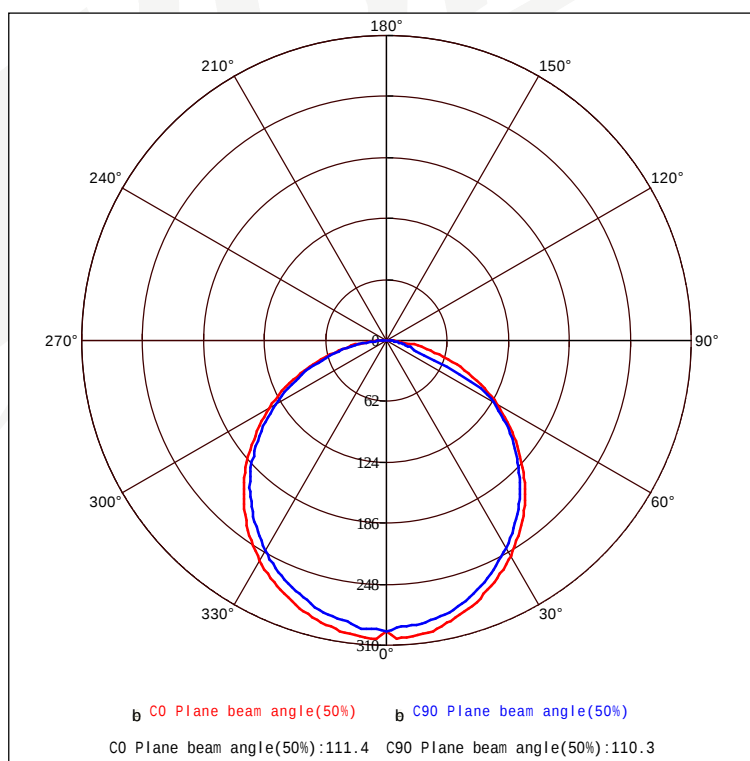


Goniophotometer Test Report

Measured Para U: 216.2V I: 99.5mA P: 11.90W PF: 0.553 Test LM: 1022.21lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-12EWS01-Y			Lamp Spec:		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-12EWS01-Y		Peak Value(cd)	304.0	Efficiency(lm/w)	85.9
Nominal P(w)		1.0	Position	0.0,0.0	UP(C0-C180)	0.0
Rated Volt(v)		220.0	Total Flux(lm)	1022.21	Down(C0-C180)	51.6
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)	48.4

Planar Intensity Distribution Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

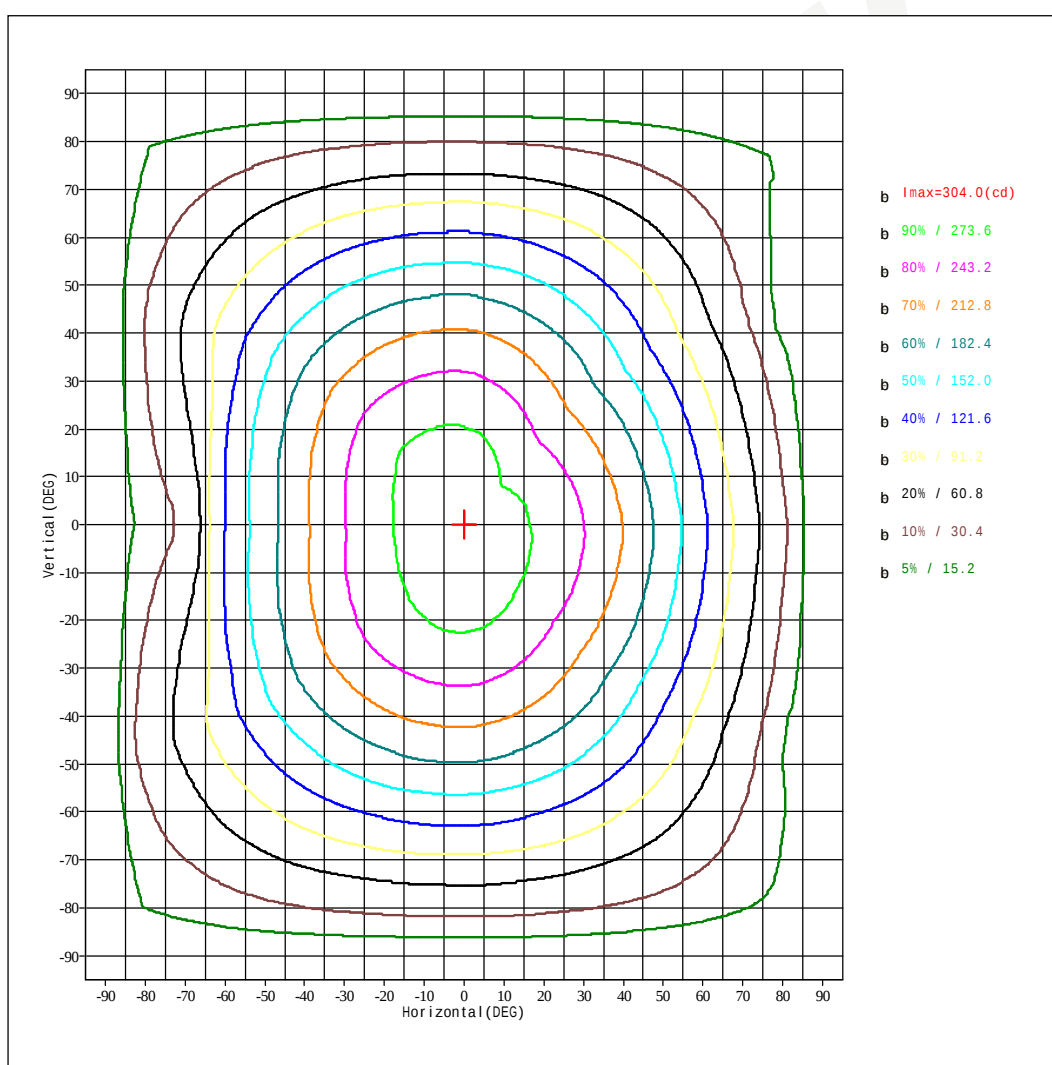
Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	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): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

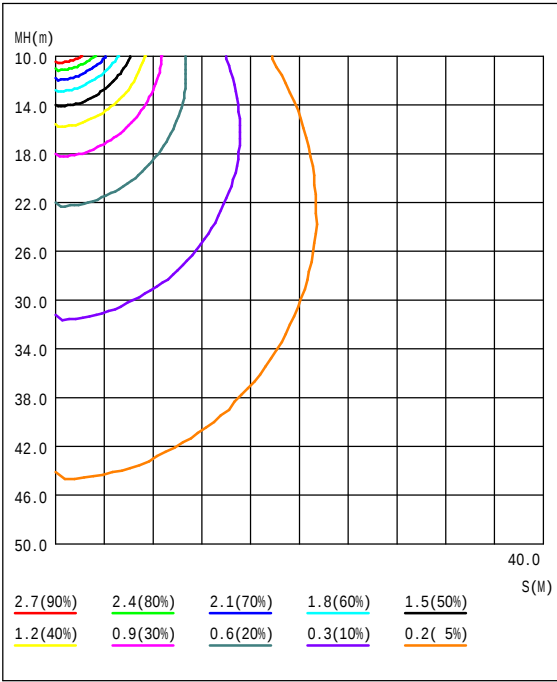
Humidity(%): 60

Date: 2023-11-7

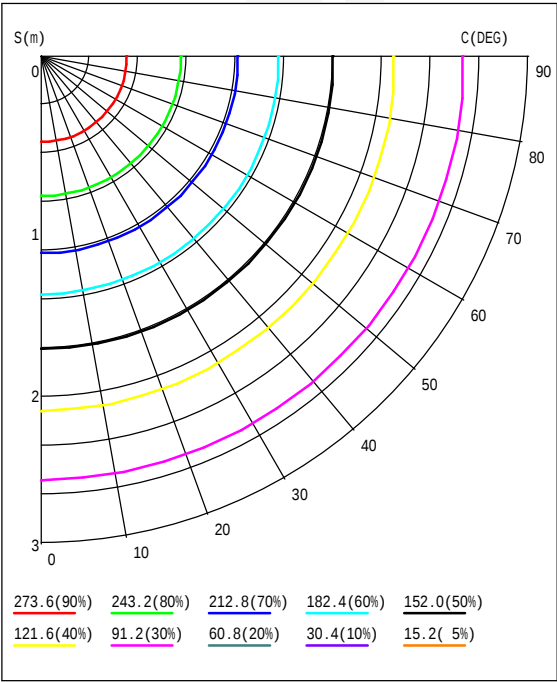
Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	Shape Size:
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): 30

Tester: zxg

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-11-7

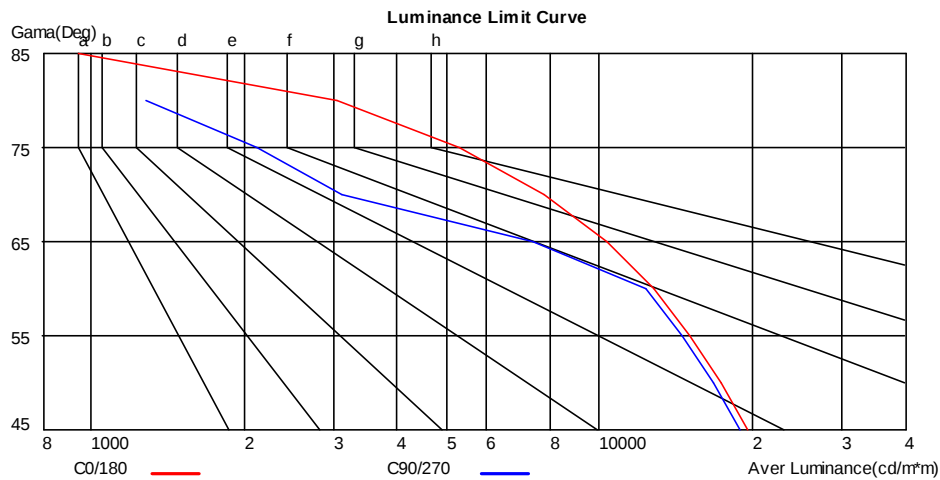
Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Luminance Limit Curve

Aver Luminance(cd/m²m)									
Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	19582.1	17384.7	15142.4	12783.1	10332.9	7782.6	5324.9	3037.6	941.7
C90	18904.3	16837.4	14601.6	12334.8	7419.3	3120.6	2126.9	1277.6	594.8

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: zxg

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

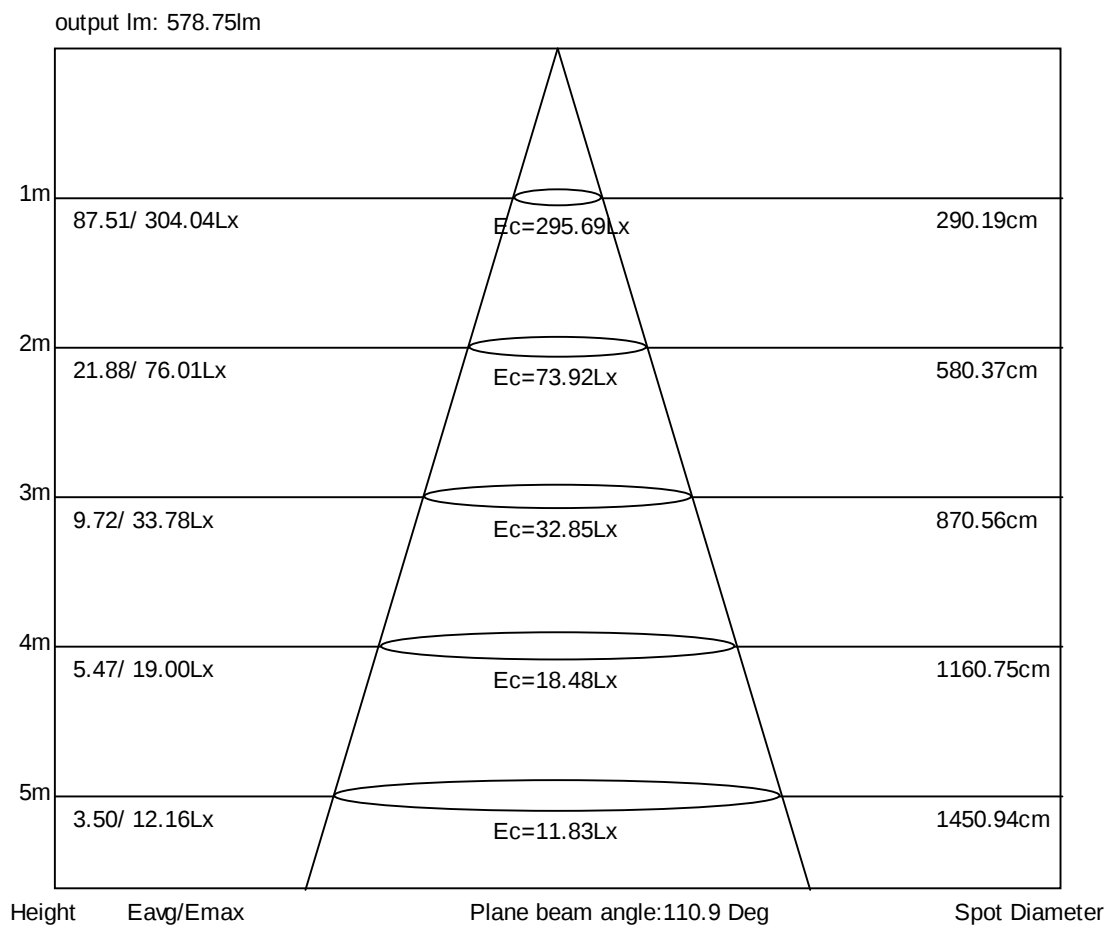
Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	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): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

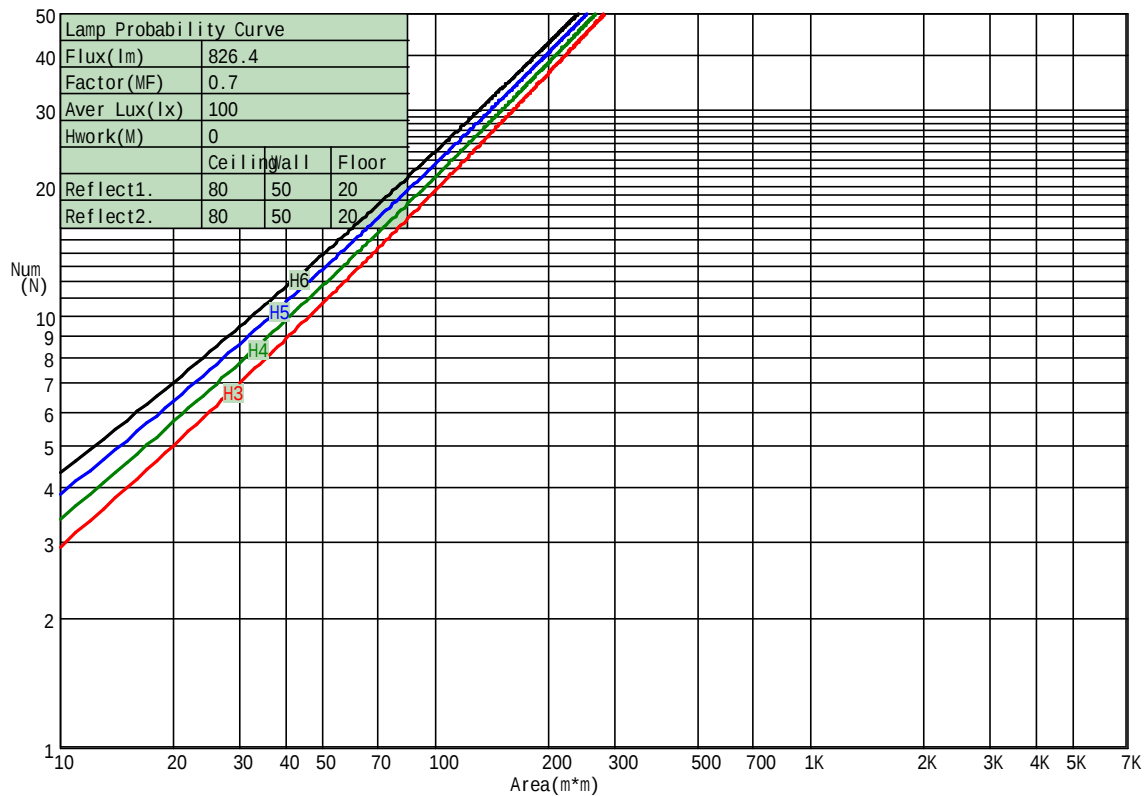
Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	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): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	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	38	29	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	63	45	32	60	44	32	55	41	30
1.50	65	47	33	62	45	32	56	41	30
2.00	68	49	34	64	47	33	57	43	30
2.50	69	50	34	65	47	32	58	43	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	1.04	1	0.96	1.02	0.98	0.94	0.97	0.94	0.91	0.94	0.91	0.89	0.9	0.88	0.86
2	0.91	0.84	0.78	0.89	0.83	0.77	0.85	0.8	0.75	0.82	0.78	0.74	0.79	0.75	0.72
3	0.8	0.71	0.65	0.78	0.7	0.64	0.75	0.69	0.63	0.72	0.67	0.62	0.7	0.65	0.61
4	0.71	0.62	0.55	0.69	0.61	0.55	0.67	0.6	0.54	0.64	0.58	0.53	0.62	0.57	0.52
5	0.63	0.54	0.47	0.62	0.53	0.47	0.6	0.52	0.47	0.58	0.51	0.46	0.56	0.5	0.46
6	0.57	0.48	0.41	0.56	0.47	0.41	0.54	0.46	0.41	0.52	0.46	0.4	0.51	0.45	0.4
7	0.51	0.43	0.36	0.51	0.42	0.36	0.49	0.42	0.36	0.48	0.41	0.36	0.46	0.4	0.36
8	0.47	0.38	0.33	0.46	0.38	0.32	0.45	0.38	0.32	0.44	0.37	0.32	0.42	0.36	0.32
9	0.43	0.35	0.29	0.42	0.35	0.29	0.41	0.34	0.29	0.4	0.34	0.29	0.39	0.33	0.29
10	0.4	0.32	0.27	0.39	0.32	0.26	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.3	0.26

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	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	0.31	0.17	0.06	0.3	0.17	0.05	0.29	0.16	0.05	0.27	0.16	0.05	0.26	0.15	0.05
2	0.29	0.16	0.05	0.28	0.16	0.05	0.27	0.15	0.05	0.26	0.15	0.05	0.25	0.14	0.04
3	0.27	0.14	0.04	0.26	0.14	0.04	0.25	0.14	0.04	0.24	0.13	0.04	0.23	0.13	0.04
4	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.12	0.04	0.23	0.12	0.04	0.22	0.12	0.04
5	0.23	0.12	0.03	0.22	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03	0.2	0.11	0.03
6	0.21	0.11	0.03	0.21	0.11	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.19	0.1	0.03
7	0.2	0.1	0.03	0.19	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	0.02	0.17	0.09	0.02
9	0.17	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 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	0.15	0.13	0.12	0.11	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.02
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	0.16	0.11	0.07	0.14	0.1	0.06	0.1	0.07	0.05	0.06	0.04	0.03	0.02	0.01	0.01
4	0.16	0.1	0.06	0.13	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	0.03	0.08	0.04	0.02	0.04	0.02	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)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	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	302	298	291	289	302	295	294	284	0-5	7.06	7.06
10	297	295	287	288	297	289	287	279	5-10	20.9	28
15	288	288	279	284	291	283	280	270	10-15	34	61.9
20	278	280	269	276	282	273	270	259	15-20	45.8	108
25	266	269	256	266	270	259	259	244	20-25	56	164
30	251	255	242	255	256	244	245	229	25-30	64.3	228
35	235	240	226	240	241	226	229	213	30-35	70.4	298
40	217	222	209	223	222	208	212	193	35-40	74.2	373
45	196	203	189	205	203	188	195	173	40-45	75.4	448
50	174	182	168	187	180	165	173	151	45-50	74.1	522
55	151	160	146	165	158	143	151	129	50-55	70.2	592
60	128	138	123	144	136	119	128	105	55-60	64.2	656
65	103	114	74.2	121	110	93.8	104	80.9	60-65	55.7	712
70	77.8	90.3	31.2	98.2	85.6	69.6	80.6	57.5	65-70	43.6	756
75	53.2	66.5	21.3	74.4	61.5	45.6	56.9	35	70-75	32.8	789
80	30.4	43.2	12.8	51.1	38.3	25	34.5	13.5	75-80	22	811
85	9.42	21.9	5.95	29.6	14.8	4.41	13.6	2.72	80-85	11.7	822
90	4.17	5.01	4.32	8.38	2.96	2.82	2.67	2.45	85-90	4.14	826
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): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 216.2V I: 99.0mA P: 11.90W PF: 0.553 Test LM: 826.43lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EWS01-Y	Lamp Spec:	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	302	301	299	296	292	290	290	291	296	302	299	296	295	294	292	287	286	294
10.0	297	296	295	292	289	287	287	289	293	297	294	290	288	287	285	281	281	289
15.0	288	288	288	285	281	280	282	284	287	291	287	284	282	280	278	273	272	280
20.0	278	279	280	276	271	270	274	277	279	282	278	274	272	270	267	262	261	270
25.0	266	267	269	265	259	258	263	266	268	270	265	260	259	259	256	249	247	256
30.0	251	252	254	251	245	245	251	255	256	256	251	245	244	245	242	234	231	241
35.0	235	237	239	235	229	229	235	240	240	241	234	228	227	228	226	218	215	225
40.0	217	219	222	218	212	212	219	223	223	222	216	210	210	211	208	199	195	206
45.0	196	199	203	199	192	193	200	205	204	203	196	189	190	193	190	180	175	186
50.0	174	178	181	178	171	172	181	186	183	180	174	167	168	171	168	158	154	164
55.0	151	155	159	156	149	150	159	164	161	158	152	144	145	149	146	136	131	141
60.0	128	132	137	133	127	128	137	143	139	136	128	120	122	126	123	112	107	118
65.0	103	108	113	101	83	84.3	105	119	115	110	103	95.6	97.1	102	98.9	88.5	83.4	93.5
70.0	77.8	83.3	89	70.9	44.1	45.9	76.2	96.9	91.1	85.6	78.6	71.4	73.2	78.2	75.5	65	59.7	68.9
75.0	53.2	59.1	65.1	51.7	31.2	32.9	57	73	67.1	61.5	54.5	47.3	49.3	54.4	52.1	42.2	37	45.3
80.0	30.4	36	41.8	33.2	19.4	21.2	38.5	49.7	43.9	38.3	32.5	26.4	28.1	32.4	29.9	20.4	15.4	23
85.0	9.42	14.9	20.6	16.7	9.45	11.1	21.9	28	21.3	14.8	10.2	5.54	7.43	11.6	11.2	6.3	3.46	6.49
90.0	4.17	4.54	4.92	4.79	4.47	5.21	7.05	7.79	5.33	2.96	2.9	2.84	2.77	2.71	2.62	2.52	2.64	3.42
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): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-11-7

Remark: