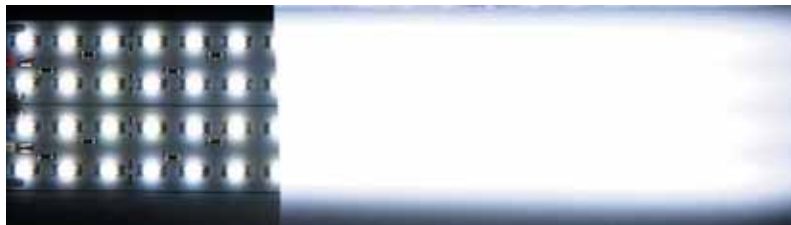


App Note 2: LED Lighting — Homogenized Lighting

LED lighting fixtures and lamps can suffer from a number of issues. Luminit Light Shaping Diffusers® (LSD®) precisely shape, control and distribute light, smoothing and homogenizing the illumination from a single or multiple LEDs. They also mix and homogenize the output of color LEDs to provide a uniform color at the target plane.

Light output from multiple LEDs that is not homogenized can also cause multiple shadows. Light from a single source that is not homogenized can cause uneven light patterns sometimes known as scalloping and striations.

LSDs provide this homogenization with very high transmission efficiency (85% to 92%).



LED panel without secondary optics with 80° LSD® diffuser



Multiple Shadows



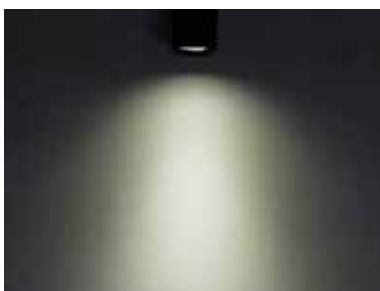
Not Homogenized



Not Homogenized



Single Shadow



Homogenized



Homogenized