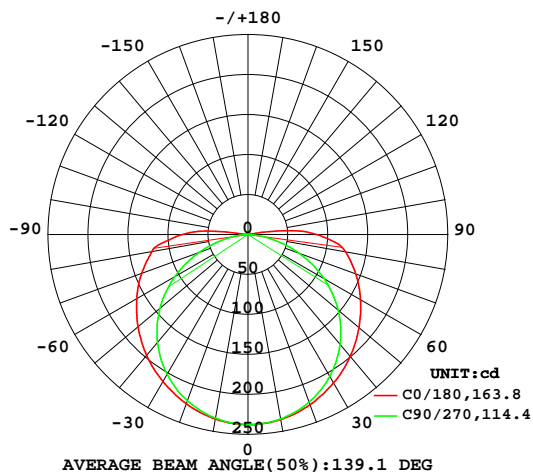


LUMINAIRE PHOTOMETRIC TEST REPORT

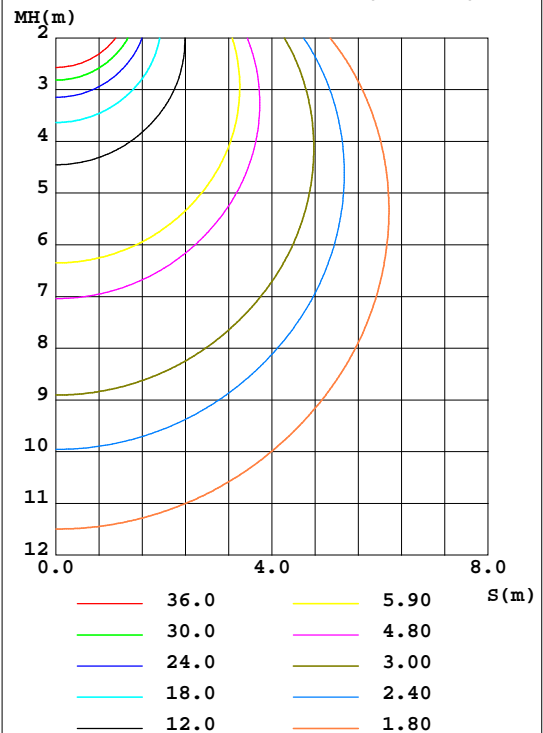
Test:U:24.00V I:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 83.35 lm/W			
MODEL	DF82408NO	I _{max} (cd)	237.9	S/MH(C0/180)	1.34
NOMINAL POWER(W)	11	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	916.89	h UP,DN(C0-180)	2.3,48.3
NOMINAL FLUX(lm)	916.894	CIE CLASS	DIRECT	h UP,DN(C180-360)	2.0,47.4
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:

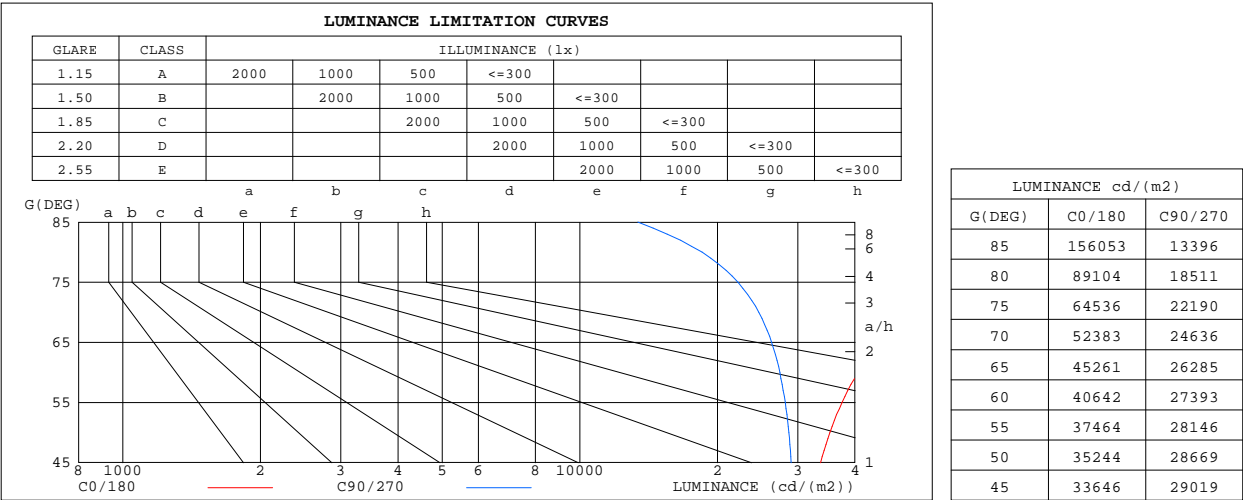
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	235.1	235.0	234.2	234.6	234.4	233.7	233.3	234.2	0~ 10	22.53	22.53	2.46,2.46
20	226.6	225.5	223.3	224.6	225.4	222.9	221.4	223.8	10~ 20	64.98	87.51	9.54,9.54
30	214.2	210.1	204.8	208.6	212.6	206.4	202.2	207.4	20~ 30	100.1	187.6	20.5,20.5
40	199.1	190.0	179.4	188.2	197.3	185.8	176.1	186.7	30~ 40	124.4	311.9	34,34
50	181.2	166.6	147.4	164.4	179.4	162.0	143.7	162.7	40~ 50	136.0	447.9	48.9,48.9
60	162.6	141.4	109.6	138.7	160.7	136.7	105.8	136.9	50~ 60	134.4	582.3	63.5,63.5
70	143.3	117.1	67.41	114.3	141.5	112.7	64.03	112.4	60~ 70	121.7	704.1	76.8,76.8
80	123.8	93.70	25.72	90.36	122.2	88.98	23.56	88.66	70~ 80	100.8	804.9	87.8,87.8
90	86.01	58.71	0.9966	54.95	82.10	53.90	0.6510	54.44	80~ 90	72.84	877.8	95.7,95.7
100	10.34	3.275	0.7981	2.198	2.021	1.343	0.5223	1.409	90~100	27.03	904.8	98.7,98.7
110	2.919	2.237	1.161	1.997	2.051	1.496	1.103	1.544	100~110	1.977	906.8	98.9,98.9
120	2.625	2.231	1.788	1.978	2.238	1.797	1.550	1.774	110~120	1.872	908.6	99.1,99.1
130	2.778	2.532	2.262	2.299	2.492	2.164	1.944	2.004	120~130	1.934	910.6	99.3,99.3
140	2.992	2.719	2.599	2.692	2.705	2.558	2.205	2.211	130~140	1.901	912.5	99.5,99.5
150	3.205	2.839	2.858	3.107	2.872	2.999	2.599	2.358	140~150	1.703	914.2	99.7,99.7
160	3.423	3.006	3.266	3.501	3.180	3.420	3.187	2.672	150~160	1.396	915.6	99.9,99.9
170	3.553	3.440	3.767	3.834	3.283	3.740	3.728	3.313	160~170	0.9588	916.5	100,100
180	3.520	4.054	4.148	4.161	3.527	4.068	4.188	4.161	170~180	0.3549	916.9	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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



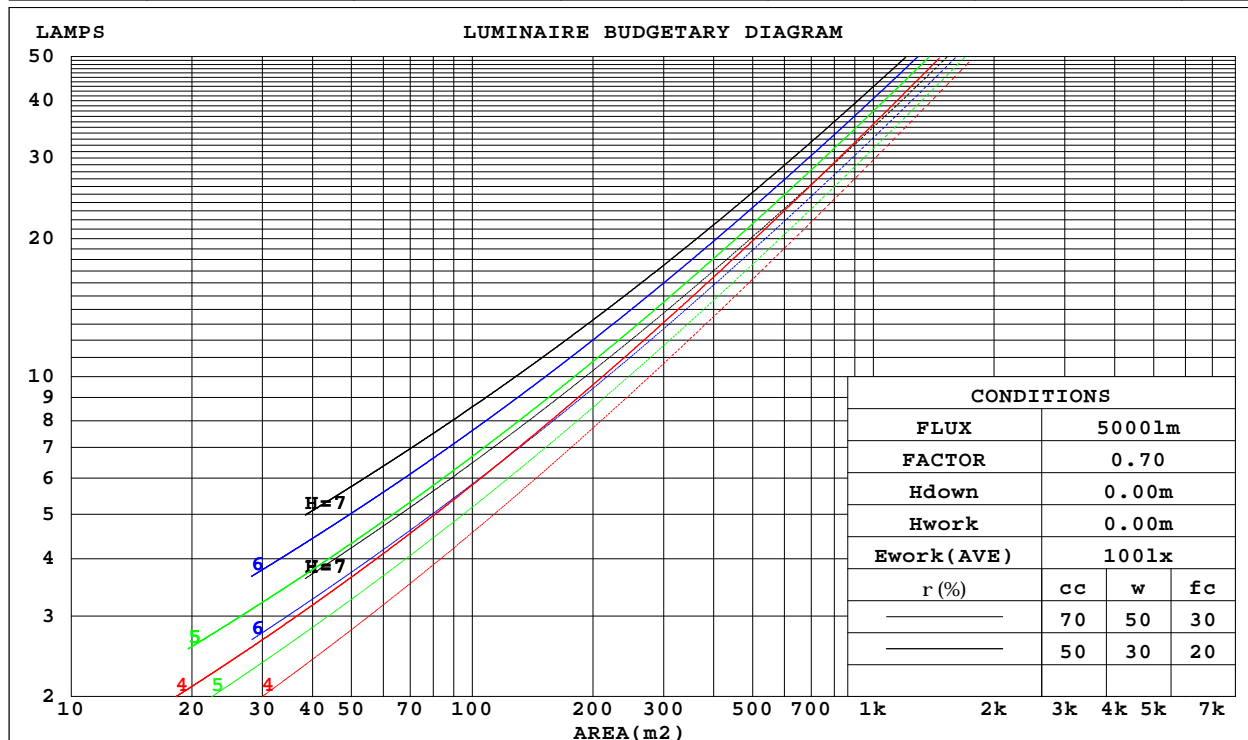
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-23

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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	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	.95	.90	.86	.90	.86	.82	.86	.82	.79	.81	.78	.76	.73
2.0	.84	.76	.69	.82	.74	.68	.77	.71	.65	.73	.68	.63	.69	.65	.61	.59
3.0	.73	.63	.56	.71	.62	.55	.67	.60	.54	.64	.57	.52	.60	.55	.51	.48
4.0	.64	.54	.47	.62	.53	.46	.59	.51	.45	.56	.49	.44	.53	.47	.43	.40
5.0	.57	.47	.40	.55	.46	.39	.53	.44	.38	.50	.43	.37	.48	.42	.37	.34
6.0	.51	.41	.34	.50	.40	.34	.47	.39	.33	.45	.38	.33	.43	.37	.32	.30
7.0	.46	.36	.30	.45	.36	.30	.43	.35	.29	.41	.34	.29	.39	.33	.28	.26
8.0	.42	.33	.27	.41	.32	.26	.39	.31	.26	.37	.31	.25	.36	.30	.25	.23
9.0	.38	.30	.24	.37	.29	.24	.36	.28	.23	.34	.28	.23	.33	.27	.22	.21
10.0	.35	.27	.21	.34	.27	.21	.33	.26	.21	.32	.25	.21	.31	.25	.20	.18



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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	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	.398	.226	.072	.389	.222	.071	.373	.214	.068	.358	.207	.066	.345	.200	.064	
2.0	.345	.189	.058	.337	.186	.057	.323	.180	.056	.310	.174	.054	.297	.168	.053	
3.0	.306	.163	.049	.299	.160	.048	.287	.155	.047	.275	.150	.046	.264	.146	.045	
4.0	.275	.143	.042	.269	.141	.042	.258	.137	.041	.247	.133	.040	.237	.129	.039	
5.0	.250	.127	.037	.244	.126	.037	.234	.122	.036	.225	.119	.035	.216	.115	.035	
6.0	.229	.115	.033	.224	.113	.033	.215	.110	.032	.206	.107	.031	.198	.104	.031	
7.0	.211	.104	.030	.206	.103	.029	.198	.100	.029	.190	.098	.028	.183	.095	.028	
8.0	.195	.095	.027	.191	.094	.027	.184	.092	.026	.177	.090	.026	.170	.087	.025	
9.0	.182	.088	.025	.178	.087	.024	.171	.085	.024	.165	.083	.024	.159	.081	.023	
10.0	.170	.082	.023	.167	.081	.022	.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	.223	.223	.223	.191	.191	.191	.130	.130	.130	.075	.075	.075	.024	.024	.024	
1.0	.219	.188	.160	.188	.161	.138	.128	.111	.095	.074	.064	.055	.024	.021	.018	
2.0	.212	.165	.125	.182	.142	.108	.125	.098	.075	.072	.057	.044	.023	.018	.014	
3.0	.205	.148	.102	.175	.127	.089	.120	.089	.062	.070	.052	.037	.022	.017	.012	
4.0	.197	.135	.088	.169	.117	.076	.116	.081	.054	.067	.048	.032	.022	.015	.010	
5.0	.189	.125	.078	.162	.108	.068	.112	.075	.048	.065	.044	.028	.021	.014	.009	
6.0	.181	.117	.071	.155	.101	.061	.107	.071	.043	.062	.042	.026	.020	.014	.009	
7.0	.174	.110	.065	.149	.095	.057	.103	.067	.040	.060	.039	.024	.019	.013	.008	
8.0	.167	.104	.061	.143	.090	.053	.099	.063	.038	.058	.037	.023	.019	.012	.007	
9.0	.160	.099	.058	.138	.086	.051	.096	.060	.036	.056	.036	.021	.018	.012	.007	
10.0	.154	.095	.056	.133	.082	.048	.092	.058	.034	.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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm											
NAME: DF82408NO					TYPE:			WEIGHT:			
SPEC.:DF82408NO-9WNSA012WC0100					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	26.1	27.6	27.9	24.4	26.0	24.7	26.3	26.6	
	3H	28.4	29.9	28.8	30.2	30.5	26.0	27.5	26.4	27.8	28.2
	4H	29.9	31.3	30.3	31.7	32.0	26.7	28.1	27.1	28.4	28.8
	6H	31.6	32.9	32.0	33.3	33.7	27.2	28.5	27.6	28.8	29.2
	8H	32.5	33.8	32.9	34.2	34.6	27.3	28.6	27.7	29.0	29.3
	12H	33.5	34.8	34.0	35.2	35.6	27.3	28.6	27.8	29.0	29.4
4H	2H	26.4	27.8	26.8	28.2	28.5	25.4	26.9	25.8	27.2	27.6
	3H	29.3	30.6	29.7	30.9	31.4	27.4	28.7	27.8	29.0	29.4
	4H	31.0	32.1	31.4	32.5	33.0	28.3	29.4	28.7	29.8	30.3
	6H	32.9	33.9	33.3	34.3	34.8	29.0	30.0	29.4	30.5	30.9
	8H	33.9	34.9	34.4	35.3	35.8	29.2	30.2	29.7	30.7	31.1
	12H	35.1	36.0	35.6	36.5	37.0	29.4	30.3	29.9	30.8	31.3
8H	4H	31.4	32.4	31.9	32.9	33.3	29.3	30.3	29.8	30.7	31.2
	6H	33.6	34.4	34.1	34.9	35.4	30.4	31.2	30.9	31.7	32.2
	8H	34.8	35.6	35.4	36.1	36.6	30.9	31.6	31.4	32.1	32.7
	12H	36.2	36.9	36.8	37.4	38.0	31.2	31.9	31.8	32.4	33.0
12H	4H	31.5	32.4	32.0	32.8	33.4	29.6	30.5	30.1	31.0	31.5
	6H	33.7	34.5	34.3	35.0	35.5	30.9	31.7	31.5	32.2	32.7
	8H	35.1	35.8	35.6	36.3	36.9	31.6	32.3	32.1	32.8	33.4
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, 916.9 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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

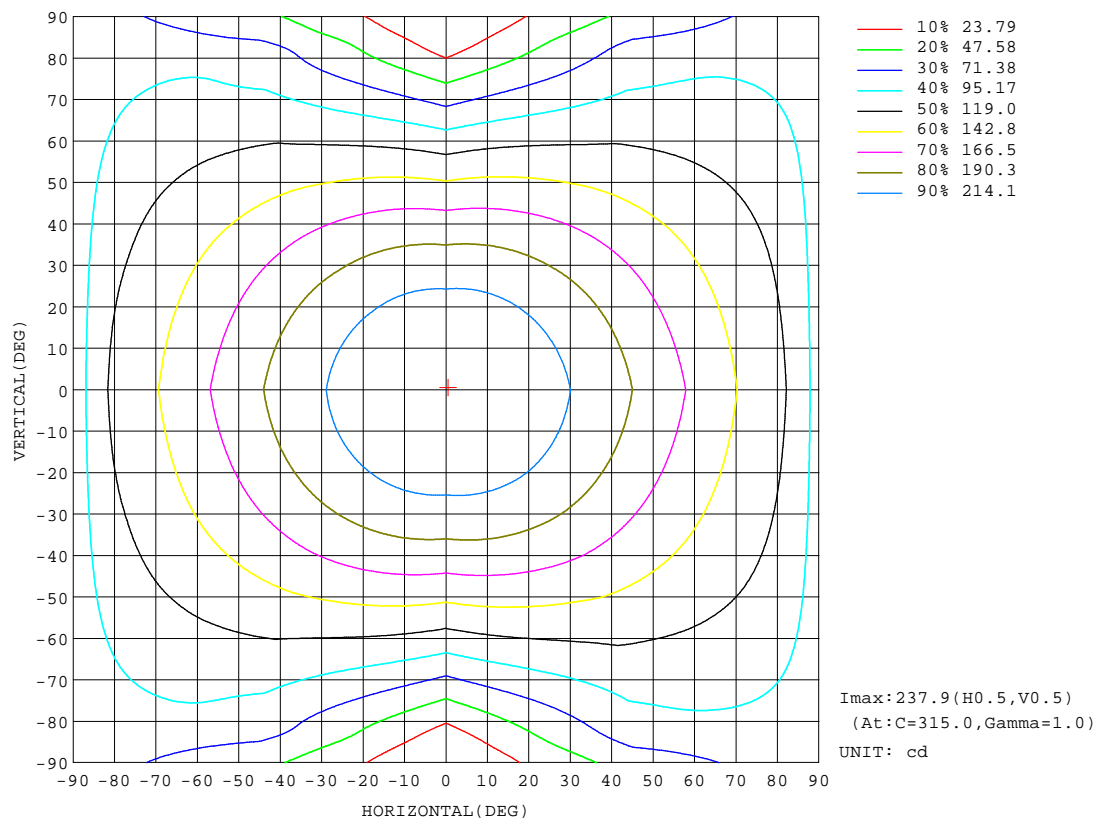
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	39	32	51	39	32	49	38	31	25
0.80	61	48	40	60	48	40	58	47	39	32
1.00	69	56	48	67	55	48	65	57	47	39
1.25	76	64	55	74	63	55	71	61	54	45
1.50	81	69	61	79	68	60	75	66	59	50
2.00	88	77	69	86	76	69	82	73	67	58
2.50	92	83	75	90	81	74	85	78	72	62
3.00	96	87	80	94	85	79	89	82	76	66
4.00	101	93	87	98	91	85	93	87	82	72
5.00	104	97	92	101	95	90	95	91	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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



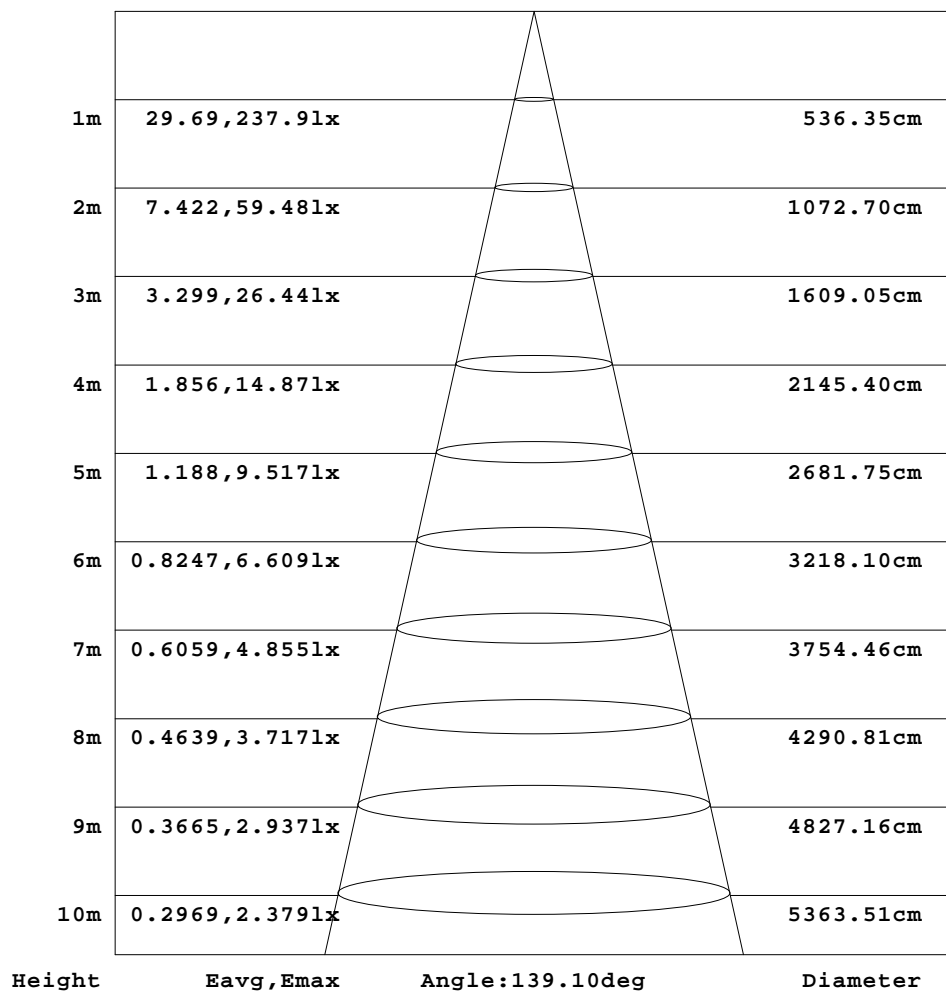
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-23

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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Flux out:704.1 lm



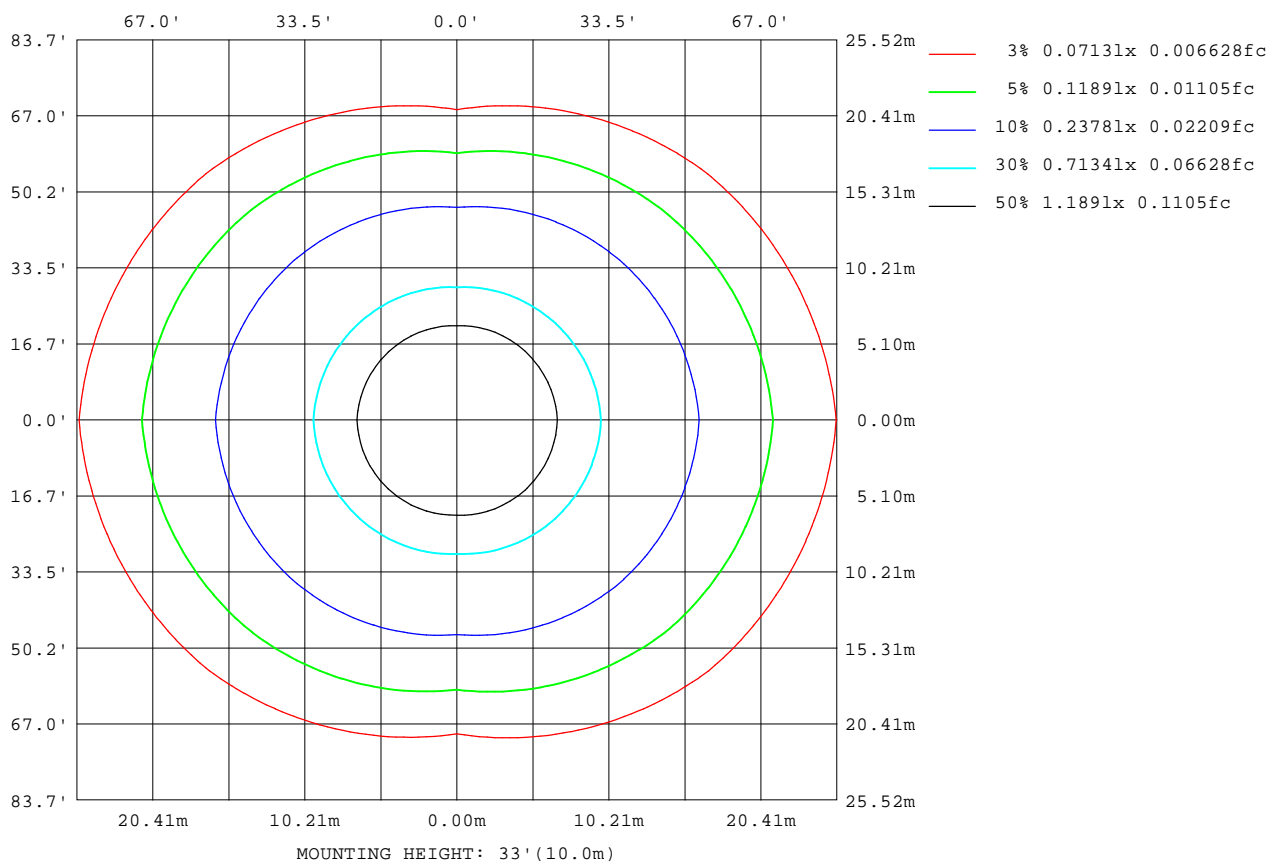
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

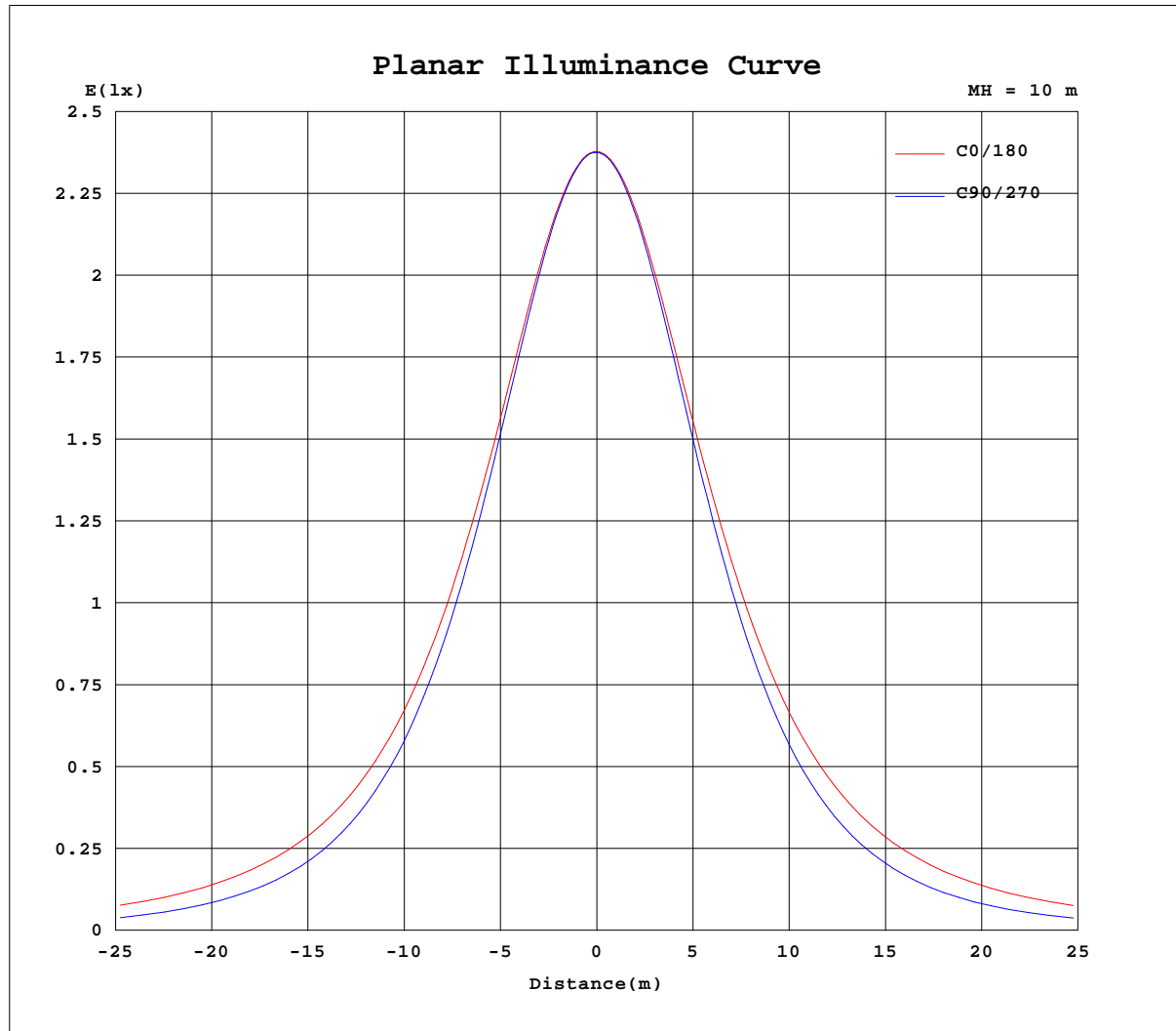
Test:U:24.00V I:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	DIM.: 1000*8*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



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

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:0.4600A P:11.00W PF:1.000 Freq:0Hz Lamp Flux:916.894x1 lm		
NAME: DF82408NO	TYPE:	WEIGHT:
SPEC.:DF82408NO-9WNSA012WC0100	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	238	238	238	238	238	238	238	238										
5	237	237	237	237	237	237	236	237										
10	235	235	234	235	234	234	233	234										
15	232	231	230	230	230	229	228	230										
20	227	226	223	225	225	223	221	224										
25	221	218	215	217	219	215	213	216										
30	214	210	205	209	213	206	202	207										
35	207	200	193	199	205	196	190	197										
40	199	190	179	188	197	186	176	187										
45	190	179	164	177	189	174	161	175										
50	181	167	147	164	179	162	144	163										
55	172	154	129	152	170	149	125	150										
60	163	141	110	139	161	137	106	137										
65	153	129	88.9	126	151	124	85.2	124										
70	143	117	67.4	114	142	113	64.0	112										
75	134	105	45.9	102	131	101	43.0	100										
80	124	93.7	25.7	90.4	122	89.0	23.6	88.7										
85	109	81.5	9.34	78.5	104	76.6	8.25	75.9										
90	86.0	58.7	1.00	54.9	82.1	53.9	0.65	54.4										
95	56.1	28.3	0.76	20.4	53.1	15.2	0.31	23.2										
100	10.3	3.28	0.80	2.20	2.02	1.34	0.52	1.41										
105	2.98	2.40	0.87	2.13	1.98	1.38	0.83	1.49										
110	2.92	2.24	1.16	2.00	2.05	1.50	1.10	1.54										
115	2.80	2.14	1.48	1.85	2.11	1.64	1.32	1.62										
120	2.63	2.23	1.79	1.98	2.24	1.80	1.55	1.77										
125	2.73	2.41	2.00	2.14	2.37	1.98	1.74	1.92										
130	2.78	2.53	2.26	2.30	2.49	2.16	1.94	2.00										
135	2.87	2.64	2.44	2.49	2.60	2.36	2.08	2.13										
140	2.99	2.72	2.60	2.69	2.71	2.56	2.20	2.21										
145	3.07	2.78	2.76	2.91	2.77	2.78	2.38	2.28										
150	3.20	2.84	2.86	3.11	2.87	3.00	2.60	2.36										
155	3.30	2.91	3.02	3.31	3.03	3.23	2.90	2.50										
160	3.42	3.01	3.27	3.50	3.18	3.42	3.19	2.67										
165	3.53	3.15	3.53	3.67	3.27	3.63	3.45	2.97										
170	3.55	3.44	3.77	3.83	3.28	3.74	3.73	3.31										
175	3.47	3.77	4.03	4.00	3.31	3.93	3.99	3.73										
180	3.52	4.05	4.15	4.16	3.53	4.07	4.19	4.16										

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