

# Test Report

Item Number:

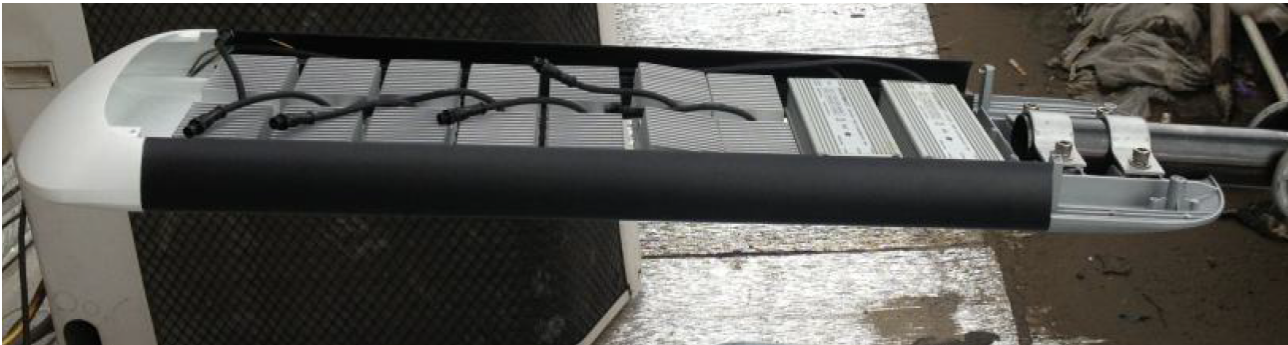
Version: A0

Date of Enforcement:  
2013-08-24

Testing Project	Adjustable Pole Adaptor Wind pressure test	Test Basis	GB 7000.5:2005 IEC 60598-2-3:2002	
Sample Number	1~2	Test Environment	Temperature: 65%RH	Humidity: 35℃
Testing Date	2013.8.23	Test Sites	HPWINNER Laboratory	
Testing Parameter	<p>test condition : under street light's maximum weight and projected area, there need take 10 minutes to test the pole adaptor 's wind pressure testing toleranc. The seven led modules street lights maximum weight is 15Kg, and the dimension is 1100mm*330mm. The maximum projected area is 0.36 m², according to the IES standard, the calculate method is as below:</p> <p>60598-2-3 © IEC:2002 – 17 –</p> <p>The load shall be equal to</p> $F = 1/2 Rh \times S \times Cd \times V^2 \text{ (N)}$ <p>where</p> <p><math>Rh</math> is equal to 1,225 kg/m³ (air volumic mass);</p> <p><math>V</math> is the wind speed (m/s).</p> <p>The wind speeds relevant to the mounting heights of luminaires or external parts shall be</p> <p><math>V = 45 \text{ m/s (163 km/h)}</math> for heights up to 8 m;</p> <p><math>V = 52 \text{ m/s (188 km/h)}</math> for heights between 8 m and 15 m;</p> <p><math>V = 57 \text{ m/s (205 km/h)}</math> for heights of more than 15 m.</p> <p>NOTE 3 In some countries, the wind speed is determined by national rules (for example, Japan).</p> <p>The drag coefficient is 1,2 (or the exact value measured in Annex A).</p> <p>After the test, there shall be no visible failure impairing the safety, no permanent deformation from the attachment which exceeds a slope of more than 2 cm/m, and no rotation around the point of attachment.</p> <p>The biggest pressure the led street light should bear is:</p> $F = 0.5 \times 1.225 \text{ Kg/m}^3 \times 0.36 \text{ m}^2 \times 1.2 \times 52^2 \approx 716 \text{ N}$			

	<p>The weight of the evenly applied on the surface of the led street light should be:</p> $M=F/10N/kg=71.6Kg$ <p>The actual weight of sandbags is :</p> $M1=20kg+20kg+20kg+5kg+5kg+5kg+5kg=80Kg$		
Testing Records	<p>Fix the pole adaptor first, and In turn with 20KG,20KG,20KG,5KG,5KG,5KG,5KG sandbags, being Stable after 10 minutes, the offset of the adjustable pole adaptor should not be over 2cm/m. There shall not be any transformation, and deemed damaged on the surface.</p>		
Testing Result	<p>There is no transformation, no deemed damaged on the surface of the pole adaptor. The light has few offset, but isn't over the 2cm. Final conclusion: The structure of the adjustable pole adaptor is no problem.</p>		
Testing by	Shu Yong	Completed time	2013-08-23

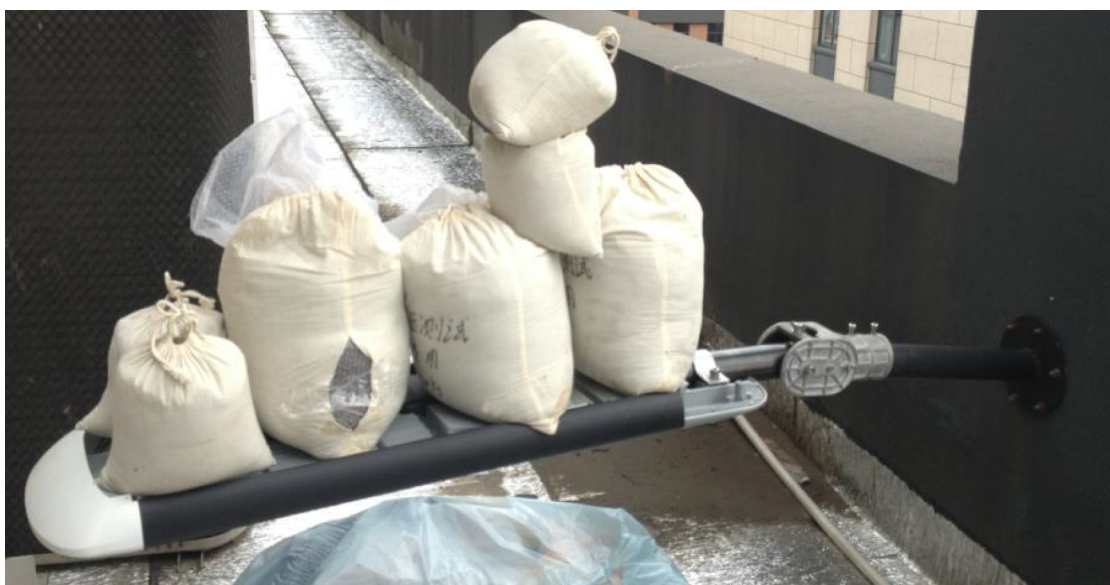
Figure Legends :  
Before the applied load



The applied load



Full load



Stable after 10 minutes

