



**AGI Flash Tool User Guide**  
***Indoor applications***  
**June 2018**

# Overview

- The AGI Flash Indoor tool allows you to quickly estimate the light level (illuminance), number of luminaires, and lighting layout, for a simple room or building
- It can be accessed by going to the layout menu on an applicable product page and clicking calculator



- Die-cast aluminum housing with durable powder coat finish.
- Aluminum reflector combined with the prismatic borosilicate lens, provides precise and efficient optical performance.
- Die-cast aluminum lens frame with continuous neoprene gasket.
- Rated IP65.
- 2089 Lumens
- 120-277 Volt Driver.

 SPEC SHEETS

 IES FILES

 LAYOUT

INDOOR LAYOUT

 CALCULATOR

# Overview

## How to use:

- Go through all of the menus on the left and fill in applicable information
- Your results are shown at the bottom and are calculated automatically

**Luminaire**

1 FW4-LED40-B-4K-D

FW4-LED40-B-4K-DIM  
FW4-LED40-B-4K-DIM  
2835/4000K

Show Luminaire Image

Light Loss Factor (LLF) : 1.00

▼ Geometry

▼ Reflectance

▼ Specify

▼ Layout (Advanced)

▼ Luminaire (Advanced)

▼ Units

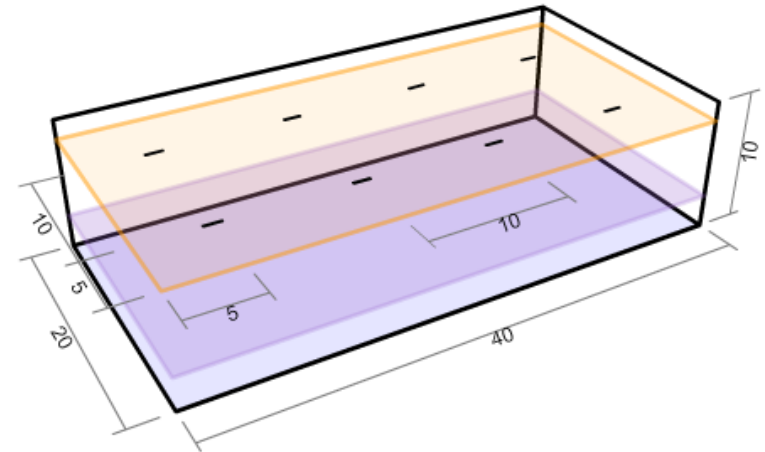
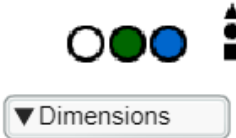
▼ Output / Help

Average Illuminance : 46 fc

Number of Luminaires : 8

LPD : 0.39 W/ft<sup>2</sup>

**RAB**  
DESIGN



FlashIndoor 1.38 Build: 721-8418 | © 2004-2018 Lighting Analysts, Inc. | Calculations based on IESNA methods and recommendations. | Results derived from content of photometric files.

# Navigation

Click a menu title to expand it

**► Luminaire**

1 FW4-LED40-B-4K-D ▼

FW4-LED40-B-4K-DIM  
FW4-LED40-B-4K-DIM  
2835/4000K

Show Luminaire Image

Light Loss Factor (LLF) : 1.00

▼ Geometry

▼ Reflectance

▼ Specify

▼ Layout (Advanced)

▼ Luminaire (Advanced)

▼ Units

▼ Output / Help

Average Illuminance : 46 fc

Number of Luminaires : 8

LPD : 0.39 W/ft<sup>2</sup>

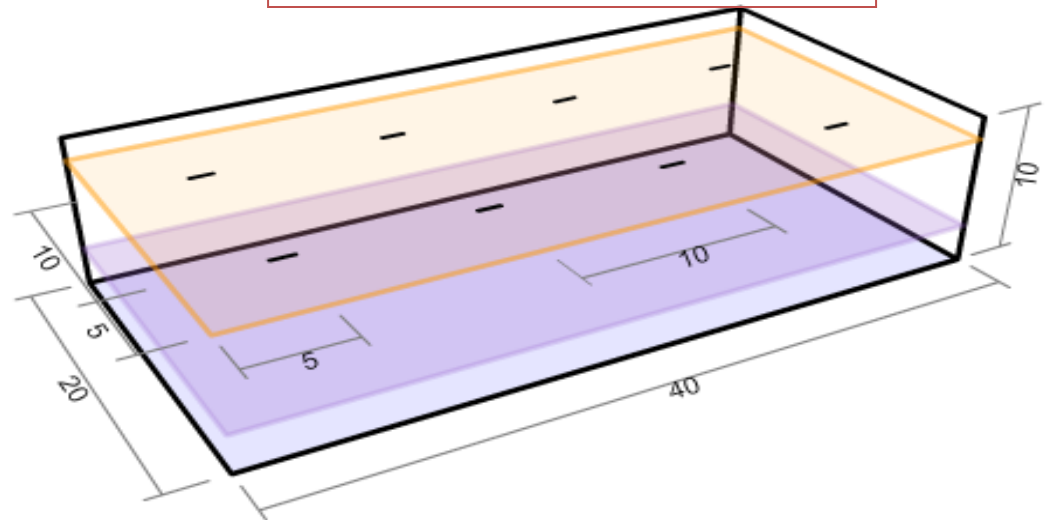
**RAB**<sup>®</sup>  
DESIGN



Switch between different views of room



▼ Dimensions



Results from your selections

# Menu Features

Overview of each menu's features and options:

## 1. Luminaire

- Select the fixture you wish to use from the drop down menu (all fixtures from specific product family page will be listed)
- Light loss factor: resulting from dirt on fixture, lumen depreciation (0.9 recommended)

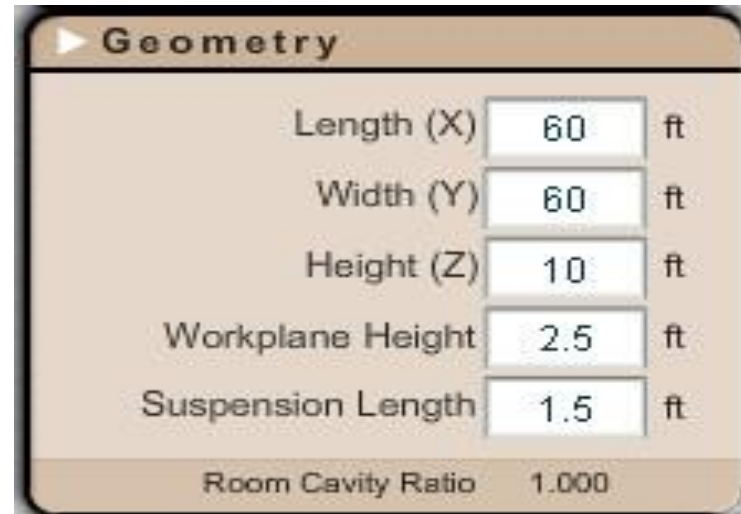


The screenshot shows a software interface for selecting a luminaire. It has a title bar with a right-pointing triangle and the word "Luminaire". Below the title bar is a dropdown menu with the number "1" and the text "FW4-LED40-B-4K-D". Below the dropdown menu, the text "FW4-LED40-B-4K-DIM" is repeated twice, followed by "2835/4000K". Below this text is a button labeled "Show Luminaire Image". At the bottom, there is a label "Light Loss Factor (LLF) :" followed by a text input field containing the value "1.00".

# Menu Features

## 2. Geometry

- Input the dimensions of the room you wish to illuminate (x,y,z)
- Workplane height refers to how high off the ground workstations (desks or other equipment) are in the room
- Suspension length refers to height the fixtures will be suspended from the ceiling



The screenshot shows a software interface titled "Geometry" with a play button icon. It contains several input fields for room dimensions and suspension settings, each followed by a unit "ft".

Parameter	Value	Unit
Length (X)	60	ft
Width (Y)	60	ft
Height (Z)	10	ft
Workplane Height	2.5	ft
Suspension Length	1.5	ft
Room Cavity Ratio	1.000	

# Menu Features

## 3. Reflectance

- Refers to the colouring of the room. Lighter surfaces have a higher reflectance.
- The Coefficient of Utilization (CU) and effective cavity reflectances are calculated and displayed below

▶ Reflectance		
Ceiling	80	%
Walls	50	%
Floor	20	%
CU 0.771		
Eff. Cavity Refl. -- Ceiling	76.2	%
Eff. Cavity Refl. -- Floor	19.6	%

# Menu Features

## 4. Specify

- The Specify menu is used to set the target Illuminance level for the calculation (in foot candles)
- Options also include the ability to compute based on a set number of luminaires, or for a target power density
- The calculation can be further constrained by using the buttons below to control your tolerance for the desired illuminance level (minimum, target, or maximum)

**Specify**

	Desired	Calculated	
Illuminance	20	29	fc
# Lum		9	
LPD		0.46	W/ft <sup>2</sup>

The desired Avg Illuminance is the

- ☒ Minimum Allowable
- ☐ Target (find nearest)
- ☐ Maximum Allowable



# Menu Features

## 5. Layout (Advanced)

- Using this section, you can control the positioning of the luminaires by:
  - Layout (rows and columns)
  - Spacing between
  - Spacing from wall
  - Ceiling grid
  - Continuous rows or columns

Select the box next to an option to activate the specific constraint and be able to change numbers

The screenshot shows a software interface titled "Layout (Advanced)". It contains several rows of controls:

	Rows	Columns	
Layout <input checked="" type="checkbox"/>	3	3	<input type="checkbox"/>
Spacing <input type="checkbox"/>	20.00	20.00	<input type="checkbox"/>
Wall Spc <input type="checkbox"/>	10.00	10.00	<input type="checkbox"/>
Spacing Criteria	1.510	1.510	<input style="border: 1px solid black; border-radius: 50%;" type="button" value="?"/>
Ceiling Grid	<input type="checkbox"/> Apply	<input type="checkbox"/> Center	
Spacing	2	4	ft
Continuous	<input type="checkbox"/> Rows	<input type="checkbox"/> Columns	

# Menu Features

## 6. Luminaire (Advanced)

- The Advanced Luminaire section allows some simple prorating for the calculations based on Lamp Lumens and Luminaire Wattage.

► Luminaire (Advanced)

Number of Lamps : 1

Lumens per Lamp : 15000 lms

Luminaire Wattage : 185 W

Shape ☐ ☒

Diameter : 1.5 ft

Rotation : 0 deg ▼

## 7. Units

- Set the preferred units for the calculations

► Units

Dimensions Feet ▼

Illuminance Footcandles ▼

# Menu Features

## 8. Output/Help

- Select print preview to create a customizable printout of your calculations
- Customize the yellow sections at the top of the page with text
- Use the dimensions menu on the right side and the layout buttons beside it to modify the appearance of the model below it
- Click the print button at the top to proceed

PrintCloseScroll Page

**RAB<sup>®</sup>**  
DESIGN

Title : FW4 Layout

Description : I believe that this solution is perfect for you

Date : 24 May 2018

For : Gary

By : RAB

IES Filename : FW4-LED40-B-4K-DIM.ies

Description : FW4-LED40-B-4K-DIM  
FW4-LED40-B-4K-DIM  
2835/4000K

**Luminaire**


Number of Lamps : 1  
Lamp Lumens : 5570  
Luminaire Wattage : 39 W  
Light Loss Factor (LLF) : 1.00

**Geometry**

Length (X) : 40 ft  
Width (Y) : 20 ft  
Height (Z) : 10 ft  
Workplane Height : 2.5 ft  
Suspension Length : 1.5 ft  
Room Cavity Ratio : 2.250

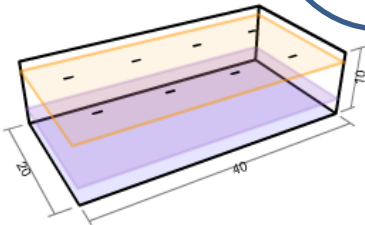
**Reflectance**

Ceiling : 80 %  
Walls : 50 %  
Floor : 20 %



► Dimensions

☒ Length  
☒ Width  
☒ Height  
☐ Grid Spacing  
☐ Wall Spacing



# Limitations of the tool

- Doesn't take into account windows, pillars, or any other obstructions when you give room dimensions
- Can only do a single level, no sloped floors or ceilings
- Only accounts for one bounce of light