



廣益全球驗證有限公司

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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 : GO1101210105

Product Name : LED Street Lamp

Model No : KG150W

Sample No : 11012101-5

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

Test Date: 2011-2-14

Issue Date: 2011-2-14

- 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

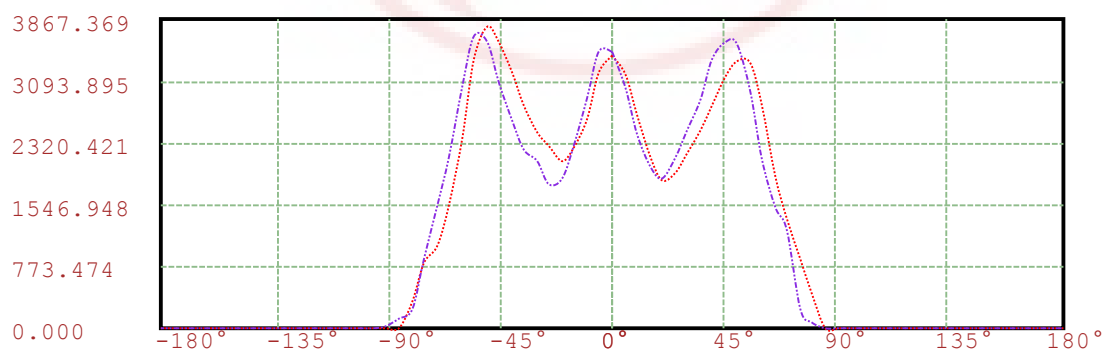
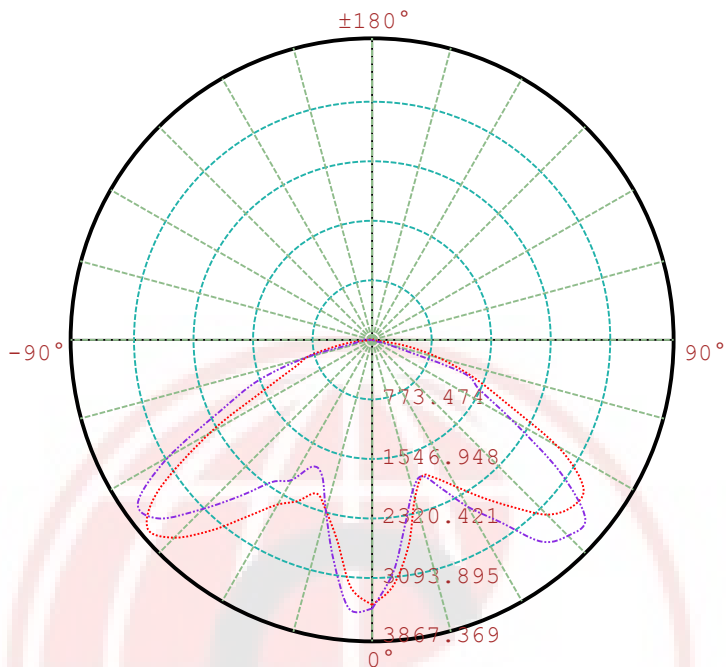
Roy Kao

Sean Kao

Project Engineer

Project Engineer

Light Distribution Curve [Unit: cd]



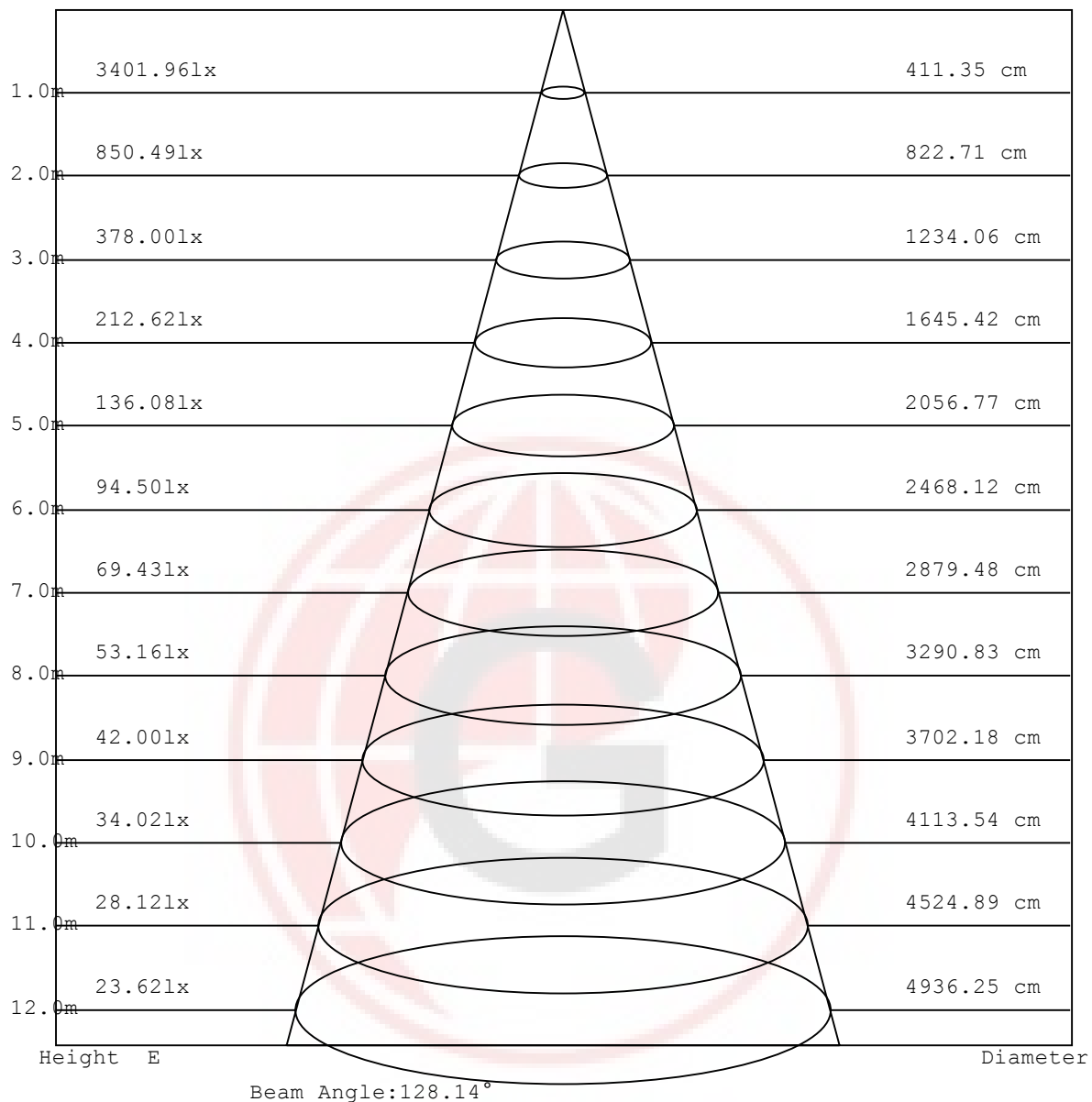
C0/C180:
 C90/C270: - - - - -

Equipment: GMS1800
 Temperature(°C): 25.0

Date:
 Humidity(%): 50.0%

Operator: Roy Kao
 Distance(m): 13.6

Lux distance Curve

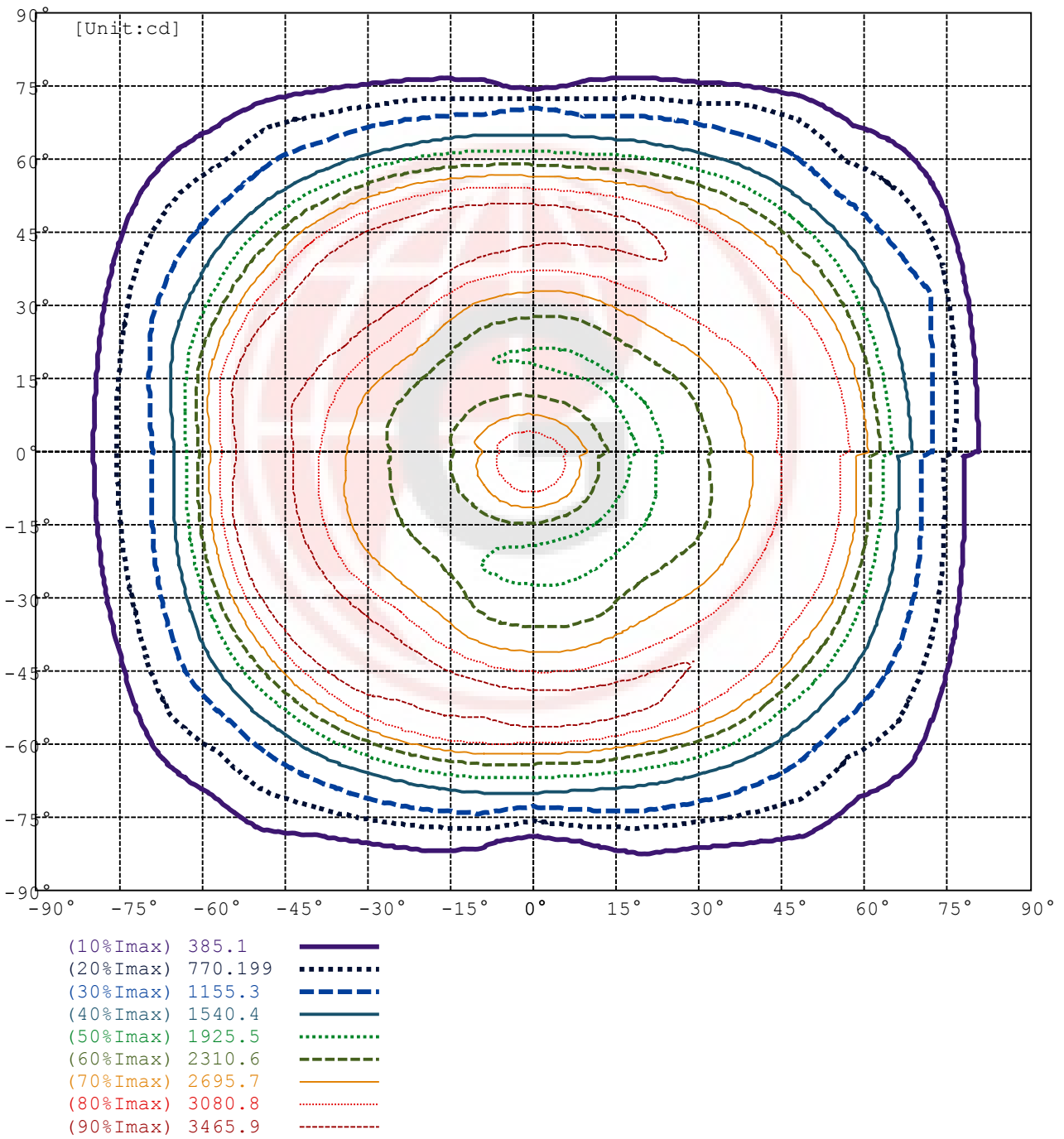


Equipment: GMS1800
 Temperature (°C): 25.0

Date:
 Humidity (%): 50.0%

Operator: Roy Kao
 Distance (m): 13.6

ISO-Intensity (V-H)

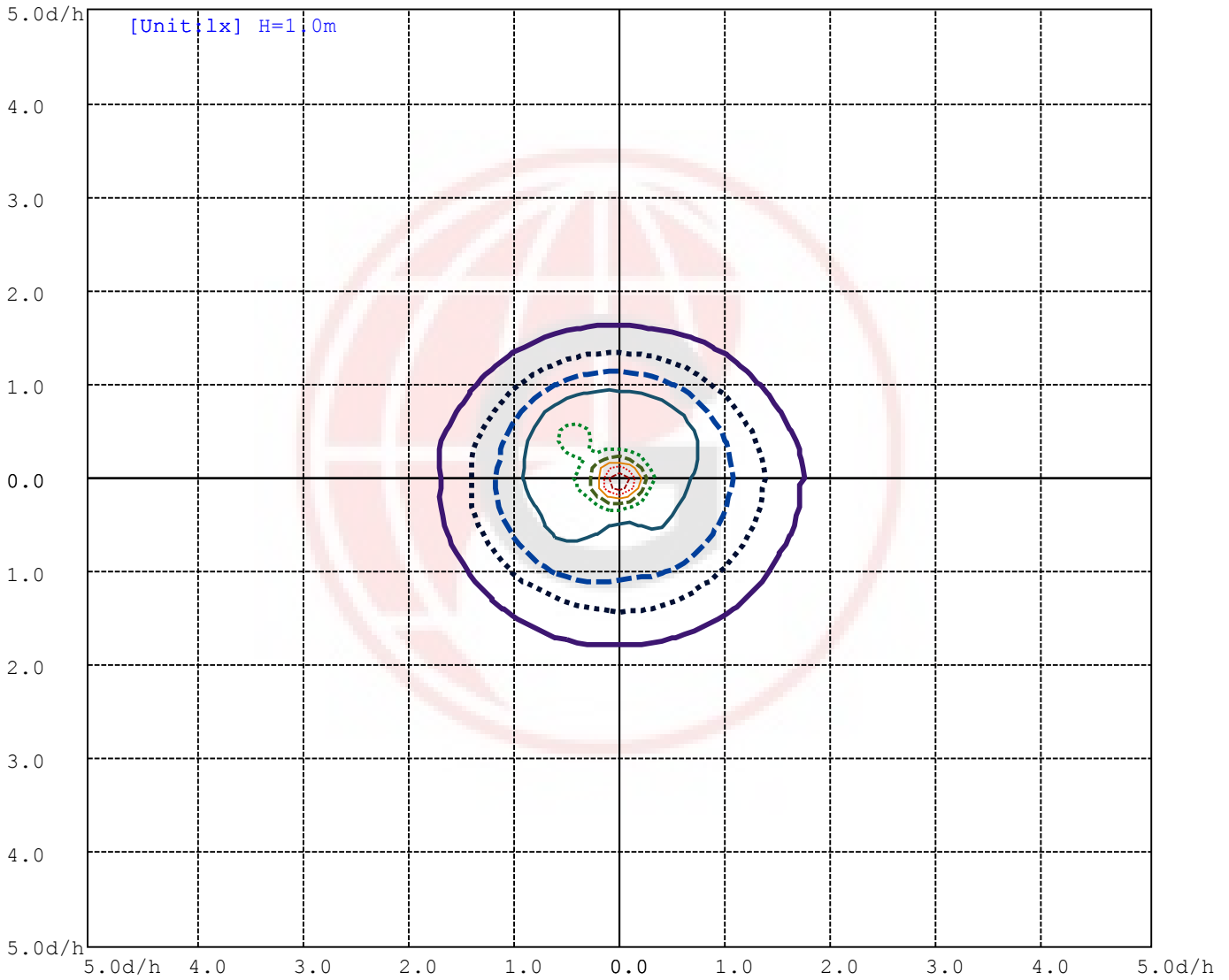


Equipment: GMS1800
Temperature (°C): 25.0

Date:
Humidity (%): 50.0%

Operator: Roy Kao
Distance (m): 13.6

ISO illuminance diagram



(10%Emax)	341.949	———
(20%Emax)	683.898
(30%Emax)	1025.85	- - - -
(40%Emax)	1367.8	————
(50%Emax)	1709.74
(60%Emax)	2051.69	———
(70%Emax)	2393.64	———
(80%Emax)	2735.59
(90%Emax)	3077.54

Equipment: GMS1800
 Temperature (°C): 25.0

Date:
 Humidity (%): 50.0%

Operator: Roy Kao
 Distance (m): 13.6

Intensity data(cd)

c/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
360.0	3409.7	3109.2	2439.2	1987.6	1850.0	2040.6	2275.5	2405.0	2719.3	3092.0
350.0	3426.7	3165.0	2526.0	2014.2	1848.4	2013.8	2245.4	2371.0	2682.8	3051.8
340.0	3439.8	3220.0	2580.5	2059.5	1830.3	1961.4	2203.9	2332.6	2649.2	3044.2
330.0	3450.0	3276.2	2637.9	2090.7	1815.9	1935.7	2190.2	2331.3	2665.2	3066.4
320.0	3453.1	3322.7	2690.5	2126.3	1808.3	1925.4	2221.1	2369.7	2706.1	3073.2
310.0	3456.8	3360.4	2769.2	2183.8	1813.1	1902.3	2223.5	2404.8	2751.9	3120.7
300.0	3457.5	3401.0	2806.5	2214.0	1810.3	1865.7	2187.3	2377.9	2740.6	3128.4
290.0	3456.3	3422.3	2826.3	2233.6	1804.8	1808.5	2102.1	2265.9	2658.6	3094.4
280.0	3453.7	3438.7	2836.8	2248.0	1815.3	1778.7	2063.2	2220.5	2577.5	3042.9
270.0	3455.5	3451.8	2883.0	2288.3	1863.5	1797.0	2079.6	2240.3	2600.4	3065.8
260.0	3448.1	3453.7	2883.0	2303.1	1900.4	1815.5	2098.1	2269.8	2628.1	3112.0
250.0	3438.9	3450.0	2881.1	2319.7	1944.8	1887.5	2179.3	2371.4	2750.0	3254.2
240.0	3433.4	3433.4	2871.9	2334.5	1994.6	2002.0	2349.2	2554.2	2962.4	3438.9
230.0	3422.3	3407.5	2851.6	2338.2	2029.7	2099.9	2469.3	2657.7	3095.4	3553.4
220.0	3416.7	3377.9	2827.6	2332.6	2044.5	2135.0	2484.1	2672.4	3091.7	3549.7
210.0	3405.6	3335.5	2820.2	2343.7	2057.4	2151.6	2456.4	2618.9	3032.6	3529.4
200.0	3402.0	3296.7	2772.2	2330.8	2083.3	2183.0	2476.7	2648.4	3049.2	3518.3
190.0	3400.1	3257.9	2718.6	2316.0	2096.2	2229.2	2526.5	2703.8	3117.5	3555.2
180.0	3409.7	3200.6	2618.9	2266.1	2090.7	2286.4	2443.4	2777.7	3198.8	3584.8
170.0	3426.7	3240.9	2764.6	2329.3	2084.2	2193.4	2487.0	2833.3	3272.9	3487.1
160.0	3439.8	3195.5	2713.1	2294.8	2066.1	2234.2	2531.7	2901.1	3362.8	3615.3
150.0	3450.0	3156.0	2661.2	2263.5	2058.3	2288.8	2644.9	3043.3	3504.5	3646.1
140.0	3453.1	3119.2	2612.8	2232.0	2049.9	2337.6	2746.5	3166.7	3628.0	3802.7
130.0	3456.8	3074.5	2548.0	2176.2	2014.6	2321.0	2746.3	3179.0	3661.3	3832.3
120.0	3457.5	3045.3	2508.8	2130.4	1955.7	2241.7	2643.4	3065.1	3592.2	3797.2
110.0	3456.3	3018.9	2478.3	2089.4	1903.6	2174.9	2519.1	2936.4	3453.1	3686.7
100.0	3453.7	3006.7	2461.9	2061.1	1878.3	2157.2	2493.3	2895.9	3414.9	3632.8
90.0	3455.5	2993.8	2423.1	2009.4	1869.0	2129.5	2474.8	2866.4	3366.9	3570.0
80.0	3448.1	2977.2	2415.7	1990.9	1848.7	2105.4	2434.2	2842.4	3342.9	3549.7
70.0	3438.9	2977.2	2419.4	1983.6	1845.0	2105.4	2443.4	2855.3	3317.0	3536.8
60.0	3433.4	2980.9	2432.3	1987.2	1858.0	2136.8	2508.1	2886.7	3318.8	3516.5
50.0	3422.3	2993.8	2454.5	2000.2	1863.5	2133.1	2502.5	2868.2	3261.6	3433.4
40.0	3416.7	3014.1	2478.5	2013.1	1856.1	2096.2	2458.2	2803.6	3167.4	3300.4
30.0	3405.6	3043.7	2489.6	2016.8	1841.3	2046.3	2341.8	2678.0	3064.0	3219.1
20.0	3402.0	3069.5	2533.9	2046.3	1832.1	2007.6	2268.0	2578.2	2945.8	3152.6
10.0	3400.1	3113.8	2585.6	2077.7	1839.5	1985.4	2242.1	2526.5	2868.2	3067.7
0.0	3403.8	3174.8	2677.2	2140.9	1860.0	1948.6	2192.4	2464.1	2795.4	3154.8

Equipment: GMS1800
 Temperature(°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	3302.4	3125.7	2453.8	1626.9	1156.7	681.9	157.4	12.9	1.3	2.2
350.0	3288.7	3275.3	2626.8	1724.6	1297.8	868.4	297.3	37.7	0.9	0.6
340.0	3326.6	3277.5	2668.0	1794.1	1317.9	914.6	442.7	65.7	0.4	0.4
330.0	3349.5	3214.1	2592.3	1864.2	1281.4	813.6	398.7	104.0	2.0	2.0
320.0	3382.0	3278.6	2758.1	1905.4	1378.5	1003.2	550.9	244.2	1.3	1.1
310.0	3465.1	3358.7	2874.7	2057.4	1454.4	1061.2	534.1	229.6	3.3	0.7
300.0	3537.7	3450.7	2959.1	2124.5	1497.1	1108.3	512.0	248.4	8.9	2.2
290.0	3546.9	3555.1	3013.6	2138.7	1511.5	1123.3	516.8	294.0	21.8	2.4
280.0	3550.4	3609.9	3059.7	2141.3	1496.2	1042.0	408.0	237.9	22.3	1.5
270.0	3579.3	3661.1	3035.0	2146.4	1543.4	856.8	249.1	116.4	21.6	1.1
260.0	3653.1	3476.2	3136.0	2206.8	1564.5	1105.5	451.9	253.4	22.3	0.9
250.0	3749.2	3511.7	3152.4	2217.4	1527.6	1102.2	490.0	256.3	19.2	2.0
240.0	3867.4	3464.6	3090.6	2139.8	1473.1	1059.0	461.0	219.2	7.2	2.2
230.0	3843.4	3617.9	2979.2	2027.7	1401.0	970.7	444.2	204.8	4.4	2.4
220.0	3804.6	3542.5	2824.4	1884.7	1299.8	915.7	493.7	211.3	1.7	1.3
210.0	3795.3	3541.8	2685.0	1846.7	1233.0	764.8	360.7	95.9	2.4	2.2
200.0	3789.8	3582.8	2656.0	1742.2	1254.4	859.5	367.0	57.4	2.4	2.4
190.0	3789.8	3536.8	2578.8	1647.4	1178.7	768.7	231.4	23.6	0.7	0.2
180.0	3769.5	3352.3	2386.0	1529.6	1039.4	805.8	346.7	1.5	1.1	1.8
170.0	3609.5	3577.4	2703.8	1749.0	1263.3	858.6	272.2	1.8	0.4	0.7
160.0	3719.6	3405.6	2500.7	1653.0	1167.2	750.2	212.0	3.1	0.7	0.6
150.0	3662.4	3222.8	2391.7	1614.2	1080.4	624.1	172.1	2.0	0.6	0.4
140.0	3691.9	3239.4	2419.4	1562.5	1145.1	733.0	184.3	3.1	0.9	1.5
130.0	3703.0	3211.7	2347.4	1544.0	1115.5	652.7	140.9	3.7	0.2	0.4
120.0	3682.7	3150.8	2325.2	1545.8	1146.9	606.3	137.0	3.7	1.5	1.8
110.0	3647.6	3099.1	2262.4	1553.2	1143.2	586.0	135.0	5.9	1.1	1.7
100.0	3599.6	3038.1	2170.1	1566.2	1102.6	499.2	125.8	6.1	1.1	1.7
90.0	3557.1	2951.3	2112.8	1520.0	1222.6	251.9	77.9	4.2	0.9	1.8
80.0	3503.5	2923.6	2087.0	1525.5	1082.3	483.3	116.5	5.0	1.8	1.7
70.0	3486.9	2942.1	2197.8	1544.0	1163.5	615.9	137.4	5.2	0.4	0.7
60.0	3440.7	2956.9	2284.6	1562.5	1194.9	657.1	149.6	4.6	0.7	1.7
50.0	3370.6	2942.1	2321.5	1588.3	1193.1	815.2	168.6	4.4	2.2	1.1
40.0	3313.3	2934.7	2327.1	1590.2	1213.4	828.5	236.4	2.8	0.6	1.5
30.0	3305.9	2951.3	2340.0	1627.1	1122.9	651.6	202.4	1.8	0.6	0.2
20.0	3339.2	3104.6	2463.7	1678.8	1252.2	861.4	328.6	3.1	1.7	1.7
10.0	3300.4	3252.4	2644.7	1760.1	1340.8	1150.6	389.3	2.8	1.3	1.5
0.0	3345.8	3303.3	2790.8	1908.2	1364.1	871.2	425.0	2.4	1.3	1.1

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	2.6	2.0	1.3	0.9	2.2	3.1	2.8	3.3	3.5	3.0
350.0	0.6	0.7	1.3	2.2	3.0	3.5	2.8	3.3	3.5	3.7
340.0	0.4	0.6	0.9	1.8	2.8	3.5	2.6	1.8	1.5	2.8
330.0	2.6	2.6	2.0	1.7	1.3	1.7	3.0	3.5	2.4	1.7
320.0	2.2	2.8	2.2	1.7	1.1	1.8	1.3	2.2	3.0	3.3
310.0	0.2	1.1	2.2	3.0	3.3	3.3	3.5	3.5	2.8	2.0
300.0	2.6	2.8	3.0	3.0	3.0	2.6	1.8	1.8	1.7	1.3
290.0	1.8	1.5	1.1	0.9	1.8	1.5	1.7	2.2	3.0	3.5
280.0	1.1	1.1	1.1	1.3	1.1	1.5	1.3	1.3	2.2	2.8
270.0	0.7	0.6	1.1	2.2	2.8	3.3	2.6	3.1	3.5	3.7
260.0	0.4	1.5	2.4	3.1	3.3	3.0	1.7	1.7	1.7	1.5
250.0	0.4	2.8	3.1	2.8	2.8	2.4	1.5	1.5	1.3	1.3
240.0	2.6	2.6	1.7	1.5	1.3	1.1	2.4	2.6	3.0	3.3
230.0	2.0	1.5	1.1	0.9	2.0	2.8	2.2	2.6	3.1	3.5
220.0	2.0	2.8	2.8	2.0	1.3	1.7	1.5	3.0	3.5	1.8
210.0	2.8	2.4	1.7	1.7	1.5	1.3	1.7	1.7	1.5	1.3
200.0	2.6	3.0	3.1	3.0	2.2	1.8	1.3	1.8	2.6	3.3
190.0	0.7	1.8	2.6	3.1	3.5	3.3	2.0	1.8	1.7	1.3
180.0	2.4	3.0	2.4	1.7	1.5	1.8	1.3	1.5	2.6	3.5
170.0	1.3	2.6	3.3	2.6	2.0	1.3	1.1	1.5	1.1	1.3
160.0	2.2	2.4	1.3	1.3	2.8	3.3	2.4	1.3	1.1	1.8
150.0	0.9	1.3	1.5	1.7	1.3	1.1	1.5	2.0	3.3	3.1
140.0	2.2	2.8	3.0	2.8	2.4	2.0	1.5	1.3	1.3	1.3
130.0	0.7	1.3	2.0	2.4	3.0	3.3	3.5	3.5	2.6	2.2
120.0	2.2	2.4	2.6	2.6	1.1	1.1	1.5	1.5	2.2	2.0
110.0	2.4	3.0	3.3	3.0	2.6	1.8	1.5	1.8	3.0	3.7
100.0	2.2	3.0	3.0	2.6	1.8	1.3	2.2	3.0	2.4	3.1
90.0	2.6	3.0	3.0	2.6	2.2	1.5	1.7	1.8	1.3	1.7
80.0	1.8	1.8	2.0	2.0	2.2	2.4	2.4	2.6	1.8	1.8
70.0	1.1	1.3	1.1	1.1	2.6	2.0	1.7	1.5	1.7	2.0
60.0	2.8	2.8	2.2	1.3	1.5	2.2	2.8	3.5	3.3	2.6
50.0	0.4	1.7	3.1	2.8	1.7	1.5	2.4	3.9	2.8	1.3
40.0	2.6	1.7	1.1	3.1	2.4	1.8	3.7	1.5	1.5	3.7
30.0	1.1	2.2	3.0	3.5	2.8	2.2	1.8	1.5	2.2	2.8
20.0	2.0	2.4	2.8	3.0	2.8	2.6	2.4	1.8	2.8	1.8
10.0	2.0	2.8	3.1	3.3	3.3	3.3	3.5	3.7	3.3	3.5
0.0	1.8	2.0	2.2	2.0	1.8	1.5	1.3	1.5	2.0	2.2

Equipmente: 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	2.2	1.7	1.5	1.3	1.8	2.4	1.7
350.0	3.3	2.8	2.2	1.7	1.1	1.1	2.6
340.0	3.5	2.4	1.3	2.8	3.3	1.8	1.7
330.0	1.5	2.6	3.1	3.1	1.8	1.1	1.3
320.0	3.7	3.3	2.8	2.0	1.8	1.5	1.3
310.0	1.5	1.3	1.8	2.2	2.8	3.1	3.3
300.0	1.7	2.6	3.0	3.3	3.5	3.3	3.3
290.0	3.5	2.4	1.8	1.1	1.7	2.8	2.2
280.0	3.7	3.3	2.4	1.7	1.3	2.2	3.3
270.0	3.5	3.3	2.8	2.4	1.8	1.5	1.3
260.0	1.3	1.5	1.3	2.4	2.2	2.2	1.8
250.0	1.5	1.5	1.5	1.8	2.4	2.6	2.0
240.0	3.7	3.5	2.6	1.7	1.1	1.7	1.1
230.0	3.5	3.5	3.7	3.3	2.4	1.7	2.2
220.0	1.7	3.3	2.8	1.3	2.6	3.3	1.5
210.0	1.5	1.7	2.2	2.4	2.6	2.6	3.3
200.0	3.7	2.4	1.7	1.1	2.0	1.1	2.6
190.0	1.3	1.3	1.3	1.3	1.1	1.3	2.0
180.0	3.0	1.8	1.3	1.5	1.3	1.5	0.0
170.0	1.7	2.0	2.8	3.1	3.3	3.0	2.6
160.0	3.5	2.2	1.3	3.0	3.0	1.3	1.7
150.0	1.8	1.3	2.0	3.3	3.0	2.6	1.3
140.0	1.8	2.2	3.1	3.3	2.8	1.8	1.3
130.0	2.2	2.2	2.2	2.4	2.8	3.1	3.3
120.0	2.2	2.2	2.6	2.8	3.1	3.3	3.3
110.0	3.1	2.2	1.3	2.0	3.1	3.1	2.2
100.0	3.5	3.1	2.2	1.1	1.7	2.8	3.3
90.0	2.0	2.8	3.1	3.5	3.0	2.2	1.3
80.0	2.0	2.2	2.2	2.2	2.0	1.7	1.8
70.0	2.2	2.6	3.0	3.5	3.3	2.8	2.0
60.0	1.5	1.7	2.4	3.5	3.1	2.4	1.1
50.0	2.0	3.3	3.5	2.4	1.1	1.5	2.2
40.0	1.7	2.8	2.8	1.7	3.3	2.2	1.5
30.0	3.1	3.3	3.3	3.3	3.3	3.3	3.3
20.0	1.3	1.7	2.0	3.0	3.5	3.1	2.6
10.0	3.5	3.7	3.5	3.0	2.6	2.2	2.0
0.0	3.3	3.5	3.7	3.3	3.0	2.4	2.0

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

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Great One Global Certification Co Ltd

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

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1. Luminaire Specification :

- (1) Input Voltage/Frequency : 220 V ac / 50Hz
- (2) Input Watt : 178 W
- (3) Input Current : 0.832 A
- (4) Total Luminous Flux Output : 11869.86 lm
- (5) Luminaire Efficacy : 66.685 lm/W
- (6) Central Intensity (cd): 3403.802
- (7) Maximum Intensity(cd): 3867.369
- (8) PF: 0.971
- (9) Beam angle: (C0-C180) 128.14 (C90-C270) 130

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

