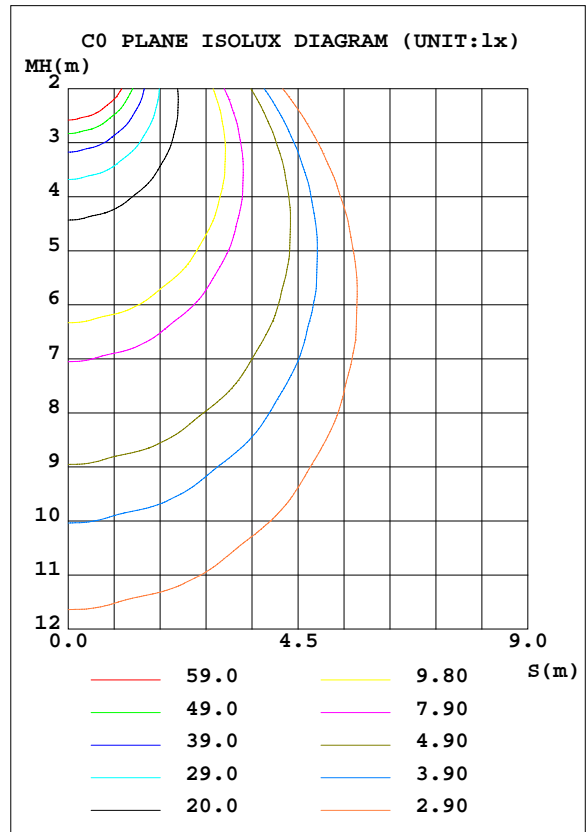
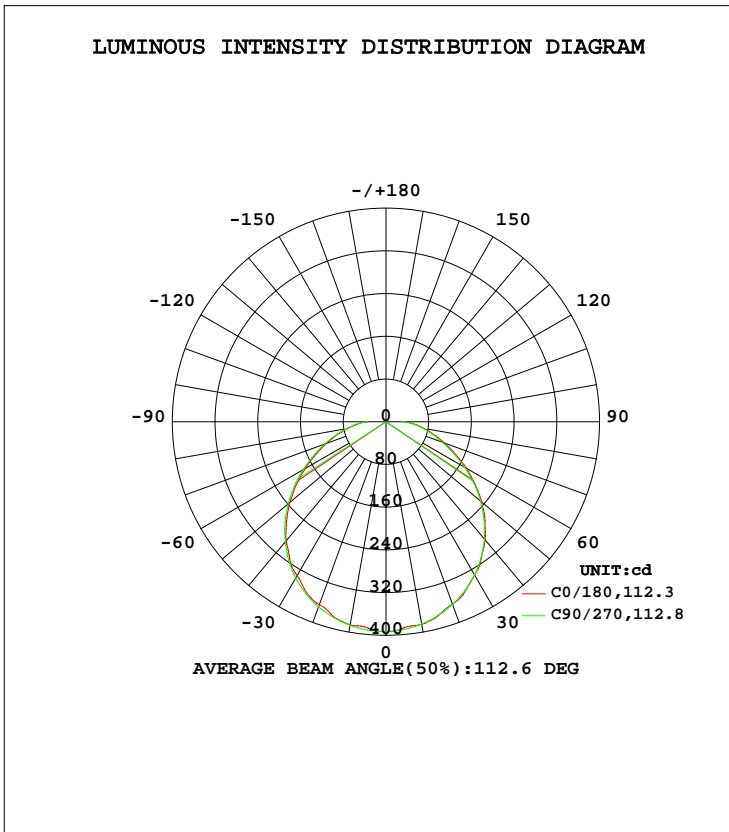


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 42.71 lm/W			
MODEL		I _{max} (cd)	393.0	S/MH(C0/180)	1.27
NOMINAL POWER(W)	30	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	32.0	TOTAL FLUX(lm)	1187.3	η UP, DN(C0-180)	0.0,49.4
NOMINAL FLUX(lm)	1187.29	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,50.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

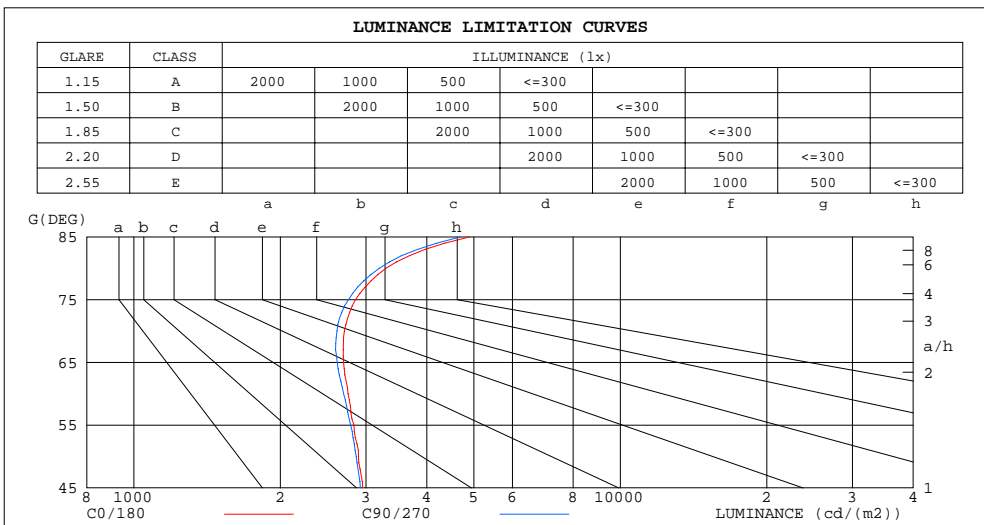
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	385.1	385.2	384.4	384.1	386.3	387.1	387.1	386.2	0- 10	37.04	37.04	3.12,3.12
20	363.7	362.6	364.2	362.6	364.6	366.4	368.9	366.1	10- 20	106.3	143.3	12.1,12.1
30	331.8	330.3	331.2	330.9	332.7	335.9	337.9	334.5	20- 30	161.8	305.1	25.7,25.7
40	289.3	285.9	286.4	288.6	290.5	293.7	293.4	290.8	30- 40	195.6	500.7	42.2,42.2
50	233.7	229.7	231.2	231.9	235.3	238.3	239.0	236.9	40- 50	202.8	703.5	59.2,59.2
60	173.1	169.3	169.4	171.7	174.1	178.1	178.8	177.6	50- 60	182.8	886.3	74.6,74.6
70	116.3	114.2	112.4	114.4	118.4	120.8	122.1	120.5	60- 70	143.2	1029	86.7,86.7
80	71.94	70.27	69.73	69.30	72.76	75.15	75.45	73.92	70- 80	99.27	1129	95.1,95.1
90	34.91	32.46	28.21	32.61	36.04	37.65	34.85	36.15	80- 90	58.58	1187	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:2025-05-23

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:

LUMINANCE LIMITATION CURVES

Test:U:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	4905	4700
80	3298	3197
75	2857	2762
70	2708	2616
65	2699	2617
60	2756	2697
55	2835	2790
50	2895	2864
45	2955	2923

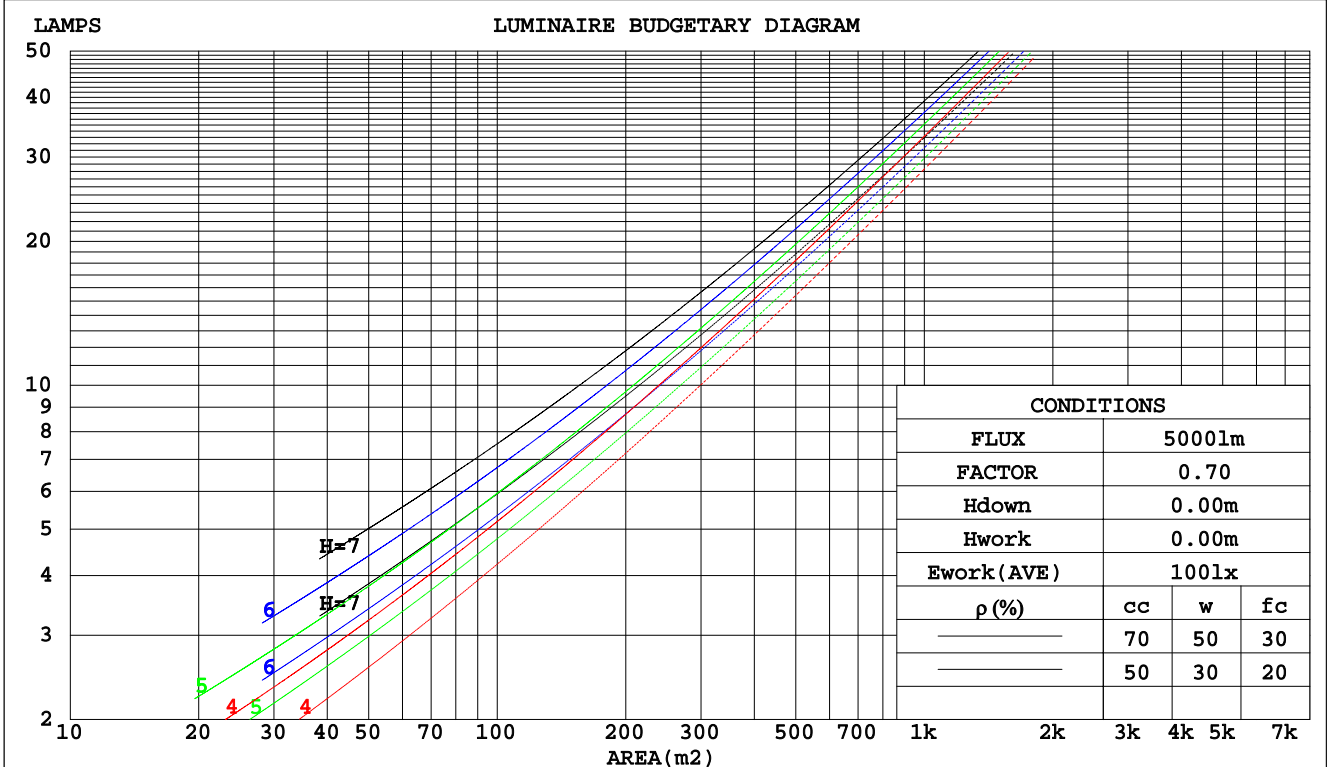
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	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	1.00
1.0	1.02	.97	.93	.00	.95	.91	.95	.92	.88	.91	.88	.86	.88	.85	.83	.81
2.0	.88	.81	.75	.86	.80	.74	.83	.77	.72	.79	.75	.70	.76	.72	.69	.66
3.0	.77	.69	.62	.76	.68	.61	.73	.66	.60	.70	.64	.59	.67	.62	.58	.56
4.0	.68	.59	.52	.67	.58	.52	.64	.57	.51	.62	.56	.50	.60	.54	.50	.47
5.0	.61	.52	.45	.60	.51	.44	.58	.50	.44	.56	.49	.43	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.49	.43	.38	.36
7.0	.50	.41	.34	.49	.40	.34	.47	.40	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.28	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding 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	.347	.198	.063	.340	.194	.062	.327	.188	.060	.314	.181	.058	.303	.176	.057	
2.0	.313	.171	.053	.306	.169	.052	.295	.164	.051	.284	.159	.050	.273	.155	.049	
3.0	.284	.151	.045	.278	.149	.045	.268	.145	.044	.258	.141	.043	.249	.138	.043	
4.0	.259	.134	.040	.254	.133	.039	.244	.130	.039	.236	.127	.038	.228	.124	.038	
5.0	.237	.121	.035	.233	.120	.035	.225	.117	.034	.217	.114	.034	.210	.112	.034	
6.0	.219	.110	.031	.215	.109	.031	.208	.106	.031	.201	.104	.031	.194	.102	.030	
7.0	.203	.100	.028	.199	.099	.028	.193	.098	.028	.187	.096	.028	.181	.094	.028	
8.0	.189	.092	.026	.186	.092	.026	.180	.090	.026	.175	.088	.026	.169	.087	.025	
9.0	.177	.085	.024	.174	.085	.024	.169	.083	.024	.164	.082	.023	.159	.081	.023	
10.0	.166	.080	.022	.163	.079	.022	.159	.078	.022	.154	.077	.022	.150	.075	.022	

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	.183	.156	.131	.157	.134	.113	.107	.092	.078	.062	.053	.045	.020	.017	.015	
2.0	.175	.132	.095	.150	.113	.083	.103	.078	.058	.059	.046	.034	.019	.015	.011	
3.0	.167	.114	.072	.143	.099	.063	.098	.069	.044	.057	.040	.026	.018	.013	.008	
4.0	.159	.101	.057	.137	.087	.049	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.083	.038	.124	.071	.033	.085	.050	.024	.050	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.017	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			DIM.: 450			SERIAL No.:				
MFR.:			SUR.:3.14*0.2*0.2			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	16.3	17.8	16.5	18.0	18.2	16.2	17.8	16.5	18.0	18.2
3H	17.9	19.4	18.2	19.6	19.9	17.8	19.3	18.1	19.5	19.8
4H	18.8	20.2	19.1	20.4	20.7	18.6	20.0	19.0	20.3	20.5
6H	19.6	20.9	19.9	21.2	21.5	19.4	20.8	19.8	21.0	21.3
8H	20.0	21.3	20.4	21.6	21.9	19.9	21.1	20.2	21.4	21.7
12H	20.5	21.7	20.9	22.0	22.3	20.3	21.6	20.7	21.9	22.2
4H 2H	16.9	18.3	17.2	18.5	18.8	16.8	18.2	17.1	18.5	18.7
3H	18.8	20.0	19.1	20.3	20.6	18.7	19.9	19.0	20.2	20.5
4H	19.8	20.9	20.2	21.2	21.6	19.7	20.8	20.0	21.1	21.4
6H	20.8	21.8	21.2	22.2	22.5	20.7	21.7	21.1	22.0	22.4
8H	21.3	22.3	21.7	22.6	23.0	21.2	22.1	21.6	22.5	22.9
12H	21.9	22.8	22.4	23.2	23.6	21.8	22.6	22.2	23.0	23.4
8H 4H	20.2	21.1	20.6	21.5	21.9	20.1	21.0	20.5	21.4	21.8
6H	21.4	22.2	21.9	22.6	23.1	21.3	22.1	21.8	22.5	22.9
8H	22.1	22.8	22.6	23.3	23.7	22.0	22.7	22.5	23.1	23.6
12H	22.9	23.5	23.4	24.0	24.5	22.8	23.4	23.3	23.8	24.3
12H 4H	20.2	21.1	20.7	21.5	21.9	20.1	21.0	20.6	21.4	21.8
6H	21.6	22.3	22.1	22.7	23.2	21.5	22.2	21.9	22.6	23.1
8H	22.4	23.0	22.9	23.4	23.9	22.3	22.9	22.7	23.3	23.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 1187 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 0.6)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding Angle:

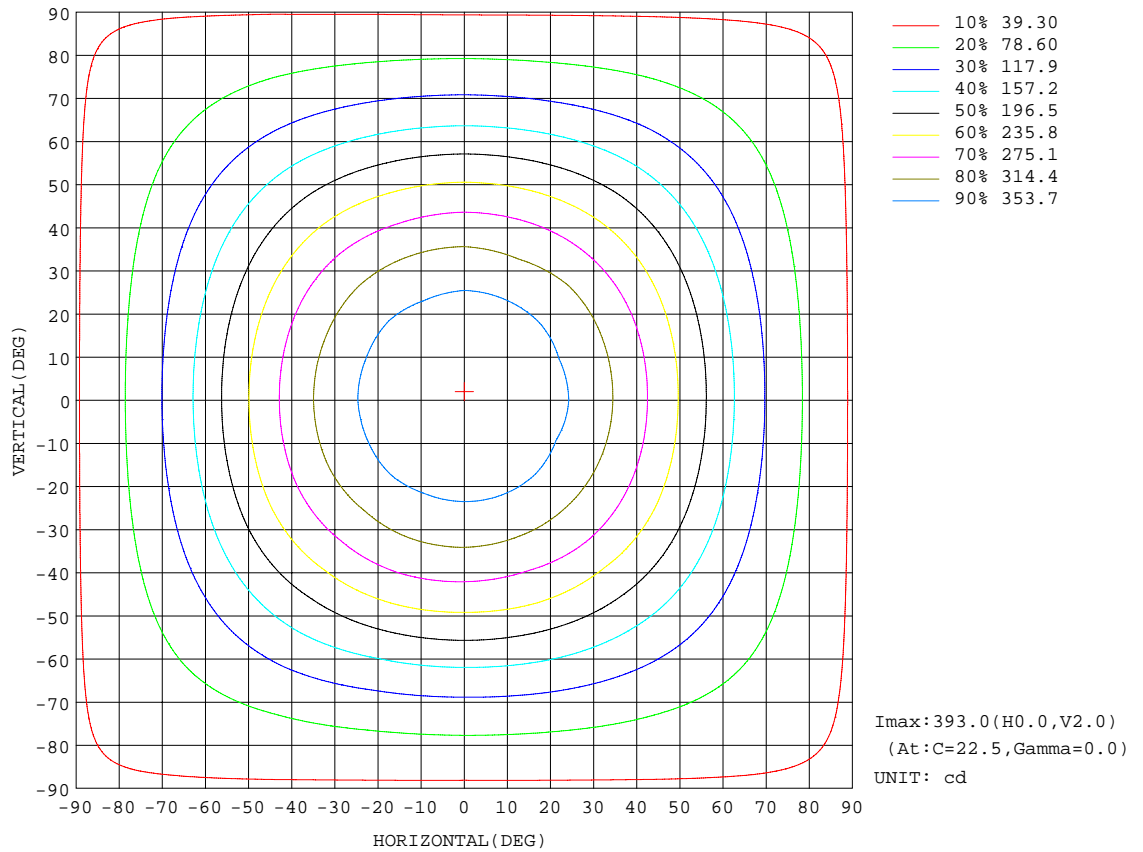
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	56	44	37	54	44	37	30
0.80	66	54	47	65	54	46	63	53	46	39
1.00	74	63	55	73	62	55	71	64	54	47
1.25	81	70	63	80	70	62	77	68	62	54
1.50	86	76	68	84	75	68	81	73	67	59
2.00	93	84	77	91	83	76	88	80	75	66
2.50	97	89	82	95	87	81	91	85	79	71
3.00	100	93	87	98	91	86	94	88	84	75
4.00	105	98	93	102	96	92	98	93	89	80
5.00	107	102	97	105	100	96	100	96	93	83
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:2025-05-23

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:

ISOCANDELA DIAGRAM

Test:U:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding Angle:

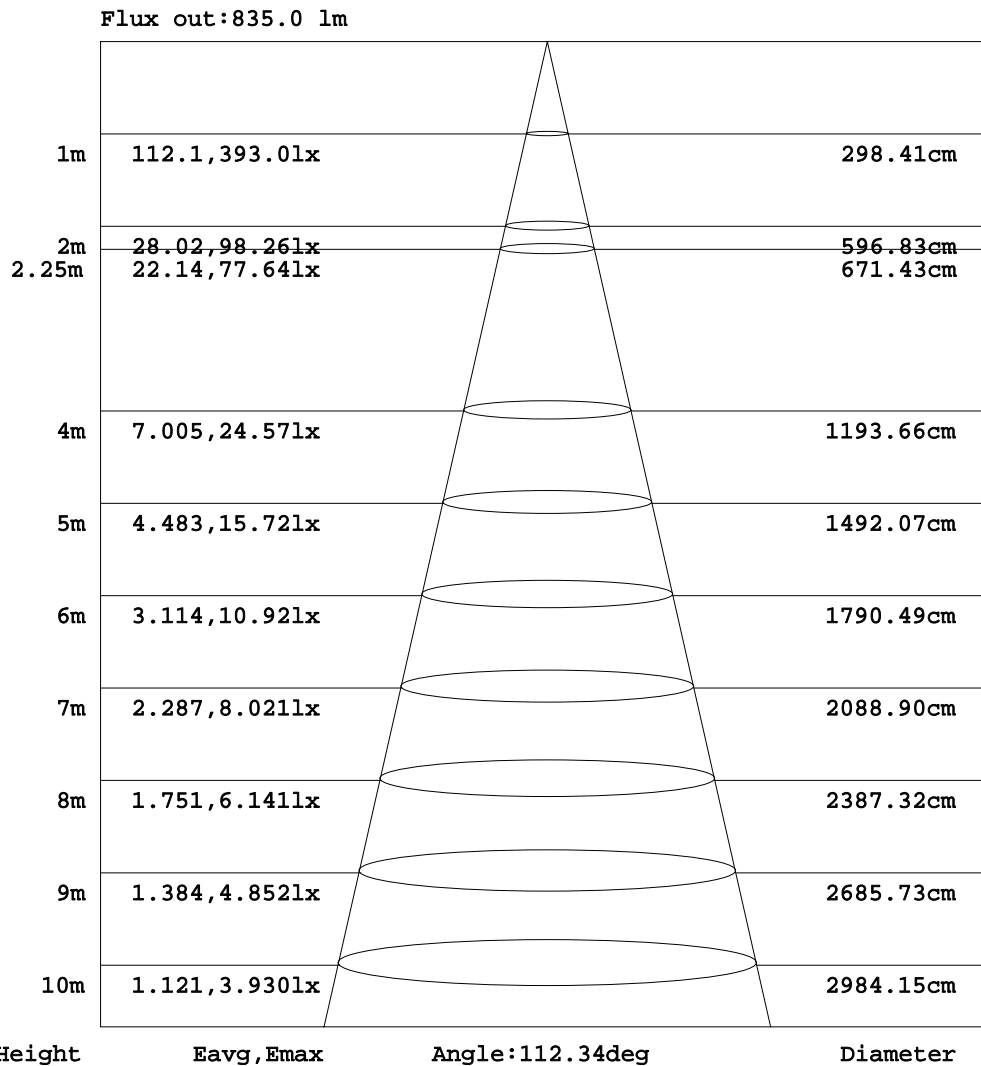


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2025-05-23

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:

AAI Figure

Test:U:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding Angle:



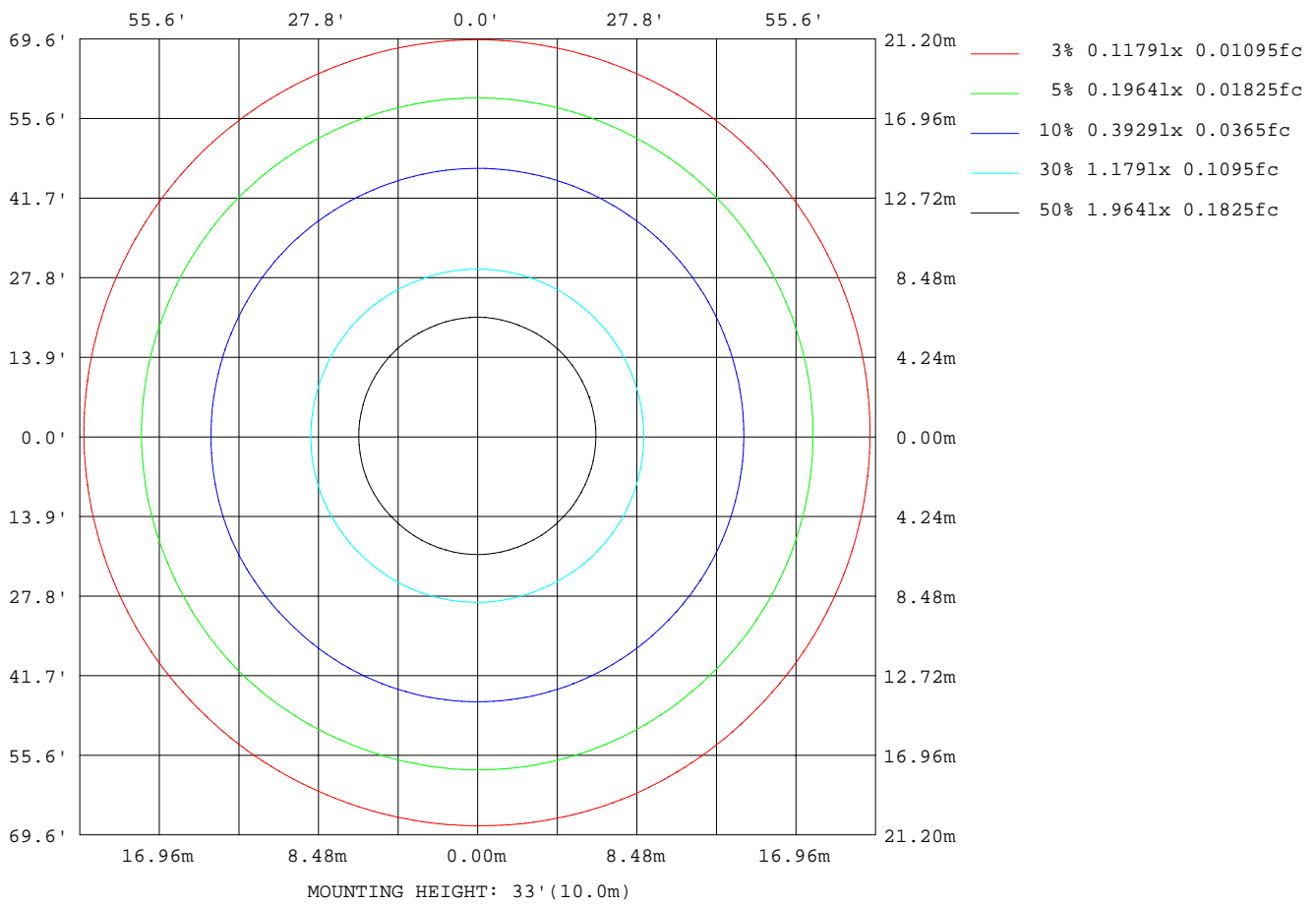
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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:

LED Avg.L Report

Test:U:229.75V I:0.1226A P:27.799W PF:0.9872 Freq:49.99Hz Lamp Flux:1187.29x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 450	SERIAL No.:
MFR.:	SUR.:3.14*0.2*0.2	Shielding Angle:

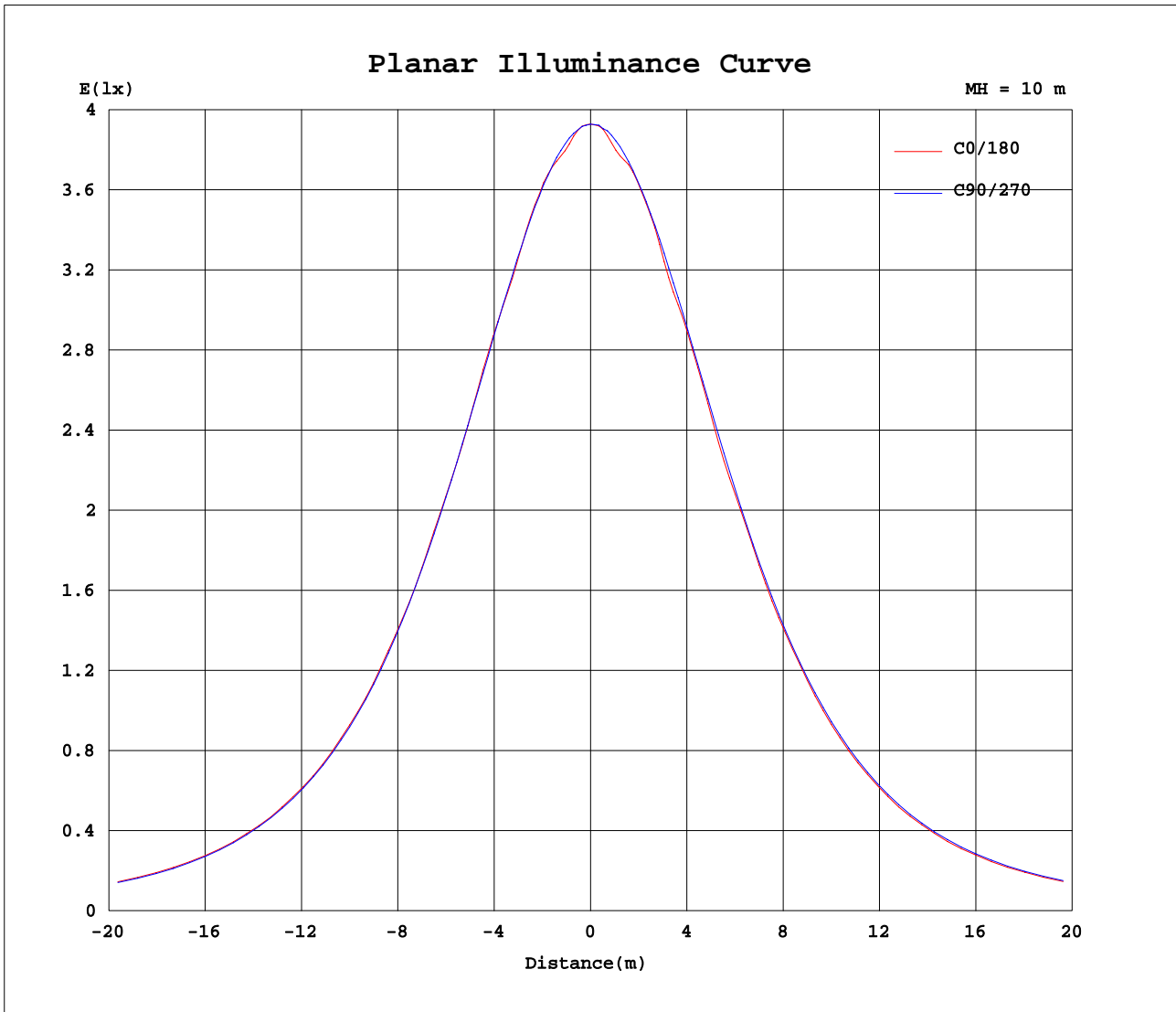
AvgL	cd/m2
L_0~180(65)av	2717
L_0~180(75)av	2884
L_0~180(85)av	4928
L_90~270(65)av	2716
L_90~270(75)av	2883
L_90~270(85)av	4911
L_45(65)av	2713
L_45(75)av	2883
L_45(85)av	4895

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-05-23

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: 2025-05-23

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:

