

Classified
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: HALO

Report Number: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)

Luminaire Tested: GFLL70FSUNVDBZK-60W-5000K

Issue Date: 4/3/2023

Test Information

Test Method: LM-79-2019
Report Number: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ()
Test Lab: INNOVATION CENTER
Issue Date: 4/3/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: GFL70FSUNVDBZK-60W-5000K
Description: SLIM LED FLOODLIGHT
Light Source:
Ballast/Driver: -

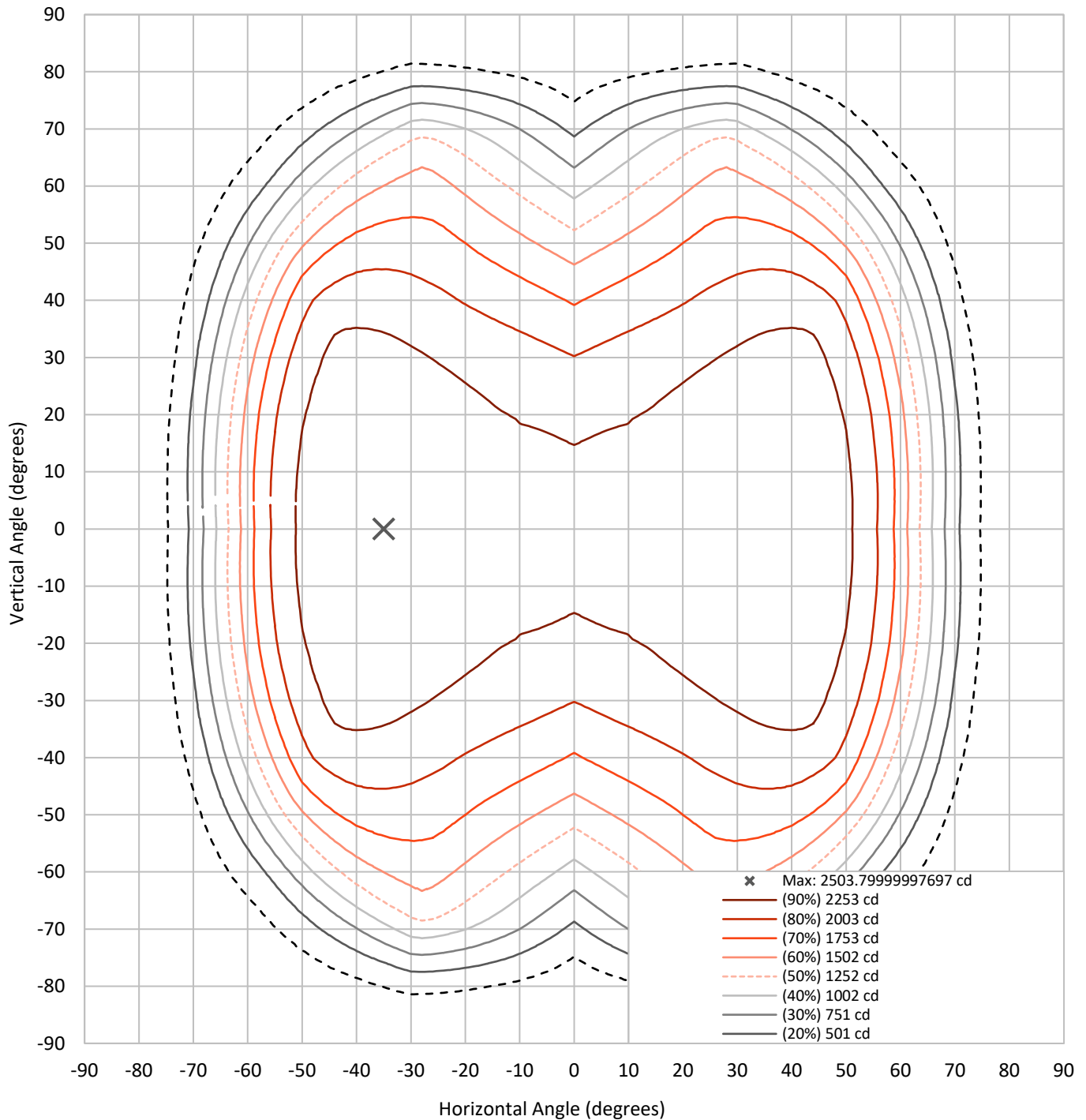
Summary

Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	8612.5 lumens	Max Intensity:	2503.8 candela
Efficiency:	N/A	Max Intensity Angle:	-35°H x 0°V
Efficacy:	141.2 lumens/watt		
Luminous Opening:	Rectangular w/ Sides (W: 0.33' x L: 0.56' x H: 0.18')		
Beam Angle (50%):	127°H x 130.8°V	Field Angle (10%):	149.3°H x 160.3°V
Beam Lumens:	7475.4 lumens	Field Lumens:	8507.7 lumens
Beam Efficiency:	86.8%	Field Efficiency:	98.8%
Input Watts (W):	61		
Input Voltage (V):	120		
Input Current (Ain):	NR		
Voltage Rise (V):	NR		
Power Factor:	NR		
Total Harmonic Distortion (THDi):	NR		
Frequency (hertz):	60		
Stabilization Time:	NR		
Operation Time:	NR		
Ambient Temperature (°C):	NR		
Test Distance:	25 FT		



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CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

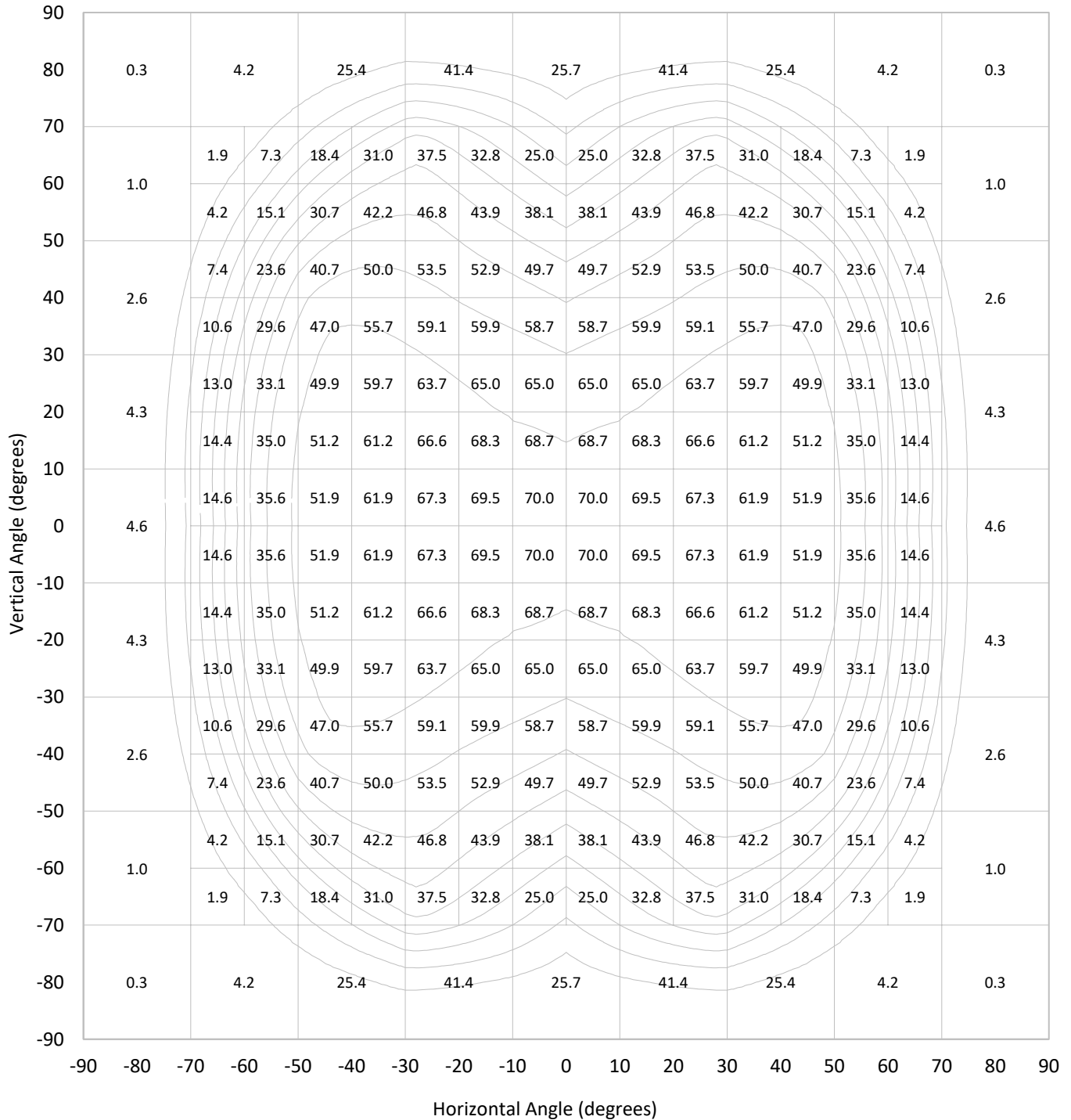
Iso-Candela Plot





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Lumen Table



Classified

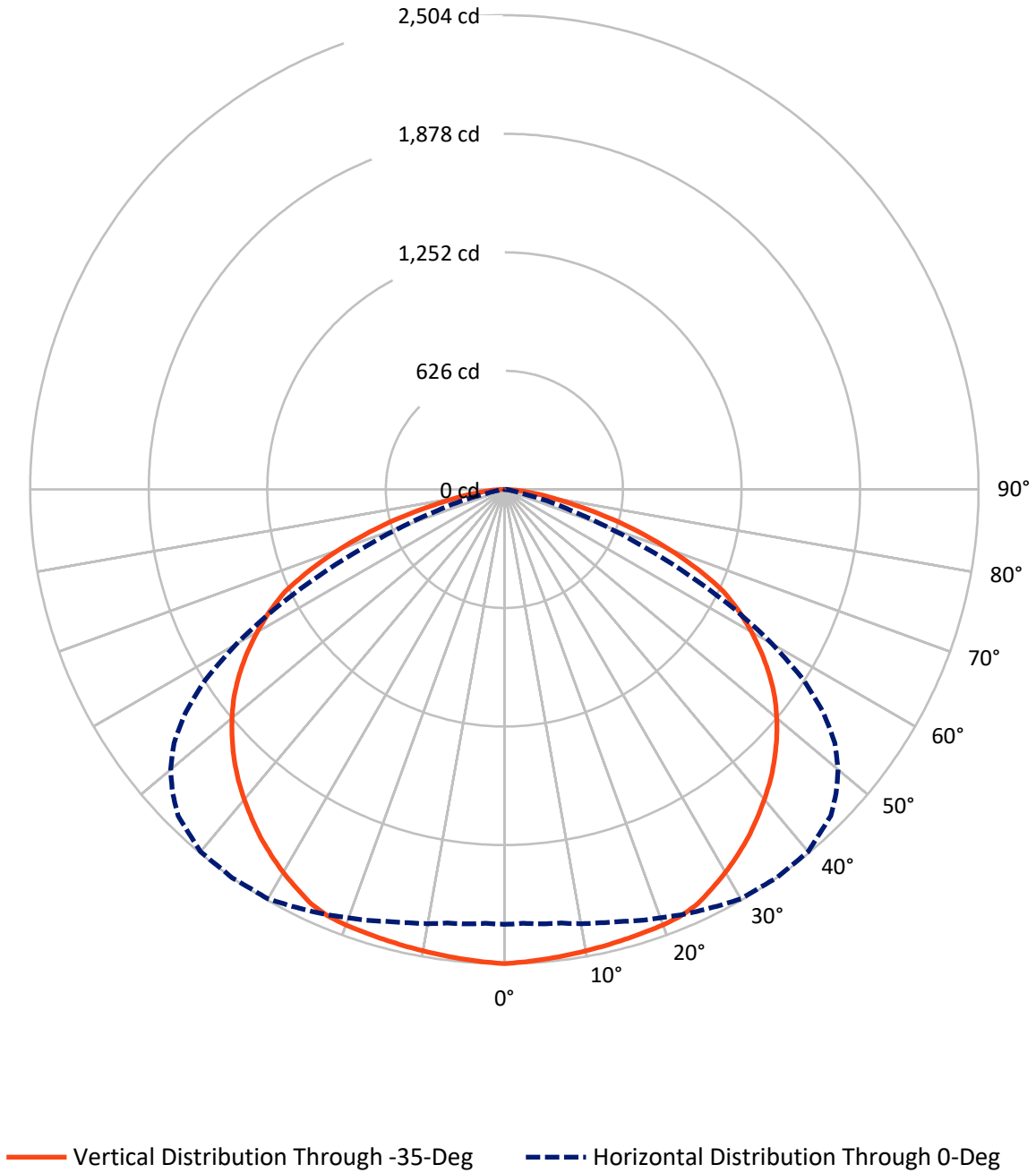
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
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Scaled Data Report



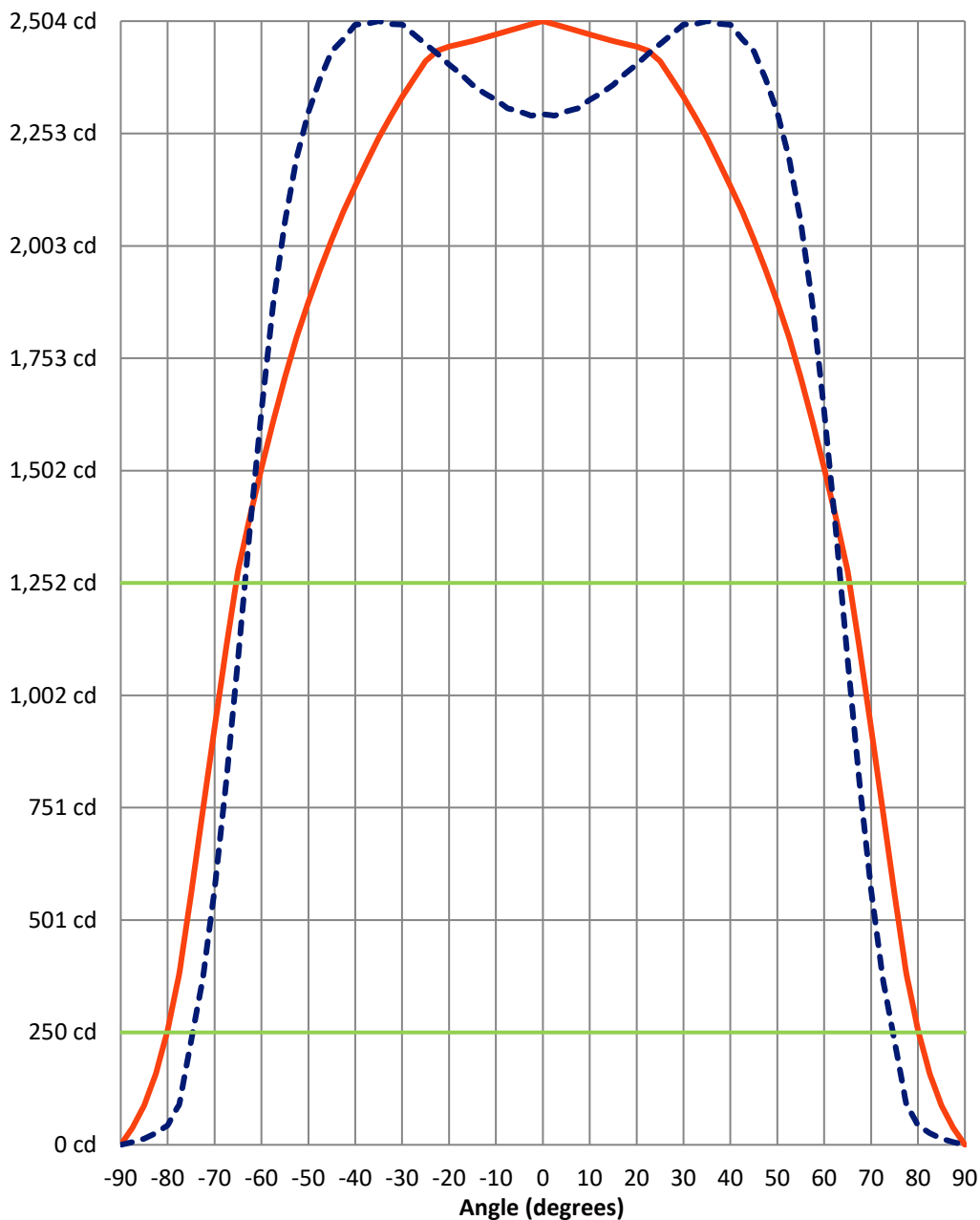
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CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 127°
 V Angle: 130.8°
 Lumens: 7475.4
 Efficiency: 86.8%

Field:
 H Angle: 149.3°
 V Angle: 160.3°
 Lumens: 8507.7
 Efficiency: 98.8%

Spill:
 Lumens: 104.9
 Efficiency: 1.2%

— Vertical Distribution through -35-Deg
 - - - Horizontal Distribution through 0-Deg



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FIELD
 BEAM

CANDELA DISTRIBUTION:

	-90°	-87.5°	-85°	-82.5°	-80°	-77.5°	-75°	-72.5°	-70°	-67.5°	-65°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.4	0.9	1.6	2.5	3.5	4.8	6.2	7.8	9.4	11.3
85°	0.0	0.7	1.8	3.2	5.0	7.1	9.5	12.3	15.5	18.8	22.6
82.5°	0.0	1.1	2.7	4.8	7.4	10.6	14.2	18.4	22.9	27.1	31.5
80°	0.0	1.4	3.5	6.3	9.9	14.0	18.7	23.4	28.3	33.5	39.1
77.5°	0.0	1.8	4.4	7.9	12.2	17.1	22.2	27.7	33.5	39.8	46.6
75°	0.0	2.1	5.2	9.4	14.5	19.7	25.5	31.9	38.7	46.4	54.5
72.5°	0.0	2.4	6.0	10.8	16.3	22.3	28.8	36.1	44.5	53.1	62.1
70°	0.0	2.8	6.8	12.2	18.1	24.7	32.0	40.8	50.0	59.9	80.5
67.5°	0.0	3.1	7.6	13.4	19.8	27.1	35.8	45.4	55.7	77.0	100.7
65°	0.0	3.4	8.3	14.5	21.5	29.6	39.4	49.7	69.4	93.4	126.2
62.5°	0.0	3.7	9.0	15.6	23.0	32.4	42.9	58.5	82.4	112.6	164.7
60°	0.0	4.0	9.7	16.6	24.5	35.0	46.2	68.6	94.7	144.3	201.4
57.5°	0.0	4.2	10.3	17.6	26.5	37.6	53.3	78.2	117.3	174.3	248.6
55°	0.0	4.5	10.8	18.5	28.3	40.0	60.5	87.0	141.5	206.4	299.9
52.5°	0.0	4.7	11.4	19.4	30.1	42.7	67.2	104.9	164.0	250.7	349.2
50°	0.0	5.0	11.9	20.2	31.7	47.6	73.3	122.7	189.9	293.1	413.2
47.5°	0.0	5.2	12.4	21.0	33.2	52.1	80.0	139.1	225.7	333.5	475.3
45°	0.0	5.4	12.8	22.1	34.7	56.2	92.8	154.2	259.8	384.7	533.1
42.5°	0.0	5.5	13.2	23.0	36.0	59.8	104.5	176.3	292.0	432.4	599.7
40°	0.0	5.7	13.5	23.9	37.9	63.1	115.0	202.8	325.1	476.4	663.7
37.5°	0.0	5.9	13.8	24.7	40.2	65.9	124.5	227.6	361.0	520.1	722.6
35°	0.0	6.0	14.1	25.4	42.3	71.4	132.8	250.6	393.5	568.7	779.6
32.5°	0.0	6.1	14.3	26.0	44.1	77.8	143.2	271.8	422.8	612.6	836.2
30°	0.0	6.2	14.5	26.5	45.5	83.4	159.9	292.1	448.6	651.9	887.3
27.5°	0.0	6.3	14.6	27.0	46.7	88.2	174.9	312.9	474.5	686.6	932.7
25°	0.0	6.3	14.7	27.3	47.6	92.1	188.4	330.9	502.3	720.8	972.4
22.5°	0.0	6.4	14.8	27.6	48.3	95.2	200.2	346.3	526.1	752.1	1008.7
20°	0.0	6.4	14.8	27.7	48.6	97.5	210.4	358.9	545.9	778.4	1039.5
17.5°	0.0	6.4	14.8	27.8	48.7	99.1	218.8	368.9	561.8	799.6	1064.7
15°	0.0	6.4	14.8	27.8	48.6	99.9	225.6	376.2	573.7	815.7	1084.1
12.5°	0.0	6.4	14.7	27.7	48.2	100.0	230.7	381.0	581.8	826.8	1097.9
10°	0.0	6.4	14.5	27.6	47.7	99.4	234.1	383.4	586.2	833.0	1106.0
7.5°	0.0	6.3	14.4	27.3	46.9	98.3	235.9	383.4	586.9	834.3	1108.3
5°	0.0	6.3	14.2	27.0	45.9	96.5	236.0	381.1	584.1	830.8	1104.9
2.5°	0.0	6.2	14.0	26.6	44.8	94.1	234.4	376.7	577.8	822.7	1095.9
0°	0.0	6.1	13.7	26.1	43.5	91.3	231.1	370.3	568.3	810.1	1081.3
-2.5°	0.0	6.2	14.0	26.6	44.8	94.1	234.4	376.7	577.8	822.7	1095.9
-5°	0.0	6.3	14.2	27.0	45.9	96.5	236.0	381.1	584.1	830.8	1104.9
-7.5°	0.0	6.3	14.4	27.3	46.9	98.3	235.9	383.4	586.9	834.3	1108.3
-10°	0.0	6.4	14.5	27.6	47.7	99.4	234.1	383.4	586.2	833.0	1106.0
-12.5°	0.0	6.4	14.7	27.7	48.2	100.0	230.7	381.0	581.8	826.8	1097.9
-15°	0.0	6.4	14.8	27.8	48.6	99.9	225.6	376.2	573.7	815.7	1084.1
-17.5°	0.0	6.4	14.8	27.8	48.7	99.1	218.8	368.9	561.8	799.6	1064.7
-20°	0.0	6.4	14.8	27.7	48.6	97.5	210.4	358.9	545.9	778.4	1039.5

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CANDELA DISTRIBUTION (continued):

	-90°	-87.5°	-85°	-82.5°	-80°	-77.5°	-75°	-72.5°	-70°	-67.5°	-65°
-22.5°	0.0	6.4	14.8	27.6	48.3	95.2	200.2	346.3	526.1	752.1	1008.7
-25°	0.0	6.3	14.7	27.3	47.6	92.1	188.4	330.9	502.3	720.8	972.4
-27.5°	0.0	6.3	14.6	27.0	46.7	88.2	174.9	312.9	474.5	686.6	932.7
-30°	0.0	6.2	14.5	26.5	45.5	83.4	159.9	292.1	448.6	651.9	887.3
-32.5°	0.0	6.1	14.3	26.0	44.1	77.8	143.2	271.8	422.8	612.6	836.2
-35°	0.0	6.0	14.1	25.4	42.3	71.4	132.8	250.6	393.5	568.7	779.6
-37.5°	0.0	5.9	13.8	24.7	40.2	65.9	124.5	227.6	361.0	520.1	722.6
-40°	0.0	5.7	13.5	23.9	37.9	63.1	115.0	202.8	325.1	476.4	663.7
-42.5°	0.0	5.5	13.2	23.0	36.0	59.8	104.5	176.3	292.0	432.4	599.7
-45°	0.0	5.4	12.8	22.1	34.7	56.2	92.8	154.2	259.8	384.7	533.1
-47.5°	0.0	5.2	12.4	21.0	33.2	52.1	80.0	139.1	225.7	333.5	475.3
-50°	0.0	5.0	11.9	20.2	31.7	47.6	73.3	122.7	189.9	293.1	413.2
-52.5°	0.0	4.7	11.4	19.4	30.1	42.7	67.2	104.9	164.0	250.7	349.2
-55°	0.0	4.5	10.8	18.5	28.3	40.0	60.5	87.0	141.5	206.4	299.9
-57.5°	0.0	4.2	10.3	17.6	26.5	37.6	53.3	78.2	117.3	174.3	248.6
-60°	0.0	4.0	9.7	16.6	24.5	35.0	46.2	68.6	94.7	144.3	201.4
-62.5°	0.0	3.7	9.0	15.6	23.0	32.4	42.9	58.5	82.4	112.6	164.7
-65°	0.0	3.4	8.3	14.5	21.5	29.6	39.4	49.7	69.4	93.4	126.2
-67.5°	0.0	3.1	7.6	13.4	19.8	27.1	35.8	45.4	55.7	77.0	100.7
-70°	0.0	2.8	6.8	12.2	18.1	24.7	32.0	40.8	50.0	59.9	80.5
-72.5°	0.0	2.4	6.0	10.8	16.3	22.3	28.8	36.1	44.5	53.1	62.1
-75°	0.0	2.1	5.2	9.4	14.5	19.7	25.5	31.9	38.7	46.4	54.5
-77.5°	0.0	1.8	4.4	7.9	12.2	17.1	22.2	27.7	33.5	39.8	46.6
-80°	0.0	1.4	3.5	6.3	9.9	14.0	18.7	23.4	28.3	33.5	39.1
-82.5°	0.0	1.1	2.7	4.8	7.4	10.6	14.2	18.4	22.9	27.1	31.5
-85°	0.0	0.7	1.8	3.2	5.0	7.1	9.5	12.3	15.5	18.8	22.6
-87.5°	0.0	0.4	0.9	1.6	2.5	3.5	4.8	6.2	7.8	9.4	11.3
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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 CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	-62.5°	-60°	-57.5°	-55°	-52.5°	-50°	-47.5°	-45°	-42.5°	-40°	-37.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.3	15.5	17.5	19.5	21.7	23.9	26.2	28.5	30.9	33.2	35.7
85°	26.6	30.9	34.3	38.3	42.9	48.0	53.7	59.7	66.2	73.1	80.3
82.5°	36.2	41.0	47.4	54.8	63.1	72.2	82.5	95.4	109.6	125.0	141.4
80°	44.9	51.0	60.7	73.2	87.9	104.8	123.7	144.4	166.8	193.5	224.1
77.5°	53.8	61.2	74.8	92.9	115.0	146.0	179.4	215.2	252.9	292.6	333.9
75°	62.7	71.3	95.9	128.7	164.9	204.2	248.4	306.2	366.3	428.7	492.9
72.5°	78.5	99.3	129.0	168.8	226.3	289.3	355.9	425.7	501.4	581.1	662.3
70°	103.0	127.5	174.1	238.7	308.0	384.0	468.8	556.4	646.5	740.2	835.7
67.5°	130.6	178.5	233.3	309.2	397.6	489.9	585.9	695.8	803.4	908.4	1010.8
65°	176.8	231.1	297.2	390.7	488.9	609.1	729.4	847.1	965.5	1078.6	1185.4
62.5°	221.0	294.5	371.1	479.1	612.0	742.5	877.2	1008.0	1131.9	1234.4	1322.2
60°	278.2	360.7	461.9	593.7	737.7	888.5	1032.0	1160.9	1272.9	1369.9	1445.7
57.5°	336.8	441.8	569.0	712.9	878.0	1035.3	1178.9	1305.8	1409.9	1496.4	1564.4
55°	402.6	534.1	679.4	844.3	1018.1	1181.5	1324.8	1444.0	1545.0	1616.4	1672.8
52.5°	481.1	625.7	797.3	977.2	1162.7	1326.4	1465.7	1578.7	1664.7	1730.2	1770.8
50°	555.2	727.5	911.3	1110.7	1305.3	1468.1	1599.3	1703.4	1777.0	1829.4	1861.5
47.5°	637.7	823.7	1027.9	1236.2	1439.1	1600.8	1726.1	1813.6	1880.4	1918.9	1944.8
45°	719.6	921.7	1138.0	1351.5	1555.7	1726.8	1835.3	1919.0	1968.6	2002.9	2014.8
42.5°	796.0	1016.4	1239.5	1460.7	1656.8	1829.1	1940.2	2006.5	2052.4	2073.7	2081.8
40°	875.2	1104.6	1334.6	1551.0	1747.9	1907.6	2028.6	2091.9	2123.6	2140.1	2145.7
37.5°	949.8	1186.3	1421.4	1637.1	1819.3	1973.8	2100.4	2162.1	2190.1	2204.0	2200.4
35°	1018.2	1262.1	1496.3	1709.0	1888.6	2031.4	2142.4	2227.0	2252.7	2258.1	2254.3
32.5°	1081.3	1331.9	1566.6	1770.0	1941.9	2082.3	2183.4	2258.6	2308.1	2311.9	2305.6
30°	1139.2	1391.4	1628.2	1828.0	1992.7	2119.5	2215.7	2288.6	2338.1	2361.2	2352.0
27.5°	1191.3	1445.6	1676.8	1874.4	2038.2	2156.5	2245.5	2310.4	2357.4	2391.2	2396.1
25°	1237.4	1494.7	1721.9	1915.5	2069.6	2185.1	2272.3	2332.6	2375.4	2404.4	2420.4
22.5°	1276.8	1538.3	1763.1	1954.0	2099.7	2210.2	2291.5	2349.4	2391.2	2418.6	2429.5
20°	1310.1	1569.5	1795.7	1987.2	2128.0	2234.4	2310.1	2365.1	2404.3	2427.1	2439.2
17.5°	1338.1	1596.3	1821.6	2008.0	2147.6	2253.2	2327.2	2380.5	2418.0	2435.9	2449.7
15°	1360.4	1618.2	1843.7	2026.1	2163.8	2266.3	2338.9	2391.8	2428.2	2445.0	2460.8
12.5°	1377.0	1635.1	1861.5	2041.2	2177.8	2277.9	2349.5	2402.3	2435.5	2454.4	2466.8
10°	1387.7	1646.8	1874.7	2052.8	2189.1	2287.6	2358.7	2412.1	2442.5	2463.9	2472.9
7.5°	1392.2	1652.8	1882.9	2060.5	2197.2	2295.0	2366.2	2420.9	2449.1	2473.2	2479.2
5°	1390.6	1652.8	1885.5	2063.9	2201.8	2299.9	2371.6	2428.2	2455.0	2481.8	2485.5
2.5°	1382.6	1646.6	1882.3	2062.5	2202.5	2301.7	2374.8	2433.6	2460.1	2489.4	2491.7
0°	1368.2	1634.0	1872.8	2055.9	2198.8	2300.2	2375.2	2436.8	2464.0	2495.8	2497.9
-2.5°	1382.6	1646.6	1882.3	2062.5	2202.5	2301.7	2374.8	2433.6	2460.1	2489.4	2491.7
-5°	1390.6	1652.8	1885.5	2063.9	2201.8	2299.9	2371.6	2428.2	2455.0	2481.8	2485.5
-7.5°	1392.2	1652.8	1882.9	2060.5	2197.2	2295.0	2366.2	2420.9	2449.1	2473.2	2479.2
-10°	1387.7	1646.8	1874.7	2052.8	2189.1	2287.6	2358.7	2412.1	2442.5	2463.9	2472.9
-12.5°	1377.0	1635.1	1861.5	2041.2	2177.8	2277.9	2349.5	2402.3	2435.5	2454.4	2466.8
-15°	1360.4	1618.2	1843.7	2026.1	2163.8	2266.3	2338.9	2391.8	2428.2	2445.0	2460.8
-17.5°	1338.1	1596.3	1821.6	2008.0	2147.6	2253.2	2327.2	2380.5	2418.0	2435.9	2449.7
-20°	1310.1	1569.5	1795.7	1987.2	2128.0	2234.4	2310.1	2365.1	2404.3	2427.1	2439.2

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Scaled Data Report



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CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	-62.5°	-60°	-57.5°	-55°	-52.5°	-50°	-47.5°	-45°	-42.5°	-40°	-37.5°
-22.5°	1276.8	1538.3	1763.1	1954.0	2099.7	2210.2	2291.5	2349.4	2391.2	2418.6	2429.5
-25°	1237.4	1494.7	1721.9	1915.5	2069.6	2185.1	2272.3	2332.6	2375.4	2404.4	2420.4
-27.5°	1191.3	1445.6	1676.8	1874.4	2038.2	2156.5	2245.5	2310.4	2357.4	2391.2	2396.1
-30°	1139.2	1391.4	1628.2	1828.0	1992.7	2119.5	2215.7	2288.6	2338.1	2361.2	2352.0
-32.5°	1081.3	1331.9	1566.6	1770.0	1941.9	2082.3	2183.4	2258.6	2308.1	2311.9	2305.6
-35°	1018.2	1262.1	1496.3	1709.0	1888.6	2031.4	2142.4	2227.0	2252.7	2258.1	2254.3
-37.5°	949.8	1186.3	1421.4	1637.1	1819.3	1973.8	2100.4	2162.1	2190.1	2204.0	2200.4
-40°	875.2	1104.6	1334.6	1551.0	1747.9	1907.6	2028.6	2091.9	2123.6	2140.1	2145.7
-42.5°	796.0	1016.4	1239.5	1460.7	1656.8	1829.1	1940.2	2006.5	2052.4	2073.7	2081.8
-45°	719.6	921.7	1138.0	1351.5	1555.7	1726.8	1835.3	1919.0	1968.6	2002.9	2014.8
-47.5°	637.7	823.7	1027.9	1236.2	1439.1	1600.8	1726.1	1813.6	1880.4	1918.9	1944.8
-50°	555.2	727.5	911.3	1110.7	1305.3	1468.1	1599.3	1703.4	1777.0	1829.4	1861.5
-52.5°	481.1	625.7	797.3	977.2	1162.7	1326.4	1465.7	1578.7	1664.7	1730.2	1770.8
-55°	402.6	534.1	679.4	844.3	1018.1	1181.5	1324.8	1444.0	1545.0	1616.4	1672.8
-57.5°	336.8	441.8	569.0	712.9	878.0	1035.3	1178.9	1305.8	1409.9	1496.4	1564.4
-60°	278.2	360.7	461.9	593.7	737.7	888.5	1032.0	1160.9	1272.9	1369.9	1445.7
-62.5°	221.0	294.5	371.1	479.1	612.0	742.5	877.2	1008.0	1131.9	1234.4	1322.2
-65°	176.8	231.1	297.2	390.7	488.9	609.1	729.4	847.1	965.5	1078.6	1185.4
-67.5°	130.6	178.5	233.3	309.2	397.6	489.9	585.9	695.8	803.4	908.4	1010.8
-70°	103.0	127.5	174.1	238.7	308.0	384.0	468.8	556.4	646.5	740.2	835.7
-72.5°	78.5	99.3	129.0	168.8	226.3	289.3	355.9	425.7	501.4	581.1	662.3
-75°	62.7	71.3	95.9	128.7	164.9	204.2	248.4	306.2	366.3	428.7	492.9
-77.5°	53.8	61.2	74.8	92.9	115.0	146.0	179.4	215.2	252.9	292.6	333.9
-80°	44.9	51.0	60.7	73.2	87.9	104.8	123.7	144.4	166.8	193.5	224.1
-82.5°	36.2	41.0	47.4	54.8	63.1	72.2	82.5	95.4	109.6	125.0	141.4
-85°	26.6	30.9	34.3	38.3	42.9	48.0	53.7	59.7	66.2	73.1	80.3
-87.5°	13.3	15.5	17.5	19.5	21.7	23.9	26.2	28.5	30.9	33.2	35.7
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	38.2	40.6	43.0	42.2	41.2	40.0	38.6	37.2	35.7	33.9	32.1
85°	87.9	95.5	103.5	101.4	98.2	94.5	90.2	85.5	80.4	74.8	69.0
82.5°	158.7	176.8	195.5	193.1	186.9	179.4	170.4	160.2	148.9	136.6	123.5
80°	255.7	288.3	321.5	320.7	311.1	298.6	283.7	266.4	247.1	225.9	203.3
77.5°	382.6	435.4	488.9	495.8	483.8	466.8	445.4	419.8	390.6	358.2	322.9
75°	558.7	626.4	696.2	710.6	690.9	665.3	634.0	597.6	556.6	511.4	462.5
72.5°	744.6	827.6	910.2	933.3	902.5	865.5	822.7	774.5	721.4	663.9	602.5
70°	928.5	1018.5	1105.6	1143.2	1103.4	1057.6	1006.1	949.3	887.6	821.4	751.1
67.5°	1108.7	1201.2	1288.3	1342.5	1286.9	1222.8	1156.8	1088.9	1019.1	947.2	873.3
65°	1278.3	1349.6	1410.7	1457.0	1396.9	1331.3	1264.5	1196.2	1126.3	1054.8	981.5
62.5°	1397.3	1456.7	1502.3	1537.2	1489.6	1425.8	1360.2	1293.6	1225.9	1156.8	1086.2
60°	1507.5	1555.7	1586.7	1606.8	1573.8	1512.7	1449.7	1386.2	1321.7	1256.0	1188.8
57.5°	1611.6	1645.9	1666.5	1674.4	1652.7	1594.3	1534.4	1473.6	1412.5	1350.7	1287.9
55°	1709.5	1730.7	1741.7	1739.6	1723.4	1667.0	1611.1	1554.7	1498.3	1441.3	1383.4
52.5°	1799.6	1809.2	1809.2	1800.1	1782.3	1734.9	1683.4	1632.1	1580.7	1528.6	1475.6
50°	1877.7	1881.6	1873.1	1858.4	1837.2	1800.1	1753.3	1706.2	1658.5	1610.7	1562.4
47.5°	1949.8	1946.9	1934.7	1916.6	1892.9	1859.8	1815.7	1773.2	1732.1	1690.4	1647.6
45°	2017.1	2009.1	1994.4	1971.0	1943.9	1915.3	1879.1	1842.7	1804.3	1765.8	1726.9
42.5°	2080.1	2067.1	2047.8	2025.2	2000.2	1970.7	1935.7	1901.0	1868.0	1835.0	1801.0
40°	2136.2	2121.8	2102.8	2080.0	2050.4	2018.9	1988.2	1959.5	1930.9	1901.5	1871.1
37.5°	2190.7	2175.8	2153.9	2127.3	2099.3	2071.1	2041.6	2014.8	1989.6	1962.8	1935.5
35°	2243.6	2224.1	2200.6	2174.6	2148.3	2121.1	2092.7	2064.5	2041.6	2018.4	1994.8
32.5°	2290.3	2269.6	2245.3	2220.6	2195.5	2167.3	2139.1	2110.2	2089.4	2069.5	2048.3
30°	2335.0	2311.9	2288.6	2264.7	2237.1	2210.2	2183.5	2155.8	2132.2	2114.8	2097.2
27.5°	2375.1	2353.0	2330.2	2303.1	2277.1	2251.8	2224.4	2198.0	2172.2	2157.9	2141.9
25°	2414.5	2393.2	2366.4	2340.7	2315.8	2288.4	2262.0	2237.2	2211.6	2191.9	2178.4
22.5°	2437.7	2428.2	2402.0	2377.6	2349.4	2321.9	2296.2	2271.5	2245.8	2221.2	2210.1
20°	2447.1	2444.6	2437.4	2409.2	2380.1	2352.5	2328.0	2300.0	2274.7	2255.7	2241.7
17.5°	2453.2	2452.0	2448.7	2439.1	2408.0	2382.7	2352.3	2324.5	2305.6	2283.1	2261.5
15°	2459.4	2459.8	2452.9	2442.1	2431.2	2407.2	2372.2	2351.8	2326.5	2304.8	2289.8
12.5°	2466.7	2466.2	2457.6	2447.0	2436.1	2413.7	2397.6	2370.7	2344.4	2326.8	2308.0
10°	2474.2	2471.4	2463.1	2452.4	2436.2	2414.5	2402.5	2382.2	2362.6	2340.7	2322.3
7.5°	2481.7	2477.1	2470.0	2457.2	2436.8	2418.3	2400.5	2381.9	2367.5	2352.4	2333.0
5°	2489.2	2483.3	2478.0	2462.2	2439.8	2421.9	2400.4	2382.2	2364.0	2348.4	2335.1
2.5°	2496.6	2490.1	2486.9	2467.7	2445.1	2426.0	2402.5	2383.2	2361.6	2344.8	2330.2
0°	2503.8	2497.3	2496.2	2474.4	2452.7	2431.3	2407.2	2386.2	2361.7	2343.5	2328.4
-2.5°	2496.6	2490.1	2486.9	2467.7	2445.1	2426.0	2402.5	2383.2	2361.6	2344.8	2330.2
-5°	2489.2	2483.3	2478.0	2462.2	2439.8	2421.9	2400.4	2382.2	2364.0	2348.4	2335.1
-7.5°	2481.7	2477.1	2470.0	2457.2	2436.8	2418.3	2400.5	2381.9	2367.5	2352.4	2333.0
-10°	2474.2	2471.4	2463.1	2452.4	2436.2	2414.5	2402.5	2382.2	2362.6	2340.7	2322.3
-12.5°	2466.7	2466.2	2457.6	2447.0	2436.1	2413.7	2397.6	2370.7	2344.4	2326.8	2308.0
-15°	2459.4	2459.8	2452.9	2442.1	2431.2	2407.2	2372.2	2351.8	2326.5	2304.8	2289.8
-17.5°	2453.2	2452.0	2448.7	2439.1	2408.0	2382.7	2352.3	2324.5	2305.6	2283.1	2261.5
-20°	2447.1	2444.6	2437.4	2409.2	2380.1	2352.5	2328.0	2300.0	2274.7	2255.7	2241.7



REPORT NUMBER: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
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CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	2437.7	2428.2	2402.0	2377.6	2349.4	2321.9	2296.2	2271.5	2245.8	2221.2	2210.1
-25°	2414.5	2393.2	2366.4	2340.7	2315.8	2288.4	2262.0	2237.2	2211.6	2191.9	2178.4
-27.5°	2375.1	2353.0	2330.2	2303.1	2277.1	2251.8	2224.4	2198.0	2172.2	2157.9	2141.9
-30°	2335.0	2311.9	2288.6	2264.7	2237.1	2210.2	2183.5	2155.8	2132.2	2114.8	2097.2
-32.5°	2290.3	2269.6	2245.3	2220.6	2195.5	2167.3	2139.1	2110.2	2089.4	2069.5	2048.3
-35°	2243.6	2224.1	2200.6	2174.6	2148.3	2121.1	2092.7	2064.5	2041.6	2018.4	1994.8
-37.5°	2190.7	2175.8	2153.9	2127.3	2099.3	2071.1	2041.6	2014.8	1989.6	1962.8	1935.5
-40°	2136.2	2121.8	2102.8	2080.0	2050.4	2018.9	1988.2	1959.5	1930.9	1901.5	1871.1
-42.5°	2080.1	2067.1	2047.8	2025.2	2000.2	1970.7	1935.7	1901.0	1868.0	1835.0	1801.0
-45°	2017.1	2009.1	1994.4	1971.0	1943.9	1915.3	1879.1	1842.7	1804.3	1765.8	1726.9
-47.5°	1949.8	1946.9	1934.7	1916.6	1892.9	1859.8	1815.7	1773.2	1732.1	1690.4	1647.6
-50°	1877.7	1881.6	1873.1	1858.4	1837.2	1800.1	1753.3	1706.2	1658.5	1610.7	1562.4
-52.5°	1799.6	1809.2	1809.2	1800.1	1782.3	1734.9	1683.4	1632.1	1580.7	1528.6	1475.6
-55°	1709.5	1730.7	1741.7	1739.6	1723.4	1667.0	1611.1	1554.7	1498.3	1441.3	1383.4
-57.5°	1611.6	1645.9	1666.5	1674.4	1652.7	1594.3	1534.4	1473.6	1412.5	1350.7	1287.9
-60°	1507.5	1555.7	1586.7	1606.8	1573.8	1512.7	1449.7	1386.2	1321.7	1256.0	1188.8
-62.5°	1397.3	1456.7	1502.3	1537.2	1489.6	1425.8	1360.2	1293.6	1225.9	1156.8	1086.2
-65°	1278.3	1349.6	1410.7	1457.0	1396.9	1331.3	1264.5	1196.2	1126.3	1054.8	981.5
-67.5°	1108.7	1201.2	1288.3	1342.5	1286.9	1222.8	1156.8	1088.9	1019.1	947.2	873.3
-70°	928.5	1018.5	1105.6	1143.2	1103.4	1057.6	1006.1	949.3	887.6	821.4	751.1
-72.5°	744.6	827.6	910.2	933.3	902.5	865.5	822.7	774.5	721.4	663.9	602.5
-75°	558.7	626.4	696.2	710.6	690.9	665.3	634.0	597.6	556.6	511.4	462.5
-77.5°	382.6	435.4	488.9	495.8	483.8	466.8	445.4	419.8	390.6	358.2	322.9
-80°	255.7	288.3	321.5	320.7	311.1	298.6	283.7	266.4	247.1	225.9	203.3
-82.5°	158.7	176.8	195.5	193.1	186.9	179.4	170.4	160.2	148.9	136.6	123.5
-85°	87.9	95.5	103.5	101.4	98.2	94.5	90.2	85.5	80.4	74.8	69.0
-87.5°	38.2	40.6	43.0	42.2	41.2	40.0	38.6	37.2	35.7	33.9	32.1
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	30.2	28.2	26.2	24.0	26.2	28.2	30.2	32.1	33.9	35.7	37.2
85°	62.9	56.5	50.0	43.3	50.0	56.5	62.9	69.0	74.8	80.4	85.5
82.5°	109.7	95.2	80.4	65.3	80.4	95.2	109.7	123.5	136.6	148.9	160.2
80°	179.3	154.1	128.2	101.7	128.2	154.1	179.3	203.3	225.9	247.1	266.4
77.5°	285.1	245.4	204.1	161.9	204.1	245.4	285.1	322.9	358.2	390.6	419.8
75°	410.5	355.9	299.2	241.2	299.2	355.9	410.5	462.5	511.4	556.6	597.6
72.5°	537.6	469.9	399.9	328.1	399.9	469.9	537.6	602.5	663.9	721.4	774.5
70°	677.1	600.0	520.1	438.0	520.1	600.0	677.1	751.1	821.4	887.6	949.3
67.5°	797.3	719.2	639.0	556.6	639.0	719.2	797.3	873.3	947.2	1019.1	1088.9
65°	906.3	829.1	749.8	668.4	749.8	829.1	906.3	981.5	1054.8	1126.3	1196.2
62.5°	1013.8	939.4	862.7	783.6	862.7	939.4	1013.8	1086.2	1156.8	1225.9	1293.6
60°	1119.9	1048.9	975.5	899.5	975.5	1048.9	1119.9	1188.8	1256.0	1321.7	1386.2
57.5°	1223.4	1157.1	1088.2	1016.6	1088.2	1157.1	1223.4	1287.9	1350.7	1412.5	1473.6
55°	1323.9	1262.5	1198.5	1131.5	1198.5	1262.5	1323.9	1383.4	1441.3	1498.3	1554.7
52.5°	1420.9	1364.2	1304.7	1242.2	1304.7	1364.2	1420.9	1475.6	1528.6	1580.7	1632.1
50°	1512.7	1461.1	1406.8	1349.3	1406.8	1461.1	1512.7	1562.4	1610.7	1658.5	1706.2
47.5°	1603.2	1556.5	1506.8	1453.5	1506.8	1556.5	1603.2	1647.6	1690.4	1732.1	1773.2
45°	1687.1	1645.2	1600.7	1552.7	1600.7	1645.2	1687.1	1726.9	1765.8	1804.3	1842.7
42.5°	1765.4	1727.5	1686.7	1642.3	1686.7	1727.5	1765.4	1801.0	1835.0	1868.0	1901.0
40°	1839.2	1805.0	1767.9	1727.1	1767.9	1805.0	1839.2	1871.1	1901.5	1930.9	1959.5
37.5°	1907.1	1876.5	1843.1	1806.1	1843.1	1876.5	1907.1	1935.5	1962.8	1989.6	2014.8
35°	1970.2	1943.6	1914.1	1881.0	1914.1	1943.6	1970.2	1994.8	2018.4	2041.6	2064.5
32.5°	2026.0	2001.7	1974.7	1944.2	1974.7	2001.7	2026.0	2048.3	2069.5	2089.4	2110.2
30°	2078.8	2058.7	2035.7	2009.0	2035.7	2058.7	2078.8	2097.2	2114.8	2132.2	2155.8
27.5°	2126.0	2109.1	2089.9	2067.2	2089.9	2109.1	2126.0	2141.9	2157.9	2172.2	2198.0
25°	2163.8	2147.7	2129.4	2108.1	2129.4	2147.7	2163.8	2178.4	2191.9	2211.6	2237.2
22.5°	2199.7	2188.1	2174.1	2156.3	2174.1	2188.1	2199.7	2210.1	2221.2	2245.8	2271.5
20°	2231.5	2222.8	2213.7	2201.8	2213.7	2222.8	2231.5	2241.7	2255.7	2274.7	2300.0
17.5°	2256.2	2249.5	2239.8	2226.8	2239.8	2249.5	2256.2	2261.5	2283.1	2305.6	2324.5
15°	2277.3	2269.0	2260.4	2249.8	2260.4	2269.0	2277.3	2289.8	2304.8	2326.5	2351.8
12.5°	2292.3	2287.0	2282.7	2275.9	2282.7	2287.0	2292.3	2308.0	2326.8	2344.4	2370.7
10°	2309.5	2295.9	2288.0	2280.2	2288.0	2295.9	2309.5	2322.3	2340.7	2362.6	2382.2
7.5°	2315.0	2302.7	2299.9	2299.7	2299.9	2302.7	2315.0	2333.0	2352.4	2367.5	2381.9
5°	2321.5	2310.0	2305.9	2300.7	2305.9	2310.0	2321.5	2335.1	2348.4	2364.0	2382.2
2.5°	2317.2	2307.6	2302.6	2305.5	2302.6	2307.6	2317.2	2330.2	2344.8	2361.6	2383.2
0°	2309.6	2302.5	2293.3	2296.4	2293.3	2302.5	2309.6	2328.4	2343.5	2361.7	2386.2
-2.5°	2317.2	2307.6	2302.6	2305.5	2302.6	2307.6	2317.2	2330.2	2344.8	2361.6	2383.2
-5°	2321.5	2310.0	2305.9	2300.7	2305.9	2310.0	2321.5	2335.1	2348.4	2364.0	2382.2
-7.5°	2315.0	2302.7	2299.9	2299.7	2299.9	2302.7	2315.0	2333.0	2352.4	2367.5	2381.9
-10°	2309.5	2295.9	2288.0	2280.2	2288.0	2295.9	2309.5	2322.3	2340.7	2362.6	2382.2
-12.5°	2292.3	2287.0	2282.7	2275.9	2282.7	2287.0	2292.3	2308.0	2326.8	2344.4	2370.7
-15°	2277.3	2269.0	2260.4	2249.8	2260.4	2269.0	2277.3	2289.8	2304.8	2326.5	2351.8
-17.5°	2256.2	2249.5	2239.8	2226.8	2239.8	2249.5	2256.2	2261.5	2283.1	2305.6	2324.5
-20°	2231.5	2222.8	2213.7	2201.8	2213.7	2222.8	2231.5	2241.7	2255.7	2274.7	2300.0



REPORT NUMBER: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
-22.5°	2199.7	2188.1	2174.1	2156.3	2174.1	2188.1	2199.7	2210.1	2221.2	2245.8	2271.5
-25°	2163.8	2147.7	2129.4	2108.1	2129.4	2147.7	2163.8	2178.4	2191.9	2211.6	2237.2
-27.5°	2126.0	2109.1	2089.9	2067.2	2089.9	2109.1	2126.0	2141.9	2157.9	2172.2	2198.0
-30°	2078.8	2058.7	2035.7	2009.0	2035.7	2058.7	2078.8	2097.2	2114.8	2132.2	2155.8
-32.5°	2026.0	2001.7	1974.7	1944.2	1974.7	2001.7	2026.0	2048.3	2069.5	2089.4	2110.2
-35°	1970.2	1943.6	1914.1	1881.0	1914.1	1943.6	1970.2	1994.8	2018.4	2041.6	2064.5
-37.5°	1907.1	1876.5	1843.1	1806.1	1843.1	1876.5	1907.1	1935.5	1962.8	1989.6	2014.8
-40°	1839.2	1805.0	1767.9	1727.1	1767.9	1805.0	1839.2	1871.1	1901.5	1930.9	1959.5
-42.5°	1765.4	1727.5	1686.7	1642.3	1686.7	1727.5	1765.4	1801.0	1835.0	1868.0	1901.0
-45°	1687.1	1645.2	1600.7	1552.7	1600.7	1645.2	1687.1	1726.9	1765.8	1804.3	1842.7
-47.5°	1603.2	1556.5	1506.8	1453.5	1506.8	1556.5	1603.2	1647.6	1690.4	1732.1	1773.2
-50°	1512.7	1461.1	1406.8	1349.3	1406.8	1461.1	1512.7	1562.4	1610.7	1658.5	1706.2
-52.5°	1420.9	1364.2	1304.7	1242.2	1304.7	1364.2	1420.9	1475.6	1528.6	1580.7	1632.1
-55°	1323.9	1262.5	1198.5	1131.5	1198.5	1262.5	1323.9	1383.4	1441.3	1498.3	1554.7
-57.5°	1223.4	1157.1	1088.2	1016.6	1088.2	1157.1	1223.4	1287.9	1350.7	1412.5	1473.6
-60°	1119.9	1048.9	975.5	899.5	975.5	1048.9	1119.9	1188.8	1256.0	1321.7	1386.2
-62.5°	1013.8	939.4	862.7	783.6	862.7	939.4	1013.8	1086.2	1156.8	1225.9	1293.6
-65°	906.3	829.1	749.8	668.4	749.8	829.1	906.3	981.5	1054.8	1126.3	1196.2
-67.5°	797.3	719.2	639.0	556.6	639.0	719.2	797.3	873.3	947.2	1019.1	1088.9
-70°	677.1	600.0	520.1	438.0	520.1	600.0	677.1	751.1	821.4	887.6	949.3
-72.5°	537.6	469.9	399.9	328.1	399.9	469.9	537.6	602.5	663.9	721.4	774.5
-75°	410.5	355.9	299.2	241.2	299.2	355.9	410.5	462.5	511.4	556.6	597.6
-77.5°	285.1	245.4	204.1	161.9	204.1	245.4	285.1	322.9	358.2	390.6	419.8
-80°	179.3	154.1	128.2	101.7	128.2	154.1	179.3	203.3	225.9	247.1	266.4
-82.5°	109.7	95.2	80.4	65.3	80.4	95.2	109.7	123.5	136.6	148.9	160.2
-85°	62.9	56.5	50.0	43.3	50.0	56.5	62.9	69.0	74.8	80.4	85.5
-87.5°	30.2	28.2	26.2	24.0	26.2	28.2	30.2	32.1	33.9	35.7	37.2
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	38.6	40.0	41.2	42.2	43.0	40.6	38.2	35.7	33.2	30.9	28.5
85°	90.2	94.5	98.2	101.4	103.5	95.5	87.9	80.3	73.1	66.2	59.7
82.5°	170.4	179.4	186.9	193.1	195.5	176.8	158.7	141.4	125.0	109.6	95.4
80°	283.7	298.6	311.1	320.7	321.5	288.3	255.7	224.1	193.5	166.8	144.4
77.5°	445.4	466.8	483.8	495.8	488.9	435.4	382.6	333.9	292.6	252.9	215.2
75°	634.0	665.3	690.9	710.6	696.2	626.4	558.7	492.9	428.7	366.3	306.2
72.5°	822.7	865.5	902.5	933.3	910.2	827.6	744.6	662.3	581.1	501.4	425.7
70°	1006.1	1057.6	1103.4	1143.2	1105.6	1018.5	928.5	835.7	740.2	646.5	556.4
67.5°	1156.8	1222.8	1286.9	1342.5	1288.3	1201.2	1108.7	1010.8	908.4	803.4	695.8
65°	1264.5	1331.3	1396.9	1457.0	1410.7	1349.6	1278.3	1185.4	1078.6	965.5	847.1
62.5°	1360.2	1425.8	1489.6	1537.2	1502.3	1456.7	1397.3	1322.2	1234.4	1131.9	1008.0
60°	1449.7	1512.7	1573.8	1606.8	1586.7	1555.7	1507.5	1445.7	1369.9	1272.9	1160.9
57.5°	1534.4	1594.3	1652.7	1674.4	1666.5	1645.9	1611.6	1564.4	1496.4	1409.9	1305.8
55°	1611.1	1667.0	1723.4	1739.6	1741.7	1730.7	1709.5	1672.8	1616.4	1545.0	1444.0
52.5°	1683.4	1734.9	1782.3	1800.1	1809.2	1809.2	1799.6	1770.8	1730.2	1664.7	1578.7
50°	1753.3	1800.1	1837.2	1858.4	1873.1	1881.6	1877.7	1861.5	1829.4	1777.0	1703.4
47.5°	1815.7	1859.8	1892.9	1916.6	1934.7	1946.9	1949.8	1944.8	1918.9	1880.4	1813.6
45°	1879.1	1915.3	1943.9	1971.0	1994.4	2009.1	2017.1	2014.8	2002.9	1968.6	1919.0
42.5°	1935.7	1970.7	2000.2	2025.2	2047.8	2067.1	2080.1	2081.8	2073.7	2052.4	2006.5
40°	1988.2	2018.9	2050.4	2080.0	2102.8	2121.8	2136.2	2145.7	2140.1	2123.6	2091.9
37.5°	2041.6	2071.1	2099.3	2127.3	2153.9	2175.8	2190.7	2200.4	2204.0	2190.1	2162.1
35°	2092.7	2121.1	2148.3	2174.6	2200.6	2224.1	2243.6	2254.3	2258.1	2252.7	2227.0
32.5°	2139.1	2167.3	2195.5	2220.6	2245.3	2269.6	2290.3	2305.6	2311.9	2308.1	2258.6
30°	2183.5	2210.2	2237.1	2264.7	2288.6	2311.9	2335.0	2352.0	2361.2	2338.1	2288.6
27.5°	2224.4	2251.8	2277.1	2303.1	2330.2	2353.0	2375.1	2396.1	2391.2	2357.4	2310.4
25°	2262.0	2288.4	2315.8	2340.7	2366.4	2393.2	2414.5	2420.4	2404.4	2375.4	2332.6
22.5°	2296.2	2321.9	2349.4	2377.6	2402.0	2428.2	2437.7	2429.5	2418.6	2391.2	2349.4
20°	2328.0	2352.5	2380.1	2409.2	2437.4	2444.6	2447.1	2439.2	2427.1	2404.3	2365.1
17.5°	2352.3	2382.7	2408.0	2439.1	2448.7	2452.0	2453.2	2449.7	2435.9	2418.0	2380.5
15°	2372.2	2407.2	2431.2	2442.1	2452.9	2459.8	2459.4	2460.8	2445.0	2428.2	2391.8
12.5°	2397.6	2413.7	2436.1	2447.0	2457.6	2466.2	2466.7	2466.8	2454.4	2435.5	2402.3
10°	2402.5	2414.5	2436.2	2452.4	2463.1	2471.4	2474.2	2472.9	2463.9	2442.5	2412.1
7.5°	2400.5	2418.3	2436.8	2457.2	2470.0	2477.1	2481.7	2479.2	2473.2	2449.1	2420.9
5°	2400.4	2421.9	2439.8	2462.2	2478.0	2483.3	2489.2	2485.5	2481.8	2455.0	2428.2
2.5°	2402.5	2426.0	2445.1	2467.7	2486.9	2490.1	2496.6	2491.7	2489.4	2460.1	2433.6
0°	2407.2	2431.3	2452.7	2474.4	2496.2	2497.3	2503.8	2497.9	2495.8	2464.0	2436.8
-2.5°	2402.5	2426.0	2445.1	2467.7	2486.9	2490.1	2496.6	2491.7	2489.4	2460.1	2433.6
-5°	2400.4	2421.9	2439.8	2462.2	2478.0	2483.3	2489.2	2485.5	2481.8	2455.0	2428.2
-7.5°	2400.5	2418.3	2436.8	2457.2	2470.0	2477.1	2481.7	2479.2	2473.2	2449.1	2420.9
-10°	2402.5	2414.5	2436.2	2452.4	2463.1	2471.4	2474.2	2472.9	2463.9	2442.5	2412.1
-12.5°	2397.6	2413.7	2436.1	2447.0	2457.6	2466.2	2466.7	2466.8	2454.4	2435.5	2402.3
-15°	2372.2	2407.2	2431.2	2442.1	2452.9	2459.8	2459.4	2460.8	2445.0	2428.2	2391.8
-17.5°	2352.3	2382.7	2408.0	2439.1	2448.7	2452.0	2453.2	2449.7	2435.9	2418.0	2380.5
-20°	2328.0	2352.5	2380.1	2409.2	2437.4	2444.6	2447.1	2439.2	2427.1	2404.3	2365.1

Classified

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



REPORT NUMBER: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	2296.2	2321.9	2349.4	2377.6	2402.0	2428.2	2437.7	2429.5	2418.6	2391.2	2349.4
-25°	2262.0	2288.4	2315.8	2340.7	2366.4	2393.2	2414.5	2420.4	2404.4	2375.4	2332.6
-27.5°	2224.4	2251.8	2277.1	2303.1	2330.2	2353.0	2375.1	2396.1	2391.2	2357.4	2310.4
-30°	2183.5	2210.2	2237.1	2264.7	2288.6	2311.9	2335.0	2352.0	2361.2	2338.1	2288.6
-32.5°	2139.1	2167.3	2195.5	2220.6	2245.3	2269.6	2290.3	2305.6	2311.9	2308.1	2258.6
-35°	2092.7	2121.1	2148.3	2174.6	2200.6	2224.1	2243.6	2254.3	2258.1	2252.7	2227.0
-37.5°	2041.6	2071.1	2099.3	2127.3	2153.9	2175.8	2190.7	2200.4	2204.0	2190.1	2162.1
-40°	1988.2	2018.9	2050.4	2080.0	2102.8	2121.8	2136.2	2145.7	2140.1	2123.6	2091.9
-42.5°	1935.7	1970.7	2000.2	2025.2	2047.8	2067.1	2080.1	2081.8	2073.7	2052.4	2006.5
-45°	1879.1	1915.3	1943.9	1971.0	1994.4	2009.1	2017.1	2014.8	2002.9	1968.6	1919.0
-47.5°	1815.7	1859.8	1892.9	1916.6	1934.7	1946.9	1949.8	1944.8	1918.9	1880.4	1813.6
-50°	1753.3	1800.1	1837.2	1858.4	1873.1	1881.6	1877.7	1861.5	1829.4	1777.0	1703.4
-52.5°	1683.4	1734.9	1782.3	1800.1	1809.2	1809.2	1799.6	1770.8	1730.2	1664.7	1578.7
-55°	1611.1	1667.0	1723.4	1739.6	1741.7	1730.7	1709.5	1672.8	1616.4	1545.0	1444.0
-57.5°	1534.4	1594.3	1652.7	1674.4	1666.5	1645.9	1611.6	1564.4	1496.4	1409.9	1305.8
-60°	1449.7	1512.7	1573.8	1606.8	1586.7	1555.7	1507.5	1445.7	1369.9	1272.9	1160.9
-62.5°	1360.2	1425.8	1489.6	1537.2	1502.3	1456.7	1397.3	1322.2	1234.4	1131.9	1008.0
-65°	1264.5	1331.3	1396.9	1457.0	1410.7	1349.6	1278.3	1185.4	1078.6	965.5	847.1
-67.5°	1156.8	1222.8	1286.9	1342.5	1288.3	1201.2	1108.7	1010.8	908.4	803.4	695.8
-70°	1006.1	1057.6	1103.4	1143.2	1105.6	1018.5	928.5	835.7	740.2	646.5	556.4
-72.5°	822.7	865.5	902.5	933.3	910.2	827.6	744.6	662.3	581.1	501.4	425.7
-75°	634.0	665.3	690.9	710.6	696.2	626.4	558.7	492.9	428.7	366.3	306.2
-77.5°	445.4	466.8	483.8	495.8	488.9	435.4	382.6	333.9	292.6	252.9	215.2
-80°	283.7	298.6	311.1	320.7	321.5	288.3	255.7	224.1	193.5	166.8	144.4
-82.5°	170.4	179.4	186.9	193.1	195.5	176.8	158.7	141.4	125.0	109.6	95.4
-85°	90.2	94.5	98.2	101.4	103.5	95.5	87.9	80.3	73.1	66.2	59.7
-87.5°	38.6	40.0	41.2	42.2	43.0	40.6	38.2	35.7	33.2	30.9	28.5
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P670565 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: GFLL70FSUNVDBZK-60W-5000K

CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	26.2	23.9	21.7	19.5	17.5	15.5	13.3	11.3	9.4	7.8	6.2
85°	53.7	48.0	42.9	38.3	34.3	30.9	26.6	22.6	18.8	15.5	12.3
82.5°	82.5	72.2	63.1	54.8	47.4	41.0	36.2	31.5	27.1	22.9	18.4
80°	123.7	104.8	87.9	73.2	60.7	51.0	44.9	39.1	33.5	28.3	23.4
77.5°	179.4	146.0	115.0	92.9	74.8	61.2	53.8	46.6	39.8	33.5	27.7
75°	248.4	204.2	164.9	128.7	95.9	71.3	62.7	54.5	46.4	38.7	31.9
72.5°	355.9	289.3	226.3	168.8	129.0	99.3	78.5	62.1	53.1	44.5	36.1
70°	468.8	384.0	308.0	238.7	174.1	127.5	103.0	80.5	59.9	50.0	40.8
67.5°	585.9	489.9	397.6	309.2	233.3	178.5	130.6	100.7	77.0	55.7	45.4
65°	729.4	609.1	488.9	390.7	297.2	231.1	176.8	126.2	93.4	69.4	49.7
62.5°	877.2	742.5	612.0	479.1	371.1	294.5	221.0	164.7	112.6	82.4	58.5
60°	1032.0	888.5	737.7	593.7	461.9	360.7	278.2	201.4	144.3	94.7	68.6
57.5°	1178.9	1035.3	878.0	712.9	569.0	441.8	336.8	248.6	174.3	117.3	78.2
55°	1324.8	1181.5	1018.1	844.3	679.4	534.1	402.6	299.9	206.4	141.5	87.0
52.5°	1465.7	1326.4	1162.7	977.2	797.3	625.7	481.1	349.2	250.7	164.0	104.9
50°	1599.3	1468.1	1305.3	1110.7	911.3	727.5	555.2	413.2	293.1	189.9	122.7
47.5°	1726.1	1600.8	1439.1	1236.2	1027.9	823.7	637.7	475.3	333.5	225.7	139.1
45°	1835.3	1726.8	1555.7	1351.5	1138.0	921.7	719.6	533.1	384.7	259.8	154.2
42.5°	1940.2	1829.1	1656.8	1460.7	1239.5	1016.4	796.0	599.7	432.4	292.0	176.3
40°	2028.6	1907.6	1747.9	1551.0	1334.6	1104.6	875.2	663.7	476.4	325.1	202.8
37.5°	2100.4	1973.8	1819.3	1637.1	1421.4	1186.3	949.8	722.6	520.1	361.0	227.6
35°	2142.4	2031.4	1888.6	1709.0	1496.3	1262.1	1018.2	779.6	568.7	393.5	250.6
32.5°	2183.4	2082.3	1941.9	1770.0	1566.6	1331.9	1081.3	836.2	612.6	422.8	271.8
30°	2215.7	2119.5	1992.7	1828.0	1628.2	1391.4	1139.2	887.3	651.9	448.6	292.1
27.5°	2245.5	2156.5	2038.2	1874.4	1676.8	1445.6	1191.3	932.7	686.6	474.5	312.9
25°	2272.3	2185.1	2069.6	1915.5	1721.9	1494.7	1237.4	972.4	720.8	502.3	330.9
22.5°	2291.5	2210.2	2099.7	1954.0	1763.1	1538.3	1276.8	1008.7	752.1	526.1	346.3
20°	2310.1	2234.4	2128.0	1987.2	1795.7	1569.5	1310.1	1039.5	778.4	545.9	358.9
17.5°	2327.2	2253.2	2147.6	2008.0	1821.6	1596.3	1338.1	1064.7	799.6	561.8	368.9
15°	2338.9	2266.3	2163.8	2026.1	1843.7	1618.2	1360.4	1084.1	815.7	573.7	376.2
12.5°	2349.5	2277.9	2177.8	2041.2	1861.5	1635.1	1377.0	1097.9	826.8	581.8	381.0
10°	2358.7	2287.6	2189.1	2052.8	1874.7	1646.8	1387.7	1106.0	833.0	586.2	383.4
7.5°	2366.2	2295.0	2197.2	2060.5	1882.9	1652.8	1392.2	1108.3	834.3	586.9	383.4
5°	2371.6	2299.9	2201.8	2063.9	1885.5	1652.8	1390.6	1104.9	830.8	584.1	381.1
2.5°	2374.8	2301.7	2202.5	2062.5	1882.3	1646.6	1382.6	1095.9	822.7	577.8	376.7
0°	2375.2	2300.2	2198.8	2055.9	1872.8	1634.0	1368.2	1081.3	810.1	568.3	370.3
-2.5°	2374.8	2301.7	2202.5	2062.5	1882.3	1646.6	1382.6	1095.9	822.7	577.8	376.7
-5°	2371.6	2299.9	2201.8	2063.9	1885.5	1652.8	1390.6	1104.9	830.8	584.1	381.1
-7.5°	2366.2	2295.0	2197.2	2060.5	1882.9	1652.8	1392.2	1108.3	834.3	586.9	383.4
-10°	2358.7	2287.6	2189.1	2052.8	1874.7	1646.8	1387.7	1106.0	833.0	586.2	383.4
-12.5°	2349.5	2277.9	2177.8	2041.2	1861.5	1635.1	1377.0	1097.9	826.8	581.8	381.0
-15°	2338.9	2266.3	2163.8	2026.1	1843.7	1618.2	1360.4	1084.1	815.7	573.7	376.2
-17.5°	2327.2	2253.2	2147.6	2008.0	1821.6	1596.3	1338.1	1064.7	799.6	561.8	368.9
-20°	2310.1	2234.4	2128.0	1987.2	1795.7	1569.5	1310.1	1039.5	778.4	545.9	358.9



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CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
-22.5°	2291.5	2210.2	2099.7	1954.0	1763.1	1538.3	1276.8	1008.7	752.1	526.1	346.3
-25°	2272.3	2185.1	2069.6	1915.5	1721.9	1494.7	1237.4	972.4	720.8	502.3	330.9
-27.5°	2245.5	2156.5	2038.2	1874.4	1676.8	1445.6	1191.3	932.7	686.6	474.5	312.9
-30°	2215.7	2119.5	1992.7	1828.0	1628.2	1391.4	1139.2	887.3	651.9	448.6	292.1
-32.5°	2183.4	2082.3	1941.9	1770.0	1566.6	1331.9	1081.3	836.2	612.6	422.8	271.8
-35°	2142.4	2031.4	1888.6	1709.0	1496.3	1262.1	1018.2	779.6	568.7	393.5	250.6
-37.5°	2100.4	1973.8	1819.3	1637.1	1421.4	1186.3	949.8	722.6	520.1	361.0	227.6
-40°	2028.6	1907.6	1747.9	1551.0	1334.6	1104.6	875.2	663.7	476.4	325.1	202.8
-42.5°	1940.2	1829.1	1656.8	1460.7	1239.5	1016.4	796.0	599.7	432.4	292.0	176.3
-45°	1835.3	1726.8	1555.7	1351.5	1138.0	921.7	719.6	533.1	384.7	259.8	154.2
-47.5°	1726.1	1600.8	1439.1	1236.2	1027.9	823.7	637.7	475.3	333.5	225.7	139.1
-50°	1599.3	1468.1	1305.3	1110.7	911.3	727.5	555.2	413.2	293.1	189.9	122.7
-52.5°	1465.7	1326.4	1162.7	977.2	797.3	625.7	481.1	349.2	250.7	164.0	104.9
-55°	1324.8	1181.5	1018.1	844.3	679.4	534.1	402.6	299.9	206.4	141.5	87.0
-57.5°	1178.9	1035.3	878.0	712.9	569.0	441.8	336.8	248.6	174.3	117.3	78.2
-60°	1032.0	888.5	737.7	593.7	461.9	360.7	278.2	201.4	144.3	94.7	68.6
-62.5°	877.2	742.5	612.0	479.1	371.1	294.5	221.0	164.7	112.6	82.4	58.5
-65°	729.4	609.1	488.9	390.7	297.2	231.1	176.8	126.2	93.4	69.4	49.7
-67.5°	585.9	489.9	397.6	309.2	233.3	178.5	130.6	100.7	77.0	55.7	45.4
-70°	468.8	384.0	308.0	238.7	174.1	127.5	103.0	80.5	59.9	50.0	40.8
-72.5°	355.9	289.3	226.3	168.8	129.0	99.3	78.5	62.1	53.1	44.5	36.1
-75°	248.4	204.2	164.9	128.7	95.9	71.3	62.7	54.5	46.4	38.7	31.9
-77.5°	179.4	146.0	115.0	92.9	74.8	61.2	53.8	46.6	39.8	33.5	27.7
-80°	123.7	104.8	87.9	73.2	60.7	51.0	44.9	39.1	33.5	28.3	23.4
-82.5°	82.5	72.2	63.1	54.8	47.4	41.0	36.2	31.5	27.1	22.9	18.4
-85°	53.7	48.0	42.9	38.3	34.3	30.9	26.6	22.6	18.8	15.5	12.3
-87.5°	26.2	23.9	21.7	19.5	17.5	15.5	13.3	11.3	9.4	7.8	6.2
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	75°	77.5°	80°	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.8	3.5	2.5	1.6	0.9	0.4	0.0
85°	9.5	7.1	5.0	3.2	1.8	0.7	0.0
82.5°	14.2	10.6	7.4	4.8	2.7	1.1	0.0
80°	18.7	14.0	9.9	6.3	3.5	1.4	0.0
77.5°	22.2	17.1	12.2	7.9	4.4	1.8	0.0
75°	25.5	19.7	14.5	9.4	5.2	2.1	0.0
72.5°	28.8	22.3	16.3	10.8	6.0	2.4	0.0
70°	32.0	24.7	18.1	12.2	6.8	2.8	0.0
67.5°	35.8	27.1	19.8	13.4	7.6	3.1	0.0
65°	39.4	29.6	21.5	14.5	8.3	3.4	0.0
62.5°	42.9	32.4	23.0	15.6	9.0	3.7	0.0
60°	46.2	35.0	24.5	16.6	9.7	4.0	0.0
57.5°	53.3	37.6	26.5	17.6	10.3	4.2	0.0
55°	60.5	40.0	28.3	18.5	10.8	4.5	0.0
52.5°	67.2	42.7	30.1	19.4	11.4	4.7	0.0
50°	73.3	47.6	31.7	20.2	11.9	5.0	0.0
47.5°	80.0	52.1	33.2	21.0	12.4	5.2	0.0
45°	92.8	56.2	34.7	22.1	12.8	5.4	0.0
42.5°	104.5	59.8	36.0	23.0	13.2	5.5	0.0
40°	115.0	63.1	37.9	23.9	13.5	5.7	0.0
37.5°	124.5	65.9	40.2	24.7	13.8	5.9	0.0
35°	132.8	71.4	42.3	25.4	14.1	6.0	0.0
32.5°	143.2	77.8	44.1	26.0	14.3	6.1	0.0
30°	159.9	83.4	45.5	26.5	14.5	6.2	0.0
27.5°	174.9	88.2	46.7	27.0	14.6	6.3	0.0
25°	188.4	92.1	47.6	27.3	14.7	6.3	0.0
22.5°	200.2	95.2	48.3	27.6	14.8	6.4	0.0
20°	210.4	97.5	48.6	27.7	14.8	6.4	0.0
17.5°	218.8	99.1	48.7	27.8	14.8	6.4	0.0
15°	225.6	99.9	48.6	27.8	14.8	6.4	0.0
12.5°	230.7	100.0	48.2	27.7	14.7	6.4	0.0
10°	234.1	99.4	47.7	27.6	14.5	6.4	0.0
7.5°	235.9	98.3	46.9	27.3	14.4	6.3	0.0
5°	236.0	96.5	45.9	27.0	14.2	6.3	0.0
2.5°	234.4	94.1	44.8	26.6	14.0	6.2	0.0
0°	231.1	91.3	43.5	26.1	13.7	6.1	0.0
-2.5°	234.4	94.1	44.8	26.6	14.0	6.2	0.0
-5°	236.0	96.5	45.9	27.0	14.2	6.3	0.0
-7.5°	235.9	98.3	46.9	27.3	14.4	6.3	0.0
-10°	234.1	99.4	47.7	27.6	14.5	6.4	0.0
-12.5°	230.7	100.0	48.2	27.7	14.7	6.4	0.0
-15°	225.6	99.9	48.6	27.8	14.8	6.4	0.0
-17.5°	218.8	99.1	48.7	27.8	14.8	6.4	0.0
-20°	210.4	97.5	48.6	27.7	14.8	6.4	0.0

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CANDELA DISTRIBUTION (continued):

	75°	77.5°	80°	82.5°	85°	87.5°	90°
-22.5°	200.2	95.2	48.3	27.6	14.8	6.4	0.0
-25°	188.4	92.1	47.6	27.3	14.7	6.3	0.0
-27.5°	174.9	88.2	46.7	27.0	14.6	6.3	0.0
-30°	159.9	83.4	45.5	26.5	14.5	6.2	0.0
-32.5°	143.2	77.8	44.1	26.0	14.3	6.1	0.0
-35°	132.8	71.4	42.3	25.4	14.1	6.0	0.0
-37.5°	124.5	65.9	40.2	24.7	13.8	5.9	0.0
-40°	115.0	63.1	37.9	23.9	13.5	5.7	0.0
-42.5°	104.5	59.8	36.0	23.0	13.2	5.5	0.0
-45°	92.8	56.2	34.7	22.1	12.8	5.4	0.0
-47.5°	80.0	52.1	33.2	21.0	12.4	5.2	0.0
-50°	73.3	47.6	31.7	20.2	11.9	5.0	0.0
-52.5°	67.2	42.7	30.1	19.4	11.4	4.7	0.0
-55°	60.5	40.0	28.3	18.5	10.8	4.5	0.0
-57.5°	53.3	37.6	26.5	17.6	10.3	4.2	0.0
-60°	46.2	35.0	24.5	16.6	9.7	4.0	0.0
-62.5°	42.9	32.4	23.0	15.6	9.0	3.7	0.0
-65°	39.4	29.6	21.5	14.5	8.3	3.4	0.0
-67.5°	35.8	27.1	19.8	13.4	7.6	3.1	0.0
-70°	32.0	24.7	18.1	12.2	6.8	2.8	0.0
-72.5°	28.8	22.3	16.3	10.8	6.0	2.4	0.0
-75°	25.5	19.7	14.5	9.4	5.2	2.1	0.0
-77.5°	22.2	17.1	12.2	7.9	4.4	1.8	0.0
-80°	18.7	14.0	9.9	6.3	3.5	1.4	0.0
-82.5°	14.2	10.6	7.4	4.8	2.7	1.1	0.0
-85°	9.5	7.1	5.0	3.2	1.8	0.7	0.0
-87.5°	4.8	3.5	2.5	1.6	0.9	0.4	0.0
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)