

E21/LED3N045S-ATEX1



surface-mounted luminaire • linear

Application : ATEX environments

housing: lacquered aluminium

light source : LED • 4000 K

optics : linear lens • polycarbonate (PC) • medium wide-angle

UGR classification : <=28

luminous flux: 5000 lm

luminous efficacy : 128 lm/W

LLMF: 96% @ 50khrs (Tq=25°C)

Product information

Mechanical properties

dimensions : 870 mm x 80 mm x 135 mm

colour: RAL7035 - light grey

type : individual luminaire

IP: IP66, IP69K

ambient temperature: -20°C - 40°C •

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

Electrical properties

driver: not dimmable

power : 39 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

Luminance

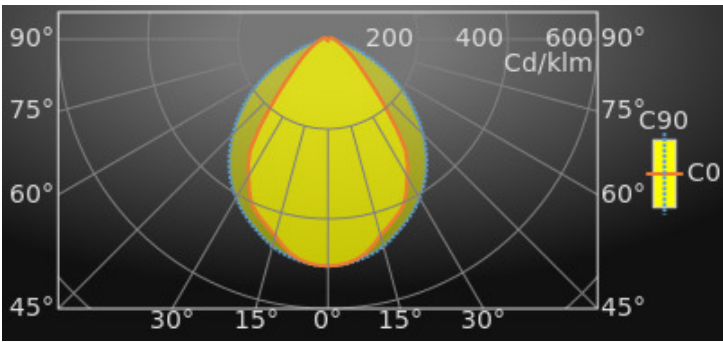
luminous flux : 5000 lm

luminous efficacy : 128 lm/W

UGR classification =: <=28

luminous area : 0.05 m²

Gamma	Average Luminances (Cd/m²) for 5000lm				
	C0	C30	C45	C60	C90
45°	12964	17717	25394	32211	43073
50°	9345	12219	18223	27882	40193
55°	7192	8998	12906	22117	36968
60°	5650	7063	9533	16673	32528
65°	4743	5655	7423	12250	26867
70°	3917	4852	6129	9136	20942
75°	3432	4231	5148	6984	15651
80°	3212	3710	4536	5547	10959
85°	3074	3427	4051	4529	5317



Classifications

CIE: 607 / 867 / 954 / 983 / 1002

CIE FLUXCODE : 0.62 / 0.88 / 0.97 / 0.98 / 1.00

BZ: BZ2/1/BZ3/1.25/BZ2/1.5/BZ3

CAE: CAE 3/5°/CAE 2/55°/CAE 3

DIN: A50 (Nach Arbeitsblatt 7 und 8)

DIN_U: Phi u = 0.98

DIN_SU: Phi su = 0.64

UTE: 0.98 C + 0.02 T

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

Luminous intensities in cd

Intensity for 5000lm

Gamma	C0	C45	C90	Gamma	C0	C45	C90
0°	2524.7	2524.7	2524.7	90°	70.5	62.1	1.1
5°	2500.7	2494.0	2505.2	95°	59.5	45.5	0.0
10°	2419.1	2458.9	2460.3	100°	55.1	35.3	0.0
15°	2261.4	2342.9	2386.5	105°	48.1	26.6	0.0
20°	2141.7	2187.6	2279.4	110°	38.2	20.0	0.0
25°	2010.8	2073.7	2168.7	115°	29.7	15.2	0.0
30°	1762.1	1957.7	2041.2	120°	22.6	10.8	0.0
35°	1505.6	1703.7	1888.7	125°	16.1	7.1	0.0
40°	1008.0	1490.6	1704.7	130°	11.1	3.9	0.0
45°	651.8	1161.1	1495.8	135°	7.3	0.2	0.0
50°	452.4	792.3	1268.8	140°	3.7	0.0	0.0
55°	332.2	527.9	1041.3	145°	0.0	0.0	0.0
60°	246.3	362.5	798.7	150°	0.0	0.0	0.0
65°	193.0	258.7	557.6	155°	0.0	0.0	0.1
70°	146.7	192.5	351.8	160°	0.0	0.0	0.1
75°	116.5	142.8	198.9	165°	0.1	0.0	0.1
80°	97.0	108.1	93.5	170°	0.5	0.4	0.2
85°	80.5	80.1	22.8	175°	1.3	1.2	1.0
90°	70.5	62.1	1.1	180°	1.2	1.2	1.2

UGR classification =

Corrected Glare Ratings for a Total Lamp Flux of 5000lm (S = 0.25H)

	Room Reflection Factors (%)									
Ceiling	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor	20	20	20	20	20	20	20	20	20	20
Room Dimensions	Viewed Crosswise					Viewed Endwise				
X = 2H Y = 2H	18.6	20.3	19.0	20.6	20.9	24.2	25.9	24.6	26.2	26.4
Y = 3H	19.0	20.5	19.4	20.8	21.1	25.1	26.6	25.5	26.9	27.2
Y = 4H	19.2	20.5	19.5	20.9	21.2	25.4	26.8	25.8	27.1	27.4
Y = 6H	19.4	20.6	19.8	21.0	21.3	25.5	26.8	25.9	27.1	27.5
Y = 8H	19.5	20.7	19.9	21.0	21.4	25.5	26.7	25.9	27.1	27.4
Y = 12H	19.6	20.7	20.0	21.1	21.5	25.5	26.6	25.9	27.0	27.4
X = 4H Y = 2H	19.2	20.6	19.6	20.9	21.3	24.1	25.5	24.5	25.8	26.2
Y = 3H	19.7	20.9	20.1	21.3	21.7	25.1	26.3	25.6	26.7	27.1
Y = 4H	20.0	21.0	20.4	21.4	21.8	25.5	26.5	25.9	26.9	27.3
Y = 6H	20.3	21.2	20.7	21.6	22.1	25.7	26.6	26.1	27.0	27.5
Y = 8H	20.4	21.3	20.9	21.7	22.2	25.7	26.6	26.2	27.0	27.5
Y = 12H	20.6	21.4	21.1	21.8	22.3	25.7	26.5	26.2	27.0	27.4
X = 8H Y = 4H	20.3	21.1	20.7	21.6	22.0	25.4	26.3	25.9	26.7	27.2
Y = 6H	20.7	21.4	21.2	21.9	22.4	25.7	26.4	26.2	26.9	27.4
Y = 8H	20.9	21.6	21.4	22.0	22.6	25.8	26.4	26.3	26.9	27.4
Y = 12H	21.2	21.7	21.7	22.2	22.8	25.8	26.4	26.4	26.9	27.4
X = 12H Y = 4H	20.3	21.1	20.8	21.5	22.0	25.4	26.2	25.9	26.7	27.1
Y = 6H	20.8	21.4	21.3	21.9	22.4	25.7	26.3	26.2	26.8	27.3
Y = 8H	21.1	21.6	21.6	22.1	22.7	25.8	26.3	26.3	26.9	27.4
	UGR Variations with Observer Position for Luminaire Spacings S									
S = 1.0H	+1.0		-1.0			+0.2		-0.3		
S = 1.5H	+1.4		-1.5			+0.7		-0.9		
S = 2.0H	+2.2		-1.9			+1.9		-2.0		

Colour properties

Correlated Colour Temperature : 4000

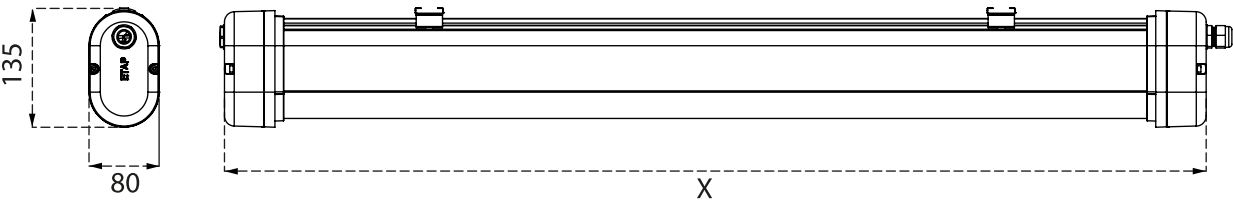
Ra: CRI (Ra) 80

Efficiency

Utilisation Factors according to IES (%)										
	Room Reflection Factors (%)									
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	103	101	98	96	95	94	93	91	86
2	94	89	86	88	84	82	84	81	79	74
3	84	78	73	79	74	71	76	72	69	65
4	75	69	64	71	66	62	69	64	61	57
5	68	61	56	65	59	55	63	58	54	51
6	62	55	50	59	53	49	58	52	48	45
7	57	50	45	55	48	44	53	47	43	41
8	53	45	40	50	44	40	49	43	39	37
9	49	41	37	47	40	36	46	40	36	34
10	45	38	33	44	37	33	42	37	33	31

Utilisation Factors according to LiTG (%)										
	Room Reflection Factors (%)									
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	55	47	52	46	53	46	51	45	44	38
0.80	67	58	62	56	63	56	60	55	54	48
1.00	75	66	70	63	71	64	67	62	61	55
1.25	85	76	77	72	79	73	75	70	69	63
1.50	91	83	82	77	85	79	79	75	74	68
2.00	98	91	88	83	91	86	85	81	79	74
2.50	104	98	92	88	96	91	89	85	84	79
3.00	109	103	95	92	100	96	92	89	87	83
4.00	113	108	98	95	103	99	94	92	90	85
5.00	117	112	100	98	106	103	96	94	92	88

Dimensional drawing



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