TÜV NORD Authoritative Validation: JinkoSolar's Tiger Neo 3.0 Modules Lead the Industry in Shading Performance

<mjdi l lm odgh j logf g kgdj hgo jhdflk odg odu k di mk q qi jghhdi k d n k mkl me mdlogf f modi k gokkdi ndu d&L j kmbdi hgo j f j logf odkk k f gl%hgl jkkck j di j kdi odq ge di ka fooa fl lgjk ldi l odgf %je hjg du odbq g hgo j hdflk&

AE j . Bdi ogKgdj ge e dkkogf L NFGJ< odg odhj g fou jlooa logf g q lg gf ml ge h j lou l kldi g l j HN e g mdk jgkk ou lqha dk di k f jogk&L kl l k gokl lmf j du llg e g j l k di gf dogf k l hgo j j logf g l La j F g +& e g mdk o k ka fooa fl dq odgo j l f l l g l ge h jkkgf e g mdk o du hgo j f j logf odkk k j m q f jdq- di k ge k f jogk&L kk mjl j n di l kl j du odbq n fl k g F%qh LGH; gf e g mdk di j d%o gjd hh du logf fnqjgfe flk&

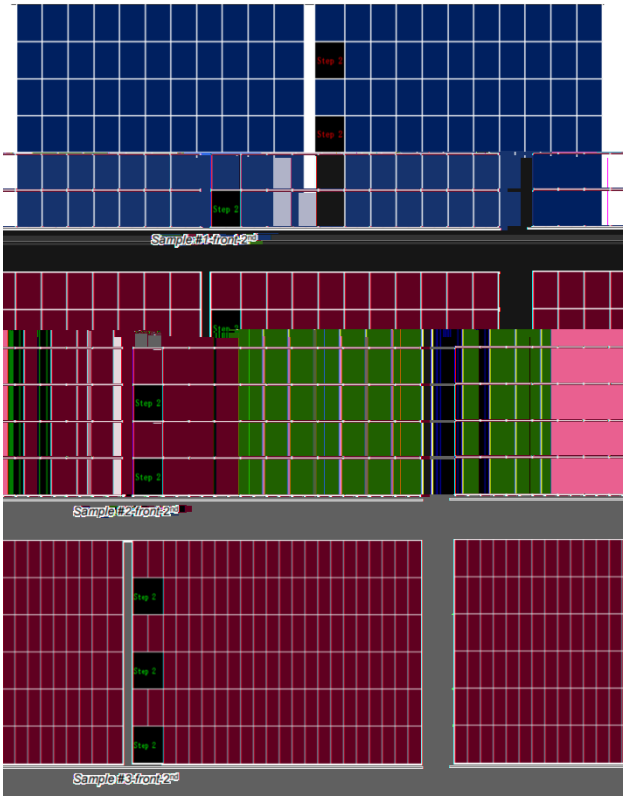
Authoritative Third-Party Testing: Comprehensive Coverage of Five Shading Scenarios

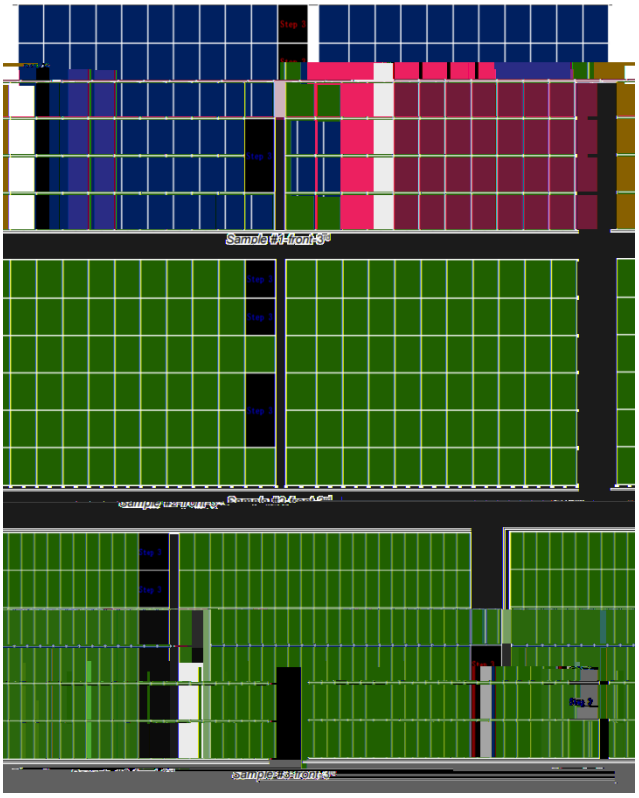
L kkl kl o k gf ml di gj f o du l A; .))-%2) E I L . &kl f j &L l kldi gn j ou lqha dk f jogk2kdi d%agdi l k di d%a f dk di hjg j kkou k di emdk%kjdi k di f k gjl%a k di g mkdi gf kee mdldi l ge hdp gh j ldi fnqjgfe flk ge e gf dq gmf di kkljam jggl gh ge e j ad f di mkljad f jgmf % e gmf l hgo j hdflk&L kldi o k h j gje mf j KL; kl f j gf dogf k) O e qjj af 9E)& kh ljme - ; odl e h j lmj !mkdi f9 9 9 dkkhmkkl kgdj kee mdlgj&

L kl e g mdldi gje logf 2

Sample	Module type	Pmax[W]

Shading Position	BC Module(PL)	Normal TOPCon(PL)	Tiger Neo 3.0(PL)


Step 2
Step 2
Step 2
Sample #1-front-2nd
Step 2
Step 2
Step 2
Sample #2-front-2nd
Step 2
Step 2
Step 2
Sample #3-front-2nd

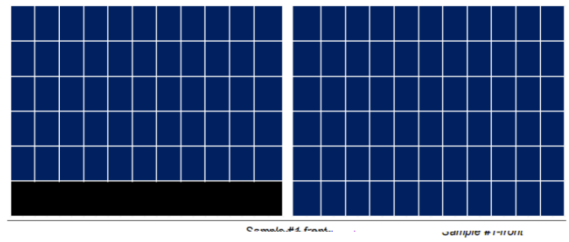

Step 2
Step 2
Sample #1-front-3rd
Step 2
Step 2
Step 2
Step 2
Step 2
Step 2
Sample #4-front-3rd

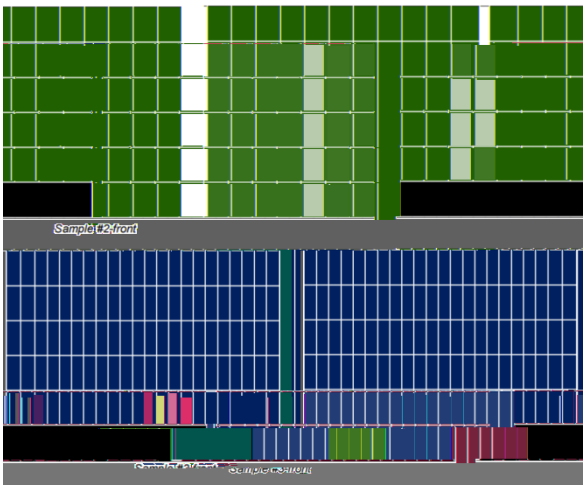
Method 2: Single-cell String Half-Area Shading Test

Kdi d odkkjdi d%j k di mk q modldi h j h lk f k gok jge kmjjgmf di modldi kdkl e gkl ge e gf k di k f jqgdi dkljamh HN hhdi lqgfk qi lcq ldi l kl odbqg hgo j hdflk odqhgo j f j lqgf j n fm&L dkkh acdi l kl mj l cq j hdi l kl dkk f jqglg hjgna qi l ge h jkgf g l j e g modeg dkl j kkdl f lgk di %di m hgo j qgkk&

Module type	Power Loss
: ;	%, &
F gje dLGH; gf	%, &
La jF g+&	%/&

L l kl l d jcq e gfkljl k l hjg m lk a j flal n fl k2 mf j l k gf bqgfk gl : ; e g modk f gfn flqgf d d% odl e g modk ph jaf hgo j j lqgf p di +, j kmbkdi di f jcq - j m lqgf di hgo jgmhm&A gfljkl l La jF g+& ph jaf hgo j qjl g gfcq)/& j hjk fldi ,0& j m lqgf ge h j lgl : ; e g mod&L dk odkk hgo j hdflkj gn j).& g qgkl hgo j f j lqgf j kkdi l di mkjq%a odlf g k di qgkk kdi dkljamh jggl ghkqkl ek l bk jggl f kafaa flcq ggkldi odqhgo j f j lqgf j n fm &



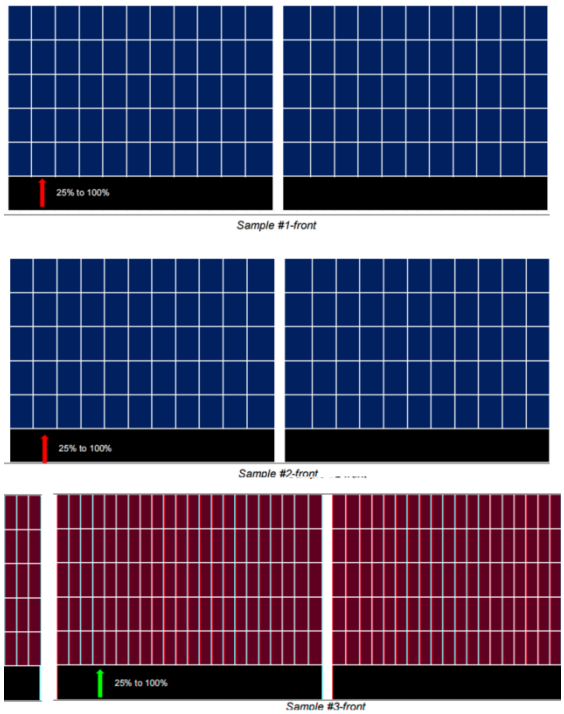


Method 3: 25% Incremental Gradual Shading Test

<mjdi odgf % je gh j logf h glgngdl a e g mdk j gfkl flcq phgk lg kkkm k k m k mkl me mdlogf f l khj g n l logf&9k j kmdl j g k di j m odq ph f k d di lg hjg j kkom hgo j ogkk c q lgj ldi l hdflk odi lee j n fm&L dkl kl e hogcgk k di j afl j f di jge - lg) lg mdq j hdi l l j d%gjd gf dogfk g ogf % je j m ck di gf e g mdk&

Shading Ratio	BC type(PL)	Normal TOPCon(PL)	Tiger Neo 3.0(PL)
-	%+&)	%- &	% &
-	%, &	%, &	%/ &
/-	%, &	%, &	% &
)	%, &	%, &	%, &

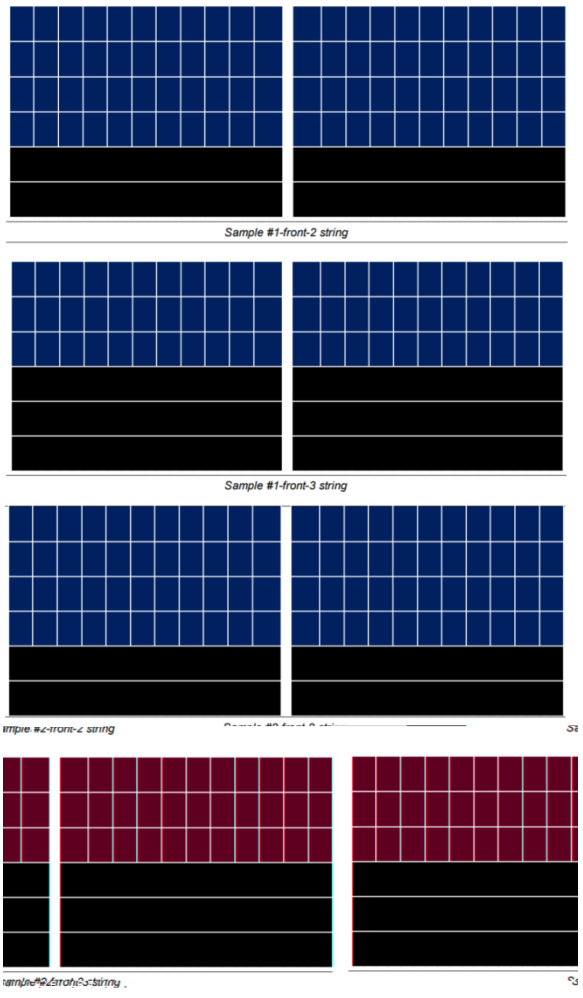
L kl j kmdkk go l lodi l - /- j f g di llg e g j l j m ck di o a gmflk gjl dj kl hjghgjlogf g gf dogfk lhgo jhdflk l La jF g+& gfkdkl flcq gmlh jgjekl log ge h jkgf hjg m lkdi l jekg hgo j f j logf kl cdcq&Kh cca cdq di k f jogk odi - di l mkl me mdlogf f khgj a n l logf k di l e g mdl j logf j l dkgfcq/& dkkl f . g l ogkk ph jaf q:; e g mdk lom cdq e dca ldi l hgo j f j logf di mk q ogf % je mkl me mdlogf & n f mf j e g j l k di gf dogfk g - f /- di e di l dk ka f oca f l d di j kdkl f lg h j gje f j logf hjgna di kgdi m j f l gjkl d j lmjfkl jgm gmll hgo j hdflk flqj di q d&

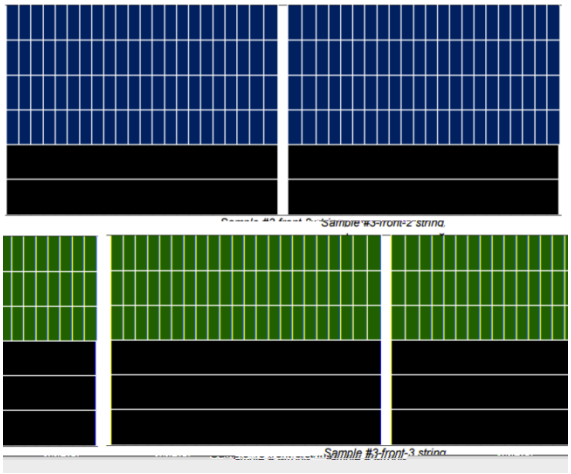


Method 4: Long-Side Shading Tests for Two-String and Three-String Configurations

Lg j kk plj e gf bogfk ge e gf dq f gmfl j di jgmf %e gmfl f ge e j addi mkljadkgdjhgo jhdflk km k k di mk q n flodlogf imbme fl odlg j k f dj kljmlmjk l kal kl kl dk k f jogk dingdddi pl fkoa dgf %a k di g log%kjdi f l j %kjdi gf amj logfk lg n jcaql e g mdk e pce me hgo j f j logf h bcqmf jk n j k di gf bogfk&L kl l k gokl lmf j gm d%kjdi dgf %a k di gf bogfk hgo j f j logf dgkk k gjl l j e g mdko j kk fladdqgf h j o di fg ka fca fl a j f k3 go n j di l ljdmd%kjdi k f jogy dingdddi pl fkoa k di gn jdi /- g l e g mdk kmj j ka fca fl h j gje f hk e j &

< l di a l k l l l :; e g mdl ph jaf hgo j j logf g %0& o odl l gfn flogf d d% odle g mdl j q %0& &o odl l La j F g +& j gj j logf j l g %+& &; ge h j lgl :; e g mdl kxj hj k flk ,& h j fl hgdil j mlogf di hgo j dgkk odgo di dilgj gn j f bogf dj-& g j e di di hgo j f j logf h bcqmf j plj e gf bogfk g pl fkoa k di &L kx mdq e gfklj l kl hjg m l k p hlogf d hl odbqdi ge hdp f plj e k f jogk f di dilg e di e ca j n fm dgkk k mk q k n j k di &



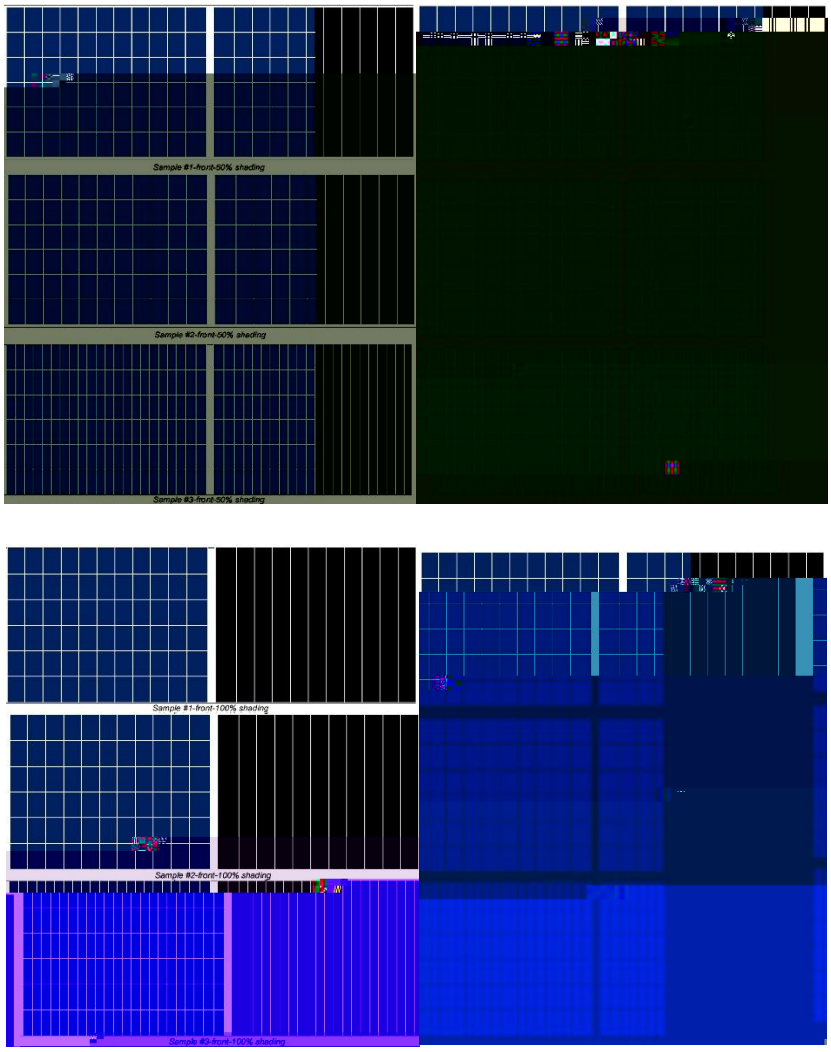


Method 5: Gradual Shading Test on the Short Side

Lg gehj fkoa odq gn j odlgh j ldk gf bogfk l kl kl kee mdl f gmkodq kee mdl k dk k f jqgk pl f dk jge l k gjl ka g l e g mdk km k jgmf j d lqgfk kf go me mdlqgf l l k f qjo n l lqgf&L jgm j a fl k dk l kk l h j gje f g l l j e g mdk mf jl k kh oa k dk gf bogfk o k n odn l &L kl lqh g k dk f kodq mk gn j odkle kee l o ba dk l kgd j odkljdk k f j hj k flk h qka oh j gje f odeo ba lqgf l l kl a a mdlg nga dk h glgngd a e g mdk&

Shading Ratio	BC type(PL)	Normal TOPCon(PL)	Tiger Neo 3.0(PL)
-	% &	% &*	% &*
-	%1 &	% &*	% &*
/-	%1 &(	%1 &	%1 &(
) de g md!	%1 &*	%1 &	%1 &

: k gf l l kl j kmdk m lg h qka odkljm lmj odeo ba lqgf k l l j e g mdk h j gje kee odjq mf j k gjl%a k dk gf bogfk o ba hgo j j lqgf j e dk dk j dq gfkdl fl& n f mf j km gf bogfk o j l j kl fg jgge gj l fa dghlee a lqgf l La j F g +& gfldk mk lg h j gje gfkdl flq and ge h j d gj kda lq kmh jqgj h j gje f dk k f jqgk o ba - f - e g j l k gjl%a k dk &L kl e gfkl j l kl l l hjg m l k f g h j gje f o cf kk k jgkk odk k f jqgk mdq a dk ldk dk kl odbq f j dk odbq&



Comprehensive Comparison: Tiger Neo 3.0 Shading Performance Advantage Matrix

9 kqfl kdx g l jge on kh aodu l klk d jodq e gfklj l k l l h j gje f n fl k g La jF g+& j a odq odf o du l lm dgh j lqgf dk f jqgk g kgd j hgo j hd flk&A an k ka f oa fl j m lqgf k df hgo j qgkk jgkk n jqgmk k df gf dxqgf k ge e gf odq f gmf l j df l df mkljq o du l e f dm g l k n fl k qgk odq e l df j d% gjd hh du lqgf k a odu ldf dk gmkl f df ge e j a ch odn &

Test Scenario	Advantage of Tiger Neo 3.0	Application
Kdi d%sgdi l k di	,1& dkkhgo jdgkk	qi jghhdi k odf d n k
Kdi d%kjdi d j k di	,0& dkkhgo jdgkk	H j h l o odf a gjdi mdldi k gok
- qkl jgo k di	,/& dkkhgo jdgkk	mkl me mdlogf khgj a n l logf
- qkl jgo k di	,0& dkkhgo jdgkk	E g j l mkl me mdlogf h jlaok gok
L j %kjdi odf %a k di	/& dkkhgo jdgkk	D j g kl d k di

: k gf ge hj fkoa j %gjd l kl l f l gjoa q k di gn j f h j gje f j logf l k di lgdj f g l j eg mdk gjek d j a j j q l l mdkj odf k o du l lm dgh j ldi gf bogf k g kgd j hgo j hd flk&Mf j eod f eg j l k di gf bogf k o a gm fl gj gn j l g l di mkl jq l La jF g+& eg fkl j l k kok l e la h j gje f n fl ka f oa fl qj gm h j gje di :; eg mdk f gfn flogf d d% odeg mdk3Gf qj mf j plj e gf bogf k o du k di gn j p di /- m lg l ode du logf k g h qka d k di d ok g l h j gje f dn kl g l l j eg mdk gfn j o du f g ka f oa fl a j f k&

L gn j odh j gje f j f odi ka d j2mf j du l k di gf bogf k 4- gn j !l La jF g+& odn jkl kl h j gje f 3mf j eg j l k di - /- gn j !l La jF g+& gf ldi mkl g d 3 f mf j k n j k di 6/- gn j !l h j gje f g l j eg mdk gfn j k&L ke e fkl ldi l n kl e logj bqg k f jogk mj di hgo j hd flk odj gh j logf k l La jF g+& f gf kkl flqj f j l p kk hgo j j n fm lon odj j kkdi l di mkl jq k gj aa f q odf k&

Technical Analysis: Why Tiger Neo Performs Better in Shaded Conditions

La jF g+& odn jk ge hj fkoa kqkl e la n fl kdi k di j kkl f kl e edi hj ee j odj j ge l mf j odj di j du lmj dkl j f l k g F%qh LGH; gf l f gqdj q&L hj g ml di l j l k e mdbhd mldi % di fgn logf k di odn di e mdb%mk j ka f ; H a % a a f q odh kkoa logf E9P e l odh logf gh lee oa logf f f >H%gh lee oa dqgm&:q j kkdi di mkl jq odf k km k hgo j dgkk m lg k di a %e h j lmj j logf f odf %j e a a f q di l l ka f kl du an k gj h j gje f e lj ak l l ge hj fkoa odj gm h j gje e dkl j e di mkl jq hj g m lk&

Al jek g gj h j gje f e lj ak La jF g+& lmj k f mbj %a a a dbq g 0- - o a kl))- h j fl hgdi lk a j l f e dkl j e :; eg mdk f di f bogf d + - hgo j di j ge l j j ka di f nqj gf e flo du gg j gm f j d lodbq3 f p odf l l e h j lmj g a a f l g %&. ; lon odj j m di hgo j dgkk mf j a %e h j lmj k di gf bogf k3 du kdg lmj k mbj %do j logf j l j kl ak o du qkl %q j j logf) f f f m dodi j j logf j l g bmkl &- fkmj di kl d f a a f l hgo j f j logf l j gm gm l eg mdk+ %q j du q d o odl df di k gj l% je

k dh j kdsl f o dk dqf % je hgo jkl dsdrq&

gl %hgl lk f j n jk mjj fl dqkk k j l hjee jq mk k g ka fca fl hgo j j lqf gqdqo dk f n dqf f l fa d gllf cdl dh mkjq& Dn j dh F %qh LGH; gf gj l fgqdq q La j F g +& e hqdqk emdkd l fa d ghlee a lqfk lg kmhj kk k dh dqkk k l l qjkgmj e bca l gl