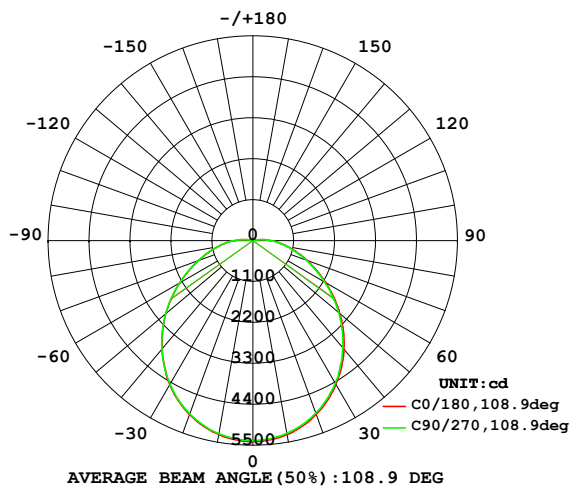


LUMINAIRE PHOTOMETRIC TEST REPORT

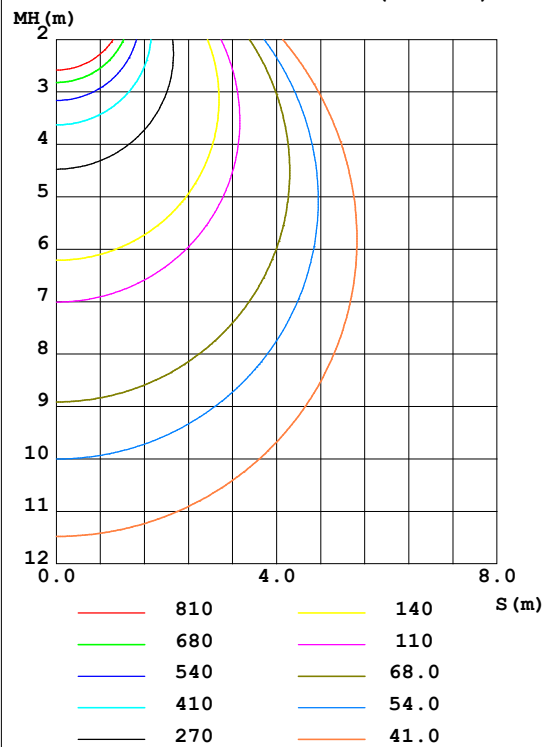
Test:U:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm		
NAME: BT-PAR82 150w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 168LEDs	DIM.: 260*300mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 106.50 lm/W
MODEL	SMD3030	I _{max} (cd)	5401	S/MH(C0/180)	1.24	
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.24	
RATED VOLTAGE(V)	110	TOTAL FLUX(lm)	16177	η UP,DN(C0-180)	1.5,48.3	
NOMINAL FLUX(lm)	16177.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.5,48.7	
LAMPS INSIDE	1	η up(%)	2.9	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	110	η down(%)	97.1	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	5294	5258	5293	5269					0- 10	509.0	509.0	3.15, 3.15
20	4974	4935	4976	4956					10- 20	1451	1960	12.1, 12.1
30	4465	4429	4469	4456					20- 30	2178	4138	25.6, 25.6
40	3809	3762	3804	3807					30- 40	2589	6726	41.6, 41.6
50	3051	3011	3054	3059					40- 50	2645	9371	57.9, 57.9
60	2264	2229	2269	2275					50- 60	2371	11742	72.6, 72.6
70	1539	1513	1550	1554					60- 70	1870	13612	84.1, 84.1
80	954.5	933.1	964.2	968.2					70- 80	1305	14918	92.2, 92.2
90	509.1	492.9	512.4	517.8					80- 90	782.5	15700	97.1, 97.1
100	170.3	147.8	160.5	177.9					90-100	364.7	16065	99.3, 99.3
110	9.756	11.58	9.196	7.788					100-110	55.08	16120	99.6, 99.6
120	11.84	11.34	9.217	9.762					110-120	9.880	16130	99.7, 99.7
130	13.78	13.81	11.68	11.61					120-130	10.38	16140	99.8, 99.8
140	16.03	16.18	14.34	14.14					130-140	10.78	16151	99.8, 99.8
150	18.25	18.37	16.74	16.50					140-150	10.23	16161	99.9, 99.9
160	19.99	20.09	18.38	18.00					150-160	8.491	16170	100, 100
170	21.01	21.09	19.38	19.05					160-170	5.538	16175	100, 100
180	21.68	21.67	21.80	21.61					170-180	1.963	16177	100, 100
DEG	LUMINOUS INTENSITY:cd MAX (Ii - Iavg)/Iavg (0-135) = 145.3 %									UNIT:lm		

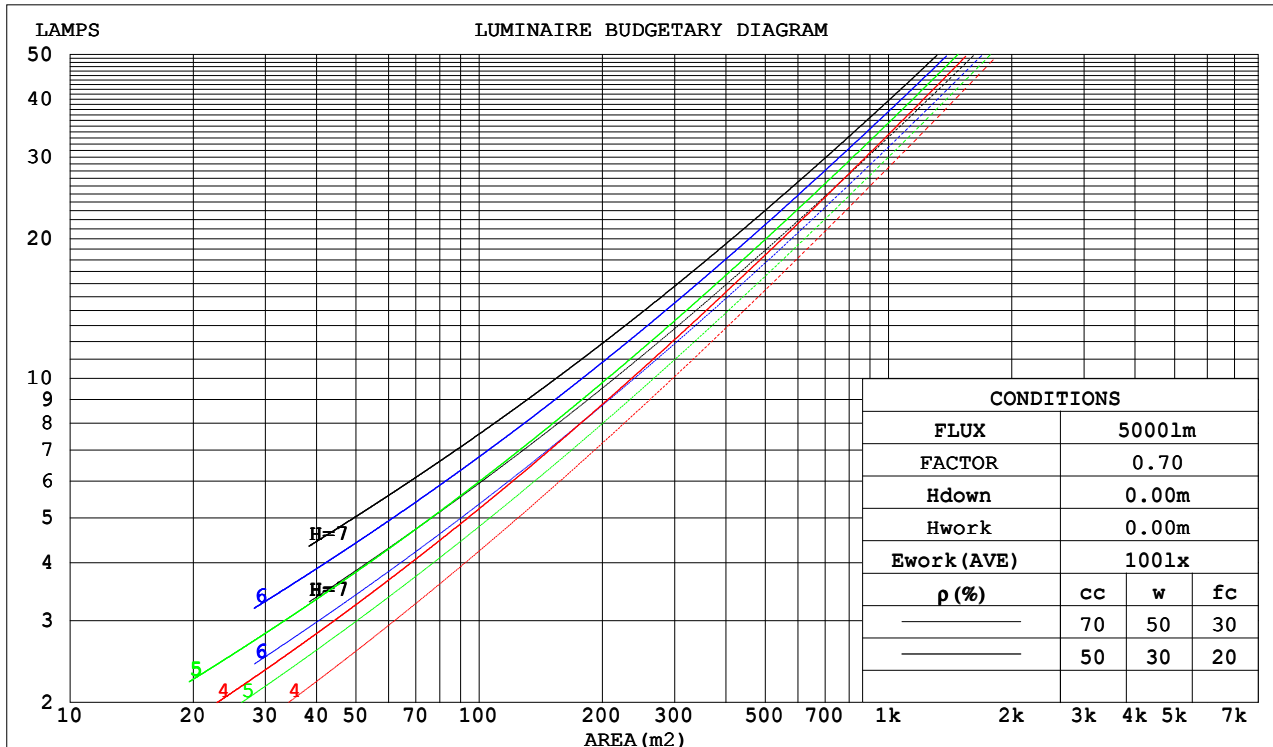
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-07-27

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:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm		
NAME: BT-PAR82 150w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 168LEDs	DIM.: 260*300mm	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	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.01	.97	.92	.99	.94	.90	.94	.90	.87	.89	.87	.84	.85	.83	.81	.78
2.0	.88	.81	.74	.86	.79	.73	.82	.76	.71	.78	.73	.69	.74	.71	.67	.65
3.0	.77	.68	.62	.75	.67	.61	.72	.65	.59	.69	.63	.58	.66	.61	.57	.54
4.0	.68	.59	.52	.67	.58	.52	.64	.56	.51	.61	.55	.50	.58	.53	.49	.46
5.0	.61	.52	.45	.60	.51	.44	.57	.49	.44	.55	.48	.43	.53	.47	.42	.40
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.48	.42	.37	.35
7.0	.50	.41	.35	.49	.40	.34	.47	.39	.34	.45	.38	.33	.44	.38	.33	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.41	.35	.30	.40	.34	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.35	.29	.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:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm		
NAME: BT-PAR82 150w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 168LEDs	DIM.: 260*300mm	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	.344	.196	.062	.336	.192	.061	.321	.184	.059	.307	.177	.057	.294	.170	.055		
2.0	.309	.170	.052	.302	.166	.051	.289	.161	.050	.276	.155	.049	.265	.150	.047		
3.0	.280	.149	.045	.274	.147	.044	.262	.142	.043	.251	.138	.042	.241	.133	.041		
4.0	.256	.133	.039	.250	.131	.039	.240	.127	.038	.230	.123	.037	.221	.120	.037		
5.0	.235	.120	.035	.230	.118	.034	.220	.115	.034	.211	.112	.033	.203	.109	.033		
6.0	.217	.109	.031	.212	.107	.031	.204	.104	.030	.196	.102	.030	.188	.099	.029		
7.0	.201	.099	.028	.197	.098	.028	.189	.096	.028	.182	.093	.027	.175	.091	.027		
8.0	.187	.091	.026	.184	.090	.026	.177	.088	.025	.170	.086	.025	.164	.084	.025		
9.0	.175	.085	.024	.172	.084	.023	.166	.082	.023	.160	.080	.023	.154	.078	.023		
10.0	.164	.079	.022	.161	.078	.022	.156	.076	.021	.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	.213	.213	.213	.182	.182	.182	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.205	.178	.154	.176	.153	.133	.120	.105	.092	.069	.061	.053	.022	.020	.017	
2.0	.197	.155	.119	.169	.133	.103	.116	.092	.072	.067	.054	.042	.021	.017	.014	
3.0	.189	.137	.096	.162	.118	.083	.111	.082	.058	.064	.048	.034	.021	.016	.011	
4.0	.182	.124	.080	.156	.107	.070	.107	.075	.049	.062	.044	.029	.020	.014	.010	
5.0	.174	.114	.070	.149	.099	.061	.103	.069	.043	.060	.040	.025	.019	.013	.008	
6.0	.166	.106	.062	.143	.091	.054	.099	.064	.038	.057	.038	.023	.018	.012	.007	
7.0	.159	.099	.056	.137	.086	.049	.095	.060	.035	.055	.035	.021	.018	.012	.007	
8.0	.153	.093	.052	.132	.081	.045	.091	.057	.032	.053	.033	.019	.017	.011	.006	
9.0	.147	.088	.048	.126	.076	.042	.088	.054	.030	.051	.032	.018	.017	.010	.006	
10.0	.141	.084	.046	.121	.073	.040	.084	.051	.028	.049	.030	.017	.016	.010	.006	

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:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm										
NAME: BT-PAR82 150w					TYPE:Frosted pc cover			WEIGHT:		
SPEC.:5700k 120D 168LEDs					DIM.: 260*300mm			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	30.7	32.2	31.0	32.5	32.8	30.7	32.2	31.0	32.4	32.7
3H	32.4	33.8	32.7	34.1	34.4	32.3	33.7	32.7	34.0	34.3
4H	33.2	34.6	33.6	34.9	35.2	33.2	34.5	33.5	34.8	35.1
6H	34.1	35.3	34.5	35.7	36.0	34.0	35.2	34.4	35.6	35.9
8H	34.5	35.7	34.9	36.1	36.4	34.4	35.6	34.8	36.0	36.3
12H	35.0	36.1	35.4	36.5	36.9	34.9	36.0	35.3	36.4	36.8
4H 2H	31.3	32.7	31.7	33.0	33.3	31.3	32.6	31.6	32.9	33.3
3H	33.2	34.4	33.6	34.8	35.1	33.2	34.4	33.6	34.7	35.1
4H	34.2	35.3	34.7	35.7	36.1	34.2	35.3	34.6	35.6	36.0
6H	35.3	36.2	35.7	36.6	37.1	35.2	36.1	35.6	36.6	37.0
8H	35.8	36.7	36.3	37.1	37.6	35.7	36.6	36.2	37.0	37.5
12H	36.4	37.2	36.9	37.7	38.1	36.3	37.1	36.8	37.6	38.0
8H 4H	34.6	35.5	35.1	36.0	36.4	34.6	35.5	35.0	35.9	36.4
6H	35.9	36.7	36.4	37.1	37.6	35.8	36.6	36.3	37.0	37.5
8H	36.6	37.3	37.1	37.7	38.3	36.5	37.2	37.0	37.7	38.2
12H	37.4	38.0	37.9	38.5	39.0	37.3	37.9	37.8	38.4	38.9
12H 4H	34.7	35.5	35.2	36.0	36.4	34.6	35.5	35.1	35.9	36.4
6H	36.1	36.7	36.6	37.2	37.7	36.0	36.7	36.5	37.1	37.7
8H	36.8	37.4	37.4	37.9	38.5	36.8	37.4	37.3	37.9	38.4
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 16177 lm Total Lamp Luminous Flux. (8log(F/F0) = 9.7)

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:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm		
NAME: BT-PAR82 150w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 168LEDs	DIM.: 260*300mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:

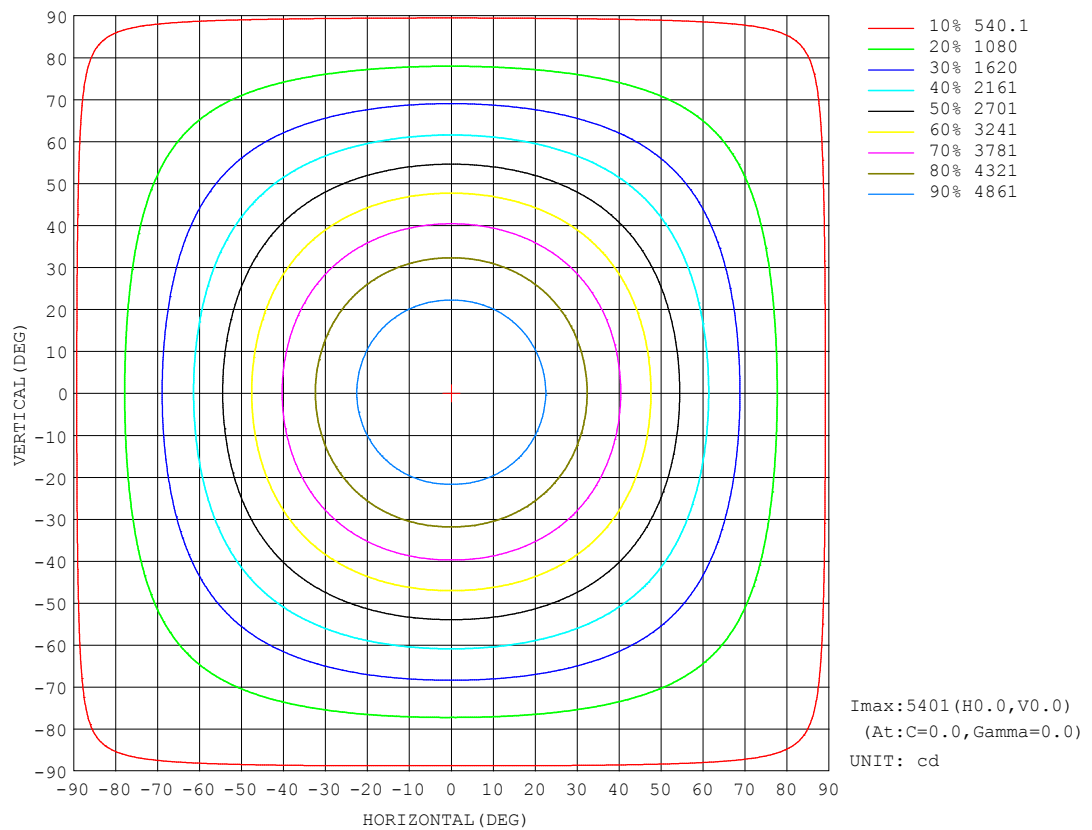
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	65	53	46	64	53	46	62	52	45	38
1.00	73	62	54	72	61	54	70	63	53	46
1.25	80	69	62	79	68	61	76	67	60	53
1.50	85	75	67	83	74	67	80	72	66	58
2.00	92	83	76	90	81	75	86	79	73	65
2.50	96	87	81	94	86	80	90	83	78	69
3.00	100	92	86	97	90	84	93	87	82	73
4.00	104	97	92	101	95	90	96	92	87	78
5.00	106	101	96	104	98	94	99	94	91	81
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:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm		
NAME: BT-PAR82 150w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 168LEDs	DIM.: 260*300mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:

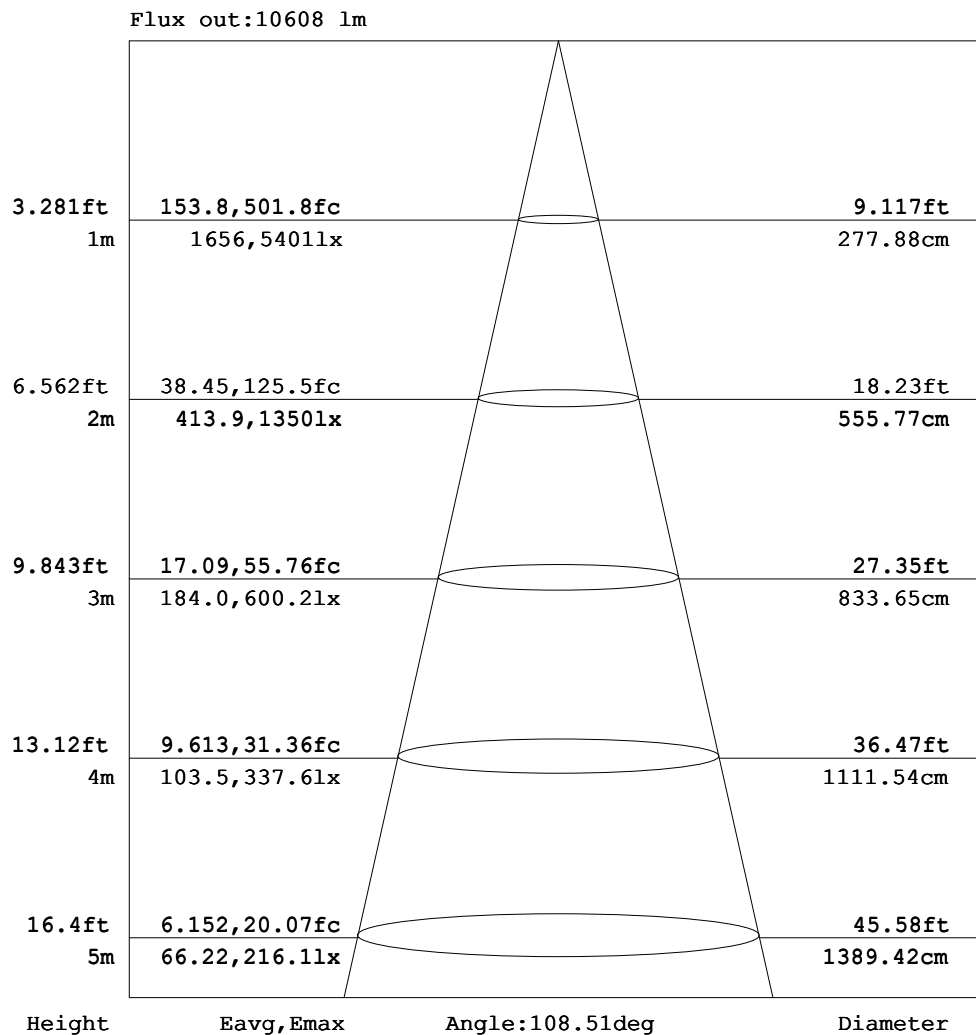


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-07-27

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:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm		
NAME: BT-PAR82 150w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 168LEDs	DIM.: 260*300mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:



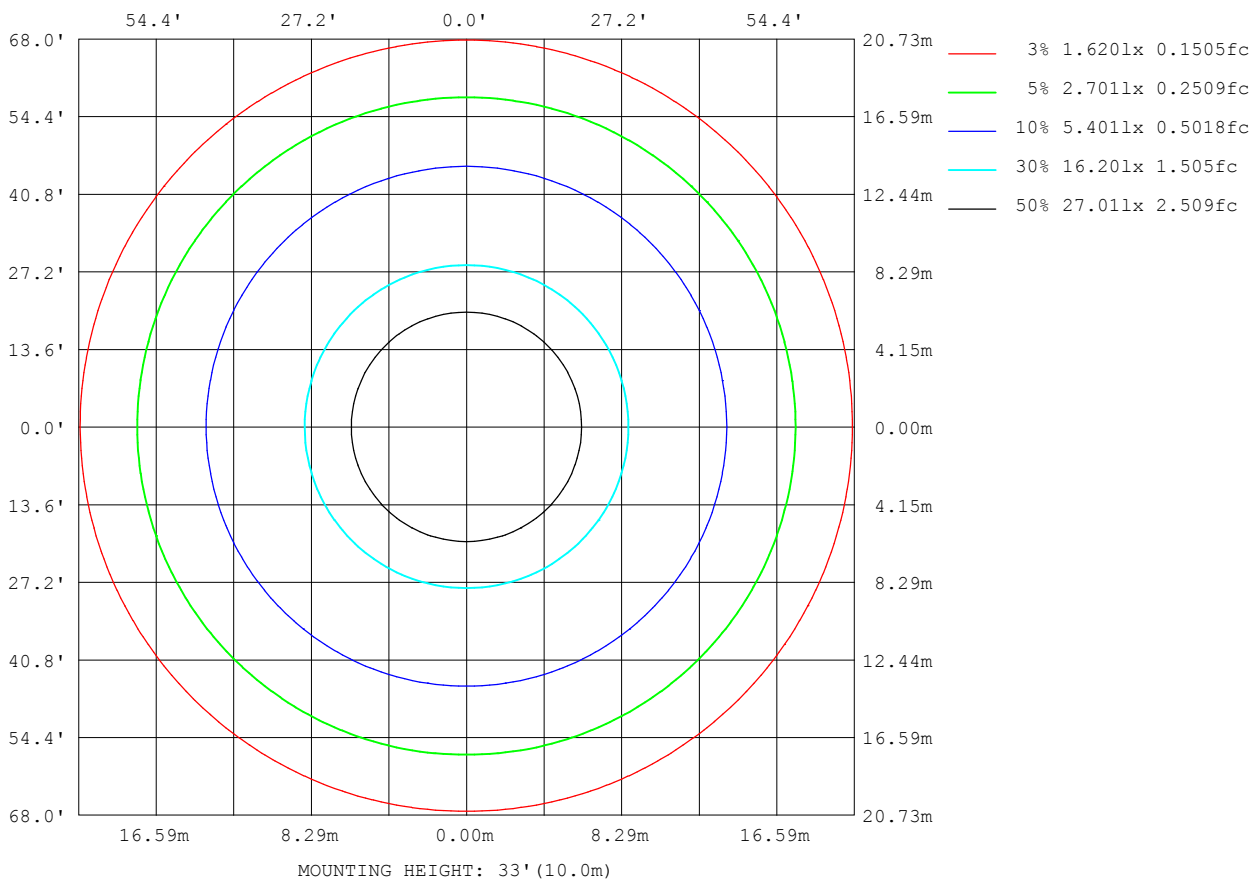
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

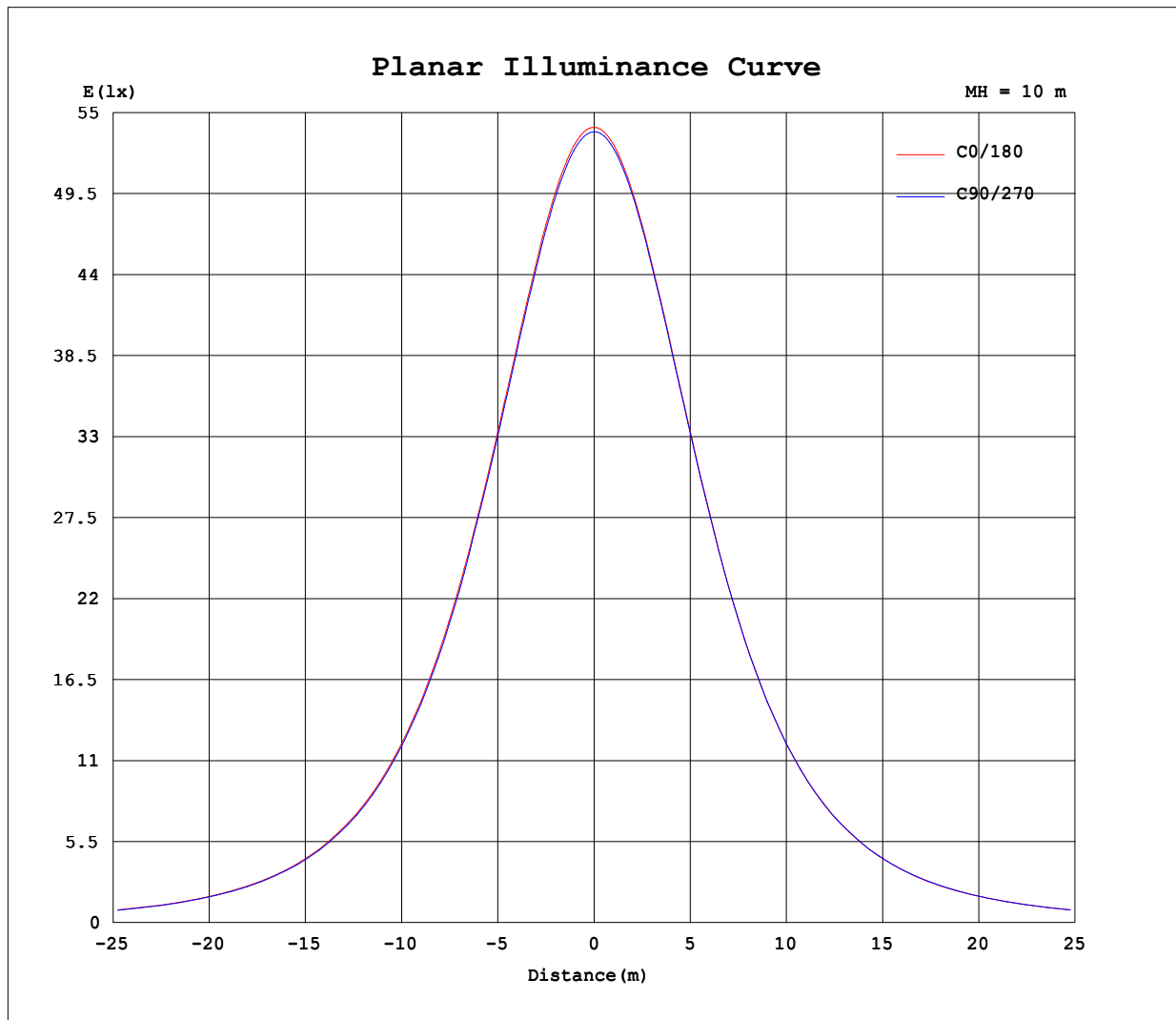
Test:U:110.3V I:1.382A P:151.9W PF:0.9962 Lamp Flux:16177.2x1 lm		
NAME: BT-PAR82 150w	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5700k 120D 168LEDs	DIM.: 260*300mm	SERIAL No.:
MFR.: EVERFINE	SUR.:200*200mm	PROTECTION ANGLE:



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:

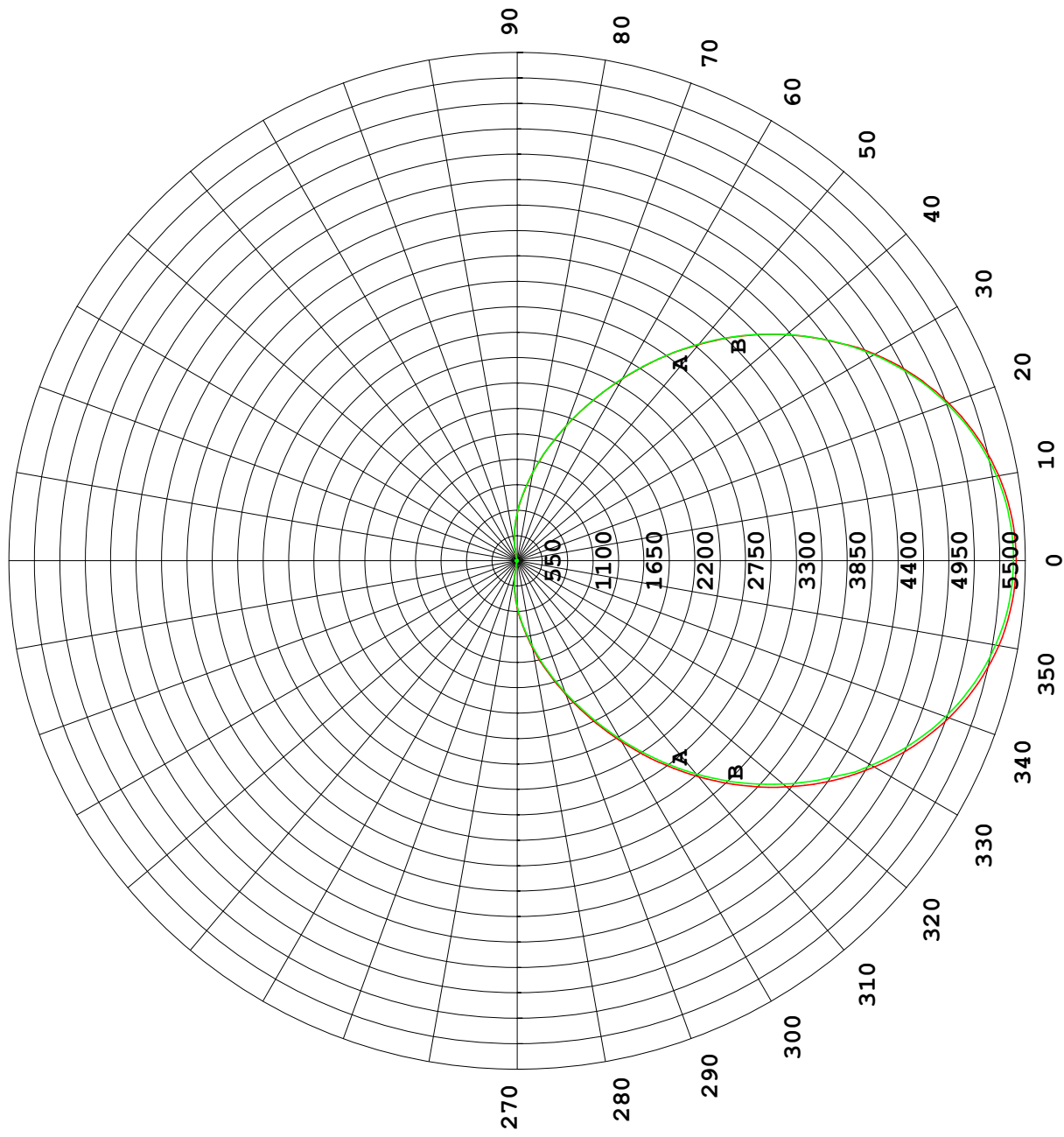
Planar Illuminance Curve

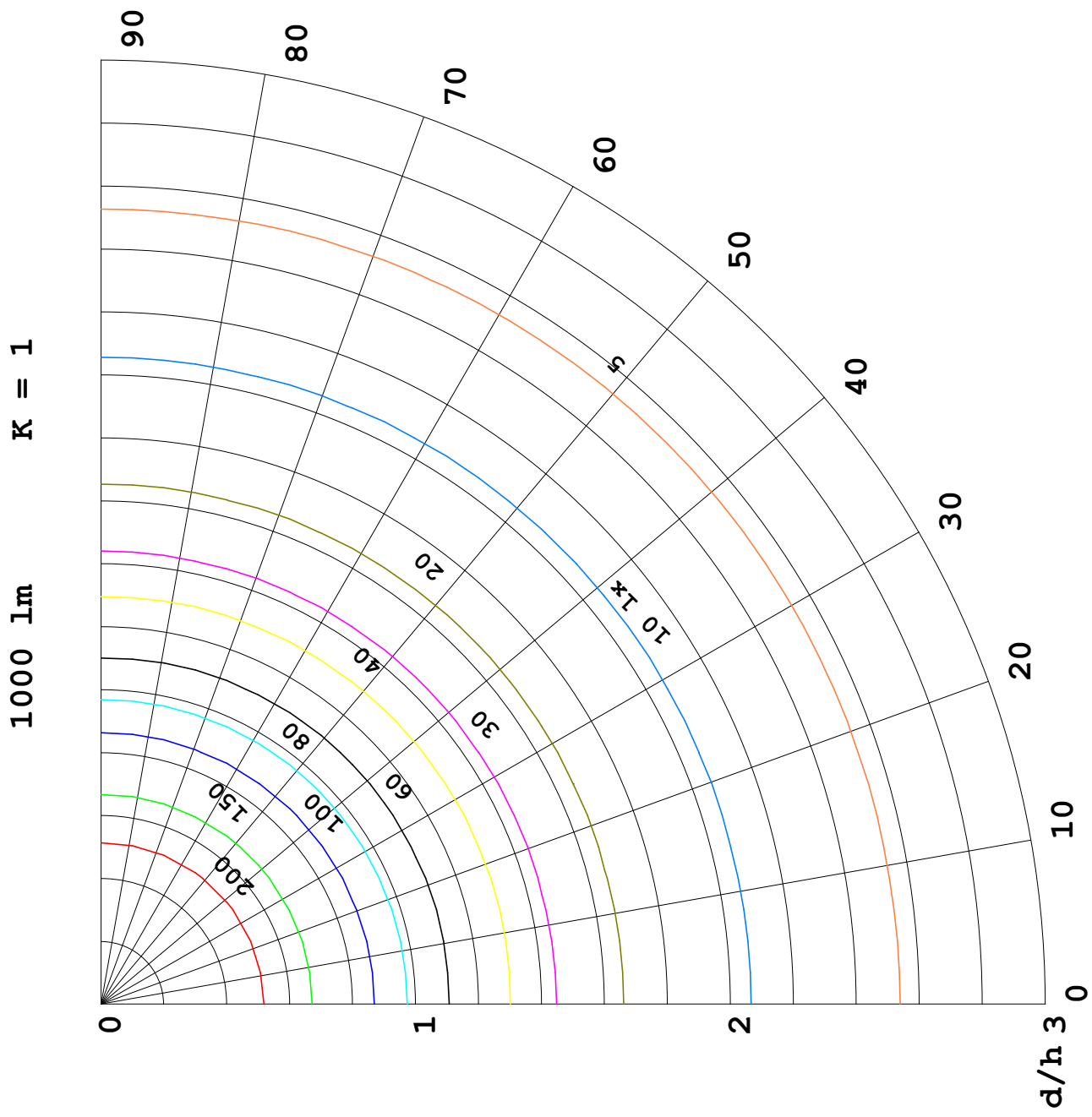


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-07-27

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

