



Philips MASTER LEDtube InstantFit
Standard Output 1500mm

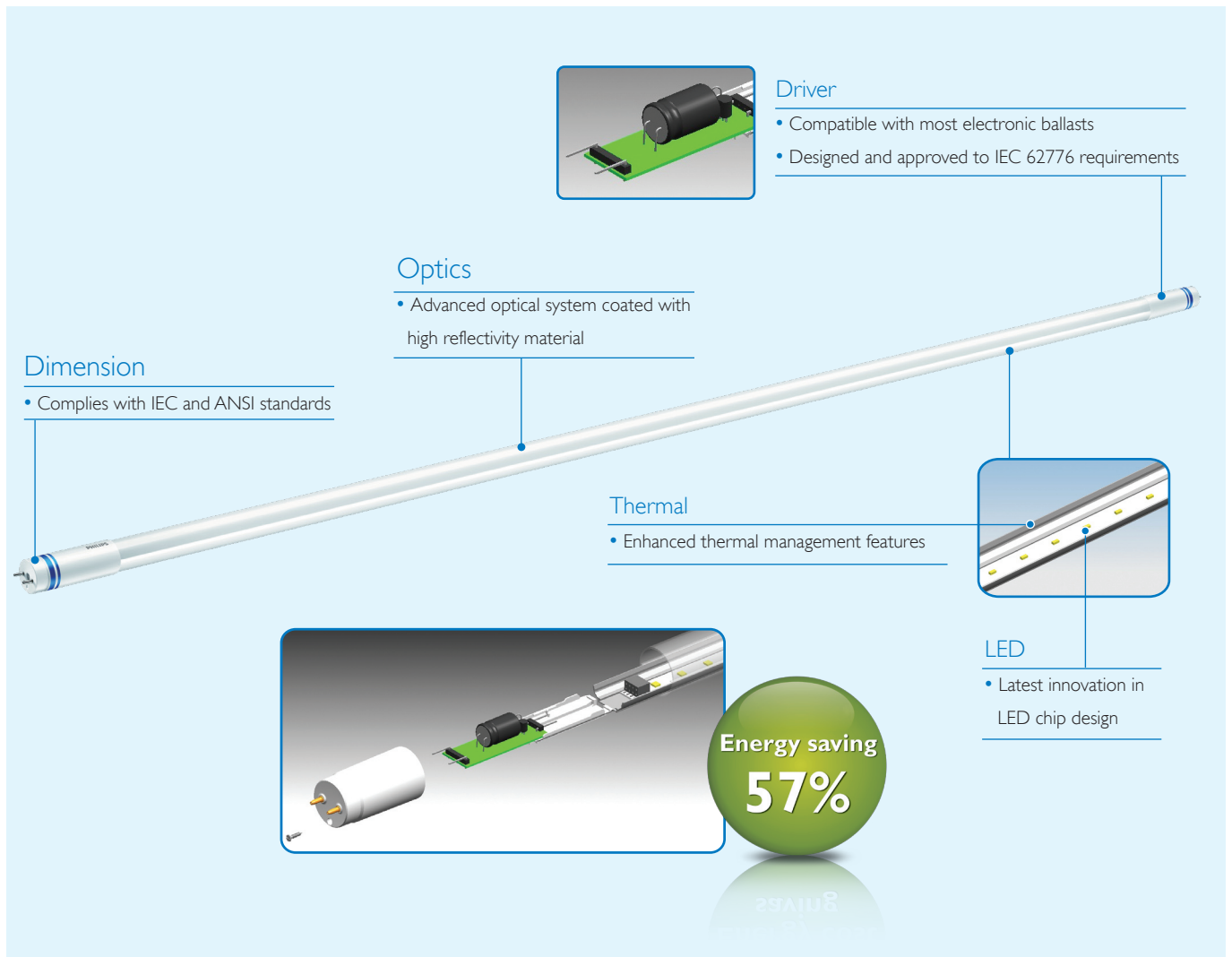


PHILIPS



The Philips MASTER LEDtube InstantFit is a technology breakthrough out of our LEDtube portfolio. This product is compatible with electronic ballasts and is the easiest way to replace fluorescent tubes with LED tubes. The InstantFit lamp is a true plug-and-play LED solution that realizes energy savings of at least 57%.





Product Features

Compatibility

- Innovative driver design that enables a “plug-and-play” LED solution to replace existing fluorescent lamps working on electronic ballasts
- Quick and easy installation

Reliability

- Reliable operation between -20 °C and 35 °C ambient temperature
- Rated average life of 40,000 hours (tested to F50 L70 requirement)
- 50,000 switching cycles

User Comfort

- CRI 83
- Advanced optical design ensures a uniform light output and superior optical efficiency

Energy Savings

- Energy savings of 57%*

Safety

- Protection circuit inside ensuring people's safety in case of mis-use, complying with IEC safety requirements
- Pass 4KV high-pot test, insulation & safety guaranteed
- Pass 1KV surge test (vs. IEC standard 500V), avoiding the damage caused by input voltage fluctuation and lightning strike
- 100% comply with IEC requirement on T8 dimension, fitting into fluorescent luminaire perfectly

Environment

- No Mercury
- Low Carbon Footprint

* Dependent on the type of the ballasts, based on comparison between 2 x 22W LED InstantFit T8 (2-lamp system power = 50W) vs. 2 x 58W T8 TL System (2-lamp system power = 115W).

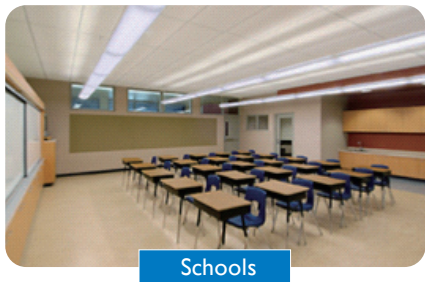
Application



Retail



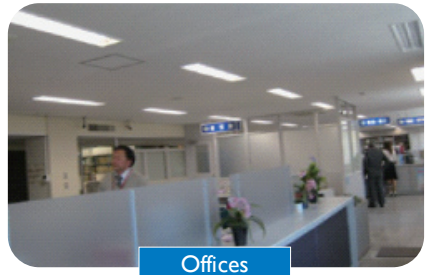
Industry



Schools



Hospitals



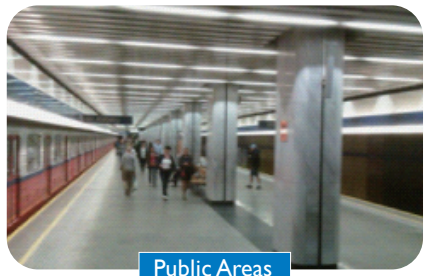
Offices



Parking Lots



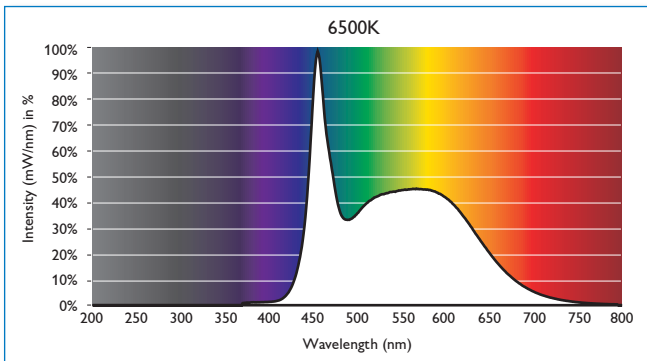
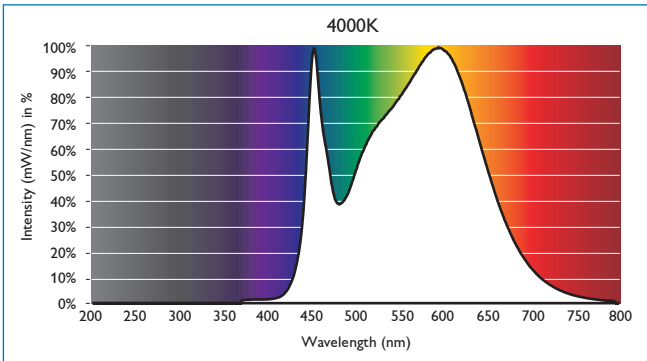
Warehouses



Public Areas

Spectral Power Distribution

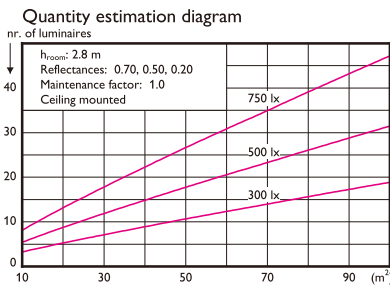
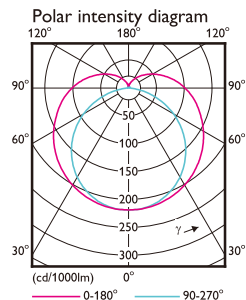
22W



Photometric Diagrams

1 x Master LEDtube HF InstantFit Lamp 22w 4000K

1 x 2000 lm



Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80	0.80	0.70	0.70	0.70	0.70	0.50	0.50	0.30	0.30	0.00	0.00
0.30	0.10	0.10	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
0.60	0.41	0.39	0.40	0.39	0.38	0.30	0.29	0.24	0.27	0.23	0.20	0.20
0.80	0.51	0.48	0.49	0.47	0.46	0.38	0.36	0.31	0.34	0.29	0.26	0.26
1.00	0.59	0.55	0.56	0.54	0.53	0.45	0.42	0.37	0.40	0.35	0.31	0.31
1.25	0.67	0.61	0.64	0.61	0.59	0.51	0.48	0.43	0.45	0.41	0.36	0.36
1.50	0.73	0.66	0.70	0.67	0.64	0.57	0.53	0.48	0.50	0.46	0.40	0.40
2.00	0.83	0.74	0.79	0.75	0.71	0.65	0.61	0.56	0.57	0.53	0.47	0.47
2.50	0.89	0.79	0.85	0.80	0.76	0.70	0.66	0.62	0.62	0.58	0.52	0.52
3.00	0.94	0.82	0.89	0.84	0.80	0.74	0.70	0.66	0.65	0.62	0.56	0.56
4.00	1.00	0.87	0.95	0.89	0.84	0.80	0.75	0.71	0.70	0.67	0.61	0.61
5.00	1.05	0.90	0.99	0.93	0.87	0.83	0.78	0.75	0.73	0.71	0.64	0.64

Ceiling mounted

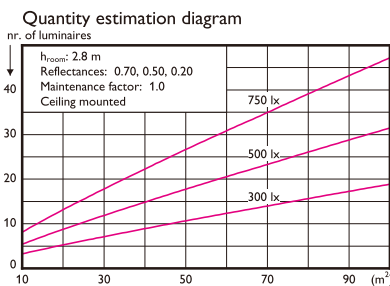
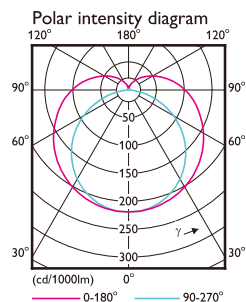
Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	6074	6097	6180	6396	6857	7733	9540
50.0	5822	5840	5901	6084	6488	7327	9300
55.0	5598	5602	5638	5769	6100	6882	8991
60.0	5398	5397	5408	5482	5715	6386	8627
65.0	5222	5210	5190	5203	5325	5813	8091
70.0	5073	5068	5014	4955	4959	5201	7411
75.0	4975	4973	4887	4788	4646	4553	4504
80.0	4906	4869	4787	4633	4353	3849	5061
85.0	4845	4789	4684	4513	4105	3225	2945
90.0	4810	4742	4628	4393	3941	2830	1888

(cd/m²)

1 x Master LEDtube HF InstantFit Lamp 22w 6500K

1 x 2000 lm



Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80	0.80	0.70	0.70	0.70	0.70	0.50	0.50	0.30	0.30	0.00	0.00
0.30	0.10	0.10	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
0.60	0.41	0.39	0.40	0.39	0.38	0.30	0.29	0.24	0.27	0.23	0.20	0.20
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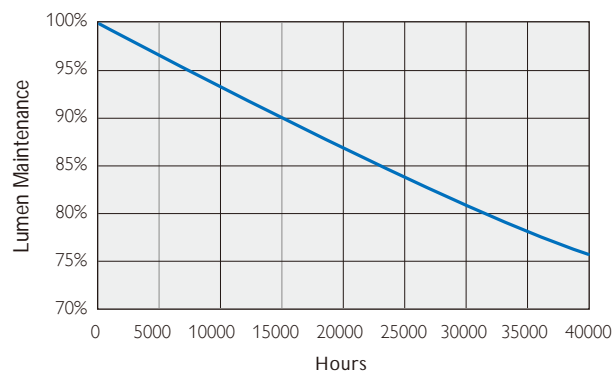
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(cd/m²)

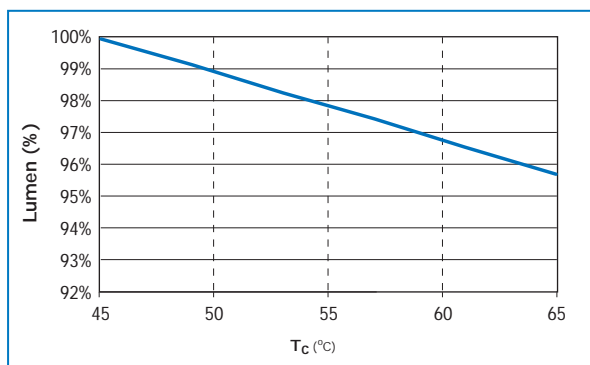
Lifetime and Lumen Maintenance



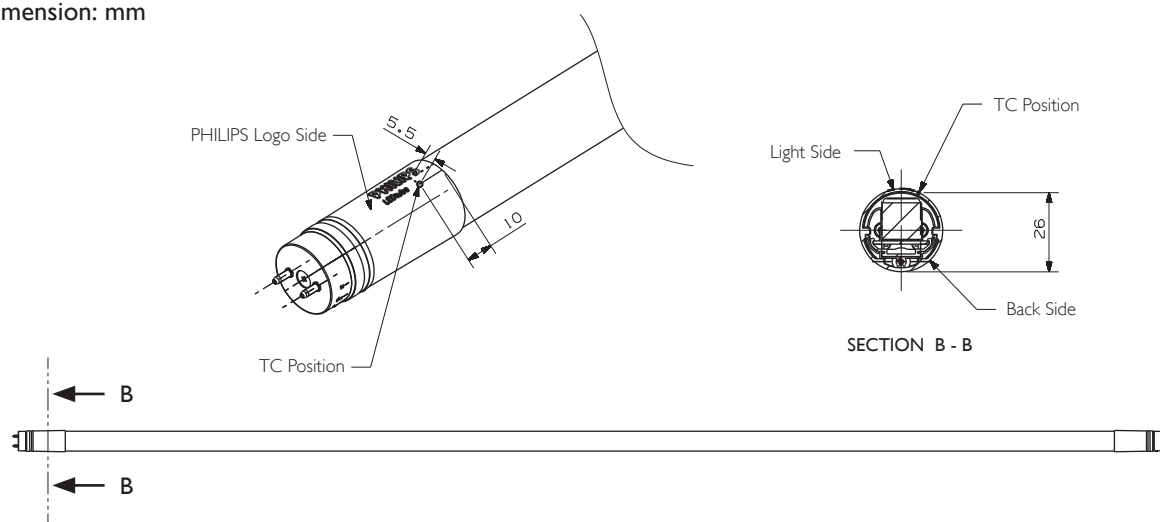
According to IEC 62612, Philips Master LEDtube InstantFit has a lifetime of 40,000hrs, which is defined as the number of hours when 50% of a large group of identical lamps with combined failure modes with either below 70% of initial lumens or catastrophic failures, etc.

Temperature

Operating temperature	T _{operating}	min -20°C	max +35°C
Storage temperature	T _{case}	min -40°C	max +65°C
Maximum surface temperature for rated lifetime of tube at Tamb.=25°C	T _{case}		+45°C

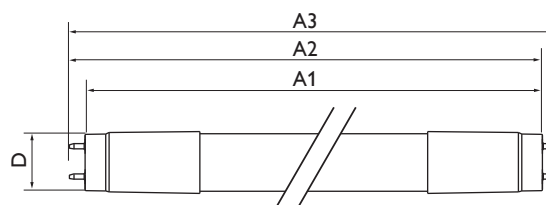


Dimension: mm



Approbation & Certificates

The product complies with **TUV, CE, KEMA, RoHS & REACH.**



Dimensions (mm)

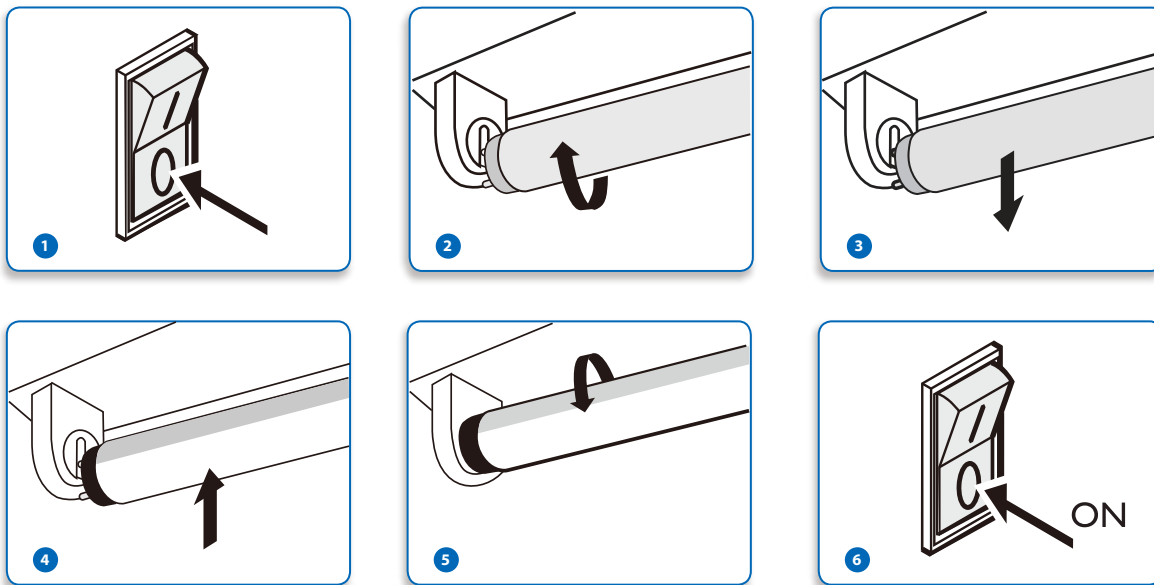
Product	A1	A2	A3	D
1500mm	1498.7	1505.8	1512.9	27.8

Technical specification

10NC	Product Description	Wattage	System Wattage	Equivalent Fluorescent Wattage	Voltage	Cap	Length	Beam angle	Lifetime	Lumen output (Typical)	Color Temp	CRI
		(W)	(W)	(W)	(V)		(mm)	(°)	(hrs)	(lm)	(K)	(Typical*)
9290011224	MAS LEDtube HF 1500mm SO 22W840 T8	22	24	58	50-100	G13	1500	160	40000	2000	4000	83
9290011225	MAS LEDtube HF 1500mm SO 22W865 T8	22	24	58	50-100	G13	1500	160	40000	2000	6500	83

* Minimum CRI is 80

Installation Guide



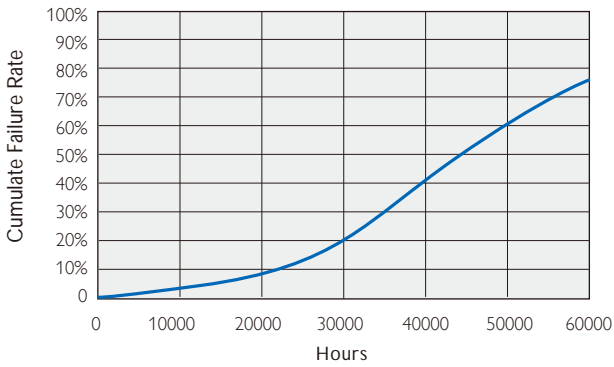
Note: Philips MASTER LEDtube Value HF is compatible with most electronic ballasts in the market.
For best compatibility results; please visit www.philips.com/masterledlamps for further information.

Application Notes

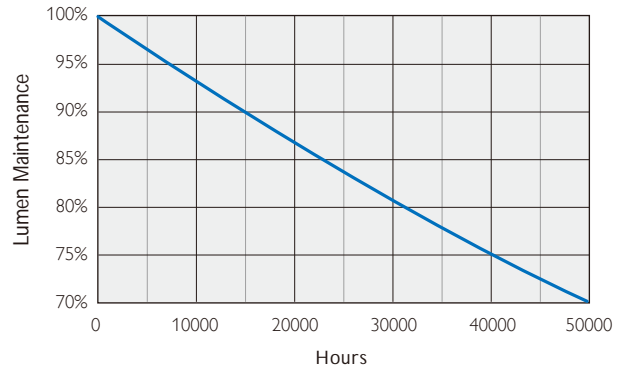
- Suitable for dry & damp locations.
- Operating fixture ambient is -20°C and +35°C.
- Always switch off power to the luminaire before commencing work.
- Compatible only with HF electronic ballasts.
- Philips MASTER LEDtube InstantFit lamps are not compatible with luminaires that use a remote starter.
- Philips MASTER LEDtube InstantFit lamps are intended to retrofit.

OEM Guideline

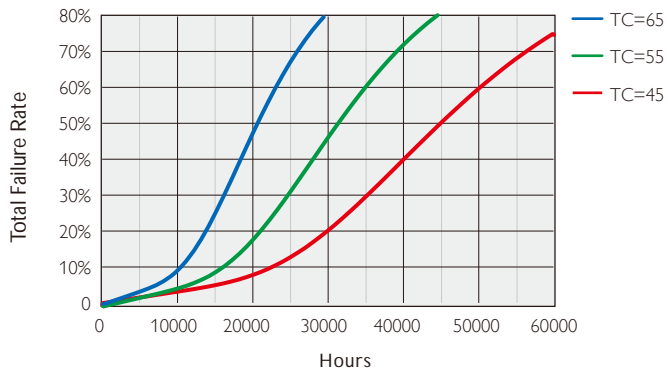
Failure rate vs. Lifetime @ Ta 25 °C



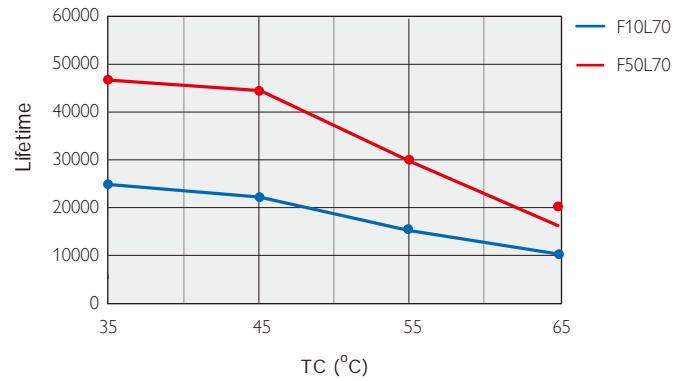
Lumen Maintenance vs. Lifetime



Failure Rate vs. Lifetime vs. Tcase



Lifetime vs. Tcase



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