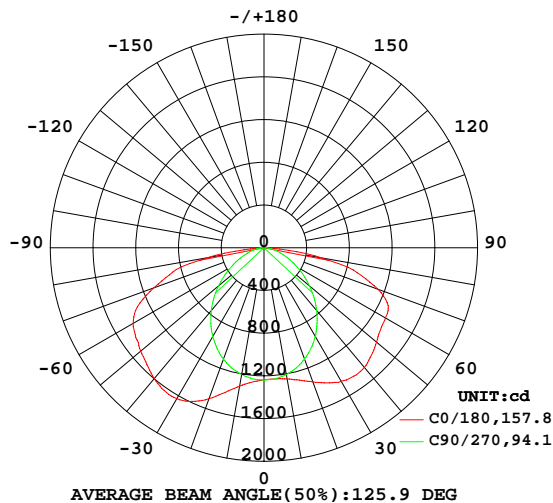


## LUMINAIRE PHOTOMETRIC TEST REPORT

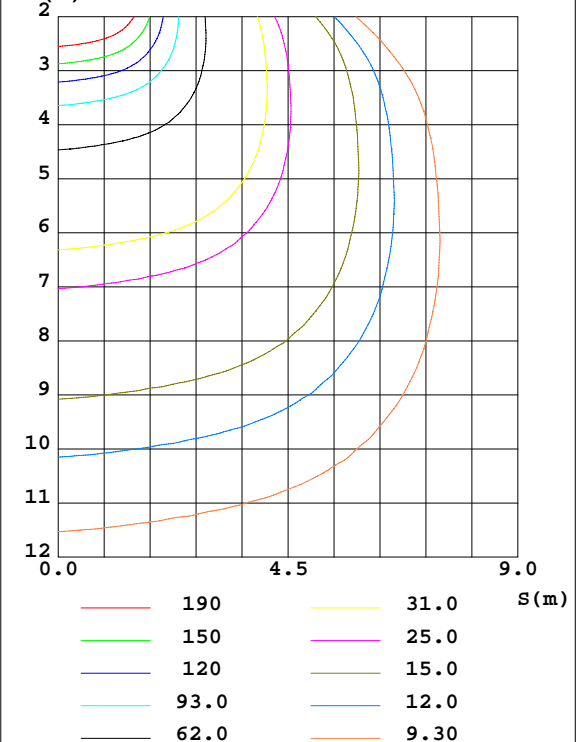
Test:U:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.30 lm/W			
MODEL		Imax(cd)	1638	S/MH(C0/180)	1.86
NOMINAL POWER(W)	70	LOR(%)	100.0	S/MH(C90/270)	1.16
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	5354.2	$\eta$ UP,DN(C0-180)	0.0,49.8
NOMINAL FLUX(lm)	5354.18	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,50.2
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	230.0	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-09-29

$\gamma$  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:

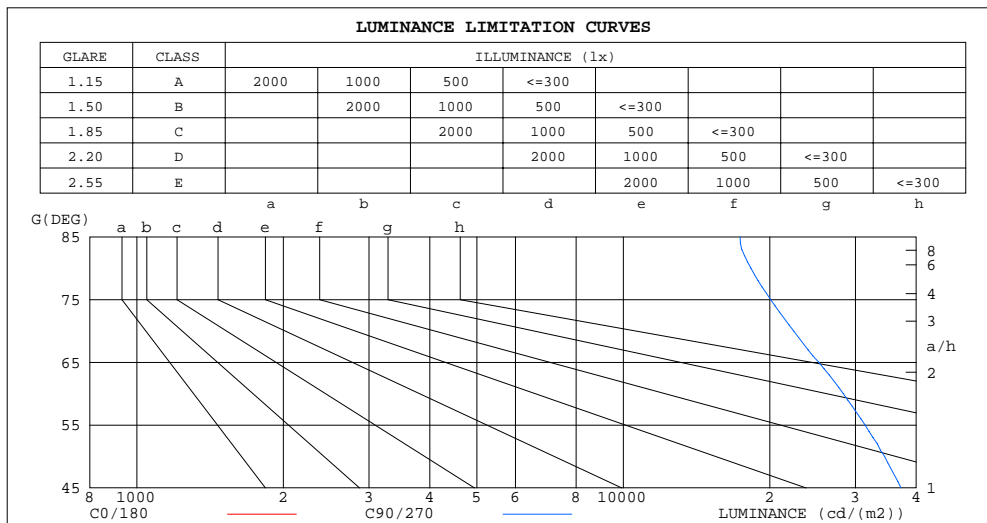
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\%lum, lamp$
10	1249	1222	1207	1264	1317	1262	1206	1223	0- 10	118.4	118.4	2.21,2.21
20	1337	1219	1109	1312	1503	1310	1110	1219	10- 20	355.6	474.0	8.85,8.85
30	1444	1220	958.7	1374	1631	1369	960.2	1225	20- 30	588.3	1062	19.8,19.8
40	1462	1215	767.6	1356	1598	1380	768.4	1221	30- 40	781.6	1844	34.4,34.4
50	1377	1160	557.8	1273	1506	1300	557.2	1167	40- 50	890.8	2735	51.1,51.1
60	1314	1027	357.0	1116	1413	1125	350.8	1030	50- 60	909.6	3644	68.1,68.1
70	1134	837.6	193.0	928.4	1098	915.1	189.3	841.3	60- 70	847.5	4492	83.9,83.9
80	538.7	622.9	80.05	642.8	536.6	628.4	78.10	613.3	70- 80	643.1	5135	95.9,95.9
90	12.98	22.43	8.119	47.58	14.34	41.47	8.265	17.39	80- 90	219.3	5354	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:25.3DEG  
Operators:  
Test Date:2025-09-29

$\gamma$  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:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	67962	17391
80	123105	18293
75	138795	20075
70	131614	22389
65	120499	25227
60	104265	28331
55	92277	31405
50	84991	34436
45	79893	37232

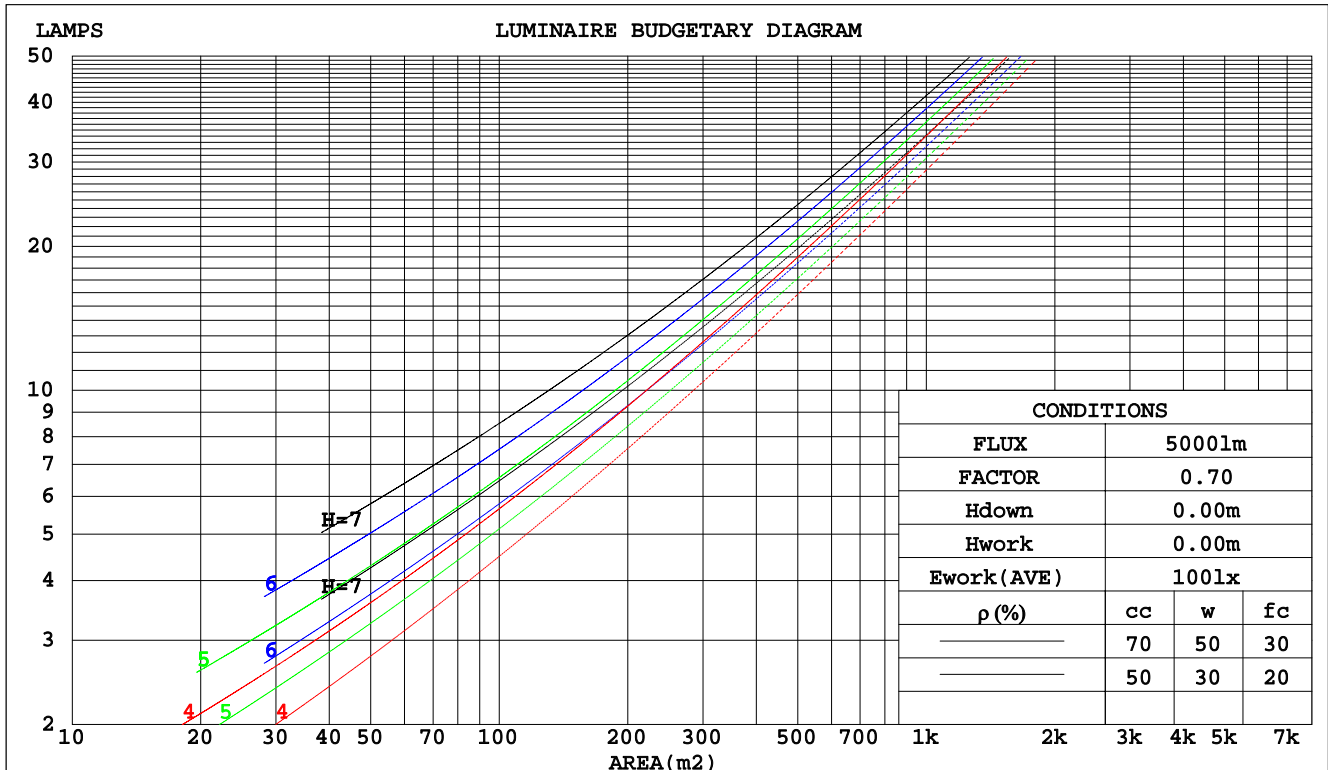
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-09-29

$\gamma$  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:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	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	1.01	.96	.91	.98	.94	.89	.94	.90	.86	.90	.87	.84	.86	.84	.81	.79
2.0	.86	.78	.71	.84	.76	.70	.80	.74	.68	.77	.71	.67	.73	.69	.65	.63
3.0	.74	.65	.57	.72	.64	.57	.69	.62	.56	.66	.60	.54	.64	.58	.53	.51
4.0	.65	.55	.47	.63	.54	.47	.60	.52	.46	.58	.51	.45	.56	.50	.45	.42
5.0	.57	.47	.40	.56	.46	.40	.54	.45	.39	.52	.44	.39	.50	.43	.38	.36
6.0	.51	.41	.34	.50	.41	.34	.48	.40	.34	.46	.39	.33	.45	.38	.33	.31
7.0	.46	.36	.30	.45	.36	.30	.43	.35	.29	.42	.34	.29	.40	.34	.29	.27
8.0	.42	.32	.26	.41	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.25	.23
9.0	.38	.29	.23	.37	.29	.23	.36	.28	.23	.35	.28	.23	.34	.27	.23	.21
10.0	.35	.26	.21	.34	.26	.21	.33	.26	.21	.32	.25	.21	.31	.25	.20	.19



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-09-29

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:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.: 1650*48*77		SERIAL No.:	
MFR.:		SUR.:1.2*0.021		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	.371	.211	.067	.364	.208	.066	.350	.201	.064	.338	.195	.063	.326	.189	.061	
2.0	.338	.185	.057	.331	.182	.056	.319	.177	.055	.308	.173	.054	.298	.168	.053	
3.0	.305	.163	.049	.300	.160	.048	.289	.157	.048	.279	.153	.047	.270	.149	.046	
4.0	.277	.144	.042	.272	.142	.042	.262	.139	.042	.253	.136	.041	.245	.133	.041	
5.0	.253	.129	.037	.248	.127	.037	.240	.125	.037	.232	.122	.036	.224	.120	.036	
6.0	.232	.116	.033	.228	.115	.033	.220	.113	.033	.213	.111	.033	.206	.109	.032	
7.0	.214	.106	.030	.210	.105	.030	.203	.103	.030	.197	.101	.029	.191	.099	.029	
8.0	.198	.097	.027	.195	.096	.027	.189	.094	.027	.183	.093	.027	.178	.091	.027	
9.0	.185	.089	.025	.182	.089	.025	.176	.087	.025	.171	.086	.025	.167	.085	.024	
10.0	.173	.083	.023	.170	.082	.023	.165	.081	.023	.161	.080	.023	.156	.079	.023	

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	.185	.156	.130	.158	.134	.111	.108	.092	.077	.062	.053	.045	.020	.017	.014	
2.0	.178	.132	.092	.153	.113	.080	.105	.078	.056	.060	.046	.033	.019	.015	.011	
3.0	.171	.115	.069	.147	.099	.060	.101	.069	.042	.058	.040	.025	.019	.013	.008	
4.0	.164	.102	.054	.140	.088	.047	.097	.061	.033	.056	.036	.020	.018	.012	.006	
5.0	.156	.091	.044	.134	.079	.038	.092	.055	.027	.053	.032	.016	.017	.011	.005	
6.0	.148	.083	.037	.128	.072	.032	.088	.050	.023	.051	.030	.013	.016	.010	.004	
7.0	.141	.076	.031	.121	.066	.027	.084	.046	.019	.049	.027	.011	.016	.009	.004	
8.0	.134	.071	.027	.115	.061	.024	.080	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.128	.066	.024	.110	.057	.021	.076	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.121	.061	.021	.105	.053	.019	.073	.038	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025-09-29

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:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 1650*48*77			SERIAL No.:			
MFR.:					SUR.:1.2*0.021			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	29.7	31.4	30.0	31.6	31.8	24.7	26.4	25.0	26.6	26.8
	3H	32.6	34.2	32.9	34.4	34.7	25.6	27.2	25.9	27.4	27.7
	4H	33.9	35.3	34.2	35.6	35.9	26.0	27.5	26.3	27.7	28.0
	6H	34.8	36.2	35.1	36.5	36.8	26.2	27.6	26.6	27.9	28.2
	8H	35.0	36.4	35.4	36.7	37.0	26.3	27.6	26.6	27.9	28.2
	12H	35.1	36.4	35.5	36.7	37.0	26.3	27.6	26.7	27.9	28.3
4H	2H	30.3	31.7	30.6	32.0	32.3	27.0	28.5	27.3	28.7	29.0
	3H	33.4	34.8	33.8	35.1	35.4	28.3	29.6	28.6	29.9	30.2
	4H	34.9	36.1	35.3	36.5	36.8	28.7	29.9	29.1	30.2	30.6
	6H	36.0	37.1	36.4	37.5	37.9	29.0	30.0	29.4	30.4	30.8
	8H	36.3	37.4	36.8	37.7	38.1	29.0	30.1	29.5	30.4	30.8
	12H	36.5	37.4	36.9	37.8	38.2	29.1	30.0	29.5	30.4	30.8
8H	4H	35.2	36.3	35.7	36.6	37.0	30.7	31.7	31.1	32.0	32.4
	6H	36.6	37.5	37.1	37.9	38.3	31.3	32.2	31.8	32.6	33.0
	8H	37.1	37.8	37.5	38.3	38.7	31.5	32.2	31.9	32.7	33.1
	12H	37.3	38.0	37.8	38.4	38.9	31.6	32.2	32.0	32.7	33.2
12H	4H	35.2	36.2	35.7	36.6	37.0	31.0	32.0	31.5	32.4	32.8
	6H	36.7	37.5	37.2	37.9	38.4	32.1	32.8	32.5	33.3	33.7
	8H	37.3	37.9	37.7	38.4	38.8	32.4	33.1	32.9	33.5	34.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2					
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.4					+ 0.4 / - 0.5					

CIE Pub.117, 5354 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 5.8$ )

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2025-09-29

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:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	Shielding Angle:

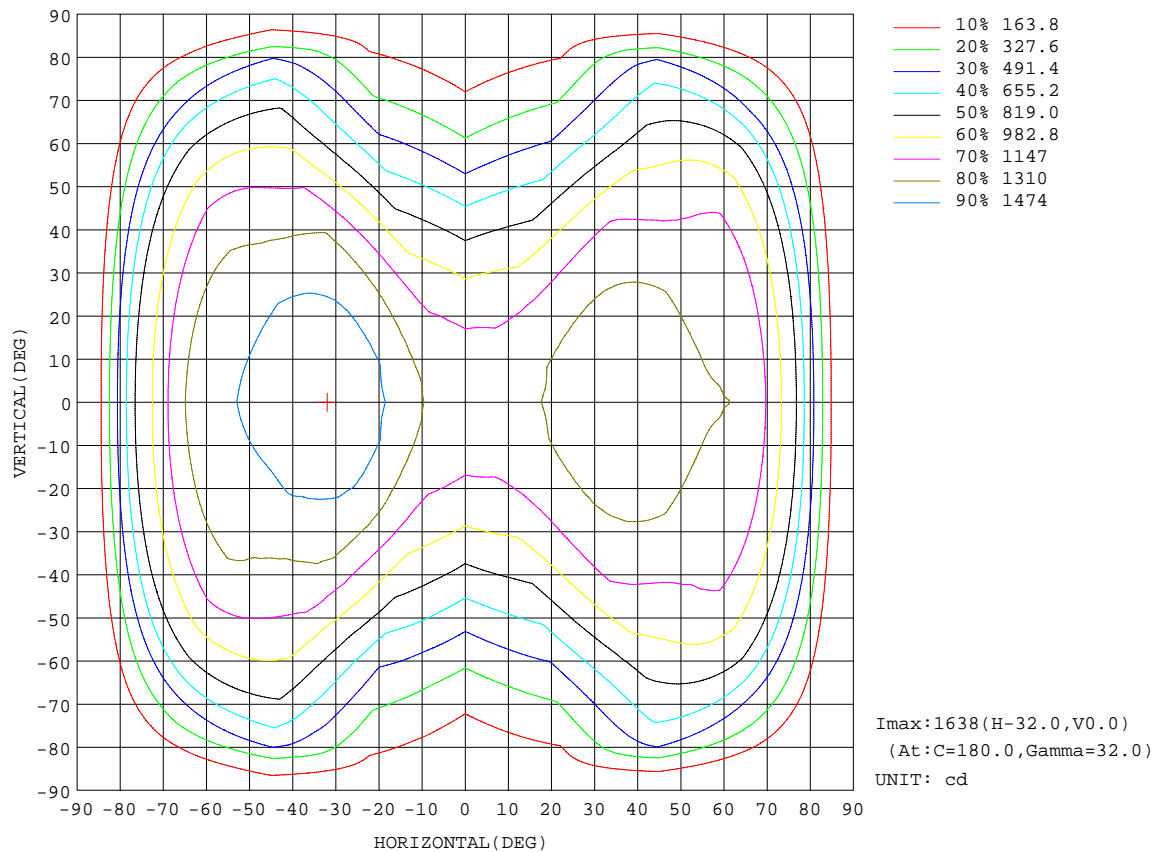
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	52	39	32	51	39	32	50	39	32	25
0.80	62	49	41	61	48	41	59	48	40	33
1.00	70	58	49	69	57	49	66	59	48	41
1.25	77	65	57	76	65	57	73	63	56	48
1.50	83	71	63	81	70	63	78	68	62	53
2.00	90	80	73	88	79	72	85	77	70	62
2.50	95	86	79	93	84	78	89	81	76	67
3.00	99	90	84	96	89	83	92	86	81	71
4.00	103	97	91	101	95	90	96	91	87	77
5.00	106	100	96	104	98	94	99	95	91	81
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:25.3DEG  
 Operators:  
 Test Date:2025-09-29

$\gamma$  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:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	Shielding Angle:



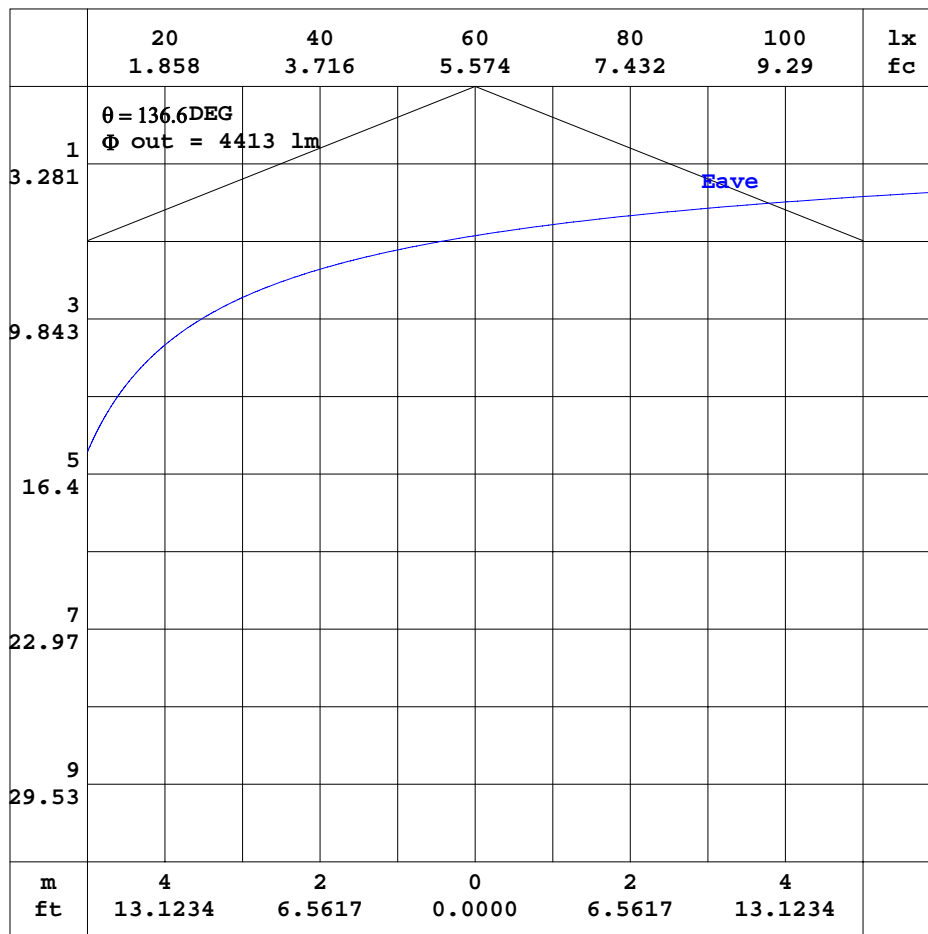
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-09-29

$\gamma$  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:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	Shielding Angle:



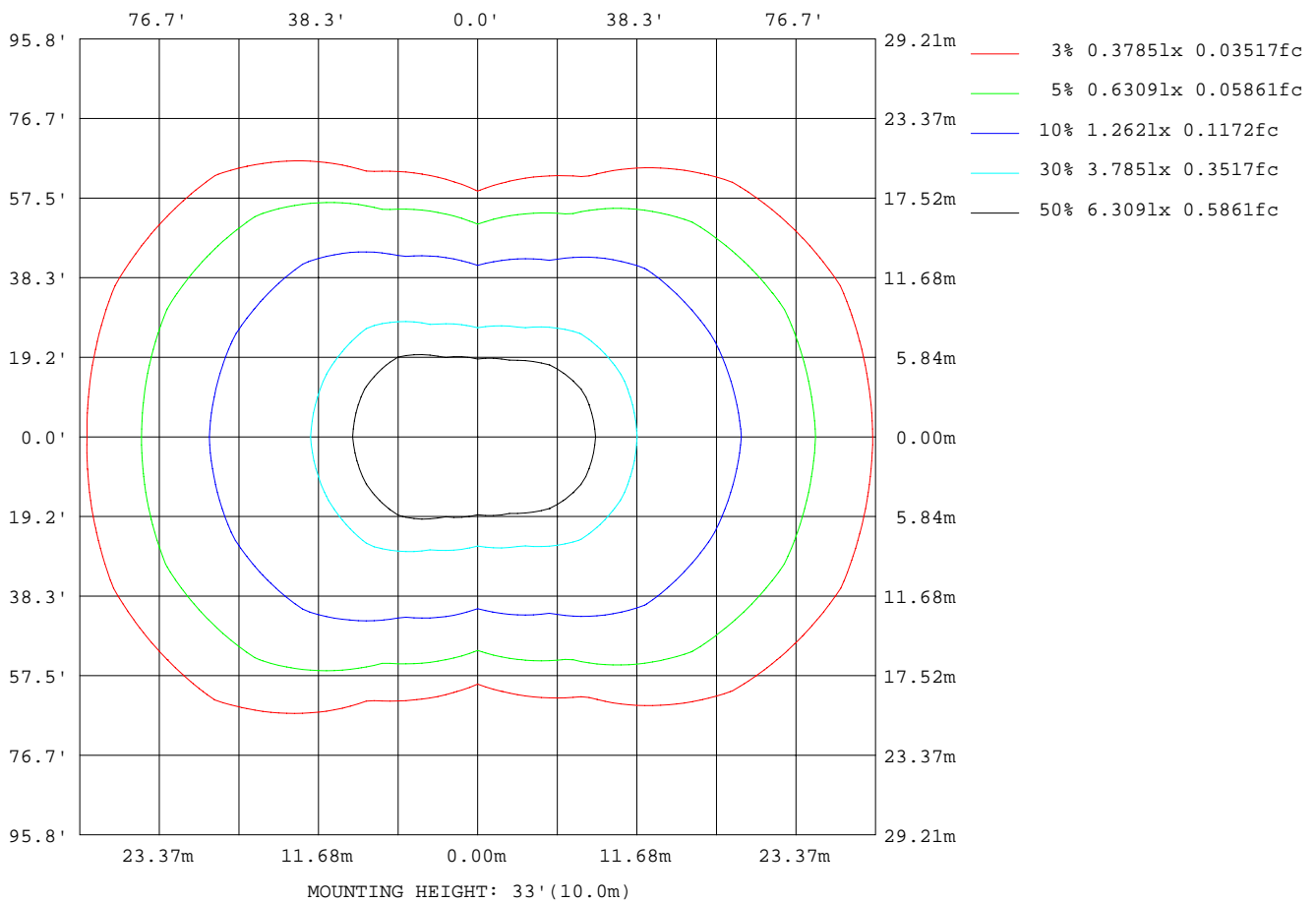
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2025-09-29

$\gamma$  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:

## ISOLUX DIAGRAM

Test:U:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2025-09-29

$\gamma$  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:229.67V I:0.2955A P:67.516W PF:0.9950 Freq:49.99Hz Lamp Flux:5354.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1650*48*77	SERIAL No.:
MFR.:	SUR.:1.2*0.021	Shielding Angle:

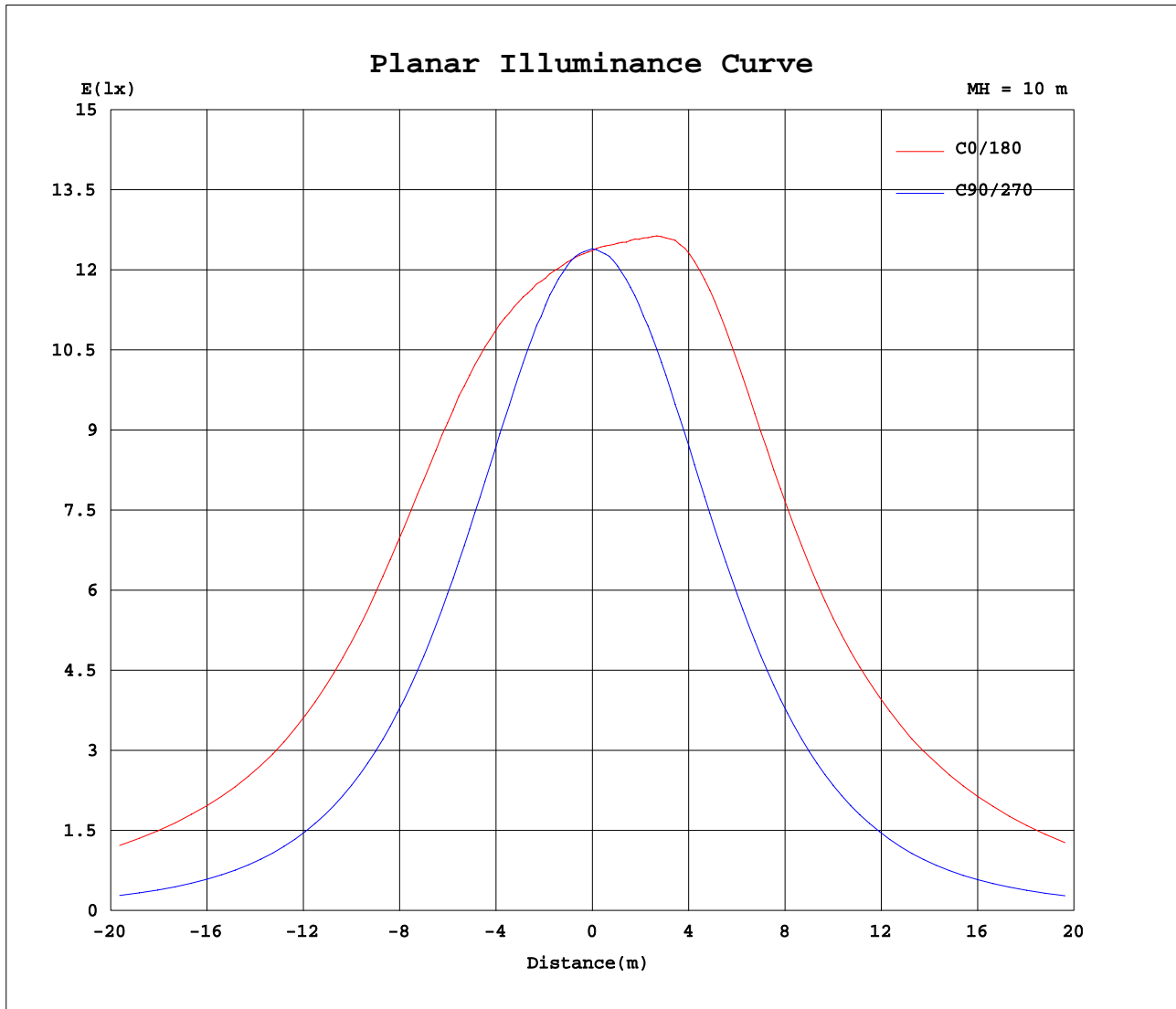
AvgL	cd/m2
L_0~180(65)av	121665
L_0~180(75)av	137190
L_0~180(85)av	62479
L_90~270(65)av	24985
L_90~270(75)av	19841
L_90~270(85)av	17240
L_45(65)av	92042
L_45(75)av	118592
L_45(85)av	134805

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-09-29

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: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2025-09-29

$\gamma$  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:

```

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:

```