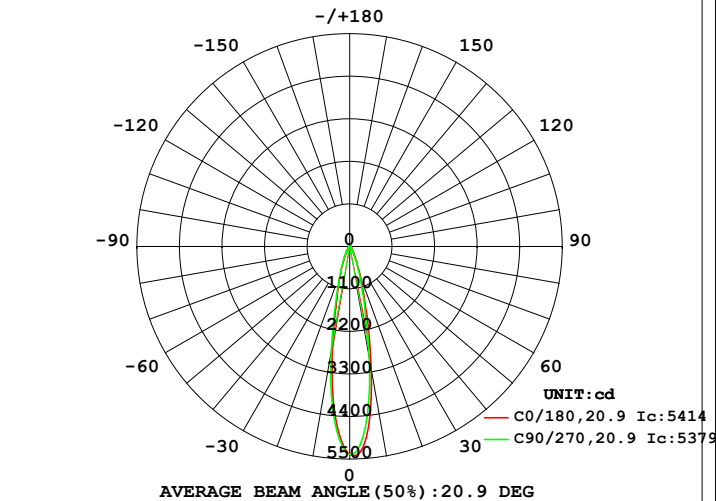


LUMINAIRE PHOTOMETRIC TEST REPORT

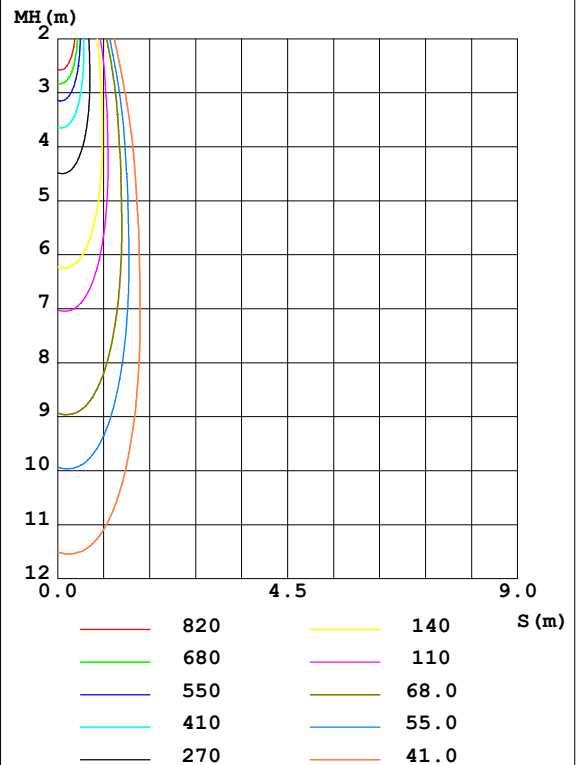
Test:U:224.9V I:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm					
NAME: DP090RW-S01-14G30			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:80		Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 75.31 lm/W
MODEL	3000K CRI90	I _{max} (cd)	5430	S/MH(C0/180)	0.33	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.35	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1114.6	η UP,DN(C0-180)	0.0,50.3	
NOMINAL FLUX(lm)	1114.58	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.7	
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	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3233	3168	2932	2629	2543	2543	2781	3105	0- 10	383.9	383.9	34.4, 34.4
20	807.8	789.5	718.9	629.3	631.3	638.6	695.2	798.6	10- 20	402.3	786.2	70.5, 70.5
30	216.8	210.2	195.4	177.1	197.8	208.8	228.6	238.4	20- 30	178.7	965.0	86.6, 86.6
40	79.91	78.64	69.68	57.78	70.69	77.69	87.14	93.85	30- 40	81.16	1046	93.9, 93.9
50	24.87	25.09	19.37	14.48	21.81	23.09	25.62	31.55	40- 50	34.98	1081	97, 97
60	11.21	11.29	9.576	8.092	13.40	13.69	15.02	16.99	50- 60	14.78	1096	98.3, 98.3
70	6.511	6.367	5.648	4.926	8.184	8.360	9.093	10.06	60- 70	9.496	1105	99.2, 99.2
80	3.820	3.720	2.850	2.774	4.650	4.759	5.228	5.890	70- 80	6.057	1111	99.7, 99.7
90	1.520	1.507	1.537	1.590	2.596	2.594	2.645	2.714	80- 90	3.139	1115	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): 1067.9 lm

%lum = 95.8%

%lamp = 95.8%

Conical surface Flux(120deg): 1095.9 lm

%lum = 98.3%

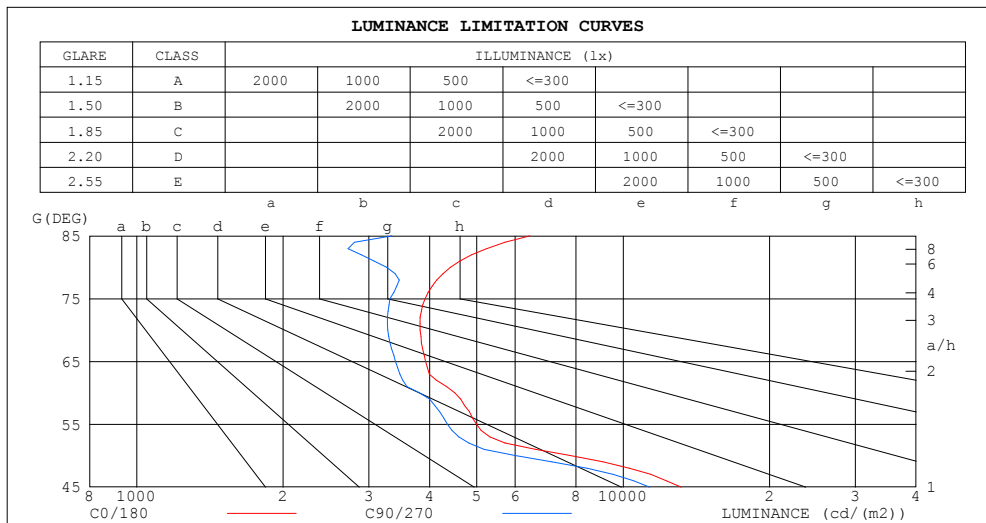
%lamp = 98.3%

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:

LUMINANCE LIMITATION CURVES

Test:U:224.9V I:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm		
NAME: DP090RW-S01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6432	3346
80	4419	3261
75	3918	3318
70	3824	3280
65	3921	3402
60	4503	3805
55	4995	4348
50	7770	5987
45	13165	11324

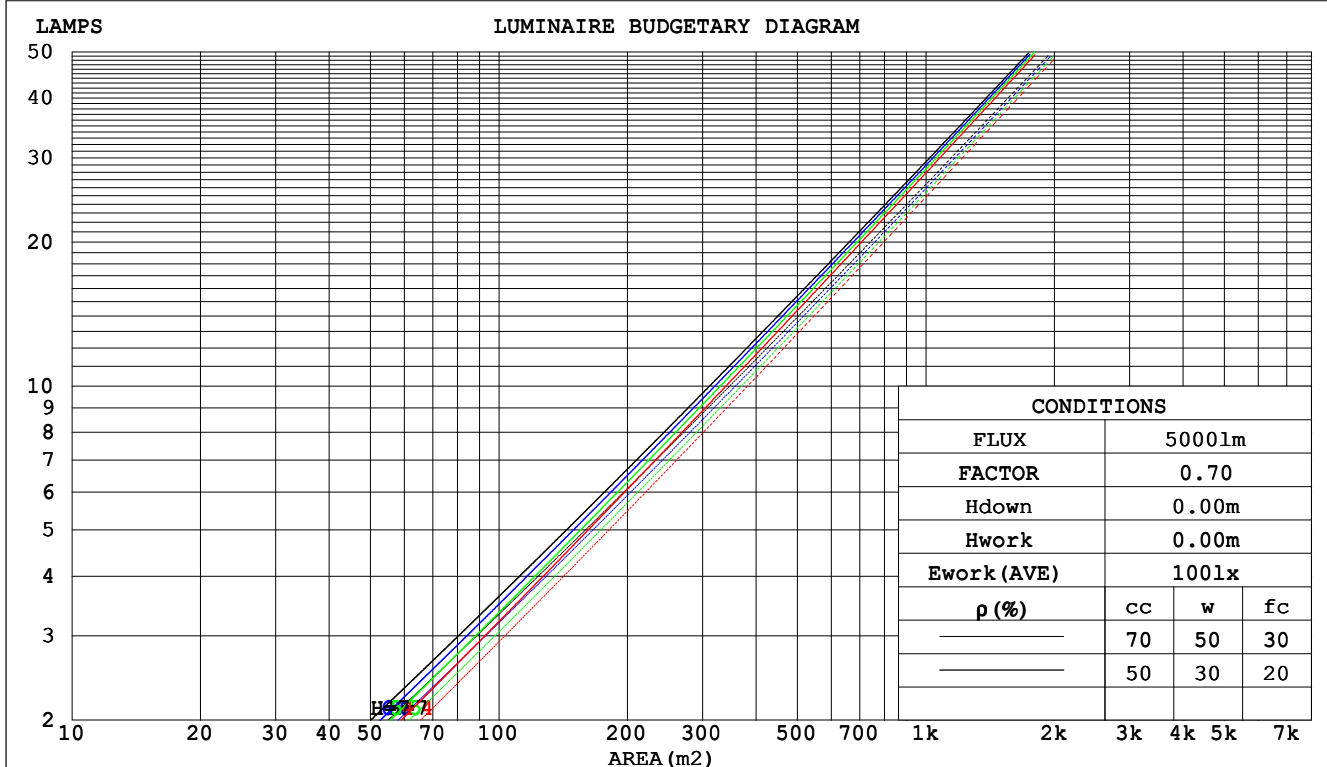
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:224.9V I:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm		
NAME: DP090RW-S01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	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	.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	.00	1.04	1.01	.99	1.01	.99	.97	.98	.96	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.00	.96	.93	.97	.94	.91	.95	.92	.90	.93	.90	.89	.87
4.0	.96	.92	.89	.95	.91	.88	.93	.90	.87	.91	.88	.86	.90	.87	.85	.84
5.0	.92	.88	.84	.91	.87	.84	.90	.86	.83	.88	.85	.83	.87	.84	.82	.81
6.0	.89	.84	.81	.88	.84	.81	.87	.83	.80	.85	.82	.79	.84	.81	.79	.78
7.0	.85	.81	.78	.85	.81	.77	.84	.80	.77	.83	.79	.77	.82	.79	.76	.75
8.0	.83	.78	.75	.82	.78	.75	.81	.77	.74	.80	.77	.74	.79	.76	.74	.73
9.0	.80	.75	.72	.79	.75	.72	.79	.75	.72	.78	.74	.72	.77	.74	.72	.71
10.0	.77	.73	.70	.77	.73	.70	.76	.73	.70	.76	.72	.70	.75	.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:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm					
NAME: DP090RW-S01-14G30			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:80		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	.153	.087	.028	.146	.083	.026	.134	.077	.024	.122	.070	.023	.112	.065	.021		
2.0	.142	.078	.024	.136	.075	.023	.126	.070	.022	.116	.065	.020	.108	.061	.019		
3.0	.132	.070	.021	.128	.068	.021	.119	.064	.020	.111	.061	.019	.103	.057	.018		
4.0	.124	.064	.019	.120	.063	.019	.112	.060	.018	.106	.057	.017	.099	.054	.016		
5.0	.116	.059	.017	.113	.058	.017	.107	.056	.016	.101	.053	.016	.095	.051	.015		
6.0	.110	.055	.016	.107	.054	.016	.101	.052	.015	.096	.050	.015	.092	.048	.014		
7.0	.104	.051	.015	.102	.051	.014	.097	.049	.014	.092	.047	.014	.088	.046	.013		
8.0	.099	.048	.014	.097	.048	.013	.092	.046	.013	.089	.045	.013	.085	.044	.013		
9.0	.094	.046	.013	.092	.045	.013	.089	.044	.012	.085	.043	.012	.082	.042	.012		
10.0	.090	.043	.012	.088	.043	.012	.085	.042	.012	.082	.041	.012	.079	.040	.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	.100	.089	.079	.070	.052	.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	.116	.086	.064	.099	.074	.056	.068	.052	.039	.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	.100	.068	.046	.086	.059	.040	.059	.041	.028	.034	.024	.017	.011	.008	.006	
8.0	.093	.062	.040	.080	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.087	.056	.035	.075	.049	.030	.052	.034	.021	.030	.020	.013	.010	.007	.004	
10.0	.083	.051	.030	.071	.044	.027	.049	.031	.019	.029	.019	.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:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm											
NAME: DP090RW-S01-14G30					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:80			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		13.5	14.2	13.7	14.3	14.5	12.8	13.6	13.0	13.7	13.9
	3H	13.7	14.4	14.0	14.6	14.8	13.1	13.8	13.3	14.0	14.1
	4H	13.9	14.6	14.2	14.8	15.0	13.3	13.9	13.5	14.1	14.3
	6H	14.1	14.8	14.4	15.0	15.2	13.4	14.0	13.7	14.3	14.5
	8H	14.3	14.9	14.6	15.1	15.4	13.5	14.1	13.8	14.3	14.6
	12H	14.4	15.0	14.8	15.3	15.5	13.5	14.1	13.8	14.3	14.6
4H	2H	13.4	14.1	13.7	14.3	14.5	12.9	13.5	13.1	13.7	13.9
	3H	13.9	14.4	14.2	14.7	15.0	13.3	13.8	13.6	14.1	14.4
	4H	14.2	14.7	14.5	15.0	15.3	13.5	14.1	13.9	14.4	14.7
	6H	14.5	15.0	14.9	15.3	15.7	13.9	14.3	14.2	14.6	15.0
	8H	14.8	15.2	15.1	15.5	15.9	13.9	14.4	14.3	14.7	15.1
	12H	15.0	15.4	15.4	15.8	16.2	14.0	14.4	14.4	14.8	15.1
8H	4H	14.2	14.7	14.6	15.0	15.4	13.6	14.1	14.0	14.4	14.8
	6H	14.7	15.1	15.2	15.5	15.9	14.1	14.5	14.5	14.9	15.3
	8H	15.1	15.4	15.5	15.8	16.2	14.2	14.6	14.7	15.0	15.4
	12H	15.5	15.8	16.0	16.2	16.7	14.3	14.6	14.8	15.1	15.5
12H	4H	14.2	14.6	14.6	15.0	15.4	13.6	14.0	14.1	14.4	14.8
	6H	14.8	15.1	15.2	15.5	15.9	14.2	14.5	14.6	14.9	15.3
	8H	15.2	15.4	15.6	15.9	16.3	14.3	14.6	14.8	15.1	15.5
Variations with the observer position at spacings:											
S = 1.0H	+ 1.2 / - 1.6					+ 1.3 / - 1.8					
1.5H	+ 2.2 / - 1.6					+ 2.2 / - 2.0					
2.0H	+ 2.2 / - 0.8					+ 2.4 / - 1.1					

CIE Pub.117, 1115 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.4$)

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:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm		
NAME: DP090RW-S01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

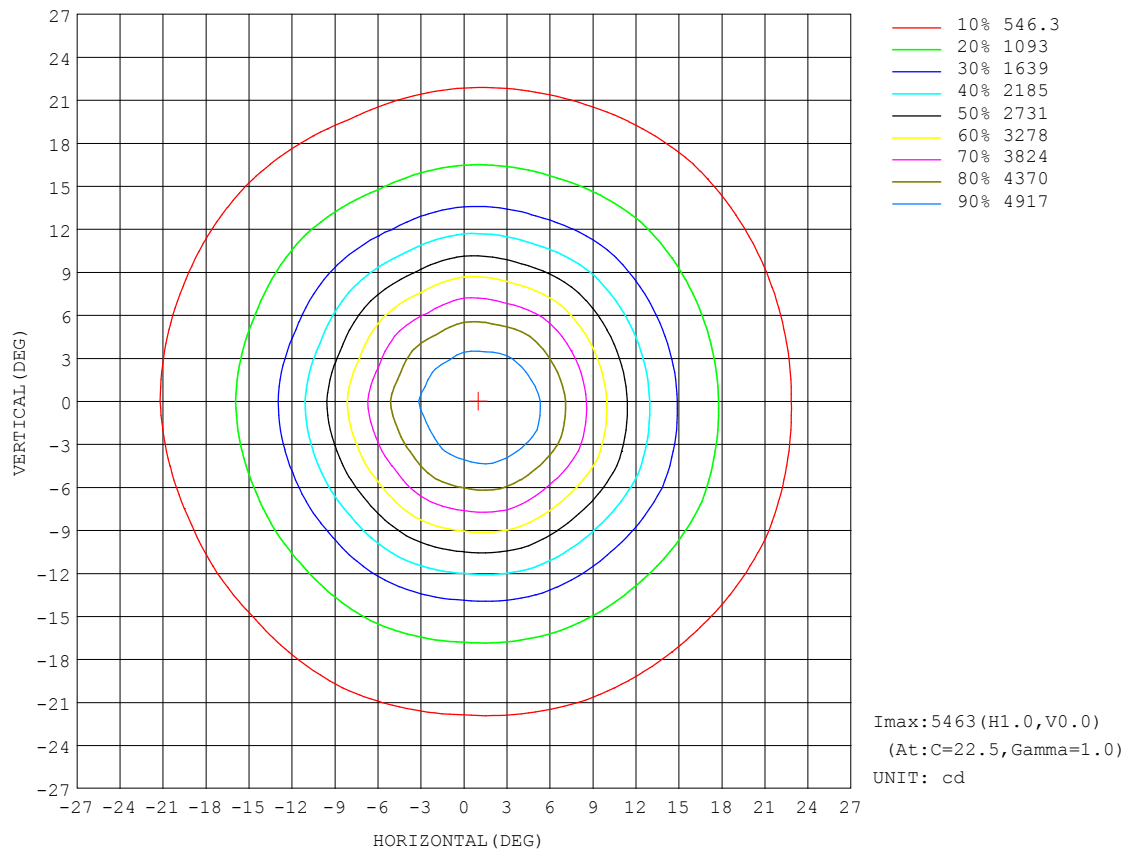
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	81	78	87	81	78	86	81	78	74
0.80	95	89	86	94	89	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	95	102	97	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	108	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	102	105	103	101	95
3.00	112	108	106	110	107	104	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	107	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

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:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm		
NAME: DP090RW-S01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

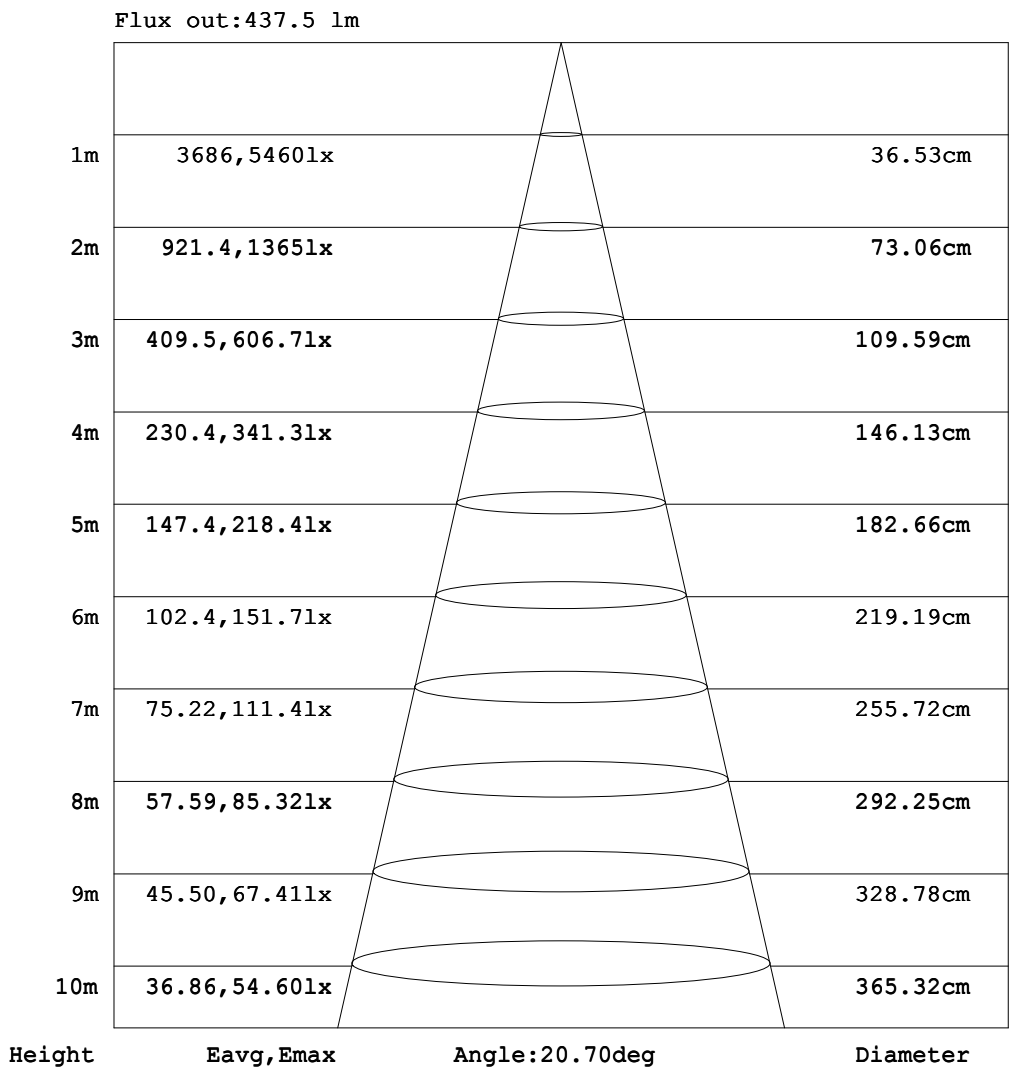


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm		
NAME: DP090RW-S01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



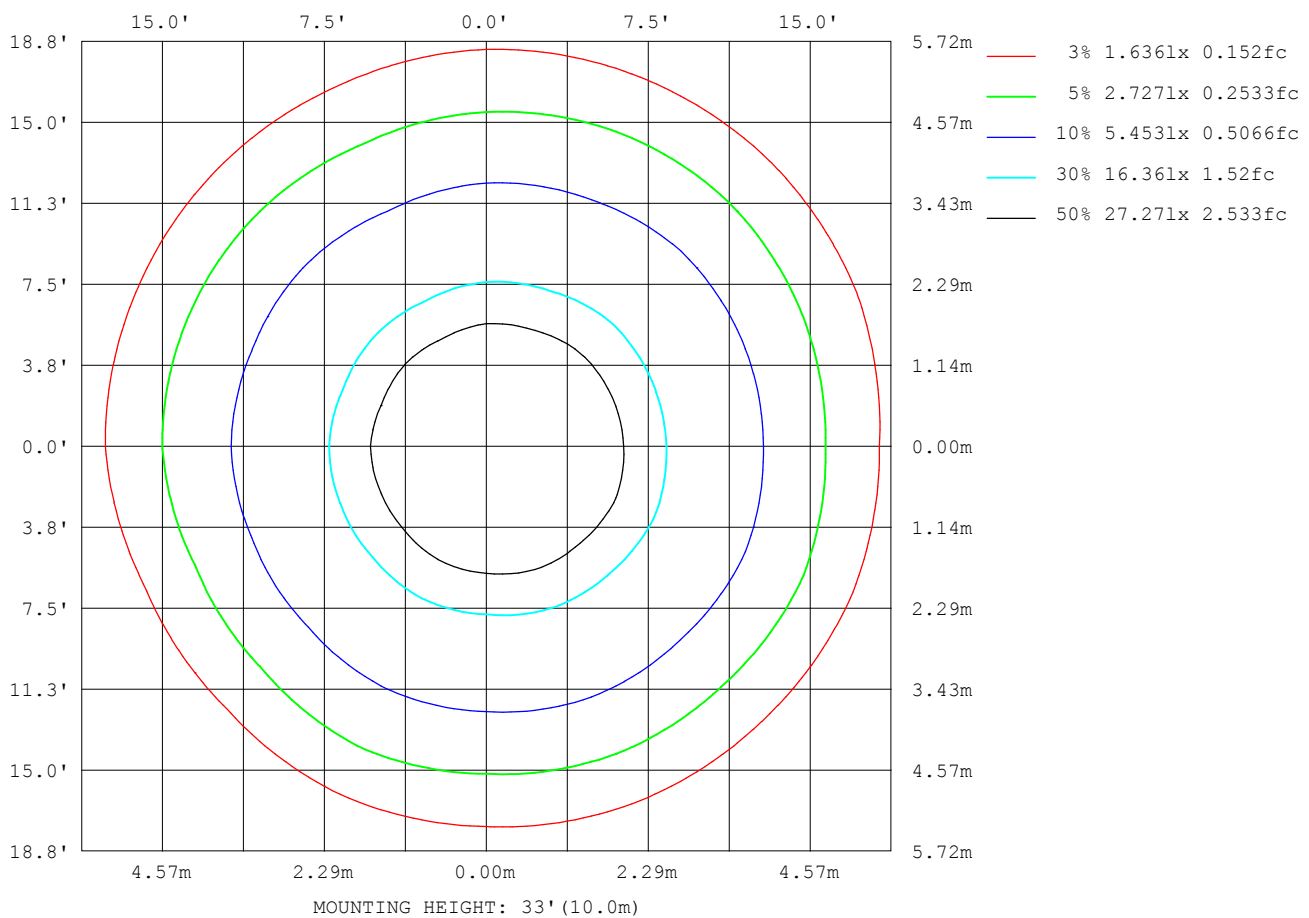
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm		
NAME: DP090RW-S01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	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:0.0690A P:14.80W PF:0.9580 Freq:50.00Hz Lamp Flux:1114.58x1 lm		
NAME: DP090RW-S01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

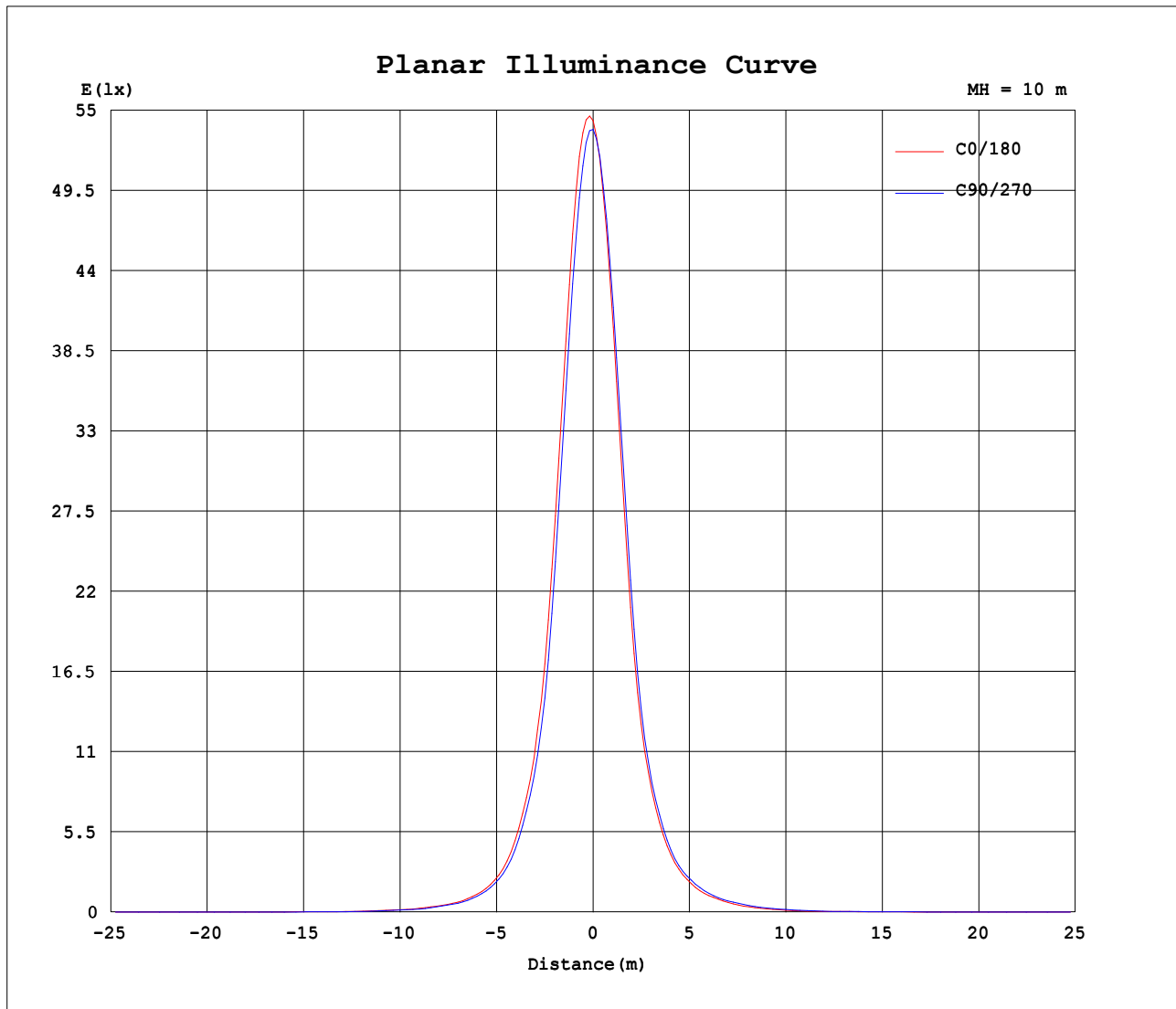
AvgL	cd/m2
L_0~180 (65) av	4425
L_0~180 (75) av	4350
L_0~180 (85) av	6989
L_90~270 (65) av	4450
L_90~270 (75) av	4351
L_90~270 (85) av	5190
L_45 (65) av	4478
L_45 (75) av	4400
L_45 (85) av	5916

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

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:

```