
AFX

LumCAT: GRAF4450L30WH

Luminaire: LED lamp

Report No:

Voltage(V): 120.0000

Test No:

Current(A): 0.2070

LampCAT:

Power (W): 24.4000

Lamp flux(lm): 1963.9

PF: 0.9832

Number of Lamps: 1

Ballast type:

Length(mm): 800

Width(mm): 40

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1963.85

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 80.49

Central intensity(cd): 6545.898

Maximum intensity(cd): 6545.898

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50% I_{max}): [C0/180]Total=30.3

[C90/270]Total=27.4

Field angle(10% I_{max}): [C0/180]Total=54.7

[C90/270]Total=49.8

Maximum s/h(1/2): C0_180=0.51 C90_270=0.47

Maximum s/h(1/4): C0_180=0.50 C90_270=0.46

Up flux rate of lamp(%): 0.42%

Down flux rate of lamp(%): 99.58%

Up flux rate of LUM(%): 0.42%

Down flux rate of LUM(%): 99.58%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.687%

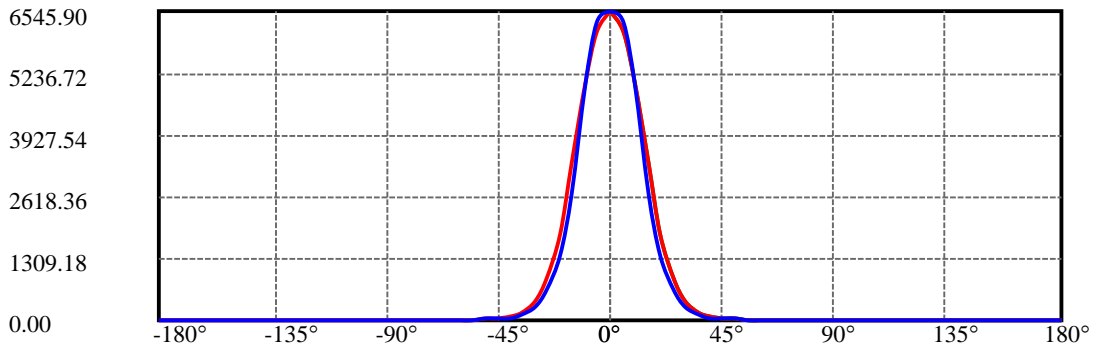
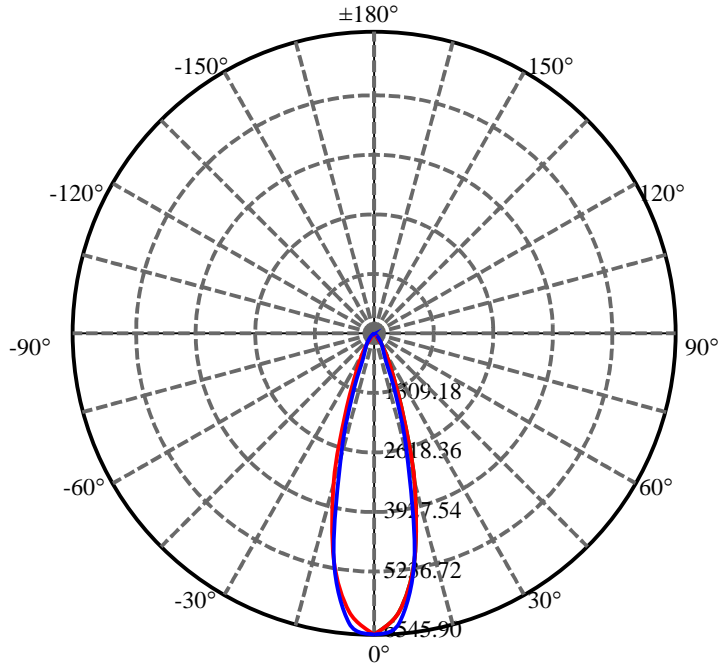
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6545.897	.000	.000	.000%	.000%
5.0	6194.365	152.306	152.306	7.755%	7.755%
10.0	4923.406	397.718	550.024	20.252%	28.007%
15.0	3044.592	472.656	1022.680	24.068%	52.075%
20.0	1578.170	380.981	1403.661	19.400%	71.475%
25.0	747.335	243.903	1647.563	12.420%	83.895%
30.0	333.912	136.833	1784.396	6.968%	90.862%
35.0	143.431	70.292	1854.688	3.579%	94.441%
40.0	66.629	35.047	1889.735	1.785%	96.226%
45.0	35.405	18.892	1908.628	.962%	97.188%
50.0	24.316	12.068	1920.695	.614%	97.803%
55.0	18.985	9.415	1930.110	.479%	98.282%
60.0	15.383	7.944	1938.055	.405%	98.686%
65.0	12.457	6.768	1944.823	.345%	99.031%
70.0	8.669	5.349	1950.172	.272%	99.304%
75.0	4.277	3.384	1953.556	.172%	99.476%
80.0	1.541	1.557	1955.113	.079%	99.555%
85.0	.150	.460	1955.572	.023%	99.578%
90.0	.000	.041	1955.613	.002%	99.581%
95.0	.000	.000	1955.613	.000%	99.581%
100.0	.000	.000	1955.613	.000%	99.581%
105.0	.000	.000	1955.613	.000%	99.581%
110.0	.000	.000	1955.613	.000%	99.581%
115.0	.000	.000	1955.613	.000%	99.581%
120.0	.037	.009	1955.623	.000%	99.581%
125.0	.263	.070	1955.692	.004%	99.585%
130.0	.263	.115	1955.807	.006%	99.590%
135.0	.489	.152	1955.958	.008%	99.598%
140.0	1.277	.327	1956.285	.017%	99.615%
145.0	2.401	.614	1956.899	.031%	99.646%
150.0	3.902	.928	1957.827	.047%	99.693%
155.0	5.851	1.234	1959.062	.063%	99.756%
160.0	7.577	1.408	1960.470	.072%	99.828%
165.0	8.777	1.348	1961.818	.069%	99.897%
170.0	9.527	1.086	1962.903	.055%	99.952%
175.0	10.054	.700	1963.604	.036%	99.987%
180.0	10.430	.245	1963.849	.012%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1784.40	90.86%	90.86%
0-40	1889.74	96.23%	96.23%
0-60	1938.06	98.69%	98.69%
0-90	1955.61	99.58%	99.58%
0-120	1955.62	99.58%	99.58%
0-180	1963.85	100.00%	100.00%
60-90	25.50	1.30%	1.30%
90-120	0.05	0.00%	0.00%
90-130	0.23	0.01%	0.01%
90-150	2.25	0.11%	0.11%
90-180	8.03	0.41%	0.41%
0-23.43	1571.08	80.00%	80.00%

ZONAL LUMEN SUMMARY

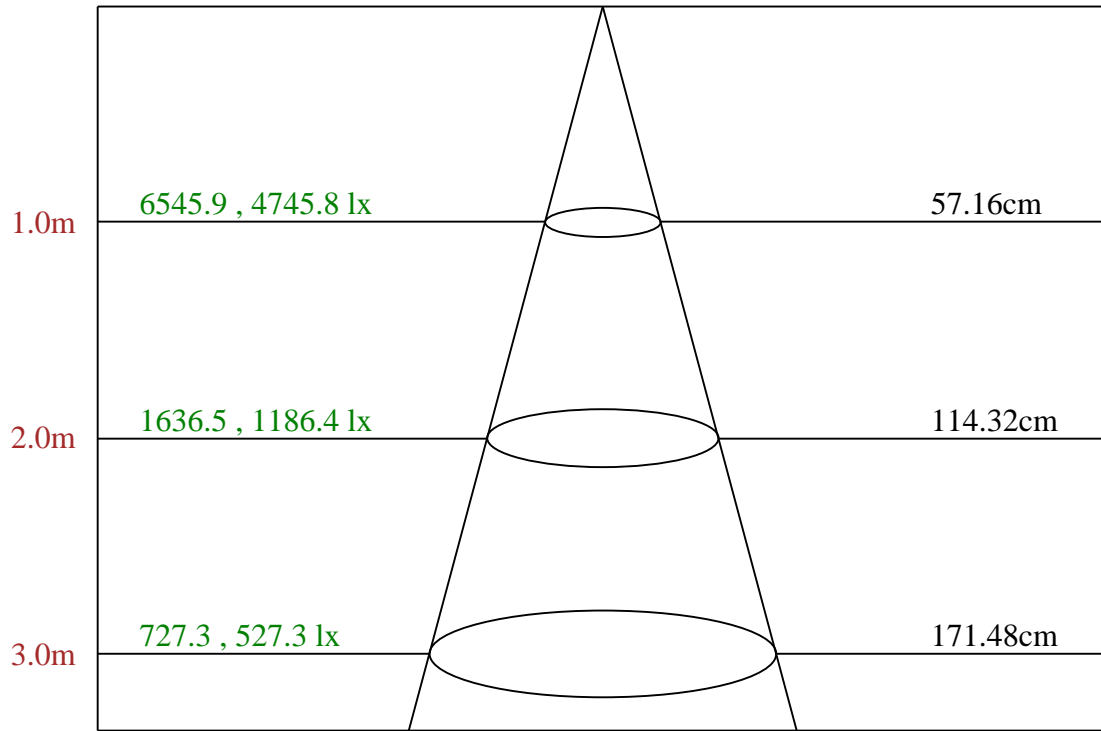
0-10	550.02
10-20	853.64
20-30	380.74
30-40	105.34
40-50	30.96
50-60	17.36
60-70	12.12
70-80	4.94
80-90	0.50
90-100	0.00
100-110	0.00
110-120	0.01
120-130	0.18
130-140	0.48
140-150	1.54
150-160	2.64
160-170	2.43
170-180	0.70



C0(Max): —
C0/C180: —
C90/C270: —

Field angle(10% I_{max}): C0/180 Left: 27.3 Right: 27.3
:C90/270 Left: 24.9 Right: 24.9

Beam Angle(50% I_{max}): C0/180 Left: 15.2 Right: 15.2
:C90/270 Left: 13.7 Right: 13.7



Max , Ave Beam angle of C0plane31.90

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	6545.90	6082.20	5010.05	3322.58	1841.48	887.05	392.06	169.96	80.48
15.0	6545.90	6083.29	4884.39	3299.48	1789.64	850.69	375.61	159.56	76.58
30.0	6545.90	6142.70	4891.10	3242.85	1676.73	802.28	355.68	158.90	72.62
45.0	6545.90	6182.00	4896.27	3107.73	1563.35	737.43	339.14	147.55	68.52
60.0	6545.90	6257.12	4939.84	2946.01	1440.16	684.07	307.64	129.31	60.65
75.0	6545.90	6299.14	4941.80	2670.41	1391.73	646.73	281.71	120.55	54.98
90.0	6545.90	6321.71	4964.02	2679.58	1373.35	638.57	295.34	119.48	52.36
105.0	6545.90	6299.14	4941.80	2670.41	1391.73	646.73	281.71	120.55	54.98
120.0	6545.90	6257.12	4939.84	2946.01	1440.16	684.07	307.64	129.31	60.65
135.0	6545.90	6182.00	4896.27	3107.73	1563.35	737.43	339.14	147.55	68.52
150.0	6545.90	6142.70	4891.10	3242.85	1676.73	802.28	355.68	158.90	72.62
165.0	6545.90	6083.29	4884.39	3299.48	1789.64	850.69	375.61	159.56	76.58
180.0	6545.90	6082.20	5010.05	3322.58	1841.48	887.05	392.06	169.96	80.48
195.0	6545.90	6083.29	4884.39	3299.48	1789.64	850.69	375.61	159.56	76.58
210.0	6545.90	6142.70	4891.10	3242.85	1676.73	802.28	355.68	158.90	72.62
225.0	6545.90	6182.00	4896.27	3107.73	1563.35	737.43	339.14	147.55	68.52
240.0	6545.90	6257.12	4939.84	2946.01	1440.16	684.07	307.64	129.31	60.65
255.0	6545.90	6299.14	4941.80	2670.41	1391.73	646.73	281.71	120.55	54.98
270.0	6545.90	6321.71	4964.02	2679.58	1373.35	638.57	295.34	119.48	52.36
285.0	6545.90	6299.14	4941.80	2670.41	1391.73	646.73	281.71	120.55	54.98
300.0	6545.90	6257.12	4939.84	2946.01	1440.16	684.07	307.64	129.31	60.65
315.0	6545.90	6182.00	4896.27	3107.73	1563.35	737.43	339.14	147.55	68.52
330.0	6545.90	6142.70	4891.10	3242.85	1676.73	802.28	355.68	158.90	72.62
345.0	6545.90	6083.29	4884.39	3299.48	1789.64	850.69	375.61	159.56	76.58
360.0	6545.90	6082.20	5010.05	3322.58	1841.48	887.05	392.06	169.96	80.48

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	40.91	25.17	19.33	15.73	12.59	8.99	4.50	2.25	0.45
15.0	38.95	24.90	19.23	15.39	12.44	8.38	4.75	2.04	0.23
30.0	37.17	24.76	19.13	15.53	12.37	8.55	4.50	2.03	0.45
45.0	34.89	24.29	18.89	15.29	12.37	8.55	4.50	1.35	0.00
60.0	32.87	23.63	18.91	15.53	12.60	8.78	4.28	1.13	0.00
75.0	31.98	23.64	18.69	15.09	12.39	8.78	3.83	1.13	0.00
90.0	32.22	24.16	18.79	15.21	12.53	8.95	3.13	0.89	0.00
105.0	31.98	23.64	18.69	15.09	12.39	8.78	3.83	1.13	0.00
120.0	32.87	23.63	18.91	15.53	12.60	8.78	4.28	1.13	0.00
135.0	34.89	24.29	18.89	15.29	12.37	8.55	4.50	1.35	0.00
150.0	37.17	24.76	19.13	15.53	12.37	8.55	4.50	2.03	0.45
165.0	38.95	24.90	19.23	15.39	12.44	8.38	4.75	2.04	0.23
180.0	40.91	25.17	19.33	15.73	12.59	8.99	4.50	2.25	0.45
195.0	38.95	24.90	19.23	15.39	12.44	8.38	4.75	2.04	0.23
210.0	37.17	24.76	19.13	15.53	12.37	8.55	4.50	2.03	0.45
225.0	34.89	24.29	18.89	15.29	12.37	8.55	4.50	1.35	0.00
240.0	32.87	23.63	18.91	15.53	12.60	8.78	4.28	1.13	0.00
255.0	31.98	23.64	18.69	15.09	12.39	8.78	3.83	1.13	0.00
270.0	32.22	24.16	18.79	15.21	12.53	8.95	3.13	0.89	0.00
285.0	31.98	23.64	18.69	15.09	12.39	8.78	3.83	1.13	0.00
300.0	32.87	23.63	18.91	15.53	12.60	8.78	4.28	1.13	0.00
315.0	34.89	24.29	18.89	15.29	12.37	8.55	4.50	1.35	0.00
330.0	37.17	24.76	19.13	15.53	12.37	8.55	4.50	2.03	0.45
345.0	38.95	24.90	19.23	15.39	12.44	8.38	4.75	2.04	0.23
360.0	40.91	25.17	19.33	15.73	12.59	8.99	4.50	2.25	0.45

AFX GRAF4450L30WH

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90
15.0	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.68	0.68
30.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45
165.0	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.68	0.68
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.68	0.68
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.68	0.68
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.90	1.80	3.15	4.05	5.84	7.19	8.09	8.99	10.34
15.0	0.90	1.81	2.71	4.07	5.88	7.01	8.14	9.05	10.41
30.0	0.90	1.58	2.70	4.05	5.85	7.43	8.33	9.23	10.13
45.0	0.68	1.13	2.70	4.05	5.84	7.64	8.99	9.44	10.12
60.0	0.00	0.90	2.03	3.83	5.85	7.88	9.00	9.90	9.90
75.0	0.00	0.90	1.80	3.60	5.85	7.88	9.45	9.91	9.68
90.0	0.00	0.89	1.79	3.58	5.82	8.05	9.40	10.29	9.84
105.0	0.00	0.90	1.80	3.60	5.85	7.88	9.45	9.91	9.68
120.0	0.00	0.90	2.03	3.83	5.85	7.88	9.00	9.90	9.90
135.0	0.68	1.13	2.70	4.05	5.84	7.64	8.99	9.44	10.12
150.0	0.90	1.58	2.70	4.05	5.85	7.43	8.33	9.23	10.13
165.0	0.90	1.81	2.71	4.07	5.88	7.01	8.14	9.05	10.41
180.0	0.90	1.80	3.15	4.05	5.84	7.19	8.09	8.99	10.34
195.0	0.90	1.81	2.71	4.07	5.88	7.01	8.14	9.05	10.41
210.0	0.90	1.58	2.70	4.05	5.85	7.43	8.33	9.23	10.13
225.0	0.68	1.13	2.70	4.05	5.84	7.64	8.99	9.44	10.12
240.0	0.00	0.90	2.03	3.83	5.85	7.88	9.00	9.90	9.90
255.0	0.00	0.90	1.80	3.60	5.85	7.88	9.45	9.91	9.68
270.0	0.00	0.89	1.79	3.58	5.82	8.05	9.40	10.29	9.84
285.0	0.00	0.90	1.80	3.60	5.85	7.88	9.45	9.91	9.68
300.0	0.00	0.90	2.03	3.83	5.85	7.88	9.00	9.90	9.90
315.0	0.68	1.13	2.70	4.05	5.84	7.64	8.99	9.44	10.12
330.0	0.90	1.58	2.70	4.05	5.85	7.43	8.33	9.23	10.13
345.0	0.90	1.81	2.71	4.07	5.88	7.01	8.14	9.05	10.41
360.0	0.90	1.80	3.15	4.05	5.84	7.19	8.09	8.99	10.34

Intensity data(cd)

C/γ(°)	180.0
0.0	10.79
15.0	10.86
30.0	10.80
45.0	10.35
60.0	10.35
75.0	9.91
90.0	9.84
105.0	9.91
120.0	10.35
135.0	10.35
150.0	10.80
165.0	10.86
180.0	10.79
195.0	10.86
210.0	10.80
225.0	10.35
240.0	10.35
255.0	9.91
270.0	9.84
285.0	9.91
300.0	10.35
315.0	10.35
330.0	10.80
345.0	10.86
360.0	10.79