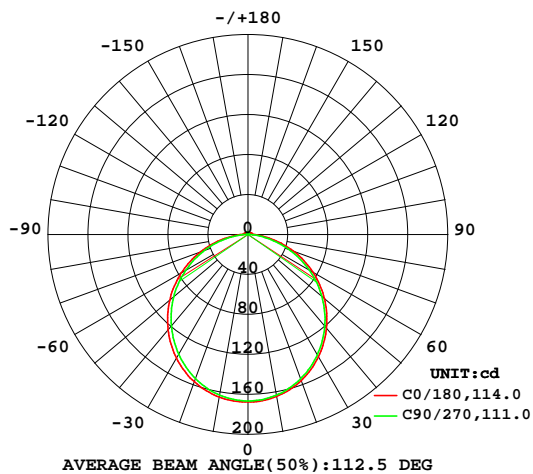


LUMINAIRE PHOTOMETRIC TEST REPORT

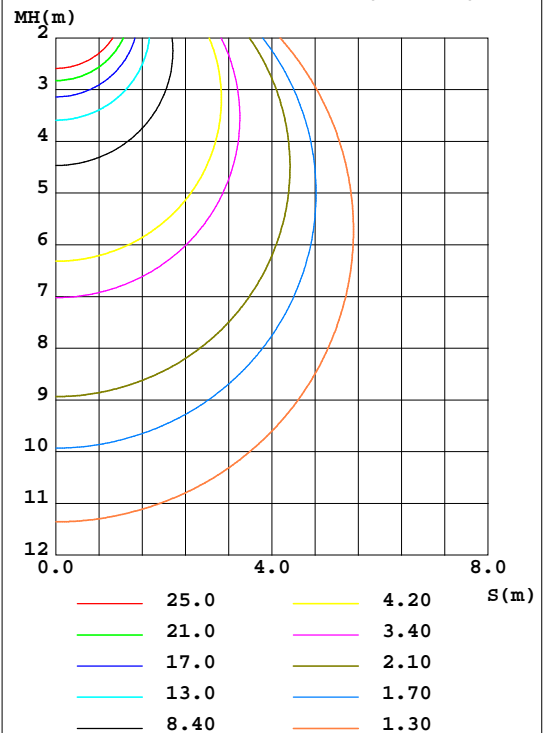
Test:U:48.00V I:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 69.38 lm/W			
MODEL	NM3D1515	I _{max} (cd)	167.6	S/MH(C0/180)	1.25
NOMINAL POWER(W)	7.2	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	499.51	h UP,DN(C0-180)	1.7,48.2
NOMINAL FLUX(lm)	499.511	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.6,48.5
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:

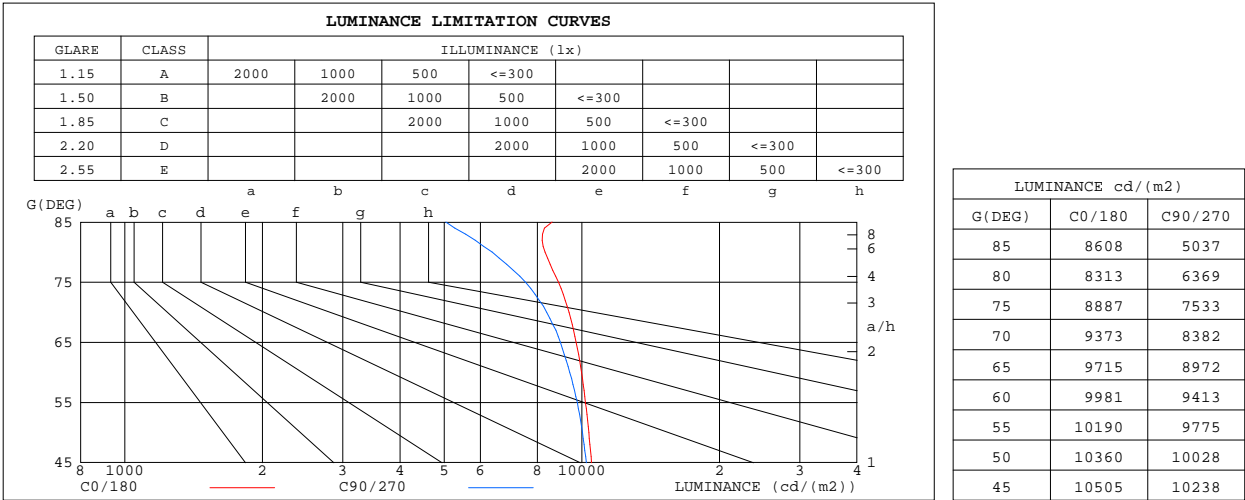
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	164.5	164.1	163.3	163.8	165.2	164.1	163.2	163.0	0~ 10	15.79	15.79	3.16,3.16
20	155.6	155.0	153.8	155.3	156.9	155.3	153.6	153.8	10~ 20	45.19	60.98	12.2,12.2
30	141.2	140.6	138.9	141.3	143.1	141.0	138.5	139.3	20~ 30	68.35	129.3	25.9,25.9
40	122.3	121.6	119.7	122.8	124.5	122.2	119.3	120.4	30~ 40	82.28	211.6	42.4,42.4
50	99.89	99.07	96.68	100.6	102.3	99.94	97.12	98.09	40~ 50	85.45	297.1	59.5,59.5
60	74.85	74.04	70.60	75.79	77.26	75.03	72.13	73.24	50~ 60	77.71	374.8	75,75
70	48.09	47.26	43.00	49.22	50.27	48.33	45.79	46.65	60~ 70	60.18	434.9	87.1,87.1
80	21.65	21.03	16.59	22.78	23.58	22.14	19.82	20.65	70~ 80	35.78	470.7	94.2,94.2
90	5.829	5.393	1.590	6.277	6.310	5.746	2.082	4.993	80~ 90	12.34	483.1	96.7,96.7
100	4.569	3.527	0.6110	4.252	4.495	3.928	0.3686	3.640	90~100	4.182	487.2	97.5,97.5
110	4.195	2.656	0.7995	3.411	3.905	3.153	0.7882	2.999	100~110	3.133	490.4	98.2,98.2
120	3.614	2.254	1.182	2.326	3.170	2.118	1.136	2.087	110~120	2.526	492.9	98.7,98.7
130	3.001	1.830	1.476	1.950	2.531	1.783	1.417	1.697	120~130	1.842	494.7	99,99
140	2.639	2.044	1.730	2.144	2.318	1.896	1.630	1.750	130~140	1.530	496.3	99.4,99.4
150	2.578	2.097	1.903	2.218	2.331	2.104	1.817	1.857	140~150	1.295	497.6	99.6,99.6
160	2.652	2.171	2.264	2.398	2.324	2.317	2.218	2.010	150~160	1.013	498.6	99.8,99.8
170	2.605	2.532	2.624	2.605	2.284	2.531	2.625	2.431	160~170	0.6788	499.3	100,100
180	2.438	2.852	2.886	2.879	2.438	2.852	2.939	2.872	170~180	0.2485	499.5	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:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



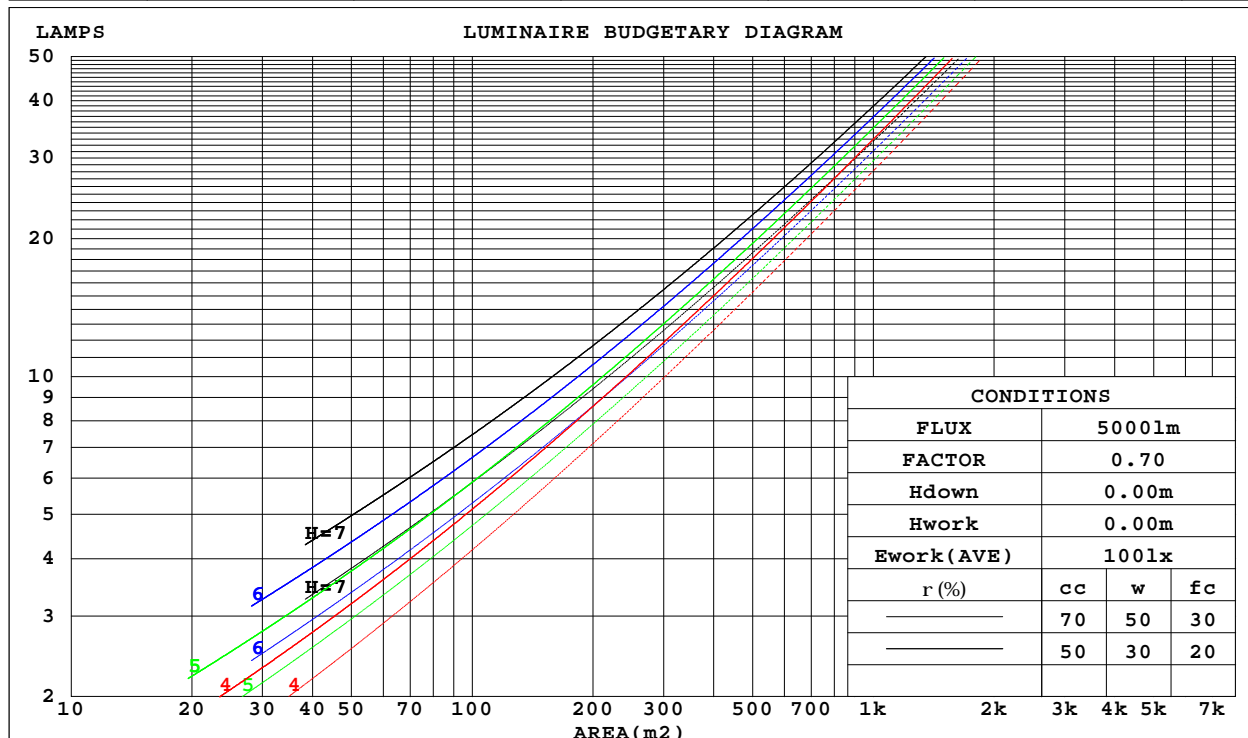
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:48.00V I:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	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
 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:48.00V I:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	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	.317	.180	.057	.309	.176	.056	.294	.169	.054	.280	.161	.052	.267	.155	.050															
2.0	.295	.162	.050	.288	.159	.049	.275	.153	.047	.262	.147	.046	.251	.142	.045															
3.0	.272	.145	.043	.266	.142	.043	.254	.137	.042	.243	.133	.041	.232	.129	.040															
4.0	.250	.130	.038	.245	.128	.038	.234	.124	.037	.224	.120	.036	.215	.117	.036															
5.0	.231	.118	.034	.226	.116	.034	.216	.113	.033	.207	.109	.033	.199	.106	.032															
6.0	.214	.107	.031	.209	.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	.168	.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	.077	.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	.110	.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	.052	.096	.062	.037	.056	.036	.022	.018	.012	.007	
8.0	.155	.096	.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	.049	.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:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm											
NAME: NM3D1515						TYPE:			WEIGHT:		
SPEC.:NM3D1515-8SW48CSN050CC0100						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	23.2	24.6	23.5	24.9	25.2	23.0	24.5	23.3	24.7	25.0	
	3H	24.8	26.1	25.1	26.4	26.7	24.4	25.8	24.8	26.1	26.4
	4H	25.4	26.7	25.8	27.0	27.3	25.0	26.3	25.3	26.6	26.9
	6H	25.9	27.1	26.3	27.5	27.8	25.3	26.6	25.7	26.9	27.2
	8H	26.1	27.3	26.5	27.6	28.0	25.4	26.6	25.8	27.0	27.3
	12H	26.2	27.3	26.6	27.7	28.1	25.5	26.6	25.9	27.0	27.3
4H	2H	23.8	25.1	24.1	25.4	25.7	23.6	24.9	24.0	25.2	25.6
	3H	25.5	26.7	25.9	27.0	27.4	25.3	26.4	25.7	26.8	27.1
	4H	26.3	27.4	26.7	27.7	28.1	25.9	27.0	26.4	27.4	27.8
	6H	26.9	27.9	27.4	28.3	28.7	26.4	27.4	26.9	27.8	28.2
	8H	27.2	28.0	27.6	28.5	28.9	26.6	27.4	27.0	27.9	28.3
	12H	27.4	28.2	27.8	28.6	29.1	26.7	27.4	27.1	27.9	28.4
8H	4H	26.6	27.4	27.0	27.9	28.3	26.3	27.1	26.7	27.5	28.0
	6H	27.4	28.1	27.9	28.5	29.0	26.9	27.6	27.4	28.1	28.6
	8H	27.7	28.3	28.2	28.8	29.3	27.1	27.8	27.6	28.2	28.8
	12H	28.0	28.5	28.5	29.0	29.6	27.3	27.8	27.8	28.3	28.9
12H	4H	26.6	27.4	27.1	27.8	28.3	26.3	27.1	26.8	27.5	28.0
	6H	27.4	28.1	27.9	28.5	29.1	27.0	27.6	27.5	28.1	28.6
	8H	27.8	28.4	28.3	28.9	29.4	27.3	27.8	27.8	28.3	28.9
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 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, 499.5 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.4)

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:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

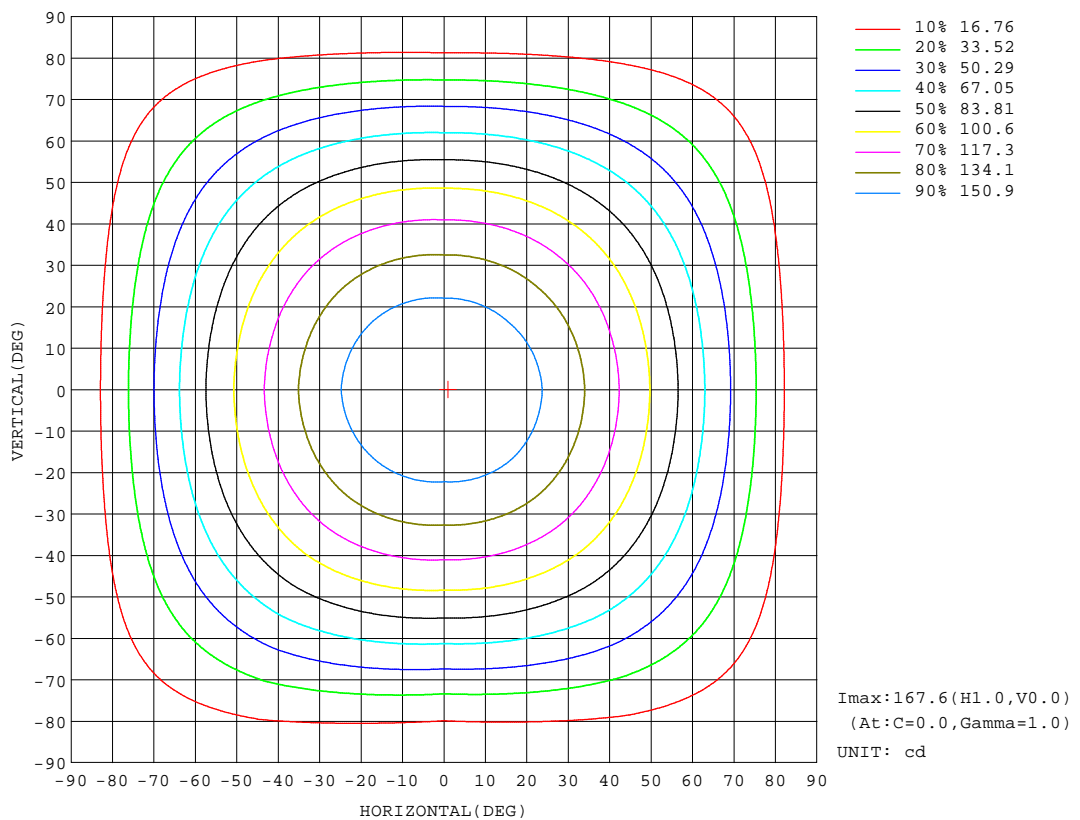
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	44	37	31
0.80	66	54	47	65	54	47	63	53	46	39
1.00	74	63	56	73	62	55	71	64	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	81	75	67
2.50	97	89	83	95	88	82	91	85	80	71
3.00	101	94	88	98	92	87	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:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



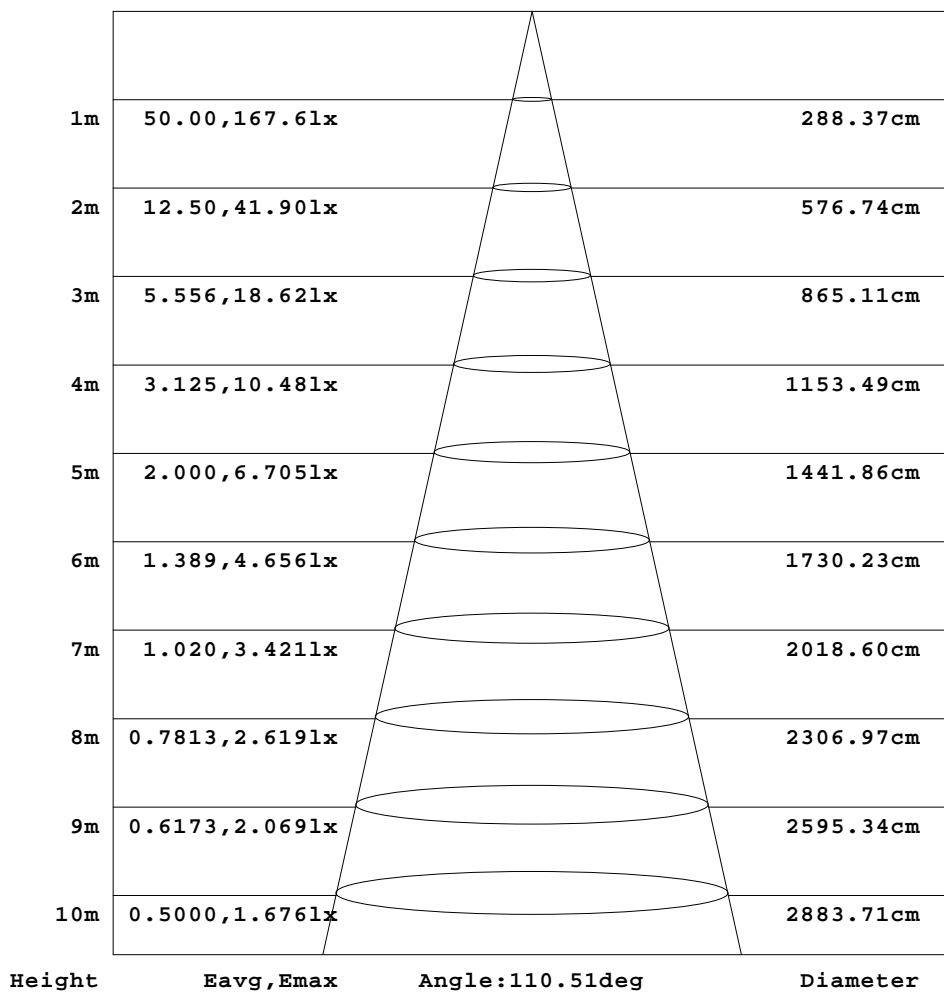
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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:48.00V I:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

Flux out:345.3 lm



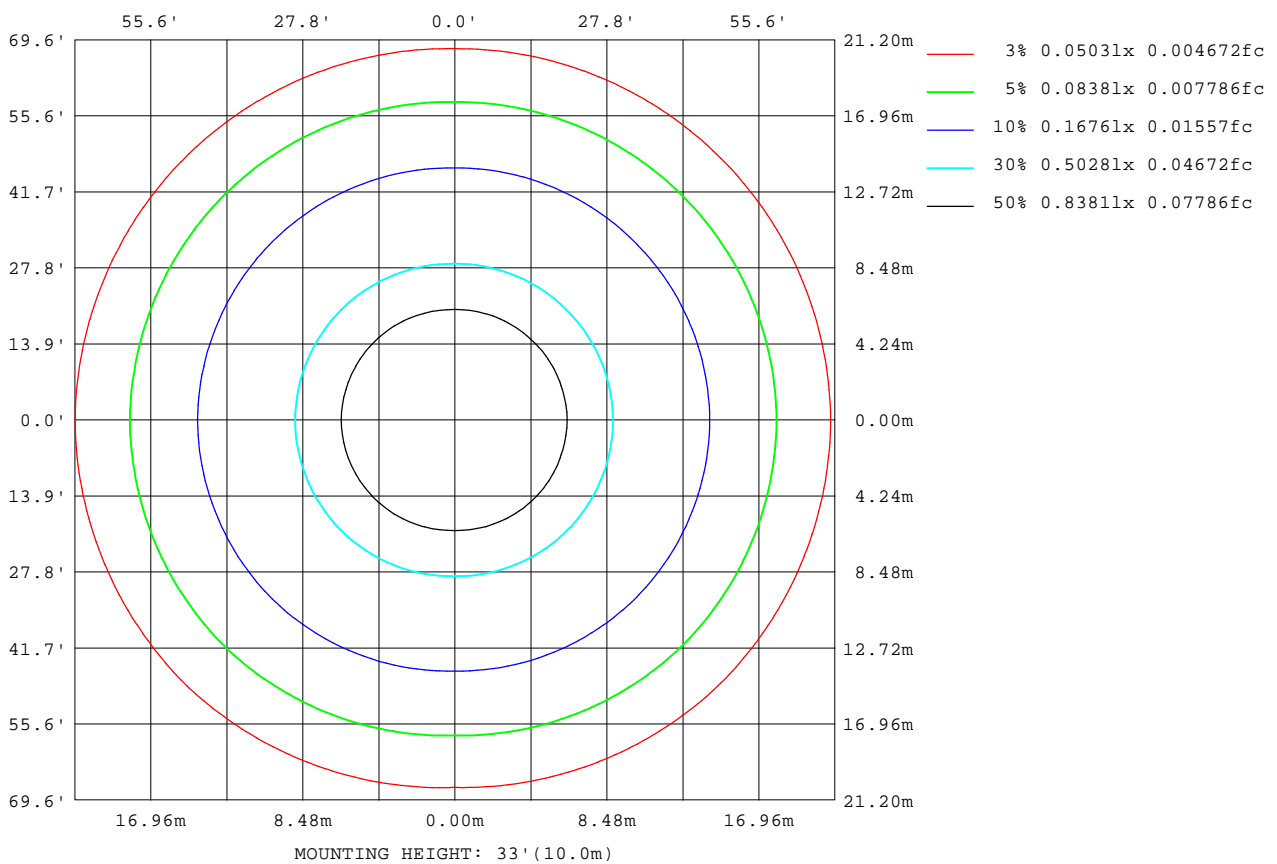
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 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

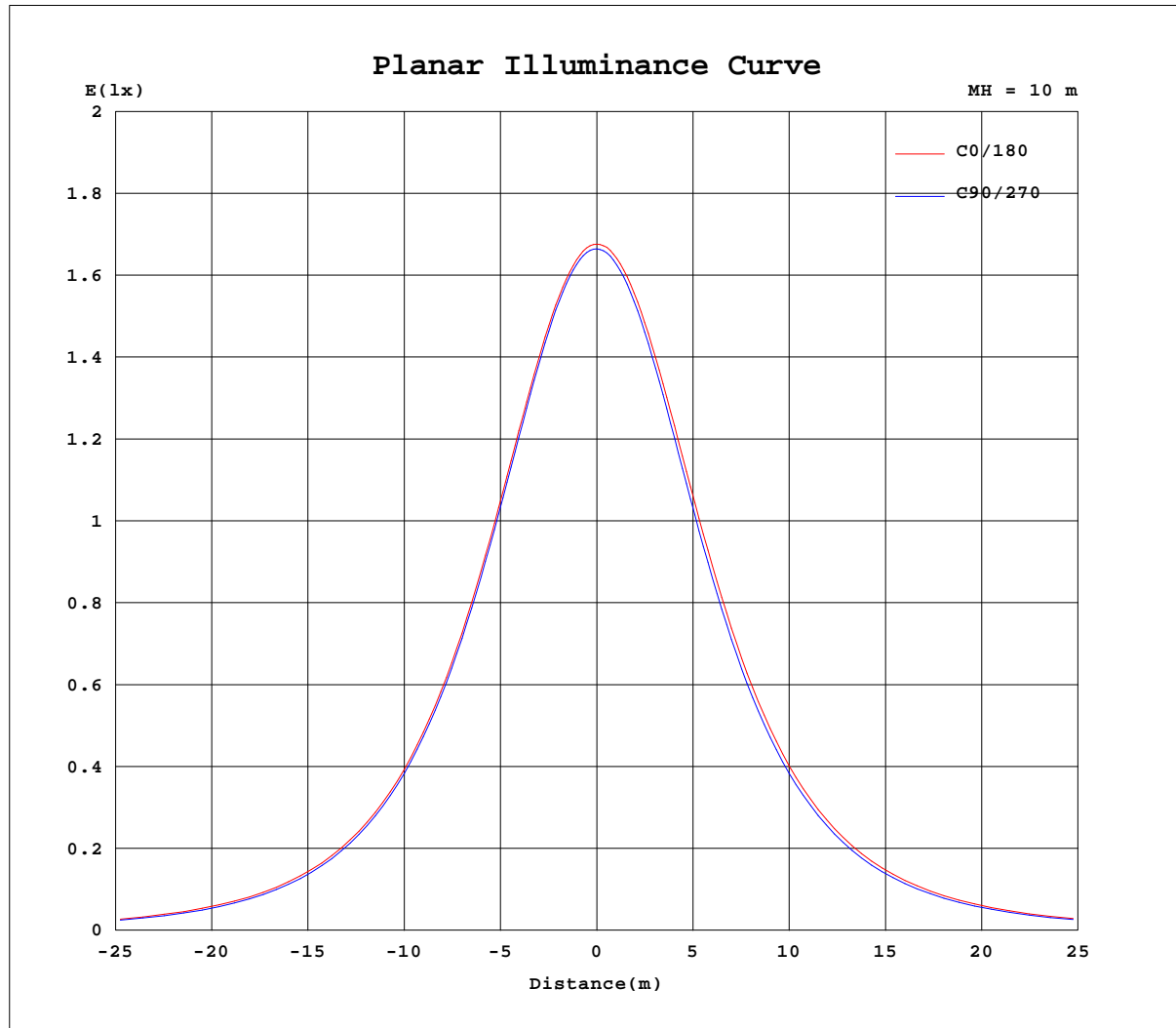
Test:U:48.00V I:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



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:

Planar Illuminance Curve



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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:48.00V I:0.1480A P:7.200W PF:1.000 Freq:0Hz Lamp Flux:499.51lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8SW48CSN050CC0100	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	168	167	166	166	168	167	166	166										
5	167	166	166	166	167	166	166	165										
10	165	164	163	164	165	164	163	163										
15	161	160	159	160	162	161	159	159										
20	156	155	154	155	157	155	154	154										
25	149	148	147	149	151	149	147	147										
30	141	141	139	141	143	141	138	139										
35	132	132	130	133	134	132	129	130										
40	122	122	120	123	124	122	119	120										
45	111	111	109	112	114	111	109	110										
50	99.9	99.1	96.7	101	102	99.9	97.1	98.1										
55	87.7	86.8	84.1	88.5	90.0	87.8	84.8	85.9										
60	74.9	74.0	70.6	75.8	77.3	75.0	72.1	73.2										
65	61.6	60.8	56.9	62.6	63.9	61.9	59.0	60.1										
70	48.1	47.3	43.0	49.2	50.3	48.3	45.8	46.7										
75	34.5	33.7	29.2	35.7	36.6	34.8	32.7	33.2										
80	21.7	21.0	16.6	22.8	23.6	22.1	19.8	20.7										
85	11.3	10.8	6.58	12.1	12.6	11.6	8.46	10.5										
90	5.83	5.39	1.59	6.28	6.31	5.75	2.08	4.99										
95	4.77	4.05	1.69	4.80	4.81	4.33	1.83	3.92										
100	4.57	3.53	0.61	4.25	4.49	3.93	0.37	3.64										
105	4.40	3.01	0.60	3.82	4.25	3.57	0.58	3.48										
110	4.20	2.66	0.80	3.41	3.91	3.15	0.79	3.00										
115	3.92	2.43	1.01	3.07	3.56	2.79	0.98	2.81										
120	3.61	2.25	1.18	2.33	3.17	2.12	1.14	2.09										
125	3.32	1.90	1.35	1.85	2.84	1.91	1.29	1.89										
130	3.00	1.83	1.48	1.95	2.53	1.78	1.42	1.70										
135	2.77	1.97	1.62	2.00	2.34	1.78	1.54	1.70										
140	2.64	2.04	1.73	2.14	2.32	1.90	1.63	1.75										
145	2.58	2.06	1.82	2.19	2.29	2.03	1.72	1.80										
150	2.58	2.10	1.90	2.22	2.33	2.10	1.82	1.86										
155	2.58	2.15	2.04	2.28	2.33	2.20	2.01	1.90										
160	2.65	2.17	2.26	2.40	2.32	2.32	2.22	2.01										
165	2.65	2.32	2.44	2.49	2.32	2.41	2.44	2.18										
170	2.61	2.53	2.62	2.61	2.28	2.53	2.63	2.43										
175	2.43	2.74	2.77	2.75	2.24	2.67	2.81	2.68										
180	2.44	2.85	2.89	2.88	2.44	2.85	2.94	2.87										

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: