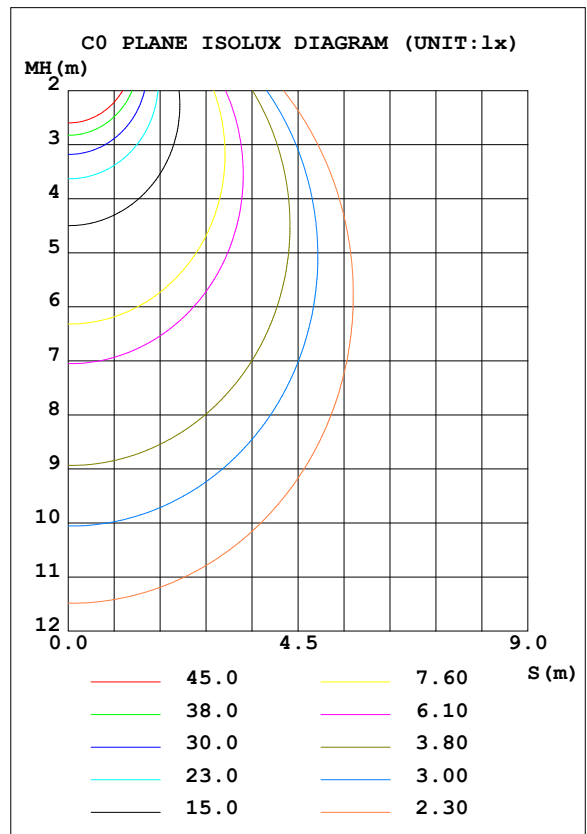
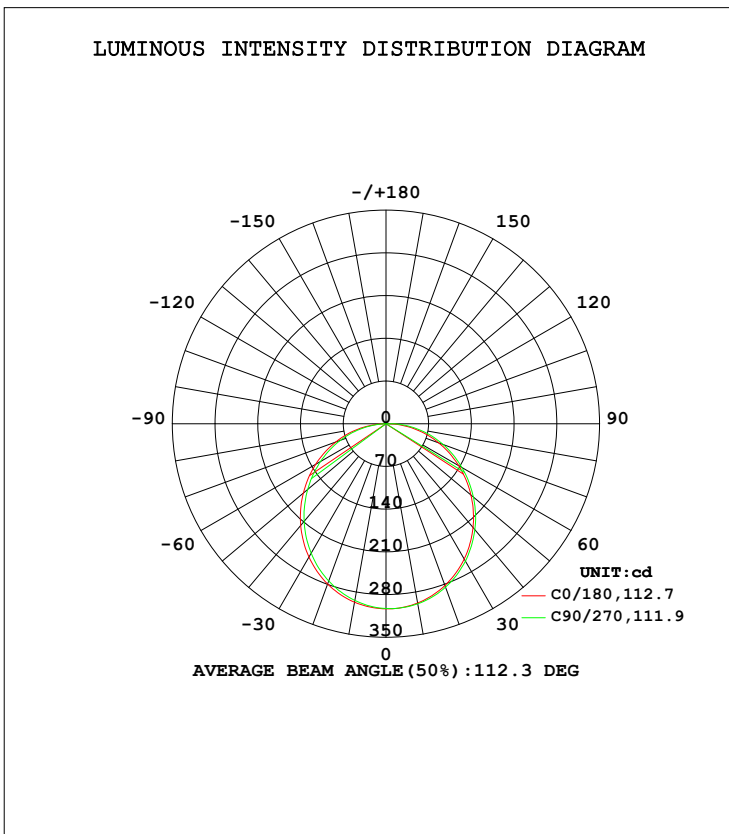


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz		
Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 66.19 lm/W			
MODEL		I <sub>max</sub> (cd)	303.3	S/MH (C0/180)	1.24
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.21
RATED VOLTAGE (V)		TOTAL FLUX (lm)	890.46	η UP, DN (C0-180)	0.4, 51.5
NOMINAL FLUX (lm)	890.399	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.4, 47.7
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	99.1	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JZ  
 Test Date: 2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity: 65.0%  
 Test Distance: 8.700m [K=1.0000]  
 Remarks:

**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

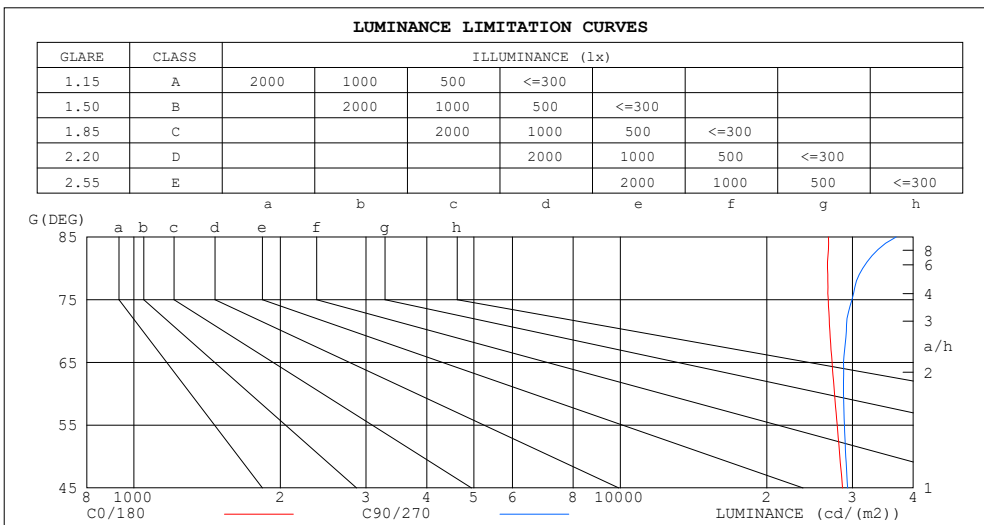
$\gamma$	C0	C90	C180	C270				$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	298.3	299.6	297.0	294.1				0- 10	28.65	28.65	3.22,3.22
20	282.2	285.0	279.6	274.3				10- 20	81.85	110.5	12.4,12.4
30	256.2	260.1	252.3	245.1				20- 30	123.5	234.0	26.3,26.3
40	221.9	226.4	217.6	208.7				30- 40	148.2	382.2	42.9,42.9
50	181.7	186.9	176.9	167.5				40- 50	153.6	535.7	60.2,60.2
60	137.9	143.7	133.1	124.0				50- 60	140.1	675.9	75.9,75.9
70	92.25	99.67	87.82	79.78				60- 70	111.2	787.0	88.4,88.4
80	46.28	54.70	42.24	35.38				70- 80	70.98	858.0	96.4,96.4
90	2.252	10.41	1.379	1.868				80- 90	24.70	882.7	99.1,99.1
100	0.5491	1.481	0.7872	1.441				90-100	1.767	884.5	99.3,99.3
110	0.5821	1.458	0.6158	1.441				100-110	1.070	885.6	99.4,99.5
120	0.6402	1.436	0.8008	1.441				110-120	1.037	886.6	99.6,99.6
130	0.8127	1.415	0.9748	1.441				120-130	1.009	887.6	99.7,99.7
140	0.9851	1.374	1.145	1.441				130-140	0.9295	888.5	99.8,99.8
150	1.145	1.366	1.269	1.429				140-150	0.7954	889.3	99.9,99.9
160	1.281	1.365	1.380	1.358				150-160	0.6082	889.9	99.9,99.9
170	1.353	1.401	1.405	1.370				160-170	0.3867	890.3	100,100
180	1.404	1.416	1.404	1.404				170-180	0.1329	890.5	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	26788	36888
80	26654	31498
75	26755	29929
70	26971	29142
65	27249	28759
60	27570	28748
55	27919	28879
50	28261	29074
45	28627	29323

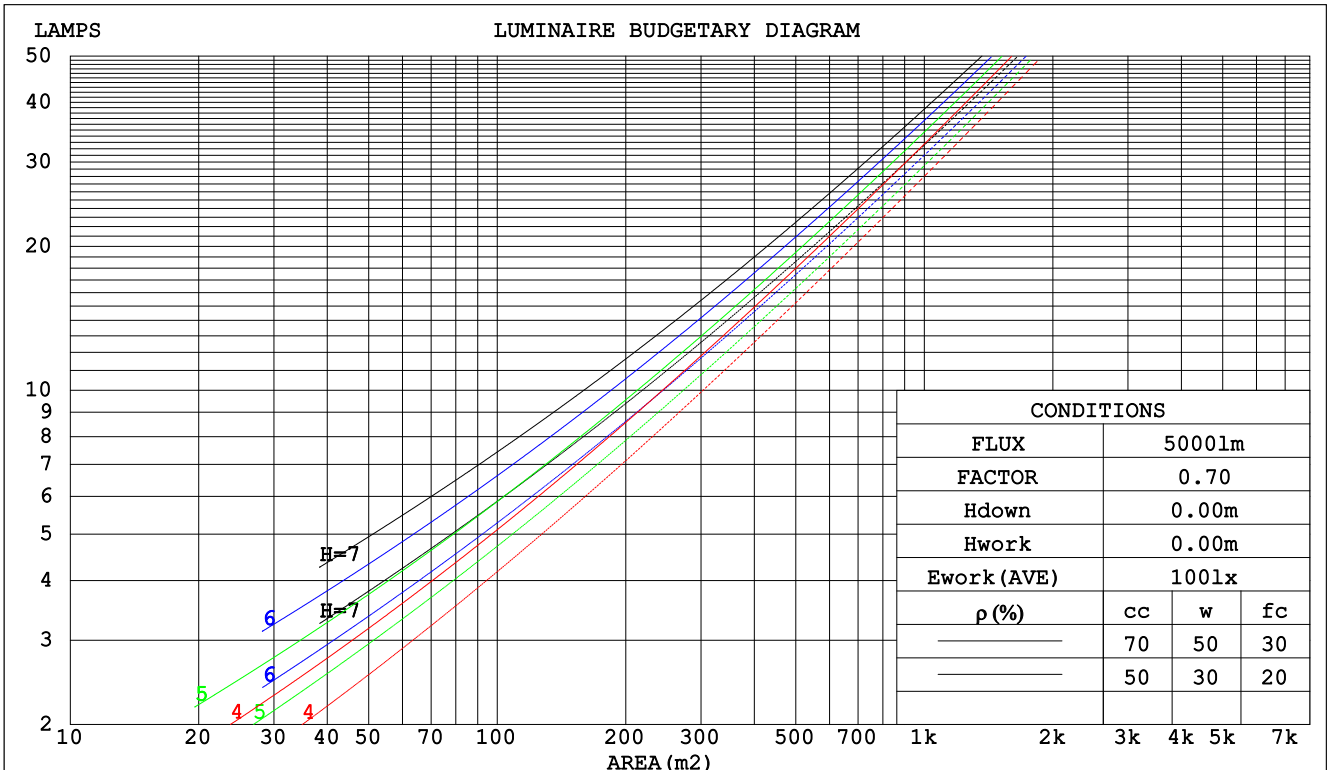
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	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	1.01	1.01	1.01	.99
1.0	1.03	.98	.94	1.01	.96	.93	.96	.93	.90	.92	.89	.87	.88	.86	.84	.82
2.0	.89	.82	.76	.87	.81	.75	.84	.78	.73	.80	.76	.72	.77	.73	.70	.68
3.0	.78	.70	.63	.77	.69	.62	.73	.67	.61	.70	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.62	.53	.46	.61	.52	.45	.58	.51	.45	.56	.50	.44	.54	.48	.44	.42
6.0	.56	.46	.40	.55	.46	.40	.53	.45	.39	.51	.44	.39	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.41	.35	.48	.40	.35	.46	.39	.34	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.36	.31	.41	.35	.30	.29
9.0	.42	.34	.28	.41	.34	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.26
10.0	.39	.31	.26	.38	.31	.25	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz		
Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	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	.324	.184	.058	.317	.181	.057	.303	.174	.056	.291	.168	.054	.279	.162	.052	
2.0	.301	.165	.051	.294	.162	.050	.282	.157	.049	.271	.152	.048	.260	.147	.046	
3.0	.276	.147	.044	.270	.145	.044	.260	.141	.043	.249	.137	.042	.240	.133	.041	
4.0	.254	.132	.039	.248	.130	.038	.239	.127	.038	.230	.123	.037	.222	.120	.037	
5.0	.234	.119	.034	.229	.118	.034	.220	.115	.034	.212	.112	.033	.205	.110	.033	
6.0	.216	.108	.031	.212	.107	.031	.204	.105	.030	.197	.102	.030	.191	.100	.030	
7.0	.201	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027	
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.085	.024	.172	.084	.024	.167	.082	.023	.162	.081	.023	.157	.080	.023	
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.152	.076	.021	.148	.074	.021	

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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.188	.163	.140	.161	.140	.120	.110	.096	.083	.063	.056	.048	.020	.018	.016	
2.0	.180	.139	.104	.154	.119	.090	.106	.083	.062	.061	.048	.037	.020	.016	.012	
3.0	.172	.121	.080	.148	.104	.070	.101	.073	.049	.059	.042	.029	.019	.014	.009	
4.0	.165	.108	.064	.141	.093	.056	.097	.065	.039	.056	.038	.023	.018	.012	.008	
5.0	.157	.098	.054	.135	.084	.047	.093	.059	.033	.054	.035	.019	.017	.011	.006	
6.0	.150	.089	.046	.129	.077	.040	.089	.054	.028	.052	.032	.017	.017	.010	.006	
7.0	.143	.082	.040	.123	.071	.035	.085	.050	.025	.049	.029	.015	.016	.010	.005	
8.0	.136	.077	.035	.117	.066	.031	.081	.047	.022	.047	.027	.013	.015	.009	.004	
9.0	.130	.072	.032	.112	.062	.028	.078	.044	.020	.045	.026	.012	.015	.008	.004	
10.0	.124	.067	.029	.107	.058	.025	.074	.041	.018	.043	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz										
Lamp Flux:890.399x1 lm										
NAME: PM1100373 NS-156					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.: 0.01*1			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	24.9	26.4	25.2	26.6	26.9	25.0	26.6	25.3	26.8	27.0
3H	26.6	28.0	26.9	28.3	28.5	26.8	28.3	27.2	28.5	28.8
4H	27.3	28.7	27.7	29.0	29.2	27.7	29.0	28.0	29.3	29.6
6H	28.0	29.2	28.3	29.5	29.8	28.4	29.7	28.8	30.0	30.3
8H	28.2	29.4	28.6	29.7	30.1	28.7	30.0	29.1	30.3	30.6
12H	28.4	29.6	28.8	29.9	30.2	29.0	30.2	29.4	30.5	30.8
4H 2H	25.6	26.9	25.9	27.2	27.5	25.7	27.0	26.0	27.3	27.6
3H	27.5	28.7	27.9	29.0	29.3	27.7	28.9	28.1	29.2	29.5
4H	28.4	29.5	28.8	29.8	30.2	28.7	29.8	29.1	30.1	30.4
6H	29.2	30.1	29.6	30.5	30.9	29.6	30.5	30.0	30.9	31.3
8H	29.5	30.4	29.9	30.8	31.2	30.0	30.9	30.4	31.2	31.7
12H	29.7	30.6	30.2	31.0	31.4	30.3	31.1	30.8	31.6	32.0
8H 4H	28.8	29.7	29.2	30.1	30.5	29.0	29.9	29.4	30.3	30.7
6H	29.7	30.5	30.2	30.9	31.4	30.1	30.9	30.6	31.3	31.7
8H	30.2	30.8	30.7	31.3	31.8	30.6	31.3	31.1	31.7	32.2
12H	30.5	31.1	31.0	31.6	32.1	31.1	31.7	31.6	32.2	32.7
12H 4H	28.8	29.7	29.3	30.1	30.5	29.1	29.9	29.5	30.3	30.7
6H	29.9	30.5	30.3	31.0	31.5	30.2	30.9	30.7	31.3	31.8
8H	30.4	30.9	30.9	31.4	31.9	30.8	31.4	31.3	31.8	32.3
Variations with the observer position at spacings(CIE Pub.117):										
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, 890.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.4)  
 Area: 0.01 m2

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:

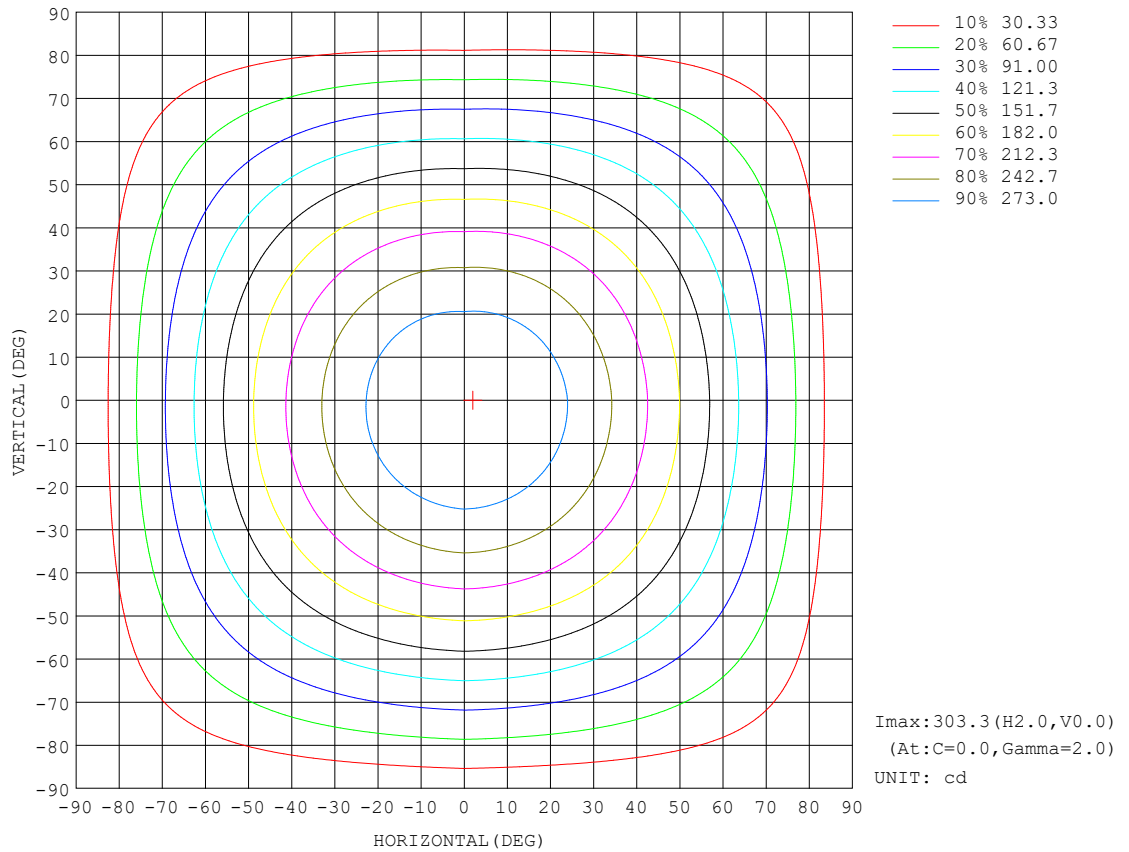
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	44	38	31
0.80	67	55	47	65	54	47	64	53	47	40
1.00	75	63	56	74	63	56	71	64	55	48
1.25	82	71	64	80	70	63	78	69	62	55
1.50	87	77	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	77	88	81	76	68
2.50	98	90	83	96	88	82	92	85	80	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	98	105	101	97	101	97	94	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz		
Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:



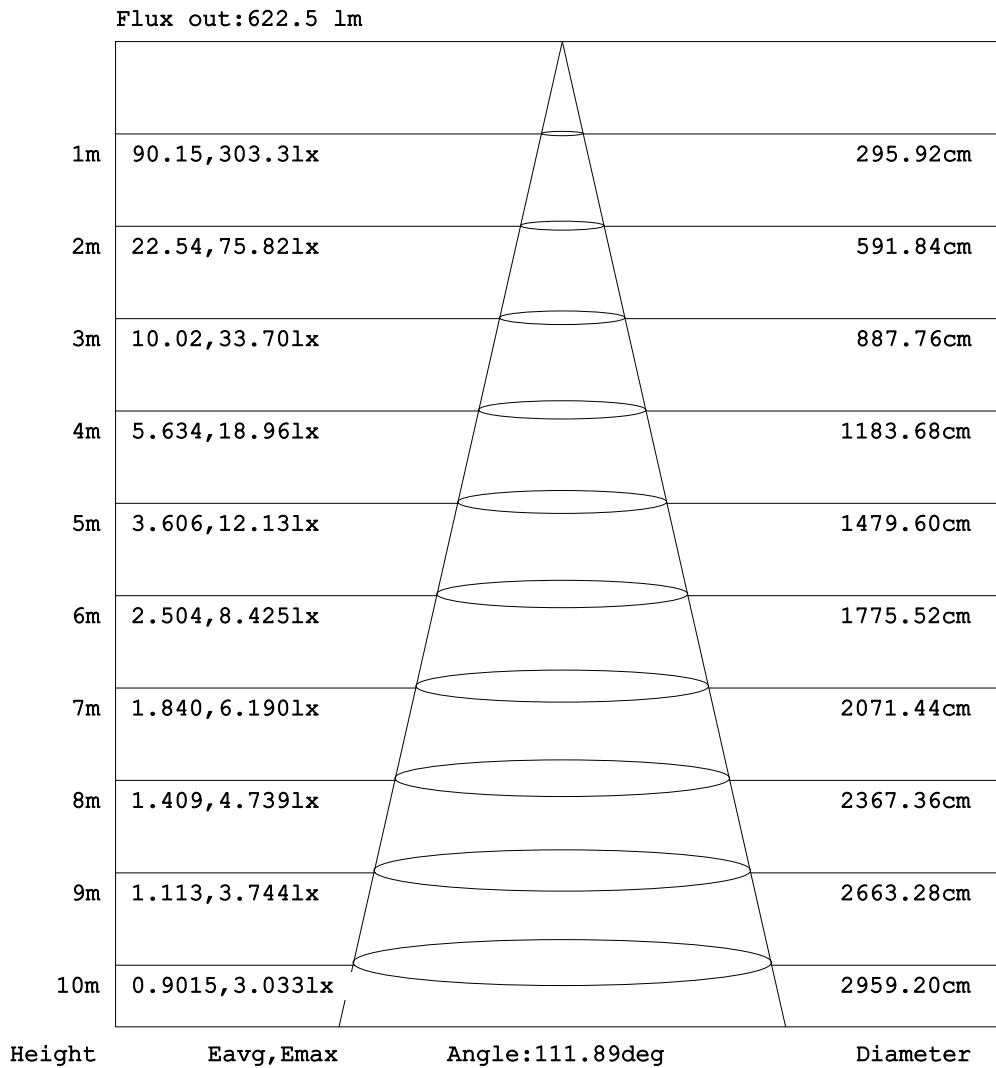
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JZ  
 Test Date: 2023-11-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity: 65.0%  
 Test Distance: 8.700m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:



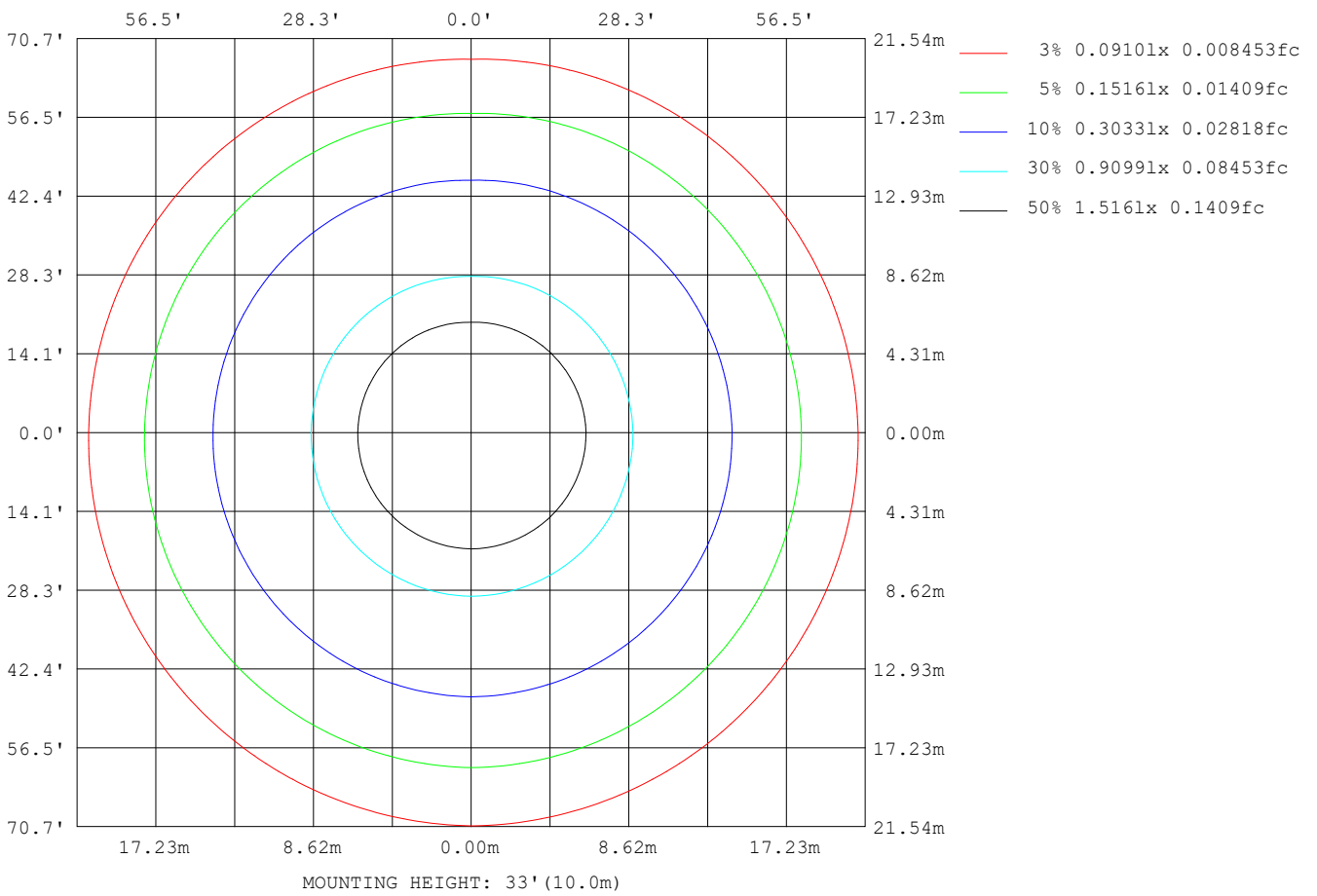
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-11-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

**LED Avg.L Report**

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:

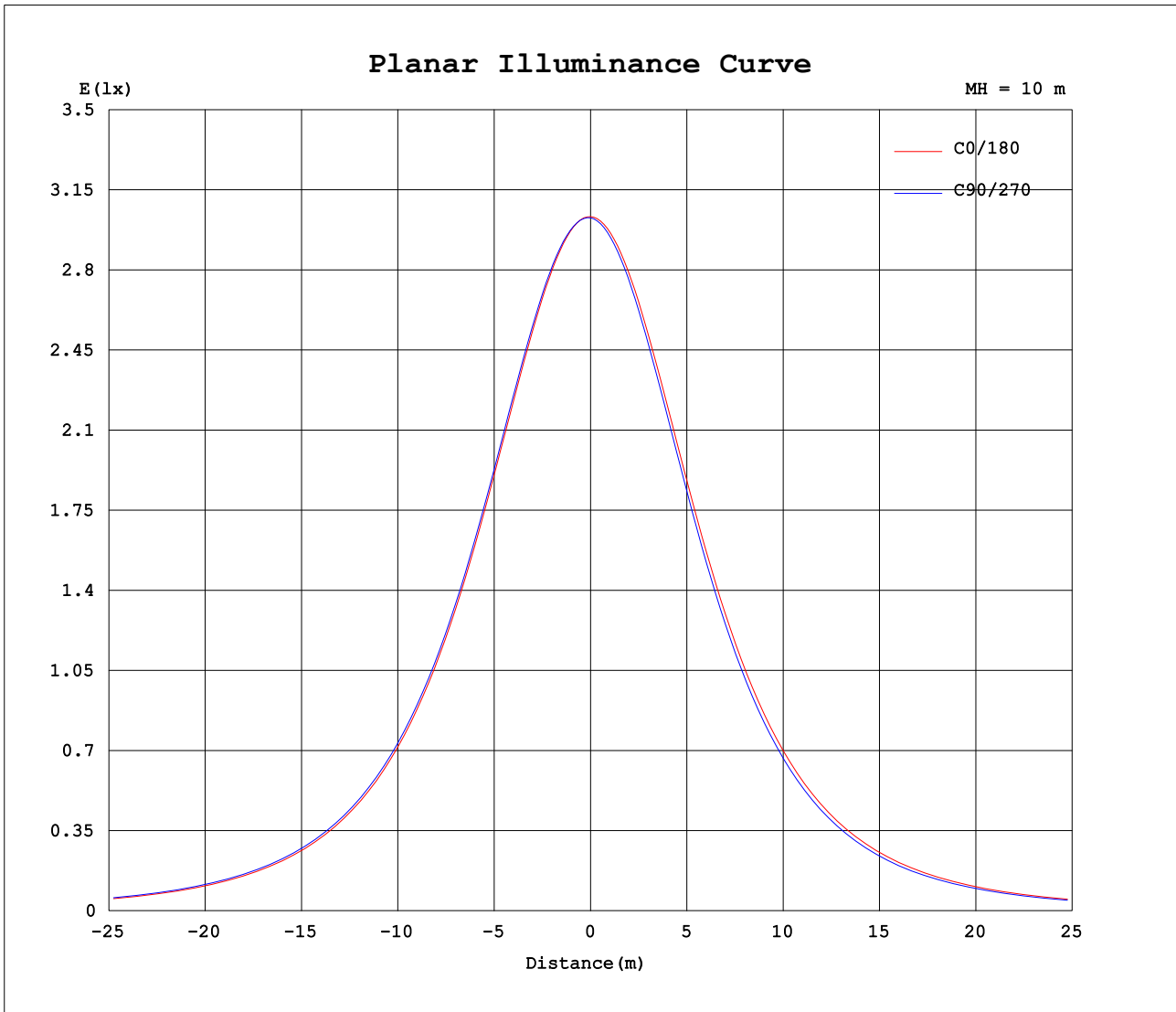
AvgL	cd/m2
L_0~180 (65) av	26704
L_0~180 (75) av	25984
L_0~180 (85) av	24377
L_90~270 (65) av	26439
L_90~270 (75) av	26086
L_90~270 (85) av	26133
L_45 (65) av	26504
L_45 (75) av	25999
L_45 (85) av	25324

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.001V I:0.5605A P:13.453W PF:1.0000 Freq:0Hz		
Lamp Flux:890.399x1 lm		
NAME: PM1100373 NS-156	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*1	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	303	303	303	303															
5	302	303	302	300															
10	298	300	297	294															
15	292	294	290	285															
20	282	285	280	274															
25	270	274	267	261															
30	256	260	252	245															
35	240	244	236	228															
40	222	226	218	209															
45	202	207	198	189															
50	182	187	177	168															
55	160	166	155	146															
60	138	144	133	124															
65	115	122	111	102															
70	92.2	99.7	87.8	79.8															
75	69.2	77.5	65.3	57.6															
80	46.3	54.7	42.2	35.4															
85	23.3	32.2	19.1	13.4															
90	2.25	10.4	1.38	1.87															
95	0.59	1.64	1.26	1.49															
100	0.55	1.48	0.79	1.44															
105	0.57	1.47	0.53	1.44															
110	0.58	1.46	0.62	1.44															
115	0.59	1.45	0.70	1.44															
120	0.64	1.44	0.80	1.44															
125	0.77	1.43	0.87	1.44															
130	0.81	1.42	0.97	1.44															
135	0.95	1.41	1.04	1.44															
140	0.99	1.37	1.15	1.44															
145	1.06	1.37	1.21	1.44															
150	1.15	1.37	1.27	1.43															
155	1.17	1.36	1.32	1.38															
160	1.28	1.36	1.38	1.36															
165	1.33	1.38	1.40	1.36															
170	1.35	1.40	1.40	1.37															
175	1.38	1.41	1.41	1.39															
180	1.40	1.42	1.40	1.40															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JZ  
 Test Date:2023-11-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity:65.0%  
 Test Distance:8.700m [K=1.0000]  
 Remarks: