



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 : GO1011260103

Product Name : LED Module

Model No : KG70N1

Sample No : 10112601-3

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

Test Date: 2010-12-06

Issue Date: 2010-12-06

- Note: 1. The test results of this report relate only to the tested sample identified in this report.
2. This report shall not be reproduced, in full or in portion, except for having written approval from Great One Global Certification Co. , Ltd.
3. The data in report cannot be used for advertisement, publication and promotion.

Tested By:

Reviewed By:

Roy Kao

Sean Kao

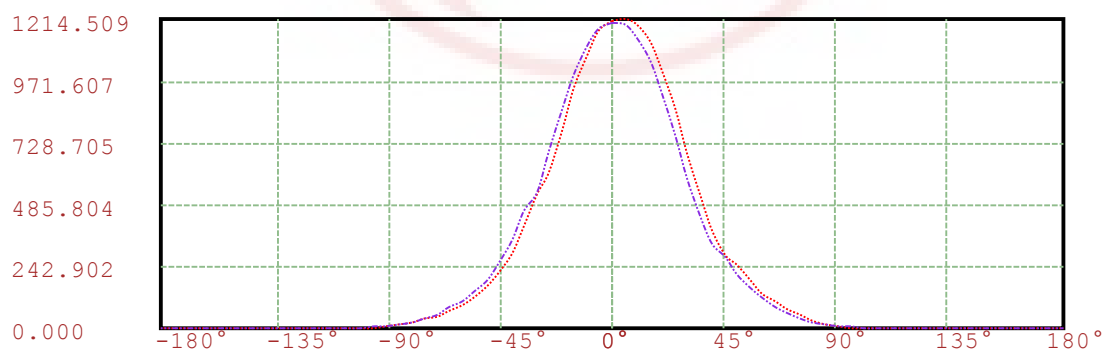
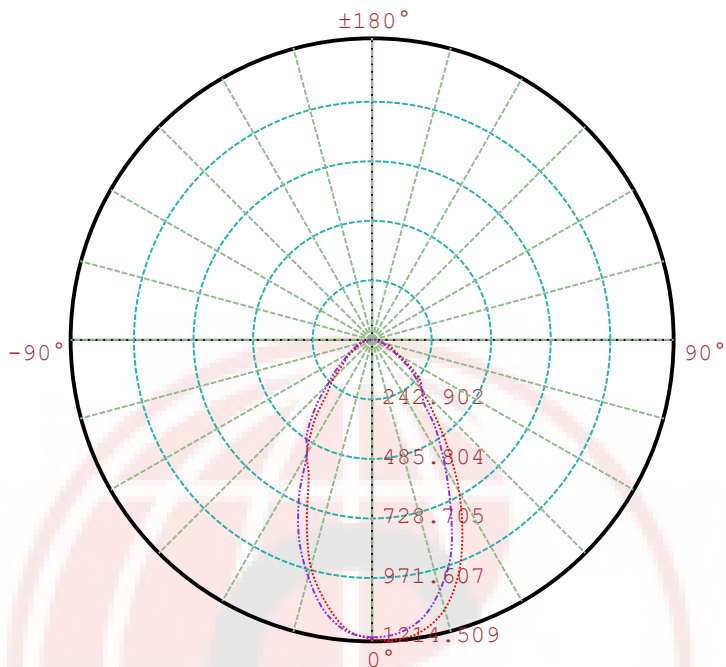
Roy Kao

Sean Kao

Project Engineer

Project Engineer

Light Distribution Curve [Unit: cd]



C0: (red dotted line)

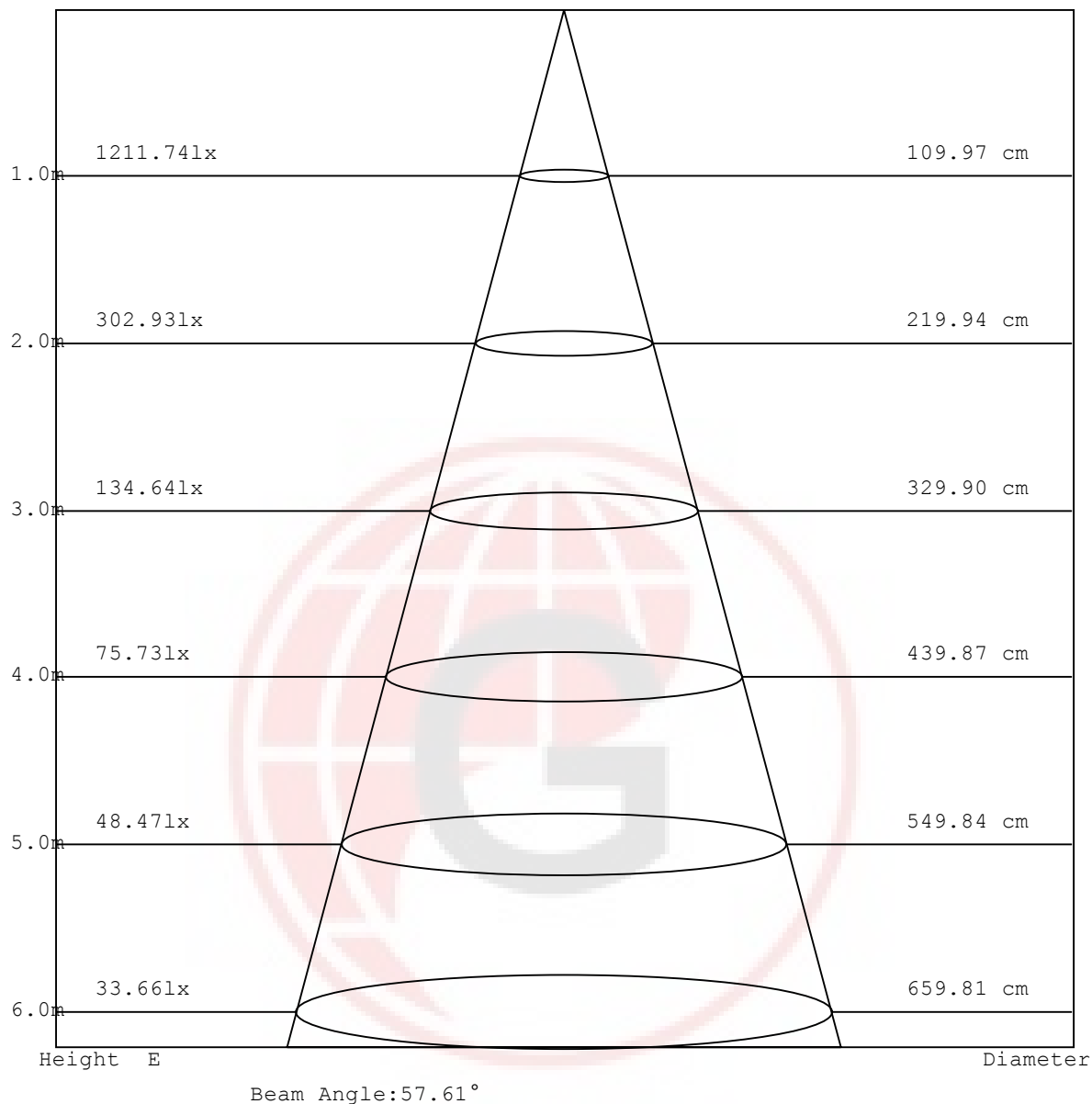
C90/C270: - - - - - (blue dashed line)

Equipment: GMS1800
Temperature (°C): 25.0

Date:
Humidity (%): 50.0%

Operator: Roy Kao
Distance (m): 13.6

Lux distance Curve

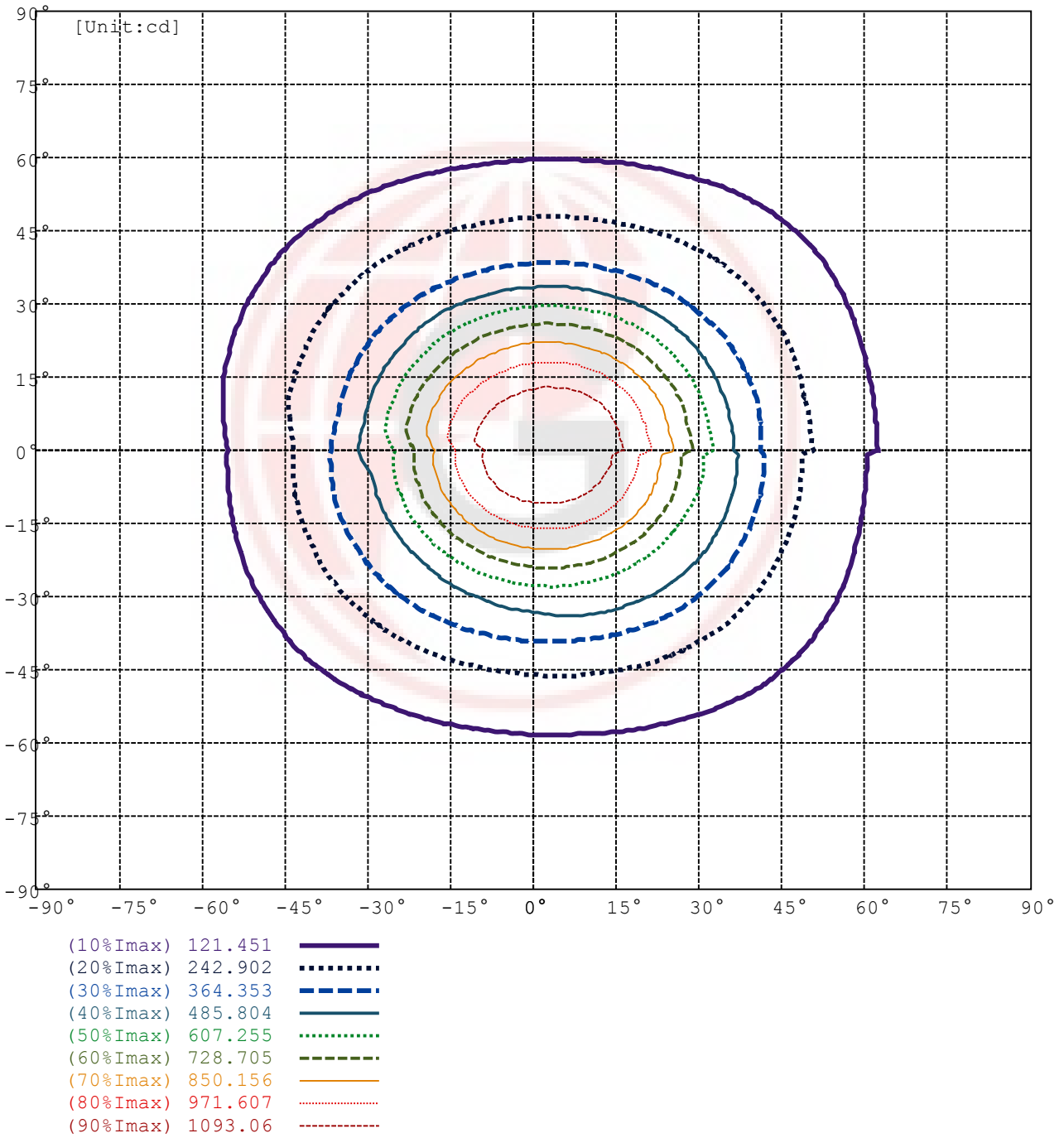


Equipment: GMS1800
 Temperature (°C): 25.0

Date:
 Humidity (%): 50.0%

Operator: Roy Kao
 Distance (m): 13.6

ISO-Intensity (V-H)

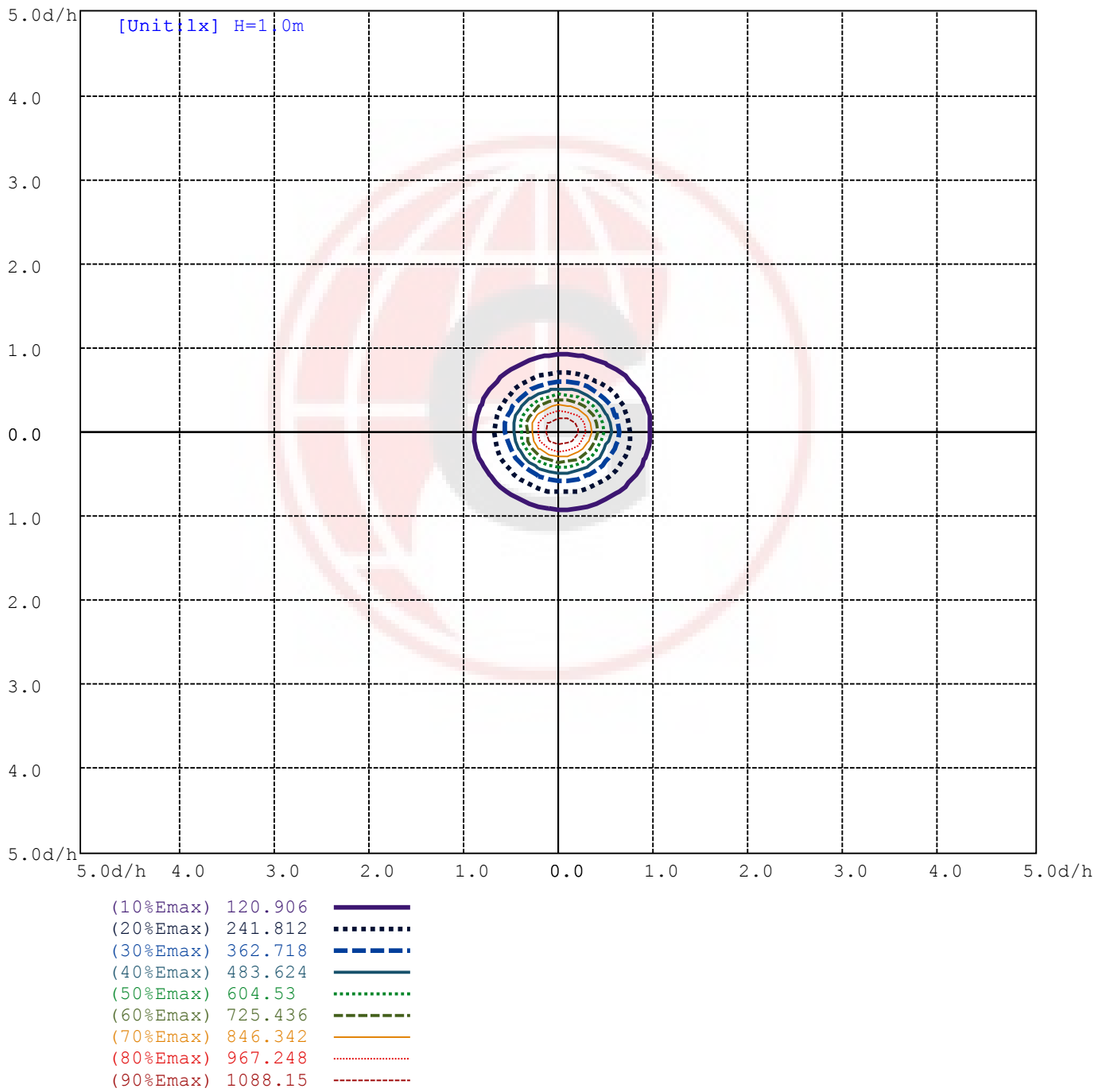


Equipment: GMS1800
Temperature (°C): 25.0

Date:
Humidity (%): 50.0%

Operator: Roy Kao
Distance (m): 13.6

ISO illuminance diagram



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	1209.2	1208.8	1167.4	1082.1	949.9	794.5	621.8	540.2	401.0	299.7
350.0	1208.4	1207.9	1164.3	1082.5	950.8	788.2	624.8	542.8	403.4	297.7
340.0	1207.5	1205.5	1161.7	1074.0	941.5	787.5	615.9	535.2	398.2	298.8
330.0	1206.8	1203.4	1154.7	1069.5	936.7	774.4	605.2	533.6	396.5	293.1
320.0	1205.8	1199.4	1150.4	1057.0	922.5	768.3	599.9	521.6	387.7	291.1
310.0	1203.6	1195.9	1140.3	1048.3	913.8	752.4	585.6	515.3	383.0	283.3
300.0	1203.8	1191.1	1134.0	1033.0	896.7	742.6	576.4	500.0	371.8	279.2
290.0	1202.3	1186.4	1123.3	1025.2	884.8	723.8	559.1	492.0	364.6	270.0
280.0	1202.0	1183.1	1116.4	1007.7	866.7	712.3	549.6	475.0	352.4	265.0
270.0	1202.1	1179.4	1108.5	995.7	857.3	693.7	532.1	459.5	345.7	256.5
260.0	1203.6	1177.6	1104.8	989.7	840.7	675.4	522.5	451.4	334.5	248.0
250.0	1205.1	1175.5	1097.6	978.7	834.2	667.1	507.3	437.3	328.7	243.6
240.0	1206.8	1174.4	1096.3	974.8	819.3	651.4	500.7	431.4	318.6	236.4
230.0	1208.6	1173.1	1092.1	964.3	814.7	645.5	487.9	420.4	314.9	233.6
220.0	1209.5	1173.3	1091.3	962.6	801.7	632.6	484.1	416.5	307.7	227.9
210.0	1210.3	1171.7	1086.2	955.0	801.5	631.1	475.0	408.9	306.4	226.1
200.0	1211.7	1172.4	1082.6	956.5	793.8	623.0	475.4	409.3	301.6	223.3
190.0	1209.5	1172.2	1085.2	952.8	796.4	625.7	470.2	403.7	302.7	223.8
180.0	1209.2	1170.7	1074.0	945.0	780.3	609.7	529.1	398.4	294.2	217.7
170.0	1208.4	1173.9	1111.6	995.7	840.7	679.3	516.2	382.1	282.6	246.7
160.0	1207.5	1175.0	1111.3	1001.7	849.0	679.1	516.4	388.4	286.8	246.7
150.0	1206.8	1174.6	1115.1	1002.5	849.2	689.1	525.8	389.7	292.0	251.0
140.0	1205.8	1175.0	1115.1	1010.2	861.0	692.8	529.5	398.7	294.0	252.7
130.0	1203.6	1176.3	1119.4	1012.6	865.8	706.2	542.1	402.3	301.0	258.6
120.0	1203.8	1178.3	1121.1	1022.8	879.3	713.6	556.1	412.4	305.1	262.3
110.0	1202.3	1180.0	1128.4	1027.1	886.1	730.6	561.8	417.9	313.8	269.6
100.0	1202.0	1184.4	1132.0	1038.9	901.6	739.3	579.2	431.2	318.8	274.1
90.0	1202.1	1188.7	1141.0	1046.1	919.0	757.6	588.6	438.4	328.7	282.8
80.0	1203.6	1193.6	1147.3	1060.1	927.9	767.7	606.1	452.5	334.7	287.7
70.0	1205.1	1197.7	1156.5	1067.9	945.6	786.0	615.0	460.1	345.2	296.2
60.0	1206.8	1202.9	1165.6	1081.7	954.7	795.3	632.7	474.6	350.4	300.7
50.0	1208.6	1207.1	1170.0	1089.1	970.2	812.6	640.3	488.3	361.1	309.5
40.0	1209.5	1210.1	1178.5	1100.7	977.9	820.2	655.5	493.5	365.3	313.2
30.0	1210.3	1211.9	1180.7	1107.2	991.4	833.5	660.4	505.3	373.8	320.8
20.0	1211.7	1213.0	1185.7	1114.0	992.9	845.3	671.7	506.8	375.1	326.7
10.0	1209.5	1213.8	1185.0	1114.2	1000.6	843.7	671.2	513.6	380.5	326.9
0.0	1209.0	1214.5	1189.0	1123.3	1008.0	861.6	689.1	522.7	387.5	289.8

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	222.0	164.7	123.6	91.1	64.6	42.8	26.8	19.6	9.4	4.2
350.0	223.3	165.7	123.6	90.3	65.4	44.1	26.2	19.0	10.0	4.2
340.0	220.7	164.0	123.9	91.2	64.6	42.8	26.6	19.9	10.2	4.2
330.0	217.4	163.8	122.1	89.6	64.5	43.2	26.2	19.2	9.8	4.6
320.0	215.9	160.7	121.7	89.0	63.3	42.1	25.7	19.6	10.2	4.2
310.0	210.5	159.6	118.4	87.4	62.6	41.4	25.5	19.0	10.0	4.4
300.0	207.6	155.7	115.6	86.2	61.1	40.1	24.7	18.7	10.2	4.4
290.0	201.7	153.1	114.1	83.7	60.0	39.3	23.6	17.9	10.2	4.8
280.0	197.6	148.3	110.6	82.0	57.4	38.0	23.5	17.5	9.6	4.6
270.0	191.5	145.5	109.0	79.8	55.8	37.1	22.7	17.2	9.2	4.6
260.0	187.8	141.1	105.1	77.9	55.0	36.2	22.3	16.8	8.7	4.1
250.0	181.7	138.9	103.8	75.5	53.2	35.6	21.2	16.3	8.5	3.9
240.0	179.1	134.3	100.7	75.0	52.5	34.4	20.9	16.3	8.3	3.9
230.0	174.3	131.1	99.7	72.6	51.5	34.4	20.5	15.5	8.1	3.7
220.0	172.7	130.0	97.0	72.4	51.3	33.4	19.9	15.5	7.6	3.3
210.0	169.2	127.3	96.6	71.3	50.4	33.6	19.9	15.1	7.8	3.9
200.0	169.5	126.5	95.5	70.0	50.2	33.4	19.6	14.2	7.8	3.7
190.0	167.1	125.6	95.1	70.2	50.1	33.4	20.1	14.6	7.0	3.5
180.0	164.6	123.6	92.7	67.8	48.9	40.1	24.9	13.5	7.0	3.0
170.0	183.0	137.4	103.1	77.4	56.0	37.9	23.5	13.1	9.4	4.2
160.0	183.2	139.4	104.7	77.2	56.7	38.4	23.3	12.9	9.4	4.2
150.0	186.5	139.6	106.4	78.7	56.5	37.9	24.0	13.3	9.6	4.2
140.0	190.4	142.2	106.6	78.9	57.1	38.6	23.3	12.7	9.4	3.9
130.0	192.6	143.7	109.0	80.9	54.5	32.7	19.4	10.9	8.1	1.8
120.0	197.4	147.6	110.4	75.9	47.8	34.5	22.2	12.4	6.6	1.5
110.0	200.2	150.0	111.7	75.4	46.7	37.1	22.9	11.8	7.8	4.8
100.0	206.9	154.4	113.6	77.8	53.0	36.2	22.7	13.1	9.8	5.0
90.0	210.0	157.0	118.4	85.3	58.0	39.2	24.2	13.5	9.6	4.8
80.0	216.5	161.6	120.0	89.4	63.9	42.5	25.3	14.6	10.7	5.0
70.0	219.4	163.6	123.0	90.9	64.8	44.1	26.4	14.4	10.2	5.0
60.0	225.9	168.1	124.5	92.9	66.9	44.9	26.2	14.6	10.5	5.0
50.0	228.6	172.5	127.6	93.8	67.4	46.2	28.1	15.3	10.5	5.2
40.0	234.2	173.8	129.1	96.4	68.9	47.1	28.8	16.4	11.8	5.4
30.0	236.2	178.0	132.2	97.0	69.4	48.4	29.9	16.6	11.8	5.2
20.0	241.4	178.2	132.2	99.4	71.3	48.2	30.8	17.2	12.2	5.2
10.0	241.2	181.0	134.1	99.2	71.3	49.5	30.5	16.8	12.0	5.5
0.0	249.0	184.9	137.2	102.5	73.9	51.2	32.7	18.1	8.5	3.7

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

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	1.3	1.1	1.1	1.3	1.7	1.5	1.8
350.0	1.1	1.5	1.7	1.7	1.8	1.7	1.8
340.0	1.5	1.5	1.5	1.5	1.3	1.5	1.3
330.0	1.1	1.3	1.5	1.5	1.8	1.5	1.5
320.0	1.5	1.7	1.5	1.7	1.7	1.8	1.8
310.0	1.5	1.5	1.7	1.7	1.7	1.5	1.5
300.0	1.5	1.5	1.5	1.3	1.5	1.5	1.3
290.0	1.1	1.5	1.3	1.7	1.8	1.8	1.7
280.0	1.1	1.5	1.5	1.5	1.3	1.3	1.3
270.0	1.5	1.7	1.7	1.8	1.7	1.8	1.7
260.0	0.9	1.1	1.5	1.7	1.8	1.3	1.5
250.0	1.1	1.5	1.7	1.8	1.7	1.5	1.3
240.0	1.5	1.7	1.7	1.3	1.3	1.5	1.5
230.0	1.3	1.1	1.1	1.5	1.5	1.8	1.8
220.0	1.1	1.3	1.5	1.7	1.7	1.7	1.7
210.0	1.5	1.5	1.8	1.7	1.5	1.3	1.3
200.0	1.3	1.3	1.3	1.5	1.8	1.8	1.7
190.0	1.5	1.5	1.3	1.5	1.3	1.3	1.3
180.0	1.1	1.1	1.3	1.3	1.3	1.3	0.0
170.0	1.1	1.1	1.1	1.3	1.5	1.7	1.8
160.0	1.5	1.8	1.7	1.5	1.3	1.5	1.3
150.0	1.3	1.5	1.7	1.8	1.7	1.3	1.5
140.0	1.5	1.7	1.7	1.7	1.8	1.7	1.8
130.0	1.5	1.5	1.5	1.3	1.3	1.5	1.5
120.0	1.5	1.5	1.5	1.5	1.1	1.3	1.3
110.0	1.1	1.1	1.3	1.3	1.5	1.8	1.7
100.0	1.3	1.5	1.5	1.8	1.8	1.8	1.3
90.0	1.3	1.3	1.3	1.5	1.3	1.5	1.7
80.0	1.1	1.5	1.7	1.8	1.5	1.3	1.5
70.0	1.7	1.5	1.5	1.3	1.3	1.3	1.3
60.0	1.1	1.1	1.3	1.7	1.8	1.7	1.5
50.0	1.3	1.1	1.1	1.5	1.5	1.8	1.8
40.0	1.1	1.1	1.3	1.3	1.3	1.5	1.7
30.0	1.5	1.7	1.7	1.7	1.5	1.3	1.3
20.0	1.3	1.3	1.1	1.1	1.3	1.7	1.7
10.0	1.3	1.3	1.3	1.5	1.3	1.5	1.3
0.0	1.1	1.1	1.3	1.3	1.3	1.3	1.5

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 : 110 V ac / 60Hz
- (2) Input Watt : 29.5 W
- (3) Input Current : 0.477 A
- (4) Total Luminous Flux Output : 1518.01 lm
- (5) Luminaire Efficacy : 51.46 lm/W
- (6) Central Intensity (cd): 1208.968
- (7) Maximum Intensity(cd): 1214.509
- (8)PF: 0.569

2. Description of EUT Setup :

- (1) Operating Orientation : The light source is considered as horizontal.
- (2) Light Source : LED
- (3) Stabilization time : 0.5 Hour
- (4) Environment Condition : Temperature: 25 ± 1 °C , Humidity: $55\pm 10\%$



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

4. Photograph of EUT :

