

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P227703

Luminaire Tested: **ISS-AF-600-LED-E1-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227703
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29759)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-600-LED-E1-T3-7050
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III
Light Source: (16) 5000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3906 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

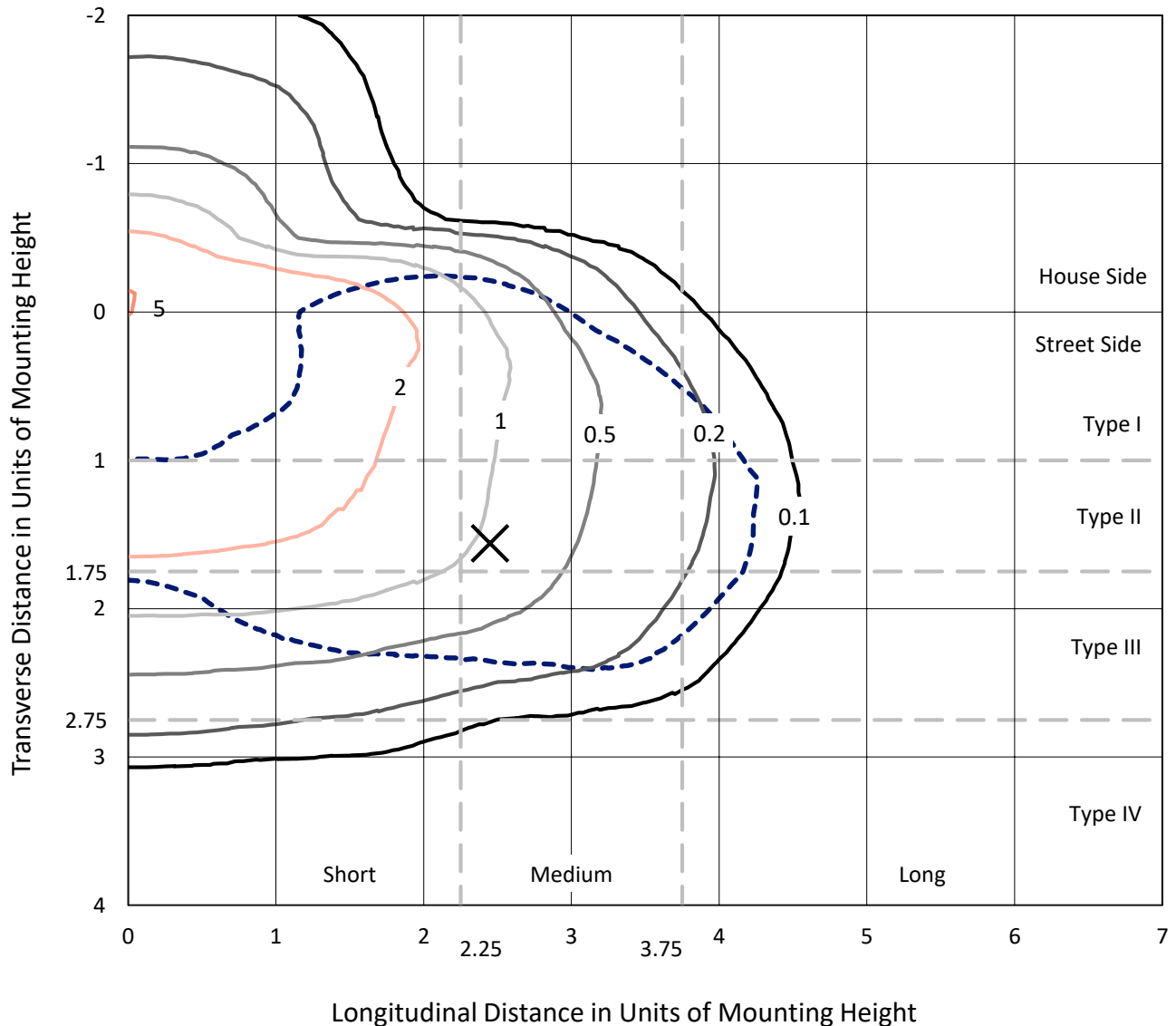
Input Watts (W): 33.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P227703
 CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

Iso-Footcandle Lines of Horizontal Illumination

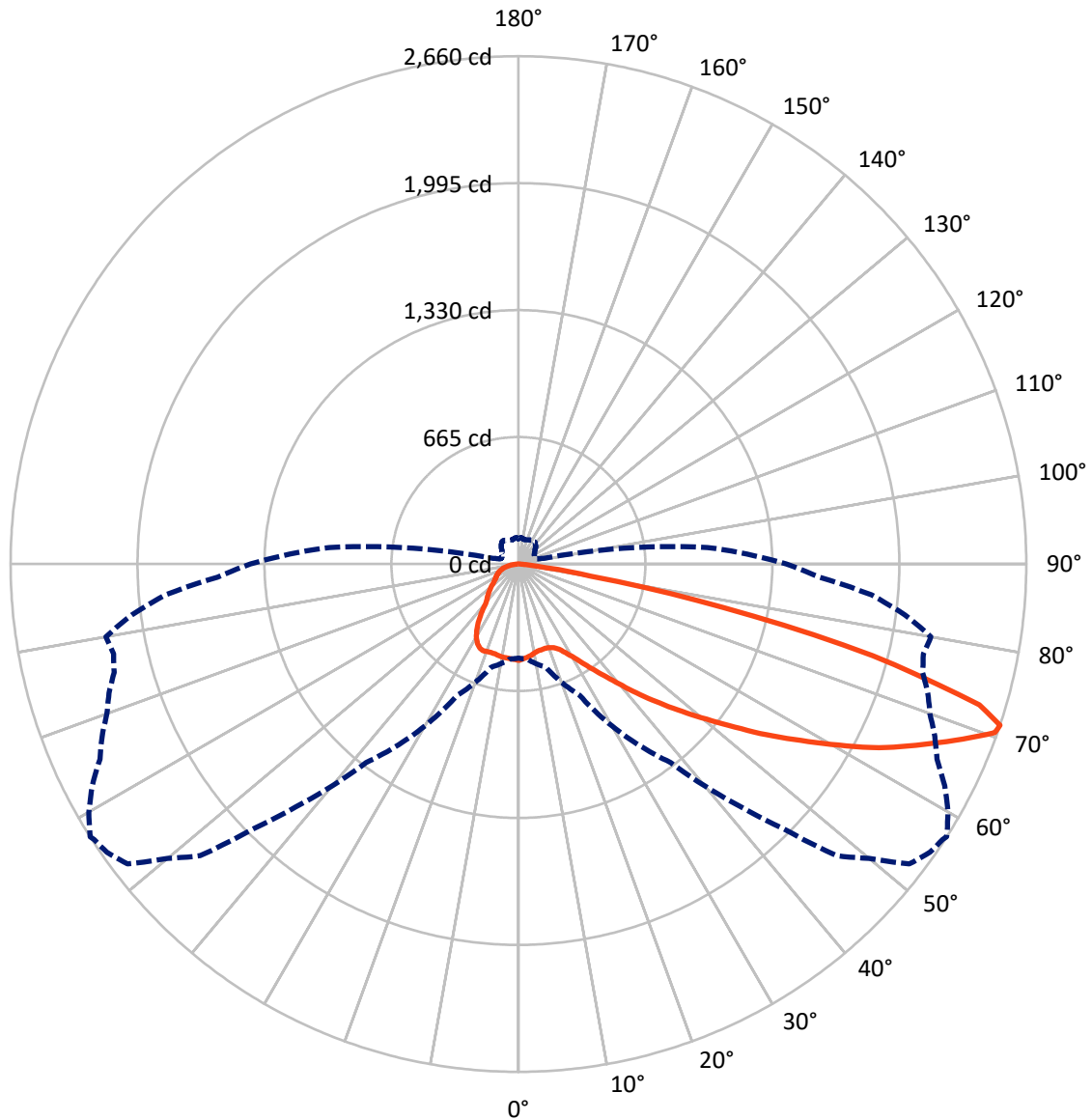
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P227703
CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 57.5-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P227703

CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	850.3	0.0	850.3
	% Fixture	21.8	0.0	21.8
Street Side	Lumens	3055.6	0.0	3055.6
	% Fixture	78.2	0.0	78.2
Total	Lumens	3906.0	0.0	3906.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	1.2
10°-20°	136.8	3.5
20°-30°	227.2	5.8
30°-40°	361.6	9.3
40°-50°	587.5	15.0
50°-60°	880.8	22.6
60°-70°	1050.8	26.9
70°-80°	567.5	14.5
80°-90°	46.2	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3906.0	100.0
0°-180°	3906.0	100.0



REPORT NUMBER: P227703

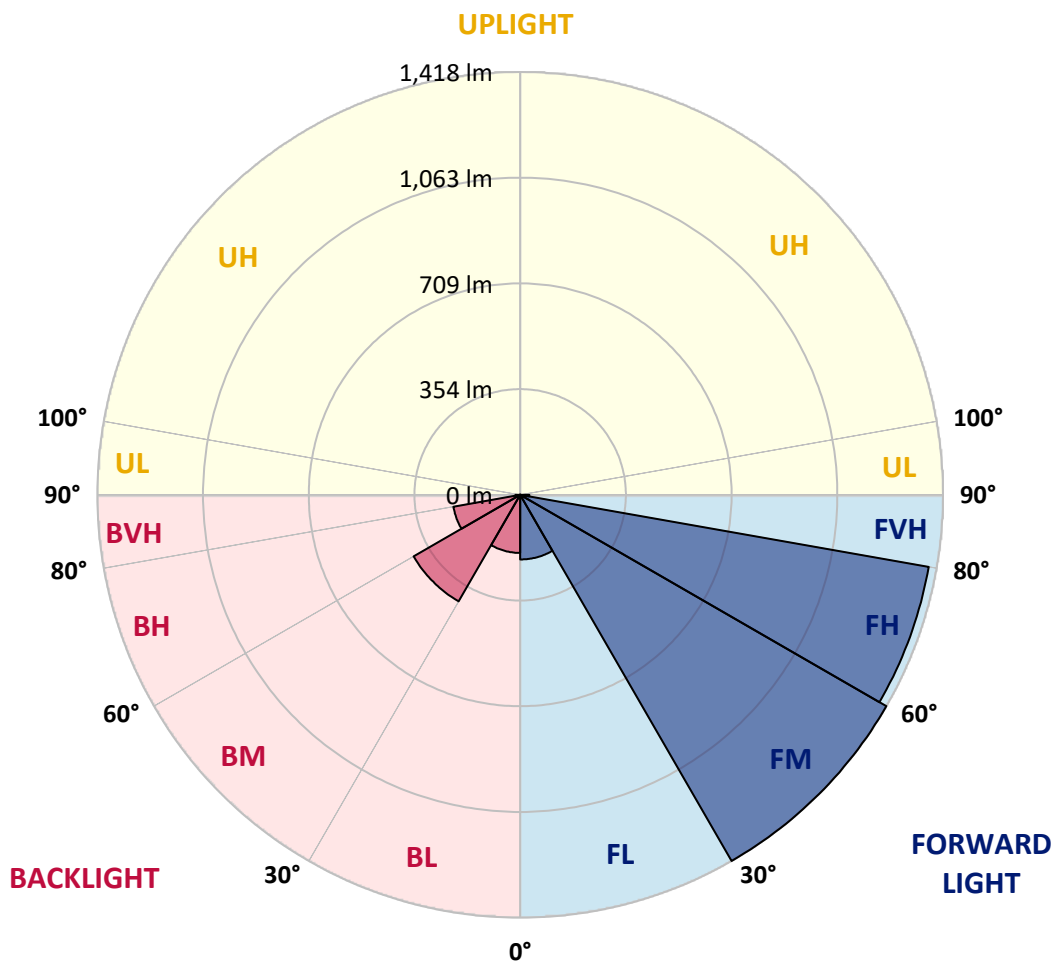
CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	216.7	5.5			
FM	(30°-60°)	1417.6	36.3			
FH	(60°-80°)	1390.9	35.6			G1/1800
FVH	(80°-90°)	30.4	0.8			G1/100
BL	(0°-30°)	194.8	5.0	B1/500		
BM	(30°-60°)	412.3	10.6	B1/1000		
BH	(60°-80°)	227.5	5.8	B1/500		G1/500
BVH	(80°-90°)	15.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





REPORT NUMBER: P227703

CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6
2.5°	504.6	503.3	502.0	502.0	502.0	500.7	496.9	498.1	502.0	499.4	503.3
5°	503.3	500.7	499.4	499.4	499.4	495.6	494.3	493.0	500.7	494.3	499.4
7.5°	489.1	489.1	486.5	489.1	491.7	487.8	485.2	486.5	493.0	486.5	493.0
10°	478.8	476.2	474.9	474.9	477.5	472.3	469.8	472.3	480.1	472.3	481.4
12.5°	474.9	476.2	472.3	472.3	471.0	464.6	464.6	464.6	471.0	464.6	472.3
15°	481.4	480.1	476.2	473.6	469.8	464.6	463.3	464.6	469.8	462.0	471.0
17.5°	490.4	490.4	483.9	477.5	473.6	468.5	468.5	465.9	469.8	464.6	471.0
20°	513.6	509.8	500.7	490.4	480.1	477.5	472.3	472.3	474.9	469.8	473.6
22.5°	553.6	549.8	534.3	514.9	498.1	491.7	489.1	487.8	485.2	482.7	482.7
25°	606.5	600.1	582.0	558.8	530.4	525.2	520.1	516.2	507.2	507.2	500.7
27.5°	663.3	656.9	637.5	611.7	576.9	569.1	562.7	557.5	542.0	542.0	530.4
30°	727.9	720.1	696.9	668.5	628.5	625.9	616.9	609.1	588.5	587.2	571.7
32.5°	802.7	792.4	769.2	731.7	689.1	690.4	676.2	671.1	644.0	645.3	624.6
35°	887.9	876.3	853.0	804.0	760.1	764.0	751.1	742.1	708.5	708.5	686.6
37.5°	978.2	978.2	948.5	891.8	838.8	847.9	832.4	823.4	789.8	795.0	760.1
40°	1078.9	1085.3	1053.1	988.5	934.3	938.2	926.6	916.3	876.3	885.3	847.9
42.5°	1184.7	1196.3	1167.9	1100.8	1040.2	1053.1	1033.7	1023.4	980.8	1000.2	956.3
45°	1338.3	1340.9	1287.9	1223.4	1173.1	1184.7	1157.6	1153.7	1100.8	1121.5	1077.6
47.5°	1435.1	1428.6	1389.9	1351.2	1321.5	1344.7	1320.2	1313.8	1253.1	1267.3	1205.4
50°	1500.9	1504.8	1475.1	1471.2	1476.4	1520.2	1516.4	1503.5	1431.2	1420.9	1343.4
52.5°	1560.2	1543.5	1538.3	1574.4	1629.9	1681.6	1702.2	1685.4	1606.7	1578.3	1503.5
55°	1549.9	1525.4	1552.5	1640.3	1750.0	1830.0	1832.5	1820.9	1750.0	1738.3	1657.0
57.5°	1480.2	1485.4	1540.9	1666.1	1851.9	1934.5	1948.7	1934.5	1876.4	1886.8	1819.6
60°	1383.4	1393.8	1481.5	1642.8	1933.2	2004.2	2010.6	2027.4	1988.7	2015.8	1969.3
62.5°	1238.9	1253.1	1365.4	1584.8	1876.4	1982.2	2041.6	2080.3	2072.6	2134.5	2110.0
65°	1138.2	1138.2	1247.9	1517.7	1820.9	1960.3	2049.4	2121.6	2132.0	2230.0	2221.0
67.5°	951.1	957.6	1051.8	1330.5	1753.8	1911.3	2045.5	2168.1	2230.0	2384.9	2392.6
70°	658.2	663.3	725.3	949.8	1417.0	1551.2	1748.7	1948.7	2134.5	2368.1	2489.4
71°	493.0	499.4	560.1	757.5	1200.2	1311.2	1516.4	1724.1	1957.7	2261.0	2397.8
72.5°	241.3	245.2	304.6	486.5	835.0	976.9	1095.7	1294.4	1542.2	1889.3	2082.9
75°	112.3	113.6	126.5	175.5	318.8	379.4	432.3	560.1	713.7	1018.2	1253.1
77.5°	82.6	82.6	90.3	114.9	165.2	167.8	165.2	169.1	203.9	291.7	438.8
80°	60.7	60.7	65.8	77.4	109.7	109.7	105.8	107.1	103.2	107.1	121.3
82.5°	40.0	40.0	42.6	46.5	67.1	67.1	64.5	64.5	61.9	60.7	65.8
85°	23.2	24.5	25.8	21.9	28.4	27.1	24.5	27.1	25.8	23.2	28.4
87.5°	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0	1.3
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: P227703

CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6
2.5°	498.1	502.0	502.0	496.9	500.7	496.9	499.4	495.6	499.4	493.0	500.7
5°	494.3	498.1	498.1	490.4	498.1	490.4	496.9	487.8	496.9	486.5	496.9
7.5°	483.9	493.0	493.0	482.7	491.7	483.9	491.7	482.7	490.4	478.8	491.7
10°	472.3	481.4	482.7	472.3	482.7	473.6	485.2	473.6	485.2	472.3	486.5
12.5°	464.6	474.9	477.5	465.9	478.8	467.2	481.4	468.5	481.4	467.2	483.9
15°	463.3	472.3	474.9	464.6	476.2	463.3	480.1	464.6	481.4	465.9	485.2
17.5°	464.6	472.3	474.9	463.3	474.9	464.6	478.8	465.9	481.4	467.2	485.2
20°	468.5	473.6	473.6	467.2	476.2	467.2	478.8	465.9	482.7	469.8	486.5
22.5°	480.1	481.4	481.4	476.2	481.4	474.9	483.9	474.9	486.5	476.2	491.7
25°	499.4	498.1	495.6	494.3	495.6	491.7	496.9	490.4	502.0	493.0	508.5
27.5°	533.0	527.8	525.2	525.2	524.0	525.2	525.2	522.7	527.8	525.2	535.6
30°	574.3	565.3	561.4	565.3	560.1	565.3	564.0	562.7	567.8	565.3	574.3
32.5°	628.5	613.0	610.4	618.2	607.8	616.9	609.1	613.0	616.9	619.5	624.6
35°	691.7	673.7	671.1	678.8	667.2	680.1	671.1	676.2	678.8	685.3	689.1
37.5°	766.6	744.6	740.8	751.1	735.6	749.8	736.9	752.4	748.5	757.5	761.4
40°	856.9	831.1	822.1	836.3	818.2	829.8	816.9	833.7	829.8	847.9	851.7
42.5°	967.9	930.5	921.4	935.6	908.5	912.4	902.1	921.4	918.9	943.4	947.2
45°	1082.8	1037.6	1024.7	1038.9	1007.9	1015.6	1000.2	1020.8	1019.5	1038.9	1054.4
47.5°	1210.5	1155.0	1138.2	1153.7	1116.3	1125.3	1109.9	1131.8	1133.1	1155.0	1170.5
50°	1343.4	1285.4	1263.4	1277.6	1242.8	1249.2	1233.7	1260.8	1259.6	1289.2	1300.9
52.5°	1488.0	1428.6	1411.8	1418.3	1377.0	1384.7	1371.8	1405.4	1397.6	1415.7	1438.9
55°	1648.0	1579.6	1560.2	1579.6	1530.6	1540.9	1524.1	1555.1	1542.2	1565.4	1571.9
57.5°	1811.9	1744.8	1729.3	1743.5	1697.0	1704.8	1682.8	1708.7	1698.3	1713.8	1724.1
60°	1986.1	1925.5	1910.0	1925.5	1880.3	1881.6	1844.2	1871.3	1855.8	1875.1	1871.3
62.5°	2152.6	2101.0	2097.1	2119.0	2062.3	2055.8	2010.6	2030.0	2008.1	2021.0	2005.5
65°	2294.6	2264.9	2270.0	2288.1	2237.8	2222.3	2170.7	2181.0	2148.7	2148.7	2129.4
67.5°	2480.4	2448.1	2448.1	2463.6	2400.4	2360.4	2289.4	2280.4	2227.4	2217.1	2172.0
70°	2635.3	2644.3	2634.0	2646.9	2572.0	2490.7	2396.5	2351.3	2281.7	2248.1	2195.2
71°	2579.8	2631.4	2649.5	2659.8	2597.8	2516.5	2418.4	2360.4	2293.3	2248.1	2191.3
72.5°	2328.1	2453.3	2524.3	2524.3	2532.0	2480.4	2386.2	2322.9	2246.8	2187.4	2134.5
75°	1631.2	1835.1	1926.8	1916.4	1983.5	2006.8	2014.5	1987.4	1944.8	1859.6	1822.2
77.5°	726.6	957.6	1095.7	1096.9	1169.2	1232.5	1282.8	1335.7	1316.3	1275.0	1272.5
80°	165.2	299.4	383.3	387.2	453.0	511.0	545.9	598.8	605.3	545.9	512.3
82.5°	71.0	83.9	95.5	94.2	116.1	139.4	165.2	179.4	172.9	143.2	135.5
85°	29.7	38.7	41.3	38.7	47.7	52.9	61.9	63.2	73.6	65.8	69.7
87.5°	0.0	1.3	1.3	0.0	2.6	0.0	2.6	1.3	6.5	2.6	7.7
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: P227703

CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6
2.5°	495.6	502.0	495.6	502.0	498.1	502.0	500.7	502.0	495.6	502.0	494.3
5°	486.5	496.9	487.8	495.6	487.8	496.9	496.9	496.9	487.8	498.1	489.1
7.5°	478.8	490.4	478.8	490.4	482.7	491.7	491.7	495.6	485.2	496.9	483.9
10°	471.0	485.2	471.0	487.8	474.9	489.1	490.4	493.0	478.8	494.3	481.4
12.5°	467.2	485.2	468.5	485.2	469.8	489.1	490.4	493.0	477.5	496.9	480.1
15°	467.2	486.5	468.5	486.5	469.8	489.1	491.7	494.3	477.5	498.1	480.1
17.5°	467.2	486.5	471.0	487.8	472.3	490.4	493.0	495.6	480.1	498.1	482.7
20°	471.0	489.1	473.6	491.7	476.2	494.3	495.6	499.4	482.7	499.4	485.2
22.5°	480.1	495.6	482.7	499.4	487.8	502.0	503.3	507.2	494.3	508.5	496.9
25°	495.6	512.3	502.0	514.9	508.5	520.1	522.7	522.7	517.5	526.5	522.7
27.5°	527.8	540.7	533.0	544.6	540.7	549.8	549.8	551.1	554.9	557.5	561.4
30°	569.1	578.2	575.6	582.0	583.3	588.5	588.5	596.2	611.7	596.2	594.9
32.5°	624.6	629.8	631.1	633.6	638.8	642.7	647.8	656.9	669.8	633.6	622.0
35°	693.0	694.3	698.2	702.0	711.1	713.7	730.4	724.0	724.0	667.2	642.7
37.5°	767.9	767.9	778.2	778.2	800.1	801.4	818.2	784.6	765.3	691.7	655.6
40°	862.1	860.8	872.4	875.0	904.7	906.0	903.4	829.8	788.5	698.2	649.1
42.5°	961.4	965.3	980.8	986.0	1007.9	1015.6	983.4	860.8	798.8	694.3	627.2
45°	1069.8	1077.6	1096.9	1111.1	1134.4	1125.3	1047.9	875.0	787.2	671.1	584.6
47.5°	1188.6	1196.3	1211.8	1238.9	1249.2	1238.9	1100.8	880.1	769.2	634.9	522.7
50°	1308.6	1321.5	1343.4	1382.2	1387.3	1361.5	1165.3	899.5	755.0	597.5	451.7
52.5°	1444.1	1457.0	1482.8	1547.3	1534.4	1481.5	1241.5	935.6	758.8	574.3	391.0
55°	1587.3	1605.4	1655.7	1719.0	1690.6	1608.0	1325.4	988.5	774.3	549.8	323.9
57.5°	1738.3	1757.7	1823.5	1898.4	1842.9	1731.9	1410.5	1029.8	782.1	499.4	250.4
60°	1888.0	1915.1	2000.3	2062.3	1975.8	1837.7	1486.7	1056.9	761.4	403.9	193.6
62.5°	2024.8	2068.7	2164.2	2197.8	2059.7	1904.8	1528.0	1037.6	677.5	278.8	156.2
65°	2121.6	2178.4	2240.4	2236.5	2044.2	1882.9	1497.0	948.5	504.6	184.5	132.9
67.5°	2162.9	2215.8	2230.0	2164.2	1933.2	1786.1	1386.0	764.0	290.4	138.1	116.1
70°	2178.4	2223.6	2143.6	1984.8	1716.4	1548.6	1133.1	486.5	158.7	112.3	100.7
71°	2172.0	2193.9	2041.6	1855.8	1578.3	1402.8	993.7	370.4	135.5	104.5	95.5
72.5°	2084.2	2053.2	1818.4	1611.9	1338.3	1160.2	773.0	233.6	111.0	94.2	89.0
75°	1703.5	1564.1	1338.3	1143.4	911.1	729.1	419.4	120.0	89.0	81.3	77.4
77.5°	1113.7	992.4	806.6	655.6	498.1	378.1	171.6	82.6	71.0	68.4	67.1
80°	397.5	318.8	241.3	211.6	160.0	131.6	83.9	63.2	55.5	56.8	55.5
82.5°	112.3	103.2	89.0	82.6	72.3	71.0	54.2	47.7	43.9	46.5	45.2
85°	55.5	47.7	34.8	33.6	25.8	29.7	27.1	32.3	28.4	29.7	27.1
87.5°	3.9	5.2	1.3	3.9	0.0	3.9	5.2	6.5	1.3	5.2	3.9
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: P227703

CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°
0°	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6
2.5°	503.3	498.1	504.6	498.1	504.6	500.7	504.6	500.7	504.6	507.2	507.2
5°	500.7	491.7	503.3	496.9	504.6	498.1	503.3	499.4	505.9	508.5	511.0
7.5°	499.4	490.4	502.0	493.0	504.6	495.6	503.3	498.1	505.9	508.5	513.6
10°	498.1	486.5	502.0	489.1	503.3	494.3	503.3	495.6	504.6	507.2	508.5
12.5°	498.1	485.2	502.0	487.8	503.3	490.4	502.0	490.4	503.3	502.0	498.1
15°	499.4	482.7	502.0	485.2	502.0	486.5	500.7	485.2	498.1	494.3	491.7
17.5°	499.4	482.7	500.7	483.9	499.4	485.2	496.9	482.7	494.3	493.0	489.1
20°	502.0	485.2	500.7	489.1	500.7	486.5	495.6	482.7	491.7	483.9	468.5
22.5°	509.8	498.1	509.8	498.1	503.3	490.4	494.3	478.8	477.5	464.6	440.1
25°	527.8	522.7	520.1	505.9	502.0	485.2	480.1	462.0	455.6	436.2	402.6
27.5°	551.1	539.4	524.0	507.2	490.4	469.8	455.6	441.4	427.2	402.6	360.1
30°	566.5	549.8	517.5	494.3	463.3	446.5	422.0	406.5	385.9	354.9	313.6
32.5°	576.9	551.1	502.0	474.9	433.6	411.7	379.4	362.6	333.0	303.3	273.6
35°	579.4	545.9	481.4	451.7	397.5	373.0	330.4	312.3	283.9	263.3	251.7
37.5°	569.1	527.8	449.1	410.4	351.0	322.6	282.6	269.7	252.9	245.2	240.0
40°	548.5	493.0	398.8	353.6	292.9	271.0	250.4	250.4	241.3	237.5	228.4
42.5°	511.0	441.4	334.2	290.4	249.1	245.2	233.6	238.7	232.3	229.7	216.8
45°	453.0	367.8	269.7	243.9	224.6	227.1	219.4	224.6	220.7	219.4	203.9
47.5°	378.1	292.9	227.1	218.1	205.2	209.1	202.6	209.1	205.2	206.5	194.9
50°	302.0	237.5	201.3	196.2	187.1	189.7	185.8	192.3	191.0	196.2	189.7
52.5°	241.3	202.6	179.4	175.5	170.3	171.6	170.3	176.8	178.1	188.4	188.4
55°	200.0	174.2	161.3	160.0	154.9	156.2	157.4	163.9	169.1	182.0	188.4
57.5°	171.6	156.2	147.1	145.8	143.2	144.5	147.1	154.9	160.0	176.8	191.0
60°	151.0	142.0	135.5	135.5	132.9	135.5	138.1	145.8	152.3	171.6	185.8
62.5°	135.5	129.1	125.2	126.5	125.2	127.8	130.3	138.1	145.8	163.9	178.1
65°	121.3	117.4	114.9	116.1	116.1	120.0	122.6	130.3	136.8	153.6	171.6
67.5°	109.7	107.1	105.8	107.1	108.4	112.3	116.1	121.3	126.5	142.0	162.6
70°	100.7	98.1	98.1	98.1	99.4	103.2	108.4	111.0	116.1	132.9	152.3
71°	95.5	94.2	94.2	94.2	95.5	99.4	104.5	107.1	112.3	129.1	147.1
72.5°	89.0	89.0	90.3	89.0	91.6	92.9	98.1	100.7	107.1	123.9	140.7
75°	78.7	78.7	80.0	80.0	82.6	82.6	86.5	89.0	96.8	111.0	126.5
77.5°	69.7	69.7	72.3	71.0	71.0	68.4	73.6	76.1	82.6	96.8	112.3
80°	59.4	58.1	60.7	56.8	55.5	52.9	56.8	60.7	71.0	80.0	82.6
82.5°	46.5	42.6	43.9	40.0	40.0	37.4	41.3	42.6	49.0	58.1	63.2
85°	28.4	23.2	25.8	21.9	24.5	21.9	23.2	24.5	29.7	36.1	34.8
87.5°	6.5	3.9	5.2	1.3	3.9	0.0	3.9	1.3	3.9	1.3	0.0
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: P227703

CATALOG NUMBER: ISS-AF-600-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	155°	165°	175°	180°
0°	504.6	504.6	504.6	504.6
2.5°	509.8	508.5	509.8	508.5
5°	516.2	516.2	517.5	518.8
7.5°	517.5	520.1	522.7	521.4
10°	508.5	505.9	508.5	505.9
12.5°	494.3	491.7	494.3	494.3
15°	493.0	491.7	493.0	493.0
17.5°	483.9	477.5	474.9	473.6
20°	458.1	446.5	443.9	440.1
22.5°	422.0	405.2	400.1	396.2
25°	378.1	354.9	345.9	340.7
27.5°	330.4	307.1	298.1	298.1
30°	292.9	274.9	265.8	265.8
32.5°	265.8	255.5	249.1	250.4
35°	243.9	237.5	233.6	234.9
37.5°	229.7	219.4	210.4	210.4
40°	215.5	202.6	191.0	191.0
42.5°	202.6	189.7	182.0	180.7
45°	189.7	180.7	174.2	172.9
47.5°	183.3	175.5	169.1	167.8
50°	180.7	172.9	163.9	163.9
52.5°	183.3	176.8	160.0	160.0
55°	188.4	184.5	160.0	157.4
57.5°	183.3	176.8	161.3	157.4
60°	171.6	161.3	158.7	156.2
62.5°	163.9	153.6	158.7	157.4
65°	157.4	149.7	161.3	158.7
67.5°	151.0	143.2	161.3	156.2
70°	143.2	135.5	147.1	138.1
71°	139.4	130.3	139.4	131.6
72.5°	132.9	122.6	125.2	120.0
75°	120.0	109.7	107.1	105.8
77.5°	99.4	87.8	83.9	82.6
80°	76.1	68.4	68.4	64.5
82.5°	56.8	50.3	49.0	42.6
85°	29.7	23.2	19.4	19.4
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)