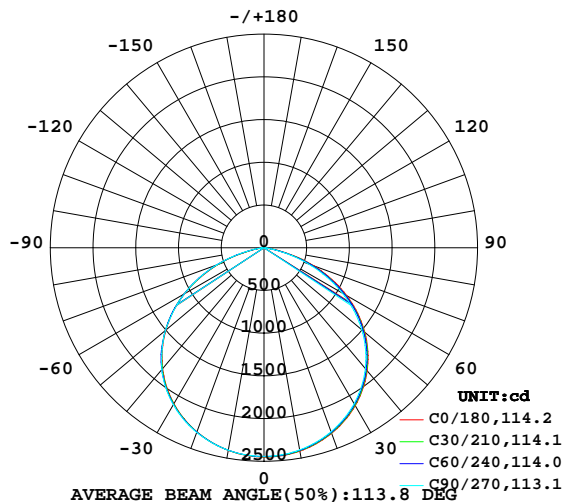


## LUMINAIRE PHOTOMETRIC TEST REPORT

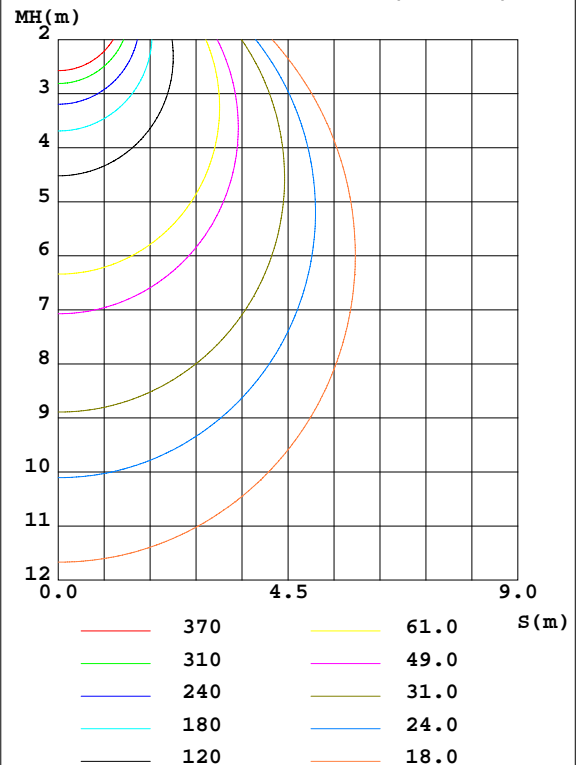
Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 91.61 lm/W			
MODEL		Imax(cd)	2450	S/MH(C0/180)	1.28
NOMINAL POWER(W)	80	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	6856.2	$\eta$ UP,DN(C0-180)	0.0,49.8
NOMINAL FLUX(lm)	6856.23	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,50.2
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230.0	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-03-25

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

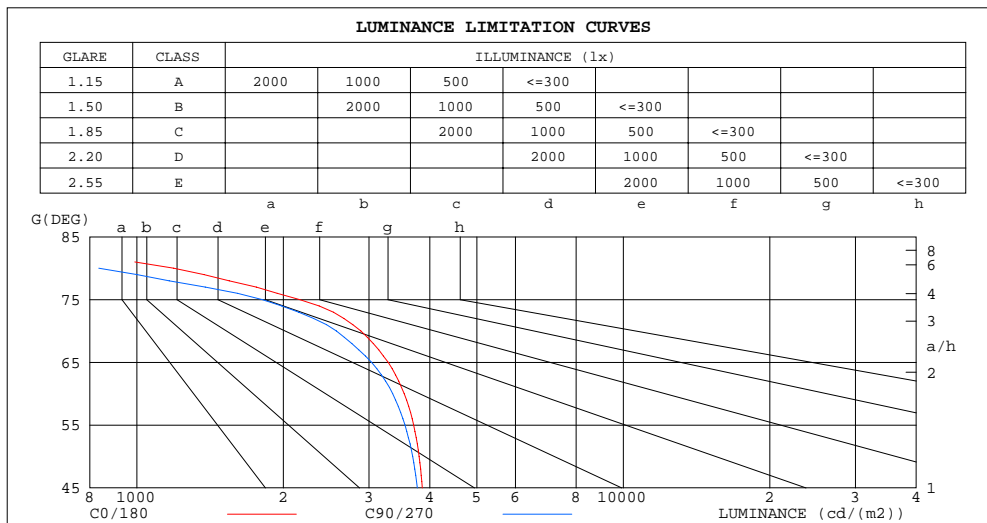
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	2417	2411	2403	2398	2408	2405	2407	2406	0- 10	231.4	231.4	3.38,3.38
20	2312	2305	2293	2286	2294	2294	2300	2301	10- 20	666.5	898.0	13.1,13.1
30	2135	2127	2109	2102	2109	2112	2122	2126	20- 30	1022	1920	28,28
40	1880	1871	1845	1841	1845	1853	1860	1875	30- 40	1249	3169	46.2,46.2
50	1541	1531	1494	1495	1499	1510	1504	1540	40- 50	1307	4476	65.3,65.3
60	1117	1103	1057	1064	1070	1073	1072	1111	50- 60	1166	5642	82.3,82.3
70	622.0	601.2	553.9	557.8	573.4	574.6	592.4	615.0	60- 70	828.7	6471	94.4,94.4
80	130.2	112.6	91.37	90.42	102.9	113.1	129.0	132.0	70- 80	349.7	6821	99.5,99.5
90	4.107	4.132	3.849	3.986	5.704	5.756	6.057	5.928	80- 90	35.67	6856	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: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-03-25

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:



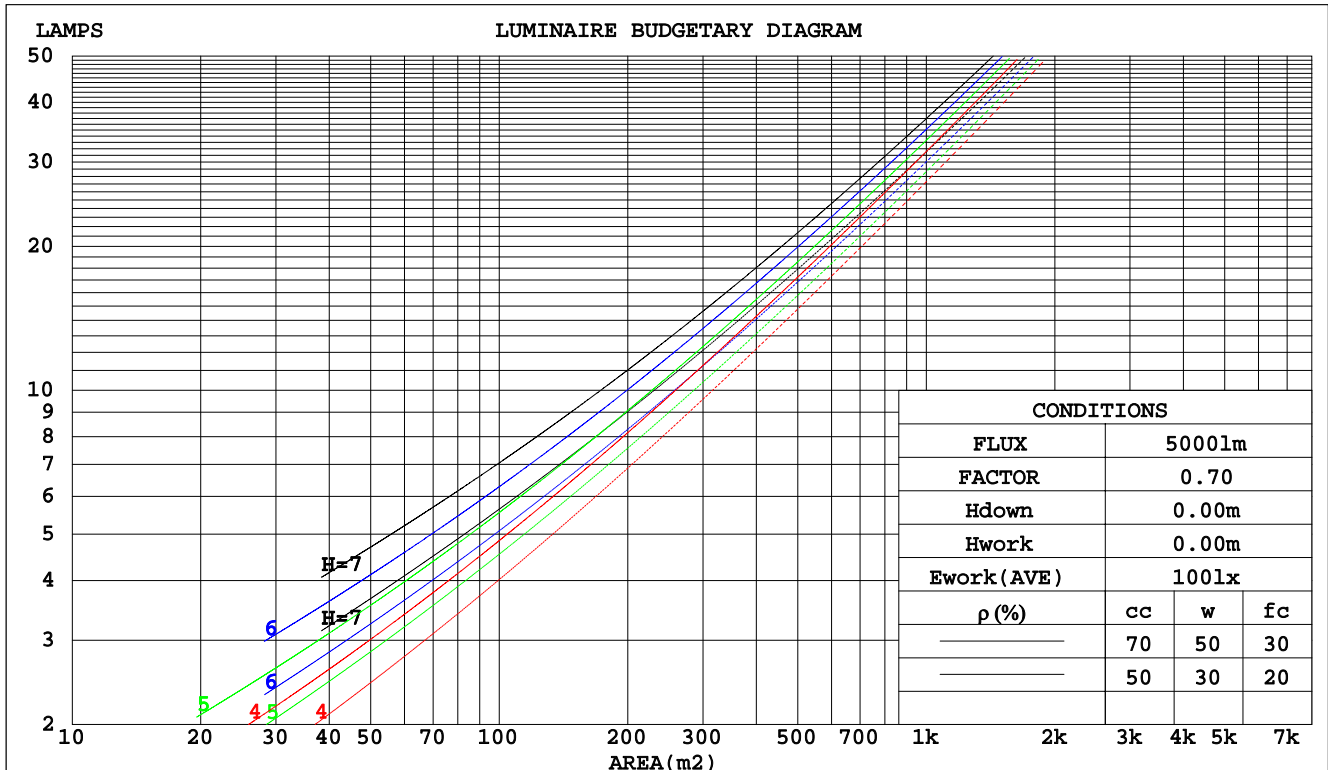
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2024-03-25

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity: 65.0%  
Test Distance: 11.700m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
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	.00
1.0	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.87	.82	.77	.83	.79	.75	.80	.77	.74	.72
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.67	.63	.61
4.0	.72	.63	.57	.70	.62	.56	.68	.61	.55	.66	.59	.55	.63	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.58	.49	.42	.57	.48	.42	.55	.47	.42	.53	.47	.41	.52	.46	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.42	.37	.47	.41	.36	.34
8.0	.48	.39	.33	.47	.39	.33	.46	.38	.33	.44	.38	.33	.43	.37	.33	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.28
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-03-25

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.: 900*31		SERIAL No.:	
MFR.:		SUR.:3.14*0.448*0.448		Shielding Angle:	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.286	.163	.052	.279	.159	.051	.266	.153	.049	.254	.147	.047	.243	.141	.045	
2.0	.277	.152	.047	.271	.149	.046	.259	.144	.045	.249	.140	.044	.239	.135	.043	
3.0	.260	.138	.041	.255	.136	.041	.245	.133	.040	.235	.129	.040	.226	.125	.039	
4.0	.242	.126	.037	.238	.124	.037	.228	.121	.036	.220	.118	.036	.212	.115	.035	
5.0	.225	.115	.033	.221	.114	.033	.213	.111	.033	.206	.108	.032	.199	.106	.032	
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029	
7.0	.196	.097	.027	.193	.096	.027	.186	.094	.027	.180	.092	.027	.175	.091	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.169	.086	.025	.164	.084	.025	
9.0	.172	.083	.023	.170	.083	.023	.164	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.011	
3.0	.163	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.049	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2024-03-25

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
 Humidity:65.0%  
 Test Distance:11.700m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 900*31			SERIAL No.:			
MFR.:					SUR.:3.14*0.448*0.448			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	2H	17.6	19.1	17.8	19.3	19.5	17.4	18.9	17.7	19.1	19.3
	3H	18.9	20.2	19.2	20.5	20.7	18.6	20.0	18.9	20.2	20.5
	4H	19.2	20.5	19.5	20.8	21.0	18.9	20.2	19.2	20.4	20.7
	6H	19.3	20.5	19.6	20.8	21.1	18.9	20.1	19.2	20.4	20.7
	8H	19.3	20.4	19.6	20.7	21.0	18.9	20.1	19.2	20.3	20.6
	12H	19.2	20.4	19.6	20.7	21.0	18.8	20.0	19.2	20.3	20.6
4H	2H	18.1	19.4	18.4	19.7	19.9	18.0	19.3	18.3	19.6	19.8
	3H	19.5	20.7	19.9	21.0	21.3	19.3	20.5	19.7	20.8	21.1
	4H	20.0	21.0	20.3	21.3	21.6	19.7	20.7	20.0	21.0	21.4
	6H	20.1	21.0	20.5	21.3	21.7	19.7	20.7	20.1	21.0	21.4
	8H	20.1	20.9	20.5	21.3	21.7	19.7	20.6	20.1	20.9	21.3
	12H	20.0	20.8	20.5	21.2	21.6	19.7	20.5	20.1	20.8	21.2
8H	4H	20.0	20.9	20.4	21.3	21.6	19.8	20.6	20.2	21.0	21.4
	6H	20.2	20.9	20.6	21.3	21.7	19.9	20.6	20.3	21.0	21.4
	8H	20.2	20.8	20.7	21.2	21.7	19.9	20.5	20.3	20.9	21.4
	12H	20.2	20.7	20.7	21.2	21.6	19.8	20.4	20.3	20.8	21.3
12H	4H	20.0	20.8	20.4	21.2	21.6	19.7	20.5	20.2	20.9	21.3
	6H	20.2	20.8	20.6	21.2	21.7	19.9	20.5	20.3	20.9	21.4
	8H	20.2	20.7	20.7	21.2	21.6	19.9	20.4	20.3	20.8	21.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.4					+ 0.3 / - 0.5					
2.0H	+ 0.4 / - 0.3					+ 0.3 / - 0.4					

CIE Pub.117, 6856 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 6.7$ )

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2024-03-25

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
 Humidity:65.0%  
 Test Distance:11.700m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

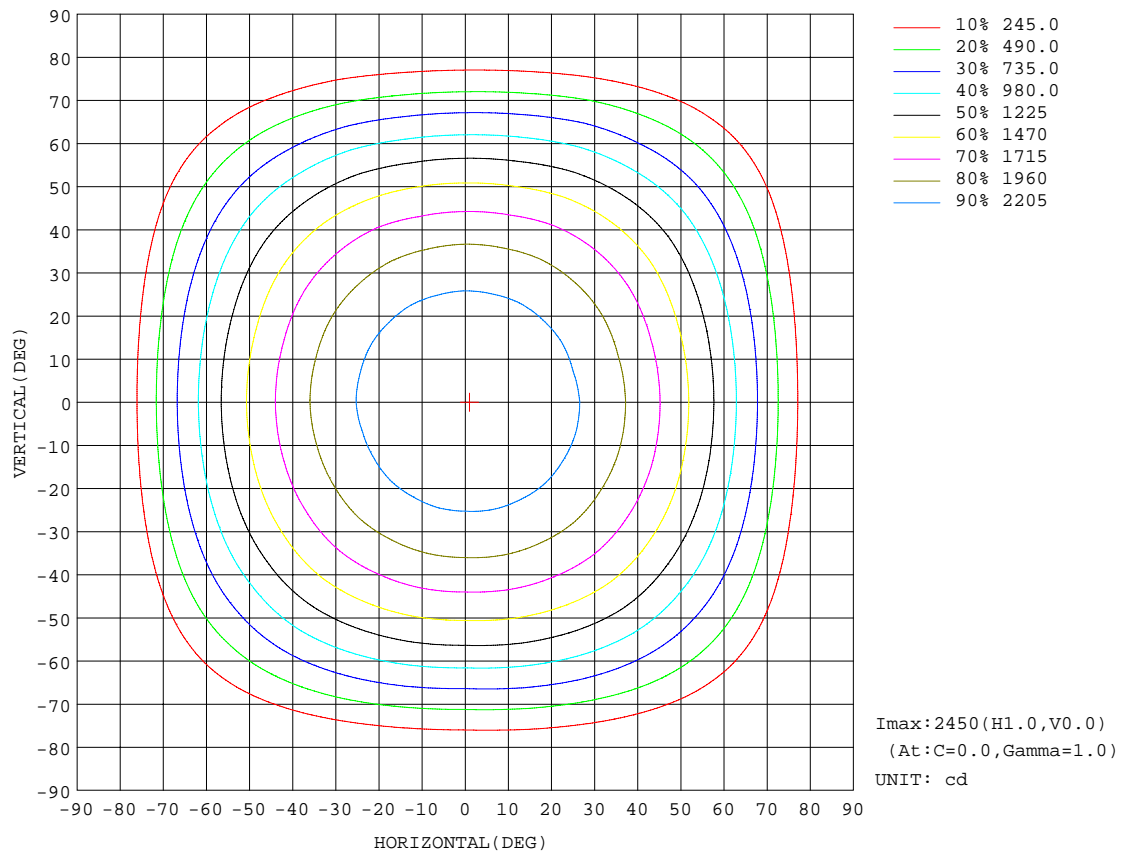
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	57	46	40	56	46	39	33
0.80	69	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	66	59	74	67	58	51
1.25	84	74	67	83	74	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	72	64
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	91	97	93	89	80
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2024-03-25

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
 Humidity:65.0%  
 Test Distance:11.700m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:



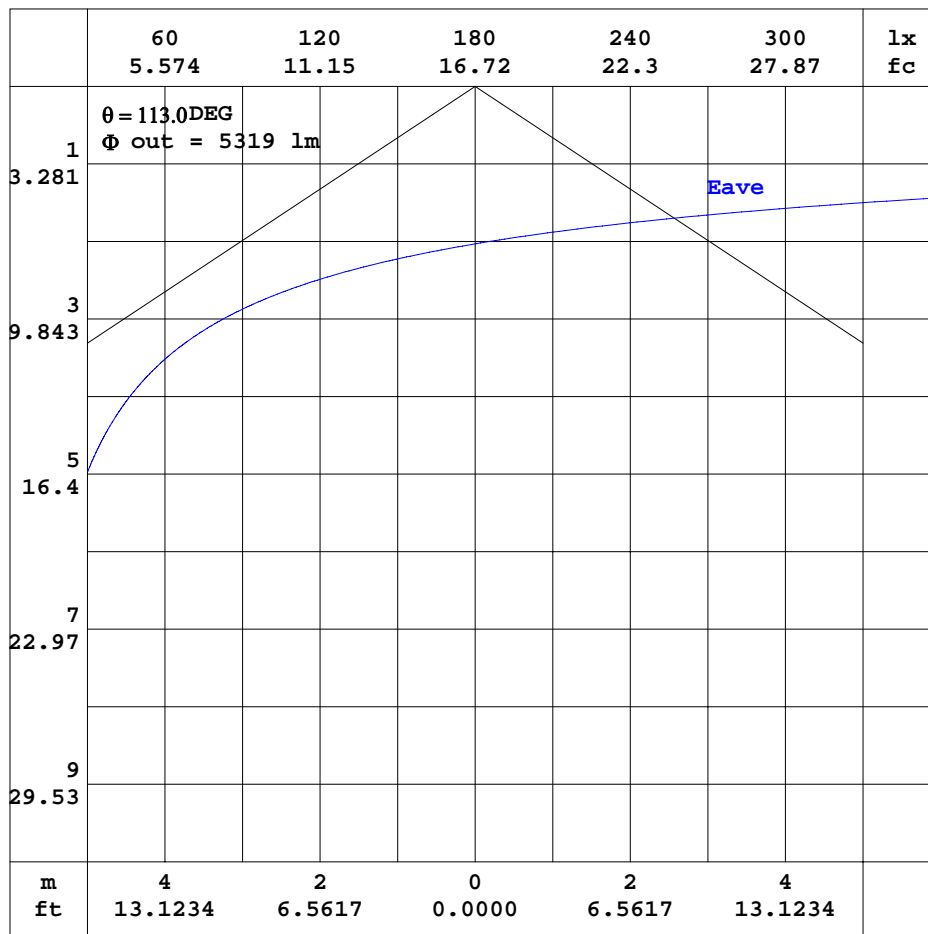
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-03-25

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:



### AAI CURVES

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:



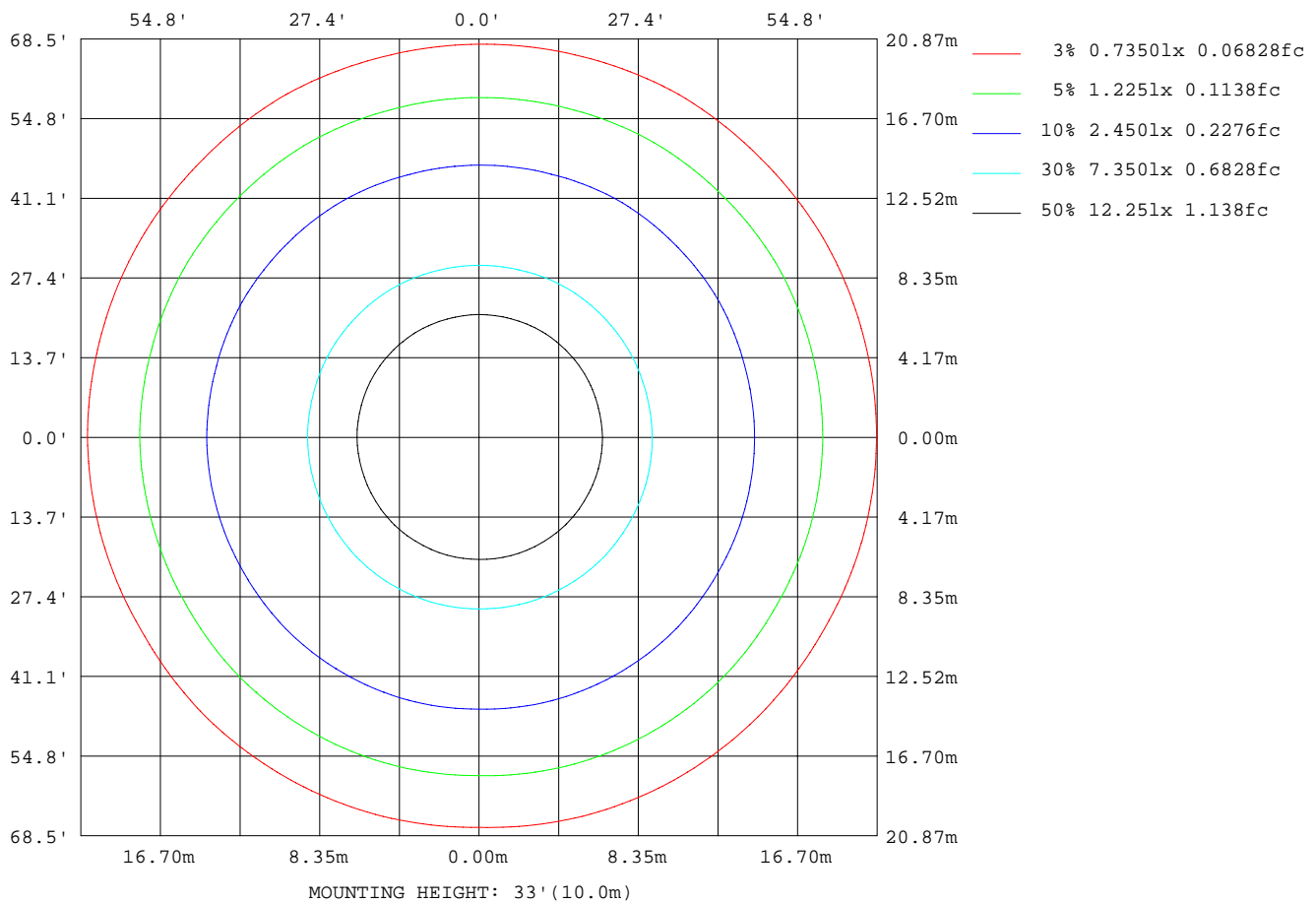
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-03-25

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2024-03-25

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity: 65.0%  
Test Distance: 11.700m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:229.78V I:0.3404A P:74.840W PF:0.9567 Freq:49.99Hz Lamp Flux:6856.23x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

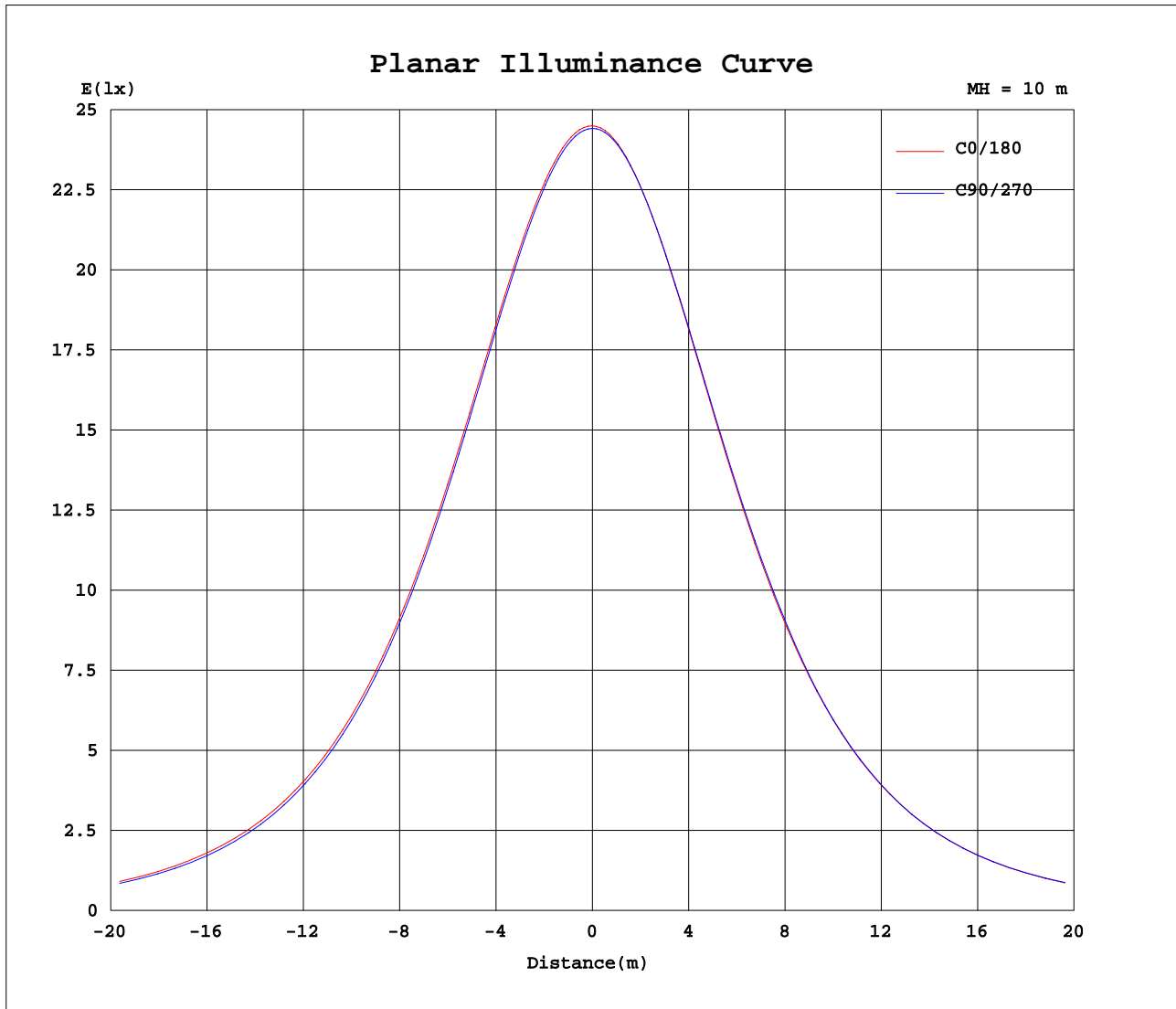
AvgL	cd/m2
L_0~180(65)av	3190
L_0~180(75)av	2005
L_0~180(85)av	389
L_90~270(65)av	3092
L_90~270(75)av	1948
L_90~270(85)av	381
L_45(65)av	3152
L_45(75)av	1961
L_45(85)av	372

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-03-25

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2024-03-25

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity: 65.0%  
Test Distance: 11.700m [K=1.0000]  
Remarks:

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