

# LCD LENS PROJECTION CALCULATORS

Courtesy of: Buhl Optical

## Projection Calculator for 1.3" Diagonal LCD Panel Projectors

Lenses for 1.3" Diagonal LCD Panel			Wide-Angle Lenses				Zoom Lenses						Fixed Focal Length Lenses		
Screen Size			1.0"	1.2"	1.4"	1.6"	2.75-5.0"	4.0-8.0"	4.4-7.4"	5.2-8.7"	6.0-9.0"	7.38-12.3"	6.0"	9.0"	9.84"
Width	Height	Diag.	25mm	30mm	35mm	40mm	70-125mm	100-200mm	114-190mm	132-220mm	150-230mm	187-312mm	152mm	229mm	250mm
Projection Lenses															
3'	2'3"	45"	3'	3'7"	4'2"	4'10"	8'4"-15'11"	12'-24'6"	13'7"-23'4"	15'8"-26'4"	18'1"-27'2"	22'-38'	18'1"	27'2"	29'8"
4'	3'	60"	4'	4'9"	5'7"	6'5"	10'11"-19'11"	16'-32'6"	17'11"-30'7"	20'8"-34'7"	23'10"-35'10"	30'-50'	23'10"	35'10"	39'1"
5'	3'9"	75"	5'	6'	6'10"	8'	13'6"-24'7"	20'-40'6"	22'2"-37'11"	25'7"-42'11"	29'7"-44'4"	38'-63'	29'7"	44'4"	48'6"
6'	4'6"	90"	6'	7'2"	8'2"	9'7"	16'2"-29'5"	24'-48'6"	26'5"-45'4"	30'7"-51'1"	35'4"-52'11"	45'-75'	35'4"	52'11"	57'10"
7'	5'3"	105"	7'	8'5"	9'7"	11'3"	18'10"-34'2"	28'-56'6"	30'8"-52'7"	35'6"-59'5"	41'-61'6"	52'-87'	41'	61'6"	67'2"
8'	6'3"	120"	8'	9'7"	11'	12'9"	21'4"-38'11"	32'-64'6"	35'-59'11"	40'6"-67'8"	46'8"-70'	59'-99'	46'8"	70'	76'7"
9'	6'9"	135"	9'	10'9"	12'2"	14'5"	24'-43'8"	36'-72'6"	39'4"-67'2"	45'5"-76'	52'5"-78'7"	67'-111'	52'5"	78'7"	85'11"
10'	7'6"	150"	10'	12'	13'7"	16'	26'7"-48'5"	40'-80'6"	43'7"-74'7"	50'-84'4"	58'1"-87'2"	75'-126'	58'1"	87'2"	95'4"
11'	8'3"	165"	11'	13'2"	15'	17'7"	29'4"-53'2"	44'-88'6"	47'11"-82'	55'4"-92'7"	63'10"-95'8"	80'-136'	63'10"	95'8"	104'8"
12'	9'	180"	12'	14'5"	16'2"	19'2"	31'11"-58'	48'-96'6"	52'2"-89'2"	60'4"-100'10"	69'6"-104'4"	90'-150'	69'6"	104'4"	114'1"
13'	9'9"	195"	13'	15'7"	17'7"	20'8"	34'6"-62'8"	52'-104'6"	56'5"-96'7"	65'2"-109'1"	75'4"-112'11"	95'-160'	75'4"	112'11"	123'5"
14'	10'6"	210"	14'	16'9"	19'	22'5"	37'1"-67'6"	56'-112'6"	60'8"-104'	70'2"-117'5"	81'-121'5"	104'-174'	81'	121'6"	132'10"

## Projection Calculator for 1.8" Diagonal LCD Panel Projectors

Lenses for 1.8" Diagonal LCD Panel			Wide-Angle Lenses		Zoom Lenses					
Screen Size			1.6" 40mm		4.4-7.4" 114-190mm	6.0-9.0" 150-230mm	7.38-12.3" 187-312mm			
Width	Height	Diagonal	Projection Distance							
3'	2'3"	45"	3'4"					9'4"-15'6"	12'5"-18'8"	15'3"-25'5"
4'	3'	60"	4'5"					12'5"-20'8"	16'6"-24'10"	20'4"-33'11"
5'	3'9"	75"	5'6"					15'6"-25'10"	20'8"-31'	25'5"-42'5"
6'	4'6"	90"	6'8"					18'8"-31'	24'10"-37'3"	30'6"-50'10"
7'	5'3"	105"	7'9"					21'9"-36'2"	29'-43'5"	35'7"-59'4"
8'	6'3"	120"	8'10"					24'10"-41'4"	33'-49'8"	40'8"-67'10"
9'	6'9"	135"	9'11"					27'11"-46'6"	37'3"-55'6"	45'9"-76'4"
10'	7'6"	150"	11'					31'-51'9"	41'4"-62'	50'10"-84'10"
11'	8'3"	165"	12'2"					34'2"-56'10"	45'6"-68'3"	56'-93'4"
12'	9'	180"	13'3"					37'3"-62'	49'8"-74'6"	61'1"-101'9"
13'	9'9"	195"	14'4"					40'4"-67'3"	53'9"-80'8"	66'2"-110'3"
14'	10'6"	210"	15'5"					43'5"-72'5"	58'-86'10"	71'3"-118'9"

## Projection Calculator for 3.0" Diagonal LCD Panel Projectors\*

Lenses For 3.0 Dia. LCD Panel			Fixed Focal Length Lenses						Zoom Lenses			Wide-Angle Lenses		
Screen Size			10.5"	11.0"	12.5"	14.0"	15.5"	18.0"	20.0"	7.1-12.6"	9.5-16.0"	11.0-19.4"	3.0"	3.5"
Width	Height	Diagonal	266mm	279mm	318mm	356mm	394mm	457mm	508mm	181-322mm	241-406mm	279-495mm	76mm	89mm
Projection Distance														
3'	2'3"	45"	13'7"	13'2"	16'2"	18'1"	20'	23'3"	24'1"	9'2"-16'3"	12'3"-20'8"	13'2"-23'5"	3'6"	4'2"
4'	3'	60"	17'6"	17'5"	20'10"	23'4"	25'10"	30'	31'7"	11'10"-21'	15'10"-26'8"	17'5"-30'7"	4'8"	5'6"
5'	3'9"	75"	21'5"	21'6"	25'6"	28'7"	31'7"	36'9"	39'	14'6"-25'8"	19'4"-32'8"	21'6"-37'11"	5'10"	6'10"
6'	4'6"	90"	25'4"	25'7"	30'2"	33'10"	37'5"	43'5"	46'6"	17'2"-30'5"	22'11"-38'7"	25'7"-45'3"	7'	8'1"
7'	5'3"	105"	29'3"	29'8"	34'10"	39'	43'3"	50'2"	54'	19'10"-35'2"	26'6"-44'7"	29'8"-52'6"	8'	9'6"
8'	6'3"	120"	33'3"	33'11"	39'6"	44'3"	49'	56'11"	61'6"	22'5"-39'10"	30'1"-50'7"	33'11"-59'8"	9'2"	10'8"
9'	6'9"	135"	37'2"	38'	44'3"	49'6"	54'10"	63'8"	69'	25'1"-44'7"	33'7"-56'7"	38'-67'	10'4"	12'
10'	7'6"	150"	41'1"	42'	48'11"	54'9"	60'8"	70'5"	76'6"	27'9"-49'3"	37'2"-62'7"	42'-74'2"	11'6"	13'5"
11'	8'3"	165"	45'	46'3"	53'7"	60'	66'5"	77'2"	84'	30'5"-54'	40'9"-68'7"	46'2"-81'6"	12'6"	14'8"
12'	9'	180"	48'11"	50'4"	58'3"	65'3"	72'3"	83'11"	91'6"	33'1"-58'9"	44'3"-74'7"	50'4"-88'10"	13'8"	16'
13'	9'9"	195"	52'10"	54'6"	62'11"	70'6"	78'1"	90'8"	99'	35'9"-63'5"	47'10"-80'7"	54'6"-96'	14'10"	17'3"
14'	10'6"	210"	56'10"	58'6"	67'8"	75'9"	83'10"	97'5"	106'6"	38'5"-68'2"	51'5"-86'7"	58'6"-103'4"	16'	18'7"

Projection distance is measured from the front of the projector housing to the screen.

\*This chart can be used for the 3M 8650 projector.