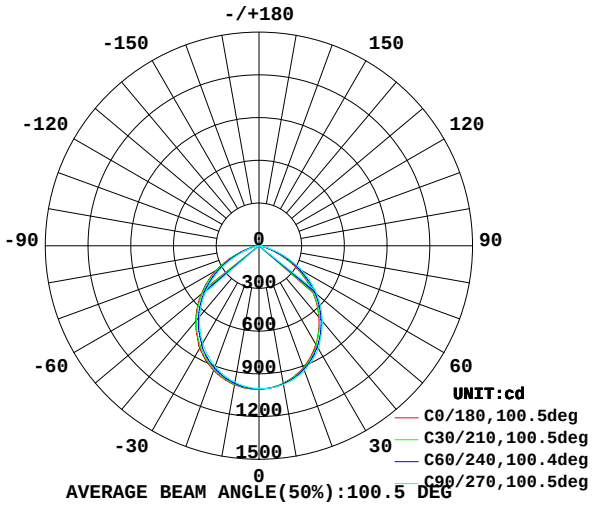
LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

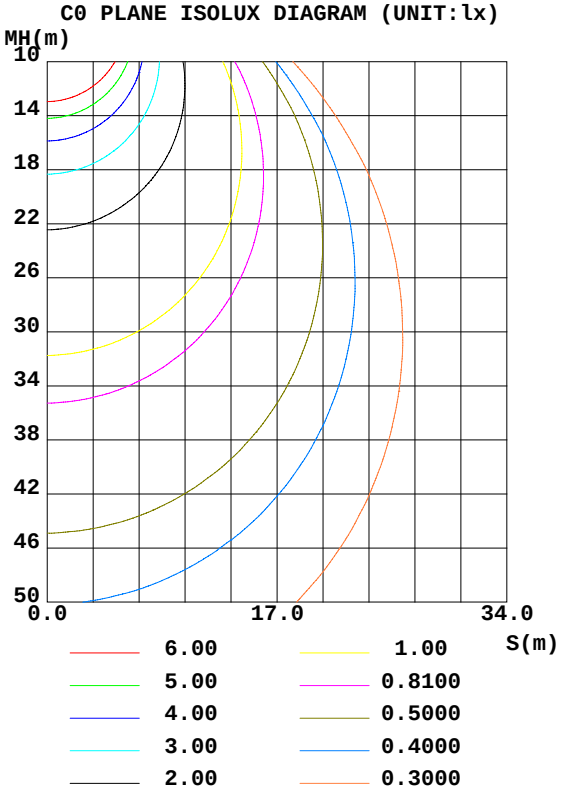
DATA OF LAMP		PHOTOMETRIC DATA Eff: 114.30 lm/W			
MODEL	PT-CDL-SMD-22-DD-5C3P-4-22w-5000k	Imax(cd)	1008	S/MH(C0/180)	1.23
NOMINAL POWER(W)	22	LOR(%)	100.0	S/MH(C90/270)	1.18
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	2359.5	η UP,DN(C0-180)	0.1,51.8
NOMINAL FLUX(lm)	2359.46	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.1,48.1
LAMPS INSIDE	1	η up(%)	0.2	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	99.8	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):100.5 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	980.7	984.3	988.5	995.5	990.4	983.5	973.2	964.6	0- 10	94.83	94.83	4.02,4.02
20	910.7	919.5	931.2	946.1	931.5	918.8	901.4	884.5	10- 20	269.3	364.2	15.4,15.4
30	799.0	812.0	832.6	854.6	831.5	811.9	790.4	763.1	20- 30	400.3	764.4	32.4,32.4
40	654.9	669.5	691.1	722.6	690.3	672.9	647.9	614.2	30- 40	464.7	1229	52.1,52.1
50	485.2	503.2	530.5	566.9	530.4	510.2	482.0	442.7	40- 50	455.1	1684	71.4,71.4
60	290.9	313.8	348.4	387.3	349.2	325.2	292.0	249.5	50- 60	370.0	2054	87.1,87.1
70	102.1	120.5	152.6	192.0	154.4	133.3	105.5	74.41	60- 70	219.6	2274	96.4,96.4
80	19.41	23.62	31.02	44.41	31.70	26.39	19.62	12.93	70- 80	70.62	2344	99.4,99.4
90	0	0	0	4.199	0	0	0	0	80- 90	11.42	2356	99.8,99.8
100	0	0	0	0	0	0	0	0	90-100	0.0612	2356	99.8,99.8
110	0	0	0	0	0	0	0	0	100-110	0	2356	99.8,99.8
120	0	0	0	0	0	0	0	0	110-120	0	2356	99.8,99.8
130	0.1866	0.0007	0	0	0	0.0270	0.1732	0.2749	120-130	0.0071	2356	99.8,99.8
140	1.271	0.9773	0.8033	0.6496	0.7642	0.9978	1.231	1.285	130-140	0.3654	2356	99.9,99.9
150	2.195	1.934	1.821	1.693	1.769	1.948	2.168	2.155	140-150	0.9211	2357	99.9,99.9
160	2.918	2.711	2.638	2.557	2.611	2.744	2.891	2.871	150-160	1.083	2358	99.9,99.9
170	3.400	3.313	3.254	3.219	3.320	3.373	3.454	3.427	160-170	0.8567	2359	100,100
180	3.668	3.701	3.654	3.688	3.681	3.701	3.654	3.681	170-180	0.3329	2359	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

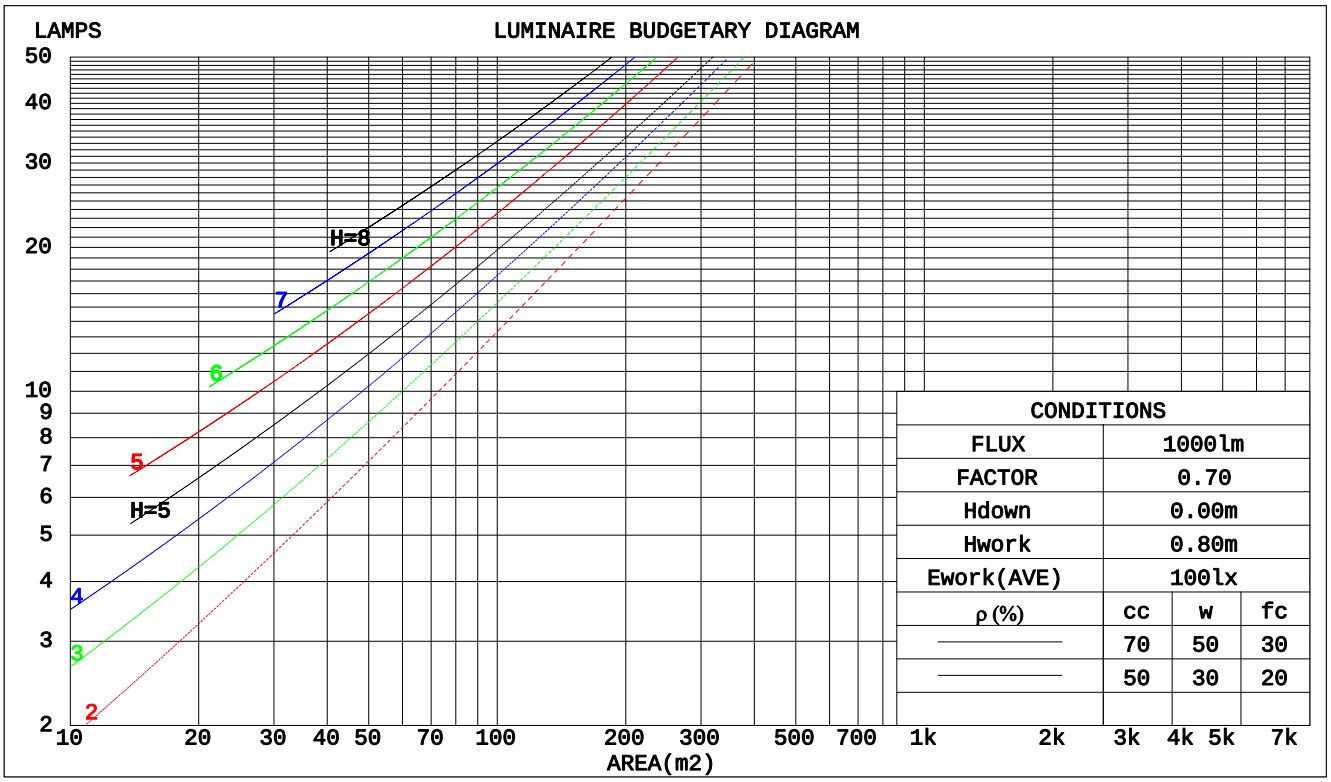
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	.00
1.0	1.06	1.02	.99	1.04	1.01	.98	.00	.97	.94	.96	.94	.92	.92	.91	.89	.87
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.85	.82	.78	.82	.79	.76	.74
3.0	.83	.76	.70	.82	.75	.69	.79	.73	.68	.76	.71	.67	.74	.70	.66	.64
4.0	.75	.66	.60	.73	.66	.60	.71	.64	.59	.68	.63	.58	.66	.61	.57	.55
5.0	.67	.59	.52	.66	.58	.52	.64	.57	.52	.62	.56	.51	.60	.55	.50	.48
6.0	.61	.52	.46	.60	.52	.46	.58	.51	.45	.56	.50	.45	.55	.49	.45	.43
7.0	.55	.47	.41	.54	.46	.41	.53	.46	.41	.51	.45	.40	.50	.44	.40	.38
8.0	.50	.42	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.46	.40	.36	.34
9.0	.46	.38	.33	.46	.38	.33	.45	.38	.33	.44	.37	.33	.43	.37	.33	.31
10.0	.43	.35	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.40	.34	.30	.28



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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 Coeffcients(WEC)									
0.0																
1.0	.265	.151	.048	.258	.147	.047	.245	.140	.045	.233	.134	.043	.222	.128	.041	
2.0	.257	.141	.043	.251	.138	.043	.240	.133	.041	.229	.129	.040	.219	.124	.039	
3.0	.243	.130	.039	.238	.128	.038	.228	.124	.038	.219	.120	.037	.210	.116	.036	
4.0	.228	.119	.035	.224	.117	.035	.215	.114	.034	.206	.111	.033	.199	.108	.033	
5.0	.214	.109	.032	.210	.108	.031	.202	.105	.031	.194	.103	.030	.187	.100	.030	
6.0	.200	.100	.029	.197	.099	.029	.189	.097	.028	.183	.095	.028	.177	.093	.028	
7.0	.188	.093	.026	.185	.092	.026	.178	.090	.026	.172	.088	.026	.167	.087	.025	
8.0	.177	.086	.024	.174	.085	.024	.168	.084	.024	.163	.082	.024	.158	.081	.024	
9.0	.166	.080	.022	.164	.080	.022	.159	.078	.022	.154	.077	.022	.149	.076	.022	
10.0	.157	.075	.021	.155	.075	.021	.150	.073	.021	.146	.072	.021	.142	.071	.020	

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	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.178	.158	.139	.153	.135	.120	.104	.093	.083	.060	.054	.048	.019	.017	.016	
2.0	.169	.133	.103	.145	.115	.089	.099	.079	.062	.057	.046	.037	.018	.015	.012	
3.0	.161	.115	.079	.138	.099	.069	.095	.069	.048	.055	.040	.028	.018	.013	.009	
4.0	.153	.102	.063	.131	.088	.054	.090	.061	.038	.052	.036	.023	.017	.012	.007	
5.0	.146	.091	.051	.125	.079	.044	.086	.055	.031	.050	.032	.019	.016	.011	.006	
6.0	.139	.083	.042	.119	.072	.037	.082	.050	.026	.048	.029	.015	.015	.010	.005	
7.0	.132	.076	.036	.114	.066	.031	.079	.046	.022	.046	.027	.013	.015	.009	.004	
8.0	.126	.070	.031	.109	.061	.027	.075	.043	.019	.044	.025	.011	.014	.008	.004	
9.0	.121	.065	.027	.104	.056	.024	.072	.040	.017	.042	.023	.010	.014	.008	.003	
10.0	.115	.061	.024	.099	.053	.021	.069	.037	.015	.040	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	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	30.4	31.8	30.7	32.0	32.2	31.0	32.4	31.2	32.6	32.8
3H	30.9	32.2	31.2	32.5	32.7	31.7	33.0	32.0	33.3	33.5
4H	31.0	32.2	31.3	32.4	32.7	31.9	33.1	32.2	33.3	33.6
6H	30.9	32.1	31.2	32.3	32.6	31.9	33.0	32.2	33.3	33.6
8H	30.9	32.0	31.2	32.3	32.5	31.8	32.9	32.2	33.2	33.5
12H	30.8	31.9	31.2	32.2	32.5	31.8	32.9	32.2	33.2	33.5
4H 2H	30.8	32.0	31.1	32.3	32.5	31.3	32.5	31.6	32.7	33.0
3H	31.4	32.5	31.8	32.8	33.1	32.1	33.2	32.5	33.5	33.8
4H	31.5	32.4	31.8	32.7	33.1	32.3	33.2	32.6	33.6	33.9
6H	31.5	32.3	31.8	32.7	33.0	32.3	33.2	32.7	33.5	33.9
8H	31.4	32.2	31.8	32.6	33.0	32.3	33.1	32.7	33.5	33.8
12H	31.4	32.1	31.8	32.5	32.9	32.3	33.0	32.7	33.4	33.8
8H 4H	31.5	32.2	31.9	32.6	33.0	32.2	33.0	32.6	33.4	33.8
6H	31.5	32.1	31.9	32.5	33.0	32.3	33.0	32.7	33.4	33.8
8H	31.5	32.0	31.9	32.5	32.9	32.3	32.9	32.8	33.3	33.8
12H	31.4	31.9	31.9	32.4	32.9	32.3	32.8	32.8	33.3	33.7
12H 4H	31.4	32.1	31.8	32.5	32.9	32.2	32.9	32.6	33.3	33.7
6H	31.5	32.0	31.9	32.4	32.9	32.3	32.8	32.7	33.3	33.7
8H	31.5	31.9	31.9	32.4	32.9	32.3	32.8	32.8	33.2	33.7

Variations with the observer position at spacings:		
S = 1.0H	+ 0.5 / - 0.6	+ 0.4 / - 0.4
1.5H	+ 0.3 / - 0.6	+ 0.3 / - 0.4
2.0H	+ 0.8 / - 0.8	+ 0.7 / - 0.8

CIE Pub.117 Corrected 2359 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.0)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	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) x RCR = 5									
k = 0.60	61	51	44	61	50	44	60	50	44	38
0.80	72	61	54	71	61	54	69	60	54	47
1.00	80	70	64	79	70	63	77	71	63	56
1.25	87	78	72	86	77	71	83	76	70	64
1.50	92	83	77	91	83	77	88	81	76	69
2.00	98	91	85	97	90	85	93	88	83	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	103	97	93	99	95	91	83
4.00	108	103	99	106	102	98	102	98	95	87
5.00	110	106	103	108	104	101	104	101	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

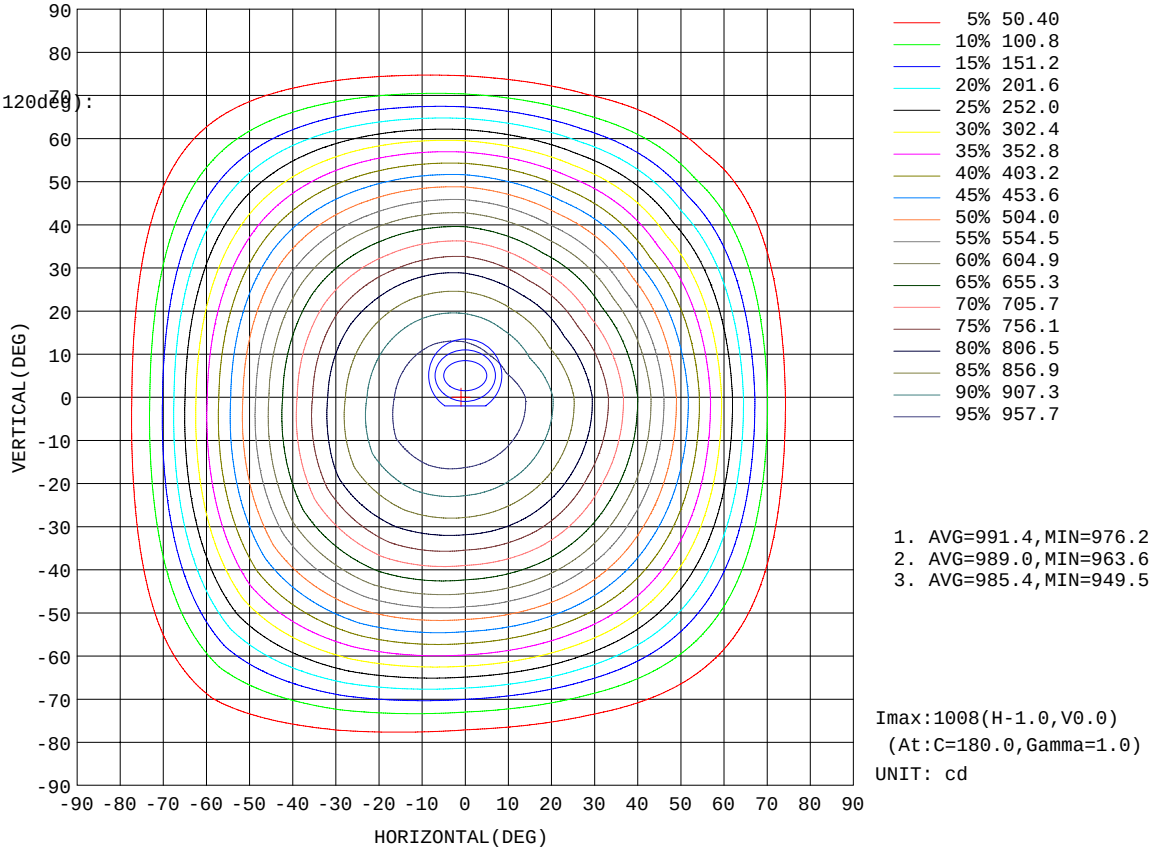
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Conical surface Flux(90deg):
1462.6 lm
%lum = 62.0%
%lamp = 62.0%

Conical surface Flux(120deg):
2054.2 lm
%lum = 87.1%
%lamp = 87.1%



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C Interval: 30.0DEG
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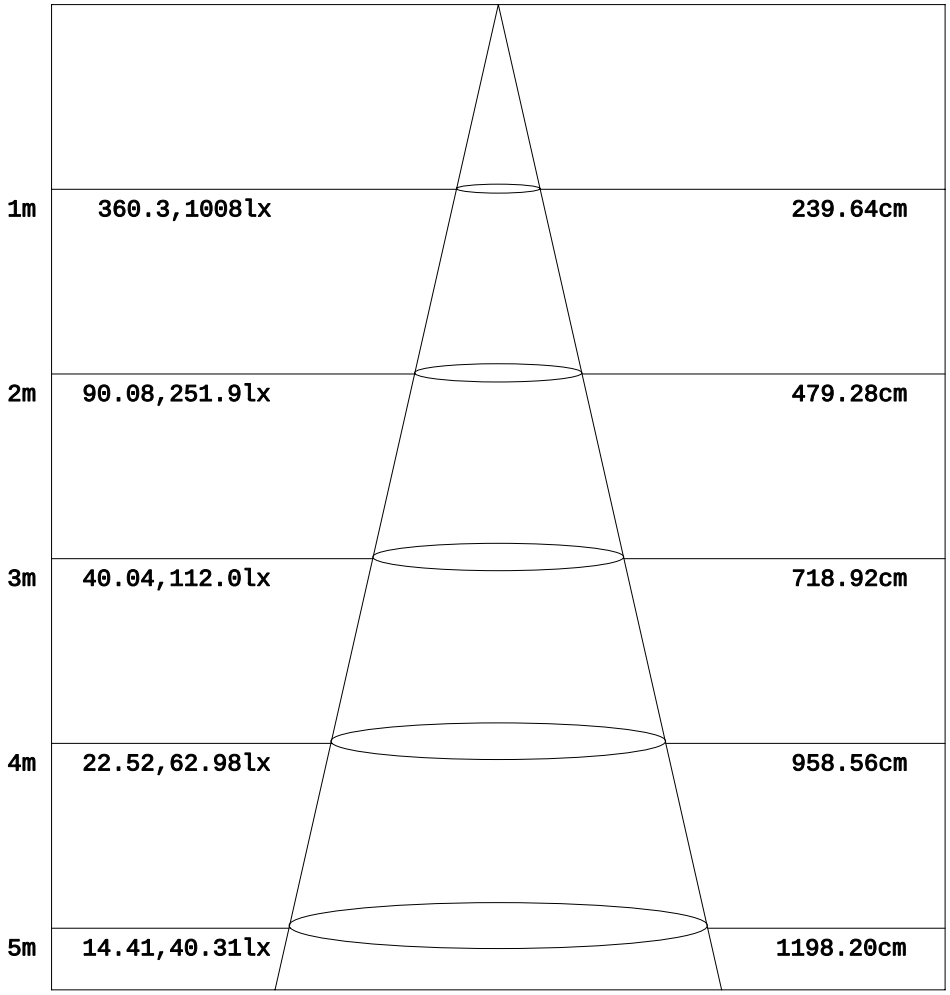
Remarks:

AAI Figure

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1726 lm



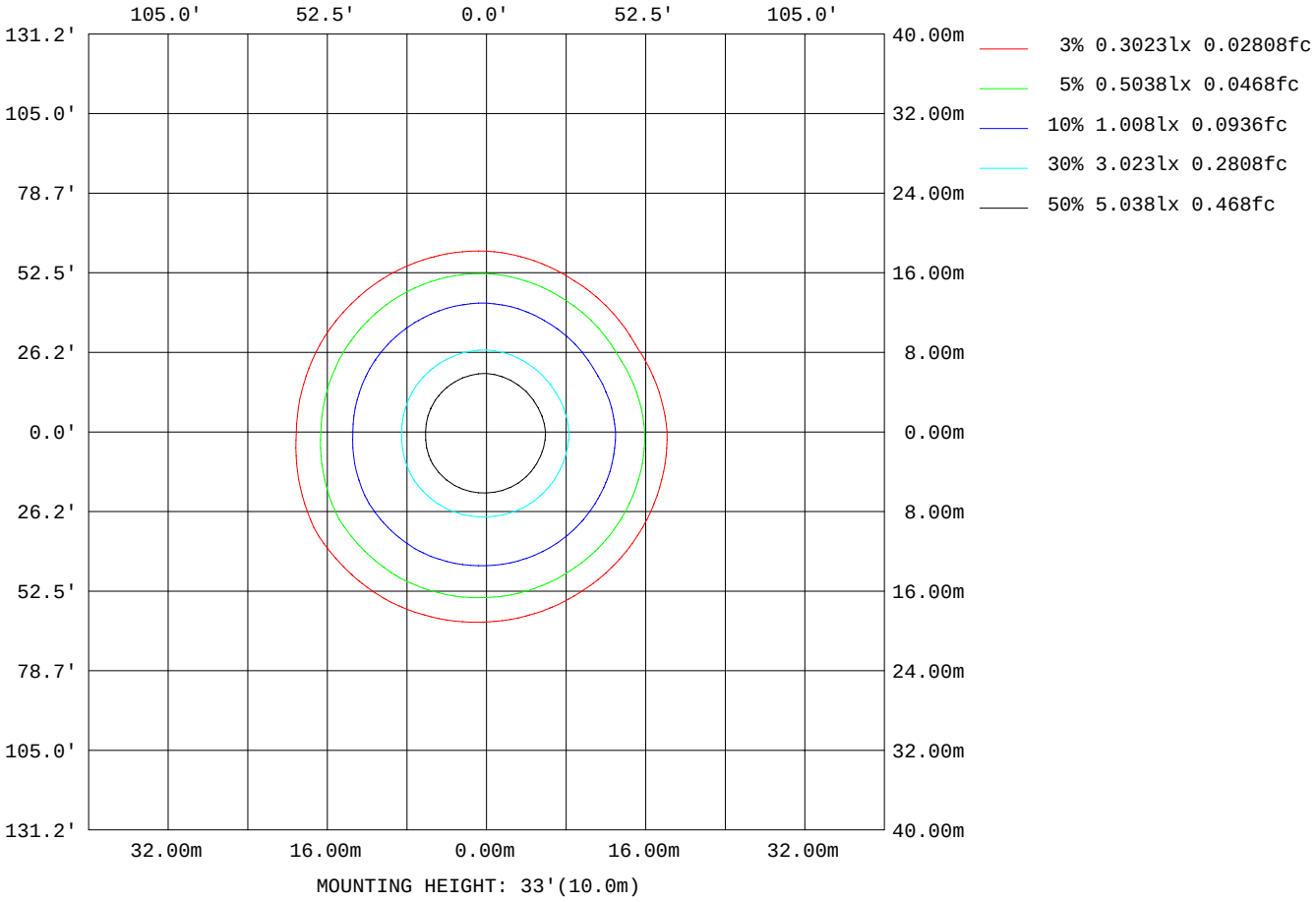
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

AvgL	cd/m2
L_0~180(65)av	131069
L_0~180(75)av	57275
L_0~180(85)av	25310
L_90~270(65)av	131480
L_90~270(75)av	57441
L_90~270(85)av	24882
L_45(65)av	130971
L_45(75)av	60466
L_45(85)av	26927

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
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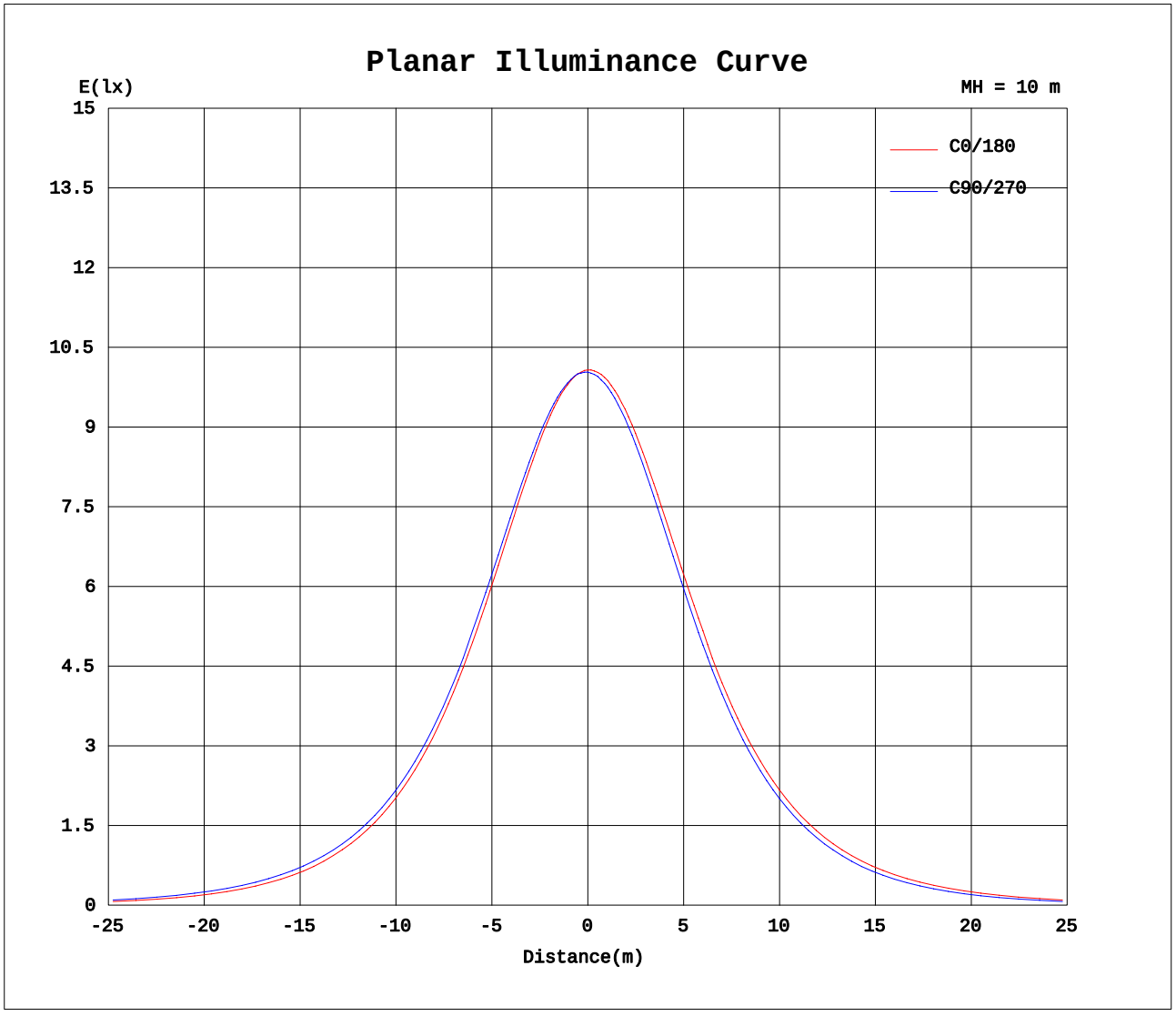
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:21 September 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:14.200m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.6V I:0.1723A P:20.64W PF:0.9931 Lamp Flux:2359.46x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	30	60	90	120	150	180	210	240	270	300	330
0	1008	1007	1005	1003	1001	1002	1008	1007	1005	1003	1001	1002
5	1000	1001	1001	1001	1003	1004	1005	1001	999	994	989	989
10	981	983	986	989	994	997	990	986	981	973	966	964
15	951	955	960	966	975	978	966	960	953	943	931	928
20	911	916	923	931	944	948	932	924	914	901	887	882
25	859	867	875	886	903	908	887	876	865	850	833	827
30	799	805	819	833	851	858	832	820	804	790	763	763
35	730	735	752	762	790	796	761	756	735	723	693	691
40	655	660	679	691	721	725	690	684	662	648	616	613
45	572	580	598	614	645	650	613	605	583	568	534	528
50	485	493	513	531	563	570	530	522	499	482	446	439
55	388	402	420	442	476	485	443	433	409	387	354	341
60	291	305	323	348	381	394	349	335	315	292	256	243
65	192	206	223	250	284	298	251	237	217	194	160	147
70	102	113	128	153	185	199	154	142	124	106	78.9	69.9
75	44.0	49.5	57.4	72.9	96.7	108	74.6	66.8	56.2	46.0	33.4	29.6
80	19.4	22.0	25.3	31.0	41.5	47.3	31.7	28.6	24.2	19.6	13.9	12.0
85	4.33	6.31	8.74	13.0	18.4	20.9	13.3	11.3	7.88	4.39	0.00	0.00
90	0.00	0.00	0.00	0.00	3.05	5.35	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.17	0.31	0.24
135	0.73	0.52	0.36	0.24	0.09	0.15	0.22	0.37	0.56	0.70	0.82	0.76
140	1.27	1.06	0.90	0.80	0.63	0.67	0.76	0.88	1.11	1.23	1.33	1.24
145	1.75	1.54	1.41	1.31	1.16	1.25	1.27	1.38	1.59	1.71	1.79	1.69
150	2.20	1.99	1.87	1.82	1.67	1.72	1.77	1.86	2.04	2.17	2.22	2.09
155	2.60	2.42	2.30	2.26	2.13	2.18	2.22	2.30	2.44	2.56	2.56	2.49
160	2.92	2.74	2.68	2.64	2.54	2.57	2.61	2.69	2.80	2.89	2.92	2.82
165	3.19	3.05	3.01	2.96	2.89	2.93	2.97	3.04	3.12	3.20	3.23	3.13
170	3.40	3.33	3.29	3.25	3.19	3.25	3.32	3.35	3.40	3.45	3.47	3.39
175	3.57	3.55	3.55	3.48	3.48	3.51	3.53	3.57	3.60	3.60	3.64	3.61
180	3.67	3.69	3.71	3.65	3.68	3.69	3.68	3.71	3.69	3.65	3.68	3.68

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