

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: P228695

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228695
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29764)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISC-AF-450-LED-E1-SLR
Description: IMPACT ELITE LED CYLINDER LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (16) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2555.3 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

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

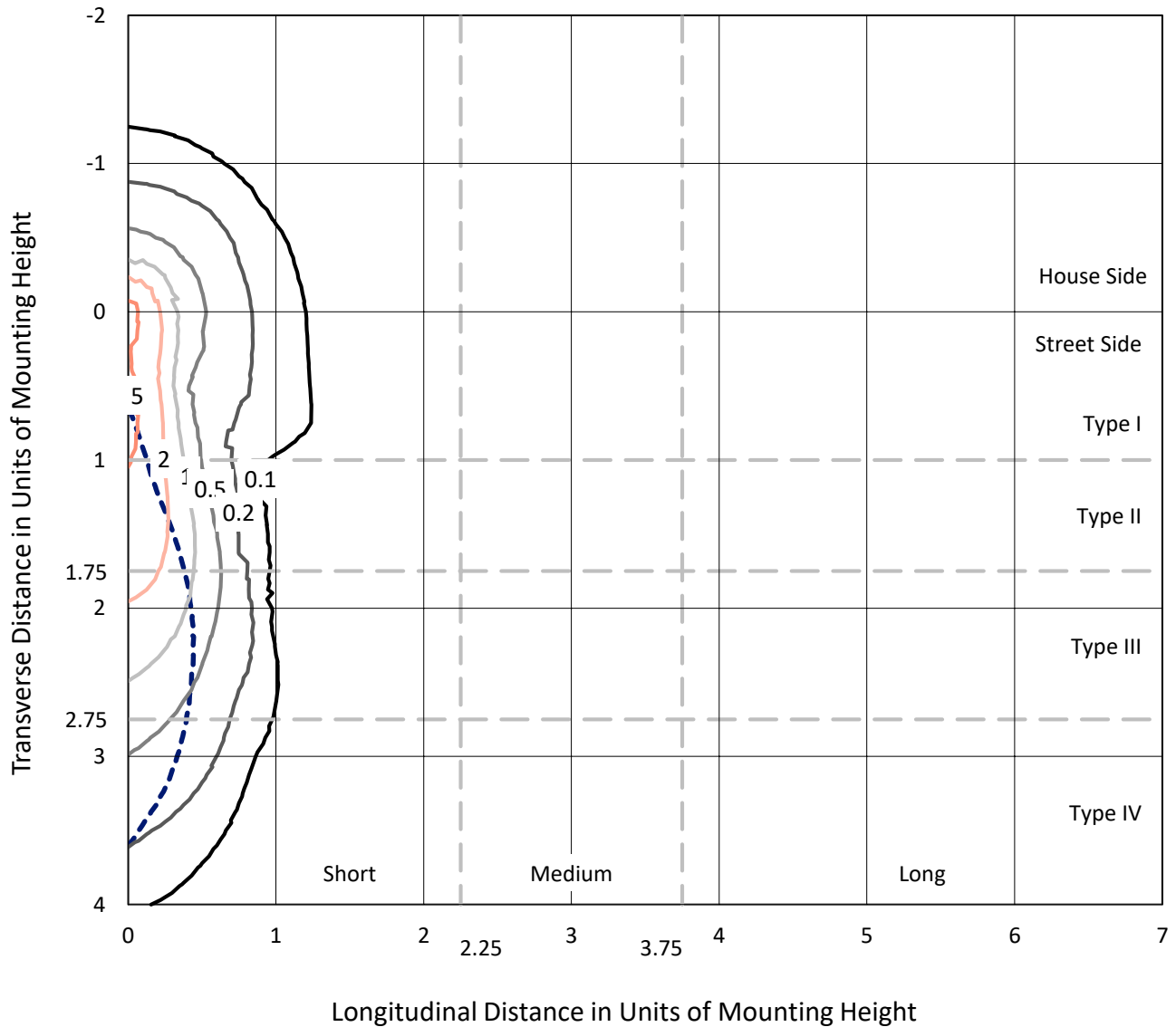


REPORT NUMBER: P228695

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

Iso-Footcandle Lines of Horizontal Illumination

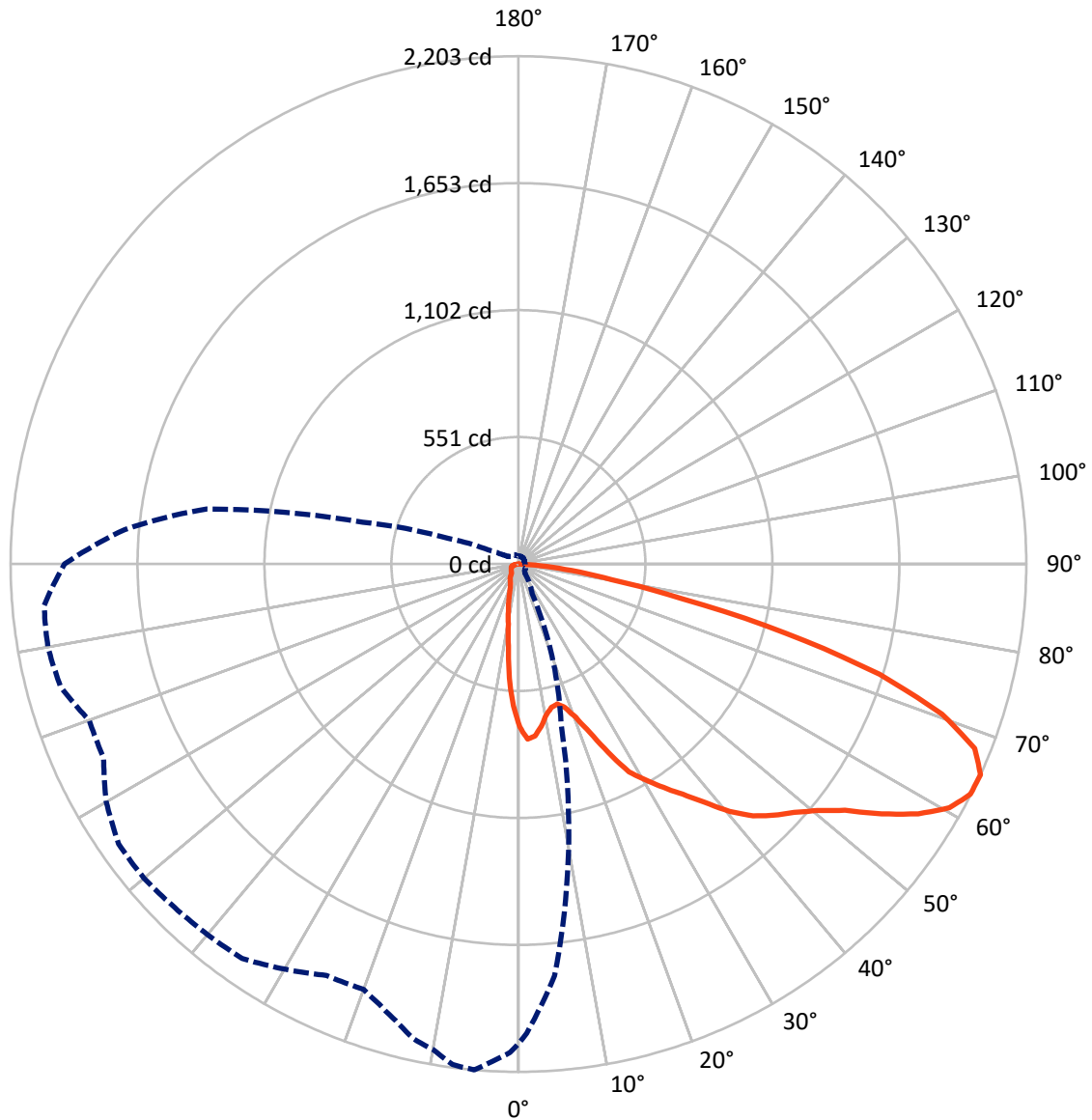
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P228695
CATALOG NUMBER: ISC-AF-450-LED-E1-SLR

Luminous Intensity Polar Plot



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

REPORT NUMBER: P228695

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

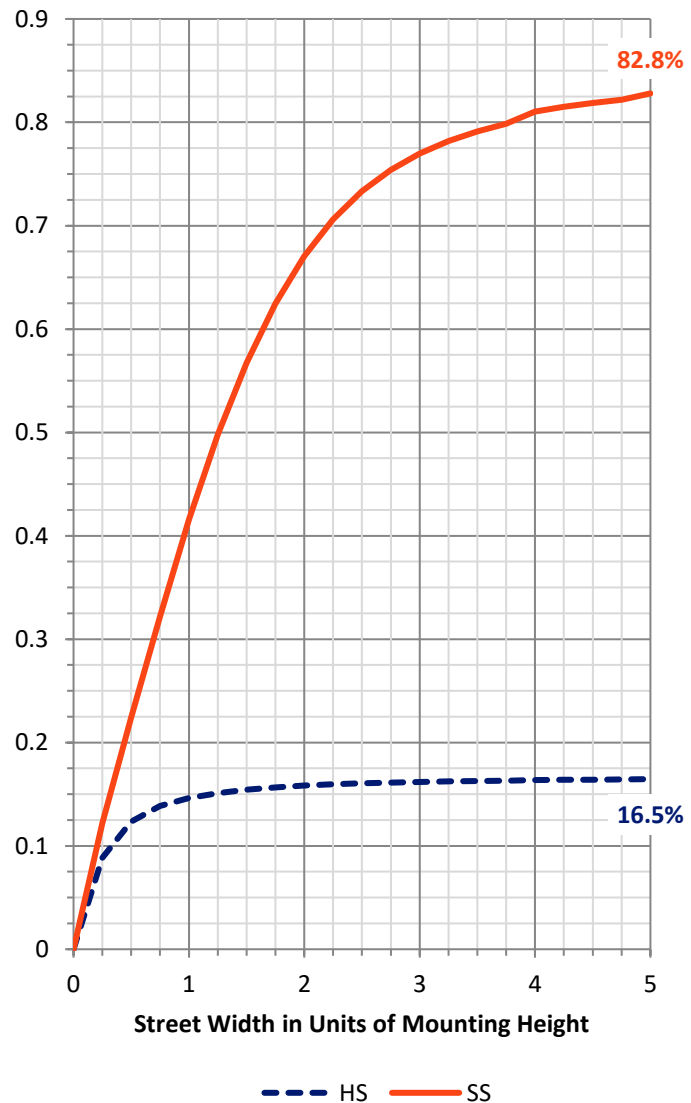
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	424.9	0.0	424.9
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	2130.4	0.0	2130.4
	% Fixture	83.4	0.0	83.4
Total	Lumens	2555.3	0.0	2555.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	2.1
10°-20°	111.9	4.4
20°-30°	162.7	6.4
30°-40°	240.6	9.4
40°-50°	350.5	13.7
50°-60°	525.4	20.6
60°-70°	654.7	25.6
70°-80°	383.5	15.0
80°-90°	71.7	2.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2555.3	100.0
0°-180°	2555.3	100.0



REPORT NUMBER: P228695

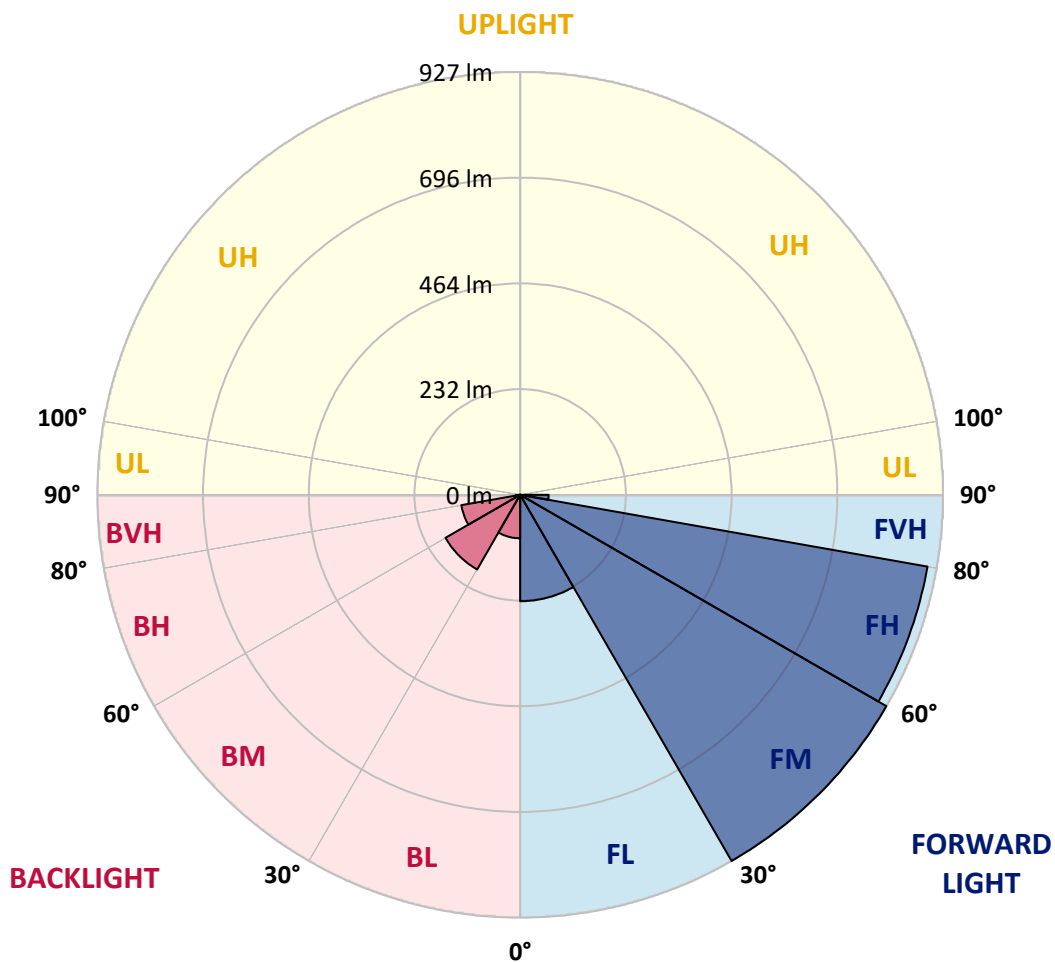
CATALOG NUMBER: ISC-AF-450-LED-E1-SLR

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	233.4	9.1			
FM	(30°-60°)	927.4	36.3			
FH	(60°-80°)	907.1	35.5			G1/1800
FVH	(80°-90°)	62.5	2.4			G1/100
BL	(0°-30°)	95.4	3.7	B0/110		
BM	(30°-60°)	189.1	7.4	B0/220		
BH	(60°-80°)	131.1	5.1	B1/500		G1/500
BVH	(80°-90°)	9.2	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





REPORT NUMBER: P228695

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

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°
0°	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2
2.5°	750.6	744.6	732.4	708.2	682.9	658.6	654.6	645.5	646.5	641.4	639.3
5°	726.4	718.3	692.9	642.4	598.9	554.4	551.4	533.2	535.2	524.1	518.0
7.5°	672.8	661.6	633.3	563.5	502.8	444.2	438.0	416.9	413.8	402.6	393.5
10°	620.1	609.1	573.7	493.7	423.9	380.4	373.3	363.1	355.1	350.1	340.9
12.5°	586.8	580.7	538.2	446.1	391.5	356.1	347.0	336.9	328.8	319.7	310.6
15°	579.7	567.5	524.1	431.0	367.2	323.8	312.6	301.5	292.4	283.3	270.2
17.5°	598.9	586.8	538.2	423.9	339.9	287.3	273.1	258.0	248.9	237.7	223.6
20°	644.5	625.2	565.5	413.8	310.6	244.8	227.6	209.4	199.3	180.0	169.9
22.5°	717.3	692.9	612.0	413.8	283.3	200.3	181.1	164.9	153.7	136.6	125.4
25°	821.4	800.3	687.9	424.9	259.0	162.9	143.6	127.5	116.3	104.2	97.1
27.5°	918.6	885.3	768.8	441.1	239.8	136.6	117.3	104.2	96.2	90.0	86.0
30°	991.4	964.1	839.7	452.2	211.4	114.4	102.2	94.1	90.0	87.1	85.0
32.5°	1058.2	1026.8	890.3	459.3	194.3	97.1	86.0	79.9	75.9	71.8	70.8
35°	1129.0	1098.6	949.9	458.3	183.1	89.0	77.9	70.8	66.8	65.8	63.7
37.5°	1227.1	1185.7	1018.8	458.3	179.0	86.0	72.8	65.8	62.7	60.7	59.6
40°	1322.3	1275.7	1094.7	461.4	175.0	84.0	72.8	65.8	60.7	58.7	56.7
42.5°	1411.3	1359.7	1163.4	466.4	173.0	77.9	68.8	64.8	62.7	58.7	55.6
45°	1479.1	1438.6	1217.0	476.5	173.0	73.9	64.8	61.7	60.7	60.7	59.6
47.5°	1544.9	1499.3	1278.8	495.7	176.0	70.8	61.7	57.7	57.7	57.7	58.7
50°	1629.8	1576.2	1363.7	535.2	176.0	69.8	58.7	54.6	53.6	55.6	55.6
52.5°	1745.2	1706.7	1488.2	591.9	174.0	68.8	57.7	51.6	50.5	51.6	53.6
55°	1908.0	1864.5	1638.9	661.6	172.0	66.8	55.6	50.5	48.6	47.6	48.6
57.5°	2048.7	2011.2	1777.5	717.3	166.9	61.7	53.6	49.6	46.5	45.5	44.5
60°	2110.3	2078.9	1866.6	754.7	157.8	56.7	50.5	47.6	44.5	43.5	42.5
62.5°	2120.5	2081.0	1867.6	762.8	147.7	51.6	47.6	44.5	42.5	41.4	40.5
65°	2081.0	2036.5	1793.7	713.2	139.6	51.6	45.5	42.5	39.5	38.5	37.4
67.5°	1992.0	1923.1	1606.5	605.0	132.6	52.6	44.5	39.5	37.4	36.4	35.4
70°	1777.5	1700.7	1356.6	480.6	129.5	53.6	44.5	37.4	34.4	33.3	33.3
72.5°	1424.5	1336.4	1058.2	362.2	124.4	54.6	43.5	35.4	32.3	30.4	30.4
75°	964.1	887.2	717.3	244.8	103.2	47.6	39.5	32.3	28.3	26.3	25.3
77.5°	537.2	511.9	456.2	129.5	65.8	35.4	30.4	26.3	23.2	22.3	21.3
80°	315.7	302.5	269.1	71.8	40.5	20.3	18.2	17.2	15.1	15.1	15.1
82.5°	193.2	180.0	166.9	32.3	19.2	10.1	10.1	8.1	8.1	7.1	7.1
85°	52.6	48.6	67.8	7.1	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



REPORT NUMBER: P228695

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

CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2
2.5°	631.3	629.2	629.2	614.1	614.1	606.0	604.0	604.0	607.0	605.0	592.8
5°	507.9	501.8	497.8	479.6	474.4	465.3	461.4	460.3	463.4	458.3	442.1
7.5°	382.4	377.4	371.3	357.1	351.1	350.1	337.9	334.9	332.9	328.8	318.6
10°	333.9	326.7	321.7	311.6	304.5	299.4	289.3	284.3	280.2	274.2	271.1
12.5°	300.4	293.4	286.3	273.1	264.0	258.0	252.0	241.8	237.7	230.7	226.6
15°	259.0	250.9	242.8	228.6	216.5	210.4	198.2	192.2	188.1	180.0	176.0
17.5°	208.4	197.3	188.1	175.0	169.0	158.9	151.7	141.7	133.5	130.5	127.5
20°	156.8	146.7	138.6	127.5	121.4	113.3	109.3	102.2	98.1	96.2	94.1
22.5°	115.3	107.2	102.2	96.2	93.1	90.0	88.0	86.0	84.0	83.0	83.0
25°	91.0	88.0	86.0	84.0	83.0	81.9	79.9	78.9	77.9	76.9	76.9
27.5°	83.0	80.9	79.9	78.9	77.9	75.9	75.9	73.9	72.8	72.8	71.8
30°	84.0	84.0	84.0	81.9	80.9	78.9	77.9	74.9	72.8	70.8	69.8
32.5°	68.8	68.8	67.8	65.8	64.8	63.7	63.7	61.7	60.7	60.7	62.7
35°	62.7	61.7	60.7	58.7	57.7	55.6	54.6	53.6	52.6	51.6	51.6
37.5°	59.6	58.7	57.7	55.6	54.6	53.6	52.6	50.5	49.6	49.6	48.6
40°	56.7	56.7	56.7	54.6	53.6	51.6	50.5	49.6	48.6	47.6	47.6
42.5°	54.6	54.6	54.6	53.6	52.6	51.6	49.6	48.6	47.6	46.5	45.5
45°	55.6	54.6	54.6	53.6	52.6	50.5	49.6	47.6	46.5	45.5	44.5
47.5°	59.6	58.7	56.7	54.6	52.6	50.5	48.6	46.5	45.5	44.5	43.5
50°	56.7	60.7	61.7	58.7	53.6	50.5	48.6	46.5	44.5	43.5	42.5
52.5°	55.6	56.7	60.7	60.7	55.6	51.6	48.6	46.5	44.5	42.5	41.4
55°	50.5	53.6	54.6	55.6	54.6	50.5	47.6	44.5	43.5	41.4	39.5
57.5°	44.5	46.5	47.6	49.6	50.5	49.6	45.5	42.5	41.4	39.5	37.4
60°	41.4	41.4	41.4	42.5	47.6	51.6	47.6	41.4	38.5	37.4	35.4
62.5°	38.5	38.5	37.4	38.5	39.5	44.5	43.5	39.5	37.4	36.4	34.4
65°	37.4	36.4	35.4	35.4	35.4	35.4	35.4	35.4	34.4	34.4	33.3
67.5°	34.4	33.3	33.3	32.3	32.3	32.3	32.3	32.3	31.4	31.4	30.4
70°	32.3	31.4	30.4	30.4	30.4	29.4	29.4	29.4	28.3	28.3	28.3
72.5°	29.4	28.3	28.3	28.3	27.3	27.3	27.3	26.3	26.3	25.3	25.3
75°	25.3	25.3	24.2	24.2	24.2	23.2	23.2	23.2	23.2	22.3	22.3
77.5°	21.3	20.3	21.3	20.3	20.3	20.3	20.3	20.3	19.2	19.2	18.2
80°	14.1	14.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	14.1
82.5°	8.1	7.1	8.1	8.1	8.1	9.1	9.1	10.1	9.1	9.1	8.1
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



REPORT NUMBER: P228695

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

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2
2.5°	598.9	597.9	587.8	589.8	586.8	580.7	581.8	582.8	584.7	580.7	578.7
5°	450.2	451.2	438.0	442.1	439.1	438.0	441.1	446.1	449.2	448.2	445.2
7.5°	319.7	320.7	309.5	308.5	305.6	304.5	308.5	313.6	316.6	315.7	316.6
10°	264.0	261.1	250.9	243.8	236.7	230.7	229.7	229.7	229.7	227.6	225.6
12.5°	218.5	215.5	203.4	197.3	191.2	183.1	182.1	181.1	178.1	175.0	170.9
15°	169.9	166.9	156.8	152.7	147.7	144.6	143.6	143.6	141.7	139.6	137.6
17.5°	123.5	121.4	115.3	111.3	110.3	111.3	112.3	114.4	115.3	116.3	116.3
20°	93.1	92.1	90.0	90.0	91.0	94.1	95.1	98.1	99.1	101.2	103.2
22.5°	81.9	81.9	80.9	80.9	83.0	86.0	88.0	89.0	90.0	91.0	91.0
25°	75.9	75.9	74.9	76.9	79.9	79.9	79.9	79.9	77.9	76.9	76.9
27.5°	71.8	71.8	71.8	72.8	71.8	70.8	70.8	70.8	69.8	69.8	68.8
30°	68.8	68.8	68.8	67.8	67.8	66.8	66.8	65.8	65.8	64.8	64.8
32.5°	63.7	61.7	63.7	61.7	61.7	60.7	61.7	61.7	59.6	59.6	59.6
35°	50.5	49.6	49.6	49.6	48.6	49.6	51.6	51.6	51.6	51.6	51.6
37.5°	47.6	47.6	46.5	45.5	45.5	44.5	45.5	44.5	44.5	44.5	45.5
40°	46.5	45.5	44.5	44.5	43.5	42.5	42.5	42.5	42.5	42.5	42.5
42.5°	44.5	44.5	42.5	41.4	41.4	40.5	40.5	40.5	40.5	40.5	40.5
45°	43.5	42.5	41.4	40.5	39.5	39.5	39.5	39.5	39.5	39.5	38.5
47.5°	42.5	41.4	40.5	39.5	38.5	37.4	37.4	37.4	37.4	37.4	37.4
50°	41.4	40.5	38.5	38.5	37.4	36.4	36.4	36.4	36.4	36.4	36.4
52.5°	39.5	39.5	37.4	36.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
55°	37.4	37.4	35.4	34.4	33.3	33.3	33.3	33.3	34.4	34.4	34.4
57.5°	36.4	35.4	33.3	33.3	31.4	31.4	31.4	32.3	32.3	33.3	33.3
60°	34.4	33.3	32.3	31.4	31.4	30.4	30.4	30.4	30.4	31.4	31.4
62.5°	33.3	32.3	30.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
65°	31.4	31.4	29.4	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3
67.5°	29.4	29.4	27.3	26.3	26.3	26.3	27.3	26.3	26.3	26.3	26.3
70°	27.3	26.3	25.3	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
72.5°	24.2	24.2	23.2	22.3	22.3	22.3	22.3	22.3	22.3	22.3	23.2
75°	21.3	20.3	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
77.5°	18.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	17.2
80°	13.2	12.2	12.2	12.2	12.2	13.2	13.2	13.2	13.2	13.2	13.2
82.5°	8.1	7.1	7.1	7.1	8.1	9.1	9.1	9.1	9.1	10.1	10.1
85°	2.0	2.0	2.0	2.0	4.1	5.0	5.0	5.0	6.0	5.0	5.0
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



REPORT NUMBER: P228695

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

CANDELA DISTRIBUTION (continued):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2
2.5°	576.6	588.8	588.8	580.7	584.7	580.7	579.7	586.8	590.9	604.0	612.0
5°	446.1	461.4	462.4	458.3	463.4	460.3	463.4	472.5	479.6	488.7	496.7
7.5°	318.6	332.9	335.8	332.9	342.0	340.9	343.0	353.1	359.2	364.2	365.2
10°	224.6	226.6	234.7	232.7	238.8	237.7	240.8	248.9	257.0	260.0	262.0
12.5°	169.0	166.9	169.9	165.9	169.0	169.0	169.9	175.0	185.2	189.1	199.3
15°	136.6	134.5	134.5	132.6	132.6	131.6	132.6	136.6	143.6	149.8	157.8
17.5°	116.3	116.3	116.3	115.3	114.4	114.4	115.3	117.3	121.4	125.4	129.5
20°	104.2	106.2	107.2	108.2	109.3	110.3	111.3	114.4	113.3	109.3	104.2
22.5°	91.0	91.0	92.1	92.1	91.0	91.0	91.0	91.0	91.0	94.1	97.1
25°	75.9	75.9	75.9	76.9	75.9	75.9	76.9	76.9	77.9	79.9	83.0
27.5°	68.8	68.8	68.8	68.8	68.8	68.8	68.8	69.8	70.8	73.9	75.9
30°	63.7	63.7	62.7	62.7	62.7	61.7	62.7	62.7	63.7	67.8	70.8
32.5°	58.7	57.7	57.7	57.7	56.7	56.7	56.7	58.7	59.6	61.7	64.8
35°	51.6	51.6	51.6	52.6	52.6	52.6	52.6	54.6	54.6	55.6	55.6
37.5°	46.5	46.5	47.6	48.6	48.6	49.6	49.6	50.5	51.6	50.5	49.6
40°	42.5	43.5	43.5	45.5	45.5	45.5	46.5	47.6	48.6	46.5	46.5
42.5°	40.5	40.5	40.5	41.4	41.4	41.4	42.5	43.5	44.5	44.5	44.5
45°	38.5	38.5	38.5	39.5	38.5	38.5	38.5	39.5	41.4	41.4	42.5
47.5°	37.4	37.4	37.4	36.4	36.4	36.4	36.4	37.4	38.5	40.5	41.4
50°	36.4	35.4	35.4	35.4	35.4	35.4	35.4	36.4	37.4	38.5	40.5
52.5°	34.4	34.4	34.4	34.4	34.4	34.4	34.4	35.4	36.4	37.4	38.5
55°	34.4	34.4	33.3	33.3	34.4	34.4	34.4	35.4	36.4	37.4	37.4
57.5°	33.3	32.3	32.3	33.3	33.3	33.3	33.3	34.4	35.4	36.4	36.4
60°	31.4	31.4	31.4	31.4	32.3	32.3	33.3	34.4	34.4	35.4	35.4
62.5°	29.4	30.4	30.4	30.4	31.4	31.4	32.3	33.3	34.4	35.4	34.4
65°	28.3	29.4	29.4	29.4	30.4	30.4	30.4	32.3	33.3	33.3	34.4
67.5°	27.3	27.3	27.3	28.3	28.3	29.4	29.4	31.4	31.4	32.3	33.3
70°	25.3	25.3	25.3	26.3	26.3	27.3	28.3	29.4	29.4	30.4	31.4
72.5°	23.2	23.2	23.2	24.2	24.2	25.3	26.3	28.3	27.3	28.3	28.3
75°	20.3	20.3	21.3	21.3	22.3	23.2	24.2	24.2	24.2	24.2	24.2
77.5°	17.2	17.2	18.2	18.2	19.2	20.3	20.3	20.3	21.3	20.3	20.3
80°	14.1	14.1	15.1	15.1	15.1	15.1	16.2	15.1	16.2	15.1	16.2
82.5°	10.1	10.1	11.2	10.1	11.2	10.1	10.1	9.1	11.2	10.1	10.1
85°	4.1	5.0	5.0	5.0	5.0	4.1	4.1	3.1	4.1	4.1	3.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P228695

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

CANDELA DISTRIBUTION (continued):

	175°	180°	185°	195°	205°	215°	225°	230°	235°	240°	245°
0°	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2
2.5°	615.1	614.1	629.2	640.4	647.4	674.7	686.9	702.2	709.2	719.3	729.5
5°	497.8	495.7	513.9	528.0	540.2	579.7	602.9	624.2	641.4	657.6	680.9
7.5°	356.1	352.1	364.2	376.3	392.5	435.1	475.5	503.8	529.1	556.4	586.8
10°	263.0	266.1	278.2	296.5	317.6	350.1	382.4	402.6	424.9	455.2	491.6
12.5°	210.4	222.6	232.7	254.9	280.2	316.6	351.1	367.2	383.4	398.6	417.8
15°	169.0	176.0	184.1	205.4	235.7	278.2	318.6	336.9	356.1	374.3	391.5
17.5°	130.5	133.5	137.6	152.7	180.0	230.7	275.2	298.4	320.7	346.0	369.3
20°	104.2	104.2	105.3	112.3	131.6	170.9	225.6	254.9	283.3	315.7	349.0
22.5°	91.0	90.0	91.0	94.1	103.2	126.4	176.0	210.4	246.8	287.3	328.8
25°	86.0	85.0	84.0	86.0	91.0	102.2	137.6	174.0	211.4	260.0	310.6
27.5°	77.9	78.9	79.9	81.9	86.0	92.1	114.4	141.7	183.1	236.7	297.5
30°	72.8	73.9	74.9	76.9	84.0	91.0	104.2	121.4	156.8	209.4	277.2
32.5°	66.8	67.8	68.8	69.8	71.8	79.9	89.0	103.2	133.5	185.2	255.9
35°	54.6	54.6	55.6	58.7	62.7	70.8	79.9	91.0	119.4	169.0	242.8
37.5°	50.5	50.5	51.6	54.6	58.7	65.8	73.9	84.0	113.3	162.9	230.7
40°	47.6	48.6	48.6	51.6	55.6	63.7	68.8	80.9	110.3	153.7	218.5
42.5°	45.5	45.5	46.5	49.6	54.6	60.7	67.8	78.9	102.2	145.7	211.4
45°	43.5	44.5	44.5	47.6	53.6	58.7	68.8	74.9	97.1	139.6	205.4
47.5°	42.5	42.5	43.5	46.5	52.6	59.6	66.8	70.8	92.1	134.5	200.3
50°	40.5	41.4	42.5	45.5	51.6	65.8	63.7	67.8	88.0	130.5	197.3
52.5°	39.5	40.5	41.4	44.5	51.6	66.8	61.7	63.7	85.0	126.4	195.3
55°	38.5	38.5	39.5	43.5	51.6	61.7	57.7	61.7	78.9	120.4	190.2
57.5°	36.4	37.4	38.5	41.4	50.5	56.7	54.6	58.7	72.8	110.3	183.1
60°	36.4	36.4	37.4	40.5	50.5	50.5	51.6	55.6	65.8	98.1	170.9
62.5°	35.4	35.4	36.4	40.5	51.6	45.5	48.6	52.6	60.7	88.0	155.8
65°	34.4	34.4	35.4	38.5	44.5	43.5	46.5	49.6	58.7	80.9	142.6
67.5°	32.3	32.3	33.3	36.4	39.5	40.5	44.5	47.6	57.7	79.9	130.5
70°	30.4	30.4	30.4	33.3	35.4	38.5	41.4	45.5	57.7	78.9	121.4
72.5°	28.3	27.3	28.3	30.4	32.3	34.4	37.4	42.5	56.7	79.9	117.3
75°	24.2	24.2	24.2	26.3	28.3	30.4	33.3	39.5	53.6	74.9	105.3
77.5°	20.3	20.3	19.2	22.3	24.2	25.3	28.3	34.4	46.5	63.7	85.0
80°	15.1	14.1	14.1	17.2	18.2	20.3	22.3	26.3	36.4	46.5	62.7
82.5°	9.1	8.1	8.1	11.2	12.2	13.2	17.2	19.2	24.2	30.4	42.5
85°	3.1	3.1	3.1	5.0	6.0	7.1	10.1	11.2	15.1	19.2	22.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.1	5.0	6.0	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P228695
 CATALOG NUMBER: ISC-AF-450-LED-E1-SLR

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	250°	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	
0°	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	0°
2.5°	741.5	751.7	764.9	776.9	786.0	794.1	804.2	804.2	816.4	820.5	828.6	2.5°
5°	699.1	718.3	746.7	769.9	798.2	825.5	850.8	865.0	889.3	905.4	921.7	5°
7.5°	613.1	639.3	674.7	707.2	748.6	793.2	834.6	873.1	913.5	948.0	973.2	7.5°
10°	523.0	559.5	596.9	638.3	682.9	730.4	781.0	832.6	881.2	929.8	971.2	10°
12.5°	449.2	490.7	533.2	584.7	636.4	686.9	746.7	791.2	841.7	890.3	930.8	12.5°
15°	417.8	454.3	503.8	560.5	615.1	666.7	722.3	767.8	815.4	854.9	883.2	15°
17.5°	404.7	451.2	507.9	567.5	626.3	689.0	738.6	776.9	812.3	830.6	834.6	17.5°
20°	390.5	454.3	530.1	602.9	674.7	740.5	776.9	802.3	808.3	807.3	792.2	20°
22.5°	382.4	464.3	558.4	660.6	750.6	827.6	852.8	847.8	822.5	790.1	764.9	22.5°
25°	380.4	487.6	607.0	742.6	852.8	929.8	943.9	915.5	858.9	796.2	753.7	25°
27.5°	382.4	513.9	667.7	830.6	960.0	1039.0	1033.9	991.4	910.5	822.5	754.7	27.5°
30°	373.3	541.2	728.4	907.5	1035.9	1101.7	1081.5	1017.7	927.7	839.7	767.8	30°
32.5°	358.1	561.5	782.0	969.1	1114.9	1164.4	1128.0	1059.3	966.2	876.2	802.3	32.5°
35°	340.9	570.6	820.5	1026.8	1199.8	1226.1	1167.5	1097.6	1012.7	921.7	841.7	35°
37.5°	322.7	571.6	856.9	1087.6	1281.8	1292.9	1207.9	1133.1	1050.2	968.2	895.3	37.5°
40°	312.6	567.5	894.4	1162.4	1369.8	1354.6	1250.5	1162.4	1080.4	1017.7	958.1	40°
42.5°	308.5	560.5	921.7	1219.1	1445.6	1412.3	1289.8	1191.7	1117.9	1065.3	1023.8	42.5°
45°	308.5	553.4	946.9	1261.6	1502.3	1458.8	1327.3	1220.1	1154.3	1122.0	1101.7	45°
47.5°	309.5	556.4	977.3	1330.3	1550.9	1503.3	1356.6	1261.6	1204.9	1192.8	1199.8	47.5°
50°	314.7	590.9	1028.9	1406.3	1611.6	1550.9	1396.1	1308.0	1273.7	1285.8	1326.3	50°
52.5°	322.7	645.5	1117.9	1496.3	1705.7	1626.8	1461.9	1374.8	1358.7	1402.2	1479.1	52.5°
55°	330.8	701.1	1234.3	1647.1	1857.5	1764.4	1578.2	1491.3	1472.0	1538.7	1649.0	55°
57.5°	337.9	742.6	1347.5	1796.7	1988.9	1918.1	1732.0	1626.8	1618.7	1690.5	1810.9	57.5°
60°	344.9	775.0	1413.3	1863.5	2048.7	2041.6	1890.8	1793.7	1781.6	1848.4	1962.6	60°
62.5°	340.9	762.8	1431.5	1830.2	2043.5	2102.3	2020.3	1951.5	1910.1	1965.7	2077.0	62.5°
65°	325.8	699.1	1373.8	1714.8	1969.7	2065.8	2072.9	2056.7	1981.9	1986.0	2064.8	65°
67.5°	284.3	587.8	1196.9	1532.7	1825.0	1939.4	2058.8	2053.7	1958.6	1874.7	1890.8	67.5°
70°	235.7	461.4	976.3	1305.1	1619.7	1717.8	1908.0	1946.5	1810.9	1654.1	1580.3	70°
72.5°	198.2	344.9	750.6	1010.7	1298.0	1412.3	1694.5	1748.2	1563.1	1342.5	1228.2	72.5°
75°	164.9	243.8	528.0	696.0	895.3	1046.1	1479.1	1484.1	1268.7	1056.2	932.7	75°
77.5°	122.4	165.9	382.4	486.6	615.1	744.6	1195.8	1208.9	1006.6	801.3	695.0	77.5°
80°	81.9	102.2	243.8	339.9	413.8	498.8	877.1	821.4	664.7	555.4	528.0	80°
82.5°	49.6	59.6	140.7	237.7	261.1	310.6	551.4	515.0	438.0	400.6	410.7	82.5°
85°	27.3	37.4	86.0	155.8	121.4	169.9	301.5	294.4	276.2	241.8	210.4	85°
87.5°	7.1	8.1	19.2	7.1	3.1	9.1	58.7	38.5	38.5	22.3	8.1	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



NUMBER: P228695
 NUMBER: ISC-AF-450-LED-E1-SLR

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

305°	310°	315°	325°	335°	340°	342.5°	345°	347.5°	350°	352.5°	355°	
707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	707.2	0°	707.2
821.4	824.5	823.5	816.4	798.2	791.2	788.1	780.0	770.9	770.9	762.8	2.5°	760.8
920.7	925.7	919.6	902.4	855.9	833.6	820.5	804.2	791.2	779.0	766.8	5°	749.6
990.4	994.5	984.4	944.9	861.9	824.5	804.2	785.0	768.8	747.7	728.4	7.5°	711.3
1003.6	1012.7	1001.6	944.9	848.8	802.3	780.0	758.7	735.5	713.2	685.9	10°	664.7
966.2	985.4	977.3	935.8	842.7	793.2	766.8	741.5	713.2	690.0	658.6	12.5°	638.3
908.5	910.5	915.5	914.5	831.6	783.1	756.8	730.4	705.1	682.9	655.6	15°	630.2
844.8	842.7	848.8	868.0	828.6	790.1	772.9	747.7	729.5	704.1	682.9	17.5°	654.6
787.1	784.1	790.1	809.4	816.4	807.3	800.3	785.0	770.9	754.7	737.5	20°	710.2
750.6	740.5	739.5	767.8	822.5	846.8	851.8	849.8	848.8	836.7	824.5	22.5°	793.2
730.4	719.3	724.4	756.8	847.8	893.3	916.6	924.6	935.8	935.8	935.8	25°	905.4
724.4	712.2	719.3	755.8	874.1	949.9	983.4	1003.6	1024.8	1033.9	1040.0	27.5°	1020.8
728.4	716.3	719.3	762.8	887.2	963.1	1002.6	1032.0	1065.3	1087.6	1102.7	30°	1087.6
751.7	730.4	728.4	784.1	911.6	992.5	1033.9	1067.3	1104.8	1130.1	1157.4	32.5°	1155.3
783.1	752.7	748.6	818.5	942.9	1029.9	1071.3	1100.7	1139.2	1173.5	1213.0	35°	1227.1
835.6	798.2	792.2	876.2	985.4	1061.2	1102.7	1141.2	1182.6	1227.1	1277.8	37.5°	1311.1
906.4	869.0	869.0	949.9	1043.0	1104.8	1150.3	1190.7	1236.2	1296.0	1357.7	40°	1411.3
986.4	962.1	966.2	1039.0	1108.8	1159.4	1202.9	1246.4	1293.9	1353.7	1425.5	42.5°	1494.2
1092.6	1079.4	1099.7	1151.3	1175.6	1209.9	1248.4	1286.9	1338.4	1400.1	1482.2	45°	1555.0
1217.0	1228.2	1256.5	1272.7	1243.4	1261.6	1291.9	1327.3	1388.0	1450.7	1531.7	47.5°	1610.6
1372.8	1402.2	1429.5	1425.5	1327.3	1321.2	1349.6	1376.9	1437.6	1509.5	1595.4	50°	1680.4
1551.9	1590.4	1609.6	1587.3	1421.4	1386.0	1409.2	1446.7	1513.5	1595.4	1691.6	52.5°	1774.5
1734.0	1780.5	1774.5	1749.1	1523.6	1476.0	1490.2	1534.7	1616.7	1709.8	1831.1	55°	1913.1
1898.9	1935.3	1951.5	1896.9	1648.0	1585.3	1601.5	1648.0	1735.0	1839.3	1963.7	57.5°	2044.6
2029.4	2068.9	2068.9	2015.2	1783.6	1710.8	1738.1	1783.6	1858.5	1961.6	2078.0	60°	2147.8
2124.6	2155.9	2144.7	2093.2	1899.9	1844.3	1865.6	1928.3	1996.1	2072.9	2165.0	62.5°	2200.4
2117.4	2120.5	2108.3	2089.1	1969.7	1963.7	2004.2	2052.7	2109.3	2138.7	2190.2	65°	2203.4
1918.1	1919.2	1943.4	1935.3	1917.1	1992.0	2044.6	2085.1	2134.6	2134.6	2128.6	67.5°	2134.6
1572.2	1588.3	1629.8	1617.7	1710.8	1864.5	1925.2	1987.0	2030.5	2030.5	1978.8	70°	1949.5
1196.9	1207.0	1256.5	1245.3	1371.9	1540.8	1674.4	1777.5	1820.0	1846.3	1780.5	72.5°	1637.9
871.0	870.0	891.3	875.1	1034.9	1223.1	1360.7	1489.2	1559.0	1581.3	1461.9	75°	1200.8
670.7	652.5	648.4	650.5	733.5	889.3	998.5	1080.4	1089.5	1092.6	931.7	77.5°	727.4
541.2	541.2	535.2	512.9	449.2	520.0	575.6	640.4	663.7	697.0	558.4	80°	409.7
432.0	414.8	384.4	340.9	288.4	307.5	333.9	358.1	397.6	411.7	339.9	82.5°	232.7
215.5	209.4	183.1	151.7	126.4	168.0	187.2	189.1	189.1	175.0	142.6	85°	95.1
1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.5°	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°	0.0



'228695
ISC-AF-450-LED-E1-SLR

TION (continued):

359°	360°
707.2	707.2
748.6	750.6
732.4	726.4
681.9	672.8
627.3	620.1
595.9	586.8
589.8	579.7
611.0	598.9
658.6	644.5
734.5	717.3
838.7	821.4
940.8	918.6
1013.7	991.4
1084.5	1058.2
1155.3	1129.0
1250.5	1227.1
1355.6	1322.3
1442.7	1411.3
1511.4	1479.1
1577.2	1544.9
1652.1	1629.8
1764.4	1745.2
1935.3	1908.0
2060.7	2048.7
2125.5	2110.3
2145.7	2120.5
2119.5	2081.0
2036.5	1992.0
1836.2	1777.5
1463.9	1424.5
987.4	964.1
567.5	537.2
325.8	315.7
183.1	193.2
47.6	52.6
0.0	0.0
0.0	0.0

(END OF REPORT)