ANSI/ISEA 107-2004 Retroreflective Material Testing Report, Level 1

Material Description:	Test Lab(s):
Lot #:	Address:
Manufacturer:	Contact Person:
Color:	Date Tested:

PHOTOMETRIC PERFORMANCE REQUIREMENTS

Take measurements at $\varepsilon_1 = 0°$ and $\varepsilon_2 = 90°$. Record maximum value on left side of test result column and the other value on right side of test result column.

ANSI/ISEA 107 Requirement Section 8.1, Table 6			Test Result cd/(lx·m^2)		Pass/ Fail
Observation Angle	**Entrance Angle**	**Minimum cd/(lx·m^2)**			
12' (0.2°)	5°	250 / 187.5			
	20°	220 / 165			
	30°	135 / 101.25			
	40°	50 / 37.5			
20' (0.33°)	5°	120 / 90			
	20°	100 / 75			
	30°	75 / 56.25			
	40°	30 / 22.5			
1.0°	5°	19 / 14.25			
	20°	11 / 8.25			
	30°	9 / 6.75			
	40°	7 / 5.25			
1.5°	5°	7 / 5.25			
	20°	5 / 3.75			
	30°	3 / 2.25			
	40°	3 / 2.25			

Source: ANSI/ISEA 107-2004 *American National Standard for High-Visibility Safety Apparel and Headwear,* Appendix D5

PHYSICAL PERFORMANCE REQUIREMENTS				
Test	**Section**	**ANSI/ISEA 107 Requirement**	**Test Result**	**Pass/ Fail**
Retroreflection, after abrasion	8.2 , 9.4.1	R_A (0.2º/5º) > 100 cd/(lx·m^2) at ε_1 R_A (0.2º/5º) > 75 cd/(lx·m^2) at ε_2	ε_1: ε_2:	
Retroreflection, after flexing	8.2, 9.4.2	R_A (0.2º/5º) > 100 cd/(lx·m^2) at ε_1 R_A (0.2º/5º) > 75 cd/(lx·m^2) at ε_2	ε_1: ε_2:	
Retroreflection, after folding at cold Temperatures	8.2, 9.4.3	R_A (0.2º/5º) > 100 cd/(lx·m^2) at ε_1 R_A (0.2º/5º) > 75 cd/(lx·m^2) at ε_2	ε_1: ε_2:	
Retroreflection, after exposure to temperature variation	8.2, 9.4.4	R_A (0.2º/5º) > 100 cd/(lx·m^2) at ε_1 R_A (0.2º/5º) > 75 cd/(lx·m^2) at ε_2	ε_1: ε_2:	
Retroreflection, after washing (when applicable)	8.2, 9.4.5, 9.4.6	R_A (0.2º/5º) > 100 cd/(lx·m^2) at ε_1 R_A (0.2º/5º) > 75 cd/(lx·m^2)at ε_2	ε_1: ε_2:	
Retroreflection, after dry cleaning (when applicable)	8.2, 9.4.5, 9.4.7	R_A (0.2º/5º) > 100 cd/(lx·m^2) at ε_1 R_A (0.2º/5º) > 75 cd/(lx·m^2) at ε_2	ε_1: ε_2:	
Retroreflection in rainfall	8.2 , 9.4.8	R_A (0.2º/5º) > 100 cd/(lx·m^2) at ε_1 R_A (0.2º/5º) > 75 cd/(lx·m^2) at ε_2	ε_1: ε_2:	