

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: P227593

Luminaire Tested: **ISS-AF-1200-LED-E1-T2-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227593
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29758)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-1200-LED-E1-T2-7060
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II
Light Source: (16) 5700K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6444 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

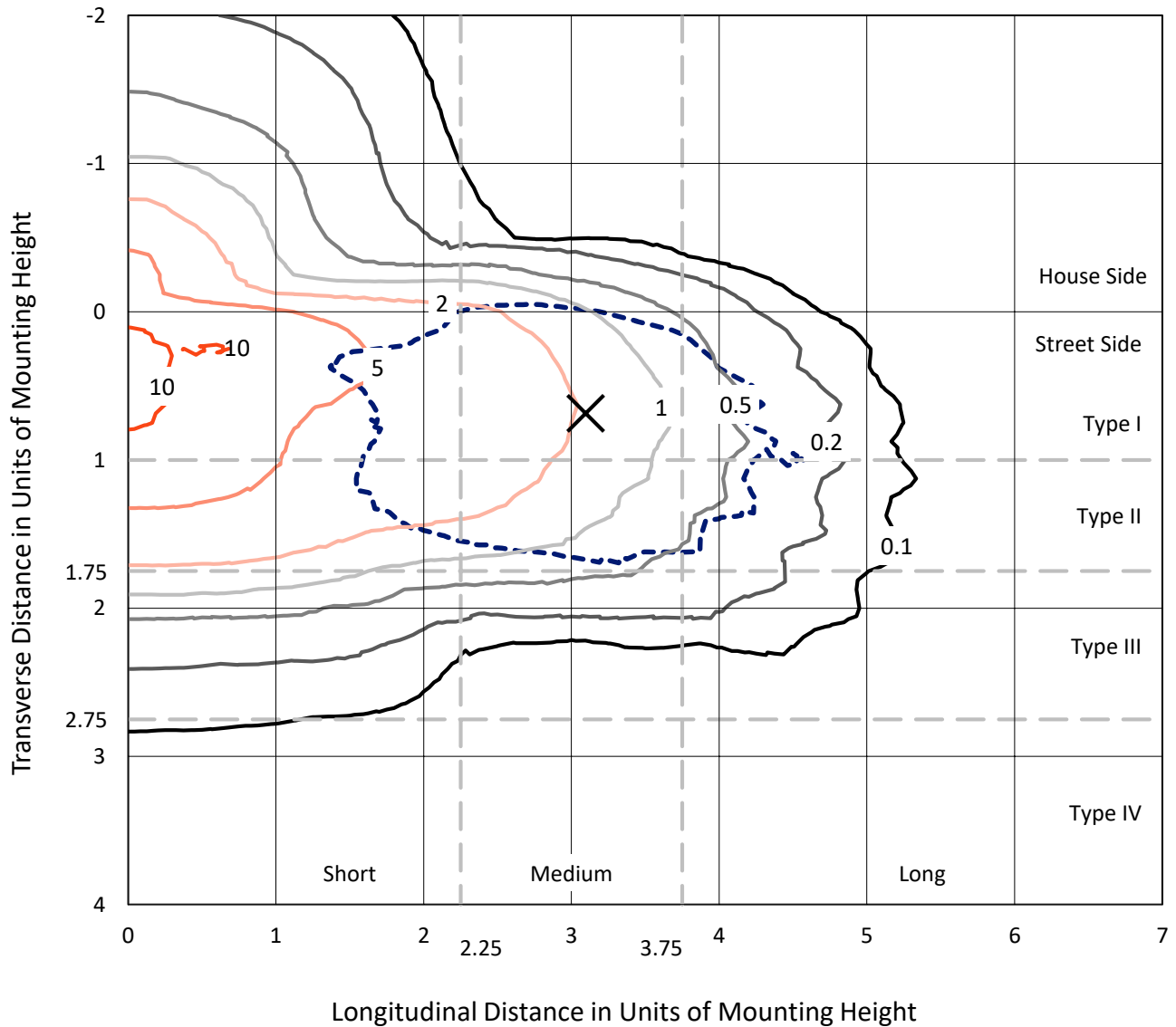
Input Watts (W): 66
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P227593
 CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

Iso-Footcandle Lines of Horizontal Illumination

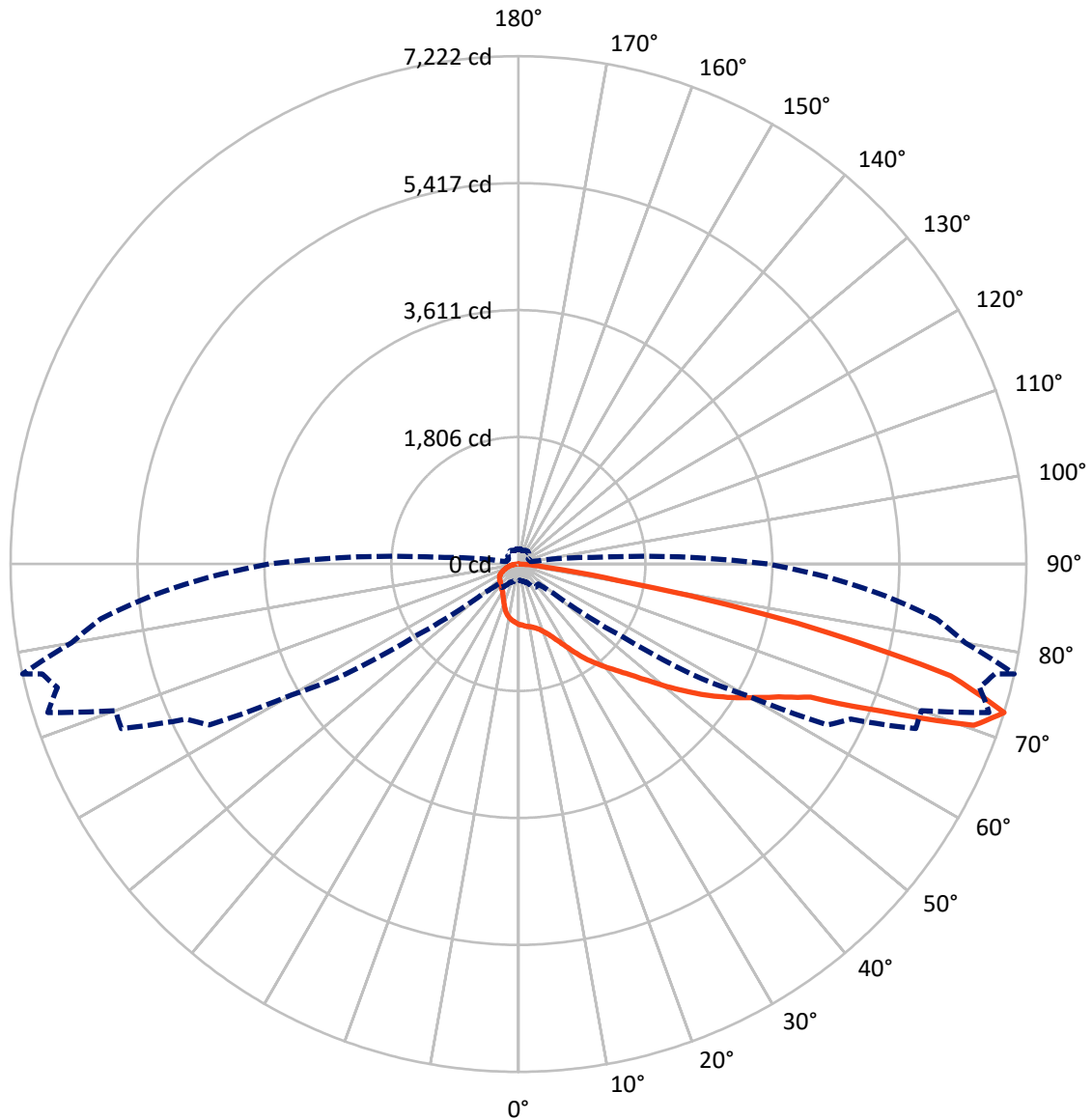
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type II - Medium - Non-Cutoff

REPORT NUMBER: P227593
CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P227593

CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1067.8	0.0	1067.8
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	5376.2	0.0	5376.2
	% Fixture	83.4	0.0	83.4
Total	Lumens	6444.0	0.0	6444.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.9	1.2
10°-20°	245.0	3.8
20°-30°	435.0	6.8
30°-40°	689.2	10.7
40°-50°	1034.0	16.0
50°-60°	1339.8	20.8
60°-70°	1522.4	23.6
70°-80°	1010.3	15.7
80°-90°	88.4	1.4
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°	6444.0	100.0
0°-180°	6444.0	100.0



REPORT NUMBER: P227593

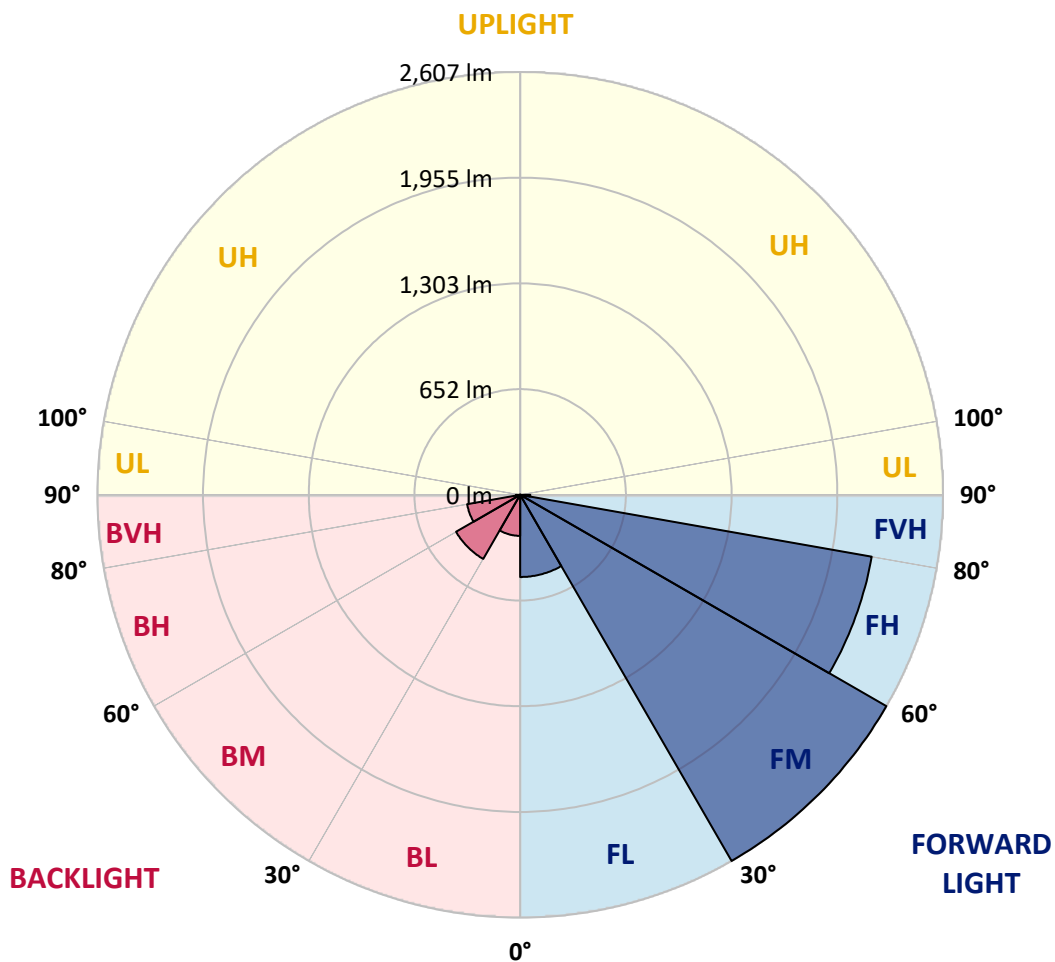
CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	507.0	7.9			
FM	(30°-60°)	2606.9	40.5			
FH	(60°-80°)	2200.6	34.1			G2/5000
FVH	(80°-90°)	61.7	1.0			G1/100
BL	(0°-30°)	253.0	3.9	B1/500		
BM	(30°-60°)	456.1	7.1	B1/1000		
BH	(60°-80°)	332.1	5.2	B1/500		G1/500
BVH	(80°-90°)	26.6	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-G2

Type II Medium





REPORT NUMBER: P227593

CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4
2.5°	932.1	927.7	925.6	921.2	916.9	914.7	908.2	903.8	910.4	908.2	908.2
5°	1001.6	997.3	990.7	984.2	975.5	969.0	962.5	956.0	960.3	956.0	951.6
7.5°	1058.1	1053.8	1045.1	1038.5	1029.9	1021.2	1012.5	1010.3	1006.0	999.4	997.3
10°	1090.7	1086.3	1082.0	1077.7	1064.6	1058.1	1047.2	1040.7	1042.9	1034.2	1034.2
12.5°	1121.1	1116.8	1114.6	1114.6	1103.7	1097.2	1092.9	1086.3	1090.7	1077.7	1073.3
15°	1149.4	1145.0	1138.5	1145.0	1142.8	1140.7	1138.5	1136.3	1142.8	1129.8	1132.0
17.5°	1195.0	1192.8	1179.8	1171.1	1173.3	1179.8	1184.1	1181.9	1181.9	1175.4	1177.6
20°	1266.7	1266.7	1249.3	1234.1	1210.2	1210.2	1212.4	1210.2	1214.5	1218.9	1225.4
22.5°	1321.0	1316.7	1310.1	1297.1	1271.0	1249.3	1249.3	1240.6	1247.1	1249.3	1262.3
25°	1390.5	1386.2	1371.0	1371.0	1344.9	1316.7	1312.3	1299.3	1314.5	1286.2	1308.0
27.5°	1475.3	1470.9	1451.4	1442.7	1429.6	1394.9	1386.2	1388.4	1403.6	1362.3	1384.0
30°	1581.7	1577.4	1553.5	1529.6	1507.9	1470.9	1466.6	1464.4	1499.2	1451.4	1479.6
32.5°	1716.4	1716.4	1690.4	1657.8	1614.3	1564.3	1547.0	1549.1	1596.9	1544.8	1592.6
35°	1920.7	1894.6	1846.8	1796.8	1751.2	1692.5	1668.6	1664.3	1707.7	1655.6	1709.9
37.5°	2051.0	2033.6	1990.2	1953.3	1903.3	1846.8	1829.4	1835.9	1872.9	1796.8	1875.0
40°	2168.4	2166.2	2137.9	2114.0	2064.1	2007.6	2029.3	2116.2	2214.0	2066.2	2068.4
42.5°	2246.6	2250.9	2248.7	2250.9	2222.7	2164.0	2200.9	2322.6	2489.9	2403.0	2322.6
45°	2259.6	2274.8	2281.3	2324.8	2353.0	2318.3	2337.8	2466.0	2800.6	2935.3	2572.5
47.5°	2292.2	2307.4	2294.4	2346.5	2476.9	2474.7	2552.9	2600.7	2646.3	2668.1	2941.8
50°	2335.6	2363.9	2350.9	2394.3	2500.8	2561.6	2629.0	2689.8	2652.9	2516.0	2589.9
52.5°	2337.8	2370.4	2442.1	2485.6	2589.9	2576.8	2622.4	2589.9	2646.3	2505.1	2576.8
55°	2146.6	2153.1	2361.7	2581.2	2763.7	2726.7	2698.5	2624.6	2696.3	2520.3	2611.6
57.5°	1844.6	1866.3	2083.6	2453.0	2844.1	2876.6	2868.0	2861.4	2917.9	2683.3	2783.2
60°	1512.2	1538.3	1744.7	2179.2	2676.8	2761.5	2878.8	2950.5	3096.1	3002.7	3167.8
62.5°	942.9	962.5	1190.6	1733.8	2361.7	2529.0	2700.7	2785.4	2996.1	3039.6	3319.9
65°	449.7	456.3	545.3	942.9	1716.4	2031.5	2285.7	2466.0	2724.6	2920.1	3298.2
67.5°	349.8	352.0	384.6	501.9	879.9	1090.7	1379.7	1618.7	1894.6	2429.1	2898.4
70°	280.3	280.3	306.4	369.4	545.3	573.6	647.5	727.9	845.2	1275.4	1655.6
72.5°	234.7	234.7	252.0	291.1	404.1	410.6	406.3	399.8	399.8	504.1	643.1
75°	197.7	195.5	206.4	232.5	299.8	308.5	304.2	289.0	271.6	271.6	306.4
77.5°	160.8	160.8	169.5	182.5	217.3	221.6	221.6	208.6	193.4	195.5	210.8
80°	126.0	126.0	132.5	141.2	152.1	149.9	149.9	136.9	126.0	123.8	132.5
82.5°	91.3	93.4	108.6	102.1	97.8	91.3	91.3	89.1	80.4	73.9	78.2
85°	28.2	30.4	52.1	60.8	50.0	41.3	39.1	32.6	34.8	28.2	32.6
87.5°	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	2.2	0.0	2.2
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: P227593

CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
0°	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4
2.5°	897.3	901.7	893.0	893.0	882.1	888.6	877.8	879.9	869.1	873.4	873.4
5°	940.8	942.9	932.1	927.7	916.9	916.9	906.0	906.0	890.8	895.2	890.8
7.5°	982.1	982.1	971.2	962.5	951.6	947.3	934.3	927.7	914.7	912.5	906.0
10°	1016.8	1016.8	1001.6	992.9	979.9	973.4	956.0	949.5	934.3	923.4	916.9
12.5°	1060.3	1055.9	1038.5	1029.9	1008.1	1006.0	979.9	975.5	953.8	947.3	936.4
15°	1112.4	1116.8	1088.5	1086.3	1055.9	1053.8	1019.0	1016.8	984.2	982.1	966.8
17.5°	1168.9	1177.6	1153.7	1151.5	1114.6	1114.6	1073.3	1071.1	1027.7	1025.5	1006.0
20°	1218.9	1229.7	1214.5	1218.9	1186.3	1188.5	1142.8	1142.8	1082.0	1077.7	1060.3
22.5°	1264.5	1286.2	1273.2	1297.1	1264.5	1279.7	1218.9	1229.7	1158.0	1149.4	1123.3
25°	1310.1	1338.4	1334.0	1373.1	1349.2	1375.3	1312.3	1334.0	1240.6	1247.1	1212.4
27.5°	1355.8	1392.7	1388.4	1444.8	1436.2	1488.3	1434.0	1457.9	1355.8	1362.3	1323.2
30°	1431.8	1473.1	1457.9	1516.5	1516.5	1601.3	1560.0	1596.9	1484.0	1497.0	1451.4
32.5°	1533.9	1581.7	1536.1	1612.1	1607.8	1718.6	1686.0	1749.0	1638.2	1655.6	1599.1
35°	1644.7	1720.8	1646.9	1731.6	1718.6	1833.8	1812.0	1914.1	1796.8	1816.4	1759.9
37.5°	1790.3	1881.6	1783.8	1857.7	1799.0	1931.5	1918.5	2057.5	1938.0	1988.0	1920.7
40°	1961.9	2033.6	1912.0	1975.0	1877.2	2014.1	1992.4	2183.6	2072.8	2153.1	2092.3
42.5°	2120.6	2170.5	2009.7	2088.0	1970.6	2109.7	2070.6	2300.9	2205.3	2329.1	2261.8
45°	2263.9	2320.4	2107.5	2194.4	2064.1	2216.1	2148.8	2413.9	2348.7	2535.5	2468.2
47.5°	2468.2	2385.6	2196.6	2309.6	2164.0	2331.3	2242.2	2546.4	2522.5	2787.6	2709.4
50°	2400.8	2455.1	2270.5	2387.8	2255.3	2459.5	2361.7	2705.0	2711.5	3061.3	3015.7
52.5°	2407.3	2498.6	2327.0	2489.9	2361.7	2637.7	2535.5	2896.2	2926.6	3326.4	3263.4
55°	2446.5	2581.2	2411.7	2631.1	2511.6	2835.4	2763.7	3102.6	3154.8	3576.3	3539.3
57.5°	2544.2	2731.1	2557.3	2844.1	2720.2	3061.3	2996.1	3315.5	3387.2	3826.1	3815.3
60°	2920.1	3141.7	2837.5	3154.8	2989.6	3317.7	3230.8	3539.3	3611.0	4065.1	4093.4
62.5°	3339.4	3724.0	3543.7	3873.9	3437.2	3769.6	3513.2	3815.3	3819.6	4321.5	4410.6
65°	3448.1	4039.0	4193.3	4808.2	4580.0	4921.2	4236.8	4438.8	4178.1	4788.6	4916.8
67.5°	3406.8	4130.3	4558.3	5251.4	5510.0	6105.3	5990.1	5920.6	5316.6	5755.5	5909.7
70°	2500.8	3267.7	4315.0	5018.9	5764.2	6155.2	6774.5	6837.5	6811.4	6750.6	6852.7
72.5°	1138.5	1786.0	2920.1	3724.0	4953.7	5216.6	6114.0	6096.6	7017.8	6789.7	6950.5
75°	447.6	688.7	1390.5	2079.3	3426.3	3750.1	4766.9	4514.9	5664.2	5329.6	5672.9
77.5°	245.5	308.5	521.4	893.0	1870.7	2042.3	2917.9	2496.4	3513.2	2933.1	3048.3
80°	147.7	184.7	239.0	338.9	795.2	840.8	1245.0	1003.8	1436.2	1090.7	1058.1
82.5°	80.4	99.9	119.5	167.3	295.5	328.1	430.2	386.7	460.6	393.3	384.6
85°	32.6	43.5	45.6	67.4	97.8	113.0	136.9	147.7	180.3	165.1	160.8
87.5°	0.0	2.2	0.0	4.3	0.0	4.3	0.0	6.5	6.5	10.9	13.0
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: P227593

CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

CANDELA DISTRIBUTION (continued):

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4
2.5°	866.9	873.4	864.7	864.7	853.9	860.4	853.9	847.4	836.5	838.7	823.5
5°	882.1	886.5	875.6	871.3	864.7	862.6	849.5	836.5	821.3	821.3	803.9
7.5°	897.3	897.3	882.1	882.1	866.9	862.6	843.0	821.3	799.6	797.4	771.3
10°	906.0	903.8	884.3	884.3	862.6	860.4	836.5	803.9	773.5	764.8	727.9
12.5°	923.4	921.2	897.3	893.0	864.7	864.7	830.0	786.5	743.1	727.9	675.7
15°	945.1	947.3	919.1	912.5	879.9	877.8	830.0	764.8	706.1	682.2	619.2
17.5°	979.9	982.1	942.9	936.4	897.3	890.8	832.1	738.7	656.2	630.1	573.6
20°	1025.5	1019.0	966.8	964.7	912.5	906.0	830.0	699.6	606.2	580.1	530.1
22.5°	1082.0	1075.5	1008.1	1001.6	940.8	929.9	827.8	658.3	560.6	532.3	499.7
25°	1160.2	1151.5	1069.0	1060.3	984.2	966.8	825.6	614.9	521.4	499.7	480.2
27.5°	1258.0	1240.6	1140.7	1132.0	1029.9	1008.1	816.9	564.9	482.3	467.1	458.4
30°	1375.3	1360.1	1231.9	1218.9	1090.7	1062.4	808.2	519.3	454.1	447.6	441.1
32.5°	1514.4	1499.2	1342.7	1327.5	1168.9	1127.6	793.0	482.3	436.7	436.7	428.0
35°	1659.9	1646.9	1462.2	1451.4	1255.8	1201.5	773.5	449.7	421.5	421.5	412.8
37.5°	1790.3	1801.2	1592.6	1583.9	1342.7	1275.4	751.8	428.0	408.5	404.1	395.4
40°	1931.5	1957.6	1714.3	1720.8	1434.0	1353.6	725.7	410.6	393.3	388.9	386.7
42.5°	2074.9	2124.9	1842.4	1866.3	1525.2	1434.0	706.1	399.8	386.7	378.0	375.9
45°	2253.1	2324.8	2001.1	2046.7	1631.7	1531.8	699.6	386.7	367.2	356.3	349.8
47.5°	2474.7	2570.3	2196.6	2248.7	1772.9	1649.1	712.6	382.4	354.1	341.1	328.1
50°	2737.6	2828.8	2429.1	2450.8	1931.5	1777.3	740.9	388.9	349.8	330.2	310.7
52.5°	3015.7	3085.2	2674.6	2650.7	2096.7	1903.3	773.5	391.1	338.9	319.4	295.5
55°	3302.5	3341.6	2902.7	2839.7	2246.6	2029.3	816.9	388.9	330.2	308.5	278.1
57.5°	3582.8	3595.8	3104.8	3043.9	2394.3	2179.2	871.3	382.4	317.2	295.5	262.9
60°	3856.5	3878.3	3328.6	3272.1	2555.1	2372.6	949.5	371.5	299.8	284.6	249.9
62.5°	4156.4	4228.1	3595.8	3604.5	2776.7	2674.6	1097.2	358.5	282.5	265.1	230.3
65°	4564.8	4838.6	4036.9	4241.1	3202.6	3243.8	1379.7	321.6	258.6	236.8	212.9
67.5°	5588.2	5888.0	5108.0	5190.6	4199.8	3954.3	1557.8	273.8	228.1	212.9	197.7
70°	6870.1	6655.0	6100.9	5601.2	4782.1	4065.1	1371.0	230.3	202.1	193.4	184.7
72.5°	7222.0	6450.7	5994.5	5244.9	4421.4	3545.8	1049.4	197.7	180.3	176.0	169.5
75°	6346.4	5229.7	5255.8	4167.2	3665.3	2702.8	717.0	169.5	156.4	154.3	152.1
77.5°	4058.6	2687.6	3272.1	2059.7	2116.2	1251.5	349.8	141.2	134.7	134.7	130.4
80°	1442.7	895.2	1012.5	649.6	591.0	397.6	189.0	113.0	108.6	110.8	108.6
82.5°	432.4	343.3	336.8	262.9	204.2	167.3	104.3	86.9	82.6	84.7	80.4
85°	173.8	134.7	113.0	86.9	71.7	65.2	56.5	58.7	52.1	56.5	50.0
87.5°	10.9	8.7	6.5	8.7	0.0	4.3	10.9	8.7	2.2	8.7	6.5
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: P227593

CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°
0°	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4	860.4
2.5°	834.3	819.1	825.6	819.1	823.5	810.4	814.8	803.9	803.9	801.7	790.9
5°	806.1	790.9	788.7	773.5	775.7	758.3	756.1	736.5	736.5	719.2	686.6
7.5°	767.0	743.1	740.9	710.5	708.3	684.4	675.7	654.0	651.8	632.3	612.7
10°	717.0	680.1	673.5	634.4	636.6	610.5	608.4	593.1	593.1	584.5	584.5
12.5°	660.5	619.2	614.9	584.5	586.6	569.2	571.4	562.7	567.1	571.4	586.6
15°	608.4	575.8	571.4	551.9	554.0	549.7	556.2	556.2	562.7	573.6	599.7
17.5°	564.9	536.7	538.8	530.1	538.8	536.7	549.7	547.5	560.6	573.6	606.2
20°	525.8	510.6	517.1	514.9	525.8	525.8	536.7	538.8	549.7	567.1	604.0
22.5°	499.7	495.4	501.9	501.9	510.6	512.8	523.6	530.1	536.7	554.0	586.6
25°	484.5	482.3	488.9	491.0	497.5	499.7	510.6	510.6	521.4	532.3	549.7
27.5°	462.8	458.4	467.1	467.1	475.8	473.6	486.7	482.3	493.2	497.5	501.9
30°	447.6	441.1	447.6	445.4	451.9	445.4	451.9	445.4	451.9	451.9	445.4
32.5°	432.4	425.8	428.0	419.3	425.8	417.2	419.3	410.6	415.0	410.6	412.8
35°	417.2	408.5	408.5	397.6	397.6	386.7	391.1	382.4	391.1	397.6	395.4
37.5°	395.4	388.9	388.9	380.2	384.6	380.2	388.9	384.6	386.7	378.0	362.8
40°	382.4	386.7	384.6	391.1	386.7	380.2	373.7	360.7	358.5	354.1	345.5
42.5°	362.8	367.2	356.3	365.0	358.5	360.7	356.3	349.8	345.5	341.1	332.4
45°	334.6	334.6	325.9	338.9	332.4	345.5	341.1	341.1	336.8	330.2	323.7
47.5°	310.7	312.9	304.2	315.0	310.7	328.1	325.9	332.4	332.4	328.1	310.7
50°	295.5	291.1	284.6	295.5	293.3	308.5	310.7	323.7	321.6	323.7	308.5
52.5°	282.5	273.8	267.2	273.8	273.8	286.8	291.1	306.4	308.5	312.9	304.2
55°	267.2	256.4	252.0	256.4	256.4	269.4	275.9	286.8	293.3	306.4	302.0
57.5°	254.2	239.0	234.7	239.0	241.2	254.2	260.7	271.6	280.3	297.7	295.5
60°	239.0	226.0	221.6	228.1	230.3	243.3	249.9	260.7	267.2	286.8	286.8
62.5°	221.6	210.8	210.8	212.9	217.3	230.3	234.7	249.9	252.0	275.9	278.1
65°	206.4	199.9	199.9	202.1	206.4	217.3	219.4	234.7	236.8	260.7	267.2
67.5°	193.4	189.0	189.0	191.2	193.4	202.1	204.2	219.4	223.8	245.5	256.4
70°	180.3	176.0	173.8	173.8	180.3	186.9	191.2	206.4	208.6	228.1	241.2
72.5°	165.1	160.8	160.8	158.6	165.1	169.5	178.2	186.9	191.2	210.8	219.4
75°	149.9	145.6	145.6	143.4	147.7	156.4	158.6	167.3	169.5	186.9	195.5
77.5°	130.4	126.0	126.0	126.0	130.4	132.5	134.7	143.4	147.7	163.0	171.6
80°	108.6	104.3	106.5	104.3	110.8	102.1	108.6	117.3	121.7	130.4	126.0
82.5°	82.6	76.0	78.2	78.2	80.4	73.9	78.2	82.6	86.9	93.4	91.3
85°	52.1	45.6	50.0	45.6	50.0	43.5	47.8	47.8	52.1	47.8	45.6
87.5°	10.9	4.3	10.9	4.3	13.0	0.0	6.5	0.0	4.3	2.2	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: P227593

CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-7060

CANDELA DISTRIBUTION (continued):

	155°	165°	175°	180°
0°	860.4	860.4	860.4	860.4
2.5°	780.0	771.3	767.0	764.8
5°	669.2	654.0	649.6	645.3
7.5°	601.8	597.5	597.5	595.3
10°	588.8	595.3	597.5	597.5
12.5°	604.0	614.9	623.6	623.6
15°	623.6	643.1	654.0	654.0
17.5°	638.8	664.8	675.7	677.9
20°	640.9	667.0	682.2	684.4
22.5°	621.4	638.8	649.6	649.6
25°	571.4	580.1	586.6	586.6
27.5°	508.4	506.2	504.1	512.8
30°	443.2	438.9	430.2	438.9
32.5°	419.3	404.1	382.4	388.9
35°	382.4	378.0	367.2	369.4
37.5°	369.4	406.3	404.1	406.3
40°	354.1	399.8	397.6	401.9
42.5°	341.1	367.2	341.1	343.3
45°	317.2	328.1	306.4	306.4
47.5°	306.4	302.0	293.3	291.1
50°	297.7	297.7	293.3	289.0
52.5°	291.1	286.8	302.0	299.8
55°	282.5	278.1	289.0	289.0
57.5°	275.9	265.1	282.5	282.5
60°	269.4	258.6	275.9	275.9
62.5°	265.1	252.0	273.8	271.6
65°	258.6	245.5	273.8	269.4
67.5°	249.9	232.5	269.4	262.9
70°	232.5	217.3	254.2	236.8
72.5°	215.1	197.7	217.3	202.1
75°	189.0	173.8	176.0	173.8
77.5°	158.6	141.2	136.9	139.1
80°	119.5	108.6	104.3	104.3
82.5°	86.9	73.9	76.0	63.0
85°	39.1	28.2	21.7	21.7
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)