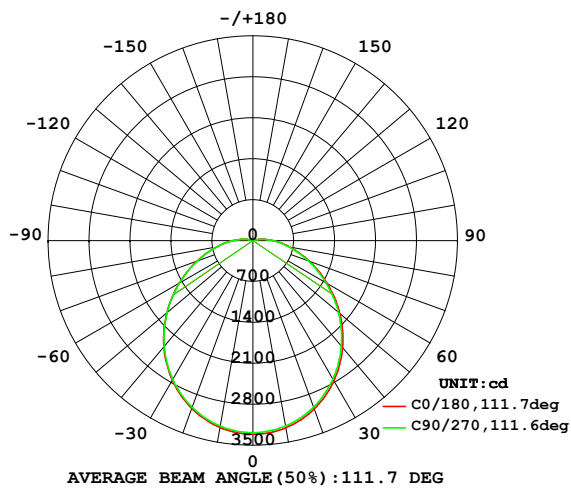


LUMINAIRE PHOTOMETRIC TEST REPORT

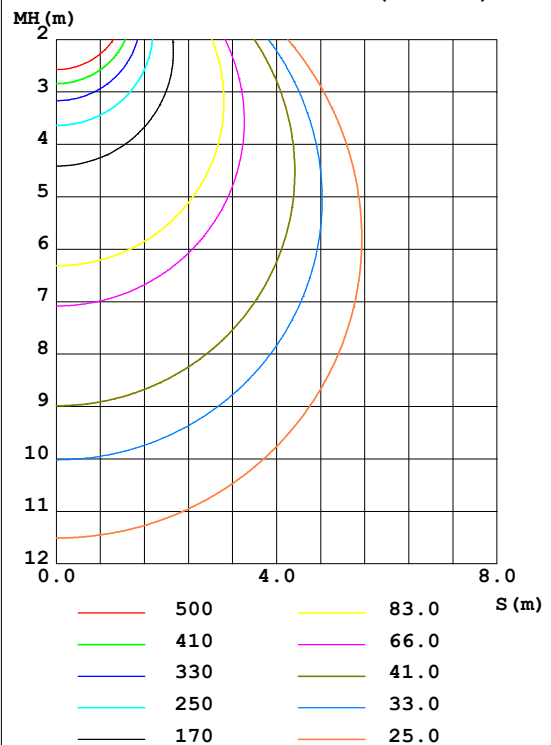
Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm		
NAME: BT-PAR63 100w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 98LEDs	DIM.: 200*215mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 102.89 lm/W
MODEL	SMD3030	I _{max} (cd)	3311	S/MH(C0/180)	1.24	
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.24	
RATED VOLTAGE(V)	110	TOTAL FLUX(lm)	10318	η UP,DN(C0-180)	2.0,48.1	
NOMINAL FLUX(lm)	10317.8	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.9,48.0	
LAMPS INSIDE	1	η up(%)	3.9	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	110	η down(%)	96.1	CIBSE SHR MAX	1.35	

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:2015-07-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity:65.0%
 Test Distance:9.390m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	3249	3218	3244	3220					0- 10	311.7	311.7	3.02, 3.02
20	3065	3032	3055	3036					10- 20	890.0	1202	11.6, 11.6
30	2770	2737	2756	2741					20- 30	1341	2543	24.6, 24.6
40	2387	2354	2370	2359					30- 40	1607	4150	40.2, 40.2
50	1941	1912	1923	1917					40- 50	1659	5809	56.3, 56.3
60	1469	1445	1453	1447					50- 60	1511	7320	70.9, 70.9
70	1021	1004	1009	1004					60- 70	1215	8535	82.7, 82.7
80	640.1	628.0	630.7	629.4					70- 80	859.5	9394	91, 91
90	349.6	340.7	341.6	342.8					80- 90	523.4	9918	96.1, 96.1
100	147.5	140.6	140.9	144.9					90-100	258.8	10176	98.6, 98.6
110	28.17	24.36	24.42	26.51					100-110	81.94	10258	99.4, 99.4
120	14.78	14.93	13.61	13.36					110-120	15.41	10274	99.6, 99.6
130	15.07	15.12	13.91	13.74					120-130	12.88	10287	99.7, 99.7
140	15.02	14.96	13.88	13.81					130-140	11.20	10298	99.8, 99.8
150	14.53	14.47	13.50	13.51					140-150	8.948	10307	99.9, 99.9
160	13.81	13.72	12.62	12.63					150-160	6.330	10313	100, 100
170	12.95	12.85	11.80	11.80					160-170	3.611	10317	100, 100
180	12.68	12.72	12.78	12.65					170-180	1.176	10318	100, 100
DEG	LUMINOUS INTENSITY:cd MAX (Ii - Iavg)/Iavg (0-135) = 139.8 %									UNIT:lm		

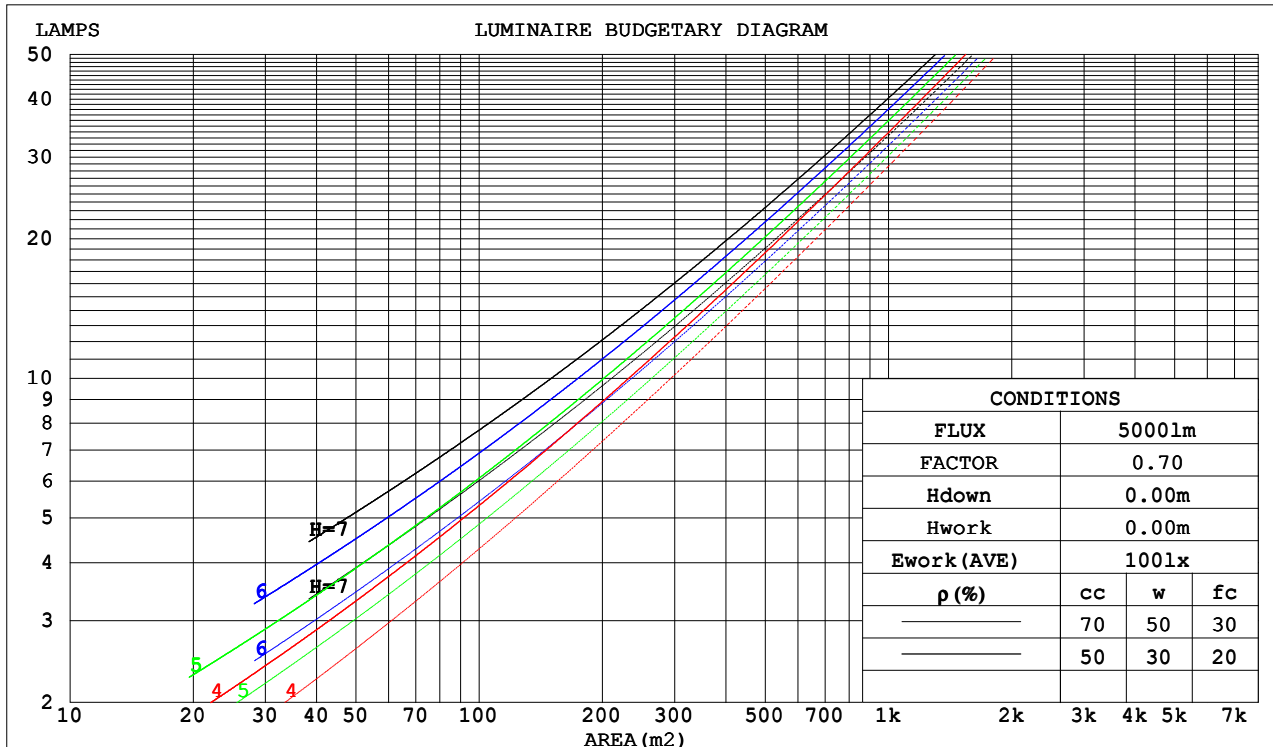
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators:
 Test Date: 2015-07-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity: 65.0%
 Test Distance: 9.390m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm		
NAME: BT-PAR63 100w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 98LEDs	DIM.: 200*215mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.03	1.03	1.03	.98	.98	.98	.96
1.0	1.01	.96	.92	.98	.94	.90	.93	.90	.86	.89	.86	.83	.84	.82	.80	.77
2.0	.87	.80	.74	.85	.78	.73	.81	.75	.70	.77	.72	.68	.73	.69	.66	.63
3.0	.76	.68	.61	.74	.66	.60	.71	.64	.58	.68	.62	.57	.64	.60	.55	.53
4.0	.68	.58	.51	.66	.57	.51	.63	.55	.50	.60	.54	.49	.57	.52	.47	.45
5.0	.60	.51	.44	.59	.50	.44	.56	.49	.43	.54	.47	.42	.52	.46	.41	.39
6.0	.54	.45	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.47	.41	.36	.34
7.0	.49	.40	.34	.48	.40	.34	.46	.39	.33	.44	.38	.33	.43	.37	.32	.30
8.0	.45	.36	.30	.44	.36	.30	.42	.35	.30	.41	.34	.29	.39	.33	.29	.27
9.0	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.26	.36	.30	.26	.24
10.0	.38	.30	.25	.37	.30	.24	.36	.29	.24	.35	.28	.24	.34	.28	.24	.22



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-07-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity:65.0%
 Test Distance:9.390m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm					
NAME: BT-PAR63 100w			TYPE:Frosted pc cover		WEIGHT:
SPEC.:5700k 120D 98LEDs			DIM.: 200*215mm		SERIAL No.:
MFR.: EVERFINE			SUR.:200*200mm		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	.349	.198	.063	.341	.194	.062	.325	.186	.060	.311	.179	.057	.297	.172	.056		
2.0	.313	.171	.053	.305	.168	.052	.292	.162	.050	.279	.156	.049	.267	.151	.048		
3.0	.283	.151	.045	.277	.148	.045	.264	.143	.043	.253	.138	.042	.242	.134	.041		
4.0	.258	.134	.039	.252	.132	.039	.241	.128	.038	.231	.124	.037	.221	.120	.037		
5.0	.236	.120	.035	.231	.119	.035	.221	.115	.034	.212	.112	.033	.203	.109	.033		
6.0	.218	.109	.031	.213	.108	.031	.204	.105	.030	.196	.102	.030	.188	.099	.029		
7.0	.202	.100	.028	.198	.099	.028	.190	.096	.028	.182	.093	.027	.175	.091	.027		
8.0	.188	.092	.026	.184	.091	.026	.177	.088	.025	.170	.086	.025	.164	.084	.024		
9.0	.176	.085	.024	.172	.084	.024	.166	.082	.023	.160	.080	.023	.154	.078	.023		
10.0	.165	.079	.022	.162	.078	.022	.156	.076	.022	.150	.075	.021	.145	.073	.021		

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	.220	.220	.220	.188	.188	.188	.128	.128	.128	.074	.074	.074	.024	.024	.024	
1.0	.213	.186	.161	.182	.159	.139	.125	.110	.096	.072	.063	.056	.023	.020	.018	
2.0	.205	.162	.125	.176	.139	.108	.120	.096	.076	.069	.056	.044	.022	.018	.014	
3.0	.197	.145	.103	.169	.125	.089	.116	.087	.062	.067	.051	.037	.022	.016	.012	
4.0	.189	.131	.087	.162	.114	.076	.112	.079	.053	.065	.046	.032	.021	.015	.010	
5.0	.182	.121	.077	.156	.105	.067	.107	.073	.047	.062	.043	.028	.020	.014	.009	
6.0	.174	.113	.069	.150	.098	.060	.103	.068	.043	.060	.040	.025	.019	.013	.008	
7.0	.167	.106	.063	.144	.092	.055	.099	.064	.039	.058	.038	.023	.019	.012	.008	
8.0	.161	.100	.059	.138	.087	.051	.096	.061	.037	.056	.036	.022	.018	.012	.007	
9.0	.154	.095	.056	.133	.083	.049	.092	.058	.034	.054	.034	.021	.017	.011	.007	
10.0	.149	.091	.053	.128	.079	.046	.089	.056	.033	.052	.033	.020	.017	.011	.007	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-07-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm										
NAME: BT-PAR63 100w					TYPE:Frosted pc cover			WEIGHT:		
SPEC.:5700k 120D 98LEDs					DIM.: 200*215mm			SERIAL No.:		
MFR.: EVERFINE					SUR.:200*200mm			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	30.7	29.5	31.0	31.3	29.1	30.6	29.5	30.9	31.2
3H	31.0	32.4	31.3	32.7	33.0	30.9	32.3	31.2	32.6	32.9
4H	31.8	33.2	32.2	33.5	33.8	31.7	33.1	32.1	33.4	33.7
6H	32.7	34.0	33.1	34.3	34.7	32.6	33.9	33.0	34.2	34.6
8H	33.2	34.4	33.6	34.7	35.1	33.1	34.3	33.5	34.6	35.0
12H	33.6	34.8	34.1	35.2	35.6	33.5	34.7	34.0	35.1	35.5
4H 2H	29.8	31.2	30.2	31.5	31.8	29.8	31.1	30.2	31.4	31.8
3H	31.8	33.0	32.2	33.4	33.7	31.8	32.9	32.2	33.3	33.7
4H	32.9	33.9	33.3	34.3	34.7	32.8	33.9	33.2	34.3	34.7
6H	33.9	34.9	34.4	35.3	35.7	33.8	34.8	34.3	35.2	35.7
8H	34.5	35.4	34.9	35.8	36.3	34.4	35.3	34.9	35.7	36.2
12H	35.1	35.9	35.6	36.4	36.9	35.0	35.8	35.5	36.3	36.8
8H 4H	33.3	34.2	33.7	34.6	35.1	33.2	34.1	33.7	34.5	35.0
6H	34.6	35.3	35.1	35.8	36.3	34.5	35.3	35.0	35.7	36.2
8H	35.3	36.0	35.8	36.5	37.0	35.2	35.9	35.7	36.4	36.9
12H	36.1	36.7	36.6	37.2	37.8	36.0	36.6	36.5	37.1	37.7
12H 4H	33.3	34.2	33.8	34.6	35.1	33.3	34.1	33.8	34.6	35.1
6H	34.7	35.4	35.2	35.9	36.4	34.7	35.3	35.2	35.8	36.4
8H	35.5	36.1	36.1	36.6	37.2	35.5	36.1	36.0	36.6	37.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 10318 lm Total Lamp Luminous Flux. (8log(F/F0) = 8.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-07-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm		
NAME: BT-PAR63 100w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 98LEDs	DIM.: 200*215mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:

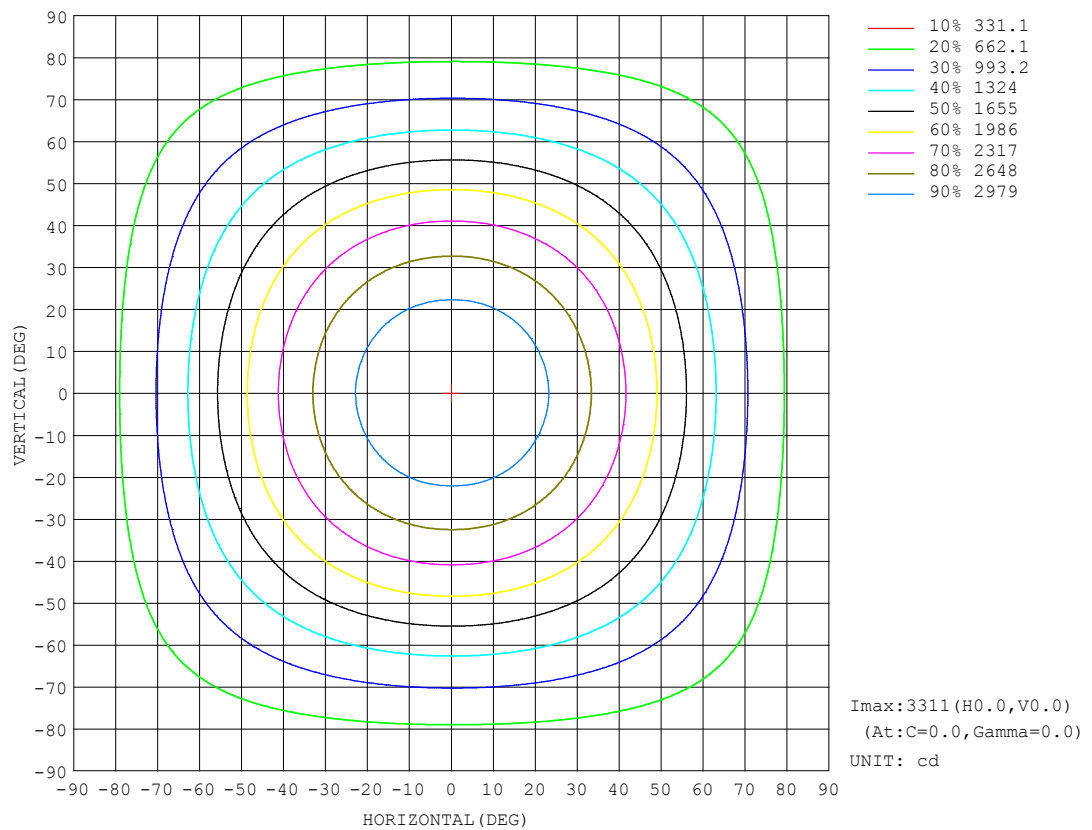
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	43	36	54	43	36	53	42	36	29
0.80	65	52	45	63	52	45	61	51	44	37
1.00	73	61	53	71	60	53	69	62	52	45
1.25	80	68	61	78	67	60	75	66	59	51
1.50	84	74	66	83	73	66	79	71	64	56
2.00	91	82	75	89	80	74	85	78	72	63
2.50	95	87	80	93	85	79	89	82	77	67
3.00	99	91	85	96	89	83	92	86	81	71
4.00	103	96	91	100	94	89	96	91	86	76
5.00	106	100	95	103	98	93	98	94	90	79
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:2015-07-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm		
NAME: BT-PAR63 100w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 98LEDs	DIM.: 200*215mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:

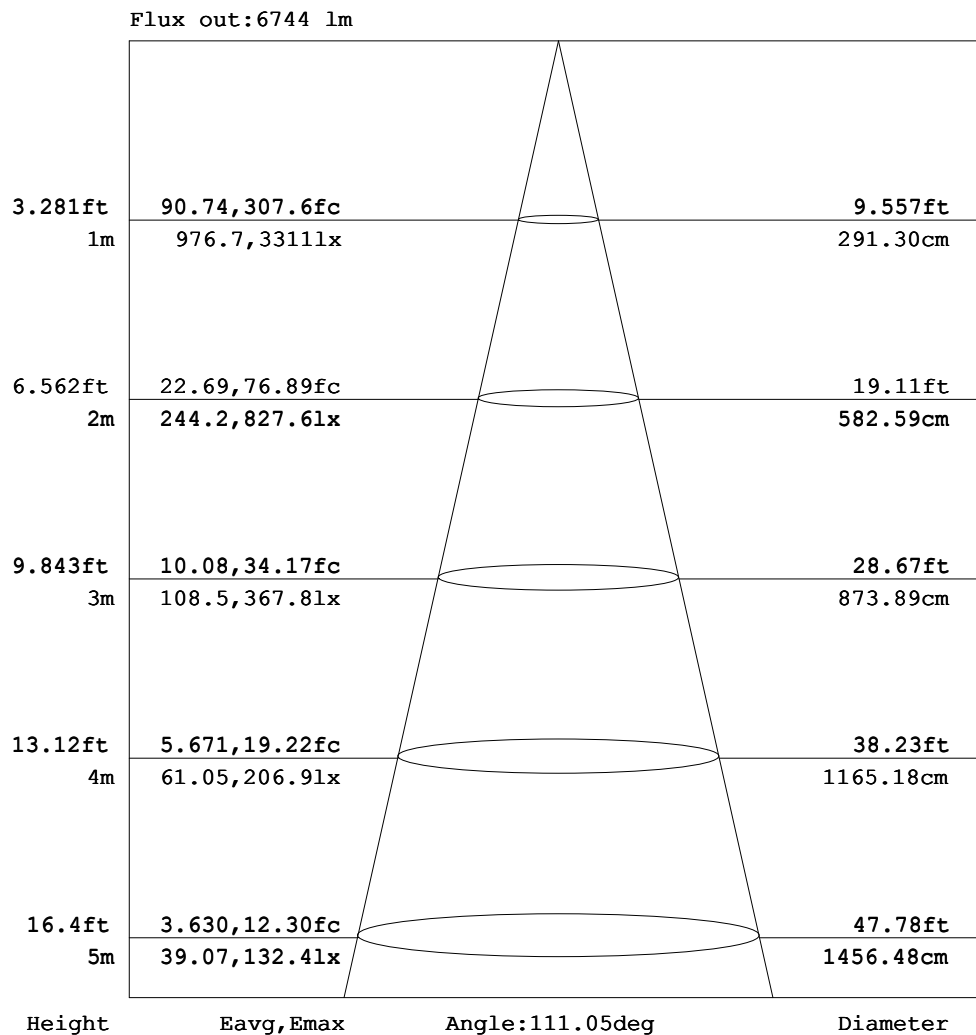


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-07-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity:65.0%
 Test Distance:9.390m [K=1.0000]
 Remarks:

AAI Figure

Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm		
NAME: BT-PAR63 100w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 98LEDs	DIM.: 200*215mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:



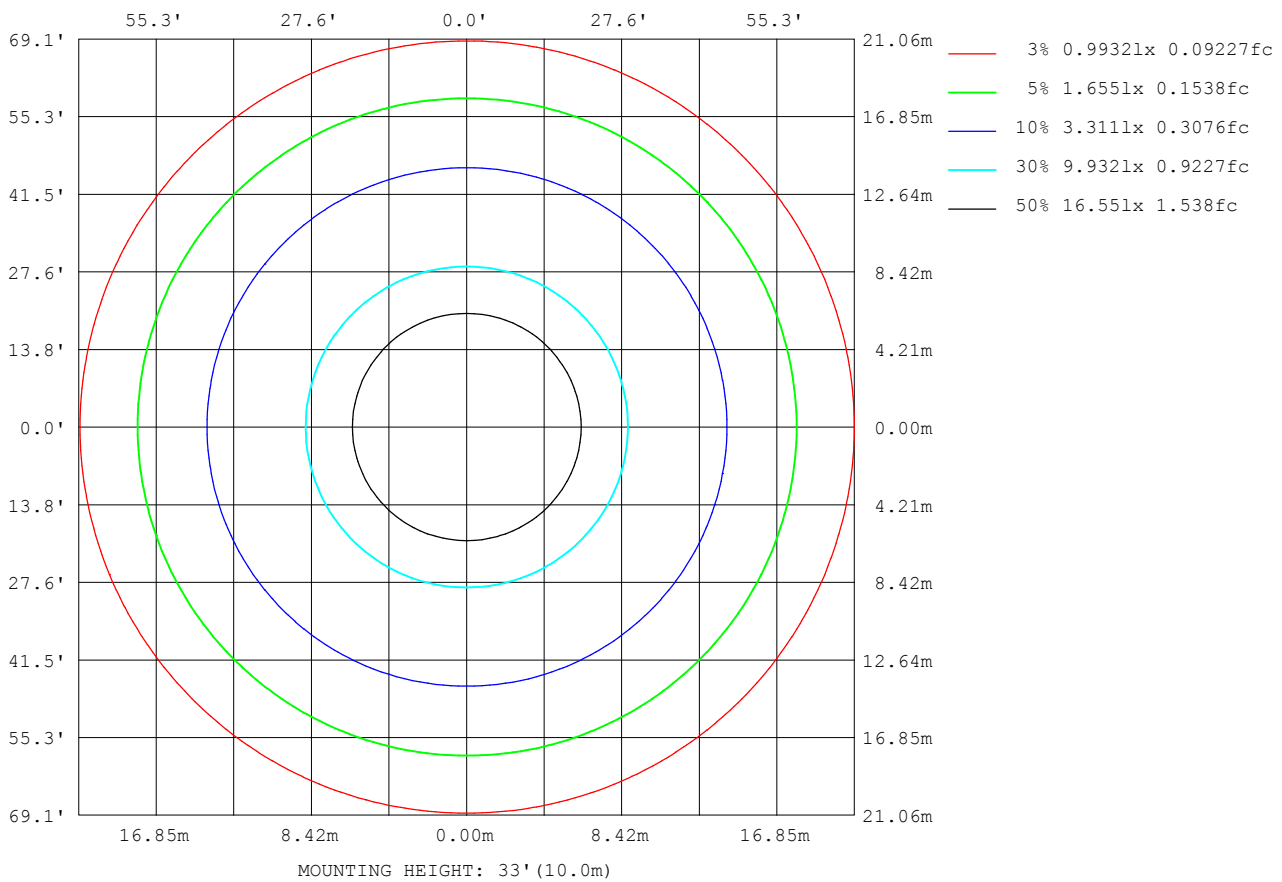
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-07-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

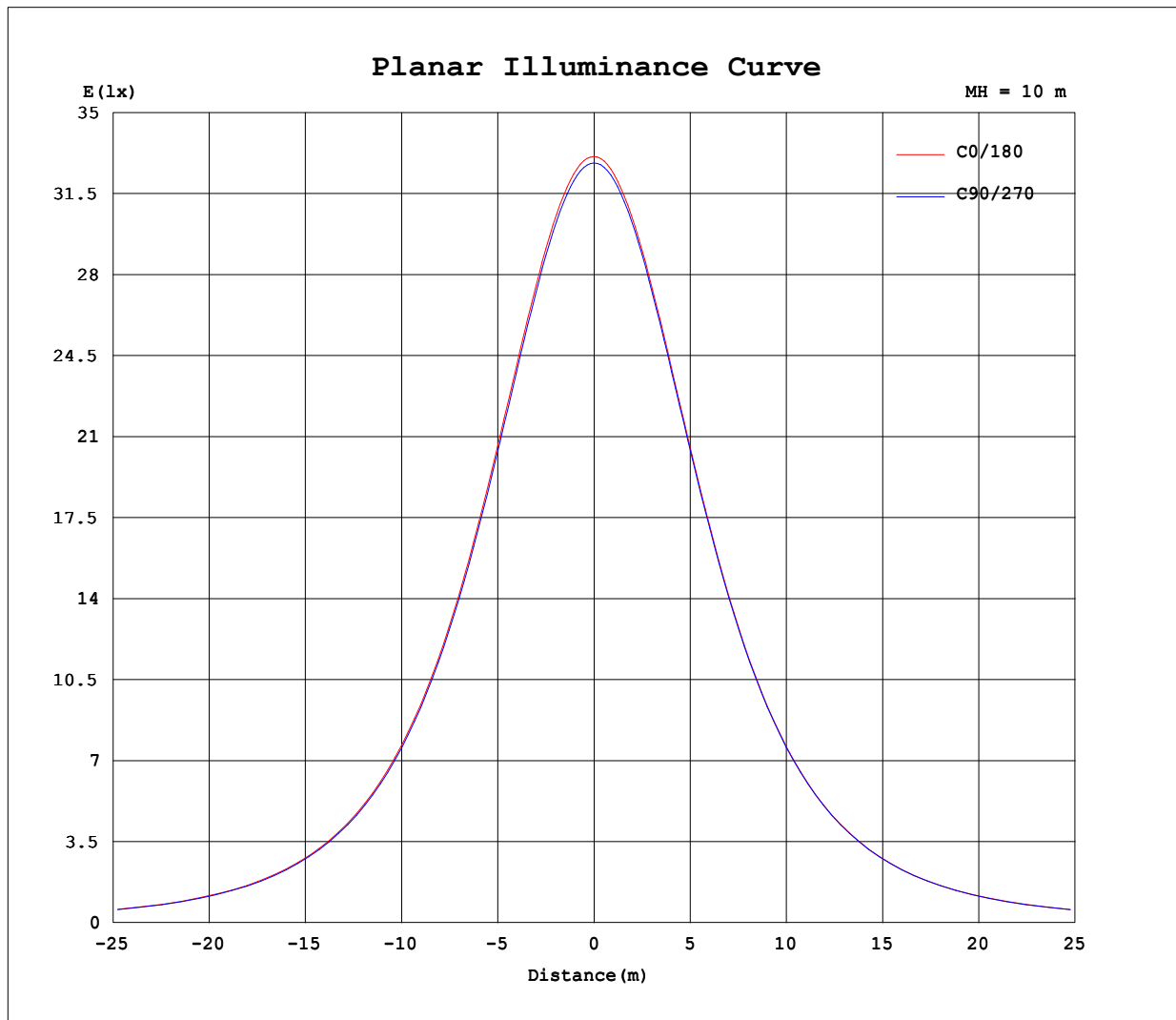
Test:U:110.4V I:0.9121A P:100.3W PF:0.9958 Lamp Flux:10317.8x1 lm		
NAME: BT-PAR63 100w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 98LEDs	DIM.: 200*215mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-07-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

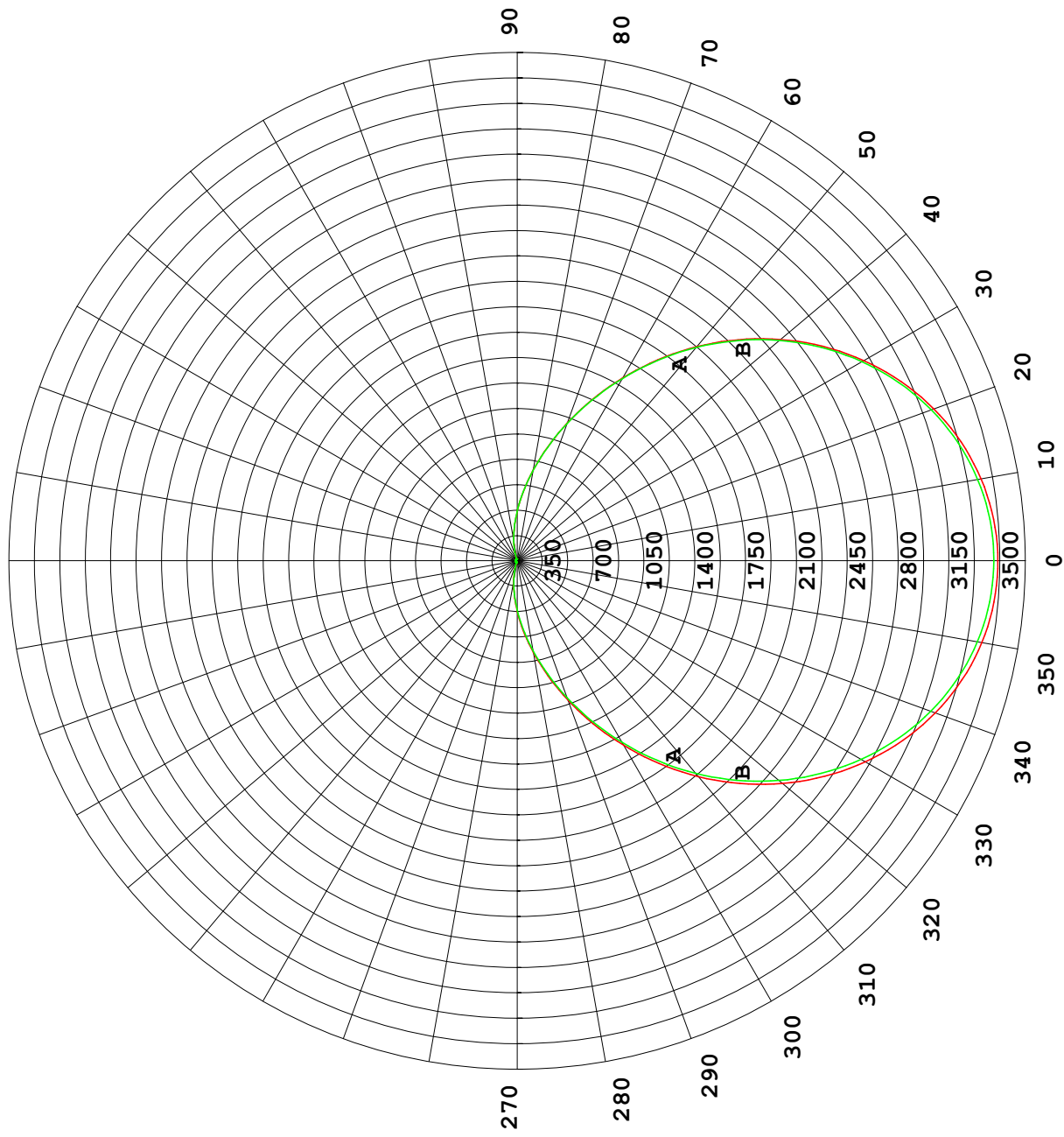
Planar Illuminance Curve

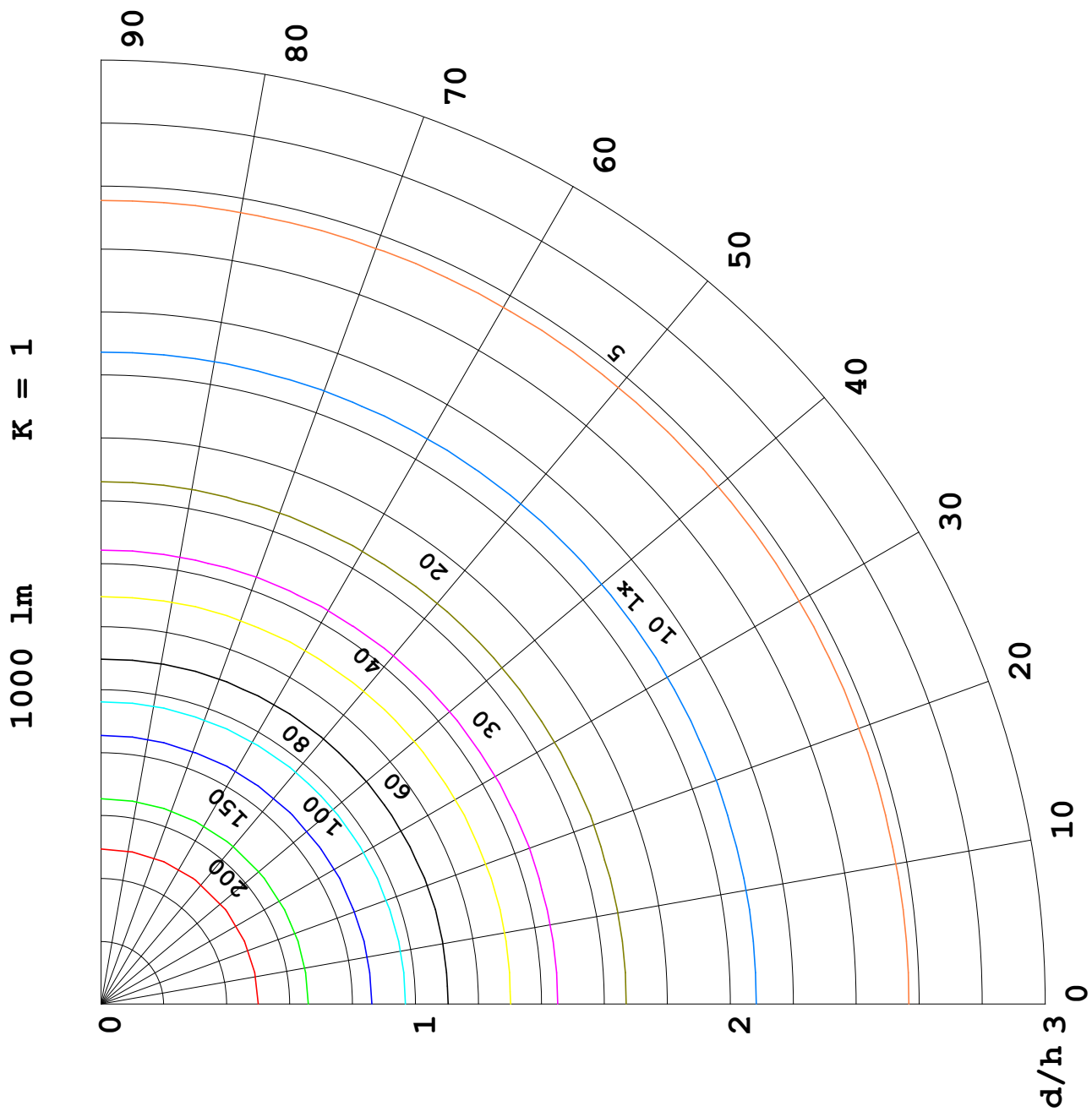


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-07-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.390m [K=1.0000]
Remarks:

I (cd)





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

