

PHOTOMETRY LABORATORY- TEST REPORT
Electrical And Photometric
Measurements of Solid State Lighting (LED) Products

Test Report N°

Date of issue.....

Sample date in.....

Date of performance.....

Applicant.....

Customer

Sample description.....

Sample Condition.....

Customer reference.....

Trade mark / Manufacturer

Model / Type / Reference.....

Ratings.....

Test method(s)..... IES LM 79-08

Page 1 of 15

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Possible test case verdicts:

- Test case does not apply to the test object..... N/A
- Test object meets the requirement P (Pass)
- Test object does not meet the requirement..... F (Fail)

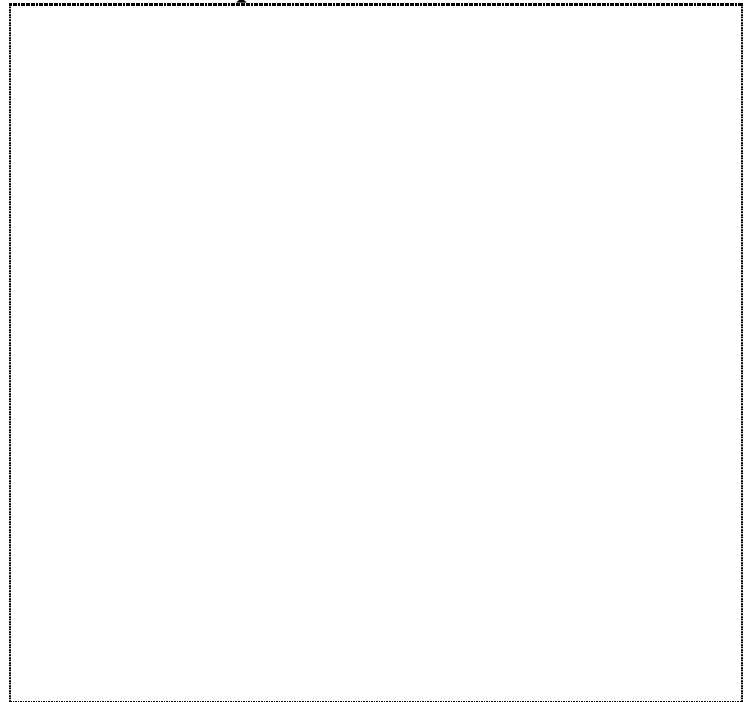
General remarks:

- “ See enclosure ## ” refers to additional information related to this report in the annexes section
- “ See table ## ” refers to a table appended to this report in the annexes section
- “ See figure ## ” refers to an image, picture or drawing appended to this report in the annexes section
- Throughout this report, a comma is used as decimal separator

General product information:

Pictures of Specimen received:

Model No.-



Testing Engineer

Asst. General Manager (Technical)

Photometric Results using Integrating Sphere + Gonio Photometer

CIE Colorimetric Parameters	
Chromaticity coordinates (x)	0.3240
Chromaticity coordinates (y)	0.3372
Chromaticity coordinates (u')	0.2026
Chromaticity coordinates (v)	0.3162
Chromaticity coordinates (v')	0.4743
Correlated color temperature (T _c)	5890K
D _{uv} Value	0.00189
Color Rendering Index (R _a)	76.1
Photometric Parameters	
Luminous Flux (Lumen)	19625.90 lm
Luminous Efficacy(lm/W)	137.91 lm/W
Electric Parameters	
Input Voltage (V)	240.00V
Current (I)	0.6040A
Power (W)	142.30W
Power Factor	0.9820
Frequency	50.00Hz
Test Information	
Ambient Temperature	25°C±1
Stabilization Time	60 minutes
Total Operating Time	90 minutes
Sphere Diameter (m)	2m
Photometric method or instrument used	Sphere-Spectroradiometer (Lisun group)' Goniophotometer Type C (Lisun group)
Wavelength range in (nm) of spectroradiometer	380nm to 800nm

Spectrum Test Report

Product Information

Product Category: LED Street Light

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3240$ $y=0.3372$ $u(u')=0.2026$ $v=0.3162$ $v'=0.4743$

CCT: $T_c=5890K$ ($duv=0.00189$)

Color Ratio: $R=0.132$ $G=0.828$ $B=0.041$

Peak Wavelength: 446nm

Half Bandwidth: 21.3nm

Dominant Wavelength: 498.2nm

Color Purity: 0.029

CRI: R_i : $R_a=76.1$

$R_1=76$

$R_2=76$

$R_3=74$

$R_4=83$

$R_5=78$

$R_6=68$

$R_7=83$

$R_8=71$

$R_9=-4$

$R_{10}=41$

$R_{11}=83$

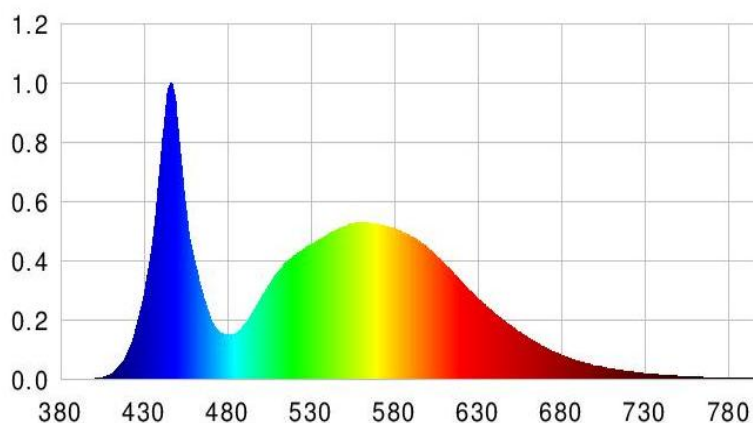
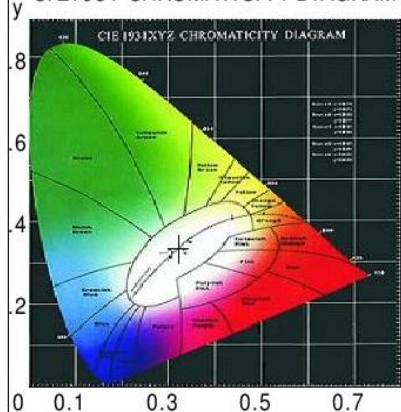
$R_{12}=45$

$R_{13}=74$

$R_{14}=85$

$R_{15}=73$

CIE1931 CHROMATICITY DIAGRAM



Photometric Parameters

Luminous Flux: 19625.90 lm

Efficiency: 137.91 lm/W

Electric Parameters

Voltage: 240.00V

Current: 0.6040A

Power: 142.30W

Power Factor: 0.9820

Frequency: 50.00Hz

Test Information

Scan Range: 380nm~800nm:1nm

Stabilization Time: 60 Min

Max of Signal: 45855 (2773)

Photometric Method:

Photometric Condition: Sphere diameter: 2.00m, 4Å

CCD Integration Time: 48.37 ms

Photometric Results

CIE Class: Direct

Measurement Flux: 19625.90 lm

Efficiency: 137.9192 lm/W

Central Intensity: 4922.672cd

Max. Intensity: 11323.71cd

Field Angle(10% Imax): Left: -124.3 Right: 14.8

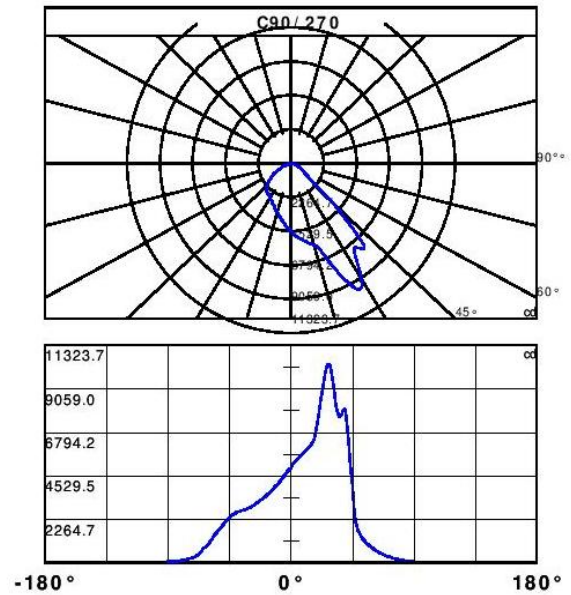
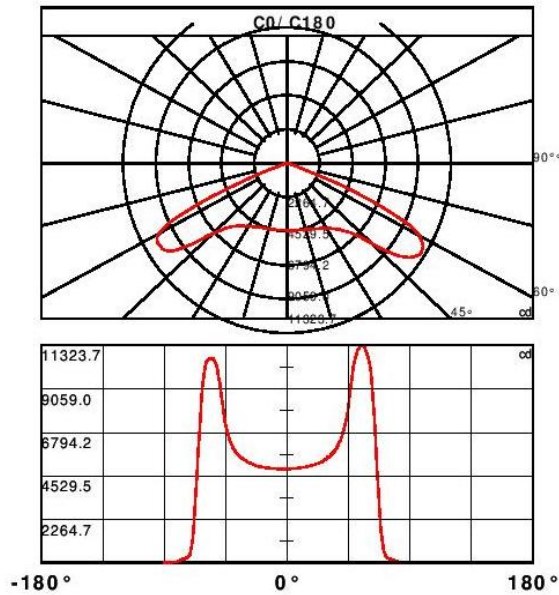
Max.Intensity Angle: C:0.0 G:55.0

Beam Angle(50% Imax): L: -120.1 R:10.5

Luminaire Efficacy Rating(LER) : 100.00%

Upward Ratio: 0.0%

Downward Ratio: 100.0%



Light intensity data Unit[cd]

C\ G	G0.0	G1.0	G2.0	G3.0	G4.0	G5.0	G6.0	G7.0	G8.0	G9.0
C0.0	4922.7	4900.8	4889.3	4900.8	4896.5	4912.1	4924.2	4904.9	4941.1	4942.1
C22.5	4922.7	4966.2	5017.0	5082.3	5159.0	5193.3	5268.7	5323.5	5348.6	5423.0
C45.0	4922.7	4966.2	5017.0	5082.3	5159.0	5193.3	5268.7	5323.5	5348.6	5423.0
C67.5	4922.7	5091.8	5176.9	5242.8	5358.9	5419.4	5491.1	5573.7	5636.2	5717.0
C90.0	4922.7	5091.8	5176.9	5242.8	5358.9	5419.4	5491.1	5573.7	5636.2	5717.0
C112.5	4922.7	4988.5	5070.8	5116.4	5178.2	5246.6	5290.4	5355.8	5400.9	5439.6
C135.0	4922.7	4988.5	5070.8	5116.4	5178.2	5246.6	5290.4	5355.8	5400.9	5439.6
C157.5	4922.7	4874.7	4884.2	4881.6	4879.8	4889.3	4874.7	4884.2	4907.2	4902.9
C180.0	4922.7	4874.7	4884.2	4881.6	4879.8	4889.3	4874.7	4884.2	4907.2	4902.9
C202.5	4922.7	4830.1	4762.9	4679.6	4628.6	4563.0	4490.2	4441.8	4374.6	4306.9
C225.0	4922.7	4830.1	4762.9	4679.6	4628.6	4563.0	4490.2	4441.8	4374.6	4306.9
C247.5	4922.7	4908.0	4799.6	4717.8	4626.8	4517.1	4429.0	4345.7	4247.7	4164.2
C270.0	4922.7	4908.0	4799.6	4717.8	4626.8	4517.1	4429.0	4345.7	4247.7	4164.2
C292.5	4922.7	4879.1	4821.6	4749.9	4686.3	4610.2	4569.9	4502.3	4441.0	4403.6
C315.0	4922.7	4879.1	4821.6	4749.9	4686.3	4610.2	4569.9	4502.3	4441.0	4403.6
C337.5	4922.7	4900.8	4889.3	4900.8	4896.5	4912.1	4924.2	4904.9	4941.1	4942.1
C360.0	4922.7	4900.8	4889.3	4900.8	4896.5	4912.1	4924.2	4904.9	4941.1	4942.1
C\ G	G10.0	G11.0	G12.0	G13.0	G14.0	G15.0	G16.0	G17.0	G18.0	G19.0
C0.0	4938.5	4963.6	4975.2	4982.1	5003.4	4998.5	5027.2	5048.0	5053.4	5084.1
C22.5	5444.0	5498.3	5550.4	5569.3	5619.6	5663.9	5689.0	5733.9	5750.3	5791.3
C45.0	5444.0	5498.3	5550.4	5569.3	5619.6	5663.9	5689.0	5733.9	5750.3	5791.3
C67.5	5802.6	5847.2	5937.4	6013.8	6082.7	6185.8	6292.1	6465.2	6772.7	7128.8
C90.0	5802.6	5847.2	5937.4	6013.8	6082.7	6185.8	6292.1	6465.2	6772.7	7128.8
C112.5	5504.0	5534.5	5581.4	5631.6	5650.3	5702.6	5741.3	5752.6	5804.6	5830.0
C135.0	5504.0	5534.5	5581.4	5631.6	5650.3	5702.6	5741.3	5752.6	5804.6	5830.0
C157.5	4911.9	4923.4	4914.4	4931.1	4940.3	4935.7	4964.9	4960.3	4978.2	4999.8
C180.0	4911.9	4923.4	4914.4	4931.1	4940.3	4935.7	4964.9	4960.3	4978.2	4999.8
C202.5	4268.8	4200.6	4157.8	4096.8	4050.9	4012.2	3967.1	3936.6	3901.2	3846.3
C225.0	4268.8	4200.6	4157.8	4096.8	4050.9	4012.2	3967.1	3936.6	3901.2	3846.3
C247.5	4075.2	3990.6	3932.2	3840.7	3767.6	3704.6	3621.3	3567.0	3507.0	3439.8
C270.0	4075.2	3990.6	3932.2	3840.7	3767.6	3704.6	3621.3	3567.0	3507.0	3439.8
C292.5	4343.1	4290.8	4249.5	4187.0	4156.0	4101.6	4076.8	4062.4	4018.6	3995.5
C315.0	4343.1	4290.8	4249.5	4187.0	4156.0	4101.6	4076.8	4062.4	4018.6	3995.5
C337.5	4938.5	4963.6	4975.2	4982.1	5003.4	4998.5	5027.2	5048.0	5053.4	5084.1
C360.0	4938.5	4963.6	4975.2	4982.1	5003.4	4998.5	5027.2	5048.0	5053.4	5084.1
C\ G	G20.0	G21.0	G22.0	G23.0	G24.0	G25.0	G26.0	G27.0	G28.0	G29.0
C0.0	5097.7	5122.0	5160.2	5163.3	5207.4	5255.8	5260.7	5317.1	5363.0	5408.1
C22.5	5858.2	5903.3	6009.9	6178.1	6447.0	6795.3	7214.6	7684.2	8213.3	8653.9
C45.0	5858.2	5903.3	6009.9	6178.1	6447.0	6795.3	7214.6	7684.2	8213.3	8653.9
C67.5	7644.2	8079.7	8564.7	8989.1	9395.4	9786.6	10185.6	10308.2	10318.7	10142.6
C90.0	7644.2	8079.7	8564.7	8989.1	9395.4	9786.6	10185.6	10308.2	10318.7	10142.6

Light intensity data Unit[cd]

C112.5	5869.2	5945.1	6004.6	6141.4	6360.8	6643.3	7013.9	7448.7	7904.1	8358.9
C135.0	5869.2	5945.1	6004.6	6141.4	6360.8	6643.3	7013.9	7448.7	7904.1	8358.9
C157.5	5001.1	5019.5	5049.5	5065.4	5099.0	5121.0	5142.3	5193.3	5210.5	5251.2
C180.0	5001.1	5019.5	5049.5	5065.4	5099.0	5121.0	5142.3	5193.3	5210.5	5251.2
C202.5	3821.7	3788.2	3744.3	3732.8	3696.1	3673.6	3669.5	3624.4	3612.1	3600.5
C225.0	3821.7	3788.2	3744.3	3732.8	3696.1	3673.6	3669.5	3624.4	3612.1	3600.5
C247.5	3388.3	3319.3	3274.2	3224.5	3162.5	3118.9	3067.6	3014.1	2982.0	2915.4
C270.0	3388.3	3319.3	3274.2	3224.5	3162.5	3118.9	3067.6	3014.1	2982.0	2915.4
C292.5	3969.6	3925.8	3929.4	3889.4	3868.4	3856.1	3832.8	3799.2	3799.9	3774.8
C315.0	3969.6	3925.8	3929.4	3889.4	3868.4	3856.1	3832.8	3799.2	3799.9	3774.8
C337.5	5097.7	5122.0	5160.2	5163.3	5207.4	5255.8	5260.7	5317.1	5363.0	5408.1
C360.0	5097.7	5122.0	5160.2	5163.3	5207.4	5255.8	5260.7	5317.1	5363.0	5408.1
C\ G	G30.0	G31.0	G32.0	G33.0	G34.0	G35.0	G36.0	G37.0	G38.0	G39.0
C0.0	5489.1	5515.0	5597.0	5673.1	5746.4	5826.4	5953.0	6058.1	6204.5	6352.1
C22.5	9129.9	9613.5	10048.5	10526.8	10866.7	11094.0	11243.0	11148.1	10887.5	10482.0
C45.0	9129.9	9613.5	10048.5	10526.8	10866.7	11094.0	11243.0	11148.1	10887.5	10482.0
C67.5	9743.8	9251.9	8704.1	8164.8	7826.2	7619.9	7603.5	7719.6	7908.2	8024.4
C90.0	9743.8	9251.9	8704.1	8164.8	7826.2	7619.9	7603.5	7719.6	7908.2	8024.4
C112.5	8802.3	9288.0	9745.3	10090.3	10494.5	10790.3	10929.0	10966.4	10751.6	10364.3
C135.0	8802.3	9288.0	9745.3	10090.3	10494.5	10790.3	10929.0	10966.4	10751.6	10364.3
C157.5	5303.0	5335.0	5407.3	5451.7	5495.8	5598.3	5628.5	5730.5	5822.8	5938.2
C180.0	5303.0	5335.0	5407.3	5451.7	5495.8	5598.3	5628.5	5730.5	5822.8	5938.2
C202.5	3569.5	3567.7	3540.5	3516.2	3507.7	3481.9	3464.4	3476.0	3439.3	3429.6
C225.0	3569.5	3567.7	3540.5	3516.2	3507.7	3481.9	3464.4	3476.0	3439.3	3429.6
C247.5	2880.8	2851.8	2813.6	2777.0	2766.5	2729.3	2723.1	2695.5	2669.3	2656.2
C270.0	2880.8	2851.8	2813.6	2777.0	2766.5	2729.3	2723.1	2695.5	2669.3	2656.2
C292.5	3763.0	3750.7	3726.9	3737.4	3697.2	3666.4	3700.5	3676.1	3664.6	3679.2
C315.0	3763.0	3750.7	3726.9	3737.4	3697.2	3666.4	3700.5	3676.1	3664.6	3679.2
C337.5	5489.1	5515.0	5597.0	5673.1	5746.4	5826.4	5953.0	6058.1	6204.5	6352.1
C360.0	5489.1	5515.0	5597.0	5673.1	5746.4	5826.4	5953.0	6058.1	6204.5	6352.1
C\ G	G40.0	G41.0	G42.0	G43.0	G44.0	G45.0	G46.0	G47.0	G48.0	G49.0
C0.0	6528.5	6763.0	7016.5	7320.5	7719.8	8187.9	8804.9	9362.1	9867.8	10345.1
C22.5	9906.5	9297.5	8779.5	8316.3	8058.4	8029.5	8173.0	8518.3	8844.1	9089.6
C45.0	9906.5	9297.5	8779.5	8316.3	8058.4	8029.5	8173.0	8518.3	8844.1	9089.6
C67.5	7836.0	7235.4	6378.8	5427.3	4766.8	3989.6	2958.7	2166.7	1902.2	1695.0
C90.0	7836.0	7235.4	6378.8	5427.3	4766.8	3989.6	2958.7	2166.7	1902.2	1695.0
C112.5	9897.5	9310.3	8753.8	8275.3	7896.5	7778.5	7791.9	7967.5	8236.6	8396.3
C135.0	9897.5	9310.3	8753.8	8275.3	7896.5	7778.5	7791.9	7967.5	8236.6	8396.3
C157.5	6083.2	6230.4	6423.1	6654.8	6916.0	7223.9	7644.2	8128.7	8739.0	9286.0
C180.0	6083.2	6230.4	6423.1	6654.8	6916.0	7223.9	7644.2	8128.7	8739.0	9286.0
C202.5	3407.0	3395.5	3387.5	3361.4	3341.1	3301.9	3240.7	3199.4	3138.1	3057.4
C225.0	3407.0	3395.5	3387.5	3361.4	3341.1	3301.9	3240.7	3199.4	3138.1	3057.4

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Light intensity data Unit[cd]

C247.5	2620.1	2578.3	2546.5	2484.8	2438.1	2362.2	2293.8	2203.6	2122.3	2027.5
C270.0	2620.1	2578.3	2546.5	2484.8	2438.1	2362.2	2293.8	2203.6	2122.3	2027.5
C292.5	3665.6	3663.1	3649.5	3594.6	3599.8	3572.1	3512.9	3461.3	3376.0	3295.0
C315.0	3665.6	3663.1	3649.5	3594.6	3599.8	3572.1	3512.9	3461.3	3376.0	3295.0
C337.5	6528.5	6763.0	7016.5	7320.5	7719.8	8187.9	8804.9	9362.1	9867.8	10345.1
C360.0	6528.5	6763.0	7016.5	7320.5	7719.8	8187.9	8804.9	9362.1	9867.8	10345.1
C\ G	G50.0	G51.0	G52.0	G53.0	G54.0	G55.0	G56.0	G57.0	G58.0	G59.0
C0.0	10659.1	10912.1	11092.0	11204.8	11312.4	11323.7	11266.8	11195.0	11021.8	10805.7
C22.5	9122.7	8816.4	8278.4	7423.5	6413.6	5494.5	4531.2	3623.1	2682.1	1791.4
C45.0	9122.7	8816.4	8278.4	7423.5	6413.6	5494.5	4531.2	3623.1	2682.1	1791.4
C67.5	1537.7	1401.8	1288.8	1199.6	1120.4	1039.6	979.9	910.2	859.2	791.0
C90.0	1537.7	1401.8	1288.8	1199.6	1120.4	1039.6	979.9	910.2	859.2	791.0
C112.5	8483.4	8352.4	7897.7	7263.1	6449.5	5456.8	4517.9	3618.0	2818.2	1984.2
C135.0	8483.4	8352.4	7897.7	7263.1	6449.5	5456.8	4517.9	3618.0	2818.2	1984.2
C157.5	9722.5	10134.6	10371.5	10509.6	10637.8	10627.0	10634.7	10632.7	10565.8	10474.5
C180.0	9722.5	10134.6	10371.5	10509.6	10637.8	10627.0	10634.7	10632.7	10565.8	10474.5
C202.5	2979.5	2869.2	2740.1	2600.1	2442.0	2290.5	2133.6	1980.8	1865.5	1759.1
C225.0	2979.5	2869.2	2740.1	2600.1	2442.0	2290.5	2133.6	1980.8	1865.5	1759.1
C247.5	1942.9	1844.2	1755.8	1684.8	1593.8	1524.3	1446.2	1347.5	1230.1	1121.1
C270.0	1942.9	1844.2	1755.8	1684.8	1593.8	1524.3	1446.2	1347.5	1230.1	1121.1
C292.5	3201.2	3091.7	2978.7	2824.1	2666.5	2494.3	2318.9	2175.6	2031.1	1891.4
C315.0	3201.2	3091.7	2978.7	2824.1	2666.5	2494.3	2318.9	2175.6	2031.1	1891.4
C337.5	10659.1	10912.1	11092.0	11204.8	11312.4	11323.7	11266.8	11195.0	11021.8	10805.7
C360.0	10659.1	10912.1	11092.0	11204.8	11312.4	11323.7	11266.8	11195.0	11021.8	10805.7
C\ G	G60.0	G61.0	G62.0	G63.0	G64.0	G65.0	G66.0	G67.0	G68.0	G69.0
C0.0	10592.7	10110.8	9516.1	8646.2	7506.1	6340.6	5008.5	3669.0	2563.5	1684.8
C22.5	1218.5	985.0	872.3	801.0	722.3	651.3	595.2	539.8	486.2	445.7
C45.0	1218.5	985.0	872.3	801.0	722.3	651.3	595.2	539.8	486.2	445.7
C67.5	743.6	694.1	638.0	587.0	556.7	508.8	490.9	443.9	411.7	399.3
C90.0	743.6	694.1	638.0	587.0	556.7	508.8	490.9	443.9	411.7	399.3
C112.5	1250.1	988.1	889.7	809.5	744.9	679.2	618.8	559.8	503.2	459.8
C135.0	1250.1	988.1	889.7	809.5	744.9	679.2	618.8	559.8	503.2	459.8
C157.5	10197.4	9755.5	9072.5	8109.2	6980.6	5809.2	4501.7	3251.7	2132.3	1277.0
C180.0	10197.4	9755.5	9072.5	8109.2	6980.6	5809.2	4501.7	3251.7	2132.3	1277.0
C202.5	1651.5	1509.2	1340.6	1149.3	957.9	787.7	643.9	577.5	518.0	468.3
C225.0	1651.5	1509.2	1340.6	1149.3	957.9	787.7	643.9	577.5	518.0	468.3
C247.5	1023.7	939.7	856.6	803.6	752.3	674.1	531.4	469.1	417.8	374.0
C270.0	1023.7	939.7	856.6	803.6	752.3	674.1	531.4	469.1	417.8	374.0
C292.5	1788.9	1647.4	1477.7	1270.8	1091.4	914.0	762.3	666.4	600.6	543.7
C315.0	1788.9	1647.4	1477.7	1270.8	1091.4	914.0	762.3	666.4	600.6	543.7
C337.5	10592.7	10110.8	9516.1	8646.2	7506.1	6340.6	5008.5	3669.0	2563.5	1684.8
C360.0	10592.7	10110.8	9516.1	8646.2	7506.1	6340.6	5008.5	3669.0	2563.5	1684.8

Light intensity data Unit[cd]

C\ G	G70.0	G71.0	G72.0	G73.0	G74.0	G75.0	G76.0	G77.0	G78.0	G79.0
C0.0	1030.7	599.3	378.1	294.0	245.8	208.9	190.4	160.5	127.9	106.9
C22.5	403.2	380.4	348.3	319.4	294.0	265.0	219.2	178.7	146.6	117.9
C45.0	403.2	380.4	348.3	319.4	294.0	265.0	219.2	178.7	146.6	117.9
C67.5	365.8	329.6	313.5	288.9	270.4	244.0	238.1	207.9	194.8	172.8
C90.0	365.8	329.6	313.5	288.9	270.4	244.0	238.1	207.9	194.8	172.8
C112.5	428.8	391.7	361.9	332.7	305.8	275.3	240.4	213.0	169.2	137.4
C135.0	428.8	391.7	361.9	332.7	305.8	275.3	240.4	213.0	169.2	137.4
C157.5	765.1	456.5	324.5	274.3	234.3	212.7	183.3	154.0	127.9	100.5
C180.0	765.1	456.5	324.5	274.3	234.3	212.7	183.3	154.0	127.9	100.5
C202.5	428.3	378.6	356.0	296.0	267.1	226.6	191.5	151.5	126.4	114.3
C225.0	428.3	378.6	356.0	296.0	267.1	226.6	191.5	151.5	126.4	114.3
C247.5	330.9	294.3	271.4	245.8	225.8	205.8	185.6	161.7	158.7	137.4
C270.0	330.9	294.3	271.4	245.8	225.8	205.8	185.6	161.7	158.7	137.4
C292.5	495.2	445.0	405.0	344.0	317.8	285.3	241.7	198.1	173.0	148.4
C315.0	495.2	445.0	405.0	344.0	317.8	285.3	241.7	198.1	173.0	148.4
C337.5	1030.7	599.3	378.1	294.0	245.8	208.9	190.4	160.5	127.9	106.9
C360.0	1030.7	599.3	378.1	294.0	245.8	208.9	190.4	160.5	127.9	106.9
C\ G	G80.0	G81.0	G82.0	G83.0	G84.0	G85.0	G86.0	G87.0	G88.0	G89.0
C0.0	91.8	70.5	53.1	35.6	30.2	21.3	14.9	11.0	7.2	8.8
C22.5	92.3	74.8	65.1	43.8	32.3	25.1	17.4	15.5	13.6	12.6
C45.0	92.3	74.8	65.1	43.8	32.3	25.1	17.4	15.5	13.6	12.6
C67.5	154.0	131.7	120.7	104.6	94.3	81.8	78.2	71.0	63.1	60.5
C90.0	154.0	131.7	120.7	104.6	94.3	81.8	78.2	71.0	63.1	60.5
C112.5	116.9	88.4	80.5	68.4	55.6	49.2	40.8	39.5	35.4	36.9
C135.0	116.9	88.4	80.5	68.4	55.6	49.2	40.8	39.5	35.4	36.9
C157.5	83.0	57.9	45.9	33.6	26.9	12.3	12.3	7.7	5.1	2.1
C180.0	83.0	57.9	45.9	33.6	26.9	12.3	12.3	7.7	5.1	2.1
C202.5	87.1	65.9	51.8	42.0	25.6	16.7	15.4	13.6	7.2	7.8
C225.0	87.1	65.9	51.8	42.0	25.6	16.7	15.4	13.6	7.2	7.8
C247.5	120.7	110.2	99.2	88.4	85.6	69.0	62.0	63.1	60.0	63.3
C270.0	120.7	110.2	99.2	88.4	85.6	69.0	62.0	63.1	60.0	63.3
C292.5	125.1	93.6	90.2	74.1	53.6	47.2	45.6	33.6	32.9	32.3
C315.0	125.1	93.6	90.2	74.1	53.6	47.2	45.6	33.6	32.9	32.3
C337.5	91.8	70.5	53.1	35.6	30.2	21.3	14.9	11.0	7.2	8.8
C360.0	91.8	70.5	53.1	35.6	30.2	21.3	14.9	11.0	7.2	8.8
C\ G	G90.0									
C0.0	10.5									
C22.5	11.5									
C45.0	11.5									
C67.5	56.6									
C90.0	56.6									

Light intensity data Unit[cd]

C112.5	34.1									
C135.0	34.1									
C157.5	0.0									
C180.0	0.0									
C202.5	8.5									
C225.0	8.5									
C247.5	62.5									
C270.0	62.5									
C292.5	30.2									
C315.0	30.2									
C337.5	10.5									
C360.0	10.5									

Zonal Luminous Flux Data

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
0.0	4922.67	0.00	0.00	0.00	0.00
0.0-1.0	4929.90	4.71	4.71	0.02	0.02
1.0-2.0	4927.79	14.15	18.86	0.07	0.10
2.0-3.0	4921.41	23.56	42.42	0.12	0.22
3.0-4.0	4926.76	32.96	75.38	0.17	0.38
4.0-5.0	4918.88	42.36	117.74	0.22	0.60
5.0-6.0	4917.28	51.69	169.43	0.26	0.86
6.0-7.0	4916.48	61.04	230.47	0.31	1.17
7.0-8.0	4912.18	70.34	300.81	0.36	1.53
8.0-9.0	4912.41	79.62	380.43	0.41	1.94
9.0-10.0	4911.00	88.90	469.33	0.45	2.39
10.0-11.0	4906.13	98.09	567.43	0.50	2.89
11.0-12.0	4912.28	107.33	674.75	0.55	3.44
12.0-13.0	4906.54	116.52	791.28	0.59	4.03
13.0-14.0	4908.85	125.64	916.92	0.64	4.67
14.0-15.0	4913.11	134.84	1051.76	0.69	5.36
15.0-16.0	4922.47	144.12	1195.87	0.73	6.09
16.0-17.0	4940.73	153.60	1349.47	0.78	6.88
17.0-18.0	4973.25	163.46	1512.93	0.83	7.71
18.0-19.0	5014.45	173.77	1686.70	0.89	8.59
19.0-20.0	5081.26	184.78	1871.48	0.94	9.54
20.0-21.0	5137.87	196.23	2067.70	1.00	10.54
21.0-22.0	5217.11	208.09	2275.79	1.06	11.60
22.0-23.0	5298.01	220.64	2496.43	1.12	12.72
23.0-24.0	5404.57	234.00	2730.42	1.19	13.91
24.0-25.0	5531.32	248.66	2979.08	1.27	15.18
25.0-26.0	5673.39	264.49	3243.57	1.35	16.53
26.0-27.0	5798.64	280.67	3524.24	1.43	17.96
27.0-28.0	5925.45	296.83	3821.07	1.51	19.47
28.0-29.0	6013.17	312.35	4133.41	1.59	21.06
29.0-30.0	6085.17	326.65	4460.07	1.66	22.73
30.0-31.0	6146.72	340.40	4800.46	1.73	24.46
31.0-32.0	6197.92	353.66	5154.12	1.80	26.26
32.0-33.0	6242.16	366.49	5520.61	1.87	28.13
33.0-34.0	6300.12	379.57	5900.18	1.93	30.06
34.0-35.0	6350.81	392.89	6293.07	2.00	32.07
35.0-36.0	6405.63	406.17	6699.24	2.07	34.13
36.0-37.0	6433.79	418.75	7117.99	2.13	36.27
37.0-38.0	6418.48	428.99	7546.98	2.19	38.45
38.0-39.0	6365.74	436.36	7983.34	2.22	40.68
39.0-40.0	6243.06	439.75	8423.09	2.24	42.92

Zonal Luminous Flux Data

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
40.0-41.0	6059.18	438.08	8861.17	2.23	45.15
41.0-42.0	5866.91	433.30	9294.46	2.21	47.36
42.0-43.0	5679.38	427.71	9722.17	2.18	49.54
43.0-44.0	5592.07	425.42	10147.58	2.17	51.71
44.0-45.0	5555.71	428.42	10576.01	2.18	53.89
45.0-46.0	5552.50	434.42	11010.42	2.21	56.10
46.0-47.0	5625.94	444.60	11455.02	2.27	58.37
47.0-48.0	5778.26	461.02	11916.04	2.35	60.72
48.0-49.0	5898.98	479.53	12395.57	2.44	63.16
49.0-50.0	5956.11	494.28	12889.85	2.52	65.68
50.0-51.0	5927.82	502.79	13392.64	2.56	68.24
51.0-52.0	5800.36	503.27	13895.90	2.56	70.80
52.0-53.0	5588.71	495.42	14391.33	2.52	73.33
53.0-54.0	5329.50	481.23	14872.56	2.45	75.78
54.0-55.0	5031.34	462.49	15335.05	2.36	78.14
55.0-56.0	4728.66	441.03	15776.08	2.25	80.38
56.0-57.0	4435.36	419.00	16195.07	2.13	82.52
57.0-58.0	4134.22	396.29	16591.37	2.02	84.54
58.0-59.0	3827.31	372.21	16963.58	1.90	86.43
59.0-60.0	3558.30	348.92	17312.50	1.78	88.21
60.0-61.0	3328.73	328.66	17641.16	1.67	89.89
61.0-62.0	3082.92	308.95	17950.12	1.57	91.46
62.0-63.0	2772.07	284.76	18234.87	1.45	92.91
63.0-64.0	2414.02	254.48	18489.35	1.30	94.21
64.0-65.0	2045.63	220.70	18710.05	1.12	95.33
65.0-66.0	1644.07	184.09	18894.14	0.94	96.27
66.0-67.0	1272.15	146.64	19040.77	0.75	97.02
67.0-68.0	954.15	112.78	19153.55	0.57	97.59
68.0-69.0	706.58	84.72	19238.28	0.43	98.02
69.0-70.0	531.00	63.56	19301.83	0.32	98.35
70.0-71.0	409.41	48.61	19350.44	0.25	98.60
71.0-72.0	344.85	39.22	19389.66	0.20	98.80
72.0-73.0	299.38	33.69	19423.34	0.17	98.97
73.0-74.0	270.13	29.94	19453.28	0.15	99.12
74.0-75.0	240.46	26.98	19480.26	0.14	99.26
75.0-76.0	211.27	23.98	19504.24	0.12	99.38
76.0-77.0	178.17	20.76	19525.00	0.11	99.49
77.0-78.0	153.06	17.73	19542.73	0.09	99.58
78.0-79.0	129.44	15.18	19557.91	0.08	99.65
79.0-80.0	108.87	12.85	19570.76	0.07	99.72
80.0-81.0	86.64	10.57	19581.34	0.05	99.77

Zonal Luminous Flux Data

[illegible]

