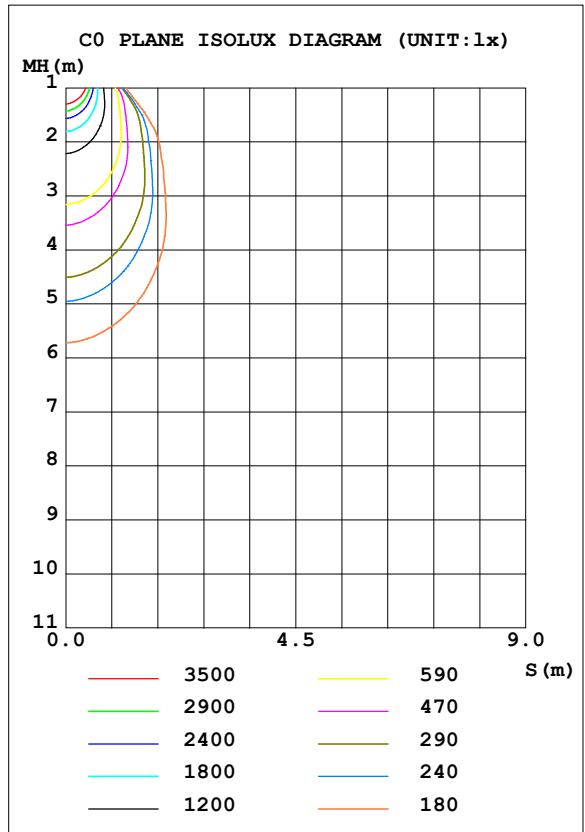
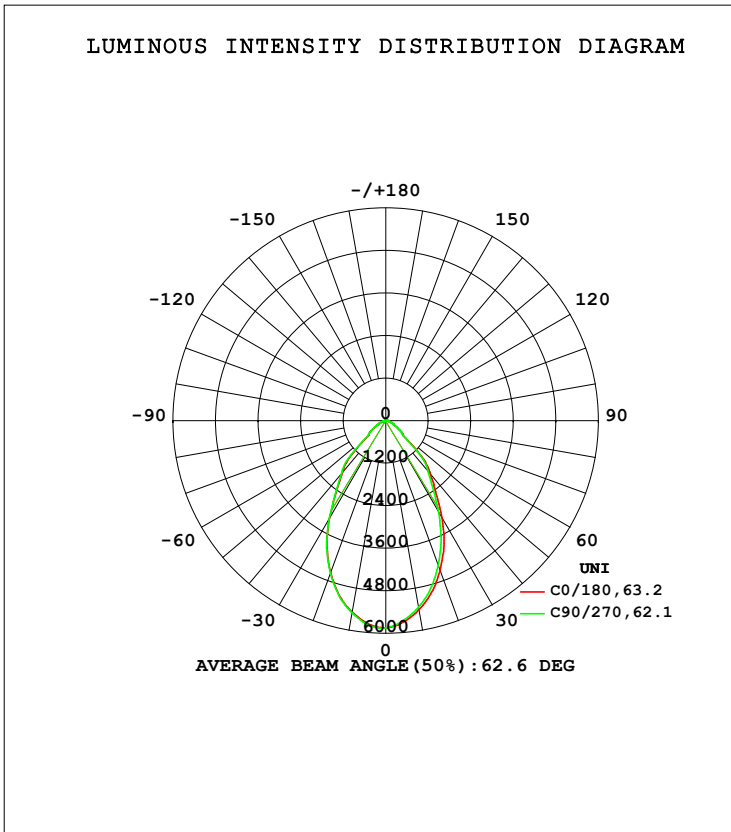


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.8V I:0.2243A P:49.88W PF:0.9675 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:7203.7x1 lm		
NAME: 950-024_4000k	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 144.44 lm/W			
MODEL	/	I <sub>max</sub> (cd)	5850	S/MH (C0/180)	0.94
NOMINAL POWER (W)	50	LOR (%)	100.0	S/MH (C90/270)	0.94
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	7203.7	η UP, DN (C0-180)	0.8, 48.6
NOMINAL FLUX (lm)	7203.7	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.9, 49.7
LAMPS INSIDE	1	η up (%)	1.7	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	230	η down (%)	98.3	CIBSE SHR MAX	0.95



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 26.6DEG  
 Operators: LYJ  
 Test Date: 2020-12-21

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 49.8%  
 Test Distance: 26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	5414	5374	5342	5407	5482	5499	5505	5478	0- 10	537.2	537.2	7.46,7.46
20	4486	4398	4332	4459	4558	4574	4572	4538	10- 20	1405	1942	27,27
30	3181	3105	2990	3128	3190	3200	3202	3183	20- 30	1764	3705	51.4,51.4
40	1957	1901	1855	1905	1905	1922	1951	1906	30- 40	1529	5234	72.7,72.7
50	646.8	660.7	632.4	643.8	621.9	654.5	657.1	620.5	40- 50	1016	6250	86.8,86.8
60	334.9	336.5	319.5	332.6	321.6	320.9	348.0	336.3	50- 60	449.2	6699	93,93
70	153.7	148.4	153.6	148.2	138.5	147.0	159.9	151.4	60- 70	237.2	6936	96.3,96.3
80	60.33	59.52	57.20	56.92	55.24	56.28	61.32	60.46	70- 80	104.9	7041	97.7,97.7
90	20.37	19.46	19.41	19.60	20.09	19.92	20.55	21.13	80- 90	39.89	7081	98.3,98.3
100	15.93	16.19	16.18	16.50	16.10	16.19	16.69	16.42	90-100	18.44	7099	98.6,98.6
110	16.29	16.33	16.18	16.48	16.69	17.01	16.87	16.60	100-110	17.50	7117	98.8,98.8
120	20.74	22.13	21.54	22.67	21.73	23.46	21.57	21.25	110-120	18.10	7135	99,99
130	22.65	23.03	23.06	22.65	23.52	23.14	22.89	22.23	120-130	20.17	7155	99.3,99.3
140	19.75	19.31	19.22	19.42	19.80	19.99	19.55	19.85	130-140	16.56	7172	99.6,99.6
150	20.11	19.92	19.92	20.04	20.29	19.85	20.09	20.15	140-150	12.43	7184	99.7,99.7
160	22.73	22.59	22.93	23.05	23.39	23.15	23.22	23.09	150-160	9.802	7194	99.9,99.9
170	26.76	27.06	27.20	27.37	27.23	27.29	27.03	27.11	160-170	7.038	7201	100,100
180	28.59	29.22	28.87	29.06	28.68	29.18	28.90	29.00	170-180	2.625	7204	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 5857.6 lm

%lum = 81.3%

%lamp = 81.3%

Conical surface Flux(120deg): 6699 lm

%lum = 93.0%

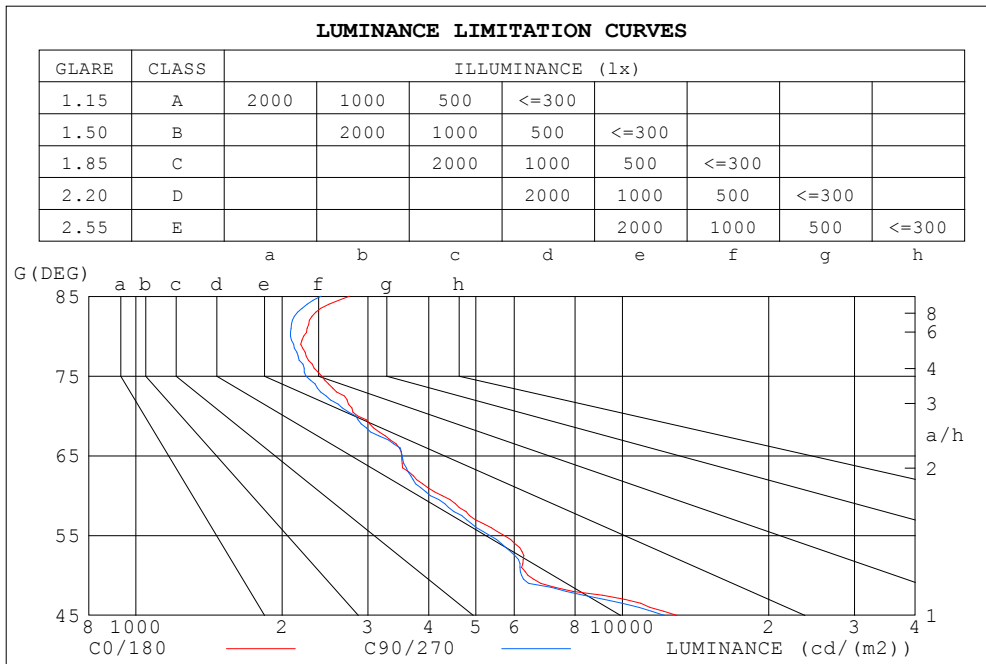
%lamp = 93.0%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:26.6DEG  
 Operators:LYJ  
 Test Date:2020-12-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity:49.8%  
 Test Distance:26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2746	2400
80	2211	2078
75	2410	2238
70	2860	2832
65	3518	3526
60	4264	4032
55	5712	5337
50	6405	6207
45	12946	12207

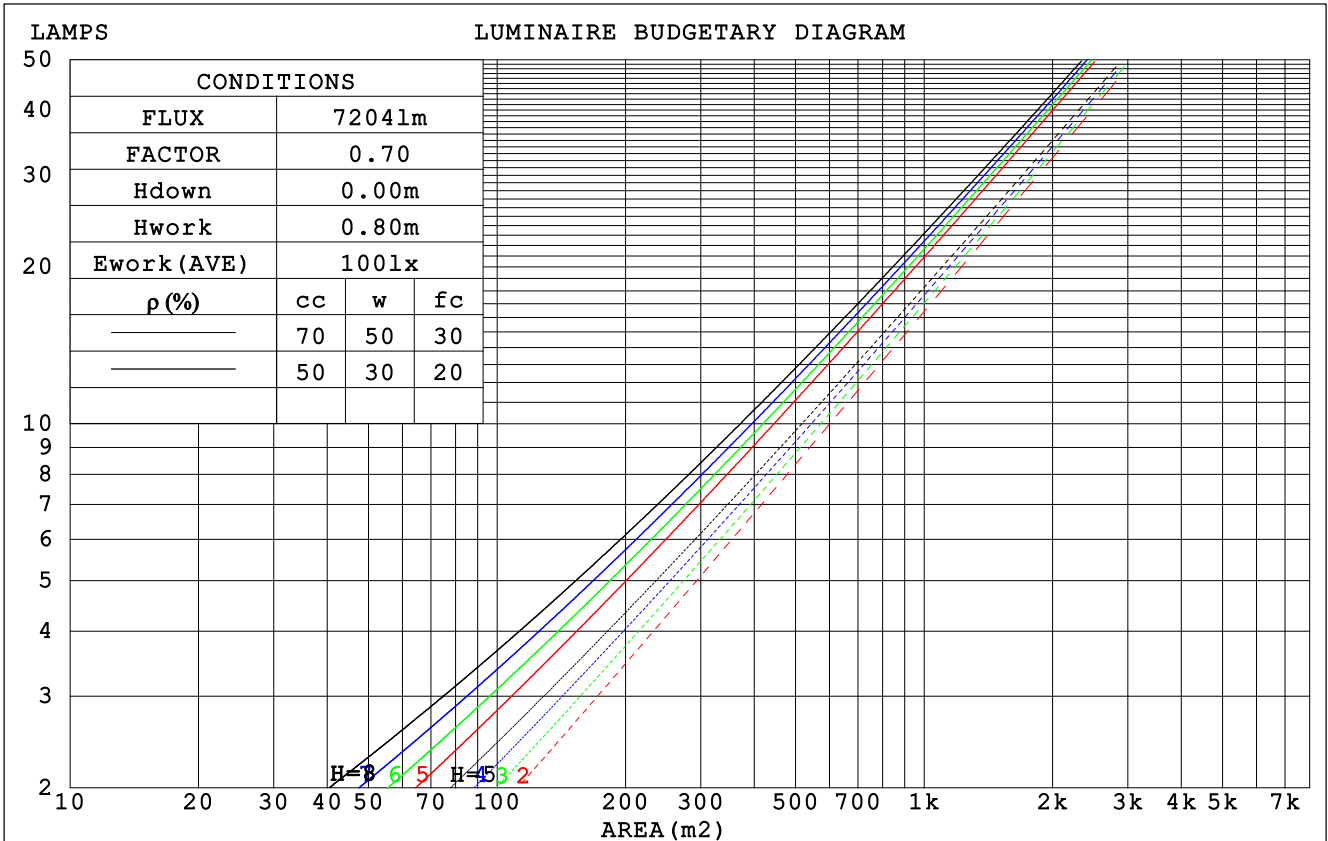
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 26.6DEG  
 Operators: LYJ  
 Test Date: 2020-12-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 49.8%  
 Test Distance: 26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.08	1.05	1.02	1.06	1.03	1.01	1.01	.99	.97	.97	.96	.94	.94	.92	.91	.89
2.0	.99	.94	.89	.97	.92	.88	.93	.89	.86	.90	.87	.84	.87	.84	.82	.80
3.0	.90	.84	.79	.88	.83	.78	.85	.81	.77	.83	.79	.75	.80	.77	.74	.72
4.0	.83	.76	.71	.81	.75	.70	.79	.73	.69	.76	.72	.68	.74	.70	.67	.65
5.0	.76	.69	.64	.75	.68	.63	.73	.67	.63	.71	.66	.62	.69	.65	.61	.59
6.0	.70	.63	.58	.69	.63	.58	.67	.62	.57	.66	.61	.57	.64	.60	.56	.54
7.0	.65	.58	.53	.64	.58	.53	.63	.57	.52	.61	.56	.52	.60	.55	.52	.50
8.0	.61	.54	.49	.60	.53	.49	.59	.53	.48	.57	.52	.48	.56	.51	.48	.46
9.0	.57	.50	.45	.56	.49	.45	.55	.49	.45	.54	.48	.44	.53	.48	.44	.43
10.0	.53	.46	.42	.52	.46	.42	.51	.46	.42	.50	.45	.41	.50	.45	.41	.40



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 26.6DEG  
 Operators: LYJ  
 Test Date: 2020-12-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 49.8%  
 Test Distance: 26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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**WEC AND CCEC**

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.220	.125	.040	.212	.121	.038	.198	.114	.036	.186	.107	.034	.174	.101	.033	
2.0	.210	.115	.035	.204	.112	.035	.192	.107	.033	.181	.102	.032	.171	.097	.031	
3.0	.199	.106	.032	.194	.104	.031	.183	.099	.030	.174	.095	.029	.165	.091	.028	
4.0	.188	.098	.029	.183	.096	.028	.174	.092	.028	.166	.089	.027	.158	.086	.026	
5.0	.178	.091	.026	.174	.089	.026	.165	.086	.025	.158	.083	.025	.151	.081	.024	
6.0	.168	.084	.024	.164	.083	.024	.157	.081	.023	.151	.078	.023	.144	.076	.023	
7.0	.159	.079	.022	.156	.078	.022	.149	.076	.022	.143	.074	.021	.138	.072	.021	
8.0	.151	.074	.021	.148	.073	.021	.142	.071	.020	.137	.069	.020	.132	.068	.020	
9.0	.144	.069	.019	.141	.069	.019	.136	.067	.019	.131	.066	.019	.126	.064	.019	
10.0	.137	.066	.018	.134	.065	.018	.129	.063	.018	.125	.062	.018	.121	.061	.017	

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.203	.203	.203	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.187	.170	.155	.160	.146	.133	.110	.100	.092	.063	.058	.054	.020	.019	.017	
2.0	.175	.145	.121	.149	.125	.105	.102	.087	.073	.059	.050	.043	.019	.016	.014	
3.0	.164	.127	.098	.141	.110	.085	.097	.076	.059	.056	.044	.035	.018	.014	.011	
4.0	.155	.113	.081	.133	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.010	
5.0	.147	.102	.068	.126	.088	.059	.087	.062	.042	.050	.036	.025	.016	.012	.008	
6.0	.140	.093	.059	.121	.081	.051	.083	.056	.036	.048	.033	.022	.016	.011	.007	
7.0	.134	.086	.052	.115	.074	.045	.080	.052	.032	.046	.031	.019	.015	.010	.006	
8.0	.128	.080	.047	.110	.069	.041	.076	.049	.029	.044	.029	.017	.014	.009	.006	
9.0	.123	.075	.042	.106	.065	.037	.073	.046	.026	.043	.027	.016	.014	.009	.005	
10.0	.118	.070	.039	.102	.061	.034	.071	.043	.024	.041	.025	.014	.013	.008	.005	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:26.6DEG  
 Operators:LYJ  
 Test Date:2020-12-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity:49.8%  
 Test Distance:26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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**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	17.7	18.9	18.0	19.1	19.3	17.4	18.5	17.6	18.7	18.9
3H	18.0	19.1	18.3	19.3	19.5	17.7	18.7	18.0	19.0	19.2
4H	18.1	19.1	18.4	19.3	19.6	17.7	18.7	18.1	19.0	19.3
6H	18.1	19.1	18.5	19.3	19.6	17.8	18.7	18.1	19.0	19.3
8H	18.1	19.0	18.5	19.3	19.6	17.8	18.7	18.1	19.0	19.3
12H	18.2	19.0	18.5	19.3	19.6	17.8	18.7	18.2	19.0	19.3
4H 2H	17.8	18.7	18.1	19.0	19.3	17.4	18.4	17.7	18.7	18.9
3H	18.1	19.0	18.5	19.3	19.6	17.8	18.7	18.2	19.0	19.3
4H	18.3	19.1	18.7	19.4	19.7	18.0	18.7	18.3	19.1	19.4
6H	18.4	19.1	18.8	19.5	19.9	18.1	18.8	18.5	19.1	19.5
8H	18.5	19.1	18.9	19.5	19.9	18.1	18.8	18.6	19.2	19.6
12H	18.5	19.1	19.0	19.5	19.9	18.2	18.8	18.6	19.2	19.6
8H 4H	18.3	18.9	18.7	19.3	19.7	18.0	18.6	18.4	19.0	19.4
6H	18.5	19.0	18.9	19.4	19.9	18.2	18.7	18.6	19.1	19.6
8H	18.6	19.0	19.1	19.5	20.0	18.3	18.7	18.7	19.2	19.6
12H	18.7	19.1	19.2	19.6	20.1	18.4	18.8	18.9	19.2	19.7
12H 4H	18.2	18.8	18.7	19.2	19.6	17.9	18.5	18.4	18.9	19.3
6H	18.5	18.9	18.9	19.4	19.8	18.2	18.6	18.6	19.1	19.5
8H	18.6	19.0	19.1	19.5	20.0	18.3	18.7	18.8	19.1	19.7
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.3 / - 1.8					+ 1.4 / - 1.7				
1.5H	+ 1.5 / - 1.8					+ 1.4 / - 1.5				
2.0H	+ 3.1 / - 1.6					+ 3.0 / - 1.6				

CIE Pub.117, 7204 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 6.9)  
 Area: 0.15834 m2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:26.6DEG  
 Operators:LYJ  
 Test Date:2020-12-21

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity:49.8%  
 Test Distance:26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

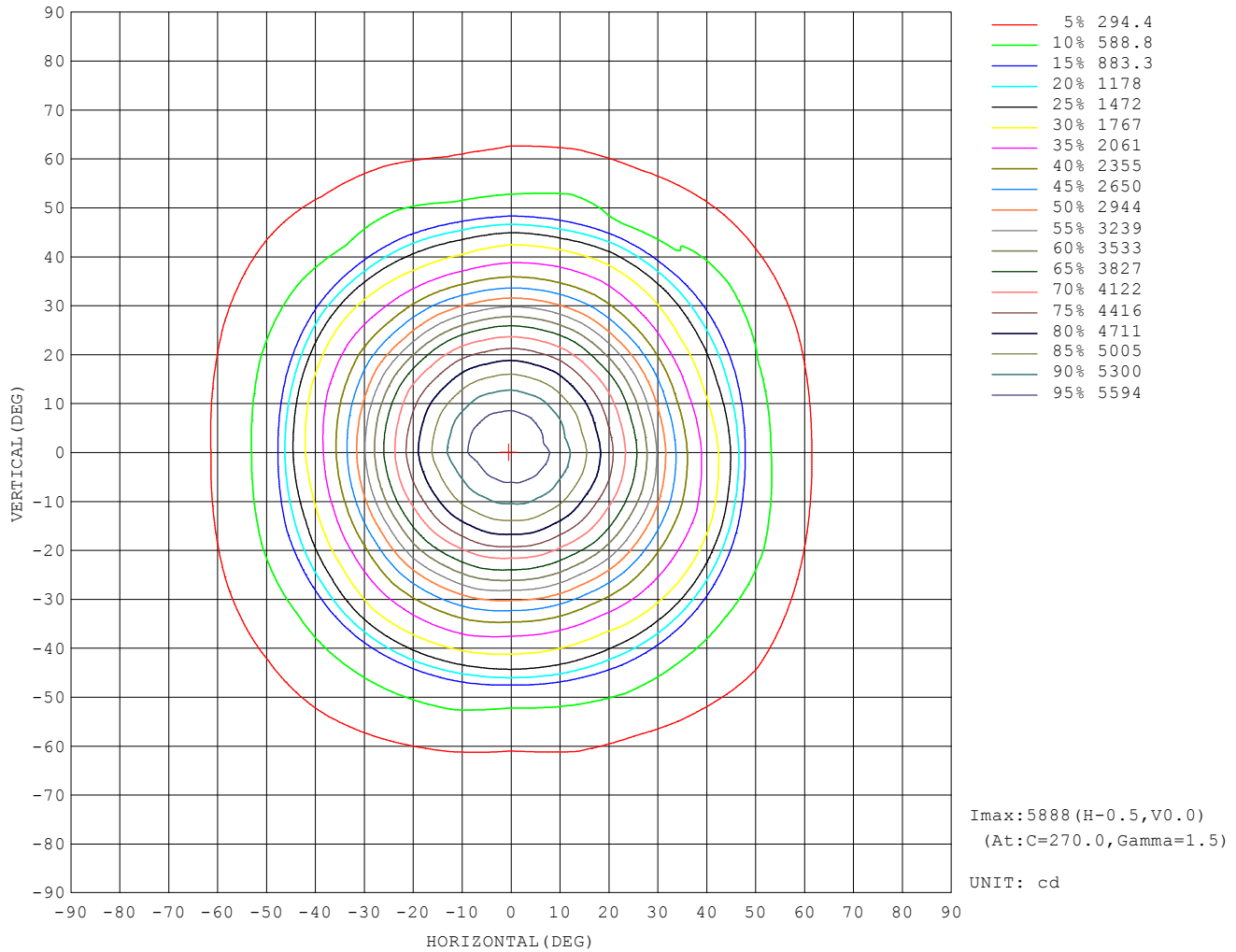
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	74	66	61	74	66	61	73	65	60	56
0.80	83	75	70	82	75	70	81	74	69	64
1.00	90	82	77	89	82	77	87	82	76	71
1.25	95	88	83	94	87	83	92	86	82	76
1.50	99	92	88	97	91	87	95	90	86	80
2.00	103	98	93	102	96	92	98	94	91	84
2.50	106	101	96	104	99	95	100	96	93	86
3.00	108	103	100	106	102	98	102	99	96	89
4.00	111	107	104	108	105	102	104	101	99	91
5.00	112	109	106	110	107	105	105	103	101	93
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: 26.6DEG  
 Operators: LYJ  
 Test Date: 2020-12-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 49.8%  
 Test Distance: 26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

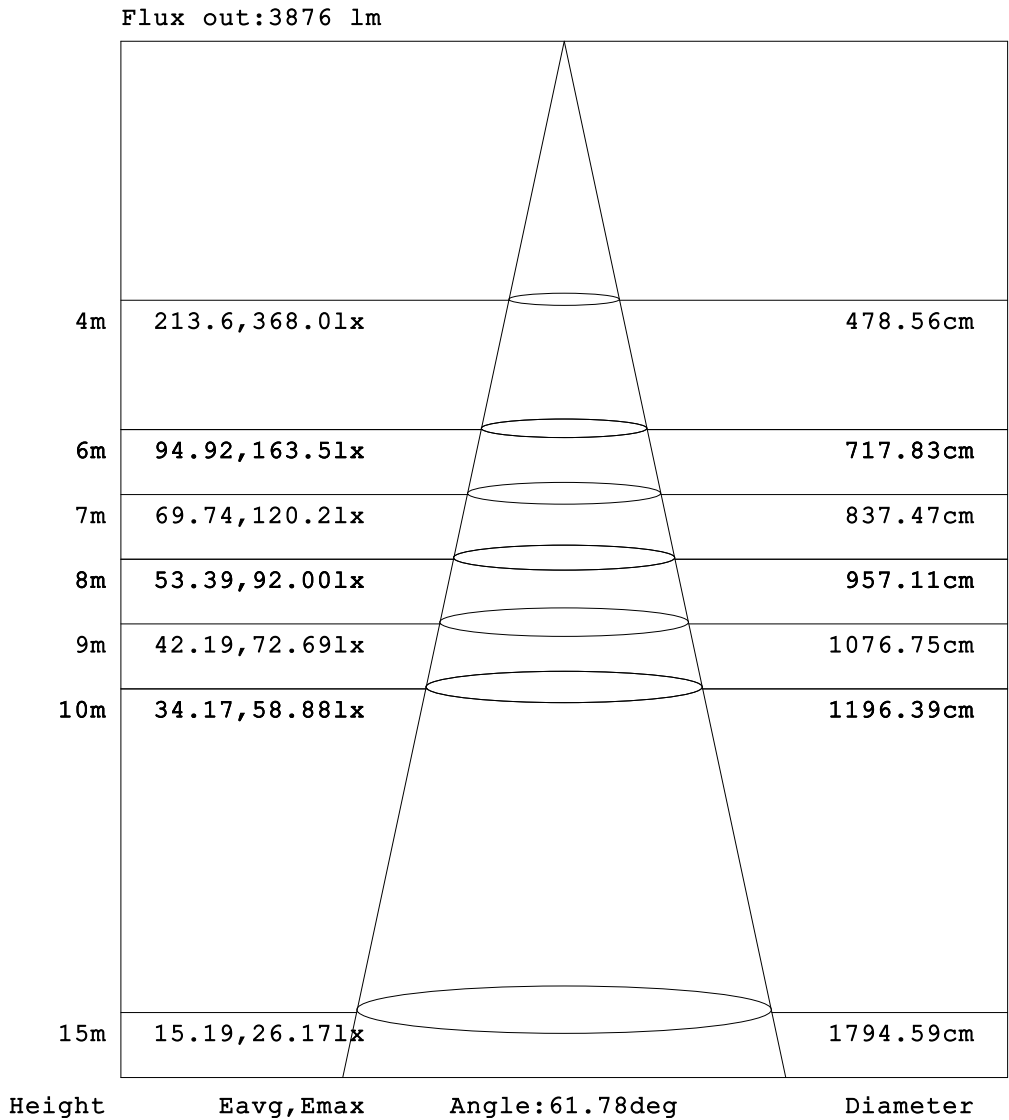
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:26.6DEG  
 Operators:LYJ  
 Test Date:2020-12-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity:49.8%  
 Test Distance:26.000m [K=0.4574]  
 Remarks:

AAI Figure



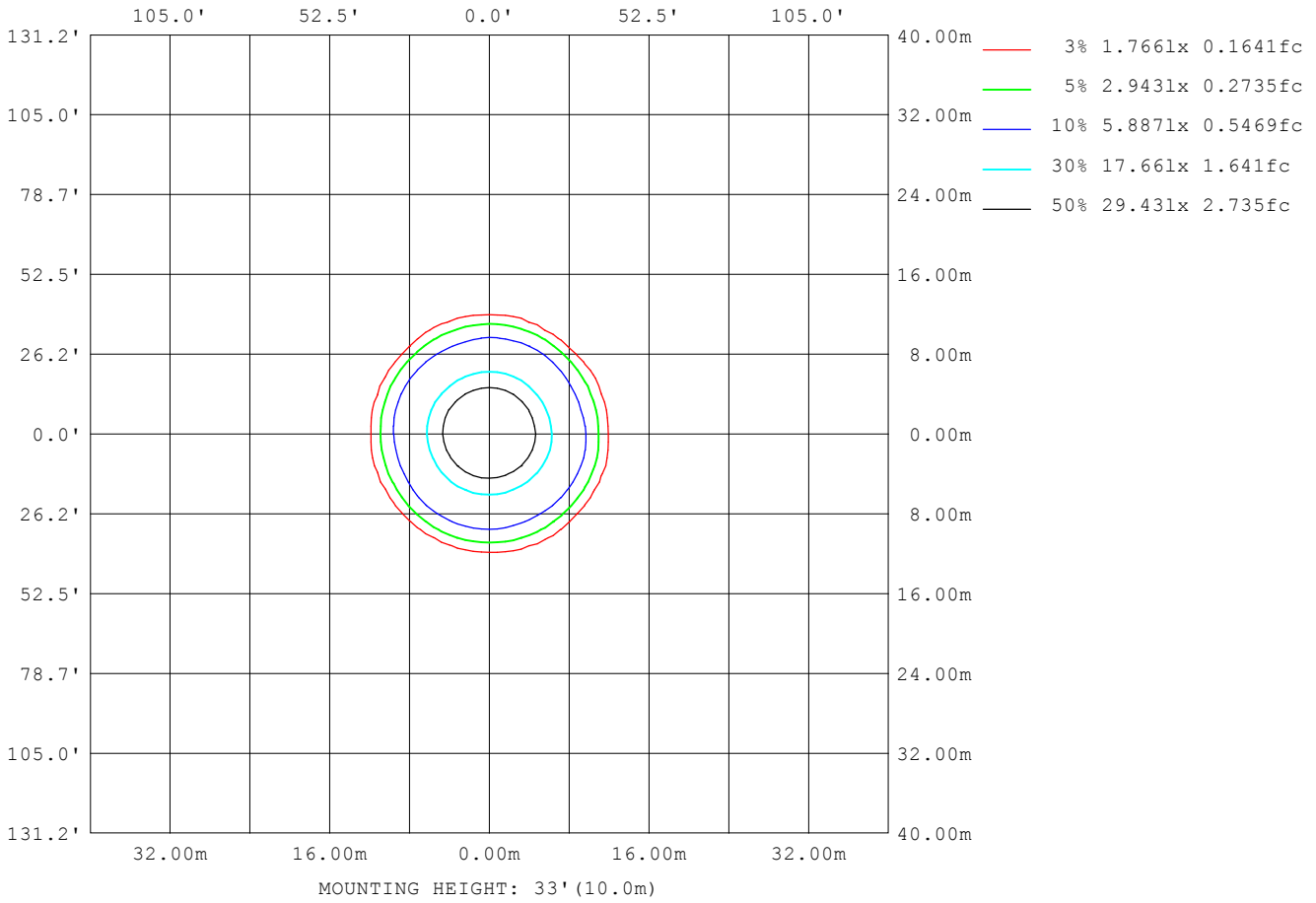
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:26.6DEG  
 Operators:LYJ  
 Test Date:2020-12-21

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity:49.8%  
 Test Distance:26.000m [K=0.4574]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

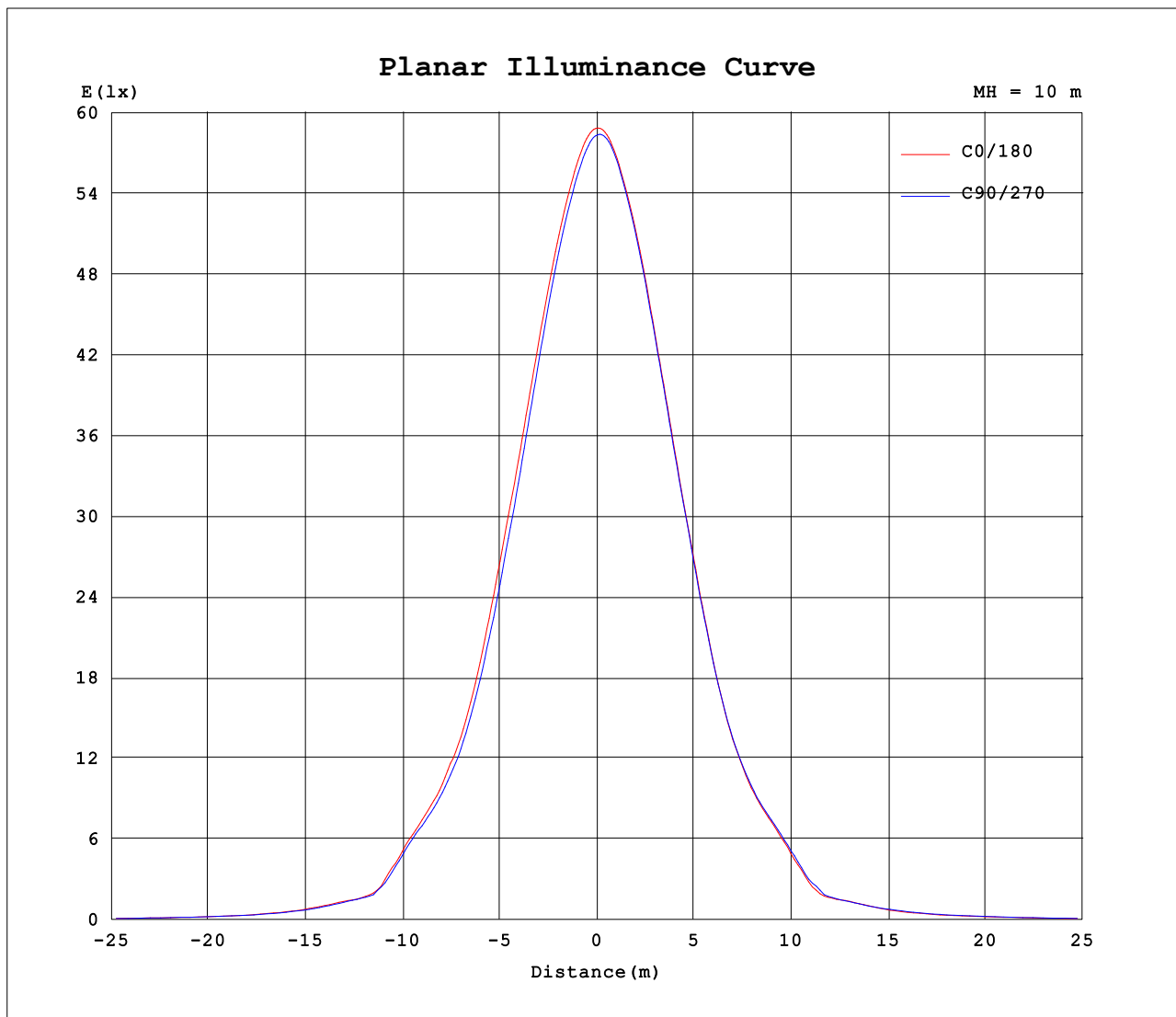
ISOLUX DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 26.6DEG  
 Operators: LYJ  
 Test Date: 2020-12-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 49.8%  
 Test Distance: 26.000m [K=0.4574]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 26.6DEG  
 Operators: LYJ  
 Test Date: 2020-12-21

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 49.8%  
 Test Distance: 26.000m [K=0.4574]  
 Remarks: