

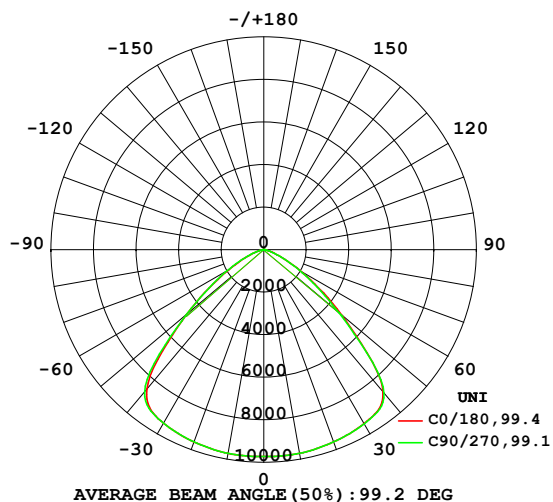
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

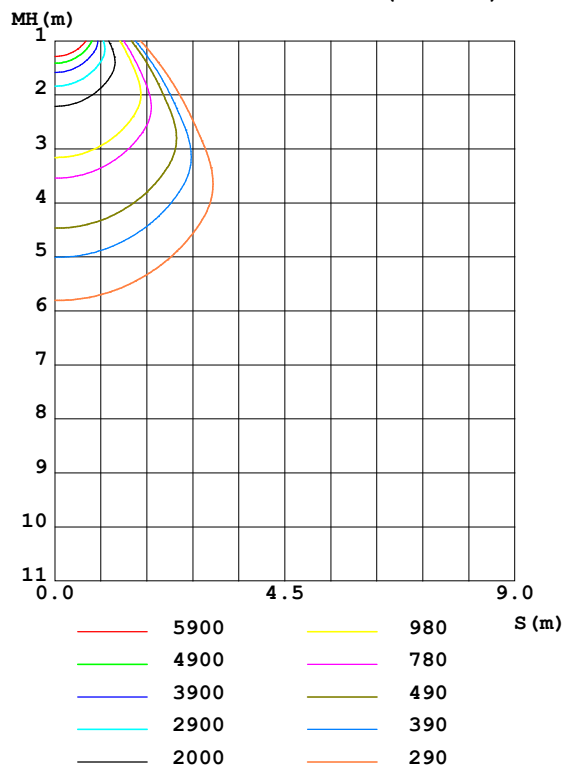
Test:U:230.0V I:0.6771A P:154.1W PF:0.9894 Lamp Flux:23449.6x1 lm		
NAME: 950-120_~100°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Tronix Lighting	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 152.21 lm/W			
MODEL	SE303	I _{max} (cd)	9737	S/MH(C0/180)	1.41
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.42
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	23450	η UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	23449.6	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1
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: 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	9719	9718	9720	9720	9725	9723	9721	9723	0- 10	928.8	928.8	3.96,3.96
20	9614	9612	9617	9617	9618	9617	9615	9619	10- 20	2740	3669	15.6,15.6
30	9439	9442	9448	9431	9424	9422	9423	9439	20- 30	4411	8080	34.5,34.5
40	8725	8823	8794	8605	8551	8662	8720	8701	30- 40	5773	13853	59.1,59.1
50	4789	4691	4623	4661	4739	4745	4760	4815	40- 50	5237	19090	81.4,81.4
60	1962	1917	1930	1941	1925	1989	2009	2016	50- 60	2849	21939	93.6,93.6
70	582.3	580.1	587.5	568.8	562.3	598.9	611.9	599.8	60- 70	1165	23104	98.5,98.5
80	94.77	95.28	92.58	92.81	90.85	99.27	98.64	100.2	70- 80	303.8	23408	99.8,99.8
90	10.78	10.82	10.95	10.82	11.44	11.14	11.53	11.31	80- 90	41.73	23450	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): 16777 lm

%lum = 71.5%

%lamp = 71.5%

Conical surface Flux(120deg): 21939 lm

%lum = 93.6%

%lamp = 93.6%

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Operators:WJH
Test Date:2020-06-02

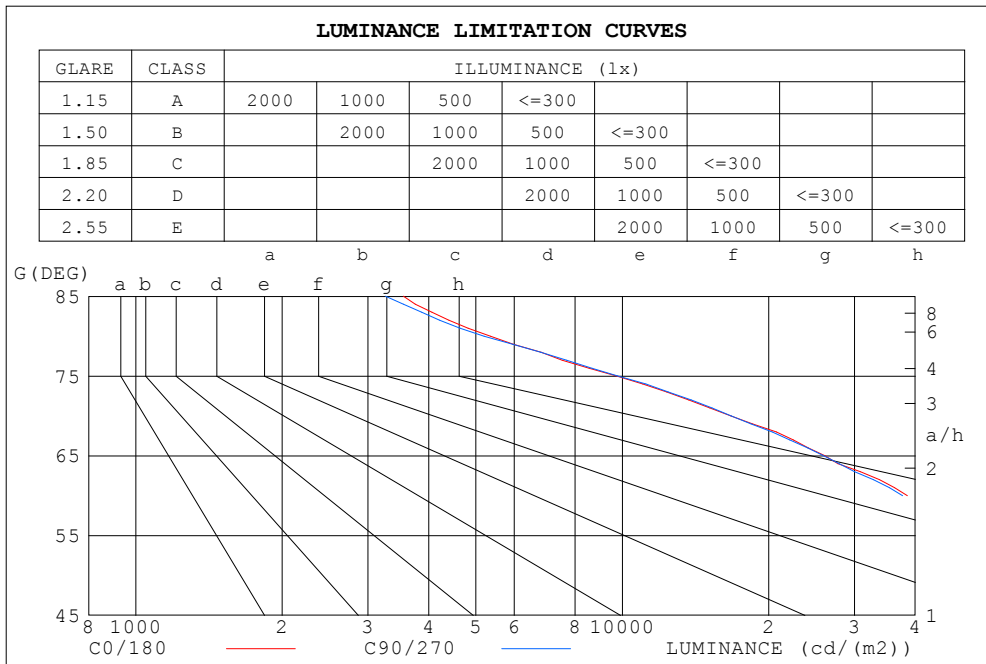
Checker: LI

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



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3549	3262
80	5359	5200
75	9722	9776
70	16717	16754
65	26090	25927
60	38538	37654
55	54344	52119
50	73153	70145
45	95414	94260

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Checker: LI

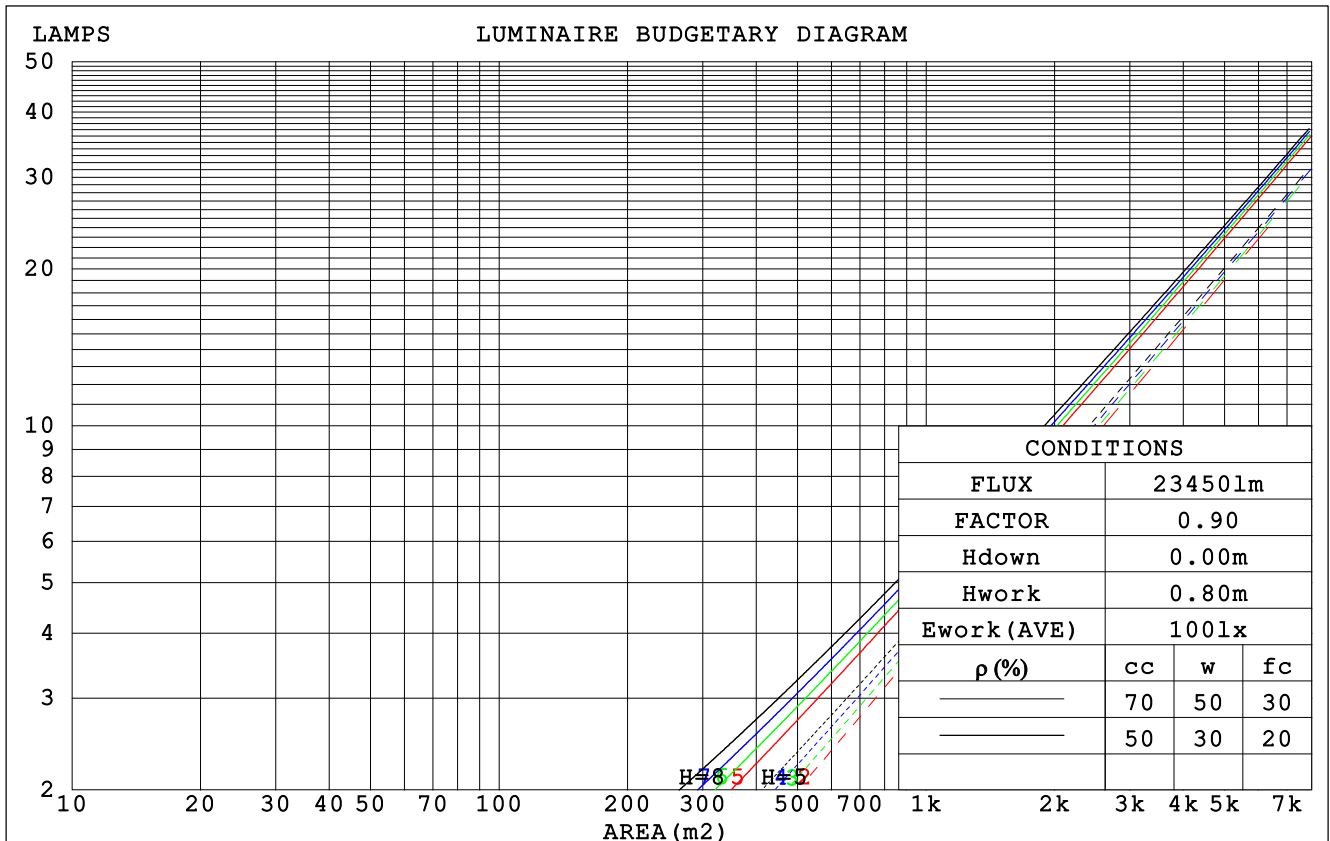
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γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

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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	1.08	1.04	1.01	1.05	1.02	.00	1.01	.99	.96	.97	.95	.94	.94	.92	.91	.89
2.0	.96	.91	.86	.95	.89	.85	.91	.87	.83	.88	.84	.81	.85	.82	.80	.78
3.0	.86	.80	.74	.85	.79	.73	.82	.77	.72	.79	.75	.71	.77	.73	.70	.68
4.0	.78	.70	.64	.76	.69	.64	.74	.68	.63	.72	.67	.62	.70	.65	.61	.60
5.0	.70	.62	.56	.69	.62	.56	.67	.61	.56	.65	.59	.55	.63	.58	.54	.53
6.0	.64	.56	.50	.63	.55	.50	.61	.54	.49	.59	.53	.49	.58	.53	.48	.47
7.0	.58	.50	.44	.57	.50	.44	.56	.49	.44	.54	.48	.44	.53	.48	.43	.42
8.0	.53	.45	.40	.52	.45	.40	.51	.44	.40	.50	.44	.39	.49	.43	.39	.37
9.0	.49	.41	.36	.48	.41	.36	.47	.40	.36	.46	.40	.36	.45	.40	.35	.34
10.0	.45	.38	.33	.45	.37	.33	.44	.37	.32	.43	.37	.32	.42	.36	.32	.31



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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	.240	.136	.043	.233	.133	.042	.220	.126	.040	.208	.120	.039	.197	.114	.037		
2.0	.235	.129	.040	.229	.126	.039	.218	.121	.038	.208	.117	.036	.198	.112	.035		
3.0	.225	.120	.036	.220	.118	.035	.210	.114	.035	.201	.110	.034	.193	.107	.033		
4.0	.213	.111	.033	.209	.109	.032	.200	.106	.032	.192	.103	.031	.185	.100	.031		
5.0	.202	.103	.030	.198	.101	.030	.190	.099	.029	.183	.096	.029	.176	.094	.028		
6.0	.191	.095	.027	.187	.094	.027	.180	.092	.027	.174	.090	.027	.168	.088	.026		
7.0	.180	.089	.025	.177	.088	.025	.171	.086	.025	.165	.085	.025	.159	.083	.024		
8.0	.170	.083	.023	.167	.082	.023	.162	.081	.023	.157	.079	.023	.152	.078	.023		
9.0	.161	.078	.022	.159	.077	.022	.154	.076	.022	.149	.075	.021	.145	.073	.021		
10.0	.153	.073	.020	.151	.073	.020	.146	.072	.020	.142	.070	.020	.138	.069	.020		

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	.175	.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	.156	.114	.081	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.064	.127	.087	.055	.087	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.141	.089	.051	.121	.077	.045	.083	.054	.032	.048	.032	.019	.016	.010	.006	
6.0	.134	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.128	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.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	26.5	27.8	26.8	28.0	28.2	26.4	27.8	26.7	27.9	28.1
3H	26.6	27.8	26.9	28.0	28.3	26.5	27.7	26.8	28.0	28.2
4H	26.6	27.7	26.9	28.0	28.2	26.5	27.6	26.8	27.9	28.1
6H	26.5	27.6	26.8	27.8	28.1	26.4	27.5	26.7	27.7	28.0
8H	26.4	27.5	26.8	27.7	28.0	26.3	27.4	26.7	27.7	27.9
12H	26.4	27.4	26.7	27.7	28.0	26.3	27.3	26.6	27.6	27.9
4H 2H	26.5	27.7	26.8	27.9	28.2	26.4	27.6	26.7	27.8	28.1
3H	26.7	27.7	27.0	28.0	28.3	26.6	27.6	26.9	27.9	28.2
4H	26.7	27.6	27.0	27.9	28.2	26.6	27.5	26.9	27.8	28.1
6H	26.6	27.4	27.0	27.7	28.1	26.5	27.3	26.9	27.6	28.0
8H	26.6	27.3	27.0	27.7	28.0	26.5	27.2	26.9	27.6	27.9
12H	26.5	27.2	27.0	27.6	28.0	26.4	27.1	26.9	27.5	27.9
8H 4H	26.6	27.3	27.0	27.7	28.0	26.5	27.2	26.9	27.6	27.9
6H	26.5	27.1	27.0	27.5	27.9	26.4	27.0	26.9	27.4	27.9
8H	26.5	27.0	27.0	27.4	27.9	26.4	26.9	26.9	27.3	27.8
12H	26.5	26.9	26.9	27.4	27.8	26.4	26.8	26.8	27.3	27.7
12H 4H	26.5	27.2	27.0	27.6	28.0	26.4	27.1	26.9	27.5	27.9
6H	26.5	27.0	26.9	27.4	27.9	26.4	26.9	26.9	27.3	27.8
8H	26.5	26.9	26.9	27.3	27.8	26.4	26.8	26.8	27.3	27.7
Variations with the observer position at spacings:										
S = 1.0H	+ 1.5 / - 1.7					+ 1.5 / - 1.8				
1.5H	+ 0.7 / - 1.2					+ 0.7 / - 1.1				
2.0H	+ 2.7 / - 3.0					+ 2.7 / - 3.1				

CIE Pub.117 Corrected 23450 lm Total Lamp Luminous Flux.(8log(F/F0) = 11.0)

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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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) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	65	55	49	64	54	49	43
0.80	76	66	60	75	66	60	73	65	59	53
1.00	84	75	69	83	75	69	81	76	68	63
1.25	91	83	77	90	82	77	87	81	76	70
1.50	96	88	82	94	87	82	91	85	81	74
2.00	101	95	90	100	94	89	96	91	87	81
2.50	104	98	93	102	97	93	99	94	91	83
3.00	107	101	97	105	100	96	101	97	94	86
4.00	110	105	102	107	104	100	103	100	98	90
5.00	111	108	105	109	106	103	105	102	100	91
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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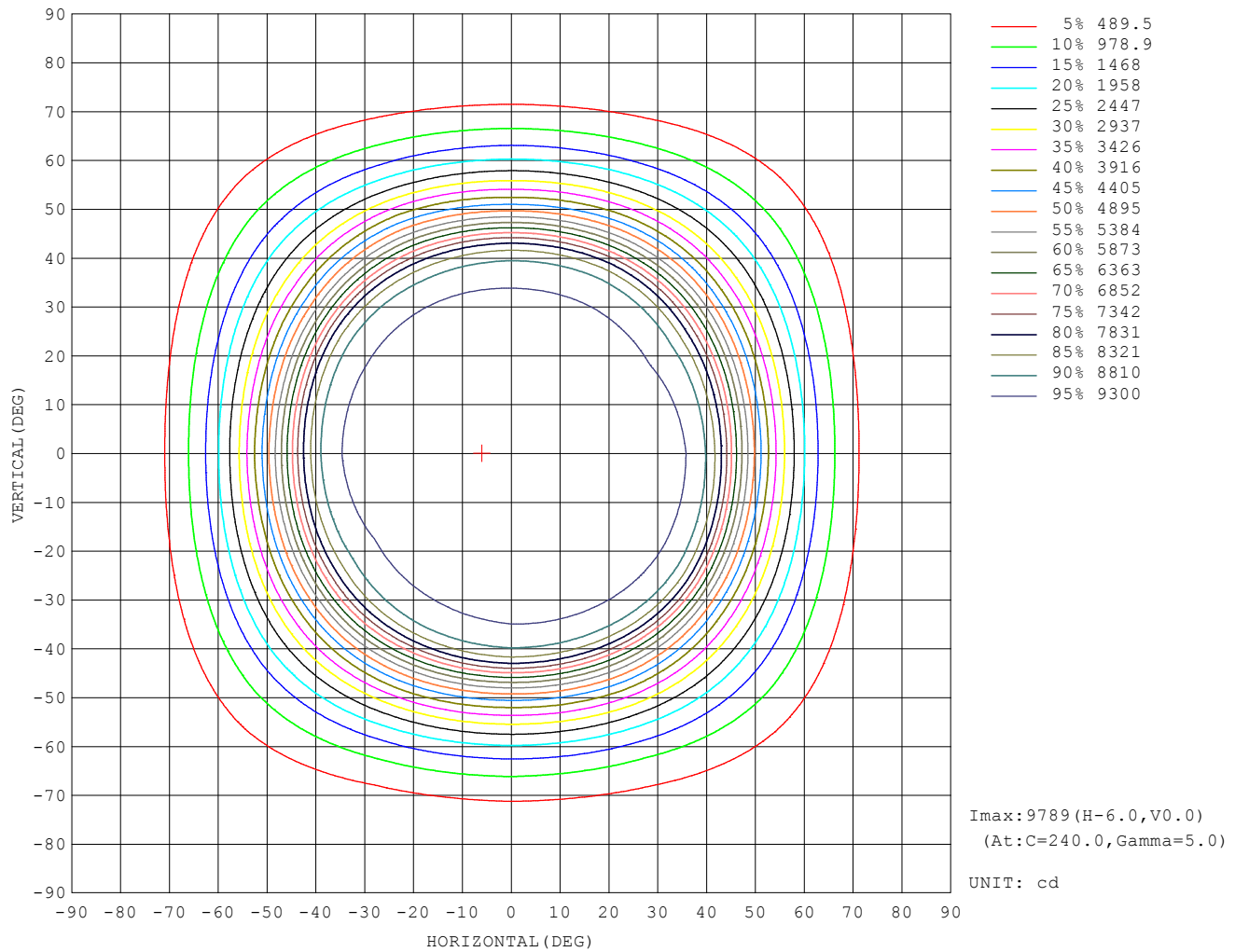
Checker: LI

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]
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM



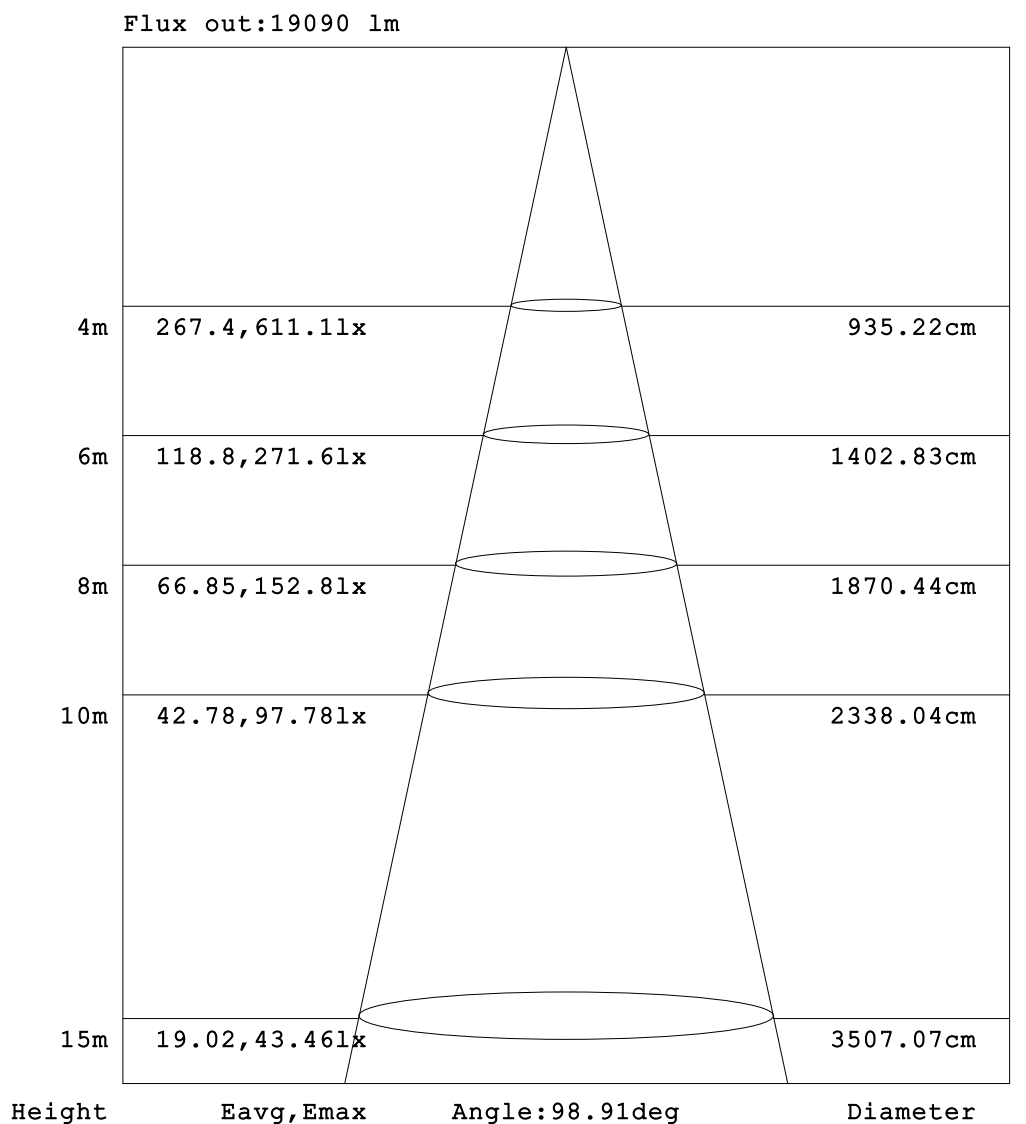
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

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

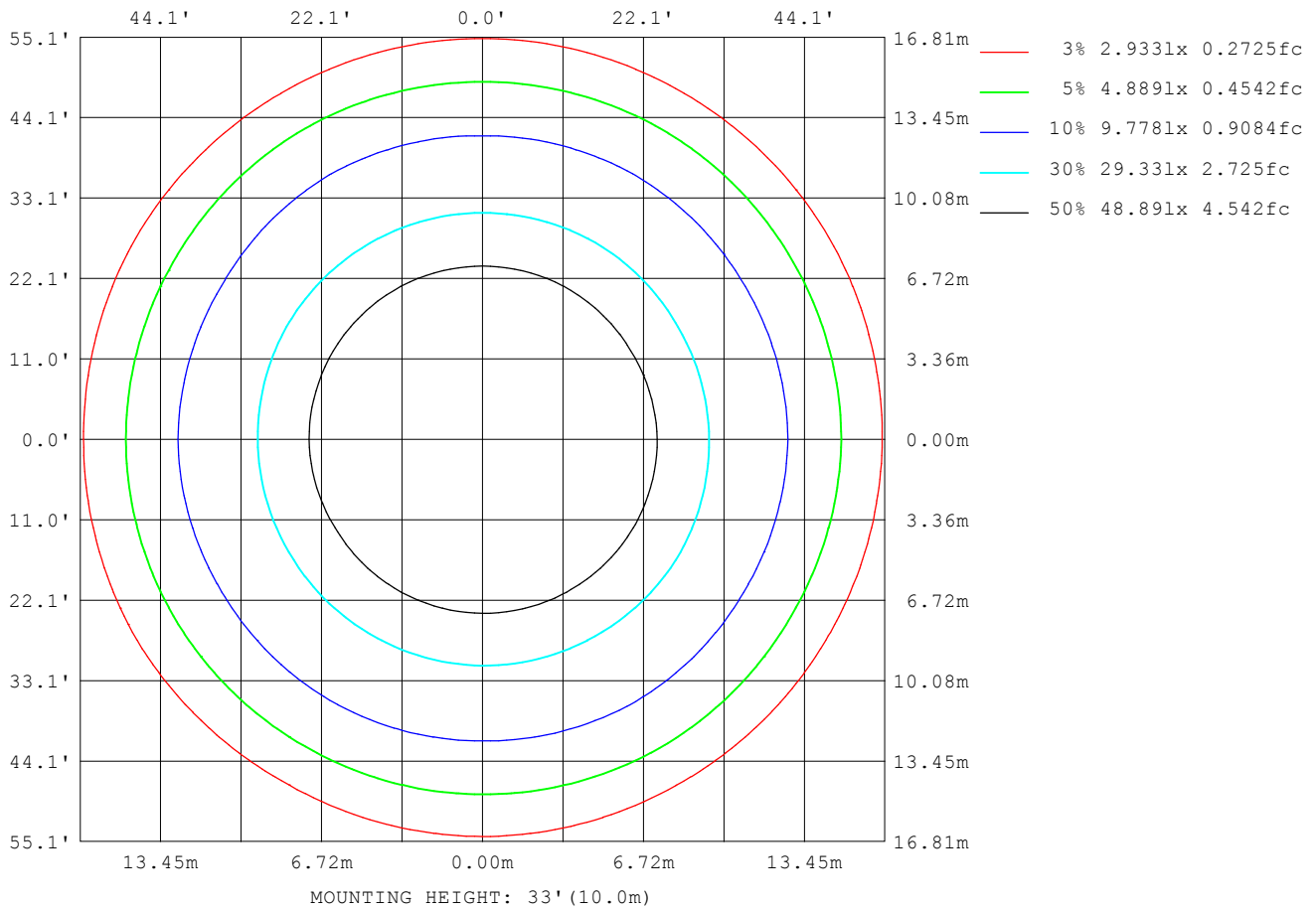
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM



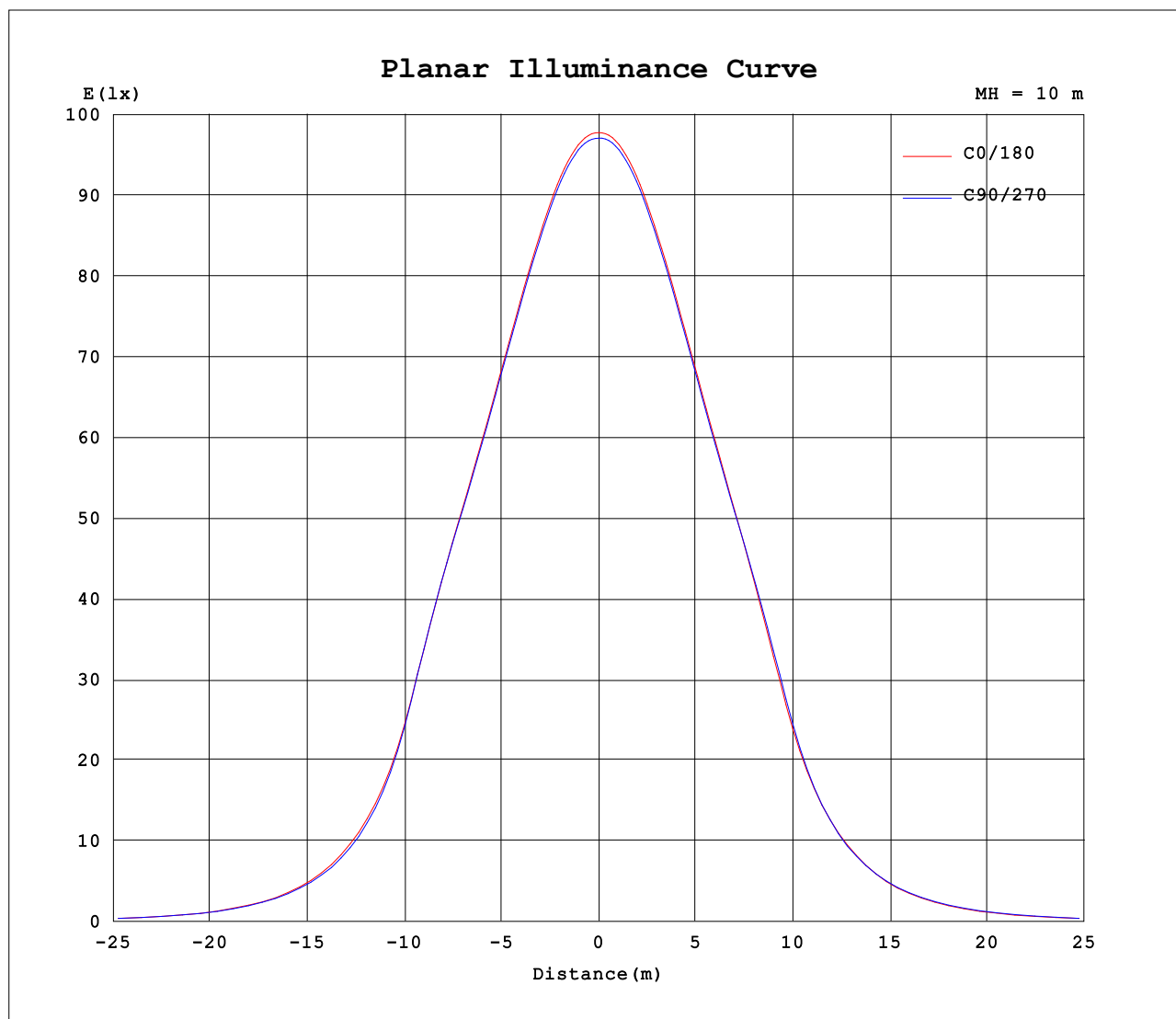
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: WJH
Test Date: 2020-06-02

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:

Planar Illuminance Curve



C Range: 0 - 360DEG
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Temperature: 25.3DEG
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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: