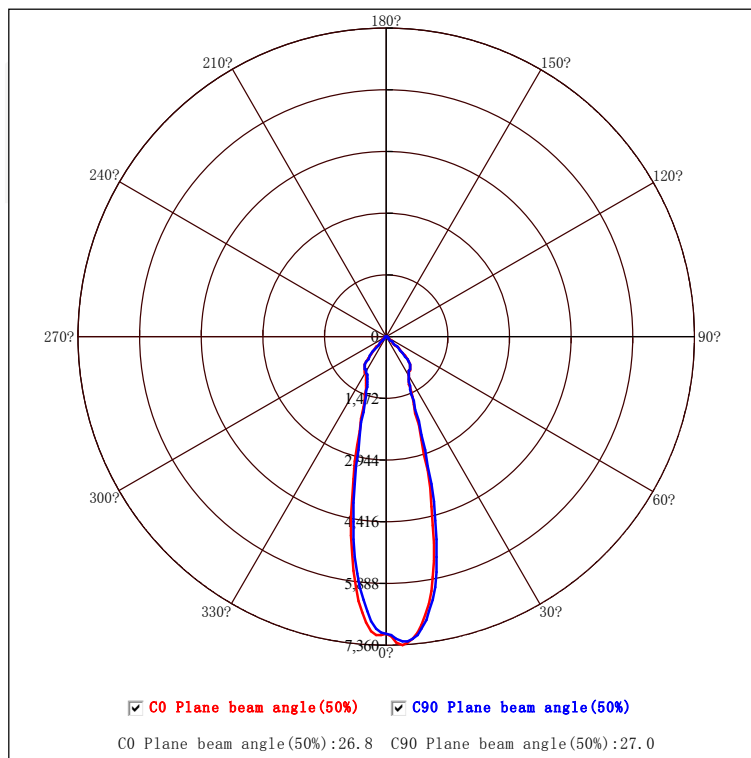


Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm						
Lamp Name:30W LED COB TRACKLIGHT		Lamp Type:SHOPLINE-B		Weight(kg):		
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321		Lamp Spec:		Shape Size:		
Manufactory:		Sur (m <sup>2</sup> ):		Protect Angle(Deg):		
Light Source Data			Photometric Data			
Model	BD30-01320		Peak Value(cd)	7379.4	Efficiency(lm/w)	105.5
Nominal P(w)	30.0		Position	0.0, 1.0	UP(C0-C180)	0.0
Rated Volt(v)	220.0		Total Flux(lm)	2857.855	Down(C0-C180)	59.8
Rated Flux(lm)	5000.0		Up Flux Rate(%)	0.0	UP(C180-C360)	0.0
Illuminant QTY	1		Dw Flux Rate(%)	100.0	Down(C180-C360)	40.2

### Planar Intensity Distribution Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 26.5

Tester: z

Distance(m): 6.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

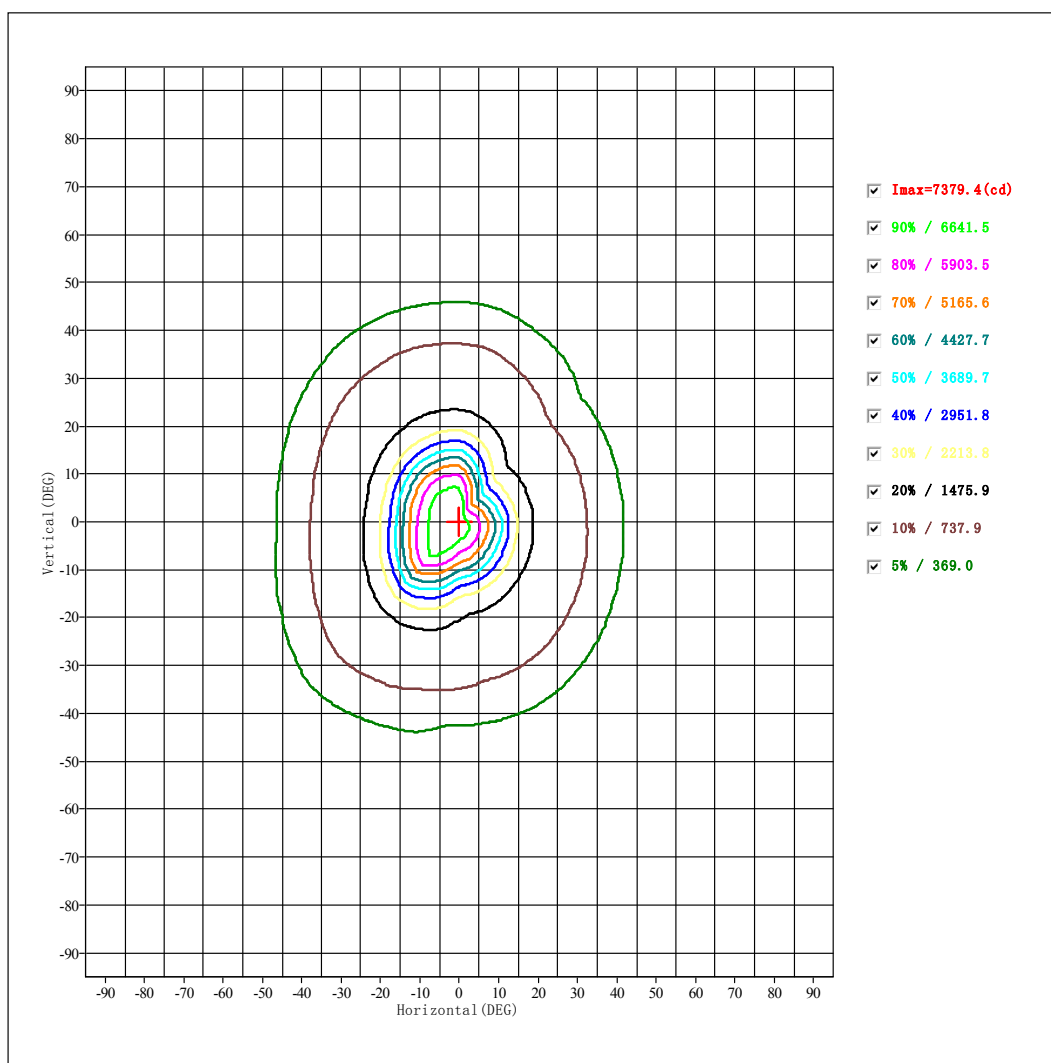
Humidity(%): 60

Date: 2017/9/23

Remark:

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ) :	Protect Angle (Deg) :

### Planar IsoCandela Curve



Gama Angle Range:-90 - 90 (Deg)

Gama interval (Deg): 1

Temperature (Deg): 26.5

Tester: z

Distance (m): 6.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180 (Deg)

C interval (Deg): 45

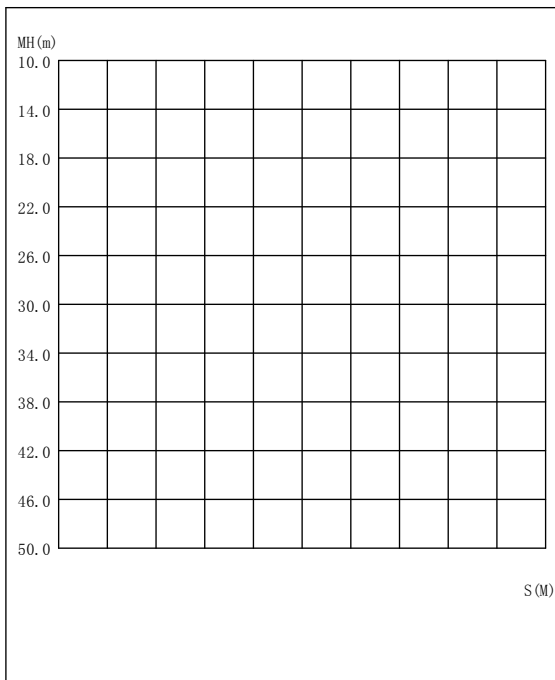
Humidity (%): 60

Date: 2017/9/23

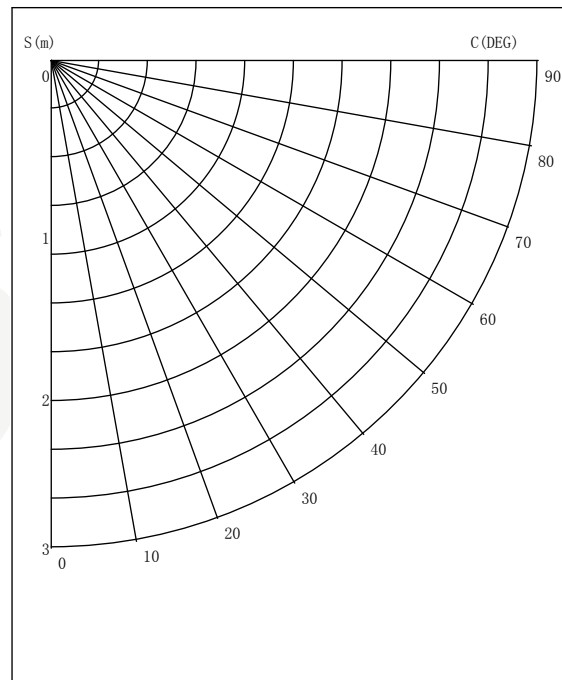
Remark:

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight(kg):
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311, BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ):	Protect Angle(Deg):

**Spacial ISOLUX Curve**



**Planar ISOLUX Curve**



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 26.5

Tester: z

Distance(m): 6.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2017/9/23

Remark:

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ) :	Protect Angle(Deg) :

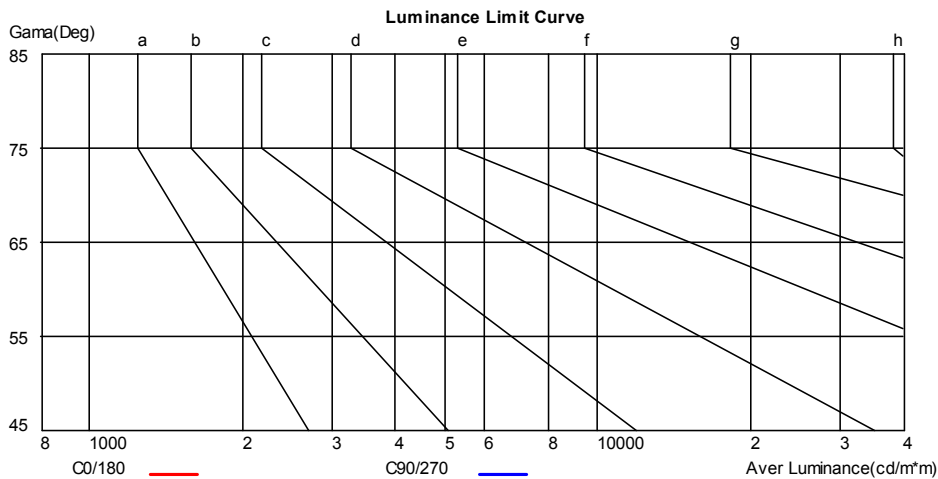
### Luminance Limit Curve

Aver Luminance(cd/m<sup>2</sup>m)

Gm(Deg)	45	50	55	60	65	70	75	80	85
C0									
C90									

Glare

Glare	Class	Illuminance(lx)								
		2000	1000	500	<=300					
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)

C Angle Range:0 - 180(Deg)

Gama interval(Deg): 1

C interval(Deg): 45

Temperature(Deg): 26.5

Humidity(%): 60

Tester: z

Date: 2017/9/23

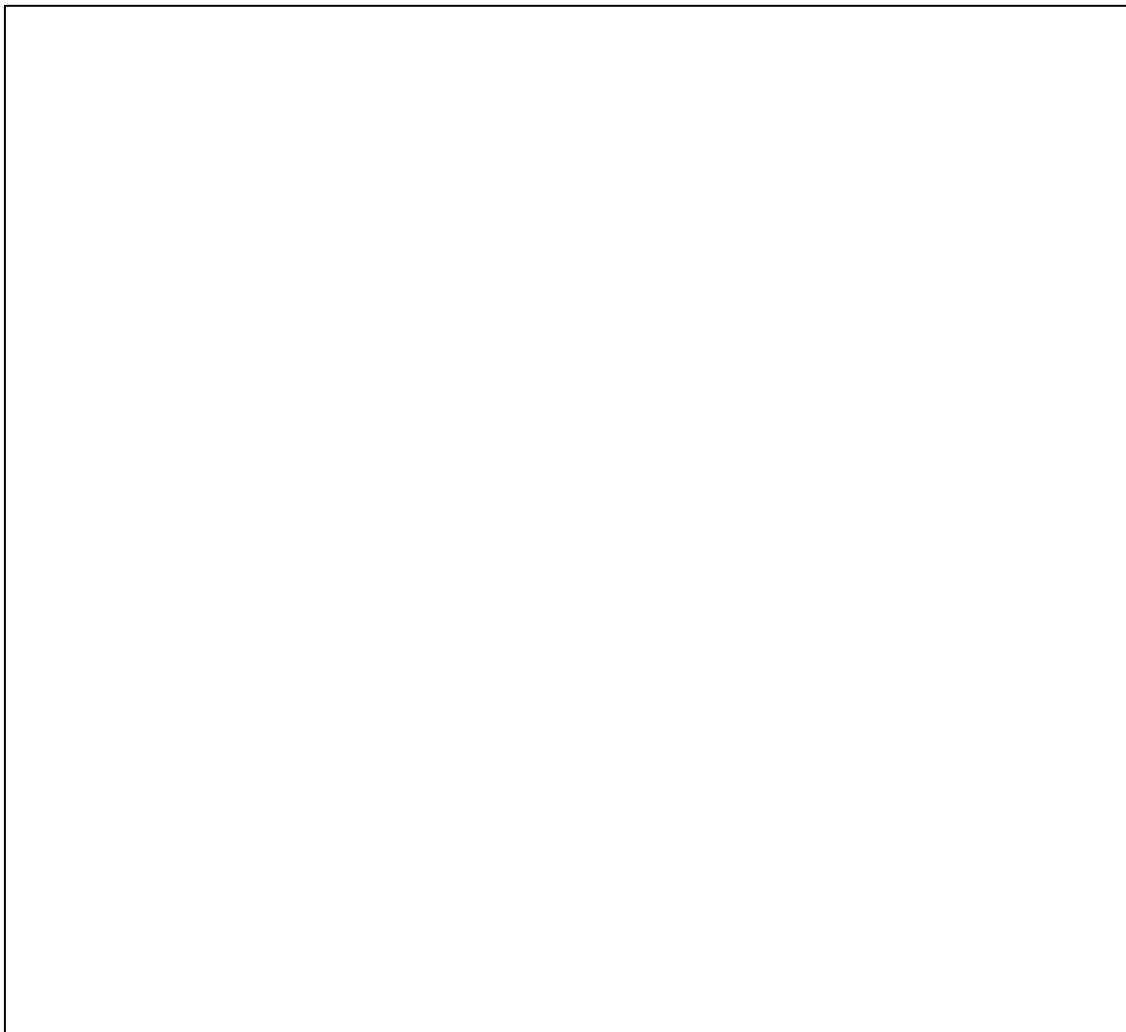
Distance(m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ) :	Protect Angle(Deg) :

### Average Illumination



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 26.5

Tester: z

Distance(m): 6.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

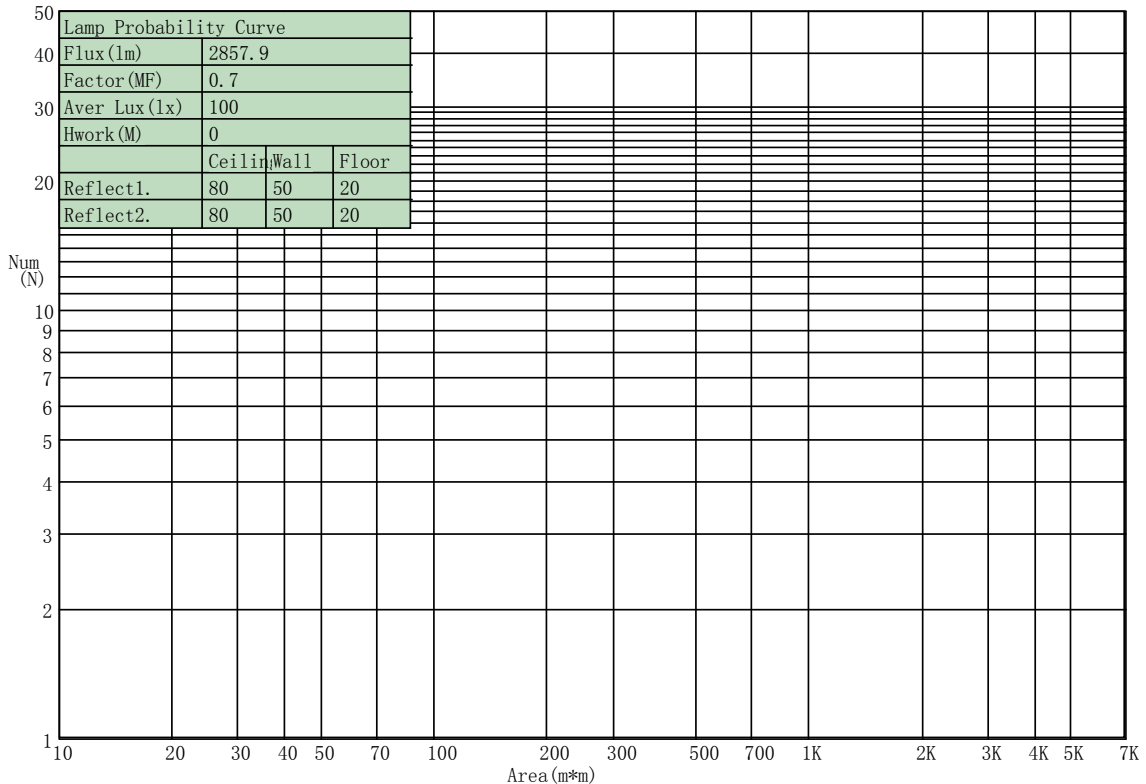
Humidity(%): 60

Date: 2017/9/23

Remark:

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ) :	Protect Angle(Deg) :

### Lamp Probability Curve



Gama Angle Range:-90 - 90(Deg)

C Angle Range:0 - 180(Deg)

Gama interval(Deg): 1

C interval(Deg): 45

Temperature(Deg): 26.5

Humidity(%): 60

Tester: z

Date: 2017/9/23

Distance(m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ) :	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	57	43	34	55	42	34	52	41	33
0.80	58	42	31	56	41	31	52	39	30
1.00	60	42	31	57	41	30	52	39	29
1.25	61	43	29	58	41	28	53	38	27
1.50	63	43	29	59	41	28	53	38	26
2.00	65	45	29	61	43	28	54	39	26
2.50	66	46	29	62	43	28	55	39	25
3.00	68	47	30	63	44	28	55	39	25
4.00	70	49	31	65	46	29	56	40	26
5.00	71	50	32	66	47	30	57	41	27

### CoEfficients Utilization

Ceiling(%)		80			70			50			30			10	
Wall (%)	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
Floor (%)		20			20			20			20			20	
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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1	0.99	0.98	0.97	0.96
2	1.04	1	0.97	1.02	0.99	0.96	0.99	0.96	0.94	0.96	0.94	0.92	0.93	0.91	0.9
3	0.97	0.93	0.89	0.96	0.92	0.88	0.93	0.9	0.87	0.91	0.88	0.85	0.89	0.86	0.84
4	0.92	0.86	0.82	0.9	0.86	0.82	0.88	0.84	0.81	0.86	0.83	0.8	0.85	0.82	0.79
5	0.86	0.81	0.77	0.85	0.8	0.77	0.84	0.79	0.76	0.82	0.78	0.75	0.81	0.77	0.75
6	0.82	0.76	0.72	0.81	0.76	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.7
7	0.77	0.72	0.68	0.77	0.71	0.68	0.76	0.71	0.67	0.74	0.7	0.67	0.73	0.7	0.67
8	0.74	0.68	0.64	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.7	0.66	0.63
9	0.7	0.65	0.61	0.7	0.64	0.61	0.69	0.64	0.61	0.68	0.64	0.6	0.67	0.63	0.6
10	0.67	0.62	0.58	0.66	0.61	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.6	0.57

Gama Angle Range:-90 - 90(Deg)

C Angle Range:0 - 180(Deg)

Gama interval(Deg): 1

C interval(Deg): 45

Temperature(Deg): 26.5

Humidity(%): 60

Tester: z

Date: 2017/9/23

Distance(m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ) :	Protect Angle(Deg) :

### Wall Exitance CoEfficients

Ceiling(%)		80			70			50			30			10	
Wall (%)	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
Floor (%)		20			20			20			20			20	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.17	0.1	0.03	0.16	0.09	0.03	0.15	0.09	0.03	0.14	0.08	0.03	0.13	0.07	0.02
2	0.16	0.09	0.03	0.16	0.09	0.03	0.15	0.08	0.03	0.14	0.08	0.02	0.13	0.07	0.02
3	0.15	0.08	0.02	0.15	0.08	0.02	0.14	0.08	0.02	0.13	0.07	0.02	0.12	0.07	0.02
4	0.15	0.08	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.07	0.02	0.12	0.07	0.02
5	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.12	0.06	0.02	0.12	0.06	0.02
6	0.13	0.07	0.02	0.13	0.07	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02
7	0.13	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02	0.11	0.06	0.02
8	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02	0.11	0.06	0.02	0.11	0.05	0.02
9	0.12	0.06	0.02	0.11	0.06	0.02	0.11	0.05	0.02	0.11	0.05	0.02	0.1	0.05	0.01
10	0.11	0.05	0.01	0.11	0.05	0.01	0.1	0.05	0.01	0.1	0.05	0.01	0.1	0.05	0.01

### Ceiling Cavity Exitance CoEfficients

Ceiling(%)		80			70			50			30			10	
Wall (%)	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
Floor (%)		20			20			20			20			20	
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	0.17	0.16	0.15	0.15	0.14	0.13	0.1	0.09	0.09	0.06	0.05	0.05	0.02	0.02	0.02
2	0.16	0.13	0.11	0.13	0.11	0.1	0.09	0.08	0.07	0.05	0.05	0.04	0.02	0.01	0.01
3	0.14	0.11	0.09	0.12	0.1	0.08	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01	0.01
4	0.13	0.1	0.07	0.11	0.09	0.06	0.08	0.06	0.05	0.04	0.03	0.03	0.01	0.01	0.01
5	0.12	0.09	0.06	0.11	0.08	0.05	0.07	0.05	0.04	0.04	0.03	0.02	0.01	0.01	0.01
6	0.11	0.08	0.05	0.1	0.07	0.04	0.07	0.05	0.03	0.04	0.03	0.02	0.01	0.01	0.01
7	0.11	0.07	0.04	0.09	0.06	0.04	0.06	0.04	0.03	0.04	0.03	0.02	0.01	0.01	0.01
8	0.1	0.06	0.04	0.09	0.06	0.03	0.06	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
9	0.1	0.06	0.03	0.08	0.05	0.03	0.06	0.04	0.02	0.03	0.02	0.01	0.01	0.01	0
10	0.09	0.05	0.03	0.08	0.05	0.02	0.06	0.03	0.02	0.03	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): 26.5

Humidity(%): 60

Tester: z

Date: 2017/9/23

Distance(m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0



Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ):	Protect Angle(Deg):

**Ring-shaped Flux Data Table**

Gm\C(Deg)	0	45	90	135	180	225	270	315	Range	Ring	T(lm)
5	7108	7226	7163	7292	6361	6111	6035	5068	0-5	163	163
10	5848	6165	6103	6746	4363	4055	4035	2961	5-10	412	575
15	3750	4082	4094	5165	2328	2081	2117	1563	10-15	477	1053
20	1968	2163	2126	3032	1344	1279	1286	1129	15-20	392	1445
25	1250	1303	1285	1565	1082	1047	1045	987	20-25	300	1745
30	1050	1054	1051	1133	981	961	947	908	25-30	275	2020
35	960	960	953	1002	894	889	868	732	30-35	283	2302
40	873	884	874	919	566	493	494	235	35-40	267	2569
45	405	469	459	720	100	75.2	82.1	42.9	40-45	177	2746
50	63	71.8	72.8	214	33.9	34.1	34.4	24.8	45-50	65.7	2812
55	29.8	32.5	31	42.8	19.9	19.9	20.3	19	50-55	18.1	2830
60	16.8	18.9	17.8	24.1	9.09	14.9	9.09	10.2	55-60	9.54	2840
65	12.7	13.7	13.1	12.3	8.47	8.5	8.79	6.08	60-65	6.49	2846
70	7.09	7.54	7.06	10	5.49	5.69	5.85	4.25	65-70	4.18	2850
75	4.86	4.96	4.74	6.18	4.04	4.14	4.31	3.37	70-75	2.86	2853
80	3.85	3.67	3.65	4.56	3.56	3.35	3.57	2.39	75-80	2.16	2855
85	3.36	3.2	3.24	3.79	1.98	0.98	1.22	0.39	80-85	1.63	2857
90	1.03	0.9	1.96	3.12	0.63	0.34	0.63	0.69	85-90	0.94	2858
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): 26.5

Humidity(%): 60

Tester: z

Date: 2017/9/23

Distance(m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 220.7V I: 126.0mA P: 27.10W PF: 0.975 Test LM: 2857.85lm		
Lamp Name:30W LED COB TRACKLIGHT	Lamp Type:SHOPLINE-B	Weight (kg) :
Lamp Model:BD30-01300, BD30-01310, BD30-01320 BD30-01301, BD30-01311. BD30-01321	Lamp Spec:	Shape Size:
Manufactory:	Sur (m <sup>2</sup> ) :	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	7108	7160	7213	7205	7177	7191	7250	7190	6768	6361	6252	6139	6086	6052	5824	5385	5291	6215
10.0	5848	5987	6131	6145	6116	6243	6535	6485	5405	4363	4228	4088	4048	4039	3800	3314	3277	4585
15.0	3750	3895	4046	4086	4092	4329	4814	4855	3570	2328	2220	2108	2093	2109	1996	1745	1802	2793
20.0	1968	2054	2142	2151	2134	2324	2735	2848	2083	1344	1316	1286	1281	1284	1251	1180	1221	1601
25.0	1250	1273	1297	1297	1289	1346	1473	1512	1294	1082	1067	1051	1046	1045	1032	1006	1016	1135
30.0	1050	1052	1053	1053	1052	1069	1106	1116	1048	981	973	964	957	950	938	921	924	988
35.0	960	960	960	957	954	964	986	990	941	894	892	889	882	873	839	777	757	860
40.0	873	878	883	881	876	884	904	880	720	566	534	501	494	494	437	320	305	594
45.0	405	433	462	466	461	516	635	652	371	100	89.3	78	77.5	80.6	73.6	55.8	82.6	247
50.0	63	66.9	70.8	72.1	72.5	104	168	194	113	33.9	34	34.1	34.2	34.3	32.3	27.9	29	46.3
55.0	29.8	31	32.2	32	31.3	33.6	39	40.3	29.9	19.9	19.9	19.9	20	20.2	20	19.4	20.2	25.1
60.0	16.8	17.7	18.7	18.5	18	19.2	22.1	22.5	15.7	9.09	11.6	14.2	13	10.4	9.33	9.83	10.9	13.9
65.0	12.7	13.1	13.6	13.5	13.2	12.9	12.6	11.9	10.1	8.47	8.48	8.5	8.6	8.73	8.2	6.97	6.8	9.78
70.0	7.09	7.29	7.49	7.38	7.17	7.71	9.06	9.54	7.48	5.49	5.58	5.67	5.74	5.82	5.5	4.78	4.56	5.85
75.0	4.86	4.9	4.95	4.89	4.79	5.05	5.71	5.95	4.98	4.04	4.08	4.13	4.19	4.27	4.1	3.68	3.53	4.21
80.0	3.85	3.77	3.69	3.66	3.65	3.85	4.26	4.45	4	3.56	3.47	3.37	3.42	3.52	3.31	2.78	2.55	3.21
85.0	3.36	3.29	3.22	3.21	3.23	3.36	3.61	3.59	2.77	1.98	1.55	1.09	1.06	1.17	1.04	0.66	0.72	2.06
90.0	1.03	0.97	0.91	1.25	1.73	2.21	2.74	2.85	1.72	0.63	0.5	0.37	0.44	0.57	0.64	0.67	0.73	0.88
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): 26.5

Humidity(%): 60

Tester: z

Date: 2017/9/23

Distance(m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0