

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: P271447

Luminaire Tested: **ISC-AF-450-LED-E1-T2-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29758)-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-T2-7027-ULG
Description: IMPACT ELITE LED CYLINDER LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II, WITH UPLIGHT GLOW
Light Source: (16) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3948.7 lumens
Efficiency: N/A
Efficacy: 94.0 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: B1 - U5 - G1

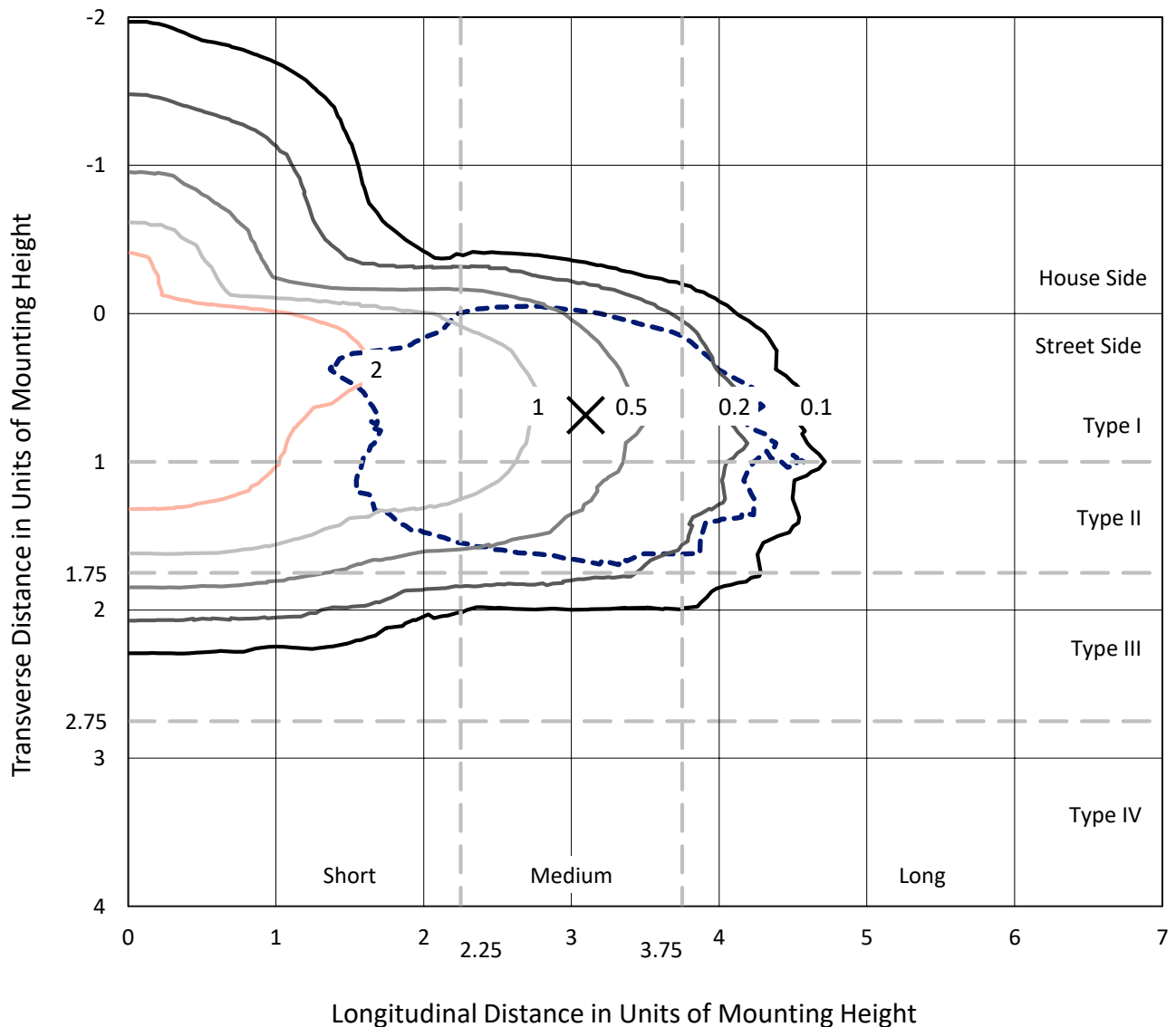
Input Watts (W): 42.01
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

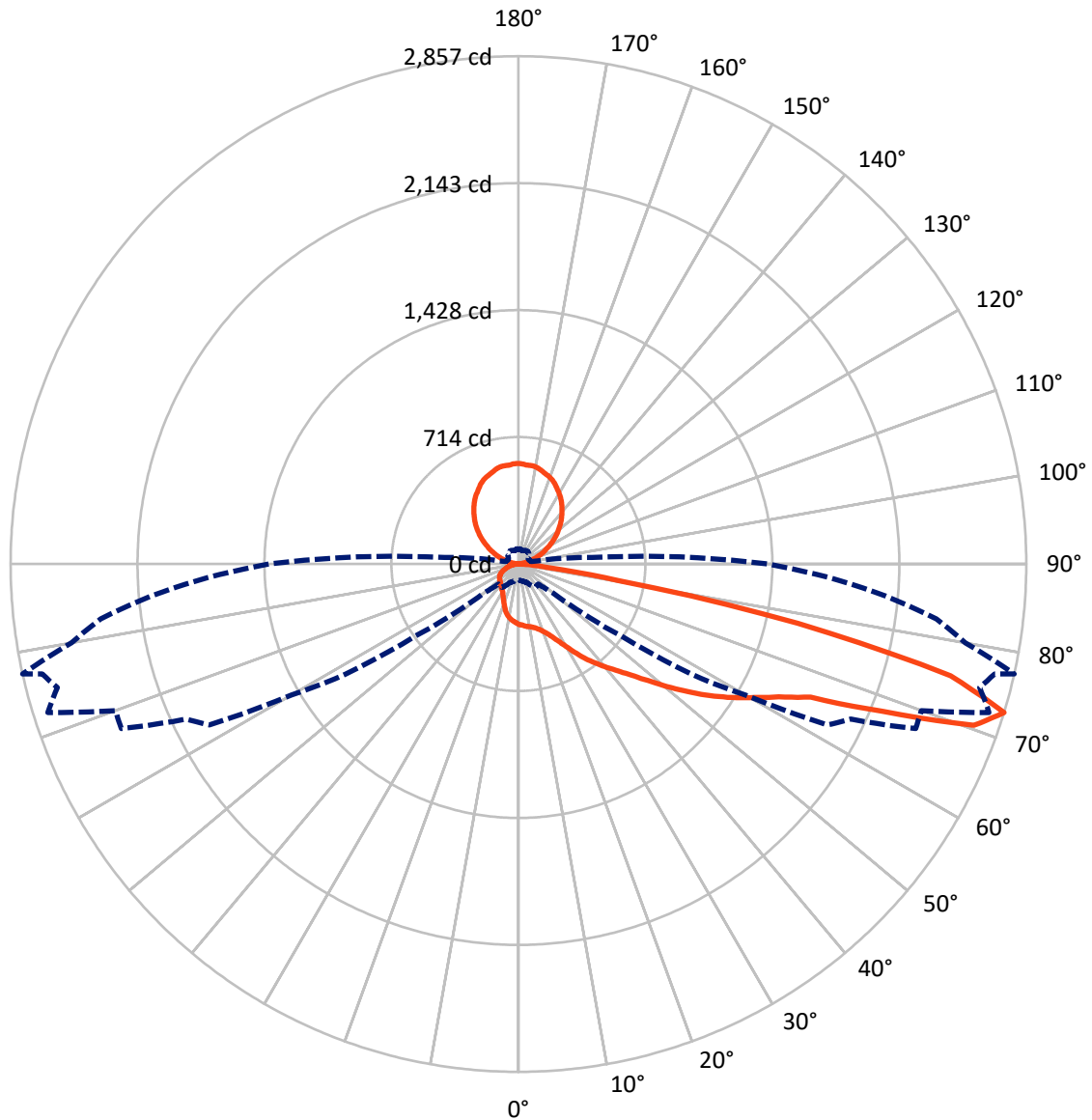
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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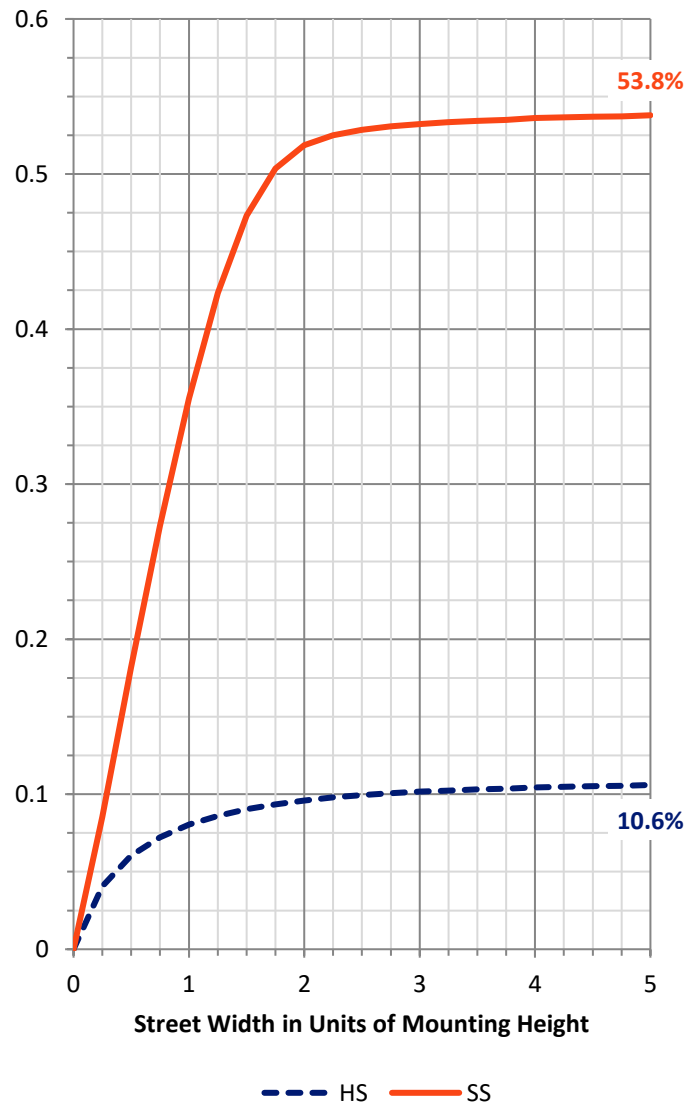
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	422.4	699.9	1122.2
	% Fixture	10.7	17.7	28.4
Street Side	Lumens	2126.5	699.9	2826.4
	% Fixture	53.9	17.7	71.6
Total	Lumens	2548.9	1399.8	3948.7
	% Fixture	64.6	35.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	0.8
10°-20°	96.9	2.5
20°-30°	172.1	4.4
30°-40°	272.6	6.9
40°-50°	409.0	10.4
50°-60°	530.0	13.4
60°-70°	602.2	15.3
70°-80°	399.6	10.1
80°-90°	35.0	0.9
90°-100°	4.7	0.1
100°-110°	67.7	1.7
110°-120°	150.2	3.8
120°-130°	219.7	5.6
130°-140°	260.7	6.6
140°-150°	264.3	6.7
150°-160°	226.8	5.7
160°-170°	152.2	3.9
170°-180°	53.3	1.4
0°-90°	2548.9	64.6
0°-180°	3948.7	100.0



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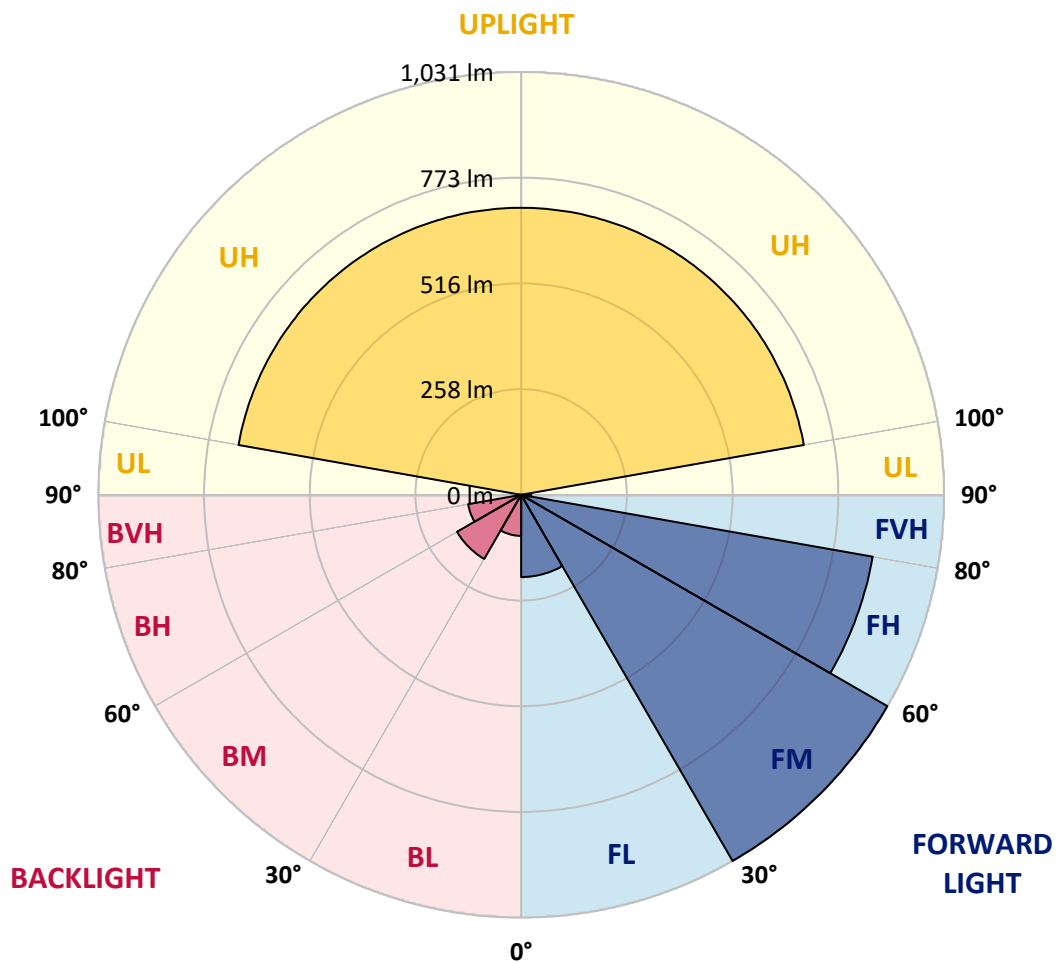
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	200.5	5.1			
FM (30°-60°)	1031.1	26.1			
FH (60°-80°)	870.5	22.0			G1/1800
FVH (80°-90°)	24.4	0.6			G1/100
BL (0°-30°)	100.1	2.5	B0/110		
BM (30°-60°)	180.4	4.6	B0/220		
BH (60°-80°)	131.3	3.3	B1/500		G1/500
BVH (80°-90°)	10.5	0.3			G1/100
UL (90°-100°)	4.7	0.1		U1/10	
UH (100°-180°)	699.9	17.7		U4/1000	

BUG Rating: B1-U5-G1

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°	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3
2.5°	368.7	367.0	366.1	364.4	362.6	361.7	359.2	357.5	360.1	359.2	359.2
5°	396.2	394.4	391.9	389.3	385.9	383.3	380.7	378.2	379.8	378.2	376.4
7.5°	418.5	416.8	413.4	410.7	407.3	403.9	400.5	399.7	397.9	395.3	394.4
10°	431.5	429.7	428.0	426.2	421.1	418.5	414.2	411.6	412.5	409.1	409.1
12.5°	443.4	441.8	440.9	440.9	436.6	434.0	432.3	429.7	431.5	426.2	424.6
15°	454.6	452.9	450.3	452.9	452.0	451.2	450.3	449.4	452.0	446.9	447.7
17.5°	472.7	471.8	466.7	463.3	464.1	466.7	468.4	467.5	467.5	465.0	465.8
20°	501.1	501.1	494.2	488.2	478.7	478.7	479.5	478.7	480.4	482.1	484.6
22.5°	522.5	520.7	518.2	513.0	502.7	494.2	494.2	490.7	493.3	494.2	499.3
25°	550.0	548.2	542.3	542.3	532.0	520.7	519.1	513.9	519.8	508.8	517.3
27.5°	583.4	581.8	574.1	570.6	565.6	551.6	548.2	549.1	555.2	538.8	547.4
30°	625.7	624.0	614.5	605.0	596.5	581.8	580.0	579.2	593.0	574.1	585.2
32.5°	678.8	678.8	668.6	655.8	638.5	618.8	611.8	612.7	631.7	611.0	629.9
35°	759.7	749.4	730.5	710.6	692.6	669.5	660.1	658.3	675.4	654.9	676.3
37.5°	811.3	804.4	787.3	772.6	752.8	730.5	723.7	726.2	740.8	710.6	741.7
40°	857.7	856.8	845.7	836.2	816.4	794.1	802.6	837.1	875.8	817.3	818.2
42.5°	888.6	890.3	889.5	890.3	879.2	855.9	870.5	918.7	984.9	950.5	918.7
45°	893.7	899.8	902.3	919.5	930.7	917.0	924.7	975.4	1107.8	1161.1	1017.5
47.5°	906.7	912.7	907.6	928.2	979.7	978.8	1009.9	1028.6	1046.7	1055.4	1163.7
50°	923.9	935.0	929.8	947.0	989.1	1013.3	1039.9	1064.0	1049.3	995.2	1024.3
52.5°	924.7	937.7	965.9	983.1	1024.3	1019.3	1037.4	1024.3	1046.7	990.9	1019.3
55°	849.1	851.6	934.1	1020.9	1093.1	1078.5	1067.4	1038.1	1066.5	996.8	1033.1
57.5°	729.6	738.2	824.1	970.3	1124.9	1137.8	1134.4	1131.9	1154.2	1061.3	1101.0
60°	598.1	608.4	690.1	861.9	1058.8	1092.2	1138.7	1167.1	1224.7	1187.6	1253.0
62.5°	373.0	380.7	470.9	685.8	934.1	1000.4	1068.3	1101.7	1185.1	1202.3	1313.1
65°	178.0	180.5	215.8	373.0	678.8	803.5	904.1	975.4	1077.7	1155.0	1304.6
67.5°	138.4	139.2	152.2	198.5	348.0	431.5	545.7	640.2	749.4	960.7	1146.5
70°	110.9	110.9	121.2	146.2	215.8	226.9	256.1	287.9	334.3	504.5	654.9
72.5°	92.9	92.9	99.7	115.2	159.9	162.4	160.7	158.1	158.1	199.3	254.4
75°	78.2	77.3	81.7	92.0	118.6	122.0	120.4	114.4	107.4	107.4	121.2
77.5°	63.6	63.6	67.0	72.2	86.0	87.7	87.7	82.6	76.4	77.3	83.4
80°	49.9	49.9	52.4	55.9	60.2	59.3	59.3	54.2	49.9	49.0	52.4
82.5°	36.1	37.0	43.0	40.4	38.6	36.1	36.1	35.2	31.8	29.3	30.9
85°	11.2	12.0	20.6	24.1	19.8	16.3	15.5	12.8	13.7	11.2	12.8
87.5°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.9
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	3.0	4.0	5.1	6.4	7.6	8.8	9.8	10.8
100°	7.8	7.8	9.8	13.7	21.6	23.5	25.5	27.5	29.5	29.9	30.5
102.5°	27.5	27.5	31.4	37.3	44.2	45.4	46.6	47.9	49.0	49.2	49.6
105°	53.0	53.0	55.0	59.8	64.8	65.8	66.7	67.7	68.7	68.9	69.2
107.5°	76.5	75.5	78.5	82.5	86.3	87.1	87.9	88.6	89.3	89.8	90.3
110°	99.2	100.1	101.1	104.0	108.0	108.4	109.0	109.4	110.0	110.4	110.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
112.5°	121.7	121.7	123.7	126.6	129.5	130.1	130.5	131.1	131.5	132.1	132.5
115°	143.3	144.3	146.2	148.2	151.2	151.6	152.2	152.6	153.1	153.6	154.1
117.5°	165.8	166.8	168.8	170.8	173.7	174.2	174.7	175.2	175.7	175.9	176.2
120°	189.5	191.4	192.3	194.3	197.3	197.4	197.8	198.1	198.3	198.7	199.2
122.5°	215.0	216.0	216.9	218.8	221.8	222.0	222.3	222.6	222.8	223.0	223.3
125°	239.5	241.5	242.5	243.4	246.3	246.6	246.9	247.1	247.3	247.6	247.8
127.5°	262.0	264.0	265.0	267.0	269.0	269.4	269.9	270.4	270.9	271.4	271.8
130°	284.7	286.6	287.5	288.5	292.5	292.7	292.9	293.3	293.5	293.9	294.5
132.5°	307.2	308.2	311.2	312.1	315.0	315.2	315.6	315.8	316.0	316.8	317.6
135°	329.8	330.8	332.7	334.7	338.6	338.6	338.6	338.6	338.6	339.4	340.1
137.5°	352.3	353.3	356.3	357.3	360.2	360.2	360.2	360.2	360.2	360.7	361.2
140°	375.0	375.9	377.8	378.8	380.8	381.0	381.3	381.6	381.8	382.0	382.3
142.5°	396.5	398.5	400.5	399.5	402.4	402.4	402.4	402.4	402.4	402.9	403.4
145°	417.2	418.1	420.0	420.0	423.0	423.2	423.6	423.8	424.0	424.4	425.0
147.5°	435.8	435.8	438.7	439.7	443.7	443.9	444.1	444.4	444.6	444.8	445.1
150°	452.5	453.5	455.4	456.4	460.3	460.5	460.8	461.1	461.3	461.5	461.8
152.5°	470.2	471.1	474.0	473.0	476.0	476.2	476.6	476.8	477.0	477.2	477.4
155°	489.8	490.7	492.7	491.7	493.7	493.7	493.7	493.7	493.7	493.9	494.2
157.5°	503.5	505.5	507.5	506.5	509.4	509.4	509.4	509.4	509.4	509.4	509.4
160°	515.3	517.2	519.2	519.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2
162.5°	525.1	526.0	529.0	528.0	531.0	531.0	531.0	531.0	531.0	531.2	531.4
165°	535.9	536.8	538.8	537.8	541.8	541.8	541.8	541.8	541.8	541.9	542.3
167.5°	544.7	545.7	548.7	547.7	550.6	550.4	550.1	549.9	549.7	549.7	549.7
170°	551.6	552.5	555.5	554.5	556.5	556.3	556.1	555.7	555.5	555.3	555.1
172.5°	554.5	555.5	558.5	556.5	558.5	558.3	557.9	557.7	557.5	557.7	557.9
175°	556.5	558.5	559.5	558.5	561.4	561.4	561.4	561.4	561.4	561.6	561.9
177.5°	561.4	562.4	564.3	563.3	567.3	567.1	566.8	566.5	566.3	566.3	566.3
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
0°	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3
2.5°	354.9	356.6	353.2	353.2	348.9	351.5	347.3	348.0	343.7	345.5	345.5
5°	372.1	373.0	368.7	367.0	362.6	362.6	358.3	358.3	352.3	354.1	352.3
7.5°	388.4	388.4	384.1	380.7	376.4	374.8	369.6	367.0	361.7	361.0	358.3
10°	402.2	402.2	396.2	392.8	387.6	385.0	378.2	375.5	369.6	365.3	362.6
12.5°	419.4	417.7	410.7	407.3	398.8	397.9	387.6	385.9	377.3	374.8	370.4
15°	440.0	441.8	430.6	429.7	417.7	416.8	403.1	402.2	389.3	388.4	382.5
17.5°	462.4	465.8	456.4	455.5	440.9	440.9	424.6	423.7	406.6	405.7	397.9
20°	482.1	486.4	480.4	482.1	469.3	470.2	452.0	452.0	428.0	426.2	419.4
22.5°	500.2	508.8	503.6	513.0	500.2	506.1	482.1	486.4	458.0	454.6	444.3
25°	518.2	529.4	527.7	543.1	533.8	544.0	519.1	527.7	490.7	493.3	479.5
27.5°	536.3	550.9	549.1	571.5	568.1	588.7	567.2	576.6	536.3	538.8	523.4
30°	566.3	582.7	576.6	599.9	599.9	633.3	617.0	631.7	587.0	592.2	574.1
32.5°	606.7	625.7	607.6	637.7	636.0	679.7	666.9	691.9	647.9	654.9	632.6
35°	650.6	680.6	651.5	685.0	679.7	725.3	716.8	757.1	710.6	718.5	696.2
37.5°	708.1	744.2	705.6	734.8	711.5	764.0	758.9	813.9	766.6	786.4	759.7
40°	776.0	804.4	756.2	781.2	742.4	796.7	788.0	863.7	819.8	851.6	827.6
42.5°	838.7	858.5	794.9	825.9	779.5	834.4	819.1	910.2	872.3	921.3	894.6
45°	895.5	917.9	833.6	868.0	816.4	876.6	850.0	954.8	928.9	1002.9	976.3
47.5°	976.3	943.6	868.9	913.6	855.9	922.1	886.9	1007.2	997.7	1102.6	1071.7
50°	949.7	971.1	898.0	944.5	892.1	972.9	934.1	1069.9	1072.6	1210.8	1192.9
52.5°	952.2	988.3	920.4	984.9	934.1	1043.3	1002.9	1145.6	1157.6	1315.7	1290.9
55°	967.7	1020.9	953.9	1040.8	993.4	1121.5	1093.1	1227.3	1247.8	1414.7	1400.0
57.5°	1006.4	1080.3	1011.5	1124.9	1076.0	1210.8	1185.1	1311.4	1339.8	1513.5	1509.2
60°	1155.0	1242.6	1122.4	1247.8	1182.6	1312.3	1277.9	1400.0	1428.3	1608.0	1619.1
62.5°	1320.9	1473.0	1401.6	1532.3	1359.6	1491.1	1389.7	1509.2	1510.8	1709.4	1744.6
65°	1363.9	1597.6	1658.6	1901.8	1811.6	1946.5	1675.9	1755.7	1652.6	1894.2	1944.8
67.5°	1347.5	1633.7	1803.0	2077.2	2179.5	2414.9	2369.4	2341.9	2102.9	2276.6	2337.6
70°	989.1	1292.5	1706.8	1985.3	2280.0	2434.7	2679.6	2704.5	2694.3	2670.1	2710.5
72.5°	450.3	706.4	1155.0	1473.0	1959.5	2063.5	2418.3	2411.5	2775.9	2685.7	2749.3
75°	177.1	272.5	550.0	822.5	1355.4	1483.3	1885.5	1785.8	2240.5	2108.1	2243.9
77.5°	97.1	122.0	206.3	353.2	739.9	807.8	1154.2	987.5	1389.7	1160.3	1205.7
80°	58.4	73.0	94.5	134.0	314.6	332.6	492.5	397.1	568.1	431.5	418.5
82.5°	31.8	39.5	47.3	66.1	116.9	129.7	170.2	153.0	182.2	155.6	152.2
85°	12.8	17.2	18.1	26.6	38.6	44.6	54.2	58.4	71.3	65.3	63.6
87.5°	0.0	0.9	0.0	1.8	0.0	1.8	0.0	2.5	2.5	4.3	5.2
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°	11.8	12.8	11.3	9.8	8.4	6.8	6.4	5.9	5.4	4.9	4.7
100°	30.9	31.4	30.9	30.5	29.9	29.5	28.7	27.9	27.3	26.5	26.3
102.5°	49.9	50.0	49.9	49.6	49.2	49.0	48.6	48.1	47.6	47.1	47.3
105°	69.5	69.7	69.7	69.7	69.7	69.7	69.2	68.7	68.2	67.7	68.1
107.5°	90.8	91.3	91.1	90.8	90.5	90.3	90.1	89.8	89.5	89.3	89.5
110°	111.4	111.9	111.9	111.9	111.9	111.9	111.7	111.4	111.1	110.9	111.1



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CATALOG NUMBER: ISC-AF-450-LED-E1-T2-7027-ULG

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
112.5°	132.9	133.5	133.5	133.5	133.5	133.5	133.3	132.9	132.7	132.5	132.9
115°	154.6	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.5
117.5°	176.4	176.7	176.9	177.1	177.4	177.7	177.4	177.1	176.9	176.7	177.1
120°	199.7	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.6
122.5°	223.6	223.8	223.8	223.8	223.8	223.8	223.9	224.3	224.6	224.8	225.6
125°	248.1	248.3	248.5	248.8	249.1	249.3	249.3	249.3	249.3	249.3	249.9
127.5°	272.4	272.8	272.6	272.4	272.1	271.8	272.1	272.4	272.6	272.8	273.4
130°	294.9	295.5	295.5	295.5	295.5	295.5	295.6	295.9	296.2	296.4	297.0
132.5°	318.2	319.0	319.0	319.0	319.0	319.0	319.2	319.4	319.8	320.0	320.5
135°	340.7	341.5	341.5	341.5	341.5	341.5	341.7	342.1	342.3	342.5	343.0
137.5°	361.7	362.2	362.2	362.2	362.2	362.2	362.4	362.6	362.9	363.2	363.9
140°	382.6	382.8	382.8	382.8	382.8	382.8	383.3	383.8	384.3	384.7	385.6
142.5°	403.9	404.3	404.3	404.3	404.3	404.3	404.6	404.9	405.1	405.3	405.9
145°	425.4	426.0	425.8	425.4	425.2	425.0	425.2	425.4	425.8	426.0	426.5
147.5°	445.4	445.6	445.1	444.6	444.1	443.7	443.9	444.1	444.4	444.6	445.2
150°	462.1	462.3	461.8	461.3	460.8	460.3	460.3	460.3	460.3	460.3	461.1
152.5°	477.8	478.0	477.8	477.4	477.2	477.0	477.0	477.0	477.0	477.0	477.6
155°	494.4	494.7	494.4	494.2	493.9	493.7	493.9	494.2	494.4	494.7	495.2
157.5°	509.4	509.4	508.9	508.4	507.9	507.5	507.6	507.9	508.2	508.4	509.4
160°	522.2	522.2	521.6	521.2	520.7	520.2	520.2	520.2	520.2	520.2	520.7
162.5°	531.8	532.0	531.4	531.0	530.4	530.0	529.6	529.0	528.6	528.0	528.5
165°	542.6	542.8	541.9	541.3	540.6	539.8	539.3	538.8	538.4	537.8	538.3
167.5°	549.7	549.7	549.1	548.7	548.1	547.7	547.9	548.1	548.4	548.7	549.4
170°	554.7	554.5	554.3	554.1	553.7	553.5	554.1	554.5	555.1	555.5	556.5
172.5°	558.3	558.5	557.9	557.5	556.9	556.5	556.7	556.9	557.3	557.5	558.0
175°	562.2	562.4	561.6	560.9	560.3	559.5	558.9	558.5	557.9	557.5	558.0
177.5°	566.3	566.3	565.6	564.9	564.1	563.3	563.3	563.3	563.3	563.3	564.0
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3



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CATALOG NUMBER: ISC-AF-450-LED-E1-T2-7027-ULG

CANDELA DISTRIBUTION (continued):

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3
2.5°	343.0	345.5	342.1	342.1	337.8	340.3	337.8	335.2	330.8	331.7	325.7
5°	348.9	350.7	346.4	344.6	342.1	341.2	336.1	330.8	324.8	324.8	318.0
7.5°	354.9	354.9	348.9	348.9	343.0	341.2	333.5	324.8	316.2	315.5	305.1
10°	358.3	357.5	349.8	349.8	341.2	340.3	330.8	318.0	306.0	302.5	287.9
12.5°	365.3	364.4	354.9	353.2	342.1	342.1	328.3	311.2	293.9	287.9	267.2
15°	373.9	374.8	363.5	361.0	348.0	347.3	328.3	302.5	279.4	269.9	245.0
17.5°	387.6	388.4	373.0	370.4	354.9	352.3	329.2	292.2	259.5	249.2	226.9
20°	405.7	403.1	382.5	381.6	361.0	358.3	328.3	276.7	239.8	229.4	209.8
22.5°	428.0	425.3	398.8	396.2	372.1	367.9	327.4	260.4	221.7	210.6	197.6
25°	458.9	455.5	422.8	419.4	389.3	382.5	326.5	243.2	206.3	197.6	189.9
27.5°	497.6	490.7	451.2	447.7	407.3	398.8	323.1	223.5	190.8	184.8	181.4
30°	544.0	537.9	487.3	482.1	431.5	420.2	319.7	205.4	179.6	177.1	174.5
32.5°	599.0	593.0	531.1	525.1	462.4	446.0	313.7	190.8	172.7	172.7	169.3
35°	656.6	651.5	578.4	574.1	496.8	475.2	306.0	178.0	166.7	166.7	163.3
37.5°	708.1	712.4	629.9	626.5	531.1	504.5	297.4	169.3	161.5	159.9	156.5
40°	764.0	774.2	678.1	680.6	567.2	535.4	287.1	162.4	155.6	153.8	153.0
42.5°	820.7	840.5	728.7	738.2	603.3	567.2	279.4	158.1	153.0	149.6	148.7
45°	891.2	919.5	791.5	809.6	645.4	605.9	276.7	153.0	145.3	140.9	138.4
47.5°	978.8	1016.7	868.9	889.5	701.3	652.3	281.9	151.3	140.0	134.9	129.7
50°	1082.9	1119.0	960.7	969.5	764.0	703.0	293.0	153.8	138.4	130.6	122.9
52.5°	1192.9	1220.3	1057.9	1048.5	829.3	752.8	306.0	154.7	134.0	126.3	116.9
55°	1306.2	1321.8	1148.1	1123.2	888.6	802.6	323.1	153.8	130.6	122.0	110.0
57.5°	1417.2	1422.3	1228.2	1204.0	947.0	861.9	344.6	151.3	125.4	116.9	103.9
60°	1525.4	1534.0	1316.6	1294.3	1010.6	938.5	375.5	147.0	118.6	112.6	98.8
62.5°	1644.1	1672.5	1422.3	1425.8	1098.3	1057.9	434.0	141.8	111.7	104.8	91.1
65°	1805.6	1913.9	1596.7	1677.6	1266.8	1283.0	545.7	127.2	102.2	93.6	84.2
67.5°	2210.4	2328.9	2020.5	2053.2	1661.2	1564.1	616.1	108.2	90.2	84.2	78.2
70°	2717.5	2632.3	2413.2	2215.5	1891.5	1608.0	542.3	91.1	79.9	76.4	73.0
72.5°	2856.7	2551.5	2371.1	2074.5	1748.9	1402.5	415.1	78.2	71.3	69.6	67.0
75°	2510.3	2068.5	2078.9	1648.3	1449.9	1069.2	283.7	67.0	61.8	61.1	60.2
77.5°	1605.5	1063.1	1294.3	814.8	837.1	495.1	138.4	55.9	53.3	53.3	51.6
80°	570.6	354.1	400.5	256.9	233.8	157.2	74.8	44.6	43.0	43.8	43.0
82.5°	170.9	135.7	133.2	103.9	80.8	66.1	41.2	34.3	32.7	33.5	31.8
85°	68.7	53.3	44.6	34.3	28.4	25.8	22.4	23.2	20.6	22.4	19.8
87.5°	4.3	3.4	2.5	3.4	0.0	1.8	4.3	3.4	0.9	3.4	2.5
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°	4.7	4.4	4.1	4.0	4.0	4.0	4.0	4.4	4.7	4.9	5.4
100°	26.3	26.1	25.7	25.5	25.1	24.5	25.5	26.1	26.3	26.5	27.3
102.5°	47.3	47.6	47.9	48.1	47.6	47.1	48.1	47.6	47.3	47.1	47.6
105°	68.2	68.7	69.2	69.7	68.7	67.7	69.7	68.7	68.2	67.7	68.2
107.5°	89.5	89.8	90.1	90.3	89.8	89.3	90.3	89.8	89.5	89.3	89.5
110°	111.1	111.4	111.7	111.9	111.4	110.9	111.9	111.4	111.1	110.9	111.1



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°	
112.5°	132.9	133.5	133.9	134.5	133.5	132.5	134.5	133.5	132.9	132.5	132.7	0°
115°	155.6	156.0	156.6	157.0	156.6	156.0	157.0	156.0	155.6	155.0	155.0	2.5°
117.5°	177.1	177.7	178.1	178.7	177.7	176.7	178.7	177.7	177.1	176.7	176.9	5°
120°	200.7	201.2	201.7	202.2	201.2	200.2	202.2	201.2	200.7	200.2	200.2	7.5°
122.5°	225.7	226.7	227.7	228.7	228.2	227.7	228.7	226.7	225.7	224.8	224.6	10°
125°	250.1	250.8	251.4	252.2	251.7	251.3	252.2	250.8	250.1	249.3	249.3	12.5°
127.5°	273.6	274.3	275.0	275.8	274.3	272.8	275.8	274.3	273.6	272.8	272.6	15°
130°	297.2	297.9	298.6	299.3	298.3	297.4	299.3	297.9	297.2	296.4	296.2	17.5°
132.5°	320.8	321.4	322.1	322.9	322.0	321.0	322.9	321.4	320.8	320.0	319.8	20°
135°	343.1	343.5	344.1	344.5	344.1	343.5	344.5	343.5	343.1	342.5	342.3	22.5°
137.5°	364.2	365.1	366.1	367.0	366.1	365.1	367.0	365.1	364.2	363.2	362.9	25°
140°	385.7	386.7	387.7	388.7	387.7	386.7	388.7	386.7	385.7	384.7	384.3	27.5°
142.5°	406.1	406.8	407.5	408.3	407.8	407.3	408.3	406.8	406.1	405.3	405.1	30°
145°	426.8	427.4	428.1	428.9	428.0	427.0	428.9	427.4	426.8	426.0	425.8	32.5°
147.5°	445.4	446.1	446.7	447.5	446.1	444.6	447.5	446.1	445.4	444.6	444.4	35°
150°	461.3	462.3	463.3	464.2	462.8	461.3	464.2	462.3	461.3	460.3	460.3	37.5°
152.5°	477.8	478.4	479.2	480.0	478.4	477.0	480.0	478.4	477.8	477.0	477.0	40°
155°	495.4	496.1	496.9	497.6	496.7	495.7	497.6	496.1	495.4	494.7	494.4	42.5°
157.5°	509.6	510.9	512.1	513.3	511.9	510.3	513.3	510.9	509.6	508.4	508.2	45°
160°	520.9	521.6	522.4	523.2	522.2	521.2	523.2	521.6	520.9	520.2	520.2	47.5°
162.5°	528.6	529.0	529.6	530.0	528.6	527.0	530.0	529.0	528.6	528.0	528.6	50°
165°	538.4	538.8	539.3	539.8	538.8	537.8	539.8	538.8	538.4	537.8	538.4	52.5°
167.5°	549.7	550.6	551.6	552.5	551.6	550.6	552.5	550.6	549.7	548.7	548.4	55°
170°	556.7	557.9	559.3	560.5	559.5	558.5	560.5	557.9	556.7	555.5	555.1	57.5°
172.5°	558.3	558.9	559.6	560.5	558.9	557.5	560.5	558.9	558.3	557.5	557.3	60°
175°	558.3	558.9	559.6	560.5	558.9	557.5	560.5	558.9	558.3	557.5	557.9	62.5°
177.5°	564.1	564.9	565.6	566.3	564.9	563.3	566.3	564.9	564.1	563.3	563.3	65°
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	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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REPORT NUMBER: P
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DISTRIBUTION (continued):

CANDELA DISTRIBUTION

110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	110°	
340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	112.5°	132.9
329.9	324.0	326.5	324.0	325.7	320.5	322.3	318.0	318.0	317.1	312.8	115°	155.0
318.9	312.8	311.9	306.0	306.8	299.9	299.0	291.3	291.3	284.4	271.6	117.5°	177.1
303.4	293.9	293.0	281.0	280.2	270.7	267.2	258.7	257.8	250.1	242.4	120°	200.2
283.7	269.0	266.3	251.0	251.9	241.5	240.7	234.5	234.5	231.1	231.1	122.5°	224.3
261.2	245.0	243.2	231.1	232.0	225.1	226.0	222.6	224.3	226.0	232.0	125°	249.3
240.7	227.7	226.0	218.3	219.2	217.4	220.1	220.1	222.6	226.9	237.2	127.5°	272.4
223.5	212.3	213.2	209.8	213.2	212.3	217.4	216.6	221.7	226.9	239.8	130°	295.9
208.0	202.0	204.5	203.6	208.0	208.0	212.3	213.2	217.4	224.3	238.9	132.5°	319.4
197.6	195.9	198.5	198.5	202.0	202.7	207.1	209.8	212.3	219.2	232.0	135°	342.1
191.7	190.8	193.3	194.2	196.8	197.6	202.0	202.0	206.3	210.6	217.4	137.5°	362.6
183.1	181.4	184.8	184.8	188.3	187.4	192.5	190.8	195.1	196.8	198.5	140°	383.8
177.1	174.5	177.1	176.2	178.8	176.2	178.8	176.2	178.8	178.8	176.2	142.5°	404.9
170.9	168.4	169.3	165.8	168.4	165.0	165.8	162.4	164.1	162.4	163.3	145°	425.4
165.0	161.5	161.5	157.2	157.2	153.0	154.7	151.3	154.7	157.2	156.5	147.5°	444.1
156.5	153.8	153.8	150.4	152.2	150.4	153.8	152.2	153.0	149.6	143.5	150°	460.3
151.3	153.0	152.2	154.7	153.0	150.4	147.8	142.7	141.8	140.0	136.6	152.5°	477.0
143.5	145.3	140.9	144.4	141.8	142.7	140.9	138.4	136.6	134.9	131.5	155°	494.2
132.3	132.3	128.9	134.0	131.5	136.6	134.9	134.9	133.2	130.6	128.1	157.5°	507.9
122.9	123.8	120.4	124.7	122.9	129.7	128.9	131.5	131.5	129.7	122.9	160°	520.2
116.9	115.2	112.6	116.9	116.0	122.0	122.9	128.1	127.2	128.1	122.0	162.5°	529.0
111.7	108.2	105.7	108.2	108.2	113.5	115.2	121.2	122.0	123.8	120.4	165°	538.8
105.7	101.4	99.7	101.4	101.4	106.6	109.1	113.5	116.0	121.2	119.5	167.5°	548.1
100.5	94.5	92.9	94.5	95.4	100.5	103.1	107.4	110.9	117.8	116.9	170°	554.5
94.5	89.4	87.7	90.2	91.1	96.3	98.8	103.1	105.7	113.5	113.5	172.5°	556.9
87.7	83.4	83.4	84.2	86.0	91.1	92.9	98.8	99.7	109.1	110.0	175°	558.5
81.7	79.1	79.1	79.9	81.7	86.0	86.8	92.9	93.6	103.1	105.7	177.5°	563.3
76.4	74.8	74.8	75.6	76.4	79.9	80.8	86.8	88.6	97.1	101.4	180°	565.3
71.3	69.6	68.7	68.7	71.3	73.9	75.6	81.7	82.6	90.2	95.4		
65.3	63.6	63.6	62.7	65.3	67.0	70.4	73.9	75.6	83.4	86.8		
59.3	57.6	57.6	56.8	58.4	61.8	62.7	66.1	67.0	73.9	77.3		
51.6	49.9	49.9	49.9	51.6	52.4	53.3	56.8	58.4	64.5	67.9		
43.0	41.2	42.1	41.2	43.8	40.4	43.0	46.4	48.1	51.6	49.9		
32.7	30.0	30.9	30.9	31.8	29.3	30.9	32.7	34.3	37.0	36.1		
20.6	18.1	19.8	18.1	19.8	17.2	19.0	19.0	20.6	19.0	18.1		
4.3	1.8	4.3	1.8	5.2	0.0	2.5	0.0	1.8	0.9	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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		
5.9	6.4	6.8	8.4	9.8	11.3	12.8	11.8	10.8	8.8	4.0		
27.9	28.7	29.5	29.9	30.5	30.9	31.4	30.9	30.5	29.5	21.6		
48.1	48.6	49.0	49.2	49.6	49.9	50.0	49.9	49.6	49.0	44.2		
68.7	69.2	69.7	69.7	69.7	69.7	69.7	69.5	69.2	68.7	64.8		
89.8	90.1	90.3	90.5	90.8	91.1	91.3	90.8	90.3	89.3	86.3		
111.4	111.7	111.9	111.9	111.9	111.9	111.9	111.4	110.9	110.0	108.0		

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TION (continued):

CANDELA DISTRIBUTION (con

112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°		155°	165°
133.3	133.5	133.5	133.5	133.5	133.5	132.9	132.5	131.5	129.5	0°	340.3	340.3
155.0	155.0	155.0	155.0	155.0	155.0	154.6	154.1	153.1	151.2	2.5°	308.5	305.1
177.4	177.7	177.4	177.1	176.9	176.7	176.4	176.2	175.7	173.7	5°	264.7	258.7
200.2	200.2	200.2	200.2	200.2	200.2	199.7	199.2	198.3	197.3	7.5°	238.1	236.3
223.9	223.8	223.8	223.8	223.8	223.8	223.6	223.3	222.8	221.8	10°	232.9	235.4
249.3	249.3	249.1	248.8	248.5	248.3	248.1	247.8	247.3	246.3	12.5°	238.9	243.2
272.1	271.8	272.1	272.4	272.6	272.8	272.4	271.8	270.9	269.0	15°	246.7	254.4
295.6	295.5	295.5	295.5	295.5	295.5	294.9	294.5	293.5	292.5	17.5°	252.6	262.9
319.2	319.0	319.0	319.0	319.0	319.0	318.2	317.6	316.0	315.0	20°	253.5	263.8
341.7	341.5	341.5	341.5	341.5	341.5	340.7	340.1	338.6	338.6	22.5°	245.8	252.6
362.4	362.2	362.2	362.2	362.2	362.2	361.7	361.2	360.2	360.2	25°	226.0	229.4
383.3	382.8	382.8	382.8	382.8	382.8	382.6	382.3	381.8	380.8	27.5°	201.1	200.2
404.6	404.3	404.3	404.3	404.3	404.3	403.9	403.4	402.4	402.4	30°	175.3	173.6
425.2	425.0	425.2	425.4	425.8	426.0	425.4	425.0	424.0	423.0	32.5°	165.8	159.9
443.9	443.7	444.1	444.6	445.1	445.6	445.4	445.1	444.6	443.7	35°	151.3	149.6
460.3	460.3	460.8	461.3	461.8	462.3	462.1	461.8	461.3	460.3	37.5°	146.2	160.7
477.0	477.0	477.2	477.4	477.8	478.0	477.8	477.4	477.0	476.0	40°	140.0	158.1
493.9	493.7	493.9	494.2	494.4	494.7	494.4	494.2	493.7	493.7	42.5°	134.9	145.3
507.6	507.5	507.9	508.4	508.9	509.4	509.4	509.4	509.4	509.4	45°	125.4	129.7
520.2	520.2	520.7	521.2	521.6	522.2	522.2	522.2	522.2	522.2	47.5°	121.2	119.5
529.6	530.0	530.4	531.0	531.4	532.0	531.8	531.4	531.0	531.0	50°	117.8	117.8
539.3	539.8	540.6	541.3	541.9	542.8	542.6	542.3	541.8	541.8	52.5°	115.2	113.5
547.9	547.7	548.1	548.7	549.1	549.7	549.7	549.7	549.7	550.6	55°	111.7	110.0
554.1	553.5	553.7	554.1	554.3	554.5	554.7	555.1	555.5	556.5	57.5°	109.1	104.8
556.7	556.5	556.9	557.5	557.9	558.5	558.3	557.9	557.5	558.5	60°	106.6	102.2
558.9	559.5	560.3	560.9	561.6	562.4	562.2	561.9	561.4	561.4	62.5°	104.8	99.7
563.3	563.3	564.1	564.9	565.6	566.3	566.3	566.3	566.3	567.3	65°	102.2	97.1
565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	67.5°	98.8	92.0
										70°	92.0	86.0
										72.5°	85.1	78.2
										75°	74.8	68.7
										77.5°	62.7	55.9
										80°	47.3	43.0
										82.5°	34.3	29.3
										85°	15.5	11.2
										87.5°	0.0	0.0
										90°	0.0	0.0
										92.5°	0.0	0.0
										95°	1.0	1.0
										97.5°	3.0	2.0
										100°	13.7	9.8
										102.5°	37.3	31.4
										105°	59.8	55.0
										107.5°	82.5	78.5
										110°	104.0	101.1

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tinued):

175°	180°
340.3	340.3
303.4	302.5
256.9	255.3
236.3	235.4
236.3	236.3
246.7	246.7
258.7	258.7
267.2	268.1
269.9	270.7
256.9	256.9
232.0	232.0
199.3	202.7
170.2	173.6
151.3	153.8
145.3	146.2
159.9	160.7
157.2	159.0
134.9	135.7
121.2	121.2
116.0	115.2
116.0	114.4
119.5	118.6
114.4	114.4
111.7	111.7
109.1	109.1
108.2	107.4
108.2	106.6
106.6	103.9
100.5	93.6
86.0	79.9
69.6	68.7
54.2	55.0
41.2	41.2
30.0	25.0
8.6	8.6
0.0	0.0
0.0	0.0
0.0	0.0
1.0	1.0
2.0	2.0
7.8	7.8
27.5	27.5
53.0	53.0
75.5	76.5
100.1	99.2

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
112.5°	126.6	123.7	121.7
115°	148.2	146.2	144.3
117.5°	170.8	168.8	166.8
120°	194.3	192.3	191.4
122.5°	218.8	216.9	216.0
125°	243.4	242.5	241.5
127.5°	267.0	265.0	264.0
130°	288.5	287.5	286.6
132.5°	312.1	311.2	308.2
135°	334.7	332.7	330.8
137.5°	357.3	356.3	353.3
140°	378.8	377.8	375.9
142.5°	399.5	400.5	398.5
145°	420.0	420.0	418.1
147.5°	439.7	438.7	435.8
150°	456.4	455.4	453.5
152.5°	473.0	474.0	471.1
155°	491.7	492.7	490.7
157.5°	506.5	507.5	505.5
160°	519.2	519.2	517.2
162.5°	528.0	529.0	526.0
165°	537.8	538.8	536.8
167.5°	547.7	548.7	545.7
170°	554.5	555.5	552.5
172.5°	556.5	558.5	555.5
175°	558.5	559.5	558.5
177.5°	563.3	564.3	562.4
180°	565.3	565.3	565.3

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180°
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121.7
143.3
165.8
189.5
215.0
239.5
262.0
284.7
307.2
329.8
352.3
375.0
396.5
417.2
435.8
452.5
470.2
489.8
503.5
515.3
525.1
535.9
544.7
551.6
554.5
556.5
561.4
565.3

(END OF REPORT)