

燈具配光曲線試驗報告

測試標準： CIE 70 (1987 年版)

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報告簽署人：





試驗報告

測試樣品基本資料表

委測單位：昶旭能源股份有限公司

委測單位地址：新竹市東區埔頂里公道五路二段 83 號 5 樓之 3

製造廠商：昶旭能源股份有限公司

製造廠商地址：新竹市東區埔頂里公道五路二段 83 號 5 樓之 3

廠牌或商標：CooLED

產品名稱：崁燈-30W

燈具型號：DE030C-191

額定輸入電壓 (V)：100~240

額定輸入頻率 (Hz)：50/60

額定輸入功率 (W)：30

外觀尺寸：直徑 240 mm、高 106 mm

-以下空白-

試驗內容

試驗條件

環境溫度 (°C)	25.1
環境濕度 (% RH)	55.3
γ 軸取樣步距 (°)	5
C 軸取樣步距 (°)	5

電氣量測

試驗項目	試驗結果
電壓 (V)	220.0
頻率 (Hz)	60
電流 (A)	0.144
功率 (W)	30.3
功率因數	0.958

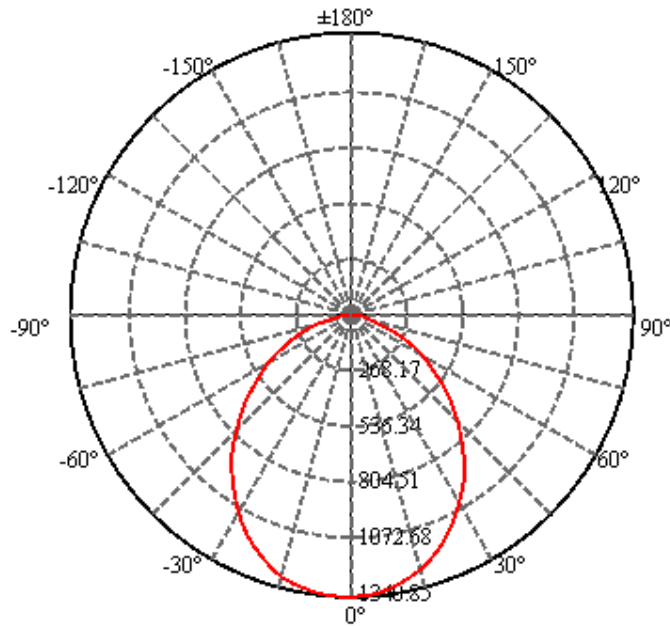
配光量測

試驗項目	試驗結果
燈具全光通量 (lm)	3150.5
燈具發光效率 (lm/W)	104.0
中心光強度 (cd)	1337.4
最大光強度 (cd)	1340.9
最大光強度角度 (°)	C : 260.0 γ : 0.0
半峰邊角(50%Imax)	C0_180 Left=49.8 Right=46.9
	C90_270 Left=47.7 Right=49.0

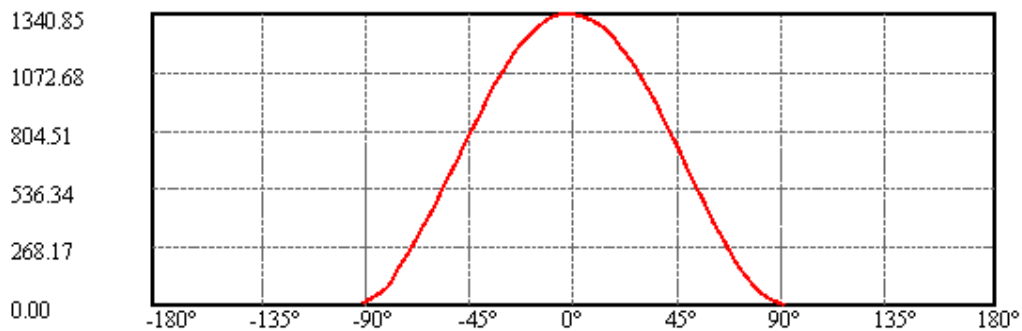
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配光曲線圖(一)

極座標圖 C0 / 180

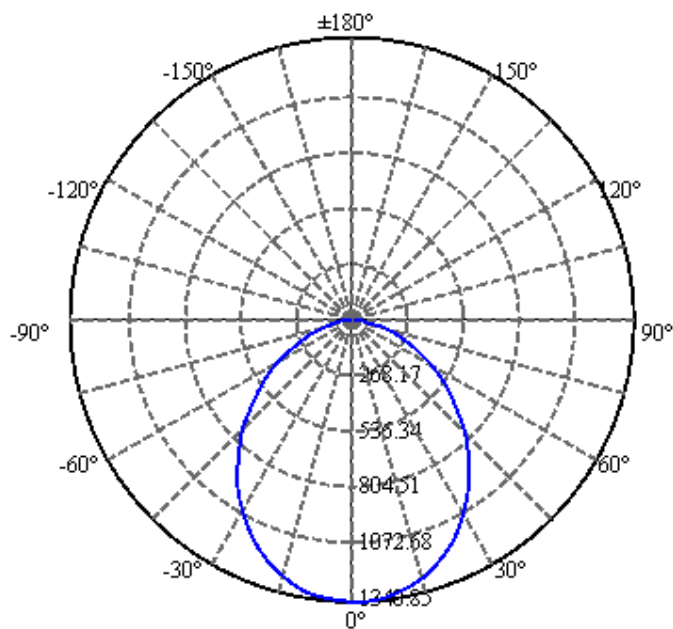


直角座標圖 C0 / 180

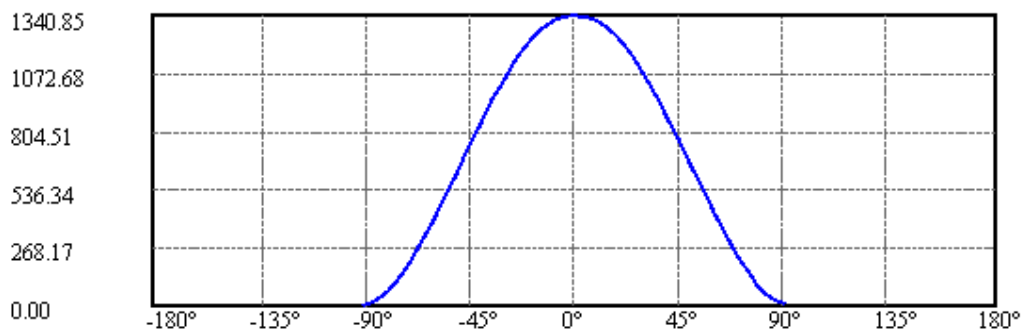


配光曲線圖(二)

極座標圖 C90 / 270

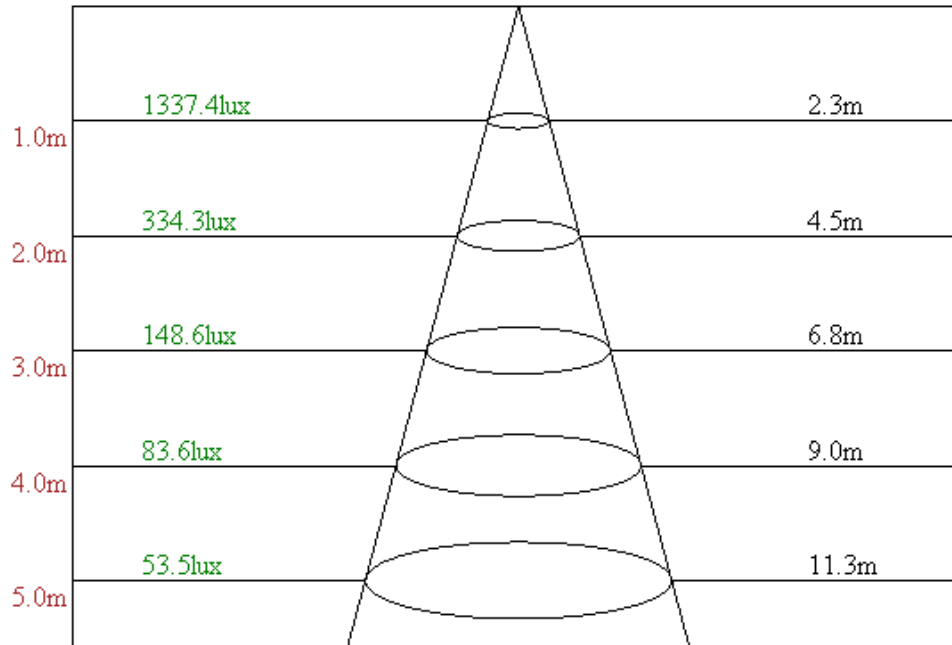


直角座標圖 C90 / 270



照度距離表

照度距離圖表



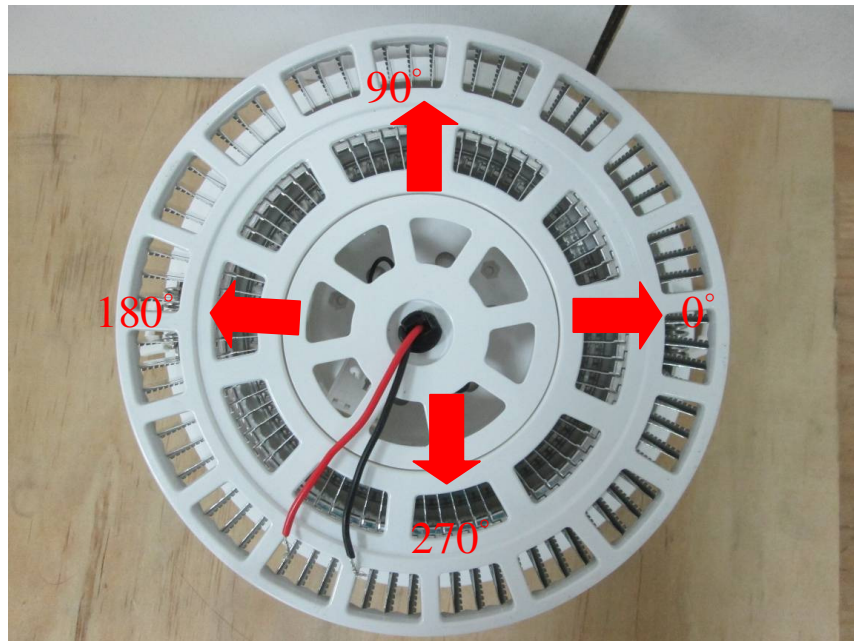
C260面光束角96.74

測試樣品照片

測試樣品外觀



測試樣品架設方向



測試樣品照片

測試樣品搭配驅動器



-以下空白-

光強數據表(一)

光強數據表(cd)

γ/C°	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0
0	1337.358	1337.746	1337.358	1337.746	1337.358	1336.582	1335.418	1337.358
5	1328.044	1328.432	1327.268	1326.492	1326.492	1328.044	1329.984	1329.208
10	1300.49	1300.49	1300.878	1302.43	1302.43	1302.042	1302.818	1304.759
15	1253.919	1254.695	1255.471	1255.471	1257.412	1258.188	1259.74	1261.293
20	1194.929	1194.153	1194.541	1196.094	1197.646	1197.646	1199.974	1201.139
25	1117.311	1119.252	1118.087	1120.416	1122.356	1123.133	1123.909	1127.013
30	1029.603	1030.767	1032.319	1032.319	1034.26	1037.365	1037.753	1038.917
35	930.6399	931.8041	932.5804	933.7446	935.6851	937.6255	938.7897	941.5065
40	822.7508	825.4675	827.0198	827.796	830.5127	832.0651	833.6174	835.1697
45	712.5333	714.4737	716.4142	717.1904	719.5189	720.295	723.0117	726.5045
50	598.8229	599.9872	601.9276	604.2562	605.8085	608.5251	610.0775	613.1823
55	487.4411	488.9934	491.322	492.8743	495.2029	497.1433	499.86	502.5766
60	380.3282	381.8806	383.4329	385.7615	387.7019	390.4186	393.9114	397.4042
65	279.0367	279.4248	280.9772	283.6938	286.4104	290.2914	293.3961	297.6651
70	188.9998	190.1641	191.7165	193.2688	195.9855	198.314	202.1949	205.2996
75	119.1436	120.3079	120.696	121.8603	122.6365	123.8007	124.965	126.1293
80	57.43732	58.2135	58.98968	59.76587	59.76587	60.54205	60.93014	61.70631
85	22.89731	23.2854	23.67349	24.06158	24.83776	25.22585	25.22585	26.00203
90	0	0	0	0	0	0	0	0

-以下空白-

光強數據表(二)

光強數據表(cd)

第2頁 共10頁

$\gamma/C(^{\circ})$	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0
0	1337.358	1335.806	1336.97	1336.194	1336.582	1336.194	1337.746	1336.582
5	1328.044	1327.656	1329.596	1328.82	1330.761	1331.925	1331.537	1332.313
10	1303.594	1303.982	1305.923	1307.475	1307.475	1309.416	1312.132	1312.521
15	1261.293	1263.233	1265.173	1265.173	1268.666	1268.666	1270.219	1271.383
20	1203.079	1203.467	1206.96	1207.736	1210.841	1211.229	1213.169	1216.662
25	1128.954	1130.506	1130.894	1133.999	1136.716	1139.432	1142.925	1144.089
30	1041.634	1043.962	1044.738	1047.067	1050.948	1053.664	1055.605	1059.486
35	942.6707	945.3873	945.7754	949.6563	952.761	956.2538	958.9705	961.299
40	837.8864	839.0506	840.9911	844.0958	847.2006	850.6933	853.7981	856.9028
45	726.8926	730.3854	733.1021	735.4306	738.5353	740.8639	744.3567	748.6257
50	615.8989	619.7798	622.4964	624.0488	627.5416	631.8105	635.3033	638.4081
55	506.8456	509.9503	512.2789	515.7717	519.6525	522.3691	525.862	527.8024
60	400.897	403.6136	407.8826	410.9873	414.0921	417.973	420.6896	421.0777
65	300.7698	305.0388	308.9197	312.8006	316.2934	318.2338	321.7266	322.8909
70	209.9567	214.2257	217.7185	221.5994	224.316	227.8089	228.585	230.5255
75	128.0697	129.6221	131.9506	134.6672	137.772	140.1005	141.6529	143.5933
80	62.48249	62.48249	63.25867	64.81104	65.58721	66.75149	67.91576	69.46812
85	26.39012	26.77821	27.94248	28.71866	29.10675	29.49484	30.27102	31.0472
90	0	0	0	0.38809	0.38809	1.55236	1.94045	2.71663

-以下空白-

光強數據表(三)

光強數據表(cd)

第 3 頁 共 10 頁

$\gamma/C(^{\circ})$	80.0	85.0	90.0	95.0	100.0	105.0	110.0	115.0
0	1336.97	1338.134	1338.522	1336.97	1337.746	1337.746	1337.358	1336.194
5	1333.865	1334.254	1333.865	1335.418	1335.418	1334.642	1333.477	1335.418
10	1312.521	1314.461	1312.909	1314.073	1314.073	1315.625	1315.237	1317.178
15	1274.1	1276.428	1277.204	1276.428	1277.98	1277.98	1279.533	1281.473
20	1217.438	1218.991	1220.931	1222.484	1224.812	1226.365	1227.917	1229.469
25	1147.582	1149.523	1150.299	1151.851	1154.956	1157.673	1159.613	1161.165
30	1063.367	1063.755	1066.471	1069.964	1071.516	1073.457	1076.95	1080.443
35	963.2395	966.3442	970.2251	972.5536	975.6583	980.7035	982.644	985.7487
40	859.2313	861.9479	866.217	870.0979	872.0383	876.3073	879.0239	881.7405
45	749.79	753.6708	756.7756	761.0446	764.1492	767.6421	771.523	774.2396
50	639.9604	643.8414	648.1104	650.827	655.0959	658.2007	660.9173	663.2458
55	530.519	534.0119	537.8928	540.6094	542.938	546.0427	549.1474	552.2521
60	424.1824	426.899	429.2275	431.168	433.4966	436.6013	438.1536	439.706
65	324.4433	327.1599	327.9361	329.1003	330.2646	331.817	333.3694	334.5336
70	232.0778	232.4659	234.4064	234.0183	234.7945	235.9587	236.7349	237.123
75	145.1457	147.0861	147.4742	149.4147	151.7432	152.9075	154.0717	154.4598
80	72.57284	74.90137	77.22992	79.55846	82.66318	85.37981	86.54408	88.87262
85	32.21147	32.98765	33.37574	34.15192	34.9281	36.09237	36.09237	37.25664
90	3.8809	3.8809	4.65708	4.65708	5.43326	5.82135	6.597531	6.209441

-以下空白-

光強數據表(四)

光強數據表(cd)

第 4 頁 共 10 頁

$\gamma/C(^{\circ})$	120.0	125.0	130.0	135.0	140.0	145.0	150.0	155.0
0	1337.746	1336.194	1337.358	1338.134	1338.134	1336.97	1337.746	1338.522
5	1333.477	1334.642	1335.418	1336.582	1335.806	1337.746	1337.746	1337.358
10	1316.789	1317.566	1317.954	1319.118	1319.118	1320.67	1319.506	1320.282
15	1281.861	1281.861	1284.966	1283.026	1284.578	1283.802	1284.19	1285.742
20	1229.857	1231.021	1232.186	1232.962	1232.186	1233.738	1233.738	1233.738
25	1162.33	1165.046	1164.658	1165.434	1166.211	1166.211	1166.599	1166.987
30	1081.607	1081.995	1083.547	1084.712	1083.159	1083.547	1083.935	1083.547
35	987.301	990.0177	990.7938	991.1819	992.7343	991.9581	990.4058	991.9581
40	885.6215	886.7858	888.3381	888.7261	889.8904	888.3381	887.95	888.3381
45	776.1801	778.8967	780.8372	781.2252	780.061	780.061	780.8372	778.8967
50	665.9625	667.9029	669.0672	669.8434	669.4553	669.0672	669.0672	668.6791
55	554.1926	554.9687	558.0734	557.2973	558.0734	559.2377	559.6259	559.2377
60	442.8107	444.3631	446.3035	448.244	448.6321	449.0201	449.7964	451.7368
65	336.086	337.2502	339.1907	341.1311	343.0716	343.4597	345.012	346.9525
70	237.5111	239.8396	241.7801	243.7206	244.8848	247.2134	249.5419	251.4823
75	156.4003	157.5645	159.1169	160.2812	160.2812	162.2216	163.3859	164.1621
80	89.6488	90.81306	91.20116	91.20116	91.97734	91.58925	91.20116	89.6488
85	37.25664	38.03282	38.42091	38.42091	38.42091	38.809	38.809	38.809
90	6.597531	6.98562	6.98562	7.37371	7.7618	8.149891	8.149891	8.149891

-以下空白-

光強數據表(五)

光強數據表(cd)

第 5 頁 共 10 頁

$\gamma/C(^{\circ})$	160.0	165.0	170.0	175.0	180.0	185.0	190.0	195.0
0	1338.911	1339.299	1338.134	1338.911	1339.687	1338.911	1338.522	1340.463
5	1336.97	1338.911	1338.522	1338.522	1337.746	1338.522	1337.358	1337.358
10	1320.67	1321.835	1321.058	1321.835	1321.447	1321.058	1321.058	1322.223
15	1285.742	1285.354	1286.906	1286.13	1286.518	1284.966	1285.354	1283.802
20	1232.962	1234.126	1233.35	1232.186	1233.35	1232.962	1232.186	1230.633
25	1166.987	1165.046	1165.434	1165.434	1163.494	1164.27	1163.494	1162.718
30	1083.935	1083.547	1083.935	1083.159	1082.771	1082.383	1081.607	1079.278
35	991.5701	988.8535	988.4653	988.0772	987.301	986.5248	985.7487	983.4201
40	887.5619	886.3976	886.7858	885.2333	884.0692	882.5167	881.3524	879.412
45	778.8967	778.1205	777.3444	776.5681	775.0157	774.2396	771.9111	770.7468
50	667.9029	667.5148	665.9625	665.9625	664.4102	663.2458	662.4697	661.3054
55	557.6854	558.4615	558.0734	556.9092	556.5211	554.9687	553.4164	551.0878
60	450.9606	452.1249	449.7964	450.5725	449.4082	448.244	445.9155	443.975
65	347.7287	349.281	349.281	349.6691	348.1168	347.3406	345.4001	342.6835
70	253.8109	253.4228	254.9751	254.9751	254.9751	253.0347	251.8704	249.1538
75	164.5502	165.7144	166.1025	166.1025	165.3264	164.1621	162.6097	159.8931
80	88.87262	87.32025	86.15599	84.99171	83.82745	83.05127	82.27509	82.27509
85	38.42091	38.03282	38.03282	38.03282	38.03282	37.25664	37.25664	36.86855
90	8.149891	8.53798	8.53798	8.92607	8.53798	8.53798	8.149891	7.7618

-以下空白-

光強數據表(六)

光強數據表(cd)

第 6 頁 共 10 頁

$\gamma/C(^{\circ})$	200.0	205.0	210.0	215.0	220.0	225.0	230.0	235.0
0	1339.687	1338.911	1339.687	1339.299	1340.075	1338.911	1340.463	1339.687
5	1338.911	1337.746	1336.97	1336.97	1337.358	1336.194	1335.806	1336.582
10	1319.506	1319.118	1318.73	1316.013	1316.401	1315.237	1314.073	1312.521
15	1281.861	1281.085	1279.921	1278.369	1277.98	1277.592	1276.428	1274.1
20	1229.857	1227.917	1225.976	1225.588	1225.2	1224.036	1222.095	1220.543
25	1161.553	1160.001	1159.225	1157.285	1154.956	1154.18	1151.075	1148.746
30	1078.502	1076.562	1075.009	1072.681	1072.293	1069.188	1066.859	1065.307
35	982.644	981.0916	978.3749	977.2106	976.0464	974.494	971.3893	969.4489
40	878.2477	877.8597	875.9192	873.9788	872.0383	870.0979	868.1574	863.5002
45	769.5825	767.254	764.9254	763.7612	762.985	759.8802	757.9398	754.8351
50	659.3649	657.0364	654.3198	653.1555	650.4389	648.4984	645.3937	643.0651
55	549.1474	546.4307	544.4903	542.1617	539.4451	535.5642	532.8476	529.7429
60	442.0346	438.5417	435.437	431.5561	428.4514	424.5705	421.8539	418.7491
65	340.3549	336.4741	332.2051	329.1003	325.2195	321.3385	316.6815	313.5768
70	245.661	242.1682	238.6754	234.7945	230.5255	226.2565	222.7637	219.659
75	157.1765	154.8479	152.9075	150.1908	147.4742	145.5338	143.9814	142.041
80	81.88699	81.4989	81.11082	80.72272	80.33463	79.17036	78.78227	77.22992
85	36.09237	35.70428	35.70428	35.31619	34.15192	34.15192	32.98765	32.98765
90	6.98562	6.597531	6.209441	5.43326	4.65708	3.8809	3.10472	2.71663

-以下空白-

光強數據表(七)

光強數據表(cd)

第 7 頁 共 10 頁

$\gamma/C(^{\circ})$	240.0	245.0	250.0	255.0	260.0	265.0	270.0	275.0
0	1340.075	1340.075	1340.463	1339.299	1340.851	1339.687	1338.911	1338.911
5	1335.418	1335.418	1335.03	1335.03	1333.089	1332.701	1333.089	1331.537
10	1311.356	1310.192	1309.028	1309.028	1307.475	1307.475	1307.475	1306.311
15	1272.159	1270.219	1268.278	1267.502	1267.502	1264.785	1263.233	1262.845
20	1218.991	1216.662	1212.393	1210.841	1207.348	1206.572	1205.408	1202.691
25	1147.97	1145.254	1141.373	1138.268	1136.716	1135.163	1132.835	1129.73
30	1062.979	1058.322	1056.769	1053.276	1050.172	1046.291	1044.35	1042.41
35	965.9561	963.2395	960.1347	956.2538	952.3729	948.8801	946.9397	944.2231
40	861.9479	859.6194	854.5742	850.6933	846.0363	843.7077	841.3792	837.8864
45	753.6708	748.6257	744.3567	742.4162	735.8187	733.4902	731.1616	726.5045
50	639.5724	636.0796	632.5867	627.9297	624.825	620.944	617.4512	614.7346
55	525.4739	521.9811	517.7121	514.6074	511.1146	508.0099	506.8456	504.9051
60	416.0325	412.5397	409.0469	405.9422	402.8374	401.6732	400.897	400.1208
65	310.8601	307.3673	304.6507	303.0983	301.546	299.6055	301.1579	299.6055
70	216.5542	214.6138	211.5091	210.3448	209.1805	208.7924	208.7924	207.6282
75	140.4886	138.16	135.8315	135.0553	131.9506	130.3983	128.8459	126.9054
80	76.06564	73.73711	71.79665	69.85621	67.91576	65.19913	63.64677	61.31823
85	31.82338	31.0472	29.88293	29.10675	28.33057	27.1663	26.39012	25.22585
90	1.94045	1.16427	0.38809	0	0	0	0	0

-以下空白-

光強數據表(八)

光強數據表(cd)

第 8 頁 共 10 頁

$\gamma/C(^{\circ})$	280.0	285.0	290.0	295.0	300.0	305.0	310.0	315.0
0	1338.134	1338.134	1337.358	1337.358	1338.134	1337.358	1338.134	1338.134
5	1329.596	1328.82	1328.82	1328.82	1328.82	1327.656	1327.268	1327.656
10	1302.818	1302.042	1302.43	1300.878	1300.102	1300.878	1301.654	1298.937
15	1260.905	1259.74	1258.964	1257.412	1257.024	1254.695	1255.471	1255.083
20	1199.974	1199.586	1199.586	1196.482	1194.541	1193.765	1194.153	1192.989
25	1128.178	1125.073	1123.521	1122.356	1120.028	1118.087	1117.699	1116.923
30	1039.693	1036.977	1034.26	1032.708	1030.767	1028.827	1026.886	1026.886
35	940.7302	938.0136	934.9088	932.1922	929.8636	929.0875	928.3113	927.147
40	834.7817	832.4531	828.9603	826.6318	825.0793	822.3627	821.9747	821.1985
45	724.176	721.4594	719.5189	716.0261	714.4737	712.9214	711.369	709.0405
50	612.018	609.6895	605.8085	603.48	601.9276	599.211	597.6586	598.0468
55	503.3528	499.4718	499.4718	496.7552	493.2624	492.0981	490.9339	490.5458
60	397.7923	396.2399	395.0757	391.9709	391.5828	389.2543	389.2543	386.9258
65	298.8293	297.6651	296.8889	296.1127	294.9484	294.1722	292.2318	289.5152
70	207.2401	207.6282	205.6877	204.9115	204.9115	203.3592	201.4187	199.0902
75	126.1293	123.8007	121.4722	119.9198	118.3675	117.5913	114.8746	116.427
80	59.37777	58.60159	56.27305	54.7207	53.94451	53.16833	53.16833	52.39215
85	24.06158	22.89731	21.73304	21.34495	20.56877	20.95686	20.18068	19.79259
90	0	0	0	0.38809	0	0	0	0

-以下空白-

光強數據表(九)

光強數據表(cd)

第9頁 共10頁

$\gamma/C(^{\circ})$	320.0	325.0	330.0	335.0	340.0	345.0	350.0	355.0
0	1338.911	1336.582	1337.746	1338.911	1337.358	1337.746	1336.97	1338.134
5	1328.432	1327.656	1328.044	1327.656	1327.268	1327.656	1328.044	1328.044
10	1299.325	1300.102	1300.49	1298.937	1298.937	1300.878	1298.937	1298.161
15	1255.471	1253.531	1254.307	1254.695	1253.919	1254.307	1254.695	1253.919
20	1192.213	1192.213	1192.601	1192.601	1192.989	1192.989	1192.601	1193.377
25	1116.535	1114.983	1115.371	1116.923	1116.535	1117.311	1115.371	1116.147
30	1028.05	1026.498	1026.498	1027.274	1027.662	1026.498	1028.05	1029.215
35	925.9828	926.3709	926.3709	926.3709	926.759	927.5352	927.147	928.3113
40	820.0342	819.2581	820.4224	818.8699	819.2581	819.6461	821.5866	822.7508
45	708.6524	708.6524	708.6524	708.2643	708.6524	709.4285	710.2048	710.5928
50	594.942	595.7182	594.1658	594.5539	594.942	596.1063	595.3301	597.2706
55	488.2173	486.6649	486.6649	486.2768	485.8887	485.5006	485.8887	485.8887
60	384.5972	383.4329	382.2687	381.4925	380.3282	379.552	379.1639	380.3282
65	287.9628	286.4104	285.2462	282.1414	281.3653	279.4248	278.6487	278.6487
70	197.5378	195.2093	193.6569	192.4926	190.5522	189.776	188.9998	188.9998
75	115.2627	114.8746	116.0389	116.0389	116.8151	117.2032	117.5913	118.7555
80	52.00407	52.78025	52.78025	53.55642	54.7207	55.10878	56.27305	56.66114
85	19.4045	19.01641	19.4045	19.79259	19.79259	20.56877	21.73304	22.12113
90	0	0	0	0	0	0	0	0

-以下空白-

光強數據表(十)

光強數據表(cd)

$\gamma/C(^{\circ})$	360.0
0	1337.358
5	1328.044
10	1300.49
15	1253.919
20	1194.929
25	1117.311
30	1029.603
35	930.6399
40	822.7508
45	712.5333
50	598.8229
55	487.4411
60	380.3282
65	279.0367
70	188.9998
75	119.1436
80	57.43732
85	22.89731
90	0

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-以下空白-

測試設備列表及人員

項次	儀器 編號	量儀名稱	廠牌 / 型號 / 序號
1	99A-01	角度規	Johnson
2	99E-05	數位電力計	YOKOGAWA WT210 (91K116100)
3	99E-17	AC Power Source	APC AFC-5KW
4	990-01	立式大型分佈光度計	浙大三色 GMS-2000
5	99T-06	溫濕度記錄器	YOKOGAWA - SR16000 (S5K910111)
6	99T-07	溫濕度記錄器	YOKOGAWA - SR16000 (S5K910112)
			測試人員：劉峻廷

- 以下空白 -