

CONTENTS

1 Preface and Acknowledgments	1
2 Terms and Definitions	2
3 Symbols and Units	3
4 Abbreviations	4
5 Introduction	6
6 Comfort	13
7 Passive Beams	15
8 Active Beams	23
9 Primary Airflow Calculation Methodology	32
10 Controls	40
11 Installation and Commissioning	49
12 System Operation	52
13 Energy and Total Cost of Ownership	53
14 References and Bibliography	55
Appendix A: Examples for SI Applications	58
Appendix B: Examples for I-P Applications	84

**Excel files for beam calculations
provided online at ashrae.org/beamcalc.**

