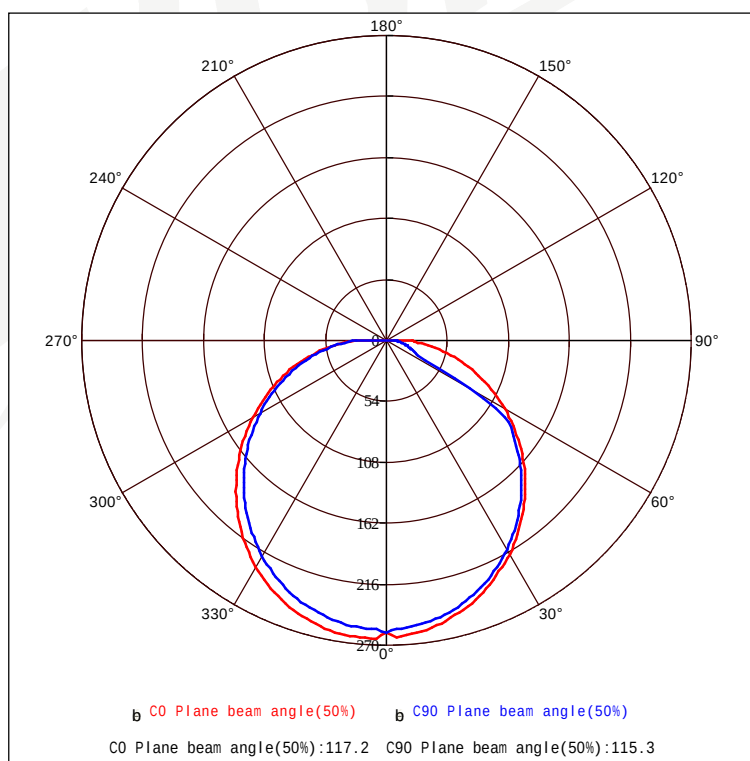


Goniophotometer Test Report

Measured Para U: 217.1V I: 108.2mA P: 12.03W PF: 0.512 Test LM: 1000.89lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LP-DL12EM01-Y			Lamp Spec:		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LP-DL12EM01-Y		Peak Value(cd)	264.3	Efficiency(lm/w)	83.2
Nominal P(w)		1.0	Position	180.0,2.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	1000.89	Down(C0-C180)	48.1
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)	51.9

Planar Intensity Distribution Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

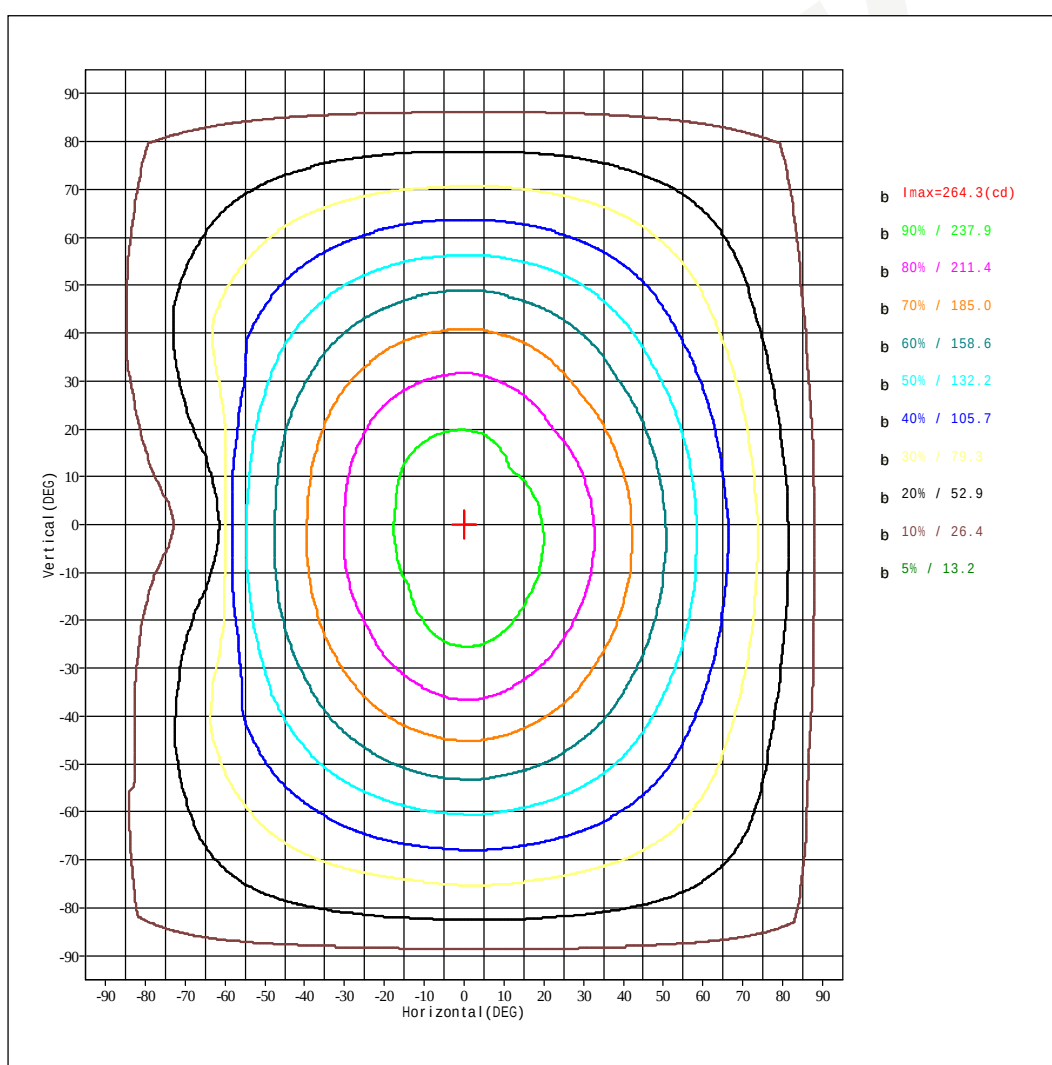
Humidity(%): 60

Date: 2023-3-22

Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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: zxc

Distance(m): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

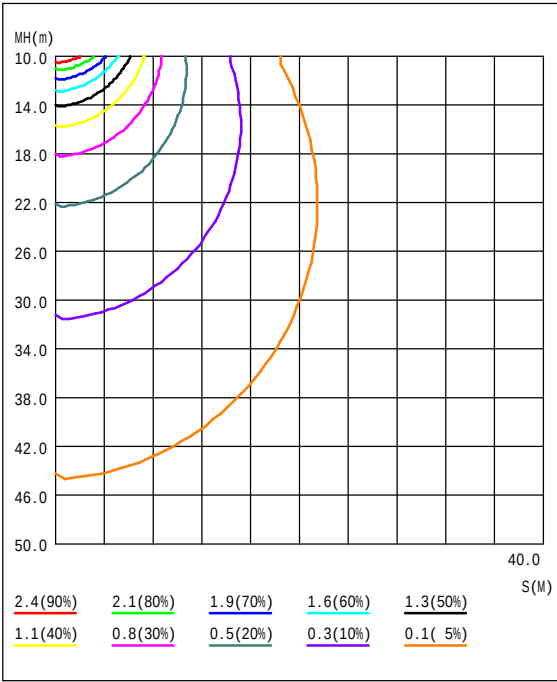
Humidity(%): 60

Date: 2023-3-22

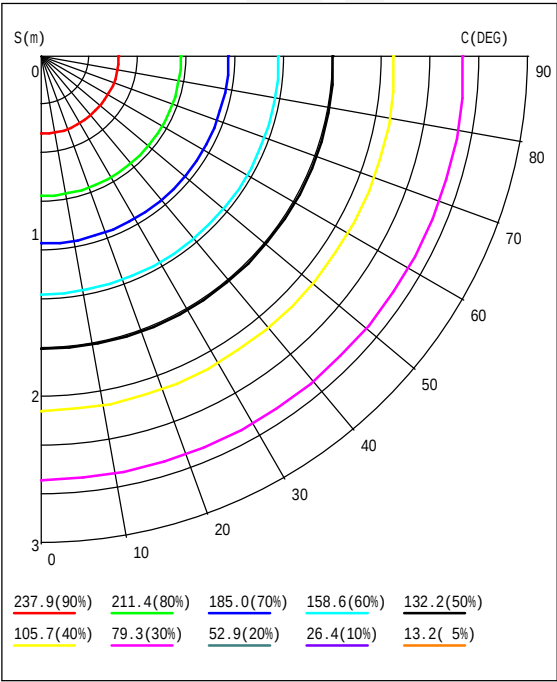
Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-3-22

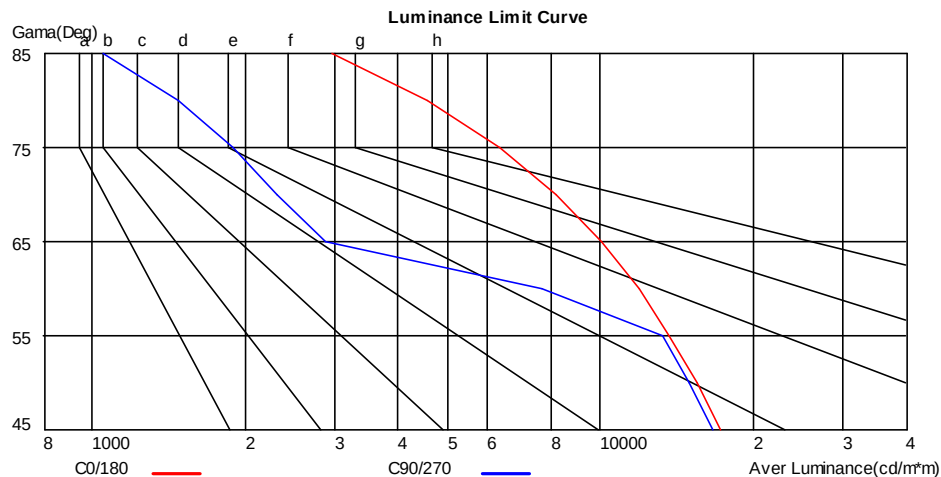
Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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	17220.0	15491.0	13711.8	11942.0	10069.5	8188.8	6338.5	4558.0	2959.5
C90	16736.0	15030.5	13258.5	7705.5	2885.3	2305.8	1888.8	1473.3	1047.3

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): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

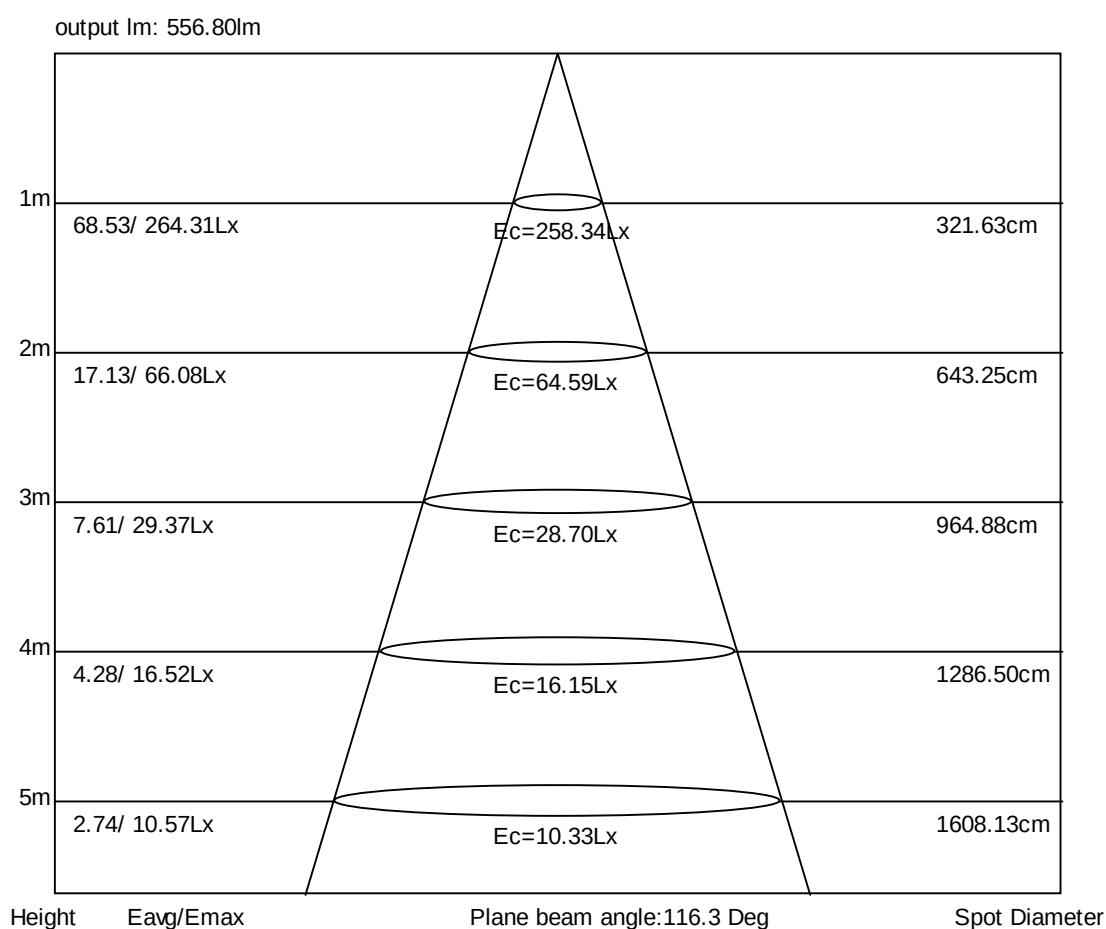
Humidity(%): 60

Date: 2023-3-22

Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

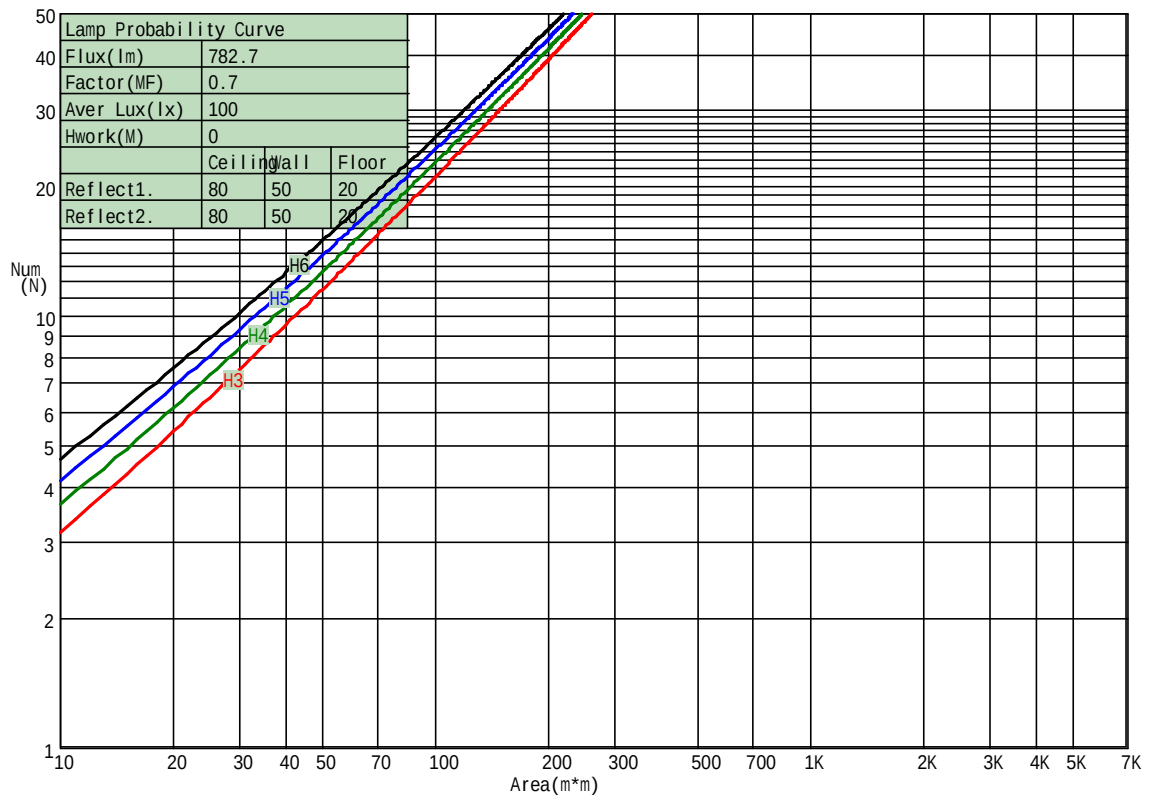
Humidity(%): 60

Date: 2023-3-22

Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-3-22

Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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	52	37	27	50	36	27	47	35	27
0.80	56	40	29	54	39	29	50	37	28
1.00	60	42	30	57	41	30	52	39	29
1.25	63	45	31	60	43	31	54	40	29
1.50	65	46	32	62	44	31	55	41	30
2.00	68	49	34	64	47	32	57	42	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	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	1.02	0.97	0.93	1	0.95	0.91	0.95	0.92	0.89	0.92	0.89	0.86	0.88	0.85	0.83
2	0.88	0.81	0.75	0.86	0.8	0.74	0.83	0.77	0.72	0.8	0.75	0.71	0.76	0.72	0.69
3	0.77	0.69	0.62	0.76	0.68	0.61	0.73	0.66	0.6	0.7	0.64	0.59	0.67	0.62	0.58
4	0.68	0.59	0.52	0.67	0.58	0.52	0.64	0.57	0.51	0.62	0.56	0.5	0.6	0.54	0.5
5	0.61	0.52	0.45	0.6	0.51	0.44	0.58	0.5	0.44	0.56	0.49	0.43	0.54	0.48	0.43
6	0.55	0.46	0.39	0.54	0.45	0.39	0.52	0.44	0.38	0.5	0.43	0.38	0.49	0.43	0.38
7	0.5	0.41	0.34	0.49	0.4	0.34	0.47	0.4	0.34	0.46	0.39	0.34	0.44	0.38	0.33
8	0.45	0.37	0.31	0.45	0.36	0.3	0.43	0.36	0.3	0.42	0.35	0.3	0.41	0.35	0.3
9	0.42	0.33	0.27	0.41	0.33	0.27	0.4	0.32	0.27	0.39	0.32	0.27	0.38	0.31	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	0.24

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-3-22

Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm															
Lamp Name: LED DOWN LIGHT								Lamp Type:				Weight(kg):			
Lamp ID: LP-DL12EM01-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	0.34	0.2	0.06	0.34	0.19	0.06	0.32	0.19	0.06	0.31	0.18	0.06	0.3	0.17	0.06
2	0.31	0.17	0.05	0.31	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	0.05	0.28	0.15	0.04	0.27	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	0.24	0.13	0.04	0.23	0.12	0.04
5	0.24	0.12	0.04	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	0.22	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): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-3-22

Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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	261	258	254	253	264	259	255	252	0-5	6.16	6.16
10	256	254	250	250	262	256	252	248	5-10	18.3	24.4
15	249	247	244	245	257	250	247	241	10-15	29.7	54.1
20	240	238	235	238	251	243	240	233	15-20	40.1	94.3
25	229	228	225	228	241	233	230	222	20-25	49.2	144
30	217	215	212	217	230	221	219	210	25-30	56.6	200
35	203	201	199	204	217	208	206	197	30-35	62.2	262
40	188	186	184	189	203	194	193	182	35-40	65.8	328
45	172	169	167	173	187	178	177	167	40-45	67.3	395
50	155	152	150	157	170	162	161	150	45-50	66.9	462
55	137	135	133	140	153	144	145	133	50-55	64.6	527
60	119	117	77.1	122	135	127	127	116	55-60	59.8	587
65	101	99.2	28.9	103	117	109	110	98.2	60-65	51.3	638
70	81.9	80.9	23.1	82.6	98.8	90.6	93	80	65-70	44.2	682
75	63.4	63	18.9	62.2	80.3	71.9	75.4	62.2	70-75	36.8	719
80	45.6	45.7	14.7	43.2	62.1	54.3	58.2	45	75-80	28.9	748
85	29.6	30	10.5	27.7	44.3	37.3	41.6	29.5	80-85	21	769
90	22.4	20.6	6.74	17.2	28.1	27.4	26.9	23.6	85-90	13.9	783
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: zyg

Distance(m): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-3-22

Remark:

Measured Para U: 217.1V I: 76.0mA P: 10.10W PF: 0.612 Test LM: 782.72lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LP-DL12EM01-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	261	260	258	257	255	254	254	254	259	264	262	259	258	256	255	253	253	257
10.0	256	255	254	253	251	250	250	252	257	262	259	256	255	253	251	249	249	252
15.0	249	248	247	246	245	244	245	247	252	257	254	251	249	248	246	243	242	245
20.0	240	239	239	237	236	236	237	239	245	251	247	243	242	240	238	235	234	237
25.0	229	228	228	227	225	225	227	230	236	241	238	234	232	231	229	225	223	226
30.0	217	216	215	214	213	213	215	218	224	230	226	222	221	220	217	213	211	214
35.0	203	202	202	200	199	200	202	205	211	217	213	209	208	207	204	200	198	200
40.0	188	187	186	185	184	185	187	191	197	203	199	195	193	193	190	186	183	186
45.0	172	171	170	169	168	169	171	175	181	187	183	179	178	177	175	170	167	170
50.0	155	154	153	152	151	152	155	158	165	170	167	163	162	161	159	154	151	153
55.0	137	136	135	134	133	134	137	141	147	153	149	145	144	145	142	137	134	135
60.0	119	118	117	104	85.8	86.8	107	123	129	135	131	127	127	127	125	120	117	118
65.0	101	100	99.4	76.1	44.2	45	78.4	104	111	117	113	110	109	110	108	102	98.5	99.6
70.0	81.9	81.5	81	61.9	35.7	36.1	63	84.3	91.7	98.8	95.2	91.5	91.4	92.5	90.2	84.2	80.2	81
75.0	63.4	63.2	63	48.5	28.5	28.4	48	64.2	72.4	80.3	76.6	72.8	73.1	74.7	72.5	66.5	62.3	62.9
80.0	45.6	45.6	45.7	35.6	21.5	21	33.9	45.3	53.8	62.1	58.7	55.2	55.6	57.3	55.3	49.3	45	45.3
85.0	29.6	29.8	30	23.6	14.7	14.2	22.1	29.5	37.1	44.3	41.2	38	38.7	40.7	39	33.5	29.5	29.5
90.0	22.4	21.6	20.8	16.1	9.78	9.03	13.8	18.4	23.3	28.1	27.8	27.5	27.3	27	26.2	24.7	23.4	22.9
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): 5.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2023-3-22

Remark: