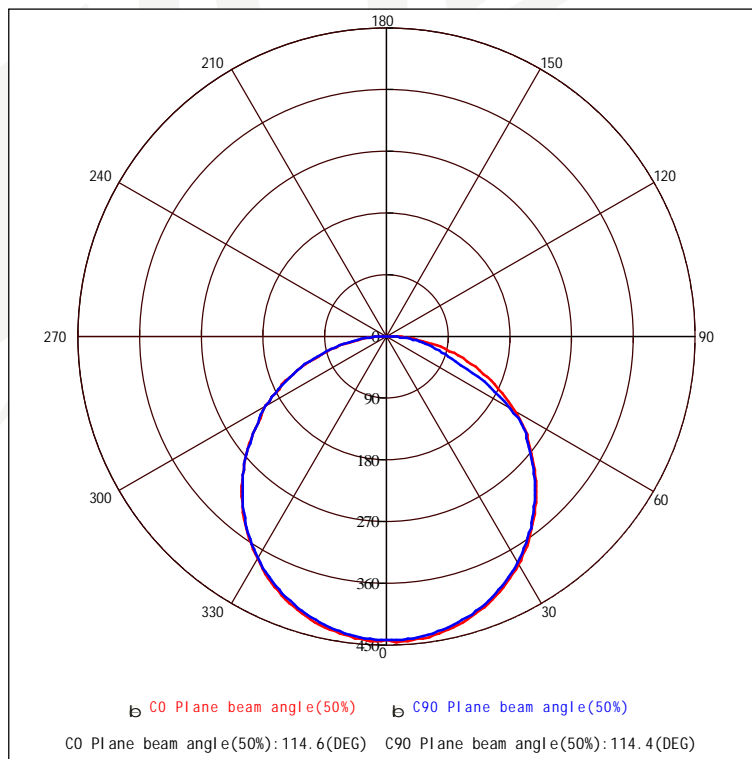


Goniophotometer Test Report

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm						
Lamp Name: LED DOWN LIGHT		Lamp Type:		Weight(kg):		
Lamp ID: LPDL-18EMS01-F		Lamp Spec: LPDL-18A-Y		Shape Size:		
Manufactory: LIPER		Sur(m ²):		Protect Angle(Deg):		
Light Source Data			Photometric Data			
Model	LPDL-18A-Y		Peak Value(cd)	445.8	Efficiency(lm/w)	82.7
Nominal P(w)	1.0		Position	0.0, 2.0	UP(C0-C180)	0.0
Rated Volt(v)	1.0		Total Flux(lm)	1438.98	Down(C0-C180)	51.1
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)	48.9

Planar Intensity Distribution Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 25

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

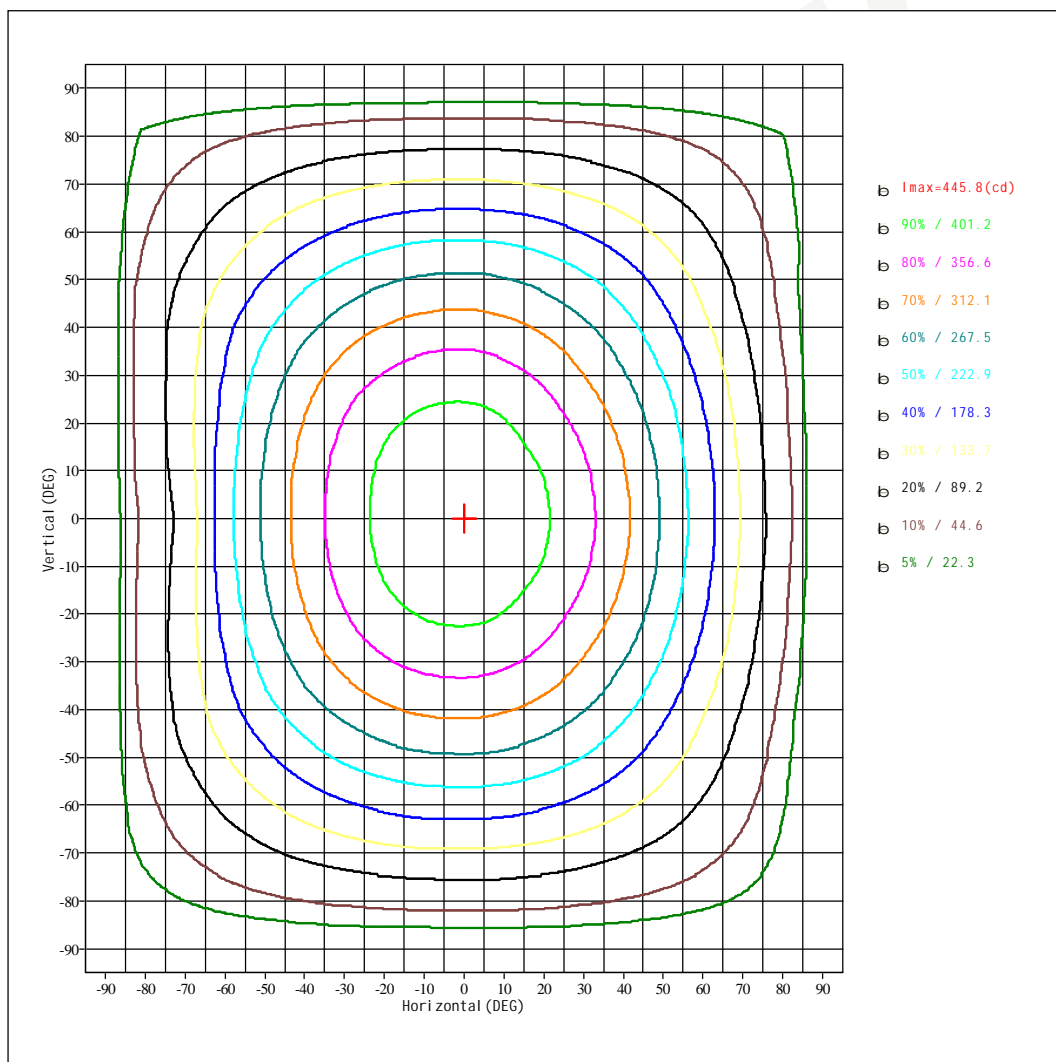
Humidity(%): 60

Date: 2025-2-26

Remark:

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Planar IsoCandela Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 25

Tester: zxg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

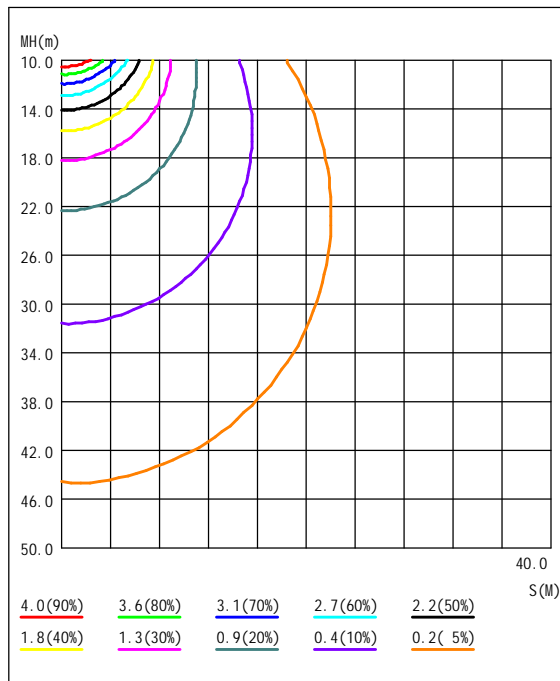
Humi di ty(%): 60

Date: 2025-2-26

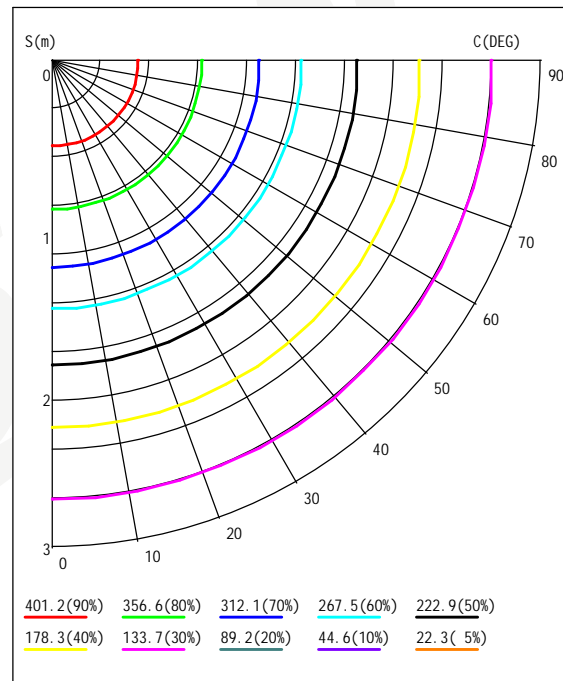
Remark:

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Spacial ISOLUX Curve



Planar ISOLUX Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 25

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humi di ty(%): 60

Date: 2025-2-26

Remark:

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

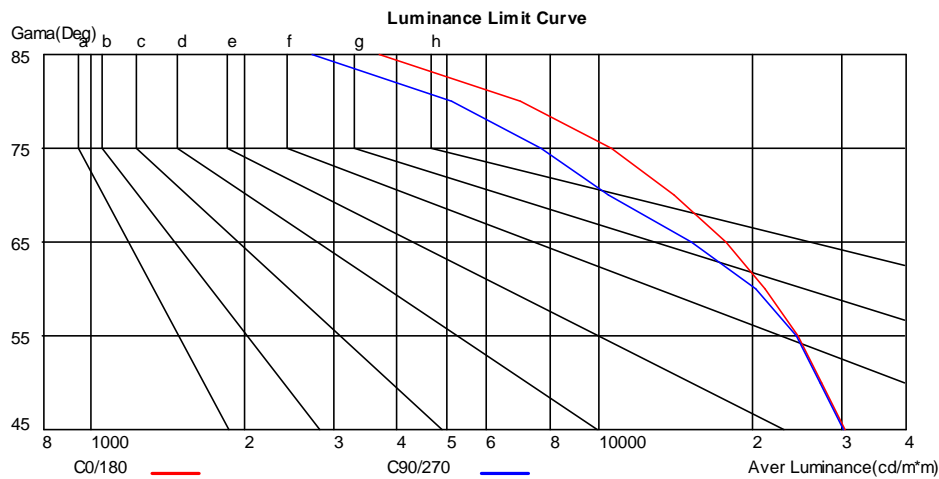
Luminance Limit Curve

Aver Luminance(cd/m²)

Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	30618.6	27513.0	24703.4	21203.3	17716.9	14076.7	10566.8	6993.8	3699.5
C90	30346.2	27317.5	24484.8	20312.5	15192.0	10413.0	7669.5	5136.7	2712.6

Glare

Glare	Class	Illuminance(lx)							
		a	b	c	d	e	f	g	h
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



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 25

Tester: zxg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

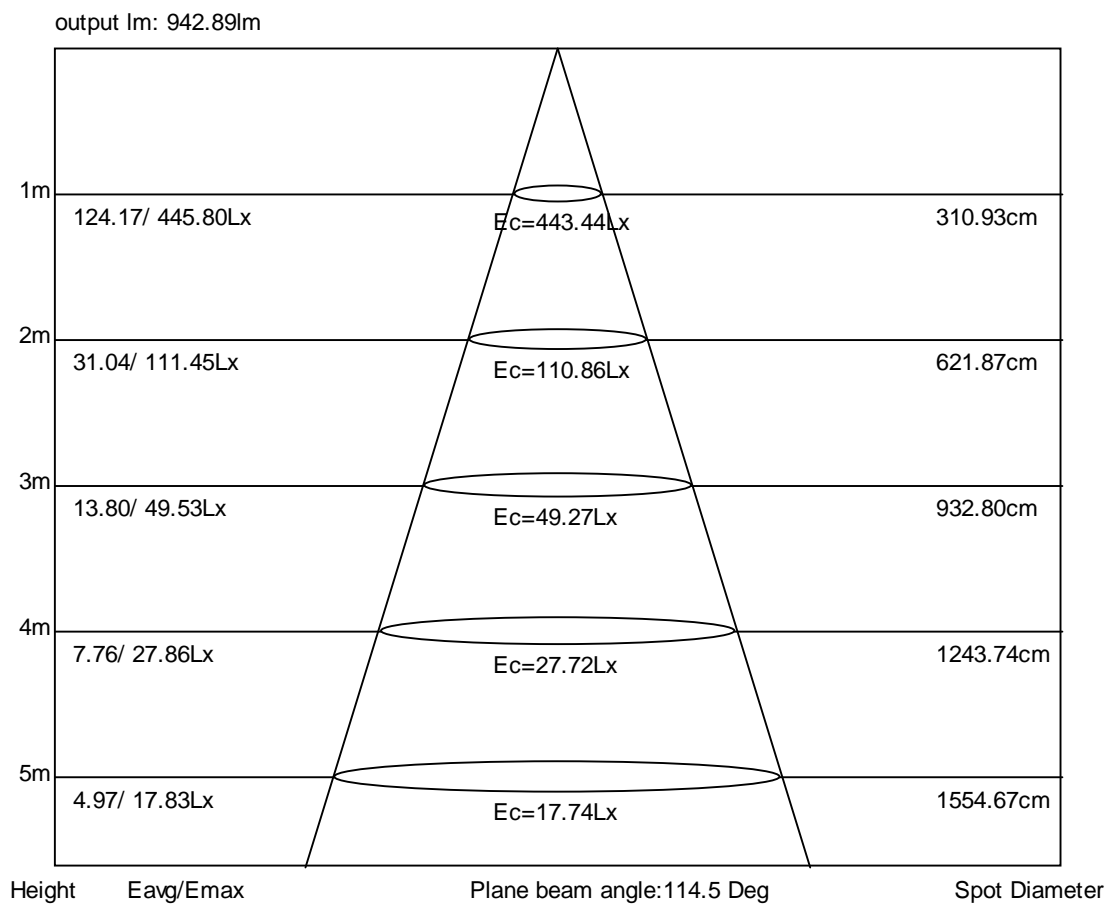
Humi di ty(%): 60

Date: 2025-2-26

Remark:

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Average Illumination



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 25

Tester: zxg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

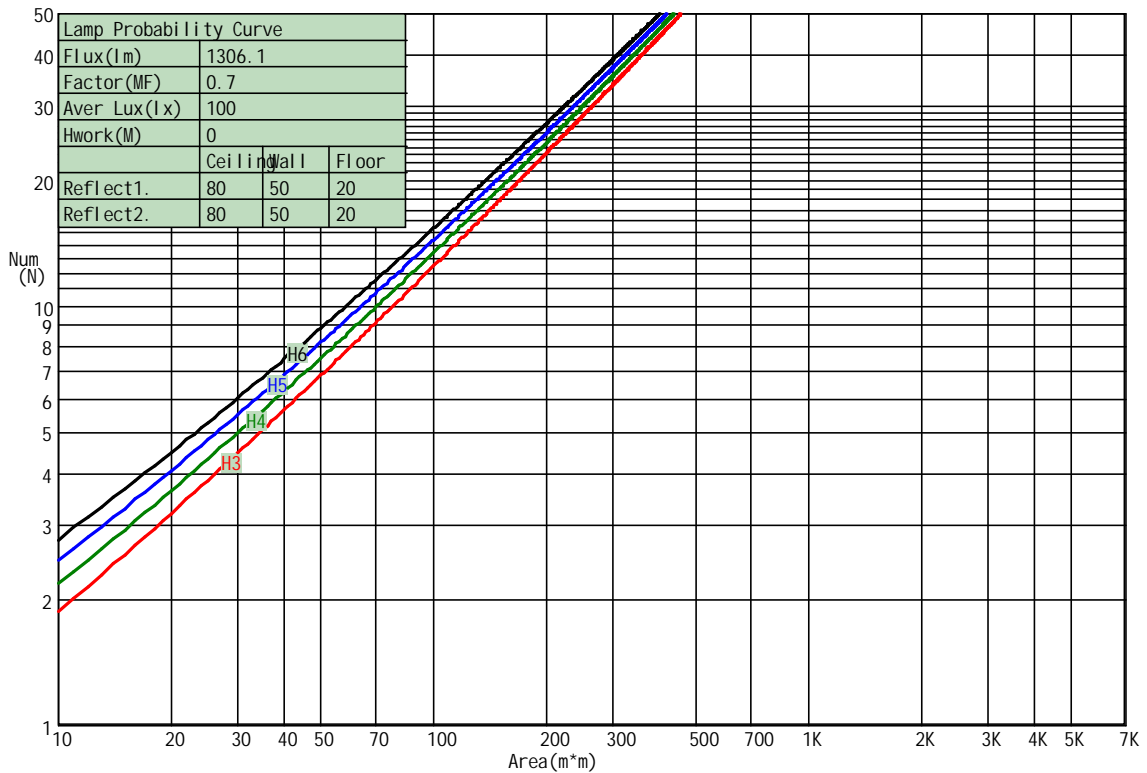
Humi di ty(%): 60

Date: 2025-2-26

Remark:

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	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): 25

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: 2025-2-26

Remark:

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
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	28	48	36	28
0.80	57	41	30	55	40	30	51	38	29
1.00	60	43	31	58	42	31	53	40	30
1.25	63	45	32	60	44	32	55	41	30
1.50	65	47	33	62	45	32	56	42	30
2.00	68	49	34	64	47	33	58	43	31
2.50	70	50	34	66	48	33	58	43	30
3.00	71	51	34	66	48	33	58	43	30
4.00	72	52	35	67	49	33	59	44	30
5.00	73	53	35	68	50	33	59	44	30

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	0.83	0.77	0.88	0.81	0.76	0.84	0.79	0.74	0.81	0.76	0.72	0.78	0.74	0.71
3	0.79	0.7	0.63	0.77	0.69	0.63	0.74	0.67	0.62	0.71	0.65	0.61	0.69	0.64	0.6
4	0.69	0.6	0.54	0.68	0.6	0.53	0.66	0.58	0.52	0.63	0.57	0.52	0.61	0.56	0.51
5	0.62	0.53	0.46	0.61	0.52	0.46	0.59	0.51	0.45	0.57	0.5	0.45	0.55	0.49	0.44
6	0.56	0.47	0.4	0.55	0.46	0.4	0.53	0.45	0.4	0.51	0.44	0.39	0.5	0.44	0.39
7	0.5	0.42	0.35	0.5	0.41	0.35	0.48	0.4	0.35	0.47	0.4	0.35	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	0.42	0.35	0.31
9	0.42	0.34	0.28	0.42	0.34	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	0.26	0.38	0.31	0.26	0.37	0.3	0.25	0.36	0.3	0.25	0.36	0.3	0.25

Gama Angle Range: -90 - 90(Deg)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 25

Humidity(%): 60

Tester: zxcg

Date: 2025-2-26

Distance(m): 7.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Wall Exi tance 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	0.31	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	0.2	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	0.18	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	0.16	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.07	0.02

Ceiling Cavi ty Exi tance 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	0.15	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	0.03	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)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 25

Humi di ty(%): 60

Tester: zxcg

Date: 2025-2-26

Distance(m): 7.000

Remark:

Test System: ZWL Goni ophotometer System V3.0

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
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	445	443	442	441	443	440	440	438	0-5	10.6	10.6
10	439	439	437	435	436	432	433	432	5-10	31.4	42
15	431	431	428	427	426	421	423	421	10-15	51.1	93
20	418	420	415	414	412	406	409	407	15-20	69.1	162
25	402	404	399	399	395	388	392	390	20-25	84.8	247
30	383	386	380	380	374	367	372	369	25-30	97.7	345
35	360	364	357	357	350	342	348	346	30-35	107	452
40	334	339	332	332	323	315	322	319	35-40	113	566
45	306	311	303	304	294	286	293	290	40-45	116	681
50	275	282	273	275	263	255	262	260	45-50	115	796
55	247	250	245	242	230	225	230	231	50-55	110	906
60	212	216	203	212	199	190	199	196	55-60	102	1008
65	177	185	152	177	163	154	164	160	60-65	90	1098
70	141	149	104	141	128	118	129	125	65-70	74.8	1173
75	106	113	76.7	106	92.5	82.7	93.9	89.2	70-75	58.5	1231
80	69.9	77.7	51.4	70.5	58	48.3	59.7	54.5	75-80	41.7	1273
85	37	43.8	27.1	37	25.2	16.7	26.8	23.3	80-85	24.6	1297
90	13.4	11.3	9.61	6.99	2.37	2.14	2.4	3.64	85-90	8.69	1306
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)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 25

Humi dity(%): 60

Tester: zxg

Date: 2025-2-26

Distance(m): 7.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 224.9V I: 126.0mA P: 17.40W PF: 0.611 Test LM: 1438.98lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-18A-Y	Lamp Spec: LPDL-18A-Y	Shape Si ze:
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	445	444	444	443	442	441	441	441	442	443	441	440	440	440	440	439	439	442
10.0	439	439	439	438	437	436	436	436	436	436	435	433	433	433	433	432	433	436
15.0	431	431	431	430	428	427	427	427	426	426	424	422	422	423	423	422	422	427
20.0	418	419	419	418	416	415	415	414	413	412	410	407	407	409	409	408	409	413
25.0	402	403	404	402	400	399	399	398	396	395	392	389	389	391	392	391	391	397
30.0	383	384	385	384	381	380	380	379	376	374	371	368	369	371	371	370	371	377
35.0	360	362	363	362	359	357	357	356	353	350	347	343	344	347	348	347	347	354
40.0	334	336	339	337	333	332	332	331	327	323	320	316	318	321	322	320	321	328
45.0	306	308	311	309	305	304	304	303	299	294	291	287	288	292	293	291	292	299
50.0	275	278	281	279	275	273	274	273	268	263	259	256	257	261	262	261	261	268
55.0	247	248	250	248	246	244	243	241	235	230	228	226	227	229	230	230	232	240
60.0	212	214	216	212	206	205	209	210	205	199	195	191	193	197	199	197	198	205
65.0	177	181	184	174	159	157	169	175	169	163	159	155	157	162	163	162	162	170
70.0	141	144	148	134	114	112	129	140	134	128	124	119	122	127	128	126	126	134
75.0	106	109	112	101	84.6	83	96.1	104	98.2	92.5	88.2	83.8	86.4	91.5	92.9	90.8	91	98.5
80.0	69.9	73.4	76.9	69.1	57.1	55.6	64.2	69.1	63.5	58	53.8	49.4	52	57.2	58.5	56.2	56.2	63.2
85.0	37	40	43	38.3	30.8	29.3	33.8	35.7	30.3	25.2	21.4	17.6	20	24.6	26	24.4	24.8	31
90.0	13.4	12.5	11.5	10.7	9.98	9.04	7.85	6.48	4.39	2.37	2.27	2.17	2.22	2.34	2.67	3.23	4.7	9.12
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)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 25

Humi di ty(%): 60

Tester: zxg

Date: 2025-2-26

Distance(m): 7.000

Remark:

Test System: ZWL Goniophotometer System V3.0