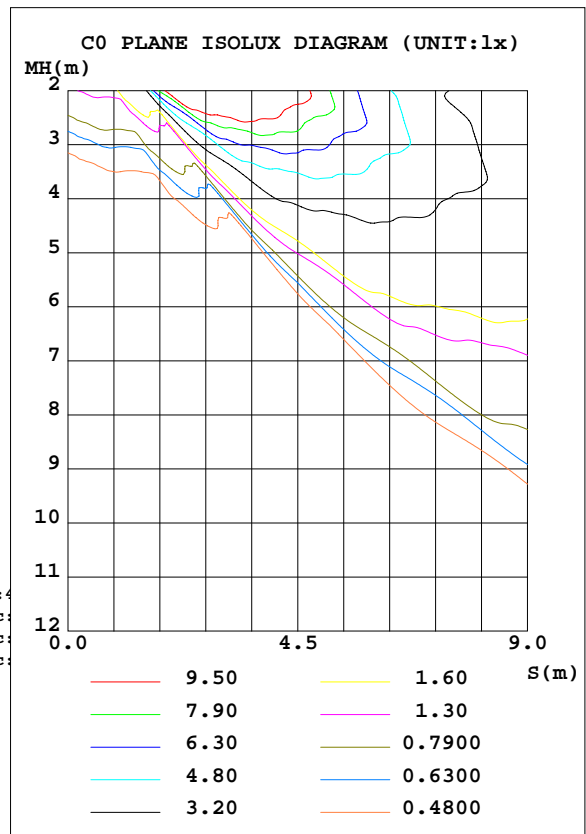
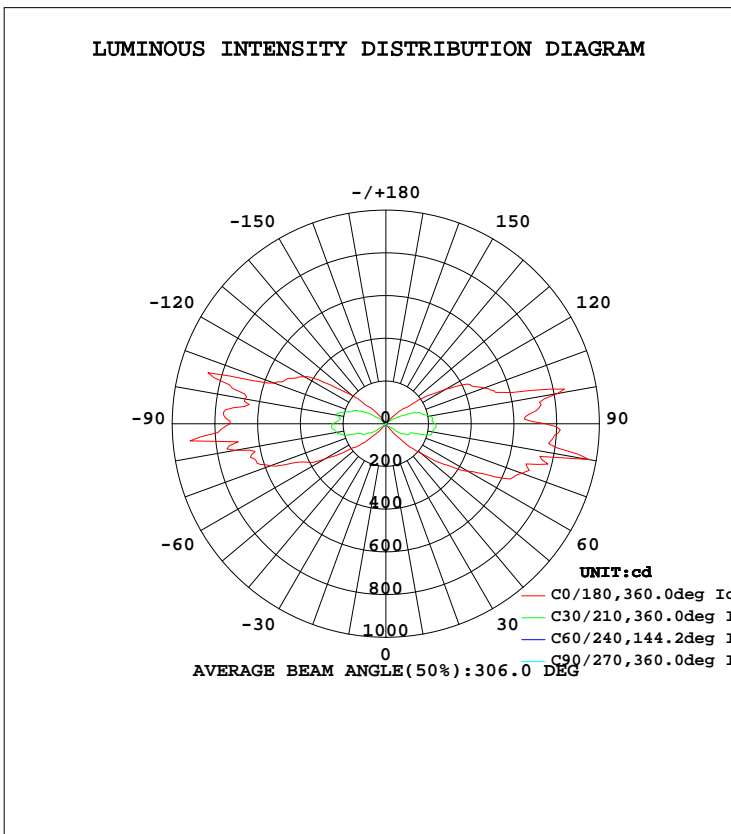


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION ANGLE: |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 84.82 lm/W | | | |
|------------------------------|--------|----------------------------------|---------|--------------------|-----------|
| ASD-OLCLR-MV-2D18CC-EM-BZ/BK | | Imax(cd) | 1029 | S/MH(C0/180) | 11.86 |
| NOMINAL POWER(W) | 18 | LOR(%) | 100.0 | S/MH(C90/270) | 1.64 |
| RATED VOLTAGE(V) | 120 | TOTAL FLUX(lm) | 1529.2 | η UP, DN(C0-180) | 23.5,26.0 |
| NOMINAL FLUX(lm) | 1529.2 | CIE CLASS | DIFFUSE | η UP, DN(C180-360) | 24.8,25.8 |
| LAMPS INSIDE | 1 | η up(%) | 48.2 | CIBSE SHR NOM | 0.00 |
| TEST VOLTAGE(V) | 120 | η down(%) | 51.8 | CIBSE SHR MAX | 1.30 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | Φ lum,lamp |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|-----------------|
| 10 | 5.806 | 3.655 | 1.984 | 3.443 | 5.022 | 2.838 | 2.207 | 3.731 | 0- 10 | 0.3263 | 0.3263 | 0.02,0.02 |
| 20 | 7.012 | 4.484 | 1.756 | 4.148 | 6.001 | 2.926 | 2.253 | 4.752 | 10- 20 | 1.104 | 1.430 | 0.09,0.09 |
| 30 | 14.02 | 5.412 | 1.745 | 4.611 | 7.504 | 3.262 | 2.365 | 5.714 | 20- 30 | 2.165 | 3.595 | 0.24,0.24 |
| 40 | 56.74 | 6.568 | 1.760 | 9.836 | 16.86 | 3.593 | 2.453 | 10.65 | 30- 40 | 5.085 | 8.680 | 0.57,0.57 |
| 50 | 214.3 | 8.938 | 1.825 | 13.56 | 144.4 | 4.692 | 2.550 | 15.81 | 40- 50 | 22.32 | 31.00 | 2.03,2.03 |
| 60 | 445.1 | 14.79 | 1.876 | 66.51 | 326.8 | 11.46 | 2.650 | 62.55 | 50- 60 | 74.75 | 105.8 | 6.92,6.92 |
| 70 | 677.1 | 16.95 | 1.876 | 104.7 | 575.7 | 12.01 | 2.754 | 118.6 | 60- 70 | 157.8 | 263.6 | 17.2,17.2 |
| 80 | 967.6 | 17.84 | 1.864 | 183.9 | 716.4 | 14.03 | 2.811 | 188.2 | 70- 80 | 242.5 | 506.1 | 33.1,33.1 |
| 90 | 747.3 | 18.24 | 1.864 | 187.1 | 730.3 | 19.66 | 2.815 | 185.4 | 80- 90 | 285.7 | 791.7 | 51.8,51.8 |
| 100 | 816.0 | 17.65 | 1.845 | 154.5 | 670.9 | 13.96 | 2.804 | 169.5 | 90-100 | 265.0 | 1057 | 69.1,69.1 |
| 110 | 490.4 | 15.82 | 1.795 | 144.7 | 556.8 | 12.71 | 2.742 | 135.9 | 100-110 | 226.6 | 1283 | 83.9,83.9 |
| 120 | 325.3 | 13.35 | 1.676 | 61.61 | 439.9 | 10.84 | 2.646 | 51.45 | 110-120 | 144.6 | 1428 | 93.4,93.4 |
| 130 | 112.1 | 8.097 | 1.491 | 14.96 | 208.3 | 7.248 | 2.441 | 17.02 | 120-130 | 71.77 | 1500 | 98.1,98.1 |
| 140 | 17.37 | 5.795 | 1.490 | 5.061 | 61.77 | 3.314 | 2.234 | 10.69 | 130-140 | 21.51 | 1521 | 99.5,99.5 |
| 150 | 7.638 | 4.952 | 1.483 | 3.431 | 12.76 | 2.569 | 2.134 | 6.221 | 140-150 | 4.859 | 1526 | 99.8,99.8 |
| 160 | 6.012 | 3.908 | 1.463 | 3.065 | 5.969 | 2.273 | 2.060 | 5.066 | 150-160 | 1.942 | 1528 | 99.9,99.9 |
| 170 | 4.857 | 3.142 | 1.637 | 3.027 | 4.756 | 2.318 | 2.010 | 3.921 | 160-170 | 0.9839 | 1529 | 100,100 |
| 180 | 4.491 | 2.638 | 1.960 | 3.216 | 4.514 | 2.619 | 1.956 | 3.224 | 170-180 | 0.2999 | 1529 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

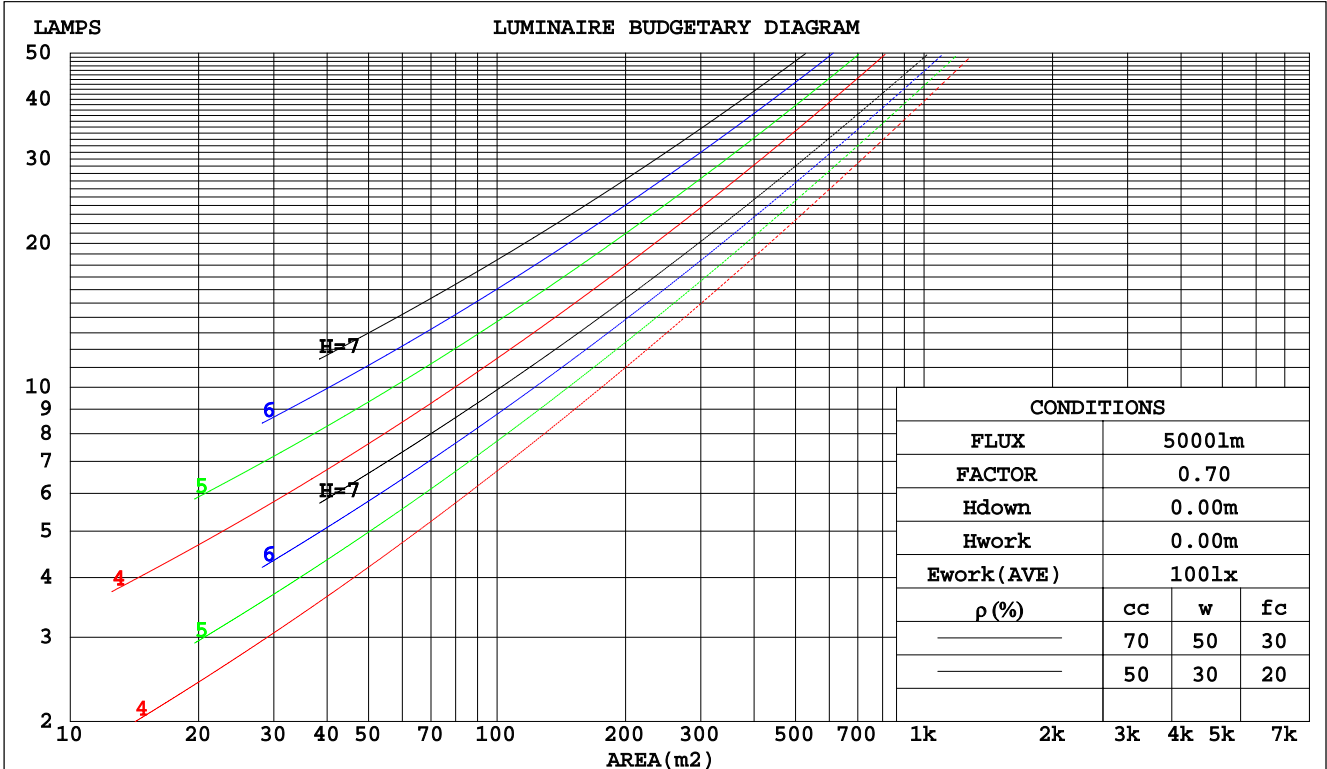
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION 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 | 1.08 | 1.08 | 1.08 | .99 | .99 | .99 | .84 | .84 | .84 | .70 | .70 | .70 | .58 | .58 | .58 | .52 |
| 1.0 | .80 | .73 | .66 | .73 | .66 | .60 | .60 | .54 | .49 | .47 | .43 | .39 | .36 | .33 | .30 | .24 |
| 2.0 | .65 | .55 | .47 | .59 | .50 | .43 | .48 | .40 | .34 | .37 | .31 | .26 | .27 | .23 | .19 | .13 |
| 3.0 | .55 | .44 | .36 | .50 | .40 | .32 | .39 | .32 | .25 | .30 | .24 | .19 | .21 | .17 | .13 | .08 |
| 4.0 | .47 | .36 | .28 | .43 | .33 | .25 | .34 | .26 | .20 | .26 | .19 | .14 | .18 | .13 | .09 | .05 |
| 5.0 | .41 | .31 | .23 | .37 | .28 | .21 | .30 | .22 | .16 | .22 | .16 | .11 | .16 | .11 | .07 | .03 |
| 6.0 | .37 | .26 | .19 | .33 | .24 | .17 | .26 | .19 | .13 | .20 | .14 | .09 | .14 | .09 | .06 | .02 |
| 7.0 | .33 | .23 | .16 | .29 | .21 | .15 | .23 | .16 | .11 | .18 | .12 | .08 | .13 | .08 | .04 | .02 |
| 8.0 | .29 | .20 | .14 | .27 | .18 | .12 | .21 | .14 | .10 | .16 | .11 | .07 | .12 | .07 | .04 | .01 |
| 9.0 | .27 | .18 | .12 | .24 | .16 | .11 | .19 | .13 | .08 | .15 | .10 | .06 | .11 | .06 | .03 | .01 |
| 10.0 | .24 | .16 | .11 | .22 | .15 | .09 | .18 | .12 | .07 | .14 | .09 | .05 | .10 | .06 | .03 | .01 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 7.500m [K=1.0000]
 Remarks:

WEC AND CCEC

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION 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 | .541 | .308 | .097 | .519 | .296 | .094 | .477 | .274 | .087 | .438 | .253 | .081 | .403 | .234 | .075 | |
| 2.0 | .421 | .231 | .071 | .401 | .221 | .068 | .362 | .201 | .063 | .327 | .184 | .057 | .295 | .167 | .053 | |
| 3.0 | .351 | .187 | .056 | .333 | .178 | .054 | .298 | .161 | .049 | .266 | .146 | .045 | .236 | .130 | .040 | |
| 4.0 | .303 | .158 | .046 | .286 | .150 | .044 | .254 | .135 | .040 | .225 | .121 | .036 | .197 | .107 | .033 | |
| 5.0 | .268 | .136 | .039 | .252 | .129 | .038 | .223 | .116 | .034 | .195 | .103 | .031 | .170 | .091 | .027 | |
| 6.0 | .240 | .120 | .034 | .225 | .114 | .033 | .198 | .102 | .030 | .173 | .090 | .026 | .150 | .079 | .023 | |
| 7.0 | .217 | .107 | .030 | .204 | .102 | .029 | .179 | .091 | .026 | .156 | .080 | .023 | .134 | .069 | .020 | |
| 8.0 | .199 | .097 | .027 | .187 | .092 | .026 | .163 | .082 | .023 | .142 | .072 | .021 | .121 | .062 | .018 | |
| 9.0 | .183 | .089 | .025 | .172 | .084 | .024 | .150 | .074 | .021 | .130 | .065 | .019 | .111 | .056 | .016 | |
| 10.0 | .170 | .081 | .023 | .159 | .077 | .021 | .139 | .068 | .019 | .120 | .060 | .017 | .102 | .051 | .015 | |

| 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 | .558 | .558 | .558 | .477 | .477 | .477 | .325 | .325 | .325 | .187 | .187 | .187 | .060 | .060 | .060 | |
| 1.0 | .567 | .525 | .487 | .485 | .450 | .419 | .332 | .310 | .290 | .191 | .179 | .168 | .061 | .058 | .054 | |
| 2.0 | .562 | .504 | .455 | .482 | .434 | .394 | .330 | .300 | .275 | .190 | .175 | .161 | .061 | .057 | .052 | |
| 3.0 | .555 | .490 | .438 | .476 | .423 | .380 | .327 | .294 | .266 | .189 | .171 | .157 | .061 | .056 | .051 | |
| 4.0 | .547 | .479 | .427 | .469 | .414 | .371 | .323 | .288 | .261 | .187 | .169 | .154 | .060 | .055 | .051 | |
| 5.0 | .538 | .470 | .420 | .462 | .407 | .365 | .318 | .284 | .258 | .184 | .167 | .153 | .059 | .054 | .050 | |
| 6.0 | .530 | .463 | .414 | .456 | .401 | .361 | .314 | .281 | .255 | .182 | .165 | .152 | .059 | .054 | .050 | |
| 7.0 | .522 | .457 | .411 | .449 | .396 | .358 | .310 | .278 | .254 | .180 | .164 | .151 | .058 | .054 | .050 | |
| 8.0 | .515 | .451 | .408 | .443 | .392 | .356 | .307 | .275 | .252 | .178 | .162 | .150 | .058 | .053 | .050 | |
| 9.0 | .508 | .447 | .406 | .438 | .388 | .354 | .303 | .273 | .251 | .177 | .161 | .150 | .057 | .053 | .050 | |
| 10.0 | .502 | .443 | .404 | .433 | .385 | .352 | .300 | .271 | .250 | .175 | .160 | .149 | .057 | .053 | .050 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|--|------------------|------|------|------|----------|----------------|------|-------------------|------|------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | | | | | | | | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | | | | | TYPE:LED | | | WEIGHT: | | |
| SPEC.: | | | | | DIM.: | | | SERIAL No.: | | |
| MFR.: ASD Lighting corp | | | | | SUR.: | | | PROTECTION 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 | 17.2 | 18.5 | 18.1 | 19.4 | 20.5 | -10.9 | -9.7 | -10.0 | -8.8 | -7.6 |
| 3H | 24.0 | 25.1 | 24.9 | 26.0 | 27.3 | -9.2 | -8.1 | -8.3 | -7.1 | -5.9 |
| 4H | 27.4 | 28.4 | 28.3 | 29.4 | 30.6 | -8.2 | -7.1 | -7.3 | -6.2 | -5.0 |
| 6H | 30.7 | 31.8 | 31.6 | 32.7 | 34.0 | -7.0 | -6.0 | -6.1 | -5.0 | -3.8 |
| 8H | 32.1 | 33.1 | 33.0 | 34.1 | 35.3 | -6.3 | -5.3 | -5.4 | -4.3 | -3.1 |
| 12H | 33.6 | 34.6 | 34.5 | 35.5 | 36.8 | -5.4 | -4.5 | -4.5 | -3.5 | -2.2 |
| 4H 2H | 16.8 | 17.9 | 17.7 | 18.8 | 20.0 | 3.7 | 4.8 | 4.6 | 5.7 | 6.9 |
| 3H | 23.7 | 24.7 | 24.6 | 25.6 | 26.9 | 3.5 | 4.4 | 4.4 | 5.4 | 6.7 |
| 4H | 27.5 | 28.4 | 28.5 | 29.4 | 30.7 | 3.4 | 4.3 | 4.3 | 5.3 | 6.5 |
| 6H | 31.2 | 32.1 | 32.2 | 33.0 | 34.3 | 3.4 | 4.2 | 4.3 | 5.2 | 6.4 |
| 8H | 32.8 | 33.6 | 33.8 | 34.6 | 35.9 | 3.4 | 4.1 | 4.3 | 5.1 | 6.4 |
| 12H | 34.5 | 35.2 | 35.5 | 36.2 | 37.5 | 3.4 | 4.1 | 4.4 | 5.1 | 6.4 |
| 8H 4H | 27.3 | 28.1 | 28.3 | 29.1 | 30.4 | 13.3 | 14.0 | 14.2 | 15.0 | 16.3 |
| 6H | 31.2 | 31.8 | 32.1 | 32.8 | 34.2 | 13.1 | 13.8 | 14.1 | 14.8 | 16.1 |
| 8H | 32.9 | 33.5 | 33.9 | 34.5 | 35.9 | 13.0 | 13.6 | 14.0 | 14.7 | 16.0 |
| 12H | 34.9 | 35.5 | 35.9 | 36.5 | 37.8 | 13.0 | 13.5 | 14.0 | 14.5 | 15.9 |
| 12H 4H | 27.2 | 27.9 | 28.2 | 28.9 | 30.3 | 16.7 | 17.4 | 17.6 | 18.4 | 19.7 |
| 6H | 31.1 | 31.7 | 32.1 | 32.7 | 34.0 | 16.7 | 17.3 | 17.7 | 18.3 | 19.6 |
| 8H | 32.8 | 33.4 | 33.8 | 34.4 | 35.8 | 16.6 | 17.2 | 17.6 | 18.2 | 19.5 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.2 / - 0.2 | | | | | + 0.2 / - 0.4 | | | | |
| 1.5H | + 0.2 / - 0.2 | | | | | + 1.0 / - 0.3 | | | | |
| 2.0H | + 0.7 / - 0.6 | | | | | + 1.4 / - 2.3 | | | | |

CIE Pub.117 Corrected 1529 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.5)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION ANGLE: |

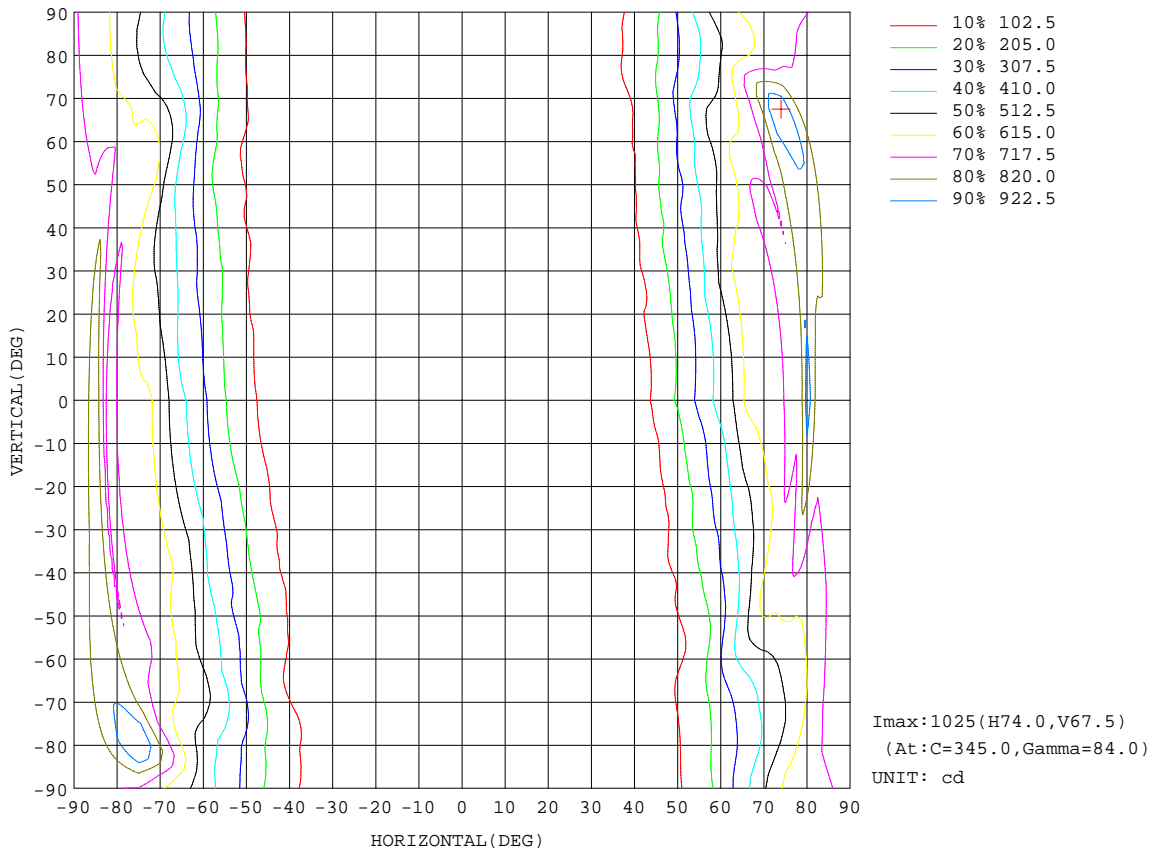
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|--|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 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 | 31 | 17 | 9 | 29 | 16 | 8 | 26 | 15 | 8 | 1 |
| 0.80 | 38 | 22 | 13 | 35 | 21 | 12 | 31 | 19 | 11 | 2 |
| 1.00 | 44 | 27 | 17 | 41 | 26 | 16 | 35 | 25 | 14 | 3 |
| 1.25 | 50 | 33 | 22 | 47 | 31 | 20 | 40 | 27 | 18 | 5 |
| 1.50 | 55 | 38 | 27 | 51 | 36 | 25 | 44 | 31 | 22 | 7 |
| 2.00 | 63 | 47 | 35 | 58 | 44 | 33 | 49 | 37 | 28 | 10 |
| 2.50 | 69 | 54 | 42 | 64 | 50 | 39 | 53 | 42 | 33 | 14 |
| 3.00 | 74 | 59 | 48 | 68 | 55 | 44 | 57 | 46 | 38 | 17 |
| 4.00 | 80 | 67 | 57 | 73 | 62 | 53 | 61 | 52 | 45 | 21 |
| 5.00 | 84 | 73 | 63 | 77 | 67 | 59 | 65 | 57 | 50 | 25 |
| 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:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION ANGLE: |

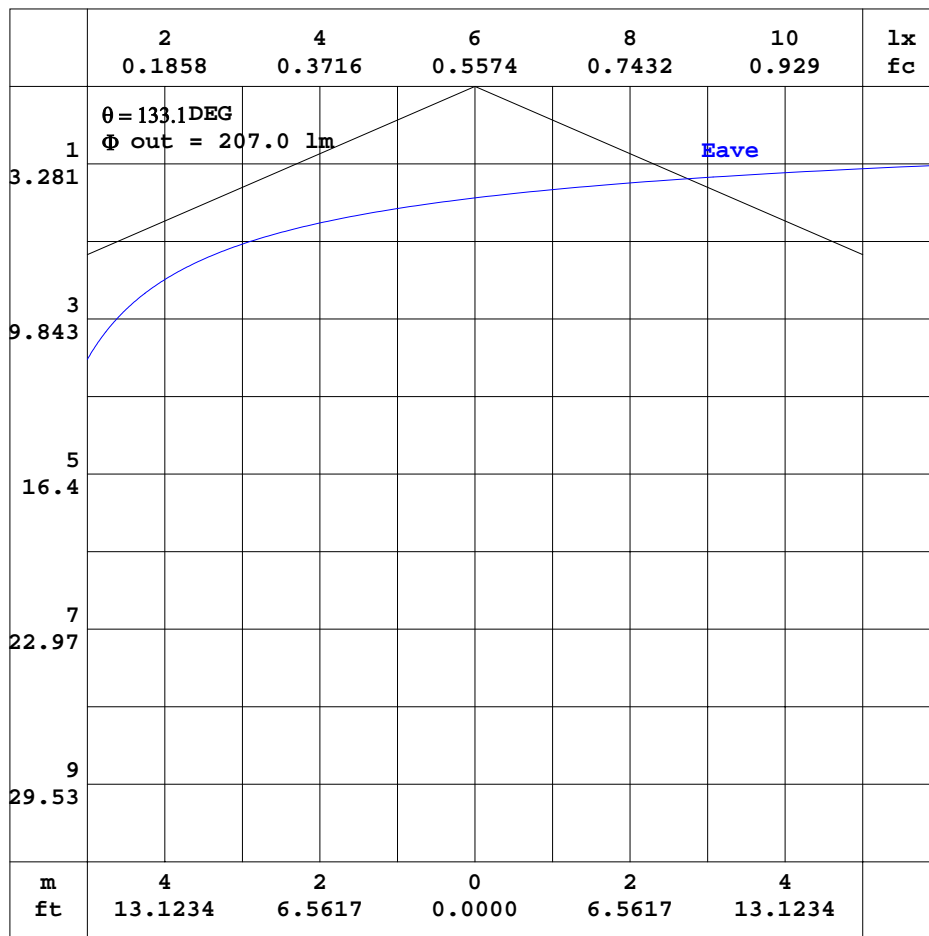


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 7.500m [K=1.0000]
 Remarks:

AAI CURVES

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION ANGLE: |



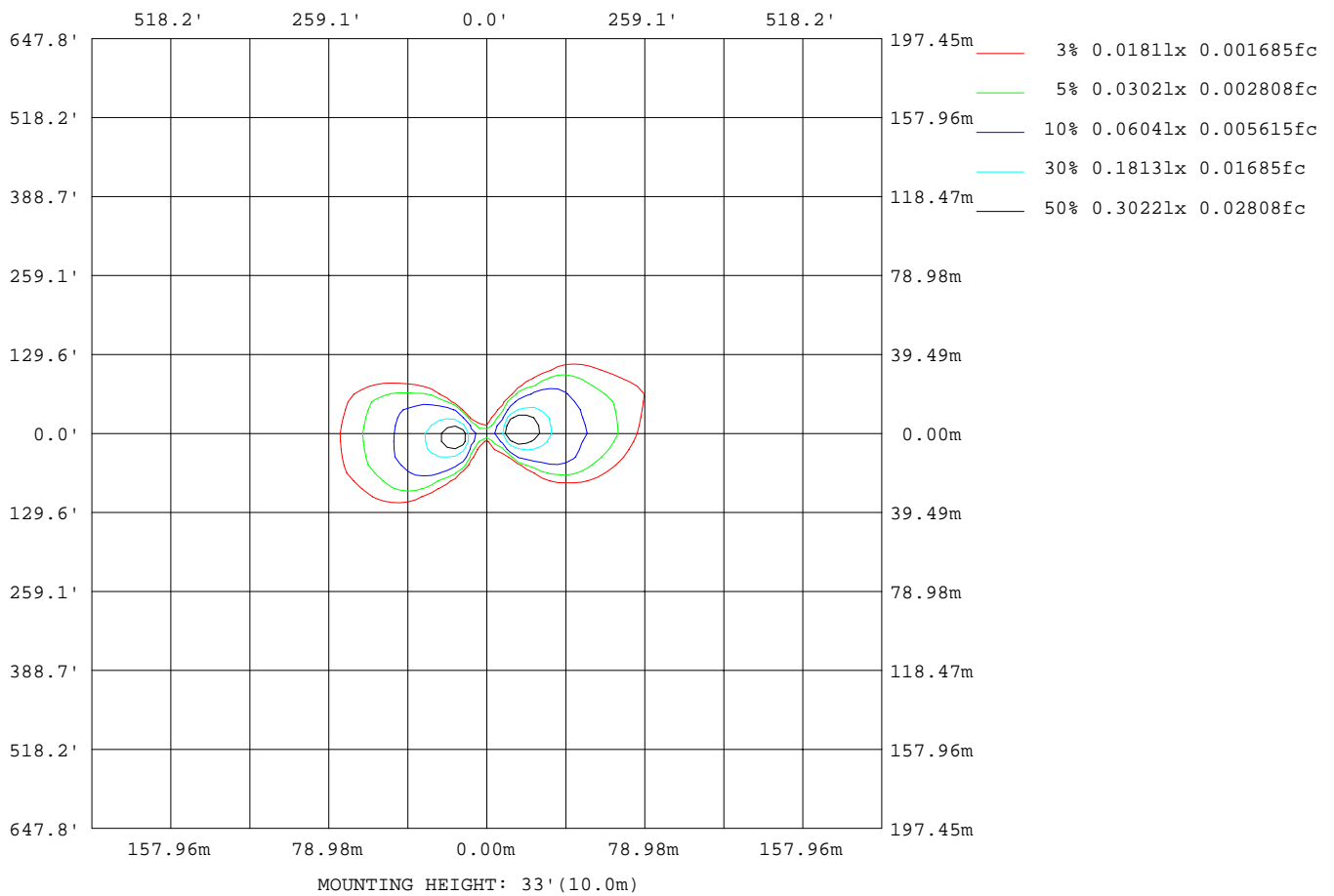
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION ANGLE: |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

LED Avg.L Report

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION ANGLE: |

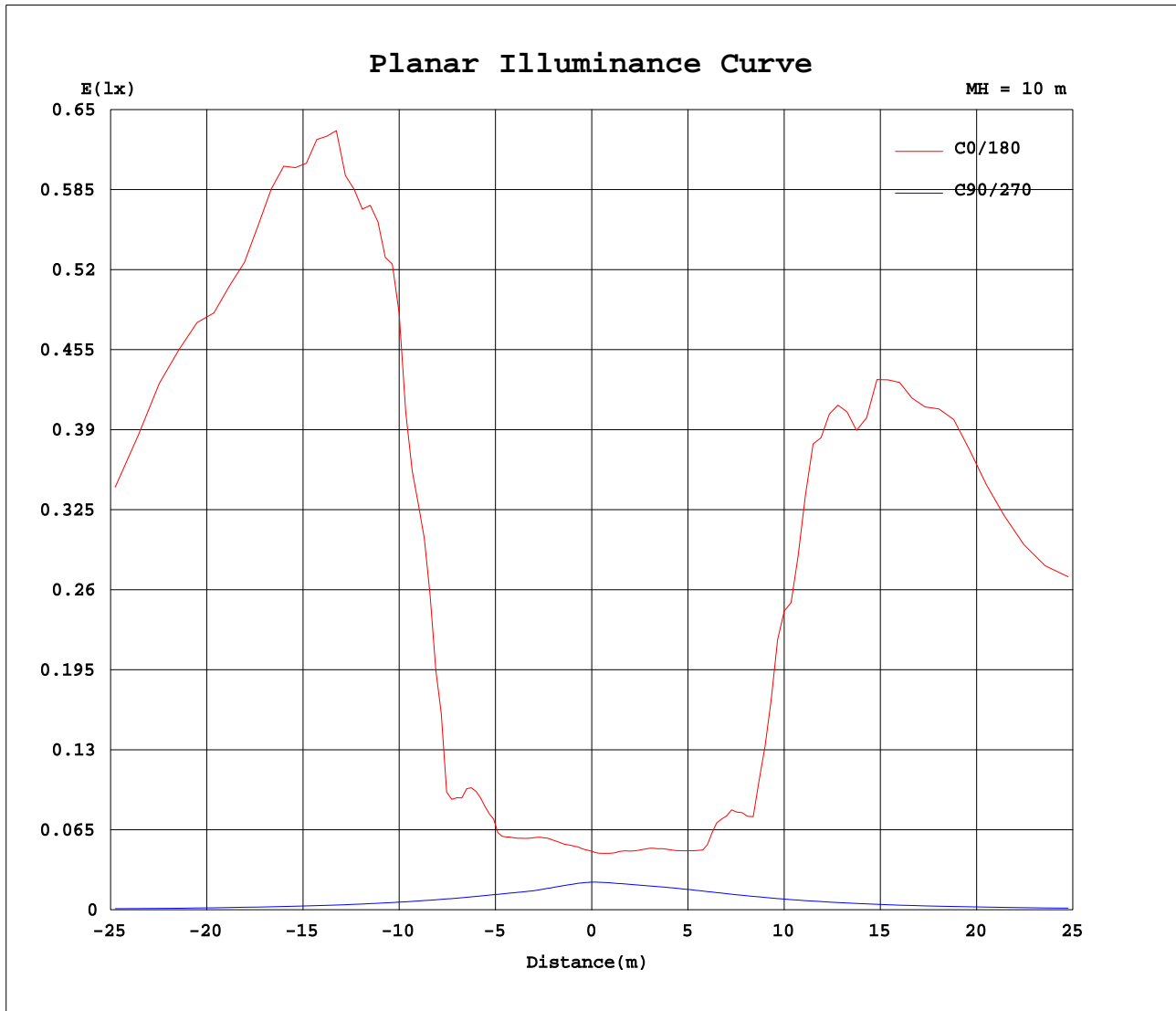
| AvgL | cd/m2 |
|----------------|-------|
| L_0~180(65)av | 12149 |
| L_0~180(75)av | 26562 |
| L_0~180(85)av | 97866 |
| L_90~270(65)av | 54 |
| L_90~270(75)av | 90 |
| L_90~270(85)av | 269 |
| L_45(65)av | 1319 |
| L_45(75)av | 2924 |
| L_45(85)av | 12003 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 7.500m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION 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 | 4.77 | 4.28 | 3.51 | 2.91 | 2.46 | 2.27 | 2.26 | 2.30 | 2.63 | 3.07 | 3.86 | 4.49 | 4.77 | 4.28 | 3.51 | 2.91 | 2.46 | 2.27 | 2.26 |
| 5 | 5.22 | 4.76 | 3.90 | 3.23 | 2.69 | 2.27 | 2.15 | 2.19 | 2.60 | 3.18 | 3.94 | 4.58 | 4.66 | 4.17 | 3.46 | 2.80 | 2.31 | 2.15 | 2.24 |
| 10 | 5.81 | 5.17 | 4.35 | 3.66 | 2.92 | 2.28 | 1.98 | 2.08 | 2.73 | 3.44 | 4.37 | 5.06 | 5.02 | 4.51 | 3.69 | 2.84 | 2.15 | 1.98 | 2.21 |
| 15 | 6.56 | 5.94 | 4.92 | 3.99 | 3.23 | 2.34 | 1.82 | 2.03 | 2.73 | 3.71 | 4.87 | 5.65 | 5.46 | 4.89 | 3.87 | 2.84 | 2.13 | 1.84 | 2.21 |
| 20 | 7.01 | 6.39 | 5.44 | 4.48 | 3.47 | 2.39 | 1.76 | 2.00 | 2.88 | 4.15 | 5.46 | 6.25 | 6.00 | 5.41 | 4.31 | 2.93 | 2.05 | 1.74 | 2.25 |
| 25 | 8.04 | 7.14 | 5.96 | 4.99 | 3.71 | 2.47 | 1.75 | 2.07 | 3.15 | 4.24 | 5.68 | 6.67 | 6.47 | 5.73 | 4.48 | 3.24 | 2.09 | 1.72 | 2.31 |
| 30 | 14.0 | 10.5 | 6.80 | 5.41 | 4.03 | 2.55 | 1.74 | 2.16 | 3.23 | 4.61 | 6.41 | 7.82 | 7.50 | 6.51 | 4.78 | 3.26 | 2.20 | 1.72 | 2.36 |
| 35 | 16.6 | 15.9 | 11.2 | 5.94 | 4.41 | 2.62 | 1.74 | 2.30 | 3.32 | 5.22 | 12.0 | 14.6 | 13.9 | 12.3 | 5.40 | 3.38 | 2.37 | 1.75 | 2.41 |
| 40 | 56.7 | 17.3 | 14.0 | 6.57 | 4.81 | 2.71 | 1.76 | 2.46 | 3.50 | 9.84 | 15.2 | 17.4 | 16.9 | 15.6 | 10.3 | 3.59 | 2.45 | 1.79 | 2.45 |
| 45 | 137 | 53.9 | 16.8 | 7.28 | 5.16 | 2.82 | 1.78 | 2.57 | 3.76 | 12.4 | 43.3 | 68.8 | 68.6 | 45.4 | 12.8 | 3.94 | 2.48 | 1.79 | 2.50 |
| 50 | 214 | 123 | 18.9 | 8.94 | 5.42 | 2.92 | 1.83 | 2.58 | 4.16 | 13.6 | 84.2 | 149 | 144 | 97.0 | 14.8 | 4.69 | 2.60 | 1.79 | 2.55 |
| 55 | 332 | 195 | 59.0 | 12.1 | 5.51 | 2.98 | 1.85 | 2.42 | 6.29 | 30.7 | 136 | 222 | 212 | 146 | 41.3 | 8.15 | 2.56 | 1.79 | 2.60 |
| 60 | 445 | 280 | 95.1 | 14.8 | 5.68 | 3.05 | 1.88 | 2.43 | 8.75 | 66.5 | 205 | 337 | 327 | 231 | 85.3 | 11.5 | 2.56 | 1.79 | 2.65 |
| 65 | 603 | 351 | 119 | 17.0 | 5.90 | 3.08 | 1.88 | 2.45 | 11.3 | 96.8 | 287 | 443 | 424 | 299 | 118 | 12.6 | 2.60 | 1.79 | 2.71 |
| 70 | 677 | 449 | 125 | 17.0 | 6.10 | 3.13 | 1.88 | 2.47 | 12.3 | 105 | 368 | 575 | 576 | 388 | 132 | 12.0 | 2.66 | 1.79 | 2.75 |
| 75 | 738 | 603 | 206 | 17.6 | 6.28 | 3.16 | 1.87 | 2.48 | 11.4 | 132 | 434 | 640 | 637 | 468 | 204 | 12.9 | 2.70 | 1.79 | 2.78 |
| 80 | 968 | 546 | 220 | 17.8 | 6.38 | 3.20 | 1.86 | 2.46 | 11.8 | 184 | 512 | 715 | 716 | 683 | 234 | 14.0 | 2.75 | 1.79 | 2.81 |
| 85 | 785 | 496 | 231 | 18.1 | 6.42 | 3.19 | 1.86 | 2.44 | 11.9 | 191 | 461 | 804 | 921 | 552 | 253 | 18.7 | 2.75 | 1.78 | 2.82 |
| 90 | 747 | 636 | 230 | 18.2 | 6.42 | 3.19 | 1.86 | 2.40 | 12.0 | 187 | 462 | 713 | 730 | 521 | 249 | 19.7 | 2.74 | 1.78 | 2.82 |
| 95 | 707 | 498 | 219 | 17.7 | 6.36 | 3.17 | 1.85 | 2.38 | 12.2 | 166 | 573 | 660 | 753 | 629 | 218 | 16.4 | 2.72 | 1.77 | 2.82 |
| 100 | 816 | 452 | 208 | 17.6 | 6.25 | 3.14 | 1.84 | 2.33 | 13.3 | 154 | 457 | 679 | 671 | 481 | 230 | 14.0 | 2.69 | 1.76 | 2.80 |
| 105 | 568 | 439 | 177 | 17.0 | 6.10 | 3.10 | 1.82 | 2.31 | 12.6 | 162 | 408 | 726 | 831 | 445 | 209 | 12.6 | 2.62 | 1.76 | 2.77 |
| 110 | 490 | 362 | 150 | 15.8 | 5.92 | 3.05 | 1.79 | 2.31 | 11.7 | 145 | 400 | 509 | 557 | 428 | 169 | 12.7 | 2.56 | 1.76 | 2.74 |
| 115 | 435 | 274 | 98.9 | 15.3 | 5.74 | 3.00 | 1.77 | 2.27 | 10.8 | 101 | 291 | 449 | 504 | 340 | 142 | 11.7 | 2.49 | 1.75 | 2.71 |
| 120 | 325 | 219 | 52.1 | 13.4 | 5.55 | 2.95 | 1.68 | 1.99 | 9.49 | 61.6 | 214 | 392 | 440 | 266 | 103 | 10.8 | 2.44 | 1.65 | 2.65 |
| 125 | 208 | 127 | 29.3 | 11.3 | 5.35 | 2.88 | 1.57 | 1.34 | 6.40 | 42.2 | 162 | 297 | 320 | 207 | 51.7 | 7.92 | 2.37 | 1.47 | 2.57 |
| 130 | 112 | 86.6 | 16.4 | 8.10 | 4.96 | 2.78 | 1.49 | 1.22 | 3.45 | 15.0 | 105 | 197 | 208 | 126 | 31.7 | 7.25 | 2.16 | 1.36 | 2.44 |
| 135 | 50.5 | 22.5 | 14.2 | 6.40 | 4.66 | 2.69 | 1.49 | 1.43 | 2.54 | 11.3 | 60.6 | 112 | 112 | 83.2 | 13.9 | 4.12 | 1.85 | 1.34 | 2.33 |
| 140 | 17.4 | 15.1 | 9.44 | 5.80 | 4.42 | 2.56 | 1.49 | 1.44 | 2.11 | 5.06 | 15.7 | 50.1 | 61.8 | 21.1 | 11.8 | 3.31 | 1.42 | 1.39 | 2.23 |
| 145 | 14.3 | 11.0 | 6.50 | 5.28 | 4.06 | 2.45 | 1.49 | 1.36 | 1.99 | 3.85 | 10.8 | 16.3 | 17.5 | 14.0 | 6.88 | 2.72 | 1.39 | 1.40 | 2.18 |
| 150 | 7.64 | 6.82 | 5.74 | 4.95 | 3.71 | 2.37 | 1.48 | 1.33 | 2.01 | 3.43 | 5.50 | 11.0 | 12.8 | 7.73 | 4.56 | 2.57 | 1.42 | 1.40 | 2.13 |
| 155 | 6.56 | 5.97 | 5.33 | 4.48 | 3.41 | 2.25 | 1.46 | 1.36 | 1.92 | 3.38 | 4.91 | 5.88 | 6.72 | 5.52 | 3.84 | 2.46 | 1.37 | 1.43 | 2.09 |
| 160 | 6.01 | 5.55 | 4.76 | 3.91 | 3.17 | 2.15 | 1.46 | 1.42 | 1.95 | 3.07 | 4.49 | 5.45 | 5.97 | 5.08 | 3.72 | 2.27 | 1.41 | 1.43 | 2.06 |
| 165 | 5.37 | 4.87 | 4.12 | 3.49 | 2.89 | 2.08 | 1.51 | 1.57 | 2.08 | 2.97 | 3.93 | 4.80 | 5.32 | 4.61 | 3.30 | 2.16 | 1.56 | 1.51 | 2.03 |
| 170 | 4.86 | 4.39 | 3.74 | 3.14 | 2.63 | 2.00 | 1.64 | 1.80 | 2.26 | 3.03 | 3.84 | 4.37 | 4.76 | 4.14 | 3.21 | 2.32 | 1.75 | 1.62 | 2.01 |
| 175 | 4.53 | 4.04 | 3.39 | 2.83 | 2.38 | 1.95 | 1.80 | 2.06 | 2.51 | 3.14 | 3.82 | 4.35 | 4.58 | 4.02 | 3.22 | 2.48 | 2.00 | 1.78 | 2.01 |
| 180 | 4.49 | 3.98 | 3.23 | 2.64 | 2.20 | 1.92 | 1.96 | 2.26 | 2.67 | 3.22 | 3.91 | 4.41 | 4.51 | 3.97 | 3.25 | 2.62 | 2.19 | 1.89 | 1.96 |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|----------|-------------------|
| Test:U:120.0V I:0.1531A P:18.03W PF:0.9817 Lamp Flux:1529.2x1 lm | | |
| NAME: ASD-OLCLR-MV-2D18CC-EM-BZ/BK 5000K | TYPE:LED | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: ASD Lighting corp | SUR.: | PROTECTION ANGLE: |

Table--2

UNIT: cd

| C(DEG) γ (DEG) | 285 | 300 | 315 | 330 | 345 | | | | | | | | | | | | | | |
|--------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 2.30 | 2.63 | 3.07 | 3.86 | 4.49 | | | | | | | | | | | | | | |
| 5 | 2.40 | 2.85 | 3.33 | 4.21 | 4.84 | | | | | | | | | | | | | | |
| 10 | 2.63 | 3.15 | 3.73 | 4.60 | 5.23 | | | | | | | | | | | | | | |
| 15 | 2.82 | 3.51 | 4.16 | 5.25 | 5.93 | | | | | | | | | | | | | | |
| 20 | 3.12 | 3.84 | 4.75 | 5.67 | 6.36 | | | | | | | | | | | | | | |
| 25 | 3.29 | 4.37 | 5.08 | 6.25 | 7.22 | | | | | | | | | | | | | | |
| 30 | 3.50 | 4.75 | 5.71 | 9.80 | 12.9 | | | | | | | | | | | | | | |
| 35 | 3.78 | 5.13 | 6.56 | 15.3 | 16.0 | | | | | | | | | | | | | | |
| 40 | 4.11 | 5.56 | 10.7 | 15.8 | 48.0 | | | | | | | | | | | | | | |
| 45 | 4.47 | 6.14 | 14.0 | 50.0 | 106 | | | | | | | | | | | | | | |
| 50 | 4.78 | 6.80 | 15.8 | 106 | 189 | | | | | | | | | | | | | | |
| 55 | 4.92 | 9.10 | 30.3 | 181 | 288 | | | | | | | | | | | | | | |
| 60 | 4.98 | 12.3 | 62.6 | 249 | 424 | | | | | | | | | | | | | | |
| 65 | 5.18 | 14.3 | 96.7 | 319 | 577 | | | | | | | | | | | | | | |
| 70 | 5.36 | 15.1 | 119 | 423 | 657 | | | | | | | | | | | | | | |
| 75 | 5.53 | 15.7 | 140 | 508 | 773 | | | | | | | | | | | | | | |
| 80 | 5.65 | 15.9 | 188 | 509 | 774 | | | | | | | | | | | | | | |
| 85 | 5.73 | 16.5 | 190 | 501 | 885 | | | | | | | | | | | | | | |
| 90 | 5.78 | 16.3 | 185 | 583 | 700 | | | | | | | | | | | | | | |
| 95 | 5.78 | 16.4 | 170 | 507 | 686 | | | | | | | | | | | | | | |
| 100 | 5.74 | 16.9 | 170 | 432 | 792 | | | | | | | | | | | | | | |
| 105 | 5.68 | 16.4 | 168 | 433 | 570 | | | | | | | | | | | | | | |
| 110 | 5.59 | 15.4 | 136 | 355 | 488 | | | | | | | | | | | | | | |
| 115 | 5.47 | 14.5 | 90.4 | 257 | 422 | | | | | | | | | | | | | | |
| 120 | 5.38 | 13.0 | 51.5 | 194 | 317 | | | | | | | | | | | | | | |
| 125 | 5.28 | 10.9 | 22.9 | 134 | 219 | | | | | | | | | | | | | | |
| 130 | 4.94 | 7.67 | 17.0 | 83.3 | 114 | | | | | | | | | | | | | | |
| 135 | 4.69 | 6.73 | 14.8 | 25.0 | 53.6 | | | | | | | | | | | | | | |
| 140 | 4.48 | 6.08 | 10.7 | 15.7 | 17.9 | | | | | | | | | | | | | | |
| 145 | 4.16 | 5.56 | 7.08 | 11.9 | 14.7 | | | | | | | | | | | | | | |
| 150 | 3.76 | 5.21 | 6.22 | 7.42 | 8.44 | | | | | | | | | | | | | | |
| 155 | 3.38 | 4.69 | 5.56 | 6.48 | 7.05 | | | | | | | | | | | | | | |
| 160 | 3.08 | 4.17 | 5.07 | 5.92 | 6.34 | | | | | | | | | | | | | | |
| 165 | 2.90 | 3.65 | 4.45 | 5.12 | 5.74 | | | | | | | | | | | | | | |
| 170 | 2.72 | 3.30 | 3.92 | 4.61 | 5.04 | | | | | | | | | | | | | | |
| 175 | 2.50 | 2.98 | 3.53 | 4.16 | 4.62 | | | | | | | | | | | | | | |
| 180 | 2.29 | 2.69 | 3.22 | 3.92 | 4.39 | | | | | | | | | | | | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks: