

R854 WNL (CRI90 700mA 12D)

Luminaire Name: R854 WNL (CRI90 700mA 12D)

Report NO.: 01314523082424A

Test NO.:

Lamp: LUMINUS CLM-14-40-90-36-TC40-F5-2 700mA

Sum Lumens: 3385.84 lm

Number of Lamps: 1

Diameter: 154mm

Length: -154mm

Photometric Type: Type C

Voltage: 229.68 V

Current: 0.1166 A

Power: 26.258 W

Power Factor: 0.9806

Ballast Type: OSRAM IT FIT 30/220-240/700 CS I

Width: -154mm

Height: 144mm

Optical Component: 12D Reflector DC(V: 34.12V I: 0.685A P: 23.37W)

Photometric Results

Lumens: 2739.70 lm

Efficiency: 80.92%

Central Intensity: 27851.12cd

Maximum Intensity: 29336.439cd

Beam Angle(10%): Left: -11.9 Right:12.3

Maximum s/h: C0_180: 0.15 C90_270: 0.14

Effective Luminous Flux: 1494.55 lm

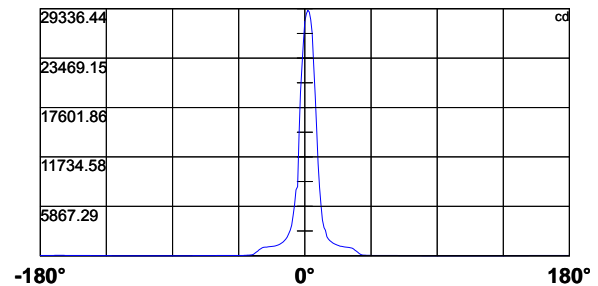
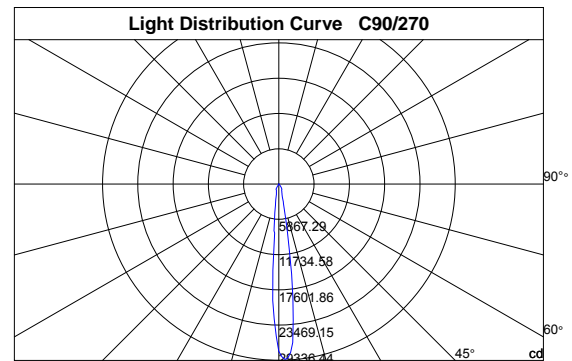
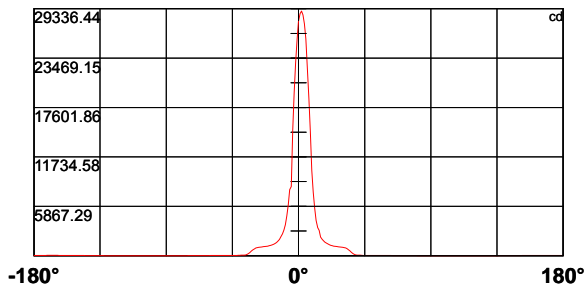
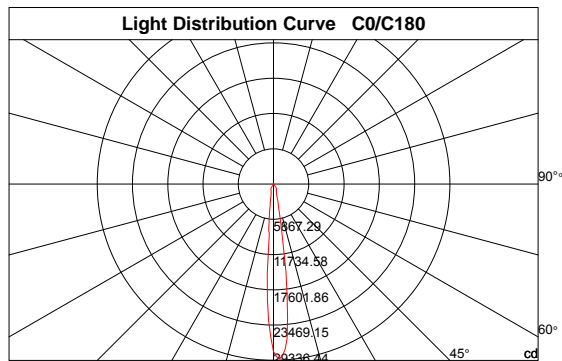
Angle of maximum intensity: C:60.0 G:2.0

Half Peak Side Angle(50%): Left: -5.7 Right:6.5

Up Flux Rate: 1.06%

Down Flux Rate: 79.86%

CIE Classification: Direct



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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	27851.1	28748.6	29068.1	28608.0	27521.8	25745.5	22376.1	18657.4	14755.5	10155.1
30.0	27851.1	28671.9	29293.8	29242.7	28484.5	26797.7	23965.0	20463.5	16476.5	12101.8
60.0	27851.1	28620.8	29336.4	29336.4	28331.2	26848.8	24467.6	21093.9	16455.2	12668.3
90.0	27851.1	28748.6	29166.1	28931.8	28041.5	26452.6	22819.1	19032.3	15079.3	10951.7
120.0	27851.1	28092.6	26780.6	24591.2	20037.6	16122.9	10308.4	8281.3	6881.9	5308.4
150.0	27851.1	26934.0	24514.5	21328.2	17545.6	12630.0	8327.3	7592.9	5491.2	4323.2
180.0	27851.1	25609.2	22904.3	19351.7	14917.4	8223.7	7842.5	6018.9	4730.4	3674.0
210.0	27851.1	24642.3	21502.9	17758.6	14010.1	8397.1	7639.3	5877.1	4310.4	3516.4
240.0	27851.1	25238.6	21145.1	17353.9	13631.0	8508.7	7391.8	5728.0	4388.3	3587.1
270.0	27851.1	25272.7	22393.2	19385.8	14333.8	8195.6	7825.5	6038.5	4779.4	3620.3
300.0	27851.1	28671.9	28028.7	26491.0	24275.9	21106.7	16093.1	12434.0	9273.3	6636.6
330.0	27851.1	28684.7	28561.2	27670.9	26133.2	23172.7	19066.3	15228.4	11646.0	7859.1
360.0	27851.1	28748.6	29068.1	28608.0	27521.8	25745.5	22376.1	18657.4	14755.5	10155.1

C\γ	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	7543.9	5661.1	4195.8	3339.6	3015.9	2206.9	1954.8	1771.6	1606.8	1493.0
30.0	9030.5	6674.9	4600.5	3595.2	2998.8	2575.0	2043.8	1842.3	1665.5	1552.2
60.0	9469.3	6312.9	4770.8	3693.1	3054.2	2612.0	2051.9	1837.2	1634.4	1522.4
90.0	8144.5	6061.5	4234.1	3331.1	3003.1	2247.4	1996.5	1800.1	1663.4	1514.3
120.0	3867.8	3150.9	2638.4	2235.5	1970.5	1802.3	1666.8	1533.1	1427.4	1346.5
150.0	3373.7	2813.5	2405.9	2046.4	1853.8	1706.4	1554.4	1448.3	1365.2	1277.5
180.0	3049.9	2592.9	2250.4	1920.7	1737.5	1568.0	1451.7	1356.3	1277.5	1224.7
210.0	2874.4	2476.6	2175.8	1896.8	1678.7	1554.4	1403.6	1315.8	1248.5	1186.7
240.0	2846.7	2454.9	2157.1	1893.4	1706.4	1559.5	1441.5	1320.9	1251.9	1195.7
270.0	3028.2	2644.0	2208.2	1975.6	1784.4	1608.9	1493.0	1367.4	1284.7	1223.8
300.0	5128.7	4055.2	3075.5	3075.5	2213.3	1932.2	1754.1	1613.6	1458.9	1364.8
330.0	5942.3	4613.2	3663.3	3088.3	2667.4	2081.3	1871.7	1706.9	1532.2	1420.6
360.0	7543.9	5661.1	4195.8	3339.6	3015.9	2206.9	1954.8	1771.6	1606.8	1493.0

C\γ	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	1396.8	1297.5	1230.2	1182.1	1136.9	1107.1	1085.8	1061.5	1039.4	1021.9
30.0	1424.0	1351.2	1280.5	1212.3	1170.1	1136.5	1107.5	1083.7	1062.4	1041.9
60.0	1405.7	1332.0	1265.1	1208.0	1148.8	1113.9	1086.6	1056.4	1037.2	1018.5
90.0	1422.3	1337.1	1254.5	1193.6	1133.5	1097.3	1069.2	1045.8	1018.1	996.8
120.0	1259.6	1199.1	1154.8	1122.0	1087.5	1066.2	1041.1	1013.4	982.3	952.5
150.0	1218.3	1173.5	1137.8	1108.4	1090.5	1062.4	1039.8	1017.2	981.9	945.6
180.0	1182.1	1141.2	1113.5	1090.1	1069.2	1047.9	1021.0	997.2	964.4	924.4
210.0	1147.6	1109.2	1077.3	1056.4	1037.2	1012.5	991.7	976.7	942.7	886.4
240.0	1146.3	1116.9	1088.3	1064.1	1045.8	1024.5	1004.0	983.6	961.0	894.5
270.0	1172.3	1140.7	1115.6	1088.3	1070.5	1049.2	1027.9	1009.1	987.8	952.5
300.0	1293.7	1209.8	1162.0	1127.5	1090.5	1066.2	1043.2	1024.0	1002.7	979.7
330.0	1334.6	1252.8	1196.5	1151.0	1107.9	1083.2	1061.5	1036.0	1010.8	988.2
360.0	1396.8	1297.5	1230.2	1182.1	1136.9	1107.1	1085.8	1061.5	1039.4	1021.9

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Intensity Data [cd]

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C\γ	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	993.8	966.1	921.8	816.6	691.3	562.7	385.9	261.1	144.4	83.9
30.0	1020.6	988.7	941.0	852.4	715.2	583.2	406.8	282.0	177.6	99.3
60.0	993.4	969.9	931.2	831.9	719.0	547.4	413.6	309.3	163.1	97.5
90.0	969.1	946.5	897.1	805.9	665.8	538.0	409.4	243.7	142.7	85.2
120.0	878.3	774.8	607.9	478.8	352.7	218.5	129.5	86.5	66.5	55.8
150.0	862.6	708.8	579.3	449.4	303.7	193.8	111.2	76.2	62.2	54.5
180.0	806.8	685.4	558.0	383.4	261.1	163.6	88.2	72.4	58.8	51.1
210.0	790.2	647.9	519.7	391.5	232.6	139.7	84.8	64.7	54.1	45.2
240.0	792.3	670.9	520.1	394.0	234.3	139.7	87.3	72.0	57.9	50.7
270.0	832.3	706.3	546.9	416.6	294.8	168.7	102.2	82.2	64.7	56.2
300.0	954.2	924.8	819.6	703.7	573.8	424.3	290.9	183.6	95.0	72.8
330.0	956.3	926.9	860.5	755.7	612.5	486.9	320.8	207.9	119.7	72.4
360.0	993.8	966.1	921.8	816.6	691.3	562.7	385.9	261.1	144.4	83.9

C\γ	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0
0.0	71.1	56.7	50.3	40.5	33.7	31.9	29.8	27.7	26.0	24.3
30.0	80.9	66.0	56.7	47.3	36.2	33.7	32.4	29.4	26.8	24.7
60.0	79.7	63.5	56.2	49.8	36.6	34.1	31.9	29.4	26.8	25.1
90.0	67.3	54.9	46.9	39.6	34.9	32.8	30.2	27.7	26.0	23.9
120.0	49.0	39.6	34.9	32.4	29.8	26.4	25.1	23.9	22.6	21.3
150.0	45.6	36.2	33.2	30.7	28.1	26.0	23.9	23.4	21.7	21.3
180.0	43.9	34.5	32.4	29.8	26.8	25.6	24.3	23.0	21.7	21.3
210.0	38.3	34.5	32.8	29.4	26.8	25.1	23.9	23.0	22.2	21.3
240.0	40.9	34.5	32.8	30.7	26.8	25.6	23.9	23.0	22.2	21.3
270.0	44.7	35.4	33.2	31.1	27.3	25.6	23.9	23.0	22.2	21.3
300.0	59.2	50.3	43.9	33.7	31.5	30.2	27.7	25.6	24.3	23.0
330.0	59.2	49.8	40.0	34.9	32.4	30.7	28.5	26.4	25.1	23.4
360.0	71.1	56.7	50.3	40.5	33.7	31.9	29.8	27.7	26.0	24.3

C\γ	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	23.0	21.7	20.9	20.4	19.6	19.6	19.2	19.2	18.7	18.7
30.0	23.4	22.2	20.9	20.4	19.6	19.6	19.2	18.7	18.7	18.7
60.0	23.9	22.6	21.3	20.4	20.0	19.2	19.2	18.7	18.7	18.7
90.0	22.6	21.7	20.9	20.4	20.0	19.6	19.2	18.7	18.7	18.7
120.0	20.9	20.0	19.6	19.6	19.6	19.2	19.6	19.6	19.6	20.9
150.0	20.4	20.0	20.0	20.0	19.6	20.0	19.6	20.0	20.9	20.9
180.0	21.3	20.4	20.4	20.0	20.4	20.4	20.9	20.9	21.3	20.4
210.0	20.9	20.9	20.4	20.9	20.9	20.9	20.9	21.3	21.3	20.0
240.0	21.3	20.9	20.9	20.9	20.9	20.9	21.3	21.7	20.9	19.6
270.0	20.9	20.9	20.4	20.4	20.4	20.4	20.4	20.9	20.9	20.0
300.0	22.2	21.3	20.4	20.0	20.0	19.6	19.6	19.6	19.6	20.0
330.0	22.2	21.3	20.4	20.0	19.6	19.6	19.2	19.2	19.6	19.2
360.0	23.0	21.7	20.9	20.4	19.6	19.6	19.2	19.2	18.7	18.7

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Intensity Data [cd]

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C\γ	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	18.7	20.0	19.2	18.7	17.0	15.3	14.1	12.4	11.5	10.6
30.0	18.7	19.6	19.2	18.7	16.6	15.3	14.1	12.8	11.5	10.6
60.0	19.2	19.6	19.6	19.2	16.6	15.3	14.1	12.4	11.5	10.6
90.0	19.2	20.0	19.6	19.2	17.0	14.9	14.1	12.8	11.5	10.6
120.0	20.4	19.2	17.5	15.3	14.1	12.8	11.5	10.6	10.2	9.4
150.0	20.4	18.3	16.2	14.9	13.6	12.8	11.5	10.6	10.2	9.4
180.0	18.7	17.0	15.8	14.1	13.6	12.8	11.9	11.1	10.2	9.4
210.0	17.9	16.2	15.3	14.1	13.6	12.8	11.9	11.5	10.6	9.8
240.0	17.9	16.2	15.3	14.5	13.6	12.8	11.9	11.1	10.6	9.8
270.0	18.7	17.5	15.3	14.5	13.6	12.4	11.9	11.5	10.2	9.4
300.0	20.4	20.0	19.2	17.9	15.3	14.5	13.6	12.4	11.5	10.6
330.0	19.6	20.4	19.6	18.3	17.0	15.3	13.6	12.4	11.5	10.6
360.0	18.7	20.0	19.2	18.7	17.0	15.3	14.1	12.4	11.5	10.6

C\γ	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	9.8	8.9	8.1	7.7	6.8	4.7	3.4	3.4	3.0	2.6
30.0	9.8	9.4	8.5	7.7	6.8	5.1	3.8	3.4	3.0	2.6
60.0	10.2	9.4	8.5	7.7	6.8	5.1	3.8	3.4	3.0	2.6
90.0	9.8	8.9	8.5	7.2	6.8	5.1	3.8	3.0	3.0	2.6
120.0	8.5	7.7	6.4	4.7	3.4	3.0	3.0	2.6	2.1	2.1
150.0	8.5	7.2	6.0	3.4	3.4	3.0	2.6	2.1	2.1	1.7
180.0	8.5	7.2	5.5	3.4	3.0	3.0	2.1	2.1	2.1	1.7
210.0	8.5	6.8	4.7	3.4	3.0	3.0	2.6	2.1	1.7	1.7
240.0	8.5	6.8	5.1	3.0	3.0	2.6	2.6	2.1	1.7	1.7
270.0	8.5	6.8	5.1	3.4	3.0	2.6	2.6	2.1	2.1	1.7
300.0	9.8	9.4	8.1	6.4	5.1	3.8	3.0	3.0	2.6	2.1
330.0	9.8	9.4	8.5	7.7	6.0	4.7	3.4	3.0	2.6	2.6
360.0	9.8	8.9	8.1	7.7	6.8	4.7	3.4	3.4	3.0	2.6

C\γ	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.6	2.1	2.1	1.7	1.3	1.3	1.3	0.9	0.9	0.9
30.0	2.6	2.1	2.1	1.7	1.3	1.3	1.3	0.9	0.9	0.9
60.0	2.6	2.1	2.1	1.7	1.7	1.3	1.3	0.9	0.9	0.9
90.0	2.1	2.1	1.7	1.7	1.7	1.3	1.3	0.9	0.9	0.9
120.0	1.7	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.9	0.4
150.0	1.7	1.3	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.4
180.0	1.7	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4
210.0	1.7	1.3	1.3	1.3	0.9	0.9	0.4	0.4	0.4	0.4
240.0	1.7	1.3	1.3	0.9	0.9	0.9	0.9	0.9	0.4	0.4
270.0	1.7	1.3	1.3	1.3	0.9	0.9	0.9	0.9	0.4	0.4
300.0	2.1	1.7	1.7	1.3	1.3	1.3	0.9	0.9	0.4	0.9
330.0	2.1	2.1	1.7	1.3	1.3	1.3	1.3	0.9	0.9	0.9
360.0	2.6	2.1	2.1	1.7	1.3	1.3	1.3	0.9	0.9	0.9

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Intensity Data [cd]

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C\γ	90.0	91.0	92.0	93.0	94.0	95.0	96.0	97.0	98.0	99.0
0.0	0.9	0.9	0.4	0.9	0.4	0.4	0.4	0.4	0.4	0.4
30.0	0.9	0.9	0.4	0.9	0.4	0.4	0.4	0.4	0.4	0.9
60.0	0.4	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4
90.0	0.4	0.9	0.4	0.4	0.4	0.4	0.4	0.9	0.4	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	0.4	0.4	0.4	0.4	0.4
180.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
210.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4	0.4
240.0	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
270.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
300.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
330.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.4
360.0	0.9	0.9	0.4	0.9	0.4	0.4	0.4	0.4	0.4	0.4

C\γ	100.0	101.0	102.0	103.0	104.0	105.0	106.0	107.0	108.0	109.0
0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
30.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
60.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9
90.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	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	0.4	0.4	0.4	0.4	0.4
180.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4	0.9	0.4
210.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.4
240.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4	0.4	0.4
270.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
300.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
330.0	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4
360.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	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	0.9	0.4	0.9	0.4	0.4	0.9	0.4	0.9
30.0	0.4	0.4	0.4	0.4	0.9	0.4	0.4	0.4	0.4	0.9
60.0	0.4	0.4	0.4	0.9	0.9	0.4	0.4	0.9	0.9	0.4
90.0	0.4	0.4	0.4	0.9	0.4	0.4	0.9	0.4	0.9	0.9
120.0	0.9	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	0.9	0.9	0.4	0.4	0.4	0.4	0.4
180.0	0.4	0.4	0.4	0.9	0.4	0.9	0.9	0.9	0.4	0.4
210.0	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
240.0	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
270.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4
300.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.4	0.4
330.0	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.4	0.4	0.9
360.0	0.4	0.4	0.9	0.4	0.9	0.4	0.4	0.9	0.4	0.9

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Intensity Data [cd]

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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	0.9	0.4	0.9	0.4	0.9	0.9	0.9	0.9	0.9
30.0	0.4	0.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
60.0	0.9	0.4	0.9	0.9	0.4	0.9	0.9	0.9	0.9	0.9
90.0	0.9	0.9	0.9	0.4	0.9	0.9	0.9	0.9	0.9	0.9
120.0	0.4	0.4	0.4	0.9	0.9	0.9	1.3	1.3	1.3	1.7
150.0	0.4	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.7
180.0	0.4	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.3	1.7
210.0	0.4	0.4	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7
240.0	0.4	0.9	0.4	0.9	0.9	0.9	1.3	1.3	1.7	1.7
270.0	0.4	0.9	0.4	0.9	0.9	0.9	0.9	1.3	1.3	1.3
300.0	0.4	0.9	0.9	0.9	0.4	0.9	0.9	0.9	0.9	1.3
330.0	0.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.3
360.0	0.4	0.9	0.4	0.9	0.4	0.9	0.9	0.9	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	1.3	1.3	1.3	1.7	1.7	2.1	2.1	2.6	2.6	3.0
30.0	1.3	1.3	1.3	1.7	1.7	1.7	2.1	2.6	2.6	3.0
60.0	1.3	1.3	1.3	1.7	1.7	2.1	2.1	2.6	2.6	3.0
90.0	1.3	1.3	1.3	1.7	1.7	2.1	2.1	2.6	2.6	3.0
120.0	1.7	2.1	2.1	2.6	3.0	3.0	3.8	4.3	5.1	6.4
150.0	1.7	2.1	2.1	2.6	3.0	3.4	3.8	4.7	5.5	6.8
180.0	1.7	2.1	2.1	2.6	3.0	3.4	4.3	4.7	6.0	6.8
210.0	1.7	2.1	2.1	2.6	3.0	3.4	4.3	5.1	6.0	7.7
240.0	1.7	2.1	2.1	2.6	3.0	3.4	4.3	5.1	6.0	7.2
270.0	1.7	2.1	2.6	2.6	3.0	3.4	3.8	4.7	5.5	6.8
300.0	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.6	3.0	3.0
330.0	1.3	1.3	1.3	1.7	1.7	2.1	2.1	2.6	2.6	3.0
360.0	1.3	1.3	1.3	1.7	1.7	2.1	2.1	2.6	2.6	3.0

C\γ	140.0	141.0	142.0	143.0	144.0	145.0	146.0	147.0	148.0	149.0
0.0	3.4	3.8	4.7	5.5	6.8	7.7	9.4	11.1	12.4	14.1
30.0	3.4	3.8	4.3	5.1	6.4	7.7	8.9	10.6	12.4	13.6
60.0	3.4	3.8	4.7	5.5	6.4	7.7	8.9	10.6	12.4	14.1
90.0	3.4	3.8	4.7	5.5	6.4	7.7	9.4	11.1	12.4	14.1
120.0	7.2	8.9	10.6	12.8	14.5	16.2	17.9	19.2	20.4	21.7
150.0	8.1	9.8	11.1	13.2	14.9	16.6	18.7	20.0	20.9	22.2
180.0	8.9	10.2	11.9	14.1	15.8	17.5	19.2	20.0	21.3	22.6
210.0	8.9	10.6	12.4	14.1	15.8	17.5	18.7	20.0	21.3	22.2
240.0	8.5	10.2	11.9	13.6	15.8	17.5	18.7	20.0	21.3	21.7
270.0	8.5	9.8	11.5	13.2	15.3	17.0	18.3	20.0	20.9	21.7
300.0	3.8	4.3	5.1	6.4	7.7	8.9	10.2	12.4	13.6	14.9
330.0	3.4	3.8	5.1	6.0	6.8	8.5	9.8	11.5	13.6	14.9
360.0	3.4	3.8	4.7	5.5	6.8	7.7	9.4	11.1	12.4	14.1

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Intensity Data [cd]

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C\γ	150.0	151.0	152.0	153.0	154.0	155.0	156.0	157.0	158.0	159.0
0.0	15.8	17.0	18.3	20.0	20.9	22.2	23.4	24.3	25.1	26.4
30.0	15.8	17.0	18.3	19.6	20.9	22.2	23.4	24.3	25.1	26.0
60.0	15.3	17.0	18.3	19.6	20.9	22.2	23.0	24.3	25.1	26.0
90.0	15.3	17.0	17.9	19.6	20.9	22.2	23.0	24.3	25.1	26.4
120.0	22.6	23.9	24.7	25.6	26.0	27.3	27.7	28.5	29.4	30.2
150.0	23.0	23.9	25.1	25.6	26.4	27.3	27.7	28.5	29.8	30.7
180.0	23.4	24.3	25.1	26.0	26.4	27.3	28.1	29.0	29.4	30.2
210.0	23.0	23.9	24.7	25.6	26.8	27.3	28.1	28.5	29.4	30.2
240.0	23.0	23.9	24.7	26.0	26.4	27.3	27.7	28.5	29.4	30.2
270.0	22.6	23.9	24.3	25.1	26.4	26.8	27.7	28.5	29.4	29.8
300.0	16.6	17.9	19.2	20.4	21.3	22.2	23.4	24.3	25.1	26.4
330.0	16.6	17.9	18.7	20.0	20.9	22.2	23.4	24.3	25.1	26.4
360.0	15.8	17.0	18.3	20.0	20.9	22.2	23.4	24.3	25.1	26.4

C\γ	160.0	161.0	162.0	163.0	164.0	165.0	166.0	167.0	168.0	169.0
0.0	27.3	27.7	28.5	29.4	30.2	31.1	31.5	32.4	32.8	33.2
30.0	27.3	27.7	28.5	29.4	30.2	30.7	31.5	32.4	32.8	33.2
60.0	27.3	27.7	28.5	29.4	29.8	30.7	31.5	32.4	32.8	33.2
90.0	26.8	27.7	28.5	29.4	30.2	30.7	31.5	32.4	32.8	33.2
120.0	31.1	31.9	32.8	33.7	34.5	35.4	35.8	36.2	36.2	36.2
150.0	31.1	31.9	33.2	34.1	34.5	35.4	35.8	36.2	36.2	36.2
180.0	31.1	31.9	32.8	34.1	34.9	35.4	35.8	36.2	36.6	36.2
210.0	31.1	31.9	32.8	34.1	34.5	35.4	36.2	36.2	36.2	36.2
240.0	31.1	31.5	32.8	33.7	34.5	35.4	35.8	36.2	36.2	35.8
270.0	31.1	31.9	32.8	33.7	34.5	34.9	35.8	35.8	36.2	35.8
300.0	27.3	28.1	28.5	29.8	30.7	31.5	31.9	32.4	33.2	33.7
330.0	27.3	27.7	29.0	29.4	30.2	31.1	31.9	32.4	33.2	33.2
360.0	27.3	27.7	28.5	29.4	30.2	31.1	31.5	32.4	32.8	33.2

C\γ	170.0	171.0	172.0	173.0	174.0	175.0	176.0	177.0	178.0	179.0
0.0	33.7	33.7	33.7	33.7	33.2	32.8	32.4	31.9	31.5	29.8
30.0	33.7	33.7	33.7	33.7	33.2	32.8	32.4	32.4	31.5	30.2
60.0	33.7	33.7	33.7	33.7	33.2	32.8	32.4	31.5	30.7	29.8
90.0	33.7	33.7	33.7	33.2	33.2	32.8	32.4	31.5	31.1	30.2
120.0	35.8	34.9	34.1	33.2	32.8	32.4	31.5	31.1	30.2	29.4
150.0	35.8	34.9	33.7	33.2	32.4	31.9	31.5	30.7	30.2	29.8
180.0	35.8	34.5	33.7	32.4	31.9	31.5	30.7	30.2	29.8	29.4
210.0	34.9	34.1	32.8	31.9	31.5	31.1	30.2	29.8	29.0	29.0
240.0	34.9	33.7	32.8	31.9	31.1	30.7	29.8	29.4	29.0	29.0
270.0	34.9	33.7	32.8	31.9	31.5	30.7	29.8	29.0	28.5	28.5
300.0	33.7	33.7	33.2	32.8	31.9	31.5	31.1	30.7	30.2	29.4
330.0	33.7	33.7	33.7	33.2	32.8	32.4	31.9	31.5	30.7	29.8
360.0	33.7	33.7	33.7	33.7	33.2	32.8	32.4	31.9	31.5	29.8

Intensity Data [cd]

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C\γ	180.0
0.0	29.0
30.0	29.0
60.0	29.4
90.0	29.0
120.0	29.0
150.0	29.4
180.0	29.0
210.0	29.0
240.0	29.4
270.0	29.0
300.0	29.0
330.0	29.4
360.0	29.0

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Zonal flux distribution table

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Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
0	27851.12	0.00	0.00	0.00	0.00
1	27328.00	26.40	26.40	26.40	26.40
2	26057.90	76.62	103.03	76.62	103.03
3	24170.87	120.13	223.16	120.13	223.16
4	21438.63	152.67	375.83	152.67	375.83
5	17683.51	168.30	544.13	168.30	544.13
6	14843.50	170.94	715.07	170.94	715.07
7	12203.85	167.88	882.95	167.88	882.95
8	9522.27	155.49	1038.44	155.49	1038.44
9	7033.48	134.18	1172.62	134.18	1172.62
10	5358.33	112.14	1284.76	112.14	1284.76
11	4125.97	94.77	1379.52	81.19	1365.94
12	3197.99	80.06	1459.59	57.61	1423.55
13	2674.27	69.69	1529.27	43.54	1467.09
14	2307.01	63.76	1593.03	27.46	1494.55
15	1954.52	58.50	1651.54	0.00	1494.55
16	1723.65	53.90	1705.43	0.00	1494.55
17	1576.12	51.39	1756.82	0.00	1494.55
18	1451.38	49.92	1806.74	0.00	1494.55
19	1360.19	48.92	1855.65	0.00	1494.55
20	1283.59	48.39	1904.04	0.00	1494.55
21	1221.75	48.11	1952.15	0.00	1494.55
22	1173.01	48.12	2000.27	0.00	1494.55
23	1133.64	48.40	2048.67	0.00	1494.55
24	1099.03	48.81	2097.49	0.00	1494.55
25	1072.23	49.37	2146.86	0.00	1494.55
26	1048.27	50.05	2196.91	0.00	1494.55
27	1025.38	50.73	2247.64	0.00	1494.55
28	999.22	51.26	2298.90	0.00	1494.55
29	966.91	51.44	2350.34	0.00	1494.55
30	904.15	50.52	2400.86	0.00	1494.55
31	826.41	48.16	2449.02	0.00	1494.55
32	725.25	44.45	2493.47	0.00	1494.55
33	606.65	39.24	2532.71	0.00	1494.55
34	471.41	32.63	2565.34	0.00	1494.55
35	347.20	25.42	2590.76	0.00	1494.55
36	235.88	18.57	2609.33	0.00	1494.55
37	161.80	12.97	2622.30	0.00	1494.55
38	100.56	8.76	2631.05	0.00	1494.55
39	68.72	5.78	2636.83	0.00	1494.55
40	56.65	4.37	2641.20	0.00	1494.55

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Zonal flux distribution table

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Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
41	46.32	3.67	2644.87	0.00	1494.55
42	41.11	3.18	2648.05	0.00	1494.55
43	35.82	2.85	2650.90	0.00	1494.55
44	30.92	2.52	2653.41	0.00	1494.55
45	28.97	2.30	2655.72	0.00	1494.55
46	27.12	2.19	2657.91	0.00	1494.55
47	25.45	2.09	2660.00	0.00	1494.55
48	23.96	2.00	2662.00	0.00	1494.55
49	22.68	1.92	2663.91	0.00	1494.55
50	21.90	1.86	2665.77	0.00	1494.55
51	21.16	1.82	2667.59	0.00	1494.55
52	20.55	1.79	2669.38	0.00	1494.55
53	20.30	1.78	2671.16	0.00	1494.55
54	20.06	1.78	2672.94	0.00	1494.55
55	19.91	1.78	2674.72	0.00	1494.55
56	19.84	1.80	2676.52	0.00	1494.55
57	19.88	1.82	2678.34	0.00	1494.55
58	19.91	1.84	2680.18	0.00	1494.55
59	19.67	1.85	2682.03	0.00	1494.55
60	19.17	1.83	2683.86	0.00	1494.55
61	18.67	1.81	2685.67	0.00	1494.55
62	17.64	1.75	2687.42	0.00	1494.55
63	16.61	1.67	2689.08	0.00	1494.55
64	15.16	1.56	2690.64	0.00	1494.55
65	13.91	1.44	2692.08	0.00	1494.55
66	12.85	1.34	2693.42	0.00	1494.55
67	11.79	1.24	2694.65	0.00	1494.55
68	10.93	1.15	2695.80	0.00	1494.55
69	10.08	1.07	2696.88	0.00	1494.55
70	9.19	0.99	2697.87	0.00	1494.55
71	8.16	0.90	2698.76	0.00	1494.55
72	6.92	0.78	2699.55	0.00	1494.55
73	5.47	0.65	2700.20	0.00	1494.55
74	4.76	0.54	2700.73	0.00	1494.55
75	3.80	0.45	2701.19	0.00	1494.55
76	3.05	0.36	2701.55	0.00	1494.55
77	2.70	0.31	2701.85	0.00	1494.55
78	2.41	0.27	2702.13	0.00	1494.55
79	2.13	0.24	2702.37	0.00	1494.55
80	2.02	0.22	2702.60	0.00	1494.55
81	1.74	0.20	2702.80	0.00	1494.55

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Zonal flux distribution table

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Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
82	1.60	0.18	2702.98	0.00	1494.55
83	1.38	0.16	2703.14	0.00	1494.55
84	1.17	0.14	2703.28	0.00	1494.55
85	1.06	0.12	2703.40	0.00	1494.55
86	0.99	0.11	2703.52	0.00	1494.55
87	0.75	0.10	2703.61	0.00	1494.55
88	0.64	0.08	2703.69	0.00	1494.55
89	0.64	0.07	2703.76	0.00	1494.55
90	0.53	0.06	2703.82	0.00	1494.55
91	0.57	0.06	2703.89	0.00	1494.55
92	0.46	0.06	2703.94	0.00	1494.55
93	0.50	0.05	2703.99	0.00	1494.55
94	0.43	0.05	2704.05	0.00	1494.55
95	0.43	0.05	2704.09	0.00	1494.55
96	0.43	0.05	2704.14	0.00	1494.55
97	0.53	0.05	2704.19	0.00	1494.55
98	0.46	0.05	2704.25	0.00	1494.55
99	0.46	0.05	2704.30	0.00	1494.55
100	0.46	0.05	2704.35	0.00	1494.55
101	0.43	0.05	2704.40	0.00	1494.55
102	0.43	0.05	2704.44	0.00	1494.55
103	0.43	0.05	2704.49	0.00	1494.55
104	0.43	0.05	2704.54	0.00	1494.55
105	0.43	0.05	2704.58	0.00	1494.55
106	0.50	0.05	2704.63	0.00	1494.55
107	0.50	0.05	2704.68	0.00	1494.55
108	0.57	0.06	2704.74	0.00	1494.55
109	0.46	0.05	2704.79	0.00	1494.55
110	0.53	0.05	2704.84	0.00	1494.55
111	0.43	0.05	2704.89	0.00	1494.55
112	0.46	0.05	2704.94	0.00	1494.55
113	0.57	0.05	2704.99	0.00	1494.55
114	0.57	0.06	2705.05	0.00	1494.55
115	0.50	0.05	2705.10	0.00	1494.55
116	0.57	0.05	2705.15	0.00	1494.55
117	0.57	0.06	2705.21	0.00	1494.55
118	0.53	0.05	2705.26	0.00	1494.55
119	0.57	0.05	2705.32	0.00	1494.55
120	0.50	0.05	2705.37	0.00	1494.55
121	0.71	0.06	2705.42	0.00	1494.55
122	0.71	0.07	2705.49	0.00	1494.55

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Zonal flux distribution table

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Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
123	0.82	0.07	2705.56	0.00	1494.55
124	0.75	0.07	2705.63	0.00	1494.55
125	0.85	0.07	2705.70	0.00	1494.55
126	0.99	0.08	2705.79	0.00	1494.55
127	1.06	0.09	2705.88	0.00	1494.55
128	1.14	0.10	2705.97	0.00	1494.55
129	1.31	0.11	2706.08	0.00	1494.55
130	1.49	0.12	2706.20	0.00	1494.55
131	1.70	0.13	2706.33	0.00	1494.55
132	1.74	0.14	2706.47	0.00	1494.55
133	2.13	0.16	2706.63	0.00	1494.55
134	2.38	0.18	2706.81	0.00	1494.55
135	2.70	0.20	2707.01	0.00	1494.55
136	3.09	0.22	2707.23	0.00	1494.55
137	3.66	0.25	2707.48	0.00	1494.55
138	4.15	0.29	2707.77	0.00	1494.55
139	4.97	0.33	2708.10	0.00	1494.55
140	5.93	0.39	2708.49	0.00	1494.55
141	6.92	0.45	2708.94	0.00	1494.55
142	8.16	0.51	2709.46	0.00	1494.55
143	9.58	0.59	2710.05	0.00	1494.55
144	11.04	0.67	2710.72	0.00	1494.55
145	12.53	0.75	2711.47	0.00	1494.55
146	14.02	0.82	2712.30	0.00	1494.55
147	15.55	0.89	2713.19	0.00	1494.55
148	16.90	0.96	2714.15	0.00	1494.55
149	18.14	1.00	2715.15	0.00	1494.55
150	19.42	1.05	2716.19	0.00	1494.55
151	20.62	1.08	2717.28	0.00	1494.55
152	21.62	1.11	2718.38	0.00	1494.55
153	22.75	1.12	2719.50	0.00	1494.55
154	23.68	1.14	2720.64	0.00	1494.55
155	24.67	1.14	2721.78	0.00	1494.55
156	25.56	1.14	2722.92	0.00	1494.55
157	26.45	1.14	2724.06	0.00	1494.55
158	27.30	1.13	2725.19	0.00	1494.55
159	28.26	1.12	2726.30	0.00	1494.55
160	29.14	1.10	2727.41	0.00	1494.55
161	29.82	1.08	2728.49	0.00	1494.55
162	30.74	1.05	2729.54	0.00	1494.55
163	31.66	1.03	2730.57	0.00	1494.55

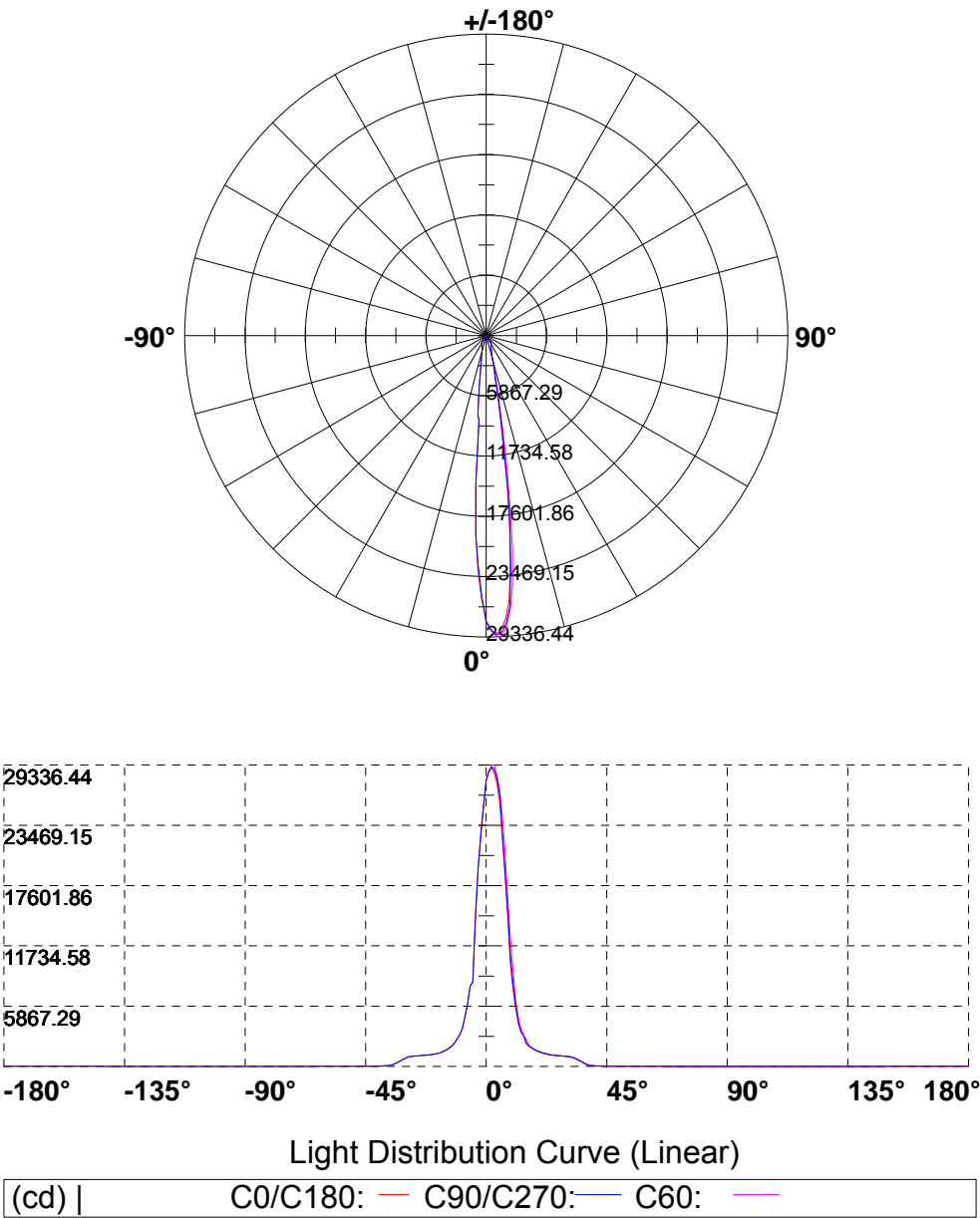
R854 WNL (CRI90 700mA 12D)

Zonal flux distribution table

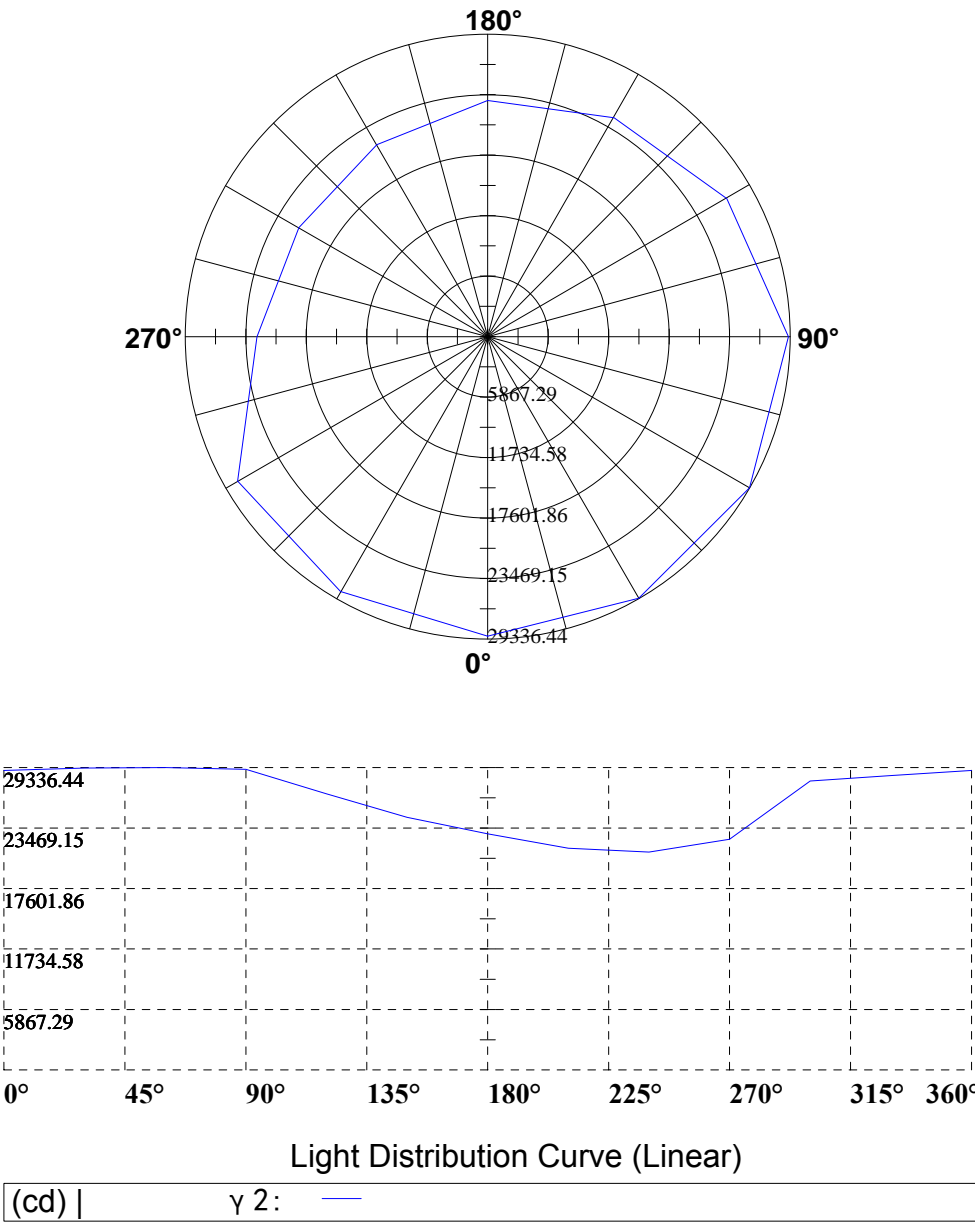
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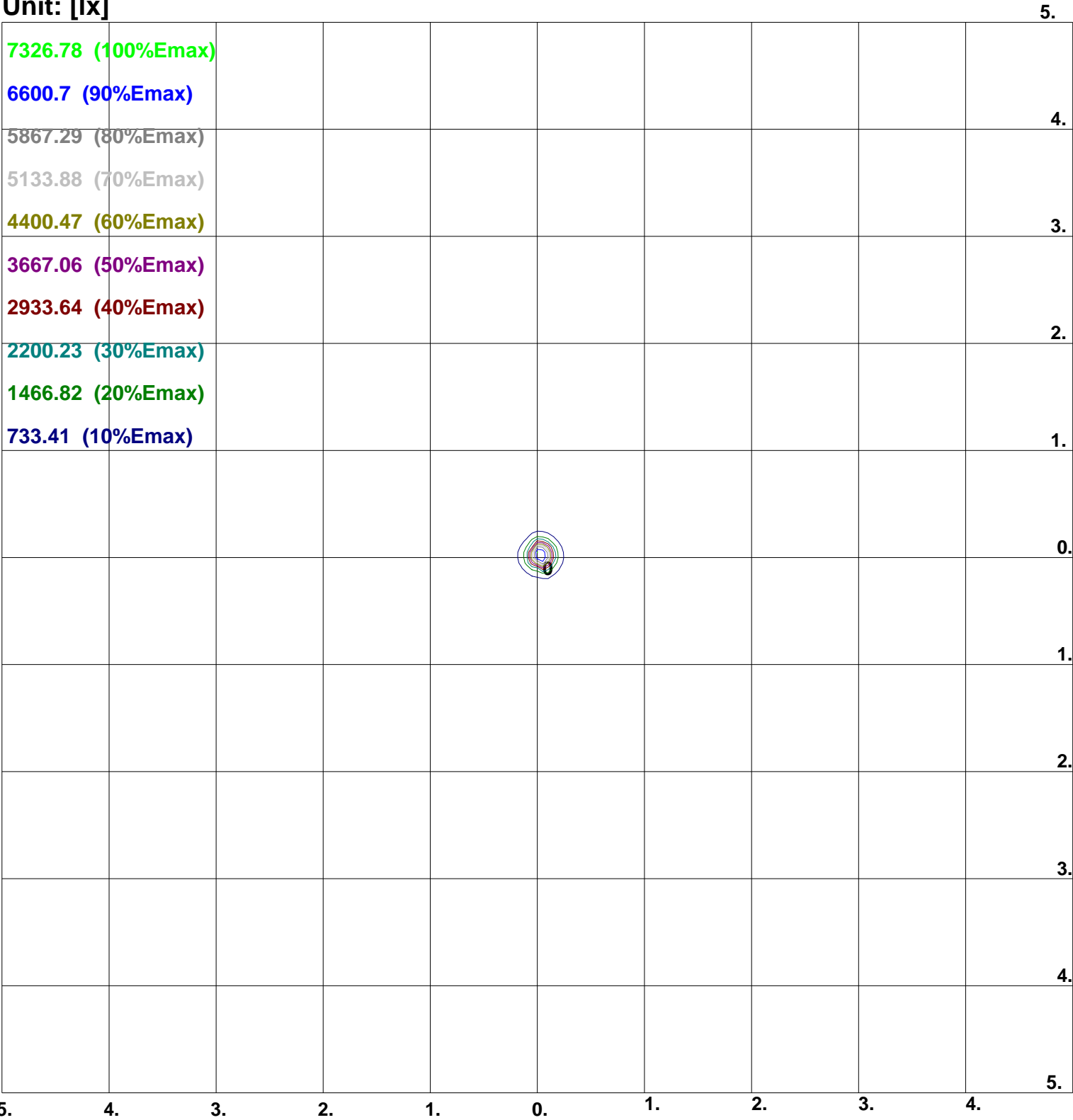
[illegible]

Light Distribution Curve [Unit: cd]



Horizontal cone through Max.cd [Unit: cd]



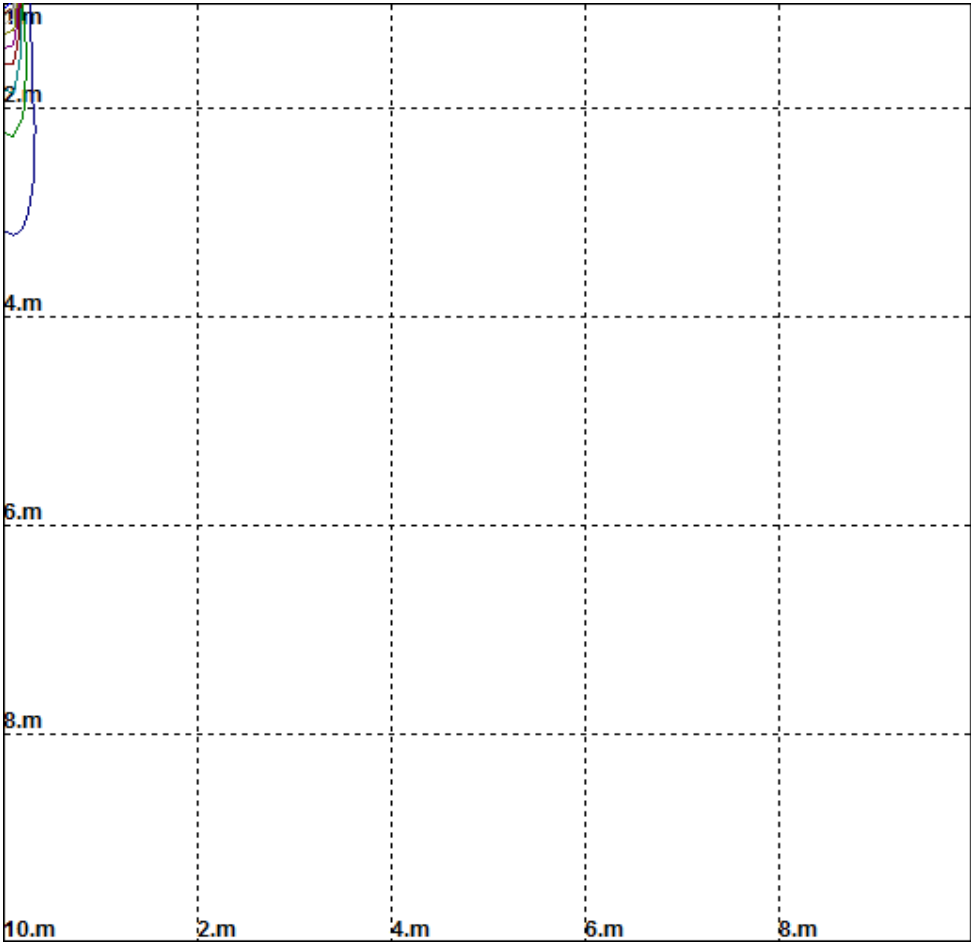


Coordinate Scale: d/h
Height: 2 m
Max Illuminance : 7334.11lx

Space ISO-lx

Unit: [lx]
Illuminance

- 7326.78
- 6600.7
- 5867.29
- 5133.88
- 4400.47
- 3667.06
- 2933.64
- 2200.23
- 1466.82
- 733.41



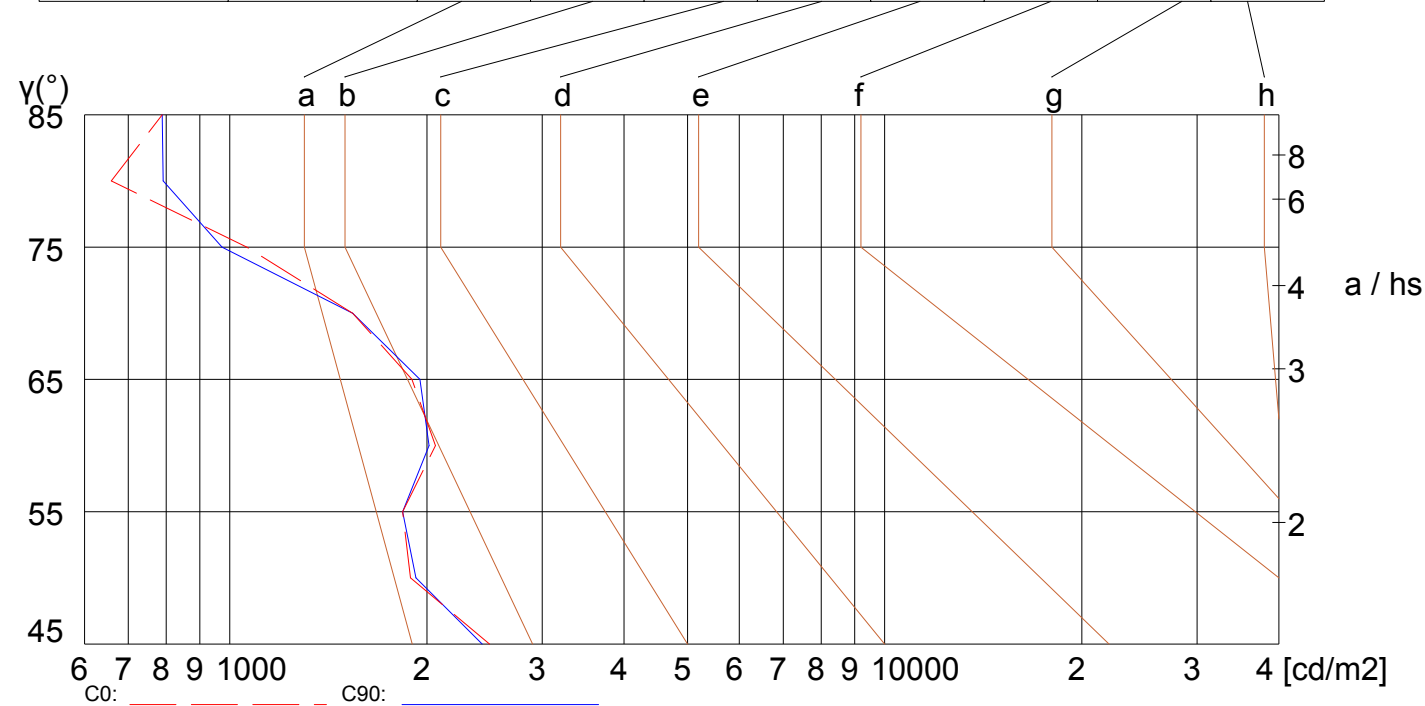
Luminance Limiting Curve (There is not luminous side)

Diameter: 154mm
Length: -154mm
Width: -154mm
Height: 144mm

(cd/m2)

γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	2494	1888	1837	2061	1897	1540	1062	659	788
C90	2429	1924	1837	2015	1951	1540	973	791	788

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 700mA 12D)

utilization factor table for indoor luminaire

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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	0.96	0.96	0.96	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
1	0.95	0.94	0.94	0.93	0.93	0.92	0.89	0.89	0.88	0.85	0.84	0.83	0.79	0.78	0.77	0.73
2	0.91	0.91	0.90	0.90	0.89	0.88	0.86	0.85	0.84	0.82	0.81	0.80	0.77	0.76	0.74	0.71
3	0.88	0.88	0.87	0.87	0.86	0.85	0.83	0.82	0.81	0.80	0.78	0.77	0.75	0.73	0.72	0.68
4	0.85	0.85	0.84	0.84	0.83	0.82	0.81	0.79	0.78	0.77	0.76	0.74	0.73	0.71	0.69	0.66
5	0.83	0.82	0.82	0.81	0.80	0.80	0.78	0.77	0.76	0.75	0.73	0.72	0.71	0.69	0.67	0.64
6	0.80	0.80	0.79	0.79	0.78	0.77	0.76	0.75	0.73	0.73	0.71	0.70	0.70	0.67	0.65	0.62
7	0.78	0.77	0.77	0.77	0.76	0.75	0.74	0.73	0.71	0.71	0.69	0.68	0.68	0.66	0.64	0.61
8	0.76	0.75	0.75	0.75	0.74	0.73	0.72	0.71	0.70	0.69	0.67	0.66	0.66	0.64	0.62	0.59
9	0.74	0.74	0.73	0.73	0.72	0.71	0.71	0.69	0.68	0.68	0.66	0.64	0.65	0.62	0.60	0.58
10	0.73	0.72	0.72	0.71	0.70	0.70	0.69	0.67	0.66	0.66	0.64	0.63	0.64	0.61	0.59	0.56



Operator
Telephone
Fax
e-Mail

R854 WNL (CRI90 700mA 12D) / UGR-Table

Luminaire: R854 WNL (CRI90 700mA 12D)

Lamps: 1 x LUMINUS CLM-14-40-90-36-TC40-F5-2 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	9.9	10.5	10.2	10.8	11.0	9.9	10.5	10.2	10.8	11.0
	3H	9.8	10.4	10.1	10.7	10.9	9.8	10.4	10.1	10.7	10.9
	4H	9.8	10.3	10.1	10.6	10.9	9.8	10.3	10.1	10.6	10.9
	6H	9.7	10.2	10.1	10.5	10.8	9.7	10.2	10.1	10.5	10.8
	8H	9.7	10.2	10.0	10.5	10.8	9.7	10.2	10.0	10.5	10.8
	12H	9.6	10.1	10.0	10.4	10.8	9.6	10.1	10.0	10.4	10.8
4H	2H	9.7	10.3	10.1	10.6	10.9	9.7	10.3	10.1	10.6	10.9
	3H	9.7	10.2	10.1	10.5	10.8	9.7	10.2	10.1	10.5	10.8
	4H	9.7	10.0	10.0	10.4	10.8	9.7	10.0	10.0	10.4	10.8
	6H	9.6	9.9	10.0	10.3	10.7	9.6	9.9	10.0	10.3	10.7
	8H	9.5	9.8	10.0	10.2	10.7	9.5	9.8	10.0	10.2	10.7
	12H	9.5	9.8	10.0	10.2	10.6	9.5	9.8	10.0	10.2	10.6
8H	4H	9.5	9.8	10.0	10.2	10.7	9.5	9.8	10.0	10.2	10.7
	6H	9.5	9.7	9.9	10.1	10.6	9.5	9.7	9.9	10.1	10.6
	8H	9.4	9.6	9.9	10.1	10.6	9.4	9.6	9.9	10.1	10.6
	12H	9.4	9.5	9.9	10.0	10.5	9.4	9.5	9.9	10.0	10.5
12H	4H	9.5	9.8	10.0	10.2	10.6	9.5	9.8	10.0	10.2	10.6
	6H	9.4	9.6	9.9	10.1	10.6	9.4	9.6	9.9	10.1	10.6
	8H	9.4	9.5	9.9	10.0	10.5	9.4	9.5	9.9	10.0	10.5
Variation of the observer position for the luminaire distances S											
S = 1.0H		+6.4 / -7.5					+6.4 / -7.5				
S = 1.5H		+9.2 / -7.7					+9.2 / -7.7				
S = 2.0H		+11.1 / -9.0					+11.1 / -9.0				
Standard table		BK00					BK00				
Correction Summand		-9.4					-9.4				
Corrected Glare Indices referring to 3386lm Total Luminous Flux											

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