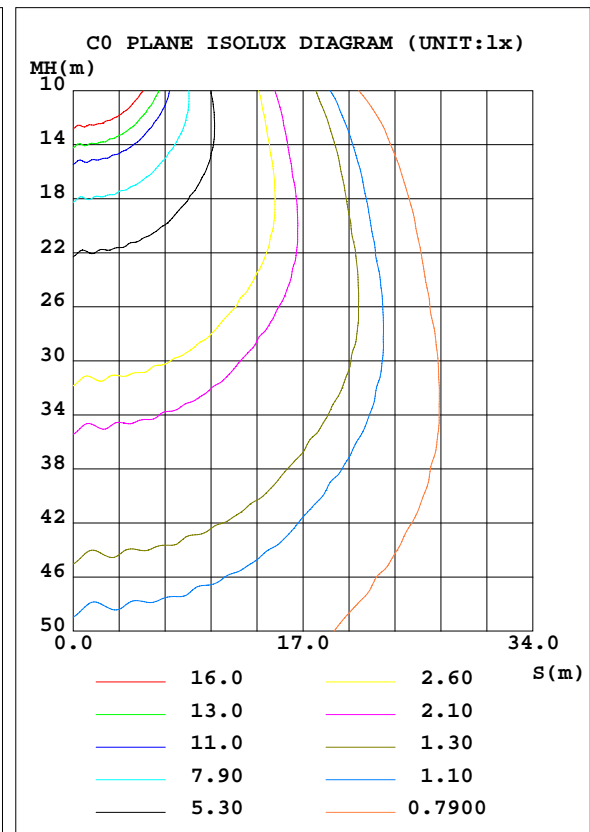
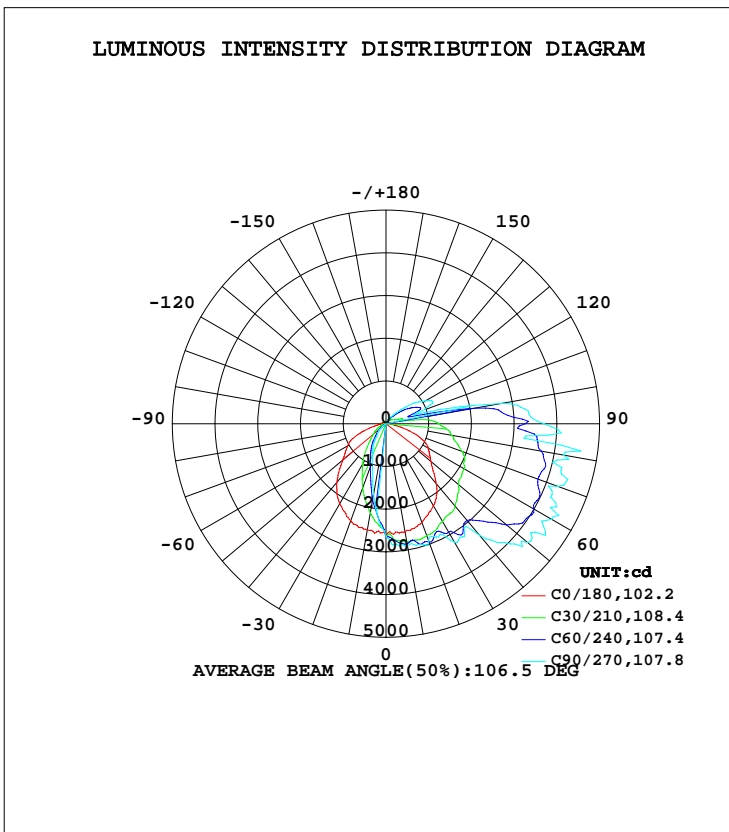


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-WLP01-80D50 | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 145.52 lm/W | | | |
|------------------|-----------------|-----------------------------------|---------|--------------------|-----------|
| MODEL | ASD-WLP01-80D50 | I _{max} (cd) | 4601 | S/MH(C0/180) | 1.23 |
| NOMINAL POWER(W) | 80 | LOR(%) | 100.0 | S/MH(C90/270) | 0.45 |
| RATED VOLTAGE(V) | 120-277 | TOTAL FLUX(lm) | 11874 | η UP, DN(C0-180) | 16.0,71.8 |
| NOMINAL FLUX(lm) | 11874 | CIE CLASS | SEMI-D. | η UP, DN(C180-360) | 0.4,11.8 |
| LAMPS INSIDE | 1 | η up(%) | 16.4 | CIBSE SHR NOM | 1.00 |
| TEST VOLTAGE(V) | 120 | η down(%) | 83.6 | CIBSE SHR MAX | 1.15 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum,lamp |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|-----------|
| 10 | 2582 | 2821 | 2898 | 2807 | 2523 | 1937 | 1673 | 1961 | 0- 10 | 236.1 | 236.1 | 1.99,1.99 |
| 20 | 2461 | 2915 | 2919 | 2839 | 2418 | 1280 | 944.9 | 1281 | 10- 20 | 636.4 | 872.6 | 7.35,7.35 |
| 30 | 2213 | 2718 | 3197 | 2716 | 2163 | 821.5 | 601.5 | 822.5 | 20- 30 | 918.1 | 1791 | 15.1,15.1 |
| 40 | 1831 | 2741 | 3412 | 2673 | 1793 | 504.6 | 313.3 | 504.8 | 30- 40 | 1127 | 2918 | 24.6,24.6 |
| 50 | 1377 | 2775 | 4324 | 2711 | 1321 | 267.9 | 137.2 | 266.0 | 40- 50 | 1291 | 4209 | 35.4,35.4 |
| 60 | 1138 | 3072 | 4478 | 2956 | 1035 | 121.0 | 41.19 | 122.7 | 50- 60 | 1458 | 5667 | 47.7,47.7 |
| 70 | 754.3 | 2926 | 4283 | 2769 | 646.8 | 39.18 | 3.916 | 42.68 | 60- 70 | 1509 | 7175 | 60.4,60.4 |
| 80 | 220.6 | 2848 | 4214 | 2684 | 221.4 | 18.42 | 4.878 | 20.22 | 70- 80 | 1458 | 8633 | 72.7,72.7 |
| 90 | 111.0 | 2345 | 3704 | 2261 | 106.9 | 9.448 | 4.918 | 9.225 | 80- 90 | 1295 | 9928 | 83.6,83.6 |
| 100 | 84.13 | 1274 | 2740 | 1171 | 74.96 | 7.691 | 10.75 | 7.341 | 90-100 | 992.2 | 10920 | 92,92 |
| 110 | 96.78 | 447.6 | 964.0 | 382.9 | 92.39 | 7.740 | 11.19 | 7.950 | 100-110 | 361.7 | 11282 | 95,95 |
| 120 | 51.95 | 414.7 | 1075 | 393.8 | 51.34 | 7.024 | 10.35 | 6.877 | 110-120 | 276.1 | 11558 | 97.3,97.3 |
| 130 | 21.62 | 275.4 | 618.9 | 263.2 | 18.35 | 5.019 | 8.333 | 4.851 | 120-130 | 185.0 | 11743 | 98.9,98.9 |
| 140 | 10.64 | 150.1 | 258.4 | 150.9 | 10.61 | 4.293 | 6.164 | 4.240 | 130-140 | 84.29 | 11827 | 99.6,99.6 |
| 150 | 4.120 | 83.20 | 106.8 | 84.01 | 4.406 | 4.377 | 3.564 | 4.458 | 140-150 | 32.25 | 11860 | 99.9,99.9 |
| 160 | 3.233 | 19.59 | 54.96 | 22.44 | 4.535 | 3.432 | 3.478 | 4.145 | 150-160 | 11.48 | 11871 | 100,100 |
| 170 | 4.620 | 4.253 | 4.485 | 4.304 | 3.641 | 4.189 | 2.197 | 3.403 | 160-170 | 2.376 | 11874 | 100,100 |
| 180 | 9.464 | 9.464 | 9.464 | 9.464 | 4.839 | 4.839 | 4.839 | 4.839 | 170-180 | 0.3885 | 11874 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

Conical surface Flux(90deg): 3538.8 lm

%lum = 29.8%

%lamp = 29.8%

Conical surface Flux(120deg): 5666.5 lm

%lum = 47.7%

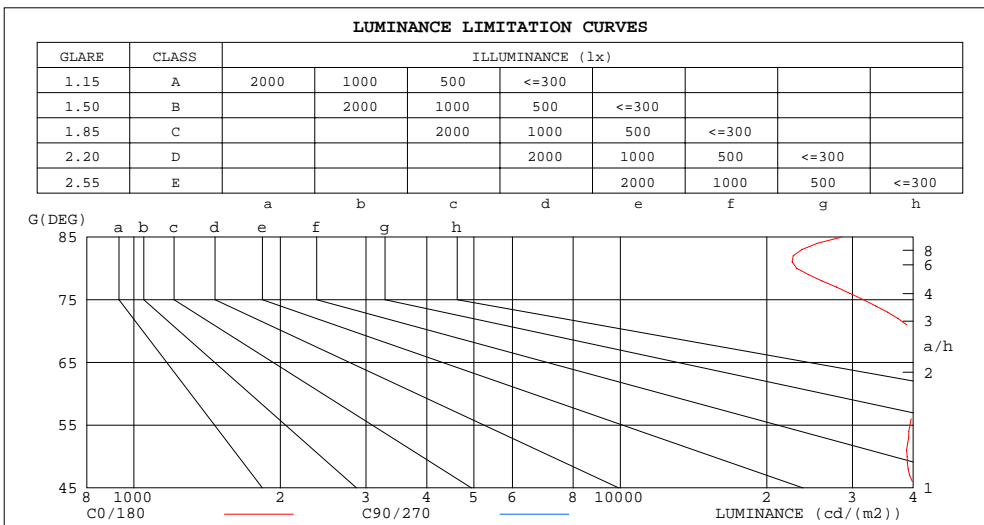
%lamp = 47.7%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G(DEG) | C0/180 | C90/270 |
| 85 | 28539 | 686364 |
| 80 | 23057 | 440474 |
| 75 | 31621 | 297312 |
| 70 | 40028 | 227290 |
| 65 | 42584 | 188311 |
| 60 | 41321 | 162551 |
| 55 | 39373 | 144335 |
| 50 | 38881 | 122087 |
| 45 | 40057 | 100765 |

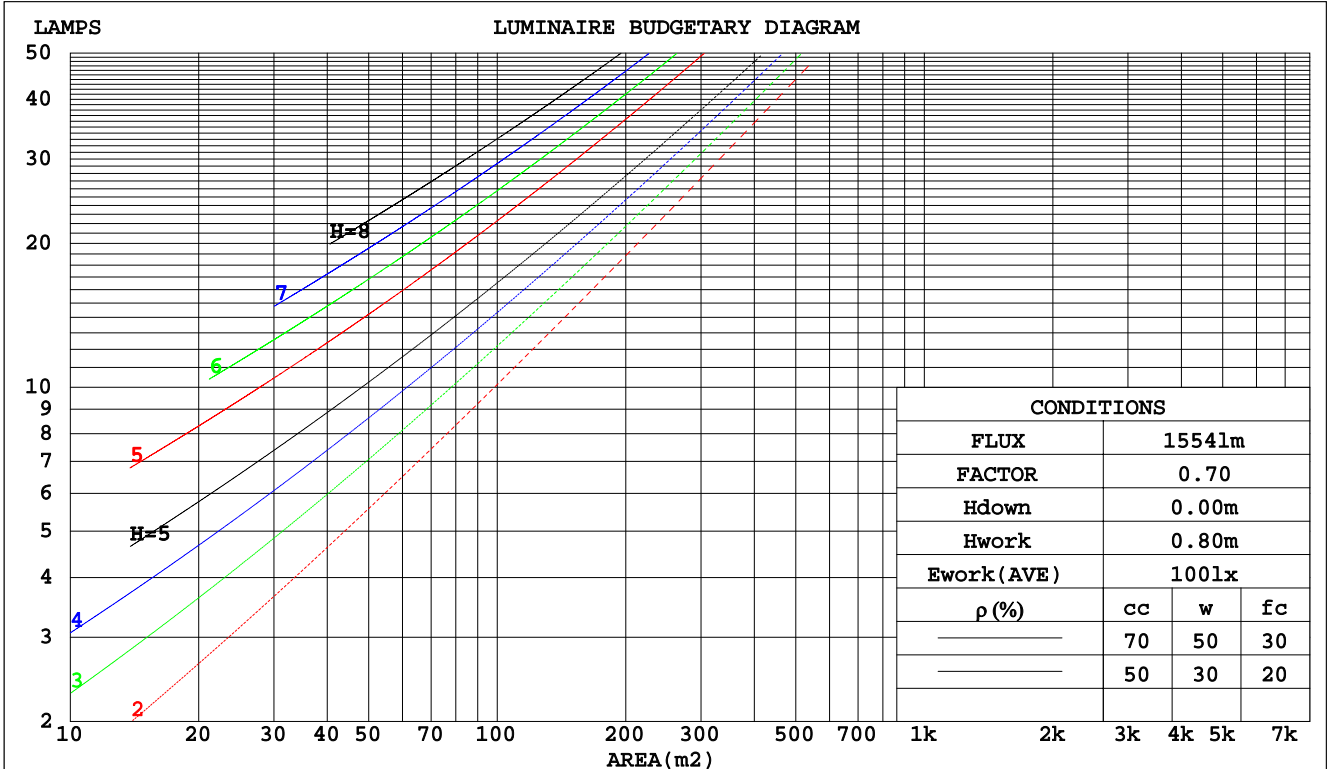
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

| | | | | | | | | | | | | | | | | |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|-----|-----|-----|-----|-----|-----|-----|
| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
| pw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| pfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Coefficients of Utilization(CU) | | | | | | | | | |
| 0.0 | 1.15 | 1.15 | 1.15 | 1.11 | 1.11 | 1.11 | 1.02 | 1.02 | 1.02 | .94 | .94 | .94 | .87 | .87 | .87 | .84 |
| 1.0 | .93 | .87 | .82 | .89 | .84 | .79 | .82 | .77 | .73 | .75 | .71 | .68 | .69 | .66 | .63 | .60 |
| 2.0 | .79 | .70 | .63 | .75 | .67 | .61 | .69 | .62 | .57 | .63 | .58 | .53 | .58 | .53 | .49 | .46 |
| 3.0 | .68 | .58 | .50 | .65 | .56 | .49 | .59 | .52 | .46 | .54 | .48 | .43 | .50 | .44 | .40 | .37 |
| 4.0 | .59 | .49 | .41 | .57 | .47 | .40 | .52 | .44 | .38 | .48 | .41 | .36 | .44 | .38 | .33 | .30 |
| 5.0 | .52 | .42 | .35 | .50 | .41 | .34 | .46 | .38 | .32 | .42 | .36 | .30 | .39 | .33 | .28 | .26 |
| 6.0 | .47 | .37 | .30 | .45 | .36 | .29 | .41 | .34 | .28 | .38 | .31 | .26 | .35 | .29 | .25 | .22 |
| 7.0 | .42 | .33 | .26 | .41 | .32 | .26 | .37 | .30 | .24 | .35 | .28 | .23 | .32 | .26 | .22 | .19 |
| 8.0 | .38 | .29 | .23 | .37 | .28 | .23 | .34 | .27 | .21 | .32 | .25 | .20 | .29 | .24 | .19 | .17 |
| 9.0 | .35 | .26 | .21 | .34 | .26 | .20 | .31 | .24 | .19 | .29 | .23 | .18 | .27 | .21 | .17 | .15 |
| 10.0 | .32 | .24 | .19 | .31 | .23 | .18 | .29 | .22 | .17 | .27 | .21 | .16 | .25 | .20 | .16 | .14 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

WEC AND CCEC

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | 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 | .438 | .249 | .079 | .425 | .243 | .077 | .402 | .231 | .074 | .381 | .220 | .070 | .361 | .209 | .067 | |
| 2.0 | .366 | .201 | .062 | .355 | .196 | .060 | .334 | .186 | .058 | .315 | .177 | .055 | .297 | .168 | .053 | |
| 3.0 | .319 | .170 | .051 | .309 | .165 | .050 | .290 | .157 | .048 | .272 | .149 | .046 | .256 | .142 | .044 | |
| 4.0 | .283 | .147 | .043 | .274 | .143 | .042 | .257 | .136 | .041 | .241 | .129 | .039 | .226 | .123 | .037 | |
| 5.0 | .255 | .130 | .038 | .247 | .127 | .037 | .231 | .120 | .035 | .217 | .114 | .034 | .203 | .109 | .033 | |
| 6.0 | .232 | .116 | .033 | .224 | .113 | .033 | .210 | .108 | .031 | .197 | .102 | .030 | .185 | .097 | .029 | |
| 7.0 | .212 | .105 | .030 | .206 | .102 | .029 | .193 | .097 | .028 | .181 | .093 | .027 | .169 | .088 | .026 | |
| 8.0 | .196 | .096 | .027 | .190 | .093 | .026 | .178 | .089 | .025 | .167 | .085 | .024 | .157 | .080 | .023 | |
| 9.0 | .182 | .088 | .025 | .176 | .086 | .024 | .166 | .082 | .023 | .155 | .078 | .022 | .146 | .074 | .021 | |
| 10.0 | .170 | .081 | .023 | .165 | .080 | .022 | .155 | .076 | .021 | .145 | .072 | .020 | .136 | .069 | .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 | .315 | .315 | .315 | .269 | .269 | .269 | .184 | .184 | .184 | .106 | .106 | .106 | .034 | .034 | .034 | |
| 1.0 | .315 | .281 | .250 | .270 | .241 | .215 | .184 | .166 | .149 | .106 | .096 | .087 | .034 | .031 | .028 | |
| 2.0 | .309 | .258 | .216 | .265 | .222 | .186 | .181 | .154 | .130 | .105 | .089 | .076 | .034 | .029 | .025 | |
| 3.0 | .301 | .242 | .195 | .258 | .209 | .169 | .177 | .145 | .118 | .102 | .085 | .070 | .033 | .028 | .023 | |
| 4.0 | .293 | .230 | .181 | .252 | .198 | .157 | .173 | .138 | .111 | .100 | .081 | .066 | .032 | .026 | .022 | |
| 5.0 | .285 | .220 | .172 | .245 | .190 | .150 | .169 | .133 | .106 | .098 | .078 | .063 | .031 | .025 | .021 | |
| 6.0 | .277 | .212 | .165 | .238 | .184 | .144 | .164 | .129 | .102 | .095 | .076 | .061 | .031 | .025 | .020 | |
| 7.0 | .270 | .205 | .160 | .232 | .178 | .140 | .160 | .125 | .099 | .093 | .074 | .059 | .030 | .024 | .020 | |
| 8.0 | .263 | .200 | .157 | .226 | .173 | .137 | .156 | .122 | .097 | .091 | .072 | .058 | .029 | .024 | .019 | |
| 9.0 | .256 | .195 | .154 | .221 | .169 | .134 | .153 | .119 | .095 | .089 | .070 | .057 | .029 | .023 | .019 | |
| 10.0 | .250 | .191 | .152 | .215 | .166 | .132 | .149 | .117 | .094 | .087 | .069 | .056 | .028 | .023 | .019 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|--------------------------------------------------------------------------------|------------------|------|------|------|-----------|----------------|------|------------------|------|------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | | | | | | | | | |
| NAME: ASD Lighting Corp | | | | | TYPE: LED | | | WEIGHT: | | |
| SPEC.: | | | | | DIM.: | | | SERIAL No.: | | |
| MFR.: ASD Lighting Corp | | | | | 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 | 25.1 | 26.6 | 25.7 | 27.2 | 27.9 | 31.5 | 32.9 | 32.0 | 33.5 | 34.2 |
| 3H | 27.8 | 29.2 | 28.4 | 29.8 | 30.5 | 34.8 | 36.1 | 35.4 | 36.8 | 37.5 |
| 4H | 28.7 | 30.0 | 29.3 | 30.6 | 31.4 | 36.8 | 38.1 | 37.4 | 38.7 | 39.4 |
| 6H | 29.3 | 30.6 | 30.0 | 31.2 | 31.9 | 38.8 | 40.0 | 39.5 | 40.7 | 41.4 |
| 8H | 29.5 | 30.7 | 30.2 | 31.4 | 32.1 | 40.1 | 41.3 | 40.7 | 41.9 | 42.7 |
| 12H | 29.6 | 30.8 | 30.3 | 31.4 | 32.2 | 41.0 | 42.2 | 41.7 | 42.8 | 43.6 |
| 4H 2H | 27.9 | 29.2 | 28.6 | 29.9 | 30.6 | 31.9 | 33.2 | 32.5 | 33.8 | 34.5 |
| 3H | 30.4 | 31.5 | 31.0 | 32.2 | 33.0 | 35.7 | 36.8 | 36.3 | 37.5 | 38.2 |
| 4H | 31.5 | 32.5 | 32.1 | 33.2 | 34.0 | 37.9 | 39.0 | 38.6 | 39.6 | 40.4 |
| 6H | 32.4 | 33.3 | 33.1 | 34.0 | 34.8 | 40.3 | 41.2 | 40.9 | 41.9 | 42.7 |
| 8H | 32.7 | 33.6 | 33.4 | 34.3 | 35.1 | 41.7 | 42.6 | 42.3 | 43.2 | 44.1 |
| 12H | 33.0 | 33.8 | 33.7 | 34.5 | 35.3 | 42.8 | 43.6 | 43.5 | 44.3 | 45.1 |
| 8H 4H | 33.9 | 34.8 | 34.5 | 35.4 | 36.2 | 38.3 | 39.2 | 39.0 | 39.9 | 40.7 |
| 6H | 35.1 | 35.8 | 35.8 | 36.6 | 37.4 | 41.0 | 41.8 | 41.7 | 42.5 | 43.3 |
| 8H | 35.6 | 36.3 | 36.3 | 37.0 | 37.8 | 42.6 | 43.3 | 43.3 | 44.1 | 44.9 |
| 12H | 36.0 | 36.7 | 36.7 | 37.4 | 38.3 | 44.1 | 44.7 | 44.8 | 45.4 | 46.3 |
| 12H 4H | 34.7 | 35.5 | 35.4 | 36.3 | 37.1 | 38.3 | 39.2 | 39.0 | 39.9 | 40.7 |
| 6H | 36.3 | 37.0 | 37.0 | 37.7 | 38.5 | 41.1 | 41.9 | 41.9 | 42.6 | 43.4 |
| 8H | 37.0 | 37.6 | 37.7 | 38.3 | 39.2 | 42.9 | 43.5 | 43.6 | 44.3 | 45.1 |
| CIE190: 2010 | | | | | | | | | | |
| | | | | | | | | | | |

CIE190: 2010
Area: 0.0551 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 23.6DEG
Operators: Alan Wang
Test Date: 07 December 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
Humidity: 46.3%
Test Distance: 2.500m [K=1.0459]
Remarks:

UTILIZATION FACTORS TABLE

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

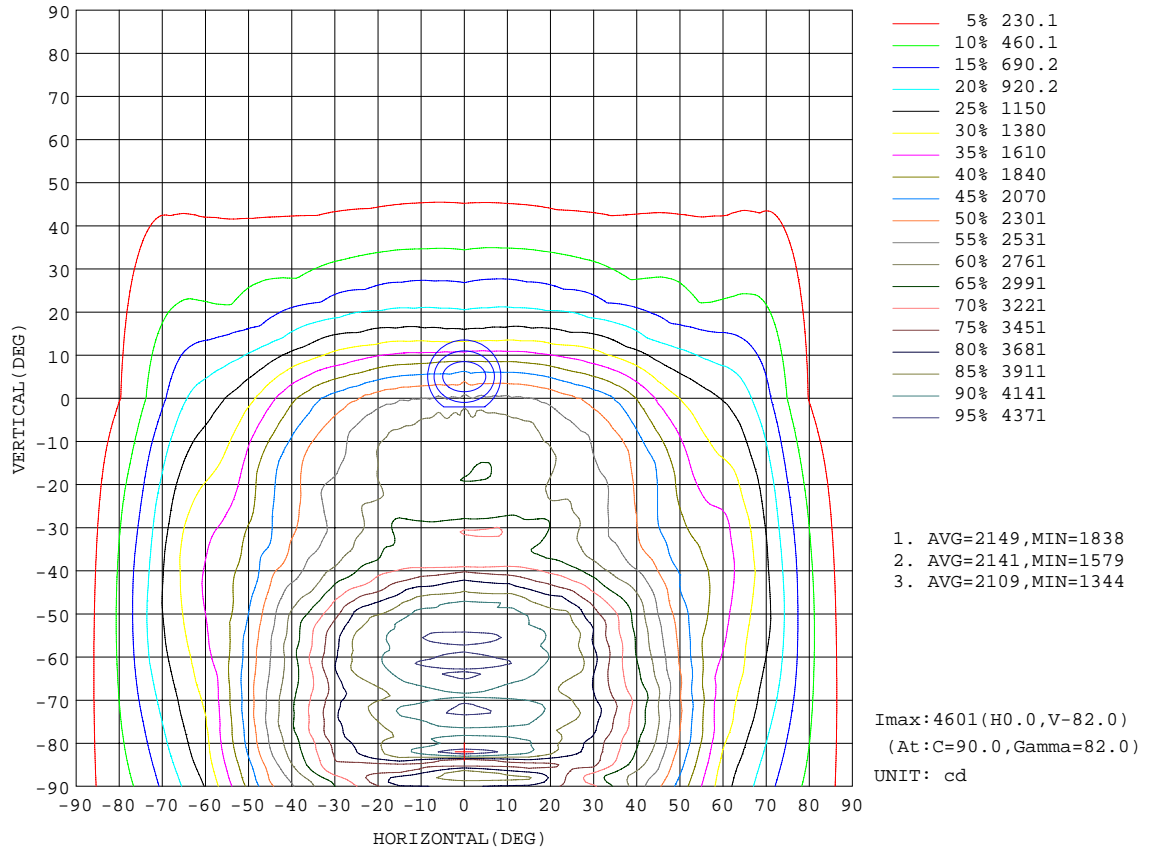
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|-----------------------------------------------------|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 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 | 46 | 33 | 25 | 45 | 32 | 25 | 43 | 32 | 25 | 18 |
| 0.80 | 54 | 41 | 32 | 53 | 40 | 32 | 50 | 39 | 31 | 23 |
| 1.00 | 62 | 48 | 39 | 60 | 47 | 39 | 57 | 48 | 38 | 29 |
| 1.25 | 69 | 55 | 46 | 66 | 54 | 45 | 62 | 51 | 44 | 34 |
| 1.50 | 74 | 60 | 51 | 71 | 59 | 50 | 66 | 56 | 48 | 38 |
| 2.00 | 81 | 69 | 60 | 78 | 67 | 58 | 73 | 63 | 56 | 44 |
| 2.50 | 86 | 74 | 66 | 83 | 72 | 64 | 77 | 68 | 61 | 49 |
| 3.00 | 90 | 79 | 71 | 86 | 77 | 69 | 80 | 72 | 66 | 52 |
| 4.00 | 95 | 86 | 78 | 91 | 83 | 76 | 84 | 77 | 72 | 58 |
| 5.00 | 98 | 90 | 83 | 94 | 87 | 81 | 87 | 81 | 76 | 61 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | SHRNOM = 1.25 | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

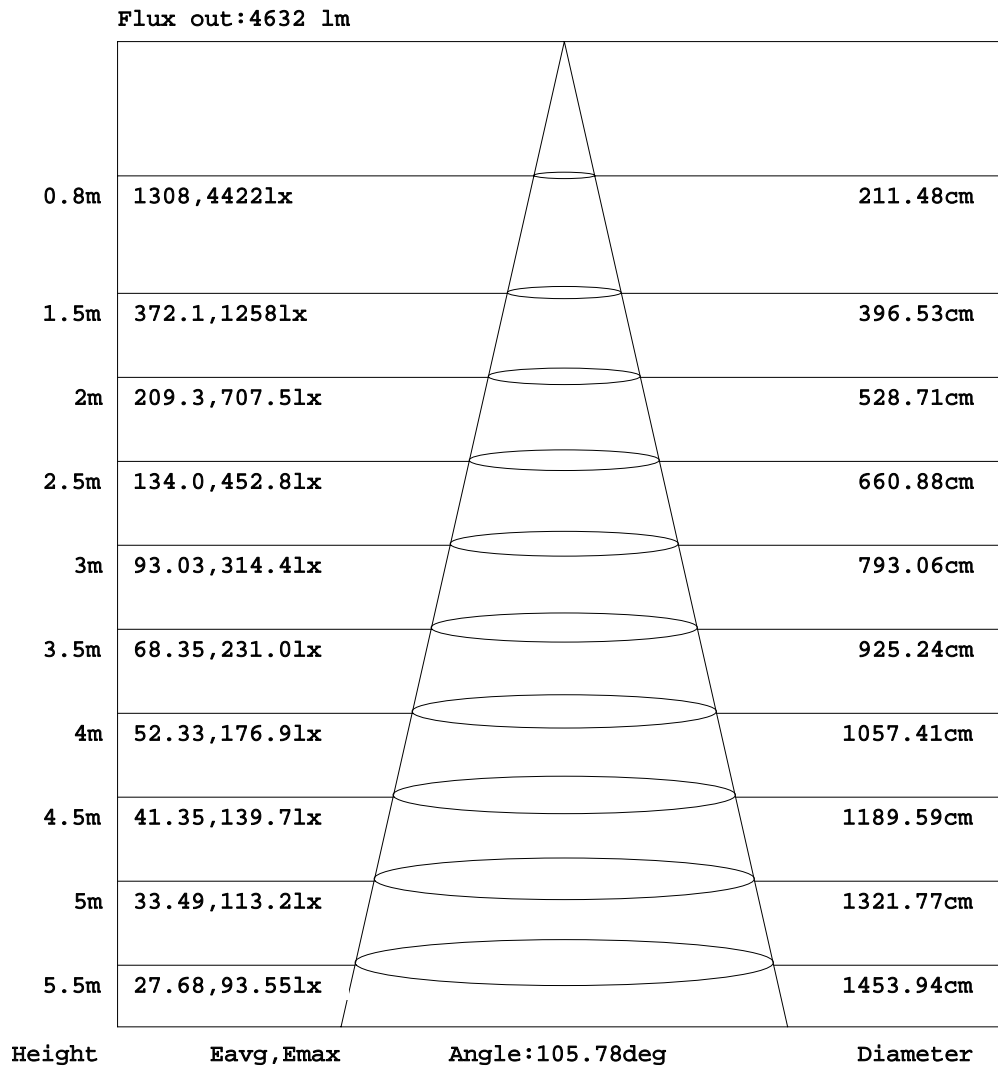


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

AAI Figure

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



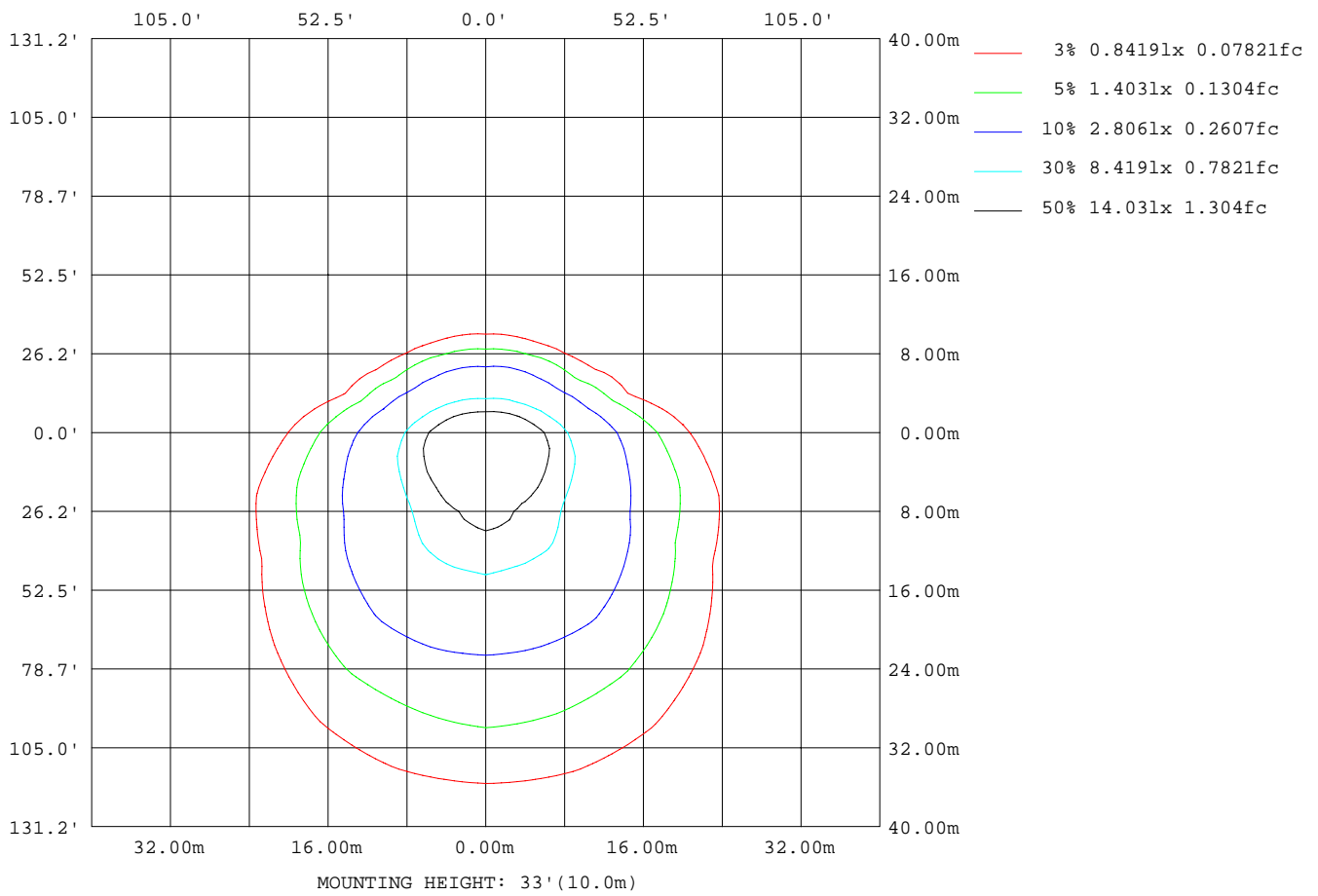
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators:Alan Wang
 Test Date:07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance:2.500m [K=1.0459]
 Remarks:

ISOLUX DIAGRAM

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LED Avg.L Report

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

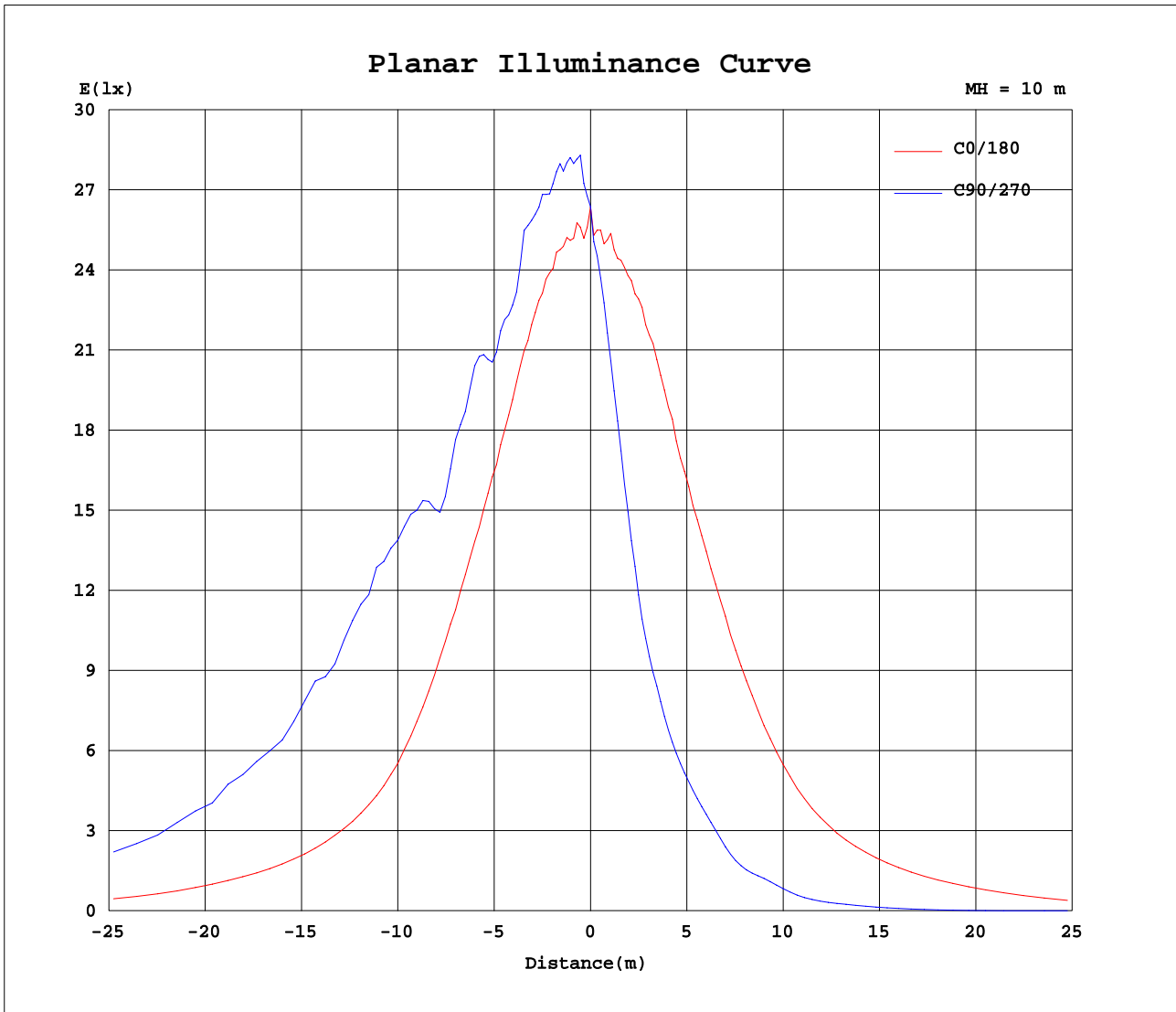
| AvgL | cd/m2 |
|----------------|--------|
| L_0~180(65)av | 40465 |
| L_0~180(75)av | 29833 |
| L_0~180(85)av | 28965 |
| L_90~270(65)av | 94229 |
| L_90~270(75)av | 148815 |
| L_90~270(85)av | 343701 |
| L_45(65)av | 64609 |
| L_45(75)av | 100914 |
| L_45(85)av | 269641 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 23.6DEG
Operators: Alan Wang
Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
Humidity: 46.3%
Test Distance: 2.500m [K=1.0459]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

Table--1

UNIT: cd

| C(DEG) γ (DEG) | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 | 195 | 210 | 225 | 240 | 255 | 270 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 | 2637 |
| 5 | 2547 | 2637 | 2740 | 2818 | 2763 | 2764 | 2831 | 2769 | 2782 | 2741 | 2677 | 2625 | 2542 | 2432 | 2339 | 2258 | 2190 | 2163 | 2190 |
| 10 | 2582 | 2728 | 2803 | 2821 | 2858 | 2787 | 2898 | 2849 | 2794 | 2807 | 2775 | 2690 | 2523 | 2323 | 2116 | 1937 | 1816 | 1718 | 1673 |
| 15 | 2538 | 2732 | 2816 | 2856 | 2895 | 2966 | 2924 | 2835 | 2860 | 2839 | 2792 | 2703 | 2508 | 2178 | 1860 | 1593 | 1384 | 1249 | 1212 |
| 20 | 2461 | 2684 | 2790 | 2915 | 2946 | 2951 | 2919 | 2899 | 2914 | 2839 | 2793 | 2682 | 2418 | 1988 | 1596 | 1280 | 1083 | 989 | 945 |
| 25 | 2345 | 2593 | 2756 | 2857 | 2793 | 2809 | 2918 | 2926 | 2848 | 2806 | 2727 | 2585 | 2278 | 1761 | 1320 | 1033 | 868 | 782 | 741 |
| 30 | 2213 | 2529 | 2643 | 2718 | 2927 | 3155 | 3197 | 3022 | 2924 | 2716 | 2587 | 2469 | 2163 | 1549 | 1090 | 822 | 699 | 636 | 601 |
| 35 | 2051 | 2425 | 2581 | 2792 | 3135 | 3151 | 3211 | 3160 | 2985 | 2752 | 2551 | 2363 | 2007 | 1333 | 880 | 645 | 556 | 482 | 437 |
| 40 | 1831 | 2288 | 2513 | 2741 | 2956 | 3226 | 3412 | 3182 | 3002 | 2673 | 2504 | 2236 | 1793 | 1105 | 663 | 505 | 393 | 334 | 313 |
| 45 | 1561 | 2116 | 2366 | 2648 | 3231 | 3766 | 3926 | 3720 | 3182 | 2636 | 2320 | 2065 | 1549 | 871 | 496 | 377 | 288 | 257 | 235 |
| 50 | 1377 | 1898 | 2218 | 2775 | 3683 | 4155 | 4324 | 4132 | 3501 | 2711 | 2208 | 1862 | 1321 | 670 | 391 | 268 | 197 | 157 | 137 |
| 55 | 1244 | 1672 | 2159 | 2974 | 3958 | 4248 | 4562 | 4275 | 3841 | 2783 | 2097 | 1617 | 1164 | 516 | 313 | 182 | 129 | 103 | 91.7 |
| 60 | 1138 | 1604 | 2115 | 3072 | 3992 | 4250 | 4478 | 4246 | 3934 | 2956 | 1998 | 1527 | 1035 | 390 | 239 | 121 | 72.9 | 51.8 | 41.2 |
| 65 | 992 | 1625 | 2031 | 2975 | 3978 | 4186 | 4385 | 4217 | 3895 | 2883 | 1910 | 1519 | 893 | 322 | 176 | 78.2 | 28.4 | 8.38 | 3.41 |
| 70 | 754 | 1499 | 1897 | 2926 | 3785 | 4085 | 4283 | 3976 | 3679 | 2769 | 1830 | 1420 | 647 | 275 | 125 | 39.2 | 5.58 | 4.14 | 3.92 |
| 75 | 451 | 1284 | 1712 | 2962 | 3869 | 4191 | 4240 | 4088 | 3704 | 2743 | 1671 | 1224 | 400 | 220 | 87.8 | 23.7 | 5.35 | 4.75 | 4.53 |
| 80 | 221 | 1075 | 1562 | 2848 | 3689 | 4166 | 4214 | 4016 | 3633 | 2684 | 1465 | 1021 | 221 | 174 | 65.2 | 18.4 | 5.65 | 5.16 | 4.88 |
| 85 | 137 | 804 | 1419 | 2647 | 3546 | 3362 | 3296 | 3436 | 3451 | 2504 | 1345 | 744 | 141 | 139 | 51.8 | 14.0 | 5.65 | 5.16 | 4.99 |
| 90 | 111 | 556 | 1243 | 2345 | 3261 | 3623 | 3704 | 3661 | 2990 | 2261 | 1163 | 504 | 107 | 113 | 38.7 | 9.45 | 4.90 | 4.91 | 4.92 |
| 95 | 106 | 359 | 1019 | 2013 | 2765 | 3201 | 3353 | 3140 | 2740 | 1913 | 959 | 318 | 99.2 | 93.8 | 30.8 | 8.30 | 5.45 | 6.12 | 6.33 |
| 100 | 84.1 | 134 | 314 | 1274 | 2110 | 2549 | 2740 | 2500 | 1975 | 1171 | 251 | 123 | 75.0 | 54.4 | 13.6 | 7.69 | 7.60 | 9.94 | 10.7 |
| 105 | 43.0 | 127 | 408 | 319 | 744 | 1118 | 1263 | 1051 | 710 | 303 | 367 | 125 | 41.2 | 39.7 | 18.3 | 7.06 | 8.26 | 10.5 | 11.2 |
| 110 | 96.8 | 116 | 323 | 448 | 645 | 882 | 964 | 855 | 531 | 383 | 311 | 112 | 92.4 | 39.5 | 15.3 | 7.74 | 8.54 | 10.5 | 11.2 |
| 115 | 73.1 | 90.6 | 231 | 500 | 891 | 1176 | 1202 | 1141 | 786 | 457 | 223 | 87.9 | 70.6 | 27.6 | 12.1 | 7.50 | 8.64 | 10.3 | 11.0 |
| 120 | 52.0 | 72.0 | 189 | 415 | 766 | 1012 | 1075 | 982 | 701 | 394 | 178 | 70.5 | 51.3 | 18.9 | 9.00 | 7.02 | 8.40 | 9.77 | 10.4 |
| 125 | 36.2 | 59.6 | 169 | 351 | 616 | 820 | 878 | 794 | 582 | 327 | 152 | 57.7 | 36.3 | 13.3 | 7.41 | 5.51 | 7.81 | 9.07 | 9.51 |
| 130 | 21.6 | 45.0 | 140 | 275 | 447 | 577 | 619 | 577 | 445 | 263 | 128 | 42.7 | 18.4 | 7.15 | 5.75 | 5.02 | 5.03 | 7.80 | 8.33 |
| 135 | 14.8 | 23.7 | 134 | 188 | 297 | 386 | 412 | 382 | 289 | 185 | 118 | 20.8 | 13.5 | 9.21 | 4.78 | 5.42 | 5.89 | 4.79 | 4.62 |
| 140 | 10.6 | 24.0 | 95.9 | 150 | 186 | 241 | 258 | 240 | 190 | 151 | 92.7 | 24.0 | 10.6 | 6.69 | 4.78 | 4.29 | 5.52 | 5.50 | 6.16 |
| 145 | 6.84 | 15.2 | 59.8 | 120 | 131 | 151 | 158 | 153 | 135 | 114 | 57.7 | 16.2 | 8.05 | 4.76 | 4.24 | 4.52 | 4.23 | 4.45 | 4.99 |
| 150 | 4.12 | 7.89 | 32.4 | 83.2 | 103 | 107 | 107 | 109 | 102 | 84.0 | 33.0 | 8.01 | 4.41 | 3.37 | 3.83 | 4.38 | 4.53 | 3.86 | 3.56 |
| 155 | 3.99 | 4.68 | 13.8 | 45.4 | 70.8 | 81.4 | 83.5 | 81.5 | 73.1 | 46.9 | 14.1 | 4.85 | 4.31 | 4.25 | 3.59 | 3.90 | 3.88 | 3.82 | 3.89 |
| 160 | 3.23 | 3.74 | 6.92 | 19.6 | 38.8 | 50.6 | 55.0 | 51.6 | 39.9 | 22.4 | 8.40 | 4.69 | 4.53 | 4.51 | 3.88 | 3.43 | 3.27 | 3.59 | 3.48 |
| 165 | 4.39 | 4.22 | 4.18 | 5.40 | 10.6 | 20.4 | 23.7 | 21.2 | 13.0 | 6.58 | 4.64 | 4.67 | 4.74 | 4.71 | 4.37 | 3.36 | 2.95 | 2.77 | 2.41 |
| 170 | 4.62 | 4.52 | 4.36 | 4.25 | 4.30 | 4.59 | 4.48 | 4.73 | 4.53 | 4.30 | 4.08 | 3.94 | 3.64 | 3.88 | 4.03 | 4.19 | 3.81 | 2.83 | 2.20 |
| 175 | 4.78 | 4.73 | 4.66 | 4.57 | 4.49 | 4.44 | 4.39 | 4.49 | 4.61 | 4.75 | 4.83 | 4.79 | 4.09 | 4.16 | 4.16 | 3.95 | 3.48 | 3.33 | 3.57 |
| 180 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 | 9.46 |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--------------------------------------------------------------------------------|-----------|------------------|
| Test:U:120.51V I:0.6779A P:81.594W PF:0.9988 Freq:60.01Hz Lamp Flux:11874x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

Table--2

UNIT: cd

| C(DEG) γ (DEG) | 285 | 300 | 315 | 330 | 345 | | | | | | | | | | | | | | |
|-------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 2637 | 2637 | 2637 | 2637 | 2637 | | | | | | | | | | | | | | |
| 5 | 2151 | 2205 | 2290 | 2371 | 2459 | | | | | | | | | | | | | | |
| 10 | 1729 | 1817 | 1961 | 2160 | 2372 | | | | | | | | | | | | | | |
| 15 | 1261 | 1401 | 1620 | 1905 | 2228 | | | | | | | | | | | | | | |
| 20 | 993 | 1090 | 1281 | 1615 | 2035 | | | | | | | | | | | | | | |
| 25 | 792 | 869 | 1026 | 1322 | 1805 | | | | | | | | | | | | | | |
| 30 | 648 | 702 | 822 | 1092 | 1591 | | | | | | | | | | | | | | |
| 35 | 491 | 557 | 646 | 876 | 1354 | | | | | | | | | | | | | | |
| 40 | 335 | 397 | 505 | 655 | 1115 | | | | | | | | | | | | | | |
| 45 | 253 | 284 | 378 | 488 | 875 | | | | | | | | | | | | | | |
| 50 | 155 | 190 | 266 | 385 | 697 | | | | | | | | | | | | | | |
| 55 | 98.1 | 127 | 183 | 327 | 541 | | | | | | | | | | | | | | |
| 60 | 50.9 | 71.5 | 123 | 252 | 395 | | | | | | | | | | | | | | |
| 65 | 8.18 | 28.0 | 81.4 | 185 | 316 | | | | | | | | | | | | | | |
| 70 | 4.10 | 5.98 | 42.7 | 134 | 275 | | | | | | | | | | | | | | |
| 75 | 4.68 | 5.57 | 27.4 | 97.4 | 224 | | | | | | | | | | | | | | |
| 80 | 5.06 | 5.49 | 20.2 | 72.0 | 175 | | | | | | | | | | | | | | |
| 85 | 5.03 | 5.38 | 14.8 | 56.1 | 136 | | | | | | | | | | | | | | |
| 90 | 4.78 | 4.45 | 9.22 | 42.3 | 112 | | | | | | | | | | | | | | |
| 95 | 6.30 | 5.39 | 8.41 | 33.1 | 93.8 | | | | | | | | | | | | | | |
| 100 | 9.62 | 7.33 | 7.34 | 11.9 | 55.3 | | | | | | | | | | | | | | |
| 105 | 10.2 | 8.10 | 7.16 | 19.5 | 45.3 | | | | | | | | | | | | | | |
| 110 | 10.4 | 8.52 | 7.95 | 16.3 | 52.7 | | | | | | | | | | | | | | |
| 115 | 10.1 | 8.56 | 7.50 | 13.0 | 36.3 | | | | | | | | | | | | | | |
| 120 | 9.23 | 8.14 | 6.88 | 9.35 | 24.9 | | | | | | | | | | | | | | |
| 125 | 8.54 | 7.45 | 4.76 | 8.01 | 18.1 | | | | | | | | | | | | | | |
| 130 | 7.28 | 4.71 | 4.85 | 5.58 | 9.55 | | | | | | | | | | | | | | |
| 135 | 4.89 | 5.62 | 4.95 | 4.94 | 9.82 | | | | | | | | | | | | | | |
| 140 | 5.88 | 5.02 | 4.24 | 4.81 | 6.49 | | | | | | | | | | | | | | |
| 145 | 4.74 | 3.96 | 4.61 | 4.68 | 4.64 | | | | | | | | | | | | | | |
| 150 | 3.61 | 4.22 | 4.46 | 4.49 | 3.85 | | | | | | | | | | | | | | |
| 155 | 4.31 | 4.52 | 4.33 | 4.02 | 4.05 | | | | | | | | | | | | | | |
| 160 | 4.11 | 4.41 | 4.14 | 3.82 | 3.72 | | | | | | | | | | | | | | |
| 165 | 2.60 | 2.98 | 3.33 | 4.13 | 4.84 | | | | | | | | | | | | | | |
| 170 | 2.15 | 2.53 | 3.40 | 4.36 | 4.70 | | | | | | | | | | | | | | |
| 175 | 3.26 | 3.08 | 3.09 | 4.17 | 4.74 | | | | | | | | | | | | | | |
| 180 | 4.84 | 4.84 | 4.84 | 4.84 | 4.84 | | | | | | | | | | | | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 23.6DEG
 Operators: Alan Wang
 Test Date: 07 December 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 46.3%
 Test Distance: 2.500m [K=1.0459]
 Remarks: