R710R1/LEDN2430DX2

surface-mounted luminaire • linear

application : Office, Healthcare, Education, Horeca, Retail, Leisure

housing: lacquered sheet steel

light source : high power LED • 4000 K

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

UGR classification : <=16

luminous flux: 3100 lm

luminous efficacy : 135 lm/W

LLMF: 98% @ 50khrs (Tq=25°C)

Product information

Mechanical properties

colour: RAL9006 - white aluminium (textured)

type : individual luminaire

IP: IP20

Electrical properties

driver: DALI dimmable

power : 23 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

Luminance

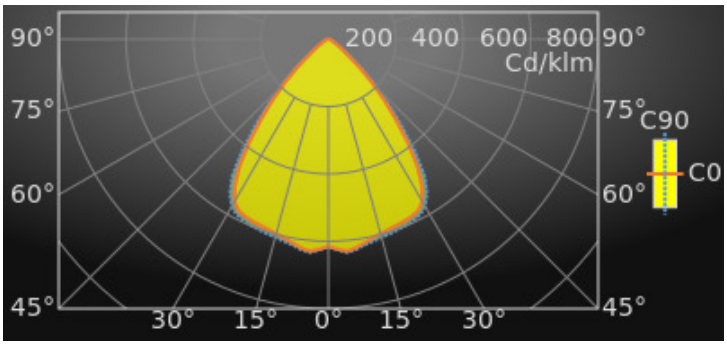
luminous flux : 3100 lm

luminous efficacy : 135 lm/W

luminance @ 65° : 1000 cd/m²

UGR classification <=16

luminous area : 0.12 m²



Average Luminances (Cd/m²) for 3100lm

Gamma	C0	C30	C45	C60	C90
45°	6868	7278	6836	7359	7366
50°	3378	3587	3357	3689	3930
55°	1816	1790	1715	1878	1979
60°	1060	1107	1046	1132	1132
65°	747	783	731	781	811
70°	593	613	585	614	640
75°	502	519	496	537	539
80°	423	456	421	462	497
85°	290	362	290	364	410

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	100	2
20	99	4
30	99	6
40	99	8
50	98	10
60	98	12

Intensity for 3100lm

Gamma	C0	C45	C90
0°	1908.5	1908.5	1908.5
5°	1958.9	1957.6	1967.6
10°	1902.7	1911.7	1920.2
15°	1854.4	1870.2	1886.6
20°	1824.3	1837.7	1864.7
25°	1801.9	1818.1	1839.2
30°	1727.2	1776.6	1776.2
35°	1425.3	1497.5	1538.8
40°	958.6	990.3	1043.5
45°	571.1	568.4	612.6
50°	255.3	253.8	297.1
55°	122.5	115.7	133.5
60°	62.3	61.5	66.6
65°	37.1	36.3	40.3
70°	23.8	23.5	25.7
75°	15.3	15.1	16.4
80°	8.6	8.6	10.2
85°	3.0	3.0	4.2
90°	0.5	0.7	1.1

UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 3100lm (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	15.4	17.0	15.7	17.2	17.5	15.5	17.0	15.8	17.3	17.5
Y = 3H	15.3	16.7	15.7	16.9	17.2	15.4	16.7	15.7	17.0	17.3
Y = 4H	15.3	16.5	15.6	16.8	17.1	15.3	16.6	15.7	16.9	17.2
Y = 6H	15.2	16.4	15.6	16.7	17.0	15.3	16.4	15.6	16.7	17.0
Y = 8H	15.2	16.3	15.6	16.6	16.9	15.3	16.3	15.6	16.7	17.0
Y = 12H	15.2	16.2	15.5	16.5	16.9	15.2	16.3	15.6	16.6	16.9
X = 4H Y = 2H	15.3	16.5	15.6	16.8	17.1	15.3	16.5	15.7	16.8	17.1
Y = 3H	15.2	16.2	15.6	16.6	16.9	15.2	16.3	15.6	16.6	16.9
Y = 4H	15.2	16.1	15.6	16.4	16.8	15.2	16.1	15.6	16.5	16.8
Y = 6H	15.1	15.9	15.5	16.3	16.7	15.2	16.0	15.6	16.4	16.8
Y = 8H	15.1	15.8	15.5	16.2	16.7	15.2	15.9	15.6	16.3	16.7
Y = 12H	15.1	15.7	15.5	16.2	16.6	15.1	15.8	15.6	16.2	16.7
X = 8H Y = 4H	15.1	15.8	15.5	16.2	16.6	15.1	15.9	15.6	16.3	16.7
Y = 6H	15.1	15.7	15.5	16.1	16.6	15.1	15.7	15.6	16.2	16.6
Y = 8H	15.0	15.6	15.5	16.0	16.5	15.1	15.6	15.6	16.1	16.6
Y = 12H	15.0	15.5	15.5	16.0	16.5	15.1	15.5	15.6	16.0	16.5
X = 12H Y = 4H	15.0	15.7	15.5	16.1	16.6	15.1	15.8	15.5	16.2	16.6
Y = 6H	15.0	15.6	15.5	16.0	16.5	15.1	15.6	15.5	16.1	16.6
Y = 8H	15.0	15.5	15.5	16.0	16.5	15.1	15.5	15.5	16.0	16.5

	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

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	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	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

Dimensional drawing