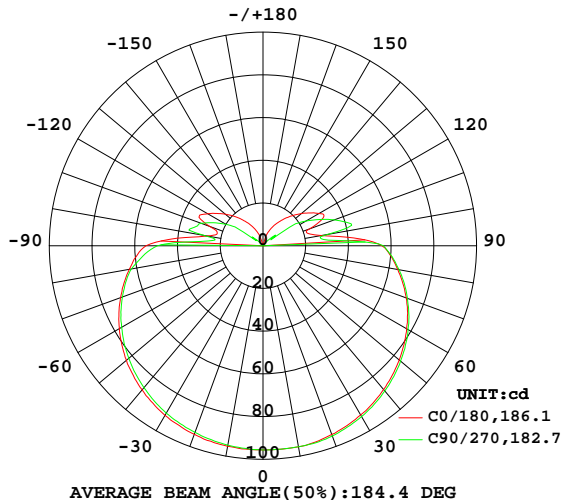


## LUMINAIRE PHOTOMETRIC TEST REPORT

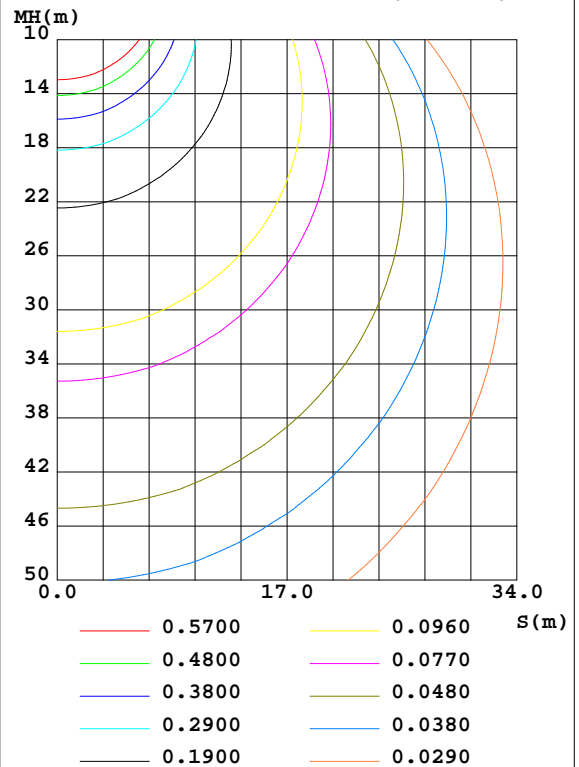
|  |          |                     |
|--|----------|---------------------|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |          |                     |
| NAME: Triplepar  | TYPE:LED | WEIGHT:N/A          |
| SPEC.:N/A  | DIM.:    | SERIAL No.:N/A      |
| MFR.: Astera LED Technology GmbH   | SUR.:    | Shielding Angle:N/A |

| DATA OF LAMP     |                | PHOTOMETRIC DATA Eff: 12.20 lm/W |         |                   |           |
|------------------|----------------|----------------------------------|---------|-------------------|-----------|
| MODEL            | AX5 (DDM 120°) | Imax(cd)                         | 95.73   | S/MH(C0/180)      | 1.45      |
| NOMINAL POWER(W) | 45             | LOR(%)                           | 100.0   | S/MH(C90/270)     | 1.43      |
| RATED VOLTAGE(V) | 90-264         | TOTAL FLUX(lm)                   | 601.62  | η UP,DN(C0-180)   | 10.1,40.7 |
| NOMINAL FLUX(lm) | 601.618        | CIE CLASS                        | SEMI-D. | η UP,DN(C180-360) | 9.3,39.9  |
| LAMPS INSIDE     | 1              | η up(%)                          | 19.4    | CIBSE SHR NOM     | 1.75      |
| TEST VOLTAGE(V)  | 220            | η down(%)                        | 80.6    | CIBSE SHR MAX     | 1.75      |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.5DEG  
Operators:William  
Test Date:2019-12-09

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity:56.4%  
Test Distance:26.000m [K=1.3890]  
Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

| $\gamma$ | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|-------|----------|-------------|--------------|------------|
| 10       | 95.59                 | 95.42  | 95.54  | 95.59  | 95.36  | 95.00  | 94.78  | 94.78 | 0- 10    | 9.107       | 9.107        | 1.51,1.51  |
| 20       | 94.05                 | 94.49  | 94.78  | 94.85  | 93.97  | 93.61  | 93.02  | 93.09 | 10- 20   | 26.84       | 35.95        | 5.98,5.98  |
| 30       | 91.49                 | 91.93  | 92.30  | 92.73  | 91.70  | 90.82  | 90.52  | 90.44 | 20- 30   | 42.94       | 78.89        | 13.1,13.1  |
| 40       | 87.83                 | 88.35  | 88.78  | 89.43  | 88.04  | 87.17  | 86.71  | 86.83 | 30- 40   | 56.38       | 135.3        | 22.5,22.5  |
| 50       | 83.22                 | 83.81  | 84.09  | 84.80  | 83.42  | 82.62  | 82.01  | 82.21 | 40- 50   | 66.32       | 201.6        | 33.5,33.5  |
| 60       | 77.67                 | 78.32  | 78.43  | 79.22  | 77.65  | 77.05  | 76.44  | 77.00 | 50- 60   | 72.28       | 273.9        | 45.5,45.5  |
| 70       | 71.37                 | 72.18  | 71.92  | 72.62  | 70.99  | 70.69  | 70.00  | 70.84 | 60- 70   | 74.08       | 347.9        | 57.8,57.8  |
| 80       | 64.06                 | 65.15  | 64.66  | 65.35  | 63.53  | 63.67  | 62.60  | 63.79 | 70- 80   | 71.78       | 419.7        | 69.8,69.8  |
| 90       | 55.73                 | 56.51  | 56.37  | 55.73  | 54.76  | 54.63  | 49.45  | 55.01 | 80- 90   | 65.23       | 485.0        | 80.6,80.6  |
| 100      | 27.88                 | 22.44  | 30.74  | 21.76  | 26.52  | 19.90  | 27.99  | 21.43 | 90-100   | 40.63       | 525.6        | 87.4,87.4  |
| 110      | 23.33                 | 25.91  | 35.50  | 27.86  | 26.60  | 26.40  | 30.78  | 26.75 | 100-110  | 27.73       | 553.3        | 92,92      |
| 120      | 30.30                 | 15.47  | 23.17  | 15.58  | 29.99  | 14.04  | 20.15  | 14.22 | 110-120  | 22.16       | 575.5        | 95.7,95.7  |
| 130      | 23.44                 | 8.431  | 7.764  | 8.225  | 22.97  | 6.951  | 5.994  | 7.407 | 120-130  | 13.14       | 588.6        | 97.8,97.8  |
| 140      | 17.13                 | 6.023  | 2.640  | 5.287  | 16.53  | 5.715  | 1.242  | 4.888 | 130-140  | 6.997       | 595.6        | 99,99      |
| 150      | 11.57                 | 5.782  | 0.5956 | 4.994  | 10.83  | 5.561  | 0.7182 | 3.814 | 140-150  | 3.890       | 599.5        | 99.6,99.6  |
| 160      | 6.310                 | 1.269  | 0      | 0      | 5.780  | 3.147  | 0.6208 | 1.179 | 150-160  | 1.863       | 601.4        | 100,100    |
| 170      | 0.8676                | 0.5194 | 0.1464 | 0.2201 | 0.5116 | 0.1447 | 0      | 0     | 160-170  | 0.2452      | 601.6        | 100,100    |
| 180      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0     | 170-180  | 0.0159      | 601.6        | 100,100    |
| DEG      | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |       |          | UNIT:lm     |              |            |

Conical surface Flux(90deg): 167.43 lm

%lum = 27.8%

%lamp = 27.8%

Conical surface Flux(120deg): 273.87 lm

%lum = 45.5%

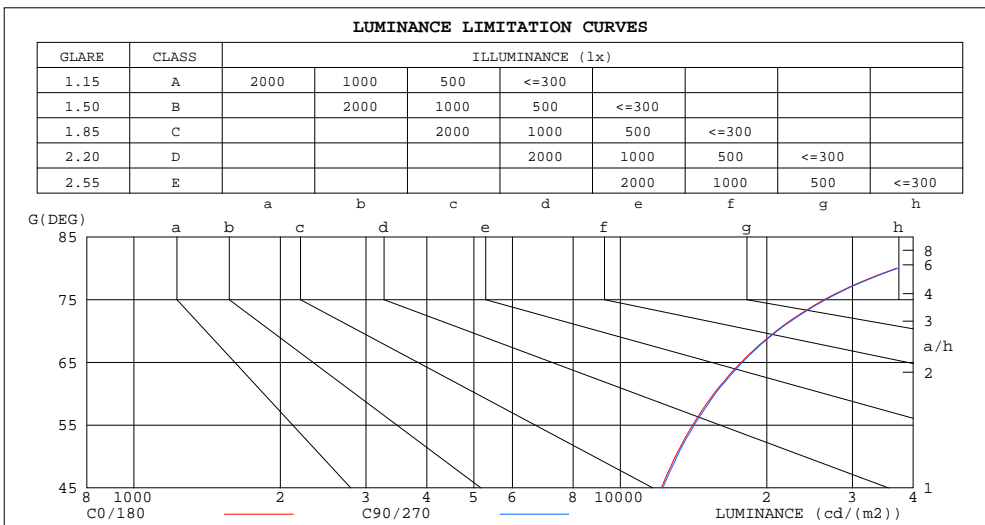
%lamp = 45.5%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.5DEG  
Operators:William  
Test Date:2019-12-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity:56.4%  
Test Distance:26.000m [K=1.3890]  
Remarks:

## LUMINANCE LIMITATION CURVES

|  |          |                     |
|--|----------|---------------------|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |          |                     |
| NAME: Triplepar  | TYPE:LED | WEIGHT:N/A          |
| SPEC.:N/A  | DIM.:    | SERIAL No.:N/A      |
| MFR.: Astera LED Technology GmbH   | SUR.:    | Shielding Angle:N/A |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 69462  | 69702   |
| 80                | 36985  | 37216   |
| 75                | 26229  | 26444   |
| 70                | 20918  | 21015   |
| 65                | 17727  | 17821   |
| 60                | 15573  | 15678   |
| 55                | 14085  | 14180   |
| 50                | 12979  | 13074   |
| 45                | 12142  | 12236   |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:William  
 Test Date:2019-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:56.4%  
 Test Distance:26.000m [K=1.3890]  
 Remarks:

## WEC AND CCEC

|  |  |  |  |  |          |  |  |                     |  |
|--|--|--|--|--|----------|--|--|---------------------|--|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |  |  |  |  |          |  |  |                     |  |
| NAME: Triplepar  |  |  |  |  | TYPE:LED |  |  | WEIGHT:N/A          |  |
| SPEC.:N/A  |  |  |  |  | DIM.:    |  |  | SERIAL No.:N/A      |  |
| MFR.: Astera LED Technology GmbH   |  |  |  |  | SUR.:    |  |  | Shielding Angle:N/A |  |

| pcc  | 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  | .437                  | .248 | .079 | .423 | .242 | .077 | .399                            | .229 | .073 | .376 | .217 | .070 | .355 | .206 | .066 |   |
| 2.0  | .366                  | .200 | .061 | .354 | .195 | .060 | .331                            | .184 | .057 | .310 | .174 | .054 | .291 | .165 | .052 |   |
| 3.0  | .319                  | .170 | .051 | .308 | .165 | .050 | .287                            | .156 | .047 | .268 | .147 | .045 | .251 | .139 | .043 |   |
| 4.0  | .283                  | .147 | .043 | .273 | .143 | .042 | .255                            | .135 | .040 | .238 | .128 | .038 | .222 | .120 | .037 |   |
| 5.0  | .255                  | .130 | .038 | .246 | .126 | .037 | .229                            | .119 | .035 | .213 | .113 | .034 | .199 | .106 | .032 |   |
| 6.0  | .232                  | .116 | .033 | .224 | .113 | .033 | .208                            | .107 | .031 | .194 | .101 | .030 | .181 | .095 | .028 |   |
| 7.0  | .213                  | .105 | .030 | .205 | .102 | .029 | .191                            | .097 | .028 | .178 | .091 | .027 | .166 | .086 | .025 |   |
| 8.0  | .196                  | .096 | .027 | .190 | .093 | .026 | .177                            | .088 | .025 | .165 | .083 | .024 | .153 | .079 | .023 |   |
| 9.0  | .182                  | .088 | .025 | .176 | .086 | .024 | .164                            | .081 | .023 | .153 | .077 | .022 | .142 | .072 | .021 |   |
| 10.0 | .170                  | .082 | .023 | .164 | .079 | .022 | .153                            | .075 | .021 | .143 | .071 | .020 | .133 | .067 | .019 |   |

| pcc  | 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  | .338                  | .338 | .338 | .289 | .289 | .289 | .197                                       | .197 | .197 | .113 | .113 | .113 | .036 | .036 | .036 |   |
| 1.0  | .338                  | .304 | .273 | .289 | .261 | .235 | .198                                       | .179 | .163 | .114 | .104 | .095 | .036 | .033 | .031 |   |
| 2.0  | .332                  | .282 | .239 | .284 | .242 | .207 | .195                                       | .168 | .144 | .112 | .098 | .084 | .036 | .032 | .028 |   |
| 3.0  | .325                  | .265 | .218 | .278 | .229 | .189 | .191                                       | .159 | .133 | .110 | .093 | .078 | .035 | .030 | .026 |   |
| 4.0  | .317                  | .253 | .205 | .272 | .219 | .178 | .187                                       | .152 | .125 | .108 | .089 | .074 | .035 | .029 | .024 |   |
| 5.0  | .309                  | .244 | .195 | .265 | .211 | .170 | .183                                       | .147 | .120 | .106 | .086 | .071 | .034 | .028 | .023 |   |
| 6.0  | .301                  | .236 | .189 | .259 | .204 | .165 | .178                                       | .143 | .116 | .103 | .084 | .069 | .033 | .027 | .023 |   |
| 7.0  | .293                  | .229 | .184 | .252 | .199 | .160 | .174                                       | .139 | .114 | .101 | .082 | .068 | .033 | .027 | .022 |   |
| 8.0  | .286                  | .224 | .180 | .247 | .194 | .157 | .171                                       | .136 | .112 | .099 | .080 | .067 | .032 | .026 | .022 |   |
| 9.0  | .280                  | .219 | .178 | .241 | .190 | .155 | .167                                       | .133 | .110 | .097 | .079 | .066 | .032 | .026 | .022 |   |
| 10.0 | .274                  | .215 | .175 | .236 | .186 | .153 | .164                                       | .131 | .109 | .096 | .078 | .065 | .031 | .025 | .022 |   |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:William  
 Test Date:2019-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:56.4%  
 Test Distance:26.000m [K=1.3890]  
 Remarks:

## UGR(Unified Glare Rating) Table

|  |                  |      |      |      |          |                |      |                     |      |      |
|--|------------------|------|------|------|----------|----------------|------|---------------------|------|------|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |                  |      |      |      |          |                |      |                     |      |      |
| NAME: Triplepar  |                  |      |      |      | TYPE:LED |                |      | WEIGHT:N/A          |      |      |
| SPEC.:N/A  |                  |      |      |      | DIM.:    |                |      | SERIAL No.:N/A      |      |      |
| MFR.: Astera LED Technology GmbH   |                  |      |      |      | SUR.:    |                |      | 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  | 21.0             | 22.4 | 21.5 | 22.9 | 23.6     | 21.0           | 22.4 | 21.5                | 23.0 | 23.6 |
| 3H   | 23.8             | 25.1 | 24.4 | 25.7 | 26.3     | 23.8           | 25.1 | 24.4                | 25.7 | 26.4 |
| 4H   | 25.4             | 26.6 | 26.0 | 27.2 | 27.9     | 25.4           | 26.7 | 26.0                | 27.2 | 27.9 |
| 6H   | 27.1             | 28.3 | 27.7 | 28.9 | 29.6     | 27.1           | 28.3 | 27.7                | 28.9 | 29.6 |
| 8H   | 28.1             | 29.2 | 28.7 | 29.8 | 30.5     | 28.1           | 29.3 | 28.7                | 29.9 | 30.6 |
| 12H  | 29.2             | 30.3 | 29.8 | 30.9 | 31.6     | 29.2           | 30.3 | 29.8                | 30.9 | 31.7 |
| 4H 2H  | 21.9             | 23.2 | 22.5 | 23.8 | 24.4     | 21.9           | 23.2 | 22.5                | 23.8 | 24.4 |
| 3H   | 24.9             | 26.0 | 25.5 | 26.7 | 27.4     | 24.9           | 26.0 | 25.5                | 26.7 | 27.4 |
| 4H   | 26.6             | 27.7 | 27.3 | 28.3 | 29.1     | 26.7           | 27.7 | 27.3                | 28.3 | 29.1 |
| 6H   | 28.5             | 29.5 | 29.2 | 30.2 | 30.9     | 28.6           | 29.5 | 29.2                | 30.2 | 30.9 |
| 8H   | 29.6             | 30.5 | 30.3 | 31.2 | 32.0     | 29.6           | 30.5 | 30.3                | 31.2 | 32.0 |
| 12H  | 30.8             | 31.6 | 31.5 | 32.3 | 33.1     | 30.8           | 31.6 | 31.5                | 32.3 | 33.2 |
| 8H 4H  | 27.3             | 28.2 | 28.0 | 28.9 | 29.7     | 27.3           | 28.2 | 28.0                | 28.9 | 29.7 |
| 6H   | 29.5             | 30.3 | 30.2 | 31.0 | 31.8     | 29.5           | 30.3 | 30.2                | 31.0 | 31.8 |
| 8H   | 30.8             | 31.4 | 31.5 | 32.2 | 33.0     | 30.8           | 31.4 | 31.5                | 32.2 | 33.0 |
| 12H  | 32.2             | 32.8 | 32.9 | 33.5 | 34.4     | 32.2           | 32.8 | 32.9                | 33.5 | 34.4 |
| 12H 4H   | 27.5             | 28.3 | 28.2 | 29.0 | 29.8     | 27.5           | 28.3 | 28.2                | 29.0 | 29.8 |
| 6H   | 29.8             | 30.5 | 30.5 | 31.2 | 32.1     | 29.8           | 30.5 | 30.5                | 31.2 | 32.1 |
| 8H   | 31.2             | 31.8 | 31.9 | 32.5 | 33.4     | 31.2           | 31.8 | 31.9                | 32.5 | 33.4 |
| Variations with the observer position at spacings:                               |                  |      |      |      |          |                |      |                     |      |      |
| S = 1.0H   | + 0.1 / - 0.1    |      |      |      |          | + 0.1 / - 0.1  |      |                     |      |      |
| 1.5H   | + 0.2 / - 0.3    |      |      |      |          | + 0.2 / - 0.3  |      |                     |      |      |
| 2.0H   | + 0.3 / - 0.4    |      |      |      |          | + 0.3 / - 0.4  |      |                     |      |      |

CIE Pub.117, 601.6 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = -1.8$ )

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.5DEG  
Operators:William  
Test Date:2019-12-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity:56.4%  
Test Distance:26.000m [K=1.3890]  
Remarks:

## UTILIZATION FACTORS TABLE

|  |          |                     |
|--|----------|---------------------|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |          |                     |
| NAME: Triplepar  | TYPE:LED | WEIGHT:N/A          |
| SPEC.:N/A  | DIM.:    | SERIAL No.:N/A      |
| MFR.: Astera LED Technology GmbH   | SUR.:    | Shielding Angle:N/A |

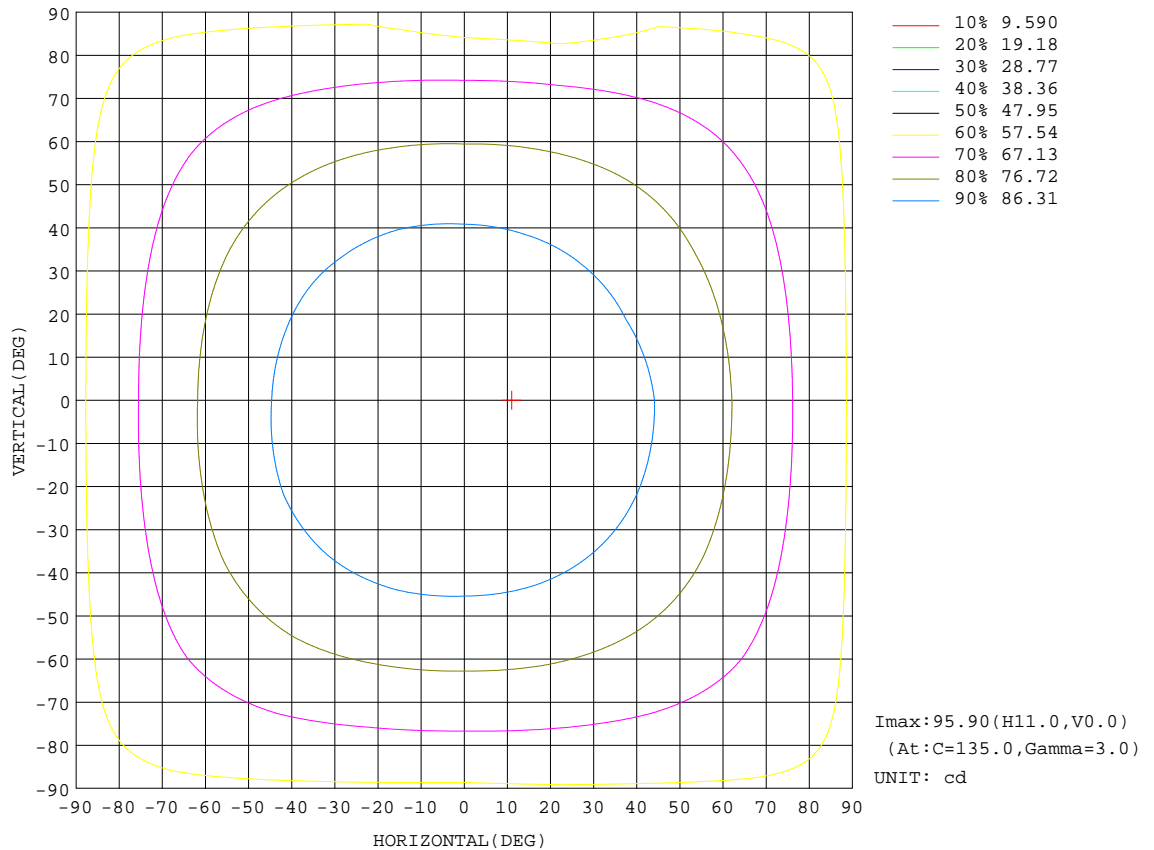
| REFLECTANCE                      |   |     |           |     |     |     |     |               |     |        |
|----------------------------------|---|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8   | 0.8 | 0.8       | 0.7 | 0.7 | 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                         | 44  | 31  | 24        | 43  | 31  | 24  | 41  | 30            | 23  | 16     |
| 0.80                             | 53  | 39  | 31        | 51  | 39  | 30  | 49  | 37            | 30  | 21     |
| 1.00                             | 61  | 47  | 38        | 59  | 46  | 37  | 55  | 46            | 36  | 27     |
| 1.25                             | 67  | 54  | 45        | 65  | 52  | 44  | 61  | 50            | 42  | 32     |
| 1.50                             | 73  | 59  | 50        | 70  | 58  | 49  | 65  | 54            | 47  | 36     |
| 2.00                             | 80  | 68  | 59        | 77  | 66  | 57  | 71  | 62            | 54  | 42     |
| 2.50                             | 85  | 74  | 65        | 81  | 71  | 63  | 75  | 66            | 60  | 46     |
| 3.00                             | 89  | 79  | 70        | 85  | 76  | 68  | 78  | 71            | 64  | 50     |
| 4.00                             | 94  | 85  | 78        | 90  | 82  | 75  | 82  | 76            | 70  | 55     |
| 5.00                             | 97  | 89  | 83        | 93  | 86  | 80  | 85  | 80            | 74  | 59     |
| 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:24.5DEG  
 Operators:William  
 Test Date:2019-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:56.4%  
 Test Distance:26.000m [K=1.3890]  
 Remarks:

## ISOCANDELA DIAGRAM

|  |          |                     |
|--|----------|---------------------|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |          |                     |
| NAME: Triplepar  | TYPE:LED | WEIGHT:N/A          |
| SPEC.:N/A  | DIM.:    | SERIAL No.:N/A      |
| MFR.: Astera LED Technology GmbH   | SUR.:    | Shielding Angle:N/A |

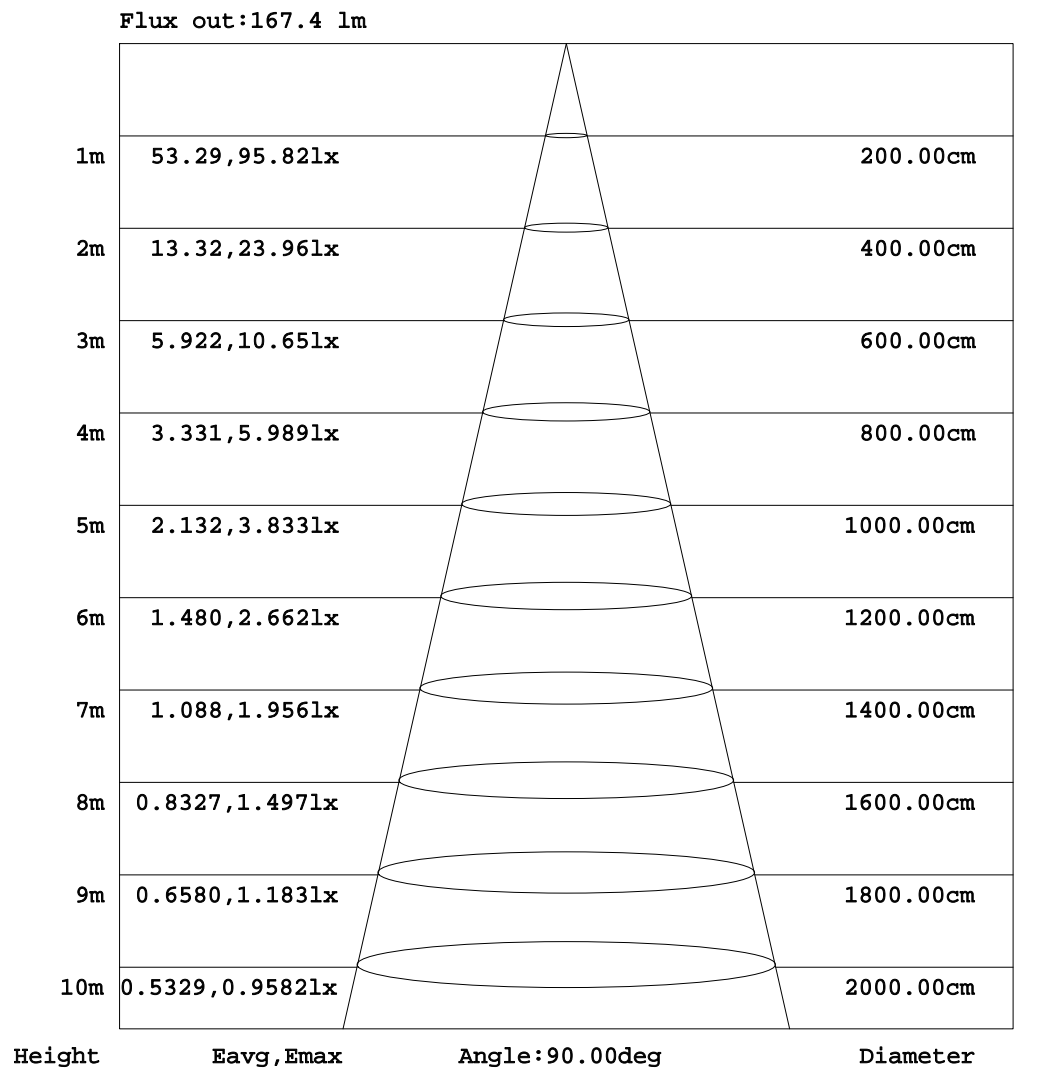


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:William  
 Test Date:2019-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:56.4%  
 Test Distance:26.000m [K=1.3890]  
 Remarks:

## AAI Figure

|  |          |                     |
|--|----------|---------------------|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |          |                     |
| NAME: Triplepar  | TYPE:LED | WEIGHT:N/A          |
| SPEC.:N/A  | DIM.:    | SERIAL No.:N/A      |
| MFR.: Astera LED Technology GmbH   | SUR.:    | Shielding Angle:N/A |



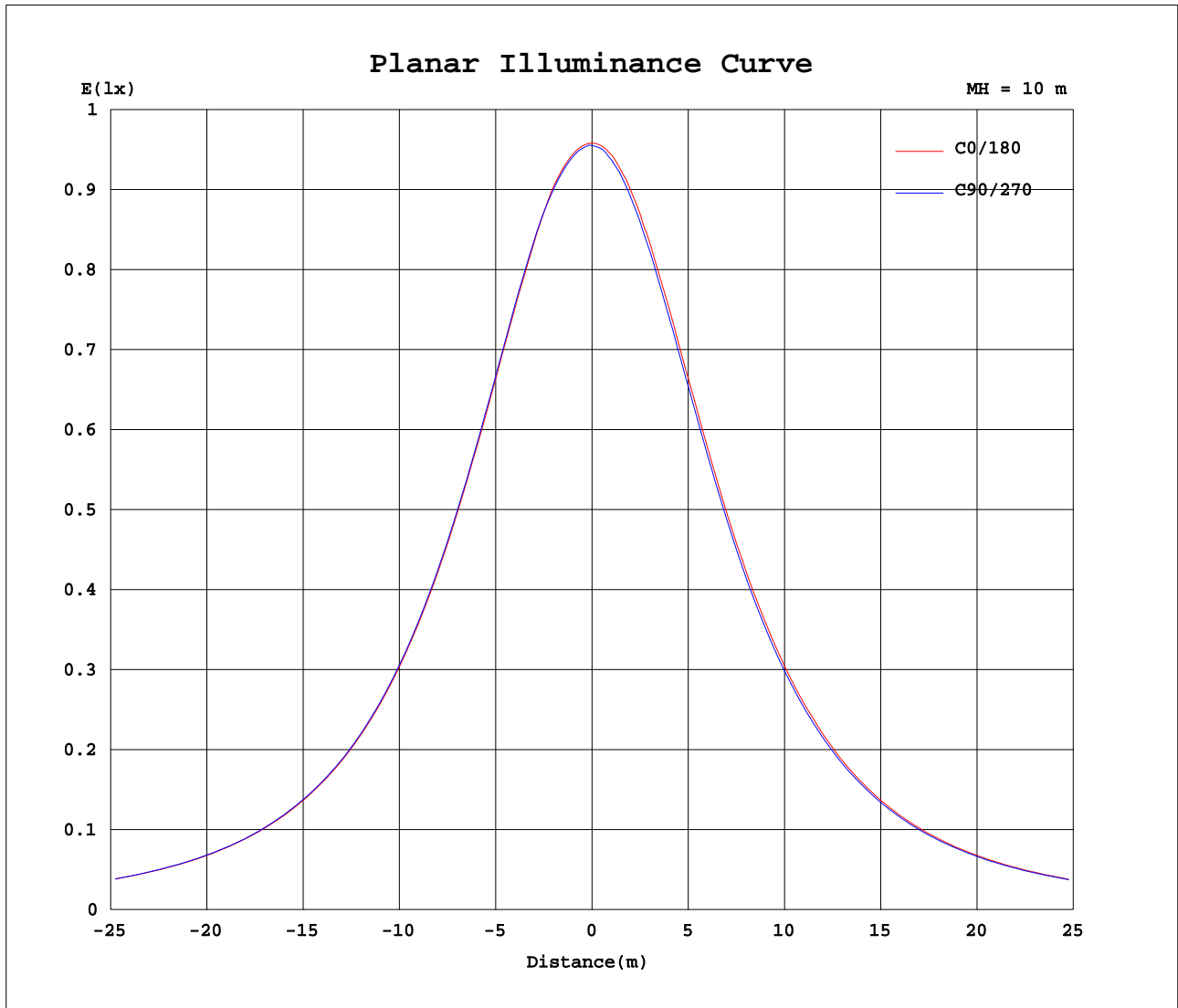
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:William  
 Test Date:2019-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:56.4%  
 Test Distance:26.000m [K=1.3890]  
 Remarks:



## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.5DEG  
Operators: William  
Test Date: 2019-12-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity: 56.4%  
Test Distance: 26.000m [K=1.3890]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|  |  |  |  |  |  |  |  |  |          |  |  |  |  |                     |  |  |  |  |
|--|--|--|--|--|--|--|--|--|----------|--|--|--|--|---------------------|--|--|--|--|
| Test:U:220.01V I:0.4386A P:49.326W PF:0.5112 Freq:50.01Hz Lamp Flux:601.618x1 lm |  |  |  |  |  |  |  |  |          |  |  |  |  |                     |  |  |  |  |
| NAME: Triplepar  |  |  |  |  |  |  |  |  | TYPE:LED |  |  |  |  | WEIGHT:N/A          |  |  |  |  |
| SPEC.:N/A  |  |  |  |  |  |  |  |  | DIM.:    |  |  |  |  | SERIAL No.:N/A      |  |  |  |  |
| MFR.: Astera LED Technology GmbH   |  |  |  |  |  |  |  |  | SUR.:    |  |  |  |  | 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                 | 95.6 | 95.6 | 95.6 | 95.6 | 95.6 | 95.6  | 95.6 | 95.6  | 95.6 | 95.6  | 95.6 | 95.6  | 95.6 | 95.6  | 95.6 | 95.6  |  |  |  |
| 5                 | 95.6 | 95.6 | 95.5 | 95.6 | 95.6 | 95.5  | 95.7 | 95.7  | 95.5 | 95.5  | 95.4 | 95.4  | 95.2 | 95.2  | 95.3 | 95.3  |  |  |  |
| 10                | 95.6 | 95.5 | 95.4 | 95.5 | 95.5 | 95.4  | 95.6 | 95.7  | 95.4 | 95.1  | 95.0 | 95.0  | 94.8 | 94.7  | 94.8 | 94.9  |  |  |  |
| 15                | 95.1 | 95.2 | 95.3 | 95.4 | 95.5 | 95.4  | 95.5 | 95.7  | 94.7 | 94.7  | 94.3 | 94.2  | 94.0 | 93.9  | 94.0 | 94.2  |  |  |  |
| 20                | 94.1 | 94.3 | 94.5 | 94.7 | 94.8 | 94.9  | 94.9 | 95.0  | 94.0 | 93.8  | 93.6 | 93.3  | 93.0 | 93.1  | 93.1 | 93.2  |  |  |  |
| 25                | 93.0 | 93.1 | 93.3 | 93.6 | 93.6 | 93.9  | 94.0 | 94.1  | 92.9 | 92.7  | 92.4 | 92.1  | 91.8 | 91.8  | 91.8 | 92.1  |  |  |  |
| 30                | 91.5 | 91.6 | 91.9 | 92.2 | 92.3 | 92.5  | 92.7 | 92.8  | 91.7 | 91.3  | 90.8 | 90.7  | 90.5 | 90.3  | 90.4 | 90.5  |  |  |  |
| 35                | 89.9 | 90.1 | 90.3 | 90.5 | 90.7 | 91.0  | 91.2 | 91.3  | 89.9 | 89.7  | 89.2 | 89.1  | 88.8 | 88.7  | 88.8 | 89.0  |  |  |  |
| 40                | 87.8 | 88.0 | 88.4 | 88.7 | 88.8 | 89.1  | 89.4 | 89.4  | 88.0 | 87.7  | 87.2 | 87.1  | 86.7 | 86.7  | 86.8 | 87.0  |  |  |  |
| 45                | 85.6 | 85.9 | 86.1 | 86.5 | 86.6 | 86.9  | 87.2 | 87.2  | 85.9 | 85.5  | 85.1 | 84.9  | 84.4 | 84.5  | 84.6 | 84.9  |  |  |  |
| 50                | 83.2 | 83.5 | 83.8 | 84.1 | 84.1 | 84.5  | 84.8 | 84.7  | 83.4 | 83.0  | 82.6 | 82.2  | 82.0 | 82.1  | 82.2 | 82.4  |  |  |  |
| 55                | 80.6 | 80.9 | 81.1 | 81.4 | 81.4 | 81.8  | 82.1 | 82.0  | 80.7 | 80.3  | 79.9 | 79.7  | 79.4 | 79.5  | 79.8 | 79.8  |  |  |  |
| 60                | 77.7 | 78.1 | 78.3 | 78.6 | 78.4 | 78.9  | 79.2 | 79.1  | 77.6 | 77.4  | 77.1 | 76.7  | 76.4 | 76.7  | 77.0 | 77.2  |  |  |  |
| 65                | 74.7 | 75.3 | 75.4 | 75.4 | 75.4 | 75.7  | 76.0 | 76.0  | 74.4 | 74.4  | 73.9 | 73.7  | 73.4 | 73.6  | 74.1 | 74.3  |  |  |  |
| 70                | 71.4 | 72.1 | 72.2 | 72.1 | 71.9 | 72.3  | 72.6 | 72.7  | 71.0 | 71.2  | 70.7 | 70.4  | 70.0 | 70.4  | 70.8 | 71.2  |  |  |  |
| 75                | 67.7 | 68.7 | 68.7 | 68.7 | 68.5 | 68.7  | 69.1 | 69.0  | 67.3 | 67.7  | 67.2 | 66.9  | 66.5 | 66.7  | 67.3 | 67.7  |  |  |  |
| 80                | 64.1 | 65.0 | 65.2 | 65.0 | 64.7 | 64.9  | 65.3 | 65.3  | 63.5 | 64.0  | 63.7 | 63.3  | 62.6 | 62.4  | 63.8 | 64.1  |  |  |  |
| 85                | 60.4 | 61.1 | 61.3 | 61.2 | 60.8 | 60.9  | 61.3 | 61.1  | 59.6 | 59.8  | 59.7 | 59.5  | 56.5 | 55.3  | 60.0 | 60.2  |  |  |  |
| 90                | 55.7 | 56.3 | 56.5 | 56.7 | 56.4 | 56.1  | 55.7 | 55.2  | 54.8 | 54.6  | 54.6 | 54.7  | 49.5 | 48.8  | 55.0 | 55.3  |  |  |  |
| 95                | 42.6 | 42.8 | 39.0 | 29.6 | 30.8 | 28.5  | 34.0 | 38.9  | 40.6 | 39.6  | 34.7 | 26.7  | 25.9 | 23.3  | 35.6 | 41.8  |  |  |  |
| 100               | 27.9 | 25.1 | 22.4 | 32.6 | 30.7 | 36.2  | 21.8 | 21.6  | 26.5 | 22.2  | 19.9 | 34.4  | 28.0 | 35.6  | 21.4 | 24.0  |  |  |  |
| 105               | 22.0 | 14.0 | 19.1 | 40.7 | 41.4 | 40.4  | 25.1 | 12.2  | 22.3 | 11.6  | 22.3 | 35.6  | 33.4 | 36.5  | 24.5 | 13.0  |  |  |  |
| 110               | 23.3 | 12.2 | 25.9 | 34.2 | 35.5 | 34.0  | 27.9 | 13.5  | 26.6 | 13.8  | 26.4 | 28.9  | 30.8 | 29.6  | 26.8 | 13.7  |  |  |  |
| 115               | 31.2 | 14.6 | 21.0 | 27.5 | 29.2 | 27.4  | 21.2 | 14.8  | 32.9 | 14.6  | 19.6 | 22.8  | 25.6 | 22.9  | 19.8 | 14.5  |  |  |  |
| 120               | 30.3 | 14.6 | 15.5 | 21.1 | 23.2 | 21.2  | 15.6 | 14.0  | 30.0 | 14.6  | 14.0 | 17.1  | 20.1 | 16.1  | 14.2 | 14.4  |  |  |  |
| 125               | 26.9 | 15.0 | 11.3 | 15.5 | 15.2 | 15.1  | 11.4 | 13.8  | 26.5 | 14.5  | 9.94 | 12.0  | 11.3 | 10.9  | 10.1 | 14.3  |  |  |  |
| 130               | 23.4 | 15.1 | 8.43 | 10.5 | 7.76 | 8.01  | 8.22 | 13.6  | 23.0 | 14.4  | 6.95 | 6.78  | 5.99 | 5.77  | 7.41 | 14.2  |  |  |  |
| 135               | 20.2 | 14.8 | 6.66 | 5.43 | 4.93 | 3.82  | 6.17 | 13.4  | 19.8 | 13.8  | 5.76 | 3.07  | 3.14 | 1.68  | 5.51 | 13.4  |  |  |  |
| 140               | 17.1 | 13.6 | 6.02 | 2.35 | 2.64 | 1.62  | 5.29 | 12.5  | 16.5 | 12.8  | 5.71 | 1.39  | 1.24 | 1.10  | 4.89 | 12.0  |  |  |  |
| 145               | 14.1 | 12.0 | 5.89 | 1.59 | 0.79 | 0.07  | 5.19 | 11.0  | 13.6 | 11.3  | 5.67 | 1.02  | 0.77 | 0.00  | 4.70 | 10.4  |  |  |  |
| 150               | 11.6 | 10.2 | 5.78 | 0.08 | 0.60 | 0.15  | 4.99 | 9.34  | 10.8 | 9.58  | 5.56 | 0.00  | 0.72 | 0.95  | 3.81 | 8.37  |  |  |  |
| 155               | 9.01 | 7.98 | 4.98 | 0.07 | 0.41 | 1.17  | 3.75 | 7.57  | 8.19 | 7.60  | 5.05 | 0.00  | 0.67 | 0.81  | 1.52 | 6.02  |  |  |  |
| 160               | 6.31 | 5.72 | 1.27 | 0.07 | 0.00 | 0.08  | 0.00 | 4.87  | 5.78 | 5.34  | 3.15 | 0.63  | 0.62 | 0.52  | 1.18 | 3.12  |  |  |  |
| 165               | 0.82 | 0.17 | 0.00 | 0.07 | 0.07 | 0.00  | 0.17 | 0.00  | 0.22 | 0.29  | 0.00 | 0.51  | 0.44 | 0.36  | 0.73 | 0.07  |  |  |  |
| 170               | 0.87 | 0.86 | 0.52 | 0.07 | 0.15 | 0.21  | 0.22 | 0.04  | 0.51 | 0.36  | 0.14 | 0.00  | 0.00 | 0.07  | 0.00 | 0.00  |  |  |  |
| 175               | 0.37 | 0.44 | 0.44 | 0.07 | 0.27 | 0.22  | 0.27 | 0.12  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  |  |  |  |
| 180               | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  |  |  |  |

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