D11R1/LEDN10SX32



recessed luminaire • round

Application : General office area’s, Auditoria, General education area’s

housing: injection-moulded aluminium

light source : LED • 4000 K

optics : reflector • aluminium, satin anodised • wide-angle

UGR classification : <=22

luminous flux: 1200 lm

luminous efficacy : 120 lm/W

LLMF: 99% @ 50khrs (Tq=25°C)

Product information

Mechanical properties

dimensions : 220 mm x 120 mm

cut-out size : 205 mm x 120 mm

colour: RAL9003-signalwhite

trim: flat trim

type : individual luminaire

IP: IP20

Electrical properties

driver: not dimmable

power : 10 W

voltage : 230-240V

frequency : 50Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

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Luminance

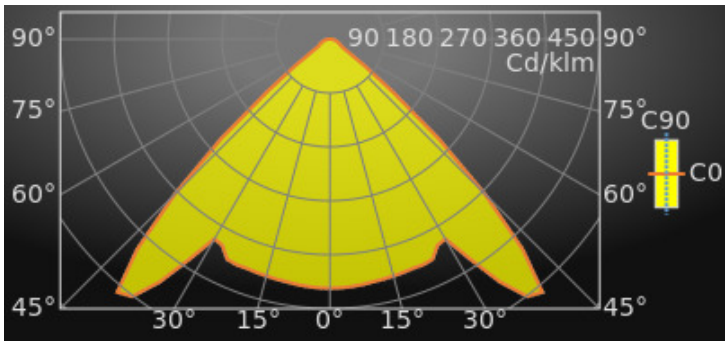
luminous flux : 1200 lm

luminous efficacy : 120 lm/W

luminance @ 65° = : 3000 cd/m²

UGR classification =: <=22

luminous area : 0.02 m²



Average Luminances (Cd/m²) for 1200lm

Gamma	C0	C30	C45	C60	C90
45°	26363	26363	26363	26363	26363
50°	10828	10828	10828	10828	10828
55°	3251	3251	3251	3251	3251
60°	2217	2217	2217	2217	2217
65°	2067	2067	2067	2067	2067
70°	2014	2014	2014	2014	2014
75°	2026	2026	2026	2026	2026
80°	2138	2138	2138	2138	2138
85°	2500	2500	2500	2500	2500

Classifications

CIE: 685 / 967 / 991 / 1000 / 1000

CIE FLUXCODE : 0.69 / 0.97 / 0.99 / 1.00 / 1.00

BZ: BZ2

CAE: Symmetrical

DIN: A50 (Nach Arbeitsblatt 7)

DIN_U: Phi u = 1.00

DIN_SU: Phi su = 0.68

UTE: 1.00 C + 0.00 T

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Lifetime Data (Tq=25.0°C)

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

Luminous intensities in cd

Intensity for 1200lm

Gamma	C0	C45	C90
0°	499.0	499.0	499.0
5°	497.6	497.6	497.6
10°	494.0	494.0	494.0
15°	491.2	491.2	491.2
20°	488.6	488.6	488.6
25°	486.5	486.5	486.5
30°	462.0	462.0	462.0
35°	593.7	593.7	593.7
40°	661.8	661.8	661.8
45°	438.2	438.2	438.2
50°	163.6	163.6	163.6
55°	43.8	43.8	43.8
60°	26.1	26.1	26.1
65°	20.5	20.5	20.5
70°	16.2	16.2	16.2
75°	12.3	12.3	12.3
80°	8.7	8.7	8.7
85°	5.1	5.1	5.1
90°	2.9	2.9	2.9

UGR classification =

Corrected Glare Ratings for a Total Lamp Flux of 1200lm (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	20.4	22.1	20.7	22.3	22.6	20.4	22.1	20.7	22.3	22.6
Y = 3H	20.3	21.8	20.7	22.1	22.4	20.3	21.8	20.7	22.1	22.4
Y = 4H	20.3	21.7	20.6	22.0	22.3	20.3	21.7	20.6	22.0	22.3
Y = 6H	20.3	21.5	20.6	21.8	22.2	20.3	21.5	20.6	21.8	22.2
Y = 8H	20.3	21.5	20.6	21.8	22.1	20.3	21.5	20.6	21.8	22.1
Y = 12H	20.2	21.4	20.6	21.7	22.1	20.2	21.4	20.6	21.7	22.1
X = 4H Y = 2H	20.2	21.6	20.6	21.9	22.2	20.2	21.6	20.6	21.9	22.2
Y = 3H	20.2	21.3	20.6	21.6	22.0	20.2	21.3	20.6	21.6	22.0
Y = 4H	20.2	21.2	20.6	21.5	21.9	20.2	21.2	20.6	21.5	21.9
Y = 6H	20.2	21.1	20.6	21.5	21.9	20.2	21.1	20.6	21.5	21.9
Y = 8H	20.2	21.0	20.6	21.4	21.8	20.2	21.0	20.6	21.4	21.8
Y = 12H	20.2	21.0	20.7	21.4	21.8	20.2	21.0	20.7	21.4	21.8
X = 8H Y = 4H	20.1	20.9	20.5	21.3	21.7	20.1	20.9	20.5	21.3	21.7
Y = 6H	20.2	20.9	20.6	21.3	21.8	20.2	20.9	20.6	21.3	21.8
Y = 8H	20.2	20.8	20.7	21.3	21.8	20.2	20.8	20.7	21.3	21.8
Y = 12H	20.3	20.8	20.7	21.3	21.8	20.3	20.8	20.7	21.3	21.8
X = 12H Y = 4H	20.1	20.8	20.5	21.3	21.7	20.1	20.8	20.5	21.3	21.7
Y = 6H	20.2	20.8	20.6	21.2	21.7	20.2	20.8	20.6	21.2	21.7
Y = 8H	20.2	20.7	20.7	21.2	21.7	20.2	20.7	20.7	21.2	21.7
	UGR Variations with Observer Position for Luminaire Spacings S									
S = 1.0H	+2.4		-5.6			+2.4		-5.6		
S = 1.5H	+4.9		-6.2			+4.9		-6.2		
S = 2.0H	+6.8		-6.4			+6.8		-6.4		

Colour properties

Correlated Colour Temperature : 4000

Ra: CRI (Ra) 80

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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	108	106	104	101	100	98	97	96	95	90
2	97	93	90	92	89	86	89	86	84	79
3	87	82	78	83	79	76	80	77	74	70
4	79	73	68	75	70	67	73	69	66	62
5	72	65	60	69	63	59	67	62	58	55
6	65	58	53	63	57	52	61	56	52	49
7	60	52	47	57	51	47	56	50	46	44
8	55	47	42	53	46	42	51	46	42	40
9	50	43	38	48	42	38	47	42	38	36
10	46	39	35	45	39	34	44	38	34	32

Utilisation Factors according to LiTG (%)

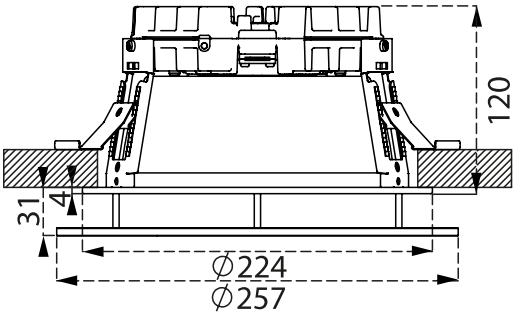
	Room Reflection Factors (%)									
Ceiling	80	80	80	50	50	50	50	50	30	0
Walls	50	30	50	30	50	30	50	30	30	0
Floor	30	30	10	10	30	30	10	10	10	0
k = 0.60	56	48	53	46	54	47	52	46	45	39
0.80	70	62	65	59	67	60	64	58	58	52
1.00	79	70	73	67	75	68	71	66	65	59
1.25	88	80	81	75	83	77	78	74	73	68
1.50	94	87	86	81	89	83	83	79	78	73
2.00	101	95	91	86	94	90	88	84	83	79
2.50	107	101	95	91	99	95	92	89	88	83
3.00	112	107	98	95	103	100	95	93	91	87
4.00	115	111	100	97	106	103	97	95	93	89
5.00	119	115	102	100	108	106	99	97	95	92

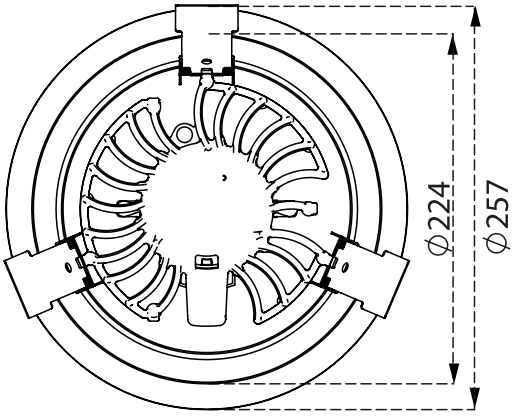
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Dimensional drawing

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