

**R852 WWL (CRI90 700mA 40D)**

Luminaire Name: R852 WWL (CRI90 700mA 40D)

Report NO.: 01314521062905A

Test NO.:

Lamp: CITIZEN CLU028-1204C4-303H5M3 700mA

Sum Lumens: 2710.3 lm

Number of Lamps: 1

Diameter: 115mm

Length: -115mm

Photometric Type: Type C

Voltage: 229.83 V

Current: 0.1279 A

Power: 28.167 W

Power Factor: 0.9581

Ballast Type: OSRAM OT FIT 20/220-240/700 CS

Width: -115mm

Height: 105mm

Optical Component: 40D Reflector DC(V:37.12V I:0.688A P:25.54W)

**Photometric Results**

Lumens: 2136.88 lm

Efficiency: 78.84%

Central Intensity: 4003.219cd

Maximum Intensity: 4048.403cd

Beam Angle(10%): Left: -31.7 Right:35.7

Maximum s/h: C0\_180: 0.34 C90\_270: 0.32

Effective Luminous Flux: 1952.64 lm

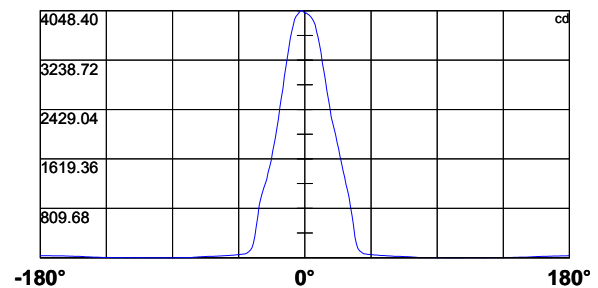
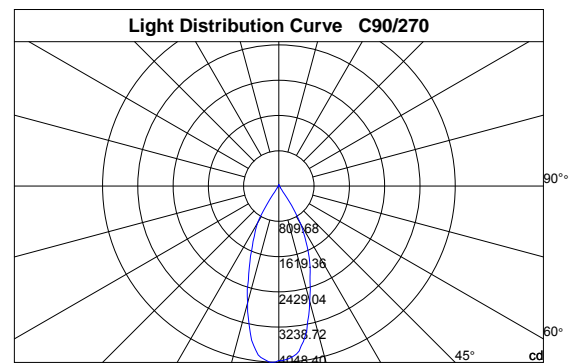
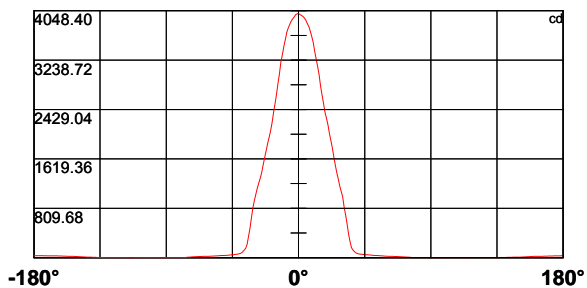
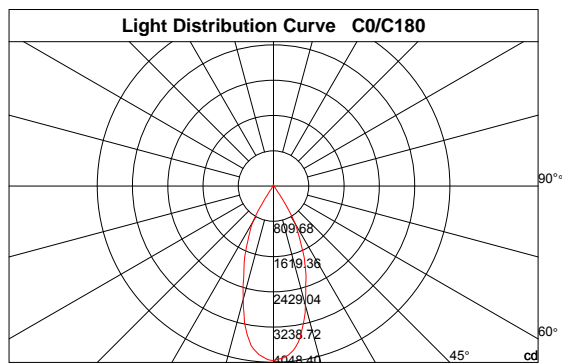
Angle of maximum intensity: C:270.0 G:2.0

Half Peak Side Angle(50%): Left: -17.7 Right:22.8

Up Flux Rate: 1.02%

Down Flux Rate: 77.82%

CIE Classification: Direct



**R852 WWL (CRI90 700mA 40D)**

Page2

**Intensity Data [cd]**

C\γ	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	4003.2	3984.5	3968.7	3954.7	3927.4	3892.1	3840.1	3788.6	3710.2	3624.1
30.0	4003.2	3988.8	3967.9	3952.1	3923.6	3886.1	3829.5	3777.9	3703.8	3619.5
60.0	4003.2	4003.7	3977.3	3958.1	3935.1	3898.5	3852.5	3792.8	3700.8	3608.8
90.0	4003.2	4007.9	3990.9	3974.7	3948.7	3916.4	3875.9	3817.1	3700.8	3609.7
120.0	4003.2	3970.5	3959.4	3950.9	3925.7	3890.4	3861.8	3799.2	3708.5	3606.2
150.0	4003.2	3981.1	3969.2	3945.7	3923.2	3900.2	3856.3	3793.2	3692.7	3596.0
180.0	4003.2	3997.7	3983.2	3948.3	3915.1	3881.4	3820.1	3765.6	3694.0	3577.7
210.0	4003.2	4013.9	4007.1	3992.2	3967.5	3911.2	3859.7	3807.3	3725.1	3620.3
240.0	4003.2	4028.8	4037.3	4036.9	4025.4	3994.3	3946.2	3878.4	3766.4	3663.8
270.0	4003.2	4037.3	4048.4	4048.4	4016.9	3985.8	3953.0	3904.4	3801.3	3701.7
300.0	4003.2	3989.6	3985.8	3976.4	3951.3	3932.1	3891.2	3818.0	3737.4	3647.1
330.0	4003.2	3989.6	3976.0	3965.3	3950.4	3910.8	3860.6	3806.0	3726.4	3628.0
360.0	4003.2	3984.5	3968.7	3954.7	3927.4	3892.1	3840.1	3788.6	3710.2	3624.1

C\γ	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	3529.1	3385.6	3259.9	3128.3	2994.6	2809.7	2669.1	2534.5	2391.8	2283.2
30.0	3529.6	3386.4	3262.5	3136.0	3002.7	2816.9	2681.5	2547.3	2404.2	2301.9
60.0	3512.5	3373.7	3250.1	3117.7	2933.2	2794.8	2658.9	2523.0	2357.3	2259.3
90.0	3491.2	3368.6	3185.8	3045.7	2902.5	2737.7	2602.2	2470.2	2306.6	2198.8
120.0	3493.4	3315.7	3175.6	3034.2	2863.8	2719.0	2578.4	2397.4	2268.7	2155.4
150.0	3473.8	3300.0	3157.3	3014.2	2871.9	2703.2	2552.8	2370.9	2247.0	2123.9
180.0	3467.8	3334.9	3205.8	3012.4	2860.0	2684.5	2533.2	2391.4	2214.6	2085.5
210.0	3490.0	3337.5	3198.6	3046.5	2892.3	2689.6	2537.5	2388.8	2224.4	2088.9
240.0	3561.9	3408.6	3237.8	3085.7	2935.3	2732.6	2580.1	2422.9	2240.2	2101.3
270.0	3590.5	3433.7	3265.0	3115.1	2965.6	2763.7	2633.3	2477.4	2271.3	2129.0
300.0	3529.6	3357.5	3220.3	3080.2	2920.0	2776.9	2633.3	2431.9	2290.0	2158.0
330.0	3524.0	3400.5	3236.1	3108.7	2972.0	2791.8	2645.7	2500.9	2367.1	2227.8
360.0	3529.1	3385.6	3259.9	3128.3	2994.6	2809.7	2669.1	2534.5	2391.8	2283.2

C\γ	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	2179.3	2038.7	1924.5	1806.5	1664.7	1518.6	1397.2	1283.9	1170.1	1086.6
30.0	2206.1	2076.2	1973.9	1861.5	1723.0	1595.3	1465.3	1307.3	1204.2	1105.4
60.0	2169.5	2079.2	1964.6	1858.9	1700.9	1574.4	1447.4	1327.3	1188.0	1101.6
90.0	2103.4	2009.3	1886.6	1788.6	1659.1	1542.9	1427.0	1318.4	1191.9	1103.7
120.0	2040.0	1948.0	1852.5	1737.1	1613.6	1504.5	1401.0	1274.1	1185.9	1103.3
150.0	2017.8	1899.4	1799.3	1693.7	1548.0	1441.5	1345.2	1229.3	1149.3	1070.9
180.0	1978.2	1880.7	1763.1	1655.7	1530.1	1407.8	1311.6	1223.8	1142.9	1045.3
210.0	1971.8	1823.1	1714.1	1608.5	1510.1	1387.4	1300.1	1220.8	1134.8	1066.6
240.0	1977.8	1821.0	1706.0	1595.7	1491.7	1366.1	1278.3	1200.4	1118.2	1052.1
270.0	1980.8	1855.1	1738.4	1591.4	1484.9	1402.7	1282.6	1205.5	1135.6	1056.4
300.0	2003.8	1890.0	1779.3	1647.2	1531.8	1417.2	1275.8	1183.8	1104.1	1025.3
330.0	2115.8	2004.2	1847.9	1730.3	1609.3	1490.9	1335.8	1228.9	1138.6	1036.0
360.0	2179.3	2038.7	1924.5	1806.5	1664.7	1518.6	1397.2	1283.9	1170.1	1086.6

**R852 WWL (CRI90 700mA 40D)**

Page3

**Intensity Data [cd]**

C\γ	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	998.9	831.5	690.5	546.9	385.1	265.8	164.0	125.7	98.4	80.1
30.0	1011.7	880.9	734.8	535.9	395.3	271.8	166.6	127.8	104.4	78.8
60.0	1004.0	850.2	702.8	551.2	382.5	240.7	161.0	125.2	98.4	80.5
90.0	997.2	840.4	689.2	533.3	342.9	228.7	156.8	120.5	97.5	80.1
120.0	998.0	808.9	653.9	501.8	359.9	226.6	157.6	128.2	97.5	80.9
150.0	967.4	808.1	660.3	513.7	333.1	221.9	152.5	124.0	94.1	78.0
180.0	943.9	816.2	650.5	483.5	348.4	220.2	151.2	122.7	95.0	75.4
210.0	974.2	800.0	656.8	515.0	376.1	221.9	152.5	123.1	99.3	76.2
240.0	969.5	805.9	661.1	514.1	353.6	238.5	154.2	123.5	96.3	79.7
270.0	972.5	856.2	667.9	517.1	353.6	238.1	163.6	124.0	100.1	82.2
300.0	949.9	836.2	702.4	512.9	376.1	255.2	158.5	117.1	95.0	78.4
330.0	951.6	834.0	674.3	534.2	397.4	275.2	158.5	121.8	99.3	76.2
360.0	998.9	831.5	690.5	546.9	385.1	265.8	164.0	125.7	98.4	80.1

C\γ	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0
0.0	67.7	60.9	57.9	55.8	53.2	51.1	48.1	46.4	44.3	42.2
30.0	66.5	61.8	57.9	54.9	52.4	50.3	47.7	46.0	44.3	41.7
60.0	67.7	60.9	57.9	55.4	52.8	50.7	48.1	46.0	43.9	42.2
90.0	65.2	60.9	57.9	54.9	52.8	50.7	48.1	46.0	43.9	42.2
120.0	69.4	63.5	59.2	56.7	52.8	50.7	48.1	46.0	43.4	41.7
150.0	67.3	62.2	57.1	54.5	51.5	49.0	47.3	45.2	43.0	40.5
180.0	66.9	60.1	56.7	53.2	50.3	48.1	45.6	43.9	41.3	39.6
210.0	66.0	61.8	57.5	54.1	51.1	48.6	45.6	43.9	41.7	40.0
240.0	68.2	63.0	58.4	54.9	52.4	49.4	47.3	44.7	42.6	40.5
270.0	67.3	62.6	59.2	55.4	53.2	49.8	48.1	46.0	43.0	41.3
300.0	63.5	60.1	57.5	54.5	52.4	50.3	48.1	46.0	43.9	42.2
330.0	65.2	60.9	57.9	55.4	53.2	50.7	48.1	46.4	44.3	42.6
360.0	67.7	60.9	57.9	55.8	53.2	51.1	48.1	46.4	44.3	42.2

C\γ	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	40.5	37.9	36.6	35.4	33.7	31.5	30.2	29.0	27.7	26.4
30.0	40.0	38.8	36.6	34.9	33.7	31.9	30.7	29.4	27.7	26.4
60.0	40.5	38.3	37.1	34.9	33.2	31.9	30.7	29.0	27.7	26.8
90.0	40.0	38.3	37.1	34.9	33.2	31.9	30.7	29.4	27.7	26.8
120.0	39.6	37.9	36.2	34.9	32.8	31.9	30.7	29.0	27.7	26.8
150.0	38.8	37.1	35.4	33.7	32.8	31.1	29.8	29.0	27.7	26.4
180.0	37.9	36.2	34.9	33.2	31.9	30.7	29.8	28.1	26.8	25.6
210.0	37.5	36.2	34.5	33.2	31.5	30.7	29.4	28.1	27.3	26.0
240.0	38.8	37.1	35.4	33.7	32.4	30.7	29.8	28.5	27.3	26.0
270.0	40.0	37.9	36.2	34.5	32.8	31.5	30.2	29.4	28.1	26.8
300.0	40.5	38.3	36.6	35.4	33.7	31.5	30.2	29.4	27.7	26.4
330.0	40.5	39.2	37.1	35.4	33.7	32.4	30.7	29.4	28.1	26.4
360.0	40.5	37.9	36.6	35.4	33.7	31.5	30.2	29.0	27.7	26.4

**R852 WWL (CRI90 700mA 40D)****Intensity Data [cd]****Page4**

C\γ	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	25.1	23.9	22.6	21.7	20.9	19.6	18.3	17.9	16.6	15.8
30.0	25.1	24.3	23.0	21.7	20.9	19.2	18.7	17.9	17.0	16.2
60.0	25.1	23.9	23.0	21.7	20.9	20.0	18.7	18.3	17.0	16.2
90.0	25.6	24.3	23.0	21.7	21.3	20.0	19.2	18.7	17.5	16.6
120.0	25.6	24.3	23.4	22.6	21.7	20.9	20.0	19.6	18.3	17.5
150.0	25.1	23.9	23.4	22.6	21.7	20.9	20.0	19.2	18.3	17.5
180.0	25.1	23.9	23.0	22.2	21.3	20.4	19.6	19.2	18.3	17.5
210.0	25.1	23.9	23.0	22.2	21.3	20.9	20.0	19.6	18.3	17.5
240.0	25.6	24.3	23.4	22.6	21.7	20.9	20.0	19.2	18.3	17.5
270.0	25.6	24.7	23.4	22.6	21.7	20.9	20.0	19.2	18.3	17.5
300.0	25.6	24.3	23.0	22.2	21.3	20.4	19.2	18.7	17.5	17.0
330.0	25.6	24.3	23.0	21.7	20.9	19.6	18.7	17.9	17.5	16.2
360.0	25.1	23.9	22.6	21.7	20.9	19.6	18.3	17.9	16.6	15.8

C\γ	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	14.9	13.6	12.4	11.5	9.8	8.1	5.1	3.4	2.1	1.7
30.0	14.9	13.6	12.8	11.5	9.8	8.1	5.5	3.4	2.1	2.1
60.0	15.3	14.1	13.2	11.9	9.8	8.1	5.1	3.4	2.1	1.7
90.0	15.8	14.9	13.6	11.9	11.1	8.9	5.1	3.4	1.7	1.7
120.0	16.6	15.3	14.1	12.8	11.1	9.4	5.5	3.4	2.1	1.7
150.0	16.6	15.3	14.5	13.2	11.1	8.9	6.0	3.0	2.1	1.7
180.0	16.6	15.3	14.1	12.8	11.1	8.9	6.0	2.6	2.1	1.7
210.0	16.6	15.8	14.1	12.8	11.5	9.8	5.5	3.0	2.1	1.7
240.0	16.6	15.3	14.5	12.8	11.5	9.8	5.1	3.0	2.1	1.7
270.0	16.2	15.3	14.1	12.8	11.1	8.5	5.5	2.6	2.1	1.7
300.0	15.8	14.5	13.6	12.4	10.6	8.5	5.5	3.0	2.1	1.7
330.0	15.3	14.1	13.2	11.9	10.2	8.5	5.1	3.0	2.1	1.7
360.0	14.9	13.6	12.4	11.5	9.8	8.1	5.1	3.4	2.1	1.7

C\γ	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4	0.4
30.0	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4	0.4
60.0	1.7	1.7	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.4
90.0	1.7	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4
120.0	1.3	1.3	1.3	1.3	0.9	0.9	0.4	0.4	0.4	0.4
150.0	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4	0.4
180.0	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4	0.4
210.0	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4	0.4
240.0	1.7	1.3	1.3	1.3	0.9	0.9	0.9	0.9	0.4	0.4
270.0	1.7	1.3	0.9	0.9	0.9	0.4	0.4	0.4	0.4	0.0
300.0	1.7	1.3	1.3	1.3	1.3	0.9	0.9	0.4	0.4	0.4
330.0	1.7	1.7	1.3	1.3	0.9	0.9	0.4	0.4	0.4	0.4
360.0	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4	0.4

## R852 WWL (CRI90 700mA 40D)

### Intensity Data [cd]

Page5

C\γ	90.0	91.0	92.0	93.0	94.0	95.0	96.0	97.0	98.0	99.0
0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0
30.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.0
60.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
90.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
120.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.0
150.0	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0
180.0	0.4	0.4	0.0	0.4	0.0	0.4	0.4	0.4	0.4	0.4
210.0	0.0	0.4	0.4	0.4	0.0	0.4	0.0	0.4	0.0	0.0
240.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
270.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
300.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.0
330.0	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0
360.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0

C\γ	100.0	101.0	102.0	103.0	104.0	105.0	106.0	107.0	108.0	109.0
0.0	0.0	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.4	0.4
30.0	0.4	0.0	0.4	0.0	0.4	0.4	0.0	0.4	0.4	0.4
60.0	0.4	0.4	0.0	0.0	0.4	0.4	0.0	0.4	0.4	0.4
90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
120.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.4	0.0	0.4
150.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4
180.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4
210.0	0.4	0.4	0.4	0.0	0.4	0.4	0.0	0.4	0.4	0.4
240.0	0.4	0.4	0.4	0.0	0.4	0.4	0.0	0.4	0.4	0.4
270.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
300.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.4	0.0	0.0
330.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.0
360.0	0.0	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.4	0.4

C\γ	110.0	111.0	112.0	113.0	114.0	115.0	116.0	117.0	118.0	119.0
0.0	0.4	0.4	0.4	0.0	0.0	0.4	0.0	0.4	0.4	0.4
30.0	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
60.0	0.4	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4	0.4
90.0	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.4	0.0	0.4
120.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
150.0	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.0
180.0	0.4	0.4	0.4	0.0	0.0	0.4	0.0	0.4	0.4	0.4
210.0	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
240.0	0.4	0.0	0.4	0.4	0.0	0.4	0.0	0.4	0.4	0.4
270.0	0.4	0.4	0.0	0.4	0.4	0.0	0.0	0.4	0.0	0.4
300.0	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
330.0	0.4	0.0	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.0
360.0	0.4	0.4	0.4	0.0	0.0	0.4	0.0	0.4	0.4	0.4

**R852 WWL (CRI90 700mA 40D)**

Page6

**Intensity Data [cd]**

C\γ	120.0	121.0	122.0	123.0	124.0	125.0	126.0	127.0	128.0	129.0
0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9
30.0	0.4	0.0	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.4
60.0	0.0	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9
90.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.9
120.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.9	1.3
150.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	1.3	1.3
180.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	1.3	1.3
210.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.9	1.3
240.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	1.3	1.3
270.0	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.9	0.9	1.3
300.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9
330.0	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.9
360.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9

C\γ	130.0	131.0	132.0	133.0	134.0	135.0	136.0	137.0	138.0	139.0
0.0	0.9	0.9	1.3	1.3	1.7	2.1	2.1	3.0	3.4	3.4
30.0	0.9	0.9	1.3	1.3	1.7	2.1	2.6	2.6	3.0	3.4
60.0	0.9	1.3	1.3	1.3	1.7	2.1	2.6	2.6	3.4	3.4
90.0	0.9	0.9	1.3	1.7	1.7	2.1	2.6	2.6	3.0	3.4
120.0	1.7	1.7	2.1	2.6	3.0	3.4	3.8	4.3	5.1	6.0
150.0	1.7	1.7	2.1	2.6	3.0	3.4	3.8	4.3	5.1	6.0
180.0	1.7	1.7	2.6	2.6	3.0	3.4	3.8	4.7	5.1	6.0
210.0	1.3	1.7	2.1	2.6	3.0	3.4	4.3	4.7	5.1	6.0
240.0	1.7	1.7	2.1	2.6	3.0	3.4	3.8	4.3	5.1	6.0
270.0	1.3	1.7	2.1	2.6	3.0	3.4	3.8	4.3	4.7	6.0
300.0	0.9	1.3	1.3	1.3	1.7	2.1	2.6	3.0	3.0	3.4
330.0	0.9	1.3	1.3	1.3	1.7	2.1	2.6	3.0	3.0	3.4
360.0	0.9	0.9	1.3	1.3	1.7	2.1	2.1	3.0	3.4	3.4

C\γ	140.0	141.0	142.0	143.0	144.0	145.0	146.0	147.0	148.0	149.0
0.0	4.3	4.3	5.1	5.5	6.0	6.8	7.2	8.1	8.9	9.4
30.0	3.8	4.3	4.7	5.1	6.0	6.8	7.2	8.1	8.5	9.4
60.0	3.8	4.3	4.7	5.1	6.0	6.8	7.2	8.1	8.5	9.4
90.0	3.8	4.7	5.1	5.5	6.0	6.8	7.2	8.1	8.9	9.4
120.0	6.4	7.2	8.5	8.9	10.2	11.1	12.4	13.2	14.1	15.3
150.0	6.4	7.2	8.5	9.4	10.2	11.1	12.4	13.2	14.5	15.8
180.0	6.8	7.7	8.5	9.8	10.2	11.5	12.4	13.6	14.5	15.8
210.0	6.8	7.7	8.5	9.4	10.6	11.1	12.4	13.6	14.5	15.8
240.0	6.4	7.7	8.5	9.4	10.2	11.1	12.4	13.2	14.5	15.8
270.0	6.4	7.2	8.5	9.4	10.2	11.5	12.4	13.6	14.5	15.3
300.0	3.8	4.7	5.1	6.0	6.4	6.8	7.7	8.1	8.9	9.8
330.0	3.8	4.3	5.1	5.5	6.4	6.8	7.7	8.1	8.9	9.8
360.0	4.3	4.3	5.1	5.5	6.0	6.8	7.2	8.1	8.9	9.4

**R852 WWL (CRI90 700mA 40D)****Intensity Data [cd]****Page7**

C\γ	150.0	151.0	152.0	153.0	154.0	155.0	156.0	157.0	158.0	159.0
0.0	10.6	11.1	11.9	12.8	14.1	14.9	15.8	17.0	17.9	18.7
30.0	10.2	11.1	11.9	12.4	14.1	14.9	15.8	17.0	17.9	18.7
60.0	10.2	11.1	11.9	12.8	14.1	14.9	15.8	17.0	17.9	18.7
90.0	10.2	11.1	11.9	13.2	14.1	14.9	15.8	17.0	17.9	19.2
120.0	16.2	17.0	18.3	19.6	20.4	21.3	22.6	23.9	24.3	25.6
150.0	16.6	17.9	18.7	19.6	20.4	22.2	22.6	23.9	24.7	25.6
180.0	16.6	17.9	19.2	20.0	20.9	22.2	22.6	23.9	24.7	25.6
210.0	16.6	17.9	18.7	20.0	20.9	22.2	23.0	23.9	25.1	25.6
240.0	16.6	17.9	18.7	19.6	21.3	22.2	23.0	23.9	25.1	25.6
270.0	16.6	17.9	18.7	20.0	20.9	21.7	23.0	23.9	24.7	25.6
300.0	10.2	11.1	12.4	13.2	14.1	15.3	16.2	17.0	17.9	19.2
330.0	10.6	11.1	11.9	12.8	14.1	14.9	15.8	17.0	17.9	18.7
360.0	10.6	11.1	11.9	12.8	14.1	14.9	15.8	17.0	17.9	18.7

C\γ	160.0	161.0	162.0	163.0	164.0	165.0	166.0	167.0	168.0	169.0
0.0	20.0	20.4	21.3	22.2	23.4	23.9	24.3	25.6	26.0	26.4
30.0	19.6	20.4	21.3	22.2	23.0	23.9	24.7	25.6	26.0	26.4
60.0	19.6	20.4	21.3	22.2	23.0	23.9	24.7	25.6	26.4	26.4
90.0	19.6	20.4	21.7	22.2	23.4	23.9	24.7	25.6	26.0	26.8
120.0	26.0	26.4	27.7	28.1	28.5	29.0	29.4	29.8	30.2	30.2
150.0	26.0	27.3	27.7	28.1	28.5	29.4	29.4	29.8	30.2	30.2
180.0	26.4	26.8	28.1	28.1	29.0	29.4	29.8	29.8	30.2	30.7
210.0	26.4	27.3	27.7	28.5	29.0	29.4	29.4	30.2	30.2	30.2
240.0	26.4	27.3	27.7	28.5	29.0	29.4	29.8	29.8	30.2	30.2
270.0	26.4	27.3	27.7	28.5	29.0	29.4	29.8	29.8	30.2	30.2
300.0	20.0	20.4	21.3	22.2	23.0	23.9	24.7	25.1	26.0	26.4
330.0	20.0	20.4	21.3	22.2	23.0	23.9	24.7	25.6	26.0	26.4
360.0	20.0	20.4	21.3	22.2	23.4	23.9	24.3	25.6	26.0	26.4

C\γ	170.0	171.0	172.0	173.0	174.0	175.0	176.0	177.0	178.0	179.0
0.0	27.3	27.7	28.1	28.5	29.0	29.4	29.8	30.7	30.7	31.1
30.0	27.3	27.7	27.7	28.1	28.5	29.4	29.8	30.7	30.7	31.1
60.0	27.3	27.7	27.7	28.5	29.0	29.4	29.8	30.2	30.7	31.1
90.0	27.3	27.7	28.1	28.5	29.0	29.4	29.8	30.2	30.7	31.1
120.0	30.2	30.7	30.7	30.7	31.1	31.1	31.1	31.1	31.1	31.1
150.0	30.2	30.7	30.7	30.7	31.1	31.1	31.1	31.1	31.1	31.1
180.0	30.7	30.7	31.1	30.7	31.1	31.1	31.1	31.1	31.1	31.1
210.0	30.7	30.7	30.7	30.7	30.7	30.7	31.1	31.1	31.1	31.1
240.0	30.7	30.7	30.7	30.7	30.7	30.7	31.1	31.1	31.1	31.1
270.0	30.7	30.7	30.7	31.1	31.1	31.1	31.1	31.1	31.5	31.5
300.0	26.8	26.8	28.1	28.1	28.5	29.0	29.8	30.2	30.7	31.1
330.0	27.3	27.3	27.7	28.1	29.0	29.4	29.8	30.2	30.7	31.1
360.0	27.3	27.7	28.1	28.5	29.0	29.4	29.8	30.7	30.7	31.1

**Intensity Data [cd]****Page8**

<b>C\γ</b>	<b>180.0</b>
<b>0.0</b>	31.5
<b>30.0</b>	31.1
<b>60.0</b>	31.5
<b>90.0</b>	31.1
<b>120.0</b>	31.5
<b>150.0</b>	31.1
<b>180.0</b>	31.5
<b>210.0</b>	31.1
<b>240.0</b>	31.5
<b>270.0</b>	31.1
<b>300.0</b>	31.5
<b>330.0</b>	31.1
<b>360.0</b>	31.5



**R852 WWL (CRI90 700mA 40D)**

Zonal flux distribution table

Page9

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
0	4003.22	0.00	0.00	0.00	0.00
1	3999.45	3.83	3.83	3.83	3.83
2	3989.26	11.47	15.30	11.47	15.30
3	3975.31	19.05	34.34	19.05	34.34
4	3950.86	26.53	60.88	26.53	60.88
5	3916.60	33.85	94.72	33.85	94.72
6	3870.56	40.92	135.64	40.92	135.64
7	3812.38	47.69	183.33	47.69	183.33
8	3722.29	53.92	237.26	53.92	237.26
9	3625.24	59.55	296.80	59.55	296.80
10	3516.12	64.63	361.43	64.63	361.43
11	3366.89	68.78	430.21	68.78	430.21
12	3221.24	72.02	502.22	72.02	502.22
13	3077.05	74.74	576.97	74.74	576.97
14	2926.15	76.84	653.81	76.84	653.81
15	2751.69	77.95	731.76	77.95	731.76
16	2608.84	78.55	810.30	78.55	810.30
17	2454.71	78.85	889.16	78.85	889.16
18	2298.60	78.37	967.53	78.37	967.53
19	2176.10	77.85	1045.38	77.85	1045.38
20	2062.01	77.57	1122.95	77.57	1122.95
21	1943.73	76.92	1199.87	76.92	1199.87
22	1829.18	75.82	1275.69	75.82	1275.69
23	1714.59	74.36	1350.04	74.36	1350.04
24	1588.93	72.23	1422.27	72.23	1422.27
25	1470.76	69.57	1491.84	69.57	1491.84
26	1355.61	66.72	1558.56	66.72	1558.56
27	1250.29	63.75	1622.31	63.75	1622.31
28	1155.30	60.90	1683.22	60.90	1683.22
29	1071.10	58.25	1741.47	58.25	1741.47
30	978.24	55.33	1796.80	55.33	1796.80
31	830.71	50.34	1847.14	50.34	1847.14
32	678.71	43.24	1890.38	43.24	1890.38
33	521.63	35.36	1925.74	35.36	1925.74
34	367.01	26.89	1952.64	26.89	1952.64
35	242.06	18.92	1971.55	0.00	1952.64
36	158.07	12.74	1984.29	0.00	1952.64
37	123.64	9.19	1993.48	0.00	1952.64
38	97.94	7.40	2000.87	0.00	1952.64
39	78.88	6.04	2006.91	0.00	1952.64
40	66.74	5.08	2011.99	0.00	1952.64

**R852 WWL (CRI90 700mA 40D)**

Zonal flux distribution table

Page10

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
41	61.55	4.57	2016.56	0.00	1952.64
42	57.93	4.34	2020.90	0.00	1952.64
43	54.99	4.18	2025.08	0.00	1952.64
44	52.36	4.05	2029.13	0.00	1952.64
45	49.94	3.93	2033.06	0.00	1952.64
46	47.53	3.81	2036.88	0.00	1952.64
47	45.54	3.70	2040.58	0.00	1952.64
48	43.31	3.59	2044.17	0.00	1952.64
49	41.39	3.48	2047.65	0.00	1952.64
50	39.54	3.37	2051.02	0.00	1952.64
51	37.77	3.27	2054.29	0.00	1952.64
52	36.14	3.17	2057.46	0.00	1952.64
53	34.50	3.07	2060.54	0.00	1952.64
54	32.94	2.97	2063.51	0.00	1952.64
55	31.49	2.88	2066.38	0.00	1952.64
56	30.24	2.79	2069.17	0.00	1952.64
57	28.97	2.71	2071.88	0.00	1952.64
58	27.62	2.62	2074.50	0.00	1952.64
59	26.41	2.53	2077.02	0.00	1952.64
60	25.35	2.45	2079.47	0.00	1952.64
61	24.14	2.36	2081.83	0.00	1952.64
62	23.11	2.28	2084.11	0.00	1952.64
63	22.11	2.20	2086.31	0.00	1952.64
64	21.30	2.13	2088.44	0.00	1952.64
65	20.30	2.06	2090.50	0.00	1952.64
66	19.38	1.98	2092.48	0.00	1952.64
67	18.78	1.92	2094.40	0.00	1952.64
68	17.75	1.85	2096.25	0.00	1952.64
69	16.90	1.77	2098.01	0.00	1952.64
70	15.94	1.69	2099.70	0.00	1952.64
71	14.77	1.59	2101.29	0.00	1952.64
72	13.67	1.48	2102.76	0.00	1952.64
73	12.35	1.36	2104.13	0.00	1952.64
74	10.72	1.21	2105.34	0.00	1952.64
75	8.80	1.03	2106.37	0.00	1952.64
76	5.43	0.76	2107.13	0.00	1952.64
77	3.09	0.45	2107.58	0.00	1952.64
78	2.09	0.28	2107.86	0.00	1952.64
79	1.74	0.21	2108.06	0.00	1952.64
80	1.67	0.18	2108.25	0.00	1952.64
81	1.35	0.16	2108.41	0.00	1952.64

**R852 WWL (CRI90 700mA 40D)**

Zonal flux distribution table

Page11

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
82	1.24	0.14	2108.55	0.00	1952.64
83	1.06	0.13	2108.67	0.00	1952.64
84	0.92	0.11	2108.78	0.00	1952.64
85	0.82	0.09	2108.88	0.00	1952.64
86	0.57	0.08	2108.96	0.00	1952.64
87	0.50	0.06	2109.01	0.00	1952.64
88	0.43	0.05	2109.06	0.00	1952.64
89	0.39	0.04	2109.11	0.00	1952.64
90	0.25	0.04	2109.15	0.00	1952.64
91	0.35	0.03	2109.18	0.00	1952.64
92	0.25	0.03	2109.21	0.00	1952.64
93	0.32	0.03	2109.24	0.00	1952.64
94	0.14	0.03	2109.27	0.00	1952.64
95	0.28	0.02	2109.29	0.00	1952.64
96	0.14	0.02	2109.31	0.00	1952.64
97	0.32	0.03	2109.34	0.00	1952.64
98	0.18	0.03	2109.37	0.00	1952.64
99	0.04	0.01	2109.38	0.00	1952.64
100	0.28	0.02	2109.40	0.00	1952.64
101	0.25	0.03	2109.43	0.00	1952.64
102	0.32	0.03	2109.46	0.00	1952.64
103	0.14	0.02	2109.48	0.00	1952.64
104	0.28	0.02	2109.51	0.00	1952.64
105	0.35	0.03	2109.54	0.00	1952.64
106	0.07	0.02	2109.56	0.00	1952.64
107	0.28	0.02	2109.58	0.00	1952.64
108	0.28	0.03	2109.61	0.00	1952.64
109	0.32	0.03	2109.64	0.00	1952.64
110	0.43	0.04	2109.68	0.00	1952.64
111	0.21	0.03	2109.71	0.00	1952.64
112	0.35	0.03	2109.74	0.00	1952.64
113	0.32	0.03	2109.78	0.00	1952.64
114	0.25	0.03	2109.81	0.00	1952.64
115	0.32	0.03	2109.83	0.00	1952.64
116	0.21	0.03	2109.86	0.00	1952.64
117	0.39	0.03	2109.89	0.00	1952.64
118	0.35	0.04	2109.93	0.00	1952.64
119	0.28	0.03	2109.96	0.00	1952.64
120	0.35	0.03	2109.99	0.00	1952.64
121	0.32	0.03	2110.02	0.00	1952.64
122	0.32	0.03	2110.05	0.00	1952.64

**R852 WWL (CRI90 700mA 40D)**

Zonal flux distribution table

Page12

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
123	0.35	0.03	2110.08	0.00	1952.64
124	0.35	0.03	2110.11	0.00	1952.64
125	0.43	0.04	2110.15	0.00	1952.64
126	0.57	0.04	2110.19	0.00	1952.64
127	0.64	0.05	2110.25	0.00	1952.64
128	0.82	0.06	2110.31	0.00	1952.64
129	1.03	0.08	2110.39	0.00	1952.64
130	1.21	0.09	2110.48	0.00	1952.64
131	1.38	0.11	2110.59	0.00	1952.64
132	1.74	0.13	2110.72	0.00	1952.64
133	1.95	0.15	2110.87	0.00	1952.64
134	2.34	0.17	2111.04	0.00	1952.64
135	2.77	0.20	2111.24	0.00	1952.64
136	3.19	0.23	2111.47	0.00	1952.64
137	3.59	0.26	2111.72	0.00	1952.64
138	4.08	0.28	2112.01	0.00	1952.64
139	4.69	0.32	2112.33	0.00	1952.64
140	5.22	0.35	2112.68	0.00	1952.64
141	5.93	0.39	2113.07	0.00	1952.64
142	6.74	0.43	2113.50	0.00	1952.64
143	7.42	0.47	2113.97	0.00	1952.64
144	8.20	0.51	2114.48	0.00	1952.64
145	9.02	0.55	2115.03	0.00	1952.64
146	9.87	0.59	2115.62	0.00	1952.64
147	10.76	0.62	2116.24	0.00	1952.64
148	11.61	0.66	2116.90	0.00	1952.64
149	12.57	0.69	2117.59	0.00	1952.64
150	13.45	0.72	2118.32	0.00	1952.64
151	14.41	0.75	2119.07	0.00	1952.64
152	15.37	0.78	2119.85	0.00	1952.64
153	16.33	0.80	2120.65	0.00	1952.64
154	17.43	0.83	2121.48	0.00	1952.64
155	18.46	0.85	2122.32	0.00	1952.64
156	19.31	0.86	2123.18	0.00	1952.64
157	20.45	0.87	2124.05	0.00	1952.64
158	21.33	0.88	2124.93	0.00	1952.64
159	22.22	0.88	2125.80	0.00	1952.64
160	23.04	0.87	2126.67	0.00	1952.64
161	23.75	0.86	2127.53	0.00	1952.64
162	24.56	0.84	2128.37	0.00	1952.64
163	25.24	0.82	2129.19	0.00	1952.64

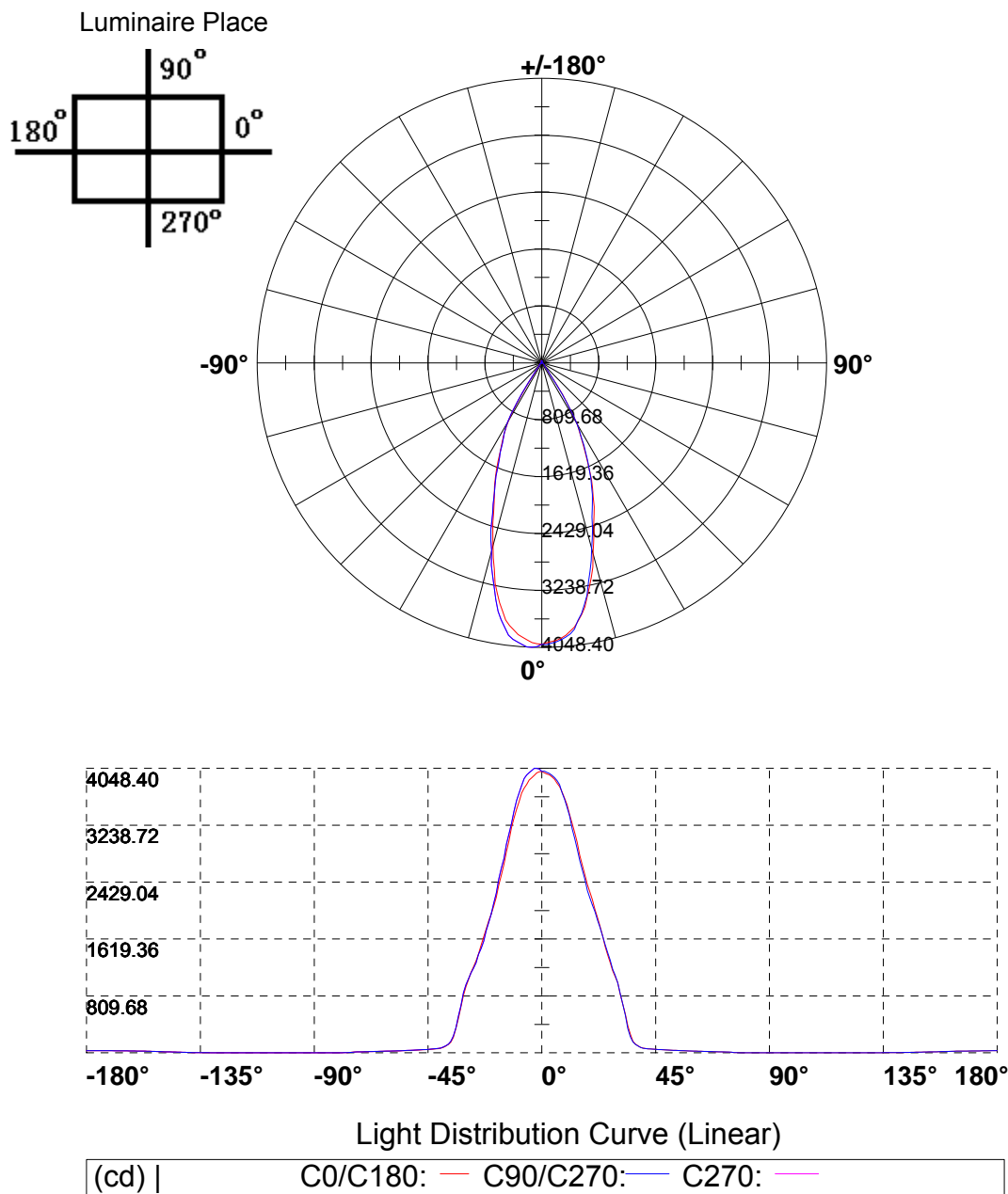
**R852 WWL (CRI90 700mA 40D)**

### Zonal flux distribution table

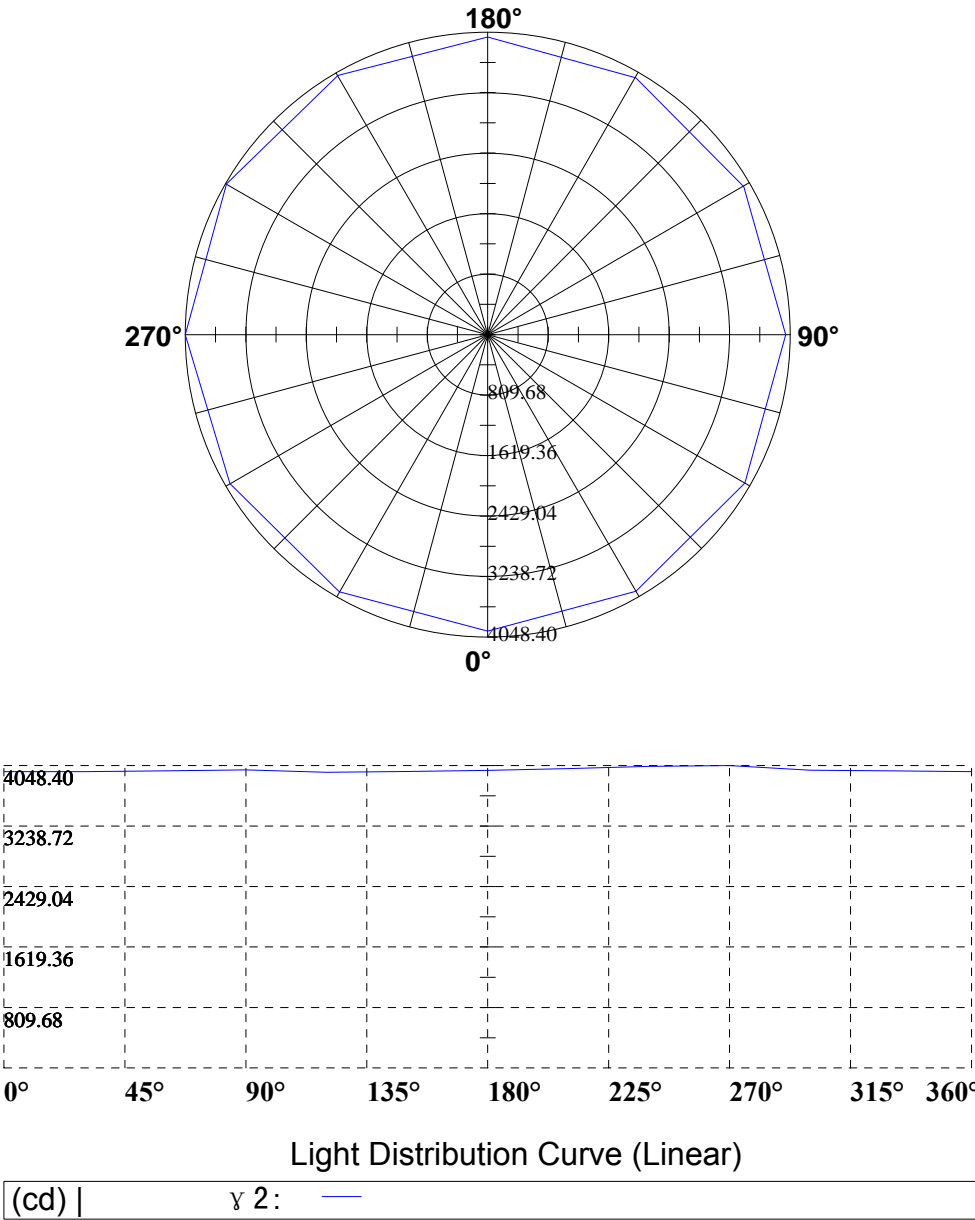
Page13

[illegible]

Light Distribution Curve [Unit: cd]



Horizontal cone through Max.cd [Unit: cd]



ISO-Illuminance

Page16

Unit: [lx]

5.

1011.09 (100%Emax)

910.89 (90%Emax)

809.68 (80%Emax)

708.47 (70%Emax)

607.26 (60%Emax)

506.05 (50%Emax)

404.84 (40%Emax)

303.63 (30%Emax)

202.42 (20%Emax)

101.21 (10%Emax)

4.

3.

2.

1.

0.

1.

2.

3.

4.

5.

5.

4.

3.

2.

1.

0.

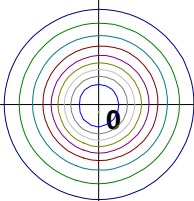
1.

2.

3.

4.

5.



Coordinate Scale: d/h

Height: 2 m

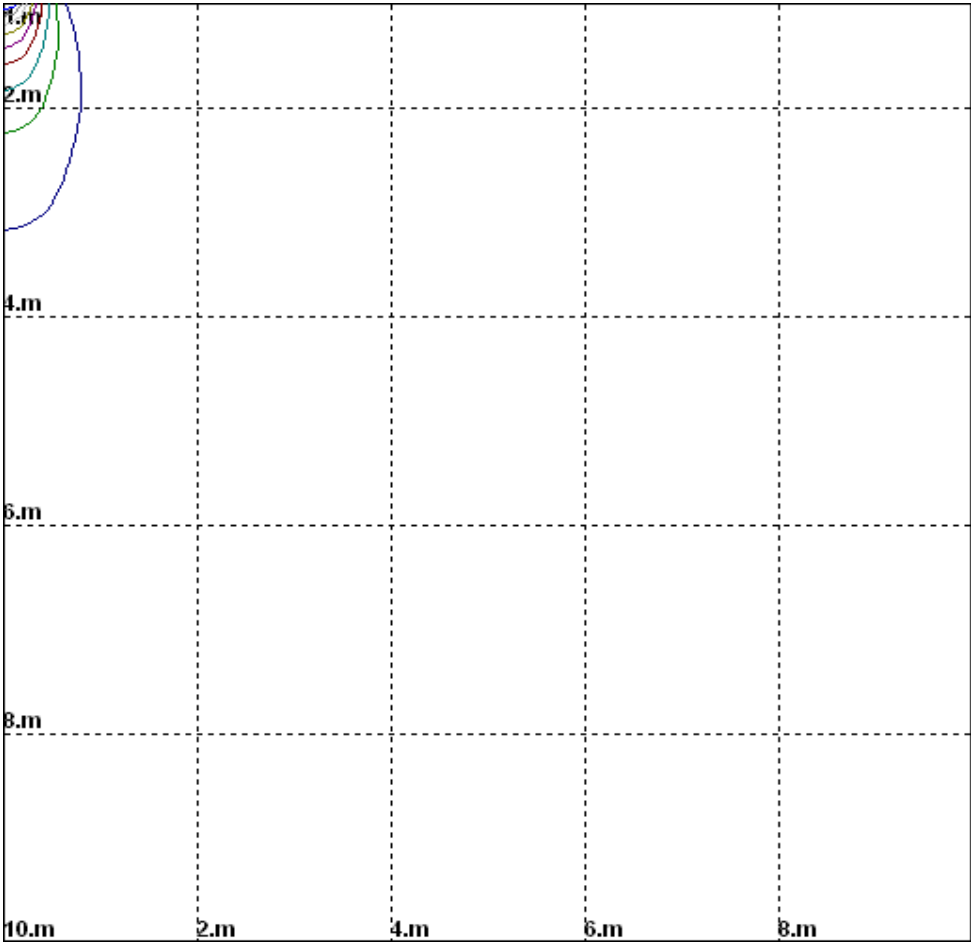
Max Illuminance : 1012.1lx



Space ISO-lx

Unit: [lx]  
Illuminance

- 1011.09
- 910.89
- 809.68
- 708.47
- 607.26
- 506.05
- 404.84
- 303.63
- 202.42
- 101.21



## Luminance Limiting Curve (There is not luminous side)

Diameter: 115mm

Length: -115mm

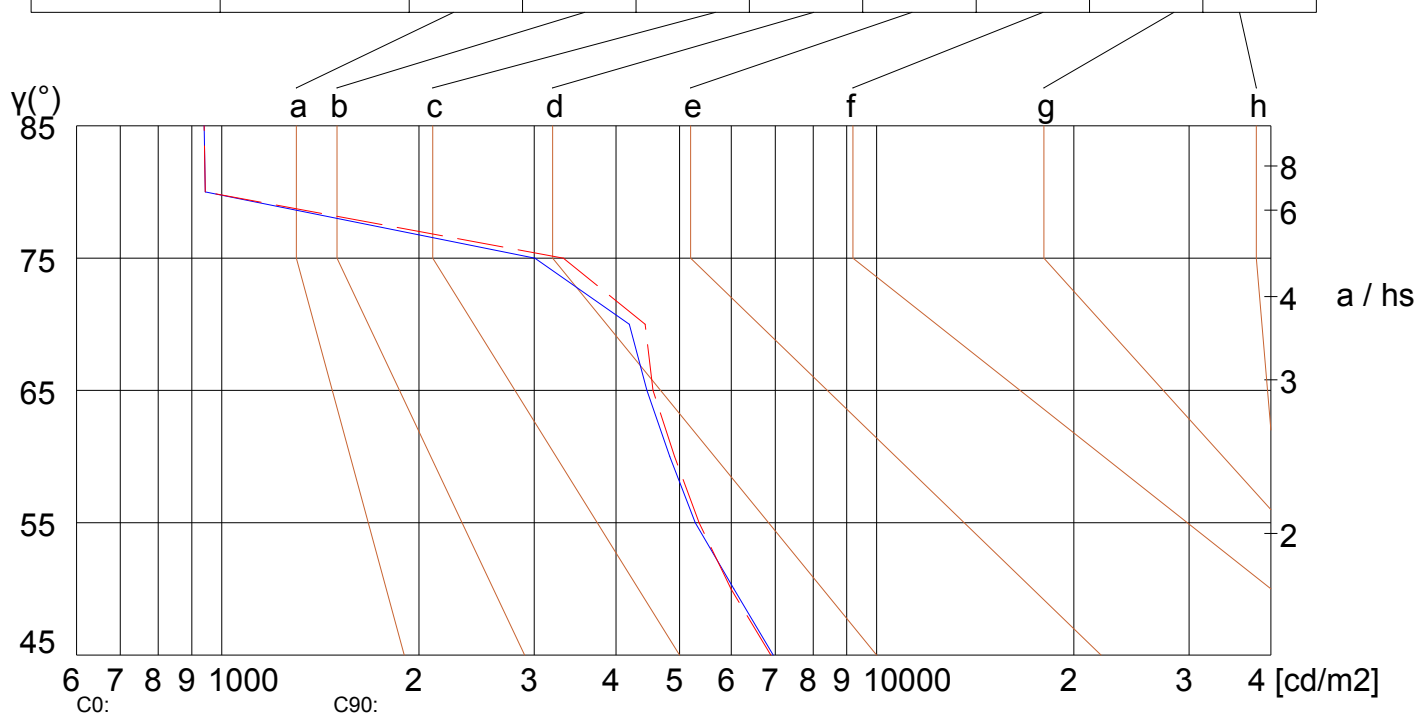
Width: -115mm

Height: 105mm

(cd/m<sup>2</sup>)

$\gamma$	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	6893	5990	5356	4915	4555	4431	3323	943	940
C90	6951	6053	5284	4833	4458	4191	3007	943	940

Glare	Quality	Service Values Illuminance (lx)							
1.15	A	2000	1000	500	≤300				
1.5	B		2000	1000	500	≤300			
1.85	C			2000	1000	500	≤300		
2.2	D				2000	1000	500	≤300	
2.55	E					2000	1000	500	≤300



Luminance Limiting Curve (C0/C90)

**R852 WWL (CRI90 700mA 40D)**

utilization factor table for indoor luminaire

Page19

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION FOR RHOFC=20															
0	0.94	0.94	0.94	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.80	0.80	0.80	0.79
1	0.91	0.90	0.90	0.89	0.89	0.88	0.86	0.85	0.84	0.81	0.81	0.80	0.76	0.75	0.74	0.70
2	0.86	0.85	0.84	0.84	0.83	0.83	0.81	0.80	0.79	0.78	0.76	0.75	0.73	0.71	0.70	0.66
3	0.81	0.80	0.79	0.80	0.79	0.78	0.77	0.76	0.74	0.74	0.72	0.70	0.70	0.68	0.66	0.62
4	0.77	0.76	0.75	0.76	0.74	0.73	0.73	0.71	0.70	0.70	0.68	0.66	0.67	0.64	0.62	0.59
5	0.73	0.72	0.71	0.72	0.71	0.70	0.70	0.68	0.66	0.67	0.65	0.63	0.64	0.61	0.59	0.56
6	0.69	0.68	0.68	0.69	0.67	0.66	0.67	0.64	0.63	0.64	0.62	0.60	0.62	0.59	0.56	0.53
7	0.66	0.65	0.64	0.65	0.64	0.63	0.64	0.61	0.60	0.61	0.59	0.57	0.59	0.56	0.53	0.51
8	0.63	0.62	0.61	0.62	0.61	0.60	0.61	0.59	0.57	0.59	0.56	0.54	0.57	0.53	0.51	0.48
9	0.60	0.59	0.59	0.60	0.58	0.57	0.58	0.56	0.54	0.56	0.54	0.52	0.55	0.51	0.49	0.46
10	0.58	0.57	0.56	0.57	0.56	0.55	0.56	0.54	0.52	0.54	0.51	0.49	0.52	0.49	0.47	0.44



Operator  
Telephone  
Fax  
e-Mail

## R852 WWL (CRI90 700mA 40D) / UGR-Table

Luminaire: R852 WWL (CRI90 700mA 40D)

Lamps: 1 x CITIZEN CLU028-1204C4-303H5M3 700mA

Glare Evaluation According to UGR											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room Size X                  Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	12.4	13.1	12.7	13.3	13.5	12.4	13.1	12.7	13.3	13.5
	3H	12.5	13.1	12.8	13.4	13.7	12.5	13.1	12.8	13.4	13.7
	4H	12.5	13.1	12.9	13.4	13.7	12.5	13.1	12.9	13.4	13.7
	6H	12.5	13.0	12.8	13.3	13.6	12.5	13.0	12.8	13.3	13.6
	8H	12.4	12.9	12.8	13.2	13.6	12.4	12.9	12.8	13.2	13.6
	12H	12.4	12.9	12.8	13.2	13.5	12.4	12.9	12.8	13.2	13.5
4H	2H	12.4	12.9	12.7	13.2	13.5	12.4	12.9	12.7	13.2	13.5
	3H	12.5	13.0	12.9	13.3	13.7	12.5	13.0	12.9	13.3	13.7
	4H	12.6	13.0	13.0	13.3	13.7	12.6	13.0	13.0	13.3	13.7
	6H	12.5	12.8	12.9	13.2	13.6	12.5	12.8	12.9	13.2	13.6
	8H	12.5	12.8	12.9	13.2	13.6	12.5	12.8	12.9	13.2	13.6
	12H	12.4	12.7	12.9	13.1	13.5	12.4	12.7	12.9	13.1	13.5
8H	4H	12.5	12.8	12.9	13.2	13.6	12.5	12.8	12.9	13.2	13.6
	6H	12.4	12.6	12.9	13.1	13.6	12.4	12.6	12.9	13.1	13.6
	8H	12.4	12.6	12.9	13.0	13.5	12.4	12.6	12.9	13.0	13.5
	12H	12.3	12.5	12.8	13.0	13.5	12.3	12.5	12.8	13.0	13.5
12H	4H	12.4	12.7	12.9	13.1	13.6	12.4	12.7	12.9	13.1	13.6
	6H	12.4	12.6	12.9	13.0	13.5	12.4	12.6	12.9	13.0	13.5
	8H	12.3	12.5	12.8	13.0	13.5	12.3	12.5	12.8	13.0	13.5
Variation of the observer position for the luminaire distances S											
S = 1.0H		+5.8 / -4.3					+5.8 / -4.3				
S = 1.5H		+8.5 / -4.9					+8.5 / -4.9				
S = 2.0H		+10.5 / -5.6					+10.5 / -5.6				
Standard table		BK01					BK01				
Correction Summand		-6.3					-6.3				
Corrected Glare Indices referring to 2710lm Total Luminous Flux											

The UGR values have been calculated according to CIE Publ. 117    Spacing-to-Height-Ratio = 0.25.