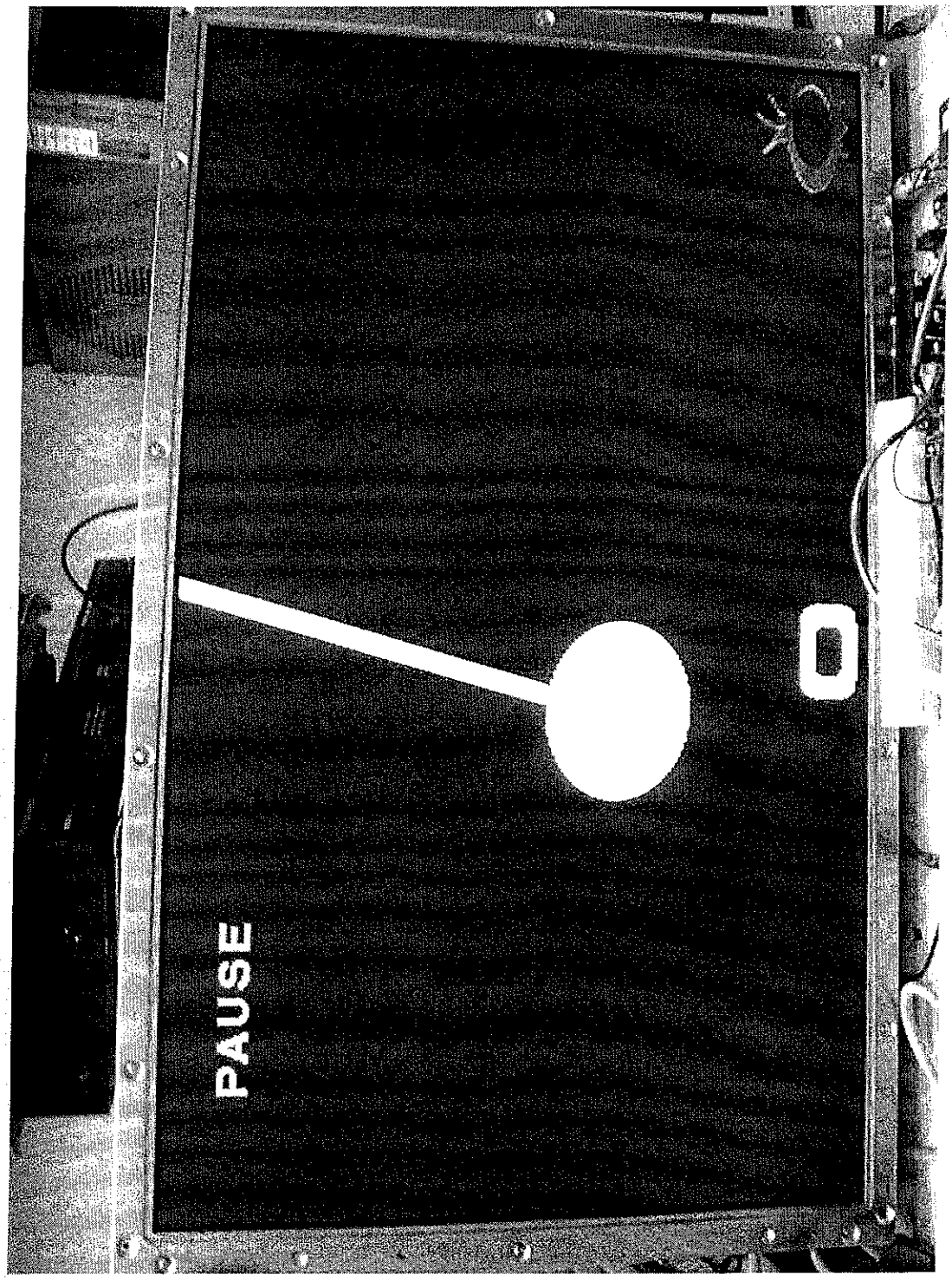


Figure 1a

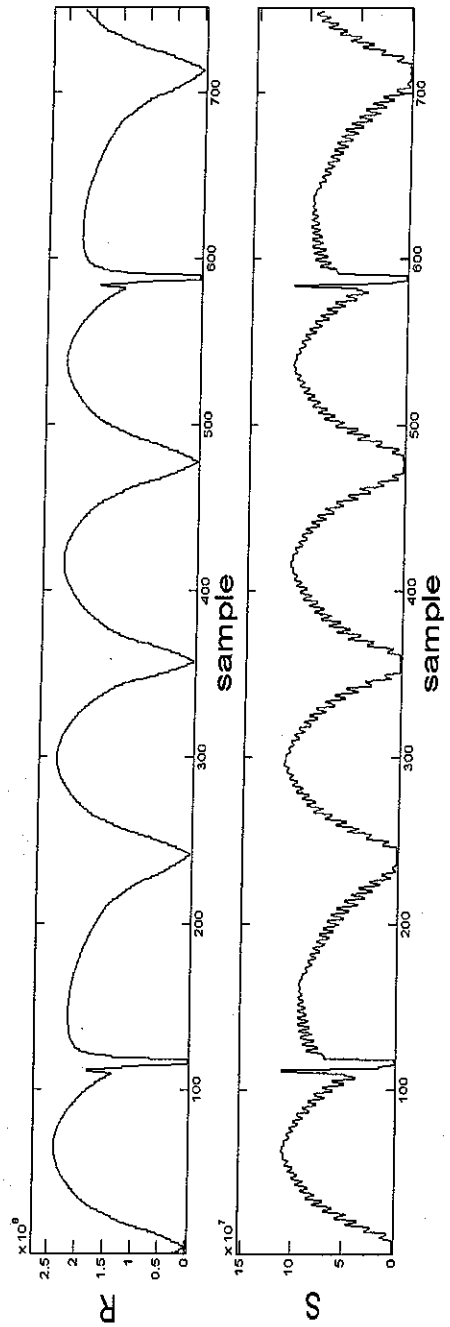


Figure 1b

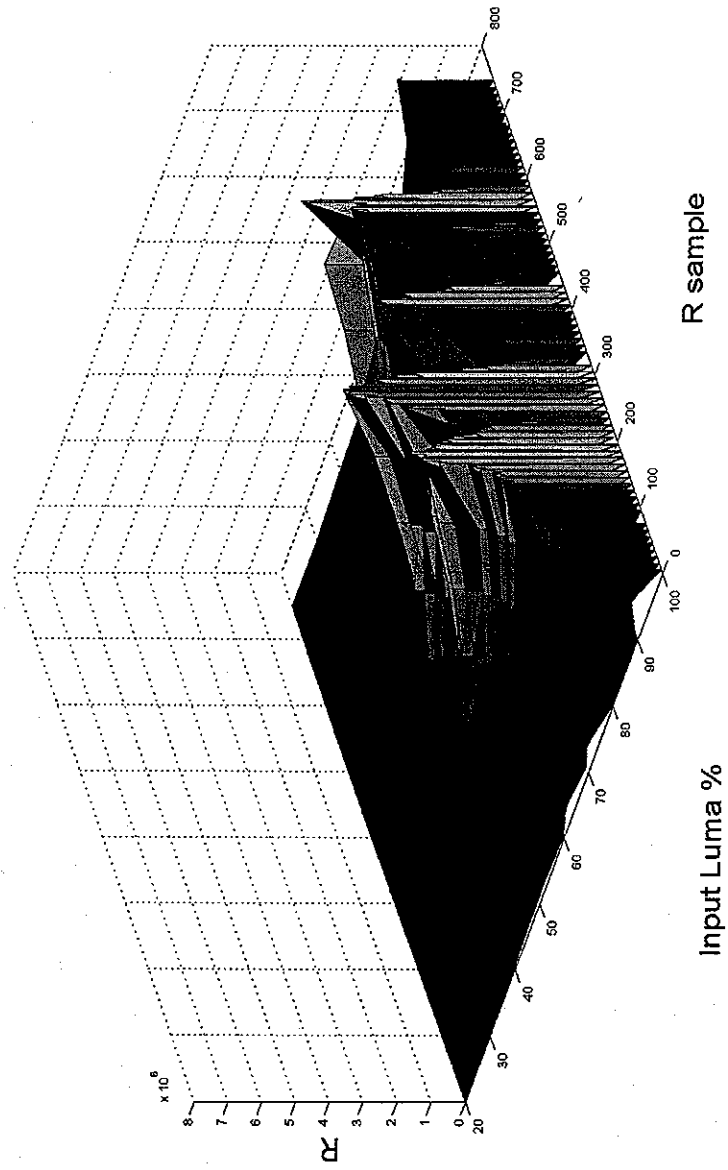

R
x 10^6
8
7
6
5
4
3
2
1
0
20
30
40
50
60
70
80
90
100
Input Luma %
0
100
200
300
400
500
600
700
800
R sample

Figure 2a

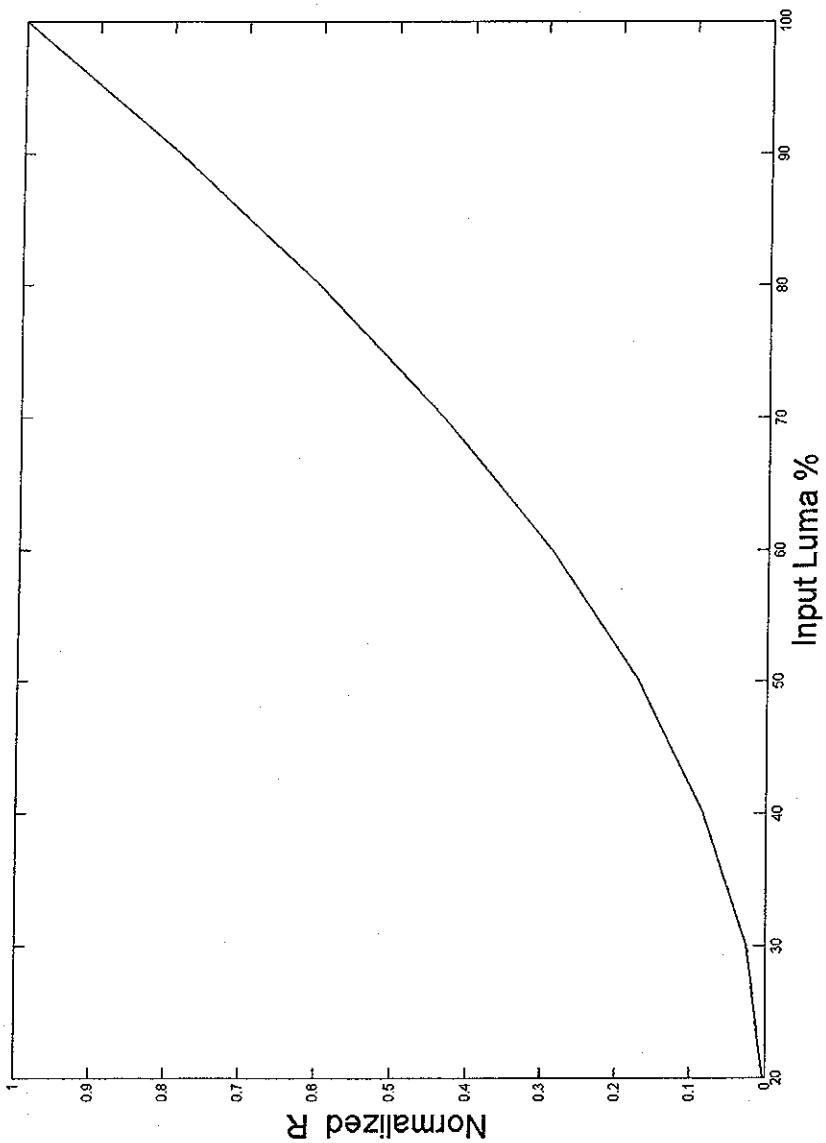

Normalized R
Input Luma %
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
20
30
40
50
60
70
80
90
100

Figure 2b

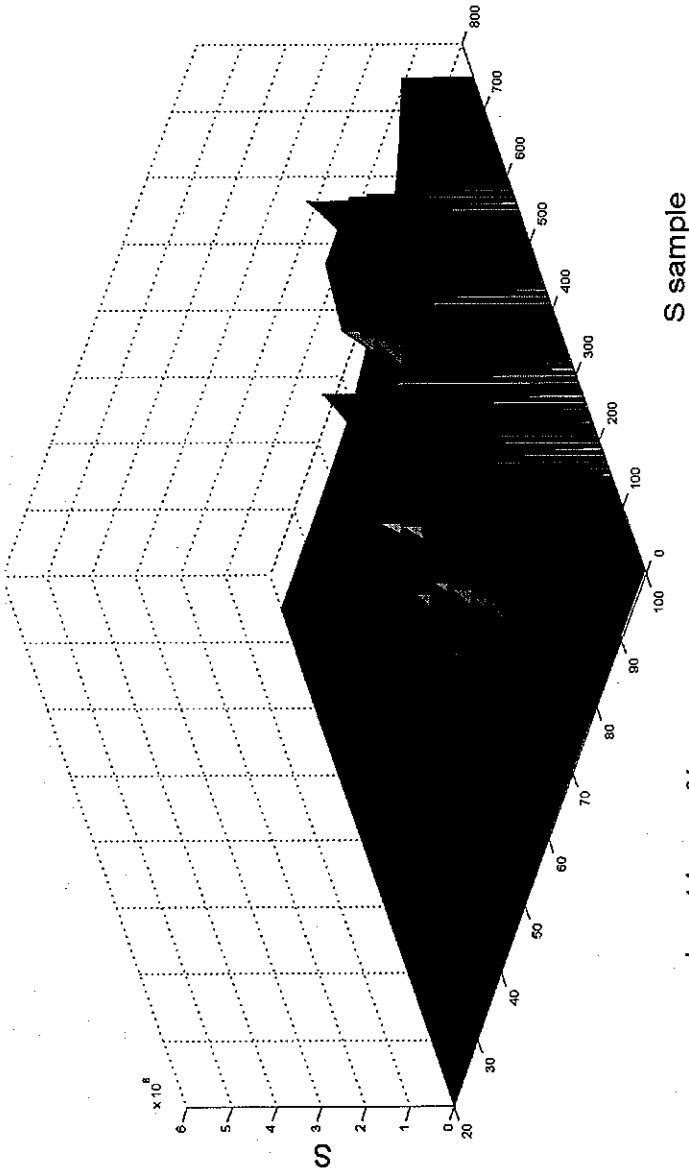

S
S sample
Input Luma %
x 10^8
0
1
2
3
4
5
6
20
30
40
50
60
70
80
90
100
0
100
200
300
400
500
600
700
800

Figure 3a

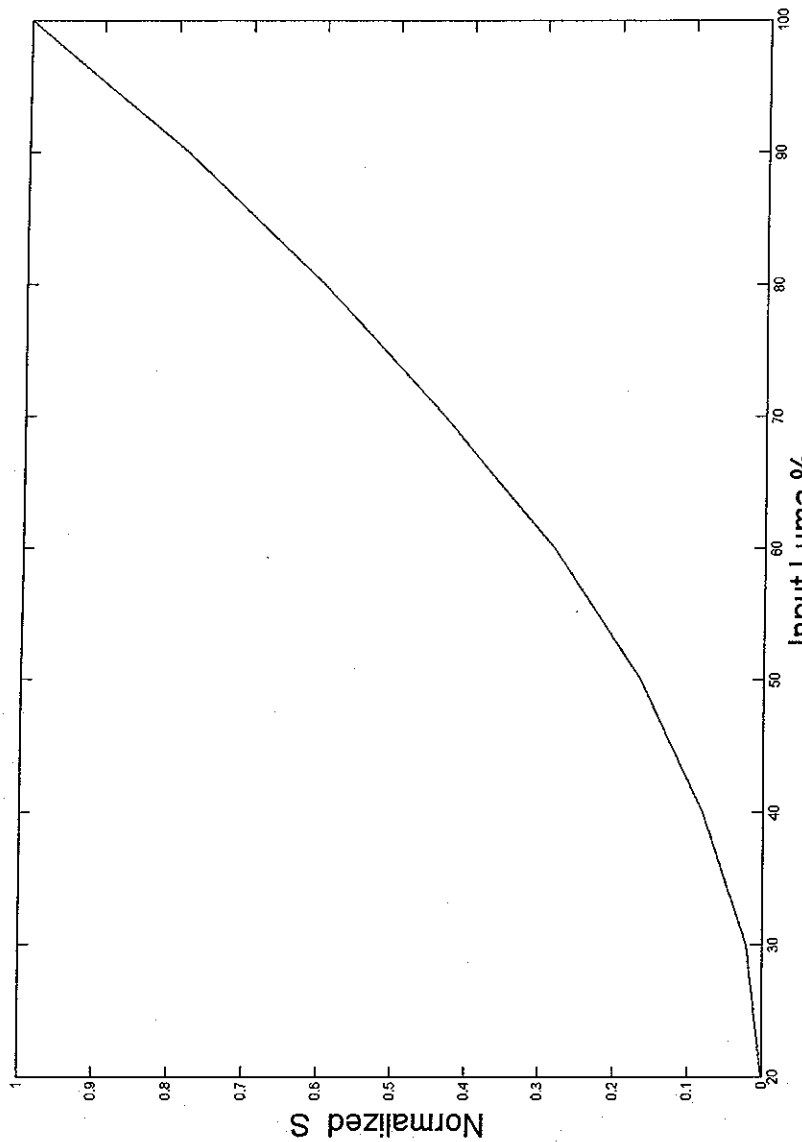

Normalized S
Input Luma %
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
20
30
40
50
60
70
80
90
100

Figure 3b

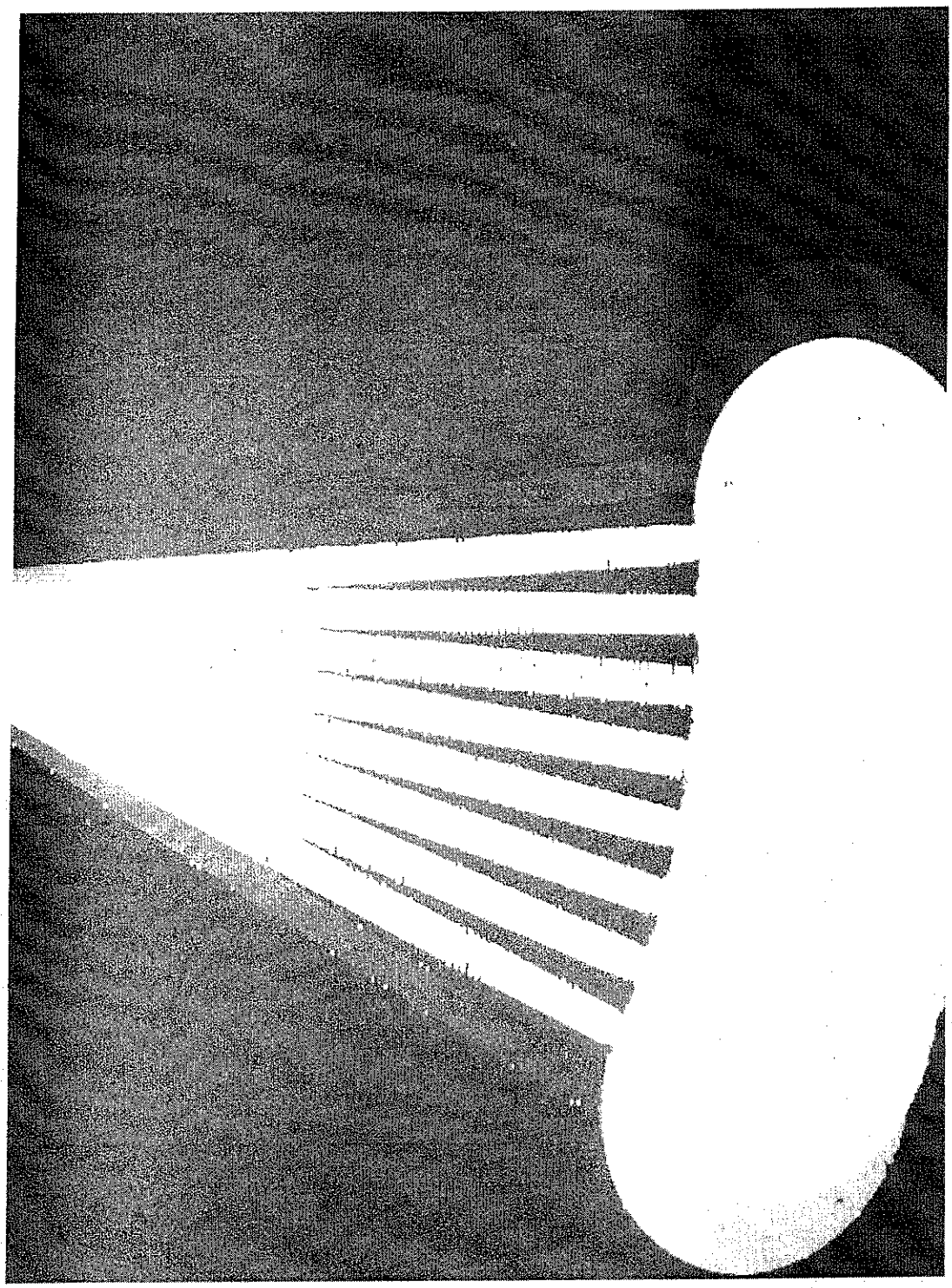


Figure 4a

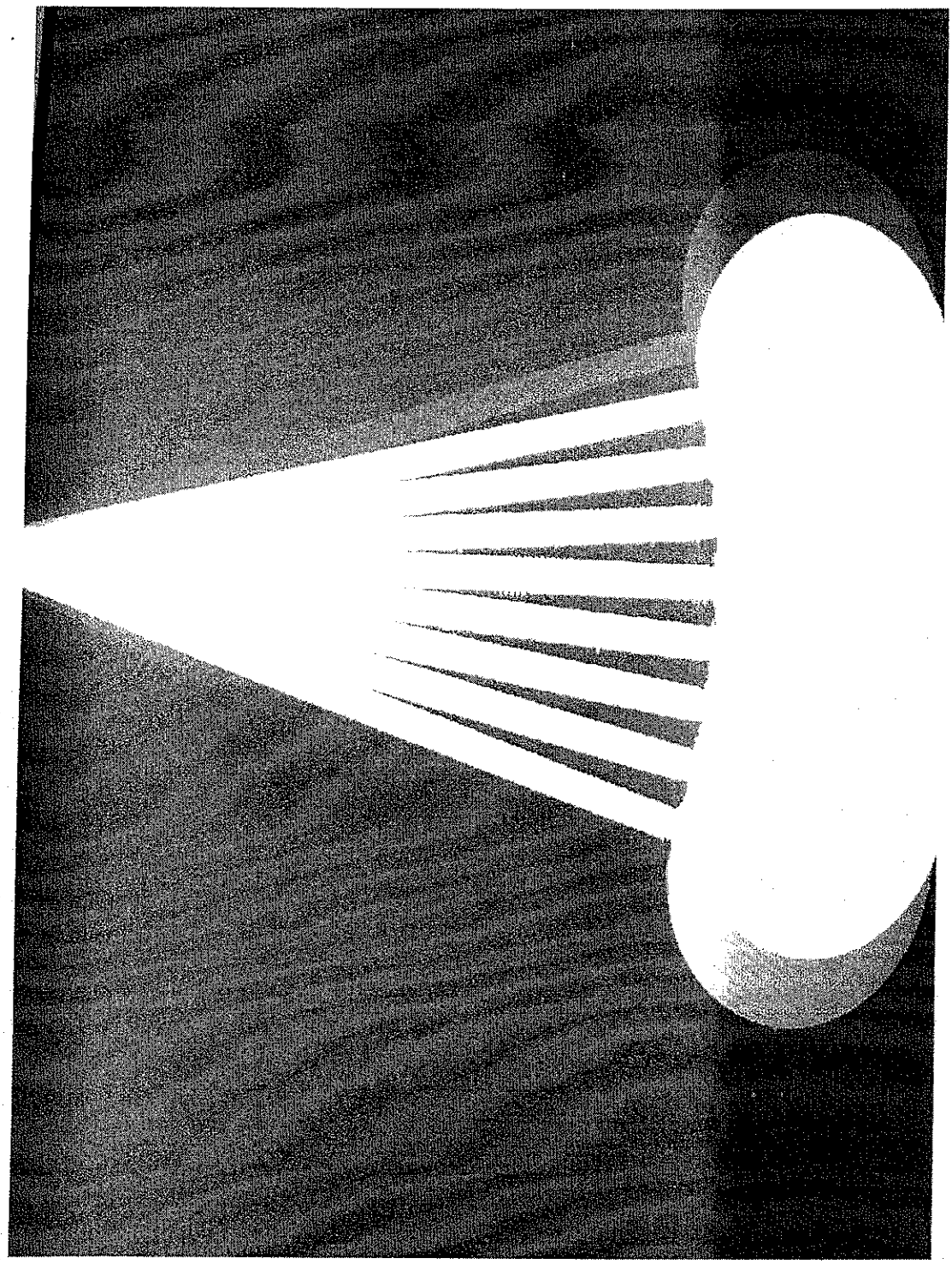


Figure 4b

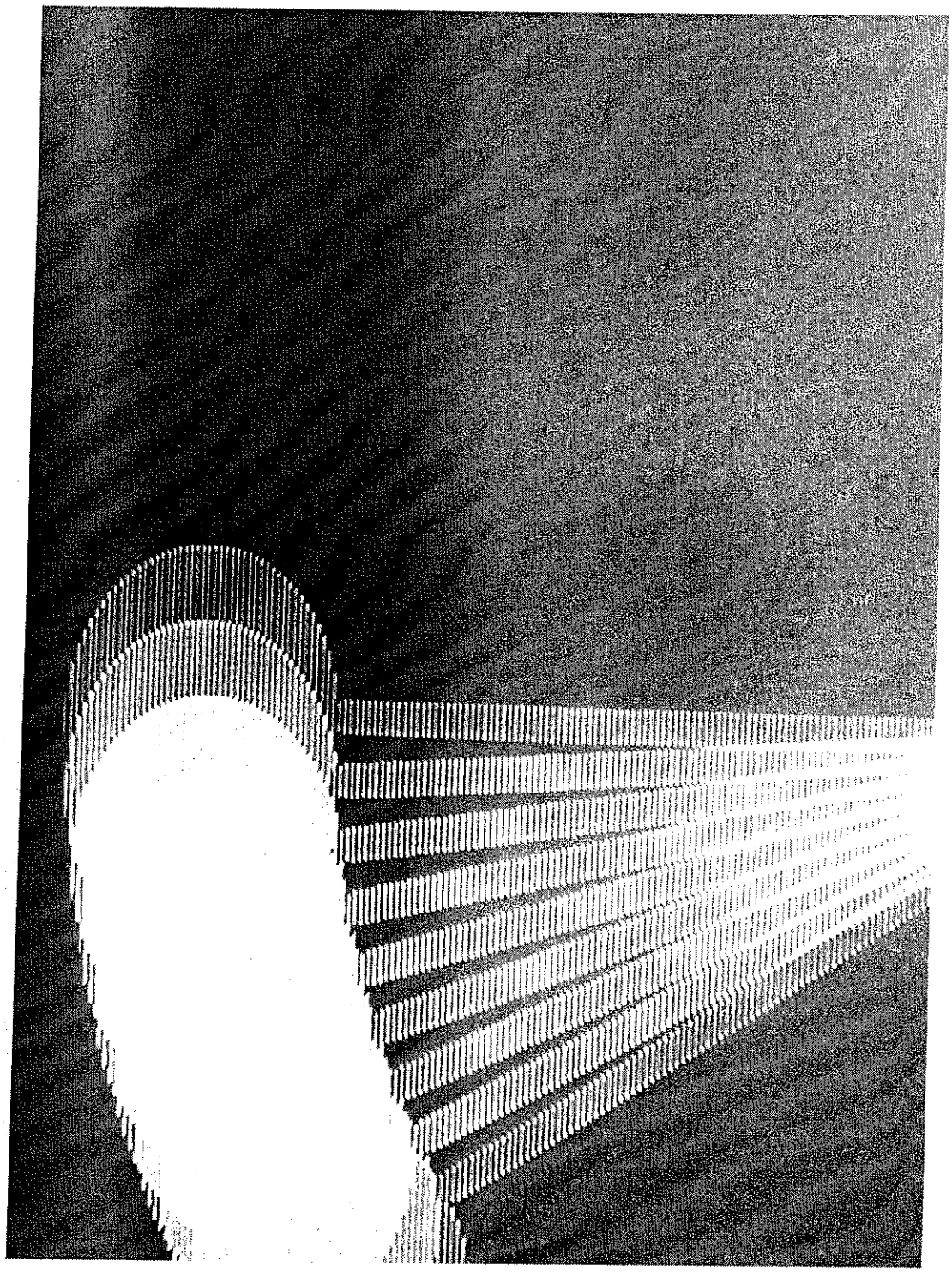


Figure 4c

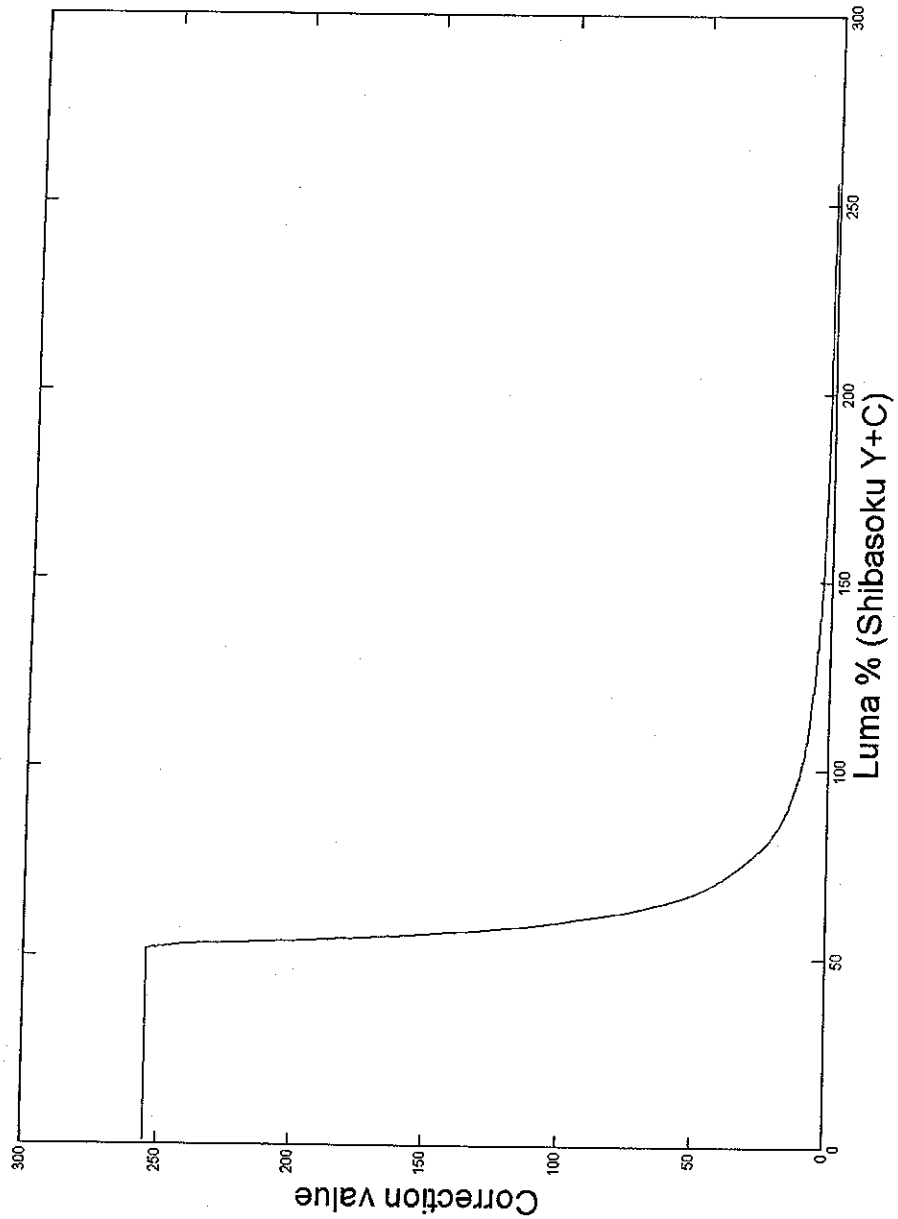


Figure 5a

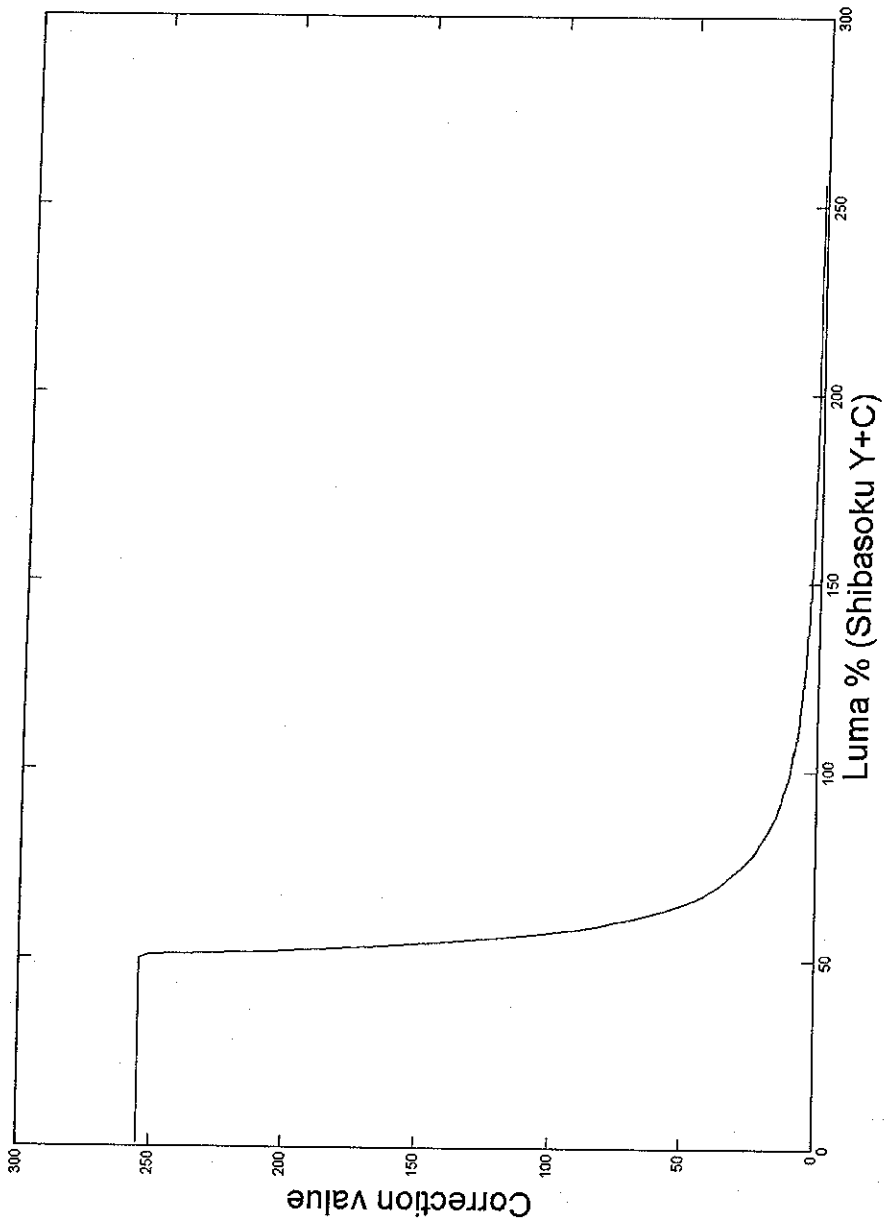


Figure 5b

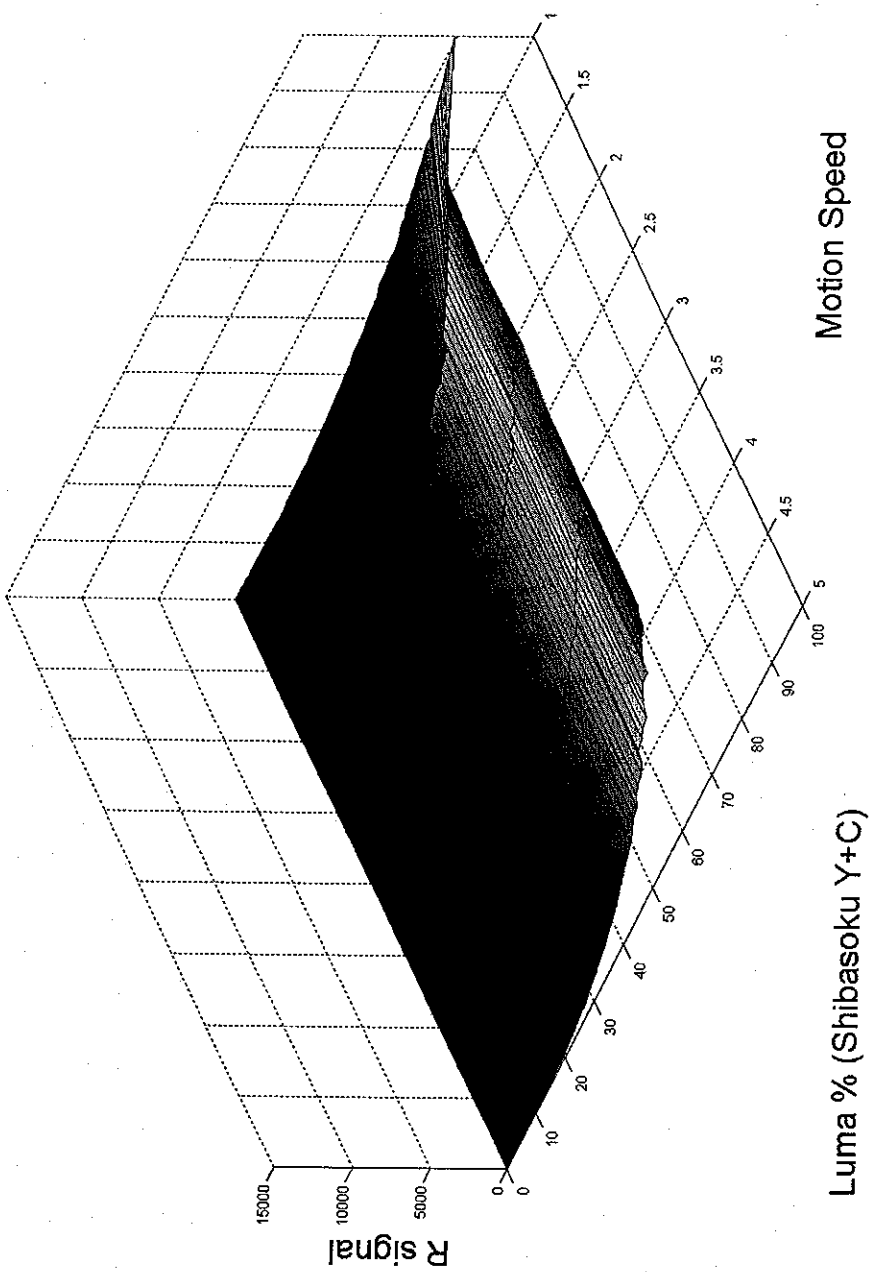

R signal
15000
10000
5000
0
0
10
20
30
40
50
60
70
80
90
100
Luma % (Shibasoku Y+C)
1
1.5
2
2.5
3
3.5
4
4.5
5
Motion Speed

Figure 6a

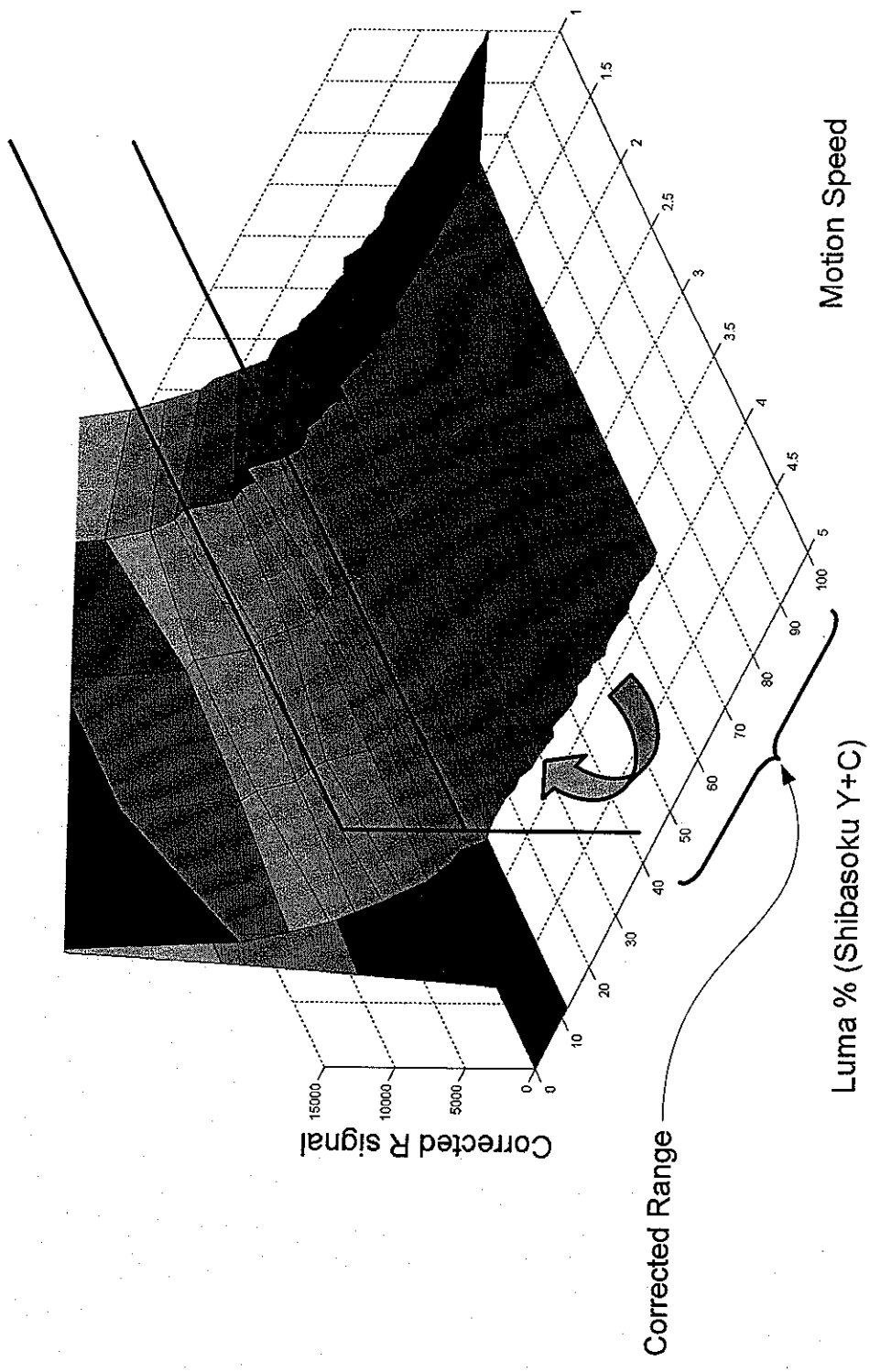

Corrected R signal
0
5000
10000
15000
Luma % (Shibasoku Y+C)
0
10
20
30
40
50
60
70
80
90
100
Motion Speed
1
1.5
2
2.5
3
3.5
4
4.5
5
Corrected Range

Figure 6b

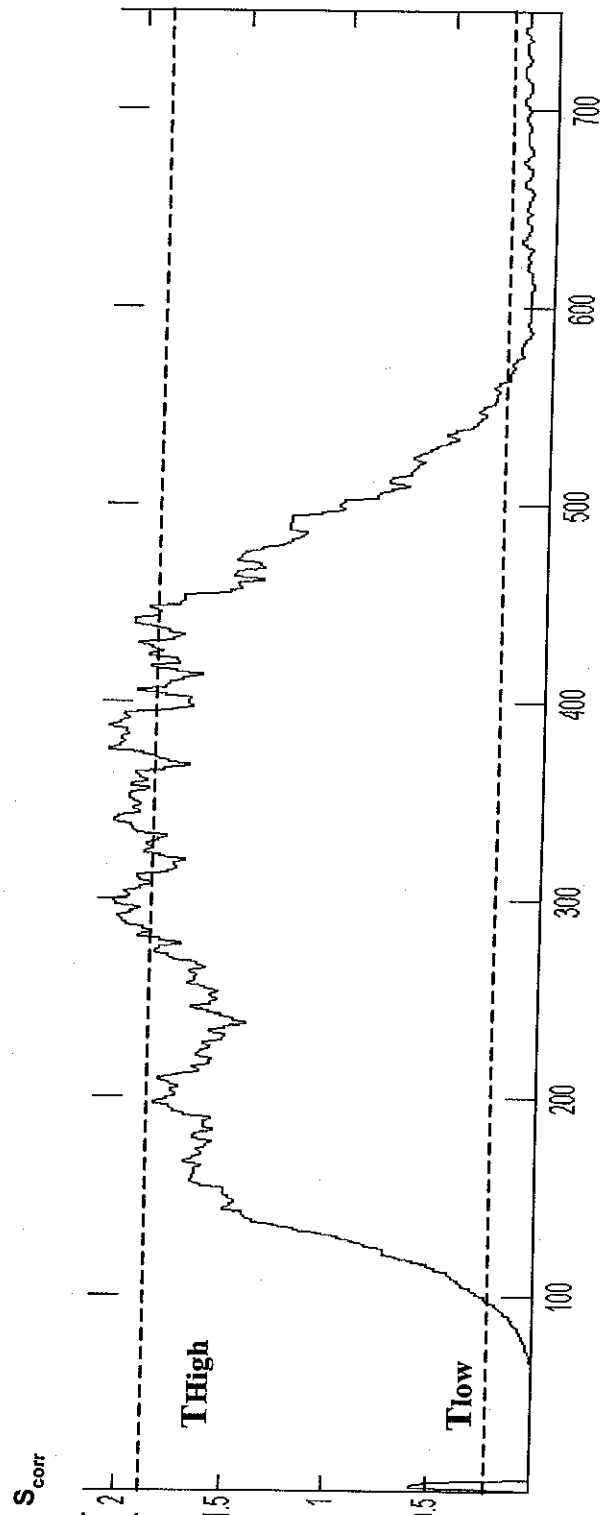

S_{corr}
2
1.5
1
0.5
THigh
TIow
High motion region
Medium motion region
Low motion region
100
200
300
400
500
600
700
x 10^5
Time

Figure 7

Scenario	Detected Global Motion			
	Vertical Pattern	High	Medium	Low
	0	0	0	0
Low	0	0	0	1
Medium	0	0	1	0
	0	0	1	1
High	0	1	0	0
	0	1	0	1
	0	1	1	0
	0	1	1	1
	1	0	0	0
Low-Vertical	1	0	0	1
Medium-Vertical	1	0	1	0
	1	0	1	1
High-Vertical	1	1	0	0
	1	1	0	1
	1	1	1	0
	1	1	1	1

Figure 8

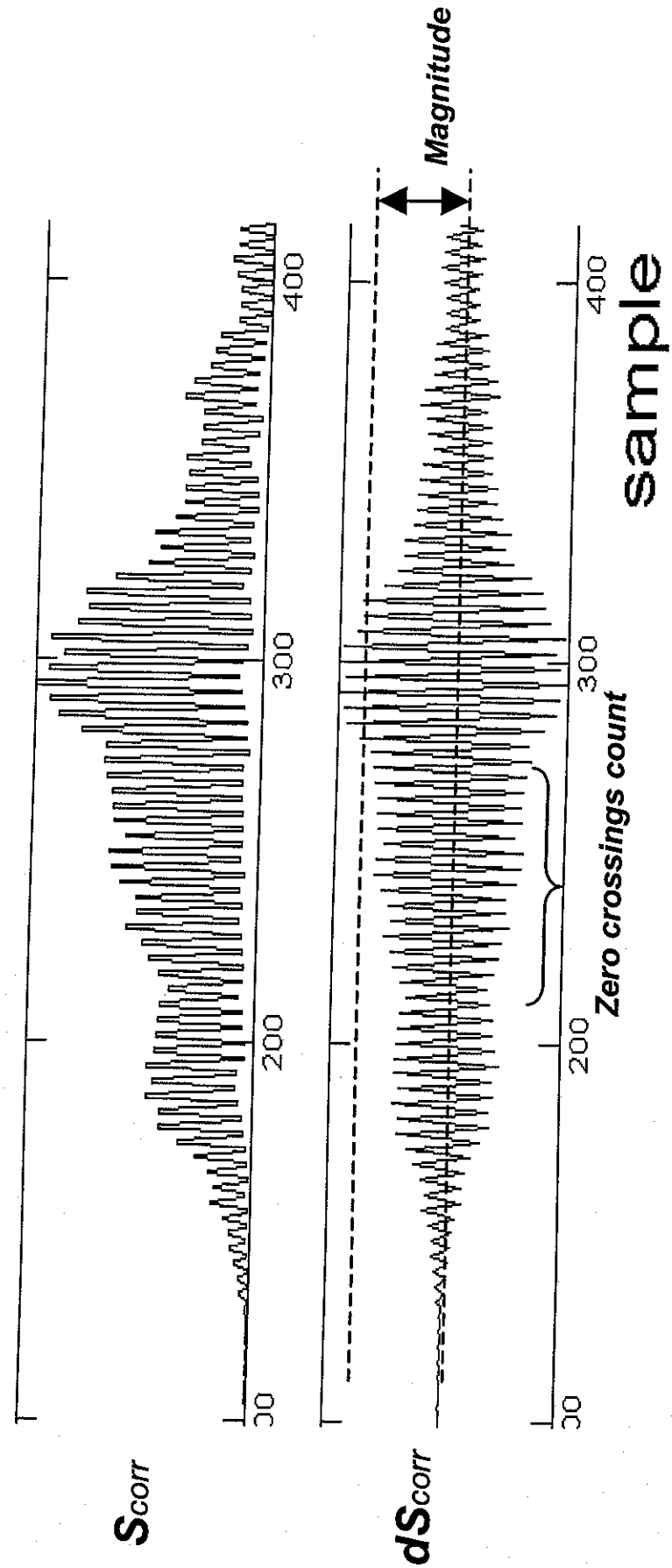

Scorr
dScorr
30
200
300
400
sample
Magnitude
Zero crossings count

Figure 9

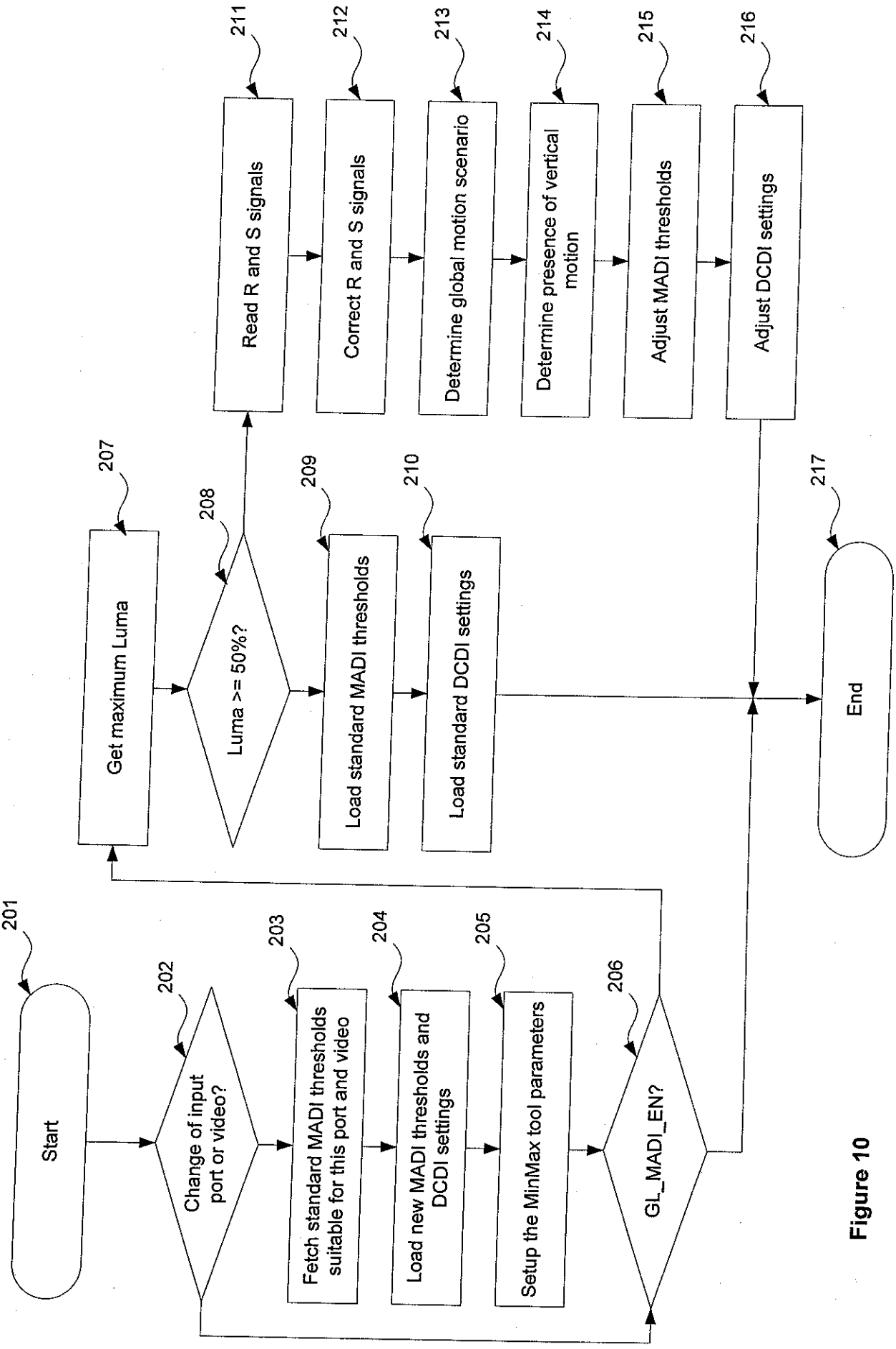

201
Start
202
Change of input port or video?
203
Fetch standard MADI thresholds suitable for this port and video
204
Load new MADI thresholds and DCDI settings
205
Setup the MinMax tool parameters
206
GL_MADI_EN?
207
Get maximum Luma
208
Luma >= 50%?
209
Load standard MADI thresholds
210
Load standard DCDI settings
211
Read R and S signals
212
Correct R and S signals
213
Determine global motion scenario
214
Determine presence of vertical motion
215
Adjust MADI thresholds
216
Adjust DCDI settings
217
End

Figure 10

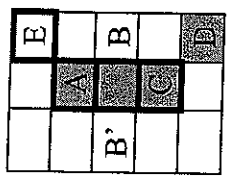


Figure 11b

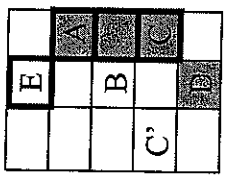


Figure 11a

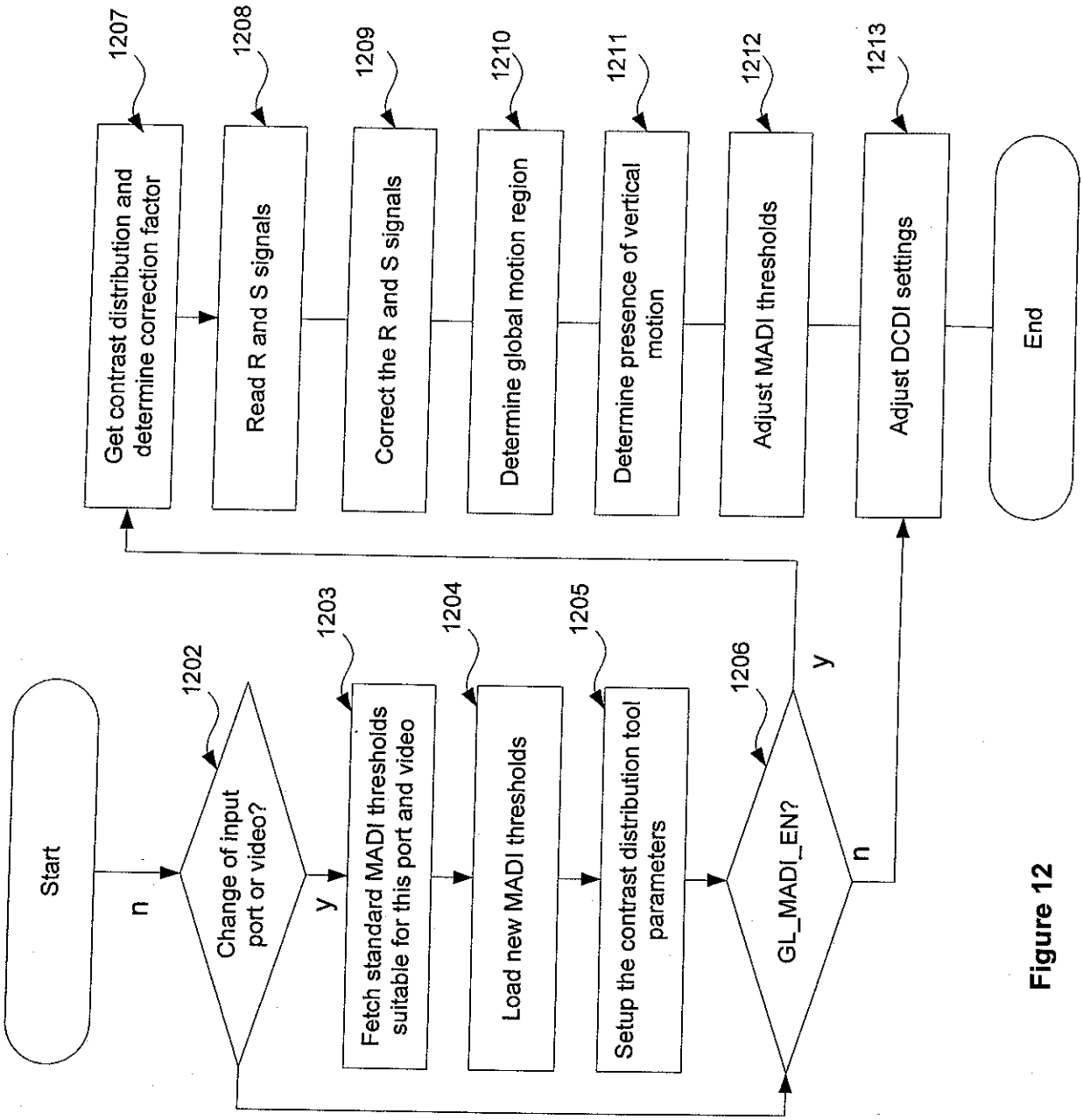

Start
Change of input port or video?
n
y
1202
Fetch standard MADI thresholds suitable for this port and video
1203
Load new MADI thresholds
1204
Setup the contrast distribution tool parameters
1205
GL_MADI_EN?
1206
y
n
Get contrast distribution and determine correction factor
1207
Read R and S signals
1208
Correct the R and S signals
1209
Determine global motion region
1210
Determine presence of vertical motion
1211
Adjust MADI thresholds
1212
Adjust DCDI settings
1213
End

Figure 12