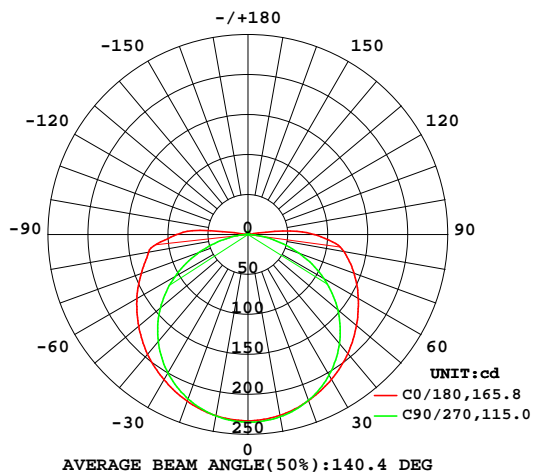


## LUMINAIRE PHOTOMETRIC TEST REPORT

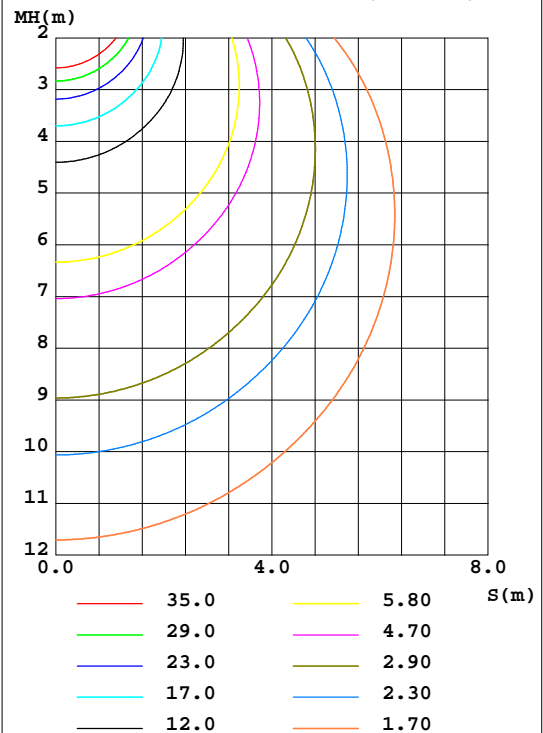
Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.64 lm/W			
MODEL	DF82408NO	I <sub>max</sub> (cd)	234.7	S/MH(C0/180)	1.35
NOMINAL POWER(W)	10.5	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	909.73	h UP,DN(C0-180)	2.2,48.1
NOMINAL FLUX(lm)	909.731	CIE CLASS	DIRECT	h UP,DN(C180-360)	2.1,47.6
LAMPS INSIDE	1	h up(%)	4.3	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	95.7	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2020-04-23

g Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

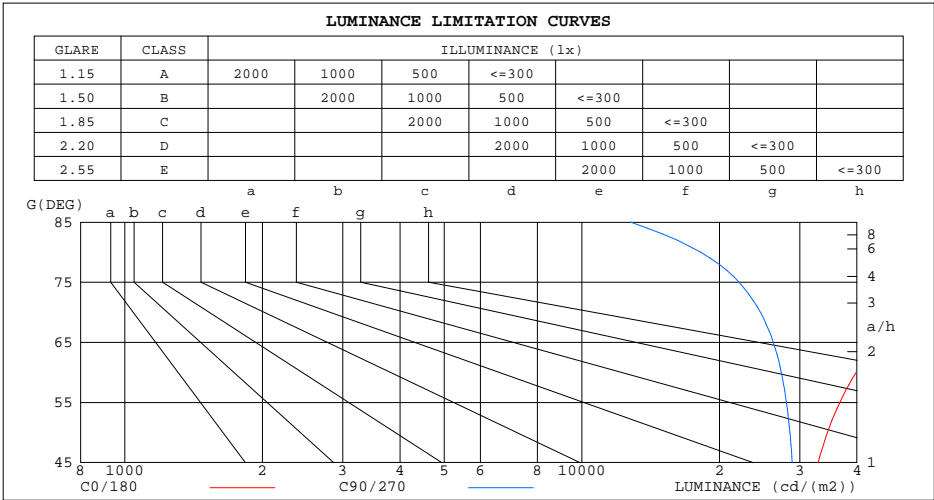
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	229.7	231.8	231.5	229.5	230.2	231.1	230.4	228.4	0- 10	22.15	22.15	2.43,2.43
20	221.1	222.2	220.9	220.4	222.1	221.0	218.8	218.0	10- 20	63.91	86.05	9.46,9.46
30	209.2	207.0	203.1	205.3	209.9	205.0	200.2	201.7	20- 30	98.50	184.5	20.3,20.3
40	194.4	187.7	178.2	185.5	195.5	185.0	174.7	181.9	30- 40	122.6	307.2	33.8,33.8
50	177.2	165.0	146.7	162.7	178.5	162.1	143.0	158.7	40- 50	134.4	441.5	48.5,48.5
60	159.3	140.1	109.3	137.9	160.5	137.4	105.7	133.9	50- 60	133.2	574.8	63.2,63.2
70	141.2	116.4	67.29	113.9	142.0	113.8	64.29	110.6	60- 70	121.0	695.8	76.5,76.5
80	121.5	91.55	25.29	92.06	126.2	92.46	23.91	87.39	70- 80	100.7	796.5	87.6,87.6
90	82.81	56.44	1.137	58.94	89.29	59.60	0.7630	52.69	80- 90	73.77	870.3	95.7,95.7
100	6.978	2.431	0.8066	2.816	2.919	1.389	0.5354	1.403	90-100	27.60	897.9	98.7,98.7
110	2.913	2.197	1.149	1.990	2.017	1.516	1.089	1.547	100-110	1.913	899.8	98.9,98.9
120	2.605	2.192	1.796	1.944	2.178	1.802	1.523	1.710	110-120	1.851	901.6	99.1,99.1
130	2.772	2.485	2.244	2.251	2.418	2.117	1.898	1.950	120-130	1.900	903.5	99.3,99.3
140	2.981	2.672	2.571	2.632	2.632	2.545	2.171	2.140	130-140	1.864	905.4	99.5,99.5
150	3.080	2.805	2.805	3.013	2.812	2.985	2.585	2.350	140-150	1.668	907.1	99.7,99.7
160	3.368	2.939	3.206	3.407	3.119	3.354	3.140	2.663	150-160	1.366	908.4	99.9,99.9
170	3.478	3.334	3.734	3.694	3.244	3.726	3.674	3.246	160-170	0.9412	909.4	100,100
180	3.440	3.981	4.088	3.994	3.500	4.034	4.101	4.054	170-180	0.3466	909.7	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	152192	12789
80	87494	18202
75	63584	22097
70	51617	24593
65	44502	26240
60	39833	27323
55	36666	28046
50	34462	28534
45	32876	28864

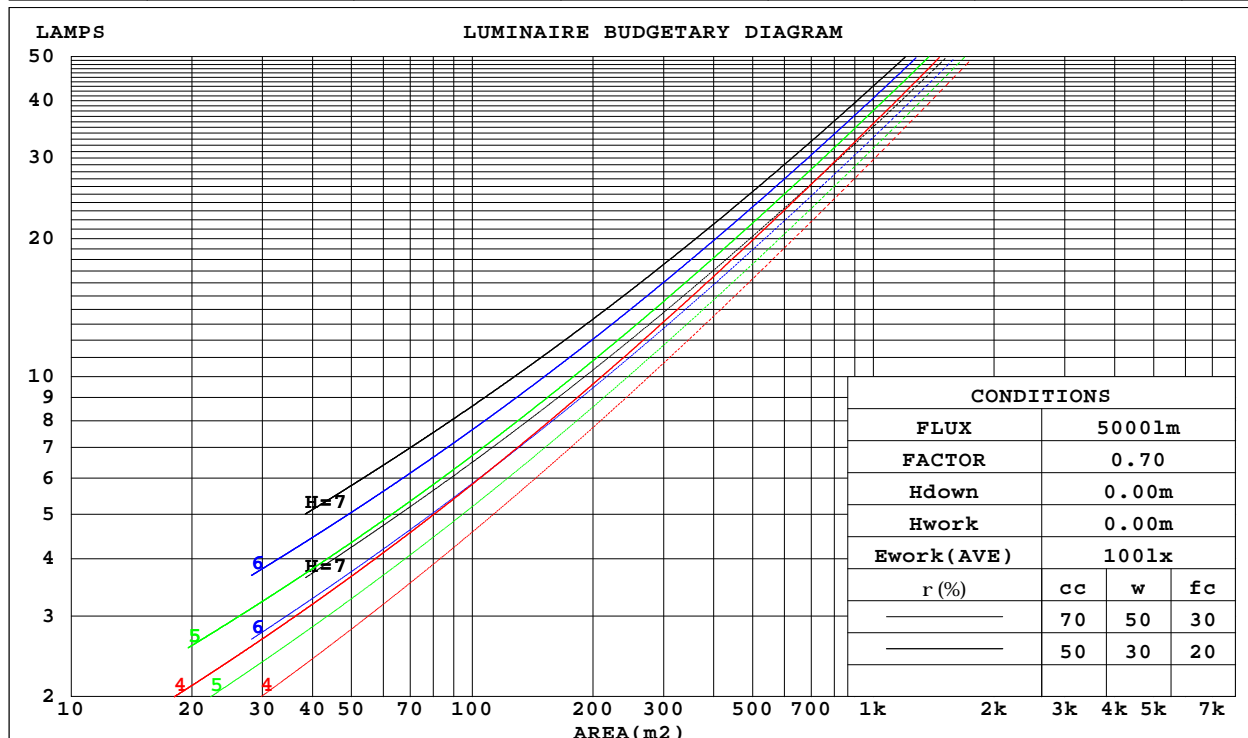
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

r <sub>cc</sub>	80%			70%			50%			30%			10%			0
r <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2020-04-23

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

## WEC AND CCEC

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.731x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWN5A012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0														
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
rfc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients(WEC)														
0.0																														
1.0	.400	.228	.072	.392	.223	.071	.375	.215	.069	.361	.208	.067	.347	.201	.065															
2.0	.346	.190	.058	.339	.187	.057	.324	.180	.056	.311	.174	.055	.299	.169	.053															
3.0	.307	.163	.049	.300	.161	.048	.287	.156	.047	.275	.151	.046	.264	.146	.045															
4.0	.276	.143	.042	.270	.141	.042	.258	.137	.041	.248	.133	.040	.238	.129	.039															
5.0	.250	.128	.037	.245	.126	.037	.235	.122	.036	.225	.119	.035	.216	.115	.035															
6.0	.229	.115	.033	.224	.113	.033	.215	.110	.032	.206	.107	.032	.198	.104	.031															
7.0	.211	.104	.030	.207	.103	.029	.198	.100	.029	.190	.098	.028	.183	.095	.028															
8.0	.195	.096	.027	.192	.094	.027	.184	.092	.026	.177	.090	.026	.170	.087	.025															
9.0	.182	.088	.025	.178	.087	.024	.172	.085	.024	.165	.083	.024	.159	.081	.023															
10.0	.170	.082	.023	.167	.081	.023	.161	.079	.022	.155	.077	.022	.149	.075	.022															

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.224	.224	.224	.191	.191	.191	.130	.130	.130	.075	.075	.075	.024	.024	.024	
1.0	.220	.189	.161	.188	.162	.138	.129	.111	.096	.074	.064	.056	.024	.021	.018	
2.0	.213	.165	.125	.182	.142	.108	.125	.098	.075	.072	.057	.044	.023	.019	.014	
3.0	.205	.148	.103	.176	.128	.089	.121	.089	.062	.070	.052	.037	.022	.017	.012	
4.0	.197	.135	.088	.169	.117	.077	.116	.082	.054	.067	.048	.032	.022	.016	.010	
5.0	.189	.125	.078	.163	.108	.068	.112	.076	.048	.065	.044	.028	.021	.015	.009	
6.0	.182	.117	.071	.156	.101	.062	.108	.071	.044	.062	.042	.026	.020	.014	.009	
7.0	.174	.110	.066	.150	.096	.057	.104	.067	.041	.060	.040	.024	.019	.013	.008	
8.0	.167	.105	.062	.144	.091	.054	.100	.064	.038	.058	.038	.023	.019	.012	.008	
9.0	.161	.100	.059	.138	.087	.051	.096	.061	.036	.056	.036	.022	.018	.012	.007	
10.0	.155	.095	.056	.133	.083	.049	.092	.058	.035	.054	.034	.021	.017	.011	.007	

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm										
NAME: DF82408NO					TYPE:			WEIGHT:		
SPEC.:DF82408NO-9NWNSA012WC0100					DIM.: 1000*8*1.5			SERIAL No.:01		
MFR.: COLORS					SUR.:1000*8			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	25.7	27.3	26.0	27.6	27.9	24.4	26.0	24.7	26.3	26.6
3H	28.4	29.8	28.7	30.2	30.5	26.0	27.5	26.4	27.9	28.2
4H	29.9	31.3	30.2	31.6	32.0	26.7	28.1	27.1	28.5	28.8
6H	31.5	32.9	31.9	33.2	33.6	27.2	28.5	27.6	28.9	29.2
8H	32.4	33.7	32.9	34.1	34.5	27.3	28.6	27.7	29.0	29.3
12H	33.5	34.7	33.9	35.1	35.5	27.3	28.6	27.8	29.0	29.4
4H 2H	26.4	27.8	26.8	28.1	28.5	25.4	26.9	25.8	27.2	27.6
3H	29.3	30.5	29.7	30.9	31.3	27.4	28.7	27.8	29.0	29.5
4H	30.9	32.1	31.4	32.5	32.9	28.3	29.4	28.7	29.9	30.3
6H	32.8	33.8	33.3	34.3	34.8	29.0	30.0	29.4	30.4	30.9
8H	33.8	34.8	34.3	35.3	35.8	29.2	30.2	29.7	30.6	31.1
12H	35.0	35.9	35.5	36.4	36.9	29.3	30.3	29.8	30.7	31.2
8H 4H	31.4	32.3	31.8	32.8	33.3	29.3	30.2	29.7	30.7	31.2
6H	33.5	34.3	34.0	34.8	35.4	30.3	31.2	30.9	31.7	32.2
8H	34.7	35.5	35.3	36.0	36.6	30.8	31.6	31.3	32.1	32.6
12H	36.1	36.8	36.7	37.3	37.9	31.2	31.8	31.7	32.4	32.9
12H 4H	31.4	32.3	31.9	32.8	33.3	29.5	30.5	30.0	30.9	31.4
6H	33.7	34.4	34.2	34.9	35.5	30.9	31.6	31.4	32.1	32.7
8H	35.0	35.7	35.6	36.2	36.8	31.5	32.2	32.1	32.7	33.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 909.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.3)

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

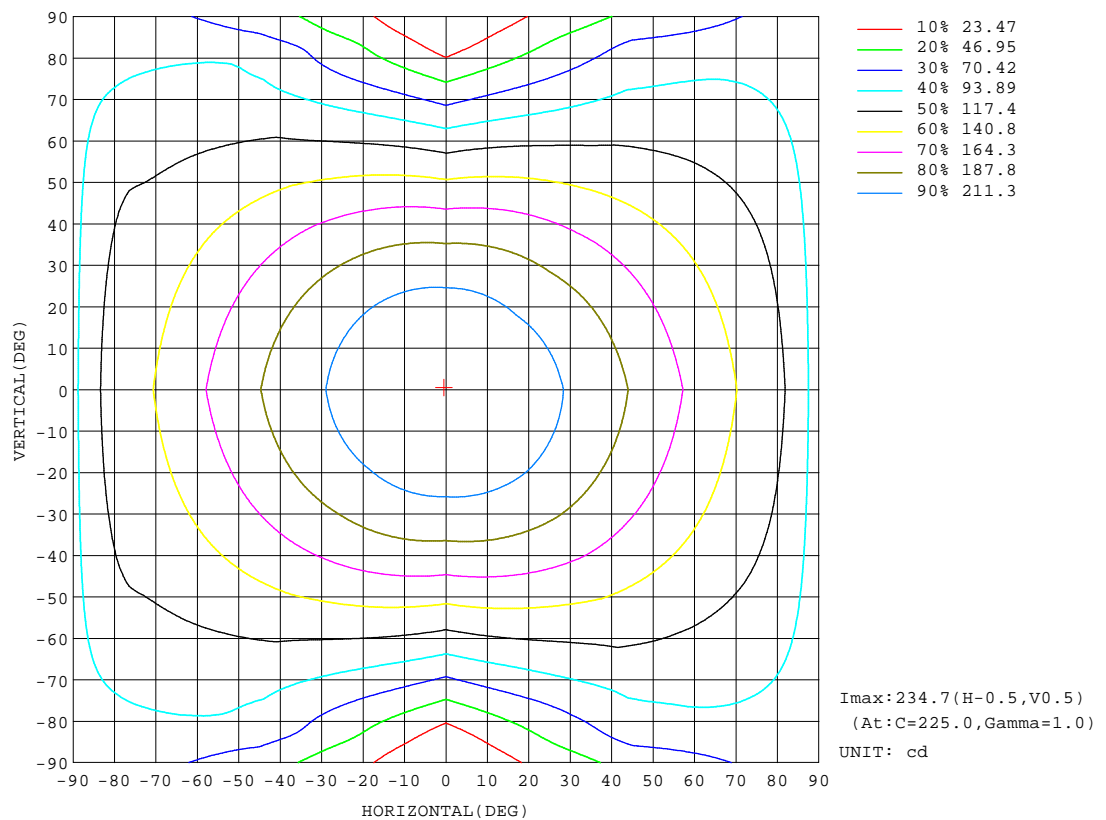
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	39	32	51	39	31	49	38	31	24
0.80	61	48	40	60	47	40	58	46	39	32
1.00	69	56	48	67	55	47	65	57	47	39
1.25	76	63	55	74	62	54	71	61	54	45
1.50	81	69	60	79	68	60	75	66	59	50
2.00	88	77	69	86	76	68	82	73	67	57
2.50	92	82	75	90	81	74	85	78	72	62
3.00	96	87	80	93	85	79	89	82	76	66
4.00	101	93	87	98	91	85	93	87	82	71
5.00	104	97	91	101	95	90	95	90	86	75
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

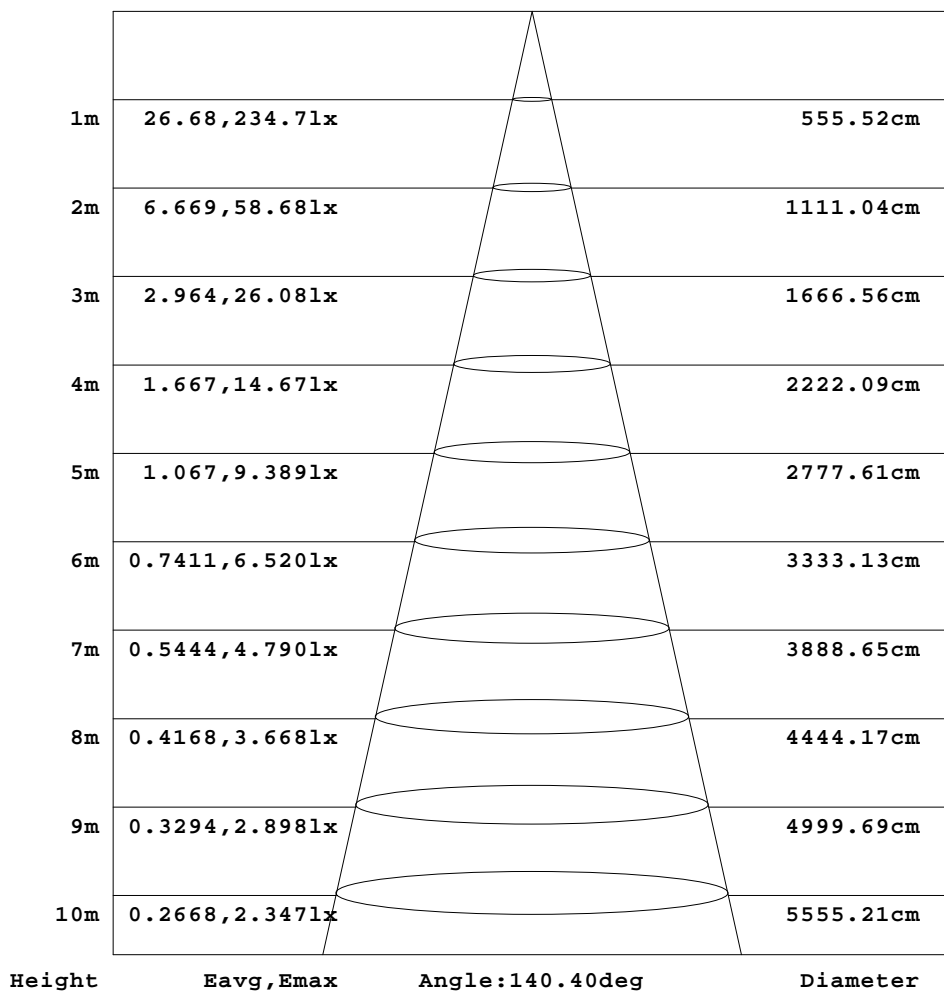
deg Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Flux out:706.9 lm



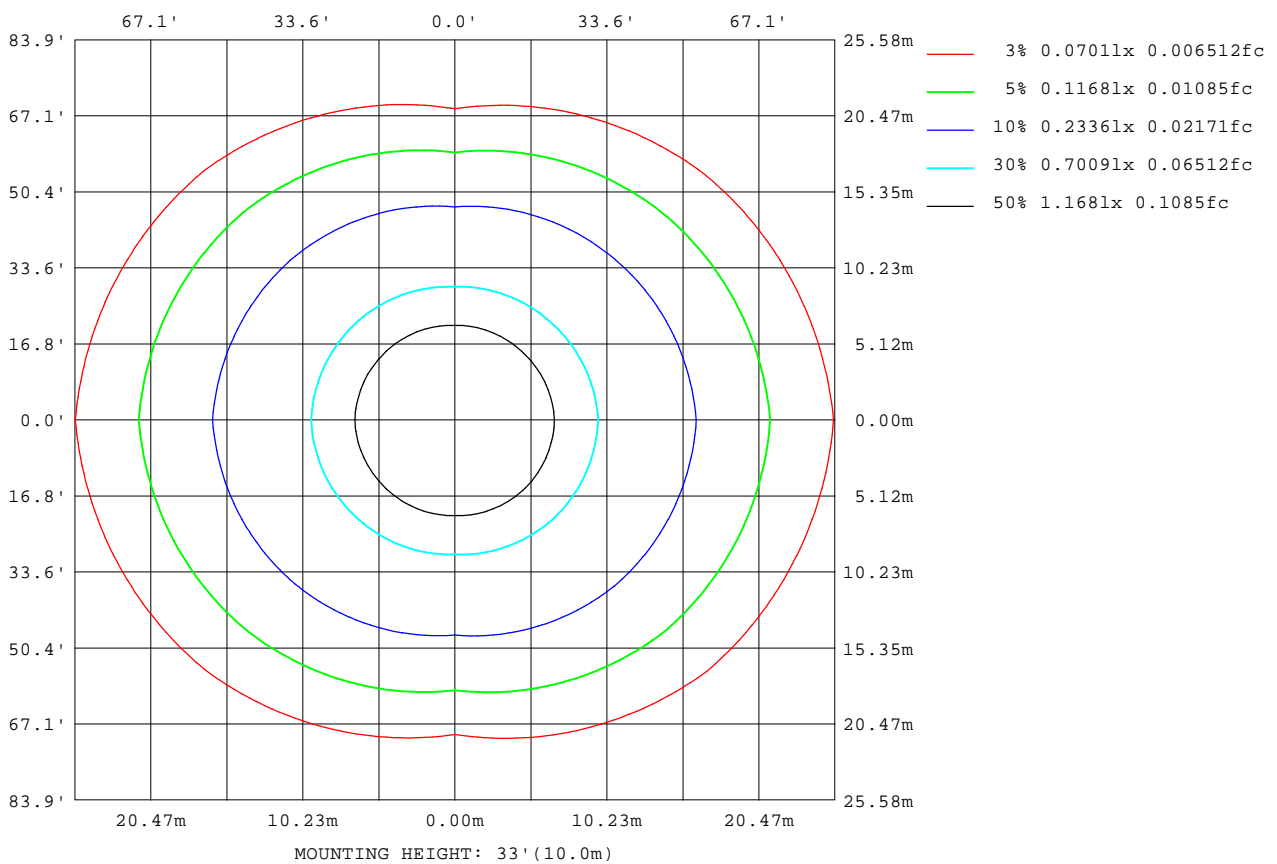
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

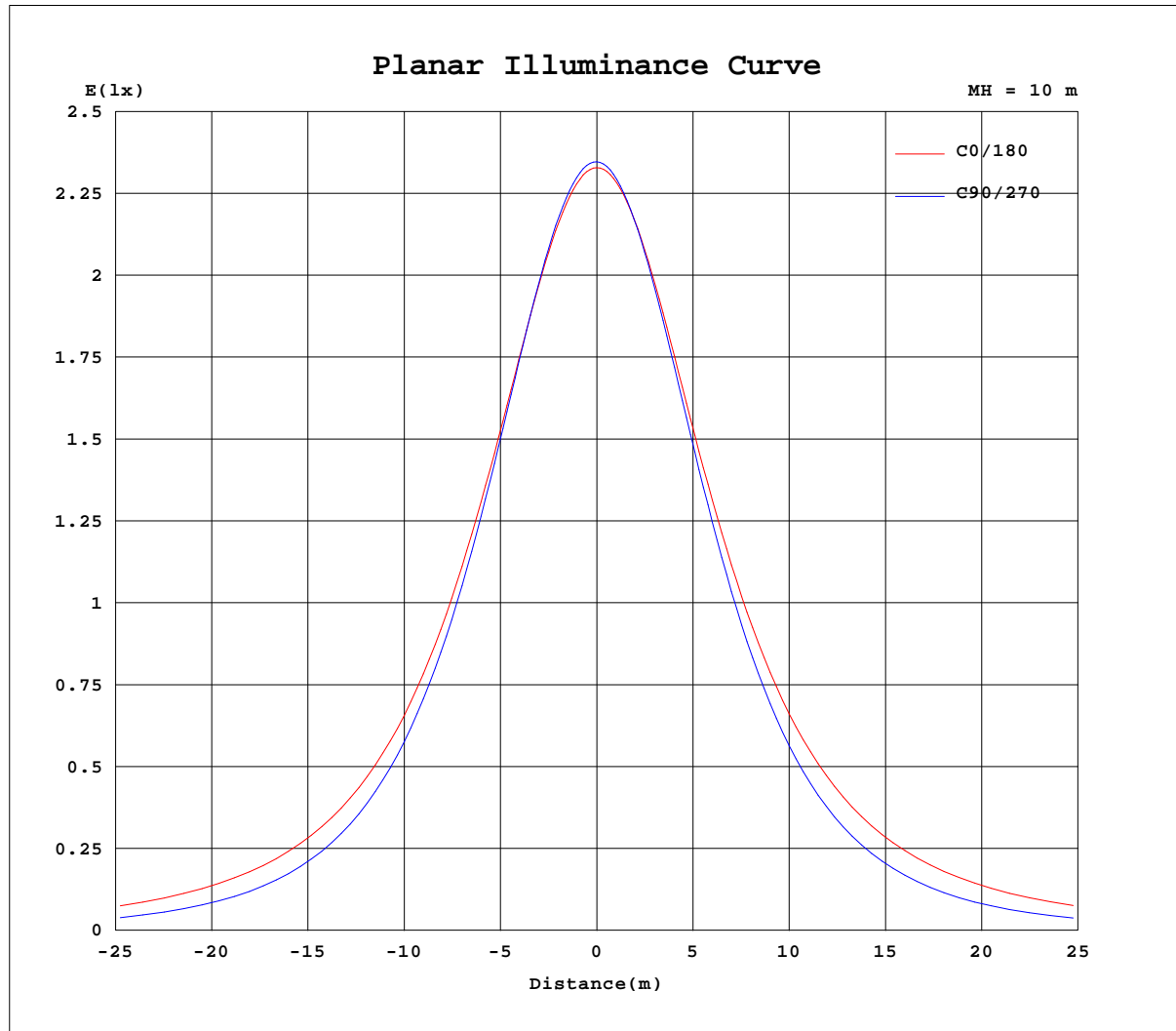
Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.73lx1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2020-04-23

Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 10.950m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.4400A P:10.50W PF:1.000 Freq:0Hz Lamp Flux:909.731x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9NWN5A012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	233	235	235	232	233	235	235	232										
5	232	234	234	232	232	234	234	231										
10	230	232	231	230	230	231	230	228										
15	226	228	227	226	227	227	226	224										
20	221	222	221	220	222	221	219	218										
25	215	215	213	214	216	214	210	210										
30	209	207	203	205	210	205	200	202										
35	202	198	191	196	203	195	188	192										
40	194	188	178	185	196	185	175	182										
45	186	177	163	175	187	174	160	171										
50	177	165	147	163	178	162	143	159										
55	168	153	129	150	170	150	125	146										
60	159	140	109	138	161	137	106	134										
65	150	128	88.7	126	151	125	85.3	122										
70	141	116	67.3	114	142	114	64.3	111										
75	132	103	45.8	102	133	102	43.4	99.2										
80	122	91.5	25.3	92.1	126	92.5	23.9	87.4										
85	106	79.2	8.92	81.8	110	81.3	8.47	74.4										
90	82.8	56.4	1.14	58.9	89.3	59.6	0.76	52.7										
95	53.4	26.4	0.78	21.4	60.5	17.2	0.30	21.7										
100	6.98	2.43	0.81	2.82	2.92	1.39	0.54	1.40										
105	2.99	2.35	0.85	2.13	1.96	1.40	0.82	1.47										
110	2.91	2.20	1.15	1.99	2.02	1.52	1.09	1.55										
115	2.76	2.07	1.49	1.84	2.07	1.62	1.32	1.58										
120	2.61	2.19	1.80	1.94	2.18	1.80	1.52	1.71										
125	2.69	2.38	2.00	2.08	2.29	1.93	1.73	1.89										
130	2.77	2.48	2.24	2.25	2.42	2.12	1.90	1.95										
135	2.87	2.59	2.42	2.45	2.53	2.34	2.05	2.04										
140	2.98	2.67	2.57	2.63	2.63	2.54	2.17	2.14										
145	3.02	2.73	2.72	2.80	2.71	2.76	2.34	2.20										
150	3.08	2.81	2.80	3.01	2.81	2.98	2.59	2.35										
155	3.20	2.83	2.98	3.23	2.95	3.19	2.85	2.43										
160	3.37	2.94	3.21	3.41	3.12	3.35	3.14	2.66										
165	3.52	3.09	3.52	3.57	3.26	3.55	3.41	2.88										
170	3.48	3.33	3.73	3.69	3.24	3.73	3.67	3.25										
175	3.41	3.64	3.92	3.83	3.24	3.84	3.93	3.63										
180	3.44	3.98	4.09	3.99	3.50	4.03	4.10	4.05										

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2020-04-23

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks: