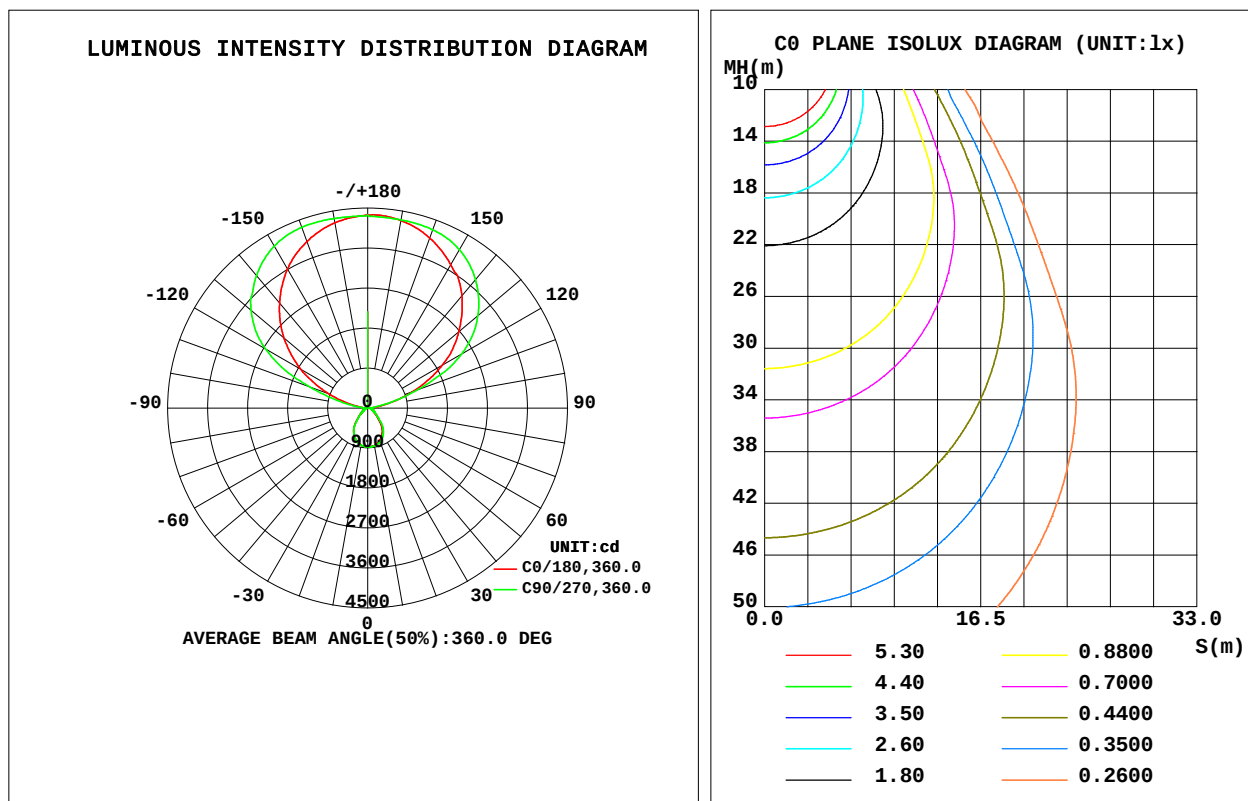


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 153.74 lm/W			
MODEL		I _{max} (cd)	4352	S/MH(C0/180)	1.14
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.19
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	15220	η UP, DN(C0-180)	45.4, 5.1
NOMINAL FLUX(lm)	15220.2	CIE CLASS	SEMI-IND.	η UP, DN(C180-360)	43.9, 5.6
LAMPS INSIDE	1	η up(%)	89.3	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.0	η down(%)	10.7	CIBSE SHR MAX	1.25



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0571]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum,lamp
5	870.9	869.8	870.0	872.1	874.6	876.4	877.8	875.3	0- 5	20.94	20.94	0.14,0.14
10	852.3	850.9	852.1	855.4	859.9	865.3	868.8	862.1	5- 10	61.96	82.90	0.54,0.54
15	820.1	818.5	821.4	825.5	832.3	842.2	849.6	837.2	10- 15	100.2	183.1	1.2,1.2
20	772.5	768.8	773.5	778.4	789.8	804.8	816.6	797.1	15- 20	133.5	316.6	2.08,2.08
25	709.7	701.1	707.9	713.8	731.6	749.7	766.7	739.3	20- 25	159.0	475.7	3.13,3.13
30	634.3	622.1	627.9	636.5	660.0	678.7	699.8	665.9	25- 30	174.7	650.4	4.27,4.27
35	545.4	540.1	532.8	555.0	575.5	599.8	618.2	586.5	30- 35	180.0	830.4	5.46,5.46
40	418.8	440.5	398.5	457.2	460.0	515.6	517.9	501.4	35- 40	173.4	1004	6.59,6.59
45	301.9	292.0	289.2	311.3	340.6	389.0	382.1	369.2	40- 45	148.0	1152	7.57,7.57
50	222.1	187.8	213.3	201.6	254.8	249.4	291.5	232.5	45- 50	112.8	1264	8.31,8.31
55	174.2	118.9	167.4	128.9	191.1	167.0	215.1	154.4	50- 55	84.03	1349	8.86,8.86
60	131.9	90.33	126.9	95.19	141.6	112.7	161.9	104.2	55- 60	64.12	1413	9.28,9.28
65	114.9	94.17	109.5	96.68	119.5	95.45	124.3	91.62	60- 65	53.20	1466	9.63,9.63
70	104.6	86.93	98.19	90.53	111.4	96.01	113.9	95.12	65- 70	52.30	1518	9.97,9.97
75	90.41	63.52	80.20	67.23	95.03	78.66	93.26	74.64	70- 75	46.87	1565	10.3,10.3
80	64.06	41.89	51.11	44.82	69.66	57.48	72.53	53.66	75- 80	36.53	1602	10.5,10.5
85	26.50	15.07	14.68	19.04	33.52	32.23	40.39	29.47	80- 85	22.66	1624	10.7,10.7
90	6.379	9.151	8.603	8.845	5.221	7.266	5.976	8.989	85- 90	6.879	1631	10.7,10.7
95	51.50	101.6	70.37	124.9	71.17	71.66	30.76	54.44	90- 95	14.62	1646	10.8,10.8
100	223.6	409.8	319.4	462.4	279.9	371.0	210.9	334.0	95-100	101.4	1747	11.5,11.5
105	532.5	867.2	766.9	947.2	626.7	837.9	598.2	782.0	100-105	283.2	2030	13.3,13.3
110	914.9	1414	1378	1546	1057	1401	1168	1337	105-110	533.4	2564	16.8,16.8
115	1316	1913	2088	2050	1505	1897	1848	1832	110-115	788.4	3352	22,22
120	1727	2355	2649	2501	1942	2342	2448	2282	115-120	1003	4355	28.6,28.6
125	2101	2748	3088	2891	2343	2753	2890	2692	120-125	1158	5513	36.2,36.2
130	2464	3092	3427	3226	2681	3128	3240	3047	125-130	1253	6766	44.5,44.5
135	2791	3384	3670	3509	3000	3429	3533	3352	130-135	1295	8061	53,53
140	3087	3626	3896	3739	3300	3640	3777	3605	135-140	1287	9348	61.4,61.4
145	3363	3819	4078	3919	3560	3816	3975	3767	140-145	1234	10582	69.5,69.5
150	3616	3969	4210	4057	3736	3965	4124	3926	145-150	1143	11725	77,77
155	3824	4084	4294	4159	3922	4071	4222	4040	150-155	1018	12743	83.7,83.7
160	3994	4169	4333	4232	4080	4165	4273	4144	155-160	866.6	13609	89.4,89.4
165	4134	4230	4340	4280	4202	4229	4296	4215	160-165	694.0	14303	94,94
170	4237	4268	4333	4314	4289	4273	4302	4264	165-170	505.9	14809	97.3,97.3
175	4305	4296	4327	4337	4344	4305	4309	4303	170-175	307.6	15117	99.3,99.3
180	4345	4345	4345	4345	4345	4345	4345	4345	175-180	103.3	15220	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1151.7 lm

%lum = 7.6%
 %lamp = 7.6%

Conical surface Flux(120deg): 1412.6 lm

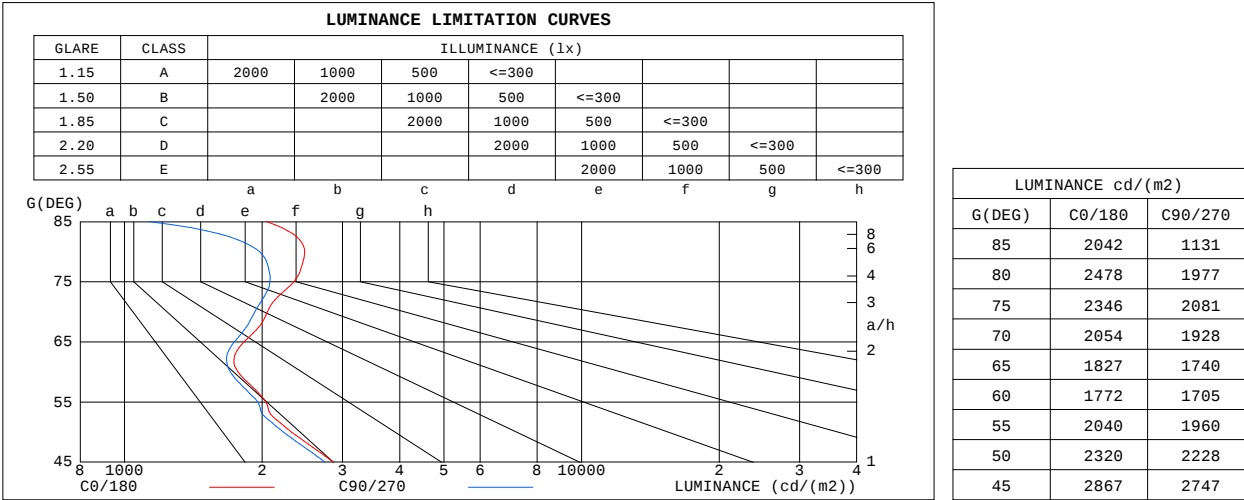
%lum = 9.3%
 %lamp = 9.3%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



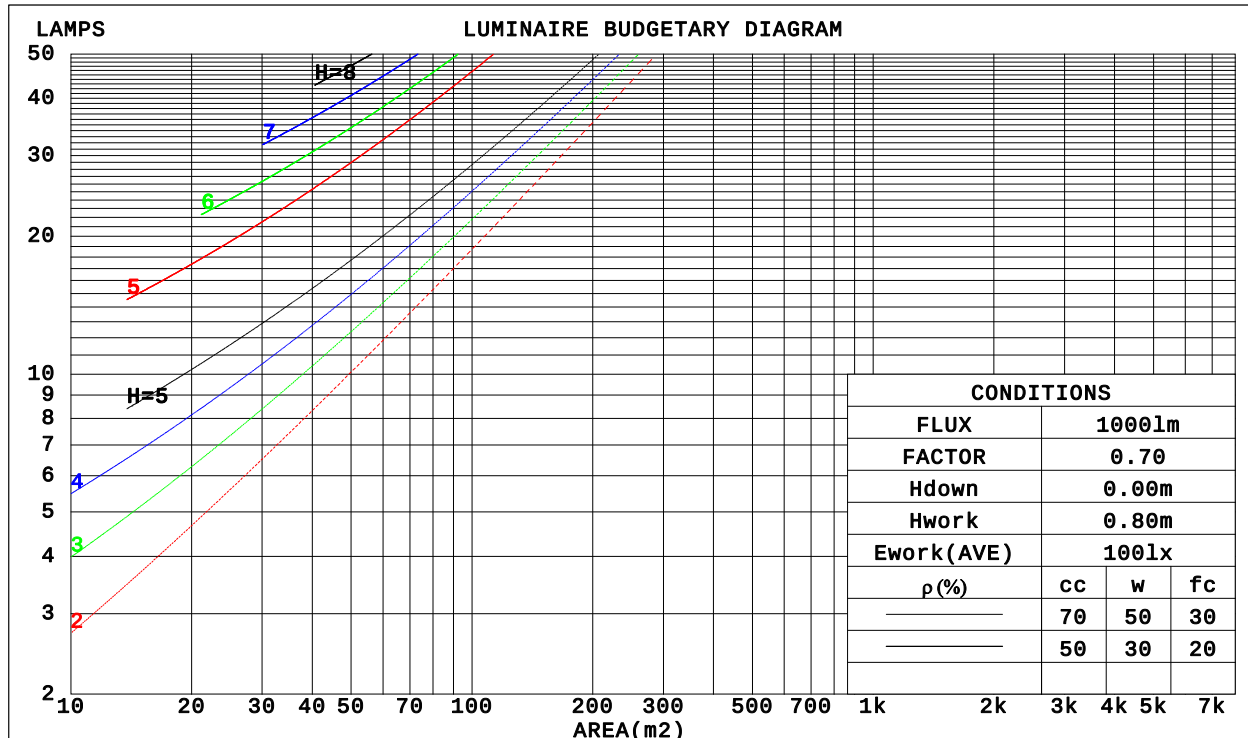
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0571]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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						Coefficients of Utilization(CU)										
0.0	.98	.98	.98	.85	.85	.85	.62	.62	.62	.40	.40	.40	.20	.20	.20	.11	
1.0	.85	.82	.78	.74	.71	.69	.54	.52	.50	.35	.34	.33	.18	.17	.17	.09	
2.0	.74	.69	.64	.65	.60	.57	.47	.44	.42	.31	.29	.28	.16	.15	.15	.08	
3.0	.65	.59	.53	.57	.52	.47	.42	.38	.35	.28	.25	.24	.14	.13	.13	.07	
4.0	.58	.51	.45	.51	.45	.40	.37	.33	.30	.25	.22	.20	.13	.12	.11	.06	
5.0	.51	.44	.39	.45	.39	.34	.33	.29	.26	.22	.20	.18	.12	.11	.10	.06	
6.0	.46	.39	.33	.40	.34	.30	.30	.26	.22	.20	.17	.15	.11	.09	.09	.05	
7.0	.41	.34	.29	.36	.30	.26	.27	.23	.20	.18	.15	.14	.10	.09	.08	.05	
8.0	.37	.30	.25	.33	.27	.23	.24	.20	.17	.16	.14	.12	.09	.08	.07	.04	
9.0	.34	.27	.22	.30	.24	.20	.22	.18	.15	.15	.13	.11	.08	.07	.06	.04	
10.0	.31	.24	.20	.27	.22	.18	.20	.16	.14	.14	.11	.10	.08	.06	.06	.03	



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.460m [K=1.0571]
 Remarks:

WEC AND CCEC

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm					
NAME: UNIFY落地灯 上下 5000K RA80			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:		Shielding Angle:

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	.259	.147	.047	.225	.128	.041	.161	.092	.030	.103	.059	.019	.049	.028	.009		
2.0	.238	.131	.040	.207	.114	.035	.149	.083	.026	.095	.054	.017	.046	.026	.008		
3.0	.220	.117	.035	.192	.103	.031	.138	.075	.023	.089	.049	.015	.043	.024	.007		
4.0	.204	.106	.031	.178	.093	.027	.128	.068	.020	.083	.044	.013	.040	.022	.007		
5.0	.190	.097	.028	.165	.085	.025	.120	.062	.018	.077	.041	.012	.038	.020	.006		
6.0	.177	.089	.025	.154	.078	.022	.112	.057	.017	.072	.038	.011	.035	.019	.006		
7.0	.165	.082	.023	.145	.072	.021	.105	.053	.015	.068	.035	.010	.033	.017	.005		
8.0	.155	.076	.021	.136	.067	.019	.099	.049	.014	.064	.032	.009	.031	.016	.005		
9.0	.146	.071	.020	.128	.062	.017	.093	.046	.013	.060	.030	.009	.030	.015	.004		
10.0	.137	.066	.018	.120	.058	.016	.088	.043	.012	.057	.028	.008	.028	.014	.004		

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	.871	.871	.871	.744	.744	.744	.508	.508	.508	.292	.292	.292	.093	.093	.093	
1.0	.863	.842	.824	.738	.723	.709	.505	.497	.491	.291	.288	.285	.093	.093	.092	
2.0	.856	.823	.795	.733	.708	.687	.502	.490	.479	.290	.285	.281	.093	.092	.092	
3.0	.849	.808	.776	.728	.697	.672	.500	.484	.472	.289	.283	.278	.093	.092	.091	
4.0	.843	.797	.762	.723	.689	.662	.497	.480	.466	.288	.281	.276	.093	.092	.091	
5.0	.837	.789	.753	.719	.682	.655	.495	.477	.463	.287	.280	.274	.092	.091	.090	
6.0	.832	.782	.746	.715	.677	.650	.493	.474	.460	.286	.279	.273	.092	.091	.090	
7.0	.826	.776	.741	.711	.673	.646	.491	.472	.458	.285	.278	.272	.092	.091	.090	
8.0	.821	.772	.738	.707	.669	.643	.489	.470	.456	.285	.277	.272	.092	.091	.090	
9.0	.816	.768	.735	.703	.666	.641	.487	.468	.455	.284	.277	.271	.092	.091	.090	
10.0	.812	.764	.732	.700	.664	.639	.486	.467	.454	.283	.276	.271	.092	.091	.090	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm											
NAME: UNIFY落地灯 上下 5000K RA80					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:			Shielding 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	4.4	5.0	5.6	6.2	7.9	4.4	5.1	5.6	6.2	7.9	
	3H	5.8	6.3	7.0	7.5	9.2	5.7	6.3	6.9	7.5	9.2
	4H	6.6	7.1	7.8	8.3	10.0	6.4	7.0	7.7	8.2	9.9
	6H	7.3	7.8	8.6	9.0	10.8	7.0	7.5	8.2	8.7	10.4
	8H	7.6	8.1	8.9	9.3	11.0	7.2	7.6	8.4	8.8	10.6
	12H	7.8	8.2	9.0	9.4	11.2	7.2	7.6	8.4	8.8	10.6
4H	2H	4.4	4.9	5.6	6.1	7.8	4.4	4.9	5.6	6.1	7.8
	3H	6.0	6.5	7.3	7.7	9.4	6.0	6.4	7.2	7.6	9.4
	4H	7.0	7.4	8.2	8.6	10.3	6.9	7.3	8.1	8.5	10.2
	6H	7.9	8.3	9.2	9.5	11.2	7.6	8.0	8.9	9.2	10.9
	8H	8.2	8.6	9.5	9.8	11.6	7.8	8.1	9.1	9.4	11.1
	12H	8.4	8.7	9.7	10.0	11.7	7.9	8.1	9.1	9.4	11.1
8H	4H	7.1	7.4	8.3	8.6	10.4	7.0	7.3	8.2	8.5	10.3
	6H	8.1	8.4	9.4	9.6	11.4	7.8	8.1	9.1	9.3	11.1
	8H	8.5	8.8	9.8	10.0	11.8	8.1	8.3	9.4	9.6	11.4
	12H	8.8	9.0	10.1	10.2	12.0	8.2	8.4	9.5	9.6	11.4
12H	4H	7.0	7.3	8.3	8.5	10.3	6.9	7.2	8.2	8.5	10.2
	6H	8.1	8.3	9.4	9.6	11.3	7.8	8.1	9.1	9.3	11.1
	8H	8.5	8.7	9.8	10.0	11.8	8.1	8.3	9.4	9.6	11.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3					
1.5H	+ 0.4 / - 0.4					+ 0.4 / - 0.3					
2.0H	+ 0.7 / - 0.4					+ 0.7 / - 0.4					

CIE Pub.117 Corrected 15220 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.5)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

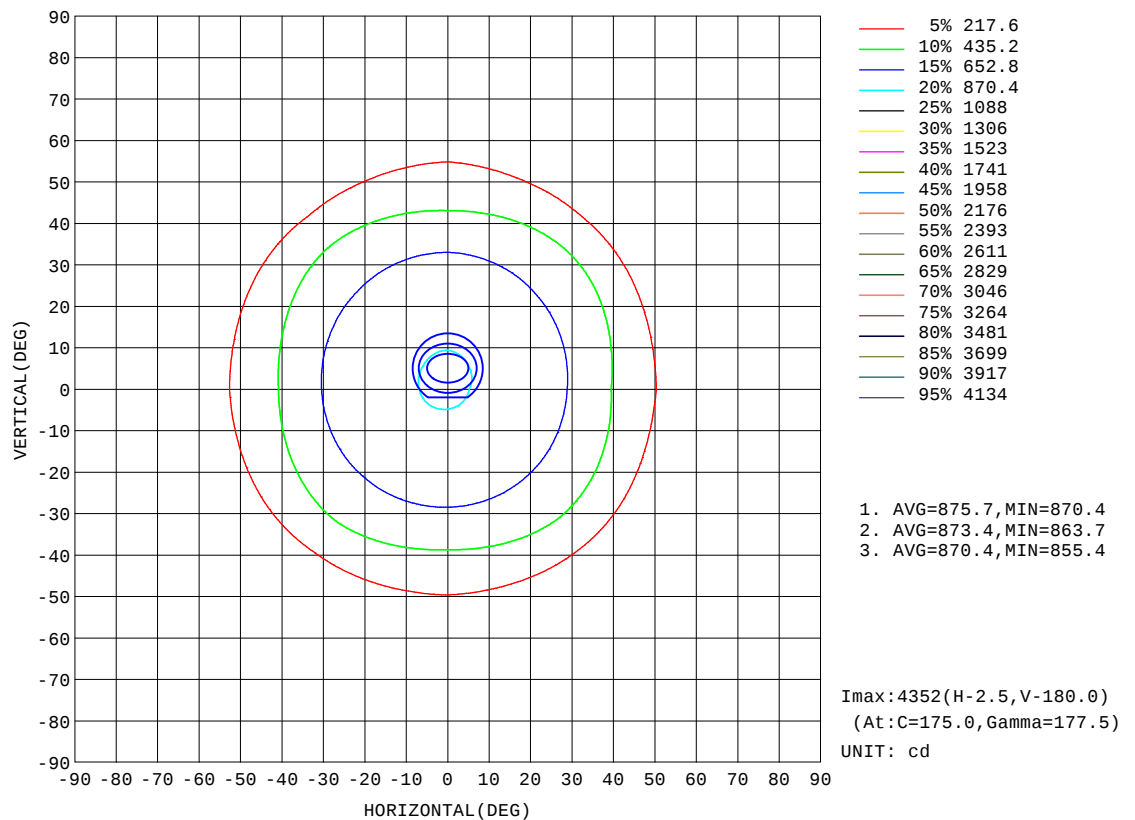
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	48	37	30	42	32	26	30	24	20	5
0.80	56	45	38	49	40	34	35	30	25	5
1.00	62	52	45	54	46	39	39	34	30	6
1.25	68	58	51	59	51	45	43	38	34	7
1.50	72	63	56	63	55	50	45	41	37	7
2.00	78	70	64	68	61	56	49	45	42	8
2.50	81	75	69	71	65	61	51	48	45	9
3.00	84	78	73	73	68	64	53	50	47	9
4.00	87	82	78	76	72	69	55	52	50	9
5.00	89	85	82	78	74	71	56	54	52	9
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Ceiling Mounted					SHRNOM = 1.00		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

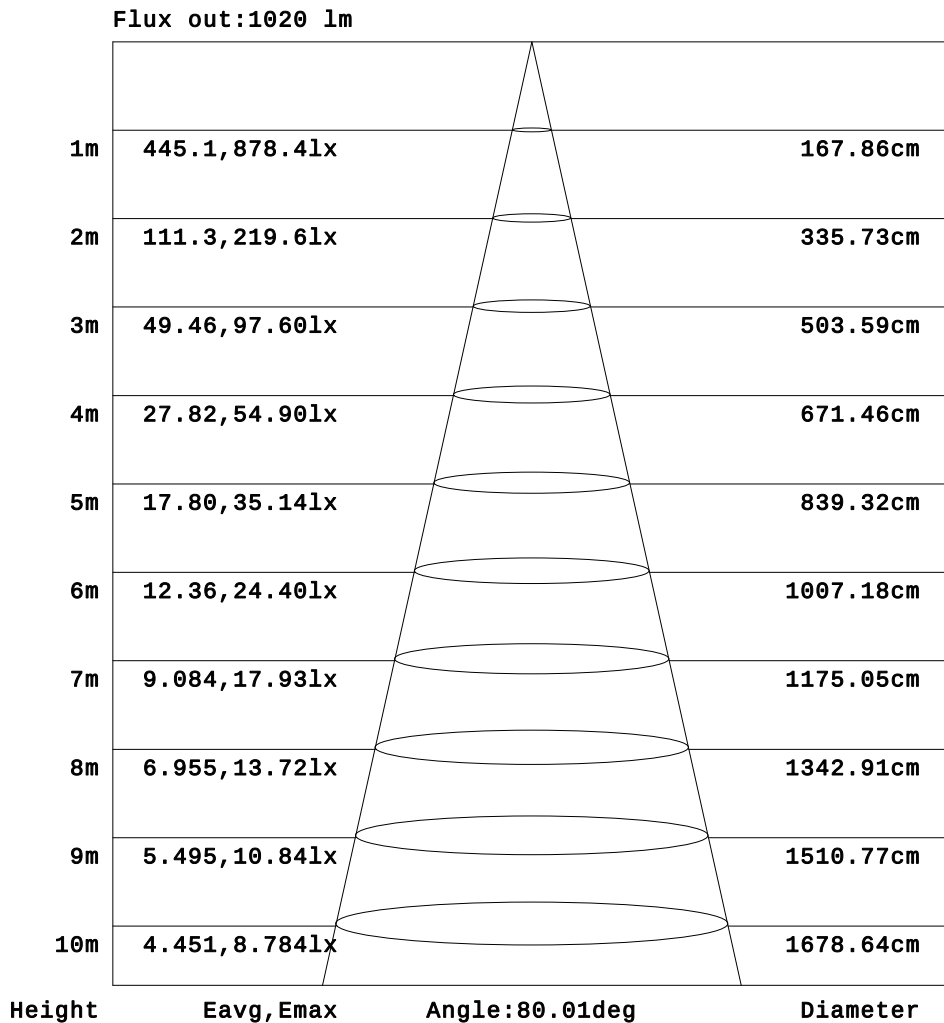


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0571]
Remarks:

AAI Figure

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



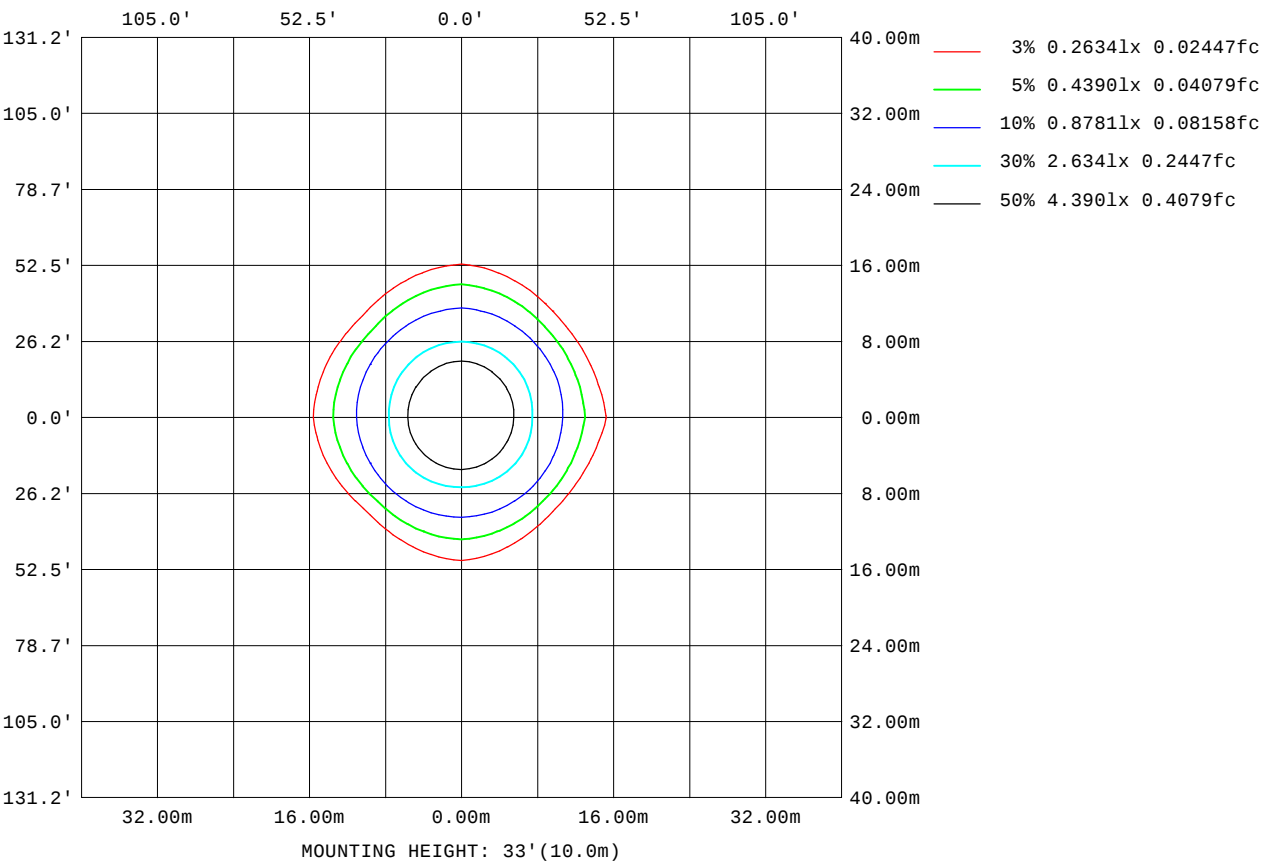
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0571]
Remarks:

LED Avg.L Report

Test:U:220.7V I:0.4540A P:99.00W PF:0.9840 Lamp Flux:15220.2x1 lm		
NAME: UNIFY落地灯 上下 5000K RA80	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

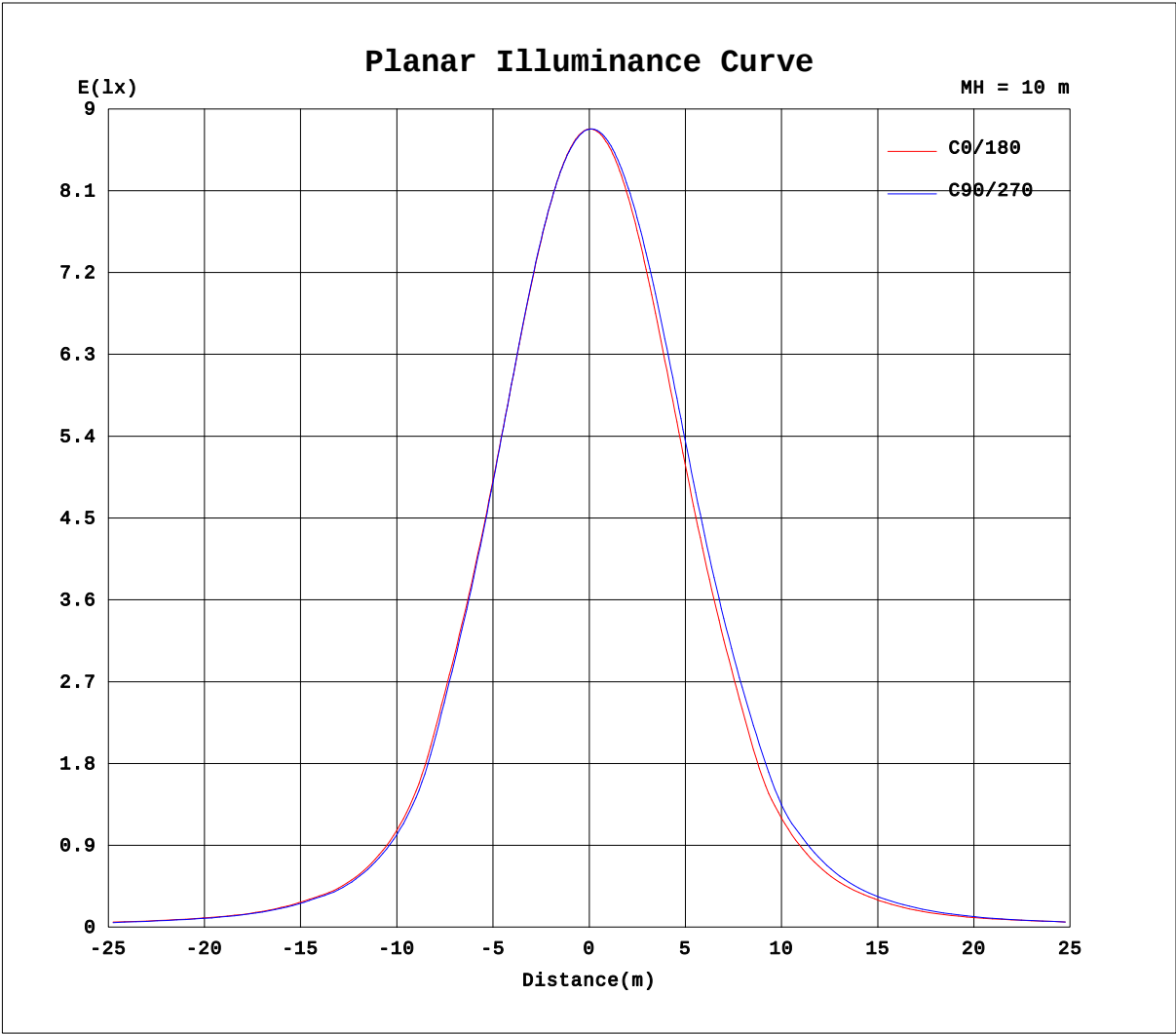
AvgL	cd/m2
L_0~180(65)av	1863
L_0~180(75)av	2406
L_0~180(85)av	2312
L_90~270(65)av	1858
L_90~270(75)av	2251
L_90~270(85)av	2122
L_45(65)av	1502
L_45(75)av	1843
L_45(85)av	1846

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0571]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0571]
Remarks: