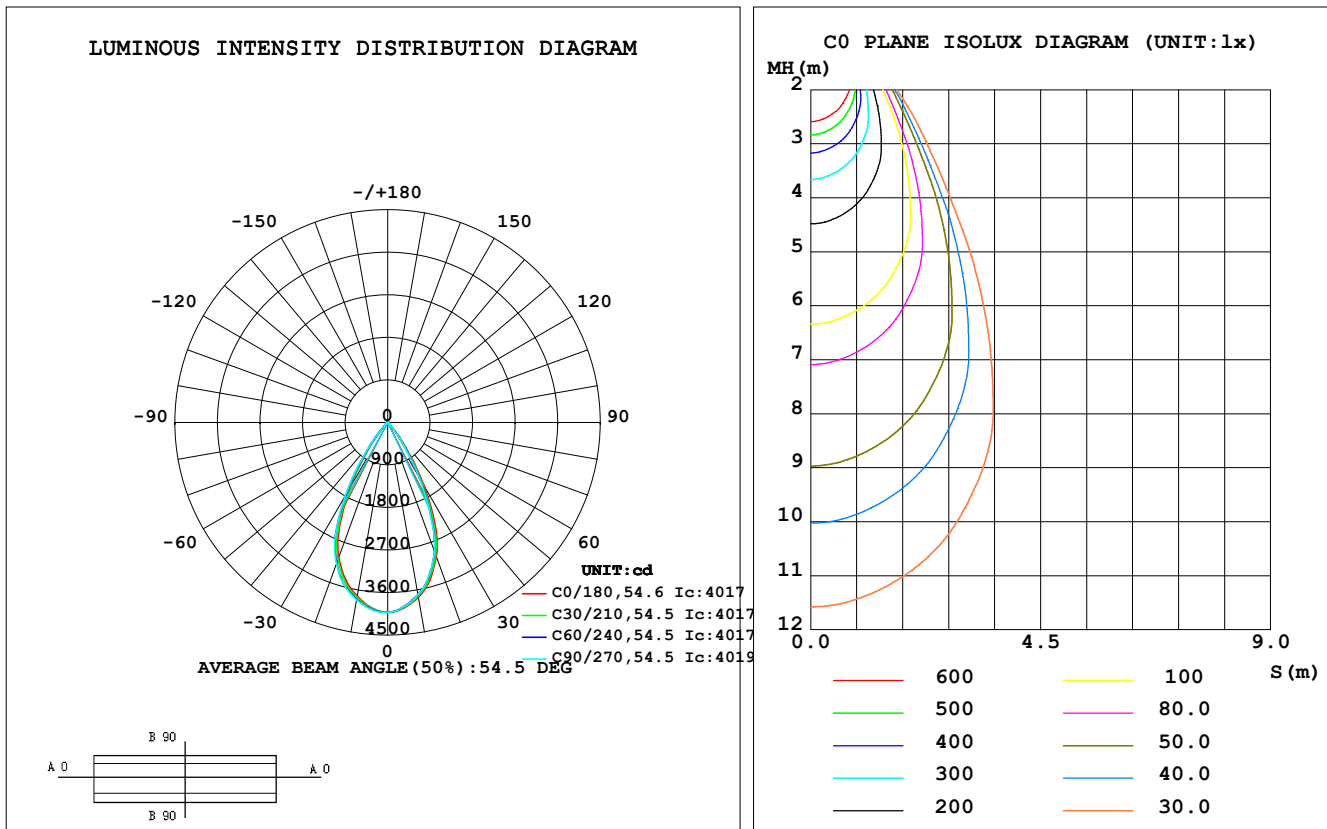


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm					
NAME: DP165RW-WF02-40G30		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:155		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 76.93 lm/W
MODEL	3000K CRI90	I <sub>max</sub> (cd)	4020	S/MH (C0/180)	0.83	
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	0.86	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	3046.4	η UP, DN (C0-180)	0.0, 46.3	
NOMINAL FLUX (lm)	3046.41	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 53.7	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE (V)	36	η down (%)	100.0	CIBSE SHR MAX	0.85	



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 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	3753	3712	3701	3694	3730	3776	3809	3814	0- 10	370.0	370.0	12.1,12.1
20	3011	2938	2899	2914	3034	3121	3170	3134	10- 20	962.3	1332	43.7,43.7
30	1538	1389	1324	1374	1593	1727	1802	1754	20- 30	1067	2399	78.8,78.8
40	277.5	186.0	149.6	173.6	295.7	369.8	422.1	428.5	30- 40	512.2	2911	95.6,95.6
50	37.50	29.70	24.71	26.95	59.53	65.63	66.16	66.32	40- 50	79.97	2991	98.2,98.2
60	6.065	5.695	5.428	5.424	23.45	24.73	26.20	26.08	50- 60	24.15	3015	99,99
70	4.703	4.597	4.516	4.474	16.33	16.83	17.14	17.05	60- 70	12.53	3028	99.4,99.4
80	4.613	4.637	4.576	4.577	11.96	12.24	12.36	12.36	70- 80	10.00	3038	99.7,99.7
90	5.519	5.671	5.782	5.711	8.979	9.164	9.319	9.247	80- 90	8.504	3046	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): 2965.9 lm

%lum = 97.4%

%lamp = 97.4%

Conical surface Flux(120deg): 3015.4 lm

%lum = 99.0%

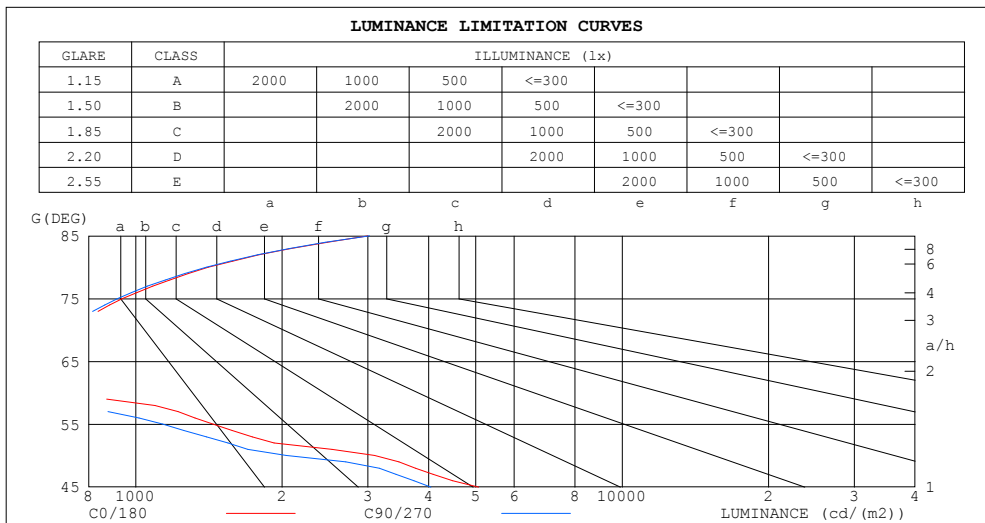
%lamp = 99.0%

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm		
NAME: DP165RW-WF02-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3001	3021
80	1410	1397
75	939	918
70	730	700
65	644	596
60	644	575
55	1441	1137
50	3096	2038
45	5065	4041

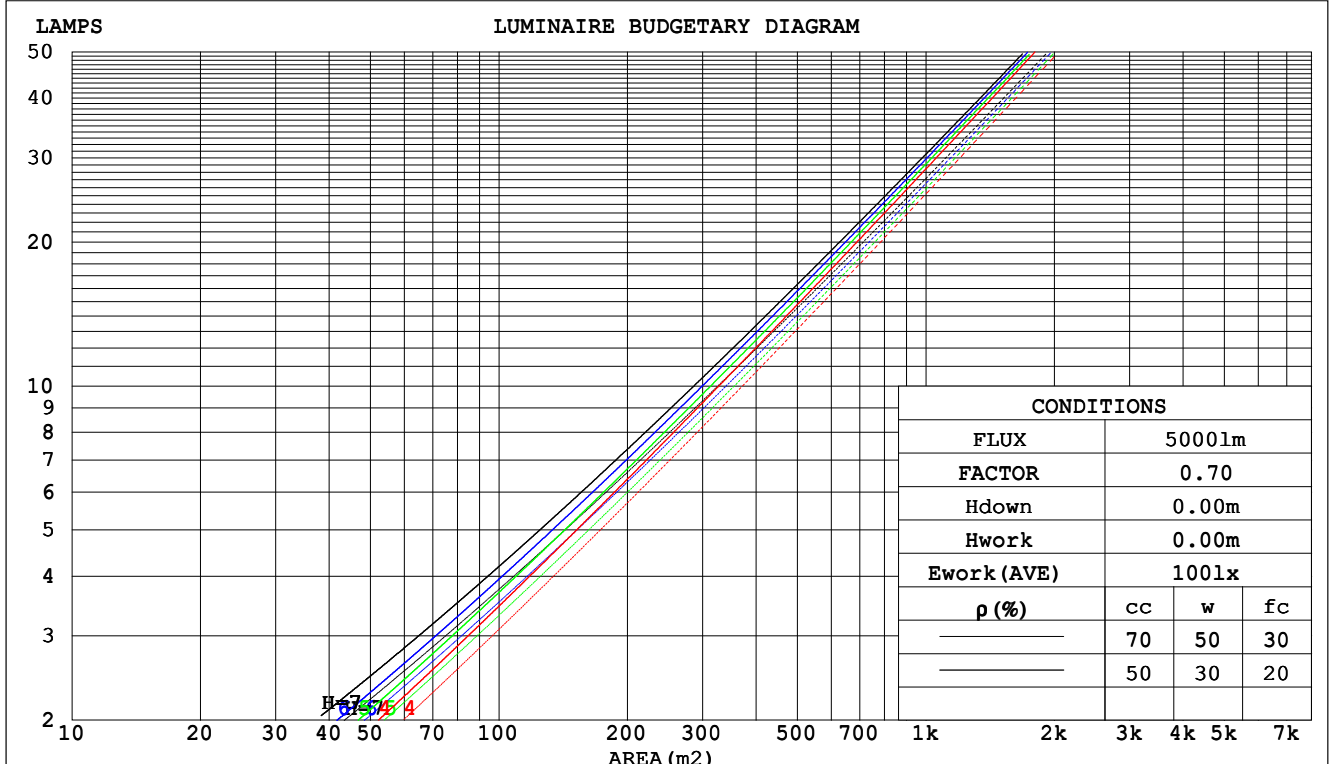
C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZR  
Test Date:2021-07-16

$\gamma$  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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm		
NAME: DP165RW-WF02-40G30	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	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.97	.96	.94
2.0	1.04	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.89	.96	.91	.88	.93	.89	.86	.91	.88	.85	.89	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.80	.84	.81	.79	.77
5.0	.86	.80	.76	.85	.80	.76	.83	.79	.75	.82	.78	.75	.80	.77	.74	.72
6.0	.81	.75	.71	.80	.75	.71	.79	.74	.71	.77	.73	.70	.76	.72	.70	.68
7.0	.77	.71	.67	.76	.70	.67	.75	.70	.66	.73	.69	.66	.72	.69	.66	.64
8.0	.72	.67	.63	.72	.67	.63	.71	.66	.63	.70	.65	.62	.69	.65	.62	.61
9.0	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.66	.62	.59	.57
10.0	.65	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.63	.59	.56	.54



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm								
NAME: DP165RW-WF02-40G30				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	.174	.099	.031	.168	.096	.030	.155	.089	.028	.144	.083	.027	.133	.077	.025	
2.0	.165	.090	.028	.159	.088	.027	.149	.083	.026	.139	.078	.024	.130	.074	.023	
3.0	.156	.083	.025	.151	.081	.024	.142	.077	.023	.134	.074	.023	.126	.070	.022	
4.0	.148	.077	.023	.144	.075	.022	.137	.072	.022	.129	.069	.021	.123	.067	.020	
5.0	.141	.072	.021	.138	.071	.021	.131	.068	.020	.125	.066	.020	.119	.063	.019	
6.0	.135	.068	.019	.132	.066	.019	.126	.064	.019	.120	.062	.018	.115	.061	.018	
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.059	.017	.111	.058	.017	
8.0	.123	.060	.017	.121	.059	.017	.116	.058	.017	.112	.057	.016	.108	.055	.016	
9.0	.118	.057	.016	.116	.057	.016	.112	.055	.016	.108	.054	.015	.104	.053	.015	
10.0	.114	.054	.015	.112	.054	.015	.108	.053	.015	.104	.052	.015	.101	.051	.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	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.122	.098	.078	.084	.068	.055	.048	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.123	.087	.060	.106	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.051	.099	.067	.044	.068	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.089	.055	.032	.061	.039	.023	.036	.023	.014	.012	.008	.004	
9.0	.098	.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: 30.0DEG  
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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.4lx1 lm											
NAME: DP165RW-WF02-40G30					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		11.6	12.5	11.8	12.7	12.9	10.5	11.4	10.7	11.6	11.7
	3H	11.5	12.3	11.7	12.5	12.7	10.3	11.2	10.6	11.4	11.6
	4H	11.4	12.2	11.7	12.4	12.6	10.3	11.1	10.5	11.3	11.5
	6H	11.3	12.1	11.6	12.3	12.6	10.2	11.0	10.5	11.2	11.4
	8H	11.3	12.0	11.6	12.3	12.5	10.2	10.9	10.5	11.2	11.4
	12H	11.3	12.0	11.6	12.3	12.5	10.2	10.9	10.5	11.2	11.4
4H	2H	11.4	12.2	11.7	12.4	12.6	10.2	11.0	10.5	11.2	11.5
	3H	11.2	11.9	11.5	12.2	12.4	10.1	10.8	10.4	11.0	11.3
	4H	11.1	11.8	11.5	12.1	12.4	10.0	10.6	10.4	10.9	11.2
	6H	11.1	11.6	11.5	12.0	12.3	10.0	10.5	10.4	10.9	11.2
	8H	11.1	11.6	11.5	12.0	12.3	10.0	10.5	10.4	10.9	11.2
	12H	11.1	11.6	11.5	12.0	12.4	10.1	10.5	10.5	10.9	11.3
8H	4H	11.0	11.5	11.4	11.9	12.2	9.9	10.4	10.3	10.8	11.1
	6H	11.0	11.4	11.4	11.8	12.2	9.9	10.3	10.3	10.7	11.1
	8H	11.0	11.4	11.5	11.8	12.2	10.0	10.3	10.4	10.7	11.2
	12H	11.1	11.4	11.6	11.9	12.3	10.1	10.4	10.6	10.9	11.3
12H	4H	11.0	11.4	11.4	11.8	12.2	9.9	10.3	10.3	10.7	11.1
	6H	11.0	11.3	11.4	11.7	12.2	9.9	10.2	10.3	10.7	11.1
	8H	11.0	11.3	11.5	11.8	12.2	10.0	10.3	10.4	10.7	11.2
Variations with the observer position at spacings:											
S = 1.0H	+ 4.0 / - 7.7					+ 4.2 / - 6.1					
1.5H	+ 6.6 / - 7.2					+ 6.7 / - 5.7					
2.0H	+ 3.5 / - 1.5					+ 2.7 / - 1.1					

CIE Pub.117, 3046 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 3.9$ )

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm		
NAME: DP165RW-WF02-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

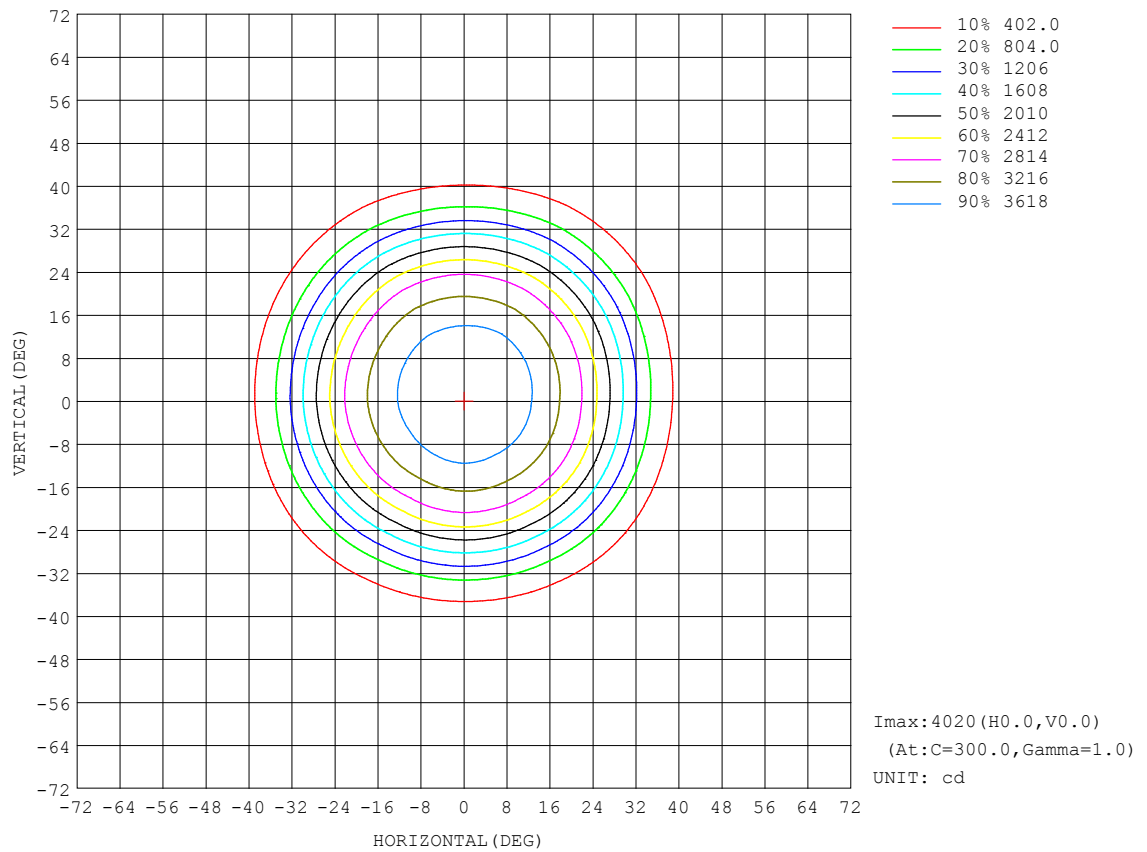
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	83	79	88	82	79	75
0.80	96	90	87	95	90	87	94	90	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	108	104	101	105	102	100	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: 30.0DEG  
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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm		
NAME: DP165RW-WF02-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



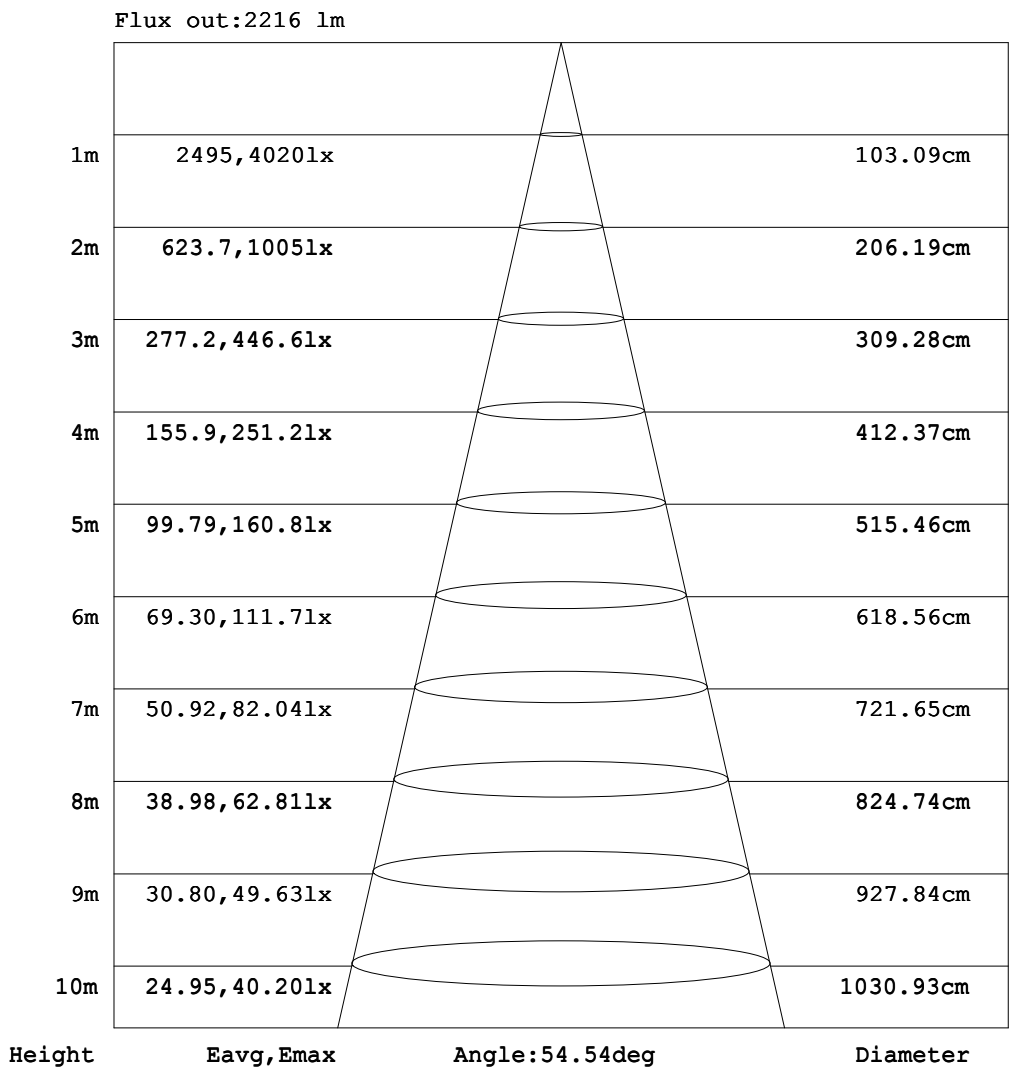
C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZR  
Test Date: 2021-07-16

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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm		
NAME: DP165RW-WF02-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



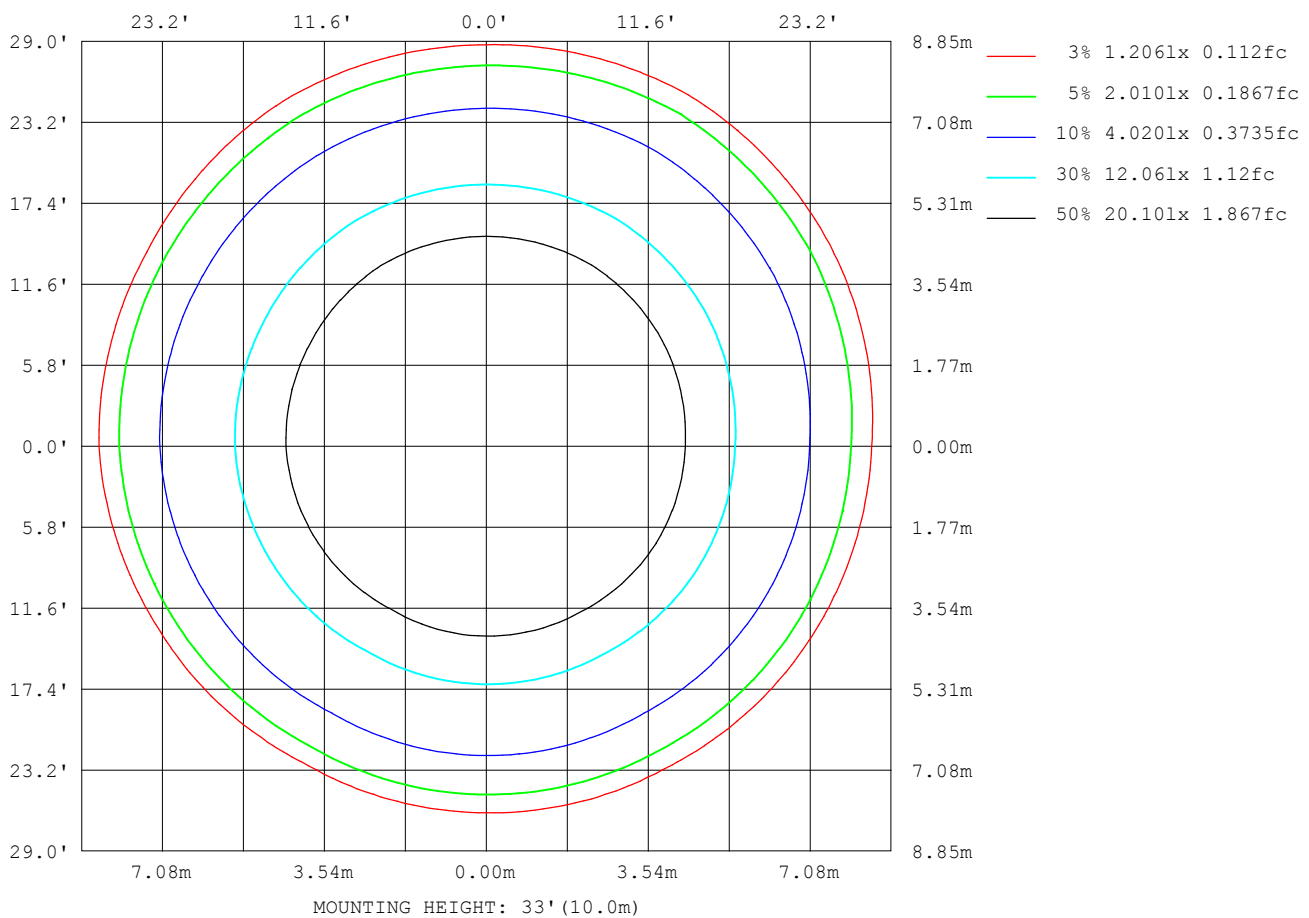
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm		
NAME: DP165RW-WF02-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
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:224.8V I:0.1800A P:39.60W PF:0.9770 Freq:50.00Hz Lamp Flux:3046.41x1 lm		
NAME: DP165RW-WF02-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

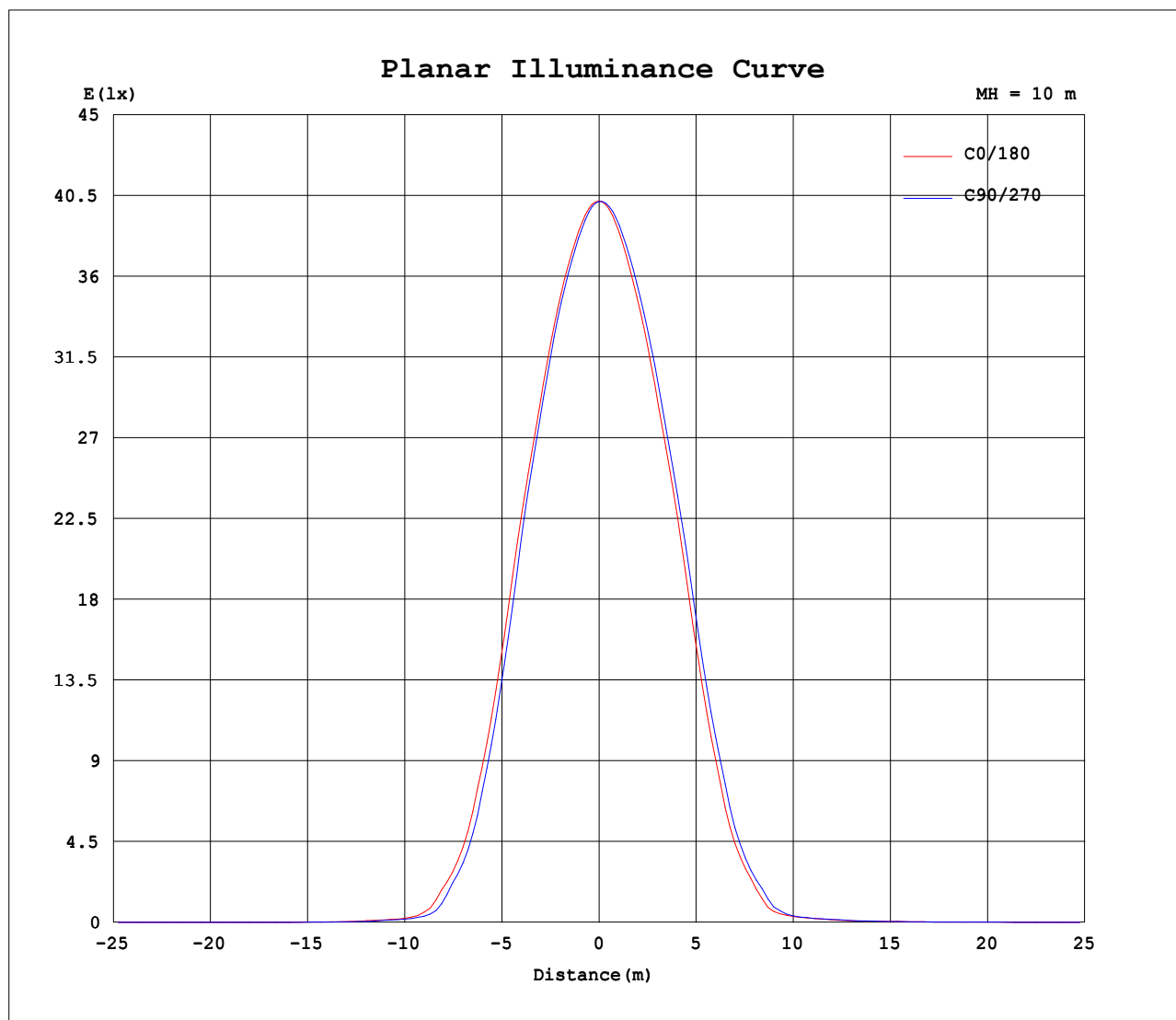
AvgL	cd/m2
L_0~180 (65) av	1546
L_0~180 (75) av	1893
L_0~180 (85) av	4627
L_90~270 (65) av	1586
L_90~270 (75) av	1941
L_90~270 (85) av	4736
L_45 (65) av	1576
L_45 (75) av	1935
L_45 (85) av	4710

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 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: 30.0DEG  
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:

```