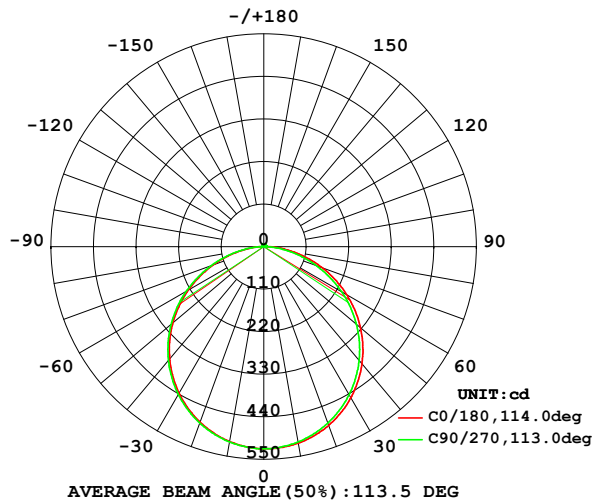


LUMINAIRE PHOTOMETRIC TEST REPORT

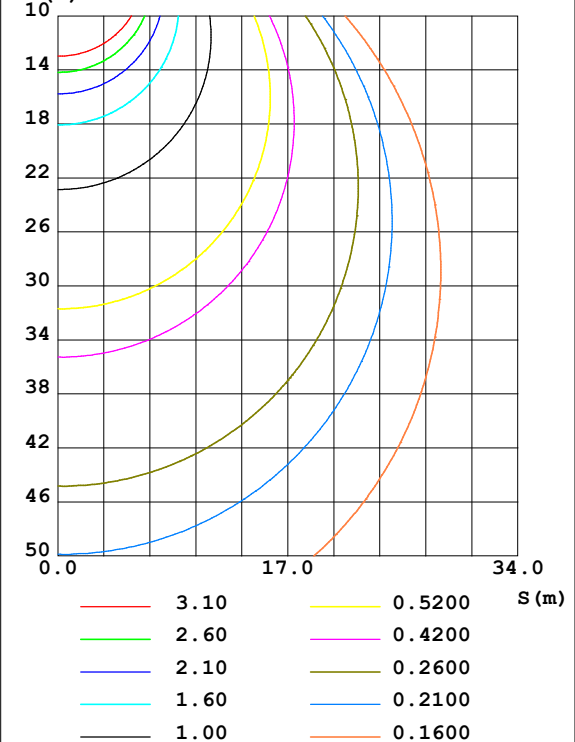
Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm		
NAME: FM9-197-18W 白色	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.18 lm/W			
MODEL	3000K	I _{max} (cd)	523.0	S/MH(C0/180)	1.25
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1550.1	□ UP,DN(C0-180)	1.1,49.8
NOMINAL FLUX(lm)	1550.13	CIE CLASS	DIRECT	□ UP,DN(C180-360)	1.1,48.0
LAMPS INSIDE	1	□ up(%)	2.2	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)		□ down(%)	97.8	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: DAMIN
Test Date: 2022-04-20

□ Range: 0 - 180DEG
□ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 7.480m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

mm	C0	C90	C180	C270					mm	□ zone	□ total	%lum,lamp
5	521.2	519.7	519.6	519.7					0- 5	12.47	12.47	0.80,0.80
10	515.7	512.6	511.6	512.6					5- 10	36.96	49.42	3.19,3.19
15	505.7	500.9	499.1	500.9					10- 15	60.21	109.6	7.07,7.07
20	491.6	485.3	482.8	485.3					15- 20	81.42	191.1	12.3,12.3
25	473.2	465.3	461.9	465.3					20- 25	99.93	291.0	18.8,18.8
30	450.9	441.7	437.9	441.7					25- 30	115.1	406.1	26.2,26.2
35	424.9	414.2	410.2	414.2					30- 35	126.5	532.6	34.4,34.4
40	395.3	383.7	378.7	383.7					35- 40	133.7	666.2	43,43
45	362.4	349.8	344.2	349.8					40- 45	136.4	802.7	51.8,51.8
50	326.6	313.1	306.8	313.1					45- 50	134.7	937.3	60.5,60.5
55	288.0	273.8	267.0	273.8					50- 55	128.4	1066	68.8,68.8
60	247.3	232.3	225.8	232.3					55- 60	117.9	1184	76.4,76.4
65	204.9	188.6	182.5	188.6					60- 65	103.3	1287	83,83
70	161.4	145.4	139.3	145.4					65- 70	85.76	1373	88.6,88.6
75	118.6	102.7	96.64	102.7					70- 75	66.01	1439	92.8,92.8
80	76.73	62.33	57.27	62.33					75- 80	45.26	1484	95.7,95.7
85	39.02	25.80	22.45	25.80					80- 85	25.03	1509	97.3,97.3
90	8.797	3.797	3.888	3.797					85- 90	7.750	1517	97.8,97.8
95	3.899	3.926	4.012	3.926					90- 95	2.241	1519	98,98
100	4.107	4.191	4.261	4.191					95-100	2.205	1521	98.1,98.1
105	4.374	4.474	4.533	4.474					100-105	2.315	1523	98.3,98.3
110	4.642	4.730	4.809	4.730					105-110	2.403	1526	98.4,98.4
115	4.911	4.987	5.080	4.987					110-115	2.461	1528	98.6,98.6
120	5.163	5.225	5.322	5.225					115-120	2.486	1531	98.8,98.8
125	5.401	5.451	5.571	5.451					120-125	2.474	1533	98.9,98.9
130	5.635	5.685	5.764	5.685					125-130	2.427	1536	99.1,99.1
135	5.858	5.916	5.986	5.916					130-135	2.345	1538	99.2,99.2
140	6.081	6.123	6.206	6.123					135-140	2.231	1540	99.4,99.4
145	6.285	6.323	6.428	6.323					140-145	2.081	1542	99.5,99.5
150	6.500	6.531	6.594	6.531					145-150	1.895	1544	99.6,99.6
155	6.722	6.742	6.794	6.742					150-155	1.681	1546	99.7,99.7
160	6.927	6.954	6.995	6.954					155-160	1.437	1547	99.8,99.8
165	7.123	7.157	7.168	7.157					160-165	1.163	1549	99.9,99.9
170	7.255	7.274	7.323	7.274					165-170	0.8562	1549	100,100
175	7.372	7.354	7.417	7.354					170-175	0.5240	1550	100,100
180	7.433	7.387	7.486	7.387					175-180	0.1770	1550	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

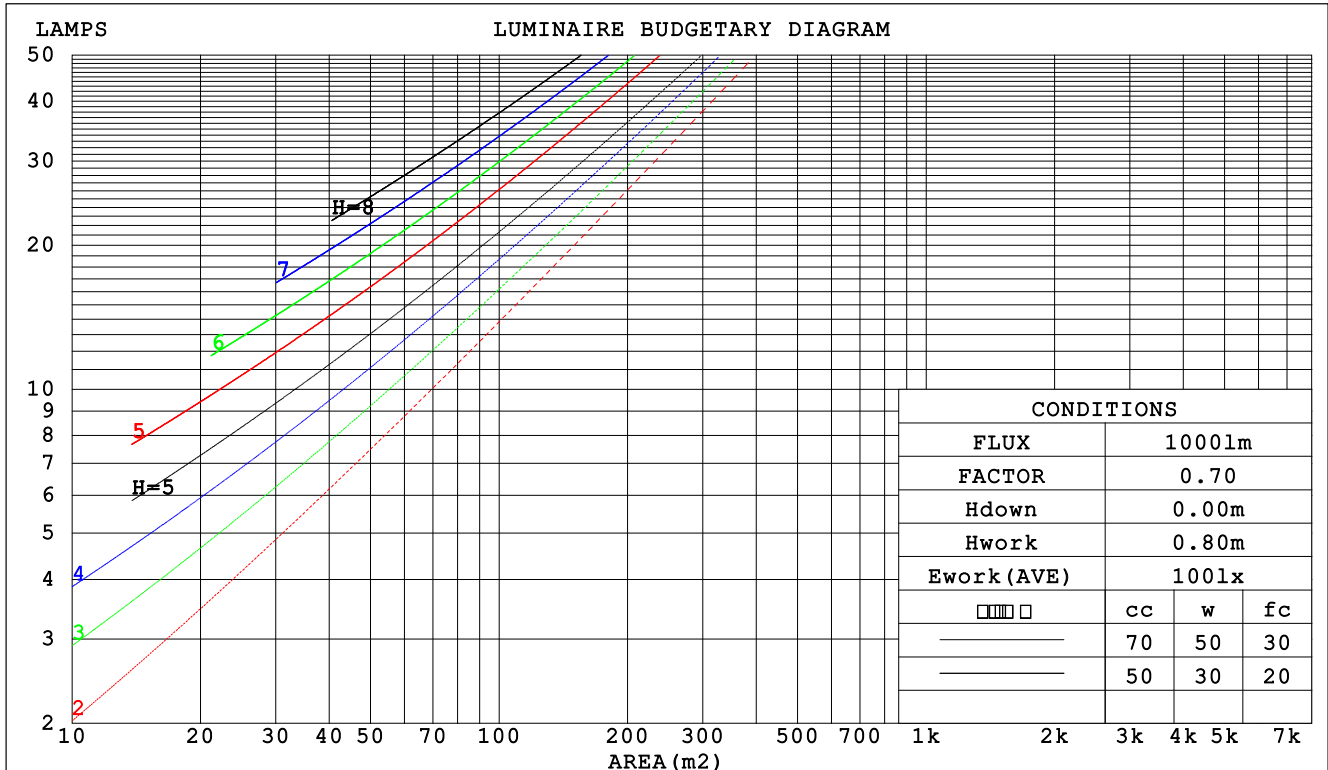
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-04-20

□ Range: 0 - 180DEG
 □ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.480m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm		
NAME: FM9-197-18W 白色	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	.98
1.0	1.03	.99	.95	1.01	.97	.93	.96	.93	.90	.92	.89	.87	.88	.86	.84	.81
2.0	.90	.83	.77	.88	.81	.76	.84	.78	.74	.80	.76	.72	.77	.73	.70	.68
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.65	.60	.68	.63	.59	.57
4.0	.70	.61	.54	.68	.60	.53	.65	.58	.52	.63	.56	.51	.60	.55	.51	.48
5.0	.62	.53	.46	.61	.52	.46	.58	.51	.45	.56	.50	.45	.54	.48	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.44	.39	.49	.43	.38	.36
7.0	.51	.42	.36	.50	.41	.35	.48	.40	.35	.46	.40	.35	.45	.39	.34	.32
8.0	.46	.38	.32	.45	.37	.31	.44	.36	.31	.42	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-04-20

□ Range: 0 - 180DEG
 □ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.480m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm					
NAME: FM9-197-18W 白色			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:1
MFR.: EVERFINE			SUR.:		PROTECTION ANGLE:

☐ cc	80%			70%			50%			30%			10%			0														
☐ w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
☐ fc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients (WEC)														
0.0																														
1.0	.314	.178	.057	.306	.175	.055	.291	.167	.053	.278	.160	.051	.266	.154	.050															
2.0	.294	.161	.049	.287	.158	.049	.274	.152	.047	.262	.147	.046	.251	.142	.045															
3.0	.271	.144	.043	.265	.142	.043	.254	.138	.042	.243	.133	.041	.234	.129	.040															
4.0	.250	.130	.038	.245	.128	.038	.235	.124	.037	.225	.121	.036	.216	.118	.036															
5.0	.231	.118	.034	.226	.116	.034	.217	.113	.033	.209	.110	.033	.201	.107	.032															
6.0	.214	.107	.031	.210	.106	.030	.202	.103	.030	.194	.101	.030	.187	.098	.029															
7.0	.199	.098	.028	.195	.097	.028	.188	.095	.027	.181	.093	.027	.175	.091	.027															
8.0	.186	.091	.026	.182	.090	.025	.176	.088	.025	.170	.086	.025	.164	.084	.025															
9.0	.174	.084	.024	.171	.083	.023	.165	.082	.023	.159	.080	.023	.154	.078	.023															
10.0	.164	.078	.022	.161	.078	.022	.155	.076	.021	.150	.075	.021	.146	.073	.021															

☐ cc	80%			70%			50%			30%			10%			0
☐ w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
☐ fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.207	.207	.207	.177	.177	.177	.121	.121	.121	.069	.069	.069	.022	.022	.022	
1.0	.197	.173	.151	.169	.148	.130	.115	.102	.090	.066	.059	.052	.021	.019	.017	
2.0	.189	.149	.114	.162	.128	.099	.111	.088	.069	.064	.051	.040	.021	.017	.013	
3.0	.182	.131	.091	.156	.113	.079	.107	.079	.055	.062	.046	.033	.020	.015	.011	
4.0	.174	.118	.075	.149	.102	.065	.103	.071	.046	.059	.042	.027	.019	.014	.009	
5.0	.166	.107	.064	.143	.093	.056	.098	.065	.039	.057	.038	.023	.018	.012	.008	
6.0	.159	.099	.056	.137	.086	.049	.094	.060	.035	.055	.035	.021	.018	.012	.007	
7.0	.152	.092	.050	.131	.080	.044	.091	.056	.031	.053	.033	.018	.017	.011	.006	
8.0	.146	.087	.046	.126	.075	.040	.087	.053	.028	.051	.031	.017	.016	.010	.006	
9.0	.140	.082	.042	.121	.071	.037	.084	.050	.026	.049	.029	.016	.016	.010	.005	
10.0	.134	.077	.039	.116	.067	.034	.080	.047	.024	.047	.028	.015	.015	.009	.005	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.480m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm										
NAME: FM9-197-18W 白色					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:1		
MFR.: EVERFINE					SUR.:			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	18.5	20.0	18.8	20.2	20.5	18.2	19.7	18.5	20.0	20.2
3H	20.1	21.5	20.4	21.8	22.1	19.8	21.2	20.1	21.4	21.7
4H	20.8	22.1	21.2	22.4	22.7	20.4	21.7	20.7	22.0	22.3
6H	21.4	22.6	21.7	22.9	23.2	20.8	22.1	21.2	22.4	22.7
8H	21.6	22.8	21.9	23.1	23.4	21.0	22.2	21.3	22.5	22.8
12H	21.7	22.9	22.1	23.2	23.6	21.0	22.2	21.4	22.5	22.9
4H 2H	19.1	20.4	19.4	20.7	21.0	18.9	20.2	19.2	20.5	20.8
3H	20.9	22.0	21.3	22.4	22.7	20.6	21.8	21.0	22.1	22.4
4H	21.7	22.8	22.1	23.1	23.5	21.4	22.4	21.8	22.8	23.1
6H	22.4	23.4	22.8	23.7	24.2	21.9	22.9	22.4	23.3	23.7
8H	22.7	23.6	23.1	24.0	24.4	22.1	23.0	22.6	23.4	23.8
12H	22.9	23.7	23.4	24.1	24.6	22.2	23.0	22.7	23.5	23.9
8H 4H	22.0	22.9	22.4	23.3	23.7	21.7	22.5	22.1	22.9	23.4
6H	22.8	23.6	23.3	24.0	24.5	22.4	23.1	22.9	23.6	24.0
8H	23.2	23.9	23.7	24.3	24.8	22.7	23.3	23.2	23.8	24.3
12H	23.5	24.1	24.0	24.6	25.1	22.9	23.5	23.4	23.9	24.5
12H 4H	22.0	22.8	22.5	23.2	23.7	21.7	22.5	22.2	22.9	23.4
6H	22.9	23.6	23.4	24.0	24.5	22.5	23.1	23.0	23.6	24.1
8H	23.3	23.9	23.8	24.4	24.9	22.8	23.4	23.3	23.9	24.4
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					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 1550 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.5)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.480m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm		
NAME: FM9-197-18W 白色	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	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) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	54	44	37	31
0.80	67	55	47	65	54	47	63	53	47	40
1.00	75	64	56	74	63	56	71	64	55	48
1.25	82	71	64	80	71	64	77	69	63	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	85	79	92	84	78	88	81	76	68
2.50	98	90	84	96	88	83	92	86	81	72
3.00	101	94	89	99	93	87	95	89	85	76
4.00	105	100	95	103	98	93	98	94	90	81
5.00	108	103	99	105	101	97	100	97	94	84
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: DAMIN
Test Date: 2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 7.480m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm		
NAME: FM9-197-18W 白色	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

802.67 lm

%lum = 51.8%

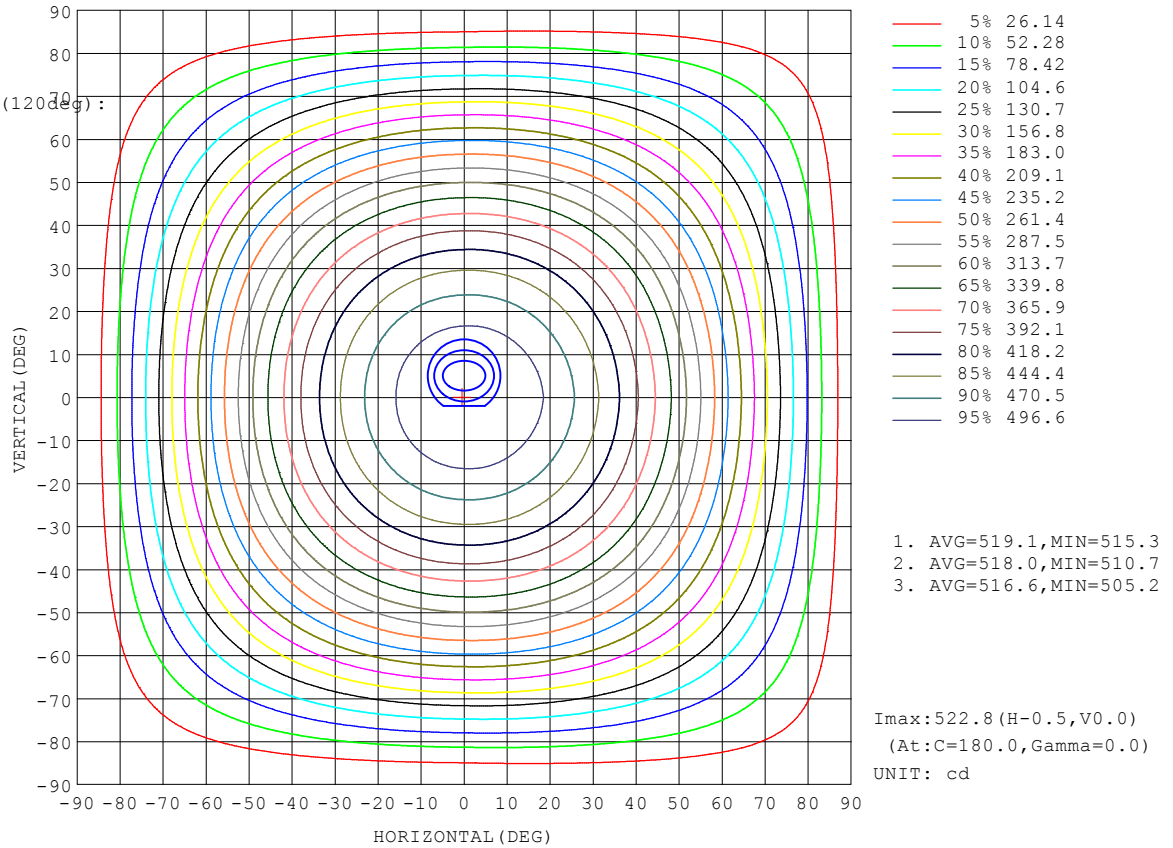
%lamp = 51.8%

Conical surface Flux(120deg):

1183.6 lm

%lum = 76.4%

%lamp = 76.4%

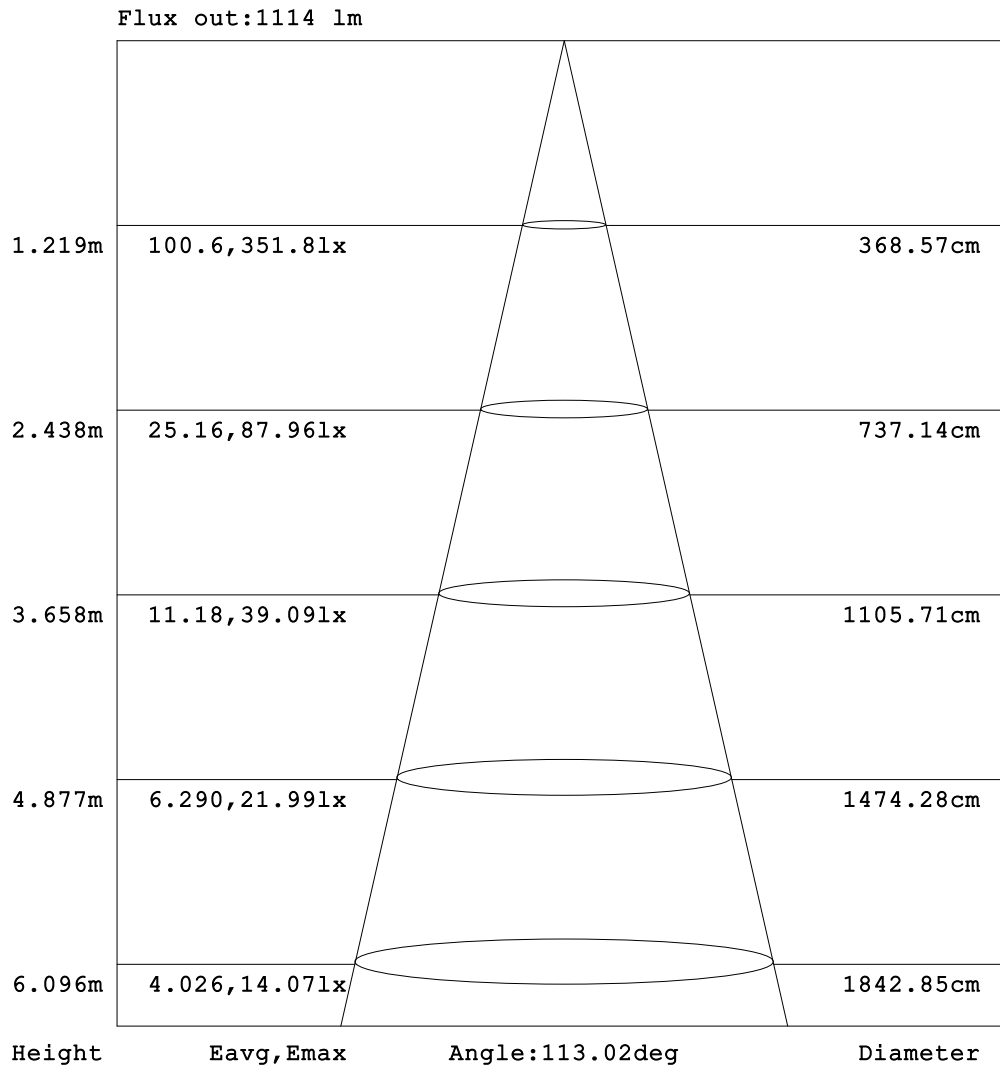


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.480m [K=1.0000]
Remarks:

AAI Figure

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm		
NAME: FM9-197-18W 白色	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



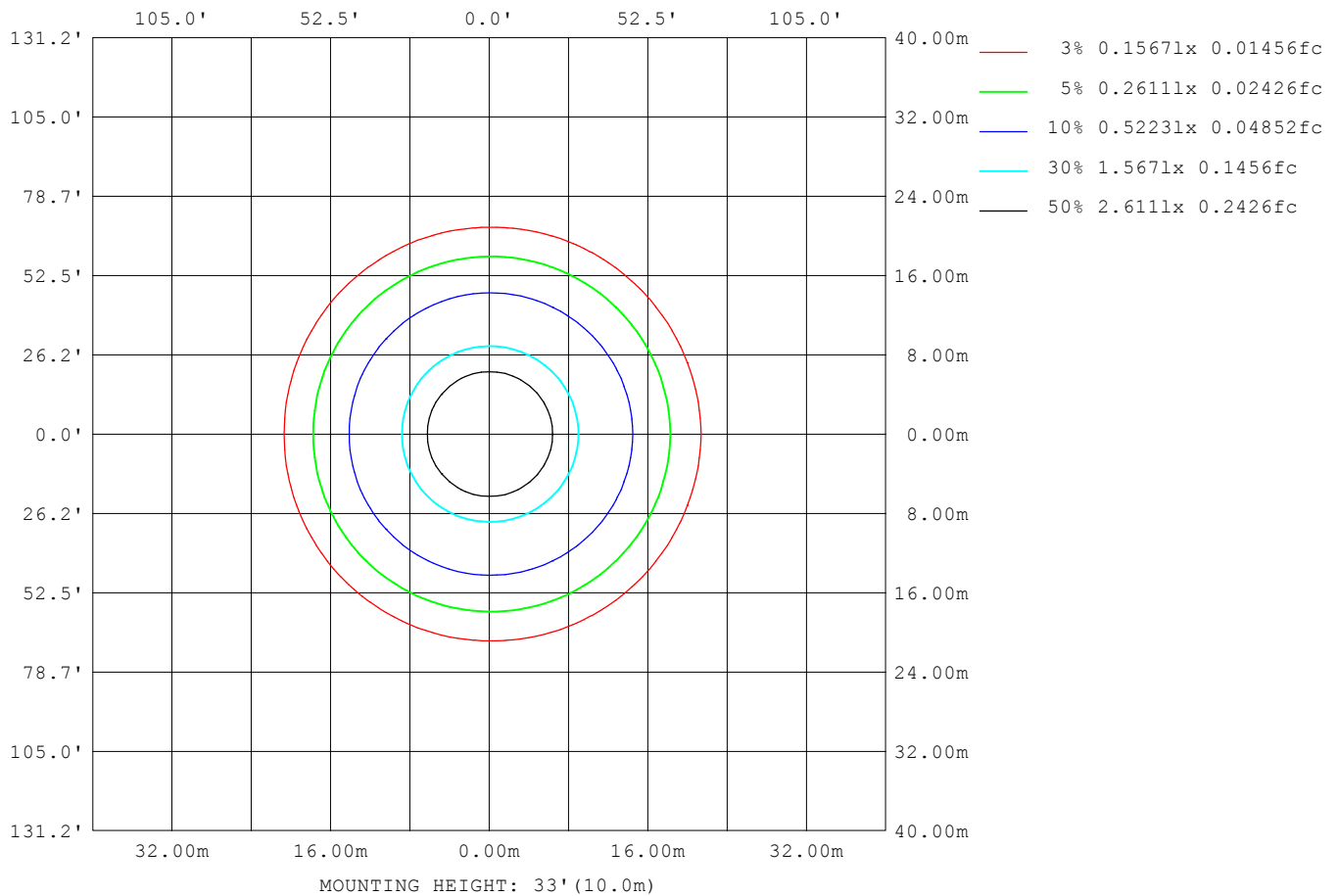
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.480m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm		
NAME: FM9-197-18W 白色	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.480m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:120.3V I:0.1452A P:17.38W PF:0.9951 Lamp Flux:1550.13x1 lm		
NAME: FM9-197-18W 白色	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

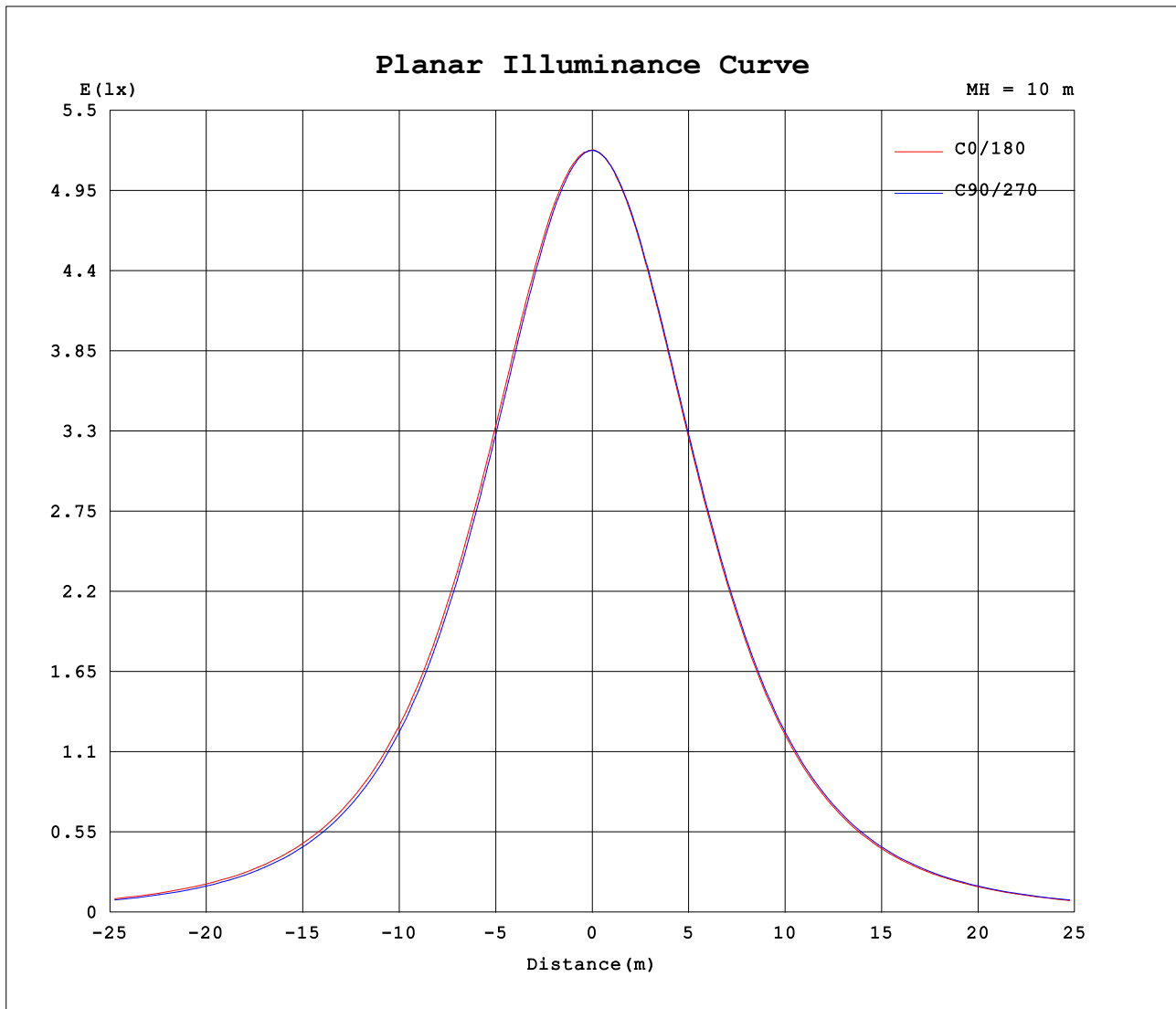
AvgL	cd/m2
L_0~180 (65) av	4583
L_0~180 (75) av	4157
L_0~180 (85) av	3527
L_90~270 (65) av	4462
L_90~270 (75) av	3966
L_90~270 (85) av	2960
L_45 (65) av	4491
L_45 (75) av	4012
L_45 (85) av	3113

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.480m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2022-04-20

☐ Range: 0 - 180DEG
☐ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 7.480m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

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SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) □ (DEG)	0	90	180	270															
0	522	523	523	523															
5	521	520	520	520															
10	516	513	512	513															
15	506	501	499	501															
20	492	485	483	485															
25	473	465	462	465															
30	451	442	438	442															
35	425	414	410	414															
40	395	384	379	384															
45	362	350	344	350															
50	327	313	307	313															
55	288	274	267	274															
60	247	232	226	232															
65	205	189	183	189															
70	161	145	139	145															
75	119	103	96.6	103															
80	76.7	62.3	57.3	62.3															
85	39.0	25.8	22.5	25.8															
90	8.80	3.80	3.89	3.80															
95	3.90	3.93	4.01	3.93															
100	4.11	4.19	4.26	4.19															
105	4.37	4.47	4.53	4.47															
110	4.64	4.73	4.81	4.73															
115	4.91	4.99	5.08	4.99															
120	5.16	5.22	5.32	5.22															
125	5.40	5.45	5.57	5.45															
130	5.64	5.69	5.76	5.69															
135	5.86	5.92	5.99	5.92															
140	6.08	6.12	6.21	6.12															
145	6.28	6.32	6.43	6.32															
150	6.50	6.53	6.59	6.53															
155	6.72	6.74	6.79	6.74															
160	6.93	6.95	6.99	6.95															
165	7.12	7.16	7.17	7.16															
170	7.25	7.27	7.32	7.27															
175	7.37	7.35	7.42	7.35															
180	7.43	7.39	7.49	7.39															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
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Test Date:2022-04-20

□ Range: 0 - 180DEG
□ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.480m [K=1.0000]
Remarks: