

# E4001/LED4N080S



**industrial luminaire • linear**

application : Industry, Logistics

housing: lacquered aluminium

light source : LED LP • 4000 K

optics : DUAL?LENS • polycarbonate (PC) • narrow-angle

UGR classification : <=22

luminous flux: 9650 lm

luminous efficacy : 134 lm/W

LLMF: 98% @ 50khrs (Tq=25°C)

## Product information

### Mechanical properties

colour: RAL9016 - traffic white (textured)

type : in-line mounting: intermediate luminaire

IP: IP40

### Electrical properties

driver: not dimmable

power : 72 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 1  
UNLIMITED

## Luminance

luminous flux : 9650 lm

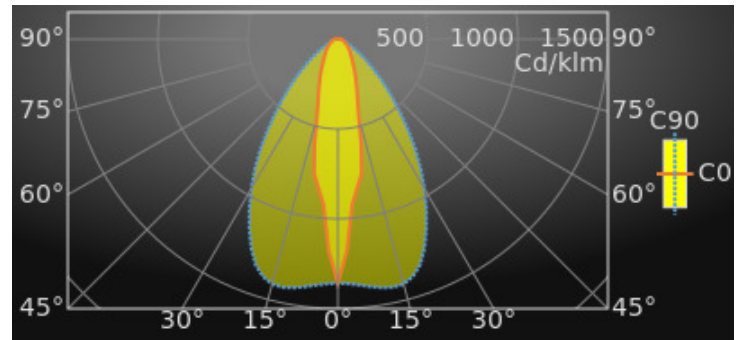
luminous efficacy : 134 lm/W

UGR classification  $\leq 22$

luminous area : 0.24 m<sup>2</sup>

Average Luminances (Cd/m<sup>2</sup>) for 9650lm

Gamma	C0	C30	C45	C60	C90
45°	3531	4040	5066	7565	21768
50°	3032	3391	4108	5847	15787
55°	2631	2887	3329	4477	11549
60°	2311	2514	2686	3474	8446
65°	2036	2209	2204	2807	6482
70°	1832	1938	1854	2353	5378
75°	1677	1704	1600	1973	5194
80°	1566	1503	1363	1593	4919
85°	1480	1313	1115	1260	4237



## Classifications

CIE: 710 / 894 / 961 / 989 / 1000

CIE FLUXCODE : 0.72 / 0.90 / 0.97 / 0.99 / 1.00

BZ: BZ1/0.8/BZ2

CAE: CAE 1/15°/CAE 2/25°/CAE 4/75°/CAE 3

DIN: A60 (Nach Arbeitsblatt 7 und 8)

DIN\_U: Phi u = 0.99

DIN\_SU: Phi su = 0.72

UTE: 0.99 B + 0.01 T



## Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

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

Intensity for 9650lm

Gamma	C0	C45	C90	Gamma	C0	C45	C90
0°	13106.9	13106.9	13106.9	90°	171.1	79.2	3.7
5°	8909.7	10508.3	13249.4	95°	139.7	48.8	0.0
10°	7325.7	7849.4	13548.0	100°	108.2	24.5	0.0
15°	4308.7	6534.3	13618.6	105°	77.6	8.6	0.0
20°	3016.6	4432.2	12888.0	110°	49.0	2.0	0.0
25°	2265.6	3262.8	11218.6	115°	25.3	0.4	0.0
30°	1691.5	2509.0	9267.9	120°	8.2	0.0	0.0
35°	1326.8	1947.9	7236.7	125°	1.6	0.0	0.0
40°	1085.4	1505.0	5259.3	130°	0.4	0.0	0.0
45°	898.8	1163.6	3694.1	135°	0.0	0.0	0.0
50°	746.5	900.7	2435.5	140°	0.0	0.0	0.0
55°	620.7	689.7	1589.8	145°	0.0	0.0	0.0
60°	517.4	519.6	1013.6	150°	0.0	0.0	0.0
65°	428.0	393.1	657.5	155°	0.0	0.0	0.0
70°	356.9	299.9	441.4	160°	0.0	0.0	0.0
75°	298.5	230.5	322.6	165°	0.0	0.0	0.0
80°	250.3	170.7	205.0	170°	0.0	0.0	0.0
85°	207.9	117.6	88.6	175°	0.0	0.0	0.0
90°	171.1	79.2	3.7	180°	0.0	0.0	0.0

## UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 9650lm (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	13.1	14.6	13.5	14.9	15.1	19.0	20.4	19.3	20.7	21.0
Y = 3H	14.3	15.6	14.6	15.9	16.2	19.5	20.8	19.9	21.1	21.4
Y = 4H	14.8	16.0	15.2	16.4	16.7	19.8	21.0	20.2	21.3	21.6
Y = 6H	15.3	16.5	15.7	16.8	17.2	20.0	21.2	20.4	21.5	21.8
Y = 8H	15.6	16.7	16.0	17.0	17.4	20.1	21.2	20.5	21.6	21.9
Y = 12H	15.9	16.9	16.3	17.3	17.6	20.2	21.2	20.6	21.6	21.9
X = 4H Y = 2H	13.7	14.9	14.0	15.2	15.5	18.9	20.1	19.2	20.4	20.7
Y = 3H	15.0	16.0	15.4	16.4	16.8	19.5	20.6	19.9	20.9	21.3
Y = 4H	15.7	16.6	16.1	17.0	17.4	19.9	20.8	20.3	21.2	21.6
Y = 6H	16.4	17.2	16.8	17.6	18.0	20.2	21.1	20.7	21.5	21.9
Y = 8H	16.7	17.5	17.2	17.9	18.4	20.4	21.2	20.8	21.6	22.0
Y = 12H	17.1	17.8	17.5	18.2	18.7	20.5	21.2	20.9	21.6	22.1
X = 8H Y = 4H	15.9	16.7	16.4	17.1	17.5	19.9	20.6	20.3	21.0	21.5
Y = 6H	16.8	17.4	17.3	17.9	18.4	20.3	20.9	20.8	21.4	21.9
Y = 8H	17.3	17.8	17.7	18.3	18.8	20.5	21.0	21.0	21.5	22.0
Y = 12H	17.7	18.2	18.2	18.7	19.3	20.6	21.1	21.1	21.6	22.1
X = 12H Y = 4H	15.9	16.6	16.4	17.1	17.5	19.8	20.5	20.3	21.0	21.4
Y = 6H	16.8	17.4	17.3	17.9	18.4	20.3	20.9	20.8	21.3	21.8
Y = 8H	17.3	17.8	17.9	18.3	18.9	20.5	21.0	21.0	21.5	22.0
<b>UGR Variations with Observer Position for Luminaire Spacings S</b>										
S = 1.0H	+0.3		-0.3		+1.0		-0.9			
S = 1.5H	+0.4		-0.6		+2.6		-1.7			
S = 2.0H	+0.4		-0.9		+4.0		-2.4			



## Colour properties

Correlated Colour Temperature : 4000

Ra: 80

## Efficiency

Utilisation Factors according to IES (%)

	Room Reflection Factors (%)												
	Ceiling	Walls	Floor	80	80	80	50	50	50	30	30	30	0
RCR = 1	107	105	103	100	98	97	96	95	94	88			
2	97	93	90	91	88	86	88	85	83	78			
3	88	83	79	83	79	76	81	77	75	71			
4	81	75	71	77	72	69	75	70	67	64			
5	75	68	64	71	66	62	69	65	61	58			
6	69	63	58	66	61	57	65	60	56	54			
7	64	58	53	62	56	52	61	56	52	50			
8	60	54	49	58	52	49	57	52	48	46			
9	57	50	46	55	49	45	54	49	45	43			
10	53	47	43	52	46	42	51	46	42	40			

Utilisation Factors according to LiTG (%)

	Room Reflection Factors (%)												
	Ceiling	Walls	Floor	80	80	80	50	50	50	50	30	30	0
k = 0.60	65	58	62	56	63	57	61	56	55	50			
0.80	75	67	70	64	72	65	68	63	63	58			
1.00	82	75	76	71	78	72	74	70	69	64			
1.25	91	83	83	78	86	80	81	77	76	71			
1.50	96	89	87	82	90	85	84	81	79	75			
2.00	103	96	92	88	95	91	89	86	84	80			
2.50	107	102	95	91	99	95	92	89	88	83			
3.00	111	106	97	95	103	99	94	92	91	86			
4.00	115	110	99	97	105	102	96	94	93	88			
5.00	118	114	101	99	107	105	98	96	94	90			

## Available accessories

E7H301 Connector (1 per line), 5 or 7 pole, per piece

E4H1000 Line end piece, per piece

E4H111 Single mounting bracket for ceiling mounting

E4H112 Double mounting bracket for ceiling mounting

E4H121 Single mounting bracket for threaded rod

E4H122 Double mounting bracket for threaded rod

E4H131 Single mounting bracket for chain

E4H141 Single mounting bracket for steel wire

E4H142 Double mounting bracket for steel wire

E4H132 Double mounting bracket for chain





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