

Laboratory **Fiem Industries Ltd., R & D Division, Plot No. 1915, Rai Industrial Estate, Phase V, Sonapat, Haryana**

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

Certificate Number **TC-6754 (in lieu of T-3799)**

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Validity **15.02.2018 to 14.02.2020**

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
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PHOTOMETRY TESTING

I.	LIGHT SOURCES			
1.	Head lamps	Light Illumination / Intensity Distribution & Color- Coordinates	ECER-112 (Nov. 2015), ECER-113 (Feb. 2017), ECER- 50 (Oct. 2016), AIS-010 (Part1, 2, 3, 4 & 5) Rev. 1, Dec. 2010	0.01 cd to 187500 cd (0.01 lux to 300 lux) x = 0.000 to 1.000 y = 0.000 to 1.000
2.	Tail Lamps (Rear Position lamp & Stop lamp)	Light Intensity Distribution and Color- Coordinates	ECE R-7 (Nov. 2015), ECE R-50 (Oct. 2016), AIS-010 (Part 3, Part 5), Rev. 1, Dec. 2010 AIS-012 (Part 6), Rev. 1 Dec. 2010	0.01 cd to 1000 cd x = 0.000 to 1.000 y = 0.000 to 1.000
3.	Direction Indicator lamps	Light intensity Distribution and Color- Coordinates	ECE R-6 (June 2015), ECE R-50 (Oct. 2016), AIS-010 (Part 3, Part 5), Rev. 1, Dec. 2010 AIS-012 (Part 5), Rev. 1, Oct. 2011	0.01 cd to 1500 cd x = 0.000 to 1.000 y = 0.000 to 1.000
4.	Auto Lamps	Luminous Flux and Color Measurements	AIS -34 (Part 1), Rev. 1, Oct. 2010, ECER-37 (Nov. 2013)	0.01 lm to 10 ⁴ lm x = 0.000 to 1.000 y = 0.000 to 1.000 2500 K to 6500 K
5.	LED Bulbs	Luminous flux Color Rendering Index and Color- coordinates	LM 79-08 IS 16102 (Part I & Part II) Clause 9.12	0.01 lm to 10 ⁴ lm / 0 to 100 x = 0.000 to 1.000 y = 0.000 to 1.000
6.	Reverse Lamp	Light Intensity Distribution and Color- Coordinates	ECE R-23 (Nov. 2015), ECE R-50 (Oct. 2015), AIS-010 (Part 3, Part 5), Rev. 1, Dec 2010 AIS-012 (Part 7), Rev. 1, Oct. 2011	0.01 cd to 2000 cd x = 0.000 to 1.000 y = 0.000 to 1.000

**Naveen Jangra
Convenor**

**N. Venkateswaran
Program Director**

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7.	Front Fog Lamp	Light Illumination / Intensity Distribution & Color- Coordinates	ECE R-19 (Nov. 2015), AIS-010 (Part 5), Rev. 1, Dec 2010 AIS-012 (Part 1), Rev. 1, Oct. 2011	0.01 cd to 187500 cd (0.01 lux to 300 lux) x = 0.000 to 1.000 y = 0.000 to 1.000
8.	Rear Fog Lamp	Light Intensity Distribution and Color- Coordinates	ECE R-38 (Nov. 2015), AIS-010 (Part 5), Rev. 1, Dec. 2010 AIS-012 (Part 2), Rev. 1, Oct. 2011	0.01 cd to 1000 cd x = 0.000 to 1.000 y = 0.000 to 1.000
9.	Number Plate / Rear Registration Plate Illumination Lamp	Luminance Distribution Gradient of Luminance	ECE R-4, (June 2015), ECE R-50 (Oct. 2015), AIS-010 (Part 3, Part 5), Rev. 1, Dec 2010 AIS-012 (Part 4), Rev. 1, Oct. 2011 AIS 62 (Dec. 2004)	0.01 cd/m ² to 1000 cd/m ²
10.	Reflex Reflector & Warning Triangle	Photometric Measurements	ECE R-27 (Oct. 2014), ECE R-3 (Nov.2015), AIS-057, Rev 1, Dec. 2010 AIS-022, Rev 1, May 2001	0.01 mcd/lux to 50000 cd/lux