



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 : GO1012100201

Product Name : LED Streer Lamp

Model No : KG-90W

Sample No : 10121002-1

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

Test Date: 2010-12-22

Issue Date: 2010-12-22

- 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

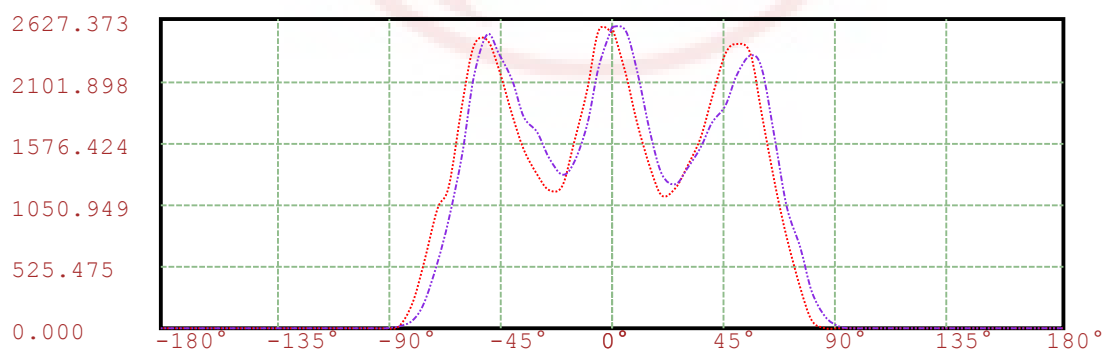
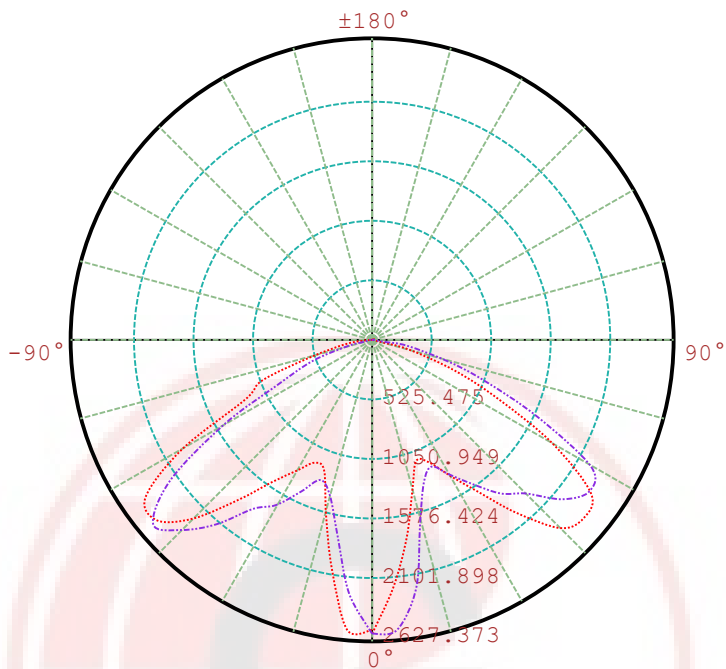
Roy Kao

Sean Kao

Project Engineer

Project Engineer

Light Distribution Curve [Unit: cd]



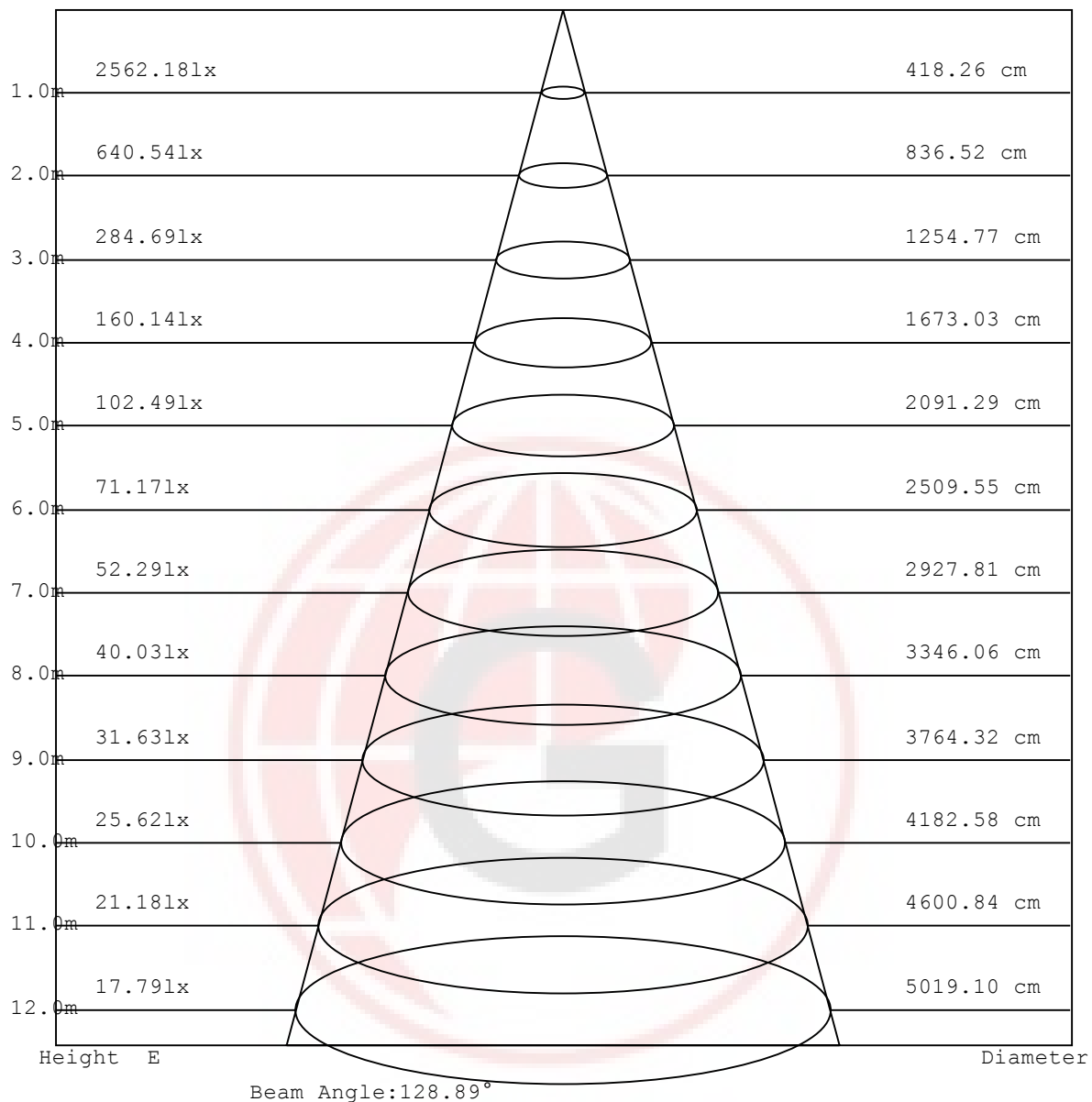
C0/C180:
 C90/C270: - - - - -

Equipment: GMS1800
 Temperature (°C): 25.0

Date:
 Humidity (%): 50.0%

Operator: Roy Kao
 Distance (m): 13.6

Lux distance Curve

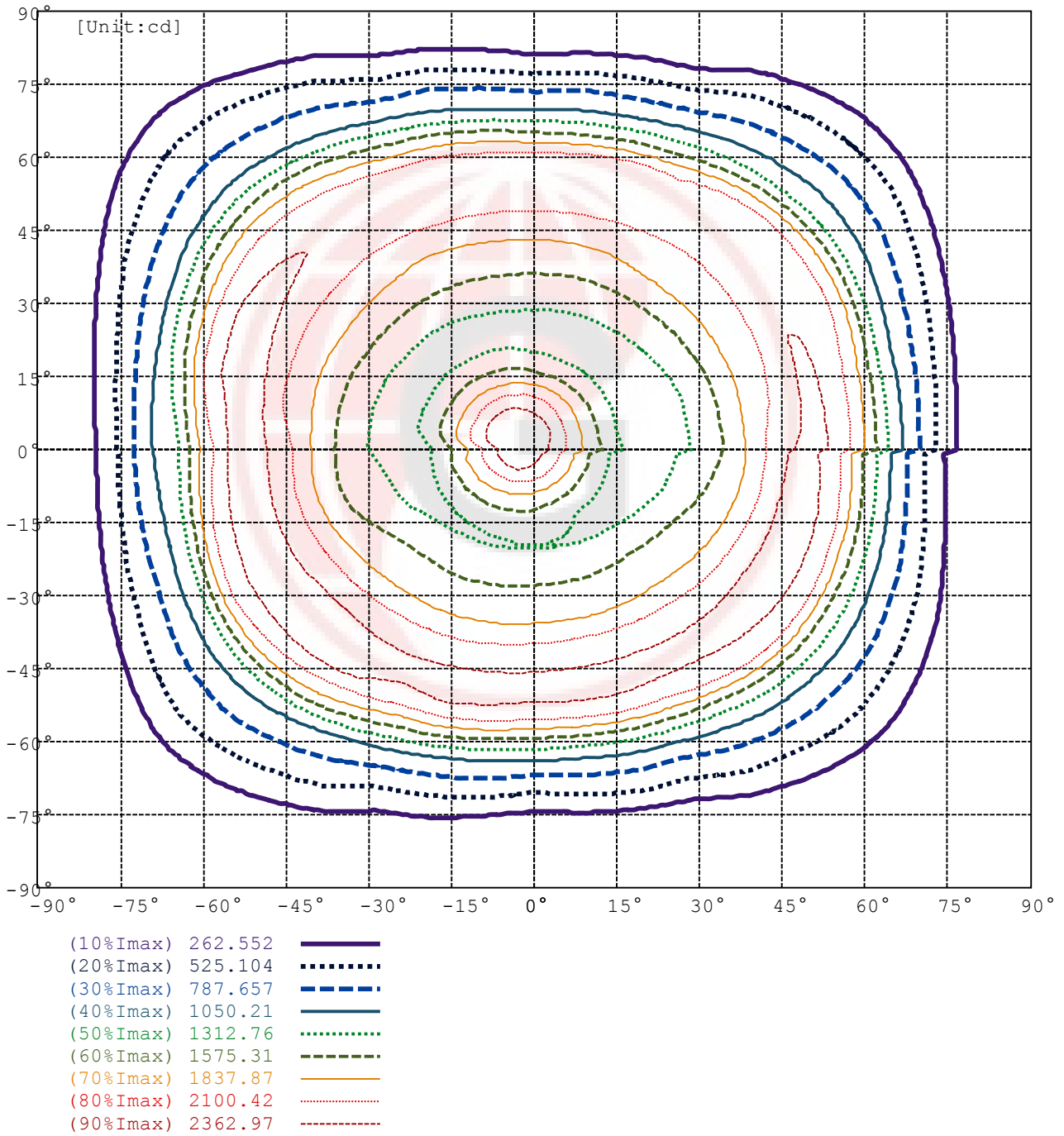


Equipment: GMS1800
 Temperature (°C): 25.0

Date:
 Humidity (%): 50.0%

Operator: Roy Kao
 Distance (m): 13.6

ISO-Intensity (V-H)

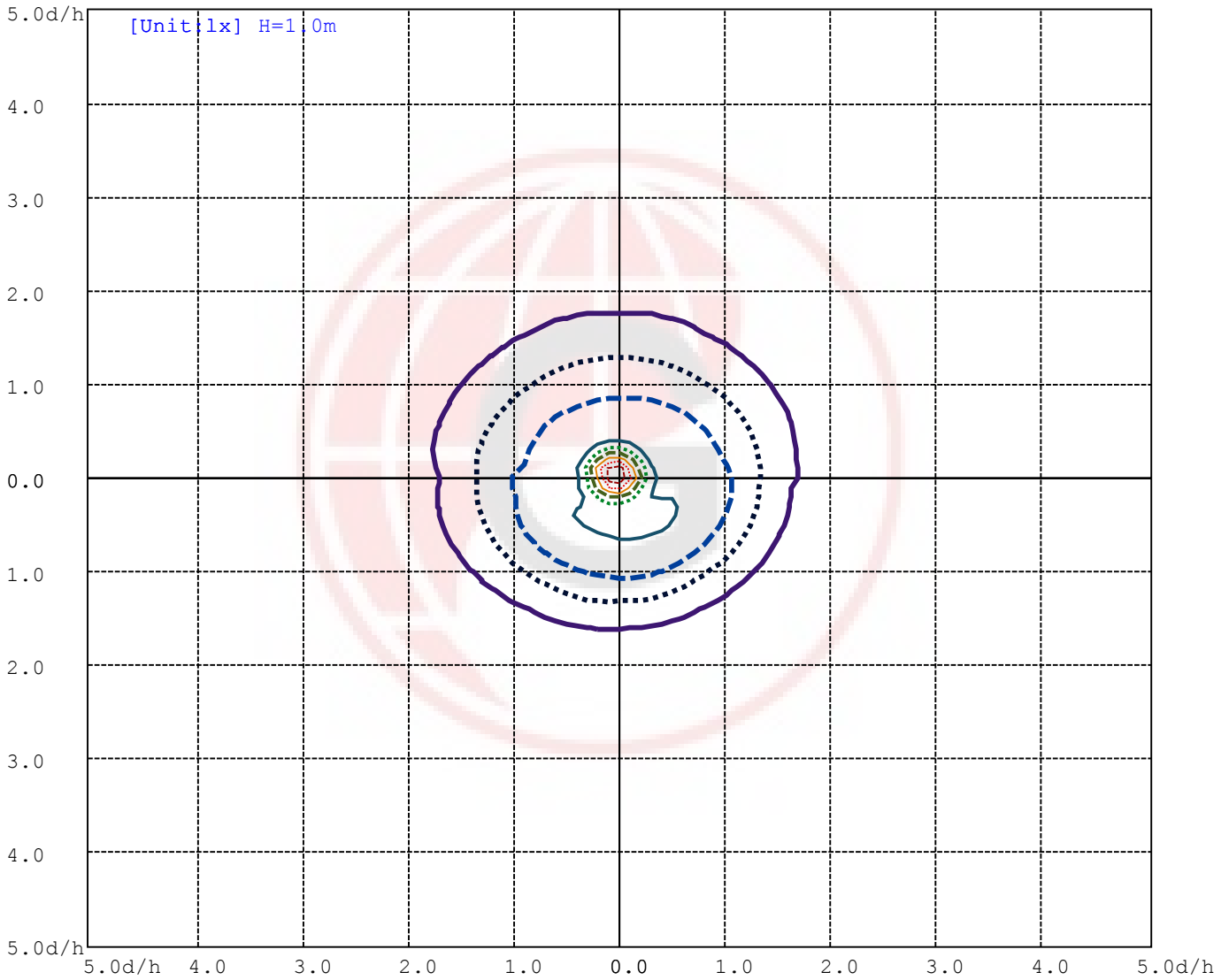


Equipment: GMS1800
Temperature (°C): 25.0

Date:
Humidity (%): 50.0%

Operator: Roy Kao
Distance (m): 13.6

ISO illuminance diagram



(10%Emax)	256.466	———
(20%Emax)	512.933
(30%Emax)	769.399	- - - -
(40%Emax)	1025.87	————
(50%Emax)	1282.33
(60%Emax)	1538.8	- - - -
(70%Emax)	1795.26	————
(80%Emax)	2051.73
(90%Emax)	2308.2	- - - -

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	2519.0	2078.5	1578.5	1217.6	1128.6	1277.3	1474.2	1598.7	1945.1	2334.3
350.0	2523.6	2064.4	1578.7	1214.1	1146.7	1301.3	1510.2	1640.0	1980.4	2357.7
340.0	2529.3	2066.5	1585.9	1233.5	1178.5	1334.9	1557.1	1693.6	2047.8	2363.1
330.0	2533.0	2073.9	1578.5	1258.3	1214.5	1392.0	1631.0	1759.0	2094.4	2396.9
320.0	2538.9	2082.2	1596.8	1275.1	1248.5	1437.6	1679.0	1819.5	2120.6	2375.3
310.0	2540.9	2101.6	1618.2	1296.5	1275.8	1471.2	1700.6	1841.3	2152.9	2370.1
300.0	2546.7	2122.4	1627.5	1311.3	1284.1	1462.2	1696.2	1825.3	2152.5	2373.2
290.0	2551.3	2154.8	1661.5	1340.3	1295.0	1456.6	1674.2	1812.7	2146.6	2362.5
280.0	2553.9	2191.0	1680.5	1374.6	1301.9	1463.8	1668.7	1805.1	2132.8	2355.0
270.0	2558.5	2224.6	1727.8	1399.0	1304.3	1455.0	1662.0	1797.9	2107.3	2340.7
260.0	2559.4	2265.2	1777.8	1432.4	1299.7	1443.5	1634.5	1763.8	2084.0	2323.0
250.0	2563.8	2303.1	1809.6	1445.0	1287.3	1422.1	1622.7	1748.1	2050.4	2314.7
240.0	2563.3	2344.1	1860.4	1470.7	1281.6	1403.1	1609.4	1734.8	2048.4	2317.5
230.0	2564.9	2386.9	1888.8	1499.5	1272.9	1390.7	1616.0	1731.6	2040.4	2328.9
220.0	2564.4	2420.2	1940.0	1513.2	1261.8	1362.1	1594.2	1722.6	2014.0	2343.5
210.0	2564.0	2458.2	1993.7	1548.1	1249.0	1326.2	1541.6	1665.7	1964.0	2323.7
200.0	2562.2	2487.0	2018.6	1561.9	1236.5	1269.4	1472.9	1590.2	1870.7	2244.1
190.0	2561.4	2517.1	2068.3	1591.3	1223.9	1225.4	1411.4	1519.2	1809.2	2181.0
180.0	2519.0	2537.2	2020.5	1569.7	1204.7	1178.3	1310.9	1510.6	1807.4	2200.2
170.0	2523.6	2587.9	2287.9	1763.0	1365.8	1175.7	1306.3	1518.7	1802.9	1993.3
160.0	2529.3	2609.8	2314.1	1804.4	1372.8	1173.9	1303.5	1511.7	1792.0	1974.7
150.0	2533.0	2621.6	2347.8	1814.0	1374.3	1181.8	1306.3	1537.3	1809.8	1957.1
140.0	2538.9	2627.4	2353.5	1816.0	1391.4	1190.9	1321.3	1540.3	1799.4	1952.0
130.0	2540.9	2627.2	2344.4	1829.2	1382.4	1195.1	1313.9	1531.2	1778.5	1924.6
120.0	2546.7	2615.6	2336.5	1795.2	1368.4	1200.7	1321.1	1521.8	1744.7	1889.0
110.0	2551.3	2598.7	2293.8	1770.1	1365.2	1210.8	1334.6	1515.2	1741.6	1880.5
100.0	2553.9	2570.7	2257.3	1710.6	1336.0	1223.7	1343.8	1523.7	1750.8	1888.6
90.0	2558.5	2532.4	2186.7	1646.1	1309.4	1221.5	1351.0	1528.3	1747.9	1888.3
80.0	2559.4	2492.7	2107.1	1606.2	1262.7	1210.6	1344.2	1525.2	1757.1	1902.3
70.0	2563.8	2440.5	2041.5	1549.0	1221.5	1203.1	1358.4	1548.6	1778.5	1925.0
60.0	2563.3	2393.2	1957.9	1515.9	1196.2	1205.8	1380.5	1578.0	1825.3	1967.3
50.0	2564.9	2336.9	1900.1	1459.8	1165.6	1198.6	1387.4	1604.0	1863.1	1992.2
40.0	2564.4	2291.8	1832.3	1406.4	1143.4	1191.1	1393.7	1609.4	1886.6	2038.6
30.0	2564.0	2242.7	1776.0	1379.1	1120.5	1185.3	1377.4	1615.3	1919.1	2089.0
20.0	2562.2	2201.5	1750.5	1339.0	1108.9	1181.6	1375.2	1611.6	1928.7	2111.9
10.0	2561.4	2177.5	1718.3	1329.0	1110.7	1194.7	1389.8	1619.5	1971.2	2169.0
0.0	2567.2	2175.4	1751.0	1359.3	1119.9	1185.7	1374.4	1610.3	1964.5	2330.6

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	2449.5	2156.6	1521.5	1011.2	570.5	206.1	7.4	1.3	1.1	1.3
350.0	2484.2	2243.6	1566.0	1018.2	669.3	334.5	4.8	1.7	1.1	1.1
340.0	2474.5	2256.7	1522.8	1017.4	669.3	336.1	5.9	1.7	0.9	1.5
330.0	2448.6	2255.0	1486.9	976.4	653.8	317.8	5.5	1.7	1.3	1.5
320.0	2425.1	2214.8	1460.3	951.0	622.2	291.4	12.7	2.6	1.5	1.5
310.0	2398.5	2136.7	1393.8	913.3	619.1	277.8	20.3	2.8	1.3	1.1
300.0	2412.6	2094.7	1399.0	885.2	547.0	202.2	41.9	2.8	0.9	1.1
290.0	2485.0	2156.4	1447.0	922.5	618.9	240.6	56.9	3.3	1.5	1.5
280.0	2499.8	2164.9	1444.3	920.7	611.5	241.6	59.5	3.1	1.1	1.3
270.0	2492.0	2139.4	1484.2	931.6	553.0	214.4	64.3	10.7	0.9	0.9
260.0	2495.7	2264.3	1547.9	976.6	659.5	287.0	73.7	16.8	1.3	1.5
250.0	2487.9	2319.7	1617.9	986.6	670.4	327.8	88.3	18.5	1.5	1.3
240.0	2441.4	2259.5	1613.3	1029.6	649.4	315.6	86.1	26.4	0.9	1.1
230.0	2441.4	2350.7	1764.1	1046.3	742.1	448.4	112.1	20.7	0.9	1.1
220.0	2449.7	2412.6	1897.1	1114.2	765.9	467.6	137.6	18.1	1.3	1.1
210.0	2471.3	2446.2	1988.0	1173.1	823.0	505.7	154.4	22.9	1.5	1.5
200.0	2461.5	2471.5	2099.2	1203.4	838.3	545.9	179.1	23.6	1.5	1.3
190.0	2456.2	2449.1	2055.8	1234.6	849.2	516.4	174.3	28.6	1.1	1.1
180.0	2443.8	2401.3	1904.0	1213.2	1014.3	558.7	216.6	16.4	0.9	0.7
170.0	2373.4	2476.3	2290.9	1563.6	1018.7	688.9	385.1	21.2	1.7	0.9
160.0	2326.9	2455.6	2323.9	1708.4	1070.1	744.5	448.8	31.4	2.0	1.3
150.0	2282.4	2407.2	2303.6	1774.9	1085.4	764.8	449.5	52.3	2.4	0.9
140.0	2242.9	2347.8	2286.4	1743.8	1082.8	772.0	454.7	78.9	4.6	1.5
130.0	2189.3	2301.8	2235.6	1693.4	1076.2	767.9	463.0	122.1	18.1	0.9
120.0	2181.4	2295.5	2200.2	1652.2	1071.7	699.4	372.0	93.8	32.1	1.3
110.0	2164.2	2315.4	2270.6	1690.1	1083.8	776.1	426.8	116.4	39.2	1.1
100.0	2147.7	2316.0	2241.4	1677.2	1060.7	753.0	377.5	120.6	29.0	0.9
90.0	2159.0	2313.4	2203.0	1585.5	1026.3	683.0	308.1	98.4	20.5	1.3
80.0	2154.4	2323.2	2244.0	1564.7	1026.3	720.8	338.5	92.3	18.8	1.5
70.0	2188.4	2315.4	2205.0	1509.1	965.2	659.3	310.6	73.9	10.9	0.9
60.0	2196.1	2267.0	2079.2	1418.4	933.6	591.7	239.9	50.6	3.1	0.9
50.0	2220.1	2292.2	2102.9	1374.3	918.3	628.9	298.8	19.9	3.0	1.5
40.0	2269.8	2308.0	2089.9	1293.7	898.1	607.4	258.7	2.8	2.0	1.1
30.0	2315.3	2327.4	2047.6	1267.3	894.1	572.3	210.7	2.4	1.8	1.5
20.0	2369.4	2349.0	2018.6	1210.8	858.4	540.0	129.1	1.8	1.1	0.9
10.0	2408.1	2325.0	1844.5	1141.2	784.0	436.0	57.3	1.8	1.5	1.5
0.0	2409.6	2338.3	1814.7	1210.8	765.7	335.6	66.5	1.8	1.3	1.3

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

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	2.0	2.0	2.0	2.0	1.8	1.5	1.7
350.0	2.4	1.8	1.8	1.8	2.0	2.2	2.0
340.0	2.2	2.2	2.0	1.8	1.8	1.7	1.7
330.0	2.0	1.8	1.8	1.7	1.7	1.7	1.7
320.0	1.8	1.7	1.8	1.7	1.7	1.7	1.7
310.0	2.2	1.8	1.7	1.7	1.7	2.0	2.0
300.0	2.2	2.2	2.2	1.8	1.7	1.7	1.7
290.0	1.8	1.7	1.8	1.8	2.0	2.0	2.0
280.0	2.0	2.2	2.0	1.8	1.5	1.7	1.5
270.0	2.2	2.0	2.0	2.0	1.7	1.8	1.8
260.0	2.2	2.0	2.2	1.8	1.8	1.7	1.7
250.0	2.0	1.7	1.7	1.7	1.7	1.8	1.8
240.0	2.0	2.0	2.0	2.4	1.8	1.8	1.7
230.0	1.8	2.0	2.2	2.2	1.7	1.8	1.7
220.0	1.8	1.8	1.8	1.7	1.7	1.7	1.7
210.0	2.0	2.0	2.2	2.0	1.8	1.8	1.8
200.0	2.2	2.2	1.8	1.8	2.2	2.2	1.8
190.0	2.2	2.0	2.2	2.2	2.2	2.0	1.8
180.0	2.2	2.2	1.8	1.8	1.7	1.8	0.0
170.0	2.2	2.4	2.2	2.0	1.8	1.8	2.0
160.0	1.8	2.2	2.2	2.2	1.8	1.7	1.7
150.0	2.2	2.0	2.0	1.7	1.7	1.8	1.7
140.0	2.0	2.0	2.0	1.8	1.8	1.7	1.7
130.0	2.0	1.8	1.8	2.2	2.2	2.2	2.0
120.0	2.2	2.4	2.2	2.0	1.8	1.7	1.7
110.0	1.8	1.8	2.0	2.2	2.2	2.2	2.0
100.0	1.8	1.8	1.8	1.8	1.7	1.7	1.5
90.0	1.8	2.0	2.0	1.8	1.7	1.8	1.8
80.0	1.8	2.2	2.2	2.2	1.8	1.7	1.7
70.0	1.8	2.4	2.4	2.4	2.2	2.0	1.8
60.0	2.2	2.4	2.2	2.2	1.7	1.7	1.7
50.0	2.2	2.2	2.4	2.0	2.0	1.7	1.7
40.0	2.0	2.0	1.8	1.8	1.7	1.7	1.7
30.0	2.2	2.2	2.2	1.8	1.7	1.7	1.8
20.0	1.8	2.2	2.2	2.2	1.8	1.7	1.8
10.0	1.8	1.8	2.0	1.8	1.8	2.0	1.8
0.0	1.8	1.8	1.8	2.0	2.0	2.2	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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1. Luminaire Specification :

- (1) Input Voltage/Frequency : 110 V ac / 60Hz
- (2) Input Watt : 101.3 W
- (3) Input Current : 1.485 A
- (4) Total Luminous Flux Output : 7892.02 lm
- (5) Luminaire Efficacy : 77.907 lm/W
- (6) Central Intensity (cd): 2567.125
- (7) Maximum Intensity(cd): 2627.373
- (8) PF:0.618

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 :

