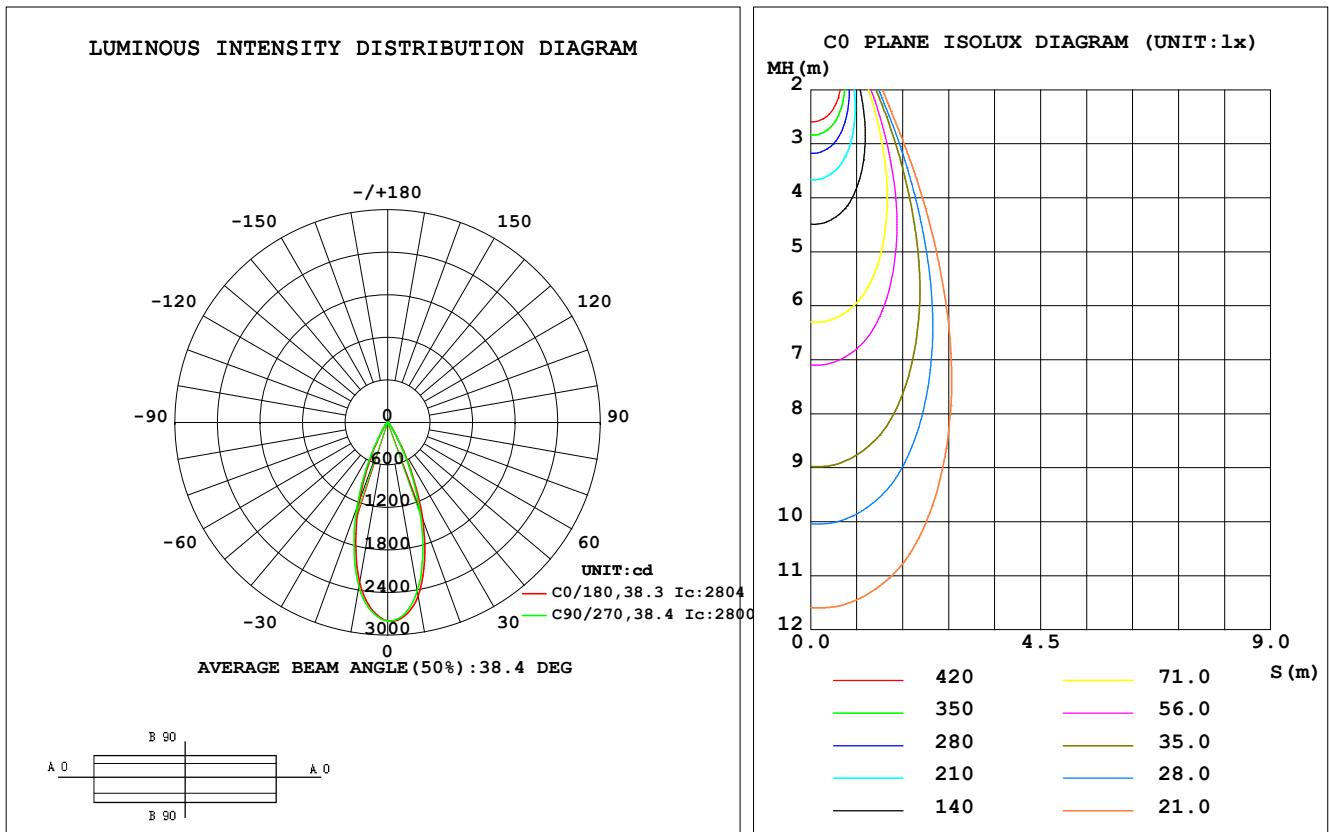


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.8V I:0.0690A P:14.90W PF:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm					
NAME: DP090RW-F1-14G40		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:80		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 84.80 lm/W
MODEL	4000K CRI90	I _{max} (cd)	2808	S/MH(C0/180)	0.59	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.61	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1263.5	η UP,DN(C0-180)	0.0,50.7	
NOMINAL FLUX(lm)	1263.52	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.3	
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	2487	2468	2414	2318	2286	2269	2347	2446	0- 10	247.0	247.0	19.5,19.5
20	1443	1433	1342	1223	1170	1170	1273	1399	10- 20	512.9	759.9	60.1,60.1
30	389.7	378.8	345.4	280.7	264.6	266.8	323.3	383.5	20- 30	341.2	1101	87.1,87.1
40	78.69	70.15	66.48	56.86	68.16	67.58	78.82	88.59	30- 40	96.18	1197	94.8,94.8
50	24.43	23.06	19.89	16.37	25.22	25.93	28.43	32.54	40- 50	32.75	1230	97.4,97.4
60	9.257	9.308	8.635	7.961	14.41	14.57	15.32	16.43	50- 60	14.71	1245	98.5,98.5
70	5.308	5.279	5.169	5.000	9.246	9.303	9.663	10.05	60- 70	9.240	1254	99.2,99.2
80	3.272	3.255	2.685	3.009	5.438	5.473	5.630	6.042	70- 80	6.143	1260	99.7,99.7
90	1.721	1.740	1.763	1.779	3.077	3.069	3.119	3.214	80- 90	3.386	1264	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): 1216.9 lm

%lum = 96.3%

%lamp = 96.3%

Conical surface Flux(120deg): 1244.7 lm

%lum = 98.5%

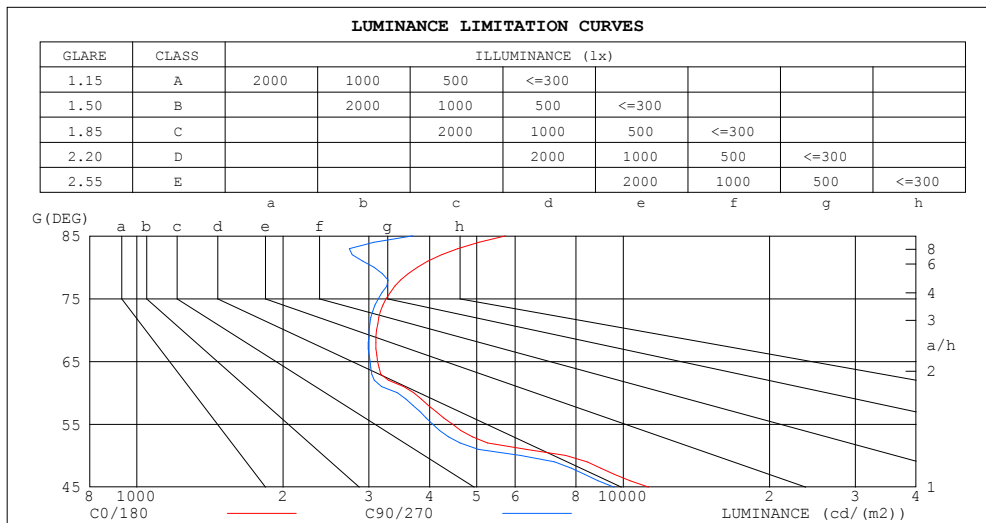
%lamp = 98.5%

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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm		
NAME: DP090RW-F1-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5733	3695
80	3778	3073
75	3256	3139
70	3111	3004
65	3124	3020
60	3712	3433
55	4455	4054
50	7619	6150
45	11284	9578

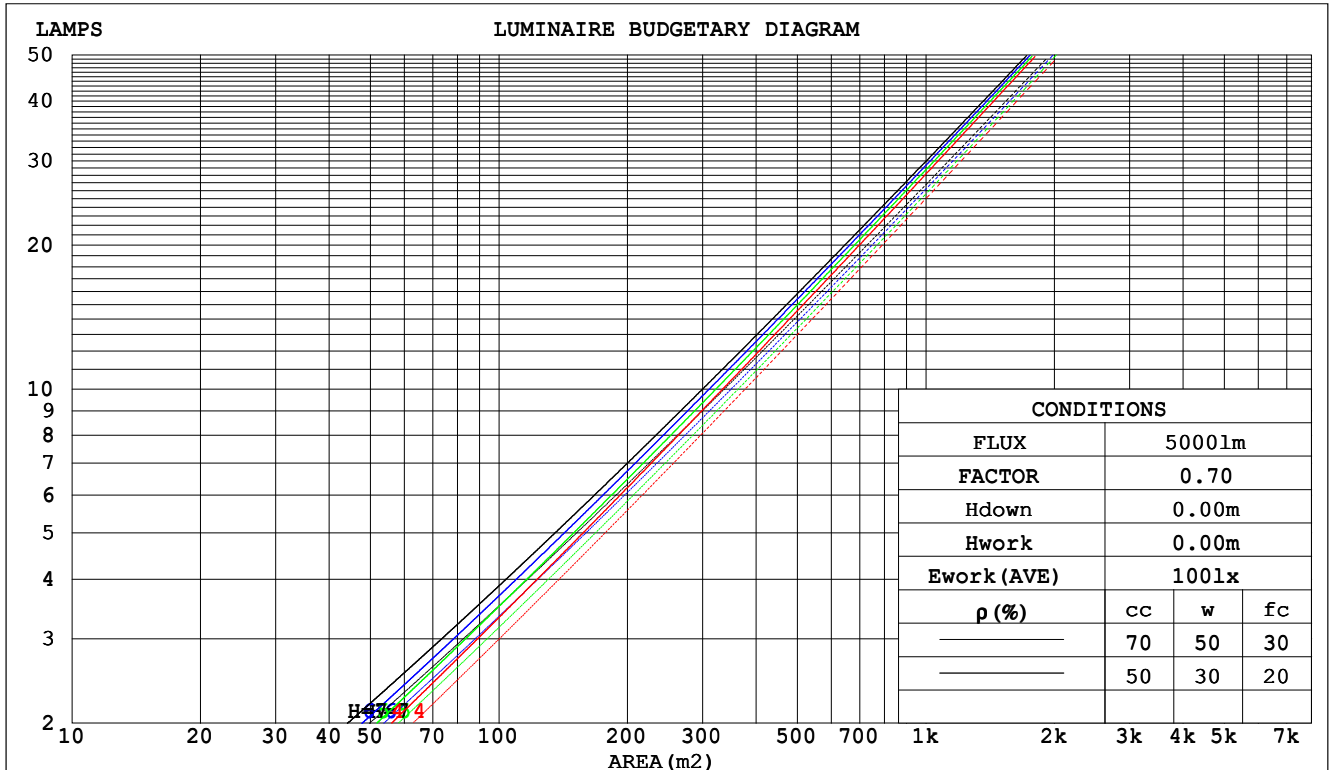
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm		
NAME: DP090RW-F1-14G40	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	1.00
1.0	1.12	1.09	1.07	1.09	1.07	1.06	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	.99	.97	1.00	.97	.95	.97	.95	.93	.94	.93	.91	.90
3.0	.99	.95	.91	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.88	.86	.85
4.0	.94	.89	.85	.93	.88	.85	.91	.87	.84	.89	.86	.83	.87	.84	.82	.81
5.0	.89	.84	.81	.88	.84	.80	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77
6.0	.85	.80	.76	.84	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.75	.73
7.0	.81	.76	.73	.81	.76	.72	.79	.75	.72	.78	.75	.72	.77	.74	.71	.70
8.0	.78	.73	.69	.77	.72	.69	.76	.72	.69	.75	.71	.69	.74	.71	.68	.67
9.0	.75	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.66	.72	.68	.65	.64
10.0	.72	.67	.63	.71	.67	.63	.70	.66	.63	.70	.66	.63	.69	.65	.63	.62



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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm					
NAME: DP090RW-F1-14G40			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	.163	.093	.029	.157	.089	.028	.144	.083	.026	.132	.076	.025	.122	.071	.023		
2.0	.153	.084	.026	.147	.081	.025	.137	.076	.024	.127	.071	.022	.118	.067	.021		
3.0	.143	.076	.023	.139	.074	.022	.130	.070	.021	.122	.067	.020	.114	.063	.020		
4.0	.135	.070	.021	.131	.069	.020	.124	.066	.020	.117	.063	.019	.110	.060	.018		
5.0	.128	.065	.019	.124	.064	.019	.118	.061	.018	.112	.059	.018	.106	.057	.017		
6.0	.121	.061	.017	.118	.060	.017	.113	.058	.017	.107	.056	.016	.102	.054	.016		
7.0	.116	.057	.016	.113	.056	.016	.108	.055	.016	.103	.053	.015	.099	.051	.015		
8.0	.110	.054	.015	.108	.053	.015	.104	.052	.015	.100	.050	.015	.096	.049	.014		
9.0	.106	.051	.014	.104	.050	.014	.100	.049	.014	.096	.048	.014	.092	.047	.014		
10.0	.101	.049	.013	.099	.048	.013	.096	.047	.013	.093	.046	.013	.089	.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	.082	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.098	.075	.110	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.087	.062	.102	.075	.054	.070	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005	
8.0	.098	.063	.038	.084	.054	.033	.058	.038	.024	.034	.022	.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:14.90W PF:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm										
NAME: DP090RW-F1-14G40					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	13.1	13.9	13.3	14.1	14.2	12.5	13.3	12.7	13.5	13.6
3H	13.2	13.9	13.4	14.1	14.3	12.6	13.4	12.9	13.6	13.8
4H	13.3	14.0	13.5	14.2	14.4	12.7	13.4	13.0	13.6	13.9
6H	13.4	14.1	13.7	14.3	14.5	12.8	13.5	13.1	13.7	14.0
8H	13.5	14.1	13.8	14.4	14.6	12.9	13.5	13.2	13.8	14.0
12H	13.6	14.2	13.9	14.5	14.7	12.9	13.5	13.2	13.8	14.0
4H 2H	13.0	13.7	13.2	13.9	14.1	12.4	13.1	12.7	13.3	13.5
3H	13.2	13.8	13.5	14.0	14.3	12.6	13.3	12.9	13.5	13.8
4H	13.3	13.9	13.7	14.2	14.5	12.8	13.4	13.2	13.7	14.0
6H	13.6	14.1	13.9	14.4	14.7	13.1	13.6	13.4	13.9	14.2
8H	13.7	14.2	14.1	14.5	14.9	13.1	13.6	13.5	13.9	14.3
12H	13.9	14.4	14.3	14.7	15.1	13.2	13.6	13.6	14.0	14.4
8H 4H	13.3	13.8	13.7	14.1	14.5	12.9	13.3	13.2	13.7	14.0
6H	13.7	14.1	14.1	14.5	14.9	13.2	13.6	13.6	14.0	14.4
8H	13.9	14.3	14.4	14.7	15.1	13.3	13.7	13.8	14.1	14.5
12H	14.3	14.6	14.8	15.0	15.5	13.5	13.8	13.9	14.2	14.7
12H 4H	13.3	13.7	13.7	14.1	14.5	12.8	13.3	13.2	13.6	14.0
6H	13.7	14.1	14.2	14.5	14.9	13.2	13.6	13.7	14.0	14.4
8H	14.0	14.3	14.5	14.7	15.2	13.4	13.7	13.9	14.1	14.6
Variations with the observer position at spacings:										
S = 1.0H	+ 1.7 / - 2.0					+ 1.5 / - 2.0				
1.5H	+ 3.3 / - 1.9					+ 3.0 / - 2.0				
2.0H	+ 2.3 / - 0.9					+ 2.0 / - 1.0				

CIE Pub.117, 1264 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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm		
NAME: DP090RW-F1-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

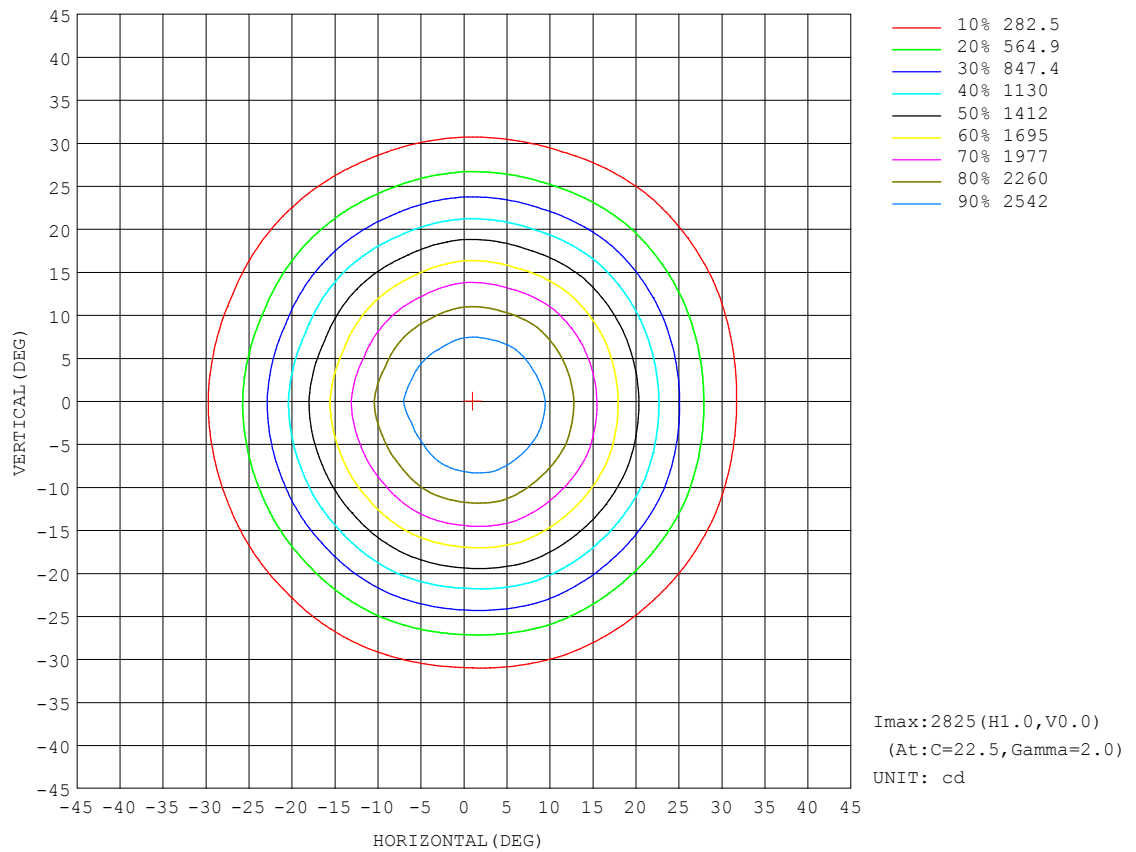
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	88	82	78	87	82	78	75
0.80	96	90	86	95	90	86	94	89	86	82
1.00	100	94	91	99	94	90	97	94	90	86
1.25	104	98	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	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	108	108	106	105	98
5.00	115	113	111	113	111	109	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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm		
NAME: DP090RW-F1-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

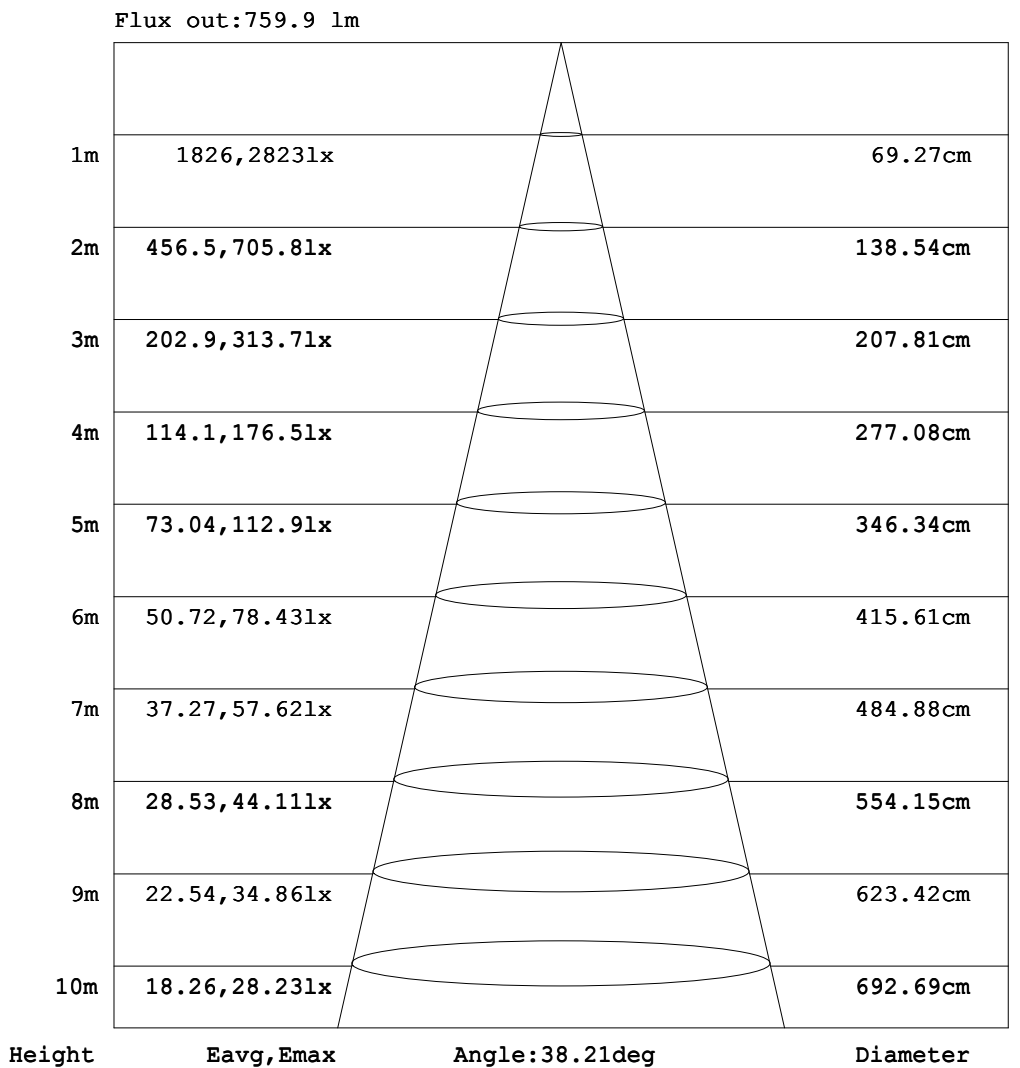


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm		
NAME: DP090RW-F1-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:



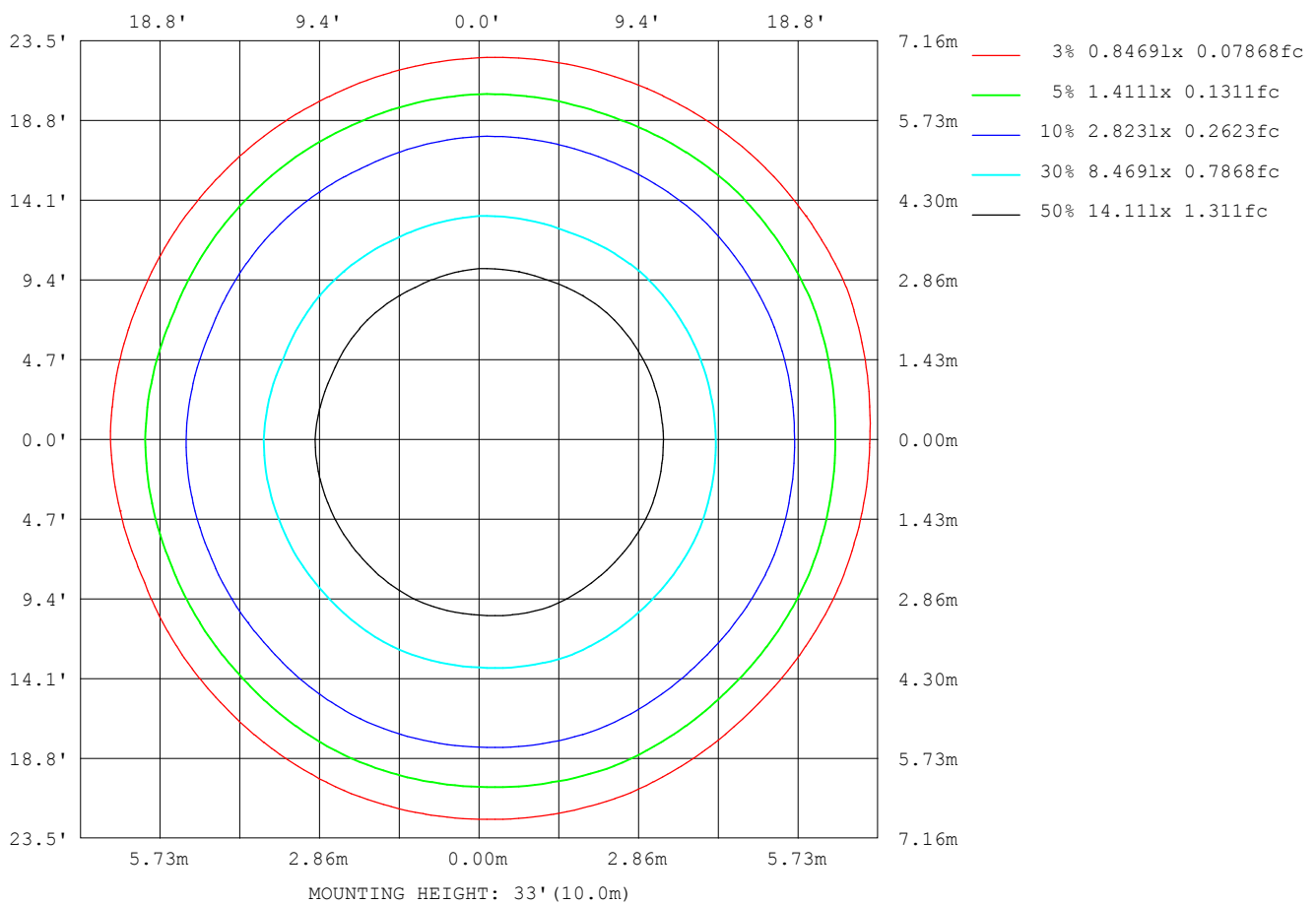
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm		
NAME: DP090RW-F1-14G40	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:0.9570 Freq:50.00Hz Lamp Flux:1263.52x1 lm		
NAME: DP090RW-F1-14G40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:80	Shielding Angle:

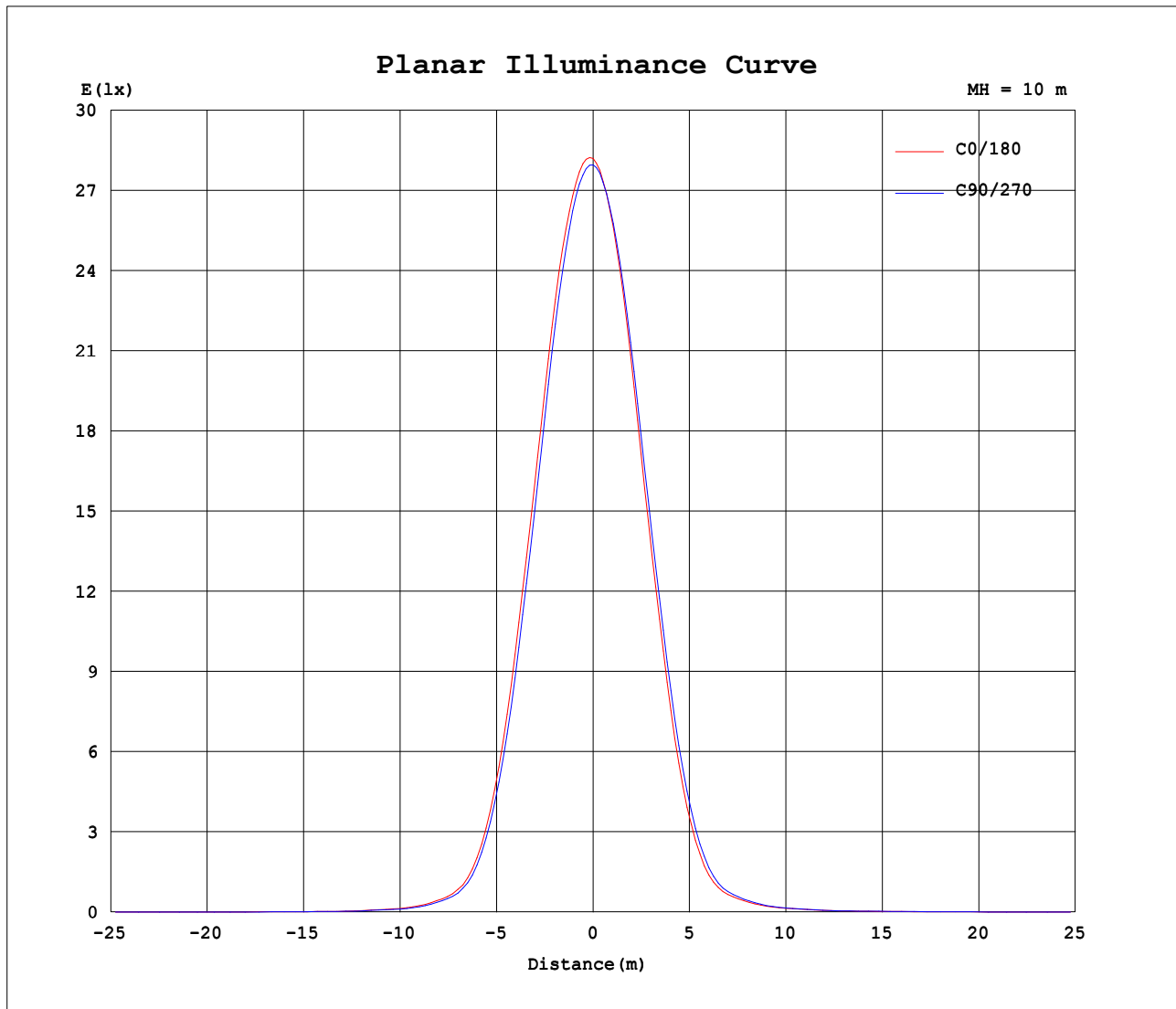
AvgL	cd/m2
L_0~180 (65) av	4289
L_0~180 (75) av	4380
L_0~180 (85) av	7443
L_90~270 (65) av	4361
L_90~270 (75) av	4474
L_90~270 (85) av	5934
L_45 (65) av	4357
L_45 (75) av	4465
L_45 (85) av	6313

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:

```