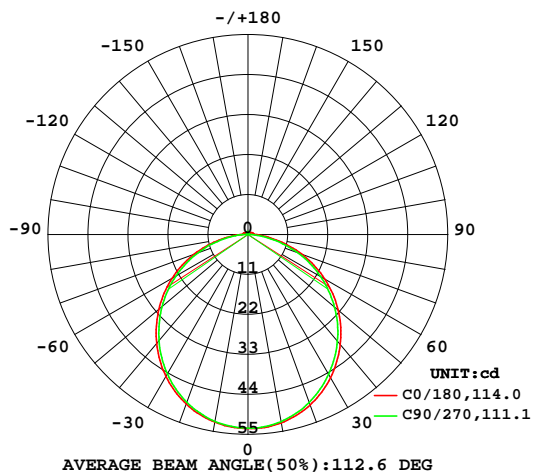


LUMINAIRE PHOTOMETRIC TEST REPORT

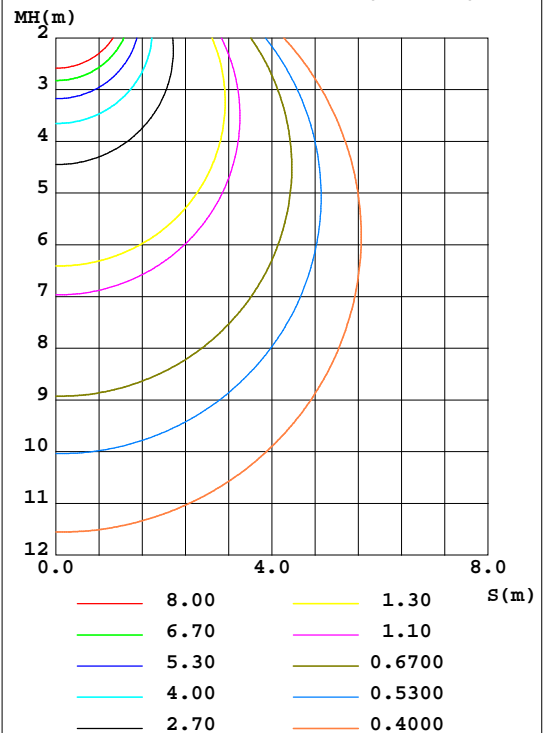
Test:U:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 44.41 lm/W			
MODEL	NM3D1515	I _{max} (cd)	53.40	S/MH(C0/180)	1.27
NOMINAL POWER(W)	3.6	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	159.87	h UP,DN(C0-180)	1.7,48.5
NOMINAL FLUX(lm)	159.867	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.6,48.2
LAMPS INSIDE	1	h up(%)	3.3	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	48	h down(%)	96.7	CIBSE SHR MAX	1.35

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:2020-09-03

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:

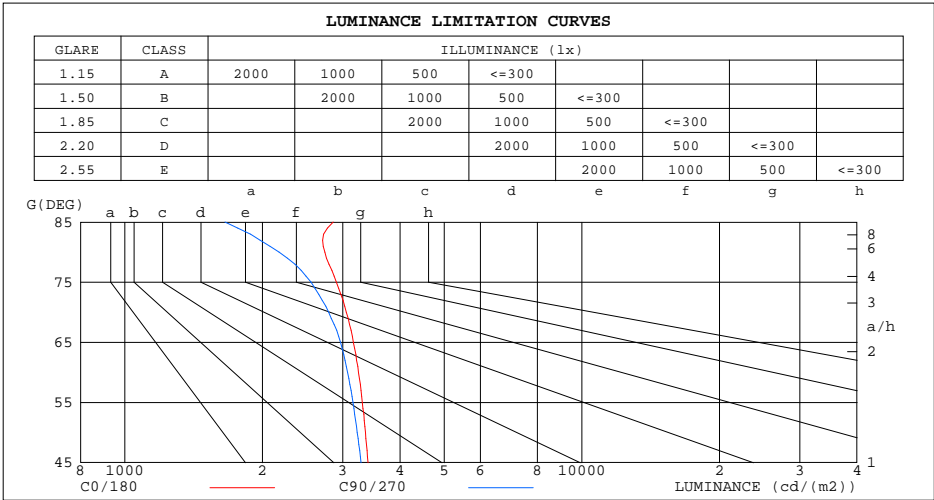
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	52.64	52.49	52.29	52.31	52.43	52.33	52.21	52.37	0~ 10	5.047	5.047	3.16,3.16
20	49.94	49.77	49.21	49.51	49.65	49.34	49.15	49.49	10~ 20	14.44	19.49	12.2,12.2
30	45.47	45.28	44.39	45.02	45.13	44.66	44.35	44.94	20~ 30	21.84	41.34	25.9,25.9
40	39.52	39.30	38.33	39.05	39.14	38.58	38.10	38.90	30~ 40	26.30	67.63	42.3,42.3
50	32.42	32.10	31.11	31.93	32.02	31.45	30.90	31.75	40~ 50	27.31	94.94	59.4,59.4
60	24.36	24.13	23.05	24.03	24.15	23.51	22.95	23.74	50~ 60	24.85	119.8	74.9,74.9
70	15.66	15.49	14.34	15.44	15.68	15.05	14.49	15.13	60~ 70	19.28	139.1	87,87
80	7.136	7.147	5.671	6.973	7.327	6.844	6.307	6.835	70~ 80	11.49	150.6	94.2,94.2
90	2.001	1.940	0.5679	1.785	2.001	1.867	0.7475	1.800	80~ 90	4.039	154.6	96.7,96.7
100	1.577	1.362	0.2281	1.176	1.476	1.236	0.1403	1.230	90~100	1.386	156.0	97.6,97.6
110	1.430	1.102	0.2203	0.9418	1.262	0.9622	0.2541	0.9561	100~110	1.038	157.0	98.2,98.2
120	1.103	0.7477	0.3797	0.6342	1.035	0.6628	0.3609	0.6158	110~120	0.8007	157.8	98.7,98.7
130	0.8350	0.5479	0.4542	0.5814	0.8065	0.5344	0.4609	0.4809	120~130	0.5559	158.4	99.1,99.1
140	0.7481	0.6479	0.5277	0.6613	0.7080	0.5941	0.5411	0.5277	130~140	0.4633	158.9	99.4,99.4
150	0.7481	0.6746	0.6346	0.7216	0.7281	0.6212	0.5746	0.5476	140~150	0.4006	159.3	99.6,99.6
160	0.8015	0.7014	0.7481	0.7748	0.7281	0.7481	0.7085	0.6346	150~160	0.3185	159.6	99.8,99.8
170	0.8285	0.8083	0.8482	0.8285	0.7214	0.7745	0.8419	0.7548	160~170	0.2146	159.8	100,100
180	0.7681	0.9485	0.9552	0.9485	0.7281	0.9284	0.9552	0.9418	170~180	0.0790	159.9	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:2020-09-03

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:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2855	1657
80	2739	2177
75	2906	2557
70	3053	2794
65	3166	2964
60	3247	3073
55	3310	3157
50	3362	3227
45	3404	3287

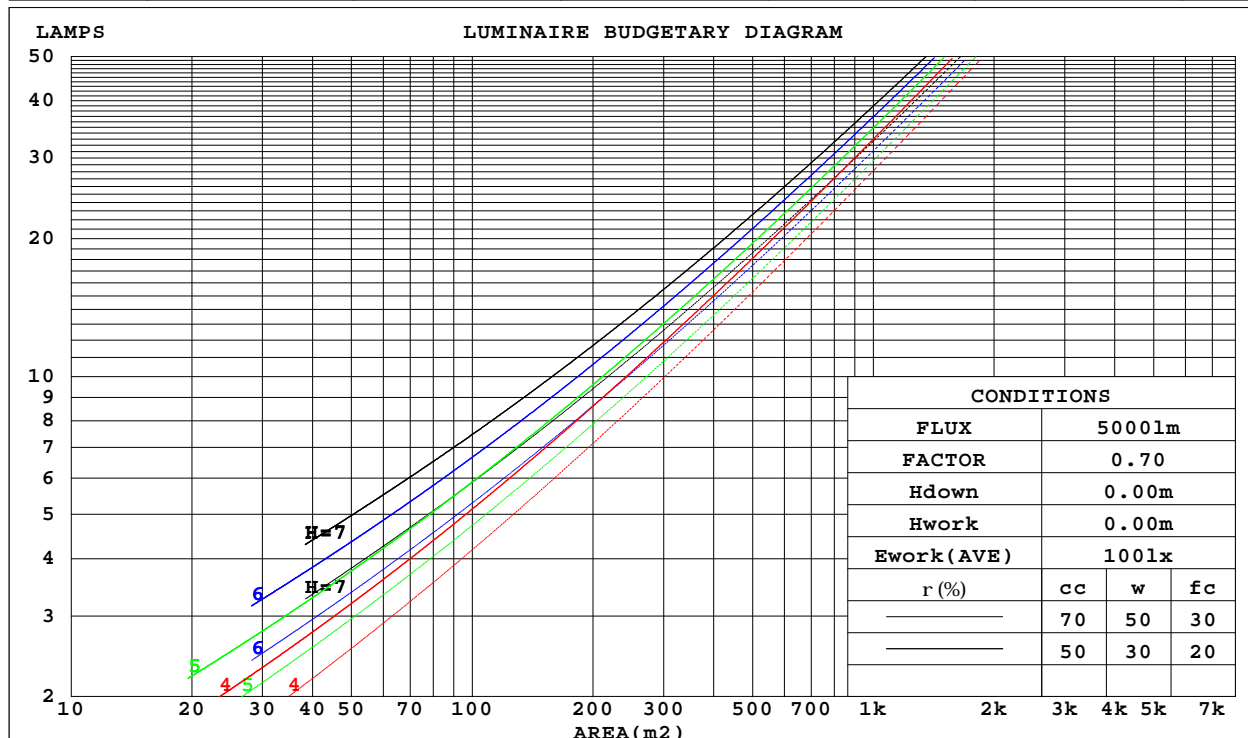
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	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
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:2020-09-03

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:

WEC AND CCEC

Test:U:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	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	.318	.181	.057	.310	.177	.056	.295	.169	.054	.281	.162	.052	.268	.155	.050	
2.0	.296	.162	.050	.289	.159	.049	.275	.153	.048	.263	.147	.046	.251	.142	.045	
3.0	.272	.145	.043	.266	.142	.043	.254	.138	.042	.243	.133	.041	.233	.129	.040	
4.0	.251	.130	.038	.245	.128	.038	.234	.124	.037	.224	.120	.036	.215	.117	.036	
5.0	.231	.118	.034	.226	.116	.034	.217	.113	.033	.208	.110	.033	.199	.106	.032	
6.0	.214	.107	.031	.210	.106	.030	.201	.103	.030	.193	.100	.029	.185	.098	.029	
7.0	.199	.098	.028	.195	.097	.028	.187	.095	.027	.180	.092	.027	.173	.090	.026	
8.0	.186	.091	.026	.182	.090	.025	.175	.087	.025	.169	.085	.025	.162	.083	.024	
9.0	.174	.084	.023	.171	.083	.023	.164	.081	.023	.158	.079	.023	.153	.078	.022	
10.0	.163	.078	.022	.160	.078	.022	.155	.076	.021	.149	.074	.021	.144	.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	.216	.216	.216	.184	.184	.184	.126	.126	.126	.072	.072	.072	.023	.023	.023	
1.0	.206	.181	.159	.176	.156	.137	.121	.107	.095	.069	.062	.055	.022	.020	.018	
2.0	.198	.157	.123	.170	.135	.106	.116	.094	.074	.067	.055	.043	.022	.018	.014	
3.0	.190	.140	.100	.163	.121	.086	.112	.084	.061	.065	.049	.036	.021	.016	.012	
4.0	.183	.127	.084	.157	.109	.073	.108	.076	.051	.062	.045	.030	.020	.015	.010	
5.0	.175	.116	.073	.151	.101	.063	.104	.070	.045	.060	.041	.027	.019	.013	.009	
6.0	.168	.108	.065	.145	.094	.057	.100	.066	.040	.058	.039	.024	.019	.013	.008	
7.0	.161	.101	.059	.139	.088	.051	.096	.062	.036	.056	.036	.022	.018	.012	.007	
8.0	.155	.095	.055	.133	.083	.048	.092	.058	.034	.054	.034	.020	.017	.011	.007	
9.0	.149	.091	.051	.128	.079	.045	.089	.055	.032	.052	.033	.019	.017	.011	.006	
10.0	.143	.086	.048	.123	.075	.042	.086	.053	.030	.050	.031	.018	.016	.010	.006	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm										
NAME: NM3D1515					TYPE:			WEIGHT:		
SPEC.:NM3D1515-9LWNW48CSN050CC0100					DIM.: 1000*15*15mm			SERIAL No.:		
MFR.: COLORS					SUR.:1000*15mm			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	23.3	24.8	23.6	25.0	25.3	23.1	24.6	23.4	24.8	25.1
3H	24.9	26.2	25.2	26.5	26.8	24.6	26.0	24.9	26.2	26.6
4H	25.5	26.8	25.9	27.1	27.5	25.2	26.5	25.5	26.8	27.1
6H	26.0	27.3	26.4	27.6	27.9	25.6	26.8	25.9	27.1	27.5
8H	26.2	27.4	26.6	27.7	28.1	25.7	26.9	26.1	27.2	27.6
12H	26.4	27.5	26.8	27.9	28.2	25.7	26.9	26.1	27.2	27.6
4H 2H	23.9	25.2	24.2	25.5	25.8	23.7	25.0	24.1	25.3	25.7
3H	25.7	26.8	26.1	27.2	27.5	25.4	26.6	25.8	26.9	27.3
4H	26.5	27.5	26.9	27.9	28.3	26.1	27.2	26.6	27.6	28.0
6H	27.1	28.0	27.5	28.4	28.9	26.7	27.6	27.1	28.0	28.4
8H	27.3	28.2	27.8	28.6	29.1	26.8	27.7	27.3	28.1	28.6
12H	27.5	28.3	28.0	28.8	29.3	26.9	27.7	27.4	28.1	28.6
8H 4H	26.7	27.6	27.2	28.0	28.5	26.5	27.3	26.9	27.7	28.2
6H	27.5	28.3	28.0	28.7	29.2	27.1	27.9	27.6	28.3	28.8
8H	27.9	28.5	28.4	29.0	29.5	27.4	28.0	27.9	28.5	29.0
12H	28.2	28.8	28.7	29.3	29.8	27.6	28.1	28.1	28.6	29.2
12H 4H	26.7	27.5	27.2	28.0	28.5	26.5	27.3	27.0	27.7	28.2
6H	27.6	28.2	28.1	28.7	29.3	27.2	27.9	27.7	28.4	28.9
8H	28.0	28.6	28.5	29.1	29.6	27.5	28.1	28.1	28.6	29.1
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	+ 0.1 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 159.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.4)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

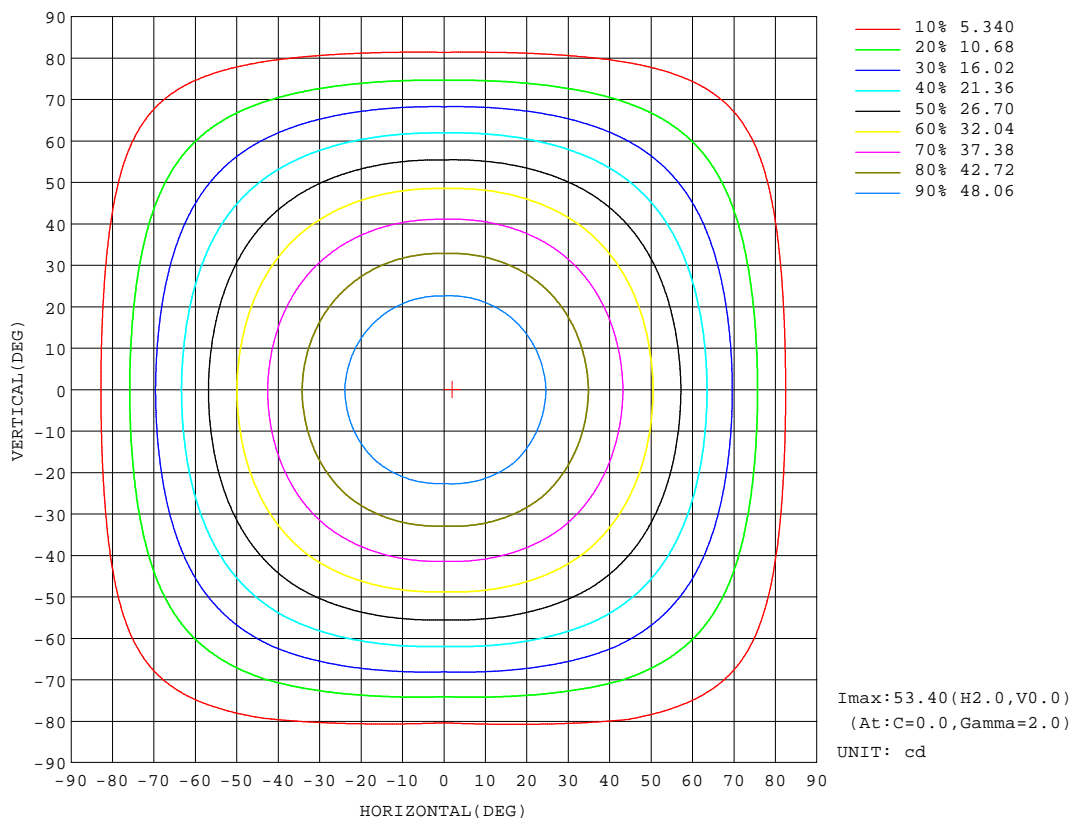
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	44	37	31
0.80	66	54	47	65	54	47	63	53	46	39
1.00	74	63	56	73	62	55	70	63	55	47
1.25	81	71	63	80	70	63	77	68	62	54
1.50	86	76	69	85	75	68	81	73	67	59
2.00	93	84	78	91	83	77	87	80	75	67
2.50	97	89	83	95	88	82	91	85	80	71
3.00	101	94	88	98	92	86	94	88	84	75
4.00	105	99	94	102	97	92	97	93	89	79
5.00	107	102	98	105	100	96	100	96	93	82
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:2020-09-03

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:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



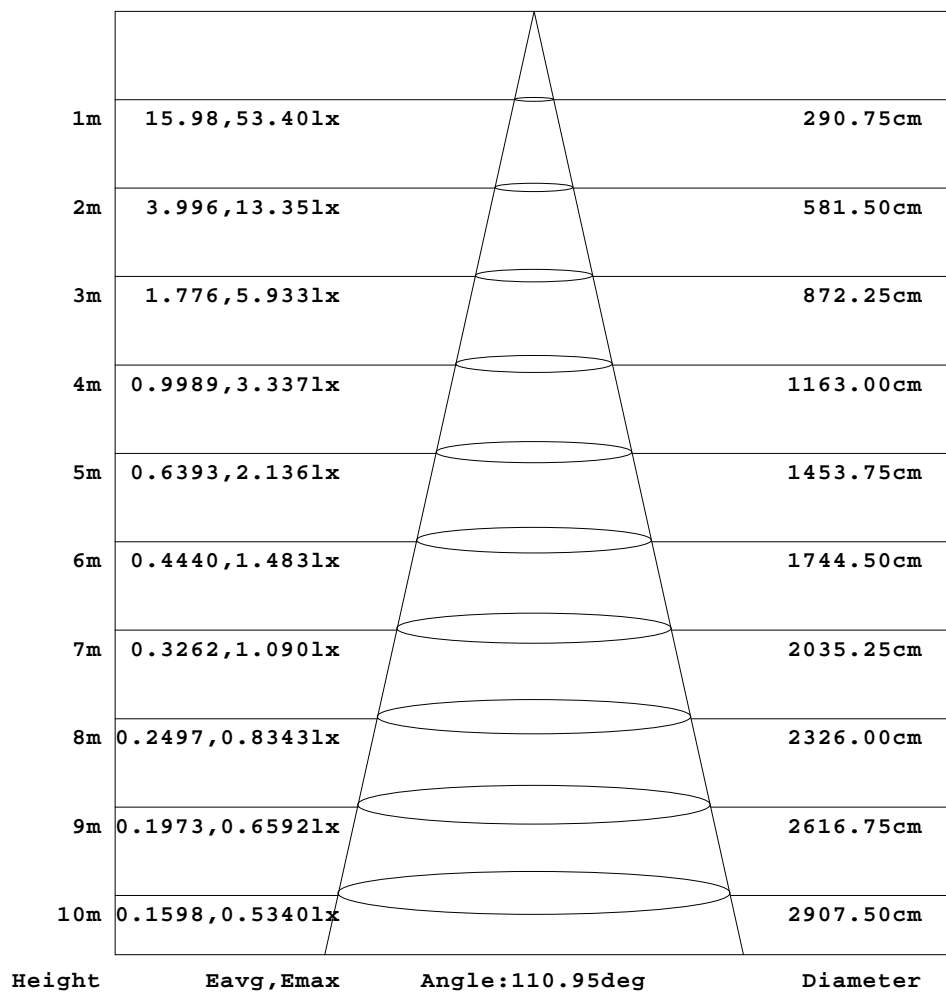
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-09-03

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:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

Flux out:110.4 lm



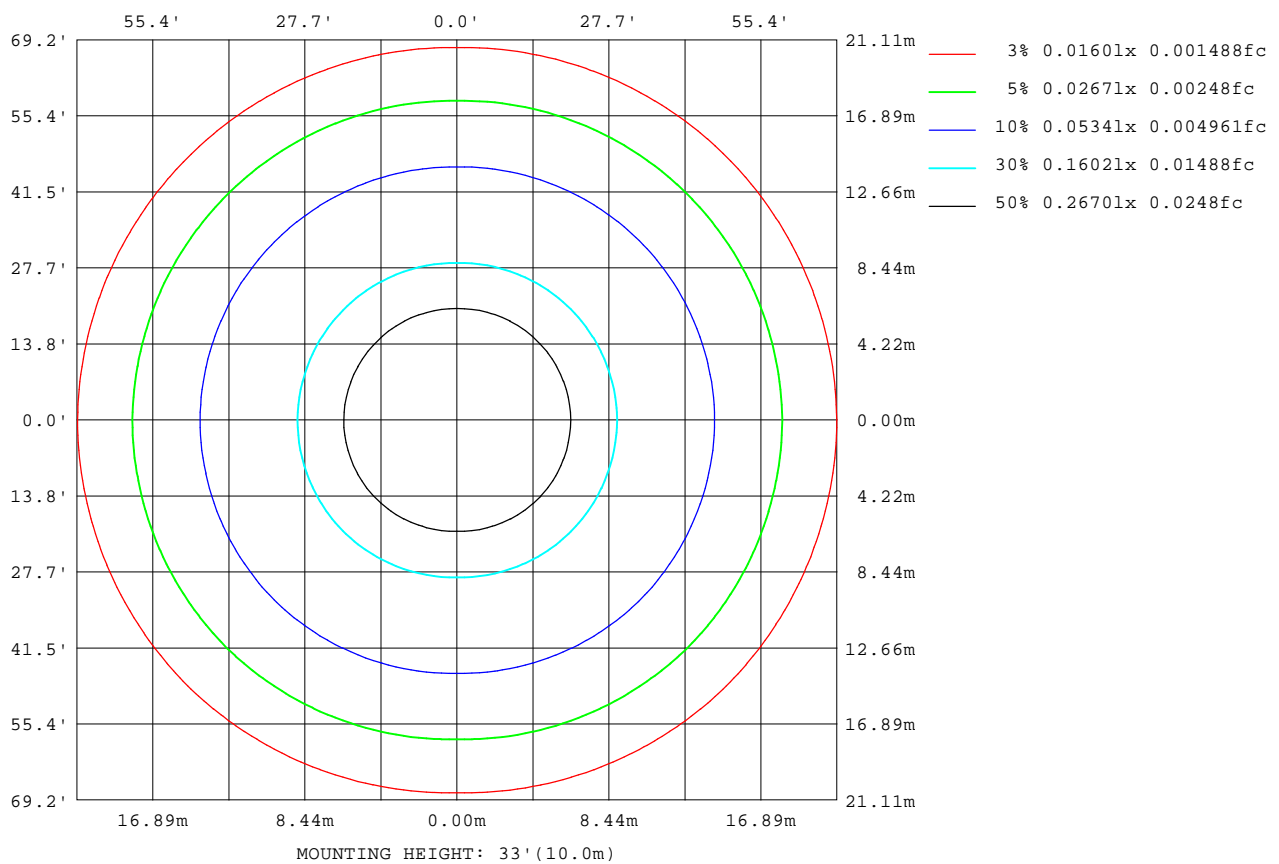
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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

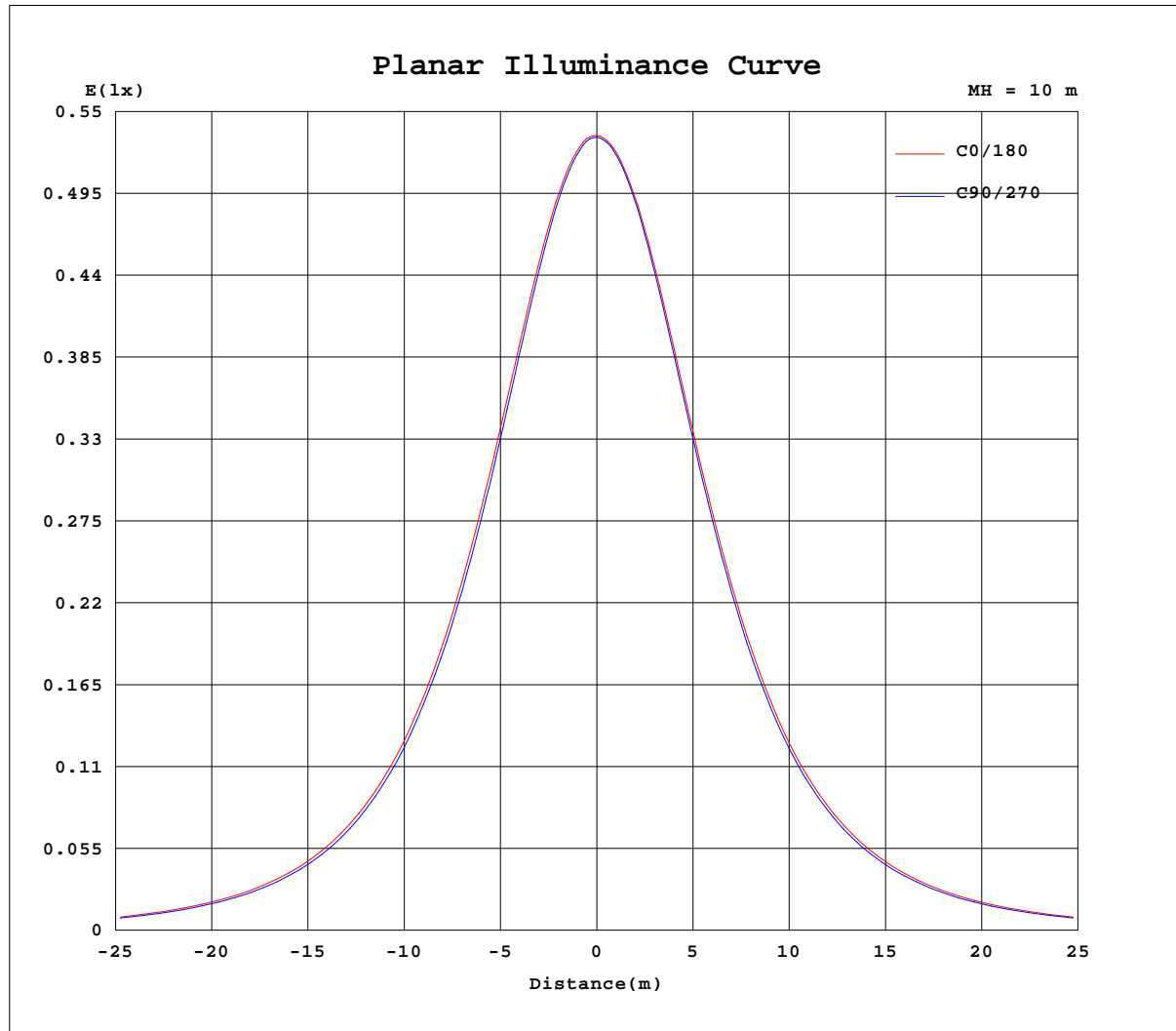
Test:U:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-09-03

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: 2020-09-03

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:48.00V I:0.0750A P:3.600W PF:1.000 Freq:0Hz Lamp Flux:159.867x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LWNW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	53.4	53.3	53.3	53.3	53.4	53.3	53.3	53.3										
5	53.3	53.2	53.0	53.1	53.2	53.1	53.0	53.1										
10	52.6	52.5	52.3	52.3	52.4	52.3	52.2	52.4										
15	51.5	51.4	51.0	51.2	51.3	51.1	50.9	51.2										
20	49.9	49.8	49.2	49.5	49.6	49.3	49.2	49.5										
25	47.9	47.7	47.0	47.5	47.6	47.2	46.9	47.4										
30	45.5	45.3	44.4	45.0	45.1	44.7	44.4	44.9										
35	42.6	42.5	41.5	42.2	42.3	41.8	41.4	42.1										
40	39.5	39.3	38.3	39.1	39.1	38.6	38.1	38.9										
45	36.1	35.8	34.9	35.6	35.7	35.1	34.6	35.5										
50	32.4	32.1	31.1	31.9	32.0	31.4	30.9	31.8										
55	28.5	28.2	27.2	28.1	28.2	27.6	27.0	27.8										
60	24.4	24.1	23.0	24.0	24.2	23.5	23.0	23.7										
65	20.1	19.9	18.8	19.8	20.0	19.3	18.7	19.5										
70	15.7	15.5	14.3	15.4	15.7	15.1	14.5	15.1										
75	11.3	11.2	9.93	11.1	11.4	10.8	10.3	10.8										
80	7.14	7.15	5.67	6.97	7.33	6.84	6.31	6.83										
85	3.73	3.88	2.17	3.69	3.99	3.57	2.94	3.56										
90	2.00	1.94	0.57	1.79	2.00	1.87	0.75	1.80										
95	1.64	1.50	0.56	1.34	1.51	1.44	0.63	1.40										
100	1.58	1.36	0.23	1.18	1.48	1.24	0.14	1.23										
105	1.53	1.24	0.21	1.05	1.36	1.10	0.19	1.19										
110	1.43	1.10	0.22	0.94	1.26	0.96	0.25	0.96										
115	1.28	0.96	0.32	0.82	1.15	0.82	0.34	0.82										
120	1.10	0.75	0.38	0.63	1.04	0.66	0.36	0.62										
125	0.97	0.53	0.41	0.57	0.95	0.55	0.43	0.49										
130	0.83	0.55	0.45	0.58	0.81	0.53	0.46	0.48										
135	0.77	0.60	0.53	0.62	0.71	0.53	0.49	0.53										
140	0.75	0.65	0.53	0.66	0.71	0.59	0.54	0.53										
145	0.75	0.65	0.57	0.69	0.71	0.61	0.56	0.53										
150	0.75	0.67	0.63	0.72	0.73	0.62	0.57	0.55										
155	0.77	0.69	0.63	0.76	0.73	0.71	0.65	0.60										
160	0.80	0.70	0.75	0.77	0.73	0.75	0.71	0.63										
165	0.82	0.74	0.75	0.79	0.73	0.75	0.78	0.64										
170	0.83	0.81	0.85	0.83	0.72	0.77	0.84	0.75										
175	0.78	0.88	0.85	0.89	0.72	0.83	0.90	0.84										
180	0.77	0.95	0.96	0.95	0.73	0.93	0.96	0.94										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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: