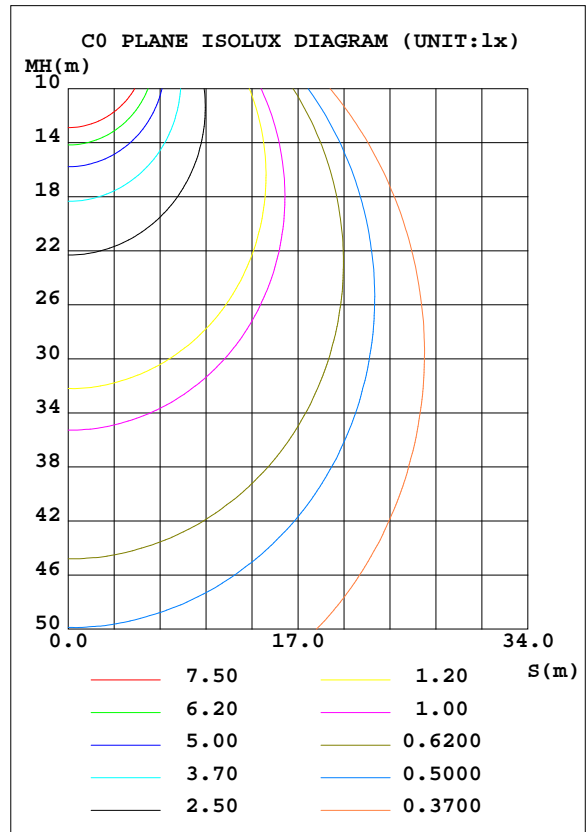
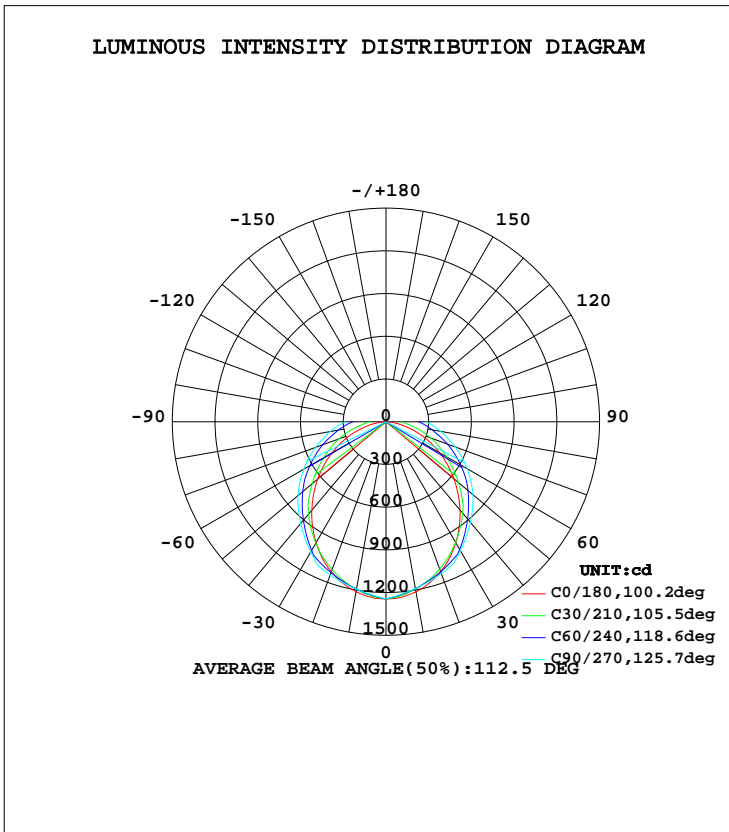


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 132.00 lm/W			
MODEL	5000K	I _{max} (cd)	1245	S/MH(C0/180)	1.18
NOMINAL POWER(W)	28	LOR(%)	96.4	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	3750.6	η UP, DN(C0-180)	0.0,47.9
NOMINAL FLUX(lm)	3890.08	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,48.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	96.4	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
5	1237	1222	1217	1222	1234	1224	1219	1224	0- 5	29.45	29.45	0.79,0.76
10	1213	1190	1189	1190	1212	1193	1194	1193	5- 10	86.48	115.9	3.09,2.98
15	1174	1153	1162	1153	1172	1157	1170	1158	10- 15	139.7	255.6	6.81,6.57
20	1120	1110	1135	1109	1120	1115	1145	1116	15- 20	187.7	443.3	11.8,11.4
25	1056	1061	1107	1062	1058	1068	1120	1070	20- 25	229.7	673.0	17.9,17.3
30	980.3	1009	1045	1012	981.5	1018	1057	1020	25- 30	263.7	936.7	25,24.1
35	897.9	946.5	983.7	950.4	899.2	957.8	994.8	959.8	30- 35	287.5	1224	32.6,31.5
40	808.7	866.1	921.9	869.2	810.0	875.4	932.3	879.6	35- 40	301.7	1526	40.7,39.2
45	715.8	784.7	860.1	788.7	720.0	796.9	869.7	799.1	40- 45	306.8	1833	48.9,47.1
50	622.3	705.3	798.4	710.9	626.4	717.3	807.2	720.7	45- 50	303.7	2136	57,54.9
55	528.4	628.4	728.1	635.4	531.7	642.0	737.1	644.7	50- 55	293.0	2429	64.8,62.4
60	433.6	553.7	657.8	562.2	439.2	569.3	667.0	571.8	55- 60	274.9	2704	72.1,69.5
65	340.2	474.3	587.5	483.8	347.1	489.7	596.9	492.5	60- 65	250.7	2955	78.8,76
70	251.0	399.8	517.3	408.9	257.2	414.5	526.7	417.2	65- 70	221.9	3177	84.7,81.7
75	165.3	328.8	447.0	338.2	171.7	342.9	456.6	346.2	70- 75	189.7	3367	89.8,86.5
80	87.55	264.0	390.3	273.3	93.84	276.5	398.1	280.2	75- 80	156.8	3523	93.9,90.6
85	26.37	215.9	333.6	225.1	31.12	225.3	339.5	228.7	80- 85	126.8	3650	97.3,93.8
90	0.5793	170.6	276.9	179.0	0.5603	176.7	281.0	179.7	85- 90	100.4	3751	100,96.4
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

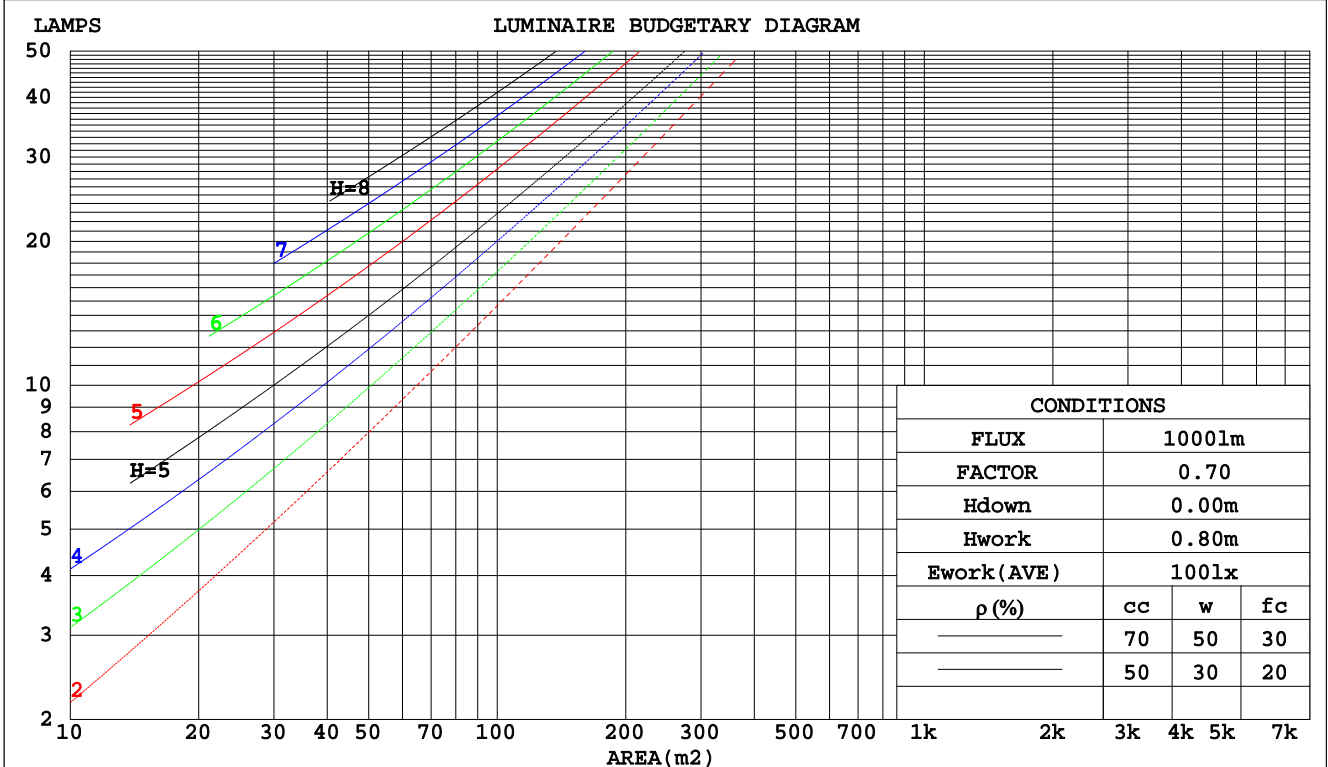
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.15	1.15	1.15	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	.98	.98	.98	.96
1.0	.97	.93	.88	.95	.91	.87	.91	.87	.84	.87	.84	.81	.84	.81	.79	.77
2.0	.84	.77	.70	.82	.75	.70	.79	.73	.68	.75	.71	.66	.72	.68	.65	.63
3.0	.73	.65	.58	.72	.64	.57	.69	.62	.56	.66	.60	.55	.64	.59	.54	.52
4.0	.65	.56	.49	.63	.55	.48	.61	.54	.48	.59	.52	.47	.57	.51	.46	.44
5.0	.58	.49	.42	.57	.48	.42	.55	.47	.41	.53	.46	.41	.51	.45	.40	.38
6.0	.52	.43	.37	.51	.43	.36	.49	.42	.36	.48	.41	.36	.46	.40	.35	.33
7.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.31	.29
8.0	.43	.35	.29	.42	.34	.29	.41	.34	.28	.40	.33	.28	.39	.33	.28	.26
9.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.23
10.0	.36	.29	.23	.36	.28	.23	.35	.28	.23	.34	.28	.23	.33	.27	.23	.21



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.352	.200	.063	.345	.197	.062	.332	.190	.061	.320	.184	.059	.308	.179	.058	
2.0	.312	.171	.052	.306	.168	.052	.294	.164	.051	.283	.159	.050	.274	.155	.049	
3.0	.280	.149	.045	.275	.147	.044	.265	.144	.044	.255	.140	.043	.247	.137	.042	
4.0	.254	.132	.039	.250	.131	.039	.241	.128	.038	.232	.125	.038	.224	.122	.037	
5.0	.233	.118	.034	.228	.117	.034	.220	.115	.034	.213	.112	.033	.206	.110	.033	
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030	
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.177	.092	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.155	.079	.023	
10.0	.161	.077	.021	.159	.077	.021	.154	.075	.021	.150	.074	.021	.146	.073	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.184	.184	.184	.157	.157	.157	.107	.107	.107	.062	.062	.062	.020	.020	.020	
1.0	.177	.150	.125	.152	.129	.108	.104	.089	.075	.060	.051	.043	.019	.017	.014	
2.0	.170	.127	.091	.146	.109	.078	.100	.076	.055	.058	.044	.032	.018	.014	.010	
3.0	.162	.110	.069	.139	.095	.060	.096	.066	.042	.055	.039	.025	.018	.013	.008	
4.0	.155	.098	.054	.133	.084	.047	.091	.059	.033	.053	.034	.020	.017	.011	.006	
5.0	.147	.088	.044	.126	.076	.038	.087	.053	.027	.050	.031	.016	.016	.010	.005	
6.0	.140	.080	.037	.120	.069	.032	.083	.048	.023	.048	.028	.013	.016	.009	.004	
7.0	.133	.073	.031	.114	.063	.027	.079	.044	.019	.046	.026	.011	.015	.009	.004	
8.0	.126	.067	.027	.109	.059	.024	.075	.041	.017	.044	.024	.010	.014	.008	.003	
9.0	.120	.063	.024	.104	.054	.021	.072	.038	.015	.042	.023	.009	.014	.007	.003	
10.0	.115	.059	.021	.099	.051	.019	.068	.036	.013	.040	.021	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm										
NAME: MLSN2-28/D10/U/50					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:1		
MFR.: EVERFINE					SUR.:665*65.5			PROTECTION 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	23.2	24.8	25.0	24.8	26.4	25.0	26.6	26.8
3H	24.2	25.7	24.5	26.0	26.2	27.0	28.5	27.4	28.8	29.0
4H	24.7	26.1	25.0	26.4	26.6	28.2	29.7	28.6	29.9	30.2
6H	25.0	26.3	25.3	26.6	26.9	29.6	30.9	29.9	31.2	31.5
8H	25.0	26.3	25.4	26.6	26.9	30.3	31.6	30.6	31.9	32.2
12H	25.0	26.3	25.4	26.6	26.9	31.1	32.4	31.5	32.7	33.0
4H 2H	23.9	25.3	24.3	25.6	25.9	25.3	26.7	25.6	27.0	27.2
3H	25.5	26.7	25.8	27.0	27.3	27.8	29.1	28.2	29.4	29.7
4H	26.1	27.3	26.5	27.6	27.9	29.2	30.4	29.6	30.7	31.0
6H	26.5	27.6	26.9	27.9	28.3	30.8	31.8	31.2	32.2	32.5
8H	26.6	27.6	27.1	28.0	28.4	31.6	32.6	32.0	33.0	33.4
12H	26.7	27.6	27.1	28.0	28.4	32.6	33.5	33.0	33.9	34.3
8H 4H	26.9	27.9	27.3	28.3	28.7	29.5	30.5	29.9	30.9	31.2
6H	27.7	28.5	28.1	28.9	29.3	31.3	32.2	31.8	32.6	33.0
8H	27.9	28.7	28.4	29.1	29.6	32.4	33.2	32.9	33.6	34.0
12H	28.1	28.8	28.6	29.2	29.7	33.7	34.3	34.2	34.8	35.3
12H 4H	27.2	28.1	27.6	28.5	28.9	29.5	30.4	30.0	30.8	31.2
6H	28.1	28.9	28.6	29.3	29.7	31.4	32.2	31.9	32.6	33.1
8H	28.5	29.2	29.0	29.6	30.1	32.6	33.3	33.1	33.7	34.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 3890 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.7)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION 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	54	42	35	53	42	35	52	41	35	28
0.80	63	51	44	62	51	44	60	50	43	36
1.00	71	59	52	69	59	52	67	60	51	44
1.25	77	66	59	76	66	59	73	64	58	50
1.50	82	72	64	80	71	64	77	69	63	55
2.00	89	80	73	87	78	72	83	76	70	62
2.50	93	84	78	91	83	77	87	80	75	66
3.00	96	88	82	94	87	81	90	84	79	71
4.00	100	94	89	98	92	87	93	89	85	76
5.00	103	97	93	100	95	91	96	92	88	79
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

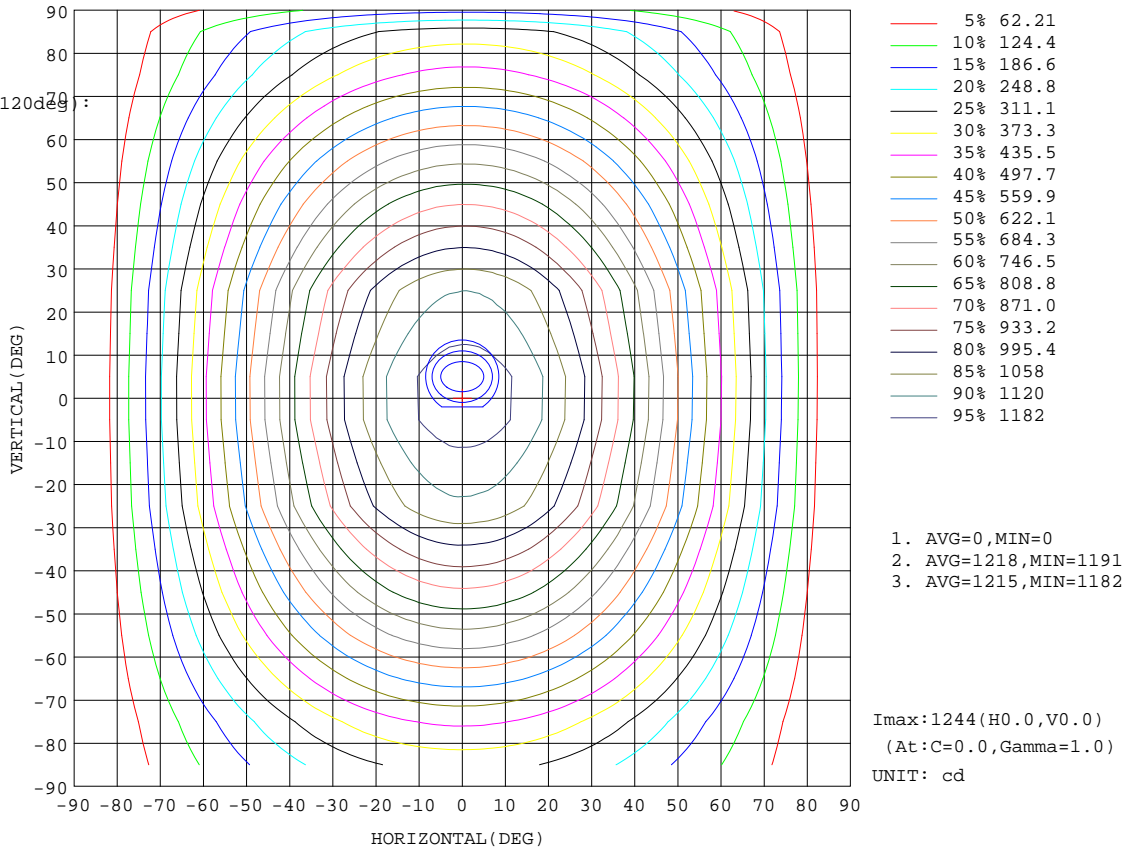
Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION ANGLE:

Conical surface Flux(90deg):

1832.6 lm
%lum = 48.9%
%lamp = 47.1%

Conical surface Flux(120deg):

2704.2 lm
%lum = 72.1%
%lamp = 69.5%



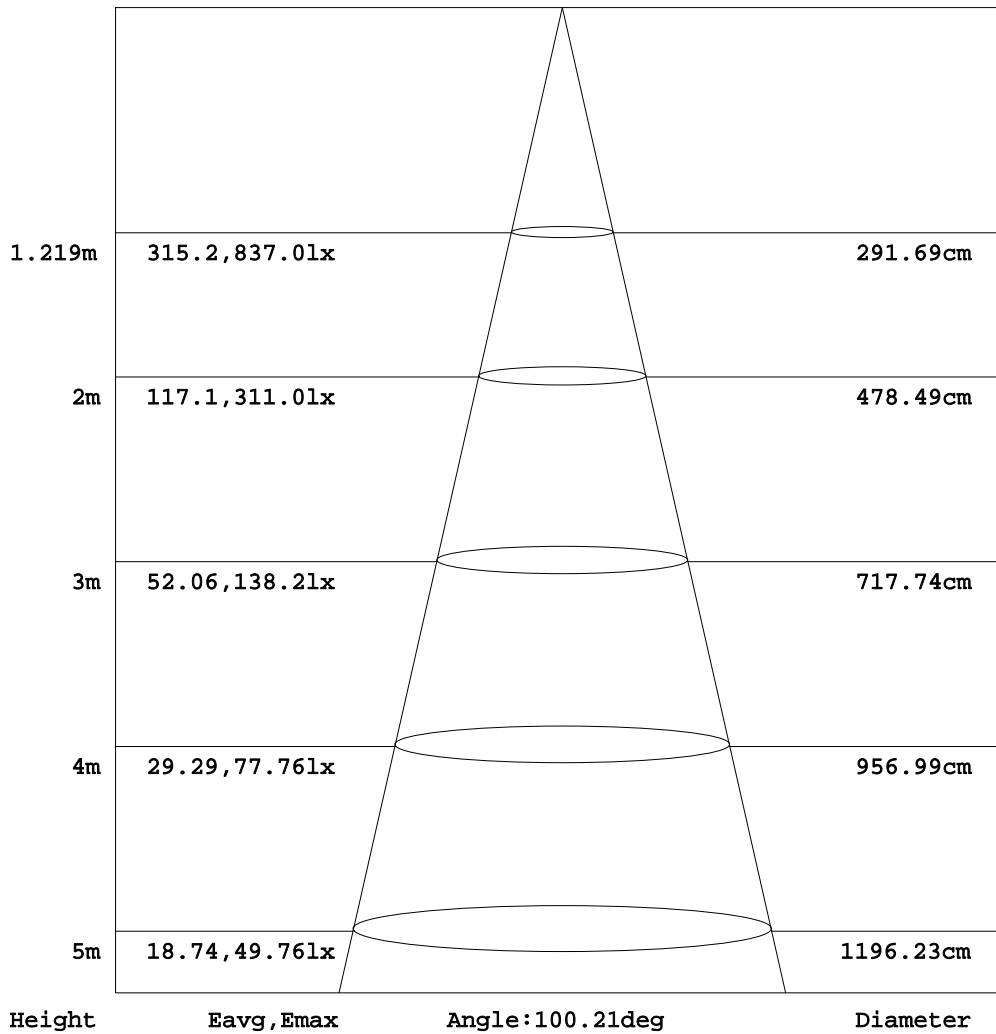
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-02

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:65.0%
Test Distance:8.900m [K=1.0000]
Remarks:

AAI Figure

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION ANGLE:

Flux out:2166 lm



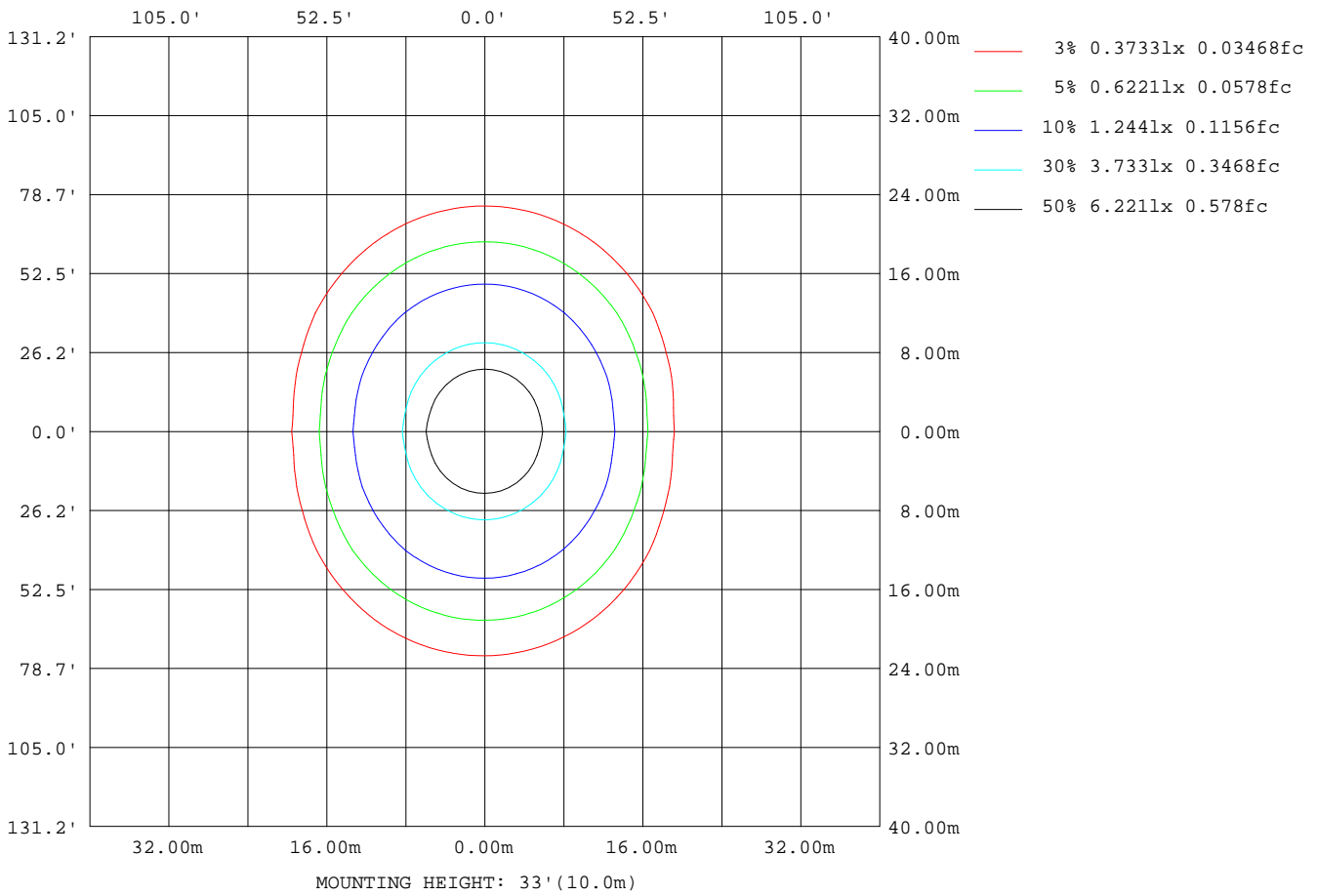
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:120.3V I:0.2373A P:28.41W PF:0.9958 Lamp Flux:3890.08x1 lm		
NAME: MLSN2-28/D10/U/50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:665*65.5	PROTECTION ANGLE:

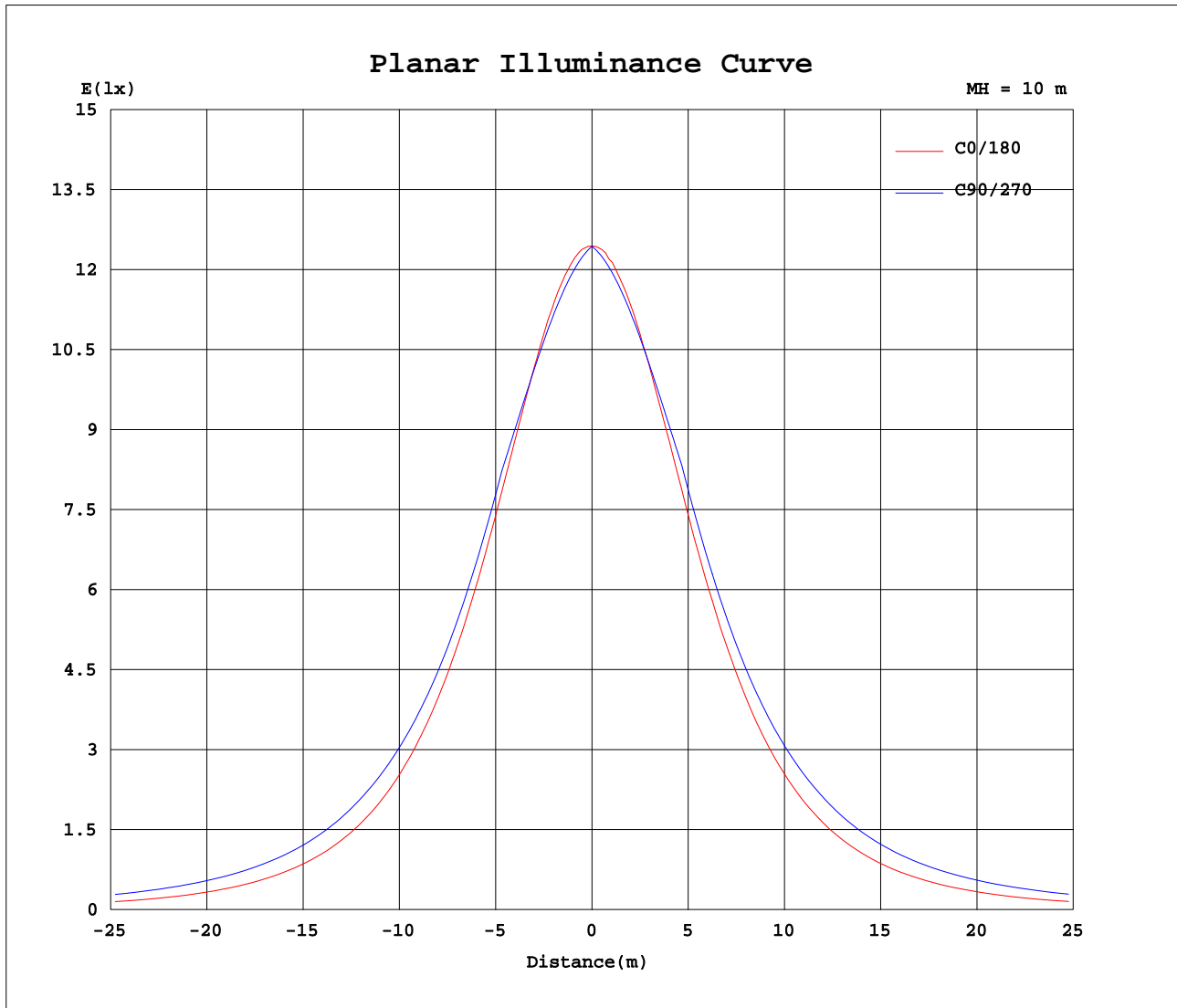
AvgL	cd/m2
L_0~180(65)av	18951
L_0~180(75)av	15174
L_0~180(85)av	7688
L_90~270(65)av	32662
L_90~270(75)av	40690
L_90~270(85)av	90015
L_45(65)av	26753
L_45(75)av	30533
L_45(85)av	59843

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:8.900m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-06-02

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 65.0%
 Test Distance: 8.900m [K=1.0000]
 Remarks:

