

Safety Glasses



1. Scope

This standard covers the requirements for polycarbonate safety spectacles, more commonly known as safety glasses.

This standard applies to the Seattle City Light stock numbers listed in Section 9.

The requirements for goggles and face shields are outside the scope of this standard.

2. Application

Safety glasses of the type specified in this standard are used to minimize or prevent eye injuries from impact and/or solar glare. Some models provide protection from electrical arc flash; some are available with reader prescriptions.

CAUTION: Foam eyewear does not meet ASTM F-1506 standard performance specifications for flame resistant and arc-rated material. Foam-lined safety glasses shall not be used when the possibility of arc flash exposure exists.

Select lenses based on your specific application. Refer to Table 2.

Standard Coordinator
Laura Vanderpool

A handwritten signature in black ink, appearing to read 'Laura Vanderpool'.

Standards Engineering Supervisor
Brett Hanson

A handwritten signature in black ink, appearing to read 'Brett Hanson'.

Division Director
Bob Risch

A handwritten signature in black ink, appearing to read 'Bob Risch'.

Table 2. Attributes and Applications

Lens	Application
Clear	Best for hazy or overcast conditions or for indoor applications which require impact protection.
Gray	Reduces glare and bright light in outdoor applications. Provides good color recognition while decreasing visible brightness.
Smoke	Commonly used for outdoor applications in bright light with excessive glare.
Amber	Good for indoor or outdoor applications in low light situations where contrast is important.
Blue mirror	Reduces glare and bright light for outdoor applications.
Chrome mirror	Reduces glare and bright light for outdoor applications.
Foam lined	Best for work in dusty, muddy water spray environments. Keeps out fine particulates.

Two sizes of polarized clip-on, flip-up lenses are available from the storeroom (Stock Nos. 110238 and 110239). Clip-on lenses do not provide impact protection and are not compatible with most of the safety glasses cited in this standard.

Safety glasses of the type specified in this standard are not intended to provide protection from welding radiation, blood borne pathogens, chemical vapors, X-rays, microwaves, or lasers. Other limitations may also apply.

Glasses that do not have the Z87.1+ marking should be discarded.

Hinge to hinge width values cited in Section 9 are comparative estimates to aid individual selection and fitting.

3. Industry Standards

Safety glasses shall meet the requirements of the following industry standard:

ANSI/ISEA Z87.1-2015 - Occupational and Educational Personal Eye and Face Protection Devices

4. Requirements

Safety glasses shall be high impact class, as defined in ANSI Z87.1, Section 5.3.

Safety glasses shall be designed with integral side protection or furnished with separate side-shields installed.

Safety glasses lenses shall be scratch- and impact-resistant.

Safety glasses lenses shall block more than 99.9 percent of UV-A and UV-B light.

5. Marking

Safety glasses shall be marked according to the requirements of ANSI Z87.1, Section 5.3 and Annex L.

Glasses shall be marked with Z87.1+. This indicates that the glasses meet the ANSI high impact criteria rating.

6. Testing

Safety glasses test data that establishes compliance with the requirements of ANSI Z87.1 and this standard shall be provided upon request.

7. Packaging

Safety glasses shall be individually boxed or bagged in plastic and legibly marked or tagged with the following information:

- Manufacturer name
- Manufacturer catalog number
- Product description

Each shipping container shall be marked with:

- Seattle City Light purchase order number
- Seattle City Light stock number

8. Issuance

PR

9. Approved Manufacturers

Stock No.	012265
Lens Color	Clear
Relaxed Hinge to Hinge Width (mm)	140
Prescription	+1.5
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Jackson Safety
Model	Nemesis
Catalog Number	28621



Stock No.	012266
Lens Color	Clear
Relaxed Hinge to Hinge Width (mm)	140
Prescription	+2.0
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Jackson Safety
Model	Nemesis
Catalog Number	28624



Stock No.	012493
Lens Color	Smoke
Relaxed Hinge to Hinge Width, mm	140
Prescription	+1.5
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Jackson Safety
Model	Nemesis
Catalog Number	22516



Stock No.	012494
Lens Color	Smoke
Relaxed Hinge to Hinge Width, mm	140
Prescription	+2.0
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Jackson Safety
Model	Nemesis
Catalog Number	22518



Stock No.	012952
Lens Color	Clear
Relaxed Hinge to Hinge Width, mm	126
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Kimberly Clark
Model	Magnum 3G Mini
Catalog Number	19822



Stock No.	012953
Lens Color	Smoke
Relaxed Hinge to Hinge Width, mm	126
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Kimberly Clark
Model	Magnum 3G Mini
Catalog Number	19824



Stock No.	012954
Lens Color	Clear, Anti-Fog
Relaxed Hinge to Hinge Width, mm	144
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Radians
Model	Apocalypse
Catalog Number	AP1-11



Stock No.	012955
Lens Color	Clear
Relaxed Hinge to Hinge Width (mm)	140
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Pyramex
Model	PMXTREME
Catalog Number	SB6310SP



Stock No.	013641
Lens Color	Polarized Blue/Green
Relaxed Hinge to Hinge Width (mm)	138
Prescription	No
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	Yes
Manufacturer	Radians
Model	Crossfire MP7
Catalog Number	24426



Stock No.	013642
Lens Color	Clear, Anti-Fog
Relaxed Hinge to Hinge Width, mm	129
Prescription	No
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	Yes
Manufacturer	Radian
Model	Crossfire MP7
Catalog Number	2444AF



Stock No.	013644
Lens Color	Smoke, Anti-Fog
Relaxed Hinge to Hinge Width, mm	129
Prescription	No
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	Yes
Manufacturer	Radians
Model	Crossfire MP7
Catalog Number	2461AF



Stock No.:	013645
Lens Color:	Clear, Anti-Fog
Relaxed Hinge to Hinge Width (mm):	147
Prescription:	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	Yes
Manufacturer	Radians
Model	Journeyman
Catalog Number	2834AF



Stock No.	013646
Lens Color	Dark smoke, anti-fog
Relaxed Hinge to Hinge Width (mm)	147
Prescription	No
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	Yes
Manufacturer	Radians
Model	Journeyman
Catalog Number	2861AF



Stock No.	014428
Lens Color	Clear, Anti-Fog
Relaxed Hinge to Hinge Width, mm	135
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Kimberly Clark
Model	Magnum 3G
Catalog Number	19794



Stock No.	014429
Lens Color	Smoke, Anti-Fog
Relaxed Hinge to Hinge Width, mm	135
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Kimberly Clark
Model	Magnum 3G
Catalog Number	19955



Stock No.	014475
Lens Color	Clear, Anti-Fog
Relaxed Hinge to Hinge Width, mm	130 mm
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Gateway Safety
Model	StarLite
Catalog Number	46X9



Stock No.	014476
Lens Color	Gray, Anti-Fog
Relaxed Hinge to Hinge Width, mm	130 mm
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Gateway Safety
Model	StarLite
Catalog Number	46X8



Stock No.	014477
Lens Color	Clear, anti-fog
Relaxed Hinge to Hinge Width, mm	158 mm
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	Yes
Foam Lined	No
Manufacturer	Uvex
Model	Ultra-Spec 2001
Catalog Number	S0112C



Stock No.	014478
Lens Color	Gray, anti-fog
Relaxed Hinge to Hinge Width, mm	158 mm
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	Yes
Foam Lined	No
Manufacturer	Uvex
Model	Ultra-Spec 2001
Catalog No.	S0113C



Stock No.	110072
Lens Color	Clear
Relaxed Hinge to Hinge Width, mm	141
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	Yes
Foam Lined	No
Manufacturer	Radians Crossfire
Model	OG-3
Catalog Number	3114



Stock No.	110230
Lens Color	Blue, mirror
Relaxed Hinge to Hinge Width, mm	136
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Pyramex
Model	Intruder
Catalog Number	S4175S



Stock No.	110283
Lens Color	Clear
Relaxed Hinge to Hinge Width, mm	140
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Jackson Safety
Model	Nemesis
Catalog Number	3000354



Stock No.	110284
Lens Color	Smoke, mirror
Relaxed Hinge to Hinge Width, mm	140
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Kimberly-Clark
Model	Nemesis
Catalog Number	25688



Stock No.	110285
Lens Color	Amber
Relaxed Hinge to Hinge Width, mm	140
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Jackson Safety
Model	Nemesis
Catalog Number	25659



Stock No.	110287
Lens Color	Smoke, mirror
Relaxed Hinge to Hinge Width, mm	140
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Jackson Safety
Model	Nemesis
Catalog Number	25685



Stock No.	110301
Lens Color	Smoke
Relaxed Hinge to Hinge Width, mm	141
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	Yes
Foam Lined	No
Manufacturer	Radians Crossfire
Model	OG-3
Catalog Number	3116



Stock No.	014640
Lens Color	Smoke, Anti-Fog
Relaxed Hinge to Hinge Width, mm	-
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Majestic
Model	Wrecker
Catalog Number	85-2010SKA



Stock No.	014641
Lens Color	Clear, Anti-Fog
Relaxed Hinge to Hinge Width, mm	-
Prescription	None
Adjustable Length Spatula	No
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Majestic
Model	Wrecker
Catalog Number	85-2010CRA



Stock No.	014642
Lens Color	Clear, anti-fog
Relaxed Hinge to Hinge Width, mm	-
Prescription	None
Adjustable Length Spatula	Yes
Apply Over Glasses	No
Foam Lined	No
Manufacturer	Honeywell - Uvex
Model	Genesis
Catalog Number	S3200HS



10. References

ASTM F-1506; Standard Performance Specification for Flame Resistant and Arc Rated Textile Materials for Wearing Apparel for Use by Electrical Workers Exposed to Momentary Electric Arc and Related Thermal Hazards, ASTM International, West Conshohocken, PA, 2010

11. Sources

Palmer, Tom; Safety and Health Specialist and subject matter expert for 4008.10

Shipek, John; SCL Standards Supervisor, originator and subject matter expert for 4008.10

WAC 296-800-16050, "Personal Protective Equipment," Washington Administrative Code; Washington State