



廣益全球驗證有限公司

Great One Global Certification Co Ltd

台北縣新店市中正路四維巷8弄3號4F

4F., No.3, Aly.8, Siwei Ln., Zhongzheng Rd., Xindian City,

TEL: +886 2 2218-1106

Taipei County 231, Taiwan(R.O.C)

FAX: +886 2 2218-1107

E-mail: sales@go-safety.com.tw

Goniophotometer Measurement Report For Luminaires

Applicant : KWO GER METAL TECHNOLOGY INC.

Applicant Add : 3-5, Wulin St, Shulin City, Taipei county, Taiwan, (R.O.C.)

Report No : GO1101210104

Product Name : LED Street Lamp

Model No : KG120W

Sample No : 11012101-4

Test Specification: CIE Pub. No. 70 The Measurement of Absolute
Luminous Intensity Distribution 1987

Test Date: 2011-2-1

Issue Date: 2011-2-1

- Note: 1. The test results of this report relate only to the tested sample identified in this report.
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Tested By:

Reviewed By:

Roy Kao

Sean Kao

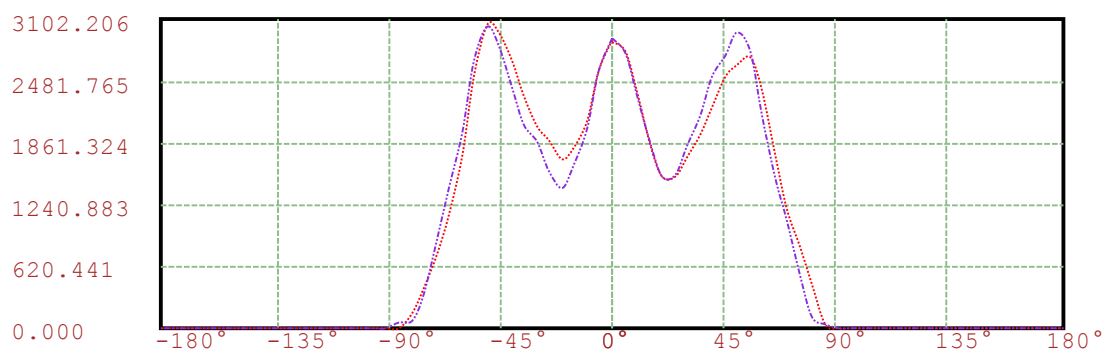
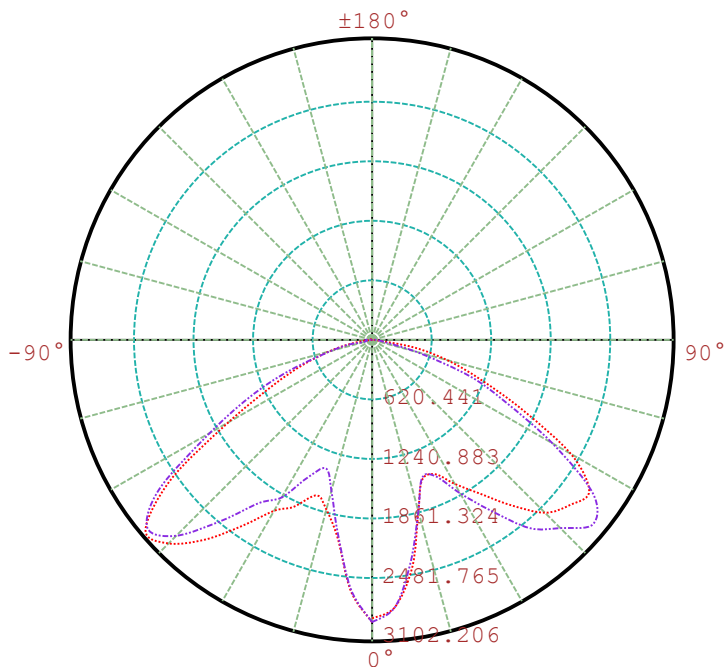
Roy Kao

Sean Kao

Project Engineer

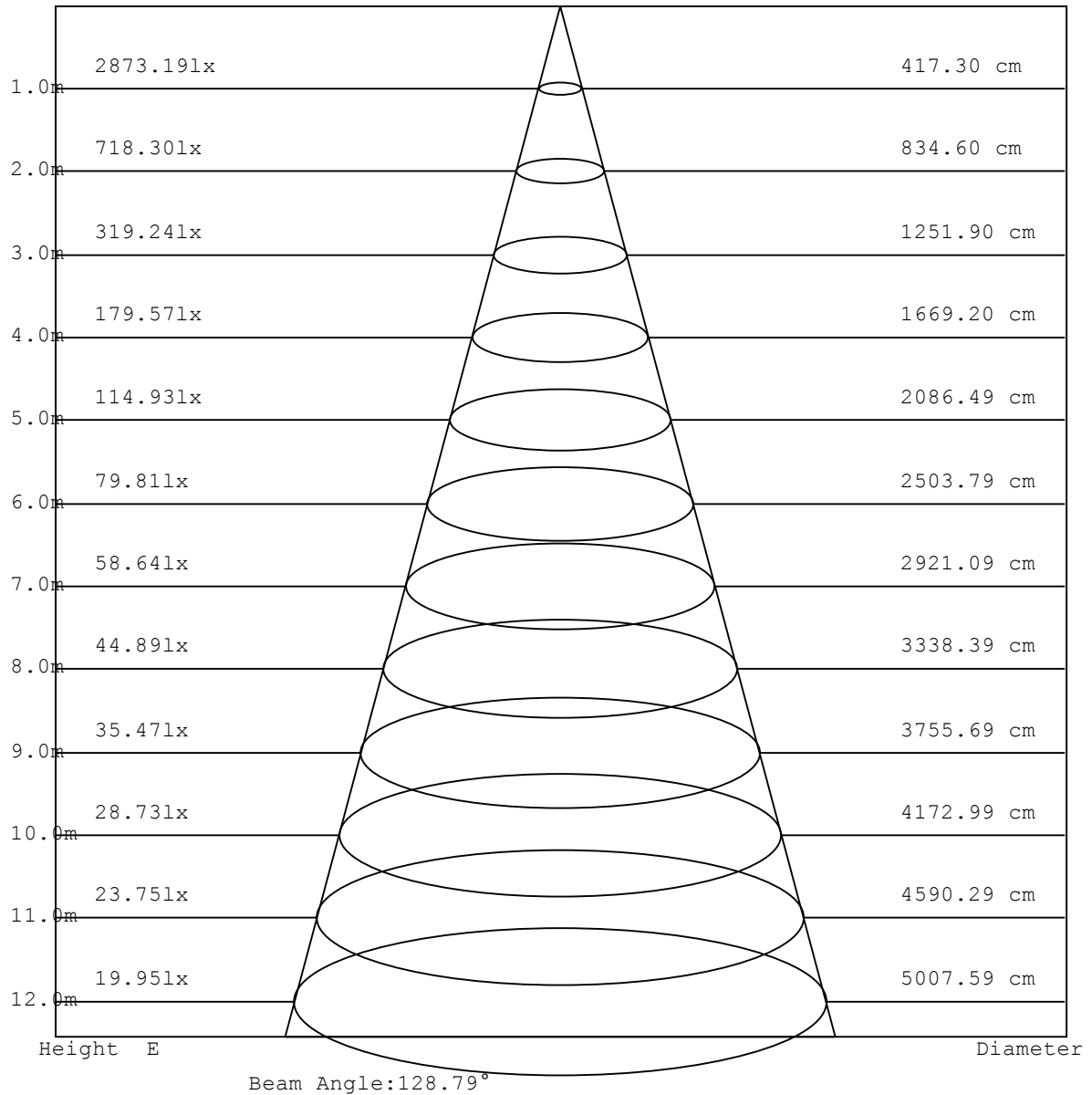
Project Engineer

Light Distribution Curve [Unit: cd]

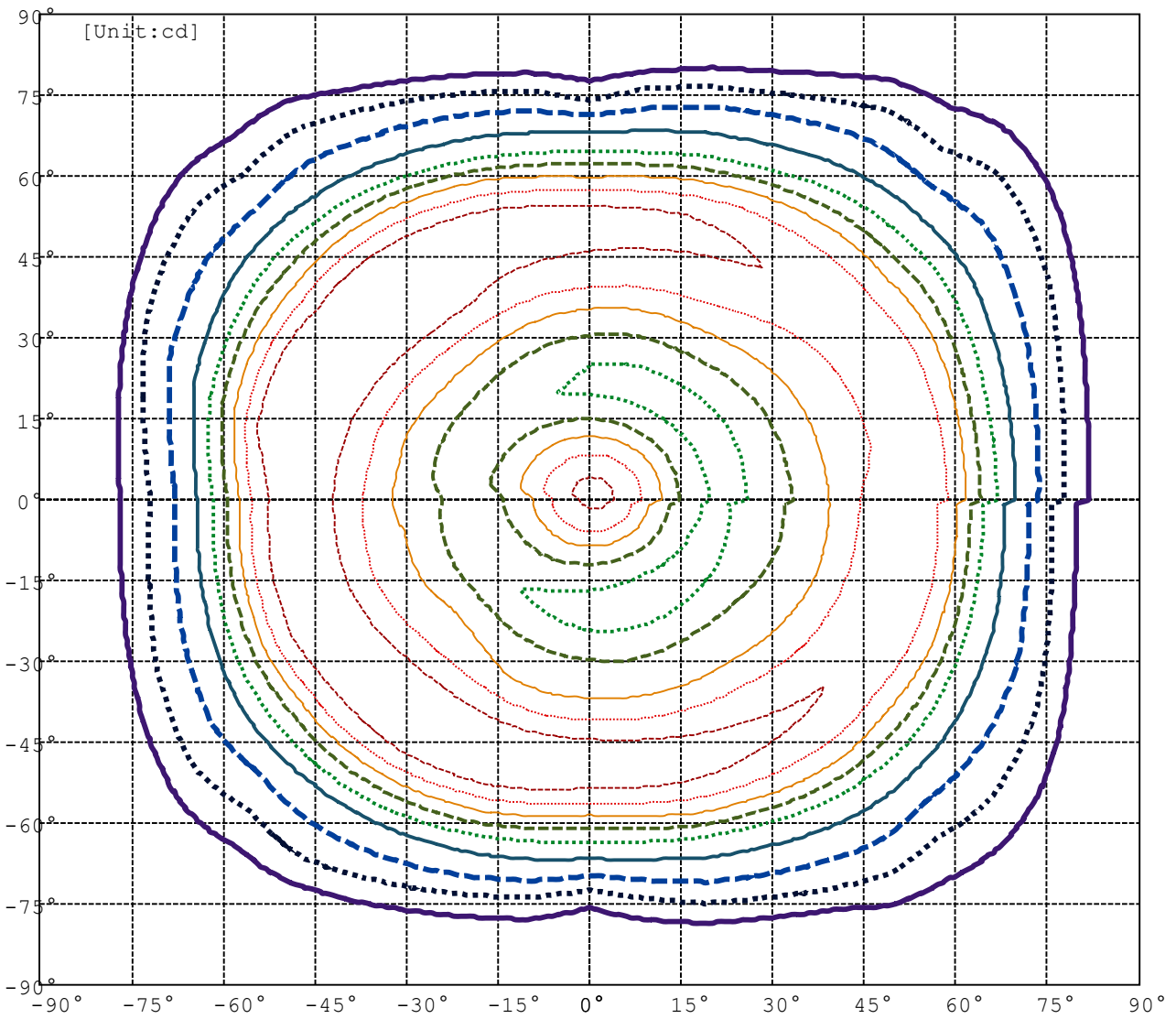


C0/C180:
 C90/C270: - - - - -

Lux distance Curve



ISO-Intensity (V-H)



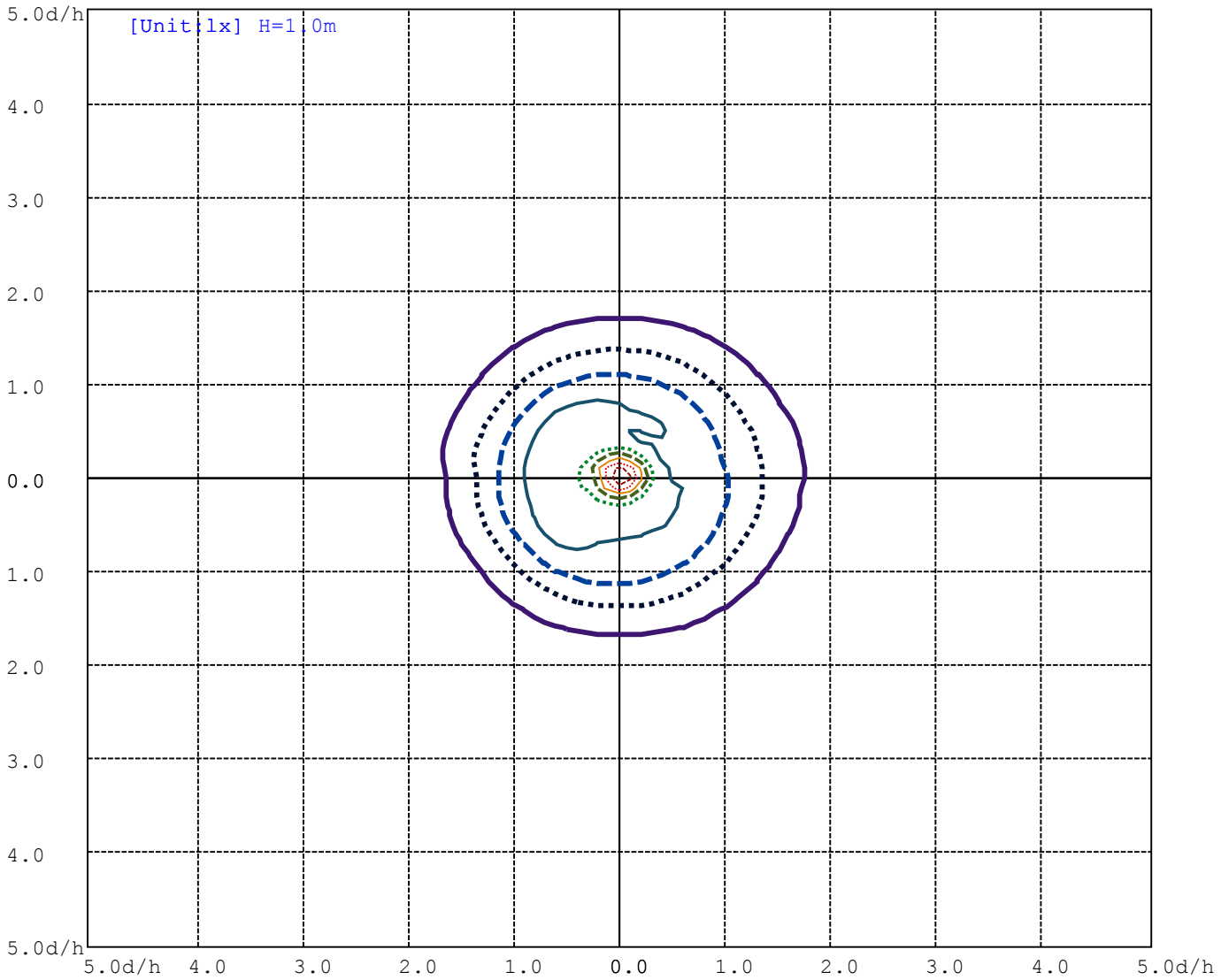
(10%Imax)	309.975	—
(20%Imax)	619.95	⋯
(30%Imax)	929.925	- - -
(40%Imax)	1239.9	—
(50%Imax)	1549.88	⋯
(60%Imax)	1859.85	- - -
(70%Imax)	2169.82	—
(80%Imax)	2479.8	⋯
(90%Imax)	2789.77	- - -

Equipment: GMS1800
Temperature (°C): 25.0

Date:
Humidity (%): 50.0%

Operator: Roy Kao
Distance (m): 13.6

ISO illuminance diagram



(10%Emax)	288.464	———
(20%Emax)	576.928
(30%Emax)	865.392	- - - - -
(40%Emax)	1153.86	—————
(50%Emax)	1442.32
(60%Emax)	1730.78	———
(70%Emax)	2019.25	—————
(80%Emax)	2307.71
(90%Emax)	2596.18	- - - - -

Equipment: GMS1800
Temperature(°C): 25.0

Date:
Humidity(%): 50.0%

Operator: Roy Kao
Distance(m): 13.6

Intensity data(cd)

C/ γ ($^{\circ}$)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
360.0	2895.4	2720.1	2170.6	1700.1	1494.3	1597.4	1812.7	1936.3	2209.8	2528.0
350.0	2900.0	2710.9	2143.7	1683.8	1477.7	1588.9	1811.4	1936.1	2212.6	2536.7
340.0	2904.0	2695.3	2116.5	1663.1	1454.6	1586.7	1823.1	1936.3	2217.4	2555.9
330.0	2906.3	2706.8	2119.7	1661.6	1434.8	1576.9	1843.4	1966.9	2259.7	2591.2
320.0	2906.6	2663.9	2090.3	1642.1	1418.4	1578.3	1858.3	2004.6	2314.1	2640.9
310.0	2908.7	2643.6	2065.7	1625.1	1401.0	1572.3	1875.7	2033.8	2359.2	2696.6
300.0	2906.1	2624.8	2038.0	1610.1	1388.1	1560.2	1864.4	2014.6	2359.4	2722.9
290.0	2904.4	2604.1	2039.7	1624.5	1383.1	1558.4	1851.5	1997.2	2357.5	2755.7
280.0	2904.8	2588.8	2021.8	1623.8	1390.7	1554.9	1849.3	2010.9	2378.8	2798.6
270.0	2901.5	2582.3	2010.1	1631.7	1404.7	1577.1	1876.2	2040.6	2412.0	2839.2
260.0	2897.9	2573.6	2001.7	1643.9	1428.7	1613.8	1906.9	2055.0	2428.5	2865.1
250.0	2893.7	2568.1	2026.4	1658.9	1466.2	1667.5	1970.6	2122.3	2505.8	2923.4
240.0	2892.4	2566.1	2031.4	1694.9	1517.4	1730.9	2056.5	2237.7	2621.6	3021.7
230.0	2886.5	2570.7	2039.0	1715.2	1571.0	1810.1	2143.3	2325.2	2709.7	3056.0
220.0	2882.8	2572.2	2046.5	1729.1	1608.4	1850.9	2175.6	2356.6	2736.9	3049.4
210.0	2877.3	2573.6	2055.0	1749.0	1630.8	1853.3	2145.9	2300.8	2691.6	3038.3
200.0	2873.2	2578.2	2086.1	1769.3	1655.4	1865.7	2141.3	2284.6	2657.7	2999.0
190.0	2870.1	2584.5	2094.4	1802.6	1677.0	1868.7	2142.8	2308.8	2670.2	2974.2
180.0	2895.4	2591.0	2074.6	1806.1	1696.0	1895.1	2030.3	2329.1	2685.2	2962.8
170.0	2900.0	2694.6	2279.8	1919.5	1715.6	1810.1	2061.3	2371.4	2739.8	2910.1
160.0	2904.0	2712.3	2302.5	1923.2	1701.7	1793.1	2051.1	2359.4	2757.8	2923.2
150.0	2906.3	2727.1	2296.2	1908.0	1677.9	1796.6	2071.5	2399.1	2786.6	2951.7
140.0	2906.6	2733.6	2305.1	1902.1	1661.3	1782.4	2085.7	2430.5	2824.3	2996.2
130.0	2908.7	2742.8	2309.5	1895.6	1637.1	1749.4	2074.4	2426.6	2820.2	2990.3
120.0	2906.1	2750.7	2319.3	1890.7	1602.4	1688.2	2005.7	2348.5	2767.4	2931.7
110.0	2904.4	2758.3	2329.1	1865.4	1556.9	1635.4	1935.5	2261.0	2663.0	2838.8
100.0	2904.8	2756.5	2318.8	1856.7	1529.6	1586.1	1871.3	2188.0	2579.7	2792.7
90.0	2901.5	2764.6	2330.4	1850.0	1513.2	1550.5	1829.0	2147.0	2528.2	2740.6
80.0	2897.9	2767.4	2343.1	1844.5	1499.1	1521.1	1792.4	2104.3	2484.8	2695.0
70.0	2893.7	2772.4	2358.7	1850.0	1493.4	1500.2	1787.4	2099.2	2474.1	2655.1
60.0	2892.4	2776.8	2350.5	1832.5	1481.6	1509.6	1791.8	2111.0	2458.9	2629.6
50.0	2886.5	2772.0	2360.1	1839.3	1486.9	1506.1	1782.6	2093.8	2421.3	2591.4
40.0	2882.8	2772.2	2369.4	1841.5	1494.5	1502.1	1754.5	2046.2	2356.1	2525.4
30.0	2877.3	2772.4	2375.1	1844.5	1503.9	1496.3	1730.2	1995.6	2293.8	2470.2
20.0	2873.2	2769.4	2375.1	1841.9	1505.8	1508.9	1730.0	1976.3	2262.6	2415.5
10.0	2870.1	2763.3	2346.5	1812.7	1516.7	1522.6	1730.3	1965.5	2241.6	2386.5
0.0	2871.0	2766.6	2367.3	1833.8	1529.8	1520.5	1715.9	1937.7	2211.6	2525.1

Equipment: GMS1800
Temperature($^{\circ}$ C): 25.0

Date:
Humidity(%): 50.0%

Operator: Roy Kao
Distance(m): 13.6

Intensity data(cd)

C/γ(°)	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	90.0	95.0
360.0	2729.7	2679.1	2188.9	1471.2	1069.9	666.7	272.8	42.1	0.9	0.4
350.0	2735.2	2730.4	2230.1	1473.8	1116.8	782.9	341.7	41.2	1.8	1.3
340.0	2772.9	2700.1	2159.9	1449.4	1066.8	735.6	329.3	53.0	2.4	1.7
330.0	2774.0	2621.5	2081.3	1462.7	1027.4	654.0	304.4	54.1	0.9	0.9
320.0	2815.2	2662.1	2141.1	1428.7	1083.6	763.9	336.7	64.6	2.4	1.7
310.0	2864.1	2675.8	2141.1	1430.2	1084.7	750.4	240.5	94.4	3.0	0.9
300.0	2922.1	2714.0	2139.4	1417.5	1093.4	708.8	227.7	97.0	0.9	0.2
290.0	2974.2	2744.1	2148.1	1420.4	1094.5	687.0	238.2	88.8	3.3	2.2
280.0	3005.4	2717.9	2035.6	1392.9	1013.4	547.0	172.9	73.3	1.3	0.6
270.0	3023.9	2682.2	1957.0	1402.7	901.3	338.3	82.2	55.6	0.9	1.8
260.0	3076.0	2736.3	2042.7	1386.1	1025.2	526.4	171.6	59.8	1.7	2.2
250.0	3090.6	2766.3	2096.8	1376.7	1037.4	553.3	160.5	60.0	1.7	0.9
240.0	3102.2	2738.2	2039.3	1339.5	1003.2	559.6	151.3	51.2	1.5	2.2
230.0	3073.6	2702.0	1965.3	1285.4	943.6	550.4	126.7	22.7	0.9	0.4
220.0	3043.5	2597.8	1862.9	1217.5	891.1	563.3	96.4	7.4	0.9	1.3
210.0	3058.4	2538.2	1773.2	1197.3	782.7	436.0	57.4	2.8	0.7	0.2
200.0	3096.7	2635.5	1826.6	1207.3	881.5	543.7	42.5	3.1	2.2	2.0
190.0	3084.1	2616.7	1807.9	1188.8	853.3	531.3	36.8	0.6	1.1	2.0
180.0	3041.3	2525.8	1739.8	1143.0	751.3	398.9	147.4	2.2	1.7	2.0
170.0	3052.0	2869.5	2104.5	1349.1	993.8	662.5	129.8	1.8	1.3	0.2
160.0	3054.4	2842.4	2099.0	1366.5	985.3	655.1	188.0	0.9	0.7	0.4
150.0	3016.9	2762.0	2043.0	1402.0	926.6	558.9	183.0	2.2	2.8	2.0
140.0	3028.3	2783.1	2129.6	1378.0	1009.0	690.0	281.3	3.7	1.7	0.6
130.0	3045.5	2817.2	2202.2	1421.9	1042.2	698.1	237.1	6.3	3.9	1.8
120.0	3062.5	2825.9	2246.2	1456.3	1090.4	737.6	242.9	22.5	3.1	0.6
110.0	3018.0	2832.7	2276.7	1499.7	1121.2	735.4	255.2	30.1	3.5	0.6
100.0	3001.2	2792.1	2204.8	1484.0	1117.5	715.9	240.5	34.5	4.1	0.9
90.0	2965.7	2767.4	2134.1	1501.7	1073.4	513.8	122.8	41.0	4.2	1.5
80.0	2938.4	2771.6	2210.7	1502.1	1143.6	769.4	265.8	55.0	4.4	1.8
70.0	2894.8	2773.8	2272.2	1556.4	1184.8	854.2	350.0	58.9	5.2	1.1
60.0	2854.9	2734.3	2280.0	1555.6	1175.2	859.2	359.0	60.8	5.2	2.0
50.0	2784.9	2662.8	2247.8	1583.7	1175.4	858.2	409.6	46.7	4.4	2.2
40.0	2718.6	2625.9	2217.7	1592.0	1166.1	864.0	500.9	35.1	3.5	0.7
30.0	2704.9	2625.5	2174.7	1615.5	1143.6	756.1	400.6	32.1	3.0	1.5
20.0	2678.2	2695.2	2317.5	1676.6	1194.2	886.1	536.5	17.2	1.7	0.7
10.0	2644.9	2712.1	2356.4	1669.2	1196.2	868.2	537.8	16.1	2.8	2.2
0.0	2648.2	2719.2	2382.1	1725.7	1199.7	808.9	448.4	29.2	2.0	2.0

Equipment: GMS1800
 Temperature(°C): 25.0

Date:
 Humidity(%): 50.0%

Operator: Roy Kao
 Distance(m): 13.6

Intensity data(cd)

C/ γ (°)	100.0	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0
360.0	0.6	2.2	2.8	1.8	1.1	1.3	2.6	3.1	2.8	1.8
350.0	0.7	0.4	1.3	2.2	3.0	3.1	1.7	0.9	1.7	2.8
340.0	1.3	1.1	1.1	0.9	0.9	1.1	0.9	1.1	1.8	2.6
330.0	1.1	1.3	1.5	1.5	1.7	1.7	2.8	2.4	2.4	2.0
320.0	0.9	0.9	0.6	0.9	1.8	2.4	3.1	3.0	2.4	1.7
310.0	0.9	1.3	1.3	1.5	1.7	1.3	2.4	2.2	1.8	1.7
300.0	0.4	0.6	0.7	0.7	0.9	0.9	1.8	1.7	1.7	1.5
290.0	1.8	1.3	1.1	1.1	1.1	1.1	1.7	1.8	1.7	1.7
280.0	0.4	1.3	2.2	3.0	2.2	1.3	1.5	2.8	3.0	1.7
270.0	2.4	2.6	2.8	2.8	2.8	3.0	2.0	2.4	2.4	2.6
260.0	2.0	1.3	1.1	1.1	2.0	3.0	2.6	3.0	3.1	2.6
250.0	0.7	0.6	0.9	1.7	2.6	3.1	2.8	3.1	2.4	1.7
240.0	2.4	2.6	2.6	2.2	2.2	2.2	2.8	0.9	0.9	1.1
230.0	0.4	0.7	1.1	2.2	3.1	3.0	3.1	3.0	2.6	2.2
220.0	1.8	2.0	2.4	2.8	3.0	3.0	2.0	2.0	2.4	2.8
210.0	0.4	0.9	1.3	1.7	2.0	2.0	3.1	3.0	3.0	3.0
200.0	2.0	2.0	2.4	2.2	2.6	3.0	2.8	3.0	3.0	3.1
190.0	2.4	2.2	1.7	1.7	1.3	1.1	1.1	1.5	1.3	1.1
180.0	2.2	2.6	2.6	2.6	2.8	3.1	3.0	2.4	2.2	1.7
170.0	0.9	1.8	3.0	2.6	1.8	1.1	0.9	1.5	2.6	3.0
160.0	1.1	2.4	2.6	2.0	1.3	0.9	1.3	2.0	3.1	2.8
150.0	1.5	0.9	0.6	1.3	2.0	2.8	3.1	2.6	3.0	2.2
140.0	0.9	1.1	1.5	1.8	2.0	2.2	3.0	2.6	3.1	3.3
130.0	1.1	0.7	0.6	1.5	2.4	3.0	3.3	3.1	3.0	3.1
120.0	1.1	1.3	2.0	2.6	2.8	2.8	2.8	2.8	3.1	3.3
110.0	1.7	2.4	2.8	2.6	2.6	2.4	1.8	1.7	2.8	3.0
100.0	1.7	2.4	2.8	2.8	2.6	2.0	1.5	1.1	1.3	1.1
90.0	2.2	2.4	2.2	1.8	1.3	0.9	1.1	1.7	2.8	3.1
80.0	2.2	1.8	1.3	0.7	1.1	1.8	2.6	3.3	2.6	1.7
70.0	0.6	0.2	0.6	0.9	1.8	2.2	3.0	3.3	3.0	3.3
60.0	1.8	1.8	1.7	1.5	1.1	1.1	1.1	1.3	1.1	1.1
50.0	1.8	1.1	0.6	1.1	2.0	3.0	3.3	3.1	3.3	3.0
40.0	0.2	0.6	1.3	1.8	2.6	3.1	3.1	3.1	3.0	2.8
30.0	1.7	1.8	2.0	2.2	2.4	2.6	2.6	2.8	3.1	3.1
20.0	0.7	0.4	0.6	0.7	0.7	0.7	0.9	1.1	1.7	1.3
10.0	2.2	2.2	1.8	1.7	1.5	1.1	0.9	1.1	2.4	2.8
0.0	2.4	2.4	2.2	2.0	1.8	1.5	0.9	1.3	1.5	2.6

Equipment: GMS1800
Temperature(°C): 25.0

Date:
Humidity(%): 50.0%

Operator: Roy Kao
Distance(m): 13.6

Intensity data(cd)

C/γ(°)	150.0	155.0	160.0	165.0	170.0	175.0	180.0
360.0	1.3	0.9	1.7	2.2	3.0	3.0	2.8
350.0	3.3	2.4	1.7	1.1	1.1	2.0	0.9
340.0	3.0	3.1	3.3	3.0	2.4	1.7	0.9
330.0	2.0	1.8	1.7	1.5	1.1	0.7	1.7
320.0	1.3	1.3	1.3	2.2	2.6	2.8	2.2
310.0	1.3	1.1	0.9	1.1	1.1	1.1	1.8
300.0	1.3	1.1	1.3	1.7	2.2	2.2	3.0
290.0	1.8	1.8	2.2	2.8	3.1	3.0	3.0
280.0	1.1	2.6	3.1	1.7	0.9	1.7	1.3
270.0	2.6	2.6	2.6	2.2	1.7	1.7	2.4
260.0	1.8	1.3	1.1	1.5	2.2	2.8	2.4
250.0	1.1	1.7	2.6	3.1	3.0	2.2	1.3
240.0	0.9	1.1	1.1	1.1	1.7	1.8	3.0
230.0	1.8	1.7	1.3	1.5	1.5	1.7	0.7
220.0	2.6	2.8	2.6	2.4	2.0	2.2	3.0
210.0	3.0	2.8	2.8	3.0	3.0	3.0	2.6
200.0	3.1	3.1	3.0	2.6	2.2	2.2	1.1
190.0	1.1	0.9	2.4	3.0	3.0	3.0	2.4
180.0	1.3	0.7	1.5	2.0	1.8	2.4	0.0
170.0	3.3	3.0	2.6	2.2	2.0	1.5	0.9
160.0	3.1	3.0	2.6	2.0	1.3	0.9	0.9
150.0	1.1	1.3	1.8	2.8	3.0	2.4	1.7
140.0	3.3	3.1	3.1	3.0	3.0	2.6	2.2
130.0	3.1	3.1	1.7	3.0	2.6	2.2	1.8
120.0	1.8	2.0	2.2	2.6	2.6	2.8	3.0
110.0	2.8	2.8	2.8	2.8	3.0	3.0	3.0
100.0	1.3	1.7	2.2	3.1	3.0	2.4	1.3
90.0	3.0	2.4	1.7	0.9	1.3	1.8	2.4
80.0	1.1	1.5	2.0	2.8	3.1	3.1	2.4
70.0	3.1	2.8	2.2	1.8	0.9	0.7	1.3
60.0	1.5	1.7	2.2	2.8	3.0	3.1	3.0
50.0	2.6	2.2	2.0	1.7	1.3	0.9	0.7
40.0	3.0	3.1	3.1	3.1	3.1	3.1	3.0
30.0	3.1	3.1	2.4	2.4	2.4	2.4	2.6
20.0	1.1	1.1	1.3	1.5	1.3	1.3	1.1
10.0	3.0	3.1	3.1	3.3	3.3	3.0	2.4
0.0	3.0	3.3	2.4	1.5	1.3	2.2	3.1

Equipment: GMS1800
Temperature(°C): 25.0

Date:
Humidity(%): 50.0%

Operator: Roy Kao
Distance(m): 13.6



廣益全球驗證有限公司

台北縣新店市中正路四維巷8弄3號4F

TEL: +886 2 2218-1106

FAX: +886 2 2218-1107

Great One Global Certification Co Ltd

4F., No.3, Aly.8, Siwei Ln., Zhongzheng Rd., Xindian City,

Taipei County 231, Taiwan(R.O.C)

E-mail: sales@go-safety.com.tw

1. Luminaire Specification :

- (1) Input Voltage/Frequency : 220 V ac / 50Hz
- (2) Input Watt : 134.5 W
- (3) Input Current : 0.633 A
- (4) Total Luminous Flux Output : 9666.16 lm
- (5) Luminaire Efficacy : 71.867 lm/W
- (6) Central Intensity (cd): 2870.977
- (7) Maximum Intensity(cd): 3102.206
- (8) PF: 0.966
- (9) Beam angle: (C0-C180) 128.79 (C90-C270) 128.9

2. Description of EUT Setup :

- (1) Operating Orientation : The light source is considered as horizontal.
- (2) Light Source : LED
- (3) Stabilization time : 1 Hour
- (4) Environment Condition : Temperature: 25 ± 1 °C , Humidity: $55\pm 10\%$



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4. Photograph of EUT :





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5. Equipments List:

L204	Goniophotometer	SENSING	GMS1800	N/A	N/A
L205	GMS-1800B Goniophotometer System	SENSING		N/A	N/A
L206	AC Power Source	Twintex	TFC 500VA	N/A	N/A
L207	UI2008 Power Meter	SENSING	UI2008	2010/10/1	2011/10/1