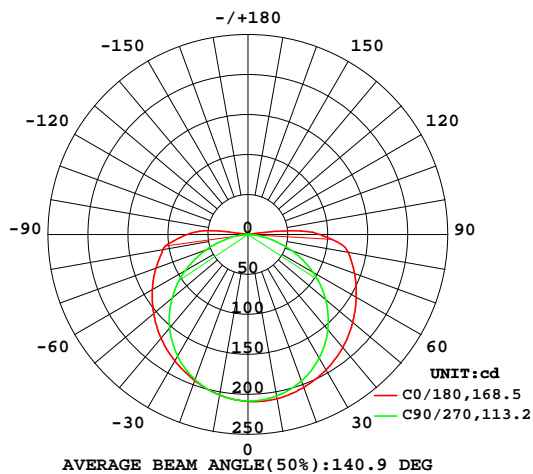


LUMINAIRE PHOTOMETRIC TEST REPORT

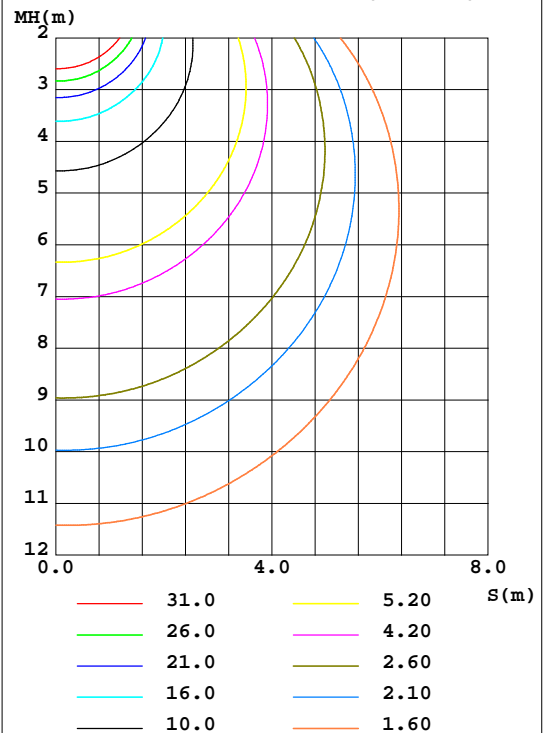
Test:U:24.00V I:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.22 lm/W			
MODEL	DF82408NO	I _{max} (cd)	209.2	S/MH(C0/180)	1.31
NOMINAL POWER(W)	10.8	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	823.18	h UP,DN(C0-180)	2.4,48.8
NOMINAL FLUX(lm)	823.177	CIE CLASS	DIRECT	h UP,DN(C180-360)	2.2,46.6
LAMPS INSIDE	1	h up(%)	4.6	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	95.4	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:

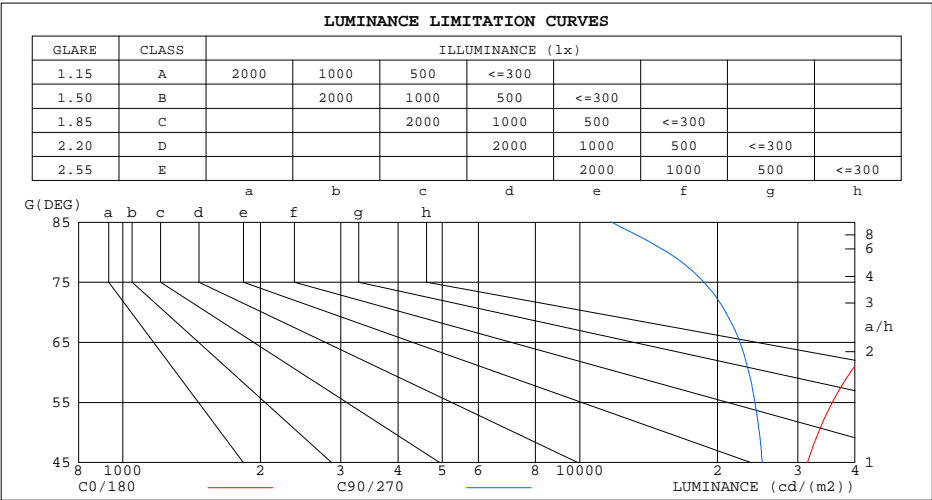
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	208.5	207.5	205.1	204.2	203.8	203.2	204.1	206.9	0- 10	19.75	19.75	2.4,2.4
20	203.5	200.7	195.1	194.1	194.6	192.1	193.2	199.5	10- 20	56.97	76.73	9.32,9.32
30	195.4	188.4	178.4	179.2	182.8	176.2	175.9	187.1	20- 30	87.80	164.5	20,20
40	184.5	172.1	155.5	161.1	169.3	157.1	152.6	171.0	30- 40	109.4	273.9	33.3,33.3
50	171.0	152.6	127.0	140.7	154.0	135.8	124.0	151.9	40- 50	120.0	393.9	47.9,47.9
60	156.3	131.0	93.76	119.2	138.2	113.6	90.95	131.2	50- 60	119.4	513.3	62.4,62.4
70	141.8	110.3	57.14	99.07	122.4	92.76	55.00	111.7	60- 70	109.3	622.5	75.6,75.6
80	127.2	91.94	21.60	80.42	108.0	73.74	20.62	94.05	70- 80	92.73	715.3	86.9,86.9
90	90.16	58.83	1.302	51.89	76.41	46.70	0.7995	60.83	80- 90	69.93	785.2	95.4,95.4
100	8.327	2.131	0.6548	2.204	4.853	1.282	0.4612	1.325	90-100	27.46	812.6	98.7,98.7
110	2.585	1.843	0.9144	1.950	1.971	1.369	0.9224	1.356	100-110	1.787	814.4	98.9,98.9
120	2.244	1.804	1.473	1.858	2.098	1.622	1.290	1.482	110-120	1.637	816.1	99.1,99.1
130	2.398	1.991	1.895	2.091	2.278	1.917	1.596	1.623	120-130	1.659	817.7	99.3,99.3
140	2.558	2.151	2.191	2.399	2.498	2.337	1.851	1.810	130-140	1.625	819.4	99.5,99.5
150	2.744	2.351	2.424	2.733	2.619	2.665	2.205	2.005	140-150	1.469	820.8	99.7,99.7
160	2.879	2.558	2.844	3.046	2.879	2.986	2.773	2.330	150-160	1.208	822.0	99.9,99.9
170	2.974	3.027	3.293	3.326	3.008	3.293	3.266	2.905	160-170	0.8333	822.9	100,100
180	3.113	3.634	3.627	3.634	3.133	3.627	3.660	3.627	170-180	0.3107	823.2	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
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:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



LUMINANCE cd/(m2)		
G(°)	C0/180	C90/270
85	161387	11739
80	91556	15546
75	64986	18705
70	51841	20883
65	44072	22394
60	39079	23440
55	35667	24176
50	33257	24705
45	31467	25094

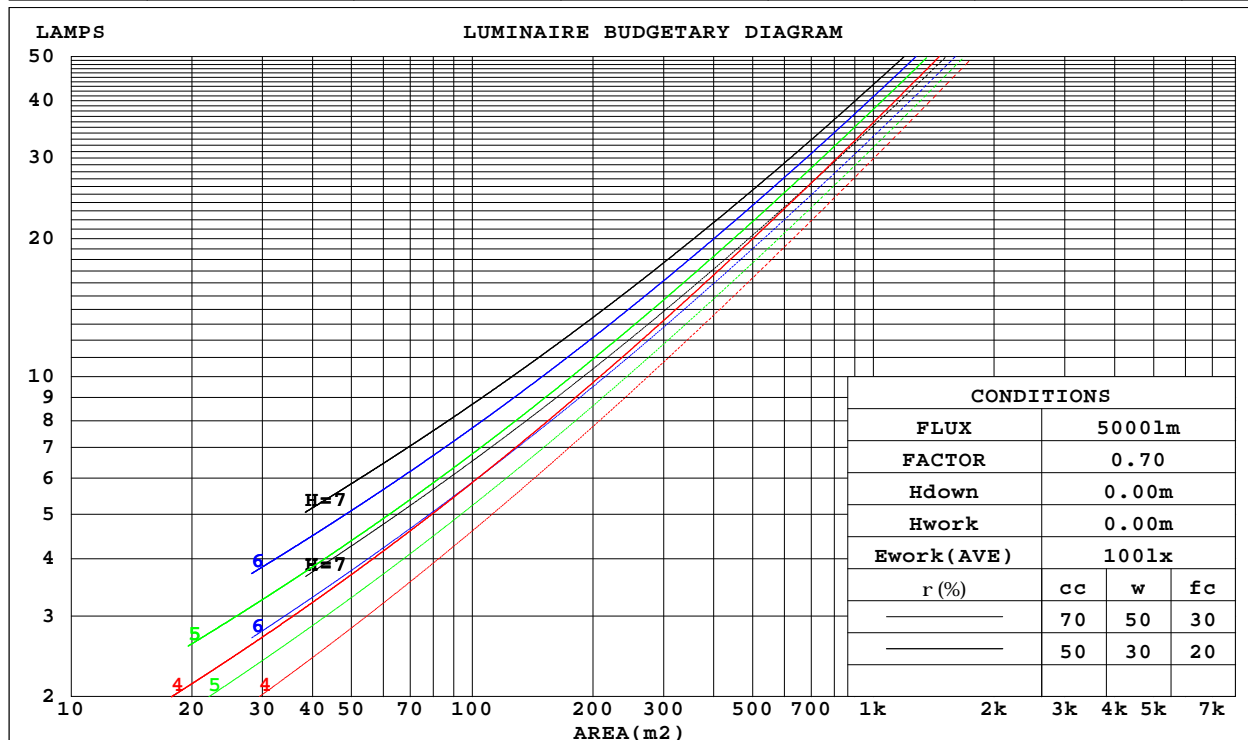
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-23

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:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	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															



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:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	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	.405	.230	.073	.397	.226	.072	.380	.218	.070	.365	.211	.068	.351	.204	.066															
2.0	.349	.191	.059	.341	.188	.058	.327	.182	.056	.313	.176	.055	.301	.170	.054															
3.0	.309	.164	.049	.302	.162	.049	.289	.157	.048	.277	.152	.047	.266	.147	.046															
4.0	.277	.144	.042	.271	.142	.042	.259	.138	.041	.248	.133	.040	.238	.130	.039															
5.0	.251	.128	.037	.246	.126	.037	.235	.123	.036	.226	.119	.035	.216	.116	.035															
6.0	.230	.115	.033	.225	.114	.033	.215	.110	.032	.207	.107	.032	.198	.104	.031															
7.0	.212	.105	.030	.207	.103	.029	.199	.100	.029	.191	.098	.028	.183	.095	.028															
8.0	.196	.096	.027	.192	.094	.027	.184	.092	.026	.177	.090	.026	.170	.087	.025															
9.0	.182	.088	.025	.179	.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	.226	.226	.226	.193	.193	.193	.132	.132	.132	.076	.076	.076	.024	.024	.024	
1.0	.222	.191	.162	.190	.164	.140	.130	.113	.097	.075	.065	.056	.024	.021	.018	
2.0	.216	.167	.127	.185	.144	.110	.127	.100	.076	.073	.058	.045	.023	.019	.015	
3.0	.208	.150	.105	.178	.130	.091	.122	.090	.064	.071	.053	.038	.023	.017	.012	
4.0	.200	.138	.090	.171	.119	.078	.118	.083	.055	.068	.049	.033	.022	.016	.011	
5.0	.192	.128	.080	.165	.110	.070	.113	.077	.049	.066	.045	.029	.021	.015	.010	
6.0	.184	.119	.073	.158	.103	.064	.109	.072	.045	.063	.043	.027	.020	.014	.009	
7.0	.177	.113	.068	.152	.098	.059	.105	.068	.042	.061	.040	.025	.020	.013	.008	
8.0	.170	.107	.064	.146	.093	.056	.101	.065	.039	.059	.038	.024	.019	.013	.008	
9.0	.163	.102	.061	.140	.088	.053	.097	.062	.038	.057	.037	.022	.018	.012	.007	
10.0	.157	.098	.058	.135	.085	.051	.094	.060	.036	.055	.035	.022	.018	.012	.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:823.177x1 lm											
NAME: DF82408NO					TYPE:			WEIGHT:			
SPEC.:DF82408NO-9SWNSA012WC0100					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	28.0	28.3	24.3	25.9	24.6	26.2	26.5	
	3H	28.9	30.4	29.2	30.7	31.0	25.9	27.4	26.3	27.7	28.1
	4H	30.5	31.9	30.9	32.2	32.6	26.6	28.0	27.0	28.3	28.7
	6H	32.3	33.6	32.7	34.0	34.4	27.0	28.4	27.4	28.7	29.1
	8H	33.3	34.6	33.7	34.9	35.3	27.2	28.5	27.6	28.9	29.3
	12H	34.3	35.6	34.8	36.0	36.4	27.2	28.5	27.7	28.9	29.3
4H	2H	26.7	28.1	27.1	28.5	28.9	25.5	26.9	25.9	27.2	27.6
	3H	29.8	31.0	30.2	31.4	31.8	27.4	28.7	27.8	29.1	29.5
	4H	31.5	32.7	32.0	33.1	33.5	28.3	29.5	28.8	29.9	30.3
	6H	33.5	34.6	34.0	35.0	35.5	29.0	30.1	29.5	30.5	31.0
	8H	34.6	35.6	35.1	36.1	36.6	29.3	30.3	29.8	30.7	31.2
	12H	35.9	36.8	36.4	37.3	37.8	29.4	30.4	29.9	30.8	31.4
8H	4H	32.0	32.9	32.4	33.4	33.9	29.4	30.4	29.9	30.9	31.4
	6H	34.2	35.1	34.8	35.6	36.1	30.6	31.4	31.1	31.9	32.5
	8H	35.6	36.3	36.1	36.8	37.4	31.1	31.9	31.6	32.4	32.9
	12H	37.0	37.7	37.6	38.2	38.8	31.5	32.2	32.1	32.7	33.3
12H	4H	32.0	32.9	32.5	33.4	33.9	29.8	30.7	30.3	31.2	31.7
	6H	34.4	35.2	34.9	35.7	36.2	31.2	32.0	31.7	32.5	33.0
	8H	35.8	36.5	36.4	37.0	37.6	31.9	32.6	32.5	33.1	33.7
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					

CIE Pub.117, 823.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.7)

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:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

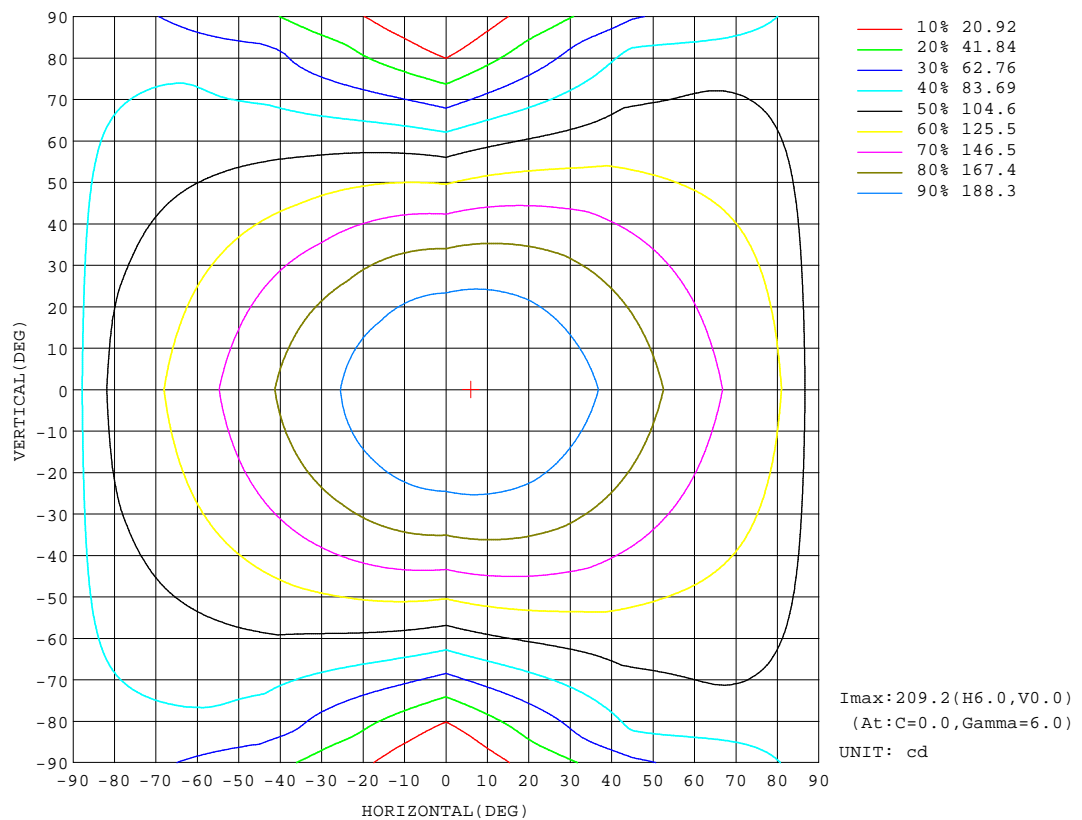
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	39	31	50	38	31	49	38	31	24
0.80	60	48	39	59	47	39	57	46	39	31
1.00	68	56	47	67	55	47	64	56	46	38
1.25	75	63	54	73	62	54	70	60	53	44
1.50	80	68	60	78	67	59	75	65	58	49
2.00	88	77	69	85	75	68	81	73	66	57
2.50	92	82	74	89	80	73	85	77	71	61
3.00	96	87	79	93	85	78	88	81	76	65
4.00	100	93	86	97	90	85	92	87	82	71
5.00	103	97	91	100	94	89	95	90	86	74
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:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



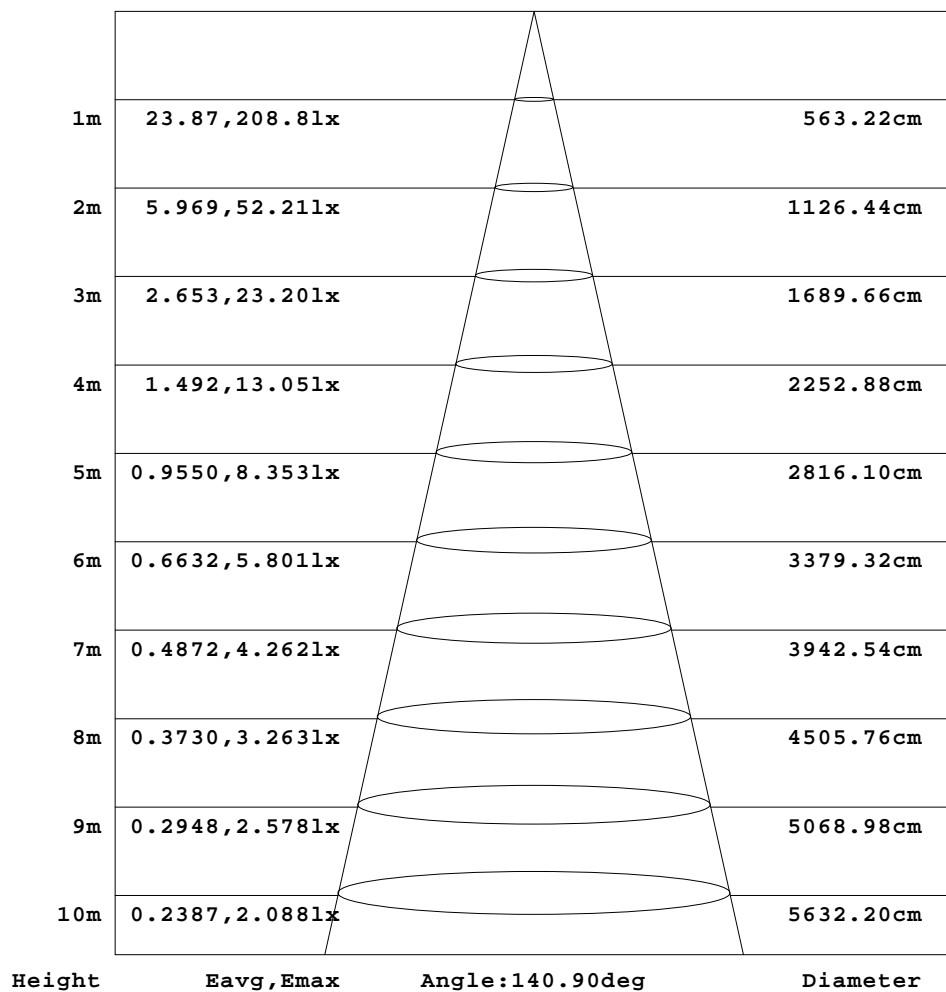
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-23

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:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Flux out:632.6 lm



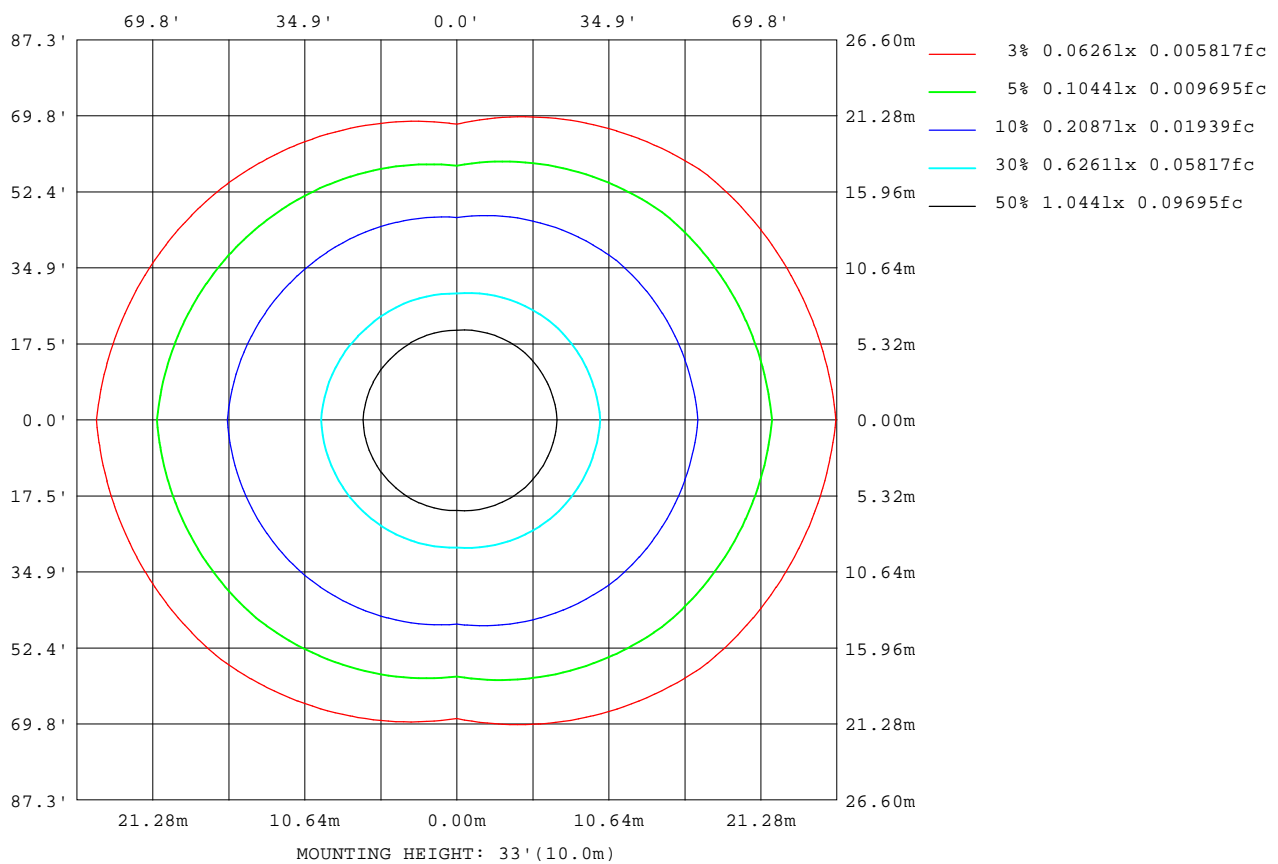
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

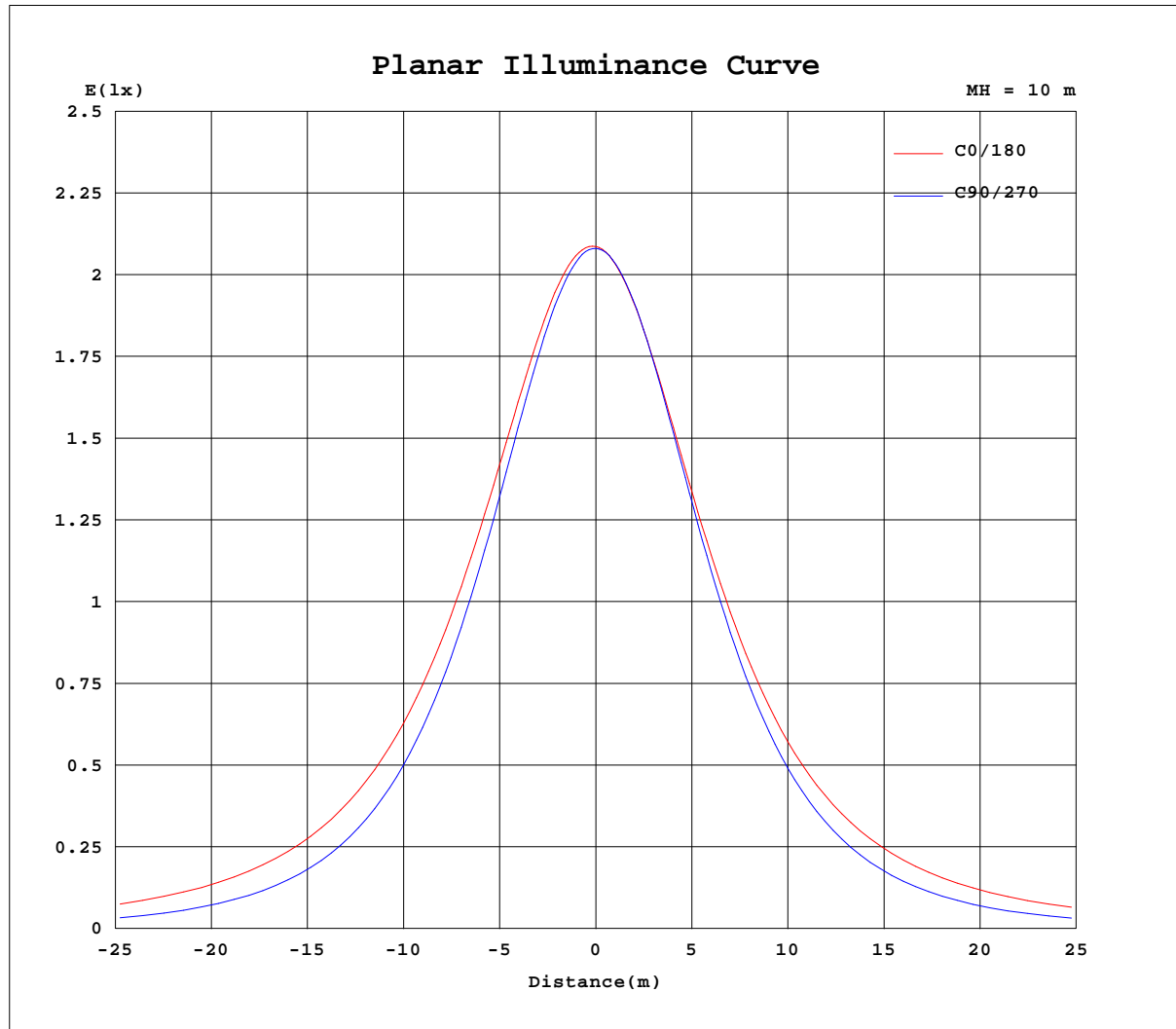
Test:U:24.00V I:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



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:

Planar Illuminance Curve



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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.4500A P:10.80W PF:1.000 Freq:0Hz Lamp Flux:823.177x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9SWNSA012WC0100	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	209	208	208	209	209	208	208	209										
5	209	209	208	207	207	206	207	209										
10	209	208	205	204	204	203	204	207										
15	207	205	201	200	200	198	200	204										
20	204	201	195	194	195	192	193	199										
25	200	195	188	187	189	185	185	194										
30	195	188	178	179	183	176	176	187										
35	190	181	168	170	176	167	165	179										
40	185	172	156	161	169	157	153	171										
45	178	163	142	151	162	147	139	162										
50	171	153	127	141	154	136	124	152										
55	164	142	111	130	146	125	108	142										
60	156	131	93.8	119	138	114	91.0	131										
65	149	120	75.7	109	130	103	73.2	121										
70	142	110	57.1	99.1	122	92.8	55.0	112										
75	135	101	38.7	89.4	115	82.8	37.1	103										
80	127	91.9	21.6	80.4	108	73.7	20.6	94.0										
85	113	82.3	8.19	70.3	93.3	64.2	7.77	82.4										
90	90.2	58.8	1.30	51.9	76.4	46.7	0.80	60.8										
95	56.6	24.2	0.66	25.1	55.1	16.9	0.26	25.1										
100	8.33	2.13	0.65	2.20	4.85	1.28	0.46	1.32										
105	2.67	2.00	0.70	2.04	1.96	1.28	0.69	1.29										
110	2.59	1.84	0.91	1.95	1.97	1.37	0.92	1.36										
115	2.39	1.71	1.19	1.79	2.02	1.49	1.12	1.37										
120	2.24	1.80	1.47	1.86	2.10	1.62	1.29	1.48										
125	2.28	1.93	1.69	1.96	2.19	1.80	1.44	1.54										
130	2.40	1.99	1.90	2.09	2.28	1.92	1.60	1.62										
135	2.46	2.06	2.03	2.23	2.40	2.12	1.74	1.73										
140	2.56	2.15	2.19	2.40	2.50	2.34	1.85	1.81										
145	2.67	2.23	2.32	2.57	2.58	2.50	1.98	1.93										
150	2.74	2.35	2.42	2.73	2.62	2.67	2.21	2.01										
155	2.77	2.45	2.58	2.91	2.73	2.86	2.51	2.14										
160	2.88	2.56	2.84	3.05	2.88	2.99	2.77	2.33										
165	2.97	2.75	3.06	3.19	2.99	3.11	3.02	2.56										
170	2.97	3.03	3.29	3.33	3.01	3.29	3.27	2.91										
175	2.94	3.33	3.52	3.47	3.02	3.43	3.50	3.28										
180	3.11	3.63	3.63	3.63	3.13	3.63	3.66	3.63										

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: