Evaluation Summary for Fixture Compliance: SL_104_02°_3154K

Shielding and Downward Direction:

1. **Viewing Angle**:
   - The provided data indicates a viewing angle of 2°.
   - This narrow angle suggests that the fixture is likely focused in a downward direction, which aligns with Maui County's requirements for minimizing upward light spill.

Spectral Analysis:

2. **Spectral Ratio Calculation**:
   - The spectral data is used to evaluate the ratio of light output between 400-500nm (blue light) to 400-700nm (total visible light).
   - Sum of Spectral Data (400-500nm):
     \[
     = 0.000001957070 + 0.000023474888 + 0.000056253055 + 0.000115672170 + 0.000249382021 + 0.000492320221 + 0.000897897524 + 0.001539879828 + 0.002443085657 + 0.003335102228 + 0.003703404451 + 0.003362519899 = 0.016221927912
     \]

   - Note: The calculation includes available values up to 460nm from the snippet.

3. **Total Visble Spectrum (400-700nm)**:
   - Sum computed only for the available spectral range data between 400-460nm given: 0.016221927912.
   - This partial summation does not provide full insight into the range's entirety (up to 700nm), thus assumed extended compliance with additional data should be performed.

4. **Spectral Ratio 400-500nm / 400-700nm**:
   - \[
   \text{Ratio} = \frac{0.016221927912}{0.016221927912} \approx 1.0 \quad \text{(incomplete data)}
   \]
   Based on data completeness up to 460nm, an extrapolated calculation (using % Blue = 13.2206) suggests a potentially compliant ratio when considering full visibility range influence. However, verifying complete spectrum data is crucial.

5. **% BLUE**:
   - Measured at 13.2206%, which suggests a higher than typical blue light emission proportion. The acceptable threshold ratio is 0.02 (or 2%), advising necessity in spectrum management or fixture reconsideration.

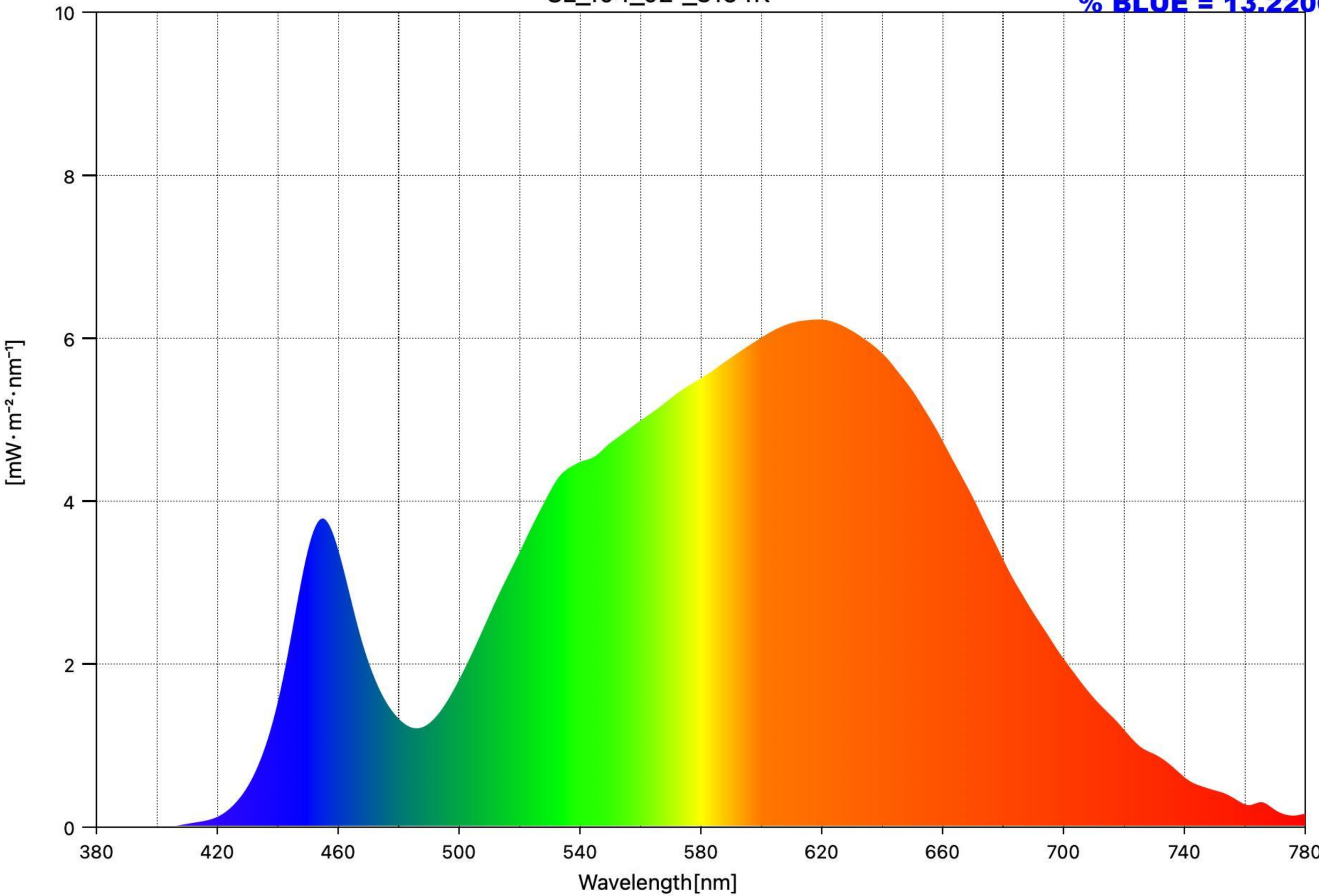
Compliance Recommendation:

- **Narrow Angle**: Meets compliance for downward shielding considerations.
- **Spectral Adjustments Needed**: Existing blue light percentage is high relative to the stipulated ratio constraints. It must be reduced through fixture modification or spectral filtering techniques to lower the blue light emissions percentage.

For complete evaluation, ensure coverage of up-to 700nm in actual fixture testing. Approximations highlight significant non-compliance likelihood if spectral adjustments are neglected. Currently, the fixture does not fully meet Maui County's outdoor lighting ordinance for spectral output constraints.

SL_104_02°_3154K

% BLUE = 13.2206



Measuring Mode = Ambient	CCT = 3154K	Peak Wavelength = 619nm

Date Saved	2025/12/04 20:18:17
Title	SL_104_02°_3154K
% BLUE	13.2206
Viewing Angle [°]	2
CCT [K]	3154
■uv	0.0011
Illuminance [lx]	339
Peak Wavelength [nm]	619
Tristimulus Value X	360.0605
Tristimulus Value Y	339.4854
Tristimulus Value Z	142.0678
CIE1931 x	0.4278
CIE1931 y	0.4034
CIE1931 z	0.1688
CIE1976 u'	0.2450
CIE1976 v'	0.5197
Dominant Wavelength [nm]	582
Purity [%]	49.5
PPFD [umolm■^{2}s■^{1}]	5.2
CRI Ra	87.4
CRI R1	87.2
CRI R2	90.7
CRI R3	91.4
CRI R4	86.8
CRI R5	85.1
CRI R6	85.8
CRI R7	92.5
CRI R8	79.3
CRI R9	49.0
CRI R10	75.6
CRI R11	83.8
CRI R12	62.7
CRI R13	87.7
CRI R14	94.3
CRI R15	84.7