

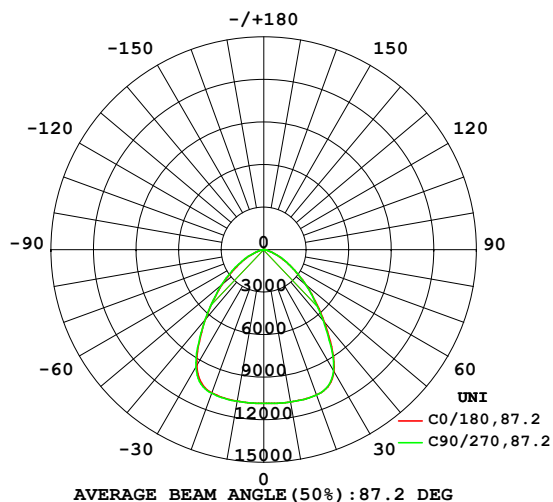
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

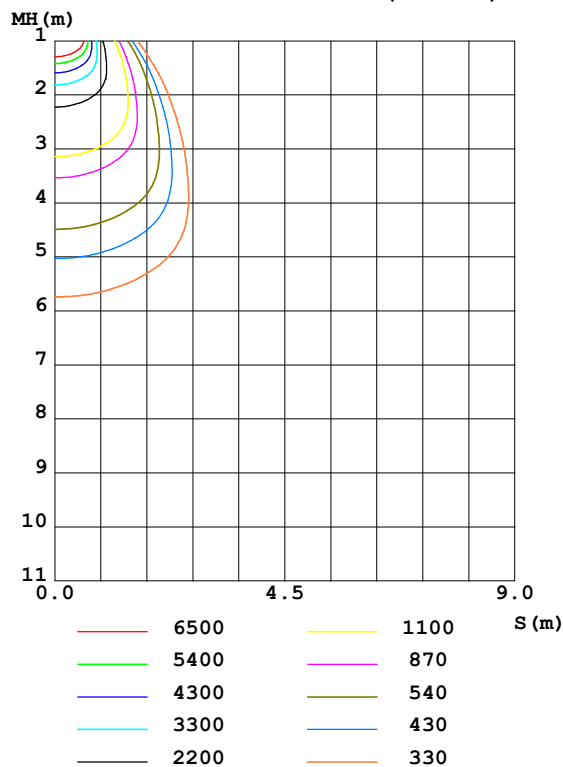
Test:U:230.0V I:0.6753A P:153.6W PF:0.9892 Lamp Flux:22323.2x1 lm		
NAME: 950-120_~80°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Tronix Lighting	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.33 lm/W			
MODEL	SE303	I _{max} (cd)	10946	S/MH(C0/180)	1.22
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	22323	η UP,DN(C0-180)	0.0,50.2
NOMINAL FLUX(lm)	22323.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.25

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WJH
Test Date:2020-06-02

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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	1091	1091	1091	1088	1085	1086	1086	1087	0- 10	1038	1038	4.65,4.65
20	1090	1091	1090	1084	1074	1075	1077	1081	10- 20	3083	4120	18.5,18.5
30	989.8	991.4	984.5	968.9	945.1	949.6	957.5	963.0	20- 30	4821	8942	40.1,40.1
40	665.9	662.5	652.9	653.3	640.7	645.3	642.8	654.1	30- 40	5063	14004	62.7,62.7
50	393.1	392.3	390.4	390.0	385.4	391.4	392.9	396.7	40- 50	3950	17954	80.4,80.4
60	196.3	196.1	198.7	195.8	191.3	200.5	203.4	201.2	50- 60	2566	20520	91.9,91.9
70	69.23	70.28	69.97	70.63	68.85	72.60	73.64	72.92	60- 70	1294	21814	97.7,97.7
80	17.46	17.69	17.32	17.73	17.33	18.17	17.88	18.43	70- 80	418.2	22232	99.6,99.6
90	2.505	2.180	2.407	2.276	2.562	2.371	2.689	2.383	80- 90	90.76	22323	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 16145 lm

%lum = 72.3%

%lamp = 72.3%

Conical surface Flux(120deg): 20520 lm

%lum = 91.9%

%lamp = 91.9%

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C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WJH
Test Date:2020-06-02

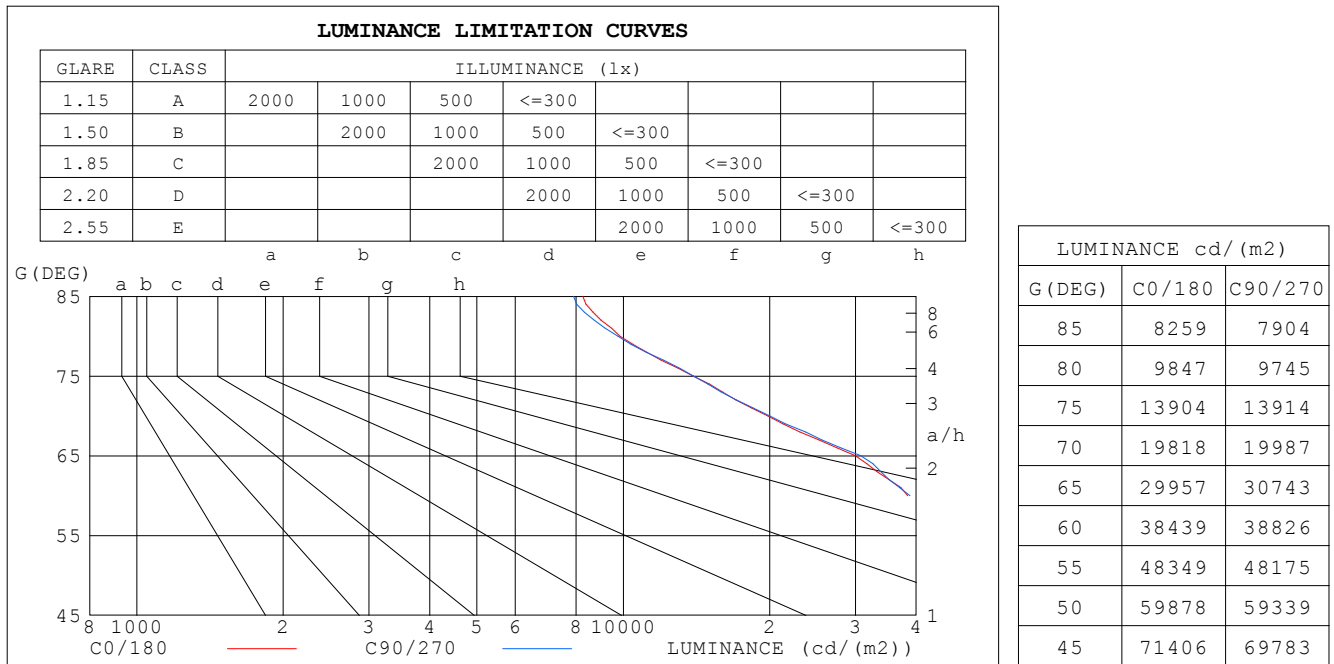
Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: WJH
Test Date: 2020-06-02

Checker: LI

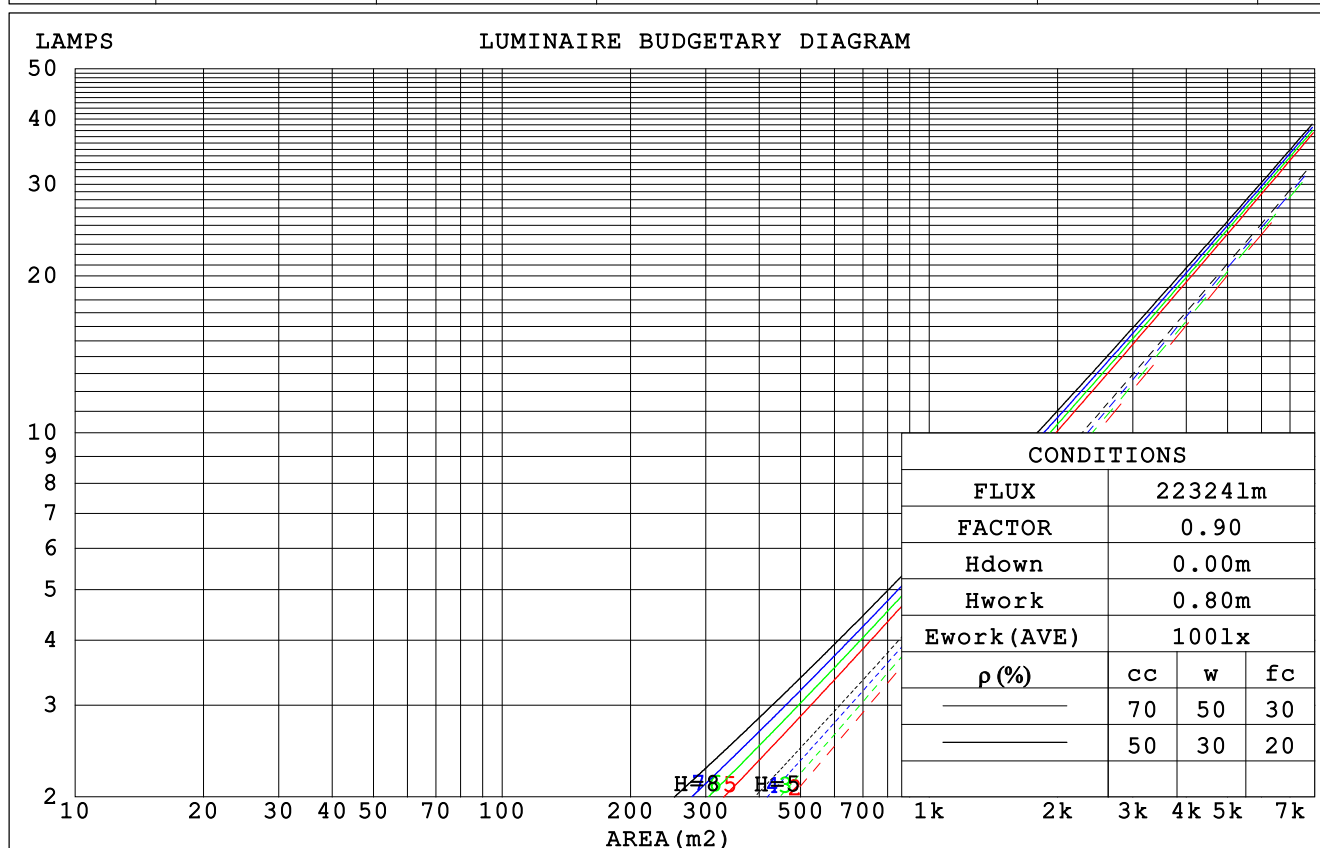
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

Assessor:

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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.99	.96	.97	.95	.93	.94	.92	.91	.89
2.0	.96	.91	.86	.95	.90	.85	.91	.87	.83	.88	.85	.82	.85	.82	.80	.78
3.0	.87	.80	.75	.85	.79	.74	.82	.77	.73	.80	.75	.72	.77	.74	.70	.68
4.0	.78	.71	.65	.77	.70	.65	.75	.69	.64	.73	.67	.63	.71	.66	.62	.60
5.0	.71	.63	.58	.70	.63	.57	.68	.62	.57	.66	.61	.56	.65	.60	.56	.54
6.0	.65	.57	.51	.64	.57	.51	.62	.56	.51	.61	.55	.50	.59	.54	.50	.48
7.0	.59	.52	.46	.59	.51	.46	.57	.51	.46	.56	.50	.45	.55	.49	.45	.43
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.41	.52	.46	.41	.51	.45	.41	.39
9.0	.51	.43	.38	.50	.43	.38	.49	.42	.38	.48	.42	.38	.47	.41	.37	.36
10.0	.47	.40	.35	.46	.39	.35	.45	.39	.35	.45	.39	.35	.44	.38	.34	.33



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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.350m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

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	.241	.137	.043	.234	.134	.042	.221	.127	.041	.209	.121	.039	.198	.115	.037															
2.0	.234	.128	.039	.228	.126	.039	.217	.121	.037	.207	.116	.036	.197	.111	.035															
3.0	.222	.118	.035	.217	.116	.035	.207	.112	.034	.198	.109	.033	.190	.105	.033															
4.0	.210	.109	.032	.205	.107	.032	.197	.104	.031	.189	.101	.031	.181	.099	.030															
5.0	.198	.101	.029	.194	.099	.029	.186	.097	.029	.179	.094	.028	.172	.092	.028															
6.0	.186	.093	.027	.183	.092	.027	.176	.090	.026	.170	.088	.026	.164	.086	.026															
7.0	.176	.087	.025	.173	.086	.025	.167	.084	.024	.161	.083	.024	.156	.081	.024															
8.0	.166	.081	.023	.163	.080	.023	.158	.079	.023	.153	.077	.022	.148	.076	.022															
9.0	.157	.076	.021	.155	.075	.021	.150	.074	.021	.145	.073	.021	.141	.072	.021															
10.0	.149	.072	.020	.147	.071	.020	.143	.070	.020	.138	.069	.020	.134	.068	.019															

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	.176	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016		
2.0	.165	.132	.105	.141	.114	.091	.097	.079	.063	.056	.046	.037	.018	.015	.012		
3.0	.155	.114	.081	.133	.098	.070	.091	.068	.049	.053	.040	.029	.017	.013	.010		
4.0	.147	.100	.064	.126	.087	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008		
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006		
6.0	.133	.081	.043	.114	.070	.037	.079	.049	.027	.046	.029	.016	.015	.009	.005		
7.0	.127	.074	.036	.109	.064	.032	.075	.045	.022	.044	.026	.013	.014	.009	.004		
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.011	.014	.008	.004		
9.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003		
10.0	.110	.059	.024	.095	.051	.021	.066	.036	.015	.039	.021	.009	.012	.007	.003		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WJH
 Test Date:2020-06-02

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.350m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

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	25.7	27.0	25.9	27.2	27.4	25.6	26.9	25.8	27.1	27.3
3H	26.0	27.2	26.3	27.4	27.7	25.9	27.1	26.2	27.3	27.6
4H	26.0	27.2	26.3	27.4	27.7	25.9	27.1	26.2	27.3	27.6
6H	26.0	27.1	26.3	27.3	27.6	25.9	27.0	26.2	27.2	27.5
8H	26.0	27.0	26.3	27.3	27.6	25.9	26.9	26.2	27.2	27.5
12H	26.0	26.9	26.3	27.2	27.5	25.9	26.8	26.2	27.1	27.4
4H 2H	25.8	27.0	26.1	27.2	27.5	25.8	26.9	26.1	27.1	27.4
3H	26.3	27.2	26.6	27.5	27.8	26.2	27.1	26.5	27.4	27.7
4H	26.3	27.2	26.7	27.5	27.9	26.2	27.1	26.6	27.4	27.8
6H	26.4	27.1	26.7	27.5	27.8	26.3	27.0	26.7	27.4	27.7
8H	26.3	27.1	26.8	27.4	27.8	26.3	27.0	26.7	27.3	27.7
12H	26.3	27.0	26.7	27.4	27.8	26.2	26.9	26.7	27.3	27.7
8H 4H	26.3	27.0	26.7	27.4	27.8	26.2	26.9	26.6	27.3	27.7
6H	26.4	26.9	26.8	27.3	27.8	26.3	26.9	26.7	27.3	27.7
8H	26.4	26.9	26.8	27.3	27.7	26.3	26.8	26.7	27.2	27.7
12H	26.4	26.8	26.8	27.2	27.7	26.3	26.7	26.7	27.2	27.6
12H 4H	26.3	26.9	26.7	27.3	27.7	26.2	26.8	26.6	27.2	27.6
6H	26.3	26.8	26.8	27.3	27.7	26.2	26.8	26.7	27.2	27.6
8H	26.3	26.8	26.8	27.2	27.7	26.3	26.7	26.7	27.1	27.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 1.0					+ 0.8 / - 1.1				
1.5H	+ 0.5 / - 0.4					+ 0.5 / - 0.5				
2.0H	+ 1.5 / - 1.3					+ 1.5 / - 1.5				

CIE Pub.117 Corrected 22323 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.8)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WJH
Test Date:2020-06-02

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	58	52	66	57	52	47
0.80	78	68	62	77	68	62	75	67	62	56
1.00	86	77	71	85	76	71	83	77	70	64
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	88	83	95	88	83	92	86	82	75
2.00	101	95	90	100	94	89	97	92	88	81
2.50	104	98	94	102	97	93	99	95	91	84
3.00	107	102	98	105	100	96	101	97	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

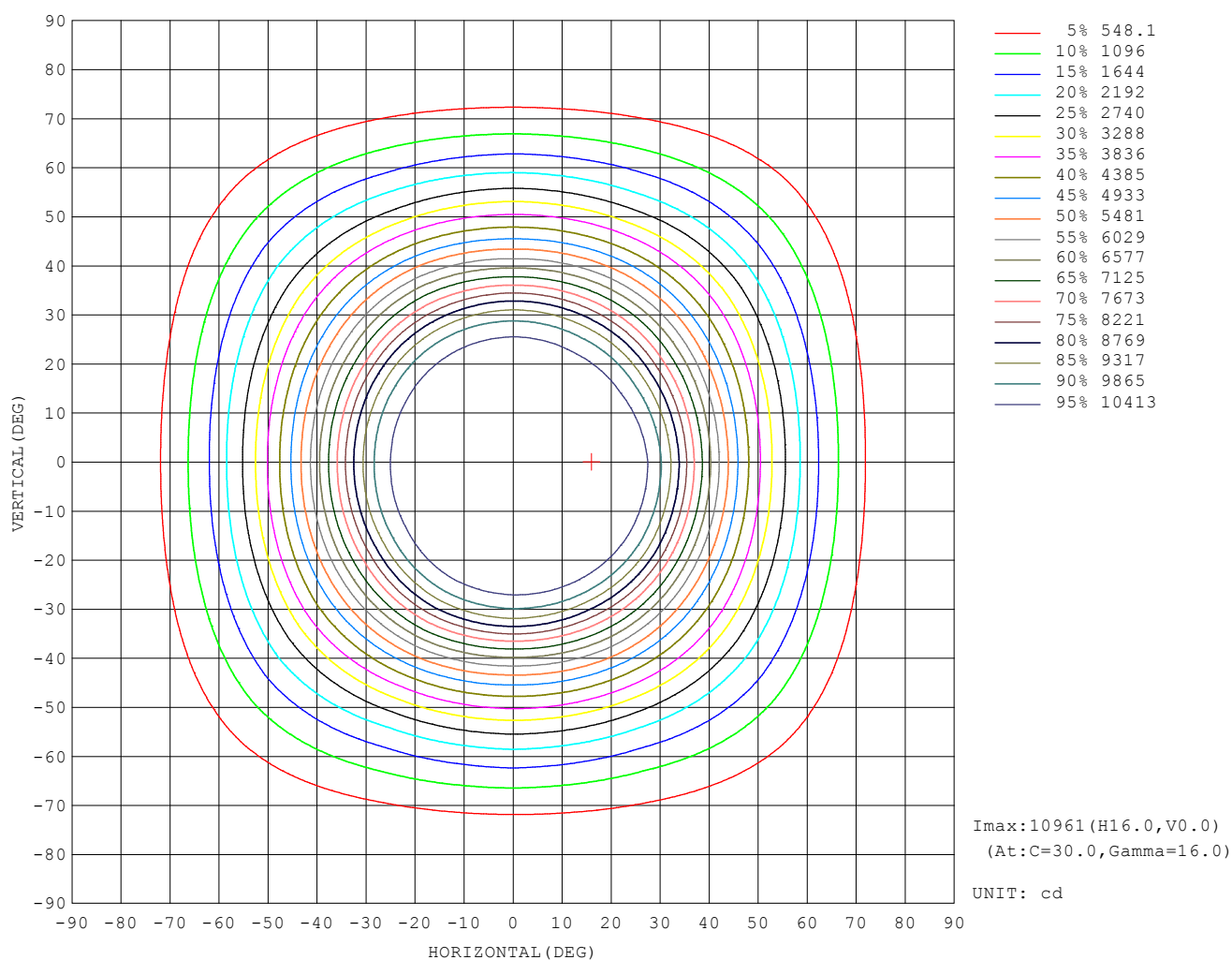
C Range: 0 - 360DEG
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 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WJH
 Test Date: 2020-06-02

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.350m [K=1.0000]
 Remarks:

Assessor:

ISOCANDELA DIAGRAM



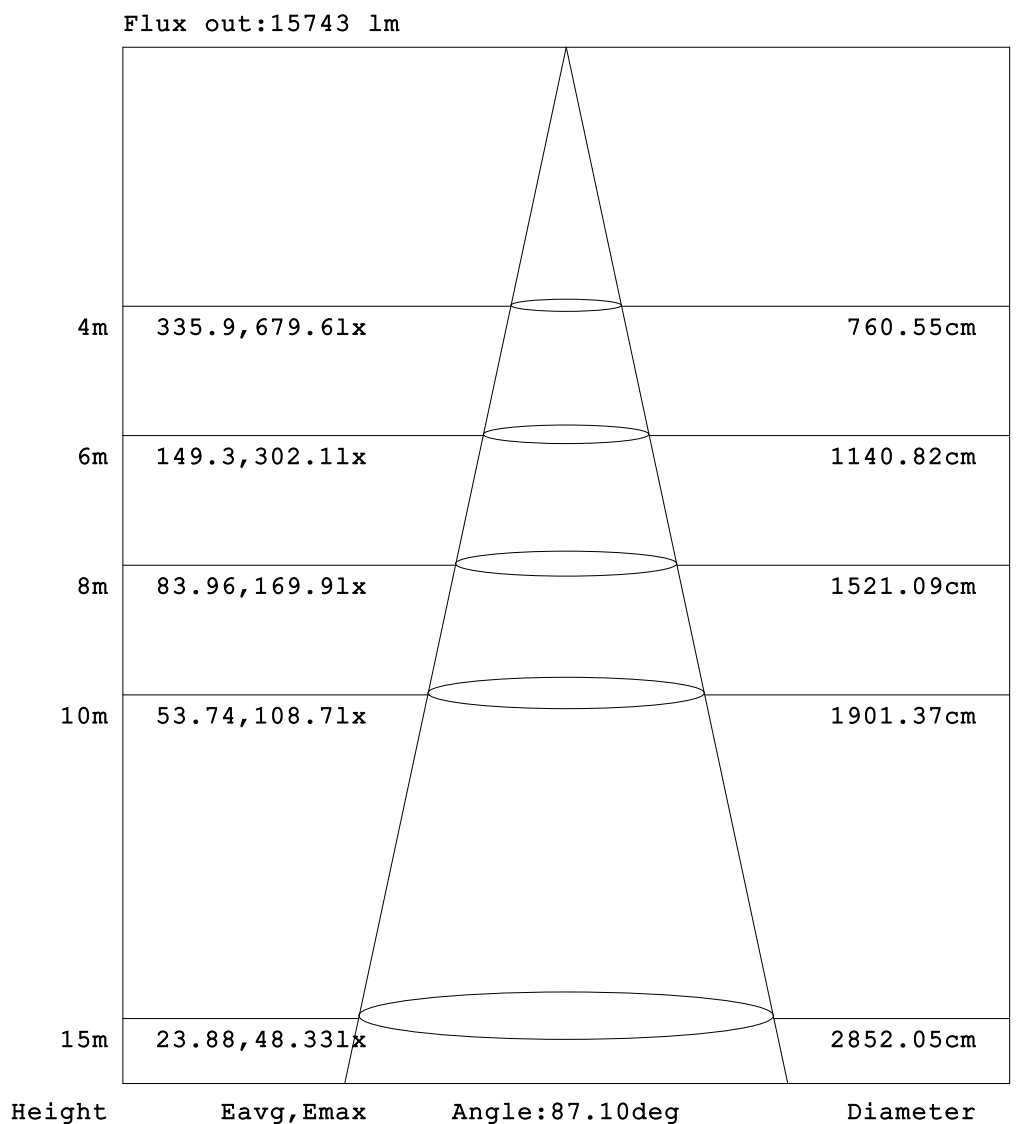
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WJH
 Test Date: 2020-06-02

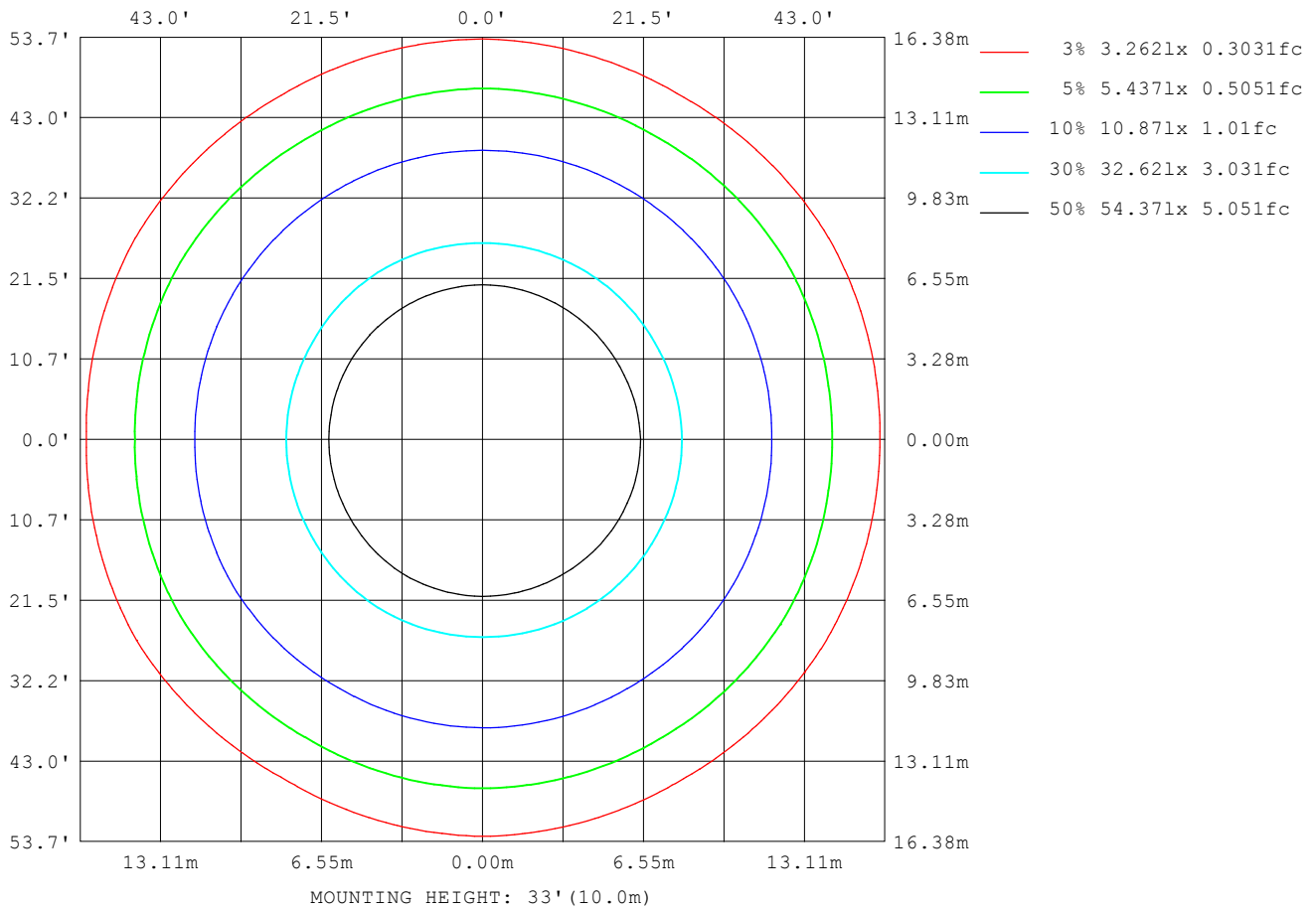
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.350m [K=1.0000]
 Remarks:

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Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM



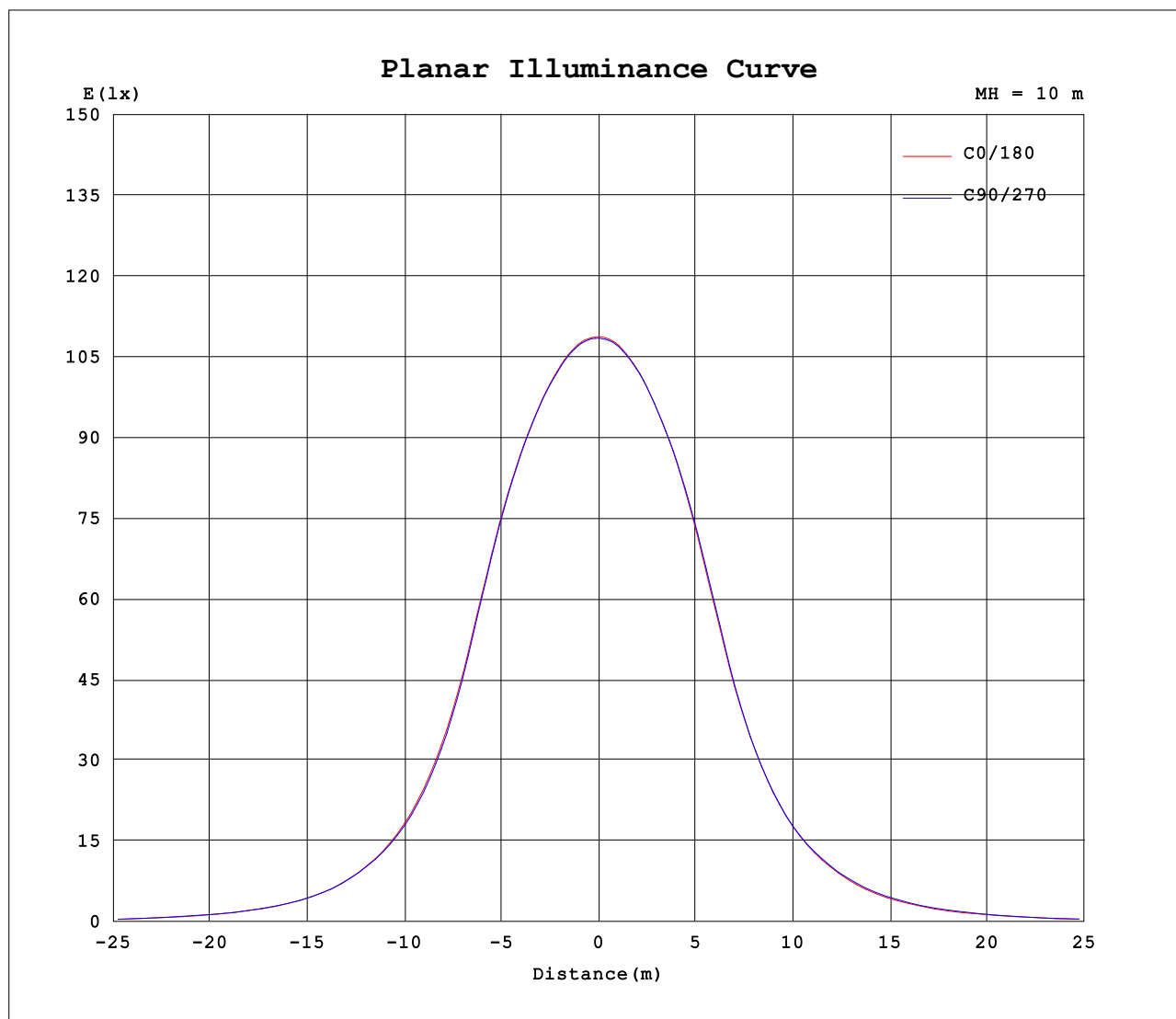
C Range: 0 - 360DEG
C Interval: 30.0DEG
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Temperature: 25.3DEG
Operators: WJH
Test Date: 2020-06-02

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor:

Planar Illuminance Curve



C Range: 0 - 360DEG
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Temperature: 25.3DEG
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Test Date: 2020-06-02

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

Assessor: