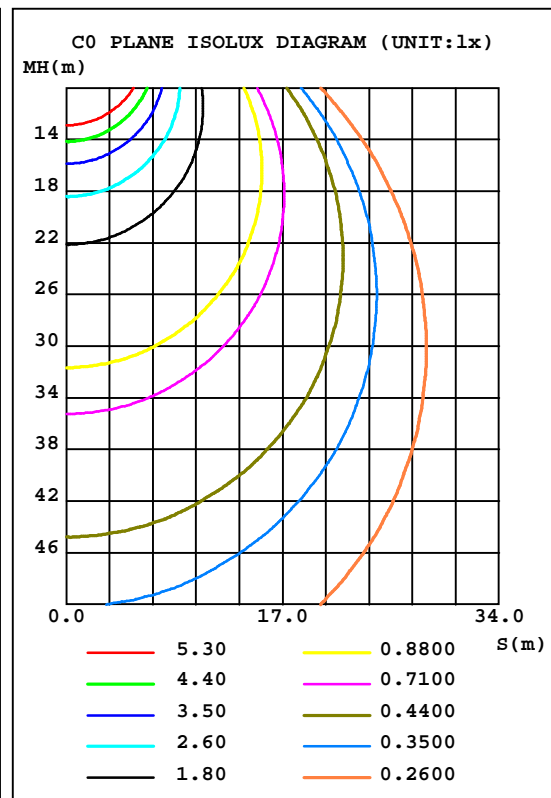
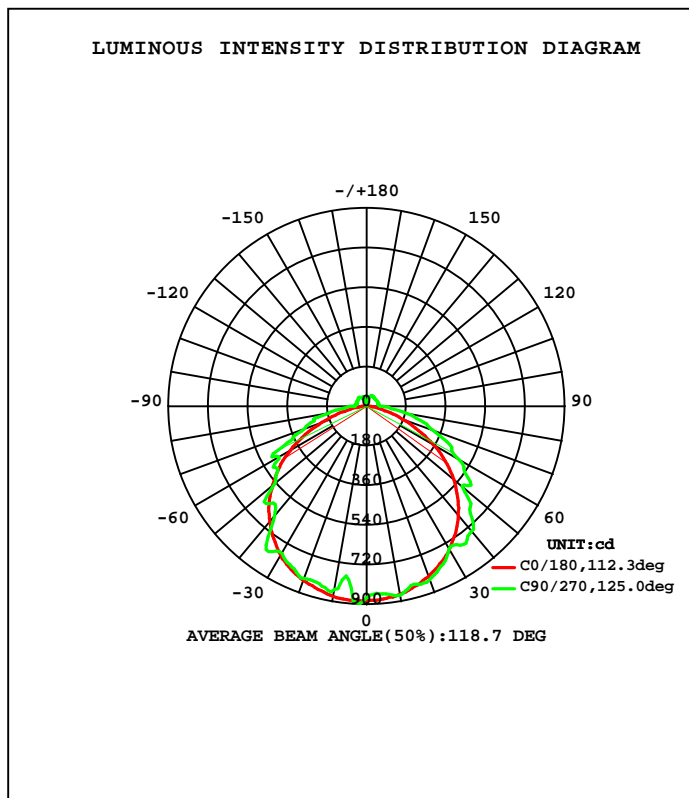


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 138.42 lm/W			
MODEL	T8 22W-2	I _{max} (cd)	910.7	S/MH(C0/180)	1.27
NOMINAL POWER(W)	22	LOR(%)	100.0	S/MH(C90/270)	1.34
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	2951.5	h UP, DN(C0-180)	3.7, 46.5
NOMINAL FLUX(lm)	2951.45	CIE CLASS	DIRECT	h UP, DN(C180-360)	3.6, 46.2
LAMPS INSIDE	1	h up(%)	7.3	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120.0	h down(%)	92.7	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

Angle Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	868.7	869.3	872.0	869.2	877.5	867.7	844.9	837.9	0- 10	82.96	82.96	2.81,2.81
20	823.7	828.2	839.9	836.1	842.4	838.0	833.5	812.9	10- 20	241.0	323.9	11,11
30	751.8	763.1	749.9	781.0	782.4	802.4	772.0	696.4	20- 30	370.8	694.7	23.5,23.5
40	647.6	641.6	742.3	663.2	686.1	697.6	651.9	653.9	30- 40	454.5	1149	38.9,38.9
50	516.1	603.8	567.4	614.8	559.4	558.3	543.0	510.4	40- 50	489.3	1639	55.5,55.5
60	351.6	416.9	485.5	428.0	401.0	405.9	461.1	366.1	50- 60	444.4	2083	70.6,70.6
70	172.8	282.6	320.4	297.3	216.9	349.6	300.2	296.4	60- 70	349.6	2432	82.4,82.4
80	44.54	145.1	185.5	164.9	65.65	165.2	174.2	139.5	70- 80	212.0	2644	89.6,89.6
90	0.9633	62.13	73.23	70.36	1.163	65.95	64.83	54.62	80- 90	90.94	2735	92.7,92.7
100	1.556	48.02	54.92	51.66	1.207	48.24	53.44	43.31	90-100	44.54	2780	94.2,94.2
110	2.218	45.77	57.34	47.34	1.921	41.29	47.36	48.57	100-110	38.54	2818	95.5,95.5
120	3.069	43.48	52.67	39.88	2.719	42.06	51.98	44.99	110-120	36.05	2855	96.7,96.7
130	3.866	46.40	52.45	35.42	3.517	39.29	52.11	48.09	120-130	31.40	2886	97.8,97.8
140	4.529	49.60	54.89	31.49	4.224	34.74	55.43	47.55	130-140	26.90	2913	98.7,98.7
150	5.028	48.01	54.82	25.14	4.802	31.68	43.08	46.06	140-150	21.30	2934	99.4,99.4
160	5.405	16.01	41.78	12.57	5.249	15.30	45.57	16.67	150-160	12.76	2947	99.8,99.8
170	5.619	11.29	9.323	10.05	5.548	9.094	9.221	9.077	160-170	3.852	2951	100,100
180	5.729	5.729	5.664	5.801	5.742	5.716	5.690	5.794	170-180	0.6875	2951	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

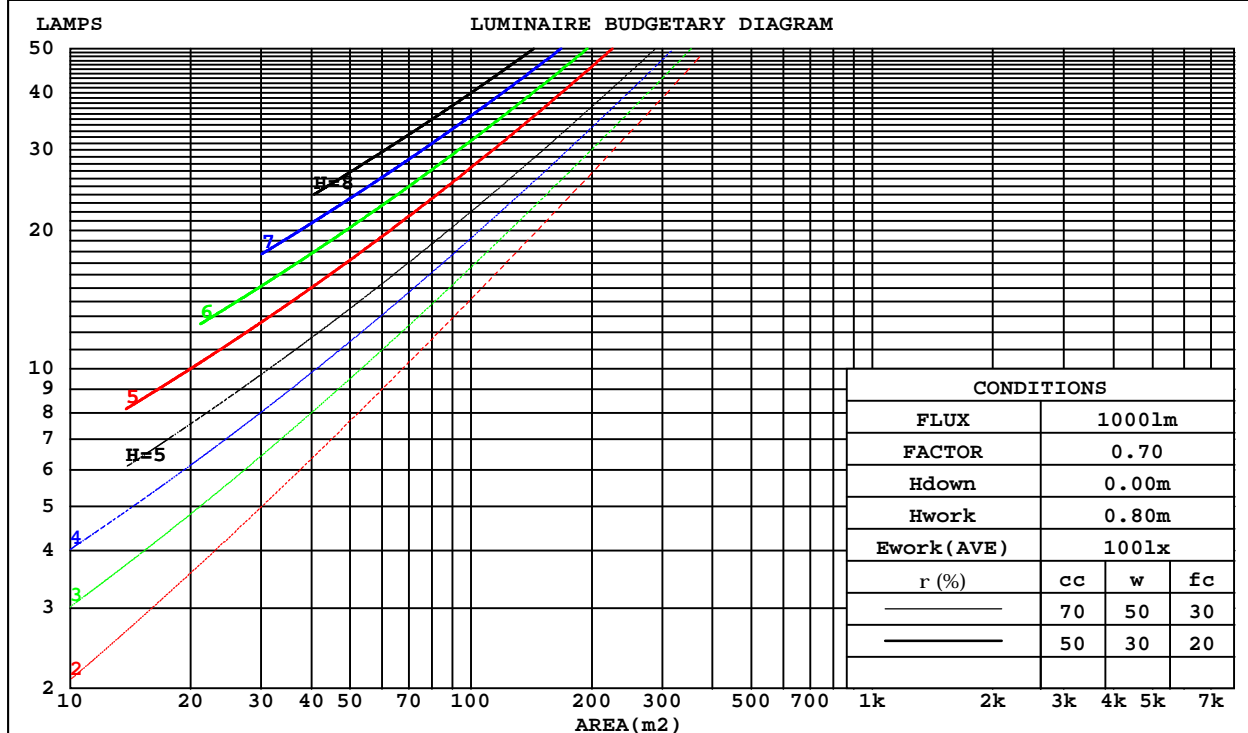
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.17	1.17	1.17	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	.95	.95	.95	.93
1.0	1.01	.97	.93	.98	.94	.90	.93	.89	.86	.88	.85	.82	.83	.81	.79	.76
2.0	.88	.81	.75	.85	.79	.73	.81	.75	.71	.76	.72	.68	.72	.68	.65	.63
3.0	.77	.68	.62	.75	.67	.61	.71	.64	.59	.67	.61	.57	.63	.59	.55	.52
4.0	.68	.59	.52	.66	.58	.51	.63	.55	.50	.59	.53	.48	.56	.51	.47	.44
5.0	.60	.51	.45	.59	.50	.44	.56	.48	.43	.53	.47	.42	.51	.45	.41	.38
6.0	.54	.45	.39	.53	.44	.38	.50	.43	.37	.48	.41	.36	.46	.40	.35	.33
7.0	.49	.40	.34	.48	.40	.34	.46	.38	.33	.44	.37	.32	.42	.36	.31	.29
8.0	.45	.36	.30	.44	.36	.30	.42	.34	.29	.40	.33	.29	.38	.32	.28	.26
9.0	.41	.33	.27	.40	.32	.27	.38	.31	.26	.37	.30	.26	.35	.29	.25	.23
10.0	.38	.30	.24	.37	.29	.24	.35	.28	.24	.34	.28	.23	.33	.27	.23	.21



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.325	.185	.059	.316	.180	.057	.299	.171	.055	.283	.163	.052	.268	.155	.050	
2.0	.300	.164	.050	.292	.161	.049	.276	.153	.048	.262	.147	.046	.248	.140	.044	
3.0	.275	.146	.044	.268	.143	.043	.254	.137	.042	.241	.132	.040	.229	.127	.039	
4.0	.252	.131	.039	.246	.129	.038	.233	.124	.037	.221	.119	.036	.211	.114	.035	
5.0	.232	.118	.034	.226	.116	.034	.215	.112	.033	.205	.108	.032	.195	.104	.031	
6.0	.215	.108	.031	.210	.106	.030	.199	.102	.030	.190	.099	.029	.181	.095	.028	
7.0	.200	.099	.028	.195	.097	.028	.186	.094	.027	.177	.091	.026	.169	.088	.026	
8.0	.186	.091	.026	.182	.090	.025	.173	.087	.025	.166	.084	.024	.158	.081	.024	
9.0	.174	.084	.024	.170	.083	.023	.163	.080	.023	.155	.078	.022	.149	.075	.022	
10.0	.164	.079	.022	.160	.077	.022	.153	.075	.021	.146	.073	.021	.140	.070	.020	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.246	.246	.246	.210	.210	.210	.144	.144	.144	.083	.083	.083	.026	.026	.026	
1.0	.238	.212	.189	.203	.182	.163	.139	.125	.113	.080	.073	.066	.026	.023	.021	
2.0	.230	.188	.154	.197	.162	.133	.135	.112	.093	.078	.065	.054	.025	.021	.018	
3.0	.222	.171	.131	.191	.148	.113	.131	.103	.079	.076	.060	.047	.024	.019	.015	
4.0	.215	.158	.115	.184	.137	.100	.127	.095	.070	.073	.056	.042	.024	.018	.014	
5.0	.207	.148	.104	.178	.128	.091	.123	.089	.064	.071	.053	.038	.023	.017	.013	
6.0	.200	.140	.096	.172	.121	.084	.119	.085	.059	.069	.050	.035	.022	.016	.012	
7.0	.193	.133	.091	.166	.115	.079	.115	.081	.056	.067	.048	.033	.022	.016	.011	
8.0	.187	.127	.086	.161	.110	.075	.111	.078	.053	.065	.046	.032	.021	.015	.011	
9.0	.181	.122	.083	.156	.106	.072	.108	.075	.051	.063	.044	.031	.020	.014	.010	
10.0	.175	.118	.080	.151	.103	.070	.105	.072	.050	.061	.043	.030	.020	.014	.010	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm										
NAME:				TYPE:				WEIGHT:		
DIM.:				SPEC.:				SERIAL No.:1		
MFR.: zhejiang setec lighting co.,ltd				SUR.:1.388				PROTECTION ANGLE:		
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	7.9	9.4	8.3	9.7	10.0	9.0	10.4	9.3	10.7	11.1
3H	9.0	10.4	9.4	10.7	11.1	10.7	12.1	11.1	12.4	12.8
4H	9.3	10.6	9.7	11.0	11.4	11.5	12.8	12.0	13.2	13.6
6H	9.4	10.6	9.9	11.0	11.5	12.3	13.5	12.7	13.9	14.3
8H	9.4	10.6	9.9	11.0	11.5	12.6	13.8	13.1	14.2	14.6
12H	9.4	10.5	9.9	10.9	11.4	12.9	14.0	13.3	14.4	14.9
4H 2H	8.7	10.0	9.1	10.3	10.8	9.5	10.8	9.9	11.1	11.5
3H	10.0	11.1	10.5	11.6	12.0	11.4	12.5	11.9	13.0	13.4
4H	10.5	11.5	10.9	11.9	12.4	12.4	13.4	12.9	13.8	14.3
6H	10.7	11.6	11.2	12.1	12.6	13.3	14.2	13.8	14.7	15.2
8H	10.8	11.6	11.3	12.1	12.6	13.7	14.5	14.2	15.0	15.6
12H	10.8	11.5	11.3	12.0	12.6	14.1	14.8	14.6	15.3	15.9
8H 4H	10.9	11.8	11.5	12.3	12.8	12.6	13.4	13.1	13.9	14.5
6H	11.4	12.1	12.0	12.6	13.2	13.7	14.4	14.3	15.0	15.5
8H	11.6	12.2	12.1	12.7	13.4	14.3	14.9	14.8	15.4	16.0
12H	11.7	12.2	12.2	12.8	13.4	14.8	15.3	15.3	15.9	16.5
12H 4H	11.0	11.8	11.6	12.3	12.9	12.6	13.4	13.1	13.9	14.4
6H	11.6	12.2	12.2	12.8	13.4	13.8	14.4	14.4	15.0	15.6
8H	11.9	12.4	12.5	13.0	13.6	14.4	14.9	15.0	15.5	16.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.1				
1.5H	+ 0.3 / - 0.5					+ 0.1 / - 0.2				
2.0H	+ 0.2 / - 0.5					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 2951 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.8)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:

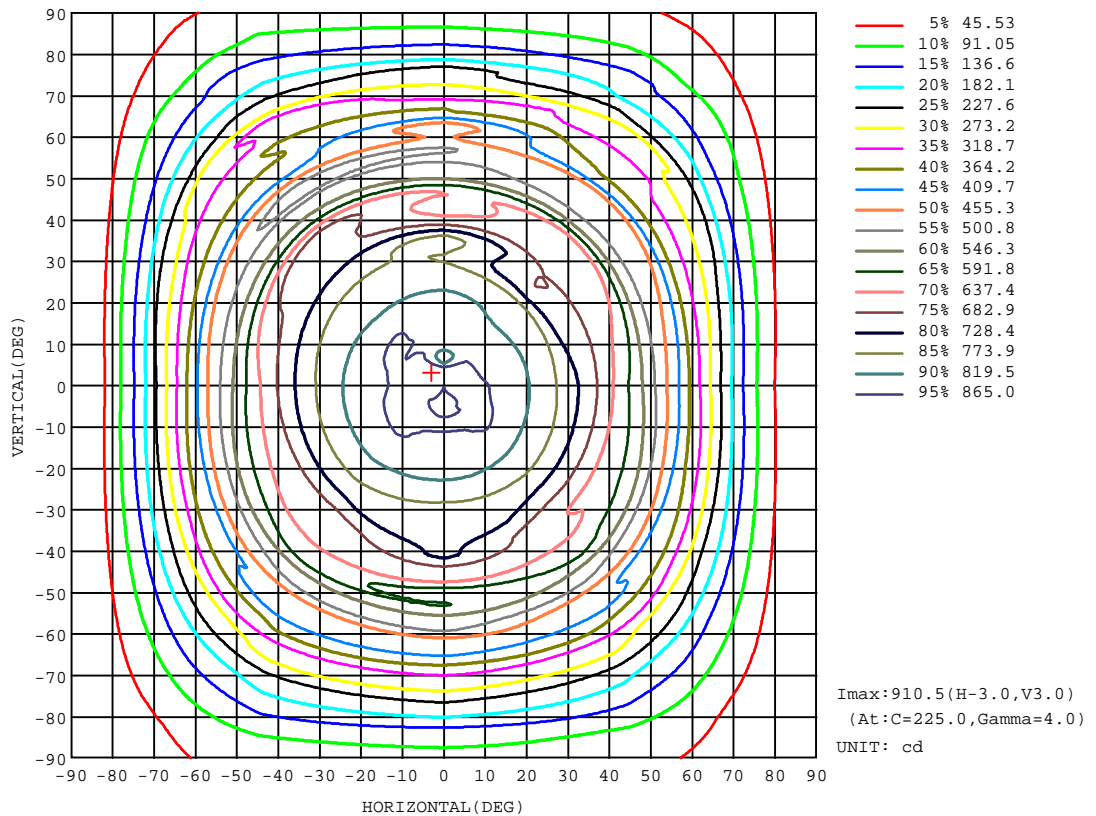
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	42	35	52	41	35	28
0.80	64	52	44	63	51	44	60	50	43	36
1.00	72	61	53	71	60	52	68	61	52	44
1.25	79	68	61	77	67	60	74	65	59	51
1.50	84	74	66	82	73	66	78	70	64	55
2.00	91	82	75	89	81	74	85	78	72	63
2.50	95	87	80	93	85	79	88	82	77	67
3.00	99	91	85	96	89	84	91	86	81	70
4.00	103	97	92	100	95	90	95	90	86	75
5.00	106	100	96	103	98	94	97	93	90	78
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:



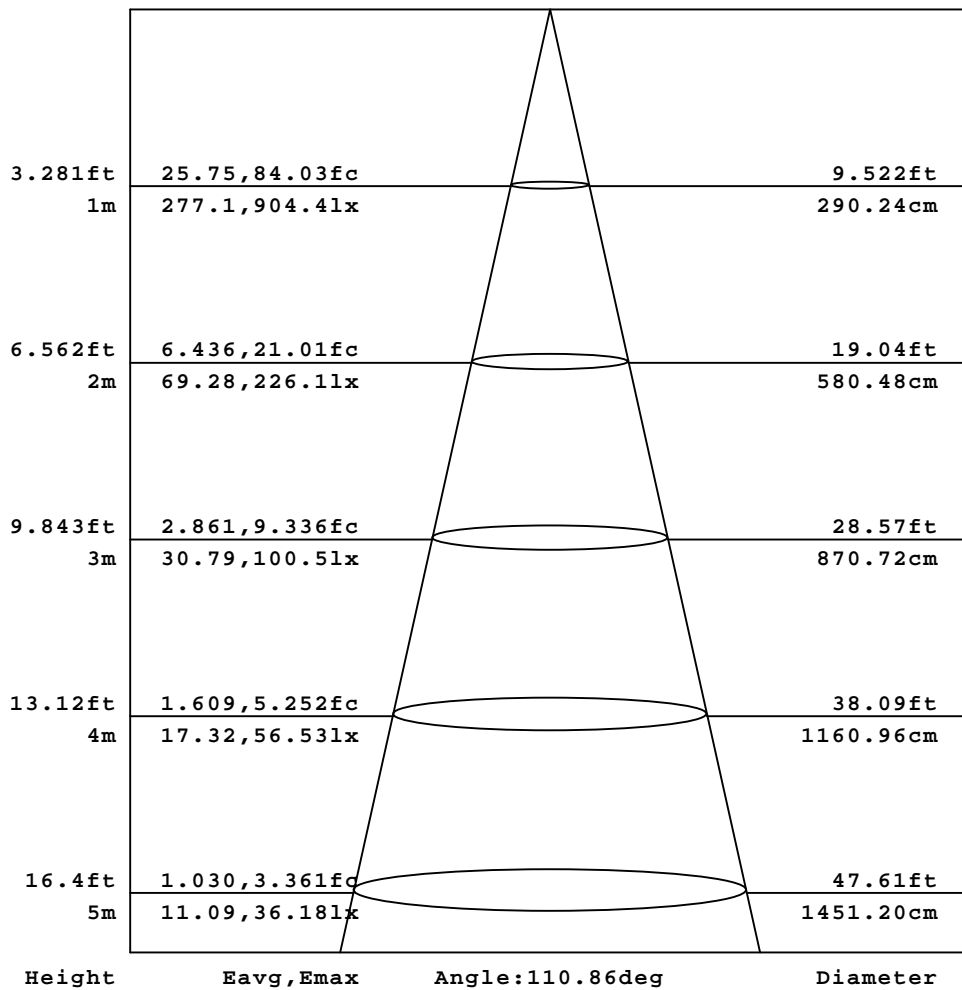
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:

Flux out:1914 lm



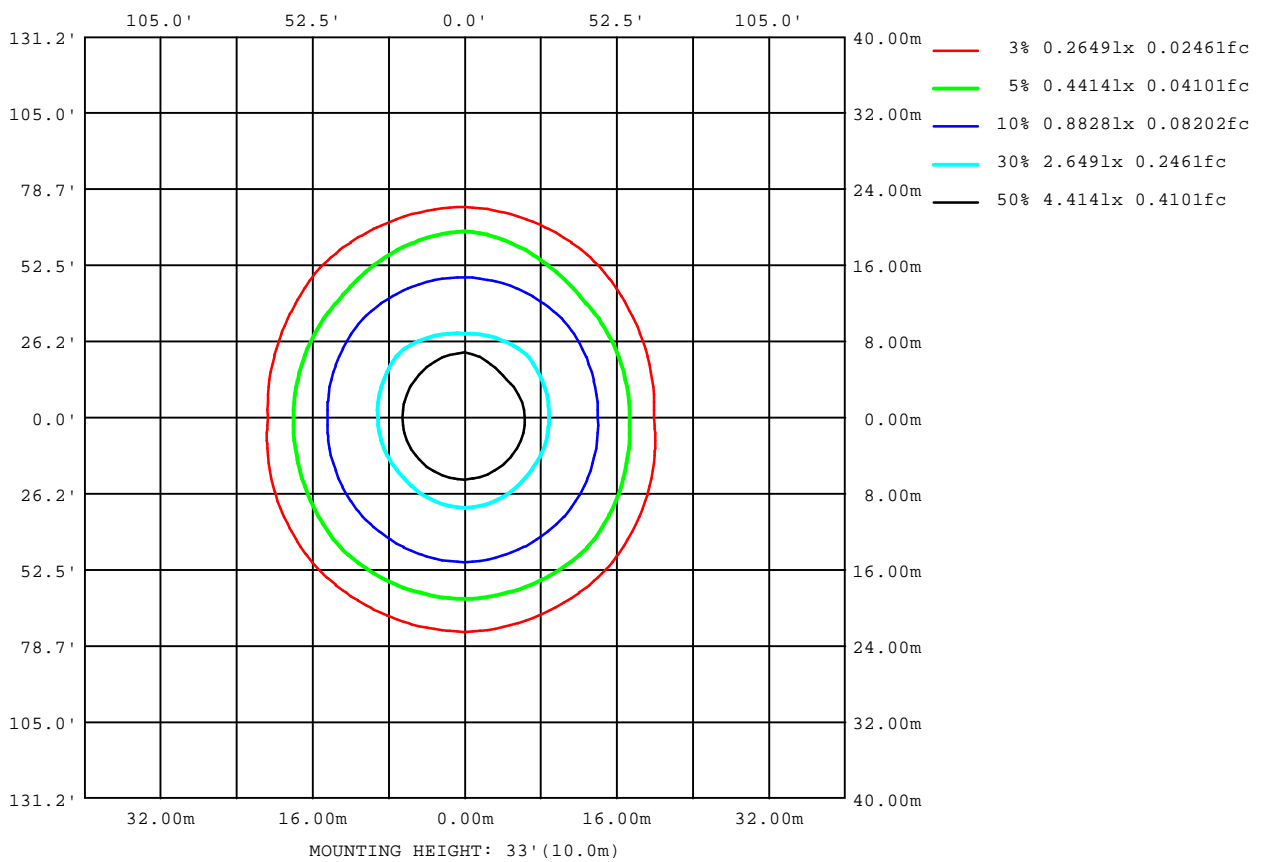
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

Angle Range: 0 - 180DEG
 Angle Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

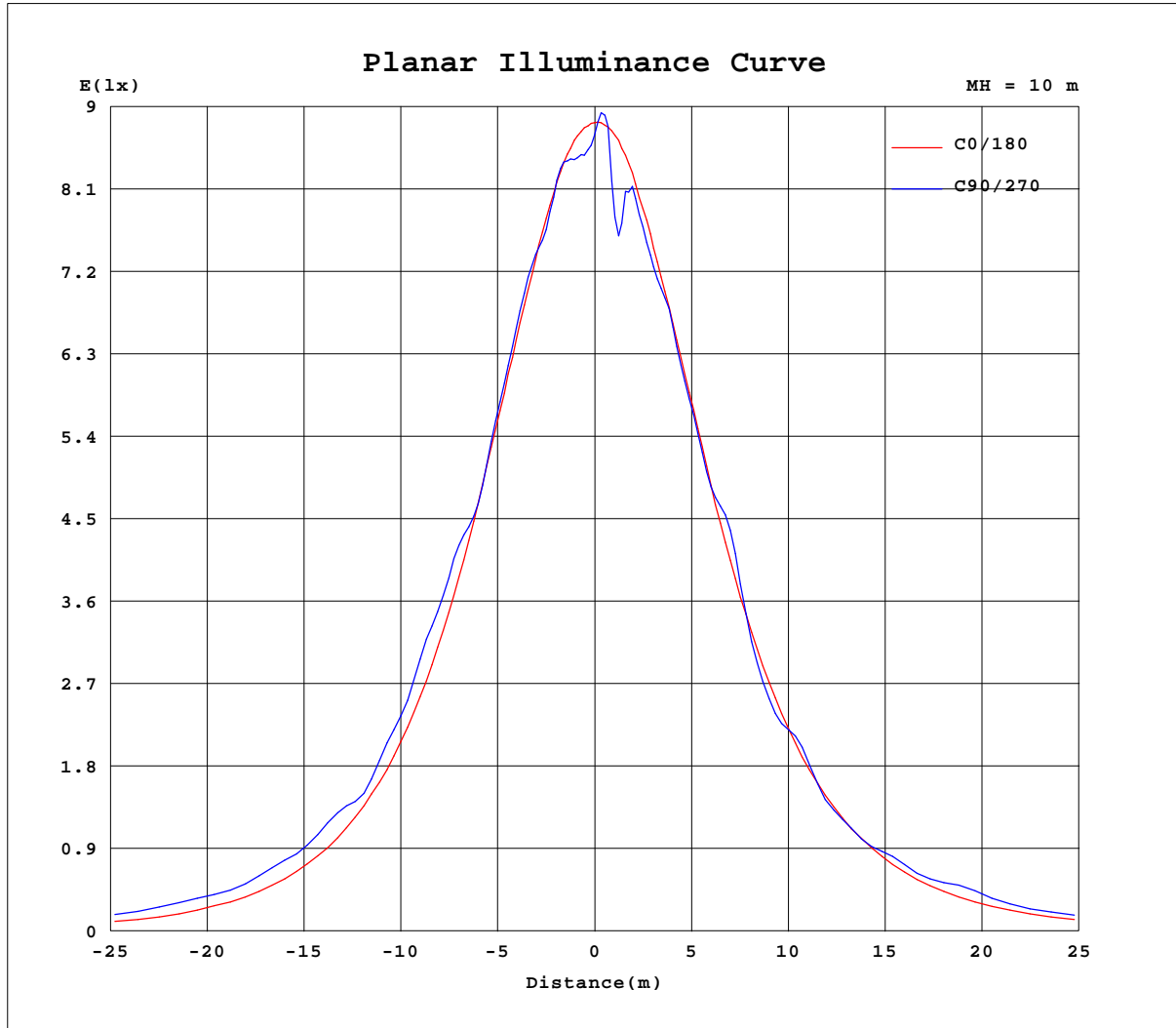
Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: wgs
 Test Date: 2020-03-30

log Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity: 26%
 Test Distance: 12.500m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:0.1824A P:21.32W PF:0.9745 Lamp Flux:2951.45x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:1
MFR.: zhejiang setec lighting co.,ltd	SUR.:1.388	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	882	881	868	890	882	881	868	890										
5	878	867	854	865	884	910	828	905										
10	869	869	872	869	877	868	845	838										
15	847	865	837	873	861	871	835	851										
20	824	828	840	836	842	838	834	813										
25	790	805	804	818	817	814	807	797										
30	752	763	750	781	782	802	772	696										
35	704	711	767	732	736	744	796	684										
40	648	642	742	663	686	698	652	654										
45	586	645	665	654	628	716	624	662										
50	516	604	567	615	559	558	543	510										
55	437	508	562	528	485	506	493	491										
60	352	417	486	428	401	406	461	366										
65	262	366	418	397	309	366	398	341										
70	173	283	320	297	217	350	300	296										
75	98.6	202	253	229	133	226	246	181										
80	44.5	145	186	165	65.6	165	174	139										
85	10.9	87.8	108	107	19.1	100	106	85.2										
90	0.96	62.1	73.2	70.4	1.16	66.0	64.8	54.6										
95	1.12	51.9	59.0	56.2	0.96	50.4	54.0	46.2										
100	1.56	48.0	54.9	51.7	1.21	48.2	53.4	43.3										
105	1.85	48.0	54.1	50.4	1.54	44.2	44.9	42.7										
110	2.22	45.8	57.3	47.3	1.92	41.3	47.4	48.6										
115	2.64	45.5	54.7	45.6	2.32	44.1	50.7	46.4										
120	3.07	43.5	52.7	39.9	2.72	42.1	52.0	45.0										
125	3.47	44.1	54.0	36.0	3.12	41.1	51.9	48.2										
130	3.87	46.4	52.5	35.4	3.52	39.3	52.1	48.1										
135	4.22	47.3	52.7	33.8	3.89	35.8	54.7	46.8										
140	4.53	49.6	54.9	31.5	4.22	34.7	55.4	47.5										
145	4.80	50.2	54.2	27.1	4.52	33.0	52.1	47.9										
150	5.03	48.0	54.8	25.1	4.80	31.7	43.1	46.1										
155	5.24	28.1	54.2	20.4	5.04	27.8	46.6	35.8										
160	5.40	16.0	41.8	12.6	5.25	15.3	45.6	16.7										
165	5.53	13.4	15.9	11.0	5.41	11.7	20.9	12.5										
170	5.62	11.3	9.32	10.1	5.55	9.09	9.22	9.08										
175	5.70	7.08	6.75	6.94	5.66	6.34	6.27	6.38										
180	5.73	5.73	5.66	5.80	5.74	5.72	5.69	5.79										

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.7DEG
 Operators:wgs
 Test Date:2020-03-30

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.270
 Humidity:26%
 Test Distance:12.500m [K=1.0000]
 Remarks: