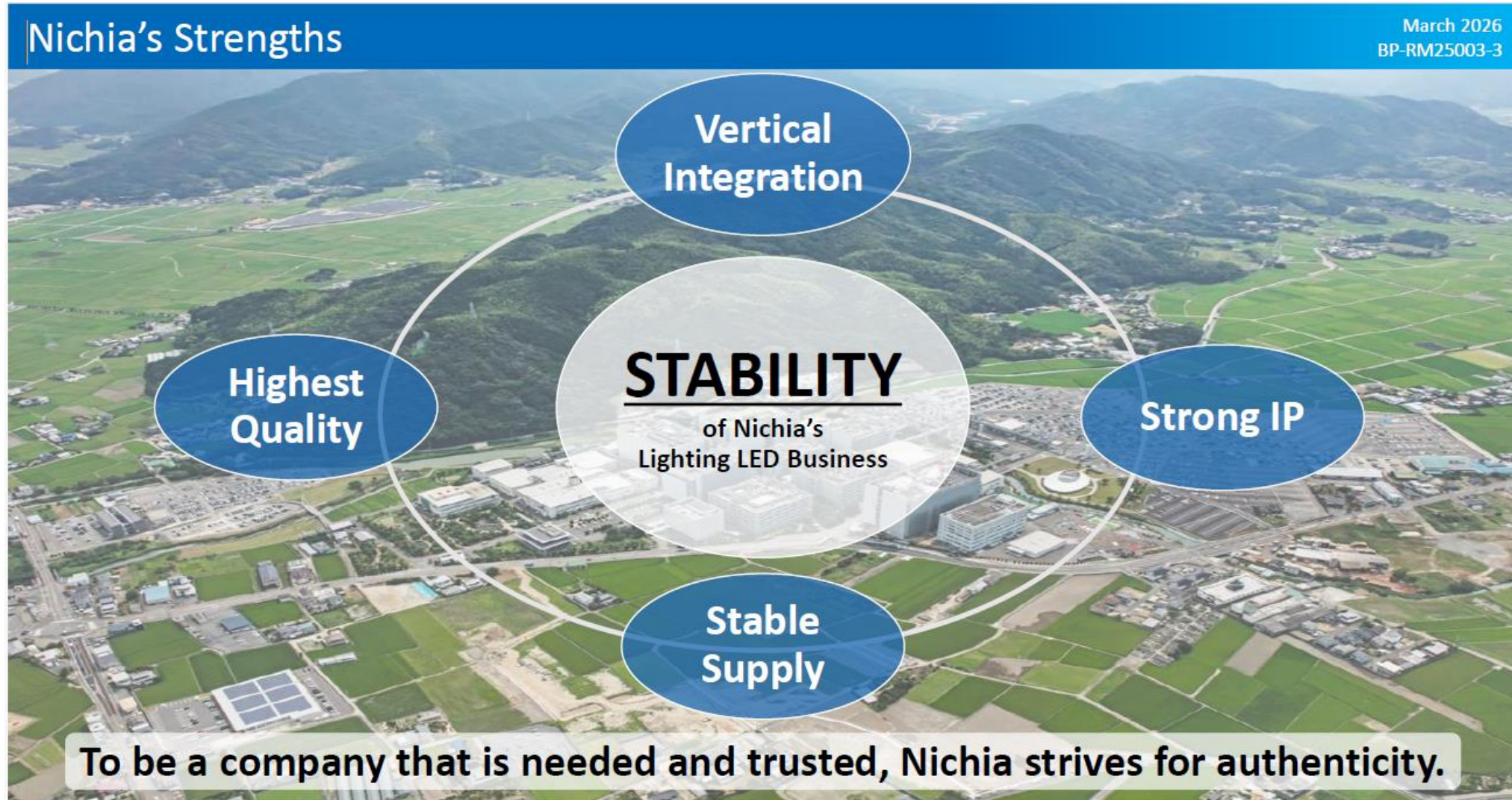




SPOTLIGHT– 2026

NICHIA STRENGTH



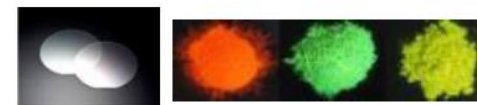
NICHIA STRENGTH

Nichia's Strengths

March 2026
BP-RM25003-3

Vertical Integration

Vertical integration of in-house chips/phosphors to LED package development, manufacturing, and quality control.



Highest Quality

High reliability and quality are secured by proprietary LED design, own quality standards and mfg. process building.

Failure Occurrence **4ppb**
(in 2025)

Stable Supply

World's largest LED supplier¹
Stable production due to large production capacity.



Strong IP

~8,000 patents obtained domestically & internationally.
(for chips, phosphors, packages, mfg. processes, lighting fixtures & others)



Made in Japan

¹ Based on annual sales in 2024 in Trendforce report.

NICHIA STRENGTH

Nichia's Strengths

March 2026
BP-RM25003-3

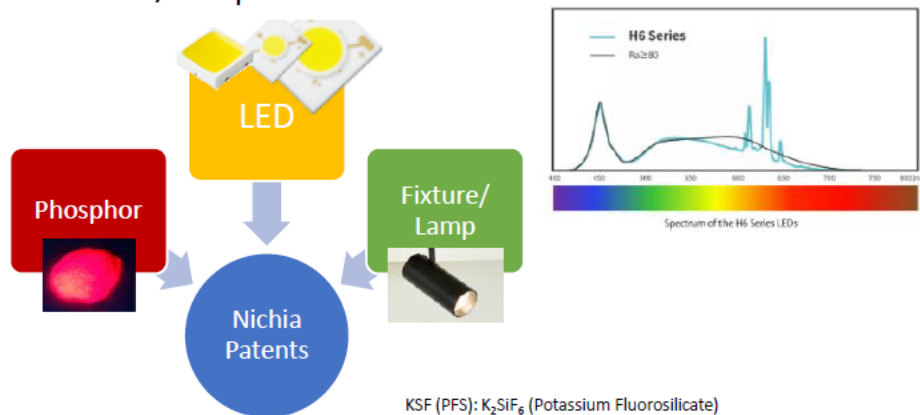
Strong IP

The results of Nichia's original creative efforts are reflected in Nichia's around 8,000 patents.

Nichia's products are designed in a manner that respects other companies' patents, and thus, could be used with confidence.

- **KSF (PFS)**

More than 120 of KSF(PFS)-related patents in over 12 countries for phosphor, LED, and light fixture/lamp



KSF (PFS): K_2SiF_6 (Potassium Fluorosilicate)

- **Package Resin**

Patents in/outside Japan for thermoset resin to secure long reliability



- **Low CCT (1800K)**

Patents for the following features for light emitting device, fixture, and street light:

- Low Insect Attraction
- Low MR
- Sea Turtle Protection
- Low Scattering
- Low Glare

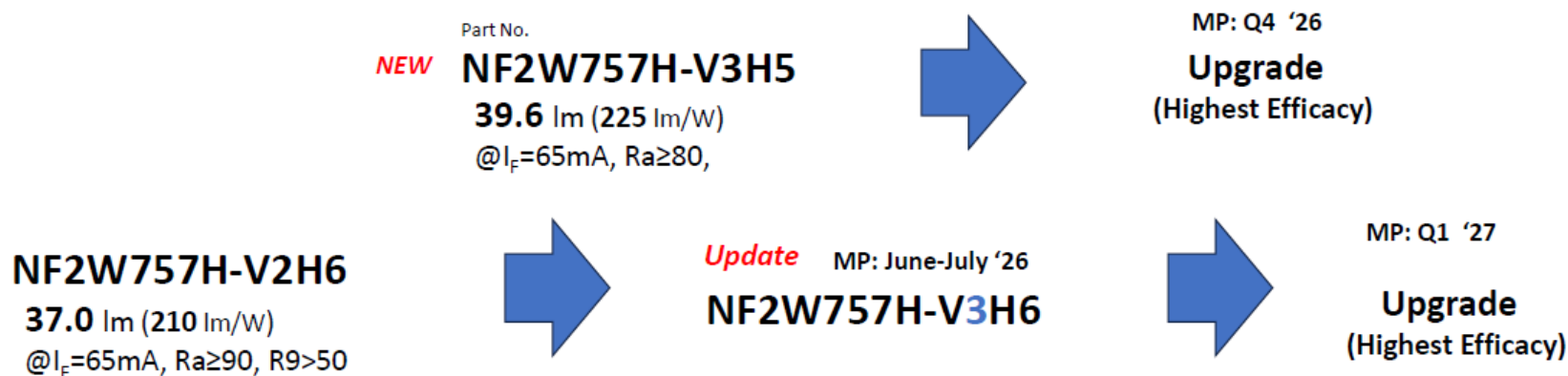
NICHIA 3030 – HIGH EFFICACY LED

Nichia High-Efficacy LED



The Highest Efficacy in Standard 3030 PKG

- High efficacy at low wattage consumption
- High durability and reliability
- Developed with Nichia's proprietary blue chip and phosphor technologies



NICHIA 3535 – HIGH EFFICACY HP LED

219GL ^{New} High-Efficiency for Precision Lighting



Category	NVSW219GL
Efficacy	Very Good
Reliability/Robustness	Excellent
Comp. with Optics	Very Good
High Light Output	Very Good
Return on Investment	Excellent
Low CCT Options	✓
Color LED Options	✓

- High-output performance** in real-world thermal conditions

372 lm @ Tj: 85 °C 4000K, 70 CRI

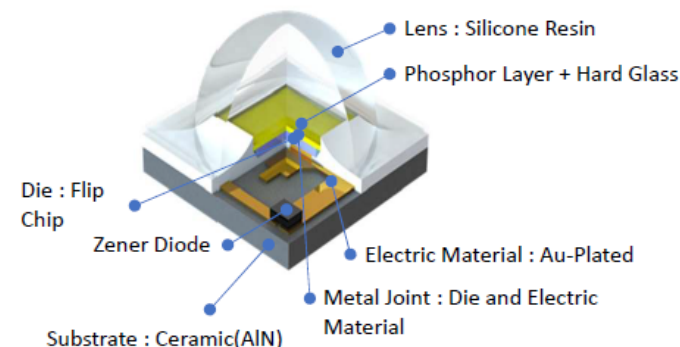
- Excellent Optical Compatibility :**
Optimized for secondary optics

- Reliable Long-Term Performance :** LM-80 L90B10 @ 100,000 hours

- Wide Color Options :** Available in CCT from 1800K to 7000K and multiple CRI levels

- Great Value :** Optimized cost with high lumen output and efficacy

Type	Ra	sm65	sm57	sm50	sm40	sm35	sm30	sm27	sm25	sm24	sm22	sm20	sm18
219GL	R70s1			•	•								
	R70	•	•	•	•	•	•	•	•	•	•	•	•
	R8000	•	•	•	•	•	•	•	•	•	•		
	R9050		• TLCD	•	•	•	•	•					
	R9080		• TLCD										

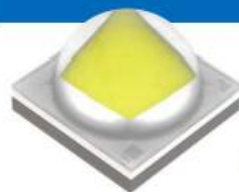


Specs		3000K / R9050		Improvement
		NVS219F-V2	NVS219GL	
Luminous Flux [lm]	700mA Tj:25 °C	262	290	↑ 10.6%
Luminous Efficacy [lm/W]		130	139	↑ 7%
Forward Voltage [V] (Typ./Max.)		2.89 / 3.1	2.97 / 3.1	
Forward Current [mA] (Max.)		1800	2200	↑ 22%
Thermal Resistance [°C/W] (Typ./Max.)		2.5 / 4.0	2.5 / 4.0	
Junction Temperature [°C] (Max.)		150	150	

NICHIA 219GL EVOLUTION

219GL Evolution

NVSW219F-V2



3.5 x 3.5 mm

NVSW219GL

340 lm

*Avg. Flux
4000K 70CRI typ.(Tj:85°C)*

372 lm

@700mA Tj:85°C

MP: 2027 H1

Upgrade

3-5% flux up

CCT	CRI	219F-V2 (lm)	219GL (lm)	Imp. (%) ↑
2700K	R70	300	334	11,3%
	R8000	273	304	11,4%
3000K	R70	304	344	13,2%
	R8000	273	314	15,0%
4000K	70 Typ.	340	372	9,4%
	R70	327	362	10,7%
	R8000	288	323	12,2%
5000K	R70	333	359	7,8%
	R8000	293	322	9,9%
5700K	R70	330	357	8,2%
	R8000	298	319	7,0%
6500K	R70	327	354	8,3%
	R8000	292	319	9,2%



NICHIA 219GL WARM WHITE

219GL Warm White

TENTATIV

- Warm White types ;

@700mA Tj:25°C

Color Temp.	CRI	219F-V2 (lm)	219GL (lm)	Imp. (%)
1800K	R70	250	265	6%
2000K	R70	272	290	7%
2200K	R70	293	310	6%
	R8000	269	285	6%
2400K	R70		318	-
	R8000		294	-
2500K	R70	302	320	6%
	R8000	278	295	6%



- **Traditional** High Pressure Sodium Lamp - Warm Color with low CRI
- HPS Color **LED** (Ra≥70) Same warm tone but with clearer, more vivid colors

NICHIA COLOR LED PORTFOLIO

General Lighting Color LED Portfolio

