



# TECHNICAL DATASHEET

Doc. No.	LE/TDS/100X
Issue Date	
Rev. No.	
Rev. Date	

Supplier Name:	LIGHTING ENGINEERS
Supplier Address:	Gala No 6 & 7, Vora Industrial Estate No 2, Navghar Vasai East 401210
Product Description:	4WAY BALL LIGHT
Applicable Standard (Optional) :	Outdoor

1 Product Details			
1.1 Rated Voltage & Freq. Ratings	220-240V AC, 50Hz		
1.2 Input Wattage	4WATT ± 10%		
1.3 Total Lumens	300 ± 10%		
1.4 Efficacy (Lm/W)	70lm/W ± 10%		
1.5 Beam Angle	-		
1.6 Power Factor	<0.5		
1.7 Product Class (Class I & Class 2)	Class 2	Product ta:	45°C
2 LED Details			
2.1 LED Part No.	ES-2835-109V-XX-XXX Version No : V 1.1 ( Outdoor App )		
2.2 LED Voltage (V)	8.8V-9.2V	LED Wattage	1W
2.3 LED Driving Current (mA)	100mA ± 10%	LED Type	SMD 2835
2.4 Colour Temp Range (CCT)	3000K, 4000K, 6500K' ±10%	CRI	>80
2.5 LED Make	EVERSTAR		
2.6 Lumen Binning	120		
2.7 Junction Temp (tj °C)	115		
2.8 LED Package Details	2835		
2.9 LED Photobiological Risk Group	silicon resin Low risk Group 1 ( Everstar )		
3 LED MPCB/FR4/FLEX/COB			
3.1 LED MPCB/FR4/COB - Part No.	4WAY WALL LIGHT		
3.2 LED MPCB/FR4/COB - Size ( L X W X H ) mm	26mm X 26mm X 1mm X 4nos		
3.3 LED MPCB/FR4/COB - Thickness (mm)	1mm ± 10%		
3.4 Copper Thickness (µm)	25		
3.5 PCB Type (MC/FR/FLEX..)	MC		
3.6 PCB Material (Grade)	MC		
3.7 Series /Parallel Combination	2P2S	No of LEDs	4
3.8 Voltage Drop / Meter in Flex strip/ Rope Light	9V		
3.9 Lumen/ Meter in Flex Strip/ Rope Light			
3.9A LED PCB /Flexi strip Mounting provision			
4 Driver			
4.1 Driver Code / Part No.	4-7W ISO LPF		
4.2 Driver Make	CHINA		
4.3 Driver Class (Class 1 & Class 2)	Class 2		
4.4 Driver PCB Thickness	1mm ± 10%		
4.5 Driver PCB Type/Material	FR4		
4.6 Driver Housing / Heat Sink material	-		
4.7 Driver Top / Bottom Cover Material / Colour	-		
4.8 Powder Coat (RAL Colour)	-		
4.9 Plastic ( Vergin + Master batch Colour )	-		
4.10 Driver Type	-		
4.11 Driver IP Rating	IP20		
4.12 Driver enclosure (GI/CRCA/Plastic/Aluminium Casing )	-		
4.13 Rated Input Power (W)	4-7W ISO LPF		
4.14 Rated Input Voltage (VAC)	230V		
4.15 Rated Input Current (mA)	42mA		
4.16 THD %@Rated Input Power	>150%		
4.17 Driver O/P Current (mA)	280mA ± 10%		
4.18 Driver O/P Voltage Range	12-18VDC		
4.19 Efficiency ( % )	>70%		
4.20 Operating Input Voltage range	220-230V AC		
4.21 Driver (ta/tc/tw)	ta: 45°C	tc: 85°C	tw:
4.22 High Voltage Protection (@Voltage with time)	320V WITH 2HOURS TIME		
4.23 Low Voltage Protection(@Voltage with time)	100V WITH 2HOUR TIME		
4.24 Protection	2.5KV	Other	
4.25 Driver No Load output Voltage	12-18VDC		
4.26 High Voltage Cut Off	NA		
4.27 Low Volatage Cut Off	NA		
4.28 Surge Protection (CM/DM)	2.5KV		
4.29 Mains Cable Length/ wire Colour	2CORE PVC 0.3mm2 10" WIRE		
4.3 EMI /EMC compliance			
5 Product Details			
5.1 Housing Material detail	PC BLACK MATT		
5.2 Housing Back Cover Material	PC BLACK MATT		
5.3 Housing Colour Shade/ Make/RAL Code	Black		
5.4 Impact Resistance ( IK )	-		
5.5 Ingress Protection(eg. IP20/IP65/IP66)	IP65		
5.6 Product Weight (kg)	100g ± 10%		
5.7 Dimension (L X W X H) mm	73.5mm x 73.5mm x 44.5mm		

5.8	O.D. X I.D. mm	NA
5.9	Cut Out Dia (mm)	NA
5.10	Frame Material	NA
<b>6</b>	<b>Lense / Diffuser / Glass Details</b>	
6.1	Lense type / material / make	PC Clear
6.2	Lense Dimensions ( L X W X H X TH X OD X ID ) / Beam Angle	27.5mm X 27.5mm X 8mm
6.3	Diffuser/Reflector type / material / make	NA
6.4	Diffuser/Reflector Dimensions ( L X W X H X TH X OD X ID ) / Beam angle	NA
6.5	Glass type / material / make	NA
6.6	Glass Dimensions ( L X W X H X TH X OD X ID ) / Beam angle	NA
6.7	Diffuser Transprancy ( Diffused/Clear )	NA
<b>7</b>	<b>Luminaire Performance</b>	
7.1	Electrical Strength	3.75kV for 60Secs
7.2	Product IP Rating	IP65
7.3	Insulation Resistance (MΩ)	Pass
7.4	CRI / SDCM / UGR	>80
7.5	High voltage Withstand Capacity 350/380/440V(@Voltage with time)	320V for 2Hour pass
7.6	Highest TC point of Product	-
7.7	Operating Temp Range	-10°C to 45°C
7.8	Capacity to withstand Surges	1KV
7.9	Rated Life / Failure Fraction	>15000Hrs
7.10	Declared Life of the Prod. along with condition in Hrs./Duty Cycle	12Hrs/Day
<b>8</b>	<b>Hardware and Accessories</b>	
8.1	Screw Type / Size /BACK COVER	PC BLACK
8.2	Toggle type/clamp / material grade / make/BUSH	SILICON BUSH
8.3	Brackets/CRADLE material / Size / Make	PC BLACK
<b>9</b>	<b>Finish</b>	
9.1	Powder Coating (RAL number)/ Plastic (Virgin+master batch) Shade Card	NA
9.2	Powder Coating Thickness	NA
9.3	Granuals Code/ Make	PC BLACK
9.4	Finish Colour 1 /Colour 2	BLACK

Supplier Representative Sign: Name: Hasan Attar Date:		Approver Sign Name: Date:	
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