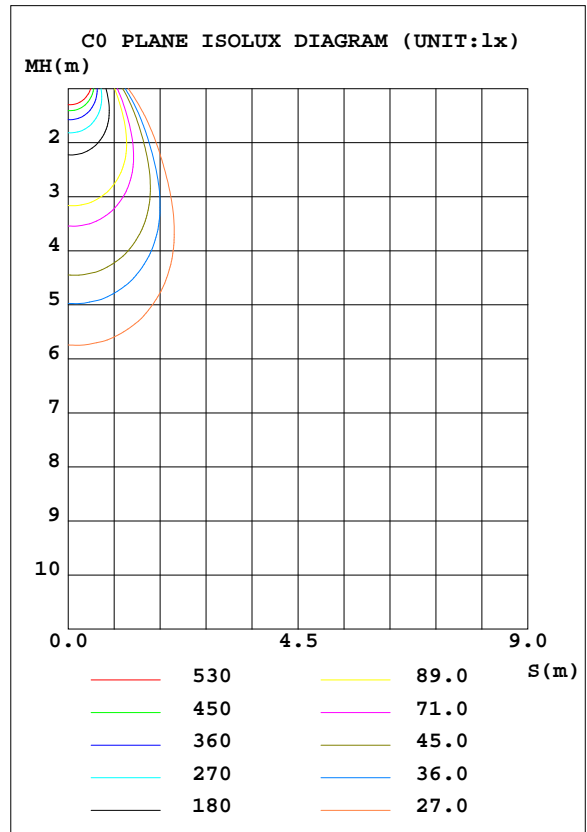
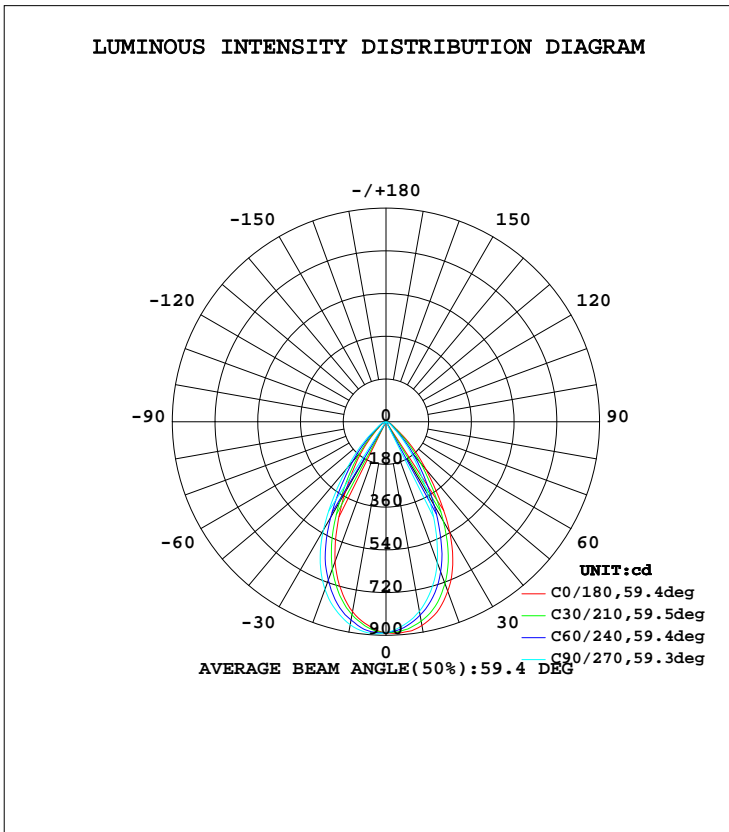


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm		
NAME: CD10W-WW-B	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.0255	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 94.10 lm/W			
MODEL	CD10W-WW-B	I <sub>max</sub> (cd)	898.8	S/MH(C0/180)	0.98
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.83
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	918.43	η UP, DN(C0-180)	0.0,46.6
NOMINAL FLUX(lm)	918.435	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,53.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	240.7	η down(%)	100.0	CIBSE SHR MAX	0.95



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMAN  
 Test Date:2020-06-17

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	871.5	840.3	811.3	799.4	812.6	836.9	868.7	882.3	0- 10	82.49	82.49	8.98,8.98
20	760.7	699.6	631.9	609.7	628.0	686.0	752.2	781.7	10- 20	217.6	300.1	32.7,32.7
30	536.6	444.6	353.2	322.3	345.7	429.0	527.7	574.7	20- 30	262.2	562.3	61.2,61.2
40	263.1	205.3	152.7	131.5	148.2	196.3	255.5	284.8	30- 40	194.9	757.3	82.5,82.5
50	95.35	64.49	44.30	40.48	45.35	63.64	92.99	107.8	40- 50	97.85	855.1	93.1,93.1
60	33.37	27.21	21.79	20.07	21.47	27.02	32.87	36.09	50- 60	38.47	893.6	97.3,97.3
70	16.49	11.91	7.092	5.187	6.550	11.01	15.86	18.06	60- 70	18.92	912.5	99.4,99.4
80	2.541	0.5478	0	0	0	0.2847	1.992	3.573	70- 80	5.707	918.2	100,100
90	0	0	0	0	0	0	0	0	80- 90	0.2035	918.4	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		

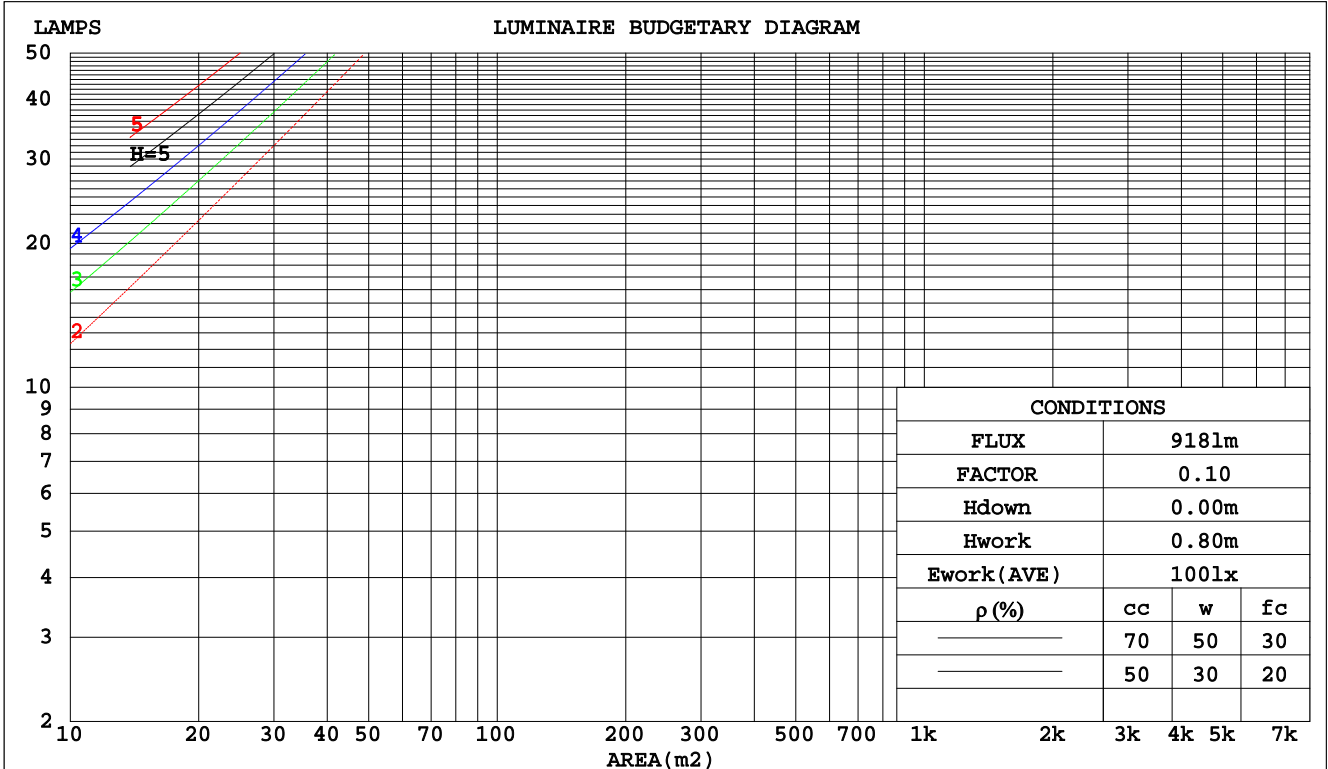
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMAN  
 Test Date:2020-06-17

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm		
NAME: CD10W-WW-B	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.0255	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	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	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	.00	.00	.98	.97	.96	.95	.94	.92
2.0	1.01	.97	.93	.99	.95	.92	.96	.93	.90	.93	.90	.88	.90	.88	.86	.84
3.0	.93	.88	.83	.92	.87	.83	.89	.85	.81	.87	.83	.80	.84	.81	.79	.77
4.0	.86	.80	.76	.85	.79	.75	.83	.78	.74	.81	.77	.73	.79	.75	.72	.71
5.0	.80	.74	.69	.79	.73	.69	.77	.72	.68	.76	.71	.67	.74	.70	.67	.65
6.0	.75	.68	.63	.74	.68	.63	.72	.67	.63	.71	.66	.62	.69	.65	.62	.60
7.0	.70	.63	.58	.69	.63	.58	.68	.62	.58	.66	.61	.58	.65	.61	.57	.56
8.0	.65	.59	.54	.65	.58	.54	.63	.58	.54	.62	.57	.54	.61	.57	.53	.52
9.0	.61	.55	.51	.61	.55	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.48
10.0	.58	.51	.47	.57	.51	.47	.56	.51	.47	.56	.50	.47	.55	.50	.47	.45



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMAN  
Test Date:2020-06-17

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
Humidity:65.0%  
Test Distance:9.443m [K=1.0000]  
Remarks:

WEC AND CCEC

Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm		
NAME: CD10W-WW-B	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.0255	PROTECTION 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 Coefficients(WEC)									
0.0																
1.0	.196	.112	.035	.189	.108	.034	.177	.101	.032	.165	.095	.031	.154	.089	.029	
2.0	.190	.104	.032	.184	.101	.031	.173	.096	.030	.163	.092	.029	.154	.087	.027	
3.0	.181	.096	.029	.176	.094	.028	.167	.090	.027	.158	.087	.027	.150	.083	.026	
4.0	.172	.089	.026	.168	.088	.026	.160	.085	.025	.152	.082	.025	.145	.079	.024	
5.0	.163	.083	.024	.160	.082	.024	.153	.079	.023	.146	.077	.023	.140	.075	.022	
6.0	.155	.078	.022	.152	.077	.022	.146	.075	.022	.140	.073	.021	.135	.071	.021	
7.0	.148	.073	.021	.145	.072	.021	.139	.070	.020	.134	.069	.020	.129	.067	.020	
8.0	.141	.069	.019	.138	.068	.019	.133	.067	.019	.129	.065	.019	.124	.064	.019	
9.0	.134	.065	.018	.132	.064	.018	.128	.063	.018	.123	.062	.018	.119	.061	.018	
10.0	.128	.062	.017	.126	.061	.017	.122	.060	.017	.119	.059	.017	.115	.058	.017	

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	.172	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.067	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.111	.076	.050	.077	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.123	.079	.048	.105	.068	.041	.073	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.116	.071	.040	.100	.062	.035	.069	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.110	.065	.034	.095	.057	.030	.066	.040	.021	.038	.023	.013	.012	.008	.004	
9.0	.105	.060	.030	.091	.052	.026	.063	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.101	.056	.026	.087	.049	.023	.060	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMAN  
 Test Date:2020-06-17

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm										
NAME: CD10W-WW-B					TYPE:10W			WEIGHT:		
DIM.:					SPEC.:3000K			SERIAL No.:1		
MFR.:					SUR.:0.0255			PROTECTION 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	23.7	24.7	23.9	24.9	25.1	21.4	22.5	21.6	22.6	22.8
3H	23.8	24.8	24.1	25.0	25.2	21.5	22.4	21.7	22.6	22.8
4H	23.8	24.8	24.1	25.0	25.2	21.4	22.3	21.7	22.5	22.8
6H	23.8	24.6	24.1	24.9	25.1	21.3	22.2	21.6	22.4	22.7
8H	23.7	24.6	24.1	24.8	25.1	21.3	22.1	21.6	22.3	22.6
12H	23.7	24.5	24.0	24.8	25.0	21.2	22.0	21.5	22.3	22.6
4H 2H	23.6	24.5	23.8	24.7	24.9	21.4	22.4	21.7	22.6	22.8
3H	23.8	24.6	24.1	24.8	25.1	21.5	22.3	21.9	22.6	22.9
4H	23.8	24.5	24.2	24.8	25.2	21.5	22.2	21.8	22.5	22.8
6H	23.8	24.4	24.2	24.7	25.1	21.4	22.0	21.8	22.4	22.7
8H	23.7	24.3	24.1	24.7	25.0	21.3	21.9	21.7	22.3	22.6
12H	23.7	24.2	24.1	24.6	25.0	21.3	21.8	21.7	22.2	22.6
8H 4H	23.7	24.3	24.1	24.6	25.0	21.4	22.0	21.8	22.3	22.7
6H	23.7	24.1	24.1	24.5	25.0	21.3	21.8	21.7	22.2	22.6
8H	23.6	24.0	24.1	24.5	24.9	21.3	21.7	21.7	22.1	22.5
12H	23.6	23.9	24.0	24.4	24.8	21.2	21.6	21.7	22.0	22.5
12H 4H	23.7	24.2	24.1	24.6	25.0	21.4	21.9	21.8	22.3	22.7
6H	23.6	24.0	24.1	24.4	24.9	21.3	21.7	21.7	22.1	22.5
8H	23.6	23.9	24.0	24.4	24.8	21.2	21.6	21.7	22.0	22.5
Variations with the observer position at spacings:										
S = 1.0H	+ 2.1 / - 3.3					+ 1.9 / - 3.8				
1.5H	+ 3.3 / - 3.5					+ 2.9 / - 3.2				
2.0H	+ 4.7 / - 2.9					+ 3.2 / - 2.1				

CIE Pub.117 Corrected 918.4 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.3)

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMAN  
 Test Date:2020-06-17

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm		
NAME: CD10W-WW-B	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.0255	PROTECTION ANGLE:

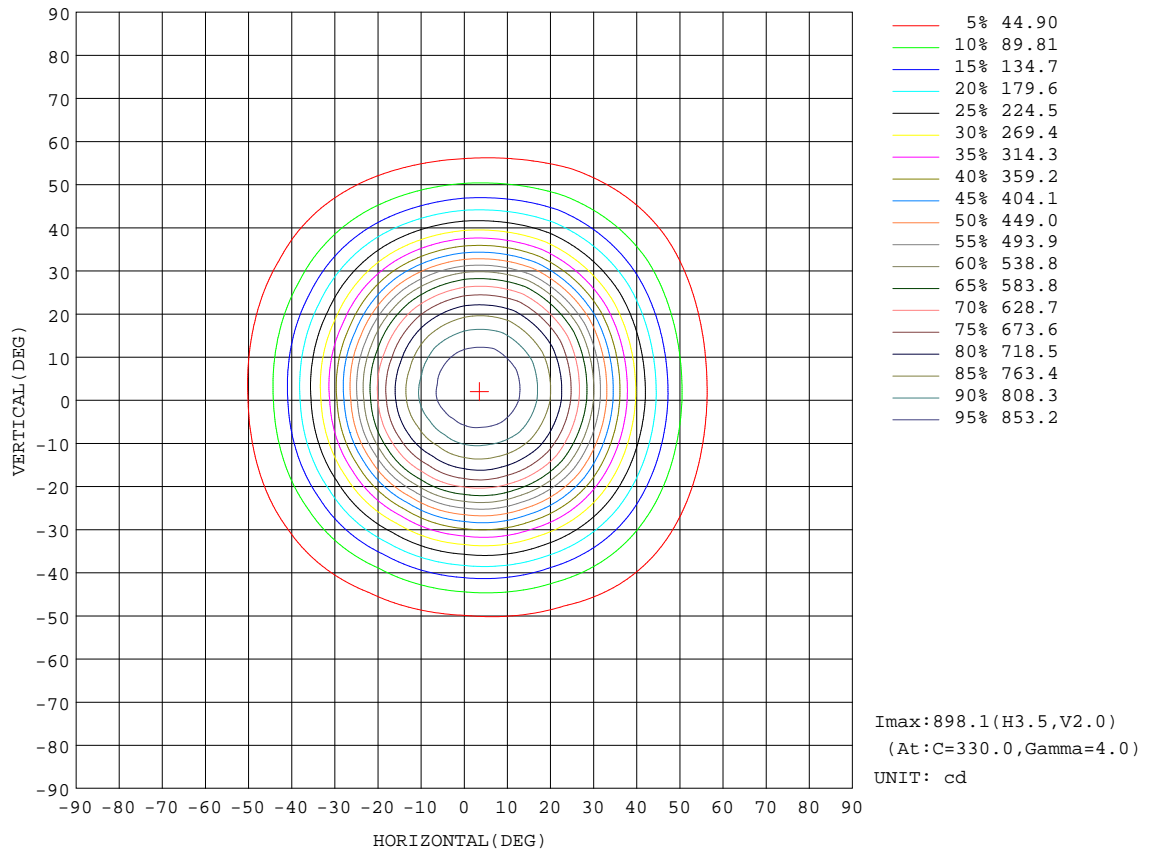
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	80	73	68	80	73	68	79	72	68	64
0.80	89	82	77	88	81	77	87	81	77	72
1.00	95	88	84	94	87	83	92	88	83	78
1.25	99	93	89	98	93	89	96	91	88	83
1.50	103	97	93	101	96	93	99	95	91	86
2.00	106	101	98	105	100	97	102	98	95	90
2.50	108	104	100	107	103	99	103	100	98	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	113	109	107	110	108	105	107	104	103	95
5.00	114	111	109	112	109	107	108	106	104	96
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:DAMAN  
 Test Date:2020-06-17

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm		
NAME: CD10W-WW-B	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.0255	PROTECTION ANGLE:

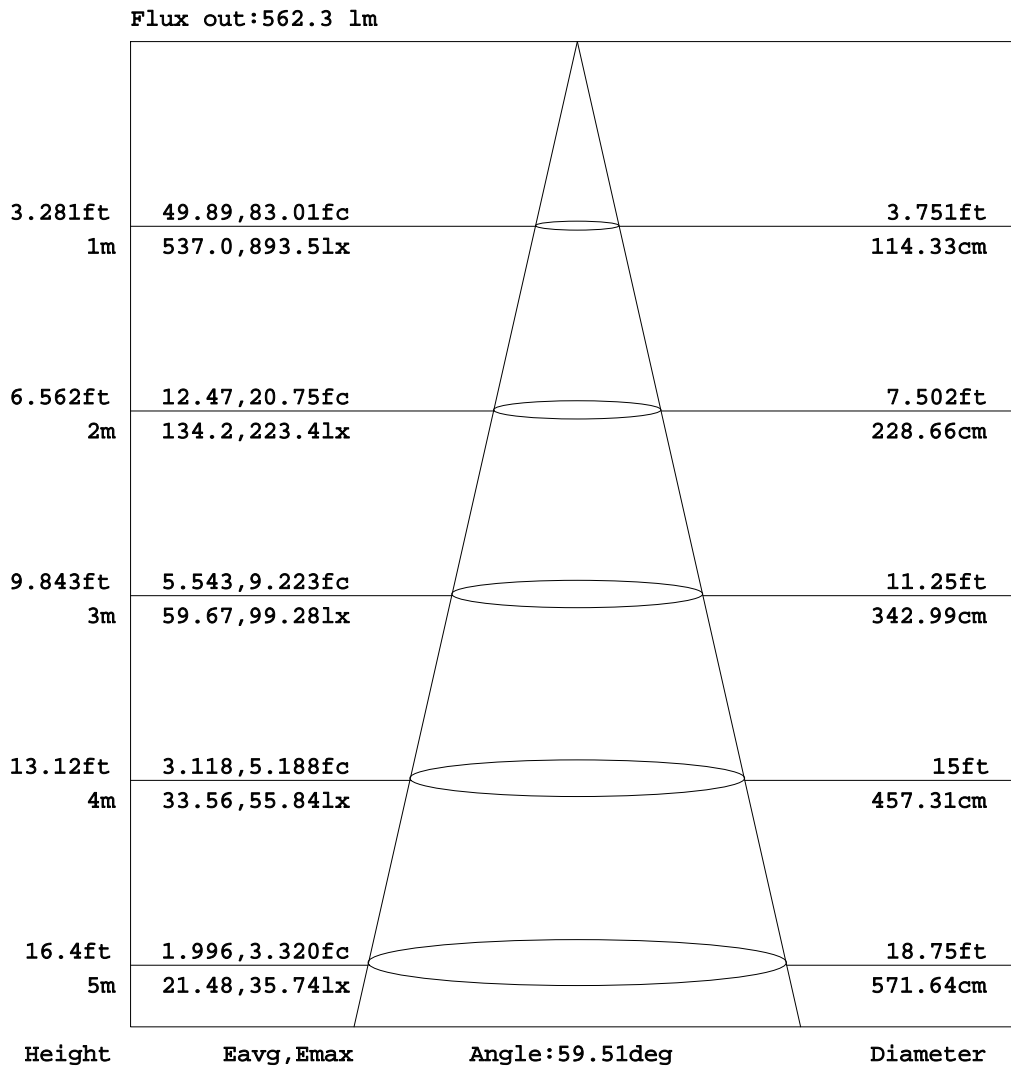


C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMAN  
 Test Date:2020-06-17

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm		
NAME: CD10W-WW-B	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.0255	PROTECTION ANGLE:



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

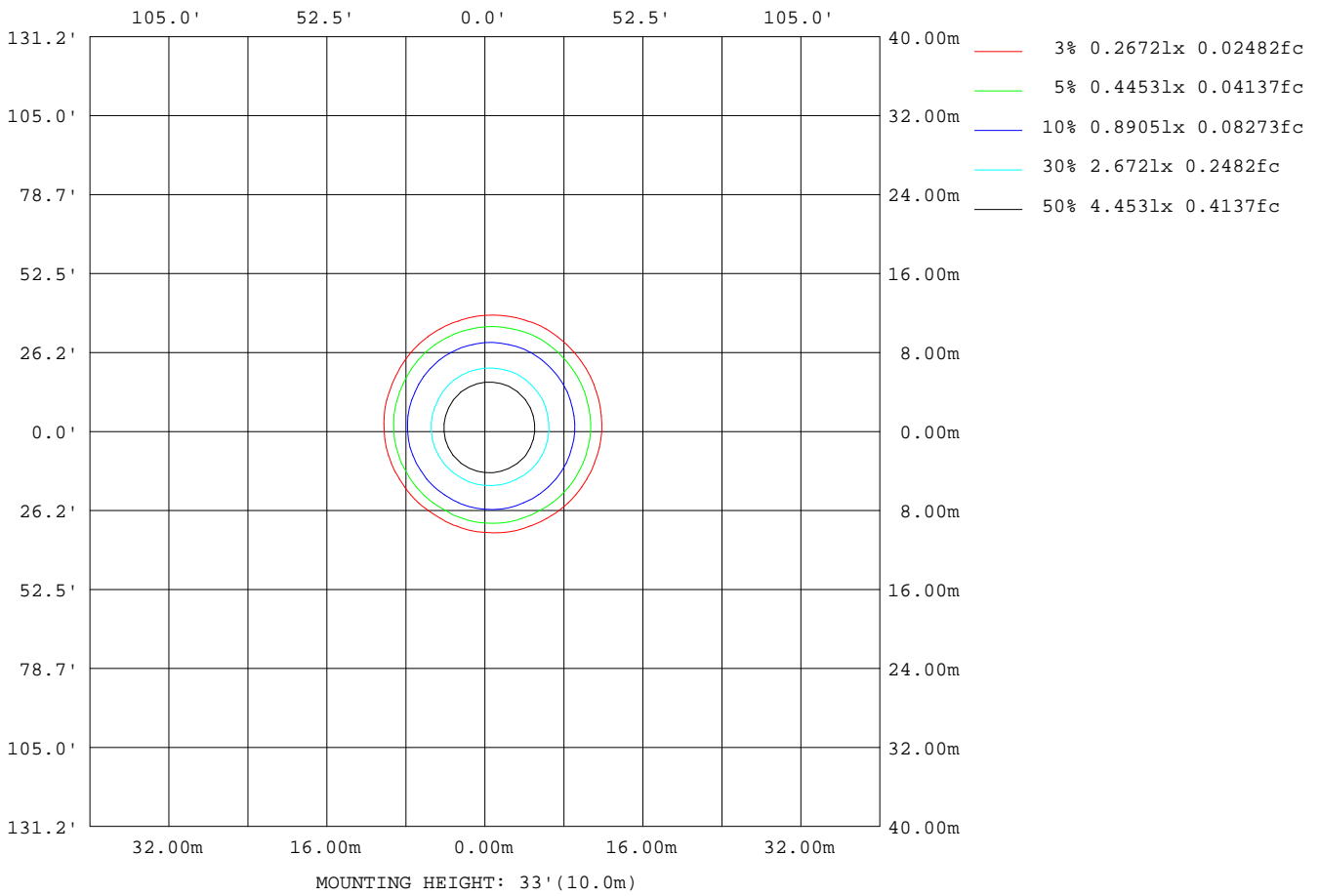
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMAN  
 Test Date:2020-06-17

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:



**ISOLUX DIAGRAM**

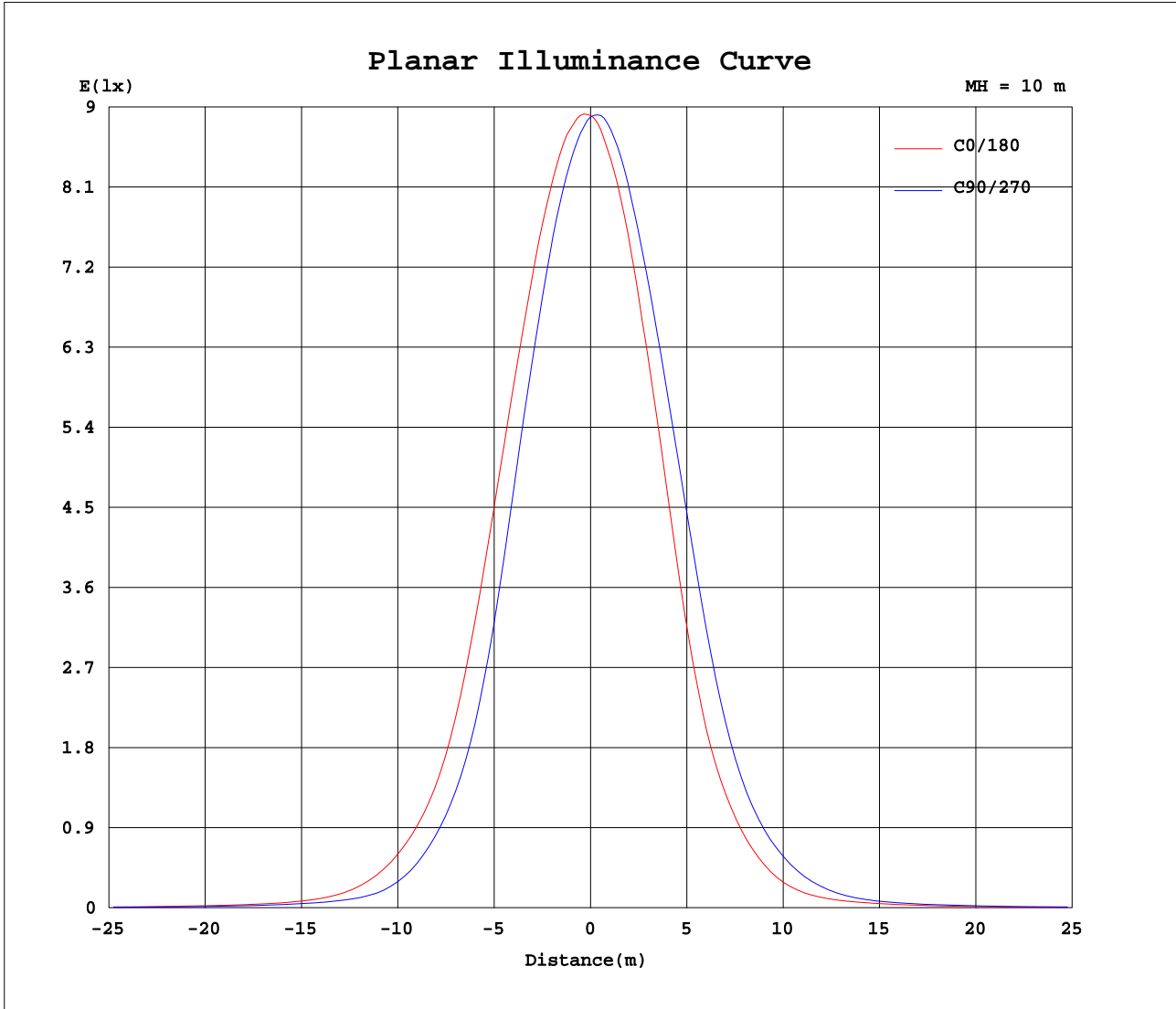
Test:U:240.7V I:0.0450A P:9.760W PF:0.8930 Lamp Flux:918.435x1 lm		
NAME: CD10W-WW-B	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.0255	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMAN  
 Test Date:2020-06-17

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.443m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMAN  
 Test Date: 2020-06-17

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity: 65.0%  
 Test Distance: 9.443m [K=1.0000]  
 Remarks:

