

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: P271836

Luminaire Tested: **ISW-AF-450-LED-E1-SLR-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271836
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35948)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISW-AF-450-LED-E1-SLR-7027-ULG
Description: IMPACT ELITE LED WEDGE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR RIGHT, WITH
UPLIGHT GLOW
Light Source: (16) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4054.3 lumens
Efficiency: N/A
Efficacy: 96.5 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

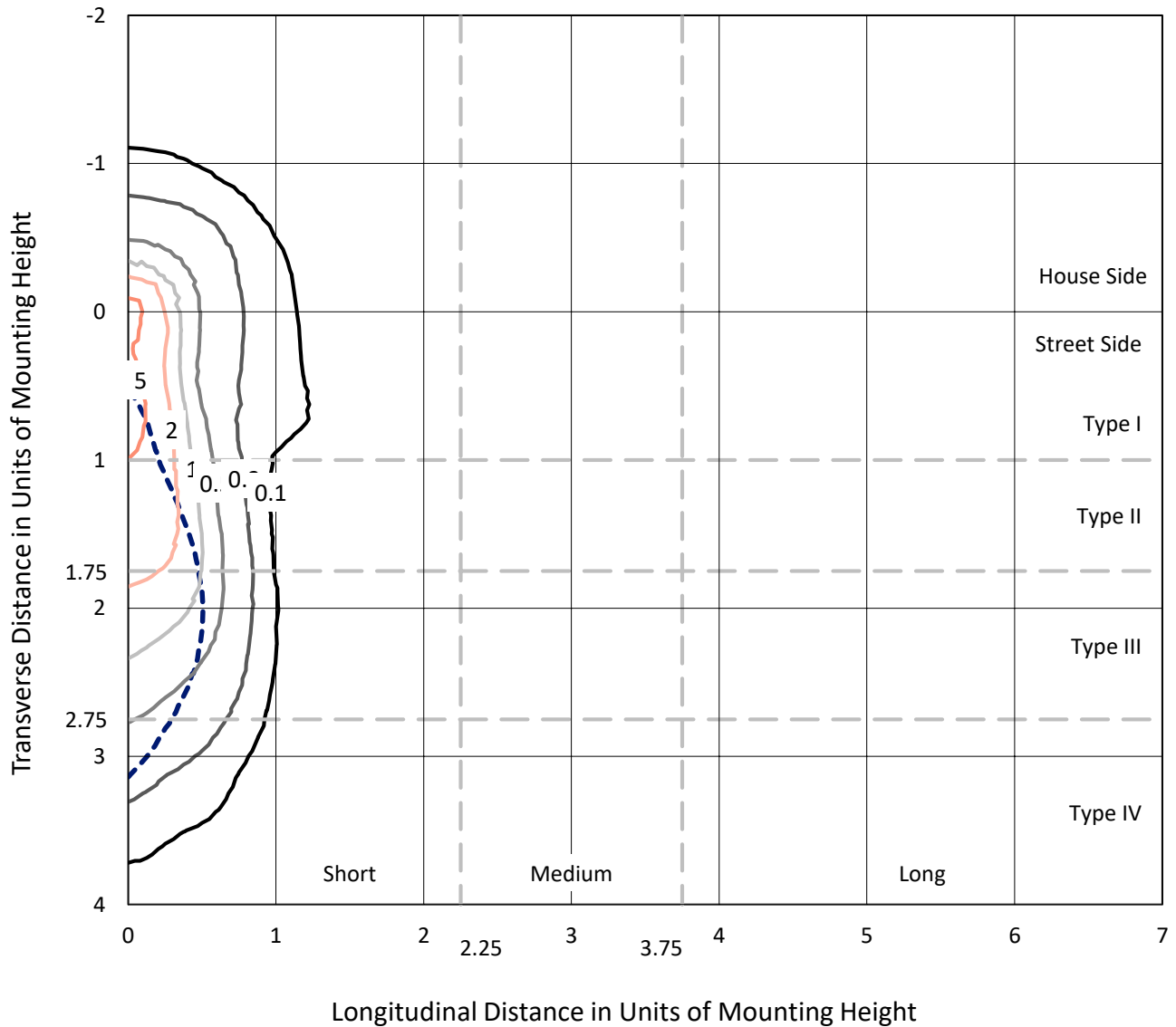


REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

Iso-Footcandle Lines of Horizontal Illumination

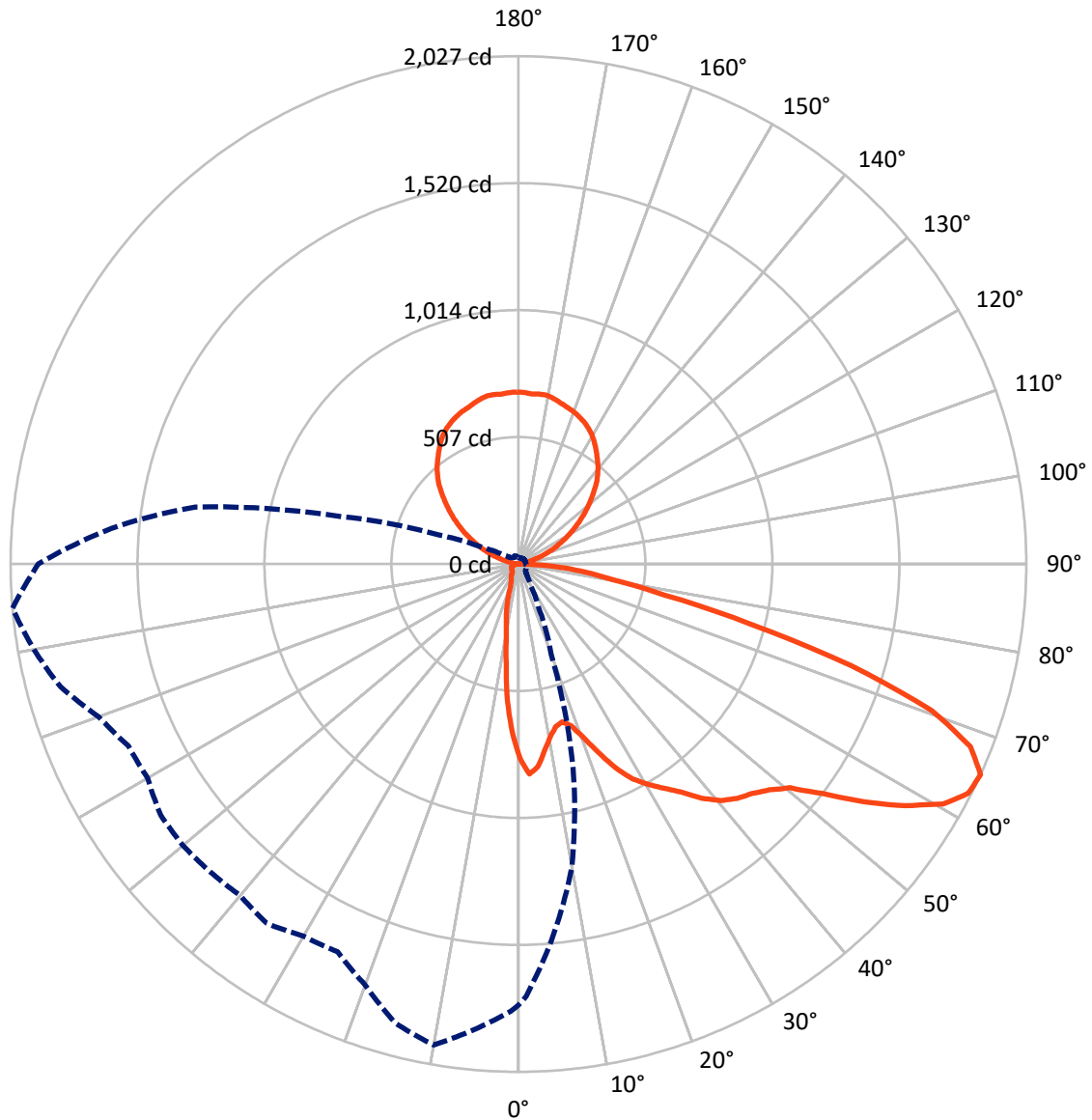
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P271836
CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 275-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

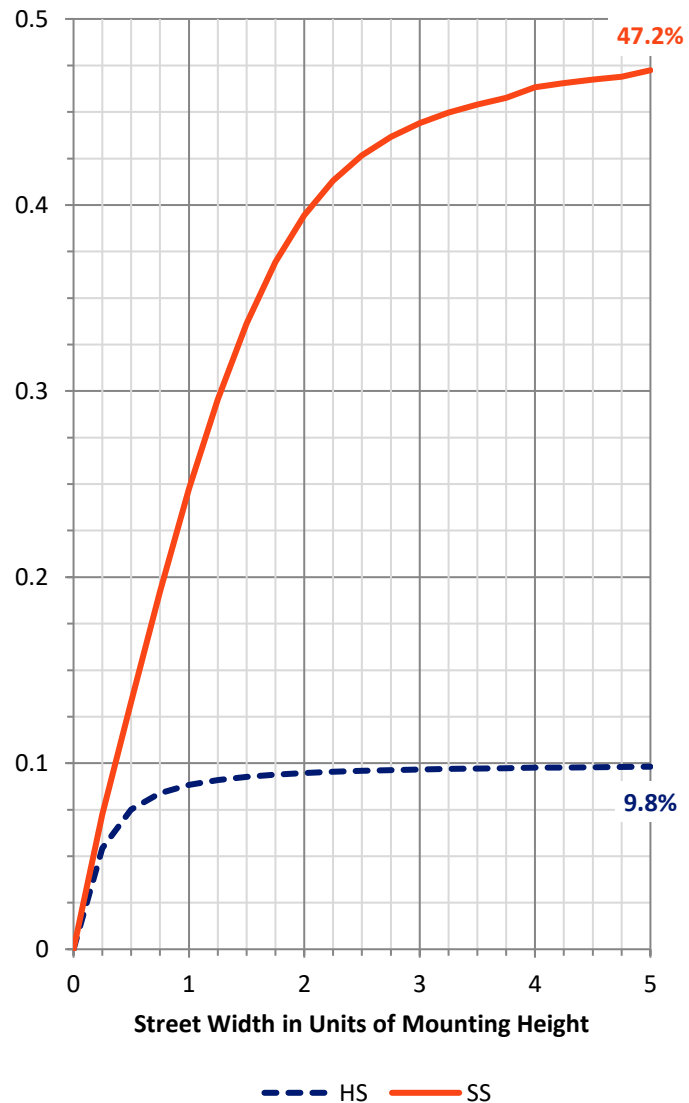
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	403.6	851.5	1255.2
	% Fixture	10.0	21.0	31.0
Street Side	Lumens	1947.6	851.6	2799.2
	% Fixture	48.0	21.0	69.0
Total	Lumens	2351.2	1703.1	4054.3
	% Fixture	58.0	42.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	1.4
10°-20°	110.7	2.7
20°-30°	157.8	3.9
30°-40°	229.0	5.6
40°-50°	327.6	8.1
50°-60°	502.9	12.4
60°-70°	582.1	14.4
70°-80°	297.0	7.3
80°-90°	86.7	2.1
90°-100°	9.2	0.2
100°-110°	56.3	1.4
110°-120°	163.0	4.0
120°-130°	268.1	6.6
130°-140°	330.6	8.2
140°-150°	338.2	8.3
150°-160°	284.9	7.0
160°-170°	187.6	4.6
170°-180°	65.0	1.6
0°-90°	2351.2	58.0
0°-180°	4054.3	100.0



REPORT NUMBER: P271836

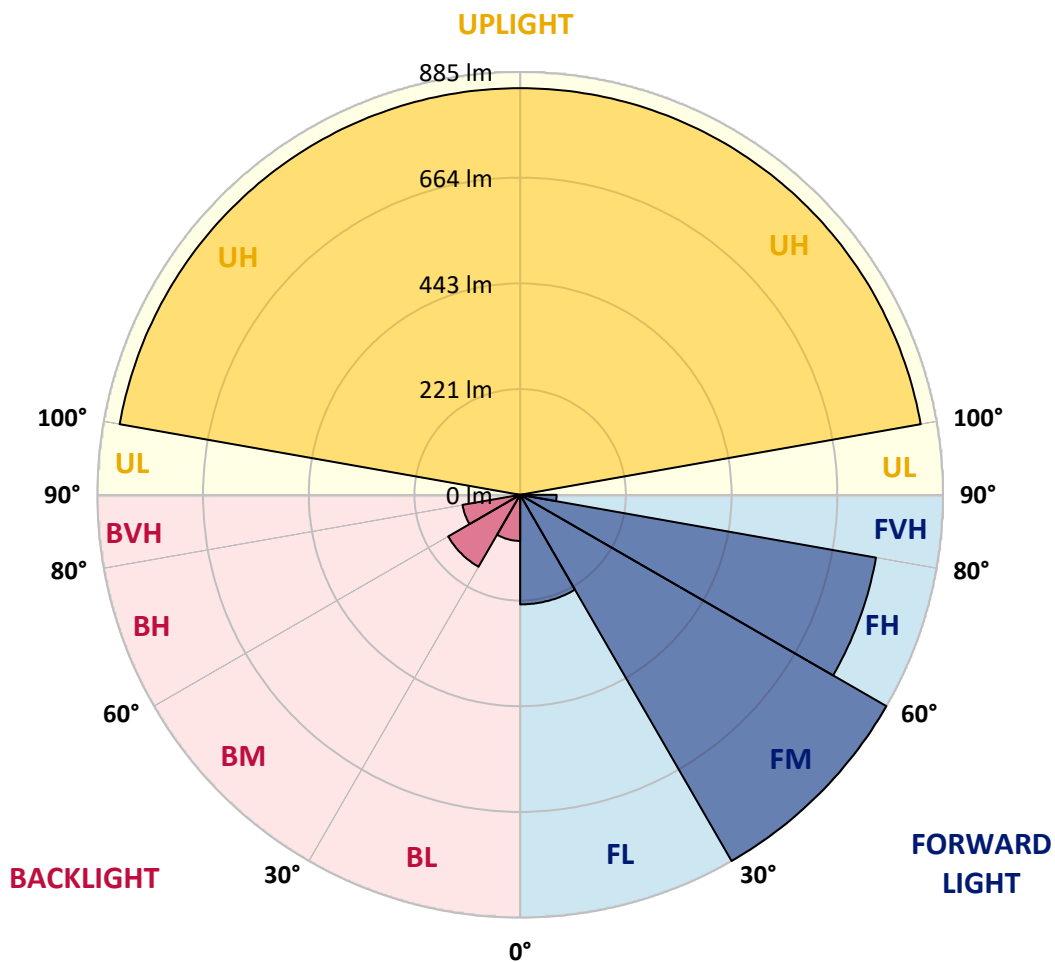
CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	229.5	5.7			
FM	(30°-60°)	885.3	21.8			
FH	(60°-80°)	756.5	18.7			G1/1800
FVH	(80°-90°)	76.2	1.9			G1/100
BL	(0°-30°)	96.5	2.4	B0/110		
BM	(30°-60°)	174.1	4.3	B0/220		
BH	(60°-80°)	122.6	3.0	B1/500		G1/500
BVH	(80°-90°)	10.5	0.3			G1/100
UL	(90°-100°)	9.2	0.2		U1/10	
UH	(100°-180°)	851.5	21.0		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	10°	15°	20°	25°	30°	35°	40°	45°
0°	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5
2.5°	803.7	799.0	793.0	782.9	773.7	760.7	757.5	741.2	731.0	733.4	714.7
5°	754.7	751.9	737.3	714.3	699.3	669.7	652.7	643.9	619.4	616.2	609.5
7.5°	685.9	677.6	653.9	625.4	599.7	577.9	550.6	529.6	511.0	499.5	479.3
10°	626.9	618.2	592.5	557.7	526.9	496.4	474.2	447.0	420.5	399.8	383.7
12.5°	598.5	589.0	558.9	518.5	484.2	446.2	414.9	388.1	373.3	363.2	349.7
15°	609.5	595.7	559.7	511.5	468.7	428.4	395.2	366.3	348.9	333.0	317.2
17.5°	654.2	637.3	596.0	537.9	478.5	426.3	378.9	346.0	318.4	294.6	273.4
20°	731.0	718.4	658.5	577.1	500.0	427.6	365.1	322.0	288.4	258.4	229.8
22.5°	820.7	801.7	743.3	630.1	527.2	434.7	356.4	301.8	261.9	221.5	190.7
25°	914.9	900.3	822.8	701.3	569.2	449.3	349.7	284.0	230.7	185.9	151.9
27.5°	990.8	977.7	901.1	769.8	607.5	462.0	339.8	267.0	205.7	151.9	114.4
30°	1052.9	1041.9	961.5	825.9	654.2	466.3	325.9	247.2	178.0	122.6	94.5
32.5°	1122.5	1110.3	1019.8	865.1	675.2	462.4	310.2	228.6	155.9	108.3	81.0
35°	1198.9	1184.7	1084.6	907.4	692.6	448.5	296.7	215.1	145.2	98.5	72.0
37.5°	1266.9	1257.9	1143.1	949.3	712.4	425.5	283.7	200.5	138.1	91.4	64.9
40°	1319.9	1317.5	1208.0	984.1	727.8	409.0	272.9	189.0	129.0	88.7	62.5
42.5°	1362.7	1361.9	1261.0	1015.4	731.8	394.4	264.6	178.9	120.6	81.8	63.7
45°	1403.8	1403.4	1312.4	1058.9	734.5	395.2	258.4	172.5	113.5	77.5	60.2
47.5°	1442.9	1448.9	1366.2	1119.4	763.8	408.5	255.8	166.5	108.0	72.9	57.0
50°	1508.6	1502.7	1451.2	1201.2	810.9	434.7	252.0	161.3	102.9	68.5	53.8
52.5°	1633.2	1626.5	1580.6	1310.9	862.4	461.5	246.9	154.3	96.8	63.7	50.2
55°	1785.5	1794.6	1730.9	1444.1	932.4	484.2	241.3	144.8	89.0	58.1	47.9
57.5°	1874.9	1867.4	1794.6	1520.9	975.4	495.7	237.7	133.7	76.7	53.4	45.5
59°	1895.9	1883.2	1783.9	1533.9	986.9	490.0	235.7	123.0	70.3	51.0	44.3
60°	1893.9	1878.4	1767.0	1525.6	990.0	483.4	232.6	116.7	66.8	49.9	43.8
62.5°	1853.1	1828.9	1670.4	1425.1	945.7	449.7	219.5	101.7	62.2	48.3	41.5
65°	1760.6	1726.5	1508.3	1229.0	844.0	382.9	189.8	96.1	63.3	47.5	40.0
67.5°	1600.8	1573.5	1299.8	1016.9	672.8	309.4	164.1	93.7	64.9	48.3	37.5
70°	1302.1	1278.7	1014.2	761.4	503.9	246.0	149.1	92.5	63.7	46.4	35.7
72.5°	918.4	878.1	674.0	533.2	319.5	197.8	129.4	87.5	62.2	44.6	32.4
75°	558.9	566.4	428.4	388.4	201.7	135.6	101.7	73.6	55.0	40.0	29.3
77.5°	368.7	368.2	316.0	274.2	102.5	84.2	72.0	56.5	43.1	32.8	25.3
80°	250.0	252.7	229.3	187.0	57.0	50.7	47.1	41.1	31.6	25.0	21.0
82.5°	153.9	154.3	177.7	140.0	38.0	32.0	30.0	27.7	22.5	19.3	16.2
85°	53.4	54.5	62.2	98.9	25.7	21.0	21.0	19.3	17.0	13.0	10.7
87.5°	23.0	22.5	26.9	26.9	12.7	10.7	9.9	9.9	9.5	7.2	5.9
90°	6.5	6.1	6.1	7.5	8.8	10.2	10.2	10.6	10.6	9.7	8.4
92.5°	4.0	4.0	4.0	4.4	4.9	5.4	5.9	5.9	5.9	5.9	5.9
95°	4.9	4.9	4.9	5.4	5.9	6.4	6.8	6.8	6.8	6.8	6.8
97.5°	6.8	6.8	6.8	7.4	7.8	7.8	7.8	8.4	8.8	8.8	8.8
100°	7.8	7.8	7.8	8.4	8.8	9.3	9.8	10.8	11.8	16.2	20.6
102.5°	10.8	10.8	10.8	11.8	12.8	15.2	17.7	22.1	26.5	32.9	39.3
105°	20.6	20.8	21.6	24.1	26.5	30.9	35.3	41.2	47.1	54.4	61.8
107.5°	40.2	40.4	41.2	44.6	48.1	52.6	57.0	64.3	71.7	79.1	86.3



REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

CANDELA DISTRIBUTION (continued):

	0°	1°	5°	10°	15°	20°	25°	30°	35°	40°	45°
110°	64.8	65.1	66.7	69.7	72.7	79.1	85.4	92.7	100.1	106.0	111.9
112.5°	97.2	97.2	97.2	100.6	104.0	111.4	118.8	125.1	131.5	135.9	140.3
115°	137.4	137.2	136.5	140.3	144.3	150.2	156.0	160.4	164.9	167.8	170.8
117.5°	180.6	180.6	180.6	183.1	185.5	189.5	193.3	195.8	198.3	199.7	201.2
120°	220.8	220.4	218.8	220.4	221.8	225.3	228.7	230.7	232.6	235.5	238.5
122.5°	258.2	257.5	255.2	255.7	256.2	259.1	262.0	264.0	266.0	269.0	271.8
125°	292.5	291.7	288.5	289.5	290.5	291.9	293.5	296.4	299.3	301.8	304.3
127.5°	323.9	323.7	322.9	322.9	322.9	324.8	326.8	329.8	332.7	333.2	333.7
130°	356.3	355.9	354.3	354.8	355.3	357.3	359.2	361.2	363.2	364.2	365.1
132.5°	388.7	388.2	386.7	386.2	385.7	389.7	393.5	395.1	396.5	397.1	397.5
135°	421.0	420.5	418.1	418.1	418.1	421.0	424.0	425.4	427.0	428.0	428.9
137.5°	451.5	450.9	448.5	449.5	450.5	450.9	451.5	453.5	455.4	457.3	459.3
140°	479.0	478.3	476.0	477.0	478.0	479.0	480.0	481.0	481.9	484.8	487.8
142.5°	508.4	507.8	505.5	506.5	507.5	507.9	508.4	509.9	511.3	513.3	515.3
145°	539.8	539.1	535.9	534.9	534.0	535.4	536.8	538.4	539.8	540.3	540.8
147.5°	564.3	563.8	561.4	560.9	560.5	561.9	563.3	563.3	563.3	563.9	564.3
150°	584.0	583.4	581.0	581.6	582.0	582.0	582.0	582.0	582.0	582.0	582.0
152.5°	599.7	599.1	596.7	596.7	596.7	597.2	597.7	598.2	598.7	598.7	598.7
155°	617.3	616.6	613.5	613.5	613.5	614.4	615.4	616.9	618.3	617.3	616.3
157.5°	634.0	633.5	631.1	631.1	631.1	631.6	632.0	633.0	634.0	633.6	633.0
160°	650.7	650.1	647.8	647.3	646.8	645.3	643.8	643.4	642.8	642.8	642.8
162.5°	660.5	659.7	656.6	656.6	656.6	654.7	652.7	650.7	648.8	649.7	650.7
165°	668.4	667.8	665.5	664.5	663.5	663.5	663.5	662.1	660.5	660.5	660.5
167.5°	677.2	676.6	674.3	672.8	671.3	672.3	673.3	674.3	675.3	673.8	672.3
170°	685.0	684.5	682.2	680.6	679.2	679.2	679.2	679.7	680.2	679.2	678.2
172.5°	686.0	685.7	684.1	683.1	682.2	681.2	680.2	678.7	677.2	677.2	677.2
175°	687.0	686.7	685.0	684.6	684.1	683.1	682.2	680.2	678.2	677.7	677.2
177.5°	693.9	693.5	692.0	689.4	687.0	686.6	686.0	685.0	684.1	683.1	682.2
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5
2.5°	709.2	704.9	692.6	689.4	693.4	685.5	683.5	681.5	666.9	674.4	665.7
5°	592.9	591.7	566.8	572.0	566.8	558.0	554.5	562.9	548.2	551.4	553.4
7.5°	455.7	450.9	434.3	423.2	416.5	410.5	403.1	390.9	400.3	398.3	413.3
10°	369.8	359.5	349.4	333.8	325.2	316.8	308.1	303.4	292.3	291.1	286.0
12.5°	339.0	324.4	311.4	297.9	288.7	272.2	258.4	249.5	242.5	231.4	223.0
15°	297.9	285.6	268.5	255.5	241.3	226.2	212.8	201.7	196.5	186.3	181.5
17.5°	256.4	237.7	217.2	204.2	184.3	168.9	157.8	150.6	143.2	136.8	131.3
20°	206.5	182.4	160.2	143.5	128.2	113.2	108.0	99.4	96.1	93.7	95.7
22.5°	157.0	132.1	109.1	96.5	88.2	84.2	79.9	78.3	77.2	76.7	77.5
25°	115.2	94.1	83.0	78.3	75.2	72.9	71.1	70.0	69.2	68.8	69.2
27.5°	89.0	78.0	72.4	69.2	66.8	65.3	64.5	63.3	62.9	62.5	62.9
30°	77.2	71.1	67.2	64.0	61.4	58.5	57.3	57.0	57.3	57.7	57.3
32.5°	67.2	62.9	58.5	55.8	53.8	52.2	52.2	51.5	51.5	52.6	53.0
35°	60.9	56.5	53.4	49.9	47.5	45.8	44.6	43.8	44.3	44.3	45.5
37.5°	55.8	52.6	49.9	46.7	44.3	42.7	42.0	41.1	40.7	40.3	40.3
40°	52.2	50.2	47.9	44.6	42.3	40.7	40.0	39.2	38.8	38.4	38.4
42.5°	52.2	48.3	46.7	43.8	41.1	39.5	38.4	37.5	36.8	36.8	36.8
45°	57.3	49.5	46.7	43.5	40.7	38.8	37.5	36.4	35.7	35.7	35.2
47.5°	55.8	55.3	47.5	43.5	41.1	38.8	37.2	36.0	35.2	34.9	34.5
50°	53.0	57.7	53.0	44.6	41.1	38.4	36.8	35.7	34.5	34.0	34.0
52.5°	51.5	53.8	55.0	46.4	41.5	38.4	36.4	35.2	34.5	33.7	33.2
55°	47.5	50.7	52.6	45.5	41.5	37.5	35.7	34.5	33.2	32.8	32.4
57.5°	43.5	45.8	50.7	45.5	40.3	37.2	34.9	33.2	32.4	32.0	31.6
59°	42.3	42.3	45.1	46.7	39.5	36.8	34.5	32.8	32.0	31.6	30.8
60°	41.1	41.1	42.7	47.9	39.2	36.4	34.0	32.4	31.2	31.2	30.8
62.5°	39.5	38.4	39.2	44.6	38.0	35.7	33.2	31.6	30.5	30.5	30.0
65°	37.5	36.0	36.0	37.2	35.7	34.0	32.4	30.8	29.3	29.3	29.6
67.5°	35.7	34.0	33.7	33.7	32.8	32.4	30.8	29.3	28.5	28.5	28.5
70°	32.8	31.6	31.2	30.5	30.5	30.0	28.8	27.7	26.9	27.3	26.9
72.5°	29.6	28.8	28.0	28.0	27.7	27.3	26.1	25.3	25.0	25.3	25.3
75°	26.5	25.3	25.3	24.5	24.5	24.2	23.0	22.5	22.2	22.5	23.0
77.5°	22.5	21.8	21.4	21.4	21.4	21.4	19.9	19.3	19.3	20.2	20.2
80°	18.5	18.1	17.8	17.8	17.8	17.3	16.6	16.2	16.2	16.6	17.0
82.5°	14.2	13.5	13.5	13.8	14.2	14.2	13.0	12.3	12.3	13.0	13.8
85°	9.5	9.5	9.5	9.9	9.9	10.3	9.5	8.4	8.7	9.2	10.3
87.5°	5.1	5.5	5.1	4.7	5.5	5.1	5.1	4.7	5.1	5.5	5.9
90°	8.4	8.4	9.1	9.6	9.3	9.6	8.6	8.1	7.3	7.3	8.6
92.5°	6.4	6.8	6.8	6.8	6.4	5.9	5.9	5.9	5.9	5.9	5.9
95°	6.8	6.8	7.4	7.8	7.4	6.8	6.8	6.8	6.8	6.8	6.8
97.5°	10.3	11.8	10.8	9.8	9.3	8.8	8.4	7.8	7.8	7.8	8.4
100°	24.5	28.5	26.9	25.5	24.1	22.5	20.6	18.7	18.7	18.7	20.6
102.5°	44.2	49.0	47.6	46.2	43.7	41.2	39.7	38.3	37.3	38.3	39.7
105°	66.3	70.7	69.7	68.7	66.3	63.8	61.8	59.8	59.8	59.8	61.8
107.5°	89.8	93.2	92.7	92.3	90.3	88.3	86.9	85.4	84.4	85.4	86.9



REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	114.8	117.8	118.3	118.8	117.8	116.8	115.3	113.8	114.8	113.8	115.3
112.5°	142.8	145.3	146.2	147.2	146.7	146.2	145.3	144.3	144.3	144.3	145.3
115°	173.2	175.7	177.1	178.7	177.1	175.7	174.7	173.7	174.7	173.7	174.7
117.5°	204.2	207.1	209.0	211.0	208.6	206.1	205.2	204.2	205.2	204.2	205.2
120°	239.9	241.5	243.4	245.3	242.9	240.5	239.5	238.5	238.5	238.5	239.5
122.5°	272.8	273.8	275.8	277.8	275.3	272.8	271.8	270.9	271.8	270.9	271.8
125°	305.7	307.2	308.2	309.2	306.7	304.3	304.3	304.3	304.3	304.3	304.3
127.5°	336.1	338.6	339.1	339.6	339.6	339.6	339.1	338.6	340.5	338.6	339.1
130°	367.6	370.0	372.0	374.0	374.0	374.0	373.0	372.0	373.0	372.0	373.0
132.5°	400.5	403.4	405.9	408.3	407.3	406.3	406.3	406.3	407.3	406.3	406.3
135°	431.8	434.8	437.3	439.7	439.2	438.7	440.2	441.7	442.7	441.7	440.2
137.5°	461.8	464.2	465.2	466.2	466.7	467.2	469.6	472.1	473.0	472.1	469.6
140°	489.3	490.7	491.7	492.7	493.7	494.7	497.1	499.5	501.5	499.5	497.1
142.5°	516.3	517.2	520.2	523.2	523.2	523.2	523.6	524.1	526.0	524.1	523.6
145°	543.3	545.7	548.7	551.6	551.1	550.6	549.1	547.7	549.7	547.7	549.1
147.5°	566.8	569.3	571.7	574.2	574.6	575.2	573.7	572.2	574.2	572.2	573.7
150°	584.0	586.0	587.4	588.9	590.4	591.8	593.3	594.8	598.7	594.8	593.3
152.5°	599.2	599.7	601.1	602.7	604.6	606.5	609.1	611.5	616.3	611.5	609.1
155°	615.4	614.4	616.9	619.3	621.8	624.2	625.2	626.2	629.2	626.2	625.2
157.5°	632.6	632.0	634.0	636.0	637.0	638.0	638.0	638.0	642.8	638.0	638.0
160°	644.4	645.8	648.8	651.7	650.2	648.8	648.3	647.8	653.7	647.8	648.3
162.5°	652.7	654.7	656.6	658.5	658.1	657.6	656.6	655.7	661.5	655.7	656.6
165°	660.1	659.5	662.1	664.5	665.9	667.4	666.5	665.5	669.3	665.5	666.5
167.5°	668.9	665.5	668.4	671.3	673.3	675.3	675.3	675.3	681.2	675.3	675.3
170°	675.7	673.3	674.8	676.2	678.7	681.2	682.2	683.1	688.0	683.1	682.2
172.5°	676.7	676.2	677.7	679.2	680.2	681.2	682.2	683.1	688.0	683.1	682.2
175°	677.2	677.2	679.7	682.2	682.6	683.1	682.2	681.2	686.0	681.2	682.2
177.5°	681.6	681.2	683.6	686.0	687.0	688.0	686.6	685.0	689.0	685.0	686.6
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5
2.5°	673.5	666.9	663.3	677.2	676.0	664.2	664.2	672.4	672.8	665.7	674.0
5°	555.7	549.0	555.3	549.9	553.0	552.5	557.3	548.7	552.2	549.0	541.5
7.5°	412.1	425.5	432.7	423.6	435.0	441.1	432.7	441.1	428.0	417.4	427.6
10°	283.7	298.7	295.9	310.5	316.0	319.2	325.2	317.6	308.5	305.7	298.2
12.5°	219.9	216.9	215.5	221.5	225.0	219.9	224.3	219.5	214.8	206.5	206.1
15°	172.0	166.9	163.3	156.7	154.3	155.5	157.5	157.5	148.0	148.3	151.9
17.5°	130.5	129.4	126.6	121.0	117.5	118.7	118.3	116.3	115.2	115.9	120.2
20°	98.1	96.8	98.5	100.1	98.9	99.4	97.6	95.7	95.0	95.7	96.5
22.5°	77.5	79.1	81.0	83.5	83.8	85.9	85.5	85.9	84.2	83.5	81.5
25°	70.8	71.5	70.3	70.8	70.8	72.9	72.4	72.4	70.8	70.3	70.8
27.5°	62.5	62.2	62.2	62.9	62.9	64.0	64.9	64.0	62.5	62.2	62.5
30°	57.7	57.3	57.0	57.3	57.0	57.3	58.1	58.1	57.3	56.1	56.5
32.5°	53.0	53.0	52.6	53.0	52.6	52.6	53.4	52.2	52.2	51.8	51.8
35°	46.7	47.5	48.3	48.7	48.7	48.7	49.5	48.3	47.9	47.5	47.5
37.5°	40.3	41.1	43.5	44.6	45.1	45.8	46.4	45.5	44.6	43.8	43.1
40°	38.4	38.4	39.2	40.7	42.3	42.7	43.5	42.3	42.0	40.7	39.5
42.5°	36.8	37.2	37.2	37.5	38.0	38.8	40.0	38.8	38.0	37.2	36.0
45°	35.7	35.7	35.7	35.7	35.2	35.2	35.7	34.9	34.5	34.0	34.0
47.5°	34.9	34.5	34.0	33.7	33.2	32.8	32.8	32.0	32.0	32.0	32.0
50°	34.0	33.2	32.8	32.4	31.6	31.6	31.6	30.8	30.5	30.5	30.8
52.5°	32.8	32.4	32.0	31.6	31.2	30.8	30.8	30.0	29.6	29.6	29.6
55°	32.4	32.0	31.2	30.8	30.5	30.8	30.5	30.0	29.3	29.3	29.3
57.5°	31.2	31.6	31.2	30.5	30.5	30.5	30.5	29.6	29.3	28.5	28.8
59°	30.8	31.2	30.8	30.5	30.0	30.5	30.5	29.3	28.8	28.5	28.5
60°	30.5	30.8	30.5	30.0	30.0	30.5	30.0	29.6	28.8	27.7	28.0
62.5°	30.0	30.0	29.6	29.6	29.3	29.6	29.3	28.5	27.7	26.9	26.5
65°	29.3	29.3	28.8	28.8	28.5	28.5	28.5	27.7	26.9	26.1	26.1
67.5°	28.8	28.5	28.0	28.0	27.7	27.7	27.7	26.9	25.7	25.3	25.0
70°	27.3	26.9	26.9	26.5	26.1	26.5	26.9	25.7	24.5	23.7	23.4
72.5°	25.7	25.3	25.3	25.0	25.0	25.3	25.7	24.5	23.0	22.2	21.8
75°	23.4	23.0	23.0	23.0	23.0	23.7	23.7	22.5	21.4	20.2	19.3
77.5°	20.2	20.6	20.6	20.6	20.6	21.4	21.4	20.6	19.3	18.5	17.3
80°	17.3	17.3	17.8	17.8	18.1	18.1	17.8	17.3	17.0	16.2	14.6
82.5°	14.6	14.6	14.6	14.6	14.6	14.2	13.5	14.2	14.2	13.5	12.3
85°	11.5	11.5	11.5	11.9	11.9	10.7	9.5	9.5	10.7	10.3	9.5
87.5°	6.7	6.7	7.2	8.4	7.5	7.2	5.9	6.3	5.9	6.7	5.5
90°	10.4	10.0	10.0	8.3	7.6	6.8	6.8	7.4	7.8	7.8	7.8
92.5°	5.9	6.4	6.8	6.8	6.8	6.4	5.9	5.9	5.9	5.9	5.9
95°	6.8	7.4	7.8	7.4	6.8	6.8	6.8	6.8	6.8	6.8	6.8
97.5°	8.8	9.3	9.8	10.8	11.8	10.3	8.8	8.8	8.8	8.4	7.8
100°	22.5	24.1	25.5	26.9	28.5	24.5	20.6	16.2	11.8	10.8	9.8
102.5°	41.2	43.7	46.2	47.6	49.0	44.2	39.3	32.9	26.5	22.1	17.7
105°	63.8	66.3	68.7	69.7	70.7	66.3	61.8	54.4	47.1	41.2	35.3
107.5°	88.3	90.3	92.3	92.7	93.2	89.8	86.3	79.1	71.7	64.3	57.0



REPORT NUMBER: P271836
 CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	116.8	117.8	118.8	118.3	117.8	114.8	111.9	106.0	100.1	92.7	85.4	0°
112.5°	146.2	146.7	147.2	146.2	145.3	142.8	140.3	135.9	131.5	125.1	118.8	2.5°
115°	175.7	177.1	178.7	177.1	175.7	173.2	170.8	167.8	164.9	160.4	156.0	5°
117.5°	206.1	208.6	211.0	209.0	207.1	204.2	201.2	199.7	198.3	195.8	193.3	7.5°
120°	240.5	242.9	245.3	243.4	241.5	239.9	238.5	235.5	232.6	230.7	228.7	10°
122.5°	272.8	275.3	277.8	275.8	273.8	272.8	271.8	269.0	266.0	264.0	262.0	12.5°
125°	304.3	306.7	309.2	308.2	307.2	305.7	304.3	301.8	299.3	296.4	293.5	15°
127.5°	339.6	339.6	339.6	339.1	338.6	336.1	333.7	333.2	332.7	329.8	326.8	17.5°
130°	374.0	374.0	374.0	372.0	370.0	367.6	365.1	364.2	363.2	361.2	359.2	20°
132.5°	406.3	407.3	408.3	405.9	403.4	400.5	397.5	397.1	396.5	395.1	393.5	22.5°
135°	438.7	439.2	439.7	437.3	434.8	431.8	428.9	428.0	427.0	425.4	424.0	25°
137.5°	467.2	466.7	466.2	465.2	464.2	461.8	459.3	457.3	455.4	453.5	451.5	27.5°
140°	494.7	493.7	492.7	491.7	490.7	489.3	487.8	484.8	481.9	481.0	480.0	30°
142.5°	523.2	523.2	523.2	520.2	517.2	516.3	515.3	513.3	511.3	509.9	508.4	32.5°
145°	550.6	551.1	551.6	548.7	545.7	543.3	540.8	540.3	539.8	538.4	536.8	35°
147.5°	575.2	574.6	574.2	571.7	569.3	566.8	564.3	563.9	563.3	563.3	563.3	37.5°
150°	591.8	590.4	588.9	587.4	586.0	584.0	582.0	582.0	582.0	582.0	582.0	40°
152.5°	606.5	604.6	602.7	601.1	599.7	599.2	598.7	598.7	598.7	598.2	597.7	42.5°
155°	624.2	621.8	619.3	616.9	614.4	615.4	616.3	617.3	618.3	616.9	615.4	45°
157.5°	638.0	637.0	636.0	634.0	632.0	632.6	633.0	633.6	634.0	633.0	632.0	47.5°
160°	648.8	650.2	651.7	648.8	645.8	644.4	642.8	642.8	642.8	643.4	643.8	50°
162.5°	657.6	658.1	658.5	656.6	654.7	652.7	650.7	649.7	648.8	650.7	652.7	52.5°
165°	667.4	665.9	664.5	662.1	659.5	660.1	660.5	660.5	660.5	662.1	663.5	55°
167.5°	675.3	673.3	671.3	668.4	665.5	668.9	672.3	673.8	675.3	674.3	673.3	57.5°
170°	681.2	678.7	676.2	674.8	673.3	675.7	678.2	679.2	680.2	679.7	679.2	59°
172.5°	681.2	680.2	679.2	677.7	676.2	676.7	677.2	677.2	677.2	678.7	680.2	60°
175°	683.1	682.6	682.2	679.7	677.2	677.2	677.2	677.7	678.2	680.2	682.2	62.5°
177.5°	688.0	687.0	686.0	683.6	681.2	681.6	682.2	683.1	684.1	685.0	686.0	65°
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	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°



NUMBER: P271836
 NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

160°	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	110°	160°
776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	110°	79.1
674.8	676.3	679.9	678.8	691.9	687.8	696.9	709.2	720.7	715.1	716.8	112.5°	111.4
555.0	556.9	541.9	551.0	564.5	558.9	556.9	575.2	570.7	591.4	574.4	115°	150.2
411.0	406.2	399.0	395.5	385.6	385.6	404.2	412.5	411.3	425.5	440.3	117.5°	189.5
288.7	283.2	274.5	272.2	282.0	286.8	295.0	303.4	314.5	330.7	340.2	120°	225.3
212.0	210.0	212.0	218.0	227.0	233.8	246.4	261.0	273.4	286.4	299.0	122.5°	259.1
160.2	164.1	169.3	173.2	180.4	193.0	199.7	216.0	227.0	238.5	253.1	125°	291.9
124.5	127.0	128.2	129.7	135.6	144.8	144.8	161.3	176.0	191.1	203.3	127.5°	324.8
95.0	95.0	91.0	93.3	94.1	93.3	98.1	107.5	117.0	127.0	146.3	130°	357.3
79.5	77.2	76.0	75.5	76.0	77.5	80.3	83.8	85.5	89.8	97.3	132.5°	389.7
70.3	70.0	68.8	68.8	69.6	70.0	72.9	76.0	76.7	78.0	80.7	135°	421.0
62.2	62.9	64.0	63.7	64.0	64.9	66.8	69.6	71.1	71.5	73.6	137.5°	450.9
56.1	57.0	57.3	58.5	58.5	58.9	60.5	63.3	64.5	66.5	68.5	140°	479.0
52.2	52.6	53.0	52.6	53.0	53.0	55.0	57.7	59.4	60.5	61.7	142.5°	507.9
47.9	47.5	47.5	47.5	46.4	45.8	46.7	49.5	49.9	51.0	53.8	145°	535.4
42.7	41.5	40.7	40.7	40.7	41.1	43.1	45.8	46.4	47.5	49.9	147.5°	561.9
38.0	37.5	37.5	38.0	38.4	39.2	40.7	43.5	43.8	45.1	47.1	150°	582.0
35.7	35.7	35.7	36.0	36.4	36.8	38.8	41.5	42.3	43.5	45.8	152.5°	597.2
34.0	34.5	34.0	34.0	34.5	35.2	37.2	40.3	41.5	42.7	45.1	155°	614.4
32.8	32.8	32.8	33.2	33.2	34.0	36.4	39.5	40.3	42.0	45.5	157.5°	631.6
31.2	32.0	31.6	32.0	32.4	33.2	35.7	38.8	40.0	42.3	46.4	160°	645.3
30.5	30.5	30.5	30.8	31.6	32.0	34.0	37.5	39.2	42.3	48.7	162.5°	654.7
30.0	29.3	29.3	29.6	30.5	31.2	33.2	36.8	38.8	42.0	48.3	165°	663.5
29.6	28.5	28.0	28.5	29.3	29.6	32.0	35.7	38.4	40.7	46.7	167.5°	672.3
28.5	27.7	27.3	27.7	28.5	29.3	31.2	34.9	36.8	40.0	44.6	170°	679.2
28.0	26.9	26.9	27.3	28.0	28.5	30.5	34.0	36.0	40.3	45.8	172.5°	681.2
26.5	26.1	26.1	26.5	26.5	27.3	29.6	33.2	34.9	41.1	38.4	175°	683.1
25.3	25.3	25.3	25.3	25.7	26.1	28.8	32.4	33.2	35.7	32.8	177.5°	686.6
24.5	24.5	24.5	24.5	24.5	25.3	27.7	31.2	31.6	31.2	30.0	180°	687.0
23.0	23.0	23.0	23.0	23.4	23.7	26.1	29.3	29.3	28.5	28.5		
21.8	21.4	21.4	21.4	21.4	21.8	24.2	27.3	26.9	26.5	26.5		
19.3	19.3	19.3	19.3	19.3	19.3	21.8	25.0	24.5	24.2	23.7		
17.0	17.0	17.3	17.0	16.6	16.2	18.5	22.2	22.2	21.8	21.4		
14.6	14.2	14.6	14.2	13.5	13.5	15.5	18.5	19.0	18.5	17.8		
11.9	11.5	11.5	11.5	9.9	9.9	11.9	15.0	15.0	14.6	13.8		
9.2	8.7	8.4	7.9	6.7	6.7	8.4	11.0	11.5	9.9	9.5		
4.7	4.7	4.7	3.5	3.1	2.8	4.3	6.7	6.7	5.5	4.7		
7.4	6.8	5.9	4.9	4.9	4.9	5.9	7.3	7.4	7.8	7.8		
5.4	4.9	4.4	4.0	4.0	4.0	4.4	4.9	5.4	5.9	5.9		
6.4	5.9	5.4	4.9	4.9	4.9	5.4	5.9	6.4	6.8	6.8		
7.8	7.8	7.4	6.8	6.8	6.8	7.4	7.8	7.8	7.8	8.4		
9.3	8.8	8.4	7.8	7.8	7.8	8.4	8.8	9.3	9.8	10.8		
15.2	12.8	11.8	10.8	10.8	10.8	11.8	12.8	15.2	17.7	22.1		
30.9	26.5	24.1	21.6	20.6	21.6	24.1	26.5	30.9	35.3	41.2		
52.6	48.1	44.6	41.2	40.2	41.2	44.6	48.1	52.6	57.0	64.3		

271836
 ISW-AF-450-LED-E1-SLR-7027-ULG

REPORT NUMBER: P271836
 CATALOG NUMBER: ISW-AF-4!

TION (continued):

CANDELA DISTRIBUTION (con

165°	170°	175°	180°	185°	190°	195°	200°	205°	210°		215°	220°
72.7	69.7	66.7	64.8	66.7	69.7	72.7	79.1	85.4	92.7	0°	776.5	776.5
104.0	100.6	97.2	97.2	97.2	100.6	104.0	111.4	118.8	125.1	2.5°	726.5	730.2
144.3	140.3	136.5	137.4	136.5	140.3	144.3	150.2	156.0	160.4	5°	587.0	600.9
185.5	183.1	180.6	180.6	180.6	183.1	185.5	189.5	193.3	195.8	7.5°	443.9	462.4
221.8	220.4	218.8	220.8	218.8	220.4	221.8	225.3	228.7	230.7	10°	355.5	368.2
256.2	255.7	255.2	258.2	255.2	255.7	256.2	259.1	262.0	264.0	12.5°	312.1	330.3
290.5	289.5	288.5	292.5	288.5	289.5	290.5	291.9	293.5	296.4	15°	267.8	287.5
322.9	322.9	322.9	323.9	322.9	322.9	322.9	324.8	326.8	329.8	17.5°	219.5	243.7
355.3	354.8	354.3	356.3	354.3	354.8	355.3	357.3	359.2	361.2	20°	167.7	191.5
385.7	386.2	386.7	388.7	386.7	386.2	385.7	389.7	393.5	395.1	22.5°	117.9	138.1
418.1	418.1	418.1	421.0	418.1	418.1	418.1	421.0	424.0	425.4	25°	85.9	95.0
450.5	449.5	448.5	451.5	448.5	449.5	450.5	450.9	451.5	453.5	27.5°	76.4	79.9
478.0	477.0	476.0	479.0	476.0	477.0	478.0	479.0	480.0	481.0	30°	71.5	74.0
507.5	506.5	505.5	508.4	505.5	506.5	507.5	507.9	508.4	509.9	32.5°	64.5	66.8
534.0	534.9	535.9	539.8	535.9	534.9	534.0	535.4	536.8	538.4	35°	56.5	59.7
560.5	560.9	561.4	564.3	561.4	560.9	560.5	561.9	563.3	563.3	37.5°	52.6	55.0
582.0	581.6	581.0	584.0	581.0	581.6	582.0	582.0	582.0	582.0	40°	50.2	50.7
596.7	596.7	596.7	599.7	596.7	596.7	596.7	597.2	597.7	598.2	42.5°	48.3	48.3
613.5	613.5	613.5	617.3	613.5	613.5	613.5	614.4	615.4	616.9	45°	47.1	48.3
631.1	631.1	631.1	634.0	631.1	631.1	631.1	631.6	632.0	633.0	47.5°	47.9	53.0
646.8	647.3	647.8	650.7	647.8	647.3	646.8	645.3	643.8	643.4	50°	53.8	52.2
656.6	656.6	656.6	660.5	656.6	656.6	656.6	654.7	652.7	650.7	52.5°	55.0	49.0
663.5	664.5	665.5	668.4	665.5	664.5	663.5	663.5	663.5	662.1	55°	50.2	47.1
671.3	672.8	674.3	677.2	674.3	672.8	671.3	672.3	673.3	674.3	57.5°	45.1	41.1
679.2	680.6	682.2	685.0	682.2	680.6	679.2	679.2	679.2	679.7	59°	40.3	38.0
682.2	683.1	684.1	686.0	684.1	683.1	682.2	681.2	680.2	678.7	60°	37.5	36.8
684.1	684.6	685.0	687.0	685.0	684.6	684.1	683.1	682.2	680.2	62.5°	34.5	35.2
687.0	689.4	692.0	693.9	692.0	689.4	687.0	686.6	686.0	685.0	65°	32.0	33.7
687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	67.5°	30.8	32.0
										70°	28.8	29.6
										72.5°	26.9	27.3
										75°	24.2	24.5
										77.5°	21.4	21.4
										80°	17.3	17.3
										82.5°	13.5	13.0
										85°	8.7	8.4
										87.5°	4.0	3.1
										90°	7.8	7.4
										92.5°	5.9	5.9
										95°	6.8	6.8
										97.5°	8.8	8.8
										100°	11.8	16.2
										102.5°	26.5	32.9
										105°	47.1	54.4
										107.5°	71.7	79.1



REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-

50-LED-E1-SLR-7027-ULG

tinued):

CANDELA DISTRIBUTION (continued):

225°	230°	235°	240°	245°	250°	255°	260°	265°		215°	220°	225°
776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	776.5	110°	100.1	106.0	111.9
748.0	759.1	767.7	766.2	784.8	795.9	797.4	808.9	820.0	112.5°	131.5	135.9	140.3
611.9	627.4	642.4	653.4	682.7	706.9	725.4	745.2	768.6	115°	164.9	167.8	170.8
487.7	500.7	525.3	543.0	573.9	602.0	629.4	660.5	687.0	117.5°	198.3	199.7	201.2
382.0	398.7	421.7	454.9	482.6	514.5	549.0	578.7	623.0	120°	232.6	235.5	238.5
343.3	353.7	372.5	388.4	422.8	456.9	495.7	536.4	577.1	122.5°	266.0	269.0	271.8
303.4	321.5	339.4	362.4	392.4	429.6	471.5	515.4	561.4	125°	299.3	301.8	304.3
264.6	288.7	308.1	333.0	366.7	413.7	468.4	522.9	576.7	127.5°	332.7	333.2	333.7
217.2	239.7	273.7	299.0	343.0	401.9	471.9	547.4	620.2	130°	363.2	364.2	365.1
170.9	195.0	233.8	271.4	319.5	395.5	486.2	587.9	685.0	132.5°	396.5	397.1	397.5
122.2	155.0	193.5	240.8	299.5	391.6	505.5	637.7	768.6	135°	427.0	428.0	428.9
91.4	114.4	161.0	212.8	276.9	384.5	526.0	683.9	825.5	137.5°	455.4	457.3	459.3
81.5	97.6	128.2	182.7	249.2	370.6	541.5	727.8	877.4	140°	481.9	484.8	487.8
71.1	83.8	108.0	154.3	224.3	349.4	548.2	751.2	913.4	142.5°	511.3	513.3	515.3
62.5	74.4	98.9	143.2	211.6	325.2	547.1	774.5	958.4	145°	539.8	540.3	540.8
57.0	67.2	95.0	140.5	201.7	303.0	548.2	812.1	1025.2	147.5°	563.3	563.9	564.3
52.6	64.5	91.8	134.5	197.0	290.7	553.0	845.2	1082.5	150°	582.0	582.0	582.0
52.6	63.7	83.8	126.2	194.7	291.9	555.0	871.0	1125.4	152.5°	598.7	598.7	598.7
55.3	59.7	78.0	121.5	196.2	300.7	552.5	897.0	1166.9	155°	618.3	617.3	616.3
52.6	55.8	74.0	120.6	196.2	307.0	559.7	929.6	1221.4	157.5°	634.0	633.6	633.0
49.9	51.8	72.9	119.5	192.2	312.9	589.0	990.0	1292.6	160°	642.8	642.8	642.8
46.4	48.7	71.1	117.5	187.8	320.3	640.9	1091.7	1410.5	162.5°	648.8	649.7	650.7
42.0	46.7	68.8	114.4	185.1	333.8	693.9	1194.6	1550.9	165°	660.5	660.5	660.5
40.3	44.6	63.3	106.8	182.4	348.5	750.4	1293.0	1677.1	167.5°	675.3	673.8	672.3
39.2	43.1	58.5	101.3	180.0	355.5	767.3	1330.6	1725.7	170°	680.2	679.2	678.2
38.4	42.3	55.8	96.5	177.1	356.0	779.5	1344.9	1732.9	172.5°	677.2	677.2	677.2
37.2	40.7	50.2	86.7	168.5	355.5	780.8	1353.9	1712.3	175°	678.2	677.7	677.2
35.2	39.2	50.7	81.5	152.7	339.0	731.8	1310.1	1630.4	177.5°	684.1	683.1	682.2
33.7	38.0	53.4	82.6	136.0	296.4	640.0	1173.5	1455.3	180°	687.0	687.0	687.0
31.2	37.2	55.8	85.5	131.3	246.0	484.2	958.4	1218.7				
28.8	36.8	57.7	87.5	126.2	202.5	335.4	679.6	912.0				
26.1	33.7	52.6	74.4	104.5	147.1	216.0	444.6	628.9				
22.5	26.9	38.4	52.2	76.7	102.9	127.8	268.5	411.3				
18.5	20.2	27.3	33.7	51.0	60.9	70.8	151.5	287.5				
13.8	14.2	18.5	21.4	28.8	33.7	42.3	93.0	233.0				
7.9	9.2	12.7	14.2	17.3	21.4	27.7	59.4	182.7				
3.1	4.0	7.5	8.4	9.5	11.9	15.5	34.5	57.0				
6.8	6.8	6.8	7.8	8.8	8.8	8.8	7.8	6.8				
5.9	6.4	6.8	6.8	6.8	6.4	5.9	5.9	5.9				
6.8	6.8	6.8	7.4	7.8	7.4	6.8	6.8	6.8				
8.8	10.3	11.8	10.8	9.8	9.3	8.8	8.4	7.8				
20.6	24.5	28.5	26.9	25.5	24.1	22.5	20.6	18.7				
39.3	44.2	49.0	47.6	46.2	43.7	41.2	39.7	38.3				
61.8	66.3	70.7	69.7	68.7	66.3	63.8	61.8	59.8				
86.3	89.8	93.2	92.7	92.3	90.3	88.3	86.9	85.4				

REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-

SLR-7027-ULG

CANDELA DISTRIBUTION (continued):

230°	235°	240°	245°	250°	255°	260°	265°		270°	275°	280°	285°
114.8	117.8	118.3	118.8	117.8	116.8	115.3	113.8	0°	776.5	776.5	776.5	776.5
142.8	145.3	146.2	147.2	146.7	146.2	145.3	144.3	2.5°	831.0	839.4	846.5	852.0
173.2	175.7	177.1	178.7	177.1	175.7	174.7	173.7	5°	793.5	812.9	836.2	855.9
204.2	207.1	209.0	211.0	208.6	206.1	205.2	204.2	7.5°	726.5	751.2	789.1	812.4
239.9	241.5	243.4	245.3	242.9	240.5	239.5	238.5	10°	663.3	699.3	740.8	774.5
272.8	273.8	275.8	277.8	275.3	272.8	271.8	270.9	12.5°	620.2	664.9	704.5	742.0
305.7	307.2	308.2	309.2	306.7	304.3	304.3	304.3	15°	608.3	653.9	689.4	723.9
336.1	338.6	339.1	339.6	339.6	339.6	339.1	338.6	17.5°	632.0	677.6	708.0	729.0
367.6	370.0	372.0	374.0	374.0	374.0	373.0	372.0	20°	687.8	736.5	755.9	754.3
400.5	403.4	405.9	408.3	407.3	406.3	406.3	406.3	22.5°	764.2	815.2	815.2	799.4
431.8	434.8	437.3	439.7	439.2	438.7	440.2	441.7	25°	865.1	901.9	881.7	851.6
461.8	464.2	465.2	466.2	466.7	467.2	469.6	472.1	27.5°	936.7	971.1	935.9	886.4
489.3	490.7	491.7	492.7	493.7	494.7	497.1	499.5	30°	996.0	1021.4	976.5	916.9
516.3	517.2	520.2	523.2	523.2	523.2	523.6	524.1	32.5°	1048.2	1066.7	1007.9	948.9
543.3	545.7	548.7	551.6	551.1	550.6	549.1	547.7	35°	1110.8	1117.4	1040.2	977.4
566.8	569.3	571.7	574.2	574.6	575.2	573.7	572.2	37.5°	1179.9	1185.4	1086.9	1008.7
584.0	586.0	587.4	588.9	590.4	591.8	593.3	594.8	40°	1261.4	1241.6	1121.4	1037.5
599.2	599.7	601.1	602.7	604.6	606.5	609.1	611.5	42.5°	1311.6	1279.2	1146.2	1052.5
615.4	614.4	616.9	619.3	621.8	624.2	625.2	626.2	45°	1351.2	1306.9	1157.7	1061.3
632.6	632.0	634.0	636.0	637.0	638.0	638.0	638.0	47.5°	1399.9	1347.6	1177.9	1077.1
644.4	645.8	648.8	651.7	650.2	648.8	648.3	647.8	50°	1463.9	1404.2	1229.0	1121.7
652.7	654.7	656.6	658.5	658.1	657.6	656.6	655.7	52.5°	1595.2	1521.3	1320.8	1199.7
660.1	659.5	662.1	664.5	665.9	667.4	666.5	665.5	55°	1746.3	1676.3	1467.5	1328.2
668.9	665.5	668.4	671.3	673.3	675.3	675.3	675.3	57.5°	1867.4	1820.3	1598.4	1444.6
675.7	673.3	674.8	676.2	678.7	681.2	682.2	683.1	59°	1912.1	1891.9	1691.0	1543.0
676.7	676.2	677.7	679.2	680.2	681.2	682.2	683.1	60°	1928.8	1946.1	1739.9	1603.1
677.2	677.2	679.7	682.2	682.6	683.1	682.2	681.2	62.5°	1940.2	2015.7	1899.5	1782.8
681.6	681.2	683.6	686.0	687.0	688.0	686.6	685.0	65°	1916.4	2027.1	1963.9	1892.3
687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	67.5°	1813.2	1945.7	1933.4	1870.5
								70°	1601.9	1749.4	1792.2	1702.8
								72.5°	1205.3	1388.4	1621.4	1481.3
								75°	785.2	954.4	1384.4	1268.9
								77.5°	491.6	595.7	987.7	888.9
								80°	327.2	382.9	626.9	570.7
								82.5°	246.0	271.4	431.2	405.5
								85°	129.7	165.4	335.4	425.2
								87.5°	48.7	54.2	252.3	380.2
								90°	6.8	6.8	8.3	8.8
								92.5°	5.9	5.9	5.9	5.9
								95°	6.8	6.8	6.8	6.8
								97.5°	7.8	7.8	8.4	8.8
								100°	18.7	18.7	20.6	22.5
								102.5°	37.3	38.3	39.7	41.2
								105°	59.8	59.8	61.8	63.8
								107.5°	84.4	85.4	86.9	88.3

REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

ULG

CANDELA DISTRIBUTION (continued):

290°	295°	300°	305°	310°	315°	320°		270°	275°	280°	285°	290°
776.5	776.5	776.5	776.5	776.5	776.5	776.5	110°	114.8	113.8	115.3	116.8	117.8
856.7	863.9	868.2	865.1	870.2	871.4	865.9	112.5°	144.3	144.3	145.3	146.2	146.7
872.5	892.4	906.6	916.5	920.4	924.0	922.4	115°	174.7	173.7	174.7	175.7	177.1
843.3	873.8	900.3	918.4	924.7	929.6	925.2	117.5°	205.2	204.2	205.2	206.1	208.6
810.9	842.5	867.4	885.5	885.2	890.0	881.7	120°	238.5	238.5	239.5	240.5	242.9
780.4	811.3	833.4	832.5	827.1	813.2	810.9	122.5°	271.8	270.9	271.8	272.8	275.3
756.4	772.5	778.0	776.9	761.0	753.0	751.9	125°	304.3	304.3	304.3	304.3	306.7
744.4	743.7	731.0	717.2	702.0	701.3	691.1	127.5°	340.5	338.6	339.1	339.6	339.6
746.4	720.7	697.4	673.5	657.4	653.9	655.0	130°	373.0	372.0	373.0	374.0	374.0
771.4	725.8	681.9	657.8	638.9	633.2	635.6	132.5°	407.3	406.3	406.3	406.3	407.3
802.5	741.6	687.0	650.4	634.8	628.2	629.4	135°	442.7	441.7	440.2	438.7	439.2
823.6	759.9	704.1	658.5	637.7	631.3	635.2	137.5°	473.0	472.1	469.6	467.2	466.7
850.4	784.8	727.0	679.9	648.7	640.4	643.2	140°	501.5	499.5	497.1	494.7	493.7
876.9	811.7	759.4	706.1	668.1	652.7	657.0	142.5°	526.0	524.1	523.6	523.2	523.2
905.4	842.9	790.3	741.6	696.9	672.8	678.4	145°	549.7	547.7	549.1	550.6	551.1
938.5	879.4	834.3	789.5	743.7	723.5	725.8	147.5°	574.2	572.2	573.7	575.2	574.6
970.7	914.9	886.0	852.9	825.9	795.1	795.1	150°	598.7	594.8	593.3	591.8	590.4
989.7	961.2	953.3	943.8	927.9	905.9	901.1	152.5°	616.3	611.5	609.1	606.5	604.6
1013.0	1016.2	1034.4	1053.4	1058.1	1036.4	1029.5	155°	629.2	626.2	625.2	624.2	621.8
1056.9	1090.1	1149.9	1201.7	1211.9	1229.8	1209.2	157.5°	642.8	638.0	638.0	638.0	637.0
1118.6	1179.9	1280.7	1365.4	1389.6	1391.1	1392.7	160°	653.7	647.8	648.3	648.8	650.2
1189.1	1276.9	1410.1	1510.9	1554.1	1565.6	1557.3	162.5°	661.5	655.7	656.6	657.6	658.1
1309.7	1389.2	1535.1	1643.9	1699.2	1726.1	1719.1	165°	669.3	665.5	666.5	667.4	665.9
1429.1	1527.9	1656.6	1763.7	1822.8	1852.8	1859.1	167.5°	681.2	675.3	675.3	675.3	673.3
1510.6	1603.1	1721.8	1820.8	1878.8	1914.8	1918.0	170°	688.0	683.1	682.2	681.2	678.7
1560.4	1645.1	1760.9	1848.0	1906.1	1936.6	1947.6	172.5°	688.0	683.1	682.2	681.2	680.2
1711.5	1726.9	1806.0	1863.4	1904.1	1918.0	1926.3	175°	686.0	681.2	682.2	683.1	682.6
1782.3	1717.9	1708.8	1744.4	1747.9	1738.8	1727.4	177.5°	689.0	685.0	686.6	688.0	687.0
1683.9	1533.1	1477.4	1472.6	1457.9	1452.1	1415.7	180°	687.0	687.0	687.0	687.0	687.0
1462.4	1245.2	1146.7	1093.2	1125.8	1124.6	1087.4						
1232.1	1011.0	883.2	806.5	797.1	795.4	763.0						
1000.7	793.5	681.5	644.4	599.7	586.2	591.7						
721.5	566.4	542.7	571.1	574.7	564.5	557.3						
454.5	426.0	449.0	500.7	531.2	517.7	522.9						
378.9	335.4	337.0	391.6	412.1	415.4	404.7						
420.5	335.9	275.3	268.5	261.5	164.6	229.0						
378.9	259.9	153.1	126.2	77.5	44.6	46.4						
8.8	8.8	7.8	6.8	6.8	6.8	7.4						
6.4	6.8	6.8	6.8	6.4	5.9	5.9						
7.4	7.8	7.4	6.8	6.8	6.8	6.8						
9.3	9.8	10.8	11.8	10.3	8.8	8.8						
24.1	25.5	26.9	28.5	24.5	20.6	16.2						
43.7	46.2	47.6	49.0	44.2	39.3	32.9						
66.3	68.7	69.7	70.7	66.3	61.8	54.4						
90.3	92.3	92.7	93.2	89.8	86.3	79.1						



REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

CANDELA DISTRIBUTION (continued):

295°	300°	305°	310°	315°	320°		325°	330°	335°	340°	345°	350°
118.8	118.3	117.8	114.8	111.9	106.0	0°	776.5	776.5	776.5	776.5	776.5	776.5
147.2	146.2	145.3	142.8	140.3	135.9	2.5°	864.7	857.2	848.9	837.8	839.7	826.4
178.7	177.1	175.7	173.2	170.8	167.8	5°	910.2	897.0	879.4	856.7	835.9	808.9
211.0	209.0	207.1	204.2	201.2	199.7	7.5°	905.4	884.4	854.7	820.7	793.0	754.3
245.3	243.4	241.5	239.9	238.5	235.5	10°	864.7	837.4	813.2	778.0	742.0	708.0
277.8	275.8	273.8	272.8	271.8	269.0	12.5°	807.7	792.2	771.4	744.9	710.0	675.2
309.2	308.2	307.2	305.7	304.3	301.8	15°	745.6	746.9	734.2	727.0	709.6	681.9
339.6	339.1	338.6	336.1	333.7	333.2	17.5°	694.6	706.4	713.2	724.2	726.2	712.7
374.0	372.0	370.0	367.6	365.1	364.2	20°	660.5	677.2	698.2	728.5	760.7	774.5
408.3	405.9	403.4	400.5	397.5	397.1	22.5°	641.6	662.1	695.7	751.2	809.7	844.9
439.7	437.3	434.8	431.8	428.9	428.0	25°	638.1	665.4	712.4	780.0	855.9	905.4
466.2	465.2	464.2	461.8	459.3	457.3	27.5°	643.9	679.6	735.4	812.4	887.3	958.9
492.7	491.7	490.7	489.3	487.8	484.8	30°	662.9	704.5	765.4	848.4	926.0	997.2
523.2	520.2	517.2	516.3	515.3	513.3	32.5°	681.2	732.6	799.9	880.9	958.9	1029.5
551.6	548.7	545.7	543.3	540.8	540.3	35°	710.4	762.2	831.0	905.9	981.4	1061.7
574.2	571.7	569.3	566.8	564.3	563.9	37.5°	755.0	800.6	855.5	925.2	1003.9	1086.9
588.9	587.4	586.0	584.0	582.0	582.0	40°	818.7	848.9	884.4	939.4	1014.9	1103.9
602.7	601.1	599.7	599.2	598.7	598.7	42.5°	914.1	920.4	932.7	961.2	1024.9	1123.8
619.3	616.9	614.4	615.4	616.3	617.3	45°	1037.1	1018.2	1007.4	1003.5	1047.1	1136.4
636.0	634.0	632.0	632.6	633.0	633.6	47.5°	1179.9	1142.7	1100.1	1079.4	1089.7	1156.6
651.7	648.8	645.8	644.4	642.8	642.8	50°	1365.9	1305.2	1221.4	1162.0	1156.9	1215.9
658.5	656.6	654.7	652.7	650.7	649.7	52.5°	1536.3	1457.2	1351.6	1281.6	1253.0	1326.7
664.5	662.1	659.5	660.1	660.5	660.5	55°	1697.3	1636.4	1516.9	1429.9	1420.0	1473.4
671.3	668.4	665.5	668.9	672.3	673.8	57.5°	1838.5	1785.9	1688.3	1574.7	1578.6	1630.4
676.2	674.8	673.3	675.7	678.2	679.2	59°	1911.8	1867.8	1777.2	1661.7	1670.4	1741.6
679.2	677.7	676.2	676.7	677.2	677.2	60°	1937.8	1901.0	1814.8	1717.5	1728.6	1802.4
682.2	679.7	677.2	677.2	677.2	677.7	62.5°	1935.8	1912.1	1849.6	1803.7	1860.3	1914.5
686.0	683.6	681.2	681.6	682.2	683.1	65°	1751.1	1715.1	1707.9	1788.3	1897.4	1949.6
687.0	687.0	687.0	687.0	687.0	687.0	67.5°	1392.7	1409.7	1477.4	1615.4	1798.6	1874.5
						70°	1034.4	1064.4	1154.6	1327.9	1579.4	1710.7
						72.5°	760.7	790.7	873.8	1063.6	1299.4	1415.7
						75°	596.8	606.0	665.7	814.9	1024.1	1119.4
						77.5°	551.4	524.1	499.5	579.5	690.7	772.5
						80°	513.4	461.5	403.9	428.0	454.9	541.9
						82.5°	398.7	364.4	319.2	350.1	362.7	365.5
						85°	233.4	207.7	263.0	372.5	368.7	322.9
						87.5°	82.3	106.8	120.2	206.5	249.5	216.0
						90°	7.8	9.1	11.4	11.3	12.8	7.8
						92.5°	5.9	5.9	5.9	5.4	4.9	4.4
						95°	6.8	6.8	6.8	6.4	5.9	5.4
						97.5°	8.8	8.4	7.8	7.8	7.8	7.4
						100°	11.8	10.8	9.8	9.3	8.8	8.4
						102.5°	26.5	22.1	17.7	15.2	12.8	11.8
						105°	47.1	41.2	35.3	30.9	26.5	24.1
						107.5°	71.7	64.3	57.0	52.6	48.1	44.6



REPORT NUMBER: P271836

CATALOG NUMBER: ISW-AF-450-LED-E1-SLR-7027-ULG

CANDELA DISTRIBUTION (continued):

355°	359°	360°		325°	330°	335°	340°	345°	350°	355°
776.5	776.5	776.5	110°	100.1	92.7	85.4	79.1	72.7	69.7	66.7
815.6	804.5	803.7	112.5°	131.5	125.1	118.8	111.4	104.0	100.6	97.2
787.5	762.6	754.7	115°	164.9	160.4	156.0	150.2	144.3	140.3	136.5
720.7	691.9	685.9	117.5°	198.3	195.8	193.3	189.5	185.5	183.1	180.6
664.6	632.5	626.9	120°	232.6	230.7	228.7	225.3	221.8	220.4	218.8
635.6	605.2	598.5	122.5°	266.0	264.0	262.0	259.1	256.2	255.7	255.2
646.7	613.1	609.5	125°	299.3	296.4	293.5	291.9	290.5	289.5	288.5
688.2	652.7	654.2	127.5°	332.7	329.8	326.8	324.8	322.9	322.9	322.9
759.4	736.5	731.0	130°	363.2	361.2	359.2	357.3	355.3	354.8	354.3
852.9	827.9	820.7	132.5°	396.5	395.1	393.5	389.7	385.7	386.2	386.7
932.4	919.7	914.9	135°	427.0	425.4	424.0	421.0	418.1	418.1	418.1
989.7	995.6	990.8	137.5°	455.4	453.5	451.5	450.9	450.5	449.5	448.5
1035.6	1055.3	1052.9	140°	481.9	481.0	480.0	479.0	478.0	477.0	476.0
1082.5	1120.9	1122.5	142.5°	511.3	509.9	508.4	507.9	507.5	506.5	505.5
1117.4	1185.0	1198.9	145°	539.8	538.4	536.8	535.4	534.0	534.9	535.9
1162.0	1252.7	1266.9	147.5°	563.3	563.3	563.3	561.9	560.5	560.9	561.4
1196.1	1302.5	1319.9	150°	582.0	582.0	582.0	582.0	582.0	581.6	581.0
1229.4	1343.7	1362.7	152.5°	598.7	598.2	597.7	597.2	596.7	596.7	596.7
1256.7	1384.4	1403.8	155°	618.3	616.9	615.4	614.4	613.5	613.5	613.5
1287.5	1423.9	1442.9	157.5°	634.0	633.0	632.0	631.6	631.1	631.1	631.1
1342.9	1486.1	1508.6	160°	642.8	643.4	643.8	645.3	646.8	647.3	647.8
1461.9	1601.2	1633.2	162.5°	648.8	650.7	652.7	654.7	656.6	656.6	656.6
1633.9	1760.2	1785.5	165°	660.5	662.1	663.5	663.5	663.5	664.5	665.5
1789.1	1868.1	1874.9	167.5°	675.3	674.3	673.3	672.3	671.3	672.8	674.3
1852.8	1897.8	1895.9	170°	680.2	679.7	679.2	679.2	679.2	680.6	682.2
1899.5	1904.9	1893.9	172.5°	677.2	678.7	680.2	681.2	682.2	683.1	684.1
1924.8	1872.2	1853.1	175°	678.2	680.2	682.2	683.1	684.1	684.6	685.0
1858.6	1785.5	1760.6	177.5°	684.1	685.0	686.0	686.6	687.0	689.4	692.0
1668.1	1629.3	1600.8	180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0
1418.9	1320.8	1302.1								
1075.5	946.2	918.4								
751.5	596.5	558.9								
494.1	382.9	368.7								
320.3	254.3	250.0								
223.5	166.9	153.9								
137.2	55.8	53.4								
42.7	25.7	23.0								
6.1	6.5	6.5								
4.0	4.0	4.0								
4.9	4.9	4.9								
6.8	6.8	6.8								
7.8	7.8	7.8								
10.8	10.8	10.8								
21.6	20.8	20.6								
41.2	40.4	40.2								



359°	360°
65.1	64.8
97.2	97.2
137.2	137.4
180.6	180.6
220.4	220.8
257.5	258.2
291.7	292.5
323.7	323.9
355.9	356.3
388.2	388.7
420.5	421.0
450.9	451.5
478.3	479.0
507.8	508.4
539.1	539.8
563.8	564.3
583.4	584.0
599.1	599.7
616.6	617.3
633.5	634.0
650.1	650.7
659.7	660.5
667.8	668.4
676.6	677.2
684.5	685.0
685.7	686.0
686.7	687.0
693.5	693.9
687.0	687.0

(END OF REPORT)