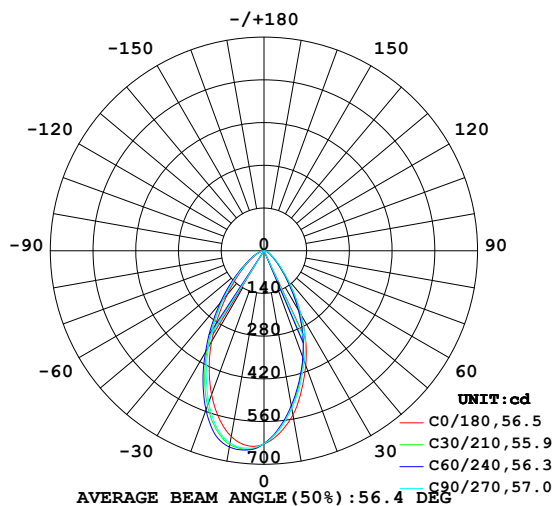


## LUMINAIRE PHOTOMETRIC TEST REPORT

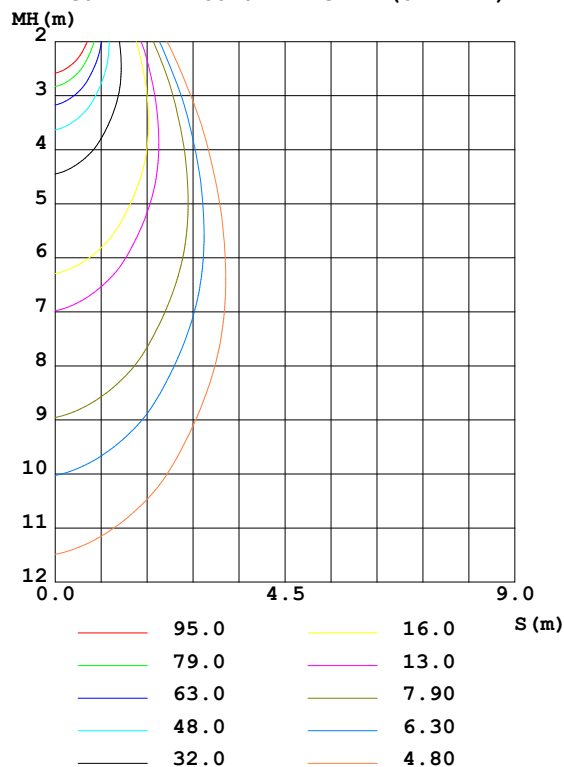
Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm					
NAME: PDOS-7W		TYPE:4000K		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.: MINDHAND		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 97.87 lm/W
MODEL		I <sub>max</sub> (cd)	662.1	S/MH (C0/180)	0.93	
NOMINAL POWER (W)	7	LOR (%)	100.0	S/MH (C90/270)	0.97	
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	681.58	η UP,DN (C0-180)	0.0,43.1	
NOMINAL FLUX (lm)	681.58	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,56.9	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE (V)	230.4	η down (%)	100.0	CIBSE SHR MAX	0.90	

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:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [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	546.7	519.1	523.6	561.5	618.4	657.1	640.1	590.2	0- 10	57.90	57.90	8.49, 8.49
20	400.2	372.1	386.2	431.3	502.2	559.5	529.5	456.3	10- 20	146.1	204.0	29.9, 29.9
30	243.3	225.5	243.5	286.4	344.0	387.4	363.1	291.4	20- 30	172.1	376.2	55.2, 55.2
40	117.1	106.0	115.7	147.2	187.5	229.3	207.8	155.9	30- 40	138.7	514.8	75.5, 75.5
50	50.80	46.07	52.84	66.07	89.28	112.5	99.55	70.92	40- 50	85.12	600.0	88, 88
60	24.91	23.76	25.34	31.14	38.26	54.86	44.74	32.72	50- 60	44.73	644.7	94.6, 94.6
70	11.72	11.96	13.22	15.74	18.14	24.97	18.27	13.82	60- 70	23.51	668.2	98, 98
80	3.116	3.344	4.768	6.519	7.796	12.85	6.143	4.097	70- 80	10.85	679.0	99.6, 99.6
90	0	0	0	0.2126	0.7145	3.635	0.0070	0	80- 90	2.544	681.6	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		

Conical surface Flux(90deg): 563.58 lm

%lum = 82.7%

%lamp = 82.7%

Conical surface Flux(120deg): 644.68 lm

%lum = 94.6%

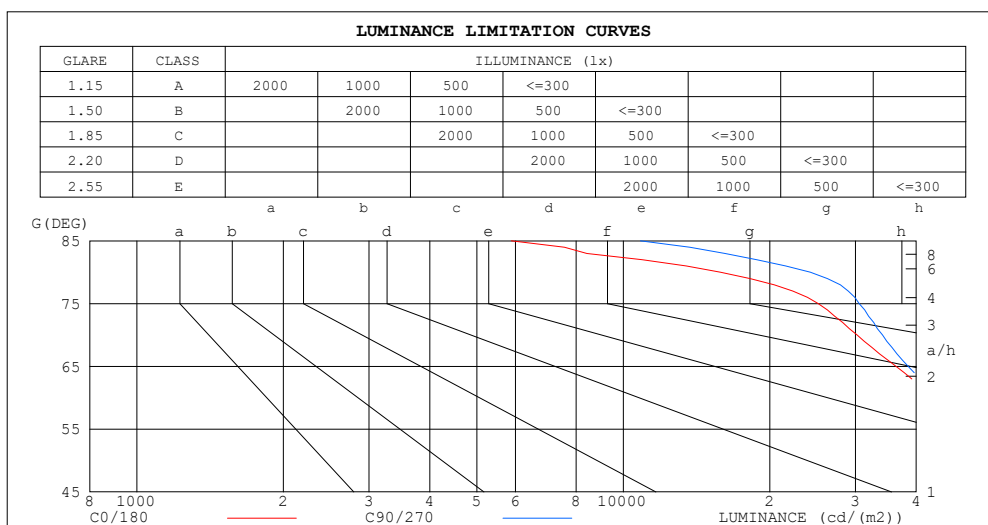
%lamp = 94.6%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Bob  
 Test Date:2021-10-08

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
 Humidity:65.0%  
 Test Distance:7.030m [K=1.0000]  
 Remarks:

### LUMINANCE LIMITATION CURVES

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm		
NAME: PDOS-7W	TYPE:4000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: MINDHAND	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5887	10848
80	15828	24225
75	25149	30543
70	30240	34105
65	36339	38511
60	43957	44712
55	53609	52777
50	69718	72522
45	96331	97795

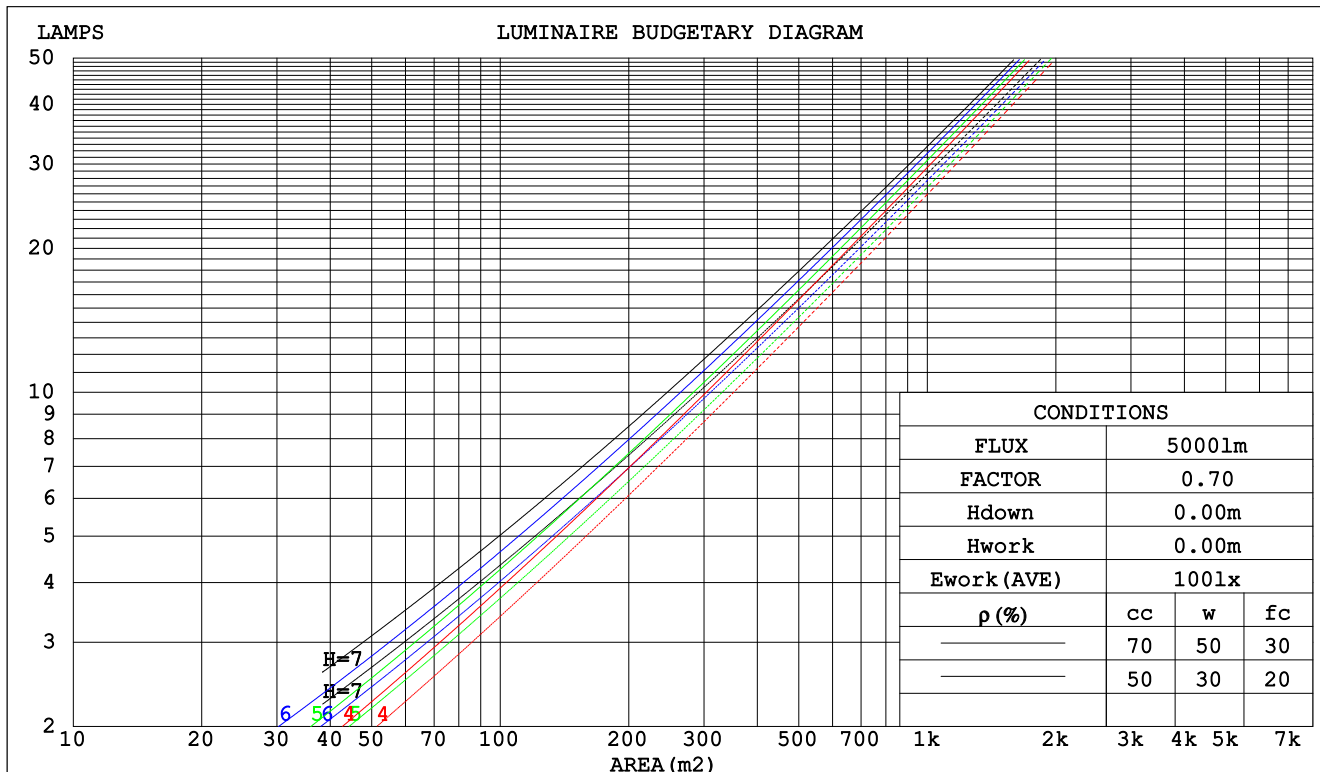
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm		
NAME: PDOS-7W	TYPE:4000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: MINDHAND	SUR.:	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															



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm								
NAME: PDOS-7W			TYPE:4000K			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: MINDHAND			SUR.:			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	.215	.122	.039	.208	.119	.038	.195	.112	.036	.183	.106	.034	.172	.100	.032		
2.0	.206	.113	.035	.200	.110	.034	.189	.105	.033	.179	.101	.031	.170	.096	.030		
3.0	.195	.104	.031	.190	.102	.031	.181	.098	.030	.172	.094	.029	.164	.091	.028		
4.0	.185	.096	.028	.180	.094	.028	.172	.091	.027	.164	.088	.027	.157	.085	.026		
5.0	.174	.089	.026	.170	.088	.025	.163	.085	.025	.156	.083	.025	.150	.080	.024		
6.0	.165	.083	.024	.161	.082	.023	.155	.079	.023	.149	.077	.023	.143	.076	.022		
7.0	.156	.077	.022	.153	.076	.022	.147	.075	.021	.142	.073	.021	.137	.071	.021		
8.0	.148	.072	.020	.145	.072	.020	.140	.070	.020	.136	.069	.020	.131	.067	.020		
9.0	.141	.068	.019	.138	.067	.019	.134	.066	.019	.130	.065	.019	.125	.064	.018		
10.0	.134	.064	.018	.132	.064	.018	.128	.063	.018	.124	.062	.017	.120	.060	.017		

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	.174	.157	.142	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.161	.132	.108	.138	.114	.094	.094	.079	.065	.054	.046	.038	.017	.015	.012	
3.0	.150	.114	.085	.129	.098	.074	.088	.068	.052	.051	.040	.030	.016	.013	.010	
4.0	.141	.100	.068	.121	.086	.059	.083	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.133	.088	.056	.114	.076	.048	.079	.053	.034	.046	.031	.020	.015	.010	.007	
6.0	.126	.079	.046	.108	.069	.040	.075	.048	.028	.043	.028	.017	.014	.009	.006	
7.0	.119	.072	.039	.103	.062	.034	.071	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.113	.066	.033	.098	.057	.029	.068	.040	.021	.039	.024	.012	.013	.008	.004	
9.0	.108	.061	.029	.093	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.009	.012	.007	.003	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm											
NAME: PDOS-7W					TYPE:4000K			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.: MINDHAND					SUR.:			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	25.2	26.3	25.4	26.5	26.7	25.2	26.4	25.5	26.5	26.7	
	3H	25.6	26.6	25.9	26.8	27.1	25.7	26.8	26.0	27.0	27.2
	4H	25.7	26.7	26.0	27.0	27.2	25.9	26.9	26.2	27.2	27.4
	6H	25.8	26.7	26.1	27.0	27.2	26.1	27.0	26.4	27.2	27.5
	8H	25.8	26.6	26.1	26.9	27.2	26.1	27.0	26.4	27.2	27.5
	12H	25.7	26.6	26.0	26.8	27.1	26.0	26.9	26.4	27.2	27.5
4H	2H	25.3	26.3	25.6	26.5	26.7	25.3	26.3	25.6	26.5	26.8
	3H	25.8	26.7	26.2	27.0	27.3	26.0	26.8	26.3	27.1	27.4
	4H	26.1	26.8	26.4	27.2	27.5	26.3	27.1	26.6	27.4	27.7
	6H	26.2	26.9	26.6	27.2	27.5	26.5	27.2	26.9	27.5	27.9
	8H	26.2	26.8	26.6	27.1	27.5	26.5	27.2	26.9	27.5	27.9
	12H	26.1	26.7	26.5	27.1	27.5	26.5	27.1	26.9	27.5	27.9
8H	4H	26.1	26.7	26.5	27.1	27.5	26.3	27.0	26.7	27.3	27.7
	6H	26.2	26.8	26.7	27.2	27.6	26.6	27.1	27.0	27.5	27.9
	8H	26.2	26.7	26.7	27.1	27.6	26.6	27.1	27.1	27.5	27.9
	12H	26.2	26.6	26.7	27.0	27.5	26.6	27.0	27.1	27.4	27.9
12H	4H	26.1	26.7	26.5	27.0	27.4	26.3	26.9	26.7	27.2	27.6
	6H	26.2	26.7	26.7	27.1	27.5	26.6	27.0	27.0	27.4	27.9
	8H	26.2	26.6	26.7	27.1	27.5	26.6	27.0	27.1	27.4	27.9
Variations with the observer position at spacings:											
S = 1.0H	+ 1.1 / - 1.4					+ 1.0 / - 1.2					
1.5H	+ 1.9 / - 1.1					+ 1.7 / - 1.1					
2.0H	+ 2.1 / - 1.2					+ 2.1 / - 1.2					

CIE Pub.117, 681.6 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.3)  
Area: 0.00113354 m2

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm		
NAME: PDOS-7W	TYPE:4000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: MINDHAND	SUR.:	Shielding Angle:

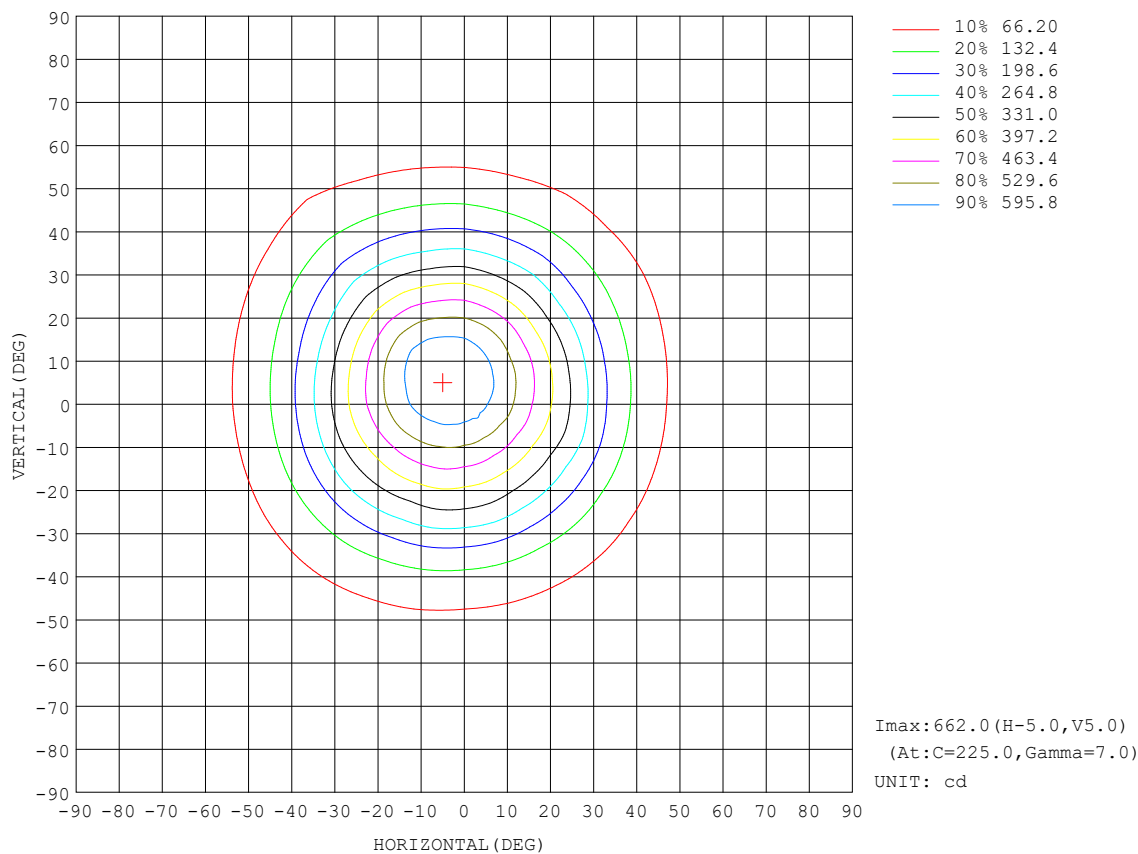
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	76	68	63	76	68	63	75	67	63	58
0.80	85	77	72	84	77	72	83	76	71	67
1.00	91	84	79	90	83	79	89	84	78	73
1.25	97	90	85	95	89	85	93	88	84	79
1.50	100	94	89	99	93	89	96	91	88	82
2.00	104	99	95	103	98	94	100	96	92	86
2.50	107	102	98	105	100	97	102	98	95	88
3.00	109	104	101	107	103	100	103	100	98	90
4.00	111	108	105	109	106	103	105	103	101	93
5.00	113	110	107	111	108	106	107	105	103	95
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:Bob  
Test Date:2021-10-08

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

### ISOCANDELA DIAGRAM

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm		
NAME: PDOS-7W	TYPE:4000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: MINDHAND	SUR.:	Shielding Angle:



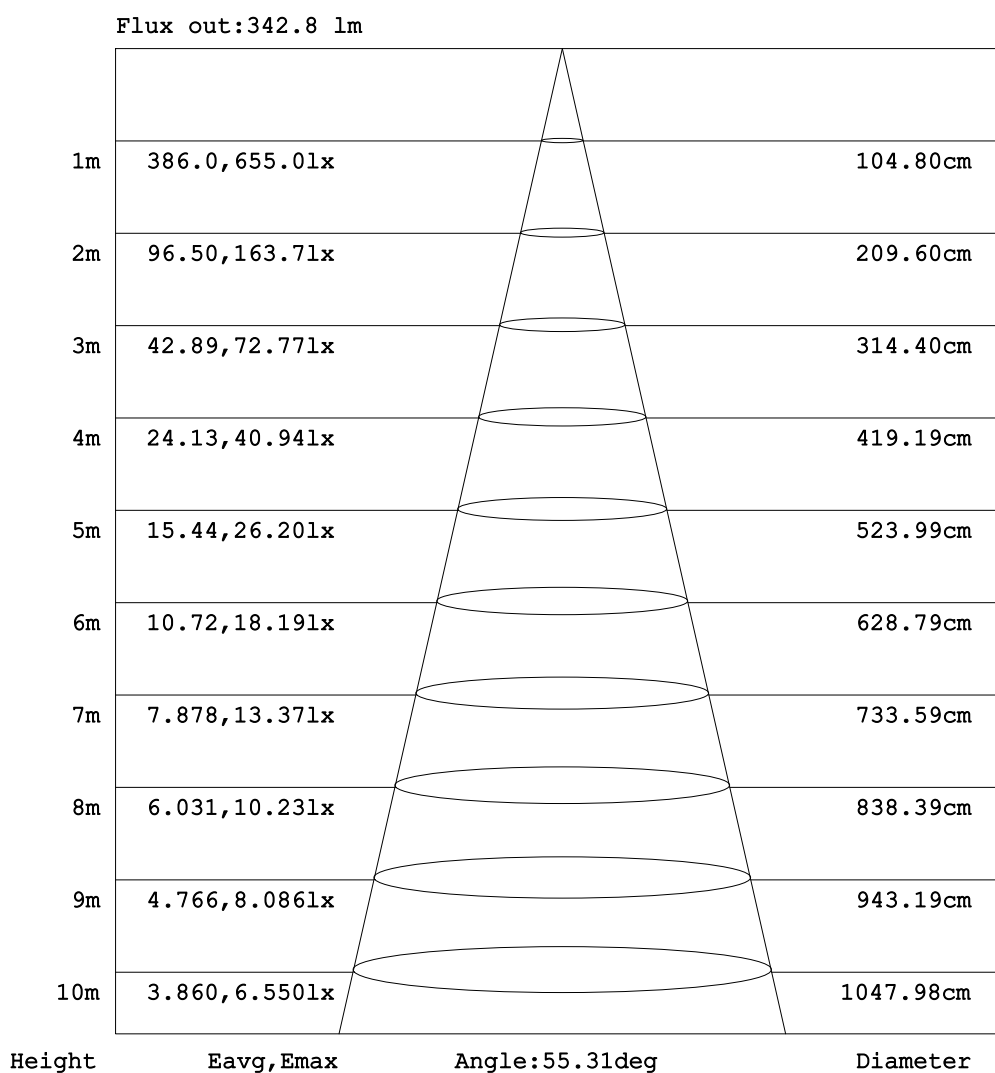
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm		
NAME: PDOS-7W	TYPE:4000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: MINDHAND	SUR.:	Shielding Angle:



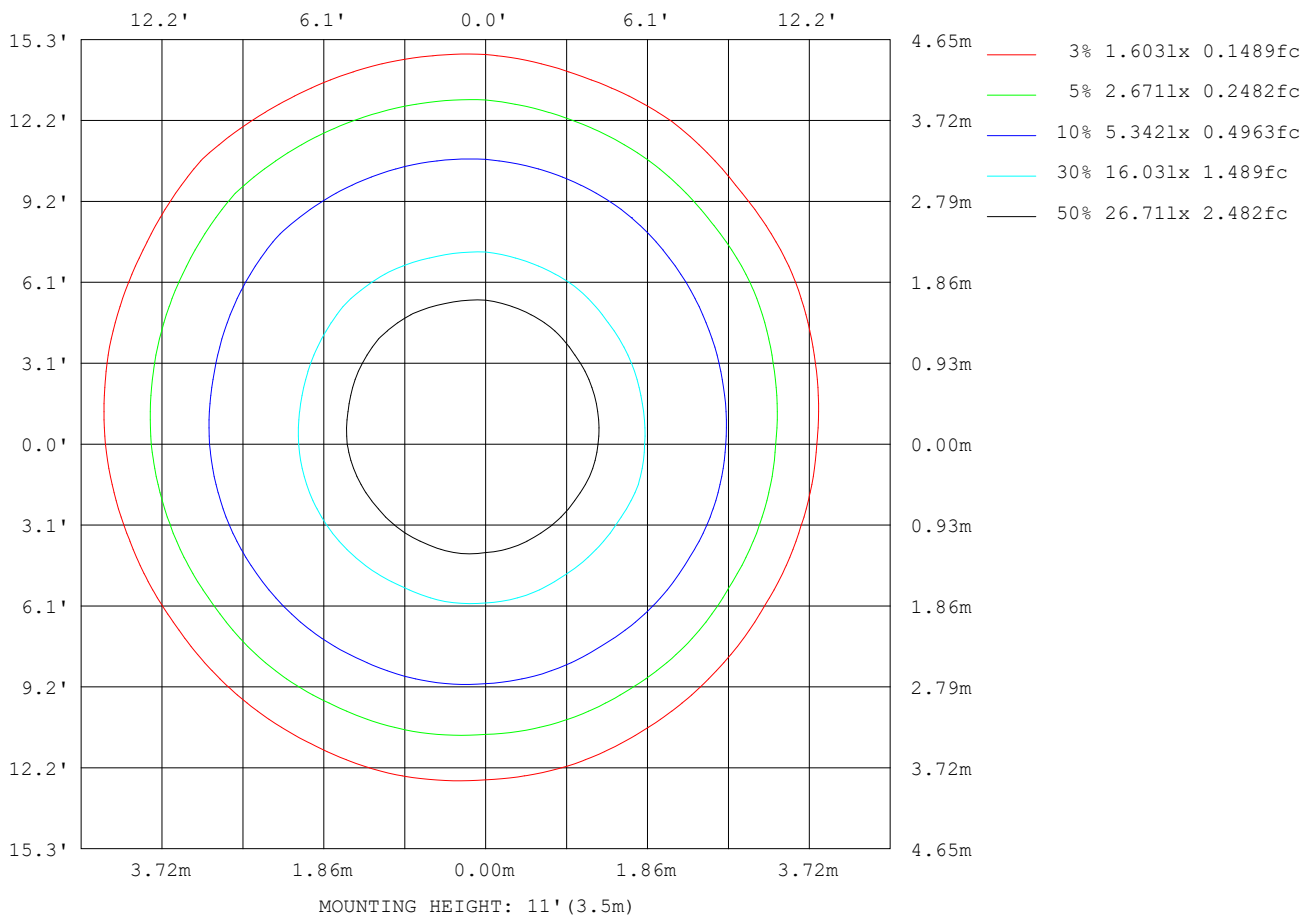
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm		
NAME: PDOS-7W	TYPE:4000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: MINDHAND	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:230.44V I:0.0324A P:6.9641W PF:0.9317 Freq:50.00Hz Lamp Flux:681.58x1 lm		
NAME: PDOS-7W	TYPE:4000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: MINDHAND	SUR.:	Shielding Angle:

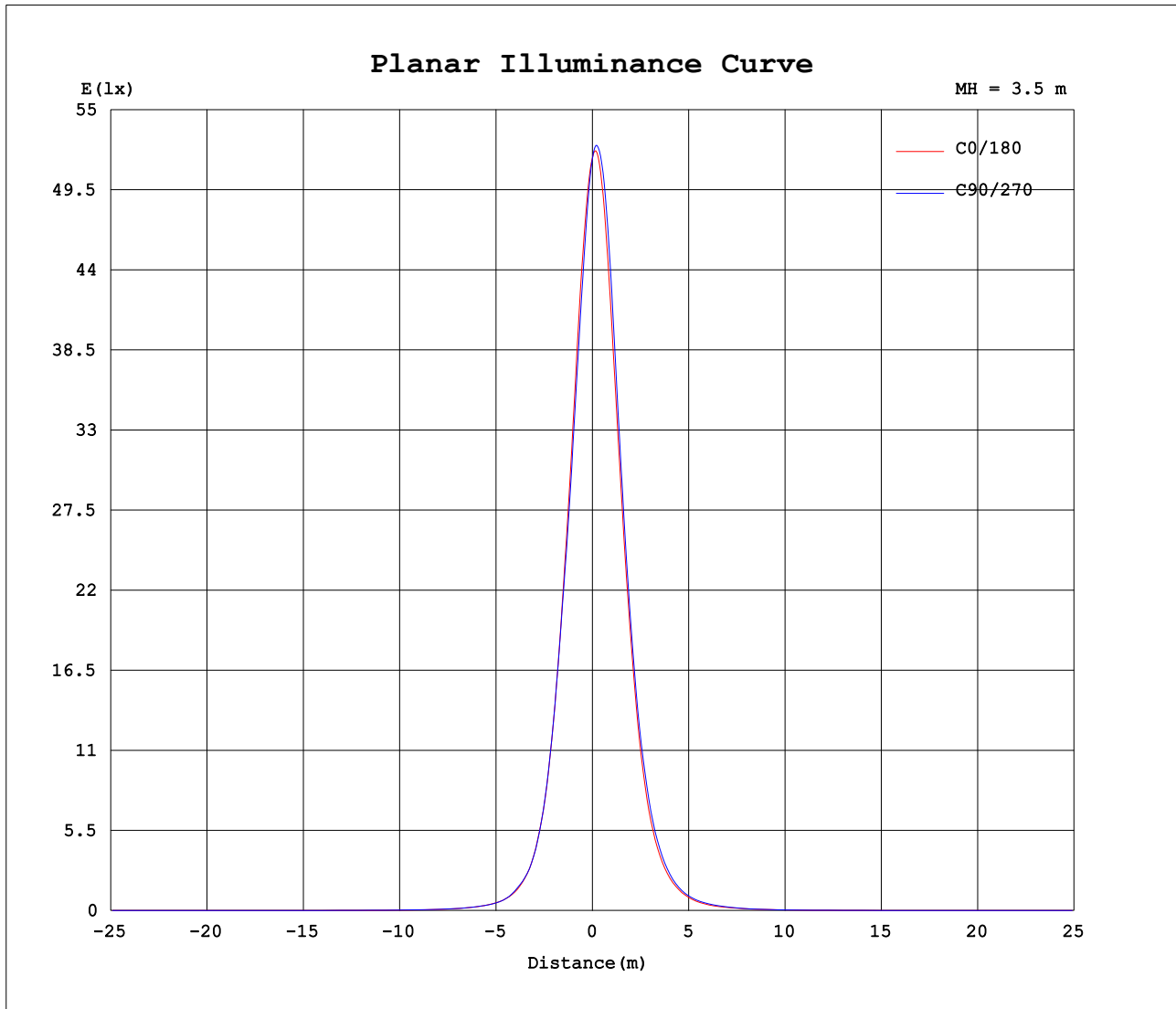
AvgL	cd/m2
L_0~180 (65) av	45526
L_0~180 (75) av	33566
L_0~180 (85) av	20461
L_90~270 (65) av	49982
L_90~270 (75) av	34242
L_90~270 (85) av	14941
L_45 (65) av	51509
L_45 (75) av	37995
L_45 (85) av	31644

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Bob  
Test Date:2021-10-08

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
Humidity:65.0%  
Test Distance:7.030m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Bob  
 Test Date: 2021-10-08

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.270  
 Humidity: 65.0%  
 Test Distance: 7.030m [K=1.0000]  
 Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.270
Humidity:65.0%
Test Distance:7.030m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.270
Humidity:65.0%
Test Distance:7.030m [K=1.0000]
Remarks:

```