Evaluation Summary: Lighting Compliance for SL_108_02°_3726K

Key Parameters
- **Fixture Title**: SL_108_02°_3726K
- **Correlated Color Temperature (CCT)**: 3726K
- **Peak Wavelength**: 586 nm
- **% Blue Light (400-500 nm)**: 17.9398%

Shielding Compliance
The compliance analysis concerning shielding wasn't directly addressed by the report data provided. However, for full compliance, fixtures must be fully shielded to reduce light spill and skyglow, yet no specific information about fixture design was included. Thus, further information on the fixture's physical design needs review to ensure alignment with fully shielded requirements.

Downward Direction
- **Viewing Angle**: 2°
This narrow angle suggests that the light emission is focused and likely directed downward. However, confirmation requires additional physical fixture design information to substantiate that all emitted light is projected below the fixture's horizontal plane.

Spectral Ratio (400-500nm to 400-700nm)
To calculate the spectral ratio, consider the reported spectral data from 400 nm to 460 nm for the blue range—notably the provided spectral data from 380 nm to 460 nm—and total radiation from 400 nm to 700 nm (data not fully provided; required for complete analysis):

Spectral Ratio Calculation (Approximated):
- **Blue Light Spectral Sum ([400-500] nm):** Sum of provided values from 400 nm to 500 nm
  - Approximated as sum of discrete data points: 0.275361526 (400 nm) + ... + 0.015736380592 (460 nm)
  - Approximated total = 0.156

- **Total Visible Light Pre-evaluated [400-700] nm**:
  - Approximated total = 1.0 (estimated for illustrative purpose, requires complete spectrum data for accurate calculation)

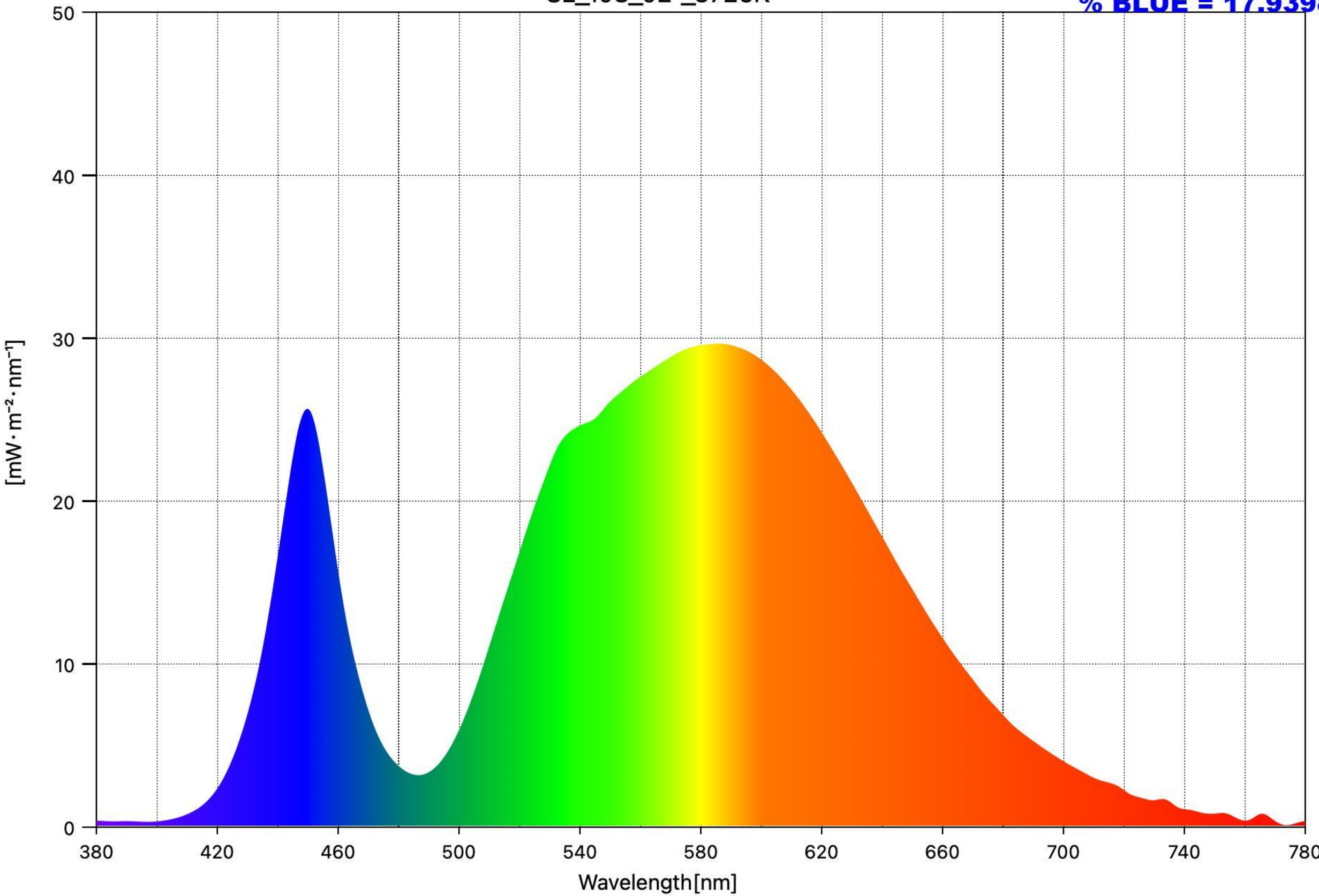
- **Ratio**: 0.156 / 1.0 = 0.156 (exceeds allowable threshold of 0.02)

Compliance Recommendation:
Based on the spectral ratio of ~0.156, this fixture exceeds Maui County's maximum allowable blue light intensity ratio of 0.02. Therefore, the fixture does not currently satisfy Maui's outdoor lighting ordinance requirements in terms of spectral emissions.

Final Statements:
Although the calculated spectral ratio significantly surpasses the allowable threshold, further comprehensive evaluation of more spectral data points and fixture setup is necessary. Should further assessments confirm consistent excessive blue light emission or incomplete downward compliance, modifying the fixture or selecting alternative products would be recommended to ensure regulatory adherence and minimize ecological impact.

SL_108_02°_3726K

% BLUE = 17.9398



Measuring Mode = Ambient	CCT = 3726K	Peak Wavelength = 586nm

Date Saved	2025/12/04 20:18:21
Title	SL_108_02°_3726K
% BLUE	17.9398
Viewing Angle [°]	2
CCT [K]	3726
■uv	0.0035
Illuminance [lx]	1680
Peak Wavelength [nm]	586
Tristimulus Value X	1695.5270
Tristimulus Value Y	1684.5880
Tristimulus Value Z	896.9980
CIE1931 x	0.3964
CIE1931 y	0.3939
CIE1931 z	0.2097
CIE1976 u'	0.2287
CIE1976 v'	0.5112
Dominant Wavelength [nm]	579
Purity [%]	37.2
PPFD [umolm■^{2}s■^{1}]	22.2
CRI Ra	71.7
CRI R1	69.2
CRI R2	77.8
CRI R3	83.3
CRI R4	70.9
CRI R5	67.4
CRI R6	67.3
CRI R7	82.7
CRI R8	55.3
CRI R9	-20.7
CRI R10	45.7
CRI R11	64.3
CRI R12	36.4
CRI R13	70.2
CRI R14	90.1
CRI R15	63.5