

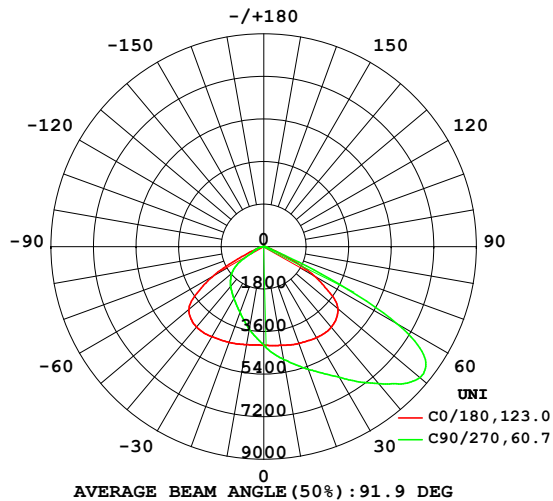
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

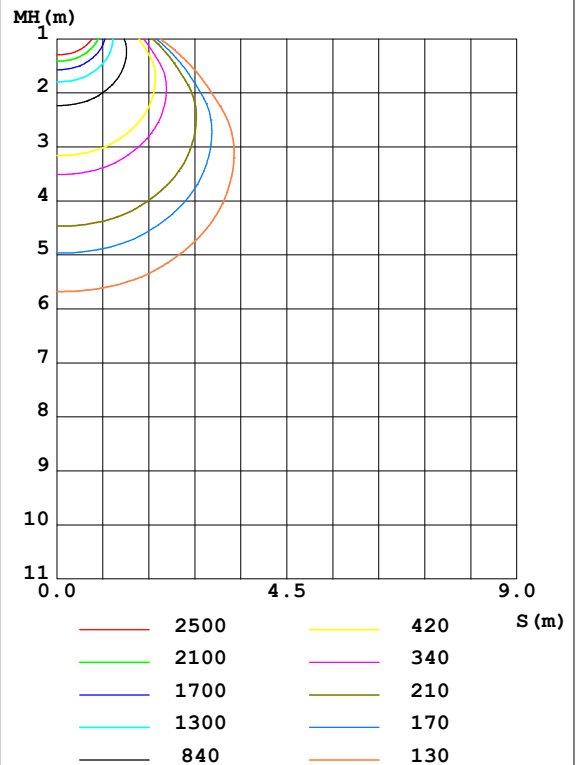
Test:U:229.9V I:0.4623A P:104.9W PF:0.9868 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:15920.8x1 lm		
NAME: FL23-100-5070-F12801	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 151.84 lm/W			
MODEL	SMD283	I _{max} (cd)	8876	S/MH (C0/180)	1.62
NOMINAL POWER (W)	100	LOR (%)	100.0	S/MH (C90/270)	0.91
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	15921	η UP, DN (C0-180)	0.0, 67.8
NOMINAL FLUX (lm)	15920.8	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 32.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.75
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.75

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-08-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
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,lamp
10	4242	4715	4843	4682	4214	3759	3555	3758	0- 10	401.6	401.6	2.52,2.52
20	4359	5214	5528	5134	4312	3415	2960	3408	10- 20	1208	1609	10.1,10.1
30	4452	5801	6383	5651	4403	3145	2536	3162	20- 30	2021	3631	22.8,22.8
40	4449	6644	7570	6511	4437	2852	2193	2880	30- 40	2866	6497	40.8,40.8
50	4097	7236	8624	7296	4139	2470	1771	2518	40- 50	3693	10190	64,64
60	2446	5050	6497	5328	2445	1527	826.0	1598	50- 60	3811	14001	87.9,87.9
70	381.8	794.5	350.0	760.0	393.9	428.7	352.0	410.8	60- 70	1664	15665	98.4,98.4
80	70.34	65.52	69.17	58.34	62.33	74.54	90.22	80.09	70- 80	234.7	15900	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	20.84	15921	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): 8251 lm

%lum = 51.8%

%lamp = 51.8%

Conical surface Flux(120deg): 14001 lm

%lum = 87.9%

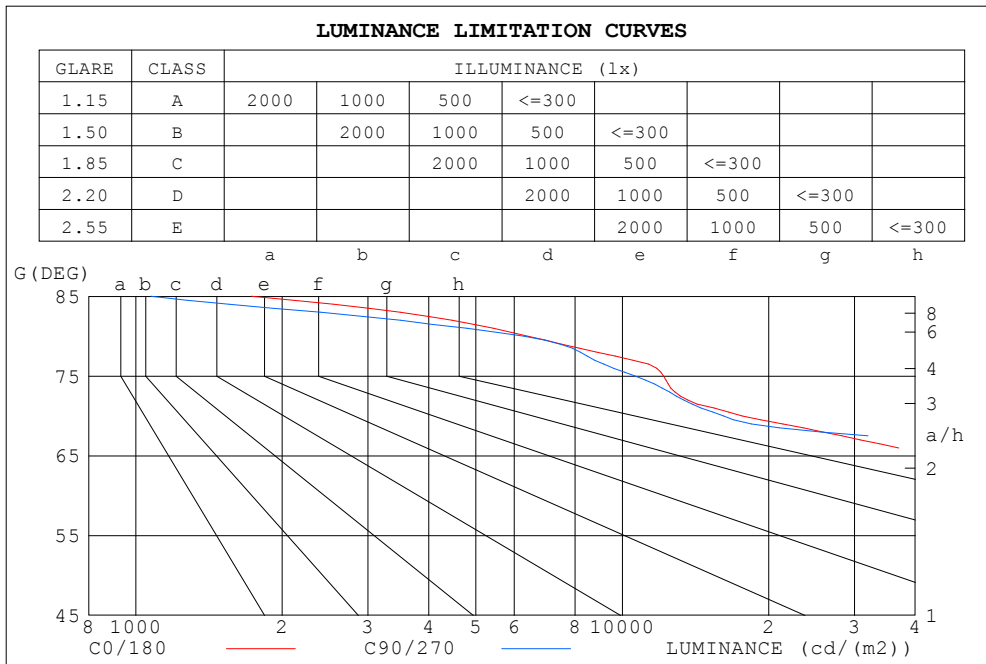
%lamp = 87.9%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-08-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:26.000m [K=0.4589]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1729	1073
80	6401	6288
75	12151	10622
70	17640	16154
65	43666	87309
60	77290	205120
55	93933	229753
50	100701	211803
45	96933	183342

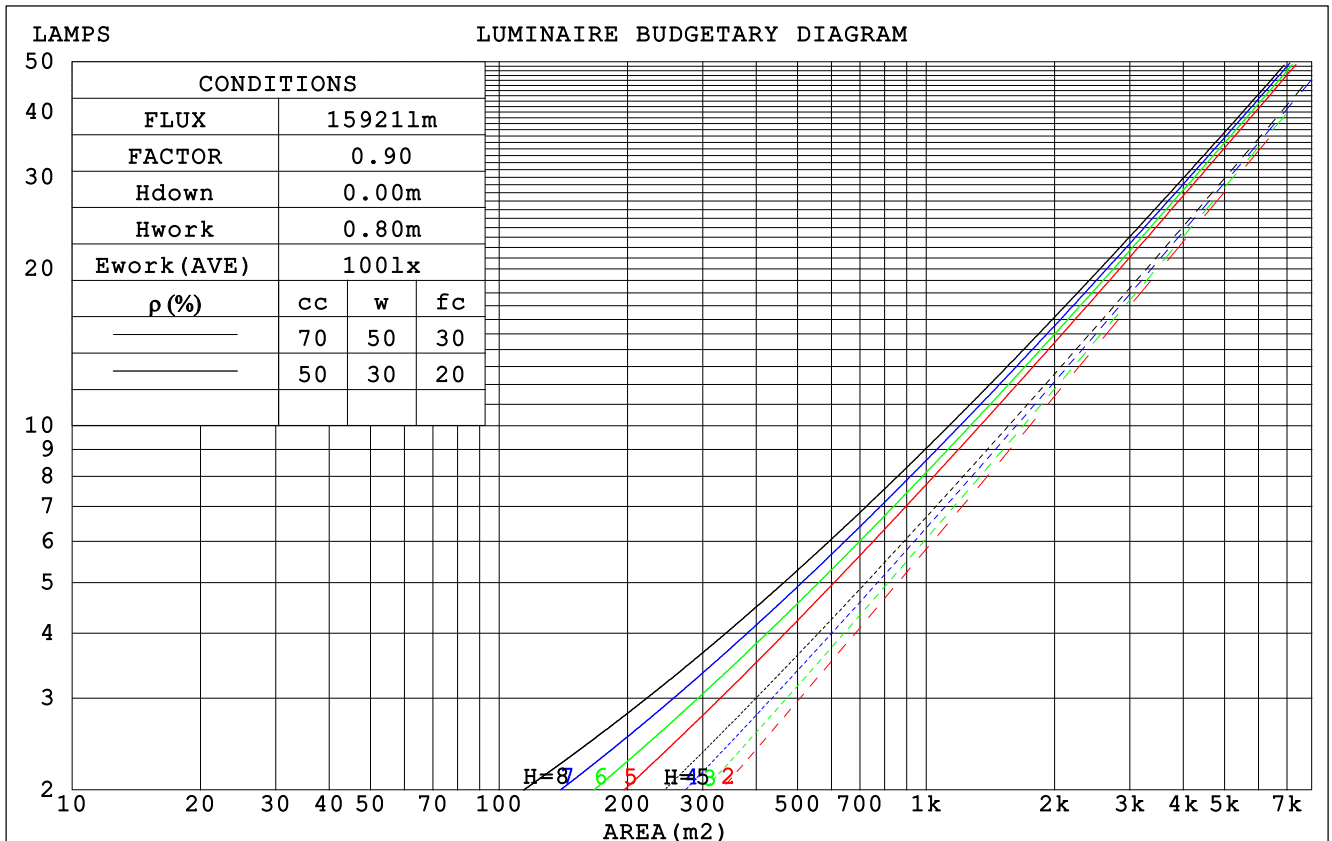
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-08-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.00
1.0	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.88	.86
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.78	.75	.73
3.0	.81	.73	.67	.80	.72	.66	.77	.70	.65	.74	.69	.64	.71	.67	.63	.61
4.0	.71	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.51
5.0	.63	.54	.48	.62	.54	.47	.60	.53	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.56	.47	.41	.55	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.37
7.0	.51	.42	.35	.50	.41	.35	.48	.41	.35	.47	.40	.35	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.36	.31	.41	.35	.30	.28
9.0	.42	.33	.28	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.36	.29	.24	.36	.29	.24	.35	.29	.24	.22



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-08-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.273	.155	.049	.266	.152	.048	.253	.145	.046	.241	.139	.045	.230	.133	.043	
2.0	.270	.148	.045	.264	.146	.045	.253	.140	.044	.242	.136	.043	.232	.131	.041	
3.0	.258	.138	.041	.253	.135	.041	.243	.132	.040	.233	.128	.039	.225	.124	.038	
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.221	.119	.036	.213	.116	.035	
5.0	.229	.116	.034	.224	.115	.034	.216	.113	.033	.209	.110	.033	.202	.108	.032	
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030	
7.0	.201	.099	.028	.197	.098	.028	.191	.096	.028	.185	.095	.028	.179	.093	.027	
8.0	.188	.092	.026	.185	.091	.026	.179	.090	.026	.174	.088	.025	.169	.087	.025	
9.0	.177	.086	.024	.174	.085	.024	.169	.083	.024	.164	.082	.024	.159	.081	.023	
10.0	.167	.080	.022	.164	.079	.022	.159	.078	.022	.155	.077	.022	.151	.076	.022	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.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	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.060	.025	.077	.042	.018	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-08-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity:65.0%
 Test Distance:26.000m [K=0.4589]
 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	29.0	30.6	29.3	30.9	31.3	35.3	36.9	35.6	37.2	37.5
3H	28.9	30.4	29.3	30.7	31.1	35.2	36.7	35.6	37.0	37.4
4H	28.9	30.3	29.3	30.6	31.0	35.2	36.6	35.6	36.9	37.3
6H	28.9	30.1	29.3	30.5	30.9	35.1	36.4	35.5	36.8	37.2
8H	28.8	30.1	29.3	30.4	30.8	35.1	36.3	35.5	36.7	37.1
12H	28.8	30.0	29.3	30.4	30.8	35.1	36.2	35.5	36.6	37.1
4H 2H	29.7	31.0	30.1	31.4	31.8	35.3	36.7	35.7	37.0	37.4
3H	29.7	30.8	30.1	31.2	31.6	35.3	36.4	35.7	36.8	37.2
4H	29.6	30.6	30.1	31.1	31.5	35.2	36.2	35.7	36.7	37.1
6H	29.6	30.5	30.1	30.9	31.4	35.2	36.1	35.6	36.5	37.0
8H	29.6	30.4	30.0	30.8	31.3	35.2	36.0	35.6	36.4	36.9
12H	29.5	30.3	30.0	30.7	31.2	35.1	35.9	35.6	36.3	36.8
8H 4H	29.6	30.4	30.0	30.8	31.3	35.2	36.0	35.6	36.4	36.9
6H	29.5	30.2	30.0	30.7	31.2	35.1	35.8	35.6	36.2	36.7
8H	29.5	30.1	30.0	30.6	31.1	35.0	35.6	35.5	36.1	36.6
12H	29.5	30.0	30.0	30.5	31.0	35.0	35.5	35.5	36.0	36.6
12H 4H	29.6	30.3	30.0	30.8	31.2	35.1	35.9	35.6	36.3	36.8
6H	29.5	30.1	30.0	30.6	31.1	35.0	35.7	35.6	36.1	36.7
8H	29.5	30.0	30.0	30.5	31.0	35.0	35.5	35.5	36.0	36.6
CIE190: 2010										

CIE190: 2010
Area: 0.0635 m2

C Range: 0 - 360DEG
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Operators:LYJ
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:26.000m [K=0.4589]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

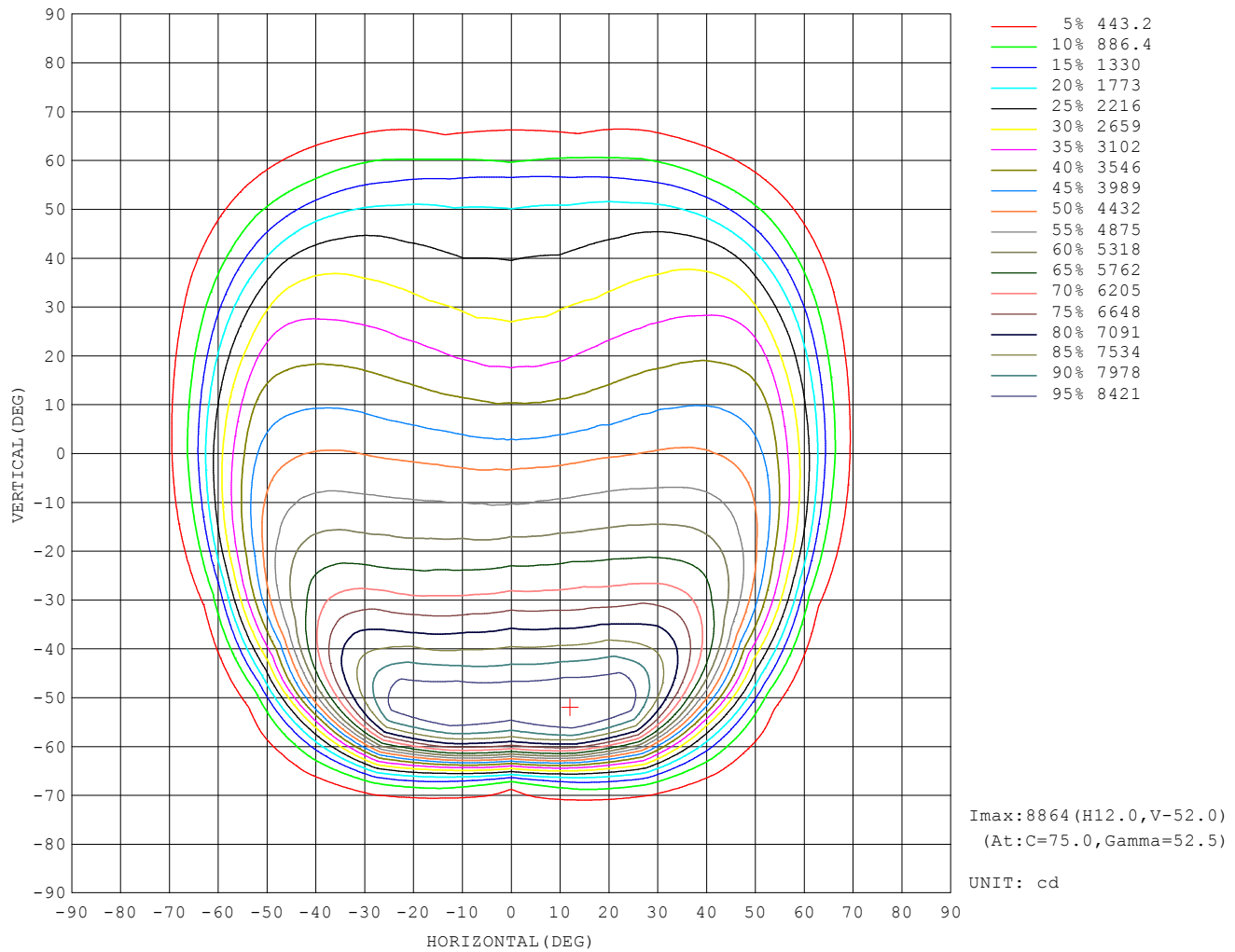
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	53	41	34	53	41	34	51	40	33	27
0.80	65	53	45	64	53	45	62	52	45	38
1.00	76	64	57	74	64	57	72	65	56	49
1.25	84	73	66	82	73	66	80	71	65	58
1.50	89	80	73	88	79	72	85	77	71	64
2.00	97	89	83	95	87	82	91	85	80	73
2.50	100	93	87	98	92	87	95	89	85	77
3.00	104	97	92	102	96	91	98	93	89	81
4.00	107	102	98	105	100	96	101	97	94	85
5.00	109	105	101	107	103	100	103	99	97	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 Operators: LYJ
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 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4589]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

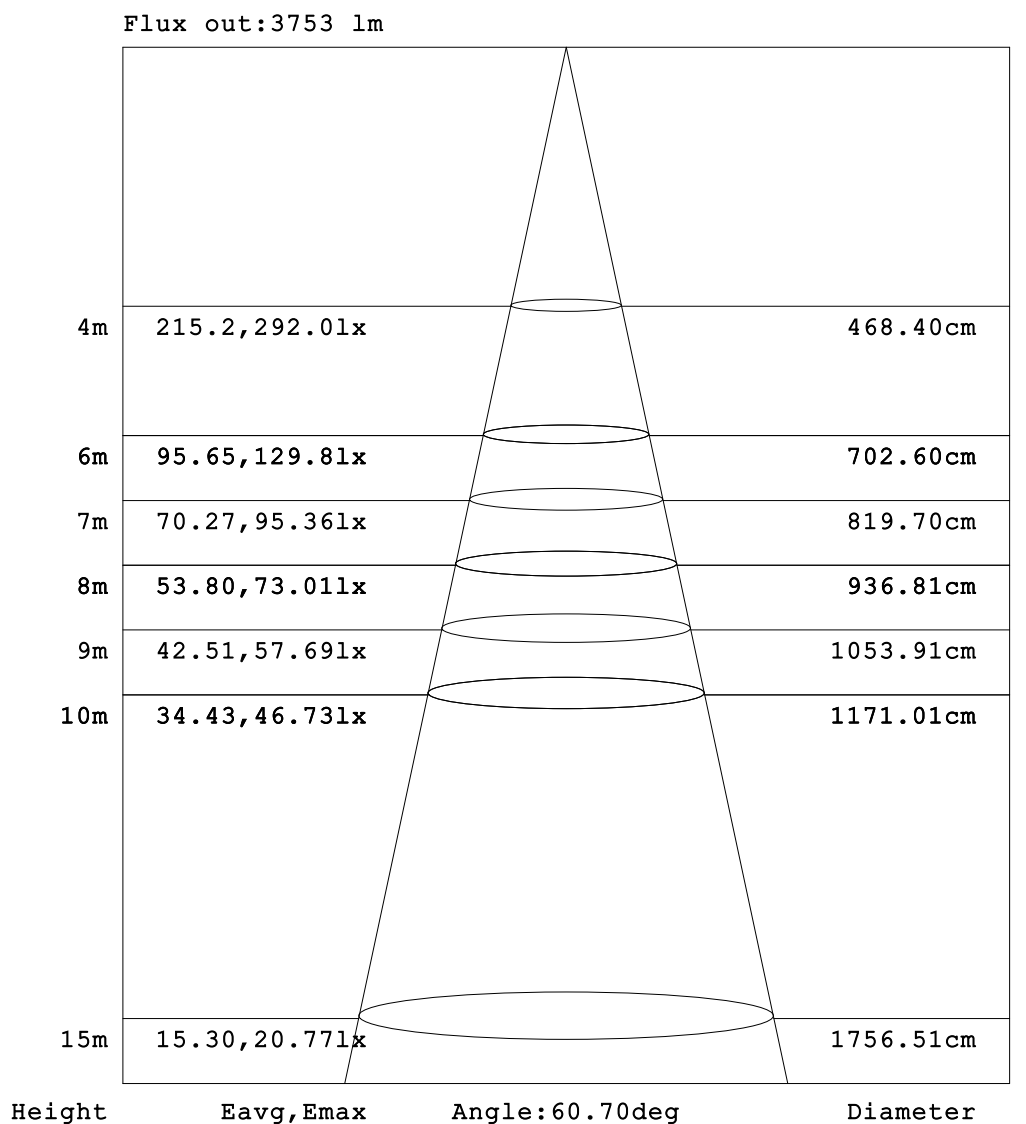
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-08-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:26.000m [K=0.4589]
Remarks:

AAI Figure



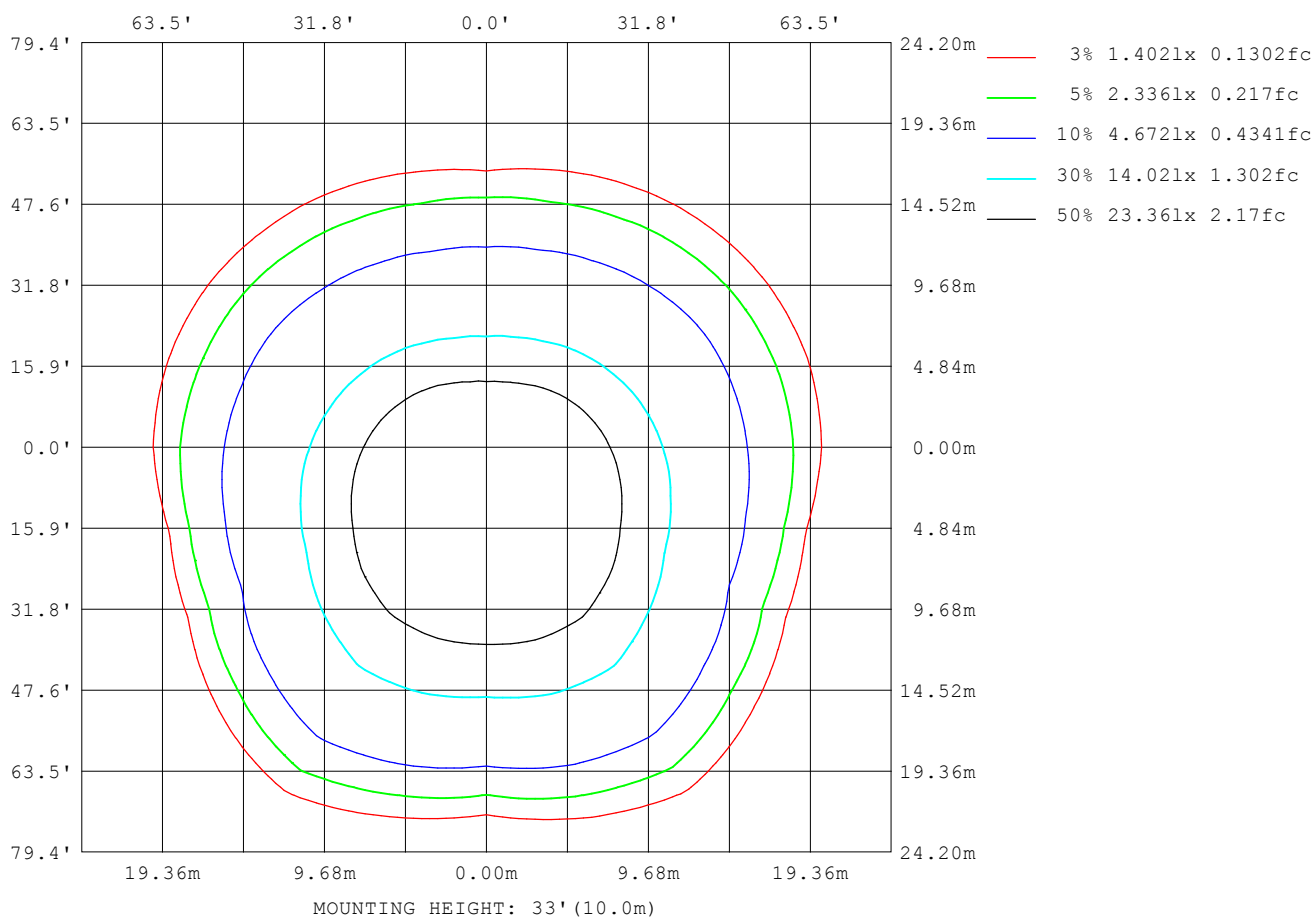
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 15.0DEG
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Test Date: 2020-08-14

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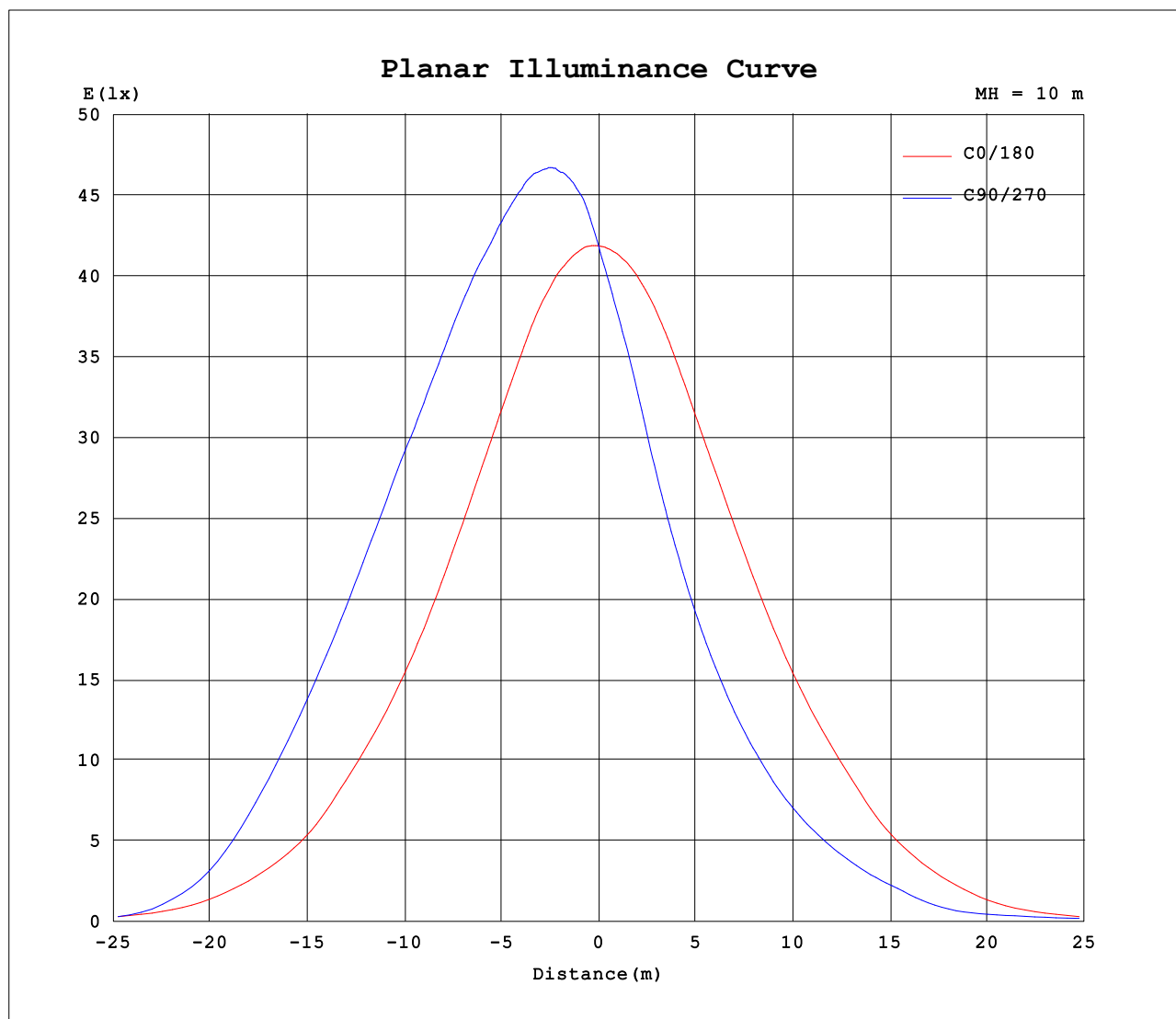
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-08-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-08-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks: