

filename : SAPPHIRE-23W-LedLite LP.LDT  
 meas. number : 2867  
 luminaire number : SAPPHIRE-23W-LedLite LP  
 date / operator : 15-02-2019

**default lamp type(s)**

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	2435 lm	21.3 W

**dimensions**

luminaire		luminous area	
diameter	: 230 mm	diameter	: 180 mm
height	: 3 mm	height	: 0 mm

**coordinate system**

no of planes	: 1	samples / plane	: 37
first c-plane	: 0.0 °	first gamma-angle	: 0.0 °
step angle	: 0.0 °	step angle	: 5.0 °
last c-plane	: 0.0 °	last gamma-angle	: 180.0 °

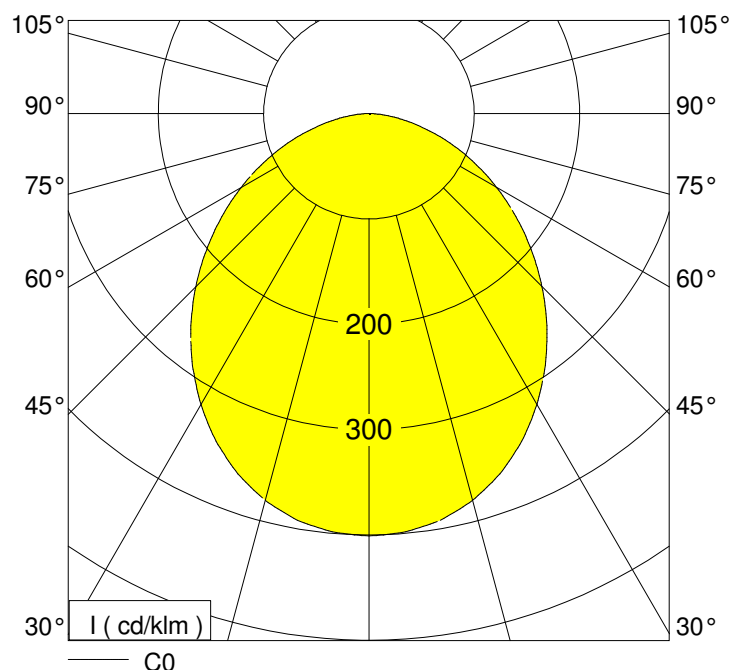
symmetrics : rotational symmetry

**performance**

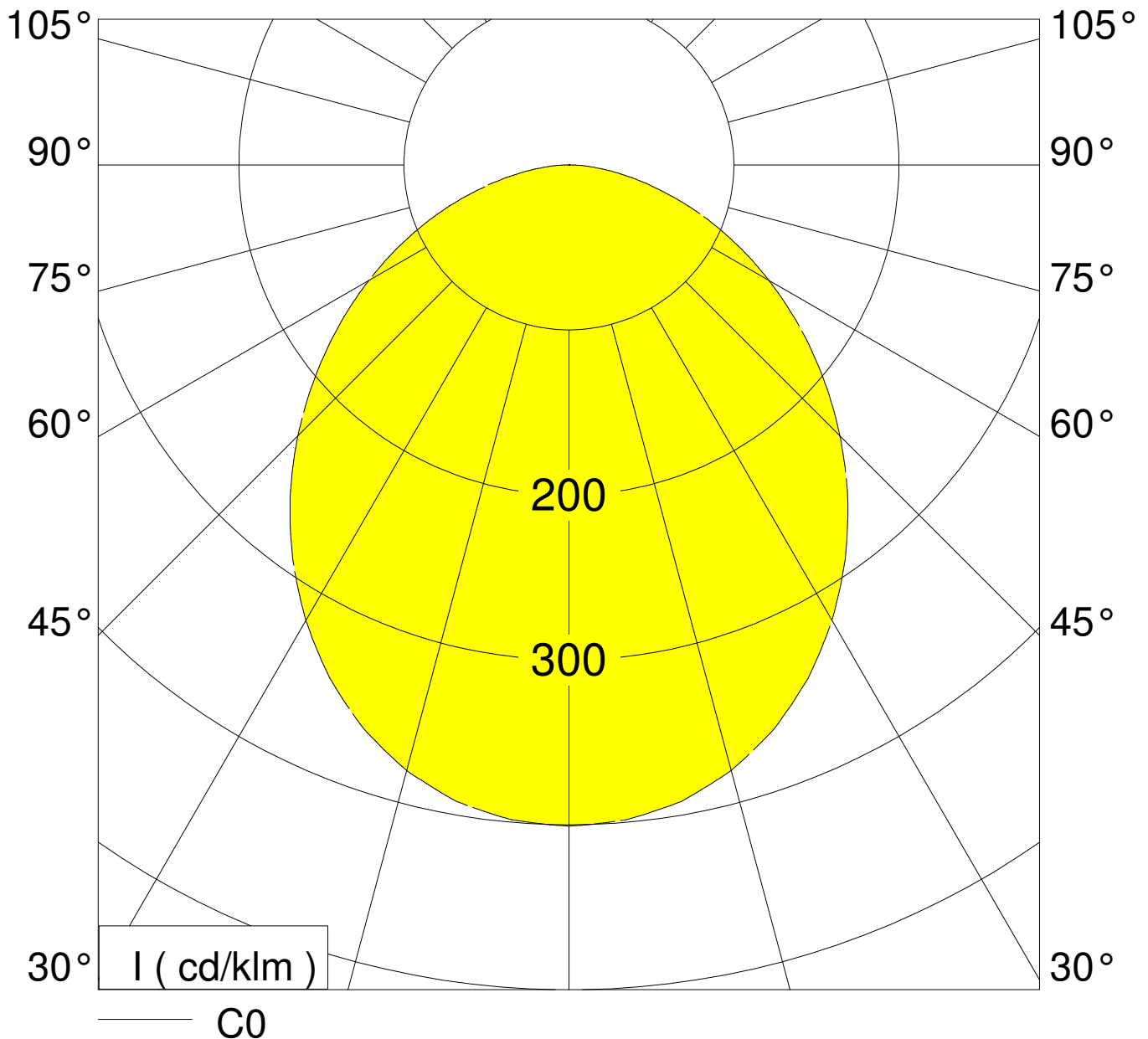
light output ratio : 100.0 %  
 DFF : 100.0 %  
 UFF : 0.0 %

**classification**

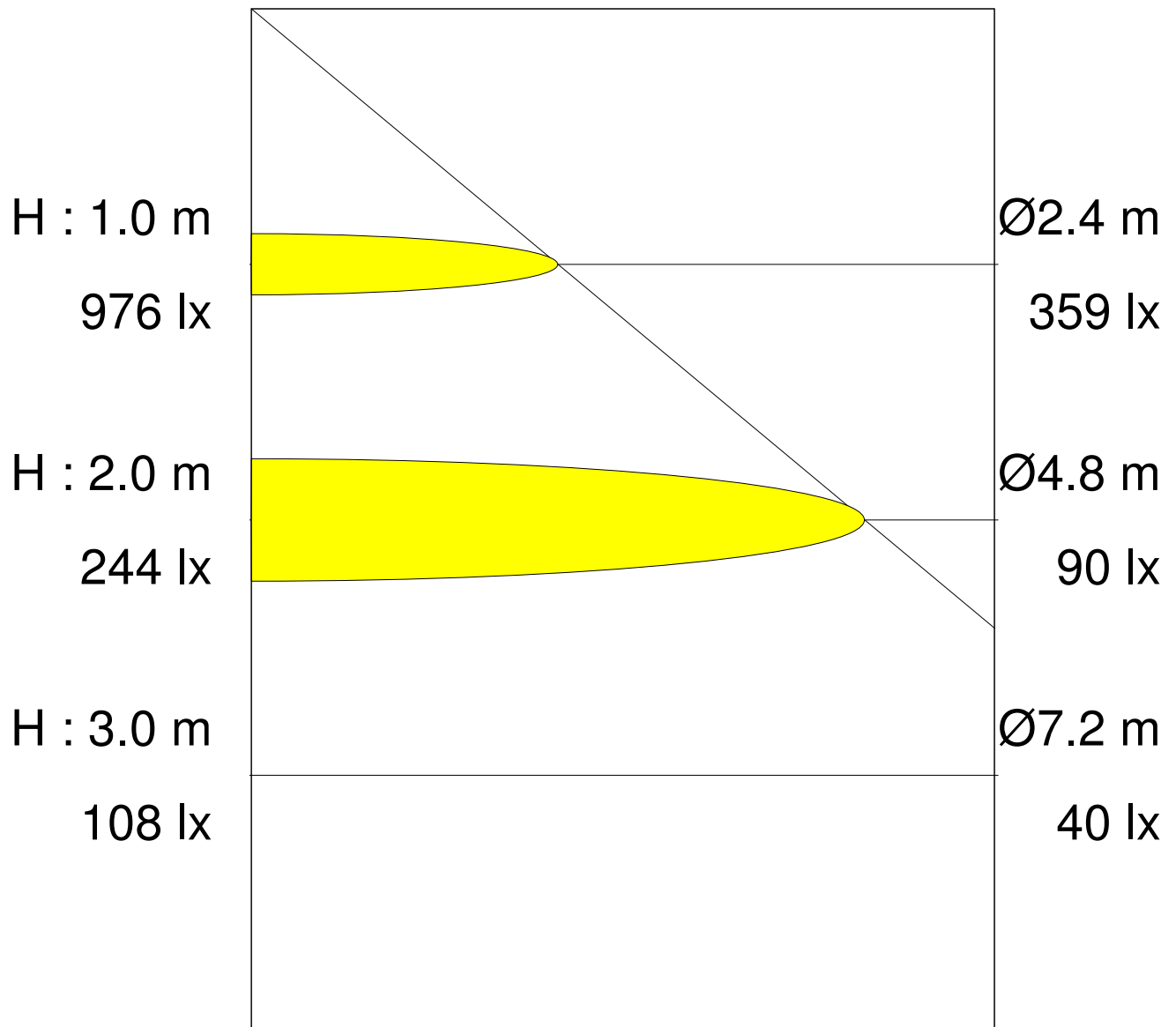
LiTG / DIN : A40  
 UTE : 1.00D  
 CIE : 51 82 96 100 100  
 BZ : 4 4 4 4 4 4 4 4 4  
 Ambient Temperature : 25 degC  
 Input Voltage : 240 V  
 Circuit Watts : 21.3W  
 Amps (running) : 0.091A  
 V.A. : 21.73VA  
 Power Factor : 0.98  
 CCT : 4094K (measured); 4000K (declared)  
 CRI (Ra) : 86  
 S/P Ratio : 1.8  
 Luminaire Lumens : 2435LLm  
 Output Current DC : 370mA  
 Output Voltage DC : 50.8V  
 Output Power : 18.80W  
 Luminaire Lm/circ.Watt : 114.3 LLm/circ.Watt  
 Driver Efficiency : 88%  
 Driver Details : EAGLERISE EIP021CO350LS



Measurements made are in absolute units. The luminaire is treated as if it was a lamp as it is not possible to measure each LED separately - hence an LOR of 100%  
The Light output ratio in real terms would be less than 100%. If it was possible to compare real LED lumens with the total output from the luminaire we could obtain an actual LOR  
This also means that the total lumens emitted from the LED's would be greater than the Luminaire Lumens measured. In reality the LED lumens would approximate to this value divided by the actual Light Output.



Half peak divergence :  $100.4^{\circ}$



	C 0.0
0.0°	400.80
5.0°	398.40
10.0°	391.80
15.0°	380.00
20.0°	363.70
25.0°	343.10
30.0°	318.80
35.0°	291.80
40.0°	262.80
45.0°	232.30
50.0°	201.10
55.0°	170.30
60.0°	139.90
65.0°	110.30
70.0°	81.90
75.0°	54.90
80.0°	32.00
85.0°	13.30
90.0°	0.00
95.0°	0.00
100.0°	0.00
105.0°	0.00
110.0°	0.00
115.0°	0.00
120.0°	0.00
125.0°	0.00
130.0°	0.00
135.0°	0.00
140.0°	0.00
145.0°	0.00
150.0°	0.00
155.0°	0.00
160.0°	0.00
165.0°	0.00
170.0°	0.00
175.0°	0.00
180.0°	0.00
	cd / klm

C-Plane intensities averaged for symmetry

glare rating according to UGR											
ρ -ceiling		70	70	50	50	30	70	70	50	50	30
ρ -walls		50	30	50	30	30	50	30	50	30	30
ρ -workplane		20	20	20	20	20	20	20	20	20	20
room dimensions X                      Y		viewed crosswise					viewed endwise				
2H	2H	24.3	25.8	24.6	26.0	26.2	24.3	25.8	24.6	26.0	26.2
	3H	25.1	26.1	25.3	26.3	26.5	25.1	26.1	25.3	26.3	26.5
	4H	25.6	26.7	25.9	26.9	27.1	25.6	26.7	25.9	26.9	27.1
	6H	26.0	27.0	26.3	27.3	27.5	26.0	27.0	26.3	27.3	27.5
	8H	26.2	27.2	26.5	27.4	27.7	26.2	27.2	26.5	27.4	27.7
	12H	26.3	27.3	26.6	27.6	27.8	26.3	27.3	26.6	27.6	27.8
4H	2H	24.4	25.4	24.6	25.6	25.8	24.4	25.4	24.6	25.6	25.8
	3H	26.1	27.0	26.4	27.3	27.5	26.1	27.0	26.4	27.3	27.5
	4H	26.8	27.8	27.2	28.1	28.3	26.8	27.8	27.2	28.1	28.3
	6H	27.1	27.9	27.5	28.2	28.5	27.1	27.9	27.5	28.2	28.5
	8H	27.3	28.1	27.7	28.4	28.7	27.3	28.1	27.7	28.4	28.7
	12H	27.6	28.3	28.0	28.7	29.1	27.6	28.3	28.0	28.7	29.1
8H	4H	26.9	27.7	27.3	28.0	28.4	26.9	27.7	27.3	28.0	28.4
	6H	27.8	28.5	28.3	28.9	29.4	27.8	28.5	28.3	28.9	29.4
	8H	28.2	28.9	28.7	29.3	29.8	28.2	28.9	28.7	29.3	29.8
	12H	28.3	28.8	28.8	29.3	29.8	28.3	28.8	28.8	29.3	29.8
12H	4H	27.1	27.9	27.6	28.2	28.6	27.1	27.9	27.6	28.2	28.6
	6H	28.0	28.7	28.5	29.1	29.6	28.0	28.7	28.5	29.1	29.6
	8H	28.2	28.7	28.7	29.2	29.7	28.2	28.7	28.7	29.2	29.7
variation of observer position											
S =	1.0H	+0.1/                      -0.1				+0.1/                      -0.1					
	1.5H	+0.2/                      -0.4				+0.2/                      -0.4					
	2.0H	+0.4/                      -0.7				+0.4/                      -0.7					
standard-table		BK05					BK05				
correction for luminaire		10.5					10.5				
correct glare indices for a total flux of 2435lm											

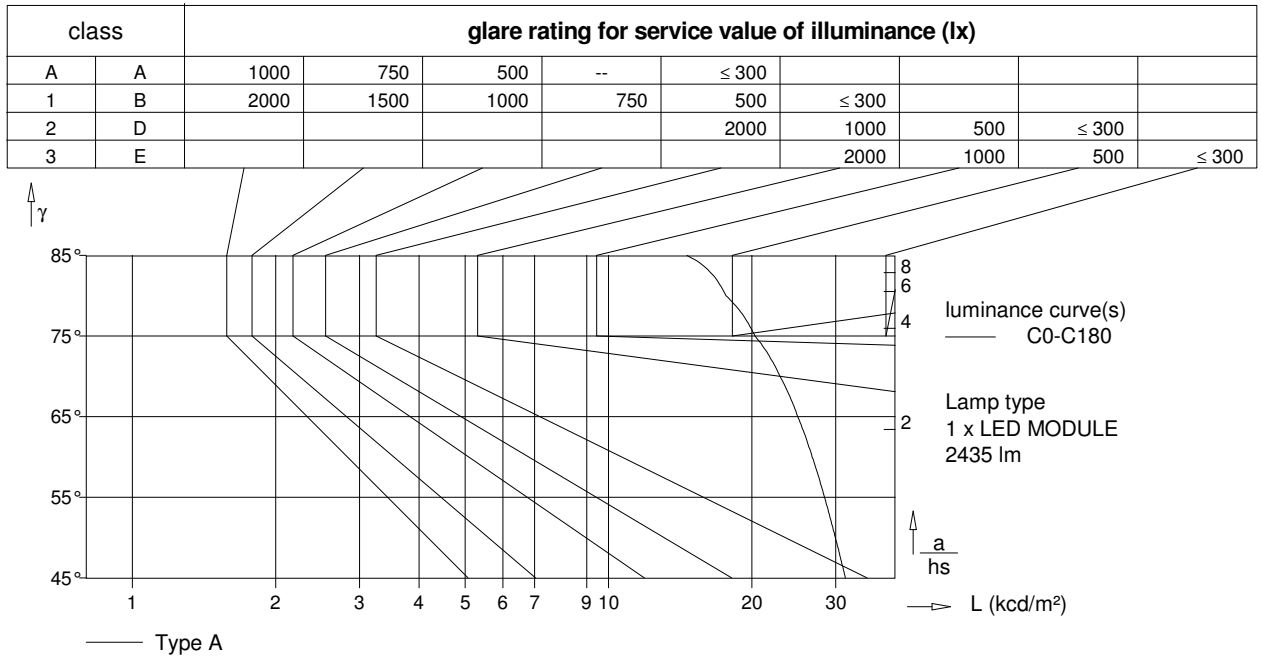


Table of intensities

gamma	C 0	C 90	C 180	C 270
45°	31436.1	31436.1	31436.1	31436.1
50°	29937.0	29937.0	29937.0	29937.0
55°	28411.1	28411.1	28411.1	28411.1
60°	26773.9	26773.9	26773.9	26773.9
65°	24974.2	24974.2	24974.2	24974.2
70°	22913.8	22913.8	22913.8	22913.8
75°	20297.4	20297.4	20297.4	20297.4
80°	17633.7	17633.7	17633.7	17633.7
85°	14602.2	14602.2	14602.2	14602.2

all values in cd/m²

<b>utilization factors / TM5</b>											
reflection			room index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	20	59	69	76	81	89	93	97	101	104
70	30	20	51	62	69	75	83	88	92	97	100
70	10	20	46	56	64	70	78	84	88	94	97
50	50	20	57	67	74	79	85	90	93	97	100
50	30	20	51	61	68	73	80	85	89	94	97
50	10	20	46	56	63	68	76	82	86	91	94
30	50	20	56	65	72	76	83	87	90	93	96
30	30	20	50	60	66	71	78	83	86	91	94
30	10	20	45	55	62	67	75	80	83	88	91
0	0	0	43	53	59	64	71	76	79	84	87
BZ-class			4	4	4	4	4	4	4	4	4
SHRnom : 1.25						SHRmax : 1.370					

