



**Fortimo LED Strip X 1" Cuttable Modules
and LED Strip HE LV6 : Raising the Bar in
Design Flexibility and Efficacy**

Jun 16, 2021

In today's dynamic environment, speed and flexibility are essential...

- **Anticipating project needs is difficult**
 - Stocking less SKUs and separating in factory helps reduce inventory and forecasting risks
- **Avoid mixing old and new production runs**
 - Fewer SKUs means less chance of inconsistency in LED bins
- **Simplified production**
 - 4 ft modules enable streamlined assembly for 4 ft. fixtures, with less wiring needed
 - Daisy chain on all models
 - If shorter lengths such as 1 ft. or 2 ft. needed, simply follow the design in guide to separate to length needed.

Fortimo Variable Length Modules greatly simplify your luminaire production runs and enable the ability to react quickly to your customer's needs.

Permissible separation of variable length LED modules

Step 1: Start with a solid and clean anti-static working surface (table, fixturing jig, etc.) with a square edge suitable to support the variable length LED module. Place the Advance Fortimo variable length LED module such that the separation of the module will create the desired length of the LED module(s).



A solid working surface with proper square alignment of the line Advance Fortimo variable length LED module.

Step 2: Align the perforated separation line of the Advance Fortimo variable length LED module against the edge of the supported surface within 1mm of the perforated separation line as shown.

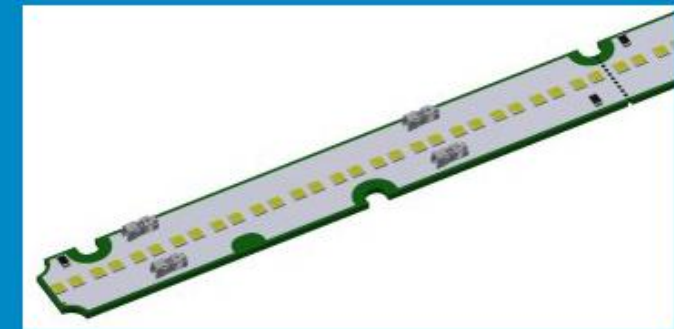


Proper alignment of the perforated separation line Advance Fortimo variable length LED module.

Step 3: Press the overhanging section of the variable length LED module down with pressure being applied as close as possible to the perforated separation line. Keep your fingers away from the LEDs as much as possible to avoid damage to the LEDs.



Anti-static gloved hands applying pressure for proper separation of the line Advance Fortimo variable length LED module.



ADVANCE

by ©ignify

LED Strip X – Inch by Inch Design Flexibility

Fortimo Strip X LV1 linear LED modules

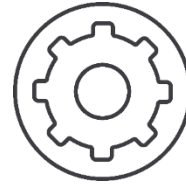
- ✓ **47.5" variable length** modules with break feature **every 1"** to allow architectural customers design flexibility at competitive price points
- ✓ **High efficiency 90 CRI** to enable superior color rendition in every application
- ✓ **2.5 SDCM color consistency** for critical applications
- ✓ **5% efficiency improvement** compared to LED Strip PR LV5 CRI90. Matching efficacy to CRI80 LED Strip PR LV5.
- ✓ **Improved PCB** and connector design over existing generations
- ✓ **Pairs with CertaDrive X and Xitanium** family of drivers



Fortimo Strip X LV1 LED modules

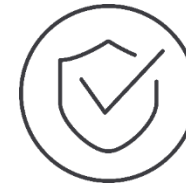
DESIGNED FOR PERFORMANCE

- ✓ High efficiency with **180 or greater LPW** achievable
- ✓ **2.5 SDCM** color consistency
- ✓ LM80 reports to support **DLC Premium** claims
- ✓ **High quality** energy efficient 2835 LEDs for indoor applications



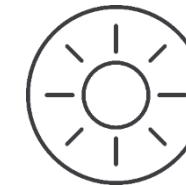
DESIGNED FOR SIMPLICITY

- ✓ **Breakable every 1"** to support maximum SKU reduction and design flexibility.
- ✓ Single board **eliminates Vf matching** of different lengths.
- ✓ **CRI90** on every SKU with affordability and performance
- ✓ **Daisy chain** up to 8 ft at nominal flux
- ✓ **Zhaga mechanical footprint** allows for seamless upgrades from existing LED Strip options



PERFECTLY PAIRED DRIVER & MODULE SYSTEM

- ✓ **5-year limited system warranty** when paired with Advance Linear Driver Portfolio ¹
- ✓ Enabling cost competitive **Architectural Luminaires**



1. For up-to-date warranty information please go to <https://www.signify.com/en-us/support/warranties>

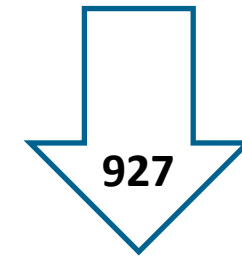
Performance Overview

Only 4 SKUs to stock

Commercial Name	12NC	Flux [lm]	Efficacy [LPW]
FO Strip X 47.5in 4000lm 927 LV1	9290 027 34713	3730	164
FO Strip X 47.5in 4000lm 930 LV1	9290 027 34813	3840	169
FO Strip X 47.5in 4000lm 935 LV1	9290 027 34913	3850	169
FO Strip X 47.5in 4000lm 940 LV1	9290 027 35013	4000	176

Tc=45C, I=700mA

High efficacy enables DLC compliant luminaires



- 2.5 SDCM Color consistency
- 90 CRI
- R9 >50
- Module is daisy chainable up to 8ft at nominal drive currents

Board Efficacy	164	LPW
Optical Efficiency	82%	
Driver Efficiency	85%	
Luminaire Efficacy	114	LPW

DLC V5.1 Premium - Troffer	125	LPW
2700K Allowance	5%	
CRI>90, R9>50 Allowance	5%	
Premium Efficacy w/Allowances	113	LPW

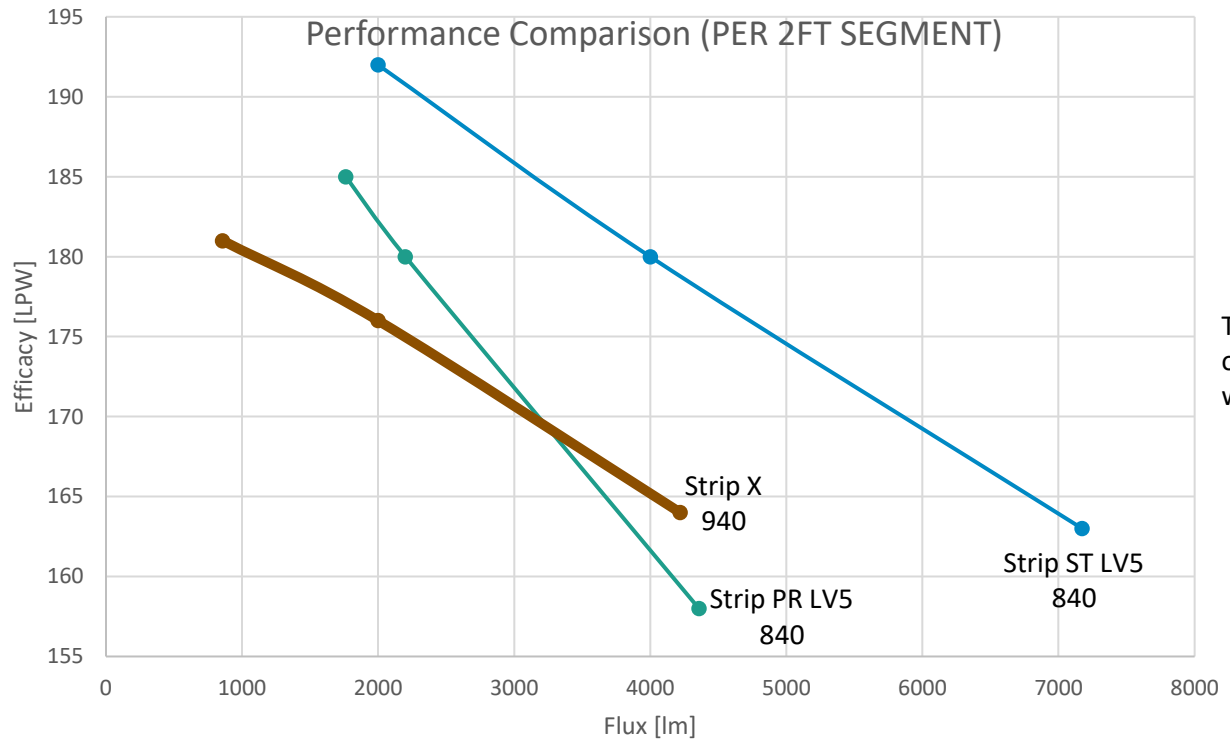
Performance Comparison

FO Strip X 47.5in 4000lm 940 LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	3700	4000	4300	lm
Module efficacy	158	176		lm/W
Correlated color temperature (CCT)		4000		K
Color consistency			2.5	SDCM
CRI	90			
R9	50			

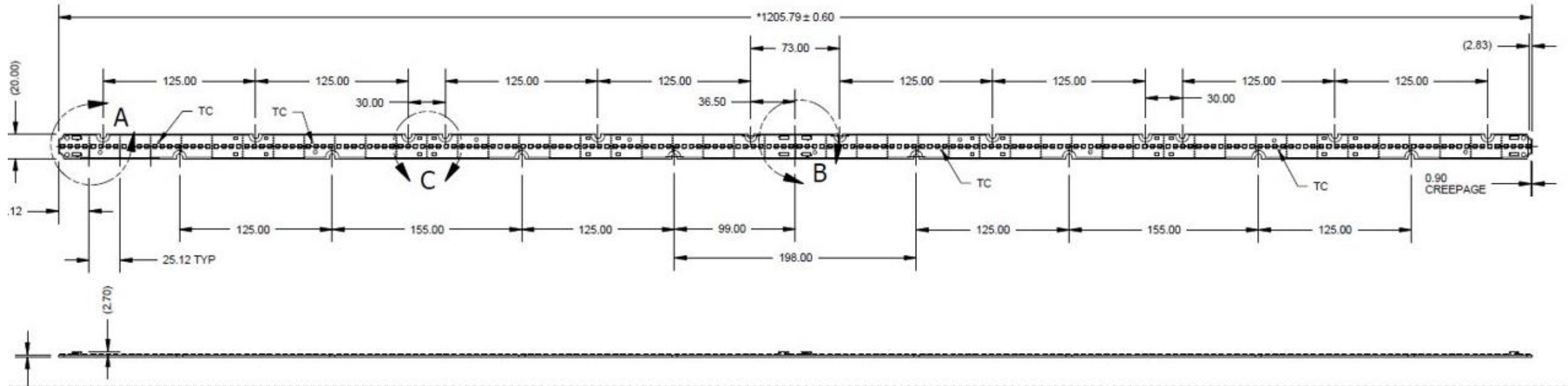
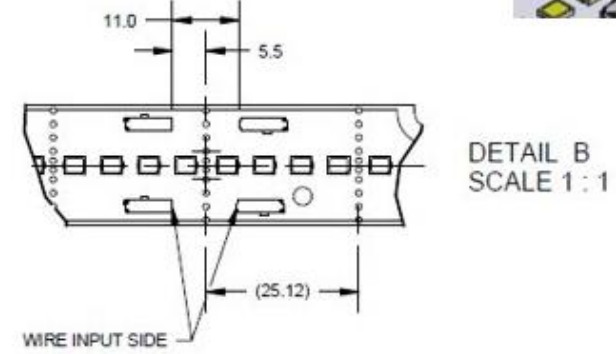
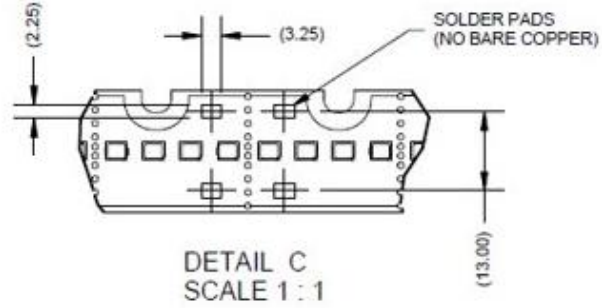
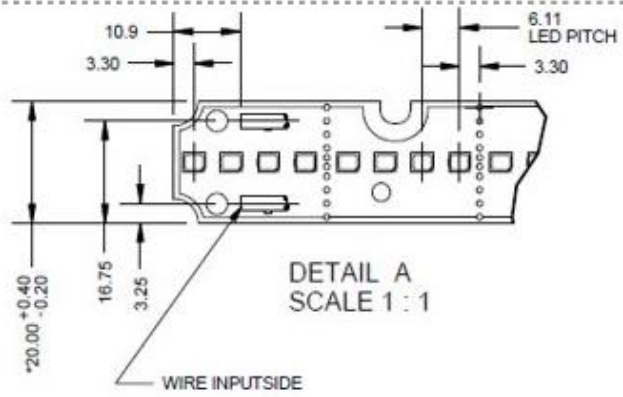
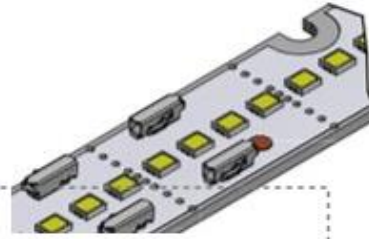
Operation point	940	lm	lm/W
80% I-nom 560mA	Tc 25 °C	3300	182
	Tc-nom 45 °C	3220	179
	Tc-life 85 °C	3000	169
I-nom 700mA	Tc 25 °C	4110	180
	Tc-nom 45 °C	4000	176
	Tc-life 85 °C	3730	167
I-life 2000mA	Tc 25 °C	11080	162
	Tc-nom 45 °C	10780	159
	Tc-life 85 °C	10020	151

- CRI90 with CRI80 performance
- No need to compromise
- Overdrive up to 2500lm/ft



Tc=45C, portion of performance window shown

Mechanical Drawing



Fortimo LED Strip HE LV6- Highest LPW Efficiency

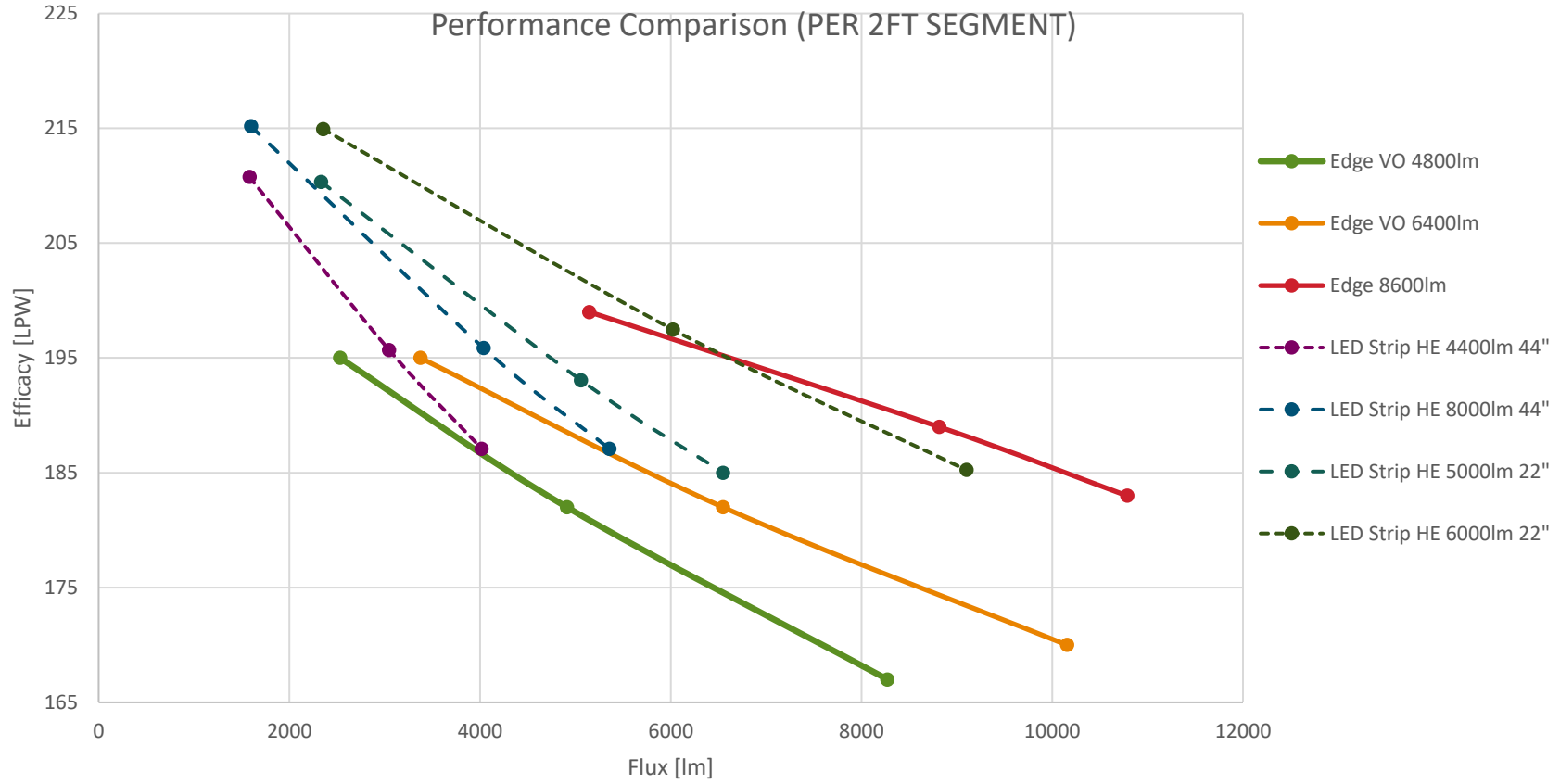


- Key Features :**
- 1.6 mm substrate to support Industrial and Indoor applications
 - Daisy-chainable: connectors on both ends
 - Lengths: 22 in, 44 in, 47.5 in
 - Zhaga board form factor – LED strip drop in
 - Nominal Flux Level: TBD
 - Efficiency: (>200 LPW)
 - CRI/CCT: 835-850
 - DLC premium LM80
 - 3 SDCM
 - VF: 38-39V
 - 8kV surge
 - Connector: standard connector
 - Tc Life = TBD
 - Limited Warranty: 5 years

Fortimo LED Strip HE offers lumens per watt efficiency reaching **over 200 LPW**. This product utilizes Flip Chip technology. Ideal for **Industrial** applications as well as **Indoor Linear** applications which demand ultra high LPW efficiency.

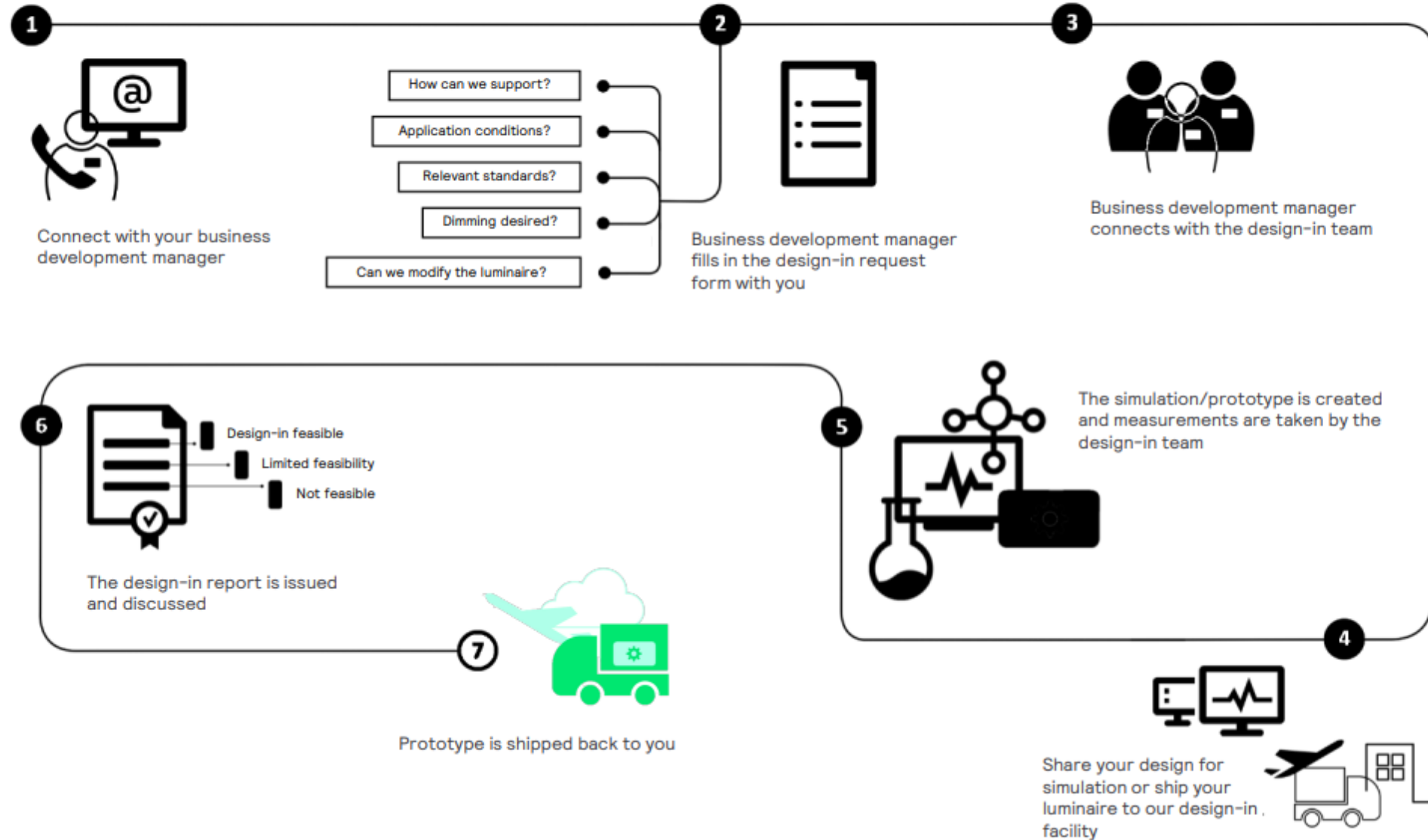
CCT	Length	LED count	Breakable	PCB Material	Vf	Flux	LPW		
830	44 in	84	22 in	EPOXY	38.1	4400	205		
835		84							
840		84							
850		84							
830	44 in	112	every 6"		38.9	8000	196		
835		112							
840		112							
850		112							
830	47.5 in	112			NO	MCP CB	38.9	8000	196
835		112							
840		112							
850		112							
835	22 in	70	NO	MCP CB	38.5	5000	193		
840		70							
850		70							
835	22 in	98	NO	MCP CB	38.1	6000	197		
840		98							
850		98							

Performance Comparison



- Premium efficacy
- Flip chip technology
- Ideal for 4ft or compact fixtures

The design-in process



Signify