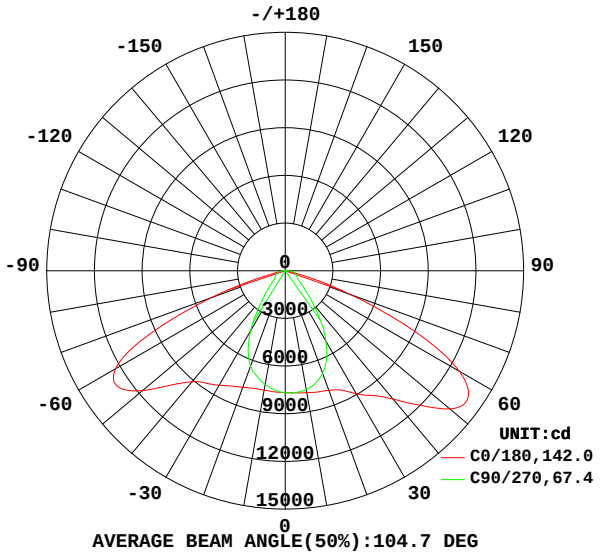
# STREETLIGHT PHOTOMETRIC TEST REPORT

| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |

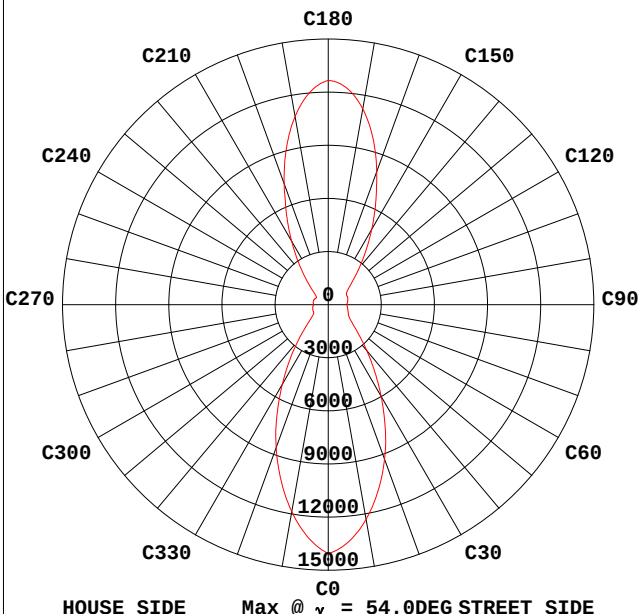
| DATA OF LAMP | | PHOTOMETRIC DATA | | Eff: 172.8lm/W | |
|---|---|---|---|---|---|
| MODEL | JKC-ZC-50W | Imax(cd) | 5763 | η street_up(%) | 0.2 |
| NOMINAL POWER(W) | 50 | LOR(%) | 100.0 | η street_down(%) | 52.4 |
| RATED VOLTAGE(V) | 36 | TOTAL FLUX(lm) | 8641 | η house_up(%) | 0.2 |
| NOMINAL FLUX(lm) | 8641 | MAXIMUM @(C,γ ) | 0,54.0 | η house_down(%) | 47.2 |
| LAMPS INSIDE | 1 | η up(%) | 0.5 | 76 FLASHAREA(m2) | 0.05000 |
| TEST VOLTAGE(V) | 36 | η down(%) | 99.5 | SLI | 21.768 |

INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS




AVERAGE BEAM ANGLE(50%):104.7 DEG

MAX INTENSITY CONE SURFACE
DISTRIBUTION DIAGRAM



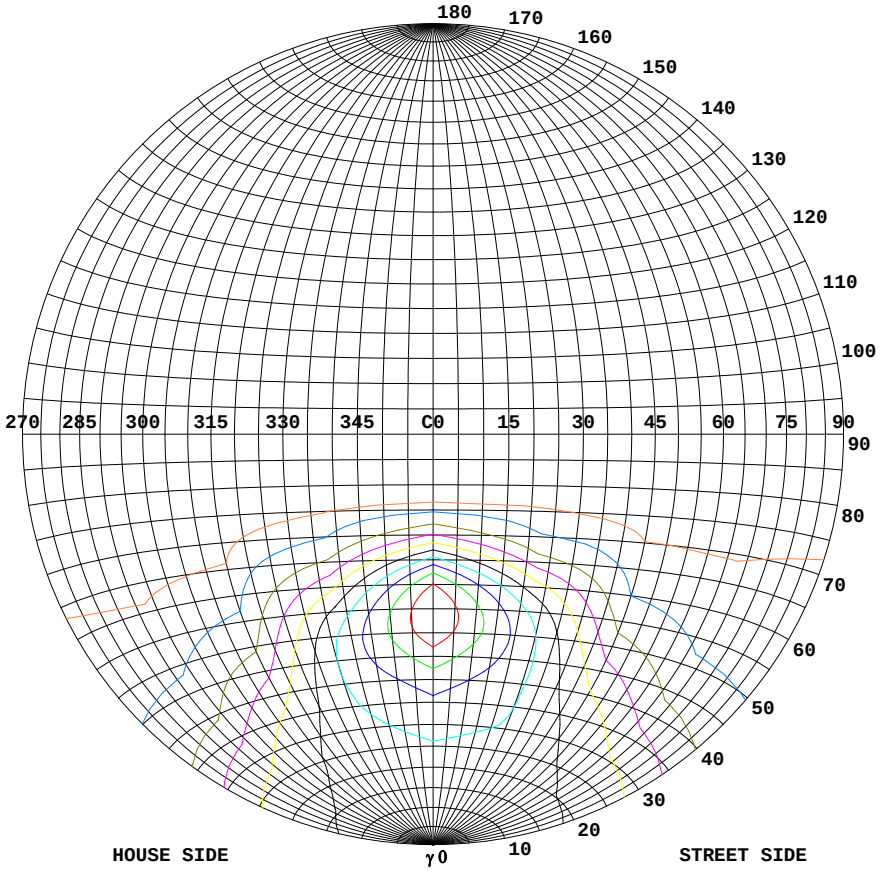

HOUSE SIDE Max @ γ = 54.0DEG STREET SIDE

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# STREETLIGHT ISOCANDELA DIAGRAM

| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |




Classification:

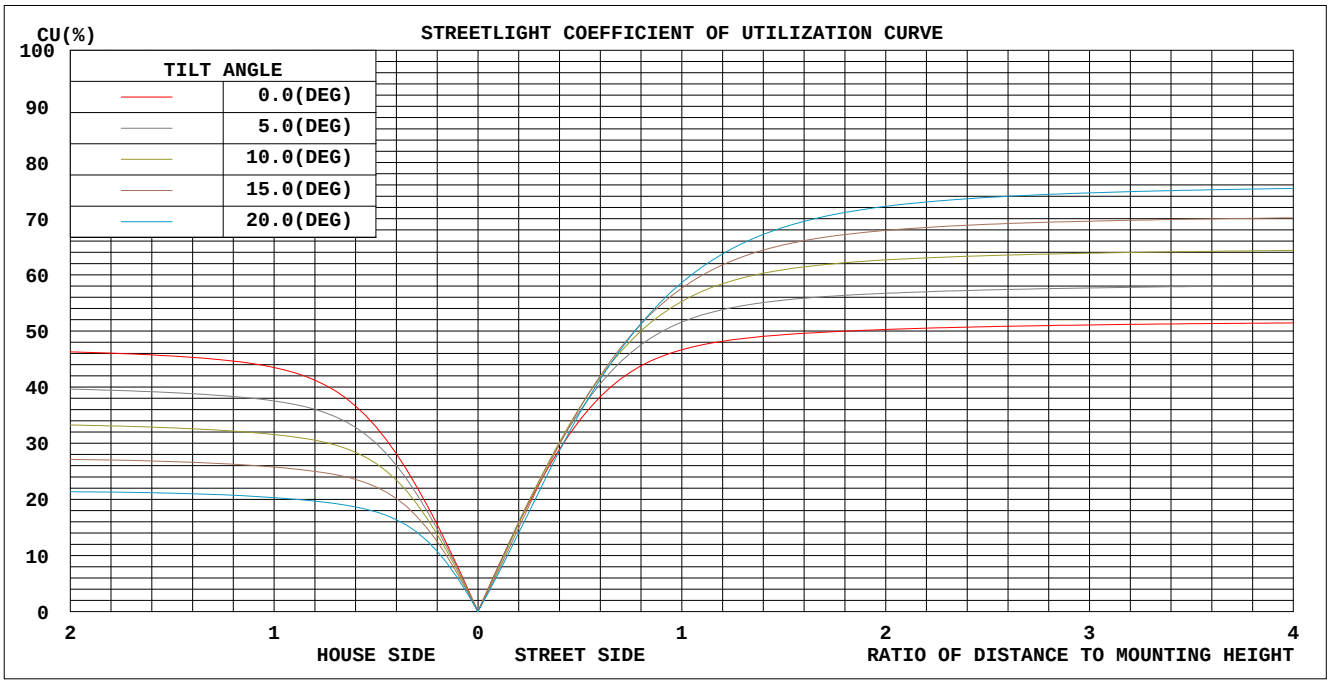
IES:Type I - Short
CIE:Narrow - Short
IES:Cut-off
CIE:Full cut-off
Max.At80:10.83cd/klm
Max.At90:1.377cd/klm
Max.80-90:10.83cd/klm

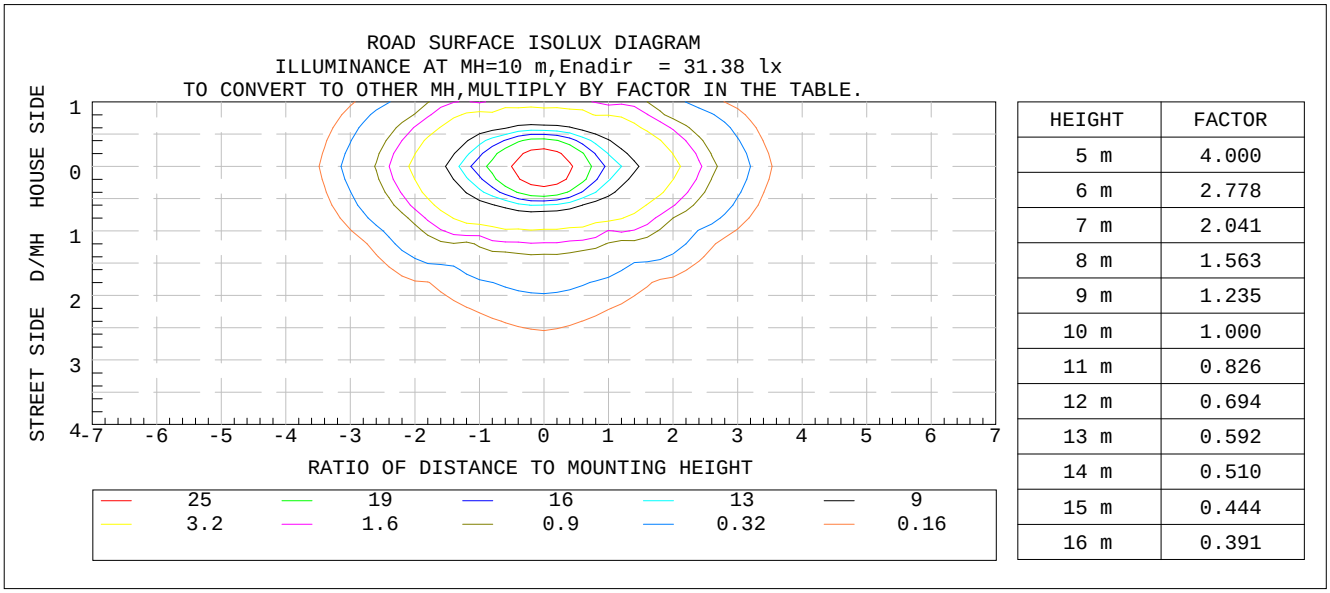
| ISOCANDELA DIAGRAM | |
|---|---|
| UNIT | cd |
| Imax=100% | 5763 |
| 90% | 5186 |
| 80% | 4610 |
| 70% | 4034 |
| 60% | 3458 |
| 50% | 2881 |
| 40% | 2305 |
| 30% | 1729 |
| 20% | 1153 |
| 10% | 576 |
| 5% | 288 |

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM




| HEIGHT | FACTOR |
|---|---|
| 5 m | 4.000 |
| 6 m | 2.778 |
| 7 m | 2.041 |
| 8 m | 1.563 |
| 9 m | 1.235 |
| 10 m | 1.000 |
| 11 m | 0.826 |
| 12 m | 0.694 |
| 13 m | 0.592 |
| 14 m | 0.510 |
| 15 m | 0.444 |
| 16 m | 0.391 |

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# ZONAL FLUX DIAGRAM

| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |

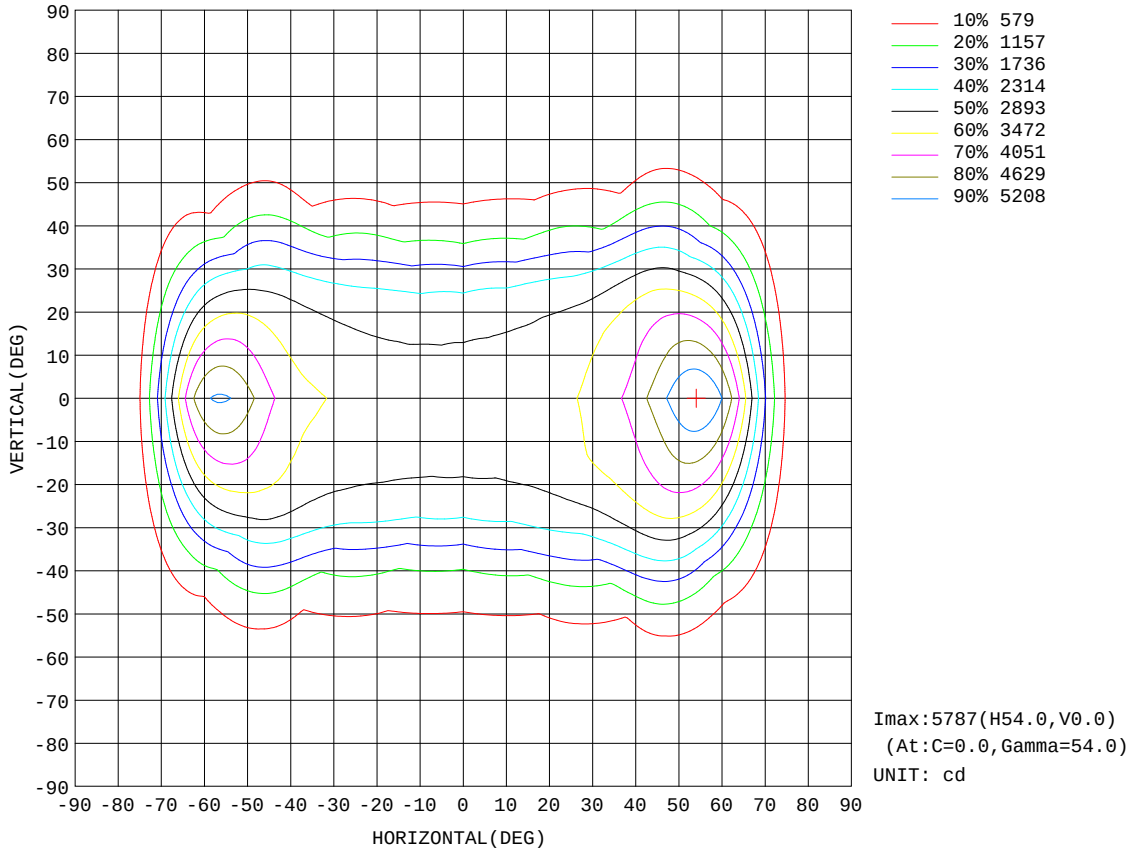
| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum,lamp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 319.2 | 315.2 | 311.4 | 313.7 | 312.9 | 303.2 | 298.2 | 308.4 | 0- 10 | 298.3 | 298.3 | 3.45,3.45 |
| 20 | 328.4 | 307.3 | 281.3 | 304.0 | 320.0 | 284.1 | 261.9 | 296.8 | 10- 20 | 862 | 1160 | 13.4,13.4 |
| 30 | 366.3 | 288.8 | 210.1 | 277.7 | 340.8 | 253.8 | 178.9 | 276.0 | 20- 30 | 1324 | 2484 | 28.7,28.7 |
| 40 | 432 | 237.0 | 112.7 | 215.2 | 374.0 | 187.5 | 82.7 | 208.9 | 30- 40 | 1585 | 4069 | 47.1,47.1 |
| 50 | 555 | 143.4 | 55.9 | 117.6 | 481 | 88.1 | 40.14 | 106.4 | 40- 50 | 1655 | 5724 | 66.2,66.2 |
| 60 | 519 | 57.3 | 35.60 | 51.1 | 506 | 34.33 | 30.35 | 44.0 | 50- 60 | 1549 | 7273 | 84.1,84.1 |
| 70 | 176.5 | 29.07 | 30.86 | 26.45 | 202.5 | 20.96 | 24.43 | 23.94 | 60- 70 | 951 | 8224 | 95.1,95.1 |
| 80 | 14.27 | 16.83 | 22.83 | 15.31 | 17.15 | 10.38 | 14.62 | 11.68 | 70- 80 | 304.5 | 8528 | 98.7,98.7 |
| 90 | 0.1801 | 1.066 | 3.109 | 0.508 | 0.465 | 0.0640 | 0.0893 | 0.0616 | 80- 90 | 75.2 | 8604 | 99.5,99.5 |
| 100 | 0.1739 | 0.0863 | 0.1510 | 0.0735 | 0.2520 | 0.1189 | 0.1235 | 0.1047 | 90-100 | 1.415 | 8605 | 99.5,99.5 |
| 110 | 0.416 | 0.1945 | 1.175 | 0.1967 | 0.650 | 0.3205 | 0.596 | 0.2497 | 100-110 | 2.617 | 8608 | 99.6,99.6 |
| 120 | 0.633 | 0.3863 | 2.021 | 0.3875 | 0.912 | 0.677 | 0.929 | 0.483 | 110-120 | 5.49 | 8613 | 99.6,99.6 |
| 130 | 0.897 | 0.656 | 1.330 | 0.659 | 0.927 | 0.984 | 1.648 | 0.734 | 120-130 | 7.45 | 8621 | 99.7,99.7 |
| 140 | 0.998 | 0.898 | 1.434 | 0.896 | 0.845 | 1.110 | 2.051 | 0.890 | 130-140 | 8.19 | 8629 | 99.8,99.8 |
| 150 | 0.983 | 1.206 | 1.070 | 1.148 | 0.842 | 1.105 | 1.494 | 0.915 | 140-150 | 7.00 | 8636 | 99.9,99.9 |
| 160 | 0.940 | 1.069 | 1.042 | 0.976 | 0.873 | 0.995 | 1.120 | 1.029 | 150-160 | 4.99 | 8641 | 100,100 |
| 170 | 0.973 | 1.092 | 1.234 | 0.945 | 0.894 | 0.935 | 1.308 | 1.078 | 160-170 | 2.895 | 8644 | 100,100 |
| 180 | 1.038 | 1.140 | 1.286 | 0.939 | 1.019 | 1.066 | 1.298 | 1.087 | 170-180 | 1.014 | 8645 | 100,100 |
| DEG | LUMINOUS INTENSITY:×10cd | | | | | | | | | UNIT:lm | | |

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# ISOCANDELA DIAGRAM

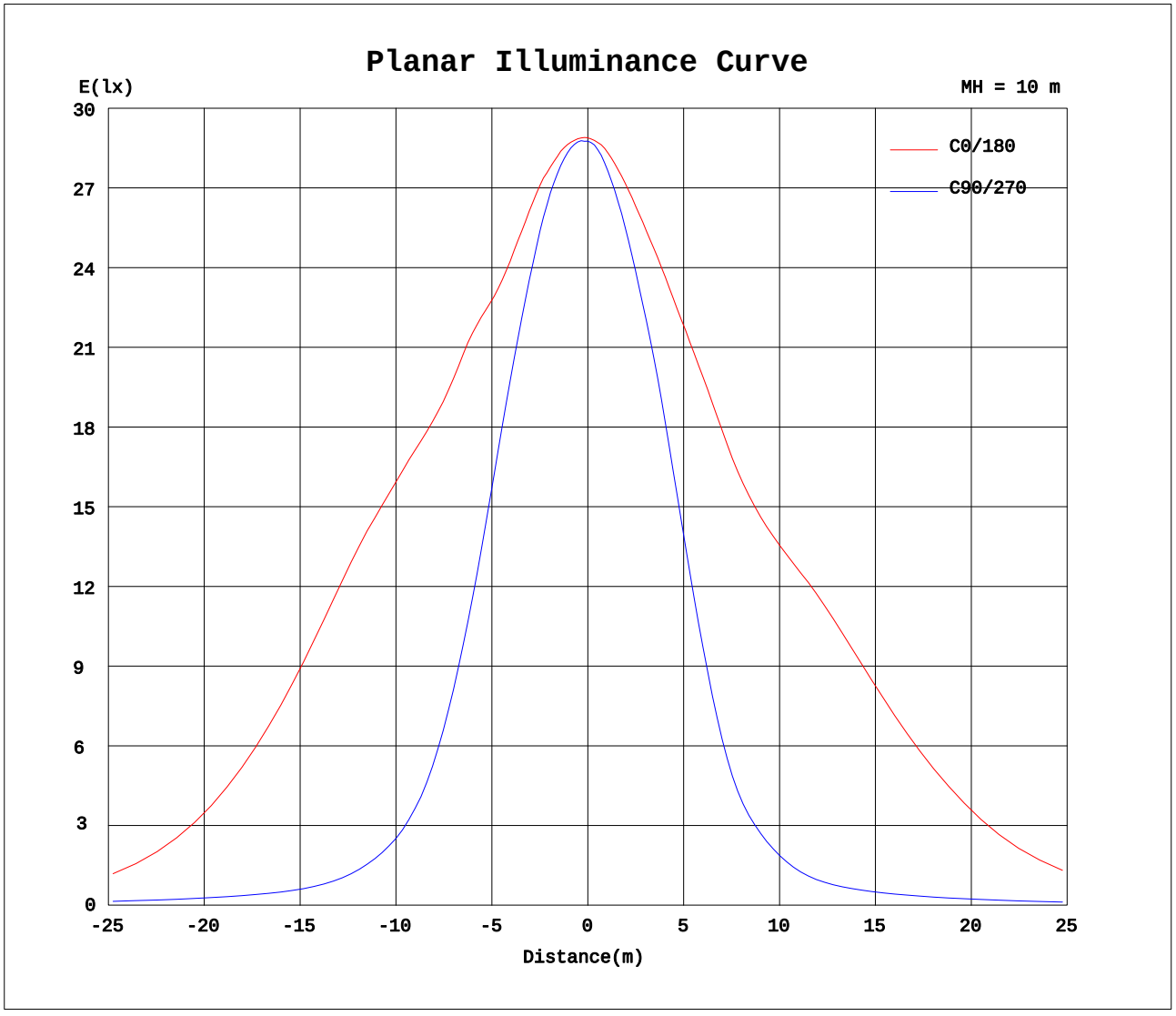
| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |




C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# Planar Illuminance Curve



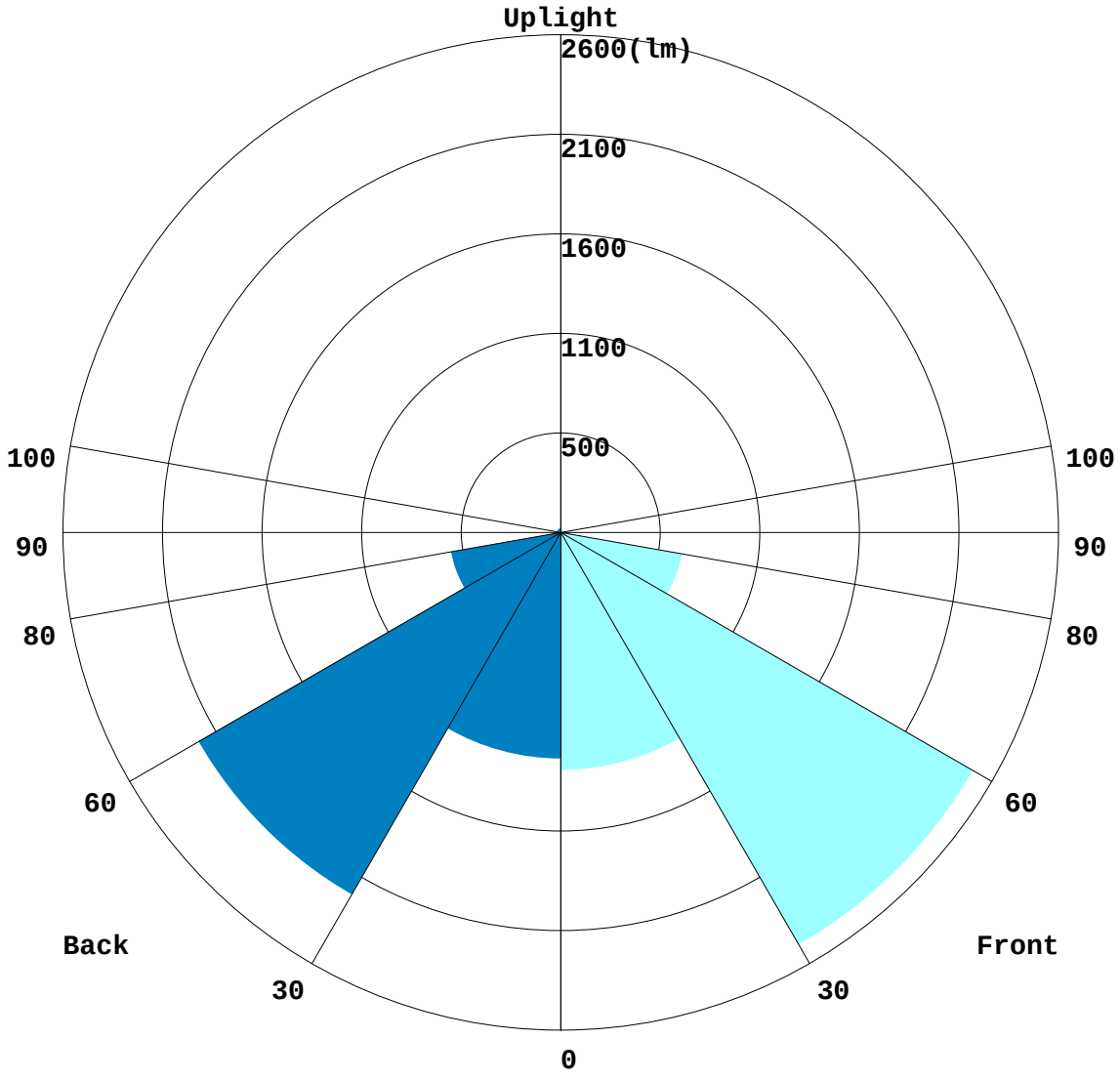

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# LCS REPORT

| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |

## LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH




C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# BUG REPORT

| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |

**IESNA Luminaire Flux Distribution Table:**

| Zone | Lumens | Luminaire % |
|---|---|---|
| FL - Front-Low(0-30) | 1272.8 | 14.7 |
| FM - Front-Medium(30-60) | 2549.3 | 29.5 |
| FH - Front-High(60-80) | 659.4 | 7.6 |
| FVH - Front-Very High(80-90) | 45.9 | 0.5 |
| Total Forward Light | 4547.3 | 52.6 |

| | | |
|---|---|---|
| BL - Back-Low(0-30) | 1211.4 | 14.0 |
| BM - Back-Medium(30-60) | 2239.4 | 25.9 |
| BH - Back-High(60-80) | 596.1 | 6.9 |
| BVH - Back-Very High(80-90) | 29.3 | 0.3 |
| Total Back Light | 4097.6 | 47.4 |

| | | |
|---|---|---|
| UL - Uplight-Low(90-100) | 1.4 | 0.0 |
| UH - Uplight-High(100-180) | 39.6 | 0.5 |
| Total Up Light | 41.1 | 0.5 |

| | |
|---|---|
| BUG(Back,Up,Glare) Rating | B4-U3-G3 |

| Zone | Downward Lumens | Upward Lumens | Total Lumens |
|---|---|---|---|
| House Side | 4076.3 | 21.3 | 4097.6 |
| Street Side | 4527.6 | 19.7 | 4547.3 |

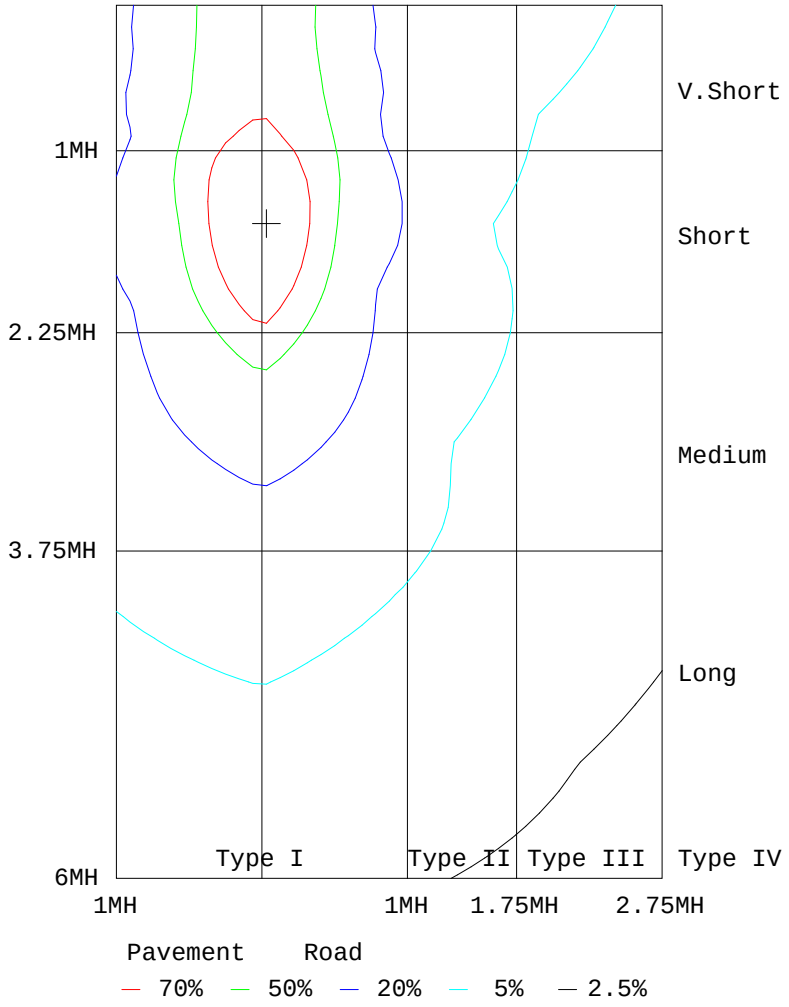
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# ROAD ISOCANDELA REPORT

| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |

ROAD SURFACE ISOCANDELA DIAGRAM




C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|---|---|
| Test:U:0V I:0A P:50.0W PF:0 Freq:0Hz Lamp Flux:8641x1 lm | | |
| NAME: Solar Light | TYPE:LED | WEIGHT:N/A |
| SPEC.:N/A | DIM.: | SERIAL No.:N/A |
| MFR.: Shenzhen Beatles Energy Technology Co.,Ltd. | SUR.: | Shielding Angle:N/A |

Table--1 UNIT: ×10cd

| C (DEG) / γ (DEG) | 0 | 22.5 | 45 | 67.5 | 90 | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | | | |
| 5 | 317 | 316 | 316 | 316 | 315 | 315 | 314 | 314 | 314 | 313 | 311 | 310 | 309 | 310 | 313 | 314 | | | |
| 10 | 319 | 319 | 315 | 313 | 312 | 312 | 314 | 315 | 313 | 310 | 303 | 298 | 298 | 302 | 308 | 316 | | | |
| 15 | 324 | 320 | 312 | 304 | 301 | 304 | 311 | 316 | 314 | 306 | 294 | 284 | 282 | 290 | 303 | 315 | | | |
| 20 | 328 | 323 | 308 | 289 | 281 | 288 | 304 | 319 | 320 | 304 | 284 | 266 | 262 | 276 | 297 | 315 | | | |
| 25 | 340 | 329 | 299 | 268 | 252 | 264 | 294 | 321 | 328 | 304 | 272 | 239 | 227 | 249 | 290 | 321 | | | |
| 30 | 367 | 343 | 289 | 235 | 210 | 227 | 278 | 326 | 341 | 307 | 254 | 199 | 179 | 210 | 276 | 334 | | | |
| 35 | 393 | 355 | 269 | 194 | 162 | 182 | 253 | 328 | 354 | 310 | 226 | 150 | 125 | 159 | 248 | 347 | | | |
| 40 | 432 | 364 | 237 | 146 | 113 | 132 | 215 | 332 | 374 | 311 | 187 | 101 | 83 | 107 | 209 | 361 | | | |
| 45 | 491 | 374 | 195 | 101 | 78 | 90 | 169 | 335 | 417 | 306 | 138 | 67 | 58 | 73 | 158 | 370 | | | |
| 50 | 555 | 372 | 144 | 68 | 56 | 64 | 118 | 323 | 481 | 290 | 88 | 45 | 40.1 | 50 | 106 | 356 | | | |
| 55 | 575 | 337 | 94 | 47 | 41 | 46 | 77 | 280 | 524 | 249 | 54 | 33.4 | 33.0 | 36.2 | 69 | 304 | | | |
| 60 | 519 | 257 | 57 | 36.5 | 35.6 | 35.3 | 51 | 207 | 506 | 172 | 34.3 | 28.6 | 30.3 | 30.1 | 44 | 219 | | | |
| 65 | 367 | 146 | 37.6 | 31.7 | 33.1 | 30.3 | 34.4 | 121 | 384 | 89 | 26.3 | 24.9 | 27.9 | 26.1 | 30.6 | 124 | | | |
| 70 | 176 | 64 | 29.1 | 28.0 | 30.9 | 26.5 | 26.4 | 55 | 203 | 38.5 | 21.0 | 20.4 | 24.4 | 21.8 | 23.9 | 56 | | | |
| 75 | 49 | 30.8 | 23.0 | 22.5 | 26.7 | 21.4 | 20.9 | 27.2 | 56 | 21.6 | 16.0 | 14.8 | 21.4 | 16.2 | 18.3 | 27.7 | | | |
| 80 | 14.3 | 18.3 | 16.9 | 15.4 | 22.8 | 14.7 | 15.3 | 15.6 | 17.1 | 12.6 | 10.4 | 9.9 | 14.6 | 10.8 | 11.7 | 15.7 | | | |
| 85 | 4.3 | 8.4 | 8.6 | 8.4 | 13.5 | 8.0 | 7.3 | 6.5 | 3.96 | 4.3 | 3.83 | 5.4 | 6.7 | 5.7 | 4.3 | 5.7 | | | |
| 90 | 0.18 | 0.59 | 1.07 | 2.30 | 3.11 | 1.64 | 0.51 | 0.20 | 0.46 | 0.07 | 0.07 | 0.08 | 0.09 | 0.07 | 0.06 | 0.08 | | | |
| 95 | 0.12 | 0.09 | 0.07 | 0.07 | 0.08 | 0.08 | 0.07 | 0.09 | 0.12 | 0.09 | 0.08 | 0.09 | 0.09 | 0.08 | 0.07 | 0.09 | | | |
| 100 | 0.17 | 0.08 | 0.09 | 0.09 | 0.15 | 0.08 | 0.07 | 0.09 | 0.25 | 0.18 | 0.12 | 0.13 | 0.12 | 0.11 | 0.11 | 0.16 | | | |
| 105 | 0.30 | 0.14 | 0.12 | 0.13 | 0.75 | 0.13 | 0.12 | 0.14 | 0.45 | 0.34 | 0.20 | 0.21 | 0.26 | 0.18 | 0.17 | 0.28 | | | |
| 110 | 0.41 | 0.23 | 0.19 | 0.25 | 1.17 | 0.24 | 0.20 | 0.24 | 0.65 | 0.52 | 0.32 | 0.35 | 0.59 | 0.29 | 0.25 | 0.42 | | | |
| 115 | 0.51 | 0.32 | 0.29 | 0.38 | 1.99 | 0.39 | 0.29 | 0.34 | 0.82 | 0.69 | 0.49 | 0.53 | 0.70 | 0.41 | 0.36 | 0.55 | | | |
| 120 | 0.63 | 0.43 | 0.39 | 0.49 | 2.02 | 0.52 | 0.39 | 0.45 | 0.91 | 0.84 | 0.68 | 0.77 | 0.93 | 0.58 | 0.48 | 0.67 | | | |
| 125 | 0.79 | 0.64 | 0.51 | 0.73 | 1.56 | 0.80 | 0.51 | 0.67 | 0.93 | 0.93 | 0.78 | 0.92 | 1.34 | 0.75 | 0.56 | 0.74 | | | |
| 130 | 0.90 | 0.96 | 0.66 | 0.98 | 1.33 | 0.99 | 0.66 | 0.95 | 0.93 | 1.05 | 0.98 | 1.30 | 1.65 | 0.91 | 0.73 | 0.88 | | | |
| 135 | 0.92 | 1.07 | 0.78 | 0.95 | 0.92 | 0.93 | 0.80 | 1.05 | 0.89 | 1.06 | 1.10 | 1.54 | 1.73 | 1.07 | 0.85 | 0.93 | | | |
| 140 | 1.00 | 1.13 | 0.90 | 1.05 | 1.44 | 1.00 | 0.89 | 1.13 | 0.84 | 1.07 | 1.11 | 1.56 | 2.05 | 1.14 | 0.89 | 0.93 | | | |
| 145 | 0.99 | 1.12 | 1.12 | 1.05 | 1.12 | 0.96 | 1.08 | 1.07 | 0.82 | 0.91 | 1.12 | 1.61 | 2.00 | 1.21 | 0.91 | 0.88 | | | |
| 150 | 0.98 | 1.10 | 1.21 | 1.05 | 1.07 | 0.91 | 1.15 | 1.03 | 0.84 | 0.89 | 1.11 | 1.43 | 1.49 | 1.21 | 0.91 | 0.88 | | | |
| 155 | 0.97 | 1.06 | 1.07 | 1.14 | 1.33 | 1.13 | 1.02 | 0.98 | 0.87 | 0.89 | 1.08 | 1.42 | 1.59 | 1.41 | 0.87 | 0.88 | | | |
| 160 | 0.94 | 0.94 | 1.07 | 1.03 | 1.04 | 0.96 | 0.98 | 0.87 | 0.87 | 0.89 | 1.00 | 1.32 | 1.12 | 1.10 | 1.03 | 0.85 | | | |
| 165 | 0.96 | 0.94 | 1.05 | 1.17 | 1.19 | 1.08 | 0.97 | 0.86 | 0.88 | 0.88 | 0.91 | 1.22 | 1.28 | 1.20 | 1.09 | 0.83 | | | |
| 170 | 0.97 | 1.04 | 1.09 | 1.20 | 1.23 | 1.09 | 0.94 | 0.88 | 0.89 | 0.89 | 0.93 | 1.11 | 1.31 | 1.14 | 1.08 | 0.86 | | | |
| 175 | 1.04 | 1.09 | 1.19 | 1.26 | 1.20 | 1.03 | 0.97 | 0.94 | 0.98 | 0.98 | 0.99 | 1.11 | 1.30 | 1.16 | 1.09 | 0.89 | | | |
| 180 | 1.04 | 1.07 | 1.14 | 1.30 | 1.29 | 1.09 | 0.94 | 0.91 | 1.02 | 1.03 | 1.07 | 1.16 | 1.30 | 1.28 | 1.09 | 0.93 | | | |

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-12-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks: