

Addendum 1 to Code of Practice for Energy Efficiency of Lighting Installations, 2007 edition

Amendments are hereby stipulated as follows:

1) Replace the entire Table (LG2) in Sub-clause 4.1, (page 3) with the following table:

Table (LG2): Minimum Allowable Values of Luminous Efficacy for Various Types of Lamps

Lamp Type			Lamp Code	Nominal Lamp Wattage { L_w }	Minimum Allowable Luminous Efficacy (lm/W)	
Fluorescent tube			MCF	L_w	Colour Temperature	
					< 6000°K	≥ 6000°K
T5 Luminous Efficacy referenced at 35°C operating temperature	Tubular & U-Shape	High Efficiency type with Lumen per unit tube length < 2700 Lumen/m		14	87	80
		21		90	84	
		28		93	87	
		35		94	87	
	Circular	High Output type with Lumen per unit tube length ≥ 2700 Lumen/m		24	75	71
		39		81	76	
		49		90	85	
		54		83	79	
T8 & Non-T5 Luminous Efficacy referenced at 25°C operating temperature				80	79	75
				40W – 60W	70	65
				< 40W	75	70
				< 15	49	45
				15	63	59
			18	71	69	
			30	76	73	
			36	88	86	
			≥ 58	85	82	
For Fluorescent tubes of same type having a Wattage falling between two indicated values, the L_w can be calculated by linear interpolation between the two Luminous Efficacy values of the two closest Wattage values indicated.						
Compact Fluorescent			CFN	Comply with latest requirements on minimum allowable luminous efficacy in The HK Voluntary Energy Efficiency Labelling Scheme for Compact Fluorescent Lamps, EMSD, available for download at http://www.emsd.gov.hk/emsd/eng/pee/eels_sch_doc.shtml . (Extract at Appendix A)		
Non-integrated Type with NO built-in controlgear			CFG			
Integrated Type with built-in controlgear						
Metal Halide			MBI	$\{L_w\} < 100 \text{ W}$	70	
				$100 \leq \{L_w\} < 400 \text{ W}$	75	
				$\{L_w\} \geq 400 \text{ W}$	85	
Mercury Vapour			MBF	$\{L_w\} \leq 50 \text{ W}$	35	
				$50 \text{ W} < \{L_w\} < 250 \text{ W}$	45	
				$\{L_w\} \geq 250 \text{ W}$	50	
Low Pressure Sodium Vapour			SOX	$20 \text{ W} \leq \{L_w\}$	100	
				$20 \text{ W} < \{L_w\} < 40 \text{ W}$	130	
				$40 \text{ W} \leq \{L_w\} < 100 \text{ W}$	140	
				$\{L_w\} \geq 100 \text{ W}$	160	
High Pressure Sodium Vapour			SON	$\{L_w\} < 50 \text{ W}$	30	
				$50 \text{ W} \leq \{L_w\} < 125 \text{ W}$	65	
				$125 \text{ W} \leq \{L_w\} < 500 \text{ W}$	85	
				$\{L_w\} \geq 500 \text{ W}$	120	
Blended Vapour <i>(with built-in tungsten filament)</i>			MBTF	$\{L_w\} \leq 100 \text{ W}$	10	
				$100 \text{ W} < \{L_w\} \leq 160 \text{ W}$	15	
				$160 \text{ W} < \{L_w\} < 300 \text{ W}$	20	
				$\{L_w\} \geq 300 \text{ W}$	25	

Tungsten Filament (including reflector lamps)	GLS	$\{L_w\} < 20 \text{ W}$	6
		$20 \text{ W} \leq \{L_w\} < 40 \text{ W}$	8
		$40 \text{ W} \leq \{L_w\} < 60 \text{ W}$	10
		$60 \text{ W} \leq \{L_w\} < 100 \text{ W}$	12
		$100 \text{ W} \leq \{L_w\} < 150 \text{ W}$	13
		$\{L_w\} \geq 150 \text{ W}$	14
Tungsten Halogen (including reflector lamps)	TH	$\{L_w\} < 20 \text{ W}$	12
		$20 \text{ W} \leq \{L_w\} \leq 100 \text{ W}$	15
		$100 \text{ W} < \{L_w\} \leq 500 \text{ W}$	16
		$500 \text{ W} < \{L_w\} < 1000 \text{ W}$	19
		$\{L_w\} \geq 1000 \text{ W}$	22

2) Add the following paragraph after Table (LG2) in Sub-clause 4.1 (page 3)

Exception:

A maximum of 5% of lamps in a space, calculated based on the total lighting load in corresponding space, subject to the space meeting LPD requirements in Table (LG4).

3) Add the following paragraph to Sub-clause 4.2 (page 4) on controlgear loss:

Exception:

A maximum of 5% of lamps in a space, calculated based on the total lighting load in corresponding space, subject to the space meeting LPD requirements in Table (LG4).

4) In Sub-clause 4.2 on LPD, the **lighting energy approach** applicable to Spaces A1 & A14 (page 5) **applies to all types of spaces.**

5) Add the following paragraph to Sub-clause 4.4 (page 7) on lighting control:

Exception:

In a space with LPD lower than the LPD values in Table (LG4), fewer no. of control points could be provided, the percentage of which should not be less than the ratio given by the difference between required LPD and actual LPD to the required LPD.

6) Replace in Appendix C1 (page 18) the table for Form LG-1 with the following table:

Data of Lamps & Luminaires					Office	Sheet 1 of (1)	Form LG-1	
Luminaire Designation	Lamp Code <i>quoted from Table (LG2)</i>	Nominal Lamp Wattage $\{L_w\}$ <i>(Lamp only)</i>	Luminous Efficacy		No. of Lamps per Luminaire	No. of Ballasts per Luminaire	Power Consumption per Luminaire (lamp + ballast)	
			Luminous Efficacy <i>(manufacturer data) at prescribed operating hours in Table (LG1)</i>	Minimum Allowable Value <i>Table (LG2)</i>			Circuit Wattage {CW} <i>Manufacturer data or calculated by: $\{n\} \times \{L_w\} + \{Controlgear Loss per Luminaire\}$</i>	Maximum Allowable Value
			(lm/W)	(lm/W)			(W)	(W)
FL2	MCF T5	14	98	87	2	1	31.6	32
FL4	MCF T5	28	98	93	1	1	30.5	32
FL5	MCF T5	28	98	93	2	1	59.1	62.1
FL6	MCF T5	35	99	94	1	1	38.5	39

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FL7	MCF T5	35	99	94	2	1	77	77.2
FL8	CFN 2-tube	16	67	65	1	1	17.2	19
FL9	CFN 2-tube	12	69	65	1	1	13.5	16
FL10	MCF T5	14	98	87	1	1	16.4	17

7) Replace in Appendix C2 (page 21) the table for Form LG-1 with the following table:

Data of Lamps & Luminaires				Office		Sheet 1 of (1)		Form LG-1	
Luminaire Designation	Lamp Code <i>quoted from Table (LG2)</i>	Nominal Lamp Wattage $\{L_w\}$ <i>(Lamp only)</i>	Luminous Efficacy		No. of Lamps per Luminaire	No. of Ballasts per Luminaire	Power Consumption per Luminaire (lamp + ballast)		
			Luminous Efficacy <i>(manufacturer data) at prescribed operating hours in Table (LG1)</i>	Minimum Allowable Value <i>Table (LG2)</i>			Circuit Wattage {CW} <i>Manufacturer data or calculated by: $\{n\} \times \{L_w\} + \{Controlgear Loss per Luminaire\}$</i>	Maximum Allowable Value	
			(lm/W)	(lm/W)			{n} per Luminaire	(W)	(W)
BH1	MBI	100	87	75	1	1	110	111.8	
BH2	SON	100	85	65	1	1	110.5	111.8	
BH3	MCF T5	35	97	94	1	1	38.5	39	
BH4	TH	150	17.2	16	1	N.A.	150	N.A.	
BH5	MBI	70	88	70	1	1	78.5	80	
BH6	SON	50	83	65	1	1	57.2	58.8	
BH7	GLS	40	10	10	1	N.A.	40	N.A.	

8) Replace in Appendix C3 (page 24) the table for Form LG-1 with the following table:

Data of Lamps & Luminaires				Office		Sheet 1 of (1)		Form LG-1	
Luminaire Designation	Lamp Code <i>quoted from Table (LG2)</i>	Nominal Lamp Wattage $\{L_w\}$ <i>(Lamp only)</i>	Luminous Efficacy		No. of Lamps per Luminaire	No. of Ballasts per Luminaire	Power Consumption per Luminaire (lamp + ballast)		
			Luminous Efficacy <i>(manufacturer data) at prescribed operating hours in Table (LG1)</i>	Minimum Allowable Value <i>Table (LG2)</i>			Circuit Wattage {CW} <i>Manufacturer data or calculated by: $\{n\} \times \{L_w\} + \{Controlgear Loss per Luminaire\}$</i>	Maximum Allowable Value	
			(lm/W)	(lm/W)			{n} per Luminaire	(W)	(W)
BR1	GLS	60	14	12	1	N.A.	60	N.A.	
BR2	CFG	22	60	55	1	1	24	25	
BR3	GLS	40	11	10	1	N.A.	40	N.A.	
BR4	TH	35	19	15	1	1	37.8	N.A.	
BR5	GLS	100	13	13	1	N.A.	100	N.A.	
BR6	MCF	13	70	49	1	1	15	15.7	
BR7	TH	35	20	15	1	1	37.8	N.A.	
TL1	GLS	40	14	10	1	N.A.	40	N.A.	
TL2	CFN 2-tube	13	69	65	1	1	16	16.7	
TL3	TH	20	18	15	1	1	22.8	N.A.	

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FR1	CFN 2-tube	6.5	68	<i>50</i>	1	1	7.5	<i>9</i>
FR2	TH	35	15	<i>15</i>	1	1	37	<i>N.A.</i>
FR3	GLS	30	11	<i>8</i>	6	N.A.	180	<i>N.A.</i>
FR4	CFG	8	60	<i>45</i>	2	1	18	<i>19</i>
FR5	MCF T5	21	97	<i>90</i>	1	1	22.8	<i>24</i>

(Amendments are shown in red)

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