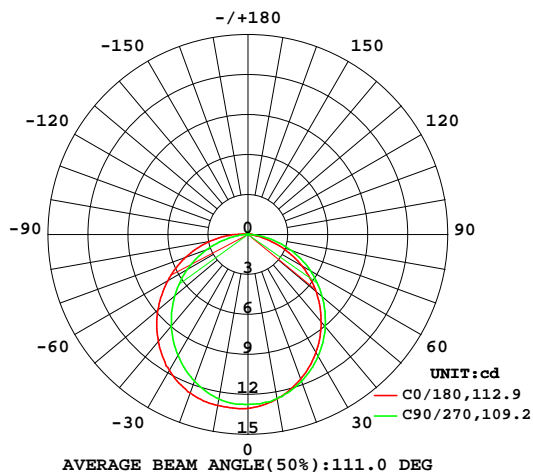


## LUMINAIRE PHOTOMETRIC TEST REPORT

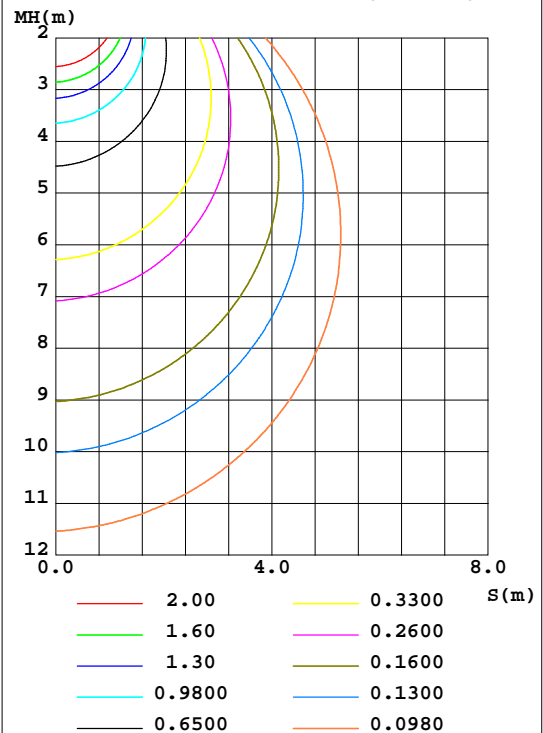
Test:U:24.00V I:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.5271x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 5.86 lm/W
MODEL	NM3D1515	I <sub>max</sub> (cd)	13.09	S/MH(C0/180)	1.34	
NOMINAL POWER(W)	7.2	LOR(%)	100.0	S/MH(C90/270)	1.23	
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	37.527	h UP,DN(C0-180)	1.1,45.1	
NOMINAL FLUX(lm)	37.5271	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.1,52.7	
LAMPS INSIDE	1	h up(%)	2.2	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	24	h down(%)	97.8	CIBSE SHR MAX	1.35	

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:2019-07-01

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:

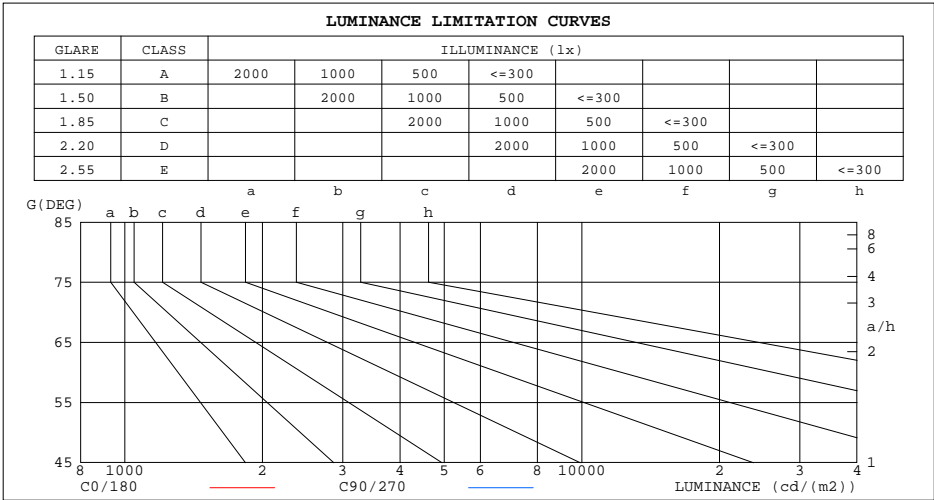
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	12.53	12.51	13.02	12.54					0~ 10	1.219	1.219	3.25,3.25
20	11.55	11.73	12.66	11.72					10~ 20	3.482	4.702	12.5,12.5
30	10.21	10.56	11.79	10.50					20~ 30	5.248	9.950	26.5,26.5
40	8.550	9.036	10.47	8.964					30~ 40	6.285	16.24	43.3,43.3
50	6.675	7.278	8.836	7.179					40~ 50	6.477	22.71	60.5,60.5
60	4.650	5.412	6.955	5.278					50~ 60	5.855	28.57	76.1,76.1
70	2.520	3.405	4.990	3.252					60~ 70	4.512	33.08	88.1,88.1
80	0.7420	1.408	2.862	1.292					70~ 80	2.666	35.75	95.3,95.3
90	0.3287	0.1471	0.9228	0.1166					80~ 90	0.9655	36.71	97.8,97.8
100	0.2063	0.0386	0.2186	0.0193					90~100	0.2319	36.94	98.4,98.4
110	0.1094	0.0581	0.0837	0.0193					100~110	0.0943	37.04	98.7,98.7
120	0.1094	0.0901	0.1030	0.0837					110~120	0.0771	37.11	98.9,98.9
130	0.1094	0.1203	0.1223	0.0966					120~130	0.0950	37.21	99.2,99.2
140	0.1094	0.1416	0.1456	0.1030					130~140	0.0906	37.30	99.4,99.4
150	0.1401	0.1546	0.1620	0.1158					140~150	0.0835	37.38	99.6,99.6
160	0.1931	0.1868	0.1820	0.1284					150~160	0.0729	37.46	99.8,99.8
170	0.1868	0.2025	0.1786	0.1958					160~170	0.0528	37.51	100,100
180	0.1931	0.2060	0.1996	0.1996					170~180	0.0183	37.53	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:2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.5271x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:



LUMINANCE cd/(m2)		
G(°)	C0/180	C90/270
85	301	471
80	285	541
75	394	621
70	491	664
65	565	697
60	620	722
55	659	739
50	692	755
45	721	772

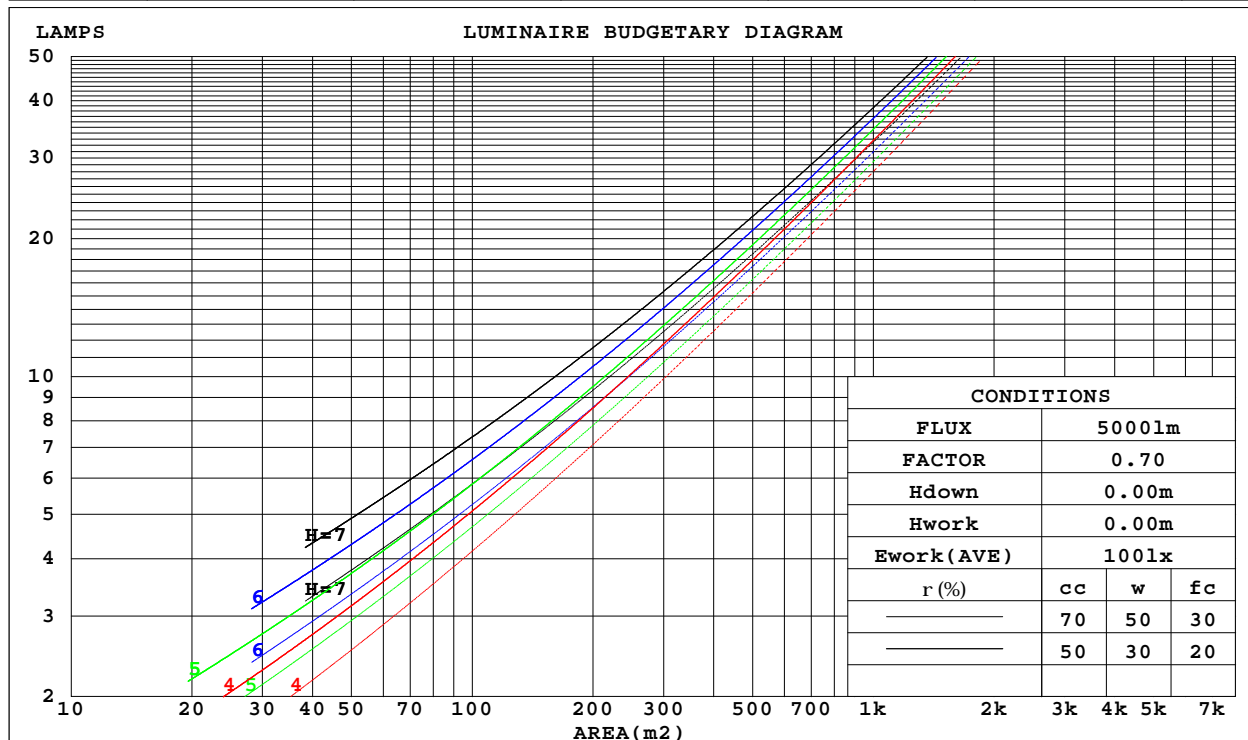
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.527lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:

r <sub>cc</sub>	80%			70%			50%			30%			10%			0
r <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r <sub>fc</sub>	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:2019-07-01

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:

### WEC AND CCEC

Test:U:24.00V I:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.5271x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	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	.317	.180	.057	.309	.176	.056	.295	.169	.054	.281	.162	.052	.269	.156	.050	
2.0	.295	.162	.050	.288	.159	.049	.275	.153	.048	.263	.148	.046	.252	.143	.045	
3.0	.272	.145	.043	.266	.142	.043	.254	.138	.042	.244	.133	.041	.234	.129	.040	
4.0	.250	.130	.038	.245	.128	.038	.234	.124	.037	.225	.121	.036	.216	.117	.036	
5.0	.231	.118	.034	.226	.116	.034	.217	.113	.033	.208	.110	.033	.201	.107	.032	
6.0	.214	.107	.031	.209	.106	.030	.201	.103	.030	.194	.101	.030	.187	.098	.029	
7.0	.199	.098	.028	.195	.097	.028	.188	.095	.027	.181	.093	.027	.174	.091	.027	
8.0	.186	.091	.025	.182	.090	.025	.176	.088	.025	.169	.086	.025	.164	.084	.024	
9.0	.174	.084	.023	.171	.083	.023	.165	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.163	.078	.022	.161	.078	.022	.155	.076	.021	.150	.075	.021	.145	.073	.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	.207	.207	.207	.177	.177	.177	.121	.121	.121	.069	.069	.069	.022	.022	.022	
1.0	.198	.173	.150	.169	.148	.130	.116	.102	.090	.067	.059	.052	.021	.019	.017	
2.0	.190	.149	.114	.162	.128	.099	.111	.089	.069	.064	.052	.040	.021	.017	.013	
3.0	.182	.131	.091	.156	.113	.079	.107	.079	.055	.062	.046	.033	.020	.015	.011	
4.0	.174	.118	.075	.149	.102	.065	.103	.071	.046	.059	.042	.027	.019	.014	.009	
5.0	.167	.108	.064	.143	.093	.056	.099	.065	.039	.057	.038	.023	.018	.012	.008	
6.0	.159	.099	.056	.137	.086	.049	.095	.060	.035	.055	.035	.021	.018	.012	.007	
7.0	.153	.092	.050	.131	.080	.044	.091	.056	.031	.053	.033	.019	.017	.011	.006	
8.0	.146	.087	.046	.126	.075	.040	.087	.053	.028	.051	.031	.017	.016	.010	.006	
9.0	.140	.082	.042	.121	.071	.037	.084	.050	.026	.049	.029	.016	.016	.010	.005	
10.0	.134	.077	.040	.116	.067	.035	.080	.047	.025	.047	.028	.015	.015	.009	.005	

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.5271x1 lm											
NAME: NM3D1515					TYPE:			WEIGHT:			
SPEC.:NM3D1515-0Y24CSNO50CC0100					DIM.: 1000*15*15mm			SERIAL No.:			
MFR.: Colors					SUR.:1000*15			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	22.3	23.8	22.6	24.0	24.3	22.8	24.3	23.1	24.6	24.8	
	3H	23.5	24.9	23.8	25.2	25.4	24.3	25.7	24.7	26.0	26.3
	4H	23.9	25.2	24.2	25.5	25.8	24.9	26.3	25.3	26.5	26.9
	6H	24.0	25.3	24.4	25.6	25.9	25.4	26.6	25.7	26.9	27.2
	8H	24.1	25.3	24.4	25.6	25.9	25.5	26.7	25.9	27.0	27.4
	12H	24.1	25.2	24.5	25.6	25.9	25.6	26.7	26.0	27.1	27.4
4H	2H	22.9	24.2	23.3	24.5	24.8	23.3	24.6	23.7	24.9	25.2
	3H	24.3	25.4	24.7	25.8	26.1	25.0	26.2	25.4	26.5	26.8
	4H	24.8	25.8	25.2	26.2	26.6	25.7	26.8	26.1	27.1	27.5
	6H	25.0	26.0	25.5	26.3	26.8	26.2	27.2	26.7	27.6	28.0
	8H	25.1	26.0	25.5	26.4	26.8	26.4	27.3	26.9	27.7	28.2
	12H	25.1	25.9	25.6	26.4	26.8	26.6	27.4	27.0	27.8	28.2
8H	4H	25.0	25.9	25.5	26.3	26.7	25.9	26.7	26.3	27.2	27.6
	6H	25.4	26.1	25.9	26.6	27.0	26.5	27.3	27.0	27.7	28.2
	8H	25.5	26.2	26.0	26.6	27.1	26.8	27.4	27.3	27.9	28.4
	12H	25.6	26.2	26.1	26.7	27.2	27.0	27.6	27.5	28.0	28.6
12H	4H	25.0	25.8	25.5	26.2	26.7	25.9	26.7	26.3	27.1	27.5
	6H	25.4	26.1	25.9	26.6	27.0	26.5	27.2	27.0	27.7	28.2
	8H	25.6	26.2	26.1	26.6	27.2	26.8	27.4	27.4	27.9	28.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3				+ 0.2 / - 0.2						
1.5H	+ 0.2 / - 0.4				+ 0.1 / - 0.3						
2.0H	+ 0.2 / - 0.4				+ 0.2 / - 0.3						

CIE Pub.117, 37.53 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -11.4)

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.5271x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:

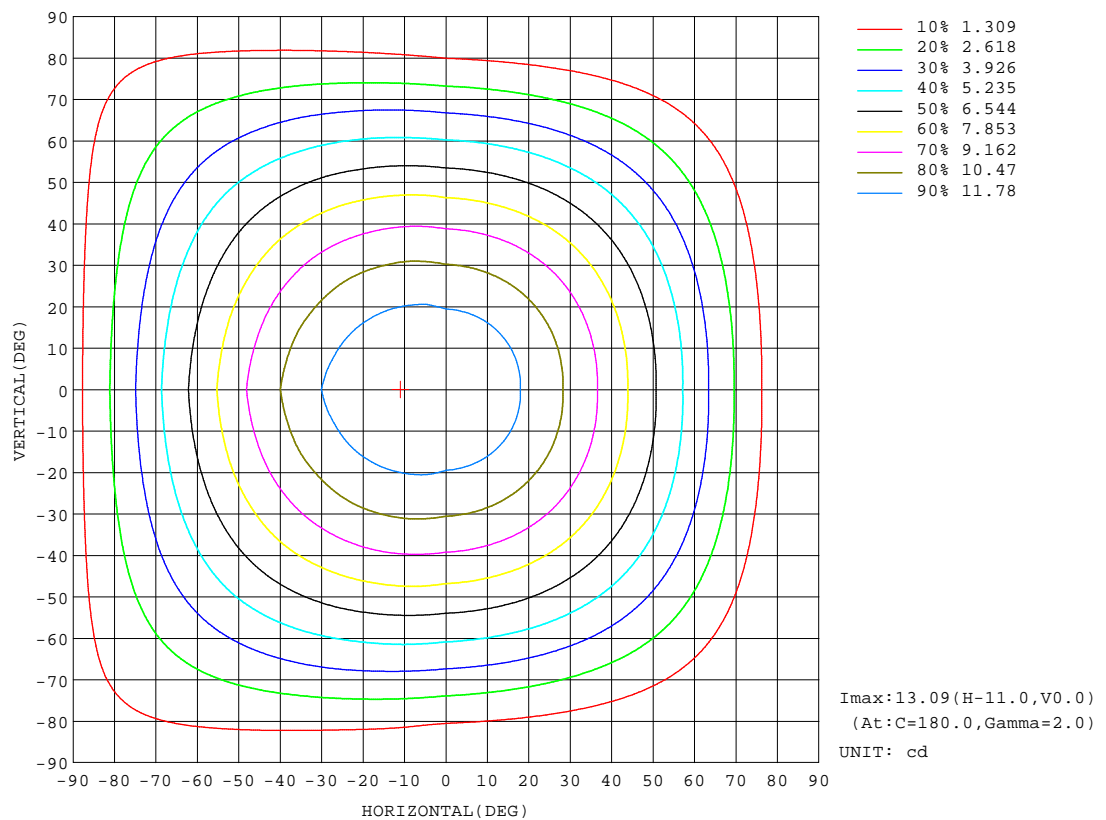
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	54	47	64	54	47	40
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	78	92	84	78	88	81	76	68
2.50	98	90	84	96	88	83	91	85	80	72
3.00	101	94	88	99	92	87	94	89	85	76
4.00	105	99	94	103	97	93	98	94	90	80
5.00	108	103	98	105	101	97	100	97	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:2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.527lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-07-01

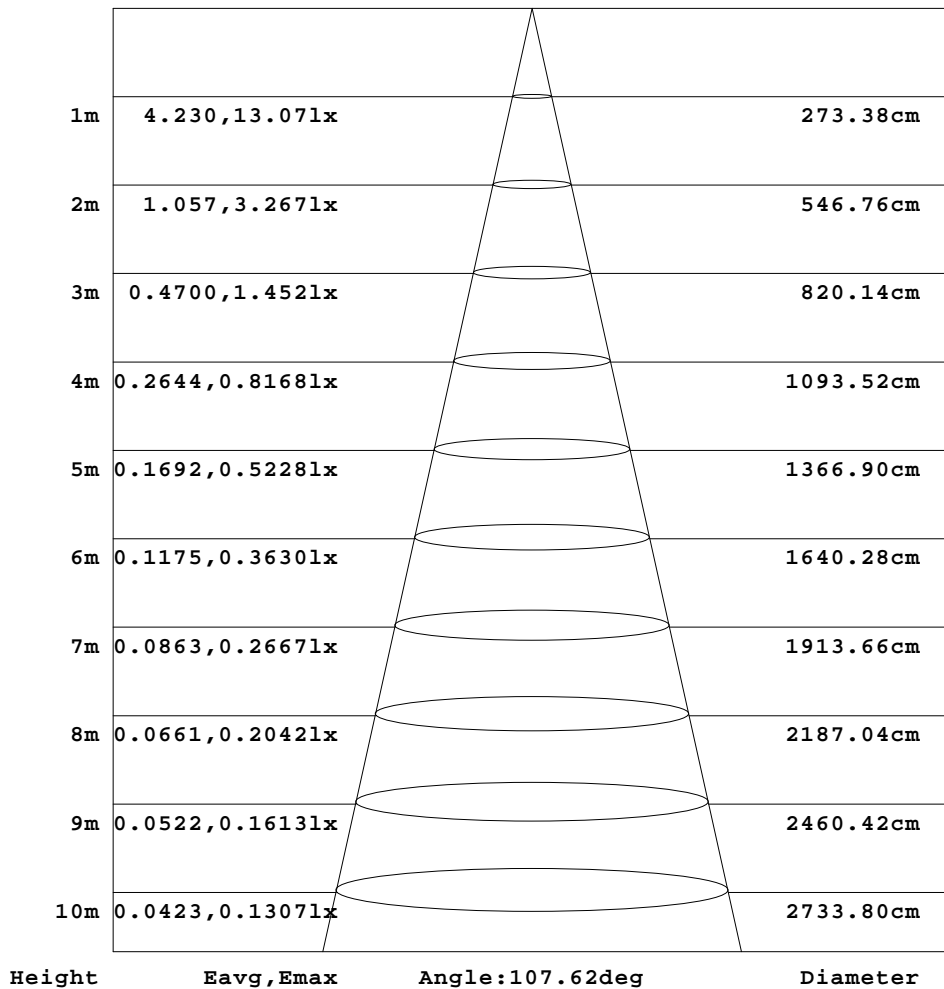
deg Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.750m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:24.00V I:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.527lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:

Flux out:25.17 lm



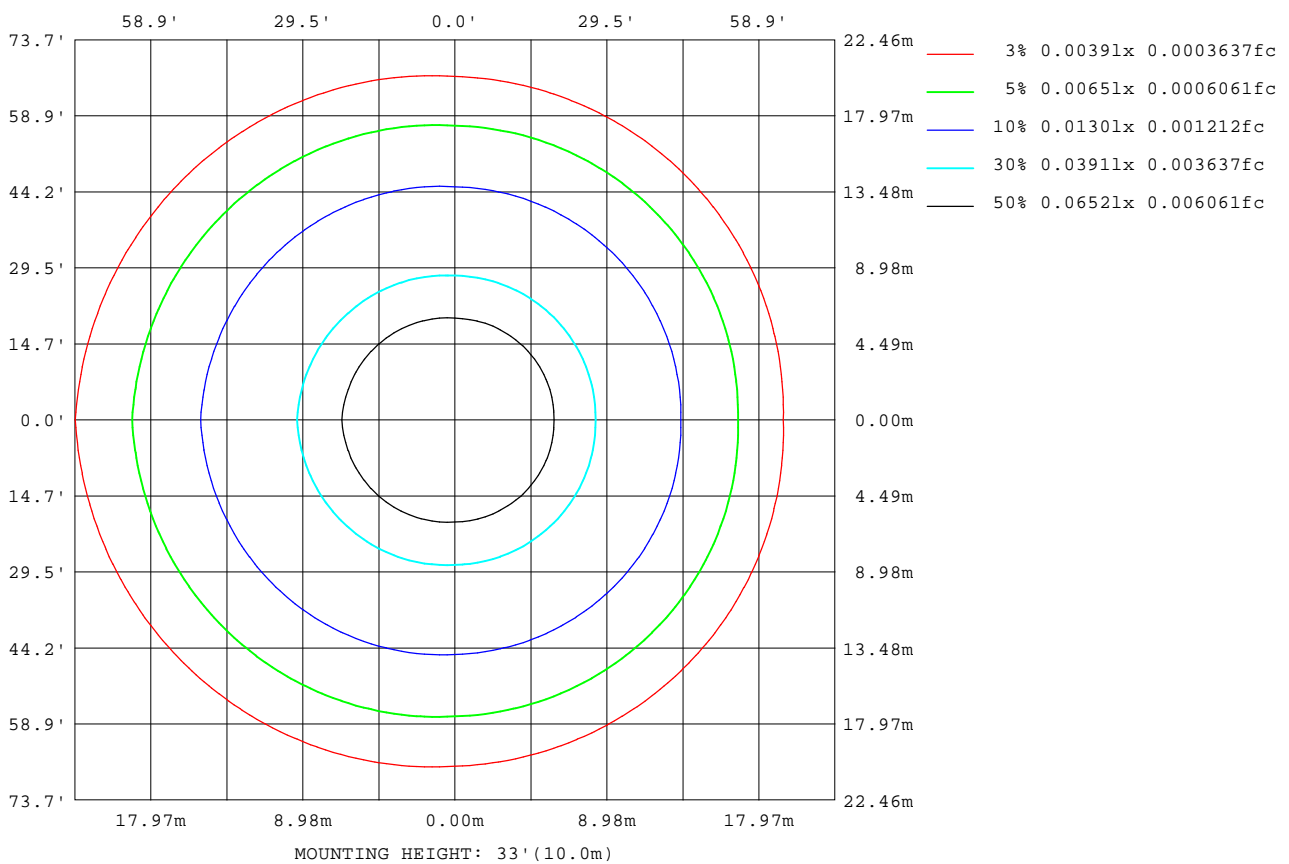
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.527lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:COLORS  
 Test Date:2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.5271x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:

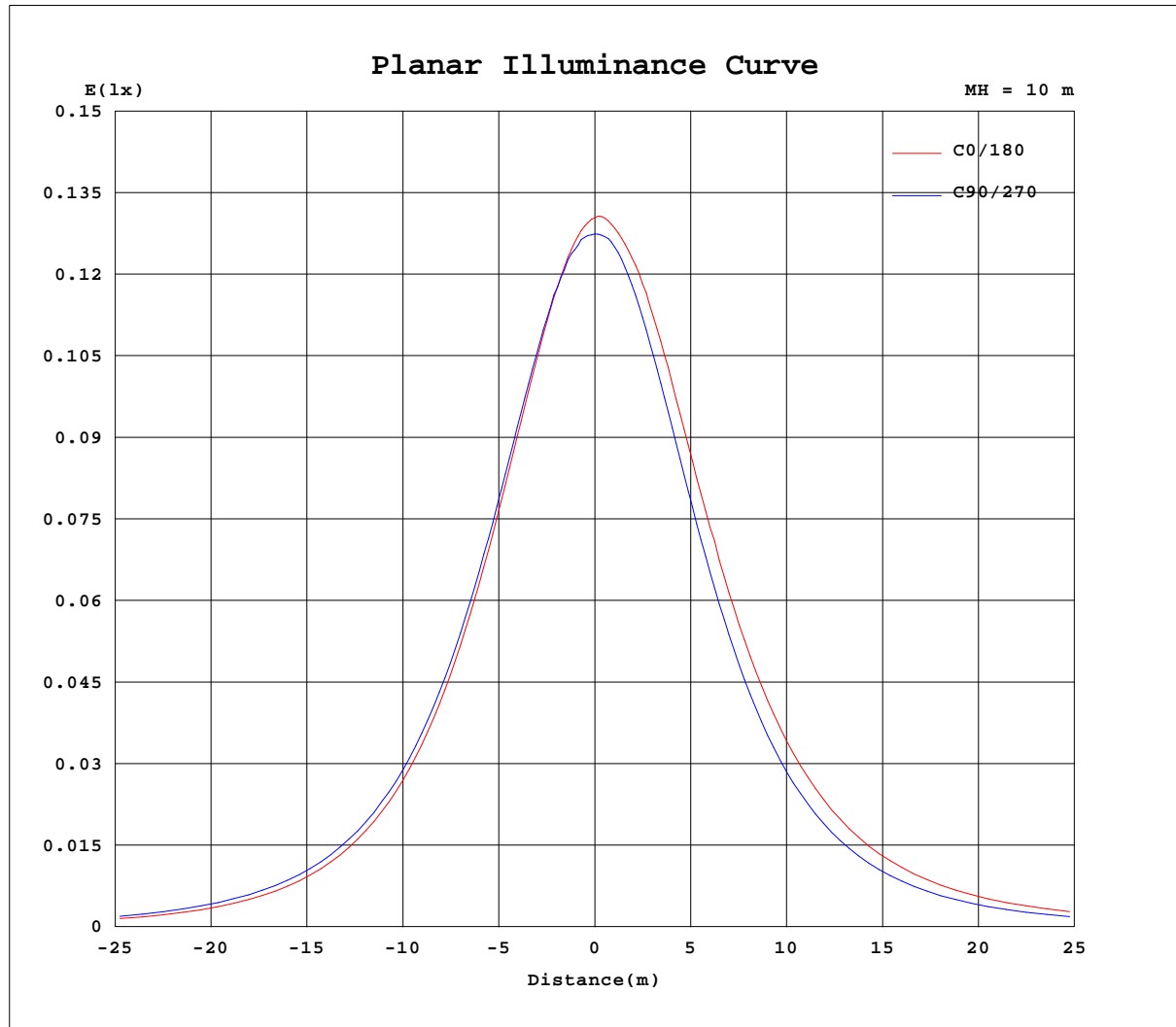
AvgL	cd/m2
L_0~180(65)av	753
L_0~180(75)av	700
L_0~180(85)av	847
L_90~270(65)av	686
L_90~270(75)av	597
L_90~270(85)av	437
L_45(65)av	723
L_45(75)av	654
L_45(85)av	625

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-07-01

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: 2019-07-01

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:0.2690A P:6.400W PF:1.000 Freq:0Hz Lamp Flux:37.5271x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-0Y24CSNO50CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: Colors	SUR.:1000*15	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270															
0	13.0	12.7	13.0	12.7															
5	12.9	12.7	13.1	12.7															
10	12.5	12.5	13.0	12.5															
15	12.1	12.2	12.9	12.2															
20	11.6	11.7	12.7	11.7															
25	10.9	11.2	12.3	11.2															
30	10.2	10.6	11.8	10.5															
35	9.43	9.84	11.2	9.78															
40	8.55	9.04	10.5	8.96															
45	7.64	8.18	9.68	8.08															
50	6.68	7.28	8.84	7.18															
55	5.67	6.36	7.91	6.24															
60	4.65	5.41	6.96	5.28															
65	3.58	4.42	5.96	4.28															
70	2.52	3.40	4.99	3.25															
75	1.53	2.41	3.91	2.22															
80	0.74	1.41	2.86	1.29															
85	0.39	0.62	1.82	0.53															
90	0.33	0.15	0.92	0.12															
95	0.26	0.02	0.42	0.03															
100	0.21	0.04	0.22	0.02															
105	0.15	0.05	0.10	0.02															
110	0.11	0.06	0.08	0.02															
115	0.11	0.07	0.08	0.03															
120	0.11	0.09	0.10	0.08															
125	0.11	0.11	0.11	0.10															
130	0.11	0.12	0.12	0.10															
135	0.11	0.13	0.13	0.10															
140	0.11	0.14	0.15	0.10															
145	0.12	0.14	0.15	0.11															
150	0.14	0.15	0.16	0.12															
155	0.18	0.17	0.17	0.12															
160	0.19	0.19	0.18	0.13															
165	0.19	0.20	0.18	0.19															
170	0.19	0.20	0.18	0.20															
175	0.18	0.21	0.18	0.20															
180	0.19	0.21	0.20	0.20															

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-07-01

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: