Test Report

Electrical and Photometric Measurements (IES LM-79-08 / IS 16106:2012)

Model: HLSLD-15-45-WWL-R-BH, Make : Halonix

Test Report Number: HTPL/G19610-01/01, Release Date: 27/09/2019

- **The results of testing in this report apply only to the sample product/item, which was tested. Other similar equipment/ Product/ Model will not necessarily produce the same results due to production tolerance, measurement uncertainties or any subsequent changes in the same model by the manufacturer.**
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- **Verdict wherever marked with P defines "Pass", F defines "Fail", NA Defines "Not Applicable".**

Details of Tested item and its Communal Result:

Customer / Applicant	Halonix Technologies Pvt Ltd.B-31 Phase-2 Noida, Dist. Gautam Budh Nagar (U.P.) 201305		
Item Under Test	Luminaire for road and street lighting		
Model	HLSLD-15-45-WWL-R-BH	**MAKE**	Halonix
Number of Samples	1		
Tested at (Lab Location)	HTPL Laboratory, Plot-5, Sector 12, IIE, SIDCUL, Uttrakhand, Haridwar-249403		
Lab Sample Identification	G19610-01/01		
Manufacturer Serial Number (If any)	Nil		
Description of IUT (From Marking Plate or manufacturer Declaration)	45W ,3000K,240V,50Hz,PF>0.95,IP 66,ta -10°C to +50°C		
Condition of IUT on receipt	Okay / Accepted		
Date of Receipt	27/09/2019		
Date of Testing (Start date)	27/09/2019	**End Date**	27/09/2019
Lab general ambient condition	**Temperature in °C**		25±1°C
	Relative humidity in %		< 65% RH
Date of Reporting	27/09/2019		
Tested in According to	IS 16106:2012, IES LM-79-08		
Any Deviation from standard test	Nil		
Communal result	To be Evaluated by Customer		

Tested By	**Reviewed and approved by**

Test Report

(*Clause 14.0, IES LM-79-08)/ (*Clause 16.0, IS 16106:2012)

Sr. No.	Standard Reference		Requirements	Observations/Verdicts
1	a)	Date and Name of Testing Agency	Date	27/09/2019
			Agency	HTPL Laboratory
	b)	Manufactures Name and Designation of SSL Product under Test	Manufacturer's Name	Halonix
			Designation of SSL Product	HLSLD-15-45-WWL-R-BH
	c)	Rated Electrical Values and Nominal CCT of SSL Product	Rated Voltage (AC/DC, Frequency)	240V(AC),50Hz
			Rated CCT	3000K
	d)	No. of Hours operated prior to measurements	Hours	Refer Annex A & B
	e)	Ambient Conditions	Temperature	25°C ±1°C
			Humidity	<65%RH

Annexure A (Parameters by Sphere/Spectroradiometer Measurements):

Sr. No.	Standard Reference		Requirements	Observations/Verdicts
2	a)	Stabilization of SSL Product	Total Operating time including Stabilization Time	47min
			Stabilization Time	42min
	b)	Orientation of product during test	-	Light downward
	c)	Photometric Method/ Instrument Used	Sphere-Photometer	PMS 80 (Everfine)
			Power Meter	PF9811
	d)	Photometric Measurement Conditions	Diameter of Sphere	1.5 Meter
			Coating Reflectance	94.59%
			4π or 2π geometry	4π geometry
	e)	Designation and Type of Reference standard used	Wattage	60W
			Lamp Type	Halogen lamp
			Intensity Distribution Type (Omni-Directional/Directional)	Omni directional
			Traceability	NPL
			Calibration Due On	12/11/2019
	f)	Correction Factor applied	Spectral Mismatch	NA
			Self absorption	1.4507
			Intensity Distribution	NA
	g)	Measurement Quantities Measured		
		Photo Parameters	Total Luminous Flux	4568.6lm
			Luminous Efficacy	104.31 lm/W
			Luminous Power	13.56W
		Color Parameters	Chromaticity Coordinate	X=0.4271
				Y=0.3978
			CRI (Ra)	73.4
			CCT	3121K
		Electrical Parameters	Supply/Test Voltage (U)	240V
			System Current (I)	0.186A
			System Power (P)	43.80W
			Power Factor (PF)	0.983
			Athd (%)	6.5%
Sr. No.		Standard Reference	Requirements	Observations/Verdicts
2	h)	Spectral Power Distribution	-	Refer Annex A-1
	i)	Bandwidth of Spectroradiometer	-	Refer Annex A-1
	j)	Deviation from Standard operating procedure	-	Nil

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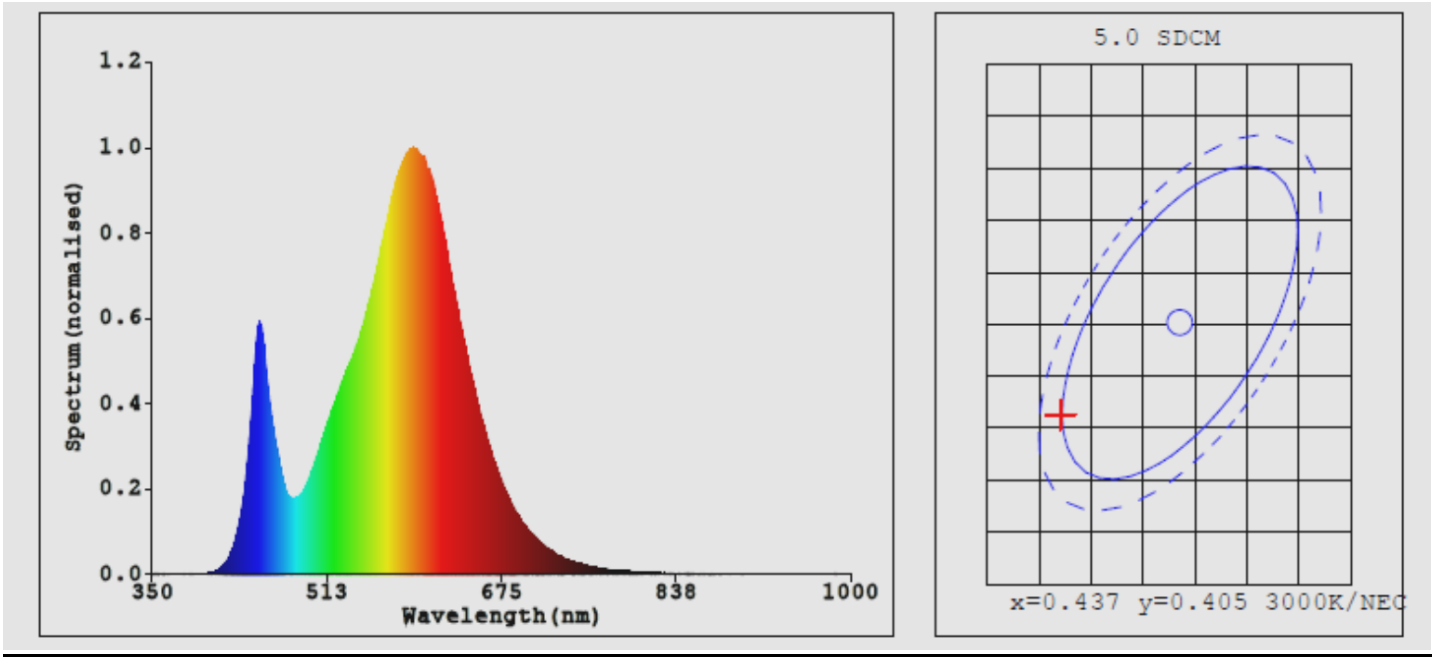
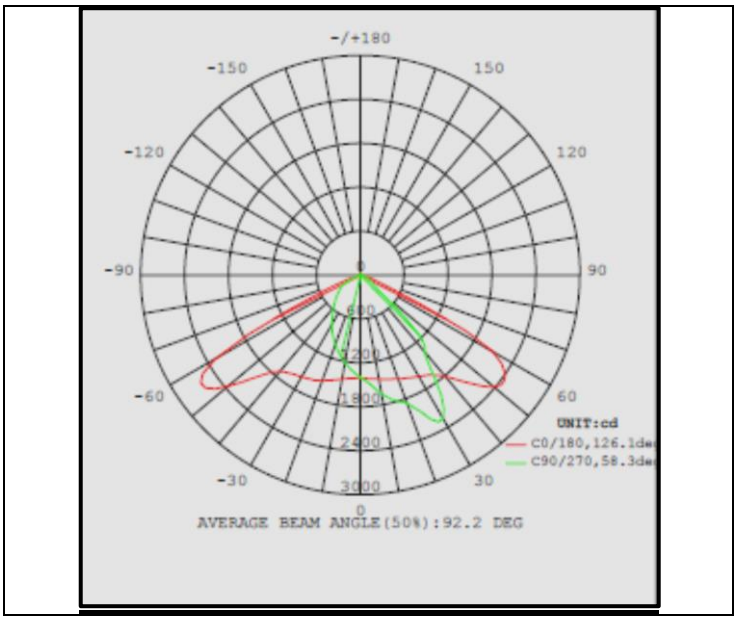
Annexure B (Parameters by Goniophotometer Measurements):

Sr. No.	Standard Reference		Requirements	Observations/Verdicts
3	a)	Stabilization of SSL Product	Total Operating time including Stabilization Time	65 minutes
			Stabilization Time	45 Minutes
	b)	Orientation of product during test	-	C –GAMMA PLANE
	c)	Photometric Method/ Instrument Used	Gonio photometer	GO2000B
			Power Meter	PF-9811
	d)	Photometric Measurement Conditions	Photometric Distance	5.96 Meter
	e)	Designation and Type of Reference standard used.	Wattage	229.64W
			Lamp Type	Halogen lamp
			Intensity Distribution Type (Omni-Directional/Directional)	Omni directional
			Traceability	NPL
			Calibration Due On	05/02/2020
	f)	Correction Factor applied	Spectral Mismatch	NA
			Self absorption	NA
			Intensity Distribution	NA
	g)	Measurement Quantities Measured	Average Beam Angle (50% Imax)	92.2
			Max Intensity (Imax)	2752
			Max Intensity @	NA
			Intensity Distribution Diagram	Refer Annex B-1
	h)	Deviation from Standard operating procedure	-	Nil

Annex A-1 : Spectral Power Distribution:



Annex B-1 : Intensity Distribution Diagram:



***** End of Test Report *****

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