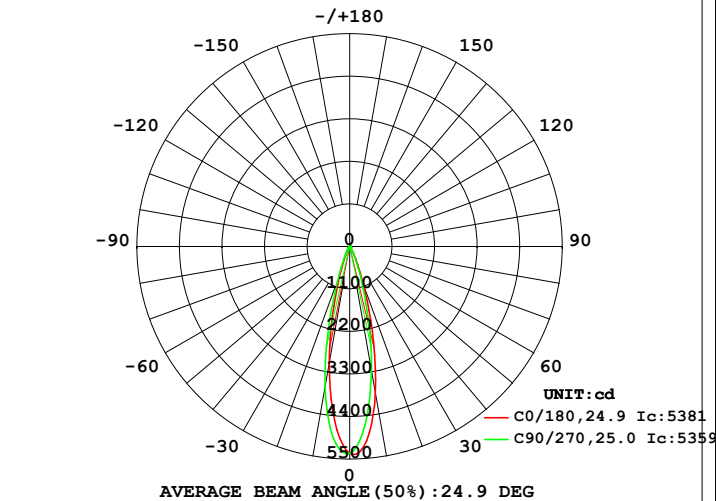


LUMINAIRE PHOTOMETRIC TEST REPORT

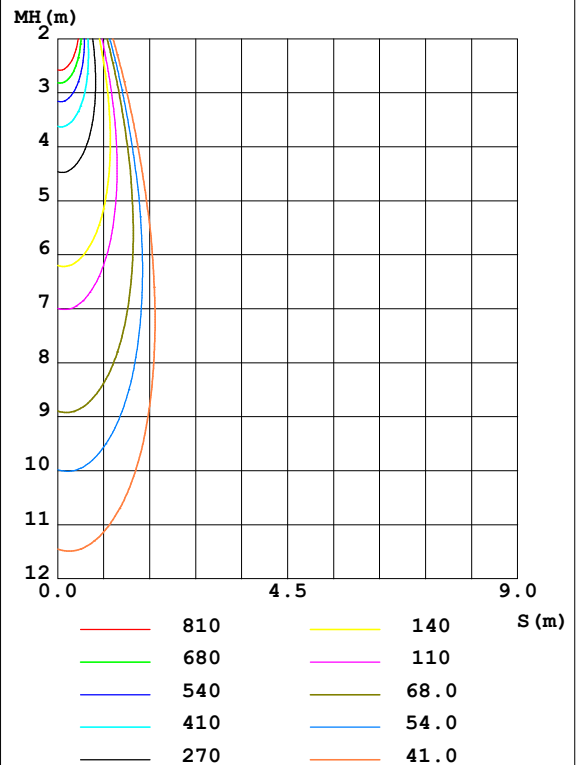
Test:U:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm					
NAME: DP090RW-M01-14G40		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:80		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 83.55 lm/W
MODEL	3000K CRI90	I _{max} (cd)	5400	S/MH(C0/180)	0.39	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.43	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1244.9	η UP,DN(C0-180)	0.0,49.0	
NOMINAL FLUX(lm)	1244.88	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.0	
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	3837	3606	3252	2999	3071	3295	3670	3929	0- 10	413.4	413.4	33.2, 33.2
20	1048	939.6	824.6	694.5	660.5	685.1	869.1	1068	10- 20	527.9	941.3	75.6, 75.6
30	185.5	172.7	164.1	143.5	142.2	140.4	170.0	206.2	20- 30	179.5	1121	90, 90
40	57.69	56.16	52.29	47.41	58.53	57.67	64.47	73.08	30- 40	60.86	1182	94.9, 94.9
50	22.53	21.60	19.25	16.73	25.80	26.86	29.76	32.70	40- 50	29.62	1211	97.3, 97.3
60	9.986	9.872	8.931	7.780	14.17	14.87	16.22	17.38	50- 60	15.30	1227	98.5, 98.5
70	5.205	5.135	4.947	4.725	8.581	8.739	9.207	9.656	60- 70	9.095	1236	99.3, 99.3
80	3.197	3.171	2.666	2.889	5.078	5.182	5.388	5.766	70- 80	5.842	1242	99.7, 99.7
90	1.760	1.764	1.764	1.761	2.902	2.938	3.037	3.141	80- 90	3.303	1245	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): 1198.9 lm

%lum = 96.3%

%lamp = 96.3%

Conical surface Flux(120deg): 1226.6 lm

%lum = 98.5%

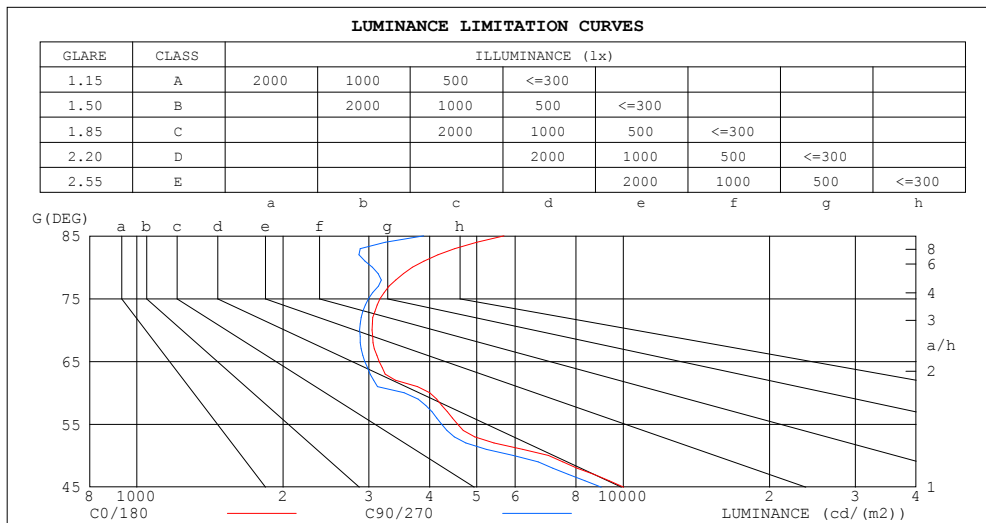
%lamp = 98.5%

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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm		
NAME: DP090RW-M01-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5685	3888
80	3687	3049
75	3163	2997
70	3047	2872
65	3152	2941
60	3999	3547
55	4564	4233
50	7019	5946
45	10023	9019

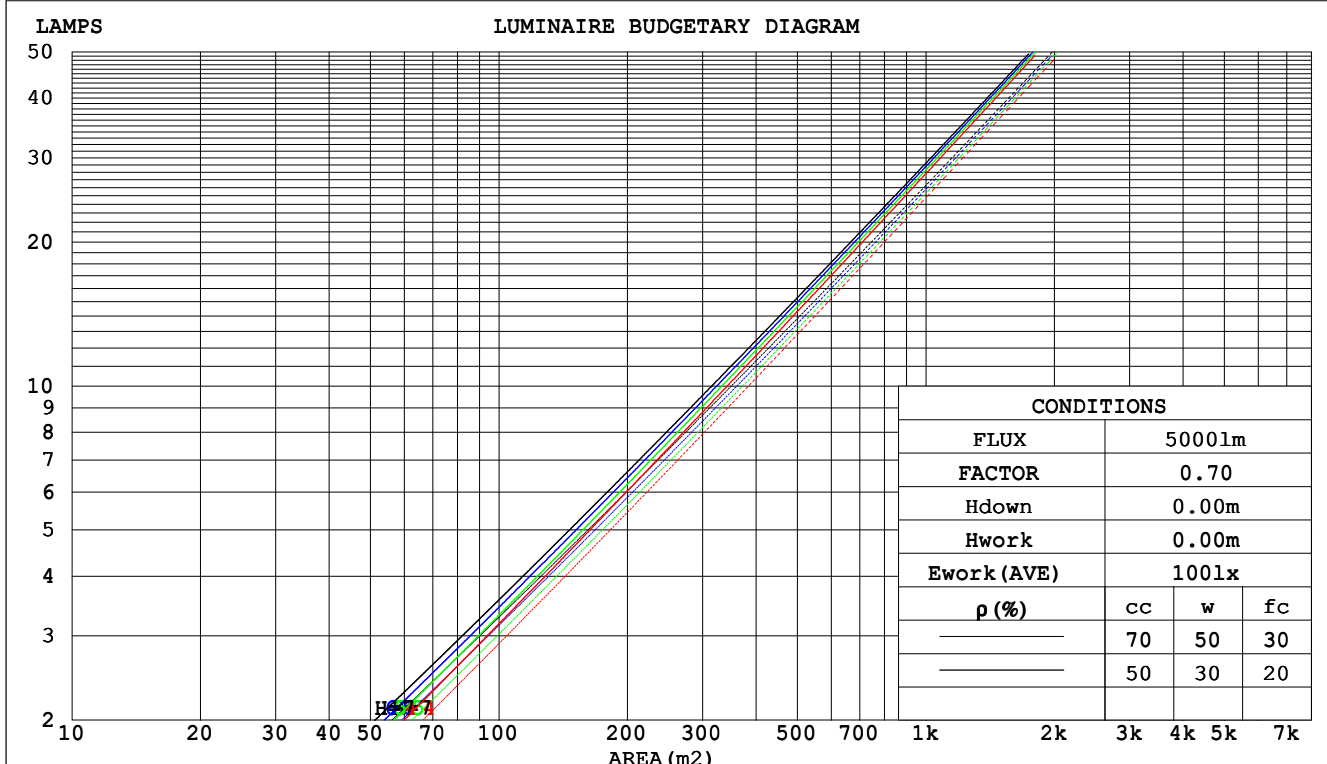
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm		
NAME: DP090RW-M01-14G40	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	1.07	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	1.02	.99	.97	.99	.97	.95	.96	.95	.93	.92
3.0	1.01	.98	.94	1.00	.97	.94	.98	.95	.92	.95	.93	.91	.93	.91	.89	.88
4.0	.97	.93	.90	.96	.92	.89	.94	.91	.88	.92	.89	.87	.90	.88	.86	.85
5.0	.93	.89	.86	.92	.88	.85	.91	.87	.84	.89	.86	.84	.88	.85	.83	.82
6.0	.90	.85	.82	.89	.85	.82	.88	.84	.81	.86	.83	.81	.85	.82	.80	.79
7.0	.87	.82	.79	.86	.82	.79	.85	.81	.78	.84	.81	.78	.83	.80	.78	.77
8.0	.84	.79	.76	.83	.79	.76	.82	.79	.76	.81	.78	.76	.81	.78	.75	.74
9.0	.81	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.78	.75	.73	.72
10.0	.79	.75	.72	.78	.74	.72	.78	.74	.71	.77	.74	.71	.76	.73	.71	.70



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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm					
NAME: DP090RW-M01-14G40			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	.149	.085	.027	.142	.081	.026	.130	.075	.024	.119	.068	.022	.108	.063	.020	
2.0	.138	.076	.023	.132	.073	.022	.122	.068	.021	.113	.063	.020	.104	.059	.019	
3.0	.128	.068	.020	.124	.066	.020	.115	.062	.019	.107	.059	.018	.100	.055	.017	
4.0	.120	.062	.018	.116	.061	.018	.109	.058	.017	.102	.055	.017	.096	.052	.016	
5.0	.113	.057	.017	.109	.056	.016	.103	.054	.016	.097	.051	.015	.092	.049	.015	
6.0	.106	.053	.015	.104	.052	.015	.098	.050	.015	.093	.048	.014	.088	.047	.014	
7.0	.101	.050	.014	.098	.049	.014	.094	.047	.014	.089	.046	.013	.085	.044	.013	
8.0	.096	.047	.013	.094	.046	.013	.090	.045	.013	.086	.043	.013	.082	.042	.012	
9.0	.091	.044	.012	.090	.044	.012	.086	.042	.012	.082	.041	.012	.079	.040	.012	
10.0	.087	.042	.012	.086	.041	.012	.082	.040	.011	.079	.039	.011	.076	.038	.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	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.094	.118	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.125	.098	.078	.107	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.115	.086	.065	.099	.074	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.106	.076	.055	.091	.066	.048	.063	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.085	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.092	.061	.040	.079	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.086	.056	.035	.074	.048	.030	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.081	.051	.031	.070	.044	.027	.049	.031	.019	.028	.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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm											
NAME: DP090RW-M01-14G40					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		10.8	11.5	11.0	11.7	11.9	10.5	11.2	10.7	11.3	11.5
	3H	11.2	11.8	11.4	12.0	12.2	10.8	11.5	11.0	11.6	11.8
	4H	11.4	12.0	11.6	12.2	12.4	11.0	11.6	11.3	11.8	12.1
	6H	11.6	12.2	11.9	12.5	12.7	11.3	11.8	11.5	12.1	12.3
	8H	11.8	12.4	12.1	12.6	12.9	11.3	11.9	11.6	12.1	12.4
	12H	12.0	12.6	12.3	12.8	13.1	11.4	12.0	11.7	12.2	12.5
4H	2H	10.9	11.5	11.1	11.7	11.9	10.5	11.2	10.8	11.4	11.6
	3H	11.3	11.9	11.6	12.1	12.4	11.0	11.6	11.3	11.8	12.1
	4H	11.7	12.2	12.0	12.5	12.8	11.3	11.8	11.7	12.1	12.4
	6H	12.1	12.5	12.5	12.9	13.2	11.7	12.2	12.1	12.5	12.9
	8H	12.3	12.8	12.7	13.1	13.5	11.9	12.3	12.2	12.6	13.0
	12H	12.7	13.1	13.1	13.4	13.8	12.0	12.4	12.4	12.8	13.1
8H	4H	11.7	12.2	12.1	12.5	12.9	11.5	11.9	11.8	12.2	12.6
	6H	12.3	12.7	12.8	13.1	13.5	12.0	12.3	12.4	12.7	13.2
	8H	12.7	13.0	13.2	13.4	13.9	12.2	12.5	12.6	12.9	13.4
	12H	13.2	13.5	13.7	13.9	14.4	12.4	12.7	12.9	13.2	13.6
12H	4H	11.7	12.1	12.1	12.5	12.9	11.5	11.8	11.9	12.2	12.6
	6H	12.4	12.7	12.8	13.1	13.5	12.1	12.4	12.5	12.8	13.2
	8H	12.8	13.1	13.3	13.5	14.0	12.3	12.6	12.8	13.0	13.5
Variations with the observer position at spacings:											
S = 1.0H	+ 1.0 / - 1.2					+ 1.0 / - 1.3					
1.5H	+ 1.8 / - 1.1					+ 1.8 / - 1.3					
2.0H	+ 1.8 / - 0.8					+ 1.9 / - 1.1					

CIE Pub.117, 1245 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.8$)

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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm		
NAME: DP090RW-M01-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

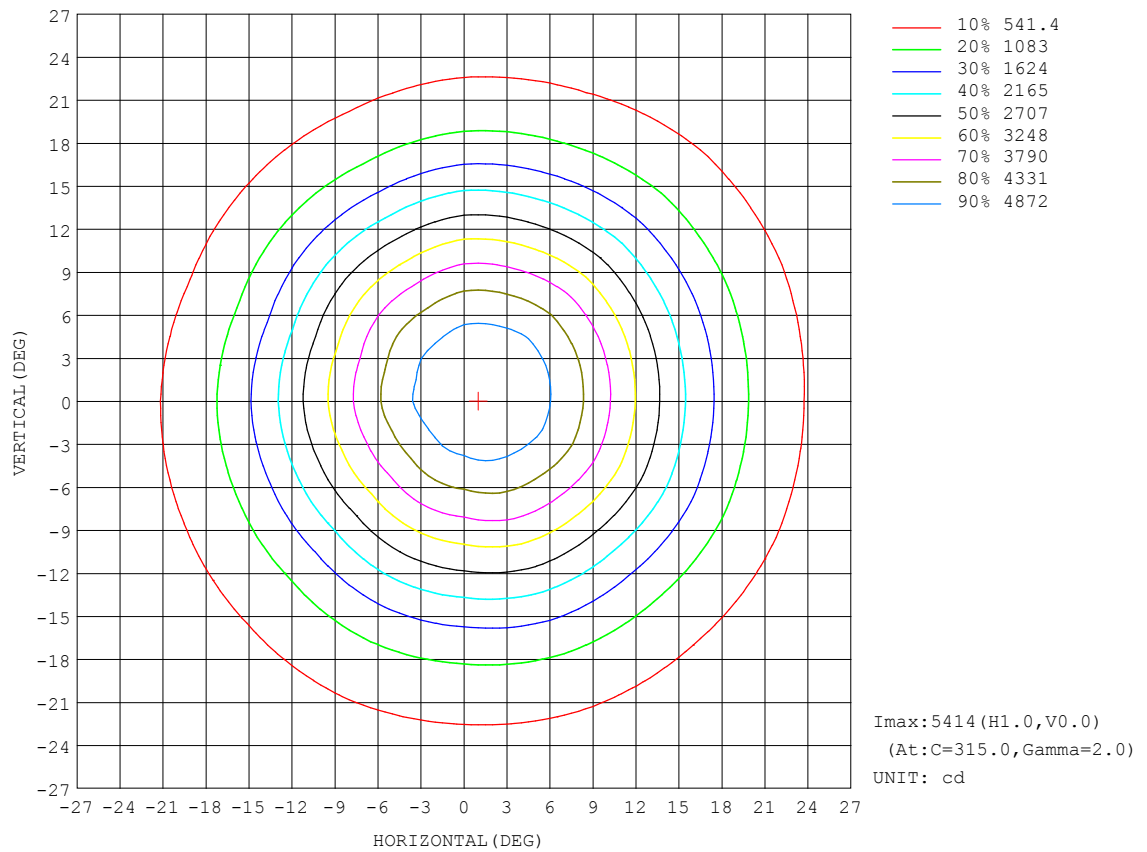
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	79	88	82	79	87	82	78	75
0.80	96	90	86	95	90	86	94	89	86	82
1.00	100	94	91	99	94	91	97	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	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

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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm		
NAME: DP090RW-M01-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

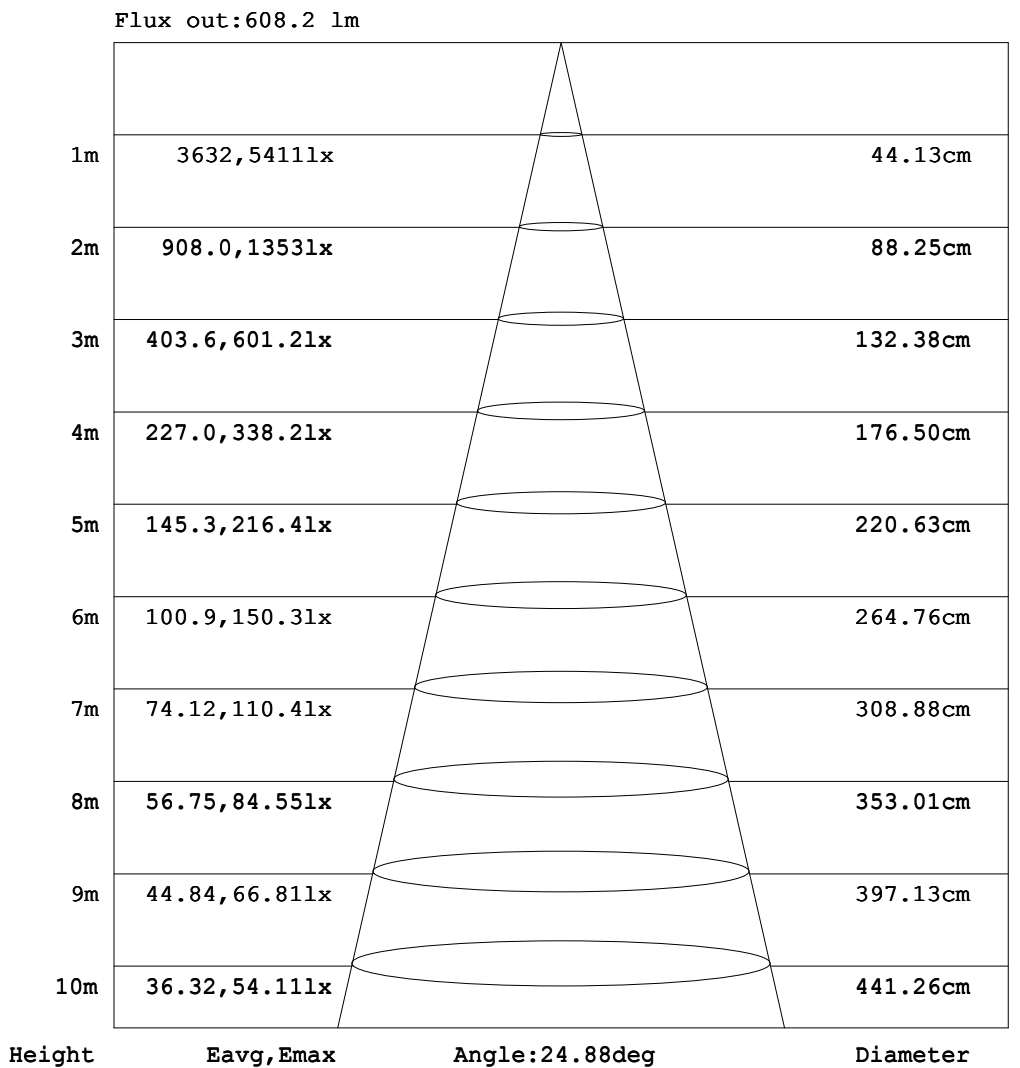


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm		
NAME: DP090RW-M01-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



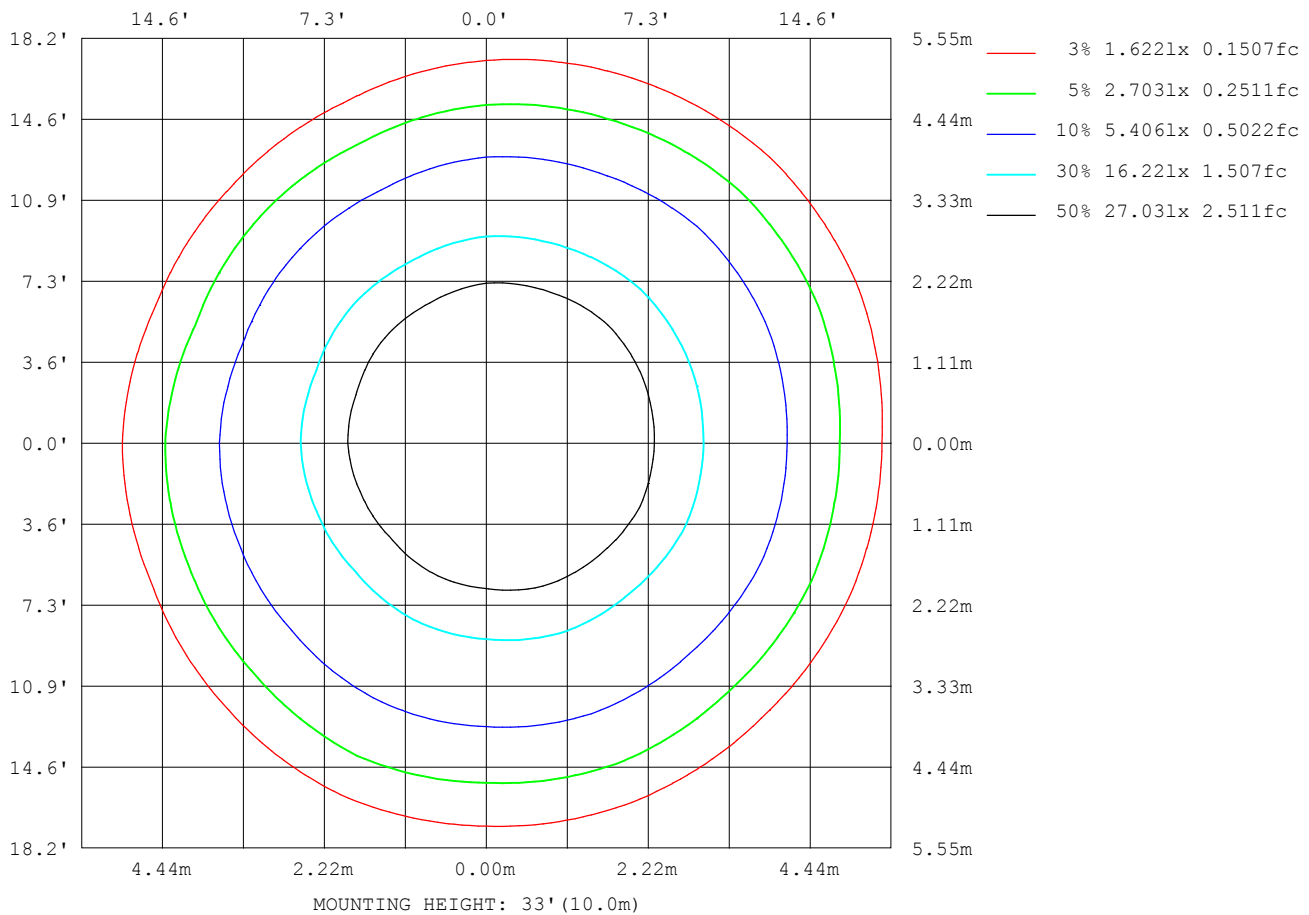
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm		
NAME: DP090RW-M01-14G40	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:224.8V I:0.0690A P:14.90W PF:0.9580 Freq:50.00Hz Lamp Flux:1244.88x1 lm		
NAME: DP090RW-M01-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

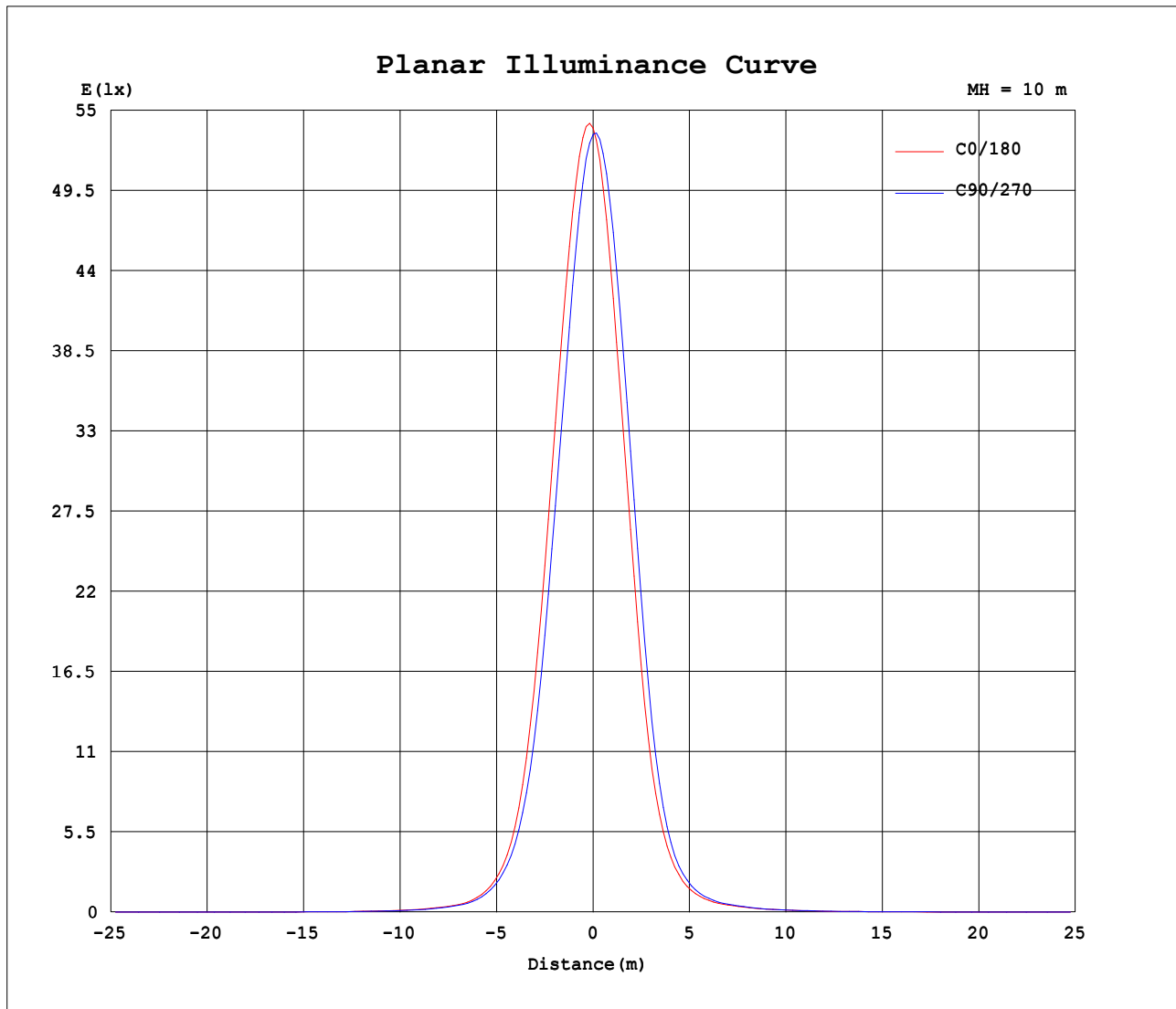
AvgL	cd/m2
L_0~180 (65) av	4158
L_0~180 (75) av	4131
L_0~180 (85) av	7153
L_90~270 (65) av	4265
L_90~270 (75) av	4253
L_90~270 (85) av	6005
L_45 (65) av	4265
L_45 (75) av	4241
L_45 (85) av	6289

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:

```