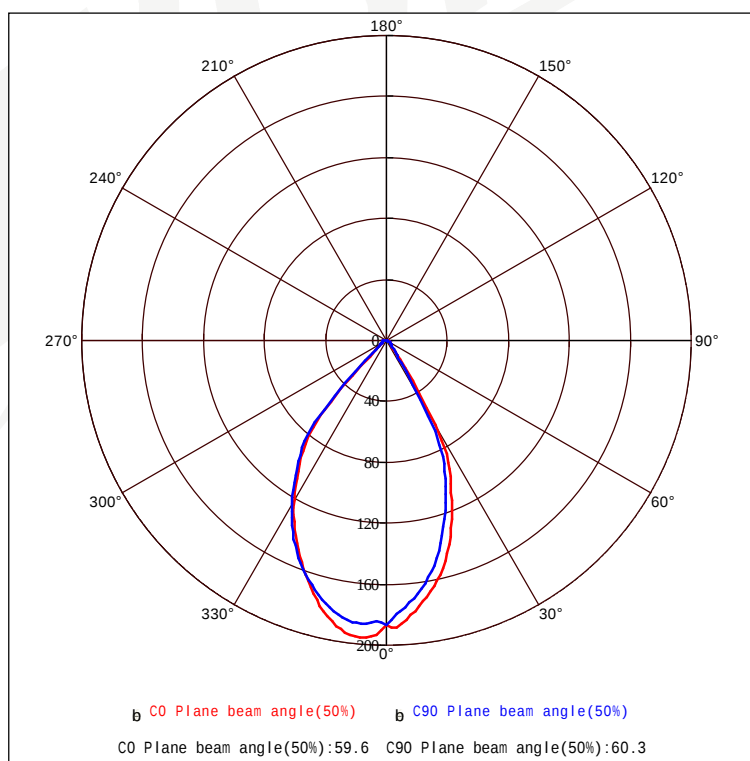


LED CEILING LIGHT

Measured Para U: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm						
Lamp Name: LP-COB03F01-Y1			Lamp Type:		Weight(kg):	
Lamp ID: LP-COB03F01-Y1			Lamp Spec:		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model			Peak Value(cd)	198.1	Efficiency(lm/w)	54.8
Nominal P(w)		1.0	Position	225.0,5.0	UP(C0-C180)	0.0
Rated Volt(v)		220.0	Total Flux(lm)	169.912	Down(C0-C180)	44.5
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)	55.5

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

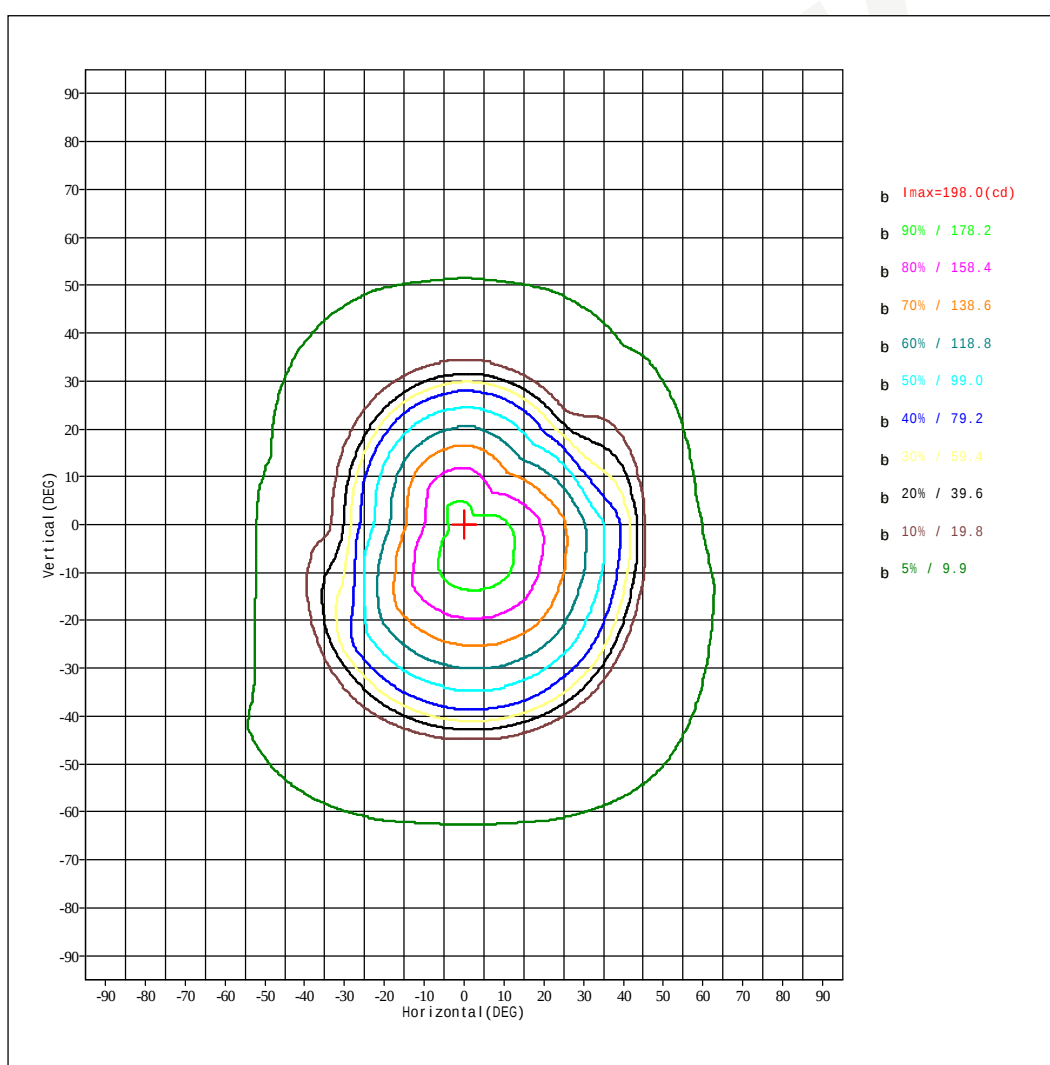
Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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

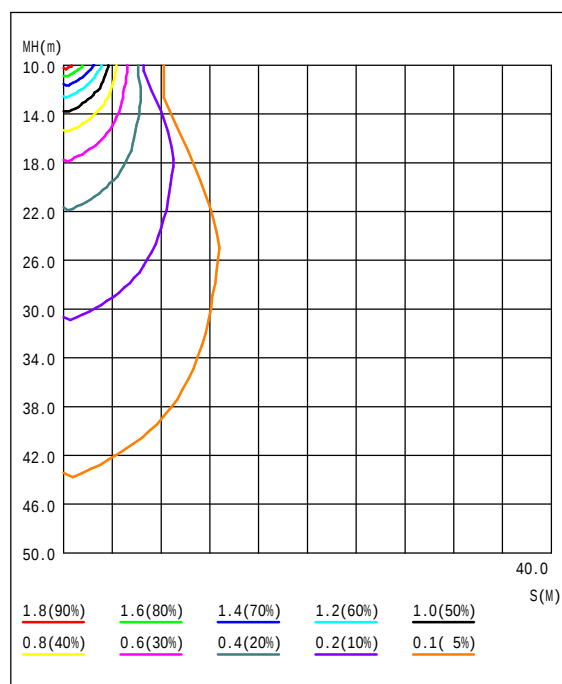
Humidity(%): 60

Date: 2018-8-13

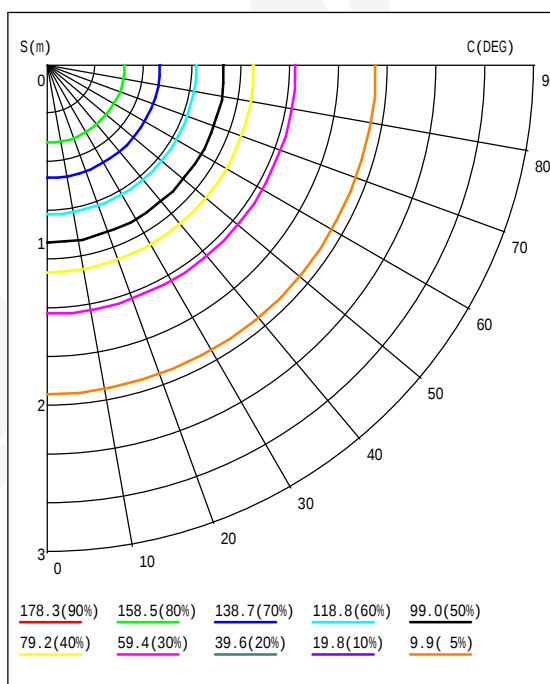
Remark:

Measured Para U: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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

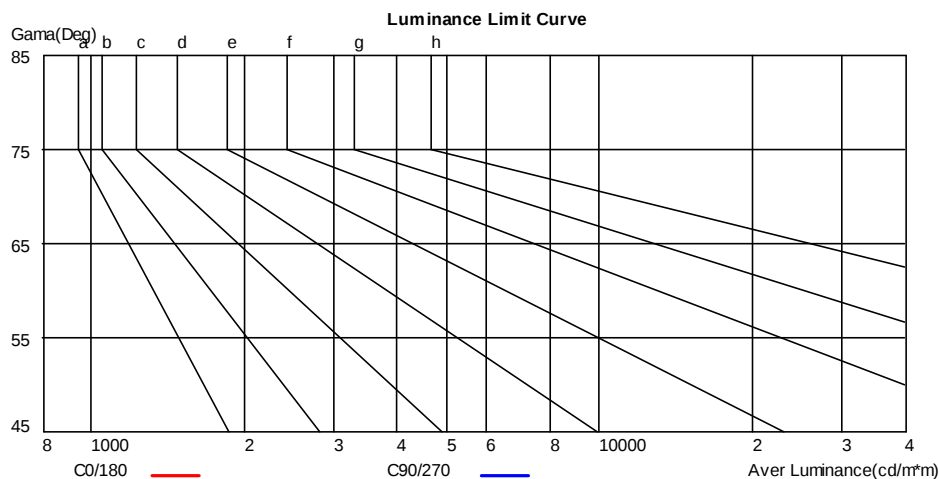
Remark:

Measured Para U: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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	404.9	348.4	308.9	289.9	271.4	197.9	87.5	27.0	25.5
C90	414.9	351.9	317.9	297.9	186.4	72.5	39.5	34.0	35.5

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

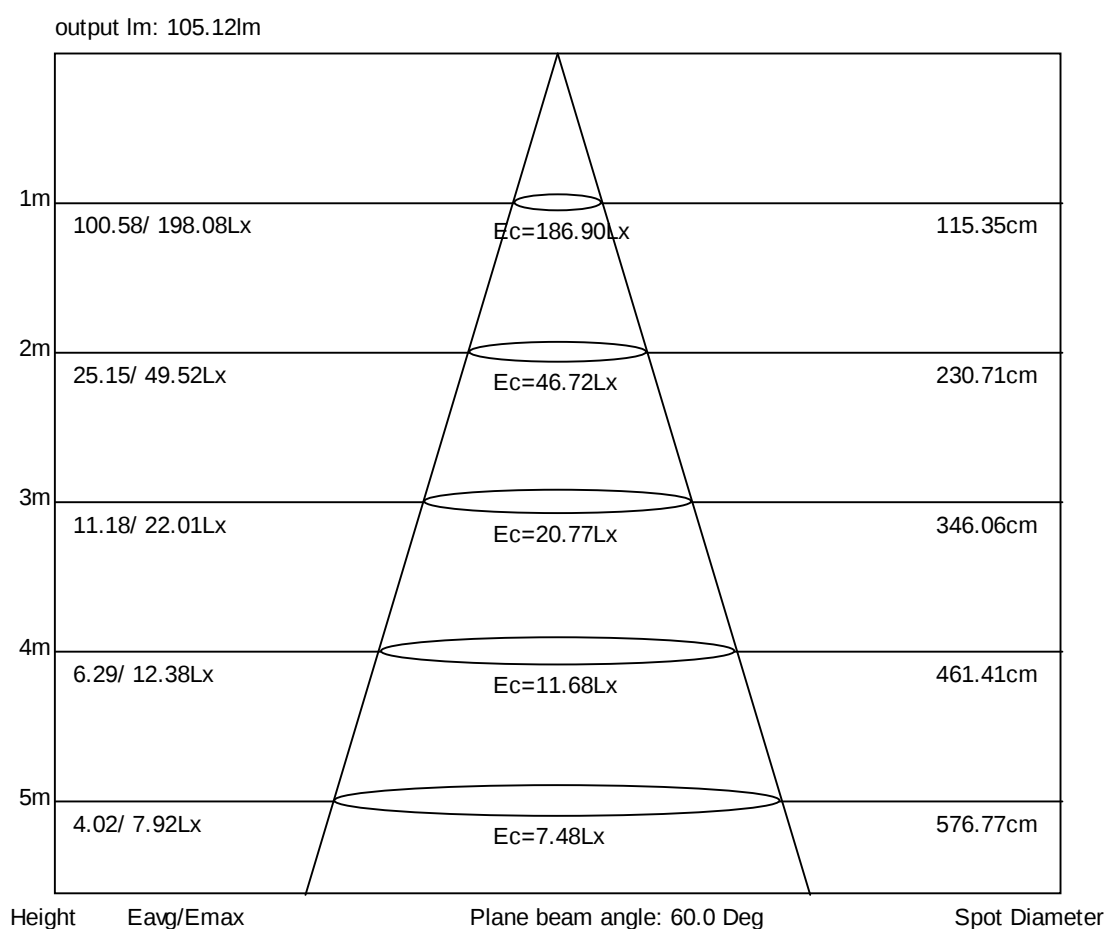
Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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

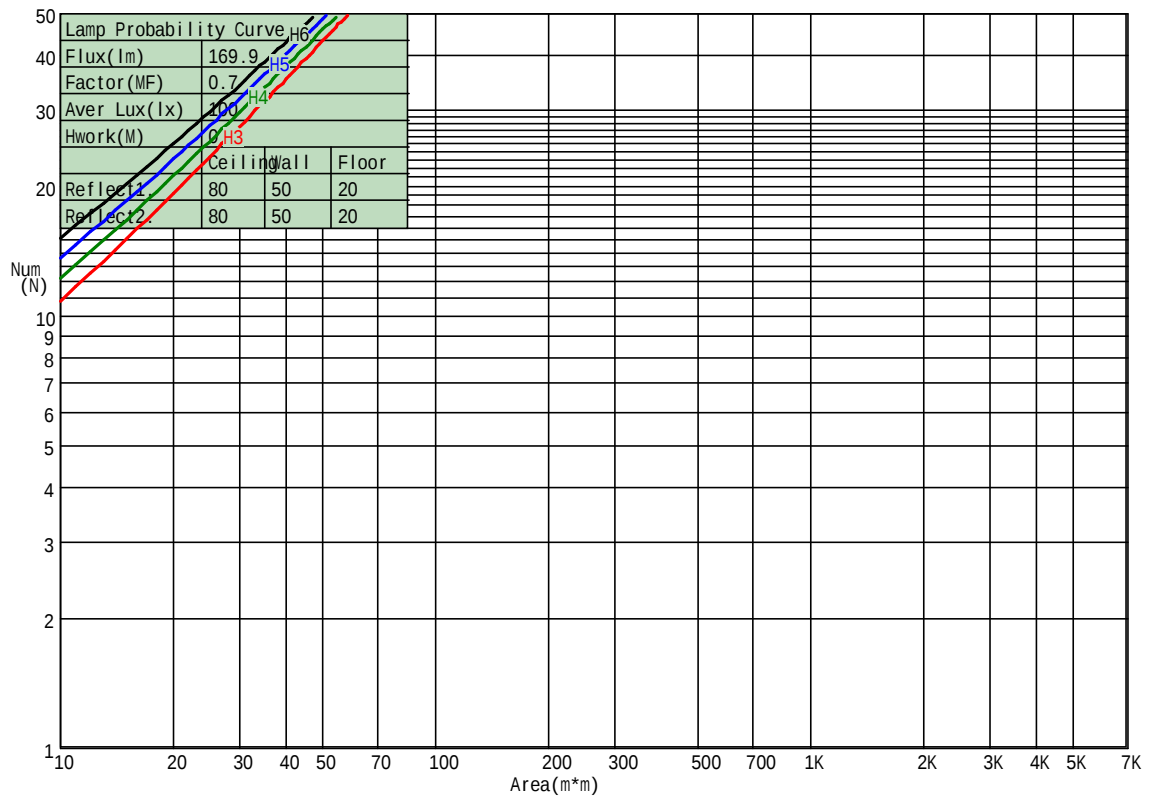
Humidity(%): 60

Date: 2018-8-13

Remark:

Measured Para U: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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	41	23	12	39	22	12	35	21	12
0.80	46	27	15	44	26	14	39	24	13
1.00	50	30	17	47	29	16	42	26	15
1.25	54	33	18	51	32	17	45	28	16
1.50	57	36	20	53	34	19	47	30	17
2.00	61	39	22	56	37	21	49	32	18
2.50	63	41	23	59	39	22	51	34	19
3.00	65	43	24	60	40	23	52	35	20
4.00	67	45	26	62	42	24	53	36	21
5.00	68	46	27	63	43	25	54	37	22

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	1.05	1.08	1.05	1.03	1.04	1.02	1	1	0.98	0.97	0.96	0.95	0.94
2	1.02	0.97	0.94	1	0.96	0.93	0.97	0.93	0.91	0.94	0.91	0.89	0.91	0.89	0.87
3	0.94	0.89	0.85	0.93	0.88	0.84	0.9	0.86	0.83	0.88	0.84	0.81	0.86	0.83	0.8
4	0.88	0.82	0.77	0.87	0.81	0.77	0.84	0.8	0.76	0.82	0.78	0.75	0.81	0.77	0.74
5	0.82	0.76	0.71	0.81	0.75	0.71	0.79	0.74	0.7	0.77	0.73	0.7	0.76	0.72	0.69
6	0.77	0.7	0.66	0.76	0.7	0.66	0.74	0.69	0.65	0.73	0.68	0.65	0.72	0.67	0.64
7	0.72	0.66	0.61	0.71	0.65	0.61	0.7	0.65	0.61	0.69	0.64	0.6	0.68	0.63	0.6
8	0.68	0.61	0.57	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.6	0.57	0.64	0.6	0.56
9	0.64	0.58	0.53	0.63	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.61	0.56	0.53
10	0.6	0.54	0.5	0.6	0.54	0.5	0.59	0.54	0.5	0.58	0.53	0.5	0.57	0.53	0.5

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: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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	0.19	0.11	0.03	0.19	0.11	0.03	0.17	0.1	0.03	0.16	0.09	0.03	0.15	0.09	0.03
2	0.18	0.1	0.03	0.18	0.1	0.03	0.17	0.09	0.03	0.16	0.09	0.03	0.15	0.08	0.03
3	0.17	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	0.15	0.08	0.02	0.14	0.08	0.02
5	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.08	0.02	0.14	0.07	0.02	0.13	0.07	0.02
6	0.15	0.07	0.02	0.15	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	0.07	0.02	0.12	0.06	0.02
8	0.13	0.07	0.02	0.13	0.07	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	0.13	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	0.06	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
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)

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: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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	180	181	172	184	195	198	187	171	0-5	4.42	4.42
10	166	165	156	180	189	192	182	157	5-10	12.8	17.2
15	147	146	135	168	175	179	172	139	10-15	19.6	36.8
20	122	119	110	153	157	164	158	117	15-20	24.3	61.1
25	96.1	93.3	87.6	134	140	148	142	93.8	20-25	26.6	87.7
30	57.9	49.5	39.5	112	119	129	122	57.5	25-30	26	114
35	13	14	12	89.1	97	105	100	12.3	30-35	20	134
40	5.3	5.46	5.28	50.8	70.7	80.5	76.7	4.74	35-40	15.6	149
45	4.05	4.22	4.15	12.2	18.8	30.9	24	3.52	40-45	9	158
50	3.48	3.62	3.52	6.45	7.16	6.81	7.43	2.91	45-50	2.98	161
55	3.09	3.23	3.18	4.82	4.29	4.12	4.26	2.49	50-55	1.84	163
60	2.9	3.05	2.98	4.01	3.35	3.21	3.4	2.33	55-60	1.57	165
65	2.71	2.77	1.86	3.52	2.79	2.66	2.85	2.19	60-65	1.44	166
70	1.98	1.92	0.72	3.26	2.53	2.4	2.58	1.68	65-70	1.2	167
75	0.87	0.69	0.39	3.01	2.44	2.36	2.47	0.76	70-75	0.99	168
80	0.27	0.42	0.34	2.35	2.06	2.1	2.16	0.13	75-80	0.76	169
85	0.25	0.38	0.35	1.11	0.99	1.23	1.15	0.12	80-85	0.54	170
90	0.3	0.38	0.36	0.5	0.17	0.73	0.19	0.11	85-90	0.26	170
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: 216.5V I: 33.0mA P: 3.10W PF: 0.429 Test LM: 169.91lm		
Lamp Name: LP-COB03F01-Y1	Lamp Type:	Weight(kg):
Lamp ID: LP-COB03F01-Y1	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	180	180	181	178	174	174	180	185	190	195	197	198	194	189	183	176	172	176
10.0	166	166	165	162	158	161	172	181	185	189	190	192	189	184	177	166	158	162
15.0	147	147	146	142	138	142	157	168	172	175	177	179	177	174	165	150	140	144
20.0	122	121	119	116	112	120	139	153	155	157	160	163	162	160	149	130	117	120
25.0	96.1	94.9	93.6	91.4	88.8	97.7	119	135	137	140	143	147	146	143	131	110	94	95.1
30.0	57.9	54.2	50.4	46.2	41.7	55.3	88.1	113	116	119	123	128	127	124	108	78.7	57.5	57.7
35.0	13	13.4	13.9	13.3	12.4	28.9	63.8	90	93.5	97	100	104	103	101	81.1	41.2	12.4	12.7
40.0	5.3	5.37	5.45	5.4	5.32	15.2	35.9	53	62	70.7	75	79.4	79.2	77.5	60.9	28.3	4.8	5.05
45.0	4.05	4.13	4.2	4.2	4.17	5.91	9.56	12.9	15.9	18.8	24.1	29.6	28.6	25.5	19.5	10.2	3.58	3.82
50.0	3.48	3.54	3.6	3.59	3.54	4.16	5.49	6.53	6.85	7.16	7.01	6.85	7.01	7.29	6.44	4.39	2.97	3.23
55.0	3.09	3.15	3.21	3.21	3.19	3.54	4.28	4.77	4.53	4.29	4.22	4.14	4.17	4.23	3.88	3.07	2.56	2.83
60.0	2.9	2.97	3.04	3.03	3	3.21	3.67	3.94	3.64	3.35	3.29	3.23	3.28	3.36	3.17	2.69	2.4	2.65
65.0	2.71	2.74	2.77	2.48	2.06	2.23	2.98	3.44	3.11	2.79	2.73	2.68	2.73	2.81	2.71	2.41	2.25	2.48
70.0	1.98	1.95	1.93	1.53	0.99	1.28	2.43	3.18	2.85	2.53	2.48	2.41	2.46	2.54	2.38	1.97	1.71	1.85
75.0	0.87	0.8	0.71	0.6	0.46	0.97	2.15	2.95	2.69	2.44	2.41	2.37	2.4	2.45	2.1	1.32	0.78	0.83
80.0	0.27	0.34	0.4	0.39	0.36	0.78	1.69	2.32	2.19	2.06	2.08	2.1	2.12	2.15	1.72	0.8	0.15	0.21
85.0	0.25	0.31	0.37	0.38	0.36	0.52	0.86	1.1	1.04	0.99	1.1	1.21	1.21	1.17	0.93	0.46	0.14	0.2
90.0	0.3	0.34	0.37	0.37	0.37	0.39	0.46	0.46	0.31	0.17	0.41	0.67	0.55	0.31	0.18	0.14	0.13	0.22
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: