

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: P228584

Luminaire Tested: **ISS-AF-450-LED-E1-SLR-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29764)-DOWNLIGHT AND
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-SLR-7030-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCUED OPTICS-90° SPILL LIGHT ELIMINATOR RIGHT, WITH
UPLIGHT GLOW
Light Source: (16) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3638.2 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U5 - G1

Input Watts (W): 42.01
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

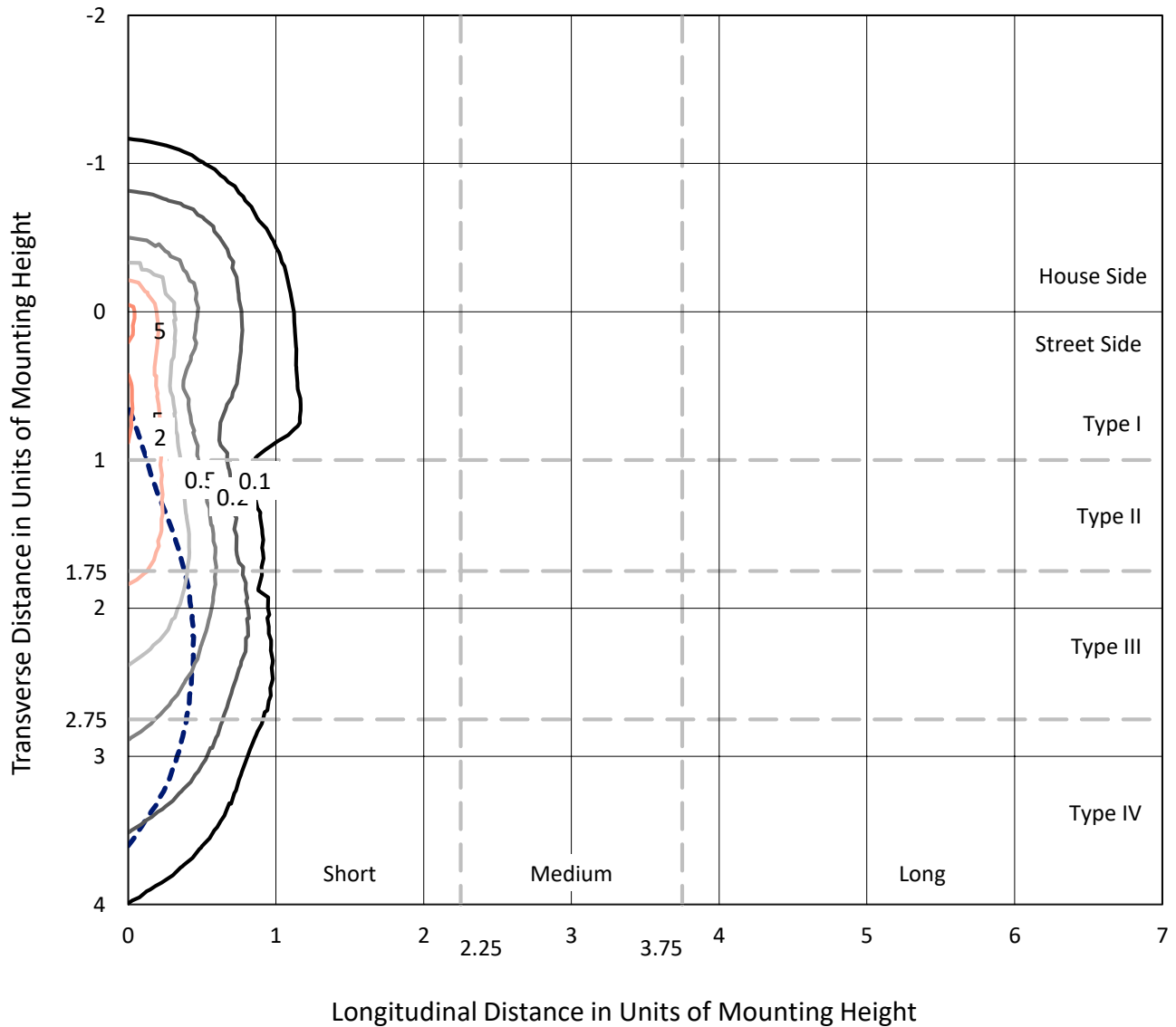


REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

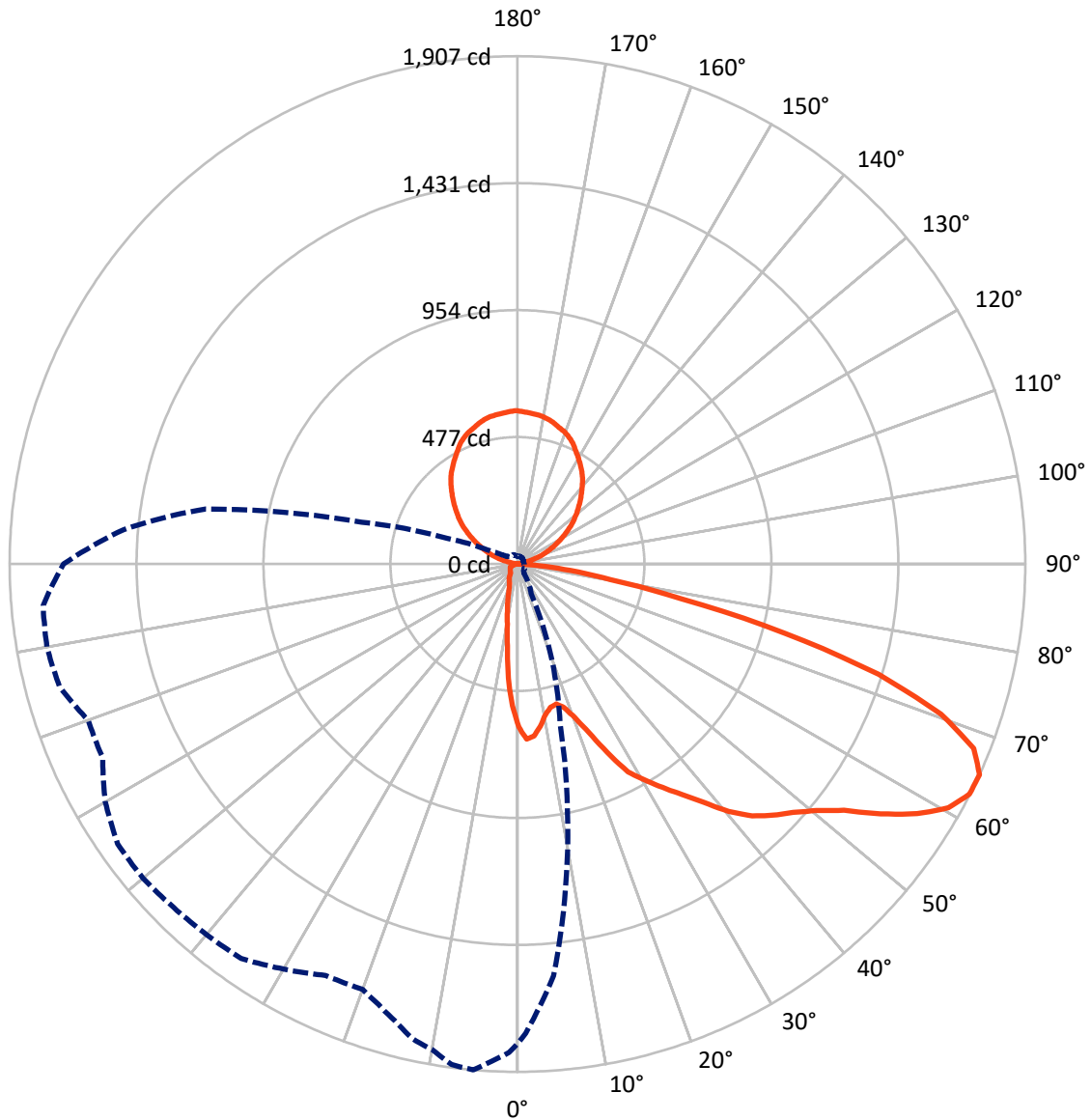


Based on 10 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

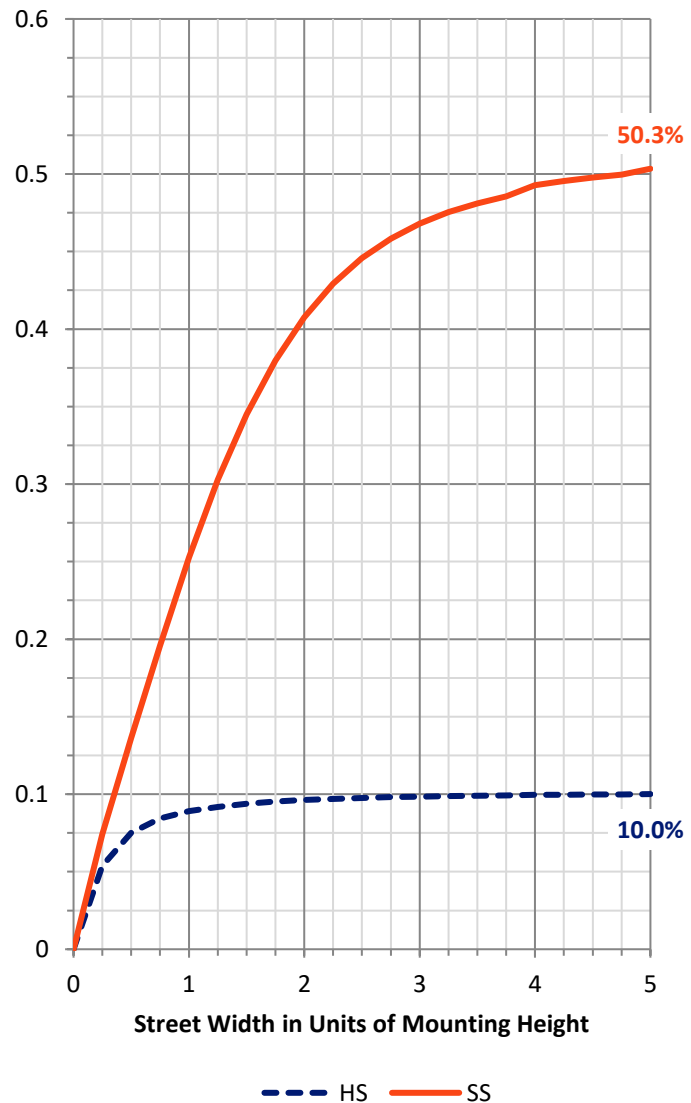
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	367.8	713.1	1080.9
	% Fixture	10.1	19.6	29.7
Street Side	Lumens	1844.2	713.1	2557.3
	% Fixture	50.7	19.6	70.3
Total	Lumens	2212.0	1426.2	3638.2
	% Fixture	60.8	39.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.0	1.3
10°-20°	96.9	2.7
20°-30°	140.8	3.9
30°-40°	208.2	5.7
40°-50°	303.4	8.3
50°-60°	454.8	12.5
60°-70°	566.8	15.6
70°-80°	332.0	9.1
80°-90°	62.1	1.7
90°-100°	4.7	0.1
100°-110°	69.0	1.9
110°-120°	153.0	4.2
120°-130°	223.9	6.2
130°-140°	265.6	7.3
140°-150°	269.3	7.4
150°-160°	231.1	6.4
160°-170°	155.1	4.3
170°-180°	54.3	1.5
0°-90°	2212.0	60.8
0°-180°	3638.2	100.0



REPORT NUMBER: P228584

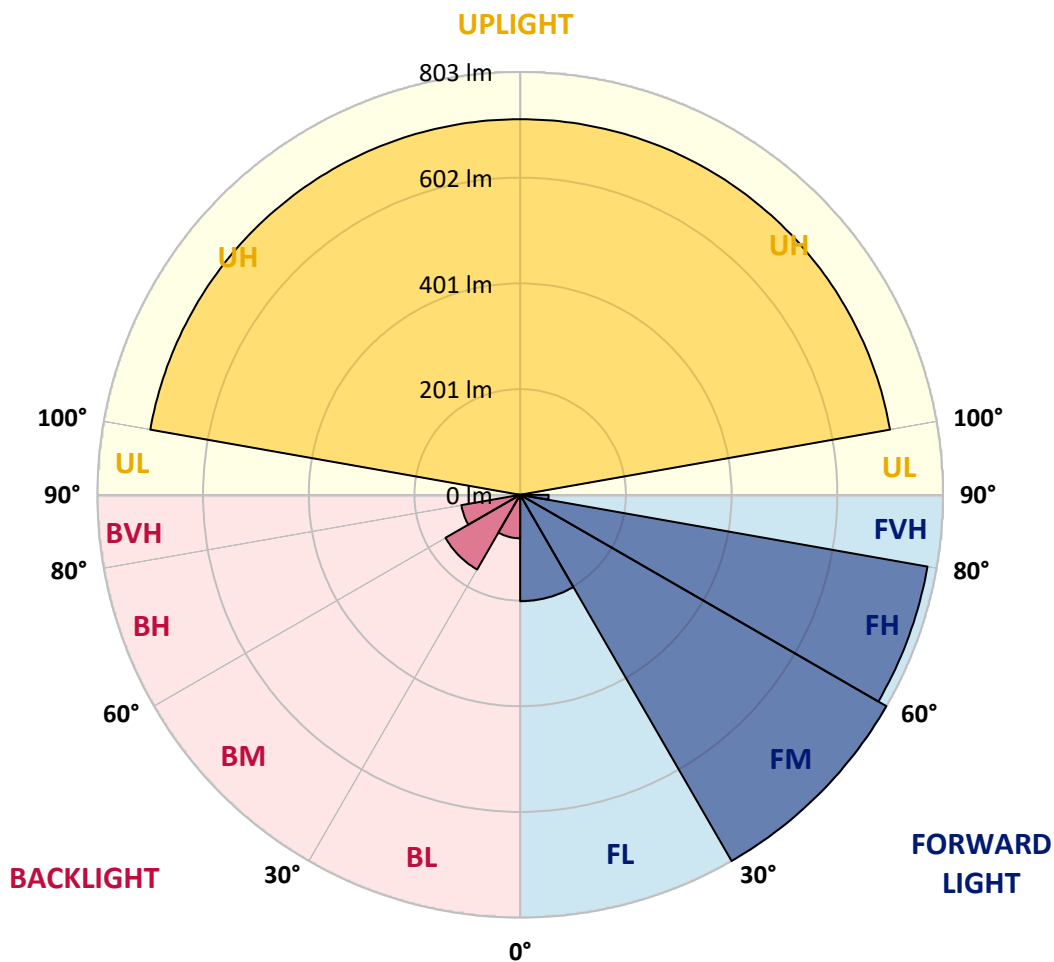
CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	202.1	5.6			
FM	(30°-60°)	802.8	22.1			
FH	(60°-80°)	785.3	21.6			G1/1800
FVH	(80°-90°)	54.1	1.5			G1/100
BL	(0°-30°)	82.6	2.3	B0/110		
BM	(30°-60°)	163.7	4.5	B0/220		
BH	(60°-80°)	113.5	3.1	B1/500		G1/500
BVH	(80°-90°)	8.0	0.2			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	19.6		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°
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°	649.8	644.6	634.0	613.0	591.1	570.1	566.6	558.7	559.6	555.2	553.5
5°	628.8	621.8	599.9	556.1	518.4	479.9	477.3	461.5	463.3	453.6	448.4
7.5°	582.4	572.7	548.2	487.8	435.2	384.5	379.2	360.8	358.2	348.5	340.7
10°	536.8	527.2	496.5	427.4	366.9	329.3	323.2	314.4	307.4	303.0	295.1
12.5°	507.9	502.7	465.9	386.2	338.9	308.3	300.4	291.6	284.6	276.7	268.9
15°	501.8	491.3	453.6	373.1	317.9	280.2	270.6	261.0	253.1	245.2	233.8
17.5°	518.4	507.9	465.9	366.9	294.3	248.7	236.5	223.3	215.4	205.8	193.5
20°	557.9	541.2	489.5	358.2	268.9	211.9	197.0	181.3	172.5	155.9	147.1
22.5°	620.9	599.9	529.8	358.2	245.2	173.4	156.8	142.7	133.1	118.2	108.6
25°	711.1	692.7	595.5	367.8	224.2	141.0	124.4	110.3	100.7	90.2	84.1
27.5°	795.2	766.3	665.6	381.8	207.6	118.2	101.6	90.2	83.2	77.9	74.4
30°	858.2	834.6	726.9	391.5	183.0	99.0	88.5	81.4	77.9	75.3	73.6
32.5°	916.0	888.9	770.7	397.6	168.1	84.1	74.4	69.2	65.7	62.2	61.3
35°	977.3	951.1	822.3	396.7	158.5	77.1	67.4	61.3	57.8	56.9	55.2
37.5°	1062.3	1026.4	881.9	396.7	155.0	74.4	63.1	56.9	54.3	52.5	51.7
40°	1144.6	1104.3	947.6	399.3	151.5	72.7	63.1	56.9	52.5	50.8	49.0
42.5°	1221.7	1177.0	1007.1	403.7	149.8	67.4	59.6	56.0	54.3	50.8	48.2
45°	1280.3	1245.3	1053.5	412.5	149.8	63.9	56.0	53.4	52.5	52.5	51.7
47.5°	1337.3	1297.9	1106.9	429.1	152.4	61.3	53.4	49.9	49.9	49.9	50.8
50°	1410.8	1364.4	1180.5	463.3	152.4	60.4	50.8	47.3	46.4	48.2	48.2
52.5°	1510.7	1477.4	1288.2	512.3	150.6	59.6	49.9	44.7	43.8	44.7	46.4
55°	1651.7	1614.0	1418.7	572.7	148.9	57.8	48.2	43.8	42.0	41.2	42.0
57.5°	1773.4	1741.0	1538.7	620.9	144.5	53.4	46.4	42.9	40.3	39.4	38.5
60°	1826.8	1799.7	1615.8	653.3	136.6	49.0	43.8	41.2	38.5	37.7	36.8
62.5°	1835.6	1801.4	1616.6	660.3	127.9	44.7	41.2	38.5	36.8	35.9	35.0
65°	1801.4	1762.9	1552.7	617.4	120.9	44.7	39.4	36.8	34.2	33.3	32.4
67.5°	1724.3	1664.8	1390.7	523.7	114.7	45.5	38.5	34.2	32.4	31.5	30.7
70°	1538.7	1472.1	1174.4	416.0	112.1	46.4	38.5	32.4	29.8	28.9	28.9
72.5°	1233.1	1156.9	916.0	313.5	107.7	47.3	37.7	30.7	28.0	26.3	26.3
75°	834.6	768.0	620.9	211.9	89.3	41.2	34.2	28.0	24.5	22.8	21.9
77.5°	465.0	443.1	395.0	112.1	56.9	30.7	26.3	22.8	20.1	19.3	18.4
80°	273.2	261.8	232.9	62.2	35.0	17.5	15.8	14.9	13.1	13.1	13.1
82.5°	167.3	155.9	144.5	28.0	16.6	8.8	8.8	7.0	7.0	6.1	6.1
85°	45.5	42.0	58.7	6.1	1.8	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
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	2.0	3.0	4.0	5.2	6.5	7.8	9.0	10.0
100°	8.0	8.0	8.0	10.0	14.0	22.0	24.0	26.0	28.0	30.0	30.5
102.5°	28.0	28.0	28.0	32.0	38.0	45.0	46.2	47.5	48.8	50.0	50.2
105°	54.0	54.0	54.0	56.0	61.0	66.0	67.0	68.0	69.0	70.0	70.2
107.5°	78.0	77.8	77.0	80.0	84.0	88.0	88.8	89.5	90.2	91.0	91.5
110°	101.0	101.2	102.0	103.0	106.0	110.0	110.5	111.0	111.5	112.0	112.5



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

	0°	1°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°
112.5°	124.0	124.0	124.0	126.0	129.0	132.0	132.5	133.0	133.5	134.0	134.5
115°	146.0	146.2	147.0	149.0	151.0	154.0	154.5	155.0	155.5	156.0	156.5
117.5°	169.0	169.2	170.0	172.0	174.0	177.0	177.5	178.0	178.5	179.0	179.2
120°	193.0	193.4	195.0	196.0	198.0	201.0	201.2	201.5	201.8	202.0	202.5
122.5°	219.0	219.2	220.0	221.0	223.0	226.0	226.2	226.5	226.8	227.0	227.2
125°	244.0	244.4	246.0	247.0	248.0	251.0	251.2	251.5	251.8	252.0	252.2
127.5°	267.0	267.4	269.0	270.0	272.0	274.0	274.5	275.0	275.5	276.0	276.5
130°	290.0	290.4	292.0	293.0	294.0	298.0	298.2	298.5	298.8	299.0	299.5
132.5°	313.0	313.2	314.0	317.0	318.0	321.0	321.2	321.5	321.8	322.0	322.8
135°	336.0	336.2	337.0	339.0	341.0	345.0	345.0	345.0	345.0	345.0	345.8
137.5°	359.0	359.2	360.0	363.0	364.0	367.0	367.0	367.0	367.0	367.0	367.5
140°	382.0	382.2	383.0	385.0	386.0	388.0	388.2	388.5	388.8	389.0	389.2
142.5°	404.0	404.4	406.0	408.0	407.0	410.0	410.0	410.0	410.0	410.0	410.5
145°	425.0	425.2	426.0	428.0	428.0	431.0	431.2	431.5	431.8	432.0	432.5
147.5°	444.0	444.0	444.0	447.0	448.0	452.0	452.2	452.5	452.8	453.0	453.2
150°	461.0	461.2	462.0	464.0	465.0	469.0	469.2	469.5	469.8	470.0	470.2
152.5°	479.0	479.2	480.0	483.0	482.0	485.0	485.2	485.5	485.8	486.0	486.2
155°	499.0	499.2	500.0	502.0	501.0	503.0	503.0	503.0	503.0	503.0	503.2
157.5°	513.0	513.4	515.0	517.0	516.0	519.0	519.0	519.0	519.0	519.0	519.0
160°	525.0	525.4	527.0	529.0	529.0	532.0	532.0	532.0	532.0	532.0	532.0
162.5°	535.0	535.2	536.0	539.0	538.0	541.0	541.0	541.0	541.0	541.0	541.2
165°	546.0	546.2	547.0	549.0	548.0	552.0	552.0	552.0	552.0	552.0	552.2
167.5°	555.0	555.2	556.0	559.0	558.0	561.0	560.8	560.5	560.2	560.0	560.0
170°	562.0	562.2	563.0	566.0	565.0	567.0	566.8	566.5	566.2	566.0	565.8
172.5°	565.0	565.2	566.0	569.0	567.0	569.0	568.8	568.5	568.2	568.0	568.2
175°	567.0	567.4	569.0	570.0	569.0	572.0	572.0	572.0	572.0	572.0	572.2
177.5°	572.0	572.2	573.0	575.0	574.0	578.0	577.8	577.5	577.2	577.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
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°	546.5	544.7	544.7	531.6	531.6	524.6	522.8	522.8	525.4	523.7	513.2
5°	439.6	434.4	430.9	415.1	410.7	402.8	399.3	398.5	401.1	396.7	382.7
7.5°	331.0	326.7	321.4	309.1	303.9	303.0	292.5	289.9	288.1	284.6	275.9
10°	289.0	282.9	278.5	269.7	263.6	259.2	250.5	246.1	242.6	237.3	234.7
12.5°	260.1	254.0	247.8	236.5	228.6	223.3	218.1	209.3	205.8	199.7	196.2
15°	224.2	217.2	210.2	197.9	187.4	182.2	171.6	166.4	162.9	155.9	152.4
17.5°	180.4	170.8	162.9	151.5	146.2	137.5	131.4	122.6	115.6	113.0	110.3
20°	135.7	127.0	120.0	110.3	105.1	98.1	94.6	88.5	84.9	83.2	81.4
22.5°	99.8	92.8	88.5	83.2	80.6	77.9	76.2	74.4	72.7	71.8	71.8
25°	78.8	76.2	74.4	72.7	71.8	70.9	69.2	68.3	67.4	66.6	66.6
27.5°	71.8	70.1	69.2	68.3	67.4	65.7	65.7	63.9	63.1	63.1	62.2
30°	72.7	72.7	72.7	70.9	70.1	68.3	67.4	64.8	63.1	61.3	60.4
32.5°	59.6	59.6	58.7	56.9	56.0	55.2	55.2	53.4	52.5	52.5	54.3
35°	54.3	53.4	52.5	50.8	49.9	48.2	47.3	46.4	45.5	44.7	44.7
37.5°	51.7	50.8	49.9	48.2	47.3	46.4	45.5	43.8	42.9	42.9	42.0
40°	49.0	49.0	49.0	47.3	46.4	44.7	43.8	42.9	42.0	41.2	41.2
42.5°	47.3	47.3	47.3	46.4	45.5	44.7	42.9	42.0	41.2	40.3	39.4
45°	48.2	47.3	47.3	46.4	45.5	43.8	42.9	41.2	40.3	39.4	38.5
47.5°	51.7	50.8	49.0	47.3	45.5	43.8	42.0	40.3	39.4	38.5	37.7
50°	49.0	52.5	53.4	50.8	46.4	43.8	42.0	40.3	38.5	37.7	36.8
52.5°	48.2	49.0	52.5	52.5	48.2	44.7	42.0	40.3	38.5	36.8	35.9
55°	43.8	46.4	47.3	48.2	47.3	43.8	41.2	38.5	37.7	35.9	34.2
57.5°	38.5	40.3	41.2	42.9	43.8	42.9	39.4	36.8	35.9	34.2	32.4
60°	35.9	35.9	35.9	36.8	41.2	44.7	41.2	35.9	33.3	32.4	30.7
62.5°	33.3	33.3	32.4	33.3	34.2	38.5	37.7	34.2	32.4	31.5	29.8
65°	32.4	31.5	30.7	30.7	30.7	30.7	30.7	30.7	29.8	29.8	28.9
67.5°	29.8	28.9	28.9	28.0	28.0	28.0	28.0	28.0	27.1	27.1	26.3
70°	28.0	27.1	26.3	26.3	26.3	25.4	25.4	25.4	24.5	24.5	24.5
72.5°	25.4	24.5	24.5	24.5	23.6	23.6	23.6	22.8	22.8	21.9	21.9
75°	21.9	21.9	21.0	21.0	21.0	20.1	20.1	20.1	20.1	19.3	19.3
77.5°	18.4	17.5	18.4	17.5	17.5	17.5	17.5	17.5	16.6	16.6	15.8
80°	12.3	12.3	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	12.3
82.5°	7.0	6.1	7.0	7.0	7.0	7.9	7.9	8.8	7.9	7.9	7.0
85°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.8	1.8	1.8	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
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	11.0	12.0	13.0	11.5	10.0	8.5	7.0	6.5	6.0	5.5	5.0
100°	31.0	31.5	32.0	31.5	31.0	30.5	30.0	29.2	28.5	27.8	27.0
102.5°	50.5	50.8	51.0	50.8	50.5	50.2	50.0	49.5	49.0	48.5	48.0
105°	70.5	70.8	71.0	71.0	71.0	71.0	71.0	70.5	70.0	69.5	69.0
107.5°	92.0	92.5	93.0	92.8	92.5	92.2	92.0	91.8	91.5	91.2	91.0
110°	113.0	113.5	114.0	114.0	114.0	114.0	114.0	113.8	113.5	113.2	113.0



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
112.5°	135.0	135.5	136.0	136.0	136.0	136.0	136.0	135.8	135.5	135.2	135.0
115°	157.0	157.5	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0
117.5°	179.5	179.8	180.0	180.2	180.5	180.8	181.0	180.8	180.5	180.2	180.0
120°	203.0	203.5	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0
122.5°	227.5	227.8	228.0	228.0	228.0	228.0	228.0	228.2	228.5	228.8	229.0
125°	252.5	252.8	253.0	253.2	253.5	253.8	254.0	254.0	254.0	254.0	254.0
127.5°	277.0	277.5	278.0	277.8	277.5	277.2	277.0	277.2	277.5	277.8	278.0
130°	300.0	300.5	301.0	301.0	301.0	301.0	301.0	301.2	301.5	301.8	302.0
132.5°	323.5	324.2	325.0	325.0	325.0	325.0	325.0	325.2	325.5	325.8	326.0
135°	346.5	347.2	348.0	348.0	348.0	348.0	348.0	348.2	348.5	348.8	349.0
137.5°	368.0	368.5	369.0	369.0	369.0	369.0	369.0	369.2	369.5	369.8	370.0
140°	389.5	389.8	390.0	390.0	390.0	390.0	390.0	390.5	391.0	391.5	392.0
142.5°	411.0	411.5	412.0	412.0	412.0	412.0	412.0	412.2	412.5	412.8	413.0
145°	433.0	433.5	434.0	433.8	433.5	433.2	433.0	433.2	433.5	433.8	434.0
147.5°	453.5	453.8	454.0	453.5	453.0	452.5	452.0	452.2	452.5	452.8	453.0
150°	470.5	470.8	471.0	470.5	470.0	469.5	469.0	469.0	469.0	469.0	469.0
152.5°	486.5	486.8	487.0	486.8	486.5	486.2	486.0	486.0	486.0	486.0	486.0
155°	503.5	503.8	504.0	503.8	503.5	503.2	503.0	503.2	503.5	503.8	504.0
157.5°	519.0	519.0	519.0	518.5	518.0	517.5	517.0	517.2	517.5	517.8	518.0
160°	532.0	532.0	532.0	531.5	531.0	530.5	530.0	530.0	530.0	530.0	530.0
162.5°	541.5	541.8	542.0	541.5	541.0	540.5	540.0	539.5	539.0	538.5	538.0
165°	552.5	552.8	553.0	552.2	551.5	550.8	550.0	549.5	549.0	548.5	548.0
167.5°	560.0	560.0	560.0	559.5	559.0	558.5	558.0	558.2	558.5	558.8	559.0
170°	565.5	565.2	565.0	564.8	564.5	564.2	564.0	564.5	565.0	565.5	566.0
172.5°	568.5	568.8	569.0	568.5	568.0	567.5	567.0	567.2	567.5	567.8	568.0
175°	572.5	572.8	573.0	572.2	571.5	570.8	570.0	569.5	569.0	568.5	568.0
177.5°	577.0	577.0	577.0	576.2	575.5	574.8	574.0	574.0	574.0	574.0	574.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
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°	518.4	517.6	508.8	510.6	507.9	502.7	503.6	504.4	506.2	502.7	500.9
5°	389.7	390.6	379.2	382.7	380.1	379.2	381.8	386.2	388.8	388.0	385.3
7.5°	276.7	277.6	268.0	267.1	264.5	263.6	267.1	271.5	274.1	273.2	274.1
10°	228.6	225.9	217.2	211.1	204.9	199.7	198.8	198.8	198.8	197.0	195.3
12.5°	189.2	186.5	176.0	170.8	165.5	158.5	157.6	156.8	154.1	151.5	148.0
15°	147.1	144.5	135.7	132.2	127.9	125.2	124.4	124.4	122.6	120.9	119.1
17.5°	106.8	105.1	99.8	96.3	95.5	96.3	97.2	99.0	99.8	100.7	100.7
20°	80.6	79.7	77.9	77.9	78.8	81.4	82.3	84.9	85.8	87.6	89.3
22.5°	70.9	70.9	70.1	70.1	71.8	74.4	76.2	77.1	77.9	78.8	78.8
25°	65.7	65.7	64.8	66.6	69.2	69.2	69.2	69.2	67.4	66.6	66.6
27.5°	62.2	62.2	62.2	63.1	62.2	61.3	61.3	61.3	60.4	60.4	59.6
30°	59.6	59.6	59.6	58.7	58.7	57.8	57.8	56.9	56.9	56.0	56.0
32.5°	55.2	53.4	55.2	53.4	53.4	52.5	53.4	53.4	51.7	51.7	51.7
35°	43.8	42.9	42.9	42.9	42.0	42.9	44.7	44.7	44.7	44.7	44.7
37.5°	41.2	41.2	40.3	39.4	39.4	38.5	39.4	38.5	38.5	38.5	39.4
40°	40.3	39.4	38.5	38.5	37.7	36.8	36.8	36.8	36.8	36.8	36.8
42.5°	38.5	38.5	36.8	35.9	35.9	35.0	35.0	35.0	35.0	35.0	35.0
45°	37.7	36.8	35.9	35.0	34.2	34.2	34.2	34.2	34.2	34.2	33.3
47.5°	36.8	35.9	35.0	34.2	33.3	32.4	32.4	32.4	32.4	32.4	32.4
50°	35.9	35.0	33.3	33.3	32.4	31.5	31.5	31.5	31.5	31.5	31.5
52.5°	34.2	34.2	32.4	31.5	30.7	30.7	30.7	30.7	30.7	30.7	30.7
55°	32.4	32.4	30.7	29.8	28.9	28.9	28.9	28.9	29.8	29.8	29.8
57.5°	31.5	30.7	28.9	28.9	27.1	27.1	27.1	28.0	28.0	28.9	28.9
60°	29.8	28.9	28.0	27.1	27.1	26.3	26.3	26.3	26.3	27.1	27.1
62.5°	28.9	28.0	26.3	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
65°	27.1	27.1	25.4	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
67.5°	25.4	25.4	23.6	22.8	22.8	22.8	23.6	22.8	22.8	22.8	22.8
70°	23.6	22.8	21.9	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
72.5°	21.0	21.0	20.1	19.3	19.3	19.3	19.3	19.3	19.3	19.3	20.1
75°	18.4	17.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
77.5°	15.8	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.9
80°	11.4	10.5	10.5	10.5	10.5	11.4	11.4	11.4	11.4	11.4	11.4
82.5°	7.0	6.1	6.1	6.1	7.0	7.9	7.9	7.9	7.9	8.8	8.8
85°	1.8	1.8	1.8	1.8	3.5	4.4	4.4	4.4	5.3	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
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.8	4.5	4.0	4.0	4.0	4.5	4.8	5.0	5.5	6.0	6.5
100°	26.8	26.5	26.0	25.0	26.0	26.5	26.8	27.0	27.8	28.5	29.2
102.5°	48.2	48.5	49.0	48.0	49.0	48.5	48.2	48.0	48.5	49.0	49.5
105°	69.5	70.0	71.0	69.0	71.0	70.0	69.5	69.0	69.5	70.0	70.5
107.5°	91.2	91.5	92.0	91.0	92.0	91.5	91.2	91.0	91.2	91.5	91.8
110°	113.2	113.5	114.0	113.0	114.0	113.5	113.2	113.0	113.2	113.5	113.8

REPORT NUMBER: P228584
 CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°	
112.5°	135.5	136.0	137.0	135.0	137.0	136.0	135.5	135.0	135.2	135.5	135.8	0°
115°	158.5	159.0	160.0	159.0	160.0	159.0	158.5	158.0	158.0	158.0	158.0	2.5°
117.5°	180.5	181.0	182.0	180.0	182.0	181.0	180.5	180.0	180.2	180.5	180.8	5°
120°	204.5	205.0	206.0	204.0	206.0	205.0	204.5	204.0	204.0	204.0	204.0	7.5°
122.5°	230.0	231.0	233.0	232.0	233.0	231.0	230.0	229.0	228.8	228.5	228.2	10°
125°	254.8	255.5	257.0	256.0	257.0	255.5	254.8	254.0	254.0	254.0	254.0	12.5°
127.5°	278.8	279.5	281.0	278.0	281.0	279.5	278.8	278.0	277.8	277.5	277.2	15°
130°	302.8	303.5	305.0	303.0	305.0	303.5	302.8	302.0	301.8	301.5	301.2	17.5°
132.5°	326.8	327.5	329.0	327.0	329.0	327.5	326.8	326.0	325.8	325.5	325.2	20°
135°	349.5	350.0	351.0	350.0	351.0	350.0	349.5	349.0	348.8	348.5	348.2	22.5°
137.5°	371.0	372.0	374.0	372.0	374.0	372.0	371.0	370.0	369.8	369.5	369.2	25°
140°	393.0	394.0	396.0	394.0	396.0	394.0	393.0	392.0	391.5	391.0	390.5	27.5°
142.5°	413.8	414.5	416.0	415.0	416.0	414.5	413.8	413.0	412.8	412.5	412.2	30°
145°	434.8	435.5	437.0	435.0	437.0	435.5	434.8	434.0	433.8	433.5	433.2	32.5°
147.5°	453.8	454.5	456.0	453.0	456.0	454.5	453.8	453.0	452.8	452.5	452.2	35°
150°	470.0	471.0	473.0	470.0	473.0	471.0	470.0	469.0	469.0	469.0	469.0	37.5°
152.5°	486.8	487.5	489.0	486.0	489.0	487.5	486.8	486.0	486.0	486.0	486.0	40°
155°	504.8	505.5	507.0	505.0	507.0	505.5	504.8	504.0	503.8	503.5	503.2	42.5°
157.5°	519.2	520.5	523.0	520.0	523.0	520.5	519.2	518.0	517.8	517.5	517.2	45°
160°	530.8	531.5	533.0	531.0	533.0	531.5	530.8	530.0	530.0	530.0	530.0	47.5°
162.5°	538.5	539.0	540.0	537.0	540.0	539.0	538.5	538.0	538.5	539.0	539.5	50°
165°	548.5	549.0	550.0	548.0	550.0	549.0	548.5	548.0	548.5	549.0	549.5	52.5°
167.5°	560.0	561.0	563.0	561.0	563.0	561.0	560.0	559.0	558.8	558.5	558.2	55°
170°	567.2	568.5	571.0	569.0	571.0	568.5	567.2	566.0	565.5	565.0	564.5	57.5°
172.5°	568.8	569.5	571.0	568.0	571.0	569.5	568.8	568.0	567.8	567.5	567.2	60°
175°	568.8	569.5	571.0	568.0	571.0	569.5	568.8	568.0	568.5	569.0	569.5	62.5°
177.5°	574.8	575.5	577.0	574.0	577.0	575.5	574.8	574.0	574.0	574.0	574.0	65°
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°
												110°

NUMBER: P228584
 NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°	115°	115°
612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	112.5°	136.0
499.2	509.7	509.7	502.7	506.2	502.7	501.8	507.9	511.4	522.8	529.8	115°	158.0
386.2	399.3	400.2	396.7	401.1	398.5	401.1	409.0	415.1	423.0	430.0	117.5°	181.0
275.9	288.1	290.7	288.1	296.0	295.1	296.9	305.6	310.9	315.3	316.1	120°	204.0
194.4	196.2	203.2	201.4	206.7	205.8	208.4	215.4	222.4	225.1	226.8	122.5°	228.0
146.2	144.5	147.1	143.6	146.2	146.2	147.1	151.5	160.3	163.8	172.5	125°	254.0
118.2	116.5	116.5	114.7	114.7	113.8	114.7	118.2	124.4	129.6	136.6	127.5°	277.0
100.7	100.7	100.7	99.8	99.0	99.0	99.8	101.6	105.1	108.6	112.1	130°	301.0
90.2	92.0	92.8	93.7	94.6	95.5	96.3	99.0	98.1	94.6	90.2	132.5°	325.0
78.8	78.8	79.7	79.7	78.8	78.8	78.8	78.8	78.8	81.4	84.1	135°	348.0
65.7	65.7	65.7	66.6	65.7	65.7	66.6	66.6	67.4	69.2	71.8	137.5°	369.0
59.6	59.6	59.6	59.6	59.6	59.6	59.6	60.4	61.3	63.9	65.7	140°	390.0
55.2	55.2	54.3	54.3	54.3	53.4	54.3	54.3	55.2	58.7	61.3	142.5°	412.0
50.8	49.9	49.9	49.9	49.0	49.0	49.0	50.8	51.7	53.4	56.0	145°	433.0
44.7	44.7	44.7	45.5	45.5	45.5	45.5	47.3	47.3	48.2	48.2	147.5°	452.0
40.3	40.3	41.2	42.0	42.0	42.9	42.9	43.8	44.7	43.8	42.9	150°	469.0
36.8	37.7	37.7	39.4	39.4	39.4	40.3	41.2	42.0	40.3	40.3	152.5°	486.0
35.0	35.0	35.0	35.9	35.9	35.9	36.8	37.7	38.5	38.5	38.5	155°	503.0
33.3	33.3	33.3	34.2	33.3	33.3	33.3	34.2	35.9	35.9	36.8	157.5°	517.0
32.4	32.4	32.4	31.5	31.5	31.5	31.5	32.4	33.3	35.0	35.9	160°	530.0
31.5	30.7	30.7	30.7	30.7	30.7	30.7	31.5	32.4	33.3	35.0	162.5°	540.0
29.8	29.8	29.8	29.8	29.8	29.8	29.8	30.7	31.5	32.4	33.3	165°	550.0
29.8	29.8	28.9	28.9	29.8	29.8	29.8	30.7	31.5	32.4	32.4	167.5°	558.0
28.9	28.0	28.0	28.9	28.9	28.9	28.9	29.8	30.7	31.5	31.5	170°	564.0
27.1	27.1	27.1	27.1	28.0	28.0	28.9	29.8	29.8	30.7	30.7	172.5°	567.0
25.4	26.3	26.3	26.3	27.1	27.1	28.0	28.9	29.8	30.7	29.8	175°	570.0
24.5	25.4	25.4	25.4	26.3	26.3	26.3	28.0	28.9	28.9	29.8	177.5°	574.0
23.6	23.6	23.6	24.5	24.5	25.4	25.4	27.1	27.1	28.0	28.9	180°	576.0
21.9	21.9	21.9	22.8	22.8	23.6	24.5	25.4	25.4	26.3	27.1		
20.1	20.1	20.1	21.0	21.0	21.9	22.8	24.5	23.6	24.5	24.5		
17.5	17.5	18.4	18.4	19.3	20.1	21.0	21.0	21.0	21.0	21.0		
14.9	14.9	15.8	15.8	16.6	17.5	17.5	17.5	18.4	17.5	17.5		
12.3	12.3	13.1	13.1	13.1	13.1	14.0	13.1	14.0	13.1	14.0		
8.8	8.8	9.6	8.8	9.6	8.8	8.8	7.9	9.6	8.8	8.8		
3.5	4.4	4.4	4.4	4.4	3.5	3.5	2.6	3.5	3.5	2.6		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
7.0	8.5	10.0	11.5	13.0	12.0	11.0	9.0	4.0	3.0	2.0		
30.0	30.5	31.0	31.5	32.0	31.5	31.0	30.0	22.0	14.0	10.0		
50.0	50.2	50.5	50.8	51.0	50.8	50.5	50.0	45.0	38.0	32.0		
71.0	71.0	71.0	71.0	71.0	70.8	70.5	70.0	66.0	61.0	56.0		
92.0	92.2	92.5	92.8	93.0	92.5	92.0	91.0	88.0	84.0	80.0		
114.0	114.0	114.0	114.0	114.0	113.5	113.0	112.0	110.0	106.0	103.0		

'228584
 ISS-AF-450-LED-E1-SLR-7030-ULG

REPORT NUMBER: P228584
 CATALOG NUMBER: ISS-AF-450

TION (continued):

CANDELA DISTRIBUTION (con

117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°		175°	180°
136.0	136.0	136.0	136.0	135.5	135.0	134.0	132.0	129.0	126.0	0°	612.1	612.1
158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	151.0	149.0	2.5°	532.5	531.6
180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	174.0	172.0	5°	430.9	429.1
204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	198.0	196.0	7.5°	308.3	304.8
228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	223.0	221.0	10°	227.7	230.3
253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	248.0	247.0	12.5°	182.2	192.7
277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	272.0	270.0	15°	146.2	152.4
301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	294.0	293.0	17.5°	113.0	115.6
325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	318.0	317.0	20°	90.2	90.2
348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	341.0	339.0	22.5°	78.8	77.9
369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	364.0	363.0	25°	74.4	73.6
390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	386.0	385.0	27.5°	67.4	68.3
412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	407.0	408.0	30°	63.1	63.9
433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	428.0	428.0	32.5°	57.8	58.7
452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	448.0	447.0	35°	47.3	47.3
469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	465.0	464.0	37.5°	43.8	43.8
486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	482.0	483.0	40°	41.2	42.0
503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	501.0	502.0	42.5°	39.4	39.4
517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	516.0	517.0	45°	37.7	38.5
530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	529.0	529.0	47.5°	36.8	36.8
540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	538.0	539.0	50°	35.0	35.9
550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	548.0	549.0	52.5°	34.2	35.0
558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	558.0	559.0	55°	33.3	33.3
564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	565.0	566.0	57.5°	31.5	32.4
567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	567.0	569.0	60°	31.5	31.5
570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	569.0	570.0	62.5°	30.7	30.7
574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	574.0	575.0	65°	29.8	29.8
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	28.0	28.0
										70°	26.3	26.3
										72.5°	24.5	23.6
										75°	21.0	21.0
										77.5°	17.5	17.5
										80°	13.1	12.3
										82.5°	7.9	7.0
										85°	2.6	2.6
										87.5°	0.0	0.0
										90°	0.0	0.0
										92.5°	0.0	0.0
										95°	1.0	1.0
										97.5°	2.0	2.0
										100°	8.0	8.0
										102.5°	28.0	28.0
										105°	54.0	54.0
										107.5°	77.0	78.0
										110°	102.0	101.0



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-S

0-LED-E1-SLR-7030-ULG

tinued):

CANDELA DISTRIBUTION (continued):

185°	195°	205°	215°	225°	230°	235°	240°	245°		175°	180°	185°
612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	112.5°	124.0	124.0	124.0
544.7	554.3	560.5	584.1	594.6	607.8	613.9	622.7	631.4	115°	147.0	146.0	147.0
444.9	457.1	467.6	501.8	521.9	540.3	555.2	569.2	589.4	117.5°	170.0	169.0	170.0
315.3	325.8	339.8	376.6	411.6	436.1	458.0	481.7	507.9	120°	195.0	193.0	195.0
240.8	256.6	275.0	303.0	331.0	348.5	367.8	394.1	425.6	122.5°	220.0	219.0	220.0
201.4	220.7	242.6	274.1	303.9	317.9	331.9	345.0	361.7	125°	246.0	244.0	246.0
159.4	177.8	204.0	240.8	275.9	291.6	308.3	324.0	338.9	127.5°	269.0	267.0	269.0
119.1	132.2	155.9	199.7	238.2	258.3	277.6	299.5	319.6	130°	292.0	290.0	292.0
91.1	97.2	113.8	148.0	195.3	220.7	245.2	273.2	302.1	132.5°	314.0	313.0	314.0
78.8	81.4	89.3	109.5	152.4	182.2	213.7	248.7	284.6	135°	337.0	336.0	337.0
72.7	74.4	78.8	88.5	119.1	150.6	183.0	225.1	268.9	137.5°	360.0	359.0	360.0
69.2	70.9	74.4	79.7	99.0	122.6	158.5	204.9	257.5	140°	383.0	382.0	383.0
64.8	66.6	72.7	78.8	90.2	105.1	135.7	181.3	240.0	142.5°	406.0	404.0	406.0
59.6	60.4	62.2	69.2	77.1	89.3	115.6	160.3	221.6	145°	426.0	425.0	426.0
48.2	50.8	54.3	61.3	69.2	78.8	103.3	146.2	210.2	147.5°	444.0	444.0	444.0
44.7	47.3	50.8	56.9	63.9	72.7	98.1	141.0	199.7	150°	462.0	461.0	462.0
42.0	44.7	48.2	55.2	59.6	70.1	95.5	133.1	189.2	152.5°	480.0	479.0	480.0
40.3	42.9	47.3	52.5	58.7	68.3	88.5	126.1	183.0	155°	500.0	499.0	500.0
38.5	41.2	46.4	50.8	59.6	64.8	84.1	120.9	177.8	157.5°	515.0	513.0	515.0
37.7	40.3	45.5	51.7	57.8	61.3	79.7	116.5	173.4	160°	527.0	525.0	527.0
36.8	39.4	44.7	56.9	55.2	58.7	76.2	113.0	170.8	162.5°	536.0	535.0	536.0
35.9	38.5	44.7	57.8	53.4	55.2	73.6	109.5	169.0	165°	547.0	546.0	547.0
34.2	37.7	44.7	53.4	49.9	53.4	68.3	104.2	164.6	167.5°	556.0	555.0	556.0
33.3	35.9	43.8	49.0	47.3	50.8	63.1	95.5	158.5	170°	563.0	562.0	563.0
32.4	35.0	43.8	43.8	44.7	48.2	56.9	84.9	148.0	172.5°	566.0	565.0	566.0
31.5	35.0	44.7	39.4	42.0	45.5	52.5	76.2	134.9	175°	569.0	567.0	569.0
30.7	33.3	38.5	37.7	40.3	42.9	50.8	70.1	123.5	177.5°	573.0	572.0	573.0
28.9	31.5	34.2	35.0	38.5	41.2	49.9	69.2	113.0	180°	576.0	576.0	576.0
26.3	28.9	30.7	33.3	35.9	39.4	49.9	68.3	105.1				
24.5	26.3	28.0	29.8	32.4	36.8	49.0	69.2	101.6				
21.0	22.8	24.5	26.3	28.9	34.2	46.4	64.8	91.1				
16.6	19.3	21.0	21.9	24.5	29.8	40.3	55.2	73.6				
12.3	14.9	15.8	17.5	19.3	22.8	31.5	40.3	54.3				
7.0	9.6	10.5	11.4	14.9	16.6	21.0	26.3	36.8				
2.6	4.4	5.3	6.1	8.8	9.6	13.1	16.6	19.3				
0.0	0.0	0.0	0.0	1.8	2.6	4.4	5.3	4.4				
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0				
2.0	2.0	3.0	4.0	9.0	11.0	13.0	10.0	7.0				
8.0	10.0	14.0	22.0	30.0	31.0	32.0	31.0	30.0				
28.0	32.0	38.0	45.0	50.0	50.5	51.0	50.5	50.0				
54.0	56.0	61.0	66.0	70.0	70.5	71.0	71.0	71.0				
77.0	80.0	84.0	88.0	91.0	92.0	93.0	92.5	92.0				
102.0	103.0	106.0	110.0	112.0	113.0	114.0	114.0	114.0				



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-L

SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

195°	205°	215°	225°	230°	235°	240°	245°		250°	255°	260°	265°
126.0	129.0	132.0	134.0	135.0	136.0	136.0	136.0	0°	612.1	612.1	612.1	612.1
149.0	151.0	154.0	156.0	157.0	158.0	158.0	158.0	2.5°	641.9	650.7	662.1	672.6
172.0	174.0	177.0	179.0	179.5	180.0	180.5	181.0	5°	605.1	621.8	646.3	666.4
196.0	198.0	201.0	202.0	203.0	204.0	204.0	204.0	7.5°	530.7	553.5	584.1	612.1
221.0	223.0	226.0	227.0	227.5	228.0	228.0	228.0	10°	452.8	484.3	516.7	552.6
247.0	248.0	251.0	252.0	252.5	253.0	253.5	254.0	12.5°	388.8	424.7	461.5	506.2
270.0	272.0	274.0	276.0	277.0	278.0	277.5	277.0	15°	361.7	393.2	436.1	485.2
293.0	294.0	298.0	299.0	300.0	301.0	301.0	301.0	17.5°	350.3	390.6	439.6	491.3
317.0	318.0	321.0	322.0	323.5	325.0	325.0	325.0	20°	338.0	393.2	458.9	521.9
339.0	341.0	345.0	345.0	346.5	348.0	348.0	348.0	22.5°	331.0	402.0	483.4	571.9
363.0	364.0	367.0	367.0	368.0	369.0	369.0	369.0	25°	329.3	422.1	525.4	642.8
385.0	386.0	388.0	389.0	389.5	390.0	390.0	390.0	27.5°	331.0	444.9	578.0	719.0
408.0	407.0	410.0	410.0	411.0	412.0	412.0	412.0	30°	323.2	468.5	630.5	785.5
428.0	428.0	431.0	432.0	433.0	434.0	433.5	433.0	32.5°	310.0	486.0	677.0	839.0
447.0	448.0	452.0	453.0	453.5	454.0	453.0	452.0	35°	295.1	493.9	710.2	888.9
464.0	465.0	469.0	470.0	470.5	471.0	470.0	469.0	37.5°	279.4	494.8	741.8	941.4
483.0	482.0	485.0	486.0	486.5	487.0	486.5	486.0	40°	270.6	491.3	774.2	1006.2
502.0	501.0	503.0	503.0	503.5	504.0	503.5	503.0	42.5°	267.1	485.2	797.8	1055.3
517.0	516.0	519.0	519.0	519.0	519.0	518.0	517.0	45°	267.1	479.0	819.7	1092.1
529.0	529.0	532.0	532.0	532.0	532.0	531.0	530.0	47.5°	268.0	481.7	846.0	1151.6
539.0	538.0	541.0	541.0	541.5	542.0	541.0	540.0	50°	272.4	511.4	890.6	1217.3
549.0	548.0	552.0	552.0	552.5	553.0	551.5	550.0	52.5°	279.4	558.7	967.7	1295.2
559.0	558.0	561.0	560.0	560.0	560.0	559.0	558.0	55°	286.4	606.9	1068.4	1425.7
566.0	565.0	567.0	566.0	565.5	565.0	564.5	564.0	57.5°	292.5	642.8	1166.5	1555.3
569.0	567.0	569.0	568.0	568.5	569.0	568.0	567.0	60°	298.6	670.8	1223.4	1613.1
570.0	569.0	572.0	572.0	572.5	573.0	571.5	570.0	62.5°	295.1	660.3	1239.2	1584.2
575.0	574.0	578.0	577.0	577.0	577.0	575.5	574.0	65°	282.0	605.1	1189.3	1484.4
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	246.1	508.8	1036.0	1326.8
								70°	204.0	399.3	845.1	1129.7
								72.5°	171.6	298.6	649.8	874.9
								75°	142.7	211.1	457.1	602.5
								77.5°	106.0	143.6	331.0	421.2
								80°	70.9	88.5	211.1	294.3
								82.5°	42.9	51.7	121.7	205.8
								85°	23.6	32.4	74.4	134.9
								87.5°	6.1	7.0	16.6	6.1
								90°	0.0	0.0	0.0	0.0
								92.5°	0.0	0.0	0.0	0.0
								95°	1.0	1.0	1.0	1.0
								97.5°	6.0	5.0	4.5	4.0
								100°	28.5	27.0	26.5	26.0
								102.5°	49.0	48.0	48.5	49.0
								105°	70.0	69.0	70.0	71.0
								107.5°	91.5	91.0	91.5	92.0
								110°	113.5	113.0	113.5	114.0



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

JLG

CANDELA DISTRIBUTION (continued):

270°	275°	280°	285°	290°	295°	300°		250°	255°	260°	265°	270°
612.1	612.1	612.1	612.1	612.1	612.1	612.1	112.5°	135.5	135.0	136.0	137.0	135.0
680.5	687.5	696.2	696.2	706.7	710.2	717.2	115°	158.0	158.0	159.0	160.0	159.0
691.0	714.6	736.5	748.8	769.8	783.8	797.8	117.5°	180.5	180.0	181.0	182.0	180.0
648.1	686.6	722.5	755.8	790.8	820.6	842.5	120°	204.0	204.0	205.0	206.0	204.0
591.1	632.3	676.1	720.7	762.8	804.8	840.7	122.5°	228.5	229.0	231.0	233.0	232.0
550.8	594.6	646.3	684.8	728.6	770.7	805.7	125°	254.0	254.0	255.5	257.0	256.0
532.5	577.1	625.3	664.7	705.9	740.0	764.5	127.5°	277.5	278.0	279.5	281.0	278.0
542.1	596.4	639.3	672.6	703.2	719.0	722.5	130°	301.5	302.0	303.5	305.0	303.0
584.1	641.0	672.6	694.5	699.7	698.8	685.7	132.5°	325.5	326.0	327.5	329.0	327.0
649.8	716.4	738.3	733.9	712.0	684.0	662.1	135°	348.5	349.0	350.0	351.0	350.0
738.3	804.8	817.1	792.6	743.5	689.2	652.4	137.5°	369.5	370.0	372.0	374.0	372.0
831.1	899.4	895.0	858.2	788.2	712.0	653.3	140°	391.0	392.0	394.0	396.0	394.0
896.8	953.7	936.2	881.0	803.1	726.9	664.7	142.5°	412.5	413.0	414.5	416.0	415.0
965.1	1008.0	976.5	916.9	836.3	758.4	694.5	145°	433.5	434.0	435.5	437.0	435.0
1038.6	1061.4	1010.6	950.2	876.6	797.8	728.6	147.5°	452.5	453.0	454.5	456.0	453.0
1109.6	1119.2	1045.6	980.8	909.0	838.1	775.0	150°	469.0	469.0	471.0	473.0	470.0
1185.8	1172.6	1082.4	1006.2	935.3	881.0	829.3	152.5°	486.0	486.0	487.5	489.0	486.0
1251.4	1222.5	1116.6	1031.6	967.7	922.2	886.3	155°	503.5	504.0	505.5	507.0	505.0
1300.5	1262.8	1149.0	1056.2	999.2	971.2	953.7	157.5°	517.5	518.0	520.5	523.0	520.0
1342.5	1301.4	1174.4	1092.1	1043.0	1032.5	1038.6	160°	530.0	530.0	531.5	533.0	531.0
1395.1	1342.5	1208.5	1132.3	1102.6	1113.1	1148.1	162.5°	539.0	538.0	539.0	540.0	537.0
1476.5	1408.2	1265.5	1190.1	1176.1	1213.8	1280.3	165°	549.0	548.0	549.0	550.0	548.0
1607.9	1527.3	1366.2	1290.9	1274.2	1332.0	1427.5	167.5°	558.5	559.0	561.0	563.0	561.0
1721.7	1660.4	1499.3	1408.2	1401.2	1463.4	1567.6	170°	565.0	566.0	568.5	571.0	569.0
1773.4	1767.3	1636.8	1552.7	1542.2	1600.0	1699.0	172.5°	567.5	568.0	569.5	571.0	568.0
1769.0	1819.8	1748.9	1689.3	1653.4	1701.6	1797.9	175°	569.0	568.0	569.5	571.0	568.0
1705.1	1788.3	1794.4	1780.4	1715.6	1719.1	1787.4	177.5°	574.0	574.0	575.5	577.0	574.0
1579.8	1678.8	1782.1	1777.8	1695.4	1622.8	1636.8	180°	576.0	576.0	576.0	576.0	576.0
1402.1	1487.0	1651.7	1684.9	1567.6	1431.8	1367.9						
1123.6	1222.5	1466.9	1513.3	1353.0	1162.1	1063.2						
775.0	905.5	1280.3	1284.7	1098.2	914.3	807.4						
532.5	644.6	1035.1	1046.5	871.4	693.6	601.6						
358.2	431.7	759.3	711.1	575.4	480.8	457.1						
225.9	268.9	477.3	445.8	379.2	346.8	355.6						
105.1	147.1	261.0	254.8	239.1	209.3	182.2						
2.6	7.9	50.8	33.3	33.3	19.3	7.0						
0.0	0.0	0.0	0.0	0.0	0.0	0.0						
0.0	0.0	0.0	0.0	0.0	0.0	0.0						
1.0	1.0	1.0	1.0	1.0	1.0	1.0						
4.0	4.0	4.5	5.0	6.0	7.0	10.0						
25.0	26.0	26.5	27.0	28.5	30.0	31.0						
48.0	49.0	48.5	48.0	49.0	50.0	50.5						
69.0	71.0	70.0	69.0	70.0	71.0	71.0						
91.0	92.0	91.5	91.0	91.5	92.0	92.5						
113.0	114.0	113.5	113.0	113.5	114.0	114.0						



REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

275°	280°	285°	290°	295°	300°		305°	310°	315°	325°	335°	340°
137.0	136.0	135.0	135.5	136.0	136.0	0°	612.1	612.1	612.1	612.1	612.1	612.1
160.0	159.0	158.0	158.0	158.0	158.0	2.5°	711.1	713.7	712.9	706.7	691.0	684.8
182.0	181.0	180.0	180.5	181.0	180.5	5°	796.9	801.3	796.1	781.2	740.9	721.6
206.0	205.0	204.0	204.0	204.0	204.0	7.5°	857.4	860.9	852.1	817.9	746.1	713.7
233.0	231.0	229.0	228.5	228.0	228.0	10°	868.7	876.6	867.0	817.9	734.8	694.5
257.0	255.5	254.0	254.0	254.0	253.5	12.5°	836.3	853.0	846.0	810.1	729.5	686.6
281.0	279.5	278.0	277.5	277.0	277.5	15°	786.4	788.2	792.6	791.7	719.9	677.8
305.0	303.5	302.0	301.5	301.0	301.0	17.5°	731.2	729.5	734.8	751.4	717.2	684.0
329.0	327.5	326.0	325.5	325.0	325.0	20°	681.3	678.7	684.0	700.6	706.7	698.8
351.0	350.0	349.0	348.5	348.0	348.0	22.5°	649.8	641.0	640.2	664.7	712.0	733.0
374.0	372.0	370.0	369.5	369.0	369.0	25°	632.3	622.7	627.0	655.1	733.9	773.3
396.0	394.0	392.0	391.0	390.0	390.0	27.5°	627.0	616.5	622.7	654.2	756.6	822.3
416.0	414.5	413.0	412.5	412.0	412.0	30°	630.5	620.0	622.7	660.3	768.0	833.7
437.0	435.5	434.0	433.5	433.0	433.5	32.5°	650.7	632.3	630.5	678.7	789.0	859.1
456.0	454.5	453.0	452.5	452.0	453.0	35°	677.8	651.6	648.1	708.5	816.2	891.5
473.0	471.0	469.0	469.0	469.0	470.0	37.5°	723.4	691.0	685.7	758.4	853.0	918.7
489.0	487.5	486.0	486.0	486.0	486.5	40°	784.7	752.3	752.3	822.3	902.9	956.3
507.0	505.5	504.0	503.5	503.0	503.5	42.5°	853.9	832.8	836.3	899.4	959.8	1003.6
523.0	520.5	518.0	517.5	517.0	518.0	45°	945.8	934.4	951.9	996.6	1017.6	1047.4
533.0	531.5	530.0	530.0	530.0	531.0	47.5°	1053.5	1063.2	1087.7	1101.7	1076.3	1092.1
540.0	539.0	538.0	539.0	540.0	541.0	50°	1188.4	1213.8	1237.4	1233.9	1149.0	1143.7
550.0	549.0	548.0	549.0	550.0	551.5	52.5°	1343.4	1376.7	1393.3	1374.0	1230.4	1199.8
563.0	561.0	559.0	558.5	558.0	559.0	55°	1501.0	1541.3	1536.1	1514.2	1318.9	1277.7
571.0	568.5	566.0	565.0	564.0	564.5	57.5°	1643.8	1675.3	1689.3	1642.0	1426.6	1372.3
571.0	569.5	568.0	567.5	567.0	568.0	60°	1756.8	1790.9	1790.9	1744.5	1543.9	1480.9
571.0	569.5	568.0	569.0	570.0	571.5	62.5°	1839.1	1866.2	1856.6	1811.9	1644.7	1596.5
577.0	575.5	574.0	574.0	574.0	575.5	65°	1832.9	1835.6	1825.1	1808.4	1705.1	1699.8
576.0	576.0	576.0	576.0	576.0	576.0	67.5°	1660.4	1661.3	1682.3	1675.3	1659.5	1724.3
						70°	1360.9	1374.9	1410.8	1400.3	1480.9	1614.0
						72.5°	1036.0	1044.8	1087.7	1078.0	1187.5	1333.8
						75°	754.0	753.1	771.5	757.5	895.9	1058.8
						77.5°	580.6	564.9	561.4	563.1	634.9	769.8
						80°	468.5	468.5	463.3	444.0	388.8	450.1
						82.5°	373.9	359.1	332.8	295.1	249.6	266.2
						85°	186.5	181.3	158.5	131.4	109.5	145.4
						87.5°	0.9	0.0	0.0	0.0	0.0	0.0
						90°	0.0	0.0	0.0	0.0	0.0	0.0
						92.5°	0.0	0.0	0.0	0.0	0.0	0.0
						95°	1.0	1.0	1.0	1.0	1.0	1.0
						97.5°	13.0	11.0	9.0	4.0	3.0	2.5
						100°	32.0	31.0	30.0	22.0	14.0	12.0
						102.5°	51.0	50.5	50.0	45.0	38.0	35.0
						105°	71.0	70.5	70.0	66.0	61.0	58.5
						107.5°	93.0	92.0	91.0	88.0	84.0	82.0
						110°	114.0	113.0	112.0	110.0	106.0	104.5

REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

342.5°	345°	347.5°	350°	352.5°		305°	310°	315°	325°	335°	340°	342.5°
612.1	612.1	612.1	612.1	612.1	112.5°	136.0	135.0	134.0	132.0	129.0	127.5	126.8
682.2	675.2	667.3	667.3	660.3	115°	158.0	157.0	156.0	154.0	151.0	150.0	149.5
710.2	696.2	684.8	674.3	663.8	117.5°	180.0	179.5	179.0	177.0	174.0	173.0	172.5
696.2	679.6	665.6	647.2	630.5	120°	204.0	203.0	202.0	201.0	198.0	197.0	196.5
675.2	656.8	636.7	617.4	593.8	122.5°	228.0	227.5	227.0	226.0	223.0	222.0	221.5
663.8	641.9	617.4	597.3	570.1	125°	253.0	252.5	252.0	251.0	248.0	247.5	247.2
655.1	632.3	610.4	591.1	567.5	127.5°	278.0	277.0	276.0	274.0	272.0	271.0	270.5
669.1	647.2	631.4	609.5	591.1	130°	301.0	300.0	299.0	298.0	294.0	293.5	293.2
692.7	679.6	667.3	653.3	638.4	132.5°	325.0	323.5	322.0	321.0	318.0	317.5	317.2
737.4	735.6	734.8	724.2	713.7	135°	348.0	346.5	345.0	345.0	341.0	340.0	339.5
793.4	800.4	810.1	810.1	810.1	137.5°	369.0	368.0	367.0	367.0	364.0	363.5	363.2
851.2	868.7	887.1	895.0	900.3	140°	390.0	389.5	389.0	388.0	386.0	385.5	385.2
867.9	893.3	922.2	941.4	954.6	142.5°	412.0	411.0	410.0	410.0	407.0	407.5	407.8
895.0	923.9	956.3	978.2	1001.9	145°	434.0	433.0	432.0	431.0	428.0	428.0	428.0
927.4	952.8	986.1	1015.9	1050.0	147.5°	454.0	453.5	453.0	452.0	448.0	447.5	447.2
954.6	987.8	1023.7	1062.3	1106.1	150°	471.0	470.5	470.0	469.0	465.0	464.5	464.2
995.7	1030.8	1070.2	1121.8	1175.3	152.5°	487.0	486.5	486.0	485.0	482.0	482.5	482.8
1041.3	1078.9	1120.1	1171.8	1233.9	155°	504.0	503.5	503.0	503.0	501.0	501.5	501.8
1080.7	1114.0	1158.6	1212.0	1283.0	157.5°	519.0	519.0	519.0	519.0	516.0	516.5	516.8
1118.3	1149.0	1201.5	1255.8	1325.9	160°	532.0	532.0	532.0	532.0	529.0	529.0	529.0
1168.2	1191.9	1244.4	1306.6	1381.1	162.5°	542.0	541.5	541.0	541.0	538.0	538.5	538.8
1219.9	1252.3	1310.1	1381.1	1464.3	165°	553.0	552.5	552.0	552.0	548.0	548.5	548.8
1290.0	1328.5	1399.4	1480.0	1585.1	167.5°	560.0	560.0	560.0	561.0	558.0	558.5	558.8
1386.3	1426.6	1501.9	1592.1	1699.8	170°	565.0	565.5	566.0	567.0	565.0	565.5	565.8
1504.5	1543.9	1608.7	1698.1	1798.8	172.5°	569.0	568.5	568.0	569.0	567.0	568.0	568.5
1614.9	1669.2	1727.9	1794.4	1874.1	175°	573.0	572.5	572.0	572.0	569.0	569.5	569.8
1734.9	1776.9	1825.9	1851.3	1896.0	177.5°	577.0	577.0	577.0	578.0	574.0	574.5	574.8
1769.9	1804.9	1847.8	1847.8	1842.6	180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0
1666.5	1720.0	1757.6	1757.6	1713.0								
1449.4	1538.7	1575.5	1598.2	1541.3								
1177.9	1289.1	1349.5	1368.8	1265.5								
864.4	935.3	943.2	945.8	806.6								
498.3	554.3	574.5	603.4	483.4								
289.0	310.0	344.2	356.4	294.3								
162.0	163.8	163.8	151.5	123.5								
0.0	0.0	0.0	0.0	0.0								
0.0	0.0	0.0	0.0	0.0								
0.0	0.0	0.0	0.0	0.0								
1.0	1.0	1.0	1.0	1.0								
2.2	2.0	2.0	2.0	2.0								
11.0	10.0	9.5	9.0	8.5								
33.5	32.0	31.0	30.0	29.0								
57.2	56.0	55.5	55.0	54.5								
81.0	80.0	79.2	78.5	77.8								
103.8	103.0	102.8	102.5	102.2								

REPORT NUMBER: P228584
 CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

345°	347.5°	350°	352.5°		355°	359°	360°
126.0	125.5	125.0	124.5	0°	612.1	612.1	612.1
149.0	148.5	148.0	147.5	2.5°	658.6	648.1	649.8
172.0	171.5	171.0	170.5	5°	648.9	634.0	628.8
196.0	195.8	195.5	195.2	7.5°	615.7	590.3	582.4
221.0	220.8	220.5	220.2	10°	575.4	543.0	536.8
247.0	246.8	246.5	246.2	12.5°	552.6	515.8	507.9
270.0	269.8	269.5	269.2	15°	545.6	510.6	501.8
293.0	292.8	292.5	292.2	17.5°	566.6	529.0	518.4
317.0	316.2	315.5	314.8	20°	614.8	570.1	557.9
339.0	338.5	338.0	337.5	22.5°	686.6	635.8	620.9
363.0	362.2	361.5	360.8	25°	783.8	726.0	711.1
385.0	384.5	384.0	383.5	27.5°	883.6	814.4	795.2
408.0	407.5	407.0	406.5	30°	941.4	877.5	858.2
428.0	427.5	427.0	426.5	32.5°	1000.1	938.8	916.0
447.0	446.2	445.5	444.8	35°	1062.3	1000.1	977.3
464.0	463.5	463.0	462.5	37.5°	1135.0	1082.4	1062.3
483.0	482.2	481.5	480.8	40°	1221.7	1173.5	1144.6
502.0	501.5	501.0	500.5	42.5°	1293.5	1248.8	1221.7
517.0	516.5	516.0	515.5	45°	1346.0	1308.4	1280.3
529.0	528.5	528.0	527.5	47.5°	1394.2	1365.3	1337.3
539.0	538.2	537.5	536.8	50°	1454.6	1430.1	1410.8
549.0	548.5	548.0	547.5	52.5°	1536.1	1527.3	1510.7
559.0	558.2	557.5	556.8	55°	1656.0	1675.3	1651.7
566.0	565.2	564.5	563.8	57.5°	1769.9	1783.9	1773.4
569.0	568.2	567.5	566.8	60°	1859.2	1839.9	1826.8
570.0	569.8	569.5	569.2	62.5°	1904.8	1857.5	1835.6
575.0	574.5	574.0	573.5	65°	1907.4	1834.7	1801.4
576.0	576.0	576.0	576.0	67.5°	1847.8	1762.9	1724.3
				70°	1687.6	1589.5	1538.7
				72.5°	1417.8	1267.2	1233.1
				75°	1039.5	854.7	834.6
				77.5°	629.7	491.3	465.0
				80°	354.7	282.0	273.2
				82.5°	201.4	158.5	167.3
				85°	82.3	41.2	45.5
				87.5°	0.0	0.0	0.0
				90°	0.0	0.0	0.0
				92.5°	0.0	0.0	0.0
				95°	1.0	1.0	1.0
				97.5°	2.0	2.0	2.0
				100°	8.0	8.0	8.0
				102.5°	28.0	28.0	28.0
				105°	54.0	54.0	54.0
				107.5°	77.0	77.8	78.0
				110°	102.0	101.2	101.0

REPORT NUMBER: P228584

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-7030-ULG

CANDELA DISTRIBUTION (continued):

	355°	359°	360°
112.5°	124.0	124.0	124.0
115°	147.0	146.2	146.0
117.5°	170.0	169.2	169.0
120°	195.0	193.4	193.0
122.5°	220.0	219.2	219.0
125°	246.0	244.4	244.0
127.5°	269.0	267.4	267.0
130°	292.0	290.4	290.0
132.5°	314.0	313.2	313.0
135°	337.0	336.2	336.0
137.5°	360.0	359.2	359.0
140°	383.0	382.2	382.0
142.5°	406.0	404.4	404.0
145°	426.0	425.2	425.0
147.5°	444.0	444.0	444.0
150°	462.0	461.2	461.0
152.5°	480.0	479.2	479.0
155°	500.0	499.2	499.0
157.5°	515.0	513.4	513.0
160°	527.0	525.4	525.0
162.5°	536.0	535.2	535.0
165°	547.0	546.2	546.0
167.5°	556.0	555.2	555.0
170°	563.0	562.2	562.0
172.5°	566.0	565.2	565.0
175°	569.0	567.4	567.0
177.5°	573.0	572.2	572.0
180°	576.0	576.0	576.0

(END OF REPORT)