

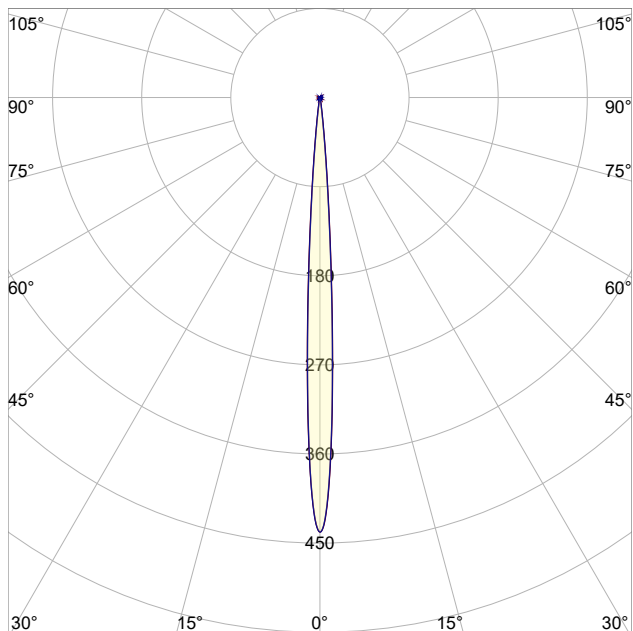
# LM-79

## Test Report

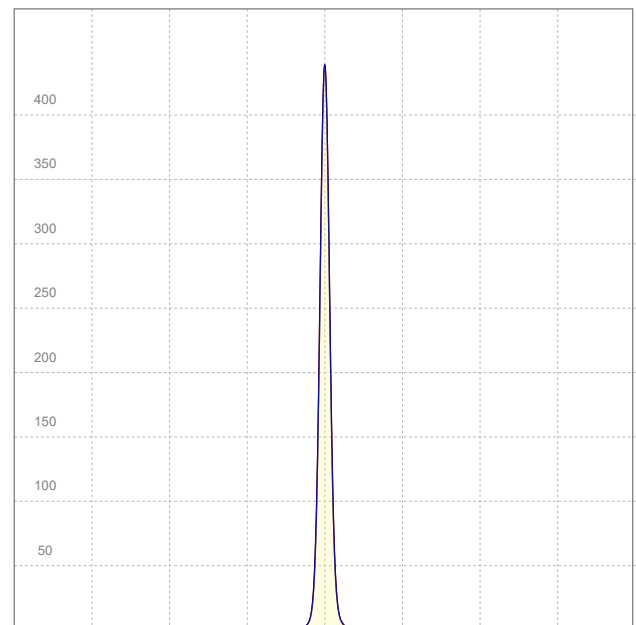
### LM79-FOCUS-MICRO-G2-2700K-CRI95-SPOT

#### General Description

|                   |                     |
|-------------------|---------------------|
| Item number       | FM-X-X-2795-Z       |
| Date and time     | 16-10-2020 14:34:18 |
| CCT (Kelvin)      | 2704 K              |
| Beam angle        | 6,4°                |
| Luminous flux     | 8,44 lm             |
| Efficiency        | 8 lm/watt           |
| Weighted energy   | 1,0 kWh/1000h       |
| Power factor      | 1,0                 |
| CRI (RA)          | 95,1                |
| Fidelity index Rf | Rf 93,3             |
| Gammut index Rg   | Rg 102,0            |
| Peak              | 439 cd              |



*Polar curve*



*Linear distribution diagram*



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| Beam details                       | 1m       | 2m       | 3m      | 4m      | 5m                     |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
|------------------------------------|----------|----------|---------|---------|------------------------|--------|--------|--------|--------|--------------------------|--------|--------|--------|--------|-------------------------------------|--------|--------|--------|--------|------------------------------------|--|--|--|--|
| Lux*                               | 438 lx   | 110 lx   | 49 lx   | 27 lx   | 18 lx                  |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
|                                    |          |          |         |         |                        |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| *measured at center of beam        |          |          |         |         |                        |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| Footcandles*                       | 40,7 fcd | 10,2 fcd | 4,5 fcd | 2,5 fcd | 1,6 fcd                |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| Beam width (meter)                 | 0,1 m    | 0,2 m    | 0,3 m   | 0,4 m   | 0,6 m                  |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| Beam width (Feet)                  | 0,4 ft   | 0,7 ft   | 1,1 ft  | 1,5 ft  | 1,8 ft                 |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| <b>Beam intensities</b>            |          |          |         |         |                        |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| 1m                                 | 2m       | 3m       | 4m      | 5m      | 6m                     | 7m     | 8m     | 9m     | 10m    | 11m                      | 12m    | 13m    | 14m    | 15m    | 16m                                 | 17m    | 18m    | 19m    | 20m    |                                    |  |  |  |  |
| 438lx                              | 110lx    | 49lx     | 27lx    | 18lx    | 12lx                   | 9lx    | 7lx    | 5lx    | 4lx    | 4lx                      | 3lx    | 3lx    | 2lx    | 2lx    | 2lx                                 | 2lx    | 1lx    | 1lx    | 1lx    |                                    |  |  |  |  |
| 3,3ft                              | 6,6ft    | 9,8ft    | 13,1ft  | 16,4ft  | 19,7ft                 | 23ft   | 26,2ft | 29,5ft | 32,8ft | 36,1ft                   | 39,4ft | 42,7ft | 45,9ft | 49,2ft | 52,5ft                              | 55,8ft | 59,1ft | 62,3ft | 65,6ft |                                    |  |  |  |  |
| 40,7fcd                            | 10,2fcd  | 4,5fcd   | 2,5fcd  | 1,6fcd  | 1,1fcd                 | 0,8fcd | 0,6fcd | 0,5fcd | 0,4fcd | 0,3fcd                   | 0,3fcd | 0,2fcd | 0,2fcd | 0,2fcd | 0,2fcd                              | 0,1fcd | 0,1fcd | 0,1fcd | 0,1fcd |                                    |  |  |  |  |
| <b>Intensities in 0° c-plane</b>   |          |          |         |         |                        |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| 0°                                 | 1°       | 2°       | 3°      | 4°      | 5°                     | 6°     | 7°     | 8°     | 9°     | 10°                      | 11°    | 12°    | 13°    | 14°    | 15°                                 | 16°    | 17°    | 18°    | 19°    |                                    |  |  |  |  |
| 438                                | 412      | 338      | 241     | 151     | 85                     | 45     | 23     | 12     | 7      | 5                        | 3      | 2      | 2      | 2      | 1                                   | 1      | 1      | 1      | 1      |                                    |  |  |  |  |
| 100%                               | 94%      | 77%      | 55%     | 34%     | 20%                    | 10%    | 5%     | 3%     | 2%     | 1%                       | 1%     | 1%     | 0%     | 0%     | 0%                                  | 0%     | 0%     | 0%     | 0%     |                                    |  |  |  |  |
| <b>Intensities in 90° c-plane</b>  |          |          |         |         |                        |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| 0°                                 | 1°       | 2°       | 3°      | 4°      | 5°                     | 6°     | 7°     | 8°     | 9°     | 10°                      | 11°    | 12°    | 13°    | 14°    | 15°                                 | 16°    | 17°    | 18°    | 19°    |                                    |  |  |  |  |
| 438                                | 411      | 336      | 238     | 146     | 82                     | 43     | 22     | 12     | 7      | 5                        | 3      | 3      | 2      | 2      | 1                                   | 1      | 1      | 1      | 1      |                                    |  |  |  |  |
| 100%                               | 94%      | 77%      | 54%     | 33%     | 19%                    | 10%    | 5%     | 3%     | 2%     | 1%                       | 1%     | 1%     | 0%     | 0%     | 0%                                  | 0%     | 0%     | 0%     | 0%     |                                    |  |  |  |  |
| <b>Intensities in 180° c-plane</b> |          |          |         |         |                        |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| 0°                                 | 1°       | 2°       | 3°      | 4°      | 5°                     | 6°     | 7°     | 8°     | 9°     | 10°                      | 11°    | 12°    | 13°    | 14°    | 15°                                 | 16°    | 17°    | 18°    | 19°    |                                    |  |  |  |  |
| 438                                | 409      | 335      | 241     | 153     | 88                     | 48     | 26     | 14     | 8      | 5                        | 4      | 3      | 2      | 2      | 1                                   | 1      | 1      | 1      | 1      |                                    |  |  |  |  |
| 100%                               | 93%      | 77%      | 55%     | 35%     | 20%                    | 11%    | 6%     | 3%     | 2%     | 1%                       | 1%     | 1%     | 0%     | 0%     | 0%                                  | 0%     | 0%     | 0%     | 0%     |                                    |  |  |  |  |
| <b>Intensities in 270° c-plane</b> |          |          |         |         |                        |        |        |        |        |                          |        |        |        |        |                                     |        |        |        |        |                                    |  |  |  |  |
| 0°                                 | 1°       | 2°       | 3°      | 4°      | 5°                     | 6°     | 7°     | 8°     | 9°     | 10°                      | 11°    | 12°    | 13°    | 14°    | 15°                                 | 16°    | 17°    | 18°    | 19°    |                                    |  |  |  |  |
| 438                                | 409      | 333      | 237     | 149     | 85                     | 46     | 25     | 14     | 9      | 6                        | 4      | 3      | 2      | 2      | 1                                   | 1      | 1      | 1      | 1      |                                    |  |  |  |  |
| 100%                               | 93%      | 76%      | 54%     | 34%     | 19%                    | 11%    | 6%     | 3%     | 2%     | 1%                       | 1%     | 1%     | 1%     | 0%     | 0%                                  | 0%     | 0%     | 0%     | 0%     |                                    |  |  |  |  |
| <b>Beam angle 50%</b>              |          |          |         |         | <b>Field angle 10%</b> |        |        |        |        | <b>Cutoff angle 2,5%</b> |        |        |        |        | <b>Intensity ratio in 120° cone</b> |        |        |        |        | <b>Intensity ratio in 90° cone</b> |  |  |  |  |
| 6,4°                               |          |          |         |         | 12,1°                  |        |        |        |        | 16,7°                    |        |        |        |        | 97,0%                               |        |        |        |        | 94,8%                              |  |  |  |  |



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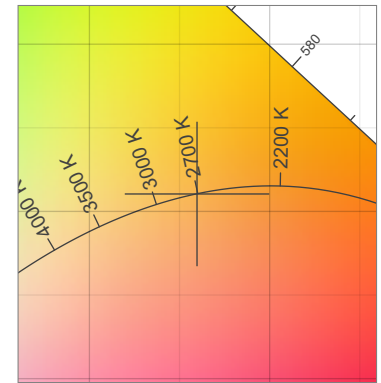
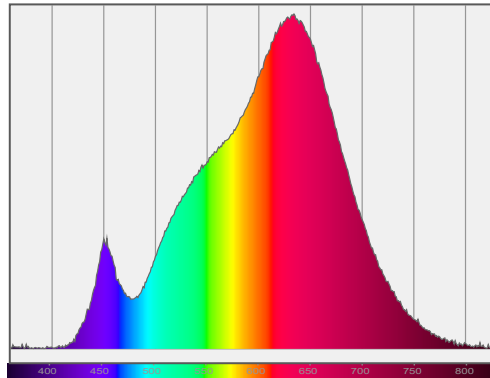
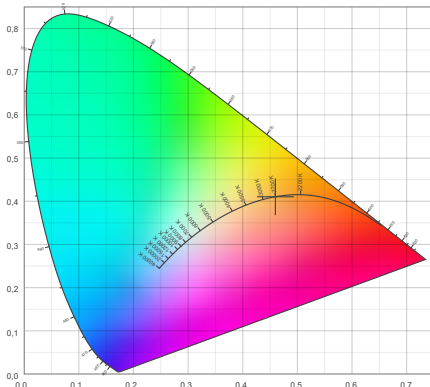
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# LM-79

## Test Report

# LM79-FOCUS-MICRO-G2-2700K-CRI95-SPOT

### Color details



CIE 1931

x: 0,460



Spectra

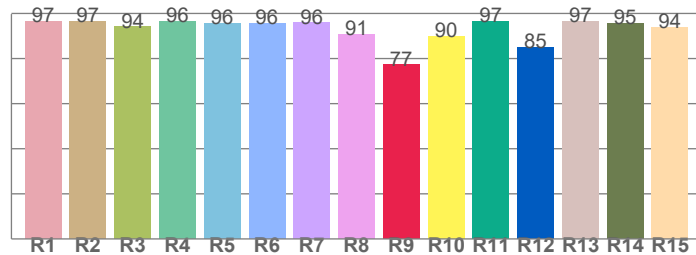
CIE 1931 ZOOM

2704 K

y: 0,410

$\Delta uv$ : -0,0001

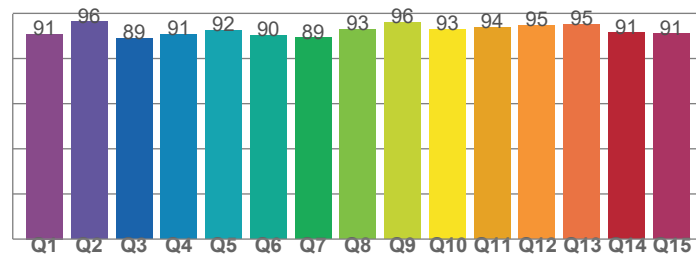
CRI: 95,1 (R1-R8)



CRI values, R1-R8 are used to calculate final CRI value

| R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   |
|------|------|------|------|------|------|------|------|
| 96,6 | 96,5 | 94,0 | 96,4 | 95,6 | 95,6 | 95,9 | 90,6 |
| R9   | R10  | R11  | R12  | R13  | R14  | R15  |      |
| 77,2 | 90,0 | 96,6 | 85,0 | 96,5 | 95,5 | 94,0 |      |

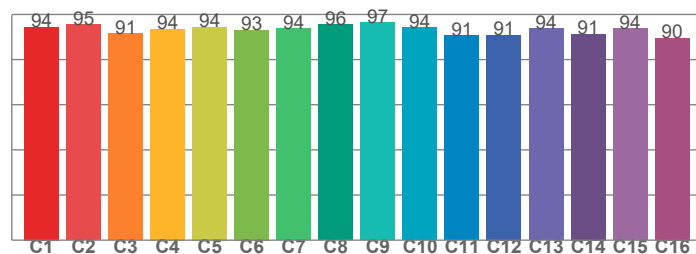
CQS: 92,0



CQS values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   |
|------|------|------|------|------|------|------|------|
| 90,9 | 96,3 | 89,0 | 90,7 | 92,5 | 90,2 | 89,2 | 93,0 |
| Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |      |
| 96,0 | 93,1 | 93,9 | 94,7 | 95,2 | 91,4 | 91,0 |      |

TM30: 93,3



TM30 values, 16 binned values out of total of 99 values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   |
|------|------|------|------|------|------|------|------|
| 94,4 | 95,4 | 91,5 | 93,5 | 94,5 | 93,2 | 93,6 | 95,5 |
| C9   | C10  | C11  | C12  | C13  | C14  | C15  |      |
| 96,5 | 94,2 | 90,8 | 91,0 | 93,7 | 91,3 | 93,8 |      |

### Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     | CQS                 | x                         | y                         | u                | v                | $\Delta uv$                     |
| 2704 K            | 95,1                  | 77,2          | 93,3           | 102,0       | 92,0                | 0,460                     | 0,410                     | 0,262            | 0,352            | -0,0001                         |



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