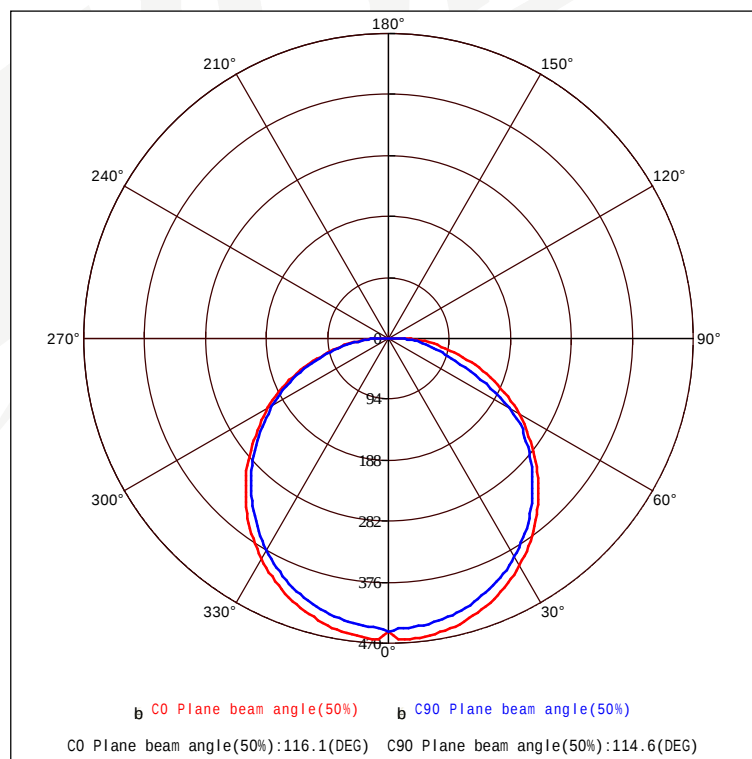


Goniophotometer Test Report

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-18EMS01-Y			Lamp Spec: LPDL-18EMS01-Y		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-18EMS01-Y		Peak Value(cd)	465.4	Efficiency(lm/w)	81.7
Nominal P(w)		1.0	Position	0.0,1.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	1371.998	Down(C0-C180)	51.2
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)	48.8

Planar Intensity Distribution Curve



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

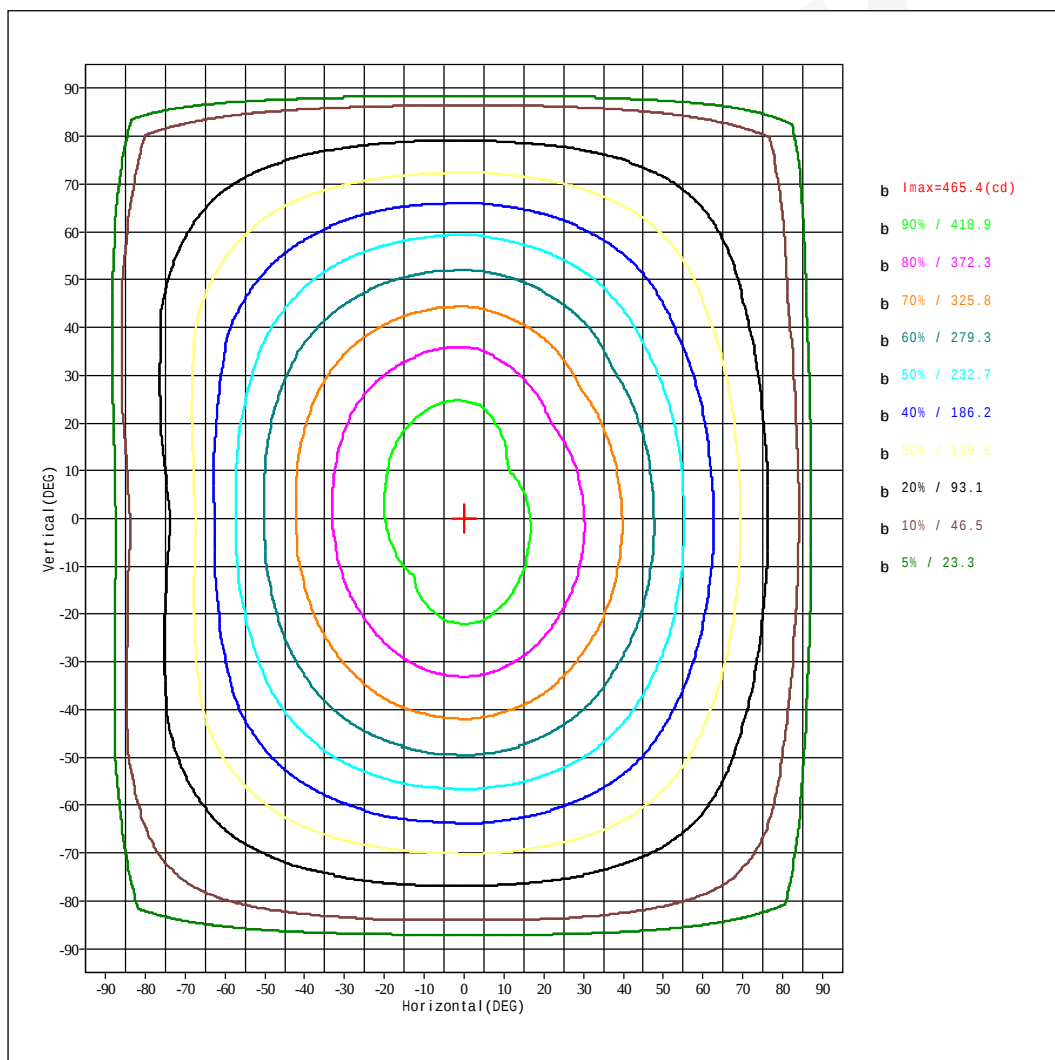
Humidity(%): 60

Date: 2026-1-26

Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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

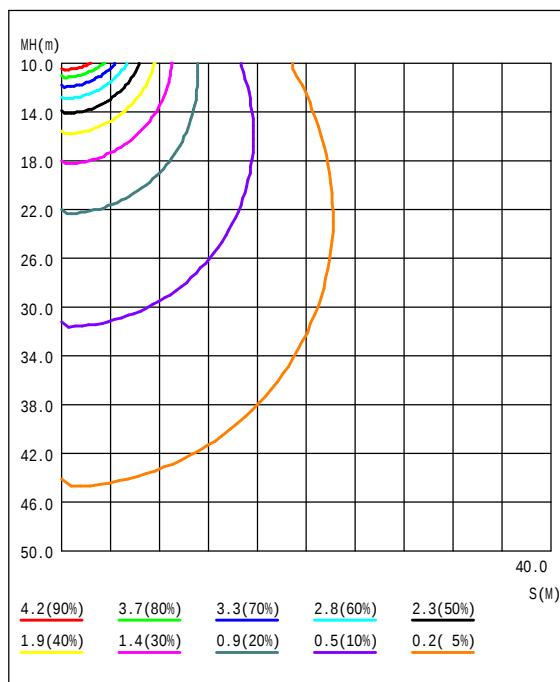
Humidity(%): 60

Date: 2026-1-26

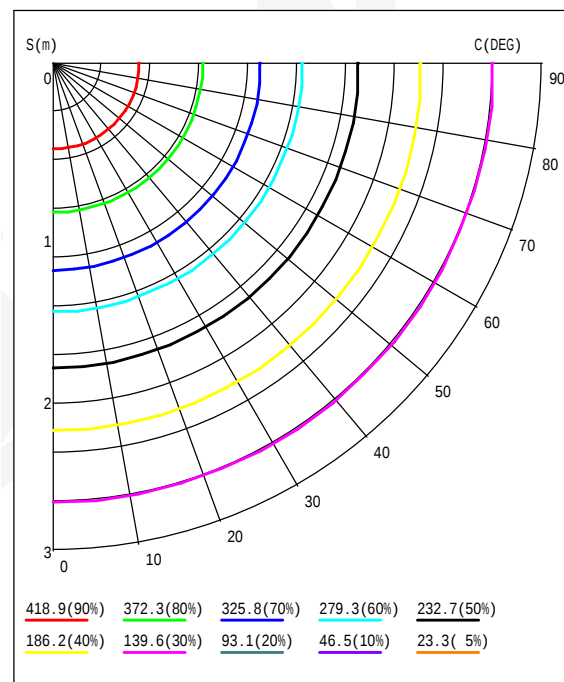
Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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: 2026-1-26

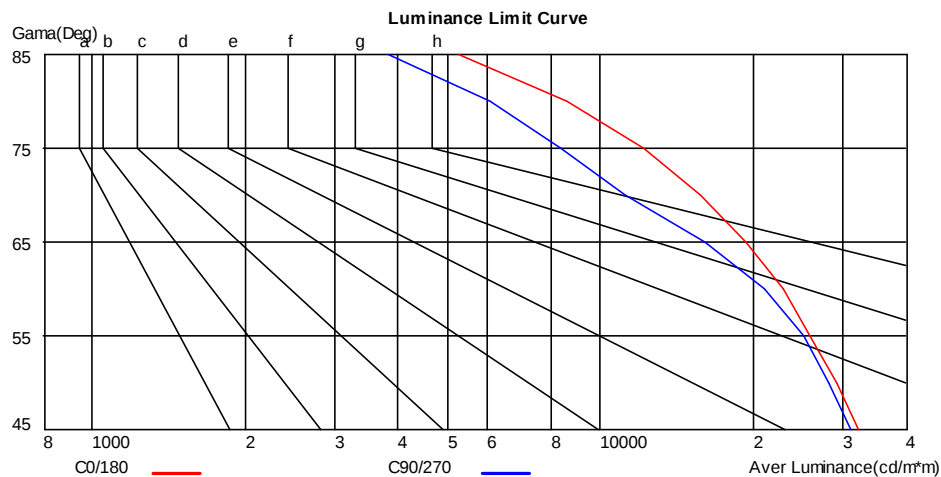
Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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	32403.2	29297.1	26001.4	22971.2	19386.9	15767.7	12154.0	8627.4	5283.2
C90	31174.3	28186.8	25183.6	21061.2	16126.4	11201.9	8377.0	6061.3	3832.8

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: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

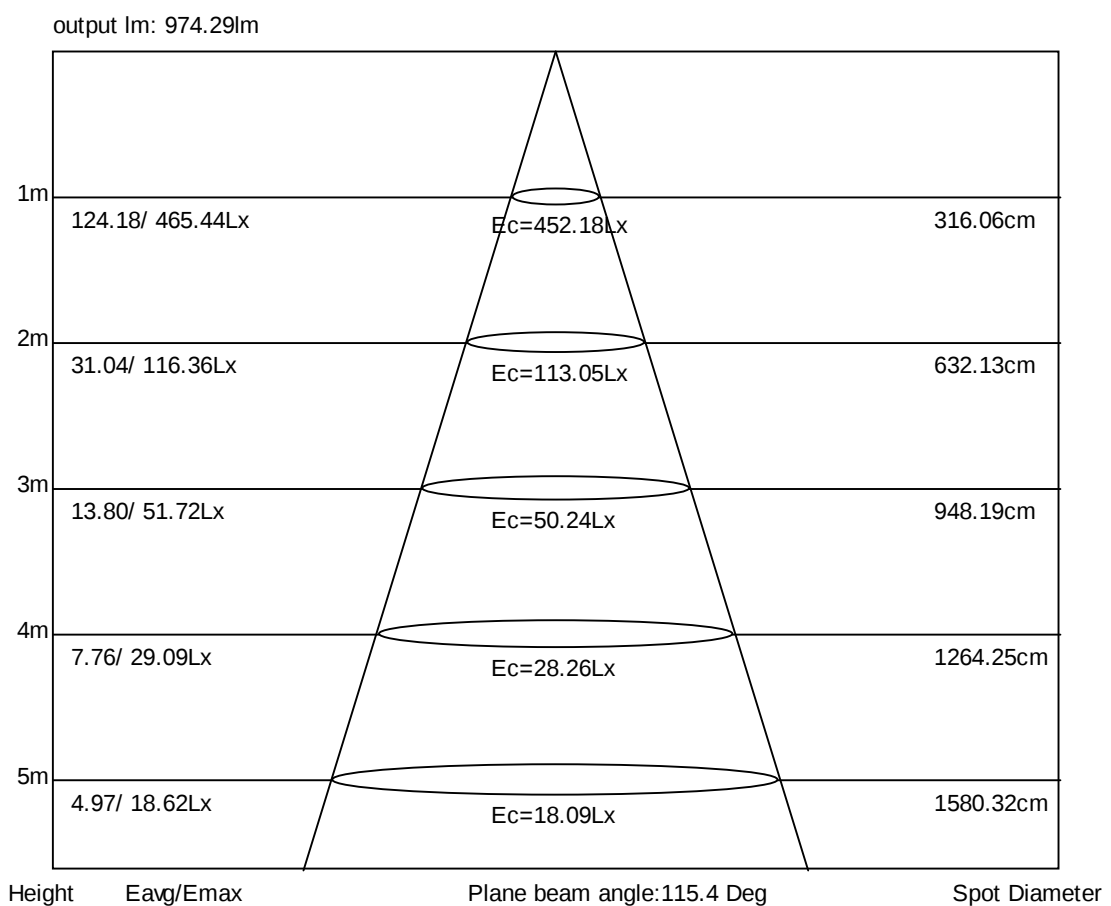
Humidity(%): 60

Date: 2026-1-26

Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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

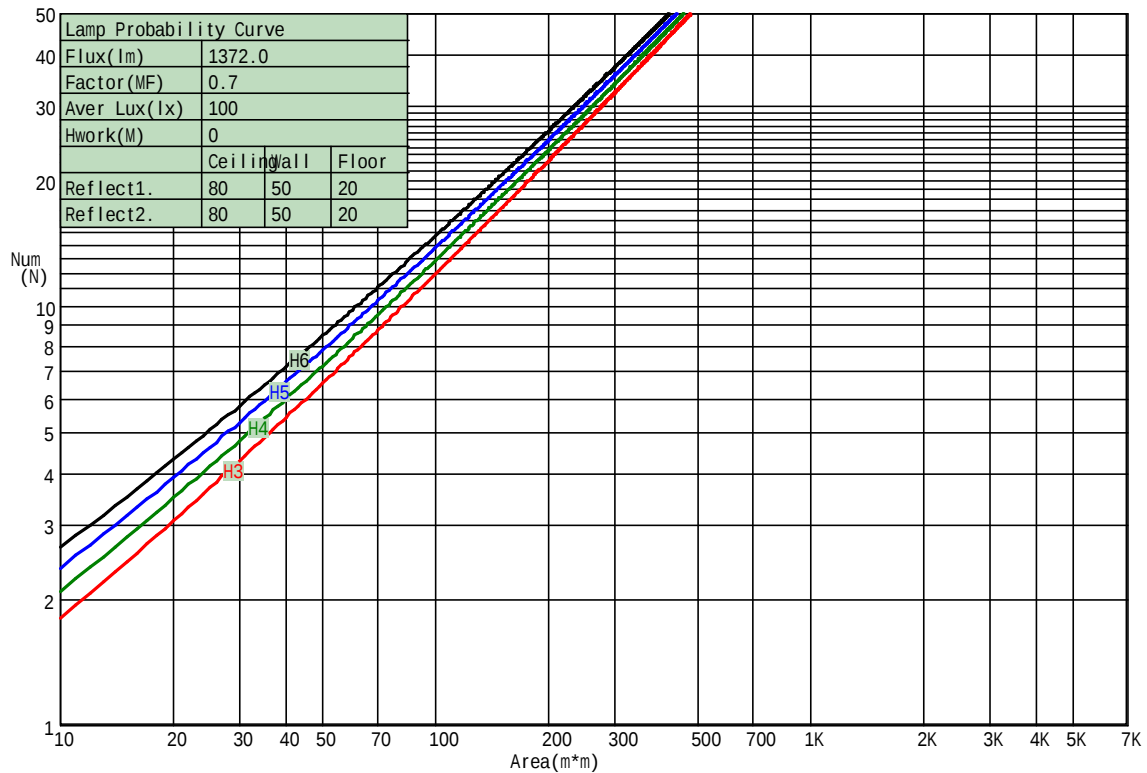
Humidity(%): 60

Date: 2026-1-26

Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-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): 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: 2026-1-26

Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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	28	48	36	28
0.80	57	41	30	55	40	30	51	38	29
1.00	61	43	32	58	42	31	53	40	30
1.25	64	46	33	61	44	32	55	41	30
1.50	66	47	33	62	45	32	56	42	31
2.00	68	50	35	65	47	34	58	43	31
2.50	70	51	35	66	48	33	58	44	31
3.00	71	52	35	67	49	34	59	44	31
4.00	72	53	35	68	50	34	59	44	31
5.00	73	53	36	68	50	34	60	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	0.98	0.94	1	0.96	0.92	0.96	0.92	0.89	0.92	0.89	0.86	0.88	0.86	0.84
2	0.89	0.82	0.75	0.87	0.8	0.75	0.83	0.78	0.73	0.8	0.75	0.71	0.77	0.73	0.7
3	0.78	0.69	0.62	0.76	0.68	0.62	0.73	0.66	0.61	0.7	0.64	0.6	0.68	0.63	0.58
4	0.69	0.59	0.53	0.67	0.59	0.52	0.65	0.57	0.51	0.62	0.56	0.51	0.6	0.55	0.5
5	0.61	0.52	0.45	0.6	0.51	0.45	0.58	0.5	0.44	0.56	0.49	0.44	0.54	0.48	0.43
6	0.55	0.46	0.39	0.54	0.45	0.39	0.52	0.44	0.39	0.5	0.44	0.38	0.49	0.43	0.38
7	0.5	0.41	0.35	0.49	0.4	0.34	0.47	0.4	0.34	0.46	0.39	0.34	0.45	0.38	0.34
8	0.45	0.37	0.31	0.45	0.36	0.31	0.43	0.36	0.3	0.42	0.35	0.3	0.41	0.35	0.3
9	0.42	0.33	0.28	0.41	0.33	0.28	0.4	0.33	0.27	0.39	0.32	0.27	0.38	0.32	0.27
10	0.38	0.3	0.25	0.38	0.3	0.25	0.37	0.3	0.25	0.36	0.29	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: 2026-1-26

Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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	0.34	0.19	0.06	0.33	0.19	0.06	0.31	0.18	0.06	0.3	0.17	0.06	0.29	0.17	0.05
2	0.31	0.17	0.05	0.3	0.17	0.05	0.29	0.16	0.05	0.28	0.16	0.05	0.27	0.15	0.05
3	0.28	0.15	0.04	0.28	0.15	0.04	0.26	0.14	0.04	0.26	0.14	0.04	0.25	0.14	0.04
4	0.26	0.13	0.04	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.13	0.04	0.23	0.12	0.04
5	0.24	0.12	0.03	0.23	0.12	0.03	0.22	0.12	0.03	0.22	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	0.1	0.03	0.18	0.09	0.03
8	0.19	0.09	0.03	0.19	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	0.03	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	0.09	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	0.05	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: 2026-1-26

Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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	464	454	446	441	462	451	444	439	0-5	10.8	10.8
10	460	450	442	437	455	443	437	432	5-10	32	42.8
15	451	442	433	428	444	432	427	422	10-15	52.2	95
20	438	431	421	417	430	417	413	408	15-20	70.6	166
25	422	415	405	400	411	398	395	391	20-25	86.7	252
30	402	397	387	381	390	377	375	370	25-30	99.9	352
35	379	375	364	359	365	352	351	347	30-35	110	462
40	353	350	339	334	338	325	325	321	35-40	116	578
45	324	322	312	307	308	296	296	293	40-45	119	697
50	293	292	282	278	277	264	266	262	45-50	118	815
55	260	261	252	247	243	235	234	234	50-55	114	929
60	230	228	211	215	212	200	204	201	55-60	106	1035
65	194	197	161	185	177	165	170	167	60-65	94.8	1130
70	158	162	112	150	141	130	135	133	65-70	80.3	1210
75	122	127	83.8	116	106	95.1	101	98.7	70-75	64.3	1274
80	86.3	92.9	60.6	83.1	71.3	61.3	68.6	65.9	75-80	48.1	1322
85	52.8	59	38.3	51.1	39.8	33.3	38.8	37.1	80-85	31.7	1354
90	32.1	31	24.4	25.8	18.7	19.6	18	21.9	85-90	17.8	1372
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: 2026-1-26

Remark:

Measured Para U: 227.3V I: 124.0mA P: 16.80W PF: 0.593 Test LM: 1372.00lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EMS01-Y	Lamp Spec: LPDL-18EMS01-Y	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	464	460	455	452	448	445	443	443	453	462	457	452	449	446	443	441	442	453
10.0	460	456	451	448	444	441	438	439	447	455	450	445	441	439	436	434	435	448
15.0	451	447	443	439	435	432	430	430	437	444	439	433	430	428	426	423	425	438
20.0	438	435	432	428	423	420	418	418	424	430	424	419	416	414	412	410	411	425
25.0	422	419	416	412	408	404	402	401	406	411	406	400	397	396	394	392	394	408
30.0	402	400	397	393	389	385	383	382	386	390	384	379	376	375	374	372	374	388
35.0	379	377	375	371	367	363	361	360	363	365	360	354	352	351	350	348	350	365
40.0	353	351	350	346	341	338	336	335	336	338	332	326	325	325	324	322	324	339
45.0	324	323	322	319	314	311	309	307	308	308	303	297	296	296	296	294	296	310
50.0	293	293	293	289	284	281	279	278	277	277	271	266	265	266	265	264	266	280
55.0	260	260	261	258	254	251	249	246	245	243	240	236	235	234	234	234	237	249
60.0	230	229	228	222	214	212	213	215	213	212	207	202	202	203	204	202	204	217
65.0	194	195	197	185	169	166	177	184	180	177	172	166	167	169	169	168	170	182
70.0	158	160	162	146	123	120	138	149	145	141	136	131	132	134	135	133	135	147
75.0	122	124	127	113	93.3	90.9	106	115	110	106	101	96.2	97.2	100	101	99.6	101	112
80.0	86.3	89.2	92.2	82.3	67.7	65.5	75.8	81.8	76.5	71.3	66.9	62.4	63.7	67	68	66.8	68.1	77.3
85.0	52.8	55.5	58.3	52.2	42.9	41.1	46.9	49.9	44.8	39.8	37	34	35.1	37.6	38.4	37.6	38.8	45.9
90.0	32.1	31.6	31.1	28.8	25.8	24.7	25.4	25	21.8	18.7	19.1	19.5	19.1	18.4	18.9	20.6	23	27.7
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: 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: 2026-1-26

Remark: