R710R1/LEDW1820SX2

surface-mounted luminaire • linear

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

housing: lacquered sheet steel

light source : high power LED • 3000 K

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

UGR classification : <=16

luminous flux: 2250 lm

luminous efficacy : 118 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: not dimmable

power : 19 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

Luminance

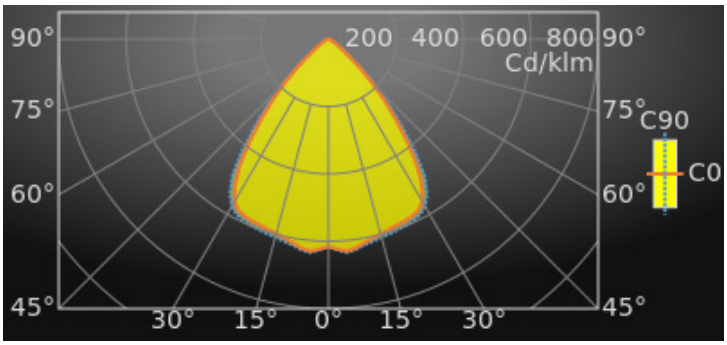
luminous flux : 2250 lm

luminous efficacy : 118 lm/W

luminance @ 65° : 1000 cd/m²

UGR classification <=16

luminous area : 0.09 m²



Average Luminances (Cd/m²) for 2250lm

Gamma	C0	C30	C45	C60	C90
45°	6647	7043	6615	7122	7129
50°	3269	3471	3249	3570	3803
55°	1757	1732	1660	1818	1915
60°	1025	1071	1013	1096	1096
65°	723	758	707	756	785
70°	574	593	566	594	619
75°	485	502	480	520	522
80°	410	442	408	447	481
85°	281	350	281	352	397

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 2250lm

Gamma	C0	C45	C90
0°	1385.2	1385.2	1385.2
5°	1421.8	1420.8	1428.1
10°	1381.0	1387.5	1393.7
15°	1345.9	1357.4	1369.3
20°	1324.1	1333.8	1353.4
25°	1307.8	1319.6	1334.9
30°	1253.6	1289.4	1289.2
35°	1034.5	1086.9	1116.9
40°	695.8	718.8	757.4
45°	414.5	412.6	444.6
50°	185.3	184.2	215.6
55°	88.9	84.0	96.9
60°	45.2	44.7	48.3
65°	26.9	26.4	29.2
70°	17.3	17.1	18.7
75°	11.1	11.0	11.9
80°	6.3	6.2	7.4
85°	2.2	2.2	3.1
90°	0.4	0.5	0.8

UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 2250lm (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	15.3	16.8	15.6	17.1	17.3	15.4	16.9	15.7	17.1	17.4
Y = 3H	15.2	16.6	15.6	16.8	17.1	15.3	16.6	15.6	16.9	17.2
Y = 4H	15.2	16.4	15.5	16.7	17.0	15.2	16.5	15.6	16.8	17.1
Y = 6H	15.1	16.2	15.5	16.6	16.9	15.2	16.3	15.5	16.6	16.9
Y = 8H	15.1	16.2	15.5	16.5	16.8	15.1	16.2	15.5	16.5	16.9
Y = 12H	15.1	16.1	15.4	16.4	16.8	15.1	16.1	15.5	16.5	16.8
X = 4H Y = 2H	15.1	16.4	15.5	16.7	17.0	15.2	16.4	15.5	16.7	17.0
Y = 3H	15.1	16.1	15.5	16.4	16.8	15.1	16.2	15.5	16.5	16.8
Y = 4H	15.0	16.0	15.4	16.3	16.7	15.1	16.0	15.5	16.4	16.7
Y = 6H	15.0	15.8	15.4	16.2	16.6	15.1	15.9	15.5	16.2	16.6
Y = 8H	15.0	15.7	15.4	16.1	16.5	15.0	15.8	15.5	16.2	16.6
Y = 12H	15.0	15.6	15.4	16.0	16.5	15.0	15.7	15.5	16.1	16.5
X = 8H Y = 4H	15.0	15.7	15.4	16.1	16.5	15.0	15.7	15.4	16.1	16.6
Y = 6H	14.9	15.6	15.4	16.0	16.5	15.0	15.6	15.5	16.0	16.5
Y = 8H	14.9	15.5	15.4	15.9	16.4	15.0	15.5	15.5	16.0	16.5
Y = 12H	14.9	15.4	15.4	15.9	16.4	14.9	15.4	15.4	15.9	16.4
X = 12H Y = 4H	14.9	15.6	15.4	16.0	16.5	15.0	15.7	15.4	16.1	16.5
Y = 6H	14.9	15.5	15.4	15.9	16.4	15.0	15.5	15.4	16.0	16.4
Y = 8H	14.9	15.4	15.4	15.9	16.4	14.9	15.4	15.4	15.9	16.4

	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

Colour properties

Correlated Colour Temperature : 3000

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