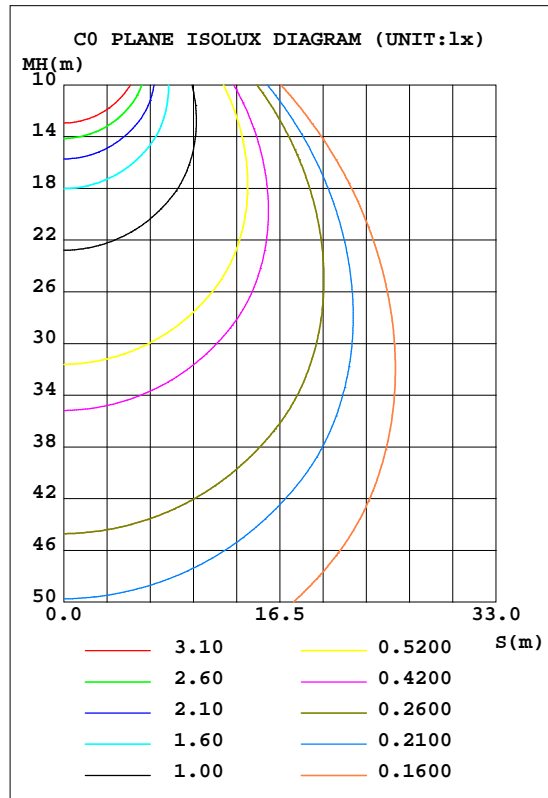
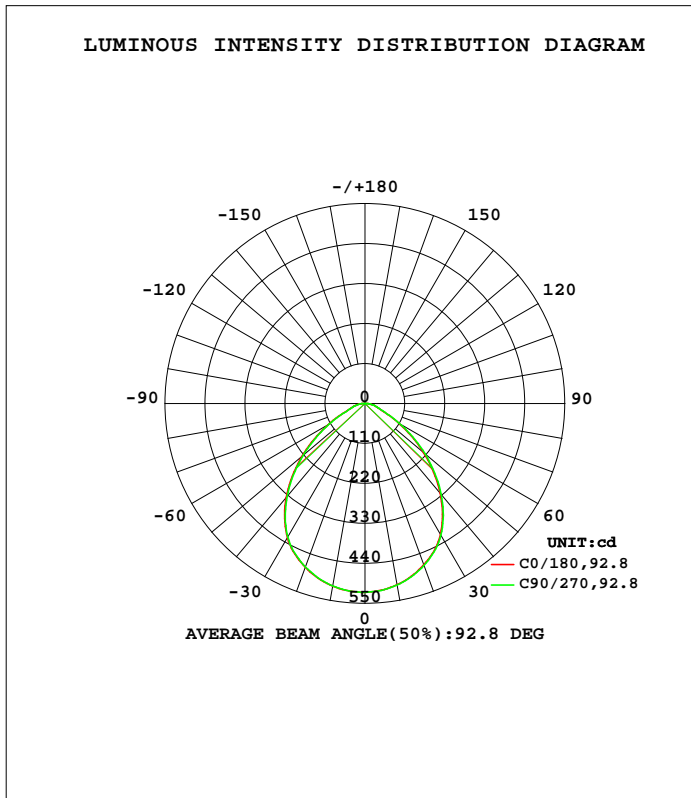


LUMINAIRE PHOTOMETRIC TEST REPORT

|                       |                |                  |
|-----------------------|----------------|------------------|
| NAME:                 | TYPE:          | WEIGHT:          |
| SPEC.:                | DIM.:          | SERIAL No.:      |
| MFR.:Lotus LED Lights | SUR.:21cm*16cm | Shielding Angle: |

| DATA OF LAMP     |         | PHOTOMETRIC DATA Eff: 110.98 lm/W |        |                    |          |
|------------------|---------|-----------------------------------|--------|--------------------|----------|
| MODEL            | 8"      | I <sub>max</sub> (cd)             | 519.3  | S/MH(C0/180)       | 1.22     |
| NOMINAL POWER(W) |         | LOR(%)                            | 100.0  | S/MH(C90/270)      | 1.22     |
| RATED VOLTAGE(V) | 120     | TOTAL FLUX(lm)                    | 1106.0 | h UP, DN(C0-180)   | 0.0,49.1 |
| NOMINAL FLUX(lm) | 1105.97 | CIE CLASS                         | DIRECT | h UP, DN(C180-360) | 0.0,50.9 |
| LAMPS INSIDE     | 1       | h up(%)                           | 0.0    | CIBSE SHR NOM      | 1.25     |
| TEST VOLTAGE(V)  | 120     | h down(%)                         | 100.0  | CIBSE SHR MAX      | 1.30     |



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-06-01

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:3.200m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

| g   | C0                    | C90    | C180  | C270   |  |  |  |  | g       | F zone  | F total | %lum,lamp |
|-----|-----------------------|--------|-------|--------|--|--|--|--|---------|---------|---------|-----------|
| 10  | 506.6                 | 507.3  | 510.4 | 509.7  |  |  |  |  | 0- 10   | 49.05   | 49.05   | 4.44,4.44 |
| 20  | 472.7                 | 474.2  | 479.8 | 478.7  |  |  |  |  | 10- 20  | 139.6   | 188.7   | 17.1,17.1 |
| 30  | 415.4                 | 418.3  | 426.9 | 424.7  |  |  |  |  | 20- 30  | 208.2   | 396.9   | 35.9,35.9 |
| 40  | 322.1                 | 326.4  | 337.4 | 333.5  |  |  |  |  | 30- 40  | 236.3   | 633.2   | 57.2,57.2 |
| 50  | 211.1                 | 216.2  | 227.1 | 222.2  |  |  |  |  | 40- 50  | 211.9   | 845.0   | 76.4,76.4 |
| 60  | 105.3                 | 109.4  | 118.1 | 114.1  |  |  |  |  | 50- 60  | 146.2   | 991.2   | 89.6,89.6 |
| 70  | 41.04                 | 42.33  | 44.50 | 43.20  |  |  |  |  | 60- 70  | 70.37   | 1062    | 96,96     |
| 80  | 19.57                 | 20.94  | 22.62 | 21.20  |  |  |  |  | 70- 80  | 33.62   | 1095    | 99,99     |
| 90  | 0.1932                | 0.1915 | 1.066 | 0.0897 |  |  |  |  | 80- 90  | 10.74   | 1106    | 100,100   |
| 100 |                       |        |       |        |  |  |  |  | 90-100  |         |         |           |
| 110 |                       |        |       |        |  |  |  |  | 100-110 |         |         |           |
| 120 |                       |        |       |        |  |  |  |  | 110-120 |         |         |           |
| 130 |                       |        |       |        |  |  |  |  | 120-130 |         |         |           |
| 140 |                       |        |       |        |  |  |  |  | 130-140 |         |         |           |
| 150 |                       |        |       |        |  |  |  |  | 140-150 |         |         |           |
| 160 |                       |        |       |        |  |  |  |  | 150-160 |         |         |           |
| 170 |                       |        |       |        |  |  |  |  | 160-170 |         |         |           |
| 180 |                       |        |       |        |  |  |  |  | 170-180 |         |         |           |
| DEG | LUMINOUS INTENSITY:cd |        |       |        |  |  |  |  |         | UNIT:lm |         |           |

Conical surface Flux(90deg): 745.21 lm

%lum = 67.4%  
 %lamp = 67.4%

Conical surface Flux(120deg): 991.24 lm

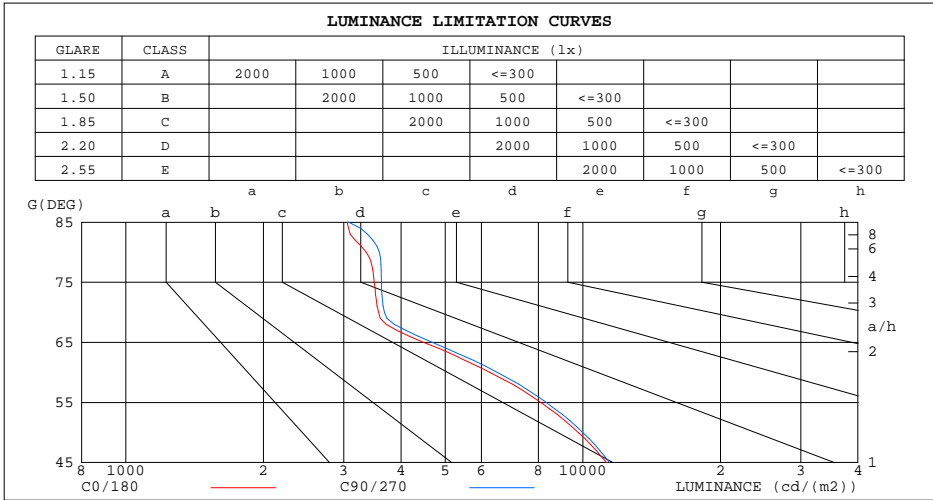
%lum = 89.6%  
 %lamp = 89.6%

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-06-01

g Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:3.200m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

|                               |                        |                         |
|-------------------------------|------------------------|-------------------------|
| <b>NAME:</b>                  | <b>TYPE:</b>           | <b>WEIGHT:</b>          |
| <b>SPEC.:</b>                 | <b>DIM.:</b>           | <b>SERIAL No.:</b>      |
| <b>MFR.: Lotus LED Lights</b> | <b>SUR.: 21cm*16cm</b> | <b>Shielding Angle:</b> |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 3047   | 3067    |
| 80                | 3357   | 3587    |
| 75                | 3497   | 3628    |
| 70                | 3574   | 3681    |
| 65                | 4478   | 4689    |
| 60                | 6270   | 6506    |
| 55                | 8104   | 8319    |
| 50                | 9780   | 10003   |
| 45                | 11264  | 11451   |

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2021-06-01

G Range: 0 - 90DEG  
 G Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity: 65.0%  
 Test Distance: 3.200m [K=1.0000]  
 Remarks:

WEC AND CCEC

|                       |                |                  |
|-----------------------|----------------|------------------|
| NAME:                 | TYPE:          | WEIGHT:          |
| SPEC.:                | DIM.:          | SERIAL No.:      |
| MFR.:Lotus LED Lights | SUR.:21cm*16cm | Shielding Angle: |

| rcc  | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| rw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| rfc  | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0  | .259                  | .147 | .047 | .252 | .144 | .046 | .239                            | .137 | .044 | .227 | .131 | .042 | .216 | .125 | .040 |   |
| 2.0  | .248                  | .136 | .042 | .242 | .133 | .041 | .231                            | .128 | .040 | .220 | .124 | .039 | .211 | .119 | .038 |   |
| 3.0  | .234                  | .125 | .037 | .229 | .123 | .037 | .219                            | .119 | .036 | .210 | .115 | .035 | .201 | .111 | .034 |   |
| 4.0  | .220                  | .114 | .034 | .215 | .113 | .033 | .206                            | .109 | .033 | .198 | .106 | .032 | .191 | .104 | .032 |   |
| 5.0  | .206                  | .105 | .030 | .202 | .104 | .030 | .194                            | .101 | .030 | .187 | .099 | .029 | .180 | .096 | .029 |   |
| 6.0  | .193                  | .097 | .028 | .190 | .096 | .028 | .183                            | .094 | .027 | .176 | .092 | .027 | .170 | .090 | .027 |   |
| 7.0  | .182                  | .090 | .025 | .179 | .089 | .025 | .172                            | .087 | .025 | .167 | .085 | .025 | .161 | .084 | .025 |   |
| 8.0  | .171                  | .084 | .024 | .168 | .083 | .023 | .163                            | .081 | .023 | .158 | .080 | .023 | .153 | .078 | .023 |   |
| 9.0  | .162                  | .078 | .022 | .159 | .078 | .022 | .154                            | .076 | .022 | .150 | .075 | .021 | .145 | .074 | .021 |   |
| 10.0 | .153                  | .073 | .020 | .151 | .073 | .020 | .146                            | .072 | .020 | .142 | .071 | .020 | .138 | .069 | .020 |   |

| rcc  | 80%                   |      |      | 70%  |      |      | 50%  |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|
| rw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| rfc  | 20%                   |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .190                  | .190 | .190 | .163 | .163 | .163 | .111                                       | .111 | .111 | .064 | .064 | .064 | .020 | .020 | .020 |   |
| 1.0  | .177                  | .157 | .138 | .151 | .134 | .119 | .103                                       | .092 | .082 | .060 | .054 | .048 | .019 | .017 | .015 |   |
| 2.0  | .166                  | .132 | .103 | .143 | .114 | .089 | .098                                       | .079 | .062 | .056 | .046 | .037 | .018 | .015 | .012 |   |
| 3.0  | .158                  | .114 | .079 | .135 | .098 | .069 | .093                                       | .068 | .048 | .054 | .040 | .028 | .017 | .013 | .009 |   |
| 4.0  | .150                  | .100 | .063 | .128 | .087 | .054 | .088                                       | .060 | .038 | .051 | .035 | .023 | .016 | .012 | .007 |   |
| 5.0  | .142                  | .090 | .051 | .122 | .078 | .044 | .084                                       | .054 | .031 | .049 | .032 | .019 | .016 | .010 | .006 |   |
| 6.0  | .135                  | .081 | .042 | .116 | .070 | .037 | .080                                       | .049 | .026 | .047 | .029 | .015 | .015 | .009 | .005 |   |
| 7.0  | .129                  | .074 | .036 | .111 | .064 | .031 | .077                                       | .045 | .022 | .045 | .027 | .013 | .014 | .009 | .004 |   |
| 8.0  | .123                  | .068 | .031 | .106 | .059 | .027 | .073                                       | .042 | .019 | .043 | .025 | .011 | .014 | .008 | .004 |   |
| 9.0  | .117                  | .063 | .027 | .101 | .055 | .023 | .070                                       | .039 | .016 | .041 | .023 | .010 | .013 | .007 | .003 |   |
| 10.0 | .112                  | .059 | .024 | .097 | .051 | .021 | .067                                       | .036 | .015 | .039 | .021 | .009 | .013 | .007 | .003 |   |

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-06-01

g Range: 0 - 90DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:3.200m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

|  |        |                  |      |      |      |      |                  |      |      |      |      |
|--|--------|------------------|------|------|------|------|------------------|------|------|------|------|
| NAME:  |        | TYPE:            |      |      |      |      | WEIGHT:          |      |      |      |      |
| SPEC.:   |        | DIM.:            |      |      |      |      | SERIAL No.:      |      |      |      |      |
| MFR.:Lotus LED Lights                              |        | SUR.:21cm*16cm   |      |      |      |      | Shielding Angle: |      |      |      |      |
| ceiling/cavity                                     |        | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  |
| walls  |        | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  |
| working plane                                      |        | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  |
| Room dimensions                                    |        | Viewed crosswise |      |      |      |      | Viewed endwise   |      |      |      |      |
| x = 2H   | y = 2H | 19.1             | 20.4 | 19.3 | 20.6 | 20.8 | 19.2             | 20.5 | 19.4 | 20.7 | 20.9 |
|  | 3H     | 19.4             | 20.7 | 19.7 | 20.9 | 21.1 | 19.5             | 20.8 | 19.8 | 21.0 | 21.2 |
|  | 4H     | 19.6             | 20.8 | 19.9 | 21.0 | 21.3 | 19.7             | 20.9 | 20.0 | 21.2 | 21.4 |
|  | 6H     | 19.8             | 20.9 | 20.1 | 21.1 | 21.4 | 19.9             | 21.0 | 20.2 | 21.3 | 21.5 |
|  | 8H     | 19.8             | 20.9 | 20.2 | 21.2 | 21.4 | 20.0             | 21.0 | 20.3 | 21.3 | 21.6 |
|  | 12H    | 19.9             | 20.9 | 20.2 | 21.2 | 21.5 | 20.0             | 21.0 | 20.3 | 21.3 | 21.6 |
| 4H   | 2H     | 19.3             | 20.4 | 19.6 | 20.7 | 20.9 | 19.3             | 20.5 | 19.6 | 20.8 | 21.0 |
|  | 3H     | 19.7             | 20.8 | 20.1 | 21.1 | 21.4 | 19.8             | 20.9 | 20.2 | 21.2 | 21.4 |
|  | 4H     | 20.0             | 21.0 | 20.4 | 21.3 | 21.6 | 20.1             | 21.1 | 20.5 | 21.4 | 21.7 |
|  | 6H     | 20.3             | 21.1 | 20.7 | 21.5 | 21.8 | 20.4             | 21.3 | 20.8 | 21.6 | 22.0 |
|  | 8H     | 20.4             | 21.2 | 20.8 | 21.5 | 21.9 | 20.6             | 21.3 | 21.0 | 21.7 | 22.1 |
|  | 12H    | 20.5             | 21.2 | 20.9 | 21.6 | 22.0 | 20.6             | 21.3 | 21.1 | 21.7 | 22.1 |
| 8H   | 4H     | 20.1             | 20.9 | 20.5 | 21.2 | 21.6 | 20.2             | 21.0 | 20.6 | 21.3 | 21.7 |
|  | 6H     | 20.5             | 21.1 | 21.0 | 21.5 | 22.0 | 20.6             | 21.3 | 21.1 | 21.7 | 22.1 |
|  | 8H     | 20.7             | 21.2 | 21.1 | 21.7 | 22.1 | 20.8             | 21.4 | 21.3 | 21.8 | 22.2 |
|  | 12H    | 20.8             | 21.3 | 21.3 | 21.7 | 22.2 | 21.0             | 21.4 | 21.4 | 21.9 | 22.4 |
| 12H  | 4H     | 20.1             | 20.8 | 20.5 | 21.2 | 21.6 | 20.2             | 20.9 | 20.6 | 21.3 | 21.7 |
|  | 6H     | 20.5             | 21.1 | 21.0 | 21.5 | 22.0 | 20.7             | 21.2 | 21.1 | 21.6 | 22.1 |
|  | 8H     | 20.7             | 21.2 | 21.2 | 21.7 | 22.1 | 20.9             | 21.4 | 21.4 | 21.8 | 22.3 |
| Variations with the observer position at spacings: |        |                  |      |      |      |      |                  |      |      |      |      |
| S = 1.0H   |        | + 0.5 / - 0.7    |      |      |      |      | + 0.5 / - 0.6    |      |      |      |      |
| 1.5H   |        | + 0.3 / - 0.4    |      |      |      |      | + 0.3 / - 0.4    |      |      |      |      |
| 2.0H   |        | + 1.1 / - 1.3    |      |      |      |      | + 1.1 / - 1.3    |      |      |      |      |

CIE Pub.117, 1106 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.3)

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-06-01

g Range: 0 - 90DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:3.200m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

|                        |                 |                  |
|------------------------|-----------------|------------------|
| NAME:                  | TYPE:           | WEIGHT:          |
| SPEC.:                 | DIM.:           | SERIAL No.:      |
| MFR.: Lotus LED Lights | SUR.: 21cm*16cm | Shielding Angle: |

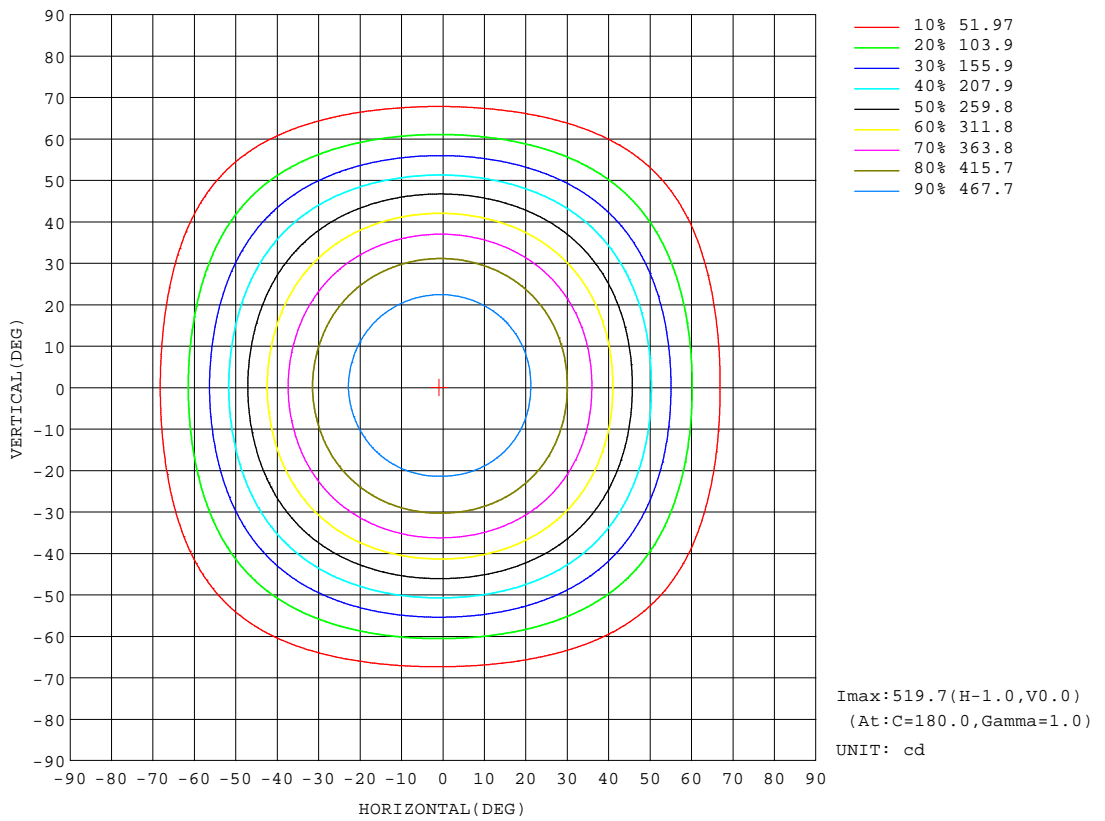
| REFLECTANCE                      |   |     |           |     |     |     |               |     |     |        |
|----------------------------------|---|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling                          | 0.8   | 0.8 | 0.8       | 0.7 | 0.7 | 0.7 | 0.5           | 0.5 | 0.5 | 0      |
| Walls                            | 0.7   | 0.5 | 0.3       | 0.7 | 0.5 | 0.3 | 0.7           | 0.5 | 0.3 | 0      |
| Working plane                    | 0.2   | 0.2 | 0.2       | 0.2 | 0.2 | 0.2 | 0.2           | 0.2 | 0.2 | 0      |
| ROOM INDEX                       | UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$ |     |           |     |     |     |               |     |     |        |
| k = 0.60                         | 65  | 54  | 48        | 64  | 54  | 48  | 63            | 53  | 48  | 42     |
| 0.80                             | 75  | 65  | 58        | 74  | 64  | 58  | 72            | 63  | 58  | 52     |
| 1.00                             | 83  | 73  | 67        | 82  | 73  | 67  | 80            | 74  | 66  | 60     |
| 1.25                             | 90  | 81  | 75        | 88  | 80  | 74  | 86            | 79  | 74  | 67     |
| 1.50                             | 94  | 86  | 80        | 92  | 85  | 80  | 90            | 83  | 78  | 72     |
| 2.00                             | 100   | 93  | 88        | 98  | 92  | 87  | 95            | 90  | 85  | 78     |
| 2.50                             | 103   | 96  | 92        | 101 | 95  | 91  | 97            | 93  | 89  | 81     |
| 3.00                             | 106   | 100 | 95        | 104 | 98  | 94  | 100           | 96  | 92  | 84     |
| 4.00                             | 109   | 104 | 100       | 107 | 102 | 99  | 103           | 99  | 96  | 88     |
| 5.00                             | 111   | 107 | 103       | 108 | 105 | 102 | 104           | 101 | 99  | 90     |
| ROOM INDEX                       | UF(total)   |     |           |     |     |     |               |     |     | Direct |
| According to DIN EN 13032-2 2004 |   |     | Suspended |     |     |     | SHRNOM = 1.25 |     |     |        |

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2021-06-01

g Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity: 65.0%  
 Test Distance: 3.200m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

|                               |                        |                         |
|-------------------------------|------------------------|-------------------------|
| <b>NAME:</b>                  | <b>TYPE:</b>           | <b>WEIGHT:</b>          |
| <b>SPEC.:</b>                 | <b>DIM.:</b>           | <b>SERIAL No.:</b>      |
| <b>MFR.: Lotus LED Lights</b> | <b>SUR.: 21cm*16cm</b> | <b>Shielding Angle:</b> |



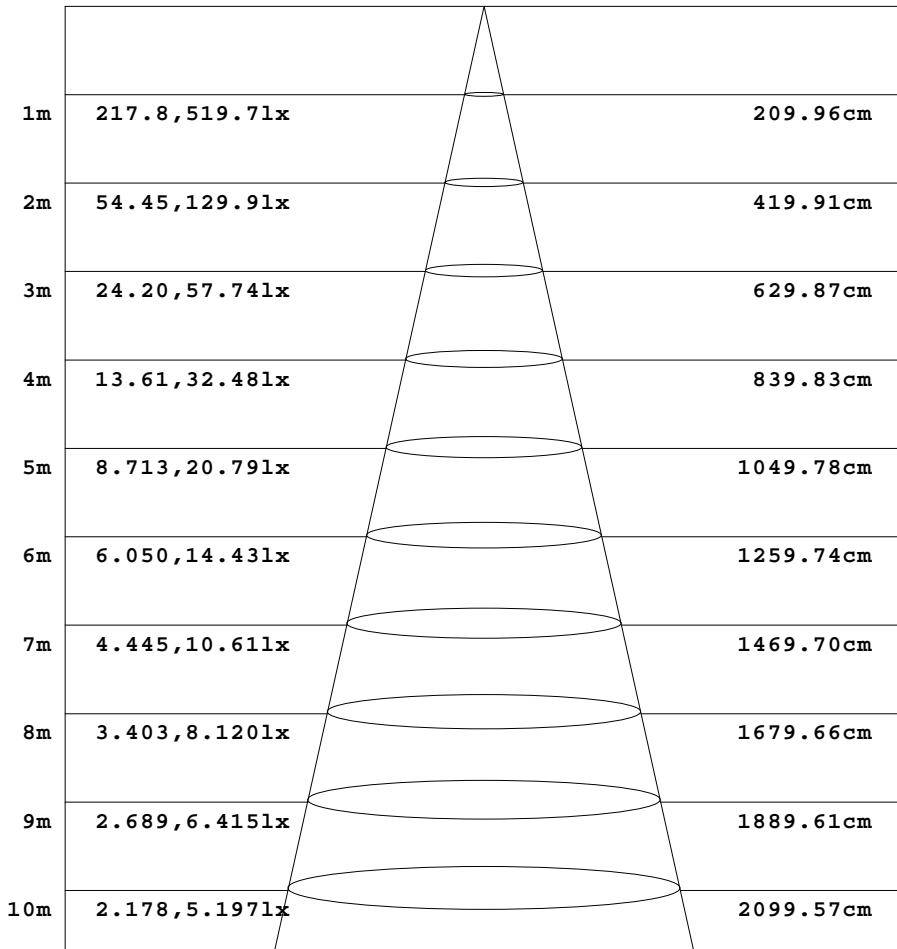
**C Range: 0 - 360DEG**  
**C Interval: 90.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2021-06-01**

**Range: 0 - 90DEG**  
**Interval: 1.0DEG**  
**Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366**  
**Humidity: 65.0%**  
**Test Distance: 3.200m [K=1.0000]**  
**Remarks:**

**AAI Figure**

|                       |                |                  |
|-----------------------|----------------|------------------|
| NAME:                 | TYPE:          | WEIGHT:          |
| SPEC.:                | DIM.:          | SERIAL No.:      |
| MFR.:Lotus LED Lights | SUR.:21cm*16cm | Shielding Angle: |

Flux out:786.9 lm



Height                      Eavg, Emax                      Angle:92.78deg                      Diameter

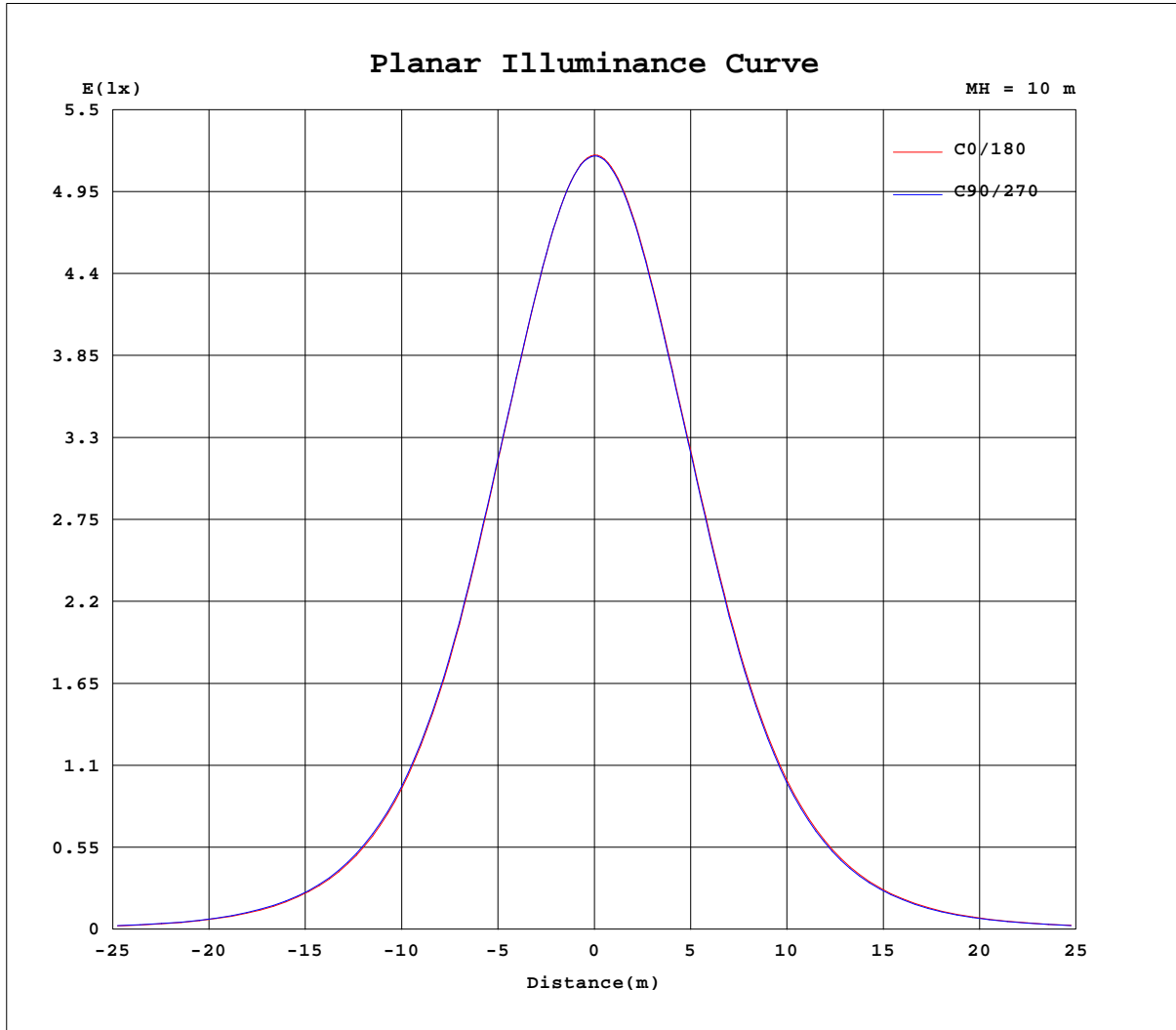
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-06-01

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:3.200m [K=1.0000]  
 Remarks:



**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2021-06-01

Page Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
 Humidity: 65.0%  
 Test Distance: 3.200m [K=1.0000]  
 Remarks:

