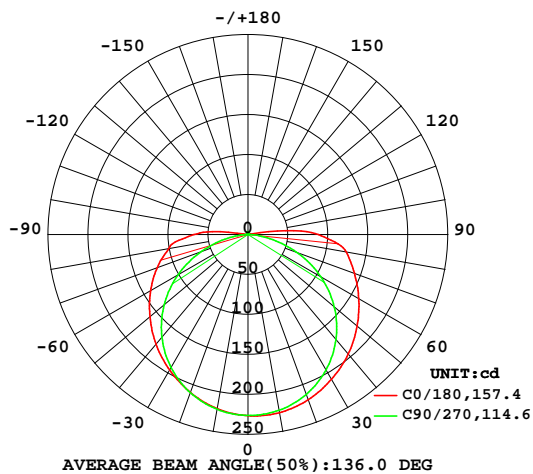


LUMINAIRE PHOTOMETRIC TEST REPORT

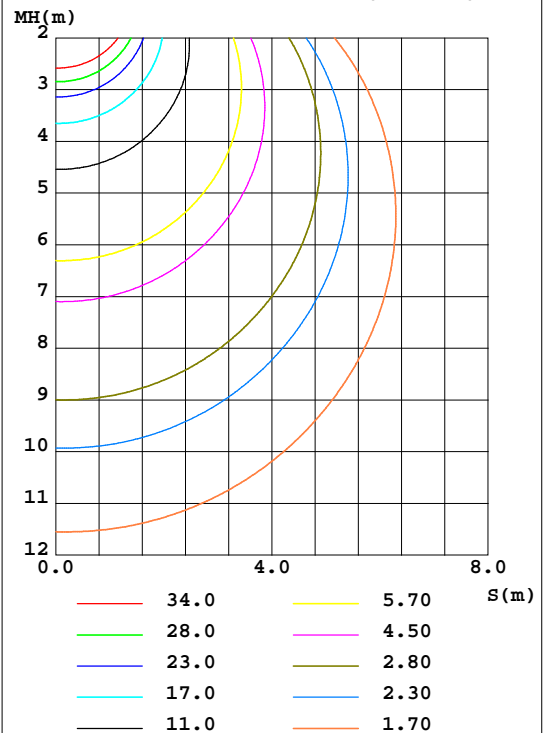
Test:U:24.00V I:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.77 lm/W			
MODEL	DF82408NO	I _{max} (cd)	227.2	S/MH(C0/180)	1.29
NOMINAL POWER(W)	10.8	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	861.55	h UP,DN(C0-180)	2.3,49.1
NOMINAL FLUX(lm)	861.553	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.9,46.7
LAMPS INSIDE	1	h up(%)	4.2	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	95.8	CIBSE SHR MAX	1.50

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:

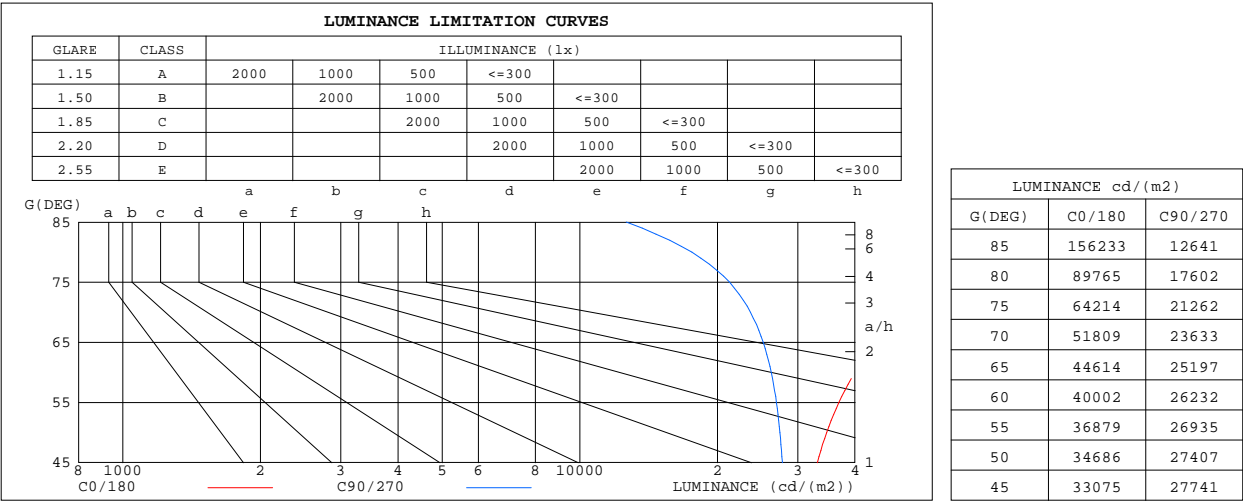
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	226.2	225.8	223.2	221.6	221.1	220.5	222.0	224.8	0- 10	21.46	21.46	2.49,2.49
20	220.0	218.6	212.9	210.3	210.3	208.4	210.6	216.5	10- 20	61.88	83.34	9.67,9.67
30	209.1	205.2	195.4	193.4	195.9	190.9	192.3	202.2	20- 30	95.21	178.6	20.7,20.7
40	195.2	186.7	171.3	172.2	179.1	169.5	167.6	182.9	30- 40	118.1	296.6	34.4,34.4
50	178.4	164.7	140.9	147.8	160.2	145.3	136.9	160.4	40- 50	128.7	425.3	49.4,49.4
60	160.0	140.2	104.9	121.9	140.6	120.0	101.1	135.6	50- 60	126.6	551.9	64.1,64.1
70	141.8	116.0	64.66	97.30	120.8	95.88	61.42	111.2	60- 70	113.5	665.4	77.2,77.2
80	124.7	94.32	24.45	73.05	100.4	72.09	22.75	89.58	70- 80	92.93	758.4	88,88
90	88.18	60.67	0.9007	42.99	67.60	42.39	0.7222	57.50	80- 90	66.79	825.2	95.8,95.8
100	8.159	2.342	0.7213	2.030	1.970	1.322	0.5015	1.170	90-100	25.13	850.3	98.7,98.7
110	2.581	1.990	1.134	1.925	2.004	1.457	1.030	1.309	100-110	1.772	852.0	98.9,98.9
120	2.291	1.964	1.703	1.944	2.178	1.796	1.457	1.542	110-120	1.735	853.8	99.1,99.1
130	2.564	2.278	2.117	2.232	2.425	2.130	1.817	1.803	120-130	1.802	855.6	99.3,99.3
140	2.721	2.498	2.438	2.606	2.619	2.516	2.077	2.017	130-140	1.786	857.4	99.5,99.5
150	2.938	2.665	2.672	3.013	2.799	2.899	2.466	2.185	140-150	1.610	859.0	99.7,99.7
160	3.206	2.826	3.065	3.360	3.046	3.286	3.019	2.491	150-160	1.323	860.3	99.9,99.9
170	3.474	3.227	3.607	3.660	3.153	3.612	3.553	3.092	160-170	0.9110	861.2	100,100
180	3.420	3.841	3.941	3.928	3.420	3.841	3.968	3.928	170-180	0.3366	861.6	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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



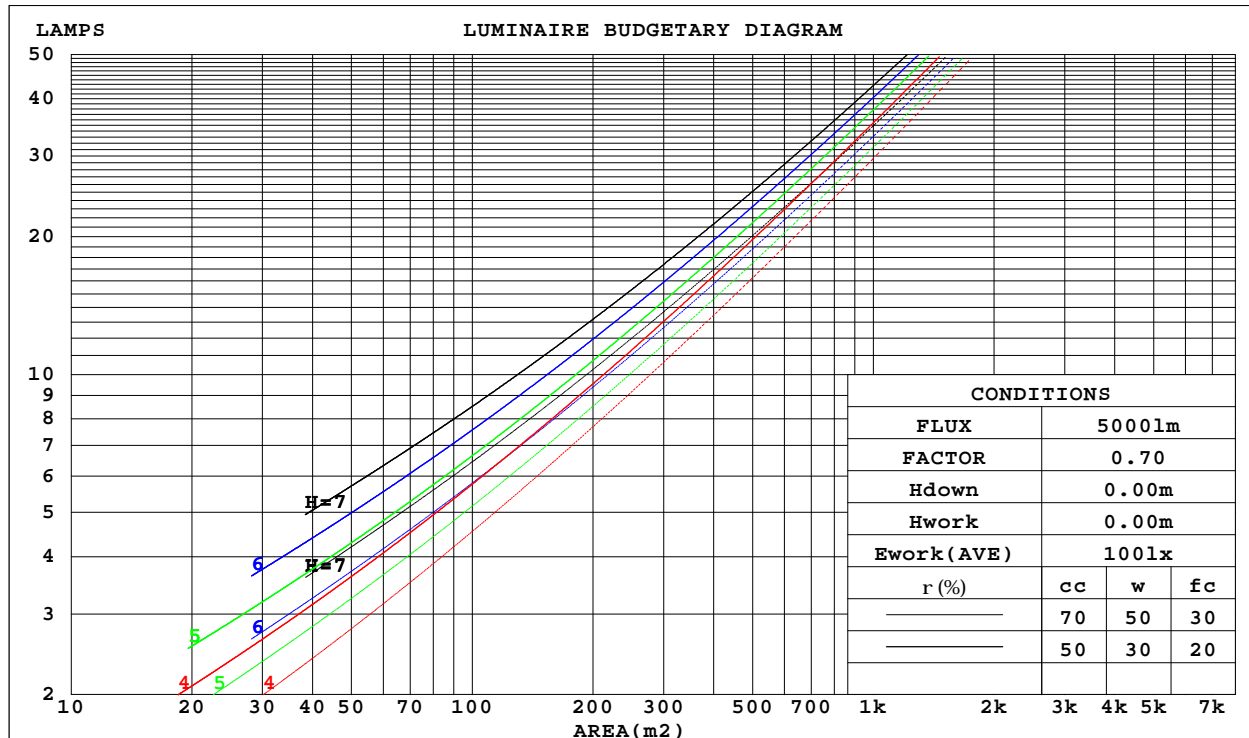
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-23

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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.03	1.03	1.03	.98	.98	.98	.96
1.0	.98	.93	.88	.96	.91	.86	.91	.86	.83	.86	.82	.79	.81	.79	.76	.74
2.0	.84	.76	.69	.82	.74	.68	.77	.71	.66	.73	.68	.64	.70	.65	.61	.59
3.0	.73	.64	.56	.71	.62	.55	.67	.60	.54	.64	.58	.52	.61	.55	.51	.48
4.0	.64	.54	.47	.62	.53	.46	.59	.51	.45	.56	.50	.44	.54	.48	.43	.40
5.0	.57	.47	.40	.55	.46	.39	.53	.45	.39	.50	.43	.38	.48	.42	.37	.35
6.0	.51	.41	.34	.50	.41	.34	.47	.39	.33	.45	.38	.33	.43	.37	.32	.30
7.0	.46	.37	.30	.45	.36	.30	.43	.35	.29	.41	.34	.29	.39	.33	.28	.26
8.0	.42	.33	.27	.41	.32	.27	.39	.32	.26	.38	.31	.26	.36	.30	.25	.23
9.0	.38	.30	.24	.38	.29	.24	.36	.29	.23	.35	.28	.23	.33	.27	.23	.21
10.0	.35	.27	.22	.35	.27	.21	.33	.26	.21	.32	.26	.21	.31	.25	.21	.19



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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	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	.395	.224	.071	.386	.220	.070	.370	.212	.068	.355	.205	.066	.342	.198	.064	
2.0	.343	.188	.058	.335	.185	.057	.321	.178	.055	.308	.173	.054	.295	.167	.053	
3.0	.305	.162	.049	.298	.160	.048	.285	.154	.047	.273	.150	.046	.262	.145	.045	
4.0	.274	.142	.042	.268	.140	.041	.257	.136	.041	.246	.132	.040	.236	.128	.039	
5.0	.249	.127	.037	.244	.125	.036	.233	.121	.036	.224	.118	.035	.215	.115	.034	
6.0	.228	.114	.033	.223	.113	.032	.214	.110	.032	.205	.107	.031	.197	.104	.031	
7.0	.210	.104	.029	.206	.103	.029	.197	.100	.029	.190	.097	.028	.182	.095	.028	
8.0	.195	.095	.027	.191	.094	.027	.183	.092	.026	.176	.089	.026	.170	.087	.025	
9.0	.181	.088	.025	.178	.087	.024	.171	.085	.024	.165	.083	.024	.159	.081	.023	
10.0	.170	.081	.023	.167	.080	.022	.160	.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	.223	.223	.223	.190	.190	.190	.130	.130	.130	.075	.075	.075	.024	.024	.024	
1.0	.219	.188	.160	.187	.161	.138	.128	.111	.095	.074	.064	.055	.024	.021	.018	
2.0	.212	.164	.125	.181	.141	.108	.124	.098	.075	.072	.057	.044	.023	.018	.014	
3.0	.204	.147	.102	.175	.127	.089	.120	.088	.062	.069	.052	.037	.022	.017	.012	
4.0	.196	.135	.088	.168	.116	.076	.116	.081	.054	.067	.047	.032	.022	.015	.010	
5.0	.188	.124	.078	.161	.108	.067	.111	.075	.048	.064	.044	.028	.021	.014	.009	
6.0	.180	.116	.070	.155	.101	.061	.107	.070	.043	.062	.041	.026	.020	.014	.009	
7.0	.173	.109	.065	.149	.095	.057	.103	.067	.040	.060	.039	.024	.019	.013	.008	
8.0	.166	.104	.061	.143	.090	.053	.099	.063	.038	.058	.037	.022	.019	.012	.007	
9.0	.160	.099	.058	.137	.086	.050	.095	.060	.036	.055	.036	.021	.018	.012	.007	
10.0	.154	.094	.055	.132	.082	.048	.092	.058	.034	.054	.034	.020	.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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm											
NAME: DF82408NO					TYPE:			WEIGHT:			
SPEC.:DF82408NO-9WWNSA012WC0100					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	26.1	27.7	26.4	27.9	28.2	24.6	26.2	25.0	26.5	26.8	
	3H	28.8	30.2	29.1	30.5	30.9	26.3	27.7	26.6	28.1	28.4
	4H	30.3	31.7	30.7	32.0	32.4	26.9	28.3	27.3	28.7	29.0
	6H	32.0	33.3	32.4	33.7	34.1	27.4	28.7	27.8	29.1	29.5
	8H	32.9	34.2	33.4	34.6	35.0	27.5	28.8	27.9	29.2	29.6
	12H	34.0	35.2	34.4	35.6	36.0	27.6	28.8	28.0	29.2	29.6
4H	2H	26.8	28.2	27.1	28.5	28.9	25.7	27.1	26.1	27.5	27.8
	3H	29.7	30.9	30.1	31.3	31.7	27.7	28.9	28.1	29.3	29.7
	4H	31.4	32.5	31.8	32.9	33.3	28.6	29.7	29.0	30.1	30.6
	6H	33.3	34.3	33.7	34.7	35.2	29.3	30.3	29.7	30.7	31.2
	8H	34.3	35.3	34.8	35.8	36.3	29.5	30.5	30.0	30.9	31.4
	12H	35.5	36.4	36.0	36.9	37.4	29.7	30.6	30.2	31.0	31.5
8H	4H	31.8	32.8	32.3	33.2	33.7	29.6	30.6	30.1	31.0	31.5
	6H	34.0	34.8	34.5	35.3	35.8	30.7	31.5	31.2	32.0	32.6
	8H	35.3	36.0	35.8	36.5	37.1	31.2	32.0	31.7	32.5	33.0
	12H	36.7	37.3	37.2	37.9	38.4	31.6	32.3	32.2	32.8	33.4
12H	4H	31.9	32.8	32.3	33.2	33.7	29.9	30.8	30.4	31.3	31.8
	6H	34.2	34.9	34.7	35.4	36.0	31.3	32.0	31.8	32.5	33.1
	8H	35.6	36.2	36.1	36.7	37.3	32.0	32.6	32.5	33.2	33.7
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1				+ 0.1 / - 0.1						
1.5H	+ 0.2 / - 0.3				+ 0.2 / - 0.3						
2.0H	+ 0.2 / - 0.3				+ 0.2 / - 0.5						

CIE Pub.117, 861.6 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.5)

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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

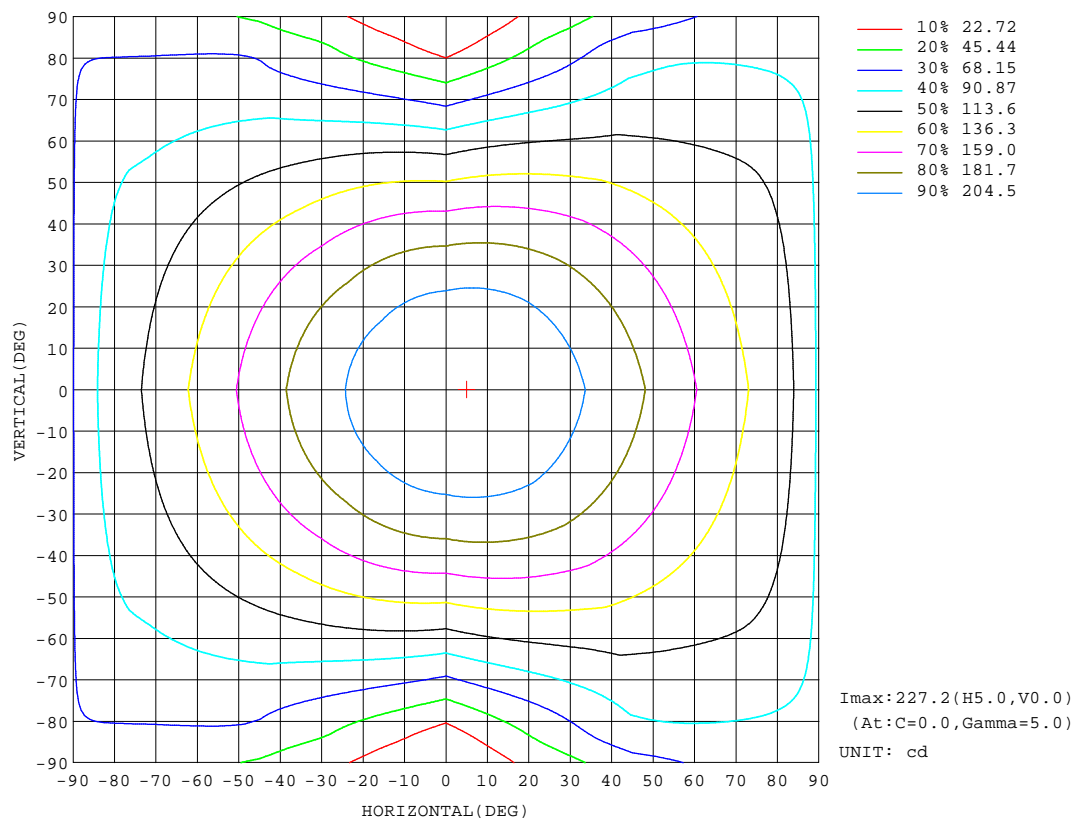
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	39	32	51	39	32	50	39	32	25
0.80	61	48	40	60	48	40	58	47	40	32
1.00	69	57	48	68	56	48	65	57	47	39
1.25	76	64	56	74	63	55	71	61	54	46
1.50	81	69	61	79	68	61	76	66	59	50
2.00	88	78	70	86	76	69	82	74	67	58
2.50	93	83	75	90	81	74	86	78	72	62
3.00	96	88	80	94	86	79	89	82	77	67
4.00	101	93	87	98	91	86	93	87	83	72
5.00	104	97	92	101	95	90	96	91	87	76
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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



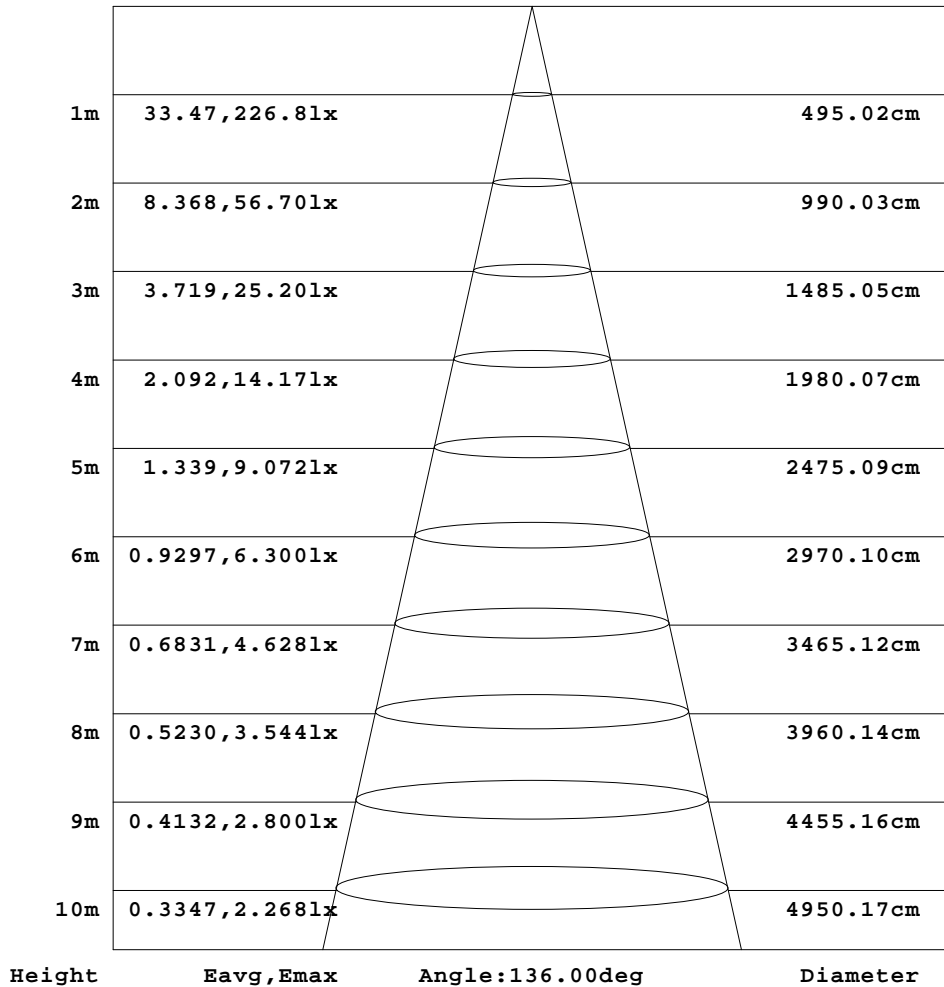
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-04-23

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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Flux out:644.2 lm



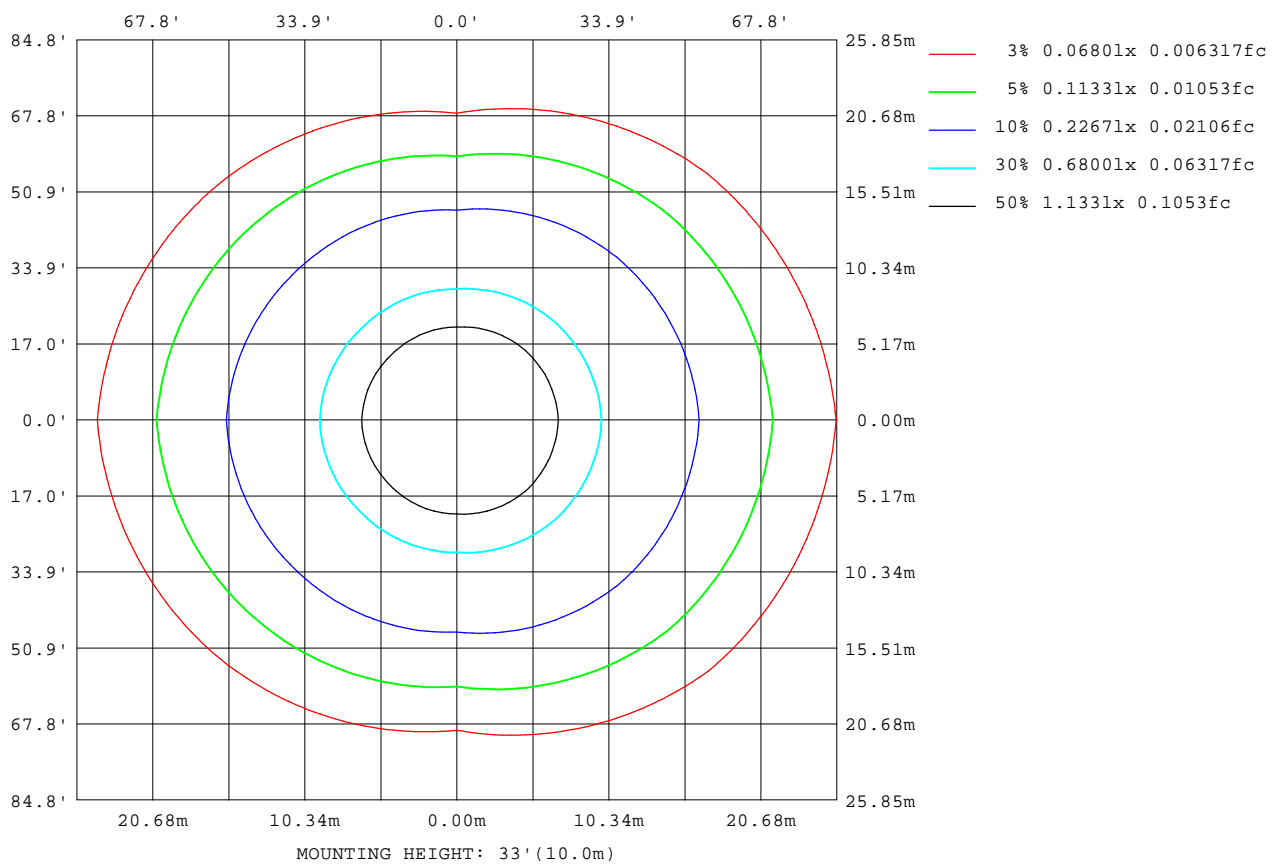
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

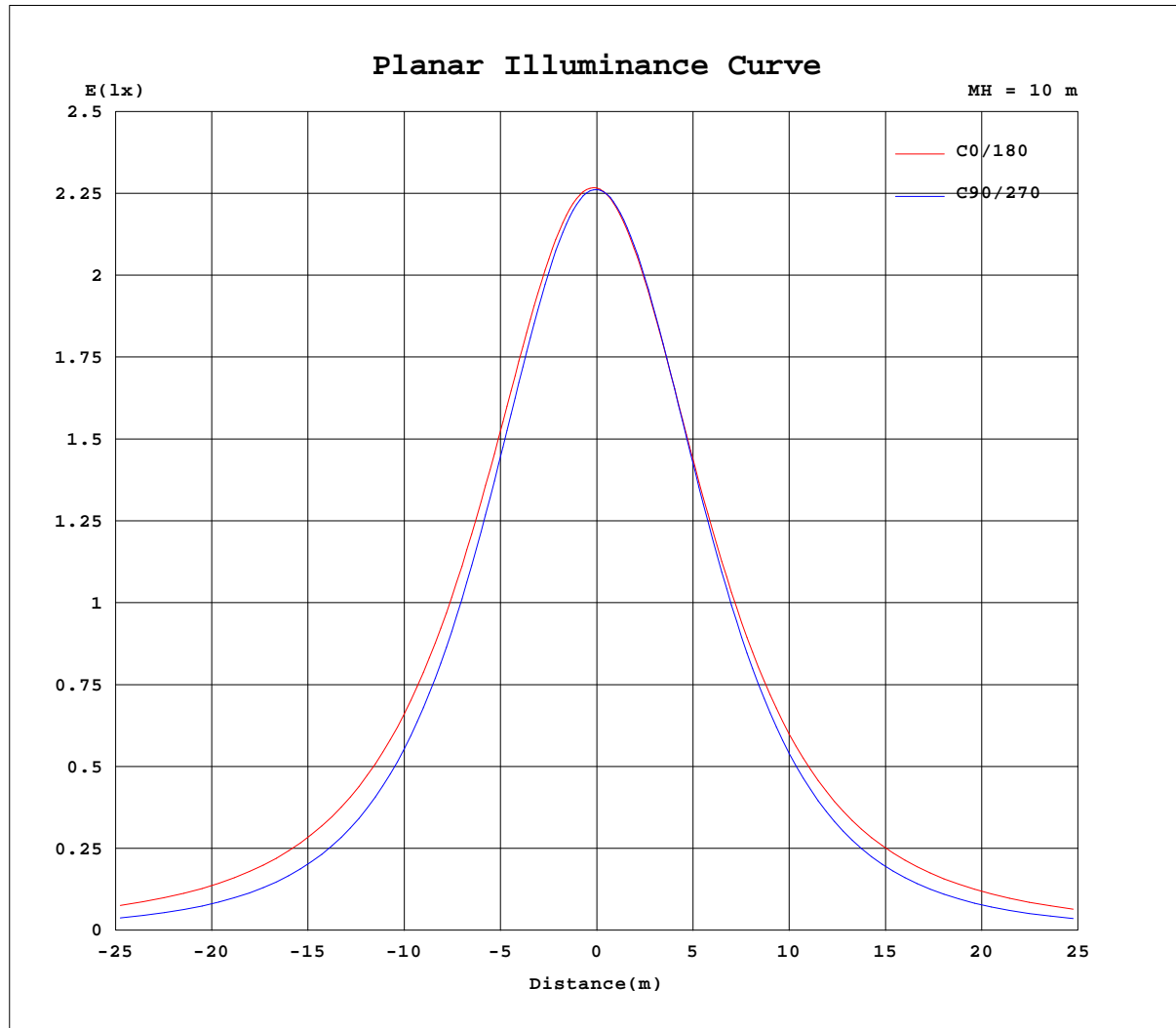
Test:U:24.00V I:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



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

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:

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:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:861.553x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WWNSA012WC0100	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	227	226	226	227	227	226	226	227										
5	227	227	226	225	225	224	225	227										
10	226	226	223	222	221	221	222	225										
15	224	223	219	217	216	215	217	221										
20	220	219	213	210	210	208	211	217										
25	215	213	205	203	203	200	202	210										
30	209	205	195	193	196	191	192	202										
35	203	196	184	183	188	181	181	193										
40	195	187	171	172	179	170	168	183										
45	187	176	157	160	170	158	153	172										
50	178	165	141	148	160	145	137	160										
55	169	153	124	135	150	133	120	148										
60	160	140	105	122	141	120	101	136										
65	151	128	85.2	109	131	108	81.5	123										
70	142	116	64.7	97.3	121	95.9	61.4	111										
75	133	105	44.0	85.3	110	84.0	41.4	100										
80	125	94.3	24.5	73.1	100	72.1	22.8	89.6										
85	109	83.3	8.81	62.5	86.8	61.8	7.94	78.2										
90	88.2	60.7	0.90	43.0	67.6	42.4	0.72	57.5										
95	57.7	31.8	0.73	13.1	44.7	8.67	0.29	26.7										
100	8.16	2.34	0.72	2.03	1.97	1.32	0.50	1.17										
105	2.60	2.12	0.85	1.97	1.96	1.36	0.77	1.28										
110	2.58	1.99	1.13	1.92	2.00	1.46	1.03	1.31										
115	2.46	1.86	1.45	1.82	2.07	1.59	1.25	1.38										
120	2.29	1.96	1.70	1.94	2.18	1.80	1.46	1.54										
125	2.38	2.15	1.91	2.07	2.30	1.91	1.63	1.71										
130	2.56	2.28	2.12	2.23	2.43	2.13	1.82	1.80										
135	2.67	2.41	2.34	2.42	2.54	2.34	1.96	1.93										
140	2.72	2.50	2.44	2.61	2.62	2.52	2.08	2.02										
145	2.87	2.59	2.56	2.81	2.71	2.69	2.22	2.09										
150	2.94	2.67	2.67	3.01	2.80	2.90	2.47	2.18										
155	3.06	2.73	2.86	3.19	2.91	3.09	2.75	2.34										
160	3.21	2.83	3.07	3.36	3.05	3.29	3.02	2.49										
165	3.42	2.96	3.36	3.53	3.18	3.42	3.27	2.77										
170	3.47	3.23	3.61	3.66	3.15	3.61	3.55	3.09										
175	3.32	3.55	3.85	3.81	3.16	3.73	3.78	3.52										
180	3.42	3.84	3.94	3.93	3.42	3.84	3.97	3.93										

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