

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: P228648

Luminaire Tested: **ISC-AF-450-LED-E1-SLR-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228648
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: ISC-AF-450-LED-E1-SLR-7050-ULG
Description: IMPACT ELITE LED CYLINDER LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR RIGHT, WITH
UPLIGHT GLOW
Light Source: (16) 5000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3924.2 lumens
Efficiency: N/A
Efficacy: 93.4 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

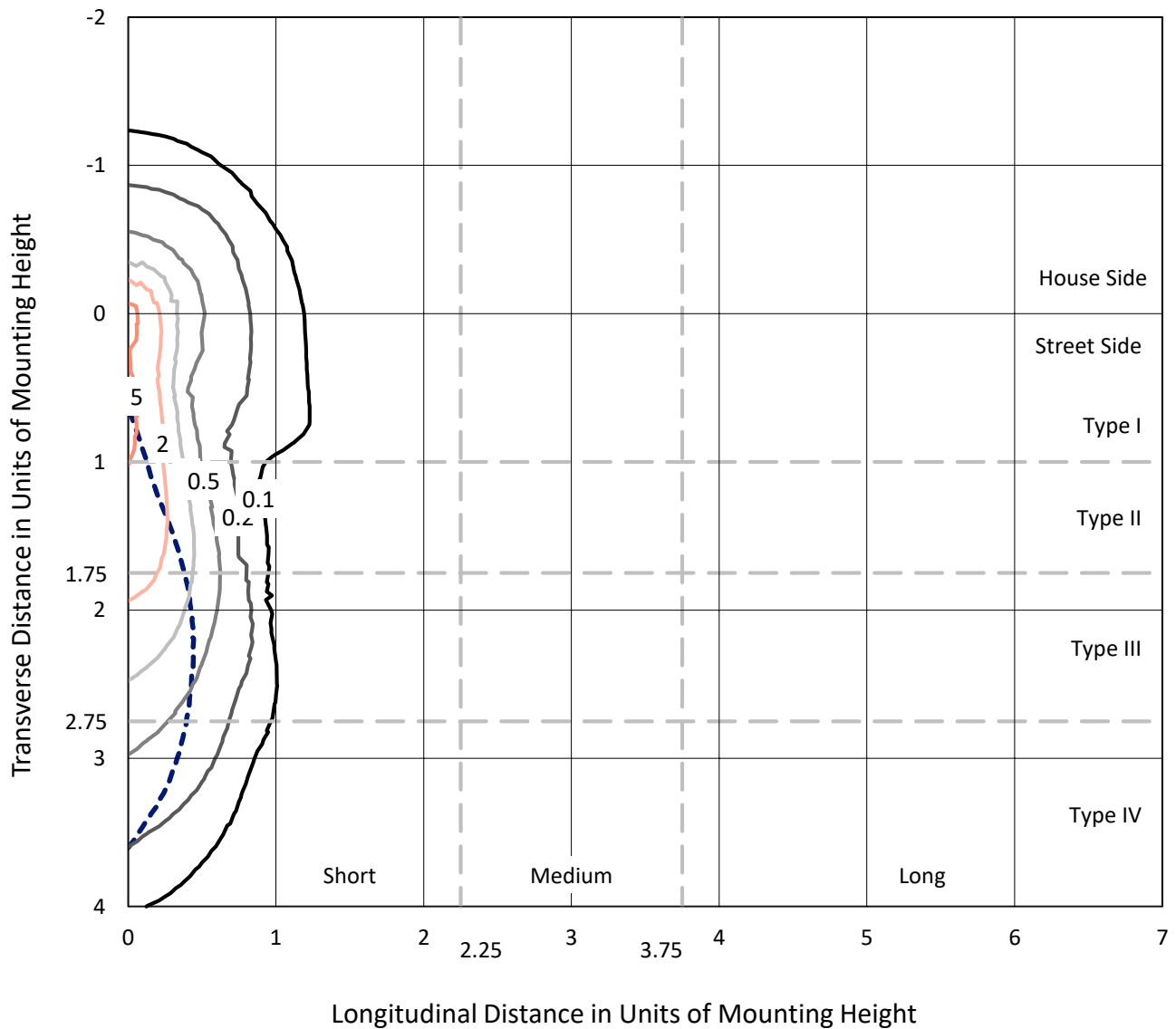


REPORT NUMBER: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

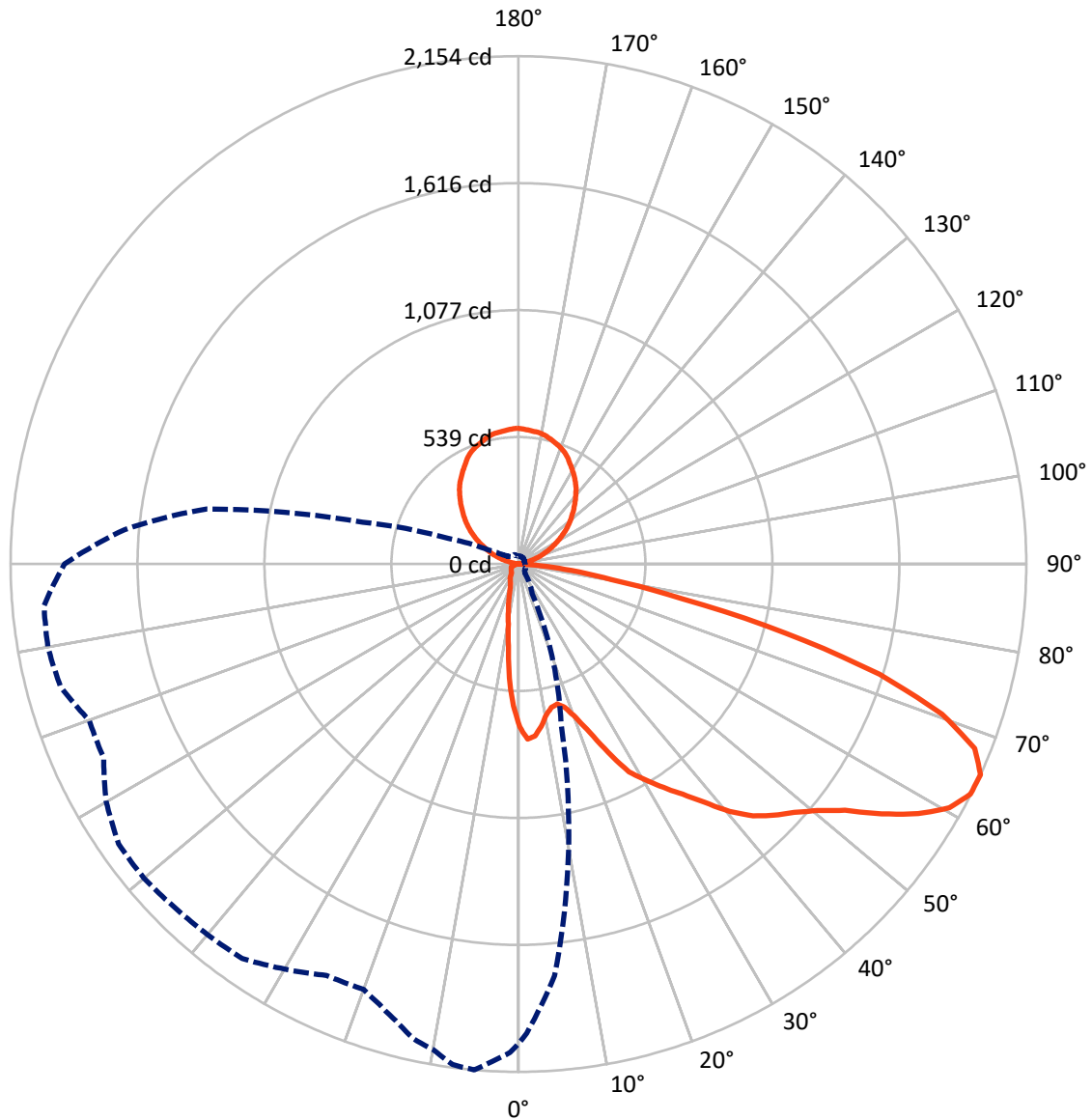


Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

Luminous Intensity Polar Plot



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

REPORT NUMBER: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

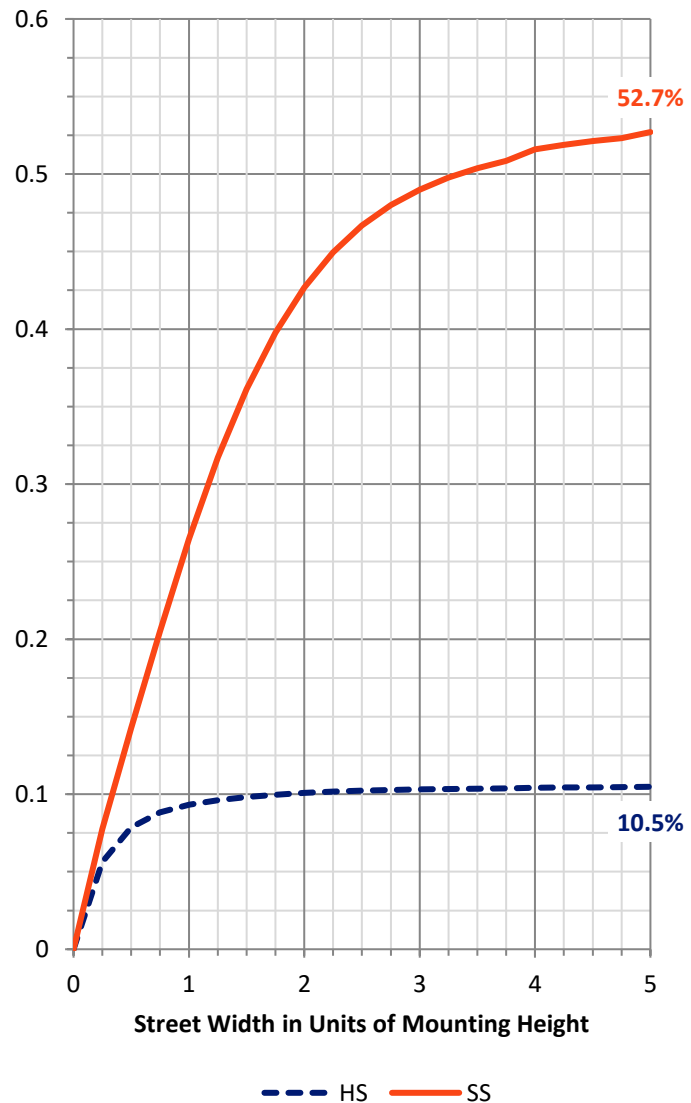
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	415.4	713.1	1128.4
	% Fixture	10.6	18.2	28.8
Street Side	Lumens	2082.6	713.1	2795.7
	% Fixture	53.1	18.2	71.2
Total	Lumens	2498.0	1426.2	3924.2
	% Fixture	63.7	36.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.1	1.4
10°-20°	109.4	2.8
20°-30°	159.0	4.1
30°-40°	235.2	6.0
40°-50°	342.6	8.7
50°-60°	513.6	13.1
60°-70°	640.1	16.3
70°-80°	374.9	9.6
80°-90°	70.1	1.8
90°-100°	4.7	0.1
100°-110°	69.0	1.8
110°-120°	153.0	3.9
120°-130°	223.9	5.7
130°-140°	265.6	6.8
140°-150°	269.3	6.9
150°-160°	231.1	5.9
160°-170°	155.1	4.0
170°-180°	54.3	1.4
0°-90°	2498.0	63.7
0°-180°	3924.2	100.0



REPORT NUMBER: P228648

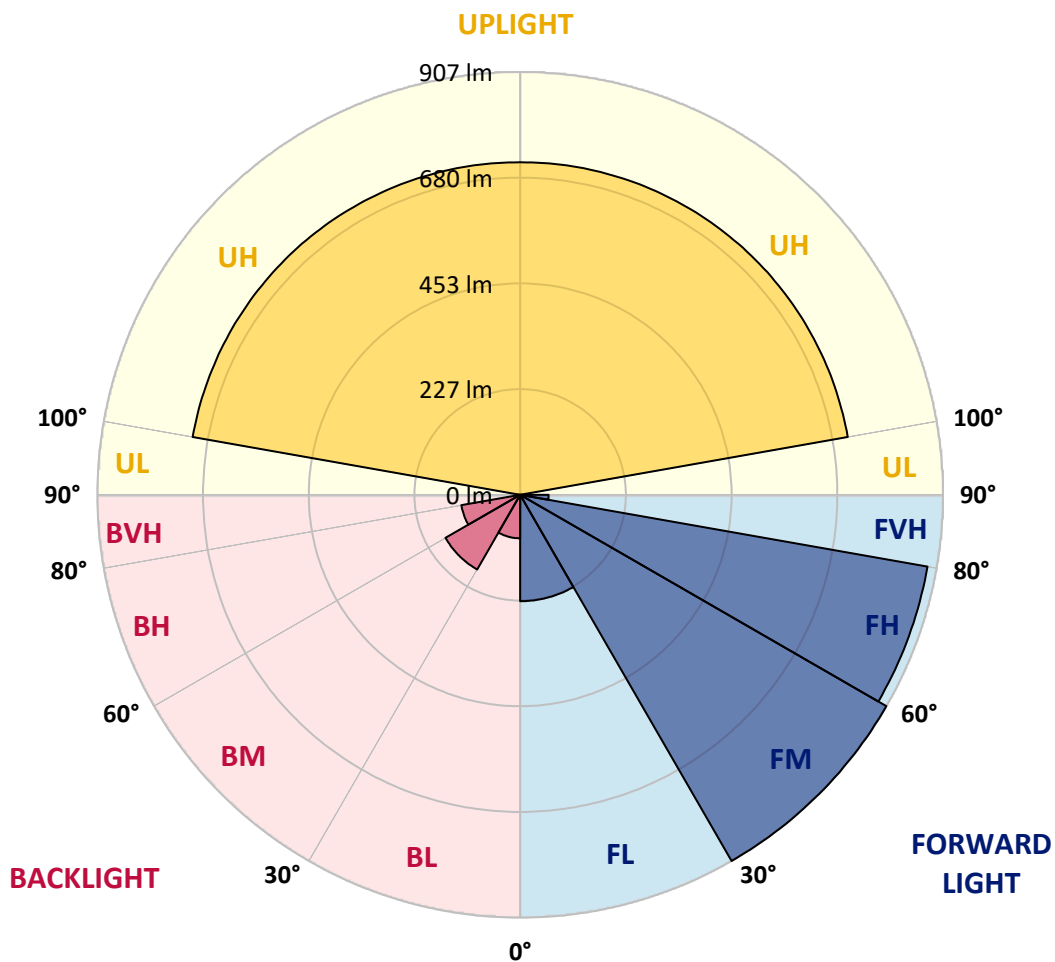
CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	228.2	5.8			
FM	(30°-60°)	906.6	23.1			
FH	(60°-80°)	886.8	22.6			G1/1800
FVH	(80°-90°)	61.1	1.6			G1/100
BL	(0°-30°)	93.3	2.4	B0/110		
BM	(30°-60°)	184.9	4.7	B0/220		
BH	(60°-80°)	128.2	3.3	B1/500		G1/500
BVH	(80°-90°)	9.0	0.2			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	18.2		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





REPORT NUMBER: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°
0°	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3
2.5°	733.8	727.9	716.0	692.3	667.6	643.8	639.9	631.0	632.0	627.0	625.0
5°	710.1	702.2	677.4	628.0	585.5	542.0	539.0	521.2	523.2	512.3	506.4
7.5°	657.7	646.8	619.1	550.9	491.5	434.2	428.2	407.5	404.5	393.6	384.7
10°	606.2	595.4	560.8	482.6	414.4	371.9	364.9	355.0	347.1	342.2	333.3
12.5°	573.6	567.7	526.1	436.1	382.7	348.1	339.2	329.3	321.4	312.5	303.6
15°	566.7	554.8	512.3	421.3	359.0	316.5	305.6	294.7	285.8	276.9	264.1
17.5°	585.5	573.6	526.1	414.4	332.3	280.9	267.0	252.2	243.3	232.4	218.6
20°	630.0	611.2	552.8	404.5	303.6	239.3	222.5	204.7	194.8	176.0	166.1
22.5°	701.2	677.4	598.3	404.5	276.9	195.8	177.0	161.2	150.3	133.5	122.6
25°	803.0	782.3	672.5	415.4	253.2	159.2	140.4	124.6	113.7	101.9	94.9
27.5°	898.0	865.4	751.6	431.2	234.4	133.5	114.7	101.9	94.0	88.0	84.1
30°	969.2	942.5	820.9	442.1	206.7	111.8	99.9	92.0	88.0	85.1	83.1
32.5°	1034.5	1003.8	870.3	449.0	189.9	94.9	84.1	78.1	74.2	70.2	69.2
35°	1103.7	1074.0	928.6	448.0	179.0	87.0	76.2	69.2	65.3	64.3	62.3
37.5°	1199.6	1159.1	995.9	448.0	175.0	84.1	71.2	64.3	61.3	59.3	58.3
40°	1292.6	1247.1	1070.1	451.0	171.1	82.1	71.2	64.3	59.3	57.4	55.4
42.5°	1379.6	1329.2	1137.3	455.9	169.1	76.2	67.3	63.3	61.3	57.4	54.4
45°	1445.9	1406.3	1189.7	465.8	169.1	72.2	63.3	60.3	59.3	59.3	58.3
47.5°	1510.2	1465.7	1250.1	484.6	172.1	69.2	60.3	56.4	56.4	56.4	57.4
50°	1593.2	1540.8	1333.1	523.2	172.1	68.2	57.4	53.4	52.4	54.4	54.4
52.5°	1706.0	1668.4	1454.8	578.6	170.1	67.3	56.4	50.4	49.4	50.4	52.4
55°	1865.2	1822.7	1602.1	646.8	168.1	65.3	54.4	49.4	47.5	46.5	47.5
57.5°	2002.7	1966.1	1737.6	701.2	163.2	60.3	52.4	48.5	45.5	44.5	43.5
60°	2063.0	2032.3	1824.7	737.8	154.3	55.4	49.4	46.5	43.5	42.5	41.5
62.5°	2072.9	2034.3	1825.7	745.7	144.4	50.4	46.5	43.5	41.5	40.5	39.6
65°	2034.3	1990.8	1753.5	697.2	136.5	50.4	44.5	41.5	38.6	37.6	36.6
67.5°	1947.3	1880.0	1570.5	591.4	129.6	51.4	43.5	38.6	36.6	35.6	34.6
70°	1737.6	1662.5	1326.2	469.8	126.6	52.4	43.5	36.6	33.6	32.6	32.6
72.5°	1392.5	1306.4	1034.5	354.1	121.6	53.4	42.5	34.6	31.6	29.7	29.7
75°	942.5	867.3	701.2	239.3	100.9	46.5	38.6	31.6	27.7	25.7	24.7
77.5°	525.1	500.4	446.0	126.6	64.3	34.6	29.7	25.7	22.7	21.8	20.8
80°	308.6	295.7	263.1	70.2	39.6	19.8	17.8	16.8	14.8	14.8	14.8
82.5°	188.9	176.0	163.2	31.6	18.8	9.9	9.9	7.9	7.9	6.9	6.9
85°	51.4	47.5	66.3	6.9	2.0	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
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: P228648

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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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3
2.5°	617.1	615.1	615.1	600.3	600.3	592.4	590.4	590.4	593.4	591.4	579.5
5°	496.5	490.5	486.6	468.8	463.8	454.9	451.0	450.0	453.0	448.0	432.2
7.5°	373.8	368.9	363.0	349.1	343.2	342.2	330.3	327.4	325.4	321.4	311.5
10°	326.4	319.4	314.5	304.6	297.7	292.7	282.8	277.9	273.9	268.0	265.0
12.5°	293.7	286.8	279.9	267.0	258.1	252.2	246.3	236.4	232.4	225.5	221.5
15°	253.2	245.3	237.4	223.5	211.6	205.7	193.8	187.9	183.9	176.0	172.1
17.5°	203.7	192.9	183.9	171.1	165.2	155.3	148.3	138.5	130.5	127.6	124.6
20°	153.3	143.4	135.5	124.6	118.7	110.8	106.8	99.9	95.9	94.0	92.0
22.5°	112.7	104.8	99.9	94.0	91.0	88.0	86.0	84.1	82.1	81.1	81.1
25°	89.0	86.0	84.1	82.1	81.1	80.1	78.1	77.1	76.2	75.2	75.2
27.5°	81.1	79.1	78.1	77.1	76.2	74.2	74.2	72.2	71.2	71.2	70.2
30°	82.1	82.1	82.1	80.1	79.1	77.1	76.2	73.2	71.2	69.2	68.2
32.5°	67.3	67.3	66.3	64.3	63.3	62.3	62.3	60.3	59.3	59.3	61.3
35°	61.3	60.3	59.3	57.4	56.4	54.4	53.4	52.4	51.4	50.4	50.4
37.5°	58.3	57.4	56.4	54.4	53.4	52.4	51.4	49.4	48.5	48.5	47.5
40°	55.4	55.4	55.4	53.4	52.4	50.4	49.4	48.5	47.5	46.5	46.5
42.5°	53.4	53.4	53.4	52.4	51.4	50.4	48.5	47.5	46.5	45.5	44.5
45°	54.4	53.4	53.4	52.4	51.4	49.4	48.5	46.5	45.5	44.5	43.5
47.5°	58.3	57.4	55.4	53.4	51.4	49.4	47.5	45.5	44.5	43.5	42.5
50°	55.4	59.3	60.3	57.4	52.4	49.4	47.5	45.5	43.5	42.5	41.5
52.5°	54.4	55.4	59.3	59.3	54.4	50.4	47.5	45.5	43.5	41.5	40.5
55°	49.4	52.4	53.4	54.4	53.4	49.4	46.5	43.5	42.5	40.5	38.6
57.5°	43.5	45.5	46.5	48.5	49.4	48.5	44.5	41.5	40.5	38.6	36.6
60°	40.5	40.5	40.5	41.5	46.5	50.4	46.5	40.5	37.6	36.6	34.6
62.5°	37.6	37.6	36.6	37.6	38.6	43.5	42.5	38.6	36.6	35.6	33.6
65°	36.6	35.6	34.6	34.6	34.6	34.6	34.6	34.6	33.6	33.6	32.6
67.5°	33.6	32.6	32.6	31.6	31.6	31.6	31.6	31.6	30.7	30.7	29.7
70°	31.6	30.7	29.7	29.7	29.7	28.7	28.7	28.7	27.7	27.7	27.7
72.5°	28.7	27.7	27.7	27.7	26.7	26.7	26.7	25.7	25.7	24.7	24.7
75°	24.7	24.7	23.7	23.7	23.7	22.7	22.7	22.7	22.7	21.8	21.8
77.5°	20.8	19.8	20.8	19.8	19.8	19.8	19.8	19.8	18.8	18.8	17.8
80°	13.8	13.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	13.8
82.5°	7.9	6.9	7.9	7.9	7.9	8.9	8.9	9.9	8.9	8.9	7.9
85°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	2.0	2.0
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°	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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3
2.5°	585.5	584.5	574.6	576.6	573.6	567.7	568.7	569.7	571.6	567.7	565.7
5°	440.1	441.1	428.2	432.2	429.2	428.2	431.2	436.1	439.1	438.1	435.2
7.5°	312.5	313.5	302.6	301.6	298.7	297.7	301.6	306.6	309.5	308.6	309.5
10°	258.1	255.2	245.3	238.3	231.4	225.5	224.5	224.5	224.5	222.5	220.5
12.5°	213.6	210.7	198.8	192.9	186.9	179.0	178.0	177.0	174.1	171.1	167.1
15°	166.1	163.2	153.3	149.3	144.4	141.4	140.4	140.4	138.5	136.5	134.5
17.5°	120.7	118.7	112.7	108.8	107.8	108.8	109.8	111.8	112.7	113.7	113.7
20°	91.0	90.0	88.0	88.0	89.0	92.0	93.0	95.9	96.9	98.9	100.9
22.5°	80.1	80.1	79.1	79.1	81.1	84.1	86.0	87.0	88.0	89.0	89.0
25°	74.2	74.2	73.2	75.2	78.1	78.1	78.1	78.1	76.2	75.2	75.2
27.5°	70.2	70.2	70.2	71.2	70.2	69.2	69.2	69.2	68.2	68.2	67.3
30°	67.3	67.3	67.3	66.3	66.3	65.3	65.3	64.3	64.3	63.3	63.3
32.5°	62.3	60.3	62.3	60.3	60.3	59.3	60.3	60.3	58.3	58.3	58.3
35°	49.4	48.5	48.5	48.5	47.5	48.5	50.4	50.4	50.4	50.4	50.4
37.5°	46.5	46.5	45.5	44.5	44.5	43.5	44.5	43.5	43.5	43.5	44.5
40°	45.5	44.5	43.5	43.5	42.5	41.5	41.5	41.5	41.5	41.5	41.5
42.5°	43.5	43.5	41.5	40.5	40.5	39.6	39.6	39.6	39.6	39.6	39.6
45°	42.5	41.5	40.5	39.6	38.6	38.6	38.6	38.6	38.6	38.6	37.6
47.5°	41.5	40.5	39.6	38.6	37.6	36.6	36.6	36.6	36.6	36.6	36.6
50°	40.5	39.6	37.6	37.6	36.6	35.6	35.6	35.6	35.6	35.6	35.6
52.5°	38.6	38.6	36.6	35.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6
55°	36.6	36.6	34.6	33.6	32.6	32.6	32.6	32.6	33.6	33.6	33.6
57.5°	35.6	34.6	32.6	32.6	30.7	30.7	30.7	31.6	31.6	32.6	32.6
60°	33.6	32.6	31.6	30.7	30.7	29.7	29.7	29.7	29.7	30.7	30.7
62.5°	32.6	31.6	29.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7
65°	30.7	30.7	28.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7
67.5°	28.7	28.7	26.7	25.7	25.7	25.7	26.7	25.7	25.7	25.7	25.7
70°	26.7	25.7	24.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
72.5°	23.7	23.7	22.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	22.7
75°	20.8	19.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
77.5°	17.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	16.8
80°	12.9	11.9	11.9	11.9	11.9	12.9	12.9	12.9	12.9	12.9	12.9
82.5°	7.9	6.9	6.9	6.9	7.9	8.9	8.9	8.9	8.9	9.9	9.9
85°	2.0	2.0	2.0	2.0	4.0	4.9	4.9	4.9	5.9	4.9	4.9
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: P228648
 CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-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: P228648
 NUMBER: ISC-AF-450-LED-E1-SLR-7050-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°	
691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	112.5°	136.0
563.7	575.6	575.6	567.7	571.6	567.7	566.7	573.6	577.6	590.4	598.3	115°	158.0
436.1	451.0	452.0	448.0	453.0	450.0	453.0	461.9	468.8	477.7	485.6	117.5°	181.0
311.5	325.4	328.3	325.4	334.3	333.3	335.3	345.2	351.1	356.0	357.0	120°	204.0
219.6	221.5	229.4	227.5	233.4	232.4	235.4	243.3	251.2	254.2	256.1	122.5°	228.0
165.2	163.2	166.1	162.2	165.2	165.2	166.1	171.1	181.0	184.9	194.8	125°	254.0
133.5	131.5	131.5	129.6	129.6	128.6	129.6	133.5	140.4	146.4	154.3	127.5°	277.0
113.7	113.7	113.7	112.7	111.8	111.8	112.7	114.7	118.7	122.6	126.6	130°	301.0
101.9	103.8	104.8	105.8	106.8	107.8	108.8	111.8	110.8	106.8	101.9	132.5°	325.0
89.0	89.0	90.0	90.0	89.0	89.0	89.0	89.0	89.0	92.0	94.9	135°	348.0
74.2	74.2	74.2	75.2	74.2	74.2	75.2	75.2	76.2	78.1	81.1	137.5°	369.0
67.3	67.3	67.3	67.3	67.3	67.3	67.3	68.2	69.2	72.2	74.2	140°	390.0
62.3	62.3	61.3	61.3	61.3	60.3	61.3	61.3	62.3	66.3	69.2	142.5°	412.0
57.4	56.4	56.4	56.4	55.4	55.4	55.4	57.4	58.3	60.3	63.3	145°	433.0
50.4	50.4	50.4	51.4	51.4	51.4	51.4	53.4	53.4	54.4	54.4	147.5°	452.0
45.5	45.5	46.5	47.5	47.5	48.5	48.5	49.4	50.4	49.4	48.5	150°	469.0
41.5	42.5	42.5	44.5	44.5	44.5	45.5	46.5	47.5	45.5	45.5	152.5°	486.0
39.6	39.6	39.6	40.5	40.5	40.5	41.5	42.5	43.5	43.5	43.5	155°	503.0
37.6	37.6	37.6	38.6	37.6	37.6	37.6	38.6	40.5	40.5	41.5	157.5°	517.0
36.6	36.6	36.6	35.6	35.6	35.6	35.6	36.6	37.6	39.6	40.5	160°	530.0
35.6	34.6	34.6	34.6	34.6	34.6	34.6	35.6	36.6	37.6	39.6	162.5°	540.0
33.6	33.6	33.6	33.6	33.6	33.6	33.6	34.6	35.6	36.6	37.6	165°	550.0
33.6	33.6	32.6	32.6	33.6	33.6	33.6	34.6	35.6	36.6	36.6	167.5°	558.0
32.6	31.6	31.6	32.6	32.6	32.6	32.6	33.6	34.6	35.6	35.6	170°	564.0
30.7	30.7	30.7	30.7	31.6	31.6	32.6	33.6	33.6	34.6	34.6	172.5°	567.0
28.7	29.7	29.7	29.7	30.7	30.7	31.6	32.6	33.6	34.6	33.6	175°	570.0
27.7	28.7	28.7	28.7	29.7	29.7	29.7	31.6	32.6	33.6	33.6	177.5°	574.0
26.7	26.7	26.7	27.7	27.7	28.7	28.7	30.7	30.7	31.6	32.6	180°	576.0
24.7	24.7	24.7	25.7	25.7	26.7	27.7	28.7	28.7	29.7	30.7		
22.7	22.7	22.7	23.7	23.7	24.7	25.7	27.7	26.7	27.7	27.7		
19.8	19.8	20.8	20.8	21.8	22.7	23.7	23.7	23.7	23.7	23.7		
16.8	16.8	17.8	17.8	18.8	19.8	19.8	19.8	20.8	19.8	19.8		
13.8	13.8	14.8	14.8	14.8	14.8	15.8	14.8	15.8	14.8	15.8		
9.9	9.9	10.9	9.9	10.9	9.9	9.9	8.9	10.9	9.9	9.9		
4.0	4.9	4.9	4.9	4.9	4.0	4.0	3.0	4.0	4.0	3.0		
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	0.0		
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		

'228648
 ISC-AF-450-LED-E1-SLR-7050-ULG

REPORT NUMBER: P228648
 CATALOG NUMBER: ISC-AF-45

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°	691.3	691.3
158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	151.0	149.0	2.5°	601.3	600.3
180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	174.0	172.0	5°	486.6	484.6
204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	198.0	196.0	7.5°	348.1	344.2
228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	223.0	221.0	10°	257.1	260.1
253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	248.0	247.0	12.5°	205.7	217.6
277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	272.0	270.0	15°	165.2	172.1
301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	294.0	293.0	17.5°	127.6	130.5
325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	318.0	317.0	20°	101.9	101.9
348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	341.0	339.0	22.5°	89.0	88.0
369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	364.0	363.0	25°	84.1	83.1
390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	386.0	385.0	27.5°	76.2	77.1
412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	407.0	408.0	30°	71.2	72.2
433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	428.0	428.0	32.5°	65.3	66.3
452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	448.0	447.0	35°	53.4	53.4
469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	465.0	464.0	37.5°	49.4	49.4
486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	482.0	483.0	40°	46.5	47.5
503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	501.0	502.0	42.5°	44.5	44.5
517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	516.0	517.0	45°	42.5	43.5
530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	529.0	529.0	47.5°	41.5	41.5
540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	538.0	539.0	50°	39.6	40.5
550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	548.0	549.0	52.5°	38.6	39.6
558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	558.0	559.0	55°	37.6	37.6
564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	565.0	566.0	57.5°	35.6	36.6
567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	567.0	569.0	60°	35.6	35.6
570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	569.0	570.0	62.5°	34.6	34.6
574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	574.0	575.0	65°	33.6	33.6
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	31.6	31.6
										70°	29.7	29.7
										72.5°	27.7	26.7
										75°	23.7	23.7
										77.5°	19.8	19.8
										80°	14.8	13.8
										82.5°	8.9	7.9
										85°	3.0	3.0
										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: P228648

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

0-LED-E1-SLR-7050-ULG

tinued):

CANDELA DISTRIBUTION (continued):

185°	195°	205°	215°	225°	230°	235°	240°	245°		175°	180°	185°
691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	691.3	112.5°	124.0	124.0	124.0
615.1	626.0	632.9	659.6	671.5	686.4	693.3	703.2	713.1	115°	147.0	146.0	147.0
502.4	516.2	528.1	566.7	589.4	610.2	627.0	642.8	665.6	117.5°	170.0	169.0	170.0
356.0	367.9	383.7	425.3	464.8	492.5	517.2	543.9	573.6	120°	195.0	193.0	195.0
272.0	289.8	310.5	342.2	373.8	393.6	415.4	445.0	480.6	122.5°	220.0	219.0	220.0
227.5	249.2	273.9	309.5	343.2	359.0	374.8	389.7	408.4	125°	246.0	244.0	246.0
180.0	200.8	230.4	272.0	311.5	329.3	348.1	365.9	382.7	127.5°	269.0	267.0	269.0
134.5	149.3	176.0	225.5	269.0	291.7	313.5	338.2	361.0	130°	292.0	290.0	292.0
102.9	109.8	128.6	167.1	220.5	249.2	276.9	308.6	341.2	132.5°	314.0	313.0	314.0
89.0	92.0	100.9	123.6	172.1	205.7	241.3	280.9	321.4	135°	337.0	336.0	337.0
82.1	84.1	89.0	99.9	134.5	170.1	206.7	254.2	303.6	137.5°	360.0	359.0	360.0
78.1	80.1	84.1	90.0	111.8	138.5	179.0	231.4	290.8	140°	383.0	382.0	383.0
73.2	75.2	82.1	89.0	101.9	118.7	153.3	204.7	271.0	142.5°	406.0	404.0	406.0
67.3	68.2	70.2	78.1	87.0	100.9	130.5	181.0	250.2	145°	426.0	425.0	426.0
54.4	57.4	61.3	69.2	78.1	89.0	116.7	165.2	237.4	147.5°	444.0	444.0	444.0
50.4	53.4	57.4	64.3	72.2	82.1	110.8	159.2	225.5	150°	462.0	461.0	462.0
47.5	50.4	54.4	62.3	67.3	79.1	107.8	150.3	213.6	152.5°	480.0	479.0	480.0
45.5	48.5	53.4	59.3	66.3	77.1	99.9	142.4	206.7	155°	500.0	499.0	500.0
43.5	46.5	52.4	57.4	67.3	73.2	94.9	136.5	200.8	157.5°	515.0	513.0	515.0
42.5	45.5	51.4	58.3	65.3	69.2	90.0	131.5	195.8	160°	527.0	525.0	527.0
41.5	44.5	50.4	64.3	62.3	66.3	86.0	127.6	192.9	162.5°	536.0	535.0	536.0
40.5	43.5	50.4	65.3	60.3	62.3	83.1	123.6	190.9	165°	547.0	546.0	547.0
38.6	42.5	50.4	60.3	56.4	60.3	77.1	117.7	185.9	167.5°	556.0	555.0	556.0
37.6	40.5	49.4	55.4	53.4	57.4	71.2	107.8	179.0	170°	563.0	562.0	563.0
36.6	39.6	49.4	49.4	50.4	54.4	64.3	95.9	167.1	172.5°	566.0	565.0	566.0
35.6	39.6	50.4	44.5	47.5	51.4	59.3	86.0	152.3	175°	569.0	567.0	569.0
34.6	37.6	43.5	42.5	45.5	48.5	57.4	79.1	139.4	177.5°	573.0	572.0	573.0
32.6	35.6	38.6	39.6	43.5	46.5	56.4	78.1	127.6	180°	576.0	576.0	576.0
29.7	32.6	34.6	37.6	40.5	44.5	56.4	77.1	118.7				
27.7	29.7	31.6	33.6	36.6	41.5	55.4	78.1	114.7				
23.7	25.7	27.7	29.7	32.6	38.6	52.4	73.2	102.9				
18.8	21.8	23.7	24.7	27.7	33.6	45.5	62.3	83.1				
13.8	16.8	17.8	19.8	21.8	25.7	35.6	45.5	61.3				
7.9	10.9	11.9	12.9	16.8	18.8	23.7	29.7	41.5				
3.0	4.9	5.9	6.9	9.9	10.9	14.8	18.8	21.8				
0.0	0.0	0.0	0.0	2.0	3.0	4.9	5.9	4.9				
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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-L

SLR-7050-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°	691.3	691.3	691.3	691.3
149.0	151.0	154.0	156.0	157.0	158.0	158.0	158.0	2.5°	724.9	734.8	747.7	759.5
172.0	174.0	177.0	179.0	179.5	180.0	180.5	181.0	5°	683.4	702.2	729.9	752.6
196.0	198.0	201.0	202.0	203.0	204.0	204.0	204.0	7.5°	599.3	625.0	659.6	691.3
221.0	223.0	226.0	227.0	227.5	228.0	228.0	228.0	10°	511.3	546.9	583.5	624.0
247.0	248.0	251.0	252.0	252.5	253.0	253.5	254.0	12.5°	439.1	479.7	521.2	571.6
270.0	272.0	274.0	276.0	277.0	278.0	277.5	277.0	15°	408.4	444.1	492.5	547.9
293.0	294.0	298.0	299.0	300.0	301.0	301.0	301.0	17.5°	395.6	441.1	496.5	554.8
317.0	318.0	321.0	322.0	323.5	325.0	325.0	325.0	20°	381.7	444.1	518.2	589.4
339.0	341.0	345.0	345.0	346.5	348.0	348.0	348.0	22.5°	373.8	453.9	545.9	645.8
363.0	364.0	367.0	367.0	368.0	369.0	369.0	369.0	25°	371.9	476.7	593.4	725.9
385.0	386.0	388.0	389.0	389.5	390.0	390.0	390.0	27.5°	373.8	502.4	652.7	812.0
408.0	407.0	410.0	410.0	411.0	412.0	412.0	412.0	30°	364.9	529.1	712.1	887.1
428.0	428.0	431.0	432.0	433.0	434.0	433.5	433.0	32.5°	350.1	548.9	764.5	947.4
447.0	448.0	452.0	453.0	453.5	454.0	453.0	452.0	35°	333.3	557.8	802.1	1003.8
464.0	465.0	469.0	470.0	470.5	471.0	470.0	469.0	37.5°	315.5	558.8	837.7	1063.2
483.0	482.0	485.0	486.0	486.5	487.0	486.5	486.0	40°	305.6	554.8	874.3	1136.3
502.0	501.0	503.0	503.0	503.5	504.0	503.5	503.0	42.5°	301.6	547.9	901.0	1191.7
517.0	516.0	519.0	519.0	519.0	519.0	518.0	517.0	45°	301.6	541.0	925.7	1233.3
529.0	529.0	532.0	532.0	532.0	532.0	531.0	530.0	47.5°	302.6	543.9	955.4	1300.5
539.0	538.0	541.0	541.0	541.5	542.0	541.0	540.0	50°	307.6	577.6	1005.8	1374.7
549.0	548.0	552.0	552.0	552.5	553.0	551.5	550.0	52.5°	315.5	631.0	1092.8	1462.7
559.0	558.0	561.0	560.0	560.0	560.0	559.0	558.0	55°	323.4	685.4	1206.6	1610.1
566.0	565.0	567.0	566.0	565.5	565.0	564.5	564.0	57.5°	330.3	725.9	1317.3	1756.4
569.0	567.0	569.0	568.0	568.5	569.0	568.0	567.0	60°	337.2	757.6	1381.6	1821.7
570.0	569.0	572.0	572.0	572.5	573.0	571.5	570.0	62.5°	333.3	745.7	1399.4	1789.1
575.0	574.0	578.0	577.0	577.0	577.0	575.5	574.0	65°	318.5	683.4	1343.0	1676.3
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	277.9	574.6	1170.0	1498.3
								70°	230.4	451.0	954.4	1275.8
								72.5°	193.8	337.2	733.8	988.0
								75°	161.2	238.3	516.2	680.4
								77.5°	119.7	162.2	373.8	475.7
								80°	80.1	99.9	238.3	332.3
								82.5°	48.5	58.3	137.5	232.4
								85°	26.7	36.6	84.1	152.3
								87.5°	6.9	7.9	18.8	6.9
								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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

JLG

CANDELA DISTRIBUTION (continued):

270°	275°	280°	285°	290°	295°	300°		250°	255°	260°	265°	270°
691.3	691.3	691.3	691.3	691.3	691.3	691.3	112.5°	135.5	135.0	136.0	137.0	135.0
768.4	776.3	786.2	786.2	798.1	802.1	810.0	115°	158.0	158.0	159.0	160.0	159.0
780.3	807.0	831.7	845.6	869.3	885.1	901.0	117.5°	180.5	180.0	181.0	182.0	180.0
731.8	775.4	815.9	853.5	893.0	926.7	951.4	120°	204.0	204.0	205.0	206.0	204.0
667.6	714.0	763.5	813.9	861.4	908.9	949.4	122.5°	228.5	229.0	231.0	233.0	232.0
622.1	671.5	729.9	773.4	822.8	870.3	909.9	125°	254.0	254.0	255.5	257.0	256.0
601.3	651.7	706.1	750.6	797.1	835.7	863.4	127.5°	277.5	278.0	279.5	281.0	278.0
612.2	673.5	722.0	759.5	794.1	812.0	815.9	130°	301.5	302.0	303.5	305.0	303.0
659.6	723.9	759.5	784.3	790.2	789.2	774.4	132.5°	325.5	326.0	327.5	329.0	327.0
733.8	809.0	833.7	828.8	804.0	772.4	747.7	135°	348.5	349.0	350.0	351.0	350.0
833.7	908.9	922.7	895.0	839.6	778.3	736.8	137.5°	369.5	370.0	372.0	374.0	372.0
938.5	1015.7	1010.7	969.2	890.1	804.0	737.8	140°	391.0	392.0	394.0	396.0	394.0
1012.7	1077.0	1057.2	994.9	906.9	820.9	750.6	142.5°	412.5	413.0	414.5	416.0	415.0
1089.9	1138.3	1102.7	1035.5	944.5	856.5	784.3	145°	433.5	434.0	435.5	437.0	435.0
1172.9	1198.6	1141.3	1073.0	990.0	901.0	822.8	147.5°	452.5	453.0	454.5	456.0	453.0
1253.0	1263.9	1180.8	1107.7	1026.6	946.5	875.2	150°	469.0	469.0	471.0	473.0	470.0
1339.1	1324.2	1222.4	1136.3	1056.2	994.9	936.6	152.5°	486.0	486.0	487.5	489.0	486.0
1413.2	1380.6	1260.9	1165.0	1092.8	1041.4	1000.8	155°	503.5	504.0	505.5	507.0	505.0
1468.6	1426.1	1297.5	1192.7	1128.4	1096.8	1077.0	157.5°	517.5	518.0	520.5	523.0	520.0
1516.1	1469.6	1326.2	1233.3	1177.9	1166.0	1172.9	160°	530.0	530.0	531.5	533.0	531.0
1575.4	1516.1	1364.8	1278.7	1245.1	1257.0	1296.5	162.5°	539.0	538.0	539.0	540.0	537.0
1667.4	1590.3	1429.1	1344.0	1328.2	1370.7	1445.9	165°	549.0	548.0	549.0	550.0	548.0
1815.8	1724.8	1542.8	1457.8	1439.0	1504.2	1612.0	167.5°	558.5	559.0	561.0	563.0	561.0
1944.3	1875.1	1693.1	1590.3	1582.4	1652.6	1770.3	170°	565.0	566.0	568.5	571.0	569.0
2002.7	1995.8	1848.4	1753.5	1741.6	1806.9	1918.6	172.5°	567.5	568.0	569.5	571.0	568.0
1997.7	2055.1	1975.0	1907.7	1867.2	1921.6	2030.4	175°	569.0	568.0	569.5	571.0	568.0
1925.5	2019.5	2026.4	2010.6	1937.4	1941.4	2018.5	177.5°	574.0	574.0	575.5	577.0	574.0
1784.1	1895.9	2012.6	2007.6	1914.7	1832.6	1848.4	180°	576.0	576.0	576.0	576.0	576.0
1583.4	1679.3	1865.2	1902.8	1770.3	1617.0	1544.8						
1268.9	1380.6	1656.5	1709.0	1528.0	1312.4	1200.6						
875.2	1022.6	1445.9	1450.8	1240.2	1032.5	911.8						
601.3	727.9	1169.0	1181.8	984.0	783.3	679.4						
404.5	487.6	857.4	803.0	649.8	542.9	516.2						
255.2	303.6	539.0	503.4	428.2	391.6	401.5						
118.7	166.1	294.7	287.8	270.0	236.4	205.7						
3.0	8.9	57.4	37.6	37.6	21.8	7.9						
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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-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°	691.3	691.3	691.3	691.3	691.3	691.3
160.0	159.0	158.0	158.0	158.0	158.0	2.5°	803.0	806.0	805.0	798.1	780.3	773.4
182.0	181.0	180.0	180.5	181.0	180.5	5°	900.0	904.9	899.0	882.2	836.7	814.9
206.0	205.0	204.0	204.0	204.0	204.0	7.5°	968.2	972.2	962.3	923.7	842.6	806.0
233.0	231.0	229.0	228.5	228.0	228.0	10°	981.1	990.0	979.1	923.7	829.8	784.3
257.0	255.5	254.0	254.0	254.0	253.5	12.5°	944.5	963.3	955.4	914.8	823.8	775.4
281.0	279.5	278.0	277.5	277.0	277.5	15°	888.1	890.1	895.0	894.0	812.9	765.5
305.0	303.5	302.0	301.5	301.0	301.0	17.5°	825.8	823.8	829.8	848.5	810.0	772.4
329.0	327.5	326.0	325.5	325.0	325.0	20°	769.4	766.5	772.4	791.2	798.1	789.2
351.0	350.0	349.0	348.5	348.0	348.0	22.5°	733.8	723.9	722.9	750.6	804.0	827.8
374.0	372.0	370.0	369.5	369.0	369.0	25°	714.0	703.2	708.1	739.8	828.8	873.3
396.0	394.0	392.0	391.0	390.0	390.0	27.5°	708.1	696.2	703.2	738.8	854.5	928.6
416.0	414.5	413.0	412.5	412.0	412.0	30°	712.1	700.2	703.2	745.7	867.3	941.5
437.0	435.5	434.0	433.5	433.0	433.5	32.5°	734.8	714.0	712.1	766.5	891.1	970.2
456.0	454.5	453.0	452.5	452.0	453.0	35°	765.5	735.8	731.8	800.1	921.7	1006.8
473.0	471.0	469.0	469.0	469.0	470.0	37.5°	816.9	780.3	774.4	856.5	963.3	1037.4
489.0	487.5	486.0	486.0	486.0	486.5	40°	886.1	849.5	849.5	928.6	1019.6	1080.0
507.0	505.5	504.0	503.5	503.0	503.5	42.5°	964.3	940.5	944.5	1015.7	1083.9	1133.4
523.0	520.5	518.0	517.5	517.0	518.0	45°	1068.1	1055.2	1075.0	1125.5	1149.2	1182.8
533.0	531.5	530.0	530.0	530.0	531.0	47.5°	1189.7	1200.6	1228.3	1244.1	1215.5	1233.3
540.0	539.0	538.0	539.0	540.0	541.0	50°	1342.0	1370.7	1397.4	1393.5	1297.5	1291.6
550.0	549.0	548.0	549.0	550.0	551.5	52.5°	1517.1	1554.7	1573.5	1551.7	1389.5	1354.9
563.0	561.0	559.0	558.5	558.0	559.0	55°	1695.1	1740.6	1734.7	1709.9	1489.4	1442.9
571.0	568.5	566.0	565.0	564.0	564.5	57.5°	1856.3	1891.9	1907.7	1854.3	1611.0	1549.7
571.0	569.5	568.0	567.5	567.0	568.0	60°	1983.9	2022.5	2022.5	1970.0	1743.6	1672.4
571.0	569.5	568.0	569.0	570.0	571.5	62.5°	2076.9	2107.5	2096.6	2046.2	1857.3	1802.9
577.0	575.5	574.0	574.0	574.0	575.5	65°	2069.9	2072.9	2061.0	2042.2	1925.5	1919.6
576.0	576.0	576.0	576.0	576.0	576.0	67.5°	1875.1	1876.1	1899.8	1891.9	1874.1	1947.3
						70°	1536.9	1552.7	1593.2	1581.4	1672.4	1822.7
						72.5°	1170.0	1179.9	1228.3	1217.4	1341.1	1506.2
						75°	851.5	850.5	871.3	855.5	1011.7	1195.7
						77.5°	655.7	637.9	633.9	635.9	717.0	869.3
						80°	529.1	529.1	523.2	501.4	439.1	508.3
						82.5°	422.3	405.5	375.8	333.3	281.9	300.6
						85°	210.7	204.7	179.0	148.3	123.6	164.2
						87.5°	1.0	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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

CANDELA DISTRIBUTION (continued):

342.5°	345°	347.5°	350°	352.5°		305°	310°	315°	325°	335°	340°	342.5°
691.3	691.3	691.3	691.3	691.3	112.5°	136.0	135.0	134.0	132.0	129.0	127.5	126.8
770.4	762.5	753.6	753.6	745.7	115°	158.0	157.0	156.0	154.0	151.0	150.0	149.5
802.1	786.2	773.4	761.5	749.6	117.5°	180.0	179.5	179.0	177.0	174.0	173.0	172.5
786.2	767.4	751.6	730.9	712.1	120°	204.0	203.0	202.0	201.0	198.0	197.0	196.5
762.5	741.7	719.0	697.2	670.5	122.5°	228.0	227.5	227.0	226.0	223.0	222.0	221.5
749.6	724.9	697.2	674.5	643.8	125°	253.0	252.5	252.0	251.0	248.0	247.5	247.2
739.8	714.0	689.3	667.6	640.9	127.5°	278.0	277.0	276.0	274.0	272.0	271.0	270.5
755.6	730.9	713.1	688.3	667.6	130°	301.0	300.0	299.0	298.0	294.0	293.5	293.2
782.3	767.4	753.6	737.8	721.0	132.5°	325.0	323.5	322.0	321.0	318.0	317.5	317.2
832.7	830.7	829.8	817.9	806.0	135°	348.0	346.5	345.0	345.0	341.0	340.0	339.5
896.0	903.9	914.8	914.8	914.8	137.5°	369.0	368.0	367.0	367.0	364.0	363.5	363.2
961.3	981.1	1001.8	1010.7	1016.7	140°	390.0	389.5	389.0	388.0	386.0	385.5	385.2
980.1	1008.8	1041.4	1063.2	1078.0	142.5°	412.0	411.0	410.0	410.0	407.0	407.5	407.8
1010.7	1043.4	1080.0	1104.7	1131.4	145°	434.0	433.0	432.0	431.0	428.0	428.0	428.0
1047.3	1076.0	1113.6	1147.2	1185.8	147.5°	454.0	453.5	453.0	452.0	448.0	447.5	447.2
1078.0	1115.6	1156.1	1199.6	1249.1	150°	471.0	470.5	470.0	469.0	465.0	464.5	464.2
1124.5	1164.0	1208.5	1266.9	1327.2	152.5°	487.0	486.5	486.0	485.0	482.0	482.5	482.8
1175.9	1218.4	1264.9	1323.3	1393.5	155°	504.0	503.5	503.0	503.0	501.0	501.5	501.8
1220.4	1258.0	1308.4	1368.7	1448.9	157.5°	519.0	519.0	519.0	519.0	516.0	516.5	516.8
1262.9	1297.5	1356.9	1418.2	1497.3	160°	532.0	532.0	532.0	532.0	529.0	529.0	529.0
1319.3	1346.0	1405.3	1475.6	1559.6	162.5°	542.0	541.5	541.0	541.0	538.0	538.5	538.8
1377.6	1414.2	1479.5	1559.6	1653.6	165°	553.0	552.5	552.0	552.0	548.0	548.5	548.8
1456.8	1500.3	1580.4	1671.4	1790.0	167.5°	560.0	560.0	560.0	561.0	558.0	558.5	558.8
1565.6	1611.0	1696.1	1798.0	1919.6	170°	565.0	565.5	566.0	567.0	565.0	565.5	565.8
1699.1	1743.6	1816.8	1917.6	2031.4	172.5°	569.0	568.5	568.0	569.0	567.0	568.0	568.5
1823.7	1885.0	1951.3	2026.4	2116.4	175°	573.0	572.5	572.0	572.0	569.0	569.5	569.8
1959.2	2006.6	2062.0	2090.7	2141.1	177.5°	577.0	577.0	577.0	578.0	574.0	574.5	574.8
1998.7	2038.3	2086.7	2086.7	2080.8	180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0
1882.0	1942.4	1984.9	1984.9	1934.4								
1636.8	1737.6	1779.2	1804.9	1740.6								
1330.2	1455.8	1524.0	1545.8	1429.1								
976.1	1056.2	1065.1	1068.1	910.8								
562.7	626.0	648.8	681.4	545.9								
326.4	350.1	388.7	402.5	332.3								
183.0	184.9	184.9	171.1	139.4								
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								
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: P228648
 CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-ULG

CANDELA DISTRIBUTION (continued):

345°	347.5°	350°	352.5°		355°	359°	360°
126.0	125.5	125.0	124.5	0°	691.3	691.3	691.3
149.0	148.5	148.0	147.5	2.5°	743.7	731.8	733.8
172.0	171.5	171.0	170.5	5°	732.8	716.0	710.1
196.0	195.8	195.5	195.2	7.5°	695.3	666.6	657.7
221.0	220.8	220.5	220.2	10°	649.8	613.2	606.2
247.0	246.8	246.5	246.2	12.5°	624.0	582.5	573.6
270.0	269.8	269.5	269.2	15°	616.1	576.6	566.7
293.0	292.8	292.5	292.2	17.5°	639.9	597.3	585.5
317.0	316.2	315.5	314.8	20°	694.3	643.8	630.0
339.0	338.5	338.0	337.5	22.5°	775.4	718.0	701.2
363.0	362.2	361.5	360.8	25°	885.1	819.9	803.0
385.0	384.5	384.0	383.5	27.5°	997.9	919.7	898.0
408.0	407.5	407.0	406.5	30°	1063.2	991.0	969.2
428.0	427.5	427.0	426.5	32.5°	1129.4	1060.2	1034.5
447.0	446.2	445.5	444.8	35°	1199.6	1129.4	1103.7
464.0	463.5	463.0	462.5	37.5°	1281.7	1222.4	1199.6
483.0	482.2	481.5	480.8	40°	1379.6	1325.2	1292.6
502.0	501.5	501.0	500.5	42.5°	1460.7	1410.3	1379.6
517.0	516.5	516.0	515.5	45°	1520.1	1477.5	1445.9
529.0	528.5	528.0	527.5	47.5°	1574.5	1541.8	1510.2
539.0	538.2	537.5	536.8	50°	1642.7	1615.0	1593.2
549.0	548.5	548.0	547.5	52.5°	1734.7	1724.8	1706.0
559.0	558.2	557.5	556.8	55°	1870.2	1891.9	1865.2
566.0	565.2	564.5	563.8	57.5°	1998.7	2014.5	2002.7
569.0	568.2	567.5	566.8	60°	2099.6	2077.8	2063.0
570.0	569.8	569.5	569.2	62.5°	2151.0	2097.6	2072.9
575.0	574.5	574.0	573.5	65°	2154.0	2071.9	2034.3
576.0	576.0	576.0	576.0	67.5°	2086.7	1990.8	1947.3
				70°	1905.8	1795.0	1737.6
				72.5°	1601.2	1431.1	1392.5
				75°	1173.9	965.2	942.5
				77.5°	711.1	554.8	525.1
				80°	400.5	318.5	308.6
				82.5°	227.5	179.0	188.9
				85°	93.0	46.5	51.4
				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: P228648

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-7050-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)