

Green Light 1:

$C_2/C_1 \backslash C_0$	0	1
00	0	1
01	1	0
11	0	0
10	0	0

$$\Rightarrow C_0 C_1' C_2' + C_0' C_1 C_2'$$

$$\Rightarrow C_2' (C_0' C_1 + C_0 C_1')$$

$$\text{Final: } C_2' (C_0 \oplus C_1)$$

Green Light 2:

$C_2/C_1 \backslash C_0$	0	1
00	0	0
01	0	0
11	1	0
10	0	1

$$\Rightarrow C_0' C_1 C_2 + C_0 C_1' C_2$$

$$\Rightarrow C_2 (C_0' C_1 + C_0 C_1')$$

$$\text{Final: } C_2 (C_0 \oplus C_1)$$

Yellow Light 1:

$C_2/C_1 \backslash C_0$	0	1
00	0	0
01	0	1
11	0	0
10	0	0

$$\Rightarrow C_0 C_1 C_2'$$

Red Light 2:

$C_2/C_1 \backslash C_0$	0	1
00	1	1
01	1	1
11	0	0
10	1	0

$$\Rightarrow C_2' + C_0' C_1' C_2$$

$$\text{Final} = C_2' + C_0' C_1'$$

Yellow Light 2:

$C_2/C_1 \backslash C_0$	0	1
00	0	0
01	0	0
11	0	1
10	0	0

$$\Rightarrow C_0 C_1 C_2$$

Red Light 1:

$C_2/C_1 \backslash C_0$	0	1
00	1	0
01	0	0
11	1	1
10	1	1

$$\Rightarrow C_2 + C_0' C_1' C_2'$$

$$\Rightarrow \text{Final: } C_2 + C_0' C_1'$$