

***The GLM Procedure***

Class Level Information		
Class	Levels	Values
color	2	W Y
manuf	2	1 2
pavement	3	1 2 3

Number of Observations Read	36
Number of Observations Used	36

**The GLM Procedure**

**Dependent Variable: lifetime**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	2032.972222	184.815657	9.34	<.0001
Error	24	474.666667	19.777778		
Corrected Total	35	2507.638889			

R-Square	Coeff Var	Root MSE	lifetime Mean
0.810712	15.77340	4.447221	28.19444

Source	DF	Type III SS	Mean Square	F Value	Pr > F
color	1	850.6944444	850.6944444	43.01	<.0001
manuf	1	294.6944444	294.6944444	14.90	0.0007
color*manuf	1	17.36111111	17.36111111	0.88	0.3581
pavement	2	53.3888889	26.69444444	1.35	0.2783
color*pavement	2	41.0555556	20.52777778	1.04	0.3696
manuf*pavement	2	280.7222222	140.3611111	7.10	0.0038
color*manuf*pavement	2	495.0555556	247.5277778	12.52	0.0002

***The GLM Procedure  
Least Squares Means***

color	manuf	pavement	lifetime LSMEAN
W	1	1	33.3333333
W	1	2	29.3333333
W	1	3	30.0000000
W	2	1	35.0000000
W	2	2	33.3333333
W	2	3	37.3333333
Y	1	1	15.3333333
Y	1	2	12.6666667
Y	1	3	31.3333333
Y	2	1	27.6666667
Y	2	2	32.3333333
Y	2	3	20.6666667

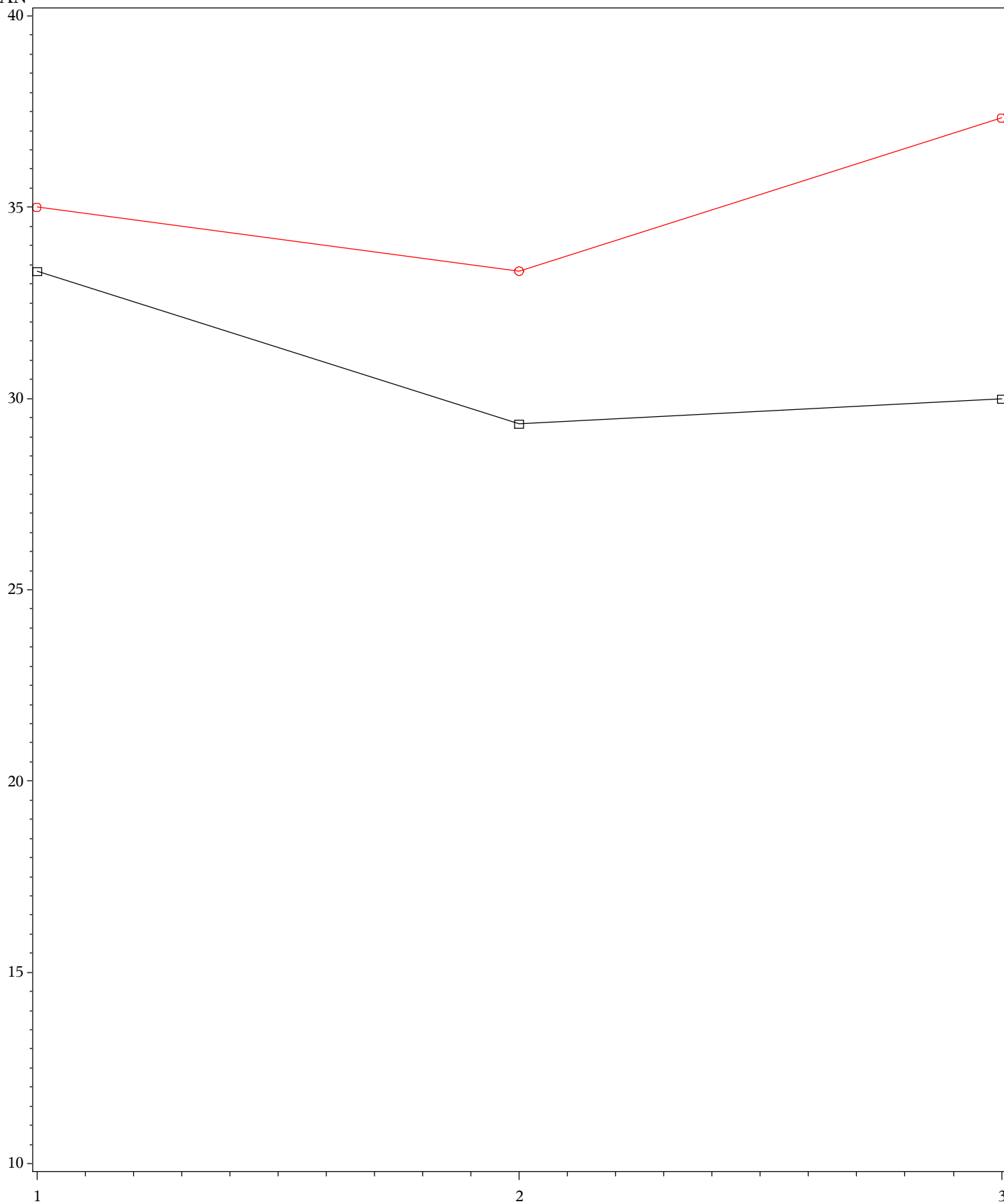
**Treatment means (dataset trtmeans)**

Obs	_NAME_	color	manuf	pavement	LSMEAN	STDERR
1	lifetime	W	1	1	33.3333	2.56760
2	lifetime	W	1	2	29.3333	2.56760
3	lifetime	W	1	3	30.0000	2.56760
4	lifetime	W	2	1	35.0000	2.56760
5	lifetime	W	2	2	33.3333	2.56760
6	lifetime	W	2	3	37.3333	2.56760
7	lifetime	Y	1	1	15.3333	2.56760
8	lifetime	Y	1	2	12.6667	2.56760
9	lifetime	Y	1	3	31.3333	2.56760
10	lifetime	Y	2	1	27.6667	2.56760
11	lifetime	Y	2	2	32.3333	2.56760
12	lifetime	Y	2	3	20.6667	2.56760

# Two-way interaction/profile plots for each color

color=W

LSMEAN

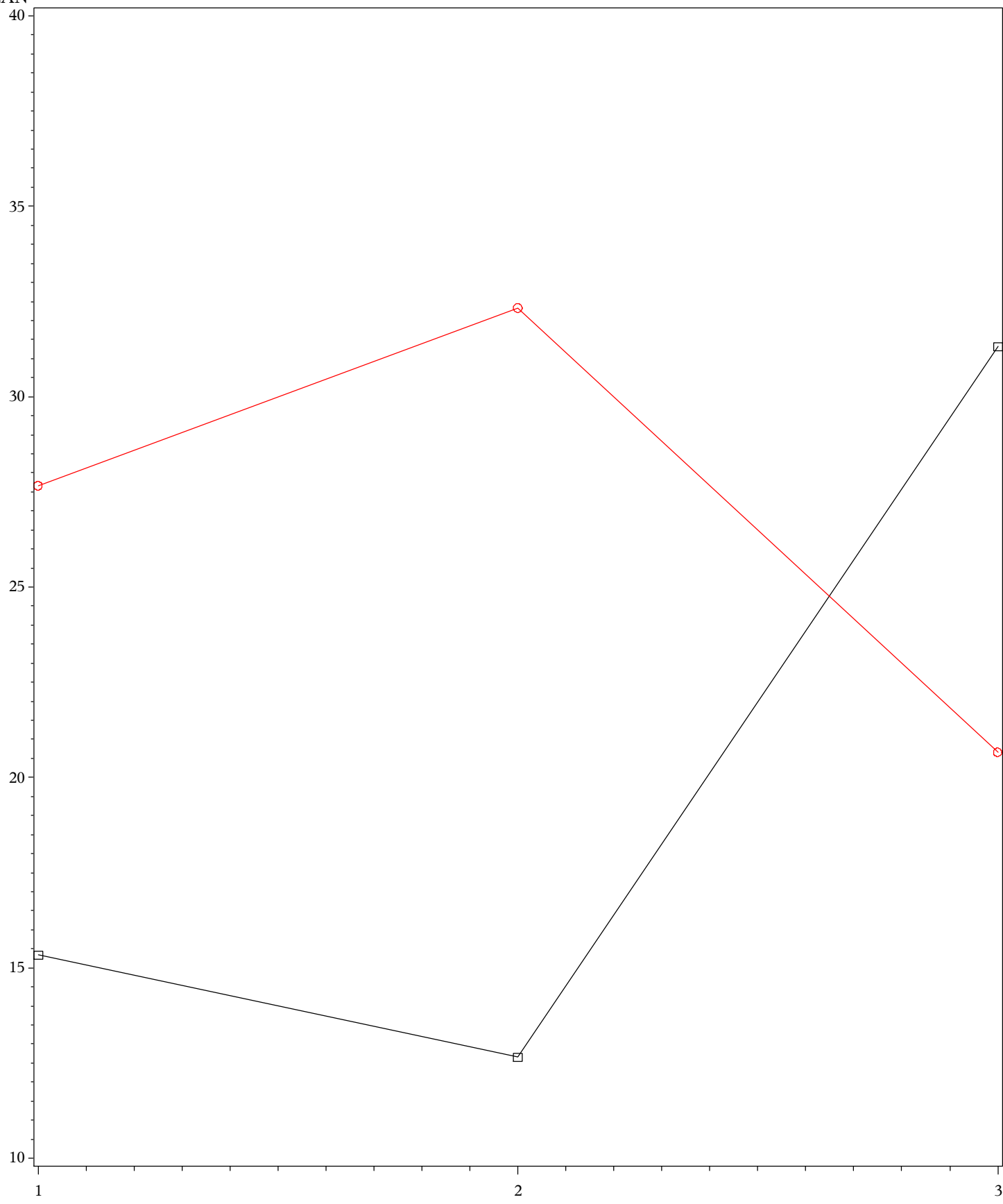


manuf    □-□-□ 1    ○-○-○ 2

# Two-way interaction/profile plots for each color

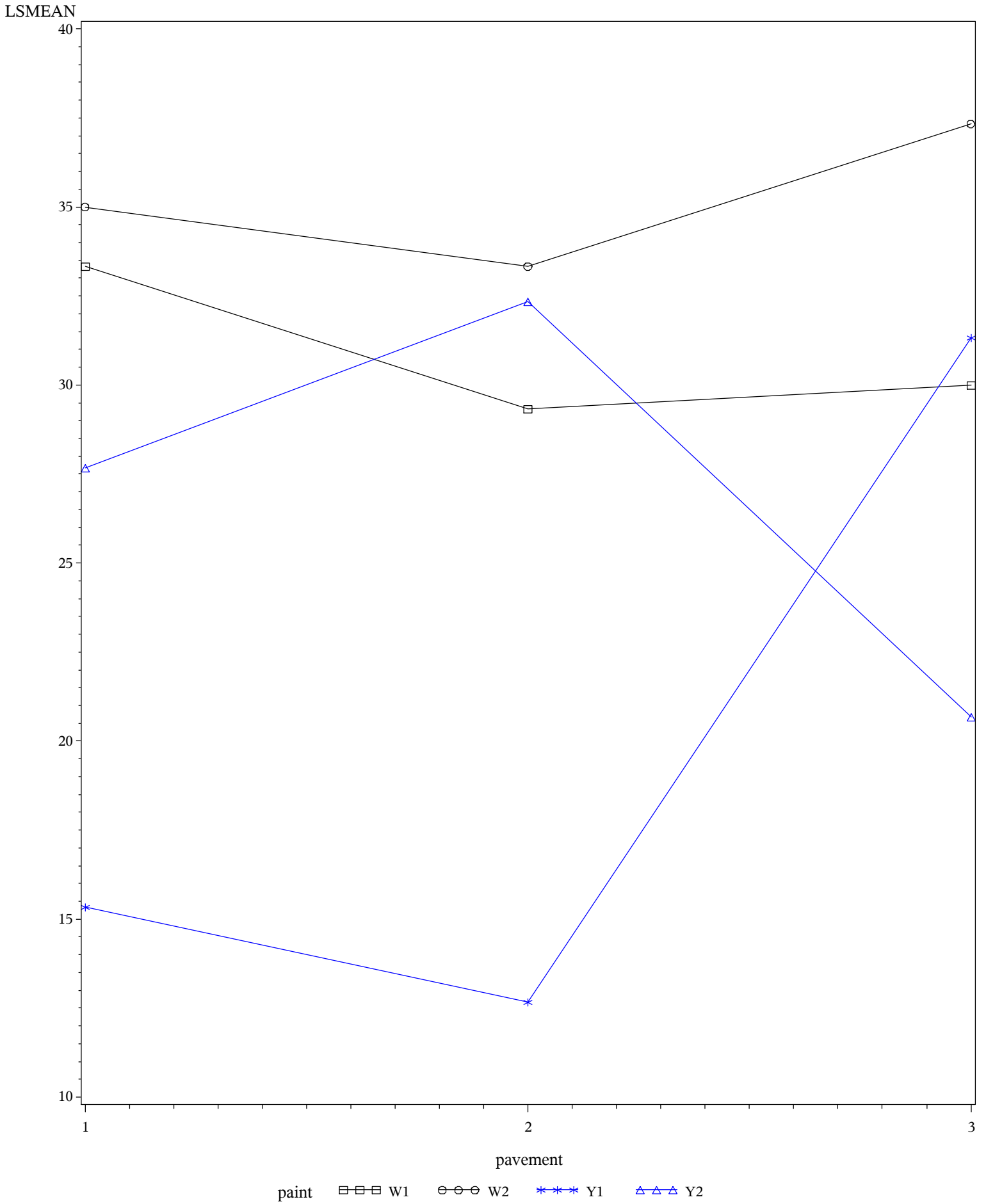
color=Y

LSMEAN



manuf    □-□-□ 1    ○-○-○ 2

### Profiles across pavement types for all 4 paints



*The GLM Procedure*

*Dependent Variable: lifetime*

R-Square	Coeff Var	Root MSE	lifetime Mean
0.810712	15.77340	4.447221	28.19444

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
manuf (W)	1	84.5000000	84.5000000	4.27	0.0497
pavement (W)	2	27.4444444	13.7222222	0.69	0.5094
manuf*pavement (W)	2	24.3333333	12.1666667	0.62	0.5489
manuf (Y)	1	227.5555556	227.5555556	11.51	0.0024
pavement (Y)	2	67.0000000	33.5000000	1.69	0.2051
manuf*pavement (Y)	2	751.4444444	375.7222222	19.00	<.0001



*The GLM Procedure*

*Dependent Variable: lifetime*

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
manuf (W)	1	84.5000000	84.5000000	4.27	0.0497
pavement (W)	2	27.4444444	13.7222222	0.69	0.5094
manuf*pavement (W)	2	24.3333333	12.1666667	0.62	0.5489
manuf (Y)	1	227.5555556	227.5555556	11.51	0.0024
pavement (Y)	2	67.0000000	33.5000000	1.69	0.2051
manuf*pavement (Y)	2	751.4444444	375.7222222	19.00	<.0001
manuf*pave type (Y)	1	711.1111111	711.1111111	35.96	<.0001
manuf*asphalt (Y)	1	40.3333333	40.3333333	2.04	0.1662