

DATA CENTRES

SPECIALISED INDUSTRIES



DATA CENTRES

LIGHTING CONSIDERATIONS



Data Centres are the technological hub of modern enterprise operations, and an indispensable asset in our networked and digital world.

In order to fulfill rising consumer and market demand, it is essential that data centres can be created quickly, efficiently, and cost-effectively. They must also be incredibly dependant and resilient as customers require constant access to their data.

The data centre industry also faces another difficulty; due to their high energy consumption they are a major source of carbon emissions, with data centres being responsible for 3% of global carbon emissions.

LIGHTING CONSIDERATIONS

VISUAL COMFORT

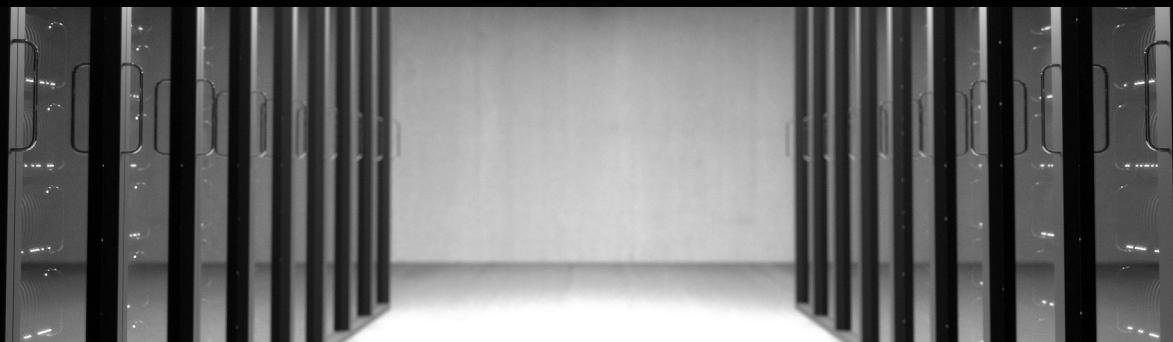
High-quality and glare-free lighting is highly important in this application as it allows technicians working in the stacks to complete their tasks reliably and safely.

ENERGY EFFICIENCY

For the reliable operation of the servers, thermal management is crucial, and with such power hungry operations such as data centres, it is important to save energy wherever possible. The E-Line Next offers high-end efficiency of over 150 lm/w resulting in saving on the power consumption of the lighting, and very little heat being generated by the luminaires.

ENVIRONMENTAL: HEAT AND DUST

E-Line Next offers extreme lifetime and reliability. We also provide a seven year warranty as proof of quality and safety. The E-Line Next LED is capable to provide this reliability even in such extreme temperatures as: -25 °C to 50 °C.



TYPICAL DESIGN

SUSPENDED LUMINAIRES
ROOM: 6.0M X 4.0M X 3.0M

LUMINAIRE SELECTION

E-LINE NEXT
7651 LW 85-840ETDD L150 01



POWER	54 W
LUMINOUS FLUX	8900 lm
LUMINOUS EFFICACY	165 lm/W
IP RATING	IP20
CRI	80
CCT	4000K
MOUNTING TYPE	Suspended
WARRANTY	7 Years

ROOM CALCULATIONS	
REFLECTANCE	Ceiling 70 Wall 50 Floor 20 Shelves 1
MAINTENANCE FACTOR	0.8
CEILING HEIGHT	5.0m
RACKING HEIGHT	2.5m
HOT AISLE WIDTH	1.5m
COLD AISLE WIDTH	0.9m

DESIGN	RECOMMENDATIONS	CALCULATED	
		FLOOR	@1.0 M ABOVE AFFL ON SERVER RACK
AVERAGE ILLUMINANCE	500 lx on Floor	586.9	-
UNIFORMITY	0.5 on Floor	0.64	-
VERTICAL ILLUMINANCE	200 lx @1.0 m above AFFL on server rack	-	Hot Aisle = 220.3lx Cold Aisle = 285.2lx
LIGHT POWER DENSITY	10	8.7	
CRI	Min. 80	80	

Lux values are designed for end of life (70,000 hrs)

