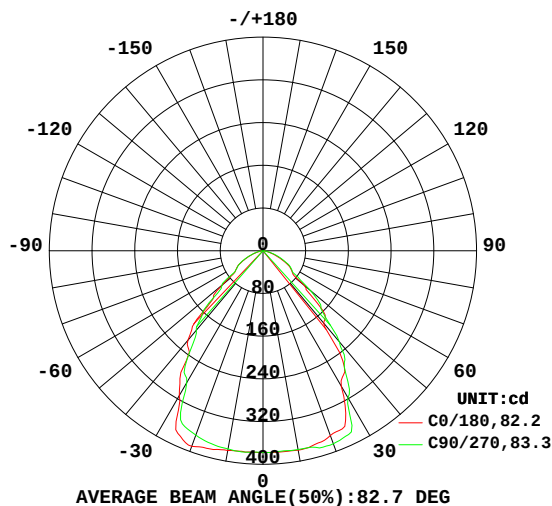


## LUMINAIRE PHOTOMETRIC TEST REPORT

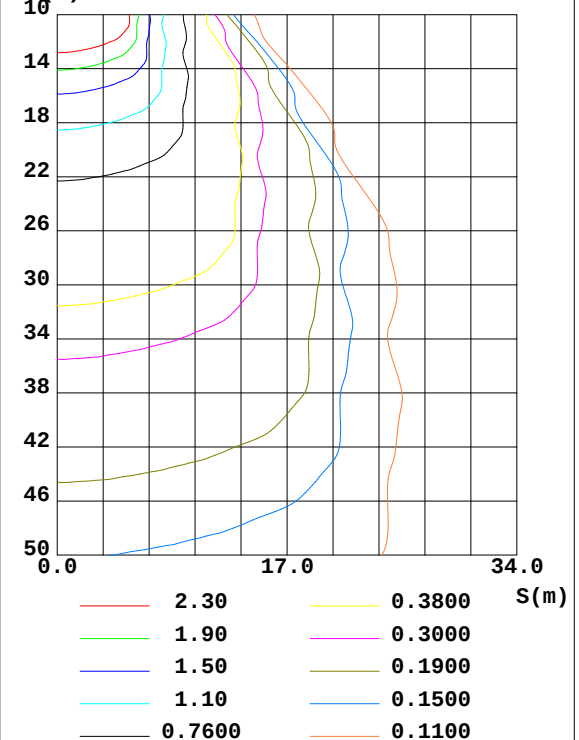
|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME: ASD-LCLS-1A-9BK-PC 5000K                                                      | TYPE: N/A | WEIGHT: N/A          |
| SPEC.:LED Luminaires                                                                | DIM.: N/A | SERIAL No.: N/A      |
| MFR.: ASD Lighting Corp                                                             | SUR.: N/A | Shielding Angle: N/A |

| DATA OF LAMP     |                          | PHOTOMETRIC DATA Eff: 74.23 lm/W |        |                    |           |
|------------------|--------------------------|----------------------------------|--------|--------------------|-----------|
| MODEL            | ASD-LCLS-1A-9BK-PC 5000K | I <sub>max</sub> (cd)            | 392.4  | S/MH(C0/180)       | 1.12      |
| NOMINAL POWER(W) | 9                        | LOR(%)                           | 100.0  | S/MH(C90/270)      | 1.22      |
| RATED VOLTAGE(V) | 120                      | TOTAL FLUX(lm)                   | 708.12 | η UP, DN(C0-180)   | 0.1, 49.0 |
| NOMINAL FLUX(lm) | 708.118                  | CIE CLASS                        | DIRECT | η UP, DN(C180-360) | 0.0, 50.9 |
| LAMPS INSIDE     | 1                        | η up(%)                          | 0.1    | CIBSE SHR NOM      | 1.25      |
| TEST VOLTAGE(V)  | 120                      | η down(%)                        | 99.9   | CIBSE SHR MAX      | 1.25      |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.2DEG  
Operators: Hill  
Test Date: 2024-08-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity: 48%  
Test Distance: 2.519m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

| $\gamma$ | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|------------|
| 10       | 379.9                 | 379.0  | 376.9  | 377.4  | 379.2  | 376.8  | 378.1  | 378.3  | 0- 10    | 36.06       | 36.06        | 5.09,5.09  |
| 20       | 389.7                 | 371.5  | 367.4  | 366.4  | 368.4  | 377.7  | 384.6  | 387.8  | 10- 20   | 107.5       | 143.6        | 20.3,20.3  |
| 30       | 313.6                 | 304.8  | 285.3  | 286.7  | 293.2  | 304.1  | 317.7  | 329.5  | 20- 30   | 164.6       | 308.2        | 43.5,43.5  |
| 40       | 218.7                 | 179.6  | 194.4  | 195.3  | 176.8  | 201.2  | 222.6  | 232.3  | 30- 40   | 160.5       | 468.7        | 66.2,66.2  |
| 50       | 98.90                 | 99.79  | 100.4  | 101.9  | 101.0  | 104.6  | 117.5  | 122.0  | 40- 50   | 118.9       | 587.6        | 83,83      |
| 60       | 52.73                 | 51.86  | 52.17  | 53.45  | 55.62  | 56.75  | 58.34  | 58.60  | 50- 60   | 63.21       | 650.8        | 91.9,91.9  |
| 70       | 23.76                 | 24.75  | 25.50  | 24.56  | 24.17  | 27.09  | 28.67  | 27.30  | 60- 70   | 39.37       | 690.2        | 97.5,97.5  |
| 80       | 4.604                 | 5.191  | 5.652  | 4.175  | 3.926  | 5.595  | 6.980  | 6.206  | 70- 80   | 15.30       | 705.5        | 99.6,99.6  |
| 90       | 0.0271                | 0.0207 | 0.0140 | 0.0141 | 0.0120 | 0.0413 | 0      | 0.1441 | 80- 90   | 1.735       | 707.2        | 99.9,99.9  |
| 100      | 0.0225                | 0.0277 | 0.0258 | 0.0262 | 0      | 0.0019 | 0      | 0.0077 | 90-100   | 0.0128      | 707.3        | 99.9,99.9  |
| 110      | 0.0421                | 0.0525 | 0.0494 | 0.0534 | 0.0086 | 0.0130 | 0.0082 | 0.0169 | 100-110  | 0.0222      | 707.3        | 99.9,99.9  |
| 120      | 0.0934                | 0.1040 | 0.1051 | 0.1060 | 0.0255 | 0.0261 | 0.0257 | 0.0286 | 110-120  | 0.0448      | 707.3        | 99.9,99.9  |
| 130      | 0.1946                | 0.2061 | 0.2180 | 0.2123 | 0.0532 | 0.0528 | 0.0522 | 0.0529 | 120-130  | 0.0841      | 707.4        | 99.9,99.9  |
| 140      | 0.3663                | 0.3963 | 0.4115 | 0.3944 | 0.0964 | 0.0954 | 0.0941 | 0.0930 | 130-140  | 0.1390      | 707.6        | 99.9,99.9  |
| 150      | 0.5250                | 0.5873 | 0.6036 | 0.5744 | 0.1565 | 0.1554 | 0.1535 | 0.1560 | 140-150  | 0.1894      | 707.7        | 99.9,99.9  |
| 160      | 0.6615                | 0.6993 | 0.7088 | 0.6934 | 0.2548 | 0.2402 | 0.2182 | 0.2474 | 150-160  | 0.1935      | 707.9        | 100,100    |
| 170      | 0.6361                | 0.6383 | 0.6481 | 0.6420 | 0.3541 | 0.3252 | 0.3153 | 0.3487 | 160-170  | 0.1365      | 708.1        | 100,100    |
| 180      | 0.5371                | 0.4960 | 0.4867 | 0.5131 | 0.5377 | 0.4968 | 0.4869 | 0.5143 | 170-180  | 0.0469      | 708.1        | 100,100    |
| DEG      | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |        |          | UNIT: lm    |              |            |

Conical surface Flux(90deg): 535.28 lm

%lum = 75.6%

%lamp = 75.6%

Conical surface Flux(120deg): 650.85 lm

%lum = 91.9%

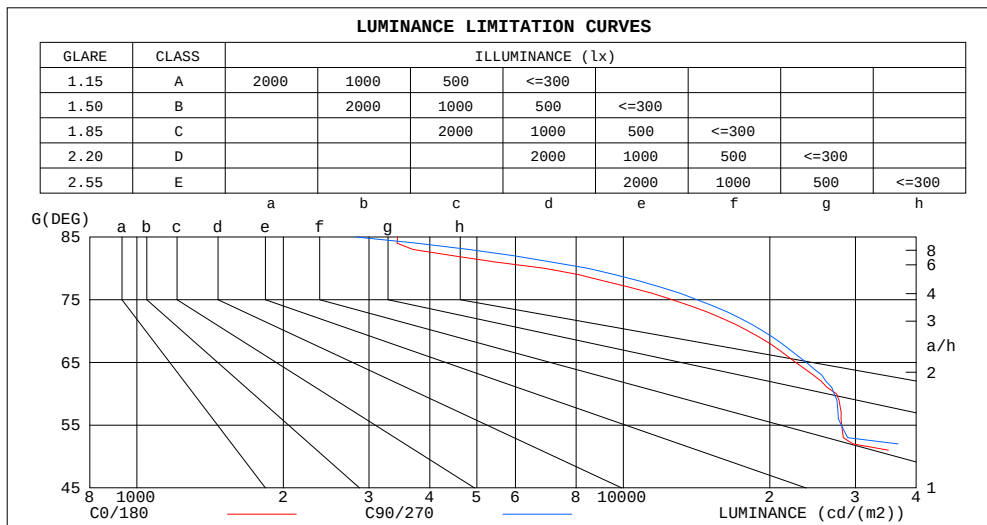
%lamp = 91.9%

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.2DEG  
 Operators:Hill  
 Test Date:2024-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
 Humidity:48%  
 Test Distance:2.519m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME: ASD-LCLS-1A-9BK-PC 5000K                                                      | TYPE: N/A | WEIGHT: N/A          |
| SPEC.: LED Luminaires                                                               | 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                | 3436   | 2820    |
| 80                | 6897   | 8462    |
| 75                | 12613  | 14175   |
| 70                | 18075  | 19383   |
| 65                | 22609  | 23789   |
| 60                | 27433  | 27129   |
| 55                | 28115  | 28072   |
| 50                | 40026  | 40614   |
| 45                | 53898  | 57542   |

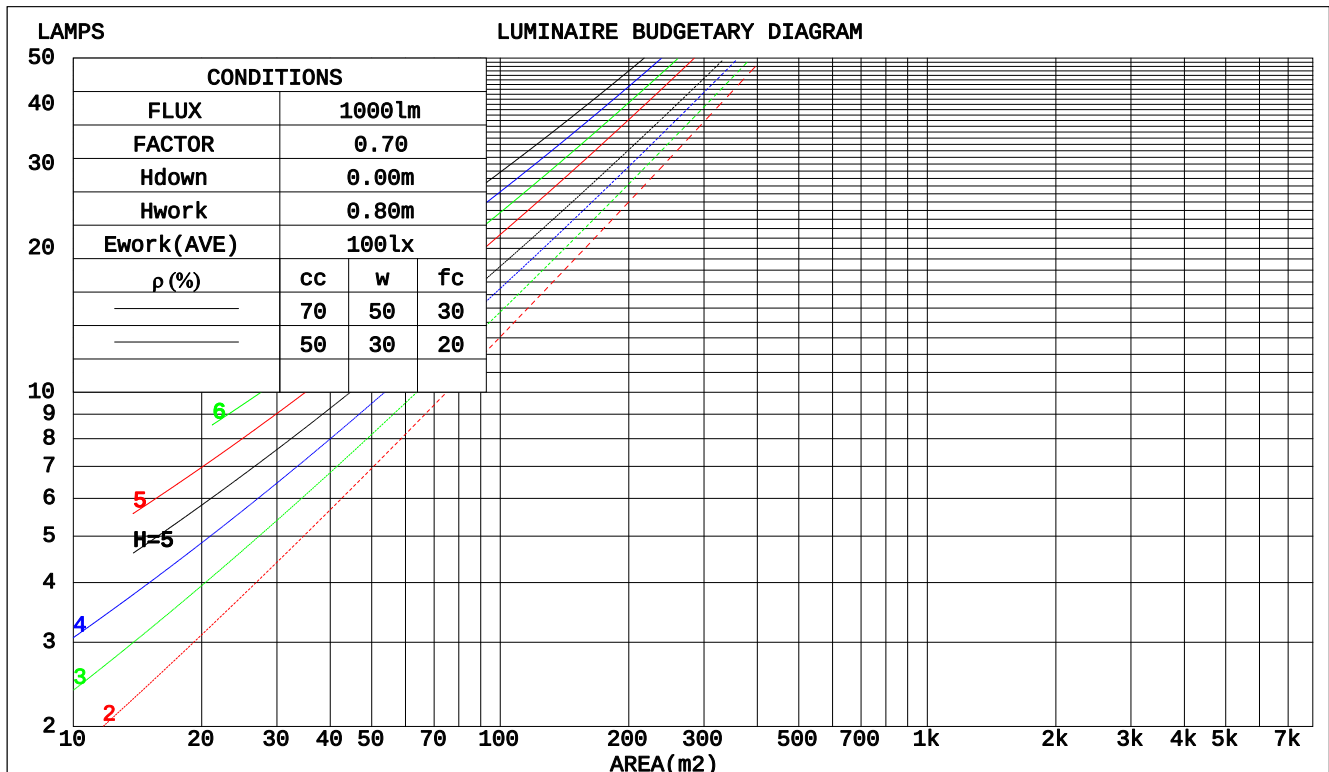
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       | TYPE: N/A | WEIGHT: N/A          |
| SPEC.: LED Luminaires                                                               | DIM.: N/A | SERIAL No.: N/A      |
| MFR.:ASD Lighting Corp                                                              | SUR.: N/A | Shielding Angle: N/A |

| $\rho_{CC}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0   |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|-----|
| $\rho_W$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0   |
| $\rho_{fc}$ | 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         | 1.08                  | 1.04 | 1.02 | 1.06 | 1.03 | .00  | 1.01                            | .99  | .97  | .98  | .96  | .94  | .94  | .92  | .91  | .89 |
| 2.0         | .97                   | .92  | .87  | .95  | .90  | .86  | .92                             | .88  | .84  | .89  | .85  | .82  | .86  | .83  | .81  | .79 |
| 3.0         | .88                   | .81  | .76  | .86  | .80  | .75  | .83                             | .78  | .74  | .81  | .76  | .73  | .78  | .75  | .71  | .70 |
| 4.0         | .80                   | .72  | .67  | .78  | .72  | .66  | .76                             | .70  | .65  | .74  | .69  | .65  | .72  | .67  | .64  | .62 |
| 5.0         | .73                   | .65  | .59  | .71  | .64  | .59  | .69                             | .63  | .58  | .68  | .62  | .58  | .66  | .61  | .57  | .55 |
| 6.0         | .66                   | .59  | .53  | .66  | .58  | .53  | .64                             | .57  | .53  | .62  | .57  | .52  | .61  | .56  | .52  | .50 |
| 7.0         | .61                   | .53  | .48  | .60  | .53  | .48  | .59                             | .52  | .48  | .57  | .52  | .47  | .56  | .51  | .47  | .45 |
| 8.0         | .56                   | .49  | .44  | .56  | .49  | .44  | .54                             | .48  | .43  | .53  | .47  | .43  | .52  | .47  | .43  | .41 |
| 9.0         | .52                   | .45  | .40  | .52  | .45  | .40  | .51                             | .44  | .40  | .50  | .44  | .40  | .49  | .43  | .39  | .38 |
| 10.0        | .49                   | .41  | .37  | .48  | .41  | .37  | .47                             | .41  | .37  | .46  | .40  | .36  | .45  | .40  | .36  | .35 |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

### WEC AND CCEC

|                                                                                     |  |  |           |  |                      |
|-------------------------------------------------------------------------------------|--|--|-----------|--|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |  |  |           |  |                      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       |  |  | TYPE: N/A |  | WEIGHT: N/A          |
| SPEC.:LED Luminaires                                                                |  |  | DIM.: N/A |  | SERIAL No.: N/A      |
| MFR.:ASD Lighting Corp                                                              |  |  | SUR.: N/A |  | Shielding Angle: N/A |

| $\rho_{cc}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| $\rho_w$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| $\rho_{fc}$ | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR         | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0         |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0         | .235                  | .134 | .042 | .228 | .130 | .041 | .215                            | .123 | .039 | .203 | .117 | .038 | .192 | .111 | .036 |   |
| 2.0         | .228                  | .125 | .038 | .222 | .122 | .038 | .211                            | .117 | .036 | .200 | .112 | .035 | .191 | .108 | .034 |   |
| 3.0         | .216                  | .115 | .034 | .211 | .113 | .034 | .201                            | .109 | .033 | .192 | .105 | .032 | .184 | .102 | .032 |   |
| 4.0         | .204                  | .106 | .031 | .200 | .105 | .031 | .191                            | .101 | .030 | .183 | .098 | .030 | .176 | .095 | .029 |   |
| 5.0         | .193                  | .098 | .028 | .189 | .097 | .028 | .181                            | .094 | .028 | .174 | .092 | .027 | .167 | .089 | .027 |   |
| 6.0         | .182                  | .091 | .026 | .178 | .090 | .026 | .171                            | .088 | .026 | .165 | .086 | .025 | .159 | .084 | .025 |   |
| 7.0         | .171                  | .085 | .024 | .168 | .084 | .024 | .162                            | .082 | .024 | .157 | .080 | .023 | .151 | .079 | .023 |   |
| 8.0         | .162                  | .079 | .022 | .159 | .078 | .022 | .154                            | .077 | .022 | .149 | .075 | .022 | .144 | .074 | .022 |   |
| 9.0         | .154                  | .074 | .021 | .151 | .074 | .021 | .146                            | .072 | .021 | .142 | .071 | .020 | .137 | .070 | .020 |   |
| 10.0        | .146                  | .070 | .019 | .144 | .069 | .019 | .139                            | .068 | .019 | .135 | .067 | .019 | .131 | .066 | .019 |   |

| ρ <sub>cc</sub> | 80%                   |      |      | 70%  |      |      | 50%                                        |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-----------------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| ρ <sub>w</sub>  | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                        | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| ρ <sub>fc</sub> | 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             | .176                  | .158 | .141 | .151 | .135 | .122 | .103                                       | .093 | .084 | .059 | .054 | .049 | .019 | .017 | .016 |   |
| 2.0             | .165                  | .133 | .107 | .141 | .115 | .092 | .097                                       | .079 | .064 | .056 | .046 | .038 | .018 | .015 | .012 |   |
| 3.0             | .155                  | .115 | .083 | .133 | .099 | .072 | .091                                       | .069 | .050 | .053 | .040 | .030 | .017 | .013 | .010 |   |
| 4.0             | .147                  | .101 | .066 | .126 | .087 | .057 | .087                                       | .061 | .040 | .050 | .036 | .024 | .016 | .012 | .008 |   |
| 5.0             | .139                  | .090 | .054 | .120 | .078 | .047 | .082                                       | .054 | .033 | .048 | .032 | .020 | .015 | .010 | .006 |   |
| 6.0             | .132                  | .081 | .045 | .114 | .070 | .039 | .078                                       | .049 | .028 | .046 | .029 | .016 | .015 | .009 | .005 |   |
| 7.0             | .126                  | .074 | .038 | .108 | .064 | .033 | .075                                       | .045 | .023 | .044 | .027 | .014 | .014 | .009 | .005 |   |
| 8.0             | .120                  | .068 | .033 | .104 | .059 | .028 | .072                                       | .042 | .020 | .042 | .025 | .012 | .013 | .008 | .004 |   |
| 9.0             | .115                  | .063 | .029 | .099 | .055 | .025 | .069                                       | .039 | .018 | .040 | .023 | .011 | .013 | .007 | .003 |   |
| 10.0            | .110                  | .059 | .025 | .095 | .051 | .022 | .066                                       | .036 | .016 | .038 | .021 | .009 | .012 | .007 | .003 |   |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|                                                                                     |                  |      |      |      |           |                |      |                      |      |      |
|-------------------------------------------------------------------------------------|------------------|------|------|------|-----------|----------------|------|----------------------|------|------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |                  |      |      |      |           |                |      |                      |      |      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       |                  |      |      |      | TYPE: N/A |                |      | WEIGHT: N/A          |      |      |
| SPEC.:LED Luminaires                                                                |                  |      |      |      | 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                                                                       | 25.1             | 26.4 | 25.4 | 26.6 | 26.8      | 25.2           | 26.4 | 25.4                 | 26.6 | 26.8 |
| 3H                                                                                  | 25.7             | 26.8 | 25.9 | 27.0 | 27.3      | 25.7           | 26.9 | 26.0                 | 27.1 | 27.3 |
| 4H                                                                                  | 25.8             | 26.9 | 26.1 | 27.1 | 27.3      | 25.9           | 27.0 | 26.2                 | 27.2 | 27.5 |
| 6H                                                                                  | 25.8             | 26.8 | 26.1 | 27.0 | 27.3      | 25.9           | 26.9 | 26.2                 | 27.2 | 27.5 |
| 8H                                                                                  | 25.7             | 26.7 | 26.0 | 27.0 | 27.3      | 25.9           | 26.9 | 26.2                 | 27.1 | 27.4 |
| 12H                                                                                 | 25.7             | 26.6 | 26.0 | 26.9 | 27.2      | 25.8           | 26.8 | 26.2                 | 27.1 | 27.4 |
| 4H 2H                                                                               | 25.3             | 26.4 | 25.6 | 26.7 | 26.9      | 25.3           | 26.4 | 25.6                 | 26.7 | 26.9 |
| 3H                                                                                  | 26.0             | 26.9 | 26.3 | 27.2 | 27.5      | 26.1           | 27.0 | 26.4                 | 27.3 | 27.6 |
| 4H                                                                                  | 26.2             | 27.0 | 26.5 | 27.3 | 27.7      | 26.3           | 27.2 | 26.7                 | 27.5 | 27.8 |
| 6H                                                                                  | 26.2             | 26.9 | 26.6 | 27.3 | 27.6      | 26.4           | 27.1 | 26.8                 | 27.5 | 27.8 |
| 8H                                                                                  | 26.2             | 26.9 | 26.6 | 27.2 | 27.6      | 26.4           | 27.1 | 26.8                 | 27.4 | 27.8 |
| 12H                                                                                 | 26.1             | 26.8 | 26.5 | 27.1 | 27.5      | 26.3           | 27.0 | 26.7                 | 27.3 | 27.7 |
| 8H 4H                                                                               | 26.2             | 26.9 | 26.6 | 27.2 | 27.6      | 26.3           | 27.0 | 26.7                 | 27.4 | 27.8 |
| 6H                                                                                  | 26.2             | 26.8 | 26.7 | 27.2 | 27.6      | 26.4           | 27.0 | 26.9                 | 27.4 | 27.8 |
| 8H                                                                                  | 26.2             | 26.7 | 26.7 | 27.1 | 27.6      | 26.4           | 26.9 | 26.9                 | 27.3 | 27.8 |
| 12H                                                                                 | 26.2             | 26.6 | 26.7 | 27.1 | 27.5      | 26.4           | 26.8 | 26.9                 | 27.3 | 27.7 |
| 12H 4H                                                                              | 26.1             | 26.8 | 26.6 | 27.2 | 27.6      | 26.3           | 26.9 | 26.7                 | 27.3 | 27.7 |
| 6H                                                                                  | 26.2             | 26.7 | 26.7 | 27.1 | 27.6      | 26.4           | 26.9 | 26.8                 | 27.3 | 27.8 |
| 8H                                                                                  | 26.2             | 26.6 | 26.7 | 27.1 | 27.5      | 26.4           | 26.8 | 26.9                 | 27.3 | 27.7 |
| Variations with the observer position at spacings(CIE Pub.117):                     |                  |      |      |      |           |                |      |                      |      |      |
| S = 1.0H                                                                            | + 1.0 / - 1.3    |      |      |      |           | + 1.0 / - 1.2  |      |                      |      |      |
| 1.5H                                                                                | + 1.2 / - 1.3    |      |      |      |           | + 0.9 / - 1.2  |      |                      |      |      |
| 2.0H                                                                                | + 2.1 / - 1.1    |      |      |      |           | + 2.0 / - 1.2  |      |                      |      |      |

CIE Pub.117, 708.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.2)  
Area: 0.0038465 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       | TYPE: N/A | WEIGHT: N/A          |
| SPEC.: LED Luminaires                                                               | DIM.: N/A | SERIAL No.: N/A      |
| MFR.:ASD Lighting Corp                                                              | SUR.: N/A | Shielding Angle: N/A |

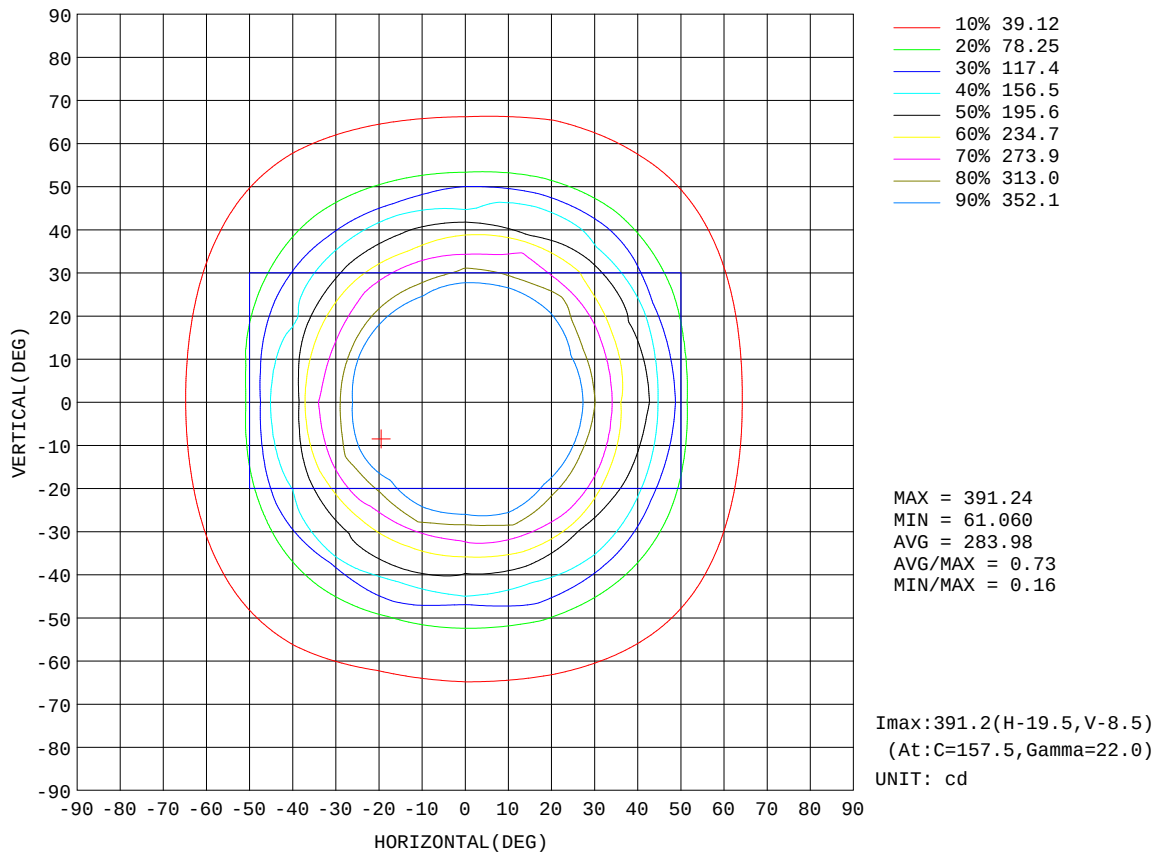
| REFLECTANCE                      |                                                     |     |           |     |     |     |     |               |     |        |
|----------------------------------|-----------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 70                                                  | 61  | 55        | 70  | 61  | 55  | 69  | 60            | 55  | 50     |
| 0.80                             | 80                                                  | 71  | 65        | 79  | 70  | 65  | 77  | 70            | 65  | 59     |
| 1.00                             | 87                                                  | 79  | 73        | 86  | 78  | 73  | 84  | 79            | 72  | 67     |
| 1.25                             | 93                                                  | 85  | 80        | 92  | 85  | 79  | 89  | 83            | 79  | 73     |
| 1.50                             | 97                                                  | 90  | 85        | 96  | 89  | 84  | 93  | 87            | 83  | 77     |
| 2.00                             | 102                                                 | 96  | 91        | 100 | 95  | 90  | 97  | 93            | 89  | 82     |
| 2.50                             | 105                                                 | 99  | 95        | 103 | 98  | 94  | 100 | 95            | 92  | 85     |
| 3.00                             | 107                                                 | 102 | 98        | 105 | 101 | 97  | 102 | 98            | 95  | 88     |
| 4.00                             | 110                                                 | 106 | 103       | 108 | 104 | 101 | 104 | 101           | 99  | 91     |
| 5.00                             | 112                                                 | 108 | 106       | 110 | 107 | 104 | 105 | 103           | 101 | 93     |
| 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:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       | TYPE: N/A | WEIGHT: N/A          |
| SPEC.:LED Luminaires                                                                | DIM.: N/A | SERIAL No.: N/A      |
| MFR.:ASD Lighting Corp                                                              | SUR.: N/A | Shielding Angle: N/A |



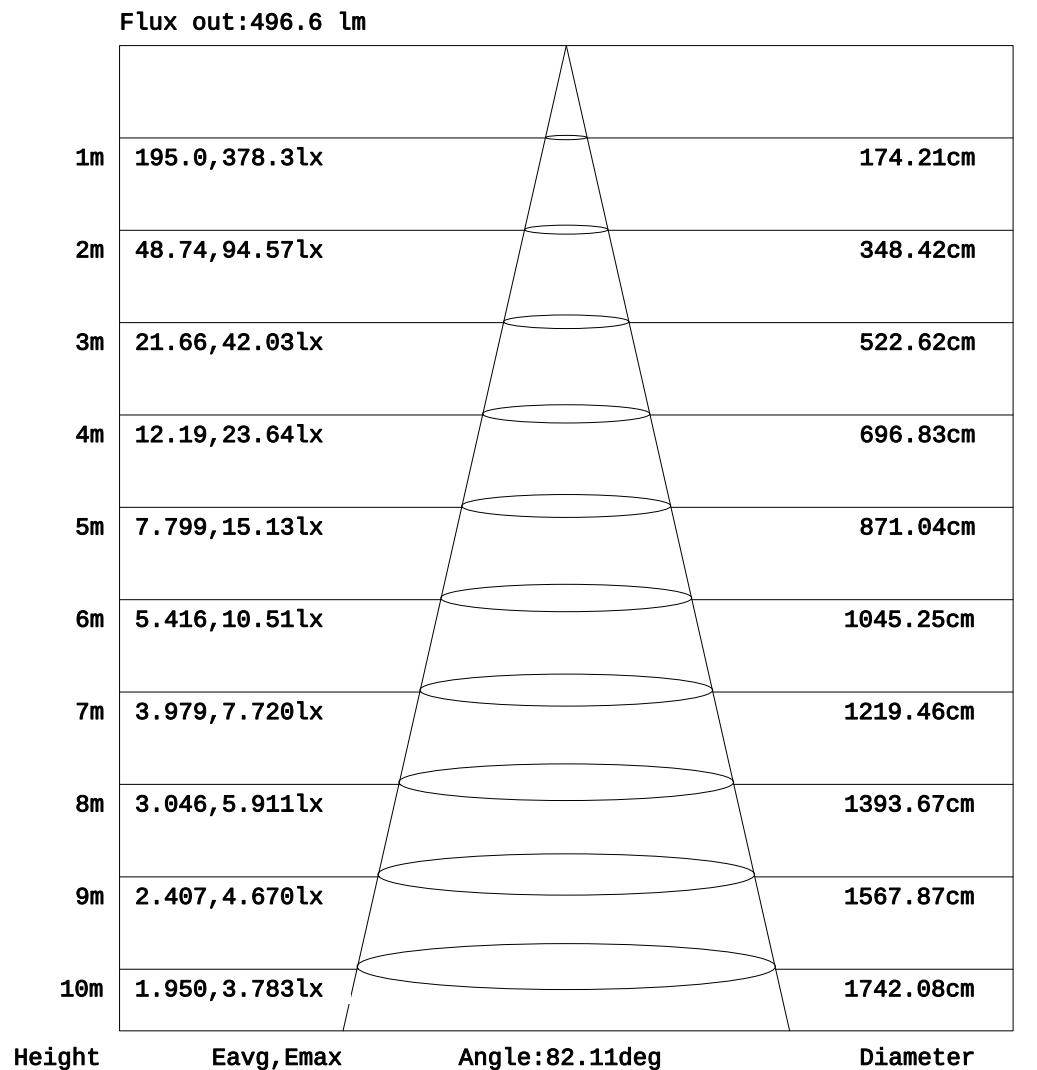
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:



### AAI Figure

|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       | TYPE: N/A | WEIGHT: N/A          |
| SPEC.:LED Luminaires                                                                | DIM.: N/A | SERIAL No.: N/A      |
| MFR.: ASD Lighting Corp                                                             | SUR.: N/A | Shielding Angle: N/A |



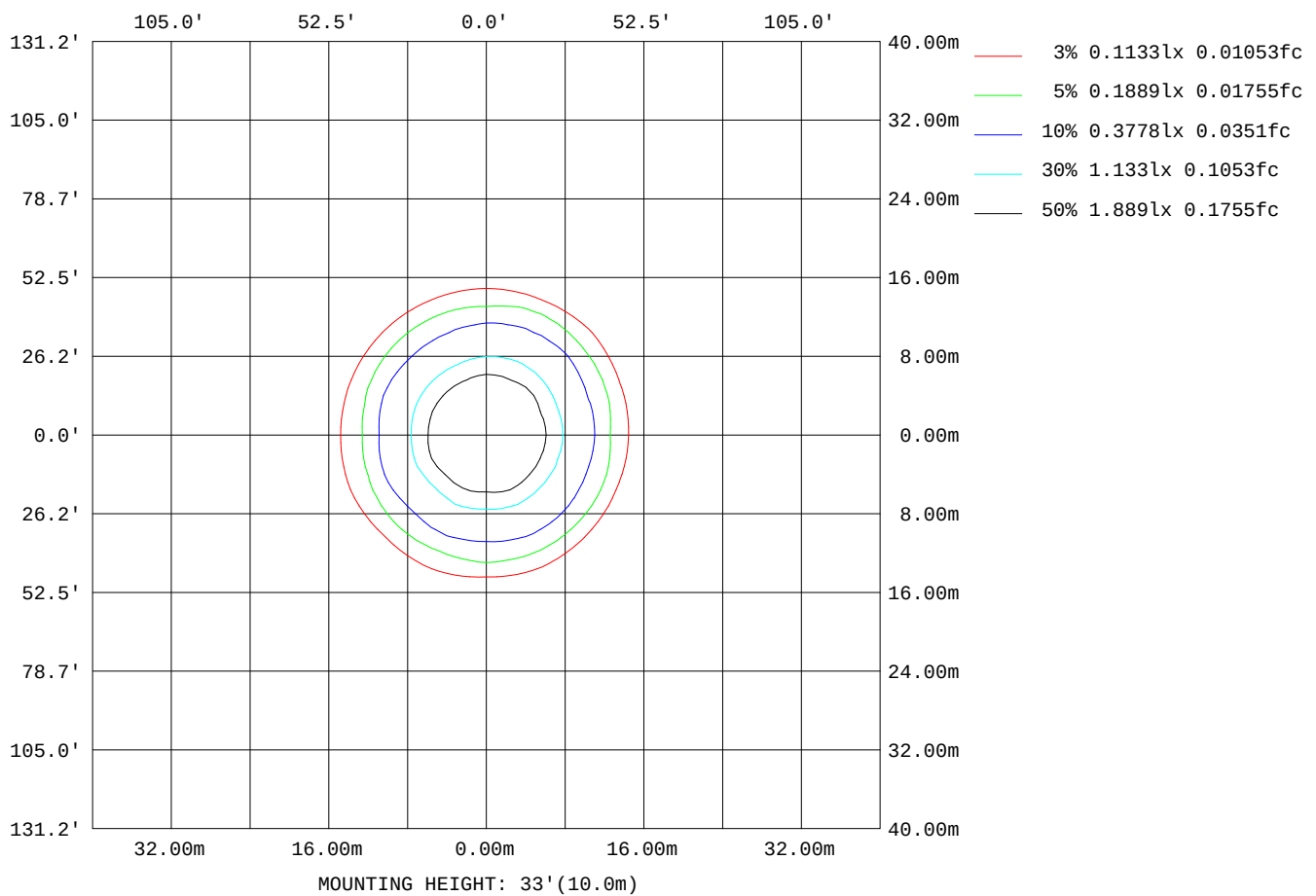
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       | TYPE: N/A | WEIGHT: N/A          |
| SPEC.:LED Luminaires                                                                | 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:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

### LED Avg.L Report

|                                                                                     |           |                      |
|-------------------------------------------------------------------------------------|-----------|----------------------|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |           |                      |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       | TYPE: N/A | WEIGHT: N/A          |
| SPEC.:LED Luminaires                                                                | DIM.: N/A | SERIAL No.: N/A      |
| MFR.:ASD Lighting Corp                                                              | SUR.: N/A | Shielding Angle: N/A |

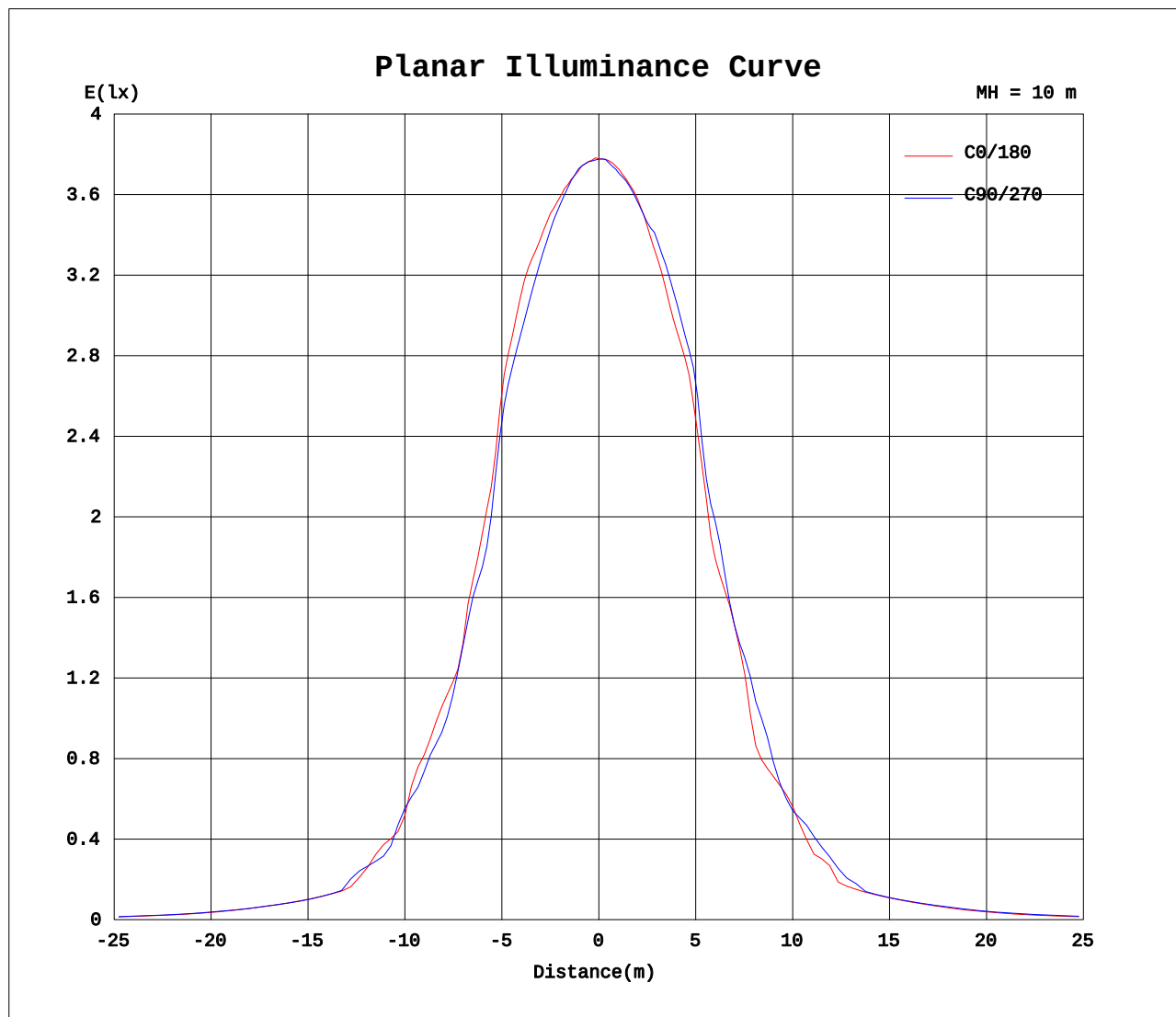
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 23149 |
| L_0~180(75)av  | 12527 |
| L_0~180(85)av  | 2827  |
| L_90~270(65)av | 25061 |
| L_90~270(75)av | 15337 |
| L_90~270(85)av | 3586  |
| L_45(65)av     | 24505 |
| L_45(75)av     | 14131 |
| L_45(85)av     | 2616  |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.2DEG  
Operators: Hill  
Test Date: 2024-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity: 48%  
Test Distance: 2.519m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|                                                                                     |  |  |  |  |  |  |  |  |           |  |  |  |  |  |                      |  |  |
|-------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|----------------------|--|--|
| Test:U:120.08V I:0.0863A P:9.5400W PF:0.9206 Freq:60.00Hz<br>Lamp Flux:708.118x1 lm |  |  |  |  |  |  |  |  |           |  |  |  |  |  |                      |  |  |
| NAME:ASD-LCLS-1A-9BK-PC 5000K                                                       |  |  |  |  |  |  |  |  | TYPE: N/A |  |  |  |  |  | WEIGHT: N/A          |  |  |
| SPEC.: LED Luminaires                                                               |  |  |  |  |  |  |  |  | DIM.: N/A |  |  |  |  |  | SERIAL No.: N/A      |  |  |
| MFR.:ASD Lighting Corp                                                              |  |  |  |  |  |  |  |  | SUR.: N/A |  |  |  |  |  | Shielding Angle: N/A |  |  |

Table--1

UNIT: cd

| C(DEG)<br>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                 | 378  | 378  | 378  | 378  | 378  | 378   | 378  | 378   | 378  | 378   | 378  | 378   | 378  | 378   | 378  | 378   |  |  |  |
| 5                 | 378  | 378  | 378  | 379  | 379  | 378   | 378  | 378   | 378  | 378   | 378  | 376   | 377  | 378   | 378  | 377   |  |  |  |
| 10                | 380  | 378  | 379  | 379  | 377  | 377   | 377  | 378   | 379  | 376   | 377  | 378   | 378  | 378   | 378  | 378   |  |  |  |
| 15                | 384  | 383  | 379  | 384  | 374  | 384   | 373  | 383   | 376  | 381   | 379  | 382   | 381  | 379   | 387  | 378   |  |  |  |
| 20                | 390  | 380  | 371  | 386  | 367  | 389   | 366  | 388   | 368  | 385   | 378  | 372   | 385  | 373   | 388  | 371   |  |  |  |
| 25                | 377  | 366  | 362  | 380  | 358  | 372   | 351  | 383   | 363  | 370   | 363  | 361   | 380  | 370   | 390  | 362   |  |  |  |
| 30                | 314  | 304  | 305  | 317  | 285  | 311   | 287  | 317   | 293  | 306   | 304  | 303   | 318  | 331   | 330  | 310   |  |  |  |
| 35                | 249  | 263  | 264  | 256  | 248  | 237   | 247  | 259   | 265  | 252   | 264  | 269   | 266  | 279   | 271  | 270   |  |  |  |
| 40                | 219  | 202  | 180  | 198  | 194  | 213   | 195  | 191   | 177  | 201   | 201  | 202   | 223  | 218   | 232  | 202   |  |  |  |
| 45                | 147  | 153  | 157  | 151  | 156  | 144   | 164  | 154   | 159  | 150   | 156  | 165   | 153  | 173   | 159  | 167   |  |  |  |
| 50                | 98.9 | 102  | 99.8 | 105  | 100  | 91.4  | 102  | 103   | 101  | 93.7  | 105  | 104   | 117  | 124   | 122  | 103   |  |  |  |
| 55                | 62.0 | 60.2 | 61.5 | 63.2 | 61.9 | 65.2  | 63.6 | 67.3  | 66.0 | 66.8  | 66.8 | 66.3  | 67.1 | 66.8  | 68.3 | 63.8  |  |  |  |
| 60                | 52.7 | 51.2 | 51.9 | 54.1 | 52.2 | 53.5  | 53.5 | 55.7  | 55.6 | 55.2  | 56.7 | 56.9  | 58.3 | 58.1  | 58.6 | 53.3  |  |  |  |
| 65                | 36.7 | 37.2 | 38.0 | 38.9 | 38.7 | 36.5  | 38.5 | 37.8  | 38.5 | 39.3  | 41.8 | 42.5  | 42.8 | 45.4  | 41.1 | 38.7  |  |  |  |
| 70                | 23.8 | 24.1 | 24.7 | 25.9 | 25.5 | 23.4  | 24.6 | 23.5  | 24.2 | 24.9  | 27.1 | 28.3  | 28.7 | 31.0  | 27.3 | 25.4  |  |  |  |
| 75                | 12.5 | 13.1 | 13.4 | 14.6 | 14.1 | 12.3  | 12.7 | 11.9  | 12.4 | 12.9  | 14.8 | 15.9  | 16.4 | 18.5  | 15.3 | 13.8  |  |  |  |
| 80                | 4.60 | 4.70 | 5.19 | 5.83 | 5.65 | 4.17  | 4.18 | 3.59  | 3.93 | 4.51  | 5.59 | 6.53  | 6.98 | 8.48  | 6.21 | 5.32  |  |  |  |
| 85                | 1.15 | 1.03 | 0.85 | 1.06 | 0.95 | 0.50  | 0.56 | 0.61  | 0.74 | 0.68  | 0.84 | 1.20  | 1.46 | 2.13  | 1.25 | 1.16  |  |  |  |
| 90                | 0.03 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01  | 0.01 | 0.01  | 0.01 | 0.01  | 0.04 | 0.00  | 0.00 | 0.20  | 0.14 | 0.08  |  |  |  |
| 95                | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02  | 0.02 | 0.02  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  |  |  |  |
| 100               | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03  | 0.03 | 0.02  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.01 | 0.00  |  |  |  |
| 105               | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04  | 0.04 | 0.03  | 0.00 | 0.00  | 0.01 | 0.00  | 0.00 | 0.01  | 0.01 | 0.00  |  |  |  |
| 110               | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05  | 0.05 | 0.05  | 0.01 | 0.01  | 0.01 | 0.01  | 0.01 | 0.01  | 0.02 | 0.01  |  |  |  |
| 115               | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08  | 0.07 | 0.07  | 0.02 | 0.02  | 0.02 | 0.02  | 0.02 | 0.02  | 0.02 | 0.02  |  |  |  |
| 120               | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11  | 0.11 | 0.10  | 0.03 | 0.02  | 0.03 | 0.03  | 0.03 | 0.02  | 0.03 | 0.03  |  |  |  |
| 125               | 0.14 | 0.14 | 0.15 | 0.15 | 0.15 | 0.16  | 0.15 | 0.14  | 0.04 | 0.04  | 0.04 | 0.04  | 0.04 | 0.03  | 0.04 | 0.04  |  |  |  |
| 130               | 0.19 | 0.20 | 0.21 | 0.21 | 0.22 | 0.23  | 0.21 | 0.20  | 0.05 | 0.05  | 0.05 | 0.06  | 0.05 | 0.05  | 0.05 | 0.05  |  |  |  |
| 135               | 0.26 | 0.27 | 0.29 | 0.29 | 0.30 | 0.32  | 0.29 | 0.27  | 0.07 | 0.07  | 0.07 | 0.07  | 0.07 | 0.07  | 0.07 | 0.07  |  |  |  |
| 140               | 0.37 | 0.37 | 0.40 | 0.40 | 0.41 | 0.43  | 0.39 | 0.36  | 0.10 | 0.09  | 0.10 | 0.10  | 0.09 | 0.09  | 0.09 | 0.09  |  |  |  |
| 145               | 0.45 | 0.47 | 0.50 | 0.51 | 0.52 | 0.53  | 0.49 | 0.45  | 0.12 | 0.11  | 0.12 | 0.13  | 0.12 | 0.12  | 0.12 | 0.12  |  |  |  |
| 150               | 0.52 | 0.56 | 0.59 | 0.59 | 0.60 | 0.61  | 0.57 | 0.53  | 0.16 | 0.15  | 0.16 | 0.16  | 0.15 | 0.15  | 0.16 | 0.16  |  |  |  |
| 155               | 0.62 | 0.65 | 0.66 | 0.67 | 0.69 | 0.68  | 0.65 | 0.63  | 0.20 | 0.20  | 0.19 | 0.19  | 0.19 | 0.18  | 0.20 | 0.21  |  |  |  |
| 160               | 0.66 | 0.68 | 0.70 | 0.72 | 0.71 | 0.71  | 0.69 | 0.66  | 0.25 | 0.24  | 0.24 | 0.23  | 0.22 | 0.22  | 0.25 | 0.26  |  |  |  |
| 165               | 0.67 | 0.67 | 0.68 | 0.70 | 0.71 | 0.69  | 0.69 | 0.67  | 0.31 | 0.29  | 0.29 | 0.28  | 0.27 | 0.27  | 0.30 | 0.32  |  |  |  |
| 170               | 0.64 | 0.63 | 0.64 | 0.65 | 0.65 | 0.63  | 0.64 | 0.63  | 0.35 | 0.33  | 0.33 | 0.32  | 0.32 | 0.31  | 0.35 | 0.36  |  |  |  |
| 175               | 0.61 | 0.60 | 0.59 | 0.58 | 0.58 | 0.56  | 0.59 | 0.60  | 0.43 | 0.42  | 0.40 | 0.39  | 0.38 | 0.38  | 0.42 | 0.44  |  |  |  |
| 180               | 0.54 | 0.51 | 0.50 | 0.48 | 0.49 | 0.48  | 0.51 | 0.52  | 0.54 | 0.51  | 0.50 | 0.48  | 0.49 | 0.47  | 0.51 | 0.52  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.2DEG  
Operators:Hill  
Test Date:2024-08-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-R5000\_V2 SYSTEM V2.00.446  
Humidity:48%  
Test Distance:2.519m [K=1.0000]  
Remarks: