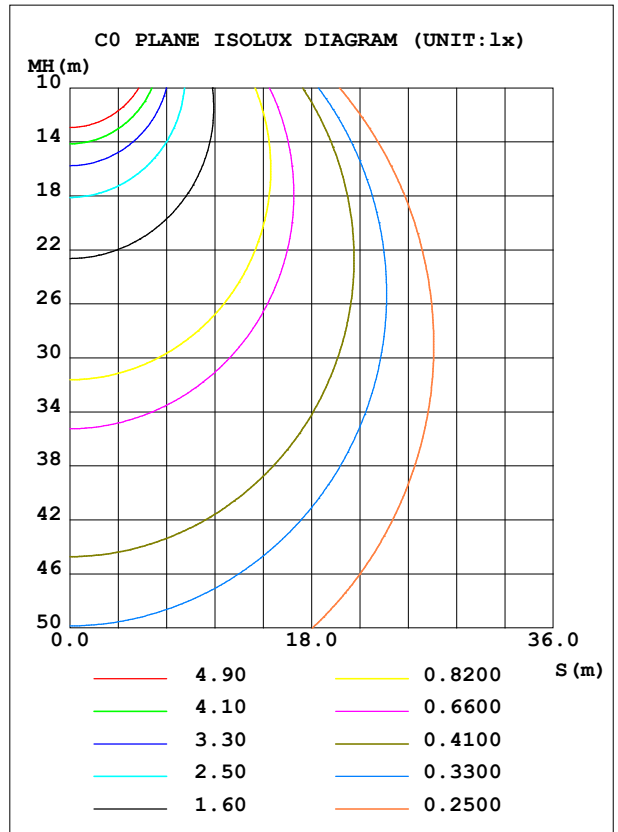
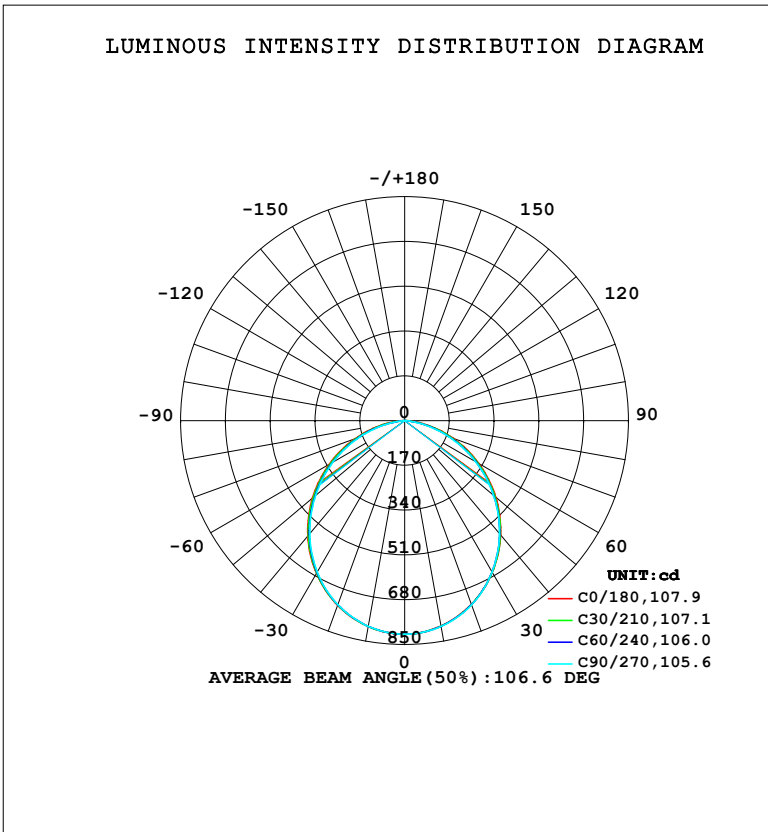


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	116E	Imax (cd)	810.6	S/MH (C0/180)	1.23
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	1.22
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2144.9	η UP, DN (C0-180)	0.0,50.0
NOMINAL FLUX (lm)	2144.91	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	219.5	η down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity: 65.0%
Test Distance: 9.401m [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
10	791.9	792.7	793.6	794.3	793.8	792.5	793.0	791.8	0- 10	76.52	76.52	3.57,3.57
20	741.8	743.4	744.0	745.8	745.6	743.0	742.9	741.6	10- 20	217.7	294.2	13.7,13.7
30	664.9	665.7	663.9	669.1	669.9	665.6	663.7	664.0	20- 30	326.1	620.3	28.9,28.9
40	567.0	564.6	560.4	568.6	572.2	564.8	560.4	563.3	30- 40	386.4	1007	46.9,46.9
50	451.5	446.3	440.6	450.1	456.6	446.4	441.0	445.1	40- 50	391.5	1398	65.2,65.2
60	325.2	319.1	311.2	322.3	330.6	317.3	312.8	316.7	50- 60	343.1	1741	81.2,81.2
70	195.2	187.4	178.2	190.0	199.9	186.4	180.4	186.2	60- 70	250.7	1992	92.9,92.9
80	72.97	61.65	50.33	64.41	76.72	62.40	53.38	62.18	70- 80	131.1	2123	99,99
90	1.101	1.050	1.014	1.054	1.268	1.242	1.183	1.235	80- 90	21.64	2145	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1205.4 lm

%lum = 56.2%

%lamp = 56.2%

Conical surface Flux(130deg): 1880.5 lm

%lum = 87.7%

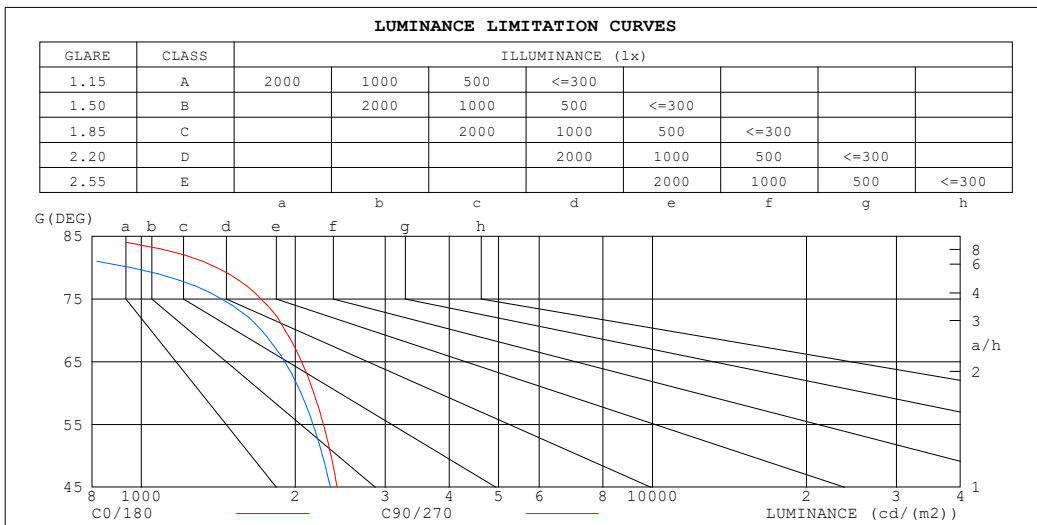
%lamp = 87.7%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	752	175
80	1405	956
75	1715	1436
70	1909	1719
65	2057	1907
60	2175	2053
55	2270	2167
50	2349	2261
45	2417	2343

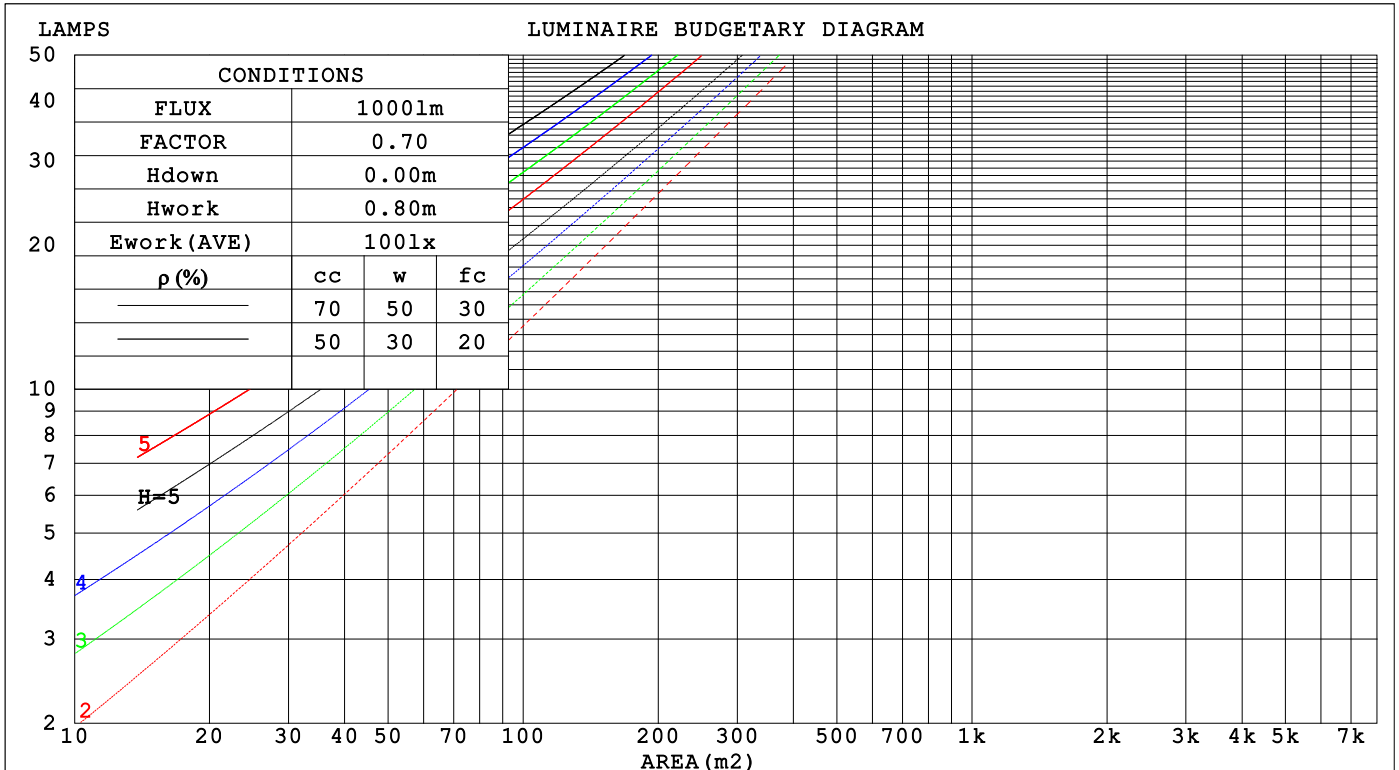
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz		
Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding 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															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.05	1.01	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.79	.90	.84	.78	.86	.81	.77	.83	.79	.75	.80	.76	.73	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.65	.73	.68	.63	.71	.66	.62	.60
4.0	.72	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.58	.49	.43	.57	.48	.42	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.52	.44	.38	.52	.43	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz								
Lamp Flux:2144.91x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: EVERFINE			SUR.:			Shielding Angle:		

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.294	.167	.053	.287	.163	.052	.273	.157	.050	.261	.151	.048	.250	.145	.047	
2.0	.281	.154	.047	.274	.151	.047	.263	.146	.045	.252	.141	.044	.242	.137	.043	
3.0	.262	.139	.042	.256	.137	.041	.246	.133	.041	.237	.130	.040	.228	.126	.039	
4.0	.243	.126	.037	.238	.125	.037	.229	.121	.036	.221	.118	.036	.213	.116	.035	
5.0	.225	.115	.033	.221	.114	.033	.213	.111	.033	.206	.108	.032	.199	.106	.032	
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029	
7.0	.195	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027	
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.169	.085	.025	.164	.084	.024	
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.162	.077	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.073	.021	

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz										
Lamp Flux:2144.91x1 lm										
NAME:			TYPE:				WEIGHT:			
SPEC.:			DIM.:				SERIAL No.:			
MFR.: EVERFINE			SUR.:				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	13.1	14.5	13.3	14.7	15.0	12.8	14.3	13.1	14.5	14.7
3H	14.5	15.9	14.8	16.1	16.3	14.1	15.5	14.4	15.7	16.0
4H	15.0	16.3	15.3	16.6	16.8	14.6	15.9	14.9	16.1	16.4
6H	15.4	16.6	15.7	16.9	17.1	14.8	16.0	15.1	16.3	16.5
8H	15.4	16.6	15.8	16.9	17.2	14.8	15.9	15.1	16.2	16.5
12H	15.4	16.6	15.8	16.9	17.2	14.7	15.9	15.1	16.1	16.5
4H 2H	13.6	14.9	13.9	15.1	15.4	13.4	14.7	13.7	15.0	15.2
3H	15.2	16.3	15.5	16.6	16.9	14.9	16.0	15.2	16.3	16.6
4H	15.8	16.9	16.2	17.2	17.5	15.4	16.5	15.8	16.8	17.1
6H	16.3	17.2	16.7	17.6	17.9	15.7	16.6	16.1	17.0	17.3
8H	16.4	17.3	16.8	17.6	18.0	15.7	16.6	16.1	16.9	17.3
12H	16.4	17.2	16.9	17.6	18.0	15.7	16.5	16.1	16.9	17.3
8H 4H	16.0	16.9	16.4	17.2	17.6	15.6	16.5	16.0	16.9	17.2
6H	16.6	17.3	17.0	17.7	18.1	16.0	16.7	16.4	17.1	17.5
8H	16.7	17.4	17.2	17.8	18.2	16.1	16.7	16.5	17.1	17.6
12H	16.8	17.3	17.3	17.8	18.2	16.0	16.6	16.5	17.0	17.5
12H 4H	16.0	16.8	16.4	17.2	17.6	15.6	16.4	16.1	16.8	17.2
6H	16.6	17.2	17.0	17.6	18.1	16.0	16.7	16.5	17.1	17.5
8H	16.7	17.3	17.2	17.7	18.2	16.1	16.6	16.6	17.1	17.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.4				

CIE Pub.117, 2145 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.7)
 Area: 0.3025 m2

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

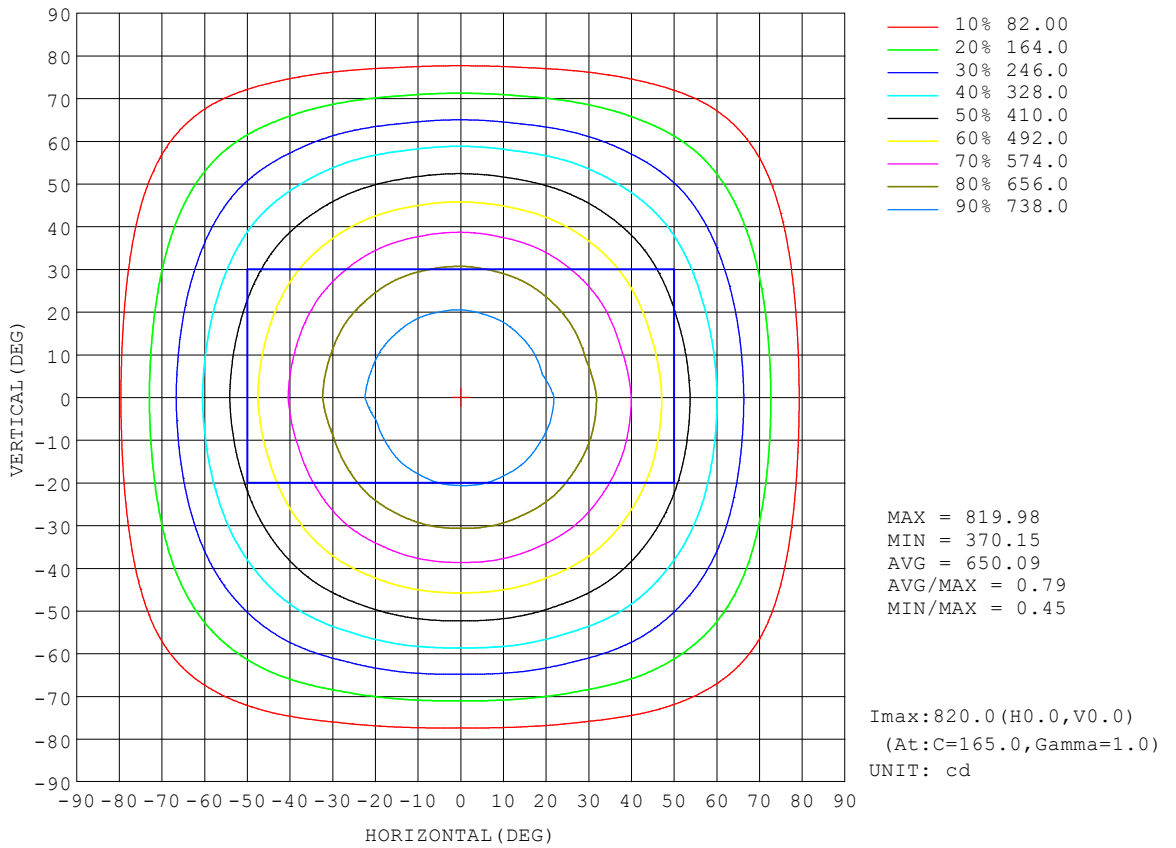
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	47	41	58	47	40	57	47	40	34
0.80	69	58	50	68	57	50	66	56	50	43
1.00	77	67	59	76	66	59	74	67	59	52
1.25	84	74	67	83	74	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	71	64
2.00	96	88	82	94	87	81	91	84	79	72
2.50	100	92	87	98	91	86	94	88	84	76
3.00	103	97	91	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

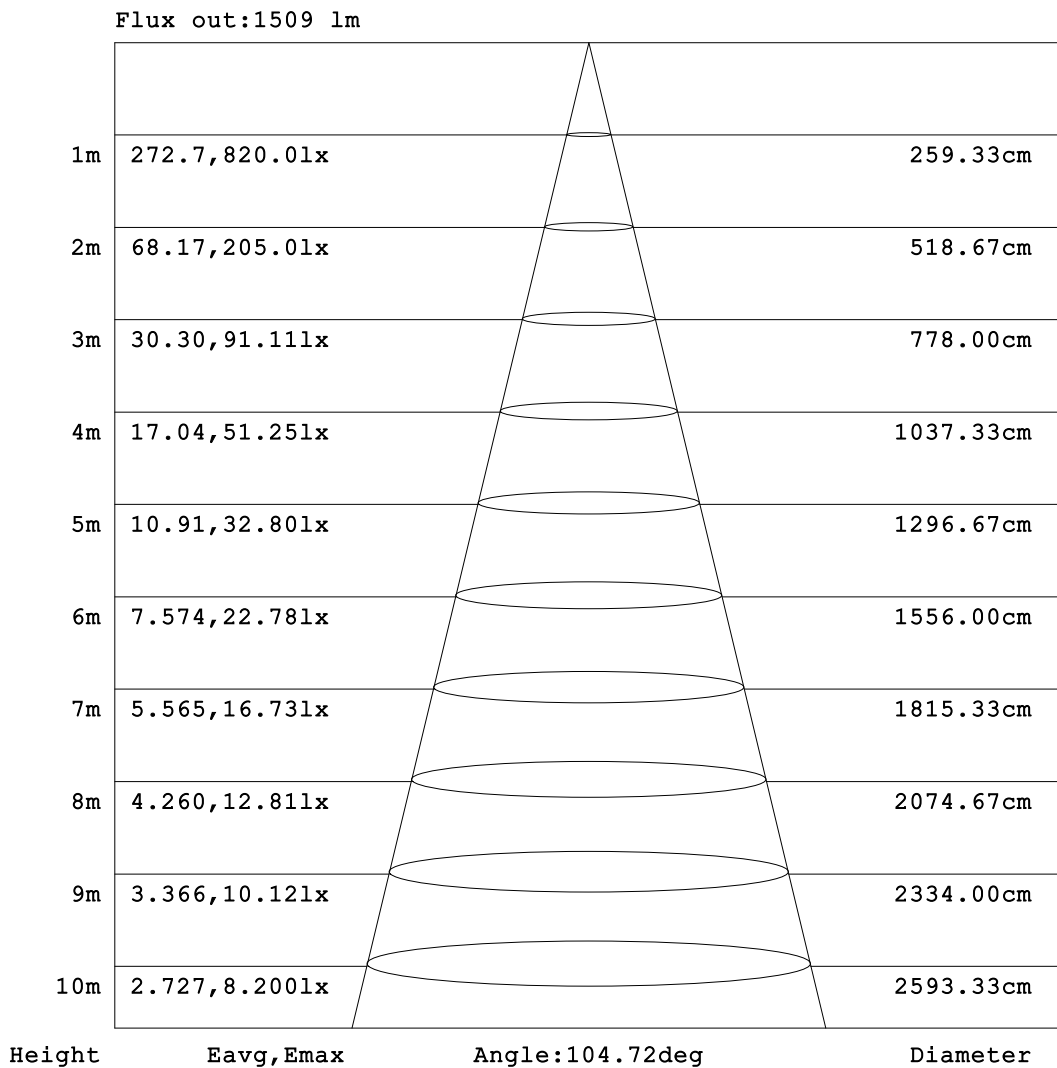


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

AAI Figure

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91lx1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



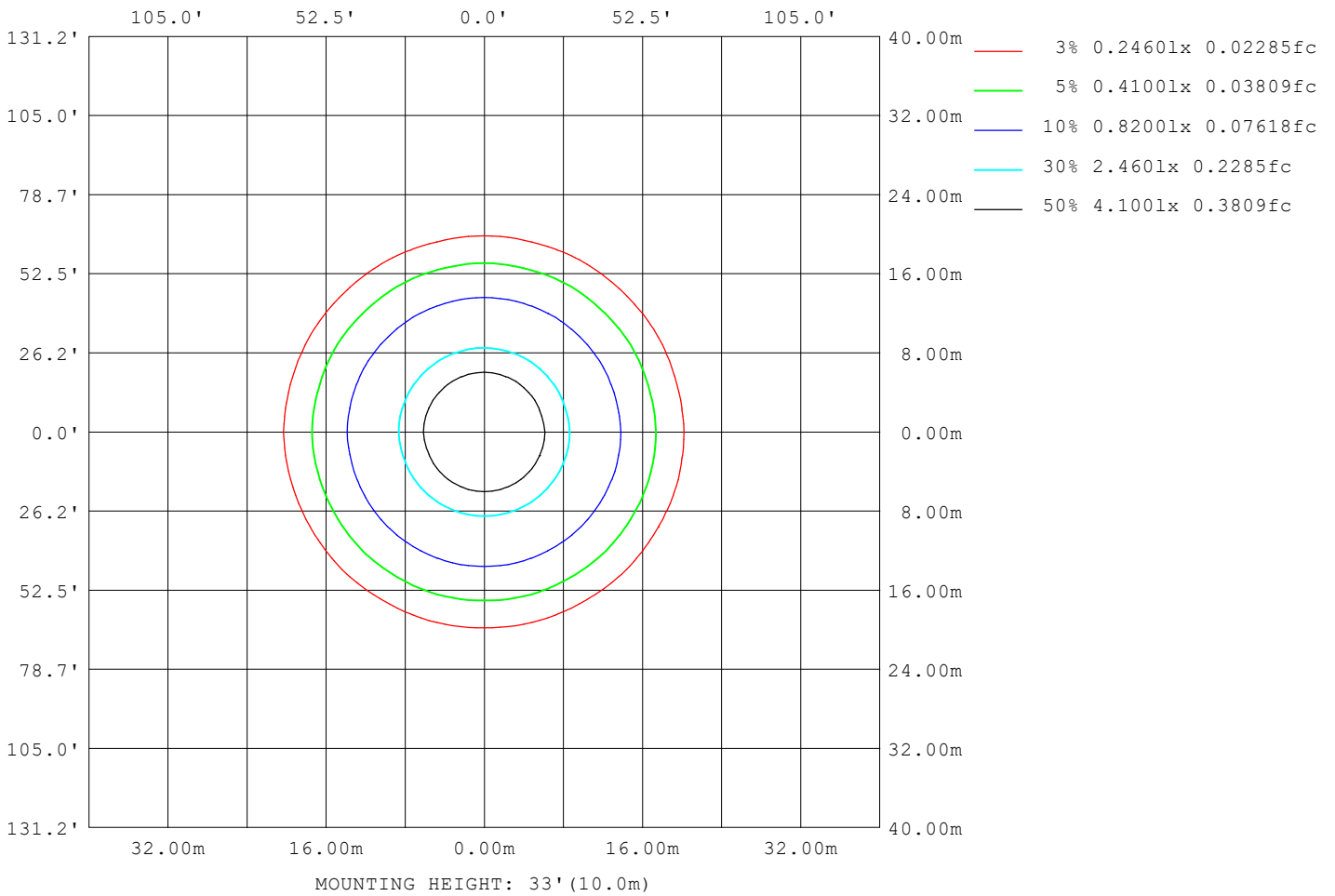
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity: 65.0%
 Test Distance: 9.401m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

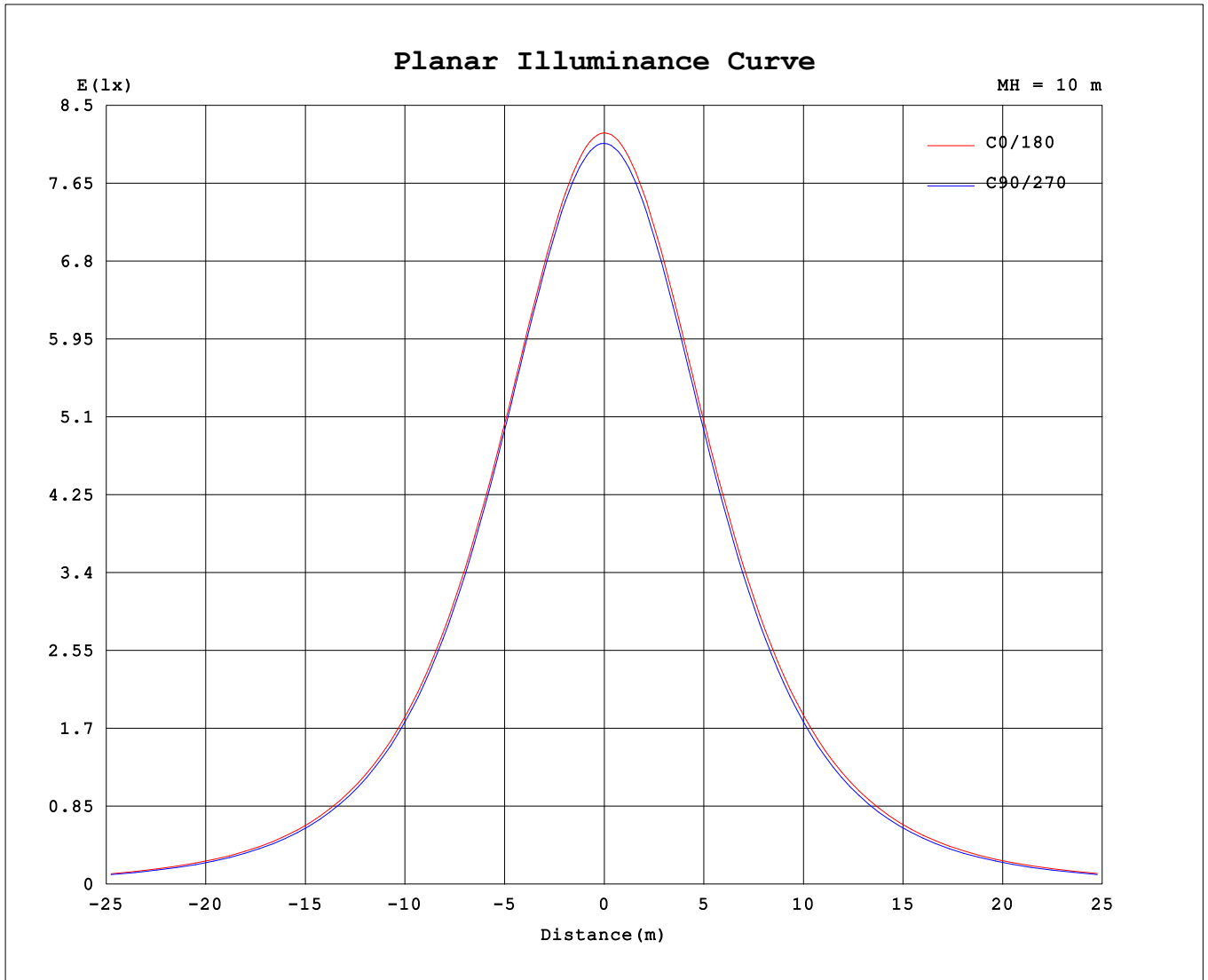
AvgL	cd/m2
L_0~180 (65) av	2053
L_0~180 (75) av	1720
L_0~180 (85) av	804
L_90~270 (65) av	1920
L_90~270 (75) av	1458
L_90~270 (85) av	207
L_45 (65) av	1978
L_45 (75) av	1579
L_45 (85) av	416

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2024-01-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity: 65.0%
 Test Distance: 9.401m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.36V I:0.1562A P:19.466W PF:0.5657 Freq:50.00Hz Lamp Flux:2144.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	810	810	810	810	810	810	810	810	810	810	810	810	810	810	810	810	810	810	810
5	806	806	806	806	806	806	806	807	807	807	806	807	807	806	806	806	806	806	806
10	792	793	793	793	793	794	794	794	794	794	794	794	794	793	793	793	793	792	793
15	771	771	771	772	772	773	773	773	773	774	773	774	774	772	773	771	772	771	772
20	742	743	742	743	743	744	744	745	744	746	745	746	746	744	745	743	743	742	743
25	706	708	707	708	707	708	707	709	709	711	710	711	711	709	710	708	708	706	707
30	665	667	665	666	664	665	664	666	666	669	669	670	670	668	669	666	666	663	664
35	618	620	618	618	615	616	614	617	618	621	622	624	624	621	622	618	617	614	614
40	567	568	565	565	561	562	560	563	564	569	569	572	572	570	569	565	563	560	560
45	511	512	508	507	503	504	502	505	506	511	512	516	516	513	512	507	506	502	502
50	451	452	447	446	442	442	441	444	445	450	452	456	457	453	452	446	444	440	441
55	389	389	385	383	378	379	377	380	381	387	389	393	394	390	389	383	381	377	377
60	325	326	320	319	313	314	311	315	315	322	324	329	331	325	325	317	316	311	313
65	260	261	255	253	247	247	244	248	249	256	258	264	265	260	259	251	250	245	246
70	195	196	190	187	181	181	178	181	183	190	193	199	200	195	193	186	184	180	180
75	133	132	127	123	117	115	113	116	118	126	130	135	137	133	129	123	120	115	116
80	73.0	71.9	65.9	61.6	55.1	52.7	50.3	53.7	57.1	64.4	69.2	75.3	76.7	72.9	68.9	62.4	58.2	53.6	53.4
85	19.6	18.2	13.6	10.2	6.08	4.96	4.62	5.19	6.98	11.9	16.4	22.0	22.8	19.6	15.6	10.4	7.95	6.21	6.31
90	1.10	1.24	1.12	1.05	1.03	1.02	1.01	1.02	1.05	1.05	1.11	1.13	1.27	1.52	1.28	1.24	1.21	1.19	1.18

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-07
 γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

