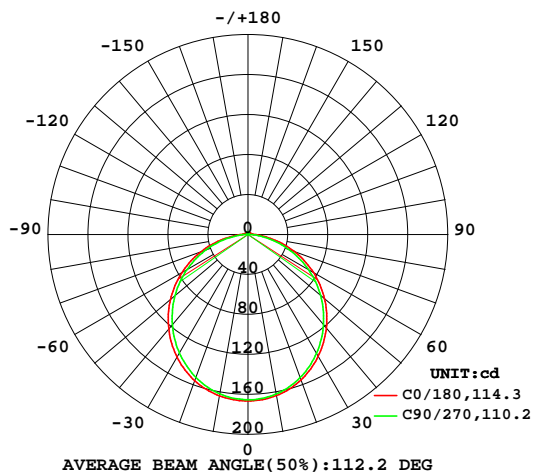


LUMINAIRE PHOTOMETRIC TEST REPORT

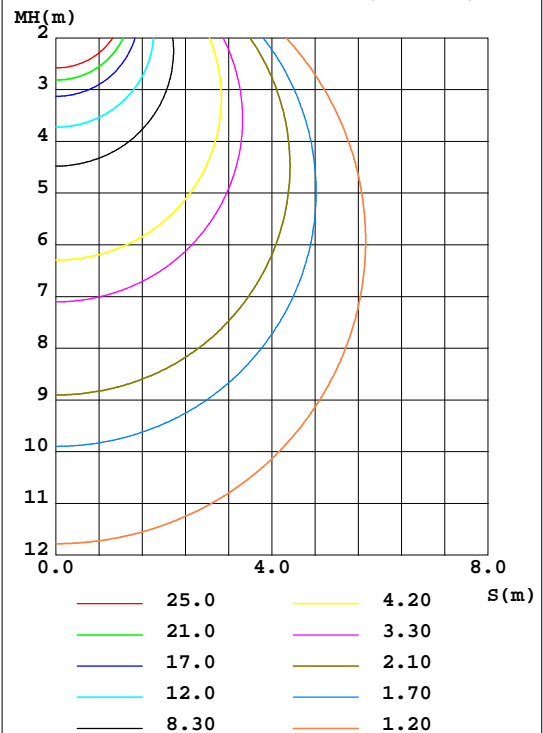
Test:U:48.00V I:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 69.56 lm/W			
MODEL	NM3D1515	I _{max} (cd)	166.5	S/MH(C0/180)	1.26
NOMINAL POWER(W)	7.2	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	493.90	h UP,DN(C0-180)	1.5,48.4
NOMINAL FLUX(lm)	493.901	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.5,48.6
LAMPS INSIDE	1	h up(%)	3.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	48	h down(%)	97.0	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:

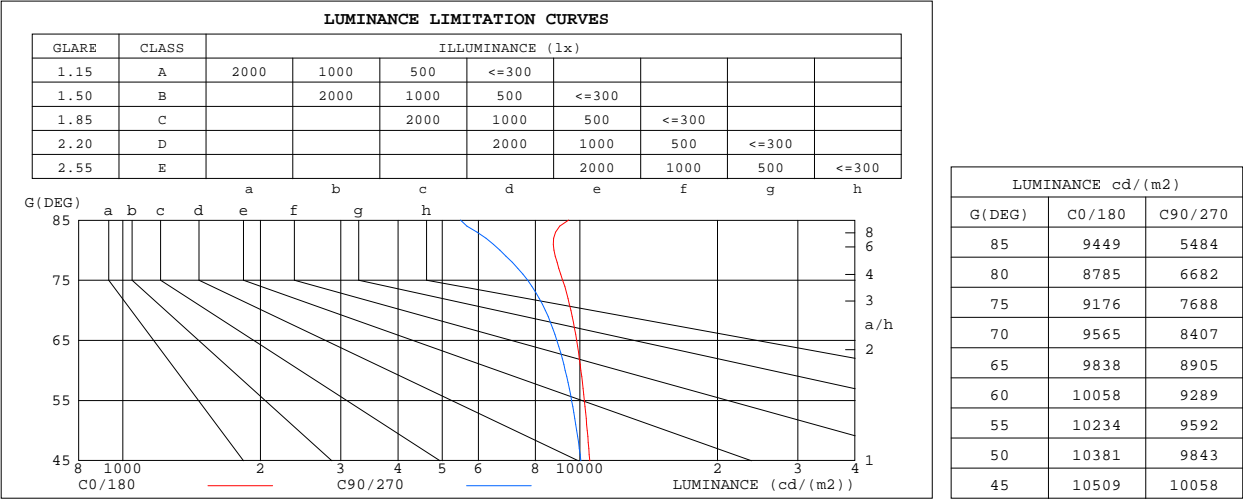
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	163.6	162.9	162.1	162.6	164.0	162.8	162.0	162.0	0- 10	15.68	15.68	3.17,3.17
20	155.0	154.1	152.4	154.0	155.8	153.9	152.3	153.0	10- 20	44.87	60.55	12.3,12.3
30	140.7	139.7	137.3	139.9	142.0	139.4	137.1	138.6	20- 30	67.82	128.4	26,26
40	122.1	120.8	117.7	121.2	123.4	120.6	117.8	120.0	30- 40	81.56	209.9	42.5,42.5
50	100.1	98.49	94.91	98.89	101.3	98.30	95.40	97.88	40- 50	84.59	294.5	59.6,59.6
60	75.44	73.68	69.67	74.08	76.41	73.61	70.64	73.32	50- 60	76.89	371.4	75.2,75.2
70	49.07	47.24	43.13	47.53	49.69	47.20	44.40	46.97	60- 70	59.59	431.0	87.3,87.3
80	22.88	21.43	17.41	21.57	23.32	21.58	18.82	21.23	70- 80	35.55	466.5	94.5,94.5
90	6.570	5.588	1.198	5.509	6.575	5.767	1.648	5.483	80- 90	12.49	479.0	97,97
100	4.424	3.190	0.6790	3.166	4.425	3.327	0.3878	2.901	90-100	4.001	483.0	97.8,97.8
110	3.234	2.109	0.7945	2.269	3.069	2.291	0.7887	2.198	100-110	2.557	485.6	98.3,98.3
120	2.912	1.730	1.181	1.929	2.431	1.880	1.123	1.720	110-120	1.955	487.5	98.7,98.7
130	2.706	1.690	1.482	1.824	2.184	1.683	1.417	1.555	120-130	1.616	489.2	99,99
140	2.545	2.004	1.770	2.098	2.305	2.002	1.617	1.769	130-140	1.480	490.6	99.3,99.3
150	2.551	2.097	1.910	2.258	2.405	2.191	1.797	1.897	140-150	1.307	491.9	99.6,99.6
160	2.665	2.198	2.250	2.398	2.331	2.318	2.225	1.990	150-160	1.024	493.0	99.8,99.8
170	2.605	2.526	2.624	2.599	2.284	2.525	2.619	2.418	160-170	0.6795	493.7	99.9,99.9
180	2.438	2.865	2.892	2.879	2.451	2.879	2.939	2.872	170-180	0.2485	493.9	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:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



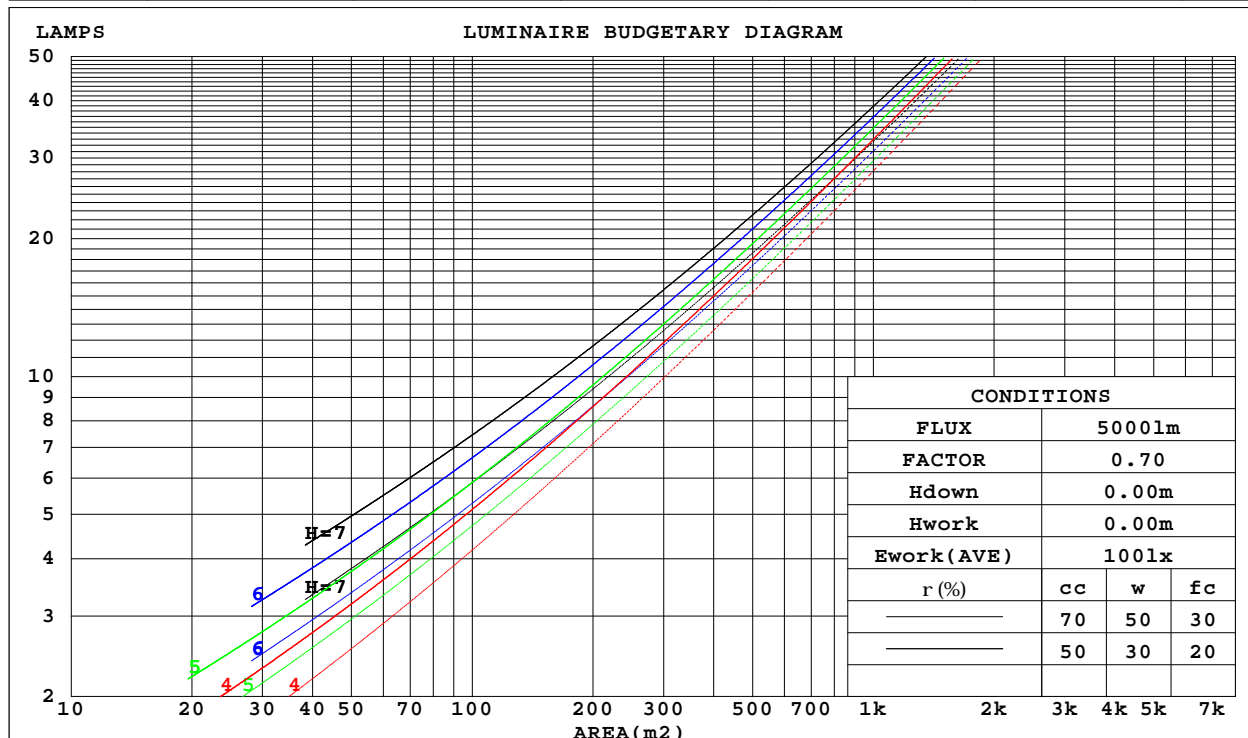
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	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:2020-09-03

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:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.901x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	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	.148	.046	.252	.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	.225	.121	.036	.215	.117	.036															
5.0	.231	.118	.034	.226	.116	.034	.217	.113	.033	.208	.110	.033	.200	.107	.032															
6.0	.214	.107	.031	.210	.106	.030	.201	.103	.030	.193	.100	.030	.186	.098	.029															
7.0	.199	.098	.028	.195	.097	.028	.187	.095	.027	.180	.092	.027	.174	.090	.027															
8.0	.186	.091	.026	.182	.090	.025	.175	.088	.025	.169	.086	.025	.163	.084	.024															
9.0	.174	.084	.023	.171	.083	.023	.164	.081	.023	.159	.080	.023	.153	.078	.022															
10.0	.163	.078	.022	.161	.078	.022	.155	.076	.021	.150	.074	.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	.213	.213	.213	.182	.182	.182	.124	.124	.124	.072	.072	.072	.023	.023	.023	
1.0	.204	.179	.157	.175	.154	.135	.119	.106	.093	.069	.061	.054	.022	.020	.018	
2.0	.196	.155	.121	.168	.134	.104	.115	.092	.073	.066	.054	.043	.021	.017	.014	
3.0	.188	.138	.097	.161	.119	.084	.111	.083	.059	.064	.048	.035	.021	.016	.011	
4.0	.181	.125	.082	.155	.108	.071	.107	.075	.050	.062	.044	.030	.020	.014	.010	
5.0	.173	.114	.071	.149	.099	.061	.102	.069	.043	.059	.041	.026	.019	.013	.008	
6.0	.166	.106	.063	.143	.092	.055	.098	.064	.039	.057	.038	.023	.018	.012	.008	
7.0	.159	.099	.057	.137	.086	.050	.095	.060	.035	.055	.035	.021	.018	.012	.007	
8.0	.153	.093	.052	.131	.081	.046	.091	.057	.032	.053	.034	.019	.017	.011	.006	
9.0	.147	.088	.049	.126	.077	.043	.088	.054	.030	.051	.032	.018	.017	.010	.006	
10.0	.141	.084	.046	.122	.073	.040	.084	.051	.029	.049	.030	.017	.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:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm											
NAME: NM3D1515					TYPE:			WEIGHT:			
SPEC.:NM3D1515-8W48CSN050CC0100					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	24.7	23.6	25.0	25.3	23.0	24.5	23.3	24.7	25.0	
	3H	24.9	26.3	25.2	26.5	26.8	24.5	25.8	24.8	26.1	26.4
	4H	25.6	26.9	25.9	27.2	27.5	25.0	26.4	25.4	26.7	27.0
	6H	26.1	27.3	26.5	27.6	28.0	25.4	26.7	25.8	27.0	27.3
	8H	26.3	27.5	26.7	27.8	28.2	25.6	26.7	25.9	27.1	27.4
	12H	26.4	27.6	26.8	27.9	28.3	25.6	26.8	26.0	27.1	27.5
4H	2H	23.9	25.2	24.2	25.5	25.8	23.6	24.9	24.0	25.3	25.6
	3H	25.7	26.8	26.1	27.2	27.5	25.3	26.5	25.7	26.8	27.2
	4H	26.5	27.5	26.9	27.9	28.3	26.0	27.1	26.4	27.4	27.8
	6H	27.1	28.1	27.6	28.5	28.9	26.5	27.5	27.0	27.9	28.3
	8H	27.4	28.3	27.9	28.7	29.1	26.7	27.6	27.2	28.0	28.5
	12H	27.6	28.4	28.1	28.9	29.3	26.8	27.6	27.3	28.0	28.5
8H	4H	26.7	27.6	27.2	28.0	28.5	26.3	27.2	26.8	27.6	28.1
	6H	27.6	28.3	28.1	28.7	29.2	27.0	27.7	27.5	28.2	28.7
	8H	27.9	28.6	28.4	29.0	29.6	27.3	27.9	27.8	28.4	28.9
	12H	28.3	28.8	28.8	29.3	29.9	27.5	28.0	28.0	28.5	29.1
12H	4H	26.7	27.5	27.2	28.0	28.4	26.4	27.2	26.8	27.6	28.1
	6H	27.6	28.3	28.1	28.7	29.3	27.1	27.8	27.6	28.2	28.7
	8H	28.0	28.6	28.6	29.1	29.6	27.4	28.0	27.9	28.5	29.0
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, 493.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.5)

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:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

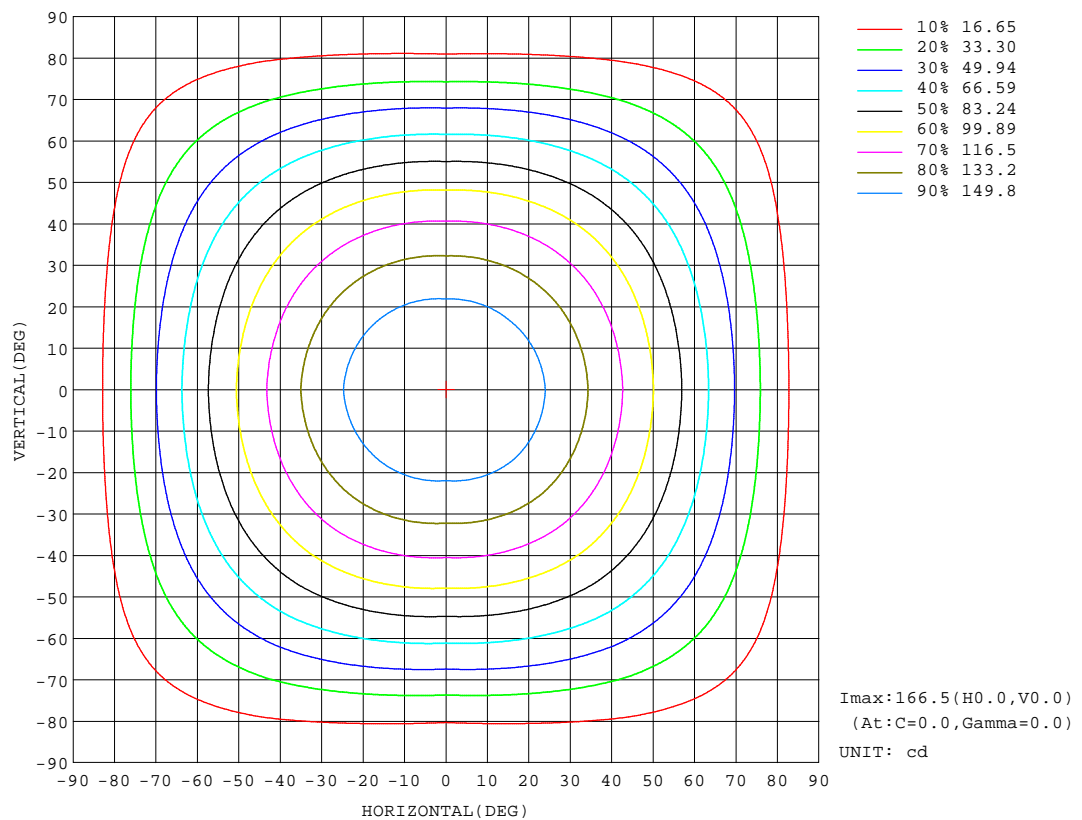
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	45	38	55	44	37	54	44	37	31
0.80	66	54	47	65	54	47	63	53	46	39
1.00	74	63	56	73	62	55	71	64	55	47
1.25	82	71	63	80	70	63	77	68	62	54
1.50	87	76	69	85	75	69	81	73	67	59
2.00	93	85	78	91	83	77	88	81	75	67
2.50	97	89	83	95	88	82	91	85	80	71
3.00	101	94	88	98	92	87	94	89	84	75
4.00	105	99	94	102	97	92	98	93	89	80
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: 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:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



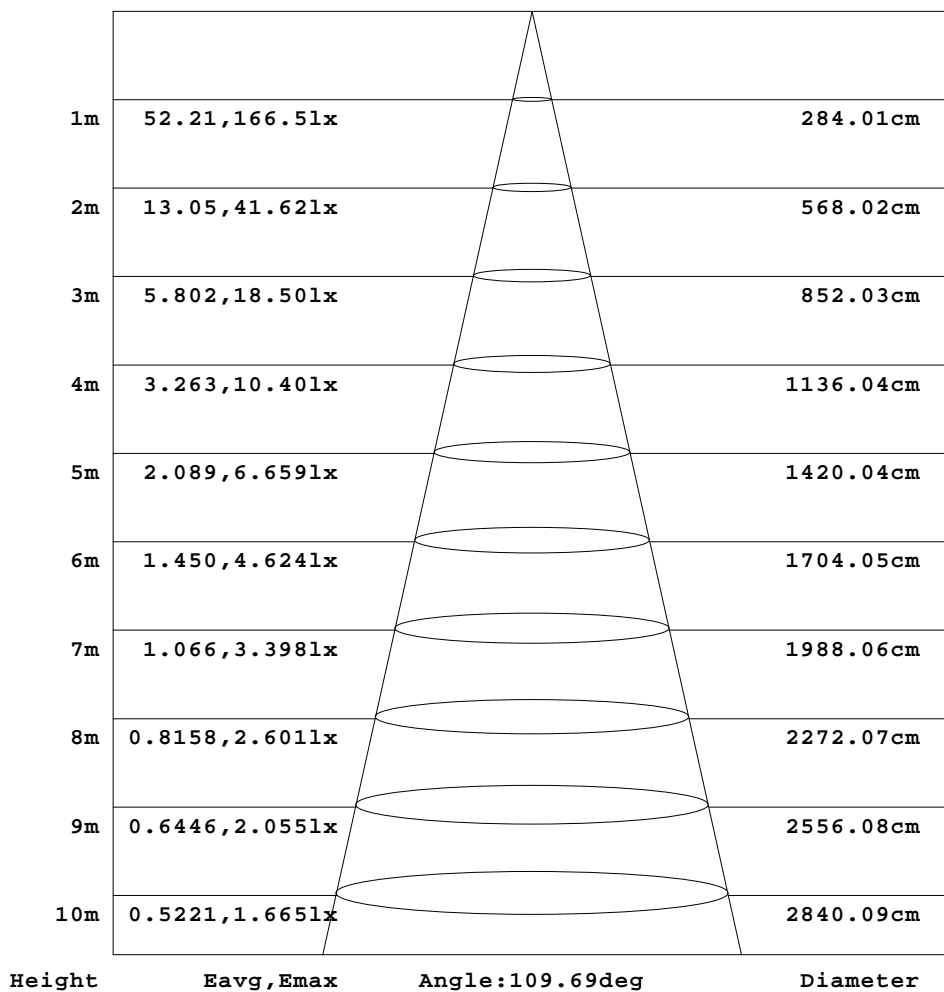
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-03

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:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

Flux out:334.6 lm



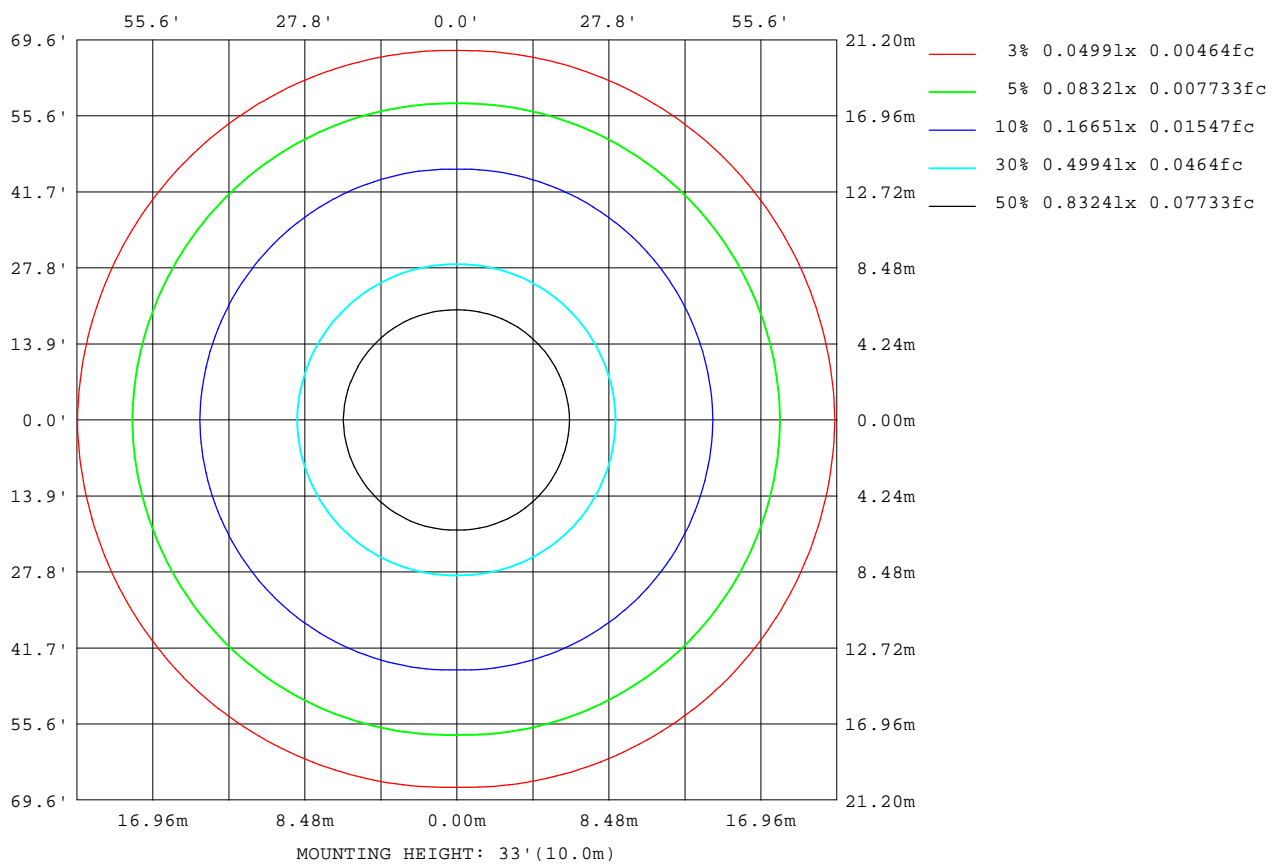
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:

ISOLUX DIAGRAM

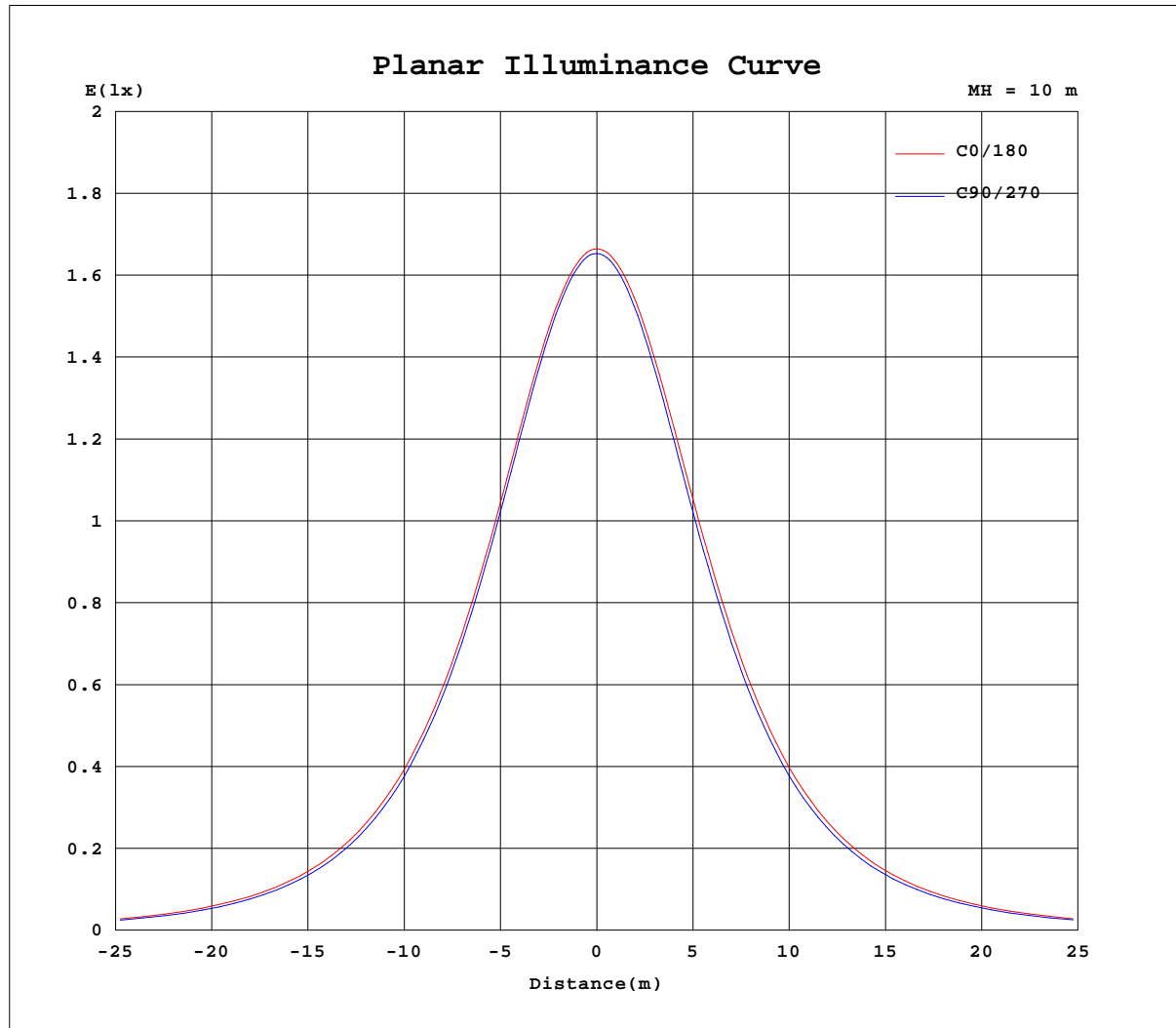
Test:U:48.00V I:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.90lx1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



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
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:7.100W PF:1.000 Freq:0Hz Lamp Flux:493.901x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-8W48CSN050CC0100	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	166	166	165	165	166	166	165	165										
5	166	165	165	165	166	165	165	164										
10	164	163	162	163	164	163	162	162										
15	160	159	158	159	161	159	158	158										
20	155	154	152	154	156	154	152	153										
25	148	147	145	148	150	147	145	146										
30	141	140	137	140	142	139	137	139										
35	132	131	128	131	133	131	128	130										
40	122	121	118	121	123	121	118	120										
45	111	110	107	110	113	110	107	109										
50	100	98.5	94.9	98.9	101	98.3	95.4	97.9										
55	88.0	86.3	82.5	86.8	89.1	86.2	83.2	85.9										
60	75.4	73.7	69.7	74.1	76.4	73.6	70.6	73.3										
65	62.4	60.6	56.5	61.0	63.2	60.6	57.5	60.3										
70	49.1	47.2	43.1	47.5	49.7	47.2	44.4	47.0										
75	35.6	33.9	29.8	34.1	36.2	33.9	31.3	33.7										
80	22.9	21.4	17.4	21.6	23.3	21.6	18.8	21.2										
85	12.4	11.3	7.17	11.2	12.5	11.4	8.35	11.0										
90	6.57	5.59	1.20	5.51	6.57	5.77	1.65	5.48										
95	5.00	4.04	1.15	3.99	5.08	4.24	1.47	3.97										
100	4.42	3.19	0.68	3.17	4.42	3.33	0.39	2.90										
105	3.81	2.54	0.62	2.54	3.73	2.65	0.59	2.70										
110	3.23	2.11	0.79	2.27	3.07	2.29	0.79	2.20										
115	2.95	1.84	1.03	2.10	2.67	2.10	0.97	2.04										
120	2.91	1.73	1.18	1.93	2.43	1.88	1.12	1.72										
125	2.85	1.64	1.38	1.73	2.30	1.63	1.28	1.46										
130	2.71	1.69	1.48	1.82	2.18	1.68	1.42	1.55										
135	2.64	1.88	1.62	1.98	2.20	1.82	1.52	1.68										
140	2.54	2.00	1.77	2.10	2.31	2.00	1.62	1.77										
145	2.54	2.06	1.83	2.22	2.38	2.14	1.70	1.82										
150	2.55	2.10	1.91	2.26	2.40	2.19	1.80	1.90										
155	2.64	2.16	2.03	2.30	2.41	2.20	2.00	1.99										
160	2.67	2.20	2.25	2.40	2.33	2.32	2.23	1.99										
165	2.67	2.30	2.44	2.49	2.33	2.43	2.44	2.16										
170	2.61	2.53	2.62	2.60	2.28	2.52	2.62	2.42										
175	2.44	2.75	2.77	2.75	2.24	2.67	2.81	2.67										
180	2.44	2.87	2.89	2.88	2.45	2.88	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: