLUX(lm)                 | 2400 | CIE CLASS                     | SEMI-D. | η UP, DN(C180-360) | 6.5,42.7 |
| LAMPS INSIDE                     | 1    | η up(%)                       | 13.6    | CIBSE SHR NOM      | 1.50     |
| TEST VOLTAGE(V)                  | 120  | η down(%)                     | 86.4    | CIBSE SHR MAX      | 1.50     |



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

| $\gamma$ | C0                    | C45   | C90   | C135  | C180   | C225  | C270  | C315  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum,lamp |
|----------|-----------------------|-------|-------|-------|--------|-------|-------|-------|----------|-------------|--------------|-----------|
| 10       | 687.2                 | 691.1 | 692.2 | 688.2 | 683.4  | 684.8 | 687.5 | 685.7 | 0- 10    | 66.10       | 66.10        | 2.31,2.31 |
| 20       | 651.2                 | 663.8 | 671.7 | 659.3 | 644.8  | 654.6 | 664.5 | 655.2 | 10- 20   | 190.7       | 256.8        | 8.97,8.97 |
| 30       | 591.9                 | 618.3 | 638.2 | 611.6 | 582.5  | 605.5 | 628.2 | 606.5 | 20- 30   | 293.5       | 550.3        | 19.2,19.2 |
| 40       | 512.9                 | 556.2 | 590.9 | 548.7 | 500.1  | 541.2 | 579.5 | 542.3 | 30- 40   | 363.2       | 913.6        | 31.9,31.9 |
| 50       | 415.7                 | 481.2 | 531.4 | 471.2 | 400.8  | 465.2 | 520.5 | 466.0 | 40- 50   | 393.0       | 1307         | 45.6,45.6 |
| 60       | 302.8                 | 397.5 | 463.4 | 386.9 | 286.3  | 382.5 | 453.2 | 382.8 | 50- 60   | 381.6       | 1688         | 58.9,58.9 |
| 70       | 181.3                 | 312.8 | 391.4 | 301.8 | 164.4  | 298.8 | 380.9 | 297.8 | 60- 70   | 334.0       | 2022         | 70.6,70.6 |
| 80       | 64.39                 | 234.4 | 319.7 | 223.6 | 50.11  | 221.2 | 308.3 | 219.3 | 70- 80   | 263.0       | 2285         | 79.8,79.8 |
| 90       | 0.4939                | 169.3 | 256.9 | 160.1 | 0.1280 | 156.8 | 240.8 | 153.9 | 80- 90   | 188.9       | 2474         | 86.4,86.4 |
| 100      | 1.358                 | 118.8 | 192.6 | 111.0 | 1.655  | 107.3 | 181.9 | 104.1 | 90-100   | 132.8       | 2607         | 91,91     |
| 110      | 5.546                 | 81.06 | 142.8 | 76.11 | 6.090  | 73.12 | 132.1 | 70.10 | 100-110  | 91.39       | 2698         | 94.2,94.2 |
| 120      | 10.12                 | 55.46 | 102.0 | 52.64 | 10.87  | 50.48 | 93.41 | 47.99 | 110-120  | 61.43       | 2760         | 96.4,96.4 |
| 130      | 14.74                 | 39.42 | 71.01 | 37.96 | 15.41  | 35.97 | 64.49 | 34.37 | 120-130  | 40.58       | 2800         | 97.8,97.8 |
| 140      | 18.97                 | 30.41 | 48.29 | 30.11 | 19.27  | 26.92 | 43.76 | 26.77 | 130-140  | 26.51       | 2827         | 98.7,98.7 |
| 150      | 22.49                 | 26.59 | 34.62 | 26.45 | 22.39  | 22.12 | 30.30 | 24.02 | 140-150  | 17.42       | 2844         | 99.3,99.3 |
| 160      | 21.50                 | 24.90 | 27.45 | 24.74 | 20.84  | 19.34 | 23.56 | 22.28 | 150-160  | 11.39       | 2856         | 99.7,99.7 |
| 170      | 17.62                 | 24.87 | 26.24 | 20.91 | 17.45  | 18.17 | 21.78 | 22.68 | 160-170  | 6.364       | 2862         | 99.9,99.9 |
| 180      | 21.64                 | 21.37 | 12.01 | 19.55 | 21.37  | 20.88 | 16.48 | 17.54 | 170-180  | 1.977       | 2864         | 100,100   |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |        |       |       |       |          | UNIT:lm     |              |           |

Conical surface Flux(90deg): 1109 lm

%lum = 38.7%

%lamp = 38.7%

Conical surface Flux(120deg): 1688.1 lm

%lum = 58.9%

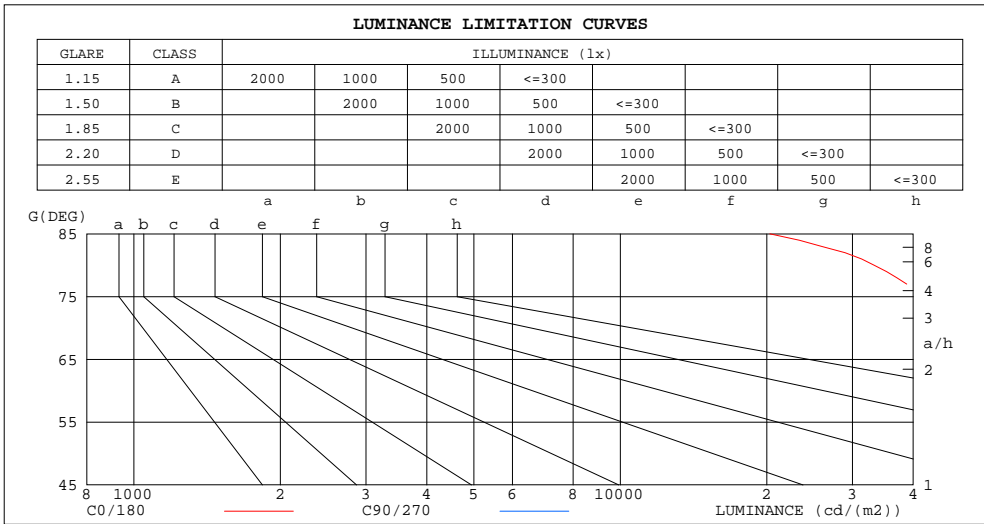
%lamp = 58.9%

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 20292  | 292492  |
| 80                | 33236  | 165058  |
| 75                | 41739  | 122856  |
| 70                | 47514  | 102576  |
| 65                | 51518  | 90697   |
| 60                | 54284  | 83077   |
| 55                | 56418  | 77982   |
| 50                | 57964  | 74112   |
| 45                | 59062  | 71314   |

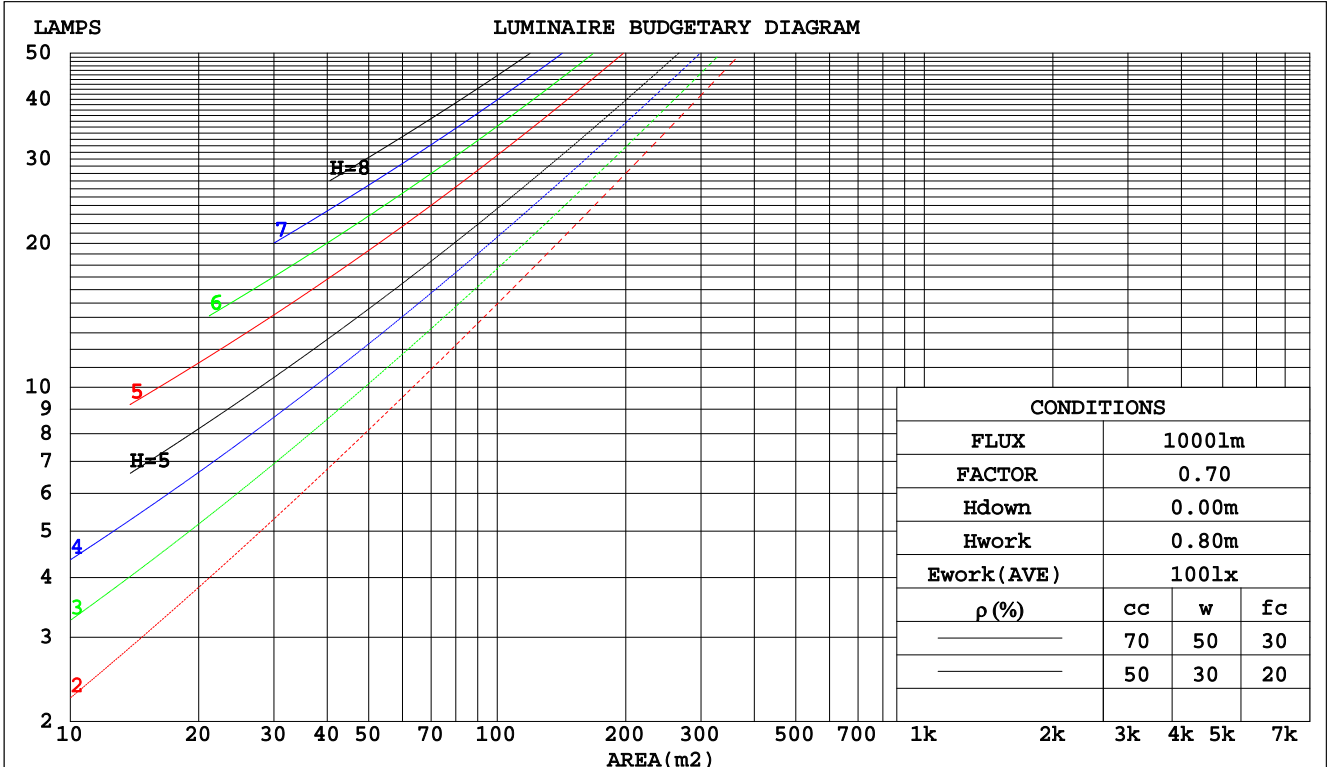
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |

| pcc  | 80%                             |      |      | 70%  |      |      | 50%  |      |      | 30% |     |     | 10% |     |     | 0   |
|------|---------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
|      | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50% | 30% | 10% | 50% | 30% | 10% | 0   |
| pw   |                                 |      |      |      |      |      |      |      |      |     |     |     |     |     |     | 0   |
| pfc  | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 20% |     |     | 20% |     |     | 0   |
| RCR  | RCR:Room Cavity Ratio           |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |
|      | Coefficients of Utilization(CU) |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |
| 0.0  | 1.16                            | 1.16 | 1.16 | 1.12 | 1.12 | 1.12 | 1.04 | 1.04 | 1.04 | .96 | .96 | .96 | .90 | .90 | .90 | .86 |
| 1.0  | .97                             | .92  | .87  | .94  | .89  | .85  | .87  | .83  | .79  | .81 | .77 | .75 | .75 | .72 | .70 | .67 |
| 2.0  | .83                             | .76  | .69  | .80  | .73  | .67  | .74  | .69  | .64  | .69 | .64 | .60 | .64 | .60 | .57 | .54 |
| 3.0  | .73                             | .64  | .57  | .70  | .62  | .55  | .65  | .58  | .52  | .60 | .55 | .50 | .56 | .51 | .47 | .44 |
| 4.0  | .64                             | .54  | .47  | .62  | .53  | .46  | .57  | .50  | .44  | .53 | .47 | .42 | .50 | .44 | .40 | .37 |
| 5.0  | .57                             | .47  | .40  | .55  | .46  | .39  | .51  | .43  | .38  | .48 | .41 | .36 | .44 | .39 | .34 | .32 |
| 6.0  | .51                             | .41  | .35  | .49  | .40  | .34  | .46  | .38  | .33  | .43 | .36 | .31 | .40 | .34 | .30 | .28 |
| 7.0  | .46                             | .37  | .30  | .44  | .36  | .30  | .42  | .34  | .29  | .39 | .32 | .28 | .36 | .31 | .26 | .24 |
| 8.0  | .42                             | .33  | .27  | .40  | .32  | .26  | .38  | .31  | .25  | .36 | .29 | .25 | .33 | .28 | .24 | .21 |
| 9.0  | .38                             | .30  | .24  | .37  | .29  | .24  | .35  | .28  | .23  | .33 | .26 | .22 | .31 | .25 | .21 | .19 |
| 10.0 | .35                             | .27  | .22  | .34  | .26  | .21  | .32  | .25  | .21  | .30 | .24 | .20 | .29 | .23 | .19 | .17 |



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

WEC AND CCEC

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |

| 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  | .374                  | .212 | .067 | .362 | .207 | .066 | .341                            | .196 | .062 | .321 | .185 | .059 | .303 | .176 | .057 |   |
| 2.0  | .327                  | .179 | .055 | .317 | .175 | .054 | .298                            | .166 | .051 | .280 | .157 | .049 | .264 | .149 | .047 |   |
| 3.0  | .293                  | .156 | .047 | .283 | .152 | .046 | .266                            | .144 | .044 | .250 | .137 | .042 | .235 | .130 | .040 |   |
| 4.0  | .264                  | .137 | .040 | .256 | .134 | .040 | .241                            | .128 | .038 | .226 | .121 | .037 | .213 | .115 | .035 |   |
| 5.0  | .241                  | .123 | .036 | .234 | .120 | .035 | .219                            | .114 | .034 | .206 | .109 | .032 | .194 | .104 | .031 |   |
| 6.0  | .221                  | .111 | .032 | .214 | .108 | .031 | .202                            | .103 | .030 | .190 | .099 | .029 | .178 | .094 | .028 |   |
| 7.0  | .204                  | .101 | .029 | .198 | .099 | .028 | .186                            | .094 | .027 | .175 | .090 | .026 | .165 | .086 | .025 |   |
| 8.0  | .190                  | .093 | .026 | .184 | .091 | .026 | .173                            | .087 | .025 | .163 | .083 | .024 | .154 | .079 | .023 |   |
| 9.0  | .177                  | .086 | .024 | .172 | .084 | .023 | .162                            | .080 | .023 | .153 | .077 | .022 | .144 | .073 | .021 |   |
| 10.0 | .166                  | .079 | .022 | .161 | .078 | .022 | .152                            | .074 | .021 | .143 | .071 | .020 | .135 | .068 | .020 |   |

| 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 |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .294                  | .294 | .294 | .251 | .251 | .251 | .172                                       | .172 | .172 | .099 | .099 | .099 | .032 | .032 | .032 |   |
| 1.0  | .289                  | .260 | .234 | .248 | .223 | .201 | .169                                       | .154 | .139 | .097 | .089 | .081 | .031 | .029 | .026 |   |
| 2.0  | .282                  | .237 | .199 | .242 | .204 | .172 | .166                                       | .141 | .120 | .096 | .082 | .070 | .031 | .027 | .023 |   |
| 3.0  | .275                  | .220 | .177 | .235 | .190 | .153 | .162                                       | .132 | .108 | .093 | .077 | .063 | .030 | .025 | .021 |   |
| 4.0  | .267                  | .208 | .162 | .229 | .179 | .141 | .158                                       | .125 | .099 | .091 | .073 | .059 | .029 | .024 | .019 |   |
| 5.0  | .259                  | .198 | .152 | .223 | .171 | .132 | .153                                       | .119 | .094 | .089 | .070 | .055 | .029 | .023 | .018 |   |
| 6.0  | .252                  | .190 | .145 | .216 | .164 | .126 | .149                                       | .115 | .089 | .087 | .068 | .053 | .028 | .022 | .018 |   |
| 7.0  | .245                  | .183 | .140 | .211 | .159 | .122 | .145                                       | .111 | .086 | .085 | .066 | .051 | .027 | .021 | .017 |   |
| 8.0  | .238                  | .177 | .136 | .205 | .154 | .118 | .142                                       | .108 | .084 | .082 | .064 | .050 | .027 | .021 | .017 |   |
| 9.0  | .232                  | .173 | .133 | .200 | .150 | .116 | .138                                       | .105 | .082 | .081 | .062 | .049 | .026 | .020 | .016 |   |
| 10.0 | .226                  | .168 | .130 | .195 | .146 | .113 | .135                                       | .103 | .081 | .079 | .061 | .048 | .026 | .020 | .016 |   |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

|   |                  |      |      |      |           |                |      |                     |      |      |
|---|------------------|------|------|------|-----------|----------------|------|---------------------|------|------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |                  |      |      |      |           |                |      |                     |      |      |
| NAME: ASD-LVF21-36D30CC-NK 3000K  |                  |      |      |      | TYPE:N/A  |                |      | WEIGHT:N/A          |      |      |
| SPEC.:N/A   |                  |      |      |      | DIM.: N/A |                |      | SERIAL No.:N/A      |      |      |
| MFR.: ASD Lighting corp   |                  |      |      |      | SUR.:N/A  |                |      | Shielding Angle:N/A |      |      |
| 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   | 22.2             | 23.6 | 22.7 | 24.1 | 24.5      | 23.9           | 25.3 | 24.4                | 25.8 | 26.3 |
| 3H  | 23.7             | 25.0 | 24.2 | 25.5 | 26.0      | 26.4           | 27.7 | 26.9                | 28.2 | 28.7 |
| 4H  | 24.3             | 25.5 | 24.8 | 26.0 | 26.5      | 27.8           | 29.1 | 28.3                | 29.5 | 30.1 |
| 6H  | 24.6             | 25.8 | 25.1 | 26.3 | 26.9      | 29.3           | 30.5 | 29.8                | 31.0 | 31.6 |
| 8H  | 24.7             | 25.9 | 25.3 | 26.4 | 26.9      | 30.1           | 31.3 | 30.7                | 31.8 | 32.4 |
| 12H   | 24.7             | 25.8 | 25.3 | 26.4 | 27.0      | 31.1           | 32.2 | 31.6                | 32.7 | 33.3 |
| 4H 2H   | 23.2             | 24.5 | 23.7 | 25.0 | 25.5      | 24.5           | 25.7 | 25.0                | 26.2 | 26.8 |
| 3H  | 25.0             | 26.1 | 25.5 | 26.6 | 27.2      | 27.3           | 28.3 | 27.8                | 28.9 | 29.5 |
| 4H  | 25.7             | 26.7 | 26.3 | 27.3 | 27.9      | 28.8           | 29.8 | 29.4                | 30.4 | 31.0 |
| 6H  | 26.3             | 27.2 | 26.9 | 27.8 | 28.4      | 30.5           | 31.4 | 31.1                | 32.0 | 32.7 |
| 8H  | 26.5             | 27.3 | 27.1 | 27.9 | 28.6      | 31.5           | 32.3 | 32.1                | 32.9 | 33.6 |
| 12H   | 26.6             | 27.3 | 27.2 | 28.0 | 28.6      | 32.6           | 33.4 | 33.2                | 34.0 | 34.7 |
| 8H 4H   | 26.7             | 27.5 | 27.3 | 28.1 | 28.8      | 29.2           | 30.0 | 29.8                | 30.6 | 31.3 |
| 6H  | 27.6             | 28.3 | 28.2 | 28.9 | 29.6      | 31.2           | 31.9 | 31.8                | 32.5 | 33.2 |
| 8H  | 28.0             | 28.6 | 28.6 | 29.2 | 30.0      | 32.3           | 33.0 | 33.0                | 33.6 | 34.4 |
| 12H   | 28.3             | 28.8 | 28.9 | 29.5 | 30.2      | 33.7           | 34.3 | 34.4                | 34.9 | 35.7 |
| 12H 4H  | 27.0             | 27.7 | 27.6 | 28.3 | 29.0      | 29.2           | 29.9 | 29.8                | 30.6 | 31.3 |
| 6H  | 28.1             | 28.7 | 28.8 | 29.4 | 30.1      | 31.3           | 31.9 | 31.9                | 32.6 | 33.3 |
| 8H  | 28.7             | 29.2 | 29.3 | 29.9 | 30.6      | 32.6           | 33.1 | 33.2                | 33.8 | 34.6 |
| Variations with the observer position at spacings:                        |                  |      |      |      |           |                |      |                     |      |      |
| S = 1.0H  | + 0.1 / - 0.1    |      |      |      |           | + 0.1 / - 0.1  |      |                     |      |      |
| 1.5H  | + 0.2 / - 0.3    |      |      |      |           | + 0.2 / - 0.3  |      |                     |      |      |
| 2.0H  | + 0.2 / - 0.4    |      |      |      |           | + 0.2 / - 0.4  |      |                     |      |      |

CIE Pub.117, 2864 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.7)

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |

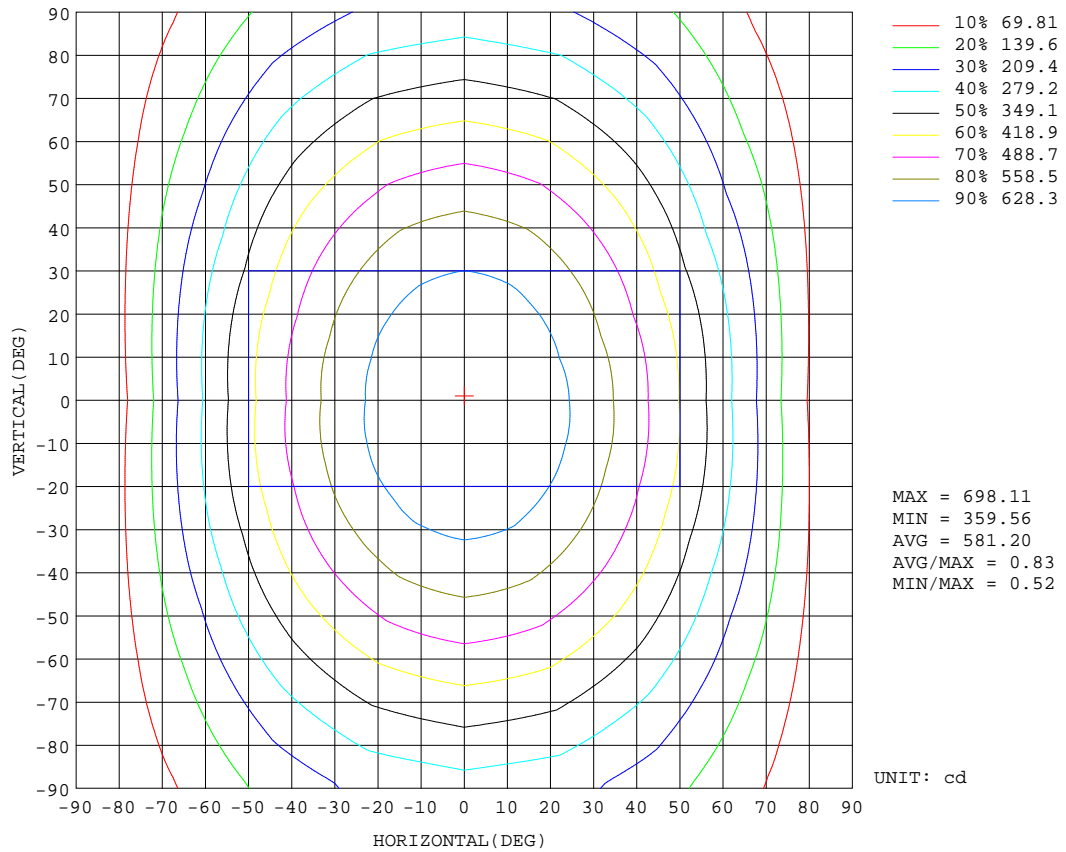
| REFLECTANCE                      |   |     |           |     |     |     |               |     |     |        |
|----------------------------------|---|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling                          | 0.8   | 0.8 | 0.8       | 0.7 | 0.7 | 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      |
| ROOM INDEX                       | UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$ |     |           |     |     |     |               |     |     |        |
| k = 0.60                         | 50  | 37  | 30        | 49  | 37  | 30  | 47            | 36  | 30  | 23     |
| 0.80                             | 59  | 46  | 38        | 58  | 46  | 38  | 55            | 44  | 37  | 30     |
| 1.00                             | 67  | 54  | 46        | 65  | 53  | 46  | 62            | 54  | 45  | 36     |
| 1.25                             | 74  | 62  | 53        | 72  | 60  | 53  | 68            | 58  | 51  | 42     |
| 1.50                             | 79  | 67  | 59        | 77  | 66  | 58  | 72            | 63  | 56  | 46     |
| 2.00                             | 86  | 76  | 68        | 83  | 74  | 66  | 78            | 70  | 64  | 53     |
| 2.50                             | 91  | 81  | 73        | 88  | 79  | 72  | 82            | 75  | 69  | 57     |
| 3.00                             | 94  | 85  | 78        | 91  | 83  | 76  | 85            | 78  | 73  | 61     |
| 4.00                             | 99  | 91  | 85        | 95  | 89  | 83  | 89            | 83  | 79  | 66     |
| 5.00                             | 102   | 95  | 90        | 98  | 92  | 87  | 91            | 87  | 82  | 69     |
| ROOM INDEX                       | UF(total)   |     |           |     |     |     |               |     |     | Direct |
| According to DIN EN 13032-2 2004 |   |     | Suspended |     |     |     | SHRNOM = 1.25 |     |     |        |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |



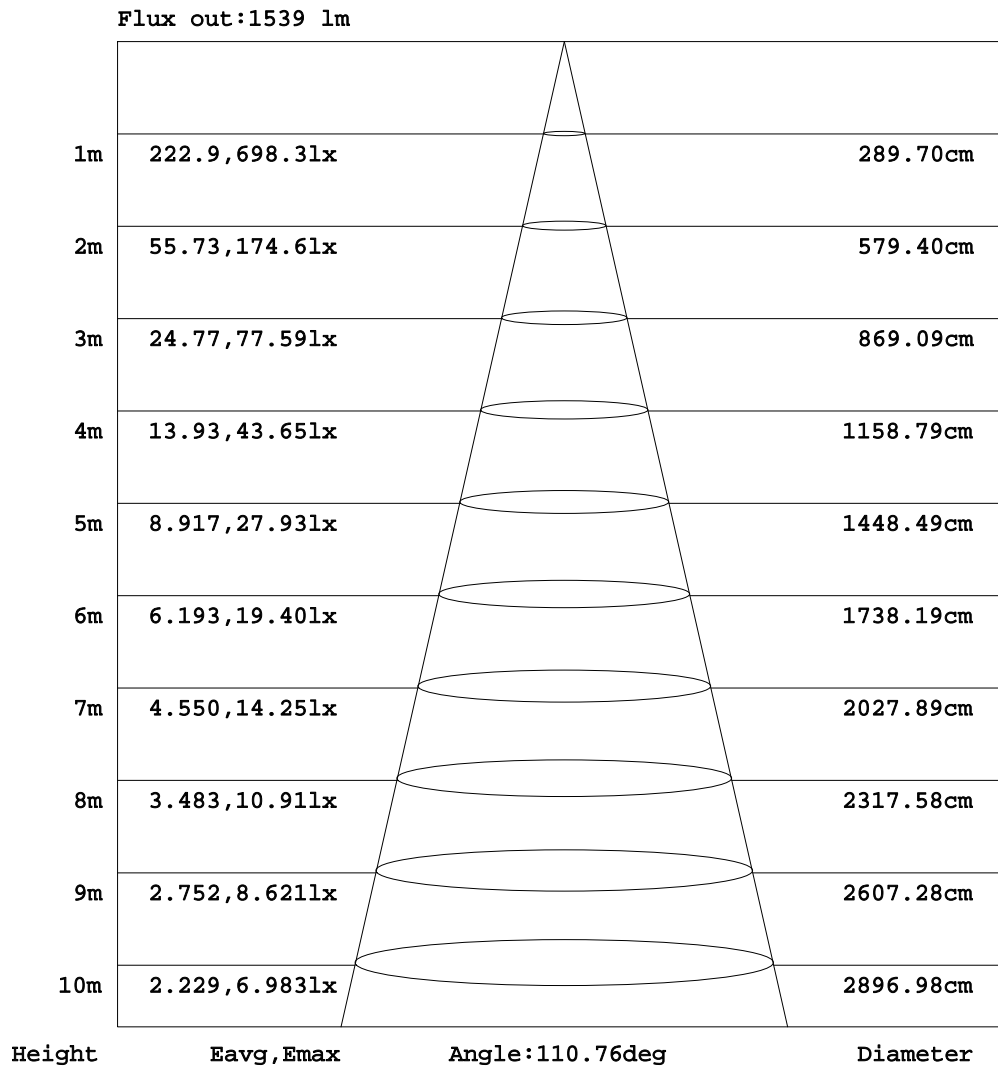
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:



AAI Figure

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |



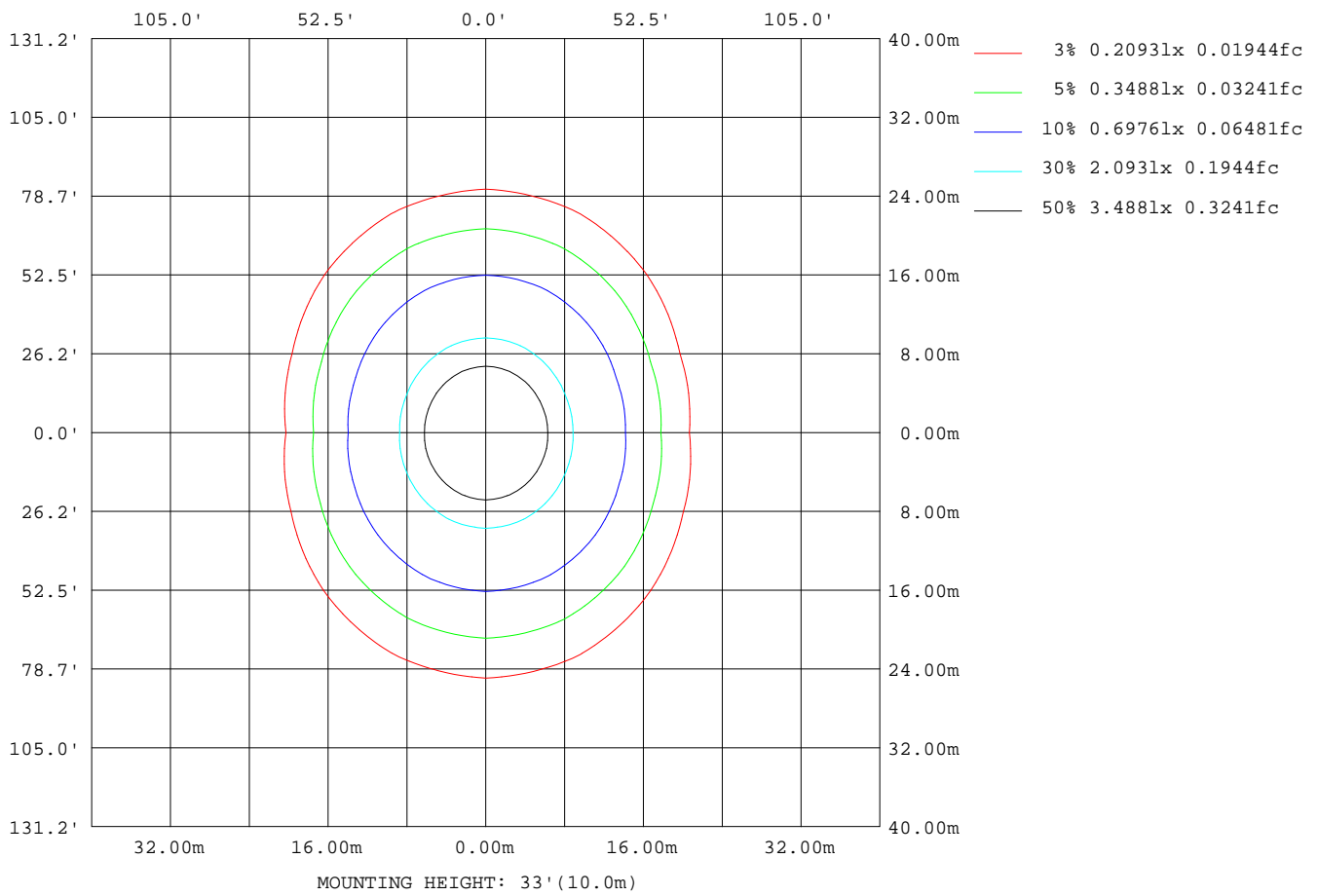
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks:

## LED Avg.L Report

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |

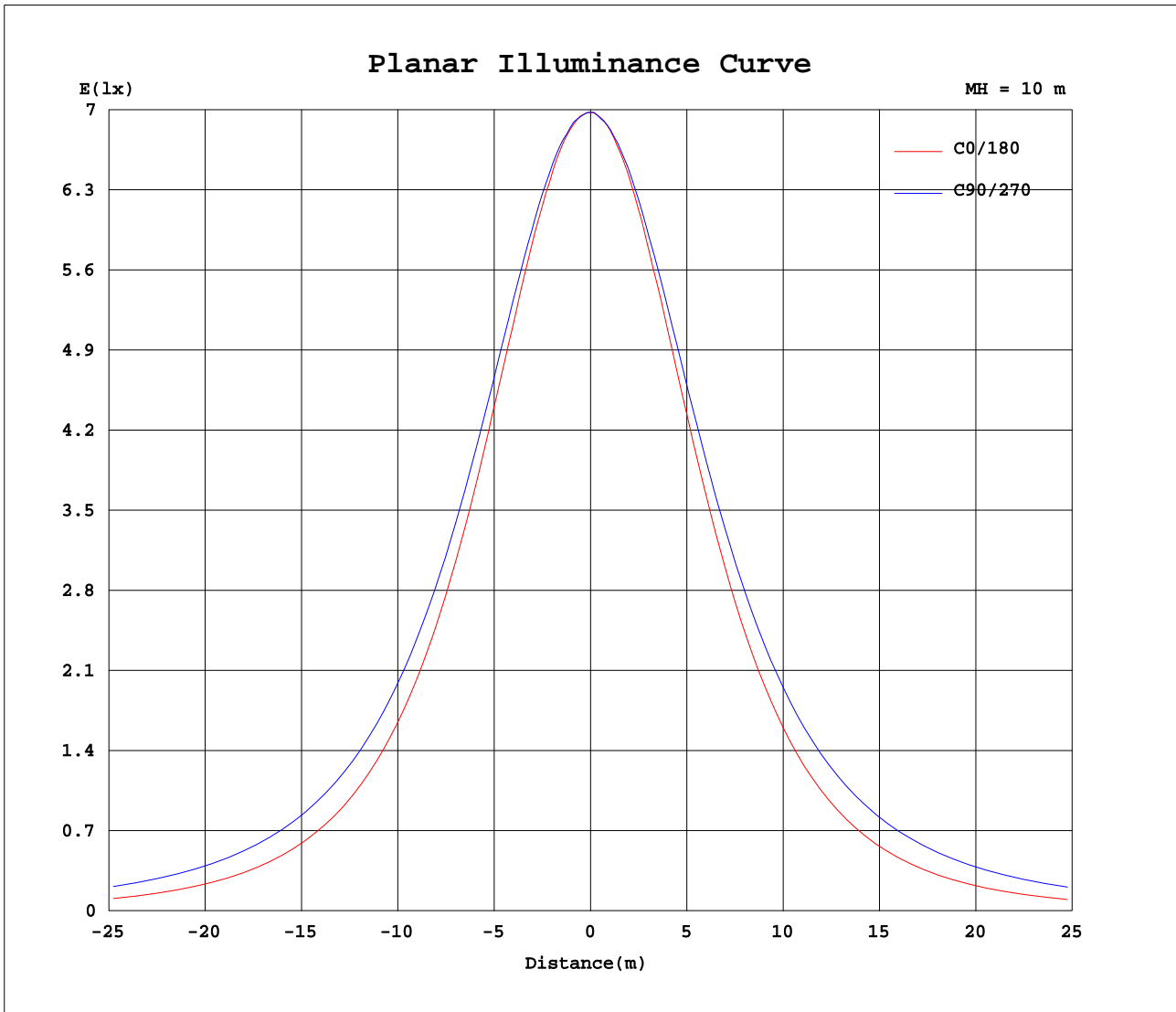
| AvgL           | cd/m2  |
|----------------|--------|
| L_0~180(65)av  | 49694  |
| L_0~180(75)av  | 38827  |
| L_0~180(85)av  | 16567  |
| L_90~270(65)av | 89527  |
| L_90~270(75)av | 120991 |
| L_90~270(85)av | 286949 |
| L_45(65)av     | 73137  |
| L_45(75)av     | 90924  |
| L_45(85)av     | 195807 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.9DEG  
Operators:Hill  
Test Date:2022-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
Humidity:46%  
Test Distance:2.526m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.9DEG  
 Operators: Hill  
 Test Date: 2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity: 46%  
 Test Distance: 2.526m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

|   |           |                     |
|---|-----------|---------------------|
| Test:U:120.01V I:0.2654A P:30W PF:0.9187 Freq:60.00Hz Lamp Flux:2400x1 lm |           |                     |
| NAME: ASD-LVF21-36D30CC-NK 3000K  | TYPE:N/A  | WEIGHT:N/A          |
| SPEC.:N/A   | DIM.: N/A | SERIAL No.:N/A      |
| MFR.: ASD Lighting corp   | SUR.:N/A  | Shielding Angle:N/A |

Table--1

UNIT: cd

| C(DEG)\<br>γ (DEG) | 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                  | 697  | 697  | 697  | 697  | 697  | 697   | 697  | 697   | 697  | 697   | 697  | 697   | 697  | 697   | 697  | 697   |  |  |  |
| 5                  | 695  | 697  | 697  | 697  | 697  | 696   | 696  | 695   | 694  | 694   | 695  | 694   | 694  | 694   | 694  | 695   |  |  |  |
| 10                 | 687  | 687  | 691  | 692  | 692  | 692   | 688  | 686   | 683  | 682   | 685  | 687   | 687  | 688   | 686  | 685   |  |  |  |
| 15                 | 672  | 675  | 681  | 683  | 684  | 681   | 677  | 672   | 668  | 668   | 673  | 676   | 678  | 676   | 674  | 670   |  |  |  |
| 20                 | 651  | 654  | 664  | 671  | 672  | 669   | 659  | 652   | 645  | 646   | 655  | 661   | 665  | 663   | 655  | 650   |  |  |  |
| 25                 | 624  | 631  | 644  | 653  | 657  | 651   | 639  | 626   | 615  | 620   | 632  | 643   | 648  | 644   | 633  | 623   |  |  |  |
| 30                 | 592  | 601  | 618  | 633  | 638  | 630   | 612  | 595   | 582  | 588   | 606  | 621   | 628  | 622   | 606  | 592   |  |  |  |
| 35                 | 555  | 566  | 590  | 609  | 616  | 605   | 582  | 560   | 544  | 551   | 575  | 596   | 605  | 597   | 576  | 556   |  |  |  |
| 40                 | 513  | 526  | 556  | 582  | 591  | 578   | 549  | 519   | 500  | 511   | 541  | 569   | 579  | 569   | 542  | 516   |  |  |  |
| 45                 | 466  | 484  | 521  | 552  | 563  | 546   | 512  | 476   | 452  | 467   | 505  | 538   | 552  | 538   | 506  | 472   |  |  |  |
| 50                 | 416  | 437  | 481  | 519  | 531  | 514   | 471  | 428   | 401  | 420   | 465  | 505   | 520  | 505   | 466  | 425   |  |  |  |
| 55                 | 361  | 388  | 441  | 484  | 499  | 477   | 430  | 378   | 345  | 371   | 425  | 470   | 488  | 470   | 425  | 374   |  |  |  |
| 60                 | 303  | 337  | 398  | 447  | 463  | 441   | 387  | 326   | 286  | 319   | 382  | 434   | 453  | 433   | 383  | 323   |  |  |  |
| 65                 | 243  | 285  | 356  | 410  | 428  | 402   | 344  | 273   | 226  | 268   | 340  | 396   | 417  | 396   | 340  | 270   |  |  |  |
| 70                 | 181  | 233  | 313  | 372  | 391  | 365   | 302  | 221   | 164  | 217   | 299  | 359   | 381  | 358   | 298  | 218   |  |  |  |
| 75                 | 121  | 184  | 273  | 335  | 355  | 328   | 261  | 172   | 104  | 170   | 259  | 322   | 344  | 321   | 257  | 170   |  |  |  |
| 80                 | 64.4 | 140  | 234  | 299  | 320  | 292   | 224  | 128   | 50.1 | 127   | 221  | 286   | 308  | 285   | 219  | 125   |  |  |  |
| 85                 | 19.7 | 103  | 200  | 264  | 284  | 257   | 190  | 92.0  | 12.5 | 91.9  | 187  | 251   | 274  | 250   | 185  | 88.9  |  |  |  |
| 90                 | 0.49 | 76.1 | 169  | 237  | 257  | 230   | 160  | 65.3  | 0.13 | 65.5  | 157  | 219   | 241  | 218   | 154  | 61.6  |  |  |  |
| 95                 | 0.37 | 56.4 | 141  | 200  | 218  | 194   | 133  | 48.1  | 0.45 | 47.1  | 130  | 190   | 210  | 188   | 126  | 43.0  |  |  |  |
| 100                | 1.36 | 40.4 | 119  | 175  | 193  | 170   | 111  | 34.9  | 1.65 | 35.0  | 107  | 163   | 182  | 161   | 104  | 31.3  |  |  |  |
| 105                | 3.29 | 31.1 | 98.3 | 150  | 166  | 145   | 91.9 | 27.2  | 3.72 | 27.4  | 88.5 | 138   | 156  | 136   | 85.1 | 24.1  |  |  |  |
| 110                | 5.55 | 25.3 | 81.1 | 127  | 143  | 124   | 76.1 | 22.7  | 6.09 | 22.7  | 73.1 | 117   | 132  | 115   | 70.1 | 20.1  |  |  |  |
| 115                | 7.84 | 21.9 | 67.1 | 107  | 121  | 104   | 63.4 | 20.1  | 8.47 | 19.9  | 60.5 | 97.9  | 112  | 96.1  | 57.8 | 17.8  |  |  |  |
| 120                | 10.1 | 19.9 | 55.5 | 89.8 | 102  | 87.6  | 52.6 | 19.1  | 10.9 | 18.3  | 50.5 | 81.8  | 93.4 | 80.2  | 48.0 | 16.6  |  |  |  |
| 125                | 12.5 | 19.2 | 46.4 | 74.8 | 85.3 | 73.1  | 44.4 | 18.9  | 13.2 | 17.6  | 42.4 | 68.1  | 77.9 | 66.8  | 40.3 | 16.4  |  |  |  |
| 130                | 14.7 | 19.3 | 39.4 | 62.0 | 71.0 | 60.9  | 38.0 | 19.2  | 15.4 | 17.5  | 36.0 | 56.5  | 64.5 | 55.3  | 34.4 | 16.7  |  |  |  |
| 135                | 16.9 | 19.5 | 33.9 | 51.5 | 58.6 | 50.6  | 33.1 | 19.7  | 17.4 | 17.7  | 30.8 | 46.8  | 53.2 | 46.0  | 29.8 | 17.2  |  |  |  |
| 140                | 19.0 | 19.9 | 30.4 | 42.9 | 48.3 | 42.4  | 30.1 | 20.3  | 19.3 | 17.8  | 26.9 | 38.6  | 43.8 | 38.5  | 26.8 | 17.7  |  |  |  |
| 145                | 20.8 | 20.7 | 28.0 | 36.5 | 40.2 | 36.4  | 28.0 | 21.1  | 21.0 | 17.9  | 24.1 | 31.9  | 36.0 | 32.7  | 25.1 | 18.5  |  |  |  |
| 150                | 22.5 | 22.2 | 26.6 | 32.1 | 34.6 | 32.1  | 26.4 | 23.0  | 22.4 | 19.6  | 22.1 | 27.3  | 30.3 | 28.7  | 24.0 | 19.8  |  |  |  |
| 155                | 22.6 | 23.5 | 25.2 | 28.9 | 30.5 | 28.9  | 25.2 | 23.3  | 22.2 | 20.4  | 20.8 | 24.1  | 26.3 | 25.9  | 23.2 | 21.1  |  |  |  |
| 160                | 21.5 | 23.7 | 24.9 | 26.5 | 27.5 | 26.6  | 24.7 | 22.5  | 20.8 | 20.7  | 19.3 | 21.9  | 23.6 | 23.6  | 22.3 | 22.3  |  |  |  |
| 165                | 19.8 | 23.7 | 25.8 | 26.0 | 25.7 | 25.7  | 22.9 | 20.6  | 19.3 | 19.2  | 17.9 | 20.9  | 22.5 | 22.6  | 22.9 | 23.1  |  |  |  |
| 170                | 17.6 | 22.8 | 24.9 | 26.4 | 26.2 | 24.3  | 20.9 | 18.9  | 17.5 | 17.4  | 18.2 | 17.8  | 21.8 | 23.5  | 22.7 | 21.4  |  |  |  |
| 175                | 19.9 | 20.9 | 23.6 | 24.0 | 22.2 | 19.9  | 20.2 | 20.3  | 19.9 | 19.8  | 19.6 | 18.7  | 17.1 | 19.6  | 21.0 | 20.6  |  |  |  |
| 180                | 21.6 | 21.0 | 21.4 | 16.7 | 12.0 | 18.3  | 19.6 | 20.9  | 21.4 | 21.3  | 20.9 | 20.4  | 16.5 | 14.9  | 17.5 | 19.8  |  |  |  |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Hill  
 Test Date:2022-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.351  
 Humidity:46%  
 Test Distance:2.526m [K=1.0000]  
 Remarks: