

SPECIFICATION SHEET  
**rayolite**<sup>®</sup>  
 RAISED REFLECTIVE PAVEMENT MARKERS

**MODEL: ROUND SHOULDER**

**DESIGN & SHAPE** THE REFLECTIVE PAVEMENT MARKER SHALL MEASURE FOUR INCHES (4 –4.00”) BY FOUR INCHES (4- 4.00”) NOMINAL. THE MAXIMUM HEIGHT OF THE MARKER SHALL BE ELEVEN SIXTEENTHS (11/16-.6800”) INCHES NOMINAL.

**MATERIAL:** THE REFLECTIVE LENS SHALL BE MOLDED OF SPECIALLY FORMULATED OPTIC GRADE METHYL METHACRYLATE. THE HOUSING SHALL BE OF HIGH IMPACT ACRYLONITRILE BUTADIENE STYRENE (ABS) CONFORMING TO ASTM D-4280-04.

THE FILL MATERIAL SHALL CONSIST OF INERT THERMOSETTING COMPOUND WITH FILLER DESIGNED FOR IMPACT AND WEAR RESISTANCE.

**OPTICAL REQUIREMENTS:**

**DEFINITIONS:** HORIZONTAL ENTRANCE ANGLE SHALL MEAN THE ANGLE, IN A PLANE PARALLEL TO THE BASE OF THE MARKER, BETWEEN A LINE IN THE DIRECTION OF THE INCIDENT LIGHT AND A LINE PERPENDICULAR TO THE LEADING EDGE OF THE REFLECTIVE SURFACE.

DIVERGENCE ANGLE SHALL MEAN THE ANGLE AT THE REFLECTOR BETWEEN THE OBSERVER’S LINE OF SIGHT AND THE DIRECTION OF THE LIGHT INCIDENT ON THE MARKER.

SPECIFIC INTENSITY SHALL MEAN CANDLE POWER OF THE RETURNED LIGHT AT THE CHOSEN DIVERGENCE AND ENTRANCE ANGLES FOR EACH FOOT CANDLE LIGHT.

**OPTICAL PERFORMANCE:**

FOR THE PAVEMENT MARKERS, THE SPECIFIC INTENSITY OF THE REFLECTING SURFACE AT 1/5 DEGREE DIVERGENCE ANGLE SHALL NOT BE LESS THAN THE FOLLOWING WHEN THE INCIDENT LIGHT IS PARALLEL TO THE BASE OF THE MARKER:

HOR. ENG. ANGLE	CRYSTAL	C.P. AMBER	RED*
0 DEGREES	3.0	2.0	.75
20 DEGREES	1.5	1.0	0.3

**COMPRESSION  
STRENGTH:**

1. **COMPRESSION TESTING MACHINE WITH A CAPACITY OF AT LEAST 5,000 LBS. AND A RATE CAPABILITY OF 0.2 INCH PER MINUTE.**
2. **STEEL RING 1" HIGH, 3" INTERNAL DIAMETER, AND ¼" WALL.**
3. **SOLID METAL PLUG 1" DIAMETER AND 1" HIGH.**
4. **PROTECTIVE EYE GLASSES OR SHIELD**

**TESTING  
PROCEDURE:**

1. **PLACE THE METAL RING IN THE TESTING MACHINE AND CENTER THE MARKER BASE DOWN UPON THE RING.**
2. **CENTER THE SOLID METAL PLUG ON TOP OF THE MARKER.**
3. **AT A RATE OF 0.2" PER MINUTE, APPLY THE LOAD NECESSARY TO BREAK THE MARKER. USE PROTECTIVE EYE GLASSES OR SHIELD WHEN BREAKING THE MARKER.**
4. **RECORD THE STRENGTH BY COMPRESSIVE LOADING IN POUNDS.**

**IN ADDITION TO THE 2,000 POUND MINIMUM LOAD, FAILURE OF A MARKER SHALL ALSO CONSIST OF SIGNIFICANT DEFORMATION OF THE MARKER AT A LOAD LESS THAN 2,000 POUNDS OR SIGNIFICANT DELAMINATION OF THE SHELL AND THE FILLER MATERIAL REGARDLESS OF THE LOAD REQUIRED TO BREAK THE MARKER.**