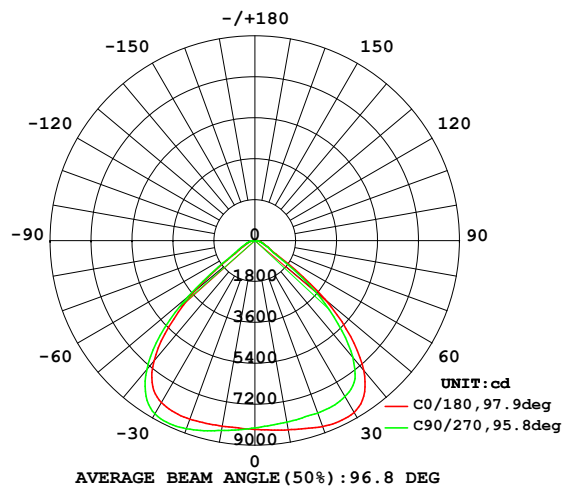


LUMINAIRE PHOTOMETRIC TEST REPORT

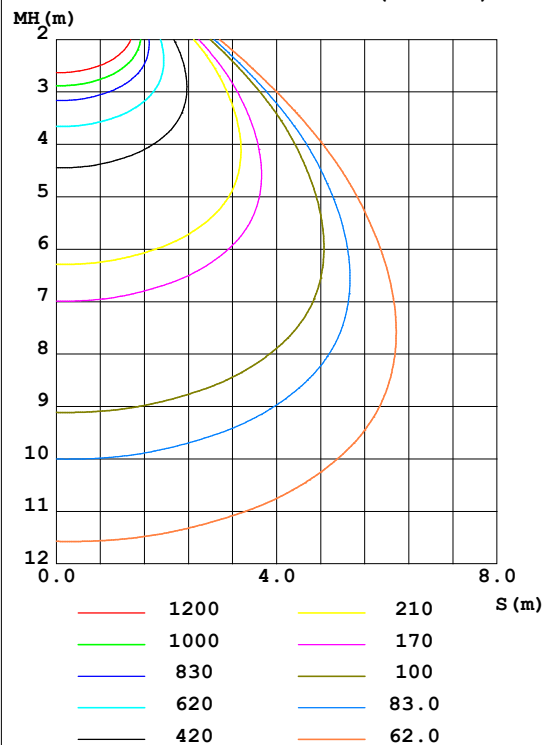
Test:U:220.9V I:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm		
NAME: BT-LON-200W	TYPE:LENS	WEIGHT:5kg
SPEC.:5000K R80 84LEDs 100D	DIM.: D260*H206mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 96.16 lm/W
MODEL	SMD3535	Imax(cd)	8880	S/MH(C0/180)	1.38	
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.42	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	19016	η UP,DN(C0-180)	0.3,49.4	
NOMINAL FLUX(lm)	19016.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.2,50.1	
LAMPS INSIDE	1	η up(%)	0.5	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	220	η down(%)	99.5	CIBSE SHR MAX	1.50	

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:2015-06-05

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	8448	8100	8287	8479					0- 10	792.1	792.1	4.17, 4.17
20	8698	8069	8352	8801					10- 20	2383	3175	16.7, 16.7
30	8723	7921	8221	8801					20- 30	3929	7104	37.4, 37.4
40	7442	6697	6906	7394					30- 40	4971	12076	63.5, 63.5
50	4025	3463	3452	3837					40- 50	4244	16320	85.8, 85.8
60	805.9	763.3	772.0	889.3					50- 60	1627	17947	94.4, 94.4
70	393.3	364.1	372.5	405.7					60- 70	553.1	18500	97.3, 97.3
80	198.7	174.9	179.8	199.9					70- 80	300.9	18801	98.9, 98.9
90	48.03	35.62	48.28	66.04					80- 90	119.2	18920	99.5, 99.5
100	1.571	1.763	1.034	1.001					90-100	19.75	18940	99.6, 99.6
110	5.480	5.937	4.004	4.025					100-110	2.674	18943	99.6, 99.6
120	10.53	11.40	8.116	7.721					110-120	7.141	18950	99.7, 99.7
130	17.59	19.01	14.30	12.93					120-130	11.21	18961	99.7, 99.7
140	24.20	25.76	20.40	18.45					130-140	14.86	18976	99.8, 99.8
150	28.68	30.22	24.87	22.77					140-150	15.35	18991	99.9, 99.9
160	31.33	32.46	29.06	27.14					150-160	13.11	19004	99.9, 99.9
170	32.84	33.24	31.40	29.91					160-170	8.758	19013	100, 100
180	34.06	33.72	34.33	33.47					170-180	3.106	19016	100, 100
DEG	LUMINOUS INTENSITY:cd MAX (Ii - Iavg)/Iavg (0-135) = 188.2 %									UNIT:lm		

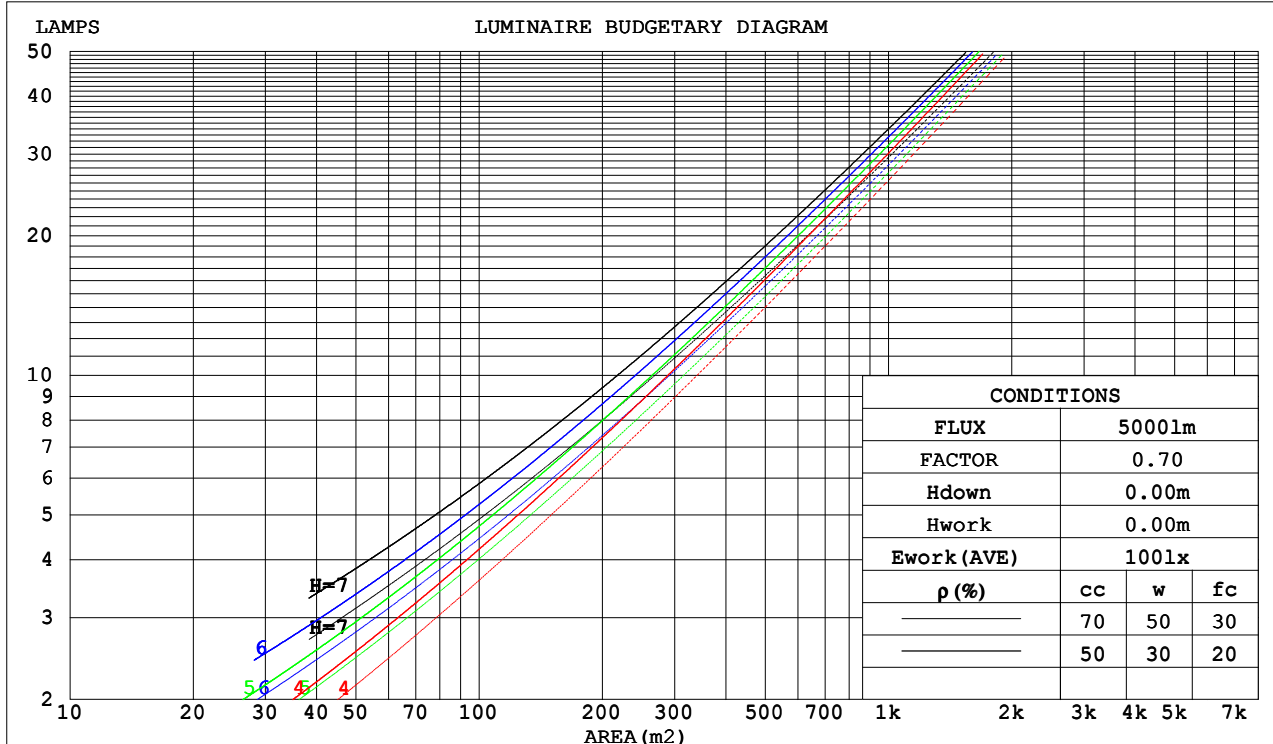
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators:
 Test Date: 2015-06-05

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:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm		
NAME: BT-LON-200W	TYPE:LENS	WEIGHT:5kg
SPEC.:5000K R80 84LEDs 100D	DIM.: D260*H206mm	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	.99
1.0	1.08	1.04	1.01	1.05	1.02	.90	1.01	.99	.96	.97	.95	.93	.94	.92	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.88	.85	.82	.85	.83	.80	.78
3.0	.87	.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	.58	.71	.64	.58	.69	.62	.58	.67	.61	.57	.65	.60	.56	.54
6.0	.65	.58	.52	.64	.57	.52	.63	.56	.51	.61	.55	.51	.60	.54	.50	.49
7.0	.60	.52	.47	.59	.52	.46	.57	.51	.46	.56	.50	.46	.55	.49	.45	.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	.39	.35	.46	.39	.35	.45	.39	.34	.44	.38	.34	.43	.38	.34	.32



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-06-05

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:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm														
NAME: BT-LON-200W					TYPE:LENS					WEIGHT:5kg				
SPEC.:5000K R80 84LEDs 100D					DIM.: D260*H206mm					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	.236	.134	.043	.229	.131	.042	.216	.124	.040	.204	.118	.038	.193	.112	.036		
2.0	.228	.125	.038	.222	.122	.038	.211	.117	.036	.200	.112	.035	.191	.108	.034		
3.0	.217	.116	.035	.212	.114	.034	.202	.110	.033	.193	.106	.032	.184	.102	.032		
4.0	.206	.107	.031	.201	.105	.031	.193	.102	.031	.184	.099	.030	.177	.096	.029		
5.0	.195	.099	.029	.191	.098	.029	.183	.095	.028	.176	.093	.028	.169	.090	.027		
6.0	.185	.092	.026	.181	.091	.026	.174	.089	.026	.167	.087	.026	.161	.085	.025		
7.0	.175	.086	.024	.171	.085	.024	.165	.084	.024	.159	.082	.024	.154	.080	.023		
8.0	.166	.081	.023	.163	.080	.023	.157	.078	.022	.152	.077	.022	.147	.075	.022		
9.0	.157	.076	.021	.155	.075	.021	.149	.074	.021	.145	.073	.021	.140	.071	.021		
10.0	.149	.072	.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	.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	.144	.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	.085	.056	.035	.049	.033	.021	.016	.011	.007		
6.0	.136	.085	.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	.042	.024	.012	.013	.008	.004		
10.0	.114	.063	.028	.099	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-06-05

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:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm										
NAME: BT-LON-200W					TYPE:LENS			WEIGHT:5kg		
SPEC.:5000K R80 84LEDs 100D					DIM.: D260*H206mm			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	30.6	31.9	30.8	32.0	32.2	30.1	31.4	30.3	31.6	31.8
3H	30.6	31.7	30.8	32.0	32.2	30.1	31.2	30.4	31.5	31.7
4H	30.6	31.7	30.9	31.9	32.2	30.1	31.2	30.4	31.4	31.7
6H	30.6	31.6	30.9	31.9	32.2	30.1	31.1	30.4	31.4	31.7
8H	30.6	31.6	30.9	31.9	32.1	30.1	31.1	30.4	31.4	31.7
12H	30.6	31.5	30.9	31.8	32.1	30.1	31.0	30.4	31.3	31.6
4H 2H	30.4	31.5	30.7	31.8	32.0	30.0	31.1	30.3	31.3	31.6
3H	30.5	31.4	30.8	31.7	32.0	30.0	31.0	30.4	31.3	31.6
4H	30.5	31.4	30.9	31.7	32.1	30.1	31.0	30.5	31.3	31.6
6H	30.6	31.4	31.0	31.7	32.1	30.2	30.9	30.6	31.3	31.7
8H	30.7	31.4	31.1	31.7	32.1	30.2	30.9	30.6	31.3	31.7
12H	30.7	31.4	31.1	31.7	32.2	30.2	30.9	30.7	31.3	31.7
8H 4H	30.5	31.2	30.9	31.6	31.9	30.1	30.8	30.5	31.1	31.5
6H	30.7	31.2	31.1	31.6	32.1	30.2	30.8	30.7	31.2	31.6
8H	30.7	31.2	31.2	31.7	32.1	30.3	30.8	30.8	31.2	31.7
12H	30.8	31.3	31.3	31.7	32.2	30.4	30.8	30.9	31.3	31.7
12H 4H	30.5	31.1	30.9	31.5	31.9	30.0	30.7	30.5	31.1	31.5
6H	30.6	31.1	31.1	31.6	32.0	30.2	30.7	30.7	31.1	31.6
8H	30.8	31.2	31.2	31.6	32.1	30.3	30.7	30.8	31.2	31.7
Variations with the observer position at spacings:										
S = 1.0H	+ 1.7 / - 2.8					+ 1.8 / - 3.0				
1.5H	+ 1.1 / - 3.2					+ 1.0 / - 3.1				
2.0H	+ 3.9 / - 3.7					+ 3.8 / - 3.4				

CIE Pub.117 Corrected 19016 lm Total Lamp Luminous Flux. (8log(F/F0) = 10.2)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-06-05

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:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm		
NAME: BT-LON-200W	TYPE:LENS	WEIGHT:5kg
SPEC.:5000K R80 84LEDs 100D	DIM.: D260*H206mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

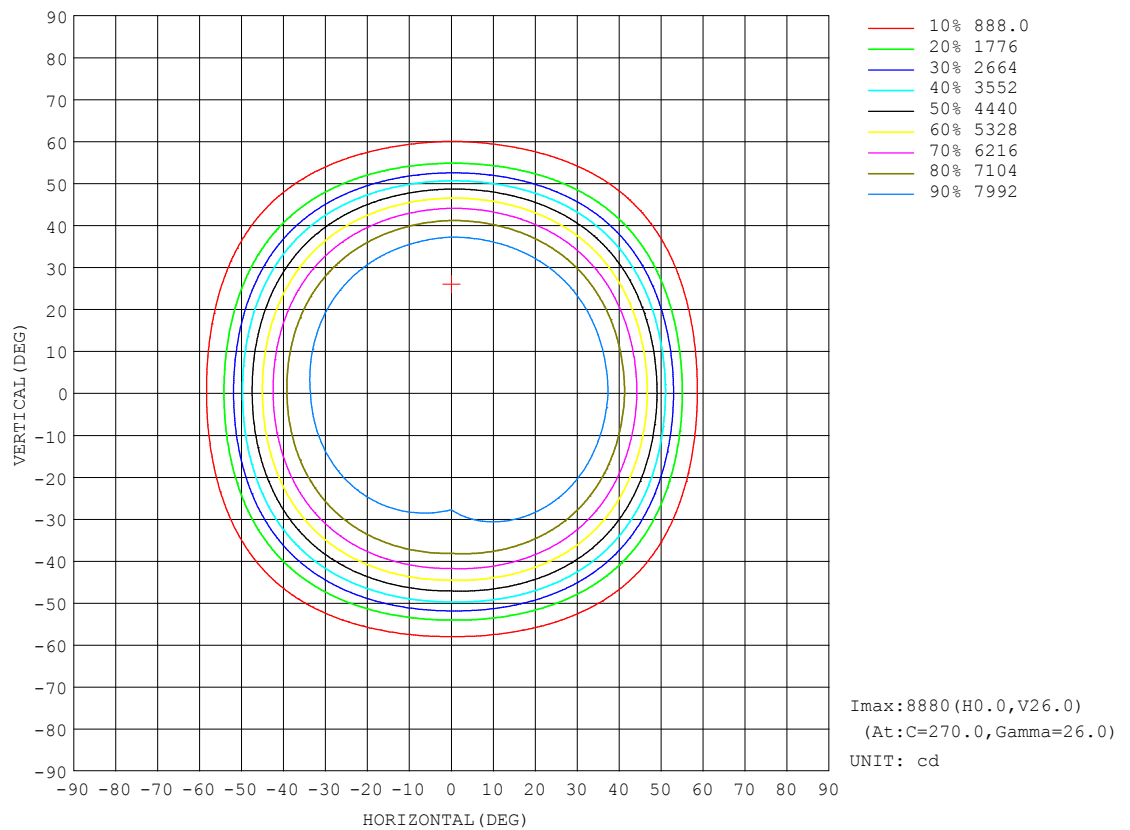
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	68	59	53	68	58	53	67	58	53	47
0.80	78	69	63	78	69	63	76	68	63	57
1.00	86	78	72	85	77	72	83	78	71	66
1.25	93	85	79	91	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	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		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-06-05

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:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm		
NAME: BT-LON-200W	TYPE:LENS	WEIGHT:5kg
SPEC.:5000K R80 84LEDs 100D	DIM.: D260*H206mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:

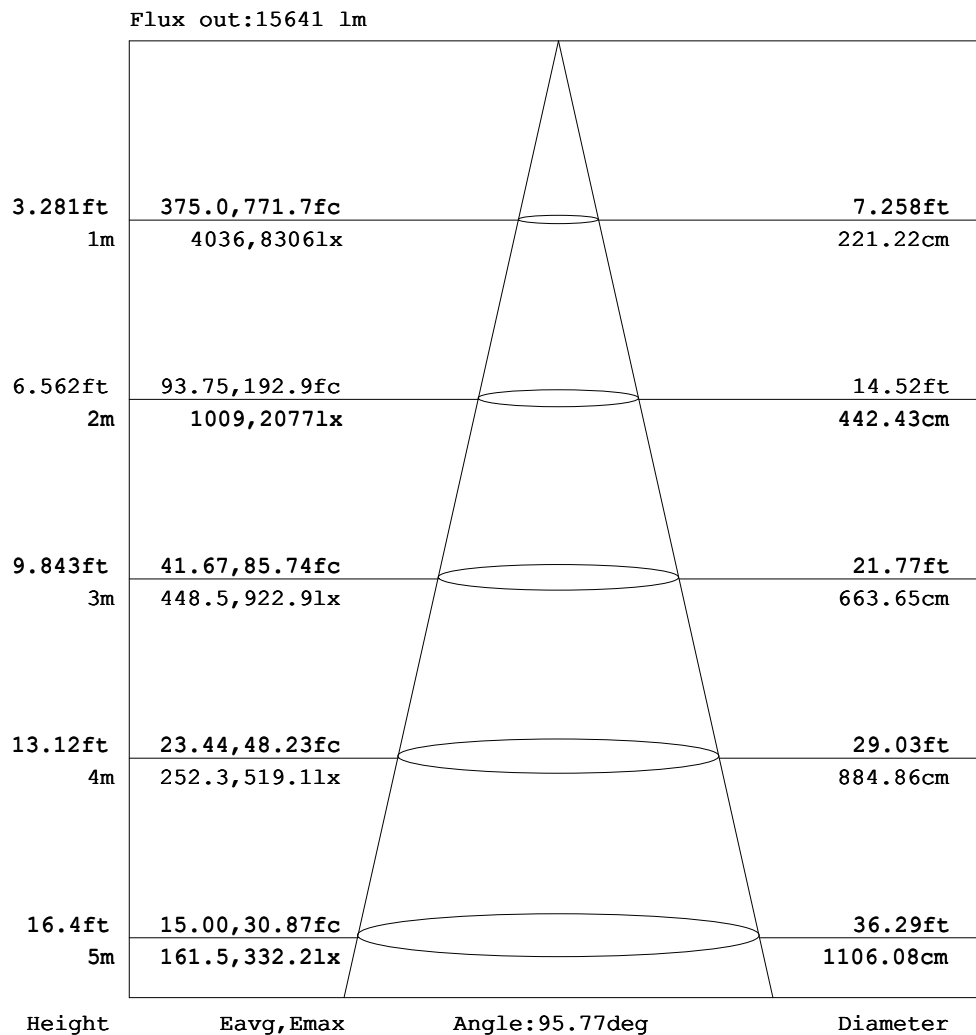


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-06-05

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:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm		
NAME: BT-LON-200W	TYPE:LENS	WEIGHT:5kg
SPEC.:5000K R80 84LEDs 100D	DIM.: D260*H206mm	SERIAL No.:
MFR.: EVERFINE	SUR.:163*163mm	PROTECTION ANGLE:



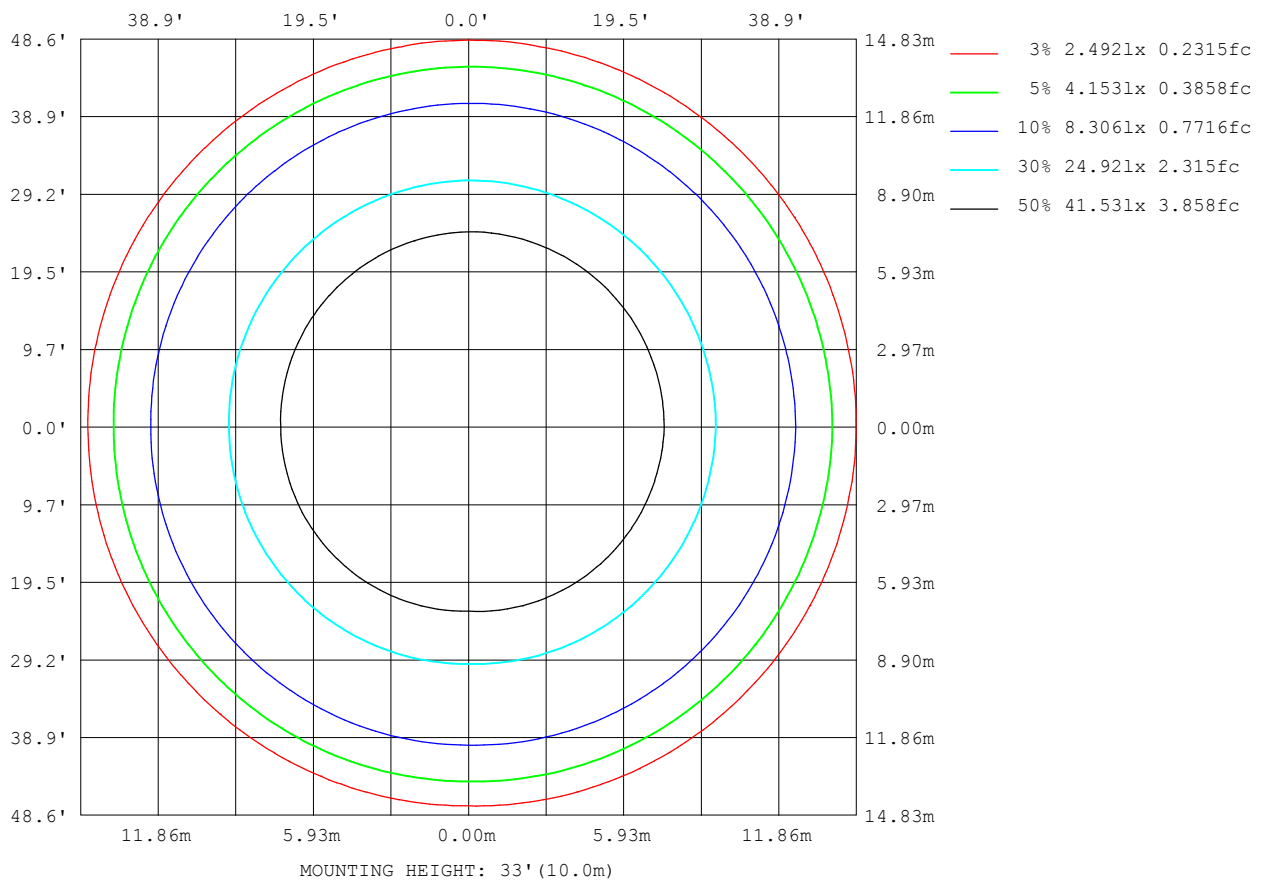
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-06-05

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

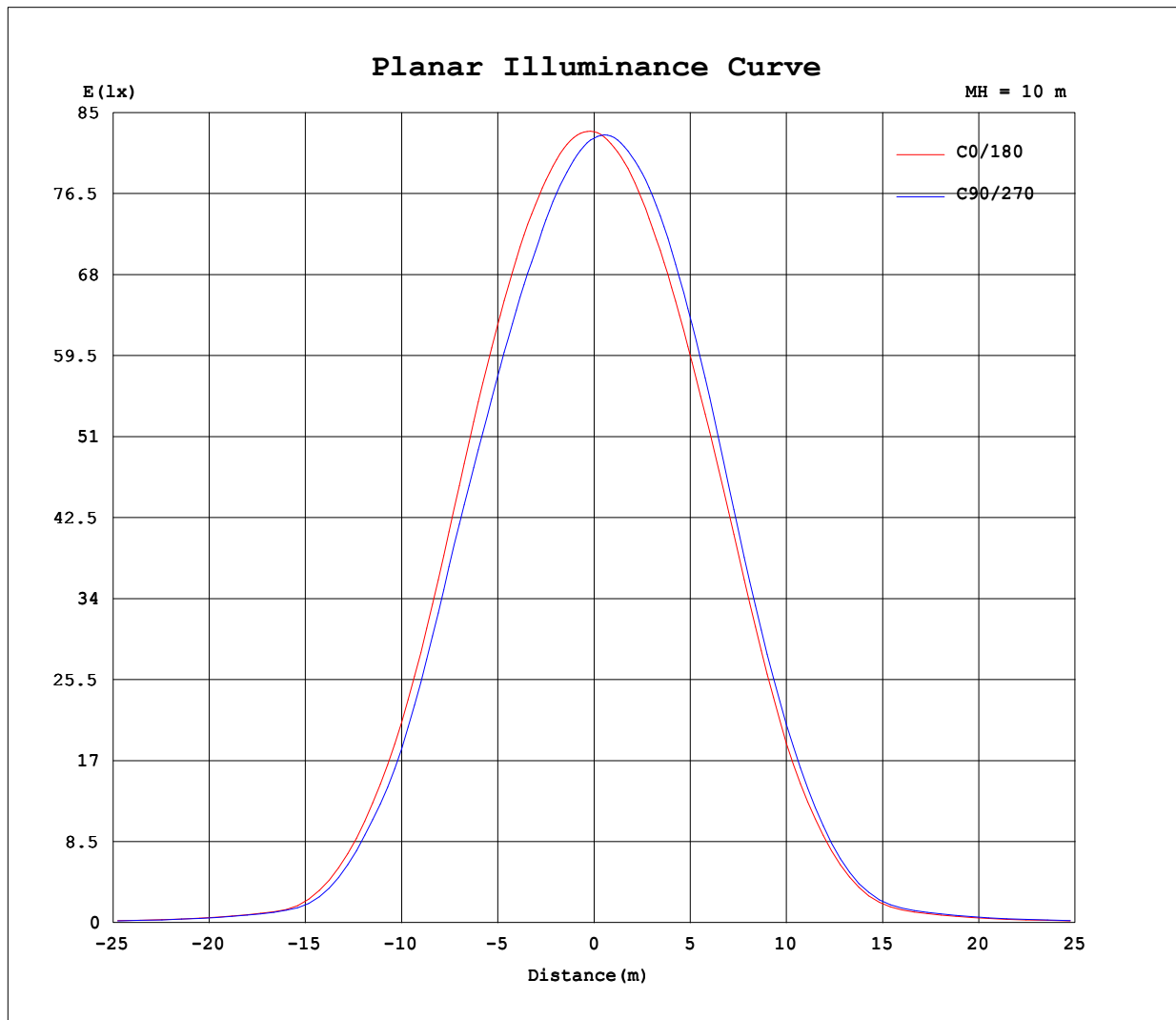
Test:U:220.9V I:0.9250A P:197.8W PF:0.9680 Lamp Flux:19016.3x1 lm		
NAME: BT-LON-200W	TYPE: LENS	WEIGHT: 5kg
SPEC.: 5000K R80 84LEDs 100D	DIM.: D260*H206mm	SERIAL No.:
MFR.: EVERFINE	SUR.: 163*163mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-06-05

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:

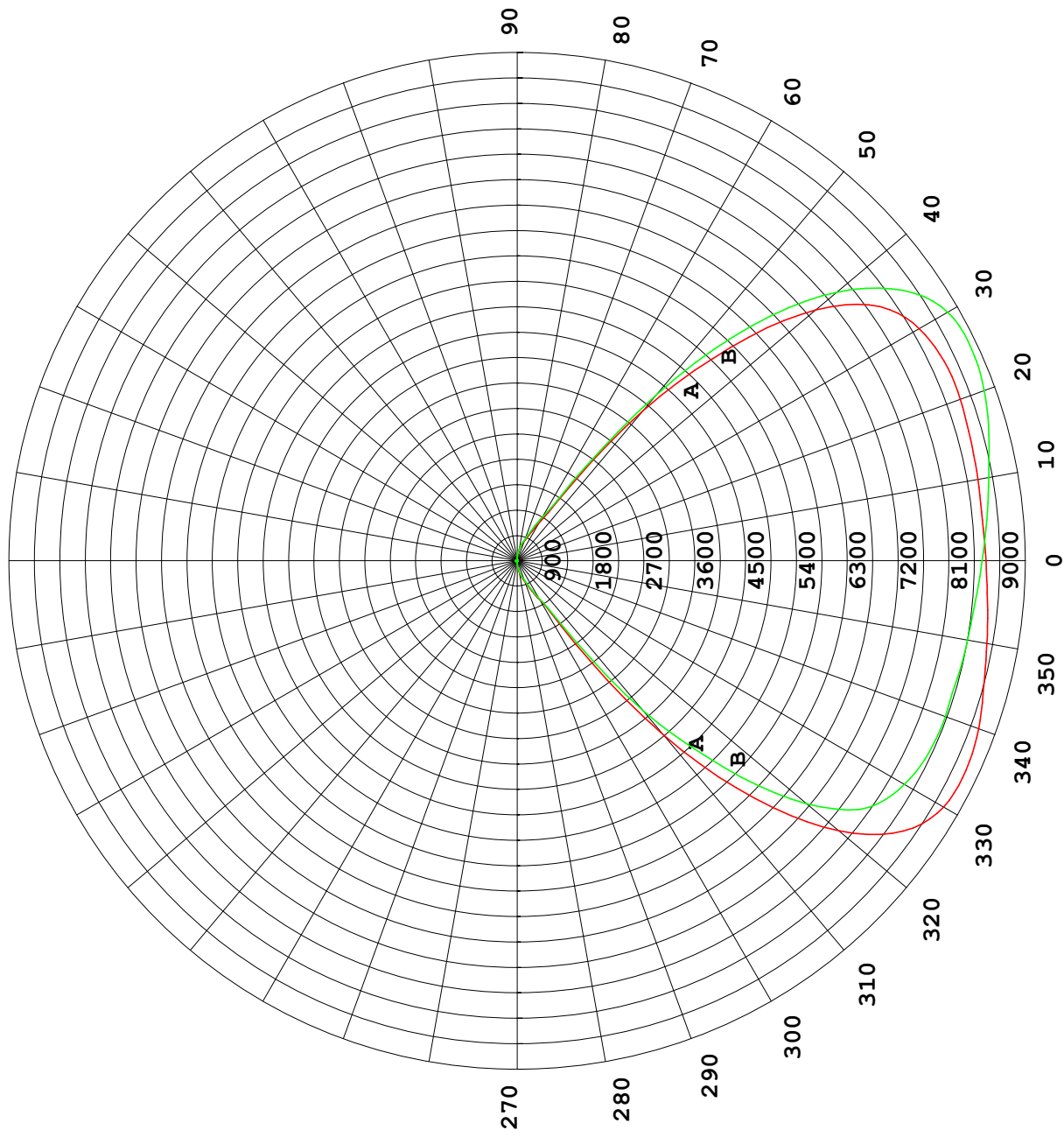
Planar Illuminance Curve

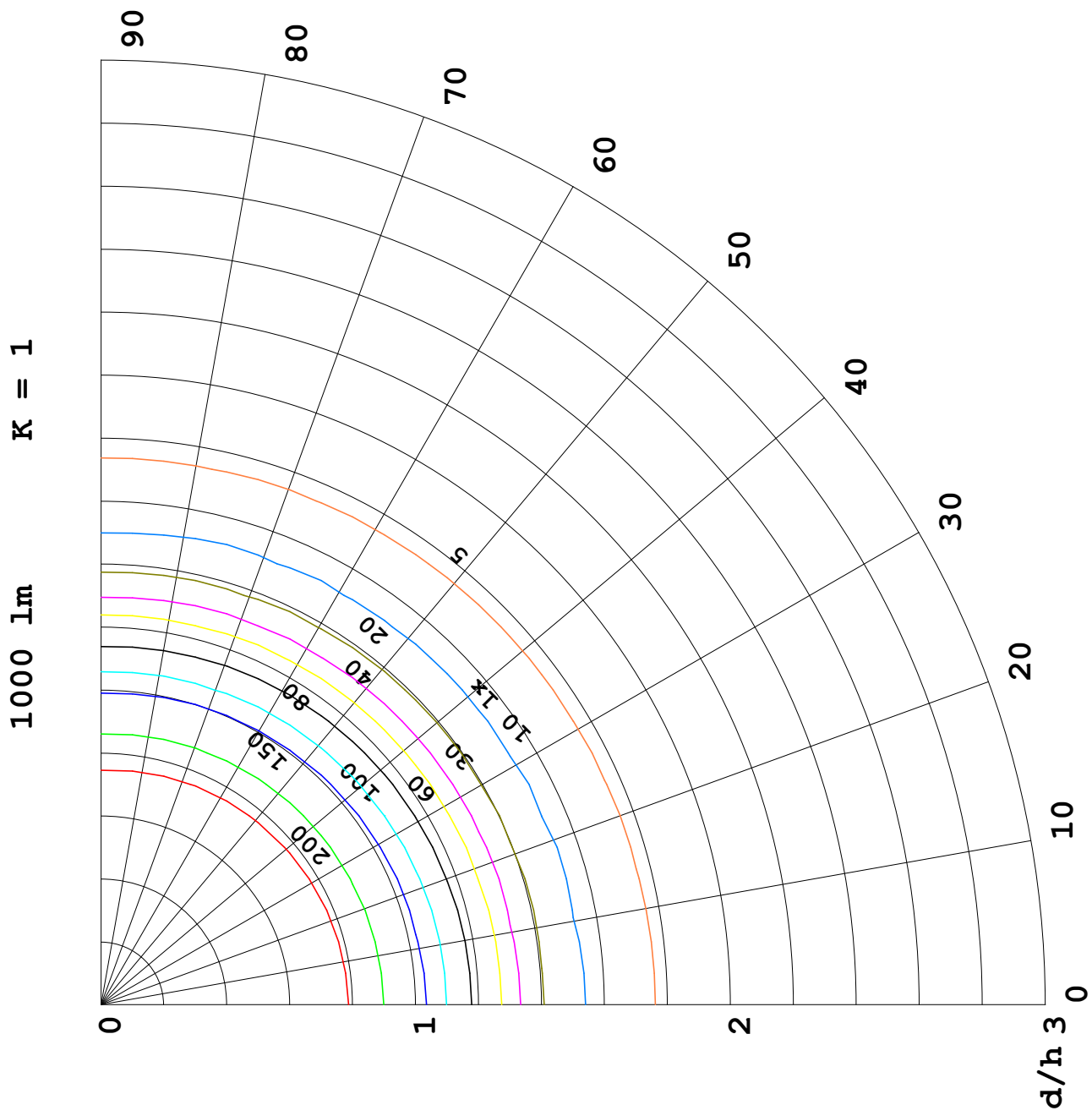


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-06-05

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)





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

Pcc
70
50

Pw
50
30

Pfc
30
20

