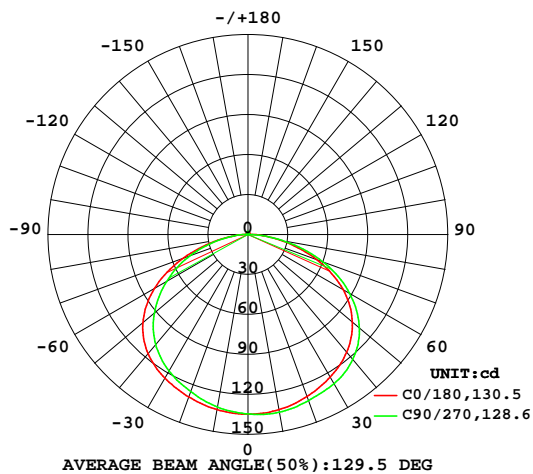


LUMINAIRE PHOTOMETRIC TEST REPORT

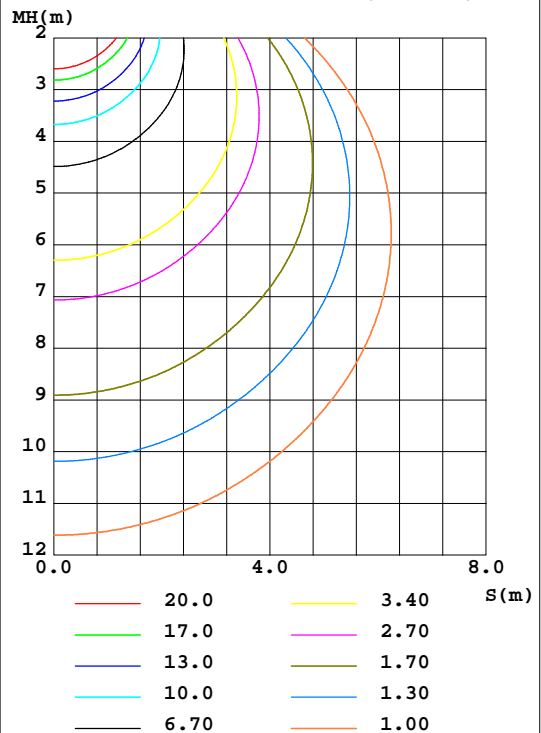
Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 77.98 lm/W			
MODEL	DA2402412NO	I _{max} (cd)	135.6	S/MH(C0/180)	1.39
NOMINAL POWER(W)	5.5	LOR(%)	100.0	S/MH(C90/270)	1.32
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	475.69	h UP,DN(C0-180)	0.9,51.3
NOMINAL FLUX(lm)	475.694	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.8,47.1
LAMPS INSIDE	1	h up(%)	1.7	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	98.3	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

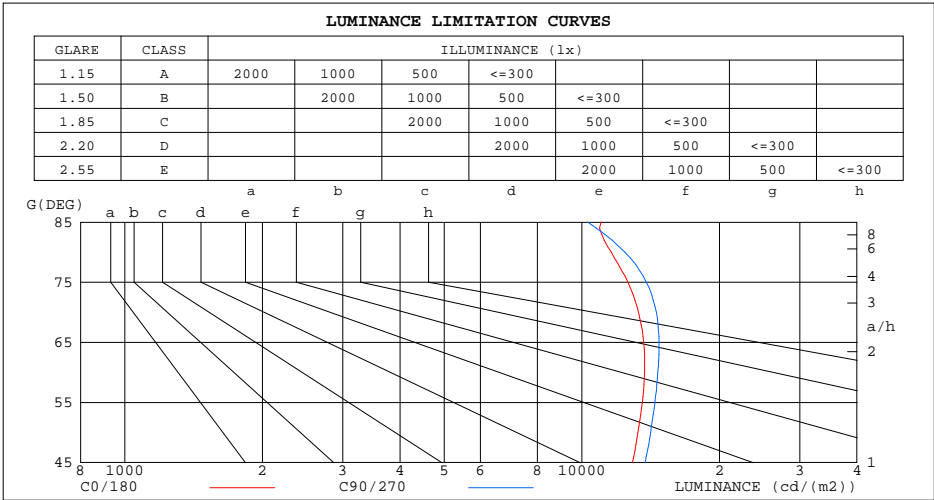
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	133.5	135.5	133.5	131.5					0~ 10	12.81	12.81	2.69,2.69
20	129.4	132.7	129.8	125.5					10~ 20	37.24	50.05	10.5,10.5
30	123.5	129.2	124.6	118.4					20~ 30	58.59	108.6	22.8,22.8
40	115.3	122.4	116.8	107.8					30~ 40	75.36	184.0	38.7,38.7
50	102.3	109.1	102.9	91.64					40~ 50	84.34	268.3	56.4,56.4
60	82.32	88.02	80.98	70.65					50~ 60	81.97	350.3	73.6,73.6
70	54.61	59.75	51.48	45.96					60~ 70	66.52	416.8	87.6,87.6
80	24.19	25.89	20.34	19.51					70~ 80	39.66	456.5	96,96
90	3.526	0.5991	1.780	0.2564					80~ 90	11.32	467.8	98.3,98.3
100	0.6890	0.4701	0.5481	0.4304					90~100	0.7087	468.5	98.5,98.5
110	0.9968	0.8563	0.9788	0.8808					100~110	0.7580	469.3	98.7,98.7
120	1.428	1.211	1.352	1.191					110~120	1.110	470.4	98.9,98.9
130	1.732	1.462	1.597	1.422					120~130	1.289	471.7	99.2,99.2
140	1.924	1.622	1.757	1.571					130~140	1.271	472.9	99.4,99.4
150	1.938	1.700	1.828	1.712					140~150	1.099	474.0	99.7,99.7
160	2.034	1.958	1.925	1.970					150~160	0.8686	474.9	99.8,99.8
170	2.035	2.266	1.841	2.240					160~170	0.5781	475.5	100,100
180	1.976	2.472	1.938	2.446					170~180	0.2034	475.7	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	11014	10296
80	11607	12425
75	12614	13843
70	13305	14558
65	13666	14759
60	13721	14671
55	13566	14442
50	13269	14140
45	12914	13765

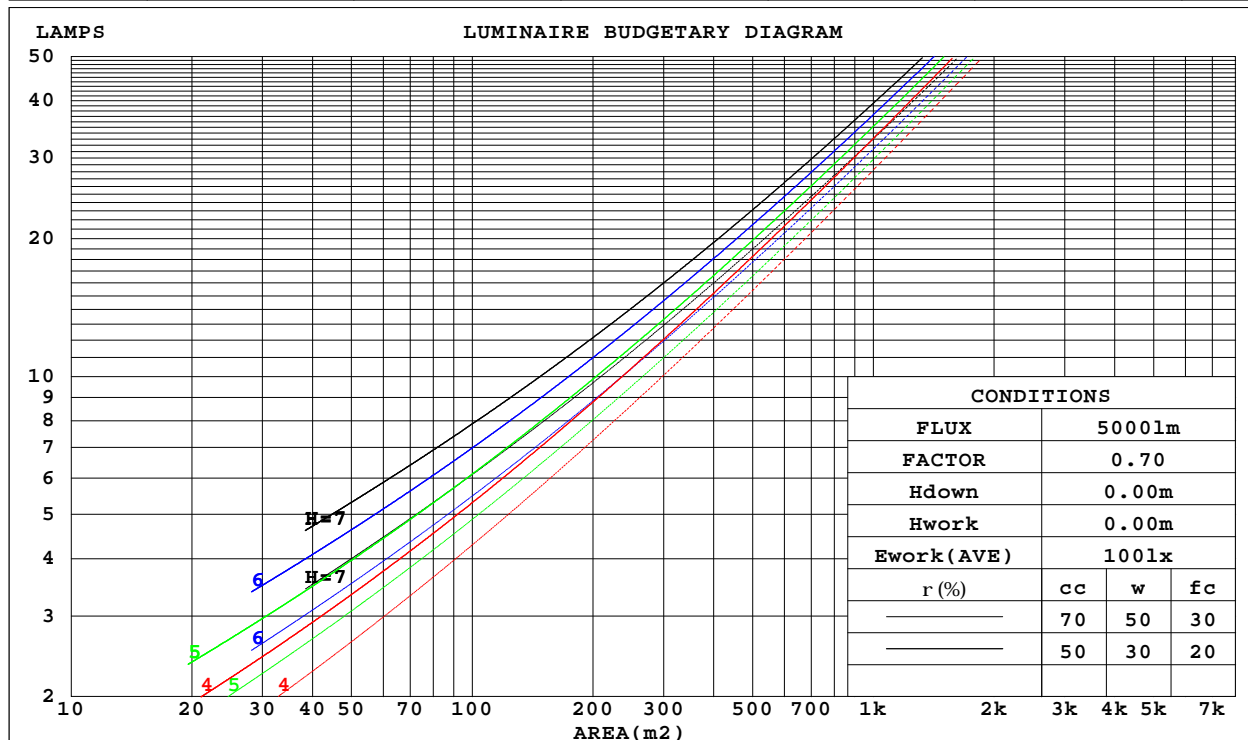
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	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															



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	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	.330	.188	.059	.322	.184	.058	.308	.177	.056	.295	.170	.055	.283	.164	.053	
2.0	.308	.169	.052	.301	.166	.051	.289	.161	.050	.277	.155	.049	.266	.150	.047	
3.0	.283	.151	.045	.277	.149	.045	.266	.144	.044	.256	.140	.043	.246	.136	.042	
4.0	.260	.135	.040	.255	.133	.039	.245	.130	.039	.235	.126	.038	.227	.123	.038	
5.0	.240	.122	.035	.235	.121	.035	.226	.118	.035	.217	.115	.034	.210	.112	.034	
6.0	.221	.111	.032	.217	.110	.032	.209	.107	.031	.201	.105	.031	.194	.102	.030	
7.0	.205	.102	.029	.202	.100	.029	.194	.098	.028	.188	.096	.028	.181	.094	.028	
8.0	.191	.093	.026	.188	.092	.026	.181	.091	.026	.175	.089	.026	.169	.087	.025	
9.0	.179	.086	.024	.176	.086	.024	.170	.084	.024	.164	.082	.024	.159	.081	.023	
10.0	.168	.080	.022	.165	.080	.022	.160	.078	.022	.155	.077	.022	.150	.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	.203	.203	.203	.174	.174	.174	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.194	.169	.146	.166	.145	.125	.114	.100	.087	.065	.058	.050	.021	.019	.016	
2.0	.187	.145	.109	.160	.125	.094	.110	.086	.066	.063	.050	.038	.020	.016	.013	
3.0	.180	.127	.085	.154	.110	.074	.106	.076	.052	.061	.045	.031	.020	.014	.010	
4.0	.173	.114	.070	.148	.099	.060	.102	.069	.043	.059	.040	.025	.019	.013	.008	
5.0	.165	.104	.059	.142	.090	.051	.098	.063	.036	.057	.037	.021	.018	.012	.007	
6.0	.158	.096	.051	.136	.083	.044	.094	.058	.031	.054	.034	.019	.018	.011	.006	
7.0	.151	.089	.045	.130	.077	.040	.090	.054	.028	.052	.032	.017	.017	.010	.006	
8.0	.144	.083	.041	.124	.072	.036	.086	.051	.025	.050	.030	.015	.016	.010	.005	
9.0	.138	.078	.038	.119	.068	.033	.082	.048	.023	.048	.028	.014	.016	.009	.005	
10.0	.132	.074	.035	.114	.064	.031	.079	.045	.022	.046	.027	.013	.015	.009	.004	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm											
NAME: DA2402412NO					TYPE:			WEIGHT:			
SPEC.:DA2402412NO-0RGBNDA012WC0500-G					DIM.: 1000*12*1.5mm			SERIAL No.:01			
MFR.: Colors					SUR.:1000*12			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	24.8	26.4	25.1	26.6	26.9	25.1	26.7	25.4	26.9	27.2	
	3H	26.6	28.1	26.9	28.3	28.6	27.0	28.4	27.3	28.7	29.0
	4H	27.3	28.7	27.7	29.0	29.3	27.7	29.1	28.1	29.4	29.7
	6H	27.8	29.1	28.2	29.4	29.8	28.2	29.5	28.6	29.8	30.2
	8H	28.0	29.3	28.4	29.6	29.9	28.4	29.7	28.8	30.0	30.3
	12H	28.1	29.3	28.5	29.6	30.0	28.5	29.7	28.9	30.0	30.4
4H	2H	25.6	27.0	25.9	27.3	27.6	25.8	27.2	26.1	27.5	27.8
	3H	27.5	28.7	27.9	29.1	29.4	27.8	29.0	28.2	29.3	29.7
	4H	28.4	29.5	28.8	29.8	30.2	28.7	29.8	29.1	30.1	30.5
	6H	29.0	30.0	29.4	30.4	30.8	29.3	30.3	29.8	30.7	31.1
	8H	29.2	30.1	29.7	30.5	31.0	29.5	30.5	30.0	30.9	31.3
	12H	29.4	30.2	29.8	30.6	31.1	29.7	30.5	30.1	30.9	31.4
8H	4H	28.7	29.6	29.1	30.0	30.4	29.0	29.9	29.4	30.3	30.7
	6H	29.5	30.2	29.9	30.7	31.1	29.8	30.5	30.2	31.0	31.4
	8H	29.8	30.5	30.3	30.9	31.4	30.1	30.8	30.6	31.2	31.7
	12H	30.0	30.6	30.5	31.1	31.6	30.3	30.9	30.8	31.4	31.9
12H	4H	28.7	29.6	29.2	30.0	30.4	29.0	29.8	29.4	30.2	30.7
	6H	29.6	30.2	30.0	30.7	31.2	29.8	30.5	30.3	31.0	31.5
	8H	29.9	30.5	30.4	31.0	31.5	30.2	30.8	30.7	31.2	31.8
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.4					+ 0.1 / - 0.4					

CIE Pub.117, 475.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.6)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

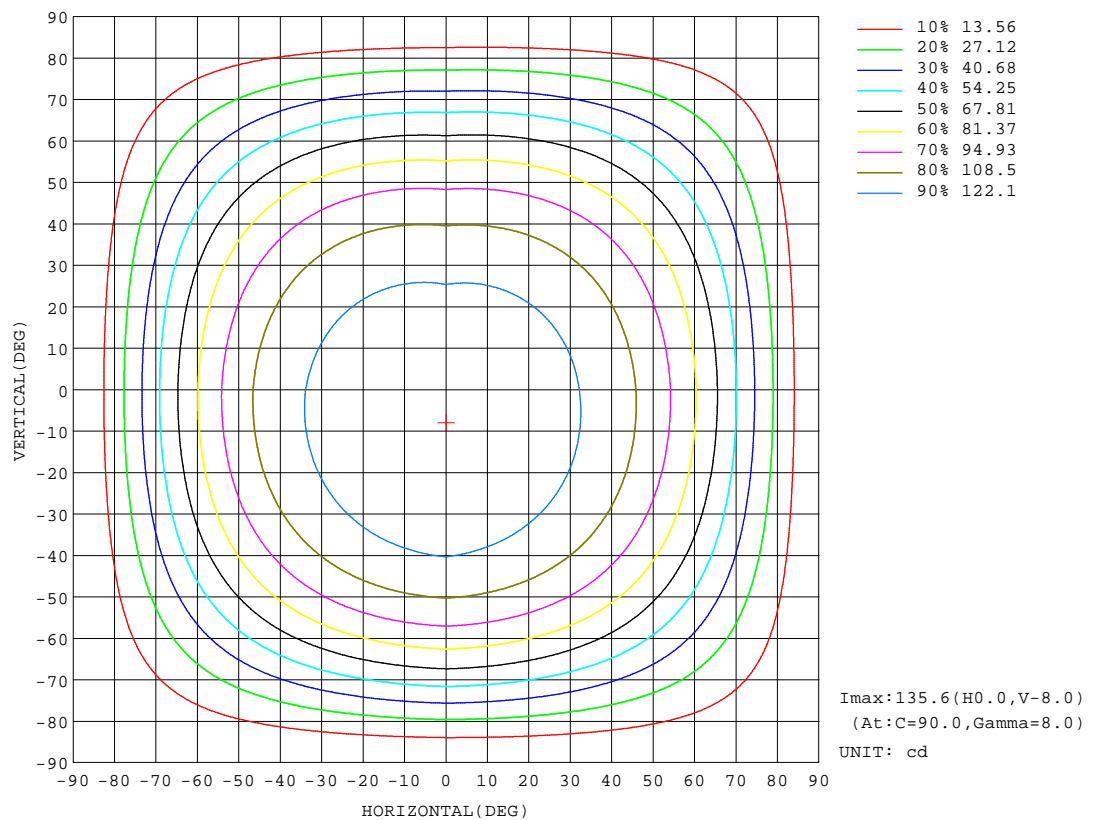
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	42	35	52	41	34	28
0.80	64	52	44	63	51	44	61	50	43	36
1.00	73	61	53	71	60	53	69	62	52	45
1.25	80	69	61	78	68	61	75	66	60	52
1.50	85	75	67	83	74	67	80	72	65	57
2.00	93	83	76	91	82	76	87	80	74	65
2.50	97	88	82	95	87	81	90	84	79	70
3.00	100	93	87	98	91	86	94	88	83	74
4.00	105	99	94	102	97	92	98	93	89	79
5.00	107	102	98	105	100	96	100	96	93	83
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



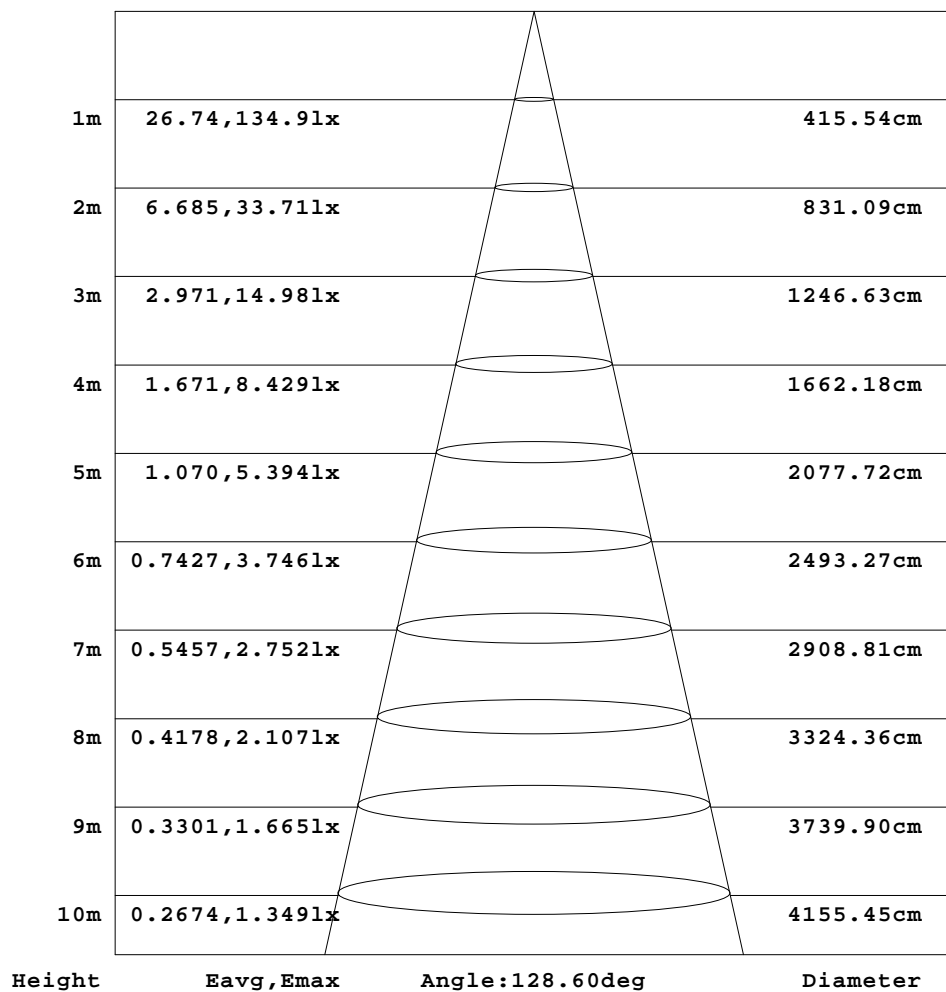
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Flux out:386.3 lm



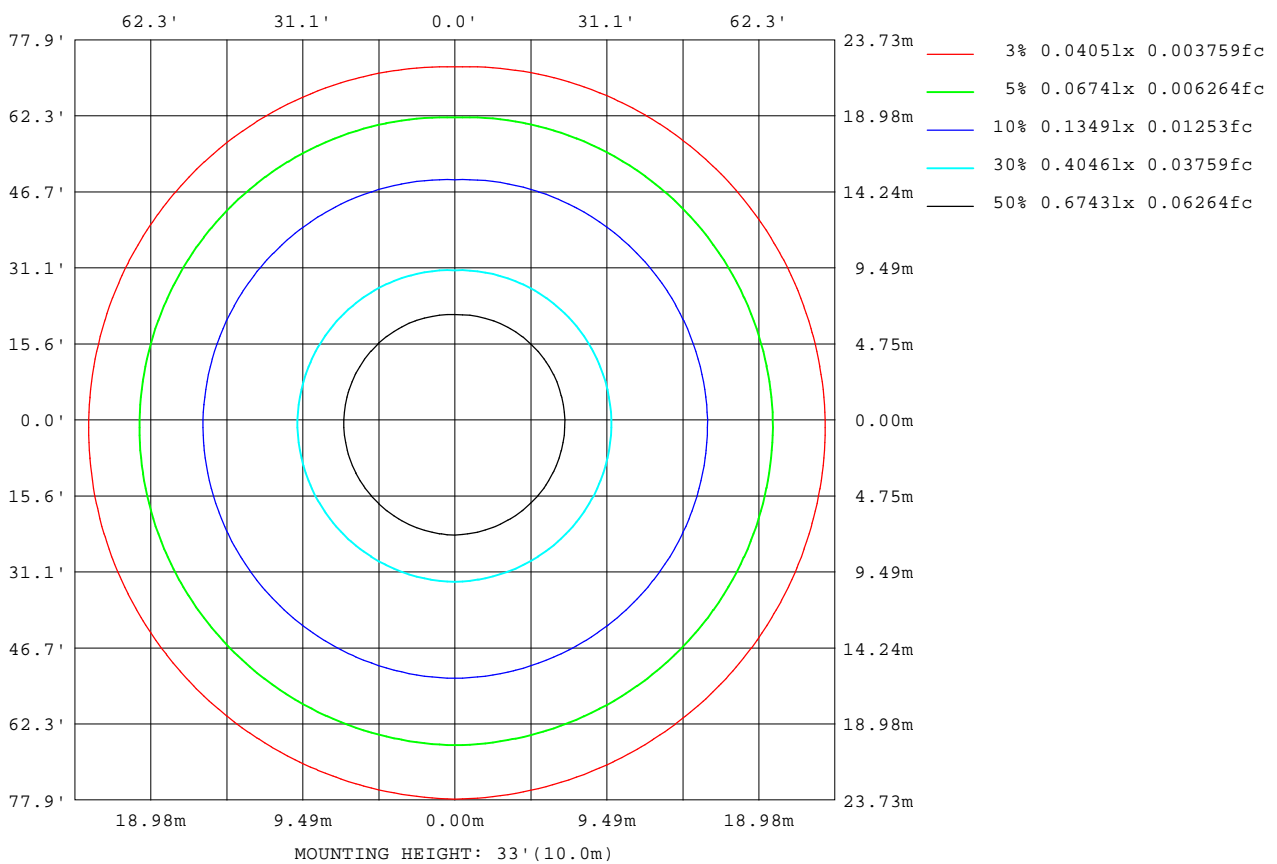
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

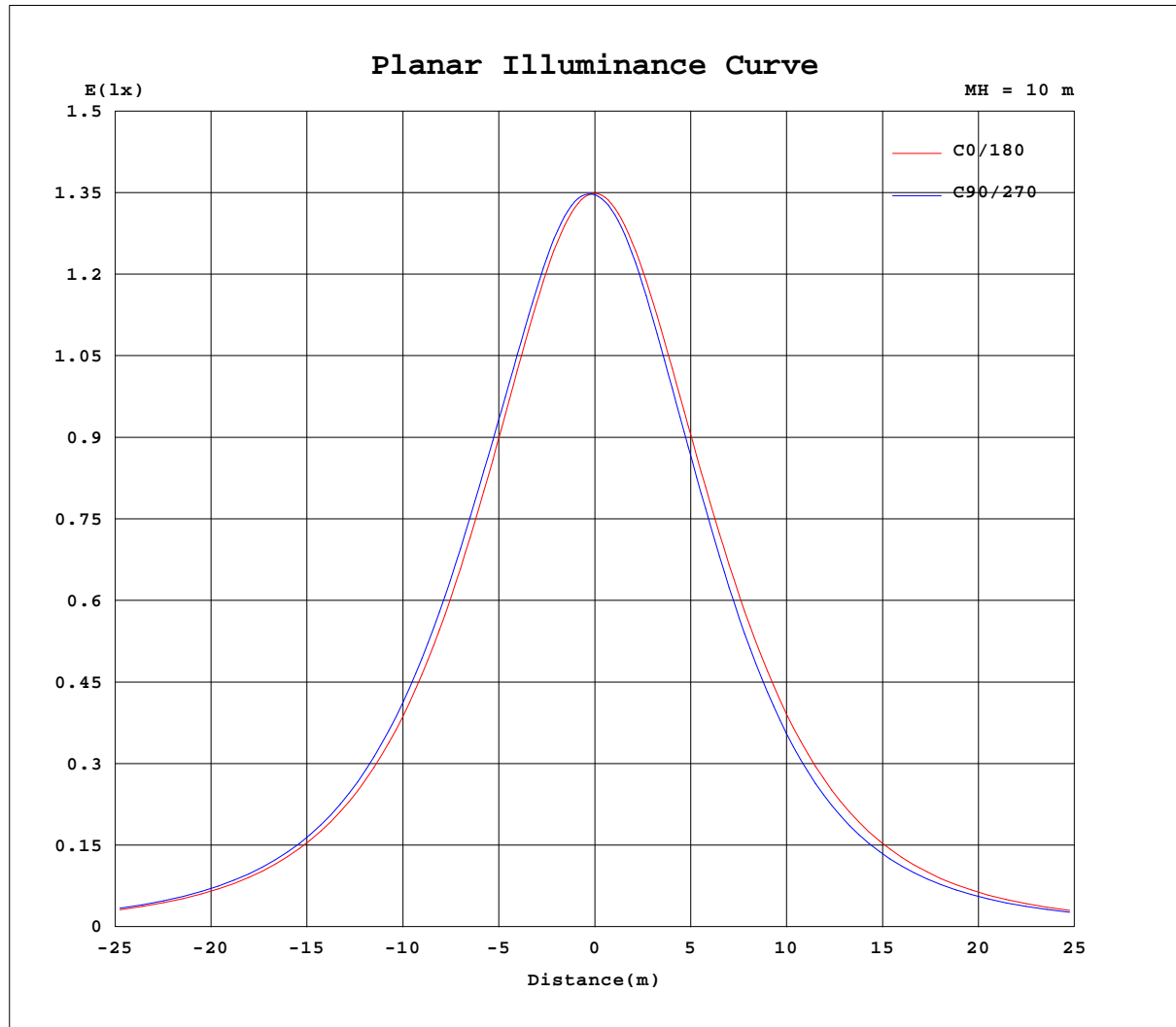
AvgL	cd/m2
L_0~180(65)av	13429
L_0~180(75)av	12022
L_0~180(85)av	9436
L_90~270(65)av	13169
L_90~270(75)av	12158
L_90~270(85)av	9095
L_45(65)av	13251
L_45(75)av	12070
L_45(85)av	9124

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-08-05

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.750m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: COLORS
Test Date: 2019-08-05

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.750m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.2560A P:6.100W PF:1.000 Freq:0Hz Lamp Flux:475.694x1 lm		
NAME: DA2402412NO	TYPE:	WEIGHT:
SPEC.:DA2402412NO-0RGBNDA012WC0500-G	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270														
0	135	135	135	135														
5	135	135	135	133														
10	134	135	133	132														
15	132	134	132	129														
20	129	133	130	126														
25	127	131	127	122														
30	123	129	125	118														
35	120	127	121	114														
40	115	122	117	108														
45	110	117	111	101														
50	102	109	103	91.6														
55	93.4	99.4	93.0	81.6														
60	82.3	88.0	81.0	70.7														
65	69.3	74.8	66.9	58.7														
70	54.6	59.8	51.5	46.0														
75	39.2	43.0	35.5	32.5														
80	24.2	25.9	20.3	19.5														
85	11.5	10.8	8.22	8.26														
90	3.53	0.60	1.78	0.26														
95	0.83	0.37	0.43	0.21														
100	0.69	0.47	0.55	0.43														
105	0.77	0.64	0.77	0.68														
110	1.00	0.86	0.98	0.88														
115	1.21	1.04	1.14	1.06														
120	1.43	1.21	1.35	1.19														
125	1.62	1.35	1.48	1.34														
130	1.73	1.46	1.60	1.42														
135	1.83	1.56	1.69	1.51														
140	1.92	1.62	1.76	1.57														
145	1.92	1.67	1.78	1.62														
150	1.94	1.70	1.83	1.71														
155	1.96	1.81	1.89	1.83														
160	2.03	1.96	1.92	1.97														
165	2.04	2.11	1.92	2.16														
170	2.03	2.27	1.84	2.24														
175	1.98	2.40	1.85	2.34														
180	1.98	2.47	1.94	2.45														

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-08-05

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks: