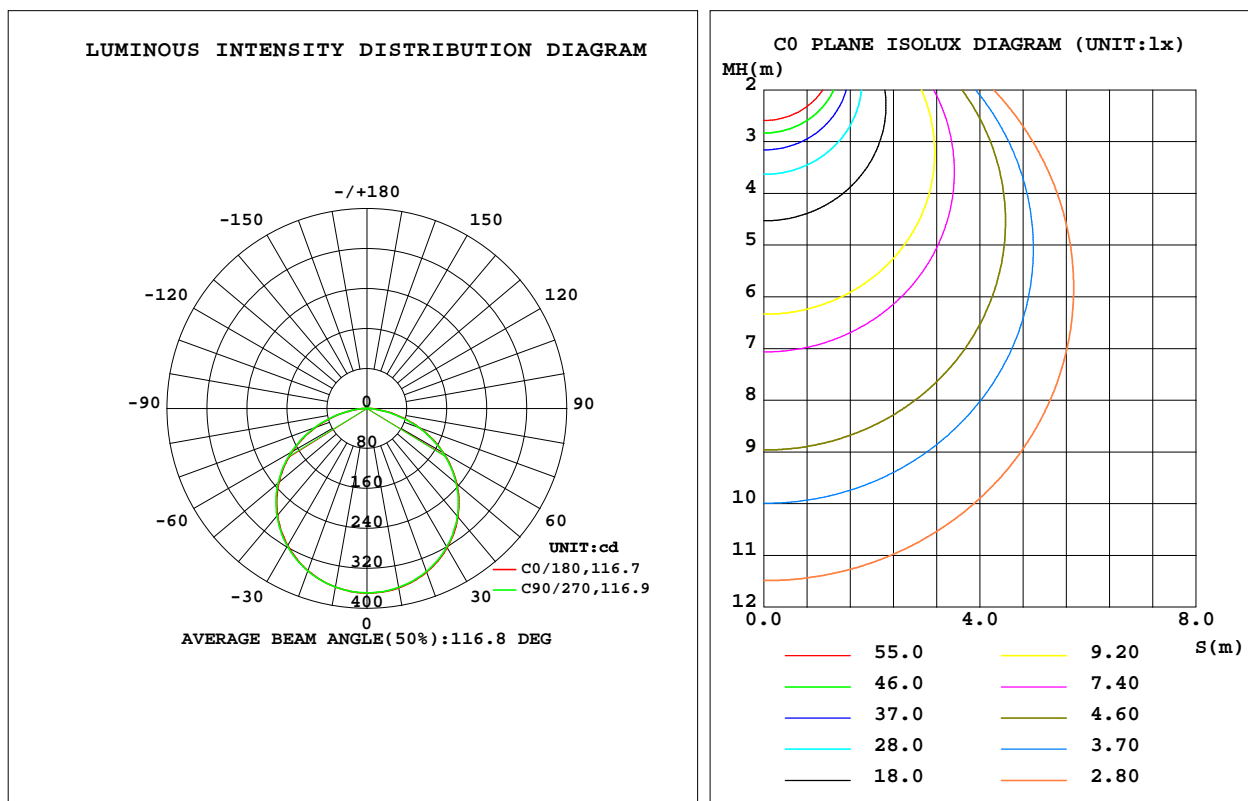


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.66 lm/W			
MODEL	D81282408NO	I _{max} (cd)	369.3	S/MH(C0/180)	1.29
NOMINAL POWER(W)	8.7	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	1121.7	h UP,DN(C0-180)	0.9,49.3
NOMINAL FLUX(lm)	1121.73	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.8,49.0
LAMPS INSIDE	1	h up(%)	1.7	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	24	h down(%)	98.3	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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:

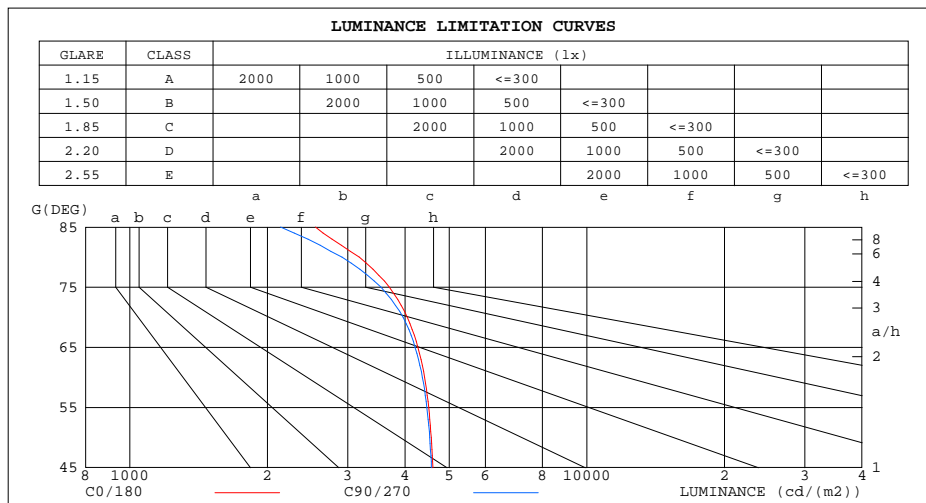
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	364.6	364.6	363.5	363.5	362.9	362.3	362.9	363.8	0- 10	34.97	34.97	3.12,3.12
20	348.6	349.0	347.2	346.7	345.4	344.6	346.1	347.2	10- 20	100.7	135.7	12.1,12.1
30	321.4	322.2	319.8	319.0	317.1	316.3	318.5	319.7	20- 30	154.2	289.8	25.8,25.8
40	283.3	284.5	281.6	280.7	278.6	277.7	280.4	281.6	30- 40	188.6	478.4	42.6,42.6
50	234.8	236.2	233.0	232.1	230.1	229.2	232.5	233.3	40- 50	199.0	677.4	60.4,60.4
60	176.6	178.1	174.7	174.2	172.7	171.9	175.2	175.7	50- 60	183.0	860.4	76.7,76.7
70	110.8	111.9	108.4	108.8	108.1	107.5	110.6	110.8	60- 70	141.2	1002	89.3,89.3
80	44.15	44.82	40.45	43.01	43.25	42.83	45.37	45.08	70- 80	80.12	1082	96.4,96.4
90	4.280	4.017	2.254	4.243	3.276	3.169	1.363	4.326	80- 90	21.26	1103	98.3,98.3
100	1.441	1.451	1.323	1.483	1.056	0.9540	0.8753	0.9214	90-100	1.584	1105	98.5,98.5
110	2.161	2.121	1.928	2.192	2.054	1.808	1.877	1.689	100-110	1.637	1106	98.6,98.6
120	3.169	3.095	2.959	3.120	3.013	2.596	2.647	2.651	110-120	2.432	1109	98.8,98.8
130	4.020	3.861	3.711	3.822	3.842	3.299	3.214	3.292	120-130	2.937	1112	99.1,99.1
140	4.595	4.389	4.248	4.408	4.502	4.026	3.661	3.714	130-140	3.034	1115	99.4,99.4
150	5.009	4.676	4.622	4.943	4.916	4.709	4.142	3.920	140-150	2.762	1117	99.6,99.6
160	5.430	4.950	5.221	5.504	5.337	5.330	5.097	4.354	150-160	2.250	1120	99.8,99.8
170	5.699	5.624	5.985	6.005	5.350	5.850	5.931	5.449	160-170	1.537	1121	99.9,99.9
180	5.617	6.519	6.619	6.619	5.624	6.512	6.626	6.653	170-180	0.5653	1122	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:2020-12-03

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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2548	2138
80	3178	2912
75	3697	3545
70	4049	3963
65	4271	4210
60	4415	4368
55	4508	4467
50	4566	4532
45	4602	4572

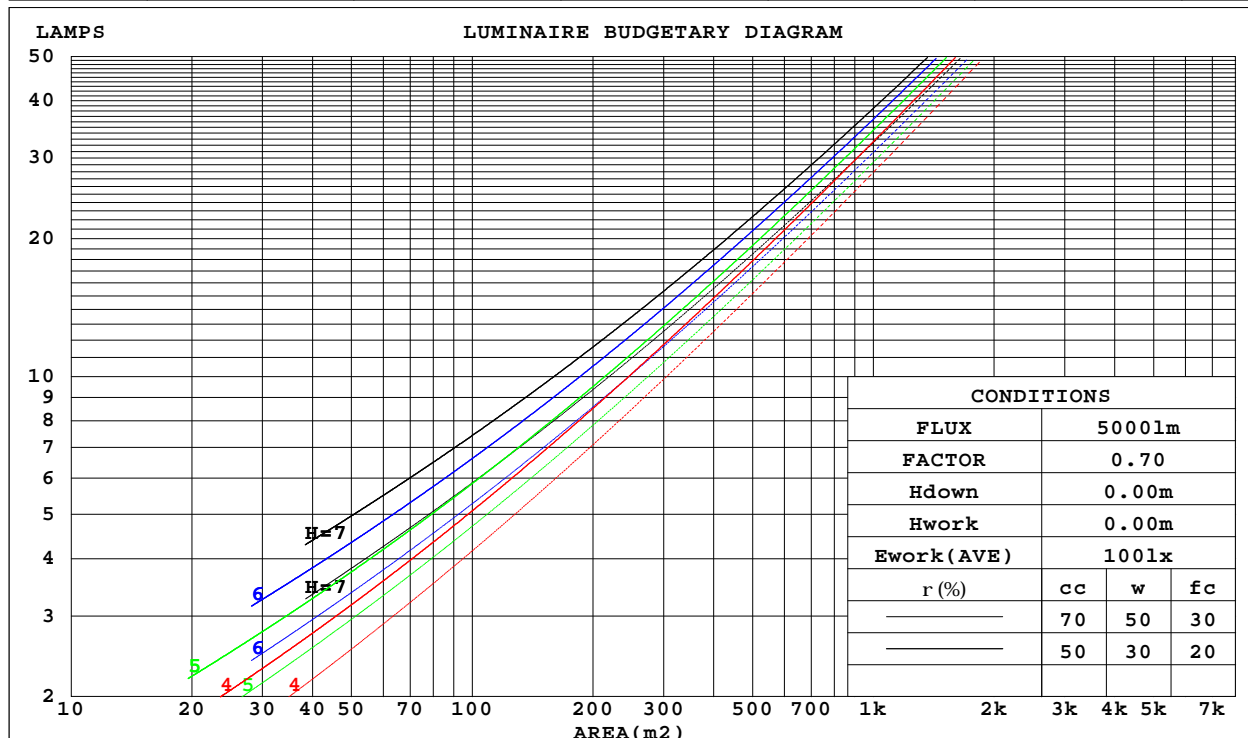
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-12-03

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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
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:2020-12-03

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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
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	.313	.178	.056	.305	.174	.055	.291	.167	.053	.278	.160	.051	.266	.154	.050	
2.0	.294	.161	.049	.288	.158	.049	.275	.153	.047	.263	.148	.046	.253	.143	.045	
3.0	.272	.145	.043	.266	.143	.043	.255	.138	.042	.245	.134	.041	.235	.130	.040	
4.0	.251	.130	.038	.246	.129	.038	.236	.125	.037	.227	.122	.037	.218	.118	.036	
5.0	.232	.118	.034	.227	.117	.034	.218	.114	.033	.210	.111	.033	.202	.108	.032	
6.0	.215	.108	.031	.211	.106	.031	.203	.104	.030	.195	.102	.030	.188	.099	.029	
7.0	.200	.099	.028	.196	.098	.028	.189	.096	.028	.182	.093	.027	.176	.091	.027	
8.0	.187	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.165	.085	.025	
9.0	.175	.085	.024	.172	.084	.023	.166	.082	.023	.161	.080	.023	.155	.079	.023	
10.0	.164	.079	.022	.162	.078	.022	.156	.077	.022	.151	.075	.021	.147	.074	.021	

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	.203	.203	.203	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.193	.169	.147	.165	.145	.126	.113	.100	.087	.065	.058	.051	.021	.019	.016	
2.0	.185	.145	.111	.159	.125	.096	.109	.086	.067	.063	.050	.039	.020	.016	.013	
3.0	.178	.127	.087	.153	.110	.075	.105	.076	.053	.060	.045	.031	.019	.014	.010	
4.0	.170	.114	.071	.146	.099	.062	.101	.069	.043	.058	.040	.026	.019	.013	.008	
5.0	.163	.104	.060	.140	.090	.052	.096	.063	.037	.056	.037	.022	.018	.012	.007	
6.0	.156	.095	.052	.134	.083	.045	.092	.058	.032	.054	.034	.019	.017	.011	.006	
7.0	.149	.089	.046	.128	.077	.040	.089	.054	.029	.051	.032	.017	.017	.010	.006	
8.0	.143	.083	.042	.123	.072	.036	.085	.050	.026	.049	.030	.015	.016	.010	.005	
9.0	.136	.078	.038	.118	.068	.033	.081	.048	.024	.047	.028	.014	.015	.009	.005	
10.0	.131	.074	.036	.113	.064	.031	.078	.045	.022	.046	.027	.013	.015	.009	.004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm											
NAME: D81282408NO					TYPE:			WEIGHT:			
SPEC.:D81282408NO-HNWDA012WC0100					DIM.: 1000*8*1.6mm			SERIAL No.:			
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	17.7	19.3	18.0	19.5	19.7	17.7	19.2	18.0	19.5	19.7	
	3H	19.3	20.7	19.6	21.0	21.2	19.2	20.6	19.6	20.9	21.2
	4H	19.9	21.2	20.2	21.5	21.8	19.8	21.1	20.1	21.4	21.7
	6H	20.3	21.5	20.7	21.8	22.2	20.2	21.4	20.5	21.7	22.0
	8H	20.4	21.6	20.8	21.9	22.3	20.2	21.5	20.6	21.8	22.1
	12H	20.5	21.6	20.8	21.9	22.3	20.3	21.4	20.7	21.8	22.1
4H	2H	18.4	19.7	18.7	20.0	20.3	18.3	19.7	18.7	20.0	20.2
	3H	20.1	21.3	20.5	21.6	21.9	20.1	21.2	20.4	21.5	21.9
	4H	20.8	21.9	21.2	22.2	22.6	20.7	21.8	21.1	22.2	22.5
	6H	21.3	22.3	21.8	22.7	23.1	21.2	22.1	21.6	22.5	22.9
	8H	21.5	22.4	21.9	22.8	23.2	21.3	22.2	21.8	22.6	23.0
	12H	21.6	22.4	22.0	22.8	23.2	21.4	22.2	21.9	22.6	23.1
8H	4H	21.1	22.0	21.5	22.4	22.8	21.0	21.9	21.4	22.3	22.7
	6H	21.7	22.5	22.2	22.9	23.4	21.6	22.3	22.1	22.8	23.2
	8H	22.0	22.6	22.4	23.1	23.5	21.8	22.5	22.3	22.9	23.4
	12H	22.1	22.7	22.6	23.1	23.7	21.9	22.5	22.4	23.0	23.5
12H	4H	21.1	21.9	21.5	22.3	22.7	21.0	21.8	21.5	22.2	22.7
	6H	21.8	22.4	22.3	22.9	23.4	21.7	22.3	22.1	22.8	23.2
	8H	22.0	22.6	22.5	23.1	23.6	21.9	22.4	22.4	22.9	23.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2				+ 0.1 / - 0.2						
1.5H	+ 0.2 / - 0.3				+ 0.2 / - 0.3						
2.0H	+ 0.2 / - 0.3				+ 0.2 / - 0.3						

CIE Pub.117, 1122 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.4)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

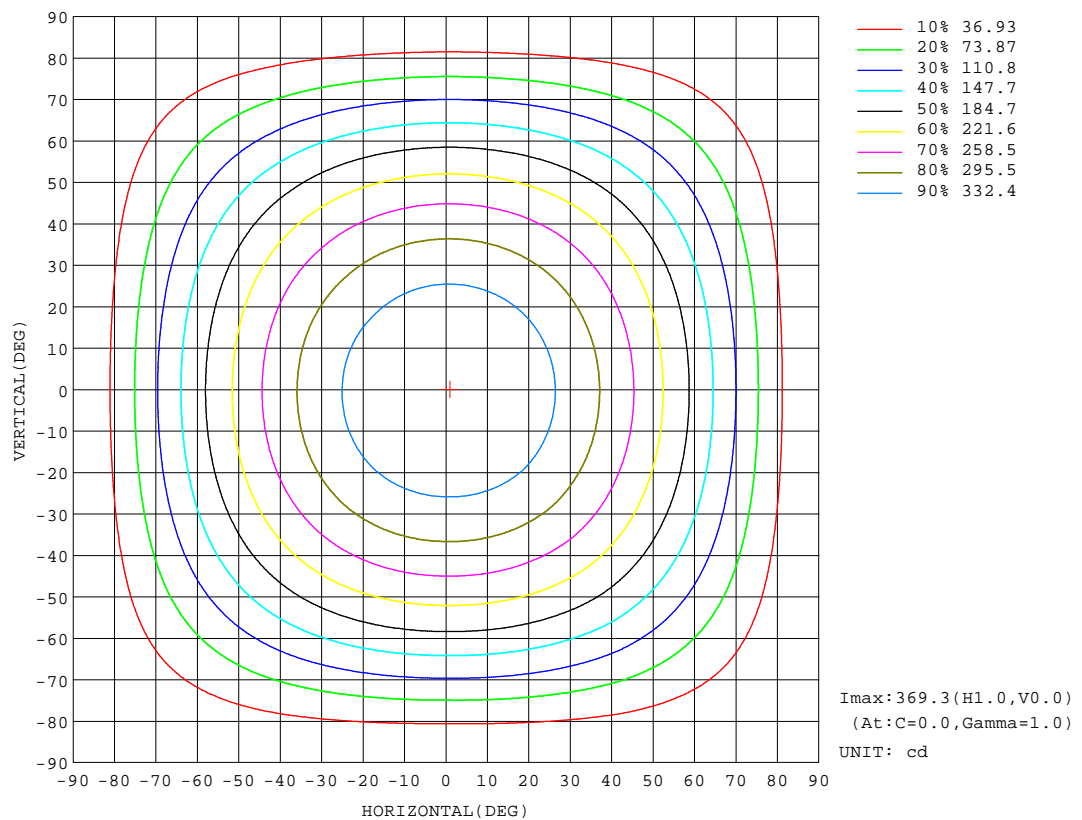
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	45	38	56	44	37	54	44	37	31
0.80	66	55	47	65	54	47	63	53	46	39
1.00	75	64	56	74	63	56	71	64	55	48
1.25	82	71	64	80	71	64	78	69	63	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	85	79	92	84	78	88	82	76	68
2.50	98	90	84	96	89	83	92	86	81	72
3.00	101	94	89	99	93	88	95	90	85	76
4.00	106	100	95	103	98	93	98	94	91	81
5.00	108	103	99	105	101	97	101	97	94	84
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:2020-12-03

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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



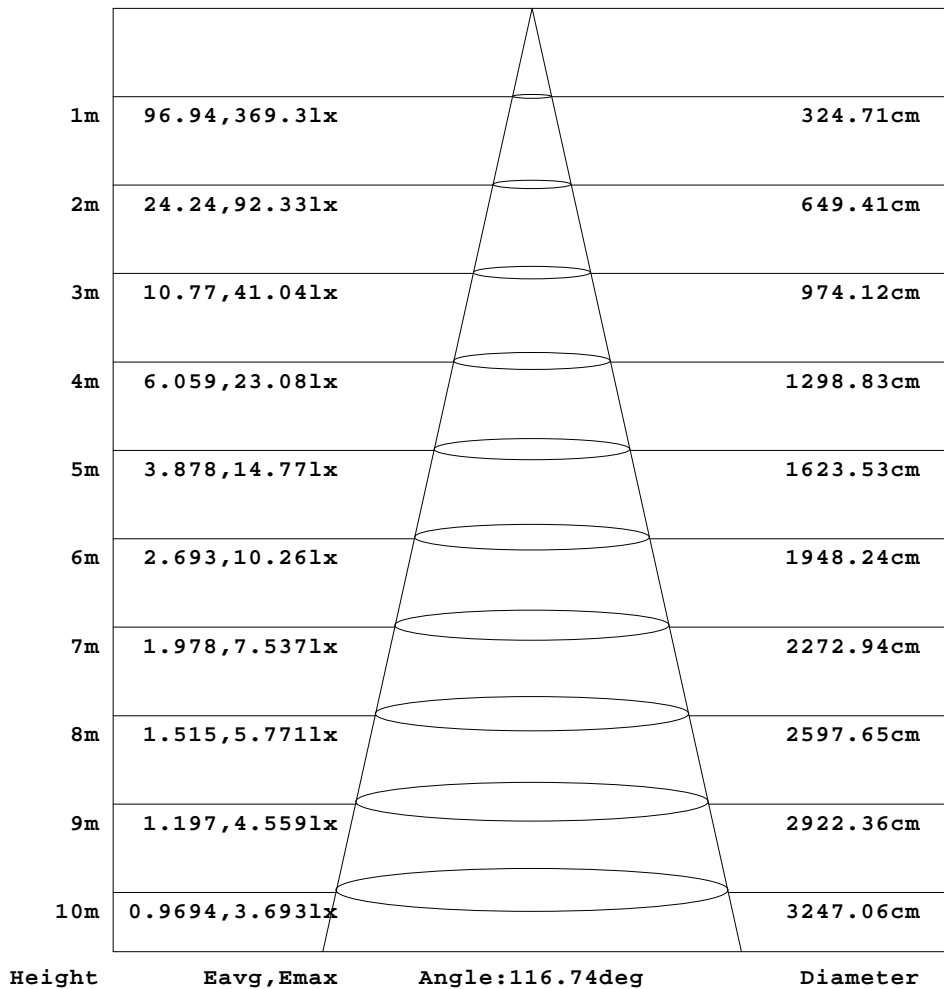
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Flux out:843.6 lm



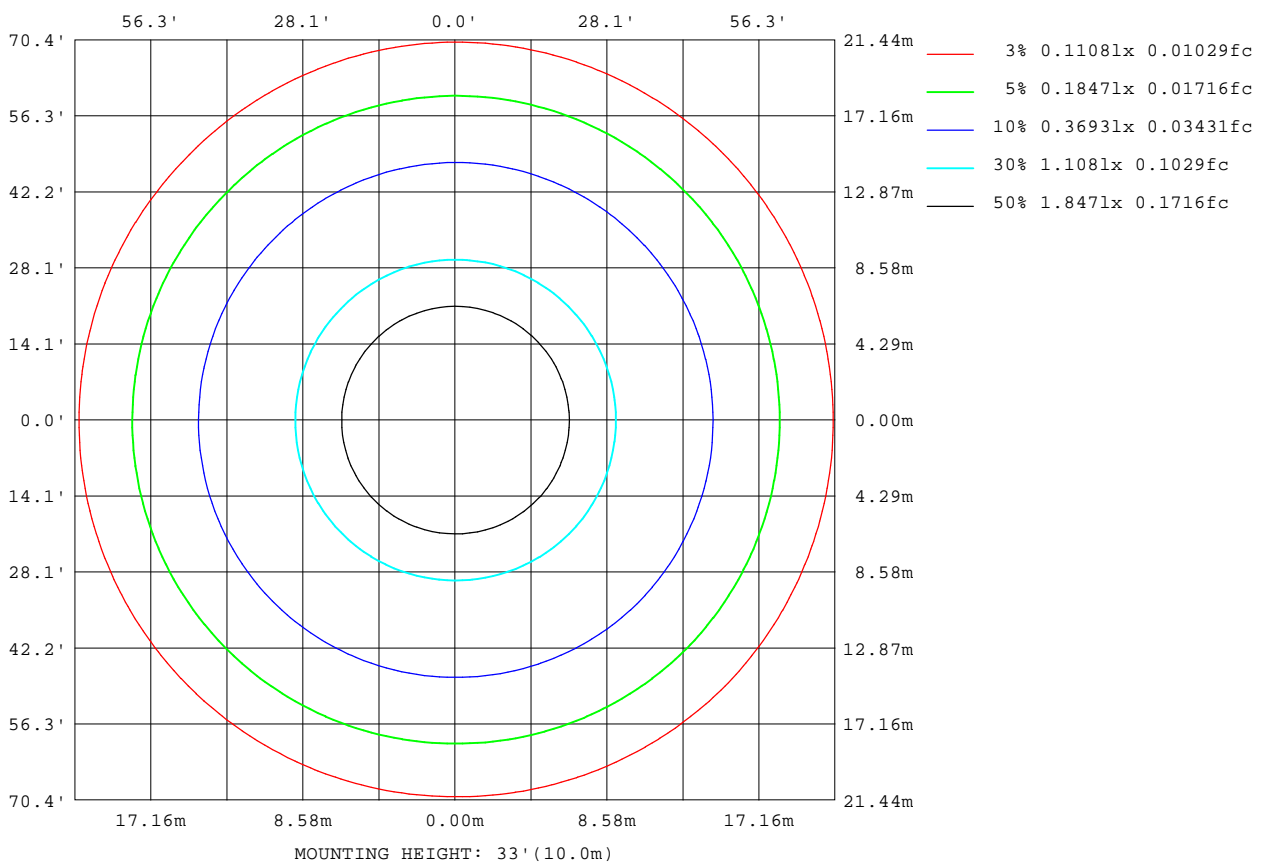
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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

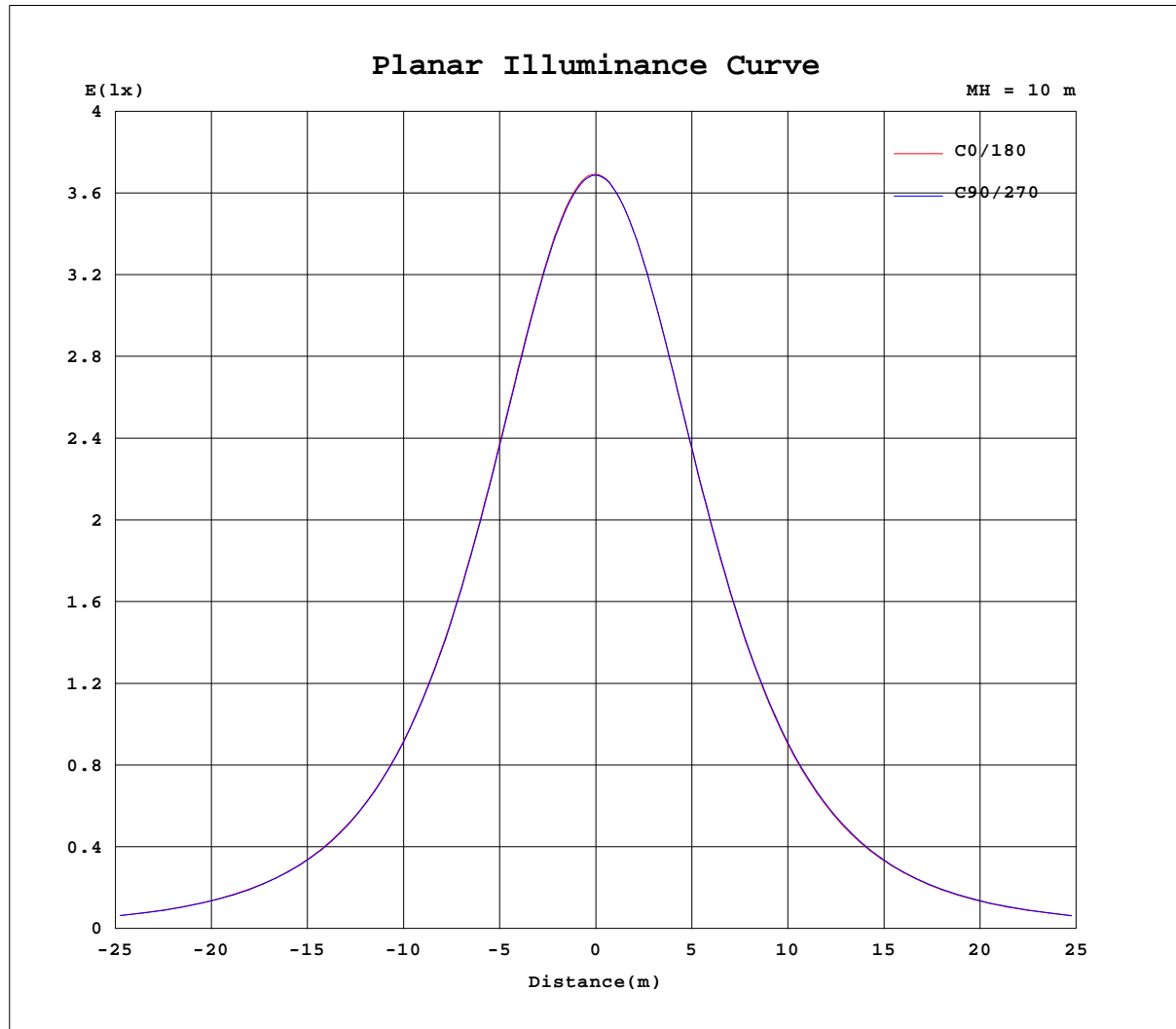
Test:U:24.00V I:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-12-03

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: 2020-12-03

deg Range: 0 - 180DEG
deg 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:0.3780A P:9.071W PF:1.000 Freq:0Hz Lamp Flux:1121.73x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-HNWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	369	369	369	369	369	369	369	369										
5	368	368	368	368	368	367	367	368										
10	365	365	364	364	363	362	363	364										
15	358	358	357	356	356	355	356	357										
20	349	349	347	347	345	345	346	347										
25	336	337	335	334	333	332	334	335										
30	321	322	320	319	317	316	318	320										
35	304	305	302	301	299	298	301	302										
40	283	284	282	281	279	278	280	282										
45	260	262	259	258	256	255	258	259										
50	235	236	233	232	230	229	232	233										
55	207	208	205	204	202	202	205	206										
60	177	178	175	174	173	172	175	176										
65	144	146	142	142	141	140	144	144										
70	111	112	108	109	108	107	111	111										
75	76.6	77.5	73.4	75.0	74.8	74.2	77.2	77.0										
80	44.2	44.8	40.4	43.0	43.2	42.8	45.4	45.1										
85	17.8	18.1	14.9	17.6	17.2	17.2	18.8	18.8										
90	4.28	4.02	2.25	4.24	3.28	3.17	1.36	4.33										
95	1.46	1.63	1.37	1.55	0.76	0.86	0.47	1.00										
100	1.44	1.45	1.32	1.48	1.06	0.95	0.88	0.92										
105	1.69	1.72	1.47	1.77	1.55	1.37	1.42	1.33										
110	2.16	2.12	1.93	2.19	2.05	1.81	1.88	1.69										
115	2.66	2.64	2.48	2.70	2.54	2.19	2.28	2.19										
120	3.17	3.10	2.96	3.12	3.01	2.60	2.65	2.65										
125	3.60	3.50	3.35	3.50	3.45	2.97	2.94	3.04										
130	4.02	3.86	3.71	3.82	3.84	3.30	3.21	3.29										
135	4.34	4.15	3.99	4.10	4.19	3.68	3.47	3.54										
140	4.60	4.39	4.25	4.41	4.50	4.03	3.66	3.71										
145	4.80	4.54	4.46	4.65	4.74	4.38	3.87	3.84										
150	5.01	4.68	4.62	4.94	4.92	4.71	4.14	3.92										
155	5.21	4.80	4.88	5.24	5.14	5.02	4.58	4.05										
160	5.43	4.95	5.22	5.50	5.34	5.33	5.10	4.35										
165	5.65	5.19	5.63	5.74	5.47	5.53	5.52	4.90										
170	5.70	5.62	5.98	6.00	5.35	5.85	5.93	5.45										
175	5.49	6.10	6.33	6.31	5.28	6.18	6.33	6.06										
180	5.62	6.52	6.62	6.62	5.62	6.51	6.63	6.65										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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: