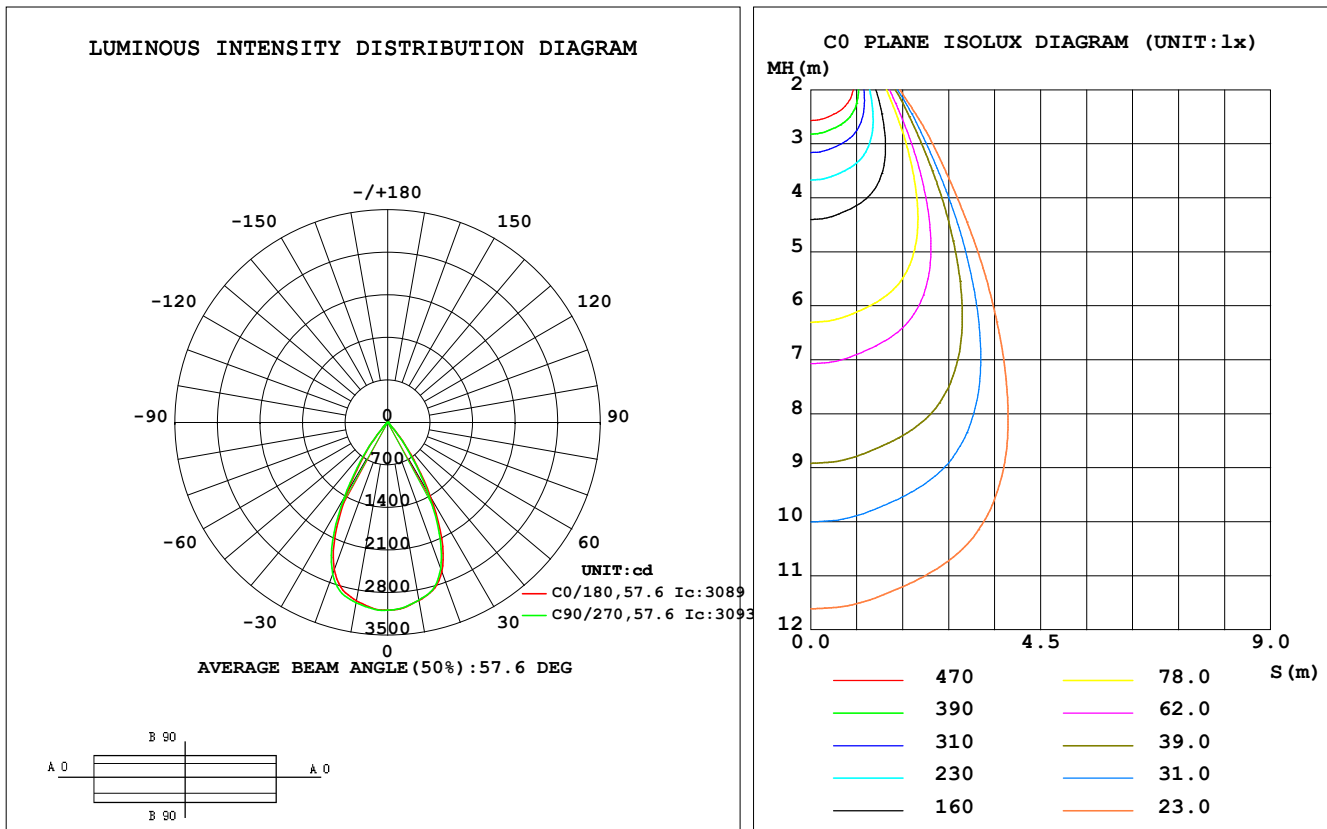


## LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm					
NAME: DP145RW-WF04-32G30			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:140		Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 82.27 lm/W
MODEL	3000K CRI90	I <sub>max</sub> (cd)	3094	S/MH(C0/180)	0.85	
NOMINAL POWER(W)	32	LOR(%)	100.0	S/MH(C90/270)	0.87	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	2616.0	η UP,DN(C0-180)	0.0,48.8	
NOMINAL FLUX(lm)	2616.03	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.2	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	36	η down(%)	100.0	CIBSE SHR MAX	0.90	



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: ZR  
 Test Date: 2021-07-16

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
 Humidity: 65.0%  
 Test Distance: 8.402m [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	2972	2975	2970	2959	2977	2989	3010	3009	0- 10	289.6	289.6	11.1,11.1
20	2610	2607	2557	2520	2573	2619	2649	2667	10- 20	800.1	1090	41.7,41.7
30	1408	1378	1312	1280	1347	1391	1449	1472	20- 30	930.3	2020	77.2,77.2
40	307.4	299.2	268.7	239.5	272.9	293.3	317.7	336.6	30- 40	473.1	2493	95.3,95.3
50	30.84	32.31	31.85	27.75	46.63	46.36	49.19	51.56	40- 50	78.96	2572	98.3,98.3
60	5.043	4.970	4.676	4.469	19.33	19.51	19.95	20.37	50- 60	18.26	2590	99,99
70	3.837	3.869	3.872	3.853	13.87	13.94	14.11	14.26	60- 70	10.29	2601	99.4,99.4
80	3.820	3.810	3.783	3.815	10.15	10.18	10.22	10.39	70- 80	8.366	2609	99.7,99.7
90	4.550	4.610	4.652	4.703	7.589	7.647	7.674	7.742	80- 90	7.063	2616	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): 2549.2 lm

%lum = 97.4%

%lamp = 97.4%

Conical surface Flux(120deg): 2590.3 lm

%lum = 99.0%

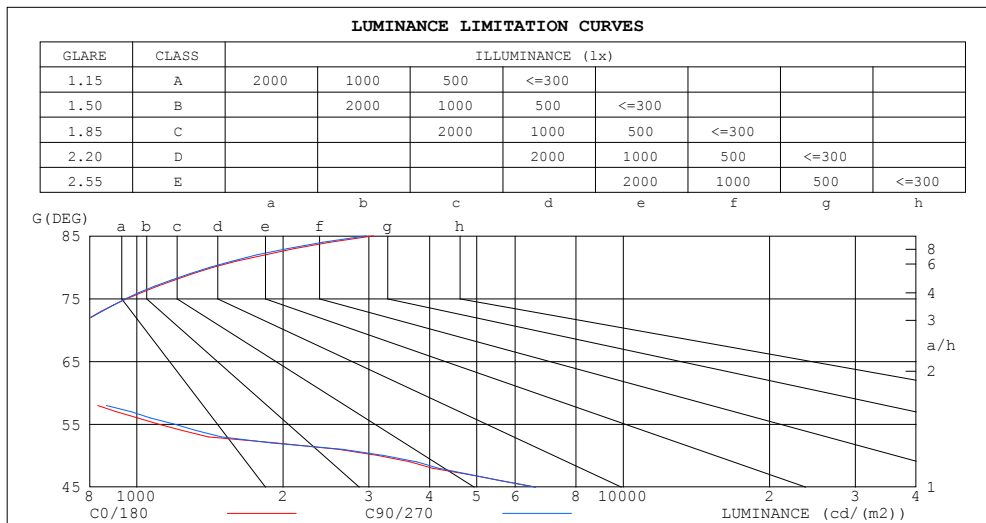
%lamp = 99.0%

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:ZR  
 Test Date:2021-07-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
 Humidity:65.0%  
 Test Distance:8.402m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm		
NAME: DP145RW-WF04-32G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:140	Shielding Angle:



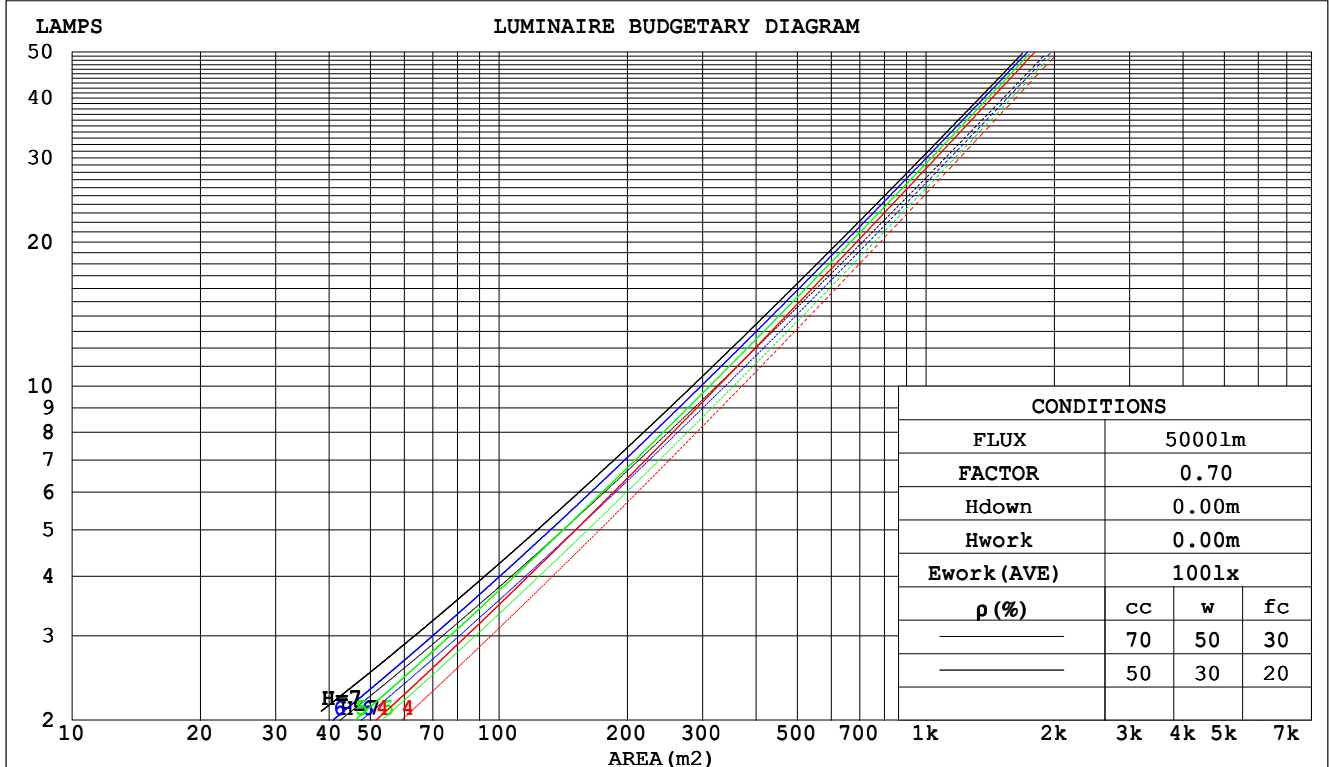
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZR  
Test Date:2021-07-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
Humidity:65.0%  
Test Distance:8.402m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm		
NAME: DP145RW-WF04-32G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:140	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	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.00	.98	.98	.96	.95	.94
2.0	1.03	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.85	.88	.86	.83	.82
4.0	.91	.85	.81	.90	.85	.81	.88	.83	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.85	.80	.76	.84	.79	.75	.83	.78	.75	.81	.77	.74	.79	.76	.73	.72
6.0	.80	.75	.70	.80	.74	.70	.78	.73	.70	.77	.72	.69	.75	.72	.69	.67
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.65	.73	.68	.65	.72	.68	.65	.63
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.60
9.0	.68	.62	.58	.67	.62	.58	.66	.61	.58	.66	.61	.58	.65	.61	.58	.56
10.0	.64	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.62	.57	.54	.53



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:ZR  
 Test Date:2021-07-16

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
 Humidity:65.0%  
 Test Distance:8.402m [K=1.0000]  
 Remarks:

## WEC AND CCEC

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm					
NAME: DP145RW-WF04-32G30			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:140		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	.176	.100	.032	.169	.097	.031	.157	.090	.029	.145	.084	.027	.135	.078	.025	
2.0	.167	.092	.028	.161	.089	.027	.151	.084	.026	.141	.079	.025	.132	.075	.024	
3.0	.158	.084	.025	.154	.082	.025	.145	.078	.024	.136	.075	.023	.128	.071	.022	
4.0	.150	.078	.023	.146	.077	.023	.139	.073	.022	.131	.071	.021	.125	.068	.021	
5.0	.143	.073	.021	.140	.072	.021	.133	.069	.020	.127	.067	.020	.121	.065	.019	
6.0	.137	.069	.020	.134	.067	.019	.128	.065	.019	.122	.063	.019	.117	.062	.018	
7.0	.131	.065	.018	.128	.064	.018	.123	.062	.018	.118	.060	.018	.113	.059	.017	
8.0	.125	.061	.017	.123	.060	.017	.118	.059	.017	.114	.058	.017	.110	.056	.016	
9.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.106	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.110	.054	.015	.106	.053	.015	.103	.052	.015	

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZR  
Test Date:2021-07-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
Humidity:65.0%  
Test Distance:8.402m [K=1.0000]  
Remarks:

UGR(Unified Glare Rating) Table

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm										
NAME: DP145RW-WF04-32G30					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:140			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	13.7	14.6	13.9	14.8	14.9	13.3	14.2	13.5	14.4	14.6
3H	13.5	14.4	13.8	14.6	14.8	13.1	14.0	13.4	14.2	14.4
4H	13.4	14.2	13.7	14.5	14.7	13.1	13.9	13.3	14.1	14.3
6H	13.4	14.1	13.7	14.4	14.6	13.0	13.7	13.3	14.0	14.2
8H	13.3	14.1	13.6	14.3	14.6	13.0	13.7	13.3	13.9	14.2
12H	13.3	14.0	13.6	14.3	14.6	12.9	13.6	13.3	13.9	14.2
4H 2H	13.4	14.2	13.7	14.4	14.7	13.0	13.8	13.3	14.1	14.3
3H	13.3	13.9	13.6	14.2	14.5	12.9	13.6	13.2	13.8	14.1
4H	13.2	13.8	13.5	14.1	14.4	12.8	13.4	13.1	13.7	14.0
6H	13.1	13.7	13.5	14.0	14.3	12.7	13.3	13.1	13.6	14.0
8H	13.1	13.6	13.5	14.0	14.3	12.7	13.2	13.1	13.6	14.0
12H	13.1	13.6	13.5	13.9	14.3	12.7	13.2	13.1	13.6	14.0
8H 4H	13.0	13.6	13.4	13.9	14.3	12.7	13.2	13.1	13.5	13.9
6H	13.0	13.4	13.4	13.8	14.2	12.6	13.0	13.0	13.4	13.8
8H	13.0	13.4	13.4	13.8	14.2	12.6	13.0	13.1	13.4	13.8
12H	13.0	13.4	13.5	13.8	14.3	12.7	13.0	13.1	13.4	13.9
12H 4H	13.0	13.5	13.4	13.8	14.2	12.6	13.1	13.0	13.5	13.8
6H	12.9	13.3	13.4	13.7	14.2	12.6	12.9	13.0	13.4	13.8
8H	13.0	13.3	13.4	13.7	14.2	12.6	12.9	13.1	13.3	13.8
Variations with the observer position at spacings:										
S = 1.0H	+ 3.6 / - 9.5					+ 3.4 / - 9.1				
1.5H	+ 6.2 / - 9.2					+ 6.0 / - 8.8				
2.0H	+ 4.4 / - 1.9					+ 4.5 / - 1.9				

CIE Pub.117, 2616 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 3.3$ )

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZR  
Test Date:2021-07-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
Humidity:65.0%  
Test Distance:8.402m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm		
NAME: DP145RW-WF04-32G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:140	Shielding Angle:

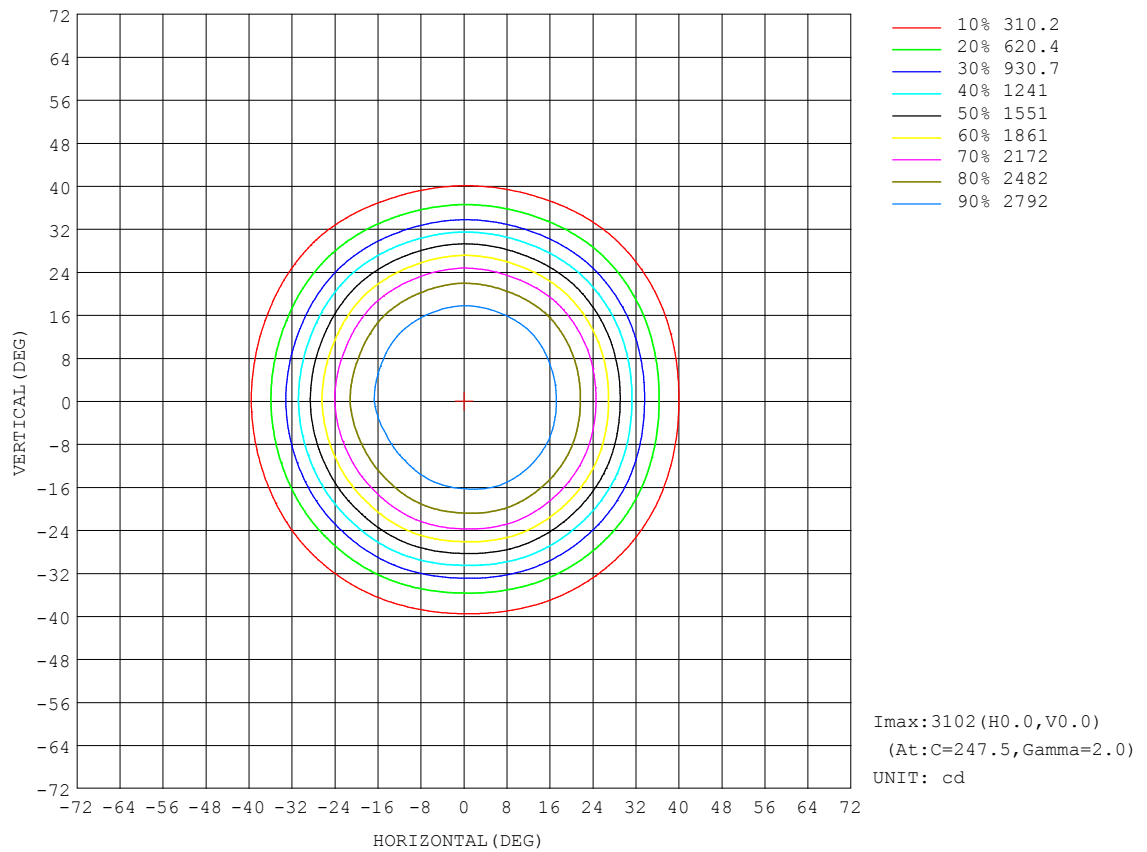
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	82	79	87	82	79	75
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	87
1.25	104	99	96	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	107	104	101	105	102	99	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
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:ZR  
Test Date:2021-07-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
Humidity:65.0%  
Test Distance:8.402m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm		
NAME: DP145RW-WF04-32G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:140	Shielding Angle:



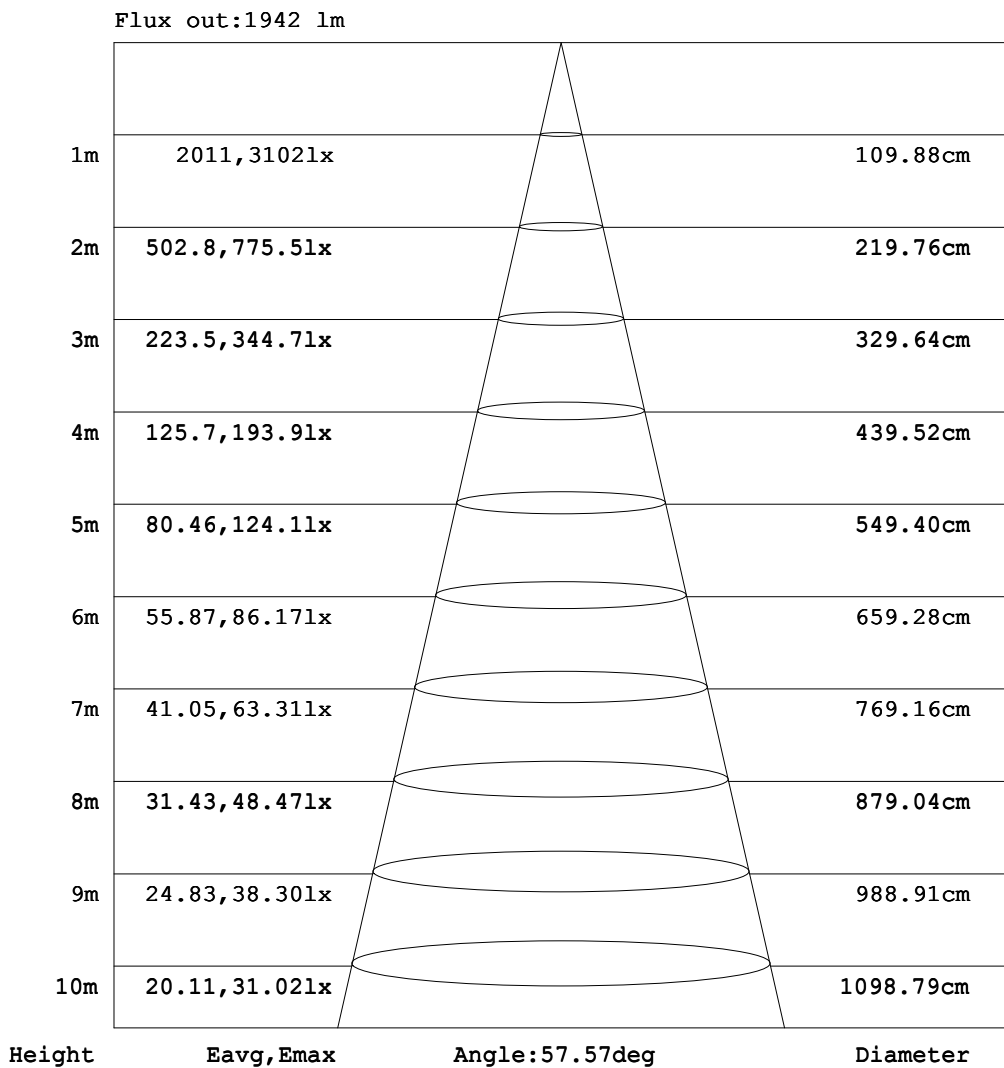
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: ZR  
 Test Date: 2021-07-16

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
 Humidity: 65.0%  
 Test Distance: 8.402m [K=1.0000]  
 Remarks:



### AAI Figure

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm		
NAME: DP145RW-WF04-32G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:140	Shielding Angle:



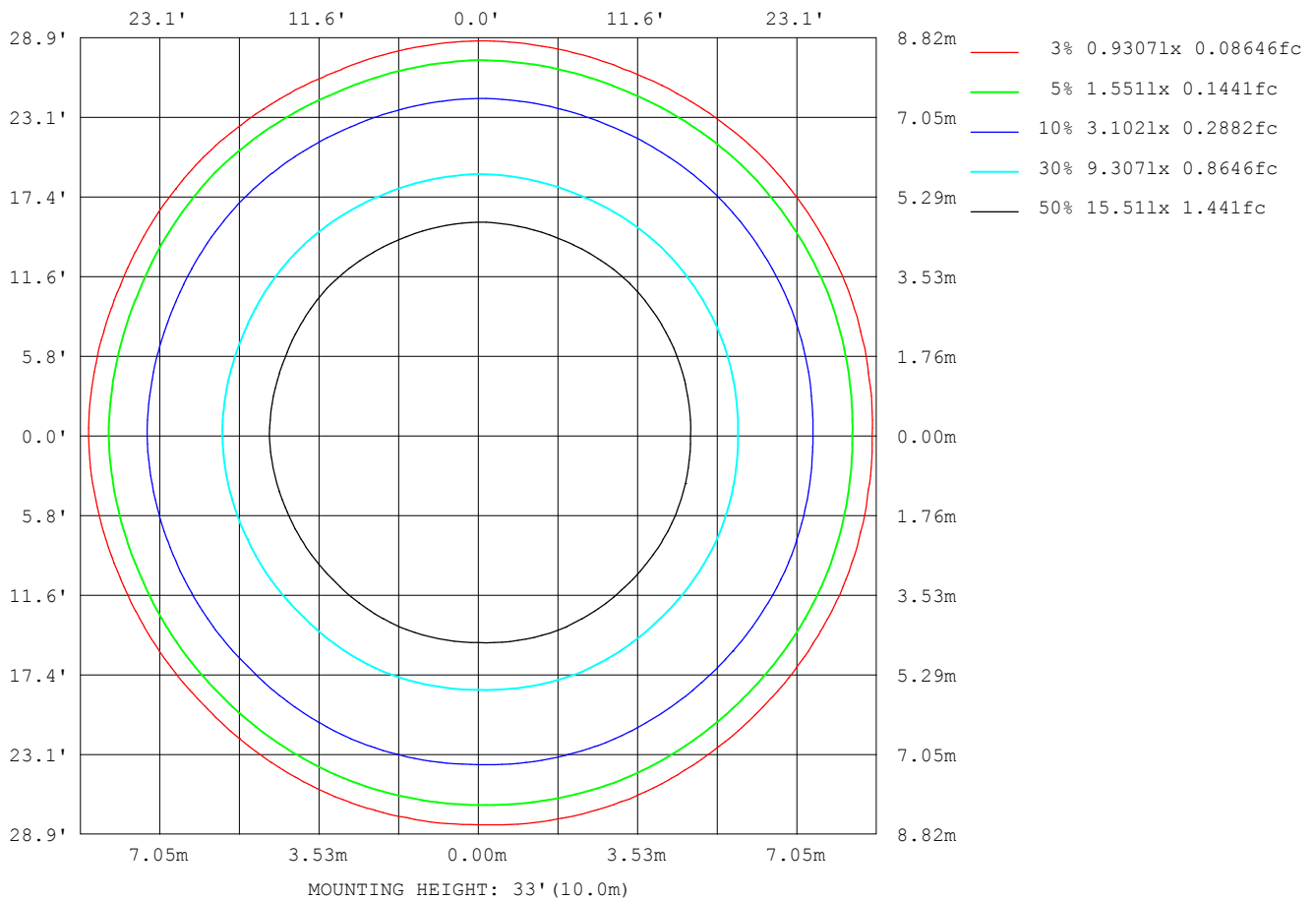
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZR  
Test Date:2021-07-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
Humidity:65.0%  
Test Distance:8.402m [K=1.0000]  
Remarks:

# ISOLUX DIAGRAM

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm		
NAME: DP145RW-WF04-32G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:140	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:ZR  
 Test Date:2021-07-16

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
 Humidity:65.0%  
 Test Distance:8.402m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:224.9V I:0.1470A P:31.80W PF:0.9570 Freq:50.00Hz Lamp Flux:2616.03x1 lm		
NAME: DP145RW-WF04-32G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:140	Shielding Angle:

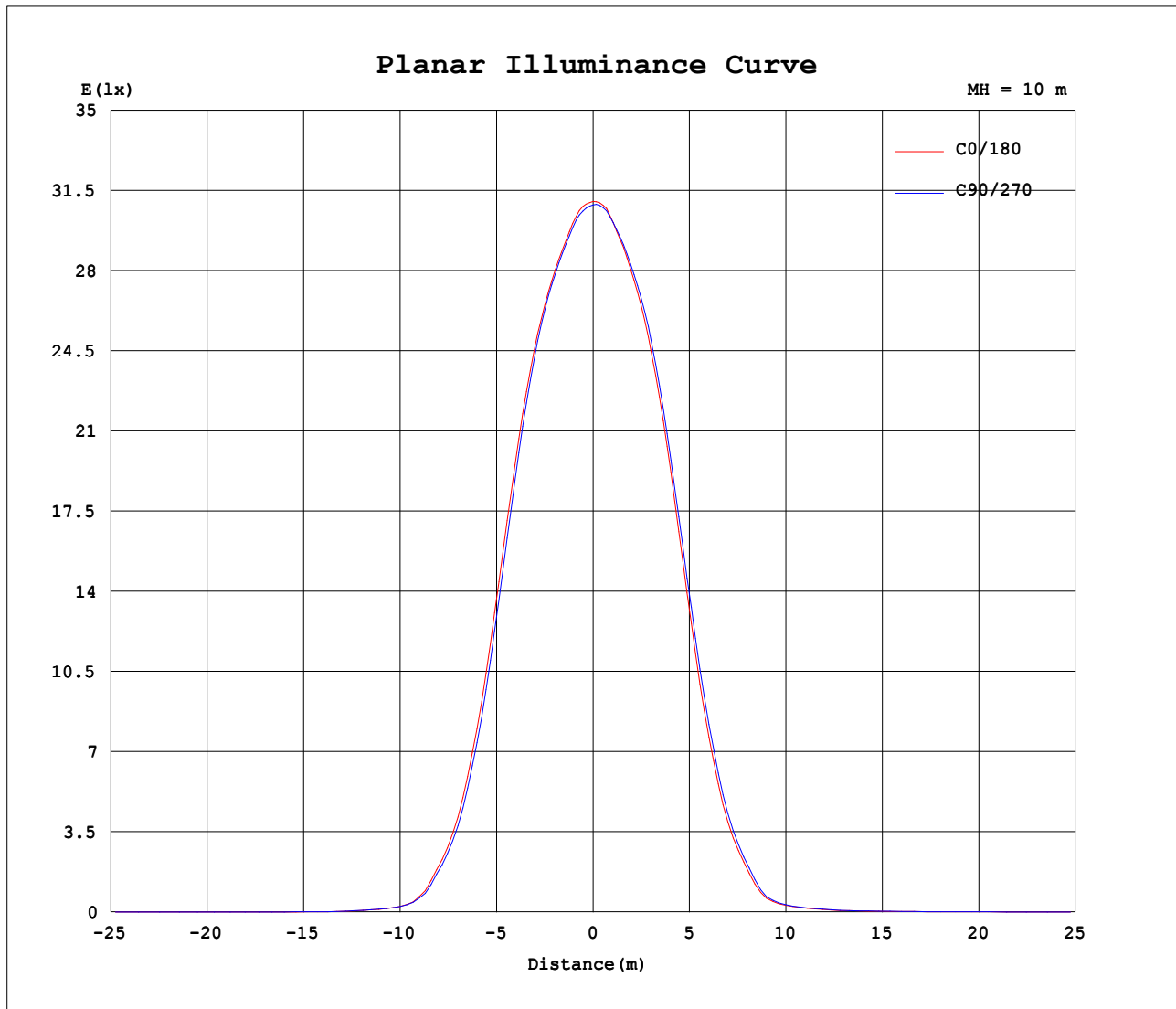
AvgL	cd/m2
L_0~180 (65) av	1572
L_0~180 (75) av	1961
L_0~180 (85) av	4771
L_90~270 (65) av	1599
L_90~270 (75) av	1984
L_90~270 (85) av	4734
L_45 (65) av	1595
L_45 (75) av	1985
L_45 (85) av	4756

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:ZR  
 Test Date:2021-07-16

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
 Humidity:65.0%  
 Test Distance:8.402m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZR  
Test Date: 2021-07-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.354  
Humidity: 65.0%  
Test Distance: 8.402m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

```