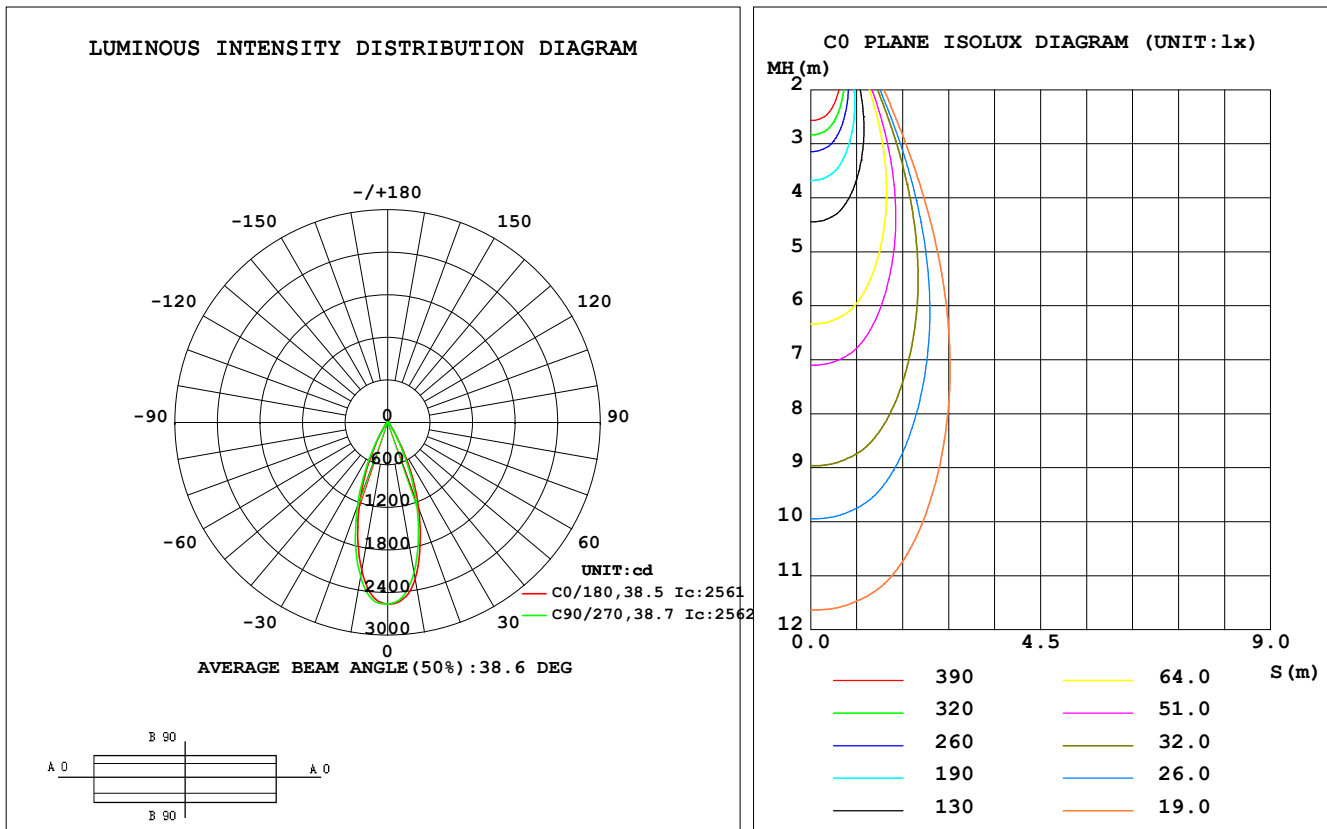


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.8V I:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm					
NAME: DP090RW-F01-14G30		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:80		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 79.93 lm/W
MODEL	3000K CRI90	I _{max} (cd)	2562	S/MH(C0/180)	0.60	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.63	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1183.0	η UP,DN(C0-180)	0.0,49.1	
NOMINAL FLUX(lm)	1183	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.9	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	36	η down(%)	100.0	CIBSE SHR MAX	0.65	



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	2236	2191	2146	2074	2115	2153	2208	2232	0- 10	226.7	226.7	19.2,19.2
20	1276	1246	1178	1104	1130	1177	1252	1297	10- 20	467.5	694.2	58.7,58.7
30	383.4	371.3	320.7	274.5	301.9	329.9	357.8	387.9	20- 30	329.6	1024	86.5,86.5
40	75.34	76.26	69.55	53.59	64.07	68.79	75.91	84.24	30- 40	100.1	1124	95,95
50	19.96	19.52	16.23	12.66	20.86	21.67	23.24	27.90	40- 50	30.34	1154	97.6,97.6
60	7.383	7.336	6.926	6.240	12.51	12.67	13.26	13.99	50- 60	12.12	1166	98.6,98.6
70	4.646	4.692	4.518	4.240	8.282	8.396	8.695	8.999	60- 70	8.047	1174	99.3,99.3
80	2.914	2.954	2.341	2.649	4.993	5.039	5.170	5.481	70- 80	5.509	1180	99.7,99.7
90	1.574	1.595	1.593	1.606	2.865	2.869	2.949	2.969	80- 90	3.101	1183	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): 1142.6 lm

%lum = 96.6%

%lamp = 96.6%

Conical surface Flux(120deg): 1166.3 lm

%lum = 98.6%

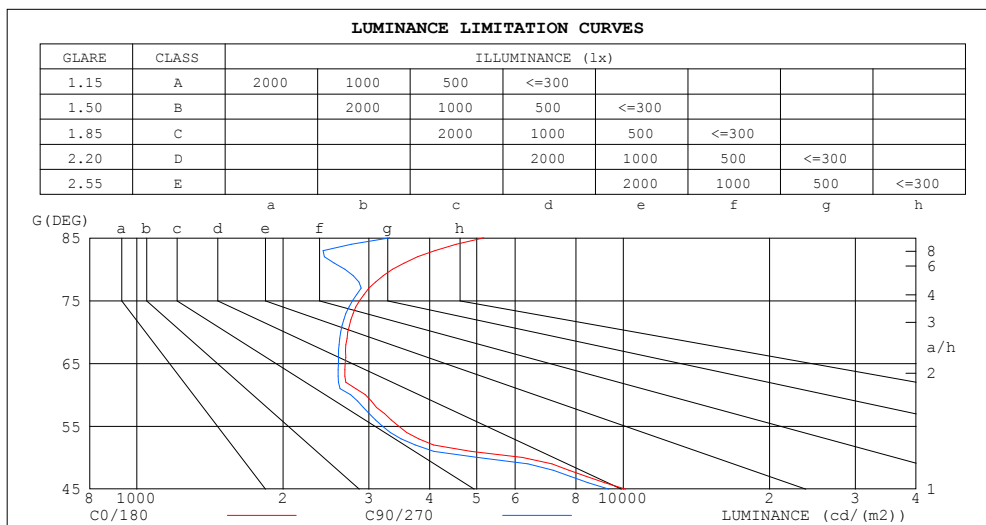
%lamp = 98.6%

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:

LUMINANCE LIMITATION CURVES

Test:U:224.8V I:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm		
NAME: DP090RW-F01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5167	3310
80	3355	2680
75	2871	2778
70	2716	2627
65	2682	2597
60	2952	2754
55	3454	3197
50	6207	5020
45	10121	9342

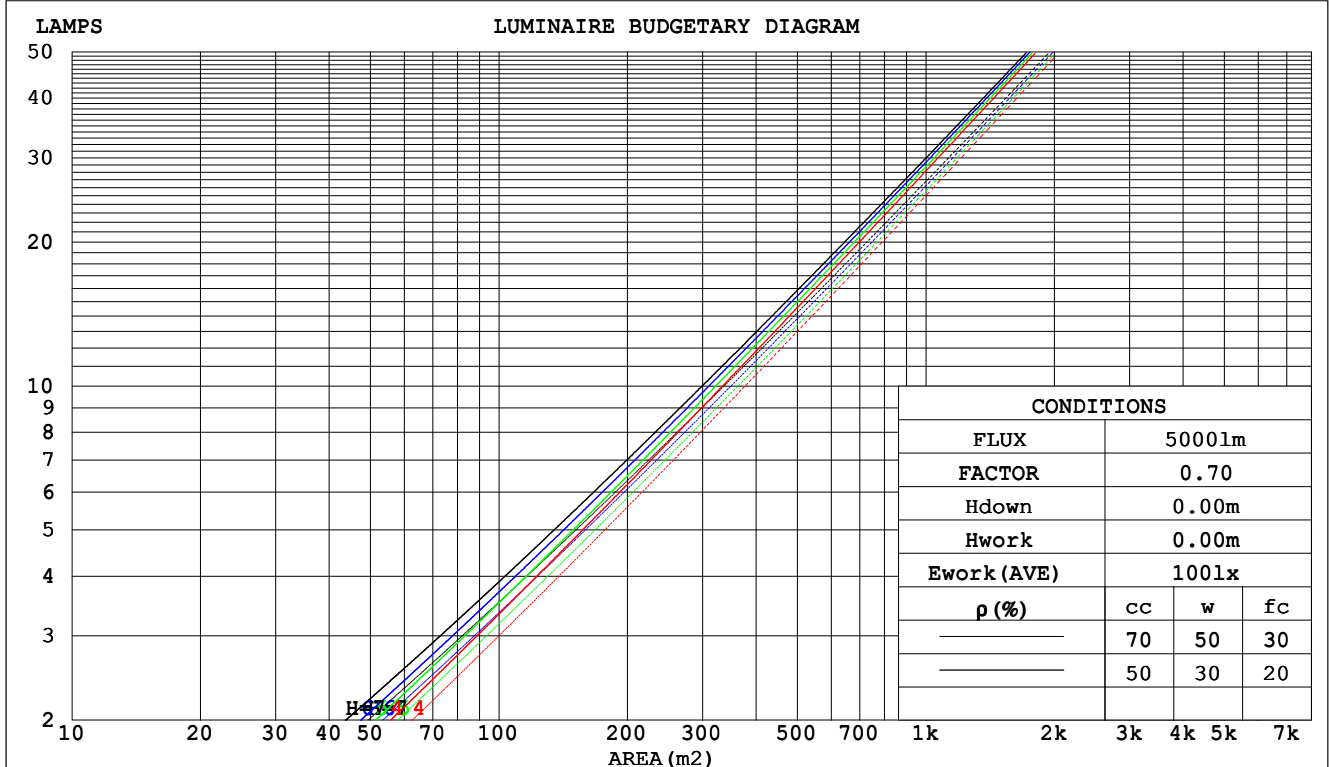
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm		
NAME: DP090RW-F01-14G30	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	1.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	.90	.97	.90	.97	.95	.97	.95	.93	.94	.93	.91	.89
3.0	.99	.95	.91	.98	.94	.90	.95	.92	.89	.93	.90	.88	.91	.88	.86	.85
4.0	.94	.89	.85	.93	.88	.85	.91	.87	.84	.89	.85	.83	.87	.84	.82	.81
5.0	.89	.84	.80	.88	.83	.80	.86	.82	.79	.85	.81	.79	.83	.80	.78	.77
6.0	.85	.80	.76	.84	.79	.76	.83	.78	.75	.81	.78	.75	.80	.77	.74	.73
7.0	.81	.76	.72	.80	.75	.72	.79	.75	.72	.78	.74	.71	.77	.74	.71	.70
8.0	.77	.72	.69	.77	.72	.69	.76	.72	.68	.75	.71	.68	.74	.70	.68	.67
9.0	.74	.69	.66	.74	.69	.66	.73	.68	.65	.72	.68	.65	.71	.68	.65	.64
10.0	.71	.66	.63	.71	.66	.63	.70	.66	.63	.69	.65	.63	.69	.65	.62	.61



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:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm					
NAME: DP090RW-F01-14G30			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	.164	.093	.029	.157	.090	.028	.145	.083	.026	.133	.077	.025	.122	.071	.023	
2.0	.153	.084	.026	.148	.081	.025	.137	.076	.024	.128	.072	.022	.119	.067	.021	
3.0	.144	.077	.023	.139	.075	.022	.131	.071	.022	.122	.067	.021	.115	.064	.020	
4.0	.136	.071	.021	.132	.069	.020	.124	.066	.020	.117	.063	.019	.111	.060	.018	
5.0	.129	.066	.019	.125	.064	.019	.119	.062	.018	.113	.059	.018	.107	.057	.017	
6.0	.122	.061	.018	.119	.060	.017	.114	.058	.017	.108	.056	.017	.103	.054	.016	
7.0	.116	.058	.016	.114	.057	.016	.109	.055	.016	.104	.053	.016	.100	.052	.015	
8.0	.111	.054	.015	.109	.054	.015	.104	.052	.015	.100	.051	.015	.096	.050	.014	
9.0	.106	.052	.014	.104	.051	.014	.100	.050	.014	.097	.049	.014	.093	.047	.014	
10.0	.102	.049	.014	.100	.048	.014	.097	.047	.013	.093	.046	.013	.090	.045	.013	

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	.170	.157	.146	.146	.135	.126	.100	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.140	.113	.092	.120	.098	.080	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.098	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.096	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.044	.090	.060	.039	.062	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.098	.063	.038	.085	.054	.033	.059	.038	.024	.034	.023	.014	.011	.007	.005	
9.0	.093	.057	.033	.080	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004	
10.0	.088	.053	.029	.076	.046	.025	.053	.032	.018	.031	.019	.011	.010	.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:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm											
NAME: DP090RW-F01-14G30					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		13.6	14.4	13.8	14.6	14.7	12.9	13.8	13.2	13.9	14.1
	3H	13.6	14.4	13.9	14.6	14.8	13.0	13.8	13.3	13.9	14.1
	4H	13.7	14.4	13.9	14.6	14.8	13.1	13.8	13.3	14.0	14.2
	6H	13.7	14.4	14.0	14.7	14.9	13.1	13.8	13.4	14.1	14.3
	8H	13.8	14.5	14.1	14.7	15.0	13.2	13.8	13.5	14.1	14.3
	12H	13.9	14.5	14.2	14.8	15.1	13.2	13.8	13.5	14.1	14.3
4H	2H	13.4	14.1	13.7	14.4	14.6	12.8	13.5	13.1	13.7	14.0
	3H	13.5	14.2	13.8	14.4	14.7	13.0	13.6	13.3	13.8	14.1
	4H	13.6	14.2	14.0	14.5	14.8	13.1	13.7	13.4	14.0	14.3
	6H	13.8	14.3	14.2	14.7	15.0	13.3	13.8	13.6	14.1	14.5
	8H	14.0	14.4	14.3	14.8	15.1	13.3	13.8	13.7	14.1	14.5
	12H	14.1	14.6	14.5	14.9	15.3	13.4	13.8	13.8	14.2	14.6
8H	4H	13.6	14.1	14.0	14.4	14.8	13.1	13.6	13.5	13.9	14.3
	6H	13.9	14.3	14.3	14.7	15.1	13.4	13.8	13.8	14.2	14.6
	8H	14.1	14.5	14.6	14.9	15.3	13.5	13.8	13.9	14.2	14.7
	12H	14.4	14.7	14.9	15.2	15.6	13.6	13.9	14.0	14.3	14.8
12H	4H	13.6	14.0	14.0	14.4	14.8	13.1	13.5	13.5	13.9	14.3
	6H	13.9	14.3	14.4	14.7	15.1	13.4	13.7	13.8	14.2	14.6
	8H	14.2	14.5	14.6	14.9	15.4	13.5	13.8	14.0	14.2	14.7
Variations with the observer position at spacings:											
S = 1.0H	+ 1.9 / - 2.5					+ 1.8 / - 2.6					
1.5H	+ 3.6 / - 2.5					+ 3.5 / - 2.6					
2.0H	+ 2.5 / - 0.9					+ 2.5 / - 1.1					

CIE Pub.117, 1183 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 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:224.8V I:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm		
NAME: DP090RW-F01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

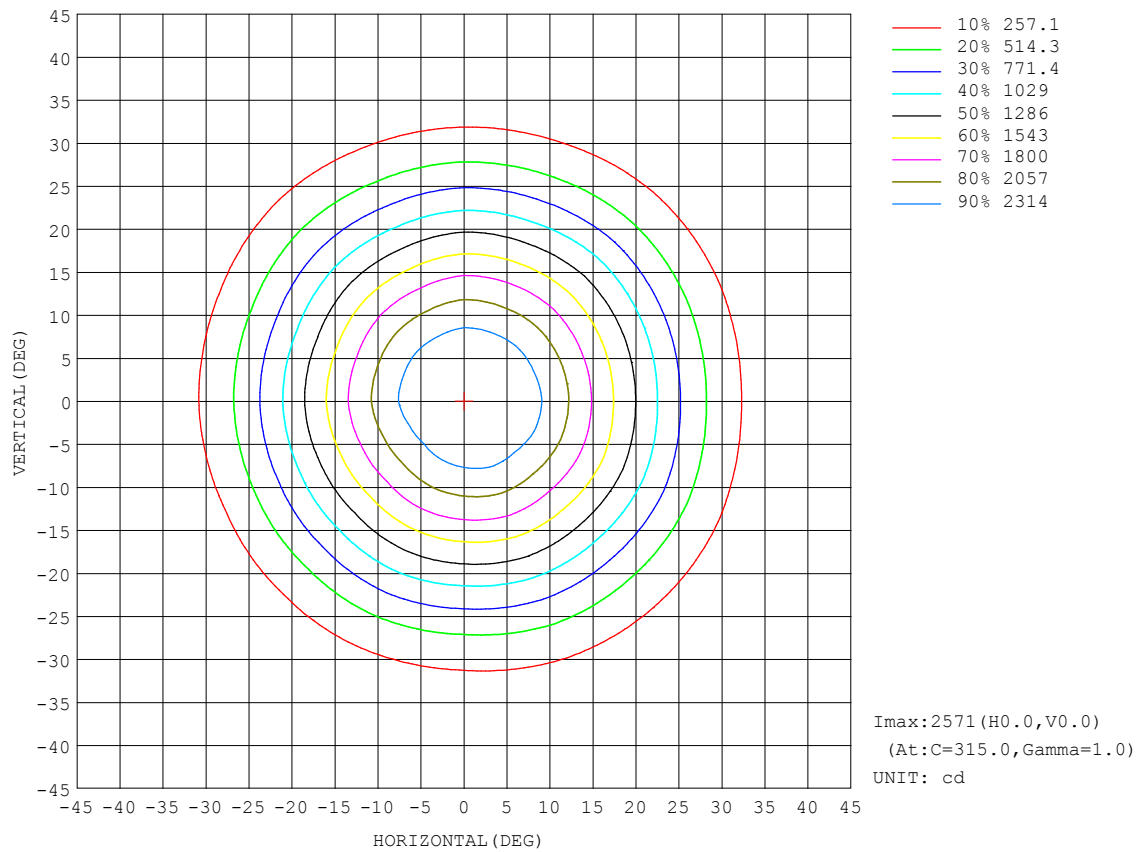
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	82	79	88	82	79	87	82	78	75
0.80	96	90	86	95	90	86	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	102	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:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm		
NAME: DP090RW-F01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

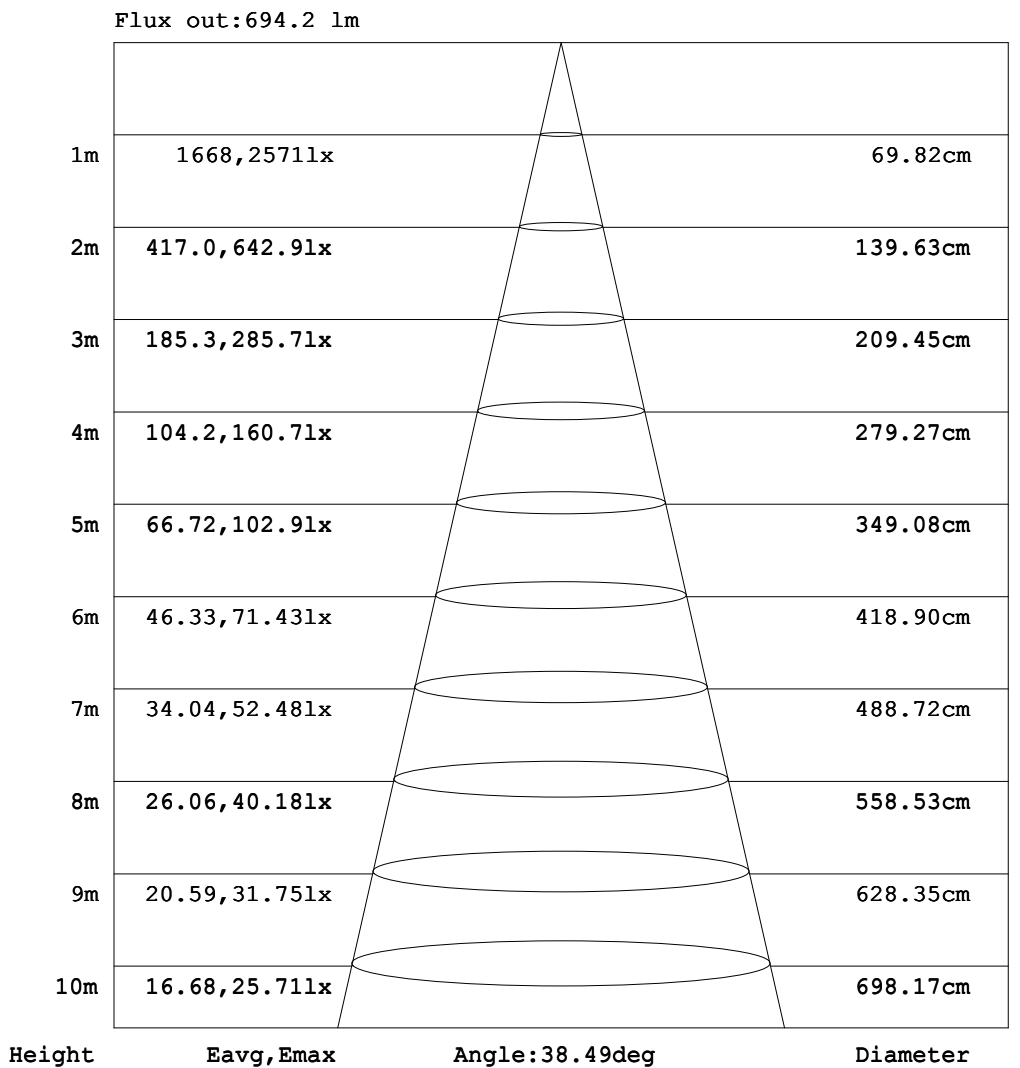


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:224.8V I:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm		
NAME: DP090RW-F01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



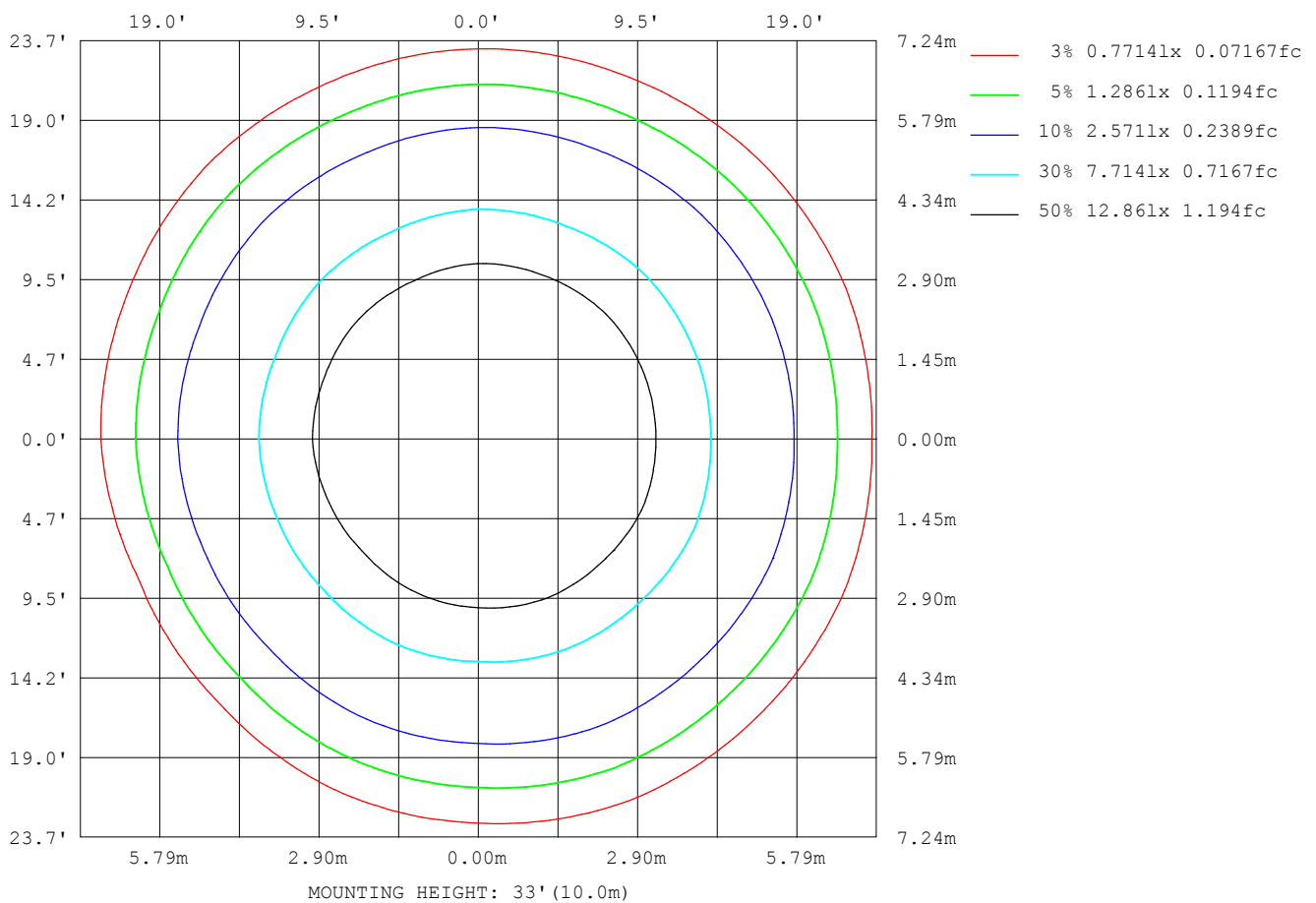
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:224.8V I:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm		
NAME: DP090RW-F01-14G30	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:224.8V I:0.0690A P:14.80W PF:0.9570 Freq:50.00Hz Lamp Flux:1183x1 lm		
NAME: DP090RW-F01-14G30	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

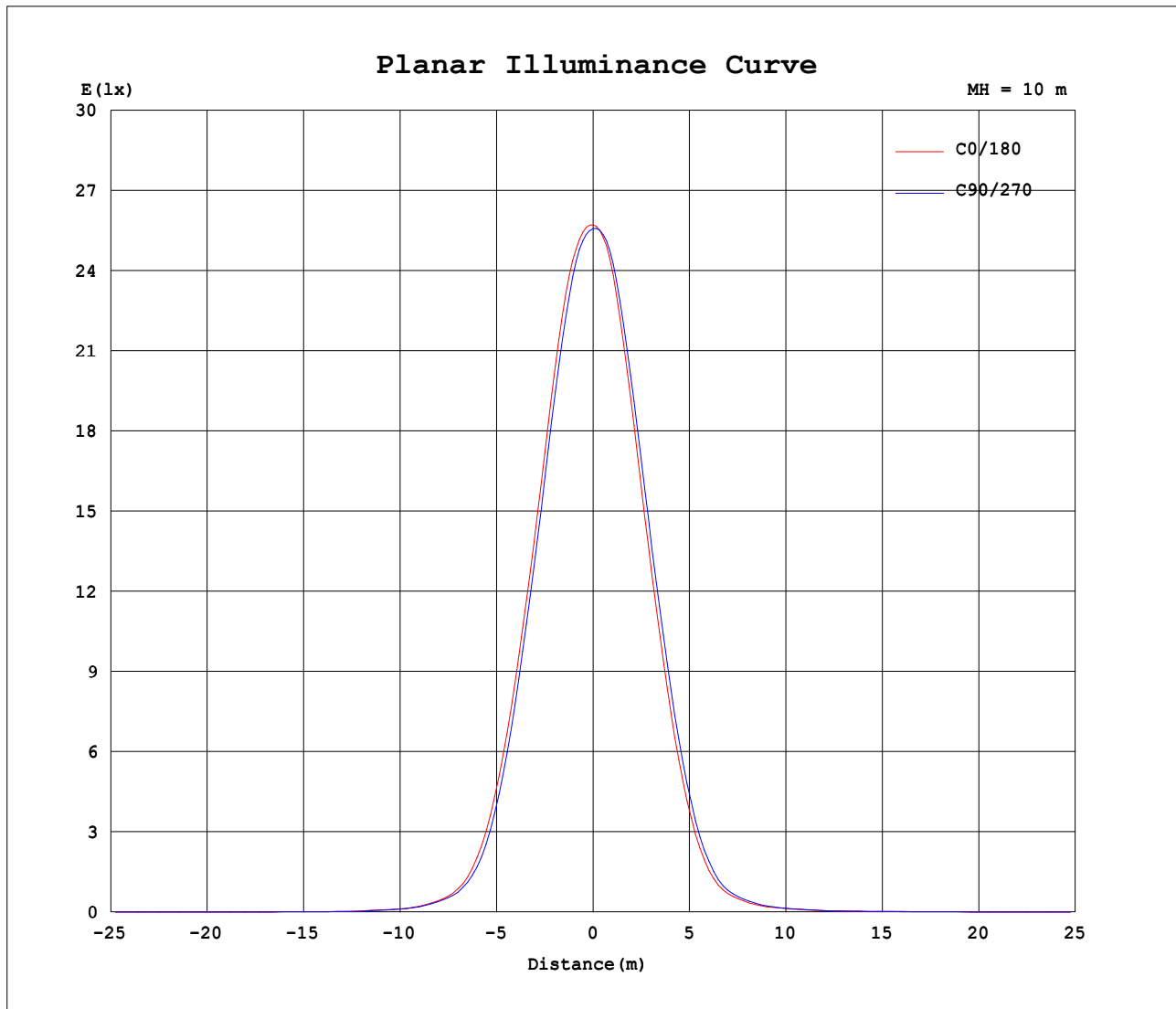
AvgL	cd/m2
L_0~180 (65) av	3757
L_0~180 (75) av	3934
L_0~180 (85) av	6835
L_90~270 (65) av	3832
L_90~270 (75) av	4022
L_90~270 (85) av	5481
L_45 (65) av	3820
L_45 (75) av	4016
L_45 (85) av	5796

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:

```