

燈具配光曲線試驗報告

測試標準： CIE 70 (1987 年版)

收件日期： 104 年 10 月 19 日

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報告簽署人：


報告簽署人：黃錫偉



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-60W

燈具型號：DE060C-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)：60

外觀尺寸：直徑 240 mm、高 106 mm

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試驗內容

試驗條件

環境溫度 (°C)	25.0
環境濕度 (% RH)	55.9
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)	0.295
功率 (W)	61.4
功率因數	0.946

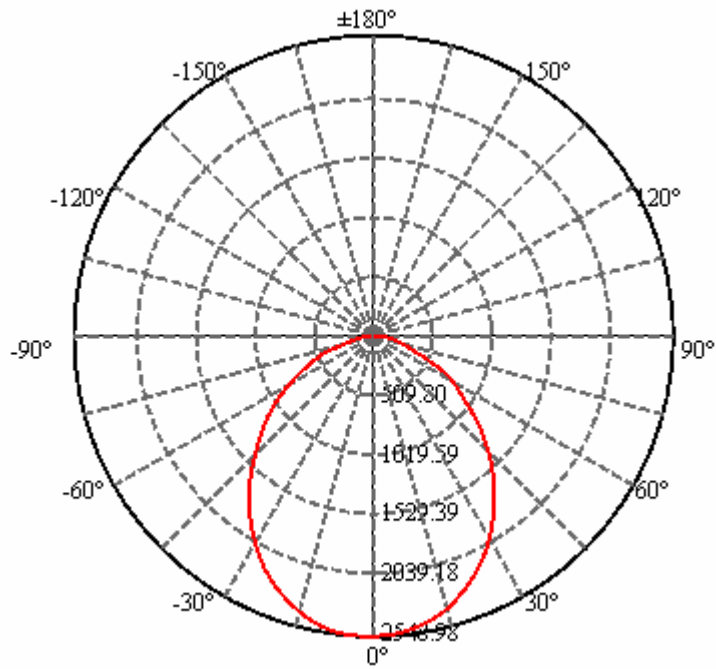
配光量測

試驗項目	試驗結果
燈具全光通量 (lm)	5974.2
燈具發光效率 (lm/W)	97.3
中心光強度 (cd)	2543.2
最大光強度 (cd)	2549.0
最大光強度角度 (°)	C : 165.0 γ : 0.0
半峰邊角(50%Imax)	C0_180 Left=48.8 Right=47.4
	C90_270 Left=47.0 Right=49.1

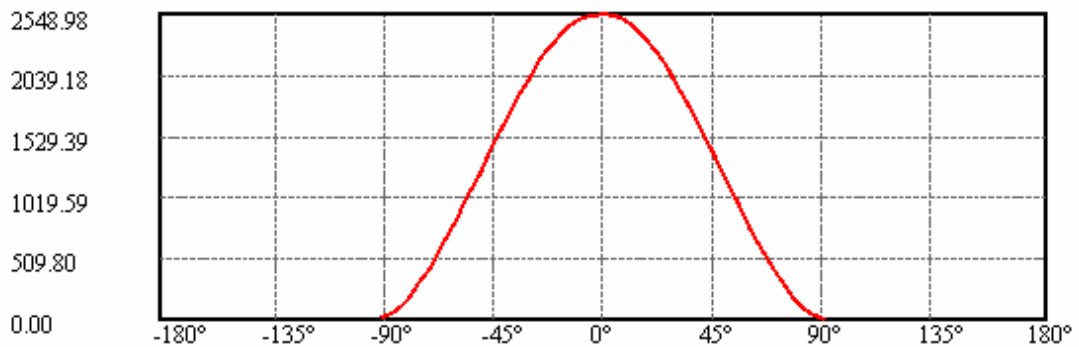
-以下空白-

配光曲線圖(一)

極座標圖 C0 / 180

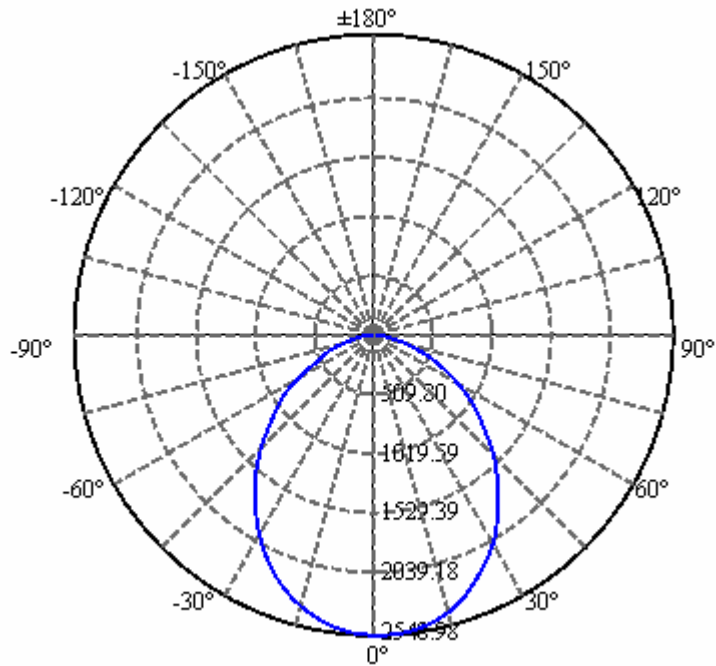


直角座標圖 C0 / 180

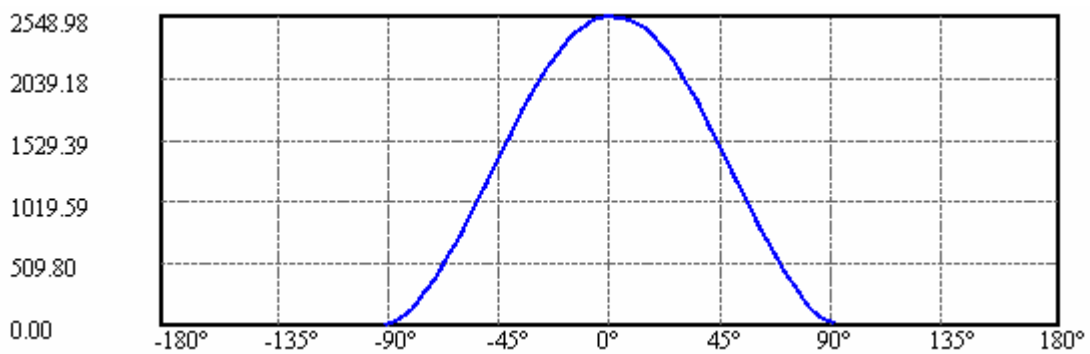


配光曲線圖(二)

極座標圖 C90 / 270

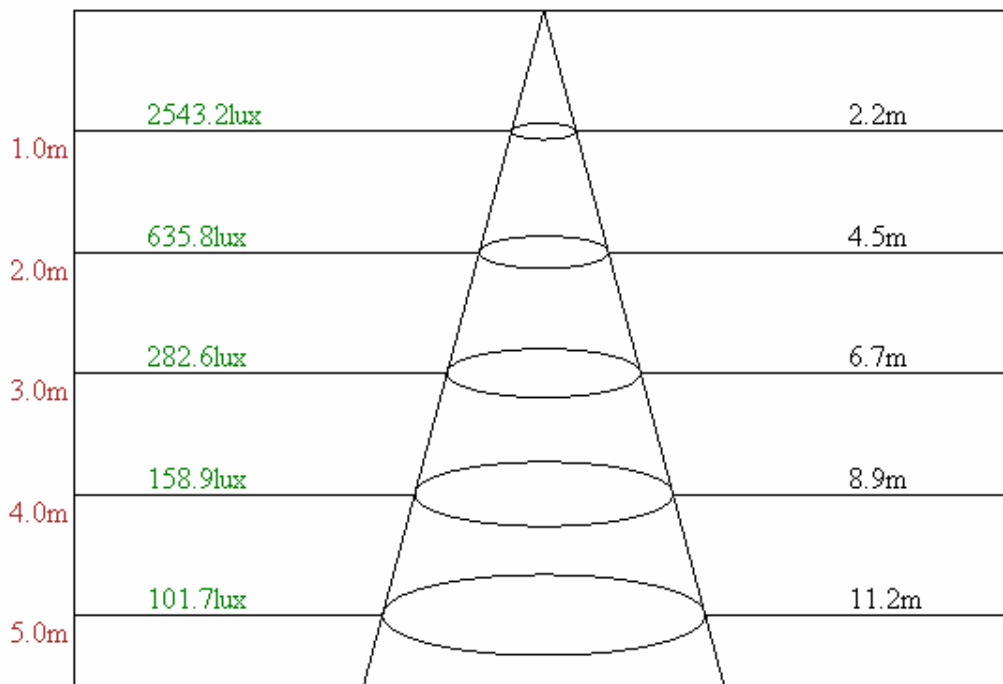


直角座標圖 C90 / 270



照度距離表

照度距離圖表



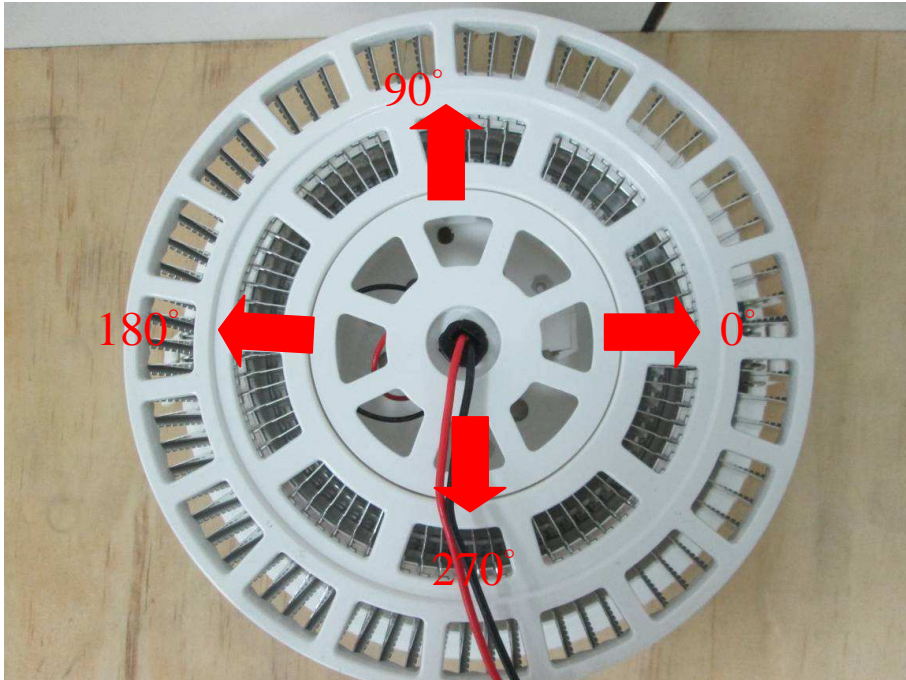
C165面光束角96.31

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)

$\gamma/C(^{\circ})$	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0
0	2543.154	2546.647	2547.811	2543.93	2544.318	2544.706	2542.378	2542.766
5	2529.183	2528.018	2528.018	2531.511	2531.899	2531.123	2532.287	2534.616
10	2479.507	2480.283	2480.672	2480.672	2484.552	2484.94	2487.657	2487.657
15	2397.62	2397.232	2400.337	2404.994	2403.83	2405.382	2411.203	2412.756
20	2280.029	2281.193	2286.238	2285.85	2290.507	2295.165	2297.493	2301.374
25	2138.376	2140.316	2143.421	2143.809	2149.243	2153.124	2157.004	2158.945
30	1969.169	1971.497	1972.273	1977.707	1982.364	1985.857	1989.349	1996.335
35	1780.169	1784.438	1787.543	1789.483	1794.528	1799.962	1803.454	1808.5
40	1579.915	1583.407	1586.9	1593.498	1595.826	1598.155	1606.305	1609.021
45	1371.51	1376.555	1380.048	1385.093	1389.362	1394.019	1400.617	1404.11
50	1163.882	1166.599	1171.644	1176.301	1182.122	1186.391	1192.213	1196.87
55	958.5824	962.0752	965.1799	971.7774	974.8822	979.1511	983.8082	989.6296
60	759.8802	762.985	769.1945	771.9111	774.6277	779.6729	784.7181	789.3751
65	574.7613	577.478	581.3589	584.4636	589.5088	593.0016	596.8824	602.3157
70	404.0017	407.1064	411.3754	414.8683	418.361	421.8539	425.3466	429.6157
75	251.4823	255.3632	258.0799	260.7965	265.0655	267.394	270.8868	273.9915
80	124.1888	126.5173	128.8459	130.7863	133.1149	135.0553	138.16	140.1005
85	50.4517	51.61597	52.78025	53.94451	55.49688	56.27305	56.66114	57.43732
90	0.7761801	0.7761801	0.7761801	0.38809	0.7761801	1.16427	1.55236	2.32854

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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	2543.154	2544.318	2544.318	2545.094	2545.094	2544.318	2543.93	2543.154
5	2533.84	2536.556	2538.109	2538.109	2536.945	2538.497	2537.333	2536.168
10	2492.314	2492.314	2494.643	2497.359	2497.359	2496.971	2498.135	2498.524
15	2414.696	2416.637	2417.801	2422.07	2422.07	2426.339	2425.563	2424.398
20	2307.195	2308.748	2309.912	2312.628	2313.017	2317.286	2321.554	2321.554
25	2165.93	2169.035	2171.752	2174.856	2178.737	2178.349	2185.335	2188.828
30	1999.828	2002.544	2007.59	2011.859	2014.187	2018.068	2023.113	2025.83
35	1813.933	1817.038	1820.918	1824.411	1829.456	1833.337	1836.054	1841.487
40	1614.066	1618.724	1624.157	1626.485	1630.754	1633.083	1640.457	1644.337
45	1407.991	1414.588	1415.752	1421.574	1426.619	1430.5	1435.157	1439.426
50	1201.915	1204.631	1209.677	1213.557	1217.827	1222.872	1227.917	1229.469
55	995.4509	998.9437	1005.153	1008.646	1012.527	1016.408	1021.841	1022.617
60	792.0917	797.1369	802.1821	805.6749	811.8843	814.601	817.7057	819.2581
65	606.1967	608.9133	613.9584	618.2274	621.7202	624.825	627.5416	629.0939
70	432.3323	434.6608	440.4822	443.975	447.8559	450.9606	452.513	454.0653
75	275.5439	279.4248	282.1414	285.6342	288.3509	291.4556	293.3961	296.5008
80	143.2052	145.9218	148.2504	150.5789	151.3551	153.6837	153.6837	154.8479
85	57.43732	58.2135	58.98968	59.76587	61.70631	62.48249	62.48249	63.64677
90	3.49281	4.65708	5.04517	5.82135	6.98562	7.37371	6.98562	7.7618

-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	2544.706	2543.154	2544.706	2547.035	2547.035	2546.647	2548.587	2547.811
5	2536.945	2539.273	2536.168	2538.109	2539.661	2540.049	2539.661	2540.049
10	2500.852	2498.912	2502.792	2504.345	2503.181	2504.345	2507.45	2505.509
15	2428.667	2431.772	2430.608	2430.608	2432.16	2432.936	2431.384	2437.594
20	2324.659	2327.376	2327.764	2327.376	2328.54	2330.869	2330.481	2330.869
25	2190.38	2189.992	2194.261	2197.366	2197.754	2196.978	2197.366	2198.53
30	2025.442	2030.487	2031.263	2033.592	2034.368	2038.249	2037.473	2037.473
35	1844.204	1847.309	1848.861	1851.578	1851.578	1854.682	1854.682	1856.623
40	1645.114	1648.606	1650.547	1652.487	1656.756	1655.204	1656.756	1660.637
45	1438.65	1441.754	1446.411	1447.964	1450.292	1450.681	1450.681	1453.009
50	1231.798	1234.514	1236.067	1239.56	1240.724	1243.052	1242.664	1243.052
55	1024.17	1027.274	1031.931	1032.708	1035.036	1036.589	1036.589	1038.917
60	822.3627	826.2437	827.0198	832.0651	833.2293	834.3936	838.6625	837.4983
65	631.4225	634.5272	638.02	639.5724	641.5128	642.289	643.0651	645.0056
70	456.782	459.4986	462.6033	464.5438	464.9318	466.0961	466.8723	468.4247
75	299.2174	301.9341	303.4864	304.6507	305.0388	305.8149	306.9792	308.5316
80	157.1765	159.8931	162.2216	164.9383	167.2668	168.4311	170.3715	170.3715
85	64.81104	65.19913	66.75149	67.52766	68.30384	69.85621	71.02048	72.18475
90	8.92607	9.70225	10.09034	11.25461	11.6427	12.80697	13.58315	14.74742

-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	2545.094	2546.647	2548.199	2545.871	2543.542	2547.035	2547.811	2546.259
5	2541.99	2541.213	2539.273	2540.437	2542.378	2540.437	2540.049	2541.602
10	2504.733	2505.509	2506.674	2503.957	2507.062	2505.897	2506.285	2503.569
15	2437.206	2434.489	2435.265	2436.429	2436.041	2437.982	2437.206	2431.772
20	2333.197	2332.033	2330.869	2333.197	2332.421	2330.481	2328.54	2328.54
25	2197.754	2198.142	2201.247	2198.53	2197.366	2195.425	2195.037	2193.873
30	2038.637	2041.354	2038.249	2039.413	2042.518	2040.189	2038.249	2035.144
35	1859.727	1856.623	1861.28	1858.563	1856.235	1857.399	1855.458	1851.966
40	1662.578	1662.966	1662.578	1664.13	1661.802	1661.802	1659.861	1655.98
45	1452.621	1456.114	1456.502	1456.114	1456.114	1454.561	1451.845	1449.516
50	1246.545	1245.769	1246.545	1248.486	1247.321	1245.381	1244.605	1242.664
55	1040.081	1041.634	1040.857	1040.857	1040.857	1039.693	1038.141	1034.648
60	840.2149	838.2745	842.1554	839.8268	838.2745	836.334	837.4983	834.7817
65	645.3937	646.1699	646.1699	644.6176	645.3937	643.4532	641.9009	639.5724
70	469.977	469.589	468.0366	469.977	468.4247	467.6485	466.0961	463.7676
75	308.9197	309.3077	310.472	309.6958	310.472	308.9197	306.5911	305.8149
80	170.7596	170.7596	169.5953	169.9834	168.8192	167.2668	167.2668	166.4906
85	72.57284	72.96092	74.1252	72.96092	72.57284	72.96092	72.18475	71.79665
90	14.74742	15.13551	15.13551	15.13551	15.13551	14.74742	14.35933	14.35933

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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	2545.871	2548.975	2546.259	2545.871	2547.035	2548.587	2547.035	2548.587
5	2540.437	2539.661	2538.885	2541.213	2538.109	2539.273	2537.721	2535.004
10	2502.792	2503.181	2502.405	2500.852	2502.016	2498.912	2495.807	2494.643
15	2430.608	2430.22	2427.115	2425.951	2425.563	2423.622	2422.07	2421.682
20	2326.988	2323.495	2322.331	2320.778	2318.45	2316.509	2316.897	2314.569
25	2191.932	2188.828	2187.664	2182.618	2182.618	2179.125	2176.797	2173.304
30	2031.651	2030.487	2023.89	2023.113	2018.068	2016.128	2014.575	2011.471
35	1850.025	1847.697	1844.592	1839.935	1837.606	1836.054	1831.397	1827.904
40	1652.099	1649.771	1646.666	1643.949	1638.904	1636.188	1631.531	1627.65
45	1447.188	1444.471	1440.202	1435.545	1433.605	1428.947	1426.231	1421.962
50	1241.888	1235.679	1231.41	1227.141	1224.424	1221.319	1219.379	1214.334
55	1033.872	1029.215	1026.11	1024.17	1021.453	1015.243	1012.139	1009.034
60	830.1246	828.5722	826.2437	821.9747	819.2581	814.989	811.4963	807.6154
65	638.4081	636.4677	633.3629	630.2582	626.3773	624.0488	620.556	615.8989
70	462.2152	459.1105	456.782	453.6772	450.5725	448.6321	445.5273	442.8107
75	302.3221	300.3817	297.6651	294.9484	293.3961	292.2318	289.5152	286.7986
80	165.7144	164.5502	162.9978	161.4454	159.1169	156.4003	153.2956	150.967
85	71.02048	70.24429	69.46812	68.69193	67.91576	67.13957	65.58721	64.81104
90	13.58315	12.80697	12.03079	11.25461	10.86652	10.09034	8.92607	8.149891

-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	2548.199	2547.811	2547.423	2548.587	2547.811	2545.871	2546.259	2548.199
5	2533.063	2534.228	2534.616	2533.84	2533.84	2534.228	2534.228	2531.899
10	2495.419	2491.926	2492.702	2488.821	2489.209	2486.881	2484.94	2484.552
15	2420.129	2415.86	2412.368	2412.368	2411.203	2406.546	2403.83	2403.053
20	2307.583	2305.255	2302.538	2297.493	2295.941	2290.119	2292.06	2288.567
25	2170.587	2166.318	2162.05	2157.393	2153.9	2147.69	2146.138	2143.809
30	2006.813	2002.156	1997.111	1994.395	1989.349	1986.633	1980.035	1973.826
35	1821.694	1817.814	1813.545	1806.947	1801.514	1796.857	1792.976	1786.766
40	1622.604	1618.724	1612.126	1606.305	1602.036	1598.155	1590.781	1586.9
45	1417.305	1412.26	1408.379	1403.722	1397.512	1390.526	1385.481	1382.377
50	1210.841	1205.796	1201.527	1193.377	1189.108	1184.839	1179.018	1174.36
55	1002.825	1000.108	994.6747	990.0177	983.4201	979.5392	975.6583	970.6132
60	802.1821	797.525	793.6442	787.8228	783.5538	780.061	775.0157	771.9111
65	612.7941	608.1371	605.0323	599.9872	595.7182	591.8373	587.5683	583.2993
70	438.9298	435.437	431.9442	427.6752	424.1824	420.6896	416.0325	413.3159
75	283.6938	281.3653	277.8725	273.9915	270.1107	266.6178	263.5131	260.7965
80	148.2504	146.3099	144.3695	141.6529	138.5481	136.9958	133.503	131.5625
85	63.64677	62.48249	60.54205	58.2135	55.88496	54.3326	53.16833	51.61597
90	6.597531	6.209441	5.04517	3.8809	2.71663	1.94045	0.7761801	0.7761801

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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	2546.647	2545.871	2546.259	2547.811	2544.706	2545.094	2546.647	2545.094
5	2531.123	2530.735	2529.959	2529.183	2529.571	2528.794	2525.302	2526.466
10	2484.94	2480.672	2480.672	2478.343	2478.343	2475.626	2475.626	2477.567
15	2400.725	2396.844	2395.292	2394.515	2392.187	2393.739	2392.575	2389.47
20	2283.91	2282.746	2280.029	2274.596	2276.536	2274.596	2268.774	2270.715
25	2139.152	2137.6	2136.436	2132.167	2131.779	2127.897	2125.569	2122.076
30	1971.497	1969.557	1964.9	1961.795	1957.138	1954.033	1955.586	1953.257
35	1784.438	1779.781	1776.288	1772.019	1770.855	1770.467	1765.81	1766.974
40	1583.019	1577.974	1575.257	1572.929	1569.824	1567.108	1564.391	1561.674
45	1376.167	1372.674	1369.57	1362.196	1359.867	1359.867	1357.927	1354.822
50	1170.479	1165.434	1158.837	1157.285	1153.016	1151.851	1151.075	1147.582
55	964.7918	959.7466	956.6419	951.5967	948.492	946.5515	943.0588	942.2826
60	764.1492	762.2088	758.3279	753.6708	750.5661	749.79	747.8495	745.5209
65	580.5827	575.5375	572.4328	570.4924	566.9995	566.2233	563.5067	561.9543
70	409.8231	407.4945	403.2256	400.5089	398.1804	398.1804	396.2399	394.6875
75	258.468	255.7513	253.8109	250.7062	249.1538	249.5419	247.2134	245.661
80	127.2935	125.3531	122.6365	119.5317	118.7555	119.1436	118.7555	117.5913
85	50.4517	49.28743	47.73507	46.5708	45.79462	45.79462	45.01844	45.01844
90	0.7761801	0.7761801	0.38809	0.38809	0.38809	0.38809	0.7761801	0.38809

-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	2543.93	2546.647	2544.706	2542.378	2542.766	2547.035	2543.542	2542.766
5	2528.794	2528.794	2529.183	2526.078	2525.69	2527.242	2526.078	2526.078
10	2477.179	2473.686	2473.298	2473.298	2470.193	2472.521	2473.298	2469.805
15	2387.918	2389.082	2389.858	2385.977	2385.589	2386.366	2383.649	2384.813
20	2268.774	2266.834	2266.446	2266.446	2264.893	2264.893	2264.117	2266.058
25	2120.524	2121.688	2120.524	2117.419	2117.807	2119.36	2119.36	2119.748
30	1950.152	1948.212	1947.436	1947.048	1944.719	1950.152	1946.66	1946.271
35	1764.257	1759.212	1756.884	1758.824	1757.272	1754.555	1756.107	1758.436
40	1558.569	1556.241	1558.181	1556.629	1555.853	1555.853	1556.629	1556.241
45	1352.106	1352.494	1349.389	1347.448	1348.613	1347.448	1348.225	1348.613
50	1146.418	1140.985	1140.985	1139.432	1137.492	1138.268	1137.88	1140.597
55	937.6255	936.4613	935.297	935.297	935.297	933.3565	933.7446	933.7446
60	743.9686	741.6401	739.3115	740.0876	739.6996	737.7592	736.2068	739.3115
65	560.0139	558.0734	557.6854	555.7449	556.133	553.8045	555.7449	556.133
70	391.1948	390.4186	388.4781	388.4781	386.9258	386.9258	388.09	387.7019
75	243.7206	241.392	242.1682	240.2277	238.6754	240.6158	240.2277	240.2277
80	117.2032	117.2032	116.0389	116.0389	114.8746	114.8746	114.8746	114.8746
85	44.63035	44.63035	45.01844	45.79462	45.79462	46.18271	46.18271	46.18271
90	0.7761801	0.7761801	0.38809	0.38809	0.38809	0.38809	0.7761801	0.7761801

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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	2544.706	2544.706	2543.93	2543.93	2542.766	2543.154	2540.437	2541.213
5	2526.466	2527.63	2525.302	2525.302	2527.242	2528.018	2527.242	2529.183
10	2470.193	2471.357	2473.686	2472.521	2474.462	2477.567	2479.507	2478.343
15	2384.425	2386.366	2387.918	2388.694	2391.022	2392.963	2392.575	2395.68
20	2265.669	2267.61	2269.162	2271.103	2272.655	2276.148	2277.7	2278.477
25	2120.524	2120.912	2120.912	2124.017	2127.121	2128.674	2131.002	2134.107
30	1947.048	1950.541	1951.705	1953.257	1957.138	1960.243	1959.078	1964.124
35	1759.6	1761.929	1763.481	1765.81	1766.974	1770.079	1774.736	1777.064
40	1557.405	1561.286	1561.674	1563.227	1568.272	1571.765	1571.765	1576.422
45	1350.165	1350.553	1352.882	1357.151	1360.256	1362.196	1365.301	1371.122
50	1139.432	1142.149	1146.03	1144.866	1149.911	1151.463	1155.732	1160.777
55	936.0731	938.7897	939.1779	941.5065	942.6707	946.9397	951.2086	953.5372
60	740.8639	741.6401	743.1924	743.9686	748.2375	752.5066	754.0589	756.7756
65	555.7449	558.0734	557.6854	560.402	563.8948	565.8353	569.3281	571.2685
70	389.2543	388.8662	390.8066	393.5233	393.9114	396.2399	398.1804	400.897
75	240.2277	241.7801	241.7801	242.5563	244.4967	245.2729	247.9895	249.1538
80	115.6508	115.6508	116.0389	116.8151	118.3675	119.9198	120.696	122.6365
85	45.79462	46.18271	46.5708	46.95889	48.12316	48.12316	49.28743	49.67553
90	0.38809	0.38809	0.38809	0.38809	0.38809	0.38809	0.38809	0.38809

-以下空白-

光強數據表(十)

光強數據表(cd)

$\gamma/C(^{\circ})$	360.0
0	2543.154
5	2529.183
10	2479.507
15	2397.62
20	2280.029
25	2138.376
30	1969.169
35	1780.169
40	1579.915
45	1371.51
50	1163.882
55	958.5824
60	759.8802
65	574.7613
70	404.0017
75	251.4823
80	124.1888
85	50.4517
90	0.7761801

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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 -