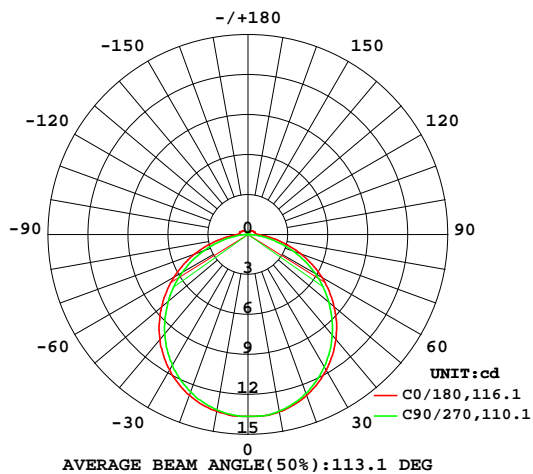


LUMINAIRE PHOTOMETRIC TEST REPORT

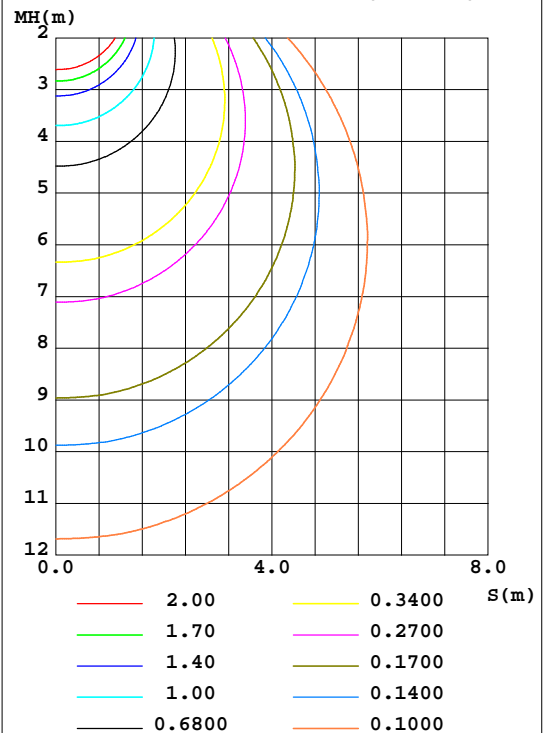
Test:U:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 5.27 lm/W			
MODEL	NMT1312-Plus-EP	I _{max} (cd)	13.67	S/MH(C0/180)	1.28
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	41.650	h UP,DN(C0-180)	2.0,48.1
NOMINAL FLUX(lm)	41.6499	CIE CLASS	DIRECT	h UP,DN(C180-360)	2.1,47.7
LAMPS INSIDE	1	h up(%)	4.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	24	h down(%)	95.9	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:2020-03-13

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:

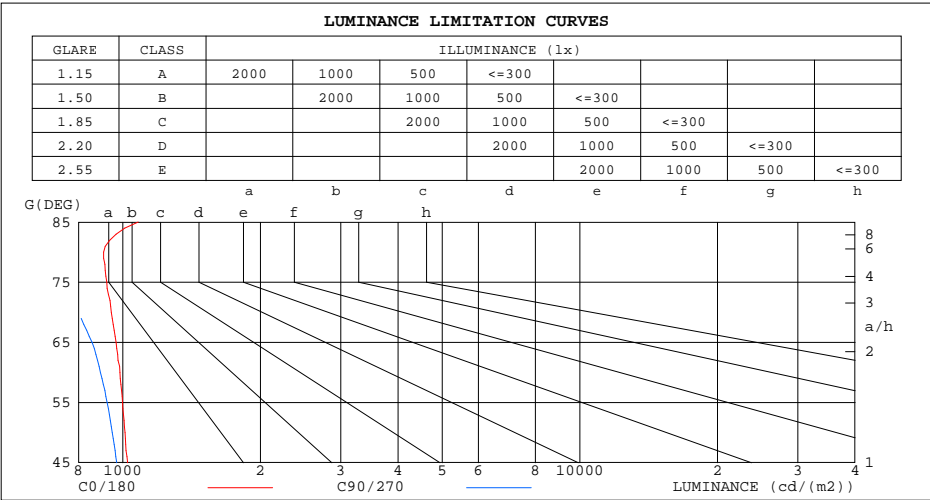
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	13.51	13.44	13.47	13.46	13.47	13.47	13.36	13.49	0- 10	1.296	1.296	3.11,3.11
20	12.85	12.77	12.69	12.80	12.84	12.73	12.58	12.77	10- 20	3.717	5.013	12,12
30	11.76	11.62	11.47	11.69	11.76	11.56	11.33	11.61	20- 30	5.637	10.65	25.6,25.6
40	10.28	10.11	9.856	10.17	10.29	10.02	9.730	10.08	30- 40	6.803	17.45	41.9,41.9
50	8.448	8.229	7.931	8.321	8.481	8.126	7.821	8.220	40- 50	7.069	24.52	58.9,58.9
60	6.405	6.138	5.805	6.259	6.423	6.048	5.729	6.156	50- 60	6.419	30.94	74.3,74.3
70	4.195	3.929	3.553	4.032	4.242	3.828	3.468	3.985	60- 70	4.962	35.90	86.2,86.2
80	2.049	1.763	1.367	1.878	2.085	1.711	1.308	1.845	70- 80	2.960	38.86	93.3,93.3
90	0.7634	0.4137	0.0749	0.6009	0.8211	0.5291	0.0134	0.5479	80- 90	1.073	39.94	95.9,95.9
100	0.5811	0.3145	0.0200	0.4889	0.6530	0.4275	0.0201	0.4075	90-100	0.4291	40.36	96.9,96.9
110	0.5586	0.2998	0.0200	0.4005	0.6481	0.3744	0.0468	0.3065	100-110	0.3638	40.73	97.8,97.8
120	0.4798	0.1858	0.0200	0.3130	0.5103	0.3206	0.0735	0.2940	110-120	0.2978	41.03	98.5,98.5
130	0.4208	0.1391	0.1068	0.3001	0.4132	0.1673	0.1002	0.2471	120-130	0.2361	41.26	99.1,99.1
140	0.3215	0.1399	0.1068	0.1612	0.2797	0.1401	0.1069	0.1276	130-140	0.1542	41.42	99.4,99.4
150	0.1909	0.1457	0.1069	0.1822	0.1622	0.1401	0.1336	0.1295	140-150	0.0951	41.51	99.7,99.7
160	0.1865	0.1595	0.1201	0.2004	0.1758	0.1337	0.1714	0.1314	150-160	0.0711	41.58	99.8,99.8
170	0.1821	0.1938	0.1869	0.2043	0.1833	0.1937	0.2071	0.1334	160-170	0.0487	41.63	100,100
180	0.1870	0.2004	0.1937	0.2071	0.1937	0.2137	0.2137	0.2004	170-180	0.0184	41.65	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:2020-03-13

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:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1080	484
80	908	606
75	923	722
70	944	799
65	967	857
60	985	893
55	998	924
50	1011	949
45	1024	970

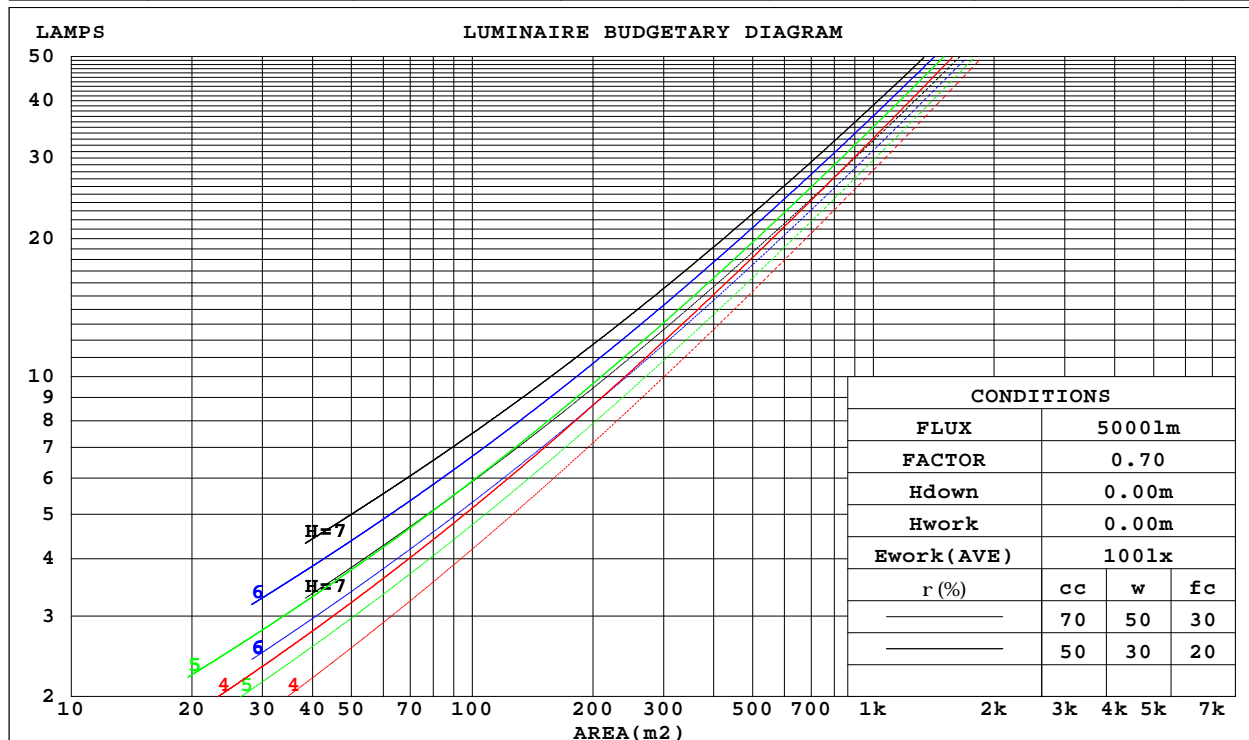
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-03-13

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:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	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:2020-03-13

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:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	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	.294	.169	.054	.280	.161	.052	.266	.154	.050	
2.0	.296	.162	.050	.288	.159	.049	.274	.152	.047	.261	.147	.046	.250	.141	.045	
3.0	.272	.145	.043	.265	.142	.043	.253	.137	.042	.242	.132	.041	.231	.128	.040	
4.0	.250	.130	.038	.244	.128	.038	.233	.124	.037	.223	.120	.036	.213	.116	.035	
5.0	.231	.118	.034	.226	.116	.034	.216	.112	.033	.206	.109	.032	.198	.106	.032	
6.0	.214	.107	.031	.209	.106	.030	.200	.103	.030	.192	.100	.029	.184	.097	.029	
7.0	.199	.098	.028	.195	.097	.028	.187	.094	.027	.179	.092	.027	.172	.089	.026	
8.0	.186	.091	.025	.182	.089	.025	.174	.087	.025	.168	.085	.024	.161	.083	.024	
9.0	.174	.084	.023	.170	.083	.023	.164	.081	.023	.158	.079	.023	.152	.077	.022	
10.0	.163	.078	.022	.160	.077	.022	.154	.076	.021	.148	.074	.021	.143	.072	.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	.222	.222	.222	.190	.190	.190	.129	.129	.129	.074	.074	.074	.024	.024	.024		
1.0	.212	.188	.165	.182	.161	.142	.124	.111	.098	.072	.064	.057	.023	.021	.019		
2.0	.205	.164	.129	.175	.141	.112	.120	.098	.078	.069	.057	.046	.022	.018	.015		
3.0	.197	.146	.106	.169	.126	.092	.116	.088	.064	.067	.051	.038	.022	.017	.012		
4.0	.189	.133	.090	.162	.115	.078	.112	.080	.055	.065	.047	.033	.021	.015	.011		
5.0	.182	.123	.079	.156	.106	.069	.108	.074	.049	.062	.044	.029	.020	.014	.010		
6.0	.175	.115	.071	.150	.099	.062	.104	.069	.044	.060	.041	.026	.019	.013	.009		
7.0	.168	.108	.066	.144	.093	.057	.100	.065	.041	.058	.039	.024	.019	.013	.008		
8.0	.161	.102	.061	.139	.088	.053	.096	.062	.038	.056	.037	.023	.018	.012	.007		
9.0	.155	.097	.058	.134	.084	.050	.093	.059	.036	.054	.035	.021	.017	.011	.007		
10.0	.150	.093	.055	.129	.081	.048	.089	.057	.034	.052	.034	.020	.017	.011	.007		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-03-13

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:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm											
NAME: NMT1312-Plus-EP					TYPE:			WEIGHT:			
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B					DIM.: 1000*13*12mm			SERIAL No.:01			
MFR.: COLORS					SUR.:1000*13			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	23.7	25.2	24.0	25.5	25.7	23.4	24.9	23.7	25.1	25.4	
	3H	25.4	26.7	25.7	27.0	27.3	24.8	26.2	25.2	26.5	26.8
	4H	26.1	27.4	26.4	27.7	28.0	25.4	26.7	25.8	27.0	27.4
	6H	26.6	27.9	27.0	28.2	28.6	25.8	27.0	26.2	27.3	27.7
	8H	26.9	28.0	27.3	28.4	28.8	25.9	27.0	26.3	27.4	27.8
	12H	27.1	28.2	27.5	28.6	29.0	25.9	27.0	26.3	27.4	27.8
4H	2H	24.3	25.6	24.7	25.9	26.2	24.0	25.3	24.4	25.6	26.0
	3H	26.1	27.2	26.5	27.6	28.0	25.7	26.8	26.1	27.2	27.6
	4H	27.0	28.0	27.4	28.4	28.8	26.4	27.4	26.8	27.8	28.2
	6H	27.7	28.6	28.1	29.0	29.5	26.9	27.8	27.3	28.2	28.7
	8H	28.0	28.8	28.4	29.3	29.7	27.0	27.9	27.5	28.3	28.8
	12H	28.3	29.0	28.7	29.5	30.0	27.1	27.9	27.6	28.3	28.8
8H	4H	27.2	28.1	27.7	28.5	29.0	26.7	27.5	27.2	28.0	28.5
	6H	28.1	28.8	28.6	29.3	29.8	27.3	28.0	27.8	28.5	29.0
	8H	28.5	29.1	29.0	29.6	30.2	27.6	28.2	28.1	28.7	29.2
	12H	28.9	29.4	29.4	30.0	30.5	27.7	28.3	28.3	28.8	29.4
12H	4H	27.2	28.0	27.7	28.5	28.9	26.7	27.5	27.2	28.0	28.5
	6H	28.1	28.8	28.7	29.3	29.8	27.4	28.1	27.9	28.5	29.1
	8H	28.6	29.1	29.1	29.7	30.2	27.7	28.2	28.2	28.8	29.3
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, 41.65 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -11.0)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-03-13

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:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	Shielding Angle:

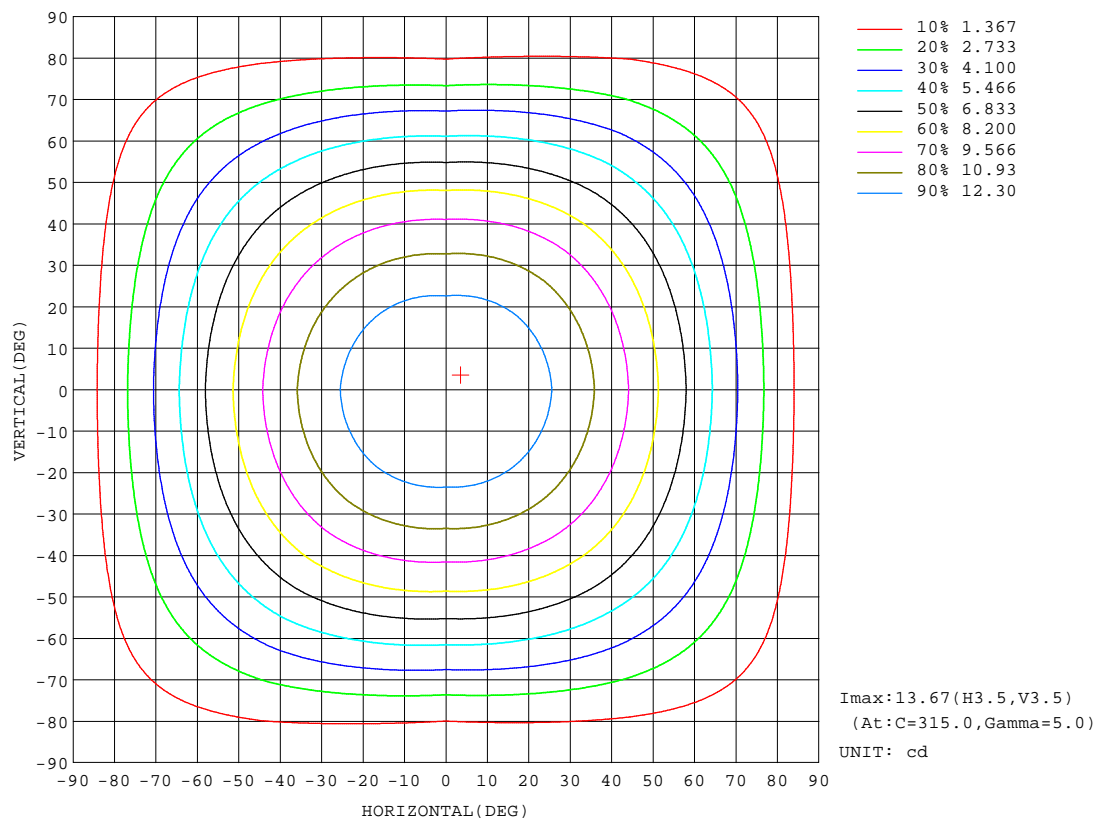
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	65	53	46	63	52	46	39
1.00	74	63	55	73	62	55	70	63	54	47
1.25	81	70	63	79	69	62	76	68	61	54
1.50	86	76	69	84	75	68	81	73	67	59
2.00	93	84	77	91	83	76	87	80	75	66
2.50	97	89	83	95	87	81	90	84	79	70
3.00	100	93	87	98	91	86	93	88	83	74
4.00	105	99	94	102	96	92	97	92	89	79
5.00	107	102	98	104	100	96	99	95	92	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:2020-03-13

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:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	Shielding Angle:



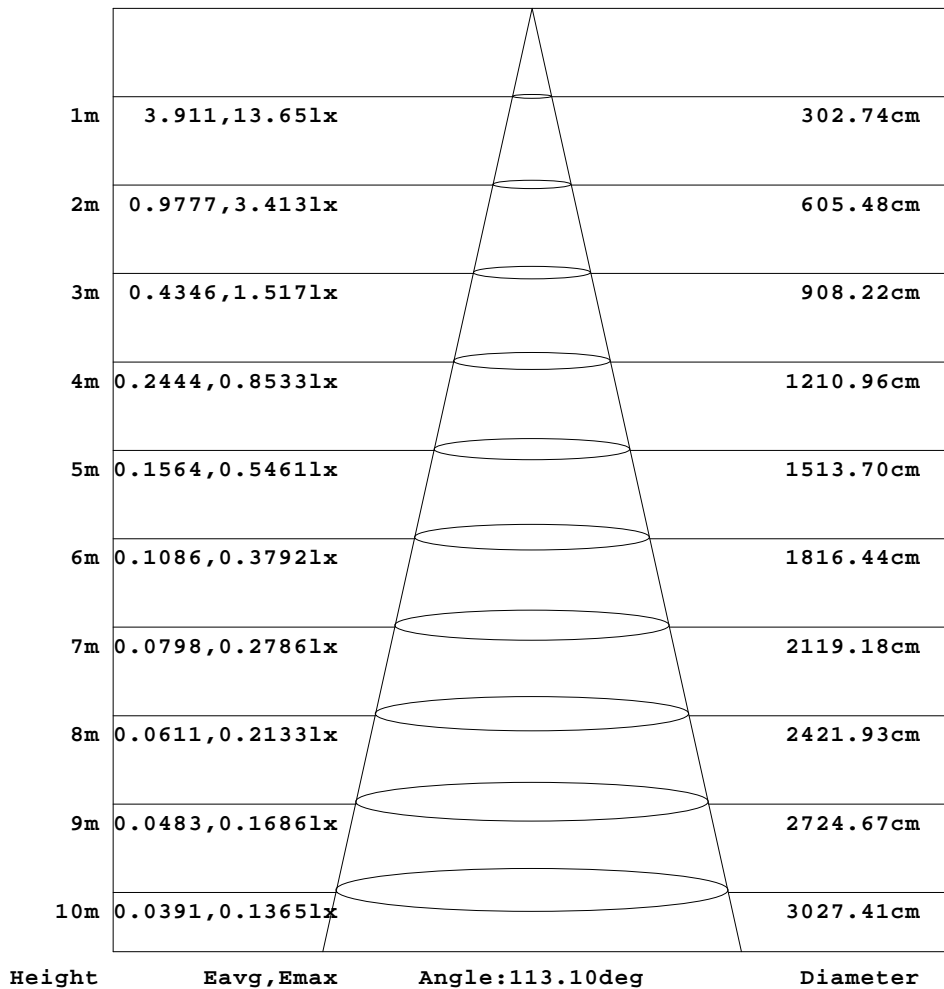
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-03-13

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:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	Shielding Angle:

Flux out:29.13 lm



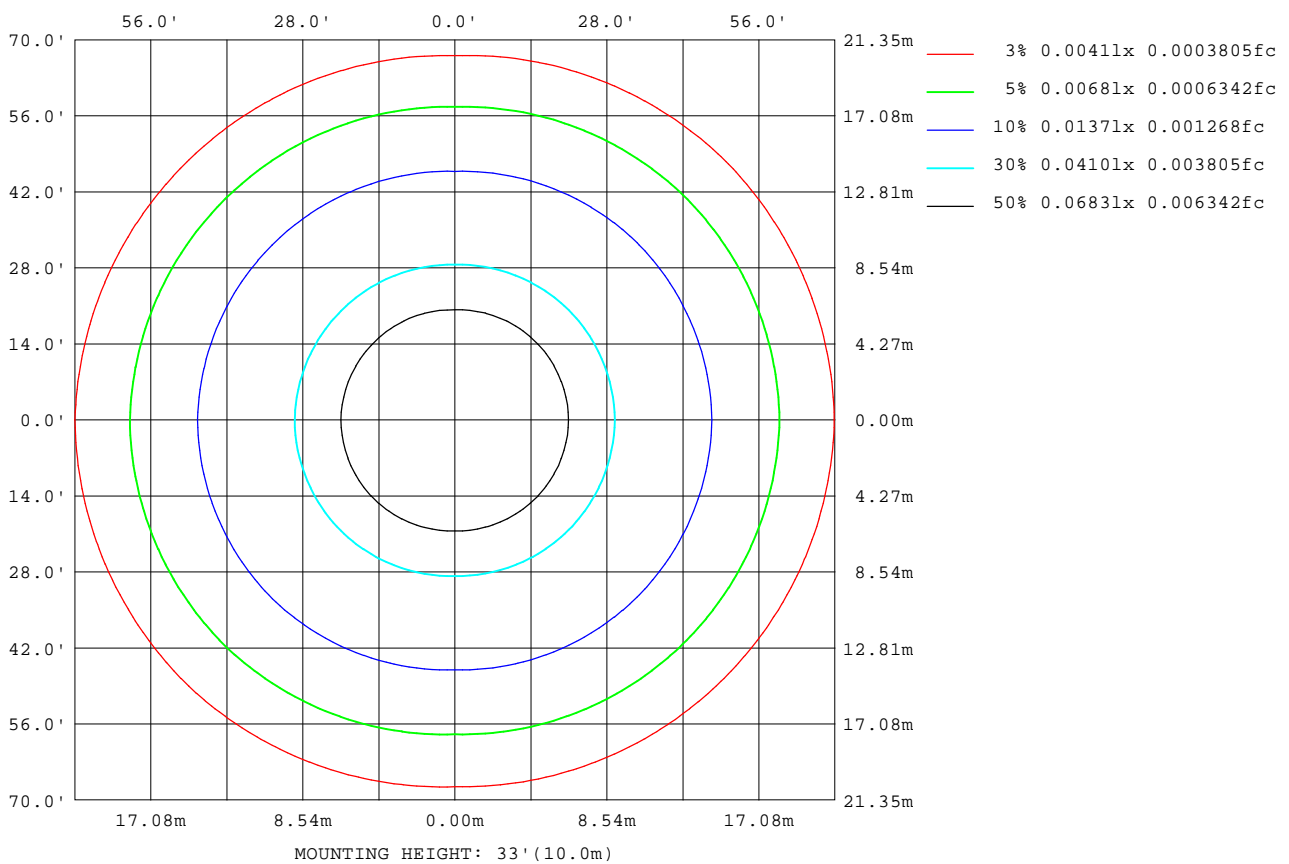
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-03-13

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

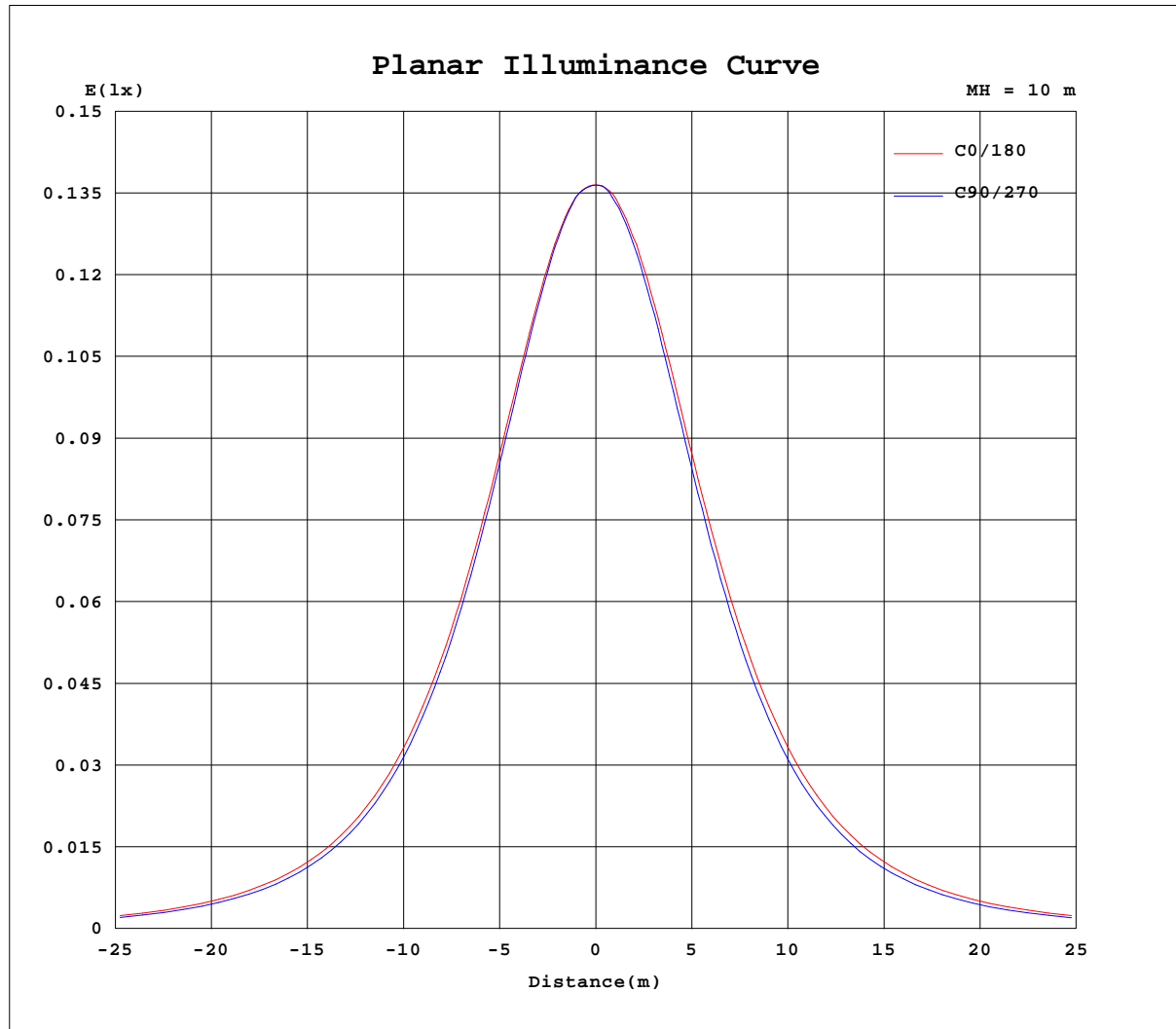
Test:U:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-03-13

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: 2020-03-13

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:24.00V I:0.3300A P:7.900W PF:1.000 Freq:0Hz Lamp Flux:41.6499x1 lm		
NAME: NMT1312-Plus-EP	TYPE:	WEIGHT:
SPEC.:NMT1312-0RGBM24CSS020CC0100-Plus-EP-B	DIM.: 1000*13*12mm	SERIAL No.:01
MFR.: COLORS	SUR.:1000*13	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	13.7	13.7	13.6	13.7	13.7	13.7	13.6	13.7										
5	13.7	13.6	13.7	13.6	13.6	13.7	13.6	13.7										
10	13.5	13.4	13.5	13.5	13.5	13.5	13.4	13.5										
15	13.3	13.2	13.1	13.2	13.2	13.2	13.0	13.2										
20	12.9	12.8	12.7	12.8	12.8	12.7	12.6	12.8										
25	12.4	12.2	12.1	12.3	12.4	12.2	12.0	12.2										
30	11.8	11.6	11.5	11.7	11.8	11.6	11.3	11.6										
35	11.0	10.9	10.7	11.0	11.1	10.8	10.6	10.9										
40	10.3	10.1	9.86	10.2	10.3	10.0	9.73	10.1										
45	9.41	9.23	8.92	9.30	9.43	9.10	8.80	9.20										
50	8.45	8.23	7.93	8.32	8.48	8.13	7.82	8.22										
55	7.44	7.22	6.89	7.33	7.46	7.11	6.78	7.22										
60	6.41	6.14	5.80	6.26	6.42	6.05	5.73	6.16										
65	5.31	5.02	4.71	5.17	5.33	4.94	4.59	5.07										
70	4.20	3.93	3.55	4.03	4.24	3.83	3.47	3.99										
75	3.10	2.83	2.43	2.93	3.12	2.73	2.36	2.86										
80	2.05	1.76	1.37	1.88	2.09	1.71	1.31	1.84										
85	1.22	0.91	0.55	1.05	1.27	0.92	0.46	1.02										
90	0.76	0.41	0.07	0.60	0.82	0.53	0.01	0.55										
95	0.62	0.32	0.02	0.52	0.69	0.45	0.01	0.44										
100	0.58	0.31	0.02	0.49	0.65	0.43	0.02	0.41										
105	0.57	0.31	0.02	0.43	0.65	0.40	0.03	0.31										
110	0.56	0.30	0.02	0.40	0.65	0.37	0.05	0.31										
115	0.49	0.23	0.02	0.35	0.54	0.34	0.07	0.30										
120	0.48	0.19	0.02	0.31	0.51	0.32	0.07	0.29										
125	0.46	0.18	0.09	0.31	0.48	0.29	0.08	0.26										
130	0.42	0.14	0.11	0.30	0.41	0.17	0.10	0.25										
135	0.39	0.14	0.11	0.17	0.37	0.13	0.10	0.14										
140	0.32	0.14	0.11	0.16	0.28	0.14	0.11	0.13										
145	0.19	0.14	0.11	0.17	0.17	0.14	0.13	0.13										
150	0.19	0.15	0.11	0.18	0.16	0.14	0.13	0.13										
155	0.19	0.15	0.11	0.19	0.17	0.14	0.16	0.13										
160	0.19	0.16	0.12	0.20	0.18	0.13	0.17	0.13										
165	0.18	0.17	0.16	0.20	0.18	0.16	0.19	0.13										
170	0.18	0.19	0.19	0.20	0.18	0.19	0.21	0.13										
175	0.18	0.20	0.20	0.21	0.19	0.21	0.21	0.18										
180	0.19	0.20	0.19	0.21	0.19	0.21	0.21	0.20										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-03-13

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: