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Extended design possibilities

This circular TL5 lamp (tube diameter 16 mm) offers extended design possibilities. The slim tube allows the creation of extremely flat luminaires and enables omni-directional light distribution. It is suitable for a wide range of professional and semi-professional applications, and is ideal for use in shops, offices and public areas with unconventional layouts.

Benefits

- Slim 16 mm tube allows creation of extremely flat luminaires
- Allows appealing circular designs
- High lamp efficacy
- Good color rendering
- Higher average system efficiency

- Specifically designed for operation with electronic gear
- Amalgam technology (55 and 60 W only)

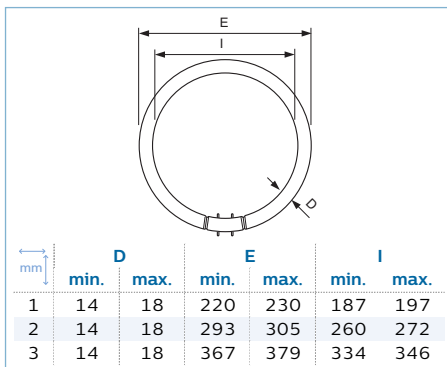
Application

- Brings the benefits of TL5 lighting to an even wider range of attractive applications
- Suitable for a wide range of professional and semi-professional applications
- Ideal for use in shops, offices and public areas with non-traditional lay-outs
- Amalgam lamps 55 W and 60 W are limited suitable for dimming applications

Warnings and Safety

- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

Dimension Drawing



Features


- Perfect circular shape
- Highly efficient 3-band fluorescent coating

Product Range




Main Data

MASTER TL5 Circular

Power/Light source color	SAP Packing (Piece)/Pack-aging configuration	Cap-Base	Correlated Color Temperature (K)	Luminous Flux (Rated) (lm)	Luminous Efficacy (Rated) (lm/W)	Life to 50% Failures Preheat (h)	Energy Consumption kWh/1000 h (kWh)	 mm	Ordering number 8711500...
22W /827	CT / 10	2GX13	2,700	1,800	82.0	12,000	25	A 1	64219625
22W /830	CT / 10	2GX13	3,000	1,800	82.0	12,000	25	A 1	64095625
22W /840	CT / 10	2GX13	4,000	1,800	82.0	12,000	25	A 1	64221925
40W /827	CT / 10	2GX13	2,700	3,300	83.0	12,000	44	A 2	64275225
40W /830	CT / 10	2GX13	3,000	3,300	83.0	12,000	44	A 2	64097025
40W /840	CT / 10	2GX13	4,000	3,300	83.0	12,000	44	A 2	64223325

More data see next page

MASTER TL5 Circular

Power/Light source color	SAP Packing (Piece)/Pack-aging configuration	Cap-Base	Correlated Color Temperature	Luminous Flux (Rated)	Luminous Efficacy (Rated)	Life to 50% Failures Preheat	Energy Consumption kWh/1000 h		Ordering number
			(K)	(lm)	(lm/W)				
55W/830	CT / 10	2GX13	3,000	4,200	76.0	12,000	61	A 2	64279025
55W/841	CT / 10	2GX13	4,100	4,200	76.0	12,000	61	A 2	64251625
60W/830	CT / 10	2GX13	3,000	5,000	83.0	12,000	66	A 3	64259225
60W/840	CT / 10	2GX13	4,000	5,000	83.0	12,000	66	A 3	64261525

Electrical data

Commercial product name	Lamp Current	Calibration Current	Lamp power	Resistor	HF Generator Rated Voltage
	(A)	(A)	(W)	(Ω)	(V)
MASTER TL5 Circular 22W/827 1CT/10	0.30	0.30	22.3	250	150
MASTER TL5 Circular 22W/830 1CT/10	0.30	0.30	22.3	250	150
MASTER TL5 Circular 22W/840 1CT/10	0.30	0.30	22.3	250	150
MASTER TL5 Circular 40W/827 1CT/10	0.32	0.32	39.9	400	254
MASTER TL5 Circular 40W/830 1CT/10	0.32	0.32	39.9	400	254
MASTER TL5 Circular 40W/840 1CT/10	0.32	0.32	39.9	400	254
MASTER TL5 Circular 55W/830 1CT/10	0.55	0.55	55.0	185	202
MASTER TL5 Circular 55W/840 1CT/10	0.55	0.55	55.0	185	202
MASTER TL5 Circular 60W/830 1CT/10	0.47	0.47	60.0	275	258
MASTER TL5 Circular 60W/840 1CT/10	0.47	0.47	60.0	275	258

Lifetime data

Commercial product name	Life to 10% Failures Preheat	Life to 50% Failures Preheat
	(h)	(h)
MASTER TL5 Circular 22W/827 1CT/10	8,000	12,000
MASTER TL5 Circular 22W/830 1CT/10	8,000	12,000
MASTER TL5 Circular 22W/840 1CT/10	8,000	12,000
MASTER TL5 Circular 40W/827 1CT/10	8,000	12,000
MASTER TL5 Circular 40W/830 1CT/10	8,000	12,000
MASTER TL5 Circular 40W/840 1CT/10	8,000	12,000
MASTER TL5 Circular 55W/830 1CT/10	8,000	12,000
MASTER TL5 Circular 55W/840 1CT/10	8,000	12,000
MASTER TL5 Circular 60W/830 1CT/10	8,000	12,000
MASTER TL5 Circular 60W/840 1CT/10	8,000	12,000

Color data

Commercial product name	Colour Rendering Index	Colour Rendering Index	Colour Rendering Index	Light source color ¹	Color Designation
	([min.])		([max.])		
MASTER TL5 Circular 22W/827 1CT/10	80	85	85	827	Incandescent White
MASTER TL5 Circular 22W/830 1CT/10	80	85	85	830	Warm White (WW)
MASTER TL5 Circular 22W/840 1CT/10	80	85	85	840	Cool White (CW)
MASTER TL5 Circular 40W/827 1CT/10	80	85	85	827	Incandescent White
MASTER TL5 Circular 40W/830 1CT/10	80	85	85	830	Warm White (WW)
MASTER TL5 Circular 40W/840 1CT/10	80	85	85	840	Cool White (CW)
MASTER TL5 Circular 55W/830 1CT/10	80	85	85	830	Warm White (WW)
MASTER TL5 Circular 55W/840 1CT/10	80	85	85	841	Cool White (CW)
MASTER TL5 Circular 60W/830 1CT/10	80	85	85	830	Warm White (WW)
MASTER TL5 Circular 60W/840 1CT/10	80	85	85	840	Cool White (CW)

¹ 'Light source color' value description(s): '827' = CCT of 2700K, '830' = CCT of 3000K, '840' = CCT of 4000K, '841' = CCT of 4100K

Luminous flux/efficacy/intensity data

Commercial product name	Luminous Flux (Rated) (lm)	Luminous Flux (lm)	Luminous Efficacy (Rated) (lm/W)
MASTER TL5 Circular 22W/827 1CT/10	1,800	1,800	82.0
MASTER TL5 Circular 22W/830 1CT/10	1,800	1,800	82.0
MASTER TL5 Circular 22W/840 1CT/10	1,800	1,800	82.0
MASTER TL5 Circular 40W/827 1CT/10	3,300	3,300	83.0
MASTER TL5 Circular 40W/830 1CT/10	3,300	3,300	83.0
MASTER TL5 Circular 40W/840 1CT/10	3,300	3,300	83.0
MASTER TL5 Circular 55W/830 1CT/10	4,200	4,200	76.0
MASTER TL5 Circular 55W/840 1CT/10	4,200	4,200	76.0
MASTER TL5 Circular 60W/830 1CT/10	5,000	5,000	83.0
MASTER TL5 Circular 60W/840 1CT/10	5,000	5,000	83.0


Rated Lumen Maintenance data

Commercial product name	LLMF 2000 h Rated (%)	LLMF 4000 h Rated (%)	LLMF 6000 h Rated (%)	LLMF 8000 h Rated (%)	LLMF 12000 h Rated (%)	LLMF 16000 h Rated (%)	LLMF 20000 h Rated (%)
MASTER TL5 Circular 22W/827 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 22W/830 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 22W/840 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 40W/827 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 40W/830 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 40W/840 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 55W/830 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 55W/840 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 60W/830 1CT/10	91	87	84	81	77	74	72
MASTER TL5 Circular 60W/840 1CT/10	91	87	84	81	77	74	72

Temperature data

Commercial product name	Correlated Color Temperature (K)	Design Temperature (°C)	Default Ambient Temperature (°C)
MASTER TL5 Circular 22W/827 1CT/10	2,700	35	25
MASTER TL5 Circular 22W/830 1CT/10	3,000	35	25
MASTER TL5 Circular 22W/840 1CT/10	4,000	35	25
MASTER TL5 Circular 40W/827 1CT/10	2,700	35	25
MASTER TL5 Circular 40W/830 1CT/10	3,000	35	25
MASTER TL5 Circular 40W/840 1CT/10	4,000	35	25
MASTER TL5 Circular 55W/830 1CT/10	3,000	35	25
MASTER TL5 Circular 55W/840 1CT/10	4,100	35	25
MASTER TL5 Circular 60W/830 1CT/10	3,000	35	25
MASTER TL5 Circular 60W/840 1CT/10	4,000	35	25

Environmental data & ETIM group & Design Requirements


Commercial product name	Energy Consumption kWh/ 1000 h (kWh)		Mercury (Hg) Content (mg)	ETIM Group ²
MASTER TL5 Circular 22W/827 1CT/10	25	A	2.5	EC000108
MASTER TL5 Circular 22W/830 1CT/10	25	A	2.5	EC000108
MASTER TL5 Circular 22W/840 1CT/10	25	A	2.5	EC000108
MASTER TL5 Circular 40W/827 1CT/10	44	A	2.5	EC000108
MASTER TL5 Circular 40W/830 1CT/10	44	A	2.5	EC000108
MASTER TL5 Circular 40W/840 1CT/10	44	A	2.5	EC000108
MASTER TL5 Circular 55W/830 1CT/10	61	A	2.5	EC000108
MASTER TL5 Circular 55W/840 1CT/10	61	A	2.5	EC000108
MASTER TL5 Circular 60W/830 1CT/10	66	A	2.5	EC000108
MASTER TL5 Circular 60W/840 1CT/10	66	A	2.5	EC000108

² 'ETIM Group' value description(s): 'EC000108' = Fluorescent Lamp

Rated Survival Factor data

Commercial product name	LSF Preheat	LSF Preheat	LSF Preheat	LSF Preheat	LSF Preheat	LSF Preheat	LSF Preheat
	2000 h Rated (%)	4000 h Rated (%)	6000 h Rated (%)	8000 h Rated (%)	12000 h Rated (%)	16000 h Rated (%)	20000 h Rated (%)
MASTER TL5 Circular 22W/827 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 22W/830 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 22W/840 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 40W/827 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 40W/830 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 40W/840 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 55W/830 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 55W/840 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 60W/830 1CT/10	99	99	96	89	50	10	1
MASTER TL5 Circular 60W/840 1CT/10	99	99	96	89	50	10	1

Operating data

Commercial product name	Default Burning Position	Default Gear		Default Cycle Time
MASTER TL5 Circular 22W/827 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 22W/830 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 22W/840 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 40W/827 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 40W/830 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 40W/840 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 55W/830 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 55W/840 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 60W/830 1CT/10	Horizontal	Electronic	Yes	3 hour cycle
MASTER TL5 Circular 60W/840 1CT/10	Horizontal	Electronic	Yes	3 hour cycle

Miscellaneous & General data

Commercial product name	Bulb Shape ³	Cap-Base	ILCOS Code
MASTER TL5 Circular 22W/827 1CT/10	C-T5	2GX13	FSCH-22/27/1B-L/P-2GX13-16
MASTER TL5 Circular 22W/830 1CT/10	C-T5	2GX13	FSCH-22/30/1B-L/P-2GX13-16
MASTER TL5 Circular 22W/840 1CT/10	C-T5	2GX13	FSCH-22/40/1B-L/P-2GX13-16
MASTER TL5 Circular 40W/827 1CT/10	C-T5	2GX13	FSCH-40/27/1B-L/P-2GX13-16
MASTER TL5 Circular 40W/830 1CT/10	C-T5	2GX13	FSCH-40/30/1B-L/P-2GX13-16
MASTER TL5 Circular 40W/840 1CT/10	C-T5	2GX13	FSCH-40/40/1B-L/P-2GX13-16
MASTER TL5 Circular 55W/830 1CT/10	C-T5	2GX13	FSCH-55/30/1B-L/P-2GX13-16
MASTER TL5 Circular 55W/840 1CT/10	C-T5	2GX13	FSCH-55/40/1B-L/P-2GX13-16
MASTER TL5 Circular 60W/830 1CT/10	C-T5	2GX13	FSCH-60/30/1B-L/P-2GX13-16
MASTER TL5 Circular 60W/840 1CT/10	C-T5	2GX13	FSCH-60/40/1B-L/P-2GX13-16

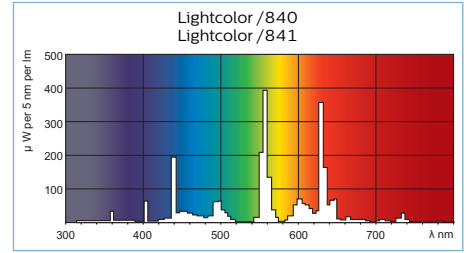
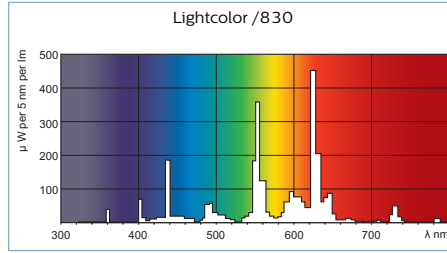
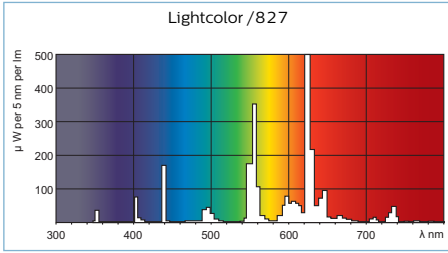
³ 'Bulb Shape' value description(s): 'C-T5' = C-T5 16 mm

Logistic data

Commercial product name	SAP Packing (Piece)/Packaging configuration ⁴	Numerator - Packs per outer box	Ordering number 8711500...	Material Nr. (12NC) (9279...)	SAP Gross Weight (Piece) (g)	Net Weight (Piece) (g)	EAN-3 8711500...
MASTER TL5 Circular 22W/827 1CT/10	CT / 10	10	64219625	65082713	125.30	80	642202
MASTER TL5 Circular 22W/830 1CT/10	CT / 10	10	64095625	65083013	125.30	80	640963
MASTER TL5 Circular 22W/840 1CT/10	CT / 10	10	64221925	65084013	125.30	80	642226
MASTER TL5 Circular 40W/827 1CT/10	CT / 10	10	64275225	65582713	177.20	110	642769
MASTER TL5 Circular 40W/830 1CT/10	CT / 10	10	64097025	65583013	177.20	110	640987
MASTER TL5 Circular 40W/840 1CT/10	CT / 10	10	64223325	65584013	177.20	110	642240
MASTER TL5 Circular 55W/830 1CT/10	CT / 10	10	64279025	65783013	178.20	111	642806
MASTER TL5 Circular 55W/840 1CT/10	CT / 10	10	64251625	65784013	178.20	111	642523
MASTER TL5 Circular 60W/830 1CT/10	CT / 10	10	64259225	66083013	361.25	145	642608
MASTER TL5 Circular 60W/840 1CT/10	CT / 10	10	64261525	66084013	361.25	145	642622

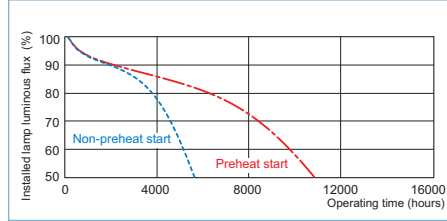
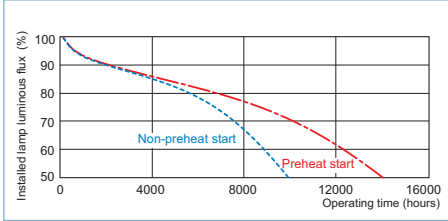
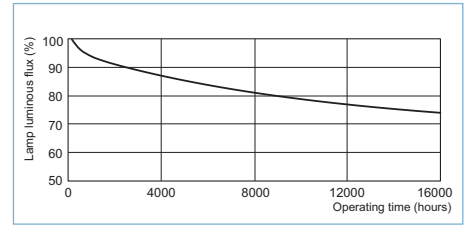
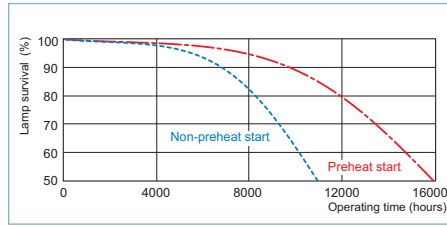
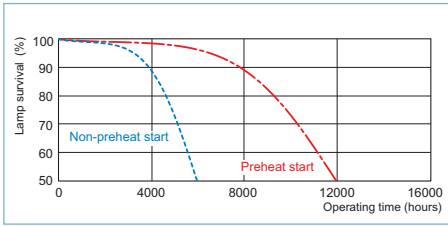
⁴ 'SAP Packing (Piece)/Packaging configuration' value description(s): 'CT / 10' = CARTON

Spectral power distribution

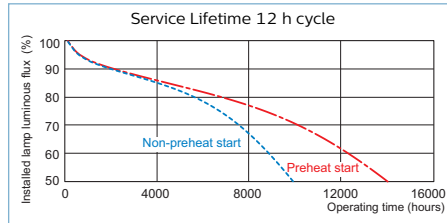
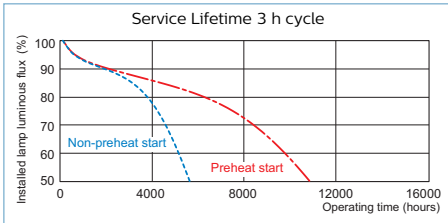
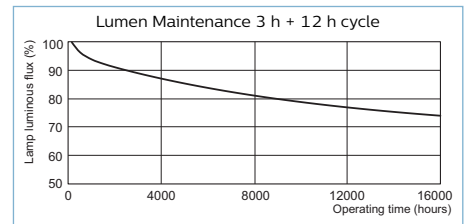
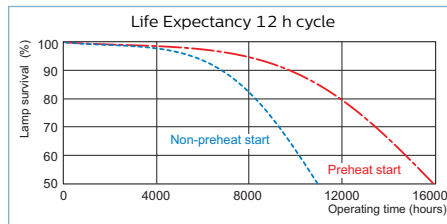
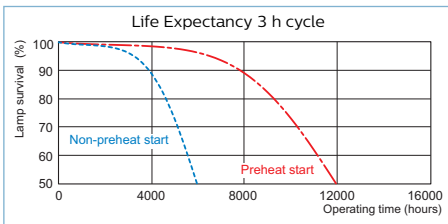


Performance diagrams

13421-13650-13690-13704-17554-17994-17995-21332-21547



MASTER TL5 Circular



Cap-Base Overview

