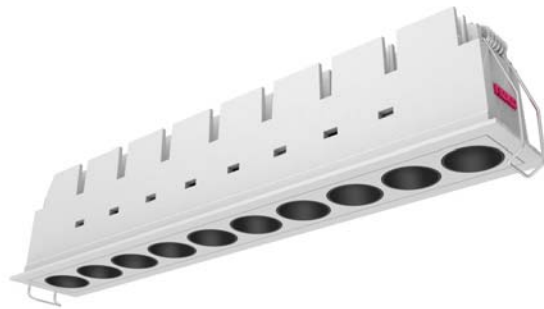


LED Downlight FUSION Series FF10-22W-830-24D Black



Light Output Ratio:	100.0%	
Luminaire Power:	24.05 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

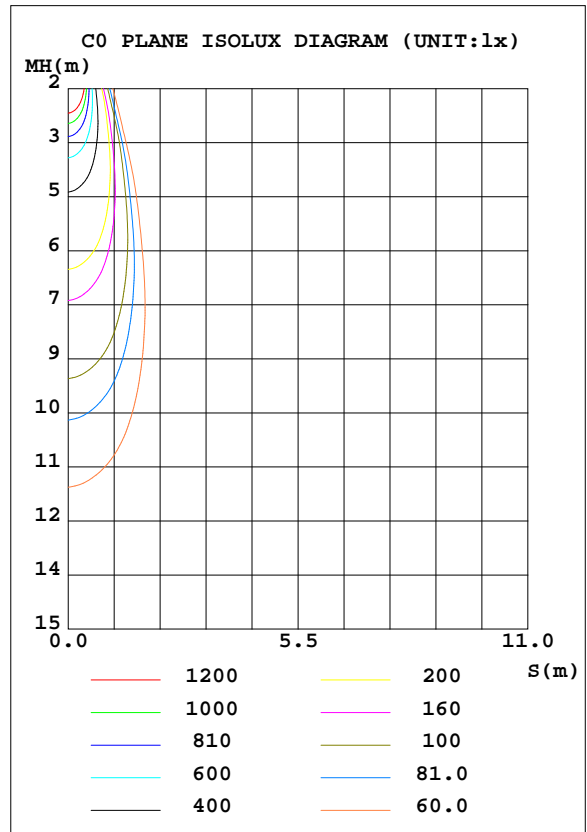
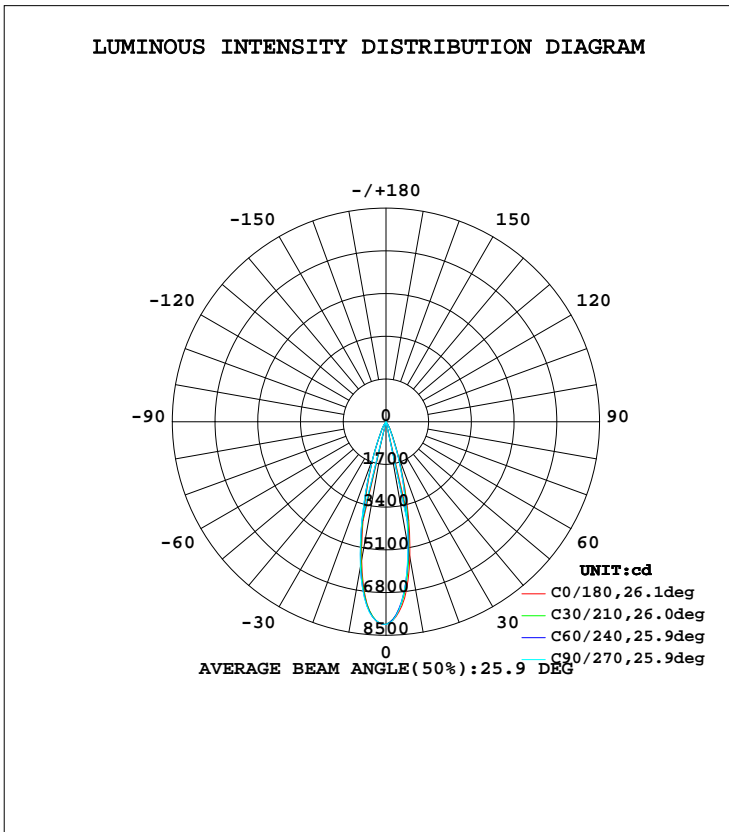
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Cao Chengpei  
Test Date: 2016-06-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 53.0%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.61 lm/W			
MODEL	CREE-3000K	I <sub>max</sub> (cd)	8073	S/MH(C0/180)	0.44
NOMINAL POWER(W)	24	LOR(%)	100.0	S/MH(C90/270)	0.45
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1842.7	η UP, DN(C0-180)	0.0, 47.6
NOMINAL FLUX(lm)	1842.66	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 52.4
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



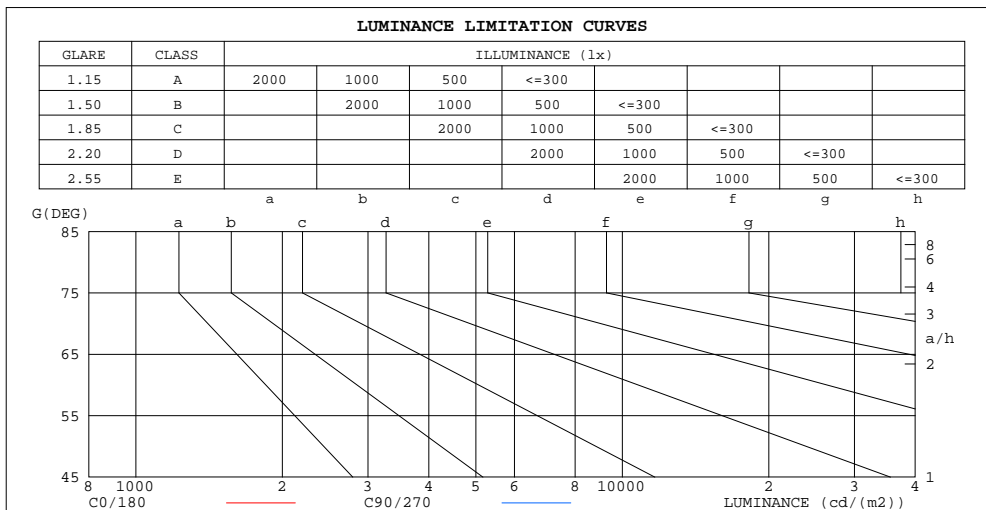
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Cao Chengpei  
Test Date:2016-06-23

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:53.0%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**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	5469	5230	5038	5294	5580	5728	5887	5767	0- 10	646.8	646.8	35.1,35.1
20	1410	1360	1248	1387	1457	1481	1495	1514	10- 20	855.8	1503	81.5,81.5
30	257.0	258.3	232.6	244.0	261.3	277.9	290.1	286.9	20- 30	287.6	1790	97.2,97.2
40	7.083	7.917	8.510	9.496	9.472	8.959	8.590	8.847	30- 40	50.76	1841	99.9,99.9
50	0.3177	0.3151	0.3049	0.3172	0.3001	0.3176	0.2959	0.3219	40- 50	1.059	1842	100,100
60	0.2046	0.1938	0.2045	0.1959	0.1831	0.1982	0.1767	0.2024	50- 60	0.2171	1842	100,100
70	0.1598	0.1427	0.1598	0.1470	0.1342	0.1534	0.1299	0.1534	60- 70	0.1672	1842	100,100
80	0.1321	0.1241	0.1342	0.1247	0.1171	0.1321	0.1099	0.1385	70- 80	0.1436	1843	100,100
90	0.1193	0.1214	0.1236	0.1257	0.1044	0.1044	0.1044	0.1108	80- 90	0.1298	1843	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	111	111
80	58	59
75	43	43
70	36	36
65	33	32
60	31	31
55	33	32
50	38	36
45	58	49

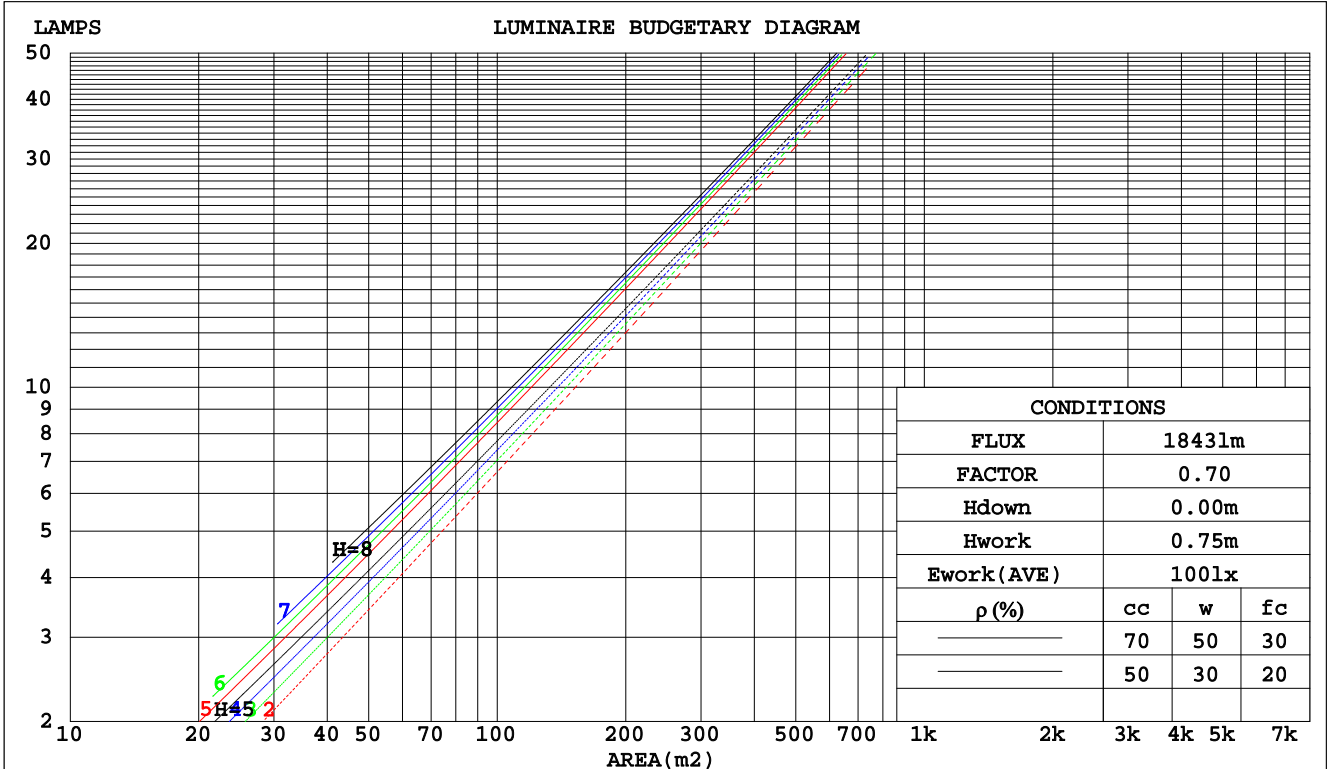
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2016-06-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:53.0%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
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	1.13	1.11	1.09	1.11	1.09	1.08	1.07	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97
2.0	1.08	1.05	1.03	1.06	1.04	1.01	1.03	1.01	.99	1.00	.99	.97	.98	.96	.95	.94
3.0	1.03	.00	.97	1.02	.99	.96	.00	.97	.95	.97	.95	.93	.95	.94	.92	.91
4.0	.00	.96	.93	.98	.95	.92	.97	.94	.91	.95	.92	.90	.93	.91	.89	.88
5.0	.96	.92	.89	.95	.91	.89	.94	.90	.88	.92	.89	.87	.91	.88	.86	.85
6.0	.93	.89	.86	.92	.88	.86	.91	.87	.85	.90	.87	.84	.88	.86	.84	.83
7.0	.90	.86	.83	.89	.85	.83	.88	.85	.82	.87	.84	.82	.86	.84	.82	.81
8.0	.87	.83	.80	.87	.83	.80	.86	.82	.80	.85	.82	.80	.84	.81	.79	.78
9.0	.85	.81	.78	.84	.80	.78	.83	.80	.78	.83	.80	.77	.82	.79	.77	.76
10.0	.82	.78	.76	.82	.78	.76	.81	.78	.76	.81	.78	.75	.80	.77	.75	.74



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Cao Chengpei  
Test Date:2016-06-23

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:53.0%  
Test Distance:5.850m [K=1.0000]  
Remarks:

WEC AND CCEC

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.134	.076	.024	.128	.073	.023	.115	.066	.021	.104	.060	.019	.093	.054	.017	
2.0	.124	.068	.021	.119	.065	.020	.109	.060	.019	.099	.056	.017	.090	.051	.016	
3.0	.116	.062	.018	.111	.059	.018	.103	.056	.017	.095	.052	.016	.087	.048	.015	
4.0	.108	.056	.017	.105	.055	.016	.097	.052	.015	.091	.049	.015	.085	.046	.014	
5.0	.102	.052	.015	.099	.051	.015	.093	.048	.014	.087	.046	.014	.082	.044	.013	
6.0	.097	.048	.014	.094	.047	.014	.089	.045	.013	.084	.044	.013	.079	.042	.012	
7.0	.092	.045	.013	.089	.045	.013	.085	.043	.012	.081	.041	.012	.077	.040	.012	
8.0	.088	.043	.012	.086	.042	.012	.082	.041	.012	.078	.039	.011	.074	.038	.011	
9.0	.084	.041	.011	.082	.040	.011	.078	.039	.011	.075	.038	.011	.072	.037	.011	
10.0	.080	.039	.011	.079	.038	.011	.076	.037	.010	.073	.036	.010	.070	.035	.010	

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	.168	.158	.148	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.118	.128	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.135	.113	.096	.116	.098	.083	.079	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.122	.098	.079	.105	.085	.069	.072	.059	.049	.042	.035	.029	.013	.011	.009	
5.0	.112	.085	.066	.096	.074	.058	.066	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.103	.075	.056	.088	.065	.049	.061	.046	.034	.035	.027	.021	.011	.009	.007	
7.0	.095	.067	.048	.082	.058	.042	.056	.041	.030	.033	.024	.018	.011	.008	.006	
8.0	.089	.060	.041	.076	.052	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.083	.055	.036	.071	.048	.031	.049	.033	.022	.029	.020	.013	.009	.006	.004	
10.0	.078	.050	.031	.067	.043	.027	.047	.031	.019	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2016-06-23

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:53.0%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*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	3.4	4.1	3.6	4.2	4.4	2.9	3.5	3.1	3.7	3.8
3H	3.3	3.9	3.5	4.1	4.3	2.7	3.3	3.0	3.5	3.7
4H	3.2	3.8	3.5	4.0	4.2	2.6	3.2	2.9	3.4	3.6
6H	3.1	3.7	3.4	3.9	4.1	2.6	3.1	2.8	3.3	3.6
8H	3.1	3.6	3.4	3.8	4.1	2.5	3.0	2.8	3.3	3.5
12H	3.0	3.5	3.4	3.8	4.1	2.5	3.0	2.8	3.2	3.5
4H 2H	3.2	3.8	3.5	4.0	4.2	2.6	3.2	2.9	3.4	3.6
3H	3.0	3.5	3.3	3.8	4.1	2.5	3.0	2.8	3.2	3.5
4H	2.9	3.4	3.3	3.7	4.0	2.4	2.8	2.7	3.1	3.4
6H	2.8	3.3	3.2	3.6	3.9	2.3	2.7	2.6	3.0	3.3
8H	2.8	3.2	3.2	3.5	3.9	2.2	2.6	2.6	2.9	3.3
12H	2.7	3.1	3.1	3.5	3.8	2.2	2.5	2.6	2.9	3.3
8H 4H	2.8	3.2	3.2	3.5	3.9	2.2	2.6	2.6	2.9	3.3
6H	2.7	3.0	3.1	3.4	3.8	2.1	2.4	2.5	2.8	3.2
8H	2.6	2.9	3.1	3.3	3.8	2.1	2.3	2.5	2.7	3.2
12H	2.6	2.8	3.0	3.2	3.7	2.0	2.2	2.5	2.7	3.1
12H 4H	2.7	3.1	3.1	3.4	3.8	2.2	2.5	2.6	2.9	3.3
6H	2.6	2.9	3.1	3.3	3.7	2.1	2.3	2.5	2.7	3.2
8H	2.6	2.8	3.0	3.2	3.7	2.0	2.2	2.5	2.7	3.1
Variations with the observer position at spacings:										
S = 1.0H	+ 3.9 / - 7.5					+ 4.2 / - 8.7				
1.5H	+ 6.7 / - 7.6					+ 7.0 / - 8.8				
2.0H	+ 0.3 / - 0.4					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 1843 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.1)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Cao Chengpei  
Test Date:2016-06-23

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:53.0%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*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	92	86	83	91	86	82	90	85	82	79
0.80	98	93	90	98	93	90	97	92	90	86
1.00	102	97	94	101	97	94	100	96	93	90
1.25	106	101	98	105	100	98	103	99	97	93
1.50	108	104	101	107	103	100	105	102	99	95
2.00	110	106	103	109	105	103	106	103	101	96
2.50	111	108	105	110	107	105	107	104	103	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	113	111	109	109	107	106	99
5.00	116	114	112	114	112	111	110	109	108	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  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2016-06-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:53.0%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

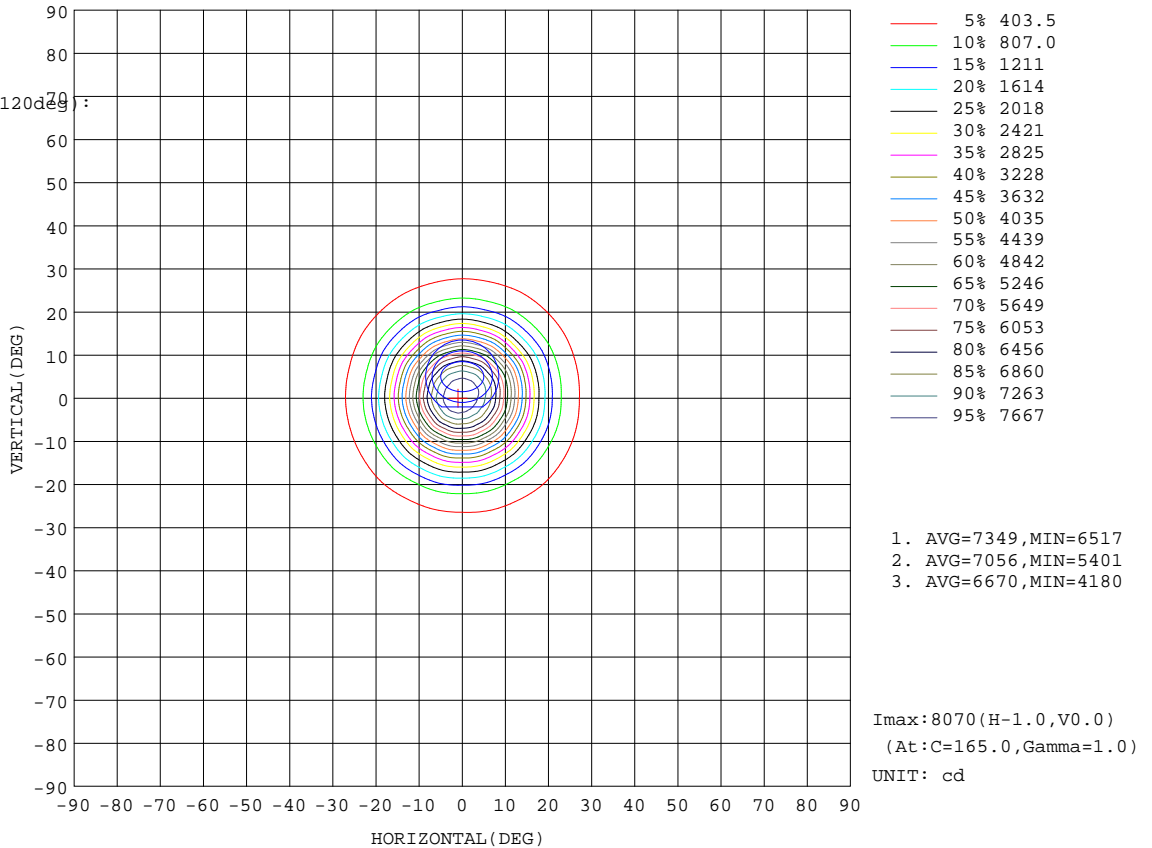
Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

Conical surface Flux(90deg):

1841.8 lm  
%lum = 100.0%  
%lamp = 100.0%

Conical surface Flux(120deg):

1842.2 lm  
%lum = 100.0%  
%lamp = 100.0%



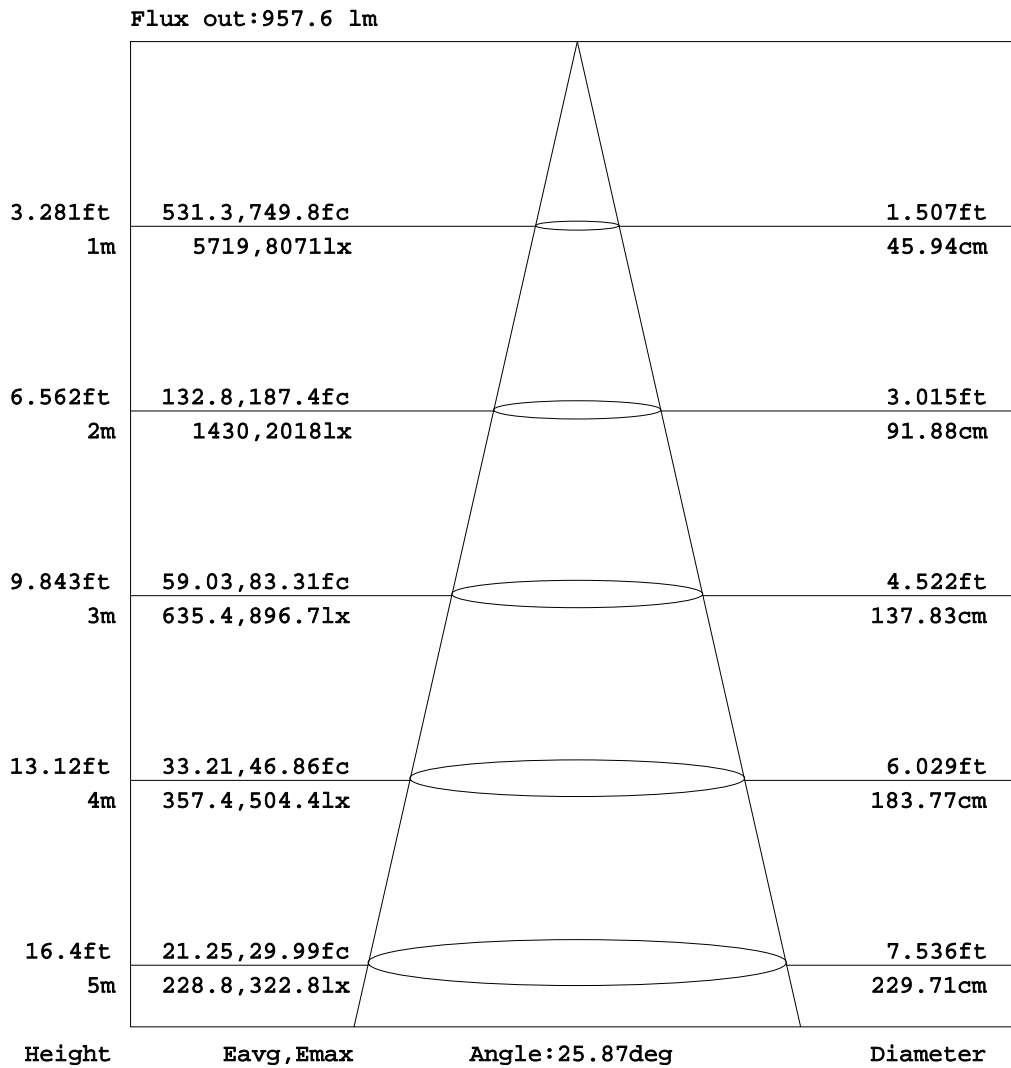
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Cao Chengpei  
Test Date:2016-06-23

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:53.0%  
Test Distance:5.850m [K=1.0000]  
Remarks:



AAI Figure

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



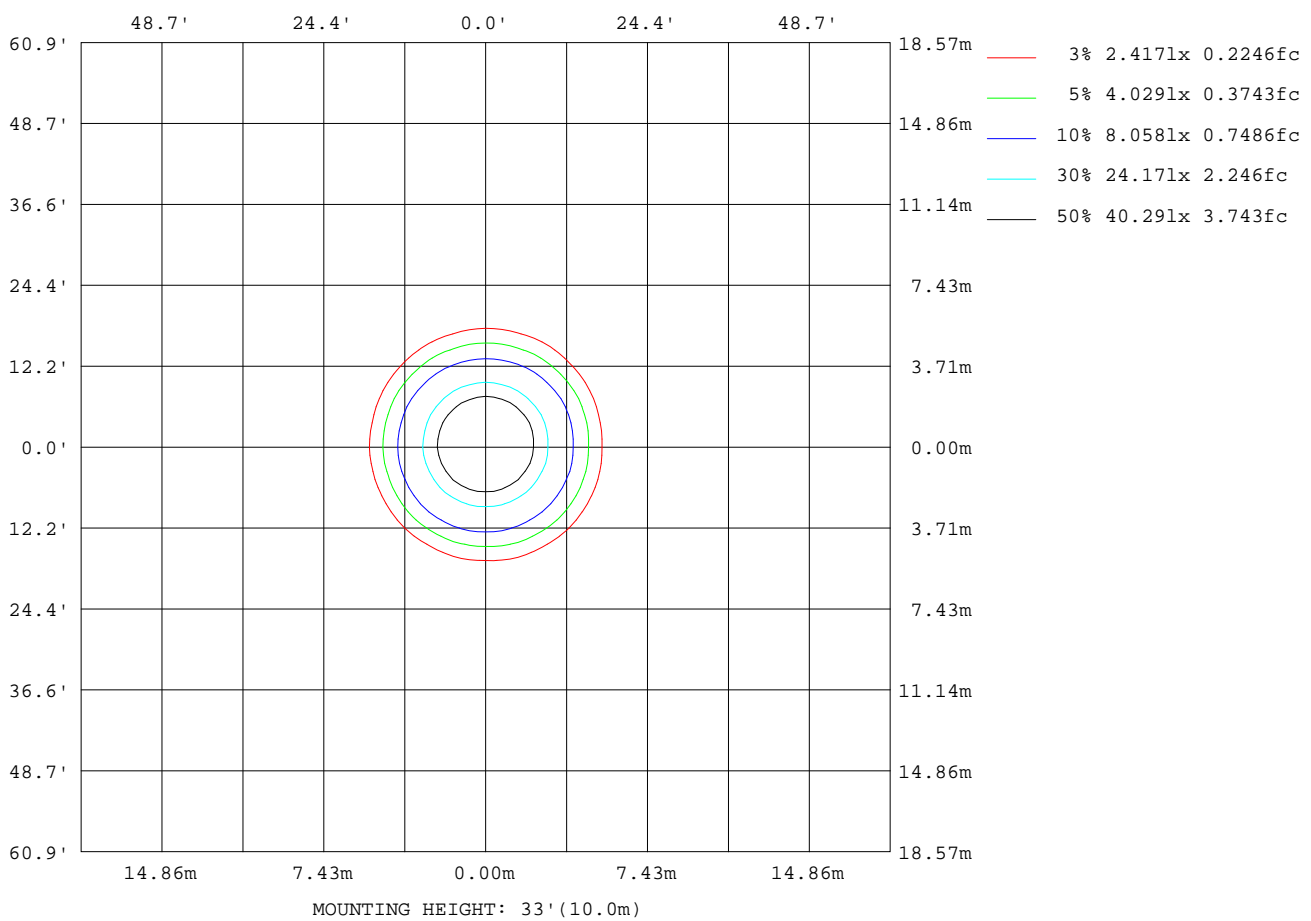
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Cao Chengpei  
Test Date:2016-06-23

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:53.0%  
Test Distance:5.850m [K=1.0000]  
Remarks:

ISOLUX DIAGRAM

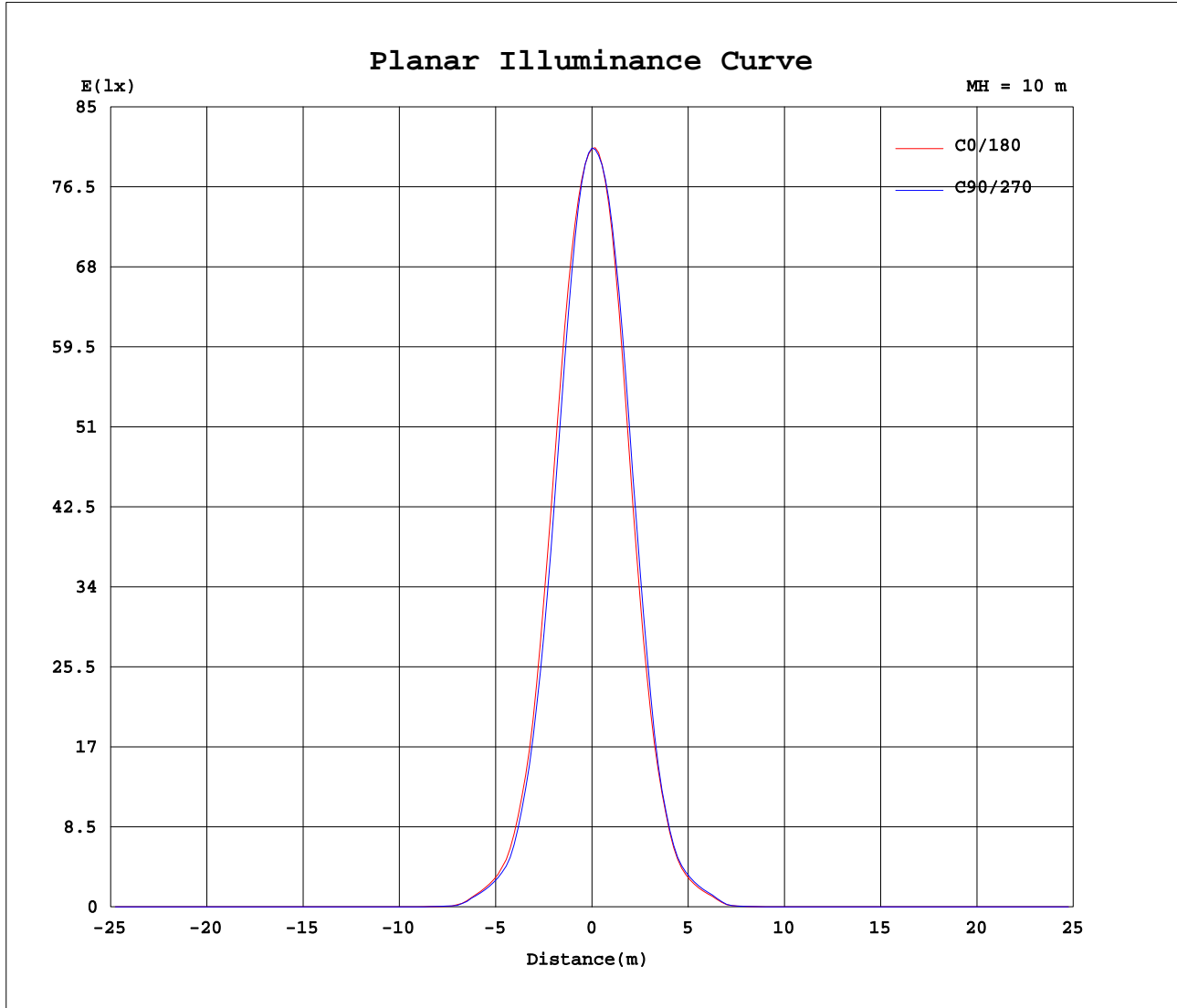
Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Cao Chengpei  
Test Date:2016-06-23

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:53.0%  
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: Cao Chengpei  
 Test Date: 2016-06-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity: 53.0%  
 Test Distance: 5.850m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
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	8058	8063	8058	8062	8061	8063	8063	8065	8067	8068	8071	8069	8058	8063	8058	8062	8061	8063	8063
5	7342	7308	7233	7227	7160	7201	7190	7289	7325	7431	7450	7509	7553	7520	7546	7535	7587	7580	7608
10	5469	5426	5270	5230	5100	5104	5038	5131	5140	5294	5314	5447	5580	5586	5721	5728	5850	5807	5887
15	3117	3085	2959	2940	2828	2831	2773	2839	2839	2950	2947	3054	3154	3161	3297	3300	3409	3383	3462
20	1410	1419	1362	1360	1287	1292	1248	1305	1311	1387	1384	1423	1457	1441	1499	1481	1514	1464	1495
25	569	561	560	545	524	514	494	498	504	517	530	532	551	566	577	576	587	574	587
30	257	262	258	258	246	244	233	236	234	244	242	251	261	262	275	278	286	282	290
35	43.3	37.8	44.3	37.0	33.2	33.0	30.9	32.0	32.6	36.4	45.4	40.8	45.0	55.0	49.1	59.1	49.5	58.5	48.8
40	7.08	7.06	7.30	7.92	7.54	7.91	8.51	8.74	9.58	9.50	9.34	9.40	9.47	8.60	9.31	8.96	9.01	8.19	8.59
45	0.53	0.54	0.53	0.54	0.50	0.48	0.46	0.48	0.48	0.50	0.51	0.51	0.48	0.48	0.49	0.48	0.50	0.49	0.49
50	0.32	0.31	0.33	0.32	0.32	0.29	0.30	0.30	0.32	0.32	0.33	0.32	0.30	0.32	0.30	0.32	0.30	0.32	0.30
55	0.25	0.23	0.25	0.24	0.25	0.22	0.24	0.23	0.25	0.24	0.26	0.23	0.23	0.25	0.23	0.25	0.23	0.24	0.22
60	0.20	0.19	0.21	0.19	0.21	0.18	0.20	0.19	0.21	0.20	0.21	0.19	0.18	0.20	0.18	0.20	0.18	0.20	0.18
65	0.18	0.16	0.18	0.17	0.18	0.16	0.18	0.16	0.19	0.17	0.18	0.16	0.16	0.17	0.16	0.17	0.16	0.17	0.15
70	0.16	0.14	0.16	0.14	0.16	0.14	0.16	0.14	0.17	0.15	0.17	0.14	0.13	0.16	0.13	0.15	0.13	0.15	0.13
75	0.14	0.13	0.15	0.13	0.15	0.13	0.14	0.13	0.15	0.13	0.15	0.13	0.13	0.14	0.13	0.14	0.12	0.14	0.12
80	0.13	0.12	0.13	0.12	0.13	0.12	0.13	0.13	0.14	0.12	0.14	0.12	0.12	0.13	0.11	0.13	0.11	0.13	0.11
85	0.13	0.12	0.12	0.12	0.12	0.12	0.13	0.12	0.13	0.12	0.12	0.12	0.10	0.12	0.11	0.12	0.10	0.12	0.11
90	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.12	0.12	0.10	0.11	0.11	0.10	0.10	0.10	0.10

C Range: 0 - 360DEG      γ Range: 0 - 90DEG  
 C Interval: 15.0DEG      γ Interval: 1.0DEG  
 Test Speed: HIGH      Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Temperature:25.3DEG      Humidity:53.0%  
 Operators:Cao Chengpei      Test Distance:5.850m [K=1.0000]  
 Test Date:2016-06-23      Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1175A P:24.05W PF:0.9277 Lamp Flux:1842.66x1 lm		
NAME: FF10-22W-830-24D Black	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L290mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	8065	8067	8068	8071	8069														
5	7573	7583	7527	7510	7439														
10	5827	5879	5767	5766	5623														
15	3414	3476	3380	3391	3245														
20	1478	1536	1514	1539	1474														
25	583	604	599	609	582														
30	288	298	287	284	269														
35	59.5	52.1	58.0	46.7	47.2														
40	8.09	9.04	8.85	8.61	7.31														
45	0.51	0.55	0.54	0.55	0.53														
50	0.32	0.31	0.32	0.30	0.31														
55	0.24	0.23	0.25	0.23	0.24														
60	0.20	0.19	0.20	0.18	0.20														
65	0.17	0.15	0.17	0.15	0.17														
70	0.15	0.13	0.15	0.13	0.15														
75	0.14	0.12	0.14	0.13	0.14														
80	0.13	0.12	0.14	0.12	0.14														
85	0.12	0.10	0.13	0.11	0.13														
90	0.11	0.11	0.11	0.10	0.11														

 C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2016-06-23

 γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:53.0%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

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	8058	8063	8058	8062	8061	8063	8063	8065	8067	8068
3.0	7760	7745	7702	7710	7685	7723	7726	7803	7820	7871
6.0	7068	7029	6928	6914	6830	6858	6837	6936	6978	7094
9.0	5924	5888	5729	5706	5578	5598	5523	5626	5633	5792
12.0	4516	4464	4300	4270	4128	4136	4064	4156	4157	4299
15.0	3117	3085	2959	2940	2828	2831	2773	2839	2839	2950
18.0	1942	1941	1879	1875	1795	1795	1752	1809	1812	1890
21.0	1182	1180	1133	1122	1058	1058	1028	1067	1074	1145
24.0	659.6	663.4	643.6	632.2	599.4	593.0	569.6	577.0	580.4	612.6
27.0	412.5	419.6	413.5	410.6	390.7	388.6	372.6	376.6	372.0	387.2
30.0	257.0	262.0	258.1	258.3	246.3	244.1	232.6	235.7	233.5	244.0
33.0	113.1	121.1	113.4	118.9	105.7	111.2	98.09	103.5	104.1	116.4
36.0	20.25	21.98	22.70	24.16	23.68	24.01	23.15	23.78	24.33	25.76
39.0	9.160	9.406	10.43	11.16	11.08	11.32	11.80	11.89	12.67	12.87
42.0	2.078	2.085	1.490	1.425	1.124	1.059	1.011	1.063	1.098	1.351
45.0	0.5342	0.5445	0.5299	0.5361	0.5000	0.4787	0.4551	0.4787	0.4848	0.5043
48.0	0.3646	0.3555	0.3710	0.3662	0.3667	0.3364	0.3453	0.3428	0.3625	0.3640
51.0	0.3006	0.2895	0.3091	0.2981	0.3048	0.2747	0.2836	0.2789	0.3027	0.2981
54.0	0.2558	0.2428	0.2622	0.2513	0.2600	0.2364	0.2472	0.2406	0.2622	0.2534
57.0	0.2280	0.2108	0.2302	0.2172	0.2323	0.2066	0.2237	0.2087	0.2323	0.2215
60.0	0.2046	0.1895	0.2110	0.1938	0.2110	0.1832	0.2045	0.1895	0.2110	0.1959
63.0	0.1875	0.1700	0.1939	0.1767	0.1918	0.1682	0.1854	0.1725	0.1960	0.1768
66.0	0.1748	0.1559	0.1790	0.1619	0.1790	0.1618	0.1747	0.1576	0.1790	0.1619
69.0	0.1620	0.1427	0.1641	0.1470	0.1683	0.1427	0.1641	0.1469	0.1684	0.1491
72.0	0.1534	0.1363	0.1556	0.1363	0.1556	0.1342	0.1534	0.1363	0.1577	0.1384
75.0	0.1449	0.1299	0.1470	0.1299	0.1491	0.1257	0.1449	0.1299	0.1492	0.1320
78.0	0.1364	0.1250	0.1364	0.1249	0.1385	0.1235	0.1364	0.1266	0.1428	0.1257
81.0	0.1342	0.1231	0.1279	0.1237	0.1321	0.1221	0.1300	0.1249	0.1363	0.1243
84.0	0.1257	0.1212	0.1257	0.1226	0.1257	0.1207	0.1257	0.1232	0.1300	0.1228
87.0	0.1236	0.1193	0.1215	0.1214	0.1193	0.1193	0.1236	0.1214	0.1257	0.1214
90.0	0.1193	0.1193	0.1214	0.1214	0.1193	0.1193	0.1236	0.1236	0.1257	0.1257
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	8071	8069	8058	8063	8058	8062	8061	8063	8063	8065
3.0	7878	7906	7919	7892	7903	7893	7909	7897	7915	7905
6.0	7112	7203	7281	7250	7309	7295	7352	7328	7364	7320
9.0	5805	5948	6070	6060	6184	6182	6299	6261	6330	6273
12.0	4315	4436	4579	4585	4727	4742	4861	4825	4909	4853
15.0	2947	3054	3154	3161	3297	3300	3409	3383	3462	3414
18.0	1889	1948	2015	2006	2096	2081	2142	2096	2143	2095
21.0	1145	1177	1225	1202	1263	1234	1272	1213	1260	1231
24.0	616.3	636.7	663.9	660.8	686.6	679.0	694.8	674.3	692.1	688.6
27.0	384.6	394.6	407.2	407.2	423.2	425.4	433.9	431.6	443.4	439.8
30.0	241.8	251.0	261.3	262.4	274.7	277.9	286.4	282.1	290.1	288.0
33.0	113.6	124.2	135.4	136.8	146.1	151.7	153.6	154.6	154.7	155.3
36.0	25.27	27.05	28.02	27.20	28.44	27.57	28.05	26.29	27.35	27.26
39.0	12.60	12.82	12.74	12.07	12.64	12.46	12.28	11.41	11.69	11.22
42.0	1.565	1.854	1.976	1.753	1.843	1.632	1.841	1.382	1.773	1.766
45.0	0.5082	0.5064	0.4828	0.4824	0.4870	0.4846	0.4955	0.4867	0.4933	0.5144
48.0	0.3816	0.3640	0.3406	0.3602	0.3512	0.3602	0.3554	0.3602	0.3427	0.3645
51.0	0.3155	0.2959	0.2789	0.3005	0.2853	0.2963	0.2852	0.2984	0.2767	0.2963
54.0	0.2686	0.2470	0.2363	0.2600	0.2406	0.2536	0.2385	0.2536	0.2321	0.2515
57.0	0.2387	0.2130	0.2065	0.2280	0.2065	0.2237	0.2044	0.2216	0.2002	0.2216
60.0	0.2110	0.1917	0.1831	0.2046	0.1810	0.1982	0.1789	0.2003	0.1767	0.1960
63.0	0.1960	0.1746	0.1640	0.1854	0.1619	0.1833	0.1640	0.1790	0.1639	0.1748
66.0	0.1832	0.1597	0.1512	0.1726	0.1512	0.1704	0.1469	0.1662	0.1448	0.1641
69.0	0.1704	0.1448	0.1405	0.1598	0.1384	0.1556	0.1384	0.1534	0.1321	0.1534
72.0	0.1577	0.1342	0.1300	0.1513	0.1278	0.1491	0.1278	0.1470	0.1299	0.1427
75.0	0.1534	0.1278	0.1278	0.1428	0.1257	0.1406	0.1214	0.1385	0.1193	0.1364
78.0	0.1407	0.1229	0.1214	0.1385	0.1150	0.1342	0.1150	0.1325	0.1133	0.1342
81.0	0.1321	0.1210	0.1129	0.1342	0.1080	0.1299	0.1086	0.1274	0.1082	0.1278
84.0	0.1257	0.1191	0.1065	0.1257	0.1062	0.1236	0.1044	0.1236	0.1057	0.1236
87.0	0.1193	0.1172	0.1023	0.1129	0.1044	0.1172	0.1023	0.1151	0.1044	0.1172
90.0	0.1193	0.1193	0.1044	0.1065	0.1065	0.1044	0.1023	0.1044	0.1044	0.1108
G/C	300.0	315.0	330.0	345.0						
0.0	8067	8068	8071	8069						
3.0	7905	7871	7873	7829						
6.0	7344	7280	7267	7182						
9.0	6308	6205	6204	6073						
12.0	4921	4817	4816	4670						
15.0	3476	3380	3391	3245						
18.0	2148	2089	2113	2024						
21.0	1302	1276	1308	1238						

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.3DEG

Operators: Cao Chengpei

Test Date: 2016-06-23

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288

Humidity: 53.0%

Test Distance: 5.850m [K=1.0000]

Remarks:

Photometric Data Table [cd]

24.0	717.9	712.0	729.5	693.8
27.0	452.7	446.6	447.9	429.9
30.0	298.3	286.9	284.0	268.8
33.0	156.4	144.1	139.0	120.5
36.0	29.37	27.69	26.37	22.24
39.0	12.12	11.96	11.17	9.509
42.0	2.828	2.667	3.235	2.680
45.0	0.5506	0.5380	0.5484	0.5274
48.0	0.3618	0.3666	0.3491	0.3538
51.0	0.2937	0.3027	0.2852	0.2899
54.0	0.2427	0.2558	0.2385	0.2494
57.0	0.2108	0.2259	0.2044	0.2216
60.0	0.1853	0.2024	0.1810	0.1960
63.0	0.1661	0.1811	0.1640	0.1790
66.0	0.1470	0.1683	0.1470	0.1641
69.0	0.1384	0.1556	0.1384	0.1555
72.0	0.1278	0.1491	0.1299	0.1449
75.0	0.1236	0.1427	0.1253	0.1406
78.0	0.1172	0.1385	0.1214	0.1364
81.0	0.1129	0.1342	0.1150	0.1350
84.0	0.1086	0.1279	0.1086	0.1286
87.0	0.1044	0.1214	0.1044	0.1214
90.0	0.1065	0.1108	0.1044	0.1129

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Cao Chengpei  
 Test Date: 2016-06-23

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity: 53.0%  
 Test Distance: 5.850m [K=1.0000]  
 Remarks: