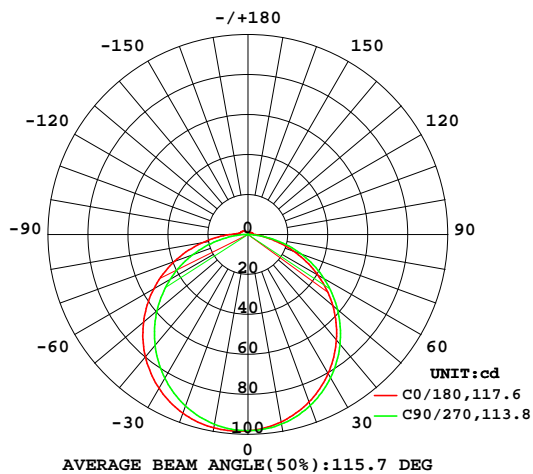


LUMINAIRE PHOTOMETRIC TEST REPORT

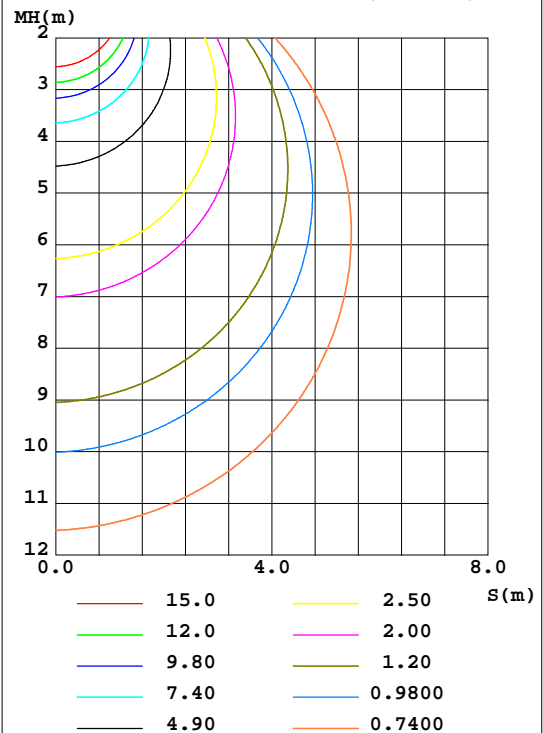
Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 34.55 lm/W			
MODEL	NMT1312	I _{max} (cd)	98.55	S/MH(C0/180)	1.34
NOMINAL POWER(W)	8.8	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	304.01	h UP,DN(C0-180)	1.1,45.2
NOMINAL FLUX(lm)	304.008	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.9,51.8
LAMPS INSIDE	1	h up(%)	3.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	24	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: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-04-26

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

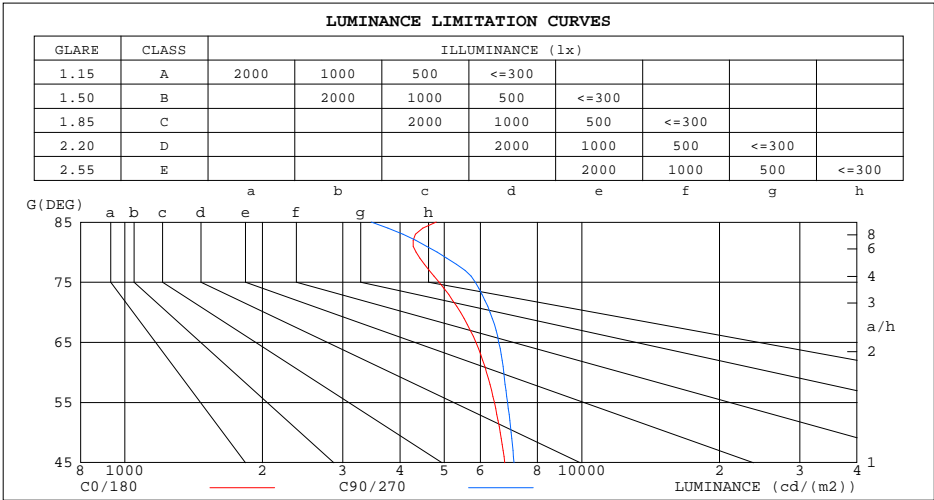
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	95.24	96.32	98.19	96.39					0~ 10	9.292	9.292	3.06,3.06
20	89.22	91.06	95.17	91.33					10~ 20	26.68	35.97	11.8,11.8
30	80.29	82.69	88.96	83.17					20~ 30	40.61	76.58	25.2,25.2
40	68.89	71.71	79.87	72.38					30~ 40	49.30	125.9	41.4,41.4
50	55.38	58.52	68.22	59.48					40~ 50	51.72	177.6	58.4,58.4
60	40.24	43.87	54.46	44.96					50~ 60	47.64	225.2	74.1,74.1
70	24.13	28.01	39.02	29.22					60~ 70	37.72	263.0	86.5,86.5
80	9.789	10.90	22.58	12.83					70~ 80	23.18	286.1	94.1,94.1
90	3.333	0.2888	9.279	1.776					80~ 90	8.759	294.9	97.97
100	2.620	0.1097	4.363	0.1725					90~100	2.637	297.5	97.9,97.9
110	2.357	0.1755	3.760	0.1766					100~110	1.804	299.3	98.5,98.5
120	2.056	0.2414	3.299	0.2319					110~120	1.530	300.9	99.99
130	1.664	0.3103	2.529	0.3007					120~130	1.220	302.1	99.4,99.4
140	0.9997	0.3729	2.037	0.3633					130~140	0.8687	303.0	99.7,99.7
150	0.4748	0.4262	1.686	0.4198					140~150	0.5263	303.5	99.8,99.8
160	0.4887	0.4701	0.9268	0.4512					150~160	0.3160	303.8	99.9,99.9
170	0.4893	0.4911	0.5517	0.4861					160~170	0.1557	304.0	100,100
180	0.4951	0.4951	0.5108	0.4888					170~180	0.0478	304.0	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSNO50CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	4805	3461
80	4336	4828
75	4873	5843
70	5426	6300
65	5863	6581
60	6191	6749
55	6437	6880
50	6627	7003
45	6787	7106

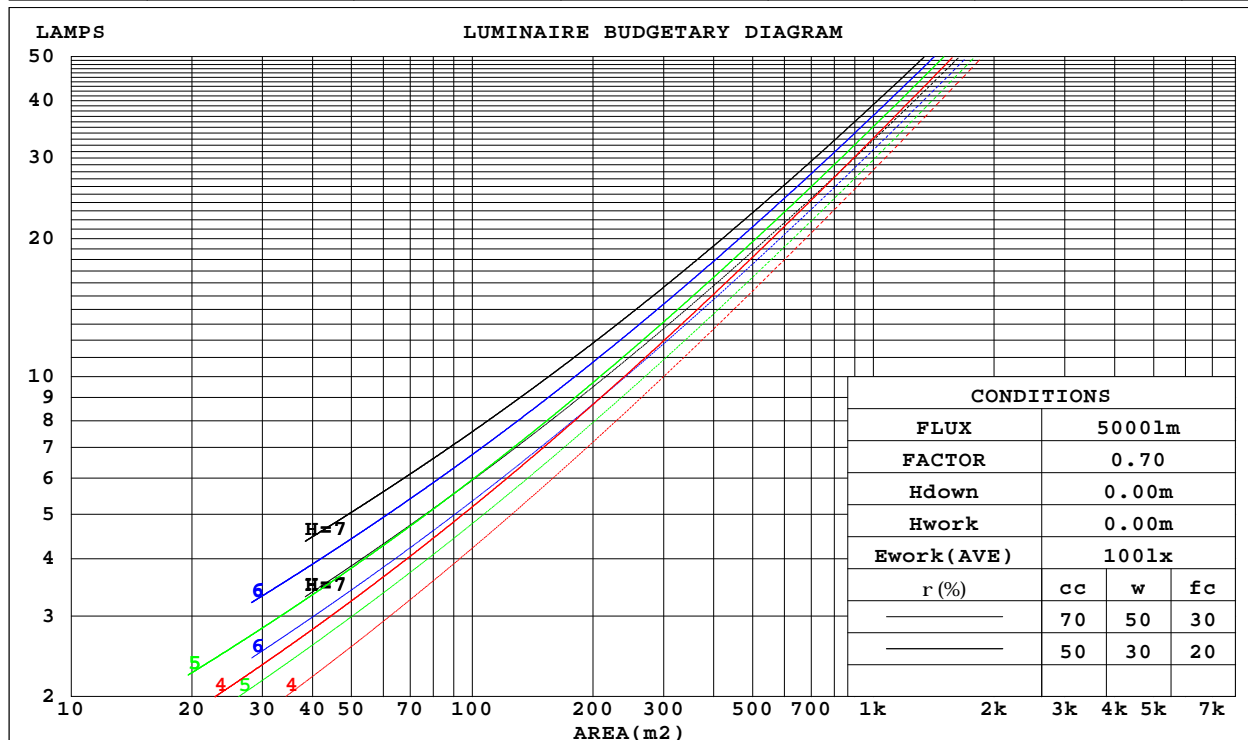
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*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			Coefficients of Utilization(CU)												
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.02	.98	.94	.90	.96	.92	.95	.92	.88	.91	.88	.85	.86	.84	.82	.80
2.0	.89	.82	.76	.87	.80	.75	.83	.77	.72	.79	.74	.70	.75	.72	.68	.66
3.0	.78	.69	.63	.76	.68	.62	.72	.66	.60	.69	.64	.59	.66	.62	.57	.55
4.0	.69	.60	.53	.67	.59	.52	.64	.57	.51	.61	.55	.50	.59	.54	.49	.47
5.0	.61	.52	.45	.60	.51	.45	.57	.50	.44	.55	.48	.43	.53	.47	.43	.40
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.48	.42	.37	.35
7.0	.50	.41	.35	.49	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.33	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.41	.35	.30	.40	.34	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.35	.29	.24	.34	.28	.24	.22



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-04-26

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSNO50CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*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	.325 .185 .059	.317 .181 .057	.302 .173 .055	.288 .166 .053	.275 .160 .051	
2.0	.301 .165 .051	.294 .162 .050	.280 .156 .048	.268 .150 .047	.257 .145 .046	
3.0	.276 .147 .044	.270 .144 .043	.258 .140 .042	.247 .135 .041	.237 .131 .041	
4.0	.253 .132 .039	.248 .130 .038	.237 .126 .038	.227 .122 .037	.218 .119 .036	
5.0	.234 .119 .034	.228 .117 .034	.219 .114 .034	.210 .111 .033	.202 .108 .032	
6.0	.216 .108 .031	.212 .107 .031	.203 .104 .030	.195 .101 .030	.188 .099 .029	
7.0	.201 .099 .028	.197 .098 .028	.189 .096 .028	.182 .093 .027	.175 .091 .027	
8.0	.187 .091 .026	.183 .090 .026	.177 .088 .025	.170 .086 .025	.164 .084 .025	
9.0	.175 .085 .024	.172 .084 .024	.166 .082 .023	.160 .080 .023	.154 .078 .023	
10.0	.164 .079 .022	.161 .078 .022	.156 .076 .022	.150 .075 .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	.071 .071 .071	.023 .023 .023	
1.0	.204 .179 .156	.175 .154 .134	.120 .106 .093	.069 .061 .054	.022 .020 .017	
2.0	.197 .155 .120	.168 .133 .104	.115 .092 .072	.067 .054 .042	.021 .017 .014	
3.0	.189 .138 .097	.162 .119 .084	.111 .082 .059	.064 .048 .035	.021 .016 .011	
4.0	.181 .124 .081	.156 .108 .070	.107 .075 .050	.062 .044 .029	.020 .014 .010	
5.0	.174 .114 .070	.149 .099 .061	.103 .069 .043	.060 .041 .026	.019 .013 .008	
6.0	.167 .106 .062	.143 .092 .054	.099 .064 .038	.057 .038 .023	.018 .012 .008	
7.0	.160 .099 .057	.137 .086 .049	.095 .060 .035	.055 .035 .021	.018 .012 .007	
8.0	.153 .093 .052	.132 .081 .045	.091 .057 .032	.053 .034 .019	.017 .011 .006	
9.0	.147 .088 .049	.127 .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: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm											
NAME: NMT1312					TYPE:			WEIGHT:			
SPEC.:NMT1312-0G24NSNO50CC0100-PLus					DIM.: 1000*13*12			SERIAL No.:			
MFR.: Colors					SUR.:100*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	23.0	24.5	23.3	24.8	25.1	23.3	24.8	23.6	25.1	25.4	
	3H	24.4	25.8	24.8	26.1	26.4	24.9	26.3	25.3	26.6	26.9
	4H	25.0	26.3	25.3	26.6	26.9	25.5	26.9	25.9	27.2	27.5
	6H	25.3	26.6	25.7	26.9	27.2	25.9	27.2	26.3	27.5	27.9
	8H	25.4	26.6	25.8	27.0	27.3	26.0	27.2	26.4	27.6	27.9
	12H	25.5	26.7	25.9	27.1	27.4	26.1	27.2	26.5	27.6	28.0
4H	2H	23.7	25.0	24.0	25.3	25.6	23.9	25.2	24.2	25.5	25.8
	3H	25.3	26.4	25.6	26.8	27.1	25.6	26.8	26.0	27.2	27.5
	4H	25.9	27.0	26.3	27.3	27.7	26.4	27.4	26.8	27.8	28.2
	6H	26.4	27.3	26.8	27.7	28.2	26.9	27.8	27.3	28.3	28.7
	8H	26.5	27.4	27.0	27.8	28.3	27.0	27.9	27.5	28.3	28.8
	12H	26.7	27.5	27.2	27.9	28.4	27.1	27.9	27.6	28.4	28.8
8H	4H	26.2	27.0	26.6	27.5	27.9	26.6	27.5	27.1	27.9	28.4
	6H	26.8	27.5	27.3	28.0	28.5	27.2	28.0	27.7	28.4	28.9
	8H	27.0	27.7	27.5	28.2	28.7	27.5	28.1	28.0	28.6	29.1
	12H	27.3	27.8	27.8	28.3	28.9	27.6	28.2	28.1	28.7	29.2
12H	4H	26.2	27.0	26.6	27.4	27.9	26.6	27.4	27.1	27.8	28.3
	6H	26.8	27.5	27.3	28.0	28.5	27.3	27.9	27.8	28.4	28.9
	8H	27.1	27.7	27.6	28.2	28.7	27.5	28.1	28.1	28.6	29.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.1 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117, 304.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -4.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSNO50CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:

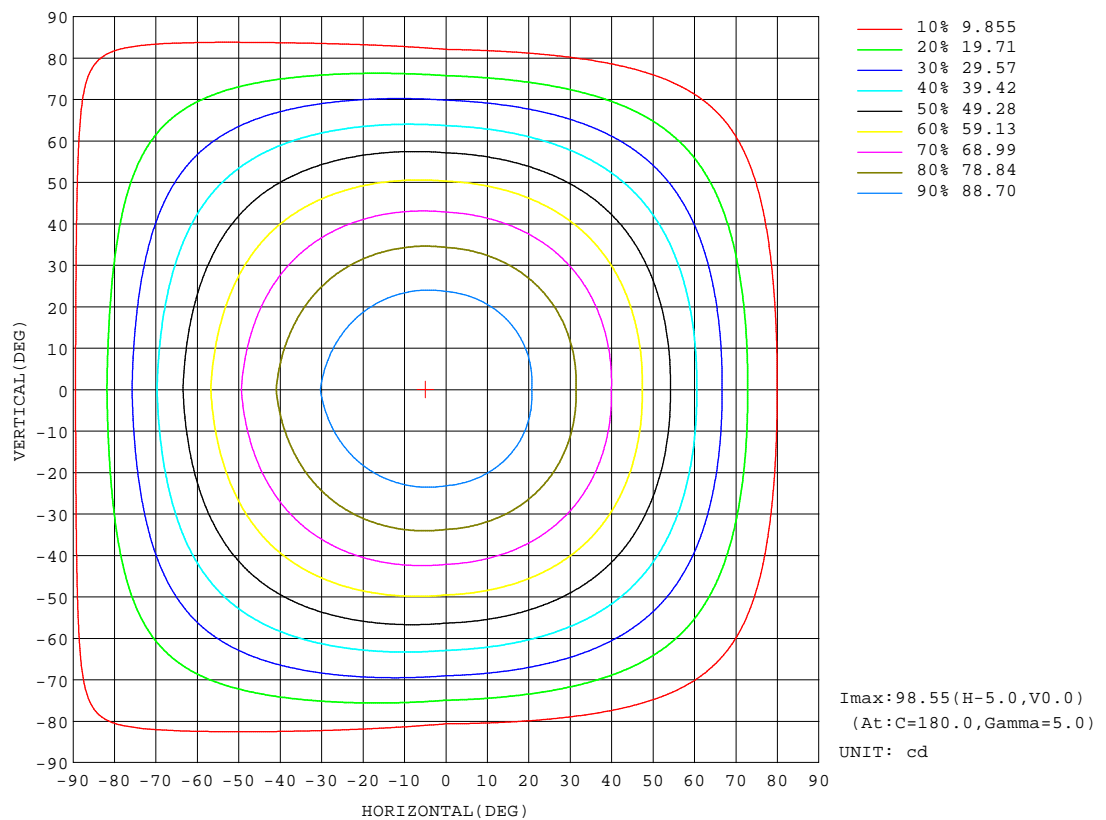
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	53	43	36	30
0.80	65	54	46	64	53	46	62	52	45	38
1.00	74	62	55	72	62	54	70	63	54	46
1.25	81	70	63	79	69	62	76	67	61	53
1.50	86	76	68	84	75	68	81	73	66	58
2.00	93	84	77	91	83	76	87	80	74	66
2.50	97	89	82	95	87	81	90	84	79	70
3.00	100	93	87	98	91	86	93	88	83	74
4.00	105	98	93	102	96	92	97	93	89	79
5.00	107	102	98	104	100	96	99	96	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSNO50CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:



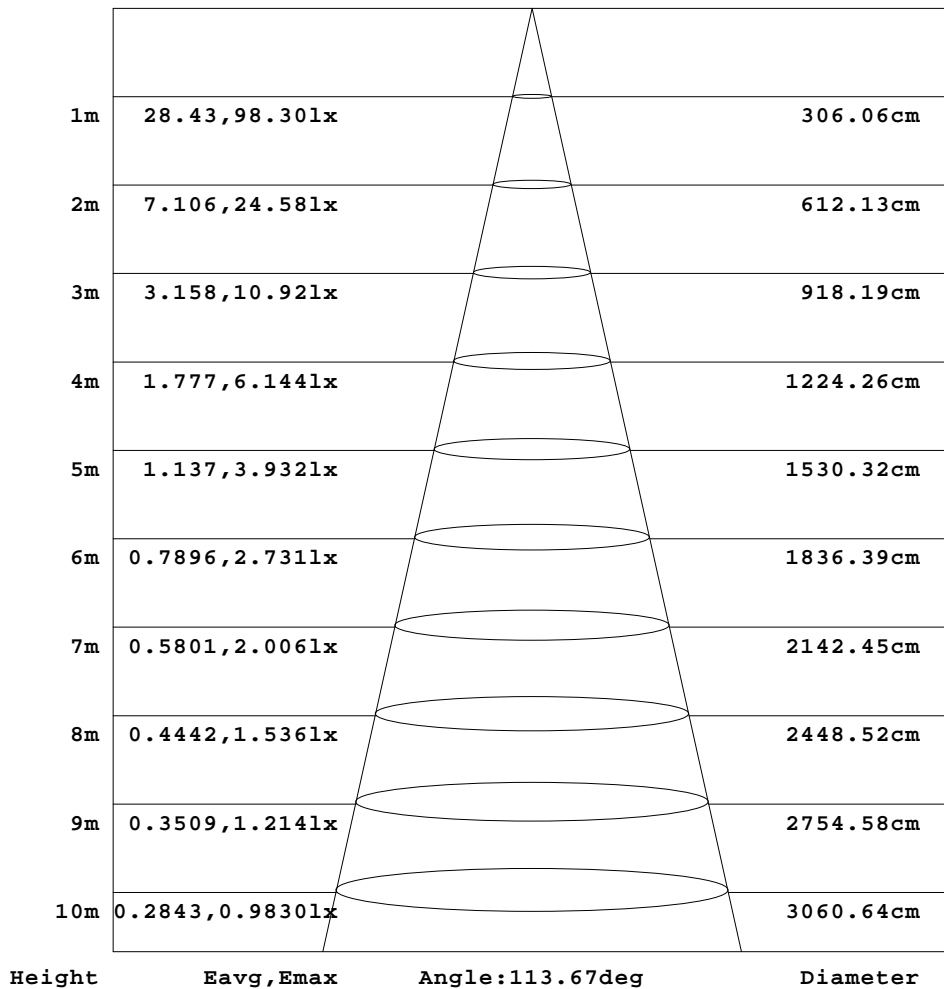
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSNO50CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:

Flux out:211.8 lm



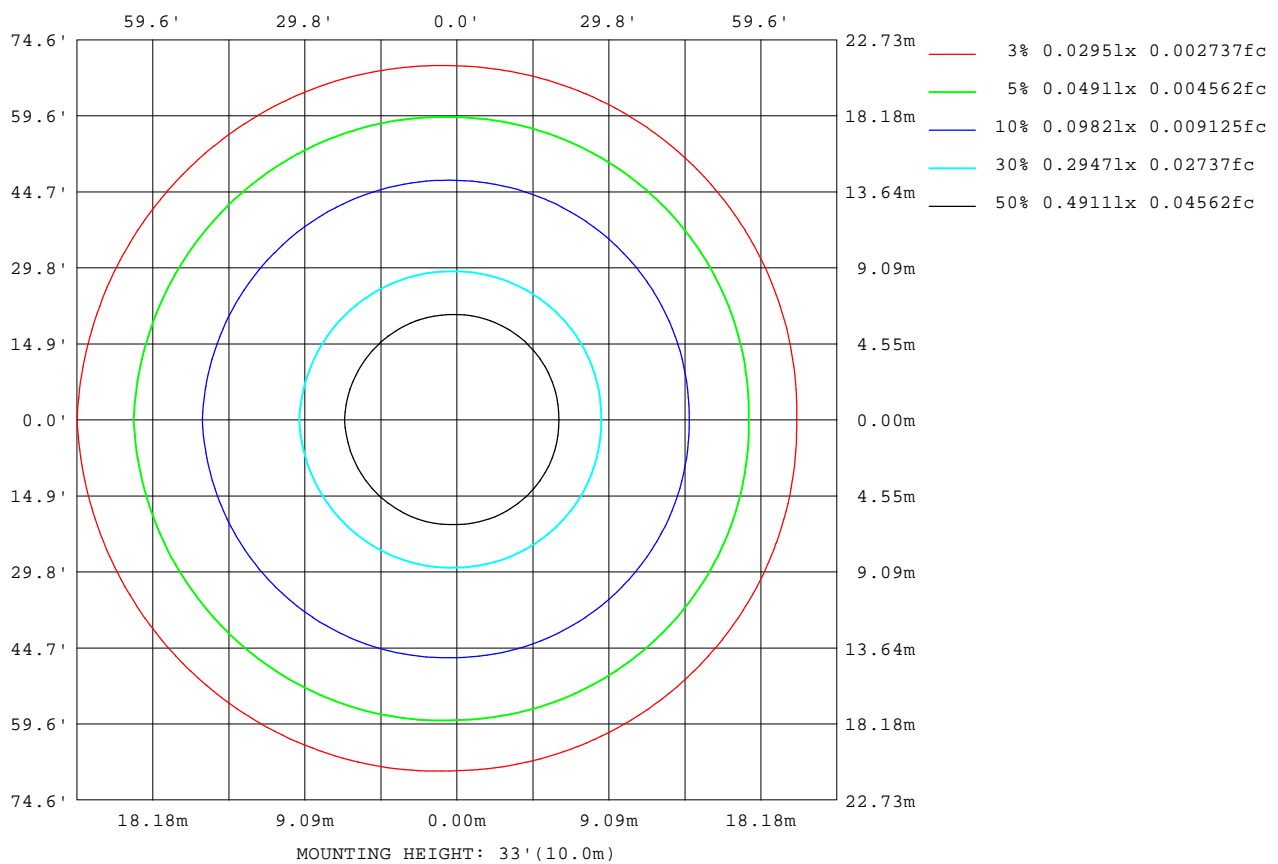
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: COLORS
 Test Date: 2019-04-26

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.500m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:

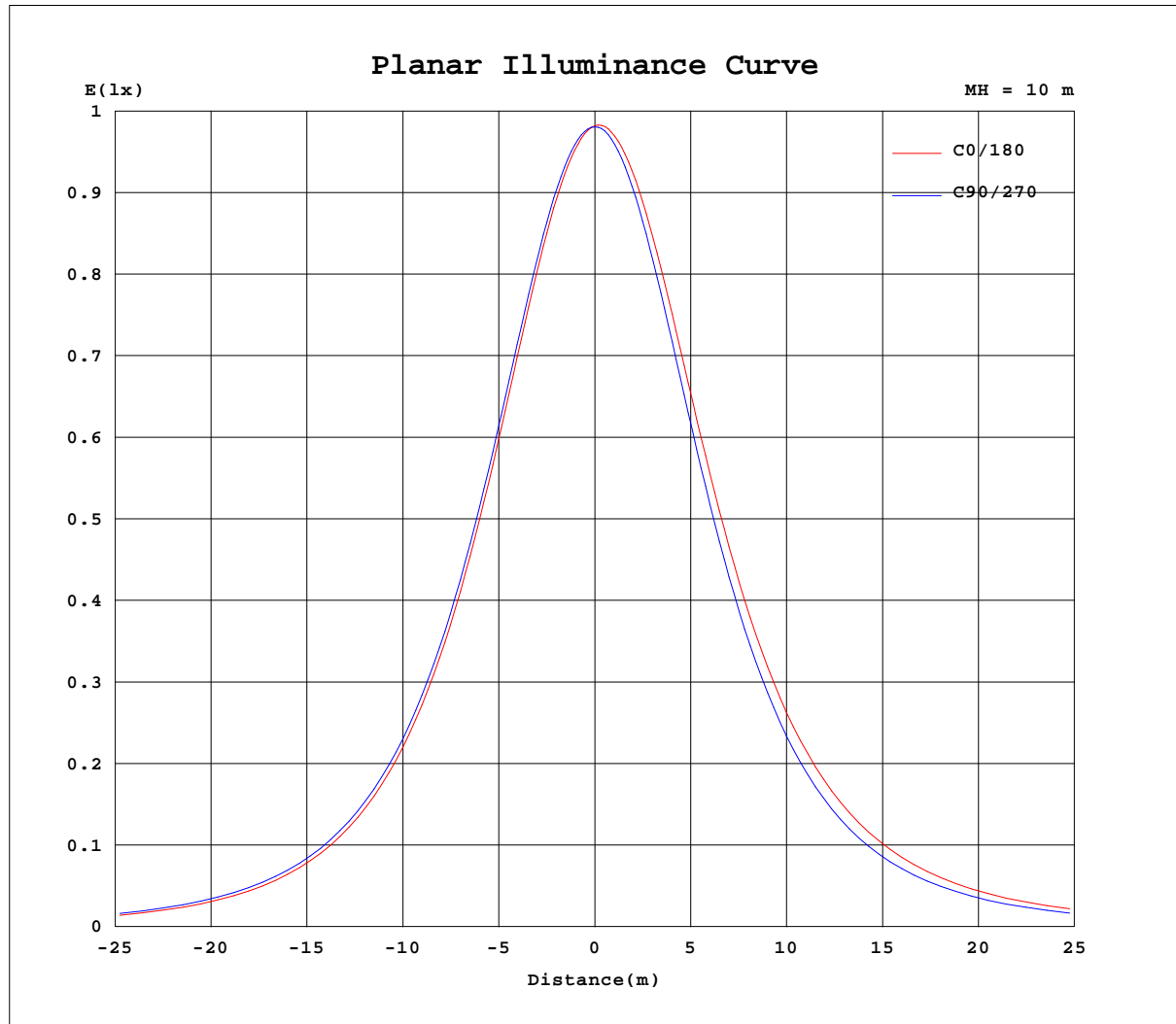
AvgL	cd/m2
L_0~180(65)av	7202
L_0~180(75)av	7020
L_0~180(85)av	9051
L_90~270(65)av	6685
L_90~270(75)av	6027
L_90~270(85)av	4352
L_45(65)av	6962
L_45(75)av	6533
L_45(85)av	6379

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: COLORS
Test Date: 2019-04-26

deg Range: 0 - 180DEG
deg Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.500m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.3680A P:8.800W PF:1.000 Freq:0Hz Lamp Flux:304.008x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-0G24NSNO50CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:100*13	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270															
0	98.2	98.1	98.2	98.1															
5	97.1	97.6	98.6	97.7															
10	95.2	96.3	98.2	96.4															
15	92.6	94.1	97.1	94.3															
20	89.2	91.1	95.2	91.3															
25	85.1	87.2	92.5	87.6															
30	80.3	82.7	89.0	83.2															
35	74.9	77.5	84.8	78.1															
40	68.9	71.7	79.9	72.4															
45	62.4	65.3	74.4	66.2															
50	55.4	58.5	68.2	59.5															
55	48.0	51.3	61.6	52.3															
60	40.2	43.9	54.5	45.0															
65	32.2	36.2	46.9	37.3															
70	24.1	28.0	39.0	29.2															
75	16.4	19.7	30.8	20.9															
80	9.79	10.9	22.6	12.8															
85	5.44	3.92	15.1	5.94															
90	3.33	0.29	9.28	1.78															
95	2.77	0.08	5.76	0.30															
100	2.62	0.11	4.36	0.17															
105	2.49	0.14	4.01	0.17															
110	2.36	0.18	3.76	0.18															
115	2.22	0.21	3.55	0.19															
120	2.06	0.24	3.30	0.23															
125	1.88	0.28	3.05	0.27															
130	1.66	0.31	2.53	0.30															
135	1.45	0.35	2.44	0.34															
140	1.00	0.37	2.04	0.36															
145	0.49	0.41	1.97	0.39															
150	0.47	0.43	1.69	0.42															
155	0.46	0.45	1.34	0.45															
160	0.49	0.47	0.93	0.45															
165	0.49	0.49	0.74	0.47															
170	0.49	0.49	0.55	0.49															
175	0.49	0.49	0.52	0.49															
180	0.50	0.50	0.51	0.49															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-26

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks: