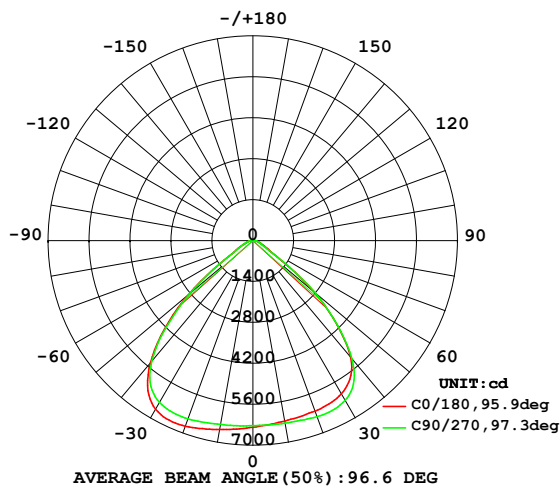


LUMINAIRE PHOTOMETRIC TEST REPORT

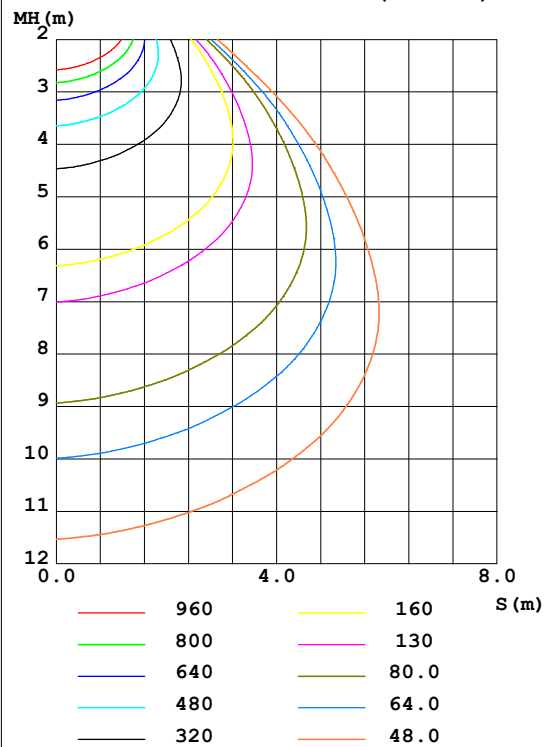
Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm		
NAME: BT-LON-150W	TYPE:LENS	WEIGHT:3.8kg
SPEC.:5000k R80 60LEDs 100D	DIM.: D260*H184mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 96.82 lm/W
MODEL	SMD3535	I _{max} (cd)	6782	S/MH(C0/180)	1.39	
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.39	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	14355	η UP,DN(C0-180)	0.3,48.9	
NOMINAL FLUX(lm)	14355.1	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.2,50.6	
LAMPS INSIDE	1	η up(%)	0.5	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	220	η down(%)	99.5	CIBSE SHR MAX	1.35	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators:
 Test Date: 2015-05-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity: 65.0%
 Test Distance: 9.256m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	6264	6256	6339	6418	6560	6498	6383	6253	0- 10	606.9	606.9	4.23,4.23
20	6205	6220	6405	6595	6753	6676	6488	6235	10- 20	1819	2426	16.9,16.9
30	6053	6110	6307	6511	6659	6569	6389	6103	20- 30	2973	5398	37.6,37.6
40	5191	5223	5261	5324	5458	5413	5384	5216	30- 40	3726	9124	63.6,63.6
50	2746	2739	2791	2768	2883	2860	2807	2871	40- 50	3171	12294	85.6,85.6
60	628.1	586.7	553.0	646.6	677.4	668.2	633.0	622.8	50- 60	1290	13585	94.6,94.6
70	279.8	258.0	255.2	269.3	289.5	275.9	280.9	261.7	60- 70	408.7	13993	97.5,97.5
80	115.3	113.3	122.4	134.2	149.7	142.6	134.9	120.0	70- 80	209.5	14203	98.9,98.9
90	23.13	37.68	25.68	36.22	47.60	62.47	62.34	25.32	80- 90	80.96	14284	99.5,99.5
100	1.253	1.256	1.184	1.154	0.7165	0.6978	0.6596	0.6715	90-100	15.14	14299	99.6,99.6
110	4.019	3.958	3.854	3.647	2.215	2.114	2.196	2.361	100-110	1.812	14301	99.6,99.6
120	8.257	8.204	8.055	7.823	5.510	5.421	5.441	5.522	110-120	4.848	14306	99.7,99.7
130	14.03	13.92	13.65	13.26	9.835	9.849	9.930	10.18	120-130	8.231	14314	99.7,99.7
140	19.18	19.01	18.59	18.11	14.19	14.18	14.40	14.65	130-140	11.06	14325	99.8,99.8
150	22.61	22.47	21.91	21.47	17.43	17.42	17.75	18.05	140-150	11.46	14336	99.9,99.9
160	24.53	24.50	23.95	23.53	20.84	20.81	21.16	21.33	150-160	9.822	14346	99.9,99.9
170	25.38	25.47	25.02	24.81	23.07	22.91	23.28	23.35	160-170	6.621	14353	100,100
180	25.64	25.83	25.66	25.72	25.77	25.71	25.75	25.63	170-180	2.358	14355	100,100
DEG	LUMINOUS INTENSITY:cd MAX (Ii - Iavg)/Iavg (0-135) = 190.3 %									UNIT:lm		

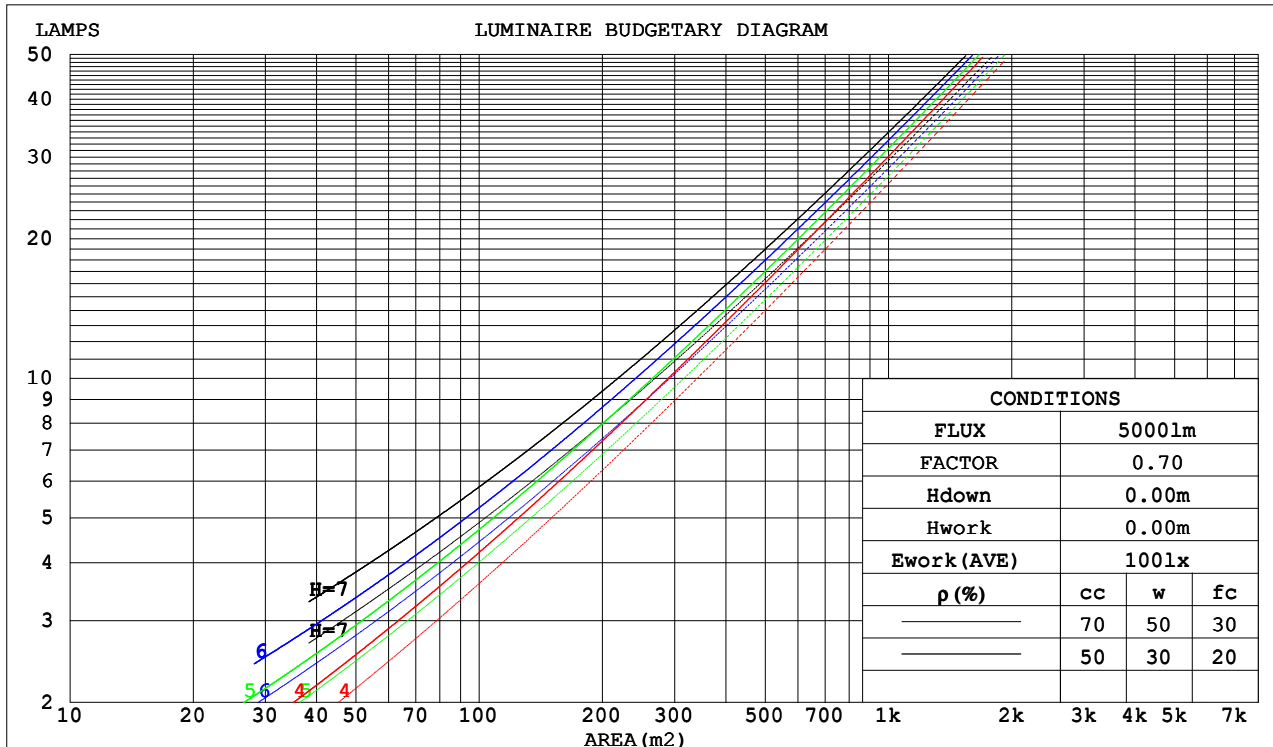
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-05-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity:65.0%
 Test Distance:9.256m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm		
NAME: BT-LON-150W	TYPE:LENS	WEIGHT:3.8kg
SPEC.:5000k R80 60LEDs 100D	DIM.: D260*H184mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

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	1.08	1.04	1.01	1.05	1.02	.00	1.01	.99	.97	.97	.95	.94	.94	.92	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.85	.82	.86	.83	.80	.78
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.80	.76	.72	.78	.74	.71	.69
4.0	.79	.72	.66	.78	.71	.66	.75	.70	.65	.73	.68	.64	.71	.67	.63	.61
5.0	.72	.64	.59	.71	.64	.58	.69	.62	.58	.67	.61	.57	.65	.60	.56	.55
6.0	.65	.58	.52	.65	.57	.52	.63	.56	.51	.61	.55	.51	.60	.55	.51	.49
7.0	.60	.52	.47	.59	.52	.47	.58	.51	.46	.56	.50	.46	.55	.50	.46	.44
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.42	.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	.44	.39	.34	.44	.38	.34	.33



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-05-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.256m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm														
NAME: BT-LON-150W					TYPE:LENS					WEIGHT:3.8kg				
SPEC.:5000k R80 60LEDs 100D					DIM.: D260*H184mm					SERIAL No.:				
MFR.: EVERFINE					SUR.:163*163mm					PROTECTION ANGLE:				

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	.235	.134	.042	.228	.130	.041	.215	.123	.039	.203	.117	.037	.191	.111	.036	
2.0	.227	.125	.038	.221	.122	.038	.210	.117	.036	.200	.112	.035	.190	.107	.034	
3.0	.217	.115	.035	.212	.113	.034	.202	.109	.033	.192	.105	.032	.184	.102	.032	
4.0	.206	.107	.031	.201	.105	.031	.192	.102	.030	.184	.099	.030	.176	.096	.029	
5.0	.195	.099	.029	.191	.098	.028	.183	.095	.028	.176	.093	.028	.169	.090	.027	
6.0	.184	.092	.026	.181	.091	.026	.174	.089	.026	.167	.087	.026	.161	.085	.025	
7.0	.175	.086	.024	.171	.085	.024	.165	.083	.024	.159	.082	.024	.154	.080	.023	
8.0	.165	.081	.023	.162	.080	.023	.157	.078	.022	.152	.077	.022	.147	.075	.022	
9.0	.157	.076	.021	.154	.075	.021	.149	.074	.021	.145	.072	.021	.140	.071	.021	
10.0	.149	.072	.020	.147	.071	.020	.142	.070	.020	.138	.068	.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	.194	.194	.194	.166	.166	.166	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.179	.161	.144	.153	.138	.124	.105	.095	.086	.060	.055	.050	.019	.018	.016	
2.0	.168	.136	.110	.143	.117	.095	.098	.081	.066	.057	.047	.039	.018	.015	.013	
3.0	.158	.118	.086	.136	.102	.074	.093	.071	.052	.054	.041	.031	.017	.013	.010	
4.0	.150	.104	.069	.129	.090	.060	.089	.063	.042	.051	.037	.025	.016	.012	.008	
5.0	.143	.093	.056	.123	.081	.049	.084	.056	.035	.049	.033	.021	.016	.011	.007	
6.0	.136	.084	.047	.117	.073	.041	.081	.051	.029	.047	.030	.017	.015	.010	.006	
7.0	.130	.077	.040	.112	.067	.035	.077	.047	.025	.045	.028	.015	.015	.009	.005	
8.0	.125	.072	.035	.107	.062	.031	.074	.044	.022	.043	.026	.013	.014	.008	.004	
9.0	.119	.067	.031	.103	.058	.027	.071	.041	.019	.041	.024	.011	.013	.008	.004	
10.0	.114	.062	.028	.099	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-05-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.256m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm										
NAME: BT-LON-150W					TYPE:LENS			WEIGHT:3.8kg		
SPEC.:5000k R80 60LEDs 100D					DIM.: D260*H184mm			SERIAL No.:		
MFR.: EVERFINE					SUR.:163*163mm			PROTECTION ANGLE:		
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	29.2	30.5	29.4	30.7	30.9	29.2	30.5	29.5	30.7	30.9
3H	29.2	30.3	29.5	30.6	30.8	29.2	30.3	29.5	30.6	30.8
4H	29.2	30.3	29.5	30.5	30.8	29.2	30.3	29.5	30.5	30.8
6H	29.1	30.2	29.5	30.4	30.7	29.1	30.2	29.5	30.4	30.7
8H	29.1	30.1	29.5	30.4	30.7	29.1	30.1	29.5	30.4	30.7
12H	29.1	30.1	29.5	30.3	30.6	29.1	30.1	29.5	30.4	30.7
4H 2H	29.0	30.1	29.3	30.4	30.6	29.1	30.2	29.4	30.4	30.7
3H	29.1	30.0	29.4	30.3	30.6	29.1	30.0	29.4	30.3	30.6
4H	29.1	30.0	29.5	30.3	30.6	29.1	30.0	29.5	30.3	30.6
6H	29.2	29.9	29.6	30.3	30.6	29.2	29.9	29.6	30.3	30.6
8H	29.2	29.9	29.6	30.2	30.6	29.2	29.9	29.6	30.3	30.6
12H	29.2	29.8	29.6	30.2	30.6	29.2	29.8	29.6	30.2	30.6
8H 4H	29.1	29.8	29.5	30.1	30.5	29.1	29.8	29.5	30.1	30.5
6H	29.2	29.7	29.6	30.1	30.6	29.2	29.7	29.6	30.1	30.6
8H	29.2	29.7	29.7	30.1	30.6	29.2	29.7	29.7	30.1	30.6
12H	29.2	29.7	29.7	30.1	30.6	29.3	29.7	29.7	30.1	30.6
12H 4H	29.0	29.7	29.5	30.1	30.5	29.0	29.7	29.5	30.1	30.5
6H	29.1	29.6	29.6	30.1	30.5	29.1	29.6	29.6	30.1	30.5
8H	29.2	29.6	29.7	30.1	30.6	29.2	29.6	29.7	30.1	30.6
Variations with the observer position at spacings:										
S = 1.0H	+ 1.9 / - 3.1					+ 1.9 / - 3.1				
1.5H	+ 1.0 / - 3.3					+ 1.0 / - 3.2				
2.0H	+ 3.9 / - 4.0					+ 3.9 / - 4.2				

CIE Pub.117 Corrected 14355 lm Total Lamp Luminous Flux. (8log(F/F0) = 9.3)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-05-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.256m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm		
NAME: BT-LON-150W	TYPE:LENS	WEIGHT:3.8kg
SPEC.:5000k R80 60LEDs 100D	DIM.: D260*H184mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

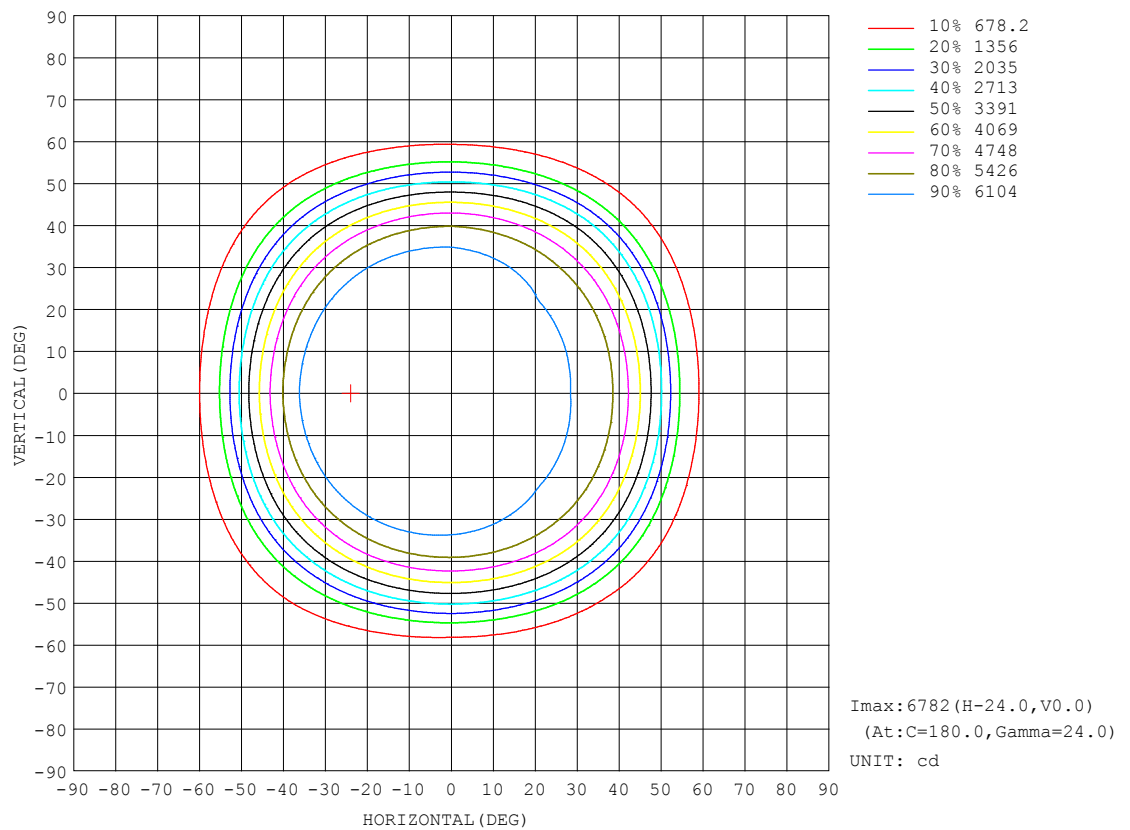
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	68	59	53	68	58	53	67	58	52	47
0.80	78	69	63	78	69	63	76	68	63	57
1.00	86	78	72	85	77	72	83	78	71	66
1.25	93	85	80	92	84	79	89	83	78	72
1.50	97	90	84	95	89	84	93	87	83	77
2.00	102	96	91	100	95	90	97	93	89	82
2.50	105	99	95	103	98	94	99	95	92	85
3.00	107	102	98	105	101	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	102	100	92
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators:
 Test Date: 2015-05-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity: 65.0%
 Test Distance: 9.256m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm		
NAME: BT-LON-150W	TYPE:LENS	WEIGHT:3.8kg
SPEC.:5000k R80 60LEDs 100D	DIM.: D260*H184mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

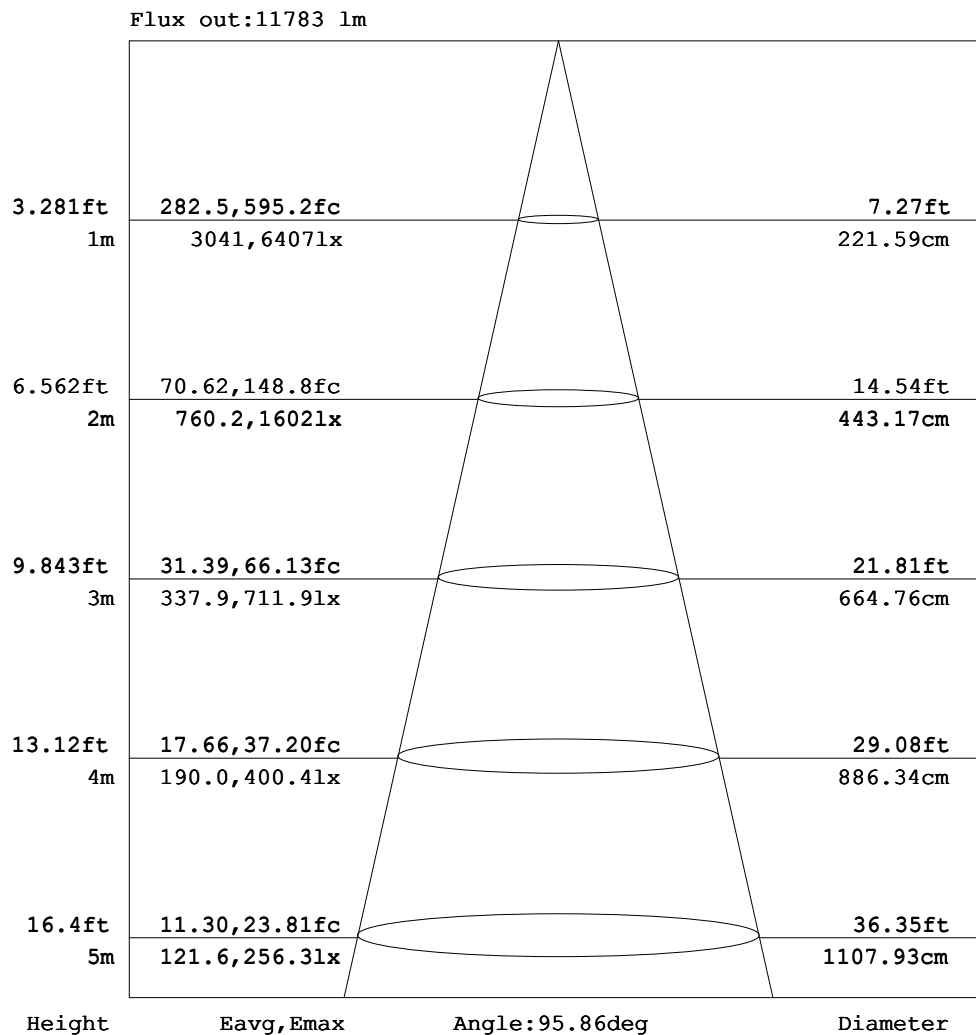


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-05-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.256m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm		
NAME: BT-LON-150W	TYPE:LENS	WEIGHT:3.8kg
SPEC.:5000k R80 60LEDs 100D	DIM.: D260*H184mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:



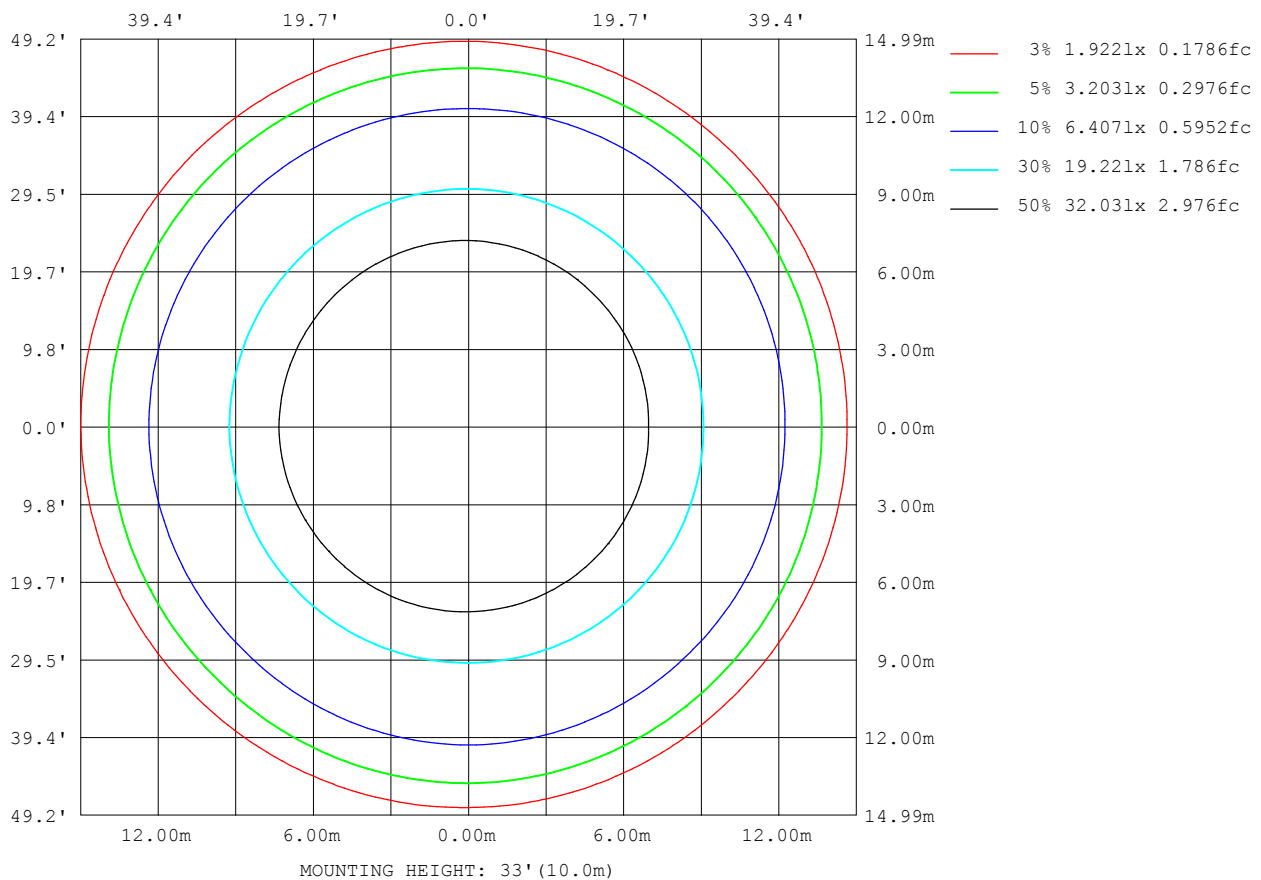
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-05-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.256m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

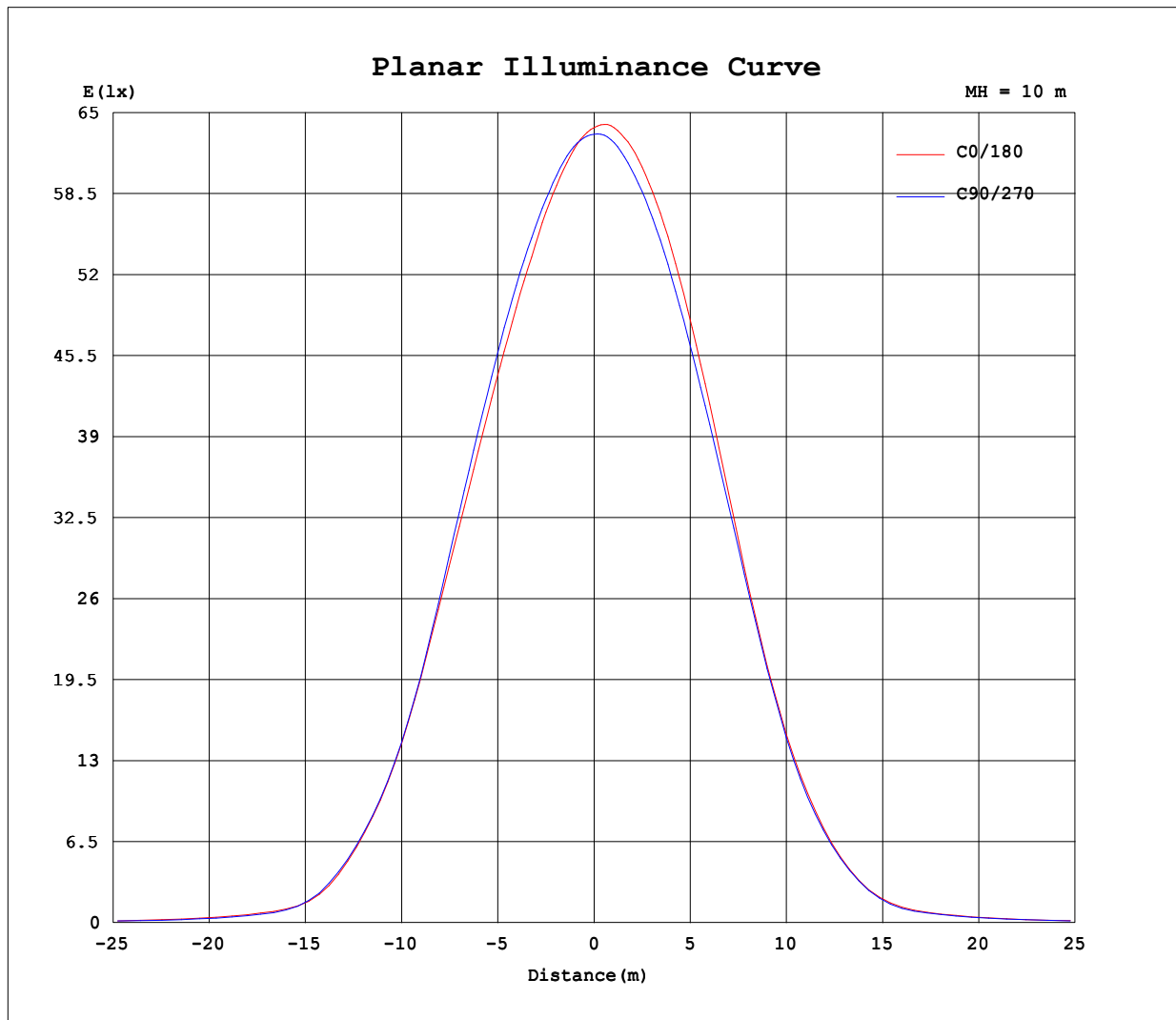
Test:U:220.8V I:0.6902A P:148.3W PF:0.9727 Lamp Flux:14355.1x1 lm		
NAME: BT-LON-150W	TYPE:LENS	WEIGHT:3.8kg
SPEC.:5000k R80 60LEDs 100D	DIM.: D260*H184mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-05-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.256m [K=1.0000]
Remarks:

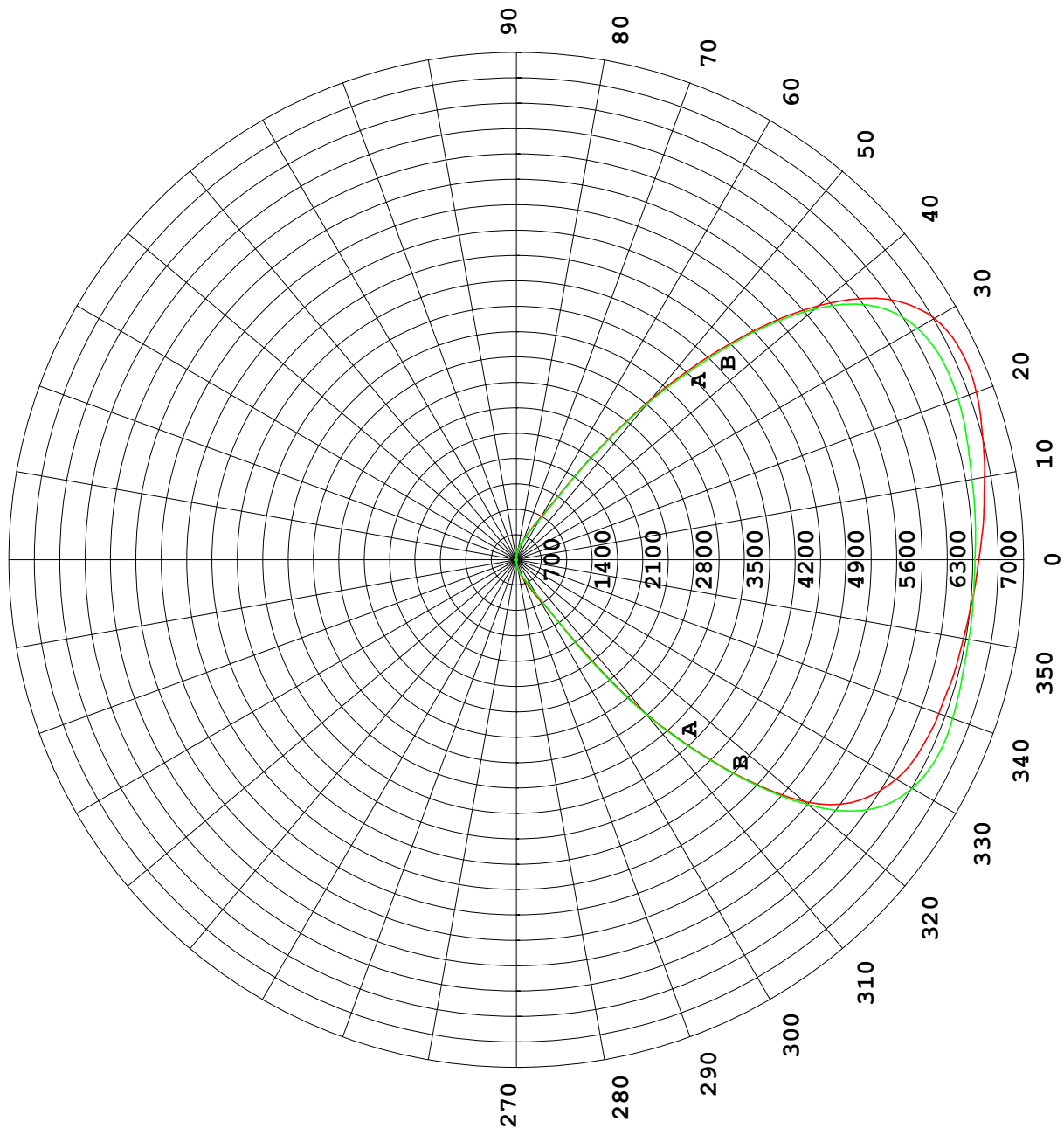
Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-05-12

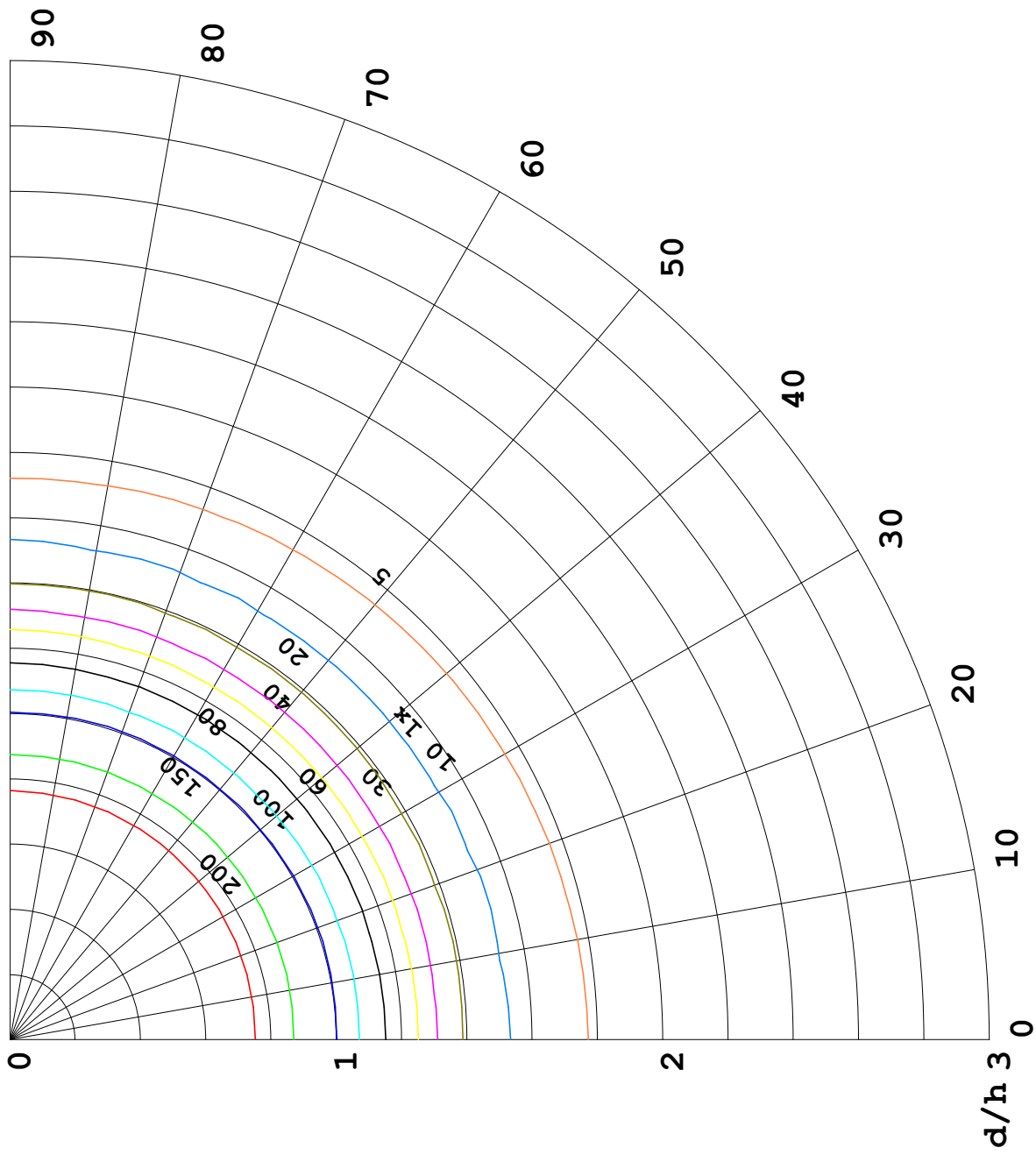
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.256m [K=1.0000]
Remarks:

I (cd)



$\kappa = 1$

1000 lm



F = 5000 lm
K = 0.7
Hcc = 0.0 m
Hfc = 0.0 m
Eave = 100 lx

	Pcc	Pw	Pfc
—————	70	50	30
—————	50	30	20

