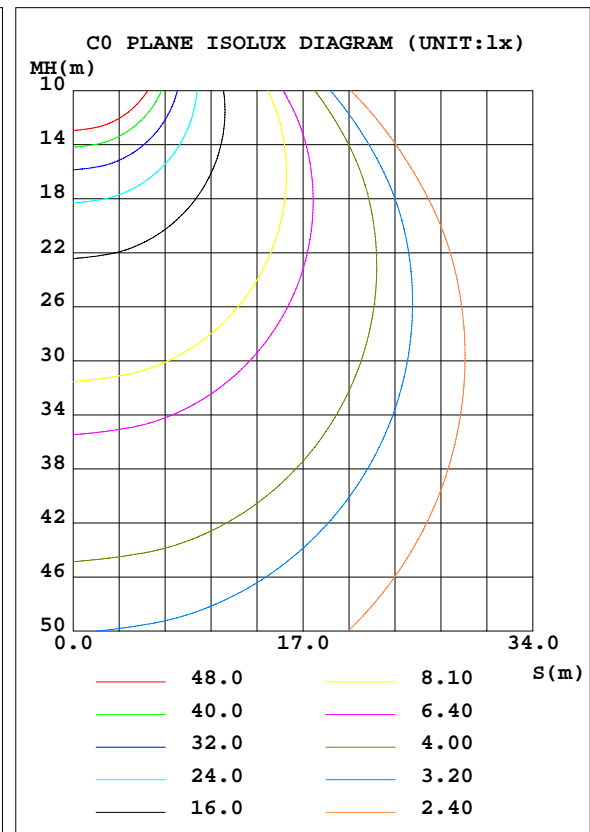
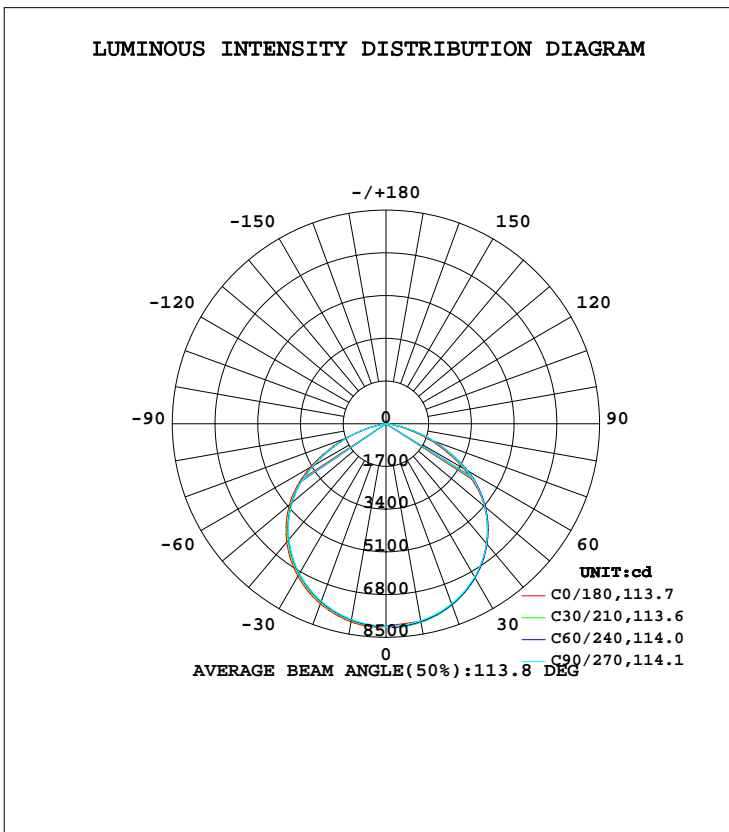


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 148.24 lm/W | | | |
|------------------|---------------------|-----------------------------------|--------|--------------------|----------|
| MODEL | ASD-UHB2-150D40-PRM | Imax(cd) | 8134 | S/MH(C0/180) | 1.29 |
| NOMINAL POWER(W) | 150 | LOR(%) | 100.0 | S/MH(C90/270) | 1.27 |
| RATED VOLTAGE(V) | 120-277 | TOTAL FLUX(lm) | 22050 | η UP, DN(C0-180) | 0.0,51.0 |
| NOMINAL FLUX(lm) | 22050 | CIE CLASS | DIRECT | η UP, DN(C180-360) | 0.1,48.9 |
| LAMPS INSIDE | 1 | η up(%) | 0.1 | CIBSE SHR NOM | 1.25 |
| TEST VOLTAGE(V) | 120 | η down(%) | 99.9 | CIBSE SHR MAX | 1.35 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 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 | 7960 | 8010 | 7959 | 7903 | 8006 | 7943 | 7907 | 7897 | 0- 10 | 764.1 | 764.1 | 3.41,3.41 |
| 20 | 7651 | 7673 | 7626 | 7554 | 7628 | 7550 | 7518 | 7525 | 10- 20 | 2201 | 2965 | 13.2,13.2 |
| 30 | 7059 | 7085 | 7047 | 6961 | 7009 | 6917 | 6884 | 6913 | 20- 30 | 3370 | 6335 | 28.3,28.3 |
| 40 | 6217 | 6259 | 6223 | 6127 | 6143 | 6038 | 6010 | 6056 | 30- 40 | 4117 | 10452 | 46.6,46.6 |
| 50 | 5113 | 5166 | 5134 | 5030 | 5014 | 4897 | 4870 | 4941 | 40- 50 | 4318 | 14771 | 65.9,65.9 |
| 60 | 3566 | 3725 | 3734 | 3578 | 3485 | 3336 | 3329 | 3406 | 50- 60 | 3849 | 18620 | 83.1,83.1 |
| 70 | 1812 | 1995 | 2028 | 1871 | 1742 | 1635 | 1649 | 1721 | 60- 70 | 2632 | 21252 | 94.8,94.8 |
| 80 | 284.1 | 428.8 | 461.8 | 362.4 | 250.8 | 244.0 | 270.1 | 283.1 | 70- 80 | 1053 | 22305 | 99.5,99.5 |
| 90 | 0.6180 | 5.105 | 7.756 | 1.196 | 1.212 | 1.302 | 1.309 | 1.225 | 80- 90 | 88.87 | 22394 | 99.9,99.9 |
| 100 | 0.9961 | 1.013 | 1.004 | 1.033 | 2.164 | 2.309 | 2.270 | 2.198 | 90-100 | 1.492 | 22395 | 99.9,99.9 |
| 110 | 1.521 | 1.464 | 1.526 | 1.563 | 2.749 | 2.843 | 2.858 | 2.760 | 100-110 | 2.015 | 22397 | 99.9,99.9 |
| 120 | 2.419 | 2.242 | 2.271 | 2.370 | 3.493 | 3.525 | 3.529 | 3.344 | 110-120 | 2.455 | 22400 | 99.9,99.9 |
| 130 | 3.514 | 3.259 | 3.246 | 3.381 | 4.838 | 5.044 | 5.141 | 4.616 | 120-130 | 3.097 | 22403 | 99.9,99.9 |
| 140 | 4.419 | 4.251 | 4.334 | 4.305 | 5.913 | 6.310 | 6.069 | 5.890 | 130-140 | 3.633 | 22407 | 100,100 |
| 150 | 4.707 | 4.615 | 4.607 | 4.709 | 6.725 | 6.924 | 6.688 | 6.638 | 140-150 | 3.411 | 22410 | 100,100 |
| 160 | 5.621 | 5.170 | 4.782 | 5.351 | 7.408 | 7.470 | 6.972 | 6.984 | 150-160 | 2.745 | 22413 | 100,100 |
| 170 | 6.364 | 6.169 | 5.923 | 6.162 | 7.543 | 7.681 | 7.257 | 7.059 | 160-170 | 1.840 | 22415 | 100,100 |
| 180 | 7.345 | 7.345 | 7.345 | 7.345 | 6.966 | 6.966 | 6.966 | 6.966 | 170-180 | 0.6564 | 22415 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

Conical surface Flux(90deg): 12625 lm

%lum = 56.3%

%lamp = 56.3%

Conical surface Flux(120deg): 18620 lm

%lum = 83.1%

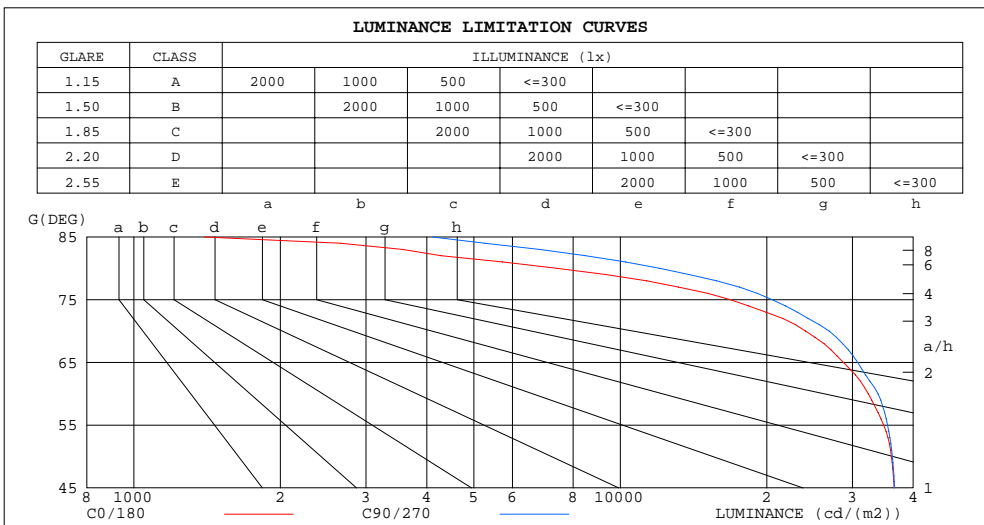
%lamp = 83.1%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G(DEG) | C0/180 | C90/270 |
| 85 | 1396 | 4113 |
| 80 | 7420 | 12060 |
| 75 | 16846 | 20526 |
| 70 | 24022 | 26889 |
| 65 | 28760 | 30763 |
| 60 | 32343 | 33869 |
| 55 | 34791 | 35428 |
| 50 | 36073 | 36221 |
| 45 | 36545 | 36628 |

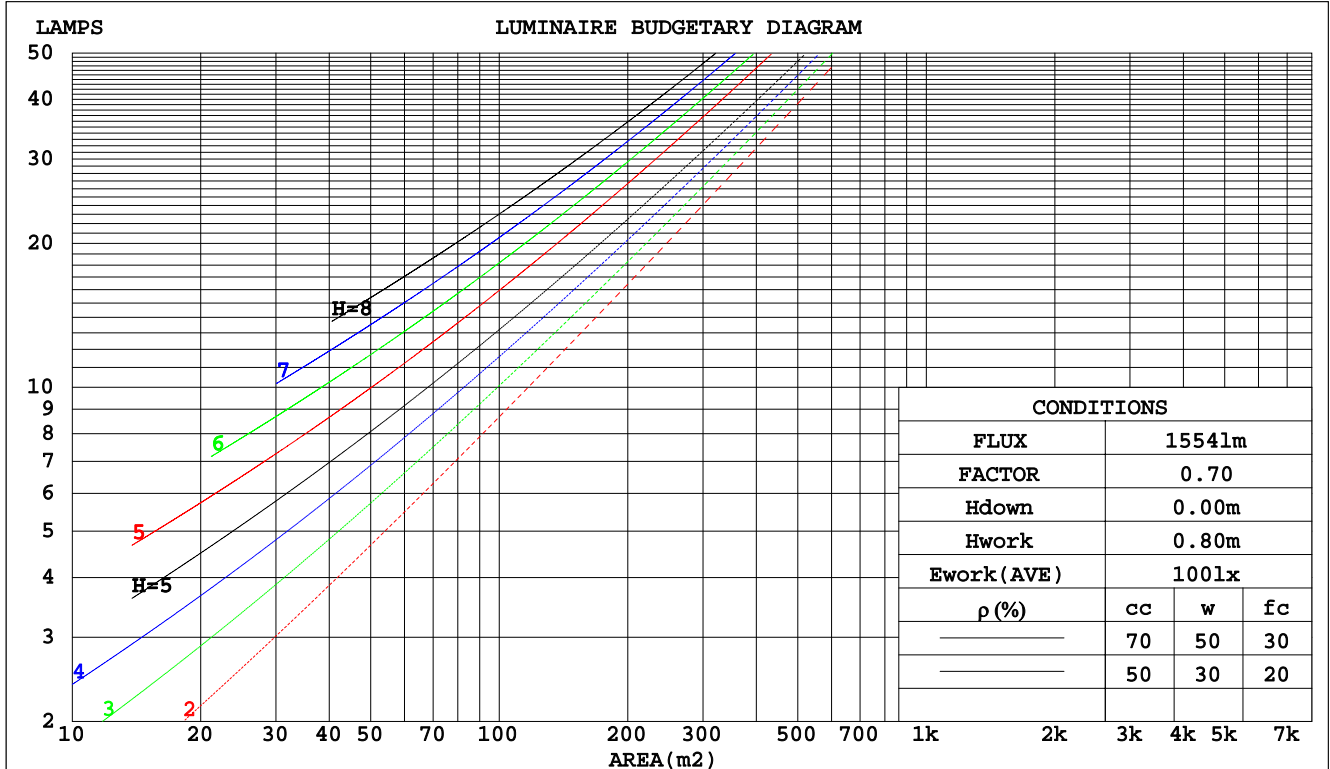
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | 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 | 1.05 | 1.01 | .98 | 1.03 | .99 | .96 | .99 | .96 | .93 | .95 | .93 | .90 | .91 | .89 | .88 | .86 |
| 2.0 | .92 | .86 | .80 | .90 | .84 | .79 | .87 | .82 | .78 | .84 | .79 | .76 | .81 | .77 | .74 | .72 |
| 3.0 | .81 | .73 | .67 | .80 | .72 | .66 | .77 | .70 | .65 | .74 | .69 | .64 | .71 | .67 | .63 | .61 |
| 4.0 | .72 | .63 | .57 | .71 | .63 | .57 | .68 | .61 | .56 | .66 | .60 | .55 | .64 | .59 | .54 | .52 |
| 5.0 | .64 | .56 | .49 | .63 | .55 | .49 | .61 | .54 | .48 | .59 | .53 | .48 | .57 | .52 | .47 | .45 |
| 6.0 | .58 | .49 | .43 | .57 | .49 | .43 | .55 | .48 | .42 | .53 | .47 | .42 | .52 | .46 | .41 | .39 |
| 7.0 | .52 | .44 | .38 | .52 | .43 | .38 | .50 | .43 | .37 | .49 | .42 | .37 | .47 | .41 | .37 | .35 |
| 8.0 | .48 | .39 | .34 | .47 | .39 | .33 | .46 | .38 | .33 | .45 | .38 | .33 | .43 | .37 | .33 | .31 |
| 9.0 | .44 | .36 | .30 | .43 | .35 | .30 | .42 | .35 | .30 | .41 | .34 | .30 | .40 | .34 | .30 | .28 |
| 10.0 | .40 | .33 | .27 | .40 | .32 | .27 | .39 | .32 | .27 | .38 | .32 | .27 | .37 | .31 | .27 | .25 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

WEC AND CCEC

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | 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 | .282 | .161 | .051 | .275 | .157 | .050 | .262 | .150 | .048 | .250 | .144 | .046 | .239 | .138 | .045 | |
| 2.0 | .274 | .150 | .046 | .268 | .148 | .045 | .256 | .143 | .044 | .246 | .138 | .043 | .236 | .133 | .042 | |
| 3.0 | .258 | .137 | .041 | .253 | .135 | .041 | .242 | .131 | .040 | .233 | .128 | .039 | .224 | .124 | .038 | |
| 4.0 | .241 | .125 | .037 | .236 | .123 | .036 | .227 | .120 | .036 | .218 | .117 | .035 | .210 | .114 | .035 | |
| 5.0 | .224 | .114 | .033 | .220 | .113 | .033 | .212 | .110 | .032 | .204 | .108 | .032 | .197 | .105 | .032 | |
| 6.0 | .209 | .105 | .030 | .205 | .104 | .030 | .198 | .101 | .030 | .191 | .099 | .029 | .185 | .097 | .029 | |
| 7.0 | .195 | .097 | .027 | .192 | .096 | .027 | .185 | .094 | .027 | .179 | .092 | .027 | .174 | .090 | .027 | |
| 8.0 | .183 | .089 | .025 | .180 | .089 | .025 | .174 | .087 | .025 | .169 | .085 | .025 | .164 | .084 | .024 | |
| 9.0 | .172 | .083 | .023 | .169 | .082 | .023 | .164 | .081 | .023 | .159 | .080 | .023 | .154 | .078 | .023 | |
| 10.0 | .162 | .078 | .022 | .159 | .077 | .021 | .155 | .076 | .021 | .150 | .075 | .021 | .146 | .073 | .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 | .137 | .153 | .135 | .118 | .105 | .093 | .082 | .060 | .054 | .048 | .019 | .017 | .015 | |
| 2.0 | .171 | .133 | .101 | .146 | .114 | .087 | .100 | .079 | .061 | .058 | .046 | .036 | .019 | .015 | .012 | |
| 3.0 | .163 | .115 | .077 | .140 | .099 | .067 | .096 | .069 | .047 | .055 | .040 | .028 | .018 | .013 | .009 | |
| 4.0 | .155 | .102 | .060 | .133 | .088 | .052 | .092 | .061 | .037 | .053 | .036 | .022 | .017 | .012 | .007 | |
| 5.0 | .148 | .091 | .049 | .127 | .079 | .042 | .088 | .055 | .030 | .051 | .032 | .018 | .016 | .011 | .006 | |
| 6.0 | .141 | .083 | .041 | .122 | .072 | .035 | .084 | .050 | .025 | .049 | .029 | .015 | .016 | .010 | .005 | |
| 7.0 | .135 | .076 | .034 | .116 | .066 | .030 | .080 | .046 | .021 | .047 | .027 | .013 | .015 | .009 | .004 | |
| 8.0 | .129 | .070 | .030 | .111 | .061 | .026 | .077 | .043 | .018 | .045 | .025 | .011 | .014 | .008 | .004 | |
| 9.0 | .123 | .065 | .026 | .106 | .056 | .023 | .073 | .040 | .016 | .043 | .023 | .010 | .014 | .008 | .003 | |
| 10.0 | .117 | .061 | .023 | .101 | .053 | .020 | .070 | .037 | .014 | .041 | .022 | .009 | .013 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|--|------------------|------|------|------|-----------|----------------|------|------------------|------|------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | | | | | | | | | |
| NAME: ASD Lighting Corp | | | | | TYPE: LED | | | WEIGHT: | | |
| SPEC.: ASD-UHB2-150D40-PRM | | | | | 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 | 24.8 | 26.4 | 25.2 | 26.7 | 27.0 | 24.8 | 26.4 | 25.2 | 26.8 | 27.1 |
| 3H | 26.2 | 27.6 | 26.5 | 27.9 | 28.3 | 26.3 | 27.8 | 26.7 | 28.1 | 28.5 |
| 4H | 26.5 | 27.8 | 26.9 | 28.2 | 28.5 | 26.7 | 28.1 | 27.1 | 28.4 | 28.8 |
| 6H | 26.5 | 27.8 | 26.9 | 28.2 | 28.5 | 26.9 | 28.1 | 27.3 | 28.5 | 28.9 |
| 8H | 26.5 | 27.7 | 26.9 | 28.1 | 28.5 | 26.9 | 28.1 | 27.3 | 28.5 | 28.9 |
| 12H | 26.5 | 27.6 | 26.9 | 28.0 | 28.4 | 26.9 | 28.0 | 27.3 | 28.4 | 28.8 |
| 4H 2H | 25.4 | 26.7 | 25.8 | 27.1 | 27.4 | 25.3 | 26.7 | 25.7 | 27.0 | 27.4 |
| 3H | 26.9 | 28.0 | 27.3 | 28.4 | 28.8 | 27.0 | 28.1 | 27.4 | 28.5 | 28.9 |
| 4H | 27.3 | 28.3 | 27.7 | 28.7 | 29.2 | 27.5 | 28.5 | 27.9 | 28.9 | 29.3 |
| 6H | 27.4 | 28.3 | 27.9 | 28.7 | 29.2 | 27.7 | 28.6 | 28.2 | 29.0 | 29.5 |
| 8H | 27.4 | 28.2 | 27.9 | 28.6 | 29.1 | 27.7 | 28.5 | 28.2 | 29.0 | 29.4 |
| 12H | 27.4 | 28.1 | 27.8 | 28.6 | 29.0 | 27.7 | 28.4 | 28.2 | 28.9 | 29.4 |
| 8H 4H | 27.5 | 28.3 | 27.9 | 28.7 | 29.2 | 27.6 | 28.4 | 28.0 | 28.8 | 29.3 |
| 6H | 27.6 | 28.3 | 28.1 | 28.8 | 29.2 | 27.8 | 28.5 | 28.3 | 29.0 | 29.5 |
| 8H | 27.6 | 28.2 | 28.1 | 28.7 | 29.2 | 27.8 | 28.4 | 28.4 | 29.0 | 29.4 |
| 12H | 27.6 | 28.1 | 28.1 | 28.6 | 29.1 | 27.8 | 28.4 | 28.3 | 28.9 | 29.4 |
| 12H 4H | 27.5 | 28.2 | 27.9 | 28.7 | 29.1 | 27.6 | 28.3 | 28.1 | 28.8 | 29.2 |
| 6H | 27.6 | 28.2 | 28.1 | 28.7 | 29.2 | 27.8 | 28.4 | 28.3 | 28.9 | 29.4 |
| 8H | 27.6 | 28.1 | 28.1 | 28.6 | 29.2 | 27.8 | 28.4 | 28.3 | 28.9 | 29.4 |
| CIE190: 2010 | | | | | | | | | | |
| | | | | | | | | | | |

CIE190: 2010
Area: 0.220507 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 24.8DEG
Operators: Alan Wang
Test Date: 27 January 2021

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
Humidity: 45.7%
Test Distance: 2.500m [K=1.0459]
Remarks:

UTILIZATION FACTORS TABLE

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
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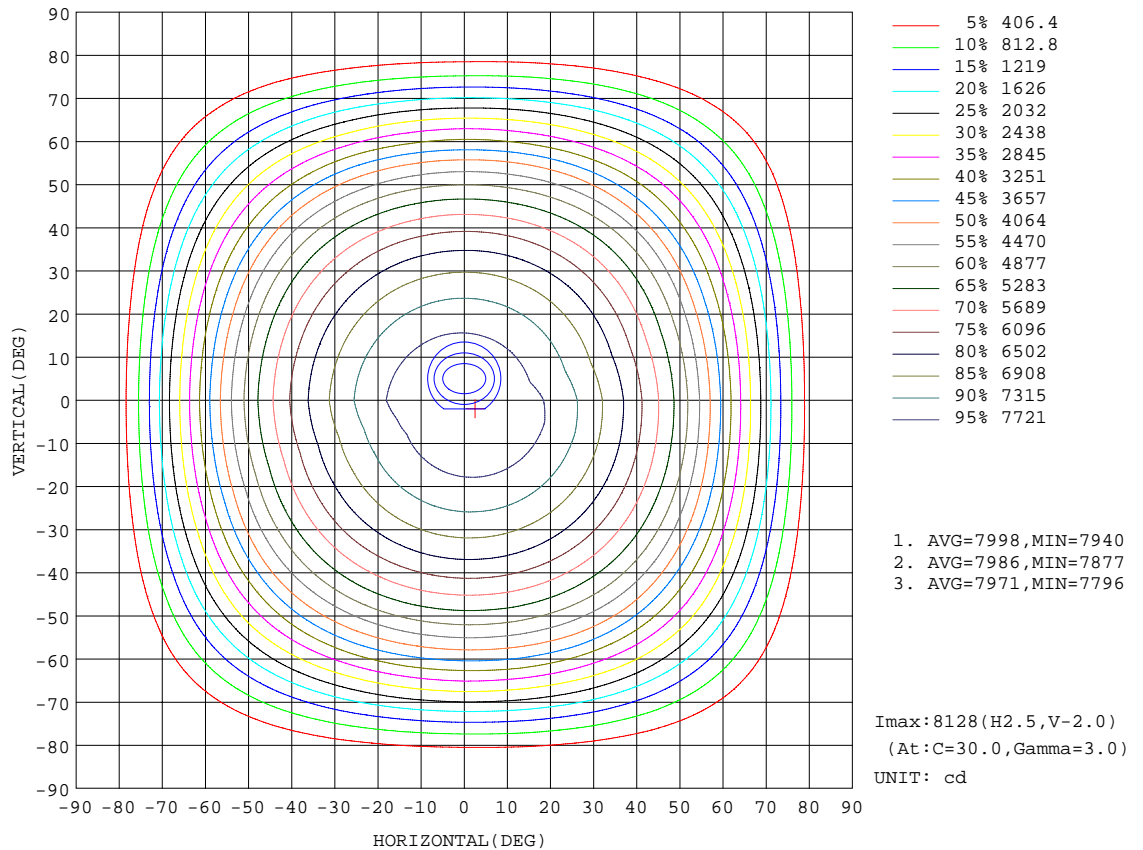
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|---|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 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 | 58 | 47 | 40 | 58 | 47 | 40 | 56 | 46 | 40 | 33 |
| 0.80 | 69 | 57 | 50 | 68 | 57 | 50 | 66 | 56 | 50 | 43 |
| 1.00 | 77 | 67 | 60 | 76 | 66 | 59 | 74 | 67 | 59 | 52 |
| 1.25 | 85 | 75 | 68 | 83 | 74 | 67 | 81 | 73 | 67 | 60 |
| 1.50 | 90 | 80 | 74 | 88 | 79 | 73 | 85 | 78 | 72 | 65 |
| 2.00 | 97 | 89 | 82 | 95 | 87 | 82 | 91 | 85 | 80 | 73 |
| 2.50 | 100 | 93 | 87 | 98 | 92 | 86 | 95 | 89 | 85 | 77 |
| 3.00 | 104 | 97 | 92 | 101 | 96 | 91 | 97 | 93 | 89 | 81 |
| 4.00 | 107 | 102 | 98 | 105 | 100 | 96 | 101 | 97 | 94 | 85 |
| 5.00 | 110 | 105 | 102 | 107 | 103 | 100 | 103 | 100 | 97 | 88 |
| 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: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

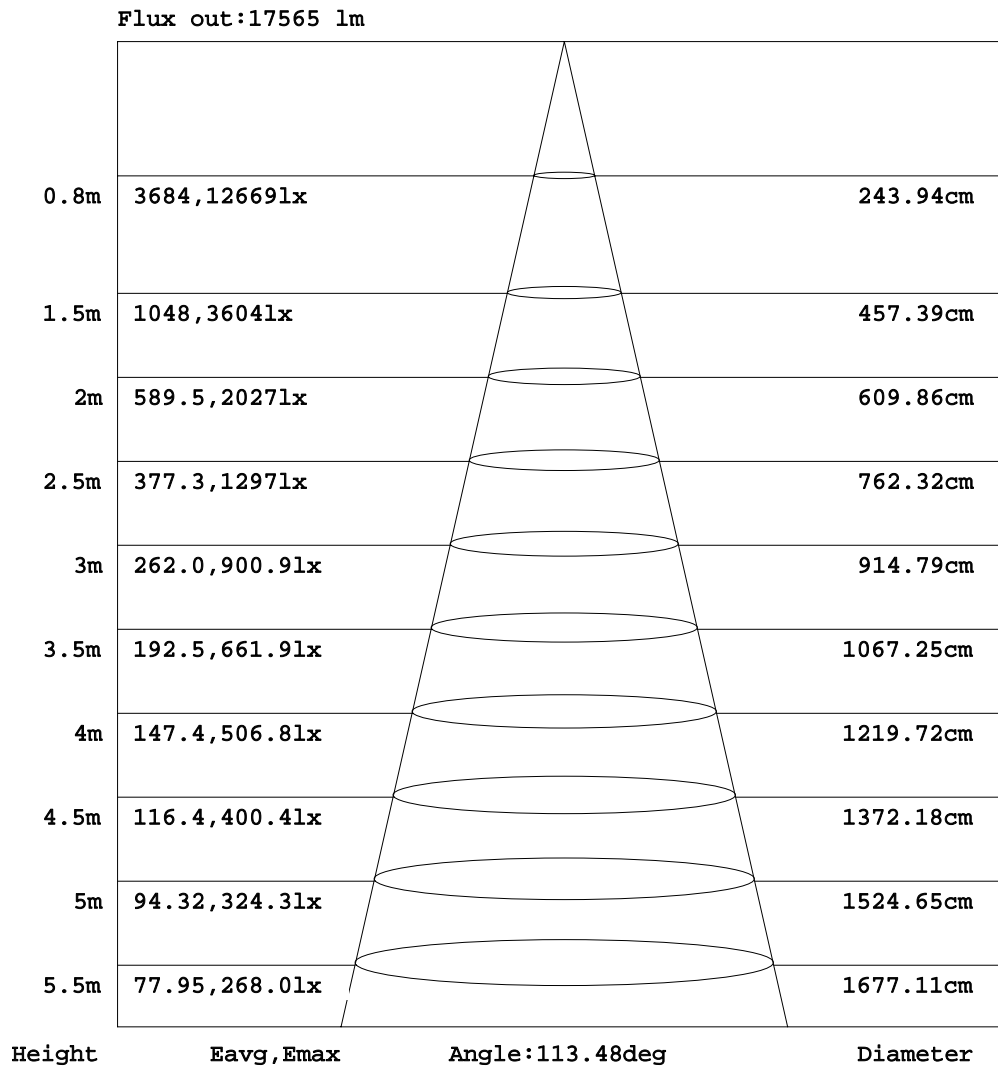


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γ Range: 0 - 180DEG
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 Test Distance: 2.500m [K=1.0459]
 Remarks:

AAI Figure

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



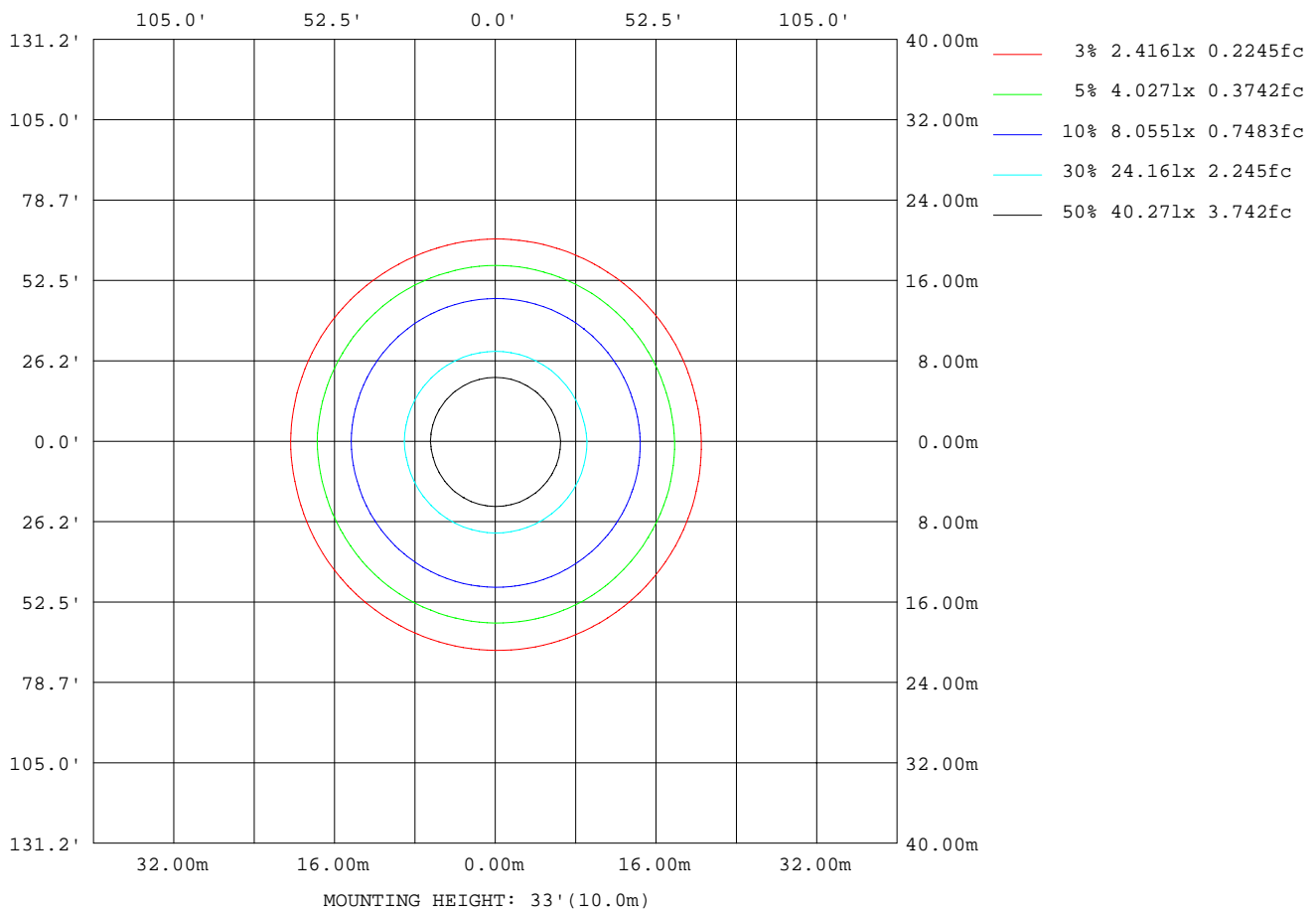
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

ISOLUX DIAGRAM

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LED Avg.L Report

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

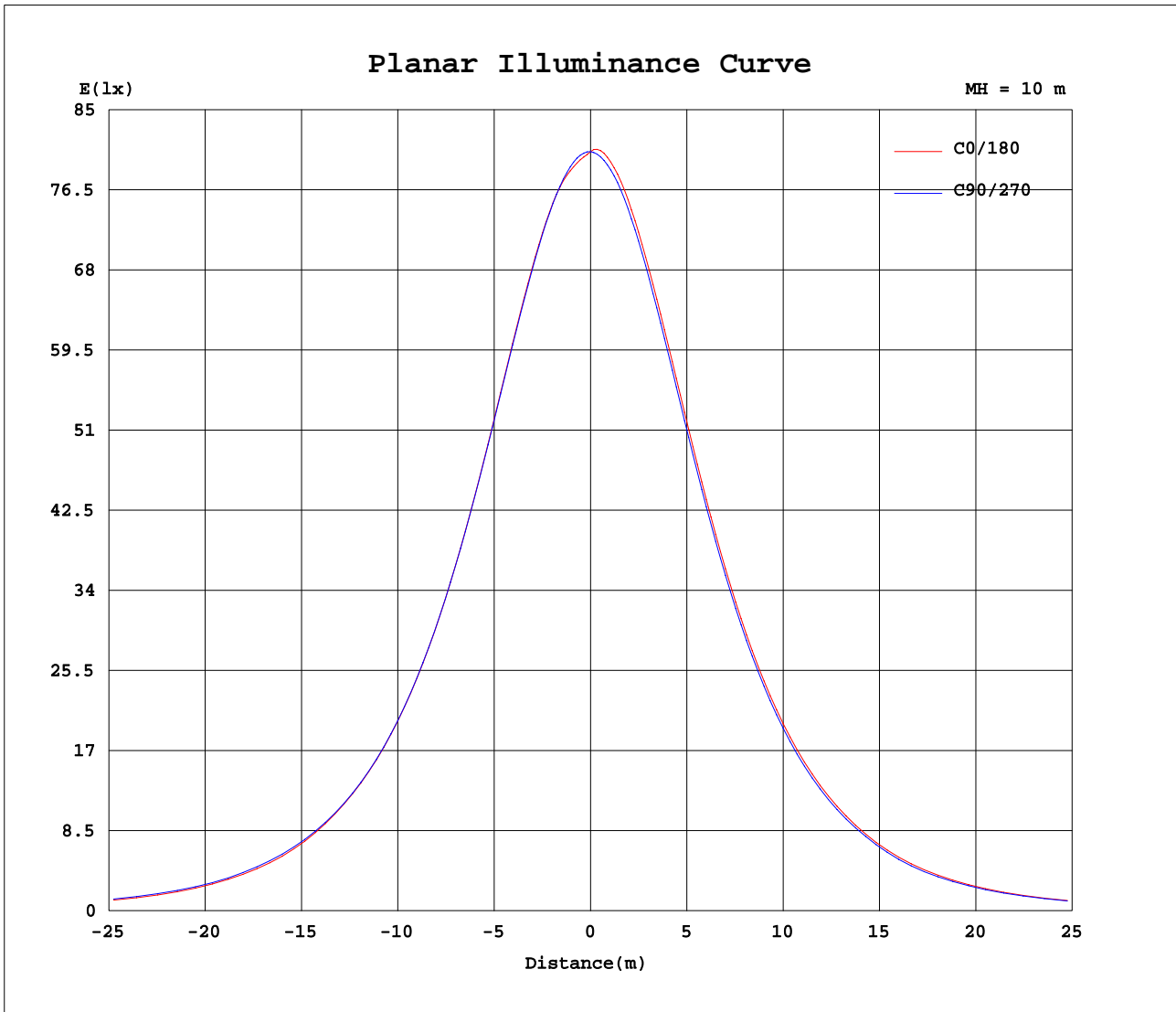
| AvgL | cd/m2 |
|----------------|-------|
| L_0~180(65)av | 28372 |
| L_0~180(75)av | 16244 |
| L_0~180(85)av | 1287 |
| L_90~270(65)av | 28824 |
| L_90~270(75)av | 17640 |
| L_90~270(85)av | 2947 |
| L_45(65)av | 28635 |
| L_45(75)av | 17127 |
| L_45(85)av | 2338 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 24.8DEG
Operators: Alan Wang
Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
Humidity: 45.7%
Test Distance: 2.500m [K=1.0459]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | 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 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 | 8055 |
| 5 | 7987 | 8095 | 8112 | 8096 | 8076 | 8056 | 8037 | 8016 | 7999 | 7984 | 8001 | 8104 | 8088 | 8068 | 8052 | 8038 | 8027 | 8016 | 8007 |
| 10 | 7960 | 8037 | 8025 | 8010 | 7995 | 7978 | 7959 | 7941 | 7922 | 7903 | 7885 | 7959 | 8006 | 7981 | 7960 | 7943 | 7927 | 7914 | 7907 |
| 15 | 7843 | 7894 | 7884 | 7873 | 7860 | 7845 | 7826 | 7804 | 7782 | 7759 | 7737 | 7773 | 7847 | 7820 | 7797 | 7777 | 7762 | 7753 | 7743 |
| 20 | 7651 | 7689 | 7681 | 7673 | 7661 | 7646 | 7626 | 7605 | 7579 | 7554 | 7529 | 7545 | 7628 | 7599 | 7573 | 7550 | 7535 | 7523 | 7518 |
| 25 | 7387 | 7420 | 7416 | 7410 | 7399 | 7387 | 7367 | 7342 | 7315 | 7287 | 7258 | 7262 | 7350 | 7318 | 7289 | 7264 | 7246 | 7235 | 7231 |
| 30 | 7059 | 7088 | 7089 | 7085 | 7077 | 7066 | 7047 | 7022 | 6991 | 6961 | 6930 | 6923 | 7009 | 6973 | 6944 | 6917 | 6899 | 6887 | 6884 |
| 35 | 6672 | 6698 | 6704 | 6702 | 6696 | 6687 | 6667 | 6641 | 6608 | 6576 | 6540 | 6525 | 6606 | 6567 | 6537 | 6509 | 6491 | 6479 | 6479 |
| 40 | 6217 | 6245 | 6254 | 6259 | 6253 | 6243 | 6223 | 6195 | 6160 | 6127 | 6089 | 6067 | 6143 | 6100 | 6066 | 6038 | 6021 | 6008 | 6010 |
| 45 | 5698 | 5730 | 5741 | 5744 | 5742 | 5736 | 5711 | 5685 | 5648 | 5613 | 5573 | 5546 | 5615 | 5569 | 5532 | 5503 | 5485 | 5472 | 5476 |
| 50 | 5113 | 5146 | 5159 | 5166 | 5170 | 5162 | 5134 | 5106 | 5071 | 5030 | 4989 | 4956 | 5014 | 4966 | 4929 | 4897 | 4879 | 4868 | 4870 |
| 55 | 4400 | 4457 | 4498 | 4516 | 4523 | 4508 | 4481 | 4450 | 4409 | 4366 | 4326 | 4281 | 4315 | 4255 | 4223 | 4194 | 4183 | 4173 | 4183 |
| 60 | 3566 | 3615 | 3651 | 3725 | 3777 | 3768 | 3734 | 3695 | 3649 | 3578 | 3494 | 3449 | 3485 | 3418 | 3363 | 3336 | 3324 | 3305 | 3329 |
| 65 | 2680 | 2751 | 2824 | 2860 | 2875 | 2877 | 2867 | 2819 | 2765 | 2727 | 2679 | 2606 | 2608 | 2580 | 2554 | 2512 | 2473 | 2485 | 2506 |
| 70 | 1812 | 1880 | 1933 | 1995 | 2037 | 2042 | 2028 | 1995 | 1940 | 1871 | 1795 | 1739 | 1742 | 1689 | 1672 | 1635 | 1632 | 1625 | 1649 |
| 75 | 961 | 1014 | 1082 | 1143 | 1179 | 1188 | 1171 | 1143 | 1104 | 1045 | 974 | 901 | 893 | 855 | 832 | 826 | 835 | 835 | 842 |
| 80 | 284 | 328 | 376 | 429 | 464 | 478 | 462 | 445 | 414 | 362 | 297 | 252 | 251 | 242 | 241 | 244 | 258 | 266 | 270 |
| 85 | 26.8 | 42.2 | 58.4 | 66.3 | 81.3 | 86.4 | 79.0 | 72.9 | 72.4 | 53.5 | 40.8 | 23.9 | 22.6 | 21.4 | 24.5 | 27.7 | 28.3 | 32.8 | 34.2 |
| 90 | 0.62 | 0.88 | 3.62 | 5.11 | 6.41 | 7.06 | 7.76 | 6.94 | 2.27 | 1.20 | 0.95 | 0.69 | 1.21 | 1.24 | 1.28 | 1.30 | 1.31 | 1.32 | 1.31 |
| 95 | 0.78 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.77 | 0.77 | 0.77 | 0.78 | 1.67 | 1.70 | 1.74 | 1.78 | 1.84 | 1.81 | 1.78 |
| 100 | 1.00 | 0.98 | 0.98 | 1.01 | 1.02 | 1.01 | 1.00 | 1.02 | 1.03 | 1.03 | 1.02 | 1.01 | 2.16 | 2.18 | 2.25 | 2.31 | 2.31 | 2.30 | 2.27 |
| 105 | 1.23 | 1.22 | 1.20 | 1.22 | 1.24 | 1.25 | 1.26 | 1.26 | 1.27 | 1.27 | 1.27 | 1.26 | 2.59 | 2.57 | 2.61 | 2.65 | 2.67 | 2.66 | 2.65 |
| 110 | 1.52 | 1.50 | 1.46 | 1.46 | 1.50 | 1.52 | 1.53 | 1.55 | 1.55 | 1.56 | 1.58 | 1.56 | 2.75 | 2.76 | 2.81 | 2.84 | 2.86 | 2.87 | 2.86 |
| 115 | 1.92 | 1.84 | 1.82 | 1.79 | 1.81 | 1.85 | 1.87 | 1.90 | 1.91 | 1.94 | 1.93 | 1.92 | 3.00 | 3.02 | 3.05 | 3.09 | 3.10 | 3.11 | 3.12 |
| 120 | 2.42 | 2.35 | 2.27 | 2.24 | 2.26 | 2.25 | 2.27 | 2.31 | 2.33 | 2.37 | 2.41 | 2.39 | 3.49 | 3.50 | 3.49 | 3.52 | 3.51 | 3.49 | 3.53 |
| 125 | 2.99 | 2.89 | 2.76 | 2.75 | 2.78 | 2.66 | 2.72 | 2.77 | 2.81 | 2.87 | 2.94 | 2.91 | 4.04 | 4.09 | 4.11 | 4.19 | 4.18 | 4.19 | 4.25 |
| 130 | 3.51 | 3.45 | 3.36 | 3.26 | 3.37 | 3.26 | 3.25 | 3.27 | 3.35 | 3.38 | 3.48 | 3.51 | 4.84 | 4.93 | 5.03 | 5.04 | 5.11 | 5.12 | 5.14 |
| 135 | 4.05 | 4.00 | 3.87 | 3.71 | 3.82 | 3.96 | 3.91 | 3.90 | 3.86 | 3.86 | 3.96 | 4.02 | 5.45 | 5.60 | 5.69 | 5.85 | 5.86 | 5.78 | 5.66 |
| 140 | 4.42 | 4.46 | 4.33 | 4.25 | 4.27 | 4.38 | 4.33 | 4.27 | 4.26 | 4.31 | 4.26 | 4.32 | 5.91 | 6.07 | 6.14 | 6.31 | 6.39 | 6.24 | 6.07 |
| 145 | 4.53 | 4.61 | 4.49 | 4.41 | 4.55 | 4.53 | 4.49 | 4.51 | 4.53 | 4.51 | 4.44 | 4.48 | 6.31 | 6.37 | 6.44 | 6.60 | 6.70 | 6.64 | 6.58 |
| 150 | 4.71 | 4.79 | 4.71 | 4.62 | 4.59 | 4.67 | 4.61 | 4.68 | 4.66 | 4.71 | 4.62 | 4.64 | 6.73 | 6.69 | 6.76 | 6.92 | 6.93 | 6.81 | 6.69 |
| 155 | 5.18 | 5.26 | 5.17 | 4.86 | 4.76 | 4.88 | 4.75 | 4.86 | 4.91 | 5.00 | 5.07 | 4.96 | 6.96 | 6.97 | 7.15 | 7.16 | 7.11 | 7.00 | 6.79 |
| 160 | 5.62 | 5.62 | 5.48 | 5.17 | 4.96 | 4.99 | 4.78 | 5.10 | 5.20 | 5.35 | 5.43 | 5.37 | 7.41 | 7.36 | 7.32 | 7.47 | 7.44 | 7.24 | 6.97 |
| 165 | 5.96 | 6.02 | 5.98 | 5.82 | 5.51 | 5.44 | 5.31 | 5.59 | 5.77 | 5.94 | 5.88 | 5.79 | 7.48 | 7.48 | 7.57 | 7.67 | 7.76 | 7.67 | 7.32 |
| 170 | 6.36 | 6.43 | 6.39 | 6.17 | 5.89 | 5.90 | 5.92 | 5.98 | 6.13 | 6.16 | 6.12 | 6.11 | 7.54 | 7.53 | 7.57 | 7.68 | 7.71 | 7.61 | 7.26 |
| 175 | 7.13 | 7.05 | 6.92 | 6.58 | 6.36 | 6.29 | 6.20 | 6.21 | 6.35 | 6.50 | 6.58 | 6.66 | 7.62 | 7.59 | 7.58 | 7.68 | 7.66 | 7.54 | 7.25 |
| 180 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 7.34 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|-----------|------------------|
| Test:U:120.17V I:1.2609A P:151.21W PF:0.9979 Freq:60.01Hz Lamp Flux:22050x1 lm | | |
| NAME: ASD Lighting Corp | TYPE: LED | WEIGHT: |
| SPEC.: ASD-UHB2-150D40-PRM | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting Corp | SUR.: | Shielding Angle: |

Table--2

UNIT: cd

| C(DEG) γ (DEG) | 285 | 300 | 315 | 330 | 345 | | | | | | | | | | | | | | |
|-------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 8055 | 8055 | 8055 | 8055 | 8055 | | | | | | | | | | | | | | |
| 5 | 8001 | 7995 | 7991 | 7987 | 7983 | | | | | | | | | | | | | | |
| 10 | 7901 | 7898 | 7897 | 7898 | 7897 | | | | | | | | | | | | | | |
| 15 | 7739 | 7739 | 7741 | 7744 | 7748 | | | | | | | | | | | | | | |
| 20 | 7516 | 7520 | 7525 | 7532 | 7541 | | | | | | | | | | | | | | |
| 25 | 7233 | 7240 | 7247 | 7260 | 7273 | | | | | | | | | | | | | | |
| 30 | 6890 | 6899 | 6913 | 6927 | 6943 | | | | | | | | | | | | | | |
| 35 | 6488 | 6498 | 6516 | 6534 | 6553 | | | | | | | | | | | | | | |
| 40 | 6022 | 6036 | 6056 | 6077 | 6100 | | | | | | | | | | | | | | |
| 45 | 5489 | 5509 | 5534 | 5559 | 5583 | | | | | | | | | | | | | | |
| 50 | 4885 | 4911 | 4941 | 4972 | 5003 | | | | | | | | | | | | | | |
| 55 | 4208 | 4230 | 4238 | 4256 | 4289 | | | | | | | | | | | | | | |
| 60 | 3343 | 3374 | 3406 | 3422 | 3459 | | | | | | | | | | | | | | |
| 65 | 2526 | 2544 | 2575 | 2619 | 2637 | | | | | | | | | | | | | | |
| 70 | 1670 | 1702 | 1721 | 1743 | 1766 | | | | | | | | | | | | | | |
| 75 | 877 | 895 | 895 | 896 | 919 | | | | | | | | | | | | | | |
| 80 | 285 | 291 | 283 | 274 | 295 | | | | | | | | | | | | | | |
| 85 | 36.5 | 33.7 | 32.2 | 32.7 | 32.0 | | | | | | | | | | | | | | |
| 90 | 1.29 | 1.26 | 1.22 | 1.20 | 1.18 | | | | | | | | | | | | | | |
| 95 | 1.76 | 1.74 | 1.69 | 1.64 | 1.59 | | | | | | | | | | | | | | |
| 100 | 2.25 | 2.23 | 2.20 | 2.15 | 2.05 | | | | | | | | | | | | | | |
| 105 | 2.63 | 2.60 | 2.56 | 2.54 | 2.44 | | | | | | | | | | | | | | |
| 110 | 2.83 | 2.80 | 2.76 | 2.70 | 2.59 | | | | | | | | | | | | | | |
| 115 | 3.10 | 3.05 | 3.01 | 2.92 | 2.84 | | | | | | | | | | | | | | |
| 120 | 3.48 | 3.41 | 3.34 | 3.32 | 3.26 | | | | | | | | | | | | | | |
| 125 | 4.13 | 3.97 | 3.92 | 3.80 | 3.80 | | | | | | | | | | | | | | |
| 130 | 4.98 | 4.79 | 4.62 | 4.69 | 4.61 | | | | | | | | | | | | | | |
| 135 | 5.48 | 5.30 | 5.32 | 5.37 | 5.22 | | | | | | | | | | | | | | |
| 140 | 5.86 | 5.95 | 5.89 | 5.86 | 5.73 | | | | | | | | | | | | | | |
| 145 | 6.31 | 6.29 | 6.27 | 6.18 | 5.99 | | | | | | | | | | | | | | |
| 150 | 6.56 | 6.52 | 6.64 | 6.63 | 6.27 | | | | | | | | | | | | | | |
| 155 | 6.80 | 6.80 | 6.78 | 7.04 | 6.55 | | | | | | | | | | | | | | |
| 160 | 6.91 | 6.93 | 6.98 | 7.23 | 6.77 | | | | | | | | | | | | | | |
| 165 | 7.26 | 7.13 | 7.14 | 7.32 | 6.82 | | | | | | | | | | | | | | |
| 170 | 7.13 | 7.12 | 7.06 | 7.29 | 6.76 | | | | | | | | | | | | | | |
| 175 | 7.07 | 6.99 | 7.23 | 7.26 | 7.01 | | | | | | | | | | | | | | |
| 180 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | | | | | | | | | | | | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.8DEG
 Operators: Alan Wang
 Test Date: 27 January 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 45.7%
 Test Distance: 2.500m [K=1.0459]
 Remarks: