

## R854 WNL (CRI90 900mA 40D)

Luminaire Name: R854 WNL (CRI90 900mA 40D)

Report NO.: 01313217032408A

Test NO.:

Lamp: CITIZEN CLU038-1208C4-403H5M3 900mA

Sum Lumens: 3921.1 lm

Number of Lamps: 1

Diameter: 140mm

Length: -140mm

Photometric Type: Type C

Voltage: 230.42 V

Current: 0.1556 A

Power: 34.869 W

Power Factor: 0.9727

Ballast Type: PHILIPS XITANIUM 44W 0.9 1.05A 42 I 230V

Width: -140mm

Height: 100mm

Optical Component: 40D Reflector DC(V:35.61V I:0.906A P:32.26W)

## Photometric Results

Lumens: 3456.69 lm

Efficiency: 88.16%

Central Intensity: 6087.415cd

Maximum Intensity: 6521.575cd

Beam Angle(10%): Left: -40.7 Right:27.7

Maximum s/h: C0\_180: 0.38 C90\_270: 0.37

Effective Luminous Flux: 3261.36 lm

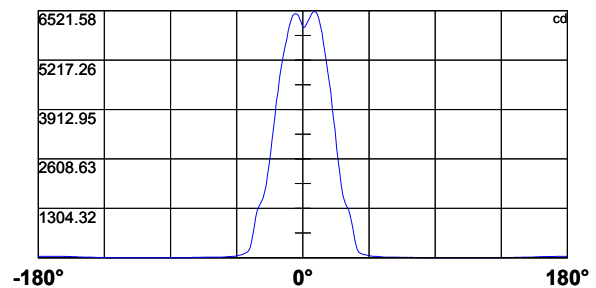
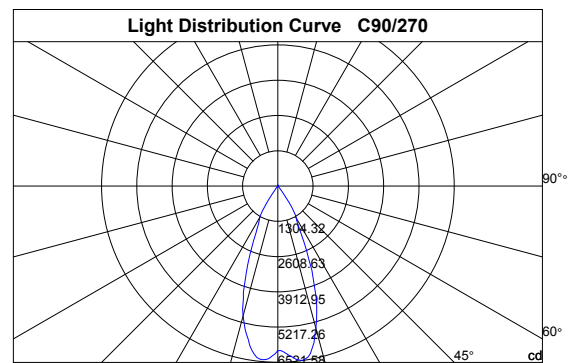
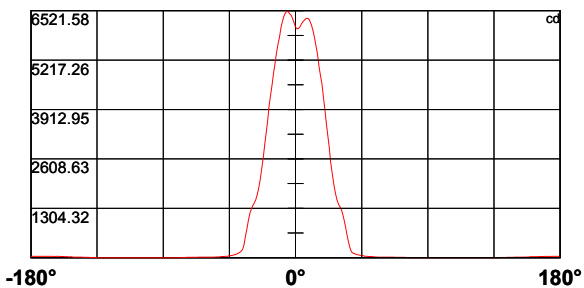
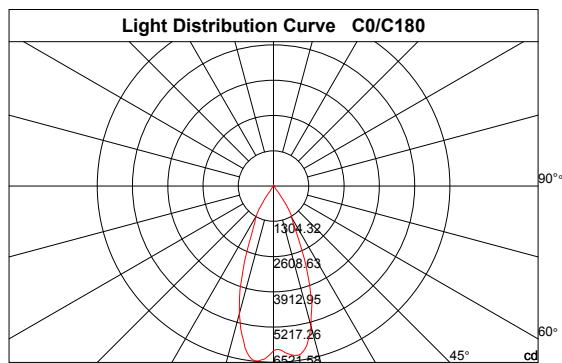
Angle of maximum intensity: C:150.0 G:6.0

Half Peak Side Angle(50%): Left: -27.7 Right:14.8

Up Flux Rate: 0.73%

Down Flux Rate: 87.42%

CIE Classification: Direct



**R854 WNL (CRI90 900mA 40D)****Intensity Data [cd]****Page2**

C\γ	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	6087.4	6040.2	6053.0	6095.6	6172.3	6227.7	6270.3	6308.6	6321.4	6304.3
30.0	6087.4	6031.7	6018.9	6078.6	6151.0	6227.7	6287.3	6329.9	6346.9	6338.4
60.0	6087.4	6044.5	6053.0	6133.9	6206.4	6278.8	6359.7	6410.8	6432.1	6415.1
90.0	6087.4	6082.8	6129.7	6210.6	6291.6	6355.4	6444.9	6487.5	6504.5	6479.0
120.0	6087.4	6104.1	6197.8	6274.5	6351.2	6423.6	6483.2	6491.8	6461.9	6376.7
150.0	6087.4	6151.0	6257.5	6364.0	6432.1	6487.5	6521.6	6513.1	6466.2	6321.4
180.0	6087.4	6206.4	6312.9	6402.3	6440.6	6491.8	6500.3	6461.9	6368.2	6231.9
210.0	6087.4	6236.2	6334.1	6393.8	6432.1	6444.9	6419.3	6368.2	6274.5	6104.1
240.0	6087.4	6227.7	6321.4	6393.8	6423.6	6436.4	6406.6	6346.9	6227.7	6087.1
270.0	6087.4	6206.4	6291.6	6389.5	6427.9	6444.9	6427.9	6385.3	6278.8	6146.7
300.0	6087.4	6091.3	6159.5	6253.2	6295.8	6312.9	6304.3	6274.5	6214.9	6129.7
330.0	6087.4	6061.5	6116.9	6163.8	6219.1	6257.5	6270.3	6274.5	6253.2	6202.1
360.0	6087.4	6040.2	6053.0	6095.6	6172.3	6227.7	6270.3	6308.6	6321.4	6304.3

C\γ	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	6227.7	6125.4	5984.9	5780.4	5571.7	5354.4	5047.7	4809.2	4596.2	4217.1
30.0	6291.6	6172.3	6018.9	5840.0	5618.5	5409.8	5158.5	4932.7	4681.4	4302.3
60.0	6359.7	6261.7	6057.3	5878.4	5648.3	5426.8	5205.3	4911.4	4702.7	4421.6
90.0	6415.1	6300.1	6125.4	5942.3	5661.1	5426.8	5184.0	4902.9	4651.6	4370.4
120.0	6266.0	6125.4	5912.4	5759.1	5554.6	5252.2	5013.6	4766.6	4404.5	4102.1
150.0	6197.8	5972.1	5784.6	5584.4	5316.1	5077.5	4830.5	4476.9	4191.5	3880.6
180.0	6065.8	5818.7	5618.5	5397.0	5124.4	4877.3	4574.9	4306.5	4012.6	3603.7
210.0	5929.5	5742.1	5512.0	5316.1	5103.1	4796.4	4536.6	4212.8	3918.9	3612.2
240.0	5912.4	5669.6	5512.0	5324.6	5060.5	4834.7	4591.9	4281.0	3991.3	3582.4
270.0	5993.4	5767.6	5593.0	5409.8	5188.3	4971.0	4732.5	4370.4	4131.9	3727.2
300.0	6014.7	5844.3	5690.9	5520.5	5320.3	5128.7	4911.4	4630.3	4366.2	4085.0
330.0	6099.9	5976.3	5844.3	5622.8	5439.6	5243.7	4996.6	4766.6	4515.3	4187.3
360.0	6227.7	6125.4	5984.9	5780.4	5571.7	5354.4	5047.7	4809.2	4596.2	4217.1

C\γ	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	3901.9	3535.5	3220.3	2909.4	2504.7	2215.0	1950.9	1712.4	1546.3	1427.0
30.0	3978.5	3697.4	3250.1	2922.1	2555.8	2249.1	1972.2	1682.6	1533.5	1431.3
60.0	4046.7	3654.8	3309.8	2977.5	2555.8	2244.9	1912.6	1695.4	1537.7	1427.0
90.0	3957.2	3629.3	3352.4	2909.4	2589.9	2278.9	1946.7	1678.3	1529.2	1422.7
120.0	3774.1	3390.7	3062.7	2743.2	2338.6	2100.0	1784.8	1610.2	1495.1	1397.2
150.0	3501.5	3182.0	2824.2	2526.0	2249.1	1925.4	1729.4	1584.6	1465.3	1384.4
180.0	3297.0	2994.6	2653.8	2376.9	2074.5	1857.2	1686.8	1529.2	1448.3	1380.1
210.0	3207.5	2909.4	2666.6	2304.5	2057.4	1840.2	1648.5	1529.2	1431.3	1367.4
240.0	3280.0	2977.5	2636.7	2355.6	2095.8	1840.2	1674.1	1512.2	1435.5	1371.6
270.0	3420.5	3113.8	2760.3	2470.6	2202.3	1908.3	1742.2	1584.6	1495.1	1418.5
300.0	3676.1	3377.9	3024.4	2726.2	2445.1	2100.0	1921.1	1750.7	1563.3	1465.3
330.0	3884.8	3475.9	3169.2	2858.2	2509.0	2219.3	1899.8	1746.5	1588.9	1444.0
360.0	3901.9	3535.5	3220.3	2909.4	2504.7	2215.0	1950.9	1712.4	1546.3	1427.0

**R854 WNL (CRI90 900mA 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	1354.6	1290.7	1158.6	992.5	809.3	596.4	413.2	259.8	153.3	123.5
30.0	1350.3	1294.9	1179.9	1026.6	843.4	592.1	413.2	259.8	157.6	127.8
60.0	1358.8	1299.2	1167.2	1001.0	817.9	596.4	417.4	217.2	149.1	127.8
90.0	1341.8	1282.2	1128.8	958.4	766.7	536.7	357.8	217.2	144.8	123.5
120.0	1329.0	1231.0	1022.3	826.4	583.6	396.2	251.3	161.9	136.3	115.0
150.0	1316.2	1179.9	1009.5	826.4	566.5	387.6	230.0	166.1	144.8	119.3
180.0	1294.9	1167.2	992.5	771.0	579.3	353.6	221.5	166.1	136.3	119.3
210.0	1299.2	1141.6	966.9	775.3	553.8	379.1	238.5	153.3	132.1	110.8
240.0	1294.9	1171.4	996.8	775.3	583.6	404.7	213.0	153.3	132.1	110.8
270.0	1341.8	1239.6	1077.7	817.9	613.4	400.4	255.6	174.6	140.6	123.5
300.0	1371.6	1303.5	1192.7	971.2	766.7	562.3	400.4	217.2	153.3	127.8
330.0	1363.1	1299.2	1175.7	1013.8	822.1	562.3	383.4	213.0	149.1	123.5
360.0	1354.6	1290.7	1158.6	992.5	809.3	596.4	413.2	259.8	153.3	123.5

C\γ	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0
0.0	106.5	89.5	76.7	72.4	63.9	55.4	51.1	42.6	38.3	34.1
30.0	106.5	93.7	80.9	72.4	63.9	55.4	51.1	42.6	38.3	34.1
60.0	102.2	93.7	80.9	68.2	63.9	55.4	51.1	42.6	38.3	34.1
90.0	102.2	89.5	76.7	72.4	63.9	55.4	46.9	42.6	38.3	34.1
120.0	98.0	85.2	76.7	68.2	59.6	51.1	42.6	38.3	34.1	34.1
150.0	106.5	89.5	72.4	68.2	55.4	51.1	42.6	38.3	34.1	34.1
180.0	102.2	80.9	72.4	63.9	55.4	46.9	42.6	38.3	34.1	29.8
210.0	98.0	80.9	72.4	63.9	55.4	46.9	38.3	38.3	34.1	29.8
240.0	93.7	80.9	72.4	63.9	55.4	46.9	42.6	38.3	34.1	29.8
270.0	106.5	85.2	72.4	68.2	59.6	46.9	42.6	38.3	34.1	29.8
300.0	110.8	98.0	76.7	72.4	63.9	55.4	46.9	42.6	38.3	34.1
330.0	102.2	89.5	80.9	72.4	63.9	59.6	46.9	42.6	38.3	34.1
360.0	106.5	89.5	76.7	72.4	63.9	55.4	51.1	42.6	38.3	34.1

C\γ	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	29.8	29.8	25.6	25.6	21.3	21.3	17.0	17.0	17.0	17.0
30.0	34.1	29.8	29.8	25.6	25.6	21.3	17.0	17.0	17.0	17.0
60.0	34.1	29.8	25.6	25.6	21.3	21.3	21.3	17.0	17.0	17.0
90.0	34.1	29.8	25.6	25.6	21.3	21.3	17.0	17.0	17.0	17.0
120.0	29.8	25.6	25.6	21.3	21.3	17.0	17.0	17.0	17.0	12.8
150.0	29.8	25.6	21.3	21.3	17.0	17.0	17.0	17.0	12.8	12.8
180.0	29.8	25.6	21.3	21.3	21.3	17.0	17.0	17.0	17.0	17.0
210.0	25.6	25.6	21.3	21.3	21.3	17.0	17.0	17.0	17.0	17.0
240.0	29.8	25.6	25.6	21.3	21.3	17.0	17.0	17.0	17.0	17.0
270.0	29.8	25.6	25.6	21.3	21.3	17.0	17.0	17.0	17.0	12.8
300.0	34.1	29.8	25.6	25.6	21.3	21.3	21.3	17.0	17.0	17.0
330.0	34.1	29.8	25.6	25.6	25.6	21.3	21.3	17.0	17.0	17.0
360.0	29.8	29.8	25.6	25.6	21.3	21.3	17.0	17.0	17.0	17.0

## R854 WNL (CRI90 900mA 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	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5
30.0	12.8	12.8	12.8	12.8	12.8	12.8	8.5	12.8	8.5	8.5
60.0	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5	8.5	8.5
90.0	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5	8.5	8.5
120.0	12.8	12.8	8.5	12.8	8.5	12.8	8.5	8.5	8.5	8.5
150.0	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5	8.5	8.5
180.0	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5	8.5
210.0	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5
240.0	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5
270.0	12.8	17.0	12.8	12.8	12.8	12.8	12.8	12.8	8.5	12.8
300.0	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5	8.5
330.0	17.0	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5	8.5
360.0	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.5	8.5

C\γ	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	8.5	8.5	8.5	8.5	8.5	4.3	4.3	4.3	0.0	0.0
30.0	8.5	4.3	8.5	8.5	8.5	4.3	4.3	4.3	0.0	0.0
60.0	8.5	8.5	8.5	8.5	4.3	4.3	4.3	4.3	0.0	0.0
90.0	8.5	8.5	4.3	8.5	8.5	4.3	4.3	4.3	4.3	0.0
120.0	8.5	8.5	8.5	4.3	4.3	4.3	4.3	4.3	0.0	0.0
150.0	8.5	8.5	4.3	8.5	4.3	4.3	4.3	4.3	0.0	0.0
180.0	8.5	8.5	8.5	8.5	8.5	4.3	4.3	4.3	0.0	0.0
210.0	8.5	8.5	8.5	8.5	4.3	4.3	4.3	4.3	0.0	0.0
240.0	8.5	8.5	8.5	8.5	4.3	4.3	4.3	4.3	0.0	0.0
270.0	8.5	8.5	8.5	8.5	8.5	8.5	4.3	0.0	0.0	0.0
300.0	8.5	8.5	4.3	8.5	4.3	4.3	4.3	4.3	0.0	0.0
330.0	8.5	8.5	8.5	8.5	8.5	8.5	4.3	4.3	0.0	0.0
360.0	8.5	8.5	8.5	8.5	8.5	4.3	4.3	4.3	0.0	0.0

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

## R854 WNL (CRI90 900mA 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
360.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
360.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

**R854 WNL (CRI90 900mA 40D)****Intensity Data [cd]****Page6**

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

C\γ	130.0	131.0	132.0	133.0	134.0	135.0	136.0	137.0	138.0	139.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0
120.0	0.0	0.0	0.0	0.0	4.3	0.0	4.3	4.3	4.3	4.3
150.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3	4.3	4.3	4.3
180.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3	4.3	4.3
210.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3	4.3	4.3
240.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	4.3	4.3	4.3
270.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3	4.3	4.3	4.3
300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
330.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
360.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3

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	4.3	4.3	8.5	8.5	8.5	8.5	8.5	12.8
30.0	4.3	4.3	4.3	4.3	4.3	8.5	8.5	8.5	8.5	12.8
60.0	4.3	4.3	4.3	4.3	4.3	8.5	8.5	8.5	8.5	12.8
90.0	4.3	4.3	4.3	4.3	8.5	8.5	8.5	8.5	8.5	12.8
120.0	8.5	8.5	8.5	8.5	12.8	12.8	12.8	17.0	17.0	17.0
150.0	8.5	8.5	8.5	8.5	8.5	12.8	12.8	12.8	17.0	17.0
180.0	4.3	8.5	8.5	8.5	8.5	12.8	12.8	17.0	17.0	17.0
210.0	4.3	8.5	8.5	8.5	8.5	12.8	12.8	17.0	17.0	17.0
240.0	8.5	8.5	8.5	8.5	12.8	12.8	12.8	17.0	17.0	17.0
270.0	4.3	8.5	8.5	8.5	12.8	12.8	12.8	12.8	17.0	17.0
300.0	4.3	4.3	4.3	4.3	8.5	8.5	8.5	8.5	12.8	12.8
330.0	4.3	4.3	4.3	4.3	8.5	8.5	8.5	8.5	12.8	12.8
360.0	4.3	4.3	4.3	4.3	8.5	8.5	8.5	8.5	8.5	12.8

**R854 WNL (CRI90 900mA 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	12.8	12.8	12.8	12.8	17.0	17.0	21.3	17.0	21.3	21.3
30.0	12.8	12.8	12.8	17.0	17.0	17.0	21.3	21.3	21.3	21.3
60.0	12.8	12.8	17.0	17.0	17.0	21.3	21.3	21.3	21.3	21.3
90.0	12.8	12.8	17.0	17.0	17.0	17.0	17.0	21.3	21.3	25.6
120.0	17.0	21.3	21.3	21.3	25.6	25.6	25.6	25.6	29.8	29.8
150.0	17.0	21.3	21.3	21.3	25.6	25.6	25.6	25.6	29.8	29.8
180.0	17.0	17.0	21.3	25.6	21.3	25.6	25.6	25.6	29.8	29.8
210.0	17.0	21.3	21.3	21.3	25.6	25.6	25.6	25.6	29.8	29.8
240.0	17.0	21.3	21.3	21.3	25.6	25.6	25.6	29.8	25.6	29.8
270.0	21.3	21.3	21.3	21.3	25.6	25.6	25.6	25.6	29.8	29.8
300.0	12.8	12.8	17.0	17.0	17.0	21.3	21.3	21.3	21.3	21.3
330.0	12.8	12.8	12.8	17.0	17.0	17.0	17.0	21.3	21.3	21.3
360.0	12.8	12.8	12.8	12.8	17.0	17.0	21.3	17.0	21.3	21.3

C\γ	160.0	161.0	162.0	163.0	164.0	165.0	166.0	167.0	168.0	169.0
0.0	25.6	25.6	25.6	25.6	25.6	25.6	29.8	29.8	29.8	29.8
30.0	25.6	25.6	25.6	25.6	29.8	29.8	29.8	29.8	29.8	29.8
60.0	21.3	25.6	25.6	25.6	25.6	29.8	29.8	29.8	29.8	29.8
90.0	21.3	25.6	25.6	25.6	29.8	25.6	29.8	29.8	29.8	29.8
120.0	29.8	29.8	29.8	34.1	34.1	34.1	34.1	34.1	34.1	34.1
150.0	29.8	29.8	34.1	29.8	34.1	34.1	34.1	34.1	34.1	34.1
180.0	29.8	34.1	34.1	34.1	29.8	34.1	34.1	34.1	34.1	34.1
210.0	29.8	29.8	34.1	34.1	29.8	34.1	34.1	34.1	34.1	34.1
240.0	29.8	34.1	29.8	29.8	34.1	34.1	34.1	34.1	34.1	34.1
270.0	29.8	34.1	29.8	34.1	34.1	34.1	34.1	34.1	34.1	34.1
300.0	25.6	25.6	25.6	29.8	25.6	25.6	29.8	29.8	29.8	29.8
330.0	25.6	25.6	25.6	25.6	25.6	29.8	29.8	29.8	29.8	29.8
360.0	25.6	25.6	25.6	25.6	25.6	25.6	29.8	29.8	29.8	29.8

C\γ	170.0	171.0	172.0	173.0	174.0	175.0	176.0	177.0	178.0	179.0
0.0	34.1	29.8	34.1	29.8	34.1	34.1	34.1	34.1	34.1	34.1
30.0	29.8	29.8	29.8	34.1	34.1	29.8	34.1	34.1	34.1	34.1
60.0	29.8	29.8	29.8	29.8	34.1	34.1	34.1	34.1	34.1	34.1
90.0	29.8	29.8	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
120.0	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
150.0	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
180.0	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
210.0	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
240.0	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
270.0	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
300.0	29.8	29.8	29.8	34.1	34.1	34.1	34.1	34.1	34.1	34.1
330.0	29.8	29.8	29.8	29.8	34.1	34.1	34.1	34.1	34.1	34.1
360.0	34.1	29.8	34.1	29.8	34.1	34.1	34.1	34.1	34.1	34.1

Intensity Data [cd]		Page8
C\γ	180.0	
0.0	34.1	
30.0	34.1	
60.0	34.1	
90.0	34.1	
120.0	34.1	
150.0	34.1	
180.0	34.1	
210.0	34.1	
240.0	34.1	
270.0	34.1	
300.0	34.1	
330.0	34.1	
360.0	34.1	

**R854 WNL (CRI90 900mA 40D)**

Zonal flux distribution table

Page9

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
0	6087.42	0.00	0.00	0.00	0.00
1	6123.65	5.84	5.84	5.84	5.84
2	6187.19	17.67	23.51	17.67	23.51
3	6262.80	29.78	53.29	29.78	53.29
4	6320.31	42.12	95.41	42.12	95.41
5	6365.74	54.57	149.98	54.57	149.98
6	6391.30	67.04	217.03	67.04	217.03
7	6387.75	79.32	296.34	79.32	296.34
8	6345.86	91.13	387.48	91.13	387.48
9	6261.38	102.17	489.65	102.17	489.65
10	6147.79	112.30	601.95	112.30	601.95
11	5981.31	121.19	723.14	121.19	723.14
12	5804.53	128.84	851.98	128.84	851.98
13	5614.62	135.52	987.50	135.52	987.50
14	5383.89	140.78	1128.28	140.78	1128.28
15	5149.96	144.61	1272.89	144.61	1272.89
16	4898.64	147.24	1420.13	147.24	1420.13
17	4613.95	148.14	1568.27	148.14	1568.27
18	4347.01	147.75	1716.01	147.75	1716.01
19	4007.65	145.35	1861.37	145.35	1861.37
20	3660.49	140.35	2001.72	140.35	2001.72
21	3328.23	134.20	2135.91	134.20	2135.91
22	2994.20	127.05	2262.97	127.05	2262.97
23	2673.31	118.92	2381.89	118.92	2381.89
24	2348.15	109.79	2491.67	109.79	2491.67
25	2064.88	100.34	2592.01	100.34	2592.01
26	1822.43	91.76	2683.77	91.76	2683.77
27	1634.65	84.58	2768.35	84.58	2768.35
28	1505.80	79.51	2847.86	79.51	2847.86
29	1411.38	76.32	2924.18	76.32	2924.18
30	1334.70	74.14	2998.33	74.14	2998.33
31	1241.70	71.70	3070.03	71.70	3070.03
32	1089.06	66.77	3136.80	66.77	3136.80
33	896.31	58.49	3195.29	58.49	3195.29
34	692.20	48.07	3243.36	48.07	3243.36
35	480.63	36.42	3279.79	18.00	3261.36
36	316.28	25.37	3305.16	0.00	3261.36
37	196.66	16.73	3321.89	0.00	3261.36
38	144.12	11.37	3333.26	0.00	3261.36
39	121.05	9.05	3342.31	0.00	3261.36
40	102.94	7.81	3350.13	0.00	3261.36

**R854 WNL (CRI90 900mA 40D)**

Zonal flux distribution table

Page10

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
41	88.03	6.80	3356.93	0.00	3261.36
42	75.96	5.96	3362.88	0.00	3261.36
43	68.86	5.36	3368.25	0.00	3261.36
44	60.35	4.88	3373.13	0.00	3261.36
45	52.18	4.32	3377.45	0.00	3261.36
46	45.44	3.82	3381.27	0.00	3261.36
47	40.47	3.42	3384.69	0.00	3261.36
48	36.21	3.10	3387.79	0.00	3261.36
49	32.66	2.83	3390.61	0.00	3261.36
50	31.24	2.66	3393.28	0.00	3261.36
51	27.69	2.49	3395.77	0.00	3261.36
52	24.85	2.25	3398.02	0.00	3261.36
53	23.43	2.10	3400.12	0.00	3261.36
54	21.65	1.99	3402.11	0.00	3261.36
55	19.17	1.82	3403.93	0.00	3261.36
56	18.10	1.68	3405.62	0.00	3261.36
57	17.04	1.61	3407.23	0.00	3261.36
58	16.68	1.56	3408.78	0.00	3261.36
59	15.97	1.53	3410.31	0.00	3261.36
60	13.13	1.38	3411.69	0.00	3261.36
61	13.13	1.25	3412.94	0.00	3261.36
62	12.42	1.23	3414.17	0.00	3261.36
63	12.78	1.23	3415.40	0.00	3261.36
64	12.42	1.24	3416.63	0.00	3261.36
65	12.78	1.25	3417.88	0.00	3261.36
66	11.00	1.19	3419.07	0.00	3261.36
67	10.29	1.07	3420.14	0.00	3261.36
68	8.52	0.95	3421.09	0.00	3261.36
69	8.87	0.89	3421.98	0.00	3261.36
70	8.52	0.89	3422.87	0.00	3261.36
71	8.16	0.86	3423.74	0.00	3261.36
72	7.45	0.81	3424.55	0.00	3261.36
73	8.16	0.82	3425.36	0.00	3261.36
74	6.39	0.77	3426.13	0.00	3261.36
75	4.97	0.60	3426.73	0.00	3261.36
76	4.26	0.49	3427.22	0.00	3261.36
77	3.90	0.44	3427.65	0.00	3261.36
78	0.35	0.23	3427.88	0.00	3261.36
79	0.00	0.02	3427.90	0.00	3261.36
80	0.00	0.00	3427.90	0.00	3261.36
81	0.00	0.00	3427.90	0.00	3261.36

**R854 WNL (CRI90 900mA 40D)**

Zonal flux distribution table

Page11

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
82	0.00	0.00	3427.90	0.00	3261.36
83	0.00	0.00	3427.90	0.00	3261.36
84	0.00	0.00	3427.90	0.00	3261.36
85	0.00	0.00	3427.90	0.00	3261.36
86	0.00	0.00	3427.90	0.00	3261.36
87	0.00	0.00	3427.90	0.00	3261.36
88	0.00	0.00	3427.90	0.00	3261.36
89	0.00	0.00	3427.90	0.00	3261.36
90	0.00	0.00	3427.90	0.00	3261.36
91	0.00	0.00	3427.90	0.00	3261.36
92	0.00	0.00	3427.90	0.00	3261.36
93	0.00	0.00	3427.90	0.00	3261.36
94	0.00	0.00	3427.90	0.00	3261.36
95	0.00	0.00	3427.90	0.00	3261.36
96	0.00	0.00	3427.90	0.00	3261.36
97	0.00	0.00	3427.90	0.00	3261.36
98	0.00	0.00	3427.90	0.00	3261.36
99	0.00	0.00	3427.90	0.00	3261.36
100	0.00	0.00	3427.90	0.00	3261.36
101	0.00	0.00	3427.90	0.00	3261.36
102	0.00	0.00	3427.90	0.00	3261.36
103	0.00	0.00	3427.90	0.00	3261.36
104	0.00	0.00	3427.90	0.00	3261.36
105	0.00	0.00	3427.90	0.00	3261.36
106	0.00	0.00	3427.90	0.00	3261.36
107	0.00	0.00	3427.90	0.00	3261.36
108	0.00	0.00	3427.90	0.00	3261.36
109	0.00	0.00	3427.90	0.00	3261.36
110	0.00	0.00	3427.90	0.00	3261.36
111	0.00	0.00	3427.90	0.00	3261.36
112	0.00	0.00	3427.90	0.00	3261.36
113	0.00	0.00	3427.90	0.00	3261.36
114	0.00	0.00	3427.90	0.00	3261.36
115	0.00	0.00	3427.90	0.00	3261.36
116	0.00	0.00	3427.90	0.00	3261.36
117	0.00	0.00	3427.90	0.00	3261.36
118	0.00	0.00	3427.90	0.00	3261.36
119	0.00	0.00	3427.90	0.00	3261.36
120	0.00	0.00	3427.90	0.00	3261.36
121	0.00	0.00	3427.90	0.00	3261.36
122	0.00	0.00	3427.90	0.00	3261.36

**R854 WNL (CRI90 900mA 40D)**

Zonal flux distribution table

Page12

Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
123	0.00	0.00	3427.90	0.00	3261.36
124	0.00	0.00	3427.90	0.00	3261.36
125	0.00	0.00	3427.90	0.00	3261.36
126	0.00	0.00	3427.90	0.00	3261.36
127	0.00	0.00	3427.90	0.00	3261.36
128	0.00	0.00	3427.90	0.00	3261.36
129	0.00	0.00	3427.90	0.00	3261.36
130	0.00	0.00	3427.90	0.00	3261.36
131	0.00	0.00	3427.90	0.00	3261.36
132	0.00	0.00	3427.90	0.00	3261.36
133	0.00	0.00	3427.90	0.00	3261.36
134	0.35	0.01	3427.92	0.00	3261.36
135	1.06	0.06	3427.97	0.00	3261.36
136	1.77	0.11	3428.08	0.00	3261.36
137	2.13	0.15	3428.23	0.00	3261.36
138	3.19	0.20	3428.43	0.00	3261.36
139	3.90	0.26	3428.68	0.00	3261.36
140	5.32	0.33	3429.01	0.00	3261.36
141	6.39	0.41	3429.42	0.00	3261.36
142	6.39	0.44	3429.86	0.00	3261.36
143	6.39	0.43	3430.28	0.00	3261.36
144	8.87	0.50	3430.78	0.00	3261.36
145	10.65	0.62	3431.40	0.00	3261.36
146	10.65	0.66	3432.07	0.00	3261.36
147	12.07	0.69	3432.75	0.00	3261.36
148	13.49	0.75	3433.51	0.00	3261.36
149	14.91	0.81	3434.32	0.00	3261.36
150	15.26	0.84	3435.16	0.00	3261.36
151	16.68	0.86	3436.02	0.00	3261.36
152	18.10	0.91	3436.93	0.00	3261.36
153	19.17	0.94	3437.87	0.00	3261.36
154	20.94	0.98	3438.86	0.00	3261.36
155	22.01	1.01	3439.87	0.00	3261.36
156	22.72	1.02	3440.89	0.00	3261.36
157	23.43	1.01	3441.90	0.00	3261.36
158	25.20	1.02	3442.92	0.00	3261.36
159	25.91	1.03	3443.94	0.00	3261.36
160	26.98	1.02	3444.96	0.00	3261.36
161	28.75	1.02	3445.98	0.00	3261.36
162	28.75	1.00	3446.98	0.00	3261.36
163	29.46	0.96	3447.94	0.00	3261.36

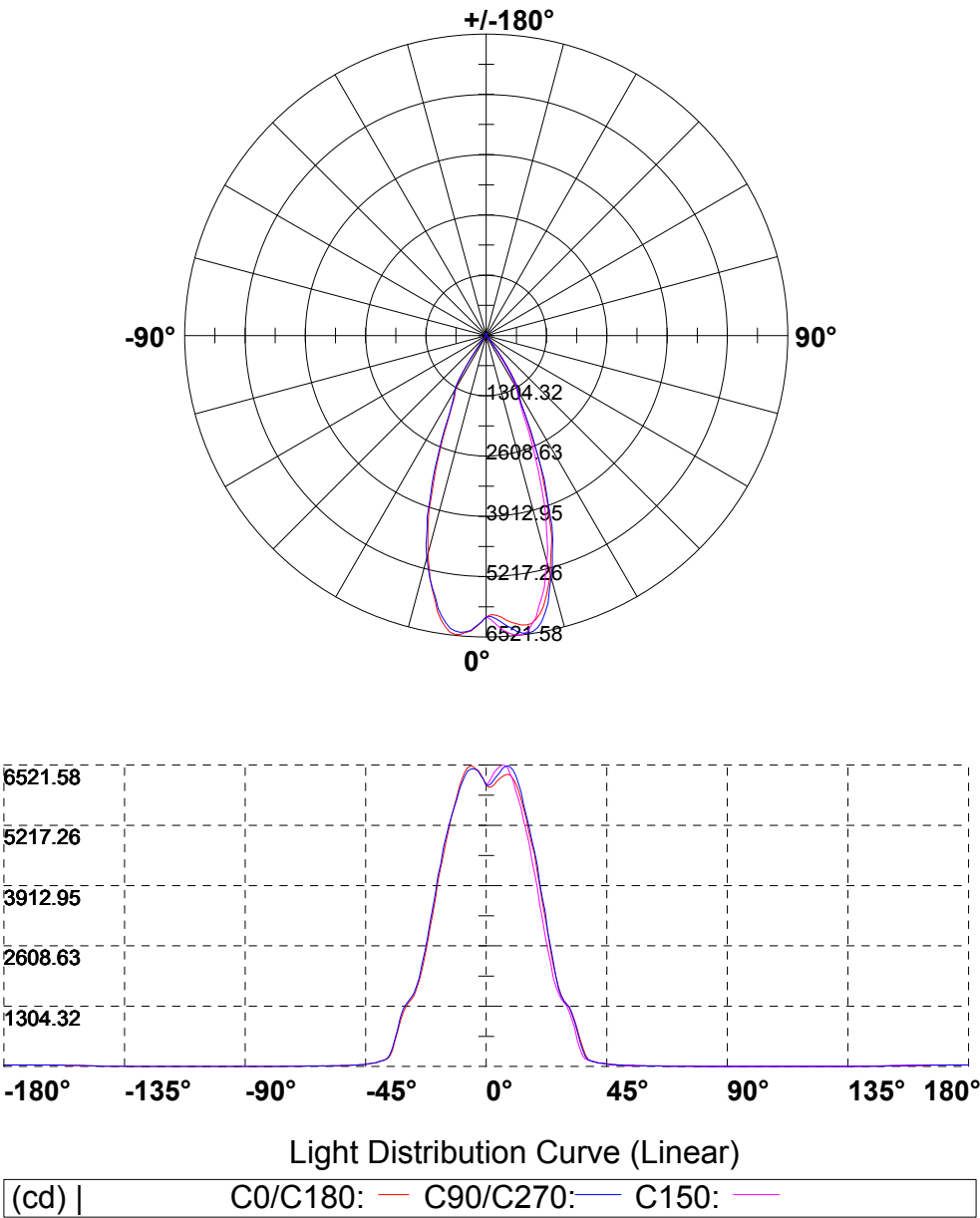
### R854 WNL (CRI90 900mA 40D)

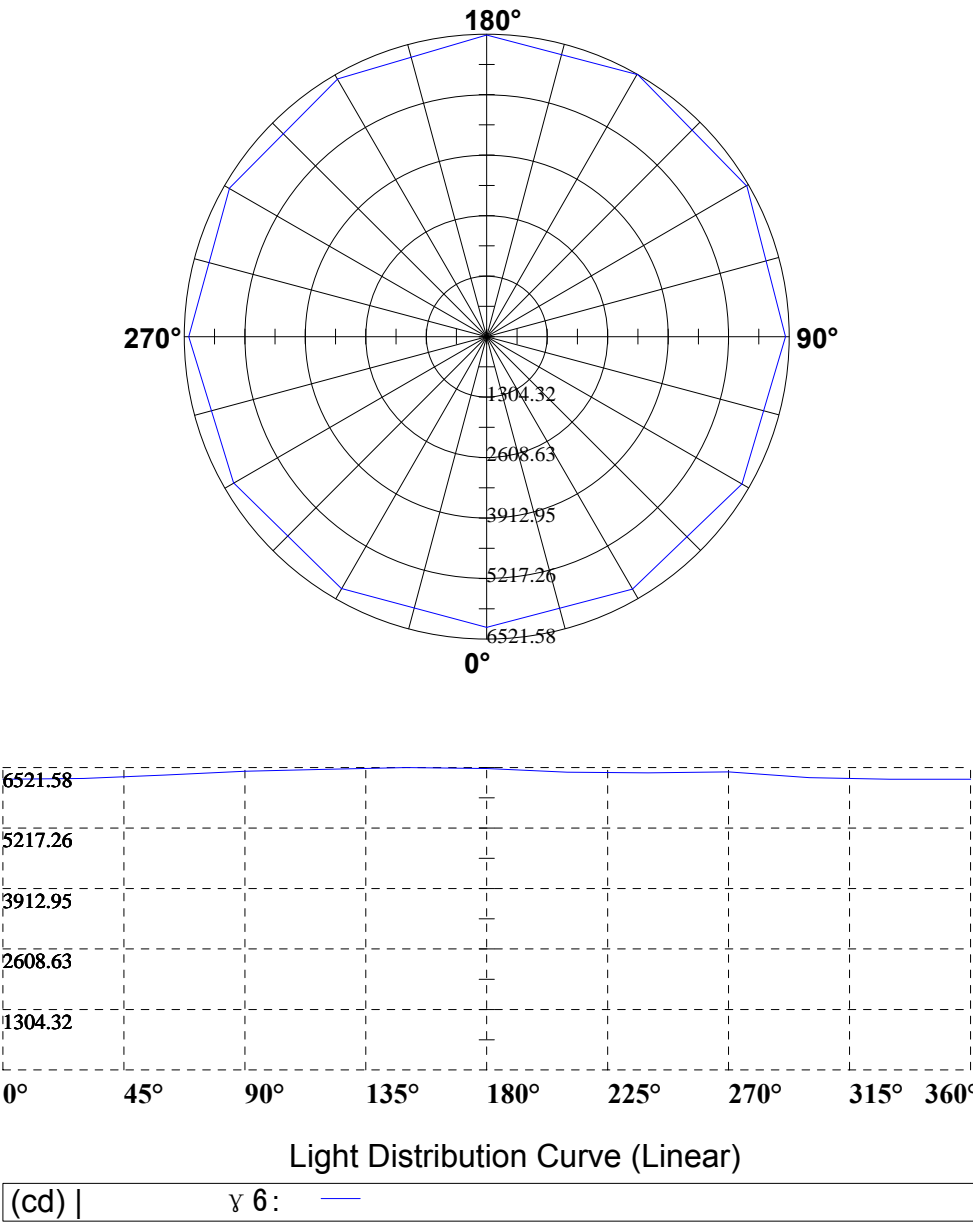
### Zonal flux distribution table

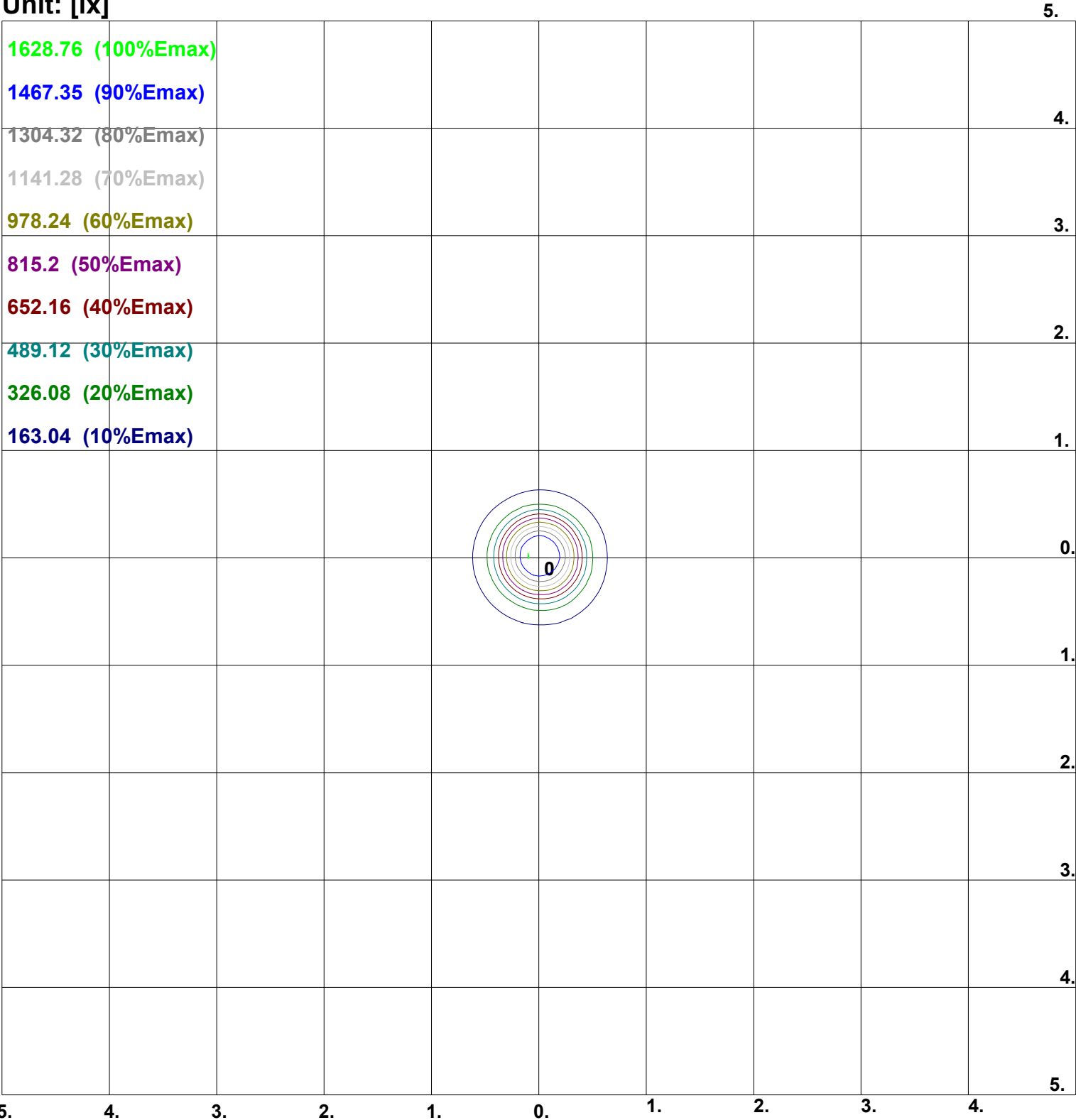
Page13

[illegible]

Light Distribution Curve [Unit: cd]







Coordinate Scale: d/h  
Height: 2 m  
Max Illuminance : 1630.39lx

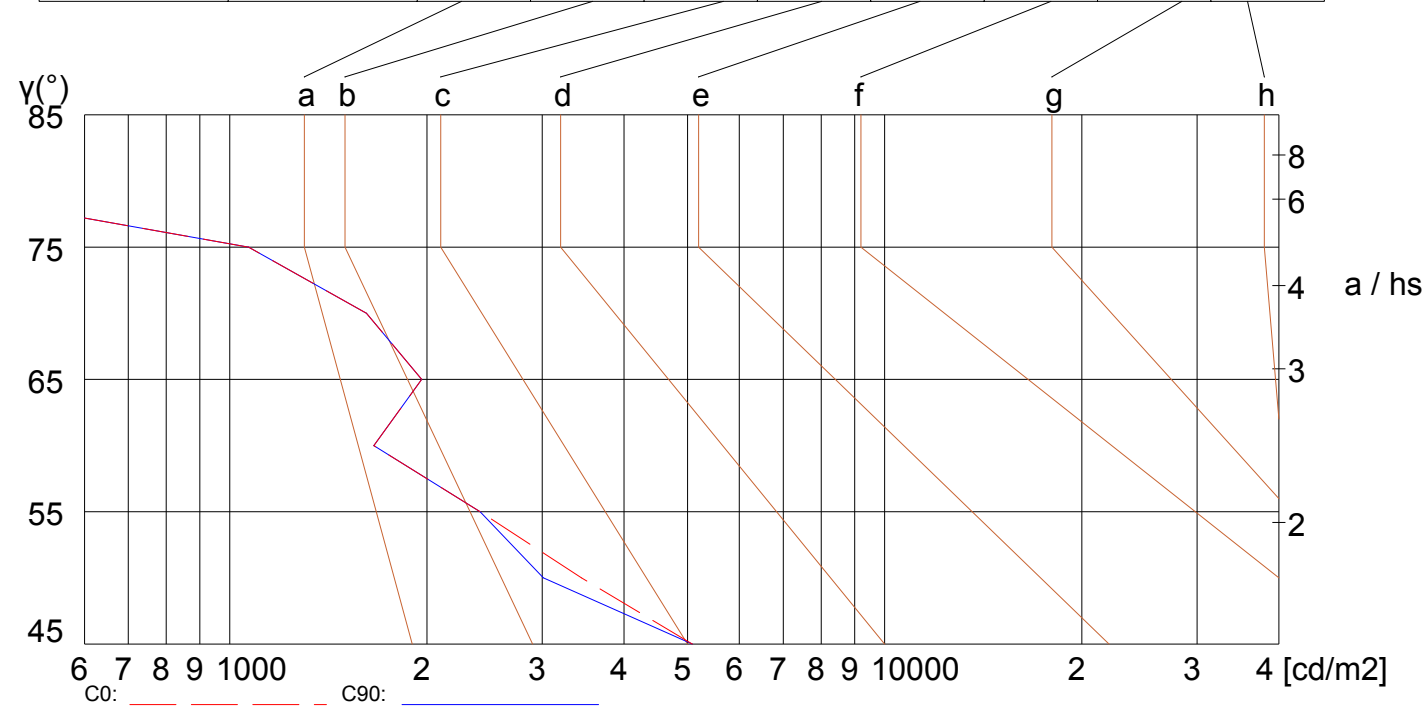
Luminance Limiting Curve (There is not luminous side)

Diameter: 140mm  
Length: -140mm  
Width: -140mm  
Height: 100mm

(cd/m2)

$\gamma$	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	5085	3443	2411	1660	1963	1617	1069		
C90	5085	3012	2411	1660	1963	1617	1069		

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)

**R854 WNL (CRI90 900mA 40D)**

utilization factor table for indoor luminaire

Page18

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	COEFFICIENTS OF UTILIZATION FOR RHOFC=20															
0	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	1.02	1.01	1.01	1.00	0.99	0.99	0.96	0.95	0.95	0.91	0.90	0.90	0.85	0.84	0.83	0.79
2	0.97	0.96	0.95	0.95	0.94	0.93	0.92	0.90	0.89	0.87	0.86	0.84	0.82	0.80	0.79	0.75
3	0.92	0.91	0.90	0.91	0.89	0.88	0.87	0.86	0.84	0.84	0.81	0.80	0.79	0.77	0.75	0.71
4	0.87	0.86	0.86	0.86	0.85	0.84	0.83	0.81	0.80	0.80	0.78	0.76	0.76	0.73	0.71	0.67
5	0.83	0.82	0.81	0.82	0.81	0.80	0.80	0.77	0.76	0.76	0.74	0.72	0.73	0.70	0.67	0.64
6	0.79	0.78	0.78	0.78	0.77	0.76	0.76	0.74	0.72	0.73	0.70	0.68	0.70	0.67	0.64	0.61
7	0.76	0.75	0.74	0.75	0.73	0.72	0.73	0.70	0.69	0.70	0.67	0.65	0.67	0.64	0.61	0.58
8	0.73	0.71	0.71	0.72	0.70	0.69	0.70	0.67	0.66	0.67	0.64	0.62	0.65	0.61	0.59	0.56
9	0.69	0.68	0.68	0.69	0.67	0.66	0.67	0.64	0.63	0.65	0.62	0.60	0.62	0.59	0.56	0.53
10	0.67	0.65	0.65	0.66	0.64	0.63	0.64	0.62	0.60	0.62	0.59	0.57	0.60	0.56	0.54	0.51

