

ISO/CIE TR 3092:2023-09 (E)

Light and lighting - Energy performance of lighting in buildings - Explanation and justification of ISO/CIE 20086

Contents		Page
	Foreword	v
	Introduction	vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviations	1
4.1	General.....	1
4.2	Symbols and abbreviations.....	1
5	Description of the methods	3
5.1	General.....	3
5.2	Method 1 – Comprehensive method.....	4
5.3	Optional methods.....	5
5.3.1	Method 2 – Quick calculation method.....	5
5.3.2	Method 3 – Direct metering method.....	5
6	Method 1 — Calculation of the energy required for lighting	5
6.1	Output data.....	5
6.2	Calculation time steps.....	5
6.3	Input data.....	6
6.3.1	Lighting system data.....	6
6.3.2	Product data.....	9
6.3.3	System design data.....	10
6.3.4	Operating conditions.....	10
6.3.5	Constants and physical data.....	11
6.4	Calculation procedure.....	11
6.4.1	Applicable time step.....	11
6.4.2	Operating conditions calculation.....	11
6.4.3	Energy calculation.....	11
7	Method 2 – Quick calculation of the energy required for lighting	28
7.1	General.....	28
7.2	Output data.....	28
7.3	Calculation time steps.....	29
7.4	Input data.....	29
7.5	Calculation procedure.....	29
7.5.1	Applicable time step.....	29
7.5.2	Operating conditions calculation.....	29
7.5.3	Energy calculation.....	30
7.6	Expenditure factors for lighting systems.....	47
8	Method 3 — Metered energy used for lighting	47
8.1	General.....	47
8.2	Output data.....	47
8.3	Calculation time steps.....	48
8.4	Input data.....	48
8.5	Calculation procedure of annual energy.....	48
8.5.1	General.....	48
8.5.2	Calculation information.....	48

8.5.3	Calculation procedure of annual energy.....	50
9	Quality control	50
9.1	Method 1.....	50
9.2	Method 2.....	51
9.3	Method 3.....	51
10	Compliance check	51
Annex A (informative)	Calculation example for a new design retail store	52
Bibliography		82