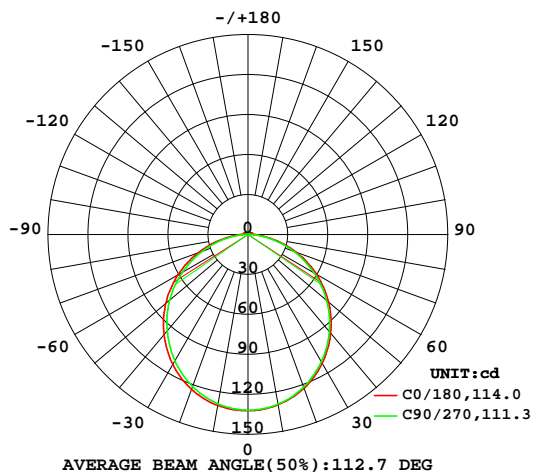


LUMINAIRE PHOTOMETRIC TEST REPORT

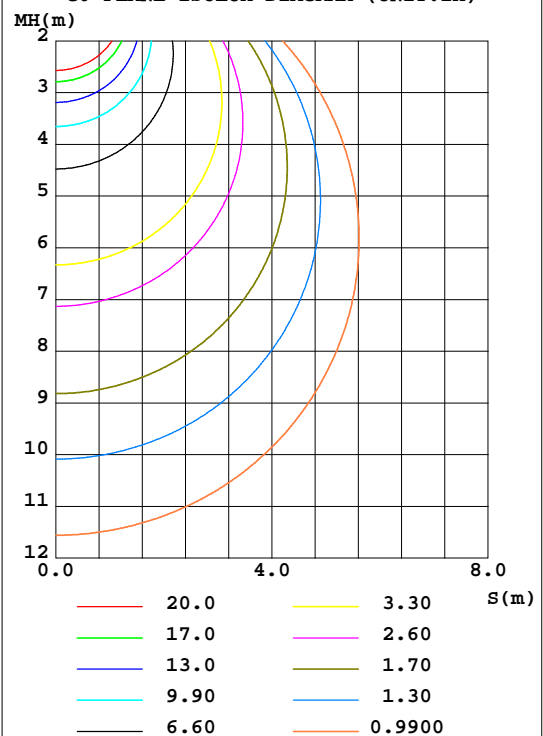
Test:U:48.00V I:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 55.78 lm/W			
MODEL	NM3D1515	I _{max} (cd)	132.2	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)	396.03	h UP,DN(C0-180)	1.7,48.4
NOMINAL FLUX(lm)	396.025	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.6,48.3
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:2020-09-04

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:

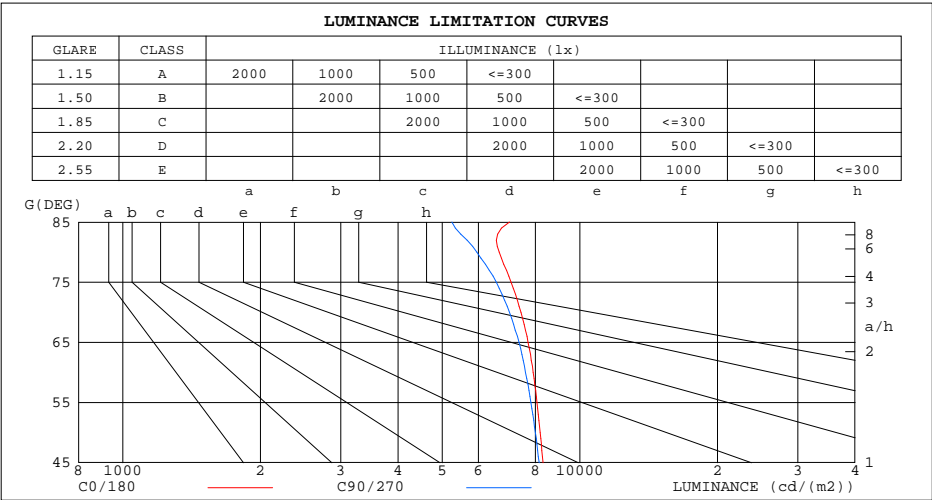
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	129.8	129.8	129.4	129.9	130.3	129.7	129.1	129.1	0~ 10	12.49	12.49	3.15,3.15
20	122.9	122.7	122.0	123.2	123.8	122.7	121.5	121.9	10~ 20	35.75	48.23	12.2,12.2
30	111.5	111.3	110.2	112.1	112.8	111.4	109.6	110.4	20~ 30	54.08	102.3	25.8,25.8
40	96.61	96.37	95.09	97.40	98.13	96.54	94.40	95.47	30~ 40	65.11	167.4	42.3,42.3
50	79.00	78.62	77.07	79.83	80.57	78.85	76.85	77.75	40~ 50	67.64	235.1	59.4,59.4
60	59.32	58.84	57.05	60.12	60.72	59.12	56.89	58.06	50~ 60	61.57	296.6	74.9,74.9
70	38.16	37.63	35.97	38.93	39.40	37.93	35.94	36.95	60~ 70	47.78	344.4	87,87
80	17.36	16.98	15.50	18.04	18.45	17.49	15.53	16.35	70~ 80	28.57	373.0	94.2,94.2
90	4.871	4.585	1.982	4.897	5.066	4.819	1.861	4.104	80~ 90	10.10	383.1	96.7,96.7
100	3.868	2.755	0.5482	3.424	3.706	3.320	0.3277	2.865	90~100	3.491	386.6	97.6,97.6
110	3.375	2.002	0.6544	2.571	3.209	2.528	0.6283	2.219	100~110	2.517	389.1	98.2,98.2
120	2.679	1.714	0.9537	1.488	2.342	1.516	0.8887	1.526	110~120	1.930	391.0	98.7,98.7
130	2.097	1.356	1.182	1.410	1.723	1.269	1.116	1.303	120~130	1.343	392.4	99.1,99.1
140	1.930	1.556	1.395	1.623	1.683	1.507	1.302	1.389	130~140	1.148	393.5	99.4,99.4
150	1.930	1.623	1.503	1.724	1.764	1.596	1.423	1.510	140~150	0.9983	394.5	99.6,99.6
160	2.024	1.691	1.723	1.850	1.817	1.810	1.744	1.609	150~160	0.7904	395.3	99.8,99.8
170	2.011	1.958	2.031	2.011	1.810	1.944	2.044	1.930	160~170	0.5281	395.8	100,100
180	1.844	2.204	2.251	2.238	1.817	2.204	2.278	2.224	170~180	0.1929	396.0	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:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	7018	5248
80	6664	5951
75	7070	6564
70	7439	7012
65	7708	7361
60	7910	7607
55	8063	7821
50	8193	7993
45	8306	8147

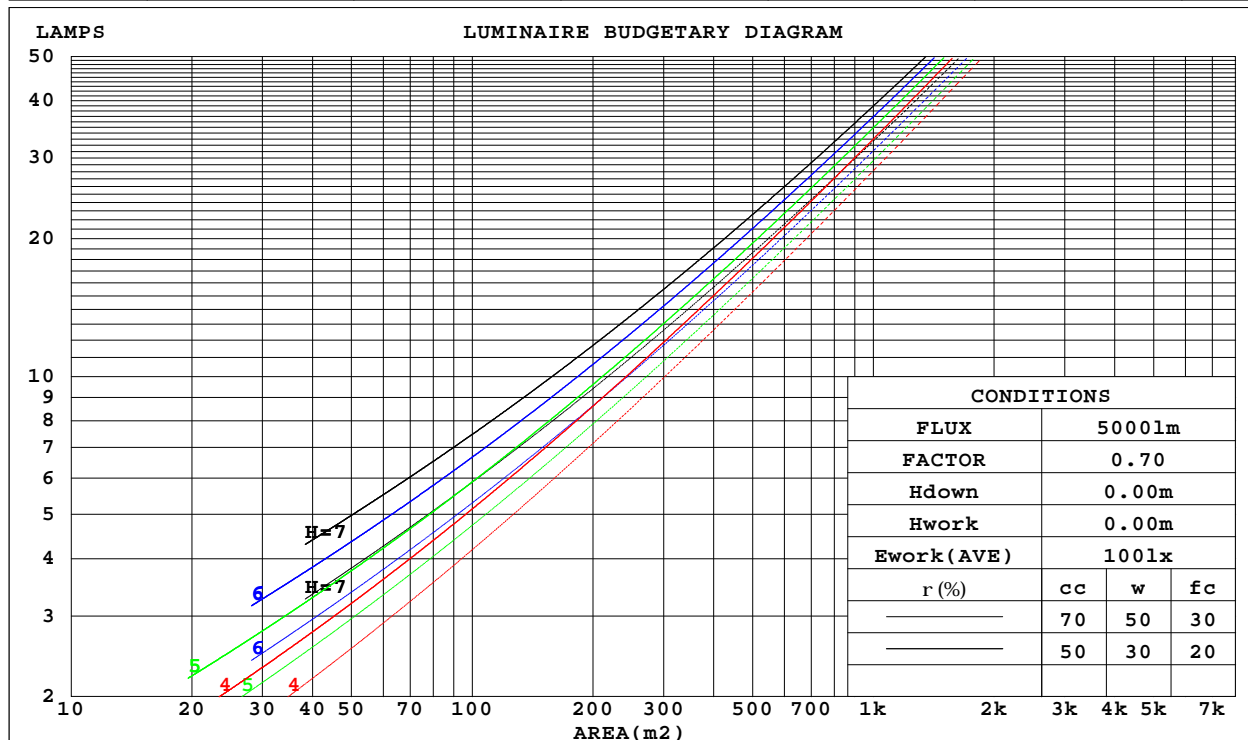
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-04

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:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	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:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	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	.251	.142	.045	
3.0	.272	.145	.043	.266	.143	.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	.107	.032	
6.0	.214	.107	.031	.210	.106	.030	.201	.103	.030	.193	.100	.029	.186	.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	.088	.025	.169	.085	.025	.162	.083	.024	
9.0	.174	.084	.024	.171	.083	.023	.164	.081	.023	.158	.079	.023	.153	.078	.022	
10.0	.163	.078	.022	.161	.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	.215	.215	.215	.184	.184	.184	.126	.126	.126	.072	.072	.072	.023	.023	.023	
1.0	.206	.181	.159	.176	.155	.137	.121	.107	.095	.069	.062	.055	.022	.020	.018	
2.0	.198	.157	.123	.170	.135	.106	.116	.094	.074	.067	.054	.043	.022	.018	.014	
3.0	.190	.140	.099	.163	.121	.086	.112	.084	.060	.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	.026	.019	.013	.009	
6.0	.168	.108	.065	.144	.093	.056	.100	.065	.040	.058	.038	.024	.019	.013	.008	
7.0	.161	.101	.059	.139	.088	.051	.096	.061	.036	.056	.036	.022	.018	.012	.007	
8.0	.155	.095	.054	.133	.083	.048	.092	.058	.034	.054	.034	.020	.017	.011	.007	
9.0	.149	.090	.051	.128	.078	.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:2020-09-04

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:396.025x1 lm										
NAME: NM3D1515					TYPE:			WEIGHT:		
SPEC.:NM3D1515-9PW48CSN050CC0100					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	24.8	25.1
3H	24.8	26.1	25.1	26.4	26.7	24.6	25.9	24.9	26.2	26.5
4H	25.4	26.7	25.8	27.0	27.4	25.2	26.5	25.5	26.8	27.1
6H	25.9	27.1	26.3	27.5	27.8	25.6	26.9	26.0	27.2	27.5
8H	26.1	27.3	26.5	27.6	28.0	25.8	27.0	26.2	27.3	27.7
12H	26.2	27.4	26.6	27.7	28.1	25.9	27.0	26.3	27.4	27.7
4H 2H	23.8	25.1	24.1	25.4	25.7	23.7	25.0	24.0	25.3	25.6
3H	25.6	26.7	26.0	27.0	27.4	25.4	26.5	25.8	26.9	27.3
4H	26.3	27.4	26.8	27.8	28.2	26.1	27.2	26.6	27.6	28.0
6H	27.0	27.9	27.4	28.3	28.7	26.7	27.6	27.2	28.0	28.5
8H	27.2	28.1	27.7	28.5	29.0	26.9	27.8	27.4	28.2	28.7
12H	27.4	28.2	27.9	28.7	29.1	27.0	27.8	27.5	28.3	28.8
8H 4H	26.6	27.5	27.1	27.9	28.4	26.4	27.3	26.9	27.7	28.2
6H	27.4	28.1	27.9	28.6	29.1	27.2	27.9	27.7	28.3	28.8
8H	27.7	28.4	28.3	28.9	29.4	27.5	28.1	28.0	28.6	29.1
12H	28.1	28.6	28.6	29.1	29.7	27.7	28.2	28.2	28.7	29.3
12H 4H	26.6	27.4	27.1	27.9	28.3	26.4	27.2	26.9	27.7	28.2
6H	27.5	28.1	28.0	28.6	29.1	27.2	27.9	27.8	28.4	28.9
8H	27.9	28.4	28.4	28.9	29.5	27.6	28.1	28.1	28.6	29.2
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					+ 0.1 / - 0.3				

CIE Pub.117, 396.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.2)

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:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

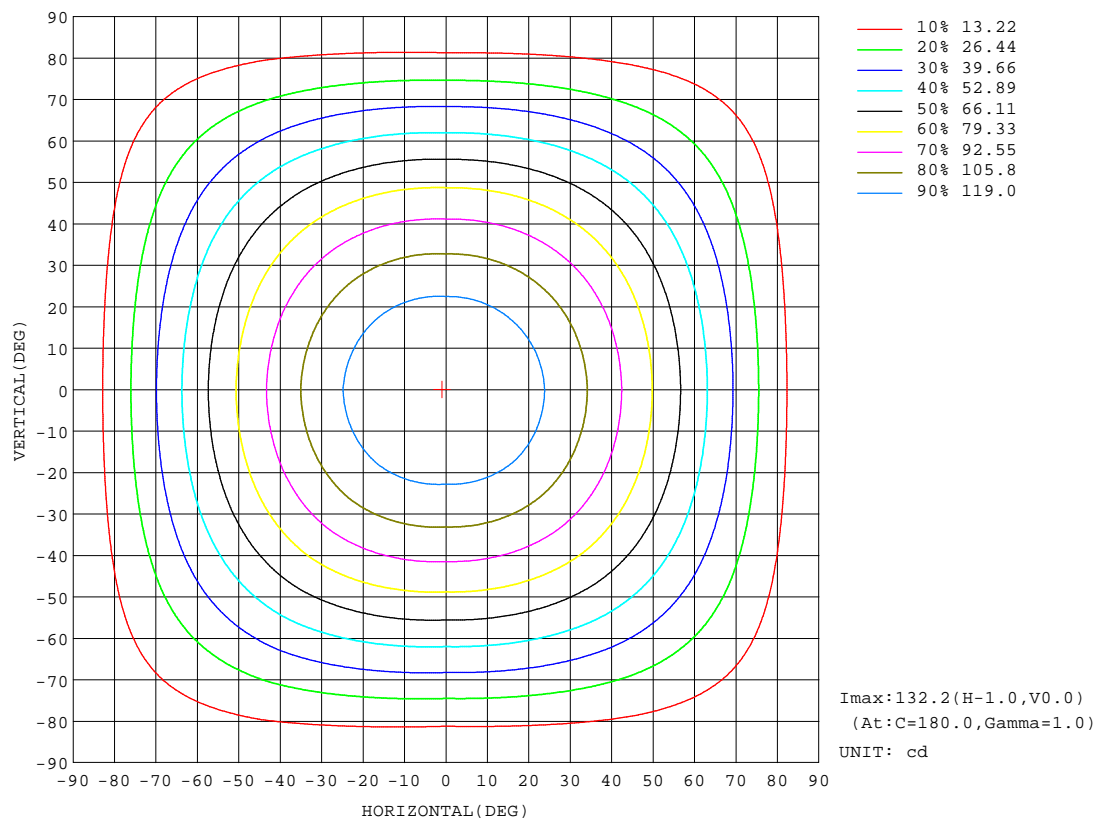
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	43	37	31
0.80	66	54	47	65	54	47	63	53	46	39
1.00	74	63	55	73	62	55	70	63	54	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	93	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:2020-09-04

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:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



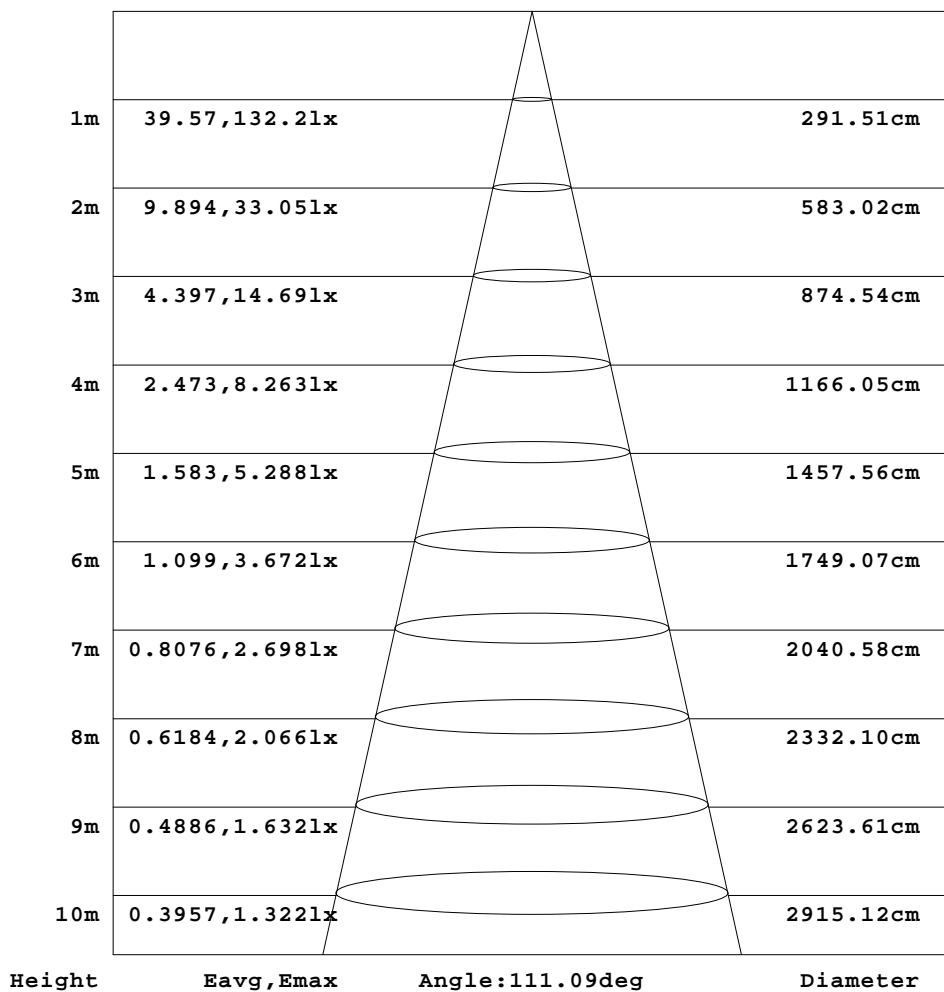
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-04

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:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

Flux out:273.3 lm



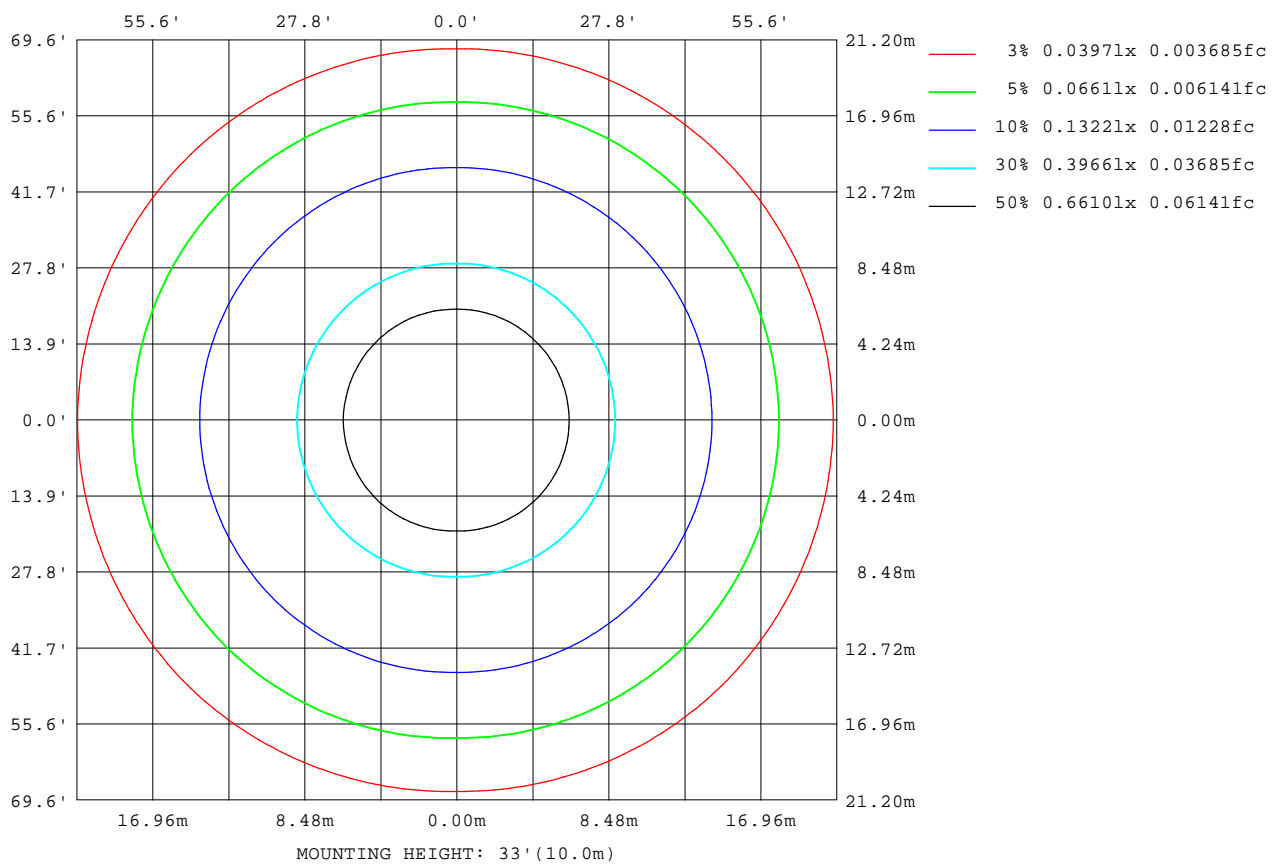
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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

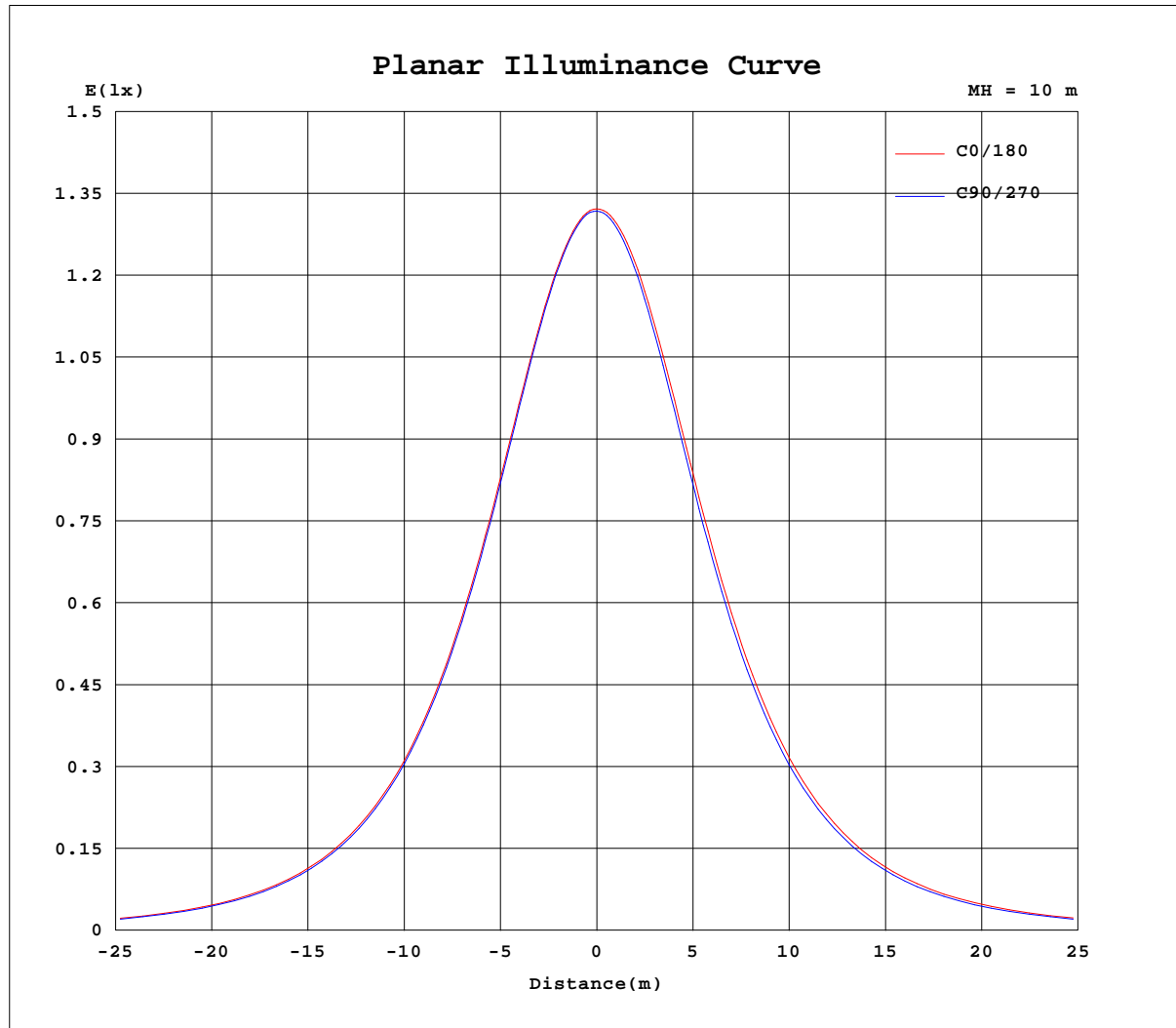
Test:U:48.00V I:0.1480A P:7.100W PF:1.000 Freq:0Hz Lamp Flux:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:



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:396.025x1 lm		
NAME: NM3D1515	TYPE:	WEIGHT:
SPEC.:NM3D1515-9PW48CSN050CC0100	DIM.: 1000*15*15mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*15mm	Shielding Angle:

Table--1

UNIT: cd

C(DEC) g (DEC)	0	45	90	135	180	225	270	315										
0	132	132	132	132	132	132	132	132										
5	132	132	131	131	132	132	131	131										
10	130	130	129	130	130	130	129	129										
15	127	127	126	127	128	127	126	126										
20	123	123	122	123	124	123	121	122										
25	118	118	117	118	119	117	116	117										
30	111	111	110	112	113	111	110	110										
35	104	104	103	105	106	104	102	103										
40	96.6	96.4	95.1	97.4	98.1	96.5	94.4	95.5										
45	88.1	87.7	86.4	88.9	89.7	88.0	85.9	86.9										
50	79.0	78.6	77.1	79.8	80.6	78.8	76.9	77.8										
55	69.4	68.9	67.3	70.2	70.9	69.2	67.1	68.2										
60	59.3	58.8	57.0	60.1	60.7	59.1	56.9	58.1										
65	48.9	48.4	46.7	49.7	50.2	48.7	46.5	47.6										
70	38.2	37.6	36.0	38.9	39.4	37.9	35.9	37.0										
75	27.4	26.9	25.5	28.2	28.6	27.3	25.6	26.3										
80	17.4	17.0	15.5	18.0	18.4	17.5	15.5	16.3										
85	9.17	8.94	6.86	9.62	9.91	9.35	6.85	8.25										
90	4.87	4.58	1.98	4.90	5.07	4.82	1.86	4.10										
95	4.04	3.41	1.54	3.73	3.90	3.71	1.60	3.23										
100	3.87	2.75	0.55	3.42	3.71	3.32	0.33	2.87										
105	3.66	2.35	0.47	2.98	3.50	2.93	0.47	2.80										
110	3.37	2.00	0.65	2.57	3.21	2.53	0.63	2.22										
115	3.03	1.94	0.76	2.18	2.78	2.10	0.77	2.07										
120	2.68	1.71	0.95	1.49	2.34	1.52	0.89	1.53										
125	2.38	1.36	1.08	1.33	1.93	1.49	1.01	1.38										
130	2.10	1.36	1.18	1.41	1.72	1.27	1.12	1.30										
135	1.96	1.52	1.29	1.53	1.68	1.37	1.21	1.38										
140	1.93	1.56	1.39	1.62	1.68	1.51	1.30	1.39										
145	1.93	1.59	1.40	1.72	1.73	1.58	1.35	1.41										
150	1.93	1.62	1.50	1.72	1.76	1.60	1.42	1.51										
155	2.02	1.66	1.60	1.76	1.82	1.72	1.57	1.51										
160	2.02	1.69	1.72	1.85	1.82	1.81	1.74	1.61										
165	2.06	1.79	1.93	1.94	1.81	1.85	1.90	1.72										
170	2.01	1.96	2.03	2.01	1.81	1.94	2.04	1.93										
175	1.84	2.12	2.14	2.15	1.74	2.10	2.18	2.15										
180	1.84	2.20	2.25	2.24	1.82	2.20	2.28	2.22										

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: