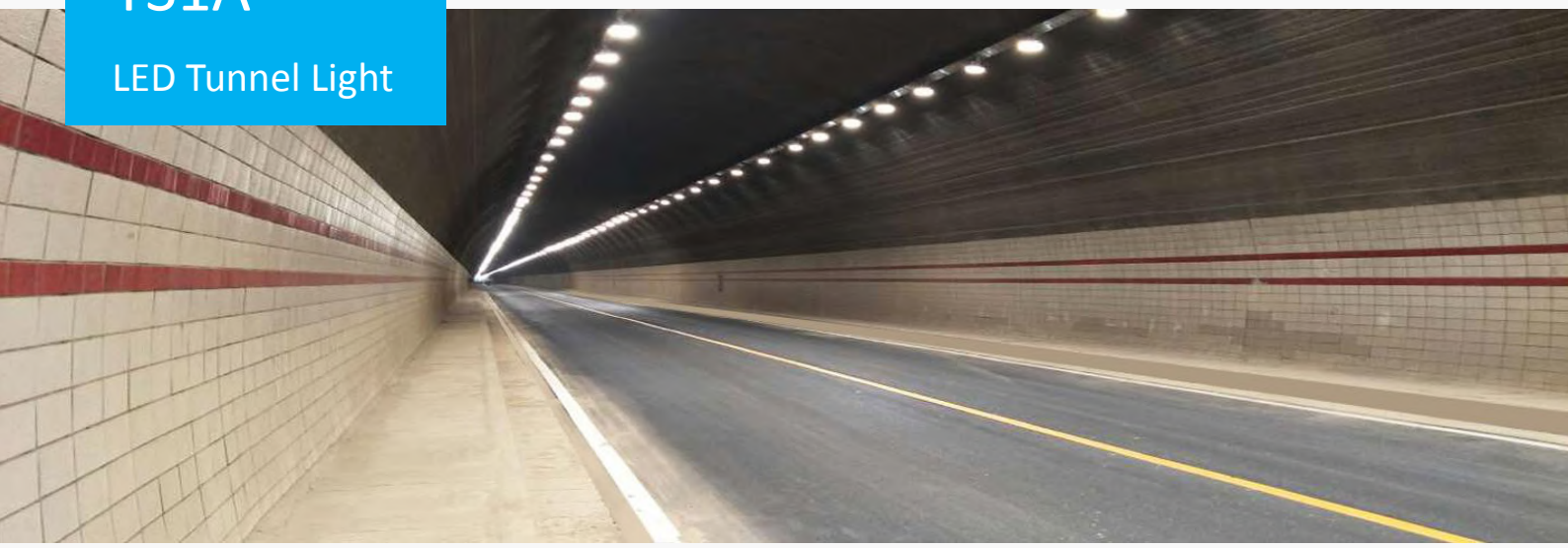
TS1A

LED Tunnel Light



Specifications

Input Voltage:	100 ~ 277Vac
Input Frequency:	50 / 60Hz
Power Factor:	0.95
Surge Protection Level:	10kV line-earth
Working Environment:	-40℃~ +45℃, 10% ~ 90% RH
CCT:	3000K, 4000K, 5000K, 5700K
CRI:	≥70
Housing:	Extrusion
IP Rating of LED Engine:	IP68
IP Rating of LED Driver:	IP67
Impact Resistance	IK08
Warranty:	5 Years Limited

Finishing Colors

Gray

Black

White

Applications

- Tunnel lighting (tunnel, underpass, corridor....)

Features

Construction

- Die-cast and extrusion aluminum housing.
- Unique patented IP68 LED light engines.
- Whole structure heating dissipation design with best thermal conduction, radiation and convection.
- IP67 rated luminaire.

Distribution

- Ergonomic and dedicated lighting distributions are available for various tunnel and underpass applications.

Electrical

- Flexible to reach desired power consumption by choosing appropriate light engines.
- Unmatched lighting performance, driver stability and desirable lifespan.

Mounting

- Brackets adjustable within ±60°.

Photos

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HPWINNER Smart Factory

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Ordering Information

Example: TS1A-4-160-M1A-VCA-63-1390-7040-LU-MO-BK

Luminaire Type	Module Qty	System Power	LED Module	LED Package	Cable Standard	LED Qty per Module
TS Tunnel light **1A** 1A series	**1** 1 module **2** 2modules .... **6** 6 modules **7** 7 modules	**40** 40W **50** 50W **60** 60W **420** 420W	**M1A** M1A module **M2A** M2A module **M8B** M8B module **M16B** M16B module	**A** 3535 **C** 3030 **B** 5050	**A** CCC+VDE **C** PSE **H** UL **X** Others	**18** 18pcs **63** 63pcs **18** 18pcs **28** 28pcs

Lens Code		CRI & CCT	Brand of LEDs	Driver Brand	Housing Color
1501 Type I Short **3501** Type I Short **3100** Type I Short	**1010** 110degree **3010** Tunnel lighting	**7030** Ra≥70, CCT 3000K **7040** Ra≥70, CCT 4000K **7050** Ra≥70, CCT 5000K **7057** Ra≥70, CCT 5700K	**LU** LUMILEDS **CM** LUMILEDS Customized **SS** SAMSUNG **NI** NICHIA **CR** CREE **LN** LUMINUS **XX** Others	**MO** MOSO **IN** INVENTRONICS **PH** PHILIPS **MW** MEAN WELL **XX** Others	**BK** Black **WH** White **BU** Blue **GY** Gray
3590 90 degree					
2321 Type II Short **1324** Type II Short **5390** 90 degree	**1310** Lambertian type **1390** Tunnel lighting				
1107 Type I Short **2105** Type II Short **2190** 90 degree	**2310** Lambertian type **2123** Tunnel lighting				

Performance

Model	Power (W)	Module M1A/M2A		Module M8B		Module M16B-VB-18		Module M16B-VB-28	
		Efficacy (lm/W)	Flux (lm)	Efficacy (lm/W)	Flux (lm)	Efficacy (lm/W)	Flux (lm)	Efficacy (lm/W)	Flux (lm)
TS1A-1	40	130	5200	135	5400	152	6080	168	6720
	50	122	6100	130	6500	145	7250	163	8150
	60	117	7020	122	7320	133	7980	155	9300
TS1A-2	80	137	10960	140	11200	160	12800	175	14000
	100	130	13000	135	13500	150	15000	170	17000
	120	122	14640	127	15240	140	16800	163	19560
TS1A-3	120	137	16440	140	16800	160	19200	175	21000
	150	130	19500	135	20250	150	22500	170	25500
	180	122	21960	127	22860	140	25200	163	29340
TS1A-4	160	137	21920	140	22400	160	25600	175	28000
	200	130	26000	135	27000	150	30000	170	34000
	240	122	29280	127	30480	140	33600	163	39120
TS1A-5	200	137	27400	140	28000	160	32000	175	35000
	250	130	32500	135	33750	150	37500	170	42500
	300	122	36600	127	38100	140	42000	163	48900
TS1A-6	240	137	32880	140	33600	160	38400	175	42000
	300	130	39000	135	40500	150	45000	170	51000
	360	122	43920	127	45720	140	50400	163	58680
TS1A-7	280	137	38360	140	39200	160	44800	175	49000
	350	130	45500	135	47250	150	52500	170	59500
	420	122	51240	127	53340	140	58800	163	68460

*Above values are calculated based on the product with CRI≥7 and CCT≥4000K, values of CRI70 CCT 3000K are 5% lower than above values.

*Values shown are subject to ±5%~±8% tolerance.

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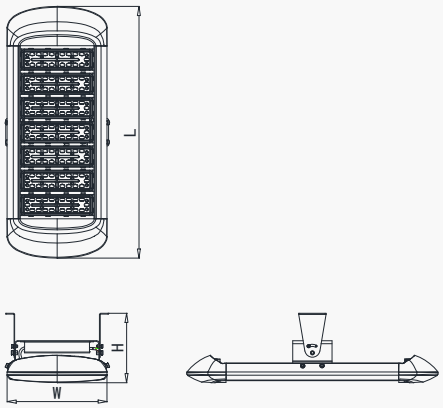
Dimensions

Model	L (mm)	W (mm)	H (mm)	N.W. (kg)	Adjustable Range
TS1A-1	350	340	230	4.5	± 60°
TS1A-2	430	340	230	6.1	± 50°
TS1A-3	510	340	230	7.2	± 40°
TS1A-4	590	340	230	8.1	± 35°
TS1A-5	670	340	230	10.0	± 30°
TS1A-6	750	340	230	11.4	± 25°
TS1A-7	830	340	230	12.6	± 20°

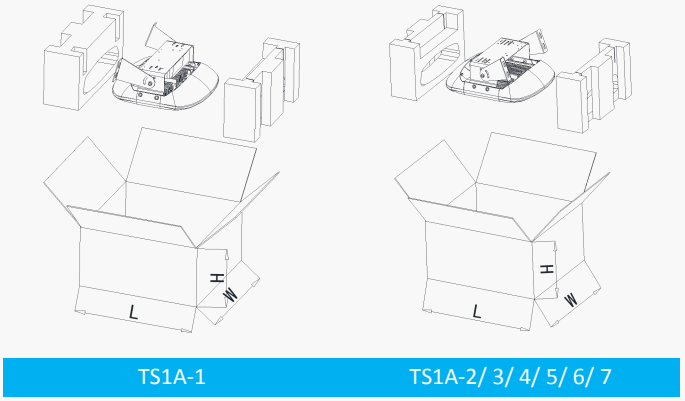
Note: Typical values above. Tolerance of N.W.: ±5%. Tolerance of L/ W/ H: ±5mm



Package Information

Model	L (mm)	W (mm)	H (mm)	G.W. (kg)
TS1A-1	450	430	230	5.6
TS1A-2	520	430	230	7.6
TS1A-3	600	430	230	8.7
TS1A-4	680	430	230	9.6
TS1A-5	760	430	230	11.8
TS1A-6	840	430	230	13.3
TS1A-7	920	430	230	14.6

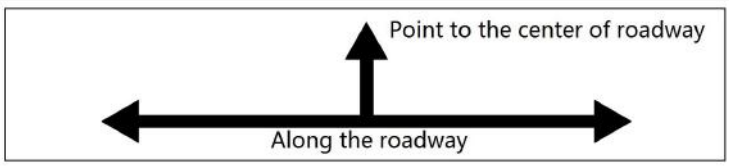
Note: Typical values above. Tolerance of G.W.: ±5%. Tolerance of L/ W/ H: ±5mm



TS1A-1 | TS1A-2/ 3/ 4/ 5/ 6/ 7

Mounting Direction Instructions

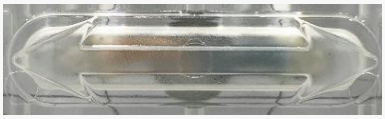
1. If there are arrows like below found on the fixture, follow the direction of its arrow in the middle as pointing to the center of the roadway instead of borders.



2. If there is no figure of arrows like above found on the fixture, check arrows on LED module lenses.

2.1. When there is only one arrow direction on the lens, follow the direction of arrows as pointing to the center of roadway instead of borders.

2.2. When there are opposite arrows on the lens, follow the direction as arrows being along the roadway.



3. If there is no figure of arrow on LED module lens, it is a symmetric lighting distribution solution. No particular direction. Only adjust the brackets.

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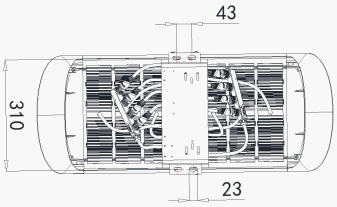
Mounting Holes Dimensions

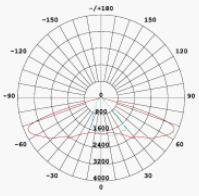
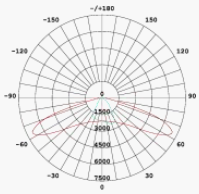
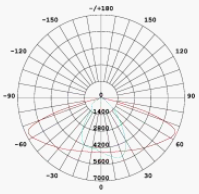
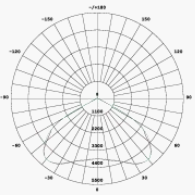
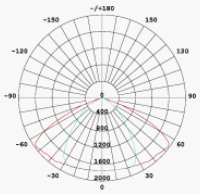


TS1A-1/ 2/ 3/ 4/ 5/ 6/ 7

Note: Dimensions are subject to tolerance of ±0.5mm.

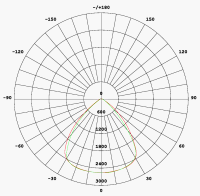
Typical Distributions

Module M1A

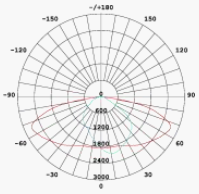
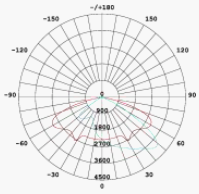
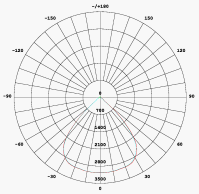
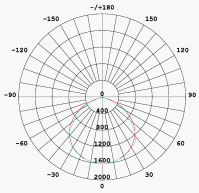
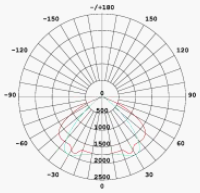
T1S1501 | T1S3501 | T1S3100 | 110D1010 | TL3010

Module M2A



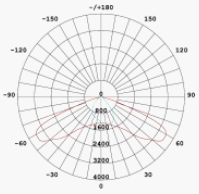
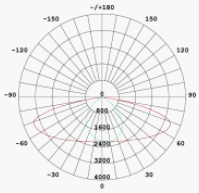
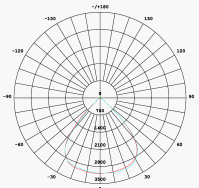
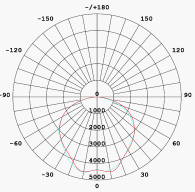
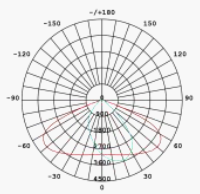
90D3590

Module M8B

T2S2321 | T2S1324 | 90D5390 | LBN1310 | TL1390

Module M16B

T1S1107 | T2S2105 | 90D2190 | LBN2310 | TL2123

Version History

Change Date	Version	Description of Change		
		Item	From	To
2016/11/28	Rev.1.0	Datasheets release		
2019/07/01	Ver. 2.0	New format datasheet	Rev 1.0	Ver 2.0
2019/10/29	Ver2.1	Mounting Direction Instructions		added