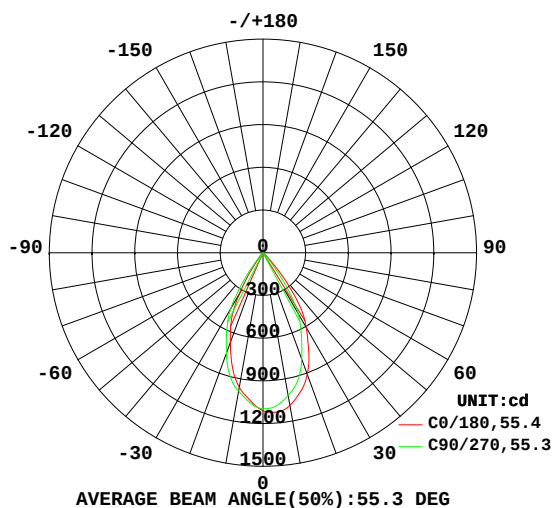


LUMINAIRE PHOTOMETRIC TEST REPORT

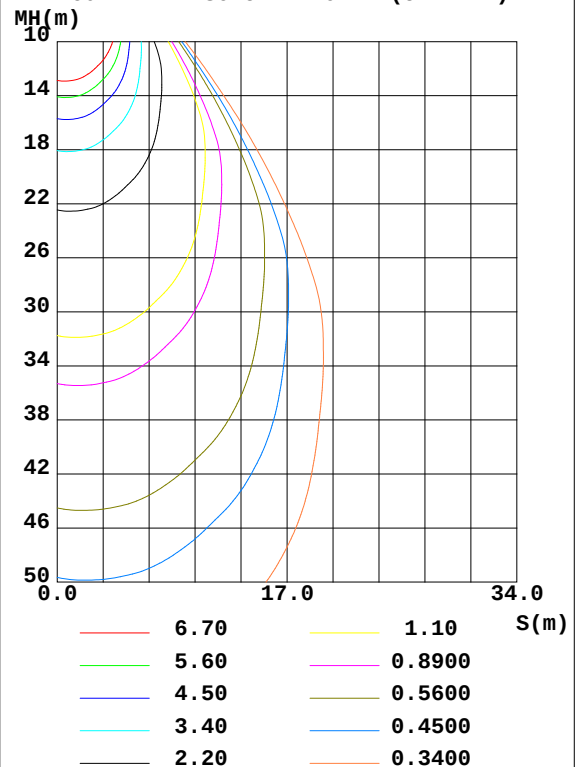
Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 78.67 lm/W			
MODEL	TB15111204 3000K	I _{max} (cd)	1124	S/MH(C0/180)	0.73
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.81
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	853.32	η UP, DN(C0-180)	0.0, 52.7
NOMINAL FLUX(lm)	853.323	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 47.3
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: 2023-12-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

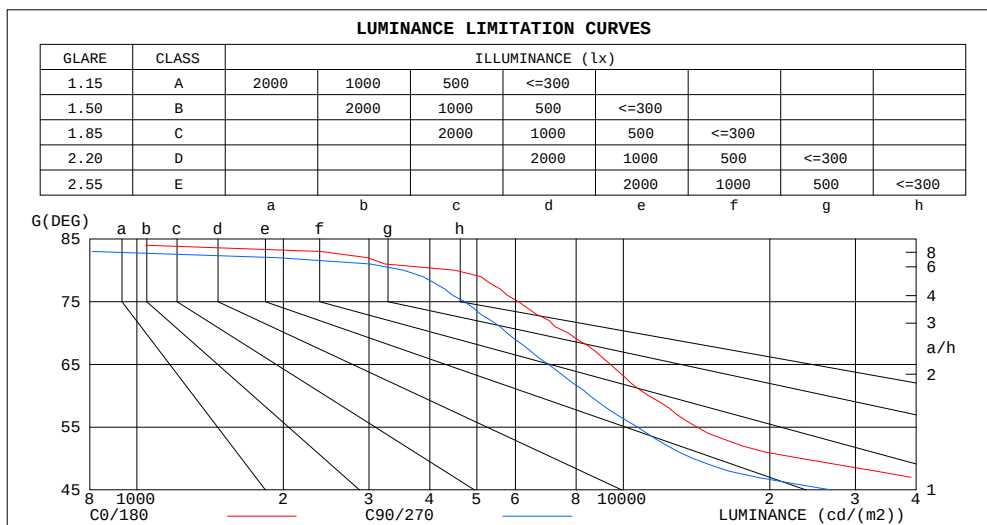
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1089	1071	1017	968.5	959.6	959.6	986.7	1031	0- 10	100.3	100.3	11.8,11.8
20	909.4	890.3	795.7	696.8	671.7	683.4	751.2	843.3	10- 20	253.6	353.8	41.5,41.5
30	608.5	584.3	497.1	378.6	325.7	352.5	455.8	553.9	20- 30	286.8	640.6	75.1,75.1
40	212.9	173.3	75.50	44.26	37.31	41.52	60.98	147.4	30- 40	166.0	806.6	94.5,94.5
50	22.66	18.76	13.57	11.07	10.73	11.36	13.62	17.75	40- 50	30.41	837.0	98.1,98.1
60	8.562	7.828	6.482	5.424	5.338	5.802	6.832	7.931	50- 60	8.915	845.9	99.1,99.1
70	4.003	3.751	2.995	2.508	2.592	2.944	3.472	4.019	60- 70	4.804	850.7	99.7,99.7
80	1.188	1.380	0.9324	0.7786	0.1190	0.9504	1.579	1.769	70- 80	2.301	853.0	100,100
90	0	0	0.0039	0.0193	0	0	0	0	80- 90	0.2886	853.3	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:2023-12-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	562	498
80	4502	3532
75	6082	4716
70	7700	5760
65	9407	7008
60	11266	8530
55	14169	10698
50	23193	13891
45	51617	26738

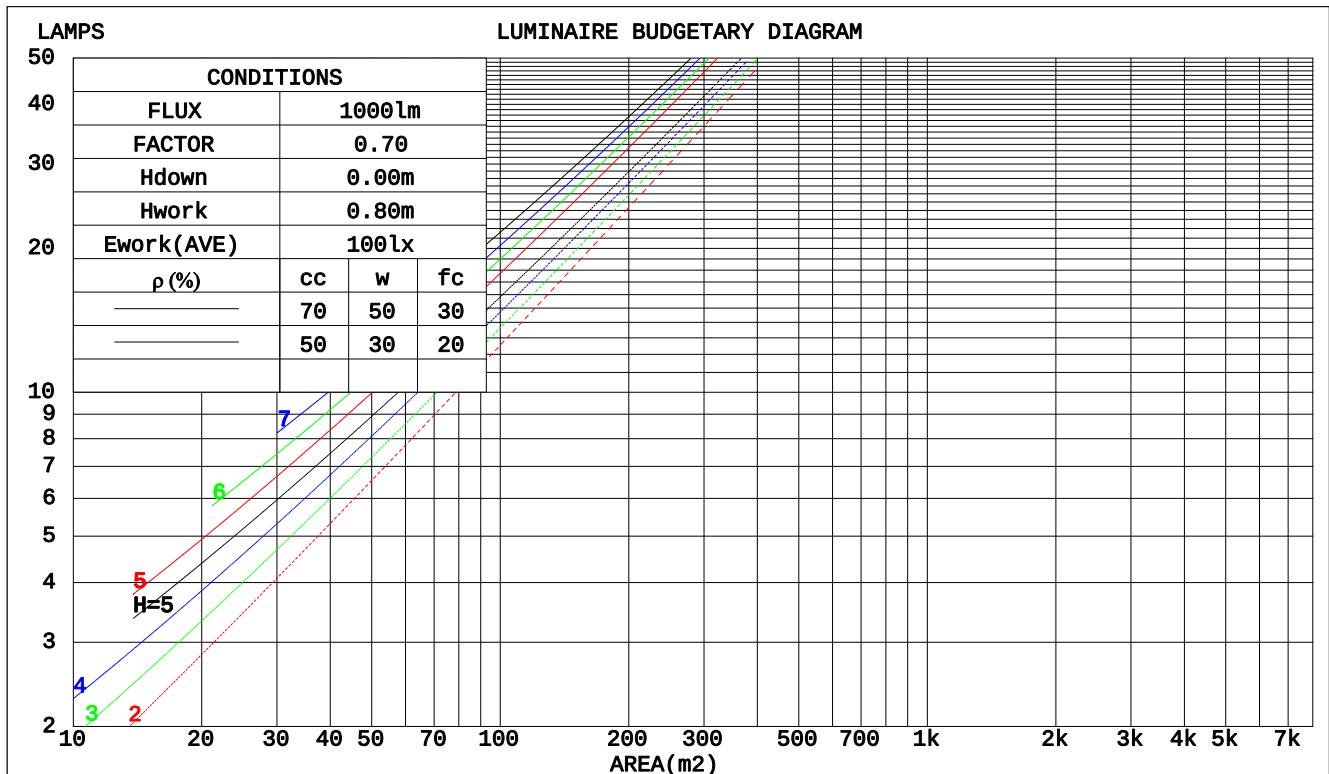
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-12-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	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	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	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.97	.96	.94
2.0	1.03	.99	.96	1.02	.98	.95	.98	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.85	.88	.85	.83	.82
4.0	.91	.85	.81	.89	.84	.81	.87	.83	.80	.85	.82	.79	.84	.80	.78	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.78	.74	.81	.77	.74	.79	.76	.73	.72
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.69	.65	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.71	.66	.62	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.59
9.0	.68	.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	.58	.54	.61	.57	.54	.53



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-12-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm					
NAME: DD1010M-WHTC10C02			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 44mm		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	.175	.100	.032	.168	.096	.030	.156	.089	.029	.144	.083	.027	.133	.077	.025		
2.0	.167	.092	.028	.162	.089	.027	.151	.084	.026	.141	.079	.025	.132	.075	.024		
3.0	.159	.085	.025	.154	.083	.025	.145	.079	.024	.137	.075	.023	.129	.072	.022		
4.0	.151	.079	.023	.147	.077	.023	.139	.074	.022	.132	.071	.021	.125	.068	.021		
5.0	.144	.073	.021	.141	.072	.021	.134	.070	.021	.128	.067	.020	.122	.065	.020		
6.0	.138	.069	.020	.134	.068	.020	.129	.066	.019	.123	.064	.019	.118	.062	.018		
7.0	.132	.065	.018	.129	.064	.018	.124	.062	.018	.119	.061	.018	.114	.059	.017		
8.0	.126	.062	.017	.123	.061	.017	.119	.059	.017	.114	.058	.017	.110	.057	.016		
9.0	.121	.058	.016	.119	.058	.016	.114	.057	.016	.110	.055	.016	.107	.054	.016		
10.0	.116	.056	.015	.114	.055	.015	.110	.054	.015	.107	.053	.015	.103	.052	.015		

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	.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	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.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:2023-12-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm											
NAME: DD1010M-WHTC10C02						TYPE:		WEIGHT:			
SPEC.: white RA90 3000K+5700K						DIM.:		SERIAL No.:			
MFR.:						SUR.: 44mm		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	25.5	26.4	25.7	26.6	26.8	23.8	24.8	24.1	24.9	25.1	
	3H	25.4	26.2	25.6	26.4	26.6	23.7	24.6	24.0	24.8	25.0
	4H	25.3	26.1	25.6	26.3	26.5	23.6	24.4	23.9	24.7	24.9
	6H	25.2	26.0	25.5	26.2	26.5	23.6	24.3	23.9	24.6	24.8
	8H	25.2	25.9	25.5	26.1	26.4	23.5	24.2	23.8	24.5	24.8
	12H	25.1	25.8	25.4	26.1	26.4	23.5	24.2	23.8	24.4	24.7
4H	2H	25.3	26.1	25.5	26.3	26.5	23.6	24.4	23.9	24.6	24.9
	3H	25.1	25.8	25.4	26.1	26.4	23.5	24.2	23.8	24.5	24.7
	4H	25.1	25.7	25.4	26.0	26.3	23.4	24.0	23.8	24.3	24.7
	6H	25.0	25.5	25.4	25.9	26.2	23.3	23.9	23.7	24.2	24.6
	8H	24.9	25.4	25.3	25.8	26.2	23.3	23.8	23.7	24.2	24.5
	12H	24.9	25.3	25.3	25.7	26.1	23.2	23.7	23.7	24.1	24.5
8H	4H	24.9	25.4	25.3	25.8	26.2	23.3	23.8	23.7	24.2	24.5
	6H	24.8	25.3	25.3	25.7	26.1	23.2	23.6	23.6	24.0	24.4
	8H	24.8	25.2	25.2	25.6	26.0	23.2	23.5	23.6	24.0	24.4
	12H	24.7	25.1	25.2	25.5	26.0	23.1	23.4	23.6	23.9	24.3
12H	4H	24.9	25.3	25.3	25.7	26.1	23.2	23.7	23.7	24.1	24.5
	6H	24.8	25.2	25.2	25.6	26.0	23.2	23.5	23.6	24.0	24.4
	8H	24.7	25.1	25.2	25.5	26.0	23.1	23.4	23.6	23.9	24.3
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 3.5 / - 9.9					+ 2.9 / - 7.8					
1.5H	+ 6.1 / - 9.1					+ 5.2 / - 7.0					
2.0H	+ 5.1 / - 2.8					+ 3.5 / - 2.0					

CIE Pub.117, 853.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.6)
Area: 0.00152 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	Shielding Angle:

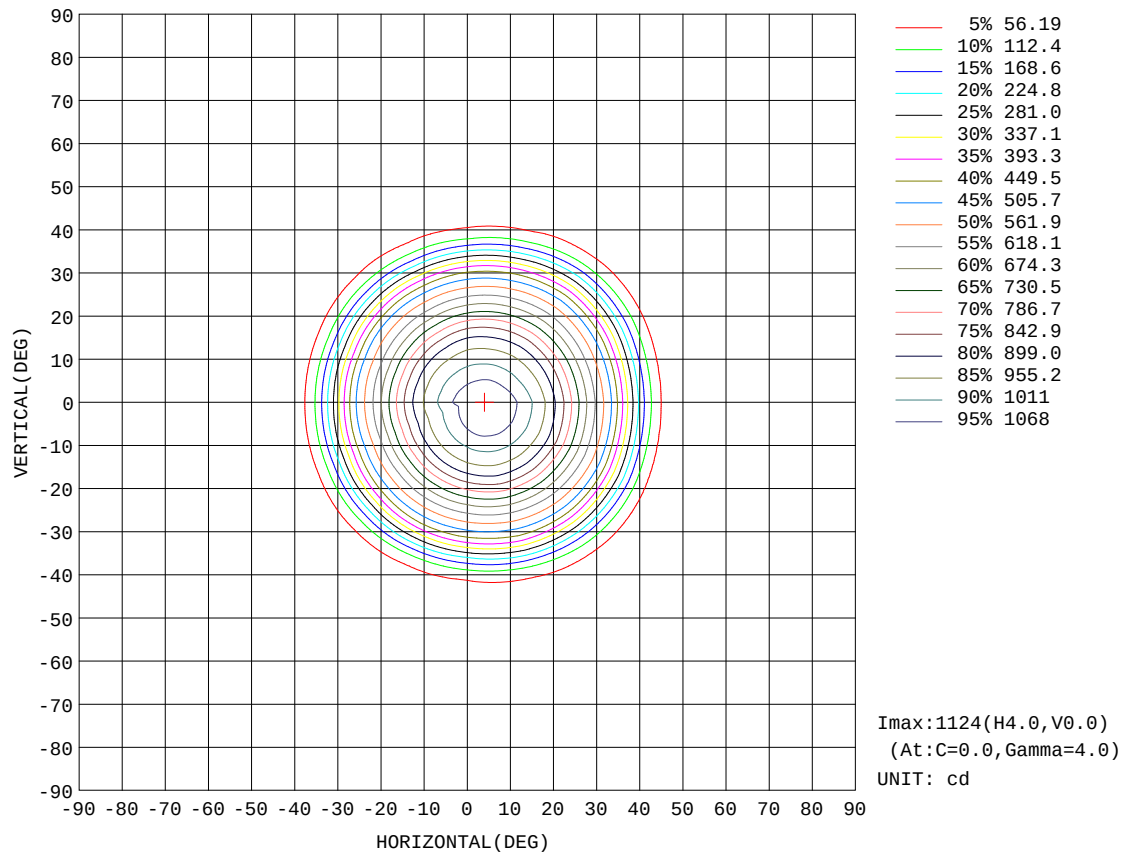
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	88	82	78	87	81	78	75
0.80	95	90	86	95	89	86	94	89	86	82
1.00	100	94	91	99	94	90	97	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	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:2023-12-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	Shielding Angle:

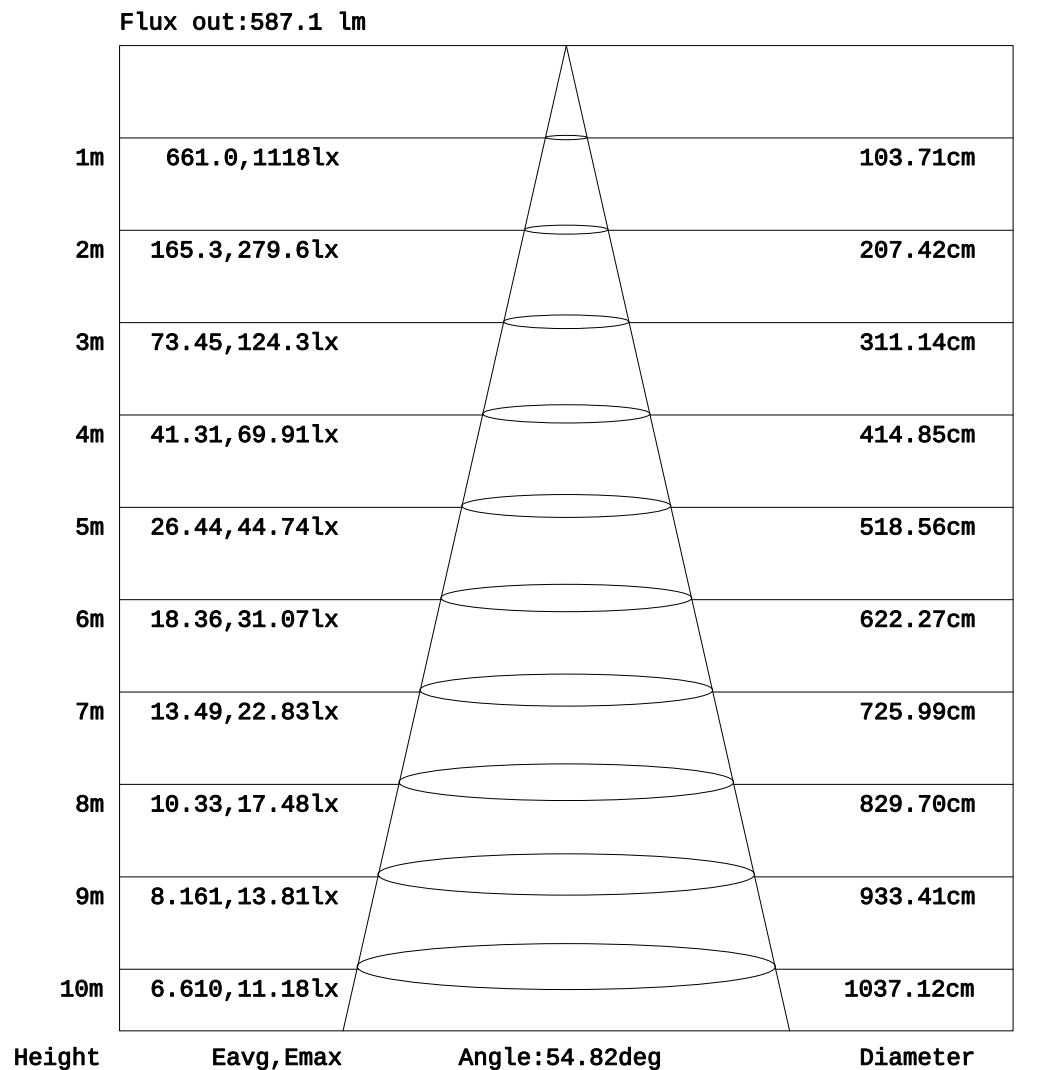


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	Shielding Angle:



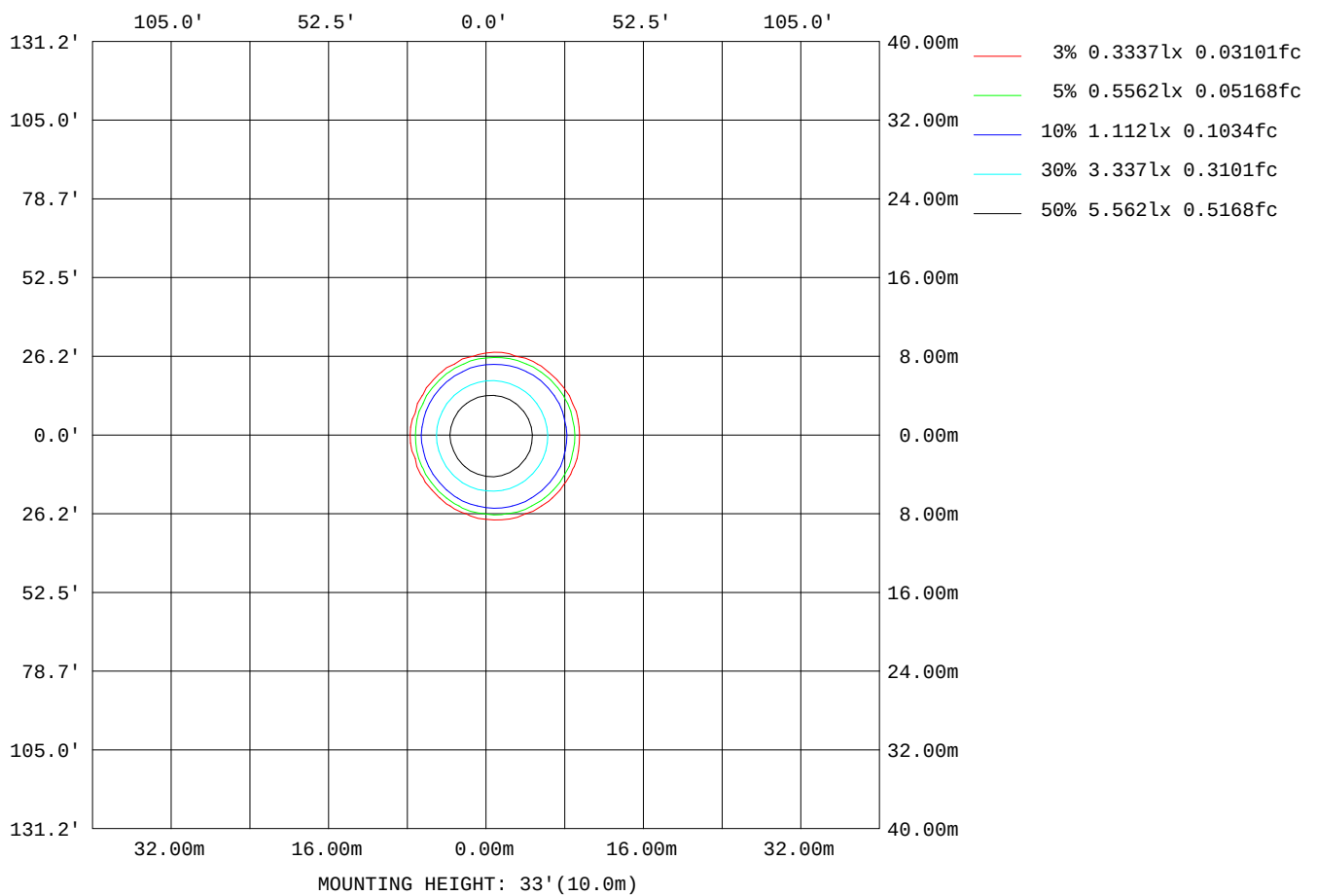
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.64V I:0.0497A P:10.846W PF:0.9468 Freq:50.01Hz Lamp Flux:853.323x1 lm		
NAME: DD1010M-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 44mm	Shielding Angle:

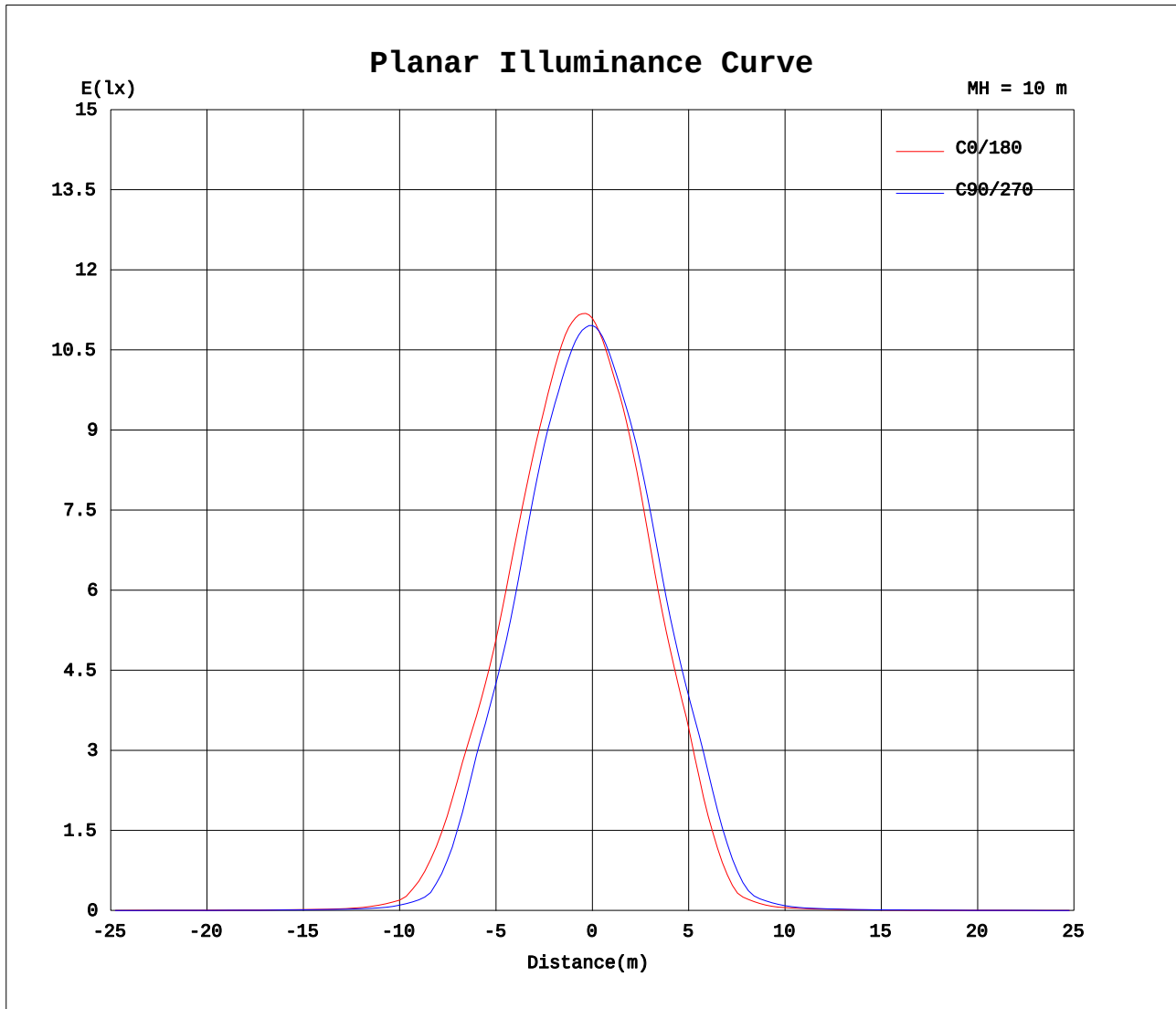
AvgL	cd/m2
L_0~180(65)av	7592
L_0~180(75)av	5197
L_0~180(85)av	281
L_90~270(65)av	7311
L_90~270(75)av	5540
L_90~270(85)av	249
L_45(65)av	7436
L_45(75)av	5682
L_45(85)av	992

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2023-12-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2023-12-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [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:7.450m [K=1.0000]
Remarks:

```