

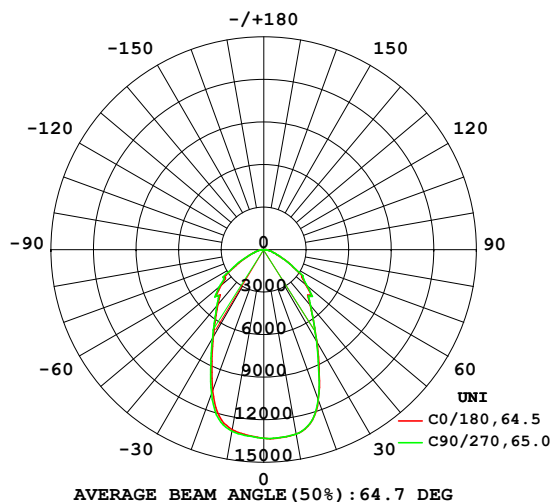
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

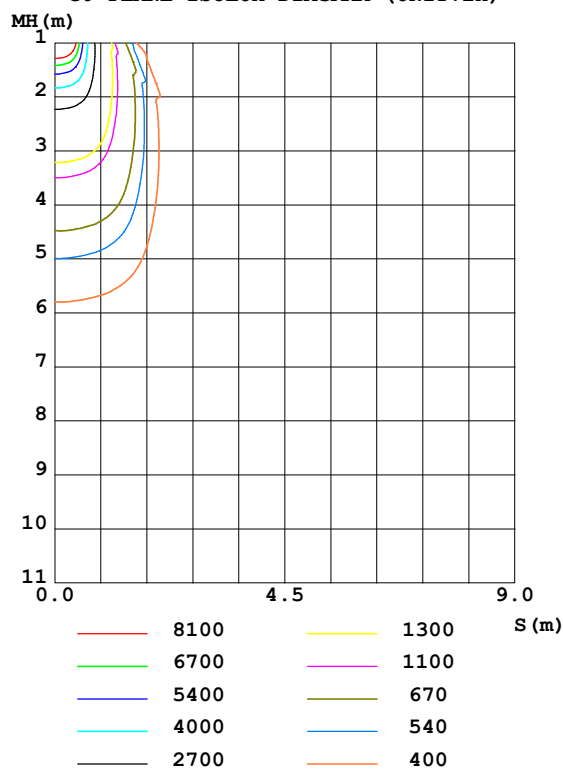
Test:U:230.0V I:0.6770A P:154.0W PF:0.9893 Lamp Flux:21589.4x1 lm		
NAME: 950-120_~60°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Tronix Lighting	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.16 lm/W			
MODEL	SE303	I _{max} (cd)	13340	S/MH (C0/180)	0.92
NOMINAL POWER (W)	150	LOR (%)	100.0	S/MH (C90/270)	0.93
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	21589	η UP, DN (C0-180)	0.0, 50.1
NOMINAL FLUX (lm)	21589.4	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.00

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	1321	1321	1321	1312	1288	1293	1300	1307	0- 10	1259	1259	5.83,5.83
20	1127	1125	1122	1109	1057	1070	1080	1097	10- 20	3462	4721	21.9,21.9
30	748.9	741.3	744.4	738.4	714.3	719.2	726.3	736.3	20- 30	4150	8871	41.1,41.1
40	510.9	513.8	514.2	518.9	504.5	515.2	516.1	521.4	30- 40	3824	12695	58.8,58.8
50	391.3	395.4	401.5	401.7	392.1	404.6	409.8	408.0	40- 50	3557	16252	75.3,75.3
60	229.9	228.5	229.6	234.0	228.7	240.3	242.7	238.1	50- 60	2930	19182	88.8,88.8
70	91.32	92.90	91.39	93.84	91.94	94.79	93.82	96.35	60- 70	1558	20740	96.1,96.1
80	35.36	35.21	34.24	34.84	34.58	35.52	35.26	35.95	70- 80	644.8	21385	99.1,99.1
90	7.978	7.762	7.714	7.940	7.869	8.064	7.937	8.119	80- 90	204.5	21589	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): 14466 lm

%lum = 67.0%

%lamp = 67.0%

Conical surface Flux(120deg): 19182 lm

%lum = 88.8%

%lamp = 88.8%

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C Interval: 30.0DEG
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Operators:WJH
Test Date:2020-06-02

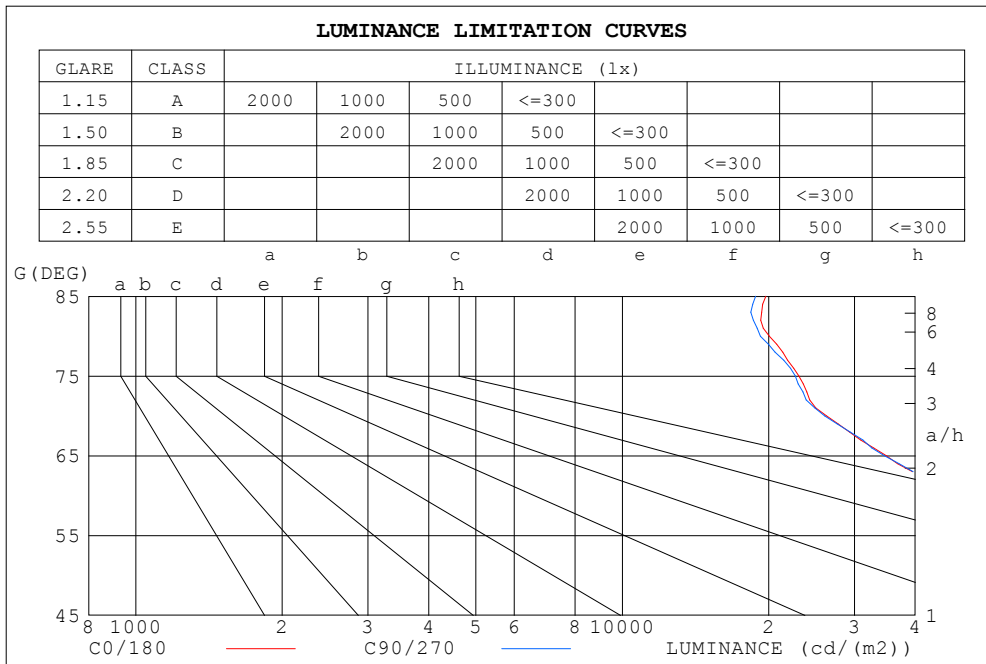
Checker: LI

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	19734	18804
80	20072	19239
75	23067	22685
70	26314	26069
65	34893	34558
60	45315	44800
55	56719	57228
50	60003	60949
45	63260	64452

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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:

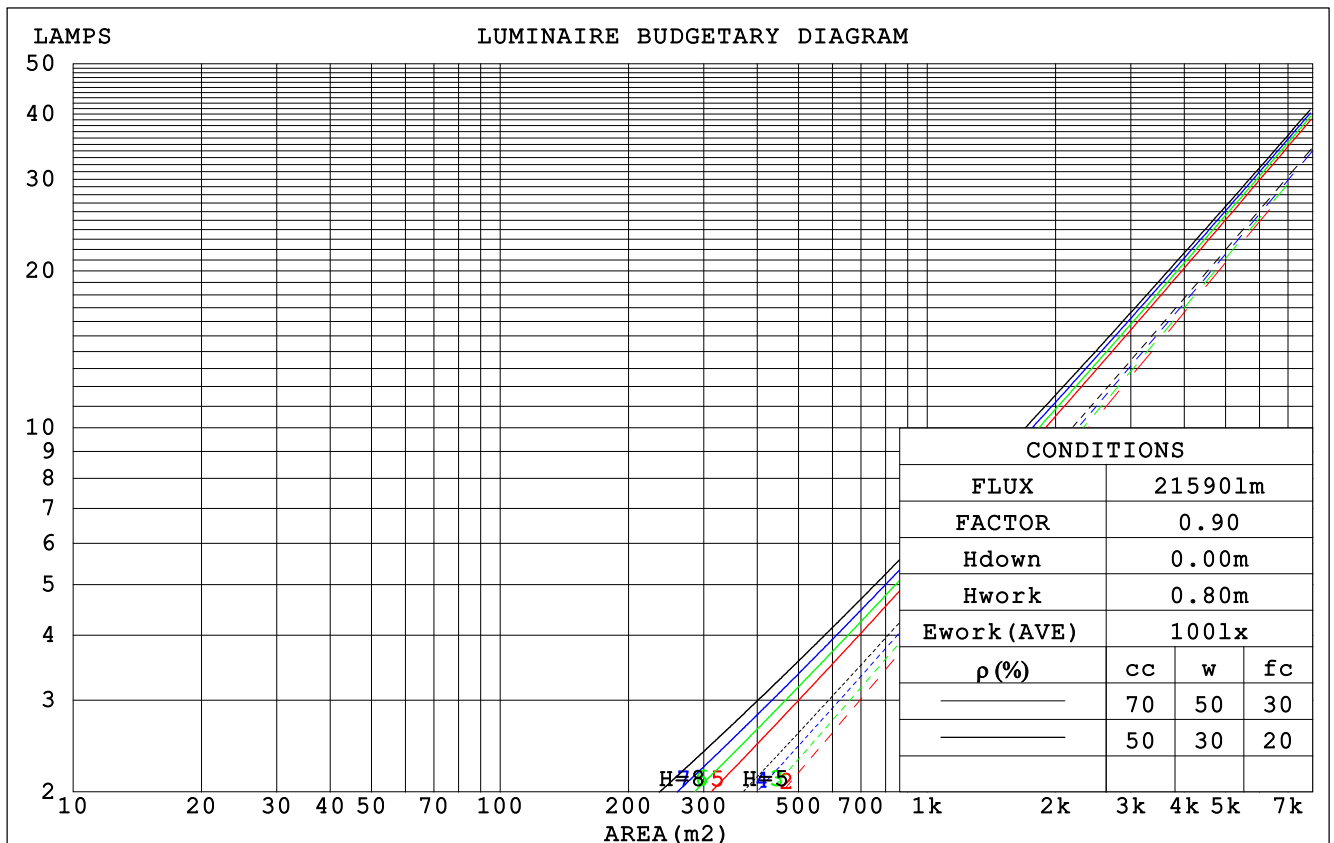
Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	1.07	1.03	1.00	1.05	1.01	.98	1.00	.98	.95	.97	.94	.92	.93	.91	.90	.88
2.0	.95	.90	.85	.94	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3.0	.86	.79	.73	.84	.78	.72	.81	.76	.71	.79	.74	.70	.76	.72	.69	.67
4.0	.77	.70	.64	.76	.69	.63	.74	.67	.63	.71	.66	.62	.69	.65	.61	.59
5.0	.70	.62	.56	.69	.62	.56	.67	.61	.56	.65	.60	.55	.64	.59	.55	.53
6.0	.64	.56	.51	.63	.56	.50	.62	.55	.50	.60	.54	.50	.58	.53	.49	.47
7.0	.59	.51	.46	.58	.51	.45	.57	.50	.45	.55	.49	.45	.54	.49	.45	.43
8.0	.54	.47	.41	.54	.46	.41	.53	.46	.41	.51	.45	.41	.50	.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	.47	.40	.35	.46	.39	.35	.45	.39	.35	.44	.38	.35	.33



C Range: 0 - 360DEG
 C Interval: 30.0DEG
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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	.255	.145	.046	.248	.141	.045	.235	.135	.043	.223	.129	.041	.212	.123	.040	
2.0	.244	.134	.041	.238	.131	.040	.227	.126	.039	.216	.121	.038	.207	.117	.037	
3.0	.230	.122	.037	.225	.120	.036	.215	.116	.035	.206	.113	.035	.197	.109	.034	
4.0	.215	.112	.033	.211	.110	.033	.202	.107	.032	.194	.104	.031	.186	.101	.031	
5.0	.201	.103	.030	.197	.101	.030	.190	.099	.029	.183	.096	.029	.176	.094	.028	
6.0	.189	.095	.027	.185	.094	.027	.178	.091	.027	.172	.089	.026	.166	.087	.026	
7.0	.177	.088	.025	.174	.087	.025	.168	.085	.024	.162	.083	.024	.157	.082	.024	
8.0	.167	.082	.023	.164	.081	.023	.159	.079	.023	.153	.078	.022	.149	.076	.022	
9.0	.157	.076	.021	.155	.075	.021	.150	.074	.021	.145	.073	.021	.141	.072	.021	
10.0	.149	.071	.020	.147	.071	.020	.142	.070	.020	.138	.069	.019	.134	.067	.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	.177	.157	.139	.151	.134	.119	.103	.092	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.134	.098	.069	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.063	.127	.087	.055	.088	.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	.043	.115	.070	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.109	.064	.031	.076	.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	.116	.063	.027	.100	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.095	.051	.021	.066	.036	.015	.038	.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	26.0	27.3	26.2	27.5	27.7	25.8	27.1	26.1	27.3	27.5
3H	26.5	27.7	26.8	27.9	28.2	26.4	27.6	26.7	27.8	28.0
4H	26.7	27.8	27.0	28.1	28.3	26.6	27.7	26.9	28.0	28.2
6H	26.8	27.9	27.1	28.2	28.4	26.7	27.8	27.0	28.0	28.3
8H	26.8	27.9	27.2	28.2	28.4	26.7	27.8	27.0	28.0	28.3
12H	26.9	27.9	27.2	28.2	28.4	26.7	27.7	27.1	28.0	28.3
4H 2H	26.2	27.4	26.5	27.6	27.9	26.1	27.3	26.4	27.5	27.8
3H	26.9	27.9	27.3	28.2	28.5	26.8	27.8	27.2	28.1	28.4
4H	27.2	28.1	27.6	28.4	28.7	27.1	28.0	27.5	28.3	28.6
6H	27.4	28.2	27.8	28.6	28.9	27.3	28.1	27.7	28.4	28.8
8H	27.5	28.2	27.9	28.6	29.0	27.4	28.1	27.8	28.5	28.8
12H	27.5	28.2	28.0	28.6	29.0	27.4	28.1	27.8	28.5	28.9
8H 4H	27.2	28.0	27.6	28.4	28.7	27.1	27.9	27.6	28.3	28.6
6H	27.6	28.2	28.0	28.6	29.0	27.4	28.1	27.9	28.5	28.9
8H	27.7	28.2	28.1	28.7	29.1	27.6	28.1	28.0	28.5	29.0
12H	27.8	28.3	28.3	28.7	29.2	27.7	28.2	28.2	28.6	29.1
12H 4H	27.2	27.9	27.6	28.3	28.7	27.1	27.8	27.5	28.2	28.6
6H	27.6	28.1	28.0	28.5	29.0	27.5	28.0	27.9	28.4	28.9
8H	27.7	28.2	28.2	28.6	29.1	27.6	28.1	28.1	28.5	29.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.3				
1.5H	+ 0.7 / - 0.6					+ 0.6 / - 0.5				
2.0H	+ 0.7 / - 0.9					+ 0.7 / - 1.0				

CIE Pub.117 Corrected 21589 lm Total Lamp Luminous Flux. (8log(F/F0) = 10.7)

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) $k(RI) \times RCR = 5$									
$k = 0.60$	66	55	49	65	55	49	64	55	49	43
0.80	75	66	59	75	65	59	73	64	59	53
1.00	83	74	68	82	73	68	80	74	67	61
1.25	90	81	75	89	80	75	86	79	74	68
1.50	94	86	80	93	85	80	90	84	79	72
2.00	100	93	88	98	92	87	95	90	85	79
2.50	103	97	92	101	95	91	98	93	89	82
3.00	106	100	96	104	99	95	100	96	92	85
4.00	109	104	101	107	103	99	103	99	96	88
5.00	111	107	104	109	105	102	104	101	99	90
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

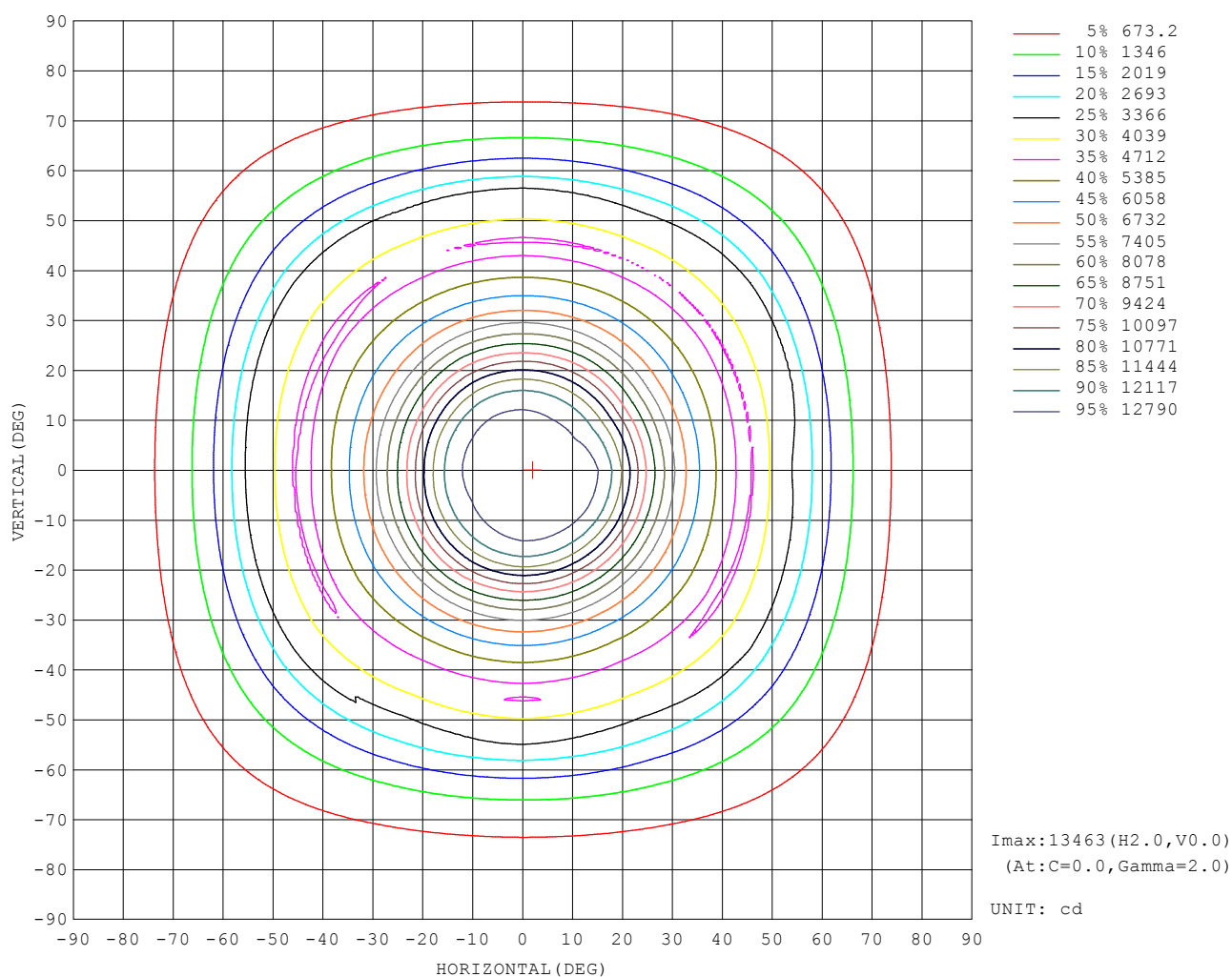
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.350m [K=1.0000]
 Remarks:

Assessor:

ISOCANDELA DIAGRAM



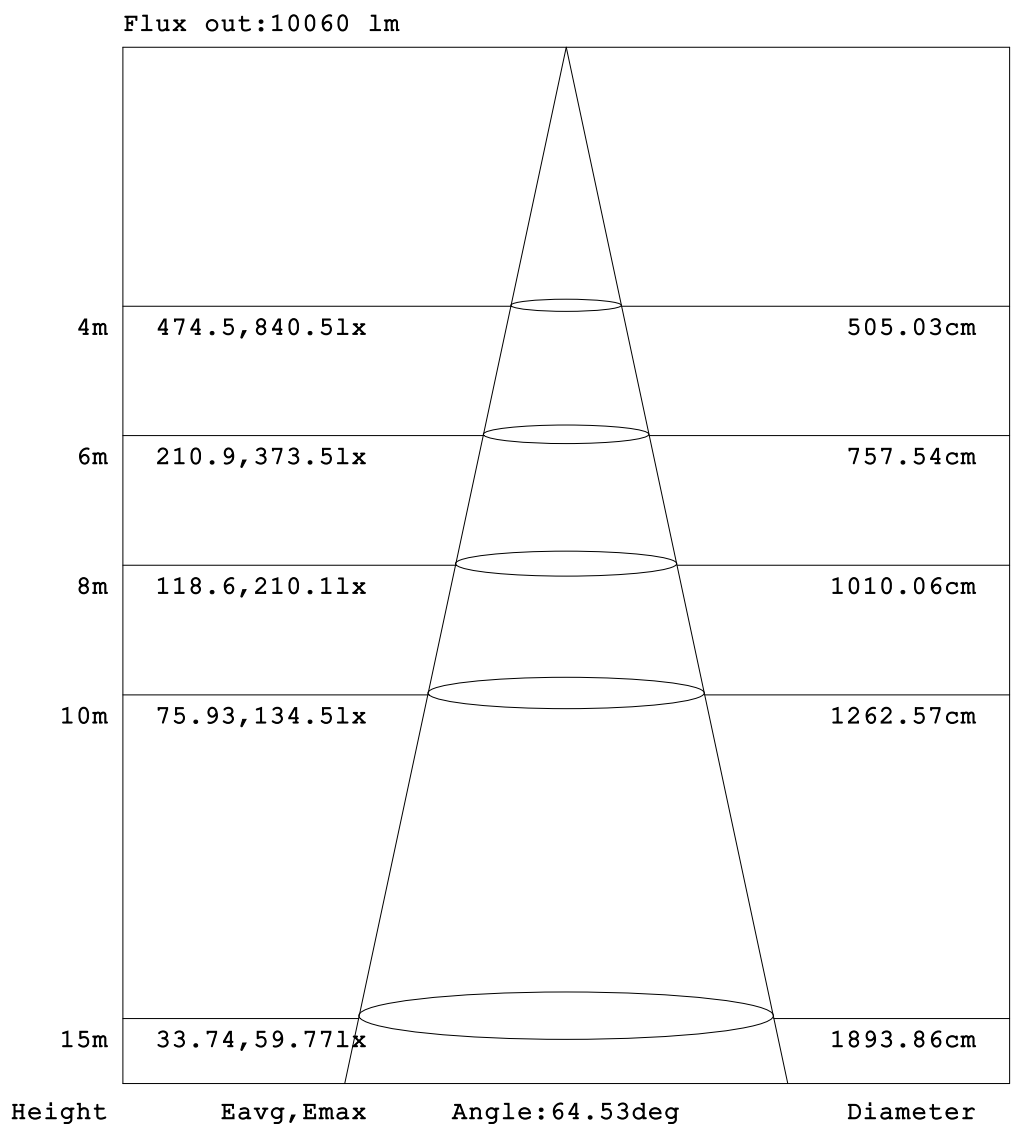
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Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

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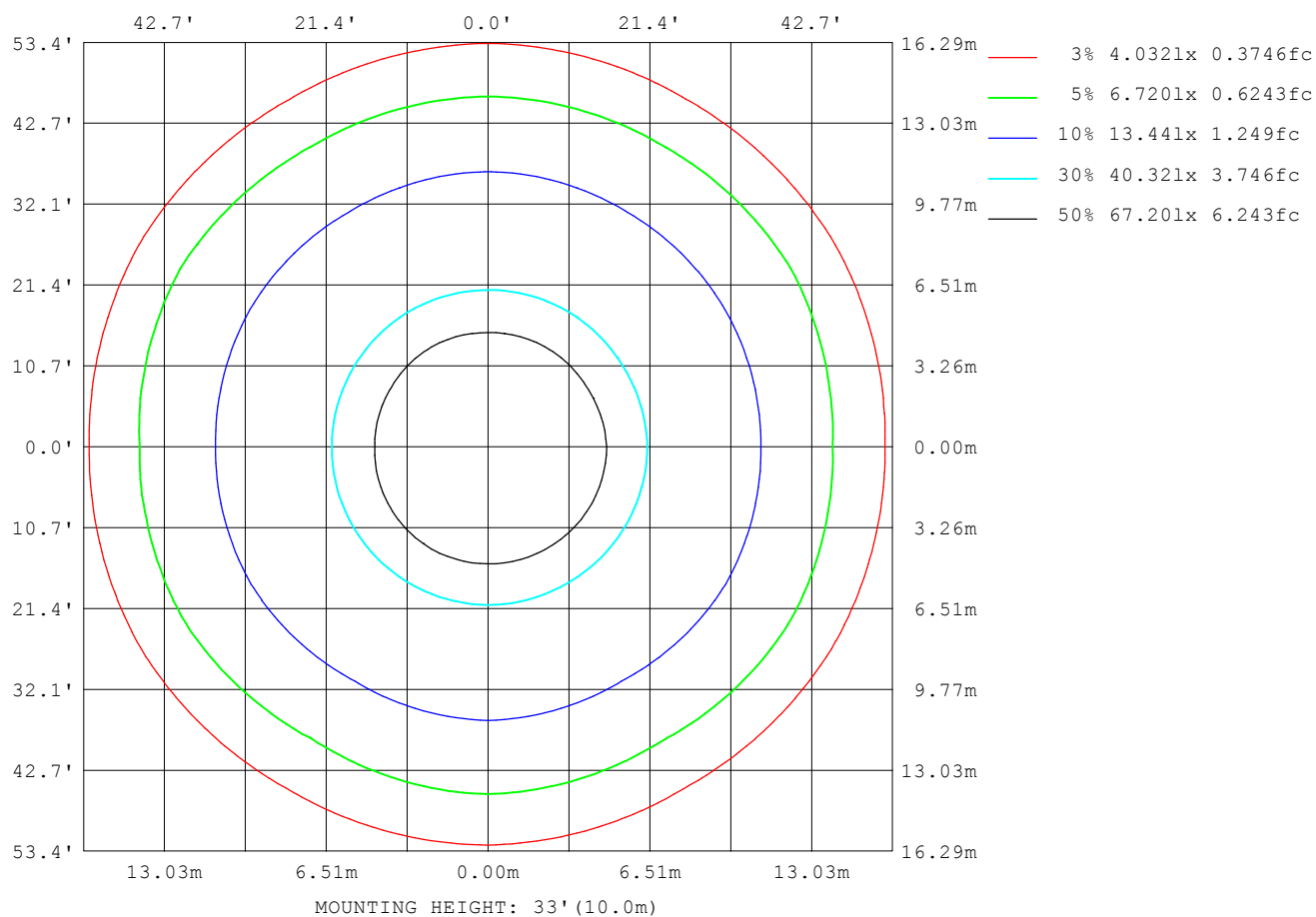
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

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Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM



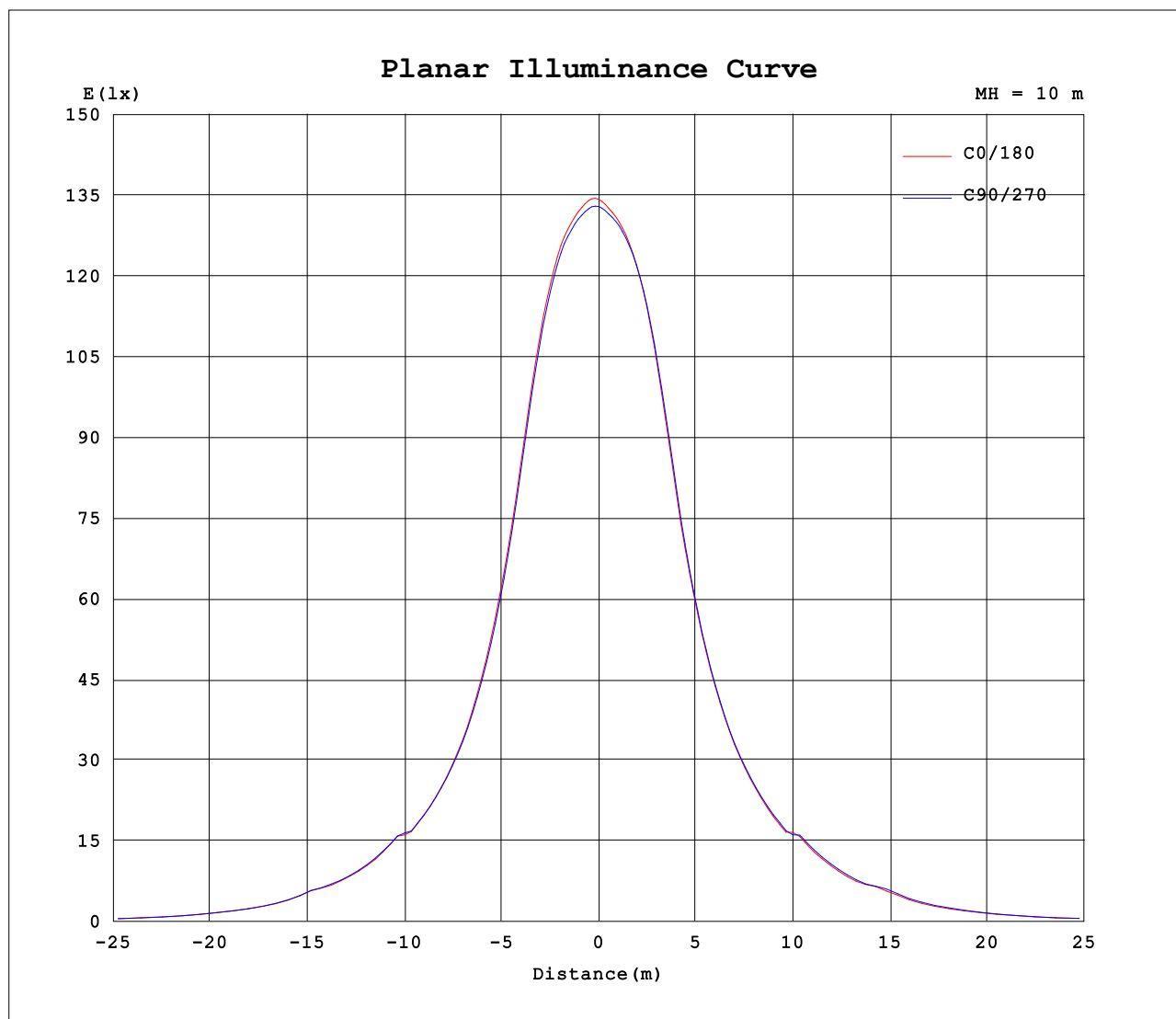
C Range: 0 - 360DEG
C Interval: 30.0DEG
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Temperature: 25.3DEG
Operators: WJH
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
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Remarks:

Checker: LI

Assessor:

Planar Illuminance Curve



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: