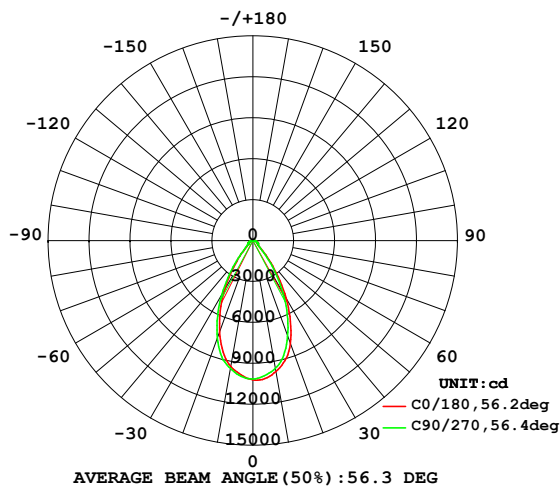


LUMINAIRE PHOTOMETRIC TEST REPORT

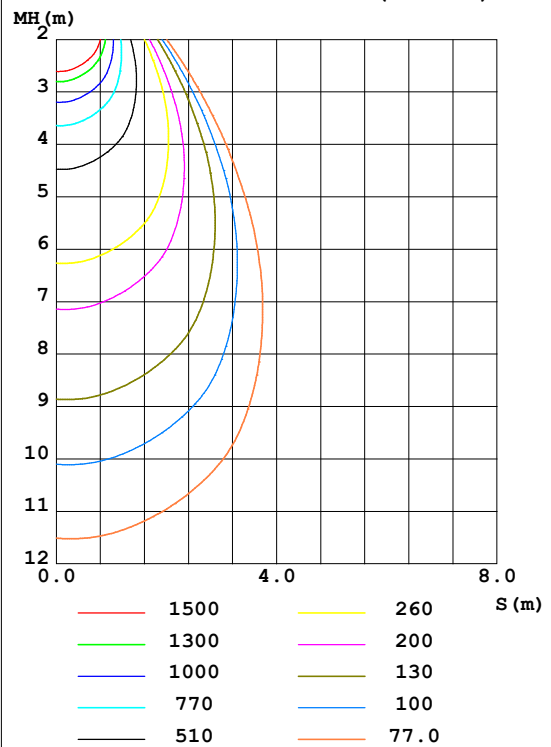
Test:U:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm		
NAME: BT-LON-100W	TYPE: LENS	WEIGHT: 3kg
SPEC.: 5000K R80 48LEDs 60D	DIM.: D200*H183mm	SERIAL No.:
MFR.: EVERFINE	SUR.: 163*163mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 99.05 lm/W
MODEL	SMD3535	Imax(cd)	10234	S/MH(C0/180)	0.82	
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	0.87	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	9888.9	η UP,DN(C0-180)	0.5, 50.5	
NOMINAL FLUX(lm)	9888.92	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.4, 48.6	
LAMPS INSIDE	1	η up(%)	0.9	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	220	η down(%)	99.1	CIBSE SHR MAX	0.90	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 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	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	974.5	950.9	937.2	951.6					0- 10	939.3	939.3	9.5, 9.5
20	804.7	746.5	714.8	763.9					10- 20	2436	3375	34.1, 34.1
30	489.5	442.2	416.8	457.6					20- 30	2766	6142	62.1, 62.1
40	185.4	163.2	151.3	170.9					30- 40	1847	7989	80.8, 80.8
50	52.15	52.45	51.86	54.63					40- 50	702.7	8691	87.9, 87.9
60	38.69	40.00	41.30	39.77					50- 60	399.7	9091	91.9, 91.9
70	29.91	29.72	31.75	29.80					60- 70	354.6	9446	95.5, 95.5
80	15.38	14.78	15.87	15.07					70- 80	243.5	9689	98, 98
90	4.261	3.851	4.381	3.920					80- 90	114.3	9803	99.1, 99.1
100	1.041	1.056	1.010	0.9708					90-100	23.06	9827	99.4, 99.4
110	0.7897	0.7654	0.7090	0.7212					100-110	8.973	9835	99.5, 99.5
120	0.7562	0.7688	0.6616	0.6721					110-120	7.124	9843	99.5, 99.5
130	0.9432	1.000	0.8070	0.7843					120-130	6.952	9850	99.6, 99.6
140	1.435	1.525	1.207	1.147					130-140	8.353	9858	99.7, 99.7
150	2.089	2.202	1.747	1.666					140-150	10.15	9868	99.8, 99.8
160	2.697	2.784	2.298	2.203					150-160	10.15	9878	99.9, 99.9
170	3.150	3.198	2.803	2.727					160-170	7.704	9886	100, 100
180	3.398	3.380	3.414	3.366					170-180	2.983	9889	100, 100
DEG	LUMINOUS INTENSITY: $\times 10\text{cd}$ MAX (Ii - Iavg)/Iavg (0-135) = 358.7 %									UNIT: lm		

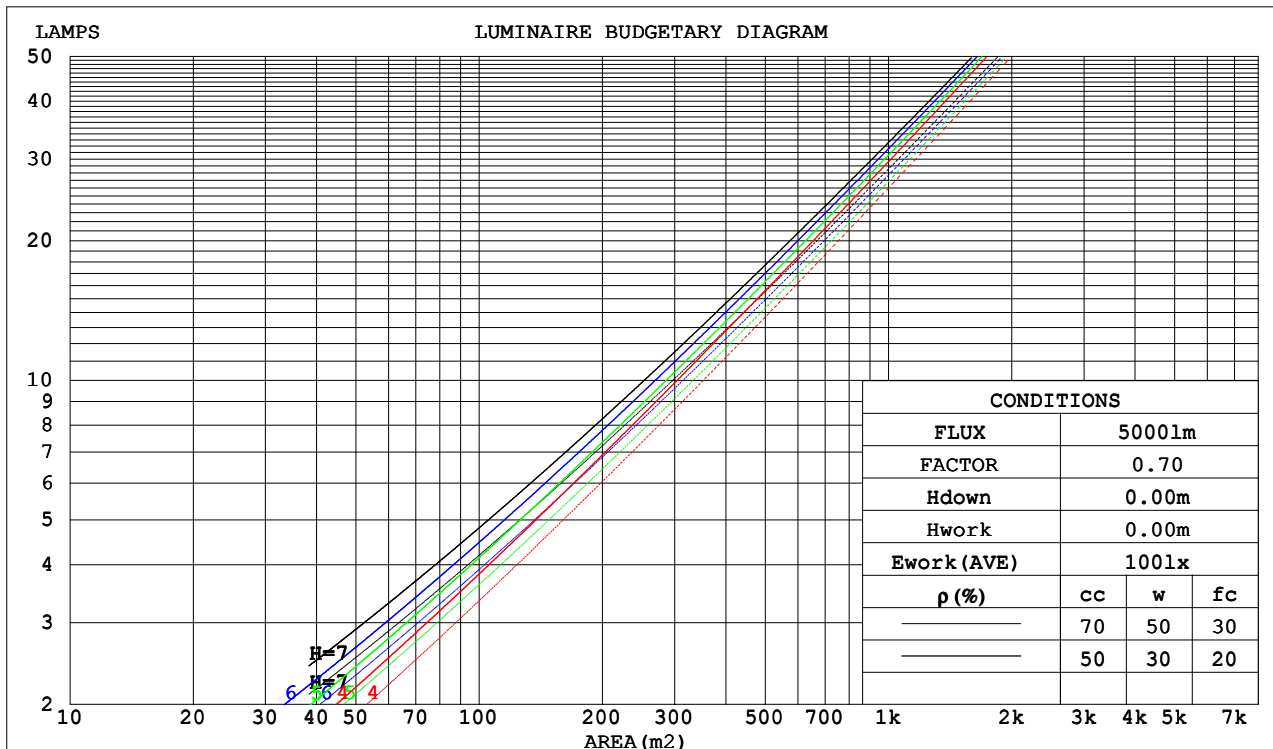
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators:
 Test Date: 2015-05-12

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:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm		
NAME: BT-LON-100W	TYPE:LENS	WEIGHT:3kg
SPEC.:5000K R80 48LEDs 60D	DIM.: D200*H183mm	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															



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 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:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm														
NAME: BT-LON-100W							TYPE:LENS					WEIGHT:3kg		
SPEC.:5000K R80 48LEDs 60D							DIM.: D200*H183mm					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	.218	.124	.039	.211	.120	.038	.198	.114	.036	.186	.107	.034	.174	.101	.033		
2.0	.204	.112	.034	.198	.109	.034	.186	.104	.032	.176	.099	.031	.166	.094	.030		
3.0	.190	.101	.030	.185	.099	.030	.175	.095	.029	.166	.091	.028	.158	.087	.027		
4.0	.178	.093	.027	.174	.091	.027	.165	.088	.026	.157	.084	.025	.150	.081	.025		
5.0	.168	.085	.025	.164	.084	.024	.156	.081	.024	.149	.079	.023	.143	.076	.023		
6.0	.158	.079	.023	.154	.078	.022	.148	.076	.022	.142	.074	.022	.136	.071	.021		
7.0	.149	.074	.021	.146	.073	.021	.140	.071	.020	.135	.069	.020	.130	.067	.020		
8.0	.142	.069	.019	.139	.068	.019	.134	.067	.019	.129	.065	.019	.124	.064	.019		
9.0	.135	.065	.018	.132	.064	.018	.127	.063	.018	.123	.062	.018	.119	.060	.017		
10.0	.128	.062	.017	.126	.061	.017	.122	.060	.017	.118	.058	.017	.114	.057	.016		

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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.181	.164	.148	.155	.140	.128	.106	.097	.088	.061	.056	.051	.019	.018	.017	
2.0	.167	.139	.115	.143	.120	.100	.098	.083	.070	.057	.048	.041	.018	.016	.013	
3.0	.156	.120	.092	.134	.104	.080	.092	.072	.056	.053	.042	.033	.017	.014	.011	
4.0	.146	.106	.076	.125	.092	.066	.086	.064	.046	.050	.037	.027	.016	.012	.009	
5.0	.138	.095	.063	.118	.082	.055	.081	.057	.039	.047	.034	.023	.015	.011	.008	
6.0	.130	.086	.054	.112	.074	.047	.077	.052	.033	.045	.031	.020	.014	.010	.007	
7.0	.124	.078	.047	.106	.068	.041	.073	.048	.029	.043	.028	.017	.014	.009	.006	
8.0	.118	.072	.041	.101	.063	.036	.070	.044	.025	.041	.026	.015	.013	.009	.005	
9.0	.112	.067	.037	.097	.058	.032	.067	.041	.023	.039	.024	.014	.013	.008	.004	
10.0	.107	.063	.033	.093	.055	.029	.064	.038	.021	.037	.023	.012	.012	.007	.004	

C Range: 0 - 360DEG
C Interval: 90.0DEG
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:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm										
NAME: BT-LON-100W					TYPE:LENS			WEIGHT:3kg		
SPEC.:5000K R80 48LEDs 60D					DIM.: D200*H183mm			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	23.5	24.6	23.8	24.8	25.0	23.3	24.4	23.5	24.6	24.7
3H	24.6	25.6	24.9	25.8	26.0	24.4	25.4	24.7	25.6	25.9
4H	25.2	26.1	25.5	26.4	26.6	25.0	26.0	25.3	26.2	26.5
6H	25.7	26.6	26.0	26.9	27.1	25.5	26.4	25.8	26.7	26.9
8H	25.9	26.8	26.2	27.0	27.3	25.7	26.6	26.1	26.9	27.2
12H	26.2	27.0	26.5	27.3	27.6	26.1	26.9	26.5	27.2	27.5
4H 2H	23.8	24.7	24.1	25.0	25.2	23.6	24.5	23.9	24.8	25.0
3H	25.2	26.0	25.5	26.3	26.6	25.0	25.9	25.4	26.1	26.4
4H	25.9	26.7	26.3	27.0	27.3	25.8	26.5	26.2	26.9	27.2
6H	26.6	27.3	27.0	27.6	28.0	26.5	27.1	26.9	27.5	27.8
8H	26.9	27.5	27.3	27.9	28.3	26.8	27.4	27.2	27.8	28.1
12H	27.2	27.8	27.7	28.2	28.6	27.2	27.8	27.7	28.2	28.6
8H 4H	26.2	26.8	26.6	27.2	27.6	26.1	26.7	26.5	27.1	27.5
6H	27.0	27.6	27.5	28.0	28.4	26.9	27.4	27.4	27.8	28.3
8H	27.5	27.9	27.9	28.4	28.8	27.4	27.8	27.8	28.3	28.7
12H	28.0	28.4	28.5	28.8	29.3	28.0	28.4	28.5	28.9	29.4
12H 4H	26.2	26.8	26.7	27.2	27.6	26.1	26.7	26.5	27.1	27.5
6H	27.1	27.6	27.6	28.0	28.5	27.0	27.4	27.5	27.9	28.3
8H	27.6	28.0	28.1	28.5	29.0	27.5	27.9	28.0	28.4	28.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.6					+ 0.5 / - 0.6				
1.5H	+ 1.5 / - 0.6					+ 1.2 / - 0.5				
2.0H	+ 0.4 / - 0.2					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 9889 lm Total Lamp Luminous Flux. (8log(F/F0) = 8.0)

C Range: 0 - 360DEG
C Interval: 90.0DEG
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:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm		
NAME: BT-LON-100W	TYPE: LENS	WEIGHT: 3kg
SPEC.: 5000K R80 48LEDs 60D	DIM.: D200*H183mm	SERIAL No.:
MFR.: EVERFINE	SUR.: 163*163mm	PROTECTION ANGLE:

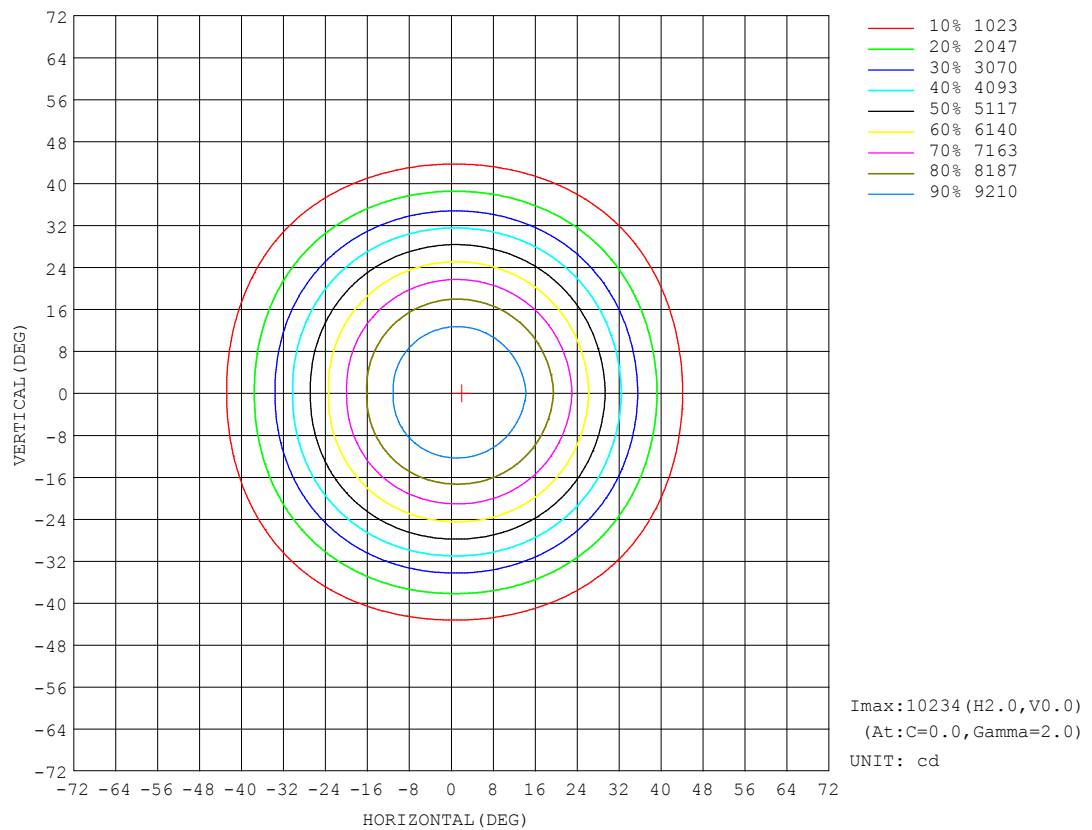
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	80	72	68	79	72	68	78	72	67	63
0.80	88	80	76	87	80	76	86	79	75	71
1.00	93	86	81	92	85	81	90	86	80	76
1.25	98	91	87	96	90	86	94	89	85	80
1.50	101	95	90	99	94	90	97	92	89	83
2.00	104	99	95	103	98	94	100	96	93	86
2.50	107	102	98	105	100	97	102	98	95	88
3.00	109	104	101	107	103	100	103	100	97	90
4.00	111	108	105	109	106	103	105	103	100	93
5.00	113	110	107	111	108	106	106	104	103	94
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 90.0DEG
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:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm		
NAME: BT-LON-100W	TYPE:LENS	WEIGHT:3kg
SPEC.:5000K R80 48LEDs 60D	DIM.: D200*H183mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

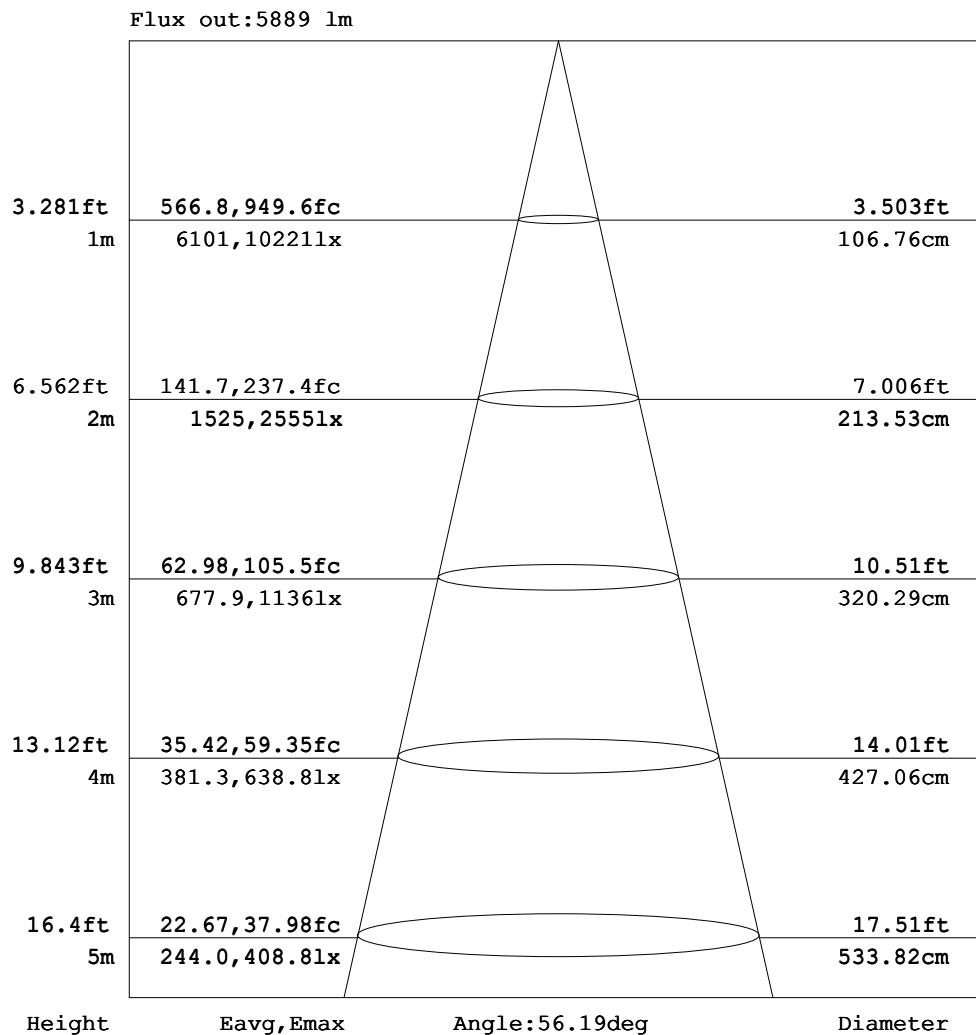


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-05-12

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:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm		
NAME: BT-LON-100W	TYPE:LENS	WEIGHT:3kg
SPEC.:5000K R80 48LEDs 60D	DIM.: D200*H183mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:



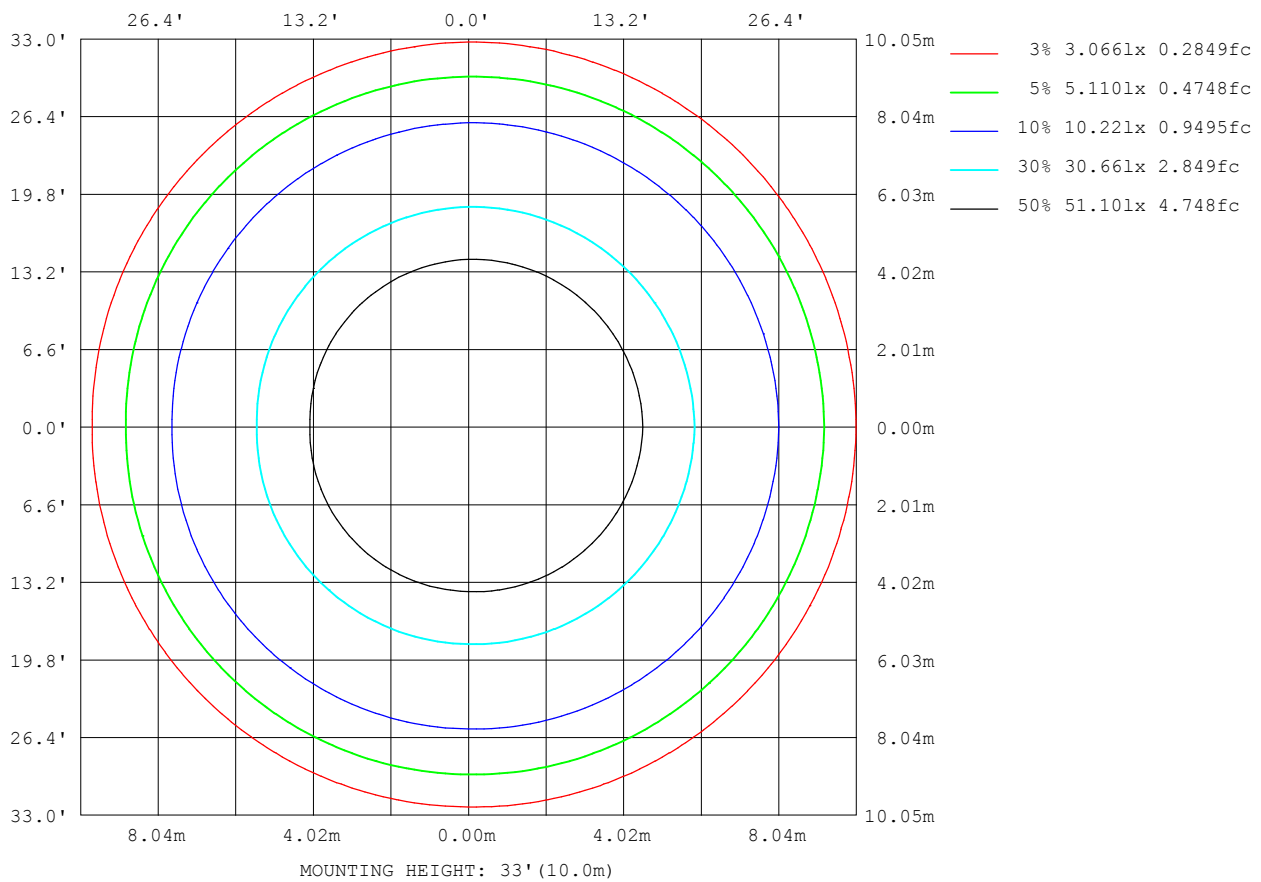
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
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

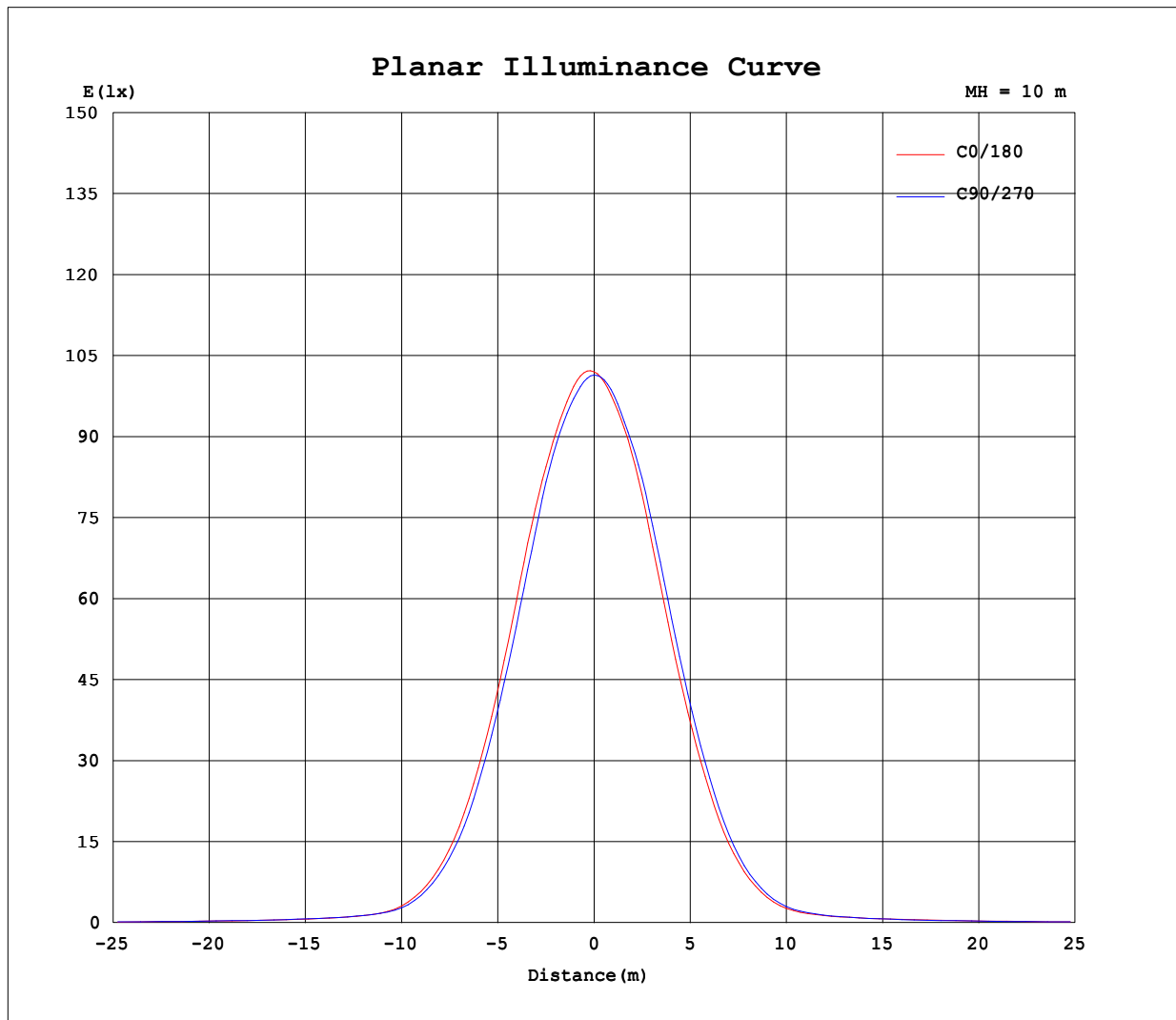
Test:U:220.9V I:0.4591A P:99.84W PF:0.9845 Lamp Flux:9888.92x1 lm		
NAME: BT-LON-100W	TYPE: LENS	WEIGHT: 3kg
SPEC.: 5000K R80 48LEDs 60D	DIM.: D200*H183mm	SERIAL No.:
MFR.: EVERFINE	SUR.: 163*163mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 90.0DEG
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:

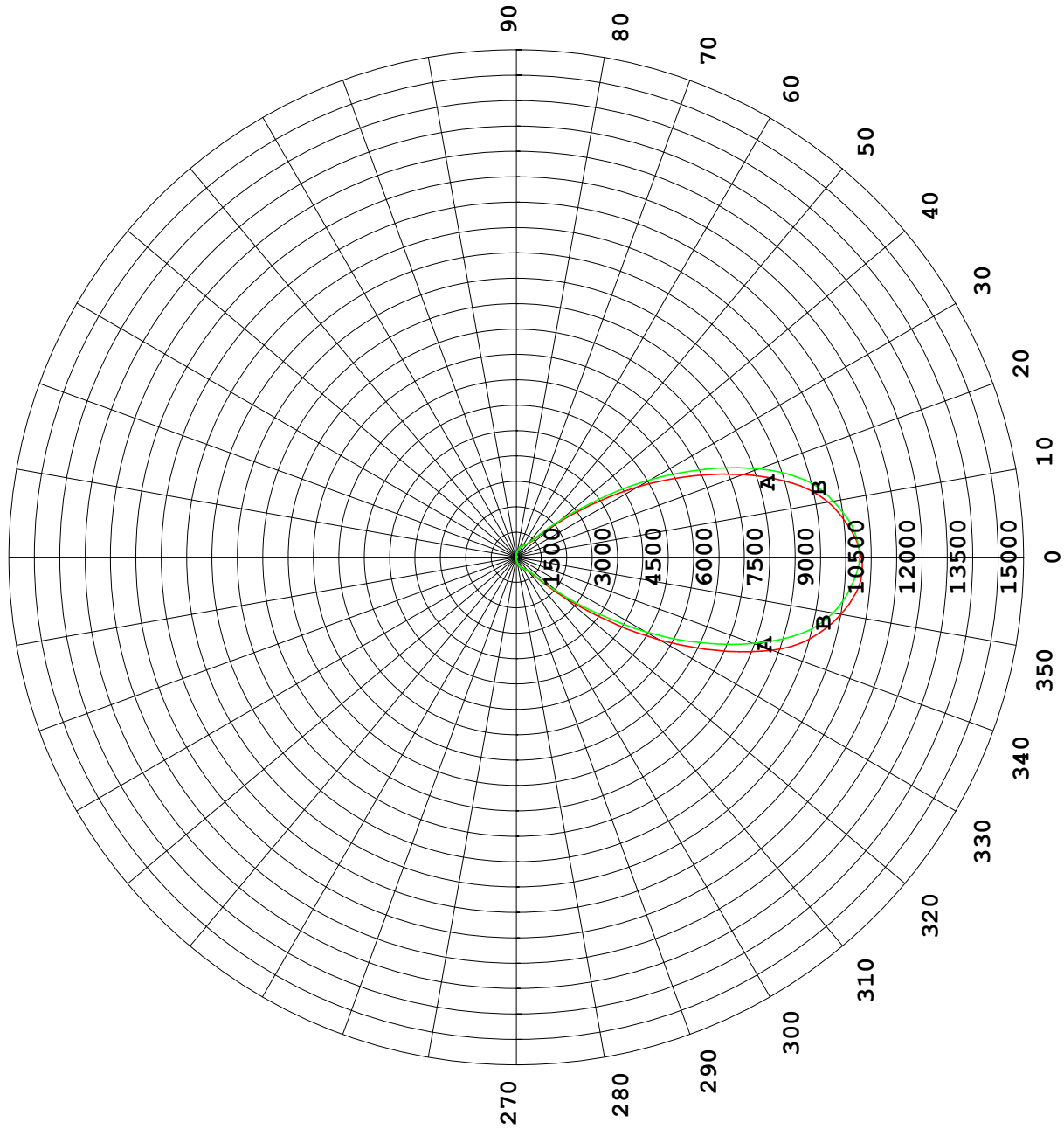
Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-05-12

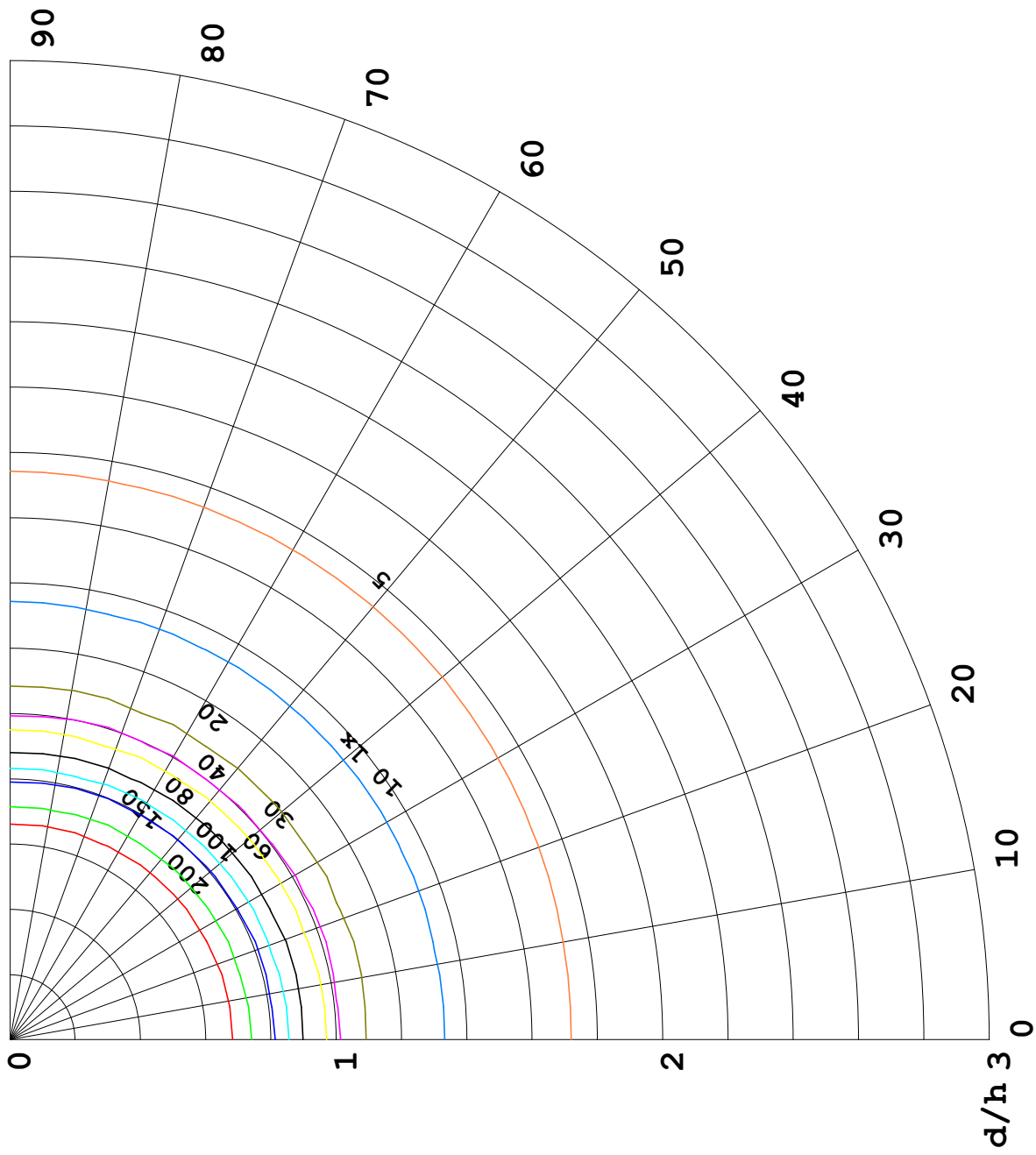
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.256m [K=1.0000]
Remarks:

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

