

Lone Star Recognition Pattern



56" x 56" | Eight color rays | 128 foundation diamonds

A rainbow star with nine-section feathered diamonds, a black setting, and a small rainbow frame. Includes measured starter cuts, exact-scale foundations, color placement, piecing order, and finishing instructions.

Image-based reconstruction. Original dimensions were not supplied. This guide uses true 45-degree units and a star applied to black fabric. Make a test unit before bulk cutting.

Read before cutting

The dimensions in this guide

Component	Finished geometry
Quilt	56" x 56" before quilting and laundering; raw top is 56 1/2" square.
Small diamond	4" side length; 45-degree acute corners and 135-degree obtuse corners.
Small diamond diagonals	Long: 7.391"; short: 3.061". These are finished seam-line measurements.
Large ray	4 x 4 small diamonds = 16 units; each large side finishes at 16".
Star	Eight rays; 128 diamonds; 1,152 numbered foundation sections. Star span: 54.627".
Rainbow frame	Four sides of 42 triangles: 168 total. Each triangle is 1" base x 1 1/4" height.

Construction method

Foundation piece the small diamonds, join them into eight large rays, and piece the rays into one star. Turn the star's outside 1/4" seam allowance under and applique the star to the prepared black background. The little frame triangles are fused and stitched as raw-edge applique before the star is attached.

Why the unit was redrawn

Eight equal acute angles must total 360 degrees, so each small diamond must have a true 45-degree acute angle. The close-up is used for the nine-section arrangement, not as a scale-accurate cutting template. This guide supplies new vector foundations with the required geometry. Do not stretch a printed template in only one direction.

Skill level: Advanced. Accurate foundation piecing, bias-edge control, eight-way center joins, and careful applique are required. Geometry and counts are digitally checked; a sewn sample has not been tested.

Materials & yardage

Fabric amounts are based on 40" usable width

Material	Purchase amount	Use
Eight main colors	3/8 yd per ray	Section 5; 3 yd total. Choose the ray colors on page 5.
Eight deeper shades	1/2 yd per ray	Sections 3 and 7; 4 yd total.
Eight lighter shades	1/2 yd per ray	Sections 2 and 9; 4 yd total.
Gray / blue-gray	5 1/4 yd (4.80 m)	Sections 1, 4, 6 and 8. A tonal batik or non-directional print works well.
Black background	3 1/2 yd (3.20 m)	Two 28 1/2" x 56 1/2" panels; join to make a 56 1/2" square.
Binding	3/4 yd (0.69 m)	Seven 2 1/2" x WOF strips; black or a coordinating color.
Backing	4 yd (3.66 m)	Ordinary width; prepare at least 64" square. Wide alternative: 2 yd of 108" fabric.
Batting	At least 64" x 64"	Provides 4" extra beyond each finished edge; check your quilter's needs.
Border accents	Scraps from ray fabrics	Twenty-one small triangles in each of the eight color families.
Paper-backed fusible web	1 yd, at least 17" wide	For the 168 little border triangles. Keep the main star soft with turned-edge applique.

Tools

Foundation paper and a printer; rotary cutter, mat and rulers; 1/4" seam guide; pins; iron; fine cotton thread; applique needle or machine applique foot; removable marking pencil; and a stiletto or similar tool for supporting sharp points.

Before shopping: These amounts include generous foundation starter rectangles and some cutting waste. Narrower usable fabric width or directional prints may need more yardage. Make the test unit first.

Master cutting chart

Cuts below are generous starter rectangles for foundation piecing, not finished patch sizes. Every diamond uses one rectangle for each numbered section. Keep all templates at 100% scale.

Section	Fabric	Starter cut	Per ray	Whole quilt
1	Gray	2" x 4 3/4"	16	128
2	Ray lighter shade	2 1/4" x 5"	16	128
3	Ray deeper shade	1 3/4" x 6 1/2"	16	128
4	Gray	2" x 6"	16	128
5	Ray main	2" x 8 1/2"	16	128
6	Gray	2" x 6 3/4"	16	128
7	Ray deeper shade	2 1/2" x 6 1/4"	16	128
8	Gray	2" x 5 1/2"	16	128
9	Ray lighter shade	3" x 5 1/2"	16	128

Other cuts

Part	Cut / quantity
Black background	2 rectangles, 28 1/2" x 56 1/2". Join along the 56 1/2" edges with a 1/4" seam.
Rainbow triangle starters	168 rectangles, 1 1/2" x 1 3/4"; use 21 from each color family. Fuse, then cut the exact triangle on page 15.
Binding	7 strips, 2 1/2" x WOF (40" usable).
Foundation copies	128 copies of page 14, plus 1 extra for the test unit.

Cutting total: 512 gray starters + 640 colored starters = 1,152 foundation patches. The 168 applique triangles are additional. Trim each foundation only after all nine sections are sewn.

Plan the eight color rays

The positions below refer to the front of the finished quilt. Each ray uses sixteen identical units in one color family. Use the same gray throughout, or closely related gray prints with similar value.

Ray	Position	Color family	Units
1	Upper left	Yellow	16
2	Upper right	Red	16
3	Right upper	Teal green	16
4	Right lower	Violet	16
5	Lower right	Orange	16
6	Lower left	Blue	16
7	Left lower	Lime	16
8	Left upper	Magenta	16

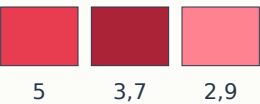
Use three values within every color family

Section 5: main color. **Sections 3 and 7:** deeper shade. **Sections 2 and 9:** lighter shade. **Sections 1, 4, 6 and 8:** gray. The long middle spike and side spikes reproduce the nine-section arrangement of the detail image.

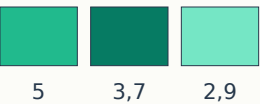
1. Yellow



2. Red



3. Teal green



4. Violet



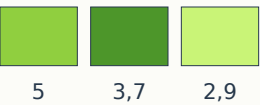
5. Orange



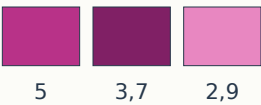
6. Blue



7. Lime



8. Magenta



Plan before sewing: Make one sample unit and check the fabric-side orientation. Keep each ray's sixteen units together. A strong difference between the ray colors and gray makes the feathered shapes easier to read.

The nine-section diamond

Fabric-side view: the numbers follow the supplied close-up. Add sections in numerical order. The foundation on page 14 is mirrored so the fabric side finishes in this orientation.



Through section 1



Through section 2



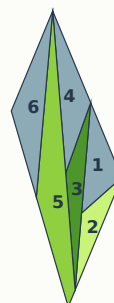
Through section 3



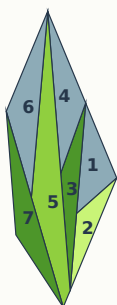
Through section 4



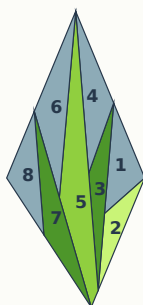
Through section 5



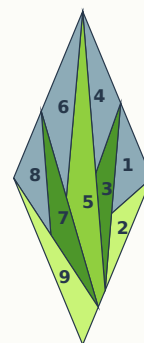
Through section 6



Through section 7



Through section 8



Through section 9

Each new section joins along one straight seam. The sequence is: 1 starter, then 2, 3, 4, 5, 6, 7, 8 and 9. Keep the sharp points covered beyond the outside trim line. Small diagrams on this page are not sewing templates.

Foundation piecing, step by step

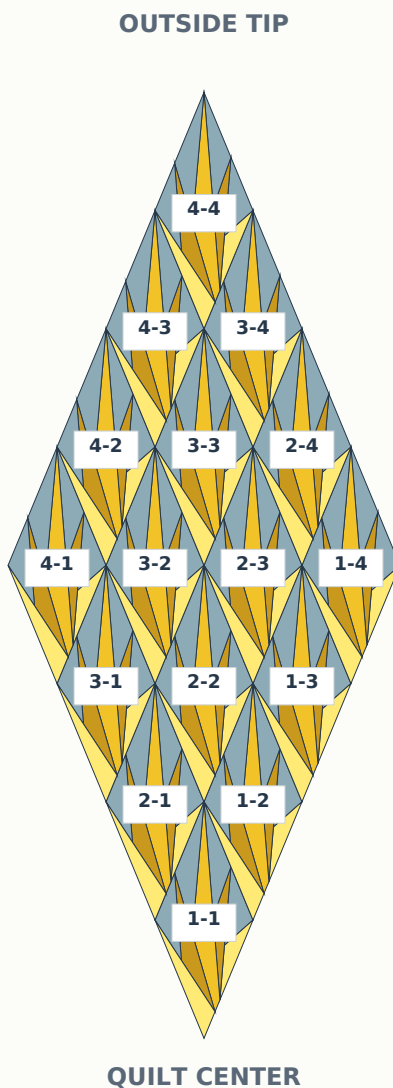
Make one complete test diamond

- 1 Print and check.** Print page 14 using Actual Size / 100%, with Fit and Shrink disabled. Check both sides of the 1" test square. Cut around the heavy outer line, leaving a little paper outside it while sewing.
- 2 Position section 1.** On the unprinted side, place the gray starter with its wrong side touching the paper. Hold it to the light: section 1 and its required seam allowance must be covered. A dab of removable glue can hold it.
- 3 Add section 2.** Fold the paper on the seam between sections 1 and 2. Trim the exposed fabric to 1/4" beyond the fold. Place the section-2 starter right sides together along the trimmed edge. Flip-test it before sewing: it must cover all of section 2, including the outside trim line wherever that section reaches the edge.
- 4 Sew and press.** Sew from the printed side on the numbered section's joining line, extending a few stitches beyond its ends. Use a short stitch suited to your paper. Flip the added fabric open and press without pulling the bias edges.
- 5 Continue through 9.** Repeat the fold, trim, place, flip-test, sew and press sequence for sections 3 through 9. Add 5 after 4, then 6, 7, 8 and 9. The long section 5 reaches the outward sharp tip; be especially careful about coverage there.
- 6 Trim and mark.** Trim precisely on the heavy outer rhombus line. The inner rhombus is the finished stitching boundary. Transfer the four corner dots to the fabric seam intersections. Keep the paper in place for ray assembly.
- 7 Check and repeat.** The distance along each inner side, dot to dot, must be 4". The two inner diagonals are 7.391" and 3.061". The finished acute angle is 45 degrees. Make 16 units per ray, 128 in total.

Starter sizes assume correct placement. Before every seam, fold the new patch into its final position and check coverage. Use the printed seam-intersection dots for joins; the sharp raw tip is not the seam-intersection point.

Build one 16-unit ray

For one color ray, arrange sixteen units as a 4 x 4 diamond grid. Every long sharp outward tip points toward the large ray's outside tip; the inner sharp tip points back toward the quilt center. Keep all fabric sides up.



Join rows: Sew 1-1 to 1-2 to 1-3 to 1-4 along the touching full sides. Repeat for rows 2, 3 and 4. Align matching corner dots and sew on the printed 1/4" joining lines. Press the unit-to-unit seams open.

Join the four rows: Pin at every unit intersection and match the dots at the two row ends. Sew the long straight row seams. Press open. The four finished outside sides of the large ray measure **16" dot to dot**. Make eight rays.

Join the eight rays

Lay the rays in the numbered clockwise order, fabric side up. Match the inner corner dots at the star center and the next dots at the valleys. Each shared radial joining edge measures 16" along its finished seam line.



Join pairs, then quarters into two halves

Pairs: Join rays 1 + 2, 3 + 4, 5 + 6, and 7 + 8 along their common radial edges. Stitch exactly from the center dot to the outer valley dot; secure the ends. Keep the outside seam allowances beyond the valley free for turning.

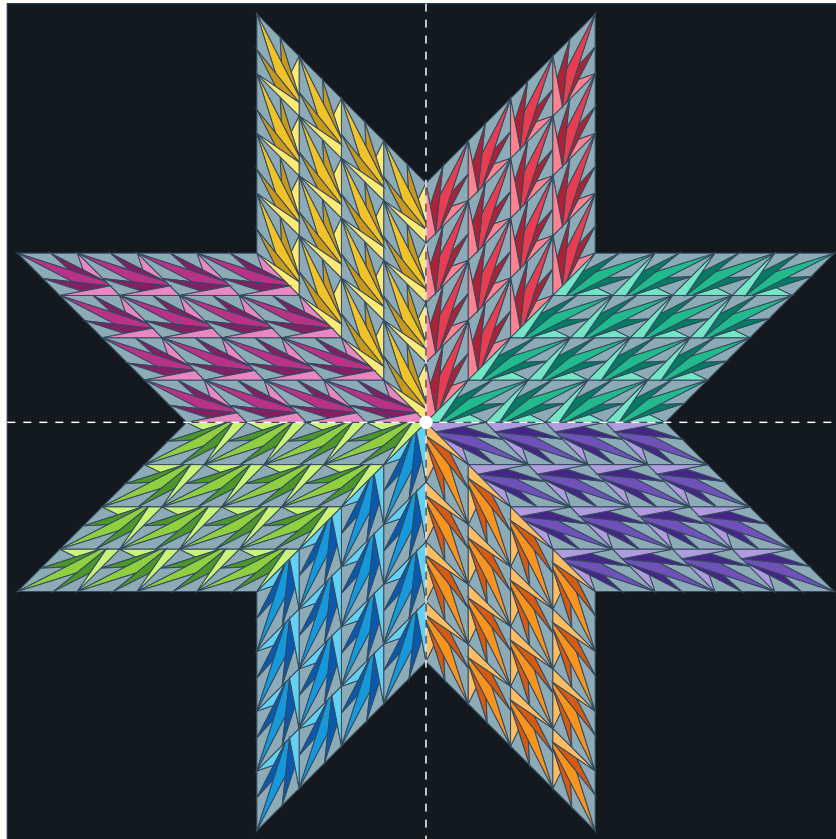
Halves: Join the 1/2 pair to the 3/4 pair. Join the 5/6 pair to the 7/8 pair. Then join the two halves, carefully matching the center and valley dots. Press radial seams open while supporting the center; remove the foundations gently after all joins are secure.

Sharp corners: Align the seam-intersection dots. The acute raw tip extends about 0.653" beyond its dot; do not locate the join by measuring 1/4" back from that tip.

Prepare the black background

Prepare a 56 1/2" raw background square

Cut two black panels 28 1/2" x 56 1/2". Join the 56 1/2" edges with a 1/4" seam and press open: $28\frac{1}{2} + 28\frac{1}{2} - \frac{1}{2} = 56\frac{1}{2}$ ". Mark the center at 28 1/4" from all raw edges. Draw removable horizontal and vertical centerlines.



Position checks from the exact center

The star's eight outer tips use two distances: **A = 11.314"** (about 11 5/16") and **B = 27.314"** (about 27 5/16"). The tip offsets are (left A, up B), (right A, up B), (right B, up A), (right B, down A), (right A, down B), (left A, down B), (left B, down A), and (left B, up A).

The four axis valleys are 16" from the center. The four diagonal valleys are A left/right and A up/down. These positions are checks, not a substitute for sewing the printed 4" diamond geometry accurately. Center the actual star and verify balanced margins.

Make the rainbow frame

The rainbow frame appears behind the star, including the gaps between rays. Make four sides of 42 small triangles: 168 total. Each has a 1" base and 1 1/4" height, with its point facing away from the quilt center.



Triangle bases sit on a centered 42" square.

Cut and fuse: Follow the fusible manufacturer's instructions. Cut the 168 starters, fuse web to the wrong sides, then trace and cut the page-15 triangle. Use twenty-one triangles from each ray color family. Arrange a repeating rainbow sequence.

Place four full sides: On each side of the centered 42" square, arrange forty-two 1" bases edge to edge, from corner to corner. Point every triangle outward. Continue the eight-color sequence around all four sides. The star overlaps parts of this continuous frame; keep the triangles in the visible gaps between rays.

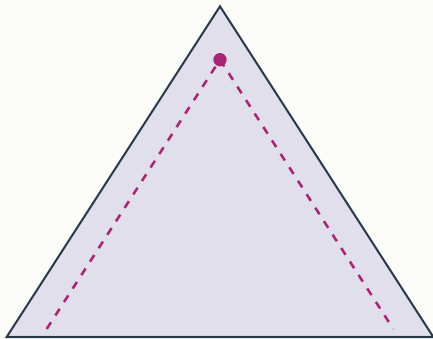
Order: Check the star over the full frame, then lift it away. Fuse and edge-stitch the triangles, remove guide marks, and attach the star over the frame.

Attach the star to the background

Turn the star's outside seam allowance

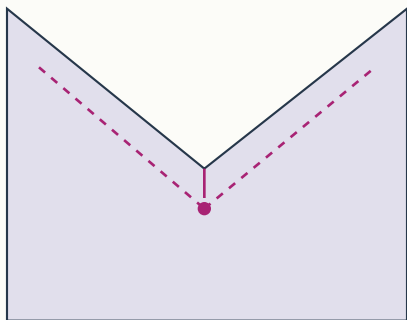
After removing all paper, press the star flat without stretching. The outside quarter-inch allowance is measured perpendicular to each edge; the long pointed tips extend farther than 1/4". Use the marked finished boundary and corner dots to turn the edges, not an estimated distance from a tip.

Outer point



Fold the first allowance to the finished line, then fold the second edge to form the point at its dot. Ease the tiny excess inward. Trim only excess fabric that prevents the tip from lying flat; retain the turned allowance covering the point. Baste the fold.

Inner valley



Clip stops before the dot

At an inward valley, clip the free outside allowance toward the valley dot, stopping one or two threads short of the finished point. Do not cut a radial joining seam. Turn and baste the two edges so they meet smoothly at the valley.

Applique the centered star

Center the star over the black background and rainbow frame. Pin the center, all eight outer tips, the valleys, and the long edges. Baste so the background stays flat. Stitch the folded edge with small hand applique stitches or a narrow machine blind-hem / straight applique stitch. Remove basting and marking lines after stitching.

Check flatness: Correct any pulling, folds, tucks or center mismatch before securing the star. These diagrams explain the folds; they are not extra cutting templates.

Quilt, bind & measure

Backing and batting

Prepare backing and batting at least 64" square. For ordinary-width backing, join two panels at least 40" x 64 1/2" along their long edges with a 1/2" seam; press open, then trim the backing to at least 64" square. A 64" square can also be cut from 108" backing using the 2 yd allowance.

Quilting

Center the 56 1/2" raw top over the batting and backing and baste. Quilt the background to support the applique, then add texture to the star as desired. Keep quilting density balanced across the quilt. Follow your batting manufacturer's maximum quilting distance. Trim the sandwich square while preserving the top's outer 1/4" seam allowance.

Binding

Join seven 2 1/2" x 40" strips diagonally. After six joins, the usable continuous length is about 265". The finished perimeter is 224", leaving more than 20" for turning corners and the final join. Fold wrong sides together lengthwise, attach with a 1/4" seam, miter the corners, join the ends and finish on the back.

Measurement audit

Stage	Check
Small foundation diamond	4" along each finished edge; 45-degree acute angle.
Large ray	16" along each finished edge; sixteen units.
Complete star	Eight rays; 128 diamonds; about 54.627" overall span.
Background / completed raw top	56 1/2" x 56 1/2".
Planned finished quilt	56" x 56" (approximately 142 x 142 cm).

Finished size: The dimensions above are the drafted measurements before quilting or laundering. Quilting take-up and fabric shrinkage can make the final quilt smaller.

Full-size diamond foundation

Print at 100%.

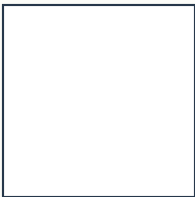
No Fit or Shrink.

Make 128 copies, plus one test.

Heavy outside line: trim.

Inner diamond: joining seam line.

Dots: finished seam intersections.



Both sides of this square must measure exactly **1 inch**.

PAPER SIDE

Sew 1 to 9.

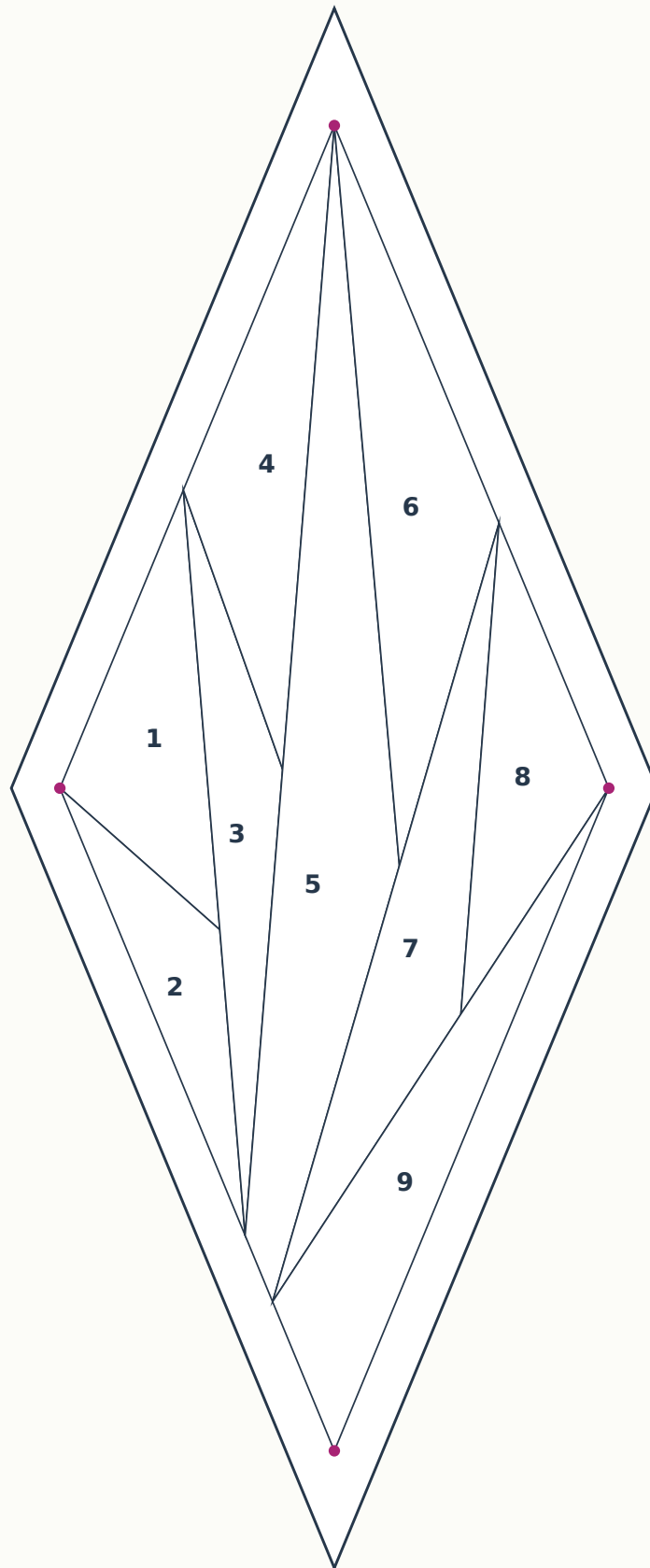
Gray: 1, 4, 6, 8.

Light: 2, 9.

Deep: 3, 7.

Main: 5.

This paper-side pattern is mirrored. The fabric side matches page 6.



Finished side = 4".

Long diagonal = 7.391".

Short diagonal = 3.061".

Raw diagonals: 8.698"

long x 3.603" wide.

Full-size border triangle

Print at 100% / Actual Size and verify the test line below. Use this triangle for the raw-edge applique frame. It has **no seam allowance**. Cut 168 shapes: twenty-one from each of the eight color families.



1 1/4" high

1" base



This line must measure exactly 2".

Trace and arrange

Fuse the web to the wrong side of each 1 1/2" x 1 3/4" starter according to its instructions. Trace the template on the release paper and cut the exact outline. The triangle is symmetrical, so reversing it does not change the shape. Remove release paper before final placement.

For each 42" side, place forty-two triangle bases edge to edge. Their points extend 1 1/4" outward from the base square. Work around all four full sides. Keep the bases straight; adjacent sides meet at their marked corners without overlapping triangle points.

Frame: Fuse and edge-stitch the triangles first. The star overlaps some of them; others remain visible near the corners and between the rays.

Checks & troubleshooting

Stop and check the test unit first

A precise print scale and accurate seam-line joins establish the complete star geometry. Measure the foundation before sewing, then measure the sewn unit along its inner corner dots. Use the starter rectangle table without shrinking any cuts until you have a successful test.

Problem	Correction
Diamond side does not measure 4"	Check print scale first. Measure the inner dot-to-dot seam line, not the raw outside edge.
Fabric misses a sharp point	Unpick the relevant patch and use a correctly positioned starter. Flip-test coverage beyond the outside trim line.
Ray rows do not align	Check that all units have the same fabric-side orientation and all row joins follow the printed seam lines.
Star center is uneven or will not lie flat	Recheck every 45-degree inner tip and dot-to-dot radial join. Correct the joining seam instead of forcing the star onto the background.
Valley puckers during applique	Check the free allowance is clipped only toward its valley dot and that the radial seam remains intact. Re-baste without stretching.
Printed triangle is the wrong size	Print at Actual Size / 100%. The base must be 1" and height 1 1/4".

What was verified

The nine regions exactly partition one 45-degree rhombus. Sixteen units tile each ray, and eight rays meet at a full 360-degree center. Starter rectangles are sized from each region's seam-allowance envelope, with extra placement room. Foundation scale, counts and final dimensions are checked digitally.

Image-based reconstruction: The supplied quilt photograph and numbered close-up establish the look and section arrangement. Original dimensions and original construction instructions were not supplied. This independently drafted version uses the stated applique setting and its own 56" size. A sewn sample has not been tested.