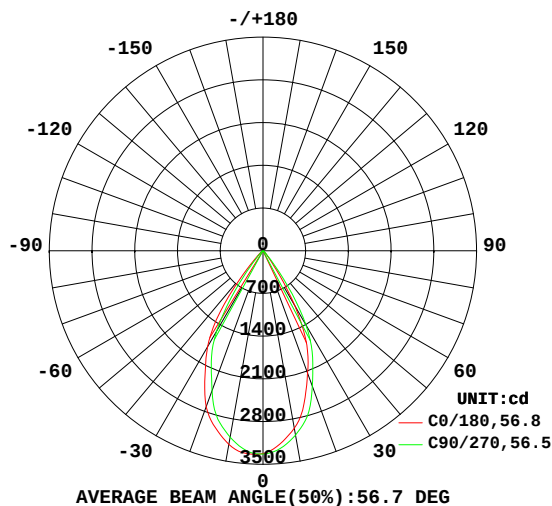


LUMINAIRE PHOTOMETRIC TEST REPORT

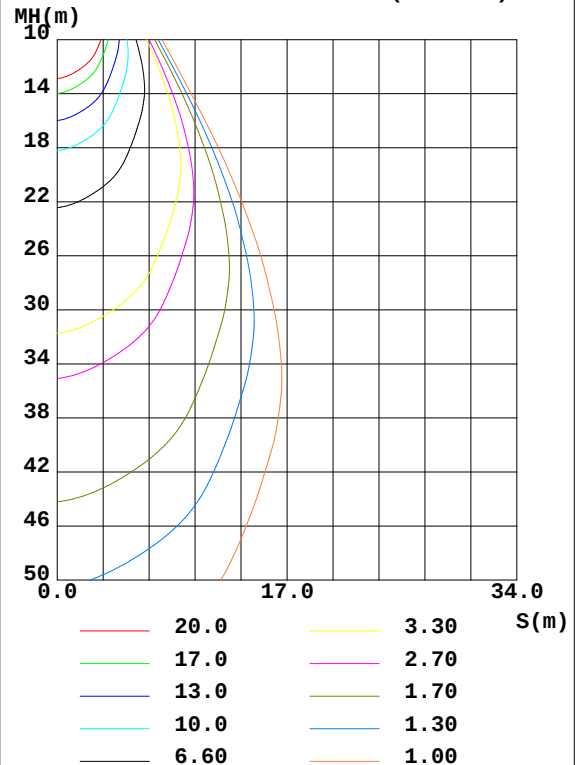
Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.84 lm/W			
MODEL	TB15111204 4000K	I _{max} (cd)	3343	S/MH(C0/180)	0.94
NOMINAL POWER(W)	30	LOR(%)	100.0	S/MH(C90/270)	0.86
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	2628.8	η UP, DN(C0-180)	0.0, 48.2
NOMINAL FLUX(lm)	2628.78	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 51.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.90

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-03-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

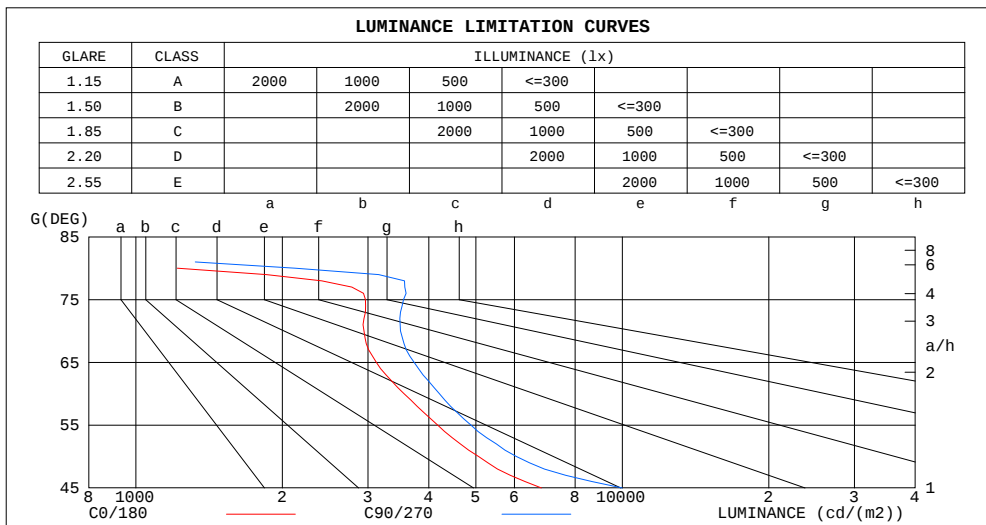
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2954	2986	3067	3160	3221	3194	3102	3017	0- 10	305.8	305.8	11.6, 11.6
20	2138	2187	2365	2595	2722	2651	2445	2254	10- 20	782.6	1088	41.4, 41.4
30	1055	1148	1412	1687	1816	1749	1516	1234	20- 30	893.9	1982	75.4, 75.4
40	128.0	141.2	218.5	371.8	512.0	428.5	261.4	155.3	30- 40	494.6	2477	94.2, 94.2
50	38.03	39.26	45.48	55.33	64.54	59.58	48.30	41.05	40- 50	88.44	2565	97.6, 97.6
60	20.80	21.69	24.58	28.09	30.13	28.93	25.46	22.43	50- 60	31.18	2597	98.8, 98.8
70	11.77	12.33	13.99	15.98	17.08	16.28	14.20	12.57	60- 70	18.99	2616	99.5, 99.5
80	2.471	3.997	4.315	9.342	10.05	9.500	4.846	4.207	70- 80	11.35	2627	99.9, 99.9
90	0.1011	0.1057	0.0873	0.0873	0.0873	0.0873	0.0965	0.1148	80- 90	1.919	2629	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		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	213	285
80	1217	2126
75	2964	3549
70	2943	3498
65	3122	3731
60	3558	4206
55	4171	4884
50	5061	6053
45	6818	9989

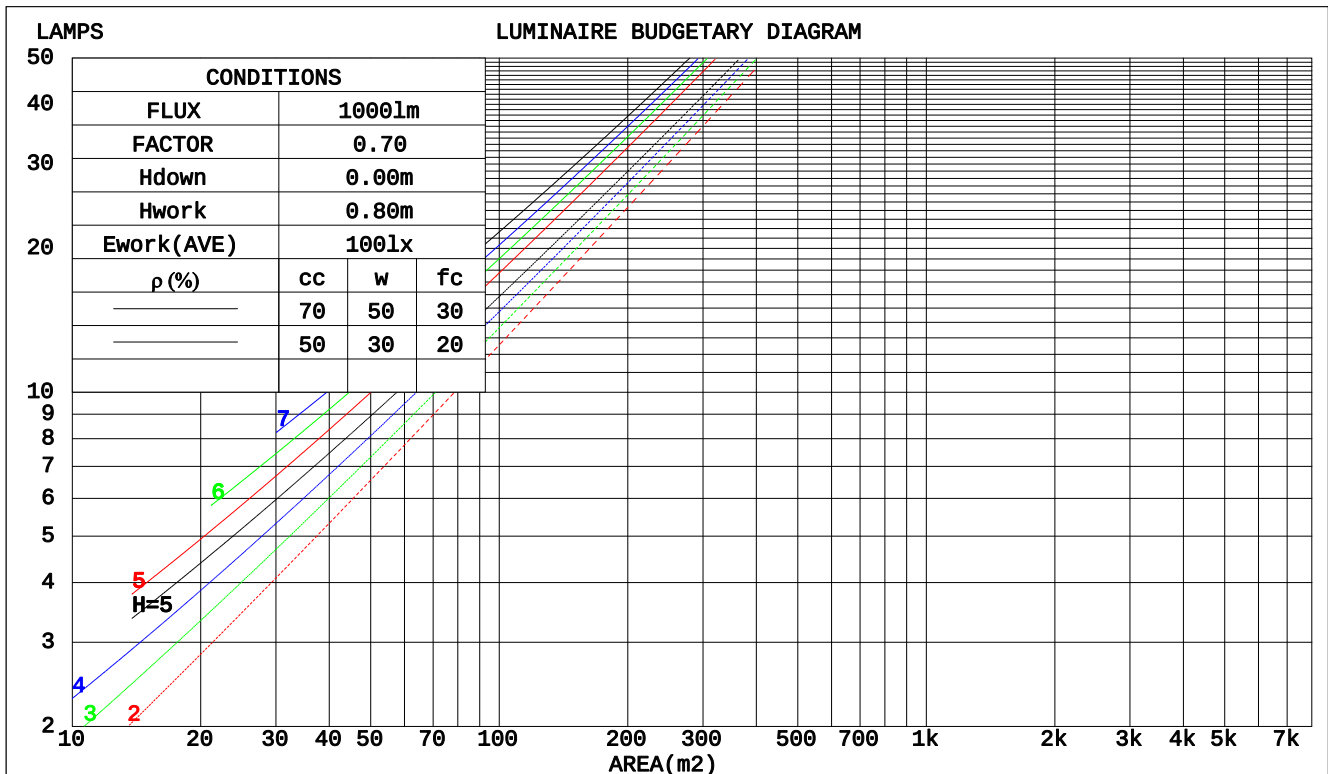
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-03-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	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	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	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.94
2.0	1.03	.99	.96	1.02	.98	.95	.98	.95	.93	.95	.93	.91	.93	.91	.89	.87
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.84	.88	.85	.83	.82
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.82	.79	.83	.80	.78	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.78	.74	.81	.77	.73	.79	.76	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.75	.70	.65	.75	.69	.65	.73	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.71	.65	.61	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.59
9.0	.67	.62	.58	.67	.61	.58	.66	.61	.58	.65	.61	.57	.64	.60	.57	.56
10.0	.64	.58	.55	.64	.58	.55	.63	.58	.54	.62	.57	.54	.61	.57	.54	.53



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-03-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm					
NAME: DD2810M-WHTC30C02			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 122mm		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	.177	.100	.032	.170	.097	.031	.157	.090	.029	.146	.084	.027	.135	.078	.025	
2.0	.168	.092	.028	.163	.090	.028	.152	.085	.026	.142	.080	.025	.133	.075	.024	
3.0	.160	.085	.025	.155	.083	.025	.146	.079	.024	.138	.076	.023	.130	.072	.022	
4.0	.152	.079	.023	.148	.077	.023	.140	.074	.022	.133	.071	.022	.126	.069	.021	
5.0	.145	.074	.021	.141	.072	.021	.134	.070	.021	.128	.068	.020	.122	.065	.020	
6.0	.138	.069	.020	.135	.068	.020	.129	.066	.019	.123	.064	.019	.118	.062	.018	
7.0	.132	.065	.018	.129	.064	.018	.124	.063	.018	.119	.061	.018	.114	.059	.017	
8.0	.126	.062	.017	.124	.061	.017	.119	.059	.017	.115	.058	.017	.110	.057	.017	
9.0	.121	.059	.016	.119	.058	.016	.115	.057	.016	.111	.055	.016	.107	.054	.016	
10.0	.116	.056	.015	.114	.055	.015	.110	.054	.015	.107	.053	.015	.103	.052	.015	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.078	.060	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.107	.075	.052	.073	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.095	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.056	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.031	.086	.051	.027	.059	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.095	.054	.028	.082	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm										
NAME: DD2810M-WHTC30C02					TYPE:			WEIGHT:		
SPEC.: white RA90 3000K+5700K					DIM.:			SERIAL No.:		
MFR.:					SUR.: 122mm			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	11.6	12.5	11.8	12.7	12.9	13.7	14.6	13.9	14.8	14.9
3H	11.6	12.5	11.9	12.7	12.9	13.6	14.5	13.9	14.7	14.9
4H	11.7	12.5	11.9	12.7	12.9	13.7	14.5	13.9	14.7	14.9
6H	11.7	12.4	12.0	12.7	12.9	13.6	14.4	13.9	14.6	14.9
8H	11.6	12.3	11.9	12.6	12.9	13.6	14.3	13.9	14.6	14.8
12H	11.6	12.3	11.9	12.5	12.8	13.6	14.3	13.9	14.5	14.8
4H 2H	11.5	12.3	11.7	12.5	12.7	13.5	14.3	13.8	14.5	14.7
3H	11.6	12.3	11.9	12.5	12.8	13.5	14.2	13.8	14.5	14.7
4H	11.7	12.3	12.0	12.6	12.9	13.6	14.2	13.9	14.5	14.8
6H	11.7	12.2	12.1	12.6	12.9	13.6	14.1	14.0	14.5	14.8
8H	11.6	12.2	12.0	12.5	12.9	13.5	14.0	13.9	14.4	14.8
12H	11.6	12.1	12.0	12.4	12.8	13.5	14.0	13.9	14.3	14.7
8H 4H	11.6	12.2	12.0	12.5	12.9	13.5	14.0	13.9	14.3	14.7
6H	11.7	12.1	12.1	12.5	12.9	13.5	13.9	13.9	14.3	14.7
8H	11.6	12.0	12.1	12.4	12.9	13.5	13.8	13.9	14.3	14.7
12H	11.6	11.9	12.0	12.3	12.8	13.4	13.7	13.9	14.2	14.6
12H 4H	11.6	12.1	12.0	12.4	12.8	13.4	13.9	13.8	14.3	14.7
6H	11.6	12.0	12.1	12.4	12.9	13.5	13.8	13.9	14.3	14.7
8H	11.6	11.9	12.0	12.3	12.8	13.4	13.7	13.9	14.2	14.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 2.4 / - 2.2					+ 4.0 / - 3.6				
1.5H	+ 4.3 / - 1.9					+ 6.3 / - 3.3				
2.0H	+ 1.2 / - 0.8					+ 2.5 / - 1.0				

CIE Pub.117, 2629 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.4$)
Area: 0.01169 m²

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

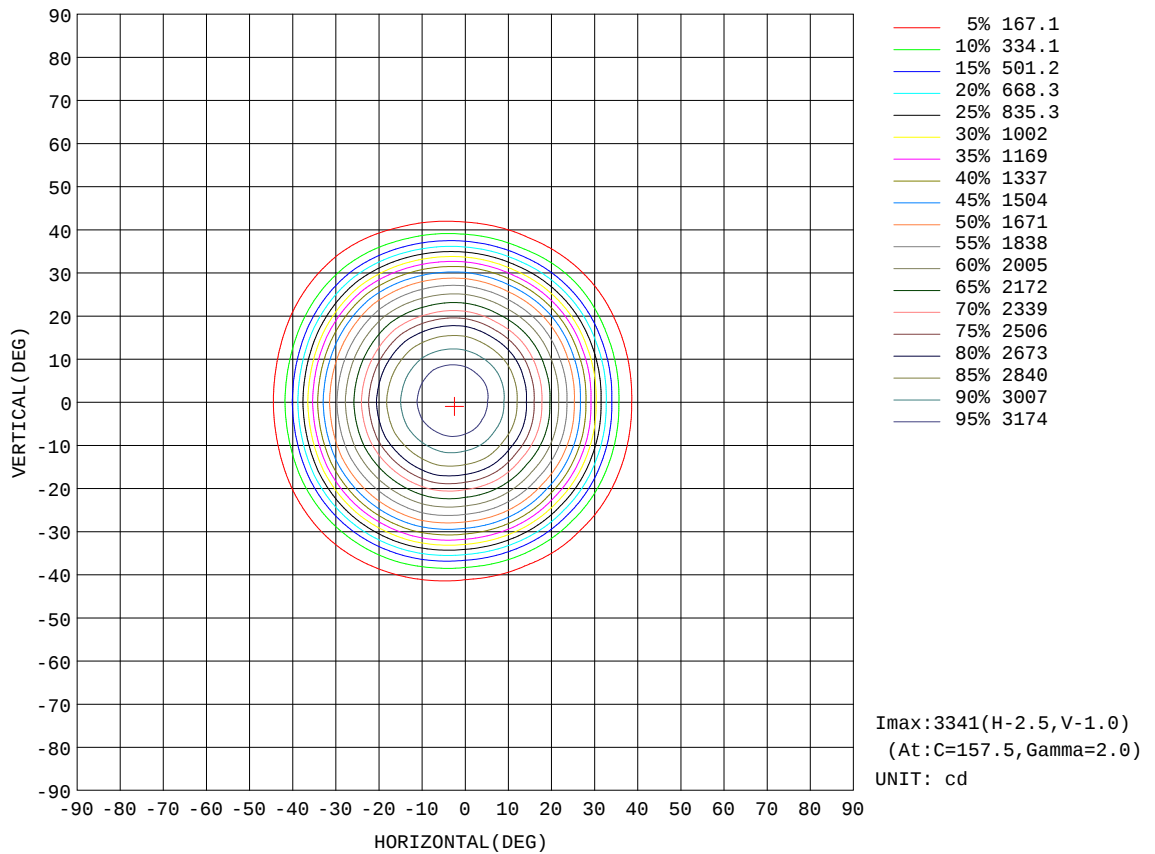
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	87	82	78	87	81	78	74
0.80	95	90	86	95	89	86	93	89	85	82
1.00	100	94	91	99	94	90	97	93	90	86
1.25	103	98	95	102	98	95	100	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

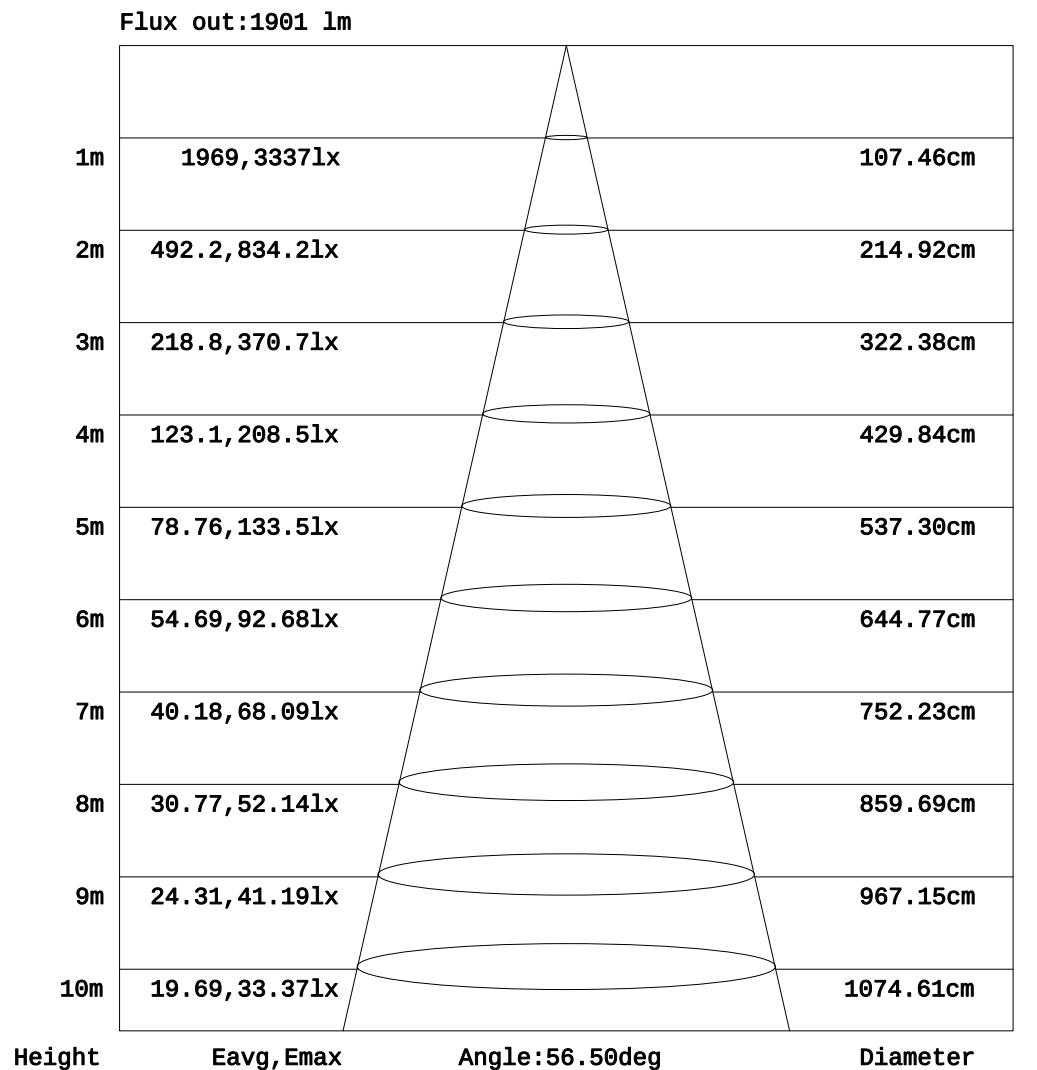


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:



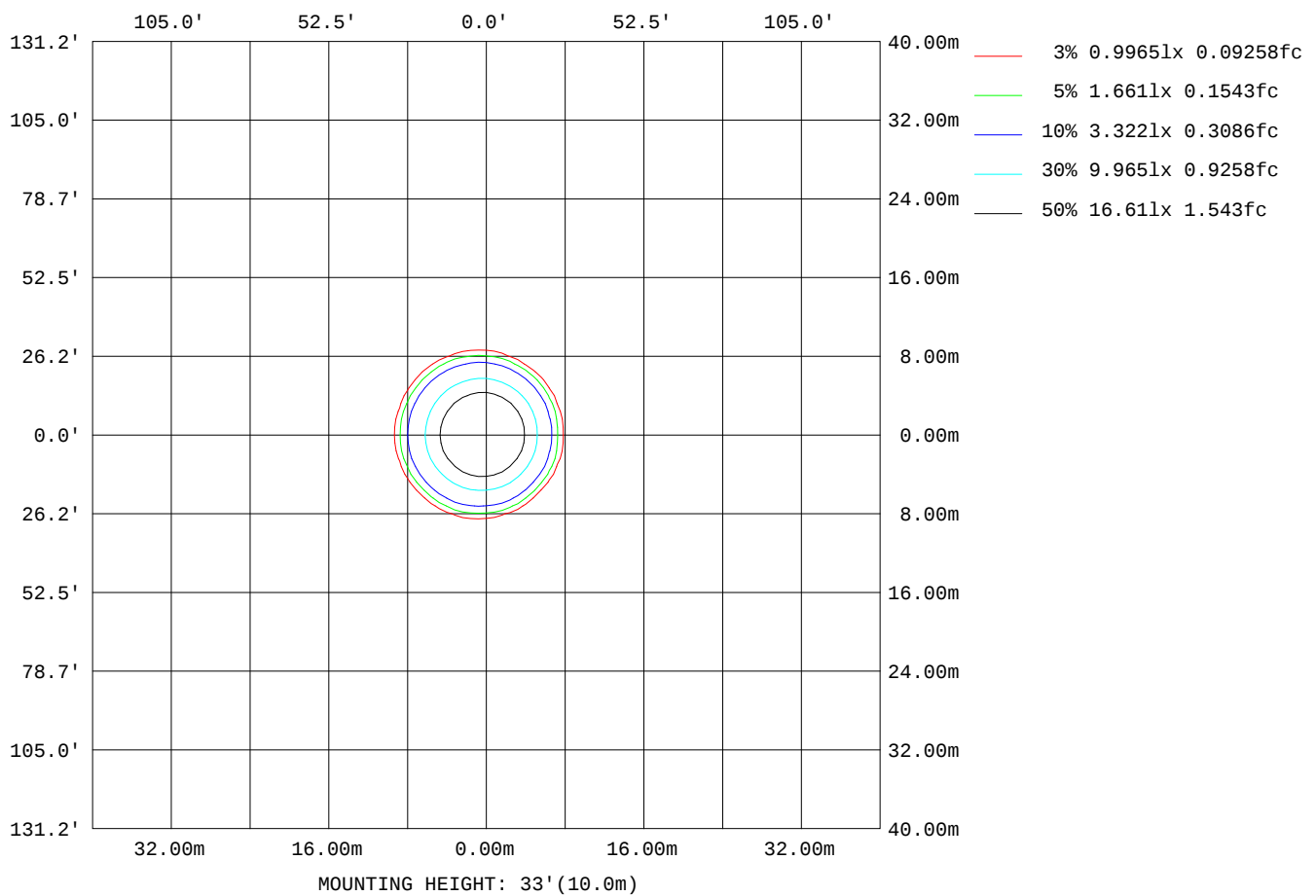
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-03-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.35V I:0.1149A P:25.562W PF:0.9660 Freq:49.99Hz Lamp Flux:2628.78x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

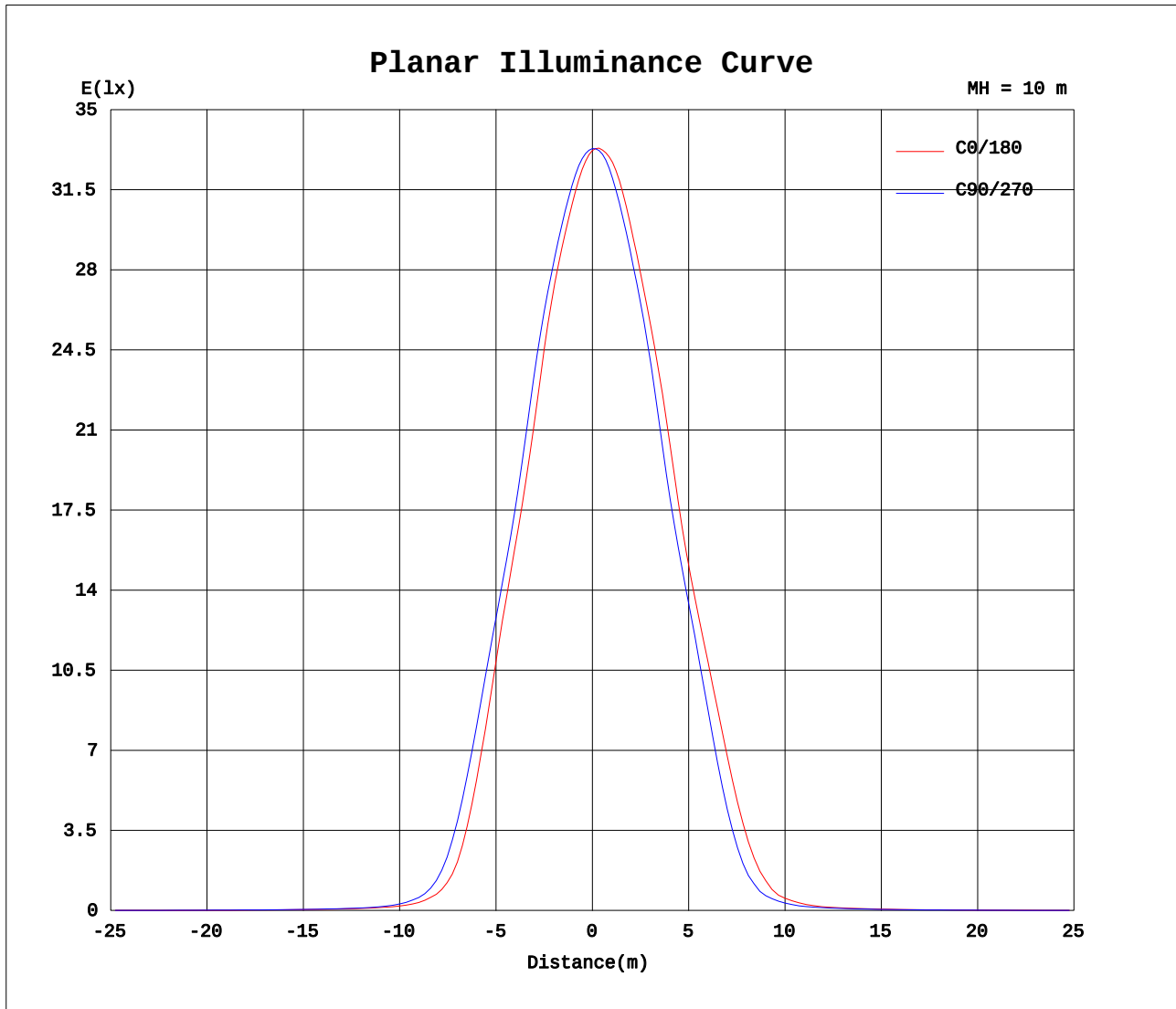
AvgL	cd/m2
L_0~180(65)av	3859
L_0~180(75)av	3645
L_0~180(85)av	842
L_90~270(65)av	3782
L_90~270(75)av	3562
L_90~270(85)av	311
L_45(65)av	3828
L_45(75)av	3653
L_45(85)av	743

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-03-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

```