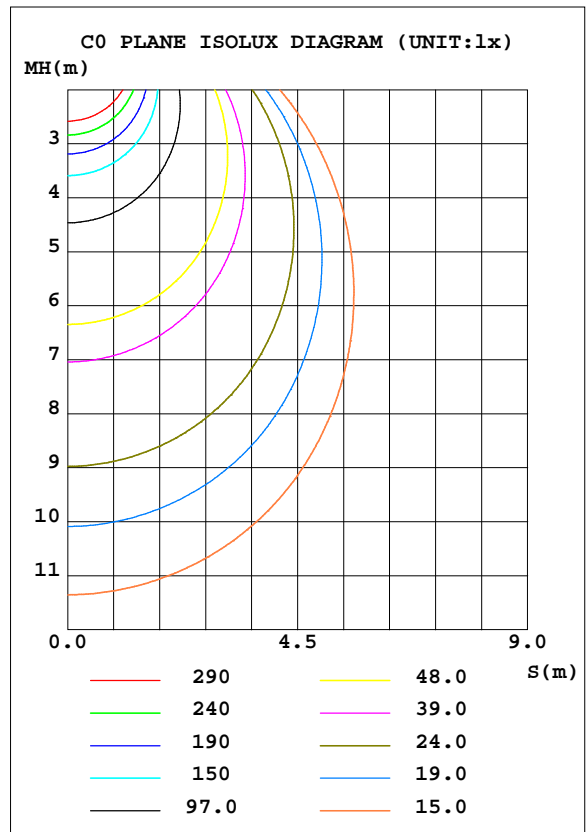
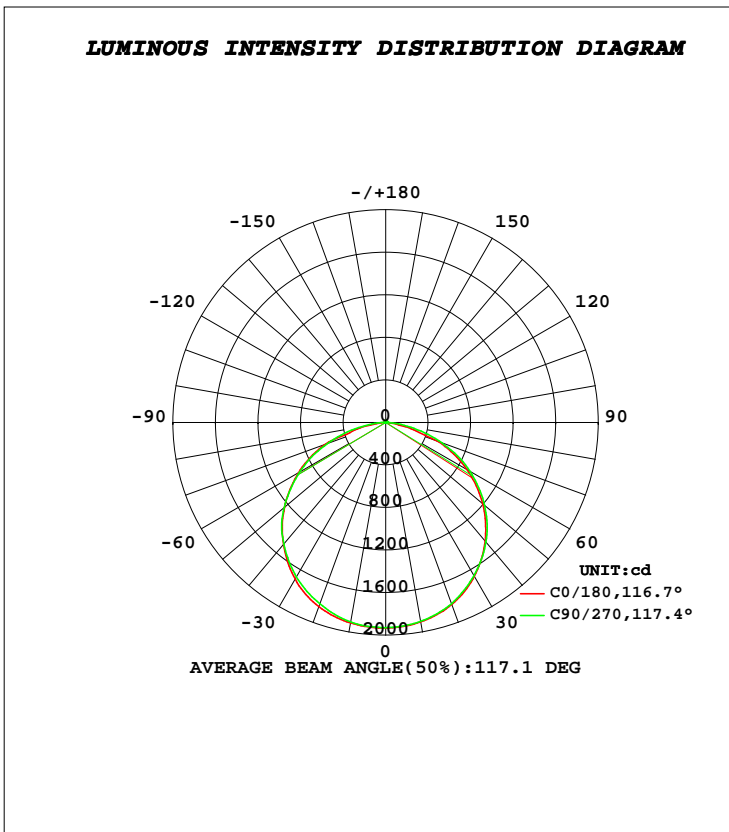


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm		
45w	TYPE:LED	
DIM.: 1200*120MM		
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 130.07 lm/W			
MODEL		I _{max} (cd)	1934	S/MH(C0/180)	1.28
NOMINAL POWER(W)	44	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	5788.0	η UP, DN(C0-180)	0.6, 48.4
NOMINAL FLUX(lm)	5787.96	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.8, 50.2
LAMPS INSIDE	1	η up(%)	1.4	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220.9	η down(%)	98.6	CIBSE SHR MAX	1.50



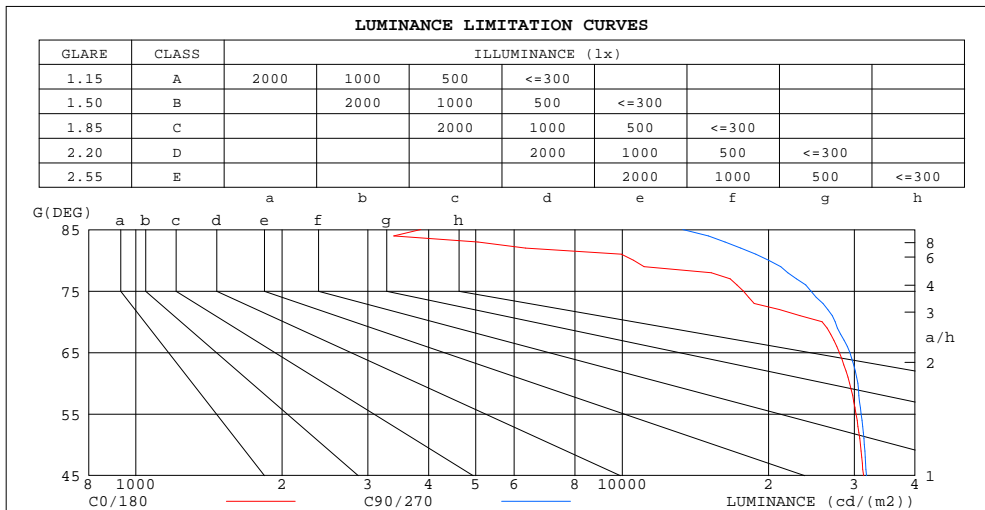
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ZHANG
Test Date: 2016-06-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7125]
Remarks:

**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp	
10	1904	1898	1914	1905				0- 10	183.1	183.1	3.16,3.16	
20	1820	1812	1843	1814				10- 20	528.5	711.6	12.3,12.3	
30	1670	1662	1702	1679				20- 30	810.5	1522	26.3,26.3	
40	1455	1468	1496	1492				30- 40	991.1	2513	43.4,43.4	
50	1191	1214	1244	1247				40- 50	1048	3561	61.5,61.5	
60	880.9	916.3	947.9	935.0				50- 60	961.0	4522	78.1,78.1	
70	528.7	562.2	609.6	585.4				60- 70	741.3	5263	90.9,90.9	
80	110.0	208.2	145.1	228.2				70- 80	375.2	5638	97.4,97.4	
90	7.249	7.765	11.24	11.42				80- 90	71.06	5709	98.6,98.6	
100	8.387	8.907	11.31	12.34				90-100	10.43	5720	98.8,98.8	
110	9.410	10.10	12.70	13.00				100-110	11.44	5731	99,99	
120	10.31	11.20	13.86	13.43				110-120	11.66	5743	99.2,99.2	
130	11.30	12.03	14.72	14.31				120-130	11.35	5754	99.4,99.4	
140	12.55	12.76	15.49	15.34				130-140	10.48	5765	99.6,99.6	
150	14.15	14.26	16.41	16.45				140-150	9.184	5774	99.8,99.8	
160	16.18	16.00	17.50	17.48				150-160	7.409	5781	99.9,99.9	
170	17.86	17.46	18.13	18.16				160-170	4.918	5786	100,100	
180	18.35	18.28	18.38	18.28				170-180	1.728	5788	100,100	
DEG	LUMINOUS INTENSITY:cd							UNIT:lm				



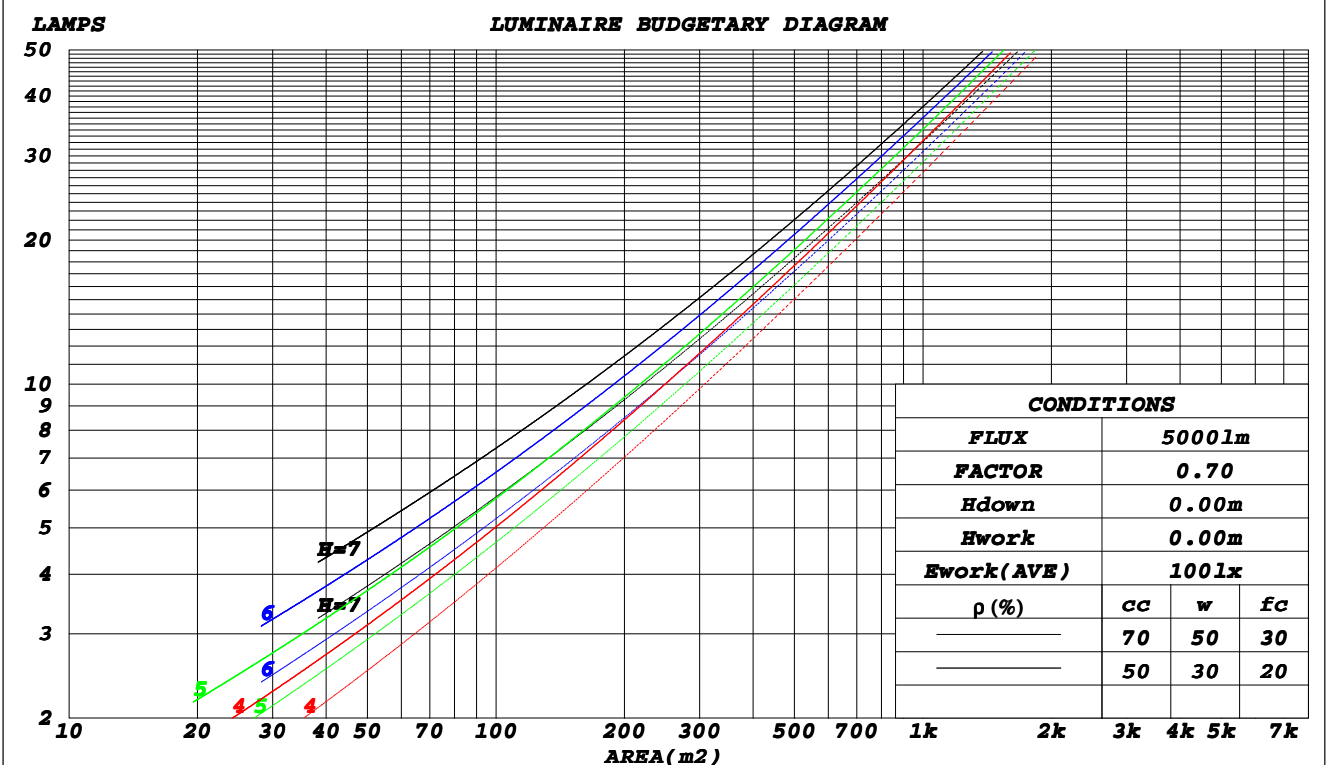
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZHANG
Test Date:2016-06-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm		
		TYPE:LED
DIM.: 1200*120MM		
MFR.:		

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρw																
ρfc																
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.04	.90	.96	1.01	.98	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.84	.78	.88	.82	.77	.85	.79	.75	.81	.77	.73	.78	.74	.71	.69
3.0	.79	.71	.65	.78	.70	.64	.74	.68	.63	.71	.66	.61	.69	.64	.60	.58
4.0	.70	.61	.54	.69	.60	.54	.66	.59	.53	.63	.57	.52	.61	.56	.51	.49
5.0	.62	.53	.47	.61	.53	.46	.59	.51	.46	.57	.50	.45	.55	.49	.45	.42
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.51	.45	.39	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.48	.41	.35	.47	.40	.35	.45	.39	.35	.33
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.31	.43	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.29	.42	.34	.28	.41	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.37	.30	.26	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: ZHANG
 Test Date: 2016-06-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7125]
 Remarks:

WEC AND CCEC

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm		
	TYPE:LED	
DIM.: 1200*120MM		
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.303	.172	.055	.296	.169	.054	.282	.162	.052	.269	.155	.050	.257	.149	.048	
2.0	.289	.158	.049	.282	.155	.048	.270	.150	.047	.258	.145	.045	.248	.140	.044	
3.0	.269	.143	.043	.263	.141	.042	.252	.136	.041	.242	.132	.041	.232	.129	.040	
4.0	.249	.129	.038	.243	.127	.038	.234	.124	.037	.225	.121	.036	.216	.117	.036	
5.0	.230	.117	.034	.226	.116	.034	.217	.113	.033	.209	.110	.033	.201	.107	.032	
6.0	.214	.107	.031	.210	.106	.030	.202	.103	.030	.194	.101	.030	.188	.099	.029	
7.0	.199	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.176	.091	.027	
8.0	.186	.091	.026	.183	.090	.025	.176	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.174	.084	.024	.171	.083	.023	.166	.082	.023	.160	.080	.023	.155	.079	.023	
10.0	.164	.079	.022	.161	.078	.022	.156	.076	.022	.151	.075	.021	.147	.074	.021	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.201	.201	.201	.172	.172	.172	.117	.117	.117	.067	.067	.067	.022	.022	.022	
2.0	.182	.142	.109	.156	.123	.094	.107	.085	.066	.062	.049	.038	.020	.016	.013	
3.0	.175	.125	.085	.150	.108	.074	.103	.075	.052	.059	.044	.030	.019	.014	.010	
4.0	.167	.112	.069	.144	.096	.060	.099	.067	.042	.057	.039	.025	.018	.013	.008	
5.0	.160	.101	.058	.137	.088	.050	.095	.061	.036	.055	.036	.021	.018	.012	.007	
6.0	.153	.093	.050	.131	.080	.043	.091	.056	.031	.053	.033	.018	.017	.011	.006	
7.0	.146	.086	.044	.126	.075	.038	.087	.052	.027	.050	.031	.016	.016	.010	.005	
8.0	.140	.080	.039	.120	.070	.034	.083	.049	.024	.048	.029	.015	.016	.009	.005	
9.0	.134	.075	.036	.115	.065	.031	.080	.046	.022	.046	.027	.013	.015	.009	.004	
10.0	.128	.071	.033	.110	.062	.029	.077	.043	.021	.045	.026	.012	.014	.008	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ZHANG
 Test Date:2016-06-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7125]
 Remarks:

Uncorrected UGR Table

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm										
					TYPE:LED					
DIM.: 1200*120MM										
MFR.:										
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	24.7	26.2	25.0	26.4	26.7	24.8	26.3	25.1	26.5	26.8
3H	26.1	27.5	26.4	27.8	28.0	26.3	27.7	26.6	28.0	28.2
4H	26.4	27.7	26.8	28.0	28.3	26.9	28.2	27.2	28.5	28.7
6H	26.6	27.8	26.9	28.1	28.4	27.2	28.4	27.5	28.7	29.0
8H	26.5	27.7	26.9	28.0	28.4	27.3	28.5	27.6	28.8	29.1
12H	26.5	27.6	26.9	28.0	28.3	27.3	28.4	27.7	28.8	29.1
4H 2H	25.3	26.6	25.6	26.9	27.2	25.4	26.7	25.7	27.0	27.3
3H	26.9	28.0	27.2	28.3	28.7	27.1	28.2	27.4	28.5	28.9
4H	27.3	28.3	27.7	28.7	29.0	27.7	28.7	28.1	29.1	29.5
6H	27.5	28.4	27.9	28.8	29.2	28.1	29.1	28.5	29.4	29.8
8H	27.5	28.4	27.9	28.7	29.2	28.2	29.1	28.7	29.5	29.9
12H	27.5	28.2	27.9	28.7	29.1	28.3	29.1	28.7	29.5	29.9
8H 4H	27.5	28.3	27.9	28.7	29.1	27.9	28.7	28.3	29.1	29.5
6H	27.8	28.5	28.2	28.9	29.4	28.4	29.1	28.8	29.5	30.0
8H	27.8	28.4	28.3	28.9	29.4	28.5	29.2	29.0	29.6	30.1
12H	27.8	28.3	28.3	28.8	29.3	28.6	29.2	29.1	29.6	30.1
12H 4H	27.5	28.3	27.9	28.7	29.1	27.8	28.6	28.3	29.0	29.5
6H	27.8	28.4	28.3	28.9	29.4	28.4	29.0	28.9	29.5	29.9
8H	27.8	28.4	28.3	28.8	29.3	28.6	29.1	29.1	29.6	30.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.3 / - 0.4					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.5					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 5788 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZHANG
Test Date:2016-06-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm		
	TYPE:LED	
DIM.: 1200*120MM		
MFR.:		

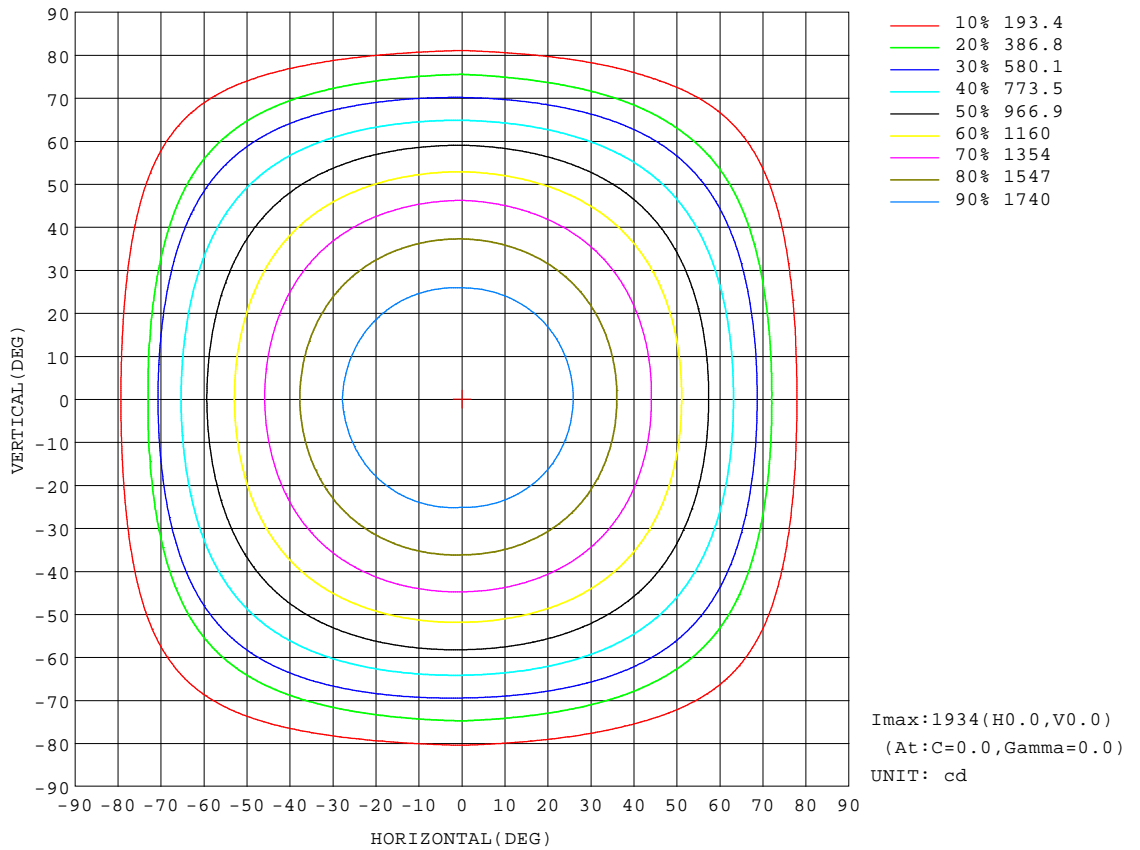
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	57	74	64	57	72	65	56	49
1.25	83	72	65	81	71	64	78	70	64	56
1.50	88	78	71	86	77	70	83	75	69	61
2.00	95	86	80	93	85	79	89	82	77	69
2.50	99	91	85	96	89	84	92	87	82	73
3.00	102	95	90	100	94	89	96	90	86	77
4.00	106	100	96	104	99	94	99	95	91	82
5.00	109	104	100	106	102	98	101	98	95	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZHANG
Test Date:2016-06-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm		
	TYPE:LED	
DIM.: 1200*120MM		
MFR.:		



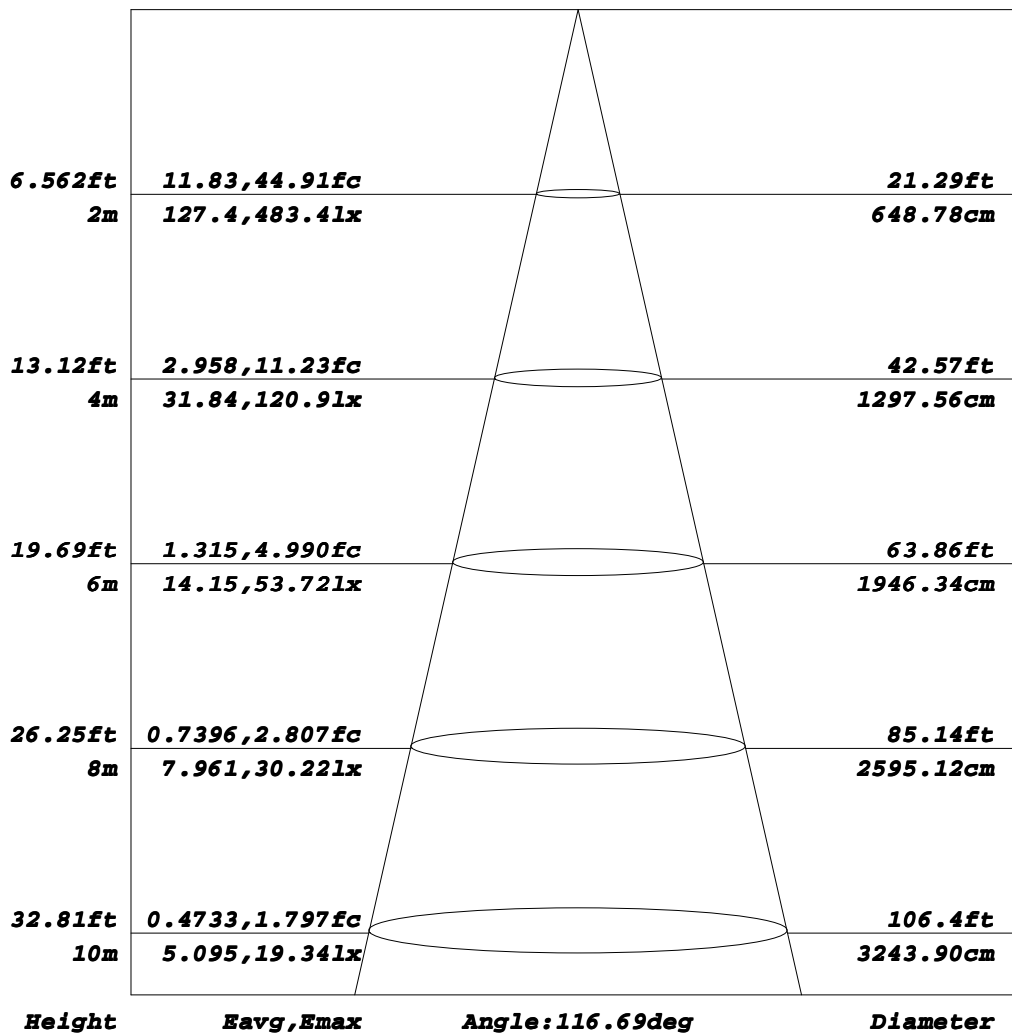
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZHANG
Test Date:2016-06-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

AAI Figure

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm		
	TYPE:LED	
DIM.: 1200*120MM		
MFR.:		

Flux out:4433 lm



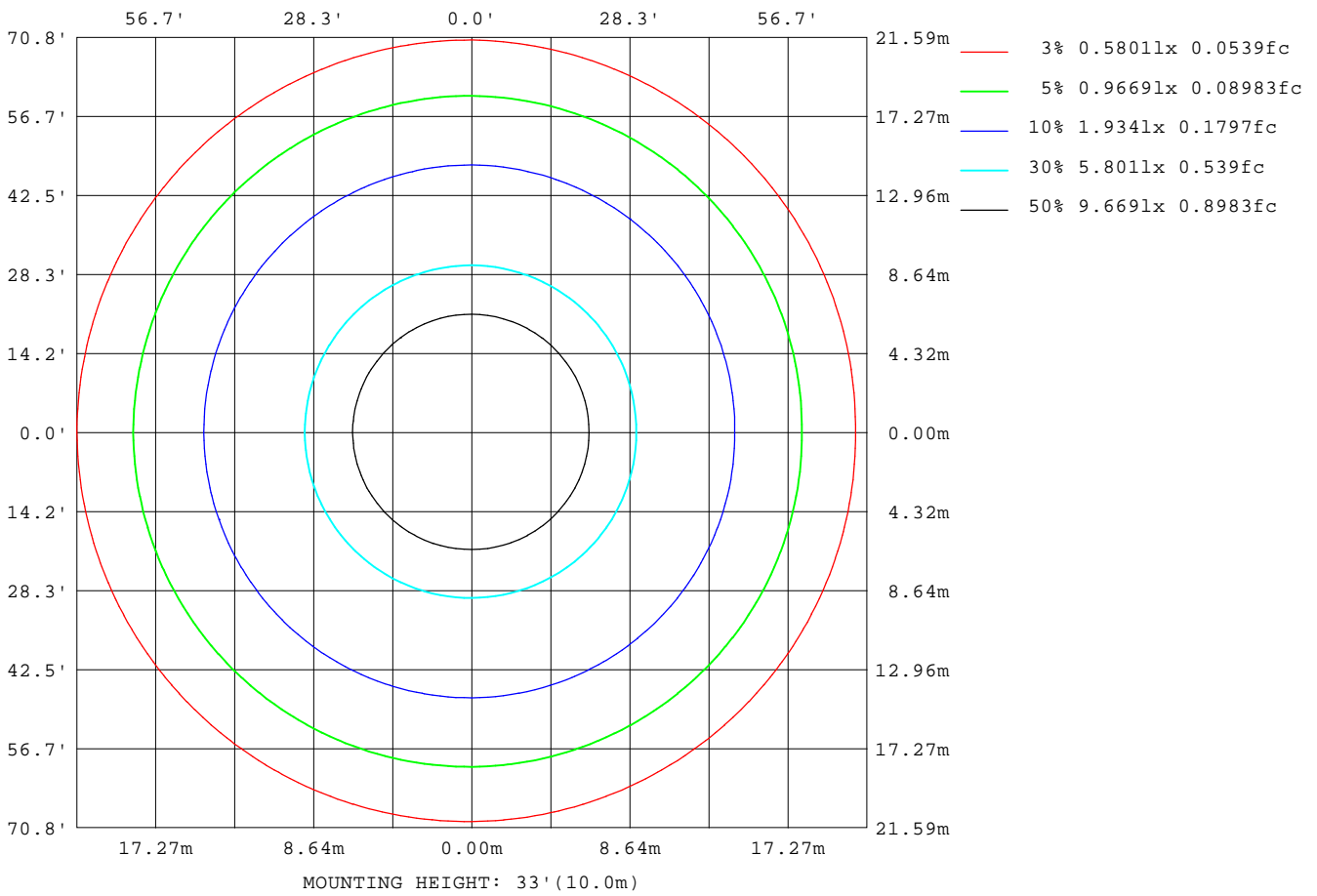
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: ZHANG
 Test Date: 2016-06-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7125]
 Remarks:

ISOLUX DIAGRAM

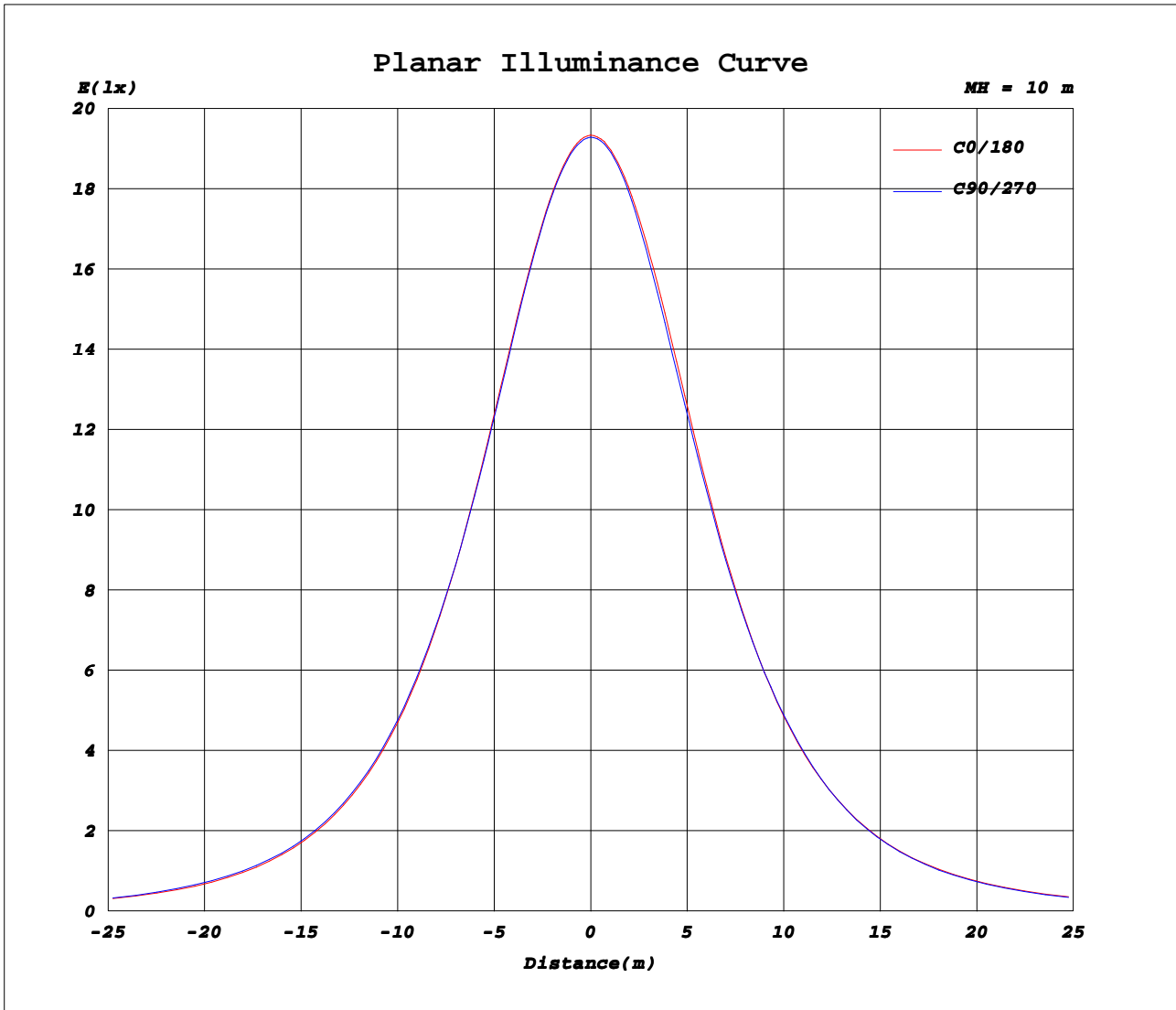
Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm		
	TYPE:LED	
DIM.: 1200*120MM		
MFR.:		



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ZHANG
Test Date: 2016-06-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7125]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ZHANG
Test Date: 2016-06-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7125]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.9V I:0.2120A P:44.50W PF:0.9470 Lamp Flux:5787.96x1 lm	
	TYPE:LED
DIM.: 1200*120MM	
MFR.:	

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	1934	1929	1934	1929															
5	1925	1920	1929	1923															
10	1904	1898	1914	1905															
15	1870	1863	1886	1867															
20	1820	1812	1843	1814															
25	1755	1743	1783	1753															
30	1670	1662	1702	1679															
35	1569	1570	1606	1591															
40	1455	1468	1496	1492															
45	1330	1349	1376	1383															
50	1191	1214	1244	1247															
55	1042	1067	1100	1093															
60	881	916	948	935															
65	709	745	785	767															
70	529	562	610	585															
75	276	379	324	404															
80	110	208	145	228															
85	20.1	69.7	18.6	83.8															
90	7.25	7.76	11.2	11.4															
95	7.79	8.15	10.6	11.6															
100	8.39	8.91	11.3	12.3															
105	8.96	9.68	12.0	12.6															
110	9.41	10.1	12.7	13.0															
115	9.85	10.7	13.3	13.2															
120	10.3	11.2	13.9	13.4															
125	10.8	11.7	14.3	13.9															
130	11.3	12.0	14.7	14.3															
135	11.9	12.3	15.1	14.8															
140	12.5	12.8	15.5	15.3															
145	13.3	13.5	15.9	15.9															
150	14.2	14.3	16.4	16.4															
155	15.1	15.1	17.0	17.0															
160	16.2	16.0	17.5	17.5															
165	17.1	16.8	18.0	17.9															
170	17.9	17.5	18.1	18.2															
175	18.3	18.0	18.3	18.3															
180	18.4	18.3	18.4	18.3															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZHANG
Test Date:2016-06-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	1934	1929	1934	1929
3.0	1930	1924	1932	1927
6.0	1922	1917	1927	1922
9.0	1909	1904	1918	1910
12.0	1892	1886	1904	1891
15.0	1870	1863	1886	1867
18.0	1842	1835	1862	1836
21.0	1809	1799	1833	1803
24.0	1769	1758	1796	1766
27.0	1722	1711	1753	1724
30.0	1670	1662	1702	1679
33.0	1611	1607	1646	1628
36.0	1547	1551	1585	1571
39.0	1480	1489	1519	1512
42.0	1406	1423	1450	1450
45.0	1330	1349	1376	1383
48.0	1248	1269	1298	1306
51.0	1162	1186	1216	1218
54.0	1073	1098	1129	1125
57.0	978.5	1005	1038	1031
60.0	880.9	916.3	947.9	935.0
63.0	778.1	814.8	853.0	834.7
66.0	673.9	708.4	750.6	731.5
69.0	567.7	595.9	645.3	621.5
72.0	390.3	491.1	484.1	510.0
75.0	275.6	379.2	324.3	404.0
78.0	190.3	273.1	246.6	297.6
81.0	93.44	176.7	121.5	195.2
84.0	21.29	94.35	45.36	108.0
87.0	18.34	32.13	17.70	44.34
90.0	7.249	7.765	11.24	11.42
93.0	7.551	7.927	10.27	11.24
96.0	7.910	8.303	10.71	11.71
99.0	8.270	8.757	11.16	12.18
102.0	8.622	9.216	11.60	12.64
105.0	8.955	9.676	12.03	12.63
108.0	9.254	9.857	12.44	12.91
111.0	9.488	10.22	12.83	13.03
114.0	9.750	10.58	13.20	13.19
117.0	10.04	10.89	13.55	13.25
120.0	10.31	11.20	13.86	13.43
123.0	10.60	11.49	14.13	13.72
126.0	10.88	11.77	14.40	13.97
129.0	11.19	11.98	14.64	14.22
132.0	11.56	12.14	14.87	14.50
135.0	11.94	12.30	15.10	14.79
138.0	12.30	12.54	15.34	15.11
141.0	12.67	12.89	15.57	15.45
144.0	13.09	13.31	15.82	15.79
147.0	13.60	13.77	16.09	16.12
150.0	14.15	14.26	16.41	16.45
153.0	14.74	14.75	16.74	16.78
156.0	15.36	15.28	17.07	17.09
159.0	15.97	15.82	17.40	17.39
162.0	16.57	16.34	17.72	17.66
165.0	17.10	16.80	17.95	17.89
168.0	17.58	17.22	18.11	18.07
171.0	17.97	17.59	18.15	18.20
174.0	18.23	17.90	18.25	18.29
177.0	18.33	18.11	18.31	18.33
180.0	18.35	18.28	18.38	18.28

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: ZHANG
 Test Date: 2016-06-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7125]
 Remarks: