

R854 WNL (CRI90 700mA 20D)

Luminaire Name: R854 WNL (CRI90 700mA 20D)

Report NO.: 01314523082425A

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: 230.05 V

Current: 0.1164 A

Power: 26.25 W

Power Factor: 0.9805

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

Width: -154mm

Height: 144mm

Optical Component: 20D Reflector DC(V: 34.12V I: 0.685A P: 23.37W)

Photometric Results

Lumens: 2733.76 lm

Efficiency: 80.74%

Central Intensity: 12788.22cd

Maximum Intensity: 13009.07cd

Beam Angle(10%): Left: -21.8 Right:21.9

Maximum s/h: C0_180: 0.2 C90_270: 0.19

Effective Luminous Flux: 1955.54 lm

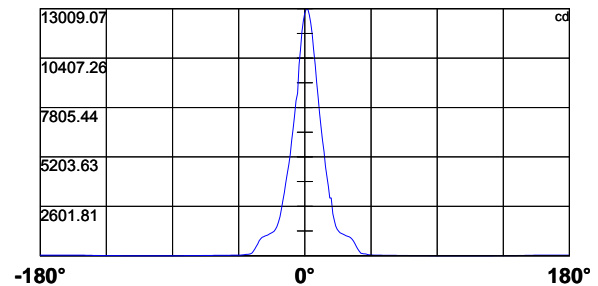
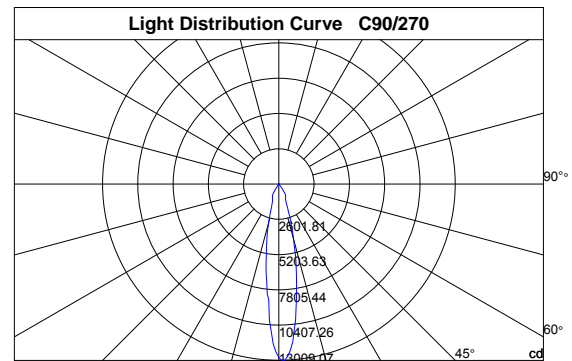
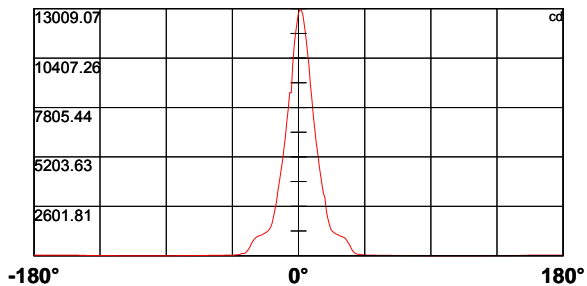
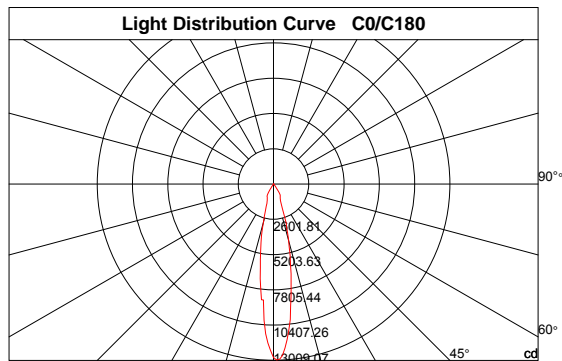
Angle of maximum intensity: C:90.0 G:1.0

Half Peak Side Angle(50%): Left: -9.3 Right:10.4

Up Flux Rate: 1.06%

Down Flux Rate: 79.68%

CIE Classification: Direct



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Intensity Data [cd]

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C\γ	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	12788.2	12975.0	12919.6	12651.3	12118.8	11522.4	10811.1	10061.4	9064.6	8306.4
30.0	12788.2	12958.0	12949.4	12698.1	12259.4	11709.9	10913.3	10031.5	9256.3	8323.4
60.0	12788.2	12992.0	12975.0	12736.5	12272.2	11709.9	11019.8	10099.7	9162.6	8370.3
90.0	12788.2	13009.1	12987.8	12693.9	12263.6	11684.3	10853.7	10061.4	9132.8	8370.3
120.0	12788.2	12617.2	12174.2	11390.4	10708.8	9971.9	8580.3	8212.7	7504.3	6797.2
150.0	12788.2	12344.6	11812.1	11181.7	10487.3	9626.9	8532.1	8165.4	7258.5	6465.8
180.0	12788.2	12284.9	11731.2	11049.6	10065.6	8581.6	8581.6	7726.6	7048.9	6248.1
210.0	12788.2	12276.4	11688.6	10755.7	9976.2	8551.7	8295.7	7532.8	6746.5	6105.0
240.0	12788.2	12246.6	11650.2	10913.3	9861.2	8521.5	8247.2	7230.4	6554.8	5941.0
270.0	12788.2	12378.6	11795.1	10840.9	10044.3	8559.4	8154.7	7378.6	6692.4	6071.8
300.0	12788.2	12953.7	12757.8	12382.9	11744.0	11045.4	10138.0	9341.5	8523.6	7484.3
330.0	12788.2	12958.0	12872.8	12570.3	11922.8	11283.9	10517.2	9729.1	8719.6	7969.9
360.0	12788.2	12975.0	12919.6	12651.3	12118.8	11522.4	10811.1	10061.4	9064.6	8306.4

C\γ	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	7424.6	6738.8	6001.9	5405.5	4770.8	4242.6	3744.3	3280.0	3062.7	2309.6
30.0	7569.5	6892.2	6249.0	5435.4	4873.1	4319.3	3646.3	3190.5	3037.2	2348.4
60.0	7633.4	6934.8	6133.9	5418.3	4834.7	4293.8	3616.5	3152.2	3007.3	2324.1
90.0	7518.3	6802.7	6116.9	5490.7	4711.2	4178.7	3667.6	3037.2	3037.2	2210.4
120.0	6029.2	5320.3	4749.1	4118.7	3608.8	3136.0	2704.5	2184.4	1859.8	1612.7
150.0	5837.5	5238.6	4597.5	4063.7	3479.3	3024.4	2528.1	2143.0	1737.5	1520.3
180.0	5633.4	4972.8	4429.6	3918.1	3441.4	2860.0	2460.8	2097.0	1704.7	1501.5
210.0	5389.8	4848.8	4330.4	3760.4	3236.5	2821.2	2436.1	1973.1	1691.5	1496.4
240.0	5371.5	4662.6	4173.6	3705.1	3262.5	2779.0	2400.3	1991.8	1665.5	1478.1
270.0	5320.3	4792.6	4304.4	3843.1	3322.6	2905.5	2456.1	2045.5	1751.2	1534.3
300.0	6807.0	6189.3	5597.2	4868.8	4370.4	3897.6	3441.8	3011.6	2687.4	2105.6
330.0	7254.2	6483.2	5852.8	5179.8	4651.6	4068.0	3590.9	3143.6	2998.8	2198.0
360.0	7424.6	6738.8	6001.9	5405.5	4770.8	4242.6	3744.3	3280.0	3062.7	2309.6

C\γ	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	1941.1	1649.3	1397.2	1291.5	1225.5	1164.2	1125.0	1090.5	1051.7	1017.6
30.0	1923.7	1640.0	1409.1	1278.8	1218.3	1177.0	1129.7	1095.6	1061.1	1033.4
60.0	1864.5	1601.2	1417.6	1308.1	1223.4	1178.7	1140.3	1100.3	1058.1	1024.5
90.0	1874.3	1567.6	1395.0	1288.1	1211.9	1170.6	1134.4	1093.0	1048.7	1023.2
120.0	1394.6	1305.6	1246.0	1198.2	1145.9	1088.8	1049.6	1012.1	981.4	948.6
150.0	1380.6	1295.4	1232.8	1191.4	1151.0	1103.3	1067.1	1038.9	1010.0	980.6
180.0	1371.6	1294.9	1234.0	1191.0	1145.0	1096.9	1063.2	1035.1	1006.1	961.4
210.0	1371.6	1274.9	1225.5	1181.6	1138.2	1102.8	1072.2	1046.6	1009.5	976.7
240.0	1362.2	1288.6	1229.3	1177.4	1140.3	1102.4	1055.6	1027.9	1000.6	972.5
270.0	1392.1	1283.9	1231.9	1188.5	1149.7	1100.7	1063.6	1036.4	1003.6	974.6
300.0	1783.1	1502.8	1333.3	1265.1	1197.8	1159.5	1123.7	1091.3	1047.5	1020.2
330.0	1855.5	1582.9	1356.3	1269.0	1211.9	1168.9	1119.0	1087.1	1052.1	1019.3
360.0	1941.1	1649.3	1397.2	1291.5	1225.5	1164.2	1125.0	1090.5	1051.7	1017.6

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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	988.2	951.2	889.8	773.1	650.9	522.7	357.4	243.2	152.1	101.4
30.0	998.5	960.6	891.1	785.5	639.0	507.3	380.0	240.2	136.7	97.1
60.0	991.2	955.4	890.7	792.3	662.4	483.0	356.5	242.8	129.5	107.3
90.0	995.1	952.0	877.1	769.3	635.1	479.6	350.6	235.1	128.2	109.0
120.0	874.5	730.1	603.6	480.5	314.4	211.3	133.8	112.5	98.0	85.2
150.0	870.7	758.6	629.6	452.0	328.8	218.9	134.6	103.1	89.5	81.8
180.0	883.5	771.4	640.2	463.9	342.9	233.4	153.8	119.3	106.5	101.4
210.0	902.2	750.6	613.8	482.2	356.5	212.1	135.0	111.6	99.7	95.0
240.0	906.0	758.6	630.4	496.7	327.1	215.5	131.6	95.0	78.4	71.1
270.0	897.5	790.6	618.1	486.0	355.3	238.1	135.9	95.0	81.8	71.1
300.0	990.0	957.6	874.1	778.2	649.2	516.7	376.6	227.5	148.2	103.9
330.0	990.8	960.6	907.3	782.9	661.1	526.9	360.8	248.8	157.2	107.3
360.0	988.2	951.2	889.8	773.1	650.9	522.7	357.4	243.2	152.1	101.4

C\γ	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0
0.0	81.8	71.1	65.6	51.1	46.4	41.7	37.5	31.9	29.0	27.3
30.0	83.1	74.5	66.9	50.7	47.3	42.2	36.6	32.4	29.4	27.3
60.0	94.6	92.9	88.2	51.5	47.3	42.6	36.6	32.4	29.0	26.8
90.0	99.3	96.7	81.8	51.1	46.9	40.9	36.2	31.9	29.0	26.8
120.0	67.7	53.2	46.9	41.7	36.2	31.1	28.1	26.4	25.1	23.4
150.0	63.9	52.0	46.0	40.9	34.9	30.2	28.1	26.4	24.7	23.0
180.0	60.5	51.5	46.0	40.9	34.5	30.7	28.1	26.4	24.7	23.4
210.0	75.4	52.0	45.6	40.5	34.9	31.1	27.7	26.0	24.7	23.9
240.0	65.2	52.4	46.9	41.3	36.2	30.7	28.1	26.4	25.1	23.4
270.0	65.2	52.8	47.7	40.5	35.4	31.1	28.1	26.4	25.1	23.9
300.0	90.7	81.8	82.2	52.0	46.4	40.0	35.4	30.7	28.1	26.4
330.0	89.9	82.2	83.1	52.0	46.9	41.7	37.5	31.5	28.1	26.8
360.0	81.8	71.1	65.6	51.1	46.4	41.7	37.5	31.9	29.0	27.3

C\γ	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	25.6	23.9	22.6	21.7	20.9	20.0	19.2	19.2	18.3	17.9
30.0	25.6	24.3	23.0	21.7	21.3	20.4	19.6	19.2	18.7	18.3
60.0	25.6	24.3	23.0	21.7	20.9	20.4	19.6	19.2	18.7	18.3
90.0	25.1	23.9	22.6	21.3	20.9	19.6	19.6	18.7	18.3	17.9
120.0	22.2	21.3	20.4	19.6	19.2	18.7	18.3	17.9	17.5	16.6
150.0	22.2	20.9	20.4	19.6	19.2	18.7	18.7	17.9	17.9	17.0
180.0	22.2	21.3	20.4	20.0	19.2	19.2	18.7	18.7	18.3	17.0
210.0	22.2	21.7	20.9	20.0	20.0	19.6	19.2	18.7	18.3	17.5
240.0	22.6	21.7	21.3	20.4	20.0	20.0	19.6	19.2	18.7	17.5
270.0	22.6	21.7	21.3	20.4	20.0	20.0	19.6	19.2	18.7	17.9
300.0	24.7	23.9	22.6	21.7	20.9	20.4	19.6	19.6	19.2	19.2
330.0	25.6	23.4	22.6	21.7	20.4	20.0	19.6	19.2	18.7	18.7
360.0	25.6	23.9	22.6	21.7	20.9	20.0	19.2	19.2	18.3	17.9

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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	17.9	17.0	16.2	15.3	14.9	13.6	13.2	12.4	11.5	10.2
30.0	17.9	17.0	16.6	15.3	14.5	13.6	12.8	12.4	11.1	10.6
60.0	17.5	17.0	16.2	15.3	14.5	13.2	12.8	11.9	10.6	10.2
90.0	17.5	16.6	15.3	14.5	14.1	13.2	12.4	11.5	10.6	9.8
120.0	16.2	14.9	14.1	13.6	12.4	11.5	10.6	10.2	8.9	8.1
150.0	16.2	15.3	14.5	13.6	12.8	11.9	11.1	9.8	8.9	8.1
180.0	16.2	15.3	14.5	13.6	12.8	12.4	11.5	10.6	9.4	8.5
210.0	16.6	15.8	15.3	14.5	13.6	12.8	11.9	11.1	10.2	9.4
240.0	17.0	16.2	15.3	14.9	14.1	13.6	12.8	11.9	10.6	9.8
270.0	17.5	16.6	15.8	14.9	14.1	13.2	12.8	11.9	11.1	10.2
300.0	18.3	17.9	17.0	16.2	15.8	14.9	14.1	13.2	12.4	11.5
330.0	18.3	17.5	16.6	15.8	14.9	14.5	13.6	12.8	11.9	10.6
360.0	17.9	17.0	16.2	15.3	14.9	13.6	13.2	12.4	11.5	10.2

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	6.8	6.0	4.3	3.0	2.6	2.6	2.6
30.0	9.8	8.5	7.7	6.8	5.5	3.8	3.0	2.6	2.6	2.1
60.0	9.4	8.5	7.7	6.8	5.1	3.8	3.0	2.6	2.6	2.1
90.0	9.4	8.1	7.2	6.4	4.7	3.4	3.0	2.6	2.1	2.1
120.0	7.2	6.4	4.7	3.4	3.0	2.6	2.6	2.1	2.1	1.7
150.0	7.2	6.4	4.7	3.0	3.0	2.6	2.1	2.1	1.7	1.7
180.0	7.7	6.8	5.1	3.4	2.6	2.6	2.6	2.1	2.1	1.7
210.0	8.5	7.2	5.5	3.4	3.0	2.6	2.6	2.1	1.7	1.7
240.0	8.9	7.7	6.0	3.8	3.0	2.6	2.6	2.1	2.1	1.7
270.0	8.9	8.1	6.8	4.3	3.0	2.6	2.6	2.1	2.1	1.7
300.0	10.6	9.8	8.9	7.7	6.4	4.7	3.0	3.0	2.6	2.1
330.0	10.2	9.4	8.1	7.7	6.4	4.3	3.0	2.6	2.6	2.1
360.0	9.8	8.9	8.1	6.8	6.0	4.3	3.0	2.6	2.6	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	2.1	1.7	1.7	1.7	1.3	0.9	0.9	0.9	0.9	0.9
30.0	2.1	1.7	1.7	1.3	1.3	1.3	1.3	0.9	0.9	0.9
60.0	2.1	1.7	1.7	1.3	1.3	1.3	0.9	0.9	0.9	0.4
90.0	1.7	1.7	1.7	1.3	1.3	0.9	0.9	0.9	0.9	0.9
120.0	1.7	1.3	0.9	1.3	0.9	0.9	0.9	0.9	0.4	0.4
150.0	1.7	1.3	1.3	1.3	0.9	0.9	0.9	0.9	0.4	0.4
180.0	1.7	1.3	1.3	0.9	0.9	0.9	0.9	0.9	0.4	0.9
210.0	1.7	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.4
240.0	1.7	1.3	1.3	0.9	0.9	0.9	0.9	0.4	0.9	0.4
270.0	1.7	1.3	1.3	0.9	0.9	0.9	0.4	0.9	0.4	0.4
300.0	1.7	1.7	1.7	1.7	1.3	1.3	0.9	0.9	0.9	0.9
330.0	2.1	1.7	1.7	1.3	1.3	1.3	1.3	0.9	0.9	0.4
360.0	2.1	1.7	1.7	1.7	1.3	0.9	0.9	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	0.4	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	0.4
90.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
120.0	0.4	0.4	0.4	0.4	0.4	0.4	0.9	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	0.9	0.9	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	0.4	0.4	0.4
240.0	0.4	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	0.9	0.4	0.4	0.4	0.4	0.4	0.9	0.4	0.4	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	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	0.9	0.4	0.4	0.9	0.4	0.9
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	0.9	0.4	0.4	0.4	0.4	0.4	0.9	0.4
90.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
120.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4	0.4
150.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9
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	0.9	0.9	0.9	0.4	0.9
240.0	0.4	0.4	0.4	0.4	0.4	0.9	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	0.9	0.4	0.4	0.4	0.9	0.4	0.4	0.4	0.4
360.0	0.4	0.4	0.4	0.4	0.9	0.4	0.4	0.9	0.4	0.9

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	0.9	0.4	0.4	0.4	0.9	0.9	0.4	0.4	0.9
30.0	0.4	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
60.0	0.4	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
90.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
120.0	0.4	0.4	0.9	0.4	0.4	0.9	0.4	0.4	0.4	0.9
150.0	0.4	0.4	0.9	0.4	0.4	0.4	0.4	0.9	0.9	0.4
180.0	0.4	0.4	0.4	0.9	0.4	0.4	0.4	0.9	0.4	0.4
210.0	0.4	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4
240.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9
270.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9
300.0	0.9	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.9	0.9
330.0	0.9	0.4	0.4	0.4	0.4	0.9	0.4	0.9	0.9	0.4
360.0	0.4	0.9	0.4	0.4	0.4	0.9	0.9	0.4	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	0.9	0.4	0.4	0.4	0.9	0.9	0.9	0.9	1.3	1.3
30.0	0.9	0.9	0.4	0.4	0.9	0.9	0.9	0.9	0.9	1.3
60.0	0.4	0.9	0.9	0.9	0.4	0.9	0.9	0.9	0.9	0.9
90.0	0.4	0.9	0.4	0.9	0.4	0.9	0.9	0.9	0.9	1.3
120.0	0.9	0.4	0.9	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	0.4	0.9	0.9	0.9	0.9	1.3	1.3	1.3	1.7
210.0	0.4	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.7
240.0	0.4	0.4	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.7
270.0	0.4	0.4	0.9	0.4	0.9	0.9	1.3	1.3	1.3	1.7
300.0	0.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
330.0	0.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
360.0	0.9	0.4	0.4	0.4	0.9	0.9	0.9	0.9	1.3	1.3

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

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	5.1	6.0	6.8	7.7	8.9	10.2	11.1	12.4	13.6
30.0	4.3	4.7	6.0	6.8	7.2	8.9	10.2	11.1	12.4	13.6
60.0	4.3	5.1	6.0	6.8	7.7	8.5	10.2	11.1	12.4	13.6
90.0	4.3	5.1	5.5	6.8	7.7	8.9	9.8	11.1	12.4	13.6
120.0	8.5	9.4	11.1	12.4	14.1	15.3	17.0	18.3	19.6	21.3
150.0	8.5	9.8	11.5	12.8	14.5	15.8	17.0	18.7	20.0	21.3
180.0	8.5	9.8	11.5	12.8	14.1	16.2	17.5	18.7	20.0	21.3
210.0	8.5	10.2	11.5	12.8	14.1	16.2	17.5	18.7	20.0	21.3
240.0	8.5	9.8	11.5	12.8	14.5	15.8	17.5	18.7	20.0	21.3
270.0	8.5	9.8	11.1	12.8	14.5	15.8	17.0	18.3	20.0	21.3
300.0	4.7	5.5	6.0	6.8	8.1	8.9	10.2	11.9	12.8	14.1
330.0	4.7	5.1	6.0	6.8	8.1	8.9	10.2	11.5	12.8	14.1
360.0	4.3	5.1	6.0	6.8	7.7	8.9	10.2	11.1	12.4	13.6

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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	14.9	16.2	17.5	18.7	20.4	21.7	22.6	23.4	25.1	26.0
30.0	14.9	16.2	17.5	19.2	20.4	21.3	22.6	23.9	25.1	26.0
60.0	14.9	16.2	17.9	19.2	20.0	21.3	23.0	23.9	25.1	26.0
90.0	15.3	16.6	17.5	18.7	20.4	21.7	22.6	23.9	24.7	25.6
120.0	22.6	23.9	24.3	26.0	26.4	27.7	28.5	29.4	29.8	30.7
150.0	22.6	23.9	25.1	26.0	26.8	27.7	28.5	29.4	29.8	31.1
180.0	22.6	23.9	24.7	26.0	26.8	27.7	28.5	29.4	30.2	30.7
210.0	22.6	23.9	25.1	26.0	26.8	27.7	28.5	29.4	30.2	30.7
240.0	23.0	23.9	24.7	25.6	26.8	27.7	28.1	29.4	29.8	30.7
270.0	22.6	23.9	24.7	25.6	26.8	27.7	28.5	29.0	29.8	30.7
300.0	15.3	16.6	17.9	19.2	20.4	21.3	22.6	23.9	25.1	26.0
330.0	15.3	16.6	17.9	19.2	20.4	21.7	22.6	23.9	24.7	26.0
360.0	14.9	16.2	17.5	18.7	20.4	21.7	22.6	23.4	25.1	26.0

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

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

Intensity Data [cd]

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C\γ	180.0
0.0	31.5
30.0	31.5
60.0	31.9
90.0	32.4
120.0	31.9
150.0	31.5
180.0	31.5
210.0	31.5
240.0	31.9
270.0	32.4
300.0	31.9
330.0	31.5
360.0	31.5

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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	12788.22	0.00	0.00	0.00	0.00
1	12666.17	12.18	12.18	12.18	12.18
2	12359.47	35.92	48.10	35.92	48.10
3	11822.04	57.83	105.93	57.83	105.93
4	11143.69	76.87	182.81	76.87	182.81
5	10230.73	91.95	274.76	91.95	274.76
6	9553.72	103.97	378.73	103.97	378.73
7	8797.60	113.91	492.64	113.91	492.64
8	7972.07	120.02	612.65	120.02	612.65
9	7204.44	123.00	735.65	123.00	735.65
10	6482.39	123.86	859.51	123.86	859.51
11	5823.06	122.96	982.47	122.96	982.47
12	5211.37	120.62	1103.09	120.62	1103.09
13	4600.64	116.44	1219.54	116.44	1219.54
14	4046.91	110.69	1330.22	110.69	1330.22
15	3543.84	104.21	1434.43	104.21	1434.43
16	3057.78	96.73	1531.17	96.73	1531.17
17	2604.16	88.17	1619.34	88.17	1619.34
18	2353.40	81.74	1701.08	81.74	1701.08
19	1886.61	73.77	1774.84	73.77	1774.84
20	1626.24	64.30	1839.14	64.30	1839.14
21	1440.59	58.89	1898.03	58.89	1898.03
22	1309.00	55.25	1953.28	34.14	1932.17
23	1235.73	53.40	2006.68	23.38	1955.54
24	1179.90	52.81	2059.49	0.00	1955.54
25	1134.46	52.62	2112.12	0.00	1955.54
26	1095.27	52.63	2164.75	0.00	1955.54
27	1062.90	52.80	2217.55	0.00	1955.54
28	1027.54	52.93	2270.47	0.00	1955.54
29	996.06	52.94	2323.42	0.00	1955.54
30	940.68	52.29	2375.71	0.00	1955.54
31	858.11	50.06	2425.77	0.00	1955.54
32	755.49	46.23	2471.99	0.00	1955.54
33	628.55	40.77	2512.77	0.00	1955.54
34	493.56	33.96	2546.73	0.00	1955.54
35	363.81	26.63	2573.35	0.00	1955.54
36	250.54	19.56	2592.91	0.00	1955.54
37	172.84	13.81	2606.72	0.00	1955.54
38	117.14	9.68	2616.40	0.00	1955.54
39	94.32	7.22	2623.62	0.00	1955.54
40	78.09	6.01	2629.63	0.00	1955.54

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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	67.76	5.19	2634.83	0.00	1955.54
42	62.23	4.72	2639.55	0.00	1955.54
43	46.18	4.02	2643.57	0.00	1955.54
44	41.11	3.29	2646.86	0.00	1955.54
45	36.17	2.97	2649.83	0.00	1955.54
46	32.34	2.68	2652.51	0.00	1955.54
47	29.07	2.44	2654.95	0.00	1955.54
48	26.84	2.26	2657.21	0.00	1955.54
49	25.20	2.14	2659.35	0.00	1955.54
50	23.82	2.04	2661.39	0.00	1955.54
51	22.68	1.97	2663.36	0.00	1955.54
52	21.76	1.91	2665.27	0.00	1955.54
53	20.84	1.85	2667.12	0.00	1955.54
54	20.23	1.81	2668.93	0.00	1955.54
55	19.77	1.79	2670.72	0.00	1955.54
56	19.28	1.76	2672.48	0.00	1955.54
57	18.88	1.74	2674.23	0.00	1955.54
58	18.46	1.73	2675.95	0.00	1955.54
59	17.82	1.70	2677.65	0.00	1955.54
60	17.25	1.66	2679.31	0.00	1955.54
61	16.44	1.61	2680.91	0.00	1955.54
62	15.62	1.54	2682.46	0.00	1955.54
63	14.80	1.48	2683.94	0.00	1955.54
64	14.02	1.41	2685.35	0.00	1955.54
65	13.21	1.35	2686.70	0.00	1955.54
66	12.46	1.28	2687.98	0.00	1955.54
67	11.64	1.21	2689.19	0.00	1955.54
68	10.61	1.13	2690.32	0.00	1955.54
69	9.76	1.04	2691.36	0.00	1955.54
70	8.98	0.96	2692.32	0.00	1955.54
71	7.99	0.88	2693.20	0.00	1955.54
72	6.71	0.76	2693.96	0.00	1955.54
73	5.29	0.63	2694.59	0.00	1955.54
74	4.30	0.50	2695.09	0.00	1955.54
75	3.30	0.40	2695.49	0.00	1955.54
76	2.73	0.32	2695.81	0.00	1955.54
77	2.38	0.27	2696.09	0.00	1955.54
78	2.24	0.25	2696.33	0.00	1955.54
79	1.95	0.23	2696.56	0.00	1955.54
80	1.85	0.20	2696.76	0.00	1955.54
81	1.53	0.18	2696.95	0.00	1955.54

R854 WNL (CRI90 700mA 20D)

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	1.46	0.16	2697.11	0.00	1955.54
83	1.24	0.15	2697.25	0.00	1955.54
84	1.06	0.13	2697.38	0.00	1955.54
85	0.99	0.11	2697.49	0.00	1955.54
86	0.89	0.10	2697.60	0.00	1955.54
87	0.78	0.09	2697.69	0.00	1955.54
88	0.67	0.08	2697.77	0.00	1955.54
89	0.60	0.07	2697.84	0.00	1955.54
90	0.46	0.06	2697.90	0.00	1955.54
91	0.43	0.05	2697.95	0.00	1955.54
92	0.43	0.05	2697.99	0.00	1955.54
93	0.46	0.05	2698.04	0.00	1955.54
94	0.46	0.05	2698.09	0.00	1955.54
95	0.43	0.05	2698.14	0.00	1955.54
96	0.50	0.05	2698.19	0.00	1955.54
97	0.43	0.05	2698.24	0.00	1955.54
98	0.43	0.05	2698.29	0.00	1955.54
99	0.43	0.05	2698.34	0.00	1955.54
100	0.43	0.05	2698.38	0.00	1955.54
101	0.46	0.05	2698.43	0.00	1955.54
102	0.46	0.05	2698.48	0.00	1955.54
103	0.43	0.05	2698.53	0.00	1955.54
104	0.46	0.05	2698.58	0.00	1955.54
105	0.53	0.05	2698.63	0.00	1955.54
106	0.46	0.05	2698.68	0.00	1955.54
107	0.53	0.05	2698.73	0.00	1955.54
108	0.46	0.05	2698.79	0.00	1955.54
109	0.53	0.05	2698.84	0.00	1955.54
110	0.50	0.05	2698.89	0.00	1955.54
111	0.57	0.05	2698.95	0.00	1955.54
112	0.53	0.06	2699.00	0.00	1955.54
113	0.46	0.05	2699.05	0.00	1955.54
114	0.43	0.04	2699.10	0.00	1955.54
115	0.53	0.05	2699.15	0.00	1955.54
116	0.50	0.05	2699.20	0.00	1955.54
117	0.57	0.05	2699.25	0.00	1955.54
118	0.53	0.05	2699.30	0.00	1955.54
119	0.60	0.05	2699.36	0.00	1955.54
120	0.53	0.05	2699.41	0.00	1955.54
121	0.67	0.06	2699.47	0.00	1955.54
122	0.75	0.07	2699.54	0.00	1955.54

R854 WNL (CRI90 700mA 20D)

Zonal flux distribution table

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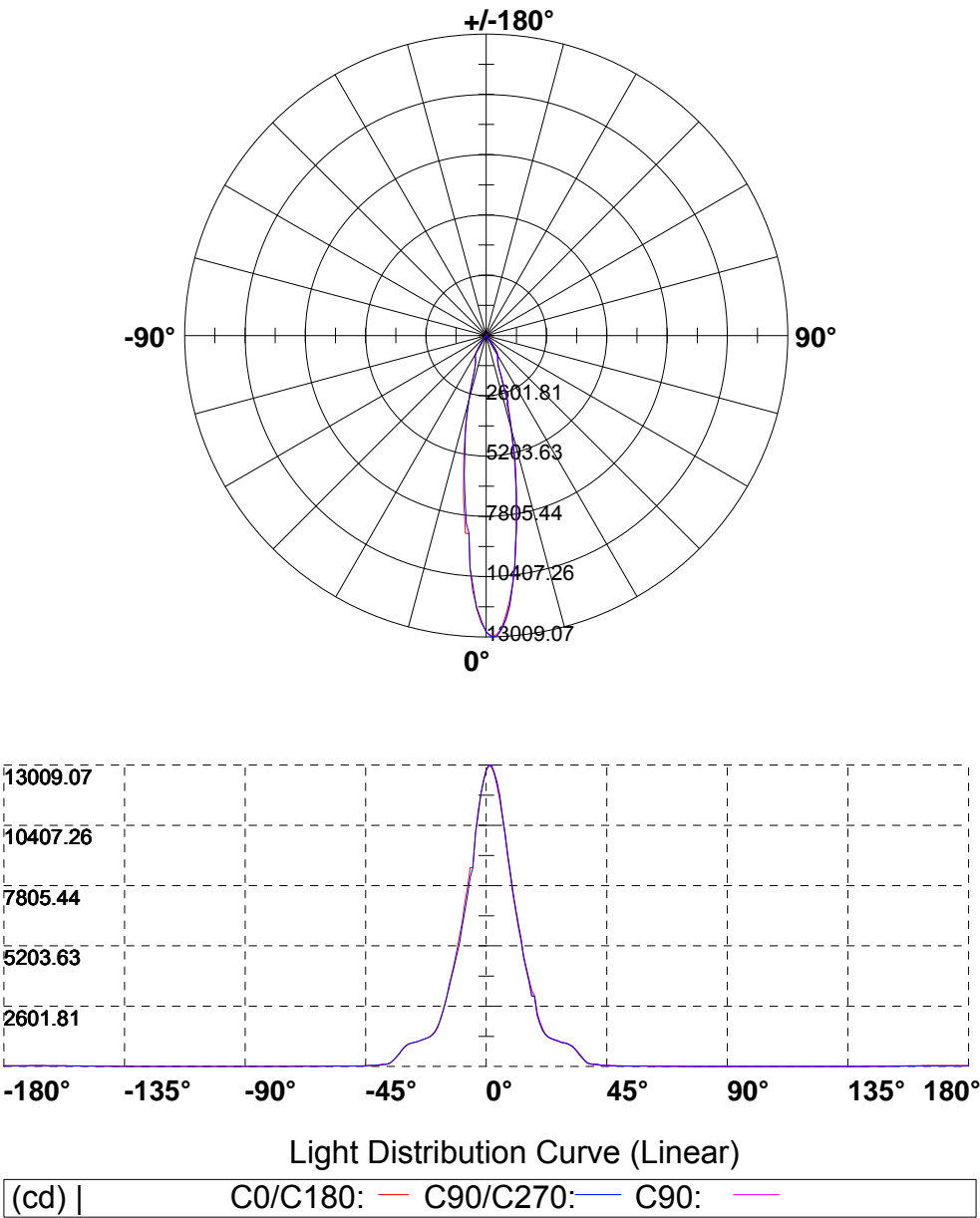
Gamma [°]	Average I [cd]	Zonal Flux [lm]	Sum Flux [lm]	Effective Flux [lm]	Effective Sum [lm]
123	0.75	0.07	2699.61	0.00	1955.54
124	0.78	0.07	2699.68	0.00	1955.54
125	0.85	0.07	2699.75	0.00	1955.54
126	0.96	0.08	2699.83	0.00	1955.54
127	1.06	0.09	2699.92	0.00	1955.54
128	1.10	0.09	2700.01	0.00	1955.54
129	1.38	0.11	2700.12	0.00	1955.54
130	1.56	0.12	2700.24	0.00	1955.54
131	1.74	0.14	2700.38	0.00	1955.54
132	2.06	0.16	2700.54	0.00	1955.54
133	2.27	0.18	2700.71	0.00	1955.54
134	2.59	0.19	2700.91	0.00	1955.54
135	3.02	0.22	2701.13	0.00	1955.54
136	3.59	0.25	2701.38	0.00	1955.54
137	4.19	0.29	2701.67	0.00	1955.54
138	4.86	0.34	2702.01	0.00	1955.54
139	5.68	0.38	2702.39	0.00	1955.54
140	6.46	0.43	2702.82	0.00	1955.54
141	7.45	0.49	2703.31	0.00	1955.54
142	8.63	0.55	2703.86	0.00	1955.54
143	9.76	0.61	2704.47	0.00	1955.54
144	11.00	0.68	2705.15	0.00	1955.54
145	12.35	0.74	2705.90	0.00	1955.54
146	13.70	0.81	2706.70	0.00	1955.54
147	14.94	0.87	2707.57	0.00	1955.54
148	16.22	0.92	2708.49	0.00	1955.54
149	17.54	0.97	2709.46	0.00	1955.54
150	18.88	1.01	2710.47	0.00	1955.54
151	20.13	1.05	2711.52	0.00	1955.54
152	21.23	1.08	2712.61	0.00	1955.54
153	22.43	1.11	2713.71	0.00	1955.54
154	23.57	1.13	2714.84	0.00	1955.54
155	24.60	1.14	2715.97	0.00	1955.54
156	25.56	1.14	2717.11	0.00	1955.54
157	26.55	1.14	2718.25	0.00	1955.54
158	27.47	1.13	2719.39	0.00	1955.54
159	28.33	1.12	2720.51	0.00	1955.54
160	29.11	1.10	2721.61	0.00	1955.54
161	29.96	1.08	2722.69	0.00	1955.54
162	30.63	1.05	2723.75	0.00	1955.54
163	31.38	1.02	2724.77	0.00	1955.54

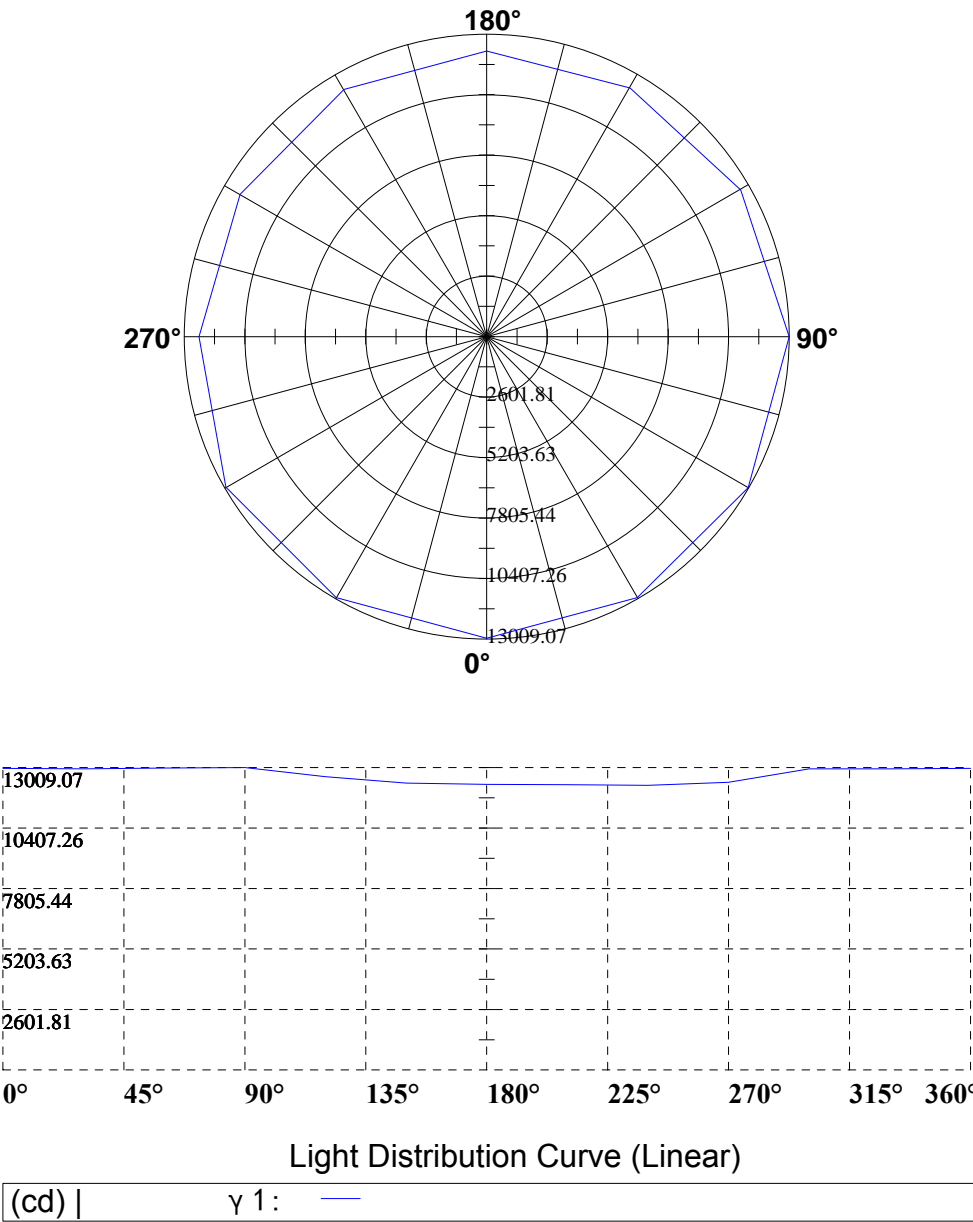
R854 WNL (CRI90 700mA 20D)

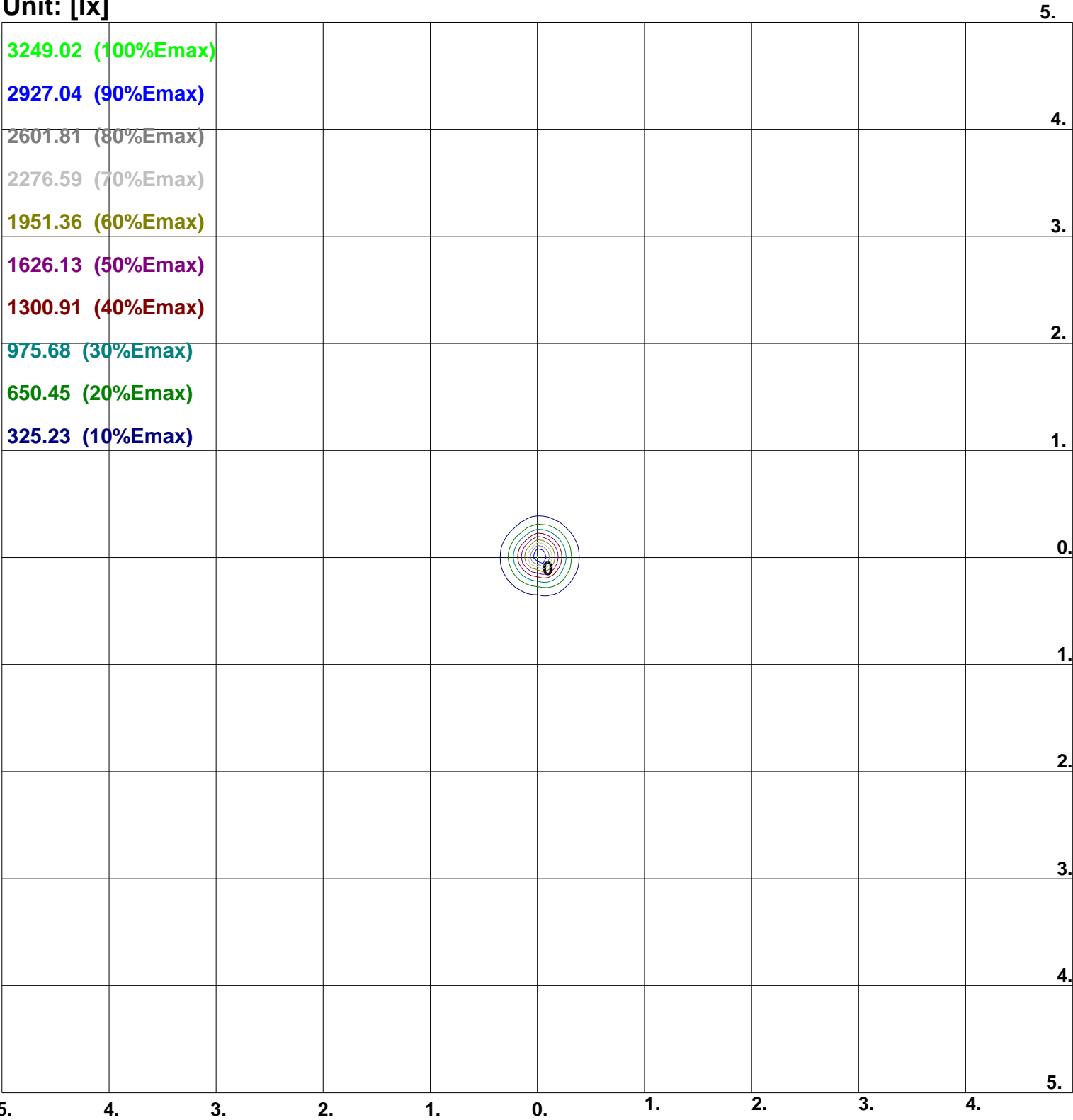
Zonal flux distribution table

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[illegible]





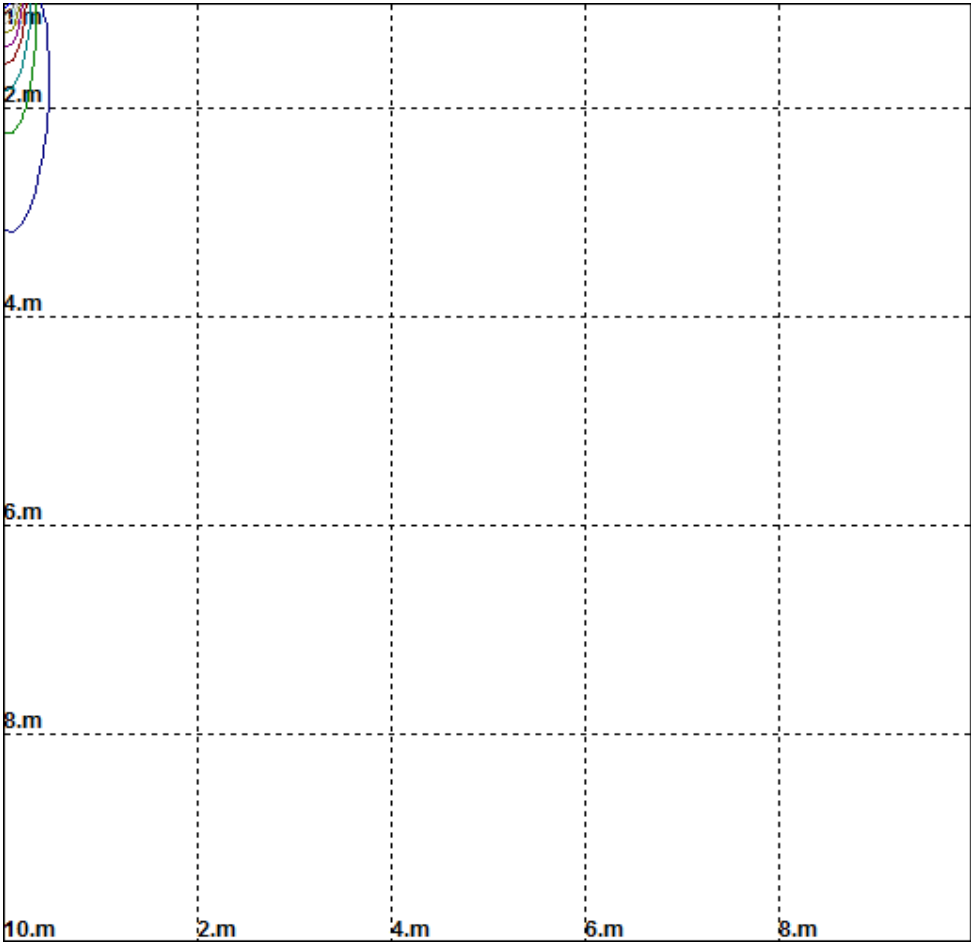


Coordinate Scale: d/h
Height: 2 m
Max Illuminance : 3252.27lx

Space ISO-lx

Unit: [lx]
Illuminance

- 3249.02
- 2927.04
- 2601.81
- 2276.59
- 1951.36
- 1626.13
- 1300.91
- 975.68
- 650.45
- 325.23



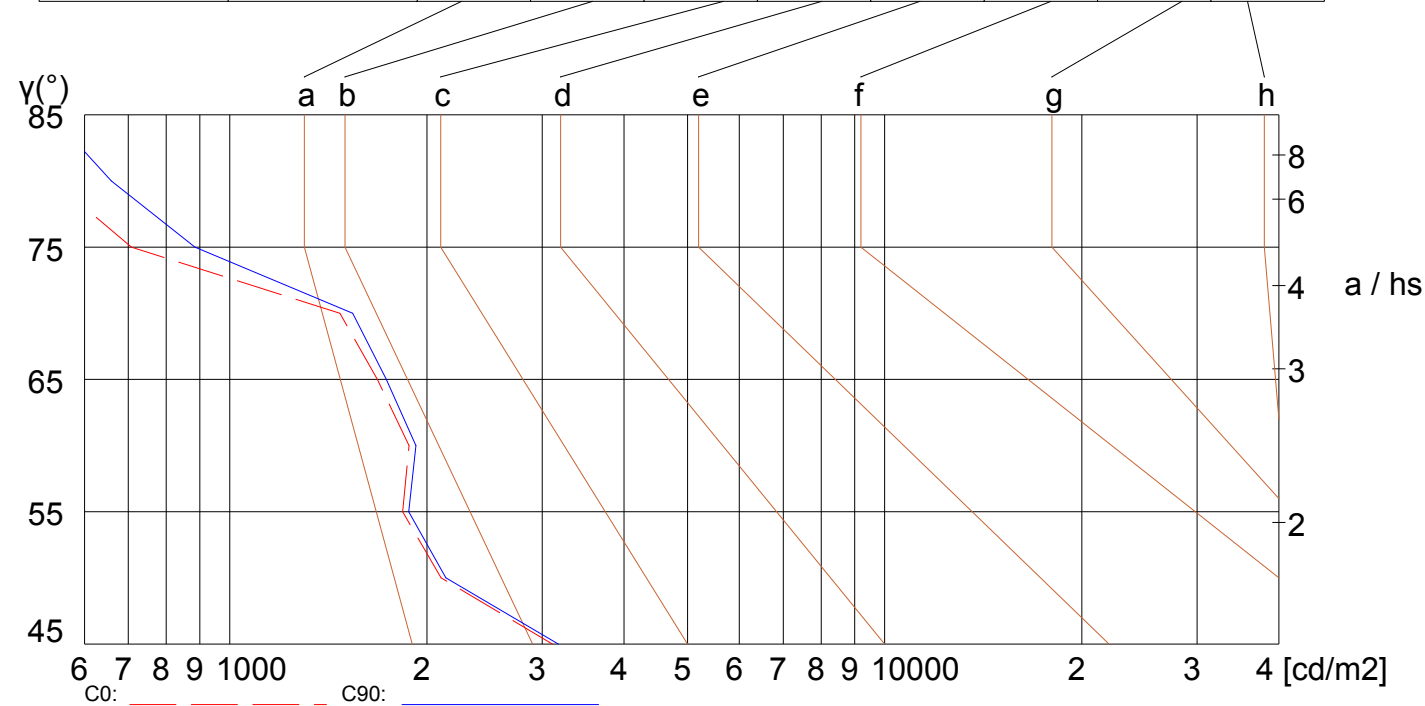
Luminance Limiting Curve (There is not luminous side)

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

(cd/m2)

γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	3109	2102	1837	1878	1680	1473	708	528	526
C90	3174	2138	1877	1924	1734	1540	885	659	526

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



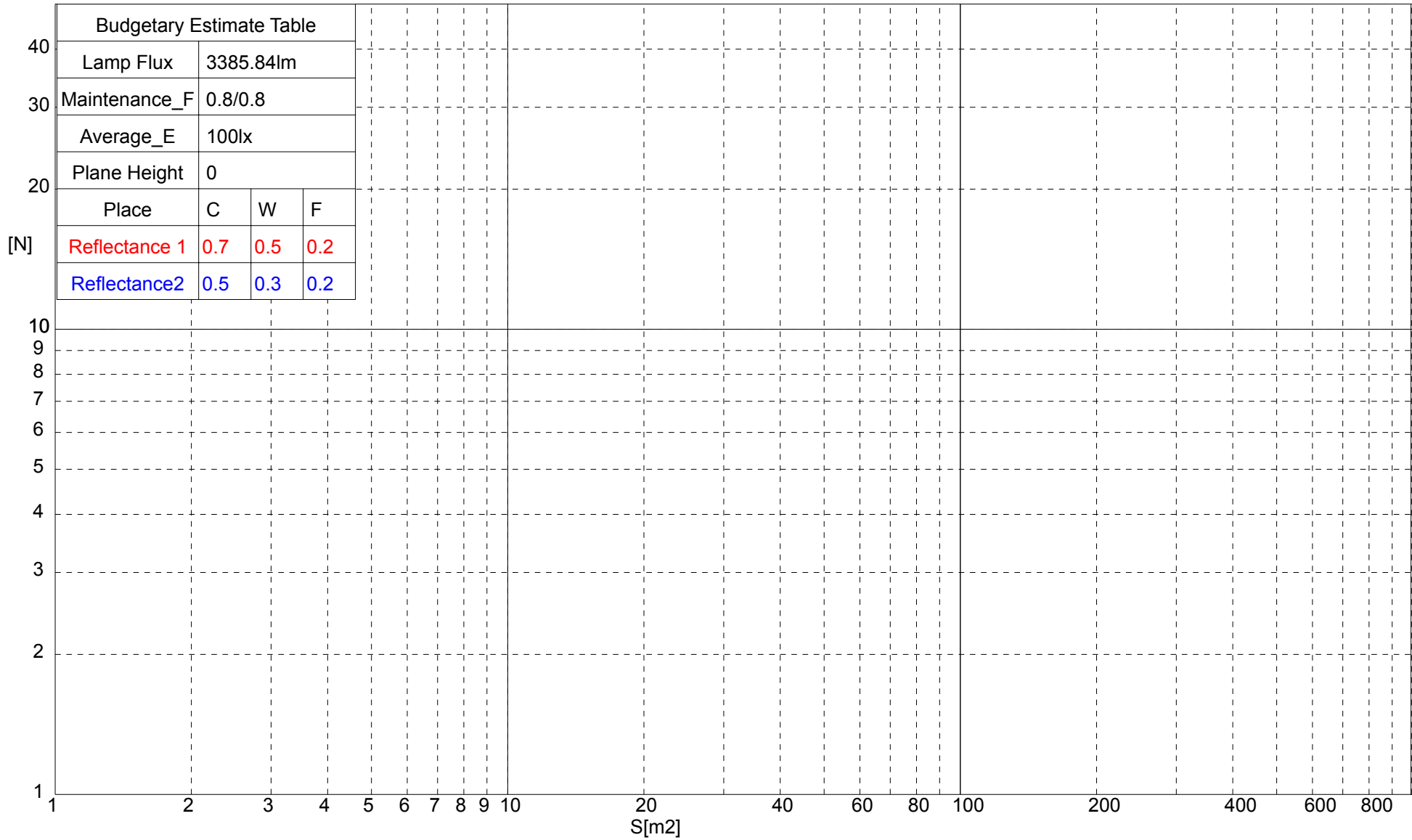
Luminance Limiting Curve (C0/C90)

R854 WNL (CRI90 700mA 20D)

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	0.82	0.82	0.82	0.81
1	0.94	0.93	0.93	0.92	0.92	0.91	0.89	0.88	0.87	0.84	0.83	0.83	0.78	0.77	0.77	0.73
2	0.90	0.89	0.89	0.89	0.88	0.87	0.85	0.84	0.83	0.81	0.80	0.79	0.76	0.75	0.73	0.69
3	0.86	0.85	0.85	0.85	0.84	0.83	0.82	0.80	0.79	0.78	0.76	0.75	0.74	0.72	0.70	0.67
4	0.83	0.82	0.81	0.82	0.80	0.80	0.79	0.77	0.76	0.75	0.73	0.72	0.71	0.69	0.67	0.64
5	0.80	0.79	0.78	0.79	0.77	0.76	0.76	0.74	0.73	0.73	0.71	0.69	0.69	0.67	0.65	0.62
6	0.77	0.76	0.75	0.76	0.74	0.74	0.73	0.71	0.70	0.70	0.68	0.66	0.67	0.64	0.62	0.59
7	0.74	0.73	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	0.57
8	0.72	0.71	0.70	0.71	0.69	0.69	0.68	0.66	0.65	0.66	0.63	0.62	0.63	0.60	0.58	0.55
9	0.69	0.69	0.68	0.68	0.67	0.66	0.66	0.64	0.63	0.64	0.61	0.60	0.61	0.58	0.56	0.54
10	0.67	0.66	0.66	0.66	0.65	0.64	0.64	0.62	0.61	0.62	0.60	0.58	0.60	0.57	0.55	0.52



Operator
Telephone
Fax
e-Mail

R854 WNL (CRI90 700mA 20D) / UGR-Table

Luminaire: R854 WNL (CRI90 700mA 20D)

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	10.2	10.9	10.5	11.1	11.3	10.2	10.9	10.5	11.1	11.3
	3H	10.1	10.7	10.4	11.0	11.2	10.1	10.7	10.4	11.0	11.2
	4H	10.1	10.6	10.4	10.9	11.2	10.1	10.6	10.4	10.9	11.2
	6H	10.0	10.5	10.4	10.8	11.1	10.0	10.5	10.4	10.8	11.1
	8H	10.0	10.5	10.3	10.8	11.1	10.0	10.5	10.3	10.8	11.1
	12H	9.9	10.4	10.3	10.7	11.1	9.9	10.4	10.3	10.7	11.1
4H	2H	10.0	10.6	10.4	10.9	11.2	10.0	10.6	10.4	10.9	11.2
	3H	10.0	10.5	10.4	10.8	11.1	10.0	10.5	10.4	10.8	11.1
	4H	9.9	10.3	10.3	10.7	11.1	9.9	10.3	10.3	10.7	11.1
	6H	9.9	10.2	10.3	10.6	11.0	9.9	10.2	10.3	10.6	11.0
	8H	9.8	10.1	10.3	10.5	10.9	9.8	10.1	10.3	10.5	10.9
	12H	9.8	10.0	10.2	10.5	10.9	9.8	10.0	10.2	10.5	10.9
8H	4H	9.8	10.1	10.3	10.5	10.9	9.8	10.1	10.3	10.5	10.9
	6H	9.7	10.0	10.2	10.4	10.9	9.7	10.0	10.2	10.4	10.9
	8H	9.7	9.9	10.2	10.3	10.8	9.7	9.9	10.2	10.3	10.8
	12H	9.6	9.8	10.2	10.3	10.8	9.6	9.8	10.2	10.3	10.8
12H	4H	9.8	10.0	10.2	10.5	10.9	9.8	10.0	10.2	10.5	10.9
	6H	9.7	9.9	10.2	10.3	10.8	9.7	9.9	10.2	10.3	10.8
	8H	9.6	9.8	10.2	10.3	10.8	9.6	9.8	10.2	10.3	10.8
Variation of the observer position for the luminaire distances S											
S = 1.0H		+6.4 / -8.1					+6.4 / -8.1				
S = 1.5H		+9.2 / -8.6					+9.2 / -8.6				
S = 2.0H		+11.1 / -9.4					+11.1 / -9.4				
Standard table		BK00					BK00				
Correction Summand		-9.1					-9.1				
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.