

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: P226798

Luminaire Tested: **ISW-AF-450-LED-E1-SL2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226798
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35945)
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-SL2-7050
Description: IMPACT ELITE LED WEDGE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II W/SPILL CONTROL
Light Source: (16) 5000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3030.2 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U1 - G1

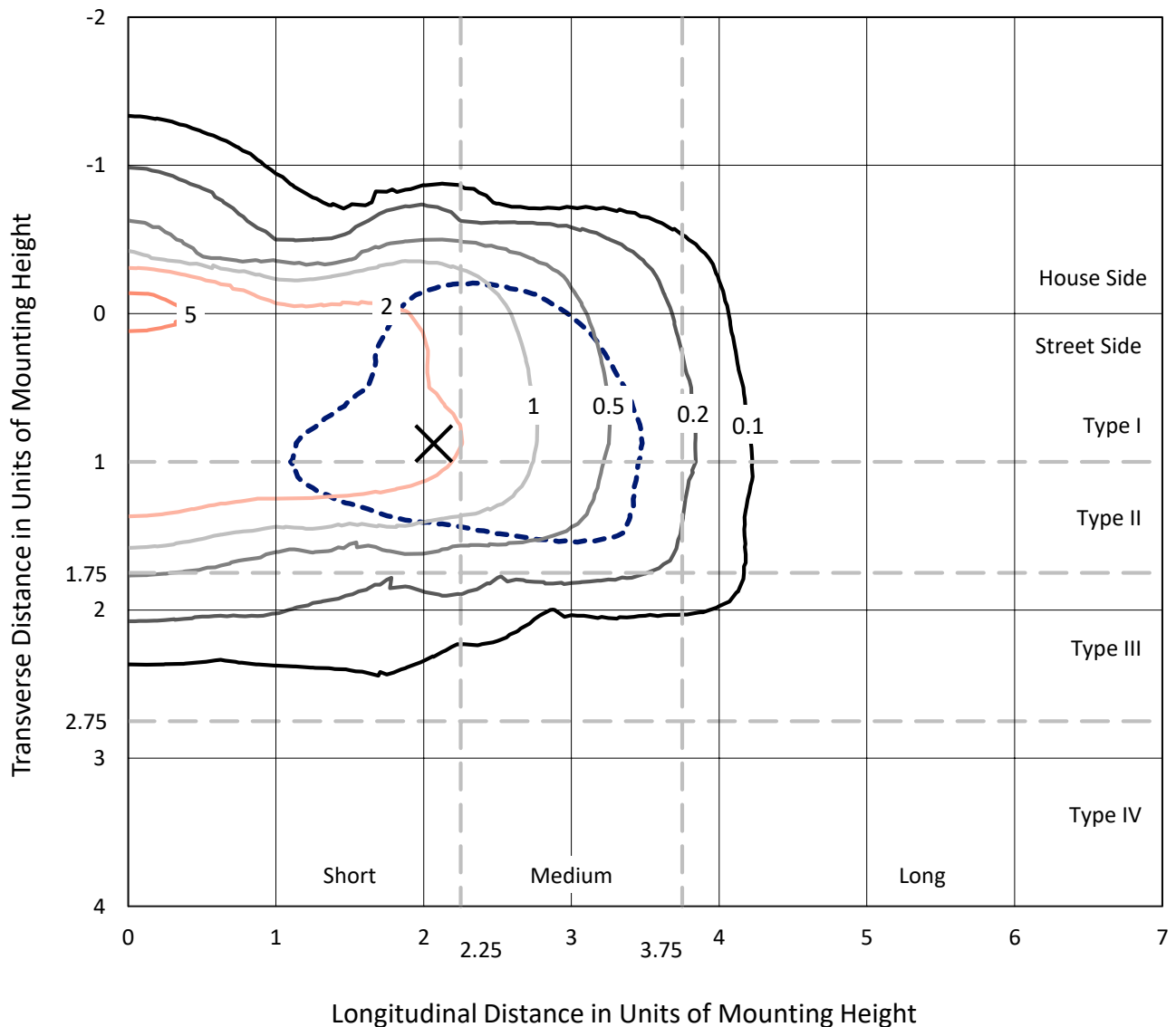
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

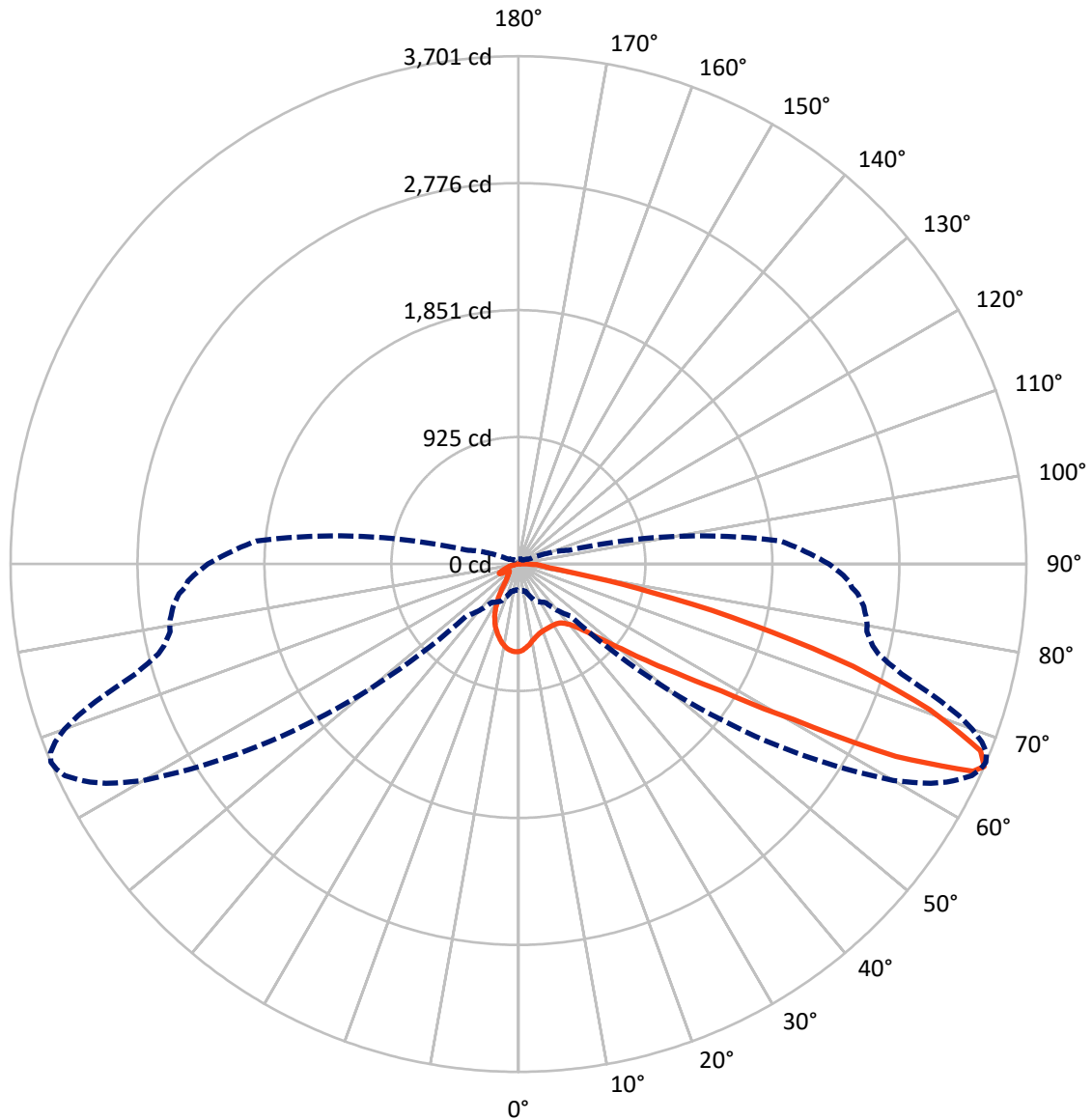
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	559.5	0.2	559.7
	% Fixture	18.5	0.0	18.5
Street Side	Lumens	2469.6	0.9	2470.5
	% Fixture	81.5	0.0	81.5
Total	Lumens	3029.1	1.1	3030.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.3	1.8
10°-20°	131.7	4.3
20°-30°	180.5	6.0
30°-40°	257.9	8.5
40°-50°	418.2	13.8
50°-60°	662.5	21.9
60°-70°	839.6	27.7
70°-80°	417.3	13.8
80°-90°	66.1	2.2
90°-100°	1.1	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3029.1	100.0
0°-180°	3030.2	100.0



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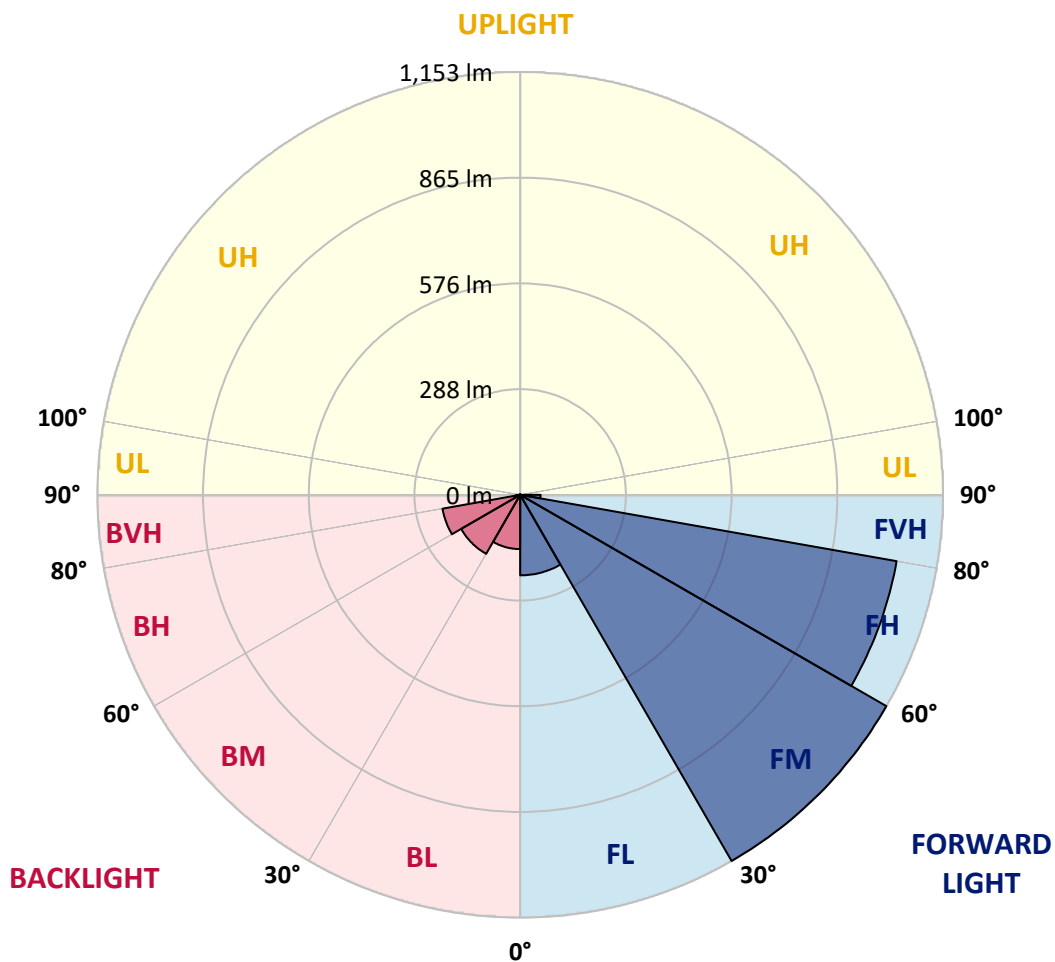
CATALOG NUMBER: ISW-AF-450-LED-E1-SL2-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	219.5	7.2			
FM	(30°-60°)	1152.7	38.0			
FH	(60°-80°)	1041.9	34.4			G1/1800
FVH	(80°-90°)	55.4	1.8			G1/100
BL	(0°-30°)	147.9	4.9	B1/500		
BM	(30°-60°)	185.9	6.1	B0/220		
BH	(60°-80°)	215.0	7.1	B1/500		G1/500
BVH	(80°-90°)	10.7	0.4			G1/100
UL	(90°-100°)	1.1	0.0		U1/10	
UH	(100°-180°)	0.2	0.0		U1/10	

BUG Rating: B1-U1-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
0°	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
2.5°	592.7	594.1	601.9	606.0	611.9	613.7	620.5	623.3	625.5	625.1	625.1
5°	539.5	543.6	547.2	555.4	564.1	574.5	587.7	597.8	599.6	601.9	603.2
7.5°	499.0	501.7	508.1	514.0	524.9	539.5	558.1	570.9	573.6	574.5	577.7
10°	470.3	472.1	477.6	485.3	498.1	512.2	531.7	544.9	549.0	550.9	553.6
12.5°	448.0	450.7	455.7	463.9	477.6	492.1	512.6	525.8	528.6	530.8	534.9
15°	433.9	435.7	440.2	449.3	461.6	476.2	496.2	512.2	514.0	516.3	519.9
17.5°	431.1	432.5	435.2	442.1	451.6	465.7	486.2	499.4	502.6	505.8	509.4
20°	442.1	443.0	443.9	444.8	450.3	459.4	479.4	493.5	496.2	499.0	503.5
22.5°	465.7	467.1	464.8	461.6	457.5	459.4	476.2	490.8	492.6	495.3	499.0
25°	506.7	505.3	498.5	493.5	478.9	467.1	477.1	489.4	491.7	494.4	498.5
27.5°	555.0	553.1	549.0	535.4	511.3	487.1	482.6	491.7	493.0	495.3	499.0
30°	606.9	607.3	603.7	588.7	557.7	517.2	494.9	497.1	498.1	499.9	502.2
32.5°	653.8	660.6	660.1	659.2	615.1	557.7	518.5	509.4	508.1	509.4	510.3
35°	707.9	709.3	722.0	728.4	692.4	616.9	553.1	533.1	527.6	528.1	527.2
37.5°	766.2	768.0	789.9	800.8	773.0	684.3	599.1	568.2	563.2	558.1	554.5
40°	850.9	858.2	869.5	881.8	868.2	774.9	659.7	617.8	605.0	604.1	596.8
42.5°	977.4	975.2	969.7	979.7	963.3	876.4	733.0	687.9	678.3	665.6	655.6
45°	1101.7	1106.7	1083.1	1087.6	1088.5	993.8	839.0	775.8	770.8	755.7	744.8
47.5°	1185.5	1180.0	1148.2	1171.4	1228.3	1130.9	962.0	895.5	885.0	877.3	870.5
50°	1190.0	1185.5	1165.0	1206.0	1327.5	1374.4	1133.1	1055.7	1040.7	1027.1	1023.0
52.5°	1079.0	1072.6	1079.4	1162.7	1363.5	1578.4	1374.9	1254.7	1242.4	1231.0	1215.1
55°	880.9	888.2	920.5	1040.3	1308.4	1723.2	1850.6	1562.0	1509.2	1508.7	1469.6
57.5°	657.8	650.6	674.7	787.1	1169.1	1774.6	2287.7	2216.2	2098.3	2018.6	1922.6
60°	443.9	445.7	468.0	525.8	813.5	1718.6	2580.4	2829.4	2788.0	2771.2	2745.2
62.5°	307.8	310.5	331.0	385.1	475.7	1382.6	2666.0	3173.2	3247.4	3308.8	3293.8
65°	215.3	215.8	236.3	320.0	356.5	710.2	2477.1	3218.7	3329.3	3434.9	3529.6
66°	189.8	190.3	207.1	297.7	341.9	535.8	2313.2	3155.4	3281.5	3404.4	3502.3
67.5°	162.5	165.3	178.5	253.1	327.8	413.4	1910.7	2966.5	3098.5	3233.7	3363.0
70°	111.5	112.4	124.3	205.3	306.8	362.8	1089.0	2315.9	2498.5	2736.1	2873.6
72.5°	79.7	78.8	80.1	127.0	315.0	360.6	572.3	1524.2	1779.6	1988.1	2137.0
75°	71.0	68.7	62.8	78.8	229.9	393.8	383.3	897.3	1091.7	1281.6	1434.1
77.5°	63.3	59.6	56.5	60.5	113.8	371.0	344.2	514.0	613.2	754.8	872.3
80°	48.3	46.0	47.8	52.4	68.3	341.4	341.9	341.9	368.8	415.2	461.6
82.5°	31.9	29.1	33.2	43.2	51.4	257.2	353.3	301.8	296.8	295.0	298.2
85°	20.0	17.3	23.2	32.3	39.6	134.3	362.4	318.7	295.5	273.2	250.8
87.5°	7.3	8.2	11.8	18.7	25.9	58.3	317.8	280.9	265.0	237.2	211.2
90°	1.8	1.4	2.3	5.5	5.9	10.9	48.7	77.8	46.4	23.2	18.7
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°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
0°	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
2.5°	625.5	627.8	628.7	627.8	628.3	631.0	630.1	631.4	631.4	632.4	632.4
5°	605.0	606.9	610.5	610.0	613.7	615.1	616.4	618.2	620.5	621.9	624.6
7.5°	580.9	584.6	587.7	589.6	591.8	596.4	597.8	601.9	605.5	609.1	611.9
10°	557.7	562.7	566.3	567.7	572.7	575.0	580.0	583.2	587.7	592.3	596.4
12.5°	538.1	542.7	544.5	549.0	553.6	558.1	560.4	566.3	570.9	576.8	582.3
15°	523.5	528.1	531.7	534.9	539.5	544.0	547.7	553.6	559.1	565.0	570.0
17.5°	514.4	517.2	521.7	524.5	529.9	535.4	539.5	546.3	552.2	557.2	564.1
20°	507.6	510.8	514.9	519.0	524.0	530.8	534.5	541.8	548.1	554.1	560.4
22.5°	504.0	507.2	511.3	515.4	520.8	526.3	532.2	538.6	545.4	551.8	558.1
25°	502.6	505.3	509.0	513.1	519.0	524.9	529.9	537.2	543.1	550.0	557.7
27.5°	503.1	504.9	509.0	512.6	518.5	524.0	529.0	536.3	543.1	549.5	557.2
30°	504.9	506.2	510.3	513.5	518.5	524.0	528.6	536.3	542.2	549.0	557.2
32.5°	511.3	513.1	514.9	517.2	521.7	525.8	531.3	538.1	543.6	550.4	557.2
35°	526.3	524.9	526.3	527.2	530.4	534.5	538.6	544.5	549.5	555.4	562.7
37.5°	550.0	547.2	548.1	547.7	547.7	550.4	554.5	558.6	562.7	568.6	575.9
40°	593.7	586.8	585.0	580.0	578.6	580.9	583.6	584.1	589.1	596.8	600.0
42.5°	650.1	641.0	642.4	634.2	631.9	629.2	632.8	630.5	633.7	638.7	645.6
45°	739.3	730.7	721.6	708.4	711.1	701.1	698.4	699.3	698.8	700.6	708.8
47.5°	845.9	834.5	828.6	823.6	814.0	808.1	800.3	789.0	791.7	795.3	802.6
50°	1001.6	997.9	986.5	970.2	967.9	959.2	957.0	946.9	943.3	942.8	942.4
52.5°	1209.6	1186.0	1181.4	1165.9	1154.1	1145.9	1143.2	1129.0	1114.9	1123.1	1122.2
55°	1463.2	1443.6	1418.6	1404.9	1395.4	1375.8	1370.8	1353.0	1344.8	1340.3	1328.9
57.5°	1889.3	1820.6	1769.1	1743.6	1707.7	1671.3	1658.5	1622.1	1593.9	1573.8	1575.2
60°	2632.3	2509.8	2365.5	2300.9	2151.1	2129.2	2026.4	2001.3	1939.4	1898.4	1874.8
62.5°	3283.3	3250.1	3180.9	3086.7	2936.4	2763.4	2685.6	2530.8	2409.7	2356.9	2283.6
65°	3594.3	3641.2	3660.3	3642.5	3582.4	3476.8	3383.9	3232.8	3029.8	2915.0	2772.5
66°	3578.3	3648.0	3683.0	3701.3	3679.4	3617.0	3519.6	3395.3	3238.3	3063.4	2903.6
67.5°	3461.8	3529.6	3578.3	3633.9	3633.9	3614.3	3574.7	3491.8	3380.8	3228.2	3084.8
70°	2985.6	3077.6	3163.6	3180.4	3227.8	3213.2	3244.6	3191.8	3165.4	3101.7	3024.7
72.5°	2325.9	2402.9	2476.6	2550.4	2538.1	2522.1	2519.0	2529.9	2476.2	2495.3	2475.2
75°	1547.0	1679.5	1755.0	1747.7	1752.7	1756.8	1723.2	1648.0	1706.3	1632.6	1657.1
77.5°	940.1	1001.6	1022.1	999.3	969.7	931.5	870.0	834.0	782.6	786.7	752.5
80°	493.0	500.8	484.4	438.4	413.4	390.6	320.5	289.1	260.0	249.0	224.4
82.5°	282.7	264.1	244.0	228.5	198.9	178.9	151.6	134.3	115.6	99.2	93.3
85°	229.0	204.0	185.3	168.0	148.0	130.2	107.4	89.7	76.0	66.0	63.7
87.5°	188.9	171.6	152.5	136.1	116.5	98.3	76.0	59.2	46.9	37.8	35.1
90°	16.8	22.8	16.4	9.1	13.7	7.3	4.1	4.6	3.6	3.6	4.1
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°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°
0°	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
2.5°	633.7	633.7	634.6	635.5	636.0	636.0	636.0	636.9	637.4	636.0	637.4
5°	626.0	628.3	630.1	631.4	631.9	633.3	634.6	635.5	636.9	636.9	637.8
7.5°	615.5	619.6	621.9	624.2	626.4	628.7	631.4	633.3	634.2	636.0	637.4
10°	602.3	607.3	611.9	615.5	618.7	623.3	626.9	629.6	633.7	634.2	637.4
12.5°	588.2	595.5	599.1	606.0	610.5	617.3	621.0	625.1	629.6	631.9	635.5
15°	578.2	584.6	591.4	597.8	605.0	613.2	617.8	623.3	629.6	634.6	639.2
17.5°	570.4	579.1	586.8	595.0	604.1	612.8	619.6	625.5	633.7	636.5	641.0
20°	568.2	577.7	585.5	594.1	603.7	615.1	623.3	629.6	637.8	642.4	646.5
22.5°	567.3	576.4	585.5	595.9	606.4	618.2	626.9	635.1	643.3	647.4	650.6
25°	566.3	575.9	585.9	597.8	609.1	621.4	631.4	639.2	646.9	651.0	653.8
27.5°	566.3	576.4	587.3	599.1	611.4	625.1	634.6	641.9	648.7	652.4	653.3
30°	565.9	576.4	586.8	600.0	613.2	627.3	637.8	644.6	650.6	652.8	651.9
32.5°	566.8	577.7	589.1	602.3	616.0	629.6	640.6	648.3	651.5	651.0	650.6
35°	571.4	581.4	594.6	607.8	621.9	634.6	645.1	650.6	653.3	652.4	650.1
37.5°	583.6	593.7	606.9	621.4	632.4	646.9	656.5	660.6	661.0	658.3	652.8
40°	609.1	619.2	631.0	646.9	660.1	670.1	679.2	683.8	681.1	676.1	670.1
42.5°	649.7	662.4	676.5	689.3	704.7	718.4	720.7	723.4	718.9	709.3	702.0
45°	714.8	722.5	740.7	750.3	770.3	777.1	782.1	783.5	773.5	765.7	753.0
47.5°	808.5	823.6	836.3	845.4	860.0	869.1	879.1	874.6	866.8	853.6	836.8
50°	956.0	965.6	982.0	998.4	1013.9	1020.2	1020.2	1015.7	1010.7	985.2	964.7
52.5°	1137.2	1138.1	1161.8	1181.4	1194.6	1185.0	1196.4	1185.0	1181.9	1164.1	1147.3
55°	1347.1	1338.5	1367.1	1384.4	1396.3	1407.7	1405.4	1404.0	1392.2	1372.2	1351.7
57.5°	1546.5	1571.6	1585.2	1610.7	1616.6	1624.4	1621.2	1616.6	1609.8	1598.4	1589.3
60°	1834.2	1851.1	1863.4	1868.4	1885.2	1887.5	1898.9	1880.2	1884.8	1871.6	1842.9
62.5°	2225.8	2207.6	2217.1	2217.1	2212.1	2194.4	2203.9	2211.2	2198.9	2188.0	2183.4
65°	2664.2	2605.4	2549.0	2539.4	2513.5	2507.6	2500.3	2482.1	2474.3	2455.2	2439.7
66°	2795.3	2704.2	2651.0	2618.2	2586.8	2580.0	2569.9	2550.8	2535.3	2508.5	2482.5
67.5°	2942.3	2824.9	2744.8	2698.3	2659.6	2634.1	2614.1	2586.8	2562.2	2522.1	2480.7
70°	2932.8	2835.8	2739.3	2668.7	2610.5	2558.1	2527.1	2468.4	2418.3	2361.0	2313.6
72.5°	2464.3	2447.0	2391.0	2351.4	2279.9	2252.2	2170.2	2132.9	2063.7	1989.5	1966.7
75°	1713.1	1645.3	1616.6	1600.7	1569.3	1482.8	1426.3	1438.6	1357.6	1285.2	1243.8
77.5°	748.9	762.6	683.3	647.8	620.5	573.6	529.9	499.9	482.6	471.2	419.7
80°	207.1	180.7	178.5	165.7	163.0	145.2	147.5	134.8	126.1	124.3	120.2
82.5°	90.6	88.8	86.0	84.7	83.3	81.5	79.2	78.8	76.0	73.8	74.2
85°	60.1	59.6	58.3	56.9	54.6	51.4	49.2	47.3	47.8	45.5	45.1
87.5°	35.1	34.1	33.7	31.9	31.4	28.7	29.1	26.9	26.4	25.9	24.6
90°	5.0	5.5	6.8	6.4	4.6	8.6	7.3	6.4	6.8	5.5	5.5
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°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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°



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 NUMBER: ISW-AF-450-LED-E1-SL2-7050

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):											CANDELA DISTRIBUTION	
86°	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	110°	86°
637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	110°	0.0
638.7	639.6	640.1	639.6	640.6	640.1	640.6	640.1	637.8	637.4	636.9	112.5°	0.0
639.6	641.5	641.9	642.4	641.5	642.4	640.6	633.3	625.1	616.0	608.7	115°	0.0
640.6	642.8	644.2	644.2	644.6	643.7	636.9	621.0	601.9	582.7	568.2	117.5°	0.0
640.1	643.3	644.6	645.1	645.1	643.3	626.9	601.4	572.3	543.1	513.5	120°	0.0
638.7	641.5	643.7	643.7	644.2	637.8	612.3	575.9	534.5	490.8	451.2	122.5°	0.0
641.5	644.2	644.2	644.2	643.7	632.8	596.8	544.0	488.5	429.3	370.6	125°	0.0
645.6	646.9	646.0	646.0	644.2	627.8	579.5	512.6	439.8	361.5	279.5	127.5°	0.0
649.2	650.1	649.7	647.4	645.1	622.3	561.8	479.4	381.5	279.5	198.0	130°	0.0
652.8	653.8	651.5	647.8	644.6	615.1	540.4	437.0	315.5	191.2	131.1	132.5°	0.0
653.3	654.2	650.1	645.1	640.6	604.1	514.4	392.0	243.1	123.8	102.4	135°	0.0
652.8	651.9	645.1	638.7	633.7	590.9	485.8	336.0	162.1	93.3	89.2	137.5°	0.0
649.7	645.6	640.1	632.8	625.5	576.4	457.1	273.6	102.4	81.0	81.0	140°	0.0
645.1	641.0	634.2	624.6	616.4	562.2	424.3	209.9	81.9	74.7	75.6	142.5°	0.0
643.3	638.7	628.7	618.7	608.2	549.5	389.7	141.1	73.8	70.6	71.0	145°	0.0
646.9	639.2	629.2	617.8	605.5	538.6	353.7	98.3	69.7	66.0	66.9	147.5°	0.0
659.2	651.9	640.1	625.5	612.3	532.2	315.5	81.5	65.6	62.4	62.4	150°	0.0
688.8	679.2	663.3	646.0	630.1	536.3	281.4	74.2	62.4	59.2	59.2	152.5°	0.0
736.6	725.2	706.6	687.0	666.0	556.3	242.7	71.5	60.1	55.5	54.6	155°	0.0
818.6	803.5	778.9	755.7	730.7	590.9	203.5	69.7	57.4	53.3	51.4	157.5°	0.0
947.4	925.1	896.0	865.4	834.9	654.2	172.5	67.8	55.5	51.4	49.6	160°	0.0
1113.1	1098.1	1061.7	1021.6	985.2	780.3	154.8	66.5	54.2	49.2	47.8	162.5°	0.0
1324.3	1299.8	1271.1	1235.1	1191.9	943.8	153.0	66.0	52.8	47.3	46.4	165°	0.0
1547.4	1537.9	1489.2	1466.8	1420.0	1161.4	186.2	66.9	51.9	46.0	44.6	167.5°	0.0
1801.9	1805.6	1760.0	1735.4	1696.8	1437.3	296.4	69.7	51.9	44.6	43.2	170°	0.0
2134.7	2140.6	2086.9	2057.8	2025.0	1746.4	465.7	74.2	53.3	43.2	41.9	172.5°	0.0
2407.4	2375.5	2340.9	2290.0	2248.5	1918.9	448.4	82.4	55.1	41.9	40.5	175°	0.0
2435.6	2412.9	2369.2	2314.1	2263.6	1919.8	391.5	85.1	55.5	41.4	40.1	177.5°	0.0
2432.0	2391.5	2341.9	2295.4	2245.8	1870.7	302.7	88.8	56.9	40.5	39.2	180°	0.0
2263.6	2206.6	2158.4	2094.2	2042.3	1674.0	186.2	88.3	55.1	37.8	36.9		
1866.6	1837.4	1780.1	1728.6	1674.4	1354.9	127.5	78.8	48.7	34.1	34.6		
1207.3	1174.1	1115.8	1086.7	1056.2	866.8	99.2	64.2	41.4	30.5	31.9		
402.9	389.7	368.3	380.1	362.4	337.8	72.8	48.7	33.2	26.4	28.2		
120.6	117.9	122.0	114.7	121.6	102.9	47.8	34.1	25.5	22.8	25.0		
71.5	70.6	70.6	70.6	68.7	64.2	31.4	23.7	19.6	19.1	20.9		
43.7	42.8	43.2	42.8	43.7	39.2	21.4	16.4	14.6	14.1	16.8		
25.0	25.0	25.5	24.6	25.0	24.1	15.0	10.5	9.6	9.1	12.3		
5.9	5.9	4.6	4.1	4.6	6.4	4.1	3.2	2.7	2.3	4.1		
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		
0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

'226798
 ISW-AF-450-LED-E1-SL2-7050

REPORT NUMBER: P226798
 CATALOG NUMBER: ISW-AF-4!

TION (continued):

CANDELA DISTRIBUTION (con

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°		155°	165°
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0°	637.8	637.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°	633.3	630.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°	597.3	588.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°	545.4	535.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°	486.2	471.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°	410.6	381.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°	323.2	283.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°	222.6	190.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°	156.2	144.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°	120.6	121.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°	100.2	104.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°	88.3	92.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°	81.0	85.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°	76.0	77.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°	70.1	71.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°	65.1	65.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°	60.5	60.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°	56.5	56.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°	52.4	52.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°	50.1	50.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°	47.8	48.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°	46.0	46.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°	44.2	43.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°	42.8	41.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°	41.4	40.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°	40.5	39.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°	39.6	38.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66°	39.2	38.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°	38.7	37.8
										70°	36.9	36.0
										72.5°	34.1	33.7
										75°	31.4	30.5
										77.5°	27.8	27.3
										80°	23.7	23.2
										82.5°	20.0	19.1
										85°	15.9	15.0
										87.5°	10.9	10.0
										90°	2.7	3.2
										92.5°	0.0	0.0
										95°	0.0	0.0
										97.5°	0.0	0.0
										100°	0.0	0.0
										102.5°	0.0	0.0
										105°	0.0	0.0
										107.5°	0.0	0.0



REPORT NUMBER: P226798

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

50-LED-E1-SL2-7050

tinued):

175°	180°
637.8	637.8
627.3	631.4
585.9	584.6
527.2	527.6
456.2	457.1
364.2	358.7
260.9	263.1
181.6	181.2
145.7	146.6
124.7	124.7
111.1	111.1
97.9	98.3
88.8	89.7
80.6	81.0
72.4	72.8
65.6	65.6
61.0	61.5
57.8	57.8
54.6	54.6
51.9	52.8
49.2	49.6
46.4	46.9
43.7	43.7
41.4	41.4
39.6	39.2
38.2	37.3
36.9	36.4
36.4	36.0
36.0	35.5
35.1	34.6
33.7	33.2
31.0	30.0
28.2	27.3
25.9	24.6
21.9	20.9
15.9	15.0
9.6	9.6
2.3	2.3
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

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
110°	0.0	0.0	0.0
112.5°	0.0	0.0	0.0
115°	0.0	0.0	0.0
117.5°	0.0	0.0	0.0
120°	0.0	0.0	0.0
122.5°	0.0	0.0	0.0
125°	0.0	0.0	0.0
127.5°	0.0	0.0	0.0
130°	0.0	0.0	0.0
132.5°	0.0	0.0	0.0
135°	0.0	0.0	0.0
137.5°	0.0	0.0	0.0
140°	0.0	0.0	0.0
142.5°	0.0	0.0	0.0
145°	0.0	0.0	0.0
147.5°	0.0	0.0	0.0
150°	0.0	0.0	0.0
152.5°	0.0	0.0	0.0
155°	0.0	0.0	0.0
157.5°	0.0	0.0	0.0
160°	0.0	0.0	0.0
162.5°	0.0	0.0	0.0
165°	0.0	0.0	0.0
167.5°	0.0	0.0	0.0
170°	0.0	0.0	0.0
172.5°	0.0	0.0	0.0
175°	0.0	0.0	0.0
177.5°	0.0	0.0	0.0
180°	0.0	0.0	0.0

