Colour Temperature in Mired and Mired Shift

Mired (micro reciprocal degree) values of two colour temperatures and the mired shift between them, used to choose correction filters and compare lamp colour.

Method: Reciprocal colour temperature; Mired scale of colour temperature

Input parameters

Unit system: SI

Parameter	Value	Unit
Source colour temperature	2,726.8	°C
Target colour temperature	5,326.9	°C

Calculated results

Parameter	Value	Unit
Mired of the source	333.33	
Mired of the target	178.57	
Mired shift $M_2 - M_1$ (negative = bluer)	-154.76	
Temperature ratio	1.8667	

Notes for this case

- Mired = $10^6/T$. Equal mired steps look roughly equally different to the eye, which is why filters are rated in mired: a negative shift (blue filter) raises colour temperature.

Formula and method

$$M = \frac{10^6}{T}, \quad \Delta M = M_2 - M_1$$

Variables

T_1	Source colour temperature	K
T_2	Target colour temperature	K
M_1	Mired of the source	-
M_2	Mired of the target	-
ΔM	Mired shift $M_2 - M_1$ (negative = bluer)	-
T_2/T_1	Temperature ratio	-

Method and standards

Mired scale.

Assumptions and limits

- Black-body-like sources.

References

Reciprocal colour temperature, Mired scale of colour temperature

Report details

Report reference	FCC-9HWE-8E38 (the same inputs always give the same reference)
Generated	23 November 2026, 18:08 UTC
Calculator	Colour Temperature in Mired and Mired Shift
Method last reviewed	17 November 2026
Software release	FireCAD Calc, release of 22 November 2026
Release checks	3 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/electrical/lighting/colour-temperature-mired-shift

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.