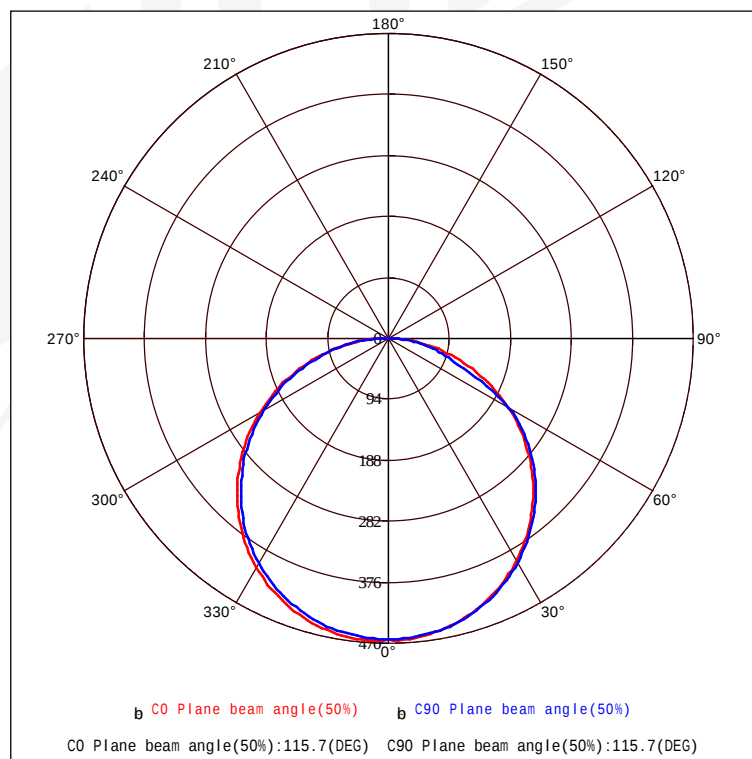


Goniophotometer Test Report

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-18LS01-F			Lamp Spec: LPDL-18LS01-F		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-18LS01-F		Peak Value(cd)	467.2	Efficiency(lm/w)	83.6
Nominal P(w)		1.0	Position	180.0,1.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	1387.689	Down(C0-C180)	50.3
Rated Flux(lm)		1.0	Up Flux Rate(%)	0.0	UP(C180-C360)	0.0
Illuminant QTY		1	Dw Flux Rate(%)	100.0	Down(C180-C360)	49.7

Planar Intensity Distribution Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

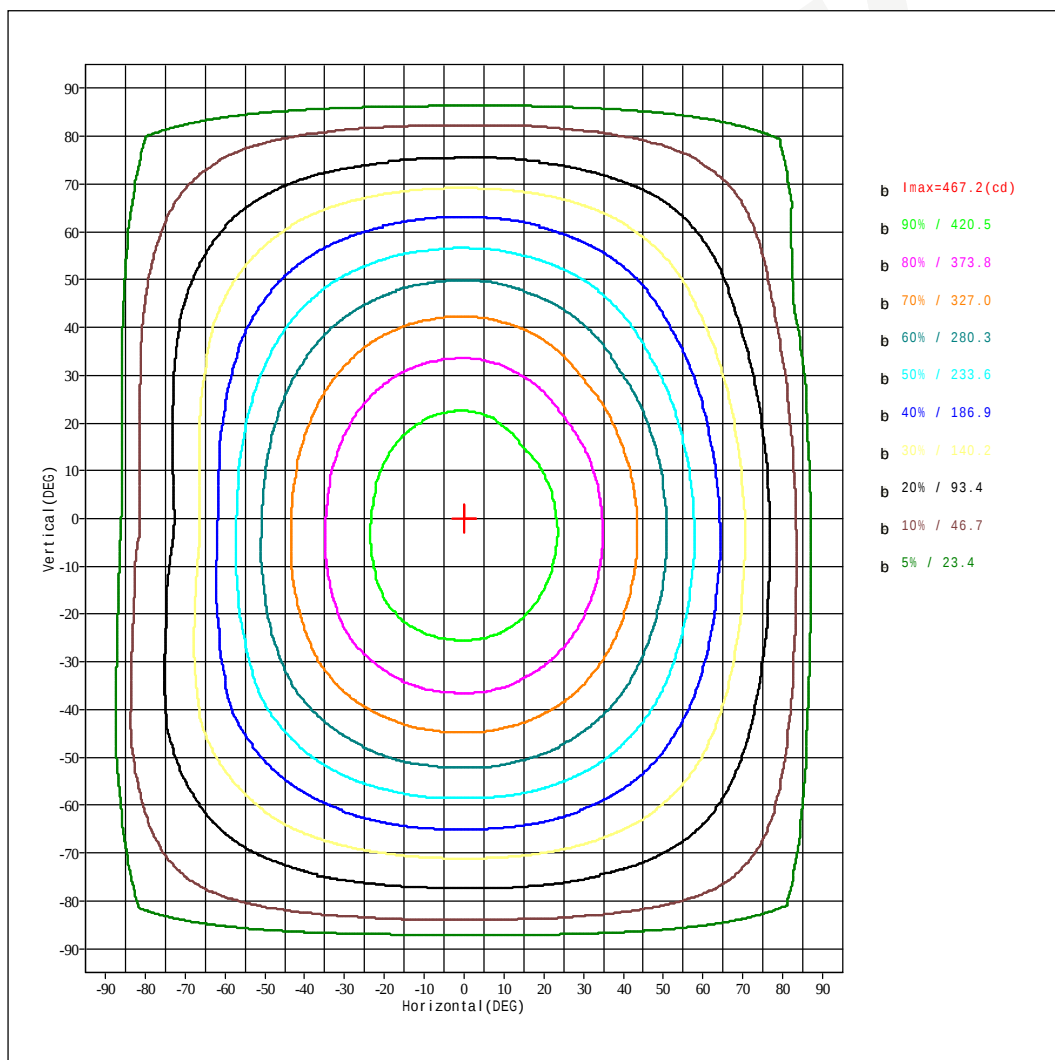
Humidity(%): 60

Date: 2026-6-4

Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Planar IsoCandela Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

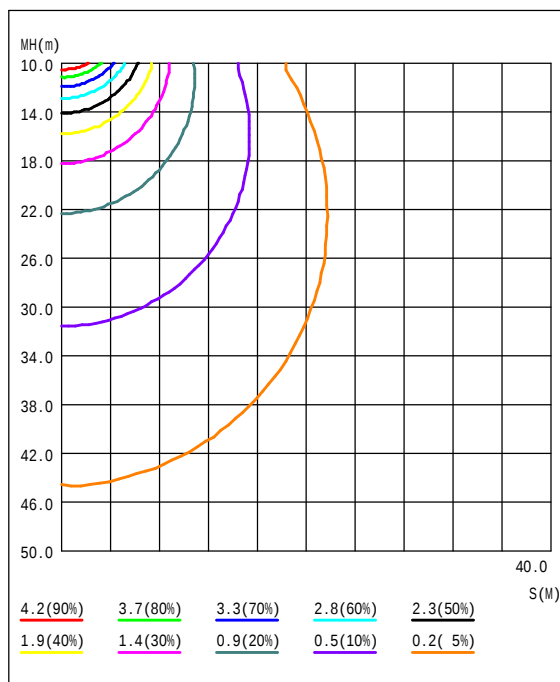
Humidity(%): 60

Date: 2026-6-4

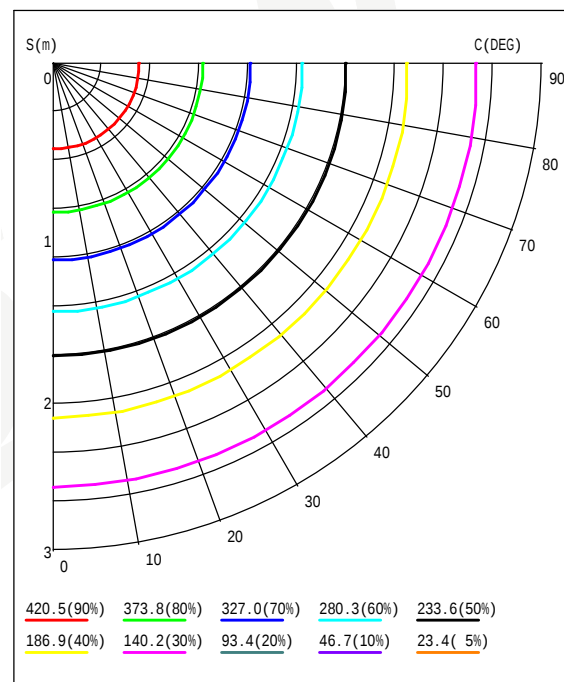
Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Spatial ISOLUX Curve



Planar ISOLUX Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-4

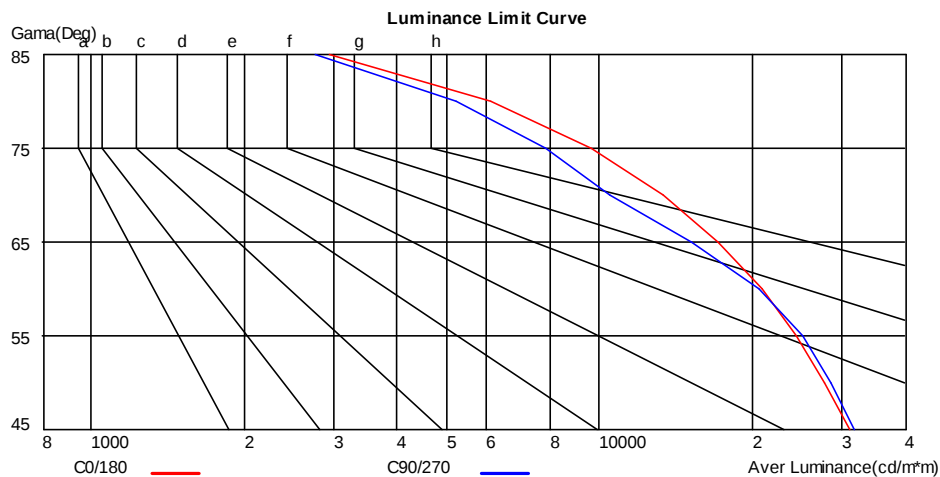
Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Luminance Limit Curve

Aver Luminance(cd/m ² m)									
Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	31149.8	27926.6	24471.1	21010.2	17217.6	13391.7	9649.6	6095.6	2937.6
C90	31779.9	28609.1	25248.2	20703.0	15222.8	10535.5	7830.2	5229.8	2766.5

Glare									
Glare	Class	Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zyg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

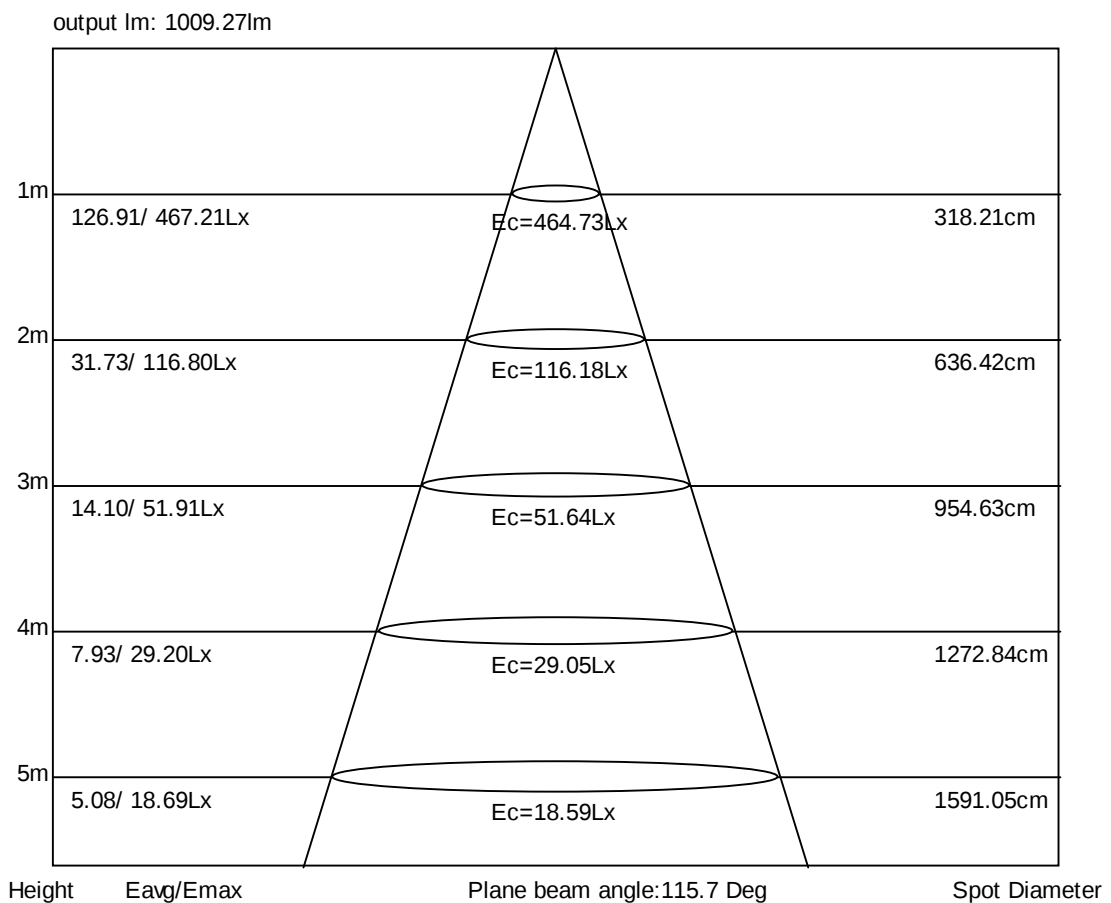
Humidity(%): 60

Date: 2026-6-4

Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Average Illumination



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

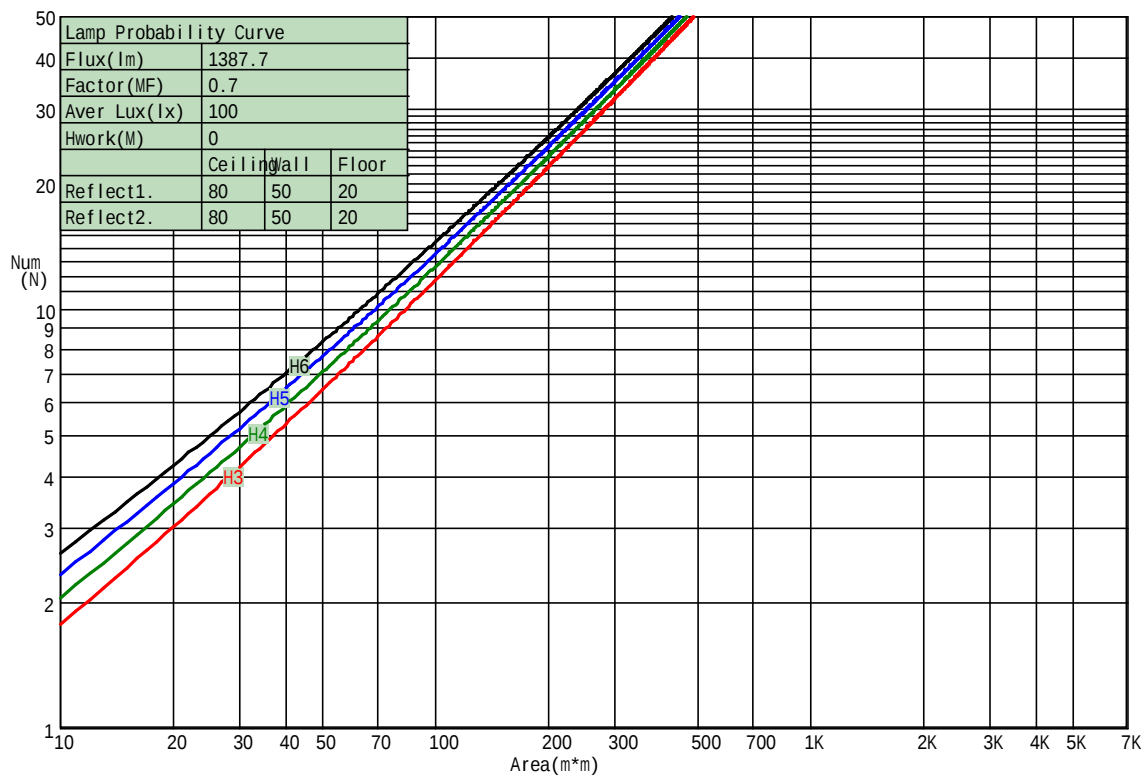
Humidity(%): 60

Date: 2026-6-4

Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Lamp Probability Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-4

Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

UF Table

Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5
Wall	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3
Floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.60	52	37	28	50	36	28	47	35	27
0.80	57	40	29	54	39	29	51	37	28
1.00	60	43	31	57	41	30	53	39	29
1.25	63	45	32	60	43	31	54	40	29
1.50	65	46	32	62	44	31	55	41	30
2.00	68	49	33	64	46	32	57	42	30
2.50	69	49	33	65	47	32	57	42	30
3.00	70	50	34	66	48	32	58	43	29
4.00	71	51	34	67	49	32	58	43	29
5.00	72	52	34	68	49	32	59	43	29

CoEfficients Utilization

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02
1	1.03	0.99	0.95	1.01	0.97	0.93	0.97	0.93	0.9	0.93	0.9	0.87	0.89	0.87	0.85
2	0.9	0.82	0.77	0.88	0.81	0.76	0.84	0.79	0.74	0.81	0.76	0.72	0.78	0.74	0.7
3	0.78	0.7	0.63	0.77	0.69	0.63	0.74	0.67	0.62	0.71	0.65	0.6	0.68	0.64	0.59
4	0.69	0.6	0.53	0.68	0.6	0.53	0.65	0.58	0.52	0.63	0.57	0.52	0.61	0.55	0.51
5	0.62	0.53	0.46	0.61	0.52	0.46	0.58	0.51	0.45	0.56	0.5	0.45	0.55	0.49	0.44
6	0.56	0.46	0.4	0.55	0.46	0.4	0.53	0.45	0.39	0.51	0.44	0.39	0.49	0.43	0.39
7	0.5	0.41	0.35	0.49	0.41	0.35	0.48	0.4	0.35	0.46	0.4	0.34	0.45	0.39	0.34
8	0.46	0.37	0.31	0.45	0.37	0.31	0.44	0.36	0.31	0.43	0.36	0.31	0.41	0.35	0.31
9	0.42	0.34	0.28	0.41	0.33	0.28	0.4	0.33	0.28	0.39	0.33	0.28	0.38	0.32	0.28
10	0.39	0.31	0.25	0.38	0.31	0.25	0.37	0.3	0.25	0.36	0.3	0.25	0.35	0.29	0.25

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-4

Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Wall Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.32	0.18	0.06	0.32	0.18	0.06	0.3	0.17	0.06	0.29	0.17	0.05	0.28	0.16	0.05
2	0.3	0.16	0.05	0.29	0.16	0.05	0.28	0.16	0.05	0.27	0.15	0.05	0.26	0.15	0.05
3	0.28	0.15	0.04	0.27	0.14	0.04	0.26	0.14	0.04	0.25	0.14	0.04	0.24	0.13	0.04
4	0.25	0.13	0.04	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.12	0.04	0.22	0.12	0.04
5	0.23	0.12	0.03	0.23	0.12	0.03	0.22	0.12	0.03	0.21	0.11	0.03	0.21	0.11	0.03
6	0.22	0.11	0.03	0.21	0.11	0.03	0.21	0.11	0.03	0.2	0.1	0.03	0.19	0.1	0.03
7	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.19	0.09	0.03	0.18	0.09	0.03
8	0.19	0.09	0.03	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.17	0.09	0.03
9	0.18	0.08	0.02	0.17	0.08	0.02	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02
10	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.08	0.02

Ceiling Cavity Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0.19	0.19	0.19	0.16	0.16	0.16	0.11	0.11	0.11	0.06	0.06	0.06	0.02	0.02	0.02
1	0.18	0.16	0.13	0.16	0.13	0.11	0.11	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.01
2	0.17	0.13	0.1	0.15	0.11	0.08	0.1	0.08	0.06	0.06	0.05	0.03	0.02	0.01	0.01
3	0.17	0.11	0.07	0.14	0.1	0.06	0.1	0.07	0.04	0.06	0.04	0.03	0.02	0.01	0.01
4	0.16	0.1	0.06	0.14	0.09	0.05	0.09	0.06	0.04	0.05	0.04	0.02	0.02	0.01	0.01
5	0.15	0.09	0.05	0.13	0.08	0.04	0.09	0.05	0.03	0.05	0.03	0.02	0.02	0.01	0.01
6	0.14	0.08	0.04	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
7	0.14	0.08	0.03	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
8	0.13	0.07	0.03	0.11	0.06	0.02	0.08	0.04	0.02	0.04	0.03	0.01	0.01	0.01	0
9	0.12	0.06	0.02	0.11	0.06	0.02	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.12	0.06	0.02	0.1	0.05	0.02	0.07	0.04	0.01	0.04	0.02	0.01	0.01	0.01	0

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-4

Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Ring-shaped Flux Data Table

Gm\C(Deg)	0	45	90	135	180	225	270	315	Range	Ring	T(lm)
5	463	463	462	463	466	464	462	459	0-5	11.1	11.1
10	456	456	456	460	462	459	457	452	5-10	32.9	44
15	446	446	447	452	453	451	447	440	10-15	53.7	97.7
20	432	432	434	441	441	438	434	425	15-20	72.7	170
25	414	415	417	426	425	422	418	407	20-25	89.4	260
30	393	394	397	407	406	402	398	385	25-30	103	363
35	369	370	373	386	383	379	374	360	30-35	114	477
40	341	343	347	360	357	353	348	332	35-40	120	597
45	311	313	318	332	327	323	319	301	40-45	123	720
50	279	281	286	301	295	291	287	269	45-50	122	842
55	245	247	252	268	261	257	254	236	50-55	117	960
60	210	212	207	233	225	223	218	199	55-60	108	1068
65	172	176	152	197	188	185	183	161	60-65	95.3	1163
70	134	139	105	160	150	146	145	124	65-70	79.4	1243
75	96.5	102	78.3	122	110	107	107	87	70-75	62.4	1305
80	61	66.2	52.3	84.8	74	70.3	70.6	52.3	75-80	44.7	1350
85	29.4	33.1	27.7	49.9	39.6	36.5	36.6	20.8	80-85	27.2	1377
90	7.57	3.74	8.4	16.8	8.09	12.6	3.86	3.57	85-90	10.8	1388
95									90-95		
100									95-100		
105									100-105		
110									105-110		
115									110-115		
120									115-120		
125									120-125		
130									125-130		
135									130-135		
140									135-140		
145									140-145		
150									145-150		
155									150-155		
160									155-160		
165									160-165		
170									165-170		
175									170-175		
180									175-180		

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-4

Remark:

Measured Para U: 224.8V I: 124.0mA P: 16.60W PF: 0.595 Test LM: 1387.69lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18LS01-F	Lamp Spec: LPDL-18LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

CD Table

Gm\C(Deg)	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340
5.0	463	463	463	462	462	462	463	463	465	466	465	464	463	463	461	460	460	462
10.0	456	456	456	456	456	457	458	460	461	462	461	459	458	457	455	453	452	454
15.0	446	446	446	446	447	448	450	452	453	453	452	451	449	448	446	442	441	443
20.0	432	432	432	433	433	435	438	441	441	441	440	438	437	435	432	428	426	429
25.0	414	414	415	415	416	419	423	426	425	425	424	422	420	419	415	410	408	411
30.0	393	393	394	395	396	399	404	407	406	406	404	402	401	399	395	389	386	389
35.0	369	369	370	371	373	376	382	385	384	383	381	379	377	375	371	365	361	365
40.0	341	342	343	344	346	350	356	360	358	357	355	353	351	349	345	337	333	337
45.0	311	312	313	315	317	321	327	332	329	327	326	324	322	320	315	307	303	307
50.0	279	280	281	283	285	289	296	300	298	295	293	291	290	288	283	275	270	275
55.0	245	246	247	249	251	256	263	267	264	261	259	257	256	254	250	242	237	241
60.0	210	211	211	210	208	213	224	232	228	225	224	223	221	219	214	205	200	205
65.0	172	174	176	168	157	162	183	196	192	188	187	185	184	183	178	168	163	167
70.0	134	136	138	128	113	117	142	159	154	150	148	146	145	145	140	131	125	129
75.0	96.5	98.7	101	93.9	83.4	87.8	108	121	115	110	109	108	107	107	103	93.6	88.1	92.3
80.0	61	63.2	65.6	61.6	55.3	59.4	74.1	83.6	78.7	74	72.3	70.7	70.4	70.5	66.6	58.3	53.2	57.2
85.0	29.4	31	32.7	31.3	28.8	32.5	42.6	48.8	44.1	39.6	38.2	36.8	36.5	36.5	33.1	26	21.8	25.6
90.0	7.57	5.9	4.16	5.27	7.38	10.2	14.1	15.9	11.9	8.09	10.1	12.1	9.72	5.77	3.8	3.67	4.01	5.82
95.0																		
100.0																		
105.0																		
110.0																		
115.0																		
120.0																		
125.0																		
130.0																		
135.0																		
140.0																		
145.0																		
150.0																		
155.0																		
160.0																		
165.0																		
170.0																		
175.0																		
180.0																		

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-4

Remark: