

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)									
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
36/4	36	Strength, (lbs/ft)	335	298	270	243	220	202	186	173	162	
		Stiffness, G', (10 ³ lbs/in)	9.5	10.8	11.9	12.8	13.7	14.4	15.1	15.6	16.1	
	24	Strength, (lbs/ft)	347	312	284	261	238	220	204	191	180	
		Stiffness, G', (10 ³ lbs/in)	9.5	10.8	11.9	12.9	13.7	14.5	15.1	15.7	16.1	
	12	Strength, (lbs/ft)	384	352	326	305	287	273	259	246	235	
		Stiffness, G', (10 ³ lbs/in)	9.6	10.8	11.9	12.9	13.8	14.6	15.3	15.9	16.4	
	9	Strength, (lbs/ft)	406	376	352	332	315	301	289	279	270	
		Stiffness, G', (10 ³ lbs/in)	9.6	10.8	12.0	13.0	13.9	14.7	15.4	16.0	16.5	
	6	Strength, (lbs/ft)	447	421	399	382	367	354	344	335	326	
		Stiffness, G', (10 ³ lbs/in)	9.6	10.9	12.0	13.0	14.0	14.8	15.6	16.2	16.8	
	36/7	36	Strength, (lbs/ft)	494	434	383	342	310	283	261	242	226
			Stiffness, G', (10 ³ lbs/in)	49.2	50.9	51.7	51.8	51.4	50.6	49.7	48.6	47.4
24		Strength, (lbs/ft)	509	450	401	360	328	301	279	260	244	
		Stiffness, G', (10 ³ lbs/in)	49.3	51.0	51.8	51.9	51.6	50.9	50.0	48.9	47.8	
12		Strength, (lbs/ft)	554	497	452	415	382	356	334	315	299	
		Stiffness, G', (10 ³ lbs/in)	49.5	51.3	52.2	52.4	52.2	51.6	50.8	49.8	48.7	
9		Strength, (lbs/ft)	583	527	483	448	419	392	370	351	335	
		Stiffness, G', (10 ³ lbs/in)	49.6	51.5	52.5	52.7	52.6	52.0	51.3	50.4	49.4	
6		Strength, (lbs/ft)	638	585	544	510	483	460	441	424	408	
		Stiffness, G', (10 ³ lbs/in)	49.9	51.9	53.0	53.4	53.3	52.9	52.3	51.5	50.6	
36/9		36	Strength, (lbs/ft)	772	683	612	548	493	448	411	379	352
			Stiffness, G', (10 ³ lbs/in)	54.0	57.0	59.0	60.1	60.6	60.6	60.3	59.7	58.9
	24	Strength, (lbs/ft)	785	698	627	566	511	467	429	397	370	
		Stiffness, G', (10 ³ lbs/in)	54.1	57.1	59.1	60.2	60.7	60.8	60.5	59.9	59.2	
	12	Strength, (lbs/ft)	824	739	671	616	566	521	484	452	425	
		Stiffness, G', (10 ³ lbs/in)	54.2	57.2	59.3	60.5	61.1	61.3	61.0	60.5	59.8	
	9	Strength, (lbs/ft)	849	766	700	645	600	557	520	488	461	
		Stiffness, G', (10 ³ lbs/in)	54.2	57.3	59.4	60.7	61.4	61.5	61.4	60.9	60.3	
	6	Strength, (lbs/ft)	896	818	755	703	660	623	592	561	534	
		Stiffness, G', (10 ³ lbs/in)	54.4	57.6	59.7	61.1	61.8	62.1	62.0	61.7	61.2	

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	36	Strength, (lbs/ft)	324	294	268	247	229	214	201	189	179
		Stiffness, G', (10 ³ lbs/in)	17.5	18.7	19.7	20.5	21.1	21.6	22.0	22.3	22.4
	24	Strength, (lbs/ft)	345	318	294	273	255	240	227	215	206
		Stiffness, G', (10 ³ lbs/in)	17.5	18.7	19.7	20.6	21.2	21.8	22.2	22.4	22.6
	12	Strength, (lbs/ft)	404	380	360	343	329	316	305	294	284
		Stiffness, G', (10 ³ lbs/in)	17.6	18.9	19.9	20.8	21.5	22.1	22.6	22.9	23.2
	9	Strength, (lbs/ft)	440	417	399	383	370	358	348	339	331
		Stiffness, G', (10 ³ lbs/in)	17.6	18.9	20.0	21.0	21.7	22.3	22.8	23.2	23.5
	6	Strength, (lbs/ft)	504	485	469	455	444	434	425	417	410
		Stiffness, G', (10 ³ lbs/in)	17.8	19.1	20.2	21.2	22.1	22.8	23.3	23.8	24.2
36/7	36	Strength, (lbs/ft)	461	413	375	344	318	296	277	261	246
		Stiffness, G', (10 ³ lbs/in)	66.4	65.4	64.0	62.3	60.5	58.6	56.7	54.9	53.1
	24	Strength, (lbs/ft)	487	439	401	370	344	322	303	287	272
		Stiffness, G', (10 ³ lbs/in)	66.6	65.7	64.3	62.6	60.9	59.0	57.2	55.4	53.6
	12	Strength, (lbs/ft)	556	515	480	448	422	400	382	365	351
		Stiffness, G', (10 ³ lbs/in)	67.2	66.4	65.1	63.6	61.9	60.2	58.5	56.7	55.1
	9	Strength, (lbs/ft)	601	561	528	500	475	453	434	418	403
		Stiffness, G', (10 ³ lbs/in)	67.6	66.9	65.7	64.3	62.7	61.0	59.3	57.6	56.0
	6	Strength, (lbs/ft)	686	648	617	591	569	550	533	519	506
		Stiffness, G', (10 ³ lbs/in)	68.4	67.8	66.8	65.5	64.0	62.5	61.0	59.4	57.9
36/9	36	Strength, (lbs/ft)	732	661	596	543	498	461	429	401	377
		Stiffness, G', (10 ³ lbs/in)	77.7	77.9	77.5	76.5	75.2	73.7	72.1	70.4	68.7
	24	Strength, (lbs/ft)	754	687	622	569	525	487	455	427	403
		Stiffness, G', (10 ³ lbs/in)	77.8	78.1	77.6	76.7	75.5	74.0	72.4	70.7	69.0
	12	Strength, (lbs/ft)	816	752	698	647	603	566	534	506	482
		Stiffness, G', (10 ³ lbs/in)	78.2	78.5	78.2	77.4	76.2	74.9	73.4	71.8	70.1
	9	Strength, (lbs/ft)	857	794	741	697	655	618	586	558	534
		Stiffness, G', (10 ³ lbs/in)	78.4	78.8	78.6	77.8	76.7	75.4	74.0	72.4	70.9
	6	Strength, (lbs/ft)	934	875	825	783	747	717	690	663	639
		Stiffness, G', (10 ³ lbs/in)	78.9	79.4	79.3	78.7	77.7	76.5	75.2	73.8	72.3

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	36	Strength, (lbs/ft)	366	339	317	298	282	267	255	244	235
		Stiffness, G', (10 ³ lbs/in)	33.1	33.7	34.0	34.1	34.0	33.8	33.5	33.1	32.6
	24	Strength, (lbs/ft)	409	386	363	344	328	314	302	291	281
		Stiffness, G', (10 ³ lbs/in)	33.2	33.8	34.2	34.3	34.3	34.1	33.8	33.5	33.0
	12	Strength, (lbs/ft)	517	497	480	466	453	442	432	423	415
		Stiffness, G', (10 ³ lbs/in)	33.6	34.4	34.9	35.1	35.2	35.1	34.9	34.7	34.3
	9	Strength, (lbs/ft)	582	564	548	535	523	513	504	496	489
		Stiffness, G', (10 ³ lbs/in)	33.9	34.7	35.3	35.6	35.7	35.7	35.6	35.4	35.2
	6	Strength, (lbs/ft)	693	678	666	655	645	637	630	623	617
		Stiffness, G', (10 ³ lbs/in)	34.4	35.4	36.0	36.5	36.8	36.9	36.9	36.9	36.7
36/7	36	Strength, (lbs/ft)	507	467	434	406	382	361	343	327	313
		Stiffness, G', (10 ³ lbs/in)	86.4	82.8	79.3	75.9	72.7	69.7	66.9	64.3	61.9
	24	Strength, (lbs/ft)	553	514	481	453	429	408	390	374	359
		Stiffness, G', (10 ³ lbs/in)	86.9	83.3	79.8	76.5	73.3	70.4	67.6	65.0	62.6
	12	Strength, (lbs/ft)	685	650	620	592	568	547	529	513	499
		Stiffness, G', (10 ³ lbs/in)	88.2	84.8	81.4	78.2	75.2	72.3	69.6	67.1	64.8
	9	Strength, (lbs/ft)	765	731	703	678	657	638	622	606	592
		Stiffness, G', (10 ³ lbs/in)	89.1	85.8	82.5	79.3	76.4	73.6	71.0	68.5	66.2
	6	Strength, (lbs/ft)	917	886	859	836	817	799	784	771	758
		Stiffness, G', (10 ³ lbs/in)	90.9	87.7	84.6	81.6	78.7	76.1	73.6	71.2	69.0
36/9	36	Strength, (lbs/ft)	801	733	676	627	586	550	519	491	466
		Stiffness, G', (10 ³ lbs/in)	108.5	105.2	101.9	98.5	95.2	92.0	88.9	86.0	83.2
	24	Strength, (lbs/ft)	848	779	722	674	632	596	565	537	513
		Stiffness, G', (10 ³ lbs/in)	108.8	105.6	102.3	99.0	95.7	92.5	89.5	86.6	83.8
	12	Strength, (lbs/ft)	967	910	862	813	772	736	705	677	652
		Stiffness, G', (10 ³ lbs/in)	109.7	106.7	103.5	100.3	97.1	94.1	91.1	88.2	85.5
	9	Strength, (lbs/ft)	1 043	987	940	900	865	829	798	770	745
		Stiffness, G', (10 ³ lbs/in)	110.4	107.4	104.3	101.2	98.1	95.0	92.1	89.4	86.7
	6	Strength, (lbs/ft)	1 185	1 134	1 090	1 052	1 019	990	964	941	921
		Stiffness, G', (10 ³ lbs/in)	111.6	108.8	105.8	102.9	99.9	97.0	94.2	91.5	89.0

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
36/4	36	Strength, (lbs/ft)	409	387	368	351	337	324	313	303	294
		Stiffness, G', (10 ³ lbs/in)	46.6	46.0	45.2	44.3	43.4	42.4	41.4	40.4	39.5
	24	Strength, (lbs/ft)	479	460	441	424	410	397	386	375	366
		Stiffness, G', (10 ³ lbs/in)	46.9	46.4	45.7	44.9	44.0	43.0	42.1	41.1	40.2
	12	Strength, (lbs/ft)	650	634	619	607	596	586	578	570	562
		Stiffness, G', (10 ³ lbs/in)	48.0	47.6	47.1	46.4	45.6	44.8	44.0	43.1	42.3
	9	Strength, (lbs/ft)	748	734	721	710	701	692	684	677	671
		Stiffness, G', (10 ³ lbs/in)	48.7	48.4	48.0	47.4	46.7	46.0	45.2	44.4	43.6
	6	Strength, (lbs/ft)	910	899	890	881	874	867	861	856	851
		Stiffness, G', (10 ³ lbs/in)	50.1	50.0	49.7	49.3	48.7	48.2	47.5	46.9	46.2
36/7	36	Strength, (lbs/ft)	554	521	492	467	446	426	409	394	380
		Stiffness, G', (10 ³ lbs/in)	95.2	90.5	86.2	82.2	78.6	75.3	72.2	69.3	66.7
	24	Strength, (lbs/ft)	627	593	565	540	518	499	482	467	453
		Stiffness, G', (10 ³ lbs/in)	95.9	91.2	87.0	83.1	79.4	76.1	73.1	70.2	67.6
	12	Strength, (lbs/ft)	834	804	779	756	736	717	700	685	671
		Stiffness, G', (10 ³ lbs/in)	98.0	93.4	89.3	85.5	82.0	78.7	75.7	72.9	70.4
	9	Strength, (lbs/ft)	959	931	906	885	866	849	834	821	809
		Stiffness, G', (10 ³ lbs/in)	99.3	94.9	90.8	87.1	83.6	80.4	77.5	74.7	72.2
	6	Strength, (lbs/ft)	1 193	1 167	1 145	1 125	1 108	1 093	1 079	1 067	1 056
		Stiffness, G', (10 ³ lbs/in)	102.0	97.8	93.8	90.2	86.8	83.7	80.9	78.2	75.8
36/9	36	Strength, (lbs/ft)	855	797	747	703	665	632	602	575	551
		Stiffness, G', (10 ³ lbs/in)	125.0	119.9	115.0	110.5	106.2	102.2	98.4	94.9	91.6
	24	Strength, (lbs/ft)	928	869	819	776	738	704	674	648	624
		Stiffness, G', (10 ³ lbs/in)	125.5	120.5	115.7	111.1	106.9	102.9	99.2	95.7	92.4
	12	Strength, (lbs/ft)	1 129	1 079	1 036	994	956	922	892	866	842
		Stiffness, G', (10 ³ lbs/in)	127.2	122.2	117.5	113.1	108.9	105.1	101.4	98.0	94.8
	9	Strength, (lbs/ft)	1 248	1 201	1 159	1 123	1 091	1 062	1 036	1 011	987
		Stiffness, G', (10 ³ lbs/in)	128.2	123.4	118.7	114.4	110.3	106.5	102.9	99.5	96.4
	6	Strength, (lbs/ft)	1 473	1 429	1 391	1 358	1 328	1 302	1 278	1 257	1 216
		Stiffness, G', (10 ³ lbs/in)	130.3	125.6	121.1	116.9	113.0	109.2	105.8	102.5	99.4

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
36/4	36	Strength, (lbs/ft)	335	306	284	267	249	235	223	213	204
		Stiffness, G', (10 ³ lbs/in)	9.5	10.8	11.9	13.0	13.9	14.8	15.5	16.2	16.8
	24	Strength, (lbs/ft)	372	346	326	310	296	285	275	267	258
		Stiffness, G', (10 ³ lbs/in)	9.6	10.9	12.1	13.2	14.2	15.1	15.9	16.7	17.4
	12	Strength, (lbs/ft)	466	447	431	419	409	400	393	386	381
		Stiffness, G', (10 ³ lbs/in)	9.7	11.1	12.4	13.6	14.7	15.8	16.8	17.8	18.7
	9	Strength, (lbs/ft)	514	498	486	476	468	460	454	449	445
		Stiffness, G', (10 ³ lbs/in)	9.8	11.2	12.5	13.8	15.0	16.1	17.2	18.3	19.3
	6	Strength, (lbs/ft)	584	574	566	559	554	549	545	542	539
		Stiffness, G', (10 ³ lbs/in)	9.9	11.3	12.7	14.0	15.3	16.6	17.8	18.9	20.0
36/7	36	Strength, (lbs/ft)	494	443	401	366	339	316	297	282	268
		Stiffness, G', (10 ³ lbs/in)	49.2	51.2	52.3	52.7	52.8	52.5	52.0	51.4	50.7
	24	Strength, (lbs/ft)	539	490	452	421	393	371	352	336	323
		Stiffness, G', (10 ³ lbs/in)	49.9	52.1	53.5	54.3	54.6	54.6	54.4	54.1	53.6
	12	Strength, (lbs/ft)	665	622	587	560	538	519	504	490	479
		Stiffness, G', (10 ³ lbs/in)	51.6	54.5	56.6	58.2	59.3	60.0	60.5	60.8	61.0
	9	Strength, (lbs/ft)	741	701	670	644	624	607	592	580	569
		Stiffness, G', (10 ³ lbs/in)	52.6	55.9	58.4	60.3	61.8	62.9	63.8	64.5	65.0
	6	Strength, (lbs/ft)	873	840	814	793	775	761	749	738	729
		Stiffness, G', (10 ³ lbs/in)	54.2	58.1	61.2	63.8	65.9	67.7	69.2	70.4	71.5
36/9	36	Strength, (lbs/ft)	772	691	627	572	522	482	447	419	394
		Stiffness, G', (10 ³ lbs/in)	54.0	57.2	59.3	60.7	61.5	61.9	61.9	61.6	61.2
	24	Strength, (lbs/ft)	811	733	671	621	577	536	502	473	448
		Stiffness, G', (10 ³ lbs/in)	54.4	57.7	60.0	61.6	62.7	63.3	63.5	63.5	63.3
	12	Strength, (lbs/ft)	919	850	794	749	711	680	652	629	609
		Stiffness, G', (10 ³ lbs/in)	55.3	59.1	62.0	64.1	65.7	66.9	67.7	68.3	68.6
	9	Strength, (lbs/ft)	985	921	869	827	792	763	737	715	696
		Stiffness, G', (10 ³ lbs/in)	55.9	59.9	63.1	65.5	67.5	68.9	70.1	71.0	71.6
	6	Strength, (lbs/ft)	1 099	1 045	1 002	966	936	911	890	871	854
		Stiffness, G', (10 ³ lbs/in)	56.9	61.3	65.0	67.9	70.4	72.4	74.1	75.4	76.6

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	36	Strength, (lbs/ft)	339	318	299	282	268	256	246	237	229
		Stiffness, G', (10 ³ lbs/in)	17.6	18.9	20.1	21.1	22.0	22.7	23.4	23.9	24.4
	24	Strength, (lbs/ft)	390	370	354	340	329	319	311	302	294
		Stiffness, G', (10 ³ lbs/in)	17.9	19.3	20.6	21.7	22.7	23.6	24.4	25.1	25.8
	12	Strength, (lbs/ft)	516	501	489	478	469	462	455	449	444
		Stiffness, G', (10 ³ lbs/in)	18.5	20.1	21.7	23.1	24.4	25.6	26.7	27.8	28.8
	9	Strength, (lbs/ft)	581	569	559	551	543	537	532	527	523
		Stiffness, G', (10 ³ lbs/in)	18.8	20.5	22.2	23.7	25.1	26.5	27.8	29.0	30.1
	6	Strength, (lbs/ft)	676	668	662	656	652	648	644	641	638
		Stiffness, G', (10 ³ lbs/in)	19.2	21.1	22.9	24.6	26.2	27.8	29.2	30.7	32.0
36/7	36	Strength, (lbs/ft)	480	439	406	380	357	338	322	308	296
		Stiffness, G', (10 ³ lbs/in)	67.3	66.9	66.0	64.9	63.7	62.4	61.1	59.7	58.5
	24	Strength, (lbs/ft)	540	504	472	445	423	404	388	373	361
		Stiffness, G', (10 ³ lbs/in)	69.2	69.1	68.6	67.9	67.0	66.0	64.9	63.9	62.8
	12	Strength, (lbs/ft)	702	670	643	621	602	586	573	561	550
		Stiffness, G', (10 ³ lbs/in)	74.0	75.0	75.4	75.6	75.5	75.3	74.9	74.5	74.1
	9	Strength, (lbs/ft)	801	771	746	726	708	693	681	669	660
		Stiffness, G', (10 ³ lbs/in)	76.8	78.2	79.2	79.8	80.2	80.4	80.5	80.5	80.4
	6	Strength, (lbs/ft)	973	948	928	911	896	884	873	863	855
		Stiffness, G', (10 ³ lbs/in)	81.3	83.7	85.5	86.9	88.1	89.0	89.7	90.3	90.7
36/9	36	Strength, (lbs/ft)	748	687	627	578	538	504	474	449	426
		Stiffness, G', (10 ³ lbs/in)	78.2	78.8	78.8	78.3	77.5	76.4	75.3	74.0	72.7
	24	Strength, (lbs/ft)	801	741	692	644	603	569	540	514	492
		Stiffness, G', (10 ³ lbs/in)	79.4	80.3	80.5	80.3	79.8	79.0	78.1	77.1	76.0
	12	Strength, (lbs/ft)	949	895	850	812	780	752	728	707	688
		Stiffness, G', (10 ³ lbs/in)	82.5	84.1	85.2	85.7	85.9	85.9	85.6	85.3	84.8
	9	Strength, (lbs/ft)	1 039	988	947	912	881	855	833	813	795
		Stiffness, G', (10 ³ lbs/in)	84.3	86.4	87.8	88.8	89.4	89.8	89.9	89.9	89.8
	6	Strength, (lbs/ft)	1 198	1 155	1 120	1 090	1 064	1 041	1 022	1 005	884
		Stiffness, G', (10 ³ lbs/in)	87.4	90.2	92.4	94.1	95.4	96.4	97.2	97.8	98.2

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	36	Strength, (lbs/ft)	397	376	358	342	328	316	306	297	289
		Stiffness, G', (10 ³ lbs/in)	34.1	35.1	35.9	36.4	36.9	37.1	37.3	37.4	37.5
	24	Strength, (lbs/ft)	468	450	435	422	411	401	393	385	376
		Stiffness, G', (10 ³ lbs/in)	35.3	36.6	37.6	38.5	39.2	39.8	40.2	40.6	40.9
	12	Strength, (lbs/ft)	647	633	622	612	603	596	589	583	578
		Stiffness, G', (10 ³ lbs/in)	38.1	40.0	41.7	43.2	44.5	45.7	46.8	47.7	48.6
	9	Strength, (lbs/ft)	740	729	720	711	704	698	693	688	683
		Stiffness, G', (10 ³ lbs/in)	39.5	41.7	43.6	45.4	47.1	48.6	49.9	51.2	52.4
	6	Strength, (lbs/ft)	875	868	862	857	852	848	845	842	839
		Stiffness, G', (10 ³ lbs/in)	41.5	44.1	46.5	48.7	50.8	52.8	54.6	56.3	57.9
36/7	36	Strength, (lbs/ft)	540	504	475	450	429	410	394	380	367
		Stiffness, G', (10 ³ lbs/in)	89.6	86.8	84.0	81.4	78.9	76.6	74.4	72.3	70.4
	24	Strength, (lbs/ft)	627	592	562	538	516	498	482	467	455
		Stiffness, G', (10 ³ lbs/in)	93.9	91.4	89.0	86.7	84.6	82.5	80.5	78.7	77.0
	12	Strength, (lbs/ft)	851	822	798	777	759	743	729	717	706
		Stiffness, G', (10 ³ lbs/in)	105.0	103.7	102.3	100.9	99.5	98.2	96.9	95.6	94.5
	9	Strength, (lbs/ft)	988	961	939	919	903	888	875	863	853
		Stiffness, G', (10 ³ lbs/in)	111.5	110.8	109.9	109.0	108.1	107.2	106.3	105.4	104.5
	6	Strength, (lbs/ft)	1 229	1 207	1 188	1 171	1 157	1 145	1 134	1 124	1 079
		Stiffness, G', (10 ³ lbs/in)	122.4	122.8	122.9	122.9	122.7	122.5	122.3	122.0	121.7
36/9	36	Strength, (lbs/ft)	834	770	716	671	633	599	570	544	521
		Stiffness, G', (10 ³ lbs/in)	110.7	108.2	105.5	102.7	100.0	97.4	94.9	92.4	90.1
	24	Strength, (lbs/ft)	913	857	804	759	720	686	657	631	608
		Stiffness, G', (10 ³ lbs/in)	113.7	111.5	109.2	106.8	104.4	102.1	99.8	97.6	95.5
	12	Strength, (lbs/ft)	1 123	1 074	1 031	995	963	935	911	889	869
		Stiffness, G', (10 ³ lbs/in)	121.8	120.7	119.3	117.8	116.2	114.6	113.1	111.6	110.1
	9	Strength, (lbs/ft)	1 252	1 206	1 166	1 132	1 103	1 077	1 054	1 033	1 015
		Stiffness, G', (10 ³ lbs/in)	126.6	126.0	125.2	124.2	123.1	122.0	120.8	119.7	118.6
	6	Strength, (lbs/ft)	1 481	1 442	1 409	1 379	1 354	1 331	1 311	1 210	1 079
		Stiffness, G', (10 ³ lbs/in)	134.9	135.4	135.5	135.3	135.1	134.7	134.2	133.7	133.2

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
36/4	36	Strength, (lbs/ft)	446	426	410	395	383	372	362	353	345
		Stiffness, G', (10 ³ lbs/in)	49.8	49.9	49.8	49.6	49.4	49.0	48.7	48.2	47.8
	24	Strength, (lbs/ft)	539	524	510	498	487	478	470	462	454
		Stiffness, G', (10 ³ lbs/in)	52.9	53.4	53.7	53.9	53.9	53.9	53.9	53.7	53.6
	12	Strength, (lbs/ft)	772	760	749	740	732	724	718	712	707
		Stiffness, G', (10 ³ lbs/in)	60.2	61.6	62.9	63.9	64.8	65.6	66.3	66.9	67.4
	9	Strength, (lbs/ft)	893	883	875	867	860	855	849	844	840
		Stiffness, G', (10 ³ lbs/in)	63.9	65.8	67.5	69.0	70.4	71.6	72.6	73.6	74.5
	6	Strength, (lbs/ft)	1 069	1 063	1 057	1 053	1 048	1 044	1 041	1 038	1 035
		Stiffness, G', (10 ³ lbs/in)	69.5	72.1	74.6	76.8	78.8	80.6	82.4	83.9	85.4
36/7	36	Strength, (lbs/ft)	591	560	534	511	491	474	458	444	432
		Stiffness, G', (10 ³ lbs/in)	101.4	97.5	94.0	90.8	87.8	85.1	82.6	80.2	78.1
	24	Strength, (lbs/ft)	700	669	643	620	601	583	567	553	541
		Stiffness, G', (10 ³ lbs/in)	107.9	104.4	101.2	98.3	95.5	93.0	90.7	88.6	86.6
	12	Strength, (lbs/ft)	991	965	943	924	906	891	878	866	855
		Stiffness, G', (10 ³ lbs/in)	125.5	123.0	120.6	118.4	116.4	114.5	112.7	111.1	109.5
	9	Strength, (lbs/ft)	1 166	1 142	1 122	1 104	1 088	1 074	1 061	1 050	1 040
		Stiffness, G', (10 ³ lbs/in)	135.9	133.9	132.0	130.3	128.6	127.1	125.6	124.3	123.0
	6	Strength, (lbs/ft)	1 476	1 456	1 439	1 424	1 410	1 398	1 388	1 347	1 216
		Stiffness, G', (10 ³ lbs/in)	153.9	152.8	151.8	150.8	149.9	148.9	148.1	147.3	146.5
36/9	36	Strength, (lbs/ft)	892	836	788	747	711	679	651	625	602
		Stiffness, G', (10 ³ lbs/in)	129.8	125.4	121.3	117.4	113.8	110.4	107.2	104.2	101.4
	24	Strength, (lbs/ft)	1 001	945	898	856	820	788	760	734	712
		Stiffness, G', (10 ³ lbs/in)	134.9	130.9	127.1	123.5	120.2	117.0	114.1	111.3	108.7
	12	Strength, (lbs/ft)	1 279	1 234	1 195	1 161	1 130	1 103	1 079	1 057	1 038
		Stiffness, G', (10 ³ lbs/in)	148.8	145.8	142.9	140.2	137.6	135.1	132.8	130.6	128.6
	9	Strength, (lbs/ft)	1 447	1 405	1 369	1 337	1 308	1 283	1 260	1 240	1 216
		Stiffness, G', (10 ³ lbs/in)	157.1	154.7	152.3	150.1	147.9	145.9	143.9	142.1	140.3
	6	Strength, (lbs/ft)	1 748	1 713	1 681	1 654	1 629	1 608	1 501	1 347	1 216
		Stiffness, G', (10 ³ lbs/in)	171.7	170.3	168.8	167.4	166.0	164.7	163.4	162.2	161.0

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	36	Strength, (lbs/ft)	129	124	119	115	111	107	104	101	98
		Stiffness, G', (10 ³ lbs/in)	8.7	8.8	8.9	9.0	9.0	9.0	9.0	9.0	9.0
	24	Strength, (lbs/ft)	148	142	137	133	129	125	122	119	116
		Stiffness, G', (10 ³ lbs/in)	8.8	8.9	9.0	9.1	9.1	9.2	9.2	9.2	9.1
	12	Strength, (lbs/ft)	202	197	192	187	183	180	177	174	171
		Stiffness, G', (10 ³ lbs/in)	9.0	9.2	9.3	9.4	9.5	9.6	9.6	9.7	9.7
	9	Strength, (lbs/ft)	238	233	228	224	220	216	213	210	207
		Stiffness, G', (10 ³ lbs/in)	9.2	9.3	9.5	9.6	9.7	9.8	9.9	10.0	10.0
	6	Strength, (lbs/ft)	302	297	293	288	285	281	278	275	273
		Stiffness, G', (10 ³ lbs/in)	9.4	9.7	9.8	10.0	10.2	10.3	10.4	10.5	10.6
24/5	36	Strength, (lbs/ft)	161	154	147	141	136	131	127	123	119
		Stiffness, G', (10 ³ lbs/in)	26.6	25.6	24.6	23.8	22.9	22.2	21.4	20.8	20.1
	24	Strength, (lbs/ft)	179	172	165	159	154	149	145	141	137
		Stiffness, G', (10 ³ lbs/in)	26.9	26.0	25.0	24.2	23.4	22.6	21.9	21.2	20.6
	12	Strength, (lbs/ft)	234	226	220	214	209	204	199	196	192
		Stiffness, G', (10 ³ lbs/in)	28.0	27.1	26.2	25.3	24.6	23.8	23.1	22.5	21.9
	9	Strength, (lbs/ft)	270	263	256	250	245	240	236	232	228
		Stiffness, G', (10 ³ lbs/in)	28.7	27.8	26.9	26.1	25.4	24.6	24.0	23.3	22.8
	6	Strength, (lbs/ft)	343	335	329	323	318	313	308	305	301
		Stiffness, G', (10 ³ lbs/in)	30.0	29.2	28.4	27.6	26.9	26.2	25.6	25.0	24.4
24/7	36	Strength, (lbs/ft)	268	254	242	231	222	213	205	197	191
		Stiffness, G', (10 ³ lbs/in)	37.7	36.6	35.5	34.5	33.5	32.5	31.6	30.7	29.9
	24	Strength, (lbs/ft)	286	273	260	250	240	231	223	216	209
		Stiffness, G', (10 ³ lbs/in)	38.0	36.9	35.8	34.8	33.8	32.8	31.9	31.1	30.2
	12	Strength, (lbs/ft)	341	327	315	304	294	285	277	270	263
		Stiffness, G', (10 ³ lbs/in)	38.8	37.7	36.7	35.7	34.8	33.8	33.0	32.1	31.3
	9	Strength, (lbs/ft)	377	363	351	340	331	322	314	306	300
		Stiffness, G', (10 ³ lbs/in)	39.3	38.3	37.3	36.3	35.4	34.5	33.6	32.8	32.0
	6	Strength, (lbs/ft)	450	436	424	413	403	394	386	379	372
		Stiffness, G', (10 ³ lbs/in)	40.3	39.3	38.4	37.5	36.6	35.7	34.9	34.2	33.4

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	36	Strength, (lbs/ft)	148	143	138	134	131	127	124	121	118
		Stiffness, G', (10 ³ lbs/in)	11.7	11.7	11.6	11.6	11.5	11.4	11.2	11.1	11.0
	24	Strength, (lbs/ft)	174	169	165	160	157	153	150	147	145
		Stiffness, G', (10 ³ lbs/in)	11.9	11.9	11.8	11.8	11.7	11.6	11.5	11.4	11.3
	12	Strength, (lbs/ft)	253	248	243	239	235	232	229	226	223
		Stiffness, G', (10 ³ lbs/in)	12.4	12.4	12.4	12.4	12.4	12.3	12.3	12.2	12.1
	9	Strength, (lbs/ft)	305	300	295	291	287	284	281	278	275
		Stiffness, G', (10 ³ lbs/in)	12.7	12.7	12.8	12.8	12.8	12.8	12.8	12.7	12.7
	6	Strength, (lbs/ft)	388	383	379	375	372	369	366	363	361
		Stiffness, G', (10 ³ lbs/in)	13.2	13.4	13.5	13.5	13.6	13.6	13.7	13.7	13.7
24/5	36	Strength, (lbs/ft)	181	175	168	163	158	153	149	145	142
		Stiffness, G', (10 ³ lbs/in)	28.1	27.0	26.0	25.1	24.2	23.4	22.6	21.9	21.3
	24	Strength, (lbs/ft)	208	201	195	189	184	179	175	171	168
		Stiffness, G', (10 ³ lbs/in)	28.5	27.5	26.5	25.5	24.7	23.9	23.1	22.4	21.8
	12	Strength, (lbs/ft)	286	279	273	268	262	258	254	250	246
		Stiffness, G', (10 ³ lbs/in)	29.9	28.8	27.9	27.0	26.2	25.4	24.7	24.0	23.4
	9	Strength, (lbs/ft)	338	332	325	320	315	310	306	302	298
		Stiffness, G', (10 ³ lbs/in)	30.8	29.8	28.8	27.9	27.1	26.4	25.7	25.0	24.4
	6	Strength, (lbs/ft)	443	436	430	424	419	415	411	407	403
		Stiffness, G', (10 ³ lbs/in)	32.5	31.5	30.6	29.8	29.0	28.3	27.6	27.0	26.4
24/7	36	Strength, (lbs/ft)	295	282	271	260	251	242	234	227	220
		Stiffness, G', (10 ³ lbs/in)	41.2	39.8	38.5	37.3	36.1	35.1	34.0	33.1	32.1
	24	Strength, (lbs/ft)	321	308	297	286	277	268	260	253	246
		Stiffness, G', (10 ³ lbs/in)	41.5	40.2	38.9	37.7	36.6	35.5	34.5	33.5	32.6
	12	Strength, (lbs/ft)	400	387	375	365	355	347	339	332	325
		Stiffness, G', (10 ³ lbs/in)	42.6	41.3	40.1	38.9	37.8	36.7	35.8	34.8	33.9
	9	Strength, (lbs/ft)	452	439	428	417	408	399	391	384	377
		Stiffness, G', (10 ³ lbs/in)	43.3	42.0	40.8	39.7	38.6	37.6	36.6	35.7	34.8
	6	Strength, (lbs/ft)	557	544	532	522	512	504	496	489	482
		Stiffness, G', (10 ³ lbs/in)	44.7	43.5	42.3	41.2	40.2	39.2	38.2	37.4	36.5

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	36	Strength, (lbs/ft)	199	194	190	185	181	178	175	172	169
		Stiffness, G', (10 ³ lbs/in)	16.4	16.1	15.8	15.5	15.2	14.9	14.6	14.4	14.1
	24	Strength, (lbs/ft)	246	241	236	232	228	224	221	218	215
		Stiffness, G', (10 ³ lbs/in)	16.8	16.5	16.2	15.9	15.7	15.4	15.1	14.8	14.6
	12	Strength, (lbs/ft)	385	380	376	371	367	364	361	358	355
		Stiffness, G', (10 ³ lbs/in)	17.8	17.6	17.4	17.1	16.9	16.7	16.4	16.2	16.0
	9	Strength, (lbs/ft)	462	457	453	449	445	442	438	436	433
		Stiffness, G', (10 ³ lbs/in)	18.5	18.3	18.1	17.9	17.7	17.5	17.3	17.1	16.9
	6	Strength, (lbs/ft)	595	591	588	584	581	578	575	573	571
		Stiffness, G', (10 ³ lbs/in)	19.7	19.6	19.5	19.3	19.2	19.1	18.9	18.8	18.6
24/5	36	Strength, (lbs/ft)	239	232	226	220	214	210	205	201	197
		Stiffness, G', (10 ³ lbs/in)	31.2	30.0	28.9	27.9	26.9	26.1	25.2	24.5	23.7
	24	Strength, (lbs/ft)	285	278	272	266	261	256	252	247	244
		Stiffness, G', (10 ³ lbs/in)	31.8	30.6	29.5	28.5	27.6	26.7	25.9	25.1	24.4
	12	Strength, (lbs/ft)	425	418	412	406	400	396	391	387	383
		Stiffness, G', (10 ³ lbs/in)	33.6	32.4	31.4	30.4	29.5	28.6	27.8	27.0	26.3
	9	Strength, (lbs/ft)	518	511	505	499	493	489	484	480	476
		Stiffness, G', (10 ³ lbs/in)	34.8	33.6	32.6	31.6	30.7	29.8	29.1	28.3	27.6
	6	Strength, (lbs/ft)	696	689	682	676	671	666	661	657	653
		Stiffness, G', (10 ³ lbs/in)	37.1	36.0	34.9	34.0	33.1	32.3	31.5	30.8	30.1
24/7	36	Strength, (lbs/ft)	374	360	348	337	327	317	309	301	293
		Stiffness, G', (10 ³ lbs/in)	47.2	45.5	44.0	42.5	41.2	39.9	38.7	37.6	36.5
	24	Strength, (lbs/ft)	420	407	394	383	373	364	355	347	340
		Stiffness, G', (10 ³ lbs/in)	47.7	46.0	44.5	43.1	41.7	40.5	39.3	38.1	37.1
	12	Strength, (lbs/ft)	560	546	534	523	513	503	495	487	479
		Stiffness, G', (10 ³ lbs/in)	49.2	47.6	46.1	44.7	43.4	42.1	41.0	39.9	38.8
	9	Strength, (lbs/ft)	653	639	627	616	606	596	588	580	572
		Stiffness, G', (10 ³ lbs/in)	50.2	48.6	47.1	45.7	44.4	43.2	42.1	41.0	40.0
	6	Strength, (lbs/ft)	839	825	813	802	792	782	774	766	758
		Stiffness, G', (10 ³ lbs/in)	52.1	50.6	49.1	47.8	46.5	45.4	44.2	43.2	42.2

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/3	36	Strength, (lbs/ft)	256	251	247	243	239	236	232	229	227
		Stiffness, G', (10 ³ lbs/in)	19.5	19.0	18.5	18.1	17.7	17.2	16.8	16.5	16.1
	24	Strength, (lbs/ft)	329	324	320	316	312	308	305	302	299
		Stiffness, G', (10 ³ lbs/in)	20.0	19.6	19.1	18.7	18.3	17.9	17.5	17.1	16.8
	12	Strength, (lbs/ft)	534	529	525	521	517	513	510	507	504
		Stiffness, G', (10 ³ lbs/in)	21.6	21.2	20.8	20.4	20.0	19.7	19.3	19.0	18.7
	9	Strength, (lbs/ft)	645	641	637	633	630	627	624	621	618
		Stiffness, G', (10 ³ lbs/in)	22.6	22.2	21.9	21.5	21.2	20.8	20.5	20.2	19.9
	6	Strength, (lbs/ft)	831	828	825	822	819	817	815	812	810
		Stiffness, G', (10 ³ lbs/in)	24.5	24.2	23.9	23.6	23.4	23.1	22.8	22.5	22.3
24/5	36	Strength, (lbs/ft)	301	294	288	282	277	272	267	263	259
		Stiffness, G', (10 ³ lbs/in)	33.0	31.8	30.7	29.6	28.7	27.8	26.9	26.1	25.4
	24	Strength, (lbs/ft)	373	367	360	355	349	345	340	336	332
		Stiffness, G', (10 ³ lbs/in)	33.7	32.5	31.4	30.4	29.4	28.5	27.7	26.9	26.2
	12	Strength, (lbs/ft)	591	585	578	573	567	563	558	554	550
		Stiffness, G', (10 ³ lbs/in)	35.8	34.7	33.6	32.6	31.6	30.8	29.9	29.2	28.4
	9	Strength, (lbs/ft)	737	730	724	718	713	708	703	699	694
		Stiffness, G', (10 ³ lbs/in)	37.2	36.1	35.0	34.0	33.1	32.2	31.4	30.6	29.9
	6	Strength, (lbs/ft)	992	985	979	973	968	963	959	955	951
		Stiffness, G', (10 ³ lbs/in)	40.0	38.9	37.8	36.9	36.0	35.1	34.3	33.6	32.9
24/7	36	Strength, (lbs/ft)	452	438	426	415	405	395	386	378	370
		Stiffness, G', (10 ³ lbs/in)	50.7	48.9	47.3	45.8	44.4	43.0	41.8	40.6	39.4
	24	Strength, (lbs/ft)	524	511	499	488	477	468	459	450	443
		Stiffness, G', (10 ³ lbs/in)	51.3	49.6	47.9	46.4	45.0	43.7	42.4	41.3	40.1
	12	Strength, (lbs/ft)	742	729	717	706	695	686	677	668	661
		Stiffness, G', (10 ³ lbs/in)	53.2	51.5	49.9	48.4	47.0	45.7	44.5	43.3	42.2
	9	Strength, (lbs/ft)	888	874	862	851	841	831	822	814	806
		Stiffness, G', (10 ³ lbs/in)	54.4	52.7	51.2	49.7	48.3	47.0	45.8	44.7	43.6
	6	Strength, (lbs/ft)	1 168	1 154	1 142	1 131	1 120	1 110	1 101	1 093	1 085
		Stiffness, G', (10 ³ lbs/in)	56.8	55.2	53.7	52.2	50.9	49.6	48.4	47.3	46.3

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	36	Strength, (lbs/ft)	175	171	168	165	162	159	157	155	153
		Stiffness, G', (10 ³ lbs/in)	9.5	9.8	10.0	10.2	10.4	10.6	10.8	10.9	11.0
	24	Strength, (lbs/ft)	230	226	222	219	216	214	212	209	208
		Stiffness, G', (10 ³ lbs/in)	10.0	10.4	10.7	11.0	11.2	11.5	11.7	11.9	12.1
	12	Strength, (lbs/ft)	362	359	355	353	350	348	346	344	342
		Stiffness, G', (10 ³ lbs/in)	11.0	11.5	11.9	12.3	12.8	13.1	13.5	13.9	14.2
	9	Strength, (lbs/ft)	429	426	424	422	420	418	416	414	413
		Stiffness, G', (10 ³ lbs/in)	11.4	11.9	12.4	12.9	13.4	13.8	14.3	14.7	15.1
	6	Strength, (lbs/ft)	529	527	525	524	522	521	520	519	518
		Stiffness, G', (10 ³ lbs/in)	12.0	12.5	13.1	13.7	14.2	14.7	15.2	15.7	16.2
24/5	36	Strength, (lbs/ft)	206	201	196	191	187	183	180	177	174
		Stiffness, G', (10 ³ lbs/in)	30.4	29.7	29.1	28.4	27.9	27.3	26.8	26.3	25.9
	24	Strength, (lbs/ft)	261	255	250	246	242	238	234	231	229
		Stiffness, G', (10 ³ lbs/in)	33.6	33.0	32.4	31.9	31.4	30.9	30.5	30.1	29.7
	12	Strength, (lbs/ft)	425	419	414	410	405	401	398	394	391
		Stiffness, G', (10 ³ lbs/in)	41.6	41.3	41.0	40.8	40.5	40.3	40.1	39.8	39.6
	9	Strength, (lbs/ft)	519	514	509	504	500	496	493	490	487
		Stiffness, G', (10 ³ lbs/in)	46.0	45.9	45.8	45.7	45.6	45.5	45.4	45.2	45.1
	6	Strength, (lbs/ft)	687	682	678	674	671	667	665	662	659
		Stiffness, G', (10 ³ lbs/in)	53.3	53.5	53.6	53.8	53.9	54.0	54.1	54.2	54.2
24/7	36	Strength, (lbs/ft)	314	302	291	281	273	265	258	251	245
		Stiffness, G', (10 ³ lbs/in)	40.6	39.8	38.9	38.1	37.4	36.6	35.9	35.2	34.6
	24	Strength, (lbs/ft)	368	356	346	336	327	320	312	306	300
		Stiffness, G', (10 ³ lbs/in)	43.0	42.3	41.5	40.9	40.2	39.6	39.0	38.4	37.8
	12	Strength, (lbs/ft)	532	520	509	500	491	483	476	470	464
		Stiffness, G', (10 ³ lbs/in)	49.1	48.8	48.4	48.0	47.6	47.2	46.9	46.5	46.1
	9	Strength, (lbs/ft)	639	627	617	607	598	590	583	576	570
		Stiffness, G', (10 ³ lbs/in)	52.6	52.4	52.2	52.0	51.8	51.5	51.3	51.1	50.9
	6	Strength, (lbs/ft)	811	800	791	782	775	768	761	755	750
		Stiffness, G', (10 ³ lbs/in)	58.4	58.6	58.7	58.7	58.8	58.8	58.8	58.8	58.7

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	36	Strength, (lbs/ft)	201	197	194	191	188	185	183	181	179
		Stiffness, G', (10 ³ lbs/in)	13.5	13.7	13.9	14.0	14.1	14.3	14.4	14.4	14.5
	24	Strength, (lbs/ft)	266	262	259	256	253	251	249	246	245
		Stiffness, G', (10 ³ lbs/in)	14.6	14.9	15.2	15.4	15.7	15.9	16.1	16.3	16.4
	12	Strength, (lbs/ft)	426	422	419	417	414	412	410	408	406
		Stiffness, G', (10 ³ lbs/in)	16.8	17.4	17.8	18.3	18.7	19.1	19.5	19.9	20.3
	9	Strength, (lbs/ft)	507	505	502	500	498	496	494	493	491
		Stiffness, G', (10 ³ lbs/in)	17.8	18.4	19.0	19.5	20.0	20.6	21.0	21.5	22.0
	6	Strength, (lbs/ft)	628	626	625	623	622	621	620	619	618
		Stiffness, G', (10 ³ lbs/in)	19.1	19.8	20.5	21.2	21.8	22.4	23.0	23.6	24.2
24/5	36	Strength, (lbs/ft)	234	229	224	219	215	211	208	205	202
		Stiffness, G', (10 ³ lbs/in)	33.3	32.5	31.8	31.1	30.5	29.8	29.3	28.8	28.3
	24	Strength, (lbs/ft)	299	294	289	285	281	277	274	271	268
		Stiffness, G', (10 ³ lbs/in)	37.4	36.7	36.0	35.4	34.9	34.3	33.8	33.3	32.9
	12	Strength, (lbs/ft)	496	490	485	481	476	472	469	465	462
		Stiffness, G', (10 ³ lbs/in)	48.0	47.6	47.1	46.7	46.4	46.0	45.7	45.4	45.1
	9	Strength, (lbs/ft)	609	604	599	594	590	587	583	580	577
		Stiffness, G', (10 ³ lbs/in)	54.0	53.7	53.4	53.2	52.9	52.7	52.4	52.2	52.0
	6	Strength, (lbs/ft)	812	807	803	799	796	793	790	787	785
		Stiffness, G', (10 ³ lbs/in)	64.0	64.0	64.0	64.0	63.9	63.9	63.8	63.8	63.7
24/7	36	Strength, (lbs/ft)	348	336	326	317	308	300	293	287	281
		Stiffness, G', (10 ³ lbs/in)	45.4	44.3	43.2	42.3	41.4	40.5	39.7	38.9	38.1
	24	Strength, (lbs/ft)	413	402	391	382	374	366	359	352	346
		Stiffness, G', (10 ³ lbs/in)	48.6	47.7	46.7	45.9	45.0	44.2	43.5	42.8	42.1
	12	Strength, (lbs/ft)	610	598	588	579	570	563	556	549	543
		Stiffness, G', (10 ³ lbs/in)	57.2	56.6	56.0	55.4	54.8	54.2	53.7	53.2	52.7
	9	Strength, (lbs/ft)	738	726	716	707	698	690	683	676	670
		Stiffness, G', (10 ³ lbs/in)	62.2	61.7	61.3	60.8	60.4	60.0	59.6	59.2	58.8
	6	Strength, (lbs/ft)	947	937	927	919	911	904	898	892	886
		Stiffness, G', (10 ³ lbs/in)	70.6	70.5	70.3	70.1	69.9	69.7	69.6	69.4	69.2

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	36	Strength, (lbs/ft)	257	253	249	246	243	240	238	235	233
		Stiffness, G', (10 ³ lbs/in)	20.4	20.5	20.5	20.4	20.4	20.4	20.4	20.3	20.3
	24	Strength, (lbs/ft)	344	340	336	333	330	327	325	323	320
		Stiffness, G', (10 ³ lbs/in)	23.0	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.8
	12	Strength, (lbs/ft)	556	553	550	547	544	542	539	537	535
		Stiffness, G', (10 ³ lbs/in)	28.5	29.0	29.5	29.9	30.3	30.7	31.1	31.4	31.7
	9	Strength, (lbs/ft)	666	663	661	658	656	654	652	650	649
		Stiffness, G', (10 ³ lbs/in)	31.1	31.8	32.4	33.0	33.5	34.1	34.6	35.0	35.5
	6	Strength, (lbs/ft)	828	826	824	822	821	820	818	817	816
		Stiffness, G', (10 ³ lbs/in)	34.8	35.7	36.5	37.3	38.1	38.9	39.6	40.3	41.0
24/5	36	Strength, (lbs/ft)	296	290	285	280	276	272	268	265	261
		Stiffness, G', (10 ³ lbs/in)	38.5	37.6	36.7	35.9	35.2	34.5	33.9	33.2	32.7
	24	Strength, (lbs/ft)	384	378	372	368	363	359	355	352	349
		Stiffness, G', (10 ³ lbs/in)	44.0	43.1	42.3	41.6	40.9	40.3	39.7	39.1	38.6
	12	Strength, (lbs/ft)	644	638	633	627	623	618	614	610	607
		Stiffness, G', (10 ³ lbs/in)	58.5	57.9	57.3	56.7	56.2	55.7	55.3	54.8	54.4
	9	Strength, (lbs/ft)	795	790	784	780	775	771	767	764	760
		Stiffness, G', (10 ³ lbs/in)	67.0	66.5	66.0	65.5	65.1	64.7	64.4	64.0	63.7
	6	Strength, (lbs/ft)	1 067	1 062	1 057	1 053	1 049	1 046	1 042	1 039	1 037
		Stiffness, G', (10 ³ lbs/in)	81.6	81.3	81.1	80.8	80.6	80.3	80.1	79.9	79.7
24/7	36	Strength, (lbs/ft)	431	419	407	397	388	379	372	364	357
		Stiffness, G', (10 ³ lbs/in)	53.4	52.0	50.7	49.5	48.3	47.3	46.3	45.3	44.5
	24	Strength, (lbs/ft)	518	506	495	485	475	467	459	452	445
		Stiffness, G', (10 ³ lbs/in)	58.0	56.7	55.5	54.4	53.3	52.3	51.4	50.5	49.7
	12	Strength, (lbs/ft)	780	768	757	747	738	729	721	714	707
		Stiffness, G', (10 ³ lbs/in)	70.5	69.5	68.5	67.6	66.8	66.0	65.3	64.6	63.9
	9	Strength, (lbs/ft)	950	938	926	916	907	898	890	882	875
		Stiffness, G', (10 ³ lbs/in)	77.8	77.0	76.2	75.4	74.7	74.1	73.5	72.9	72.3
	6	Strength, (lbs/ft)	1 231	1 220	1 210	1 201	1 192	1 184	1 177	1 170	1 164
		Stiffness, G', (10 ³ lbs/in)	90.6	90.0	89.5	89.0	88.5	88.1	87.7	87.3	86.9

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)									
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	
24/3	36	Strength, (lbs/ft)	309	306	302	299	295	293	290	287	285	
		Stiffness, G', (10 ³ lbs/in)	26.0	25.8	25.7	25.5	25.3	25.2	25.0	24.9	24.7	
	24	Strength, (lbs/ft)	419	415	411	408	405	402	399	397	394	
		Stiffness, G', (10 ³ lbs/in)	30.1	30.1	30.1	30.1	30.0	30.0	29.9	29.9	29.8	
	12	Strength, (lbs/ft)	684	680	677	674	671	668	666	664	662	
		Stiffness, G', (10 ³ lbs/in)	39.8	40.2	40.5	40.8	41.1	41.4	41.6	41.8	42.0	
	9	Strength, (lbs/ft)	821	818	816	813	811	809	807	805	803	
		Stiffness, G', (10 ³ lbs/in)	44.7	45.2	45.8	46.2	46.7	47.1	47.5	47.9	48.3	
	6	Strength, (lbs/ft)	1 023	1 021	1 019	1 018	1 016	1 015	1 014	1 012	1 011	
		Stiffness, G', (10 ³ lbs/in)	51.9	52.8	53.6	54.4	55.2	55.9	56.6	57.2	57.9	
	24/5	36	Strength, (lbs/ft)	354	348	343	338	333	329	325	321	318
			Stiffness, G', (10 ³ lbs/in)	42.1	41.2	40.3	39.4	38.7	38.0	37.3	36.7	36.1
24		Strength, (lbs/ft)	463	457	452	447	442	438	434	430	427	
		Stiffness, G', (10 ³ lbs/in)	48.7	47.8	47.0	46.2	45.5	44.8	44.2	43.6	43.0	
12		Strength, (lbs/ft)	788	781	775	770	765	760	756	752	749	
		Stiffness, G', (10 ³ lbs/in)	66.6	65.9	65.2	64.6	64.0	63.5	62.9	62.5	62.0	
9		Strength, (lbs/ft)	977	971	965	960	956	951	947	944	940	
		Stiffness, G', (10 ³ lbs/in)	77.2	76.6	76.1	75.5	75.0	74.5	74.1	73.7	73.3	
6		Strength, (lbs/ft)	1 316	1 311	1 307	1 302	1 298	1 295	1 291	1 288	1 285	
		Stiffness, G', (10 ³ lbs/in)	95.9	95.5	95.1	94.7	94.3	94.0	93.7	93.4	93.1	
24/7		36	Strength, (lbs/ft)	505	493	481	471	461	452	444	436	428
			Stiffness, G', (10 ³ lbs/in)	58.7	57.2	55.8	54.5	53.3	52.2	51.1	50.1	49.1
	24	Strength, (lbs/ft)	614	602	590	580	570	561	553	545	538	
		Stiffness, G', (10 ³ lbs/in)	64.5	63.1	61.8	60.6	59.4	58.3	57.3	56.4	55.5	
	12	Strength, (lbs/ft)	942	930	918	908	898	889	881	873	865	
		Stiffness, G', (10 ³ lbs/in)	80.3	79.2	78.1	77.1	76.1	75.2	74.4	73.6	72.9	
	9	Strength, (lbs/ft)	1 152	1 140	1 128	1 117	1 107	1 098	1 089	1 081	1 074	
		Stiffness, G', (10 ³ lbs/in)	89.8	88.8	87.8	87.0	86.1	85.3	84.6	83.9	83.2	
	6	Strength, (lbs/ft)	1 505	1 494	1 484	1 474	1 465	1 457	1 449	1 442	1 435	
		Stiffness, G', (10 ³ lbs/in)	106.6	105.8	105.1	104.4	103.8	103.2	102.6	102.0	101.5	

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/4	36	Strength, (lbs/ft)	143	137	131	126	122	118	114	111	108
		Stiffness, G', (10 ³ lbs/in)	16.4	16.3	16.1	15.9	15.7	15.5	15.2	15.0	14.7
	24	Strength, (lbs/ft)	162	155	150	145	140	136	132	129	126
		Stiffness, G', (10 ³ lbs/in)	16.6	16.5	16.3	16.1	16.0	15.7	15.5	15.3	15.0
	12	Strength, (lbs/ft)	216	210	204	199	195	190	187	183	180
		Stiffness, G', (10 ³ lbs/in)	17.1	17.0	16.9	16.8	16.6	16.5	16.3	16.1	15.9
	9	Strength, (lbs/ft)	252	246	240	235	231	227	223	220	217
		Stiffness, G', (10 ³ lbs/in)	17.4	17.4	17.3	17.2	17.1	17.0	16.8	16.6	16.5
	6	Strength, (lbs/ft)	325	319	313	308	304	299	296	292	289
		Stiffness, G', (10 ³ lbs/in)	18.0	18.0	18.0	18.0	17.9	17.8	17.7	17.6	17.5
24/6	36	Strength, (lbs/ft)	251	238	227	217	208	199	192	185	179
		Stiffness, G', (10 ³ lbs/in)	21.0	21.1	21.2	21.2	21.2	21.1	21.0	20.8	20.7
	24	Strength, (lbs/ft)	269	256	245	235	226	218	210	203	197
		Stiffness, G', (10 ³ lbs/in)	21.1	21.2	21.3	21.4	21.3	21.3	21.2	21.0	20.9
	12	Strength, (lbs/ft)	323	311	299	289	280	272	265	258	252
		Stiffness, G', (10 ³ lbs/in)	21.4	21.6	21.7	21.7	21.8	21.7	21.7	21.6	21.5
	9	Strength, (lbs/ft)	360	347	336	326	317	308	301	294	288
		Stiffness, G', (10 ³ lbs/in)	21.5	21.8	21.9	22.0	22.0	22.0	22.0	21.9	21.8
	6	Strength, (lbs/ft)	432	420	408	398	389	381	374	367	361
		Stiffness, G', (10 ³ lbs/in)	21.9	22.1	22.3	22.5	22.6	22.6	22.6	22.6	22.5

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/4	36	Strength, (lbs/ft)	163	157	152	147	143	139	135	132	129
		Stiffness, G', (10 ³ lbs/in)	19.9	19.5	19.1	18.7	18.3	17.9	17.5	17.2	16.8
	24	Strength, (lbs/ft)	189	183	178	173	169	165	161	158	155
		Stiffness, G', (10 ³ lbs/in)	20.2	19.8	19.4	19.1	18.7	18.3	17.9	17.6	17.2
	12	Strength, (lbs/ft)	267	262	256	252	247	243	240	236	233
		Stiffness, G', (10 ³ lbs/in)	21.0	20.7	20.4	20.1	19.7	19.4	19.1	18.7	18.4
	9	Strength, (lbs/ft)	320	314	309	304	300	296	292	289	286
		Stiffness, G', (10 ³ lbs/in)	21.6	21.3	21.0	20.7	20.4	20.1	19.8	19.5	19.2
	6	Strength, (lbs/ft)	422	416	411	406	402	398	394	390	387
		Stiffness, G', (10 ³ lbs/in)	22.6	22.4	22.2	21.9	21.7	21.4	21.2	20.9	20.7
24/6	36	Strength, (lbs/ft)	276	265	254	244	236	228	220	214	207
		Stiffness, G', (10 ³ lbs/in)	27.3	27.1	26.8	26.5	26.2	25.8	25.5	25.1	24.7
	24	Strength, (lbs/ft)	303	291	280	271	262	254	246	240	234
		Stiffness, G', (10 ³ lbs/in)	27.5	27.3	27.0	26.7	26.4	26.1	25.8	25.4	25.0
	12	Strength, (lbs/ft)	381	369	359	349	340	332	325	318	312
		Stiffness, G', (10 ³ lbs/in)	28.0	27.9	27.7	27.4	27.2	26.9	26.6	26.2	25.9
	9	Strength, (lbs/ft)	433	422	411	401	393	385	377	371	364
		Stiffness, G', (10 ³ lbs/in)	28.4	28.2	28.1	27.9	27.6	27.4	27.1	26.8	26.5
	6	Strength, (lbs/ft)	538	526	516	506	497	489	482	475	469
		Stiffness, G', (10 ³ lbs/in)	29.0	29.0	28.9	28.7	28.5	28.3	28.1	27.9	27.6

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/4	36	Strength, (lbs/ft)	217	211	206	201	196	192	188	185	181
		Stiffness, G', (10 ³ lbs/in)	24.9	24.2	23.5	22.9	22.2	21.6	21.1	20.5	20.0
	24	Strength, (lbs/ft)	263	257	252	247	243	238	235	231	228
		Stiffness, G', (10 ³ lbs/in)	25.4	24.7	24.0	23.4	22.8	22.2	21.6	21.1	20.6
	12	Strength, (lbs/ft)	403	397	392	387	382	378	374	371	367
		Stiffness, G', (10 ³ lbs/in)	26.8	26.1	25.5	24.9	24.4	23.8	23.3	22.8	22.3
	9	Strength, (lbs/ft)	496	490	485	480	475	471	467	464	460
		Stiffness, G', (10 ³ lbs/in)	27.7	27.1	26.5	25.9	25.4	24.9	24.4	23.9	23.4
	6	Strength, (lbs/ft)	656	650	645	640	636	632	628	625	622
		Stiffness, G', (10 ³ lbs/in)	29.5	28.9	28.4	27.9	27.4	26.9	26.4	26.0	25.6
24/6	36	Strength, (lbs/ft)	352	339	328	318	308	300	292	284	278
		Stiffness, G', (10 ³ lbs/in)	36.8	36.0	35.3	34.5	33.8	33.0	32.3	31.6	30.9
	24	Strength, (lbs/ft)	398	386	374	364	355	346	338	331	324
		Stiffness, G', (10 ³ lbs/in)	37.2	36.4	35.7	34.9	34.2	33.5	32.7	32.1	31.4
	12	Strength, (lbs/ft)	538	525	514	504	494	486	478	470	464
		Stiffness, G', (10 ³ lbs/in)	38.2	37.5	36.8	36.1	35.4	34.7	34.1	33.4	32.8
	9	Strength, (lbs/ft)	631	618	607	597	587	579	571	563	557
		Stiffness, G', (10 ³ lbs/in)	38.9	38.2	37.6	36.9	36.2	35.6	34.9	34.3	33.7
	6	Strength, (lbs/ft)	812	800	789	779	769	760	752	745	738
		Stiffness, G', (10 ³ lbs/in)	40.2	39.6	39.0	38.4	37.8	37.2	36.6	36.1	35.5

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/4	36	Strength, (lbs/ft)	276	270	265	260	256	252	248	244	241
		Stiffness, G', (10 ³ lbs/in)	27.8	26.9	26.1	25.3	24.6	23.9	23.2	22.6	22.0
	24	Strength, (lbs/ft)	349	343	338	333	329	324	321	317	314
		Stiffness, G', (10 ³ lbs/in)	28.4	27.6	26.8	26.0	25.3	24.6	23.9	23.3	22.8
	12	Strength, (lbs/ft)	567	561	556	551	546	542	539	535	532
		Stiffness, G', (10 ³ lbs/in)	30.3	29.5	28.7	28.0	27.3	26.6	26.0	25.4	24.9
	9	Strength, (lbs/ft)	700	694	689	684	679	675	671	667	664
		Stiffness, G', (10 ³ lbs/in)	31.5	30.8	30.0	29.3	28.6	28.0	27.4	26.8	26.3
	6	Strength, (lbs/ft)	932	927	922	918	914	910	907	904	901
		Stiffness, G', (10 ³ lbs/in)	33.9	33.2	32.5	31.8	31.2	30.6	30.0	29.5	29.0
24/6	36	Strength, (lbs/ft)	427	415	404	393	384	375	367	359	352
		Stiffness, G', (10 ³ lbs/in)	42.9	41.8	40.7	39.6	38.6	37.6	36.7	35.8	35.0
	24	Strength, (lbs/ft)	500	488	476	466	456	447	439	432	424
		Stiffness, G', (10 ³ lbs/in)	43.4	42.3	41.2	40.2	39.2	38.2	37.3	36.4	35.6
	12	Strength, (lbs/ft)	718	705	694	684	674	665	657	650	642
		Stiffness, G', (10 ³ lbs/in)	44.9	43.9	42.8	41.8	40.9	40.0	39.1	38.2	37.4
	9	Strength, (lbs/ft)	863	851	840	829	820	811	803	795	788
		Stiffness, G', (10 ³ lbs/in)	45.9	44.9	43.9	42.9	42.0	41.1	40.2	39.4	38.6
	6	Strength, (lbs/ft)	1 116	1 105	1 094	1 084	1 075	1 066	1 059	1 051	1 044
		Stiffness, G', (10 ³ lbs/in)	47.9	46.9	46.0	45.1	44.2	43.3	42.5	41.7	41.0

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/4	36	Strength, (lbs/ft)	189	184	180	176	173	170	167	165	162
		Stiffness, G', (10 ³ lbs/in)	18.2	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	24	Strength, (lbs/ft)	244	239	235	231	228	225	222	219	217
		Stiffness, G', (10 ³ lbs/in)	19.4	19.7	19.9	20.1	20.2	20.3	20.4	20.5	20.6
	12	Strength, (lbs/ft)	399	394	390	386	383	380	377	374	372
		Stiffness, G', (10 ³ lbs/in)	22.3	22.8	23.3	23.8	24.2	24.6	24.9	25.2	25.5
	9	Strength, (lbs/ft)	484	480	476	473	469	467	464	462	459
		Stiffness, G', (10 ³ lbs/in)	23.7	24.3	25.0	25.5	26.1	26.6	27.0	27.5	27.9
	6	Strength, (lbs/ft)	628	625	621	619	616	614	612	610	608
		Stiffness, G', (10 ³ lbs/in)	25.6	26.5	27.3	28.1	28.8	29.5	30.2	30.8	31.4
24/6	36	Strength, (lbs/ft)	296	285	275	267	259	252	245	239	234
		Stiffness, G', (10 ³ lbs/in)	22.0	22.3	22.5	22.7	22.9	23.0	23.1	23.1	23.1
	24	Strength, (lbs/ft)	351	340	330	321	313	306	300	294	288
		Stiffness, G', (10 ³ lbs/in)	22.7	23.2	23.5	23.8	24.0	24.3	24.4	24.6	24.7
	12	Strength, (lbs/ft)	515	504	494	485	477	470	464	458	452
		Stiffness, G', (10 ³ lbs/in)	24.5	25.2	25.8	26.3	26.8	27.2	27.6	28.0	28.3
	9	Strength, (lbs/ft)	606	596	587	578	571	564	558	552	547
		Stiffness, G', (10 ³ lbs/in)	25.5	26.2	26.9	27.5	28.1	28.7	29.2	29.7	30.2
	6	Strength, (lbs/ft)	761	752	744	737	731	725	720	715	711
		Stiffness, G', (10 ³ lbs/in)	26.8	27.8	28.6	29.4	30.2	30.9	31.6	32.3	32.9

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/4	36	Strength, (lbs/ft)	215	211	207	203	200	197	194	192	189
		Stiffness, G', (10 ³ lbs/in)	23.1	23.0	22.9	22.8	22.6	22.5	22.3	22.2	22.0
	24	Strength, (lbs/ft)	281	276	272	269	266	262	260	257	255
		Stiffness, G', (10 ³ lbs/in)	25.3	25.4	25.4	25.4	25.4	25.4	25.3	25.3	25.2
	12	Strength, (lbs/ft)	467	462	458	455	451	448	445	442	440
		Stiffness, G', (10 ³ lbs/in)	30.5	30.9	31.3	31.6	31.9	32.2	32.4	32.6	32.8
	9	Strength, (lbs/ft)	570	566	562	559	556	553	550	548	546
		Stiffness, G', (10 ³ lbs/in)	33.1	33.7	34.2	34.7	35.2	35.6	36.0	36.3	36.7
	6	Strength, (lbs/ft)	744	741	738	735	733	731	728	727	725
		Stiffness, G', (10 ³ lbs/in)	37.0	37.8	38.6	39.4	40.1	40.7	41.3	41.9	42.5
24/6	36	Strength, (lbs/ft)	329	319	309	301	293	286	279	273	268
		Stiffness, G', (10 ³ lbs/in)	29.3	29.4	29.3	29.3	29.2	29.1	28.9	28.8	28.6
	24	Strength, (lbs/ft)	395	384	375	366	358	351	345	339	334
		Stiffness, G', (10 ³ lbs/in)	30.8	31.0	31.1	31.2	31.2	31.2	31.2	31.1	31.1
	12	Strength, (lbs/ft)	591	581	571	563	555	548	542	536	530
		Stiffness, G', (10 ³ lbs/in)	34.4	34.9	35.3	35.7	36.0	36.3	36.6	36.8	37.0
	9	Strength, (lbs/ft)	702	692	683	675	668	661	655	649	644
		Stiffness, G', (10 ³ lbs/in)	36.3	37.0	37.6	38.1	38.6	39.0	39.4	39.8	40.1
	6	Strength, (lbs/ft)	891	883	875	868	862	856	851	846	841
		Stiffness, G', (10 ³ lbs/in)	39.2	40.1	41.0	41.8	42.5	43.2	43.8	44.4	45.0

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/4	36	Strength, (lbs/ft)	274	269	265	261	257	254	251	248	246
		Stiffness, G', (10 ³ lbs/in)	30.6	30.2	29.8	29.4	29.1	28.7	28.4	28.0	27.7
	24	Strength, (lbs/ft)	362	357	352	348	345	342	338	336	333
		Stiffness, G', (10 ³ lbs/in)	34.6	34.3	34.0	33.8	33.5	33.3	33.1	32.8	32.6
	12	Strength, (lbs/ft)	608	604	599	595	591	588	585	582	579
		Stiffness, G', (10 ³ lbs/in)	44.4	44.5	44.6	44.7	44.7	44.8	44.8	44.8	44.8
	9	Strength, (lbs/ft)	747	742	738	734	731	728	725	722	720
		Stiffness, G', (10 ³ lbs/in)	49.6	49.9	50.2	50.5	50.7	50.9	51.1	51.3	51.5
	6	Strength, (lbs/ft)	979	976	972	969	967	964	962	960	958
		Stiffness, G', (10 ³ lbs/in)	57.9	58.6	59.2	59.8	60.3	60.8	61.3	61.7	62.1
24/6	36	Strength, (lbs/ft)	409	398	387	378	370	362	355	348	342
		Stiffness, G', (10 ³ lbs/in)	41.0	40.6	40.1	39.6	39.1	38.7	38.2	37.7	37.3
	24	Strength, (lbs/ft)	496	485	475	466	457	449	442	435	429
		Stiffness, G', (10 ³ lbs/in)	44.0	43.7	43.4	43.1	42.7	42.4	42.0	41.7	41.3
	12	Strength, (lbs/ft)	758	747	737	728	719	711	704	698	691
		Stiffness, G', (10 ³ lbs/in)	51.7	51.7	51.8	51.8	51.8	51.8	51.8	51.7	51.6
	9	Strength, (lbs/ft)	906	896	886	877	869	861	854	848	842
		Stiffness, G', (10 ³ lbs/in)	55.8	56.1	56.4	56.6	56.8	57.0	57.1	57.2	57.3
	6	Strength, (lbs/ft)	1 161	1 152	1 143	1 136	1 129	1 123	1 117	1 111	1 106
		Stiffness, G', (10 ³ lbs/in)	62.5	63.2	63.8	64.4	64.9	65.4	65.8	66.2	66.6

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/4	36	Strength, (lbs/ft)	329	324	320	316	312	309	305	302	300
		Stiffness, G', (10 ³ lbs/in)	35.8	35.2	34.6	34.1	33.6	33.2	32.7	32.3	31.9
	24	Strength, (lbs/ft)	438	434	429	425	421	418	415	412	409
		Stiffness, G', (10 ³ lbs/in)	41.3	40.8	40.4	40.0	39.6	39.2	38.8	38.5	38.1
	12	Strength, (lbs/ft)	746	741	736	732	728	724	721	718	715
		Stiffness, G', (10 ³ lbs/in)	55.5	55.4	55.3	55.1	55.0	54.9	54.7	54.6	54.5
	9	Strength, (lbs/ft)	919	914	910	906	903	900	896	894	891
		Stiffness, G', (10 ³ lbs/in)	63.5	63.5	63.6	63.6	63.7	63.7	63.7	63.7	63.7
	6	Strength, (lbs/ft)	1 209	1 206	1 203	1 200	1 197	1 194	1 192	1 190	1 188
		Stiffness, G', (10 ³ lbs/in)	76.6	77.0	77.4	77.7	78.1	78.4	78.6	78.9	79.1
24/6	36	Strength, (lbs/ft)	480	469	458	449	440	432	424	417	410
		Stiffness, G', (10 ³ lbs/in)	49.4	48.5	47.7	47.0	46.2	45.5	44.8	44.1	43.5
	24	Strength, (lbs/ft)	590	578	568	558	549	541	533	526	520
		Stiffness, G', (10 ³ lbs/in)	53.9	53.2	52.5	51.9	51.3	50.7	50.1	49.5	49.0
	12	Strength, (lbs/ft)	917	906	895	886	877	869	861	854	847
		Stiffness, G', (10 ³ lbs/in)	65.7	65.4	65.1	64.8	64.5	64.2	63.9	63.6	63.3
	9	Strength, (lbs/ft)	1 102	1 091	1 081	1 072	1 063	1 055	1 047	1 040	1 034
		Stiffness, G', (10 ³ lbs/in)	72.4	72.3	72.3	72.2	72.1	71.9	71.8	71.7	71.5
	6	Strength, (lbs/ft)	1 422	1 413	1 404	1 396	1 389	1 382	1 376	1 370	1 365
		Stiffness, G', (10 ³ lbs/in)	83.6	84.0	84.2	84.5	84.7	84.9	85.1	85.3	85.4

1.5 in. deck - 36 in. wide - 6 in. flute spacing
 Support connection: Hilti X-EDN19, X-EDNK22
 Side-lap connection: Button Punch @ 24 in. o.c.
 Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
 2.5 in. thick concrete over deck
 Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
36/4	Strength, (lbs/ft)	2 806	2 758	2 722	2 693	2 671	2 653	2 637	2 624	2 613
	Stiffness, G', (10 ³ lbs/in)	2 459	2 451	2 444	2 439	2 434	2 430	2 427	2 424	2 421
36/7	Strength, (lbs/ft)	2 955	2 886	2 834	2 793	2 761	2 734	2 712	2 693	2 677
	Stiffness, G', (10 ³ lbs/in)	2 483	2 474	2 466	2 459	2 454	2 449	2 445	2 441	2 437
36/9	Strength, (lbs/ft)	3 292	3 174	3 086	3 017	2 962	2 918	2 880	2 848	2 821
	Stiffness, G', (10 ³ lbs/in)	2 509	2 499	2 491	2 483	2 477	2 471	2 466	2 462	2 458

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	Strength, (lbs/ft)	2 788	2 755	2 729	2 707	2 689	2 674	2 661	2 650	2 640
	Stiffness, G', (10 ³ lbs/in)	2 453	2 446	2 441	2 436	2 432	2 429	2 426	2 423	2 421
36/7	Strength, (lbs/ft)	2 921	2 874	2 835	2 804	2 778	2 756	2 738	2 721	2 707
	Stiffness, G', (10 ³ lbs/in)	2 478	2 470	2 464	2 458	2 453	2 449	2 445	2 441	2 438
36/9	Strength, (lbs/ft)	3 222	3 141	3 076	3 023	2 979	2 941	2 909	2 882	2 857
	Stiffness, G', (10 ³ lbs/in)	2 507	2 498	2 491	2 484	2 478	2 473	2 468	2 464	2 460

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	Strength, (lbs/ft)	2 850	2 823	2 800	2 781	2 765	2 751	2 739	2 728	2 718
	Stiffness, G', (10 ³ lbs/in)	2 453	2 448	2 443	2 439	2 435	2 432	2 429	2 426	2 424
36/7	Strength, (lbs/ft)	2 991	2 951	2 918	2 890	2 866	2 845	2 827	2 811	2 796
	Stiffness, G', (10 ³ lbs/in)	2 481	2 474	2 468	2 463	2 458	2 454	2 450	2 446	2 443
36/9	Strength, (lbs/ft)	3 307	3 239	3 182	3 134	3 092	3 056	3 025	2 997	2 972
	Stiffness, G', (10 ³ lbs/in)	2 515	2 507	2 499	2 493	2 487	2 482	2 477	2 472	2 468

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
36/4	Strength, (lbs/ft)	2 922	2 899	2 880	2 864	2 849	2 836	2 825	2 815	2 806
	Stiffness, G', (10 ³ lbs/in)	2 452	2 447	2 443	2 439	2 436	2 433	2 430	2 428	2 426
36/7	Strength, (lbs/ft)	3 066	3 033	3 004	2 979	2 958	2 939	2 922	2 906	2 893
	Stiffness, G', (10 ³ lbs/in)	2 481	2 475	2 469	2 464	2 460	2 456	2 452	2 449	2 446
36/9	Strength, (lbs/ft)	3 392	3 334	3 284	3 240	3 202	3 169	3 139	3 112	3 088
	Stiffness, G', (10 ³ lbs/in)	2 519	2 511	2 504	2 497	2 492	2 486	2 482	2 477	2 473

1.5 in. deck - 36 in. wide - 6 in. flute spacing
 Support connection: Hilti X-EDN19, X-EDNK22
 Side-lap connection: #10 Screws @ 24 in. o.c.
 Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
 2.5 in. thick concrete over deck
 Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
36/4	Strength, (lbs/ft)	2 842	2 805	2 776	2 754	2 737	2 722	2 710	2 700	2 691
	Stiffness, G', (10 ³ lbs/in)	2 463	2 456	2 451	2 447	2 443	2 440	2 437	2 435	2 433
36/7	Strength, (lbs/ft)	2 992	2 933	2 888	2 854	2 826	2 804	2 785	2 769	2 755
	Stiffness, G', (10 ³ lbs/in)	2 486	2 478	2 471	2 466	2 461	2 457	2 453	2 450	2 447
36/9	Strength, (lbs/ft)	3 328	3 221	3 141	3 078	3 028	2 987	2 953	2 924	2 899
	Stiffness, G', (10 ³ lbs/in)	2 511	2 502	2 494	2 488	2 482	2 477	2 473	2 469	2 466

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	Strength, (lbs/ft)	2 847	2 820	2 799	2 782	2 768	2 756	2 746	2 737	2 729
	Stiffness, G', (10 ³ lbs/in)	2 460	2 455	2 451	2 447	2 444	2 442	2 439	2 437	2 435
36/7	Strength, (lbs/ft)	2 980	2 939	2 906	2 880	2 857	2 838	2 822	2 808	2 796
	Stiffness, G', (10 ³ lbs/in)	2 484	2 477	2 472	2 467	2 463	2 459	2 456	2 453	2 451
36/9	Strength, (lbs/ft)	3 281	3 207	3 147	3 098	3 058	3 023	2 994	2 968	2 946
	Stiffness, G', (10 ³ lbs/in)	2 511	2 504	2 497	2 491	2 486	2 482	2 478	2 474	2 471

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	Strength, (lbs/ft)	2 923	2 901	2 882	2 866	2 853	2 841	2 831	2 822	2 814
	Stiffness, G', (10 ³ lbs/in)	2 466	2 461	2 457	2 454	2 451	2 449	2 447	2 445	2 443
36/7	Strength, (lbs/ft)	3 064	3 029	3 000	2 975	2 953	2 935	2 919	2 905	2 892
	Stiffness, G', (10 ³ lbs/in)	2 492	2 486	2 481	2 476	2 472	2 469	2 465	2 463	2 460
36/9	Strength, (lbs/ft)	3 381	3 317	3 264	3 218	3 180	3 146	3 117	3 091	3 068
	Stiffness, G', (10 ³ lbs/in)	2 524	2 516	2 510	2 504	2 499	2 494	2 490	2 486	2 483

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
36/4	Strength, (lbs/ft)	2 995	2 975	2 959	2 944	2 931	2 920	2 910	2 902	2 894
	Stiffness, G', (10 ³ lbs/in)	2 469	2 465	2 462	2 459	2 456	2 454	2 452	2 450	2 448
36/7	Strength, (lbs/ft)	3 140	3 109	3 083	3 060	3 040	3 023	3 007	2 993	2 980
	Stiffness, G', (10 ³ lbs/in)	2 496	2 491	2 486	2 482	2 478	2 475	2 472	2 469	2 467
36/9	Strength, (lbs/ft)	3 465	3 410	3 362	3 321	3 284	3 253	3 224	3 199	3 176
	Stiffness, G', (10 ³ lbs/in)	2 531	2 524	2 518	2 512	2 507	2 503	2 499	2 495	2 492

3.0 in. deck - 24 in. wide - 6 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22
Side-lap connection: Button Punch @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	Strength, (lbs/ft)	2 581	2 574	2 569	2 563	2 559	2 554	2 550	2 547	2 544
	Stiffness, G', (10 ³ lbs/in)	2 397	2 396	2 395	2 394	2 394	2 393	2 392	2 392	2 391
24/5	Strength, (lbs/ft)	2 613	2 604	2 597	2 590	2 584	2 578	2 573	2 569	2 565
	Stiffness, G', (10 ³ lbs/in)	2 406	2 404	2 403	2 402	2 401	2 400	2 399	2 398	2 397
24/7	Strength, (lbs/ft)	2 739	2 723	2 709	2 696	2 685	2 674	2 665	2 656	2 649
	Stiffness, G', (10 ³ lbs/in)	2 420	2 418	2 417	2 415	2 413	2 412	2 411	2 410	2 409

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	Strength, (lbs/ft)	2 609	2 603	2 597	2 592	2 588	2 584	2 580	2 576	2 573
	Stiffness, G', (10 ³ lbs/in)	2 397	2 396	2 396	2 395	2 394	2 393	2 393	2 392	2 392
24/5	Strength, (lbs/ft)	2 642	2 634	2 627	2 621	2 615	2 610	2 605	2 600	2 596
	Stiffness, G', (10 ³ lbs/in)	2 406	2 405	2 404	2 403	2 402	2 401	2 400	2 399	2 398
24/7	Strength, (lbs/ft)	2 776	2 761	2 748	2 735	2 724	2 714	2 705	2 697	2 689
	Stiffness, G', (10 ³ lbs/in)	2 421	2 420	2 418	2 416	2 415	2 413	2 412	2 411	2 410

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	Strength, (lbs/ft)	2 684	2 678	2 672	2 667	2 662	2 658	2 654	2 650	2 647
	Stiffness, G', (10 ³ lbs/in)	2 399	2 398	2 397	2 396	2 396	2 395	2 394	2 394	2 393
24/5	Strength, (lbs/ft)	2 724	2 716	2 708	2 702	2 695	2 690	2 684	2 680	2 675
	Stiffness, G', (10 ³ lbs/in)	2 409	2 407	2 406	2 405	2 404	2 403	2 402	2 401	2 401
24/7	Strength, (lbs/ft)	2 882	2 866	2 852	2 839	2 827	2 816	2 806	2 797	2 788
	Stiffness, G', (10 ³ lbs/in)	2 426	2 424	2 422	2 420	2 419	2 417	2 416	2 415	2 414

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/3	Strength, (lbs/ft)	2 770	2 764	2 759	2 754	2 749	2 745	2 741	2 737	2 733
	Stiffness, G', (10 ³ lbs/in)	2 400	2 399	2 398	2 397	2 397	2 396	2 396	2 395	2 394
24/5	Strength, (lbs/ft)	2 815	2 807	2 799	2 793	2 787	2 781	2 776	2 771	2 766
	Stiffness, G', (10 ³ lbs/in)	2 410	2 409	2 408	2 406	2 405	2 405	2 404	2 403	2 402
24/7	Strength, (lbs/ft)	2 992	2 977	2 962	2 949	2 937	2 926	2 915	2 905	2 896
	Stiffness, G', (10 ³ lbs/in)	2 428	2 426	2 425	2 423	2 422	2 420	2 419	2 418	2 416

3.0 in. deck - 24 in. wide - 6 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22
Side-lap connection: #10 Screws @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	Strength, (lbs/ft)	2 663	2 658	2 654	2 650	2 646	2 643	2 640	2 637	2 635
	Stiffness, G', (10 ³ lbs/in)	2 407	2 406	2 405	2 405	2 404	2 404	2 403	2 403	2 402
24/5	Strength, (lbs/ft)	2 695	2 688	2 682	2 676	2 671	2 667	2 663	2 659	2 656
	Stiffness, G', (10 ³ lbs/in)	2 414	2 413	2 412	2 411	2 411	2 410	2 409	2 408	2 408
24/7	Strength, (lbs/ft)	2 821	2 806	2 794	2 782	2 772	2 763	2 755	2 747	2 740
	Stiffness, G', (10 ³ lbs/in)	2 427	2 426	2 424	2 423	2 422	2 421	2 419	2 419	2 418

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	Strength, (lbs/ft)	2 701	2 696	2 692	2 688	2 684	2 681	2 678	2 676	2 673
	Stiffness, G', (10 ³ lbs/in)	2 409	2 408	2 407	2 407	2 406	2 406	2 405	2 405	2 405
24/5	Strength, (lbs/ft)	2 734	2 728	2 722	2 717	2 712	2 707	2 703	2 700	2 696
	Stiffness, G', (10 ³ lbs/in)	2 416	2 415	2 414	2 414	2 413	2 412	2 412	2 411	2 410
24/7	Strength, (lbs/ft)	2 868	2 854	2 842	2 831	2 821	2 812	2 804	2 796	2 789
	Stiffness, G', (10 ³ lbs/in)	2 430	2 429	2 427	2 426	2 425	2 424	2 423	2 422	2 421

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	Strength, (lbs/ft)	2 782	2 777	2 773	2 768	2 765	2 761	2 758	2 755	2 752
	Stiffness, G', (10 ³ lbs/in)	2 413	2 412	2 412	2 411	2 411	2 410	2 410	2 409	2 409
24/5	Strength, (lbs/ft)	2 822	2 815	2 809	2 803	2 798	2 793	2 788	2 784	2 780
	Stiffness, G', (10 ³ lbs/in)	2 422	2 421	2 420	2 419	2 418	2 417	2 417	2 416	2 415
24/7	Strength, (lbs/ft)	2 980	2 966	2 953	2 941	2 930	2 919	2 910	2 901	2 893
	Stiffness, G', (10 ³ lbs/in)	2 437	2 436	2 434	2 433	2 431	2 430	2 429	2 428	2 427

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/3	Strength, (lbs/ft)	2 860	2 855	2 850	2 846	2 842	2 838	2 835	2 831	2 828
	Stiffness, G', (10 ³ lbs/in)	2 417	2 416	2 415	2 415	2 414	2 414	2 413	2 413	2 413
24/5	Strength, (lbs/ft)	2 904	2 897	2 891	2 885	2 879	2 874	2 870	2 865	2 861
	Stiffness, G', (10 ³ lbs/in)	2 426	2 425	2 424	2 423	2 422	2 421	2 421	2 420	2 419
24/7	Strength, (lbs/ft)	3 082	3 067	3 054	3 041	3 030	3 019	3 009	3 000	2 991
	Stiffness, G', (10 ³ lbs/in)	2 442	2 441	2 439	2 438	2 437	2 435	2 434	2 433	2 432

3.0 in. deck - 24 in. wide - 8 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22
Side-lap connection: Button Punch @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

		Thickness = 0.030 in.									
Support Connection Pattern		Span (ft)									
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	
24/4	Strength, (lbs/ft)	2 595	2 588	2 581	2 575	2 570	2 565	2 561	2 557	2 553	
	Stiffness, G', (10 ³ lbs/in)	2 403	2 402	2 401	2 400	2 399	2 398	2 397	2 396	2 396	
24/6	Strength, (lbs/ft)	2 721	2 706	2 693	2 681	2 671	2 661	2 652	2 644	2 637	
	Stiffness, G', (10 ³ lbs/in)	2 419	2 417	2 415	2 413	2 412	2 411	2 409	2 408	2 407	

		Thickness = 0.036 in.									
Support Connection Pattern		Span (ft)									
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	
24/4	Strength, (lbs/ft)	2 624	2 617	2 611	2 605	2 600	2 595	2 591	2 587	2 583	
	Stiffness, G', (10 ³ lbs/in)	2 404	2 402	2 401	2 400	2 399	2 398	2 398	2 397	2 396	
24/6	Strength, (lbs/ft)	2 757	2 743	2 731	2 720	2 709	2 700	2 691	2 683	2 676	
	Stiffness, G', (10 ³ lbs/in)	2 420	2 418	2 416	2 415	2 413	2 412	2 411	2 410	2 408	

		Thickness = 0.048 in.									
Support Connection Pattern		Span (ft)									
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	
24/4	Strength, (lbs/ft)	2 702	2 695	2 688	2 682	2 677	2 672	2 668	2 663	2 659	
	Stiffness, G', (10 ³ lbs/in)	2 406	2 404	2 403	2 402	2 401	2 401	2 400	2 399	2 398	
24/6	Strength, (lbs/ft)	2 860	2 846	2 832	2 820	2 809	2 799	2 789	2 781	2 773	
	Stiffness, G', (10 ³ lbs/in)	2 423	2 422	2 420	2 418	2 417	2 416	2 414	2 413	2 412	

		Thickness = 0.060 in.									
Support Connection Pattern		Span (ft)									
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	
24/4	Strength, (lbs/ft)	2 790	2 783	2 777	2 771	2 766	2 761	2 756	2 752	2 748	
	Stiffness, G', (10 ³ lbs/in)	2 407	2 406	2 405	2 404	2 403	2 402	2 401	2 400	2 400	
24/6	Strength, (lbs/ft)	2 968	2 953	2 940	2 927	2 916	2 906	2 896	2 887	2 878	
	Stiffness, G', (10 ³ lbs/in)	2 426	2 424	2 422	2 421	2 419	2 418	2 417	2 416	2 414	

3.0 in. deck - 24 in. wide - 8 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22
Side-lap connection: #10 Screws @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/4	Strength, (lbs/ft)	2 677	2 671	2 666	2 661	2 657	2 654	2 650	2 647	2 644
	Stiffness, G', (10 ³ lbs/in)	2 412	2 411	2 410	2 410	2 409	2 408	2 408	2 407	2 406
24/6	Strength, (lbs/ft)	2 803	2 790	2 778	2 768	2 758	2 750	2 742	2 735	2 728
	Stiffness, G', (10 ³ lbs/in)	2 426	2 425	2 423	2 422	2 421	2 420	2 419	2 418	2 417

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/4	Strength, (lbs/ft)	2 716	2 710	2 705	2 701	2 697	2 693	2 689	2 686	2 683
	Stiffness, G', (10 ³ lbs/in)	2 414	2 413	2 413	2 412	2 411	2 410	2 410	2 409	2 409
24/6	Strength, (lbs/ft)	2 849	2 837	2 825	2 815	2 806	2 797	2 790	2 782	2 776
	Stiffness, G', (10 ³ lbs/in)	2 429	2 427	2 426	2 425	2 424	2 422	2 421	2 421	2 420

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/4	Strength, (lbs/ft)	2 800	2 794	2 789	2 784	2 779	2 775	2 771	2 768	2 765
	Stiffness, G', (10 ³ lbs/in)	2 419	2 418	2 417	2 417	2 416	2 415	2 415	2 414	2 414
24/6	Strength, (lbs/ft)	2 958	2 945	2 933	2 922	2 911	2 902	2 893	2 885	2 878
	Stiffness, G', (10 ³ lbs/in)	2 435	2 434	2 432	2 431	2 430	2 429	2 428	2 427	2 426

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/4	Strength, (lbs/ft)	2 880	2 874	2 868	2 863	2 859	2 854	2 850	2 846	2 843
	Stiffness, G', (10 ³ lbs/in)	2 423	2 422	2 421	2 421	2 420	2 419	2 419	2 418	2 417
24/6	Strength, (lbs/ft)	3 058	3 044	3 031	3 020	3 009	2 999	2 990	2 981	2 973
	Stiffness, G', (10 ³ lbs/in)	2 440	2 439	2 437	2 436	2 435	2 434	2 433	2 432	2 431