

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: P228646

Luminaire Tested: **ISC-AF-450-LED-E1-SLR-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228646
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-8030-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) 3000K CCT, 80 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3465.2 lumens
Efficiency: N/A
Efficacy: 82.5 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: B0 - 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

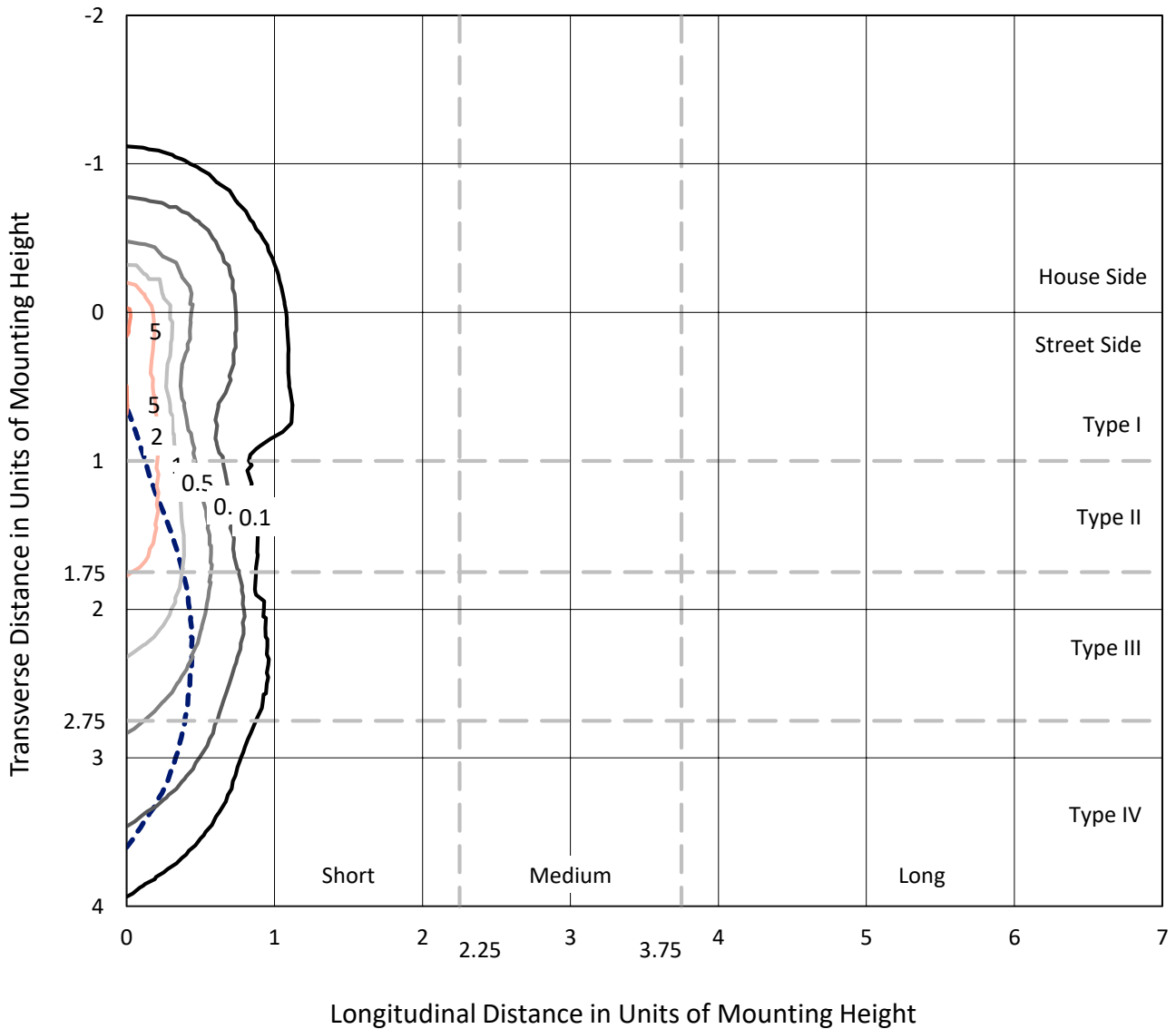


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

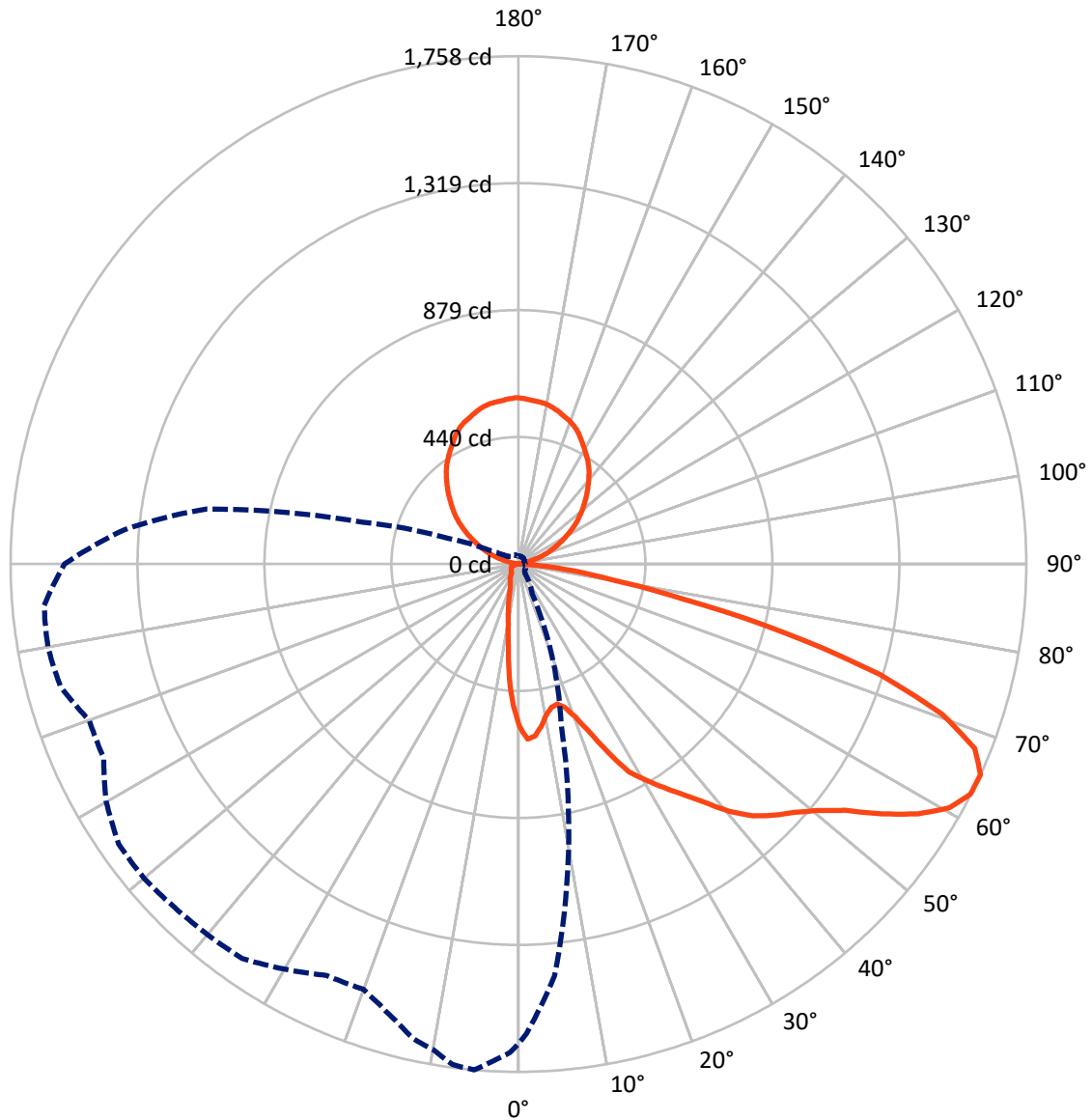


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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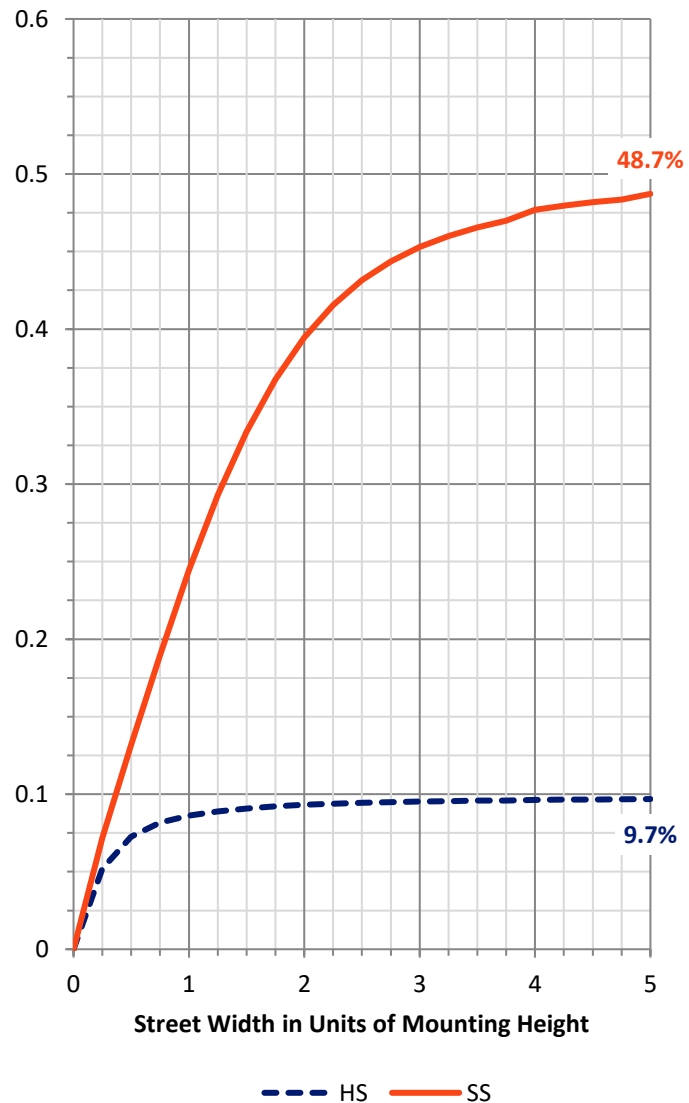
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	339.0	713.1	1052.1
	% Fixture	9.8	20.6	30.4
Street Side	Lumens	1700.0	713.1	2413.0
	% Fixture	49.1	20.6	69.6
Total	Lumens	2039.0	1426.2	3465.2
	% Fixture	58.8	41.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	1.3
10°-20°	89.3	2.6
20°-30°	129.8	3.7
30°-40°	192.0	5.5
40°-50°	279.7	8.1
50°-60°	419.3	12.1
60°-70°	522.4	15.1
70°-80°	306.0	8.8
80°-90°	57.2	1.7
90°-100°	4.7	0.1
100°-110°	69.0	2.0
110°-120°	153.0	4.4
120°-130°	223.9	6.5
130°-140°	265.6	7.7
140°-150°	269.3	7.8
150°-160°	231.1	6.7
160°-170°	155.1	4.5
170°-180°	54.3	1.6
0°-90°	2039.0	58.8
0°-180°	3465.2	100.0



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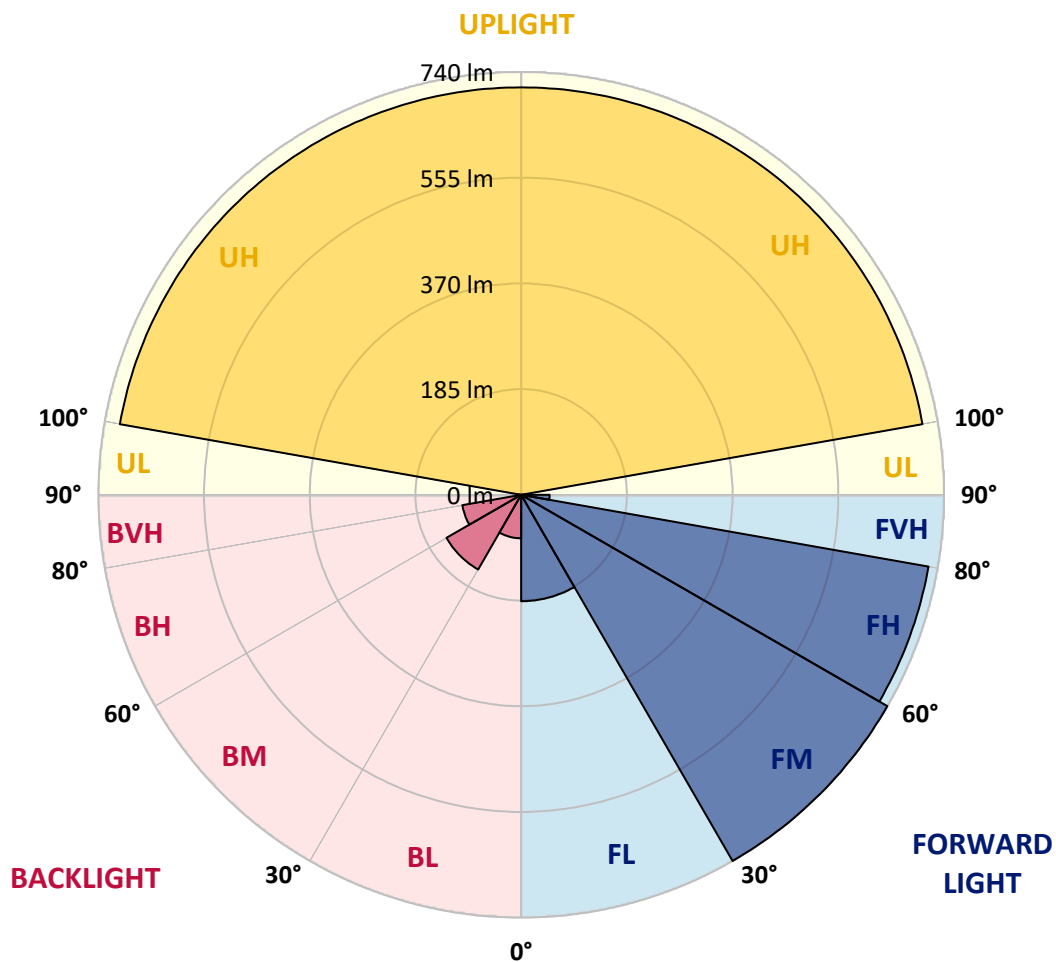
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	186.3	5.4			
FM	(30°-60°)	740.0	21.4			
FH	(60°-80°)	723.8	20.9			G1/1800
FVH	(80°-90°)	49.9	1.4			G1/100
BL	(0°-30°)	76.1	2.2	B0/110		
BM	(30°-60°)	150.9	4.4	B0/220		
BH	(60°-80°)	104.6	3.0	B0/110		G0/110
BVH	(80°-90°)	7.4	0.2			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	20.6		U4/1000	

BUG Rating: B0-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	599.0	594.1	584.5	565.1	544.9	525.5	522.3	515.0	515.8	511.8	510.2
5°	579.6	573.2	553.0	512.6	477.9	442.4	440.0	425.4	427.0	418.2	413.3
7.5°	536.8	527.9	505.3	449.6	401.2	354.4	349.5	332.6	330.2	321.3	314.0
10°	494.8	486.0	457.7	393.9	338.2	303.5	297.9	289.8	283.3	279.3	272.0
12.5°	468.2	463.4	429.5	356.0	312.4	284.2	276.9	268.8	262.4	255.1	247.8
15°	462.6	452.9	418.2	343.9	293.0	258.3	249.4	240.6	233.3	226.0	215.5
17.5°	477.9	468.2	429.5	338.2	271.2	229.3	218.0	205.9	198.6	189.7	178.4
20°	514.2	498.9	451.3	330.2	247.8	195.4	181.6	167.1	159.0	143.7	135.6
22.5°	572.3	553.0	488.4	330.2	226.0	159.8	144.5	131.6	122.7	109.0	100.1
25°	655.5	638.5	548.9	339.0	206.7	130.0	114.6	101.7	92.8	83.1	77.5
27.5°	733.0	706.3	613.5	352.0	191.3	109.0	93.6	83.1	76.7	71.8	68.6
30°	791.1	769.3	670.0	360.8	168.7	91.2	81.5	75.1	71.8	69.4	67.8
32.5°	844.4	819.4	710.4	366.5	155.0	77.5	68.6	63.8	60.5	57.3	56.5
35°	900.9	876.7	758.0	365.7	146.1	71.0	62.2	56.5	53.3	52.5	50.9
37.5°	979.2	946.1	812.9	365.7	142.9	68.6	58.1	52.5	50.0	48.4	47.6
40°	1055.1	1017.9	873.5	368.1	139.7	67.0	58.1	52.5	48.4	46.8	45.2
42.5°	1126.1	1085.0	928.3	372.1	138.0	62.2	54.9	51.7	50.0	46.8	44.4
45°	1180.2	1147.9	971.1	380.2	138.0	58.9	51.7	49.2	48.4	48.4	47.6
47.5°	1232.7	1196.4	1020.4	395.6	140.5	56.5	49.2	46.0	46.0	46.0	46.8
50°	1300.5	1257.7	1088.2	427.0	140.5	55.7	46.8	43.6	42.8	44.4	44.4
52.5°	1392.5	1361.8	1187.5	472.2	138.8	54.9	46.0	41.2	40.4	41.2	42.8
55°	1522.5	1487.8	1307.8	527.9	137.2	53.3	44.4	40.4	38.7	37.9	38.7
57.5°	1634.7	1604.8	1418.3	572.3	133.2	49.2	42.8	39.6	37.1	36.3	35.5
60°	1683.9	1658.9	1489.4	602.2	125.9	45.2	40.4	37.9	35.5	34.7	33.9
62.5°	1692.0	1660.5	1490.2	608.7	117.9	41.2	37.9	35.5	33.9	33.1	32.3
65°	1660.5	1625.0	1431.3	569.1	111.4	41.2	36.3	33.9	31.5	30.7	29.9
67.5°	1589.5	1534.6	1281.9	482.7	105.8	42.0	35.5	31.5	29.9	29.1	28.3
70°	1418.3	1357.0	1082.5	383.4	103.3	42.8	35.5	29.9	27.4	26.6	26.6
72.5°	1136.6	1066.4	844.4	289.0	99.3	43.6	34.7	28.3	25.8	24.2	24.2
75°	769.3	708.0	572.3	195.4	82.3	37.9	31.5	25.8	22.6	21.0	20.2
77.5°	428.7	408.5	364.1	103.3	52.5	28.3	24.2	21.0	18.6	17.8	17.0
80°	251.9	241.4	214.7	57.3	32.3	16.1	14.5	13.7	12.1	12.1	12.1
82.5°	154.2	143.7	133.2	25.8	15.3	8.1	8.1	6.5	6.5	5.7	5.7
85°	42.0	38.7	54.1	5.7	1.6	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



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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



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CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	503.7	502.1	502.1	490.0	490.0	483.5	481.9	481.9	484.4	482.7	473.1
5°	405.2	400.4	397.2	382.6	378.6	371.3	368.1	367.3	369.7	365.7	352.8
7.5°	305.1	301.1	296.3	285.0	280.1	279.3	269.6	267.2	265.6	262.4	254.3
10°	266.4	260.7	256.7	248.6	243.0	238.9	230.9	226.8	223.6	218.8	216.3
12.5°	239.8	234.1	228.5	218.0	210.7	205.9	201.0	192.9	189.7	184.1	180.8
15°	206.7	200.2	193.7	182.4	172.8	167.9	158.2	153.4	150.1	143.7	140.5
17.5°	166.3	157.4	150.1	139.7	134.8	126.7	121.1	113.0	106.6	104.1	101.7
20°	125.1	117.1	110.6	101.7	96.9	90.4	87.2	81.5	78.3	76.7	75.1
22.5°	92.0	85.6	81.5	76.7	74.3	71.8	70.2	68.6	67.0	66.2	66.2
25°	72.7	70.2	68.6	67.0	66.2	65.4	63.8	63.0	62.2	61.4	61.4
27.5°	66.2	64.6	63.8	63.0	62.2	60.5	60.5	58.9	58.1	58.1	57.3
30°	67.0	67.0	67.0	65.4	64.6	63.0	62.2	59.7	58.1	56.5	55.7
32.5°	54.9	54.9	54.1	52.5	51.7	50.9	50.9	49.2	48.4	48.4	50.0
35°	50.0	49.2	48.4	46.8	46.0	44.4	43.6	42.8	42.0	41.2	41.2
37.5°	47.6	46.8	46.0	44.4	43.6	42.8	42.0	40.4	39.6	39.6	38.7
40°	45.2	45.2	45.2	43.6	42.8	41.2	40.4	39.6	38.7	37.9	37.9
42.5°	43.6	43.6	43.6	42.8	42.0	41.2	39.6	38.7	37.9	37.1	36.3
45°	44.4	43.6	43.6	42.8	42.0	40.4	39.6	37.9	37.1	36.3	35.5
47.5°	47.6	46.8	45.2	43.6	42.0	40.4	38.7	37.1	36.3	35.5	34.7
50°	45.2	48.4	49.2	46.8	42.8	40.4	38.7	37.1	35.5	34.7	33.9
52.5°	44.4	45.2	48.4	48.4	44.4	41.2	38.7	37.1	35.5	33.9	33.1
55°	40.4	42.8	43.6	44.4	43.6	40.4	37.9	35.5	34.7	33.1	31.5
57.5°	35.5	37.1	37.9	39.6	40.4	39.6	36.3	33.9	33.1	31.5	29.9
60°	33.1	33.1	33.1	33.9	37.9	41.2	37.9	33.1	30.7	29.9	28.3
62.5°	30.7	30.7	29.9	30.7	31.5	35.5	34.7	31.5	29.9	29.1	27.4
65°	29.9	29.1	28.3	28.3	28.3	28.3	28.3	28.3	27.4	27.4	26.6
67.5°	27.4	26.6	26.6	25.8	25.8	25.8	25.8	25.8	25.0	25.0	24.2
70°	25.8	25.0	24.2	24.2	24.2	23.4	23.4	23.4	22.6	22.6	22.6
72.5°	23.4	22.6	22.6	22.6	21.8	21.8	21.8	21.0	21.0	20.2	20.2
75°	20.2	20.2	19.4	19.4	19.4	18.6	18.6	18.6	18.6	17.8	17.8
77.5°	17.0	16.1	17.0	16.1	16.1	16.1	16.1	16.1	15.3	15.3	14.5
80°	11.3	11.3	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	11.3
82.5°	6.5	5.7	6.5	6.5	6.5	7.3	7.3	8.1	7.3	7.3	6.5
85°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6
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



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CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-8030-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: P228646

CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-8030-ULG

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	477.9	477.1	469.0	470.6	468.2	463.4	464.2	465.0	466.6	463.4	461.8
5°	359.2	360.0	349.5	352.8	350.3	349.5	352.0	356.0	358.4	357.6	355.2
7.5°	255.1	255.9	247.0	246.2	243.8	243.0	246.2	250.2	252.7	251.9	252.7
10°	210.7	208.3	200.2	194.5	188.9	184.1	183.2	183.2	183.2	181.6	180.0
12.5°	174.4	171.9	162.3	157.4	152.6	146.1	145.3	144.5	142.1	139.7	136.4
15°	135.6	133.2	125.1	121.9	117.9	115.4	114.6	114.6	113.0	111.4	109.8
17.5°	98.5	96.9	92.0	88.8	88.0	88.8	89.6	91.2	92.0	92.8	92.8
20°	74.3	73.5	71.8	71.8	72.7	75.1	75.9	78.3	79.1	80.7	82.3
22.5°	65.4	65.4	64.6	64.6	66.2	68.6	70.2	71.0	71.8	72.7	72.7
25°	60.5	60.5	59.7	61.4	63.8	63.8	63.8	63.8	62.2	61.4	61.4
27.5°	57.3	57.3	57.3	58.1	57.3	56.5	56.5	56.5	55.7	55.7	54.9
30°	54.9	54.9	54.9	54.1	54.1	53.3	53.3	52.5	52.5	51.7	51.7
32.5°	50.9	49.2	50.9	49.2	49.2	48.4	49.2	49.2	47.6	47.6	47.6
35°	40.4	39.6	39.6	39.6	38.7	39.6	41.2	41.2	41.2	41.2	41.2
37.5°	37.9	37.9	37.1	36.3	36.3	35.5	36.3	35.5	35.5	35.5	36.3
40°	37.1	36.3	35.5	35.5	34.7	33.9	33.9	33.9	33.9	33.9	33.9
42.5°	35.5	35.5	33.9	33.1	33.1	32.3	32.3	32.3	32.3	32.3	32.3
45°	34.7	33.9	33.1	32.3	31.5	31.5	31.5	31.5	31.5	31.5	30.7
47.5°	33.9	33.1	32.3	31.5	30.7	29.9	29.9	29.9	29.9	29.9	29.9
50°	33.1	32.3	30.7	30.7	29.9	29.1	29.1	29.1	29.1	29.1	29.1
52.5°	31.5	31.5	29.9	29.1	28.3	28.3	28.3	28.3	28.3	28.3	28.3
55°	29.9	29.9	28.3	27.4	26.6	26.6	26.6	26.6	27.4	27.4	27.4
57.5°	29.1	28.3	26.6	26.6	25.0	25.0	25.0	25.8	25.8	26.6	26.6
60°	27.4	26.6	25.8	25.0	25.0	24.2	24.2	24.2	24.2	25.0	25.0
62.5°	26.6	25.8	24.2	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
65°	25.0	25.0	23.4	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6
67.5°	23.4	23.4	21.8	21.0	21.0	21.0	21.8	21.0	21.0	21.0	21.0
70°	21.8	21.0	20.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
72.5°	19.4	19.4	18.6	17.8	17.8	17.8	17.8	17.8	17.8	17.8	18.6
75°	17.0	16.1	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
77.5°	14.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.7
80°	10.5	9.7	9.7	9.7	9.7	10.5	10.5	10.5	10.5	10.5	10.5
82.5°	6.5	5.7	5.7	5.7	6.5	7.3	7.3	7.3	7.3	8.1	8.1
85°	1.6	1.6	1.6	1.6	3.2	4.0	4.0	4.0	4.8	4.0	4.0
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°	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



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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°



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 NUMBER: ISC-AF-450-LED-E1-SLR-8030-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION:

115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°	115°	115°
564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	112.5°	136.0
460.1	469.8	469.8	463.4	466.6	463.4	462.6	468.2	471.4	481.9	488.4	115°	158.0
356.0	368.1	368.9	365.7	369.7	367.3	369.7	377.0	382.6	389.9	396.4	117.5°	181.0
254.3	265.6	268.0	265.6	272.9	272.0	273.7	281.7	286.6	290.6	291.4	120°	204.0
179.2	180.8	187.3	185.7	190.5	189.7	192.1	198.6	205.0	207.5	209.1	122.5°	228.0
134.8	133.2	135.6	132.4	134.8	134.8	135.6	139.7	147.7	151.0	159.0	125°	254.0
109.0	107.4	107.4	105.8	105.8	104.9	105.8	109.0	114.6	119.5	125.9	127.5°	277.0
92.8	92.8	92.8	92.0	91.2	91.2	92.0	93.6	96.9	100.1	103.3	130°	301.0
83.1	84.8	85.6	86.4	87.2	88.0	88.8	91.2	90.4	87.2	83.1	132.5°	325.0
72.7	72.7	73.5	73.5	72.7	72.7	72.7	72.7	72.7	75.1	77.5	135°	348.0
60.5	60.5	60.5	61.4	60.5	60.5	61.4	61.4	62.2	63.8	66.2	137.5°	369.0
54.9	54.9	54.9	54.9	54.9	54.9	54.9	55.7	56.5	58.9	60.5	140°	390.0
50.9	50.9	50.0	50.0	50.0	49.2	50.0	50.0	50.9	54.1	56.5	142.5°	412.0
46.8	46.0	46.0	46.0	45.2	45.2	45.2	46.8	47.6	49.2	51.7	145°	433.0
41.2	41.2	41.2	42.0	42.0	42.0	42.0	43.6	43.6	44.4	44.4	147.5°	452.0
37.1	37.1	37.9	38.7	38.7	39.6	39.6	40.4	41.2	40.4	39.6	150°	469.0
33.9	34.7	34.7	36.3	36.3	36.3	37.1	37.9	38.7	37.1	37.1	152.5°	486.0
32.3	32.3	32.3	33.1	33.1	33.1	33.9	34.7	35.5	35.5	35.5	155°	503.0
30.7	30.7	30.7	31.5	30.7	30.7	30.7	31.5	33.1	33.1	33.9	157.5°	517.0
29.9	29.9	29.9	29.1	29.1	29.1	29.1	29.9	30.7	32.3	33.1	160°	530.0
29.1	28.3	28.3	28.3	28.3	28.3	28.3	29.1	29.9	30.7	32.3	162.5°	540.0
27.4	27.4	27.4	27.4	27.4	27.4	27.4	28.3	29.1	29.9	30.7	165°	550.0
27.4	27.4	26.6	26.6	27.4	27.4	27.4	28.3	29.1	29.9	29.9	167.5°	558.0
26.6	25.8	25.8	26.6	26.6	26.6	26.6	27.4	28.3	29.1	29.1	170°	564.0
25.0	25.0	25.0	25.0	25.8	25.8	26.6	27.4	27.4	28.3	28.3	172.5°	567.0
23.4	24.2	24.2	24.2	25.0	25.0	25.8	26.6	27.4	28.3	27.4	175°	570.0
22.6	23.4	23.4	23.4	24.2	24.2	24.2	25.8	26.6	26.6	27.4	177.5°	574.0
21.8	21.8	21.8	22.6	22.6	23.4	23.4	25.0	25.0	25.8	26.6	180°	576.0
20.2	20.2	20.2	21.0	21.0	21.8	22.6	23.4	23.4	24.2	25.0		
18.6	18.6	18.6	19.4	19.4	20.2	21.0	22.6	21.8	22.6	22.6		
16.1	16.1	17.0	17.0	17.8	18.6	19.4	19.4	19.4	19.4	19.4		
13.7	13.7	14.5	14.5	15.3	16.1	16.1	16.1	17.0	16.1	16.1		
11.3	11.3	12.1	12.1	12.1	12.1	12.9	12.1	12.9	12.1	12.9		
8.1	8.1	8.9	8.1	8.9	8.1	8.1	7.3	8.9	8.1	8.1		
3.2	4.0	4.0	4.0	4.0	3.2	3.2	2.4	3.2	3.2	2.4		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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		

'228646
 ISC-AF-450-LED-E1-SLR-8030-ULG

REPORT NUMBER: P228646
 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°	564.3	564.3
158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	151.0	149.0	2.5°	490.8	490.0
180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	174.0	172.0	5°	397.2	395.6
204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	198.0	196.0	7.5°	284.2	280.9
228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	223.0	221.0	10°	209.9	212.3
253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	248.0	247.0	12.5°	167.9	177.6
277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	272.0	270.0	15°	134.8	140.5
301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	294.0	293.0	17.5°	104.1	106.6
325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	318.0	317.0	20°	83.1	83.1
348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	341.0	339.0	22.5°	72.7	71.8
369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	364.0	363.0	25°	68.6	67.8
390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	386.0	385.0	27.5°	62.2	63.0
412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	407.0	408.0	30°	58.1	58.9
433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	428.0	428.0	32.5°	53.3	54.1
452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	448.0	447.0	35°	43.6	43.6
469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	465.0	464.0	37.5°	40.4	40.4
486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	482.0	483.0	40°	37.9	38.7
503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	501.0	502.0	42.5°	36.3	36.3
517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	516.0	517.0	45°	34.7	35.5
530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	529.0	529.0	47.5°	33.9	33.9
540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	538.0	539.0	50°	32.3	33.1
550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	548.0	549.0	52.5°	31.5	32.3
558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	558.0	559.0	55°	30.7	30.7
564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	565.0	566.0	57.5°	29.1	29.9
567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	567.0	569.0	60°	29.1	29.1
570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	569.0	570.0	62.5°	28.3	28.3
574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	574.0	575.0	65°	27.4	27.4
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	25.8	25.8
										70°	24.2	24.2
										72.5°	22.6	21.8
										75°	19.4	19.4
										77.5°	16.1	16.1
										80°	12.1	11.3
										82.5°	7.3	6.5
										85°	2.4	2.4
										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

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O-LED-E1-SLR-8030-ULG

tinued):

CANDELA DISTRIBUTION (continued):

185°	195°	205°	215°	225°	230°	235°	240°	245°		175°	180°	185°
564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	112.5°	124.0	124.0	124.0
502.1	511.0	516.6	538.4	548.1	560.2	565.9	574.0	582.0	115°	147.0	146.0	147.0
410.1	421.4	431.1	462.6	481.1	498.1	511.8	524.7	543.3	117.5°	170.0	169.0	170.0
290.6	300.3	313.2	347.1	379.4	402.0	422.2	444.0	468.2	120°	195.0	193.0	195.0
222.0	236.5	253.5	279.3	305.1	321.3	339.0	363.3	392.3	122.5°	220.0	219.0	220.0
185.7	203.4	223.6	252.7	280.1	293.0	305.9	318.1	333.4	125°	246.0	244.0	246.0
146.9	163.9	188.1	222.0	254.3	268.8	284.2	298.7	312.4	127.5°	269.0	267.0	269.0
109.8	121.9	143.7	184.1	219.6	238.1	255.9	276.1	294.6	130°	292.0	290.0	292.0
84.0	89.6	104.9	136.4	180.0	203.4	226.0	251.9	278.5	132.5°	314.0	313.0	314.0
72.7	75.1	82.3	100.9	140.5	167.9	197.0	229.3	262.4	135°	337.0	336.0	337.0
67.0	68.6	72.7	81.5	109.8	138.8	168.7	207.5	247.8	137.5°	360.0	359.0	360.0
63.8	65.4	68.6	73.5	91.2	113.0	146.1	188.9	237.3	140°	383.0	382.0	383.0
59.7	61.4	67.0	72.7	83.1	96.9	125.1	167.1	221.2	142.5°	406.0	404.0	406.0
54.9	55.7	57.3	63.8	71.0	82.3	106.6	147.7	204.2	145°	426.0	425.0	426.0
44.4	46.8	50.0	56.5	63.8	72.7	95.3	134.8	193.7	147.5°	444.0	444.0	444.0
41.2	43.6	46.8	52.5	58.9	67.0	90.4	130.0	184.1	150°	462.0	461.0	462.0
38.7	41.2	44.4	50.9	54.9	64.6	88.0	122.7	174.4	152.5°	480.0	479.0	480.0
37.1	39.6	43.6	48.4	54.1	63.0	81.5	116.2	168.7	155°	500.0	499.0	500.0
35.5	37.9	42.8	46.8	54.9	59.7	77.5	111.4	163.9	157.5°	515.0	513.0	515.0
34.7	37.1	42.0	47.6	53.3	56.5	73.5	107.4	159.8	160°	527.0	525.0	527.0
33.9	36.3	41.2	52.5	50.9	54.1	70.2	104.1	157.4	162.5°	536.0	535.0	536.0
33.1	35.5	41.2	53.3	49.2	50.9	67.8	100.9	155.8	165°	547.0	546.0	547.0
31.5	34.7	41.2	49.2	46.0	49.2	63.0	96.1	151.8	167.5°	556.0	555.0	556.0
30.7	33.1	40.4	45.2	43.6	46.8	58.1	88.0	146.1	170°	563.0	562.0	563.0
29.9	32.3	40.4	40.4	41.2	44.4	52.5	78.3	136.4	172.5°	566.0	565.0	566.0
29.1	32.3	41.2	36.3	38.7	42.0	48.4	70.2	124.3	175°	569.0	567.0	569.0
28.3	30.7	35.5	34.7	37.1	39.6	46.8	64.6	113.8	177.5°	573.0	572.0	573.0
26.6	29.1	31.5	32.3	35.5	37.9	46.0	63.8	104.1	180°	576.0	576.0	576.0
24.2	26.6	28.3	30.7	33.1	36.3	46.0	63.0	96.9				
22.6	24.2	25.8	27.4	29.9	33.9	45.2	63.8	93.6				
19.4	21.0	22.6	24.2	26.6	31.5	42.8	59.7	84.0				
15.3	17.8	19.4	20.2	22.6	27.4	37.1	50.9	67.8				
11.3	13.7	14.5	16.1	17.8	21.0	29.1	37.1	50.0				
6.5	8.9	9.7	10.5	13.7	15.3	19.4	24.2	33.9				
2.4	4.0	4.8	5.7	8.1	8.9	12.1	15.3	17.8				
0.0	0.0	0.0	0.0	1.6	2.4	4.0	4.8	4.0				
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
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				



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SLR-8030-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°	564.3	564.3	564.3	564.3
149.0	151.0	154.0	156.0	157.0	158.0	158.0	158.0	2.5°	591.7	599.8	610.3	620.0
172.0	174.0	177.0	179.0	179.5	180.0	180.5	181.0	5°	557.8	573.2	595.8	614.3
196.0	198.0	201.0	202.0	203.0	204.0	204.0	204.0	7.5°	489.2	510.2	538.4	564.3
221.0	223.0	226.0	227.0	227.5	228.0	228.0	228.0	10°	417.4	446.4	476.3	509.4
247.0	248.0	251.0	252.0	252.5	253.0	253.5	254.0	12.5°	358.4	391.5	425.4	466.6
270.0	272.0	274.0	276.0	277.0	278.0	277.5	277.0	15°	333.4	362.5	402.0	447.2
293.0	294.0	298.0	299.0	300.0	301.0	301.0	301.0	17.5°	322.9	360.0	405.2	452.9
317.0	318.0	321.0	322.0	323.5	325.0	325.0	325.0	20°	311.6	362.5	423.0	481.1
339.0	341.0	345.0	345.0	346.5	348.0	348.0	348.0	22.5°	305.1	370.5	445.6	527.1
363.0	364.0	367.0	367.0	368.0	369.0	369.0	369.0	25°	303.5	389.1	484.4	592.5
385.0	386.0	388.0	389.0	389.5	390.0	390.0	390.0	27.5°	305.1	410.1	532.8	662.8
408.0	407.0	410.0	410.0	411.0	412.0	412.0	412.0	30°	297.9	431.9	581.2	724.1
428.0	428.0	431.0	432.0	433.0	434.0	433.5	433.0	32.5°	285.8	448.0	624.0	773.4
447.0	448.0	452.0	453.0	453.5	454.0	453.0	452.0	35°	272.0	455.3	654.7	819.4
464.0	465.0	469.0	470.0	470.5	471.0	470.0	469.0	37.5°	257.5	456.1	683.7	867.8
483.0	482.0	485.0	486.0	486.5	487.0	486.5	486.0	40°	249.4	452.9	713.6	927.5
502.0	501.0	503.0	503.0	503.5	504.0	503.5	503.0	42.5°	246.2	447.2	735.4	972.7
517.0	516.0	519.0	519.0	519.0	519.0	518.0	517.0	45°	246.2	441.6	755.6	1006.6
529.0	529.0	532.0	532.0	532.0	532.0	531.0	530.0	47.5°	247.0	444.0	779.8	1061.5
539.0	538.0	541.0	541.0	541.5	542.0	541.0	540.0	50°	251.1	471.4	821.0	1122.1
549.0	548.0	552.0	552.0	552.5	553.0	551.5	550.0	52.5°	257.5	515.0	892.0	1193.9
559.0	558.0	561.0	560.0	560.0	560.0	559.0	558.0	55°	264.0	559.4	984.9	1314.2
566.0	565.0	567.0	566.0	565.5	565.0	564.5	564.0	57.5°	269.6	592.5	1075.3	1433.7
569.0	567.0	569.0	568.0	568.5	569.0	568.0	567.0	60°	275.3	618.4	1127.7	1487.0
570.0	569.0	572.0	572.0	572.5	573.0	571.5	570.0	62.5°	272.0	608.7	1142.3	1460.3
575.0	574.0	578.0	577.0	577.0	577.0	575.5	574.0	65°	259.9	557.8	1096.3	1368.3
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	226.8	469.0	955.0	1223.0
								70°	188.1	368.1	779.0	1041.4
								72.5°	158.2	275.3	599.0	806.4
								75°	131.6	194.5	421.4	555.4
								77.5°	97.7	132.4	305.1	388.3
								80°	65.4	81.5	194.5	271.2
								82.5°	39.6	47.6	112.2	189.7
								85°	21.8	29.9	68.6	124.3
								87.5°	5.7	6.5	15.3	5.7
								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



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JLG

CANDELA DISTRIBUTION (continued):

270°	275°	280°	285°	290°	295°	300°		250°	255°	260°	265°	270°
564.3	564.3	564.3	564.3	564.3	564.3	564.3	112.5°	135.5	135.0	136.0	137.0	135.0
627.2	633.7	641.8	641.8	651.5	654.7	661.1	115°	158.0	158.0	159.0	160.0	159.0
636.9	658.7	678.9	690.2	709.6	722.5	735.4	117.5°	180.5	180.0	181.0	182.0	180.0
597.4	632.9	666.0	696.7	729.0	756.4	776.6	120°	204.0	204.0	205.0	206.0	204.0
544.9	582.8	623.2	664.4	703.1	741.9	775.0	122.5°	228.5	229.0	231.0	233.0	232.0
507.8	548.1	595.8	631.3	671.6	710.4	742.7	125°	254.0	254.0	255.5	257.0	256.0
490.8	532.0	576.4	612.7	650.6	682.1	704.7	127.5°	277.5	278.0	279.5	281.0	278.0
499.7	549.7	589.3	620.0	648.2	662.8	666.0	130°	301.5	302.0	303.5	305.0	303.0
538.4	590.9	620.0	640.2	645.0	644.2	632.1	132.5°	325.5	326.0	327.5	329.0	327.0
599.0	660.3	680.5	676.5	656.3	630.5	610.3	135°	348.5	349.0	350.0	351.0	350.0
680.5	741.9	753.2	730.6	685.4	635.3	601.4	137.5°	369.5	370.0	372.0	374.0	372.0
766.1	829.1	825.0	791.1	726.5	656.3	602.2	140°	391.0	392.0	394.0	396.0	394.0
826.6	879.1	863.0	812.1	740.3	670.0	612.7	142.5°	412.5	413.0	414.5	416.0	415.0
889.6	929.2	900.1	845.2	770.9	699.1	640.2	145°	433.5	434.0	435.5	437.0	435.0
957.4	978.4	931.6	875.9	808.1	735.4	671.6	147.5°	452.5	453.0	454.5	456.0	453.0
1022.8	1031.7	963.9	904.1	837.9	772.5	714.4	150°	469.0	469.0	471.0	473.0	470.0
1093.0	1080.9	997.8	927.5	862.1	812.1	764.5	152.5°	486.0	486.0	487.5	489.0	486.0
1153.6	1126.9	1029.3	950.9	892.0	850.0	816.9	155°	503.5	504.0	505.5	507.0	505.0
1198.8	1164.1	1059.1	973.6	921.1	895.2	879.1	157.5°	517.5	518.0	520.5	523.0	520.0
1237.5	1199.6	1082.5	1006.6	961.4	951.8	957.4	160°	530.0	530.0	531.5	533.0	531.0
1286.0	1237.5	1114.0	1043.8	1016.3	1026.0	1058.3	162.5°	539.0	538.0	539.0	540.0	537.0
1361.0	1298.1	1166.5	1097.1	1084.1	1118.9	1180.2	165°	549.0	548.0	549.0	550.0	548.0
1482.1	1407.9	1259.3	1189.9	1174.6	1227.8	1315.8	167.5°	558.5	559.0	561.0	563.0	561.0
1587.1	1530.6	1382.0	1298.1	1291.6	1348.9	1445.0	170°	565.0	566.0	568.5	571.0	569.0
1634.7	1629.0	1508.8	1431.3	1421.6	1474.9	1566.1	172.5°	567.5	568.0	569.5	571.0	568.0
1630.7	1677.5	1612.1	1557.2	1524.1	1568.5	1657.3	175°	569.0	568.0	569.5	571.0	568.0
1571.7	1648.4	1654.1	1641.2	1581.4	1584.6	1647.6	177.5°	574.0	574.0	575.5	577.0	574.0
1456.3	1547.5	1642.8	1638.7	1562.8	1495.8	1508.8	180°	576.0	576.0	576.0	576.0	576.0
1292.4	1370.7	1522.5	1553.2	1445.0	1319.9	1260.9						
1035.7	1126.9	1352.2	1394.9	1247.2	1071.2	980.0						
714.4	834.7	1180.2	1184.2	1012.3	842.8	744.3						
490.8	594.1	954.2	964.7	803.2	639.3	554.6						
330.2	398.0	699.9	655.5	530.4	443.2	421.4						
208.3	247.8	440.0	410.9	349.5	319.7	327.7						
96.9	135.6	240.6	234.9	220.4	192.9	167.9						
2.4	7.3	46.8	30.7	30.7	17.8	6.5						
0.0	0.0	0.0	0.0	0.0	0.0	0.0						
0.0	0.0	0.0	0.0	0.0	0.0	0.0						
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						



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CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-8030-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°	564.3	564.3	564.3	564.3	564.3	564.3
160.0	159.0	158.0	158.0	158.0	158.0	2.5°	655.5	657.9	657.1	651.5	636.9	631.3
182.0	181.0	180.0	180.5	181.0	180.5	5°	734.6	738.6	733.8	720.1	682.9	665.2
206.0	205.0	204.0	204.0	204.0	204.0	7.5°	790.3	793.5	785.5	754.0	687.8	657.9
233.0	231.0	229.0	228.5	228.0	228.0	10°	800.8	808.1	799.2	754.0	677.3	640.2
257.0	255.5	254.0	254.0	254.0	253.5	12.5°	770.9	786.3	779.8	746.7	672.4	632.9
281.0	279.5	278.0	277.5	277.0	277.5	15°	724.9	726.5	730.6	729.8	663.6	624.8
305.0	303.5	302.0	301.5	301.0	301.0	17.5°	674.1	672.4	677.3	692.6	661.1	630.5
329.0	327.5	326.0	325.5	325.0	325.0	20°	628.0	625.6	630.5	645.8	651.5	644.2
351.0	350.0	349.0	348.5	348.0	348.0	22.5°	599.0	590.9	590.1	612.7	656.3	675.7
374.0	372.0	370.0	369.5	369.0	369.0	25°	582.8	574.0	578.0	603.8	676.5	712.8
396.0	394.0	392.0	391.0	390.0	390.0	27.5°	578.0	568.3	574.0	603.0	697.5	758.0
416.0	414.5	413.0	412.5	412.0	412.0	30°	581.2	571.5	574.0	608.7	708.0	768.5
437.0	435.5	434.0	433.5	433.0	433.5	32.5°	599.8	582.8	581.2	625.6	727.3	791.9
456.0	454.5	453.0	452.5	452.0	453.0	35°	624.8	600.6	597.4	653.1	752.4	821.8
473.0	471.0	469.0	469.0	469.0	470.0	37.5°	666.8	636.9	632.1	699.1	786.3	846.8
489.0	487.5	486.0	486.0	486.0	486.5	40°	723.3	693.4	693.4	758.0	832.3	881.5
507.0	505.5	504.0	503.5	503.0	503.5	42.5°	787.1	767.7	770.9	829.1	884.8	925.1
523.0	520.5	518.0	517.5	517.0	518.0	45°	871.8	861.3	877.5	918.7	938.0	965.5
533.0	531.5	530.0	530.0	530.0	531.0	47.5°	971.1	980.0	1002.6	1015.5	992.1	1006.6
540.0	539.0	538.0	539.0	540.0	541.0	50°	1095.4	1118.9	1140.7	1137.4	1059.1	1054.3
550.0	549.0	548.0	549.0	550.0	551.5	52.5°	1238.3	1269.0	1284.3	1266.6	1134.2	1105.9
563.0	561.0	559.0	558.5	558.0	559.0	55°	1383.6	1420.8	1415.9	1395.7	1215.7	1177.8
571.0	568.5	566.0	565.0	564.0	564.5	57.5°	1515.2	1544.3	1557.2	1513.6	1315.0	1265.0
571.0	569.5	568.0	567.5	567.0	568.0	60°	1619.4	1650.8	1650.8	1608.1	1423.2	1365.1
571.0	569.5	568.0	569.0	570.0	571.5	62.5°	1695.2	1720.3	1711.4	1670.2	1516.0	1471.6
577.0	575.5	574.0	574.0	574.0	575.5	65°	1689.6	1692.0	1682.3	1667.0	1571.7	1566.9
576.0	576.0	576.0	576.0	576.0	576.0	67.5°	1530.6	1531.4	1550.7	1544.3	1529.7	1589.5
						70°	1254.5	1267.4	1300.5	1290.8	1365.1	1487.8
						72.5°	955.0	963.1	1002.6	993.7	1094.6	1229.5
						75°	695.0	694.2	711.2	698.3	825.8	976.0
						77.5°	535.2	520.7	517.5	519.1	585.3	709.6
						80°	431.9	431.9	427.0	409.3	358.4	414.9
						82.5°	344.7	331.0	306.8	272.0	230.1	245.4
						85°	171.9	167.1	146.1	121.1	100.9	134.0
						87.5°	0.8	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



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CANDELA DISTRIBUTION (continued):

342.5°	345°	347.5°	350°	352.5°		305°	310°	315°	325°	335°	340°	342.5°
564.3	564.3	564.3	564.3	564.3	112.5°	136.0	135.0	134.0	132.0	129.0	127.5	126.8
628.9	622.4	615.1	615.1	608.7	115°	158.0	157.0	156.0	154.0	151.0	150.0	149.5
654.7	641.8	631.3	621.6	611.9	117.5°	180.0	179.5	179.0	177.0	174.0	173.0	172.5
641.8	626.4	613.5	596.6	581.2	120°	204.0	203.0	202.0	201.0	198.0	197.0	196.5
622.4	605.4	586.9	569.1	547.3	122.5°	228.0	227.5	227.0	226.0	223.0	222.0	221.5
611.9	591.7	569.1	550.5	525.5	125°	253.0	252.5	252.0	251.0	248.0	247.5	247.2
603.8	582.8	562.7	544.9	523.1	127.5°	278.0	277.0	276.0	274.0	272.0	271.0	270.5
616.7	596.6	582.0	561.9	544.9	130°	301.0	300.0	299.0	298.0	294.0	293.5	293.2
638.5	626.4	615.1	602.2	588.5	132.5°	325.0	323.5	322.0	321.0	318.0	317.5	317.2
679.7	678.1	677.3	667.6	657.9	135°	348.0	346.5	345.0	345.0	341.0	340.0	339.5
731.4	737.8	746.7	746.7	746.7	137.5°	369.0	368.0	367.0	367.0	364.0	363.5	363.2
784.7	800.8	817.8	825.0	829.9	140°	390.0	389.5	389.0	388.0	386.0	385.5	385.2
800.0	823.4	850.0	867.8	879.9	142.5°	412.0	411.0	410.0	410.0	407.0	407.5	407.8
825.0	851.7	881.5	901.7	923.5	145°	434.0	433.0	432.0	431.0	428.0	428.0	428.0
854.9	878.3	909.0	936.4	967.9	147.5°	454.0	453.5	453.0	452.0	448.0	447.5	447.2
879.9	910.6	943.7	979.2	1019.6	150°	471.0	470.5	470.0	469.0	465.0	464.5	464.2
917.8	950.1	986.5	1034.1	1083.3	152.5°	487.0	486.5	486.0	485.0	482.0	482.5	482.8
959.8	994.5	1032.5	1080.1	1137.4	155°	504.0	503.5	503.0	503.0	501.0	501.5	501.8
996.2	1026.8	1068.0	1117.2	1182.6	157.5°	519.0	519.0	519.0	519.0	516.0	516.5	516.8
1030.9	1059.1	1107.6	1157.6	1222.2	160°	532.0	532.0	532.0	532.0	529.0	529.0	529.0
1076.9	1098.7	1147.1	1204.4	1273.0	162.5°	542.0	541.5	541.0	541.0	538.0	538.5	538.8
1124.5	1154.4	1207.7	1273.0	1349.7	165°	553.0	552.5	552.0	552.0	548.0	548.5	548.8
1189.1	1224.6	1290.0	1364.3	1461.1	167.5°	560.0	560.0	560.0	561.0	558.0	558.5	558.8
1277.9	1315.0	1384.4	1467.6	1566.9	170°	565.0	565.5	566.0	567.0	565.0	565.5	565.8
1386.9	1423.2	1482.9	1565.3	1658.1	172.5°	569.0	568.5	568.0	569.0	567.0	568.0	568.5
1488.6	1538.6	1592.7	1654.1	1727.5	175°	573.0	572.5	572.0	572.0	569.0	569.5	569.8
1599.2	1637.9	1683.1	1706.5	1747.7	177.5°	577.0	577.0	577.0	578.0	574.0	574.5	574.8
1631.5	1663.8	1703.3	1703.3	1698.5	180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0
1536.2	1585.5	1620.2	1620.2	1579.0								
1336.0	1418.3	1452.3	1473.2	1420.8								
1085.8	1188.3	1244.0	1261.7	1166.5								
796.8	862.1	869.4	871.8	743.5								
459.3	511.0	529.6	556.2	445.6								
266.4	285.8	317.3	328.6	271.2								
149.3	151.0	151.0	139.7	113.8								
0.0	0.0	0.0	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								

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 CATALOG NUMBER: ISC-AF-450-LED-E1-SLR-8030-ULG

CANDELA DISTRIBUTION (continued):

345°	347.5°	350°	352.5°		355°	359°	360°
126.0	125.5	125.0	124.5	0°	564.3	564.3	564.3
149.0	148.5	148.0	147.5	2.5°	607.1	597.4	599.0
172.0	171.5	171.0	170.5	5°	598.2	584.5	579.6
196.0	195.8	195.5	195.2	7.5°	567.5	544.1	536.8
221.0	220.8	220.5	220.2	10°	530.4	500.5	494.8
247.0	246.8	246.5	246.2	12.5°	509.4	475.5	468.2
270.0	269.8	269.5	269.2	15°	502.9	470.6	462.6
293.0	292.8	292.5	292.2	17.5°	522.3	487.6	477.9
317.0	316.2	315.5	314.8	20°	566.7	525.5	514.2
339.0	338.5	338.0	337.5	22.5°	632.9	586.1	572.3
363.0	362.2	361.5	360.8	25°	722.5	669.2	655.5
385.0	384.5	384.0	383.5	27.5°	814.5	750.7	733.0
408.0	407.5	407.0	406.5	30°	867.8	808.9	791.1
428.0	427.5	427.0	426.5	32.5°	921.9	865.4	844.4
447.0	446.2	445.5	444.8	35°	979.2	921.9	900.9
464.0	463.5	463.0	462.5	37.5°	1046.2	997.8	979.2
483.0	482.2	481.5	480.8	40°	1126.1	1081.7	1055.1
502.0	501.5	501.0	500.5	42.5°	1192.3	1151.1	1126.1
517.0	516.5	516.0	515.5	45°	1240.8	1206.0	1180.2
529.0	528.5	528.0	527.5	47.5°	1285.2	1258.5	1232.7
539.0	538.2	537.5	536.8	50°	1340.9	1318.2	1300.5
549.0	548.5	548.0	547.5	52.5°	1415.9	1407.9	1392.5
559.0	558.2	557.5	556.8	55°	1526.5	1544.3	1522.5
566.0	565.2	564.5	563.8	57.5°	1631.5	1644.4	1634.7
569.0	568.2	567.5	566.8	60°	1713.8	1696.0	1683.9
570.0	569.8	569.5	569.2	62.5°	1755.8	1712.2	1692.0
575.0	574.5	574.0	573.5	65°	1758.2	1691.2	1660.5
576.0	576.0	576.0	576.0	67.5°	1703.3	1625.0	1589.5
				70°	1555.6	1465.2	1418.3
				72.5°	1306.9	1168.1	1136.6
				75°	958.2	787.9	769.3
				77.5°	580.4	452.9	428.7
				80°	326.9	259.9	251.9
				82.5°	185.7	146.1	154.2
				85°	75.9	37.9	42.0
				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

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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)