

Penn XL

Client:
LumCAT:
Luminaire:
Report No:
Ballast type:
Test No: Voltage(V): 220.060
LampCAT: Current(A): 0.655
Lamp flux(lm): -1.0 Power (W): 130.040
Number of Lamps: 1 PF: 0.902
Length(mm): 0 Width(mm): 0
Phm Type: C Height(mm): 0

Photometric Results

Lumens(lm): 4989.99, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 38.37
Central intensity(cd): 5811.941, Maximum intensity(cd): 6337.566
Angle of maximum intensity: C=270.0 γ =10.0
Beam Angle(50%Imax): [C0/180]Total=52.6
[C90/270]Total=51.5
Field angle(10%Imax): [C0/180]Total=83.5
[C90/270]Total=82.9
Maximum s/h(1/2): C0_180=0.80 C90_270=0.78
Maximum s/h(1/4): C0_180=0.80 C90_270=0.77
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 0.00%
Up flux rate of LUM(%): 0.15%
Down flux rate of LUM(%): 99.85%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.159%

Zonal flux distribution table

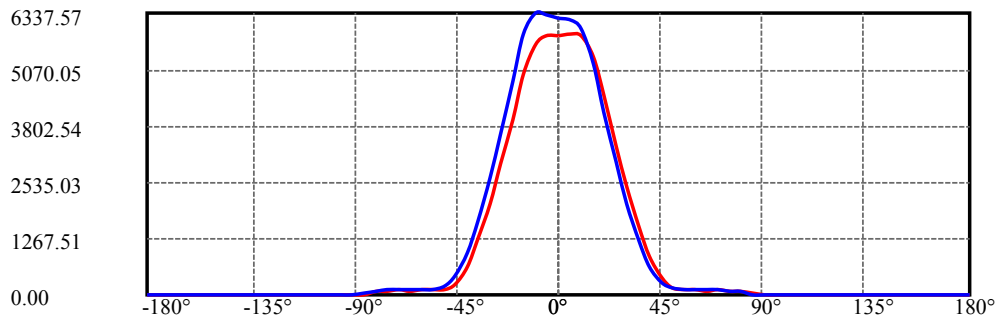
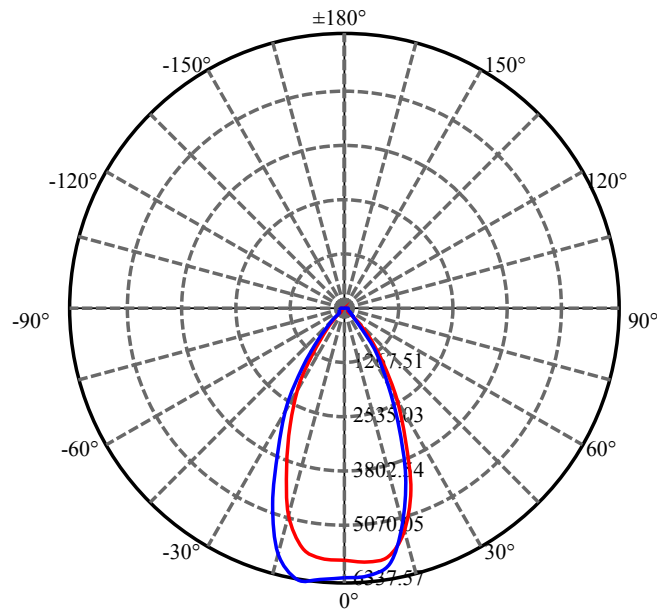
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5868.183	0.000	0	0.00%	0.00%
5.0	5907.210	140.771	140.771	0.00%	2.82%
10.0	5810.758	419.189	559.96	0.00%	11.22%
15.0	5222.452	654.483	1214.443	0.00%	24.34%
20.0	4223.003	778.438	1992.881	0.00%	39.94%
25.0	3176.050	776.024	2768.905	0.00%	55.49%
30.0	2233.801	684.621	3453.526	0.00%	69.21%
35.0	1386.940	533.180	3986.706	0.00%	79.89%
40.0	747.780	356.162	4342.868	0.00%	87.03%
45.0	327.648	199.124	4541.992	0.00%	91.02%
50.0	149.422	96.399	4638.391	0.00%	92.95%
55.0	118.292	58.210	4696.601	0.00%	94.12%
60.0	105.992	51.843	4748.444	0.00%	95.16%
65.0	98.266	49.655	4798.099	0.00%	96.15%
70.0	104.008	51.217	4849.316	0.00%	97.18%
75.0	95.848	52.239	4901.555	0.00%	98.23%
80.0	76.662	46.159	4947.714	0.00%	99.15%
85.0	25.414	27.737	4975.451	0.00%	99.71%
90.0	0.105	6.987	4982.438	0.00%	99.85%
95.0	0.171	0.076	4982.513	0.00%	99.85%
100.0	0.092	0.071	4982.585	0.00%	99.85%
105.0	0.158	0.067	4982.652	0.00%	99.85%
110.0	0.158	0.082	4982.734	0.00%	99.85%
115.0	0.210	0.093	4982.827	0.00%	99.86%
120.0	0.316	0.128	4982.955	0.00%	99.86%
125.0	0.421	0.170	4983.125	0.00%	99.86%
130.0	0.710	0.246	4983.371	0.00%	99.87%
135.0	1.117	0.369	4983.74	0.00%	99.87%
140.0	1.656	0.513	4984.253	0.00%	99.89%
145.0	2.378	0.673	4984.927	0.00%	99.90%
150.0	3.312	0.838	4985.764	0.00%	99.92%
155.0	4.310	0.965	4986.729	0.00%	99.93%
160.0	5.177	0.995	4987.724	0.00%	99.95%
165.0	5.861	0.910	4988.634	0.00%	99.97%
170.0	6.334	0.723	4989.357	0.00%	99.99%
175.0	6.649	0.464	4989.821	0.00%	100.00%
180.0	7.254	0.166	4989.988	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	3453.53	N.A.	69.21%
0-40	4342.87	N.A.	87.03%
0-60	4748.44	N.A.	95.16%
0-90	4982.44	N.A.	99.85%
0-120	4982.95	N.A.	99.86%
0-180	4989.99	N.A.	100.00%
60-90	233.99	N.A.	4.69%
90-120	0.52	N.A.	0.01%
90-130	0.93	N.A.	0.02%
90-150	3.33	N.A.	0.07%
90-180	7.38	N.A.	0.15%
0-35.07	3991.99	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	559.96
10-20	1432.92
20-30	1460.65
30-40	889.34
40-50	295.52
50-60	110.05
60-70	100.87
70-80	98.40
80-90	34.72
90-100	0.15
100-110	0.15
110-120	0.22
120-130	0.42
130-140	0.88
140-150	1.51
150-160	1.96
160-170	1.63
170-180	0.46



C0/C180: ———

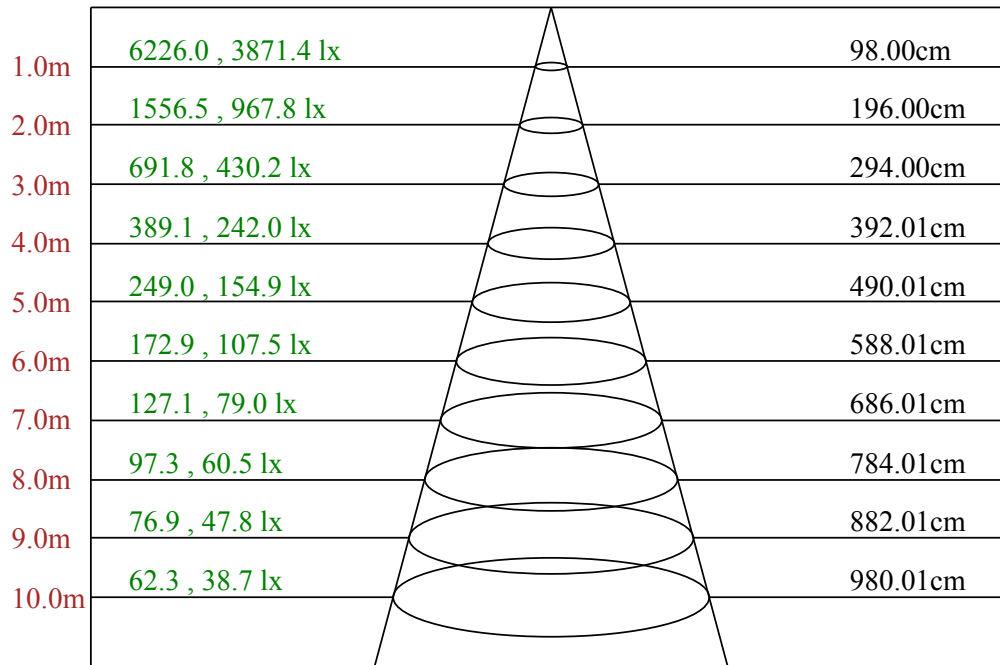
C90/C270: ———

Field angle(10%Imax):C0/180Left:40.6 Right:42.9

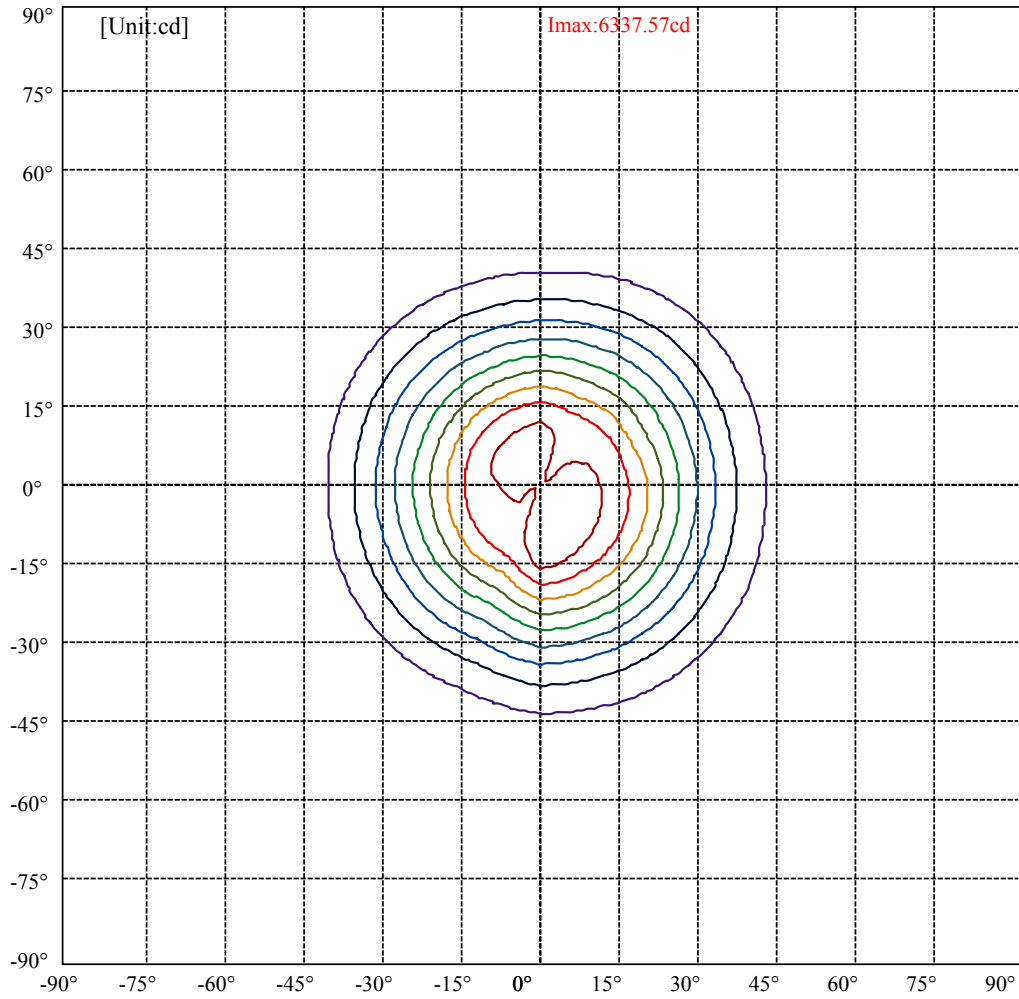
:C90/270Left:43.0 Right:39.9

Beam Angle(50%Imax):C0/180Left:25.2 Right:27.4

:C90/270Left:27.3 Right:24.2



Max , Ave Beam angle of C270 plane 52.21



(10%Imax) 633.757	—
(20%Imax) 1267.51	—
(30%Imax) 1901.27	—
(40%Imax) 2535.03	—
(50%Imax) 3168.78	—
(60%Imax) 3802.54	—
(70%Imax) 4436.3	—
(80%Imax) 5070.05	—
(90%Imax) 5703.81	—

Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	5811.94	5858.20	5822.45	5340.98	4470.55	3365.26	2444.79	1519.69	861.61
22.5	5700.51	5753.07	5698.41	5250.57	4185.66	3255.09	2343.45	1457.87	807.36
45.0	5639.54	5690.00	5671.07	5137.04	4165.47	3161.32	2238.74	1412.88	778.35
67.5	5582.77	5664.77	5582.77	5027.71	4026.50	3053.25	2145.81	1321.63	713.59
90.0	6217.72	6194.60	5971.73	5195.91	4106.81	2990.39	2035.85	1234.80	616.03
112.5	6089.47	6097.88	5868.71	5063.45	3999.59	2899.98	1970.67	1190.65	607.20
135.0	5990.65	6022.19	5786.71	5034.02	3930.20	2883.16	1993.80	1207.47	605.31
157.5	5912.86	5948.60	5738.35	4989.86	3949.13	2927.31	2023.24	1253.72	622.76
180.0	5811.94	5814.04	5618.51	4945.71	3928.10	2971.46	2063.18	1262.13	628.02
202.5	5700.51	5738.35	5593.28	4989.86	3982.77	2984.08	2054.77	1272.64	651.14
225.0	5639.54	5698.41	5620.61	5023.50	4016.41	3028.23	2090.52	1293.67	661.87
247.5	5582.77	5635.33	5582.77	5040.32	4029.02	2998.80	2080.00	1306.28	687.94
270.0	6217.72	6297.62	6337.57	5864.50	4809.05	3639.85	2631.07	1655.51	945.49
292.5	6089.47	6137.83	6131.52	5658.46	4731.26	3625.97	2579.77	1619.14	946.76
315.0	5990.65	6036.91	6022.19	5559.64	4632.44	3552.17	2549.28	1617.03	915.85
337.5	5912.86	5927.58	5925.48	5437.70	4605.11	3480.48	2495.88	1565.94	915.22
360.0	5811.94	5858.20	5822.45	5340.98	4470.55	3365.26	2444.79	1519.69	861.61
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	385.60	162.31	117.11	103.86	92.51	101.13	97.35	84.10	38.90
22.5	369.20	157.48	115.85	102.18	90.83	98.19	94.61	82.84	39.11
45.0	340.40	148.86	116.69	103.02	90.83	99.24	95.24	82.63	35.32
67.5	314.53	142.55	114.38	101.55	89.99	97.35	91.25	74.64	28.59
90.0	268.07	147.39	125.10	111.43	104.70	103.86	91.67	63.71	8.20
112.5	259.87	140.87	120.26	107.44	103.02	102.39	91.67	65.60	10.51
135.0	249.57	135.19	114.59	101.97	97.35	99.24	88.31	65.81	9.67
157.5	258.82	130.57	113.33	102.39	97.56	99.66	90.41	68.54	12.62
180.0	255.45	130.57	112.69	100.50	94.19	98.82	89.36	67.49	15.56
202.5	269.54	130.57	112.06	100.08	96.30	97.56	85.99	65.60	14.72
225.0	287.20	132.25	113.33	102.60	100.50	100.71	88.10	65.39	15.35
247.5	289.51	134.35	112.90	103.86	102.81	107.65	95.87	73.80	15.98
270.0	423.65	177.24	132.67	121.31	112.27	123.00	111.85	88.10	30.49
292.5	429.12	173.88	126.57	114.59	103.86	117.53	111.22	94.19	42.26
315.0	422.60	173.88	123.00	110.17	97.77	109.12	105.55	92.09	43.94
337.5	419.24	172.83	122.16	108.91	97.77	108.70	105.13	92.09	45.41
360.0	385.60	162.31	117.11	103.86	92.51	101.13	97.35	84.10	38.90
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.21	0.21	0.21	0.00	0.21	0.21	0.42	0.21	0.84
22.5	0.21	0.42	0.21	0.21	0.21	0.21	0.21	0.63	0.84
45.0	0.21	0.42	0.00	0.21	0.21	0.42	0.42	0.63	0.63
67.5	0.42	0.21	0.21	0.21	0.21	0.21	0.42	0.42	0.63
90.0	0.00	0.21	0.00	0.00	0.00	0.21	0.42	0.42	0.84
112.5	0.00	0.00	0.00	0.00	0.21	0.21	0.21	0.42	0.63
135.0	0.00	0.00	0.00	0.21	0.00	0.00	0.21	0.42	0.63
157.5	0.00	0.21	0.00	0.00	0.00	0.00	0.21	0.21	0.63
180.0	0.00	0.00	0.00	0.00	0.21	0.21	0.42	0.21	0.84
202.5	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.42	0.63
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.42
247.5	0.00	0.00	0.00	0.00	0.21	0.00	0.21	0.21	0.63
270.0	0.21	0.42	0.42	0.21	0.21	0.63	0.42	0.63	1.05
292.5	0.21	0.21	0.21	0.63	0.21	0.42	0.42	0.42	0.84
315.0	0.21	0.21	0.21	0.42	0.21	0.21	0.42	0.42	0.63
337.5	0.00	0.21	0.00	0.42	0.42	0.21	0.42	0.63	0.63
360.0	0.21	0.21	0.21	0.00	0.21	0.21	0.42	0.21	0.84

Equipment: GMS-3000
Temperature(°C): 25Date:
Humidity(%): 58%

Operator: Sam

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.05	1.68	2.31	2.94	4.21	5.05	5.89	6.10	6.52
22.5	1.05	1.47	2.31	3.15	4.00	5.26	5.68	6.31	6.52
45.0	1.05	1.47	2.10	3.15	4.21	5.05	5.89	6.10	6.52
67.5	1.26	1.68	2.10	3.36	4.42	5.05	5.68	6.10	6.31
90.0	1.26	1.89	2.73	3.57	4.63	5.47	6.10	6.73	6.94
112.5	1.26	1.89	2.52	3.57	4.63	5.68	6.10	6.52	6.94
135.0	1.05	1.68	2.31	3.36	4.63	5.26	6.10	6.52	6.73
157.5	0.84	1.89	2.52	3.36	4.42	5.26	5.89	6.52	6.94
180.0	1.05	1.47	2.52	3.57	4.42	5.26	5.89	6.31	6.52
202.5	1.26	1.68	2.31	3.36	4.42	5.26	5.68	6.31	6.31
225.0	1.05	1.89	2.52	3.36	4.21	5.05	5.68	6.31	6.52
247.5	0.84	1.47	2.31	3.36	4.42	5.26	5.68	6.10	6.31
270.0	1.47	1.68	2.52	3.36	4.21	5.26	6.10	6.94	7.15
292.5	1.26	1.68	2.10	3.36	4.00	4.84	5.89	6.10	6.73
315.0	1.05	1.47	2.31	3.15	4.21	4.84	5.68	6.10	6.73
337.5	1.05	1.47	2.52	2.94	4.00	5.05	5.89	6.31	6.73
360.0	1.05	1.68	2.31	2.94	4.21	5.05	5.89	6.10	6.52

C/γ(°)	180.0
0.0	7.36
22.5	6.94
45.0	7.15
67.5	6.94
90.0	7.78
112.5	7.36
135.0	7.36
157.5	7.15
180.0	7.36
202.5	6.94
225.0	7.15
247.5	6.94
270.0	7.78
292.5	7.36
315.0	7.36
337.5	7.15
360.0	7.36