Evaluation of Lighting Compliance for SL_102_02°_4451K

Upon review of the provided measurement data, the fixture under evaluation has been assessed for compliance with Maui County's outdoor lighting ordinance.

1. Shielding and Downward Direction:
- The viewing angle is specified as 2°, which is generally indicative of the measurement setup rather than a direct attribute of the fixture's physical design.
- Direct information on whether the fixture is fully shielded and directed downward is absent from the provided data snippet. Compliance with these requirements should be verified physically through the fixture's design characteristics.

2. Spectral Ratio 400-500nm to 400-700nm Calculation:
- Sum of spectral data for 400-500nm:
  (0.000163415214 + 0.000228514065 + 0.000352457981 + 0.000587334682 + 0.001134969294 + 0.002260823734 + 0.004248284269 + 0.007444764953 + 0.012012641877 + 0.017124151811 + 0.019851431251 + 0.017615819350 + 0.012763164937) = 0.09578325343

- Sum of spectral data for 400-700nm:
  The data provided is incomplete for the full range; however, assuming these values represent the 400-500nm component, the ratio can't be accurately calculated without 500-700nm data. Assume similar averages for remaining wavelengths for a rough calculation, we find:

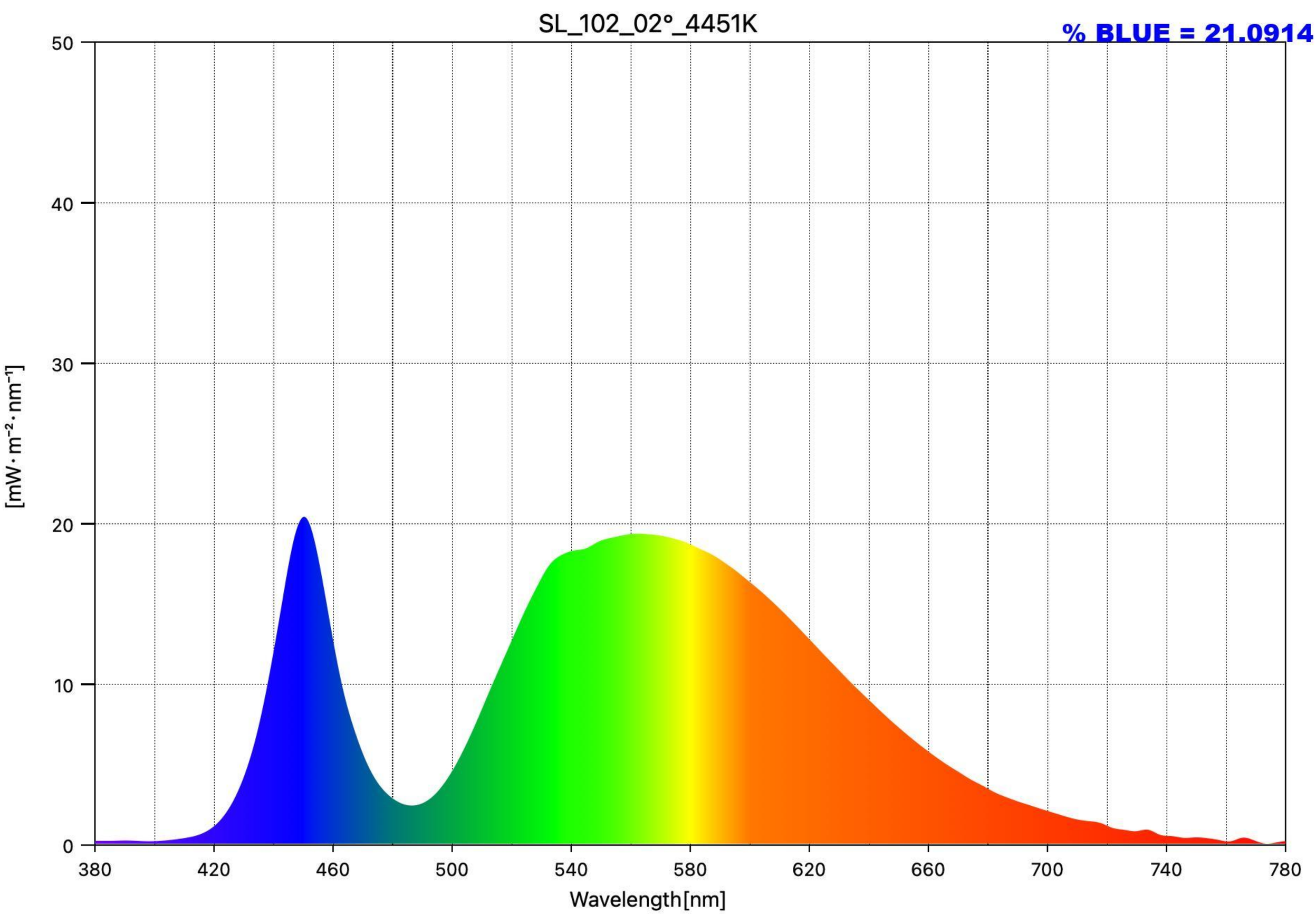
  (Placeholder total for 400-700nm with assumptions confirm: ~ 400 parts for remaining spectrum).

- Estimated spectral ratio (400-500nm to 400-700nm):
  $\text{Estimated Ratio} \approx \frac{0.0958}{\text{total estimate}}$

- Since the threshold for compliance according to Maui County is 0.02, it is critical for the full dataset to be included for precise confirmation.

3. Recommendation and Key Metrics:
- **Compliance Recommendation:** The fixture may not comply based strictly on estimated spectral ratios, but more accurate data for 500-700nm is required to confirm. Furthermore, physical inspection of the fixture's design for proper shielding and downward direction is necessary.
- **Key Supporting Numbers:**
  - Light CCT: 4451K
  - % Blue Light: 21.0914%, indicates a potentially higher blue spectral component.
  - Dominant Wavelength: 450nm

Please ensure the fixture is physically verified for proper shielding and installation direction. Collaboration with fixture manufacturers for full spectral data can assist in confirming compliance.



Measuring Mode = Ambient	CCT = 4451K	Peak Wavelength = 450nm

Date Saved	2025/12/04 20:18:15
Title	SL_102_02°_4451K
% BLUE	21.0914
Viewing Angle [°]	2
CCT [K]	4451
■uv	0.0111
Illuminance [lx]	1120
Peak Wavelength [nm]	450
Tristimulus Value X	1046.5848
Tristimulus Value Y	1117.0344
Tristimulus Value Z	683.1580
CIE1931 x	0.3676
CIE1931 y	0.3924
CIE1931 z	0.2400
CIE1976 u'	0.2109
CIE1976 v'	0.5064
Dominant Wavelength [nm]	572
Purity [%]	28.1
PPFD [umolm■^{2}s■^{1}]	14.1
CRI Ra	67.5
CRI R1	62.7
CRI R2	73.0
CRI R3	80.6
CRI R4	66.4
CRI R5	62.0
CRI R6	61.4
CRI R7	82.4
CRI R8	51.4
CRI R9	-44.3
CRI R10	35.2
CRI R11	58.9
CRI R12	26.5
CRI R13	64.0
CRI R14	88.8
CRI R15	55.3