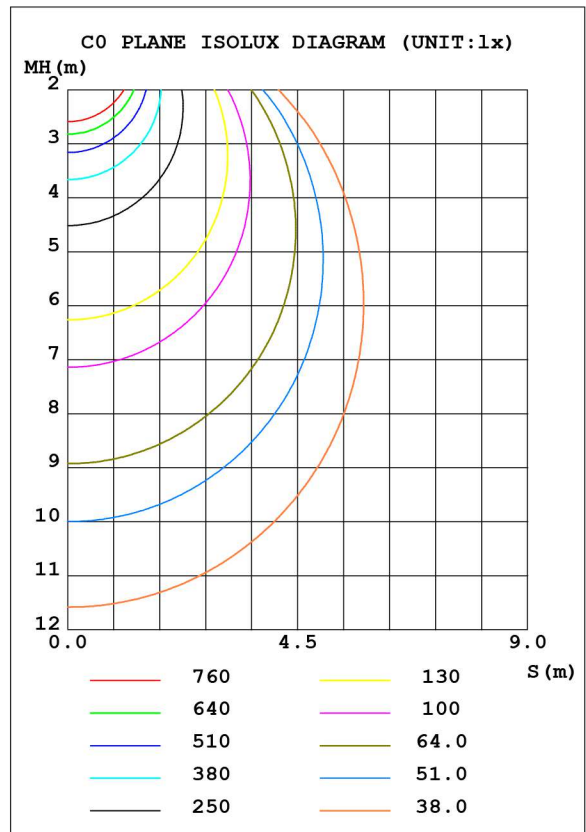
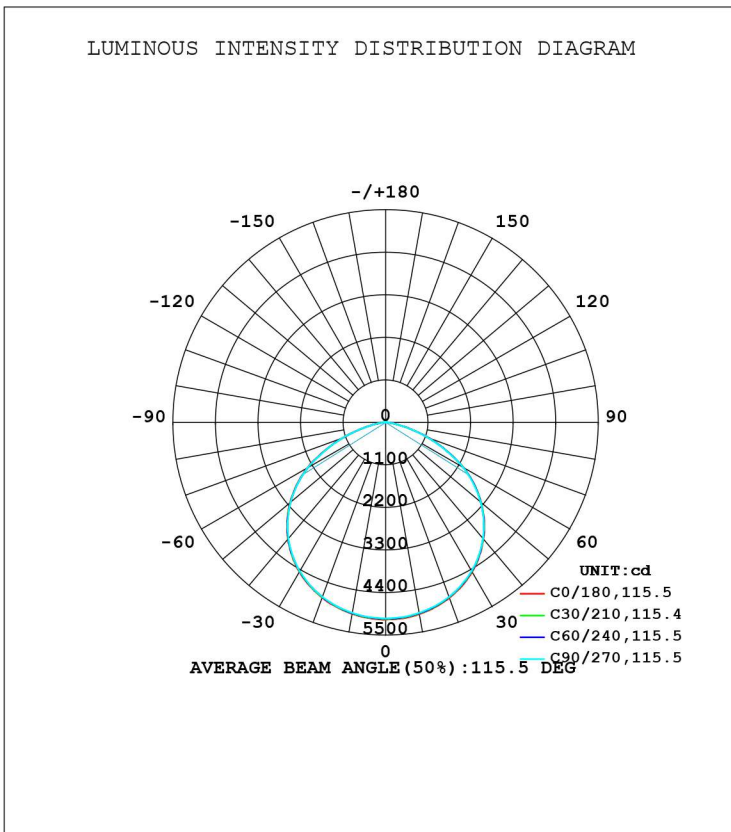


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|--|-------|--|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: FDUFO-DS-100W-5K-120M-D | TYPE: | |
| MFR.: Factory Direct Lighting | | |
| | | |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 149.44 lm/W | | | |
|-------------------|-----------------------|-----------------------------------|--------|---------------------|----------|
| MODEL | HD-HB05M-100W-XX-150A | I _{max} (cd) | 5096 | S/MH (C0/180) | 1.30 |
| NOMINAL POWER (W) | 100 | LOR (%) | 100.0 | S/MH (C90/270) | 1.30 |
| RATED VOLTAGE (V) | 220 | TOTAL FLUX (lm) | 14648 | η UP, DN (C0-180) | 0.7,49.3 |
| NOMINAL FLUX (lm) | 14648.4 | CIE CLASS | DIRECT | η UP, DN (C180-360) | 0.7,49.2 |
| LAMPS INSIDE | 1 | η up (%) | 1.5 | CIBSE SHR NOM | 1.25 |
| TEST VOLTAGE (V) | 220 | η down (%) | 98.5 | CIBSE SHR MAX | 1.35 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

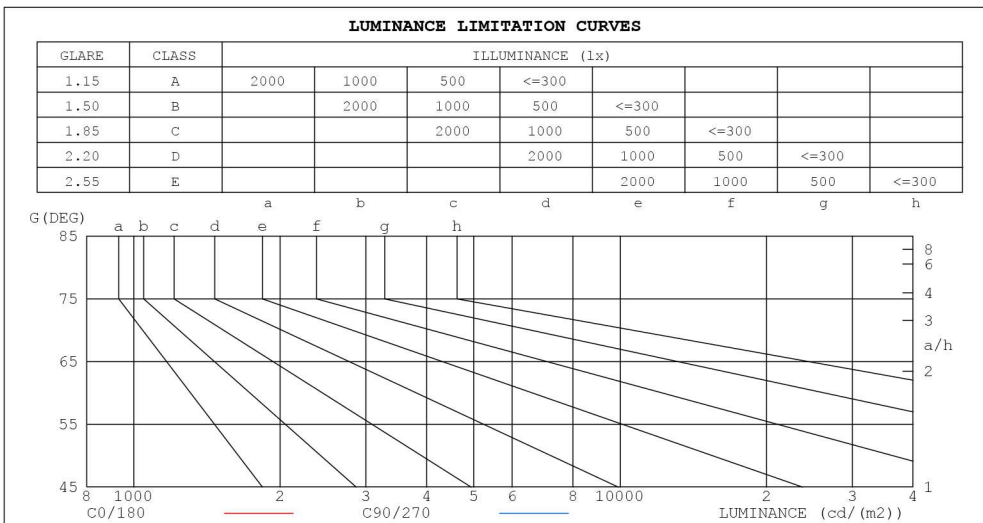
| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum, lamp |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|------------|
| 10 | 5034 | 5015 | 5000 | 4990 | 5026 | 5008 | 5000 | 4998 | 0- 10 | 480.9 | 480.9 | 3.28,3.28 |
| 20 | 4826 | 4808 | 4797 | 4786 | 4818 | 4801 | 4799 | 4790 | 10- 20 | 1390 | 1871 | 12.8,12.8 |
| 30 | 4468 | 4454 | 4440 | 4431 | 4465 | 4444 | 4443 | 4432 | 20- 30 | 2140 | 4010 | 27.4,27.4 |
| 40 | 3935 | 3931 | 3917 | 3913 | 3938 | 3916 | 3914 | 3903 | 30- 40 | 2629 | 6640 | 45.3,45.3 |
| 50 | 3221 | 3227 | 3208 | 3212 | 3231 | 3207 | 3211 | 3198 | 40- 50 | 2766 | 9405 | 64.2,64.2 |
| 60 | 2322 | 2335 | 2308 | 2322 | 2337 | 2304 | 2314 | 2298 | 50- 60 | 2487 | 11892 | 81.2,81.2 |
| 70 | 1208 | 1208 | 1185 | 1199 | 1209 | 1186 | 1197 | 1184 | 60- 70 | 1723 | 13615 | 92.9,92.9 |
| 80 | 262.0 | 275.5 | 261.8 | 272.9 | 280.9 | 259.6 | 273.6 | 260.3 | 70- 80 | 728.8 | 14343 | 97.9,97.9 |
| 90 | 6.240 | 6.117 | 6.176 | 6.152 | 4.475 | 4.364 | 4.378 | 4.320 | 80- 90 | 91.26 | 14435 | 98.5,98.5 |
| 100 | 13.70 | 13.43 | 13.58 | 13.49 | 11.10 | 11.26 | 11.10 | 11.24 | 90-100 | 9.197 | 14444 | 98.6,98.6 |
| 110 | 24.33 | 23.94 | 24.13 | 24.04 | 21.32 | 21.68 | 21.50 | 21.68 | 100-110 | 18.40 | 14462 | 98.7,98.7 |
| 120 | 35.21 | 34.79 | 34.94 | 34.85 | 32.59 | 32.34 | 32.55 | 32.74 | 110-120 | 28.04 | 14490 | 98.9,98.9 |
| 130 | 44.25 | 43.84 | 43.97 | 43.91 | 42.77 | 42.74 | 41.97 | 42.15 | 120-130 | 34.59 | 14525 | 99.2,99.2 |
| 140 | 51.68 | 51.30 | 51.42 | 51.45 | 51.27 | 51.17 | 50.95 | 50.91 | 130-140 | 36.58 | 14561 | 99.4,99.4 |
| 150 | 57.64 | 57.23 | 57.45 | 57.43 | 58.18 | 58.15 | 57.94 | 58.05 | 140-150 | 34.20 | 14596 | 99.6,99.6 |
| 160 | 62.92 | 62.62 | 62.73 | 62.75 | 62.04 | 61.81 | 61.77 | 61.78 | 150-160 | 27.96 | 14624 | 99.8,99.8 |
| 170 | 71.65 | 72.17 | 73.28 | 73.31 | 64.01 | 64.39 | 64.42 | 64.45 | 160-170 | 18.23 | 14642 | 100,100 |
| 180 | 67.13 | 68.17 | 69.24 | 69.26 | 67.16 | 68.10 | 69.22 | 69.21 | 170-180 | 6.587 | 14648 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G (DEG) | C0/180 | C90/270 |
| 85 | 35071 | 35718 |
| 80 | 85731 | 85661 |
| 75 | 146333 | 145853 |
| 70 | 200736 | 196881 |
| 65 | 233153 | 232071 |
| 60 | 263902 | 262321 |
| 55 | 277098 | 275721 |
| 50 | 284746 | 283537 |
| 45 | 289544 | 288428 |

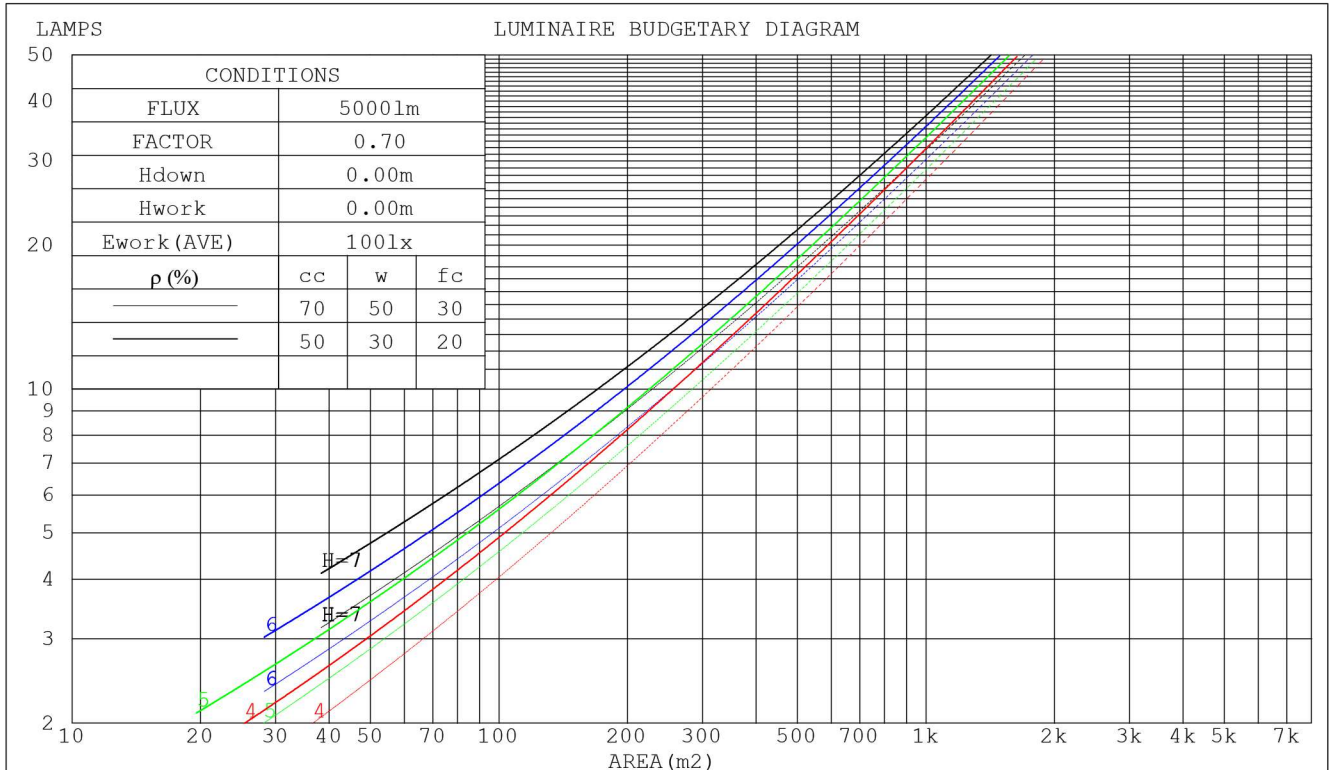
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: C
 Test Date: 10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0125]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | | | | | | | | | | |
| | Coefficients of Utilization(CU) | | | | | | | | | | | | | | | |
| 0.0 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.10 | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.01 | 1.01 | 1.01 | .99 |
| 1.0 | 1.05 | 1.01 | .97 | 1.02 | .99 | .95 | .98 | .95 | .92 | .94 | .91 | .89 | .90 | .88 | .86 | .84 |
| 2.0 | .92 | .85 | .80 | .90 | .84 | .79 | .86 | .81 | .77 | .82 | .78 | .75 | .79 | .76 | .73 | .71 |
| 3.0 | .81 | .73 | .66 | .79 | .72 | .66 | .76 | .69 | .64 | .73 | .67 | .63 | .70 | .66 | .62 | .60 |
| 4.0 | .71 | .63 | .56 | .70 | .62 | .56 | .67 | .60 | .55 | .65 | .59 | .54 | .62 | .57 | .53 | .51 |
| 5.0 | .64 | .55 | .48 | .63 | .54 | .48 | .60 | .53 | .47 | .58 | .52 | .47 | .56 | .51 | .46 | .44 |
| 6.0 | .57 | .48 | .42 | .56 | .48 | .42 | .54 | .47 | .41 | .53 | .46 | .41 | .51 | .45 | .40 | .38 |
| 7.0 | .52 | .43 | .37 | .51 | .43 | .37 | .49 | .42 | .37 | .48 | .41 | .36 | .46 | .40 | .36 | .34 |
| 8.0 | .47 | .39 | .33 | .47 | .38 | .33 | .45 | .38 | .33 | .44 | .37 | .32 | .42 | .36 | .32 | .30 |
| 9.0 | .43 | .35 | .30 | .43 | .35 | .30 | .41 | .34 | .29 | .40 | .34 | .29 | .39 | .33 | .29 | .27 |
| 10.0 | .40 | .32 | .27 | .39 | .32 | .27 | .38 | .31 | .27 | .37 | .31 | .26 | .36 | .30 | .26 | .24 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

WEC AND CCEC

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients(WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .287 | .163 | .052 | .279 | .159 | .051 | .265 | .152 | .049 | .253 | .146 | .047 | .241 | .140 | .045 | |
| 2.0 | .277 | .152 | .047 | .270 | .149 | .046 | .258 | .144 | .045 | .247 | .138 | .043 | .236 | .134 | .042 | |
| 3.0 | .260 | .138 | .041 | .254 | .136 | .041 | .243 | .132 | .040 | .233 | .128 | .039 | .224 | .124 | .038 | |
| 4.0 | .242 | .126 | .037 | .237 | .124 | .037 | .227 | .120 | .036 | .218 | .117 | .035 | .210 | .114 | .035 | |
| 5.0 | .225 | .115 | .033 | .221 | .113 | .033 | .212 | .110 | .032 | .204 | .108 | .032 | .196 | .105 | .032 | |
| 6.0 | .210 | .105 | .030 | .206 | .104 | .030 | .198 | .101 | .030 | .191 | .099 | .029 | .184 | .097 | .029 | |
| 7.0 | .196 | .097 | .027 | .192 | .096 | .027 | .185 | .094 | .027 | .179 | .092 | .027 | .173 | .090 | .026 | |
| 8.0 | .183 | .090 | .025 | .180 | .089 | .025 | .174 | .087 | .025 | .168 | .085 | .025 | .162 | .083 | .024 | |
| 9.0 | .172 | .083 | .023 | .169 | .082 | .023 | .164 | .081 | .023 | .158 | .079 | .023 | .153 | .078 | .022 | |
| 10.0 | .162 | .078 | .022 | .159 | .077 | .021 | .154 | .076 | .021 | .149 | .074 | .021 | .145 | .073 | .021 | |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Ceiling Cavity Exitance Coefficients(CCEC) | | | | | | | | | |
| 0.0 | .202 | .202 | .202 | .172 | .172 | .172 | .118 | .118 | .118 | .068 | .068 | .068 | .022 | .022 | .022 | |
| 1.0 | .190 | .168 | .147 | .163 | .144 | .127 | .111 | .099 | .088 | .064 | .057 | .051 | .020 | .018 | .016 | |
| 2.0 | .182 | .143 | .111 | .156 | .123 | .096 | .107 | .085 | .067 | .061 | .050 | .039 | .020 | .016 | .013 | |
| 3.0 | .174 | .126 | .087 | .149 | .108 | .075 | .102 | .075 | .053 | .059 | .044 | .031 | .019 | .014 | .010 | |
| 4.0 | .167 | .112 | .071 | .143 | .097 | .061 | .098 | .068 | .043 | .057 | .040 | .026 | .018 | .013 | .008 | |
| 5.0 | .159 | .102 | .059 | .137 | .088 | .052 | .094 | .062 | .036 | .055 | .036 | .022 | .018 | .012 | .007 | |
| 6.0 | .152 | .093 | .051 | .131 | .081 | .045 | .090 | .057 | .032 | .052 | .033 | .019 | .017 | .011 | .006 | |
| 7.0 | .146 | .087 | .045 | .125 | .075 | .039 | .087 | .053 | .028 | .050 | .031 | .017 | .016 | .010 | .005 | |
| 8.0 | .140 | .081 | .041 | .120 | .070 | .035 | .083 | .049 | .025 | .048 | .029 | .015 | .016 | .010 | .005 | |
| 9.0 | .134 | .076 | .037 | .115 | .066 | .032 | .080 | .046 | .023 | .046 | .027 | .014 | .015 | .009 | .005 | |
| 10.0 | .128 | .072 | .034 | .110 | .062 | .030 | .077 | .044 | .021 | .045 | .026 | .013 | .014 | .009 | .004 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | | | | | |
|--|--|--|--|--|------------------|------|------|------|------|----------------|------|------|------|------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | | | | | | | | | | | | | |
| NAME: FDUFO-DS-100W-5K-120M-D | | | | | TYPE: | | | | | | | | | |
| MFR.: Factory Direct Lighting | | | | | | | | | | | | | | |
| 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 | | | | | 23.1 | 24.6 | 23.4 | 24.8 | 25.1 | 23.1 | 24.6 | 23.4 | 24.8 | 25.1 |
| 3H | | | | | 24.3 | 25.6 | 24.6 | 25.9 | 26.2 | 24.3 | 25.6 | 24.6 | 25.9 | 26.1 |
| 4H | | | | | 24.6 | 25.9 | 24.9 | 26.1 | 26.4 | 24.6 | 25.8 | 24.9 | 26.1 | 26.4 |
| 6H | | | | | 24.7 | 25.9 | 25.0 | 26.2 | 26.5 | 24.6 | 25.8 | 25.0 | 26.1 | 26.4 |
| 8H | | | | | 24.6 | 25.8 | 25.0 | 26.1 | 26.4 | 24.6 | 25.8 | 25.0 | 26.1 | 26.4 |
| 12H | | | | | 24.6 | 25.7 | 25.0 | 26.0 | 26.4 | 24.6 | 25.7 | 24.9 | 26.0 | 26.3 |
| 4H 2H | | | | | 23.7 | 24.9 | 24.0 | 25.2 | 25.5 | 23.6 | 24.9 | 24.0 | 25.2 | 25.5 |
| 3H | | | | | 24.9 | 26.1 | 25.3 | 26.4 | 26.7 | 24.9 | 26.0 | 25.3 | 26.4 | 26.7 |
| 4H | | | | | 25.3 | 26.3 | 25.7 | 26.7 | 27.0 | 25.3 | 26.3 | 25.7 | 26.6 | 27.0 |
| 6H | | | | | 25.4 | 26.3 | 25.9 | 26.7 | 27.1 | 25.4 | 26.3 | 25.8 | 26.7 | 27.1 |
| 8H | | | | | 25.4 | 26.3 | 25.9 | 26.7 | 27.1 | 25.4 | 26.2 | 25.9 | 26.6 | 27.1 |
| 12H | | | | | 25.4 | 26.2 | 25.9 | 26.6 | 27.0 | 25.4 | 26.1 | 25.8 | 26.6 | 27.0 |
| 8H 4H | | | | | 25.4 | 26.2 | 25.8 | 26.6 | 27.0 | 25.4 | 26.2 | 25.8 | 26.6 | 27.0 |
| 6H | | | | | 25.6 | 26.3 | 26.1 | 26.7 | 27.2 | 25.6 | 26.3 | 26.0 | 26.7 | 27.1 |
| 8H | | | | | 25.6 | 26.2 | 26.1 | 26.7 | 27.1 | 25.6 | 26.2 | 26.1 | 26.6 | 27.1 |
| 12H | | | | | 25.6 | 26.1 | 26.1 | 26.6 | 27.1 | 25.6 | 26.1 | 26.1 | 26.6 | 27.1 |
| 12H 4H | | | | | 25.4 | 26.1 | 25.8 | 26.5 | 27.0 | 25.3 | 26.1 | 25.8 | 26.5 | 27.0 |
| 6H | | | | | 25.6 | 26.2 | 26.1 | 26.6 | 27.1 | 25.6 | 26.2 | 26.0 | 26.6 | 27.1 |
| 8H | | | | | 25.6 | 26.1 | 26.1 | 26.6 | 27.1 | 25.6 | 26.1 | 26.1 | 26.6 | 27.1 |
| Variations with the observer position at spacings: | | | | | | | | | | | | | | |
| S = 1.0H | | | | | + 0.2 / - 0.3 | | | | | + 0.2 / - 0.3 | | | | |
| 1.5H | | | | | + 0.3 / - 0.5 | | | | | + 0.3 / - 0.5 | | | | |
| 2.0H | | | | | + 0.3 / - 0.4 | | | | | + 0.3 / - 0.4 | | | | |

CIE Pub.117, 14648 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 9.3)
 Area: 0.0176 m2

| | |
|-------------------------|--|
| C Range: 0 - 360DEG | γ Range: 0 - 180DEG |
| C Interval: 15.0DEG | γ Interval: 1.0DEG |
| Test Speed: HIGH | Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7 |
| Temperature:25.3DEG | Humidity:65.0% |
| Operators:C | Test Distance:8.000m [K=1.0125] |
| Test Date:10 April 2019 | Remarks: |

UTILIZATION FACTORS TABLE

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |

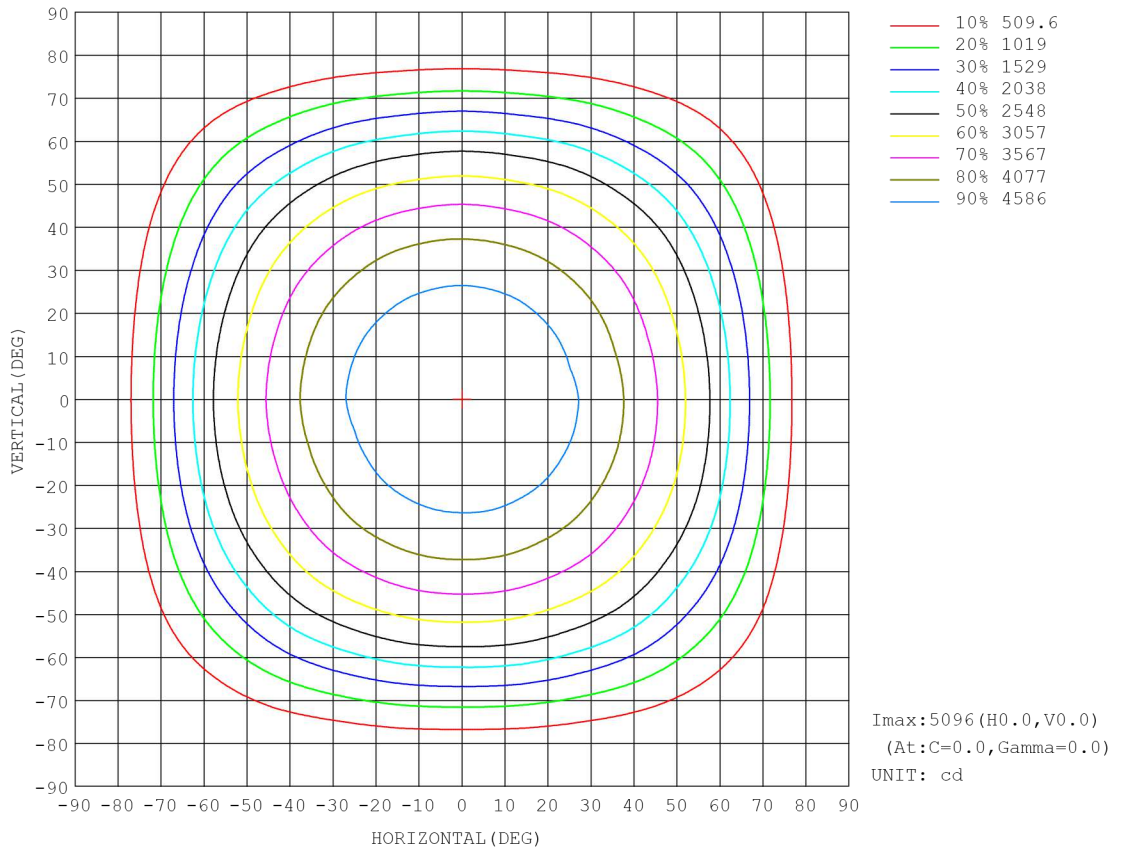
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|--|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 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 | 58 | 46 | 39 | 57 | 46 | 39 | 56 | 45 | 39 | 32 |
| 0.80 | 68 | 56 | 49 | 67 | 56 | 49 | 65 | 55 | 49 | 42 |
| 1.00 | 77 | 66 | 59 | 75 | 65 | 58 | 73 | 66 | 58 | 51 |
| 1.25 | 84 | 74 | 67 | 82 | 73 | 66 | 80 | 71 | 65 | 58 |
| 1.50 | 89 | 79 | 73 | 87 | 78 | 72 | 84 | 77 | 71 | 63 |
| 2.00 | 96 | 88 | 81 | 94 | 86 | 81 | 90 | 84 | 79 | 71 |
| 2.50 | 100 | 92 | 86 | 97 | 91 | 85 | 94 | 88 | 83 | 75 |
| 3.00 | 103 | 96 | 91 | 101 | 95 | 90 | 96 | 92 | 88 | 79 |
| 4.00 | 107 | 101 | 97 | 104 | 100 | 96 | 100 | 96 | 93 | 84 |
| 5.00 | 109 | 105 | 101 | 107 | 102 | 99 | 102 | 99 | 96 | 86 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | SHRNOM = 1.25 | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |

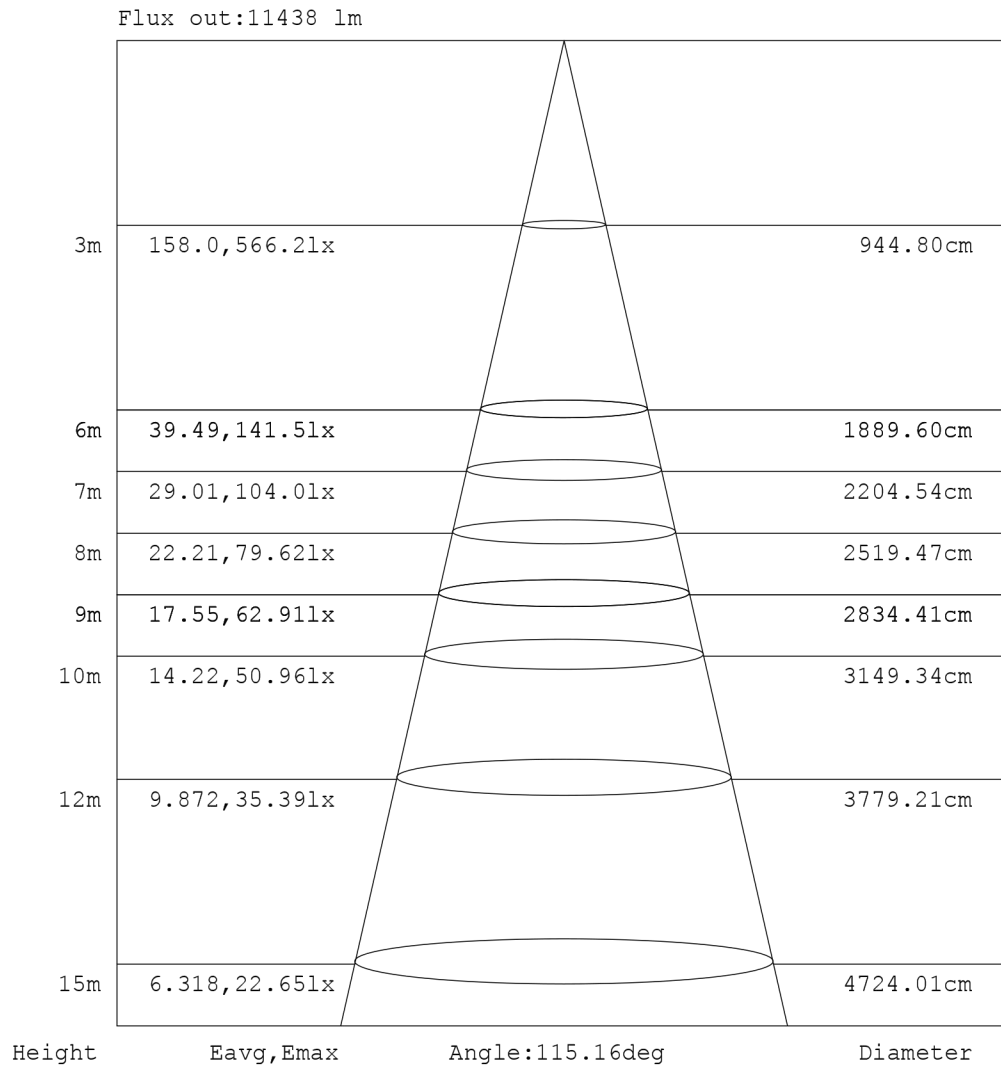


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

AAI Figure

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |



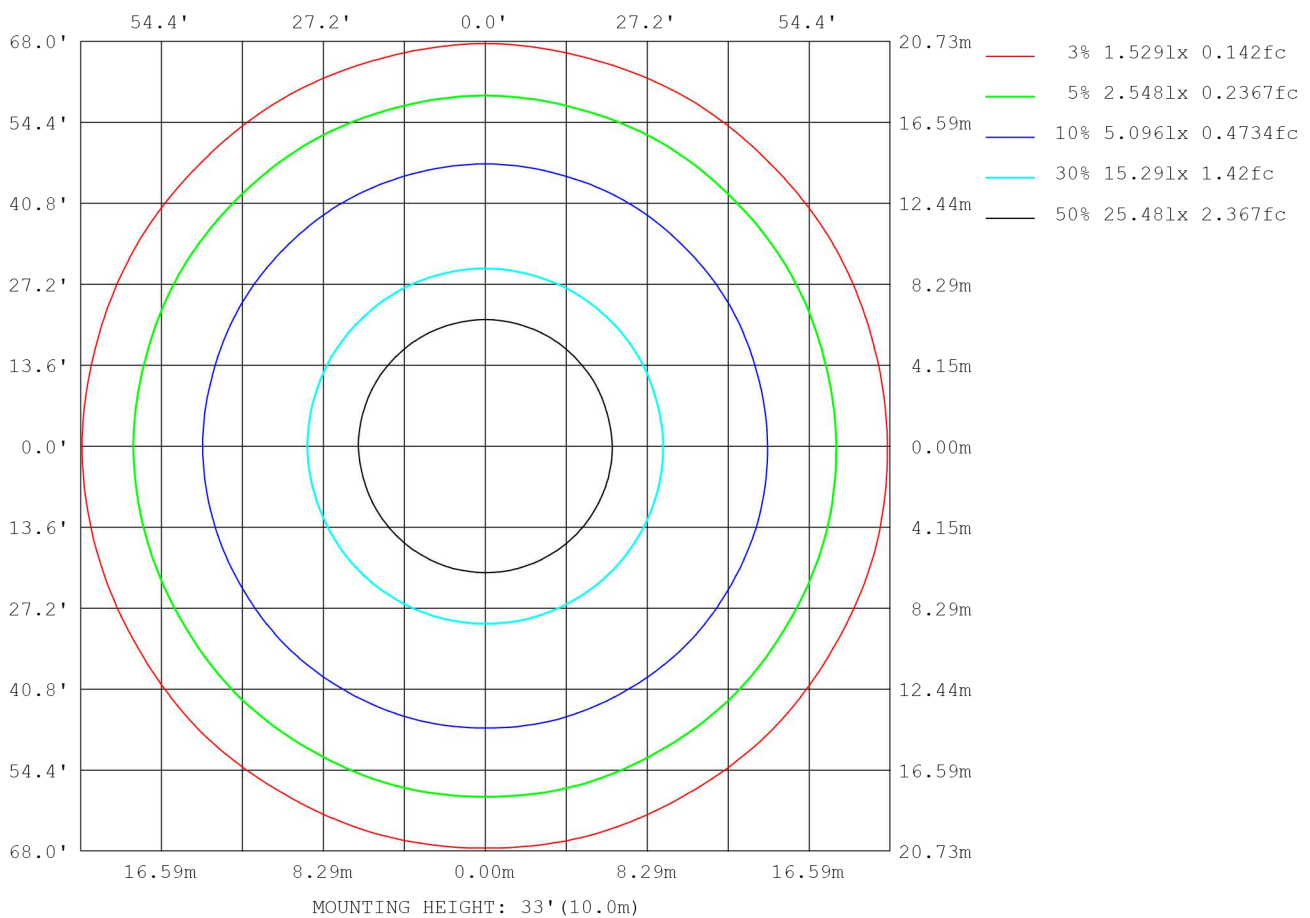
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: C
 Test Date: 10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0125]
 Remarks:

ISOLUX DIAGRAM

| | | |
|--|-------|--|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: FDUFO-DS-100W-5K-120M-D | TYPE: | |
| MFR.: Factory Direct Lighting | | |
| | | |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

LED Avg.L Report

| | | |
|--|-------|--|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: FDUFO-DS-100W-5K-120M-D | TYPE: | |
| MFR.: Factory Direct Lighting | | |
| | | |

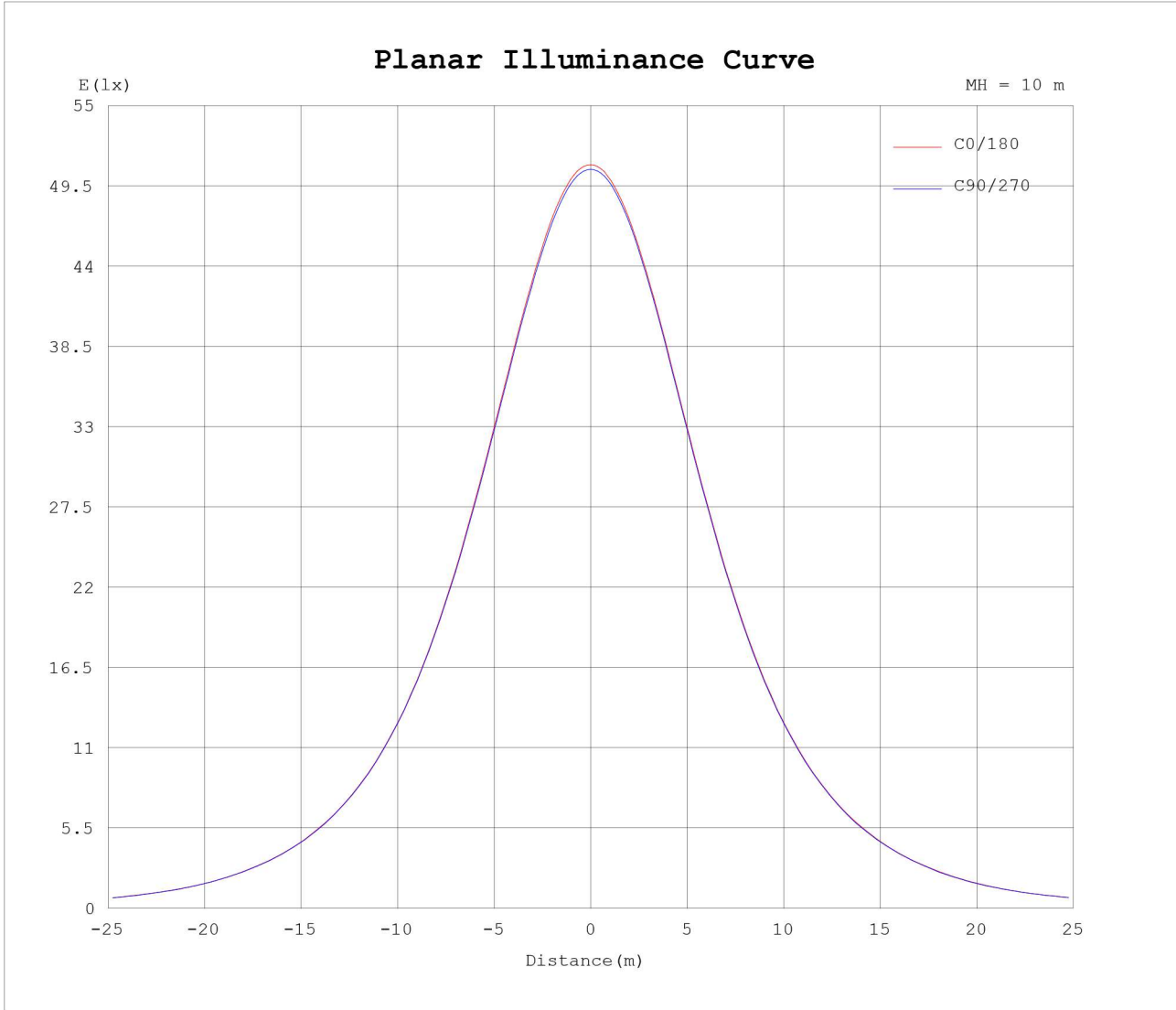
| AvgL | cd/m2 |
|------------------|--------|
| L_0~180 (65) av | 234461 |
| L_0~180 (75) av | 148004 |
| L_0~180 (85) av | 36417 |
| L_90~270 (65) av | 233082 |
| L_90~270 (75) av | 146541 |
| L_90~270 (85) av | 36487 |
| L_45 (65) av | 233272 |
| L_45 (75) av | 147056 |
| L_45 (85) av | 36218 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: C
 Test Date: 10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0125]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |

Table--1 UNIT: cd

| C (DEG) γ (DEG) | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 | 195 | 210 | 225 | 240 | 255 | 270 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0 | 5096 | 5088 | 5081 | 5077 | 5072 | 5070 | 5066 | 5062 | 5061 | 5058 | 5057 | 5053 | 5096 | 5088 | 5081 | 5077 | 5072 | 5070 | 5066 |
| 5 | 5083 | 5076 | 5069 | 5064 | 5061 | 5055 | 5050 | 5047 | 5043 | 5043 | 5037 | 5037 | 5078 | 5070 | 5066 | 5059 | 5056 | 5053 | 5051 |
| 10 | 5034 | 5027 | 5019 | 5015 | 5010 | 5005 | 5000 | 4998 | 4992 | 4990 | 4986 | 4983 | 5026 | 5018 | 5013 | 5008 | 5005 | 5002 | 5000 |
| 15 | 4948 | 4942 | 4933 | 4929 | 4925 | 4921 | 4916 | 4913 | 4907 | 4905 | 4899 | 4899 | 4940 | 4931 | 4927 | 4922 | 4921 | 4917 | 4916 |
| 20 | 4826 | 4820 | 4810 | 4808 | 4804 | 4802 | 4797 | 4796 | 4787 | 4786 | 4779 | 4781 | 4818 | 4810 | 4807 | 4801 | 4801 | 4796 | 4799 |
| 25 | 4667 | 4661 | 4652 | 4650 | 4644 | 4645 | 4638 | 4635 | 4629 | 4628 | 4619 | 4623 | 4660 | 4651 | 4650 | 4641 | 4642 | 4637 | 4641 |
| 30 | 4468 | 4464 | 4454 | 4454 | 4446 | 4447 | 4440 | 4441 | 4433 | 4431 | 4422 | 4426 | 4465 | 4455 | 4452 | 4444 | 4445 | 4440 | 4443 |
| 35 | 4223 | 4222 | 4214 | 4214 | 4206 | 4210 | 4200 | 4205 | 4194 | 4196 | 4184 | 4189 | 4223 | 4213 | 4216 | 4204 | 4207 | 4198 | 4201 |
| 40 | 3935 | 3938 | 3928 | 3931 | 3920 | 3926 | 3917 | 3921 | 3909 | 3913 | 3901 | 3906 | 3938 | 3923 | 3928 | 3916 | 3923 | 3911 | 3914 |
| 45 | 3603 | 3609 | 3599 | 3605 | 3594 | 3600 | 3590 | 3594 | 3581 | 3587 | 3575 | 3581 | 3608 | 3591 | 3597 | 3586 | 3592 | 3583 | 3588 |
| 50 | 3221 | 3233 | 3222 | 3227 | 3213 | 3223 | 3208 | 3217 | 3205 | 3212 | 3197 | 3207 | 3231 | 3213 | 3220 | 3207 | 3214 | 3203 | 3211 |
| 55 | 2797 | 2813 | 2794 | 2808 | 2788 | 2805 | 2783 | 2794 | 2781 | 2794 | 2774 | 2791 | 2812 | 2787 | 2799 | 2783 | 2795 | 2776 | 2794 |
| 60 | 2322 | 2338 | 2317 | 2335 | 2317 | 2330 | 2308 | 2319 | 2304 | 2322 | 2299 | 2317 | 2337 | 2314 | 2324 | 2304 | 2319 | 2297 | 2314 |
| 65 | 1734 | 1755 | 1737 | 1756 | 1732 | 1747 | 1726 | 1741 | 1727 | 1749 | 1725 | 1738 | 1754 | 1727 | 1741 | 1719 | 1737 | 1718 | 1741 |
| 70 | 1208 | 1208 | 1193 | 1208 | 1190 | 1200 | 1185 | 1197 | 1189 | 1199 | 1187 | 1195 | 1209 | 1195 | 1203 | 1186 | 1198 | 1186 | 1197 |
| 75 | 667 | 680 | 671 | 679 | 666 | 678 | 664 | 675 | 661 | 675 | 661 | 678 | 682 | 670 | 675 | 663 | 668 | 662 | 671 |
| 80 | 262 | 278 | 263 | 275 | 261 | 278 | 262 | 275 | 259 | 273 | 263 | 277 | 281 | 263 | 277 | 260 | 274 | 258 | 274 |
| 85 | 53.8 | 56.6 | 54.1 | 56.5 | 54.3 | 57.2 | 54.8 | 56.8 | 53.9 | 57.0 | 54.6 | 57.3 | 57.9 | 54.9 | 58.1 | 55.2 | 57.4 | 54.6 | 57.1 |
| 90 | 6.24 | 6.14 | 6.20 | 6.12 | 6.17 | 6.11 | 6.18 | 6.11 | 6.20 | 6.15 | 6.23 | 6.20 | 4.48 | 4.37 | 4.40 | 4.36 | 4.37 | 4.34 | 4.38 |
| 95 | 9.43 | 9.31 | 9.37 | 9.25 | 9.33 | 9.24 | 9.35 | 9.25 | 9.37 | 9.29 | 9.40 | 9.31 | 7.15 | 7.22 | 7.18 | 7.25 | 7.18 | 7.23 | 7.16 |
| 100 | 13.7 | 13.5 | 13.6 | 13.4 | 13.6 | 13.4 | 13.6 | 13.5 | 13.6 | 13.5 | 13.7 | 13.5 | 11.1 | 11.2 | 11.1 | 11.3 | 11.1 | 11.2 | 11.1 |
| 105 | 18.8 | 18.6 | 18.7 | 18.5 | 18.6 | 18.5 | 18.7 | 18.5 | 18.7 | 18.5 | 18.8 | 18.6 | 15.9 | 16.1 | 16.0 | 16.2 | 16.0 | 16.2 | 16.0 |
| 110 | 24.3 | 24.1 | 24.2 | 23.9 | 24.1 | 23.9 | 24.1 | 24.0 | 24.2 | 24.0 | 24.2 | 24.1 | 21.3 | 21.5 | 21.5 | 21.7 | 21.5 | 21.7 | 21.5 |
| 115 | 29.8 | 29.5 | 29.6 | 29.4 | 29.6 | 29.3 | 29.6 | 29.4 | 29.6 | 29.5 | 29.7 | 29.6 | 27.1 | 27.1 | 26.6 | 27.2 | 27.1 | 27.2 | 27.1 |
| 120 | 35.2 | 34.9 | 35.0 | 34.8 | 34.9 | 34.7 | 34.9 | 34.8 | 35.0 | 34.9 | 35.1 | 35.0 | 32.6 | 32.7 | 32.4 | 32.3 | 32.1 | 32.6 | 32.5 |
| 125 | 40.0 | 39.8 | 39.8 | 39.6 | 39.7 | 39.6 | 39.7 | 39.6 | 39.8 | 39.7 | 39.9 | 39.8 | 37.8 | 38.0 | 37.8 | 37.8 | 37.5 | 37.0 | 37.6 |
| 130 | 44.2 | 44.0 | 44.0 | 43.8 | 43.9 | 43.8 | 44.0 | 43.9 | 44.0 | 43.9 | 44.1 | 44.0 | 42.8 | 42.8 | 42.7 | 42.7 | 42.5 | 42.5 | 42.0 |
| 135 | 48.2 | 48.0 | 47.9 | 47.8 | 47.8 | 47.8 | 47.9 | 47.8 | 48.0 | 47.9 | 48.0 | 48.0 | 47.2 | 47.2 | 47.1 | 47.2 | 47.1 | 47.0 | 46.9 |
| 140 | 51.7 | 51.5 | 51.4 | 51.3 | 51.3 | 51.3 | 51.4 | 51.4 | 51.5 | 51.5 | 51.6 | 51.5 | 51.3 | 51.2 | 51.2 | 51.2 | 51.1 | 51.0 | 51.0 |
| 145 | 54.8 | 54.6 | 54.5 | 54.4 | 54.4 | 54.4 | 54.6 | 54.5 | 54.6 | 54.6 | 54.7 | 54.6 | 54.9 | 54.8 | 54.8 | 54.8 | 54.8 | 54.7 | 54.6 |
| 150 | 57.6 | 57.5 | 57.4 | 57.2 | 57.3 | 57.3 | 57.4 | 57.4 | 57.5 | 57.4 | 57.5 | 57.4 | 58.2 | 58.1 | 58.1 | 58.1 | 58.1 | 58.1 | 57.9 |
| 155 | 60.8 | 60.6 | 60.5 | 60.4 | 60.5 | 60.5 | 60.6 | 60.5 | 60.6 | 60.6 | 60.6 | 60.5 | 62.0 | 61.8 | 61.8 | 61.8 | 61.8 | 61.8 | 61.7 |
| 160 | 62.9 | 62.8 | 62.7 | 62.6 | 62.6 | 62.7 | 62.7 | 62.7 | 62.8 | 62.7 | 62.8 | 62.7 | 62.0 | 61.8 | 61.8 | 61.8 | 61.9 | 61.8 | 61.8 |
| 165 | 64.8 | 64.7 | 64.6 | 64.6 | 64.6 | 64.6 | 64.7 | 64.7 | 64.7 | 64.7 | 64.7 | 64.6 | 62.6 | 62.6 | 62.6 | 62.6 | 62.6 | 62.6 | 62.5 |
| 170 | 71.6 | 72.3 | 71.5 | 72.2 | 73.0 | 73.2 | 73.3 | 73.4 | 73.3 | 73.3 | 73.3 | 73.5 | 64.0 | 64.0 | 64.3 | 64.4 | 64.5 | 64.4 | 64.4 |
| 175 | 70.8 | 70.7 | 70.8 | 72.2 | 72.0 | 72.4 | 72.7 | 72.9 | 72.9 | 73.0 | 73.1 | 73.1 | 66.0 | 65.6 | 65.7 | 66.0 | 66.5 | 66.5 | 66.5 |
| 180 | 67.1 | 67.0 | 68.3 | 68.2 | 68.6 | 69.2 | 69.2 | 69.2 | 69.3 | 69.3 | 69.3 | 69.2 | 67.2 | 67.0 | 68.3 | 68.1 | 68.6 | 69.1 | 69.2 |

| | |
|-------------------------|--|
| C Range: 0 - 360DEG | γ Range: 0 - 180DEG |
| C Interval: 15.0DEG | γ Interval: 1.0DEG |
| Test Speed: HIGH | Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7 |
| Temperature:25.3DEG | Humidity:65.0% |
| Operators:C | Test Distance:8.000m [K=1.0125] |
| Test Date:10 April 2019 | Remarks: |

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|--|-------------------------|-------|
| Test:U:222.38V I:0.4352A P:98.024W PF:0.9874 Freq:49.96Hz Lamp Flux:14648.4x1 lm | | |
| NAME: | FDUFO-DS-100W-5K-120M-D | TYPE: |
| MFR.: | Factory Direct Lighting | |
| | | |

Table--2

UNIT: cd

| C (DEG) γ (DEG) | 285 | 300 | 315 | 330 | 345 | | | | | | | | | | | | | | |
|--------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 5062 | 5061 | 5058 | 5057 | 5053 | | | | | | | | | | | | | | |
| 5 | 5048 | 5048 | 5045 | 5042 | 5041 | | | | | | | | | | | | | | |
| 10 | 4998 | 5000 | 4998 | 4995 | 4992 | | | | | | | | | | | | | | |
| 15 | 4914 | 4914 | 4911 | 4912 | 4907 | | | | | | | | | | | | | | |
| 20 | 4795 | 4795 | 4790 | 4791 | 4787 | | | | | | | | | | | | | | |
| 25 | 4635 | 4636 | 4631 | 4631 | 4626 | | | | | | | | | | | | | | |
| 30 | 4436 | 4438 | 4432 | 4432 | 4428 | | | | | | | | | | | | | | |
| 35 | 4192 | 4196 | 4189 | 4195 | 4188 | | | | | | | | | | | | | | |
| 40 | 3904 | 3911 | 3903 | 3910 | 3901 | | | | | | | | | | | | | | |
| 45 | 3576 | 3584 | 3574 | 3583 | 3572 | | | | | | | | | | | | | | |
| 50 | 3198 | 3211 | 3198 | 3207 | 3195 | | | | | | | | | | | | | | |
| 55 | 2774 | 2794 | 2775 | 2790 | 2772 | | | | | | | | | | | | | | |
| 60 | 2295 | 2320 | 2298 | 2317 | 2299 | | | | | | | | | | | | | | |
| 65 | 1716 | 1737 | 1716 | 1737 | 1720 | | | | | | | | | | | | | | |
| 70 | 1187 | 1200 | 1184 | 1201 | 1190 | | | | | | | | | | | | | | |
| 75 | 663 | 673 | 662 | 669 | 661 | | | | | | | | | | | | | | |
| 80 | 259 | 275 | 260 | 276 | 260 | | | | | | | | | | | | | | |
| 85 | 54.0 | 56.3 | 53.5 | 56.0 | 54.1 | | | | | | | | | | | | | | |
| 90 | 4.33 | 4.36 | 4.32 | 4.35 | 4.32 | | | | | | | | | | | | | | |
| 95 | 7.21 | 7.15 | 7.21 | 7.15 | 7.20 | | | | | | | | | | | | | | |
| 100 | 11.2 | 11.1 | 11.2 | 11.1 | 11.2 | | | | | | | | | | | | | | |
| 105 | 16.2 | 16.0 | 16.2 | 16.0 | 16.2 | | | | | | | | | | | | | | |
| 110 | 21.6 | 21.5 | 21.7 | 21.6 | 21.7 | | | | | | | | | | | | | | |
| 115 | 27.2 | 27.0 | 27.3 | 27.1 | 27.3 | | | | | | | | | | | | | | |
| 120 | 32.7 | 32.5 | 32.7 | 32.6 | 32.7 | | | | | | | | | | | | | | |
| 125 | 37.8 | 37.7 | 38.0 | 37.9 | 38.0 | | | | | | | | | | | | | | |
| 130 | 41.8 | 41.6 | 42.1 | 42.6 | 42.9 | | | | | | | | | | | | | | |
| 135 | 46.9 | 46.7 | 46.8 | 46.4 | 46.2 | | | | | | | | | | | | | | |
| 140 | 51.0 | 50.9 | 50.9 | 50.8 | 50.8 | | | | | | | | | | | | | | |
| 145 | 54.6 | 54.6 | 54.7 | 54.6 | 54.6 | | | | | | | | | | | | | | |
| 150 | 58.0 | 57.9 | 58.0 | 58.0 | 58.0 | | | | | | | | | | | | | | |
| 155 | 61.7 | 61.7 | 61.8 | 61.8 | 61.8 | | | | | | | | | | | | | | |
| 160 | 61.7 | 61.8 | 61.8 | 61.8 | 61.8 | | | | | | | | | | | | | | |
| 165 | 62.5 | 62.6 | 62.6 | 62.6 | 62.6 | | | | | | | | | | | | | | |
| 170 | 64.4 | 64.4 | 64.4 | 64.5 | 64.5 | | | | | | | | | | | | | | |
| 175 | 66.5 | 66.5 | 66.5 | 66.5 | 66.5 | | | | | | | | | | | | | | |
| 180 | 69.2 | 69.2 | 69.2 | 69.3 | 69.2 | | | | | | | | | | | | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:C
 Test Date:10 April 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.000m [K=1.0125]
 Remarks: