

**MEASUREMENT OF DISTINCTNESS OF IMAGE
OF PAINTED SURFACES****Application**

This procedure is used for measuring the distinctness of image (D.I.) of painted surfaces with a beam of incident light at an angle of 30 +/- 3 degrees.

Materials and Apparatus Required**Dorigon Glossmeter**

D47R-6F Dorigon meter (optical sender and signal processor).*

Primary Standards

A highly polished, plane, black glass surface with an assigned D.I. value.*

Secondary Standard

A semi-gloss ceramic tile with an assigned D.I. value.*

* Source: Hunter Associates Laboratory, Inc.
Fairfax, Virginia U.S.A.

Soap - liquid, neutral.

Deionized or Distilled Water - 10 ppm max dissolved solids (ASTM D 1888).

Panels

As specified in FLTM BI 103-02 (for spray systems), or FLTM BI 120-01 (for electrocoat systems), or as specified in the applicable engineering document.

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 ° C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Date	Action	Revisions
2000 08 31	Revised	Editorial – no technical change A. Cockman
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Procedure

Sample Preparation

1. Prepare paint panels per FLTM BI 103-02 or BI 120-01, or specified by the applicable engineering document.
2. Wash the panels, if soiled, with neutral liquid soap and water, rinse with deionized or distilled water and blow off with air.

Standardization

1. Release the standby button on the Glossmeter and allow the meter to warm up for 15 minutes.
2. Screw the three alignment posts into the port collar.
3. Place the optical sensor in the cradle, with the specimen port facing upward.
4. Place the primary standard on the specimen port with the beam directional arrows in the same direction.
5. Press the R_s button on the signal processor (all other buttons must be in the released position).
6. Using the adjustment knob on the optical sensor, adjust until the digital readout shows the maximum R_s reading.
7. Use the standardize control knob on the processor to adjust the digital display in order to read the calibrated R_s value of the primary standard.
8. Press the D.I. button. If the value displayed is not within ± 1.0 of the assigned D.I. value, refer to Attachment A.
9. Place the secondary standard on the specimen port and press the R_s button.
10. Adjust the maximum reading on the digital display by means of the adjustment knob on the end of the optical sensor. If the value is not within ± 2.0 of the calibrated R_s value of the secondary standard, refer to Attachment A.

Note: Position and cleanliness of this standard is critical.

11. Press the D.I. button. If the value displayed is not within ± 3.0 of the calibrated D.I. of the secondary standard, refer to Attachment A.