



# **Update Guide Release 2021.3**

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# INTRODUCTION

This document serves as a guide for new features and changes in TracePro 2020.3. This release has enhancements in Photorealistic Rendering, TrueColor plots, Lighting Toolkit, and the Analysis Toolkit. This release also fixes several problems reported by TracePro users. See the [TracePro Revision History](http://www.lambdare.com) at [www.lambdare.com](http://www.lambdare.com) for more details on problem resolutions.

## WHAT'S NEW IN TRACEPRO 2020.3?

Changes in TracePro 2020.3 are summarized as follows:

- Exposure Compensation for Photorealistic Rendering and TrueColor plots
- ECE R91, ECE R119, and ECE R77 regulations added to the Lighting Toolkit
- Polygon analysis shape for luminance analysis added to the Analysis Toolkit
- New Scheme macro commands

## EXPOSURE COMPENSATION

A new option for the Photorealistic Rendering and TrueColor plots is available in TracePro 2021.3: Exposure Compensation. Exposure Compensation is the expected illuminance or luminance value for displaying a saturated white (255,255,255). Select Exposure value from the Normalize to: dropdown menu to use the Exposure Compensation tools. If the “Calculate exposure compensation” checkbox is selected, the expected value to display saturated white will be calculated and displayed for the current plot. If the current plot is monochromatic, the automatic calculation function will extrapolate the expected value for displaying white, even if there is one a single color. For example, with green light the saturated values would be (0,255,0). Figure 1 shows Exposure Compensation for a three-color TrueColor plot.

Another new option is to normalize the Photorealistic Rendering or TrueColor plots to the highest color value. This can be done by selecting Highest Color from the Normalize to: dropdown menu. Figure 2 shows these results.

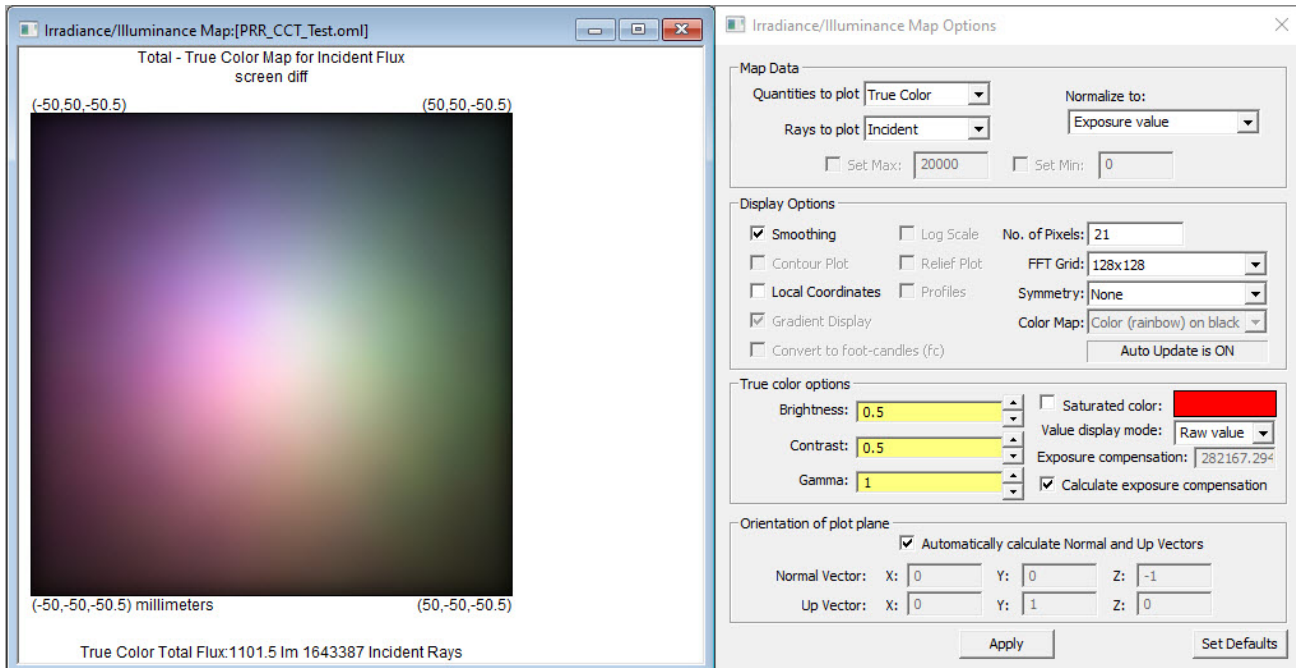


Figure 1. Exposure compensation used to calculate and display saturated white

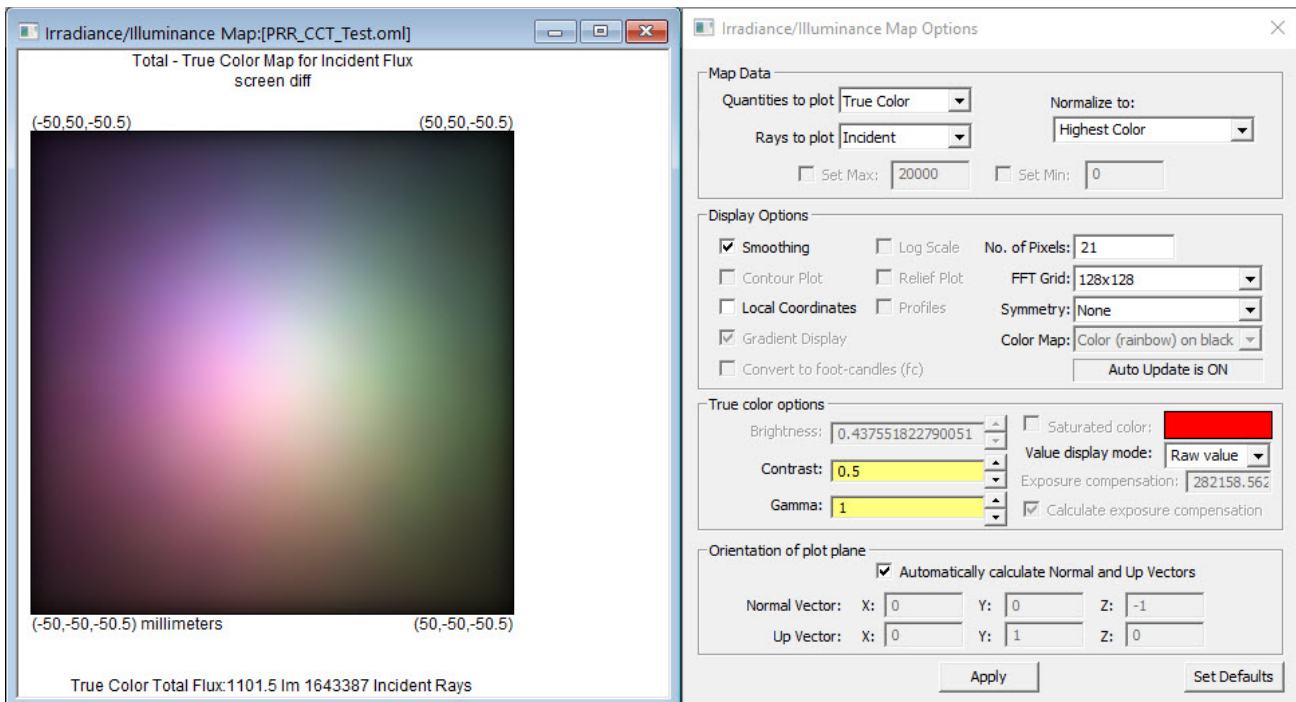


Figure 2. Normalize to Highest Color example

## ANALYSIS TOOLKIT – POLYGON ANALYSIS SHAPE

A new polygon analysis shape for luminance analysis has been added to the Luminance Analysis tool in the Analysis Toolkit. The Luminance Analysis is available when a RGLB raw data file is loaded in the Analysis Toolkit.



Pressing CTRL+SHIFT+Left mouse clicks allows the user to draw a polygon in the luminance plot. Each mouse clicks adds a new vertex to the polygon. The table on the right of the window will show the values for the luminance in the defined area.

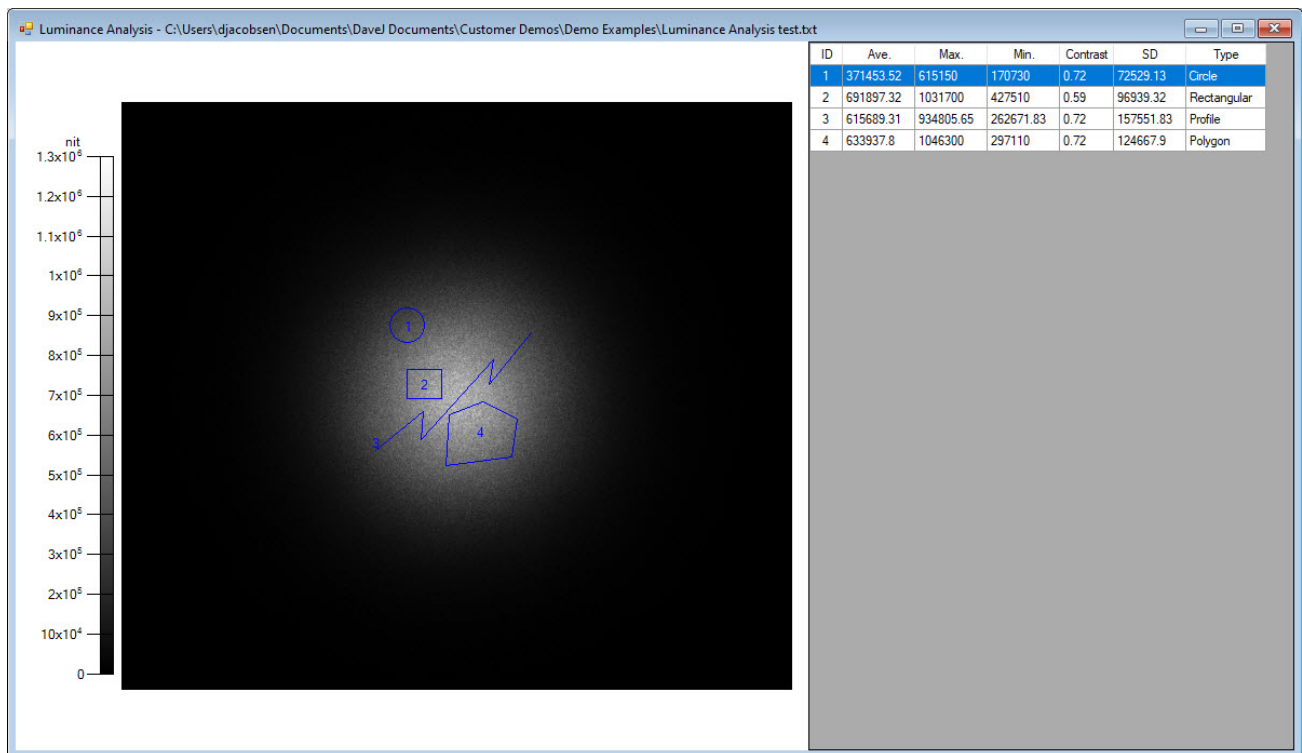


Figure 3. Polygon analysis shape in Luminance Analysis

## LIGHTING TOOLKIT – NEW REGULATIONS

Three new regulation tables have been added to the Lighting Toolkit

- ECE R91 side marker lamps
- ECE R119 cornering lamps
- ECE R77 parking lamps

## NEW SCHEME MACRO COMMANDS

Two new Scheme macro commands have been added to TracePro

- geometry:make-circular-edge-3pt
- geometry:make-circular-edge