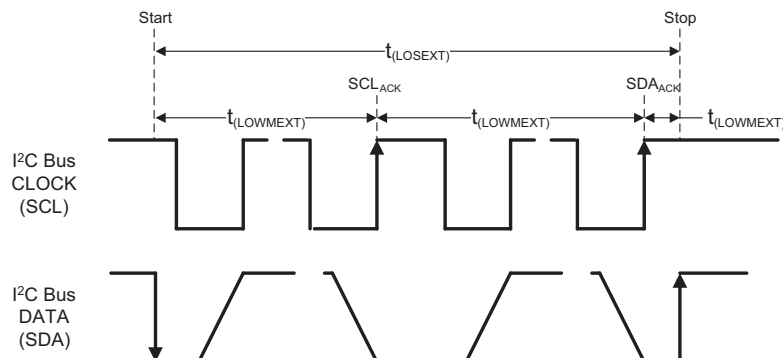
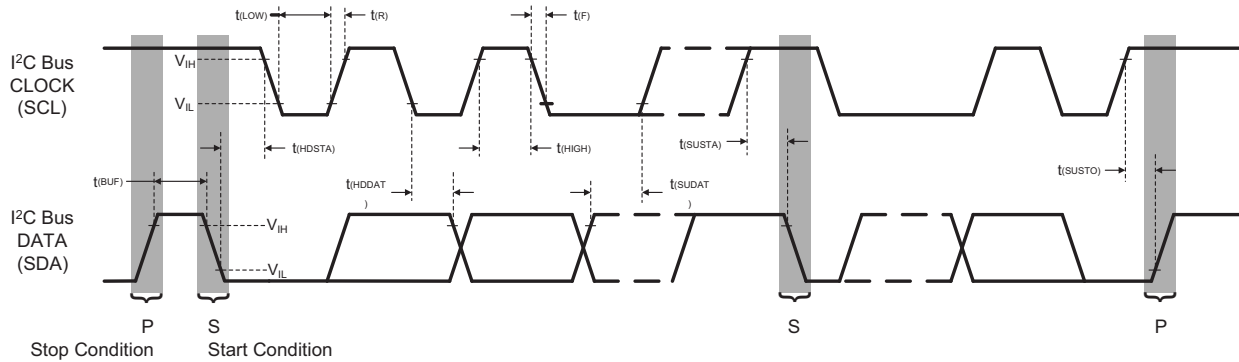


<b>I<sup>2</sup>C TIMING CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)						
PARAMETER	SYMBOL	STANDARD MODE		FAST MODE		UNIT
		MIN.	MAX.	MIN.	MAX.	
Clock frequency	$f_{(SMBCLK)}$	10	100	10	400	kHz
Bus free time between start and stop condition	$t_{(BUF)}$	4.7	-	1.3	-	$\mu\text{s}$
Hold time after (repeated) start condition; after this period, the first clock is generated	$t_{(HDSTA)}$	4.0	-	0.6	-	$\mu\text{s}$
Repeated start condition setup time	$t_{(SUSTA)}$	4.7	-	0.6	-	$\mu\text{s}$
Stop condition setup time	$t_{(SUSTO)}$	4.0	-	0.6	-	$\mu\text{s}$
Data hold time	$t_{(HDDAT)}$		3450	-	900	ns
Data setup time	$t_{(SUDAT)}$	250	-	100	-	ns
I <sup>2</sup> C clock (SCK) low period	$t_{(LOW)}$	4.7	-	1.3	-	$\mu\text{s}$
I <sup>2</sup> C clock (SCK) high period	$t_{(HIGH)}$	4.0	-	0.6	-	$\mu\text{s}$
Detect clock / data low timeout	$t_{(TIMEOUT)}$	25	35	-	-	ms
Clock / data fall time	$t_{(F)}$	-	300	-	300	ns
Clock / data rise time	$t_{(R)}$	-	1000	-	300	ns


 Fig. 1 - I<sup>2</sup>C Timing Diagram

**PARAMETER TIMING INFORMATION**

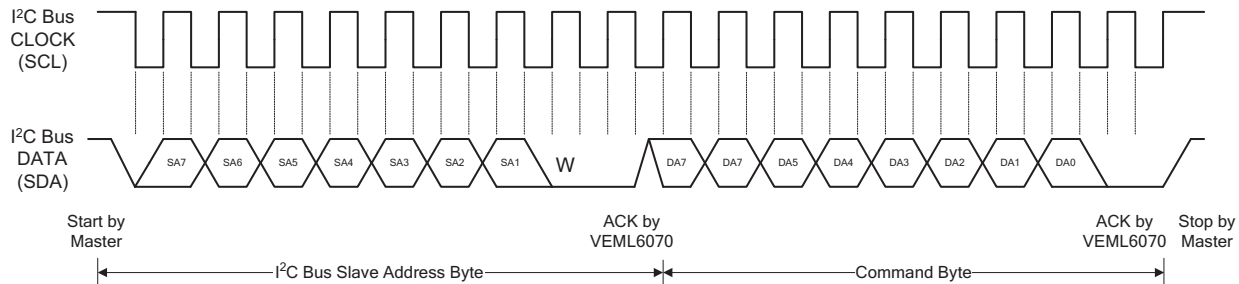


Fig. 2 - Timing for Send Byte Command Format

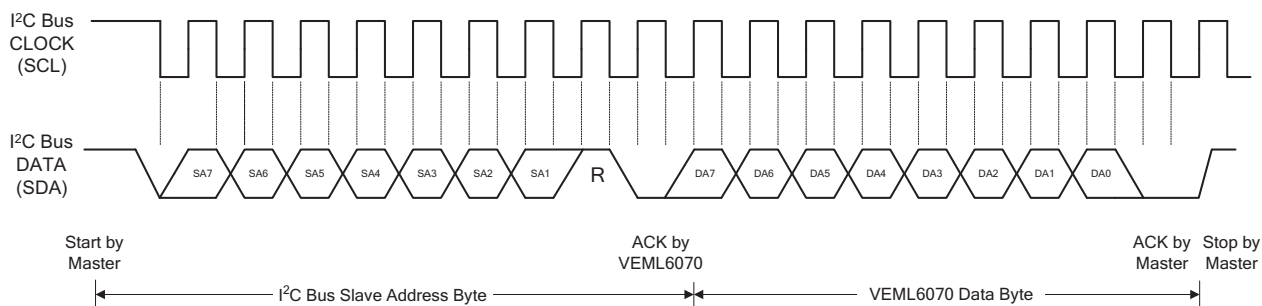


Fig. 3 - I<sup>2</sup>C Timing for Receive Byte Command Format

**TYPICAL PERFORMANCE CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

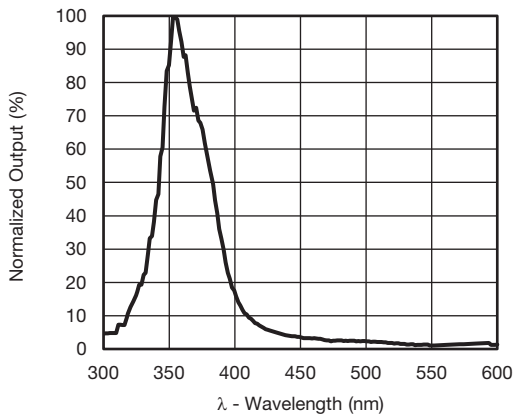


Fig. 4 - Normalized Spectral Response

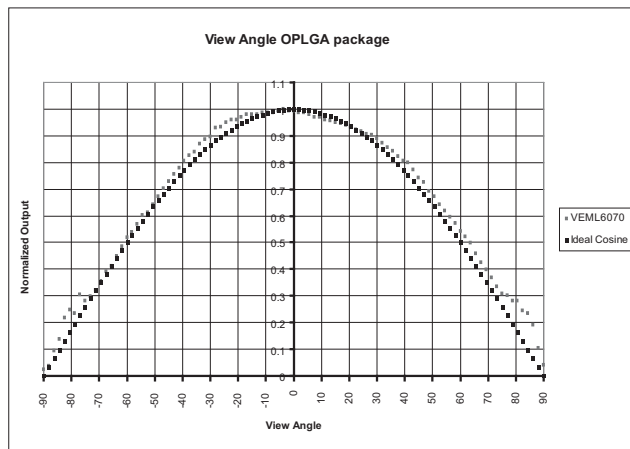


Fig. 5 - Normalized Output vs. View Angle