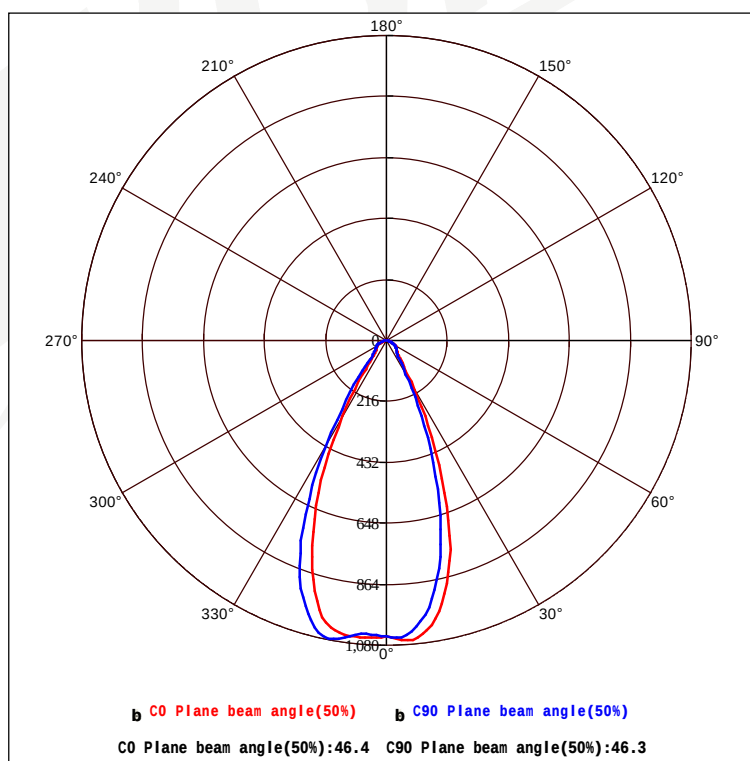


LED TRACK LIGHT

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm						
Lamp Name: LPTRL-15E01			Lamp Type:		Weight(kg):	
Lamp ID: LPTRL-15E01			Lamp Spec:		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model			Peak Value(cd)	1076.5	Efficiency(lm/w)	53.7
Nominal P(w)		1.0	Position	270.0,11.0	UP(C0-C180)	0.0
Rated Volt(v)		220.0	Total Flux(lm)	746.686	Down(C0-C180)	47.6
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)	52.4

Planar Intensity Distribution Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

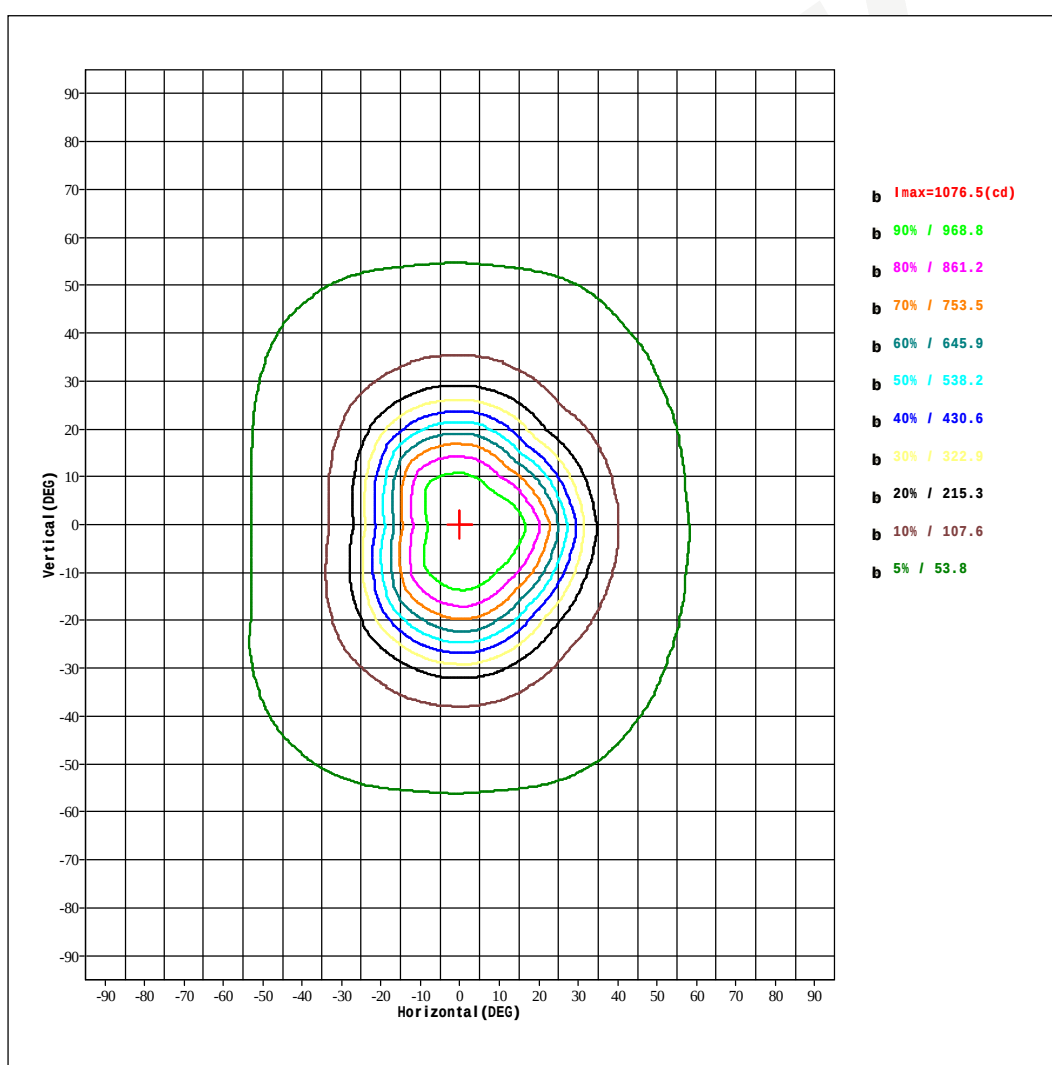
Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

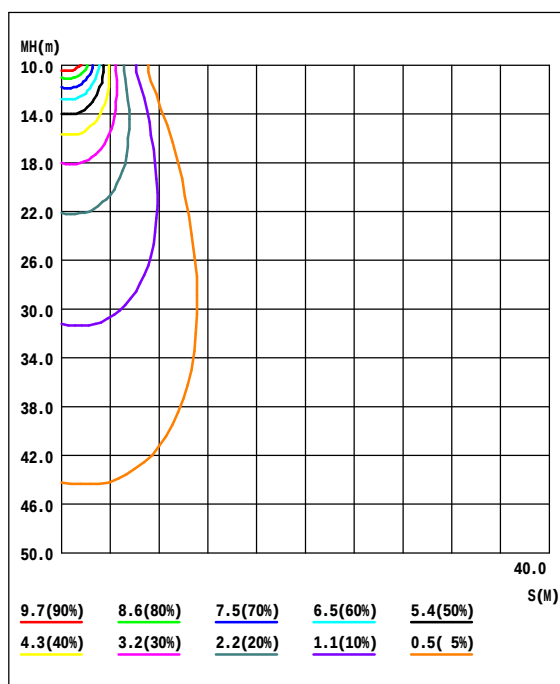
Humidity(%): 60

Date: 2018-8-13

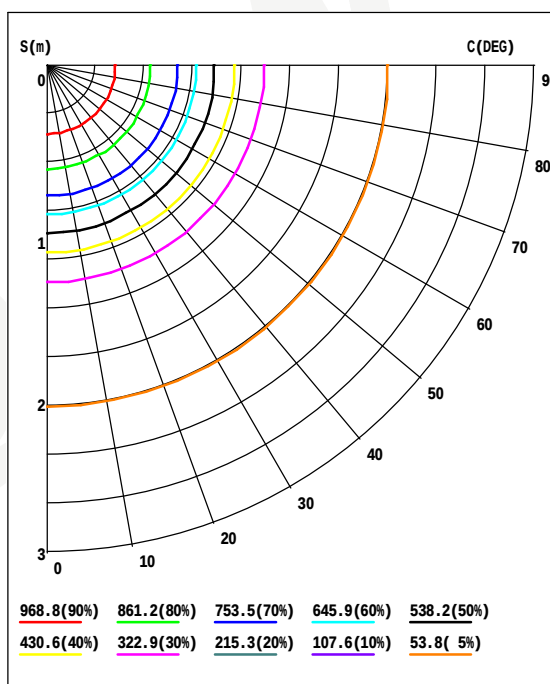
Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2018-8-13

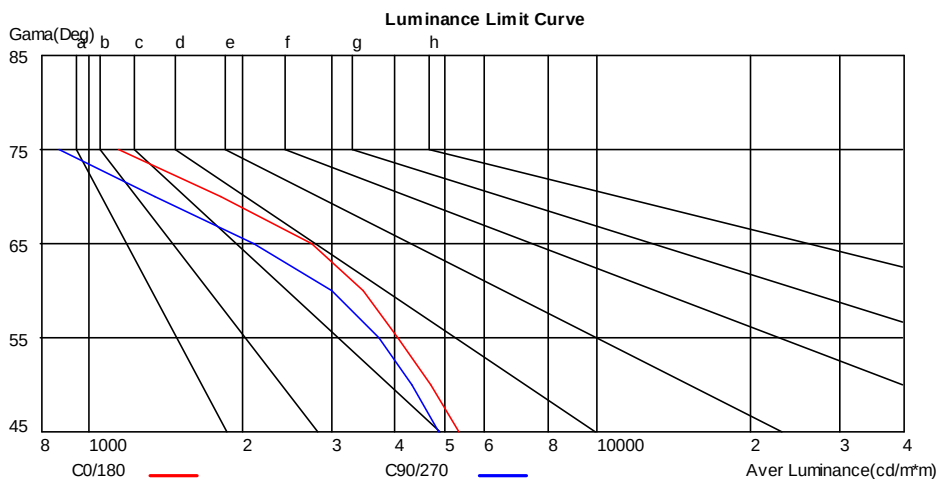
Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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	5334.4	4688.6	4060.8	3453.5	2731.7	1811.5	1142.7	715.3	384.9
C90	4873.0	4331.7	3706.4	3011.6	2105.9	1340.1	870.2	516.8	242.9

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: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

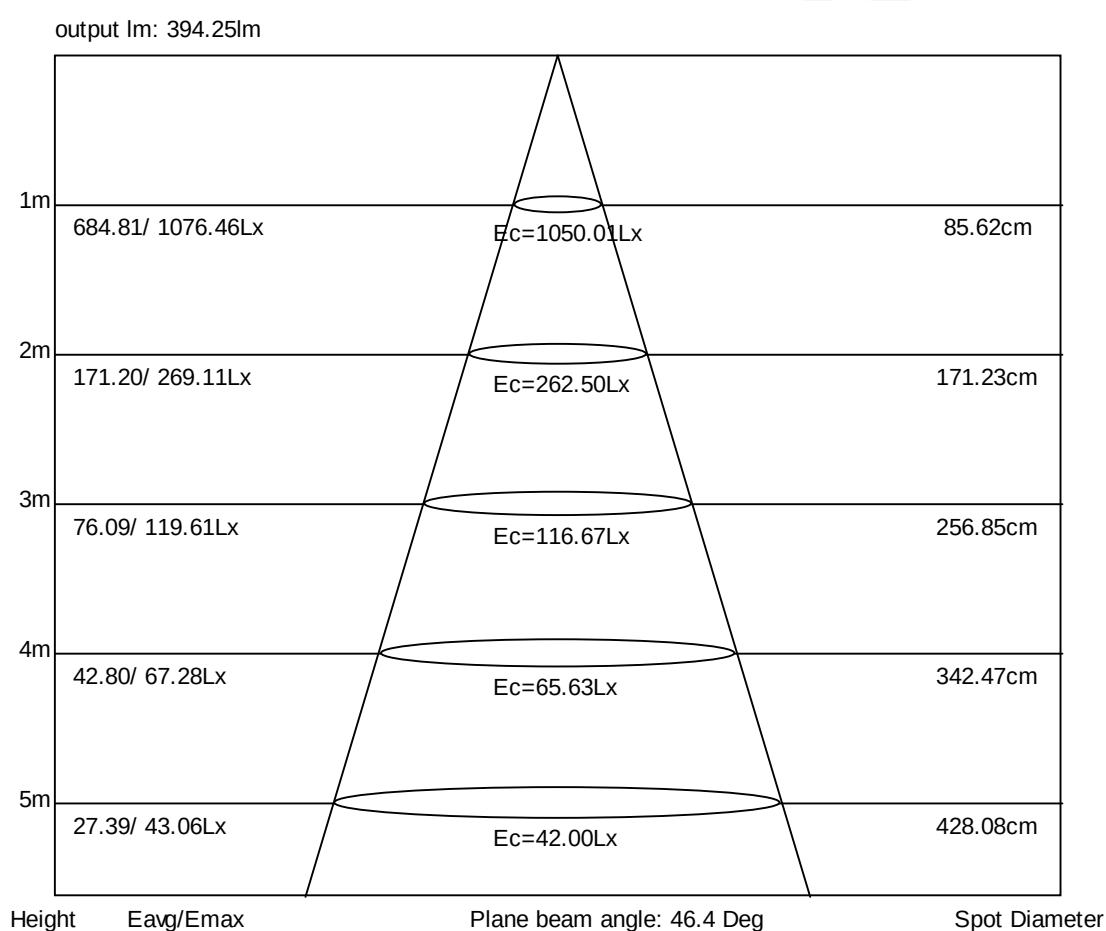
Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

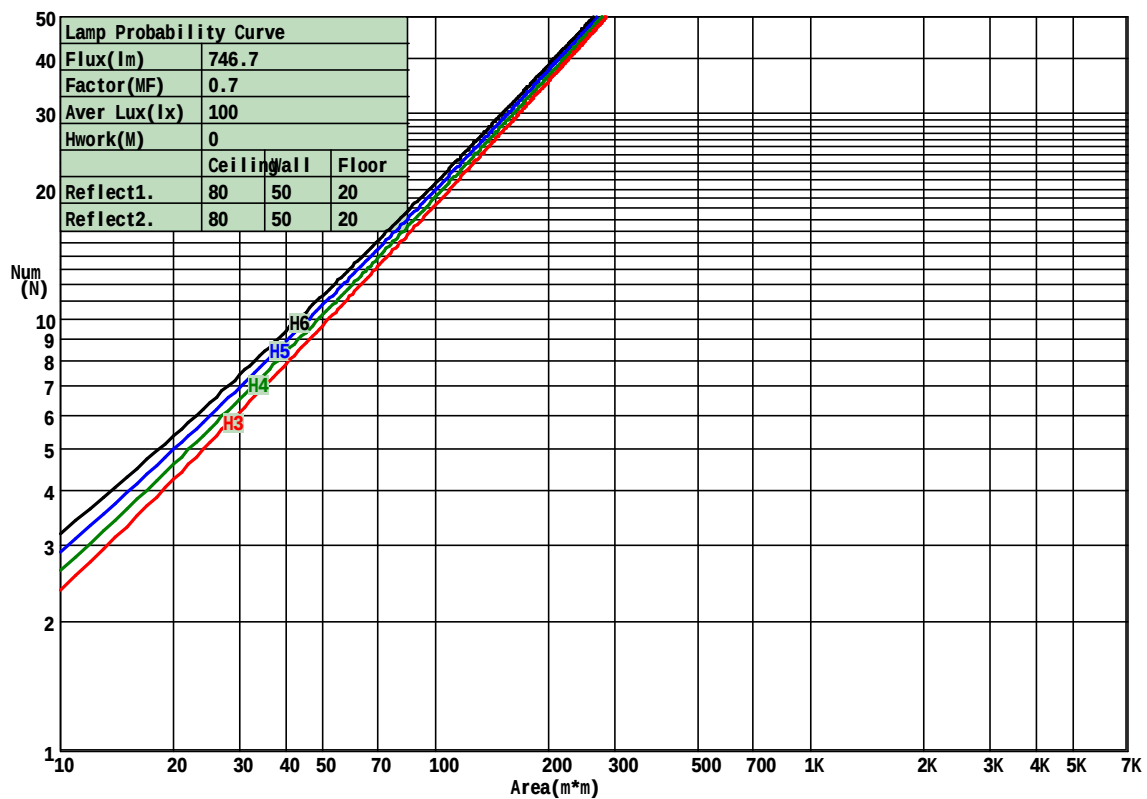
Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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	44	27	16	42	26	16	38	24	15
0.80	49	30	18	46	29	18	42	27	17
1.00	53	33	20	50	32	19	45	29	18
1.25	56	36	21	53	34	21	47	31	19
1.50	59	38	23	55	36	22	49	33	20
2.00	62	41	24	58	39	23	51	35	21
2.50	64	43	25	60	40	24	52	36	22
3.00	66	44	26	61	42	25	53	36	22
4.00	68	46	27	63	43	26	54	38	23
5.00	69	48	28	64	44	27	55	38	23

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	1.1	1.07	1.04	1.07	1.05	1.03	1.03	1.01	1	1	0.98	0.97	0.96	0.95	0.94
2	1.01	0.97	0.93	1	0.96	0.92	0.96	0.93	0.9	0.93	0.91	0.88	0.91	0.88	0.86
3	0.94	0.89	0.85	0.93	0.88	0.84	0.9	0.86	0.82	0.88	0.84	0.81	0.85	0.82	0.8
4	0.88	0.82	0.78	0.87	0.81	0.77	0.85	0.8	0.76	0.83	0.79	0.75	0.81	0.77	0.74
5	0.82	0.76	0.72	0.81	0.76	0.72	0.8	0.75	0.71	0.78	0.74	0.7	0.76	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	0.72	0.69	0.65
7	0.73	0.67	0.63	0.73	0.67	0.63	0.71	0.66	0.62	0.7	0.65	0.62	0.69	0.65	0.62
8	0.69	0.63	0.59	0.69	0.63	0.59	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.61	0.58
9	0.66	0.6	0.56	0.65	0.6	0.56	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.58	0.55
10	0.63	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.61	0.56	0.53	0.6	0.56	0.53

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm															
Lamp Name: LPTRL-15E01								Lamp Type:				Weight(kg):			
Lamp ID: LPTRL-15E01								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	0.2	0.11	0.04	0.19	0.11	0.03	0.18	0.1	0.03	0.17	0.1	0.03	0.16	0.09	0.03
2	0.19	0.1	0.03	0.18	0.1	0.03	0.17	0.09	0.03	0.16	0.09	0.03	0.15	0.09	0.03
3	0.18	0.09	0.03	0.17	0.09	0.03	0.16	0.09	0.03	0.15	0.08	0.03	0.14	0.08	0.02
4	0.16	0.09	0.03	0.16	0.08	0.02	0.15	0.08	0.02	0.14	0.08	0.02	0.14	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	0.13	0.07	0.02	0.13	0.07	0.02	0.12	0.06	0.02	0.12	0.06	0.02
8	0.13	0.06	0.02	0.13	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02
9	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	0.06	0.02
10	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02	0.11	0.05	0.02	0.11	0.05	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	0.17	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	0.14	0.11	0.1	0.09	0.08	0.07	0.05	0.05	0.04	0.02	0.01	0.01
3	0.15	0.11	0.09	0.13	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	0.08	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	0.05	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)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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	1063	1060	1028	1049	1056	1060	1048	1055	0-5	25.2	25.2
10	992	1014	915	1016	1040	1045	1076	981	5-10	74	99.2
15	834	876	722	908	940	922	1017	829	10-15	113	212
20	601	660	488	715	751	727	876	598	15-20	128	340
25	359	414	274	495	527	490	652	358	20-25	117	457
30	185	224	127	277	291	263	407	184	25-30	85.4	543
35	94.3	108	71.5	130	134	118	210	90.6	30-35	50.9	593
40	63	66.8	55.7	73.8	72.2	67.7	97.1	61.2	35-40	29.9	623
45	53.3	54.5	48.7	57.6	55.1	53.1	62.1	50.6	40-45	22.5	646
50	46.9	48.2	43.3	50.2	46.8	45.8	50.9	43.8	45-50	20.4	666
55	40.6	42	37.1	44.3	40.2	39.1	44.3	37.3	50-55	19	685
60	34.5	35.8	30.1	37.9	33.8	32.6	38.1	31.1	55-60	17.3	703
65	27.3	28.6	21.1	31	27.6	25.8	31.7	24.4	60-65	15	718
70	18.1	20.5	13.4	22.9	20.1	16.9	24.8	14.9	65-70	11.6	729
75	11.4	12.4	8.7	14.4	11.7	10.1	15.3	8.81	70-75	7.93	737
80	7.15	7.96	5.17	9.35	7.07	6.11	9.48	5.24	75-80	4.96	742
85	3.85	4.49	2.43	5.68	4	3.24	5.71	2.56	80-85	3	745
90	2.43	2.47	2.45	2.67	1.56	2.37	2.77	1.77	85-90	1.64	747
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: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.0V I: 139.0mA P: 13.90W PF: 0.464 Test LM: 746.69lm		
Lamp Name: LPTRL-15E01	Lamp Type:	Weight(kg):
Lamp ID: LPTRL-15E01	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	1063	1062	1060	1050	1035	1033	1042	1050	1053	1056	1058	1059	1056	1050	1049	1053	1056	1060
10.0	992	1001	1011	982	937	937	983	1019	1030	1040	1042	1044	1055	1069	1056	1012	982	987
15.0	834	852	871	825	756	763	847	912	926	940	932	924	953	996	976	890	829	832
20.0	601	627	653	604	526	538	640	719	735	751	740	729	776	843	815	689	598	600
25.0	359	383	408	368	305	322	422	498	513	527	511	494	543	617	588	454	358	359
30.0	185	202	220	192	149	160	228	278	285	291	279	266	310	375	358	257	184	184
35.0	94.3	100	106	95.9	79.4	84.4	111	131	132	134	127	119	148	190	184	130	91	92.7
40.0	63	64.7	66.4	63.1	58.1	59.6	67.8	73.6	72.9	72.2	70.2	68.2	77.3	90.7	89.3	73	61.4	62.2
45.0	53.3	53.9	54.4	52.6	50	50.7	54.7	57.3	56.2	55.1	54.2	53.3	56	60.1	59.6	54.4	50.9	52.1
50.0	46.9	47.5	48.1	46.6	44.4	44.8	48	49.9	48.3	46.8	46.3	45.9	47.5	49.8	49.4	46.1	44.1	45.5
55.0	40.6	41.2	41.8	40.4	38.1	38.6	41.9	43.9	42	40.2	39.7	39.2	40.8	43.1	42.7	39.6	37.6	39.1
60.0	34.5	35.1	35.7	34	31.4	31.8	35.3	37.4	35.6	33.8	33.3	32.7	34.4	36.9	36.6	33.4	31.4	33
65.0	27.3	27.9	28.4	26.1	22.7	23.2	27.8	30.7	29.1	27.6	26.8	26	27.7	30.4	30.1	26.8	24.7	26
70.0	18.1	19.1	20.2	18.1	14.9	15.5	19.8	22.6	21.3	20.1	18.7	17.2	19.5	23	22.6	18.2	15.3	16.7
75.0	11.4	11.8	12.3	11.2	9.51	9.94	12.5	14.1	12.9	11.7	11	10.3	11.8	14.2	13.9	10.9	9.09	10.3
80.0	7.15	7.51	7.87	7.05	5.78	6.08	7.98	9.1	8.07	7.07	6.65	6.22	7.22	8.74	8.55	6.63	5.45	6.32
85.0	3.85	4.13	4.42	3.81	2.88	3.14	4.61	5.5	4.74	4	3.67	3.32	4.05	5.17	5.02	3.6	2.7	3.29
90.0	2.43	2.45	2.47	2.47	2.45	2.5	2.6	2.55	2.05	1.56	1.92	2.28	2.5	2.68	2.55	2.1	1.84	2.14
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: WH

Distance(m): 7.070

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2018-8-13

Remark: