E21/LED4N045S

surface-mounted luminaire • linear

application : Industry
housing: lacquered aluminium
light source : LED LP • 4000 K
optics : Linear lens • medium wide-angle
UGR classification : <=25
luminous flux: 4850 lm
luminous efficacy : 139 lm/W
LLMF: 97% @ 50khrs (Tq=25°C)

Mechanical properties

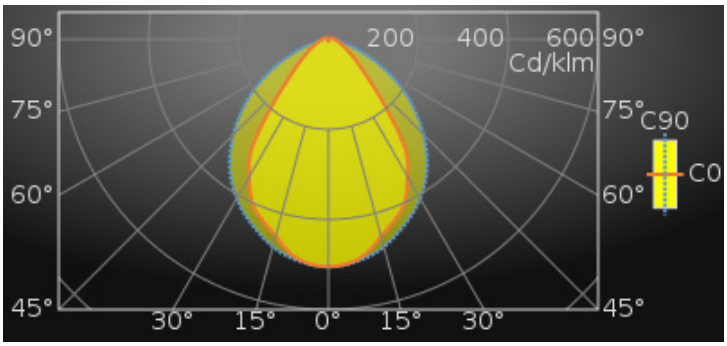
dimensions : 1120 mm x 80 mm x 135 mm
colour: RAL7035-light grey
type : individual luminaire
IP: IP66, IP69K
ambient temperature: -25°C to 35°C • With option: -35°C to 60°C •

Electrical properties

driver: not dimmable
power : 35 W
voltage : 220-240V
frequency : 50-60Hz AC
photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

Luminance

luminous flux : 4850 lm
luminous efficacy : 139 lm/W
UGR classification: <=25
luminous area : 0.07 m²



Average Luminances (Cd/m²) for 4850lm

Gamma	C0	C30	C45	C60	C90
45°	9377	12815	18368	23298	31155
50°	6760	8838	13181	20167	29072
55°	5202	6509	9335	15998	26739
60°	4087	5109	6895	12060	23528
65°	3431	4090	5369	8860	19433
70°	2833	3510	4433	6608	15148
75°	2482	3061	3724	5052	11320
80°	2323	2683	3281	4012	7927
85°	2224	2479	2930	3276	3846

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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

Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

Time(khrs)	LLMF(%)	Cx(%)
10	100	2
20	99	4
30	99	6
40	98	8
50	98	10
60	97	12

Intensity for 4850lm

Gamma	C0	C45	C90	Gamma	C0	C45	C90
0°	2449.0	2449.0	2449.0	90°	68.3	60.2	1.1
5°	2425.6	2419.2	2430.1	95°	57.7	44.2	0.0
10°	2346.5	2385.1	2386.5	100°	53.4	34.2	0.0
15°	2193.6	2272.6	2314.9	105°	46.7	25.8	0.0
20°	2077.5	2122.0	2211.0	110°	37.1	19.4	0.0
25°	1950.5	2011.5	2103.6	115°	28.8	14.7	0.0
30°	1709.2	1898.9	1980.0	120°	21.9	10.5	0.0
35°	1460.4	1652.6	1832.0	125°	15.6	6.9	0.0
40°	977.7	1445.9	1653.5	130°	10.8	3.8	0.0
45°	632.2	1126.2	1450.9	135°	7.1	0.2	0.0
50°	438.9	768.6	1230.7	140°	3.6	0.0	0.0
55°	322.2	512.1	1010.1	145°	0.0	0.0	0.0
60°	238.9	351.6	774.8	150°	0.0	0.0	0.0
65°	187.2	250.9	540.9	155°	0.0	0.0	0.1
70°	142.3	186.7	341.2	160°	0.0	0.0	0.1
75°	113.0	138.5	193.0	165°	0.1	0.0	0.1
80°	94.0	104.9	90.7	170°	0.5	0.4	0.2
85°	78.1	77.7	22.1	175°	1.3	1.1	0.9
90°	68.3	60.2	1.1	180°	1.2	1.2	1.2

UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 4850lm (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	17.5	19.1	17.9	19.4	19.7	23.1	24.7	23.5	25.0	25.3
Y = 3H	17.9	19.3	18.2	19.7	20.0	24.0	25.5	24.4	25.8	26.1
Y = 4H	18.0	19.4	18.4	19.8	20.1	24.3	25.6	24.6	26.0	26.3
Y = 6H	18.2	19.5	18.6	19.9	20.2	24.4	25.6	24.8	26.0	26.3
Y = 8H	18.3	19.6	18.7	19.9	20.3	24.4	25.6	24.8	26.0	26.3
Y = 12H	18.4	19.6	18.9	20.0	20.4	24.3	25.5	24.8	25.9	26.3
X = 4H Y = 2H	18.1	19.5	18.5	19.8	20.2	23.0	24.4	23.4	24.7	25.0
Y = 3H	18.6	19.8	19.0	20.2	20.5	24.0	25.2	24.4	25.6	25.9
Y = 4H	18.9	19.9	19.3	20.3	20.7	24.4	25.4	24.8	25.8	26.2
Y = 6H	19.2	20.1	19.6	20.5	20.9	24.6	25.5	25.0	25.9	26.3
Y = 8H	19.3	20.2	19.8	20.6	21.1	24.6	25.5	25.1	25.9	26.3
Y = 12H	19.5	20.3	20.0	20.7	21.2	24.6	25.4	25.1	25.8	26.3
X = 8H Y = 4H	19.1	20.0	19.6	20.4	20.9	24.3	25.2	24.8	25.6	26.1
Y = 6H	19.6	20.3	20.1	20.7	21.2	24.6	25.3	25.1	25.8	26.3
Y = 8H	19.8	20.4	20.3	20.9	21.4	24.7	25.3	25.2	25.8	26.3
Y = 12H	20.1	20.6	20.6	21.1	21.7	24.7	25.2	25.2	25.8	26.3
X = 12H Y = 4H	19.2	19.9	19.6	20.4	20.9	24.3	25.1	24.8	25.5	26.0
Y = 6H	19.6	20.3	20.2	20.8	21.3	24.6	25.2	25.1	25.7	26.2
Y = 8H	19.9	20.5	20.5	21.0	21.5	24.7	25.2	25.2	25.7	26.3

	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

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Colour properties

Correlated Colour Temperature : 4000

Ra: 80

Efficiency

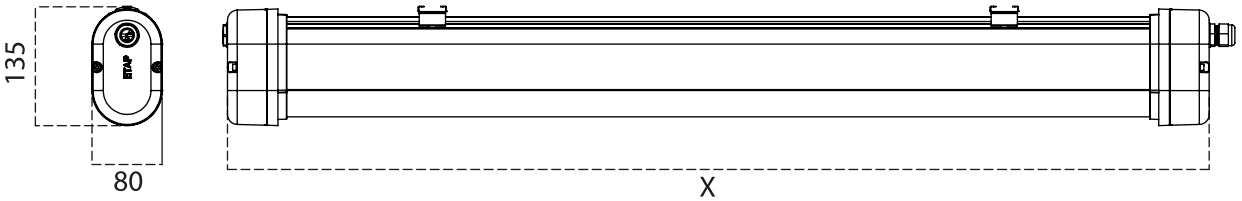
Utilisation Factors according to IES (%)

	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