

# **King StarBoard Deflection**

Simply Supported: StarBoard is laying unattached on top of the support system/joists

Fixed Supported: StarBoard is laying attached to the support system/joists

Single Point Load: Load is applied at a single point (like having all of your weight on one foot when

walking)

Concentrated Load: Load is applied over a small area (like having your weight on both feet when

standing)

Evenly Distributed Load: Load where weight is evenly distributed over the square footage of the sheet

#### **Simply Supported - Single Point Load**

		Load (Pounds)						
	Center	50	100	200	500	1000	1500	2000
CtauDaaud	8"	.239"	.389"	.646"	>1.00"			
StarBoard	16"	.639"	>1.00"					
1/4"	24"	>1.00"						
StarBoard	8"	.054"	.071"	.116"	.276"	.580"	.919"	>1.00"
Starboard	16"	.094"	.201"	.389"	.913"	>1.00"		
1/2"	24"	.233"	.471"	.918"	>1.00"			
StarBoard	8"	.015"	.021"	.036"	.090"	.183"	.300"	.540"
Starboard	16"	.037"	.083"	.149"	.355"	.783"	>1.00"	
3/4"	24"	.110"	.203"	.334"	.754"	>1.00"		
StarBoard	8"	ND	ND	.021"	.044"	.075"	.112"	.148"
Starboard	16"	ND	.081"	.090"	.183"	.320"	.471"	.532"
1"	24"	.082"	.118"	.171"	.340"	.664"	>1.00"	
StarBoard	8"	ND	ND	ND	.035"	.065"	.104"	.136"
Starboard	16"	ND	ND	.079"	.143"	.181"	.216"	.260"
1 1/2"	24"	.075"	.111"	.127"	.185"	.269"	.356"	.461"
StarBoard AS	8"	.056"	.100"	.153"	.334"	.665"	>1.00"	-
Starboard AS	16"	.154"	.283"	.518"	>1.00"			
1/2"	24"	.301"	.609"	>1.00"				

#### **Simply Supported - Concentrated Load**

		Load (Pounds/ Linear Foot)						
	Center	20	40	80	200	400	600	800
StarBoard	8"	.071"	.136"	.286"	.794"	>1.00"		
Starboard	16"	.602"	>1.00"					
1/4"	24"	>1.00"						
StarBoard	8"	.059"	.074"	.095"	.110"	.210"	.327"	.463"
Starboard	16"	.157"	.197"	.331"	.755"	>1.00"		
1/2"	24"	.230"	.456"	.934"	>1.00"			
StarBoard	8"	ND	.045"	.058"	.085"	.117"	.154"	.188"
Starboard	16"	.026"	.052"	.098"	.200"	.430"	.660"	.880"
3/4"	24"	.107"	.166"	.325"	.841"	>1.00"		
StarBoard	8"	ND	ND	.013"	.026"	.080"	.103"	.124"
Starboard	16"	ND	.044"	.065"	.117"	.204"	.295"	.395"
1"	24"	.060"	.079"	.135"	.289"	.589"	.914"	>1.00"
StarBoard	8"	ND	ND	ND	.010"	.040"	.080"	.096"
Starboard	16"	ND	ND	.049"	.109"	.199"	.226"	.262"
1 1/2"	24"	.052"	.063"	.091"	.149"	.215"	.303"	.399"
StarBoard AS	8"	.055"	.076"	.099"	.142"	.267"	.440"	.642"
Star Buard AS	16"	.212"	.283"	.464"	>1.00"			
1/2"	24"	.292"	.605"	>1.00"				

# **Simply Supported - Evenly Distributed Load**

_		Load (Pounds/ Square Foot)						
	Center	20	40	80	200	400	600	800
StarBoard	8"	.064"	.087"	.110"	.161"	.240"	.310"	.384"
StarBoard	16"	.071"	.097"	.186"	.196"	.294"	.371"	.453"
1/4"	24"	.080"	.107"	.137"	.218"	.312"	.440"	.718"
StarBoard	8"	.055"	.062"	.068"	.082"	.096"	.110"	.123"
Starboard	16"	.056"	.067"	.081"	.096"	.126"	.158"	.185"
1/2"	24"	.060"	.074"	.089"	.116"	.164"	.203"	.237"
StarBoard	8"	.040"	.052"	.056"	.065"	.074"	.083"	.091"
Starboard	16"	.042"	.062"	.063"	.080"	.101"	.118"	.134"
3/4"	24"	.045"	.067"	.073"	.104"	.136"	.163"	.188"
StarBoard	8"	ND	.045"	.052"	.054"	.062"	.074"	.080"
Starboard	16"	ND	.055"	.062"	.072"	.084"	.099"	.110"
1"	24"	.012"	.059"	.065"	.098"	.120"	.138"	.164"
StarBoard	8"	ND	ND	.044"	.053"	.059"	.069"	.079"
Starboard	16"	ND	.042"	.057"	.067"	.079"	.094"	.105"
1 1/2"	24"	.008"	.055"	.059"	.092"	.114"	.129"	.158"
StarBoard AS	8"	.066"	.071"	.079"	.099"	.102"	.121"	.138"
Star Board AS	16"	.070"	.075"	.082"	.106"	.144"	.182"	.210"
1/2"	24"	.074"	.081"	.095"	.126"	.178"	.234"	.278"

#### **Fixed Supported - Single Point Load**

	-		<u> </u>						
_			Load (Pounds)						
	Center	50	100	200	500	1000	1500	2000	
CtarDoord	8"	.193"	.335"	.519"	.895"	>1.00"			
StarBoard	16"	.370"	.604"	.984"	>1.00"				
1/4"	24"	.851"	>1.00"						
StarBoard	8"	.053"	.062"	.099"	.233"	.502"	.757"	.992"	
Starboard	16"	.062"	.135"	.272"	.676"	>1.00"			
1/2"	24"	.195"	.365"	.742"	>1.00"				
StarBoard	8"	.033"	.038"	.054"	.105"	.199"	.320"	.467"	
StarBoard	16"	.050"	.074"	.124"	.319"	.578"	>1.00"		
3/4"	24"	.084"	.143"	.264"	.710"	>1.00"			
StarBoard	8"	ND	.036"	.042"	.059"	.091"	.126"	.167"	
Starboard	16"	.032"	.049"	.068"	.123"	.248"	.393"	.545"	
1"	24"	.065"	.085"	.137"	.310"	.615"	.956"	>1.00"	
StarBoard	8"	ND	ND	ND	.051"	.067"	.079"	.091"	
Starboard	16"	ND	.040"	.048"	.070"	.100"	.137"	.177"	
1 1/2"	24"	.053"	.068"	.082"	.124"	.209"	.299"	.422"	
StarBoard AS	8"	.047"	.064"	.107"	.278"	.561"	.809"	>1.00"	
Starboard AS	16"	.098"	.200"	.403"	.834"	>1.00"			
1/2"	24"	.260"	.492"	.936"	>1.00"				

# **Fixed Supported - Concentrated Load**

_				Load (P	ounds/ Line	ar Foot)		
	Center	20	40	80	200	400	600	800
CtouDooud	8"	.052"	.061"	.127"	.359"	.758"	>1.00"	
StarBoard	16"	.183"	.373"	.785"	>1.00"			
1/4"	24"	.576"	>1.00"					
StarBoard	8"	.045"	.055"	.072"	.089"	.142"	.233"	.339"
Starboard	16"	.050"	.064"	.119"	.371"	.870"	>1.00"	
1/2"	24"	.096"	.206"	.460"	>1.00"			
StarBoard	8"	.034"	.039"	.044"	.066"	.095"	.126"	.165"
Starboard	16"	.018"	.029"	.048"	.125"	.275"	.475"	.685"
3/4"	24"	.096"	.130"	.240"	.685"	>1.00"		
StarBoard	8"	ND	ND	.041"	.050"	.061"	.072"	.084"
Starboard	16"	ND	ND	.039"	.089"	.162"	.245"	.351"
1"	24"	.060"	.068"	.106"	.225"	.470"	.730"	>1.00"
StarBoard	8"	ND	ND	.038"	.041"	.047"	.056"	.061"
Starboard	16"	ND	ND	.035"	.067"	.090"	.114"	.138"
1 1/2"	24"	.042"	.043"	.065"	.106"	.173"	.246"	.321"
StarBoard AS	8"	.046"	.057"	.075"	.098"	.194"	.301"	.424"
Star Board AS	16"	.059"	.077"	.160"	.476"	>1.00"		
1/2"	24"	.115"	.221"	.585"	>1.00"			-

### **Fixed Supported - Evenly Distributed Load**

_		Load (Pounds/ Square Foot)						
	Center	20	40	80	200	400	600	800
ChauDaaud	8"	.041"	.059"	.069"	.088"	.122"	.160"	.195"
StarBoard	16"	.044"	.061"	.072"	.105"	.157"	.201"	.235"
1/4"	24"	.051"	.073"	.085"	.112"	.175"	.219"	.272"
StarBoard	8"	.038"	.055"	.063"	.077"	.096"	.105"	.116"
Starboard	16"	.040"	.059"	.071"	.086"	.101"	.108"	.129"
1/2"	24"	.049"	.067"	.080'	.095"	.132"	.165"	.195"
StarBoard	8"	.036"	.049"	.050"	.059"	.072"	.081"	.087"
Starboard	16"	.040"	.052"	.059"	.071"	.083"	.098"	.110"
3/4"	24"	.046"	.058"	.066"	.084"	.111"	.138"	.163"
StarBoard	8"	ND	.037"	.046"	.052"	.060"	.076"	.081"
Starboard	16"	ND	.040"	.050"	.057"	.067"	.083"	.092"
1"	24"	ND	.049"	.052"	.079"	.106"	.126"	.148"
StarBoard	8"	ND	ND	.037"	.049"	.052"	.061"	.073"
Starboard	16"	ND	.027"	.043"	.057"	.065"	.078"	.085"
1 1/2"	24"	ND	.036"	.046"	.071"	.100"	.119"	.136"
StarBoard AS	8"	.042"	.056"	.068"	.080"	.101"	.111"	.124"
Star Buard AS	16"	.045"	.058"	.070"	.085"	.104"	.118"	.141"
1/2"	24"	.051"	.074"	.082"	.102"	.134"	.171"	.205"