

# E22/LED4N060D-ATEX1

surface-mounted luminaire • linear



application : Industry

housing: lacquered aluminium

light source : LED LP • 4000 K

optics : Linear lens • wide-angle

UGR classification : <=25

luminous flux: 6650 lm

luminous efficacy : 130 lm/W

LLMF: 96% @ 50khrs (Tq=25°C)



## Mechanical properties

dimensions : 1120 mm x 80 mm x 135 mm

colour: RAL7035-light grey

type : individual luminaire

IP: IP66, IP69K

ambient temperature: from -20°C to 40°C •

ATEX : II 2D Ex tb IIIC T80°C Db,II 3G Ex ec nA IIC T4 Gc

## Luminance

luminous flux : 6650 lm

luminous efficacy : 130 lm/W

UGR classification: <=25

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

## Electrical properties

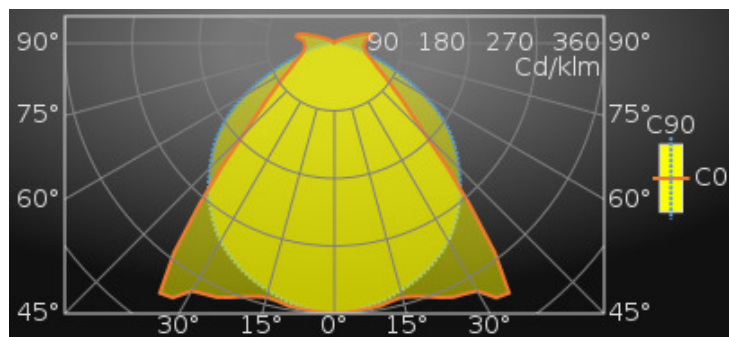
driver: DALI dimmable

power : 51 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED



Average Luminances (Cd/m<sup>2</sup>) for 6650lm

Gamma	C0	C30	C45	C60	C90
45°	16826	21689	29857	33996	33547
50°	12090	14581	20127	28768	32757
55°	9430	10842	14072	21794	31216
60°	7736	8722	10579	16204	27819
65°	6932	7341	8471	12063	22761
70°	6347	6730	7301	9256	17467
75°	6288	6346	6600	7455	12949
80°	6629	6232	6305	6405	9120
85°	7410	6622	6257	5817	4548

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## Classifications

CIE: 528 / 803 / 898 / 942 / 1001

CIE FLUXCODE : 0.56 / 0.85 / 0.95 / 0.94 / 1.00

BZ: BZ4/0.8/BZ3/1/BZ4/1.25/BZ3/1.5/BZ4

CAE: CAE 3/5°/CAE 2/15°/CAE 1/35°/CAE 2/65°/CAE 3

DIN: A40 (Nach Arbeitsblatt 7 und 8)

DIN\_U: Phi u = 0.94

DIN\_SU: Phi su = 0.60

UTE: 0.94 D + 0.06 T

## Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

Time(khrs)	LLMF(%)	Cx(%)
10	99	1
20	98	2
30	98	3
40	97	4
50	96	5
60	96	6

Intensity for 6650lm

Gamma	C0	C45	C90	Gamma	C0	C45	C90
0°	2393.2	2393.2	2393.2	90°	267.7	144.4	1.6
5°	2378.8	2366.8	2371.5	95°	276.8	122.3	0.0
10°	2361.0	2360.1	2328.5	100°	343.9	117.7	0.0
15°	2328.6	2306.4	2268.8	105°	313.3	114.7	0.0
20°	2387.9	2246.3	2203.1	110°	190.6	113.2	0.0
25°	2481.2	2264.4	2120.6	115°	115.0	92.9	0.0
30°	2533.8	2310.7	2022.5	120°	74.6	56.0	0.0
35°	2700.5	2290.4	1888.1	125°	49.2	29.1	0.0
40°	1864.3	2367.2	1737.8	130°	31.6	9.3	0.0
45°	1134.4	1830.7	1562.3	135°	18.7	1.0	0.0
50°	785.0	1173.6	1386.8	140°	2.0	0.0	0.0
55°	584.0	772.0	1179.2	145°	0.0	0.0	0.0
60°	452.3	539.4	916.1	150°	0.0	0.0	0.1
65°	378.2	395.9	633.5	155°	0.0	0.0	0.0
70°	318.9	307.5	393.5	160°	0.0	0.0	0.0
75°	286.3	245.4	220.7	165°	0.0	0.0	0.0
80°	268.3	201.6	104.3	170°	0.1	0.1	0.3
85°	260.2	165.9	26.1	175°	0.0	0.0	0.0
90°	267.7	144.4	1.6	180°	0.0	0.0	0.0

## UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 6650lm (S = 0.25H)

Room Dimensions	Room Reflection Factors (%)									
	Ceiling	Walls	Floor	Viewed Crosswise		Viewed Endwise				
X = 2H Y = 2H	70	70	50	50	30	70	70	50	50	30
Y = 3H	50	30	50	30	30	50	30	50	30	30
Y = 4H	20	20	20	20	20	20	20	20	20	20
Y = 6H	20.1	21.7	20.5	22.1	22.4	23.4	25.0	23.8	25.4	25.8
Y = 8H	20.7	22.1	21.1	22.5	22.9	24.2	25.7	24.6	26.1	26.5
Y = 12H	21.0	22.4	21.5	22.8	23.2	24.4	25.8	24.9	26.2	26.6
X = 4H Y = 2H	21.5	22.8	22.0	23.2	23.6	24.5	25.8	25.0	26.2	26.6
Y = 3H	21.8	23.1	22.3	23.5	23.9	24.5	25.7	25.0	26.2	26.6
Y = 4H	22.2	23.3	22.6	23.8	24.2	24.5	25.6	24.9	26.1	26.5
Y = 6H	20.4	21.8	20.9	22.2	22.6	23.4	24.7	23.8	25.1	25.5
Y = 8H	21.2	22.4	21.7	22.8	23.3	24.3	25.5	24.8	25.9	26.3
Y = 12H	21.7	22.8	22.2	23.2	23.7	24.6	25.6	25.1	26.1	26.6
X = 8H Y = 4H	22.4	23.3	22.9	23.8	24.3	24.8	25.7	25.3	26.2	26.7
Y = 6H	22.8	23.7	23.3	24.2	24.7	24.8	25.7	25.4	26.2	26.7
Y = 8H	23.3	24.1	23.8	24.6	25.1	24.8	25.6	25.4	26.1	26.7
Y = 12H	22.0	22.8	22.5	23.3	23.8	24.6	25.5	25.1	26.0	26.5
X = 12H Y = 4H	22.8	23.5	23.4	24.1	24.6	24.9	25.6	25.5	26.2	26.7
Y = 6H	23.4	24.0	23.9	24.6	25.1	25.0	25.6	25.6	26.2	26.8
Y = 8H	24.0	24.6	24.6	25.1	25.7	25.0	25.6	25.6	26.2	26.8
Y = 12H	22.0	22.8	22.5	23.3	23.8	24.6	25.4	25.2	25.9	26.4
UGR Variations with Observer Position for Luminaire Spacings S	22.9	23.5	23.5	24.1	24.6	24.9	25.6	25.5	26.1	26.7
S = 1.0H	23.5	24.1	24.1	24.6	25.2	25.1	25.6	25.6	26.2	26.8
S = 1.5H	+0.6	-0.6	+0.4	-0.3						
S = 2.0H	+0.9	-0.9	+0.6	-0.8						
	+1.5	-1.1	+1.5	-1.8						

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## Colour properties

Correlated Colour Temperature : 4000

Ra: 80

## Efficiency

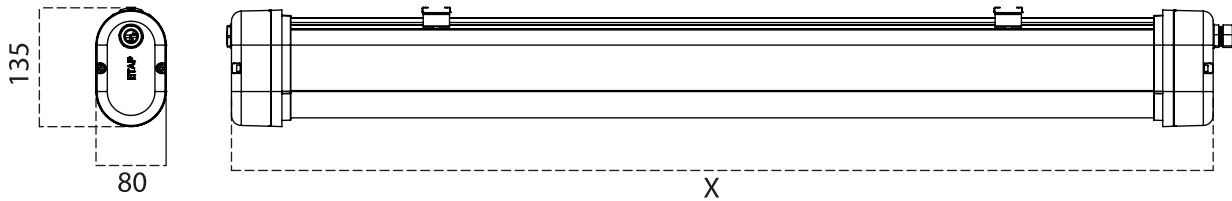
Utilisation Factors according to IES (%)

	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	103	100	98	95	93	91	90	88	87	80
2	91	86	82	84	80	77	80	76	74	68
3	80	74	70	74	70	66	71	67	64	59
4	72	65	60	67	61	57	64	59	55	51
5	65	57	52	60	54	50	58	53	49	45
6	59	51	45	55	49	44	53	47	43	40
7	53	46	40	50	44	39	48	42	38	35
8	49	41	36	46	39	35	44	38	34	32
9	45	37	32	42	36	31	41	35	31	29
10	41	34	29	39	33	29	38	32	28	26

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	50	41	48	40	47	40	45	39	38	32
0.80	62	53	58	51	58	51	55	49	48	41
1.00	70	61	65	58	65	58	62	56	55	48
1.25	80	71	73	67	74	67	70	64	63	56
1.50	86	78	78	72	79	73	74	70	68	61
2.00	94	87	84	79	86	80	80	76	74	67
2.50	101	94	89	84	91	86	84	81	78	72
3.00	105	99	92	88	95	91	88	85	82	76
4.00	110	105	95	92	99	95	90	88	85	79
5.00	114	109	98	95	102	98	93	90	88	82

## Dimensional drawing



E2*/LED2*	620 mm
E2*/LED4*	1120 mm
E2*/LED6*	1620 mm