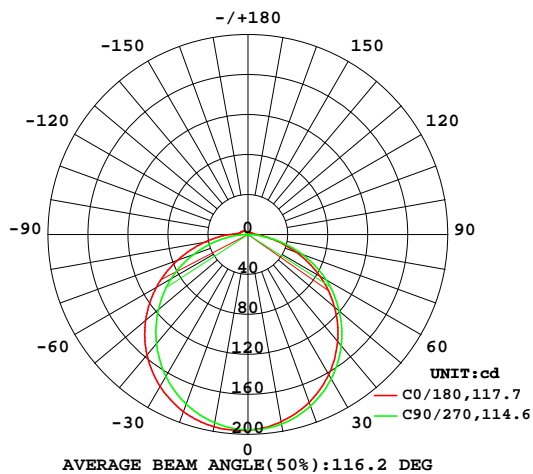


LUMINAIRE PHOTOMETRIC TEST REPORT

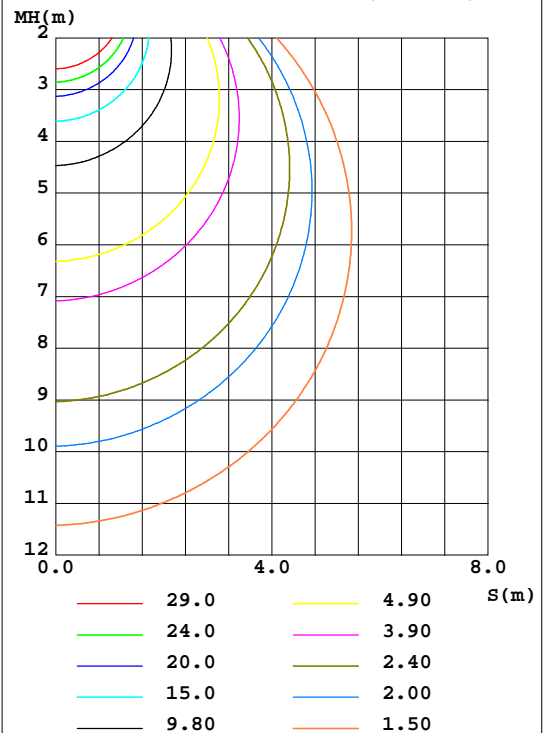
Test:U:24.00V I:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-Plus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 67.62 lm/W			
MODEL	NMT1312	I _{max} (cd)	196.3	S/MH(C0/180)	1.33
NOMINAL POWER(W)	9.6	LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	608.62	h UP,DN(C0-180)	1.1,46.1
NOMINAL FLUX(lm)	608.618	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.9,50.8
LAMPS INSIDE	1	h up(%)	3.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	24	h down(%)	96.9	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:2019-04-04

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

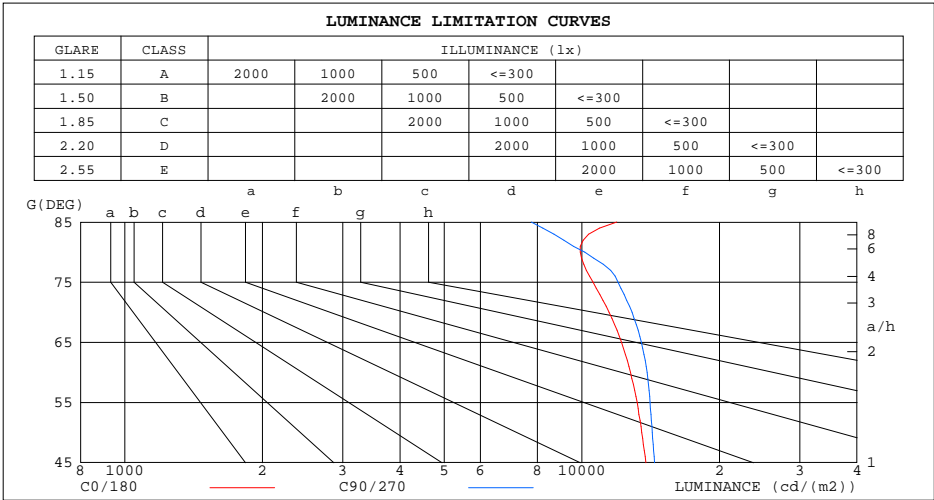
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	190.2	192.5	195.3	191.4					0~ 10	18.52	18.52	3.04,3.04
20	178.8	182.6	188.8	180.6					10~ 20	53.15	71.67	11.8,11.8
30	161.8	166.6	175.7	164.1					20~ 30	80.93	152.6	25.1,25.1
40	139.6	145.2	157.3	142.5					30~ 40	98.35	250.9	41.2,41.2
50	113.0	119.2	133.7	117.0					40~ 50	103.3	354.3	58.2,58.2
60	83.06	90.30	105.9	89.03					50~ 60	95.47	449.7	73.9,73.9
70	51.00	57.26	74.88	57.16					60~ 70	75.47	525.2	86.3,86.3
80	22.40	22.92	43.50	25.58					70~ 80	46.51	571.7	93.9,93.9
90	8.787	1.136	18.82	3.725					80~ 90	18.31	590.0	96.9,96.9
100	5.052	0.2601	8.689	0.6864					90~100	5.698	595.7	97.9,97.9
110	4.516	0.3825	7.522	0.4764					100~110	3.607	599.3	98.5,98.5
120	3.914	0.5234	6.568	0.5865					110~120	3.043	602.4	99,99
130	3.169	0.6675	5.151	0.7364					120~130	2.420	604.8	99.4,99.4
140	2.124	0.7898	4.204	0.8554					130~140	1.755	606.6	99.7,99.7
150	0.9855	0.9120	2.964	0.9902					140~150	1.065	607.6	99.8,99.8
160	1.043	1.003	1.190	1.053					150~160	0.5864	608.2	99.9,99.9
170	1.092	1.075	1.094	1.092					160~170	0.3058	608.5	100,100
180	1.100	1.106	1.103	1.106					170~180	0.1047	608.6	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:2019-04-04

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:



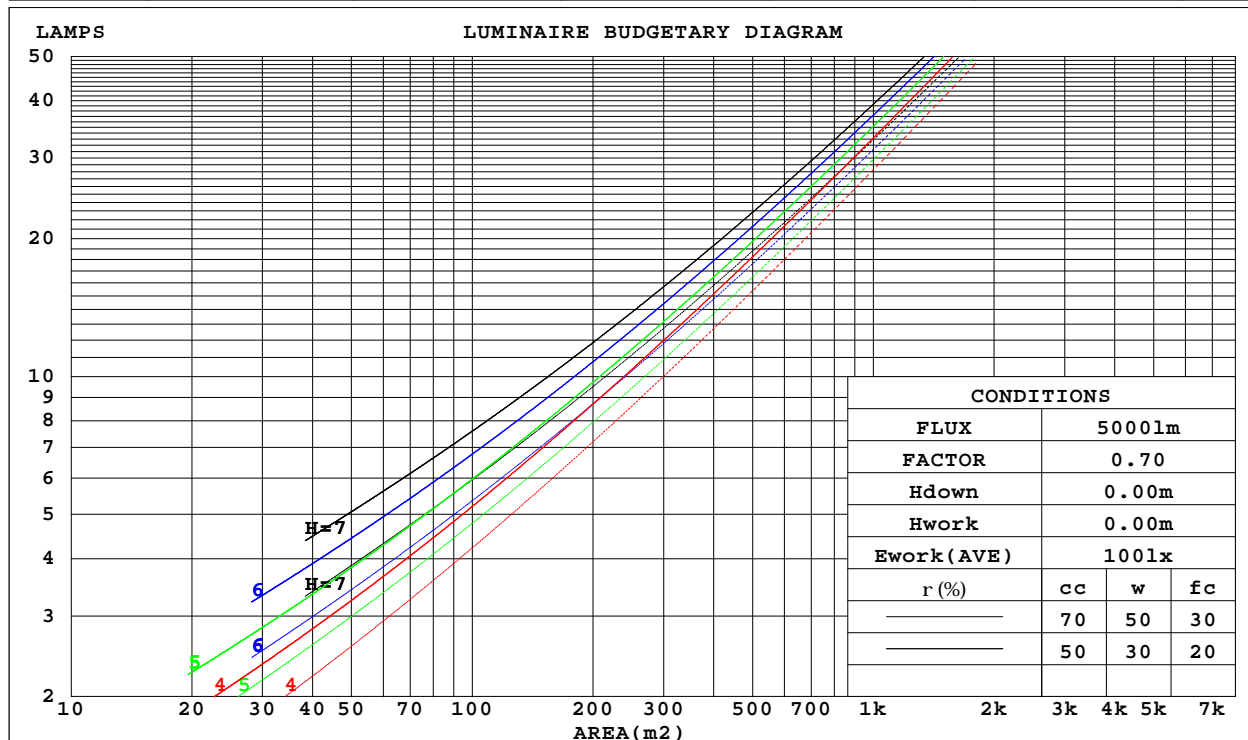
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-04

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-Plus	DIM.: 1000*13*12	SERIAL No.:
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			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	.91	.88	.90	.88	.85	.86	.84	.82	.80
2.0	.89	.82	.76	.87	.80	.74	.82	.77	.72	.79	.74	.70	.75	.71	.68	.66
3.0	.78	.69	.62	.76	.68	.62	.72	.66	.60	.69	.63	.59	.66	.61	.57	.55
4.0	.69	.60	.53	.67	.59	.52	.64	.57	.51	.61	.55	.50	.59	.53	.49	.47
5.0	.61	.52	.45	.60	.51	.45	.57	.50	.44	.55	.48	.43	.53	.47	.42	.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	.38	.33	.44	.38	.33	.31
8.0	.45	.37	.31	.44	.36	.31	.43	.35	.30	.41	.35	.30	.40	.34	.29	.27
9.0	.42	.33	.28	.41	.33	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.36	.29	.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:2019-04-04

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-Plus	DIM.: 1000*13*12	SERIAL No.:
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	.326	.186	.059	.318	.182	.058	.303	.174	.056	.289	.167	.054	.277	.160	.052	
2.0	.302	.165	.051	.294	.162	.050	.281	.156	.049	.269	.151	.047	.257	.146	.046	
3.0	.277	.147	.044	.270	.145	.044	.258	.140	.043	.247	.136	.042	.237	.131	.041	
4.0	.254	.132	.039	.248	.130	.038	.238	.126	.038	.228	.122	.037	.219	.119	.036	
5.0	.234	.119	.035	.229	.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	.184	.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	.165	.079	.022	.162	.078	.022	.156	.076	.022	.151	.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	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.205	.179	.157	.175	.154	.135	.120	.106	.093	.069	.061	.054	.022	.020	.018	
2.0	.197	.155	.120	.169	.134	.104	.116	.093	.073	.067	.054	.043	.021	.017	.014	
3.0	.190	.138	.097	.162	.119	.084	.112	.083	.059	.064	.048	.035	.021	.016	.011	
4.0	.182	.125	.081	.156	.108	.071	.107	.075	.050	.062	.044	.029	.020	.014	.010	
5.0	.174	.115	.071	.150	.099	.061	.103	.069	.043	.060	.041	.026	.019	.013	.008	
6.0	.167	.106	.063	.144	.092	.055	.099	.064	.039	.057	.038	.023	.019	.012	.008	
7.0	.160	.100	.057	.138	.086	.050	.095	.060	.035	.055	.036	.021	.018	.012	.007	
8.0	.154	.094	.053	.132	.081	.046	.092	.057	.033	.053	.034	.019	.017	.011	.006	
9.0	.148	.089	.049	.127	.077	.043	.088	.054	.030	.051	.032	.018	.017	.011	.006	
10.0	.142	.085	.047	.122	.073	.041	.085	.052	.029	.049	.031	.017	.016	.010	.006	

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

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm											
NAME: NMT1312					TYPE:			WEIGHT:			
SPEC.:NMT1312-8SW24NSN050CC0100-PLus					DIM.: 1000*13*12			SERIAL No.:			
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	23.2	24.7	23.5	25.0	25.2	23.5	25.0	23.8	25.3	25.5	
	3H	24.7	26.1	25.0	26.3	26.7	25.1	26.5	25.4	26.8	27.1
	4H	25.2	26.6	25.6	26.9	27.2	25.7	27.0	26.1	27.3	27.7
	6H	25.7	26.9	26.0	27.2	27.6	26.1	27.4	26.5	27.7	28.0
	8H	25.8	27.0	26.2	27.4	27.7	26.2	27.4	26.6	27.8	28.1
	12H	26.0	27.1	26.4	27.5	27.9	26.3	27.4	26.7	27.8	28.2
4H	2H	23.8	25.2	24.2	25.5	25.8	24.1	25.4	24.4	25.7	26.0
	3H	25.5	26.6	25.9	27.0	27.4	25.8	27.0	26.2	27.3	27.7
	4H	26.2	27.2	26.6	27.6	28.0	26.6	27.6	27.0	28.0	28.4
	6H	26.7	27.7	27.2	28.1	28.5	27.1	28.1	27.6	28.5	28.9
	8H	26.9	27.8	27.4	28.2	28.7	27.3	28.2	27.7	28.6	29.0
	12H	27.1	28.0	27.6	28.4	28.9	27.4	28.2	27.8	28.6	29.1
8H	4H	26.5	27.3	26.9	27.8	28.2	26.8	27.7	27.3	28.1	28.6
	6H	27.2	27.9	27.6	28.3	28.8	27.5	28.2	28.0	28.7	29.2
	8H	27.5	28.1	28.0	28.6	29.1	27.7	28.4	28.2	28.9	29.4
	12H	27.8	28.3	28.3	28.8	29.4	27.9	28.5	28.4	29.0	29.5
12H	4H	26.5	27.3	26.9	27.7	28.2	26.8	27.6	27.3	28.1	28.5
	6H	27.2	27.9	27.7	28.3	28.9	27.5	28.2	28.0	28.7	29.2
	8H	27.6	28.1	28.1	28.6	29.2	27.8	28.4	28.3	28.9	29.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117, 608.6 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.7)

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

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-Plus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:

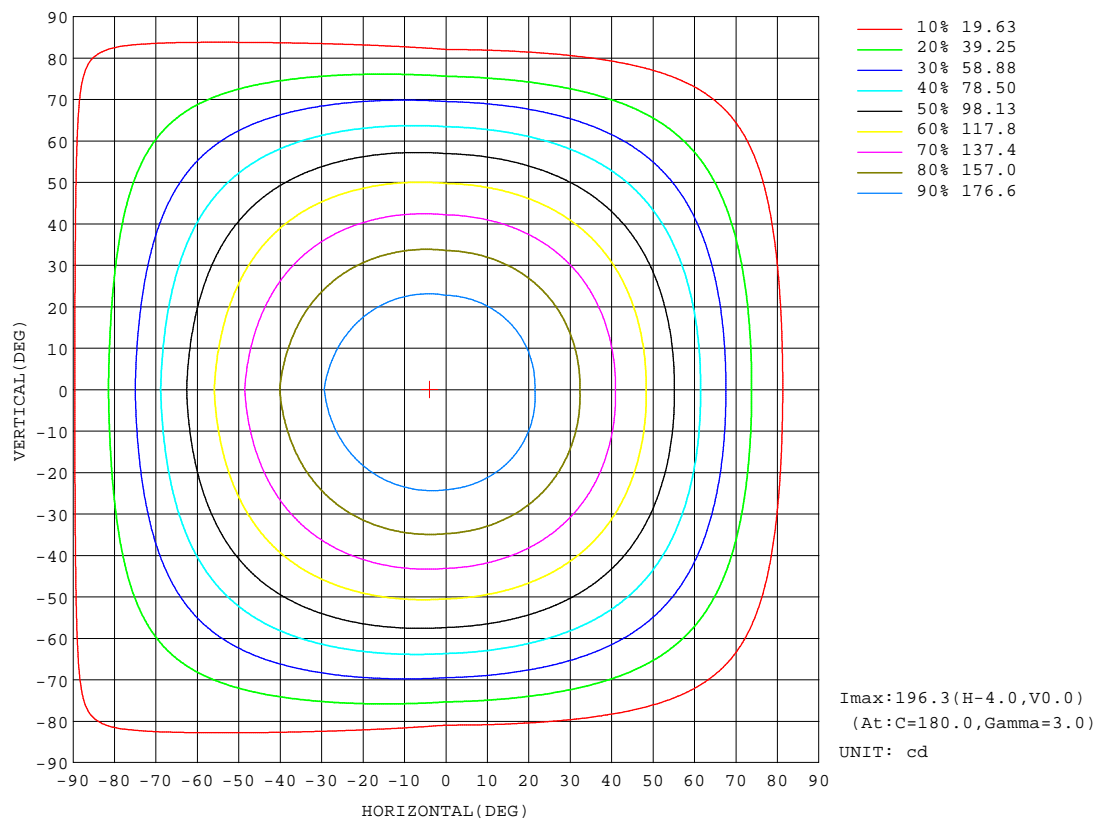
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	44	37	55	43	36	53	43	36	30
0.80	65	53	46	64	53	46	62	52	45	38
1.00	74	62	55	72	61	54	70	63	54	46
1.25	81	70	62	79	69	62	76	67	61	53
1.50	86	75	68	84	74	67	81	72	66	58
2.00	93	84	77	91	82	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	104	98	93	102	96	92	97	93	89	79
5.00	107	102	97	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: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-04

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:



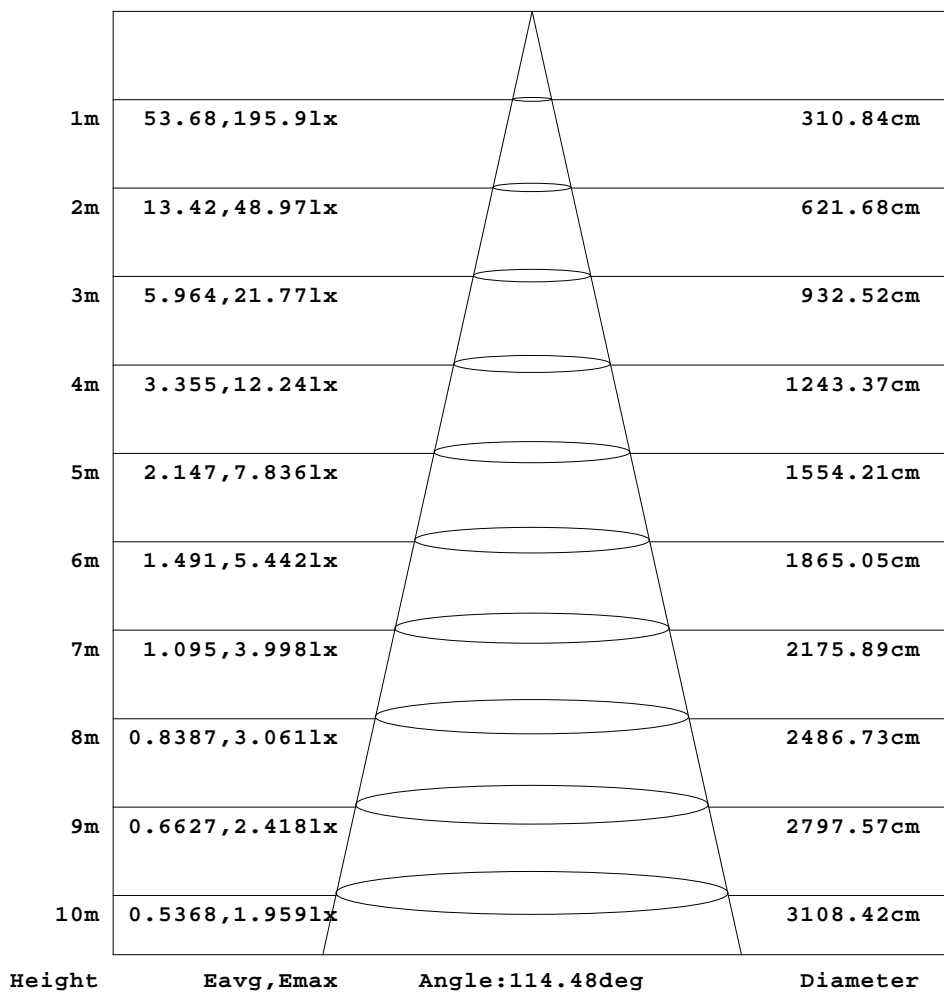
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-04-04

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-Plus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:

Flux out:431.9 lm



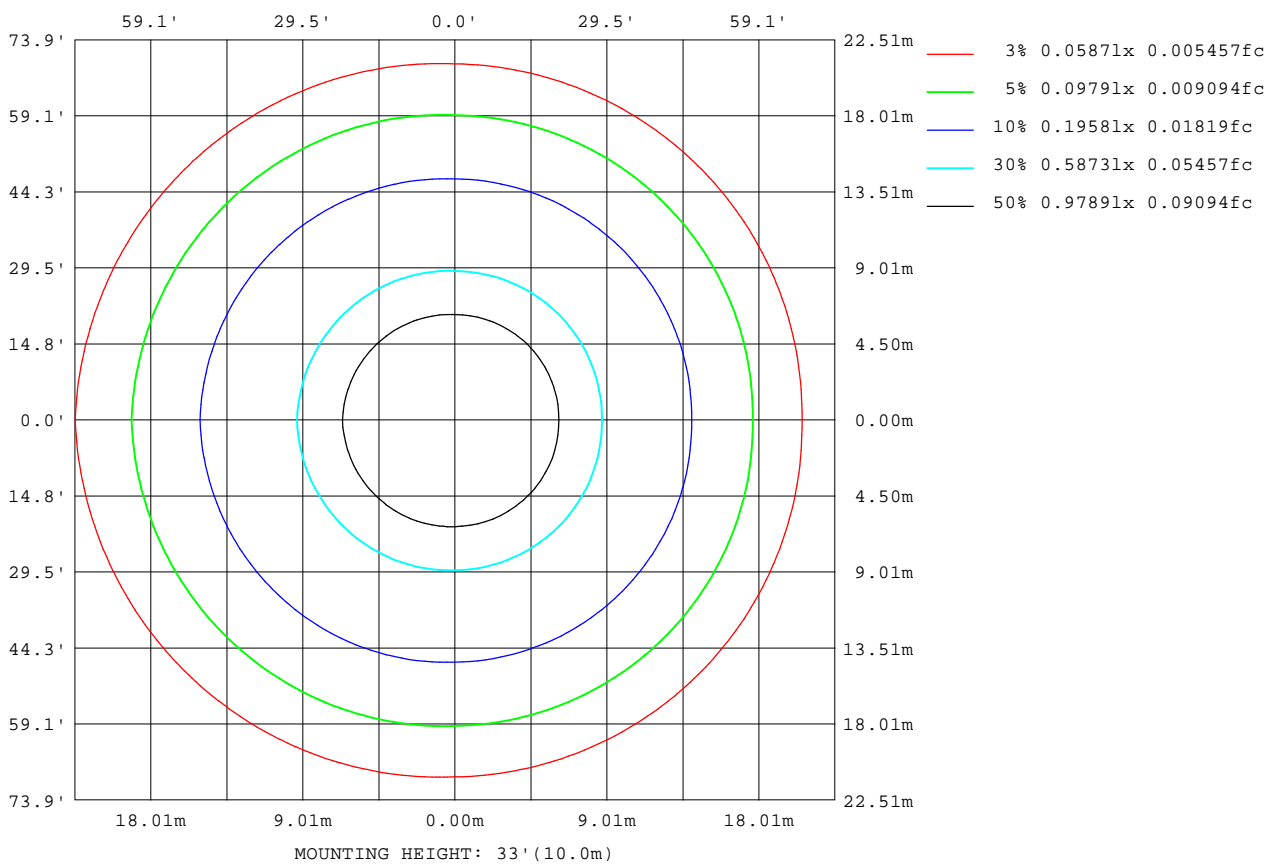
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:



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

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:

LED Avg.L Report

Test:U:24.00V I:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-PLus	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:

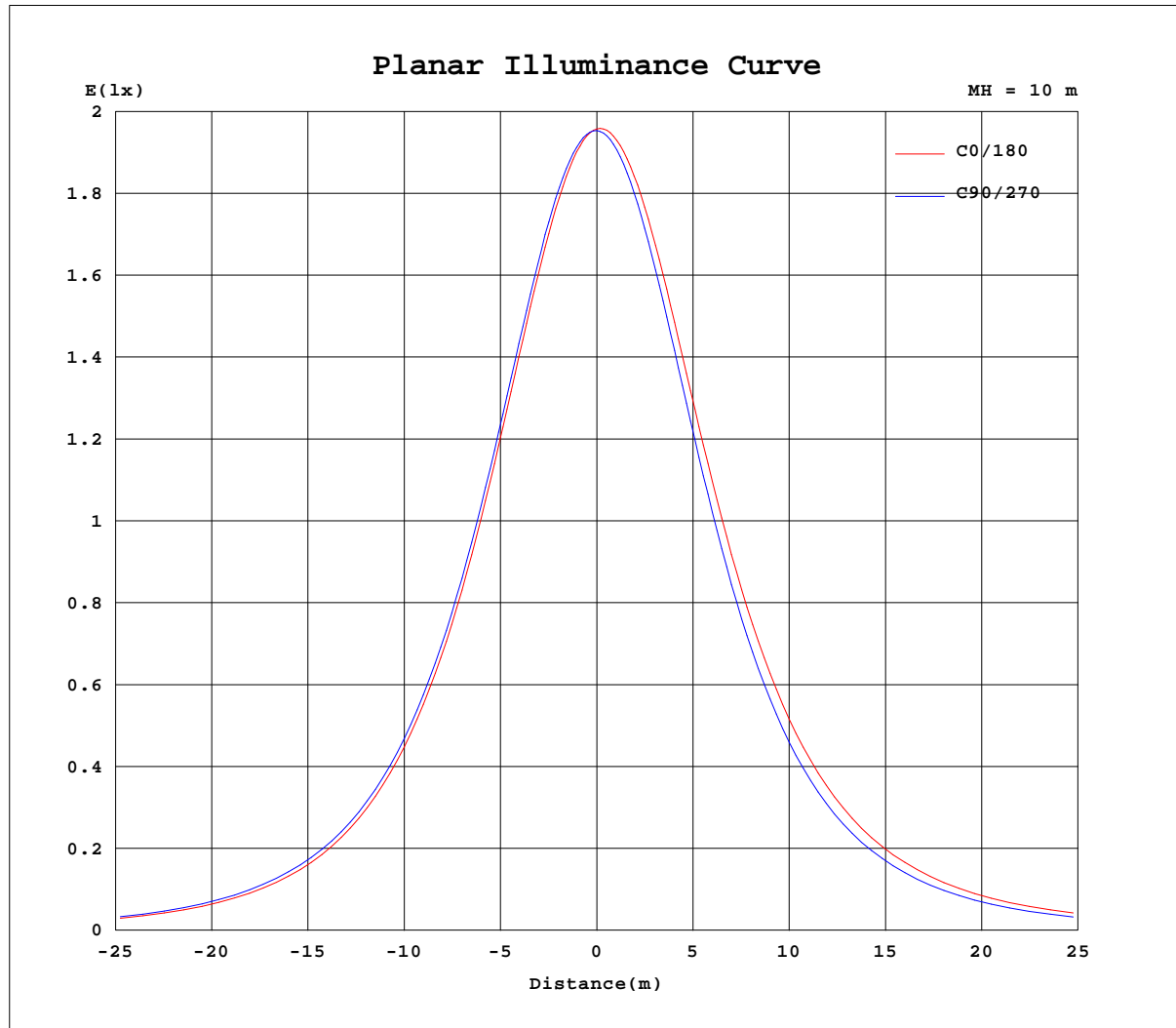
AvgL	cd/m2
L_0~180(65)av	14357
L_0~180(75)av	14037
L_0~180(85)av	19123
L_90~270(65)av	13428
L_90~270(75)av	12089
L_90~270(85)av	9153
L_45(65)av	13911
L_45(75)av	13035
L_45(85)av	13341

Standard: GB/T 29293-2012

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

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: 2019-04-04

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.3760A P:9.000W PF:0 Freq:0Hz Lamp Flux:608.618x1 lm		
NAME: NMT1312	TYPE:	WEIGHT:
SPEC.:NMT1312-8SW24NSN050CC0100-PLUS	DIM.: 1000*13*12	SERIAL No.:
MFR.: Colors	SUR.:1000*13	Shielding Angle:

Table--1

UNIT: cd

C(DEC) g (DEC)	0	90	180	270														
0	196	195	196	195														
5	194	195	196	194														
10	190	192	195	191														
15	185	189	193	187														
20	179	183	189	181														
25	171	175	183	173														
30	162	167	176	164														
35	151	157	167	154														
40	140	145	157	142														
45	127	133	146	130														
50	113	119	134	117														
55	98.5	105	120	103														
60	83.1	90.3	106	89.0														
65	67.1	74.1	90.7	73.4														
70	51.0	57.3	74.9	57.2														
75	35.6	40.4	58.9	40.9														
80	22.4	22.9	43.5	25.6														
85	13.5	8.79	29.8	12.0														
90	8.79	1.14	18.8	3.72														
95	6.05	0.34	11.4	1.88														
100	5.05	0.26	8.69	0.69														
105	4.77	0.31	7.96	0.49														
110	4.52	0.38	7.52	0.48														
115	4.22	0.45	7.06	0.53														
120	3.91	0.52	6.57	0.59														
125	3.57	0.59	6.03	0.66														
130	3.17	0.67	5.15	0.74														
135	2.70	0.73	4.89	0.80														
140	2.12	0.79	4.20	0.86														
145	1.34	0.86	3.52	0.94														
150	0.99	0.91	2.96	0.99														
155	1.01	0.97	1.98	1.04														
160	1.04	1.00	1.19	1.05														
165	1.09	1.06	1.07	1.09														
170	1.09	1.07	1.09	1.09														
175	1.10	1.11	1.11	1.10														
180	1.10	1.11	1.10	1.11														

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

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: