

GONIOPHOTOMETERS SYSTEM TEST REPORT

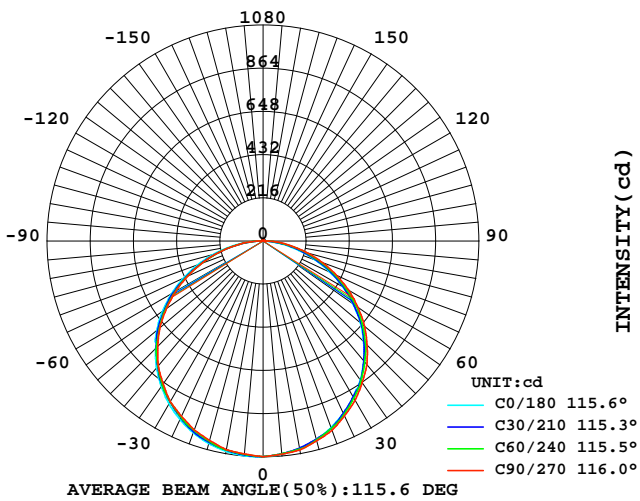
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number: 16061703

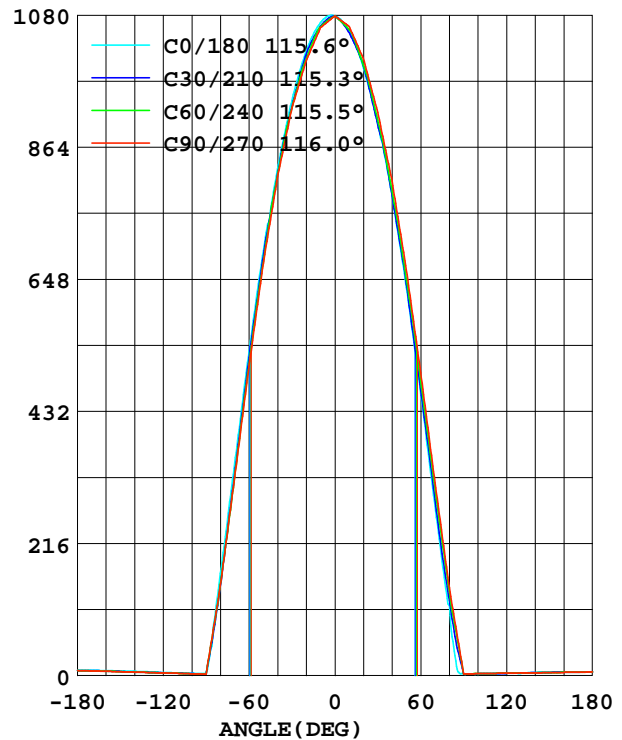
| | | | |
|--------------------------------|--|-----------------------|---------------------|
| MANUFACTURER: SGSLight Limited | | Address: | |
| NAME: TLP-X-1512N-36 | | TYPE:LED Panel Light | WEIGHT: |
| SPECIFICATION:4000K CRI>80 | | DIMENSION: 150x1196mm | SERIAL No.:16061703 |

| | | | | | |
|------------------|--------|--------------------|--------|------------------|-------|
| DATA OF LAMP | | Imax(cd) | 1080 | S/MH(C0/180) | 1.29 |
| MODEL | 4000K | EFFICIENCY(%) | 100.0 | S/MH(C90/270) | 1.28 |
| NOMINAL POWER(W) | 36 | TOTAL FLUX(lm) | 3213.1 | Voltage(V) | 230.0 |
| RATED VOLTAGE(V) | 230 | EFFICIENCY(lm/W) | 90.1 | Current(A) | 0.185 |
| NOMINAL FLUX(lm) | 3213.2 | η up(%) | 0.7 | Power(W) | 35.68 |
| LAMPS QUANTITY | 1 | η down(%) | 99.3 | Power Factor(PF) | 0.937 |
| TEST VOLTAGE(V) | 230.0 | Effective Flux(lm) | 3213.2 | EEI | 0.151 |

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



Test System:HOPPO HPG1900
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2016-06-17

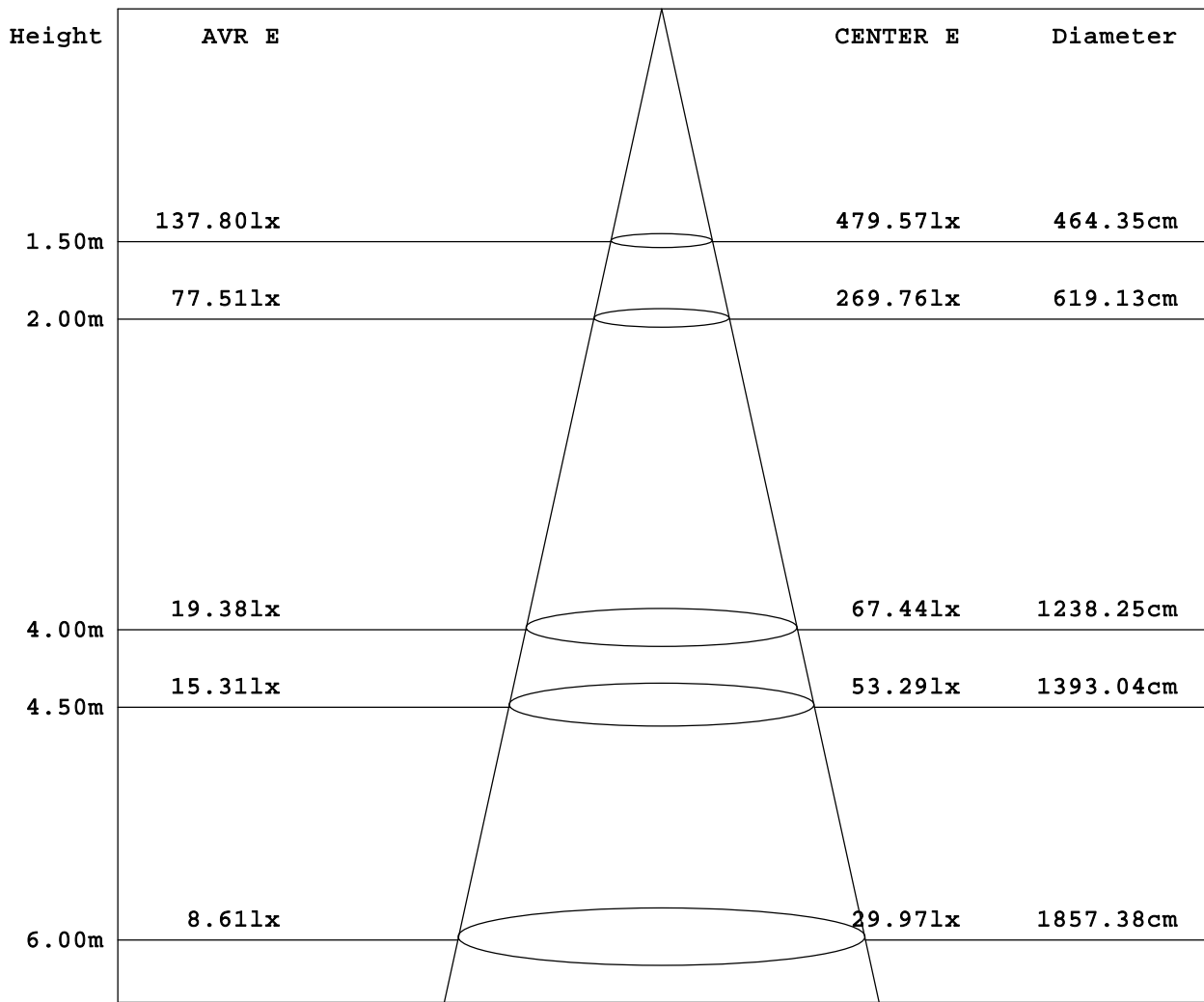
Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number: 16061703

| | | |
|--------------------------------|-----------------------|---------------------|
| MANUFACTURER: SGSLight Limited | Address: | |
| NAME: TLP-X-1512N-36 | TYPE:LED Panel Light | WEIGHT: |
| SPECIFICATION:4000K CRI>80 | DIMENSION: 150x1196mm | SERIAL No.:16061703 |



Angle:114.3deg

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2016-06-17

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number: 16061703

| | | | |
|---------------------------------------|--|------------------------------|----------------------------|
| MANUFACTURER: SGSLight Limited | | Address: | |
| NAME: TLP-X-1512N-36 | | TYPE:LED Panel Light | WEIGHT: |
| SPECIFICATION:4000K CRI>80 | | DIMENSION: 150x1196mm | SERIAL No.:16061703 |

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | zone | total |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|---------|-------|
| 5.0 | 1079 | 1073 | 1070 | 1068 | 1071 | 1068 | 1070 | 1074 | 0- 5 | 25.68 | 25.68 |
| 10.0 | 1068 | 1062 | 1060 | 1052 | 1053 | 1054 | 1062 | 1063 | 5- 10 | 76.17 | 101.8 |
| 15.0 | 1049 | 1043 | 1033 | 1030 | 1028 | 1031 | 1035 | 1046 | 10- 15 | 124.2 | 226.0 |
| 20.0 | 1022 | 1010 | 1006 | 994.4 | 993.9 | 994.6 | 1009 | 1014 | 15- 20 | 168.1 | 394.2 |
| 25.0 | 985.2 | 974.8 | 967.3 | 954.4 | 950.6 | 954.5 | 965.0 | 978.8 | 20- 25 | 206.7 | 600.9 |
| 30.0 | 940.8 | 930.6 | 928.5 | 907.0 | 901.5 | 904.5 | 921.2 | 933.5 | 25- 30 | 238.5 | 839.5 |
| 35.0 | 888.4 | 881.3 | 872.4 | 854.3 | 848.1 | 847.4 | 864.9 | 880.6 | 30- 35 | 263.1 | 1103 |
| 40.0 | 829.2 | 826.6 | 816.2 | 798.2 | 783.9 | 787.2 | 808.7 | 824.0 | 35- 40 | 279.3 | 1382 |
| 45.0 | 761.3 | 756.8 | 745.5 | 728.6 | 711.1 | 716.2 | 736.2 | 754.5 | 40- 45 | 286.3 | 1668 |
| 50.0 | 695.2 | 684.1 | 674.7 | 656.5 | 634.7 | 642.7 | 663.7 | 683.0 | 45- 50 | 283.7 | 1952 |
| 55.0 | 614.0 | 599.6 | 590.3 | 576.7 | 548.7 | 560.1 | 579.6 | 597.5 | 50- 55 | 271.6 | 2224 |
| 60.0 | 530.0 | 514.1 | 505.9 | 496.1 | 461.8 | 477.3 | 495.5 | 511.3 | 55- 60 | 249.9 | 2474 |
| 65.0 | 438.7 | 422.3 | 415.3 | 405.8 | 367.9 | 385.4 | 405.6 | 421.3 | 60- 65 | 220.2 | 2694 |
| 70.0 | 348.0 | 329.2 | 324.7 | 316.5 | 276.5 | 296.4 | 315.7 | 329.5 | 65- 70 | 183.3 | 2877 |
| 75.0 | 256.7 | 234.3 | 236.2 | 229.8 | 186.0 | 210.5 | 229.6 | 234.9 | 70- 75 | 141.9 | 3019 |
| 80.0 | 167.1 | 148.6 | 147.7 | 144.8 | 114.4 | 129.5 | 143.5 | 150.7 | 75- 80 | 98.53 | 3118 |
| 85.0 | 78.55 | 71.63 | 75.05 | 68.82 | 15.10 | 59.66 | 73.22 | 74.74 | 80- 85 | 55.57 | 3173 |
| 90.0 | 6.521 | 2.541 | 2.349 | 4.603 | 3.213 | 3.069 | 2.877 | 5.802 | 85- 90 | 18.26 | 3192 |
| 95.0 | 3.165 | 2.846 | 2.685 | 3.512 | 2.397 | 3.211 | 3.045 | 3.945 | 90- 95 | 1.729 | 3193 |
| 100.0 | 4.028 | 3.145 | 3.021 | 2.504 | 2.014 | 3.395 | 3.213 | 2.092 | 95-100 | 1.576 | 3195 |
| 105.0 | 3.980 | 3.437 | 3.356 | 1.716 | 2.397 | 3.566 | 3.380 | 0.277 | 100-105 | 1.413 | 3196 |
| 110.0 | 4.411 | 3.746 | 3.692 | 1.174 | 2.829 | 3.704 | 3.548 | 0 | 105-110 | 1.308 | 3198 |
| 115.0 | 4.795 | 4.095 | 4.028 | 1.081 | 3.308 | 3.822 | 3.716 | 0 | 110-115 | 1.304 | 3199 |
| 120.0 | 5.227 | 4.375 | 4.363 | 1.380 | 3.788 | 3.961 | 3.884 | 0 | 115-120 | 1.333 | 3200 |
| 125.0 | 5.610 | 4.723 | 4.699 | 2.038 | 3.884 | 4.259 | 4.052 | 0 | 120-125 | 1.363 | 3202 |
| 130.0 | 6.042 | 5.267 | 5.035 | 2.993 | 3.548 | 4.207 | 4.220 | 0 | 125-130 | 1.376 | 3203 |
| 135.0 | 6.426 | 5.333 | 5.370 | 4.141 | 4.795 | 4.500 | 4.387 | 0 | 130-135 | 1.390 | 3204 |
| 140.0 | 6.809 | 5.859 | 5.706 | 5.426 | 5.179 | 4.632 | 4.555 | 0 | 135-140 | 1.388 | 3206 |
| 145.0 | 6.809 | 6.366 | 6.042 | 6.175 | 5.562 | 5.014 | 4.723 | 0 | 140-145 | 1.377 | 3207 |
| 150.0 | 7.193 | 6.624 | 6.378 | 6.949 | 5.514 | 5.153 | 4.891 | 0 | 145-150 | 1.361 | 3208 |
| 155.0 | 8.008 | 6.870 | 6.713 | 6.870 | 5.083 | 5.285 | 5.059 | 0 | 150-155 | 1.280 | 3210 |
| 160.0 | 8.008 | 7.423 | 7.049 | 7.108 | 5.898 | 5.414 | 5.227 | 0.386 | 155-160 | 1.135 | 3211 |
| 165.0 | 8.392 | 7.671 | 7.385 | 7.671 | 5.898 | 5.538 | 5.394 | 2.518 | 160-165 | 0.941 | 3212 |
| 170.0 | 8.392 | 7.915 | 7.720 | 7.915 | 5.898 | 5.659 | 5.562 | 4.243 | 165-170 | 0.733 | 3213 |
| 175.0 | 8.392 | 8.154 | 8.056 | 8.154 | 5.898 | 5.779 | 5.730 | 5.413 | 170-175 | 0.478 | 3213 |
| 180.0 | 8.392 | 8.392 | 8.392 | 8.392 | 5.898 | 5.898 | 5.898 | 5.898 | 175-180 | 0.167 | 3213 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | |

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2016-06-17

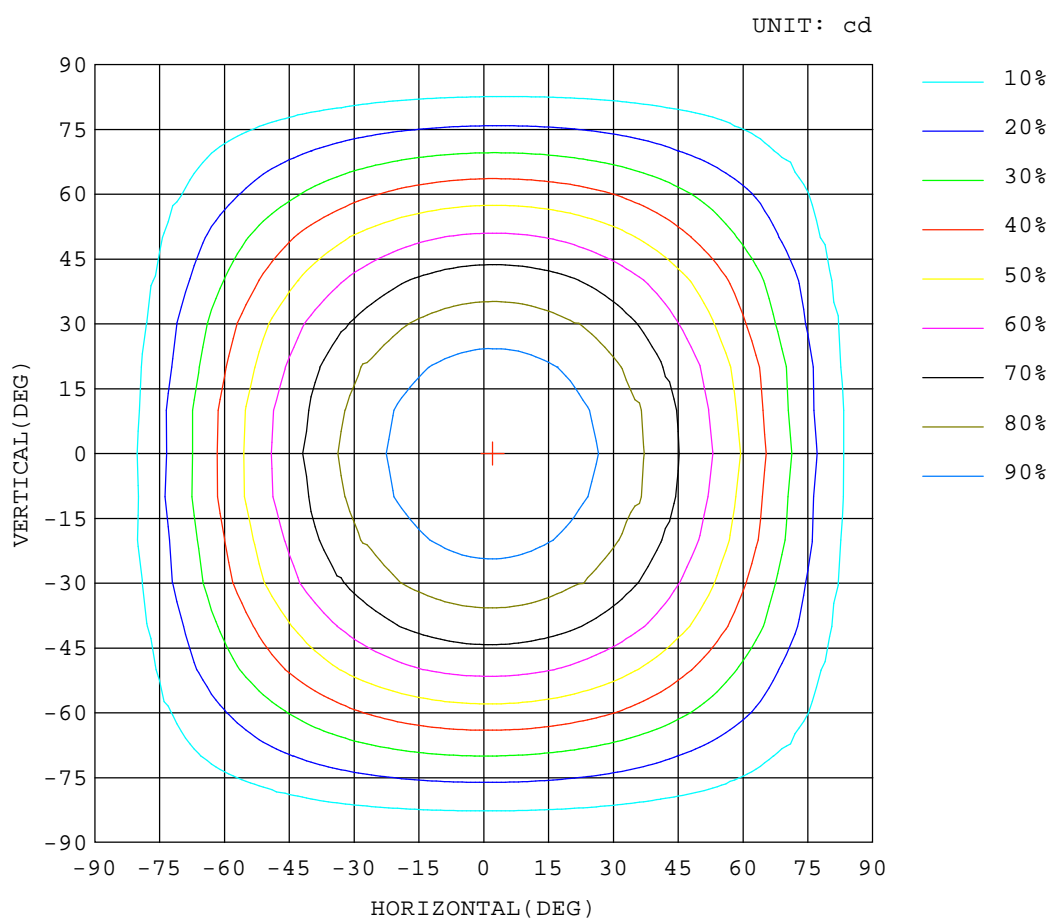
Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number: 16061703

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Temperature:25.3DEG
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Test Date:2016-06-17

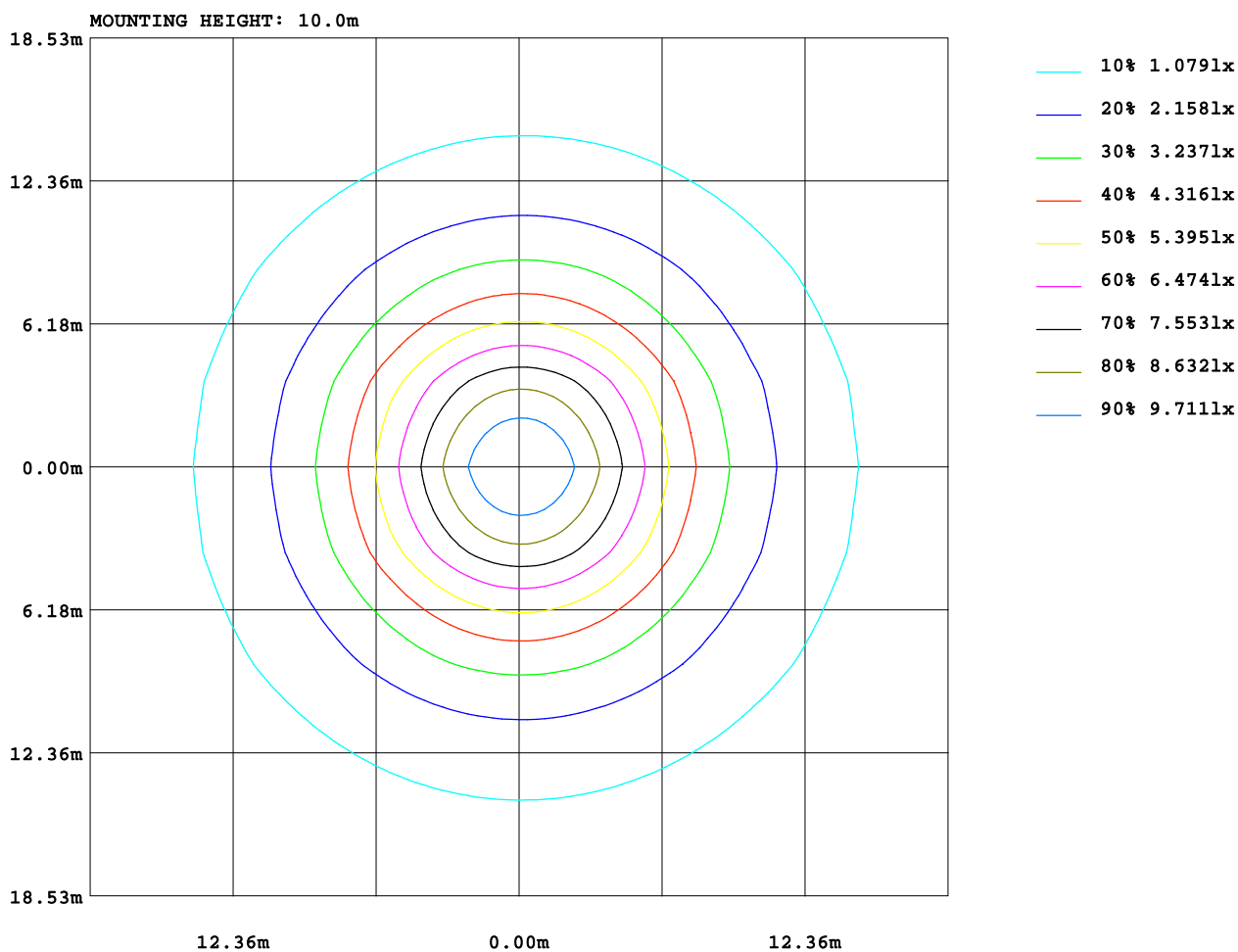
Test Set: 7.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:7.000 m
Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number: 16061703

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|--------------------------------|-----------------------|---------------------|
| MANUFACTURER: SGSLight Limited | Address: | |
| NAME: TLP-X-1512N-36 | TYPE:LED Panel Light | WEIGHT: |
| SPECIFICATION:4000K CRI>80 | DIMENSION: 150x1196mm | SERIAL No.:16061703 |



Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2016-06-17

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

Report number: 16061703

| | | | | | | | | | | |
|--|------------------|------|------|------|-----------------------|----------------|------|---------------------|------|------|
| MANUFACTURER: SGSLight Limited | | | | | Address: | | | | | |
| NAME: TLP-X-1512N-36 | | | | | TYPE:LED Panel Light | | | WEIGHT: | | |
| SPECIFICATION:4000K CRI>80 | | | | | DIMENSION: 150x1196mm | | | SERIAL No.:16061703 | | |
| 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 | 19.2 | 20.7 | 19.4 | 20.9 | 21.1 | 19.0 | 20.5 | 19.3 | 20.8 | 21.0 |
| 3H | 20.8 | 22.2 | 21.1 | 22.5 | 22.7 | 20.6 | 22.0 | 20.9 | 22.3 | 22.5 |
| 4H | 21.5 | 22.8 | 21.8 | 23.1 | 23.4 | 21.3 | 22.6 | 21.6 | 22.9 | 23.2 |
| 6H | 22.0 | 23.3 | 22.4 | 23.6 | 23.9 | 21.8 | 23.1 | 22.1 | 23.3 | 23.6 |
| 8H | 22.2 | 23.5 | 22.6 | 23.8 | 24.1 | 22.0 | 23.2 | 22.3 | 23.5 | 23.8 |
| 12H | 22.4 | 23.5 | 22.7 | 23.9 | 24.2 | 22.1 | 23.3 | 22.5 | 23.6 | 23.9 |
| 4H 2H | 19.8 | 21.1 | 20.1 | 21.4 | 21.7 | 19.7 | 21.0 | 20.0 | 21.3 | 21.6 |
| 3H | 21.6 | 22.8 | 22.0 | 23.1 | 23.4 | 21.4 | 22.6 | 21.8 | 22.9 | 23.3 |
| 4H | 22.4 | 23.5 | 22.8 | 23.8 | 24.2 | 22.2 | 23.3 | 22.6 | 23.7 | 24.0 |
| 6H | 23.1 | 24.1 | 23.5 | 24.4 | 24.8 | 22.9 | 23.8 | 23.3 | 24.2 | 24.6 |
| 8H | 23.3 | 24.2 | 23.8 | 24.6 | 25.0 | 23.1 | 24.0 | 23.6 | 24.4 | 24.8 |
| 12H | 23.5 | 24.3 | 23.9 | 24.7 | 25.1 | 23.3 | 24.2 | 23.8 | 24.6 | 25.0 |
| 8H 4H | 22.7 | 23.6 | 23.1 | 24.0 | 24.4 | 22.5 | 23.4 | 23.0 | 23.8 | 24.2 |
| 6H | 23.5 | 24.3 | 24.0 | 24.7 | 25.1 | 23.4 | 24.1 | 23.8 | 24.5 | 25.0 |
| 8H | 23.8 | 24.5 | 24.3 | 24.9 | 25.4 | 23.7 | 24.4 | 24.2 | 24.8 | 25.3 |
| 12H | 24.1 | 24.7 | 24.6 | 25.1 | 25.6 | 24.0 | 24.6 | 24.5 | 25.0 | 25.5 |
| 12H 4H | 22.7 | 23.5 | 23.2 | 23.9 | 24.4 | 22.6 | 23.4 | 23.0 | 23.8 | 24.2 |
| 6H | 23.6 | 24.2 | 24.1 | 24.7 | 25.2 | 23.4 | 24.1 | 23.9 | 24.5 | 25.0 |
| 8H | 24.0 | 24.5 | 24.4 | 25.0 | 25.5 | 23.8 | 24.4 | 24.3 | 24.9 | 25.3 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.1 / - 0.1 | | | | | + 0.1 / - 0.2 | | | | |
| 1.5H | + 0.2 / - 0.3 | | | | | + 0.2 / - 0.3 | | | | |
| 2.0H | + 0.1 / - 0.2 | | | | | + 0.1 / - 0.3 | | | | |

CIE Pub.117 Corrected 3213 lm Total Lamp Luminous Flux. (8log(F/F0) = 4.1)

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2016-06-17

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks: