Ultra High Defination White Smart PDLC Film Specifictaion（UHD-FILM）

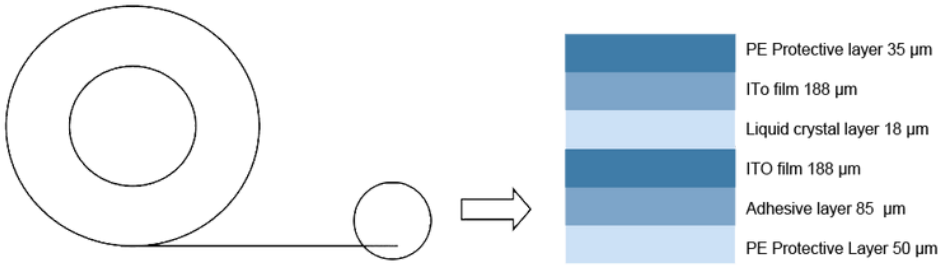
1.Product:

Smart Film Distribution has been in the industry for over a decade and adopts next-generation PDLC technology to deliver high-transparency films with excellent weather resistance and superior optical performance.

Power Off

Power On

2.ProductSturcture:



2.1 Polymer Coating Thickness: 18μm

We use a standard 18μm polymer layer instead of thinning it to increase light transmission. This ensures optimal visual clarity while maintaining excellent light-blocking performance.

2.2 Adhesive Layer Thickness: 85μm

A thicker 85μm adhesive layer provides stronger adhesion, making installation more secure and easier to handle. 2.3 Roll size: 1.8*50m,supply custmization;

4. Optical Performance:

Product Description		PDLC 95% VLT Ultra Definition PDLC Film
Working voltage		AC60V
Thickness		0.4
Operation model	Power on	Transparent
	Power off	Opaque
Color	Avaliable color	Milky White
Power on	Visible light transmittance	95%
	Haze	1.8±0.5%
Power off	Visible light transmittance	60%
	Haze	99%
View angle	View angle	About 165 Degree
Electrical	Switch time	Less than 1 second (Off > On: about 200milliseconds | On > Off: about 600milliseconds)
	Operating voltage	AC60±5V
	Power consumption	3.7W/sqm
	Frenquency rate	50-60Hz
	Dimmer function	Yes

5. Durability Performance:

Product Description	HD-Film High Definition PDLC Film
Sunlight-resistant	Yes
Max effective working temperature	T:70℃
UV Block	On Model/ Off Model>99%
IR Block	On Model>17%/Off Model>80%
Lifetime	More than 100000h（20years）
Operating temperature	T:-20℃-70℃
Product temperature resistance	T:-85℃-130℃
Anti-scratch coating	thickness: 1–2 μm,standard:2H
Resistance to yellowing	UV Weathering Tester,500hours ΔYI≤ 5
Batch-to-batch color consistency	Δ E (Delta E) color difference measurement method, Standard:ΔE ≤ 2.5

5.1 Sunlight-resistant:

Our film is engineered with UV-resistant materials and design, making it fully suitable for continuous use under direct sunlight without performance degradation.

5.2 Max effective working temperature:

Our film performs reliably at temperatures up to 70°C without becoming transparent when unpowered.

5.3 Resistance to yellowing :

Built for long-term durability, Smart Film Distribution uses UV-blocking PET, oxidation-resistant ITO, and UV-stable polymers,

making them ideal for continuous exposure to direct sunlight.

5.4 Batch-to-batch color consistency:

We maintain strict control over every production stage—from raw materials to ITO coating and polymer formulation—to ensure consistent color across batches. This allows different batches to be used together seamlessly, eliminating visible color variation and maximizing material utilization.

6. Warranty:

Warranty:two years;