



**Introduction to Weathering (W101) Seminar**  
Wednesday, 12th March 2025 at Q-Lab Europe - Bolton Office

09:00 - 09:30	Registration with Coffee & Refreshments
09:30 - 09:40	Introductions
09:40 – 11:00	<b>Part 1: Forces of Weathering</b> <ul style="list-style-type: none"><li>• Sunlight: spectral irradiance and material sensitivity</li><li>• Heat: temperature and thermal cycling</li><li>• Water: relative humidity, dew, and rainfall</li></ul>
11:00 - 11:15	Coffee Break
11:15 – 12:00	<b>Part 2: Outdoor Weathering</b> <ul style="list-style-type: none"><li>• Benchmark outdoor test locations: Florida &amp; Arizona</li><li>• Natural outdoor weathering testing</li><li>• Black box, interior automotive material, and behind-glass exposures</li><li>• Natural sunlight concentrators</li></ul>
12:00 – 13:00	Lunch
13:00 – 14:15	<b>Part 3: Accelerated Laboratory Weathering</b> <b><u>Xenon Arc</u></b> <ul style="list-style-type: none"><li>• Light delivery: Xenon arc lamps, optical filters, and irradiance control</li><li>• Environment simulation: black panel, chamber air, humidity, water spray</li></ul> <b><u>Fluorescent UV Weathering</u></b> <ul style="list-style-type: none"><li>• Light delivery: fluorescent UV choice of lamps and irradiance control</li><li>• Environment simulation: black panel, condensation</li></ul>
14:15 - 14:30	Coffee Break
14:30 - 15:45	<b>Part 4: Developing Weathering Testing Programs</b> <ul style="list-style-type: none"><li>• Why Test?</li><li>• Factors affecting correlation between natural and accelerated weathering</li><li>• Fluorescent UV and xenon-arc comparison</li><li>• Weathering test program development</li><li>• Weathering case studies</li></ul>
15:45 - 16:15	Summary & Conclusions