

## CHICAGO / ENERGY SAVINGS

GLASS TYPE	GLASS TO WALL RATIO	SHADING	EAST	EAST	SOUTH	SOUTH	WEST	WEST
			% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED
<b>Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	9.10%	19.00%	11.60%	28.20%	8.30%	23.00%
		OV = 4.20 ft	12.10%	25.40%	14.50%	30.20%	12.00%	29.40%
	Large / 60%	OV = 3.36 ft	13.10%	22.20%	17.10%	36.50%	13.00%	22.70%
		OV = 5.04 ft	17.40%	31.50%	22.20%	49.30%	18.50%	32.30%
<b>B- Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	5.50%	16.80%	6.20%	13.40%	5.00%	19.80%
		OV = 4.20 ft	5.90%	21.40%	5.50%	14.60%	5.90%	22.60%
	Large / 60%	OV = 3.36 ft	10.40%	19.20%	14.00%	37.90%	9.40%	25.00%
		OV = 5.04 ft	13.60%	28.20%	19.00%	41.90%	13.60%	34.30%
<b>Low-E B-Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	3.50%	13.20%	4.50%	8.60%	3.50%	15.50%
		OV = 4.20 ft	3.90%	19.10%	3.80%	9.90%	3.70%	17.00%
	Large / 60%	OV = 3.36 ft	9.40%	17.90%	13.60%	36.00%	9.10%	24.50%
		OV = 5.04 ft	12.70%	26.90%	18.10%	40.70%	13.20%	33.60%
<b>Low-E Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	1.90%	12.20%	2.40%	5.40%	1.60%	8.50%
		OV = 4.20 ft	2.20%	15.30%	1.70%	6.30%	1.70%	10.10%
	Large / 60%	OV = 3.36 ft	9.80%	18.20%	12.70%	38.80%	9.10%	23.80%
		OV = 5.04 ft	12.90%	25.50%	16.60%	36.70%	12.90%	31.40%

**OV** = Overhead Shade+ overhang depth shown    **B-Tint** = Bronze tint    **(2)**= double glazed window

Center for sustainable Building Research - University of Minnesota. For full study results including Glare control go to [www.AMCA.org](http://www.AMCA.org)

## HOUSTON / ENERGY SAVINGS

GLASS TYPE	GLASS TO WALL RATIO	SHADING	EAST	EAST	SOUTH	SOUTH	WEST	WEST
			% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED
<b>Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	9.50%	13.80%	12.20%	13.90%	9.20%	13.20%
		OV = 4.20 ft	12.80%	22.10%	16.10%	22.40%	12.30%	18.80%
	Large / 60%	OV = 3.36 ft	15.80%	22.30%	19.30%	35.00%	14.50%	21.50%
		OV = 5.04 ft	20.60%	30.50%	25.60%	41.10%	19.00%	31.60%
<b>B- Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	5.80%	13.70%	8.30%	13.40%	6.00%	13.00%
		OV = 4.20 ft	7.20%	15.30%	9.70%	14.60%	7.70%	14.60%
	Large / 60%	OV = 3.36 ft	11.60%	18.40%	15.30%	29.90%	12.00%	22.40%
		OV = 5.04 ft	16.20%	27.70%	20.10%	34.20%	15.40%	30.20%
<b>Low-E B-Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	4.50%	10.50%	7.00%	12.70%	4.90%	9.90%
		OV = 4.20 ft	5.70%	11.10%	8.00%	12.90%	6.10%	10.60%
	Large / 60%	OV = 3.36 ft	10.80%	18.10%	14.20%	25.30%	11.10%	21.80%
		OV = 5.04 ft	15.00%	24.30%	18.60%	29.70%	14.30%	25.40%
<b>Low-E Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	4.00%	3.80%	6.60%	12.80%	4.30%	6.90%
		OV = 4.20 ft	5.20%	4.60%	7.60%	12.70%	5.50%	7.40%
	Large / 60%	OV = 3.36 ft	10.10%	13.60%	13.10%	19.60%	10.30%	15.80%
		OV = 5.04 ft	13.80%	19.60%	17.20%	23.60%	13.30%	19.40%

**OV** = Overhead Shade+ overhang depth shown    **B-Tint** = Bronze tint    **(2)**= double glazed window

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## LOS ANGELES / ENERGY SAVINGS

GLASS TYPE	GLASS TO WALL RATIO	SHADING	EAST	EAST	SOUTH	SOUTH	WEST	WEST
			% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED
<b>Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	11.70%	19.50%	15.50%	23.40%	12.30%	22.80%
		OV = 4.20 ft	16.10%	29.50%	21.90%	33.10%	16.60%	32.70%
	Large / 60%	OV = 3.36 ft	17.00%	23.10%	21.20%	24.20%	18.40%	22.90%
		OV = 5.04 ft	23.40%	33.00%	29.60%	35.80%	24.60%	32.40%
<b>B- Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	7.10%	18.20%	11.50%	20.10%	7.00%	18.30%
		OV = 4.20 ft	8.20%	24.80%	15.60%	28.40%	8.30%	23.80%
	Large / 60%	OV = 3.36 ft	14.40%	22.60%	18.00%	23.20%	15.20%	21.20%
		OV = 5.04 ft	19.20%	33.00%	25.10%	34.40%	20.10%	30.90%
<b>Low-E B-Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	5.10%	16.70%	10.50%	18.10%	5.40%	17.00%
		OV = 4.20 ft	6.10%	21.40%	13.20%	26.00%	6.60%	22.10%
	Large / 60%	OV = 3.36 ft	13.50%	21.30%	17.30%	23.00%	14.30%	20.90%
		OV = 5.04 ft	17.90%	30.90%	23.90%	34.10%	18.90%	30.30%
<b>Low-E Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	3.80%	14.20%	9.90%	16.30%	4.60%	14.80%
		OV = 4.20 ft	4.80%	18.90%	11.70%	23.80%	5.70%	16.50%
	Large / 60%	OV = 3.36 ft	12.80%	20.40%	16.20%	22.80%	13.20%	21.40%
		OV = 5.04 ft	17.40%	30.20%	22.30%	33.70%	17.70%	30.50%

**OV** = Overhead Shade+ overhang depth shown    **B-Tint** = Bronze tint    **(2)**= double glazed window

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# MINNEAPOLIS / ENERGY SAVINGS

GLASS TYPE	GLASS TO WALL RATIO	SHADING	EAST	EAST	SOUTH	SOUTH	WEST	WEST
			% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED
<b>Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	8.10%	17.80%	10.60%	31.10%	7.20%	18.00%
		OV = 4.20 ft	11.50%	25.90%	14.30%	36.30%	10.40%	24.20%
	Large / 60%	OV = 3.36 ft	13.20%	21.60%	15.90%	28.30%	11.30%	21.10%
		OV = 5.04 ft	17.90%	30.10%	21.40%	39.90%	16.00%	29.20%
<b>B- Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	6.80%	19.20%	6.10%	18.40%	4.00%	9.90%
		OV = 4.20 ft	7.70%	24.80%	5.90%	19.90%	5.10%	15.30%
	Large / 60%	OV = 3.36 ft	12.90%	21.20%	11.70%	28.80%	8.30%	19.90%
		OV = 5.04 ft	16.80%	29.90%	15.90%	40.20%	11.80%	29.10%
<b>Low-E B-Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	5.30%	17.70%	5.00%	12.70%	3.10%	10.10%
		OV = 4.20 ft	5.50%	22.40%	4.00%	14.00%	3.20%	13.70%
	Large / 60%	OV = 3.36 ft	12.40%	21.40%	11.80%	27.50%	8.00%	20.70%
		OV = 5.04 ft	16.10%	29.00%	15.90%	38.80%	11.20%	29.20%
<b>Low-E Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	2.50%	13.50%	3.30%	8.50%	1.70%	8.40%
		OV = 4.20 ft	2.80%	18.20%	2.30%	9.90%	1.80%	10.20%
	Large / 60%	OV = 3.36 ft	10.90%	21.20%	11.10%	28.90%	8.00%	20.30%
		OV = 5.04 ft	14.30%	28.70%	14.90%	38.80%	11.50%	26.90%

**OV** = Overhead Shade+ overhang depth shown    **B-Tint** = Bronze tint    **(2)**= double glazed window  
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# PHOENIX / ENERGY SAVINGS

GLASS TYPE	GLASS TO WALL RATIO	SHADING	EAST	EAST	SOUTH	SOUTH	WEST	WEST
			% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED
<b>Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	11.10%	16.30%	15.40%	11.90%	11.60%	9.00%
		OV = 4.20 ft	15.30%	24.60%	19.80%	20.20%	15.60%	11.80%
	Large / 60%	OV = 3.36 ft	16.70%	21.30%	21.90%	23.10%	16.90%	19.70%
		OV = 5.04 ft	22.40%	28.50%	28.10%	33.90%	22.80%	28.10%
<b>B- Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	8.10%	13.90%	11.40%	11.80%	8.10%	5.40%
		OV = 4.20 ft	11.20%	20.10%	14.50%	18.30%	11.00%	10.20%
	Large / 60%	OV = 3.36 ft	13.70%	18.40%	18.70%	23.80%	13.40%	17.00%
		OV = 5.04 ft	18.60%	23.40%	23.60%	29.20%	18.40%	25.50%
<b>Low-E B-Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	7.30%	12.90%	10.20%	11.60%	7.20%	6.50%
		OV = 4.20 ft	9.90%	16.20%	13.00%	17.40%	9.90%	11.70%
	Large / 60%	OV = 3.36 ft	12.90%	14.50%	17.70%	22.10%	12.70%	17.30%
		OV = 5.04 ft	17.60%	21.80%	22.40%	25.80%	17.50%	20.60%
<b>Low-E Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	7.20%	13.10%	10.30%	13.00%	7.30%	9.20%
		OV = 4.20 ft	9.50%	13.60%	13.00%	14.80%	9.90%	13.50%
	Large / 60%	OV = 3.36 ft	12.10%	13.60%	15.90%	17.40%	12.20%	11.40%
		OV = 5.04 ft	16.30%	20.70%	20.20%	21.60%	16.50%	15.90%

**OV** = Overhead Shade+ overhang depth shown    **B-Tint** = Bronze tint    **(2)**= double glazed window  
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## WASHINGTON DC / ENERGY SAVINGS

GLASS TYPE	GLASS TO WALL RATIO	SHADING	EAST	EAST	SOUTH	SOUTH	WEST	WEST
			% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED	% ENERGY SAVED/YR	% PEAK SAVED
<b>Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	8.90%	16.10%	10.00%	11.00%	7.60%	19.70%
		OV = 4.20 ft	12.90%	23.60%	14.20%	13.50%	11.10%	22.20%
	Large / 60%	OV = 3.36 ft	14.60%	22.40%	15.40%	35.80%	12.30%	18.90%
		OV = 5.04 ft	20.10%	31.90%	21.60%	44.50%	17.60%	28.00%
<b>B- Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	6.00%	13.50%	7.00%	5.70%	4.80%	10.60%
		OV = 4.20 ft	7.10%	17.30%	9.90%	7.90%	6.70%	14.30%
	Large / 60%	OV = 3.36 ft	10.90%	21.10%	12.40%	30.80%	9.00%	18.90%
		OV = 5.04 ft	15.20%	31.90%	17.60%	35.10%	13.10%	27.40%
<b>Low-E B-Tint (2)</b>	Mod. / 30%	OV = 2.80 ft	4.50%	13.50%	6.40%	5.40%	3.90%	11.60%
		OV = 4.20 ft	4.90%	15.10%	8.40%	9.70%	4.90%	13.60%
	Large / 60%	OV = 3.36 ft	10.10%	20.20%	11.90%	25.40%	8.80%	19.70%
		OV = 5.04 ft	14.30%	28.40%	16.80%	29.80%	12.60%	28.10%
<b>Low-E Clear (2)</b>	Mod. / 30%	OV = 2.80 ft	2.40%	7.50%	5.80%	6.90%	2.70%	9.40%
		OV = 4.20 ft	2.80%	9.70%	6.00%	9.40%	3.00%	10.00%
	Large / 60%	OV = 3.36 ft	10.30%	20.40%	11.10%	20.20%	8.50%	20.70%
		OV = 5.04 ft	14.00%	26.90%	15.50%	23.40%	12.20%	27.90%

**OV** = Overhead Shade+ overhang depth shown    **B-Tint** = Bronze tint    **(2)**= double glazed window

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