

SURFACE VEHICLE STANDARD

J914

AUG2014

Issued 1965-02
Revised 2014-08

Superseding J914 SEP2009

Side Turn Signal Lamps for Vehicles Less than 12 m in Length

RATIONALE

2.2.2 European Community removed. Although many sources still refer to ECE Regulations the nomenclature has changed in the UN and these documents are now referred to as UN Regulations

3.1 Note updated for clarity

Side Turn Signal Lamp (E2) will remain unchanged from previous versions of this standard

3.2 Rear Facing Side Turn Signal

Mirror mounted removed from the description. The lamp can meet the photometric requirements of Figure 2 without being mounted in a mirror

Rear Facing Side Turn Signal (E3) is unique from the E2 turn lamp since it's minimum peak intensity is 8x brighter than an E2 lamp (value chosen from jury evaluation in Spring 2006), and it's visibility does not extend as far outward as an E2 or E4 lamp

3.3 Side Facing Side Turn Signal

Mirror mounted removed from the description. The lamp can meet the photometric requirements of Figure 3 without being mounted in a mirror

Side Facing Side Turn Signal (E4) is unique from the E2 turn lamp since it's minimum peak intensity is 5x brighter than an E2 lamp (value chosen from jury evaluation in Spring 2006), and it's visibility does not extend as far outward as an E2 lamp, or as far rearward as an E3 lamp

3.4 Side Direction Indicator added to allow for harmonized function with UN requirements

4.2 Mirror mounted removed from the description. The lamp can meet the photometric requirements of Figure 2 without being mounted in a mirror

4.3 Mirror mounted removed from the description. The lamp can meet the photometric requirements of Figure 3 without being mounted in a mirror

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http://www.sae.org/technical/standards/J914_201408**

4.4 E5, Side Direction Indicator added to allow for harmonized function with UN requirements

5.1.5.1 Removed since J575 is being followed

5.1.5.2 Updated to include J1889 only when LED light sources are used

5.1.5.2 add a new J1889 test point for stabilization >> H,30L, removed reference to mirror

5.1.5.3 Mirror mounted removed from the description.

6.1.5.2 Mirror mounted removed from the description. The lamp can meet the photometric requirements of Figure 2 without being mounted in a mirror

6.1.5.3 Mirror mounted removed from the description. The lamp can meet the photometric requirements of Figure 3 without being mounted in a mirror

6.1.5.4 added to include Side Direction Indicator

6.2.1.1 Mirror mounted removed from the description, added side direction indicator lamps (E5 Identification).

7.1.5 Mirror mounted removed from the description.

Figure 2 updated so test point totals equal zone totals

Figure 3 updated so test point totals equal zone totals

Figure 4 added to define Side Direction Indicator test points

Figure 5 (new/replacement) to clarify test point orientation

Figure 6 (was previous Figure 4)

1. SCOPE

This SAE Standard provides installation requirements, test procedures, design guidelines, and performance requirements for side turn signal lamps for vehicles less than 12 m in length.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J567 Light Source Retention System

SAE J575 Test Methods and Equipment for Lighting Devices for Use on Vehicles Less than 2032 mm in Overall Width

SAE J576 Plastic Material or Materials for Use in Optical Parts Such as Lenses and Reflex Reflectors of Motor Vehicle Lighting Devices

SAE J578	Color Specification
SAE J588	Turn Signal Lamps for Use on Motor Vehicles Less than 2032 mm in Overall Width
SAE J759	Lighting Identification Code
SAE J1889	L.E.D. Signal and Marking Lighting Devices

2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J2039	Side Turn Signal Lamps for Long Vehicles
SAE J2139	Tests for Signal and Marking Devices Used on Vehicles 2032 mm or More in Overall Width

2.2.2 United Nations Publications

Available from United Nations Economic Commission for Europe, Palais des Nations, CH-1211, Geneva 10, Switzerland, Tel: +41-0-22-917-12-34, <http://www.unece.org/trans/main/wp29/wp29regs.html>.

UN Reg 6	Uniform Provisions Concerning the Approval of Direction Indicators for Power-Driven Vehicles and Their Trailers
UN Reg 48	Uniform Provisions Concerning the Approval of Vehicles with Regard to the Installation of Lighting and Light-Signalling Devices

3. DEFINITIONS

3.1 SIDE TURN SIGNAL LAMP

A lighting device mounted on the side of a vehicle at or near the front, and used as part of the turn signal system to indicate a change in direction by means of a flashing warning signal on the side toward which the vehicle operator intends to turn or maneuver.

NOTE: Side turn signals are supplemental. They shall not be confused with required turn signals described in SAE J588, which in some cases may be mounted on the side of the vehicle.

3.2 REAR FACING SIDE TURN SIGNAL LAMP

A side turn signal lamp incorporated into a rearward facing surface on the side of a vehicle.

3.3 SIDE FACING SIDE TURN SIGNAL LAMP

A side turn signal lamp incorporated in an outboard facing surface on the side of a vehicle.

3.4 SIDE DIRECTION INDICATOR LAMP

A side turn signal lamp that is homologated with UN Reg 6, Category 5 requirements

3.5 MOUNTING HEIGHT

Is the vertical distance above the road surface measured to the geometric center of the functional portion of the light emitting surface of the side turn signal lamp on the vehicle at curb weight.

4. LIGHTING IDENTIFICATION CODE

4.1 Side Turn Signal Lamps for use on vehicles less than 12 m in length may be identified by the code "E2" in accordance with SAE J759.

4.2 Rear Facing Side Turn Signal Lamps may be identified by code "E3" in accordance with SAE J759.

4.3 Side Facing Side Turn Signal Lamps may be identified by code "E4" in accordance with SAE J759.

4.4 Side Direction Indicator Lamps may be identified by code "E5" in accordance with SAE J759.

5. TESTS

5.1 SAE J575 is a part of this document. The following tests are applicable with modifications as indicated:

5.1.1 Vibration Test

5.1.2 Moisture Test

5.1.3 Dust Test

5.1.4 Corrosion Test

5.1.5 Photometric Test

5.1.5.1 Photometric measurements shall be made according to J575. .

5.1.5.2 The test methods and procedures of SAE J1889 shall also be applied if LED light sources are present in the lamp. The H-V test point shall be replaced with H-30L for lamps mounted on the left side of the vehicle and H-30R for lamps mounted on the right side of the vehicle. When measuring rear facing side turn signal lamps mounted on a movable component, the assembly shall be oriented in the nominal design mounting position as defined by the manufacturer.

5.1.6 Warpage Test on Devices with Plastic Components

5.2 Color Test

SAE J578 is part of this document.

5.3 Materials Test

Plastic materials used in the optical parts shall be tested according to SAE J576.

6. REQUIREMENTS

6.1 Performance Requirements

A device when tested in accordance with the test procedures specified in Section 5 shall meet the following requirements:

6.1.1 Vibration

SAE J575.

6.1.2 Moisture

SAE J575.

6.1.3 Dust

SAE J575.

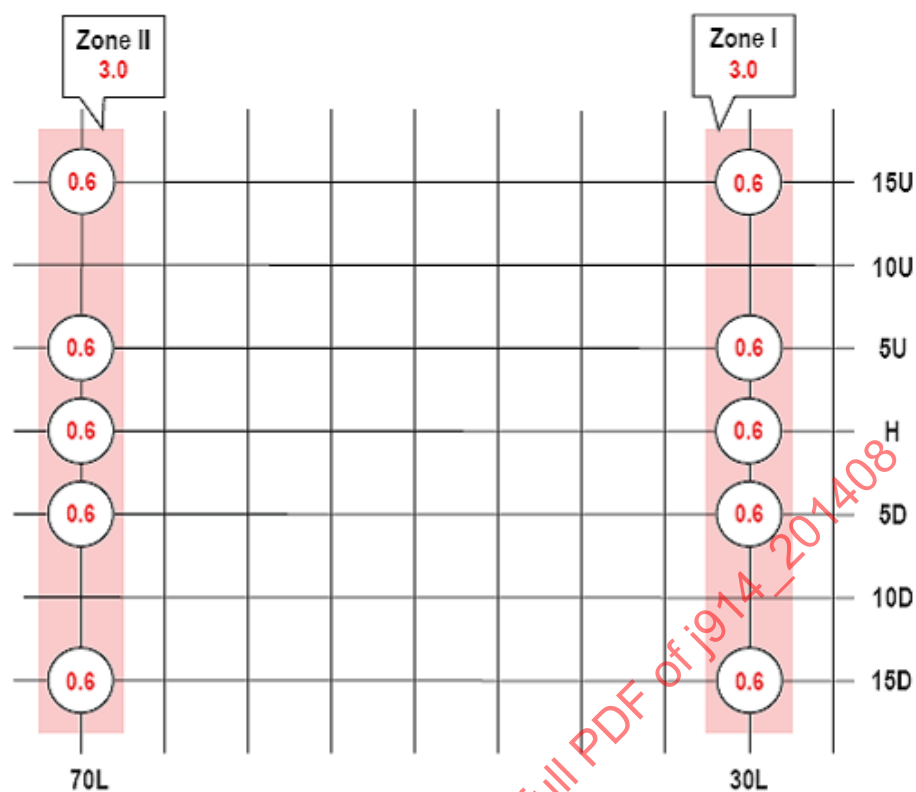
6.1.4 Corrosion

SAE J575.

6.1.5 Photometry

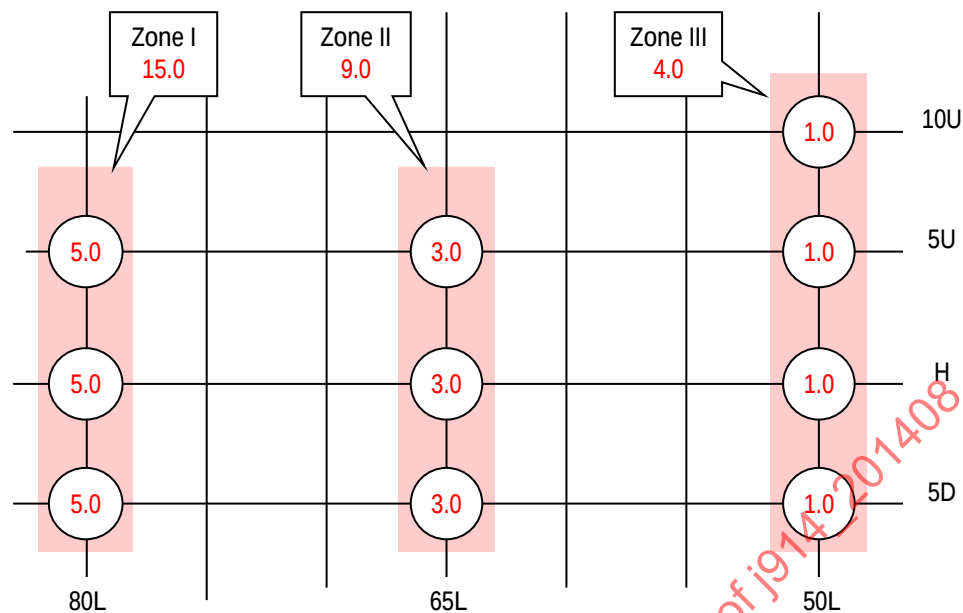
SAE J575.

- 6.1.5.1 A Side Turn Signal Lamp (E2 Identification) shall be designed to conform to the zone total photometric requirements of Figure 1 and its footnotes. The summation of the luminous intensity measurements at the test points in a zone shall be at least the value shown.
- 6.1.5.2 A Rear Facing Side Turn Signal Lamp (E3) shall be designed to conform to the zone total photometric requirements of Figure 2 and its footnotes. The summation of the luminous intensity measurements at the test points in a zone shall be at least the value shown.
- 6.1.5.3 A Side Facing Side Turn Signal Lamp (E4) shall be designed to conform to the zone total photometric requirements of Figure 3 and its footnotes. The summation of the luminous intensity measurements at the test points in a zone shall be at least the value shown.
- 6.1.5.4 A Side Direction Indicator Lamp (E5) shall be designed to conform to the photometric requirements of Figure 4 and its footnotes.



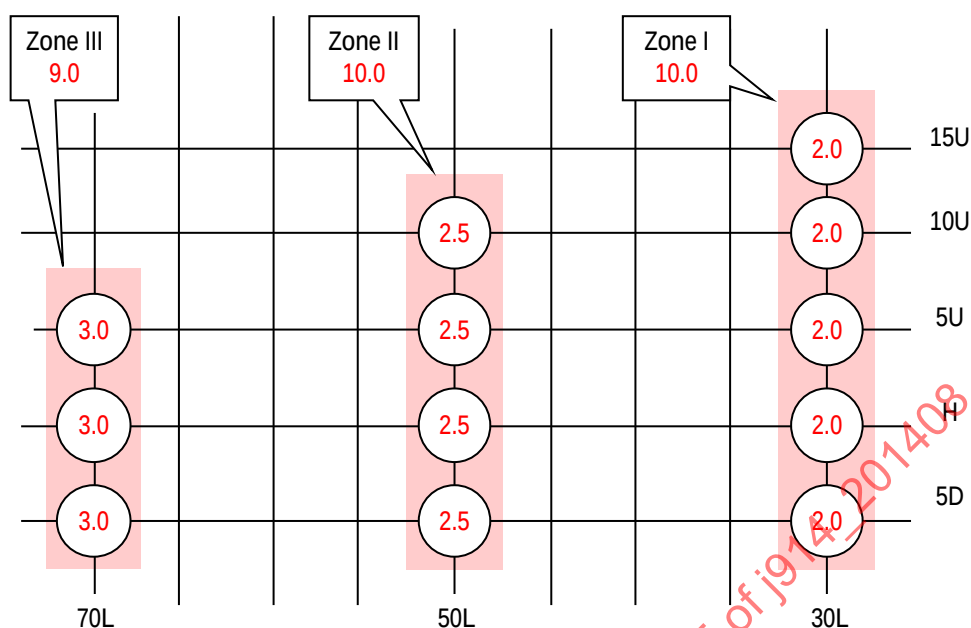
1. The maximum luminous intensity is 200 cd at any test point within the photometric pattern shown.
2. Angles shown are for lamps mounted on left-hand side of vehicle. For lamps mounted on right-hand side, substitute right-hand angles.
3. The measured values at each test point shall not be less than 60% of the required minimum value shown for that individual test point location.
4. The sum of the luminous intensity measurements at each test point within a zone shall not be less than the zone total luminous intensity shown. The luminous intensity measurements at each discrete test point shown within the corresponding zone are the values used to calculate the specified zone total.

FIGURE 1 - PHOTOMETRIC REQUIREMENTS - SIDE TURN SIGNAL
Minimum Luminous Intensity



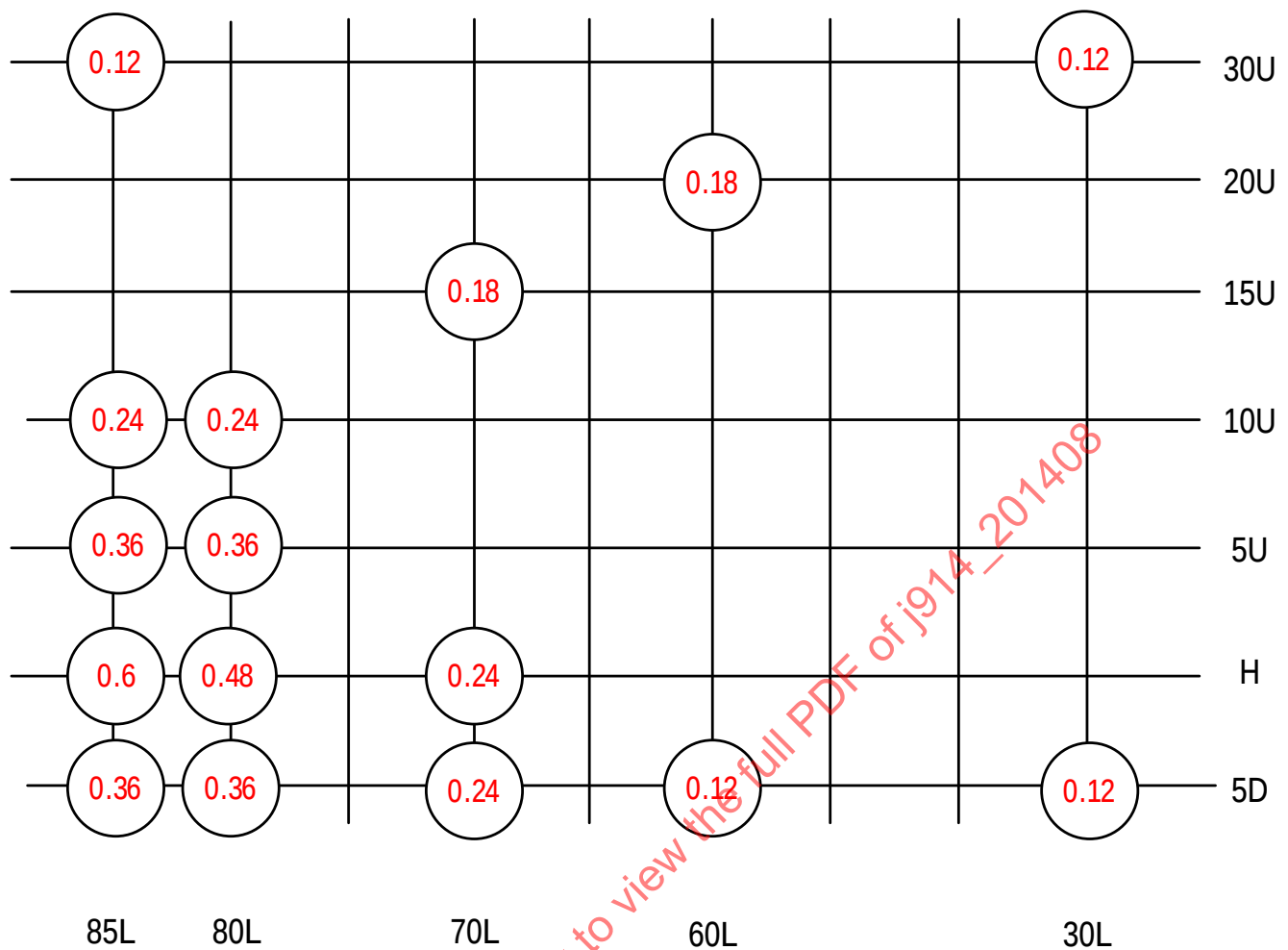
1. The maximum luminous intensity is 30cd at any test point within the photometric pattern shown.
2. Angles shown are for lamps mounted on left-hand side of vehicle. For lamps mounted on right-hand side, substitute right-hand angles
3. The measured values at each test point shall not be less than 60% of the required minimum value shown for that individual test point location.
4. The sum of the luminous intensity measurements at each test point within a zone shall not be less than the zone total luminous intensity shown. The luminous intensity measurements at each discrete test point shown within the corresponding zone are the values used to calculate the specified zone total.

FIGURE 2 - PHOTOMETRIC REQUIREMENTS - REAR FACING SIDE TURN SIGNAL
Minimum Luminous Intensity



1. The maximum luminous intensity is 30cd at any test point within the photometric pattern shown.
2. Angles shown are for lamps mounted on left-hand side of vehicle. For lamps mounted on right-hand side, substitute right-hand angles
3. The measured values at each test point shall not be less than 60% of the required minimum value shown for that individual test point location.
4. The sum of the luminous intensity measurements at each test point within a zone shall not be less than the zone total luminous intensity shown. The luminous intensity measurements at each discrete test point shown within the corresponding zone are the values used to calculate the specified zone total.

FIGURE 3 - PHOTOMETRIC REQUIREMENTS - SIDE FACING SIDE TURN SIGNAL
Minimum Luminous Intensity



1. The maximum luminous intensity is 280cd at any test point within the photometric pattern shown.
2. Angles shown are for lamps mounted on left-hand side of vehicle. For lamps mounted on right-hand side, substitute right-hand angles

FIGURE 4- PHOTOMETRIC REQUIREMENTS SIDE DIRECTION INDICATOR
Minimum Luminous Intensity (Cd)

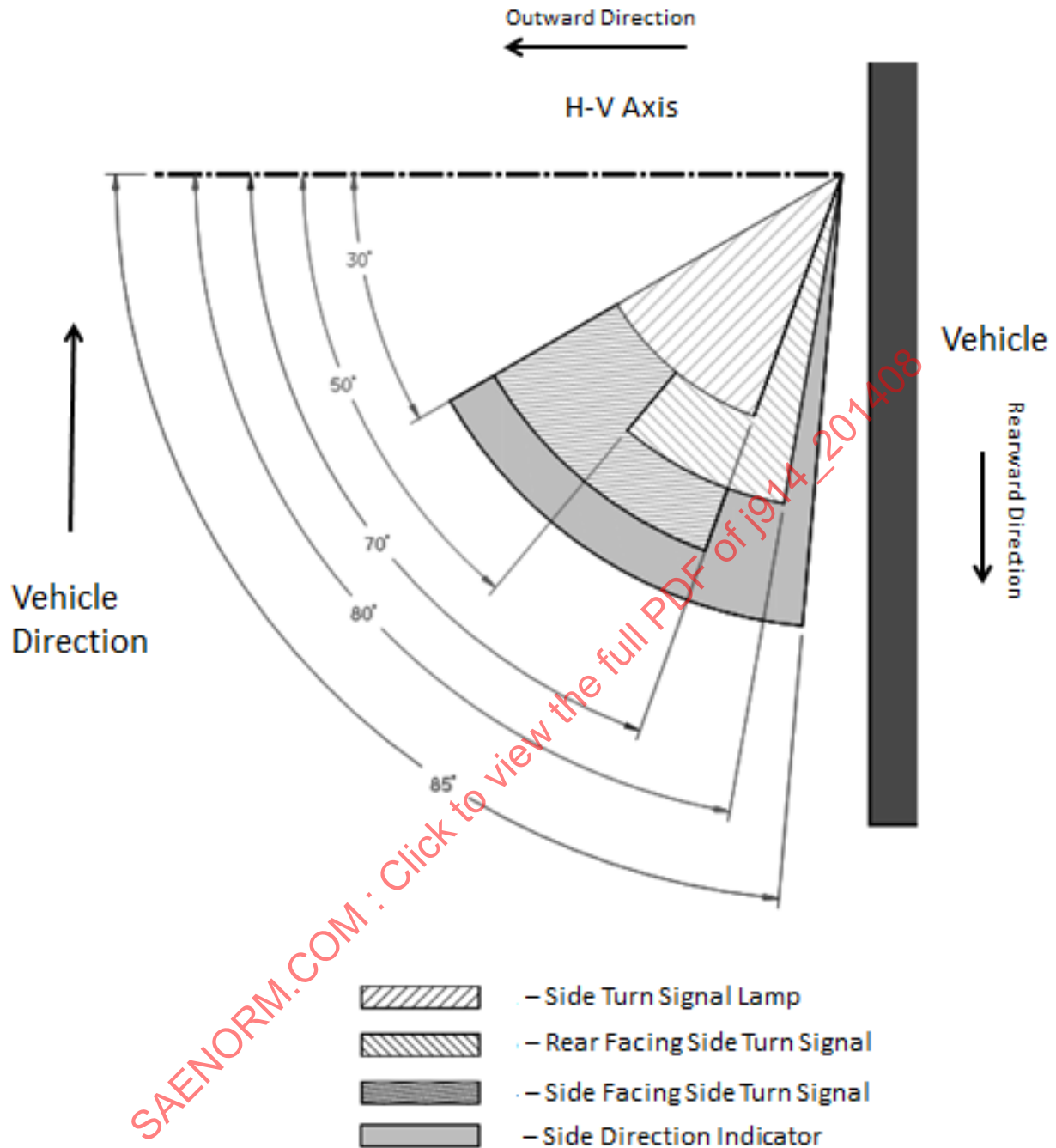


FIGURE 5 – SIDE TURN SIGNAL ORIENTATION

The angles shown in these arrangements are correct for devices to be mounted on the left side of the vehicle