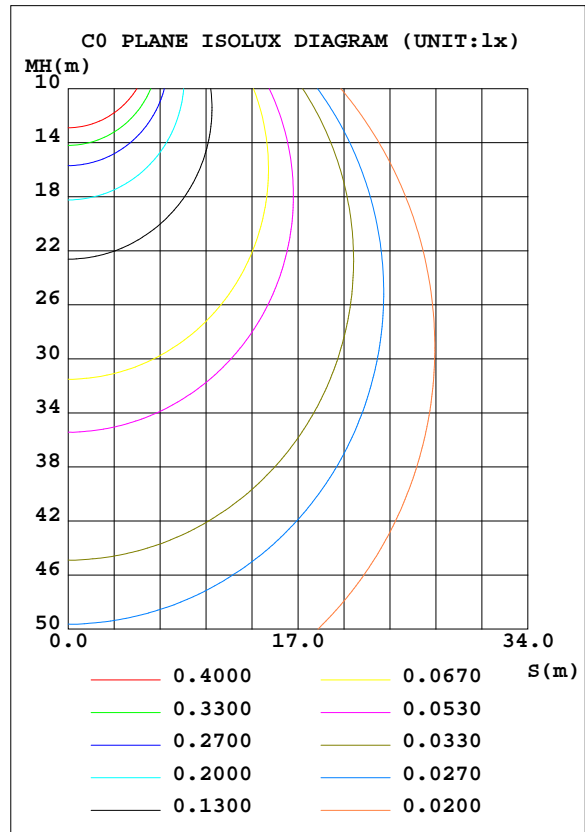
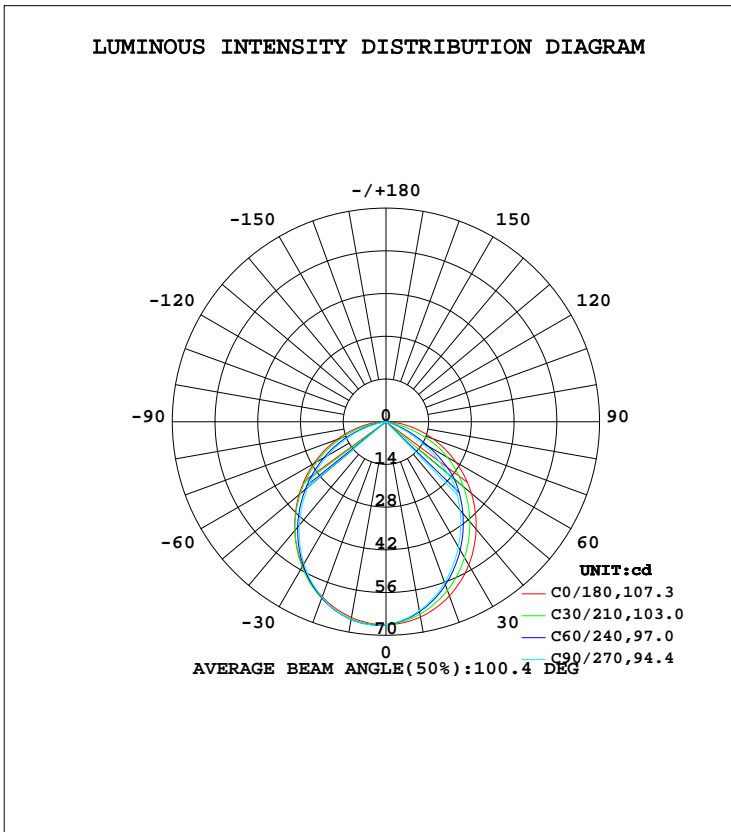


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 36.52 lm/W | | | |
|-----------------------------|---------|----------------------------------|--------|--------------------|----------|
| MODEL ASD-HSLS12-5SM-RGB-BR | | I _{max} (cd) | 66.77 | S/MH(C0/180) | 1.23 |
| NOMINAL POWER(W) | | LOR(%) | 100.0 | S/MH(C90/270) | 1.21 |
| RATED VOLTAGE(V) | 12 | TOTAL FLUX(lm) | 158.88 | η UP, DN(C0-180) | 0.0,46.5 |
| NOMINAL FLUX(lm) | 158.879 | CIE CLASS | DIRECT | η UP, DN(C180-360) | 0.1,53.5 |
| LAMPS INSIDE | 1 | η up(%) | 0.1 | CIBSE SHR NOM | 1.25 |
| TEST VOLTAGE(V) | 12 | η down(%) | 99.9 | CIBSE SHR MAX | 1.35 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum, lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|------------|
| 10 | 64.98 | 63.61 | 62.93 | 63.61 | 65.17 | 65.74 | 65.81 | 65.65 | 0- 10 | 6.259 | 6.259 | 3.94,3.94 |
| 20 | 60.75 | 57.83 | 56.19 | 57.90 | 61.01 | 61.58 | 61.25 | 61.47 | 10- 20 | 17.62 | 23.88 | 15,15 |
| 30 | 54.21 | 49.94 | 47.43 | 50.10 | 54.62 | 54.67 | 53.73 | 54.53 | 20- 30 | 25.92 | 49.80 | 31.3,31.3 |
| 40 | 45.96 | 40.83 | 37.78 | 41.08 | 46.47 | 45.77 | 44.21 | 45.55 | 30- 40 | 30.05 | 79.85 | 50.3,50.3 |
| 50 | 36.56 | 31.10 | 26.44 | 31.38 | 37.19 | 35.62 | 33.45 | 35.38 | 40- 50 | 29.72 | 109.6 | 69,69 |
| 60 | 26.49 | 19.79 | 12.88 | 20.34 | 27.22 | 24.76 | 22.08 | 24.53 | 50- 60 | 24.87 | 134.4 | 84.6,84.6 |
| 70 | 16.36 | 7.150 | 2.855 | 7.621 | 17.09 | 13.71 | 10.58 | 13.47 | 60- 70 | 16.41 | 150.8 | 94.9,94.9 |
| 80 | 6.948 | 0.1142 | 0.0031 | 0.1432 | 7.687 | 3.215 | 0.8935 | 3.010 | 70- 80 | 6.957 | 157.8 | 99.3,99.3 |
| 90 | 0.0056 | 0.0039 | 0.0023 | 0.0033 | 0.0138 | 0.0722 | 0.0759 | 0.0703 | 80- 90 | 0.9324 | 158.7 | 99.9,99.9 |
| 100 | 0.0073 | 0.0063 | 0.0050 | 0.0063 | 0.0162 | 0.0099 | 0.0063 | 0.0112 | 90-100 | 0.0120 | 158.7 | 99.9,99.9 |
| 110 | 0.0106 | 0.0093 | 0.0086 | 0.0109 | 0.0188 | 0.0145 | 0.0116 | 0.0152 | 100-110 | 0.0114 | 158.8 | 99.9,99.9 |
| 120 | 0.0175 | 0.0142 | 0.0142 | 0.0165 | 0.0225 | 0.0185 | 0.0149 | 0.0179 | 110-120 | 0.0143 | 158.8 | 99.9,99.9 |
| 130 | 0.0248 | 0.0215 | 0.0211 | 0.0238 | 0.0297 | 0.0268 | 0.0242 | 0.0245 | 120-130 | 0.0183 | 158.8 | 99.9,99.9 |
| 140 | 0.0297 | 0.0287 | 0.0291 | 0.0301 | 0.0380 | 0.0377 | 0.0347 | 0.0354 | 130-140 | 0.0223 | 158.8 | 100,100 |
| 150 | 0.0331 | 0.0350 | 0.0347 | 0.0344 | 0.0476 | 0.0509 | 0.0489 | 0.0489 | 140-150 | 0.0234 | 158.8 | 100,100 |
| 160 | 0.0410 | 0.0403 | 0.0377 | 0.0400 | 0.0591 | 0.0592 | 0.0562 | 0.0555 | 150-160 | 0.0211 | 158.9 | 100,100 |
| 170 | 0.0462 | 0.0473 | 0.0436 | 0.0440 | 0.0578 | 0.0585 | 0.0548 | 0.0539 | 160-170 | 0.0143 | 158.9 | 100,100 |
| 180 | 0.0522 | 0.0535 | 0.0506 | 0.0502 | 0.0529 | 0.0548 | 0.0512 | 0.0502 | 170-180 | 0.0049 | 158.9 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

Conical surface Flux(90deg): 95.021 lm

%lum = 59.8%

%lamp = 59.8%

Conical surface Flux(120deg): 134.43 lm

%lum = 84.6%

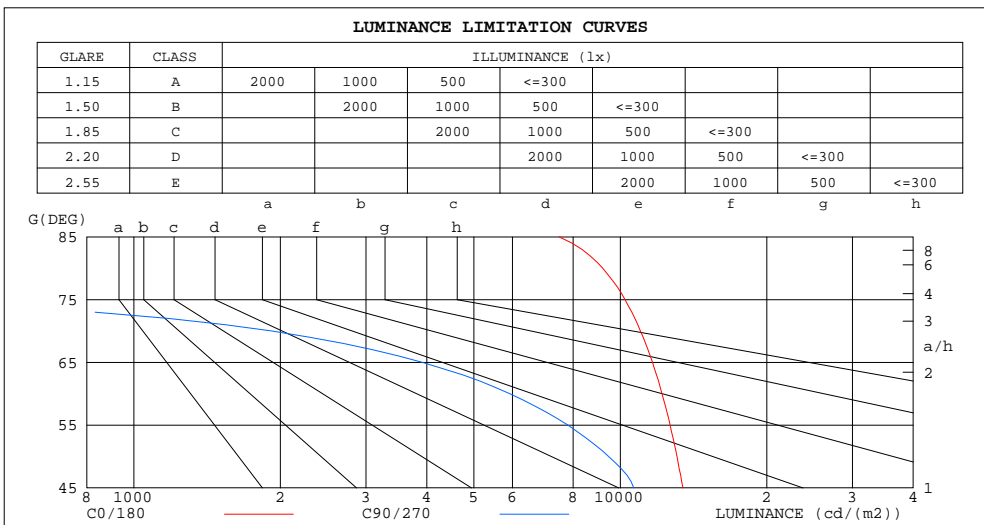
%lamp = 84.6%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G(DEG) | C0/180 | C90/270 |
| 85 | 7482 | 4 |
| 80 | 9198 | 4 |
| 75 | 10224 | 224 |
| 70 | 10996 | 1919 |
| 65 | 11648 | 3916 |
| 60 | 12179 | 5923 |
| 55 | 12655 | 7799 |
| 50 | 13076 | 9457 |
| 45 | 13449 | 10659 |

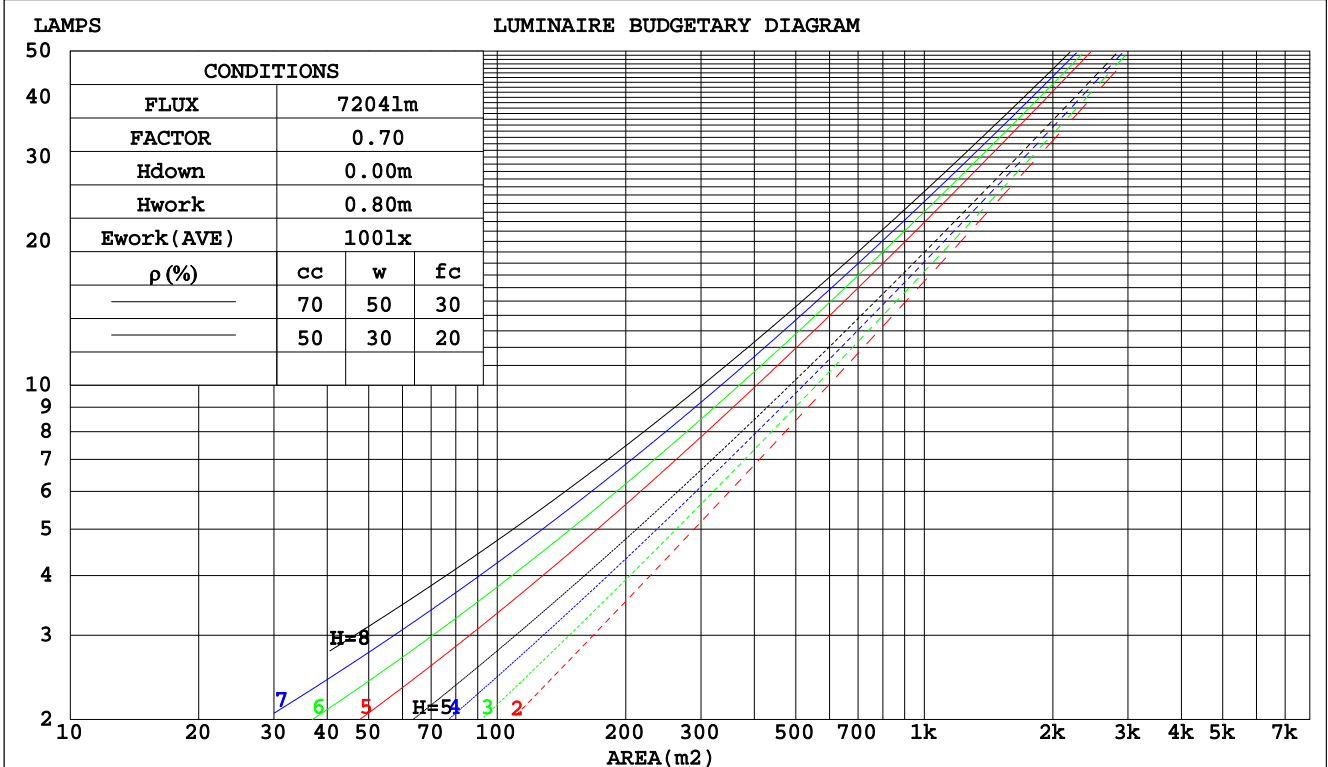
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

| 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 | 1.19 | 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 | 1.06 | 1.02 | .98 | 1.03 | .90 | .97 | .99 | .96 | .94 | .95 | .93 | .91 | .92 | .90 | .88 | .86 |
| 2.0 | .93 | .87 | .82 | .91 | .85 | .81 | .88 | .83 | .79 | .84 | .80 | .77 | .81 | .78 | .75 | .73 |
| 3.0 | .82 | .75 | .69 | .81 | .74 | .68 | .78 | .72 | .67 | .75 | .70 | .66 | .73 | .68 | .65 | .62 |
| 4.0 | .73 | .65 | .59 | .72 | .64 | .58 | .70 | .63 | .58 | .67 | .62 | .57 | .65 | .60 | .56 | .54 |
| 5.0 | .66 | .57 | .51 | .65 | .57 | .51 | .63 | .56 | .50 | .61 | .55 | .50 | .59 | .53 | .49 | .47 |
| 6.0 | .60 | .51 | .45 | .59 | .51 | .45 | .57 | .50 | .44 | .55 | .49 | .44 | .54 | .48 | .43 | .41 |
| 7.0 | .54 | .46 | .40 | .53 | .45 | .40 | .52 | .45 | .39 | .50 | .44 | .39 | .49 | .43 | .39 | .37 |
| 8.0 | .50 | .41 | .36 | .49 | .41 | .36 | .48 | .40 | .35 | .46 | .40 | .35 | .45 | .39 | .35 | .33 |
| 9.0 | .46 | .38 | .32 | .45 | .37 | .32 | .44 | .37 | .32 | .43 | .36 | .32 | .42 | .36 | .32 | .30 |
| 10.0 | .42 | .34 | .29 | .42 | .34 | .29 | .41 | .34 | .29 | .40 | .33 | .29 | .39 | .33 | .29 | .27 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

WEC AND CCEC

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | 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 | .276 | .157 | .050 | .269 | .153 | .049 | .255 | .147 | .047 | .243 | .140 | .045 | .232 | .135 | .043 | |
| 2.0 | .266 | .146 | .045 | .260 | .143 | .044 | .249 | .138 | .043 | .238 | .134 | .042 | .228 | .129 | .041 | |
| 3.0 | .250 | .133 | .040 | .245 | .131 | .040 | .235 | .127 | .039 | .225 | .124 | .038 | .217 | .120 | .037 | |
| 4.0 | .234 | .122 | .036 | .229 | .120 | .035 | .220 | .117 | .035 | .212 | .114 | .034 | .204 | .111 | .034 | |
| 5.0 | .218 | .111 | .032 | .214 | .110 | .032 | .206 | .107 | .032 | .198 | .105 | .031 | .191 | .102 | .031 | |
| 6.0 | .204 | .102 | .029 | .200 | .101 | .029 | .193 | .099 | .029 | .186 | .097 | .028 | .180 | .095 | .028 | |
| 7.0 | .191 | .094 | .027 | .187 | .093 | .027 | .181 | .091 | .026 | .175 | .090 | .026 | .169 | .088 | .026 | |
| 8.0 | .179 | .087 | .025 | .176 | .087 | .024 | .170 | .085 | .024 | .165 | .083 | .024 | .160 | .082 | .024 | |
| 9.0 | .168 | .081 | .023 | .165 | .081 | .023 | .160 | .079 | .022 | .155 | .078 | .022 | .151 | .077 | .022 | |
| 10.0 | .159 | .076 | .021 | .156 | .075 | .021 | .152 | .074 | .021 | .147 | .073 | .021 | .143 | .072 | .021 | |

| 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 | .191 | .191 | .191 | .163 | .163 | .163 | .112 | .112 | .112 | .064 | .064 | .064 | .020 | .020 | .020 | |
| 1.0 | .179 | .157 | .138 | .153 | .135 | .119 | .105 | .093 | .082 | .060 | .054 | .048 | .019 | .017 | .015 | |
| 2.0 | .170 | .133 | .102 | .145 | .114 | .088 | .100 | .079 | .061 | .057 | .046 | .036 | .018 | .015 | .012 | |
| 3.0 | .161 | .115 | .078 | .138 | .099 | .067 | .095 | .069 | .047 | .055 | .040 | .028 | .018 | .013 | .009 | |
| 4.0 | .154 | .101 | .061 | .132 | .088 | .053 | .091 | .061 | .037 | .052 | .036 | .022 | .017 | .012 | .007 | |
| 5.0 | .146 | .091 | .050 | .126 | .079 | .043 | .087 | .055 | .031 | .050 | .032 | .018 | .016 | .011 | .006 | |
| 6.0 | .140 | .082 | .041 | .120 | .071 | .036 | .083 | .050 | .025 | .048 | .029 | .015 | .015 | .010 | .005 | |
| 7.0 | .133 | .075 | .035 | .114 | .065 | .031 | .079 | .046 | .022 | .046 | .027 | .013 | .015 | .009 | .004 | |
| 8.0 | .127 | .070 | .030 | .109 | .060 | .026 | .076 | .042 | .019 | .044 | .025 | .011 | .014 | .008 | .004 | |
| 9.0 | .121 | .065 | .027 | .104 | .056 | .023 | .072 | .039 | .016 | .042 | .023 | .010 | .014 | .008 | .003 | |
| 10.0 | .116 | .060 | .024 | .100 | .052 | .021 | .069 | .037 | .015 | .040 | .022 | .009 | .013 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|--|------------------|------|------|------|----------|----------------|------|------------------|------|------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | | | | | | | | | |
| NAME: | | | | | TYPE:LED | | | WEIGHT: | | |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | | | | | 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 | 21.6 | 23.0 | 21.8 | 23.2 | 23.4 | 19.1 | 20.6 | 19.4 | 20.8 | 21.0 |
| 3H | 23.1 | 24.4 | 23.4 | 24.6 | 24.9 | 19.3 | 20.6 | 19.5 | 20.8 | 21.0 |
| 4H | 23.7 | 24.9 | 24.0 | 25.2 | 25.4 | 19.2 | 20.4 | 19.5 | 20.7 | 20.9 |
| 6H | 24.1 | 25.3 | 24.4 | 25.5 | 25.8 | 19.1 | 20.2 | 19.4 | 20.5 | 20.8 |
| 8H | 24.2 | 25.3 | 24.5 | 25.6 | 25.9 | 19.0 | 20.1 | 19.3 | 20.4 | 20.7 |
| 12H | 24.3 | 25.3 | 24.6 | 25.6 | 25.9 | 18.9 | 20.0 | 19.3 | 20.3 | 20.6 |
| 4H 2H | 21.8 | 23.0 | 22.1 | 23.3 | 23.5 | 19.7 | 21.0 | 20.1 | 21.3 | 21.5 |
| 3H | 23.4 | 24.5 | 23.8 | 24.8 | 25.1 | 19.9 | 21.0 | 20.3 | 21.3 | 21.6 |
| 4H | 24.1 | 25.1 | 24.5 | 25.4 | 25.7 | 19.8 | 20.8 | 20.2 | 21.1 | 21.5 |
| 6H | 24.6 | 25.5 | 25.0 | 25.8 | 26.2 | 19.7 | 20.6 | 20.1 | 21.0 | 21.3 |
| 8H | 24.7 | 25.5 | 25.1 | 25.9 | 26.3 | 19.7 | 20.5 | 20.1 | 20.9 | 21.3 |
| 12H | 24.8 | 25.5 | 25.2 | 25.9 | 26.3 | 19.6 | 20.4 | 20.1 | 20.8 | 21.2 |
| 8H 4H | 24.0 | 24.8 | 24.4 | 25.2 | 25.6 | 19.9 | 20.7 | 20.3 | 21.1 | 21.5 |
| 6H | 24.5 | 25.2 | 25.0 | 25.6 | 26.0 | 19.8 | 20.5 | 20.3 | 20.9 | 21.3 |
| 8H | 24.7 | 25.3 | 25.1 | 25.7 | 26.1 | 19.8 | 20.4 | 20.3 | 20.8 | 21.3 |
| 12H | 24.8 | 25.3 | 25.2 | 25.7 | 26.2 | 19.8 | 20.3 | 20.2 | 20.7 | 21.2 |
| 12H 4H | 23.9 | 24.7 | 24.4 | 25.1 | 25.5 | 19.9 | 20.6 | 20.3 | 21.0 | 21.4 |
| 6H | 24.5 | 25.1 | 24.9 | 25.5 | 25.9 | 19.8 | 20.4 | 20.3 | 20.8 | 21.3 |
| 8H | 24.6 | 25.1 | 25.1 | 25.6 | 26.1 | 19.8 | 20.3 | 20.3 | 20.7 | 21.2 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.2 / - 0.2 | | | | | + 0.6 / - 0.8 | | | | |
| 1.5H | + 0.2 / - 0.3 | | | | | + 0.3 / - 0.8 | | | | |
| 2.0H | + 0.4 / - 0.5 | | | | | + 0.9 / - 1.7 | | | | |

CIE Pub.117, 158.9 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -6.4)
 Area: 0.00435 m2

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

UTILIZATION FACTORS TABLE

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

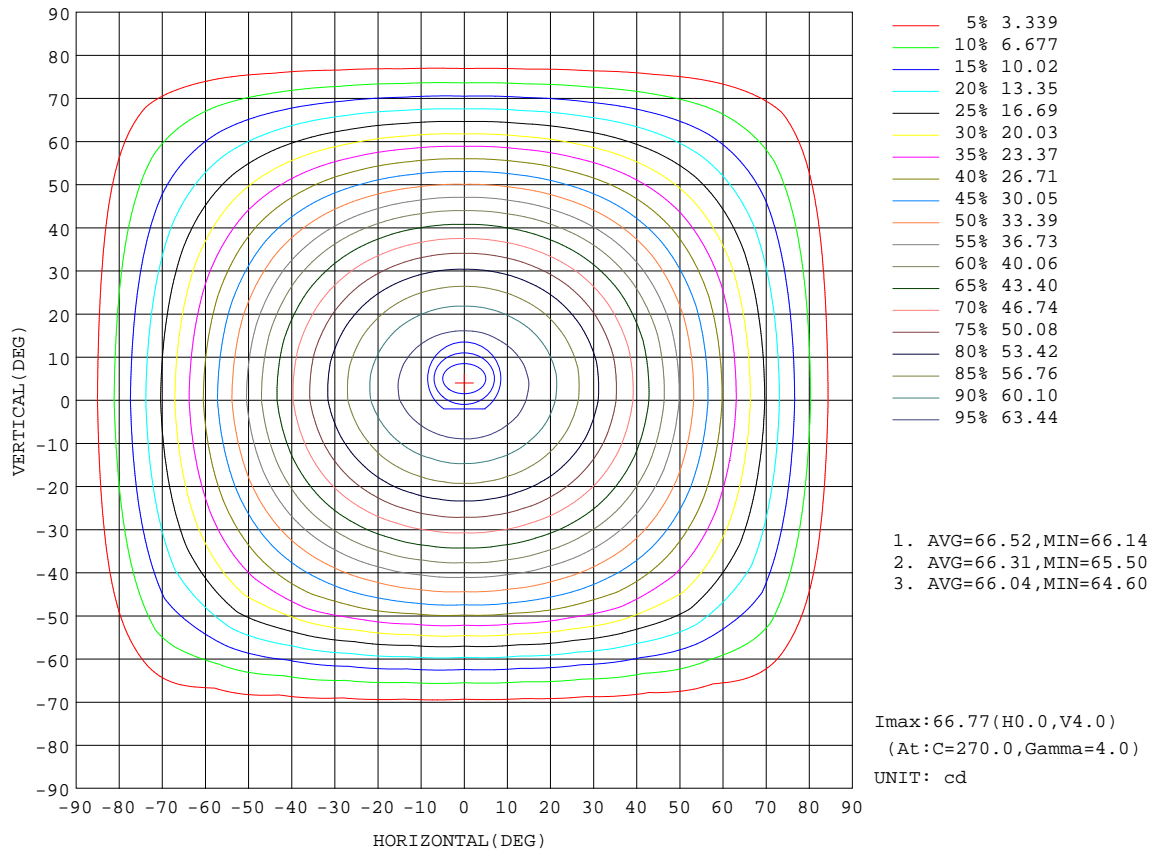
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|--|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 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) x RCR = 5 | | | | | | | | | |
| k = 0.60 | 61 | 49 | 43 | 60 | 49 | 43 | 59 | 49 | 43 | 36 |
| 0.80 | 71 | 60 | 53 | 70 | 59 | 53 | 68 | 59 | 52 | 46 |
| 1.00 | 79 | 69 | 62 | 78 | 68 | 62 | 76 | 70 | 61 | 55 |
| 1.25 | 86 | 77 | 70 | 85 | 76 | 70 | 82 | 74 | 69 | 62 |
| 1.50 | 91 | 82 | 76 | 89 | 81 | 75 | 87 | 79 | 74 | 67 |
| 2.00 | 98 | 90 | 84 | 96 | 89 | 83 | 92 | 86 | 82 | 74 |
| 2.50 | 101 | 94 | 89 | 99 | 93 | 88 | 95 | 90 | 86 | 78 |
| 3.00 | 104 | 98 | 93 | 102 | 97 | 92 | 98 | 94 | 90 | 82 |
| 4.00 | 108 | 103 | 99 | 106 | 101 | 97 | 101 | 98 | 95 | 86 |
| 5.00 | 110 | 106 | 102 | 108 | 104 | 101 | 103 | 100 | 97 | 89 |
| 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: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

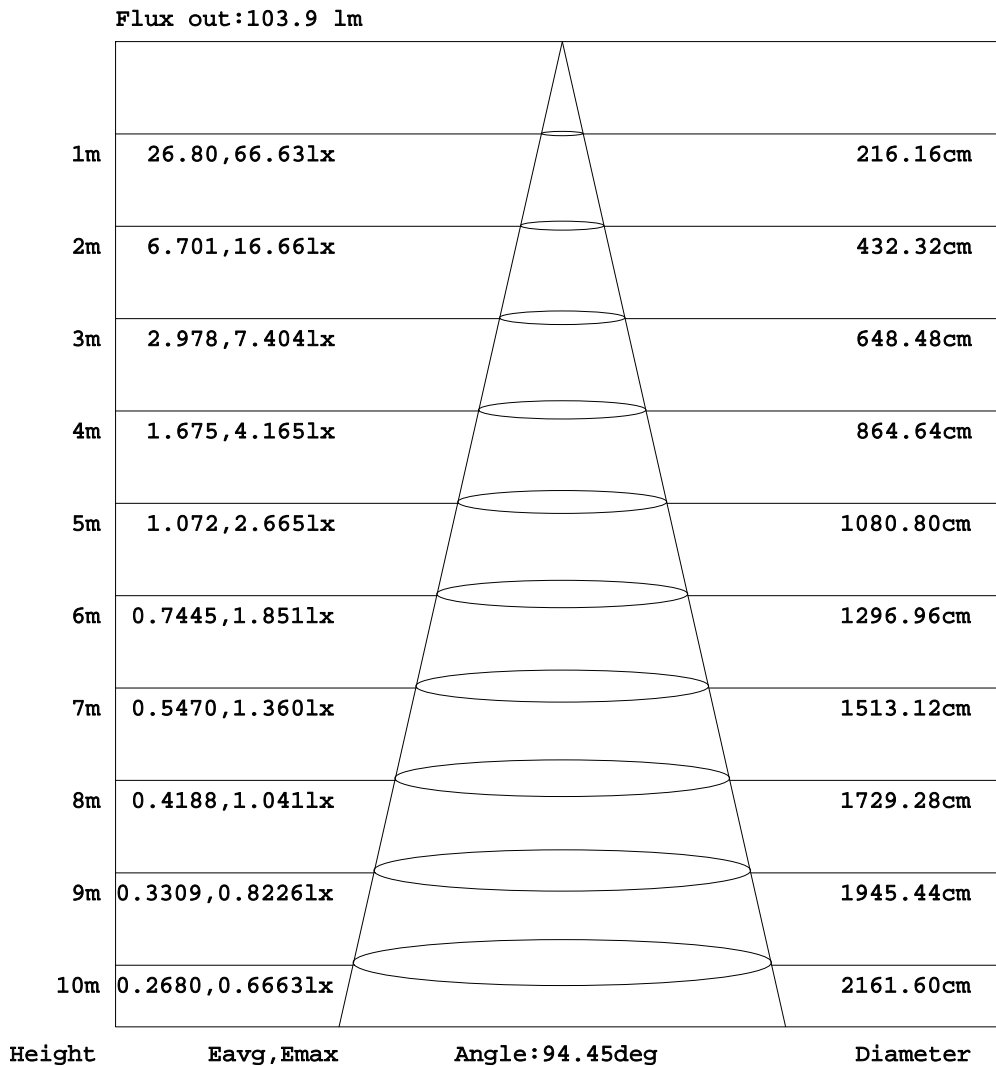


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

AAI Figure

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



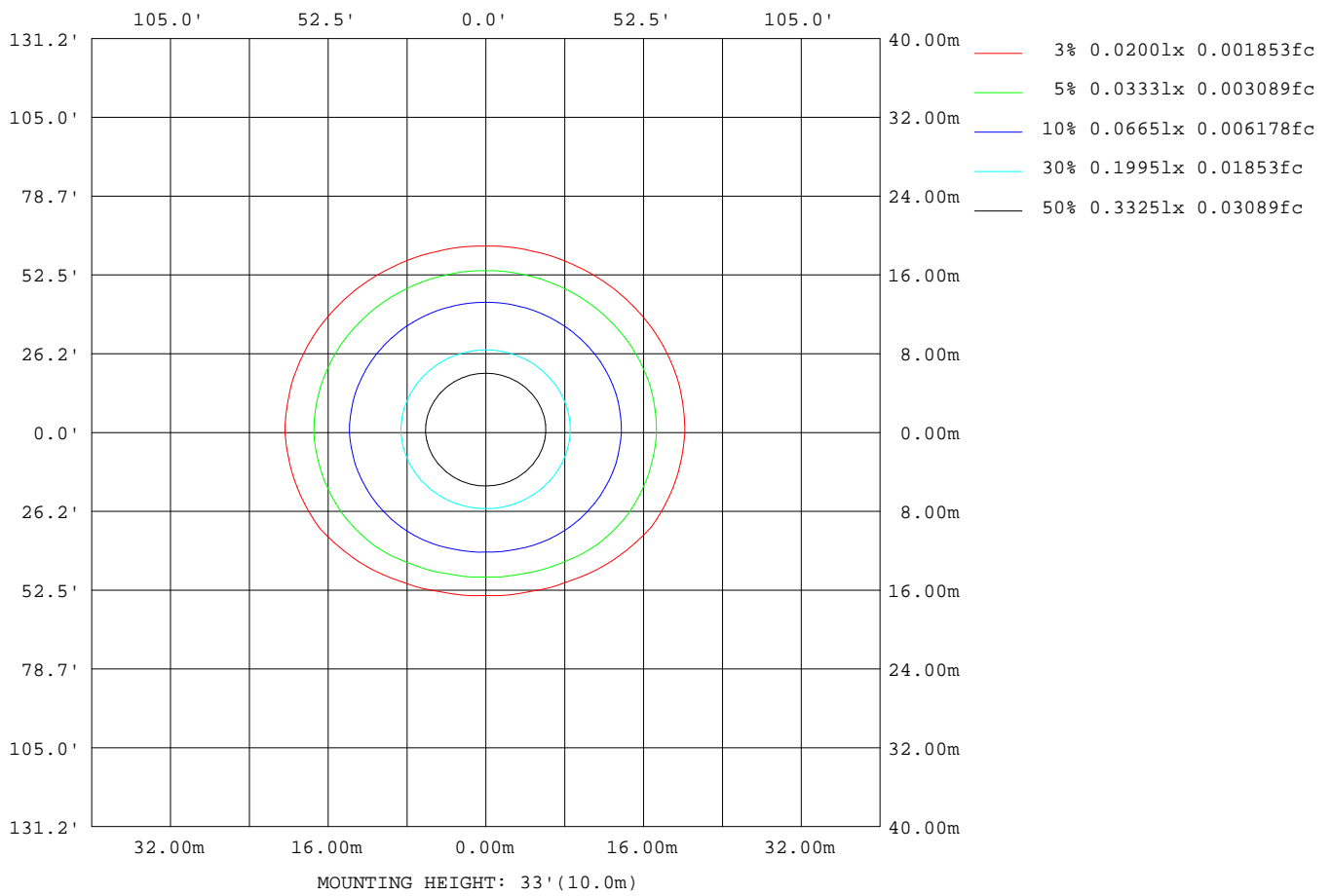
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators:Alan Wang
 Test Date:12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance:2.500m [K=1.0423]
 Remarks:

ISOLUX DIAGRAM

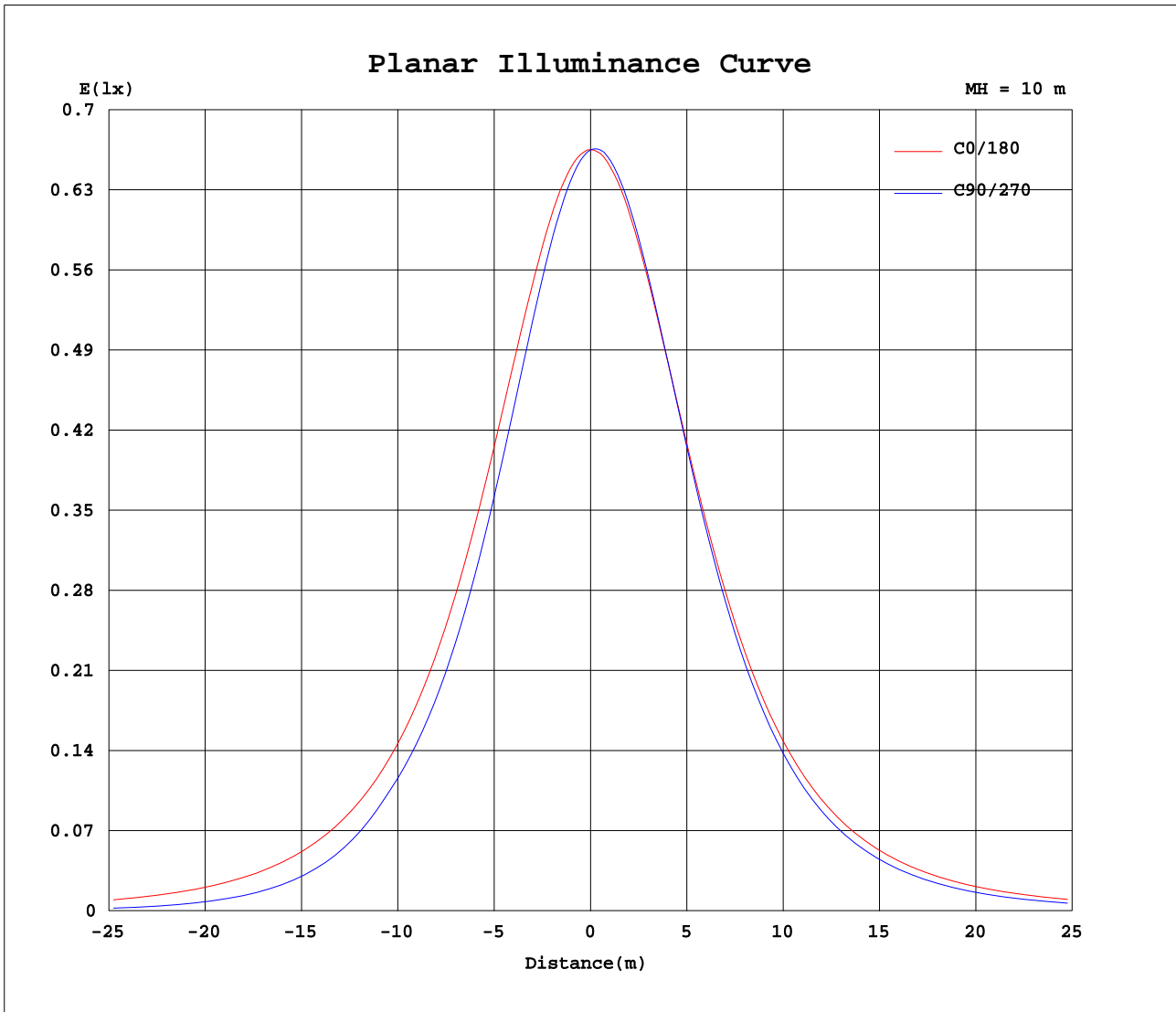
| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | 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 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 | 66.4 | 66.5 | 66.5 | 66.4 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 |
| 5 | 66.1 | 65.9 | 65.6 | 65.5 | 65.3 | 65.2 | 65.1 | 65.2 | 65.2 | 65.4 | 65.7 | 65.9 | 66.2 | 66.4 | 66.4 | 66.6 | 66.6 | 66.7 | 66.7 |
| 10 | 65.0 | 64.5 | 64.0 | 63.6 | 63.3 | 63.0 | 62.9 | 63.0 | 63.2 | 63.6 | 64.1 | 64.6 | 65.2 | 65.4 | 65.6 | 65.7 | 65.8 | 65.8 | 65.8 |
| 15 | 63.1 | 62.5 | 61.7 | 61.0 | 60.4 | 60.0 | 59.9 | 60.1 | 60.4 | 61.1 | 61.8 | 62.6 | 63.4 | 63.8 | 64.0 | 64.0 | 64.1 | 64.0 | 64.0 |
| 20 | 60.7 | 59.9 | 58.8 | 57.8 | 56.9 | 56.4 | 56.2 | 56.4 | 57.0 | 57.9 | 59.0 | 60.0 | 61.0 | 61.5 | 61.6 | 61.6 | 61.5 | 61.3 | 61.2 |
| 25 | 57.7 | 56.6 | 55.4 | 54.1 | 52.9 | 52.3 | 52.0 | 52.3 | 53.0 | 54.2 | 55.5 | 56.8 | 58.1 | 58.6 | 58.6 | 58.4 | 58.2 | 58.0 | 57.8 |
| 30 | 54.2 | 53.0 | 51.4 | 49.9 | 48.6 | 47.8 | 47.4 | 47.8 | 48.7 | 50.1 | 51.7 | 53.2 | 54.6 | 55.1 | 55.0 | 54.7 | 54.2 | 53.9 | 53.7 |
| 35 | 50.2 | 48.9 | 47.2 | 45.5 | 44.0 | 43.0 | 42.7 | 43.1 | 44.1 | 45.7 | 47.5 | 49.2 | 50.7 | 51.1 | 50.9 | 50.4 | 49.9 | 49.4 | 49.2 |
| 40 | 46.0 | 44.5 | 42.7 | 40.8 | 39.2 | 38.1 | 37.8 | 38.2 | 39.3 | 41.1 | 43.0 | 44.9 | 46.5 | 46.8 | 46.4 | 45.8 | 45.0 | 44.5 | 44.2 |
| 45 | 41.4 | 39.9 | 38.0 | 36.0 | 34.3 | 33.2 | 32.8 | 33.3 | 34.4 | 36.3 | 38.4 | 40.3 | 41.9 | 42.2 | 41.6 | 40.8 | 39.9 | 39.2 | 38.9 |
| 50 | 36.6 | 35.1 | 33.2 | 31.1 | 29.3 | 27.2 | 26.4 | 27.4 | 29.5 | 31.4 | 33.5 | 35.5 | 37.2 | 37.3 | 36.6 | 35.6 | 34.6 | 33.8 | 33.5 |
| 55 | 31.6 | 30.2 | 28.2 | 26.1 | 22.7 | 20.2 | 19.5 | 20.4 | 23.0 | 26.4 | 28.6 | 30.6 | 32.3 | 32.2 | 31.4 | 30.2 | 29.1 | 28.2 | 27.8 |
| 60 | 26.5 | 25.2 | 23.2 | 19.8 | 15.9 | 13.6 | 12.9 | 13.8 | 16.3 | 20.3 | 23.6 | 25.7 | 27.2 | 27.0 | 26.1 | 24.8 | 23.4 | 22.4 | 22.1 |
| 65 | 21.4 | 20.1 | 18.0 | 13.2 | 9.65 | 7.74 | 7.20 | 7.89 | 10.0 | 13.7 | 18.7 | 20.7 | 22.2 | 21.9 | 20.7 | 19.2 | 17.7 | 16.6 | 16.2 |
| 70 | 16.4 | 15.2 | 11.7 | 7.15 | 4.46 | 3.20 | 2.85 | 3.31 | 4.71 | 7.62 | 12.4 | 15.7 | 17.1 | 16.6 | 15.4 | 13.7 | 12.1 | 11.0 | 10.6 |
| 75 | 11.5 | 10.3 | 5.68 | 2.45 | 0.97 | 0.37 | 0.25 | 0.42 | 1.11 | 2.77 | 6.32 | 10.9 | 12.2 | 11.7 | 10.2 | 8.33 | 6.65 | 5.58 | 5.19 |
| 80 | 6.95 | 4.86 | 1.22 | 0.11 | 0.03 | 0.00 | 0.00 | 0.00 | 0.04 | 0.14 | 1.58 | 5.68 | 7.69 | 6.97 | 5.20 | 3.21 | 1.82 | 1.11 | 0.89 |
| 85 | 2.84 | 0.43 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.78 | 3.37 | 2.47 | 0.68 | 0.22 | 0.17 | 0.16 | 0.15 |
| 90 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 |
| 95 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 |
| 100 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| 105 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 |
| 110 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 |
| 115 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 |
| 120 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 |
| 125 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 130 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 |
| 135 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 140 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 |
| 145 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.04 | 0.04 | 0.04 |
| 150 | 0.03 | 0.03 | 0.04 | 0.04 | 0.03 | 0.04 | 0.03 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| 155 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.05 | 0.05 |
| 160 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |
| 165 | 0.04 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |
| 170 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.04 | 0.04 | 0.04 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 |
| 175 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 |
| 180 | 0.05 | 0.05 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Alan Wang
 Test Date: 12 January 2024

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.1%
 Test Distance: 2.500m [K=1.0423]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|----------|------------------|
| Test:U:12.0V I:0.3625A P:4.35W PF:1.0000 Freq:0Hz Lamp Flux:158.879x1 lm | | |
| NAME: | TYPE:LED | WEIGHT: |
| SPEC.:ASD-HSLS12-5SM-RGB-BR_5000K | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

Table--2

UNIT: cd

| C(DEG) γ (DEG) | 285 | 300 | 315 | 330 | 345 | | | | | | | | | | | | | | |
|-------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 66.5 | 66.4 | 66.5 | 66.5 | 66.4 | | | | | | | | | | | | | | |
| 5 | 66.6 | 66.6 | 66.5 | 66.4 | 66.3 | | | | | | | | | | | | | | |
| 10 | 65.8 | 65.7 | 65.6 | 65.5 | 65.3 | | | | | | | | | | | | | | |
| 15 | 64.0 | 63.9 | 64.0 | 63.8 | 63.7 | | | | | | | | | | | | | | |
| 20 | 61.3 | 61.3 | 61.5 | 61.4 | 61.3 | | | | | | | | | | | | | | |
| 25 | 57.9 | 58.1 | 58.3 | 58.4 | 58.3 | | | | | | | | | | | | | | |
| 30 | 53.8 | 54.1 | 54.5 | 54.8 | 54.8 | | | | | | | | | | | | | | |
| 35 | 49.3 | 49.7 | 50.3 | 50.7 | 50.8 | | | | | | | | | | | | | | |
| 40 | 44.4 | 44.9 | 45.6 | 46.2 | 46.5 | | | | | | | | | | | | | | |
| 45 | 39.1 | 39.8 | 40.6 | 41.4 | 41.8 | | | | | | | | | | | | | | |
| 50 | 33.7 | 34.4 | 35.4 | 36.3 | 36.9 | | | | | | | | | | | | | | |
| 55 | 28.1 | 28.9 | 30.0 | 31.1 | 31.8 | | | | | | | | | | | | | | |
| 60 | 22.4 | 23.3 | 24.5 | 25.8 | 26.6 | | | | | | | | | | | | | | |
| 65 | 16.6 | 17.6 | 19.0 | 20.4 | 21.4 | | | | | | | | | | | | | | |
| 70 | 10.9 | 12.0 | 13.5 | 15.0 | 16.2 | | | | | | | | | | | | | | |
| 75 | 5.51 | 6.51 | 8.10 | 9.87 | 11.2 | | | | | | | | | | | | | | |
| 80 | 1.06 | 1.70 | 3.01 | 4.88 | 6.51 | | | | | | | | | | | | | | |
| 85 | 0.15 | 0.16 | 0.20 | 0.51 | 2.19 | | | | | | | | | | | | | | |
| 90 | 0.07 | 0.07 | 0.07 | 0.06 | 0.05 | | | | | | | | | | | | | | |
| 95 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | | | | | | | |
| 100 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | | | | | | | | | | | | | | |
| 105 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | | | | | | | | | | | | | | |
| 110 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | | | | | | | | | | | | | | |
| 115 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | | | | | | | | | | | | | | |
| 120 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | | | | | | | | | | | | | | |
| 125 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | | | | | | | | | | | | | | |
| 130 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | | | | | | | | | | | | | | |
| 135 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | | | | | | | | | | | | | | |
| 140 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | | | | | | | | | | | | | | |
| 145 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | | | | | | | | | | | | | | |
| 150 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | | | | | | | | | | | | | | |
| 155 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | | | | | | | | | | | | | | |
| 160 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | | | | | | | | | | | | | | |
| 165 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | | | | | | | | | | | | | | |
| 170 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | | | | | | | | | | | | | | |
| 175 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | | | | | | | | | | | | | | |
| 180 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | | | | | | | | | | | | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
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