

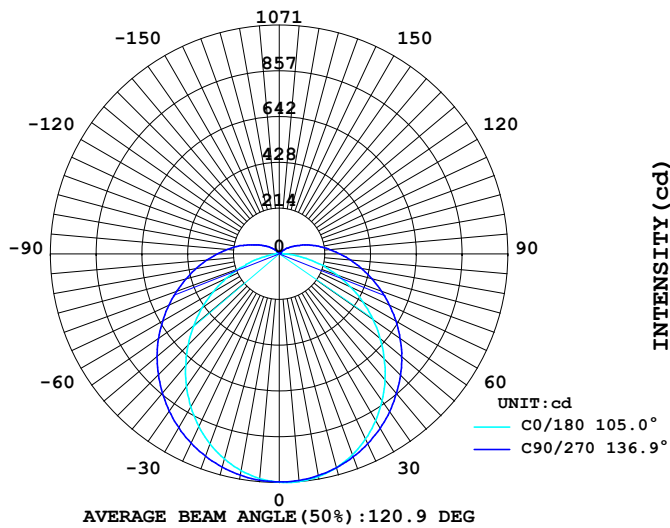
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

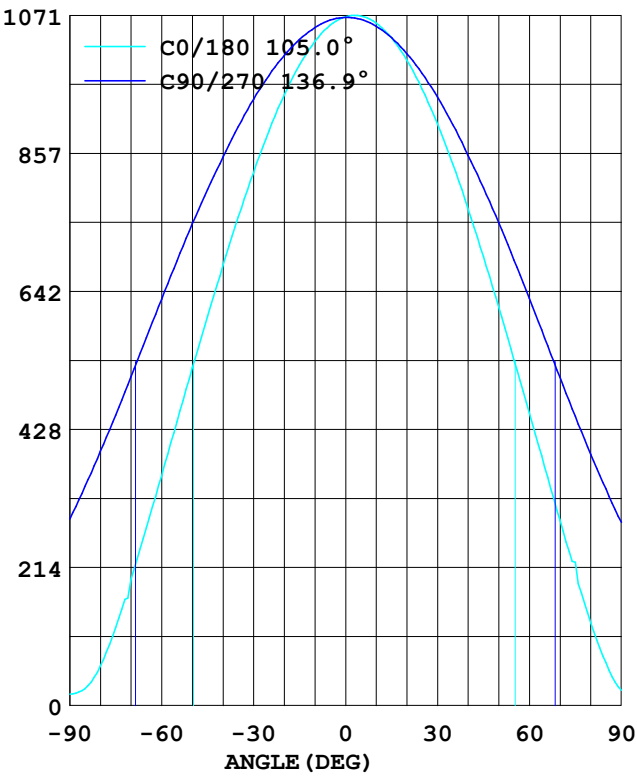
| | | |
|---------------------------|-------------|-------------|
| MANUFACTURER: ILUMEN GMBH | Address: | |
| NAME: IL-TL15-N04040-120 | TYPE: 4000K | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

| | | | | | |
|-------------------|--------|--------------------|--------|-------------------|-------|
| DATA OF LAMP | | Imax (cd) | 1071 | S/MH (C0/180) | 1.16 |
| MODEL | | EFFICIENCY (%) | 100.0 | S/MH (C90/270) | 1.31 |
| NOMINAL POWER(W) | 24 | TOTAL FLUX(lm) | 3830.4 | Voltage(V) | 230.3 |
| RATED VOLTAGE (V) | 230 | EFFICIENCY (lm/W) | 160.6 | Current(A) | 0.109 |
| NOMINAL FLUX(lm) | 3830.5 | η up (%) | 9.0 | Power(W) | 23.85 |
| LAMPS QUANTITY | 1 | η down (%) | 91.0 | Power Factor (PF) | 0.924 |
| TEST VOLTAGE (V) | 230.3 | Effective Flux(lm) | 3689.6 | EEI | 0.088 |

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



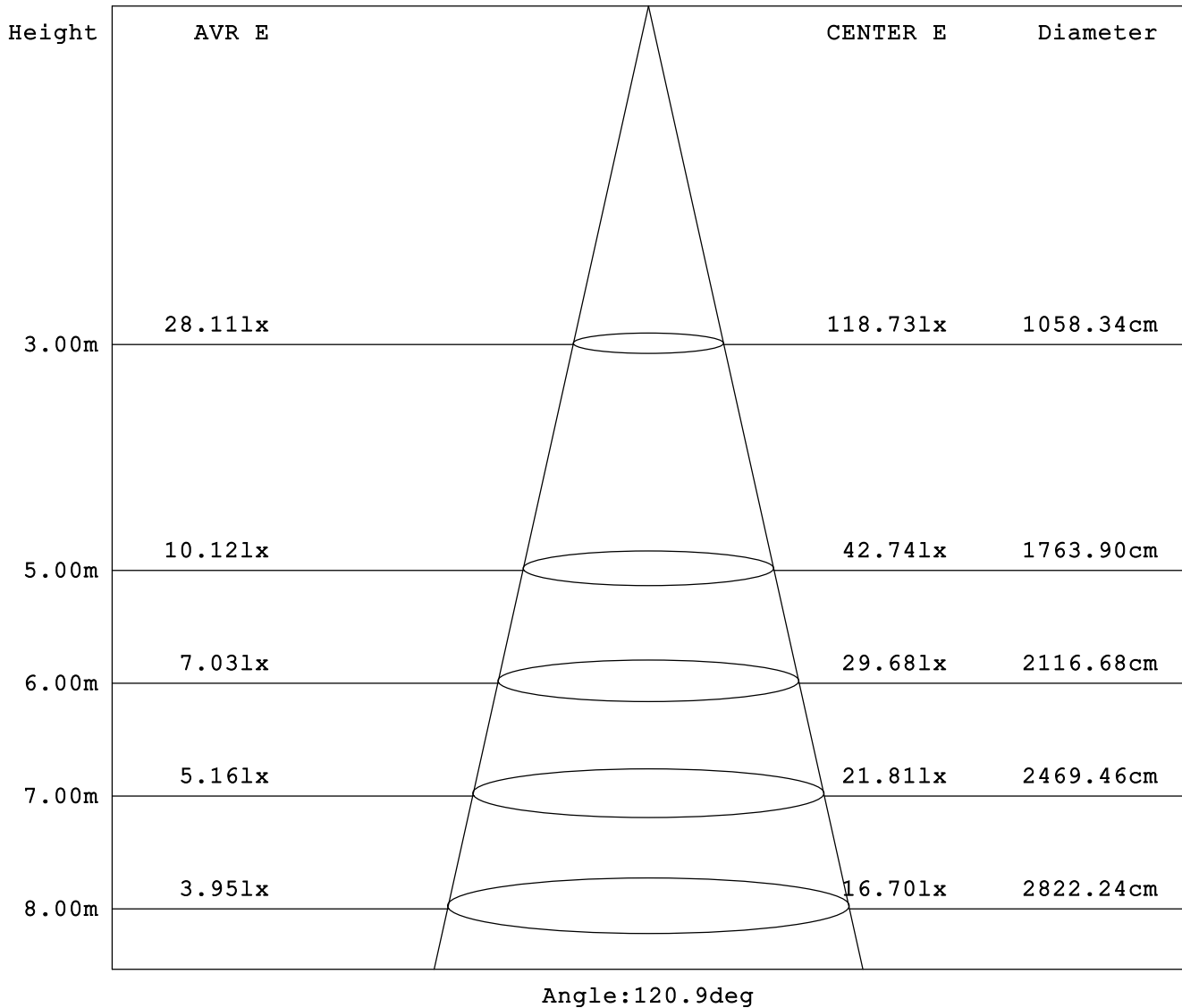
Test System:
 Temperature: 25.3 DEG
 Operators:
 Test Date: 2024.12.25

Test Set: 5.0 deg/s C-Gamma (TYPE C)
 Humidity: 65.0%
 Test Distance: 10.000 m
 Remarks:

AVERAGE AND CENTER E Figure

Report number:

| | | |
|---------------------------|-------------|-------------|
| MANUFACTURER: ILUMEN GMBH | Address: | |
| NAME: IL-TL15-N04040-120 | TYPE: 4000K | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



Test System:
Temperature: 25.3DEG
Operators:
Test Date: 2024.12.25

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity: 65.0%
Test Distance: 10.000 m
Remarks:

ZONAL FLUX DIAGRAM

Report number:

| | | |
|---------------------------|-------------|-------------|
| MANUFACTURER: ILUMEN GMBH | Address: | |
| NAME: IL-TL15-N04040-120 | TYPE: 4000K | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Zone | total |
|-------|-----------------------|-------|-------|-------|-------|-------|-------|-------|---------|---------|-------|
| 5.0 | 1055 | 1059 | 1063 | 1057 | 1069 | 1067 | 1064 | 1062 | 0- 5 | 25.45 | 25.45 |
| 10.0 | 1030 | 1041 | 1052 | 1040 | 1059 | 1057 | 1054 | 1050 | 5- 10 | 75.47 | 100.9 |
| 15.0 | 993.3 | 1014 | 1033 | 1014 | 1036 | 1037 | 1036 | 1027 | 10- 15 | 122.8 | 223.8 |
| 20.0 | 947.2 | 978.0 | 1008 | 978.4 | 1001 | 1009 | 1011 | 996.0 | 15- 20 | 166.0 | 389.8 |
| 25.0 | 891.1 | 935.9 | 977.2 | 936.1 | 956.0 | 972.3 | 980.3 | 957.0 | 20- 25 | 203.6 | 593.5 |
| 30.0 | 826.7 | 885.9 | 940.2 | 885.8 | 902.6 | 927.8 | 944.2 | 909.6 | 25- 30 | 234.5 | 828.0 |
| 35.0 | 758.0 | 830.4 | 898.2 | 829.2 | 839.7 | 876.7 | 901.1 | 855.5 | 30- 35 | 257.9 | 1086 |
| 40.0 | 682.5 | 771.5 | 850.5 | 769.5 | 769.9 | 821.2 | 853.0 | 797.4 | 35- 40 | 273.2 | 1359 |
| 45.0 | 603.4 | 707.3 | 800.2 | 704.2 | 696.6 | 759.5 | 803.4 | 733.2 | 40- 45 | 280.5 | 1640 |
| 50.0 | 523.6 | 642.5 | 747.3 | 636.6 | 617.6 | 695.1 | 748.6 | 666.5 | 45- 50 | 279.9 | 1920 |
| 55.0 | 440.6 | 578.9 | 690.0 | 571.3 | 535.9 | 631.3 | 690.8 | 601.2 | 50- 55 | 272.2 | 2192 |
| 60.0 | 356.7 | 514.1 | 630.2 | 504.8 | 454.2 | 565.7 | 631.7 | 534.6 | 55- 60 | 257.9 | 2450 |
| 65.0 | 275.9 | 451.1 | 570.9 | 440.2 | 369.9 | 500.4 | 569.8 | 469.0 | 60- 65 | 238.1 | 2688 |
| 70.0 | 196.1 | 392.0 | 510.1 | 379.7 | 288.0 | 438.5 | 509.3 | 407.4 | 65- 70 | 214.0 | 2902 |
| 75.0 | 120.9 | 335.3 | 450.4 | 321.6 | 222.0 | 377.8 | 448.7 | 347.6 | 70- 75 | 186.8 | 3089 |
| 80.0 | 61.54 | 282.5 | 394.3 | 268.2 | 128.5 | 322.0 | 389.5 | 293.4 | 75- 80 | 158.6 | 3248 |
| 85.0 | 26.27 | 235.9 | 339.7 | 221.4 | 66.19 | 269.7 | 335.8 | 243.2 | 80- 85 | 131.2 | 3379 |
| 90.0 | 17.38 | 191.9 | 289.1 | 177.1 | 23.74 | 222.2 | 284.0 | 198.2 | 85- 90 | 107.1 | 3486 |
| 95.0 | 15.66 | 153.9 | 244.2 | 139.6 | 12.63 | 174.1 | 238.3 | 158.0 | 90- 95 | 86.71 | 3573 |
| 100.0 | 14.34 | 117.8 | 203.4 | 105.5 | 11.82 | 142.1 | 196.5 | 123.5 | 95-100 | 69.80 | 3643 |
| 105.0 | 13.33 | 84.28 | 160.9 | 75.58 | 11.01 | 110.0 | 159.1 | 94.38 | 100-105 | 53.86 | 3697 |
| 110.0 | 12.42 | 60.43 | 124.1 | 51.03 | 10.40 | 78.92 | 126.4 | 62.45 | 105-110 | 40.27 | 3737 |
| 115.0 | 11.62 | 44.86 | 98.22 | 36.37 | 9.802 | 52.04 | 92.86 | 43.55 | 110-115 | 28.57 | 3765 |
| 120.0 | 10.91 | 31.12 | 75.28 | 23.95 | 9.196 | 36.68 | 69.42 | 29.30 | 115-120 | 20.48 | 3786 |
| 125.0 | 10.30 | 19.70 | 55.78 | 14.04 | 8.690 | 23.44 | 49.51 | 18.18 | 120-125 | 13.96 | 3800 |
| 130.0 | 9.701 | 10.61 | 38.29 | 8.387 | 8.286 | 13.44 | 32.43 | 11.52 | 125-130 | 8.928 | 3809 |
| 135.0 | 9.297 | 7.983 | 23.34 | 7.882 | 7.882 | 10.91 | 18.08 | 10.61 | 130-135 | 5.703 | 3814 |
| 140.0 | 8.892 | 7.478 | 12.73 | 7.478 | 7.579 | 10.10 | 8.185 | 9.802 | 135-140 | 3.848 | 3818 |
| 145.0 | 8.488 | 7.275 | 11.41 | 7.275 | 7.275 | 9.398 | 7.680 | 9.094 | 140-145 | 2.908 | 3821 |
| 150.0 | 8.286 | 7.275 | 10.71 | 7.073 | 7.073 | 8.993 | 7.377 | 8.791 | 145-150 | 2.455 | 3824 |
| 155.0 | 8.185 | 7.275 | 10.10 | 7.174 | 6.871 | 8.690 | 7.174 | 8.690 | 150-155 | 2.053 | 3826 |
| 160.0 | 8.286 | 7.275 | 9.600 | 7.275 | 7.174 | 8.488 | 7.073 | 8.589 | 155-160 | 1.676 | 3827 |
| 165.0 | 8.387 | 7.377 | 9.398 | 7.377 | 7.579 | 8.488 | 7.174 | 8.488 | 160-165 | 1.318 | 3829 |
| 170.0 | 8.488 | 7.377 | 9.196 | 7.579 | 7.781 | 8.488 | 7.275 | 8.488 | 165-170 | 0.955 | 3830 |
| 175.0 | 8.488 | 7.478 | 9.196 | 7.680 | 7.983 | 8.589 | 7.478 | 8.488 | 170-175 | 0.582 | 3830 |
| 180.0 | 8.286 | 7.579 | 8.690 | 7.680 | 8.286 | 8.690 | 7.579 | 8.387 | 175-180 | 0.195 | 3830 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | |

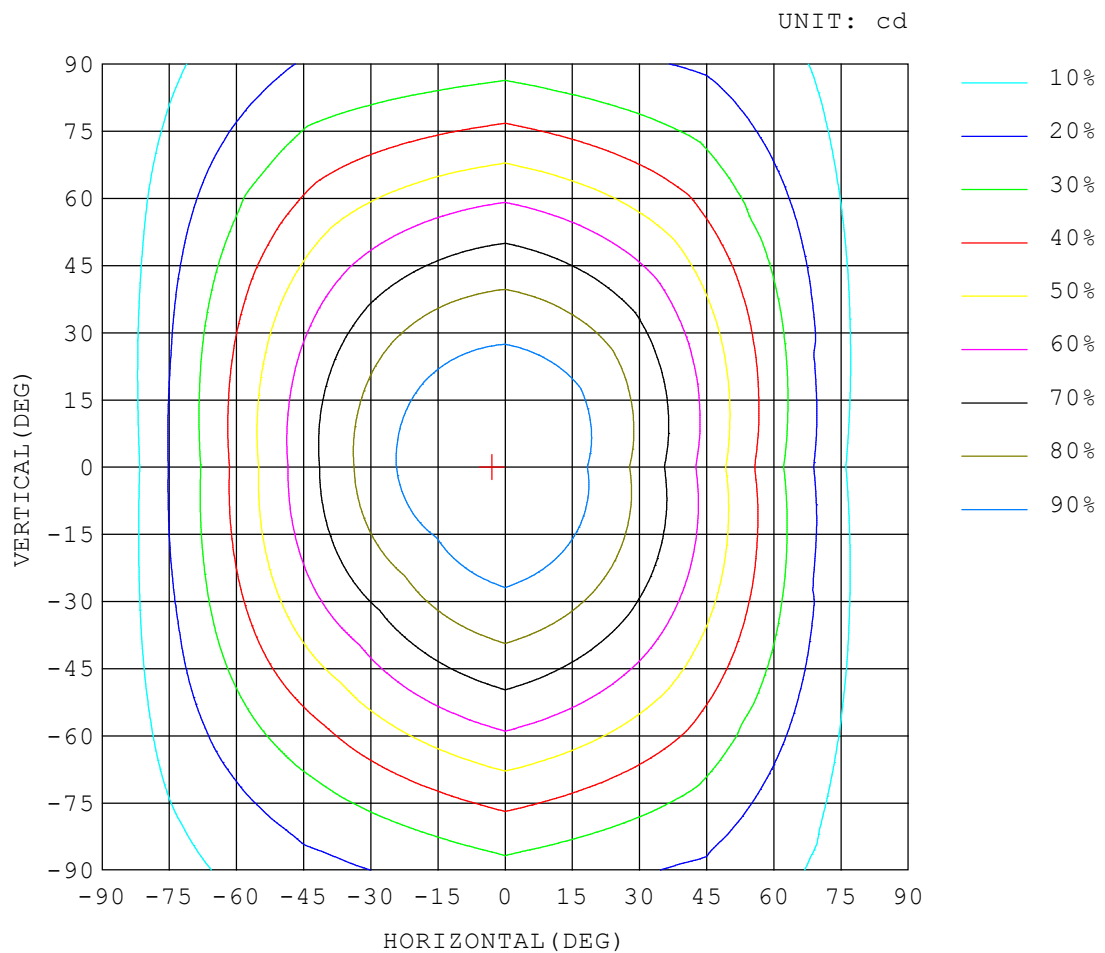
Test System:
 Temperature:25.3DEG
 Operators:
 Test Date:2024.12.25

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

ISOCANDELA DIAGRAM

Report number:

| | | |
|---------------------------|-------------|-------------|
| MANUFACTURER: ILUMEN GMBH | Address: | |
| NAME: IL-TL15-N04040-120 | TYPE: 4000K | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



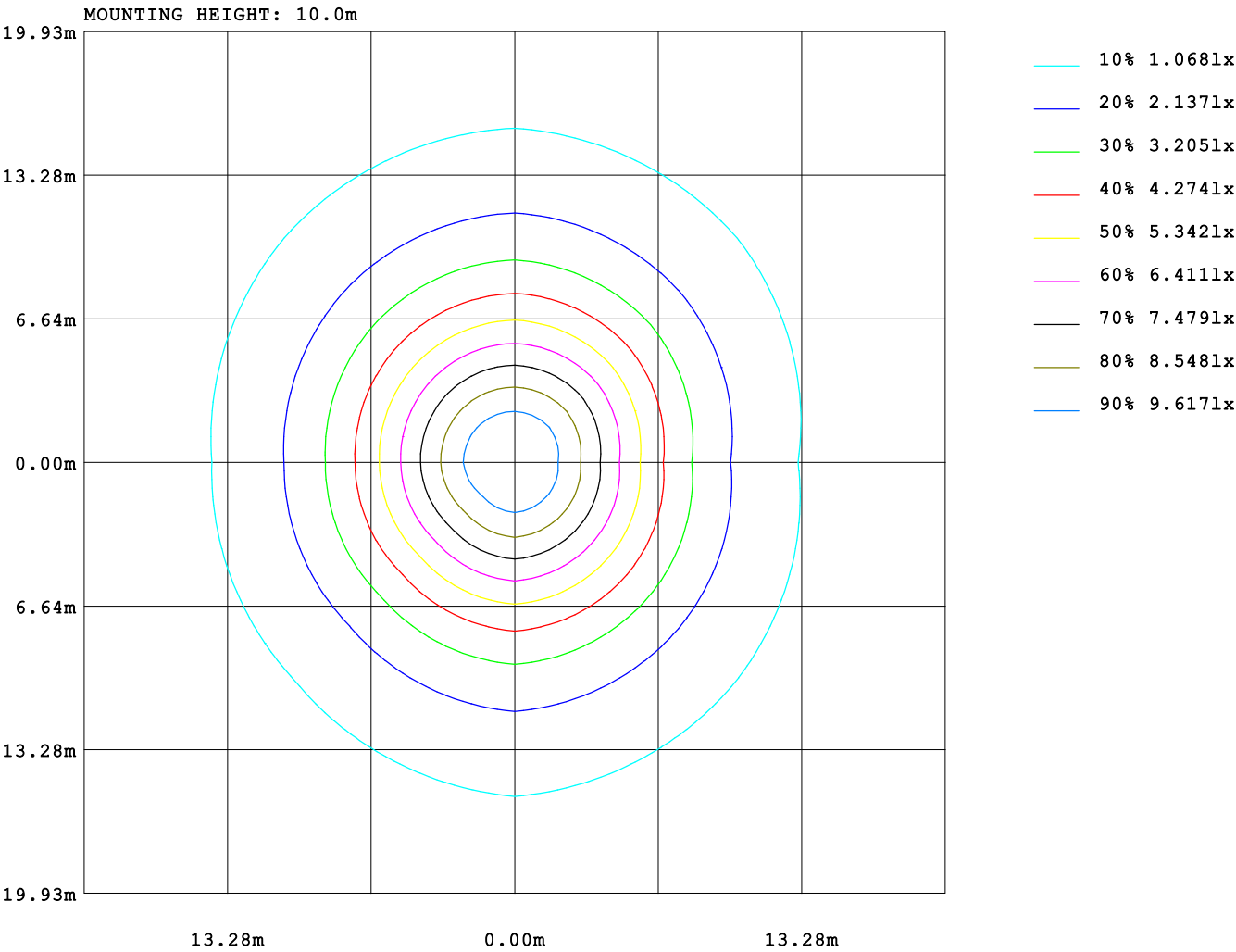
Test System:
Temperature: 25.3 DEG
Operators:
Test Date: 2024.12.25

Test Set: 5.0 deg/s C-Gamma (TYPE C)
Humidity: 65.0%
Test Distance: 10.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

| | | |
|---------------------------|-------------|-------------|
| MANUFACTURER: ILUMEN GMBH | Address: | |
| NAME: IL-TL15-N04040-120 | TYPE: 4000K | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



Test System:
Temperature:25.3DEG
Operators:
Test Date:2024.12.25

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

| | | |
|----------------------------------|--------------------|--------------------|
| MANUFACTURER: ILUMEN GMBH | Address: | |
| NAME: IL-TL15-N04040-120 | TYPE: 4000K | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

UNIT: cd

| C (DEG) γ (DEG) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
|--------------------|------|------|------|------|------|------|------|------|
| 0.0 | 1069 | 1068 | 1067 | 1065 | 1069 | 1068 | 1067 | 1065 |
| 5.0 | 1055 | 1059 | 1063 | 1057 | 1069 | 1067 | 1064 | 1062 |
| 10.0 | 1030 | 1041 | 1052 | 1040 | 1059 | 1057 | 1054 | 1050 |
| 15.0 | 993 | 1014 | 1033 | 1014 | 1036 | 1037 | 1036 | 1027 |
| 20.0 | 947 | 978 | 1008 | 978 | 1001 | 1009 | 1011 | 996 |
| 25.0 | 891 | 936 | 977 | 936 | 956 | 972 | 980 | 957 |
| 30.0 | 827 | 886 | 940 | 886 | 903 | 928 | 944 | 910 |
| 35.0 | 758 | 830 | 898 | 829 | 840 | 877 | 901 | 856 |
| 40.0 | 683 | 772 | 851 | 770 | 770 | 821 | 853 | 797 |
| 45.0 | 603 | 707 | 800 | 704 | 697 | 760 | 803 | 733 |
| 50.0 | 524 | 643 | 747 | 637 | 618 | 695 | 749 | 667 |
| 55.0 | 441 | 579 | 690 | 571 | 536 | 631 | 691 | 601 |
| 60.0 | 357 | 514 | 630 | 505 | 454 | 566 | 632 | 535 |
| 65.0 | 276 | 451 | 571 | 440 | 370 | 500 | 570 | 469 |
| 70.0 | 196 | 392 | 510 | 380 | 288 | 439 | 509 | 407 |
| 75.0 | 121 | 335 | 450 | 322 | 222 | 378 | 449 | 348 |
| 80.0 | 61.5 | 283 | 394 | 268 | 129 | 322 | 390 | 293 |
| 85.0 | 26.2 | 236 | 340 | 221 | 66.1 | 270 | 336 | 243 |
| 90.0 | 17.3 | 192 | 289 | 177 | 23.7 | 222 | 284 | 198 |
| 95.0 | 15.6 | 154 | 244 | 140 | 12.6 | 174 | 238 | 158 |
| 100.0 | 14.3 | 118 | 203 | 106 | 11.8 | 142 | 197 | 124 |
| 105.0 | 13.3 | 84.2 | 161 | 75.5 | 11.0 | 110 | 159 | 94.3 |
| 110.0 | 12.4 | 60.4 | 124 | 51.0 | 10.4 | 78.9 | 126 | 62.4 |
| 115.0 | 11.6 | 44.8 | 98.2 | 36.3 | 9.80 | 52.0 | 92.8 | 43.5 |
| 120.0 | 10.9 | 31.1 | 75.2 | 23.9 | 9.19 | 36.6 | 69.4 | 29.3 |
| 125.0 | 10.3 | 19.7 | 55.7 | 14.0 | 8.69 | 23.4 | 49.5 | 18.1 |
| 130.0 | 9.70 | 10.6 | 38.2 | 8.38 | 8.28 | 13.4 | 32.4 | 11.5 |
| 135.0 | 9.29 | 7.98 | 23.3 | 7.88 | 7.88 | 10.9 | 18.0 | 10.6 |
| 140.0 | 8.89 | 7.47 | 12.7 | 7.47 | 7.57 | 10.1 | 8.18 | 9.80 |
| 145.0 | 8.48 | 7.27 | 11.4 | 7.27 | 7.27 | 9.39 | 7.68 | 9.09 |
| 150.0 | 8.28 | 7.27 | 10.7 | 7.07 | 7.07 | 8.99 | 7.37 | 8.79 |
| 155.0 | 8.18 | 7.27 | 10.1 | 7.17 | 6.87 | 8.69 | 7.17 | 8.69 |
| 160.0 | 8.28 | 7.27 | 9.60 | 7.27 | 7.17 | 8.48 | 7.07 | 8.58 |
| 165.0 | 8.38 | 7.37 | 9.39 | 7.37 | 7.57 | 8.48 | 7.17 | 8.48 |
| 170.0 | 8.48 | 7.37 | 9.19 | 7.57 | 7.78 | 8.48 | 7.27 | 8.48 |
| 175.0 | 8.48 | 7.47 | 9.19 | 7.68 | 7.98 | 8.58 | 7.47 | 8.48 |
| 180.0 | 8.28 | 7.57 | 8.69 | 7.68 | 8.28 | 8.69 | 7.57 | 8.38 |

Test System:
Temperature:25.3DEG
Operators:
Test Date:2024.12.25

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