

GONIOPHOTOMETERS SYSTEM TEST REPORT

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LED Downlight SENSE Series S45S1-4W-930-35D

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Light Output Ratio:	100.0%	
Luminaire Power:	4.06 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.55	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: 2017-08-14

$\gamma$  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:

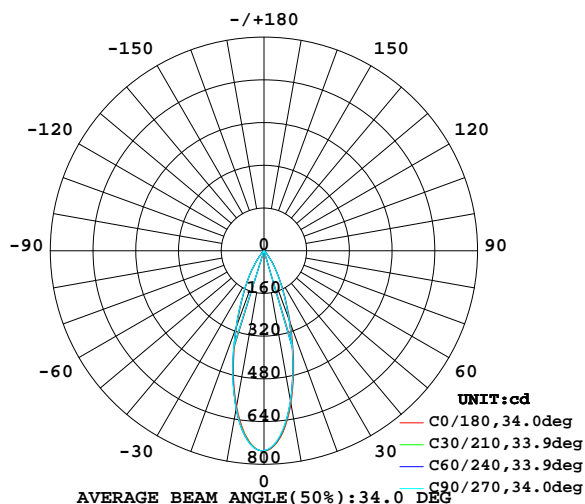
GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

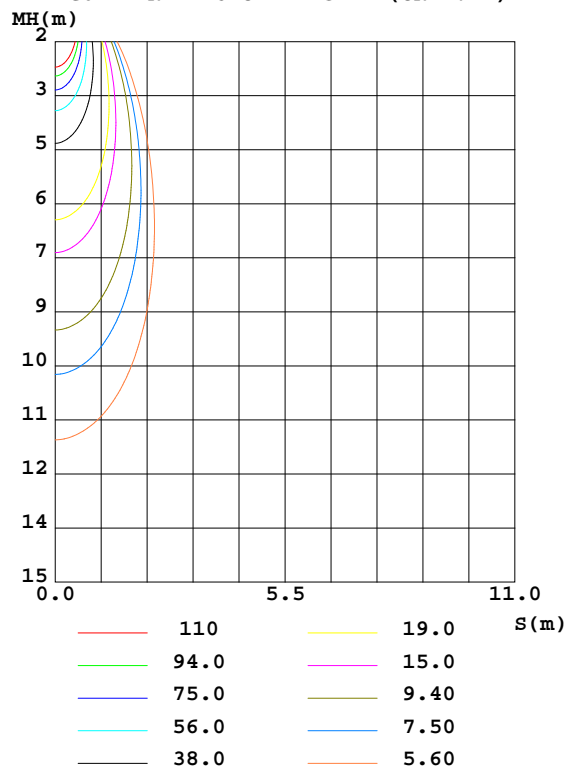
Test:U:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.451x1 lm		
NAME: S45S1-4W-930-35D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L55mm*W55mm*H60mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.96 lm/W			
MODEL	CREE-3000K	I <sub>max</sub> (cd)	750.7	S/MH(C0/180)	0.57
NOMINAL POWER(W)	4	LOR(%)	100.0	S/MH(C90/270)	0.58
RATED VOLTAGE(V)	12.0	TOTAL FLUX(lm)	312.45	η UP,DN(C0-180)	0.0,48.6
NOMINAL FLUX(lm)	312.451	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	11.6	η down(%)	100.0	CIBSE SHR MAX	0.55

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:2017-08-14

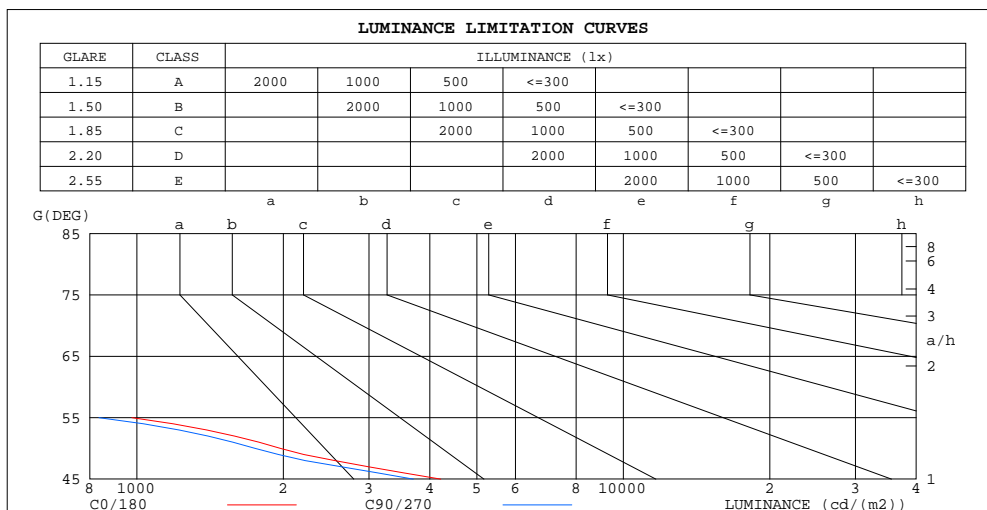
γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:52%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

## GONIOPHOTOMETERS SYSTEM TEST REPORT

### 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	581.9	575.1	570.4	574.5	591.8	595.9	601.6	590.5	0- 10	63.35	63.35	20.3,20.3
20	287.8	279.3	276.4	280.0	298.3	301.7	307.8	296.1	10- 20	118.8	182.2	58.3,58.3
30	104.7	102.5	101.5	102.4	111.0	113.0	114.0	108.4	20- 30	84.34	266.5	85.3,85.3
40	23.68	25.23	22.51	21.90	23.28	24.79	25.40	24.45	30- 40	36.03	302.6	96.8,96.8
50	3.837	4.169	3.404	3.235	3.500	3.814	3.553	3.589	40- 50	7.854	310.4	99.4,99.4
60	0.5514	0.5244	0.5119	0.4698	0.4719	0.5010	0.5200	0.5512	50- 60	1.514	311.9	99.8,99.8
70	0.2342	0.2098	0.2100	0.1748	0.1748	0.2056	0.2010	0.2253	60- 70	0.3305	312.3	99.9,99.9
80	0.0941	0.0742	0.0897	0.0590	0.0589	0.0832	0.0677	0.0919	70- 80	0.1437	312.4	100,100
90	0.0131	0.0131	0.0131	0.0109	0.0066	0.0066	0.0066	0.0087	80- 90	0.0404	312.5	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	191	166
80	179	171
75	201	182
70	226	203
65	281	247
60	365	338
55	977	835
50	1973	1750
45	4213	3702

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Meng Yongjian  
 Test Date: 2017-08-14

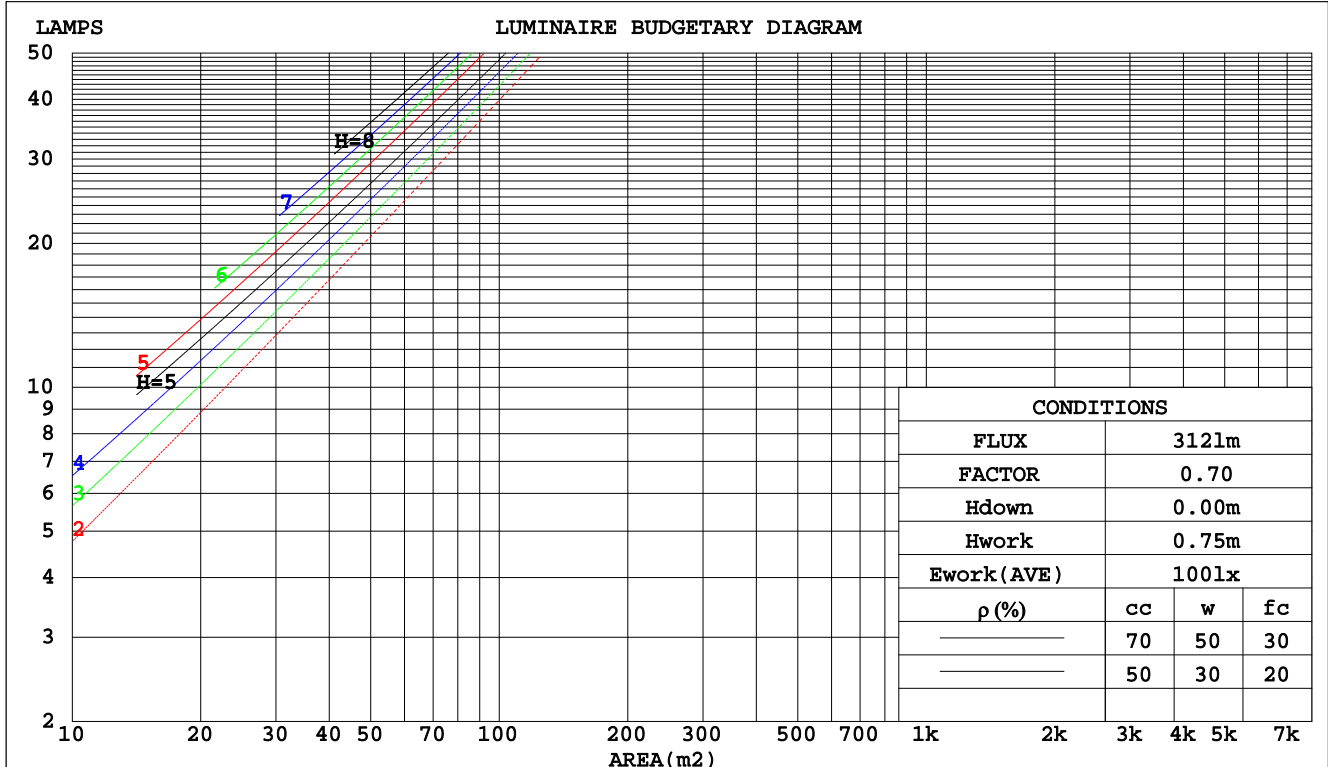
$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity: 52%  
 Test Distance: 5.850m [K=1.0000]  
 Remarks:

## GONIOPHOTOMETERS SYSTEM TEST REPORT

### CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.45lx1 lm		
NAME: S45S1-4W-930-35D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L55mm*W55mm*H60mm	
MFR.: NEKO LIGHTING AG		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.05	1.02	.99	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.93	.92	.90
3.0	.00	.95	.92	.98	.94	.91	.96	.92	.90	.93	.91	.88	.91	.89	.87	.86
4.0	.94	.90	.86	.93	.89	.86	.91	.88	.85	.89	.86	.84	.88	.85	.83	.81
5.0	.90	.85	.81	.89	.84	.81	.87	.83	.80	.86	.82	.79	.84	.81	.79	.77
6.0	.85	.80	.77	.85	.80	.76	.83	.79	.76	.82	.78	.75	.81	.78	.75	.74
7.0	.82	.76	.73	.81	.76	.73	.80	.75	.72	.79	.75	.72	.78	.74	.72	.70
8.0	.78	.73	.69	.77	.73	.69	.76	.72	.69	.75	.72	.69	.75	.71	.68	.67
9.0	.75	.70	.66	.74	.69	.66	.73	.69	.66	.73	.69	.66	.72	.68	.66	.64
10.0	.72	.67	.63	.71	.67	.63	.70	.66	.63	.70	.66	.63	.69	.65	.63	.62



C Range: 0 - 360DEG  
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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

### WEC AND CCEC

Test:U:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.451x1 lm		
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SPEC.:3000K	DIM.: L55mm*W55mm*H60mm	
MFR.: NEKO LIGHTING AG		

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.157	.089	.028	.150	.086	.027	.138	.079	.025	.126	.073	.023	.116	.067	.022		
2.0	.148	.081	.025	.143	.079	.024	.132	.074	.023	.123	.069	.022	.114	.064	.020		
3.0	.140	.075	.022	.136	.073	.022	.127	.069	.021	.119	.065	.020	.111	.062	.019		
4.0	.133	.069	.020	.129	.067	.020	.121	.064	.019	.114	.061	.019	.108	.059	.018		
5.0	.126	.064	.019	.123	.063	.018	.116	.061	.018	.110	.058	.017	.105	.056	.017		
6.0	.120	.060	.017	.117	.059	.017	.112	.057	.017	.106	.055	.016	.102	.053	.016		
7.0	.115	.057	.016	.112	.056	.016	.107	.054	.016	.103	.053	.015	.098	.051	.015		
8.0	.110	.054	.015	.108	.053	.015	.103	.052	.015	.099	.050	.014	.095	.049	.014		
9.0	.105	.051	.014	.103	.050	.014	.100	.049	.014	.096	.048	.014	.092	.047	.014		
10.0	.101	.049	.013	.099	.048	.013	.096	.047	.013	.093	.046	.013	.089	.045	.013		

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	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	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013		
3.0	.139	.113	.093	.120	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011		
4.0	.128	.098	.076	.110	.085	.066	.076	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.119	.086	.063	.102	.075	.054	.070	.052	.038	.041	.031	.023	.013	.010	.008		
6.0	.111	.077	.053	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006		
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005		
8.0	.098	.063	.038	.084	.054	.033	.058	.038	.024	.034	.022	.014	.011	.007	.005		
9.0	.092	.057	.033	.080	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004		
10.0	.088	.053	.029	.076	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Meng Yongjian  
Test Date:2017-08-14

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:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.45lx1 lm										
NAME: S45S1-4W-930-35D					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: L55mm*W55mm*H60mm					
MFR.: NEKO LIGHTING AG										
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	12.3	13.1	12.5	13.2	13.4	12.1	12.9	12.3	13.1	13.2
3H	12.1	12.8	12.4	13.0	13.2	12.0	12.7	12.2	12.9	13.1
4H	12.0	12.7	12.3	12.9	13.2	11.9	12.6	12.1	12.8	13.0
6H	11.9	12.6	12.2	12.8	13.1	11.8	12.4	12.1	12.7	12.9
8H	11.9	12.5	12.2	12.8	13.0	11.7	12.4	12.0	12.6	12.9
12H	11.9	12.5	12.2	12.7	13.0	11.7	12.3	12.0	12.6	12.8
4H 2H	12.0	12.7	12.3	12.9	13.2	11.9	12.6	12.1	12.8	13.0
3H	11.9	12.5	12.2	12.7	13.0	11.7	12.3	12.0	12.6	12.8
4H	11.8	12.3	12.1	12.6	12.9	11.6	12.2	12.0	12.5	12.8
6H	11.7	12.2	12.0	12.5	12.8	11.5	12.0	11.9	12.3	12.7
8H	11.6	12.1	12.0	12.4	12.8	11.5	11.9	11.9	12.3	12.6
12H	11.6	12.0	12.0	12.4	12.7	11.4	11.8	11.8	12.2	12.6
8H 4H	11.6	12.1	12.0	12.4	12.8	11.5	11.9	11.8	12.3	12.6
6H	11.5	11.9	11.9	12.3	12.7	11.4	11.7	11.8	12.1	12.5
8H	11.5	11.8	11.9	12.2	12.6	11.3	11.6	11.7	12.0	12.5
12H	11.4	11.7	11.9	12.1	12.6	11.2	11.5	11.7	12.0	12.4
12H 4H	11.6	12.0	12.0	12.3	12.7	11.4	11.8	11.8	12.2	12.6
6H	11.5	11.8	11.9	12.2	12.6	11.3	11.6	11.7	12.0	12.5
8H	11.4	11.7	11.9	12.1	12.6	11.2	11.5	11.7	12.0	12.4
Variations with the observer position at spacings:										
S = 1.0H	+ 3.5 / -13.7					+ 3.3 / -13.9				
1.5H	+ 5.7 / -10.1					+ 5.5 / -10.0				
2.0H	+ 6.1 / - 8.2					+ 5.8 / - 7.8				

CIE Pub.117 Corrected 312.5 lm Total Lamp Luminous Flux.(8log(F/F0) = -4.0)

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

### UTILIZATION FACTORS TABLE

Test:U:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.45lx1 lm		
NAME: S45S1-4W-930-35D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L55mm*W55mm*H60mm	
MFR.: NEKO LIGHTING AG		

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) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	83	80	88	83	80	77
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	98	95	91	88
1.25	105	100	97	104	99	96	102	98	95	91
1.50	107	103	100	106	102	99	104	100	98	94
2.00	109	106	103	108	104	102	105	103	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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

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### ISOCANDELA DIAGRAM

Test:U:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.45lx1 lm		
NAME: S45S1-4W-930-35D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L55mm*W55mm*H60mm	
MFR.: NEKO LIGHTING AG		

Conical surface Flux(90deg):

308.17 lm

%lum = 98.6%

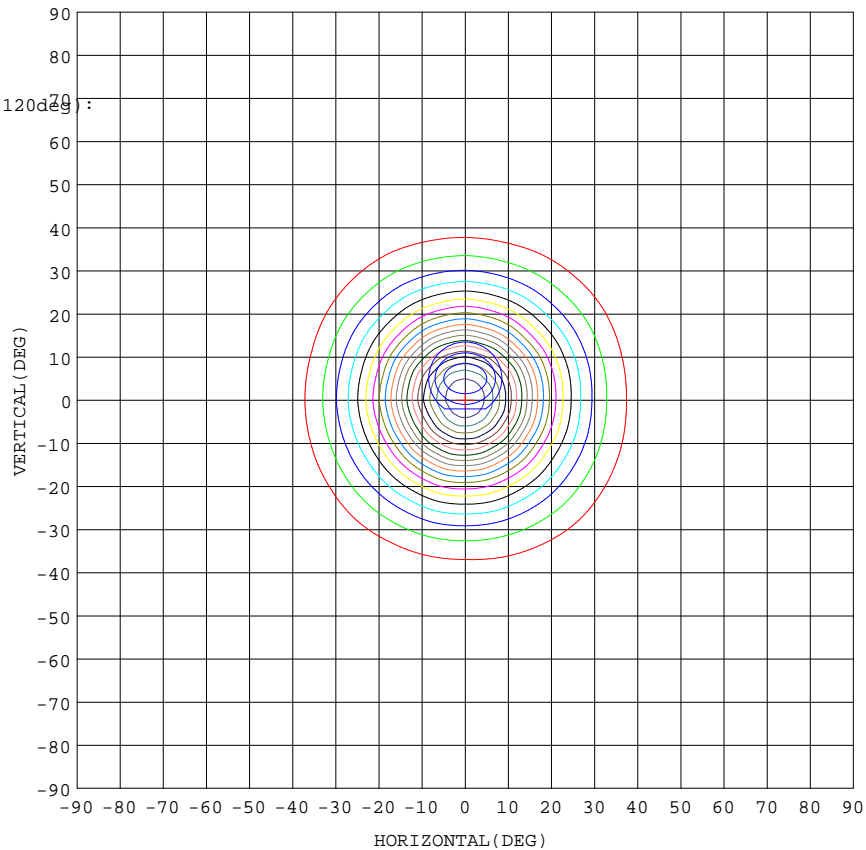
%lamp = 98.6%

Conical surface Flux(120deg):

311.94 lm

%lum = 99.8%

%lamp = 99.8%



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Operators:Meng Yongjian  
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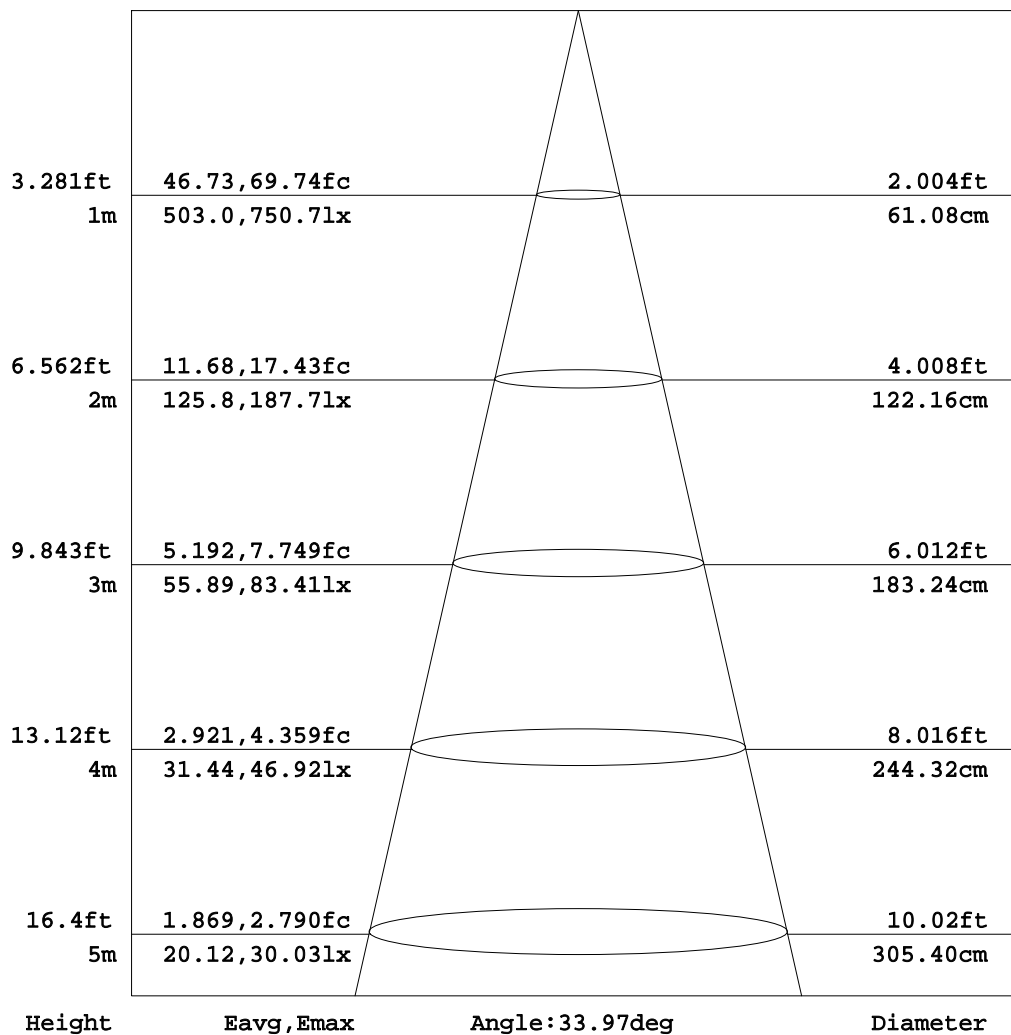
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Humidity:52%  
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## GONIOPHOTOMETERS SYSTEM TEST REPORT

### AAI Figure

Test:U:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.45lx1 lm		
NAME: S45S1-4W-930-35D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L55mm*W55mm*H60mm	
MFR.: NEKO LIGHTING AG		

Flux out:147.7 lm



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

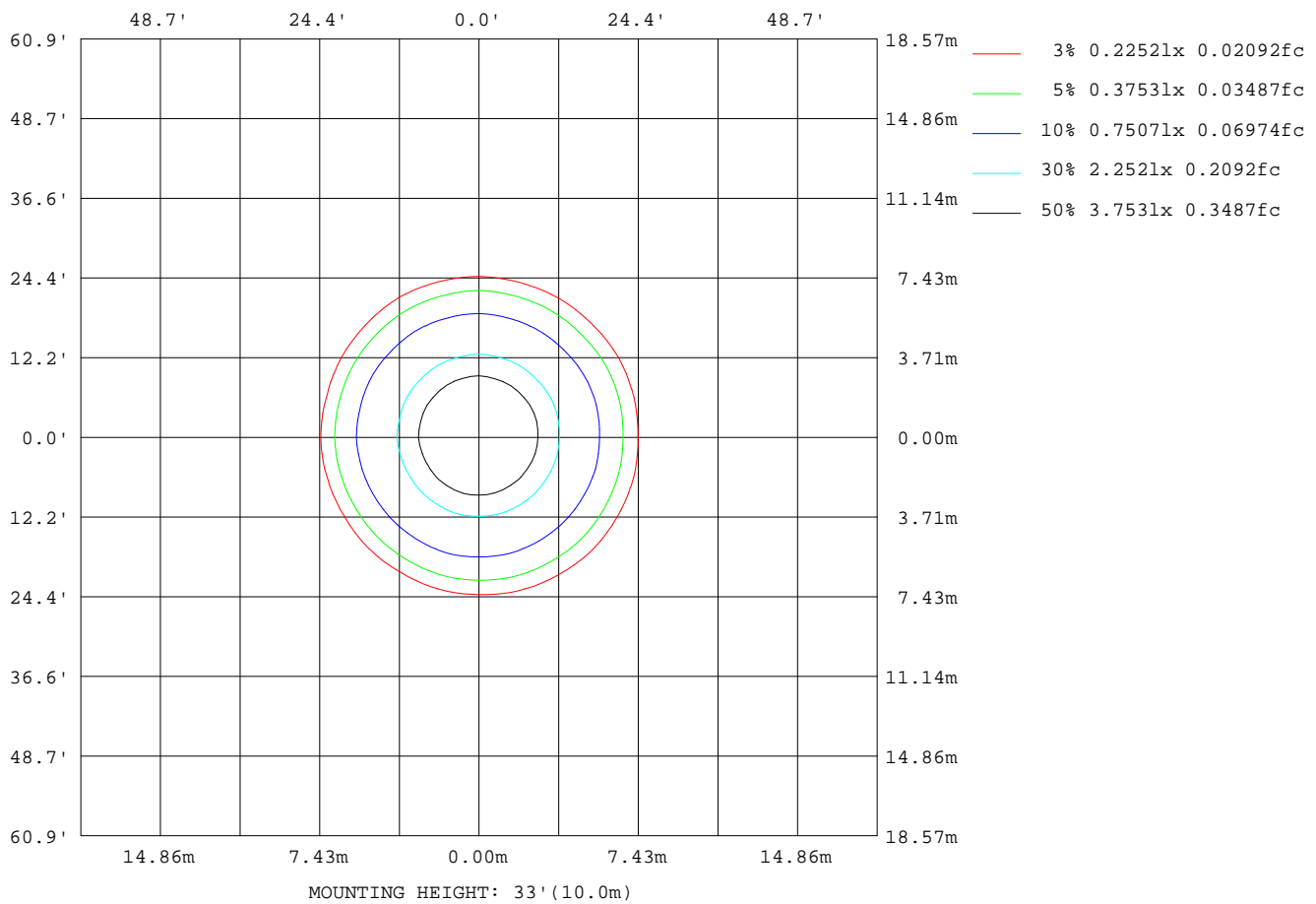
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Remarks:

## GONIOPHOTOMETERS SYSTEM TEST REPORT

### ISOLUX DIAGRAM

Test:U:11.60V I:0.3500A P:4.060W PF:1.000 Lamp Flux:312.45lx 1m		
NAME: S45S1-4W-930-35D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L55mm*W55mm*H60mm	
MFR.: NEKO LIGHTING AG		

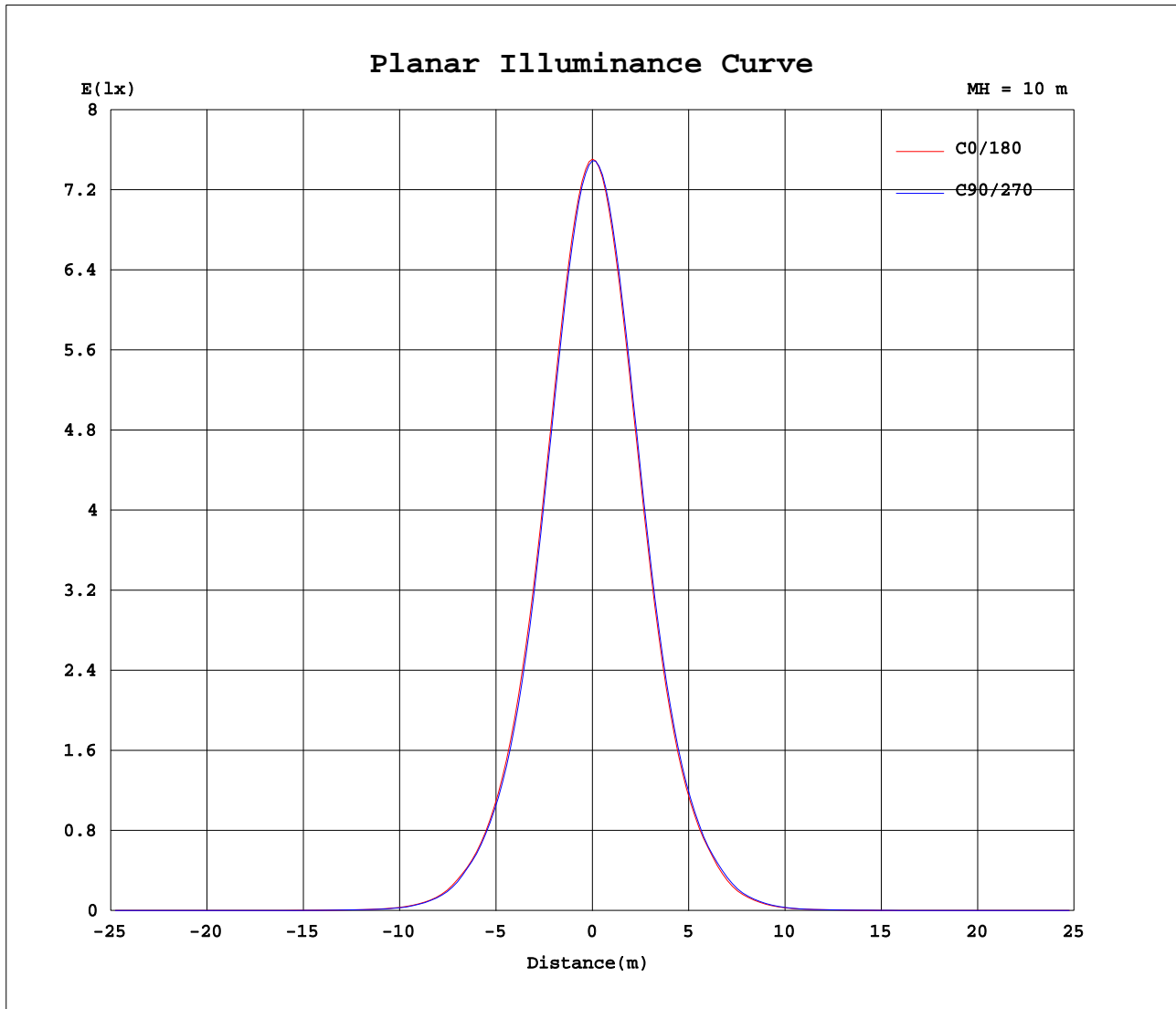


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Meng Yongjian  
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γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:52%  
Test Distance:5.850m [K=1.0000]  
Remarks:

## GONIOPHOTOMETERS SYSTEM TEST REPORT

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Meng Yongjian  
Test Date: 2017-08-14

$\gamma$  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:

```

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:

```

```

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	750.7	750.3	749.8	749.6	749.2	749.2	749.0	749.2	749.1	749.1
3.0	731.8	731.8	729.7	730.2	728.2	728.5	727.1	728.6	727.8	729.6
6.0	683.2	682.7	678.2	679.6	676.1	676.5	674.4	677.9	675.7	677.8
9.0	610.1	610.2	602.9	604.2	599.7	602.1	599.2	603.6	600.1	603.4
12.0	521.7	520.4	512.8	513.4	509.1	512.2	510.8	514.7	511.3	515.0
15.0	428.6	426.7	417.9	419.4	414.8	419.6	417.6	423.1	419.7	424.0
18.0	340.7	337.9	330.0	331.2	327.7	330.5	328.9	334.4	331.5	334.5
21.0	263.0	260.8	254.3	255.4	252.4	254.4	252.2	256.5	253.4	255.4
24.0	197.7	197.1	191.7	192.4	190.3	191.6	189.5	192.1	189.6	191.2
27.0	145.9	146.4	142.6	143.1	141.3	142.8	140.7	142.9	140.1	141.4
30.0	104.7	104.7	102.4	102.5	102.2	102.7	101.5	103.2	101.5	102.4
33.0	73.14	73.23	72.66	72.87	71.97	71.91	71.45	71.41	69.75	70.32
36.0	47.63	48.56	47.97	48.27	46.64	46.15	44.01	44.06	42.47	43.28
39.0	28.23	29.11	29.07	29.79	28.75	28.34	26.72	26.68	25.92	26.37
42.0	16.45	17.26	17.17	17.53	16.85	16.50	15.35	14.98	14.44	14.64
45.0	9.011	9.637	9.591	9.819	9.278	8.916	7.918	7.692	7.335	7.484
48.0	5.164	5.587	5.598	5.705	5.341	5.057	4.483	4.374	4.182	4.221
51.0	3.392	3.592	3.610	3.629	3.478	3.274	2.998	2.970	2.851	2.865
54.0	2.108	2.209	2.174	2.203	2.119	2.085	1.832	1.827	1.699	1.746
57.0	0.9396	0.9879	0.9266	0.9595	0.8698	0.8876	0.7449	0.7332	0.6550	0.6854
60.0	0.5514	0.5332	0.5470	0.5244	0.5338	0.5092	0.5119	0.4829	0.4923	0.4698
63.0	0.4378	0.4259	0.4400	0.4193	0.4247	0.4041	0.4006	0.3735	0.3810	0.3604
66.0	0.3218	0.3058	0.3197	0.2971	0.3065	0.2818	0.2803	0.2512	0.2628	0.2446
69.0	0.2537	0.2316	0.2516	0.2229	0.2428	0.2120	0.2232	0.1944	0.2079	0.1879
72.0	0.2035	0.1792	0.2035	0.1813	0.1970	0.1704	0.1773	0.1529	0.1685	0.1464
75.0	0.1576	0.1355	0.1576	0.1355	0.1575	0.1311	0.1423	0.1136	0.1335	0.1093
78.0	0.1182	0.1005	0.1182	0.0961	0.1182	0.0918	0.1051	0.0830	0.1028	0.0765
81.0	0.0854	0.0633	0.0854	0.0634	0.0854	0.0611	0.0788	0.0546	0.0723	0.0502
84.0	0.0570	0.0349	0.0570	0.0371	0.0591	0.0349	0.0504	0.0284	0.0504	0.0284
87.0	0.0307	0.0131	0.0351	0.0131	0.0351	0.0131	0.0307	0.0066	0.0285	0.0087
90.0	0.0131	0.0131	0.0131	0.0131	0.0131	0.0131	0.0131	0.0066	0.0131	0.0109

G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	748.8	748.7	750.3	750.7	749.8	749.6	749.2	749.2	749.0	749.2
3.0	728.5	729.9	735.2	734.7	736.3	736.3	738.3	737.5	737.9	735.9
6.0	675.7	679.8	688.7	688.3	692.8	692.2	696.5	694.4	695.2	692.2
9.0	600.8	606.9	619.2	619.3	625.3	623.2	628.9	626.4	628.1	622.9
12.0	514.0	521.5	534.5	534.8	541.3	539.0	543.3	541.1	544.3	537.0
15.0	422.6	430.3	442.8	442.8	449.3	446.9	452.2	449.5	452.9	445.2
18.0	333.9	341.6	353.3	352.6	359.3	357.5	362.2	359.9	362.9	356.3
21.0	255.7	262.7	273.2	271.2	277.2	275.9	280.9	278.6	282.0	276.6
24.0	191.5	197.8	205.7	204.6	209.1	208.5	212.5	211.1	213.3	209.8
27.0	141.8	146.7	152.5	152.4	155.9	154.9	158.4	157.3	158.5	155.8
30.0	103.4	106.6	111.0	110.9	113.1	113.0	115.2	113.9	114.0	111.6
33.0	70.33	72.29	75.67	75.19	77.70	77.90	80.50	80.18	80.54	77.98
36.0	42.60	44.22	46.03	45.31	47.38	48.25	50.78	49.97	50.80	49.11
39.0	25.95	26.75	27.82	27.46	29.01	29.59	31.09	30.25	30.21	28.98
42.0	14.43	14.87	15.62	15.59	16.82	16.90	17.70	17.00	17.24	16.31
45.0	7.205	7.504	7.950	8.118	8.805	8.800	9.162	8.661	8.864	8.457
48.0	4.090	4.235	4.536	4.758	5.095	5.062	5.035	4.711	4.814	4.715
51.0	2.799	2.867	3.087	3.199	3.324	3.322	3.318	3.091	3.173	3.146
54.0	1.684	1.825	1.881	1.862	1.961	1.961	2.053	2.015	2.100	2.037
57.0	0.6703	0.6962	0.7326	0.6959	0.7153	0.7137	0.8584	0.8363	0.9890	0.9276
60.0	0.4879	0.4698	0.4719	0.4922	0.4784	0.5010	0.4916	0.5184	0.5200	0.5469
63.0	0.3766	0.3604	0.3624	0.3830	0.3712	0.3940	0.3821	0.4114	0.4127	0.4377
66.0	0.2606	0.2447	0.2468	0.2649	0.2555	0.2780	0.2686	0.2890	0.2904	0.3130
69.0	0.2079	0.1923	0.1879	0.2122	0.1944	0.2166	0.2010	0.2275	0.2141	0.2385
72.0	0.1686	0.1464	0.1485	0.1707	0.1529	0.1751	0.1572	0.1816	0.1703	0.1926
75.0	0.1335	0.1136	0.1114	0.1335	0.1136	0.1379	0.1179	0.1379	0.1332	0.1488
78.0	0.1028	0.0808	0.0764	0.1028	0.0808	0.1050	0.0830	0.1072	0.0896	0.1138
81.0	0.0723	0.0524	0.0502	0.0722	0.0502	0.0744	0.0567	0.0809	0.0611	0.0810
84.0	0.0526	0.0284	0.0262	0.0482	0.0284	0.0504	0.0284	0.0504	0.0306	0.0526
87.0	0.0285	0.0131	0.0066	0.0220	0.0044	0.0241	0.0065	0.0263	0.0087	0.0264
90.0	0.0131	0.0131	0.0066	0.0087	0.0066	0.0066	0.0044	0.0066	0.0066	0.0066

G/C	300.0	315.0	330.0	345.0
0.0	749.1	749.1	748.8	748.7
3.0	736.4	734.8	735.2	733.3
6.0	693.1	689.3	690.5	687.5
9.0	624.0	617.9	620.4	616.3
12.0	538.0	532.1	534.9	529.6
15.0	445.8	439.4	441.8	437.1
18.0	356.8	350.2	352.7	348.3
21.0	277.3	270.7	273.5	269.0

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Meng Yongjian  
 Test Date: 2017-08-14

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	209.8	205.0	206.7	203.7
27.0	155.2	151.4	153.6	151.2
30.0	110.5	108.4	109.1	108.0
33.0	76.96	75.81	76.99	75.43
36.0	49.89	48.99	50.73	49.02
39.0	29.44	29.10	29.80	28.95
42.0	16.89	16.67	17.20	16.67
45.0	8.965	8.906	9.192	8.971
48.0	4.908	4.894	5.047	4.986
51.0	3.218	3.153	3.218	3.216
54.0	2.095	2.037	2.086	2.067
57.0	0.9716	0.9232	0.9981	0.9627
60.0	0.5309	0.5512	0.5287	0.5447
63.0	0.4236	0.4398	0.4193	0.4355
66.0	0.2992	0.3173	0.2970	0.3130
69.0	0.2207	0.2406	0.2228	0.2428
72.0	0.1704	0.1947	0.1725	0.1948
75.0	0.1332	0.1488	0.1288	0.1510
78.0	0.0939	0.1116	0.0917	0.1116
81.0	0.0589	0.0810	0.0611	0.0810
84.0	0.0327	0.0526	0.0327	0.0526
87.0	0.0066	0.0285	0.0109	0.0285
90.0	0.0066	0.0087	0.0066	0.0087

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Meng Yongjian  
 Test Date: 2017-08-14

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: