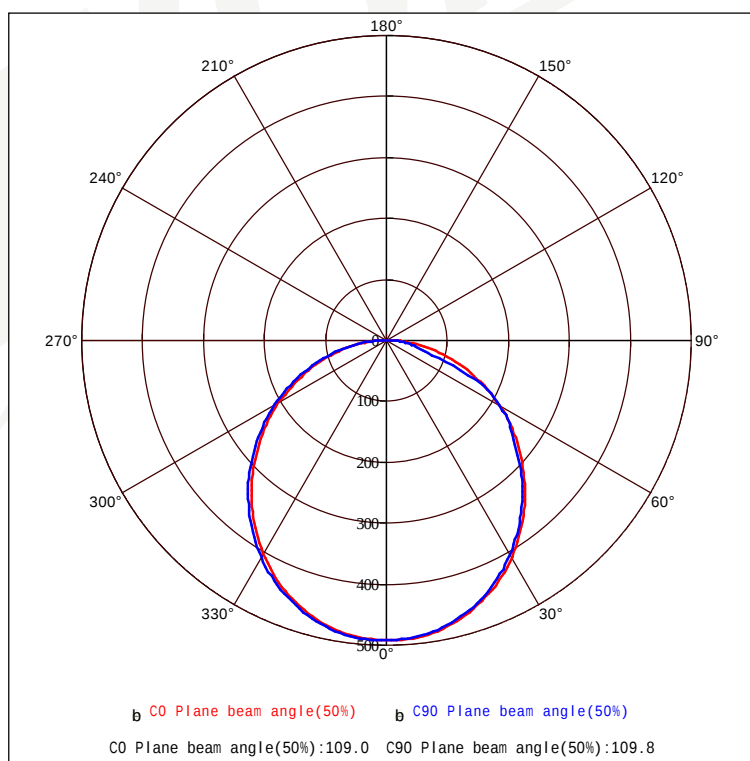


Goniophotometer Test Report

Measured Para U: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-18EWS01-Y			Lamp Spec:		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-18EWS01-Y		Peak Value(cd)	492.4	Efficiency(lm/w)	86.7
Nominal P(w)		1.0	Position	270.0,1.0	UP(C0-C180)	0.0
Rated Volt(v)		220.0	Total Flux(lm)	1551.93	Down(C0-C180)	50.9
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)	49.1

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

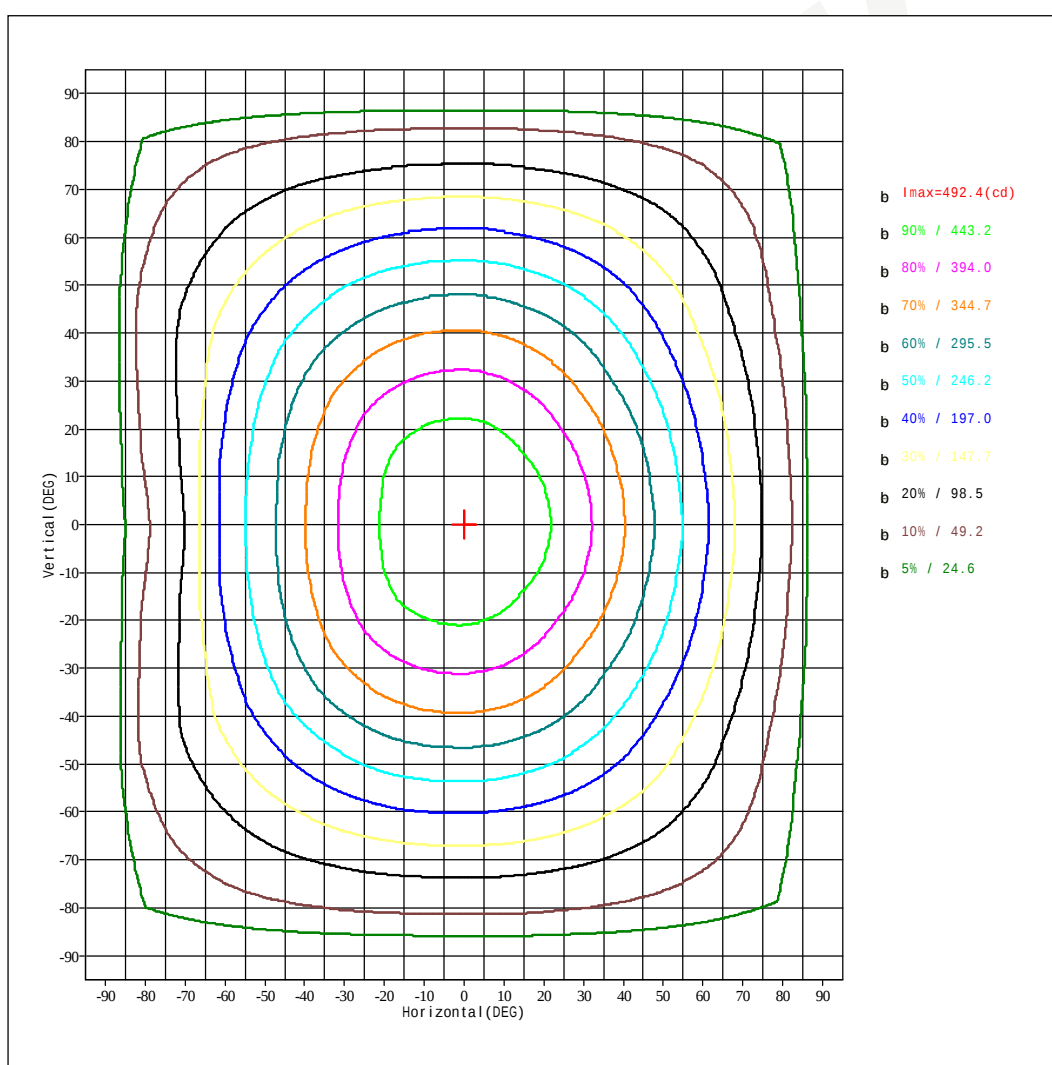
Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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: zxg

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

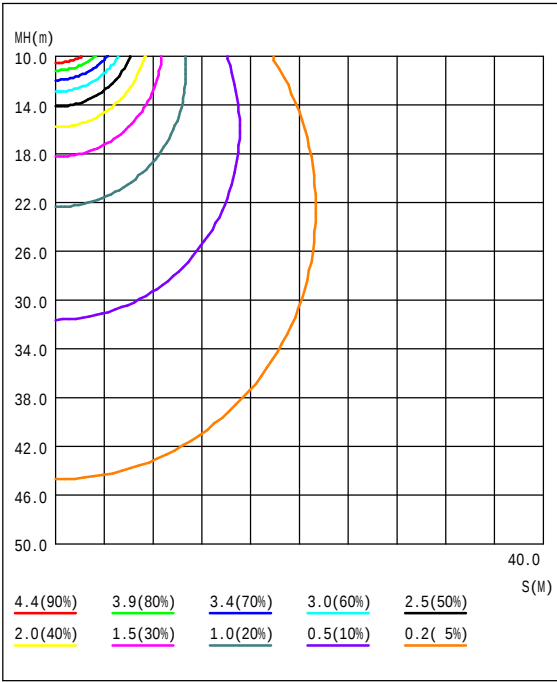
Humidity(%): 60

Date: 2023-11-7

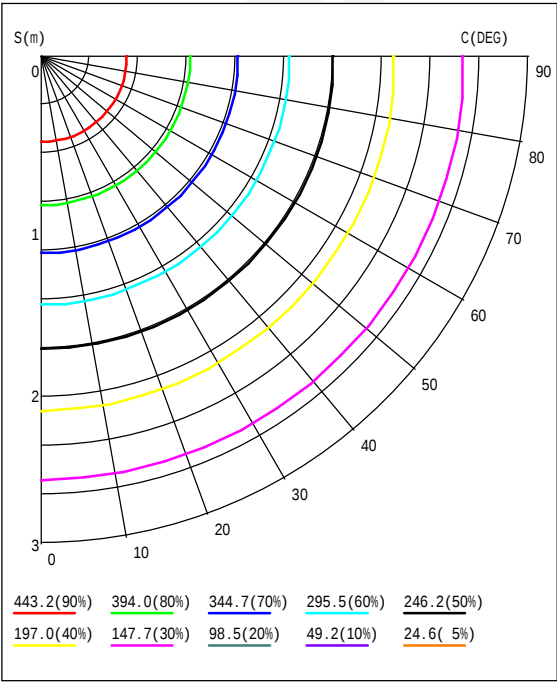
Remark:

Measured Para U: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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

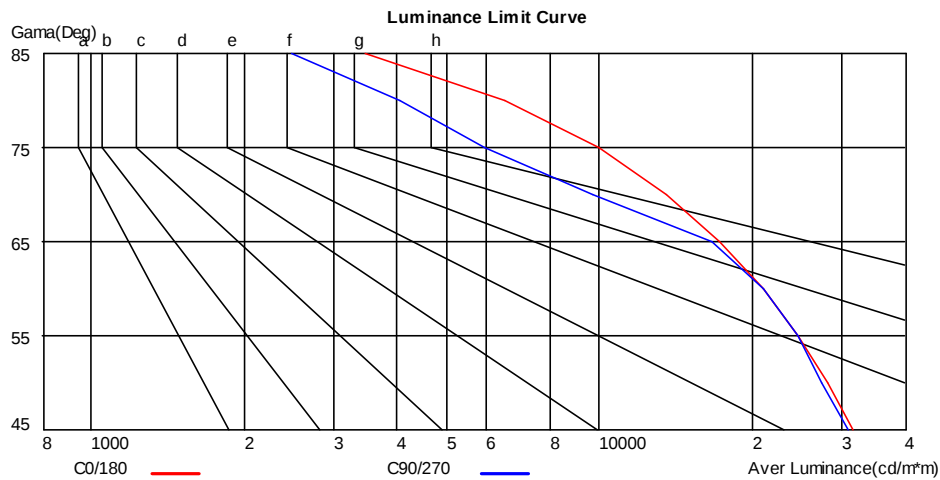
Remark:

Measured Para U: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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	31632.4	28221.5	24747.5	21034.1	17316.8	13603.9	9978.5	6524.0	3462.0
C90	31005.1	27531.2	24599.6	21053.1	16619.0	9738.1	5939.7	4063.8	2484.2

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

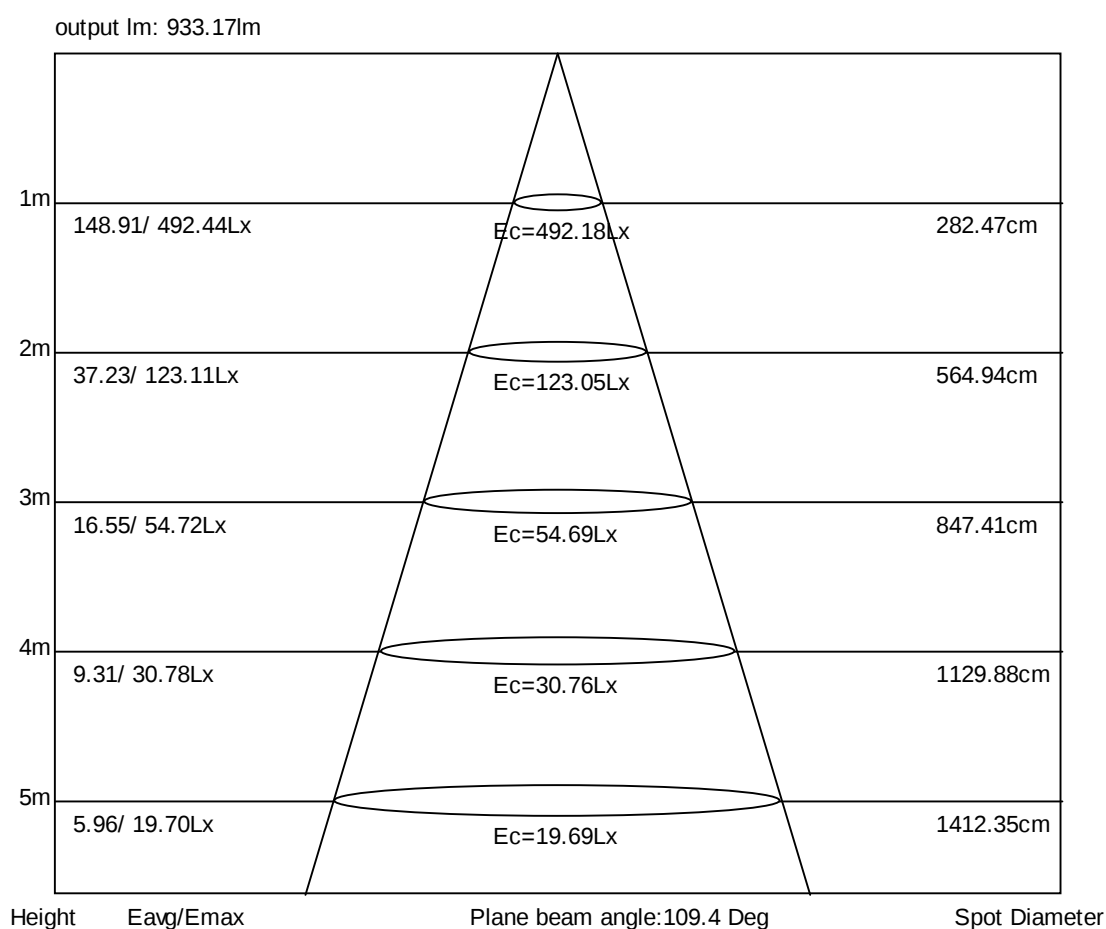
Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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

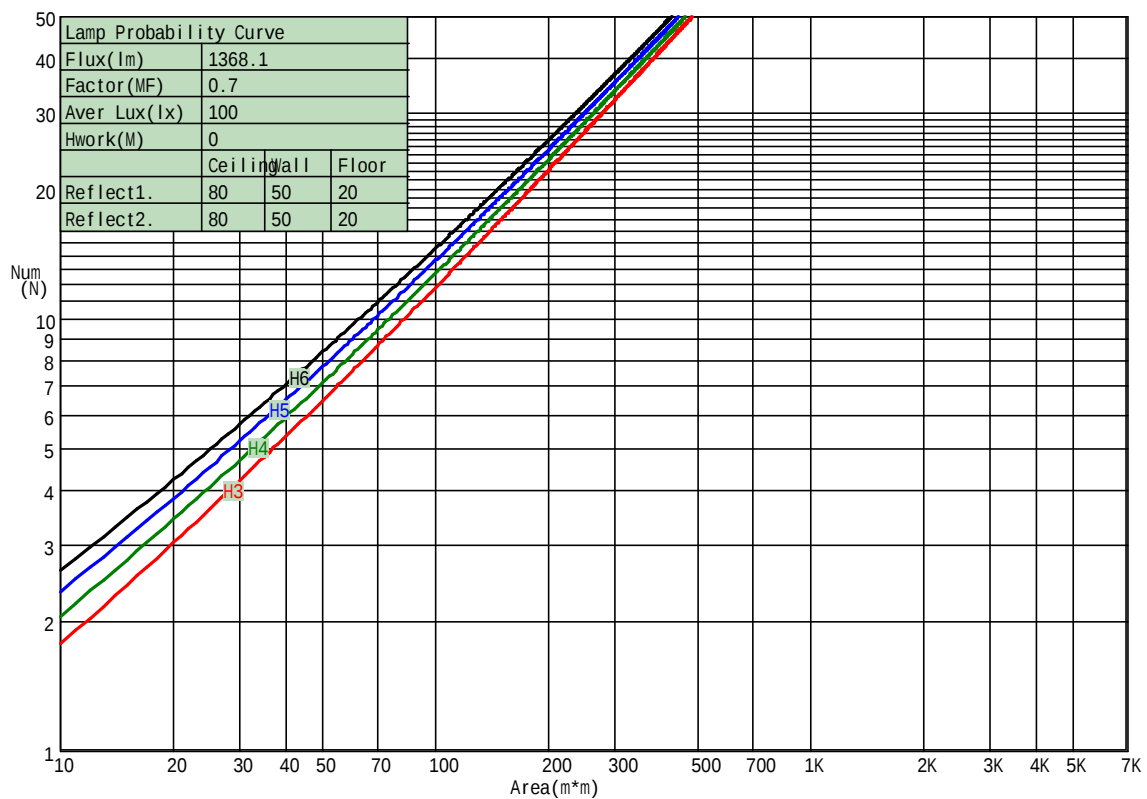
Humidity(%): 60

Date: 2023-11-7

Remark:

Measured Para U: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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	37	28	48	36	28
0.80	57	41	30	55	40	29	51	38	29
1.00	60	43	31	58	42	31	53	39	29
1.25	63	45	32	60	44	31	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	51	34	66	48	33	58	43	30
4.00	72	52	34	67	49	33	59	43	30
5.00	73	53	35	68	49	33	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	0.99	0.95	1.01	0.97	0.94	0.97	0.94	0.91	0.93	0.9	0.88	0.89	0.87	0.85
2	0.9	0.83	0.77	0.88	0.82	0.76	0.85	0.79	0.75	0.81	0.77	0.73	0.78	0.75	0.71
3	0.79	0.71	0.64	0.78	0.7	0.64	0.75	0.68	0.63	0.72	0.66	0.61	0.69	0.64	0.6
4	0.7	0.61	0.54	0.69	0.6	0.54	0.66	0.59	0.53	0.64	0.58	0.53	0.62	0.56	0.52
5	0.63	0.54	0.47	0.62	0.53	0.47	0.59	0.52	0.46	0.57	0.51	0.46	0.56	0.5	0.45
6	0.56	0.47	0.41	0.55	0.47	0.41	0.54	0.46	0.4	0.52	0.45	0.4	0.5	0.44	0.4
7	0.51	0.42	0.36	0.5	0.42	0.36	0.49	0.41	0.36	0.47	0.41	0.36	0.46	0.4	0.35
8	0.47	0.38	0.32	0.46	0.38	0.32	0.45	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32
9	0.43	0.35	0.29	0.42	0.34	0.29	0.41	0.34	0.29	0.4	0.33	0.29	0.39	0.33	0.29
10	0.4	0.32	0.26	0.39	0.31	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: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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	0.32	0.18	0.06	0.31	0.18	0.06	0.3	0.17	0.05	0.28	0.16	0.05	0.27	0.16	0.05
2	0.29	0.16	0.05	0.29	0.16	0.05	0.28	0.15	0.05	0.27	0.15	0.05	0.26	0.14	0.05
3	0.27	0.14	0.04	0.27	0.14	0.04	0.26	0.14	0.04	0.25	0.13	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	0.11	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	0.2	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	0.02
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	0.01
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	0.16	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: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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	490	491	489	491	489	488	490	489	0-5	11.7	11.7
10	483	485	481	484	481	478	483	480	5-10	34.8	46.5
15	471	474	468	472	467	464	471	467	10-15	56.4	103
20	454	458	450	456	449	445	454	448	15-20	75.9	179
25	433	438	428	435	427	422	433	426	20-25	92.5	271
30	409	413	403	410	401	395	408	400	25-30	106	377
35	380	386	374	382	372	365	380	371	30-35	115	492
40	349	356	343	352	341	333	349	339	35-40	120	612
45	316	323	310	319	307	299	316	305	40-45	122	734
50	282	289	275	285	273	264	281	270	45-50	119	853
55	247	254	246	251	237	229	245	234	50-55	113	966
60	210	220	211	215	201	190	208	196	55-60	104	1070
65	173	183	166	178	163	153	170	158	60-65	91	1161
70	136	147	97.4	143	126	116	133	122	65-70	74.7	1236
75	99.8	111	59.4	108	90.4	80.7	97	86.1	70-75	56.8	1292
80	65.2	77.2	40.6	74.7	56.5	48	62.9	52.8	75-80	40.3	1333
85	34.6	45.5	24.8	44	27.8	19.8	32.6	25.1	80-85	24.6	1357
90	15.7	20.8	13.9	17.8	5.61	5.32	5.63	5.98	85-90	10.9	1368
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: 217.1V I: 157.6mA P: 17.90W PF: 0.523 Test LM: 1551.93lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-18EWS01-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	490	491	491	490	490	490	490	491	490	489	488	488	488	490	490	489	489	490
10.0	483	484	485	484	482	482	483	483	482	481	480	478	480	482	482	481	480	482
15.0	471	472	473	472	469	469	471	472	469	467	466	464	466	469	470	468	467	469
20.0	454	456	457	455	452	451	454	455	452	449	447	445	448	452	453	450	449	452
25.0	433	435	437	435	430	430	433	434	431	427	425	423	426	431	431	428	427	430
30.0	409	411	413	410	405	405	408	409	405	401	399	396	399	405	406	402	401	405
35.0	380	383	385	382	377	376	380	381	377	372	369	366	370	376	378	374	372	376
40.0	349	352	355	351	346	345	349	351	346	341	338	334	338	345	347	342	340	345
45.0	316	319	322	319	313	312	316	318	313	307	304	300	304	312	313	308	306	311
50.0	282	285	288	285	278	278	282	284	278	273	269	265	269	277	278	273	271	277
55.0	247	250	253	251	248	247	249	249	243	237	234	230	234	241	242	237	235	241
60.0	210	214	219	217	213	211	213	213	207	201	196	191	196	204	206	200	197	204
65.0	173	178	182	178	170	169	174	176	169	163	158	154	158	166	167	162	160	167
70.0	136	141	146	131	108	107	128	141	133	126	122	117	122	129	131	125	123	130
75.0	99.8	105	109	93.8	70.6	70	91.9	106	98	90.4	86.1	81.7	86	93.4	94.6	89.6	87.6	93.8
80.0	65.2	70.5	75.9	65.2	48.6	48.1	63.5	72.7	64.4	56.5	52.8	48.9	52.9	59.6	60.7	56.1	54.2	59.8
85.0	34.6	39.4	44.3	38.7	29.4	29	37.7	42.2	34.9	27.8	24.3	20.7	24	29.8	30.9	27.5	26.1	30.4
90.0	15.7	17.9	20.2	18.5	15.4	14.7	16.5	16.4	10.9	5.61	5.48	5.35	5.42	5.56	5.7	5.86	7.04	11.4
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): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-11-7

Remark: