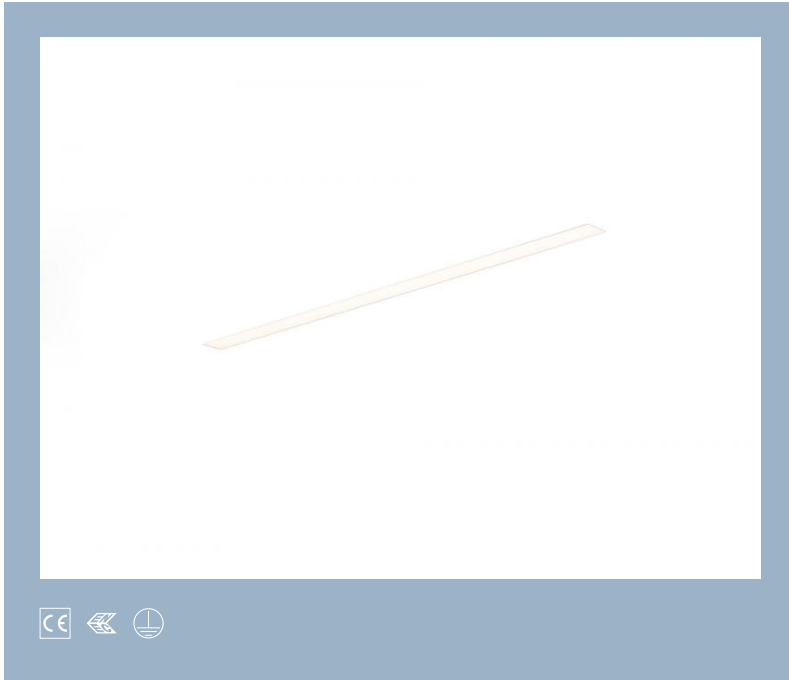


# V2M1B1/LEDN18D



**module • linear**

**application** : Office, Retail, Horeca, Education, Leisure

**light source** : LED LP • 4006 K

**optics** : Diffuser • acrylic (PMMA) HaloOptics® • very wide-angle

**UGR classification** : <=28

**luminous flux**: 5333 lm

**luminous efficacy** : 136 lm/W

**LLMF**: 93% @ 50khrs (Tq=25°C)

## Product information

### Mechanical properties

**type** : in-line mounting: end luminaire

### Electrical properties

**driver**: DALI dimmable

**power** : 39 W

**voltage** : 220-240V

**frequency** : 50-60Hz AC

**photobiological safety** : EN 62471: RISK GROUP 0 UNLIMITED

## Luminance

luminous flux : 5333 lm

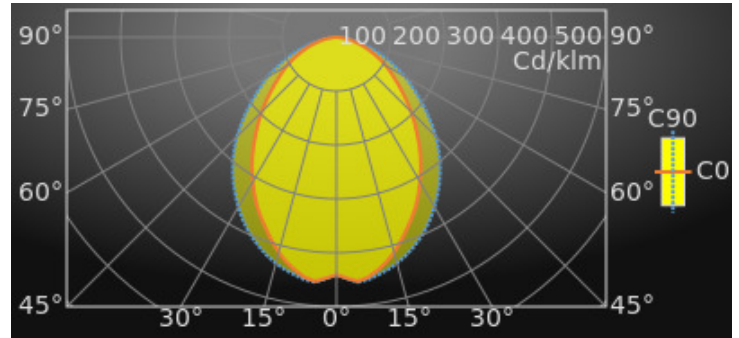
luminous efficacy : 136 lm/W

UGR classification  $\leq 28$

luminous area : 0.07 m<sup>2</sup>

Average Luminances (Cd/m<sup>2</sup>) for 1700lm

Gamma	C0	C30	C45	C60	C90
45°	10714	11336	12544	12979	14244
50°	9660	10373	11550	12035	13187
55°	8812	9497	10599	11145	12141
60°	8202	8516	9610	10118	11347
65°	7367	7711	8935	9064	10189
70°	6624	6975	8053	7977	9045
75°	5722	5969	7058	6911	7937
80°	5083	4813	6078	5522	6694
85°	2467	2976	4795	3452	4341



## Classifications

CIE: 550 / 842 / 970 / 1000 / 1000

CIE FLUXCODE : 0.55 / 0.84 / 0.97 / 1.00 / 1.00

BZ: BZ3/1.5/BZ4

CAE: Symmetrical

DIN: A50 (Nach Arbeitsblatt 7)

DIN\_U: Phi u = 1.00

DIN\_SU: Phi su = 0.60

UTE: 1.00 D + 0.00 T

## Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

Time(khrs)	LLMF(%)	Cx(%)
10	100	2
20	99	4
30	99	6
40	99	8
50	98	10
60	98	12

Intensity for 1700lm

Gamma	C0	C45	C90
0°	749.4	749.4	749.4
5°	773.1	776.5	775.2
10°	746.9	759.0	760.5
15°	702.7	730.0	737.8
20°	645.6	688.8	706.3
25°	590.9	636.8	666.7
30°	526.4	580.1	618.1
35°	461.9	516.2	564.7
40°	394.8	450.7	507.1
45°	333.3	390.3	443.2
50°	273.2	326.7	373.0
55°	222.4	267.5	306.4
60°	180.4	211.4	249.6
65°	137.0	166.1	189.5
70°	99.7	121.2	136.1
75°	65.2	80.4	90.4
80°	38.8	46.4	51.1
85°	9.5	18.4	16.6
90°	1.0	0.9	0.6

## UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 1700lm (S = 0.25H)

Ceiling Walls Floor	Room Reflection Factors (%)									
	70	70	50	50	30	70	70	50	50	30
	50	30	50	30	30	50	30	50	30	30
	20	20	20	20	20	20	20	20	20	20
Room Dimensions	Viewed Crosswise					Viewed Endwise				
X = 2H Y = 2H	19.5	21.3	19.9	21.5	21.8	21.1	22.8	21.4	23.1	23.3
Y = 3H	20.6	22.2	21.0	22.5	22.8	22.3	23.9	22.7	24.2	24.5
Y = 4H	21.1	22.5	21.4	22.8	23.2	22.8	24.3	23.2	24.6	24.9
Y = 6H	21.3	22.7	21.7	23.0	23.4	23.1	24.5	23.5	24.8	25.1
Y = 8H	21.4	22.7	21.8	23.0	23.4	23.2	24.5	23.5	24.8	25.2
Y = 12H	21.4	22.7	21.8	23.0	23.4	23.2	24.4	23.6	24.8	25.1
X = 4H Y = 2H	20.2	21.7	20.5	22.0	22.3	21.4	22.9	21.8	23.2	23.5
Y = 3H	21.4	22.7	21.8	23.1	23.4	22.8	24.1	23.2	24.5	24.8
Y = 4H	22.0	23.1	22.4	23.5	23.8	23.4	24.6	23.8	24.9	25.3
Y = 6H	22.4	23.4	22.8	23.7	24.2	23.9	24.9	24.3	25.3	25.7
Y = 8H	22.5	23.4	22.9	23.8	24.2	24.0	24.9	24.4	25.3	25.8
Y = 12H	22.5	23.3	22.9	23.8	24.2	24.1	24.9	24.5	25.3	25.8
X = 8H Y = 4H	22.2	23.2	22.7	23.6	24.0	23.6	24.5	24.0	24.9	25.3
Y = 6H	22.7	23.5	23.2	23.9	24.4	24.1	24.9	24.6	25.3	25.8
Y = 8H	22.9	23.6	23.4	24.0	24.5	24.3	25.0	24.8	25.4	25.9
Y = 12H	23.0	23.6	23.5	24.0	24.6	24.4	25.0	24.9	25.5	26.0
X = 12H Y = 4H	22.2	23.1	22.7	23.5	24.0	23.6	24.4	24.0	24.8	25.3
Y = 6H	22.8	23.5	23.3	23.9	24.4	24.1	24.8	24.6	25.3	25.8
Y = 8H	23.0	23.5	23.5	24.0	24.5	24.3	24.9	24.8	25.4	25.9
<b>UGR Variations with Observer Position for Luminaire Spacings S</b>										
S = 1.0H	+0.2		-0.3		+0.2		-0.2			
S = 1.5H	+0.4		-0.6		+0.3		-0.5			
S = 2.0H	+0.6		-1.1		+0.7		-0.9			



## Colour properties

Correlated Colour Temperature : 4006

Ra: 86

## Efficiency

Utilisation Factors according to IES (%)

	Room Reflection Factors (%)									
	80	80	80	50	50	50	30	30	30	0
Ceiling	80	80	80	50	50	50	30	30	30	0
Walls	50	30	10	50	30	10	50	30	10	0
Floor	20	20	20	20	20	20	20	20	20	0
RCR = 1	105	102	100	98	96	94	94	93	91	86
2	92	87	83	86	83	80	83	80	78	73
3	81	75	70	77	72	68	74	70	67	63
4	73	66	60	69	63	59	67	62	58	55
5	66	58	53	62	56	51	60	55	51	48
6	60	52	46	57	50	46	55	49	45	42
7	54	47	41	52	45	41	51	45	40	38
8	50	42	37	48	41	37	47	41	36	34
9	46	39	33	44	38	33	43	37	33	31
10	43	35	31	41	35	30	40	34	30	28

Utilisation Factors according to LiTG (%)

	Room Reflection Factors (%)									
	80	80	80	50	50	50	50	50	30	0
Ceiling	80	80	80	50	50	50	50	50	30	0
Walls	50	30	50	30	50	30	50	30	30	0
Floor	30	30	10	10	30	30	10	10	10	0
k = 0.60	52	44	50	42	50	43	48	42	41	35
0.80	63	54	59	52	60	53	57	51	51	44
1.00	72	63	67	60	68	61	64	58	58	51
1.25	82	73	75	68	77	70	72	67	66	60
1.50	88	80	80	74	82	76	77	72	71	65
2.00	96	89	86	81	89	84	83	79	78	72
2.50	103	96	91	86	95	90	88	84	83	78
3.00	107	101	94	90	99	95	91	88	87	82
4.00	112	107	97	94	103	99	94	91	90	85
5.00	116	111	99	97	106	102	96	94	92	88