

LED Downlight CATO Series C8R-20S-840



Light Output Ratio:	100.0%	
Luminaire Power:	21.66 W	
SHR Nominal:	1.00	Calculated using the TM5
SHR Maximum:	1.15	fine grid method.

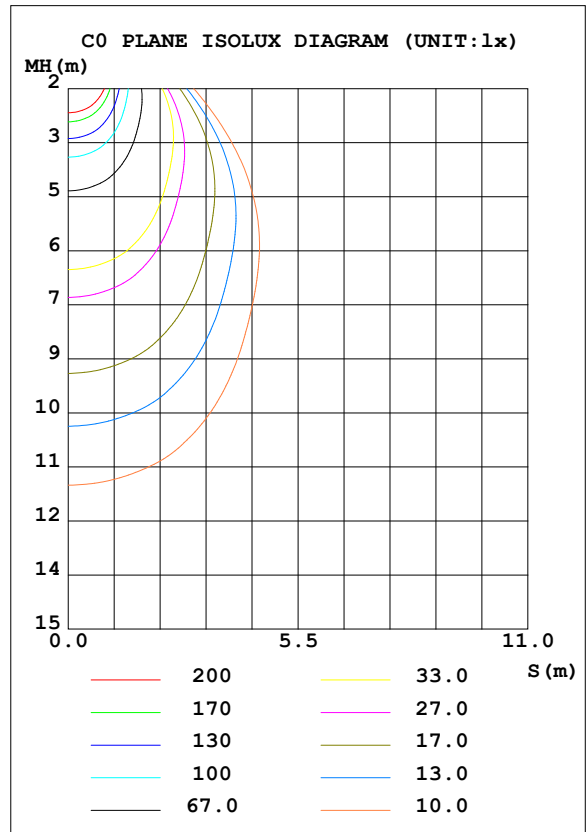
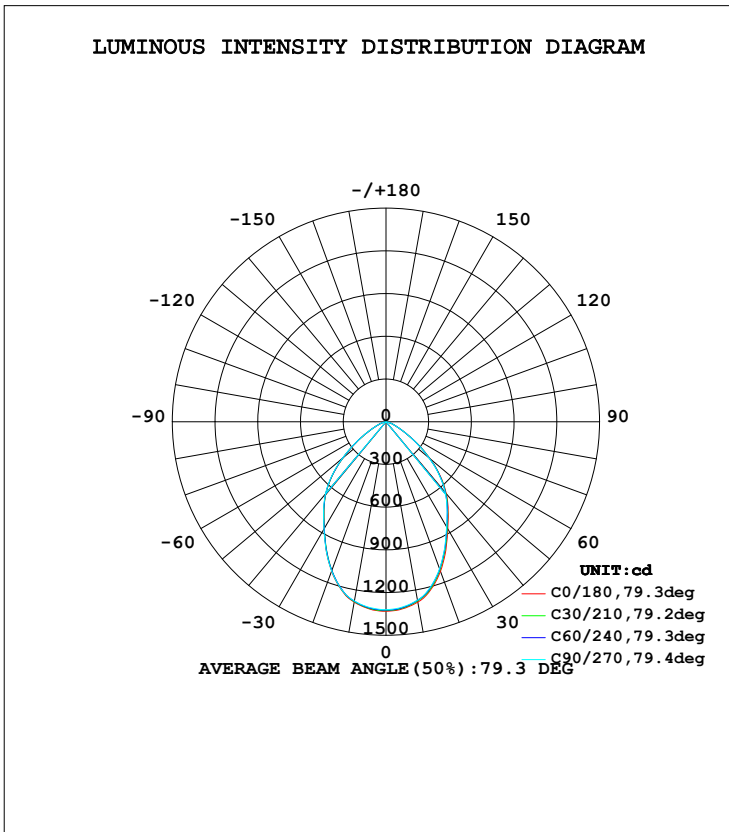
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Cao Chengpei  
 Test Date: 2014-09-02

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity: 53.0%  
 Test Distance: 5.780m [K=1.0000]  
 Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.3V I:0.1025A P:21.66W PF:0.9596 Lamp Flux:2156.6x1 lm		
NAME: C8R-20S-840	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ230mm*H76mm	
MFR.: E-LITE LIGHTING CO.,LTD.		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.56 lm/W			
MODEL	SAMSUNG-4000K	I <sub>max</sub> (cd)	1332	S/MH (C0/180)	1.02
NOMINAL POWER (W)	22	LOR (%)	100.0	S/MH (C90/270)	1.03
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2156.6	η UP, DN (C0-180)	0.0, 49.8
NOMINAL FLUX (lm)	2156.6	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.15



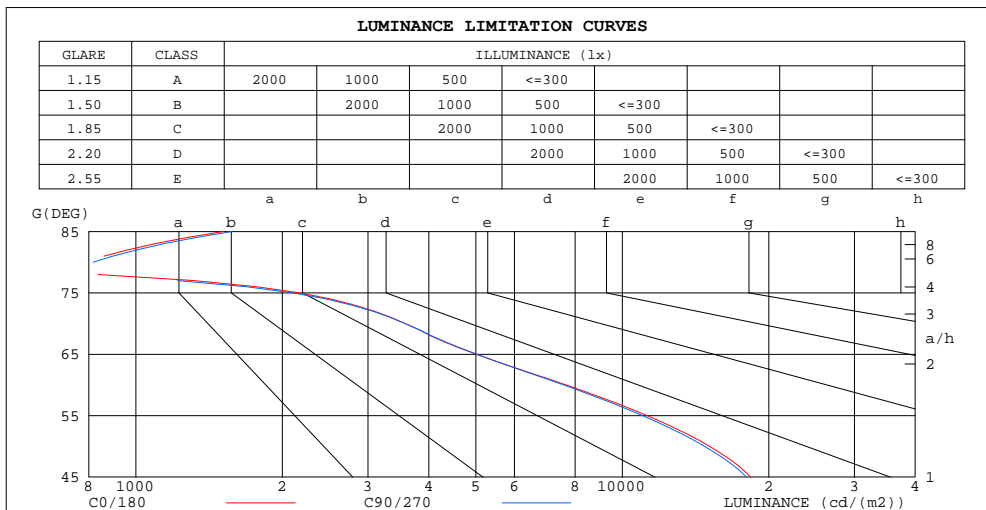
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 Remarks:

**ZONAL FLUX DIAGRAM  
AND LUMINANCE LIMITATION CURVES**

**ZONAL FLUX DIAGRAM:**

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	1287	1277	1272	1270	1287	1280	1278	1274	0- 10	123.9	123.9	5.75,5.75
20	1118	1111	1100	1104	1117	1106	1116	1112	10- 20	338.9	462.8	21.5,21.5
30	869.1	863.6	852.8	855.9	869.2	861.1	871.6	866.3	20- 30	452.9	915.6	42.5,42.5
40	658.9	657.1	646.1	645.6	656.4	651.5	661.1	657.3	30- 40	472.8	1388	64.4,64.4
50	403.6	403.4	394.0	390.1	394.0	392.5	399.6	401.6	40- 50	408.0	1797	83.3,83.3
60	159.1	160.2	157.3	152.9	154.6	151.8	158.6	158.6	50- 60	238.0	2035	94.3,94.3
70	50.85	51.79	50.83	48.83	48.70	48.62	50.55	51.97	60- 70	91.31	2126	98.6,98.6
80	5.651	5.668	5.888	6.005	6.211	5.963	5.731	5.607	70- 80	25.08	2151	99.7,99.7
90	0.3099	0.1560	0.1435	0.1414	0.1019	0.1185	0.3494	0.8131	80- 90	5.665	2157	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	1516	1578
80	784	817
75	2170	2101
70	3580	3579
65	5009	5027
60	7664	7576
55	11246	11008
50	15119	14761
45	18354	17987

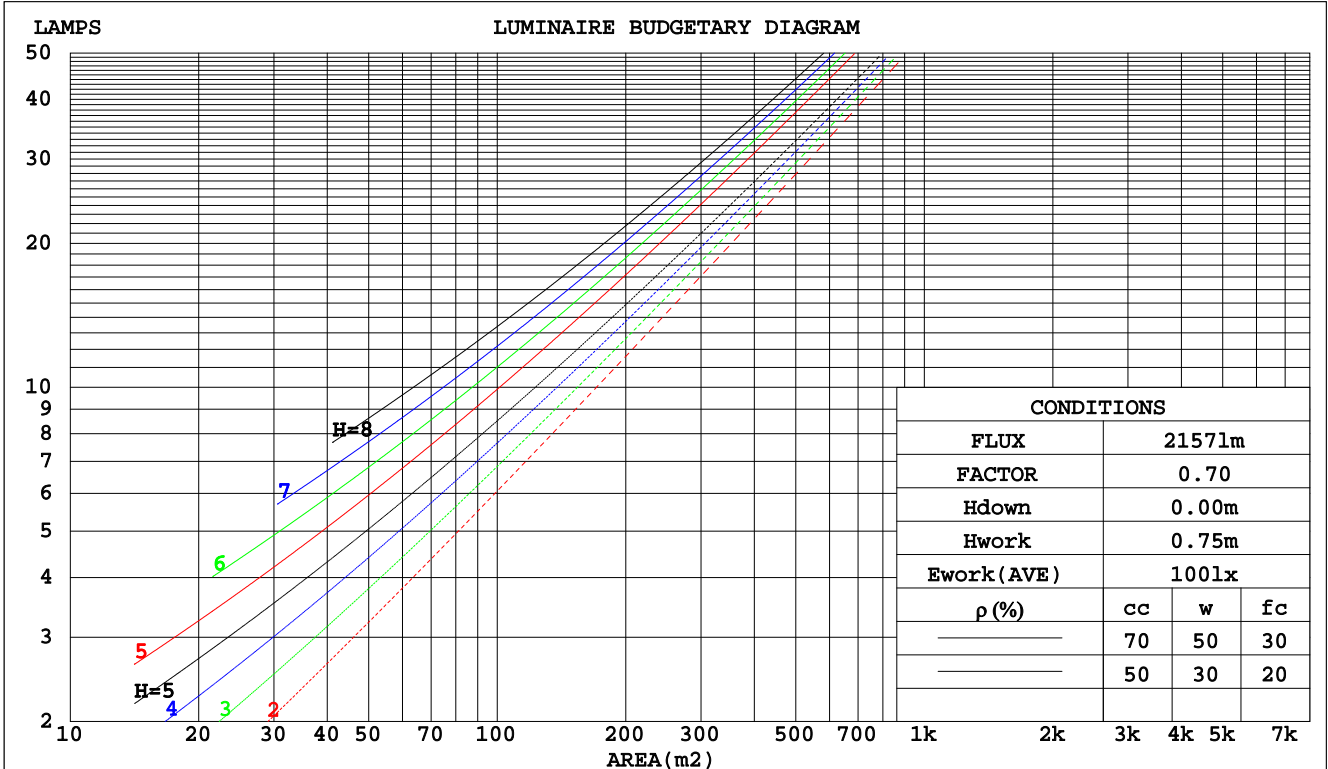
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.3V I:0.1025A P:21.66W PF:0.9596 Lamp Flux:2156.6x1 lm		
NAME: C8R-20S-840	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ230mm*H76mm	
MFR.: E-LITE LIGHTING CO.,LTD.		

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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.92	.90
2.0	.98	.92	.88	.96	.91	.87	.92	.88	.85	.89	.86	.83	.86	.84	.81	.79
3.0	.88	.82	.76	.87	.81	.76	.84	.79	.75	.81	.77	.73	.79	.75	.72	.70
4.0	.80	.73	.67	.79	.72	.67	.76	.71	.66	.74	.69	.65	.72	.68	.64	.62
5.0	.73	.65	.60	.72	.65	.59	.70	.64	.59	.68	.63	.58	.66	.62	.58	.56
6.0	.67	.59	.54	.66	.59	.53	.64	.58	.53	.62	.57	.52	.61	.56	.52	.50
7.0	.61	.54	.48	.60	.53	.48	.59	.53	.48	.58	.52	.48	.56	.51	.47	.46
8.0	.56	.49	.44	.56	.49	.44	.55	.48	.44	.53	.48	.43	.52	.47	.43	.41
9.0	.52	.45	.40	.52	.45	.40	.51	.44	.40	.50	.44	.40	.49	.43	.40	.38
10.0	.49	.42	.37	.48	.41	.37	.47	.41	.37	.46	.41	.37	.46	.40	.36	.35



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WEC AND CCEC

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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	.230	.131	.041	.223	.127	.040	.210	.121	.038	.198	.114	.037	.187	.109	.035	
2.0	.224	.123	.038	.218	.120	.037	.207	.115	.036	.197	.110	.035	.187	.106	.033	
3.0	.214	.114	.034	.209	.112	.034	.199	.108	.033	.190	.104	.032	.182	.101	.031	
4.0	.203	.105	.031	.198	.104	.031	.190	.101	.030	.182	.098	.029	.174	.095	.029	
5.0	.192	.098	.028	.188	.096	.028	.180	.094	.028	.173	.091	.027	.166	.089	.027	
6.0	.181	.091	.026	.177	.090	.026	.171	.088	.025	.165	.085	.025	.159	.084	.025	
7.0	.171	.085	.024	.168	.084	.024	.162	.082	.024	.156	.080	.023	.151	.079	.023	
8.0	.162	.079	.022	.159	.078	.022	.154	.077	.022	.149	.075	.022	.144	.074	.022	
9.0	.154	.074	.021	.151	.074	.021	.146	.072	.020	.142	.071	.020	.137	.070	.020	
10.0	.146	.070	.019	.144	.069	.019	.139	.068	.019	.135	.067	.019	.131	.066	.019	

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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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.175	.157	.141	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.163	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.038	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.090	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.145	.100	.065	.125	.086	.057	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.138	.089	.053	.118	.077	.046	.082	.054	.033	.047	.032	.019	.015	.010	.006	
6.0	.131	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.125	.073	.037	.107	.063	.032	.074	.045	.023	.043	.026	.014	.014	.009	.004	
8.0	.119	.067	.032	.103	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.114	.062	.028	.098	.054	.024	.068	.038	.017	.040	.022	.010	.013	.007	.003	
10.0	.109	.058	.024	.094	.050	.021	.065	.035	.015	.038	.021	.009	.012	.007	.003	

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 Humidity:53.0%  
 Test Distance:5.780m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

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SPEC.:4000K	DIM.: φ230mm*H76mm	
MFR.: E-LITE LIGHTING CO.,LTD.		

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	20.5	21.8	20.8	21.9	22.1	20.4	21.7	20.7	21.9	22.1
3H	20.6	21.8	20.9	22.0	22.2	20.5	21.7	20.8	21.9	22.1
4H	20.6	21.7	20.9	21.9	22.2	20.5	21.6	20.8	21.8	22.1
6H	20.5	21.5	20.8	21.8	22.0	20.4	21.5	20.7	21.7	22.0
8H	20.5	21.4	20.8	21.7	22.0	20.4	21.4	20.7	21.6	21.9
12H	20.4	21.4	20.8	21.6	21.9	20.3	21.3	20.7	21.6	21.9
4H 2H	20.5	21.6	20.8	21.9	22.1	20.5	21.6	20.8	21.8	22.0
3H	20.7	21.7	21.1	21.9	22.2	20.7	21.6	21.0	21.9	22.2
4H	20.7	21.6	21.1	21.9	22.2	20.7	21.5	21.0	21.8	22.1
6H	20.6	21.4	21.0	21.7	22.1	20.6	21.3	21.0	21.7	22.0
8H	20.6	21.3	21.0	21.7	22.0	20.5	21.2	20.9	21.6	22.0
12H	20.6	21.2	21.0	21.6	22.0	20.5	21.1	20.9	21.5	21.9
8H 4H	20.6	21.3	21.0	21.7	22.1	20.6	21.3	21.0	21.6	22.0
6H	20.6	21.1	21.0	21.5	21.9	20.5	21.1	20.9	21.5	21.9
8H	20.5	21.0	21.0	21.4	21.9	20.5	21.0	20.9	21.4	21.8
12H	20.5	20.9	21.0	21.4	21.8	20.5	20.9	20.9	21.3	21.8
12H 4H	20.6	21.2	21.0	21.6	22.0	20.5	21.2	20.9	21.5	21.9
6H	20.5	21.0	21.0	21.4	21.9	20.5	21.0	20.9	21.4	21.8
8H	20.5	20.9	21.0	21.4	21.8	20.4	20.9	20.9	21.3	21.8
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 1.5					+ 1.1 / - 1.6				
1.5H	+ 0.6 / - 0.8					+ 0.6 / - 0.8				
2.0H	+ 2.4 / - 3.3					+ 2.4 / - 3.2				

CIE Pub.117 Corrected 2157 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.7)

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 Remarks:

UTILIZATION FACTORS TABLE

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SPEC.:4000K	DIM.: φ230mm*H76mm	
MFR.: E-LITE LIGHTING CO.,LTD.		

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	69	59	53	68	59	53	67	58	53	48
0.80	79	70	64	78	69	63	76	68	63	58
1.00	87	78	72	86	78	72	84	78	72	66
1.25	93	85	80	92	84	79	89	83	78	73
1.50	97	90	85	96	89	84	93	87	83	77
2.00	102	96	91	101	95	91	98	93	89	83
2.50	105	99	95	103	98	94	100	96	92	85
3.00	107	102	98	105	101	97	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	91
5.00	112	108	105	110	106	104	105	103	101	92
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):

1608.5 lm

%lum = 74.6%

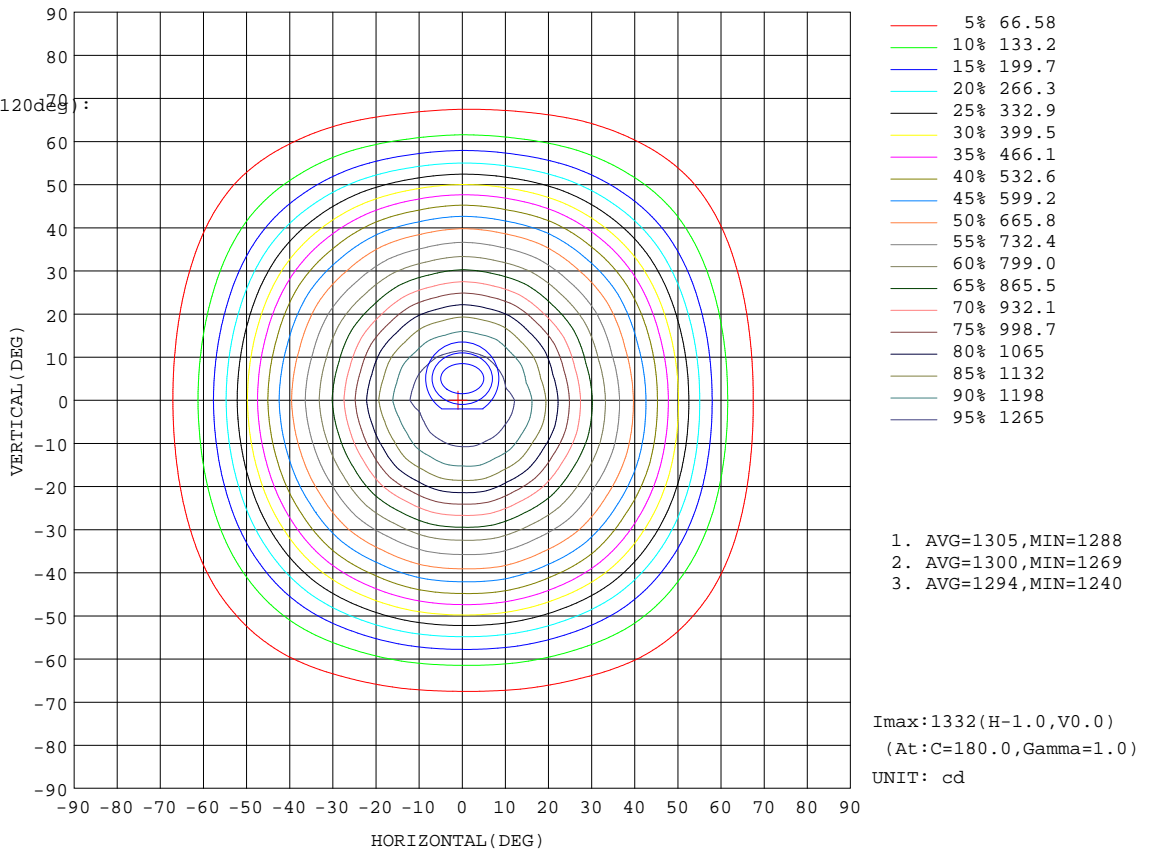
%lamp = 74.6%

Conical surface Flux(120deg):

2034.5 lm

%lum = 94.3%

%lamp = 94.3%



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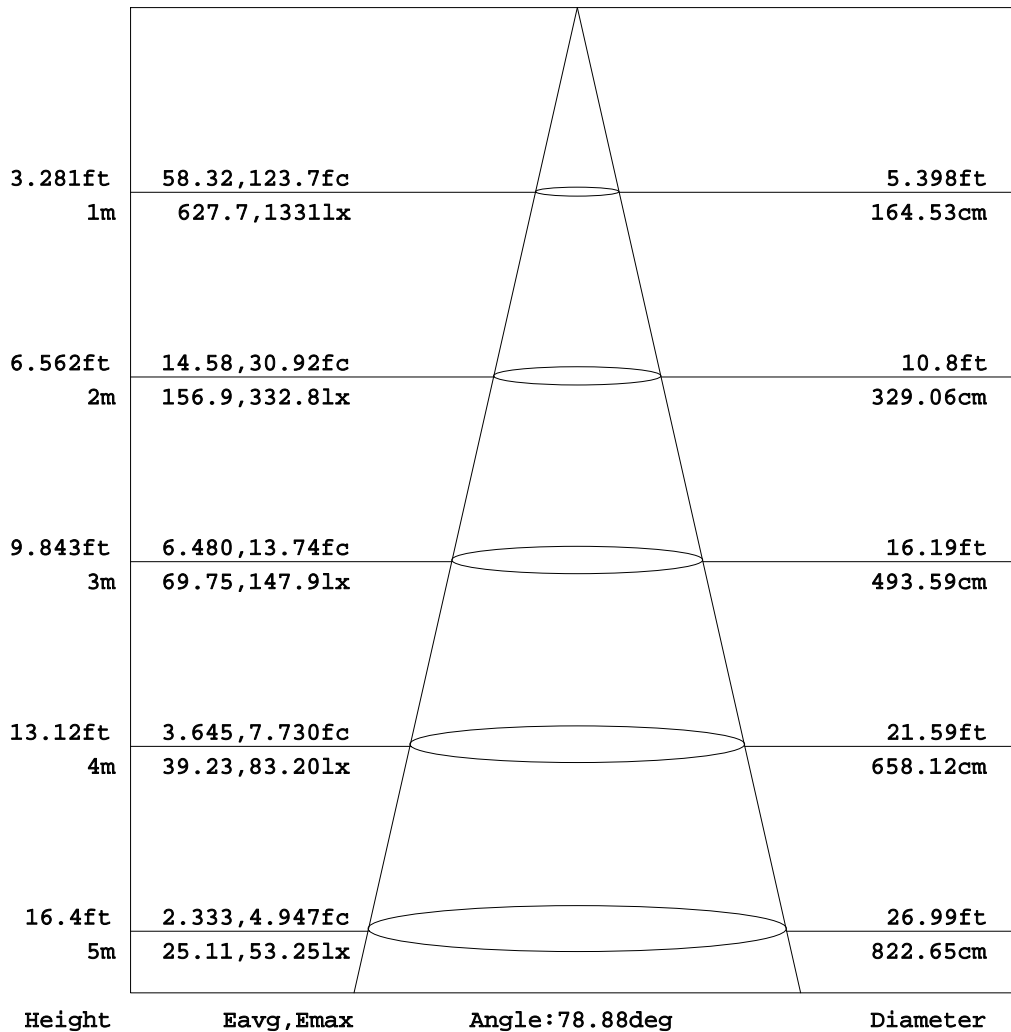
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**AAI Figure**

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Flux out:1388 lm



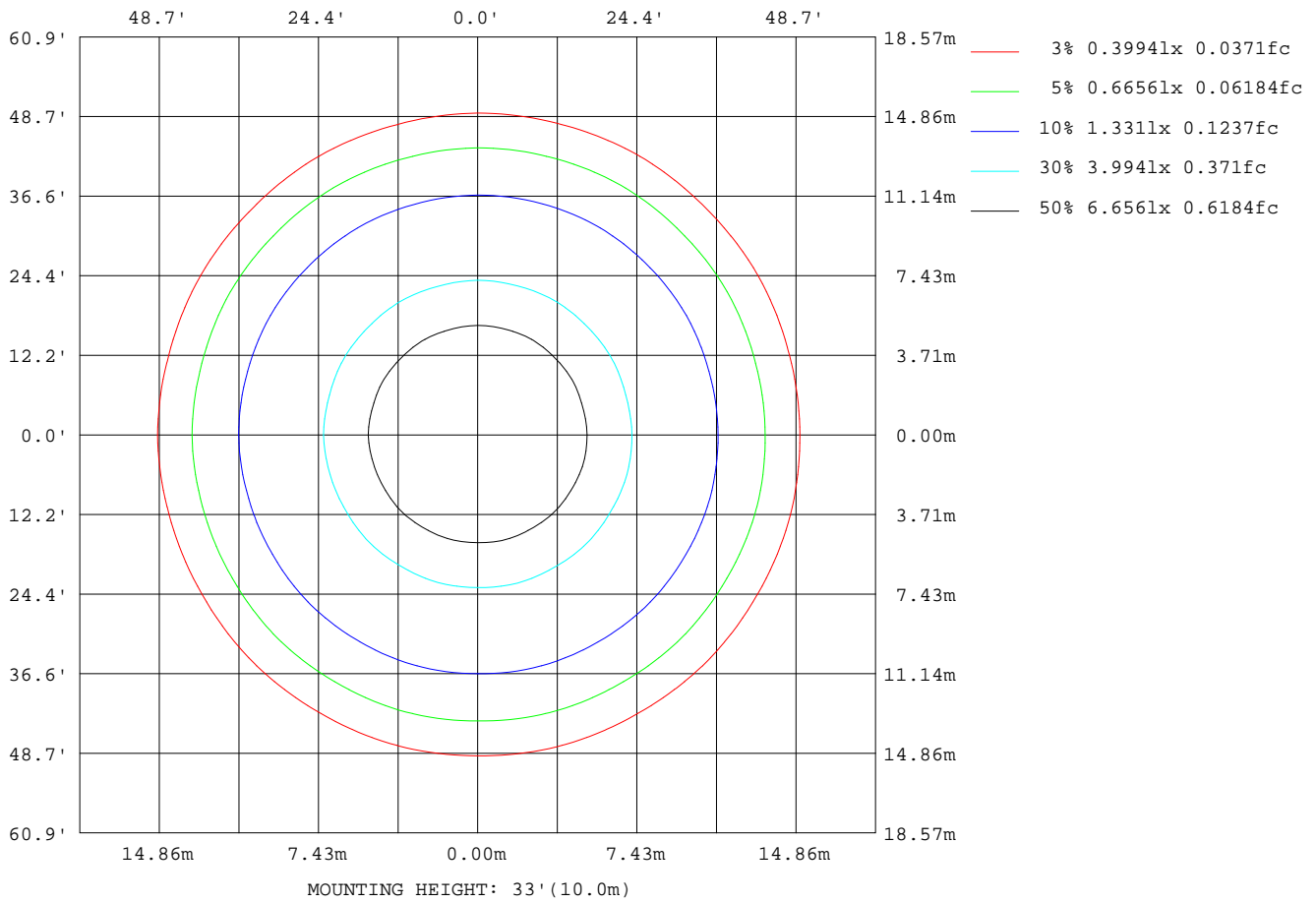
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

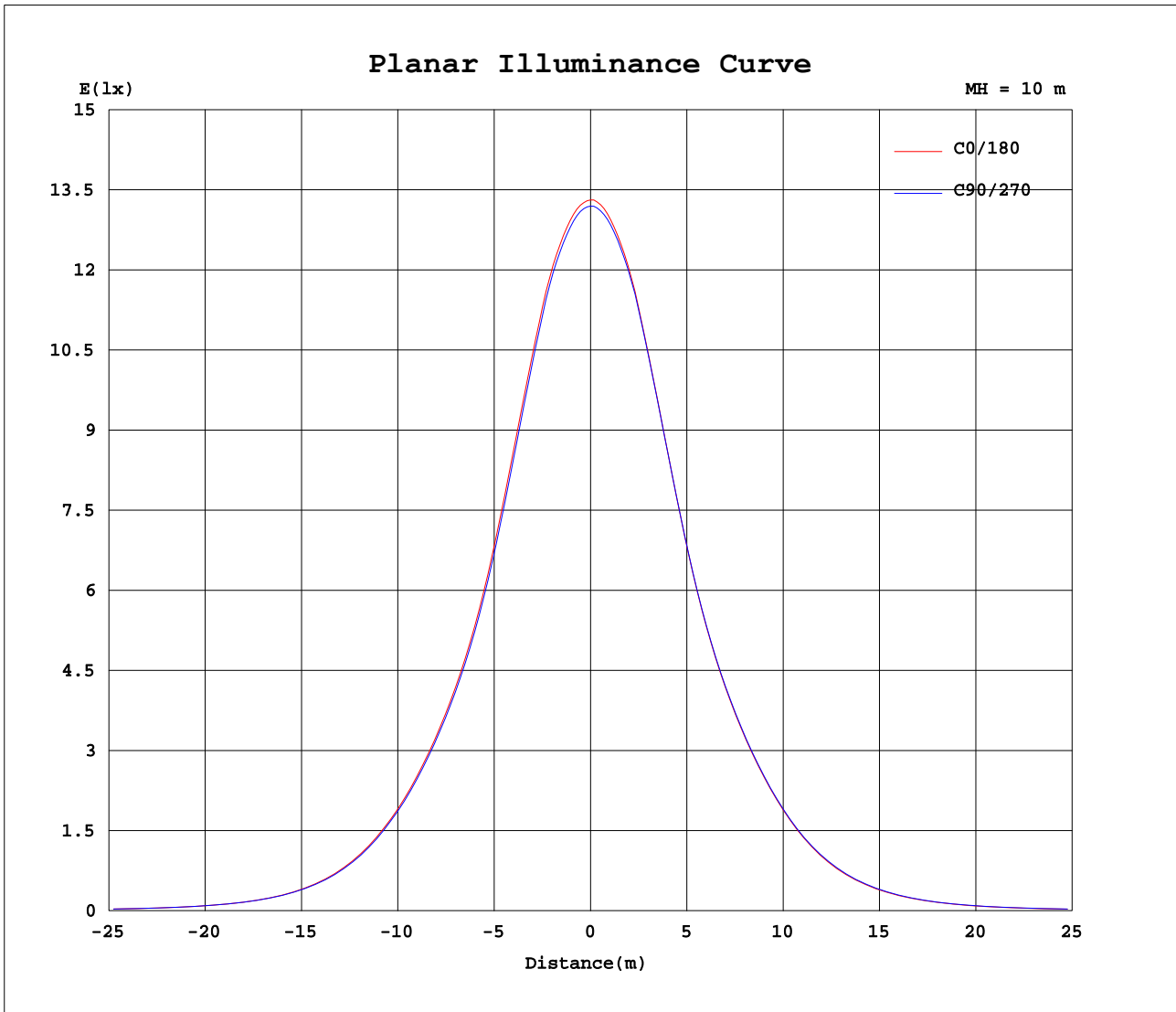
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Planar Illuminance Curve



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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.3V I:0.1025A P:21.66W PF:0.9596 Lamp Flux:2156.6x1 lm		
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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	1331	1328	1326	1324	1322	1321	1320	1316	1315	1314	1312	1311	1331	1328	1326	1324	1322	1321	1320
5	1320	1318	1315	1313	1311	1310	1307	1304	1302	1301	1299	1299	1320	1318	1317	1314	1313	1311	1310
10	1287	1284	1279	1277	1274	1274	1272	1272	1270	1270	1267	1267	1287	1283	1283	1280	1280	1278	1278
15	1219	1219	1213	1215	1206	1210	1203	1204	1198	1203	1196	1202	1219	1211	1216	1208	1214	1209	1216
20	1118	1119	1109	1111	1103	1106	1100	1103	1098	1104	1097	1102	1117	1108	1112	1106	1113	1109	1116
25	995	996	985	987	979	983	976	979	974	981	975	981	994	985	990	984	992	987	995
30	869	871	861	864	856	859	853	855	850	856	850	856	869	861	867	861	869	864	872
35	762	764	755	758	751	755	748	750	743	749	743	749	761	755	761	756	762	758	765
40	659	662	653	657	650	654	646	648	641	646	640	646	656	650	657	652	658	654	661
45	539	543	532	539	532	535	528	529	522	526	520	525	535	529	535	530	536	532	539
50	404	406	402	403	398	398	394	394	390	390	385	386	394	391	395	393	396	395	400
55	268	271	268	268	264	265	262	262	258	258	253	254	260	256	259	258	263	262	266
60	159	160	158	160	158	160	157	157	153	153	150	150	155	151	154	152	156	155	159
65	87.9	89.0	88.1	89.6	88.5	89.9	88.2	88.2	85.5	84.8	82.0	82.2	84.4	83.5	84.9	83.8	85.5	85.3	87.8
70	50.8	51.5	51.1	51.8	51.0	51.5	50.8	50.6	49.3	48.8	47.4	47.6	48.7	48.2	49.0	48.6	49.3	49.3	50.5
75	23.3	23.9	23.4	23.9	23.1	23.5	22.6	22.4	21.3	21.4	20.5	21.1	21.9	21.6	22.3	21.9	22.4	22.3	23.4
80	5.65	5.64	5.63	5.67	5.72	5.82	5.89	6.11	6.05	6.01	5.87	5.82	6.21	6.14	6.07	5.96	5.89	5.78	5.73
85	5.49	5.46	5.47	5.49	5.55	5.64	5.71	5.93	5.88	5.82	5.69	5.63	6.02	5.96	5.90	5.82	5.76	5.65	5.57
90	0.31	0.23	0.19	0.16	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.10	0.11	0.10	0.12	0.14	0.24	0.35

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-09-02  
 γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:53.0%  
 Test Distance:5.780m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.3V I:0.1025A P:21.66W PF:0.9596 Lamp Flux:2156.6x1 lm		
NAME: C8R-20S-840	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 230mm*H76mm	
MFR.: E-LITE LIGHTING CO.,LTD.		

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	1316	1315	1314	1312	1311														
5	1306	1305	1303	1301	1300														
10	1275	1277	1274	1273	1269														
15	1212	1217	1210	1213	1204														
20	1113	1120	1112	1116	1107														
25	992	999	991	995	986														
30	868	874	866	870	861														
35	762	767	760	763	754														
40	658	664	657	661	653														
45	535	543	537	542	540														
50	400	404	402	404	400														
55	266	269	266	269	266														
60	158	160	159	161	159														
65	88.3	90.6	89.5	90.4	88.5														
70	51.5	52.6	52.0	52.1	51.0														
75	24.0	24.8	24.2	24.5	23.8														
80	5.47	5.56	5.61	5.71	5.74														
85	5.31	5.37	5.43	5.50	5.55														
90	0.55	0.68	0.81	0.83	0.86														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-09-02

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:53.0%  
 Test Distance:5.780m [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	1331	1328	1326	1324	1322	1321	1320	1316	1315	1314
3.0	1327	1325	1323	1322	1320	1317	1315	1312	1310	1309
6.0	1315	1313	1310	1308	1305	1304	1301	1299	1297	1296
9.0	1295	1292	1288	1286	1283	1282	1281	1280	1278	1277
12.0	1266	1264	1259	1257	1254	1254	1252	1251	1248	1249
15.0	1219	1219	1213	1215	1206	1210	1203	1204	1198	1203
18.0	1162	1163	1153	1156	1147	1150	1144	1147	1141	1147
21.0	1095	1096	1085	1087	1078	1082	1076	1079	1074	1080
24.0	1020	1021	1010	1012	1004	1008	1001	1005	1000	1007
27.0	942.9	944.7	934.1	936.5	928.1	931.7	924.5	927.4	922.4	929.2
30.0	869.1	870.6	861.4	863.6	855.7	859.3	852.8	855.3	850.1	855.9
33.0	803.0	804.6	795.9	798.4	794.3	794.3	787.8	789.8	784.2	789.3
36.0	741.8	744.1	735.5	738.8	731.3	734.9	728.0	729.8	723.6	728.7
39.0	680.6	683.2	675.0	678.3	671.0	674.8	667.6	669.1	662.2	667.2
42.0	614.0	616.6	608.7	612.5	605.2	608.8	601.4	602.5	595.4	599.8
45.0	539.0	542.9	531.9	539.4	532.5	535.2	528.2	528.9	522.3	525.6
48.0	460.0	461.8	457.7	458.8	453.6	454.0	449.4	448.8	444.2	445.0
51.0	375.4	378.2	374.4	375.2	369.9	370.5	366.5	366.6	362.5	362.5
54.0	293.5	296.9	293.3	294.2	289.1	290.5	287.0	287.5	283.1	283.3
57.0	220.4	222.6	219.6	221.0	217.8	219.4	216.5	216.3	212.0	211.9
60.0	159.1	160.5	158.1	160.2	158.3	160.2	157.3	157.0	152.8	152.9
63.0	111.5	112.6	111.1	113.2	111.8	113.6	111.3	111.3	107.8	107.3
66.0	78.23	79.58	78.59	80.09	78.84	80.13	78.61	78.78	76.30	75.70
69.0	56.79	57.48	57.13	57.82	57.11	57.57	56.92	56.69	55.28	54.66
72.0	39.76	40.32	39.88	40.48	39.78	40.18	39.47	39.27	38.07	37.76
75.0	23.32	23.88	23.38	23.90	23.13	23.49	22.58	22.39	21.34	21.37
78.0	7.227	7.738	7.196	7.601	6.834	7.047	6.427	6.467	6.347	6.351
81.0	5.589	5.575	5.576	5.608	5.661	5.760	5.830	6.041	5.988	5.935
84.0	5.503	5.492	5.492	5.519	5.572	5.667	5.740	5.956	5.904	5.848
87.0	5.412	5.396	5.381	5.404	5.441	5.530	5.601	5.817	5.782	5.716
90.0	0.3099	0.2308	0.1934	0.1560	0.1477	0.1393	0.1435	0.1393	0.1435	0.1414
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	1312	1311	1331	1328	1326	1324	1322	1321	1320	1316
3.0	1307	1307	1328	1325	1323	1321	1320	1317	1316	1312
6.0	1294	1294	1315	1312	1312	1309	1308	1306	1305	1301
9.0	1274	1275	1295	1292	1291	1288	1289	1286	1286	1283
12.0	1246	1247	1266	1262	1262	1259	1260	1258	1260	1258
15.0	1196	1202	1219	1211	1216	1208	1214	1209	1216	1212
18.0	1140	1145	1161	1153	1157	1150	1156	1152	1159	1156
21.0	1073	1078	1094	1084	1089	1082	1090	1085	1093	1090
24.0	1001	1006	1020	1010	1015	1009	1017	1013	1020	1017
27.0	923.5	929.5	942.6	934.0	938.9	933.2	940.8	936.8	944.2	941.6
30.0	850.5	856.5	869.2	861.5	866.9	861.1	868.5	864.0	871.6	868.2
33.0	784.0	790.0	802.5	795.6	801.3	796.3	803.0	798.8	805.6	802.8
36.0	723.0	729.0	740.7	734.4	740.5	735.4	742.2	737.7	744.6	741.3
39.0	661.6	667.8	678.6	672.4	678.7	673.4	680.4	675.9	682.9	679.9
42.0	594.1	599.9	610.6	604.3	610.8	605.5	612.0	607.6	614.9	612.0
45.0	519.9	524.5	534.7	529.1	535.1	530.1	535.8	531.7	538.8	534.5
48.0	440.3	441.9	451.1	448.2	452.1	449.4	452.5	450.9	455.9	456.7
51.0	357.2	358.0	365.8	362.6	366.8	364.3	368.1	366.6	371.7	372.1
54.0	277.9	278.8	284.9	281.4	284.8	283.0	287.6	286.8	291.4	291.1
57.0	208.2	209.0	214.2	210.1	212.2	211.7	216.0	215.4	219.2	218.4
60.0	149.7	150.3	154.6	150.9	153.7	151.8	155.7	155.0	158.6	157.7
63.0	104.0	104.5	107.5	105.8	107.4	106.2	108.7	108.5	111.4	111.5
66.0	73.01	73.31	75.20	74.39	75.81	74.82	76.26	75.82	78.21	78.92
69.0	52.99	53.13	54.35	53.75	54.73	54.38	55.09	55.03	56.39	57.51
72.0	36.60	36.92	38.01	37.58	38.24	37.88	38.55	38.47	39.66	40.46
75.0	20.50	21.09	21.89	21.60	22.27	21.88	22.44	22.32	23.37	24.04
78.0	6.169	6.290	6.743	6.614	6.795	6.529	6.841	6.741	7.327	7.572
81.0	5.803	5.750	6.138	6.075	5.999	5.904	5.833	5.734	5.669	5.401
84.0	5.713	5.658	6.043	5.985	5.918	5.840	5.773	5.667	5.592	5.324
87.0	5.589	5.527	5.903	5.849	5.797	5.730	5.669	5.566	5.499	5.233
90.0	0.1414	0.1414	0.1019	0.1081	0.1040	0.1185	0.1373	0.2392	0.3494	0.5490
G/C	300.0	315.0	330.0	345.0						
0.0	1315	1314	1312	1311						
3.0	1311	1310	1308	1306						
6.0	1301	1299	1297	1295						
9.0	1284	1282	1280	1277						
12.0	1259	1255	1254	1249						
15.0	1217	1210	1213	1204						
18.0	1163	1155	1159	1150						
21.0	1097	1089	1093	1084						

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.3DEG

Operators: Cao Chengpei

Test Date: 2014-09-02

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

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

Humidity: 53.0%

Test Distance: 5.780m [K=1.0000]

Remarks:

**Photometric Data Table [cd]**

24.0	1024	1016	1021	1012
27.0	947.1	939.3	943.5	934.5
30.0	874.0	866.3	870.4	861.1
33.0	807.7	800.7	804.0	795.2
36.0	746.6	739.8	743.0	734.2
39.0	685.4	678.9	682.1	673.8
42.0	618.4	612.0	616.0	607.6
45.0	543.3	537.0	542.0	539.9
48.0	461.0	458.2	460.0	456.1
51.0	376.3	373.2	375.5	372.0
54.0	294.7	291.9	294.2	291.4
57.0	221.4	219.2	221.8	219.7
60.0	160.4	158.6	161.4	159.4
63.0	113.9	112.6	114.3	112.6
66.0	81.05	79.94	80.62	78.74
69.0	58.68	58.14	58.15	57.03
72.0	41.40	40.82	41.01	40.11
75.0	24.80	24.23	24.52	23.77
78.0	8.160	7.703	8.172	7.630
81.0	5.483	5.538	5.627	5.665
84.0	5.386	5.445	5.521	5.565
87.0	5.297	5.362	5.441	5.478
90.0	0.6800	0.8131	0.8339	0.8568

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Cao Chengpei  
 Test Date: 2014-09-02

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity: 53.0%  
 Test Distance: 5.780m [K=1.0000]  
 Remarks: