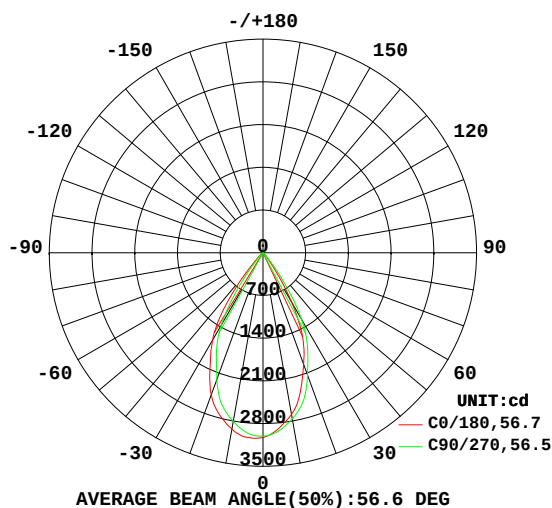


LUMINAIRE PHOTOMETRIC TEST REPORT

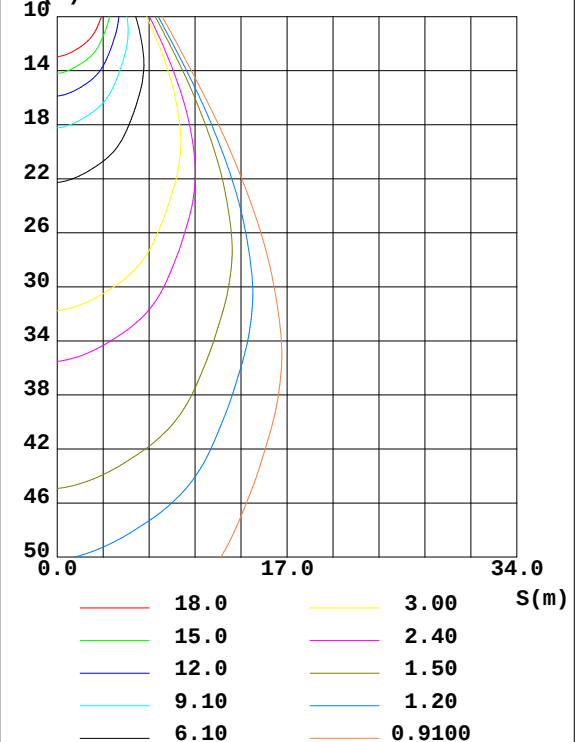
Test:U:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.19 lm/W			
MODEL	TB15111204 3000K	I _{max} (cd)	3045	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)	2376.4	η UP, DN(C0-180)	0.0, 48.1
NOMINAL FLUX(lm)	2376.43	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 51.9
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:

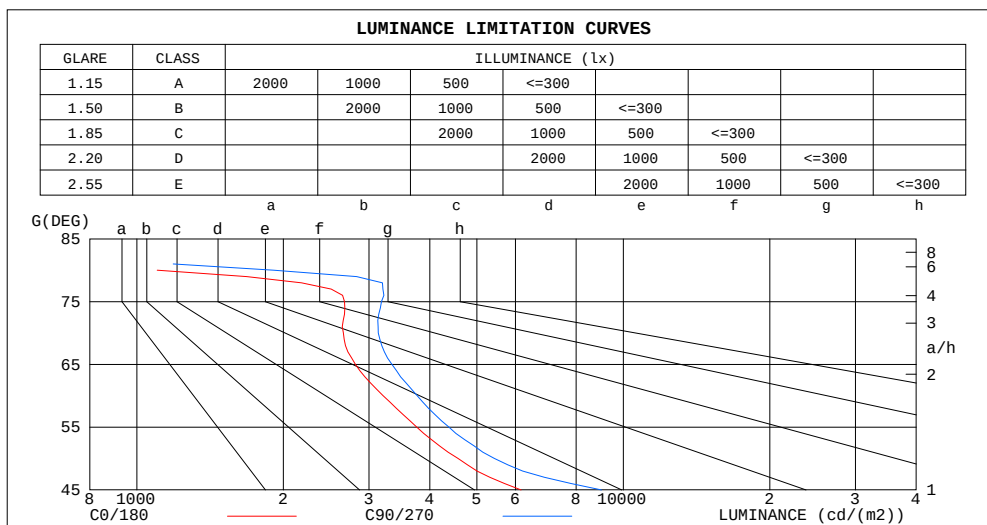
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2691	2702	2764	2844	2936	2897	2807	2724	0- 10	276.5	276.5	11.6,11.6
20	1948	1978	2135	2340	2481	2401	2210	2031	10- 20	708.1	984.6	41.4,41.4
30	960.9	1036	1276	1520	1655	1584	1371	1113	20- 30	808.2	1793	75.4,75.4
40	114.3	130.8	196.7	335.2	472.9	386.9	223.7	139.6	30- 40	447.0	2240	94.3,94.3
50	34.35	35.31	40.80	49.60	58.52	53.76	43.32	36.71	40- 50	79.73	2320	97.6,97.6
60	18.75	19.50	22.03	25.12	27.23	25.96	22.77	20.03	50- 60	27.99	2348	98.8,98.8
70	10.62	11.07	12.54	14.29	15.43	14.59	12.69	11.22	60- 70	17.02	2365	99.5,99.5
80	2.235	3.623	3.876	8.354	9.070	8.518	4.301	3.749	70- 80	10.18	2375	99.9,99.9
90	0.0873	0.0919	0.0735	0.0735	0.0735	0.0735	0.0827	0.0965	80- 90	1.716	2376	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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 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	195	263
80	1101	1909
75	2671	3183
70	2657	3136
65	2814	3344
60	3208	3768
55	3761	4378
50	4571	5429
45	6164	9015

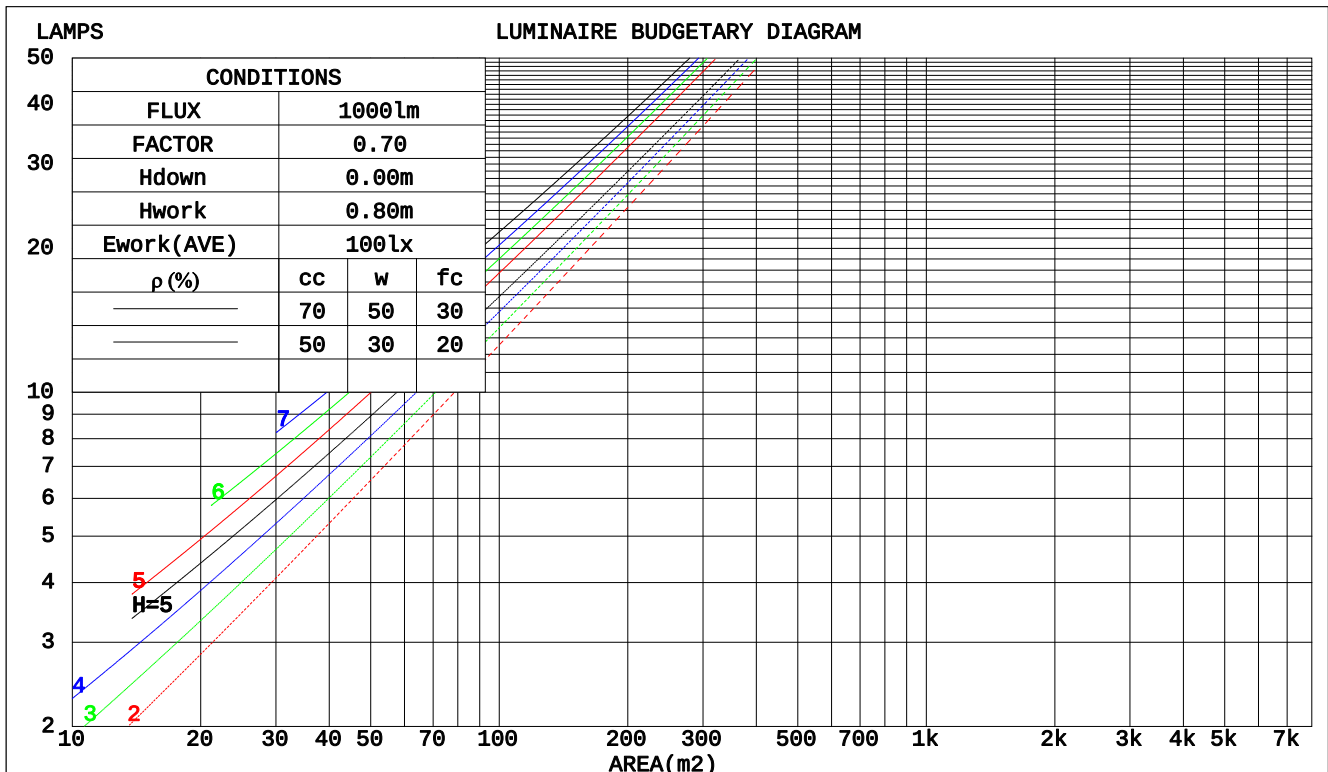
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-03-28

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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 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	.80	.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	.62	.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
 γ 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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 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	.075	.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	.058	.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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 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	12.6	11.9	12.7	12.9	13.7	14.6	13.9	14.8	14.9
3H	11.7	12.5	11.9	12.7	12.9	13.7	14.5	13.9	14.7	14.9
4H	11.7	12.5	12.0	12.7	13.0	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	12.4	11.9	12.6	12.9	13.6	14.3	13.9	14.6	14.8
12H	11.6	12.3	11.9	12.6	12.8	13.6	14.3	13.9	14.5	14.8
4H 2H	11.5	12.3	11.8	12.5	12.8	13.5	14.3	13.8	14.5	14.7
3H	11.6	12.3	11.9	12.6	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	12.3	12.1	12.6	12.9	13.6	14.1	14.0	14.5	14.8
8H	11.7	12.2	12.1	12.5	12.9	13.5	14.1	13.9	14.4	14.8
12H	11.6	12.1	12.0	12.5	12.8	13.5	14.0	13.9	14.3	14.7
8H 4H	11.7	12.2	12.1	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	12.1	12.3	12.8	13.4	13.7	13.9	14.2	14.6
12H 4H	11.6	12.1	12.0	12.5	12.9	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	12.1	12.4	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	+ 2.5 / - 2.3					+ 3.9 / - 3.6				
1.5H	+ 4.4 / - 2.0					+ 6.2 / - 3.2				
2.0H	+ 1.2 / - 0.8					+ 2.5 / - 1.0				

CIE Pub.117, 2376 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.0)
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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

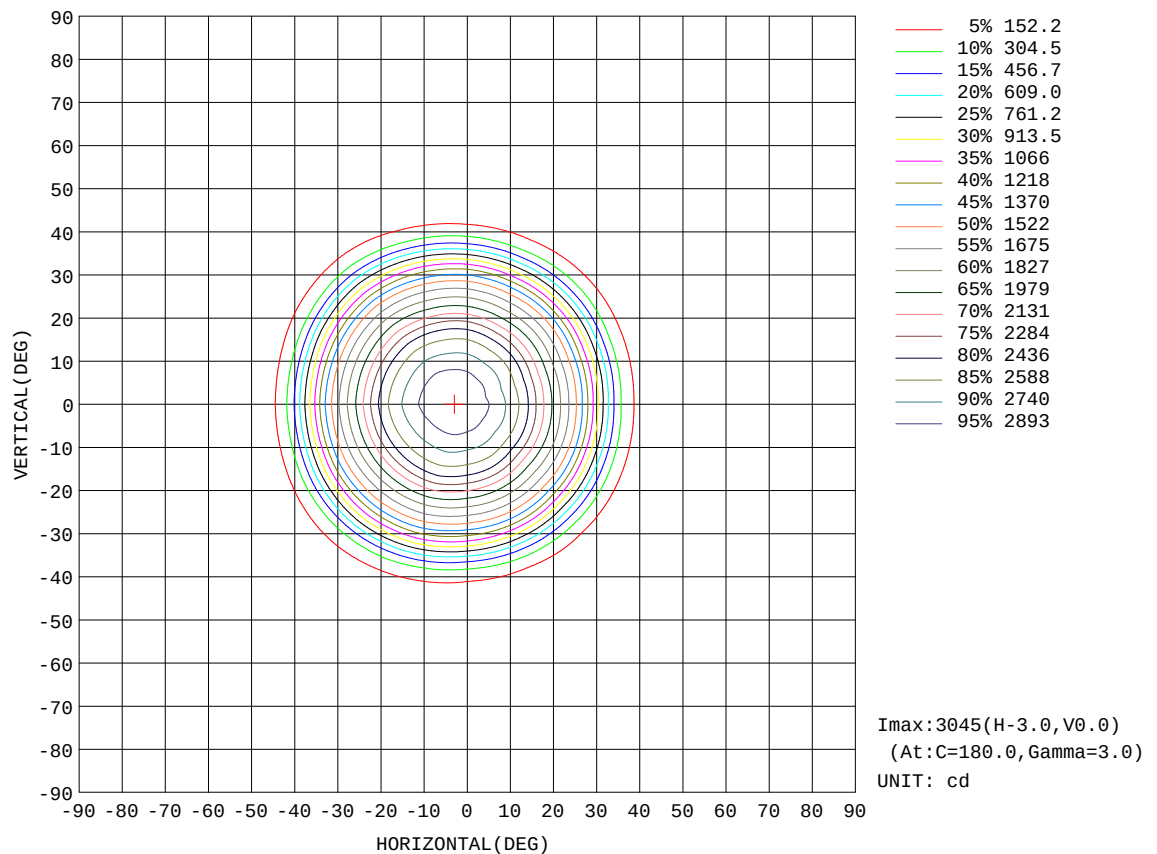
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	87	82	78	87	81	78	74
0.80	95	90	86	95	89	86	93	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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

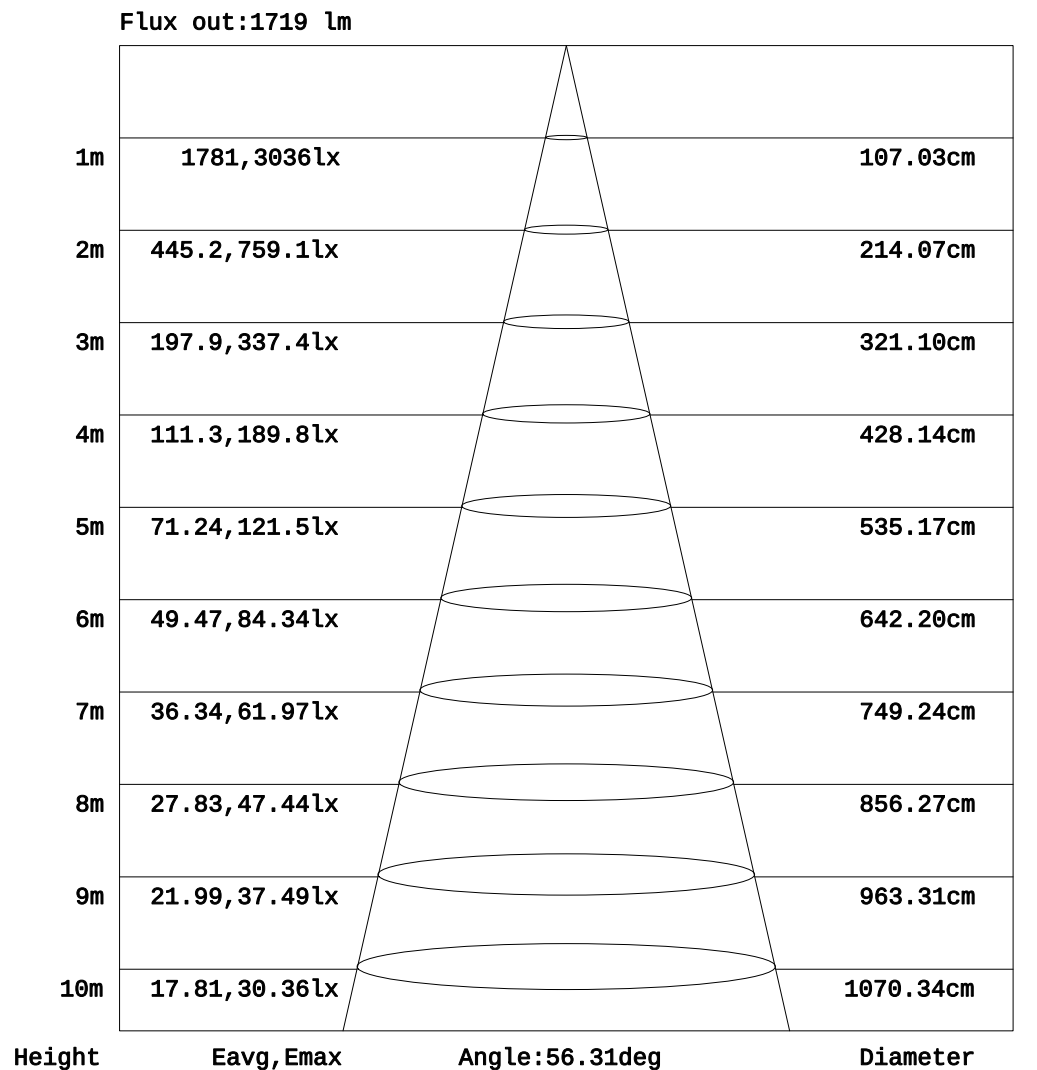


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-28

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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:



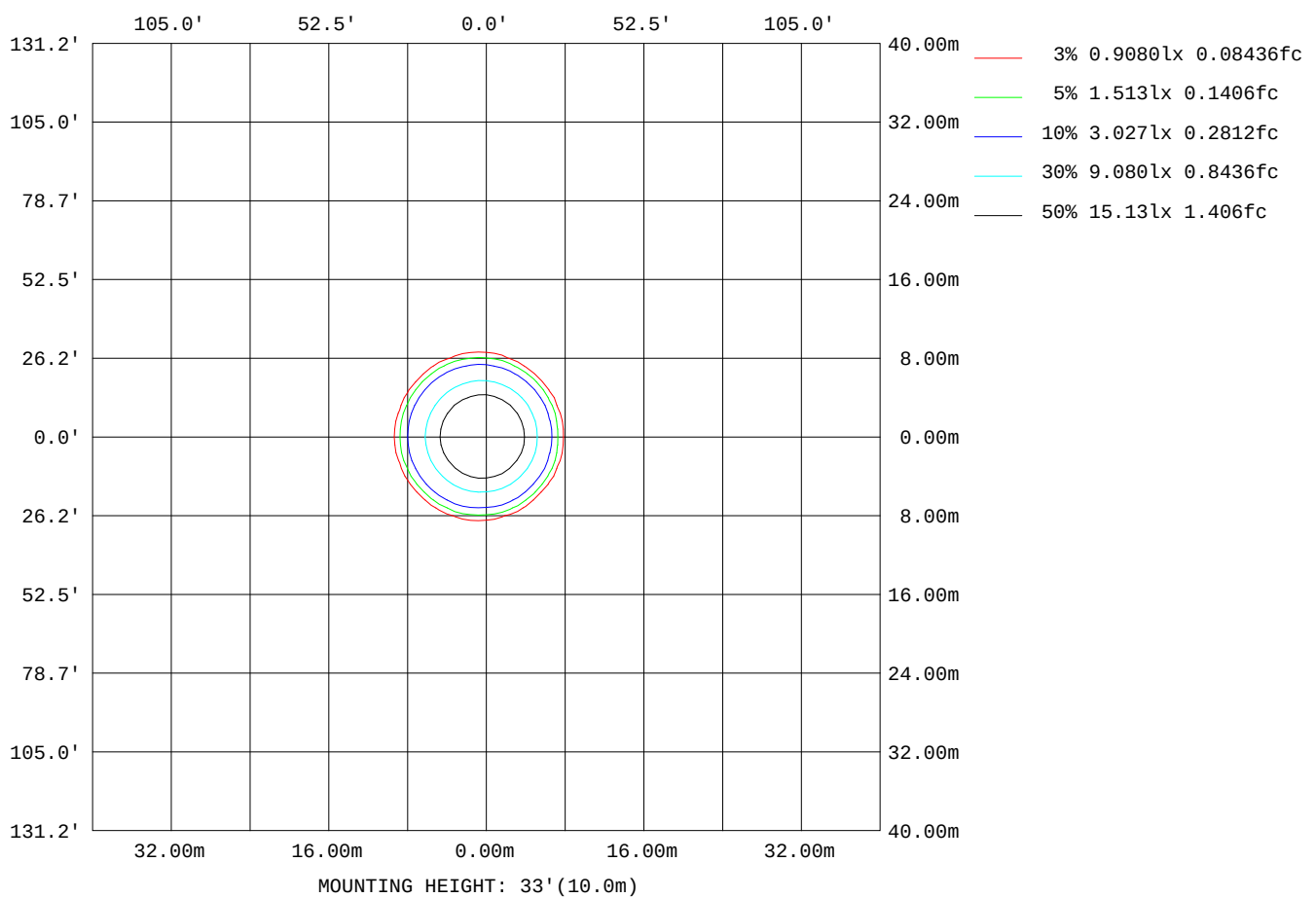
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 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:230.37V I:0.1194A P:26.644W PF:0.9685 Freq:49.99Hz Lamp Flux:2376.43x1 lm		
NAME: DD2810M-WHTC30C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 122mm	Shielding Angle:

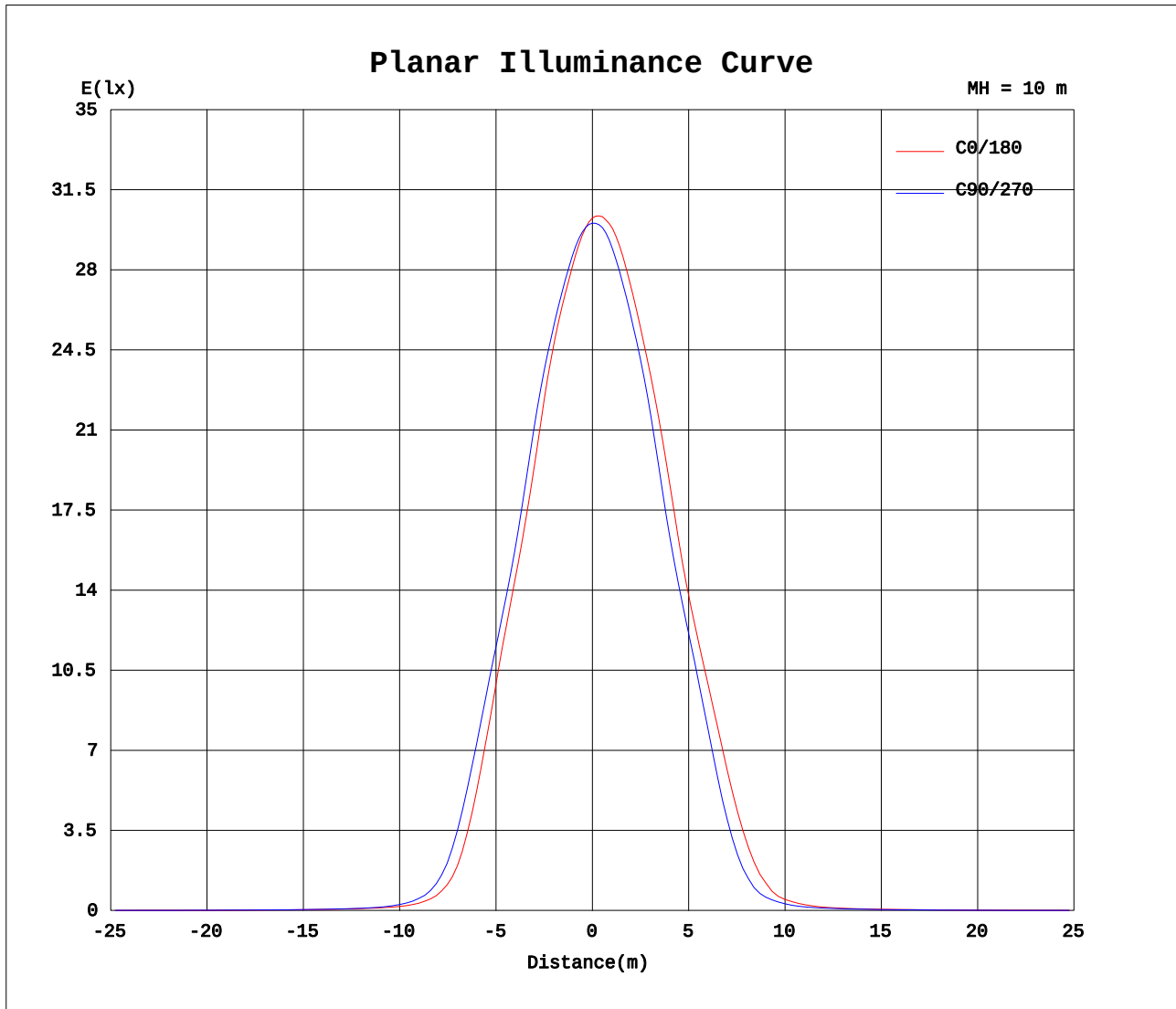
AvgL	cd/m2
L_0~180(65)av	3479
L_0~180(75)av	3286
L_0~180(85)av	766
L_90~270(65)av	3386
L_90~270(75)av	3190
L_90~270(85)av	271
L_45(65)av	3430
L_45(75)av	3272
L_45(85)av	665

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:

```