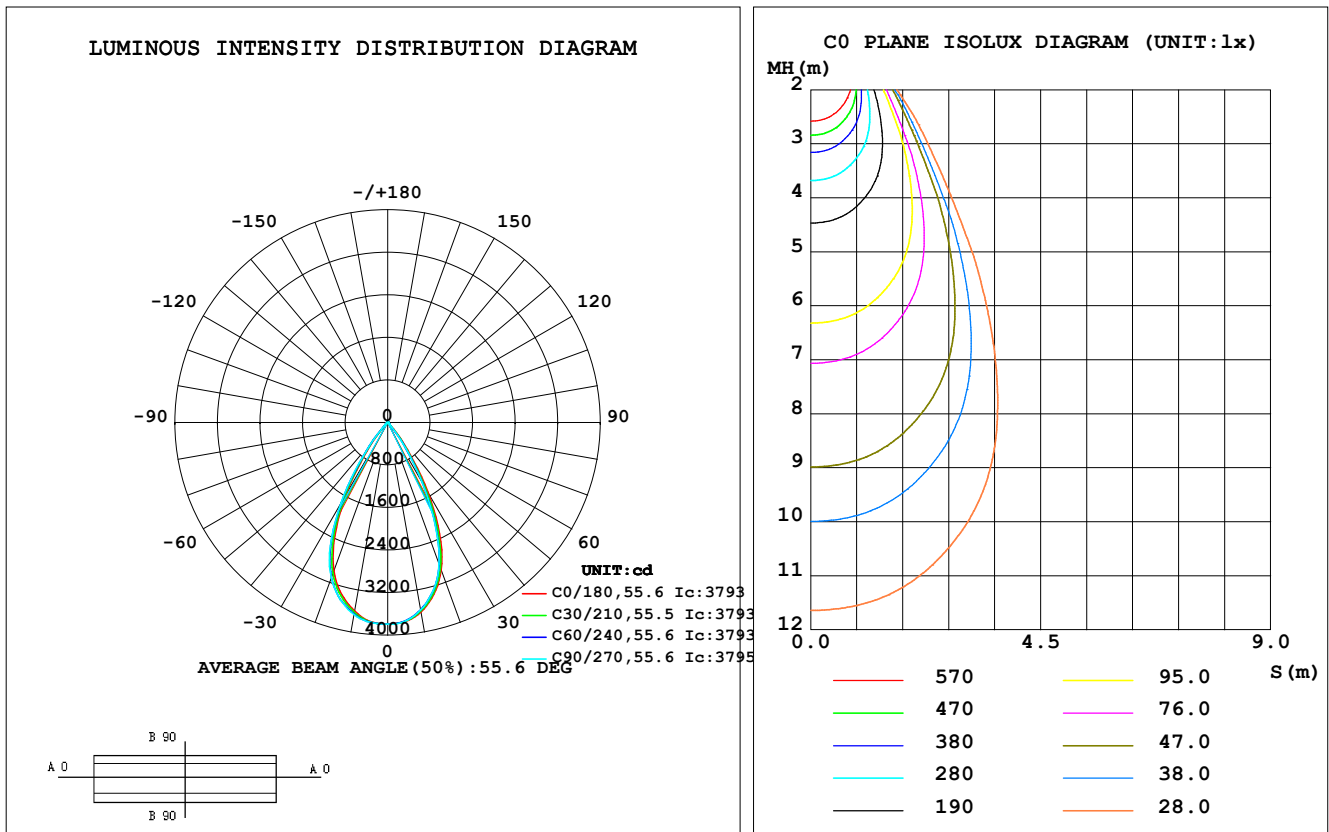


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm					
NAME: DP165RW-WF04-40G30		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:155		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 74.91 lm/W
MODEL	3000K CRI90	I _{max} (cd)	3795	S/MH (C0/180)	0.84	
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	0.87	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2966.4	η UP, DN (C0-180)	0.0, 46.4	
NOMINAL FLUX (lm)	2966.43	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 53.6	
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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3621	3587	3579	3568	3599	3641	3668	3670	0- 10	354.4	354.4	11.9,11.9
20	2950	2873	2831	2845	2967	3057	3107	3072	10- 20	935.9	1290	43.5,43.5
30	1519	1371	1308	1357	1574	1702	1776	1730	20- 30	1046	2336	78.7,78.7
40	266.0	182.6	140.0	165.5	289.1	363.6	411.1	417.3	30- 40	503.4	2839	95.7,95.7
50	32.48	25.03	20.92	23.37	55.33	61.60	61.59	60.85	40- 50	74.90	2914	98.2,98.2
60	5.722	5.543	5.366	5.342	22.77	23.73	24.69	24.36	50- 60	21.74	2936	99,99
70	4.697	4.634	4.560	4.561	16.07	16.52	16.78	16.68	60- 70	12.27	2948	99.4,99.4
80	4.579	4.567	4.487	4.550	11.73	11.98	12.07	12.07	70- 80	9.857	2958	99.7,99.7
90	5.323	5.516	5.610	5.534	8.713	8.903	9.042	8.979	80- 90	8.281	2966	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): 2891.2 lm

%lum = 97.5%

%lamp = 97.5%

Conical surface Flux(120deg): 2936 lm

%lum = 99.0%

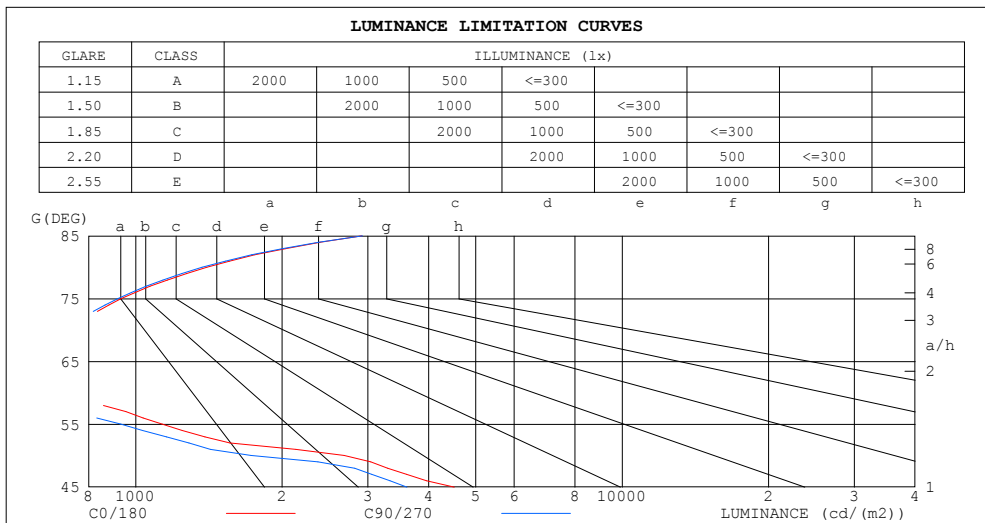
%lamp = 99.0%

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

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:

LUMINANCE LIMITATION CURVES

Test:U:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm		
NAME: DP165RW-WF04-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2914	2925
80	1400	1370
75	933	919
70	729	707
65	633	611
60	607	569
55	1132	932
50	2682	1725
45	4520	3611

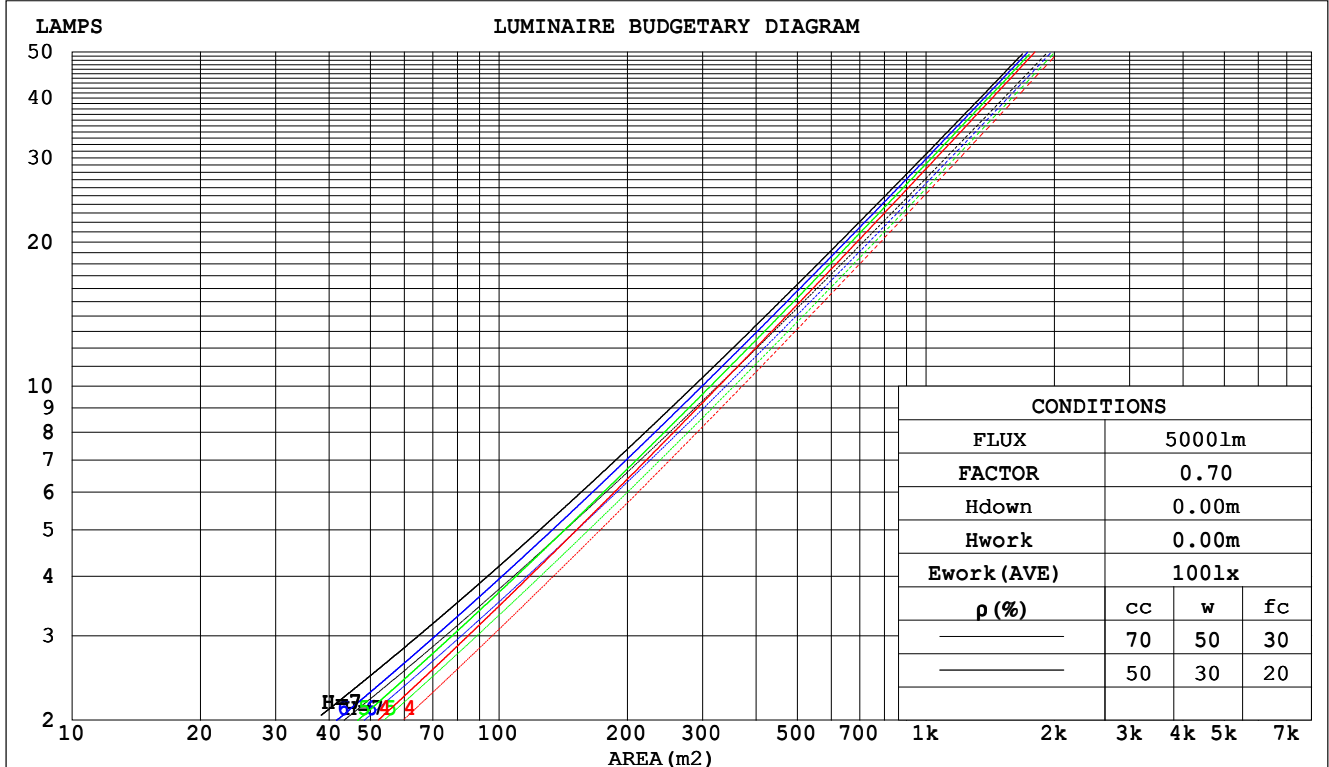
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm		
NAME: DP165RW-WF04-40G30	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	.88	.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	.70	.77	.73	.70	.76	.72	.70	.68
7.0	.76	.71	.67	.76	.70	.67	.75	.70	.66	.73	.69	.66	.72	.68	.66	.64
8.0	.72	.67	.63	.72	.66	.63	.71	.66	.62	.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	.58	.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:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm					
NAME: DP165RW-WF04-40G30			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	.175	.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	.152	.081	.024	.143	.077	.023	.134	.074	.023	.127	.070	.022		
4.0	.148	.077	.023	.144	.076	.022	.137	.072	.022	.129	.070	.021	.123	.067	.020		
5.0	.141	.072	.021	.138	.071	.021	.131	.068	.020	.125	.066	.020	.119	.064	.019		
6.0	.135	.068	.019	.132	.067	.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	.060	.017	.116	.058	.017	.112	.057	.016	.108	.055	.016		
9.0	.118	.057	.016	.116	.057	.016	.112	.055	.016	.108	.054	.016	.104	.053	.015		
10.0	.114	.055	.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	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.099	.067	.044	.069	.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	.062	.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:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm											
NAME: DP165RW-WF04-40G30					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		11.7	12.6	11.9	12.7	12.9	10.5	11.4	10.7	11.6	11.8
	3H	11.5	12.3	11.8	12.5	12.7	10.4	11.2	10.6	11.4	11.6
	4H	11.4	12.2	11.7	12.4	12.7	10.3	11.1	10.6	11.3	11.5
	6H	11.4	12.1	11.7	12.4	12.6	10.3	11.0	10.5	11.2	11.5
	8H	11.4	12.1	11.7	12.3	12.6	10.2	11.0	10.5	11.2	11.5
	12H	11.4	12.0	11.7	12.3	12.6	10.3	10.9	10.6	11.2	11.5
4H	2H	11.4	12.2	11.7	12.4	12.6	10.3	11.1	10.5	11.3	11.5
	3H	11.3	11.9	11.6	12.2	12.5	10.1	10.8	10.4	11.1	11.3
	4H	11.2	11.8	11.5	12.1	12.4	10.1	10.7	10.4	11.0	11.3
	6H	11.1	11.7	11.5	12.0	12.4	10.0	10.6	10.4	10.9	11.3
	8H	11.1	11.6	11.5	12.0	12.4	10.0	10.6	10.4	10.9	11.3
	12H	11.2	11.6	11.6	12.0	12.4	10.1	10.6	10.5	11.0	11.3
8H	4H	11.1	11.6	11.4	11.9	12.3	9.9	10.4	10.3	10.8	11.2
	6H	11.0	11.5	11.5	11.8	12.3	9.9	10.4	10.4	10.8	11.2
	8H	11.1	11.4	11.5	11.8	12.3	10.0	10.4	10.4	10.8	11.2
	12H	11.2	11.5	11.6	11.9	12.4	10.1	10.5	10.6	10.9	11.4
12H	4H	11.0	11.5	11.4	11.8	12.2	9.9	10.4	10.3	10.7	11.1
	6H	11.0	11.4	11.4	11.8	12.2	9.9	10.3	10.4	10.7	11.1
	8H	11.0	11.4	11.5	11.8	12.3	10.0	10.3	10.5	10.7	11.2
Variations with the observer position at spacings:											
S = 1.0H	+ 4.0 / - 7.7					+ 4.4 / - 5.9					
1.5H	+ 6.6 / - 7.4					+ 6.9 / - 5.7					
2.0H	+ 3.2 / - 1.2					+ 2.5 / - 0.9					

CIE Pub.117, 2966 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.8$)

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:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm		
NAME: DP165RW-WF04-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

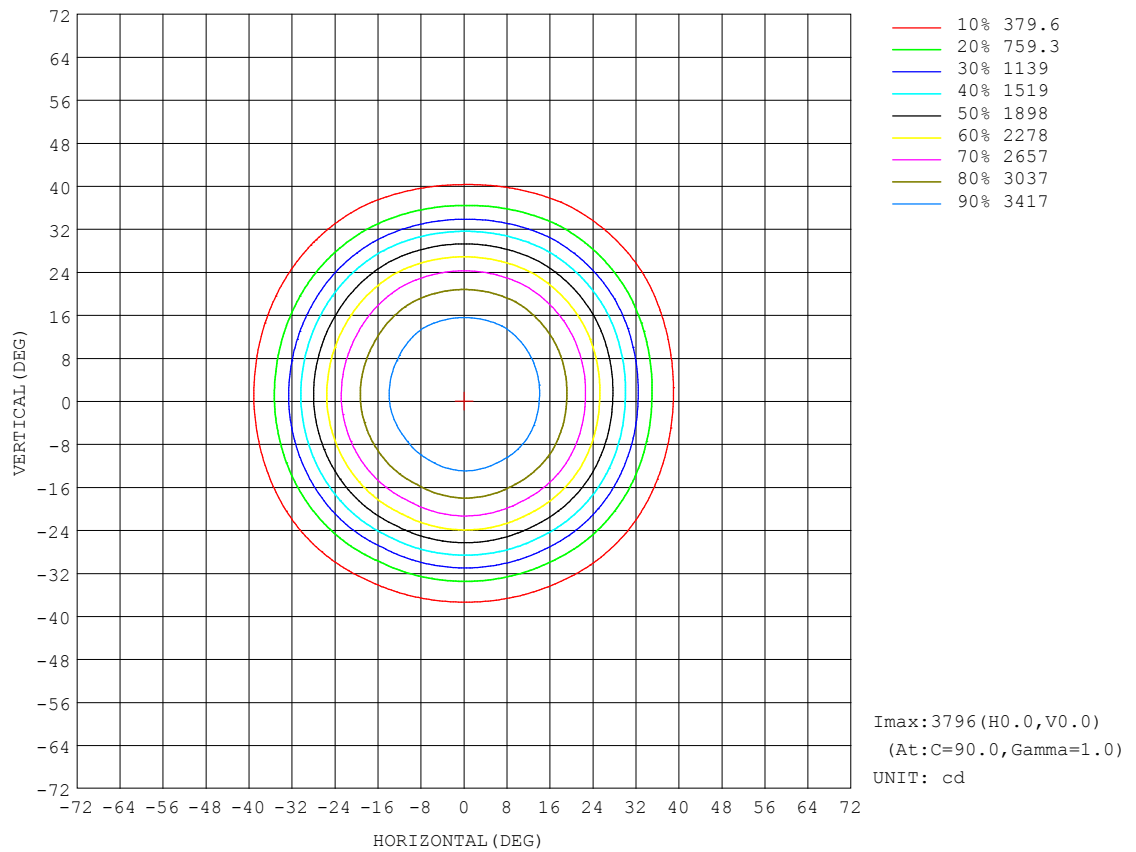
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	83	79	88	82	79	76
0.80	96	91	87	95	90	87	94	90	86	83
1.00	100	95	91	99	94	91	98	94	91	87
1.25	104	99	96	103	98	95	101	97	94	90
1.50	107	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

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:

ISOCANDELA DIAGRAM

Test:U:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm		
NAME: DP165RW-WF04-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

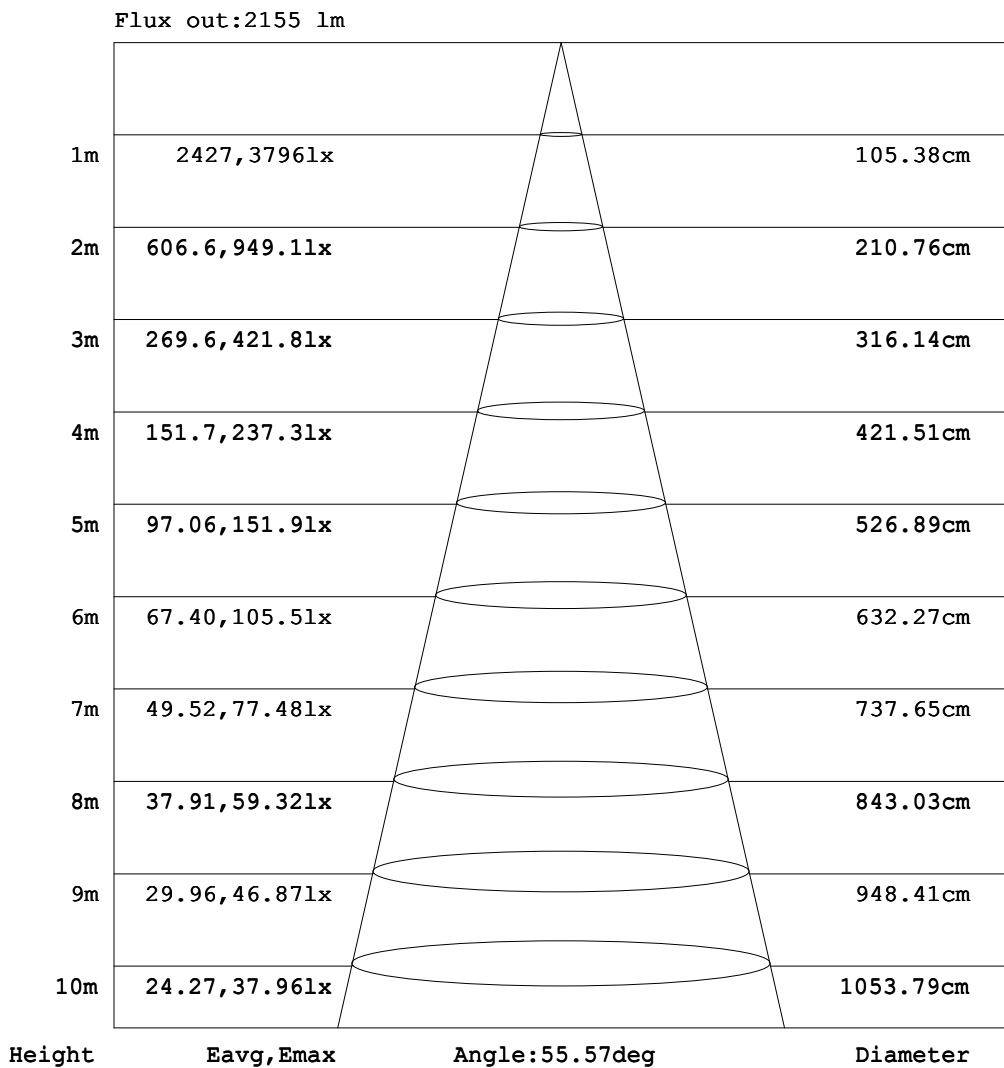


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm		
NAME: DP165RW-WF04-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:



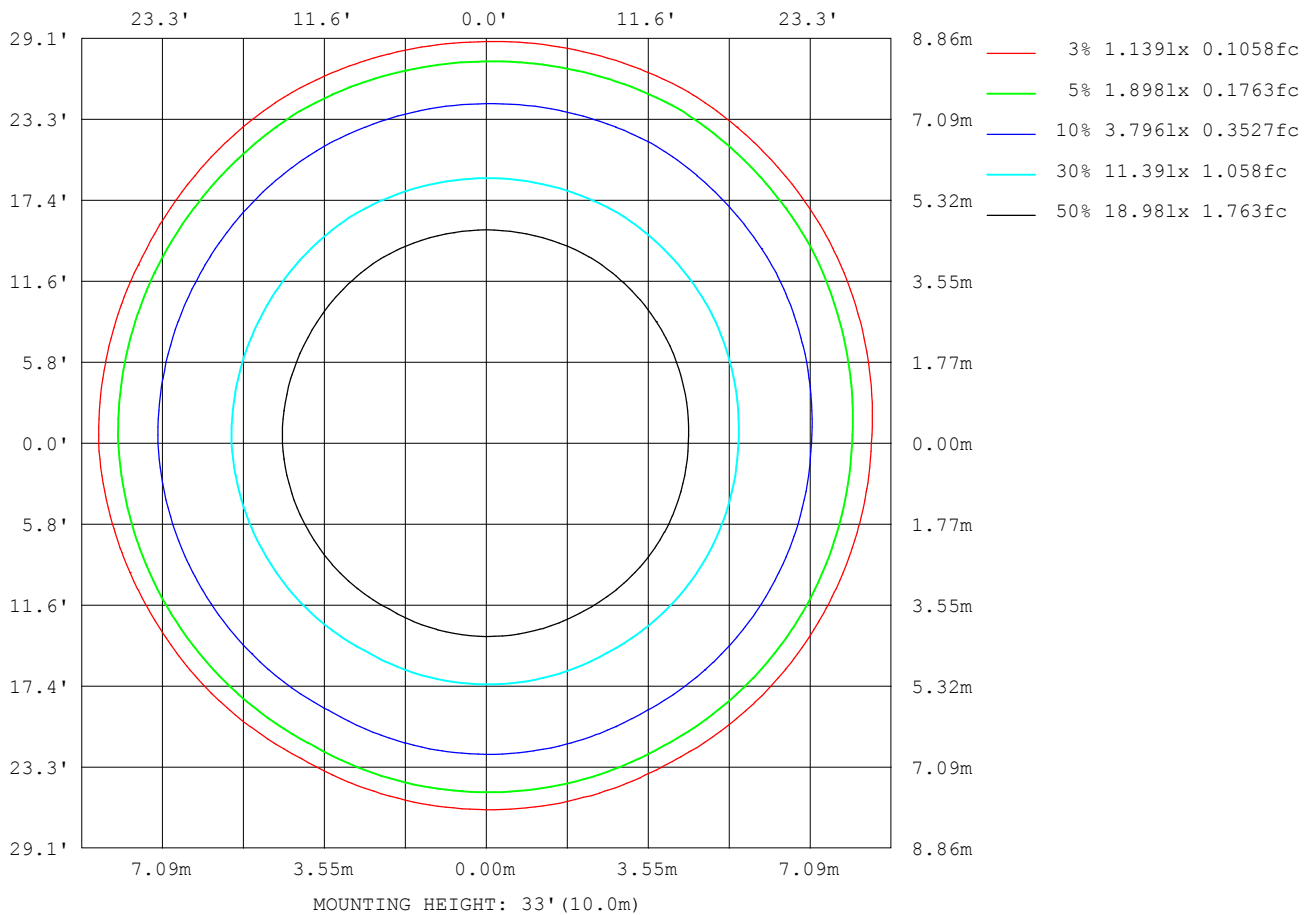
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm		
NAME: DP165RW-WF04-40G30	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:224.9V I:0.1800A P:39.60W PF:0.9760 Freq:50.00Hz Lamp Flux:2966.43x1 lm		
NAME: DP165RW-WF04-40G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:155	Shielding Angle:

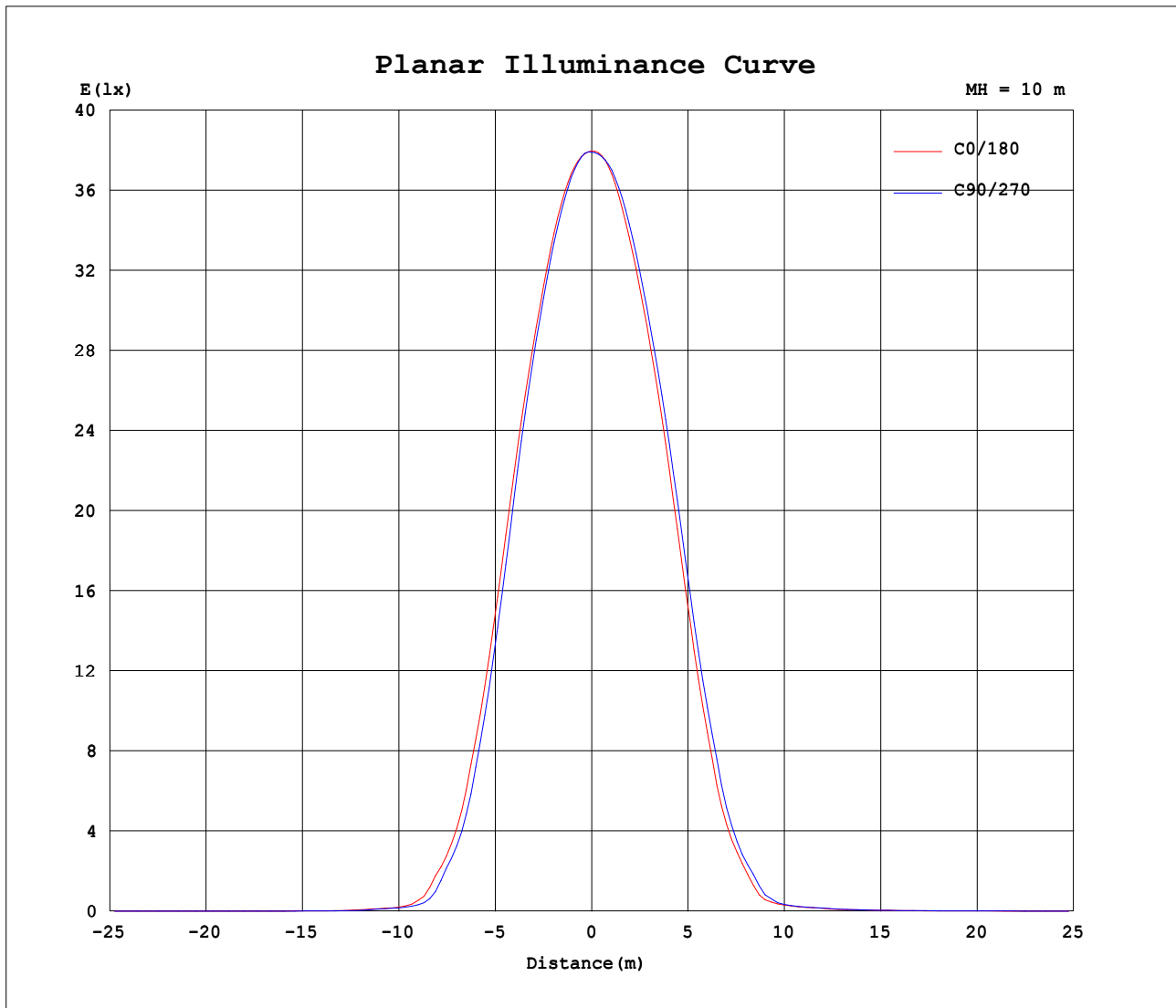
AvgL	cd/m2
L_0~180 (65) av	1517
L_0~180 (75) av	1867
L_0~180 (85) av	4509
L_90~270 (65) av	1559
L_90~270 (75) av	1911
L_90~270 (85) av	4598
L_45 (65) av	1547
L_45 (75) av	1909
L_45 (85) av	4580

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

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:

```

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:

```