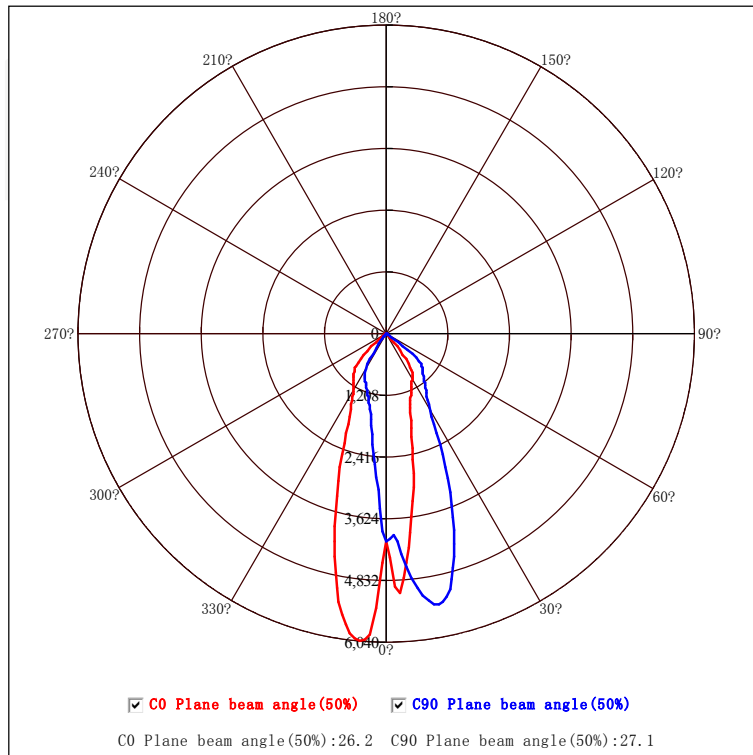


Measured Para U: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm						
Lamp Name: 30W LED COB TRACKLIGHT		Lamp Type: SHOPLINE-A		Weight (kg):		
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321		Lamp Spec:		Shape Size:		
Manufactory: X		Sur (m <sup>2</sup> ):		Protect Angle (Deg):		
Light Source Data			Photometric Data			
Model	BD30-00320		Peak Value (cd)	7629.2	Efficiency (lm/w)	108.4
Nominal P(w)	30.0		Position	135.0, 15.0	UP (C0-C180)	0.0
Rated Volt (v)	220.0		Total Flux (lm)	3001.525	Down (C0-C180)	72.9
Rated Flux (lm)	10000.0		Up Flux Rate (%)	0.0	UP (C180-C360)	0.0
Illuminant QTY	1		Dw Flux Rate (%)	100.0	Down (C180-C360)	27.1

### Planar Intensity Distribution 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

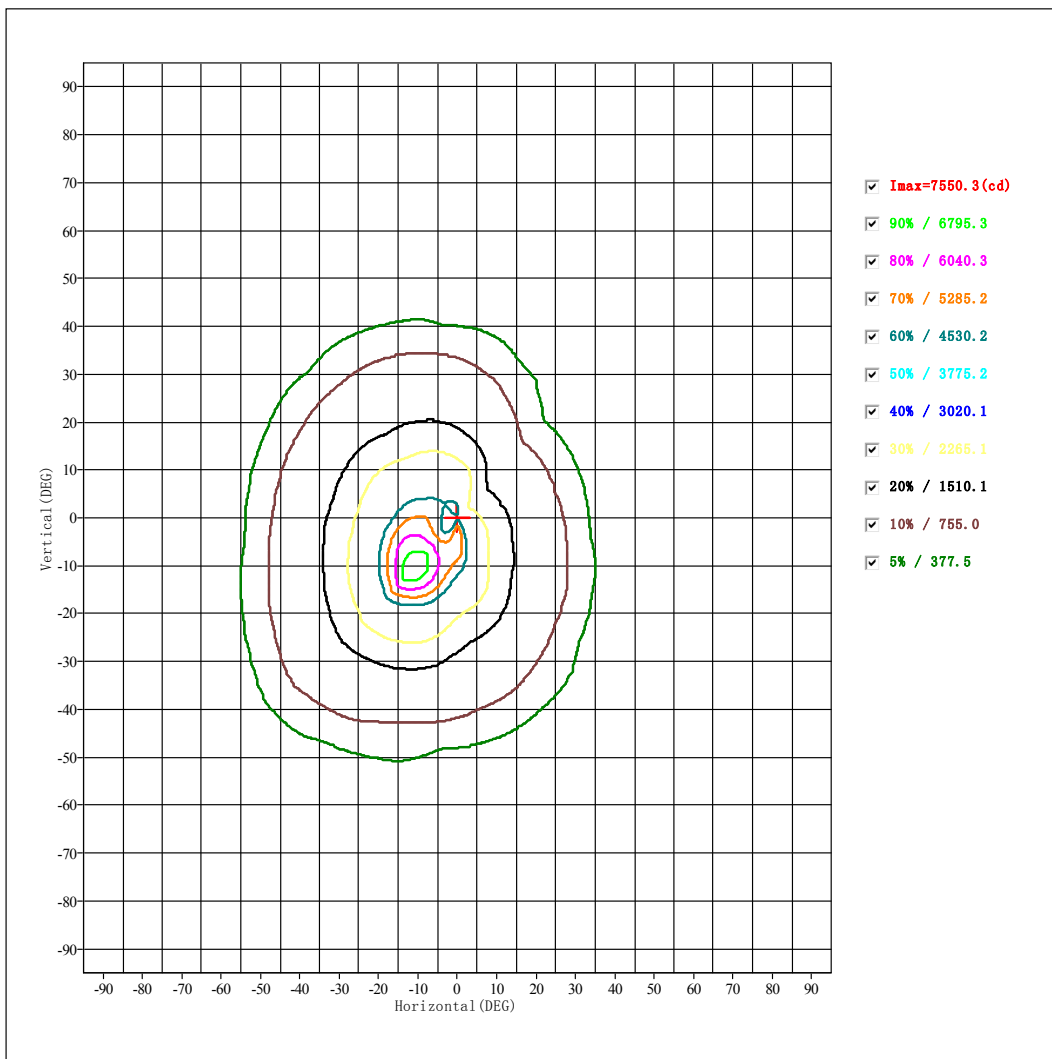
Distance (m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg) :
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	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

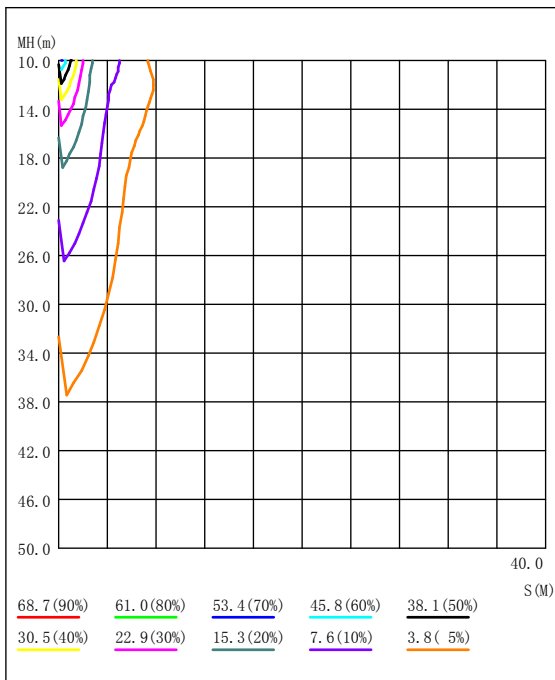
Humidity (%): 60

Date: 2017/9/23

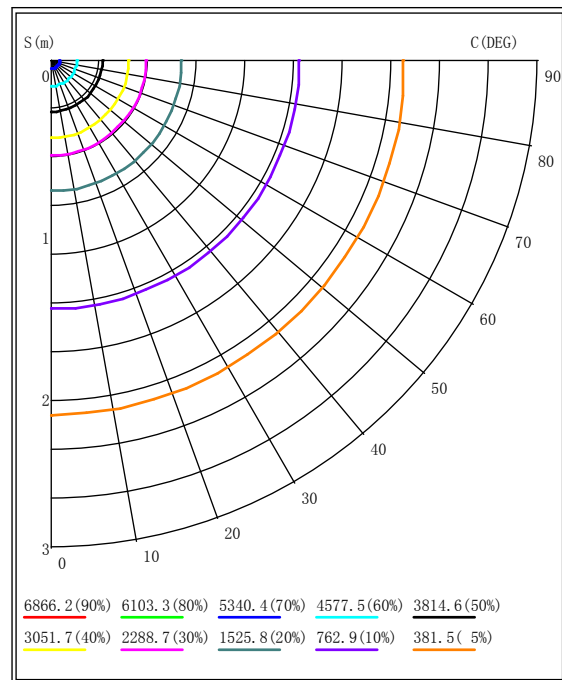
Remark:

Measured Para U: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg):
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	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: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg):
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	Sur (m <sup>2</sup> ):	Protect Angle (Deg):

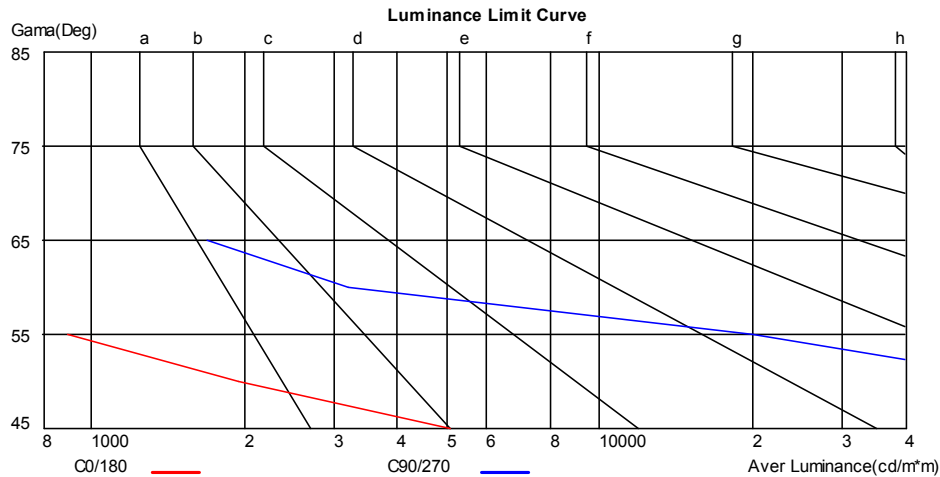
### Luminance Limit Curve

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

Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	5075.3	1941.1	898.6	524.9	383.4	379.1	245.2	46.4	65.9
C90	98471.2	75749.4	20010.2	3210.5	1686.2	796.3	490.0	366.1	365.8

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): 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

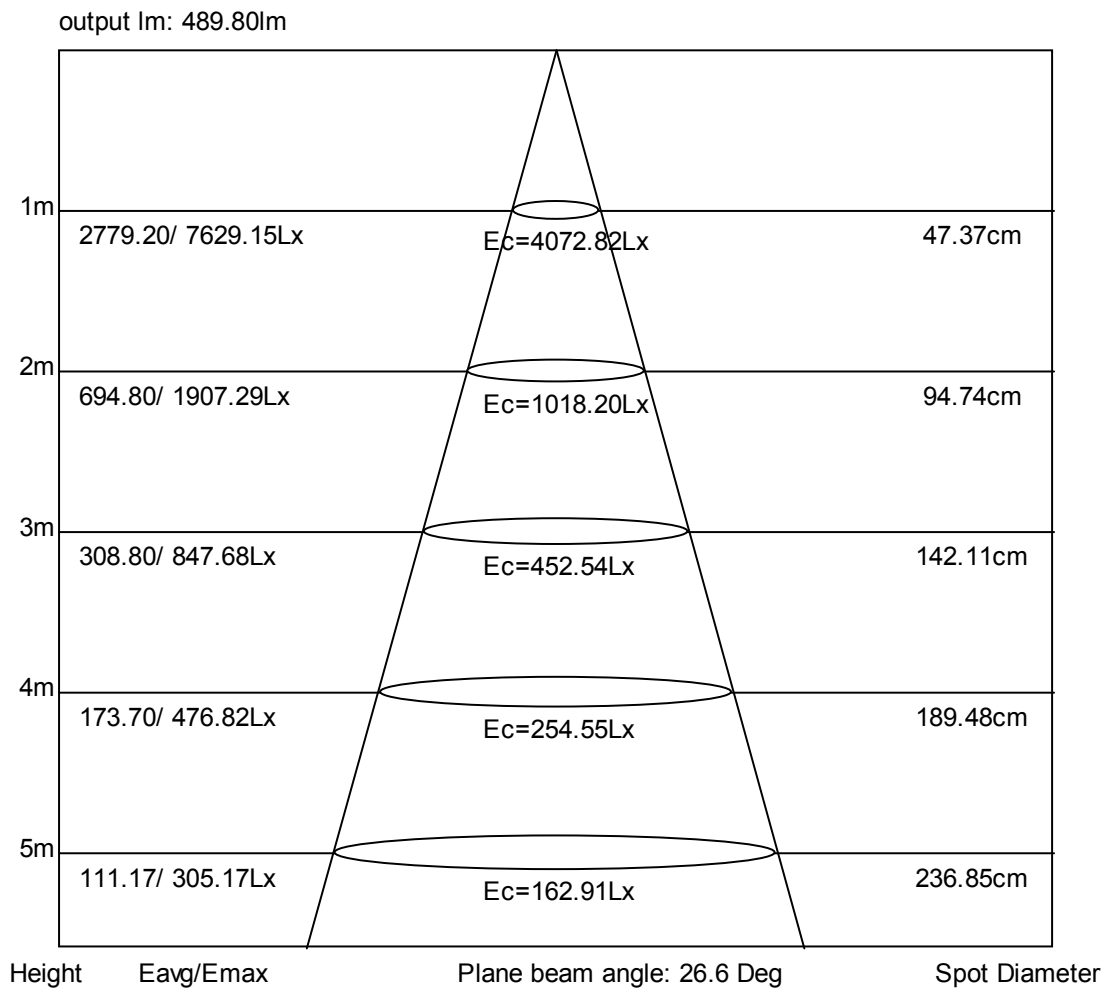
Humidity (%): 60

Date: 2017/9/23

Remark:

Measured Para U: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg):
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	Sur (m <sup>2</sup> ):	Protect Angle (Deg):

### Average Illumination



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

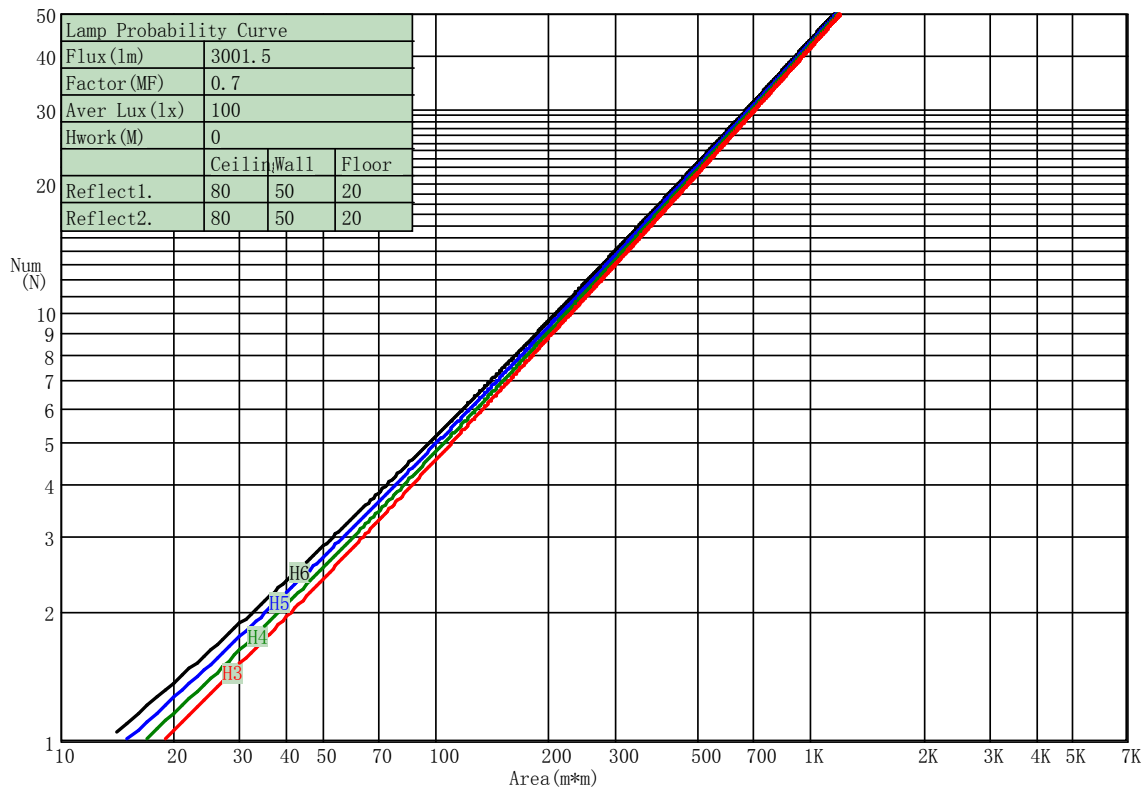
Distance (m): 6.000

Remark:

Test System: ZWL Goniophotometer System V3.0

Measured Para U: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg):
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	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: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg) :
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	Sur (m <sup>2</sup> ) :	Protect Angle (Deg) :

### UF Table

Lamp Model: BD30-00300, BD30-00310, BD30-00320

Ceiling	0.8	0.8	0.8	0.8	0.8	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	43	26	16	41	26	16	38	24	15
0.80	48	29	17	46	28	17	41	26	16
1.00	52	32	18	49	31	18	44	28	17
1.25	55	35	20	52	33	19	46	30	17
1.50	57	36	21	54	35	20	47	31	18
2.00	61	40	22	57	37	21	50	33	19
2.50	63	42	24	59	39	22	51	34	20
3.00	65	43	25	60	40	23	52	35	20
4.00	67	45	26	62	42	25	53	37	22
5.00	69	47	27	64	44	26	54	38	22

### 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	1.1	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.01	0.99	0.98	0.97	0.96	0.95
2	1.02	0.98	0.95	1.01	0.97	0.94	0.97	0.94	0.92	0.94	0.92	0.9	0.92	0.9	0.88
3	0.95	0.9	0.86	0.94	0.89	0.85	0.91	0.87	0.84	0.89	0.85	0.83	0.86	0.84	0.81
4	0.89	0.83	0.79	0.88	0.82	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.81	0.78	0.75
5	0.83	0.77	0.72	0.82	0.76	0.72	0.8	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.7
6	0.78	0.71	0.67	0.77	0.71	0.67	0.75	0.7	0.66	0.74	0.69	0.66	0.73	0.69	0.65
7	0.73	0.67	0.62	0.72	0.66	0.62	0.71	0.66	0.62	0.7	0.65	0.62	0.69	0.64	0.61
8	0.69	0.63	0.58	0.68	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.57
9	0.65	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.54	0.62	0.58	0.54	0.62	0.57	0.54
10	0.61	0.55	0.52	0.61	0.55	0.51	0.6	0.55	0.51	0.59	0.55	0.51	0.59	0.54	0.51

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: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg):
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	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	0.18	0.1	0.03	0.18	0.1	0.03	0.16	0.09	0.03	0.15	0.09	0.03	0.14	0.08	0.03
2	0.18	0.1	0.03	0.17	0.09	0.03	0.16	0.09	0.03	0.15	0.08	0.03	0.14	0.08	0.03
3	0.17	0.09	0.03	0.16	0.09	0.03	0.15	0.08	0.03	0.15	0.08	0.02	0.14	0.08	0.02
4	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.14	0.08	0.02	0.13	0.07	0.02
5	0.15	0.08	0.02	0.15	0.08	0.02	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02
6	0.15	0.07	0.02	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.07	0.02
7	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.06	0.02	0.12	0.06	0.02
8	0.13	0.06	0.02	0.13	0.06	0.02	0.13	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02
9	0.13	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02
10	0.12	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02	0.11	0.05	0.02

### 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	0.14	0.15	0.13	0.12	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	0.09	0.07	0.05	0.05	0.04	0.03	0.02	0.01	0.01
4	0.14	0.1	0.07	0.12	0.09	0.06	0.08	0.06	0.04	0.05	0.03	0.03	0.01	0.01	0.01
5	0.13	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	0.12	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	0.1	0.06	0.04	0.07	0.04	0.03	0.04	0.03	0.02	0.01	0.01	0.01
8	0.11	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	0.09	0.05	0.03	0.06	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.1	0.06	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: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.521m		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg) :
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec :	Shape Size:
Manufactory: X	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	4221	4499	4823	4572	6014	3415	2370	1779	0-5	96	96
10	2775	3855	5421	6607	5075	2416	1597	1339	5-10	272	368
15	1754	2800	4787	7629	3609	1654	1294	1130	10-15	398	766
20	1333	1862	3587	6365	2297	1336	1086	988	15-20	446	1212
25	1145	1401	2417	4323	1543	1134	970	783	20-25	422	1633
30	1002	1200	1614	2716	1256	1001	697	243	25-30	366	1999
35	816	1040	1313	1689	1071	801	159	45	30-35	302	2302
40	319	940	1111	1309	948	239	31.9	17.4	35-40	245	2546
45	50.8	543	985	1119	605	41.6	10.5	7.86	40-45	191	2737
50	19.4	85.3	757	982	131	20.2	7.85	4.74	45-50	133	2870
55	8.99	21.9	200	715	30.7	9.44	4.89	3.49	50-55	81.1	2951
60	5.25	14	32.1	186	10.4	5.5	3.54	3.73	55-60	33.4	2984
65	3.83	6.88	16.9	34.6	7.77	4.02	3.84	1.9	60-65	8.51	2993
70	3.79	4.51	7.96	11.7	4.79	3.98	2.06	0.28	65-70	3.52	2996
75	2.45	3.68	4.9	8.45	3.64	2.93	0.24	0.35	70-75	2.2	2998
80	0.46	4.05	3.66	5.28	3.44	0.29	0.43	0.7	75-80	1.43	3000
85	0.66	1.05	3.66	4.08	0.94	0.39	0.67	1.12	80-85	1.03	3001
90	1	0.46	1.67	4.19	0.25	0.54	1.15	1.65	85-90	0.78	3002
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: 220.2V I: 232.0mA P: 27.70W PF: 0.542 Test LM: 3001.52lm		
Lamp Name: 30W LED COB TRACKLIGHT	Lamp Type: SHOPLINE-A	Weight (kg):
Lamp Model: BD30-00300, BD30-00310, BD30-00320 BD30-00301, BD30-00311, BD30-00321	Lamp Spec:	Shape Size:
Manufactory: X	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	4221	4342	4468	4605	4752	4768	4654	4730	5383	6014	4877	3700	3072	2598	2241	1973	2047	3153
10.0	2775	3248	3737	4369	5078	5680	6218	6439	5745	5075	3912	2707	2148	1776	1541	1424	1496	2147
15.0	1754	2212	2685	3452	4352	5409	6697	7189	5368	3609	2753	1867	1536	1373	1259	1184	1199	1481
20.0	1333	1565	1805	2428	3210	4194	5453	5920	4077	2297	1877	1441	1254	1141	1065	1021	1026	1182
25.0	1145	1257	1373	1735	2195	2834	3698	4019	2759	1543	1364	1179	1080	1006	929	845	823	987
30.0	1002	1089	1178	1336	1524	1855	2355	2557	1895	1256	1145	1029	902	764	598	392	326	670
35.0	816	914	1016	1130	1254	1396	1566	1621	1342	1071	953	831	591	299	134	82.3	129	479
40.0	319	591	872	996	1073	1154	1244	1270	1106	948	638	316	171	77.2	28.7	22.2	50.4	187
45.0	50.8	266	489	688	888	1014	1075	1063	830	605	358	103	31.4	17.3	9.95	8.74	12.6	32
50.0	19.4	48.2	78.1	306	610	807	909	889	503	131	82.4	32.3	16.2	10.6	7.17	5.76	6.34	13
55.0	8.99	14.7	20.5	80.4	161	313	546	640	330	30.7	21.4	11.8	7.94	5.88	4.58	3.95	4.09	6.58
60.0	5.25	9.07	13	19.9	28.1	65.7	135	166	87.1	10.4	8.26	6.04	4.86	3.97	3.58	3.67	3.9	4.58
65.0	3.83	5.16	6.54	10.2	14.7	20.7	28.8	31.6	19.5	7.77	6.13	4.43	3.96	3.88	3.42	2.54	2.12	2.99
70.0	3.79	4.1	4.43	5.64	7.21	8.78	10.5	11	7.82	4.79	4.44	4.07	3.35	2.48	1.67	0.86	0.66	2.25
75.0	2.45	2.99	3.54	4.08	4.63	5.68	7.29	7.93	5.75	3.64	3.33	3.01	2.05	0.83	0.26	0.31	0.58	1.53
80.0	0.46	2.03	3.65	3.92	3.75	4.01	4.75	5.08	4.24	3.44	2.06	0.64	0.34	0.4	0.49	0.61	0.67	0.57
85.0	0.66	0.83	1.01	1.9	3.09	3.75	3.94	3.74	2.31	0.94	0.7	0.45	0.48	0.61	0.77	0.97	1.07	0.86
90.0	1	0.76	0.52	0.86	1.41	2.22	3.36	3.76	1.97	0.25	0.38	0.51	0.74	1.02	1.26	1.48	1.58	1.28
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