



Philips CorePro LEDtube T5



**PHILIPS**







Philips Corepro LEDtube T5 is a reliable value-for-money LED lamp out of Philips lighting portfolio, incorporated with frontier LED chips and other advanced technologies. The product helps customers to achieve up to 50% energy saving and significant maintenance cost reduction by comparing to fluorescent lamps. It also helps generate natural and comfortable lighting effect, and to build up green and environment friendly image for our customers.



## Product Features

### Maintain high performance

- Reliable operation between  $-20^{\circ}\text{C}$  to  $45^{\circ}\text{C}$  ambient temperature
- Trustable claimed lifetime
- 50,000 switching cycles

### Easy to experience

- Instant on, no flicker or buzz
- Advanced optical design ensures a uniform light output and superior optical efficiency

### Energy Efficient

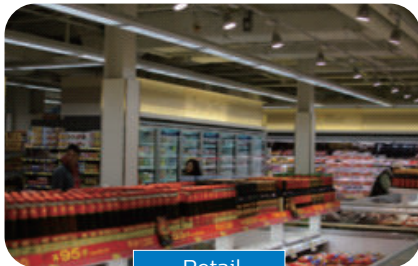
- Energy savings up to 50%\*

\* Based on comparison between 16W Corepro LEDtube standard and Philips TL5 standard or super 80 28W (30-32W system power when working with Electronics Ballasts)

### Safe and forget

- 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
- Slim size fitting into most of T5 fluorescent luminaire perfectly

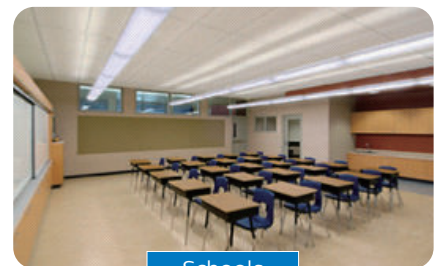
## Application



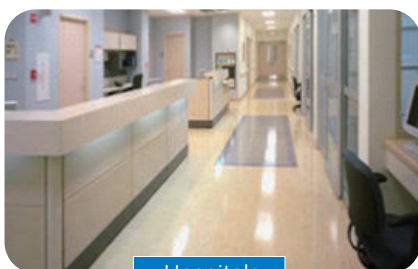
Retail



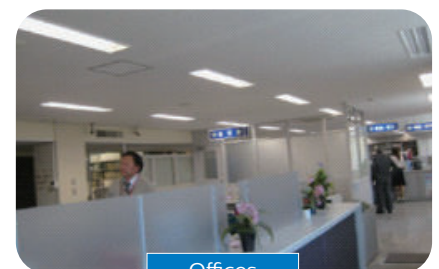
Industry



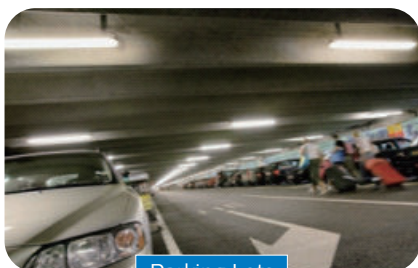
Schools



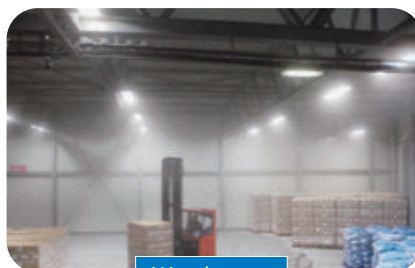
Hospitals



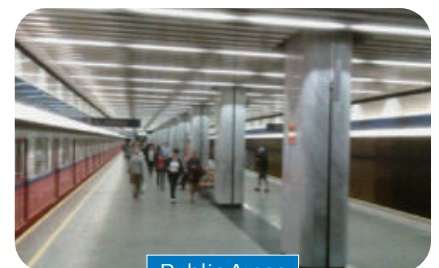
Offices



Parking Lots



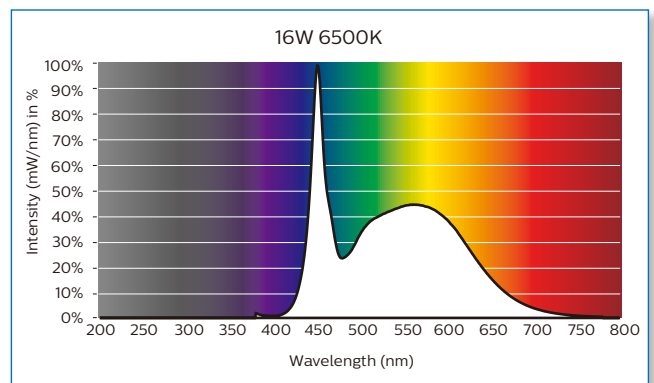
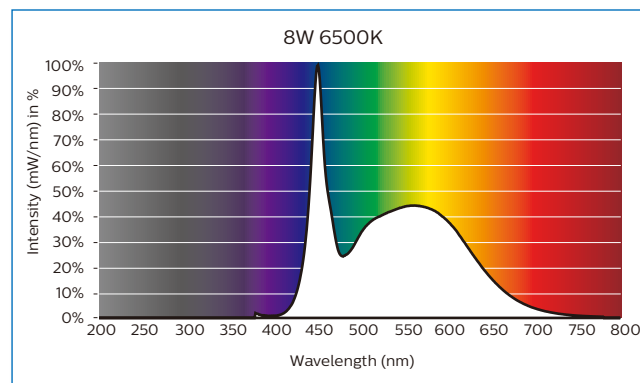
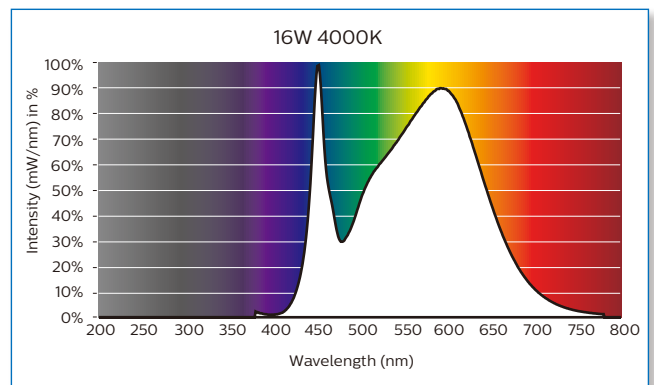
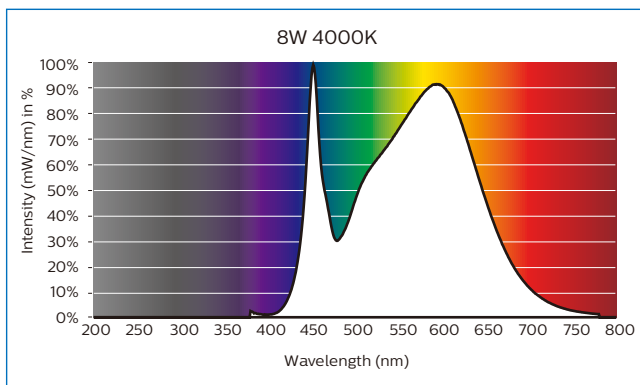
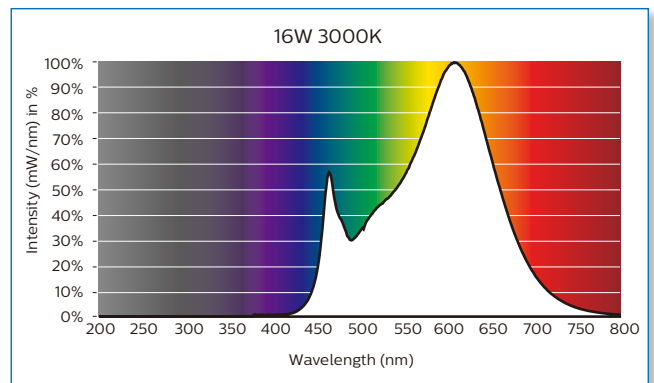
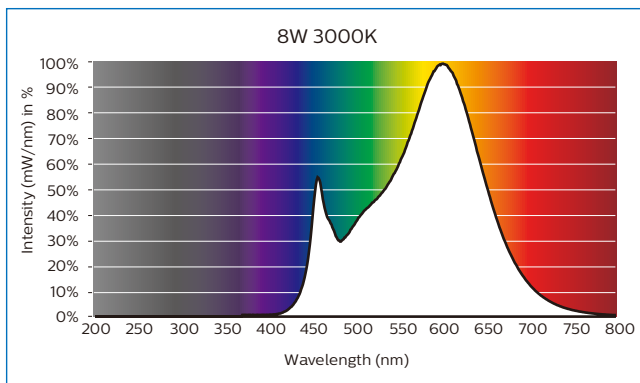
Warehouses



Public Areas

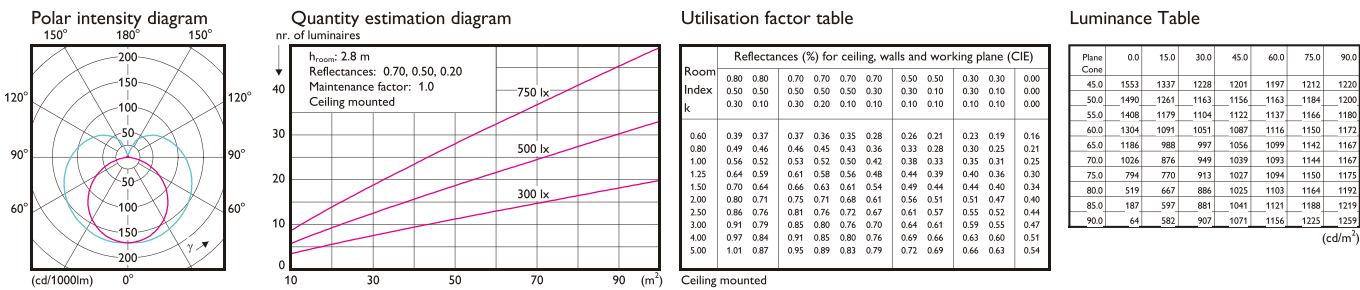
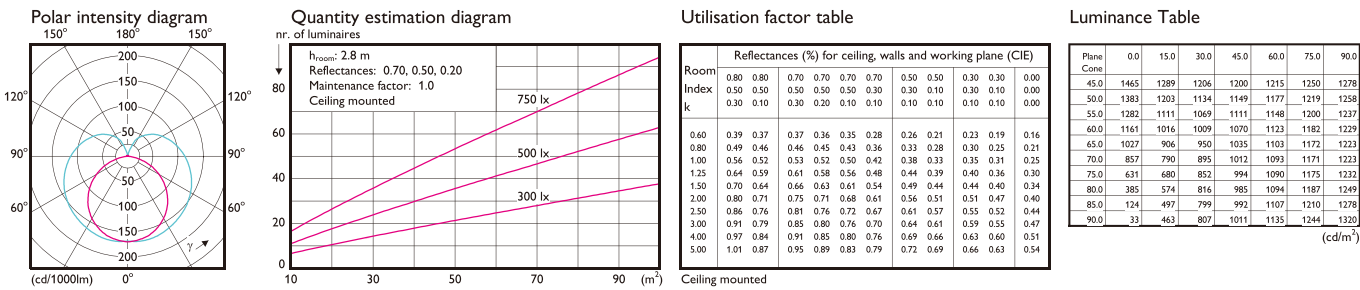
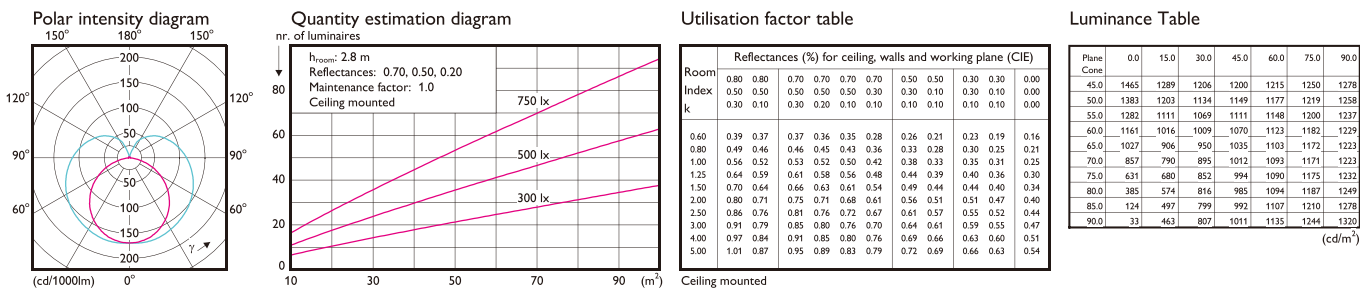
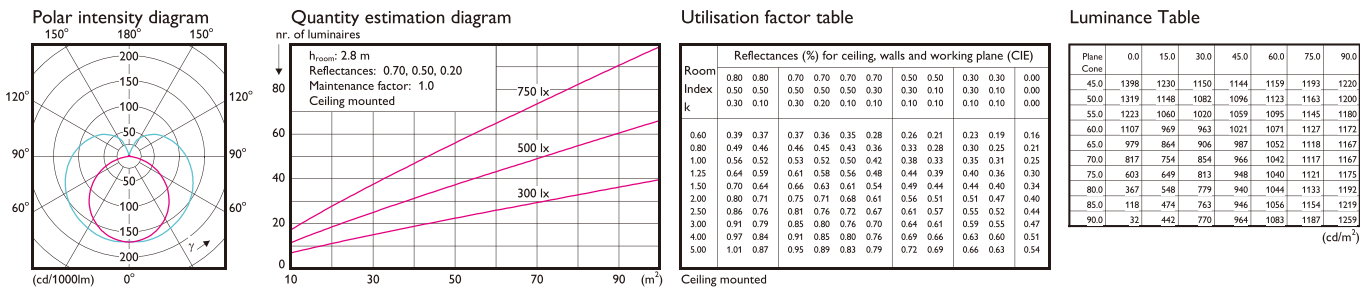
## Spectral Power Distribution

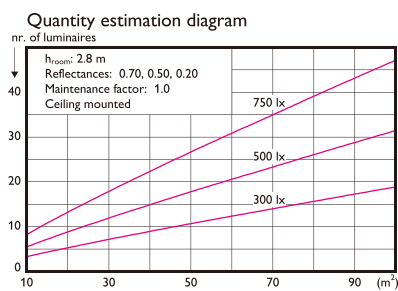
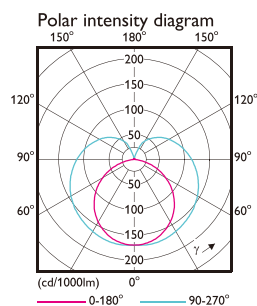
Light may be precisely characterized by giving the power of the light at each wavelength in the visible spectrum. The resulting spectral power distribution (SPD) shows that the LEDtube contains the visible light only. No harm from UV and IR.



## Photometric Diagrams

The Photometric diagram depicting the top down mounted lighting fixtures in a specific area and a numerical grid of the maintained lighting levels that the fixture will produce in that specific area. Pictures below show the photometric diagrams of a typical Philips LEDtube's application.





Utilisation factor table

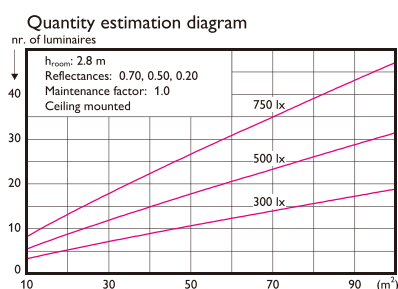
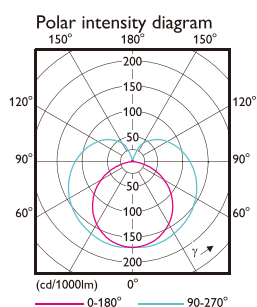
Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)															
	0.80	0.80	0.70	0.70	0.70	0.70	0.50	0.50	0.30	0.30	0.00	0.80	0.80	0.70	0.70	0.70
0.60	0.39	0.37	0.37	0.36	0.35	0.28	0.26	0.21	0.23	0.19	0.16	0.39	0.37	0.37	0.36	0.35
0.80	0.49	0.46	0.46	0.45	0.43	0.36	0.33	0.28	0.30	0.25	0.21	0.49	0.46	0.46	0.45	0.43
1.00	0.56	0.52	0.53	0.52	0.50	0.42	0.38	0.33	0.35	0.31	0.25	0.56	0.52	0.53	0.52	0.50
1.25	0.64	0.59	0.61	0.58	0.56	0.48	0.44	0.39	0.40	0.36	0.30	0.64	0.59	0.61	0.58	0.56
1.50	0.70	0.64	0.66	0.63	0.61	0.54	0.49	0.44	0.44	0.40	0.34	0.70	0.64	0.66	0.63	0.61
2.00	0.80	0.71	0.75	0.71	0.68	0.61	0.56	0.51	0.51	0.47	0.40	0.80	0.71	0.75	0.71	0.68
2.50	0.86	0.76	0.81	0.76	0.72	0.67	0.61	0.57	0.55	0.52	0.44	0.86	0.76	0.81	0.76	0.72
3.00	0.91	0.79	0.85	0.80	0.76	0.70	0.64	0.61	0.59	0.55	0.47	0.91	0.79	0.85	0.80	0.76
4.00	0.97	0.84	0.91	0.85	0.80	0.76	0.69	0.66	0.63	0.60	0.51	0.97	0.84	0.91	0.85	0.80
5.00	1.01	0.87	0.95	0.89	0.83	0.79	0.72	0.69	0.66	0.63	0.54	1.01	0.87	0.95	0.89	0.83

Ceiling mounted

Luminance Table

Plane	0.0	15.0	30.0	45.0	60.0	75.0	90.0
Cone							
45.0	1638	1410	1295	1266	1262	1278	1286
50.0	1571	1330	1227	1219	1236	1248	1266
55.0	1485	1243	1164	1183	1199	1230	1244
60.0	1375	1151	1108	1146	1177	1213	1236
65.0	1251	1042	1052	1114	1159	1205	1230
70.0	1082	924	1001	1096	1152	1206	1231
75.0	838	812	963	1083	1154	1213	1239
80.0	548	703	934	1081	1163	1227	1257
85.0	198	630	930	1098	1182	1253	1285
90.0	66	614	957	1130	1219	1292	1328

(cd/m²)



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	0.80	0.80	0.70	0.70	0.70
0.60	0.39	0.37	0.37	0.36	0.35	0.28	0.26	0.21	0.23	0.19	0.16	0.39	0.37	0.37	0.36	0.35
0.80	0.49	0.46	0.46	0.45	0.43	0.36	0.33	0.28	0.30	0.25	0.21	0.49	0.46	0.46	0.45	0.43
1.00	0.56	0.52	0.53	0.52	0.50	0.42	0.38	0.33	0.35	0.31	0.25	0.56	0.52	0.53	0.52	0.50
1.25	0.64	0.59	0.61	0.58	0.56	0.48	0.44	0.39	0.40	0.36	0.30	0.64	0.59	0.61	0.58	0.56
1.50	0.70	0.64	0.66	0.63	0.61	0.54	0.49	0.44	0.44	0.40	0.34	0.70	0.64	0.66	0.63	0.61
2.00	0.80	0.71	0.75	0.71	0.68	0.61	0.56	0.51	0.51	0.47	0.40	0.80	0.71	0.75	0.71	0.68
2.50	0.86	0.76	0.81	0.76	0.72	0.67	0.61	0.57	0.55	0.52	0.44	0.86	0.76	0.81	0.76	0.72
3.00	0.91	0.79	0.85	0.80	0.76	0.70	0.64	0.61	0.59	0.55	0.47	0.91	0.79	0.85	0.80	0.76
4.00	0.97	0.84	0.91	0.85	0.80	0.76	0.69	0.66	0.63	0.60	0.51	0.97	0.84	0.91	0.85	0.80
5.00	1.01	0.87	0.95	0.89	0.83	0.79	0.72	0.69	0.66	0.63	0.54	1.01	0.87	0.95	0.89	0.83

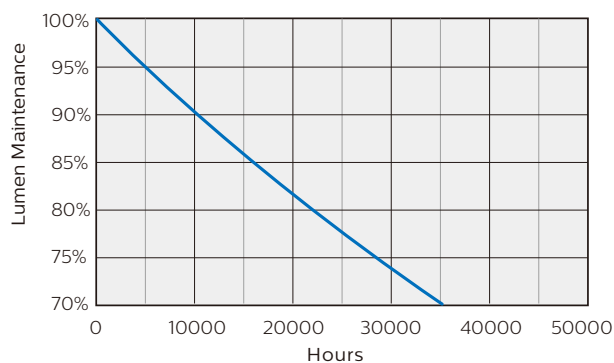
Ceiling mounted

Luminance Table

Plane	0.0	15.0	30.0	45.0	60.0	75.0	90.0
Cone							
45.0	1637	1409	1294	1265	1261	1277	1286
50.0	1570	1329	1226	1218	1235	1247	1265
55.0	1484	1242	1163	1183	1199	1230	1244
60.0	1374	1150	1107	1145	1176	1212	1236
65.0	1250	1041	1051	1113	1158	1204	1230
70.0	1081	923	1000	1095	1152	1206	1231
75.0	837	812	963	1082	1153	1213	1239
80.0	548	702	934	1081	1163	1227	1256
85.0	198	629	929	1097	1181	1252	1285
90.0	66	614	956	1129	1218	1291	1327

(cd/m²)

## Lifetime and Lumen Maintenance

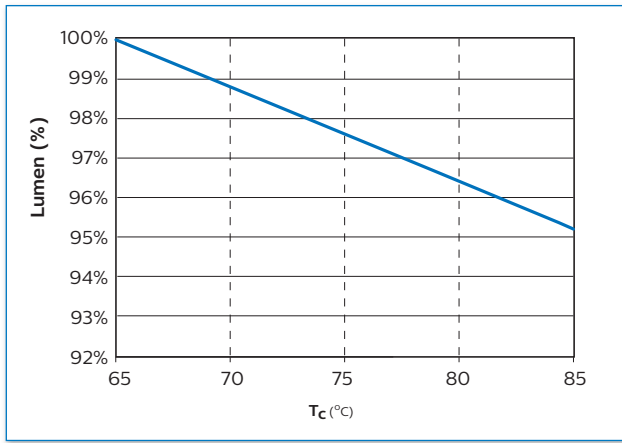


Philips CorePro LEDtube T5 has a lifetime of 30,000 hours, defined as the number of hours when 50% of a large group of identical lamps below 70% of its initial lumens.

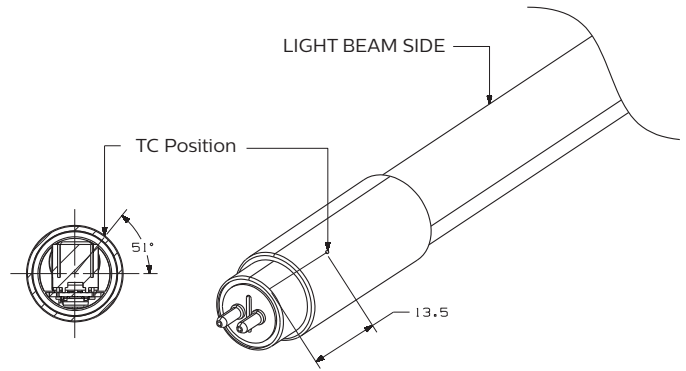
## Temperature

Philips CorePro T5 LEDtube's excellent thermal design ensures low temperature during operating, which brings reliable and stable product performance throughout life time.

Operating temperature	T operating	min -20°C	max +45°C
Storage temperature	T storage	min -40°C	max +65°C
Maximum surface temperature of tube at Tamb.=25°C	T surface		+60°C



Dimension: mm

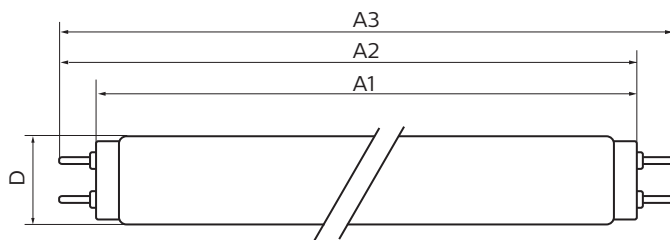


## Approbation & Certificates

Philips LEDtube is designed by strictly following applicable legislation and international standard. The product complies with **KEMA**, **RoHS** and **TISI**.



**RoHS**



### Dimensions (mm)

Product	A1	A2	A3	D
G5 2ft	549	546.7/549	560.7/563.2	19
G5 4ft	1149	1153.7/1156.1	1160.7/1163.2	19

## Technical specification

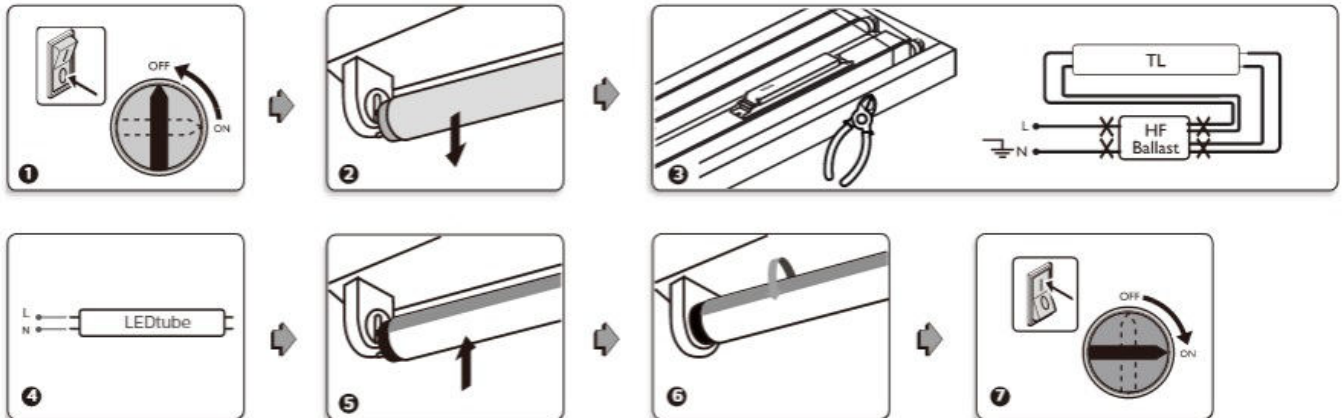
Product Description	Wattage ( W )	Voltage ( V )	Cap	Length ( mm )	Beam Angle ( ° )	Lifetime ( hrs )	Lumen output ( lm )	CCT ( K )	CRI * ( Typical )	Model Number
CorePro LEDtube 600mm 8W830 G5 I APR	8	100-240	G5	600	240	30,000	1000	3000	80	9290013806
CorePro LEDtube 600mm 8W840 G5 I APR	8	100-240	G5	600	240	30,000	1050	4000	80	9290013807
CorePro LEDtube 600mm 8W865 G5 I APR	8	100-240	G5	600	240	30,000	1050	6500	80	9290013808
CorePro LEDtube 1200mm 16W830 G5 I APR	16	100-240	G5	1200	240	30,000	2000	3000	80	9290013809
CorePro LEDtube 1200mm 16W840 G5 I APR	16	100-240	G5	1200	240	30,000	2100	4000	80	9290013810
CorePro LEDtube 1200mm 16W865 G5 I APR	16	100-240	G5	1200	240	30,000	2100	6500	80	9290013811



## Quick Installation Guide

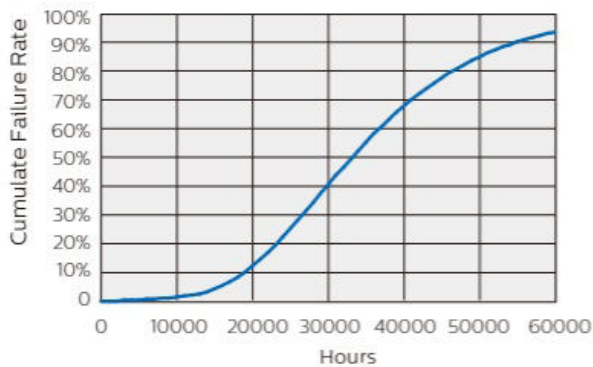
Please take the time to read quick installation guide which is shown on the product package. Philips Lighting does not accept liability for any damages for installations not performed according to this guide or not performed by a professional electrician.

- HF ballast based system

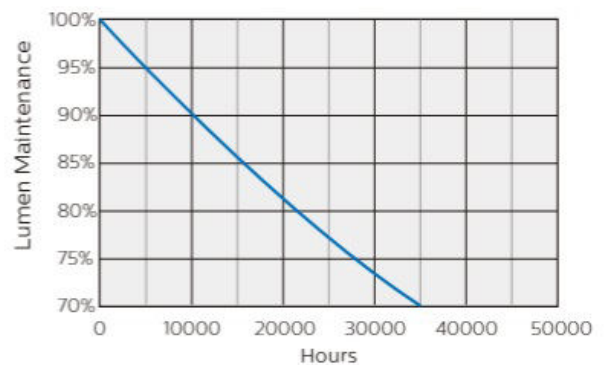


## OEM Guideline

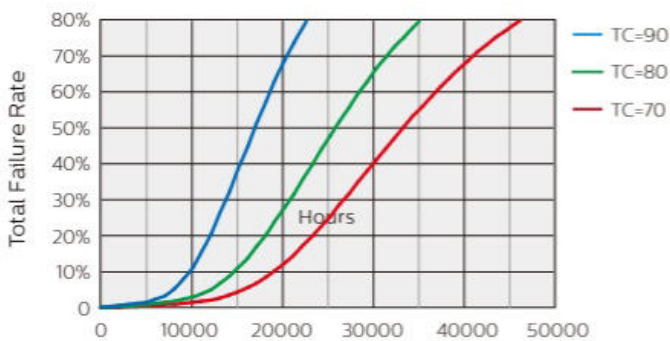
Failure rate vs. Lifetime @ Ta 25 °C



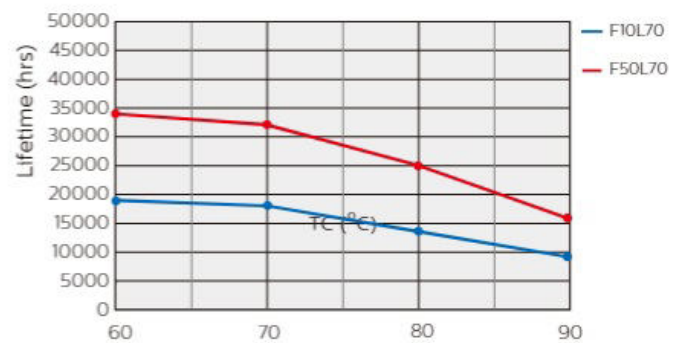
Lumen Maintenance vs. Lifetime



Failure Rate vs. Lifetime vs. Tcase



Lifetime vs. Tcase



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CHOO CHIANG

SINGAPORE  
QUALITY CLASS



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ISO9001  
CERTIFIED



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08/2017

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