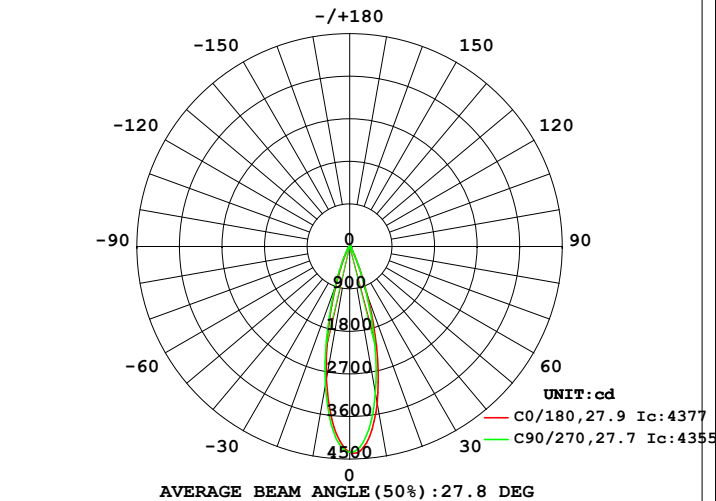


LUMINAIRE PHOTOMETRIC TEST REPORT

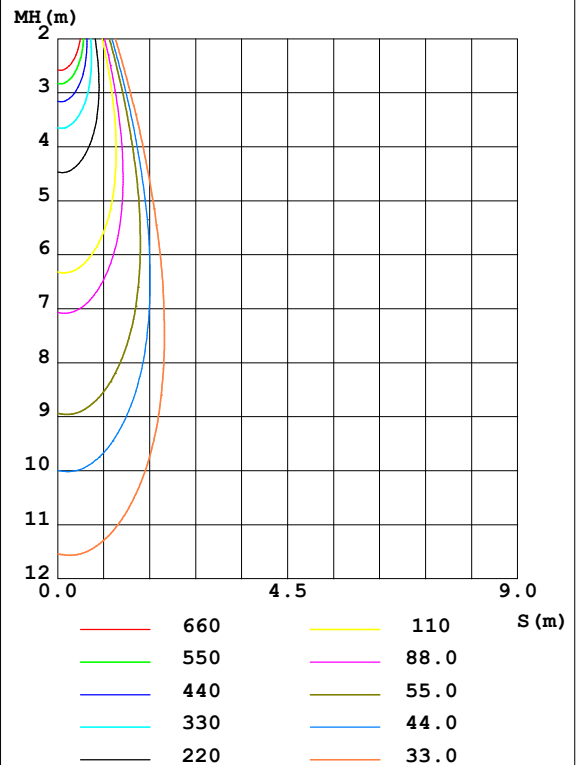
Test:U:224.9V I:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm					
NAME: DP090RW-M01-14G30			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:80		Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 80.35 lm/W
MODEL	3000K CRI90	I _{max} (cd)	4380	S/MH(C0/180)	0.44	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.45	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1189.2	η UP,DN(C0-180)	0.0,51.1	
NOMINAL FLUX(lm)	1189.16	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.9	
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	3362	3316	3151	2942	2850	2850	2970	3213	0- 10	351.6	351.6	29.6,29.6
20	1076	1102	1019	847.0	824.0	829.7	900.2	976.4	10- 20	521.7	873.3	73.4,73.4
30	180.6	197.7	181.5	147.0	158.1	173.3	185.3	182.1	20- 30	201.3	1075	90.4,90.4
40	52.54	54.63	47.81	40.29	55.47	56.96	59.36	60.60	30- 40	60.69	1135	95.5,95.5
50	18.23	18.22	16.40	12.95	21.44	21.24	22.58	25.19	40- 50	25.83	1161	97.6,97.6
60	7.800	7.881	7.328	6.394	12.30	12.18	12.59	13.90	50- 60	12.24	1173	98.7,98.7
70	4.344	4.431	4.289	4.050	7.817	7.735	7.952	8.336	60- 70	7.696	1181	99.3,99.3
80	2.823	2.870	2.321	2.603	4.715	4.679	4.800	5.100	70- 80	5.156	1186	99.7,99.7
90	1.630	1.618	1.647	1.616	2.795	2.774	2.793	2.877	80- 90	3.021	1189	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): 1150.7 lm

%lum = 96.8%

%lamp = 96.8%

Conical surface Flux(120deg): 1173.3 lm

%lum = 98.7%

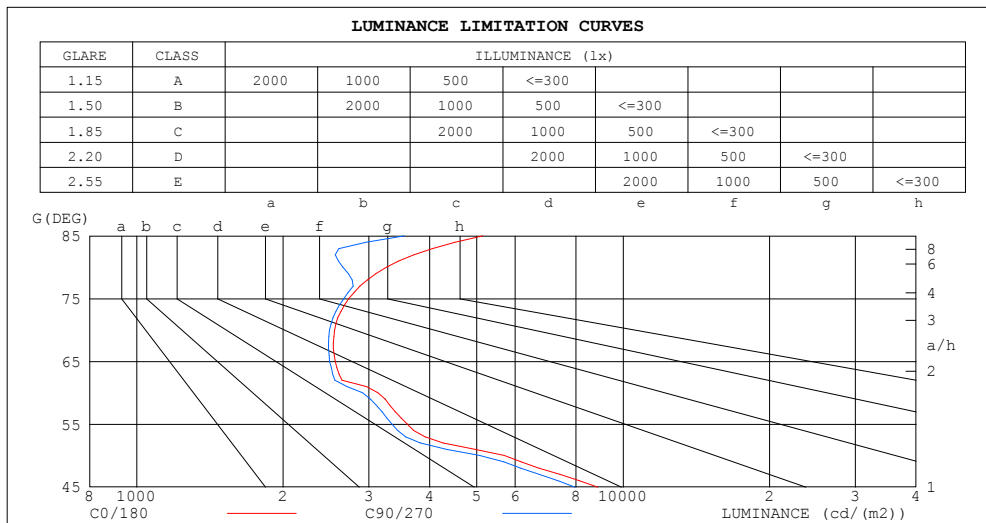
%lamp = 98.7%

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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm		
NAME: DP090RW-M01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5142	3551
80	3264	2656
75	2729	2664
70	2550	2492
65	2558	2491
60	3132	2912
55	3600	3347
50	5693	5070
45	8859	7961

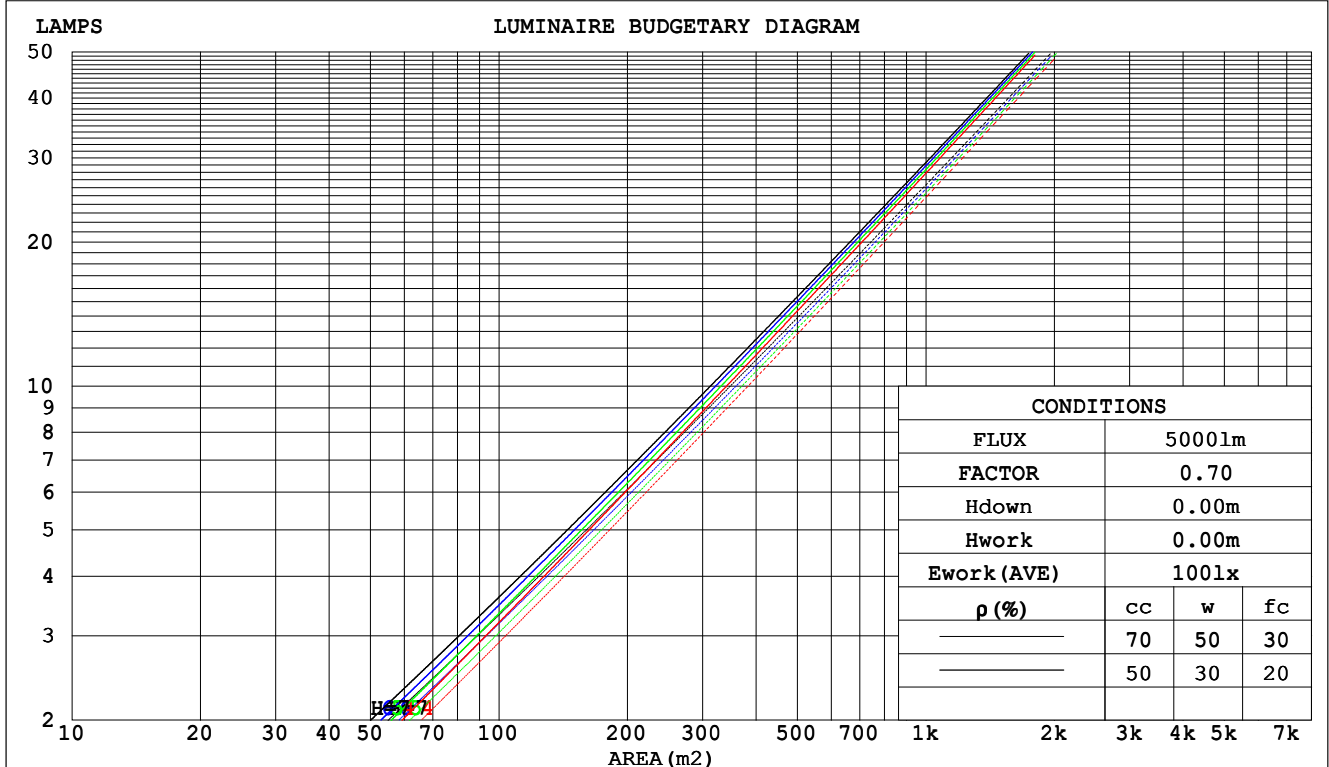
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm		
NAME: DP090RW-M01-14G30	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	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.01	.99	.97	.99	.97	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.93	.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	.86	.84	.89	.85	.83	.87	.84	.82	.81
6.0	.89	.84	.81	.88	.84	.81	.87	.83	.80	.86	.82	.80	.84	.82	.79	.78
7.0	.86	.81	.78	.85	.81	.78	.84	.80	.77	.83	.80	.77	.82	.79	.77	.76
8.0	.83	.78	.75	.82	.78	.75	.81	.77	.75	.80	.77	.74	.80	.76	.74	.73
9.0	.80	.76	.73	.80	.75	.72	.79	.75	.72	.78	.75	.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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm					
NAME: DP090RW-M01-14G30			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	.151	.086	.027	.144	.082	.026	.132	.076	.024	.120	.069	.022	.110	.064	.021	
2.0	.140	.077	.024	.134	.074	.023	.124	.069	.021	.115	.064	.020	.106	.060	.019	
3.0	.130	.069	.021	.126	.067	.020	.117	.063	.019	.109	.060	.018	.102	.056	.017	
4.0	.122	.063	.019	.118	.062	.018	.111	.059	.018	.104	.056	.017	.098	.053	.016	
5.0	.115	.059	.017	.112	.057	.017	.105	.055	.016	.100	.053	.016	.094	.050	.015	
6.0	.109	.055	.016	.106	.053	.015	.100	.051	.015	.095	.050	.015	.091	.048	.014	
7.0	.103	.051	.014	.101	.050	.014	.096	.049	.014	.092	.047	.014	.087	.045	.013	
8.0	.098	.048	.014	.096	.047	.013	.092	.046	.013	.088	.045	.013	.084	.043	.013	
9.0	.094	.045	.013	.092	.045	.013	.088	.044	.012	.085	.042	.012	.081	.041	.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	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.082	.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	.049	.030	.052	.034	.021	.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:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm											
NAME: DP090RW-M01-14G30					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		10.7	11.4	10.9	11.5	11.7	10.5	11.2	10.7	11.3	11.5
	3H	10.9	11.6	11.1	11.7	11.9	10.7	11.4	11.0	11.6	11.8
	4H	11.1	11.7	11.3	11.9	12.1	10.9	11.5	11.2	11.7	12.0
	6H	11.3	11.9	11.6	12.1	12.4	11.1	11.7	11.4	11.9	12.2
	8H	11.5	12.0	11.8	12.3	12.5	11.2	11.7	11.5	12.0	12.2
	12H	11.7	12.2	12.0	12.5	12.8	11.2	11.8	11.5	12.1	12.3
4H	2H	10.6	11.3	10.9	11.5	11.7	10.5	11.1	10.7	11.3	11.5
	3H	11.0	11.6	11.3	11.8	12.1	10.8	11.4	11.1	11.7	11.9
	4H	11.3	11.8	11.6	12.1	12.4	11.1	11.6	11.5	11.9	12.2
	6H	11.7	12.1	12.1	12.5	12.8	11.5	11.9	11.8	12.3	12.6
	8H	11.9	12.4	12.3	12.7	13.1	11.6	12.0	12.0	12.4	12.7
	12H	12.3	12.7	12.7	13.0	13.4	11.7	12.1	12.1	12.5	12.9
8H	4H	11.4	11.8	11.7	12.1	12.5	11.2	11.6	11.6	12.0	12.4
	6H	11.9	12.3	12.4	12.7	13.1	11.7	12.1	12.1	12.5	12.9
	8H	12.3	12.6	12.8	13.0	13.5	11.9	12.2	12.3	12.6	13.1
	12H	12.8	13.1	13.3	13.5	14.0	12.1	12.4	12.6	12.9	13.3
12H	4H	11.4	11.7	11.8	12.1	12.5	11.2	11.6	11.6	12.0	12.4
	6H	12.0	12.3	12.4	12.7	13.1	11.8	12.1	12.2	12.5	12.9
	8H	12.4	12.7	12.9	13.1	13.6	12.0	12.3	12.5	12.7	13.2
Variations with the observer position at spacings:											
S = 1.0H	+ 1.2 / - 1.4					+ 1.3 / - 1.6					
1.5H	+ 2.2 / - 1.4					+ 2.2 / - 1.6					
2.0H	+ 2.0 / - 0.8					+ 2.1 / - 0.9					

CIE Pub.117, 1189 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.6$)

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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm		
NAME: DP090RW-M01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

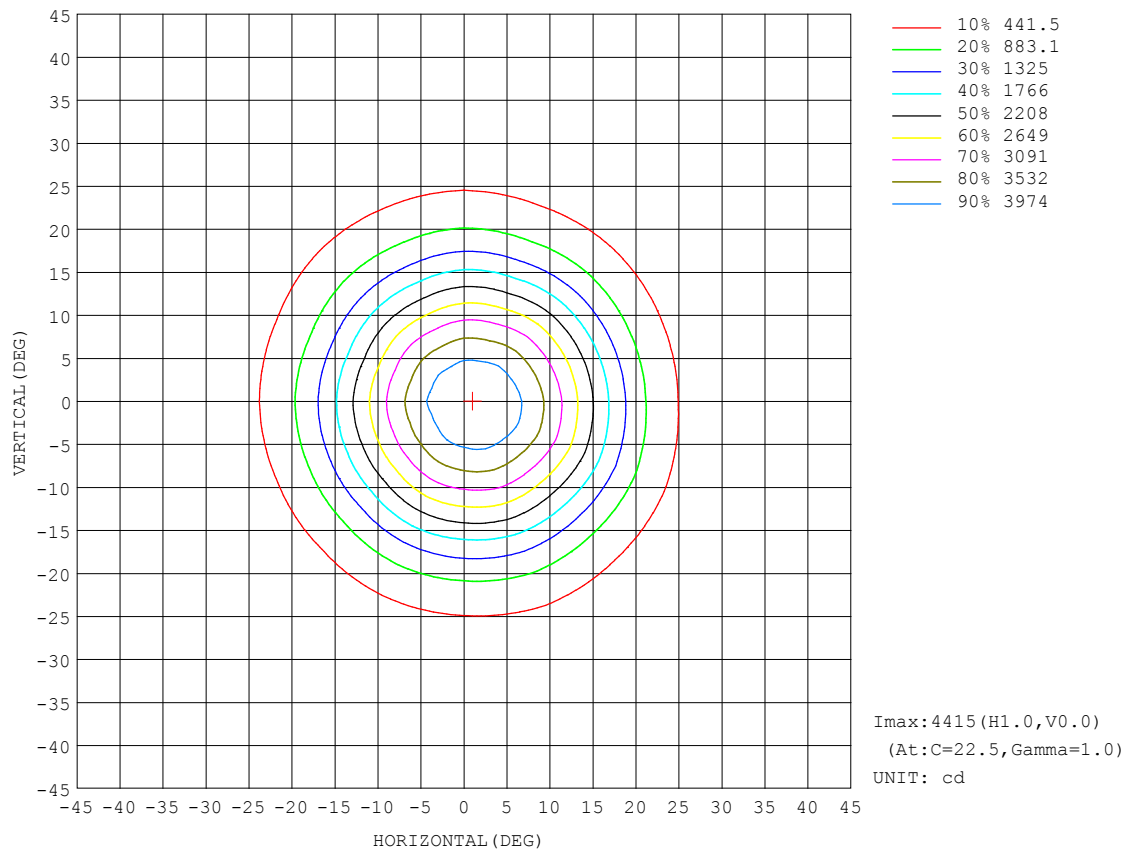
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	83	79	88	82	79	75
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	87
1.25	104	99	95	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	110	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	106	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

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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm		
NAME: DP090RW-M01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

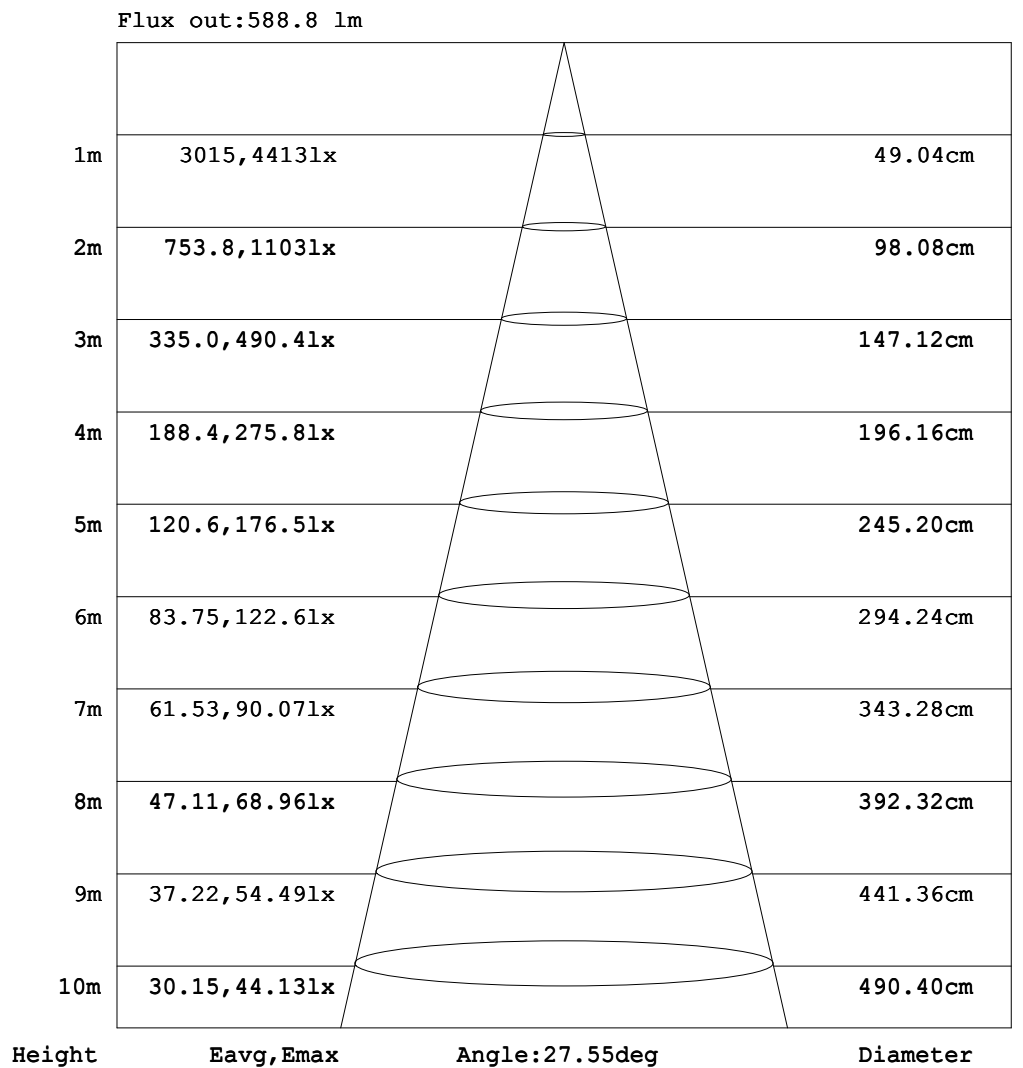


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm		
NAME: DP090RW-M01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



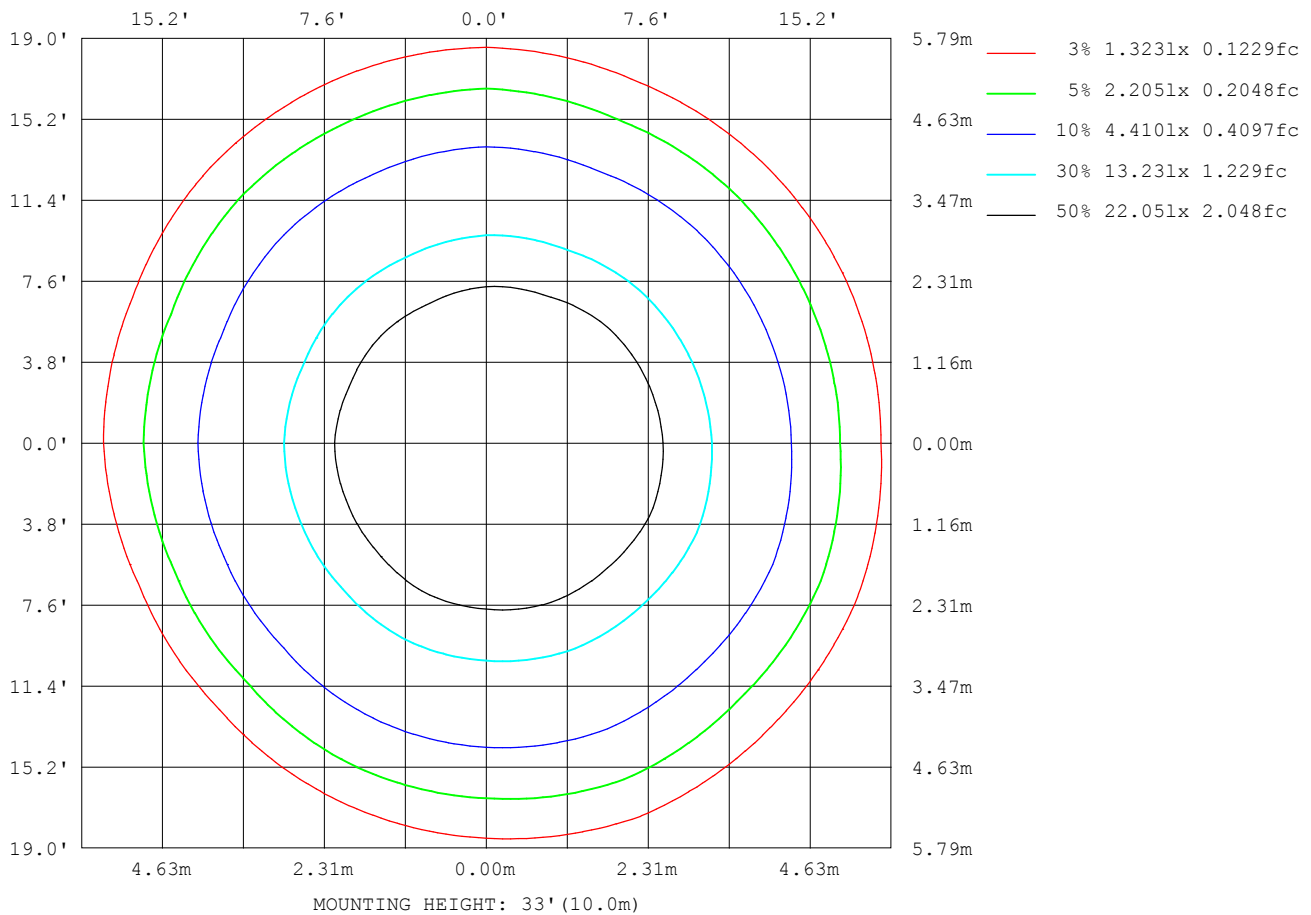
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm		
NAME: DP090RW-M01-14G30	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:0.9570 Freq:50.00Hz Lamp Flux:1189.16x1 lm		
NAME: DP090RW-M01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

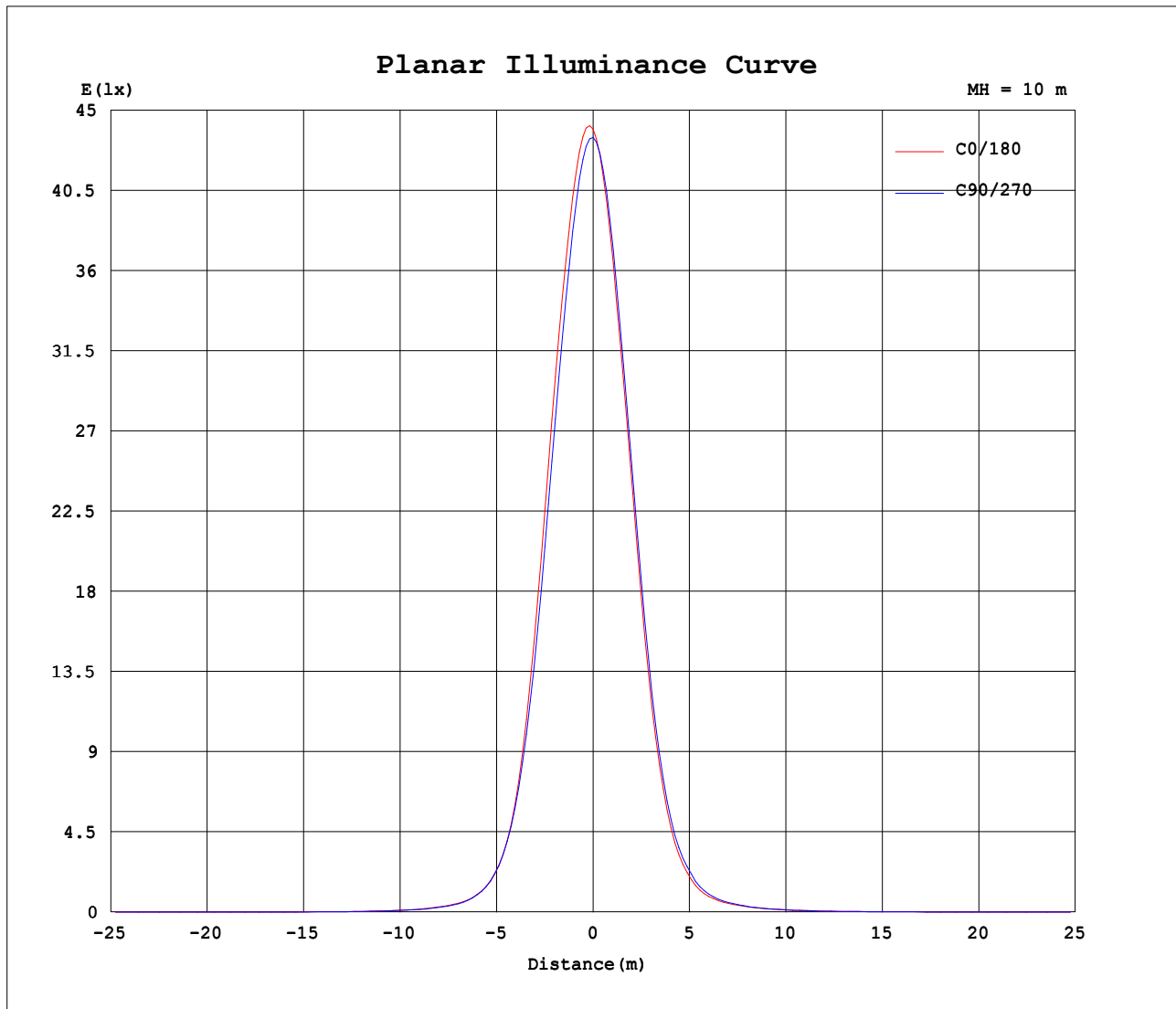
AvgL	cd/m2
L_0~180 (65) av	3582
L_0~180 (75) av	3712
L_0~180 (85) av	6627
L_90~270 (65) av	3604
L_90~270 (75) av	3737
L_90~270 (85) av	5496
L_45 (65) av	3620
L_45 (75) av	3745
L_45 (85) av	5736

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:

```