

## GONIOPHOTOMETERS SYSTEM TEST REPORT

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### LED Downlight TAKEO Series LE- T100-9W-830-50

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Light Output Ratio:	100.0%	
Luminaire Power:	8.84 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.80	fine grid method.

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C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Meng Yongjian  
Test Date: 2018-01-19

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 52%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

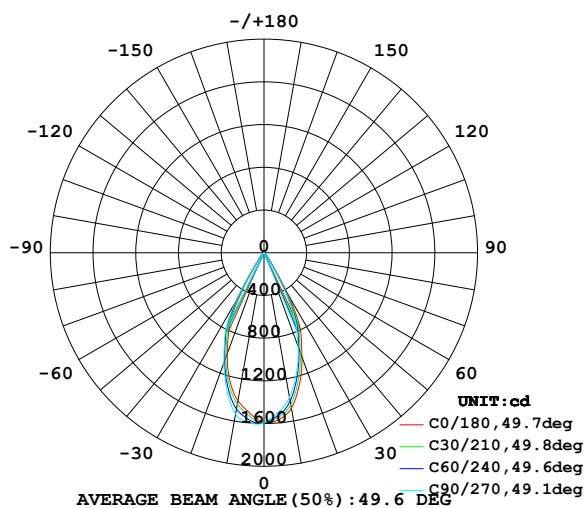
GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

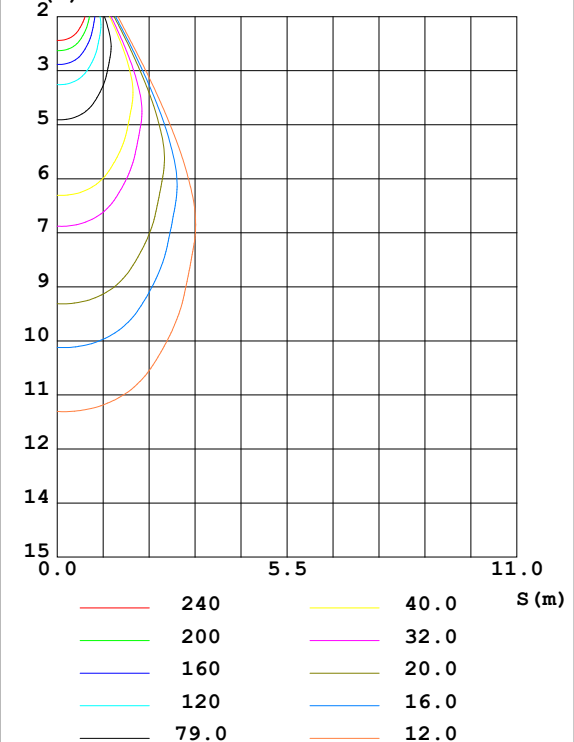
Test:U:34.00V I:0.2600A P:8.840W PF:1.000 Lamp Flux:987.832x1 lm		
NAME: T100-9W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 110mm*H79mm	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 111.75 lm/W			
MODEL	CITIZEN-3000K	I <sub>max</sub> (cd)	1616	S/MH (C0/180)	0.76
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	0.79
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	987.83	$\eta$ UP, DN (C0-180)	0.0, 46.9
NOMINAL FLUX (lm)	987.832	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 53.1
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	34	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.80

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Meng Yongjian  
 Test Date: 2018-01-19

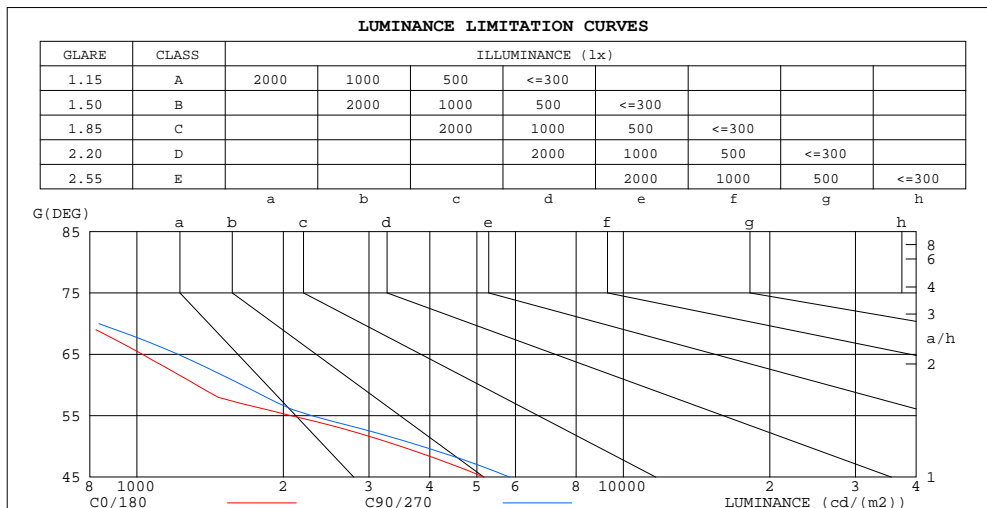
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 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
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# GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES

### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\%lum, lamp$
10	1477	1434	1376	1373	1407	1455	1534	1536	0- 10	144.8	144.8	14.7,14.7
20	1038	975.6	934.1	952.1	1011	1059	1100	1094	10- 20	347.9	492.7	49.9,49.9
30	435.4	357.9	314.5	343.0	421.0	484.9	539.6	517.1	20- 30	344.9	837.6	84.8,84.8
40	52.19	56.87	58.84	58.81	62.63	67.60	63.16	54.32	30- 40	100.3	937.9	94.9,94.9
50	21.29	23.70	23.58	23.25	25.46	28.57	26.52	22.66	40- 50	30.74	968.6	98.1,98.1
60	6.294	7.793	7.815	6.871	7.401	8.920	8.268	6.393	50- 60	12.52	981.1	99.3,99.3
70	2.520	2.901	2.715	2.593	3.051	3.449	3.090	2.458	60- 70	4.866	986.0	99.8,99.8
80	0.5852	0.5346	0.3972	0.4844	0.7878	0.7622	0.5516	0.4907	70- 80	1.623	987.6	100,100
90	0.0459	0.0459	0.0503	0.0481	0.0241	0.0306	0.0284	0.0262	80- 90	0.1974	987.8	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(°)	C0/180	C90/270
85	225	66
80	355	241
75	558	522
70	776	836
65	1026	1214
60	1325	1646
55	2074	2288
50	3487	3862
45	5166	5836

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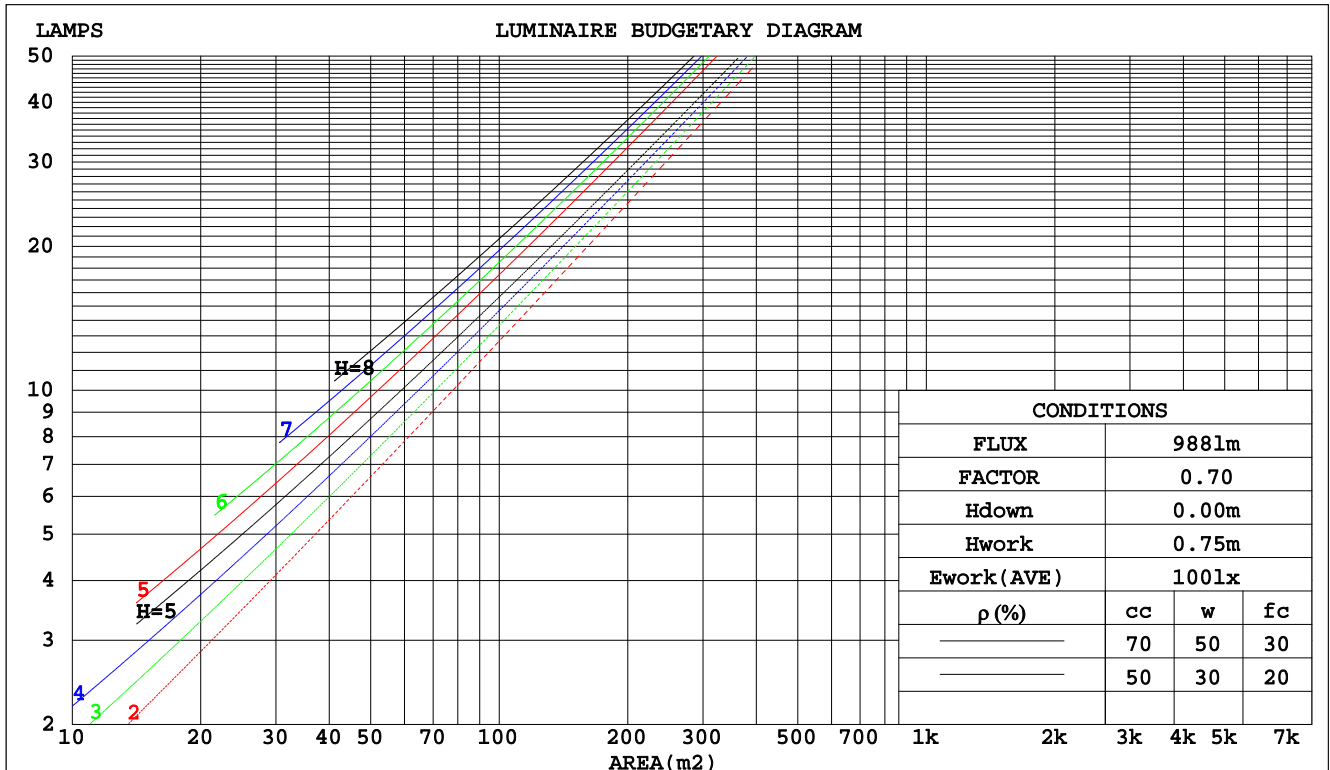
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 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:52%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:34.00V I:0.2600A P:8.840W PF:1.000 Lamp Flux:987.832x1 lm		
NAME: T100-9W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 110mm*H79mm	

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.96	.90	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.89	.94	.91	.88	.92	.89	.87	.90	.87	.85	.84
4.0	.93	.88	.84	.91	.87	.83	.89	.85	.82	.87	.84	.81	.86	.83	.80	.79
5.0	.88	.82	.78	.87	.82	.78	.85	.81	.77	.83	.80	.77	.82	.79	.76	.75
6.0	.83	.78	.74	.82	.77	.73	.81	.76	.73	.79	.75	.72	.78	.75	.72	.71
7.0	.79	.73	.69	.78	.73	.69	.77	.72	.69	.76	.72	.69	.75	.71	.68	.67
8.0	.75	.69	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.71	.68	.65	.64
9.0	.71	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.64	.62	.60
10.0	.68	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.65	.62	.59	.58



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## WEC AND CCEC

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NAME: T100-9W-830-50					TYPE:Downlight			SERIAL No.:	
SPEC.:3000K					DIM.: φ110mm*H79mm				

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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.166	.094	.030	.159	.091	.029	.147	.084	.027	.135	.078	.025	.125	.072	.023		
2.0	.158	.086	.026	.152	.084	.026	.141	.079	.024	.132	.074	.023	.123	.070	.022		
3.0	.149	.079	.024	.145	.077	.023	.136	.074	.022	.127	.070	.021	.120	.066	.021		
4.0	.142	.074	.022	.138	.072	.021	.130	.069	.021	.123	.066	.020	.116	.063	.019		
5.0	.135	.069	.020	.131	.067	.020	.125	.065	.019	.118	.063	.019	.113	.060	.018		
6.0	.128	.064	.018	.125	.063	.018	.120	.061	.018	.114	.059	.017	.109	.057	.017		
7.0	.123	.061	.017	.120	.060	.017	.115	.058	.017	.110	.056	.016	.106	.055	.016		
8.0	.117	.057	.016	.115	.057	.016	.111	.055	.016	.106	.054	.016	.102	.053	.015		
9.0	.113	.054	.015	.111	.054	.015	.106	.053	.015	.103	.051	.015	.099	.050	.015		
10.0	.108	.052	.014	.106	.051	.014	.103	.050	.014	.099	.049	.014	.096	.048	.014		

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	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.130	.099	.074	.112	.085	.065	.077	.059	.045	.044	.035	.027	.014	.011	.009	
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.113	.077	.051	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.044	.092	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.033	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.096	.058	.032	.082	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.091	.053	.028	.079	.046	.025	.054	.033	.018	.032	.019	.011	.010	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
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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]  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## UGR(Unified Glare Rating) Table

Test:U:34.00V I:0.2600A P:8.840W PF:1.000 Lamp Flux:987.832x1 lm		
NAME: T100-9W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 110mm*H79mm	

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	11.5	12.4	11.7	12.5	12.7	11.0	11.9	11.2	12.0	12.2
3H	11.5	12.2	11.7	12.4	12.6	11.0	11.8	11.2	12.0	12.2
4H	11.4	12.1	11.7	12.4	12.6	10.9	11.7	11.2	11.9	12.1
6H	11.3	12.0	11.6	12.3	12.5	10.9	11.6	11.2	11.8	12.1
8H	11.3	12.0	11.6	12.2	12.5	10.8	11.5	11.1	11.8	12.0
12H	11.2	11.9	11.6	12.2	12.4	10.8	11.4	11.1	11.7	12.0
4H 2H	11.4	12.1	11.7	12.4	12.6	10.9	11.6	11.2	11.9	12.1
3H	11.3	12.0	11.7	12.3	12.5	10.9	11.6	11.2	11.8	12.1
4H	11.3	11.9	11.6	12.2	12.5	10.9	11.5	11.2	11.8	12.1
6H	11.2	11.7	11.6	12.1	12.4	10.8	11.3	11.2	11.6	12.0
8H	11.2	11.7	11.6	12.0	12.4	10.7	11.2	11.1	11.6	11.9
12H	11.1	11.6	11.5	11.9	12.3	10.7	11.1	11.1	11.5	11.9
8H 4H	11.2	11.7	11.6	12.0	12.4	10.8	11.2	11.1	11.6	12.0
6H	11.1	11.5	11.5	11.9	12.3	10.7	11.1	11.1	11.5	11.9
8H	11.0	11.4	11.5	11.8	12.3	10.6	11.0	11.1	11.4	11.8
12H	11.0	11.3	11.5	11.7	12.2	10.6	10.9	11.0	11.3	11.8
12H 4H	11.1	11.6	11.5	11.9	12.3	10.7	11.1	11.1	11.5	11.9
6H	11.0	11.4	11.5	11.8	12.2	10.6	11.0	11.1	11.4	11.8
8H	11.0	11.3	11.5	11.7	12.2	10.6	10.9	11.0	11.3	11.8
Variations with the observer position at spacings:										
S = 1.0H	+ 2.1 / - 3.9					+ 1.8 / - 3.7				
1.5H	+ 2.9 / - 3.0					+ 2.5 / - 3.0				
2.0H	+ 3.7 / - 3.5					+ 3.8 / - 3.2				

CIE Pub.117 Corrected 987.8 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.0)

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Humidity:52%  
Test Distance:5.850m [K=1.0000]  
Remarks:

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## UTILIZATION FACTORS TABLE

Test:U:34.00V I:0.2600A P:8.840W PF:1.000 Lamp Flux:987.832x1 lm		
NAME: T100-9W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi 110\text{mm} \times H79\text{mm}$	

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) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	79	88	82	78	87	82	78	75
0.80	96	90	86	95	90	86	94	89	86	82
1.00	100	95	91	99	94	91	98	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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Conical surface Flux(90deg):

955.87 lm

%lum = 96.8%

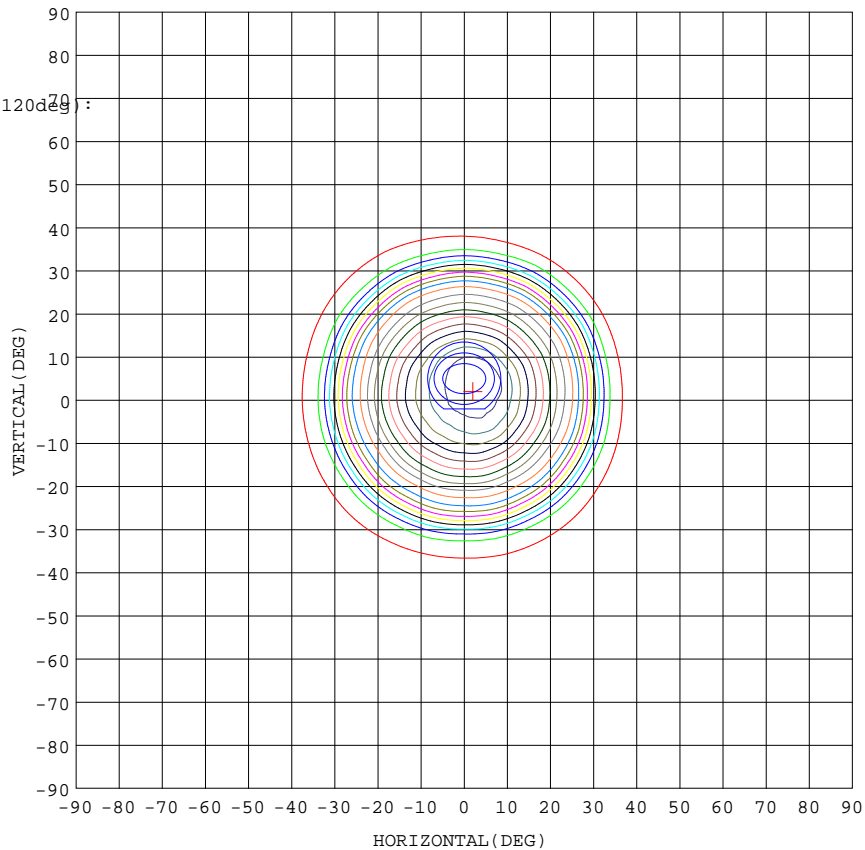
%lamp = 96.8%

Conical surface Flux(120deg):

981.15 lm

%lum = 99.3%

%lamp = 99.3%



5% 80.77  
10% 161.5  
15% 242.3  
20% 323.1  
25% 403.9  
30% 484.6  
35% 565.4  
40% 646.2  
45% 727.0  
50% 807.7  
55% 888.5  
60% 969.3  
65% 1050  
70% 1131  
75% 1212  
80% 1292  
85% 1373  
90% 1454  
95% 1535

1. AVG=1584,MIN=1517  
2. AVG=1565,MIN=1470  
3. AVG=1539,MIN=1397

Imax:1615(H2.0,V2.0)  
(At:C=315.0,Gamma=3.0)  
UNIT: cd

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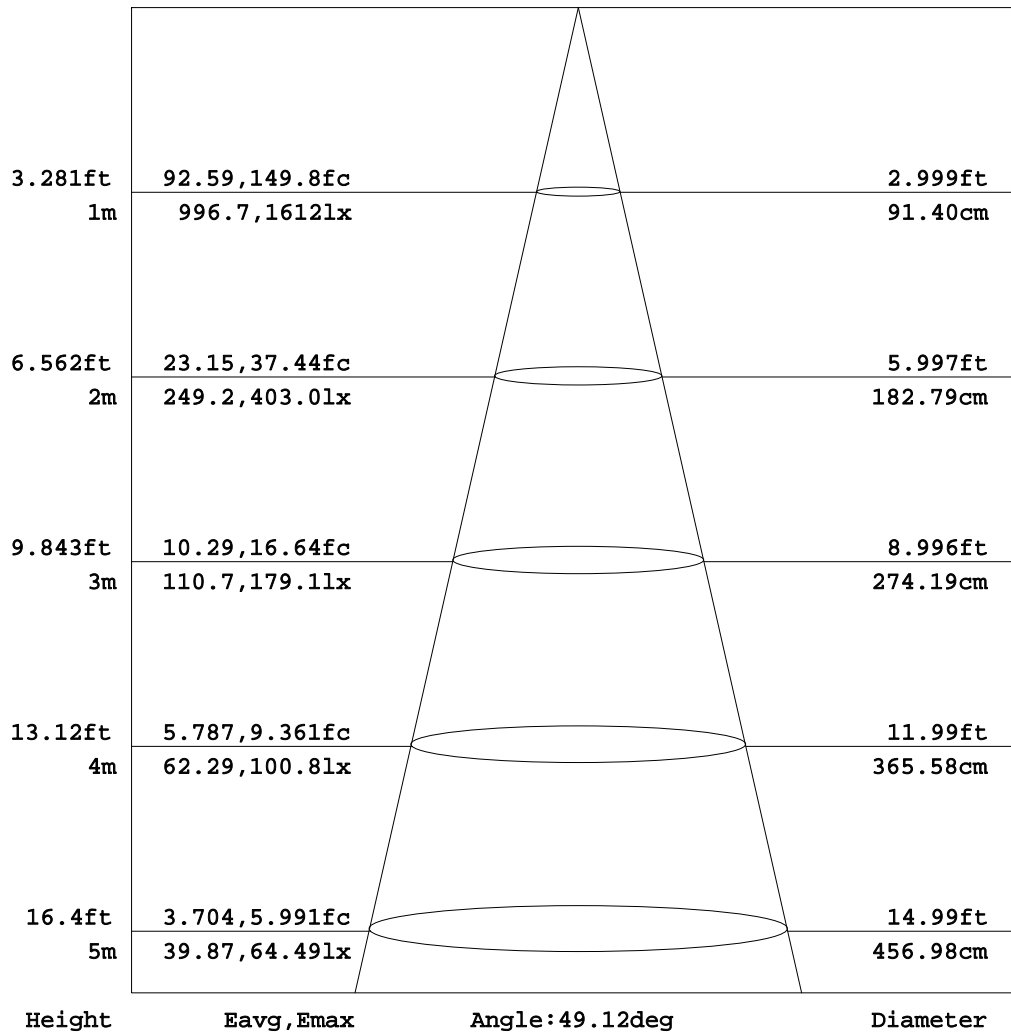


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## AAI Figure

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Flux out:680.8 lm



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

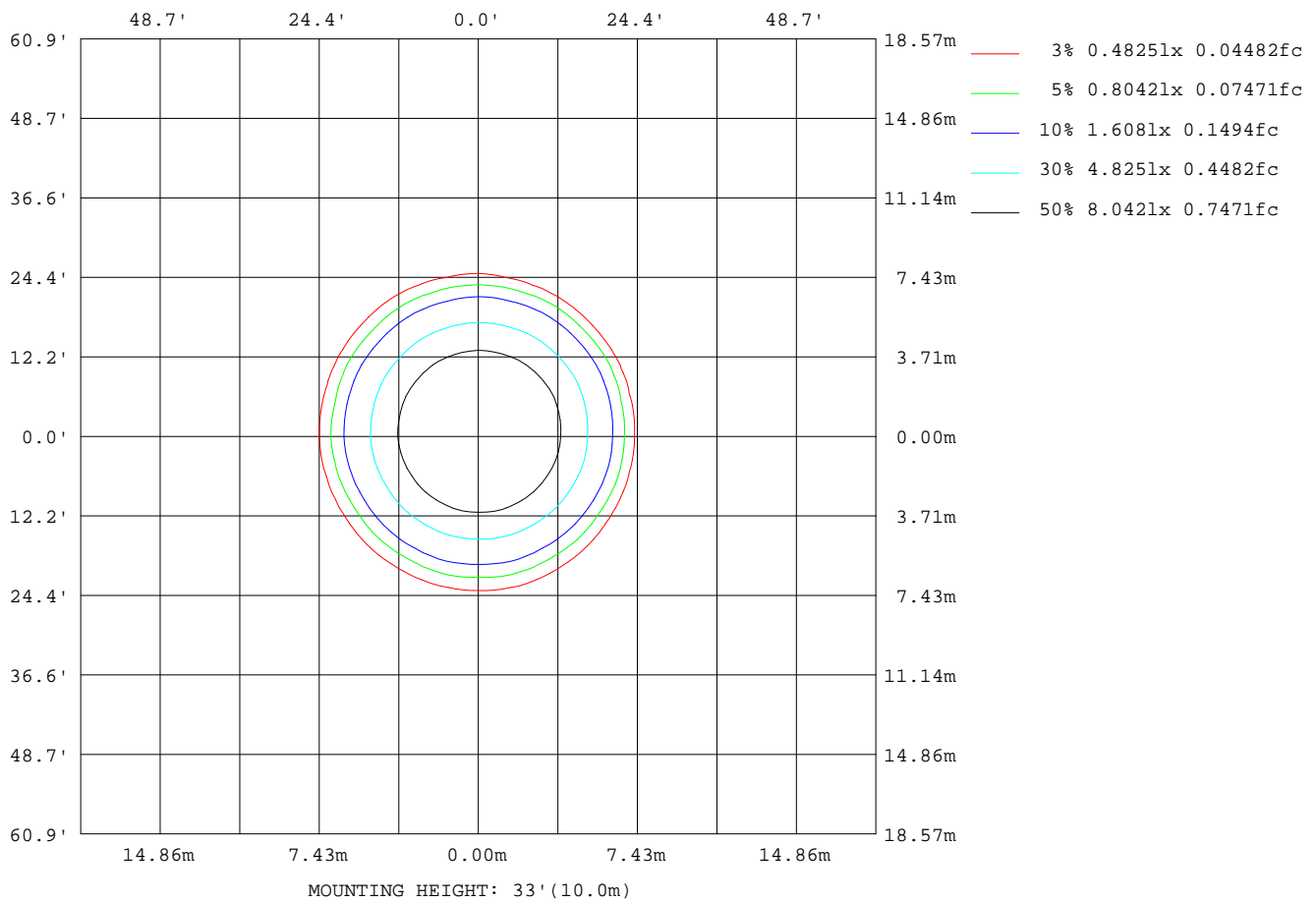
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# GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOLUX DIAGRAM

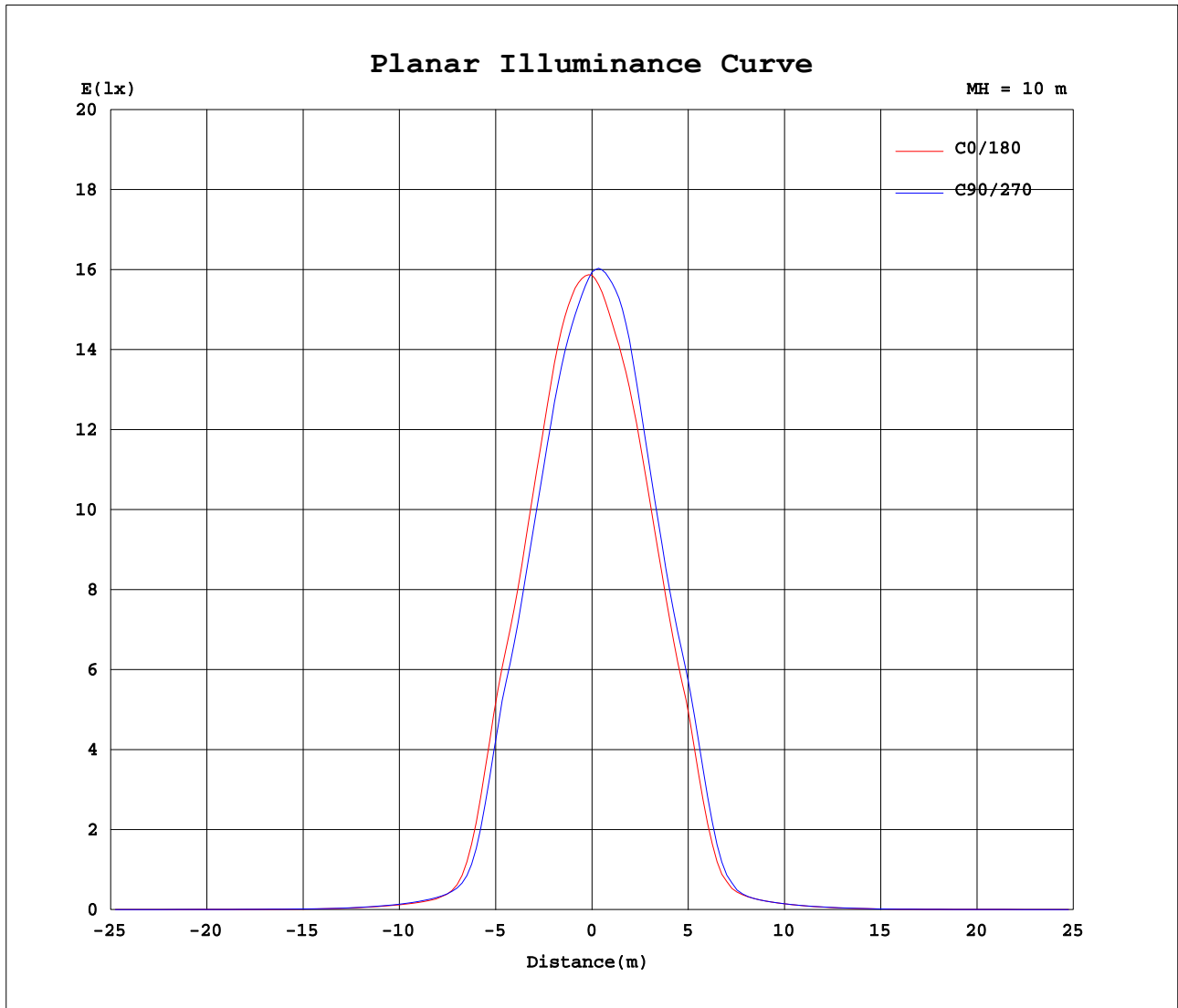
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$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:52%  
Test Distance:5.850m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Meng Yongjian  
Test Date: 2018-01-19

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 52%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA																			
Test:U:34.00V I:0.2600A P:8.840W PF:1.000 Lamp Flux:987.832x1 lm																			
NAME: T100-9W-830-50									TYPE:Downlight						SERIAL No.:				
SPEC.:3000K									DIM.: φ110mm*H79mm										
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	1586	1586	1587	1594	1594	1595	1594	1596	1595	1600	1599	1601	1586	1586	1587	1594	1594	1595	1594
5	1572	1562	1548	1546	1530	1518	1504	1498	1490	1496	1496	1506	1511	1520	1537	1554	1572	1585	1597
10	1477	1466	1445	1434	1411	1397	1376	1371	1362	1373	1376	1392	1407	1417	1437	1455	1487	1509	1534
15	1279	1267	1240	1224	1200	1191	1173	1174	1171	1186	1193	1216	1238	1247	1270	1282	1307	1318	1338
20	1038	1022	993	976	953	948	934	938	937	952	961	985	1011	1022	1048	1059	1081	1085	1100
25	813	794	765	746	722	716	702	705	703	715	722	744	767	783	811	828	852	859	871
30	435	414	377	358	332	330	315	324	324	343	353	387	421	437	470	485	517	520	540
35	114	110	104	102	101	102	98.7	99.5	99.6	103	105	112	128	126	145	142	153	151	157
40	52.2	53.6	54.6	56.9	58.7	60.0	58.8	58.7	58.1	58.8	59.1	60.9	62.6	63.3	65.5	67.6	68.1	66.7	63.2
45	34.7	35.8	36.7	38.4	39.7	40.5	39.2	38.9	38.4	38.9	38.9	40.3	41.4	42.0	43.7	44.9	45.9	44.2	41.9
50	21.3	21.9	22.6	23.7	24.5	24.8	23.6	23.2	22.7	23.2	23.5	24.5	25.5	26.0	27.4	28.6	29.4	28.1	26.5
55	11.3	11.8	12.2	12.9	13.4	13.3	12.5	11.9	11.7	12.3	12.4	13.1	13.8	14.2	15.4	16.2	16.7	15.5	14.3
60	6.29	6.62	7.05	7.79	8.38	8.45	7.82	7.35	6.95	6.87	6.87	7.12	7.40	7.69	8.26	8.92	9.51	9.12	8.27
65	4.12	4.32	4.55	4.98	5.30	5.28	4.87	4.58	4.38	4.40	4.44	4.68	4.88	5.04	5.35	5.80	6.12	5.85	5.28
70	2.52	2.59	2.66	2.90	2.99	2.97	2.71	2.59	2.49	2.59	2.67	2.89	3.05	3.09	3.26	3.45	3.60	3.39	3.09
75	1.37	1.36	1.36																

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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]
Remarks:

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[illegible][illegible]

# 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	1586	1586	1587	1594	1594	1595	1594	1596	1595	1600
3.0	1584	1576	1568	1568	1559	1552	1543	1540	1535	1542
6.0	1558	1549	1535	1532	1513	1500	1483	1476	1467	1474
9.0	1505	1495	1475	1468	1445	1427	1409	1402	1392	1402
12.0	1408	1396	1371	1358	1334	1321	1301	1299	1294	1307
15.0	1279	1267	1240	1224	1200	1191	1173	1174	1171	1186
18.0	1144	1129	1099	1082	1058	1052	1036	1039	1035	1050
21.0	989.1	971.7	942.2	925.6	903.0	897.4	881.8	886.4	884.2	899.9
24.0	858.5	840.2	812.0	794.8	773.3	764.9	749.3	749.1	745.2	757.1
27.0	692.6	670.4	626.9	610.5	577.0	577.7	560.3	568.8	566.0	585.4
30.0	435.4	414.4	377.4	357.9	332.4	329.9	314.5	324.4	323.9	343.0
33.0	202.6	189.7	169.8	161.5	151.9	152.0	144.6	155.5	147.7	156.9
36.0	90.89	89.06	86.33	86.98	87.24	88.42	86.38	86.77	86.67	89.00
39.0	57.57	58.80	59.66	61.95	63.73	65.15	63.91	63.83	63.30	64.32
42.0	44.44	45.64	46.81	48.82	50.52	51.49	50.36	49.99	49.50	49.90
45.0	34.70	35.78	36.70	38.41	39.73	40.47	39.20	38.87	38.36	38.86
48.0	26.18	27.07	27.80	29.13	30.13	30.57	29.34	29.03	28.53	29.03
51.0	19.05	19.59	20.17	21.23	21.86	22.12	20.95	20.62	20.13	20.66
54.0	13.08	13.64	13.97	14.80	15.29	15.24	14.20	13.75	13.54	14.09
57.0	8.452	8.913	9.311	10.15	10.73	10.85	10.12	9.522	9.019	9.279
60.0	6.294	6.618	7.046	7.793	8.377	8.451	7.815	7.345	6.951	6.871
63.0	4.909	5.158	5.455	6.003	6.425	6.435	5.941	5.568	5.306	5.280
66.0	3.760	3.939	4.109	4.512	4.781	4.758	4.385	4.138	3.949	4.005
69.0	2.804	2.903	2.997	3.261	3.394	3.377	3.078	2.944	2.822	2.918
72.0	2.008	2.038	2.081	2.241	2.293	2.269	2.070	1.983	1.921	2.016
75.0	1.371	1.356	1.365	1.444	1.451	1.413	1.284	1.238	1.225	1.313
78.0	0.8545	0.8231	0.8152	0.8340	0.8155	0.7617	0.6885	0.6656	0.6883	0.7619
81.0	0.4756	0.4430	0.4362	0.4101	0.3796	0.3161	0.2854	0.2703	0.3094	0.3730
84.0	0.2391	0.2006	0.1933	0.1371	0.1015	0.0654	0.0750	0.0590	0.0860	0.1153
87.0	0.1076	0.0633	0.0486	0.0459	0.0481	0.0568	0.0503	0.0612	0.0481	0.0481
90.0	0.0459	0.0437	0.0459	0.0459	0.0481	0.0481	0.0503	0.0503	0.0503	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	1599	1601	1586	1587	1594	1594	1594	1595	1594	1596
3.0	1542	1551	1550	1556	1568	1582	1592	1599	1606	1610
6.0	1475	1485	1491	1501	1520	1537	1559	1575	1592	1602
9.0	1404	1417	1430	1441	1461	1479	1509	1534	1558	1567
12.0	1312	1332	1349	1359	1381	1396	1424	1445	1469	1473
15.0	1193	1216	1238	1247	1270	1282	1307	1318	1338	1338
18.0	1058	1082	1106	1118	1141	1152	1173	1181	1196	1196
21.0	907.3	933.8	959.6	973.0	998.0	1010	1032	1036	1048	1045
24.0	763.9	787.1	811.9	826.0	854.3	869.7	892.7	898.2	911.0	909.0
27.0	591.0	630.2	663.4	678.3	710.5	725.1	753.4	758.3	773.5	769.0
30.0	353.3	386.6	421.0	436.7	470.4	484.9	516.8	520.0	539.6	531.8
33.0	162.8	181.7	204.2	213.4	236.0	244.0	265.1	263.9	275.9	268.2
36.0	90.31	94.76	100.5	102.9	109.8	113.1	126.1	118.2	126.9	114.8
39.0	65.28	66.78	68.86	69.71	72.37	74.01	75.57	73.28	70.81	67.78
42.0	50.05	51.54	52.97	53.63	55.31	56.51	57.45	55.54	53.01	49.53
45.0	38.94	40.26	41.36	42.00	43.66	44.92	45.87	44.19	41.95	39.02
48.0	29.21	30.35	31.41	31.95	33.50	34.77	35.59	34.20	32.31	29.92
51.0	20.86	21.80	22.74	23.22	24.62	25.72	26.48	25.35	23.77	21.86
54.0	14.23	15.02	15.74	16.24	17.39	18.30	18.83	17.85	16.47	15.01
57.0	9.349	9.895	10.32	10.78	11.75	12.51	12.80	11.83	10.87	9.415
60.0	6.867	7.123	7.401	7.686	8.259	8.920	9.509	9.117	8.268	7.294
63.0	5.319	5.547	5.769	6.002	6.404	6.943	7.349	7.038	6.362	5.624
66.0	4.036	4.285	4.467	4.602	4.882	5.272	5.548	5.296	4.786	4.232
69.0	2.984	3.207	3.379	3.436	3.634	3.871	4.038	3.830	3.483	3.055
72.0	2.102	2.304	2.470	2.478	2.589	2.719	2.812	2.634	2.404	2.122
75.0	1.400	1.571	1.729	1.701	1.747	1.817	1.847	1.715	1.559	1.382
78.0	0.8545	0.9870	1.120	1.090	1.096	1.121	1.102	1.001	0.8945	0.7974
81.0	0.4604	0.5500	0.6502	0.6329	0.6151	0.6090	0.5471	0.4757	0.4096	0.3814
84.0	0.1955	0.2331	0.3315	0.2962	0.2788	0.2416	0.1650	0.1408	0.1020	0.1100
87.0	0.0507	0.0785	0.1482	0.1096	0.0327	0.0330	0.0373	0.0328	0.0372	0.0328
90.0	0.0459	0.0459	0.0241	0.0262	0.0241	0.0306	0.0284	0.0306	0.0284	0.0262
G/C	300.0	315.0	330.0	345.0						
0.0	1595	1600	1599	1601						
3.0	1612	1616	1613	1607						
6.0	1606	1606	1600	1588						
9.0	1570	1562	1552	1534						
12.0	1480	1467	1458	1434						
15.0	1345	1332	1327	1302						
18.0	1204	1196	1193	1168						
21.0	1053	1043	1039	1013						

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Meng Yongjian  
Test Date: 2018-01-19

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	917.3	909.0	905.6	881.9
27.0	776.1	762.7	756.8	724.1
30.0	539.4	517.1	508.4	468.8
33.0	273.6	255.6	249.1	222.9
36.0	114.3	107.1	104.3	95.98
39.0	64.27	61.08	60.23	57.93
42.0	47.88	46.17	45.63	44.48
45.0	37.86	36.40	35.93	34.86
48.0	28.93	27.82	27.32	26.41
51.0	21.20	20.31	19.88	19.16
54.0	14.63	14.15	13.84	13.22
57.0	9.252	9.087	8.954	8.595
60.0	6.754	6.393	6.309	6.240
63.0	5.216	4.961	4.925	4.873
66.0	3.960	3.755	3.764	3.735
69.0	2.885	2.753	2.778	2.775
72.0	1.998	1.927	1.947	1.966
75.0	1.303	1.268	1.282	1.316
78.0	0.7571	0.7534	0.7594	0.8037
81.0	0.3641	0.3813	0.3904	0.4381
84.0	0.1108	0.1515	0.1612	0.2105
87.0	0.0262	0.0286	0.0284	0.0769
90.0	0.0241	0.0262	0.0241	0.0262

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Meng Yongjian  
Test Date: 2018-01-19

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: