



TECTON LED

LED continuous-row system

Sustainably pared-down: a win in terms of economy, ecology and looks. T ZUMTOBEL

Consistently efficient

Straight line TECTON LED merges light source, batten luminaire and reflector into a single visual, functional unit. Compact but nevertheless versatile, this straight-line design luminaire radiates a sense of calm. Continuous-row systems have no butt joints and provide uninterrupted light lines that lead across the room. This paves the way for an end-to-end LED solution.

At less expense With a service life of 50,000 hours at 70% luminous flux and an efficiency of up to 80 Im per W, TECTON LED has important economic advantages. Less expenditure on maintenance means fewer interruptions to work, and reduced energy consumption provides additional cost savings. Investment in a TECTON LED lighting solution is amortised within a very short period.

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DESIGN TECTON LED BILLINGS JACKSON DESIGN

LED perfection

With colour rendition of Ra > 80 and colour temperatures of 3000 K and 4000 K, TECTON LED delivers excellent lighting quality. LED technology is the most innovative lighting technology and has enormous future potential. TECTON LED offers the best possible investment security because it comes with all the features needed to meet environmental requirements and comply with funding guidelines for energy-efficient building and lighting solutions.

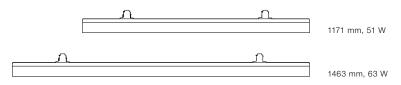
4 optics and 1 design

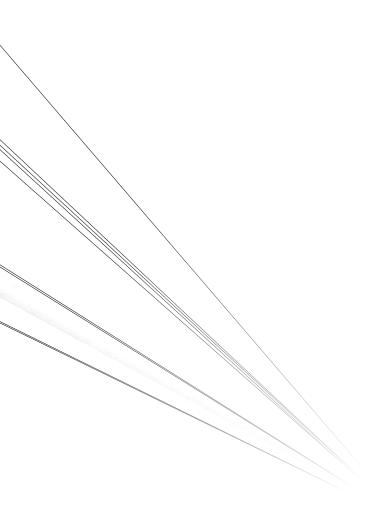
With four optics, TECTON LED comes with all the features needed to handle a wide variety of tasks in industry, presentation and retail. The precise way in which TECTON directs light exploits the benefits of LEDs to full effect by optimising horizontal and vertical illuminance and preventing scattered light. There is no need for additional reflectors.

Quick installation

The LED continuous-row system is compatible with the entire TECTON product range. The luminaire and trunking are attached to each other quickly and securely thanks to a system that provides audible and visible indication of locking. Familiar, tried-and-tested features such as Plug & Play and no-tool installation have been retained. TECTON LED is therefore also time efficient.







Luminous flux: up to 5050 lm

Luminous flux: up to 5000 lm

TECTON LED WIDE BEAM

The wide-beam optic is equally suitable for handling decorative as well as technical tasks. Its medium-wide light distribution is ideal for lighting shelf surfaces and aisle zones. It also illuminates surfaces without shelves, e.g. manufacturing areas, uniformly.

TECTON LED NARROW BEAM

Specially developed for use in industrial and engineering applications, the narrow-beam optic ensures efficient, uniform illumination of the vertical fronts of shelving. With a maximum mounting height of around 18 m, it easily copes with medium and large room heights. Luminous flux: up to 4900 lm

Luminous flux: up to 4800 lm

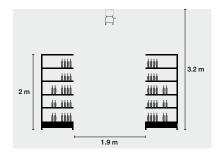
TECTON LED DOUBLE WALLWASHER

The double wallwasher optic really comes into its own in presentation applications and retail spaces. Its symmetrical light distribution focuses on shelf surfaces; aisle zones are not as brightly lit. This way, customers' attention is directed to the goods that are on display.

TECTON LED WALLWASHER

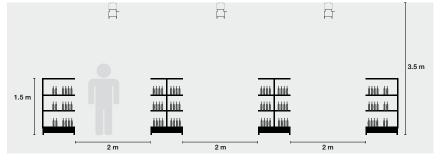
The wallwasher's asymmetric light distribution is specially designed for presentation and retail areas where there are one-sided shelf surfaces. An unobtrusive reflector that can be clicked into place quickly and without any tools presents goods in the right light. WIDE BEAM PRESENTATION AND RETAIL





300 lx on shelf surfaces, 500 lx at floor level

- Emphasis is placed on uniform illumination of aisle zones and shelf surfaces.
- The lighting solution is specifically designed and fitted to match the relevant shelving situation.
- This results in optimised lighting of the shelf surfaces in question.



1000 lx on shelf surfaces, 1000 lx at one metre above floor level

- Emphasis is placed on uniform illumination of aisle zones, shelf surfaces and larger surfaces.
- The lighting solution can be designed and de-
- ployed regardless of the positioning of the individual shelves.
- This allows subsequent alteration of the positions of shelves - without the need to modify the placement of luminaires.

INDUSTRY AND ENGINEERING



- Optimised illuminance levels are focused on aisle zones.
- The lighting solution is specifically designed and
- fitted to match the relevant shelving situation. This results in optimised lighting of the aisle zones in question.
- Emphasis is placed on uniform illumination of manufacturing areas.
- The lighting solution can be designed and de-
- The righting solution can be designed and de-ployed regardless of the positioning of the re-spective machines and production areas.
 This allows subsequent repositioning of machines and production areas without the need to modify the placement of luminaires.

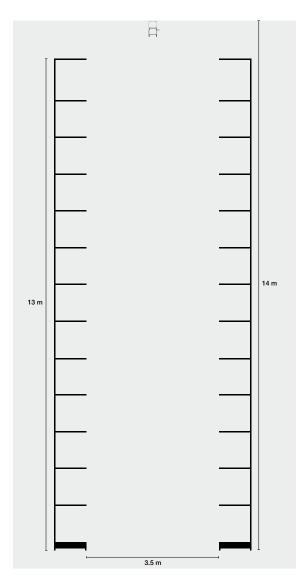
NARROW BEAM

INDUSTRY AND ENGINEERING



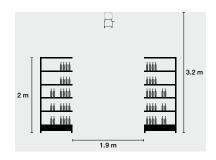
DOUBLE WALLWASHER PRESENTATION AND RETAIL





50 lx on shelf surfaces, 190 lx at floor level

- Illuminance levels are optimised for medium to
- high shelving, emphasis is placed on aisle zones. The lighting solution is specifically designed and
- fitted to match the relevant shelving situation.This results in optimised lighting of the aisle zones in question.
- Uniform illumination of shelf surfaces.



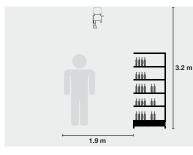
400 lx on shelf surfaces, 150 lx at floor level

- Emphasis is placed on high-intensity, uniform illu mination of shelf surfaces.
- The lighting solution is specifically designed and fitted to match the relevant shelving situation.
- This directs customers' attention directly to the shelf surfaces and products that are on display.

WALLWASHER

PRESENTATION AND RETAIL





580 lx on shelf surfaces, 120 lx at floor level

• Emphasis is placed on high-intensity, uniform illu mination of one-sided shelf surfaces.

• The lighting solution is specifically designed and

An unobtrusive reflector is used to direct customers' attention directly to the shell surfaces and products that are on display.

Basic conditions

Installation type: TECTON LED as continuous light line Maintenance factor: 0.67 Reflectance ratio: ceiling 50, wall/shelf 30, floor 20

Indicated lux (Ix) figures are based on simplified basic conditions used by way of example. Specific, detailed investigations are required for every project.

As of October 2011. Subject to change without prior notice.

TECTON LED installation

Seamless and time-efficient



Trunking and luminaires - that's all that is needed for an LED continuous-row system. Even where different beam patterns are arranged in succession, TECTON LED retains its unbroken, continuous-row appearance without any visual discontinuity or different reflectors. Because the LED system is 100% compatible with the entire TECTON product range, existing T16 and T26 luminaires can easily be replaced by a new LED continuous-row system without using any tools. The luminaire and the 11-pole pre-wired trunking are attached to each other quickly and securely thanks to a system that provides audible and visible indication of locking.



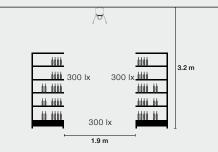
A conventional supermarket uses a T16 continuous-row systems to illuminate its shelving. A direct comparison with TECTON LED Wide Beam makes the strengths of the practically maintenance-free LED solution obvious: taken over a period of 10 years, the total costs of ownership are identical with 66% more light and increased illuminance at floor level (up from 300 to 500 lx). The 27% reduction in energy costs is another persuasive argument in favour of using LED lighting in an ecologically responsible business.

T16 continuous-row system

Luminaire data

1-lamp continuous-row luminaire	1/80 W
Light source	T16 HO
Installed load (per batten luminaire)	86 W
LEF	64 lm/W

Continuous-row luminaire with white reflector and white vane louvre for longitudinal glare control.



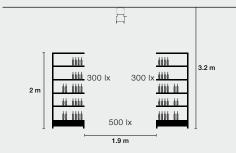
Shelf illuminance 300 lx Floor-level illuminance 300 lx

Average energy consumption: **150.5 kWh/m²a** Average CO₂ emissions: **27.5 kg/kWh m²a (-40 %)**

TECTON LED

Luminaire data

TECTON LED WIDE BEAM	
Light source	LED
Installed load (per batten luminaire)	63 W
LEF	80 lm/W
Length	1463 mm



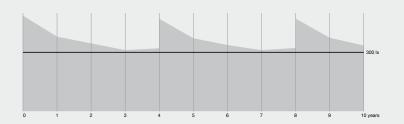
Shelf illuminance 300 lx Floor-level illuminance 500 lx

Average energy consumption: 110 kWh/m²a Average CO₂ emissions: 20.1 kg/kWh m²a (-40 %) SPAR supermarket, Murau / AT



Basic conditions - Supermarket lighting

Calculation period	10 years
Burning hours per year	5000
Environment	standard
Room maintenance interval	5 years
Maintenance illuminance	300 lx
Maintenance factor	0.67
Ceiling/wall/floor reflectance	50/30/20
UGR	< 22



Decrease in illuminance

Directors uning cleaning of lamps and reflectors takes place once every three years. This is accompanied by the expensive replacement of light sources.



Decrease in illuminance

The continuous-row system is cleaned by simply wiping it down once every five years. There is no need to replace any light sources. This produces a 78% saving in maintenance costs. Summary of T16 vs. LED comparison

Energy consumption

T16	150.5 kWh/m²a	-27 %
LED	110 kWh/m ² a	-21 70

Illuminance (at floor level):

T16	300 lx		+ 66 %
LED		500 lx	+00 /0

Maintenance costs (over 10 years):

T16	baseline figure	
LED		-78 %

Total cost of ownership (over 10 years):

T16		
LED		

Investment costs

Operating costs (energy + maintenance)

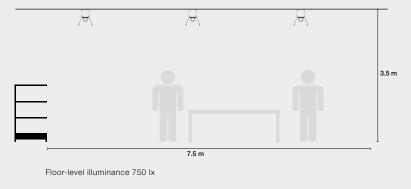
Conventional lighting for manufacturing areas is a T16 continuousrow system. If the decision is made to opt for a TECTON LED Wide Beam continuous-row system, it is not just lighting quality that improves markedly. Thanks to higher light output ratio levels, fewer luminaires are needed and energy consumption drops by 40%. Over a ten-year period, the cost of the LED continuous-row system are actually 10% less than that of T16 lighting.

T16 continuous-row system

Luminaire data

1-lamp continuous-row luminaire	1/80 W
Light source	T16 HO
Installed load (per batten luminaire)	86 W
LEF	56 lm/W
UGR	< 25

Continuous-row luminaire with white reflector and white vane louvre.

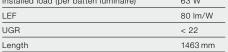


Average energy consumption: **128.6 kWh/m²a** Average CO₂ emissions: **23.4 kg/kWh m²a**

TECTON LED

Luminaire data

TECTON LED WIDE BEAM	
Light source	LED
Installed load (per batten luminaire)	63 W
LEF	80 lm





Average energy consumption: **76.8 kWh/m²a** Average CO₂ emissions: **14.0 kg/kWh m²a (-40 %)**



Basic conditions - Industrial lighting

Calculation period	10 years
Burning hours per year	5000
Environment	standard
Room maintenance interval	6 years
Maintenance illuminance	750 lx
Maintenance factor	0.55
Ceiling/wall/floor reflectance	50/50/20

Summary of T16 vs. LED comparison

Energy consumption

T16 LED

T16		128.6 kWh/m²a	40.0/
LED	76.8 kWh/m²a		-40 %

Number of luminaires required

T16	baseline figure	- 18 %
LED	-18 %	- 10 %

Maintenance costs (over 10 years):

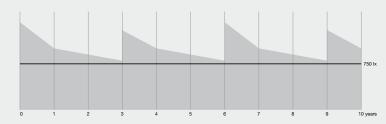
baseline figure	00 0/
	-68 %

Total cost of ownership (over 10 years):

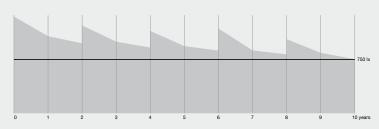
T16	10.0/
	-10 %
LED	10 /0

Investment costs

Operating costs (energy + maintenance)



Decrease in illuminance Expensive cleaning of lamps and reflectors takes place once every three years. This is accompanied by the ex-pensive replacement of all the light sources.



Decrease in illuminance

The continuous-row system is cleaned by simply wiping it down once every two years. There is no need to replace any light sources. This produces a 68% saving in maintenance costs.

TECTON LED optics

	Wide Beam	Narrow Beam	Double Wallwasher	Wallwasher
Abbreviated designation	WB	NB	DWW	WW
Protection type	IP20	IP20	IP20	IP20
Wattage / length	51 W / 1171 mm 63 W / 1463 mm	51 W / 1171 mm 63 W / 1463 mm	51 W / 1171 mm 63 W / 1463 mm	51 W / 1171 mm 63 W / 1463 mm
Luminous flux (4000 K)	4040 lm 5050 lm	~4000 lm* ~5000 lm*	~3900 lm* ~4900 lm*	~ 3850 lm* ~ 4800 lm*
Effiiciency	80 lm/W	~ 78 lm/W*	~ 76 lm/W*	~75 lm/W*
Colour rendering/ colour temperature	840 (CRI>80, 4000 K) 830 (CRI>80, 3000 K)	840 (CRI>80, 4000 K) –	840 (CRI>80, 4000 K) 830 (CRI>80, 3000 K)	840 (CRI>80, 4000 K) 830 (CRI>80, 3000 K)
Ballasts	LDE DO electronic ballast	LDE DO electronic ballast	LDE DO electronic ballast	LDE DO electronic ballast
Service life	50,000 h (L70)	50,000 h (L70)	50,000 h (L70)	50,000 h (L70)
Colour	white	white	white	white

* State of development: October 2011 - modifications possible

I... | Shared properties TECTON LED

- Energy-efficient LED continuous-row luminaire with a lighting efficiency of up to 80 lm/W
- Linear Tecton LED solution. High-quality look designed to match trunking
- Aluminium LED continuous-row luminaire in white, powder-coated finish
- All-in-one solution: lighting batten, lamp and reflector are combined in one product and allow a 100% conti-

TECTON LED continuous row luminaire, wide beam



- |...|
- Focus of use: Presentation and Retail (shelf lighting and surface lighting), Industry and Engineering (shelf lighting and surface lighting)
- Colour temperature: 3000 K (LED830: warm white), 4000 K (LED840: neutral white)

nuous ribbon of LED light without gaps

- . LED continuous-row luminaire composed of segment elements, each containing 11 LEDs of wattage 1W Colour rendering: RA>80
- . Chromaticity tolerance between mul-. tiple luminaires of up to 4 MacAdam ellipses
- LED service life 50,000 h at 70 %

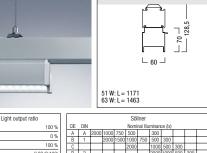
luminous flux

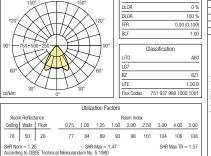
- 100% flexible, tool-free mechanical and electrical installation using CLIXtechnology by means of two sidemounted rotary levers on the TECTON trunking
- No ultraviolet or infrared radiation
- Luminaire pre-wired using halogenfree leads

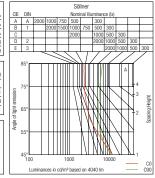
	L/W	kg	Order no.
Dimmable luminaires			dimmable Dali
TECTON L1171 51W LED830 WB	1171/60	2,6	42 180 607
TECTON L1171 51W LED840 WB	1171/60	2,6	42 180 136
TECTON L1463 63W LED830 WB	1463/60	3,3	42 180 608
TECTON L1463 63W LED840 WB	1463/60	3,3	42 180 131
Luminaires with electronic ballast			electronic
TECTON L1171 51W LED830 WB	1171/60	2,6	42 180 609
TECTON L1171 51W LED840 WB	1171/60	2,6	42 180 605
TECTON L1463 63W LED830 WB	1463/60	3,3	42 180 610
TECTON L1463 63W LED840 WB	1463/60	3,3	42 180 606
Accessory			
End caps TECTON LED E (pair)			22 166 807

TECTON LED 51W 1171 WB 840

Please order end cap set separately

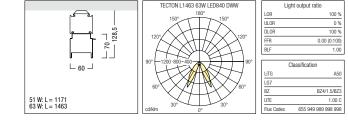






TECTON LED continuous-row luminair	e, narrow beam		L/W	kg	Order no.
	 II Focus of use: Industry and Enginee- ring (shelf lighting) Colour temperature: 4000 K (LED840: 	Dimmable luminaires			dimmable Dali
		TECTON L1171 51W LED840 NB	1171/60	2,6	42 180 625
		TECTON L1463 63W LED840 NB	1463/60	3,3	42 180 629
1 N		Luminaires with electronic ballast			electronic
	neutral white)	TECTON L1171 51W LED840 NB	1171/60	2,6	42 180 626
	,	TECTON L1463 63W LED840 NB	1463/60	3,3	42 180 630
		Accessory			
		End caps TECTON LED E (pair)			22 166 807
		Please order end cap set separately			
			TECTON L1463 63W LED840 NB 180° 150° 150° 120° 4500 3001 1500 90° 60° 4500 3001 1500 60°	LOR ULOR DLOR FFR BLF LITG LG7 BZ	Light output ratio 100 % 0 % 100 % 0.00 (0:100 1.00 Classification A8(82'
		51 W: L = 1171 63 W: L = 1463	cd/klm 0° 30°	UTE Flux Codes	1.00 /

CTON LED continuous-row lumina	ire, double wallwasher		L/W	kg	Order no.
Concerning and the second s	 II Focus of use: Presentation and Retail (shelf lighting) 	Dimmable luminaires			dimmable Dali
		TECTON L1171 51W LED830 DWW	1171/60	2,6	42 180 623
		TECTON L1171 51W LED840 DWW	1171/60	2,6	42 180 621
(Colour temperature: 3000 K (LED830: 	TECTON L1463 63W LED830 DWW	1463/60	3,3	42 180 627
	warm white), 4000 K (LED840: neut-	TECTON L1463 63W LED840 DWW	1463/60	3,3	42 180 619
	ral white)	Luminaires with electronic ballast			electronic
	· <u> </u>	TECTON L1171 51W LED830 DWW	1171/60	2,6	42 180 624
		TECTON L1171 51W LED840 DWW	1171/60	2,6	42 180 622
		TECTON L1463 63W LED830 DWW	1463/60	3,3	42 180 628
		TECTON L1463 63W LED840 DWW	1463/60	3,3	42 180 620
		Accessory			
		End caps TECTON LED E (pair)			22 166 807
		Please order end cap set separately			



TECTON LED continuous-row luminaire, wallwasher

850°C

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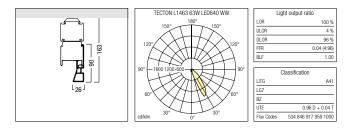
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- I...I
- Focus of use: Presentation and Retail (shelf lighting)
- Colour temperature: 3000 K (LED830: warm white), 4000 K (LED840: neutral white)
- The aluminium reflector supplied with the product comes in a white powdercoated finish and clips onto the luminaire without tools (can be fitted on both sides)

	L/W	kg	Order no.
Dimmable luminaires			dimmable Dali
TECTON L1171 51W LED830 WW	1171/60	2,6	42 180 615
TECTON L1171 51W LED840 WW	1171/60	2,6	42 180 613
TECTON L1463 63W LED830 WW	1463/60	3,3	42 180 617
TECTON L1463 63W LED840 WW	1463/60	3,3	42 180 611
Luminaires with electronic ballast			electronic
TECTON L1171 51W LED830 WW	1171/60	2,6	42 180 616
TECTON L1171 51W LED840 WW	1171/60	2,6	42 180 614
TECTON L1463 63W LED830 WW	1463/60	3,3	42 180 618
TECTON L1463 63W LED840 WW	1463/60	3,3	42 180 612
Accessory			
Spare reflector TECTON LED 1171 Refl WW			22 166 917
Spare reflector TECTON LED 1463 Refl WW			22 166 918

End-cap set supplied



ZUMTOBEL



United Kinadom

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www.zumtobel.com



Top quality – with a five-year guarantee.

As a globally leading luminaire manufacturer, Zumtobel provides a five-year guarantee for its complete product range with effect from 1 April 2010.

zumtobel.com/guarantee



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