

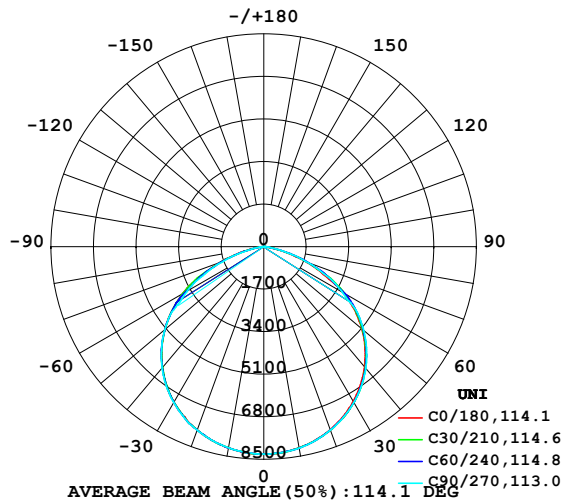
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

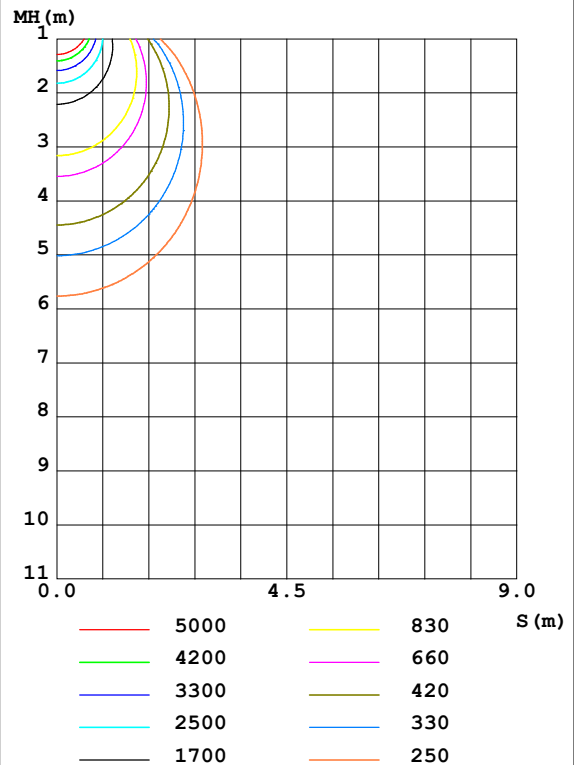
Test:U:229.7V I:0.6640A P:150.8W PF:0.9887 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:23083.7x1 lm		
NAME: FL23-150-5070-F00A23	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 153.05 lm/W			
MODEL	SMD283	I _{max} (cd)	8294	S/MH (C0/180)	1.29
NOMINAL POWER (W)	150	LOR (%)	100.0	S/MH (C90/270)	1.29
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	23084	η UP, DN (C0-180)	0.0, 50.3
NOMINAL FLUX (lm)	23083.7	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.35

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: 2020-09-11

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=0.4574]
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	8155	8167	8171	8166	8162	8160	8163	8161	0- 10	785.1	785.1	3.4,3.4
20	7783	7807	7800	7801	7794	7784	7802	7785	10- 20	2261	3046	13.2,13.2
30	7149	7186	7197	7190	7188	7159	7201	7161	20- 30	3466	6512	28.2,28.2
40	6264	6322	6347	6333	6312	6284	6324	6276	30- 40	4238	10750	46.6,46.6
50	5121	5194	5221	5208	5171	5140	5164	5118	40- 50	4447	15197	65.8,65.8
60	3664	3773	3603	3793	3728	3687	3516	3662	50- 60	3980	19177	83.1,83.1
70	1833	1924	1894	2012	1881	1848	1707	1777	60- 70	2733	21910	94.9,94.9
80	311.6	373.9	376.8	389.9	359.3	309.6	280.4	291.6	70- 80	1086	22996	99.6,99.6
90	1.299	2.273	3.367	2.054	1.346	1.418	1.408	1.455	80- 90	87.27	23084	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): 12987 lm

%lum = 56.3%

%lamp = 56.3%

Conical surface Flux(120deg): 19177 lm

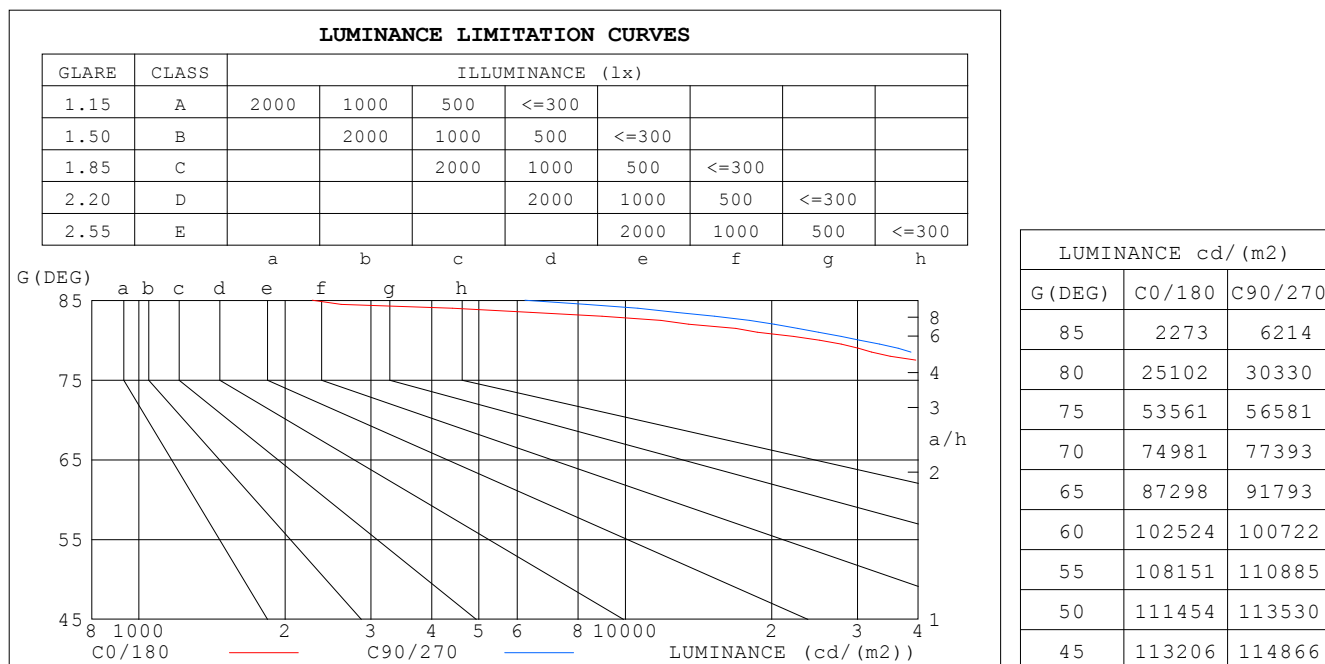
%lum = 83.1%

%lamp = 83.1%

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Temperature:25.3DEG
Operators:LYJ
Test Date:2020-09-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
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Humidity:65.0%
Test Distance:26.000m [K=0.4574]
Remarks:

LUMINANCE LIMITATION CURVES



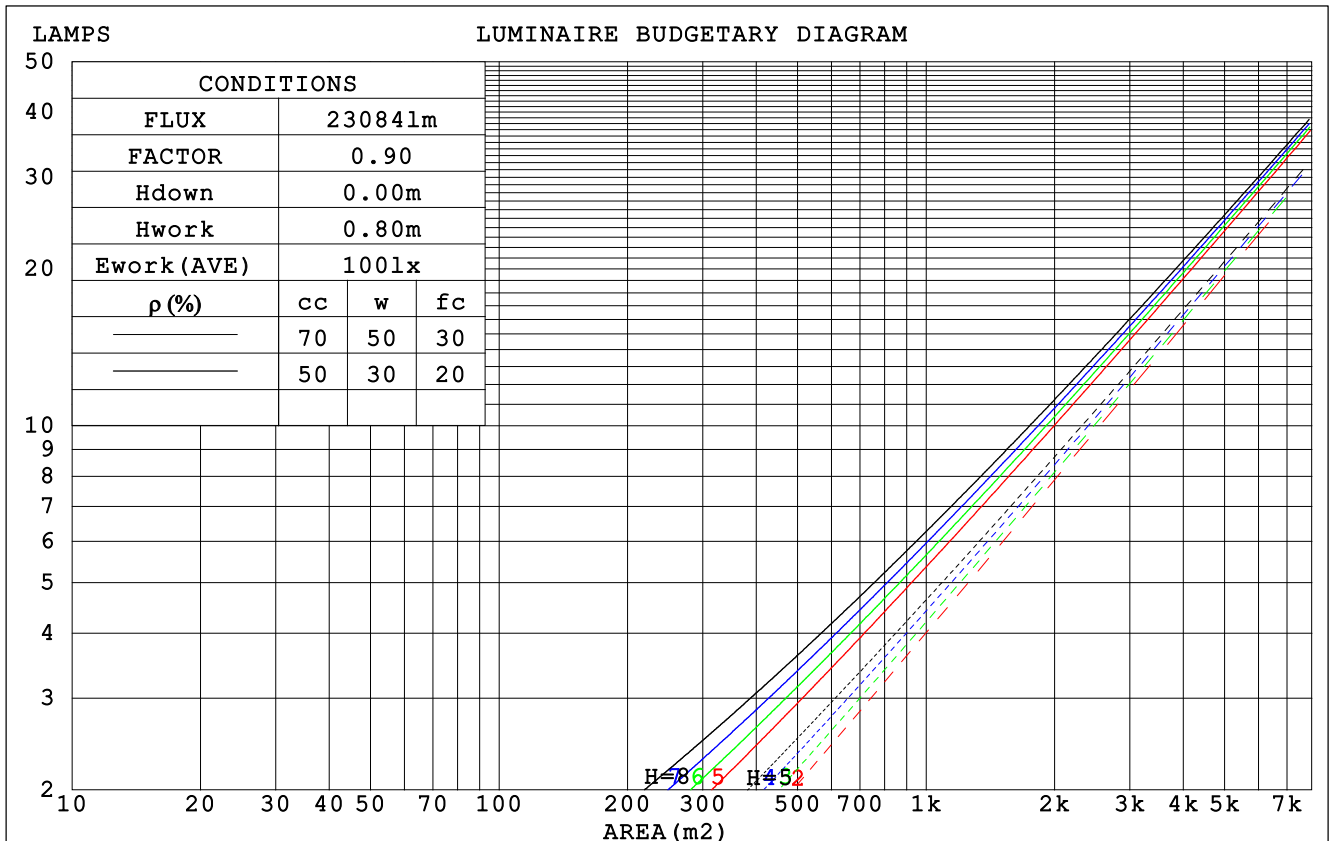
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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-09-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
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Test Distance: 26.000m [K=0.4574]
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	1.00
1.0	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.78	.84	.79	.76	.81	.77	.74	.72
3.0	.81	.73	.67	.80	.72	.66	.77	.70	.65	.74	.69	.64	.71	.67	.63	.61
4.0	.72	.63	.57	.71	.63	.56	.68	.61	.56	.66	.60	.55	.64	.59	.54	.52
5.0	.64	.55	.49	.63	.55	.49	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.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	.33	.46	.38	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



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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=0.4574]
 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	.283	.161	.051	.276	.157	.050	.262	.151	.048	.250	.144	.046	.239	.139	.045		
2.0	.274	.150	.046	.268	.148	.046	.257	.143	.044	.246	.138	.043	.236	.134	.042		
3.0	.258	.137	.041	.253	.135	.041	.243	.131	.040	.233	.128	.039	.224	.124	.038		
4.0	.241	.125	.037	.236	.124	.037	.227	.120	.036	.219	.117	.035	.211	.115	.035		
5.0	.224	.114	.033	.220	.113	.033	.212	.110	.033	.205	.108	.032	.198	.106	.032		
6.0	.209	.105	.030	.205	.104	.030	.198	.102	.030	.192	.100	.029	.185	.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	.086	.025	.164	.084	.024		
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.155	.079	.023		
10.0	.162	.078	.022	.160	.077	.021	.155	.076	.021	.150	.075	.021	.146	.074	.021		

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	.153	.134	.117	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.087	.100	.079	.060	.058	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.060	.133	.087	.052	.091	.061	.036	.053	.036	.022	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.030	.051	.032	.018	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.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:25.3DEG
 Operators:LYJ
 Test Date:2020-09-11

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=0.4574]
 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	28.7	30.3	29.1	30.6	30.9	28.7	30.3	29.1	30.7	31.0
3H	30.0	31.5	30.4	31.8	32.1	30.1	31.6	30.5	31.9	32.2
4H	30.3	31.7	30.7	32.0	32.4	30.5	31.8	30.8	32.2	32.5
6H	30.4	31.7	30.8	32.0	32.4	30.6	31.8	31.0	32.2	32.6
8H	30.4	31.6	30.8	32.0	32.4	30.6	31.7	31.0	32.1	32.5
12H	30.4	31.5	30.8	31.9	32.3	30.5	31.7	31.0	32.1	32.5
4H 2H	29.3	30.6	29.7	31.0	31.4	29.3	30.7	29.7	31.0	31.4
3H	30.8	31.9	31.2	32.3	32.7	30.9	32.0	31.3	32.4	32.8
4H	31.1	32.1	31.6	32.6	33.0	31.3	32.3	31.7	32.7	33.1
6H	31.3	32.1	31.7	32.6	33.0	31.4	32.3	31.9	32.8	33.2
8H	31.2	32.1	31.7	32.5	33.0	31.4	32.3	31.9	32.7	33.2
12H	31.2	31.9	31.7	32.4	32.9	31.4	32.1	31.9	32.6	33.1
8H 4H	31.3	32.1	31.7	32.5	33.0	31.4	32.2	31.9	32.7	33.1
6H	31.4	32.1	31.9	32.6	33.0	31.6	32.3	32.1	32.7	33.2
8H	31.4	32.0	31.9	32.5	33.0	31.6	32.2	32.1	32.7	33.2
12H	31.4	31.9	31.9	32.4	32.9	31.6	32.1	32.1	32.6	33.2
12H 4H	31.3	32.0	31.7	32.5	32.9	31.4	32.1	31.9	32.6	33.1
6H	31.4	32.0	31.9	32.5	33.0	31.6	32.2	32.1	32.6	33.2
8H	31.4	31.9	31.9	32.4	33.0	31.6	32.1	32.1	32.6	33.2
CIE190: 2010										

CIE190: 2010
Area: 0.07155 m2

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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%
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

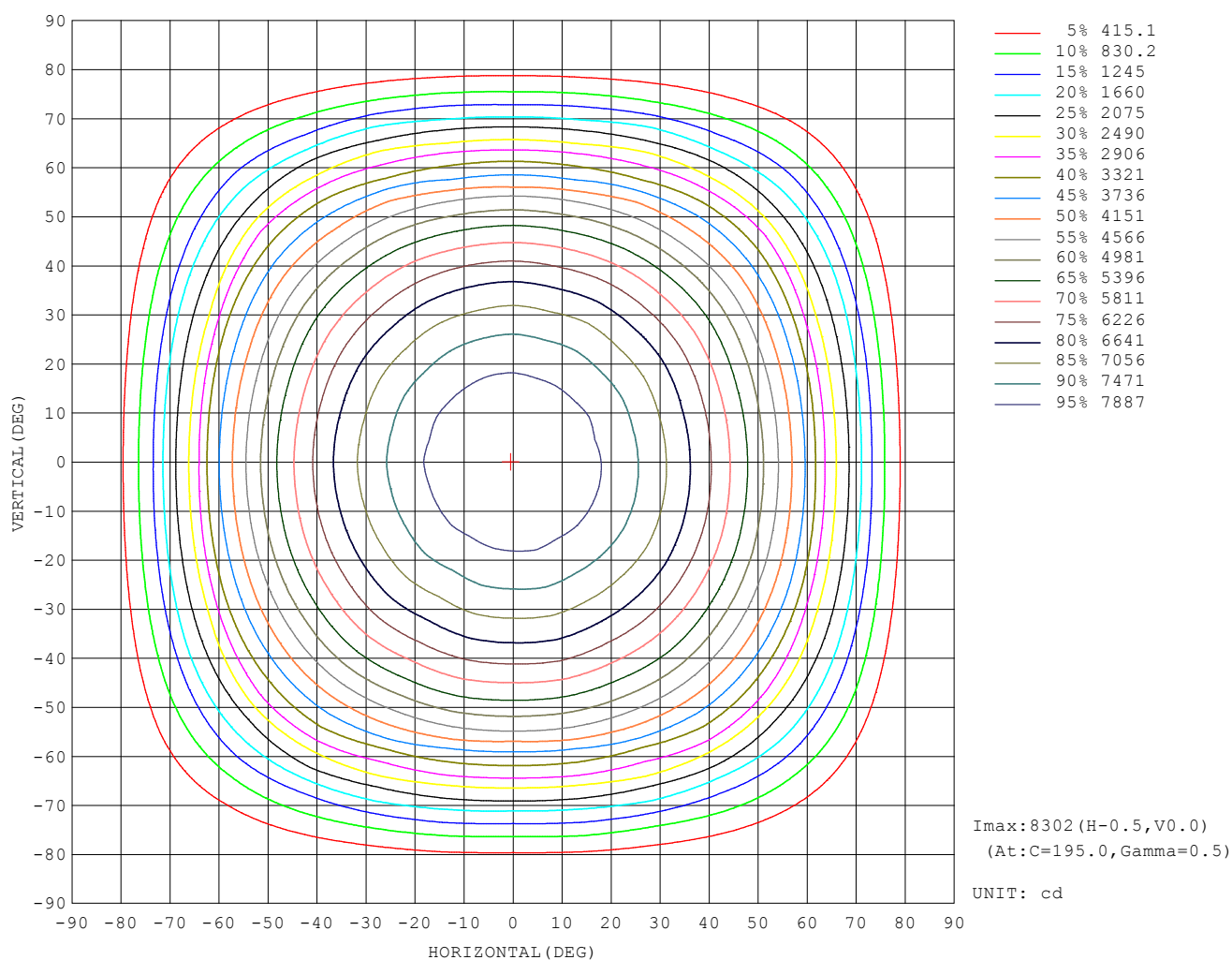
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	56	46	40	33
0.80	69	57	50	68	57	50	66	56	50	43
1.00	77	67	60	76	66	59	74	67	59	52
1.25	85	75	68	83	74	67	81	73	67	60
1.50	90	80	74	88	79	73	85	78	72	65
2.00	97	89	82	95	87	82	91	85	80	73
2.50	100	93	87	98	92	86	95	89	85	77
3.00	104	97	92	101	96	91	98	93	89	81
4.00	107	102	98	105	100	97	101	97	94	85
5.00	110	105	102	107	103	100	103	100	97	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity: 65.0%
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 Remarks:

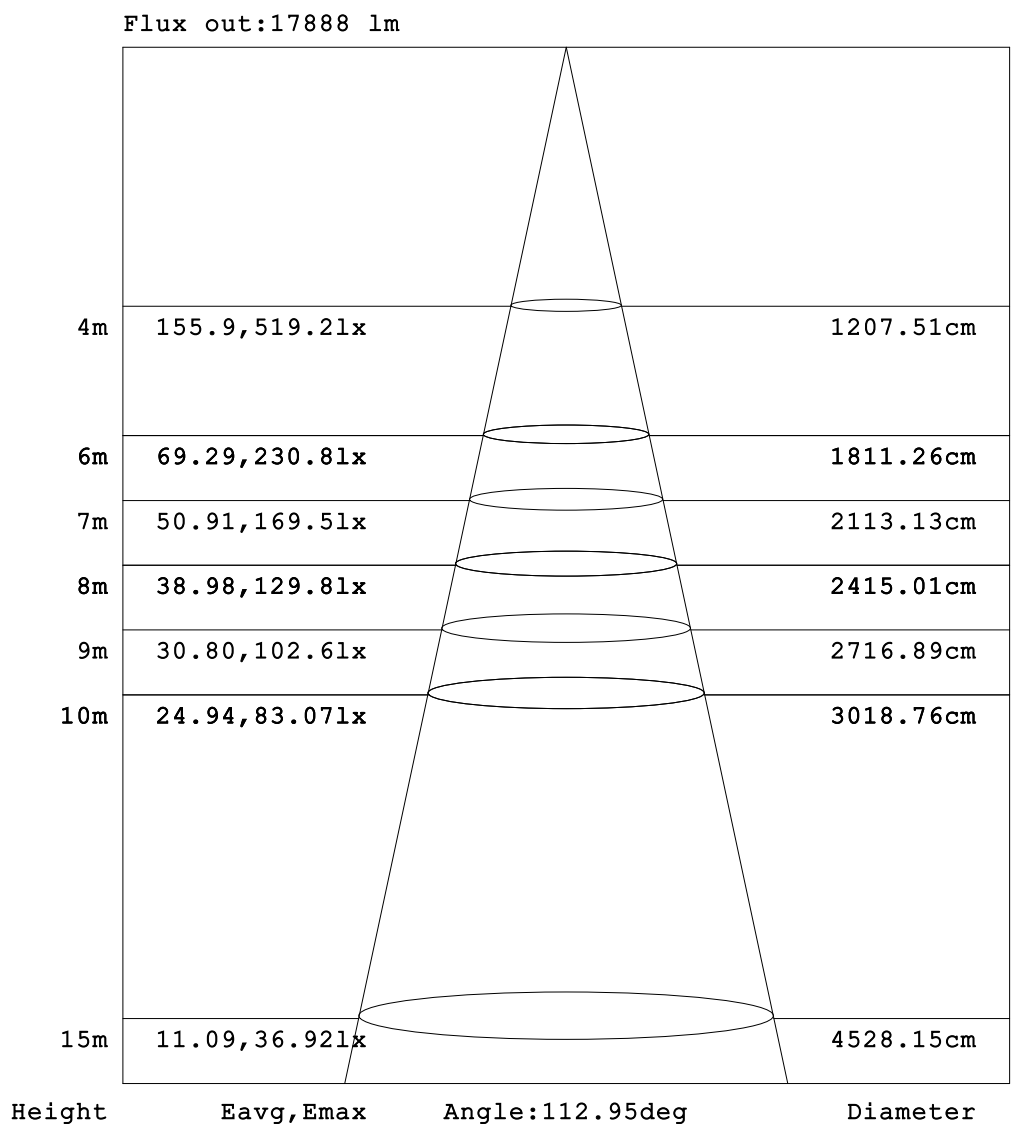
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-09-11

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Remarks:

AAI Figure



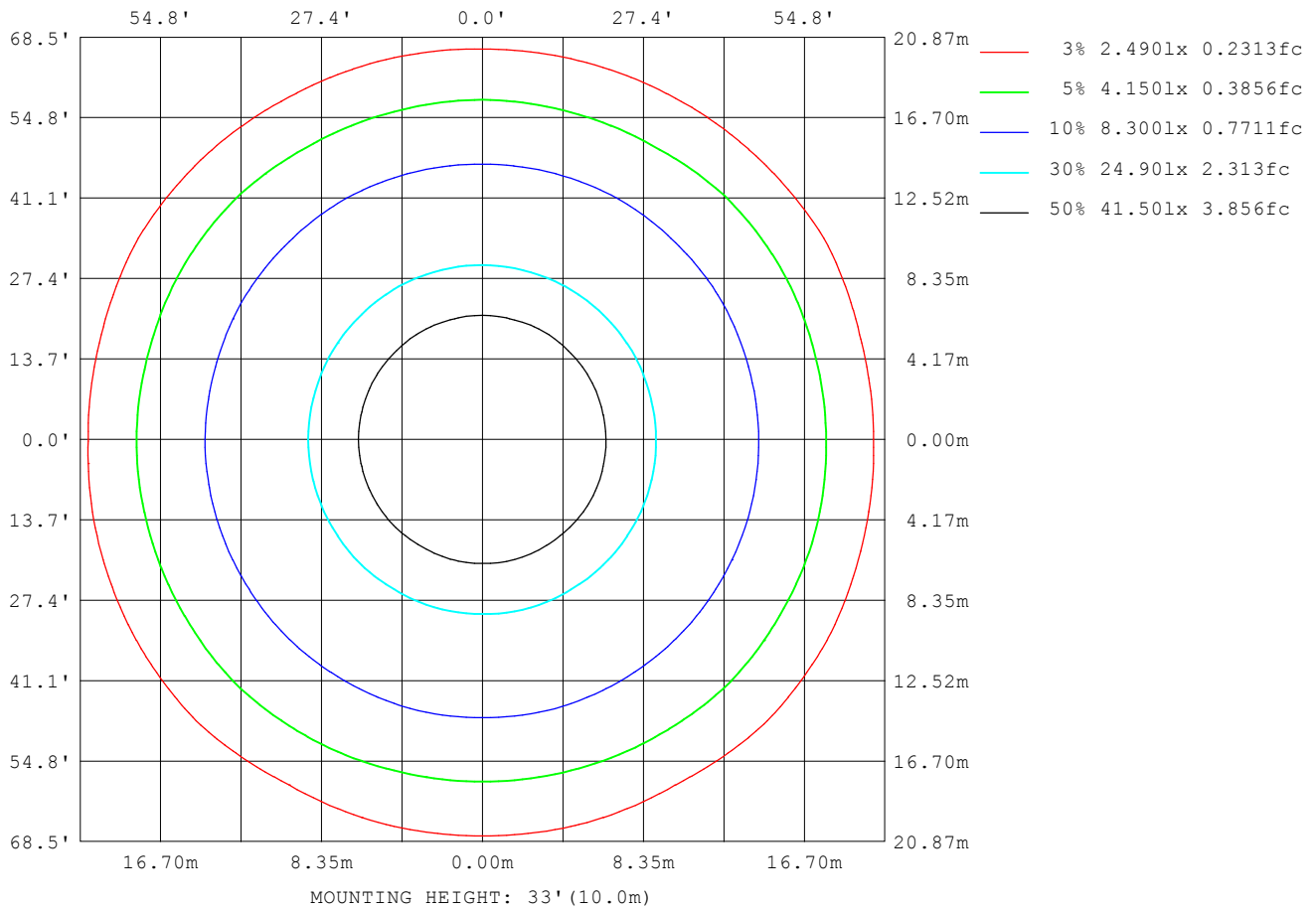
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

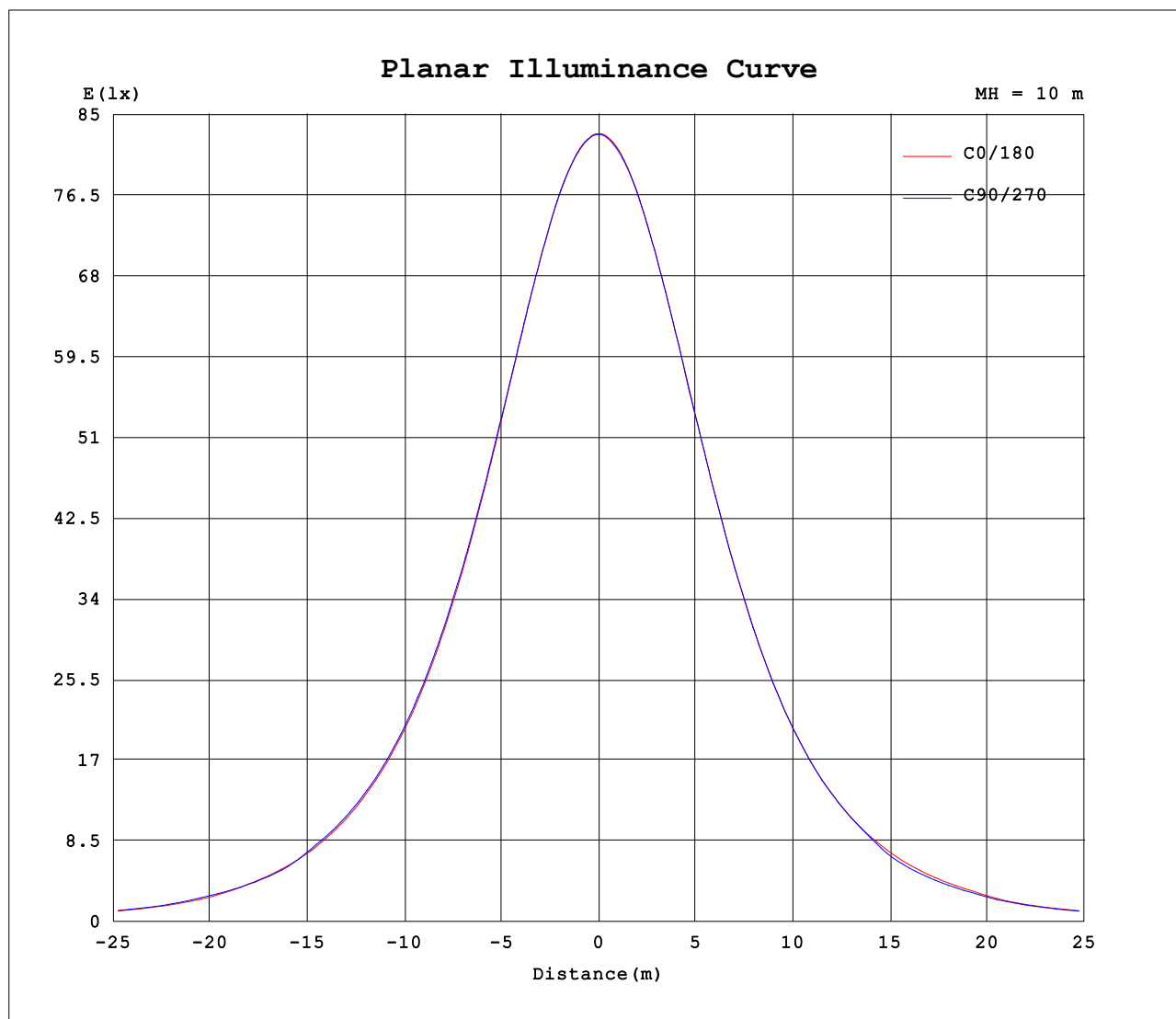
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-09-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
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Test Distance: 26.000m [K=0.4574]
Remarks:

Planar Illuminance Curve



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Remarks: