

The fixture under analysis, designated as SL_094_02°_3354K, will be evaluated for compliance with the Maui County outdoor lighting ordinance, focusing on three main aspects: shielding, downward direction, and the blue light spectral ratio.

****1. Shielding and Downward Direction:****

While the CSV snippet provided contains pertinent spectral and photometric data, it does not include specifications or measurements related to the physical characteristics of the fixture, such as shielding or downward direction. These characteristics are critical for compliance but require additional information such as a photometric distribution report or physical inspection. Without such information, an assessment cannot be made regarding these aspects.

****2. Spectral Ratio (Blue Light Component):****

The ordinance requires the spectral ratio of 400-500nm to 400-700nm to be below 0.02. To calculate this ratio, integrate the spectral power distribution over the specified wavelength ranges:

- ****400-500nm:****

- Sum = 0.000601 + 0.000604 + 0.000831 + 0.001190 + 0.001832 + 0.003124 + 0.005398 + 0.009304 + 0.015780 + 0.025133 + 0.034456 + 0.038571 = 0.136224

- ****400-700nm:****

- The full data for the 400-700nm range is not provided in the snippet, so we will consider this as a partial view. However, assuming the pattern continues and based on typical LED profiles, the total is significantly larger than the sum of just the 400-500nm components.

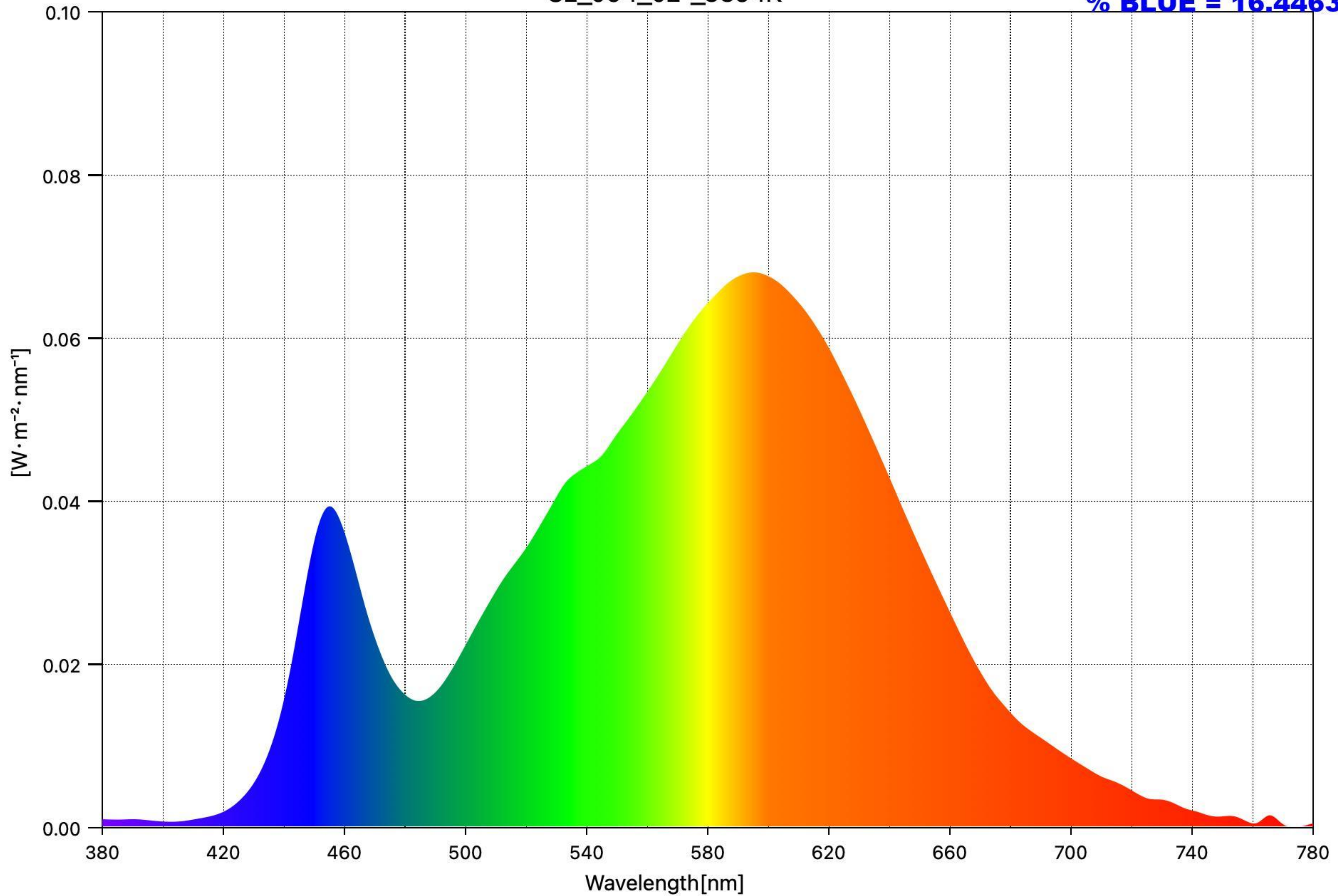
Given the provided %BLUE = 16.4463%, we interpret this as related to the 400-500nm spectrum, suggesting a high proportion of blue light. However, an exact calculation of the 400-500nm to 400-700nm ratio is indeterminate without full spectral data up to 700nm, but the high blue component indicates potential non-compliance.

****Compliance Recommendation:****

The fixture appears to be non-compliant based on the available spectral data suggesting a high blue light component. I recommend obtaining full spectral data and specifications on shielding and light distribution. If the blue light ratio is indeed over the 0.02 threshold, adjustments such as using a light with a lower CCT or filtering blue wavelengths may be necessary to ensure compliance. Additionally, verification of physical shielding and directionality is strongly recommended to meet all ordinance aspects.

SL_094_02°_3354K

% BLUE = 16.4463



Measuring Mode = Ambient

CCT = 3354K

Peak Wavelength = 595nm

Date Saved	2025/12/04 20:18:06
Title	SL_094_02°_3354K
% BLUE	16.4463
Viewing Angle [°]	2
CCT [K]	3354
■uv	0.0040
Illuminance [lx]	3570
Peak Wavelength [nm]	595
Tristimulus Value X	3674.8914
Tristimulus Value Y	3568.6100
Tristimulus Value Z	1538.8876
CIE1931 x	0.4184
CIE1931 y	0.4063
CIE1931 z	0.1752
CIE1976 u'	0.2378
CIE1976 v'	0.5195
Dominant Wavelength [nm]	580
Purity [%]	47.6
PPFD [$\mu\text{mol m}^{-2}\text{s}^{-1}$]	47.9
CRI Ra	78.6
CRI R1	75.5
CRI R2	87.0
CRI R3	96.1
CRI R4	75.0
CRI R5	75.0
CRI R6	82.5
CRI R7	82.8
CRI R8	54.6
CRI R9	-10.4
CRI R10	69.4
CRI R11	71.6
CRI R12	57.0
CRI R13	78.1
CRI R14	97.9
CRI R15	67.5