

Laboratory **Lighting Technologies-Technology Lab, No. 40, Jigani Industrial Area, 1st Phase, Sy. No. 592 & 124, Jigani Village & Hobli, Anekal Taluk, Bangalore, Karnataka**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6086**

Page 1 of 5

Validity **04.07.2018 to 03.07.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	---	--

ELECTRICAL TESTING

I.	LAMPS, LUMINAIRES AND ACCESSORIES			
1.	Fixed General Purpose Luminaires	Verification of marking	IS 10322 (Part 5/Sec 1): 2012, Cl. 6	Qualitative
		Creepage Distance & Clearances	IS 10322 (Part 5/Sec 1): 2012, Cl.8	0.01 mm to 200 mm
		Endurance and Thermal Test	IS 10322 (Part 5/Sec 1): 2012, Cl.13	Ambient to 200°C
		Resistance to Dust and Moisture (IP Test)	IS 10322 (Part 5/Sec 1): 2012, Cl.14	IP 1X, 2X, 3X, 4X, 5X, 6X, X3, X4, X5 & X6
		Insulation Resistance Electric Strength	IS 10322 (Part 5/Sec 1): 2012, Cl.15	1 MΩ to 200 MΩ 0.1 kV to 5 kV
		Resistance to Heat	IS 16103 (Part 5/Sec 1): 2012, Cl. 16	0.01 mm to 200 mm
2.	Recessed Luminaires	Verification of marking	IS 10322 (Part 5/Sec 2): 2012, Cl. 6	Qualitative
		Creepage Distance & Clearances	IS 10322 (Part 5/Sec 2): 2012, Cl. 8	0.01 mm to 200 mm
		Endurance and Thermal Test	IS 10322 (Part 5/Sec 2): 2012, Cl. 13	Ambient to 200°C
		Resistance to Dust and Moisture (IP Test)	IS 10322 (Part 5/Sec 2): 2012, Cl. 14	IP 1X, 2X, 3X, 4X, 5X, 6X, X3, X4, X5 & X6
		Insulation Resistance Electric Strength	IS 10322 (Part 5/Sec 2): 2012, Cl. 15	1 MΩ to 200 MΩ 0.1 kV to 5 kV
		Resistance to Heat	IS 10322 (Part 5/Sec 2): 2012, Cl. 16	0.01 mm to 200 mm
3.	Road & Street Light Luminaires	Verification of marking	IS 10322 (Part 5/Sec 3): 2012, Cl. 6	Qualitative
		Creepage Distance & Clearances	IS 10322 (Part 5/Sec 3): 2012, Cl. 8	0.01 mm to 200 mm

Laboratory **Lighting Technologies-Technology Lab, No. 40, Jigani Industrial Area, 1st Phase, Sy. No. 592 & 124, Jigani Village & Hobli, Anekal Taluk, Bangalore, Karnataka**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6086**

Page 2 of 5

Validity **04.07.2018 to 03.07.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Endurance and Thermal Test	IS 10322 (Part 5/Sec 3): 2012, Cl. 13	Ambient to 200°C
		Resistance to Dust and Moisture (IP Test)	IS 10322 (Part 5/Sec 3): 2012, Cl. 14	IP 1X, 2X, 3X, 4X, 5X, 6X, X3, X4, X5 & X6
		Insulation Resistance Electric Strength Test	IS 10322 (Part 5/Sec 3): 2012, Cl. 15	1 MΩ to 200 MΩ 0.1 kV to 5 kV
		Resistance to Heat	IS 10322 (Part 5/Sec 3): 2012, Cl. 16	0.01 mm to 200 mm
4.	Portable General Purpose Luminaires	Verification of marking	IS 10322 (Part 5/Sec 4): 1987 (RA 2015), Cl. 5,13.2	Qualitative
		Creepage Distance &Clearances	IS 10322 (Part 5/Sec 4): 1987 (RA 2015), Cl. 7	0.01 mm to 200 mm
		Endurance Test and Thermal Test	IS 10322 (Part 5/Sec 4): 1987 (RA 2015), Cl. 13.4	Ambient to 200°C
		Resistance to Dust and Moisture (IP Test)	IS 10322 (Part 5/Sec 4): 1987 (RA 2015), Cl. 13.5	IP 1X, 2X, 3X, 4X, 5X, 6X, X3, X4, X5 & X6
		Insulation Resistance & Electric Strength Test	IS 10322 (Part 5/Sec 4): 1987 (RA 2015), Cl. 13.6	1 MΩ to 200 MΩ 0.1 kV to 5 kV
		Resistance to Heat	IS 10322 (Part 5/Sec 4): 1987 (RA 2015), Cl. 13.7	0.01 mm to 200 mm
5.	Flood Light Luminaires	Verification of marking	IS 10322 (Part 5/Sec 5): 2013, Cl. 6	Qualitative
		Creepage Distance & Clearances	IS 10322 (Part 5/Sec 5): 2013, Cl. 8	0.01 mm to 200 mm
		Endurance and Thermal Test	IS 10322 (Part 5/Sec 5): 2013, Cl. 13	Ambient to 200°C
		Resistance to Dust and Moisture (IP Test)	IS 10322 (Part 5/Sec 5): 2013, Cl. 14	IP 1X, 2X, 3X, 4X, 5X, 6X, X3, X4, X5 & X6
		Insulation Resistance Electric Strength	IS 10322 (Part 5/Sec 5): 2013, Cl. 15	1 MΩ to 200 MΩ 0.1 kV to 5 kV
		Resistance to Heat	IS 10322 (Part 5/Sec 5): 2013, Cl. 16	0.01 mm to 200 mm
6.	LED Luminaire & LED Modules for	Creepage Distance & Clearances	IS 16103 (Part 1):2012,Cl.16	0.01 mm to 200 mm

Laboratory Lighting Technologies-Technology Lab, No. 40, Jigani Industrial Area, 1st Phase, Sy. No. 592 & 124, Jigani Village & Hobli, Anekal Taluk, Bangalore, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6086

Page 3 of 5

Validity 04.07.2018 to 03.07.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	General Lighting	Resistance to Heat	IS 16103 (Part 1):2012,Cl.18	0.01 mm to 200 mm
		Insulation resistance after moisture Resistance	IS 16103 (Part 1):2012,Cl.11	1 MΩ to 200 MΩ
		Electric Strength	IS 16103 (Part 1):2012,Cl.12	0.1 kV to 5 kV

Nand Kumar
Convenor

Battal Singh
Program Manager

Laboratory Lighting Technologies-Technology Lab, No. 40, Jigani Industrial Area, 1st Phase, Sy. No. 592 & 124, Jigani Village & Hobli, Anekal Taluk, Bangalore, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6086

Page 4 of 5

Validity 04.07.2018 to 03.07.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
<u>PHOTOMETRY TESTING</u>				
I.	LIGHT SOURCES (ELECTRIC LAMP)			
1.	Luminaire (LED Luminaire)	Luminaire Intensity Luminous flux	IS 10322 (Part 5/Sec 1): 2012, Cl. 17 IS 10322 (Part 5/Sec 2): 2012, Cl. 17 IS 10322 (Part 5/Sec 3): 2012, Cl. 17 IS 10322 (Part 5/Sec 5): 2013, Cl. 17	100 lm to 158000 lm 300 cd to 2524500 cd (380nm to 780nm)
		Total Input Power	IS 16107 (Part 2/Sec 1): 2012, Cl. 7 IS 16103 (Part 2): 2012, Cl. 7	Upto 2000 W
		Luminous Flux	IS 16107 (Part 2/Sec 1): 2012, Cl. 8.1 IS 16103 (Part 2): 2012, Cl. 8.1	100 lm to 158000 lm (380nm to 780nm)
		Luminaire efficacy	IS 16107 (Part 2/Sec 1): 2012, Cl. 8.3 IS 16103 (Part 2): 2012, Cl. 8.3	Upto 2000W 100 lm to 158000 lm (380nm to 780nm)
		Luminaire Intensity Distribution, Peak intensity and beam angle	IS 16107 (Part 2/Sec 1) Cl. 8.2 & IS 16103 (Part 2): 2012, Cl. 8.2	300 cd to 2524500 cd
		Luminaire Efficacy	IS 16107 (Part 2/Sec 1): 2012, Cl. 8.3 IS 16103 (Part 2): 2012, Cl. 8.3	Up to 2000 W

Laboratory **Lighting Technologies-Technology Lab, No. 40, Jigani Industrial Area, 1st Phase, Sy. No. 592 & 124, Jigani Village & Hobli, Anekal Taluk, Bangalore, Karnataka**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6086**

Page 5 of 5

Validity **04.07.2018 to 03.07.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Chromaticity Coordinates Correlated Colour Temperature (CCT)	IS 16107 (Part 2/Sec 1) Cl. 9	0.001 to 1 2000 °K to 8000 °K
		Colour Rendering Index (CRI)	IS 16103 (Part 2): 2012, Cl. 9	Upto 100

Nand Kumar
Convenor

Battal Singh
Program Manager