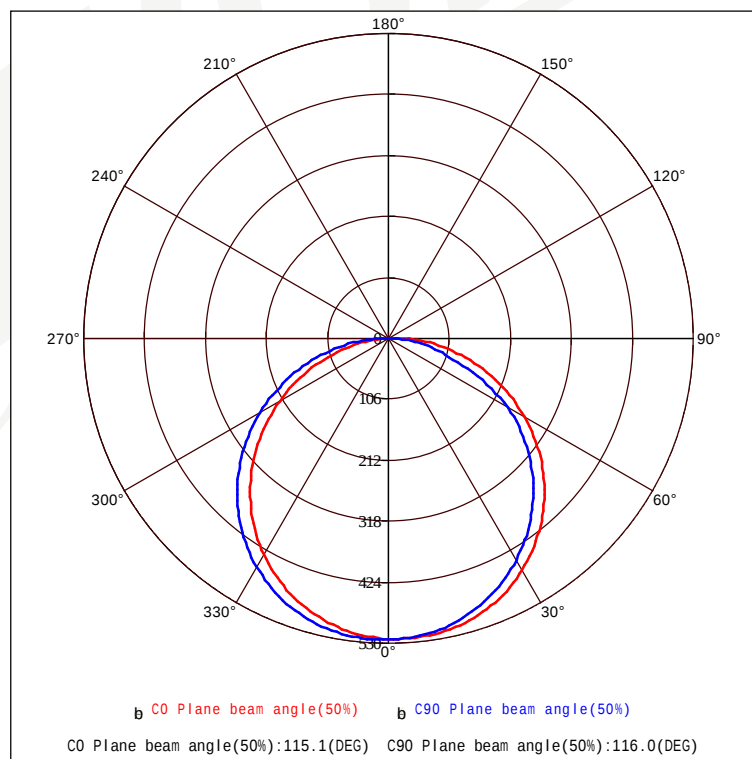


Goniophotometer Test Report

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-24LS01-F			Lamp Spec: LPDL-24LS01-F		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-24LS01-F		Peak Value(cd)	527.1	Efficiency(lm/w)	72.2
Nominal P(w)		1.0	Position	315.0,1.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	1567.462	Down(C0-C180)	50.2
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)	49.8

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

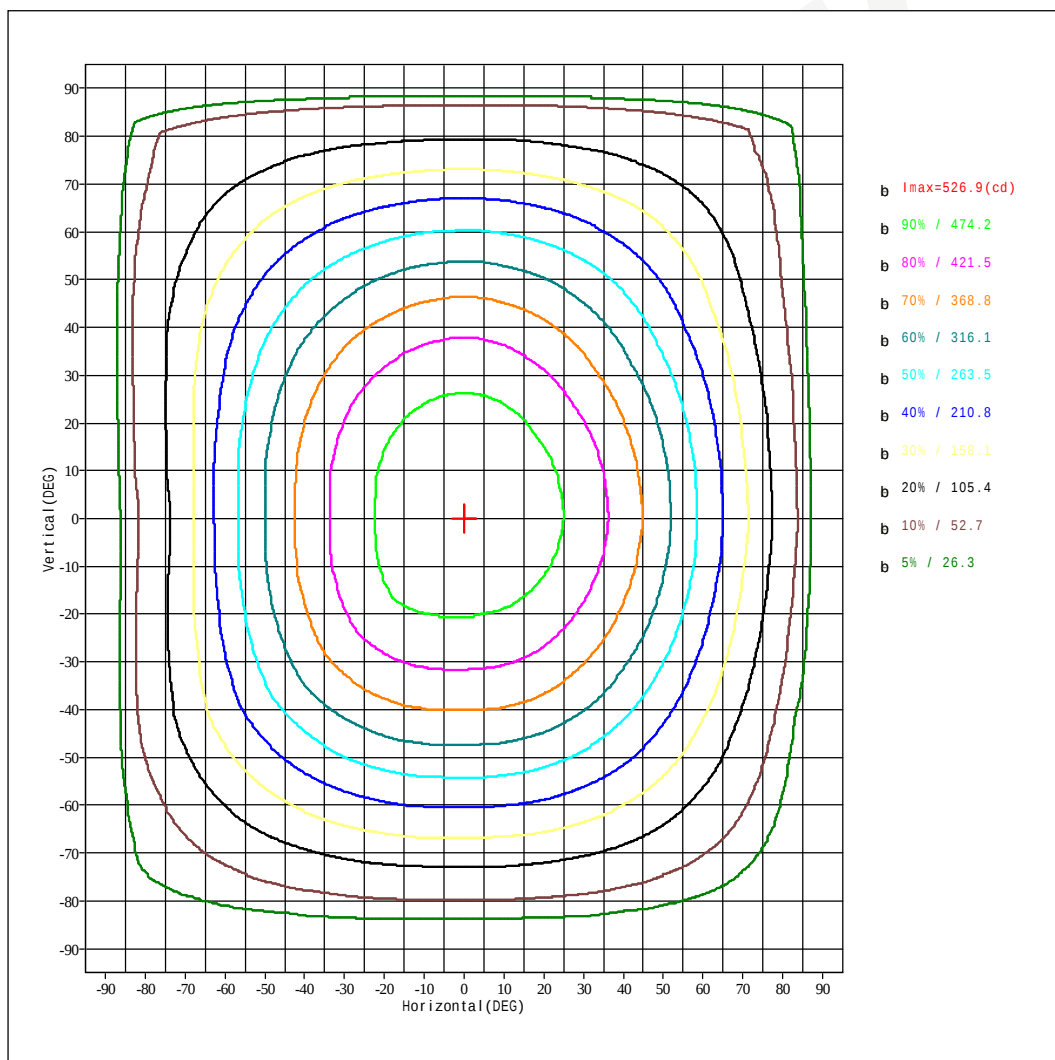
Humidity(%): 60

Date: 2026-6-6

Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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

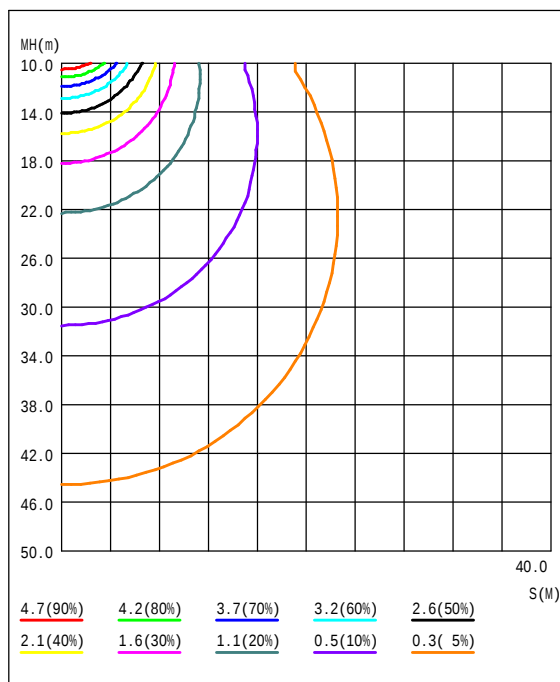
Humidity(%): 60

Date: 2026-6-6

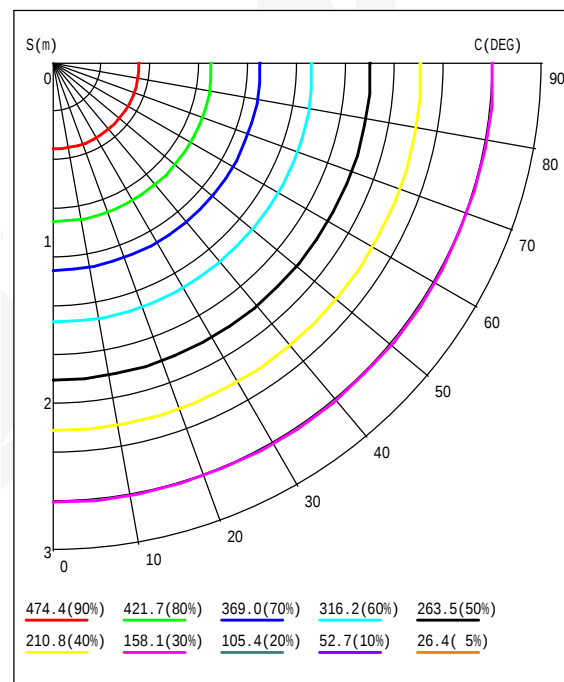
Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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: 2026-6-6

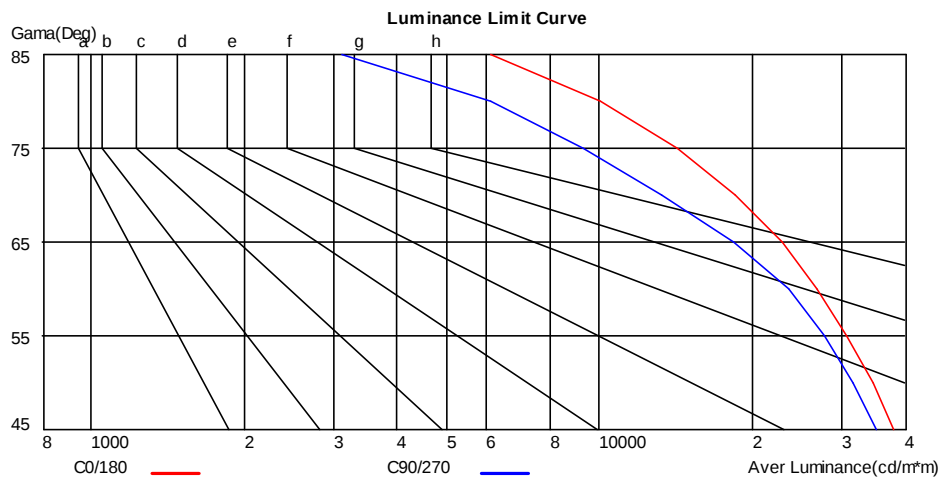
Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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	38075.0	34638.1	30831.8	26874.1	22918.3	18598.0	14264.4	10040.6	6135.3
C90	35221.2	31637.8	27826.6	23660.1	18447.0	13262.8	9334.5	6121.6	3108.6

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

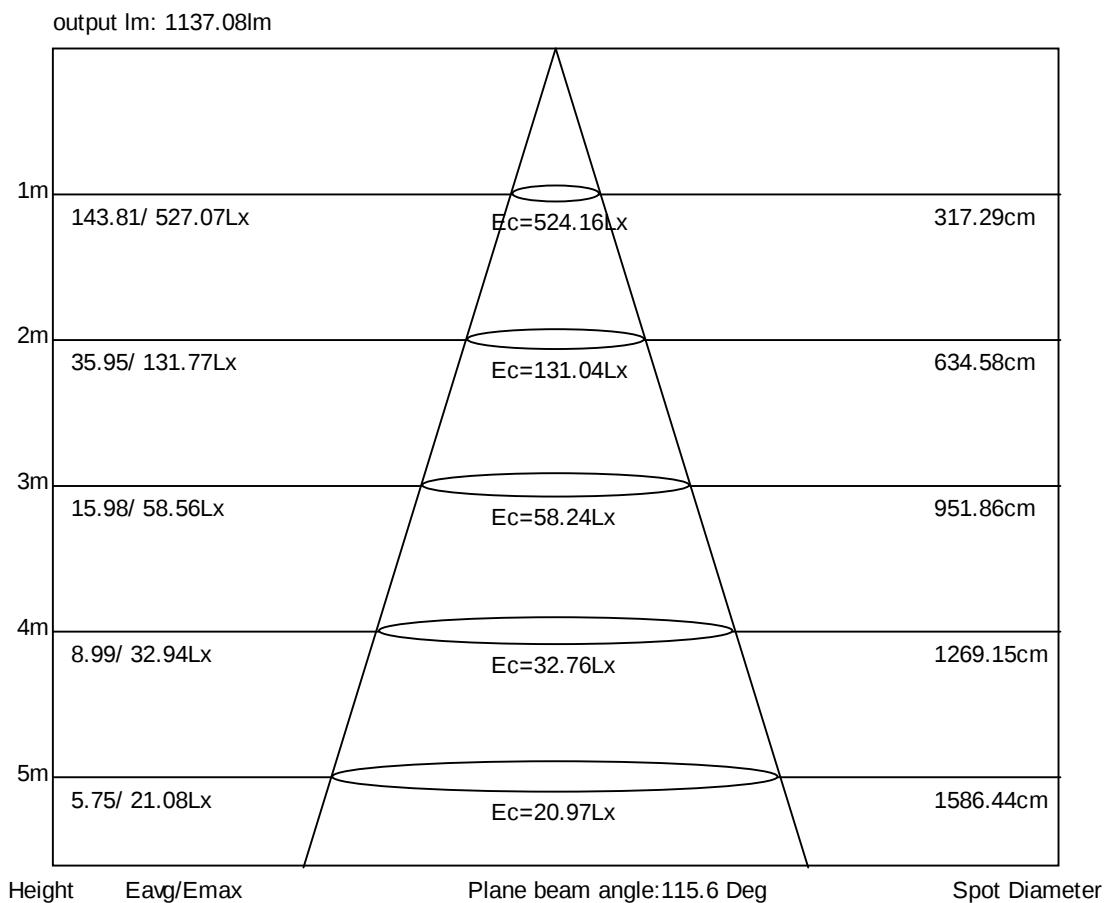
Humidity(%): 60

Date: 2026-6-6

Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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

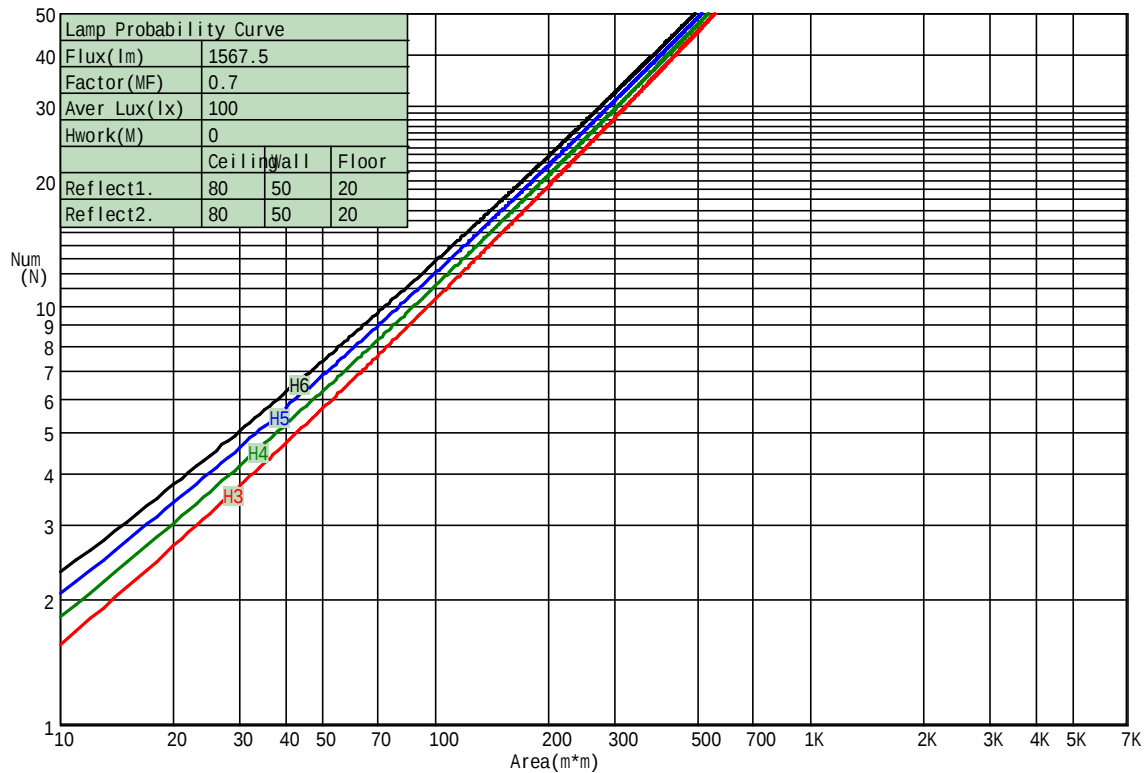
Humidity(%): 60

Date: 2026-6-6

Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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: 2026-6-6

Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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	53	38	29	51	37	29	48	36	28
0.80	58	41	31	55	40	30	51	38	29
1.00	61	44	32	58	43	31	54	40	30
1.25	64	46	33	61	44	32	55	41	31
1.50	66	48	34	63	46	33	57	42	31
2.00	69	50	35	65	48	34	58	44	32
2.50	70	51	35	66	48	34	59	44	31
3.00	71	52	35	67	49	34	59	44	31
4.00	72	53	36	68	50	34	60	44	31
5.00	73	54	36	69	50	34	60	45	31

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	0.76	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	0.61	0.71	0.65	0.6	0.68	0.63	0.59
4	0.69	0.6	0.53	0.68	0.59	0.53	0.65	0.58	0.52	0.63	0.57	0.51	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	0.44	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	0.32	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: 2026-6-6

Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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	0.15	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	0.09	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: 2026-6-6

Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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	523	522	521	525	518	520	523	525	0-5	12.5	12.5
10	519	517	513	518	509	512	518	519	5-10	37.1	49.6
15	511	507	501	507	495	501	509	509	10-15	60.5	110
20	499	494	486	492	478	485	495	494	15-20	82	192
25	483	476	466	473	456	465	478	475	20-25	101	293
30	463	455	443	450	431	441	456	452	25-30	116	410
35	439	429	416	423	402	413	431	426	30-35	128	538
40	411	400	385	393	370	381	401	395	35-40	136	674
45	381	368	352	360	334	346	369	362	40-45	139	813
50	346	333	316	324	296	309	333	325	45-50	138	951
55	308	296	278	286	256	269	294	286	50-55	132	1082
60	269	256	237	246	215	229	254	245	55-60	122	1204
65	229	215	184	205	173	185	212	203	60-65	108	1312
70	186	175	133	164	130	141	169	160	65-70	90.6	1403
75	143	133	93.3	122	88.5	98.2	126	117	70-75	70.9	1474
80	100	91.7	61.2	81.7	50.2	56.9	82.5	74.6	75-80	50.7	1525
85	61.4	52.9	31.1	44	14.5	20.2	41.5	36.1	80-85	30.5	1555
90	34.5	17.9	10.2	8.8	4.28	4.05	5	9.22	85-90	12.4	1567
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: 2026-6-6

Remark:

Measured Para U: 231.6V I: 149.0mA P: 21.70W PF: 0.625 Test LM: 1567.46lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-24LS01-F	Lamp Spec: LPDL-24LS01-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	523	522	522	522	521	522	523	524	521	518	519	520	521	523	524	525	525	524
10.0	519	518	517	516	514	514	516	517	513	509	510	512	514	517	518	519	519	519
15.0	511	510	508	505	503	503	505	506	500	495	498	500	503	507	509	509	509	510
20.0	499	497	494	491	487	487	490	490	484	478	481	484	488	493	495	494	495	497
25.0	483	480	477	473	468	467	471	471	463	456	460	464	469	475	477	476	476	480
30.0	463	459	455	451	445	444	447	448	439	431	435	439	446	453	455	454	454	458
35.0	439	435	430	425	419	417	421	421	411	402	407	411	418	427	429	427	427	433
40.0	411	407	402	395	389	387	391	391	380	370	375	380	388	397	400	397	397	404
45.0	381	375	370	363	356	354	358	357	346	334	340	345	354	364	367	364	364	372
50.0	346	341	335	328	320	318	322	321	308	296	302	307	317	327	331	328	327	337
55.0	308	303	297	290	282	280	284	283	269	256	262	267	277	289	292	289	288	298
60.0	269	263	258	250	241	239	243	243	228	215	221	227	237	248	252	248	247	258
65.0	229	223	217	205	191	189	198	202	187	173	178	184	194	206	210	206	206	218
70.0	186	181	176	161	142	140	154	160	145	130	135	140	150	163	167	163	163	175
75.0	143	138	134	120	102	99.7	113	119	103	88.5	92.7	97.1	107	120	124	120	120	131
80.0	100	96.6	92.7	81.7	67.9	65.7	75	78.3	64	50.2	53.1	56.2	65.3	76.9	80.8	77.2	77.4	89.1
85.0	61.4	57.7	53.8	45.7	35.9	33.9	39.8	40.8	27.4	14.5	17	19.6	27.2	36.8	40.3	37.9	38.9	50.3
90.0	34.5	27.2	19.7	15.4	11.9	9.87	9.25	8.31	6.26	4.28	4.18	4.08	4.36	4.79	5.92	7.84	12	23.4
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: 2026-6-6

Remark: