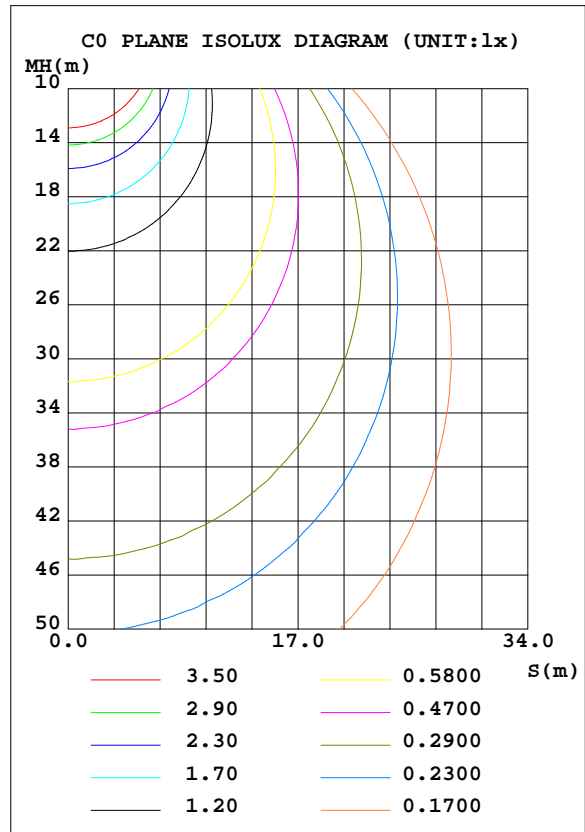
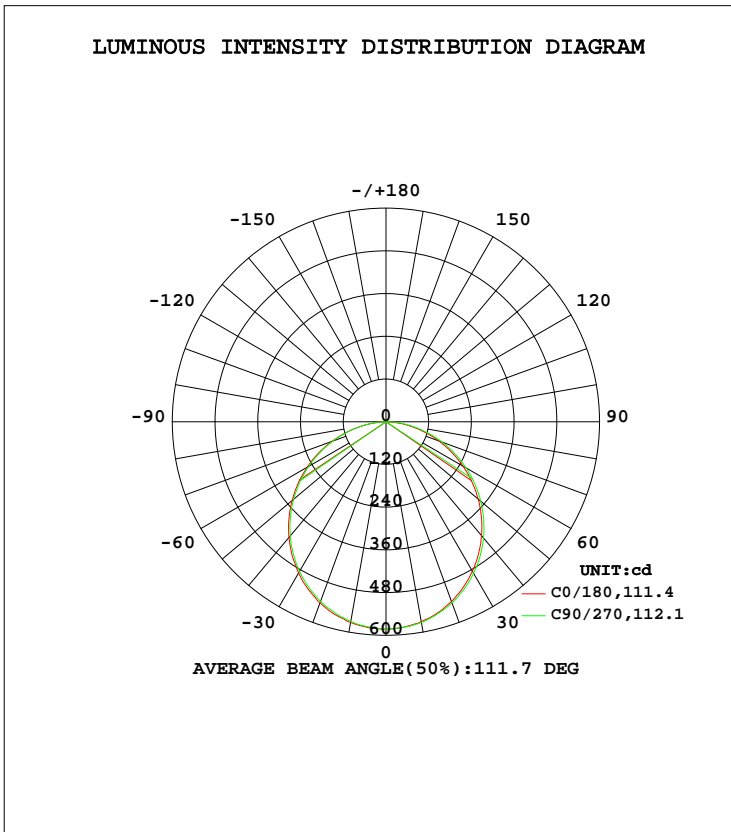


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: ASD-MPR-9D18WH-EM | TYPE: N/A | WEIGHT: N/A |
| SPEC.: 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

| DATA OF LAMP | | PHOTOMETRIC DATA | | | |
|------------------|-------------------|------------------|--------|--------------------|----------|
| MODEL | ASD-MPR-9D18WH-EM | Imax(cd) | 583.4 | S/MH(C0/180) | 1.24 |
| NOMINAL POWER(W) | | LOR(%) | 100.0 | S/MH(C90/270) | 1.26 |
| RATED VOLTAGE(V) | 120 | TOTAL FLUX(lm) | 1661.3 | η UP, DN(C0-180) | 0.1,49.5 |
| NOMINAL FLUX(lm) | 1661.32 | CIE CLASS | DIRECT | η UP, DN(C180-360) | 0.0,50.4 |
| 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: 22.5DEG
 Test Speed: HIGH
 Temperature:25.1DEG
 Operators:Water
 Test Date:2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:44%
 Test Distance:2.519m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum, lamp |
|-----|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|------------|
| 10 | 572.1 | 571.0 | 569.9 | 569.2 | 570.4 | 570.9 | 572.7 | 573.2 | 0- 10 | 55.04 | 55.04 | 3.31,3.31 |
| 20 | 541.5 | 539.7 | 537.5 | 535.0 | 537.5 | 539.1 | 541.7 | 542.5 | 10- 20 | 157.3 | 212.4 | 12.8,12.8 |
| 30 | 490.9 | 488.2 | 485.4 | 482.8 | 485.2 | 488.4 | 491.5 | 492.3 | 20- 30 | 237.6 | 450.0 | 27.1,27.1 |
| 40 | 424.3 | 421.1 | 418.3 | 414.5 | 417.6 | 421.8 | 426.3 | 427.2 | 30- 40 | 285.5 | 735.5 | 44.3,44.3 |
| 50 | 344.4 | 342.4 | 338.7 | 334.5 | 338.3 | 342.4 | 347.6 | 348.7 | 40- 50 | 295.4 | 1031 | 62.1,62.1 |
| 60 | 255.9 | 254.1 | 250.0 | 246.1 | 250.4 | 255.0 | 259.8 | 260.5 | 50- 60 | 267.1 | 1298 | 78.1,78.1 |
| 70 | 161.7 | 161.0 | 158.0 | 154.0 | 158.3 | 163.4 | 167.8 | 168.0 | 60- 70 | 205.7 | 1504 | 90.5,90.5 |
| 80 | 68.85 | 69.78 | 68.74 | 64.95 | 67.80 | 73.38 | 76.84 | 75.50 | 70- 80 | 121.7 | 1625 | 97.8,97.8 |
| 90 | 0.1534 | 0.1673 | 0.1605 | 0.2024 | 0.0342 | 0.0407 | 0.0323 | 0.1187 | 80- 90 | 33.81 | 1659 | 99.9,99.9 |
| 100 | 0.1616 | 0.1799 | 0.2134 | 0.1851 | 0.0613 | 0.0820 | 0.1039 | 0.0728 | 90-100 | 0.1333 | 1659 | 99.9,99.9 |
| 110 | 0.2135 | 0.2377 | 0.2637 | 0.2444 | 0.1101 | 0.1369 | 0.1495 | 0.1332 | 100-110 | 0.1686 | 1660 | 99.9,99.9 |
| 120 | 0.2941 | 0.3219 | 0.3376 | 0.3285 | 0.1759 | 0.1880 | 0.1937 | 0.1887 | 110-120 | 0.2163 | 1660 | 99.9,99.9 |
| 130 | 0.4311 | 0.4573 | 0.4783 | 0.4728 | 0.2240 | 0.2468 | 0.2414 | 0.2457 | 120-130 | 0.2670 | 1660 | 99.9,99.9 |
| 140 | 0.6742 | 0.7178 | 0.7436 | 0.7186 | 0.2900 | 0.2916 | 0.2933 | 0.2839 | 130-140 | 0.3232 | 1660 | 99.9,99.9 |
| 150 | 0.9054 | 0.9746 | 0.9984 | 0.9693 | 0.3386 | 0.3488 | 0.3335 | 0.3375 | 140-150 | 0.3611 | 1661 | 100,100 |
| 160 | 1.074 | 1.100 | 1.114 | 1.102 | 0.4666 | 0.4350 | 0.3854 | 0.4342 | 150-160 | 0.3306 | 1661 | 100,100 |
| 170 | 0.9751 | 0.9878 | 0.9791 | 0.9841 | 0.6002 | 0.5518 | 0.5092 | 0.5703 | 160-170 | 0.2199 | 1661 | 100,100 |
| 180 | 0.7914 | 0.7530 | 0.7218 | 0.7599 | 0.7935 | 0.7544 | 0.7220 | 0.7615 | 170-180 | 0.0733 | 1661 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

Conical surface Flux(90deg): 884.42 lm

%lum = 53.2%
%lamp = 53.2%

Conical surface Flux(120deg): 1297.9 lm

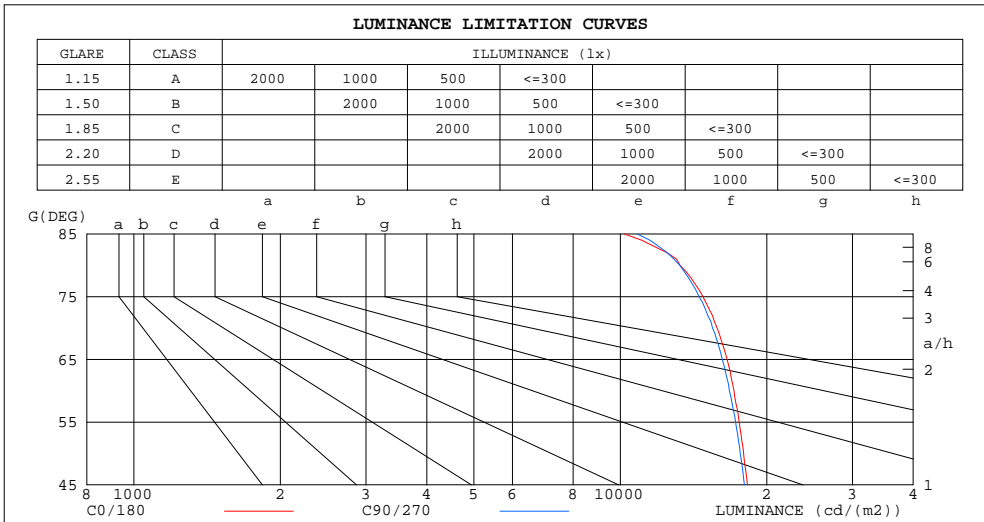
%lum = 78.1%
%lamp = 78.1%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.1DEG
Operators:Water
Test Date:2024-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:44%
Test Distance:2.519m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.: ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G (DEG) | C0/180 | C90/270 |
| 85 | 10192 | 10834 |
| 80 | 13266 | 13258 |
| 75 | 14785 | 14524 |
| 70 | 15817 | 15471 |
| 65 | 16573 | 16202 |
| 60 | 17124 | 16748 |
| 55 | 17544 | 17260 |
| 50 | 17925 | 17646 |
| 45 | 18252 | 17991 |

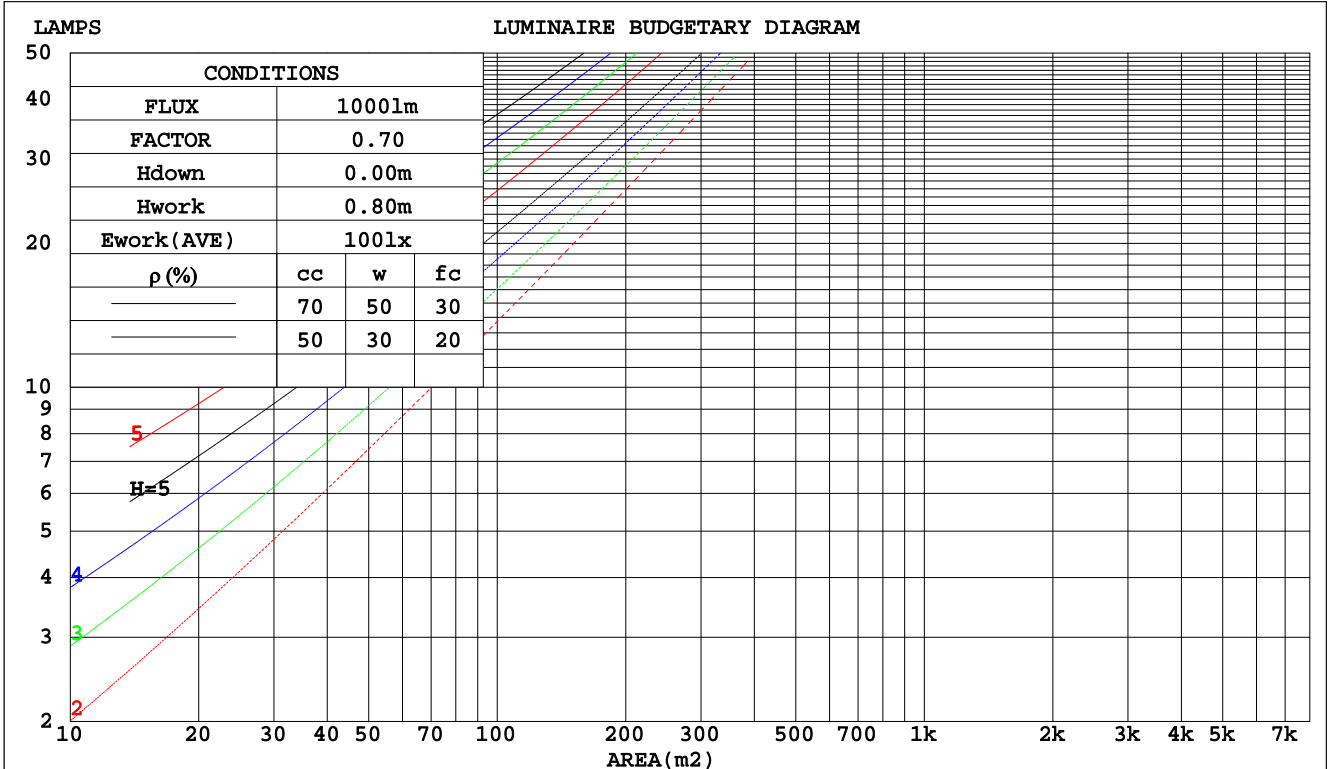
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.1DEG
 Operators: Water
 Test Date: 2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 44%
 Test Distance: 2.519m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.: ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| pw | | | | | | | | | | | | | | | | 0 |
| pfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio Coefficients of Utilization(CU) | | | | | | | | | | | | | | | |
| 0.0 | 1.19 | 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 | 1.04 | .99 | .95 | 1.01 | .97 | .94 | .97 | .94 | .91 | .93 | .90 | .88 | .90 | .87 | .85 | .83 |
| 2.0 | .90 | .83 | .77 | .88 | .82 | .77 | .85 | .79 | .75 | .81 | .77 | .73 | .78 | .75 | .71 | .69 |
| 3.0 | .79 | .71 | .64 | .77 | .70 | .64 | .74 | .68 | .62 | .72 | .66 | .61 | .69 | .64 | .60 | .58 |
| 4.0 | .70 | .61 | .54 | .69 | .60 | .54 | .66 | .59 | .53 | .64 | .57 | .52 | .62 | .56 | .52 | .49 |
| 5.0 | .63 | .53 | .47 | .61 | .53 | .46 | .59 | .52 | .46 | .57 | .51 | .45 | .55 | .50 | .45 | .43 |
| 6.0 | .56 | .47 | .41 | .55 | .47 | .41 | .53 | .46 | .40 | .52 | .45 | .40 | .50 | .44 | .39 | .37 |
| 7.0 | .51 | .42 | .36 | .50 | .42 | .36 | .49 | .41 | .36 | .47 | .40 | .35 | .46 | .40 | .35 | .33 |
| 8.0 | .47 | .38 | .32 | .46 | .38 | .32 | .44 | .37 | .32 | .43 | .36 | .32 | .42 | .36 | .31 | .29 |
| 9.0 | .43 | .34 | .29 | .42 | .34 | .29 | .41 | .34 | .29 | .40 | .33 | .28 | .39 | .33 | .28 | .26 |
| 10.0 | .39 | .31 | .26 | .39 | .31 | .26 | .38 | .31 | .26 | .37 | .30 | .26 | .36 | .30 | .26 | .24 |



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.1DEG
 Operators: Water
 Test Date: 2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 44%
 Test Distance: 2.519m [K=1.0000]
 Remarks:

WEC AND CCEC

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz | | |
| Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.: ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.:ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients(WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .313 | .178 | .056 | .306 | .175 | .055 | .293 | .168 | .054 | .280 | .162 | .052 | .269 | .156 | .050 | |
| 2.0 | .294 | .161 | .049 | .288 | .158 | .049 | .276 | .153 | .048 | .265 | .149 | .047 | .255 | .144 | .045 | |
| 3.0 | .271 | .144 | .043 | .266 | .142 | .043 | .256 | .138 | .042 | .246 | .135 | .041 | .237 | .131 | .041 | |
| 4.0 | .250 | .130 | .038 | .245 | .128 | .038 | .236 | .125 | .037 | .228 | .122 | .037 | .220 | .119 | .036 | |
| 5.0 | .231 | .118 | .034 | .227 | .116 | .034 | .219 | .114 | .034 | .211 | .111 | .033 | .204 | .109 | .033 | |
| 6.0 | .214 | .107 | .031 | .210 | .106 | .031 | .203 | .104 | .030 | .196 | .102 | .030 | .190 | .100 | .030 | |
| 7.0 | .199 | .099 | .028 | .196 | .098 | .028 | .189 | .096 | .028 | .183 | .094 | .027 | .177 | .092 | .027 | |
| 8.0 | .186 | .091 | .026 | .183 | .090 | .025 | .177 | .088 | .025 | .172 | .087 | .025 | .166 | .085 | .025 | |
| 9.0 | .174 | .084 | .024 | .172 | .084 | .023 | .166 | .082 | .023 | .161 | .081 | .023 | .157 | .080 | .023 | |
| 10.0 | .164 | .079 | .022 | .161 | .078 | .022 | .157 | .077 | .022 | .152 | .076 | .021 | .148 | .074 | .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 | .164 | .164 | .164 | .112 | .112 | .112 | .064 | .064 | .064 | .021 | .021 | .021 | |
| 1.0 | .181 | .157 | .135 | .155 | .135 | .116 | .106 | .093 | .080 | .061 | .054 | .047 | .020 | .017 | .015 | |
| 2.0 | .173 | .133 | .099 | .149 | .114 | .085 | .102 | .079 | .060 | .059 | .046 | .035 | .019 | .015 | .011 | |
| 3.0 | .166 | .115 | .075 | .142 | .099 | .065 | .098 | .069 | .046 | .056 | .040 | .027 | .018 | .013 | .009 | |
| 4.0 | .158 | .102 | .059 | .136 | .088 | .051 | .093 | .061 | .036 | .054 | .036 | .021 | .017 | .012 | .007 | |
| 5.0 | .151 | .092 | .048 | .129 | .079 | .042 | .089 | .055 | .030 | .052 | .033 | .018 | .017 | .011 | .006 | |
| 6.0 | .143 | .083 | .040 | .123 | .072 | .035 | .085 | .050 | .025 | .049 | .030 | .015 | .016 | .010 | .005 | |
| 7.0 | .137 | .076 | .034 | .117 | .066 | .030 | .081 | .046 | .021 | .047 | .027 | .013 | .015 | .009 | .004 | |
| 8.0 | .130 | .071 | .030 | .112 | .061 | .026 | .077 | .043 | .018 | .045 | .025 | .011 | .015 | .008 | .004 | |
| 9.0 | .124 | .066 | .026 | .107 | .057 | .023 | .074 | .040 | .016 | .043 | .024 | .010 | .014 | .008 | .003 | |
| 10.0 | .118 | .061 | .023 | .102 | .053 | .020 | .071 | .037 | .015 | .041 | .022 | .009 | .013 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.1DEG
 Operators:Water
 Test Date:2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:44%
 Test Distance:2.519m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.:ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

| | | | | | | | | | | |
|---|------------------|------|------|------|------|----------------|------|------|------|------|
| ceiling/cavity | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| walls | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| working plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | Viewed crosswise | | | | | Viewed endwise | | | | |
| x = 2H y = 2H | 21.1 | 22.6 | 21.3 | 22.8 | 23.0 | 21.0 | 22.5 | 21.3 | 22.7 | 22.9 |
| 3H | 22.6 | 24.0 | 22.9 | 24.3 | 24.5 | 22.5 | 24.0 | 22.8 | 24.2 | 24.4 |
| 4H | 23.3 | 24.6 | 23.6 | 24.9 | 25.1 | 23.2 | 24.5 | 23.5 | 24.8 | 25.0 |
| 6H | 23.7 | 25.0 | 24.0 | 25.2 | 25.5 | 23.6 | 24.9 | 24.0 | 25.2 | 25.4 |
| 8H | 23.8 | 25.1 | 24.2 | 25.4 | 25.6 | 23.8 | 25.0 | 24.1 | 25.3 | 25.6 |
| 12H | 23.9 | 25.1 | 24.3 | 25.4 | 25.7 | 23.8 | 25.0 | 24.2 | 25.3 | 25.6 |
| 4H 2H | 21.7 | 23.0 | 22.0 | 23.3 | 23.5 | 21.6 | 23.0 | 21.9 | 23.2 | 23.5 |
| 3H | 23.4 | 24.6 | 23.8 | 24.9 | 25.2 | 23.4 | 24.5 | 23.7 | 24.8 | 25.1 |
| 4H | 24.2 | 25.3 | 24.6 | 25.6 | 25.9 | 24.1 | 25.2 | 24.5 | 25.5 | 25.9 |
| 6H | 24.8 | 25.7 | 25.2 | 26.1 | 26.4 | 24.7 | 25.7 | 25.1 | 26.0 | 26.4 |
| 8H | 25.0 | 25.8 | 25.4 | 26.2 | 26.6 | 24.9 | 25.8 | 25.3 | 26.2 | 26.6 |
| 12H | 25.1 | 25.9 | 25.5 | 26.3 | 26.7 | 25.0 | 25.9 | 25.5 | 26.2 | 26.7 |
| 8H 4H | 24.5 | 25.4 | 24.9 | 25.7 | 26.1 | 24.4 | 25.3 | 24.8 | 25.7 | 26.1 |
| 6H | 25.2 | 25.9 | 25.6 | 26.3 | 26.8 | 25.2 | 25.9 | 25.6 | 26.3 | 26.7 |
| 8H | 25.5 | 26.1 | 25.9 | 26.6 | 27.0 | 25.4 | 26.1 | 25.9 | 26.5 | 27.0 |
| 12H | 25.7 | 26.2 | 26.1 | 26.7 | 27.2 | 25.7 | 26.2 | 26.1 | 26.7 | 27.1 |
| 12H 4H | 24.5 | 25.3 | 24.9 | 25.7 | 26.1 | 24.4 | 25.2 | 24.9 | 25.6 | 26.0 |
| 6H | 25.3 | 25.9 | 25.7 | 26.3 | 26.8 | 25.2 | 25.9 | 25.7 | 26.3 | 26.8 |
| 8H | 25.6 | 26.1 | 26.1 | 26.6 | 27.1 | 25.5 | 26.1 | 26.0 | 26.6 | 27.0 |
| Variations with the observer position at spacings(CIE Pub.117): | | | | | | | | | | |
| S = 1.0H | + 0.1 / - 0.2 | | | | | + 0.2 / - 0.2 | | | | |
| 1.5H | + 0.2 / - 0.3 | | | | | + 0.2 / - 0.3 | | | | |
| 2.0H | + 0.1 / - 0.3 | | | | | + 0.1 / - 0.3 | | | | |

CIE Pub.117, 1661 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.8)
Area: 0.0298496 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.1DEG
Operators:Water
Test Date:2024-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:44%
Test Distance:2.519m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.:ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

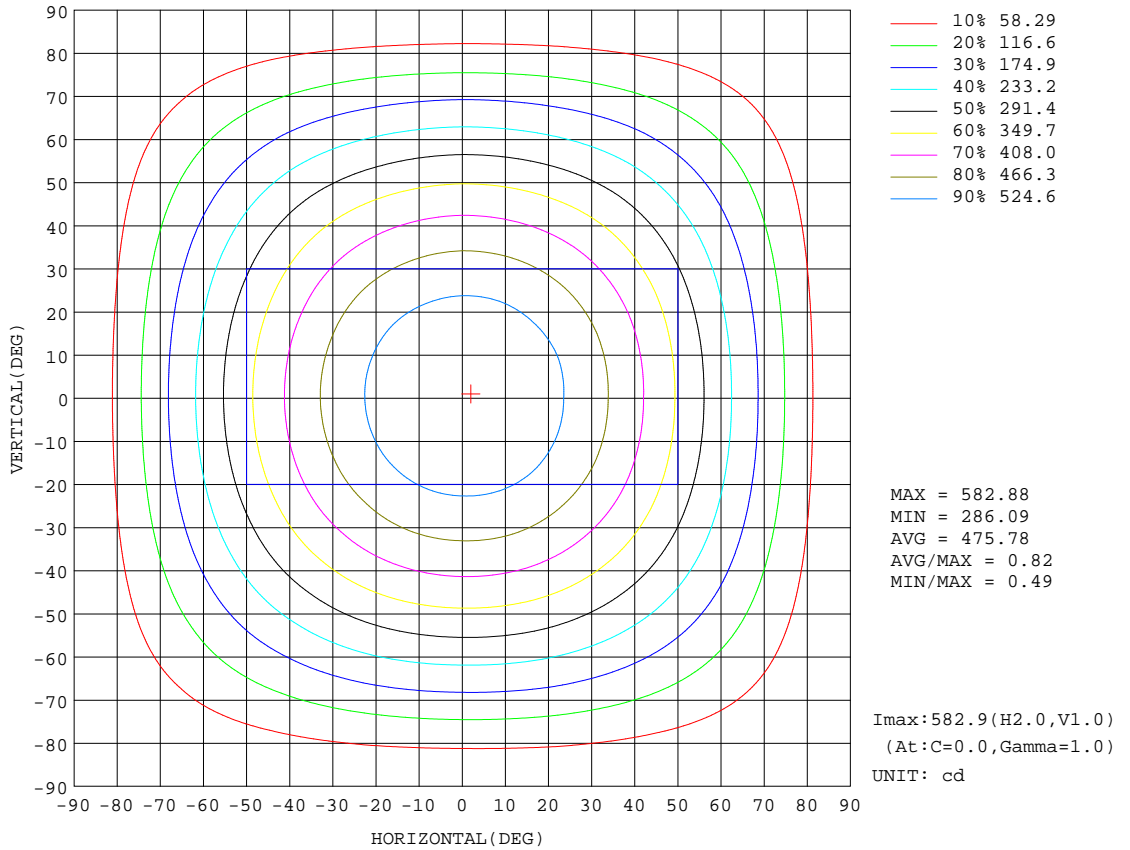
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|---|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0 |
| ROOM INDEX | UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$ | | | | | | | | | |
| k = 0.60 | 57 | 46 | 39 | 57 | 45 | 39 | 55 | 45 | 38 | 32 |
| 0.80 | 67 | 56 | 48 | 66 | 55 | 48 | 65 | 54 | 48 | 41 |
| 1.00 | 76 | 65 | 57 | 75 | 64 | 57 | 72 | 65 | 56 | 49 |
| 1.25 | 83 | 72 | 65 | 81 | 72 | 65 | 79 | 70 | 64 | 56 |
| 1.50 | 88 | 78 | 71 | 86 | 77 | 70 | 83 | 75 | 69 | 62 |
| 2.00 | 95 | 86 | 80 | 93 | 85 | 79 | 89 | 83 | 77 | 69 |
| 2.50 | 99 | 91 | 85 | 97 | 89 | 84 | 93 | 87 | 82 | 74 |
| 3.00 | 102 | 95 | 90 | 100 | 94 | 88 | 96 | 91 | 86 | 78 |
| 4.00 | 106 | 100 | 96 | 104 | 99 | 94 | 99 | 95 | 92 | 83 |
| 5.00 | 109 | 104 | 100 | 106 | 102 | 98 | 101 | 98 | 95 | 86 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | SHRNOM = 1.25 | | | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.1DEG
 Operators:Water
 Test Date:2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:44%
 Test Distance:2.519m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.:ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |



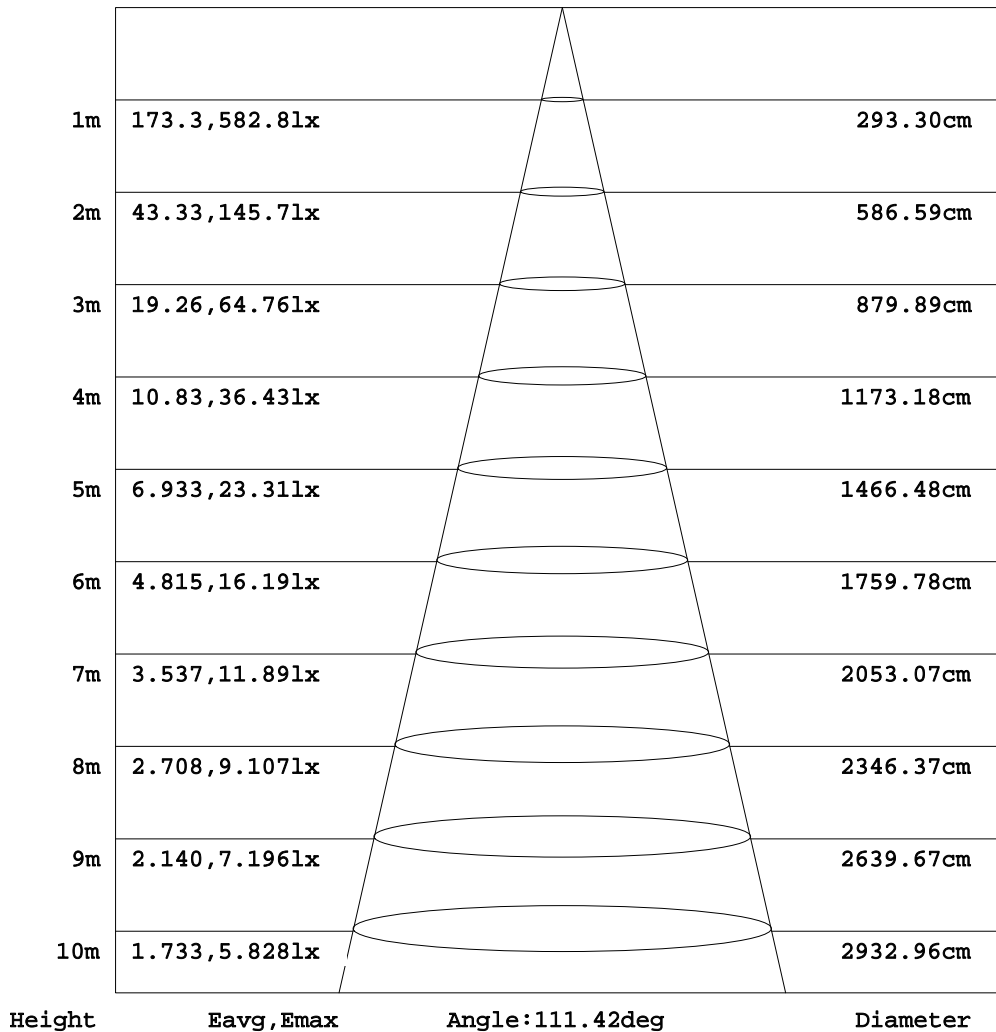
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.1DEG
Operators:Water
Test Date:2024-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:44%
Test Distance:2.519m [K=1.0000]
Remarks:

AAI Figure

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.:ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.:ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

Flux out:1197 lm



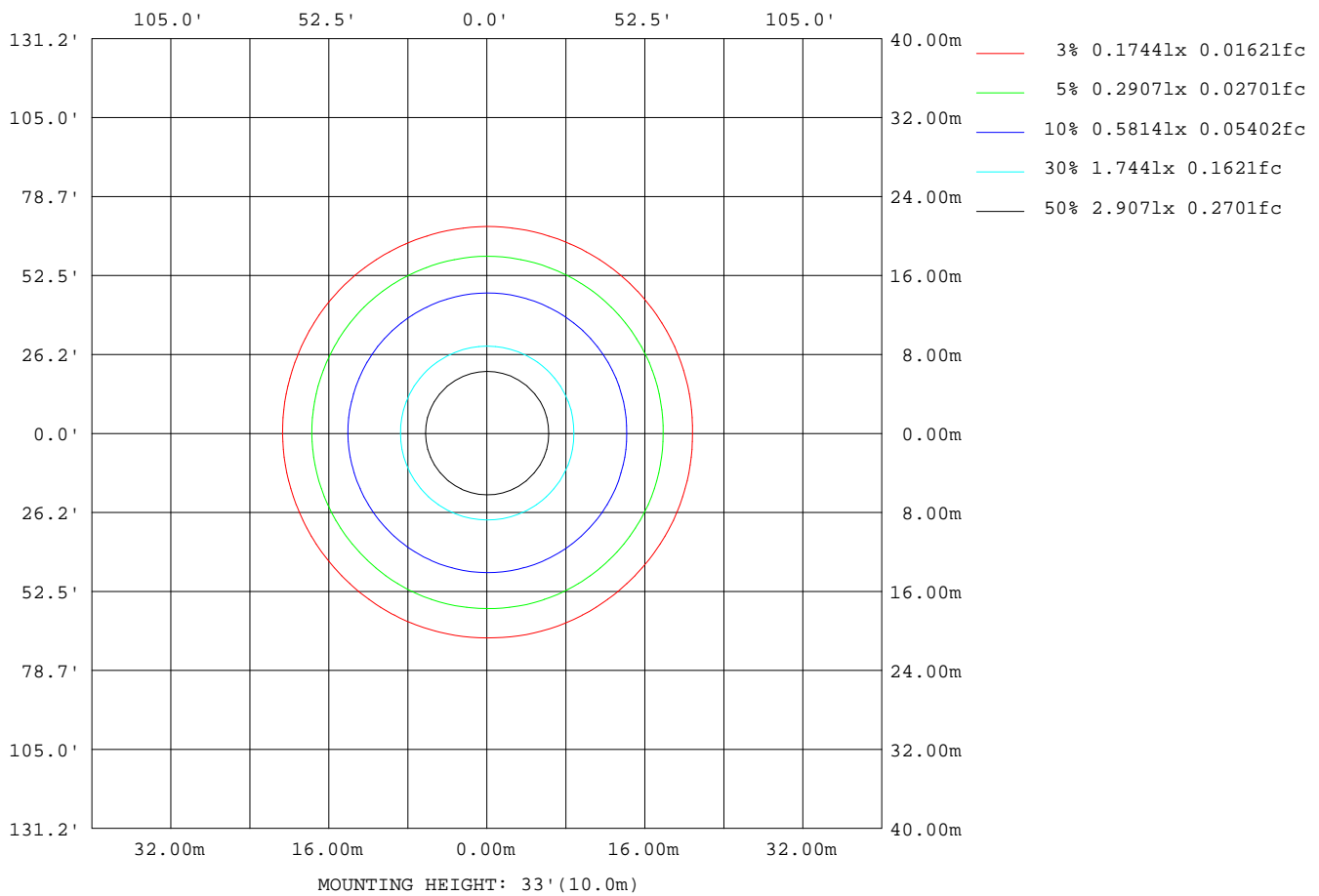
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.1DEG
Operators:Water
Test Date:2024-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:44%
Test Distance:2.519m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.:ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.:ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.1DEG
 Operators:Water
 Test Date:2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:44%
 Test Distance:2.519m [K=1.0000]
 Remarks:

LED Avg.L Report

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.:ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

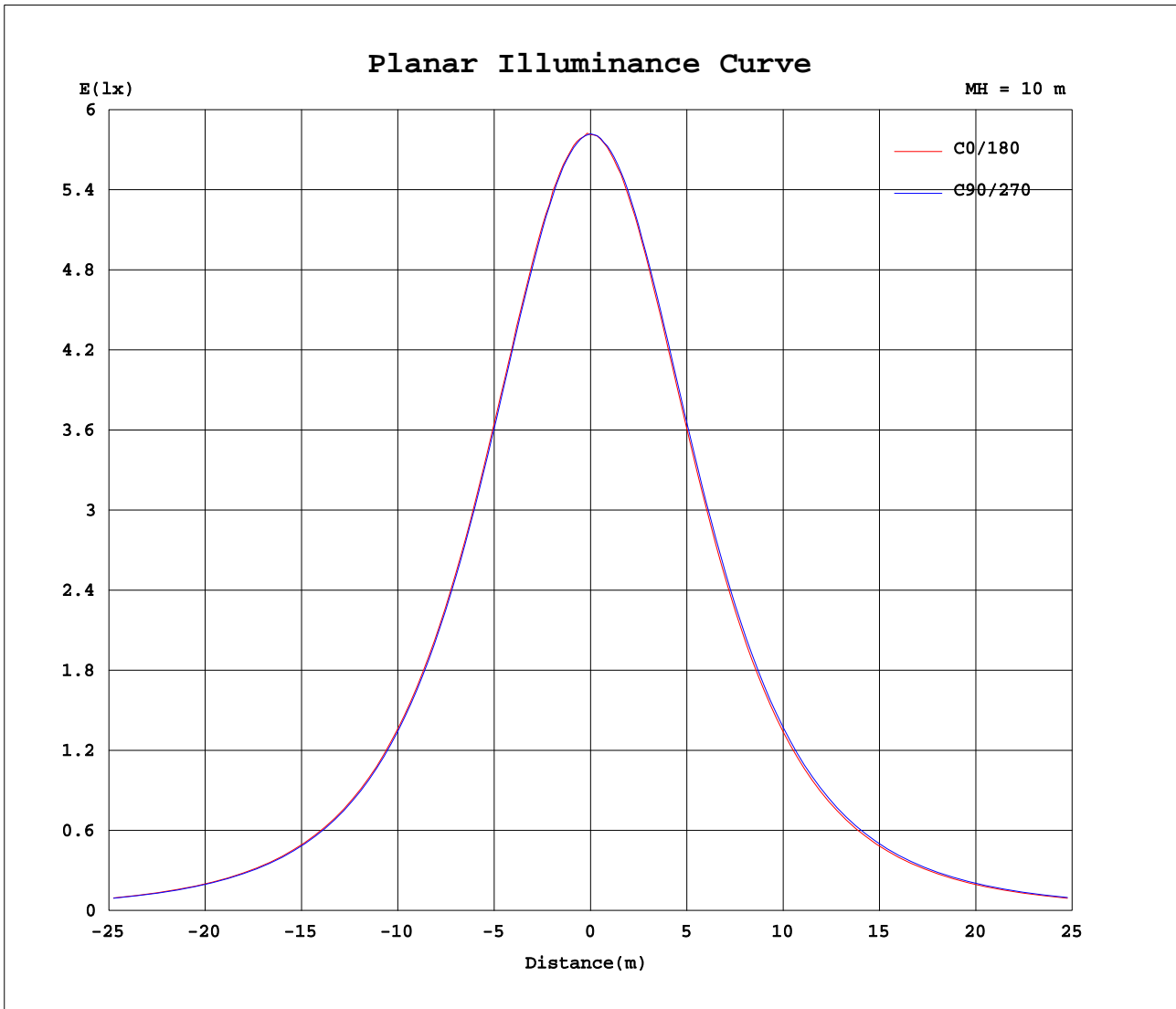
| AvgL | cd/m2 |
|----------------|-------|
| L_0~180(65)av | 16390 |
| L_0~180(75)av | 14623 |
| L_0~180(85)av | 10321 |
| L_90~270(65)av | 16579 |
| L_90~270(75)av | 15083 |
| L_90~270(85)av | 12353 |
| L_45(65)av | 16481 |
| L_45(75)av | 14899 |
| L_45(85)av | 11328 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.1DEG
 Operators:Water
 Test Date:2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:44%
 Test Distance:2.519m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.1DEG
 Operators: Water
 Test Date: 2024-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 44%
 Test Distance: 2.519m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|-----------|----------------------|
| Test:U:120.01V I:0.1488A P:17.610W PF:0.9861 Freq:60.00Hz Lamp Flux:1661.32x1 lm | | |
| NAME: LED Luminaire | TYPE: N/A | WEIGHT: N/A |
| SPEC.:ASD-MPR-9D18WH-EM 5000K | DIM.: N/A | SERIAL No.: N/A |
| MFR.: ASD Lighting Corp | SUR.: N/A | Shielding Angle: N/A |

Table--1

UNIT: cd

| C(DEG) \ γ (DEG) | 0 | 22.5 | 45 | 67.5 | 90 | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 | | | |
|------------------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|--|--|--|
| 0 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | | | |
| 5 | 580 | 580 | 579 | 579 | 578 | 578 | 578 | 578 | 579 | 579 | 580 | 579 | 580 | 580 | 580 | 580 | | | |
| 10 | 572 | 572 | 571 | 570 | 570 | 569 | 569 | 569 | 570 | 570 | 571 | 572 | 573 | 573 | 573 | 573 | | | |
| 15 | 560 | 559 | 557 | 557 | 556 | 555 | 555 | 554 | 556 | 556 | 558 | 558 | 559 | 560 | 561 | 560 | | | |
| 20 | 542 | 541 | 540 | 538 | 537 | 535 | 535 | 535 | 537 | 537 | 539 | 541 | 542 | 542 | 543 | 542 | | | |
| 25 | 519 | 518 | 516 | 515 | 513 | 512 | 511 | 511 | 513 | 513 | 516 | 517 | 519 | 520 | 519 | 519 | | | |
| 30 | 491 | 490 | 488 | 487 | 485 | 484 | 483 | 483 | 485 | 486 | 488 | 490 | 492 | 493 | 492 | 493 | | | |
| 35 | 459 | 459 | 456 | 455 | 454 | 452 | 450 | 450 | 453 | 454 | 457 | 459 | 461 | 461 | 462 | 461 | | | |
| 40 | 424 | 423 | 421 | 420 | 418 | 416 | 414 | 414 | 418 | 419 | 422 | 423 | 426 | 426 | 427 | 426 | | | |
| 45 | 386 | 385 | 383 | 382 | 380 | 378 | 376 | 375 | 379 | 380 | 384 | 385 | 388 | 389 | 389 | 388 | | | |
| 50 | 344 | 344 | 342 | 341 | 339 | 337 | 335 | 334 | 338 | 339 | 342 | 344 | 348 | 348 | 349 | 347 | | | |
| 55 | 301 | 301 | 299 | 298 | 296 | 294 | 291 | 291 | 295 | 296 | 300 | 302 | 305 | 305 | 306 | 304 | | | |
| 60 | 256 | 256 | 254 | 253 | 250 | 249 | 246 | 246 | 250 | 251 | 255 | 257 | 260 | 260 | 261 | 259 | | | |
| 65 | 209 | 209 | 208 | 208 | 204 | 203 | 200 | 200 | 204 | 205 | 209 | 211 | 214 | 214 | 215 | 213 | | | |
| 70 | 162 | 163 | 161 | 161 | 158 | 157 | 154 | 154 | 158 | 160 | 163 | 165 | 168 | 167 | 168 | 166 | | | |
| 75 | 114 | 114 | 114 | 114 | 112 | 111 | 109 | 108 | 112 | 114 | 117 | 119 | 121 | 121 | 120 | 118 | | | |
| 80 | 68.8 | 69.5 | 69.8 | 70.5 | 68.7 | 67.8 | 65.0 | 64.1 | 67.8 | 69.8 | 73.4 | 75.3 | 76.8 | 76.8 | 75.5 | 73.0 | | | |
| 85 | 26.5 | 27.5 | 27.6 | 29.7 | 28.2 | 27.5 | 24.2 | 23.9 | 27.2 | 28.3 | 32.3 | 34.3 | 36.1 | 35.1 | 33.8 | 30.5 | | | |
| 90 | 0.15 | 0.11 | 0.17 | 0.12 | 0.16 | 0.12 | 0.20 | 0.11 | 0.03 | 0.05 | 0.04 | 1.52 | 0.03 | 2.53 | 0.12 | 2.64 | | | |
| 95 | 0.14 | 0.14 | 0.14 | 0.15 | 0.16 | 0.15 | 0.15 | 0.14 | 0.04 | 0.05 | 0.04 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | | | |
| 100 | 0.16 | 0.16 | 0.18 | 0.20 | 0.21 | 0.20 | 0.19 | 0.17 | 0.06 | 0.07 | 0.08 | 0.10 | 0.10 | 0.10 | 0.07 | 0.06 | | | |
| 105 | 0.19 | 0.19 | 0.21 | 0.23 | 0.24 | 0.23 | 0.21 | 0.19 | 0.08 | 0.09 | 0.11 | 0.13 | 0.13 | 0.13 | 0.11 | 0.09 | | | |
| 110 | 0.21 | 0.21 | 0.24 | 0.26 | 0.26 | 0.26 | 0.24 | 0.22 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.16 | 0.13 | 0.12 | | | |
| 115 | 0.25 | 0.26 | 0.28 | 0.29 | 0.29 | 0.30 | 0.28 | 0.25 | 0.14 | 0.15 | 0.16 | 0.18 | 0.17 | 0.18 | 0.16 | 0.15 | | | |
| 120 | 0.29 | 0.30 | 0.32 | 0.33 | 0.34 | 0.34 | 0.33 | 0.30 | 0.18 | 0.18 | 0.19 | 0.20 | 0.19 | 0.20 | 0.19 | 0.18 | | | |
| 125 | 0.36 | 0.36 | 0.38 | 0.39 | 0.40 | 0.40 | 0.39 | 0.36 | 0.21 | 0.20 | 0.22 | 0.23 | 0.22 | 0.23 | 0.22 | 0.20 | | | |
| 130 | 0.43 | 0.44 | 0.46 | 0.47 | 0.48 | 0.48 | 0.47 | 0.43 | 0.22 | 0.24 | 0.25 | 0.25 | 0.24 | 0.26 | 0.25 | 0.24 | | | |
| 135 | 0.53 | 0.54 | 0.56 | 0.57 | 0.59 | 0.58 | 0.58 | 0.53 | 0.28 | 0.26 | 0.27 | 0.28 | 0.27 | 0.28 | 0.27 | 0.26 | | | |
| 140 | 0.67 | 0.68 | 0.72 | 0.73 | 0.74 | 0.74 | 0.72 | 0.67 | 0.29 | 0.29 | 0.29 | 0.30 | 0.29 | 0.30 | 0.28 | 0.28 | | | |
| 145 | 0.80 | 0.82 | 0.86 | 0.87 | 0.90 | 0.88 | 0.85 | 0.78 | 0.31 | 0.29 | 0.32 | 0.33 | 0.32 | 0.32 | 0.30 | 0.32 | | | |
| 150 | 0.91 | 0.94 | 0.97 | 0.99 | 1.00 | 1.00 | 0.97 | 0.91 | 0.34 | 0.33 | 0.35 | 0.35 | 0.33 | 0.34 | 0.34 | 0.35 | | | |
| 155 | 1.02 | 1.05 | 1.06 | 1.08 | 1.10 | 1.10 | 1.06 | 1.02 | 0.40 | 0.39 | 0.38 | 0.39 | 0.36 | 0.36 | 0.37 | 0.39 | | | |
| 160 | 1.07 | 1.09 | 1.10 | 1.14 | 1.11 | 1.14 | 1.10 | 1.05 | 0.47 | 0.44 | 0.44 | 0.43 | 0.39 | 0.41 | 0.43 | 0.46 | | | |
| 165 | 1.06 | 1.06 | 1.06 | 1.08 | 1.09 | 1.07 | 1.06 | 1.03 | 0.53 | 0.50 | 0.50 | 0.48 | 0.45 | 0.46 | 0.50 | 0.53 | | | |
| 170 | 0.98 | 0.99 | 0.99 | 0.99 | 0.98 | 0.98 | 0.98 | 0.98 | 0.60 | 0.58 | 0.55 | 0.53 | 0.51 | 0.52 | 0.57 | 0.59 | | | |
| 175 | 0.93 | 0.92 | 0.91 | 0.88 | 0.86 | 0.88 | 0.90 | 0.91 | 0.69 | 0.68 | 0.64 | 0.62 | 0.59 | 0.62 | 0.66 | 0.68 | | | |
| 180 | 0.79 | 0.77 | 0.75 | 0.73 | 0.72 | 0.73 | 0.76 | 0.77 | 0.79 | 0.77 | 0.75 | 0.73 | 0.72 | 0.73 | 0.76 | 0.77 | | | |

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