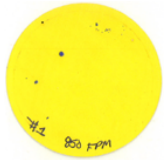

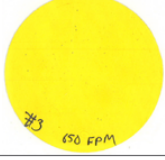
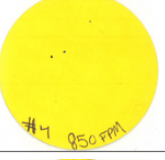
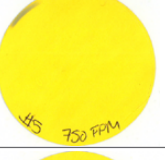



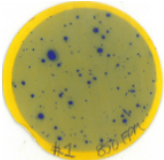
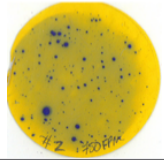
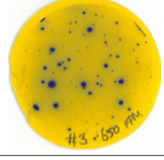
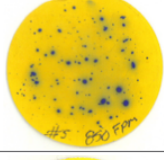

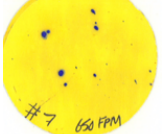
## DRIFT

### MARLEY CROSSFLOW COOLING TOWERS ACHIEVE LOWEST AVAILABLE DRIFT\*

A lower drift rate means less water escapes the tower, which means a cleaner and safer environment. Sensitive paper images below provide clear evidence of superior drift eliminator technology in the Marley crossflow cooling tower.

#### Cooling Tower Comparative Drift Testing Using Water Sensitive Paper

2015 Drift Sampling of Marley NC8403TAN with Sensitive Paper		
Water Loading	Eliminator Velocity	Sensitive Paper
25 gpm/sq ft 1760 gpm/cell 61 m <sup>3</sup> /hr/m <sup>2</sup> 400 m <sup>3</sup> /hr/cell	850 fpm 4.3 m/s	
	750 fpm 3.8 m/s	
	650 fpm 3.3 m/s	
15 gpm/sq ft 1056 gpm/cell 34 m <sup>3</sup> /hr/m <sup>2</sup> 240 m <sup>3</sup> /hr/cell	850 fpm 4.3 m/s	
	750 fpm 3.8 m/s	
	650 fpm 3.3 m/s	

2015 Drift Sampling of Leading Manufacturer's Comparable Crossflow Cooling Tower with Sensitive Paper		
Water Loading	Eliminator Velocity	Sensitive Paper
25 gpm/sq ft 1695 gpm/cell 61 m <sup>3</sup> /hr/m <sup>2</sup> 385 m <sup>3</sup> /hr/cell	850 fpm 4.3 m/s	
	750 fpm 3.8 m/s	
	650 fpm 3.3 m/s	
16 gpm/sq ft 1125 gpm/cell 39 m <sup>3</sup> /hr/m <sup>2</sup> 255.5 m <sup>3</sup> /hr/cell	850 fpm 4.3 m/s	
	750 fpm 3.8 m/s	
	650 fpm 3.3 m/s	

\*As compared to other leading crossflow manufacturers

# DRIFT

## BACKGROUND

Higher drift rates and larger particle size negatively impact adjacent properties, cleanliness of cooling tower surroundings and life expectancy of mechanical equipment. Surface testing, utilizing chemically-treated water sensitive paper, provides a visual indication of droplet density in air on the discharge side of tower drift eliminators.

Water sensitive paper is a rigid paper with a specially coated, yellow surface which is permanently stained dark blue by aqueous droplets impinging on it. Sensitive paper detects droplets larger than 50 microns. The paper was developed by Syngenta Crop Protection\* for quick field evaluation of spray distribution patterns.

## METHODOLOGY

Drift samples were collected using sensitive paper, one of the methods of drift testing outlined in Cooling Technology Institute (CTI) ATC-140 "Isokinetic Drift Measurement Test Code for Water Cooling Tower." To create a quantitative comparison of drift results, sensitive papers were exposed to water particulate by waving a sampler over the test area of approximately a linear distance of 160 ft/48m (typically 40 passes of 4 ft /1.2m). The resulting stains' sizes, shapes, and frequency of occurrence were then compared. This testing method was developed in the 1970s by a 3rd party testing agency.

\*Syngenta Crop Protection AG, [syngentacropprotection.com](http://syngentacropprotection.com)



Sensitive Paper Sampling Device