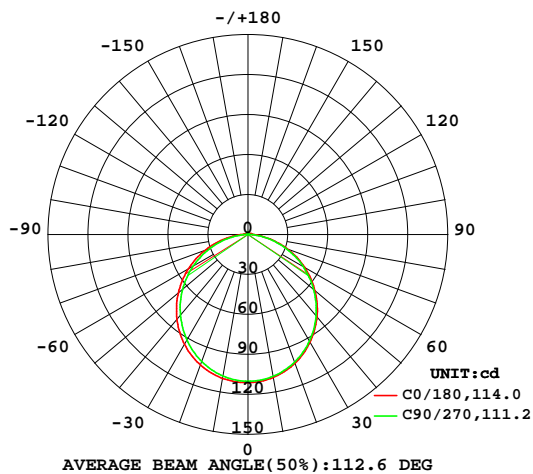


LUMINAIRE PHOTOMETRIC TEST REPORT

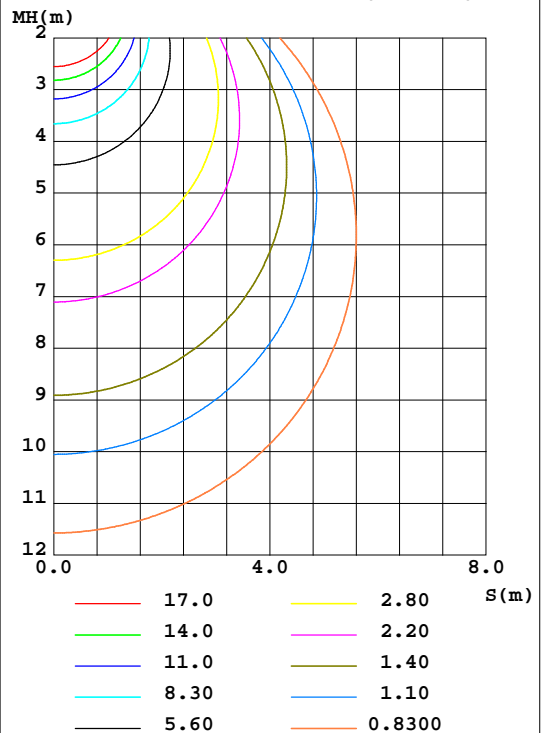
Test:U:48.00V I:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 46.57 lm/W			
MODEL	NM3D1515	I _{max} (cd)	111.1	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)	330.67	h UP,DN(C0-180)	1.6,48.4
NOMINAL FLUX(lm)	330.669	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:2020-09-04

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:

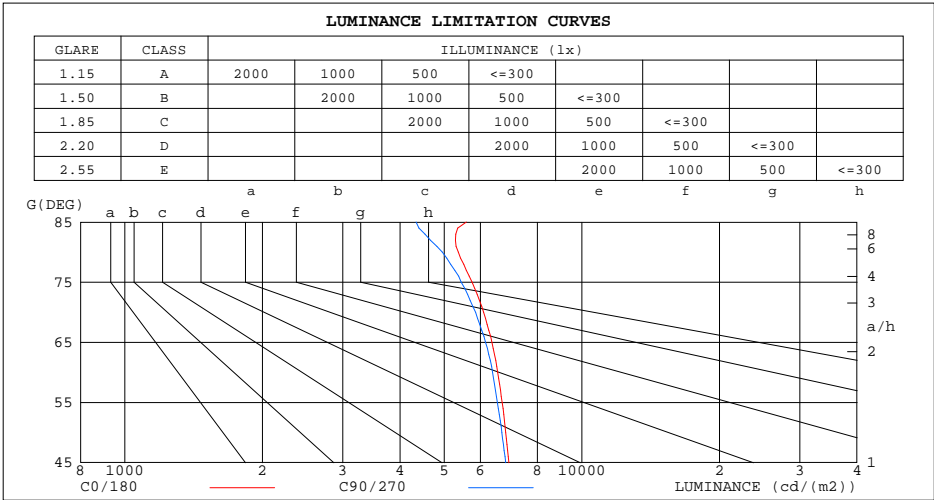
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	109.0	108.5	108.1	108.5	109.7	108.7	107.9	107.7	0- 10	10.45	10.45	3.16,3.16
20	103.0	102.5	102.1	103.0	104.3	102.9	101.5	101.5	10- 20	29.92	40.38	12.2,12.2
30	93.27	92.89	92.40	93.97	95.24	93.49	91.60	91.81	20- 30	45.28	85.66	25.9,25.9
40	80.66	80.14	79.61	81.83	82.95	81.09	78.86	79.29	30- 40	54.51	140.2	42.4,42.4
50	65.75	64.80	64.48	67.28	68.28	66.39	64.11	64.51	40- 50	56.60	196.8	59.5,59.5
60	49.08	48.37	47.85	51.05	51.74	49.95	47.49	48.02	50- 60	51.50	248.3	75.1,75.1
70	31.28	30.86	30.04	33.37	33.88	32.28	30.12	30.36	60- 70	40.01	288.3	87.2,87.2
80	13.99	13.73	12.90	15.55	16.19	15.03	12.88	13.28	70- 80	23.94	312.2	94.4,94.4
90	3.943	3.694	1.802	4.244	4.524	4.168	1.522	3.354	80- 90	8.489	320.7	97.97
100	2.999	2.077	0.4928	2.622	2.886	2.528	0.2609	2.224	90-100	2.856	323.6	97.8,97.8
110	2.520	1.407	0.4939	1.661	2.102	1.564	0.5151	1.683	100-110	1.850	325.4	98.4,98.4
120	1.812	1.162	0.7347	1.034	1.256	1.084	0.7355	1.062	110-120	1.303	326.7	98.8,98.8
130	1.523	1.129	0.9418	1.142	1.269	1.009	0.9221	1.042	120-130	0.9807	327.7	99.1,99.1
140	1.570	1.296	1.089	1.309	1.389	1.156	1.062	1.129	130-140	0.9197	328.6	99.4,99.4
150	1.590	1.349	1.202	1.423	1.476	1.369	1.189	1.189	140-150	0.8172	329.4	99.6,99.6
160	1.683	1.416	1.409	1.523	1.490	1.469	1.450	1.256	150-160	0.6479	330.1	99.8,99.8
170	1.677	1.630	1.663	1.670	1.476	1.590	1.690	1.569	160-170	0.4332	330.5	100,100
180	1.536	1.810	1.830	1.830	1.510	1.803	1.897	1.823	170-180	0.1591	330.7	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:2020-09-04

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:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	5591	4342
80	5369	4951
75	5750	5451
70	6097	5855
65	6354	6159
60	6544	6380
55	6697	6537
50	6819	6687
45	6926	6816

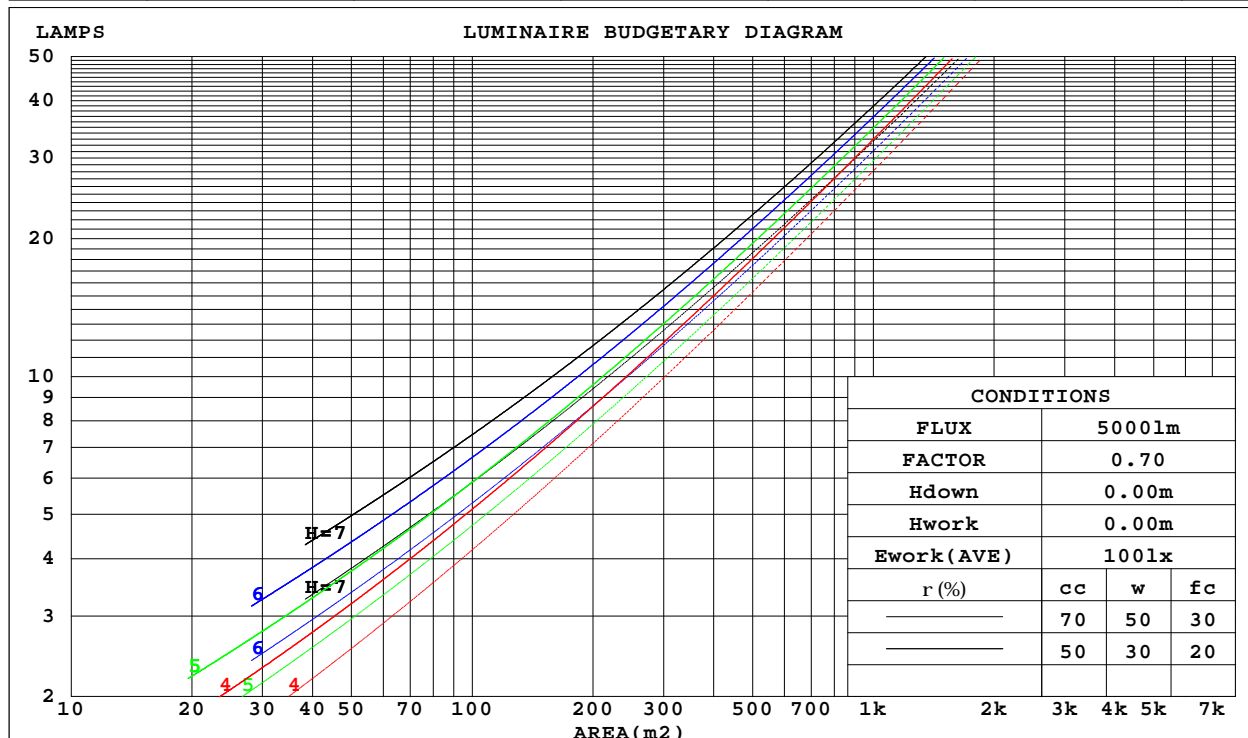
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-04

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:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	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:2020-09-04

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:7.100W PF:1.000 Freq:0Hz Lamp Flux:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	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	.319	.181	.057	.311	.177	.056	.296	.170	.054	.282	.162	.052	.269	.156	.050	
2.0	.296	.162	.050	.289	.159	.049	.276	.153	.048	.264	.148	.046	.252	.143	.045	
3.0	.273	.145	.043	.266	.143	.043	.254	.138	.042	.244	.133	.041	.233	.129	.040	
4.0	.251	.130	.038	.245	.128	.038	.235	.124	.037	.225	.121	.036	.216	.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	.188	.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	.024	.171	.083	.023	.165	.081	.023	.159	.080	.023	.153	.078	.022	
10.0	.164	.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	.125	.125	.125	.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	.162	.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	.103	.069	.043	.059	.041	.026	.019	.013	.008	
6.0	.166	.106	.063	.143	.092	.055	.099	.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	.132	.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:2020-09-04

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:330.669x1 lm										
NAME: NM3D1515					TYPE:			WEIGHT:		
SPEC.:NM3D1515-9LW48CSN050CC0100					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	23.1	24.6	23.4	24.9	25.1	23.0	24.5	23.3	24.8	25.0
3H	24.7	26.1	25.0	26.3	26.6	24.5	25.9	24.9	26.2	26.5
4H	25.3	26.6	25.7	26.9	27.3	25.2	26.5	25.5	26.8	27.1
6H	25.8	27.0	26.2	27.4	27.7	25.6	26.8	26.0	27.2	27.5
8H	26.0	27.2	26.4	27.5	27.9	25.7	26.9	26.1	27.3	27.6
12H	26.1	27.2	26.5	27.6	28.0	25.8	27.0	26.2	27.3	27.7
4H 2H	23.7	25.0	24.1	25.3	25.6	23.6	24.9	24.0	25.2	25.6
3H	25.5	26.6	25.9	27.0	27.3	25.4	26.5	25.7	26.8	27.2
4H	26.2	27.3	26.7	27.7	28.1	26.1	27.1	26.5	27.5	27.9
6H	26.8	27.8	27.3	28.2	28.6	26.7	27.6	27.1	28.0	28.4
8H	27.1	27.9	27.5	28.4	28.8	26.9	27.7	27.3	28.1	28.6
12H	27.3	28.1	27.7	28.5	29.0	27.0	27.8	27.5	28.2	28.7
8H 4H	26.5	27.4	27.0	27.8	28.2	26.4	27.2	26.8	27.7	28.1
6H	27.3	28.0	27.8	28.5	28.9	27.1	27.8	27.6	28.3	28.8
8H	27.6	28.2	28.1	28.7	29.2	27.4	28.0	27.9	28.5	29.0
12H	27.9	28.4	28.4	28.9	29.5	27.6	28.2	28.1	28.7	29.2
12H 4H	26.5	27.3	27.0	27.7	28.2	26.4	27.2	26.9	27.6	28.1
6H	27.3	28.0	27.8	28.5	29.0	27.2	27.8	27.7	28.3	28.8
8H	27.7	28.3	28.2	28.8	29.3	27.5	28.1	28.0	28.6	29.1
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					+ 0.1 / - 0.3				

CIE Pub.117, 330.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.8)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-04

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:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

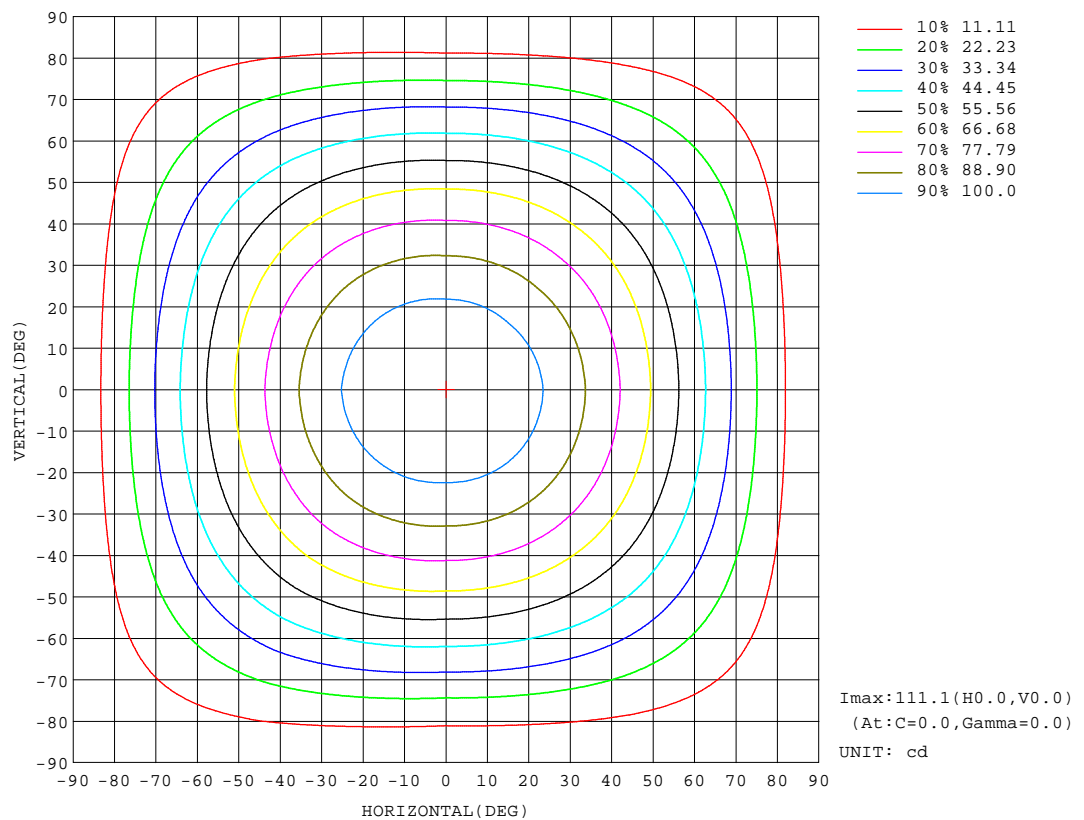
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	44	37	31
0.80	66	54	47	65	54	47	63	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	89	84	75
4.00	105	99	94	102	97	92	97	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:2020-09-04

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:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



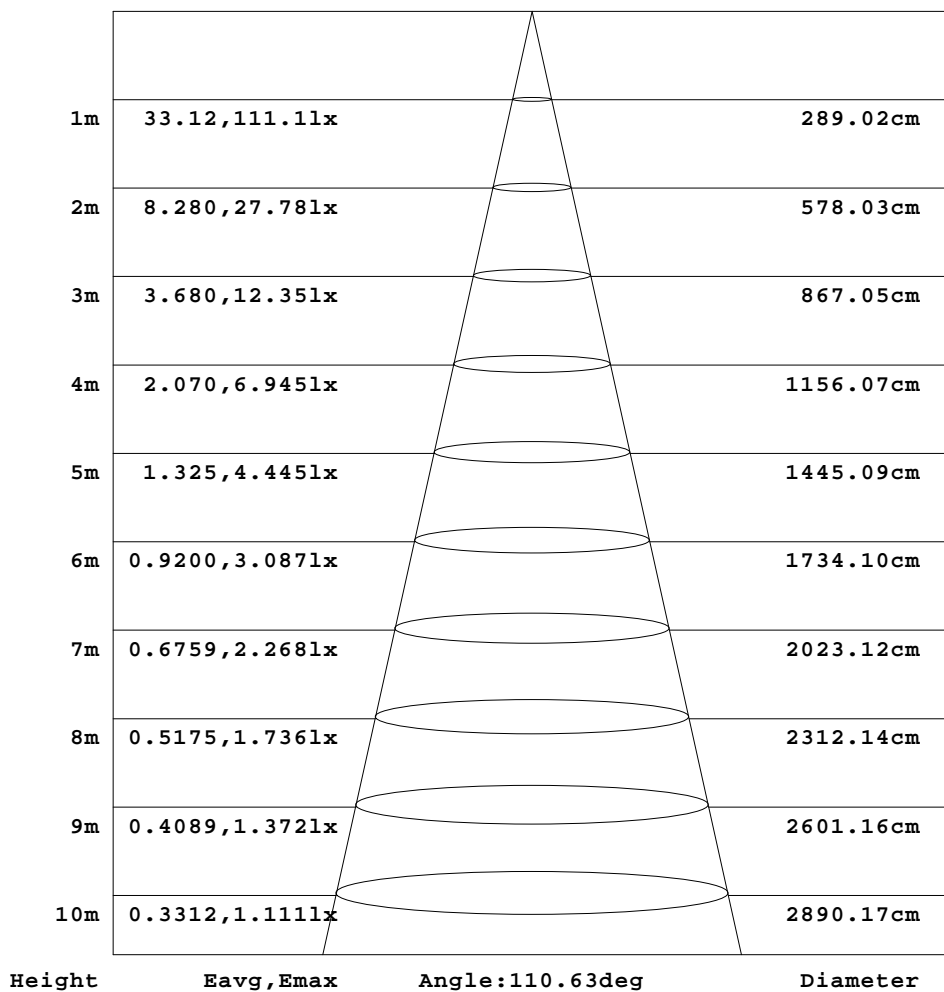
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-04

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:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

Flux out:228.7 lm



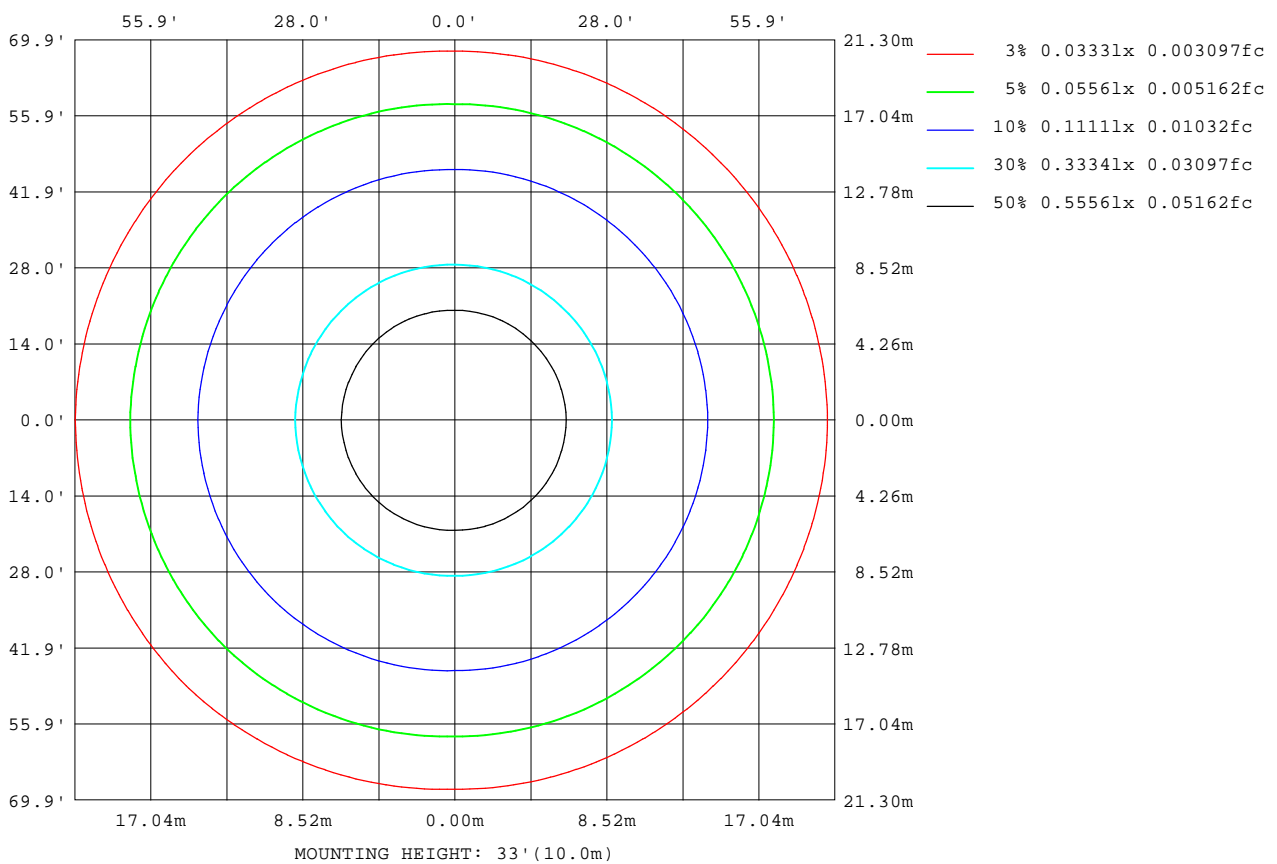
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-04

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

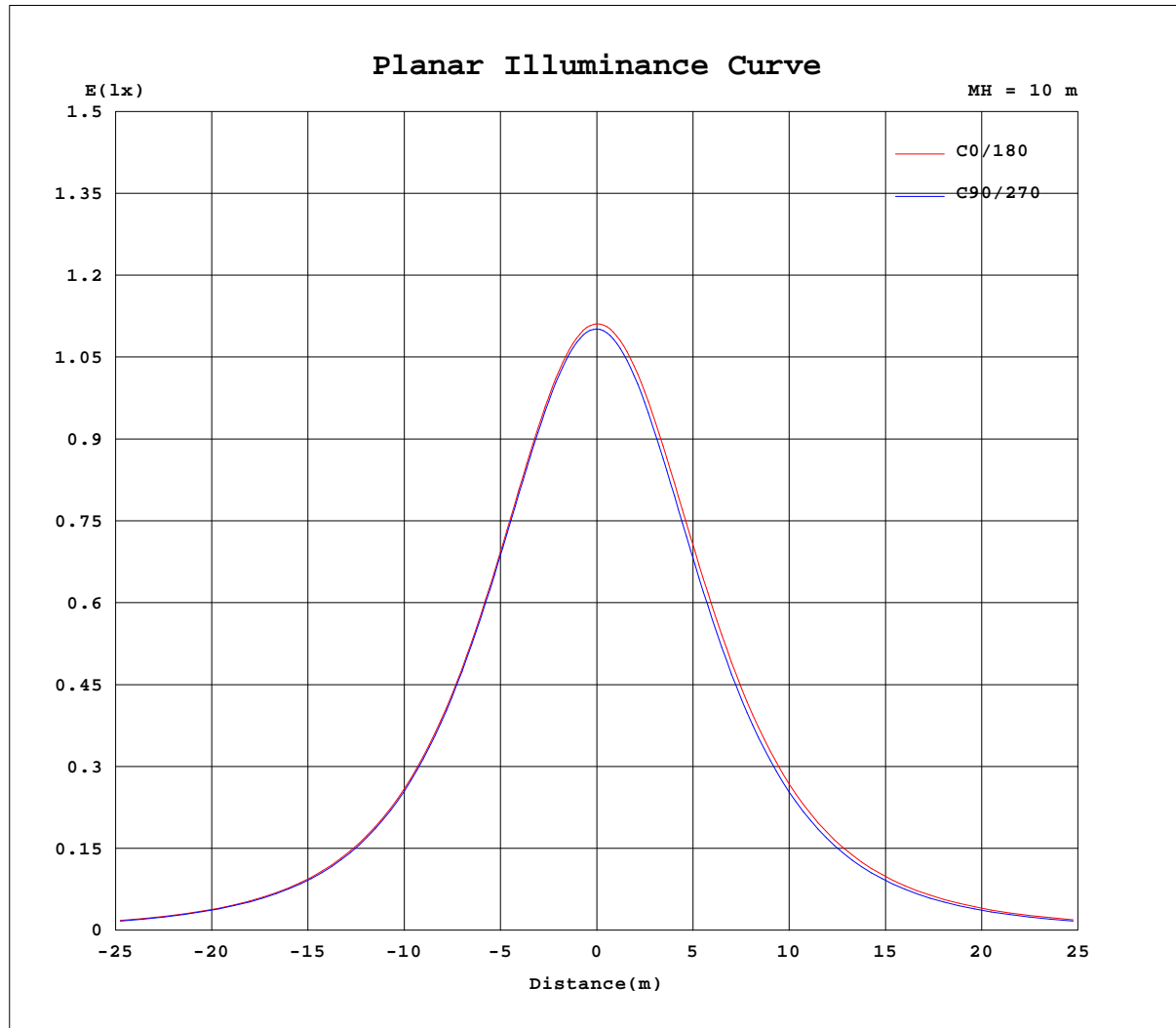
Test:U:48.00V I:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-09-04

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: 2020-09-04

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:330.669x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9LW48CSN050CC0100	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	111	111	110	110	111	111	110	110										
5	111	110	110	110	111	110	110	109										
10	109	109	108	109	110	109	108	108										
15	106	106	106	106	108	106	105	105										
20	103	103	102	103	104	103	102	102										
25	98.6	98.1	97.6	98.9	100	98.6	97.0	97.1										
30	93.3	92.9	92.4	94.0	95.2	93.5	91.6	91.8										
35	87.3	86.9	86.3	88.3	89.5	87.7	85.5	85.9										
40	80.7	80.1	79.6	81.8	83.0	81.1	78.9	79.3										
45	73.5	72.6	72.3	74.8	75.9	74.0	71.8	72.2										
50	65.7	64.8	64.5	67.3	68.3	66.4	64.1	64.5										
55	57.6	56.7	56.2	59.3	60.2	58.4	56.0	56.4										
60	49.1	48.4	47.8	51.0	51.7	49.9	47.5	48.0										
65	40.3	39.7	39.0	42.4	42.9	41.2	38.8	39.3										
70	31.3	30.9	30.0	33.4	33.9	32.3	30.1	30.4										
75	22.3	22.0	21.2	24.3	24.8	23.4	21.4	21.5										
80	14.0	13.7	12.9	15.5	16.2	15.0	12.9	13.3										
85	7.31	7.16	5.68	8.37	8.89	8.10	5.72	6.70										
90	3.94	3.69	1.80	4.24	4.52	4.17	1.52	3.35										
95	3.21	2.67	1.53	3.08	3.21	3.07	1.25	2.57										
100	3.00	2.08	0.49	2.62	2.89	2.53	0.26	2.22										
105	2.79	1.67	0.39	2.11	2.53	2.03	0.40	2.13										
110	2.52	1.41	0.49	1.66	2.10	1.56	0.52	1.68										
115	2.17	1.26	0.61	1.46	1.59	1.38	0.64	1.41										
120	1.81	1.16	0.73	1.03	1.26	1.08	0.74	1.06										
125	1.58	1.08	0.83	1.02	1.23	1.07	0.84	1.03										
130	1.52	1.13	0.94	1.14	1.27	1.01	0.92	1.04										
135	1.53	1.27	1.03	1.27	1.32	1.08	1.00	1.08										
140	1.57	1.30	1.09	1.31	1.39	1.16	1.06	1.13										
145	1.59	1.32	1.14	1.40	1.44	1.26	1.12	1.15										
150	1.59	1.35	1.20	1.42	1.48	1.37	1.19	1.19										
155	1.66	1.39	1.28	1.46	1.49	1.37	1.32	1.25										
160	1.68	1.42	1.41	1.52	1.49	1.47	1.45	1.26										
165	1.69	1.49	1.56	1.59	1.49	1.52	1.58	1.38										
170	1.68	1.63	1.66	1.67	1.48	1.59	1.69	1.57										
175	1.55	1.76	1.80	1.76	1.44	1.69	1.82	1.71										
180	1.54	1.81	1.83	1.83	1.51	1.80	1.90	1.82										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-04

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: