

# E8M1/LEDN128315S

industrial luminaire • square

*application* : Industry, Logistics

*housing*: lacquered aluminium

*light source* : high power LED • 4000 K

*optics* : LED+LENS™ • Polycarbonate (PC) lens and cup • medium wide-angle

*UGR classification* : <=22

*luminous flux*: 32600 lm

*luminous efficacy* : 118 lm/W

*LLMF*: 91% @ 50khrs (Tq=25°C)

## Mechanical properties

*dimensions* : 510 mm x 510 mm x 160 mm

*type* : individual luminaire

*IP*: IP21

## Luminance

*luminous flux* : 32600 lm

*luminous efficacy* : 118 lm/W

*UGR classification*: <=22

*luminous area* : 0.17 m<sup>2</sup>

Average Luminances (Cd/m<sup>2</sup>) for 32600lm

Gamma	C0	C30	C45	C60	C90
45°	48817	51729	48583	52303	52356
50°	24008	25492	23860	26217	27930
55°	12905	12721	12190	13350	14062
60°	7531	7867	7438	8047	8049
65°	5309	5564	5193	5553	5762
70°	4212	4356	4156	4366	4548
75°	3565	3686	3529	3816	3834
80°	3009	3243	2995	3285	3534
85°	2063	2572	2063	2585	2915



## Electrical properties

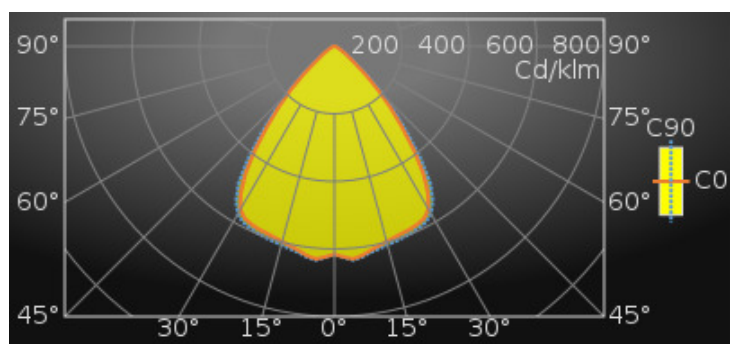
*driver*: not dimmable

*power* : 276 W

*voltage* : 110-240V

*frequency* : 50-60Hz AC

*photobiological safety* : EN 62471: RISK GROUP 1 UNLIMITED



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## Classifications

CIE: 818 / 980 / 997 / 1000 / 1000

CIE FLUXCODE : 0.82 / 0.98 / 1.00 / 1.00 / 1.00

BZ: BZ1

CAE: Symmetrical

DIN: A60 (Nach Arbeitsblatt 7)

DIN\_U: Phi u = 1.00

DIN\_SU: Phi su = 0.75

UTE: 1.00 B + 0.00 T

## Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

Time(khrs)	LLMF(%)	Cx(%)
10	98	2
20	97	4
30	95	6
40	93	8
50	92	10
60	90	12

Intensity for 32600lm

Gamma	C0	C45	C90
0°	20070.4	20070.4	20070.4
5°	20600.5	20586.5	20691.4
10°	20008.7	20103.7	20193.0
15°	19501.1	19667.5	19839.3
20°	19184.9	19325.9	19609.5
25°	18948.9	19119.3	19340.9
30°	18163.9	18682.6	18679.0
35°	14988.8	15747.6	16182.0
40°	10081.1	10414.1	10973.2
45°	6006.3	5977.5	6441.7
50°	2685.1	2668.6	3123.9
55°	1287.9	1216.6	1403.5
60°	655.2	647.1	700.3
65°	390.4	381.8	423.7
70°	250.7	247.3	270.7
75°	160.6	158.9	172.7
80°	90.9	90.5	106.8
85°	31.3	31.3	44.2
90°	5.4	7.1	11.7

## UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 32600lm (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	22.3	23.8	22.6	24.0	24.3	22.3	23.8	22.6	24.1	24.3
Y = 3H	22.1	23.5	22.5	23.8	24.0	22.2	23.5	22.5	23.8	24.1
Y = 4H	22.1	23.3	22.4	23.6	23.9	22.1	23.4	22.5	23.7	24.0
Y = 6H	22.0	23.2	22.4	23.5	23.8	22.1	23.2	22.5	23.5	23.9
Y = 8H	22.0	23.1	22.4	23.4	23.7	22.1	23.2	22.4	23.5	23.8
Y = 12H	22.0	23.0	22.4	23.3	23.7	22.0	23.1	22.4	23.4	23.7
X = 4H Y = 2H	22.1	23.3	22.4	23.6	23.9	22.1	23.4	22.5	23.7	24.0
Y = 3H	22.0	23.0	22.4	23.4	23.7	22.1	23.1	22.4	23.4	23.8
Y = 4H	22.0	22.9	22.4	23.2	23.6	22.0	22.9	22.4	23.3	23.6
Y = 6H	21.9	22.7	22.4	23.1	23.5	22.0	22.8	22.4	23.2	23.6
Y = 8H	21.9	22.7	22.4	23.0	23.5	22.0	22.7	22.4	23.1	23.5
Y = 12H	21.9	22.6	22.3	23.0	23.4	21.9	22.6	22.4	23.0	23.5
X = 8H Y = 4H	21.9	22.6	22.3	23.0	23.4	21.9	22.7	22.4	23.1	23.5
Y = 6H	21.9	22.5	22.3	22.9	23.4	21.9	22.5	22.4	23.0	23.4
Y = 8H	21.9	22.4	22.3	22.8	23.3	21.9	22.5	22.4	22.9	23.4
Y = 12H	21.8	22.3	22.3	22.8	23.3	21.9	22.4	22.4	22.8	23.4
X = 12H Y = 4H	21.9	22.5	22.3	22.9	23.4	21.9	22.6	22.4	23.0	23.4
Y = 6H	21.8	22.4	22.3	22.8	23.3	21.9	22.4	22.4	22.9	23.4
Y = 8H	21.8	22.3	22.3	22.8	23.3	21.9	22.4	22.4	22.8	23.4
	UGR Variations with Observer Position for Luminaire Spacings S									
S = 1.0H	+2.6		-5.6		+2.5		-5.8			
S = 1.5H	+4.7		-7.7		+4.7		-7.6			
S = 2.0H	+6.6		-8.6		+6.7		-8.6			

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## Colour properties

Correlated Colour Temperature : 4000

Ra: 80

## Efficiency

Utilisation Factors according to IES (%)

	Room Reflection Factors (%)									
	Ceiling	Walls	Floor	1	2	3	4	5	6	7
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	109	107	106	103	101	100	99	98	97	91
2	100	96	93	94	92	90	91	89	87	83
3	91	86	83	87	83	80	84	81	79	75
4	84	78	74	80	76	72	78	74	71	68
5	77	71	66	74	69	65	72	68	64	62
6	71	64	60	68	63	59	67	62	59	56
7	66	59	54	63	58	54	62	57	53	51
8	61	54	50	59	53	49	58	53	49	47
9	57	50	46	55	49	45	54	49	45	43
10	53	46	42	51	46	42	50	45	42	40

Utilisation Factors according to LiTG (%)

	Room Reflection Factors (%)									
	Ceiling	Walls	Floor	1	2	3	4	5	6	7
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	65	57	62	56	63	56	60	55	55	50
0.80	77	69	72	66	74	68	70	66	65	60
1.00	84	77	78	73	81	75	76	72	71	67
1.25	94	87	86	82	89	84	84	80	80	75
1.50	99	93	90	86	94	89	88	84	84	79
2.00	106	100	94	91	99	95	92	89	88	84
2.50	111	105	98	95	103	99	95	93	92	88
3.00	115	110	100	98	106	103	98	96	95	91
4.00	118	114	102	100	108	105	99	97	96	92
5.00	120	117	103	102	110	108	100	99	98	94

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## Dimensional drawing

