

GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Spotlight KENZO Series K1X70-13W-930-15D



Light Output Ratio:	100.0%	
Luminaire Power:	14.45 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Meng Yongjian
Test Date: 2017-05-31

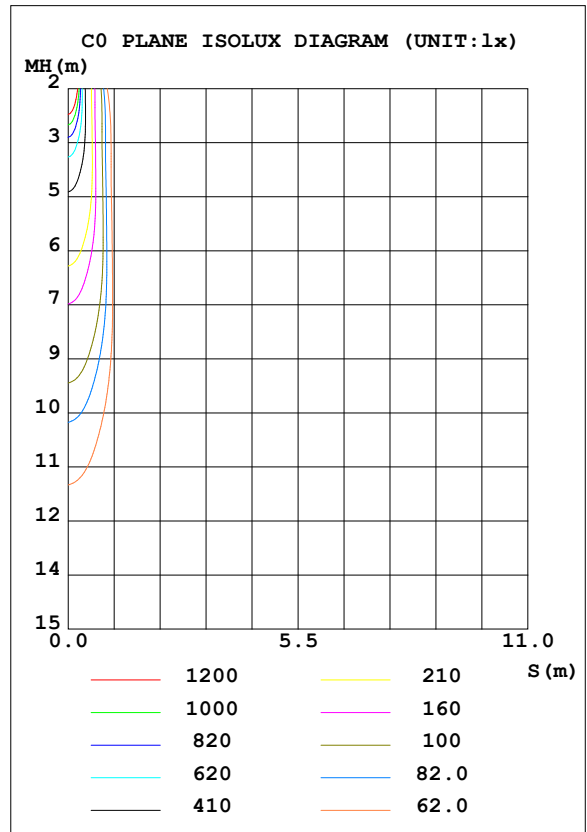
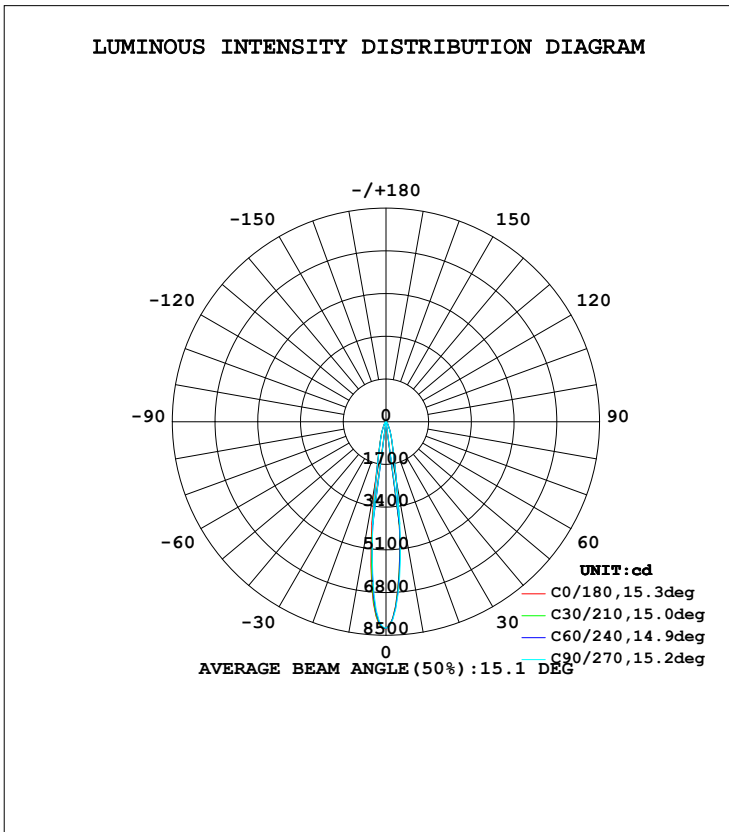
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity: 52%
Test Distance: 5.850m [K=1.0000]
Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.7V I:0.0685A P:14.45W PF:0.9550 Lamp Flux:1094.6x1 lm		
NAME: K1X70-13W-930-15D	TYPE:Spotlight	SERIAL No.:
SPEC.:3000K	DIM.: φ110mm*H138mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 75.76 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	8246	S/MH (C0/180)	0.27
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	0.26
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1094.6	η UP, DN (C0-180)	0.0, 51.1
NOMINAL FLUX (lm)	1094.6	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Meng Yongjian
 Test Date: 2017-05-31

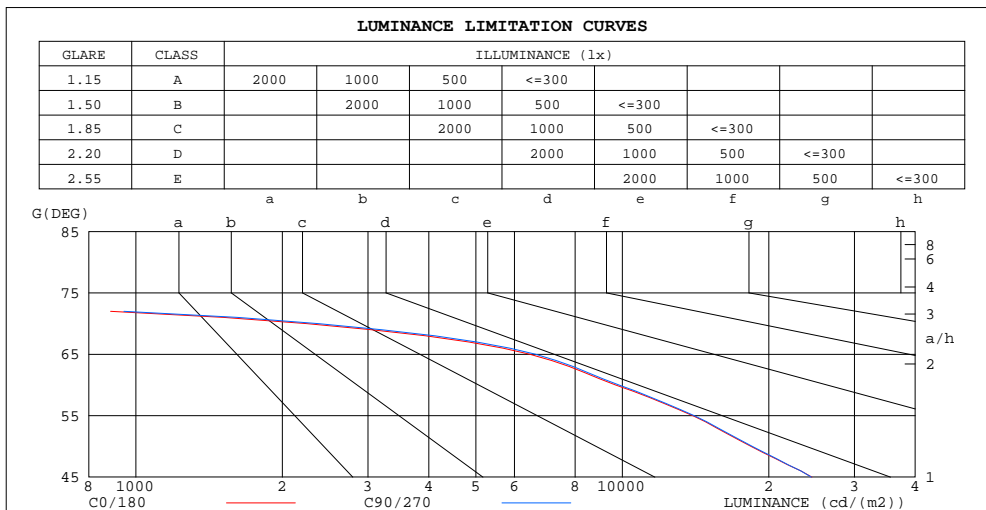
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 Humidity: 52%
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**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\#lum, lamp$
10	2325	2450	2441	2552	2506	2207	2268	2356	0- 10	459.7	459.7	42,42
20	581.1	613.1	601.8	576.6	560.6	533.2	538.0	543.4	10- 20	301.7	761.4	69.6,69.6
30	201.2	208.5	203.6	198.7	193.0	182.6	183.3	187.6	20- 30	154.4	915.8	83.7,83.7
40	95.58	97.60	95.75	94.00	92.68	90.30	90.17	91.40	30- 40	83.45	999.3	91.3,91.3
50	48.09	49.40	48.40	47.78	48.51	48.06	47.74	47.20	40- 50	53.44	1053	96.2,96.2
60	19.70	20.44	20.01	20.52	20.87	20.93	20.53	19.78	50- 60	29.60	1082	98.9,98.9
70	3.129	3.322	3.305	3.512	3.884	3.700	3.629	3.218	60- 70	11.43	1094	99.9,99.9
80	0.1598	0.1332	0.1554	0.1310	0.1309	0.1466	0.1244	0.1466	70- 80	0.7672	1095	100,100
90	0.0481	0.0481	0.0481	0.0481	0.0437	0.0459	0.0415	0.0415	80- 90	0.0844	1095	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	229	229
80	226	220
75	275	267
70	2248	2374
65	6450	6626
60	9680	9832
55	13958	14056
50	18386	18502
45	24524	24466

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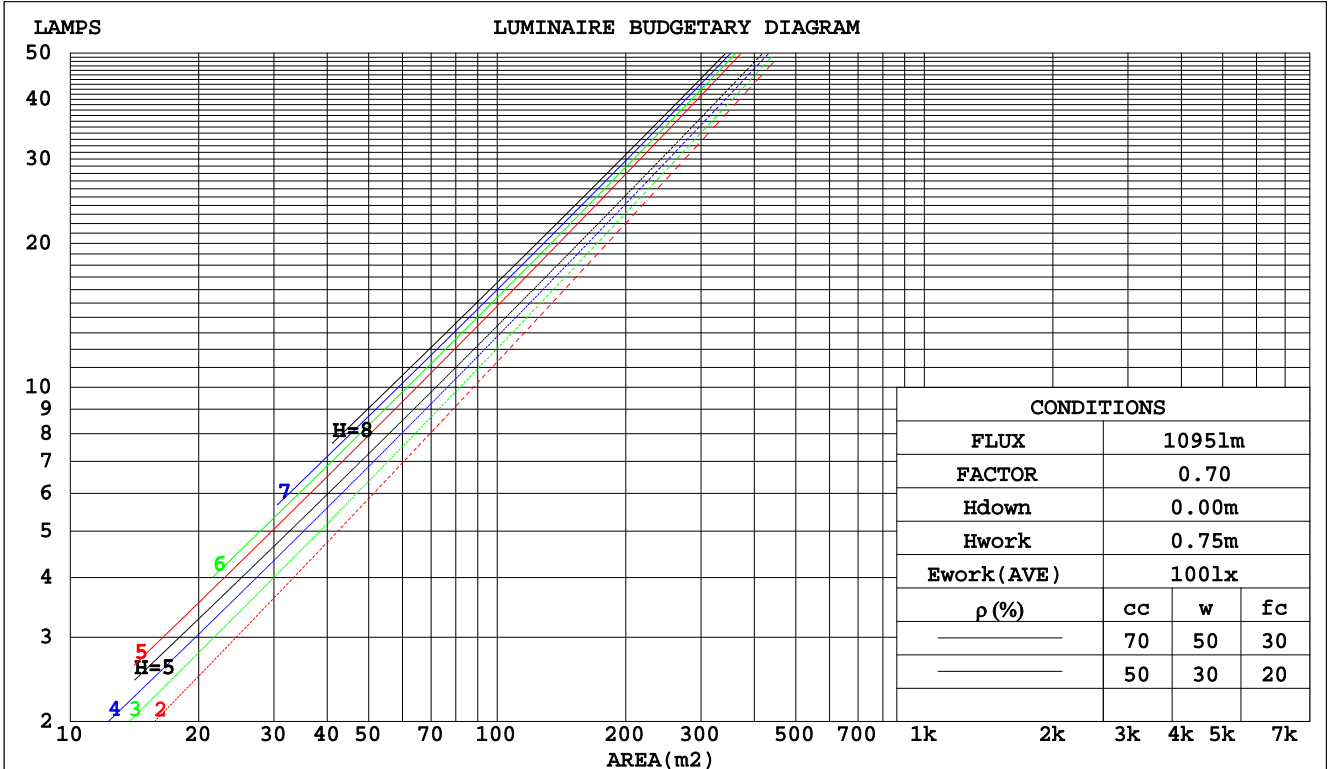
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.7V I:0.0685A P:14.45W PF:0.9550 Lamp Flux:1094.6x1 lm		
NAME: K1X70-13W-930-15D	TYPE:Spotlight	SERIAL No.:
SPEC.:3000K	DIM.: φ110mm*H138mm	
MFR.: NEKO LIGHTING AG		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.03	1.01	1.00	.99	.98	.98	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.02	.99	.97	.99	.97	.95	.96	.94	.93	.92
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.93	.90	.93	.91	.89	.88
4.0	.97	.92	.89	.96	.92	.88	.94	.90	.87	.92	.89	.87	.90	.88	.86	.84
5.0	.93	.88	.85	.92	.88	.84	.90	.87	.84	.89	.86	.83	.87	.85	.82	.81
6.0	.89	.85	.81	.88	.84	.81	.87	.83	.81	.86	.83	.80	.85	.82	.80	.78
7.0	.86	.82	.78	.85	.81	.78	.84	.81	.78	.83	.80	.77	.82	.79	.77	.76
8.0	.83	.79	.76	.83	.79	.76	.82	.78	.75	.81	.78	.75	.80	.77	.75	.74
9.0	.81	.76	.73	.80	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.73	.72
10.0	.79	.74	.71	.78	.74	.71	.77	.74	.71	.77	.73	.71	.76	.73	.71	.70



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WEC AND CCEC

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ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.148	.084	.027	.141	.080	.026	.128	.074	.024	.117	.067	.022	.106	.062	.020	
2.0	.139	.076	.023	.133	.073	.023	.123	.068	.021	.114	.064	.020	.105	.059	.019	
3.0	.130	.069	.021	.126	.067	.020	.117	.063	.019	.109	.060	.018	.101	.056	.017	
4.0	.122	.063	.019	.118	.062	.018	.111	.059	.018	.104	.056	.017	.098	.053	.016	
5.0	.115	.059	.017	.111	.057	.017	.105	.055	.016	.099	.052	.016	.094	.050	.015	
6.0	.108	.054	.016	.105	.053	.015	.100	.051	.015	.095	.049	.014	.090	.047	.014	
7.0	.102	.051	.014	.100	.050	.014	.095	.048	.014	.091	.046	.014	.087	.045	.013	
8.0	.097	.047	.013	.095	.047	.013	.091	.045	.013	.087	.044	.013	.083	.043	.012	
9.0	.092	.045	.012	.090	.044	.012	.087	.043	.012	.083	.042	.012	.080	.041	.012	
10.0	.088	.042	.012	.086	.042	.012	.083	.041	.011	.080	.040	.011	.077	.039	.011	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013	
3.0	.138	.113	.094	.118	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.115	.086	.064	.099	.074	.056	.068	.052	.040	.040	.031	.023	.013	.010	.008	
6.0	.107	.076	.054	.092	.066	.047	.063	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.099	.068	.046	.085	.059	.040	.059	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.092	.061	.040	.080	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.087	.056	.035	.075	.048	.030	.052	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.081	.051	.031	.070	.044	.027	.049	.031	.019	.028	.018	.011	.009	.006	.004	

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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:52%
 Test Distance:5.850m [K=1.0000]
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UGR(Unified Glare Rating) Table

Test:U:220.7V I:0.0685A P:14.45W PF:0.9550 Lamp Flux:1094.6x1 lm		
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SPEC.:3000K	DIM.: φ110mm*H138mm	
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ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	17.2	17.9	17.4	18.0	18.2	17.2	17.9	17.4	18.0	18.2
3H	17.2	17.8	17.4	18.0	18.2	17.2	17.9	17.4	18.1	18.2
4H	17.1	17.7	17.4	17.9	18.2	17.1	17.8	17.4	18.0	18.2
6H	17.0	17.6	17.3	17.8	18.1	17.0	17.6	17.3	17.9	18.1
8H	17.0	17.5	17.3	17.8	18.0	17.0	17.6	17.3	17.8	18.1
12H	16.9	17.5	17.2	17.7	18.0	16.9	17.5	17.2	17.8	18.0
4H 2H	17.2	17.8	17.5	18.1	18.3	17.2	17.9	17.5	18.1	18.3
3H	17.2	17.8	17.5	18.0	18.3	17.2	17.8	17.5	18.0	18.3
4H	17.1	17.6	17.5	17.9	18.2	17.1	17.6	17.5	17.9	18.2
6H	17.0	17.5	17.4	17.8	18.1	17.0	17.5	17.4	17.8	18.2
8H	17.0	17.4	17.3	17.7	18.1	17.0	17.4	17.4	17.7	18.1
12H	16.9	17.3	17.3	17.7	18.1	16.9	17.3	17.3	17.7	18.1
8H 4H	17.0	17.4	17.4	17.7	18.1	17.0	17.4	17.4	17.8	18.1
6H	16.9	17.2	17.3	17.6	18.0	16.9	17.2	17.3	17.6	18.0
8H	16.8	17.1	17.2	17.5	18.0	16.8	17.1	17.3	17.5	18.0
12H	16.7	17.0	17.2	17.4	17.9	16.8	17.0	17.2	17.5	17.9
12H 4H	16.9	17.3	17.3	17.7	18.1	16.9	17.3	17.3	17.7	18.1
6H	16.8	17.1	17.2	17.5	18.0	16.8	17.1	17.3	17.5	18.0
8H	16.7	17.0	17.2	17.4	17.9	16.8	17.0	17.2	17.5	17.9
Variations with the observer position at spacings:										
S = 1.0H	+ 1.4 / - 2.5					+ 1.4 / - 2.4				
1.5H	+ 1.3 / - 1.3					+ 1.3 / - 1.3				
2.0H	+ 2.8 / - 3.0					+ 2.7 / - 3.0				

CIE Pub.117 Corrected 1095 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.3)

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γ Range: 0 - 90DEG
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 Humidity:52%
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UTILIZATION FACTORS TABLE

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REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	86	79	75	85	79	75	85	79	75	72
0.80	94	88	84	93	87	84	92	87	83	79
1.00	98	93	89	98	92	89	96	92	88	84
1.25	103	97	94	101	97	93	99	95	92	88
1.50	105	100	97	104	100	97	102	98	95	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

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ISOCANDELA DIAGRAM

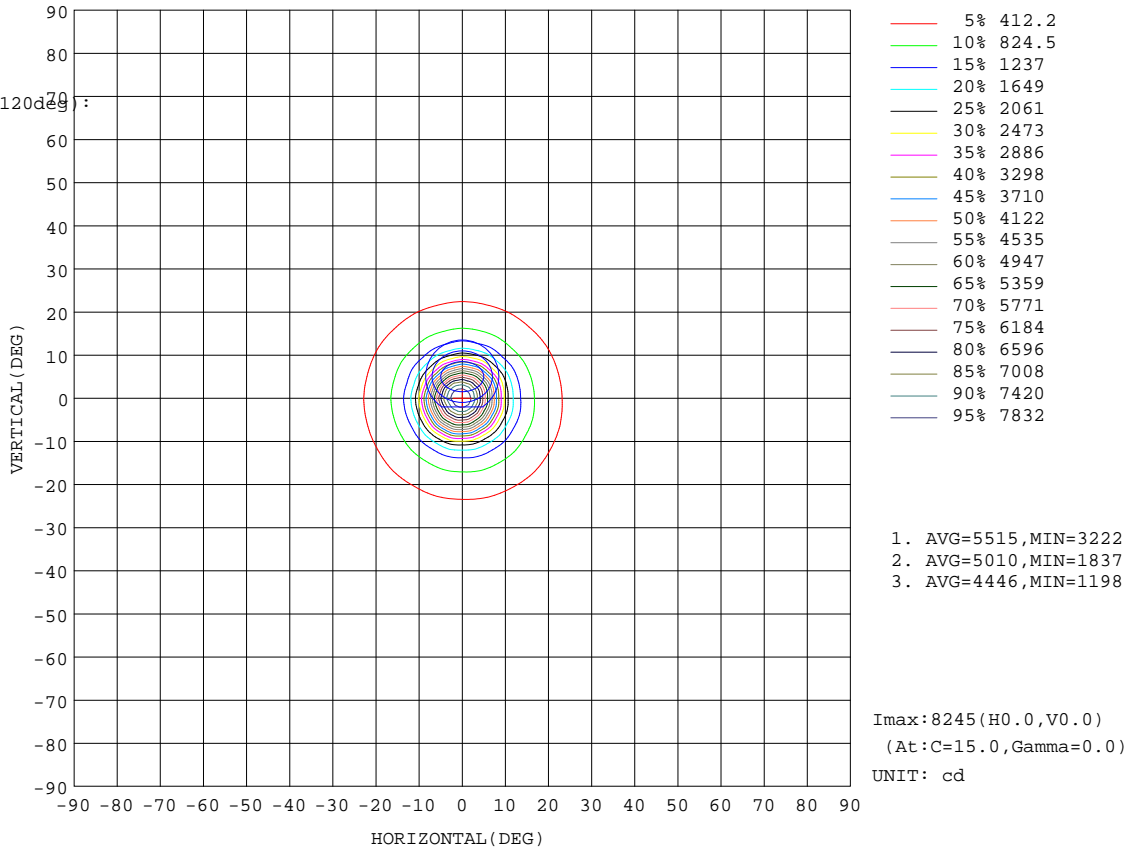
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Conical surface Flux(90deg):

1029.2 lm
%lum = 94.0%
%lamp = 94.0%

Conical surface Flux(120deg):

1082.3 lm
%lum = 98.9%
%lamp = 98.9%



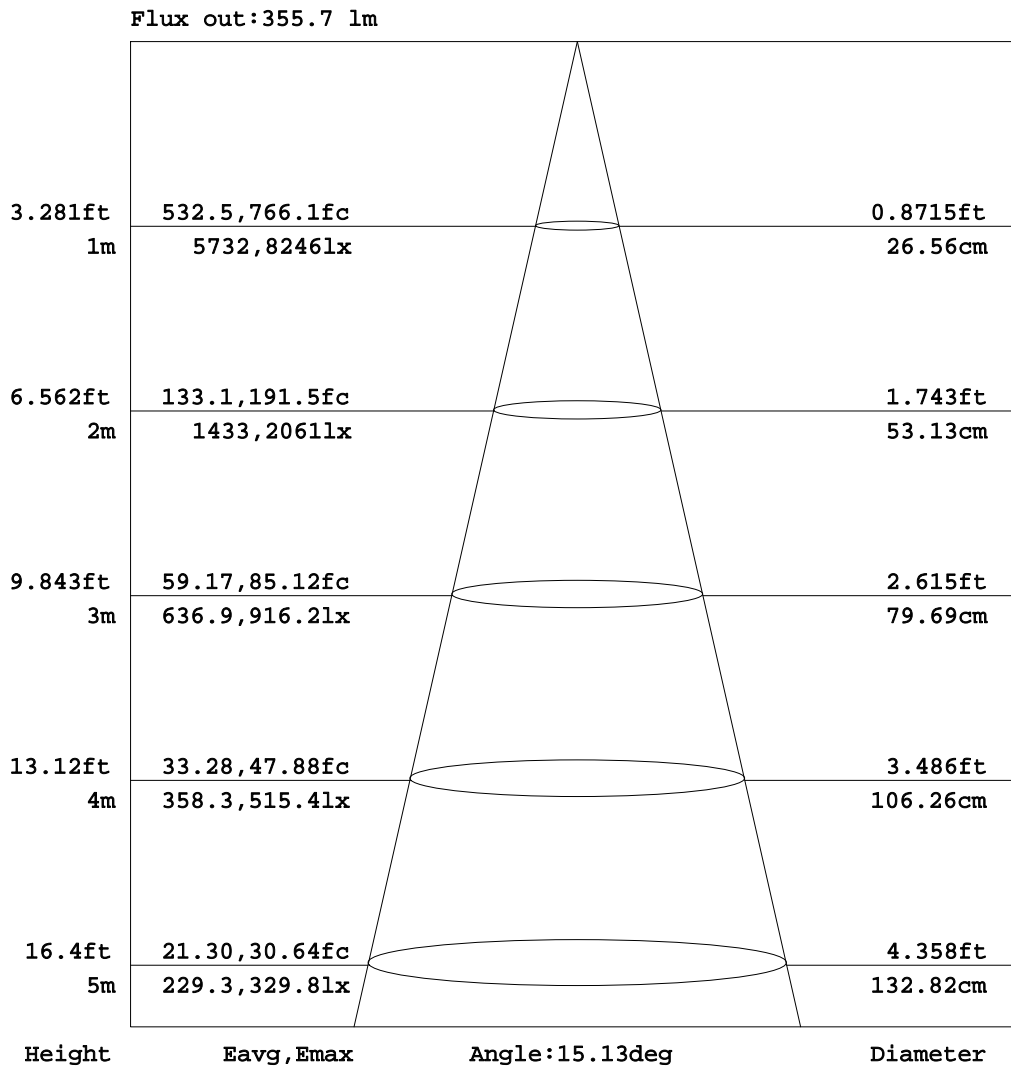
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AAI Figure

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Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

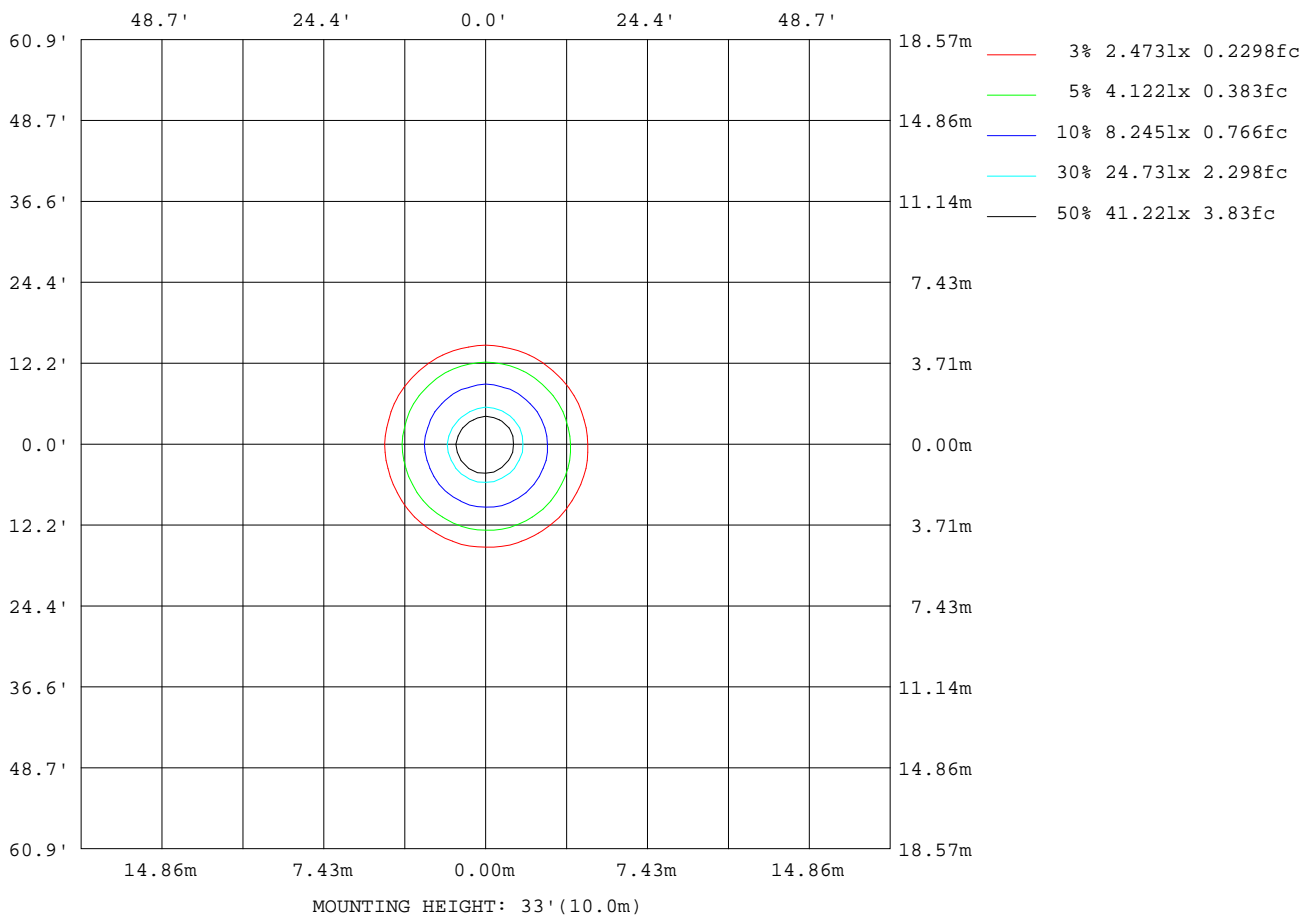
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ISOLUX DIAGRAM

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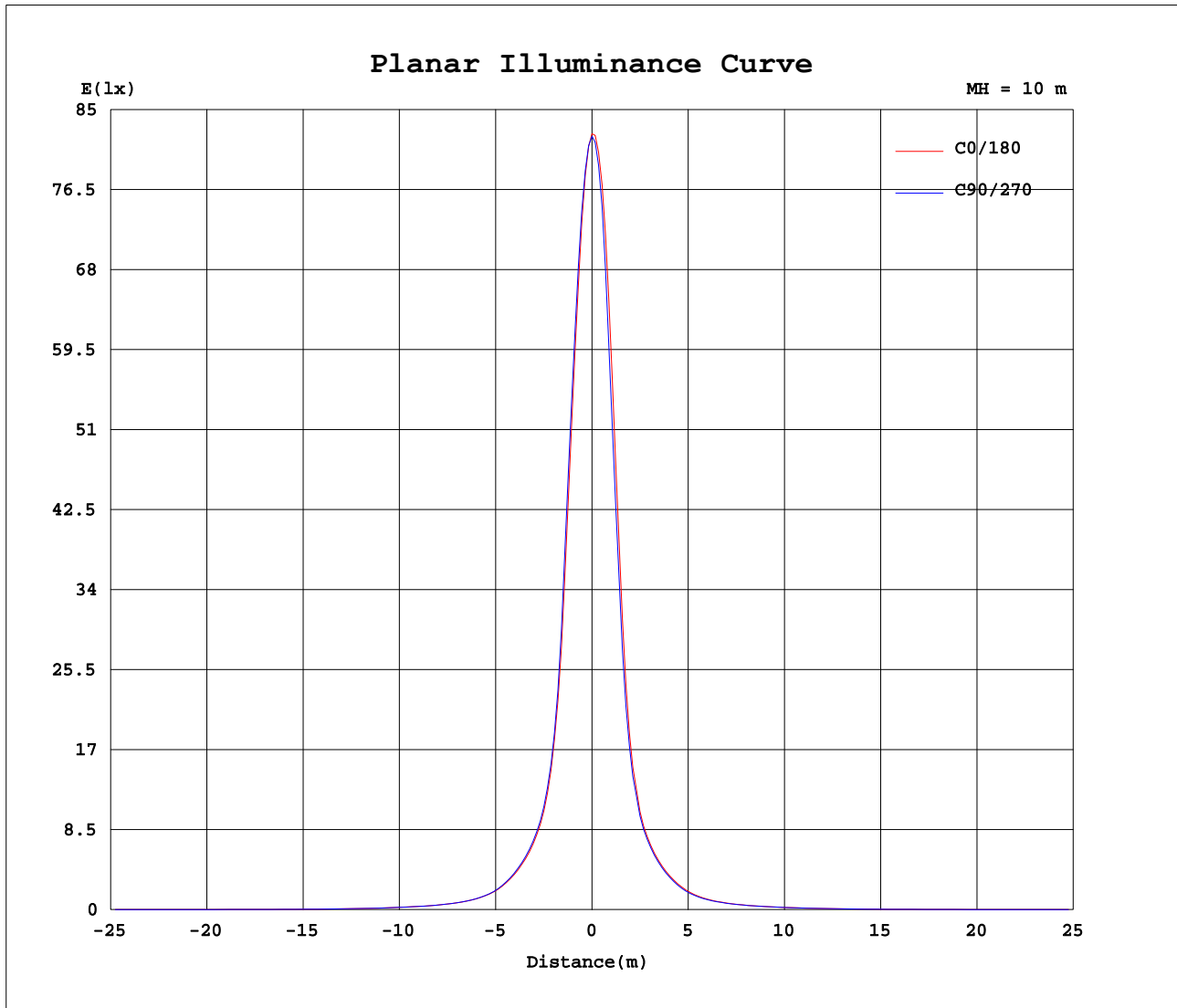


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Planar Illuminance Curve



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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.7V I:0.0685A P:14.45W PF:0.9550 Lamp Flux:1094.6x1 lm		
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MFR.: NEKO LIGHTING AG		

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	8245	8246	8230	8233	8225	8223	8219	8212	8211	8206	8206	8195	8245	8246	8230	8233	8225	8223	8219
5	6005	6085	6005	6134	6100	6256	6223	6346	6296	6404	6329	6409	6559	6415	6429	6194	6173	5988	6066
10	2325	2402	2369	2450	2396	2471	2441	2546	2491	2552	2456	2468	2506	2339	2327	2207	2250	2172	2268
15	1008	1042	1039	1069	1056	1074	1050	1054	1021	1020	985	982	991	963	972	946	955	934	953
20	581	596	595	613	608	614	602	600	583	577	564	556	561	550	548	533	537	529	538
25	335	346	348	355	350	352	344	345	334	333	324	321	323	314	314	305	307	301	305
30	201	206	206	208	206	207	204	204	199	199	194	192	193	188	187	183	183	181	183
35	134	137	136	138	136	137	135	136	133	133	129	129	130	126	125	124	124	123	124
40	95.6	97.2	97.2	97.6	96.7	96.7	95.8	95.6	94.5	94.0	92.7	91.9	92.7	91.4	91.1	90.3	90.2	89.9	90.2
45	70.6	71.7	71.6	71.9	71.3	71.2	70.4	70.4	69.4	69.2	68.3	68.3	69.1	68.4	68.6	68.2	68.1	67.7	67.9
50	48.1	49.1	48.9	49.4	48.9	49.1	48.4	48.7	47.8	47.8	47.1	47.6	48.5	47.9	48.4	48.1	48.1	47.5	47.7
55	32.6	33.2	33.0	33.5	33.1	33.3	32.8	33.3	32.8	33.0	32.6	32.8	33.3	32.9	33.5	33.2	33.2	32.6	32.9
60	19.7	20.2	20.1	20.4	20.1	20.2	20.0	20.5	20.2	20.5	20.2	20.4	20.9	20.7	21.1	20.9	20.9	20.5	20.5
65	11.1	11.4	11.4	11.7	11.5	11.6	11.4	11.8	11.6	11.9	11.6	11.7	12.0	12.0	12.3	12.1	12.1	11.8	11.8
70	3.13	3.21	3.13	3.32	3.18	3.36	3.30	3.44	3.35	3.51	3.39	3.58	3.88	3.73	3.91	3.70	3.73	3.51	3.63
75	0.29	0.28	0.28	0.27	0.28	0.27	0.28	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.30	0.30	0.29	0.28	0.27
80	0.16	0.14	0.16	0.13	0.16	0.13	0.16	0.13	0.15	0.13	0.15	0.13	0.13	0.15	0.13	0.15	0.13	0.14	0.12
85	0.08	0.06	0.08	0.06	0.08	0.07	0.08	0.06	0.08	0.06	0.08	0.06	0.06	0.08	0.06	0.08	0.06	0.07	0.06
90	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.04	0.05	0.04	0.04	0.04

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Meng Yongjian
 Test Date:2017-05-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:52%
 Test Distance:5.850m [K=1.0000]
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.7V I:0.0685A P:14.45W PF:0.9550 Lamp Flux:1094.6x1 lm		
NAME: K1X70-13W-930-15D	TYPE:Spotlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 110mm*H138mm	
MFR.: NEKO LIGHTING AG		

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345										
0	8212	8211	8206	8206	8195										
5	5981	6094	6031	6138	6064										
10	2252	2378	2356	2460	2387										
15	945	964	956	996	1001										
20	533	542	543	560	571										
25	303	309	311	324	329										
30	182	186	188	195	197										
35	124	127	127	131	132										
40	90.3	91.1	91.4	93.3	94.4										
45	67.9	68.3	68.4	69.4	70.0										
50	47.5	47.6	47.2	47.9	47.9										
55	32.6	32.7	32.4	32.9	32.6										
60	20.3	20.2	19.8	20.1	19.8										
65	11.6	11.5	11.1	11.4	11.3										
70	3.34	3.42	3.22	3.35	3.24										
75	0.28	0.27	0.29	0.29	0.30										
80	0.14	0.12	0.15	0.13	0.15										
85	0.07	0.05	0.07	0.06	0.08										
90	0.04	0.04	0.04	0.04	0.04										

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Meng Yongjian
 Test Date:2017-05-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:52%
 Test Distance:5.850m [K=1.0000]
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

Photometric Data Table [cd]

G/C	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0	135.0
0.0	8245	8246	8230	8233	8225	8223	8219	8212	8211	8206
3.0	7326	7407	7363	7448	7409	7490	7456	7527	7499	7576
6.0	5255	5346	5253	5365	5337	5524	5508	5640	5587	5695
9.0	2893	3005	2935	3061	2986	3127	3092	3260	3171	3273
12.0	1586	1646	1631	1683	1653	1689	1657	1701	1650	1667
15.0	1008	1042	1039	1069	1056	1074	1050	1054	1021	1020
18.0	715.6	737.3	738.3	758.8	753.9	762.6	746.6	746.1	722.2	718.3
21.0	519.5	536.3	538.1	552.0	549.9	551.4	543.0	538.0	520.3	517.3
24.0	375.2	388.1	389.9	398.8	394.6	396.4	387.4	387.2	374.9	373.0
27.0	269.5	277.6	277.6	281.7	278.2	279.9	274.3	274.6	267.6	266.8
30.0	201.2	206.2	205.9	208.5	206.3	207.3	203.6	203.7	199.4	198.7
33.0	155.9	159.2	159.0	160.6	159.0	159.6	157.2	157.2	154.3	153.8
36.0	124.8	127.8	127.1	128.8	127.1	127.9	125.5	126.4	123.4	122.8
39.0	101.9	103.7	103.7	104.3	103.4	103.5	102.3	102.2	100.8	100.3
42.0	84.88	86.17	86.17	86.41	85.69	85.52	84.67	84.55	83.57	83.09
45.0	70.57	71.71	71.59	71.93	71.31	71.22	70.40	70.37	69.45	69.18
48.0	56.19	57.38	57.11	57.72	57.01	57.35	56.43	56.70	55.71	55.77
51.0	44.55	45.46	45.27	45.75	45.28	45.48	44.84	45.17	44.36	44.33
54.0	35.44	36.08	35.94	36.40	36.02	36.16	35.66	36.10	35.52	35.71
57.0	26.98	27.58	27.42	27.78	27.40	27.55	27.23	27.71	27.39	27.63
60.0	19.70	20.22	20.07	20.44	20.10	20.22	20.01	20.52	20.24	20.52
63.0	14.38	14.76	14.71	14.99	14.78	14.83	14.64	15.09	14.90	15.12
66.0	9.408	9.731	9.642	9.956	9.778	9.908	9.710	10.15	9.931	10.19
69.0	4.446	4.543	4.447	4.700	4.500	4.739	4.666	4.907	4.766	4.992
72.0	1.115	1.116	1.029	1.151	1.075	1.231	1.188	1.286	1.171	1.281
75.0	0.2898	0.2751	0.2809	0.2664	0.2787	0.2707	0.2809	0.2663	0.2811	0.2772
78.0	0.1949	0.1748	0.1927	0.1726	0.1905	0.1660	0.1883	0.1660	0.1861	0.1660
81.0	0.1401	0.1179	0.1401	0.1179	0.1379	0.1114	0.1379	0.1092	0.1335	0.1114
84.0	0.0942	0.0720	0.0963	0.0742	0.0963	0.0699	0.0942	0.0699	0.0920	0.0699
87.0	0.0678	0.0481	0.0657	0.0459	0.0613	0.0459	0.0678	0.0459	0.0635	0.0481
90.0	0.0481	0.0481	0.0481	0.0481	0.0481	0.0459	0.0481	0.0459	0.0481	0.0481
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	8206	8195	8245	8230	8233	8225	8223	8219	8212	8206
3.0	7547	7609	7736	7669	7688	7599	7599	7493	7503	7397
6.0	5592	5646	5767	5550	5518	5249	5257	5139	5256	5205
9.0	3130	3168	3209	2985	2957	2793	2848	2751	2869	2837
12.0	1598	1599	1622	1537	1539	1488	1509	1473	1518	1505
15.0	984.8	981.9	991.1	963.3	971.7	946.1	954.6	933.8	952.6	944.5
18.0	696.9	692.8	698.4	680.7	683.2	665.7	671.0	660.0	672.7	666.8
21.0	503.3	499.5	502.8	490.2	490.6	477.8	480.8	473.4	480.9	477.0
24.0	362.5	359.9	362.1	351.9	351.9	342.3	344.4	338.6	343.1	340.0
27.0	259.8	258.2	259.2	251.4	250.5	244.0	244.9	241.2	244.5	243.0
30.0	193.8	192.4	193.0	187.5	186.7	182.6	183.1	180.8	183.3	182.4
33.0	150.4	149.3	150.0	146.2	145.6	142.8	143.3	141.7	143.5	143.2
36.0	120.6	119.5	120.1	117.8	117.2	115.6	115.8	115.1	115.9	116.1
39.0	98.78	97.91	98.64	97.16	96.83	95.80	95.86	95.38	95.81	95.92
42.0	82.02	81.62	82.40	81.39	81.39	80.74	80.64	80.34	80.53	80.65
45.0	68.26	68.30	69.08	68.36	68.63	68.22	68.07	67.74	67.89	67.93
48.0	54.94	55.40	56.32	55.57	56.16	55.71	55.73	55.16	55.37	55.02
51.0	43.73	44.16	44.91	44.39	44.95	44.60	44.62	44.10	44.30	44.05
54.0	35.28	35.40	35.92	35.61	36.13	35.83	35.83	35.31	35.51	35.34
57.0	27.32	27.47	27.91	27.57	28.06	27.85	27.87	27.38	27.50	27.30
60.0	20.24	20.41	20.87	20.68	21.13	20.93	20.93	20.46	20.53	20.33
63.0	14.84	14.96	15.30	15.23	15.57	15.45	15.40	15.08	15.08	14.94
66.0	9.926	10.06	10.38	10.31	10.59	10.38	10.43	10.10	10.14	9.945
69.0	4.826	5.053	5.377	5.228	5.427	5.202	5.258	4.976	5.087	4.782
72.0	1.211	1.366	1.556	1.471	1.540	1.407	1.453	1.322	1.399	1.238
75.0	0.2855	0.2859	0.2965	0.3050	0.3031	0.3027	0.2922	0.2830	0.2748	0.2808
78.0	0.1861	0.1660	0.1659	0.1882	0.1681	0.1838	0.1703	0.1795	0.1637	0.1795
81.0	0.1379	0.1114	0.1092	0.1335	0.1135	0.1313	0.1113	0.1269	0.1048	0.1226
84.0	0.0942	0.0721	0.0720	0.0920	0.0720	0.0876	0.0655	0.0854	0.0633	0.0810
87.0	0.0679	0.0481	0.0459	0.0657	0.0437	0.0635	0.0415	0.0591	0.0415	0.0569
90.0	0.0481	0.0481	0.0437	0.0459	0.0437	0.0459	0.0415	0.0437	0.0415	0.0415
G/C	300.0	315.0	330.0	345.0						
0.0	8211	8206	8206	8195						
3.0	7426	7347	7404	7342						
6.0	5343	5291	5409	5337						
9.0	2987	2953	3072	2987						
12.0	1571	1564	1630	1605						
15.0	963.8	955.6	996.5	1001						
18.0	677.2	672.8	697.3	705.3						
21.0	484.7	484.2	503.0	509.5						

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.3DEG

Operators: Meng Yongjian

Test Date: 2017-05-31

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288

Humidity: 52%

Test Distance: 5.850m [K=1.0000]

Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

Photometric Data Table [cd]

24.0	347.0	348.2	362.8	367.8
27.0	248.4	250.1	260.8	264.7
30.0	186.5	187.6	194.8	197.4
33.0	146.0	146.5	151.3	153.3
36.0	117.5	118.1	121.1	122.9
39.0	96.84	97.19	99.30	100.5
42.0	81.17	81.48	82.90	83.77
45.0	68.27	68.36	69.43	69.98
48.0	55.33	55.02	55.92	55.96
51.0	44.19	43.72	44.35	44.29
54.0	35.43	35.05	35.56	35.37
57.0	27.35	27.03	27.40	27.12
60.0	20.21	19.78	20.13	19.83
63.0	14.75	14.41	14.68	14.51
66.0	9.806	9.449	9.760	9.611
69.0	4.812	4.558	4.746	4.589
72.0	1.245	1.118	1.243	1.196
75.0	0.2705	0.2896	0.2944	0.2983
78.0	0.1638	0.1860	0.1660	0.1861
81.0	0.1048	0.1313	0.1091	0.1335
84.0	0.0654	0.0854	0.0655	0.0898
87.0	0.0415	0.0569	0.0415	0.0591
90.0	0.0415	0.0415	0.0415	0.0415

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Meng Yongjian
Test Date: 2017-05-31

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity: 52%
Test Distance: 5.850m [K=1.0000]
Remarks: