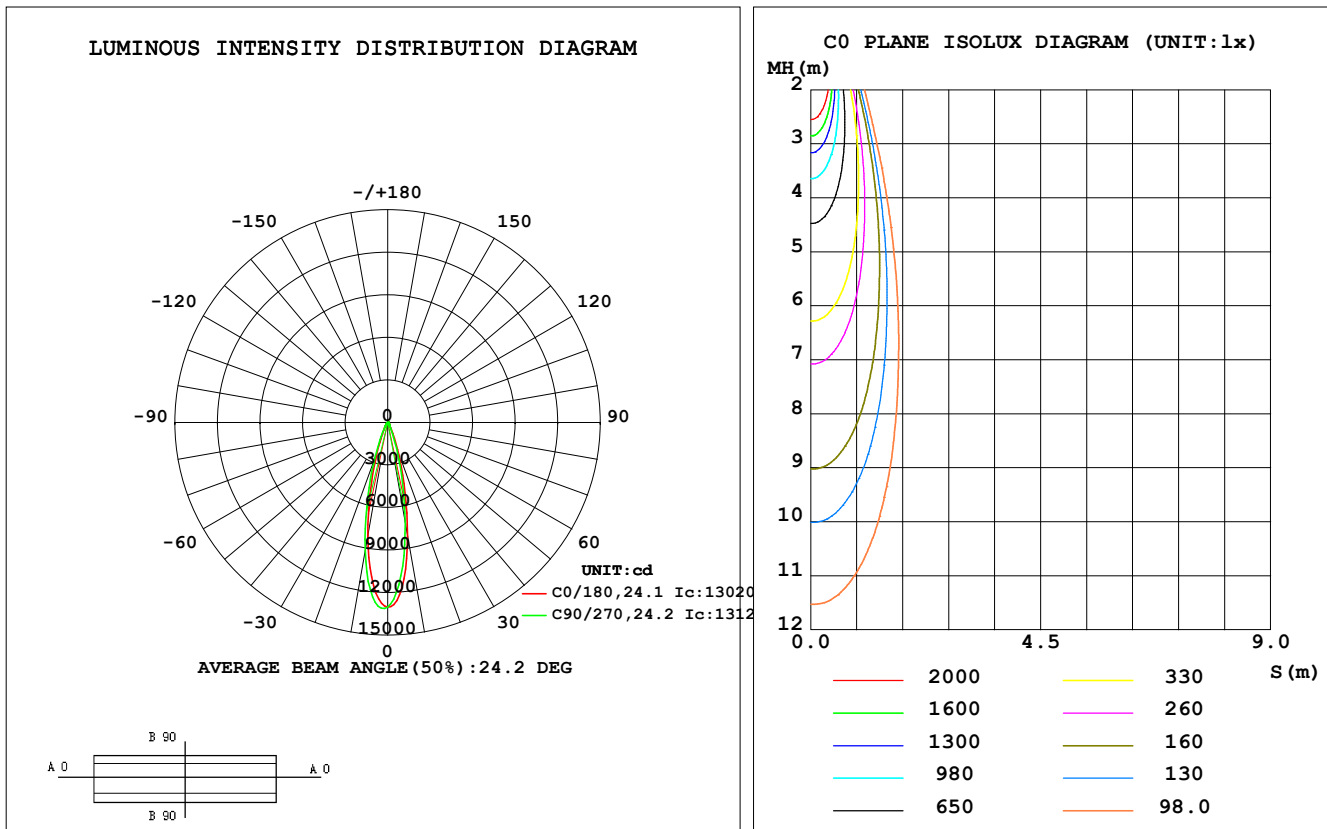


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.9V I:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm					
NAME: DP165RW-M01-40G30		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:155		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 77.06 lm/W
MODEL	3000K CRI90	I <sub>max</sub> (cd)	13122	S/MH (C0/180)	0.41	
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	0.45	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	3059.2	η UP, DN (C0-180)	0.0, 44.8	
NOMINAL FLUX (lm)	3059.21	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 55.2	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE (V)	36	η down (%)	100.0	CIBSE SHR MAX	1.00	



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	813.2	741.0	714.6	740.7	812.6	882.5	918.7	902.7	0- 10	994.4	994.4	32.5, 32.5
20	206.2	175.9	162.6	177.6	211.3	248.0	265.9	260.9	10- 20	1257	2251	73.6, 73.6
30	42.30	39.47	36.26	39.14	46.68	52.05	52.97	53.82	20- 30	457.1	2709	88.5, 88.5
40	17.61	15.71	14.39	15.20	20.67	22.39	23.18	23.23	30- 40	182.0	2891	94.5, 94.5
50	3.904	3.528	3.391	3.278	6.045	6.866	7.742	7.559	40- 50	84.37	2975	97.2, 97.2
60	2.115	2.011	1.956	1.956	3.723	3.921	4.098	4.004	50- 60	34.68	3010	98.4, 98.4
70	1.411	1.335	1.294	1.298	2.411	2.529	2.596	2.573	60- 70	23.86	3033	99.2, 99.2
80	0.9038	0.8292	0.7116	0.7972	1.488	1.516	1.453	1.548	70- 80	16.12	3050	99.7, 99.7
90	0.5589	0.5647	0.5664	0.5648	0.8676	0.8861	0.8947	0.8910	80- 90	9.618	3059	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: $\times 10\text{cd}$									UNIT: lm		

Conical surface Flux(90deg): 2943 lm

%lum = 96.2%

%lamp = 96.2%

Conical surface Flux(120deg): 3009.6 lm

%lum = 98.4%

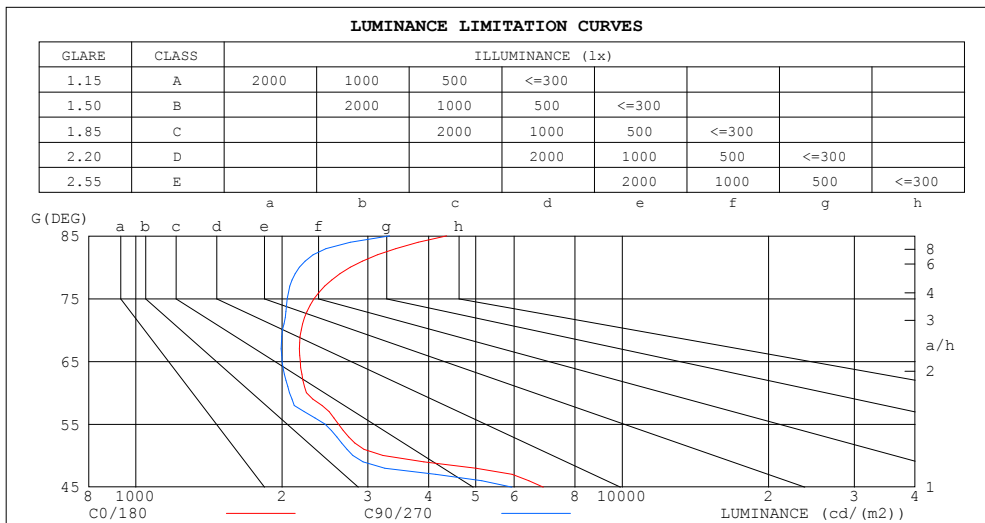
%lamp = 98.4%

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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm		
NAME: DP165RW-M01-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4353	3325
80	2761	2169
75	2326	2049
70	2189	2003
65	2178	1999
60	2244	2071
55	2610	2451
50	3222	2793
45	6886	5936

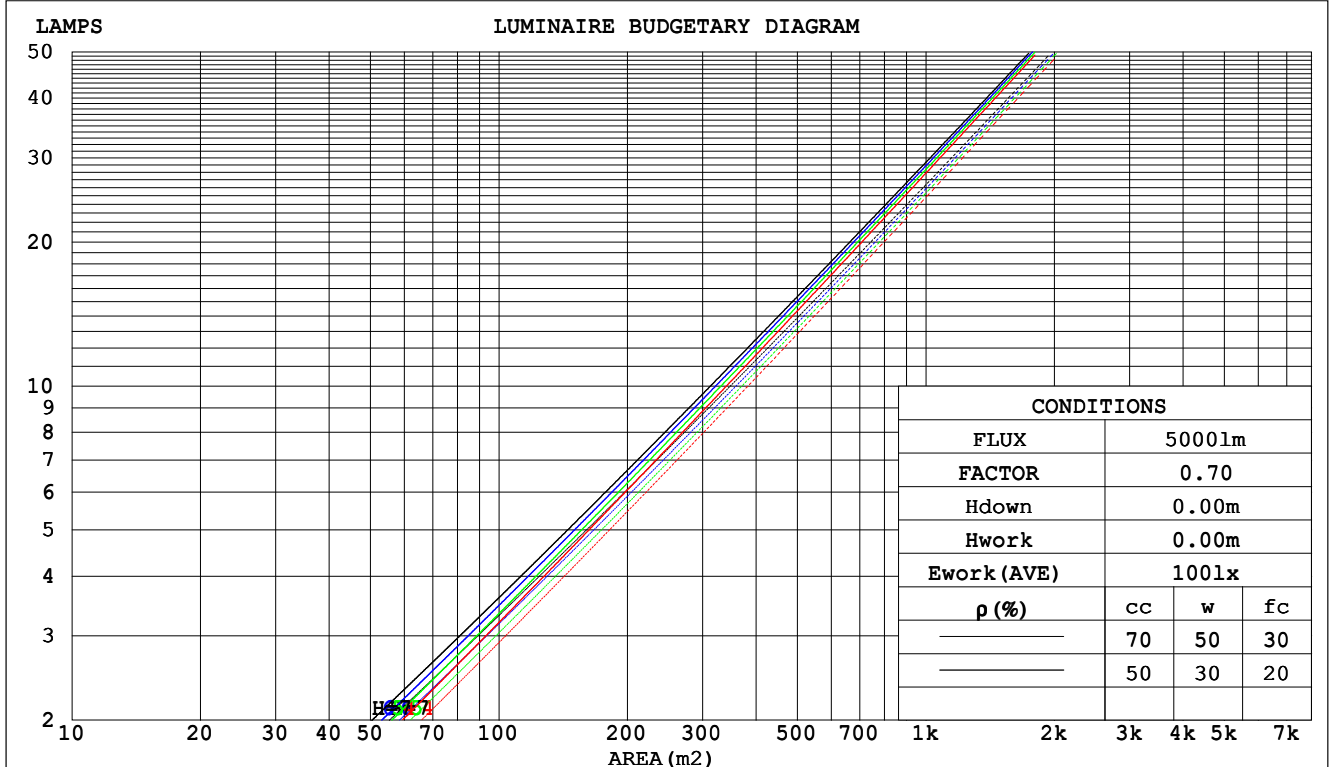
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZR  
Test Date:2021-07-16

$\gamma$  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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm		
NAME: DP165RW-M01-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	1.00	.99	.98	.97	.95
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.01	.99	.97	.98	.97	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.92	.90	.93	.91	.89	.88
4.0	.97	.92	.89	.96	.92	.88	.94	.90	.87	.92	.89	.86	.90	.88	.86	.84
5.0	.93	.88	.85	.92	.88	.84	.90	.87	.84	.89	.85	.83	.87	.85	.82	.81
6.0	.89	.85	.81	.88	.84	.81	.87	.83	.80	.86	.82	.80	.85	.82	.79	.78
7.0	.86	.81	.78	.85	.81	.78	.84	.80	.78	.83	.80	.77	.82	.79	.77	.76
8.0	.83	.79	.75	.83	.78	.75	.82	.78	.75	.81	.77	.75	.80	.77	.74	.73
9.0	.80	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.72	.78	.74	.72	.71
10.0	.78	.74	.71	.78	.73	.71	.77	.73	.70	.76	.73	.70	.76	.72	.70	.69



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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm					
NAME: DP165RW-M01-40G30			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:155		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	.152	.086	.027	.145	.083	.026	.133	.076	.024	.121	.070	.022	.111	.064	.021	
2.0	.140	.077	.024	.135	.074	.023	.125	.069	.022	.115	.065	.020	.106	.060	.019	
3.0	.131	.070	.021	.126	.068	.020	.117	.064	.019	.109	.060	.018	.102	.056	.017	
4.0	.122	.064	.019	.118	.062	.018	.111	.059	.018	.104	.056	.017	.098	.053	.016	
5.0	.115	.059	.017	.112	.057	.017	.105	.055	.016	.099	.052	.016	.094	.050	.015	
6.0	.108	.054	.016	.106	.053	.015	.100	.051	.015	.095	.049	.015	.090	.048	.014	
7.0	.103	.051	.014	.100	.050	.014	.096	.048	.014	.091	.047	.014	.087	.045	.013	
8.0	.098	.048	.013	.096	.047	.013	.091	.046	.013	.087	.044	.013	.084	.043	.013	
9.0	.093	.045	.013	.091	.044	.012	.088	.043	.012	.084	.042	.012	.081	.041	.012	
10.0	.089	.043	.012	.087	.042	.012	.084	.041	.012	.081	.040	.011	.078	.039	.011	

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	.169	.158	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.115	.086	.064	.099	.074	.056	.068	.052	.040	.040	.031	.023	.013	.010	.008	
6.0	.107	.076	.054	.092	.066	.047	.063	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.099	.068	.046	.085	.059	.040	.059	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.093	.061	.040	.080	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.087	.056	.035	.075	.048	.030	.052	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.082	.051	.030	.071	.044	.027	.049	.031	.019	.029	.018	.011	.009	.006	.004	

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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm										
NAME: DP165RW-M01-40G30					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:155			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	6.3	7.0	6.5	7.2	7.3	5.6	6.4	5.9	6.5	6.7
3H	6.7	7.3	6.9	7.5	7.7	6.0	6.7	6.3	6.9	7.1
4H	6.9	7.6	7.2	7.8	8.0	6.3	7.0	6.6	7.2	7.4
6H	7.3	7.9	7.6	8.1	8.3	6.6	7.2	6.9	7.4	7.7
8H	7.5	8.1	7.8	8.3	8.6	6.7	7.3	7.0	7.6	7.8
12H	7.8	8.3	8.1	8.6	8.8	6.9	7.5	7.2	7.7	8.0
4H 2H	6.3	6.9	6.5	7.1	7.3	5.7	6.3	6.0	6.5	6.8
3H	6.8	7.4	7.1	7.7	7.9	6.3	6.8	6.6	7.1	7.4
4H	7.2	7.7	7.6	8.0	8.3	6.7	7.2	7.0	7.5	7.8
6H	7.8	8.2	8.1	8.5	8.9	7.1	7.6	7.5	7.9	8.2
8H	8.1	8.5	8.5	8.9	9.2	7.3	7.8	7.7	8.1	8.5
12H	8.5	8.9	8.9	9.3	9.6	7.6	8.0	8.0	8.4	8.7
8H 4H	7.3	7.8	7.7	8.1	8.5	6.8	7.3	7.2	7.6	8.0
6H	8.1	8.4	8.5	8.8	9.2	7.4	7.8	7.9	8.2	8.6
8H	8.5	8.8	9.0	9.2	9.7	7.8	8.1	8.2	8.5	8.9
12H	9.1	9.4	9.6	9.8	10.3	8.2	8.4	8.6	8.9	9.4
12H 4H	7.3	7.7	7.7	8.1	8.5	6.9	7.2	7.3	7.6	8.0
6H	8.1	8.4	8.6	8.8	9.3	7.5	7.8	8.0	8.3	8.7
8H	8.6	8.9	9.1	9.3	9.8	7.9	8.2	8.4	8.6	9.1
Variations with the observer position at spacings:										
S = 1.0H	+ 1.2 / - 1.4					+ 1.3 / - 1.5				
1.5H	+ 2.4 / - 1.4					+ 2.4 / - 1.5				
2.0H	+ 2.1 / - 0.5					+ 1.9 / - 0.6				

CIE Pub.117, 3059 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 3.9$ )

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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm		
NAME: DP165RW-M01-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

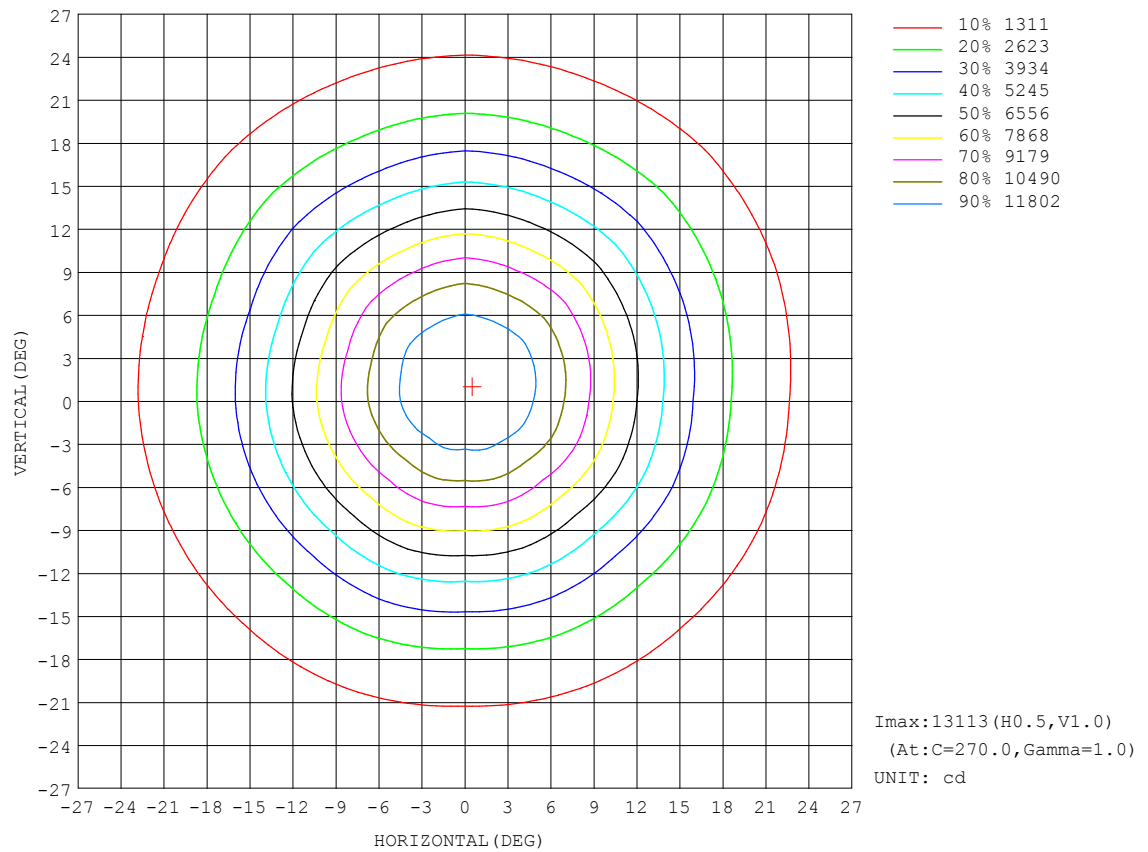
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	88	82	78	87	81	78	75
0.80	95	90	86	95	89	86	94	89	86	82
1.00	100	94	91	99	94	90	97	93	90	86
1.25	103	98	95	102	98	95	100	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	104	101	107	103	101	104	101	99	94
2.50	110	106	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm		
NAME: DP165RW-M01-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

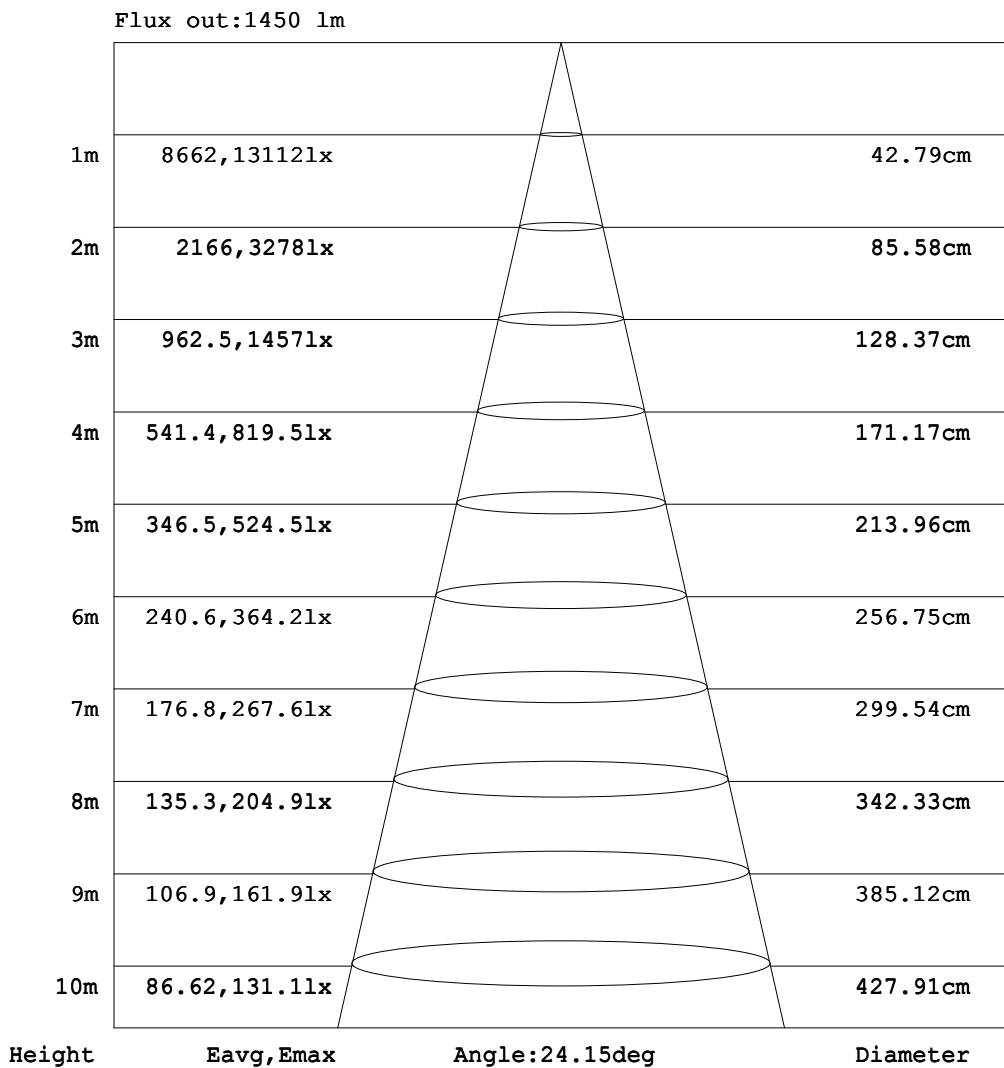


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZR  
Test Date:2021-07-16

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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm		
NAME: DP165RW-M01-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



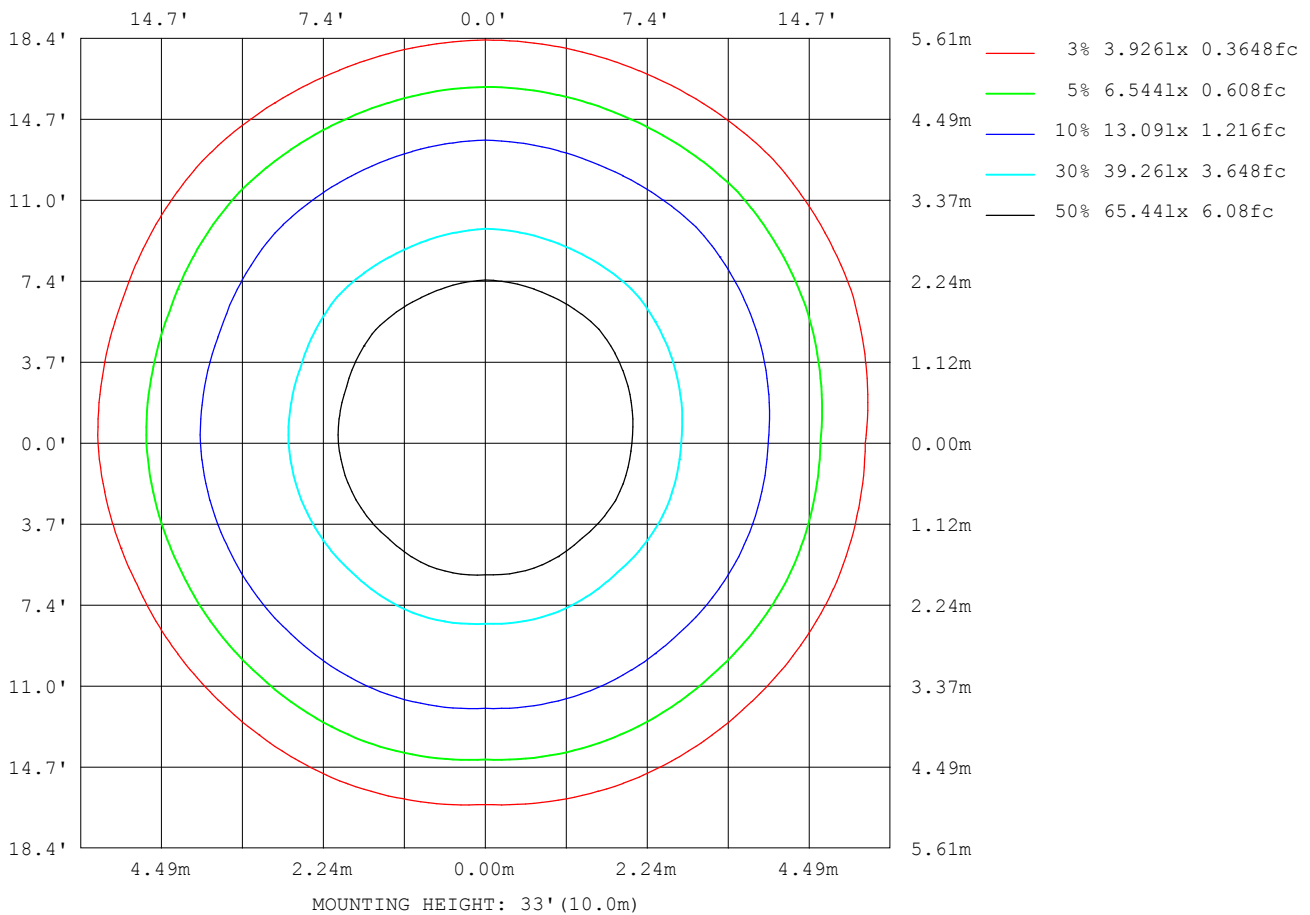
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm		
NAME: DP165RW-M01-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	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:0.1800A P:39.70W PF:0.9770 Freq:50.00Hz Lamp Flux:3059.21x1 lm		
NAME: DP165RW-M01-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

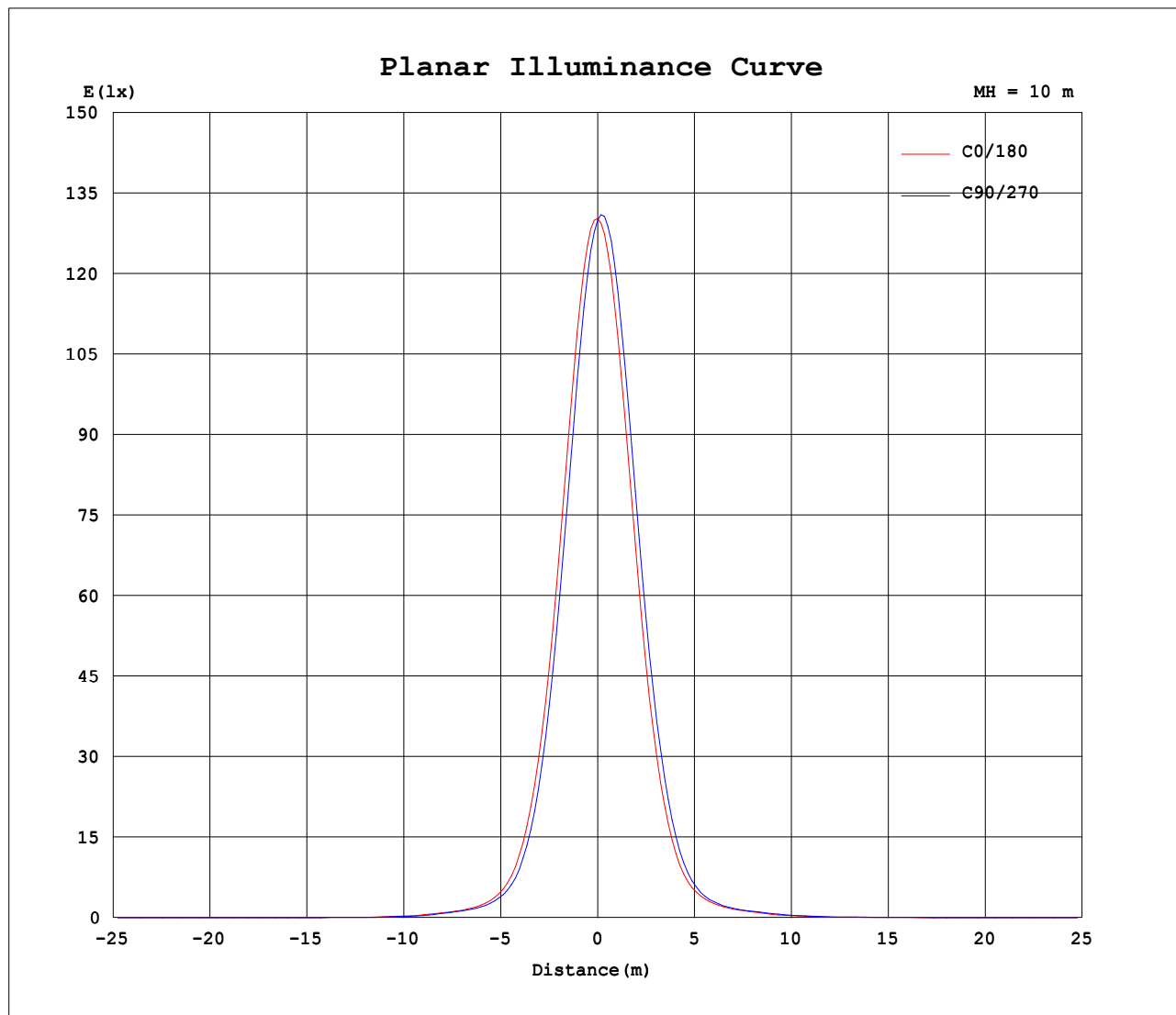
AvgL	cd/m2
L_0~180 (65) av	2981
L_0~180 (75) av	3117
L_0~180 (85) av	5647
L_90~270 (65) av	3037
L_90~270 (75) av	3060
L_90~270 (85) av	4812
L_45 (65) av	3014
L_45 (75) av	3157
L_45 (85) av	5015

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:

```