



SynJet® Universal
140 DLM Cooler



SynJet® Universal
120 DLM Cooler

Cooling LEDs is no longer a design obstacle...

Nuventix' SynJet cooling options
for the Philips Fortimo/Lexel
LED Downlight Module

Features

- Enables up to 2000 lumens
- 1/3 the size of Passive Cooling alone
- Lightweight
- Energy Efficient
- Silent Operation
- Effective Heat Removal
- 100K Hours Reliability
- UL and CE certified

Benefits

- New luminaire designer flexibility for height limited areas without sacrificing high brightness
- Small overall luminaire design – contemporary form and smaller package
- Easier to design in, reduced luminaire cost
- Minimal additional power required for active cooling
- Excellent in low noise requirement areas
- Active cooling is no longer an obstacle in the lifetime of an LED DLM lighting system

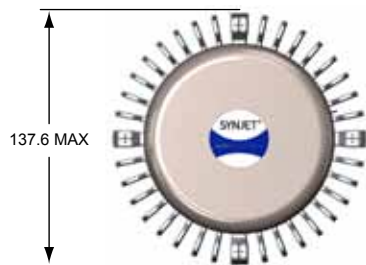


The SynJet DLM Cooler product family is a highly reliable, adaptable and quiet active cooling solution for the solid state lighting industry. Specially designed to provide active cooling for a Downlighter module, the SynJet DLM Cooler is available in three settings to match the luminaire design. Both the SynJet Universal I40 and I20 DLM Coolers are for use in Fortimo LED DLM or Lexel LED DLM luminaires designed for the applications in the table below.

SynJet Cooler Settings	Luminaire Requirements	Applications
High Performance	Increased power for restricted flow areas (tight enclosures, recessed ceiling cans)	Commercial and Retail (restaurants, supermarkets, lobbies)
Standard	Optimal balance of power to acoustics	Outdoor Lighting, offices, showrooms, window displays
Silent	Silent operation and lower lumen output	Small conference rooms, concert halls, museums, libraries

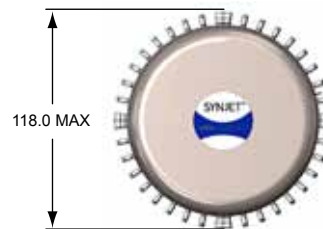
The SynJet DLM jet nozzles generate turbulent pulses of air which efficiently dissipate heat from any surface. The SynJet DLM Cooler comes with a customized heat sink which has been optimized, tested, and qualified for use in the DLM. LEDs are the next step in revolutionizing energy efficient lighting. SynJet technology is the most effective way to actively cool LEDs while maintaining power efficiency and reliability. The Universal Coolers come in two dimensions using the same SynJet technology in form factors to meet your size requirements.

SynJet Universal I40 DLM Cooler



Weight 600 grams

SynJet Universal I20 DLM Cooler



Weight 490 grams

Nuventix provides a wide variety of solutions to support the Philips Fortimo/Lexel product family. To facilitate making the optimal cooling solution choice, see the selection guide below. Match your specific Philips LED DLM product with the optimal SynJet Cooler based on your thermal and acoustic requirements.

Nuventix SynJet Cooler									
		Universal 120 DLM Heatsink Only	Universal 140 DLM Heatsink Only	Universal 120 DLM, Standard	Universal 140 DLM, Standard	Universal 120 DLM, Silent	Universal 140 DLM, Silent	Universal 120 DLM, High Performance	Universal 140 DLM, High Performance
Philips LED DLM System	dBA	30	22	30	19	22	19	NA	NA
	Θ	0.63	0.75	0.75	0.94	0.94	1.06	1.75	2.00
Fortimo LED DLM 1100 19W/840	2.00								X
Fortimo LED DLM 1100 18W/830	1.79							X	
Fortimo LED DLM 2000 32W/840	1.06						X		
Fortimo LED DLM 2000 36W/830	0.94				X	X			
Fortimo LED DLM 3000 40W	0.75		X	X					
Lexel LED DLM 1100 32W DLI/DMX	0.94				X	X			
Lexel LED DLM 2000 40W	0.75		X	X					
Fortimo LED DLM 2000 50W/Food 40	0.75		X	X					
Fortimo LED DLM 1800 50W/Food 30	0.75		X	X					

Legend:
 Green shaded boxes indicate that this SynJet product will properly cool the Fortimo.
 X indicates the optimal Cooler for this specific Fortimo version as recommended by Nuventix.
 Θ (Theta) - Thermal resistance defined as the delta in temperature divided by power (watts).



Fortimo LED DLM System



Lexel LED DLM System

Nuventix also offers Synjets for other LED lighting form factors such as the MR16, PAR20, PAR25, PAR30 and PAR38. For more information or to inquire about a custom SynJet for your unique luminaire design, please visit www.nuventix.com/led-thermal-management.



About Nuventix

Nuventix is revolutionizing active thermal management of consumer electronics, high power LED lighting, medical, telecommunications and automotive with patented, highly adaptable, quiet and reliable cooling devices that efficiently – and directly – dissipate heat from any surface. The patented SynJet active cooling technology enables the most reliable and flexible spot cooling solutions available today. The Austin, Texas-based company is venture-backed and led by an experienced team of senior executives with a breadth of experience building and leading thermal and startup companies to success.

More information can be found at
www.nuventix.com.