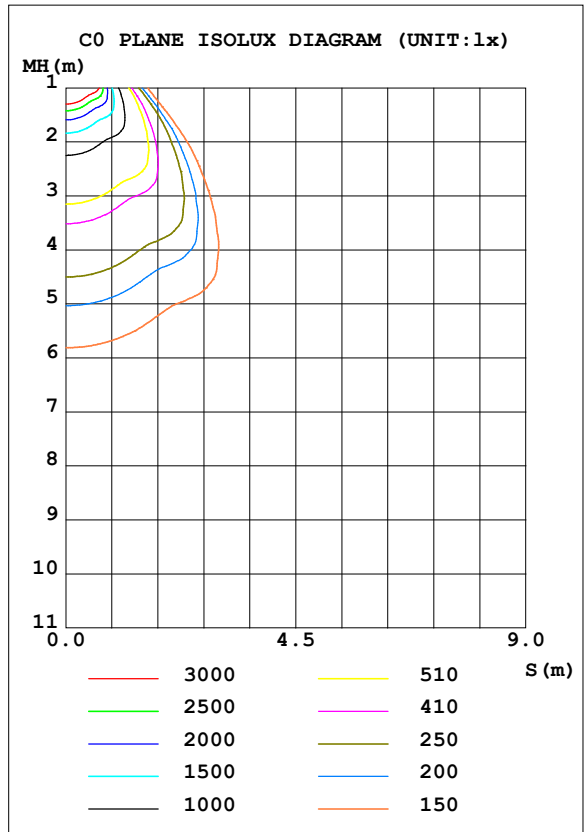
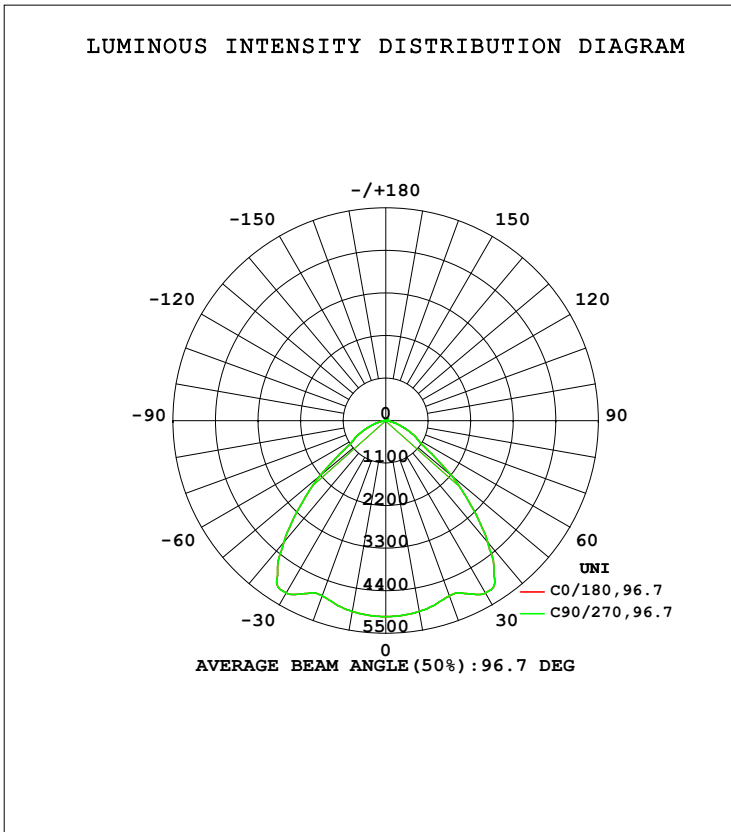


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.1V I:0.4465A P:99.30W PF:0.9667 Freq:50.00Hz Lamp Flux:12055.2x1 lm		
NAME: P472 4KR	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 121.40 lm/W			
MODEL	3030	Imax (cd)	5150	S/MH (C0/180)	1.36
NOMINAL POWER (W)	100	LOR (%)	100.0	S/MH (C90/270)	1.36
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	12055	η UP, DN (C0-180)	0.9, 49.1
NOMINAL FLUX (lm)	12055.2	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.9, 49.1
LAMPS INSIDE	1	η up (%)	1.8	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	98.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lam
10	5007	5007	5007	5007	5007	5007	5007	5007	0- 10	481.0	481.0	3.99,3.99
20	4821	4821	4821	4821	4821	4821	4821	4821	10- 20	1391	1872	15.5,15.5
30	5145	5145	5145	5145	5145	5145	5145	5145	20- 30	2297	4170	34.6,34.6
40	4097	4097	4097	4097	4097	4097	4097	4097	30- 40	3009	7179	59.5,59.5
50	2225	2225	2225	2225	2225	2225	2225	2225	40- 50	2428	9607	79.7,79.7
60	932.4	932.4	932.4	932.4	932.4	932.4	932.4	932.4	50- 60	1249	10855	90,90
70	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	60- 70	677.6	11533	95.7,95.7
80	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	70- 80	258.1	11791	97.8,97.8
90	18.93	18.93	18.93	18.93	18.93	18.93	18.93	18.93	80- 90	51.70	11843	98.2,98.2
100	16.91	16.91	16.91	16.91	16.91	16.91	16.91	16.91	90-100	18.36	11861	98.4,98.4
110	22.13	22.13	22.13	22.13	22.13	22.13	22.13	22.13	100-110	20.07	11881	98.6,98.6
120	34.26	34.26	34.26	34.26	34.26	34.26	34.26	34.26	110-120	27.21	11908	98.8,98.8
130	42.82	42.82	42.82	42.82	42.82	42.82	42.82	42.82	120-130	34.45	11943	99.1,99.1
140	47.08	47.08	47.08	47.08	47.08	47.08	47.08	47.08	130-140	35.05	11978	99.4,99.4
150	47.94	47.94	47.94	47.94	47.94	47.94	47.94	47.94	140-150	29.94	12008	99.6,99.6
160	56.44	56.44	56.44	56.44	56.44	56.44	56.44	56.44	150-160	23.71	12031	99.8,99.8
170	65.09	65.09	65.09	65.09	65.09	65.09	65.09	65.09	160-170	17.25	12049	99.9,99.9
180	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	170-180	6.466	12055	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 8522.7 lm

%lum = 70.7%

%lamp = 70.7%

Conical surface Flux(120deg): 10855 lm

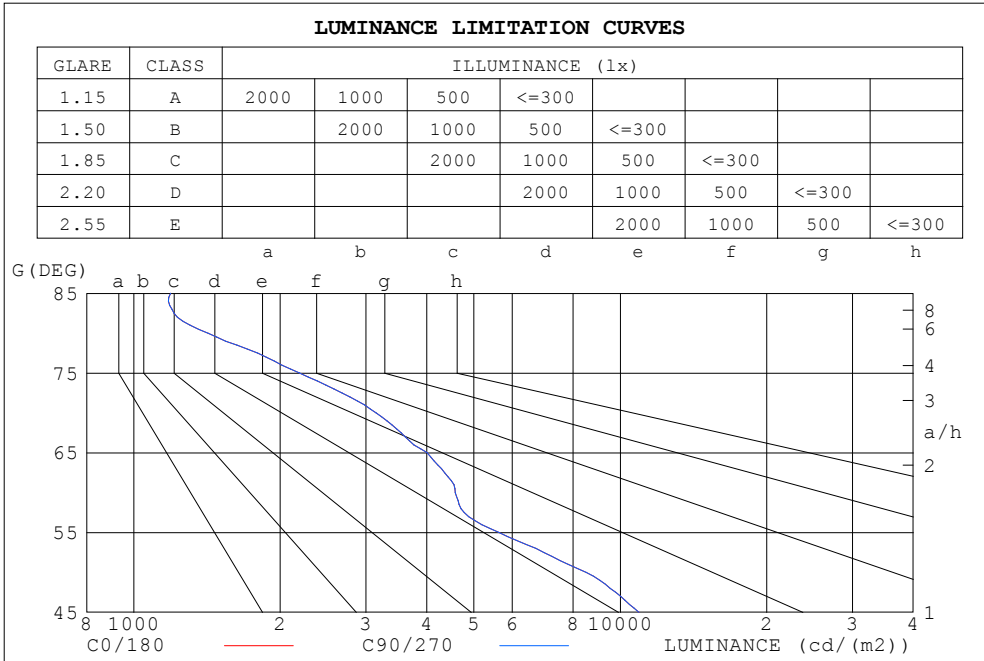
%lum = 90.0%

%lamp = 90.0%

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJTest
 Date:2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 γ Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1190	1190
80	1422	1422
75	2190	2190
70	3148	3148
65	4008	4008
60	4582	4582
55	5627	5627
50	8505	8505
45	10931	10931

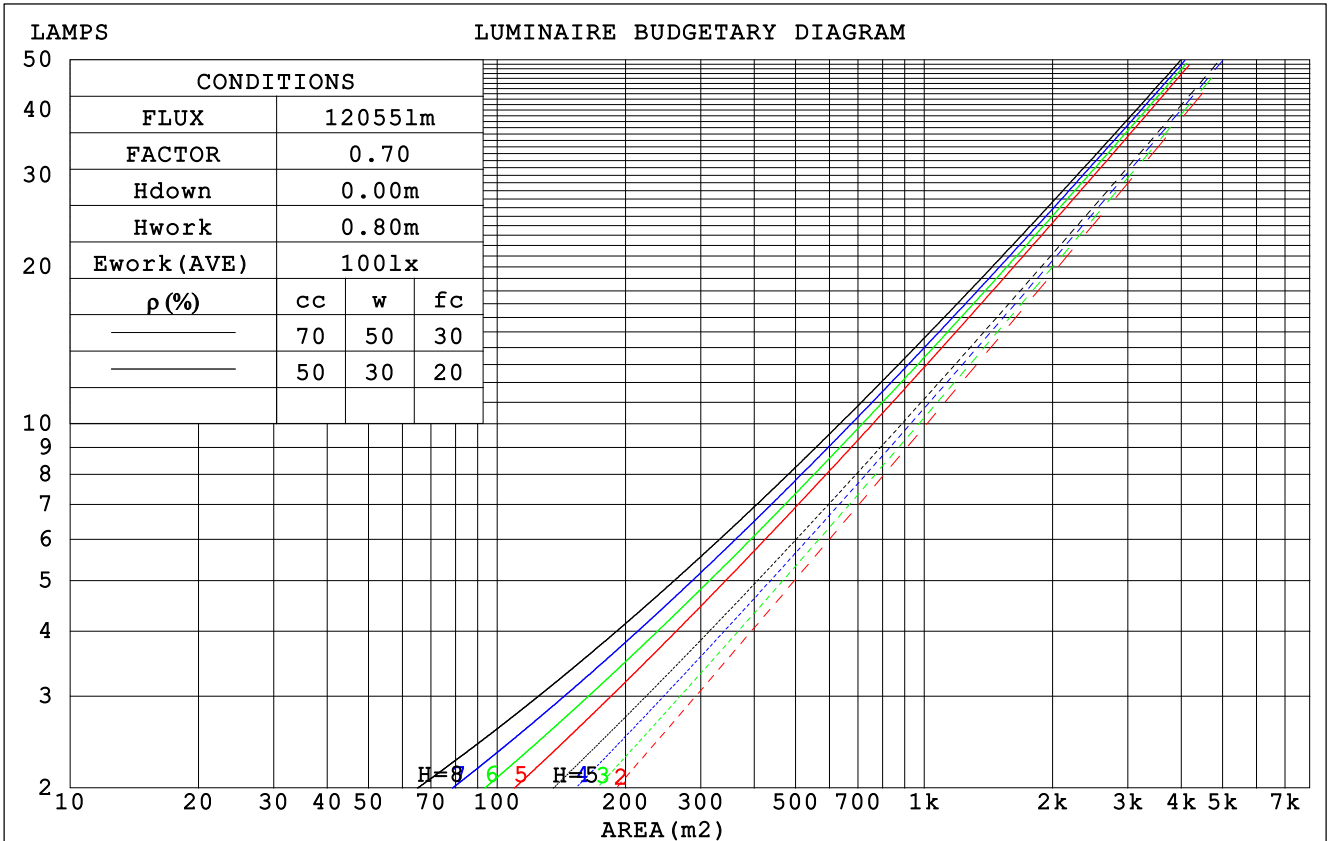
C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJTest
 Date: 2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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						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	1.07	1.03	1.00	1.04	1.01	.98	.90	.97	.95	.96	.94	.92	.92	.90	.89	.87
2.0	.96	.90	.85	.94	.88	.84	.90	.86	.82	.86	.83	.80	.83	.80	.78	.76
3.0	.86	.79	.73	.84	.78	.73	.81	.76	.71	.78	.73	.70	.75	.72	.68	.66
4.0	.77	.70	.64	.76	.69	.63	.73	.67	.62	.71	.65	.61	.68	.64	.60	.58
5.0	.70	.62	.56	.69	.61	.56	.66	.60	.55	.64	.59	.54	.62	.57	.53	.52
6.0	.63	.55	.50	.62	.55	.49	.60	.54	.49	.59	.53	.48	.57	.52	.48	.46
7.0	.58	.50	.44	.57	.49	.44	.55	.49	.44	.54	.48	.43	.52	.47	.43	.41
8.0	.53	.45	.40	.52	.45	.40	.51	.44	.39	.49	.43	.39	.48	.43	.39	.37
9.0	.49	.41	.36	.48	.41	.36	.47	.40	.36	.46	.40	.35	.45	.39	.35	.33
10.0	.45	.38	.33	.44	.37	.33	.43	.37	.32	.42	.36	.32	.41	.36	.32	.30



C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

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	.246	.140	.044	.239	.136	.043	.225	.129	.041	.212	.122	.039	.200	.116	.037	
2.0	.239	.131	.040	.232	.128	.039	.220	.122	.038	.209	.117	.037	.199	.112	.035	
3.0	.227	.121	.036	.221	.118	.036	.210	.114	.035	.201	.110	.034	.191	.106	.033	
4.0	.214	.111	.033	.209	.109	.032	.200	.106	.032	.191	.102	.031	.183	.099	.030	
5.0	.202	.103	.030	.197	.101	.029	.189	.098	.029	.181	.095	.028	.174	.093	.028	
6.0	.190	.095	.027	.186	.094	.027	.179	.092	.027	.172	.089	.026	.165	.087	.026	
7.0	.179	.089	.025	.176	.088	.025	.169	.085	.025	.163	.083	.024	.157	.081	.024	
8.0	.169	.083	.023	.166	.082	.023	.160	.080	.023	.154	.078	.023	.149	.076	.022	
9.0	.160	.078	.022	.157	.077	.022	.152	.075	.021	.147	.074	.021	.142	.072	.021	
10.0	.152	.073	.020	.149	.072	.020	.144	.071	.020	.140	.069	.020	.135	.068	.020	

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	.204	.204	.204	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.189	.170	.153	.162	.146	.132	.111	.101	.091	.064	.058	.053	.020	.019	.017	
2.0	.179	.146	.118	.153	.126	.102	.105	.087	.071	.061	.051	.042	.019	.016	.014	
3.0	.170	.128	.094	.146	.110	.082	.100	.077	.057	.058	.045	.034	.019	.015	.011	
4.0	.162	.114	.077	.139	.098	.067	.096	.069	.047	.055	.040	.028	.018	.013	.009	
5.0	.155	.103	.065	.133	.089	.057	.092	.062	.040	.053	.037	.024	.017	.012	.008	
6.0	.148	.095	.056	.127	.082	.049	.088	.057	.035	.051	.034	.021	.016	.011	.007	
7.0	.142	.088	.050	.122	.076	.043	.084	.053	.031	.049	.031	.018	.016	.010	.006	
8.0	.136	.082	.045	.117	.071	.039	.081	.050	.028	.047	.029	.016	.015	.010	.005	
9.0	.131	.077	.041	.113	.067	.036	.078	.047	.025	.045	.028	.015	.015	.009	.005	
10.0	.126	.073	.038	.108	.063	.033	.075	.044	.023	.044	.026	.014	.014	.009	.005	

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

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	15.5	16.9	15.9	17.3	17.6	15.5	16.9	15.9	17.3	17.6
3H	16.7	17.9	17.1	18.3	18.7	16.7	17.9	17.1	18.3	18.7
4H	17.0	18.1	17.4	18.5	18.9	17.0	18.1	17.4	18.5	18.9
6H	17.0	18.1	17.5	18.5	18.9	17.0	18.1	17.5	18.5	18.9
8H	17.0	18.0	17.5	18.5	18.9	17.0	18.0	17.5	18.5	18.9
12H	17.0	18.0	17.5	18.4	18.9	17.0	18.0	17.5	18.4	18.9
4H 2H	16.0	17.2	16.4	17.5	18.0	16.0	17.2	16.4	17.5	18.0
3H	17.3	18.3	17.8	18.7	19.1	17.3	18.3	17.8	18.7	19.1
4H	17.6	18.5	18.1	18.9	19.4	17.6	18.5	18.1	18.9	19.4
6H	17.8	18.5	18.2	19.0	19.5	17.8	18.5	18.2	19.0	19.5
8H	17.8	18.4	18.3	18.9	19.4	17.8	18.4	18.3	18.9	19.4
12H	17.8	18.4	18.3	18.9	19.4	17.8	18.4	18.3	18.9	19.4
8H 4H	17.7	18.4	18.2	18.8	19.3	17.7	18.4	18.2	18.8	19.3
6H	17.8	18.4	18.4	18.9	19.5	17.8	18.4	18.4	18.9	19.5
8H	17.9	18.4	18.4	18.9	19.4	17.9	18.4	18.4	18.9	19.4
12H	17.9	18.3	18.4	18.9	19.5	17.9	18.3	18.4	18.9	19.5
12H 4H	17.7	18.3	18.2	18.8	19.3	17.7	18.3	18.2	18.8	19.3
6H	17.8	18.3	18.4	18.8	19.4	17.8	18.3	18.4	18.8	19.4
8H	17.9	18.3	18.4	18.8	19.4	17.9	18.3	18.4	18.8	19.4
CIE190: 2010										

CIE190: 2010
Area: 0.407 m2

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-06-09

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

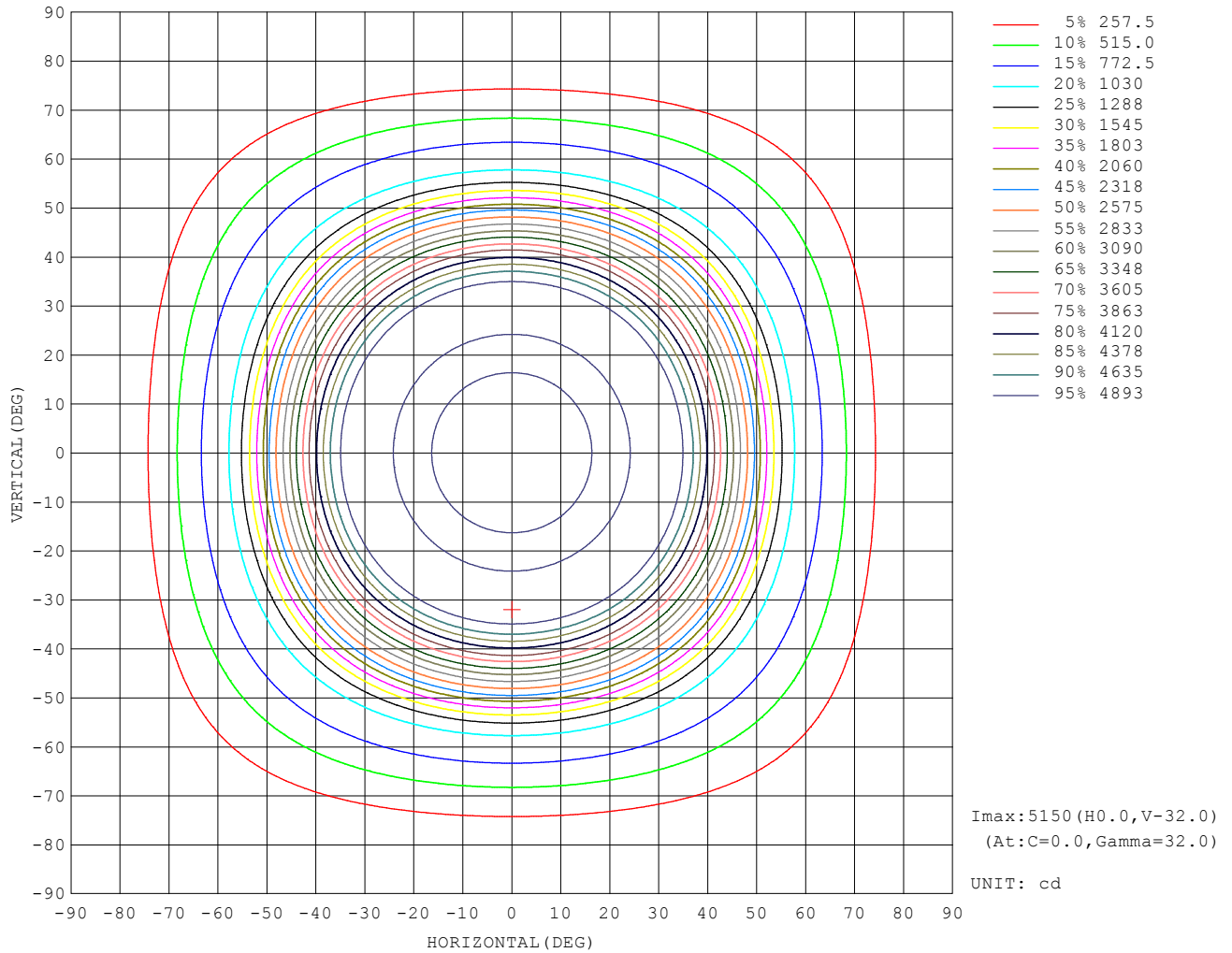
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	66	56	50	65	56	50	64	55	50	44
0.80	76	66	60	75	66	60	73	65	60	54
1.00	84	75	69	83	74	69	81	75	68	62
1.25	91	82	76	89	81	76	87	80	75	69
1.50	95	87	81	93	86	81	90	84	80	73
2.00	100	94	89	99	92	88	95	90	86	79
2.50	103	97	93	101	96	92	98	93	89	82
3.00	106	101	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	102	99	96	88
5.00	111	107	104	108	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJTest
 Date: 2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

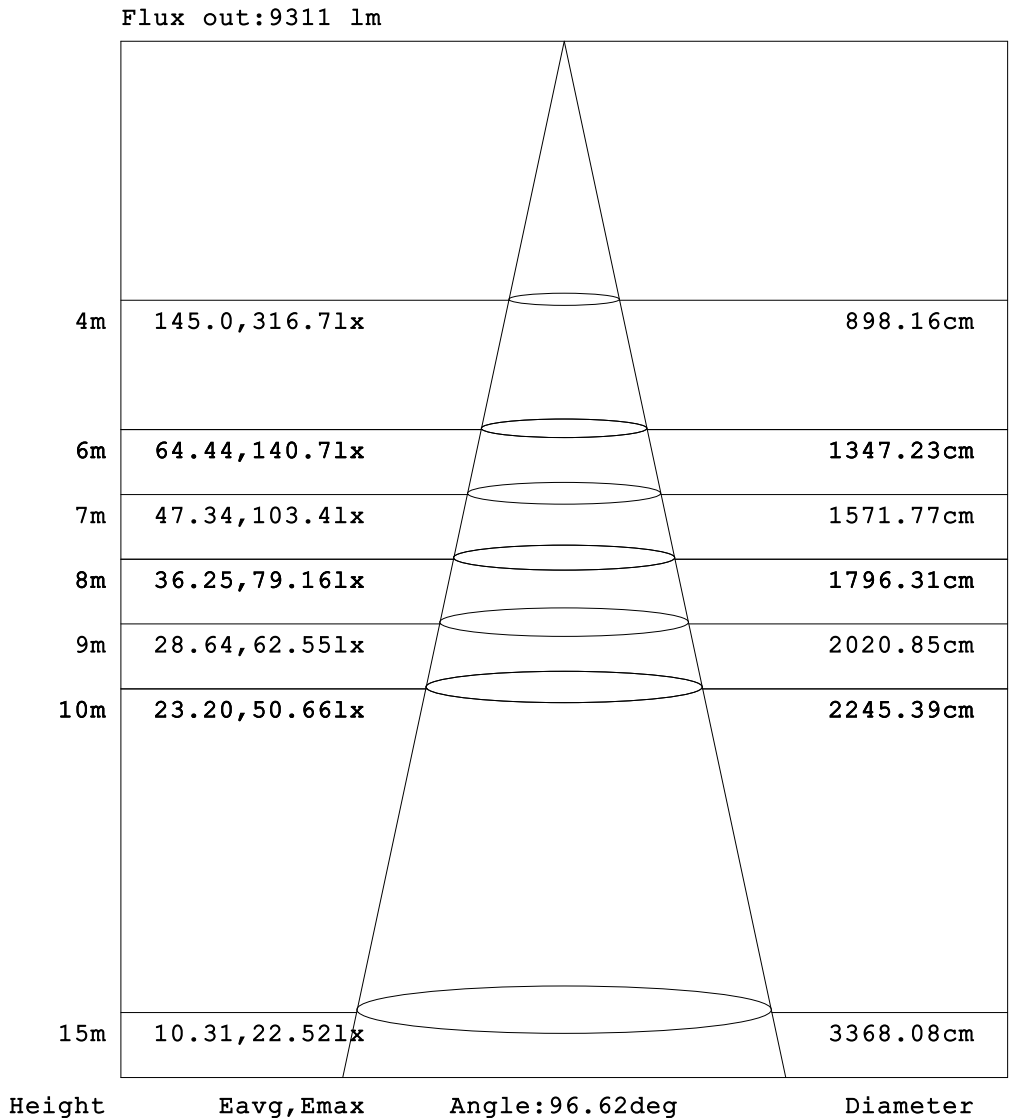
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJTest
 Date: 2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

AAI Figure



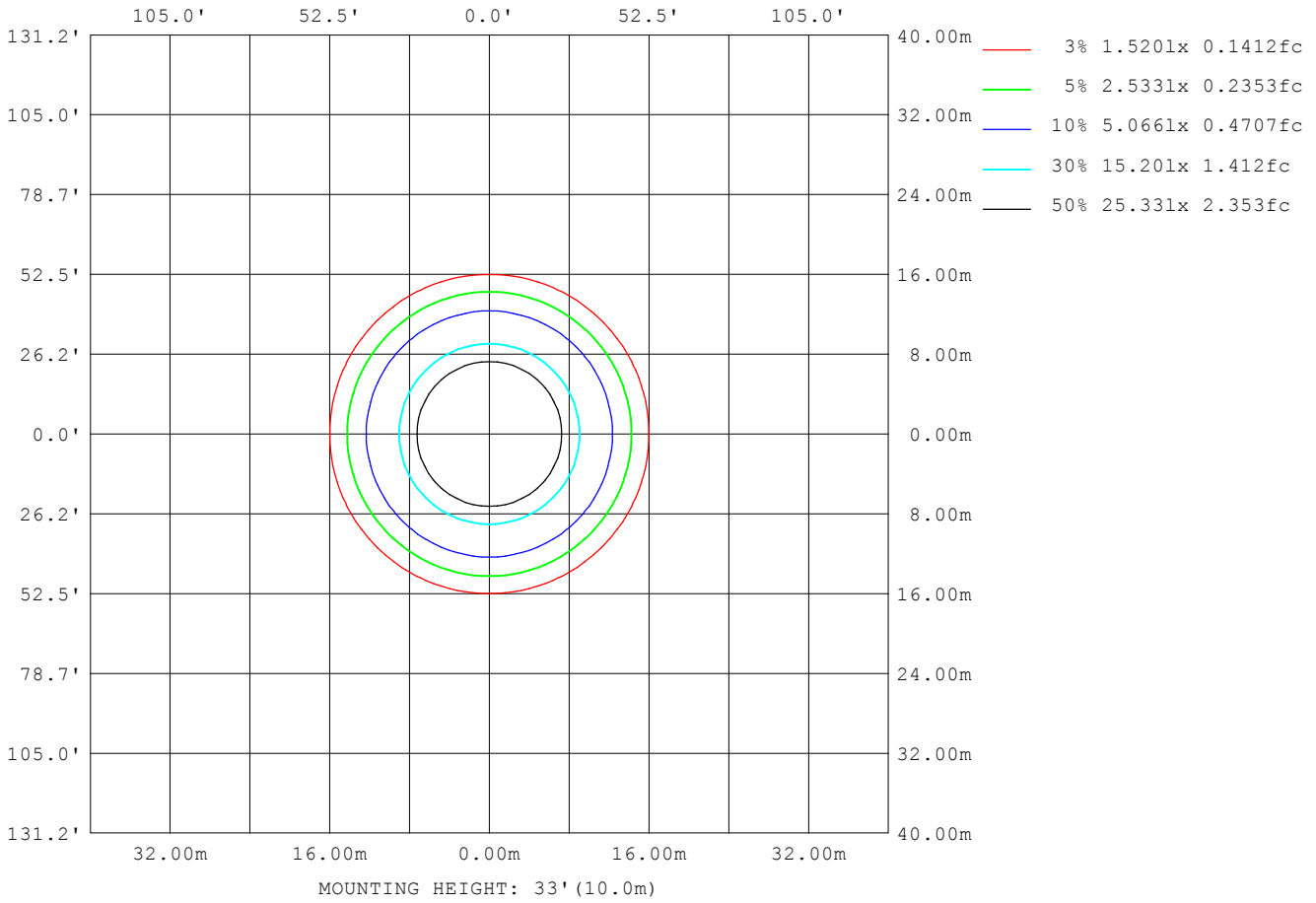
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

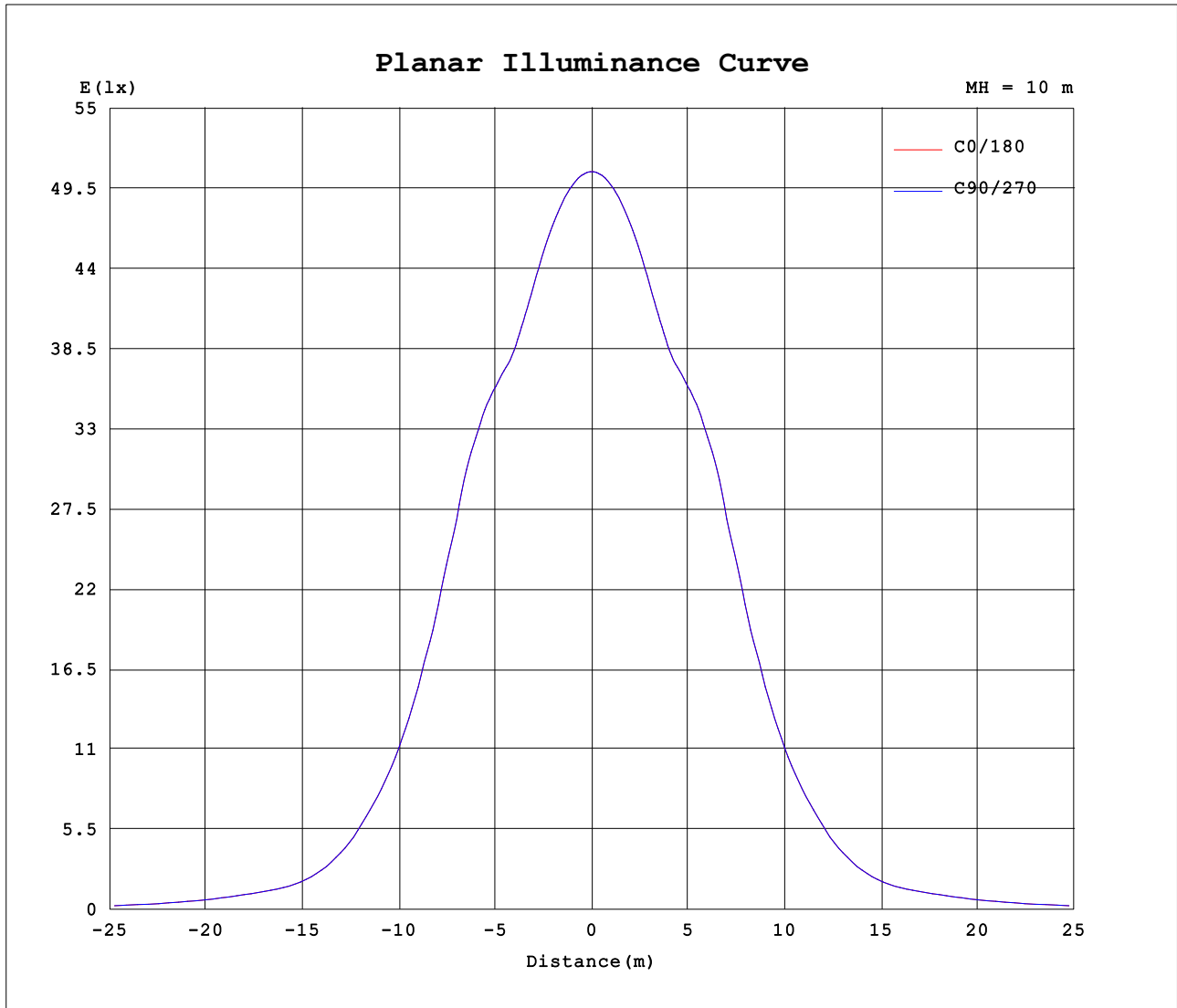
ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJTest
 Date: 2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJTest
Date:2020-06-09

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks: