

# Product Change Notice

**Product : Samsung LH181B (SCP\*\*TF1HEL1\*\*\*\*\*)**

**Change : Manufacture site**

**Remark : Effective April, 2023**

**2022.Dec.21**

# Summary

- Change LH181B manufacture site from Korea to China
  - Purpose : Extend manufacture capacity

Item		As-is	To-be
1. Material	0-1. Die	No Change	
	0-2. Package		
2. Design	1-1. Die	No Change	
	1-2. Package	Changed direction anode mark (※ See section 1)	
3. Electrical performance		No difference	
4. Thermal performance		Improvement	
5. Radiation diagram		Comparable	
6. Reliability		Passed	
7. Optical Characteristics		Comparable	
8. PKG Taping MOQ		2000pcs	4000pcs
9. Product Code (P/N)		SCP**TF1HEL1*****	(Keep part number)

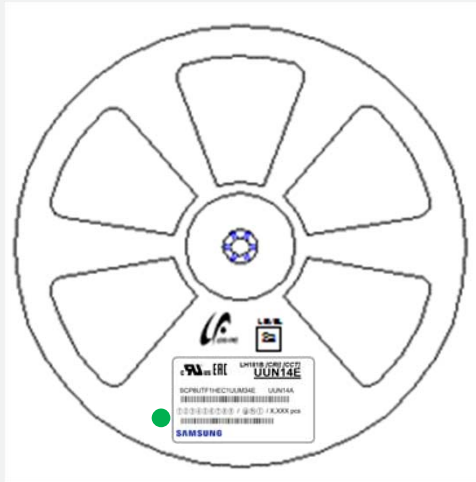
# Plan

- Schedule

Item	'22.Dec	'23.Jan	'23.Feb	'23.Mar	'23.Apr	'23.May	'23.Jun	'23.Jul
Issue PCN Letter	●							
Last Buy Order from Korea	●				●			
Last Shipment from Korea					●		●	
Supply from China						●		→

# 0. How to distinguish

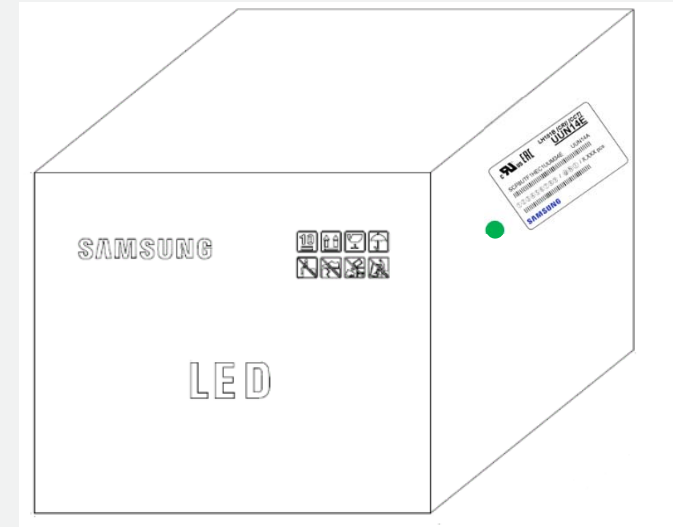
- China product apply green mark on reel, vinyl bag and box.



[Reel]



[Aluminum vinyl bag]

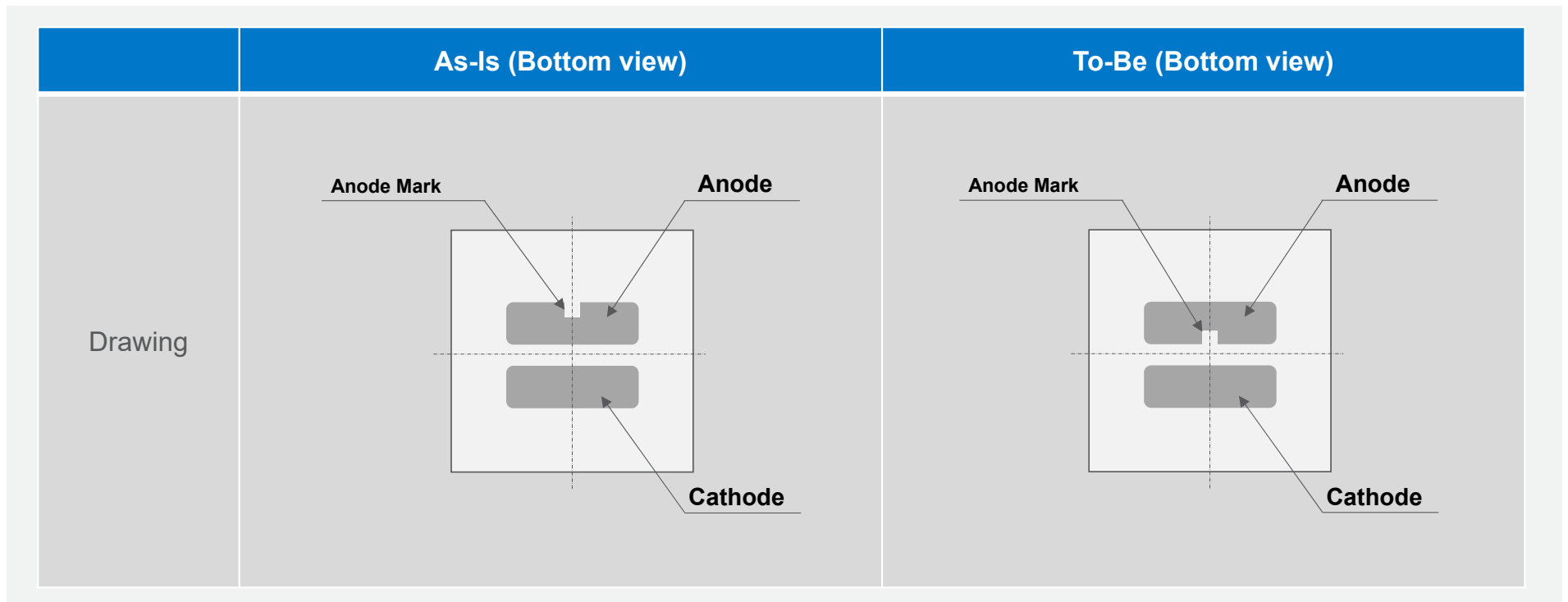


[Box]

※ Recommendation : Do not use old mixed with new products when assembling modules.



# 1. Change Anode Mark

- Changed direction anode mark from outside to inside.



## 2. Exterior and Performance

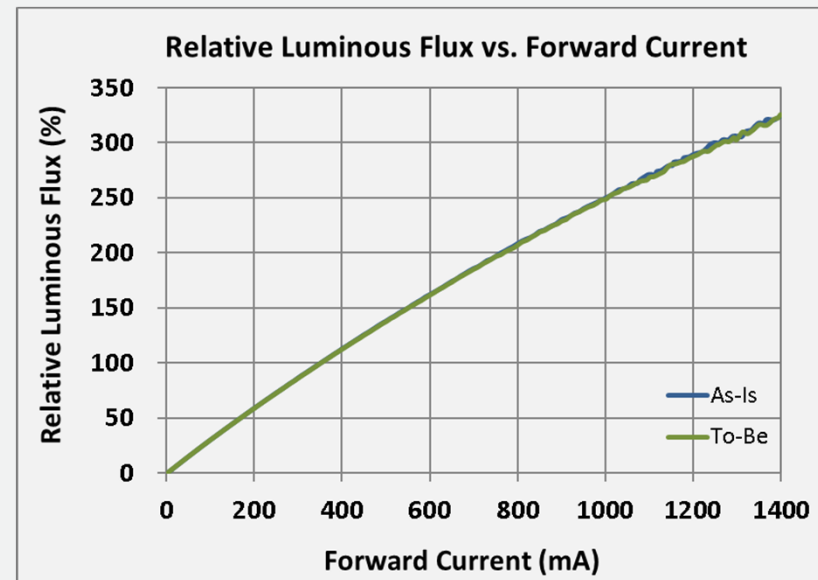
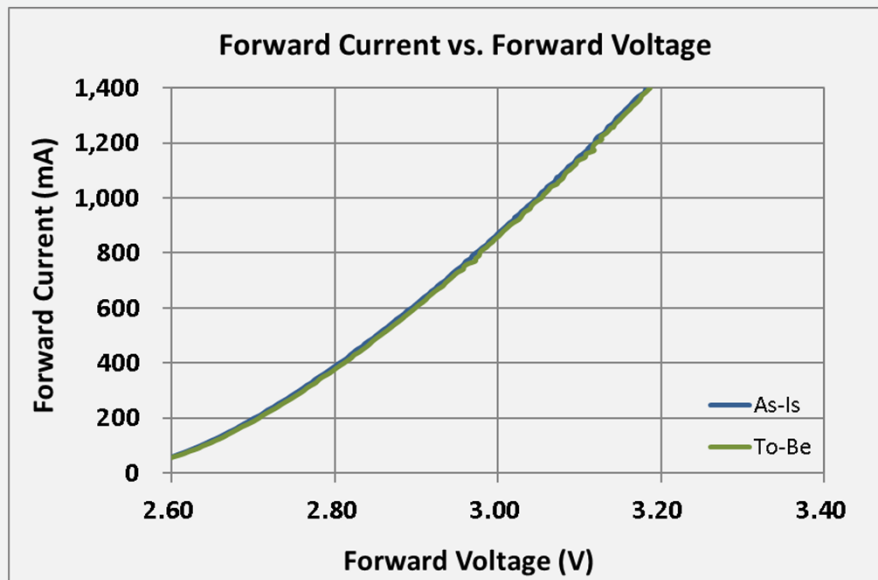
- Slight improvement

	As-Is	To-Be
Exterior		
Output Lumen (lm)	179.5	181.4
Vf (V)	2.77	2.78
Efficiency (lm/W)	185.1	186.4
CRI	73.2	73.3

※ CRI70 4000K @Sorting Condition

### 3. Comparison electrical sweep

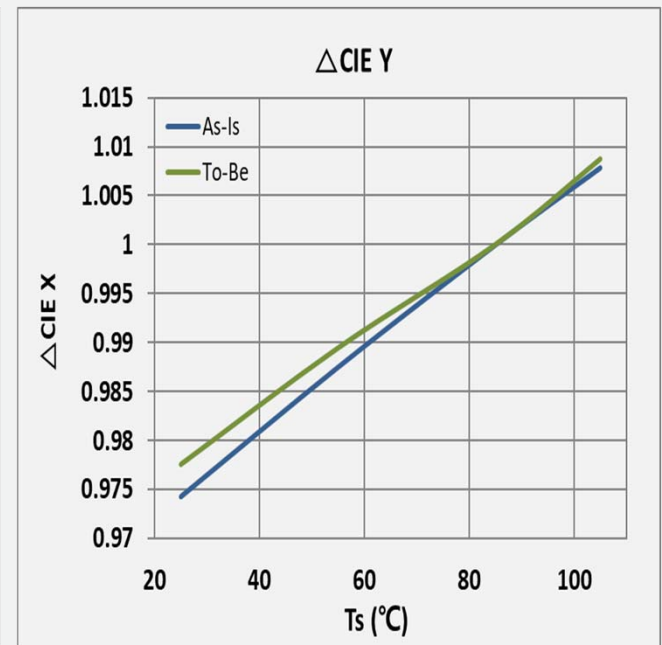
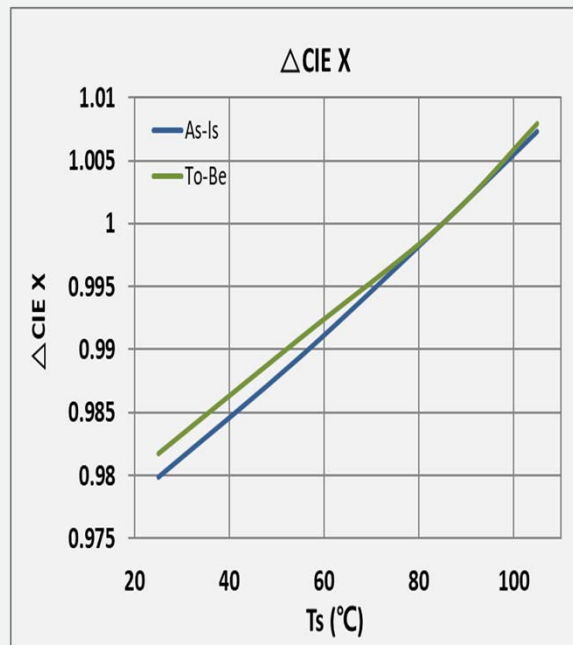
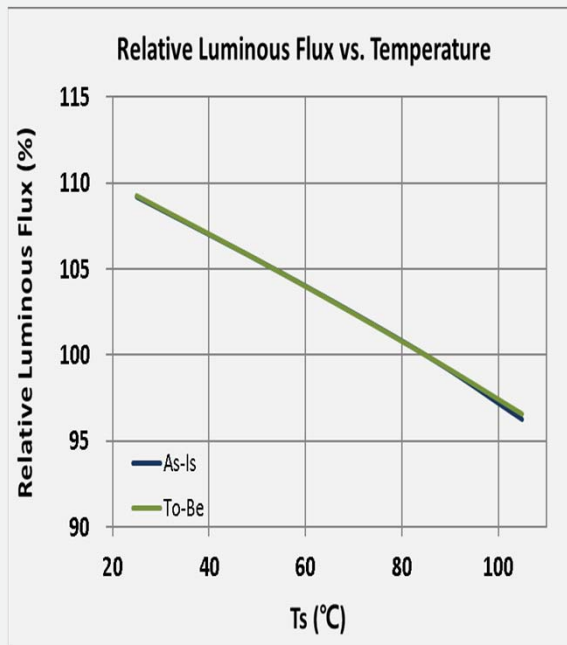
- No difference



※ CRI70 4000K @Sorting Condition

## 4. Comparison thermal sweep

- Improvement

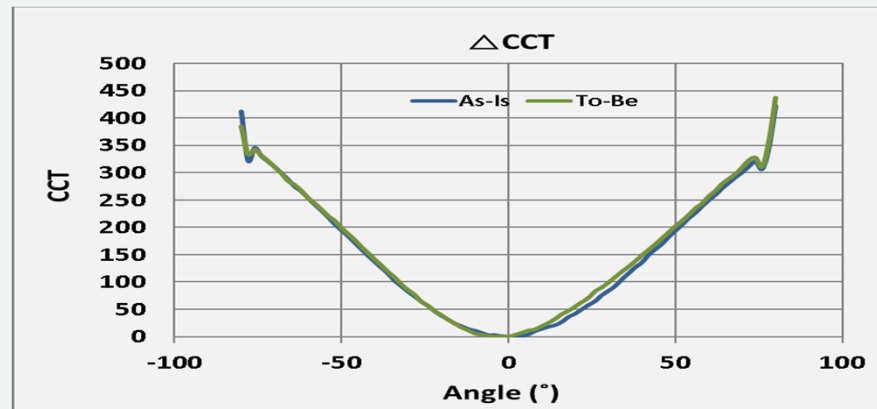
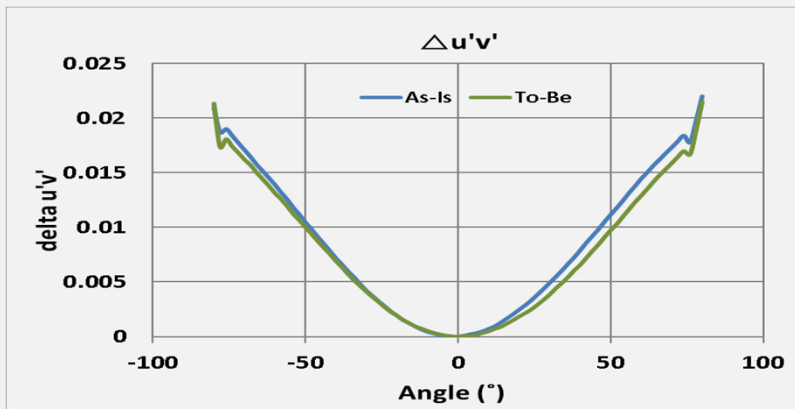
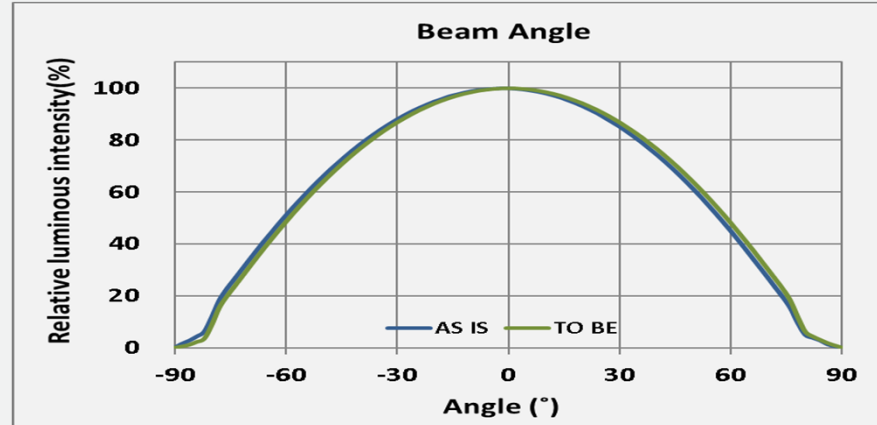
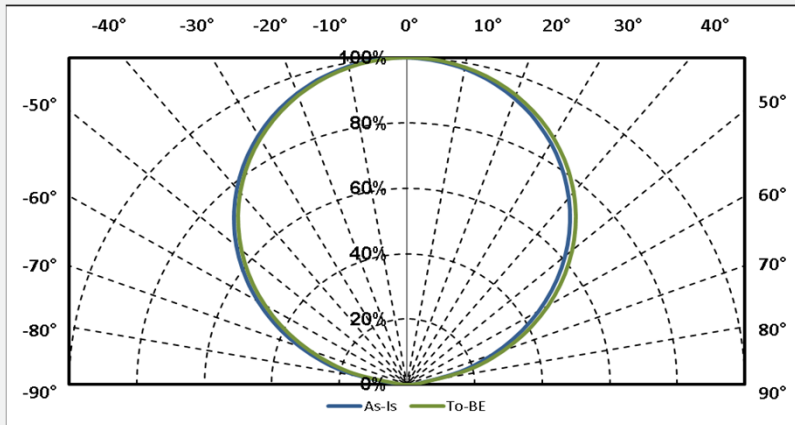


※ CRI70 4000K @Sorting condition



# 5. Comparison COA

- Comparable

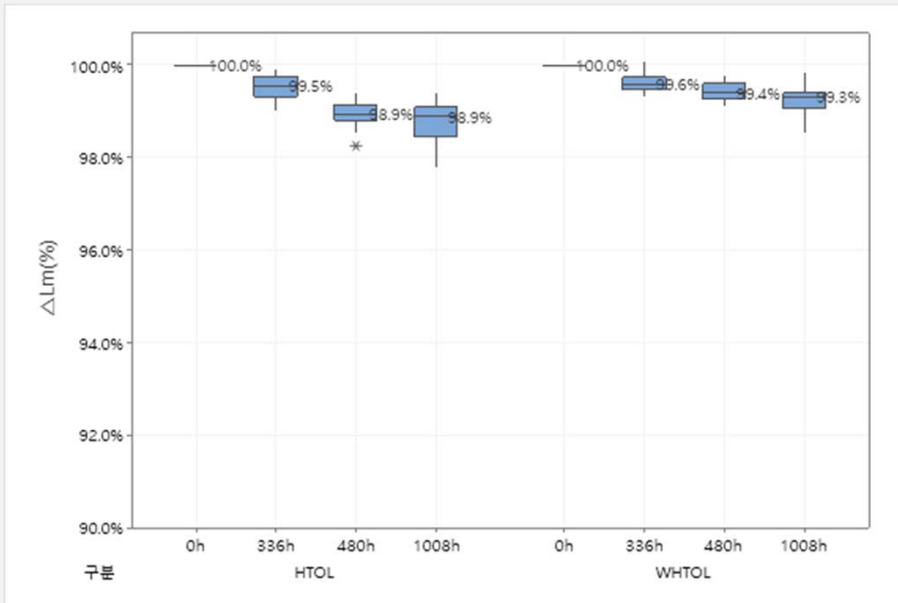


※ CRI70 4000K @Sorting condition

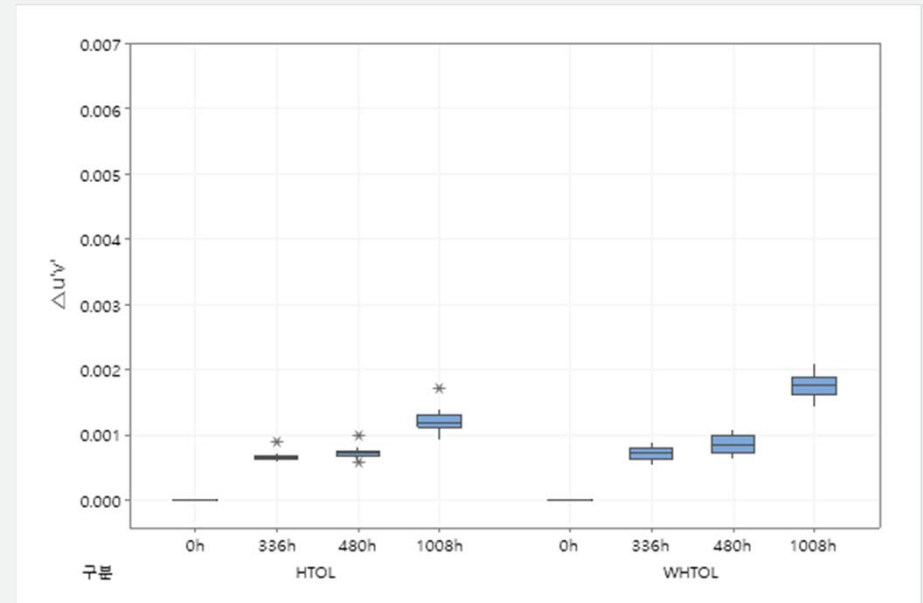
# 6. Reliability Test Results of new P/N

## Pass

$\Delta I_m$



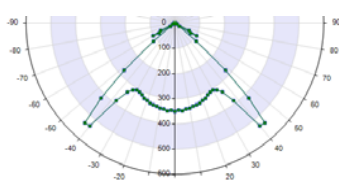
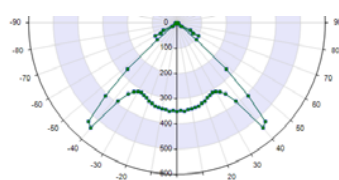
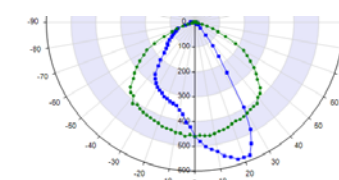
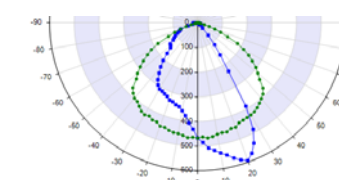
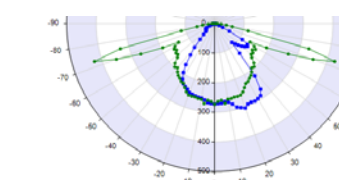
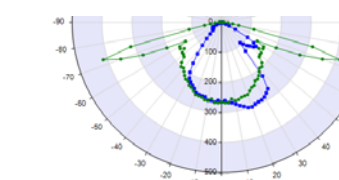
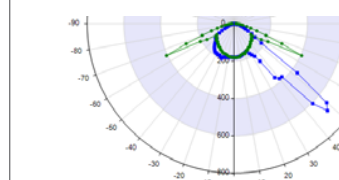
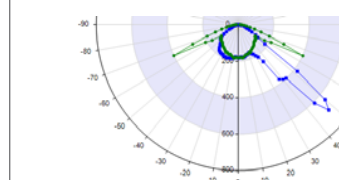
$\Delta u'v'$



Test	HTOL (85°C) (1008hr)			WHTOL (85°C/85%RH) (1008hr)			T/C (-45~125°C, Each 15min)
	$\Delta VF$	$\Delta I_m$	$\Delta u'v'$	$\Delta VF$	$\Delta I_m$	$\Delta u'v'$	
Result	100.0%	98.9%	0.0012	100.0%	99.3%	0.0017	700cyc Pass

# 7. 2nd Optic

## ■ No different distribution curve of luminous intensity

*Lens P/N	C15932_STRADA-2X2CSP		C15967_STRADA-2X2CSP		C16119_STRADA-2X2CSP		C16134_STRADA-2X2CSP	
Contents	As-Is	To-Be	As-Is	To-Be	As-Is	To-Be	As-Is	To-Be
Lumen flux	973.3 lm	973.5 lm	920.0 lm	920.6 lm	879.5 lm	880.0 lm	941.1 lm	941.1 lm
Peak intensity	596.41 cd/klm	606.80 cd/klm	590.00 cd/klm	594.93 cd/klm	758.28 cd/klm	763.53 cd/klm	1234.45 cd/klm	1218.03 cd/klm
Transmittance	97.3 %	97.3%	92.0 %	92.1 %	87.9 %	88.0 %	94.1 %	94.1 %
Beam type	Type VS Very short	Type VS Very short	Type I Very short	Type I Very short	Type II Medium	Type II Medium	Type II Short	Type II Short
Beam distribution	<p><b>As-Is</b></p>  <p><b>To-Be</b></p> 	<p><b>As-Is</b></p>  <p><b>To-Be</b></p> 	<p><b>As-Is</b></p>  <p><b>To-Be</b></p> 	<p><b>As-Is</b></p>  <p><b>To-Be</b></p> 				

※ CRI70 4000K

\* Several part of LEDiL lens had been used for analysis on compatibility (<https://www.ledil.com/>)

## 7-1. appendix) Rayfile

- Available simulate 2nd optic by using the below link

Model	Type	Rayfile
LH181B_CM	TracePro	<a href="https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_TraceProBinary.ray">https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_TraceProBinary.ray</a>
	ZEMAX	<a href="https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_ZEMAX.sdf">https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_ZEMAX.sdf</a>
	FRED	<a href="https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_FRED.ray">https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_FRED.ray</a>
	LightTools	<a href="https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_LightToolsBinary.ray">https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_LightToolsBinary.ray</a>
	OPTIS	<a href="https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_OPTIS.ray">https://cdn.samsung.com/led/file/resource/2022/04/220413_181B_h1_5000000Rays_OPTIS.ray</a>

**SAMSUNG**

**Thank you**