CS LS·$\bar{RR}$·$\bar{CS}$ RS·RR·$\bar{CS}$

	CS	LS	RS	RR	CL	LL	RL
1.	0	0	0	0	0	0	1
	0	0	0	1	0	0	1
	0	0	1	0	0	0	1
	0	0	1	1	0	0	1
	0	1	0	0	0	1	0
	0	1	0	1	0	1	0
	0	1	1	0	0	1	0
	0	1	1	1	0	0	1
	1	0	0	0	1	0	0
	1	0	0	1	1	0	0
	1	0	1	0	1	0	0
	1	0	1	1	1	0	0
	1	1	0	0	1	0	0
	1	1	0	1	1	0	0
	1	1	1	0	1	0	0
	1	1	1	1	1	0	0

2.

CL k-map (CS LS \ RS RR)

RS RR	00	01	11	10
00	0	0	1	1
01	0	0	1	1
11	0	0	1	1
10	0	0	1	1

SOP: CS

POS: LS

LL k-map (CS LS \ RS RR)

RS RR	00	01	11	10
00	0	1	0	0
01	0	1	0	0
11	0	0	0	0
10	0	1	0	0

SOP: $\bar{RS}\cdot\bar{CS}\cdot LS + \bar{RR}\bar{CS}\cdot LS$

POS: $(\bar{RS}+\bar{RR})(\bar{CS})(LS)$

2 and/or 4 not

RL k-map (CS LS \ RS RR)

RS RR	00	01	11	10
00	1	0	0	0
01	1	0	0	0
11	1	1	0	0
10	1	0	0	0

SOP: $\bar{CS}RSRR + \bar{CS}\bar{LS}$

POS: $(\bar{CS})(RS+\bar{LS})(RR+\bar{LS})$

2 and/or 3 not

1 or/and 3 not

2 or 3 not

1 and

The product of sum cost is less as there are fewer inputs and less gates (3 gates vs 11 gates)