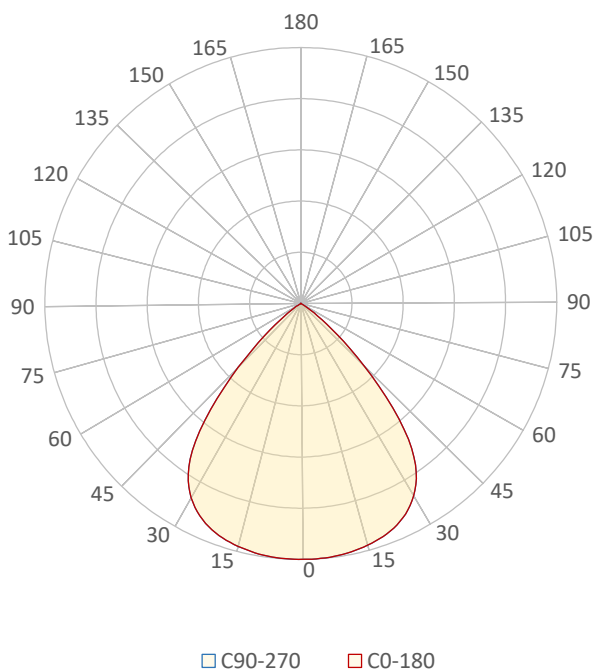


General Description

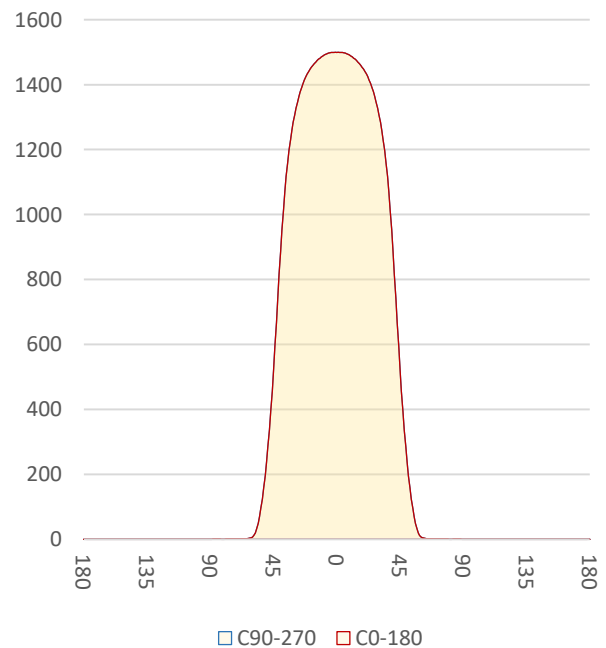
| | |
|-------------------|--------------------|
| Item number | E-L6-X-X-3090 |
| Date and time | 2-12-2022 10:59:59 |
| CCT (Kelvin) | 2998 K |
| Beam angle | 83,8° |
| Luminous flux | 2397 lm |
| Efficiency | 88 lm/watt |
| Weighted energy | 27,1 kWh/1000h |
| Power factor | 0,97 |
| CRI (RA) | 92,6 |
| Fidelity index Rf | Rf 90,2 |
| Gammut index Rg | Rg 103,2 |
| Peak | 1500 cd |



Polar diagram



Cartesian diagram



LM-79

Test Report

LM79-EMERALD-L6-3000K-CRI90

| Beam details | 1m | 2m | 3m | 4m | 5m | | | | | | | | | | | | | | | | | | | |
|------------------------------------|-----------|----------|----------|---------|------------------------|--------|--------|--------|--------|--------------------------|--------|--------|--------|--------|-------------------------------------|--------|--------|--------|--------|------------------------------------|--|--|--|--|
| Lux* | 1500 lx | 375 lx | 167 lx | 94 lx | 60 lx | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| *measured at center of beam | | | | | | | | | | | | | | | | | | | | | | | | |
| Footcandles* | 139,3 fcd | 34,8 fcd | 15,5 fcd | 8,7 fcd | 5,6 fcd | | | | | | | | | | | | | | | | | | | |
| Beam width (meter) | 1,8 m | 3,6 m | 5,4 m | 7,2 m | 9 m | | | | | | | | | | | | | | | | | | | |
| Beam width (Feet) | 5,9 ft | 11,8 ft | 17,7 ft | 23,5 ft | 29,4 ft | | | | | | | | | | | | | | | | | | | |
| Beam intensities | | | | | | | | | | | | | | | | | | | | | | | | |
| 1m | 2m | 3m | 4m | 5m | 6m | 7m | 8m | 9m | 10m | 11m | 12m | 13m | 14m | 15m | 16m | 17m | 18m | 19m | 20m | | | | | |
| 1500lx | 375lx | 167lx | 94lx | 60lx | 42lx | 31lx | 23lx | 19lx | 15lx | 12lx | 10lx | 9lx | 8lx | 7lx | 6lx | 5lx | 5lx | 4lx | 4lx | | | | | |
| 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 | | | | | |
| 139,3fcd | 34,8fcd | 15,5fcd | 8,7fcd | 5,6fcd | 3,9fcd | 2,8fcd | 2,2fcd | 1,7fcd | 1,4fcd | 1,2fcd | 1fcd | 0,8fcd | 0,7fcd | 0,6fcd | 0,5fcd | 0,5fcd | 0,4fcd | 0,4fcd | 0,3fcd | | | | | |
| Intensities in 0° c-plane | | | | | | | | | | | | | | | | | | | | | | | | |
| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | | | | | |
| 1500 | 1498 | 1488 | 1470 | 1441 | 1391 | 1307 | 1160 | 887 | 524 | 238 | 70 | 7 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | | | | | |
| 100% | 100% | 99% | 98% | 96% | 93% | 87% | 77% | 59% | 35% | 16% | 5% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | |
| Intensities in 90° c-plane | | | | | | | | | | | | | | | | | | | | | | | | |
| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | | | | | |
| 1500 | 1498 | 1488 | 1470 | 1441 | 1391 | 1307 | 1160 | 887 | 524 | 238 | 70 | 7 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | | | | | |
| 100% | 100% | 99% | 98% | 96% | 93% | 87% | 77% | 59% | 35% | 16% | 5% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | |
| Intensities in 180° c-plane | | | | | | | | | | | | | | | | | | | | | | | | |
| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | | | | | |
| 1500 | 1498 | 1488 | 1470 | 1441 | 1391 | 1307 | 1160 | 887 | 524 | 238 | 70 | 7 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | | | | | |
| 100% | 100% | 99% | 98% | 96% | 93% | 87% | 77% | 59% | 35% | 16% | 5% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | |
| Intensities in 270° c-plane | | | | | | | | | | | | | | | | | | | | | | | | |
| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | | | | | |
| 1500 | 1498 | 1488 | 1470 | 1441 | 1391 | 1307 | 1160 | 887 | 524 | 238 | 70 | 7 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | | | | | |
| 100% | 100% | 99% | 98% | 96% | 93% | 87% | 77% | 59% | 35% | 16% | 5% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | |
| Beam angle 50% | | | | | Field angle 10% | | | | | Cutoff angle 2,5% | | | | | Intensity ratio in 120° cone | | | | | Intensity ratio in 90° cone | | | | |
| 83,8° | | | | | 104,5° | | | | | 113,3° | | | | | 99,8% | | | | | 90,4% | | | | |



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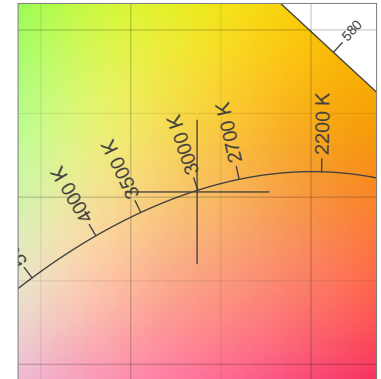
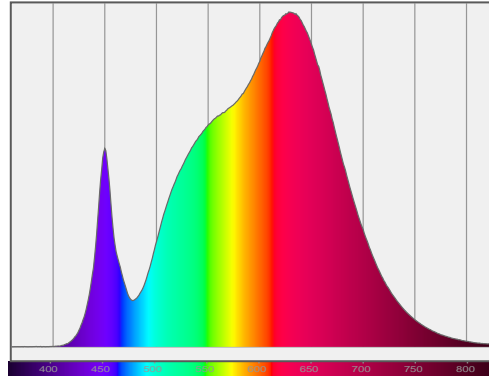
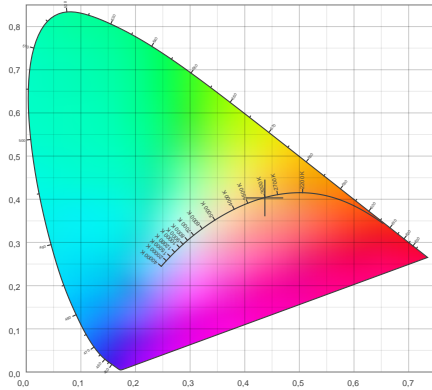
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LM-79

Test Report

LM79-EMERALD-L6-3000K-CRI90

Color details



CIE 1931

x: 0,437



Spectra

CIE 1931 ZOOM

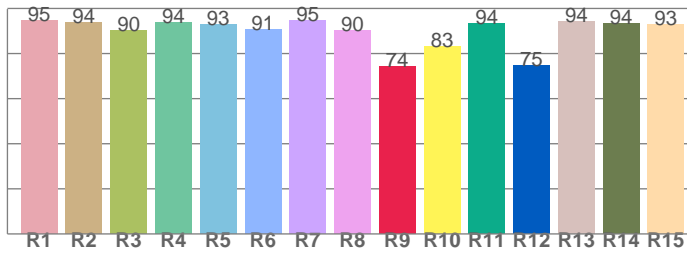
2998 K

y: 0,403

Δuv : -0,0004

CRI: 92,6 (R1-R8)

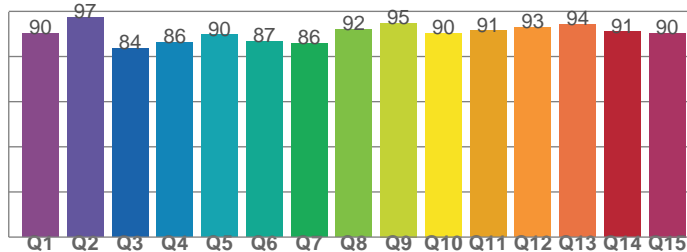
CRI values, R1-R8 are used to calculate final CRI value



| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 |
|------|------|------|------|------|------|------|------|
| 94,5 | 93,8 | 90,4 | 93,6 | 92,8 | 90,8 | 94,5 | 90,1 |
| R9 | R10 | R11 | R12 | R13 | R14 | R15 | |
| 74,3 | 83,3 | 93,5 | 74,8 | 94,1 | 93,6 | 92,7 | |

CQS: 89,7

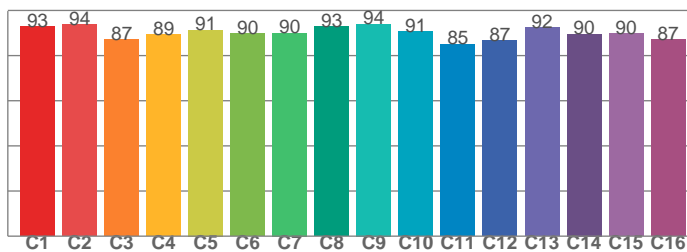
CQS values



| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 |
|------|------|------|------|------|------|------|------|
| 90,3 | 97,2 | 83,7 | 86,4 | 89,6 | 86,7 | 85,7 | 92,0 |
| Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | |
| 94,9 | 90,4 | 91,4 | 93,0 | 94,3 | 90,9 | 90,4 | |

TM30: 90,2

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



| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 |
|------|------|------|------|------|------|------|------|
| 92,9 | 93,8 | 87,0 | 89,2 | 91,3 | 89,7 | 90,0 | 92,8 |
| C9 | C10 | C11 | C12 | C13 | C14 | C15 | |
| 94,0 | 90,6 | 85,0 | 86,6 | 92,3 | 89,5 | 89,7 | |

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 | Δuv |
| 2998 K | 92,6 | 74,3 | 90,2 | 103,2 | 89,7 | 0,437 | 0,403 | 0,251 | 0,347 | -0,0004 |



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Test Report

LM79-EMERALD-L6-3000K-CRI90

TM30 details

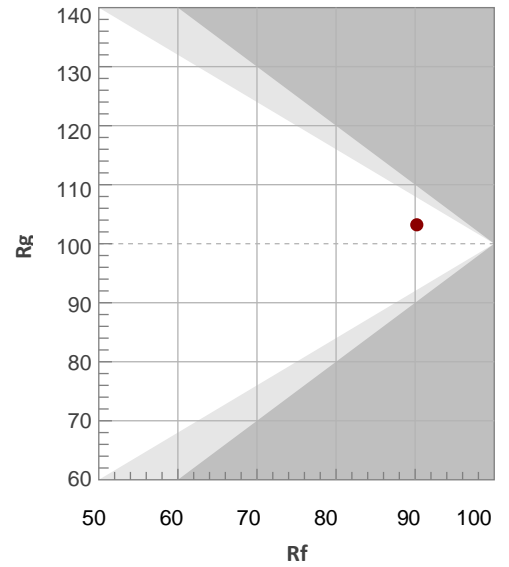
Rf 90,2

Fidelity index Rf

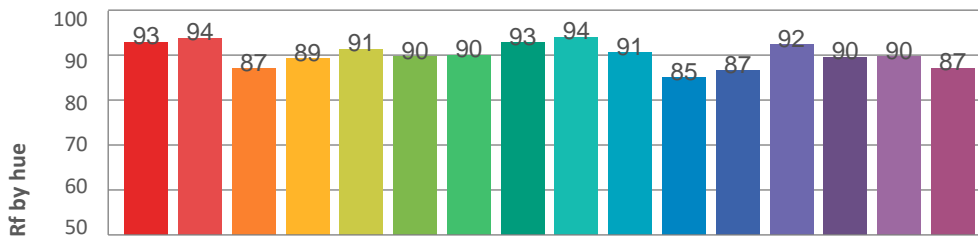
Rg 103,2

Gamut index Rg

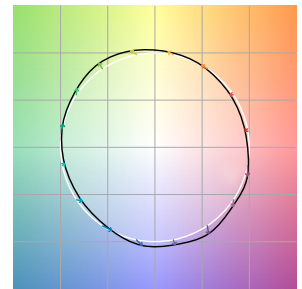
| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 93 | -3% | -2% |
| 2 | 94 | -3% | 2% |
| 3 | 87 | 0% | 7% |
| 4 | 89 | 2% | 6% |
| 5 | 91 | 5% | 5% |
| 6 | 90 | 7% | 0% |
| 7 | 90 | 3% | -5% |
| 8 | 93 | 1% | -5% |
| 9 | 94 | -3% | -2% |
| 10 | 91 | -4% | 4% |
| 11 | 85 | -1% | 11% |
| 12 | 87 | 5% | 7% |
| 13 | 92 | 5% | 1% |
| 14 | 90 | 8% | -4% |
| 15 | 90 | 3% | -6% |
| 16 | 87 | 2% | -10% |



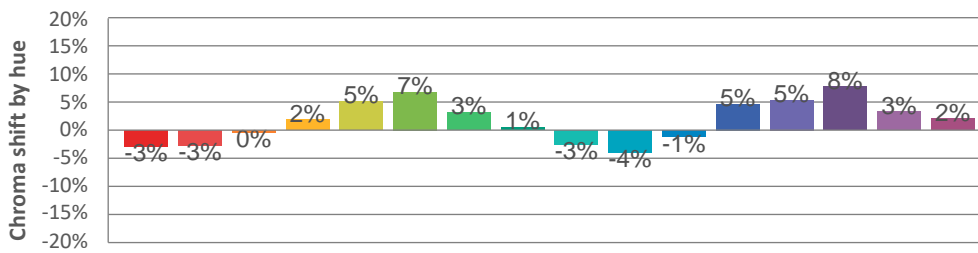
Hue binH



Color vector graphics



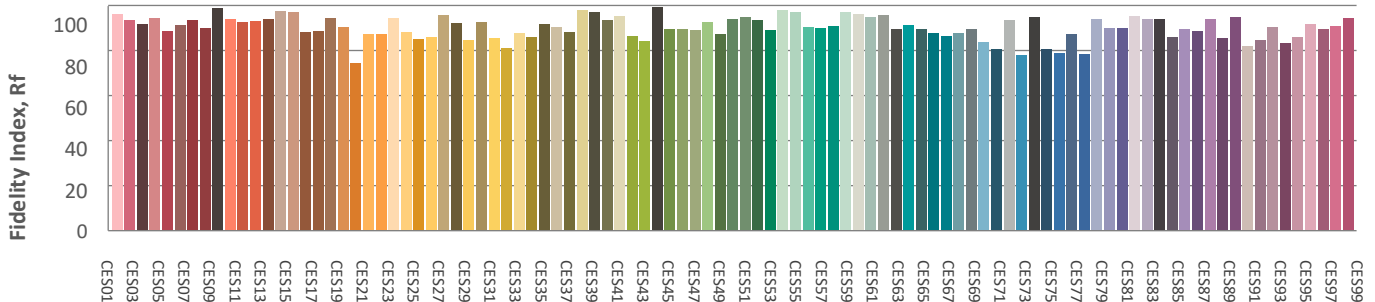
Hue bin



Color distortion graphics



Color Evaluation Sample



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Test Report

LM79-EMERALD-L6-3000K-CRI90

Glare Evaluation According to UGR

| p Ceiling | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 | |
|---|--|------|------|------|------|---|------|------|------|------|------|
| p Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 | |
| p Floor | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| Room size X Y | Viewing direction at right angles to lamp axis | | | | | Viewing direction parallel to lamp axis | | | | | |
| 2H | 2H | 28,0 | 28,8 | 28,1 | 29,0 | 29,2 | 28,0 | 28,8 | 28,1 | 29,0 | 29,2 |
| | 3H | 27,7 | 28,6 | 28,1 | 28,8 | 29,0 | 27,7 | 28,6 | 28,1 | 28,8 | 29,0 |
| | 4H | 27,6 | 28,4 | 28,0 | 28,7 | 28,9 | 27,6 | 28,4 | 28,0 | 28,7 | 28,9 |
| | 6H | 27,6 | 28,3 | 27,9 | 28,6 | 29,0 | 27,6 | 28,3 | 27,9 | 28,6 | 29,0 |
| | 8H | 27,5 | 28,2 | 27,9 | 28,6 | 28,9 | 27,5 | 28,2 | 27,9 | 28,6 | 28,9 |
| | 12H | 27,5 | 28,2 | 27,8 | 28,5 | 28,9 | 27,5 | 28,2 | 27,8 | 28,5 | 28,9 |
| 4H | 2H | 27,6 | 28,5 | 28,0 | 28,7 | 28,9 | 27,6 | 28,5 | 28,0 | 28,7 | 28,9 |
| | 3H | 27,5 | 28,2 | 27,9 | 28,5 | 28,9 | 27,5 | 28,2 | 27,9 | 28,5 | 28,9 |
| | 4H | 27,4 | 28,0 | 27,8 | 28,4 | 28,9 | 27,4 | 28,0 | 27,8 | 28,4 | 28,9 |
| | 6H | 27,3 | 27,9 | 27,8 | 28,2 | 28,6 | 27,3 | 27,9 | 27,8 | 28,2 | 28,6 |
| | 8H | 27,2 | 27,8 | 27,7 | 28,1 | 28,5 | 27,2 | 27,8 | 27,7 | 28,1 | 28,5 |
| | 12H | 27,2 | 27,6 | 27,7 | 28,0 | 28,5 | 27,2 | 27,6 | 27,7 | 28,0 | 28,5 |
| 8H | 4H | 27,2 | 27,8 | 27,7 | 28,1 | 28,5 | 27,2 | 27,8 | 27,7 | 28,1 | 28,5 |
| | 6H | 27,2 | 27,6 | 27,7 | 28,0 | 28,5 | 27,2 | 27,6 | 27,7 | 28,0 | 28,5 |
| | 8H | 27,2 | 27,5 | 27,7 | 28,0 | 28,6 | 27,2 | 27,5 | 27,7 | 28,0 | 28,6 |
| | 12H | 27,1 | 27,4 | 27,7 | 27,9 | 28,5 | 27,1 | 27,4 | 27,7 | 27,9 | 28,5 |
| 12H | 4H | 27,2 | 27,6 | 27,7 | 28,0 | 28,5 | 27,2 | 27,6 | 27,7 | 28,0 | 28,5 |
| | 6H | 27,2 | 27,5 | 27,7 | 28,0 | 28,6 | 27,2 | 27,5 | 27,7 | 28,0 | 28,6 |
| | 8H | 27,1 | 27,4 | 27,7 | 27,9 | 28,5 | 27,1 | 27,4 | 27,7 | 27,9 | 28,5 |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | | |
| S = 1.0H | 3,0 / -12,3 | | | | | 3,0 / -12,3 | | | | | |
| S = 1.5H | 5,4 / -31,3 | | | | | 5,4 / -31,3 | | | | | |
| S = 2.0H | 7,4 / -34,2 | | | | | 7,4 / -34,2 | | | | | |
| Standard table | n/a | | | | | n/a | | | | | |
| Correction summand | n/a | | | | | n/a | | | | | |
| Corrected glare indices referring to 2397lm total luminous flux | | | | | | | | | | | |



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