

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: P228489

Luminaire Tested: **ISS-AF-450-LED-E1-SLL-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228489
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29764)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-450-LED-E1-SLL-7030
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (16) 3000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2212 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

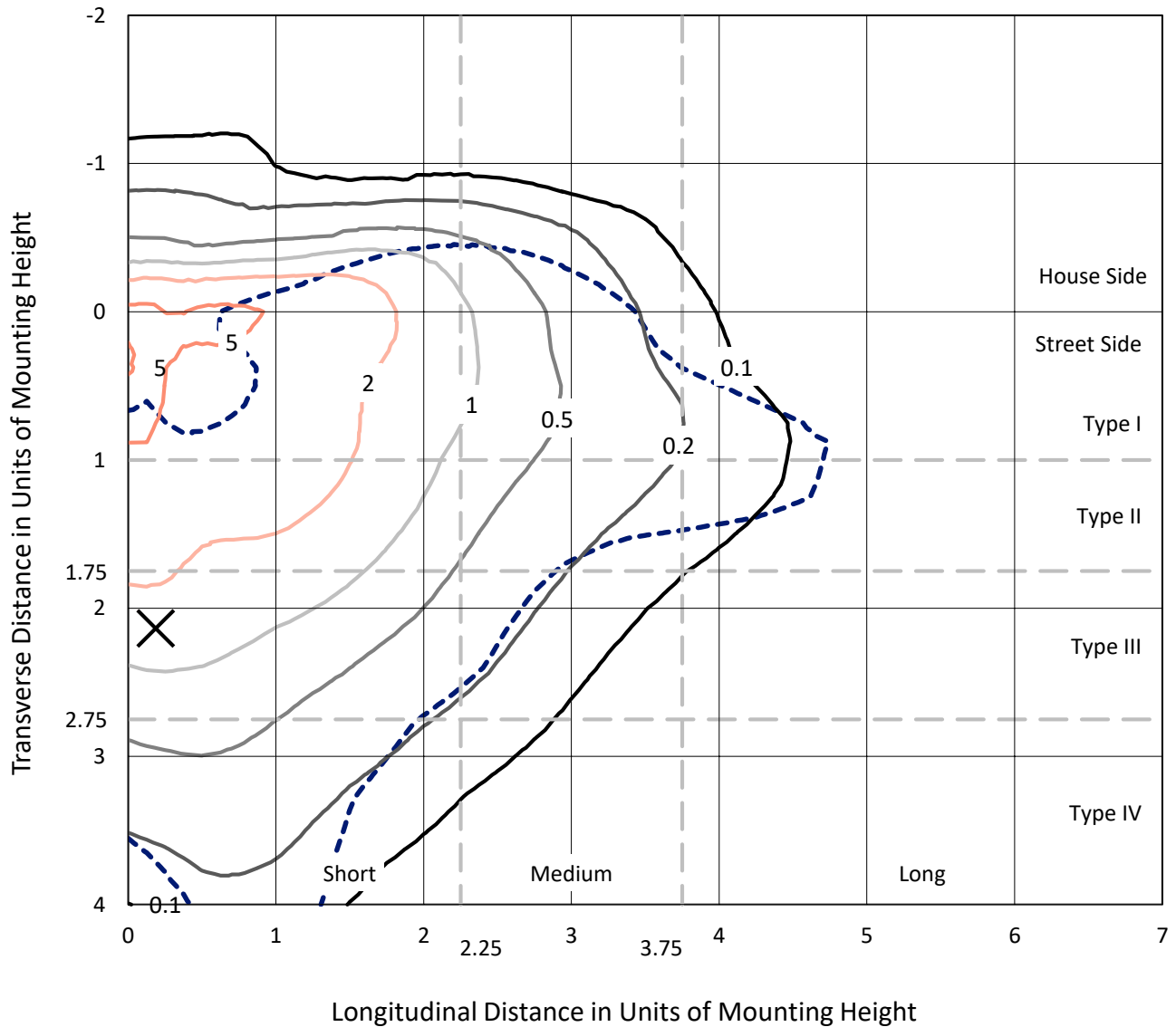
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P228489
 CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

Iso-Footcandle Lines of Horizontal Illumination

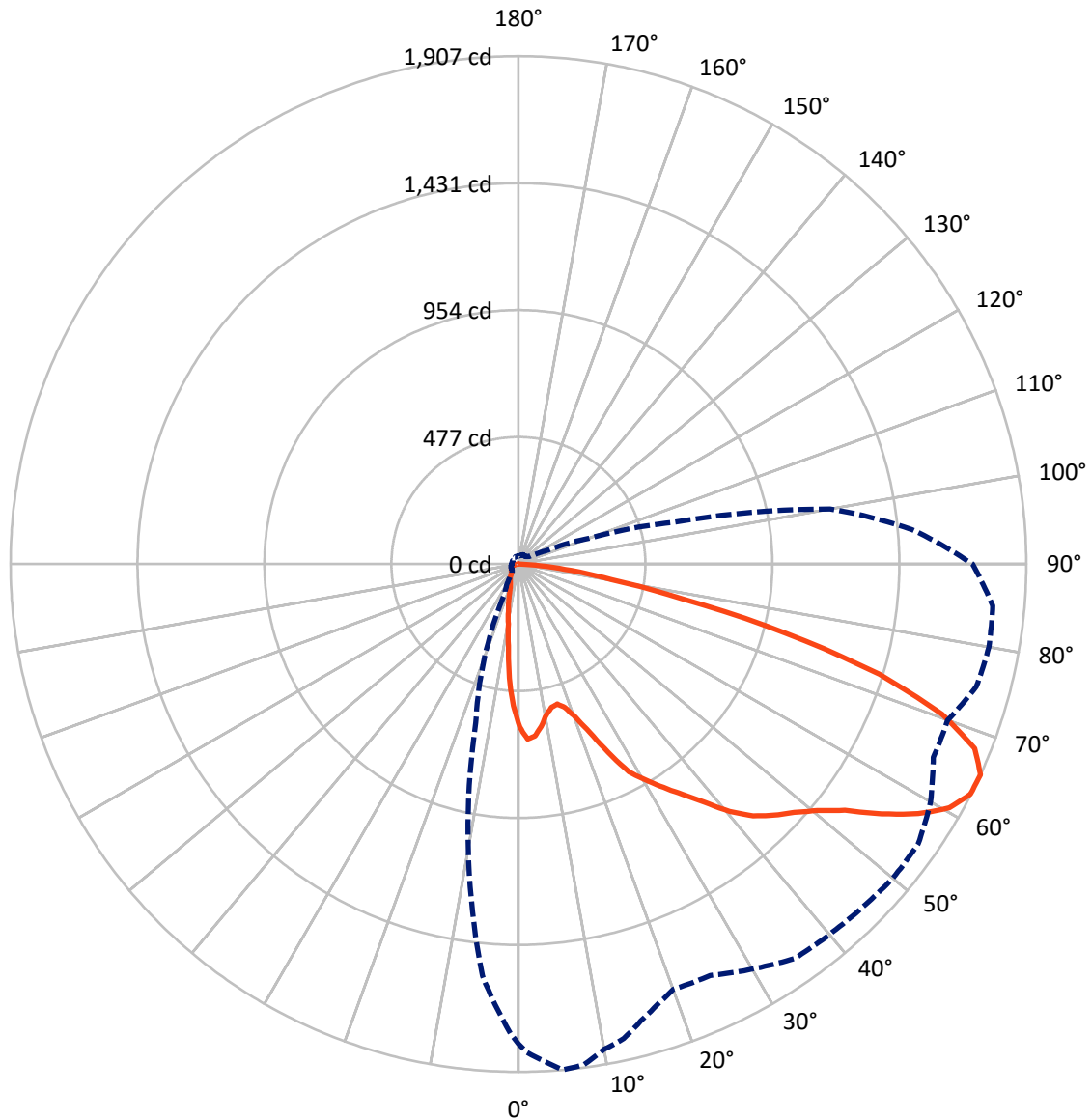
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.3 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P228489
CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P228489

CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

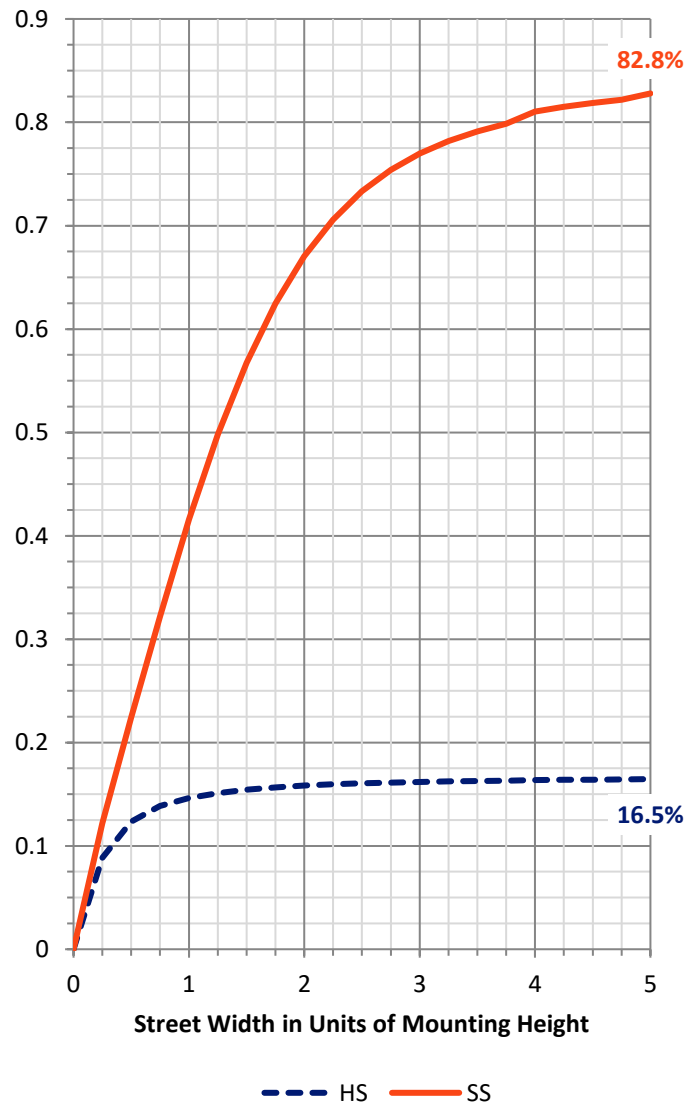
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	367.8	0.0	367.8
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	1844.2	0.0	1844.2
	% Fixture	83.4	0.0	83.4
Total	Lumens	2212.0	0.0	2212.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.0	2.1
10°-20°	96.9	4.4
20°-30°	140.8	6.4
30°-40°	208.2	9.4
40°-50°	303.4	13.7
50°-60°	454.8	20.6
60°-70°	566.8	25.6
70°-80°	332.0	15.0
80°-90°	62.1	2.8
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°	2212.0	100.0
0°-180°	2212.0	100.0



REPORT NUMBER: P228489

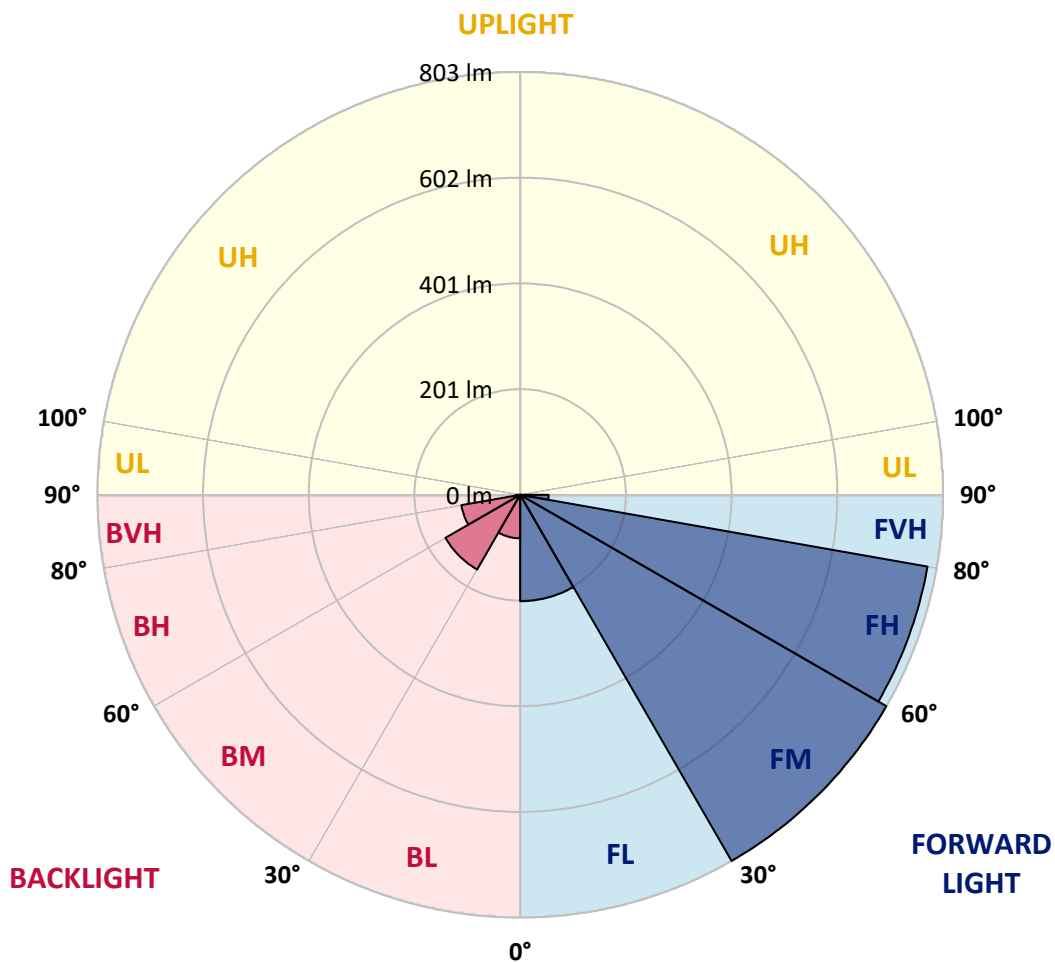
CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	202.1	9.1			
FM	(30°-60°)	802.8	36.3			
FH	(60°-80°)	785.3	35.5			G1/1800
FVH	(80°-90°)	54.1	2.4			G1/100
BL	(0°-30°)	82.6	3.7	B0/110		
BM	(30°-60°)	163.7	7.4	B0/220		
BH	(60°-80°)	113.5	5.1	B1/500		G1/500
BVH	(80°-90°)	8.0	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





REPORT NUMBER: P228489

CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	7.5°	10°	12.5°	15°	17.5°	20°	25°	35°
0°	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1
2.5°	649.8	648.1	658.6	660.3	667.3	667.3	675.2	682.2	684.8	691.0	706.7
5°	628.8	634.0	648.9	663.8	674.3	684.8	696.2	710.2	721.6	740.9	781.2
7.5°	582.4	590.3	615.7	630.5	647.2	665.6	679.6	696.2	713.7	746.1	817.9
10°	536.8	543.0	575.4	593.8	617.4	636.7	656.8	675.2	694.5	734.8	817.9
12.5°	507.9	515.8	552.6	570.1	597.3	617.4	641.9	663.8	686.6	729.5	810.1
15°	501.8	510.6	545.6	567.5	591.1	610.4	632.3	655.1	677.8	719.9	791.7
17.5°	518.4	529.0	566.6	591.1	609.5	631.4	647.2	669.1	684.0	717.2	751.4
20°	557.9	570.1	614.8	638.4	653.3	667.3	679.6	692.7	698.8	706.7	700.6
22.5°	620.9	635.8	686.6	713.7	724.2	734.8	735.6	737.4	733.0	712.0	664.7
25°	711.1	726.0	783.8	810.1	810.1	810.1	800.4	793.4	773.3	733.9	655.1
27.5°	795.2	814.4	883.6	900.3	895.0	887.1	868.7	851.2	822.3	756.6	654.2
30°	858.2	877.5	941.4	954.6	941.4	922.2	893.3	867.9	833.7	768.0	660.3
32.5°	916.0	938.8	1000.1	1001.9	978.2	956.3	923.9	895.0	859.1	789.0	678.7
35°	977.3	1000.1	1062.3	1050.0	1015.9	986.1	952.8	927.4	891.5	816.2	708.5
37.5°	1062.3	1082.4	1135.0	1106.1	1062.3	1023.7	987.8	954.6	918.7	853.0	758.4
40°	1144.6	1173.5	1221.7	1175.3	1121.8	1070.2	1030.8	995.7	956.3	902.9	822.3
42.5°	1221.7	1248.8	1293.5	1233.9	1171.8	1120.1	1078.9	1041.3	1003.6	959.8	899.4
45°	1280.3	1308.4	1346.0	1283.0	1212.0	1158.6	1114.0	1080.7	1047.4	1017.6	996.6
47.5°	1337.3	1365.3	1394.2	1325.9	1255.8	1201.5	1149.0	1118.3	1092.1	1076.3	1101.7
50°	1410.8	1430.1	1454.6	1381.1	1306.6	1244.4	1191.9	1168.2	1143.7	1149.0	1233.9
52.5°	1510.7	1527.3	1536.1	1464.3	1381.1	1310.1	1252.3	1219.9	1199.8	1230.4	1374.0
55°	1651.7	1675.3	1656.0	1585.1	1480.0	1399.4	1328.5	1290.0	1277.7	1318.9	1514.2
57.5°	1773.4	1783.9	1769.9	1699.8	1592.1	1501.9	1426.6	1386.3	1372.3	1426.6	1642.0
60°	1826.8	1839.9	1859.2	1798.8	1698.1	1608.7	1543.9	1504.5	1480.9	1543.9	1744.5
62.5°	1835.6	1857.5	1904.8	1874.1	1794.4	1727.9	1669.2	1614.9	1596.5	1644.7	1811.9
65°	1801.4	1834.7	1907.4	1896.0	1851.3	1825.9	1776.9	1734.9	1699.8	1705.1	1808.4
67.5°	1724.3	1762.9	1847.8	1842.6	1847.8	1847.8	1804.9	1769.9	1724.3	1659.5	1675.3
70°	1538.7	1589.5	1687.6	1713.0	1757.6	1757.6	1720.0	1666.5	1614.0	1480.9	1400.3
72.5°	1233.1	1267.2	1417.8	1541.3	1598.2	1575.5	1538.7	1449.4	1333.8	1187.5	1078.0
75°	834.6	854.7	1039.5	1265.5	1368.8	1349.5	1289.1	1177.9	1058.8	895.9	757.5
77.5°	465.0	491.3	629.7	806.6	945.8	943.2	935.3	864.4	769.8	634.9	563.1
80°	273.2	282.0	354.7	483.4	603.4	574.5	554.3	498.3	450.1	388.8	444.0
82.5°	167.3	158.5	201.4	294.3	356.4	344.2	310.0	289.0	266.2	249.6	295.1
85°	45.5	41.2	82.3	123.5	151.5	163.8	163.8	162.0	145.4	109.5	131.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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: P228489

CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
0°	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1
2.5°	712.9	713.7	711.1	717.2	710.2	706.7	696.2	696.2	687.5	680.5	672.6
5°	796.1	801.3	796.9	797.8	783.8	769.8	748.8	736.5	714.6	691.0	666.4
7.5°	852.1	860.9	857.4	842.5	820.6	790.8	755.8	722.5	686.6	648.1	612.1
10°	867.0	876.6	868.7	840.7	804.8	762.8	720.7	676.1	632.3	591.1	552.6
12.5°	846.0	853.0	836.3	805.7	770.7	728.6	684.8	646.3	594.6	550.8	506.2
15°	792.6	788.2	786.4	764.5	740.0	705.9	664.7	625.3	577.1	532.5	485.2
17.5°	734.8	729.5	731.2	722.5	719.0	703.2	672.6	639.3	596.4	542.1	491.3
20°	684.0	678.7	681.3	685.7	698.8	699.7	694.5	672.6	641.0	584.1	521.9
22.5°	640.2	641.0	649.8	662.1	684.0	712.0	733.9	738.3	716.4	649.8	571.9
25°	627.0	622.7	632.3	652.4	689.2	743.5	792.6	817.1	804.8	738.3	642.8
27.5°	622.7	616.5	627.0	653.3	712.0	788.2	858.2	895.0	899.4	831.1	719.0
30°	622.7	620.0	630.5	664.7	726.9	803.1	881.0	936.2	953.7	896.8	785.5
32.5°	630.5	632.3	650.7	694.5	758.4	836.3	916.9	976.5	1008.0	965.1	839.0
35°	648.1	651.6	677.8	728.6	797.8	876.6	950.2	1010.6	1061.4	1038.6	888.9
37.5°	685.7	691.0	723.4	775.0	838.1	909.0	980.8	1045.6	1119.2	1109.6	941.4
40°	752.3	752.3	784.7	829.3	881.0	935.3	1006.2	1082.4	1172.6	1185.8	1006.2
42.5°	836.3	832.8	853.9	886.3	922.2	967.7	1031.6	1116.6	1222.5	1251.4	1055.3
45°	951.9	934.4	945.8	953.7	971.2	999.2	1056.2	1149.0	1262.8	1300.5	1092.1
47.5°	1087.7	1063.2	1053.5	1038.6	1032.5	1043.0	1092.1	1174.4	1301.4	1342.5	1151.6
50°	1237.4	1213.8	1188.4	1148.1	1113.1	1102.6	1132.3	1208.5	1342.5	1395.1	1217.3
52.5°	1393.3	1376.7	1343.4	1280.3	1213.8	1176.1	1190.1	1265.5	1408.2	1476.5	1295.2
55°	1536.1	1541.3	1501.0	1427.5	1332.0	1274.2	1290.9	1366.2	1527.3	1607.9	1425.7
57.5°	1689.3	1675.3	1643.8	1567.6	1463.4	1401.2	1408.2	1499.3	1660.4	1721.7	1555.3
60°	1790.9	1790.9	1756.8	1699.0	1600.0	1542.2	1552.7	1636.8	1767.3	1773.4	1613.1
62.5°	1856.6	1866.2	1839.1	1797.9	1701.6	1653.4	1689.3	1748.9	1819.8	1769.0	1584.2
65°	1825.1	1835.6	1832.9	1787.4	1719.1	1715.6	1780.4	1794.4	1788.3	1705.1	1484.4
67.5°	1682.3	1661.3	1660.4	1636.8	1622.8	1695.4	1777.8	1782.1	1678.8	1579.8	1326.8
70°	1410.8	1374.9	1360.9	1367.9	1431.8	1567.6	1684.9	1651.7	1487.0	1402.1	1129.7
72.5°	1087.7	1044.8	1036.0	1063.2	1162.1	1353.0	1513.3	1466.9	1222.5	1123.6	874.9
75°	771.5	753.1	754.0	807.4	914.3	1098.2	1284.7	1280.3	905.5	775.0	602.5
77.5°	561.4	564.9	580.6	601.6	693.6	871.4	1046.5	1035.1	644.6	532.5	421.2
80°	463.3	468.5	468.5	457.1	480.8	575.4	711.1	759.3	431.7	358.2	294.3
82.5°	332.8	359.1	373.9	355.6	346.8	379.2	445.8	477.3	268.9	225.9	205.8
85°	158.5	181.3	186.5	182.2	209.3	239.1	254.8	261.0	147.1	105.1	134.9
87.5°	0.0	0.0	0.9	7.0	19.3	33.3	33.3	50.8	7.9	2.6	6.1
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: P228489

CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	115°	120°	125°	130°	135°	145°	155°	165°
0°	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1
2.5°	662.1	650.7	641.9	631.4	622.7	613.9	607.8	594.6	584.1	560.5	554.3
5°	646.3	621.8	605.1	589.4	569.2	555.2	540.3	521.9	501.8	467.6	457.1
7.5°	584.1	553.5	530.7	507.9	481.7	458.0	436.1	411.6	376.6	339.8	325.8
10°	516.7	484.3	452.8	425.6	394.1	367.8	348.5	331.0	303.0	275.0	256.6
12.5°	461.5	424.7	388.8	361.7	345.0	331.9	317.9	303.9	274.1	242.6	220.7
15°	436.1	393.2	361.7	338.9	324.0	308.3	291.6	275.9	240.8	204.0	177.8
17.5°	439.6	390.6	350.3	319.6	299.5	277.6	258.3	238.2	199.7	155.9	132.2
20°	458.9	393.2	338.0	302.1	273.2	245.2	220.7	195.3	148.0	113.8	97.2
22.5°	483.4	402.0	331.0	284.6	248.7	213.7	182.2	152.4	109.5	89.3	81.4
25°	525.4	422.1	329.3	268.9	225.1	183.0	150.6	119.1	88.5	78.8	74.4
27.5°	578.0	444.9	331.0	257.5	204.9	158.5	122.6	99.0	79.7	74.4	70.9
30°	630.5	468.5	323.2	240.0	181.3	135.7	105.1	90.2	78.8	72.7	66.6
32.5°	677.0	486.0	310.0	221.6	160.3	115.6	89.3	77.1	69.2	62.2	60.4
35°	710.2	493.9	295.1	210.2	146.2	103.3	78.8	69.2	61.3	54.3	50.8
37.5°	741.8	494.8	279.4	199.7	141.0	98.1	72.7	63.9	56.9	50.8	47.3
40°	774.2	491.3	270.6	189.2	133.1	95.5	70.1	59.6	55.2	48.2	44.7
42.5°	797.8	485.2	267.1	183.0	126.1	88.5	68.3	58.7	52.5	47.3	42.9
45°	819.7	479.0	267.1	177.8	120.9	84.1	64.8	59.6	50.8	46.4	41.2
47.5°	846.0	481.7	268.0	173.4	116.5	79.7	61.3	57.8	51.7	45.5	40.3
50°	890.6	511.4	272.4	170.8	113.0	76.2	58.7	55.2	56.9	44.7	39.4
52.5°	967.7	558.7	279.4	169.0	109.5	73.6	55.2	53.4	57.8	44.7	38.5
55°	1068.4	606.9	286.4	164.6	104.2	68.3	53.4	49.9	53.4	44.7	37.7
57.5°	1166.5	642.8	292.5	158.5	95.5	63.1	50.8	47.3	49.0	43.8	35.9
60°	1223.4	670.8	298.6	148.0	84.9	56.9	48.2	44.7	43.8	43.8	35.0
62.5°	1239.2	660.3	295.1	134.9	76.2	52.5	45.5	42.0	39.4	44.7	35.0
65°	1189.3	605.1	282.0	123.5	70.1	50.8	42.9	40.3	37.7	38.5	33.3
67.5°	1036.0	508.8	246.1	113.0	69.2	49.9	41.2	38.5	35.0	34.2	31.5
70°	845.1	399.3	204.0	105.1	68.3	49.9	39.4	35.9	33.3	30.7	28.9
72.5°	649.8	298.6	171.6	101.6	69.2	49.0	36.8	32.4	29.8	28.0	26.3
75°	457.1	211.1	142.7	91.1	64.8	46.4	34.2	28.9	26.3	24.5	22.8
77.5°	331.0	143.6	106.0	73.6	55.2	40.3	29.8	24.5	21.9	21.0	19.3
80°	211.1	88.5	70.9	54.3	40.3	31.5	22.8	19.3	17.5	15.8	14.9
82.5°	121.7	51.7	42.9	36.8	26.3	21.0	16.6	14.9	11.4	10.5	9.6
85°	74.4	32.4	23.6	19.3	16.6	13.1	9.6	8.8	6.1	5.3	4.4
87.5°	16.6	7.0	6.1	4.4	5.3	4.4	2.6	1.8	0.0	0.0	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: P228489

CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	175°	180°	185°	195°	205°	215°	225°	230°	232.5°	235°	237.5°
0°	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1
2.5°	544.7	531.6	532.5	529.8	522.8	511.4	507.9	501.8	502.7	506.2	502.7
5°	444.9	429.1	430.9	430.0	423.0	415.1	409.0	401.1	398.5	401.1	396.7
7.5°	315.3	304.8	308.3	316.1	315.3	310.9	305.6	296.9	295.1	296.0	288.1
10°	240.8	230.3	227.7	226.8	225.1	222.4	215.4	208.4	205.8	206.7	201.4
12.5°	201.4	192.7	182.2	172.5	163.8	160.3	151.5	147.1	146.2	146.2	143.6
15°	159.4	152.4	146.2	136.6	129.6	124.4	118.2	114.7	113.8	114.7	114.7
17.5°	119.1	115.6	113.0	112.1	108.6	105.1	101.6	99.8	99.0	99.0	99.8
20°	91.1	90.2	90.2	90.2	94.6	98.1	99.0	96.3	95.5	94.6	93.7
22.5°	78.8	77.9	78.8	84.1	81.4	78.8	78.8	78.8	78.8	78.8	79.7
25°	72.7	73.6	74.4	71.8	69.2	67.4	66.6	66.6	65.7	65.7	66.6
27.5°	69.2	68.3	67.4	65.7	63.9	61.3	60.4	59.6	59.6	59.6	59.6
30°	64.8	63.9	63.1	61.3	58.7	55.2	54.3	54.3	53.4	54.3	54.3
32.5°	59.6	58.7	57.8	56.0	53.4	51.7	50.8	49.0	49.0	49.0	49.9
35°	48.2	47.3	47.3	48.2	48.2	47.3	47.3	45.5	45.5	45.5	45.5
37.5°	44.7	43.8	43.8	42.9	43.8	44.7	43.8	42.9	42.9	42.0	42.0
40°	42.0	42.0	41.2	40.3	40.3	42.0	41.2	40.3	39.4	39.4	39.4
42.5°	40.3	39.4	39.4	38.5	38.5	38.5	37.7	36.8	35.9	35.9	35.9
45°	38.5	38.5	37.7	36.8	35.9	35.9	34.2	33.3	33.3	33.3	34.2
47.5°	37.7	36.8	36.8	35.9	35.0	33.3	32.4	31.5	31.5	31.5	31.5
50°	36.8	35.9	35.0	35.0	33.3	32.4	31.5	30.7	30.7	30.7	30.7
52.5°	35.9	35.0	34.2	33.3	32.4	31.5	30.7	29.8	29.8	29.8	29.8
55°	34.2	33.3	33.3	32.4	32.4	31.5	30.7	29.8	29.8	29.8	28.9
57.5°	33.3	32.4	31.5	31.5	31.5	30.7	29.8	28.9	28.9	28.9	28.9
60°	32.4	31.5	31.5	30.7	30.7	29.8	29.8	28.9	28.0	28.0	27.1
62.5°	31.5	30.7	30.7	29.8	30.7	29.8	28.9	28.0	27.1	27.1	26.3
65°	30.7	29.8	29.8	29.8	28.9	28.9	28.0	26.3	26.3	26.3	25.4
67.5°	28.9	28.0	28.0	28.9	28.0	27.1	27.1	25.4	25.4	24.5	24.5
70°	26.3	26.3	26.3	27.1	26.3	25.4	25.4	24.5	23.6	22.8	22.8
72.5°	24.5	23.6	24.5	24.5	24.5	23.6	24.5	22.8	21.9	21.0	21.0
75°	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.1	19.3	18.4
77.5°	16.6	17.5	17.5	17.5	17.5	18.4	17.5	17.5	17.5	16.6	15.8
80°	12.3	12.3	13.1	14.0	13.1	14.0	13.1	14.0	13.1	13.1	13.1
82.5°	7.0	7.0	7.9	8.8	8.8	9.6	7.9	8.8	8.8	9.6	8.8
85°	2.6	2.6	2.6	2.6	3.5	3.5	2.6	3.5	3.5	4.4	4.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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: P228489

CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	240°	242.5°	245°	247.5°	250°	252.5°	255°	257.5°	260°	265°	270°
0°	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1
2.5°	509.7	509.7	499.2	500.9	502.7	506.2	504.4	503.6	502.7	507.9	510.6
5°	400.2	399.3	386.2	385.3	388.0	388.8	386.2	381.8	379.2	380.1	382.7
7.5°	290.7	288.1	275.9	274.1	273.2	274.1	271.5	267.1	263.6	264.5	267.1
10°	203.2	196.2	194.4	195.3	197.0	198.8	198.8	198.8	199.7	204.9	211.1
12.5°	147.1	144.5	146.2	148.0	151.5	154.1	156.8	157.6	158.5	165.5	170.8
15°	116.5	116.5	118.2	119.1	120.9	122.6	124.4	124.4	125.2	127.9	132.2
17.5°	100.7	100.7	100.7	100.7	100.7	99.8	99.0	97.2	96.3	95.5	96.3
20°	92.8	92.0	90.2	89.3	87.6	85.8	84.9	82.3	81.4	78.8	77.9
22.5°	79.7	78.8	78.8	78.8	78.8	77.9	77.1	76.2	74.4	71.8	70.1
25°	65.7	65.7	65.7	66.6	66.6	67.4	69.2	69.2	69.2	69.2	66.6
27.5°	59.6	59.6	59.6	59.6	60.4	60.4	61.3	61.3	61.3	62.2	63.1
30°	54.3	55.2	55.2	56.0	56.0	56.9	56.9	57.8	57.8	58.7	58.7
32.5°	49.9	49.9	50.8	51.7	51.7	51.7	53.4	53.4	52.5	53.4	53.4
35°	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	42.9	42.0	42.9
37.5°	41.2	40.3	40.3	39.4	38.5	38.5	38.5	39.4	38.5	39.4	39.4
40°	37.7	37.7	36.8	36.8	36.8	36.8	36.8	36.8	36.8	37.7	38.5
42.5°	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.9	35.9
45°	33.3	33.3	33.3	33.3	34.2	34.2	34.2	34.2	34.2	34.2	35.0
47.5°	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	33.3	34.2
50°	30.7	30.7	31.5	31.5	31.5	31.5	31.5	31.5	31.5	32.4	33.3
52.5°	29.8	29.8	29.8	30.7	30.7	30.7	30.7	30.7	30.7	30.7	31.5
55°	28.9	29.8	29.8	29.8	29.8	29.8	28.9	28.9	28.9	28.9	29.8
57.5°	28.0	28.0	28.9	28.9	28.9	28.0	28.0	27.1	27.1	27.1	28.9
60°	27.1	27.1	27.1	27.1	27.1	26.3	26.3	26.3	26.3	27.1	27.1
62.5°	26.3	26.3	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
65°	25.4	25.4	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
67.5°	23.6	23.6	23.6	22.8	22.8	22.8	22.8	23.6	22.8	22.8	22.8
70°	21.9	21.9	21.9	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
72.5°	20.1	20.1	20.1	20.1	19.3	19.3	19.3	19.3	19.3	19.3	19.3
75°	18.4	17.5	17.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
77.5°	15.8	14.9	14.9	14.9	14.0	14.0	14.0	14.0	14.0	14.0	14.0
80°	13.1	12.3	12.3	11.4	11.4	11.4	11.4	11.4	11.4	10.5	10.5
82.5°	9.6	8.8	8.8	8.8	8.8	7.9	7.9	7.9	7.9	7.0	6.1
85°	4.4	4.4	3.5	4.4	4.4	5.3	4.4	4.4	4.4	3.5	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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: P228489
 CATALOG NUMBER: ISS-AF-450-LED-E1-SLL-7030

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°	302.5°	
0°	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	0°
2.5°	508.8	517.6	518.4	513.2	523.7	525.4	522.8	522.8	524.6	531.6	531.6	2.5°
5°	379.2	390.6	389.7	382.7	396.7	401.1	398.5	399.3	402.8	410.7	415.1	5°
7.5°	268.0	277.6	276.7	275.9	284.6	288.1	289.9	292.5	303.0	303.9	309.1	7.5°
10°	217.2	225.9	228.6	234.7	237.3	242.6	246.1	250.5	259.2	263.6	269.7	10°
12.5°	176.0	186.5	189.2	196.2	199.7	205.8	209.3	218.1	223.3	228.6	236.5	12.5°
15°	135.7	144.5	147.1	152.4	155.9	162.9	166.4	171.6	182.2	187.4	197.9	15°
17.5°	99.8	105.1	106.8	110.3	113.0	115.6	122.6	131.4	137.5	146.2	151.5	17.5°
20°	77.9	79.7	80.6	81.4	83.2	84.9	88.5	94.6	98.1	105.1	110.3	20°
22.5°	70.1	70.9	70.9	71.8	71.8	72.7	74.4	76.2	77.9	80.6	83.2	22.5°
25°	64.8	65.7	65.7	66.6	66.6	67.4	68.3	69.2	70.9	71.8	72.7	25°
27.5°	62.2	62.2	62.2	62.2	63.1	63.1	63.9	65.7	65.7	67.4	68.3	27.5°
30°	59.6	59.6	59.6	60.4	61.3	63.1	64.8	67.4	68.3	70.1	70.9	30°
32.5°	55.2	53.4	55.2	54.3	52.5	52.5	53.4	55.2	55.2	56.0	56.9	32.5°
35°	42.9	42.9	43.8	44.7	44.7	45.5	46.4	47.3	48.2	49.9	50.8	35°
37.5°	40.3	41.2	41.2	42.0	42.9	42.9	43.8	45.5	46.4	47.3	48.2	37.5°
40°	38.5	39.4	40.3	41.2	41.2	42.0	42.9	43.8	44.7	46.4	47.3	40°
42.5°	36.8	38.5	38.5	39.4	40.3	41.2	42.0	42.9	44.7	45.5	46.4	42.5°
45°	35.9	36.8	37.7	38.5	39.4	40.3	41.2	42.9	43.8	45.5	46.4	45°
47.5°	35.0	35.9	36.8	37.7	38.5	39.4	40.3	42.0	43.8	45.5	47.3	47.5°
50°	33.3	35.0	35.9	36.8	37.7	38.5	40.3	42.0	43.8	46.4	50.8	50°
52.5°	32.4	34.2	34.2	35.9	36.8	38.5	40.3	42.0	44.7	48.2	52.5	52.5°
55°	30.7	32.4	32.4	34.2	35.9	37.7	38.5	41.2	43.8	47.3	48.2	55°
57.5°	28.9	30.7	31.5	32.4	34.2	35.9	36.8	39.4	42.9	43.8	42.9	57.5°
60°	28.0	28.9	29.8	30.7	32.4	33.3	35.9	41.2	44.7	41.2	36.8	60°
62.5°	26.3	28.0	28.9	29.8	31.5	32.4	34.2	37.7	38.5	34.2	33.3	62.5°
65°	25.4	27.1	27.1	28.9	29.8	29.8	30.7	30.7	30.7	30.7	30.7	65°
67.5°	23.6	25.4	25.4	26.3	27.1	27.1	28.0	28.0	28.0	28.0	28.0	67.5°
70°	21.9	22.8	23.6	24.5	24.5	24.5	25.4	25.4	25.4	26.3	26.3	70°
72.5°	20.1	21.0	21.0	21.9	21.9	22.8	22.8	23.6	23.6	23.6	24.5	72.5°
75°	16.6	17.5	18.4	19.3	19.3	20.1	20.1	20.1	20.1	21.0	21.0	75°
77.5°	14.0	14.0	15.8	15.8	16.6	16.6	17.5	17.5	17.5	17.5	17.5	77.5°
80°	10.5	10.5	11.4	12.3	13.1	13.1	13.1	13.1	13.1	13.1	13.1	80°
82.5°	6.1	6.1	7.0	7.0	7.9	7.9	8.8	7.9	7.9	7.0	7.0	82.5°
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.0	0.0	85°
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°

NUMBER: P228489
 NUMBER: ISS-AF-450-LED-E1-SLL-7030

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	335°	345°		355°
612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	0°	612.1
544.7	544.7	546.5	553.5	555.2	559.6	558.7	566.6	570.1	591.1	613.0	2.5°	634.0
430.9	434.4	439.6	448.4	453.6	463.3	461.5	477.3	479.9	518.4	556.1	5°	599.9
321.4	326.7	331.0	340.7	348.5	358.2	360.8	379.2	384.5	435.2	487.8	7.5°	548.2
278.5	282.9	289.0	295.1	303.0	307.4	314.4	323.2	329.3	366.9	427.4	10°	496.5
247.8	254.0	260.1	268.9	276.7	284.6	291.6	300.4	308.3	338.9	386.2	12.5°	465.9
210.2	217.2	224.2	233.8	245.2	253.1	261.0	270.6	280.2	317.9	373.1	15°	453.6
162.9	170.8	180.4	193.5	205.8	215.4	223.3	236.5	248.7	294.3	366.9	17.5°	465.9
120.0	127.0	135.7	147.1	155.9	172.5	181.3	197.0	211.9	268.9	358.2	20°	489.5
88.5	92.8	99.8	108.6	118.2	133.1	142.7	156.8	173.4	245.2	358.2	22.5°	529.8
74.4	76.2	78.8	84.1	90.2	100.7	110.3	124.4	141.0	224.2	367.8	25°	595.5
69.2	70.1	71.8	74.4	77.9	83.2	90.2	101.6	118.2	207.6	381.8	27.5°	665.6
72.7	72.7	72.7	73.6	75.3	77.9	81.4	88.5	99.0	183.0	391.5	30°	726.9
58.7	59.6	59.6	61.3	62.2	65.7	69.2	74.4	84.1	168.1	397.6	32.5°	770.7
52.5	53.4	54.3	55.2	56.9	57.8	61.3	67.4	77.1	158.5	396.7	35°	822.3
49.9	50.8	51.7	51.7	52.5	54.3	56.9	63.1	74.4	155.0	396.7	37.5°	881.9
49.0	49.0	49.0	49.0	50.8	52.5	56.9	63.1	72.7	151.5	399.3	40°	947.6
47.3	47.3	47.3	48.2	50.8	54.3	56.0	59.6	67.4	149.8	403.7	42.5°	1007.1
47.3	47.3	48.2	51.7	52.5	52.5	53.4	56.0	63.9	149.8	412.5	45°	1053.5
49.0	50.8	51.7	50.8	49.9	49.9	49.9	53.4	61.3	152.4	429.1	47.5°	1106.9
53.4	52.5	49.0	48.2	48.2	46.4	47.3	50.8	60.4	152.4	463.3	50°	1180.5
52.5	49.0	48.2	46.4	44.7	43.8	44.7	49.9	59.6	150.6	512.3	52.5°	1288.2
47.3	46.4	43.8	42.0	41.2	42.0	43.8	48.2	57.8	148.9	572.7	55°	1418.7
41.2	40.3	38.5	38.5	39.4	40.3	42.9	46.4	53.4	144.5	620.9	57.5°	1538.7
35.9	35.9	35.9	36.8	37.7	38.5	41.2	43.8	49.0	136.6	653.3	60°	1615.8
32.4	33.3	33.3	35.0	35.9	36.8	38.5	41.2	44.7	127.9	660.3	62.5°	1616.6
30.7	31.5	32.4	32.4	33.3	34.2	36.8	39.4	44.7	120.9	617.4	65°	1552.7
28.9	28.9	29.8	30.7	31.5	32.4	34.2	38.5	45.5	114.7	523.7	67.5°	1390.7
26.3	27.1	28.0	28.9	28.9	29.8	32.4	38.5	46.4	112.1	416.0	70°	1174.4
24.5	24.5	25.4	26.3	26.3	28.0	30.7	37.7	47.3	107.7	313.5	72.5°	916.0
21.0	21.9	21.9	21.9	22.8	24.5	28.0	34.2	41.2	89.3	211.9	75°	620.9
18.4	17.5	18.4	18.4	19.3	20.1	22.8	26.3	30.7	56.9	112.1	77.5°	395.0
13.1	12.3	12.3	13.1	13.1	13.1	14.9	15.8	17.5	35.0	62.2	80°	232.9
7.0	6.1	7.0	6.1	6.1	7.0	7.0	8.8	8.8	16.6	28.0	82.5°	144.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	6.1	85°	58.7
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
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°	0.0



'228489
ISS-AF-450-LED-E1-SLL-7030

TION (continued):

359°	360°
612.1	612.1
644.6	649.8
621.8	628.8
572.7	582.4
527.2	536.8
502.7	507.9
491.3	501.8
507.9	518.4
541.2	557.9
599.9	620.9
692.7	711.1
766.3	795.2
834.6	858.2
888.9	916.0
951.1	977.3
1026.4	1062.3
1104.3	1144.6
1177.0	1221.7
1245.3	1280.3
1297.9	1337.3
1364.4	1410.8
1477.4	1510.7
1614.0	1651.7
1741.0	1773.4
1799.7	1826.8
1801.4	1835.6
1762.9	1801.4
1664.8	1724.3
1472.1	1538.7
1156.9	1233.1
768.0	834.6
443.1	465.0
261.8	273.2
155.9	167.3
42.0	45.5
0.0	0.0
0.0	0.0

(END OF REPORT)