

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: P228775

Luminaire Tested: **ISC-AF-450-LED-E1-RW-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228775
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)-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-RW-ULG
Description: IMPACT ELITE LED CYLINDER LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I, WITH UPLIGHT
GLOW
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4515.5 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B2 - U5 - G2

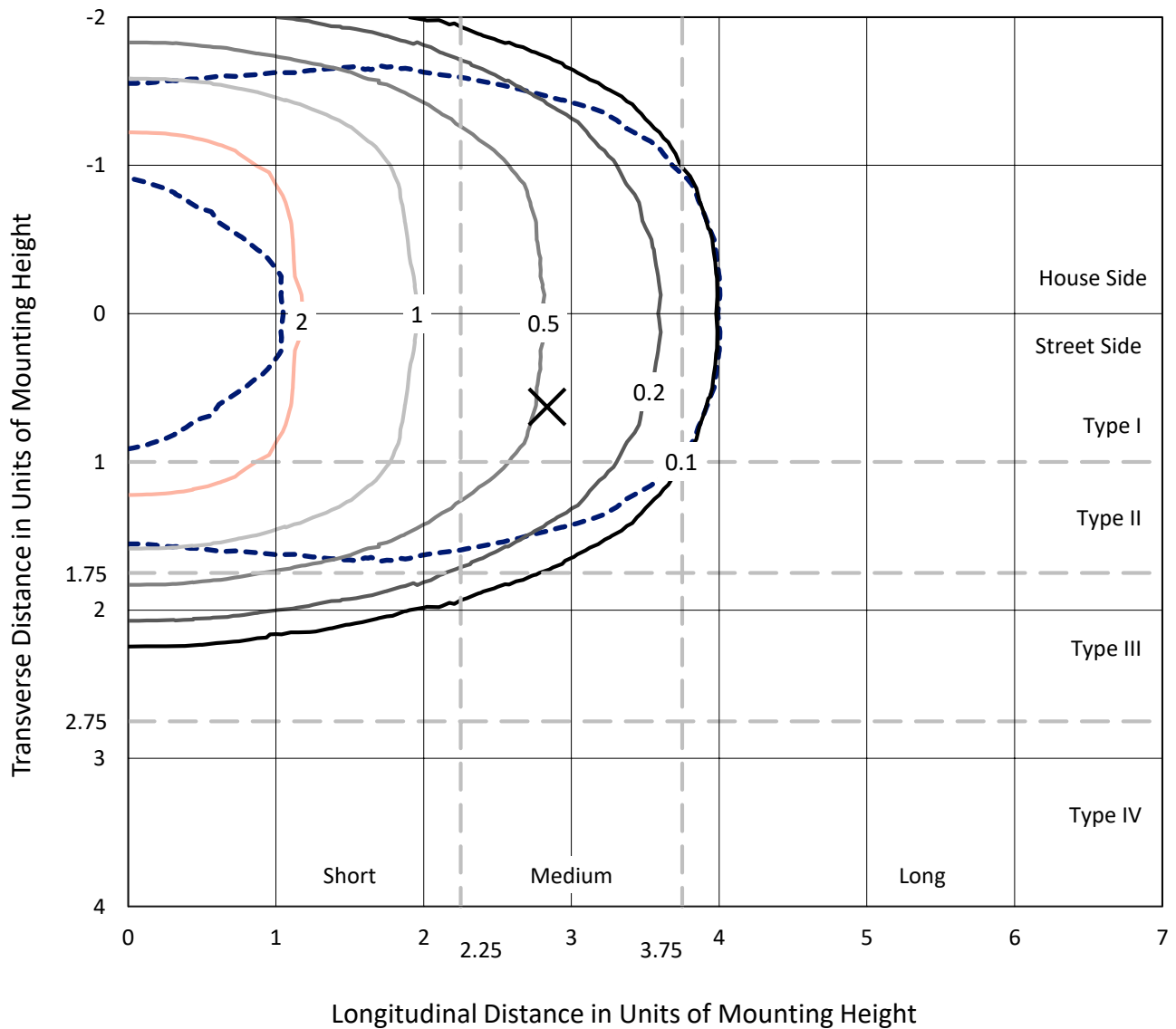
Input Watts (W): 42.01
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

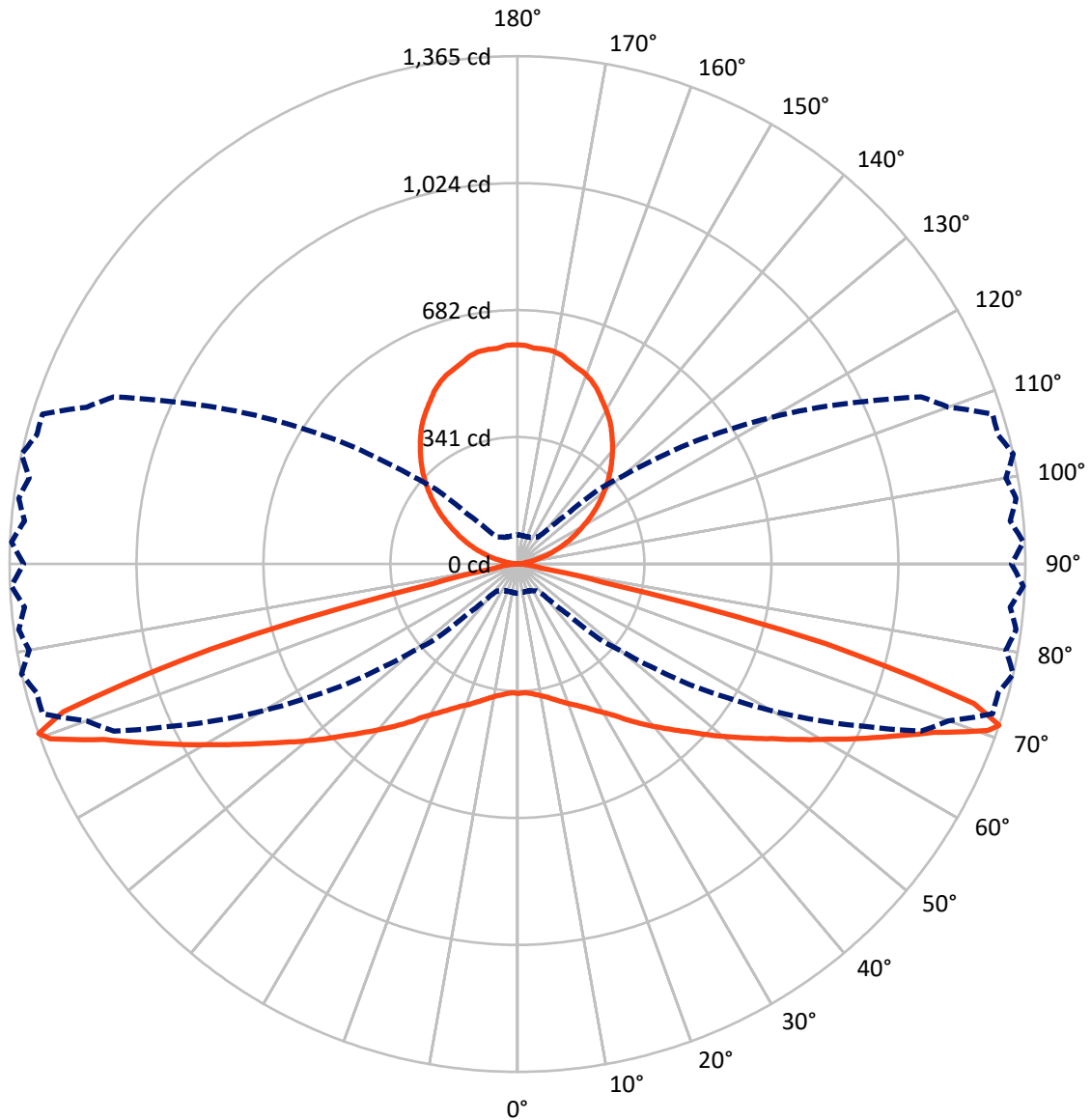
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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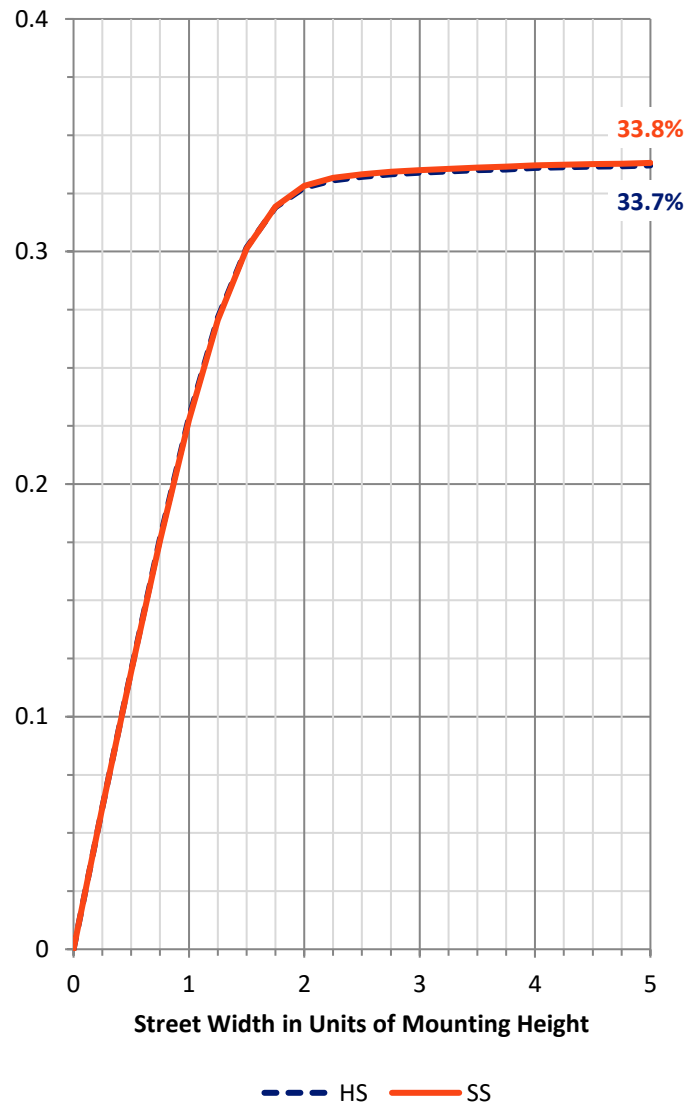
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1528.3	729.4	2257.7
	% Fixture	33.8	16.2	50.0
Street Side	Lumens	1528.3	729.4	2257.7
	% Fixture	33.8	16.2	50.0
Total	Lumens	3056.6	1458.9	4515.5
	% Fixture	67.7	32.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.6	0.7
10°-20°	105.1	2.3
20°-30°	196.6	4.4
30°-40°	342.2	7.6
40°-50°	558.4	12.4
50°-60°	770.6	17.1
60°-70°	731.0	16.2
70°-80°	300.9	6.7
80°-90°	18.2	0.4
90°-100°	4.8	0.1
100°-110°	70.6	1.6
110°-120°	156.6	3.5
120°-130°	229.0	5.1
130°-140°	271.7	6.0
140°-150°	275.5	6.1
150°-160°	236.4	5.2
160°-170°	158.7	3.5
170°-180°	55.6	1.2
0°-90°	3056.6	67.7
0°-180°	4515.5	100.0



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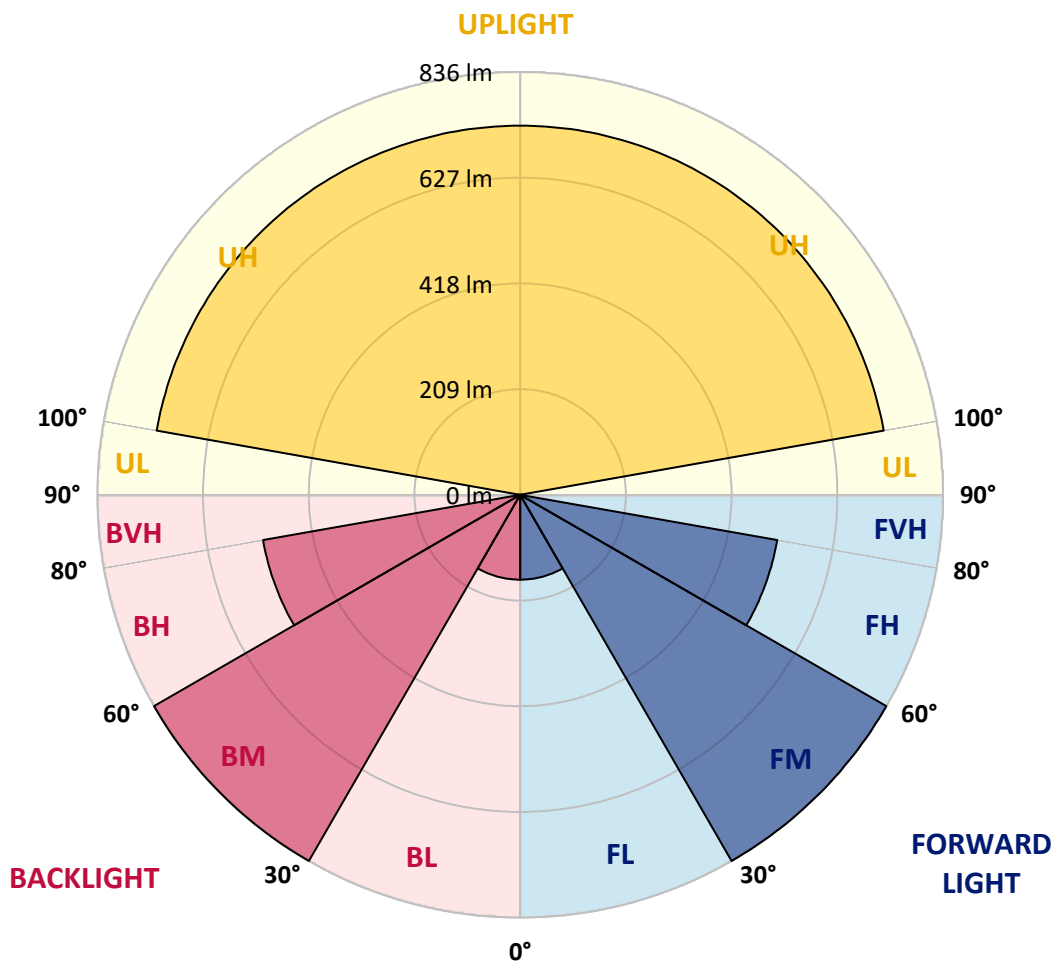
CATALOG NUMBER: ISC-AF-450-LED-E1-RW-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	167.7	3.7			
FM (30°-60°)	835.6	18.5			
FH (60°-80°)	515.9	11.4			G0/660
FVH (80°-90°)	9.1	0.2			G0/10
BL (0°-30°)	167.7	3.7	B1/500		
BM (30°-60°)	835.6	18.5	B1/1000		
BH (60°-80°)	515.9	11.4	B2/1000		G2/1000
BVH (80°-90°)	9.1	0.2			G0/10
UL (90°-100°)	4.8	0.1		U1/10	
UH (100°-180°)	729.4	16.2		U4/1000	

BUG Rating: B2-U5-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	347.0	346.1	347.0	347.0	348.0	348.0	348.0	348.0	347.0	349.0	349.0
5°	347.0	347.0	348.0	348.0	350.1	352.1	349.0	350.1	351.1	350.1	352.1
7.5°	347.0	347.0	347.0	349.0	352.1	354.1	352.1	353.1	355.2	355.2	357.1
10°	344.0	343.0	345.0	349.0	354.1	357.1	356.1	360.2	359.2	360.2	362.2
12.5°	338.9	338.9	343.0	349.0	358.1	360.2	361.2	363.2	366.2	365.3	368.3
15°	339.9	340.9	345.0	353.1	364.3	366.2	367.2	367.2	372.4	370.3	376.3
17.5°	347.0	348.0	352.1	360.2	373.4	373.4	374.4	376.3	383.5	379.4	387.5
20°	358.1	359.2	363.2	372.4	384.4	383.5	385.4	387.5	396.6	392.6	400.7
22.5°	371.3	373.4	378.4	388.5	401.7	395.6	399.7	403.7	412.8	405.7	416.9
25°	389.5	392.6	397.6	408.8	422.9	415.8	419.9	422.9	433.0	422.9	434.0
27.5°	415.8	417.9	421.9	434.0	446.2	441.1	443.1	445.2	457.4	446.2	458.3
30°	447.2	450.2	454.3	465.4	477.5	469.4	473.5	475.6	485.6	474.5	484.7
32.5°	486.6	489.7	494.8	504.8	515.0	502.9	503.9	506.9	517.0	505.8	517.0
35°	533.2	535.2	542.3	554.4	561.5	542.3	543.3	543.3	556.5	541.2	553.4
37.5°	581.8	583.8	591.9	604.1	612.1	590.9	590.9	591.9	604.1	586.9	597.9
40°	632.4	638.4	647.5	659.7	665.7	641.5	643.4	642.5	656.6	636.4	647.5
42.5°	682.9	688.0	701.1	715.3	722.4	698.2	699.1	696.1	710.2	689.0	698.2
45°	726.4	730.5	746.7	766.9	778.1	752.8	752.8	752.8	766.9	740.6	751.8
47.5°	761.9	764.9	782.0	811.4	829.6	804.3	806.4	802.3	823.6	791.2	806.4
50°	787.2	788.2	810.4	843.8	875.1	851.9	855.0	856.9	877.2	848.8	862.0
52.5°	795.2	797.3	822.6	863.1	908.6	893.3	904.5	908.6	926.8	896.4	914.6
55°	766.9	772.0	810.4	870.1	931.8	926.8	939.9	948.0	971.3	946.0	965.3
57.5°	671.8	677.9	731.5	829.6	936.9	945.0	963.2	976.3	1009.8	994.5	1015.8
60°	536.2	541.2	596.0	714.3	873.2	922.7	964.2	1001.7	1036.0	1039.1	1066.4
62.5°	368.3	375.3	428.0	541.2	734.6	800.3	860.0	921.7	979.4	1049.2	1084.6
65°	180.1	184.1	228.6	337.9	539.3	623.3	693.0	780.1	833.7	933.9	991.5
67.5°	99.1	99.1	106.3	140.7	288.4	371.3	446.2	555.5	610.1	733.6	807.4
70°	83.0	83.0	80.9	86.0	109.3	129.5	168.0	230.7	306.6	431.0	497.8
71°	78.9	77.9	76.9	78.9	88.0	92.1	108.2	141.7	192.2	297.5	363.2
72.5°	73.9	71.8	68.8	69.8	74.9	74.9	77.9	83.0	102.2	139.6	187.2
75°	63.7	61.7	58.7	58.7	59.7	60.7	61.7	63.7	64.8	66.8	74.9
77.5°	52.6	50.6	47.6	47.6	46.5	47.6	49.6	50.6	48.6	52.6	53.6
80°	40.5	37.4	36.4	36.4	35.4	34.4	34.4	34.4	35.4	37.4	38.5
82.5°	25.3	23.2	24.2	23.2	22.3	22.3	22.3	22.3	23.2	23.2	25.3
85°	12.2	12.2	13.2	12.2	10.1	10.1	9.1	8.1	9.1	8.1	10.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
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	3.1	4.1	5.3	6.6	8.0	9.2	10.2	11.3
100°	8.2	8.2	10.2	14.3	22.5	24.6	26.6	28.6	30.7	31.2	31.7
102.5°	28.6	28.6	32.7	38.9	46.0	47.3	48.6	49.9	51.1	51.4	51.7
105°	55.2	55.2	57.3	62.4	67.5	68.5	69.6	70.6	71.6	71.8	72.1
107.5°	79.8	78.8	81.8	85.9	90.0	90.8	91.6	92.3	93.1	93.6	94.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
110°	103.3	104.3	105.4	108.4	112.5	113.0	113.5	114.1	114.6	115.1	115.6
112.5°	126.8	126.8	128.9	132.0	135.0	135.5	136.1	136.6	137.1	137.6	138.1
115°	149.4	150.4	152.4	154.5	157.5	158.0	158.6	159.1	159.6	160.1	160.6
117.5°	172.9	173.9	175.9	178.0	181.1	181.6	182.1	182.6	183.1	183.3	183.6
120°	197.4	199.5	200.5	202.5	205.6	205.8	206.1	206.4	206.6	207.1	207.7
122.5°	224.0	225.0	226.1	228.1	231.2	231.4	231.7	232.0	232.2	232.4	232.7
125°	249.6	251.6	252.7	253.7	256.8	257.0	257.3	257.6	257.8	258.0	258.3
127.5°	273.1	275.2	276.2	278.2	280.3	280.8	281.3	281.8	282.3	282.8	283.4
130°	296.7	298.7	299.7	300.7	304.8	305.0	305.4	305.7	305.9	306.4	306.9
132.5°	320.2	321.2	324.3	325.3	328.4	328.6	328.9	329.2	329.4	330.2	330.9
135°	343.7	344.7	346.8	348.8	352.9	352.9	352.9	352.9	352.9	353.7	354.5
137.5°	367.2	368.3	371.3	372.4	375.4	375.4	375.4	375.4	375.4	375.9	376.4
140°	390.8	391.8	393.8	394.9	396.9	397.1	397.4	397.7	397.9	398.1	398.4
142.5°	413.3	415.3	417.4	416.3	419.4	419.4	419.4	419.4	419.4	419.9	420.4
145°	434.8	435.8	437.8	437.8	440.9	441.1	441.4	441.7	441.9	442.4	442.9
147.5°	454.2	454.2	457.3	458.3	462.4	462.6	462.9	463.2	463.4	463.6	463.9
150°	471.6	472.6	474.6	475.7	479.8	480.0	480.3	480.6	480.8	481.0	481.3
152.5°	490.0	491.0	494.1	493.1	496.1	496.3	496.6	496.9	497.2	497.4	497.7
155°	510.5	511.5	513.5	512.5	514.5	514.5	514.5	514.5	514.5	514.7	515.1
157.5°	524.8	526.8	528.9	527.8	530.9	530.9	530.9	530.9	530.9	530.9	530.9
160°	537.0	539.1	541.1	541.1	544.2	544.2	544.2	544.2	544.2	544.2	544.2
162.5°	547.3	548.3	551.4	550.3	553.4	553.4	553.4	553.4	553.4	553.6	553.9
165°	558.5	559.6	561.6	560.6	564.7	564.7	564.7	564.7	564.7	564.9	565.2
167.5°	567.7	568.8	571.8	570.8	573.9	573.7	573.4	573.1	572.9	572.9	572.9
170°	574.9	575.9	579.0	578.0	580.0	579.8	579.5	579.2	579.0	578.8	578.5
172.5°	578.0	579.0	582.1	580.0	582.1	581.9	581.5	581.2	581.0	581.2	581.5
175°	580.0	582.1	583.1	582.1	585.1	585.1	585.1	585.1	585.1	585.3	585.6
177.5°	585.1	586.2	588.2	587.2	591.3	591.1	590.8	590.4	590.2	590.2	590.2
180°	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
0°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	346.1	348.0	347.0	348.0	346.1	348.0	345.0	348.0	347.0	348.0	346.1
5°	349.0	352.1	349.0	353.1	349.0	353.1	349.0	353.1	350.1	353.1	349.0
7.5°	352.1	358.1	354.1	359.2	354.1	360.2	354.1	360.2	356.1	361.2	354.1
10°	358.1	365.3	359.2	365.3	359.2	366.2	359.2	367.2	361.2	369.3	360.2
12.5°	363.2	371.3	365.3	373.4	364.3	375.3	366.2	378.4	368.3	380.4	368.3
15°	370.3	380.4	374.4	383.5	374.4	386.5	375.3	389.5	378.4	391.6	378.4
17.5°	380.4	391.6	383.5	394.6	384.4	397.6	385.4	400.7	389.5	402.6	389.5
20°	394.6	403.7	395.6	407.7	396.6	408.8	398.6	410.8	401.7	413.8	401.7
22.5°	410.8	418.9	412.8	419.9	409.8	419.9	409.8	419.9	412.8	422.9	412.8
25°	429.0	435.1	428.0	435.1	426.0	434.0	424.9	433.0	426.0	435.1	428.0
27.5°	453.3	456.3	448.3	454.3	443.1	451.2	441.1	449.2	442.1	450.2	445.2
30°	479.6	482.6	474.5	478.5	466.5	471.5	460.3	467.4	461.4	467.4	464.4
32.5°	508.9	513.0	503.9	505.8	495.7	496.7	487.6	490.7	485.6	487.6	486.6
35°	542.3	547.4	537.3	540.3	529.2	529.2	521.1	520.1	518.0	516.0	516.0
37.5°	584.8	586.9	578.7	578.7	565.6	565.6	555.5	555.5	551.4	547.4	545.3
40°	631.4	632.4	619.2	618.2	605.1	605.1	593.9	590.9	583.8	578.7	575.7
42.5°	680.9	679.9	660.7	662.7	643.4	644.5	630.3	627.3	620.2	614.2	608.0
45°	731.5	727.4	708.2	707.3	685.0	686.0	668.8	666.8	656.6	650.6	643.4
47.5°	783.1	781.1	759.8	754.7	731.5	730.5	708.2	708.2	698.2	692.0	685.0
50°	836.8	835.8	811.4	808.4	784.1	780.1	753.7	753.7	741.6	739.6	729.5
52.5°	895.4	891.4	865.0	864.1	840.8	837.7	809.4	807.4	789.2	788.2	777.0
55°	953.1	946.0	928.8	920.7	897.4	896.4	871.1	866.0	842.8	842.8	828.6
57.5°	1005.7	999.6	985.4	978.4	956.2	953.1	925.8	925.8	905.5	904.5	889.4
60°	1060.3	1062.3	1047.2	1044.1	1022.8	1021.9	994.5	994.5	974.4	973.3	956.2
62.5°	1106.8	1127.1	1121.1	1123.1	1104.9	1101.8	1074.5	1072.5	1049.2	1046.2	1032.0
65°	1061.3	1132.2	1177.7	1208.0	1206.1	1205.0	1178.7	1174.7	1145.3	1137.2	1114.0
67.5°	891.4	983.5	1066.4	1157.5	1224.3	1274.8	1290.0	1283.9	1258.6	1235.3	1207.0
70°	596.9	703.2	808.4	921.7	1036.0	1147.3	1261.7	1311.2	1363.9	1345.6	1340.6
71°	454.3	563.5	668.8	788.2	909.6	1033.0	1173.6	1232.3	1338.5	1337.5	1364.8
72.5°	255.9	353.1	465.4	569.6	683.9	811.4	956.2	1020.9	1173.6	1204.0	1282.9
75°	81.9	112.3	148.7	234.8	305.6	421.9	529.2	593.9	695.1	745.6	855.9
77.5°	54.6	60.7	62.7	72.8	81.9	116.3	157.8	193.2	212.5	222.6	233.7
80°	39.5	42.5	44.5	49.6	50.6	56.7	56.7	62.7	61.7	65.8	62.7
82.5°	25.3	28.3	29.4	31.4	32.3	36.4	38.5	42.5	42.5	44.5	43.5
85°	12.2	14.1	14.1	16.2	16.2	19.2	19.2	22.3	22.3	25.3	24.2
87.5°	1.0	1.0	1.0	2.0	2.0	2.0	3.1	4.1	4.1	4.1	4.1
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°	12.3	13.3	11.8	10.2	8.7	7.2	6.6	6.1	5.6	5.1	4.9
100°	32.2	32.7	32.2	31.7	31.2	30.7	29.9	29.2	28.4	27.6	27.4
102.5°	52.0	52.2	52.0	51.7	51.4	51.1	50.6	50.1	49.6	49.1	49.3
105°	72.4	72.6	72.6	72.6	72.6	72.6	72.1	71.6	71.1	70.6	71.1
107.5°	94.6	95.1	94.9	94.6	94.3	94.1	93.9	93.6	93.3	93.1	93.3



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CATALOG NUMBER: ISC-AF-450-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
110°	116.1	116.6	116.6	116.6	116.6	116.6	116.4	116.1	115.8	115.6	115.8
112.5°	138.6	139.1	139.1	139.1	139.1	139.1	138.9	138.6	138.3	138.1	138.6
115°	161.1	161.6	161.6	161.6	161.6	161.6	161.6	161.6	161.6	161.6	162.1
117.5°	183.9	184.1	184.3	184.6	184.9	185.2	184.9	184.6	184.3	184.1	184.6
120°	208.2	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	209.2
122.5°	233.0	233.2	233.2	233.2	233.2	233.2	233.4	233.7	234.1	234.3	235.3
125°	258.6	258.8	259.0	259.3	259.6	259.8	259.8	259.8	259.8	259.8	260.6
127.5°	283.9	284.4	284.2	283.9	283.6	283.4	283.6	283.9	284.2	284.4	285.2
130°	307.4	307.9	307.9	307.9	307.9	307.9	308.1	308.4	308.7	308.9	309.7
132.5°	331.6	332.5	332.5	332.5	332.5	332.5	332.7	333.0	333.3	333.5	334.3
135°	355.2	356.0	356.0	356.0	356.0	356.0	356.2	356.5	356.8	357.0	357.5
137.5°	377.0	377.5	377.5	377.5	377.5	377.5	377.7	378.0	378.3	378.5	379.5
140°	398.7	399.0	399.0	399.0	399.0	399.0	399.5	400.0	400.5	401.0	402.0
142.5°	420.9	421.5	421.5	421.5	421.5	421.5	421.7	422.0	422.3	422.5	423.3
145°	443.4	444.0	443.8	443.4	443.1	442.9	443.1	443.4	443.8	444.0	444.8
147.5°	464.2	464.4	463.9	463.4	462.9	462.4	462.6	462.9	463.2	463.4	464.2
150°	481.6	481.8	481.3	480.8	480.3	479.8	479.8	479.8	479.8	479.8	480.8
152.5°	498.0	498.2	498.0	497.7	497.4	497.2	497.2	497.2	497.2	497.2	498.0
155°	515.4	515.6	515.4	515.1	514.7	514.5	514.7	515.1	515.4	515.6	516.4
157.5°	530.9	530.9	530.4	529.9	529.4	528.9	529.1	529.4	529.7	529.9	531.1
160°	544.2	544.2	543.7	543.2	542.7	542.2	542.2	542.2	542.2	542.2	543.0
162.5°	554.2	554.4	553.9	553.4	552.9	552.4	551.9	551.4	550.9	550.3	550.9
165°	565.5	565.7	564.9	564.2	563.4	562.6	562.1	561.6	561.1	560.6	561.1
167.5°	572.9	572.9	572.3	571.8	571.3	570.8	571.0	571.3	571.6	571.8	572.9
170°	578.2	578.0	577.8	577.5	577.1	576.9	577.5	578.0	578.5	579.0	580.2
172.5°	581.9	582.1	581.5	581.0	580.5	580.0	580.2	580.5	580.8	581.0	581.9
175°	585.9	586.2	585.3	584.6	583.9	583.1	582.6	582.1	581.5	581.0	581.9
177.5°	590.2	590.2	589.4	588.7	588.0	587.2	587.2	587.2	587.2	587.2	588.0
180°	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2

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CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
0°	348.0	348.0	348.0	348.0	348.0
2.5°	349.0	348.0	349.0	347.0	349.0
5°	354.1	350.1	355.2	350.1	355.2
7.5°	362.2	357.1	363.2	355.2	362.2
10°	369.3	362.2	370.3	362.2	369.3
12.5°	381.5	370.3	383.5	370.3	383.5
15°	393.5	380.4	396.6	382.5	395.6
17.5°	404.7	392.6	407.7	393.5	406.7
20°	414.8	403.7	416.9	402.6	416.9
22.5°	424.9	417.9	428.0	417.9	428.0
25°	438.1	433.0	440.1	433.0	440.1
27.5°	453.3	451.2	455.3	450.2	456.3
30°	470.5	471.5	472.5	471.5	473.5
32.5°	491.7	496.7	494.8	494.8	494.8
35°	521.1	530.2	524.1	526.1	525.1
37.5°	548.4	561.5	553.4	556.5	554.4
40°	578.7	587.8	585.8	585.8	583.8
42.5°	612.1	623.3	620.2	621.2	619.2
45°	648.6	658.7	654.6	653.6	654.6
47.5°	690.0	701.1	696.1	695.1	696.1
50°	733.6	746.7	742.7	740.6	742.7
52.5°	781.1	797.3	795.2	793.2	796.3
55°	836.8	851.9	849.9	851.9	852.9
57.5°	892.4	909.6	905.5	910.6	912.6
60°	962.2	972.3	973.3	974.4	975.4
62.5°	1033.0	1037.1	1040.1	1043.1	1044.1
65°	1114.9	1115.9	1118.0	1114.9	1118.0
67.5°	1193.9	1186.8	1185.8	1188.8	1190.8
70°	1316.3	1316.3	1306.2	1320.3	1308.3
71°	1332.5	1351.7	1329.4	1360.8	1327.4
72.5°	1253.5	1289.0	1263.7	1292.0	1258.6
75°	872.2	954.1	953.1	993.6	961.2
77.5°	241.8	226.6	241.8	208.4	199.3
80°	65.8	59.7	64.8	54.6	61.7
82.5°	43.5	37.4	36.4	29.4	31.4
85°	25.3	19.2	19.2	15.1	16.2
87.5°	4.1	1.0	4.1	2.0	3.1
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0
97.5°	4.6	4.3	4.1	4.1	4.1
100°	27.1	26.8	26.6	26.1	25.6
102.5°	49.6	49.9	50.1	49.6	49.1
105°	71.6	72.1	72.6	71.6	70.6
107.5°	93.6	93.9	94.1	93.6	93.1



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CATALOG NUMBER: ISC-AF-450-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
110°	116.1	116.4	116.6	116.1	115.6
112.5°	139.1	139.6	140.1	139.1	138.1
115°	162.6	163.2	163.7	163.2	162.6
117.5°	185.2	185.7	186.2	185.2	184.1
120°	209.7	210.2	210.7	209.7	208.7
122.5°	236.3	237.3	238.3	237.8	237.3
125°	261.4	262.1	262.9	262.4	261.9
127.5°	285.9	286.6	287.4	285.9	284.4
130°	310.5	311.2	312.0	311.0	310.0
132.5°	335.0	335.7	336.6	335.5	334.5
135°	358.0	358.5	359.1	358.5	358.0
137.5°	380.5	381.6	382.6	381.6	380.5
140°	403.0	404.1	405.1	404.1	403.0
142.5°	424.0	424.7	425.5	425.0	424.5
145°	445.5	446.2	447.0	446.0	445.0
147.5°	464.9	465.6	466.5	464.9	463.4
150°	481.8	482.8	483.9	482.3	480.8
152.5°	498.7	499.4	500.2	498.7	497.2
155°	517.1	517.8	518.6	517.6	516.6
157.5°	532.4	533.8	535.0	533.5	531.9
160°	543.7	544.4	545.2	544.2	543.2
162.5°	551.4	551.9	552.4	550.9	549.3
165°	561.6	562.1	562.6	561.6	560.6
167.5°	573.9	574.9	575.9	574.9	573.9
170°	581.5	582.9	584.1	583.1	582.1
172.5°	582.6	583.3	584.1	582.6	581.0
175°	582.6	583.3	584.1	582.6	581.0
177.5°	588.7	589.4	590.2	588.7	587.2
180°	589.2	589.2	589.2	589.2	589.2

(END OF REPORT)