

**HALONIX TECHNOLOGIES PRIVATE LIMITED**  
**(NABL CERTIFICATION NUMBER: TC-7634)**  
**PLOT-5, SECTOR-12, IIE, SIDCUL, HARIDWAR-249403**

**TYPE TEST REPORT**

**Date: 20-05-2019**

Product : 36W LED 2X2 Panel Light Luminaires suitable for 240V,  
50Hz, AC supply

Product Code : HLFPR22-11-36-CW

Brand Name : HALONIX

Document Reference : IS 10322 / IEC 60598, IS 15885, IS 16103, IS 16104,  
IS 16107, LM79 & TDS

Sr. No.	Requirements		Observation	Verdict
1	Visual Examination	The finishing and workmanship shall be good and acceptable	Finishing and workmanship found good and acceptable Satisfactory	Pass
2	Dimensions	Shall be as per TDS	As per TDS Satisfactory	Pass
3	Marking	Clause 6 of IS:10322 (Pt.1) & Clause 4 of IS:16107 (Pt.2/Sec.1) 2012 shall apply Shall be Clear and legible	Halonix Technologies Private Limited Made in India 240V, 50Hz Cat. Ref. HLFPR22-11-36-CW Wattage-36W Lamp type - LED	Pass
4	Construction	As per IS:10322 (Pt.2) shall apply, together with the requirements of 6.1 to 6.6	CRCA housing with corrosion resistance powder coating and manufacturer emblem / logo in to the housing, PMMA cover, Electronic driver.	Pass
5	Provision for Earthing	The provision given in 2.0 of part 2 of IS:10322 (Pt.2) shall apply	Earth contact Resistance <0.5 $\Omega$	Pass

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**Registered Office:**  
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Tel: +91 120 4756100 | Fax: +91 120 4756101

*Formerly known as Halonix Technologies Limited*

**Manufacturing Unit:**  
Plot No. 5, Sector-12, IIE, SIDCUL,  
Haridwar, Uttarakhand - 249403  
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**Website:** [www.halonix.co.in](http://www.halonix.co.in)

6	Drop Test	As per IEC 60068-2-31	Withstood the impact Satisfactory	Pass
7	Cree Page Distance and Clearance	Shall be $\geq 3\text{mm}$ and $\geq 4\text{mm}$	3.5mm & 4.5mm	Pass
8	Terminals	As per IS:10322 (Pt.2) shall apply	As per standard specification	Pass
9	External and Internal Wiring	Clause 19 of IS:10322(Pt.2) shall apply	As per standard specification	Pass
10	Protection against Electric Shock	The provision given in 21 of part 2 of IS:10322 (Pt.2) shall apply	Test finger does not contact any live parts Satisfactory	Pass
11	Mechanical Strength	Clause 5 of IS:10322(Pt.4) shall apply, Test for Impact Resistance (IK05)	Doesn't show any damage As per standard	Pass
12	Endurance Test and	Clause 6 of IS:10322(Pt.4) shall apply	No parts shall be damaged, unserviceable and unsafe & marking is legible and the luminaires perform normally.	Pass
13	Thermal Test	At 25°C ambient Heat sink MCPCB Led Ts Driver Tc	41°C 52°C 58°C 64°C Satisfactory	Pass
14	Resistance to Heat, Fire & Tracking	On plastic materials only	The diameter of impression <1.20mm  The sample under test and any gas produced during the test doesn't ignite	Pass  Pass

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15	Resistance to Dust and Moisture	<p>Clause 2 of IS:10322 (Pt.4) shall apply</p> <p>Test for protection against solid objects greater than 12.5 mm diameter.</p> <p><b>(IP20)</b></p> <p>Insulation Resistance Shall be <math>\geq 2M\Omega</math> on application of 500V DC</p> <p>Electric strength test Shall withstood a voltage of 1.5KV for 1 Min</p>	<p>No ingress of solid objects greater than 12.5mm diameter.</p> <p>&gt;2 M<math>\Omega</math></p> <p>Satisfactory</p> <p>Satisfactory</p>	<p>Pass</p> <p>Pass</p> <p>Pass</p>
16	Operating Voltage Range	The luminaires shall operate within 140-270V supply voltage with the same driver	Luminaires operable within 140-270V supply voltage with the same driver	Pass

## Test Voltage 240V, 50Hz

17	Input Wattage	Power consumption of the complete System including driver losses 36W $\pm 10\%$	35.98W	Pass
18	Input Power Factor	>0.95	0.981	Pass
19	Max. Input Current	<0.174A	0.153A	Pass
20	THD	<10%	8.9%	Pass
21	Electronic LED Driver efficiency	>85%	88.1%	Pass
22	Surge voltage protection	3KV internal	Withstood 3KV	Pass



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