

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: P228749

Luminaire Tested: **ISS-AF-450-LED-E1-RW-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-450-LED-E1-RW-7030
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I
Light Source: (16) 3000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2645 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G1

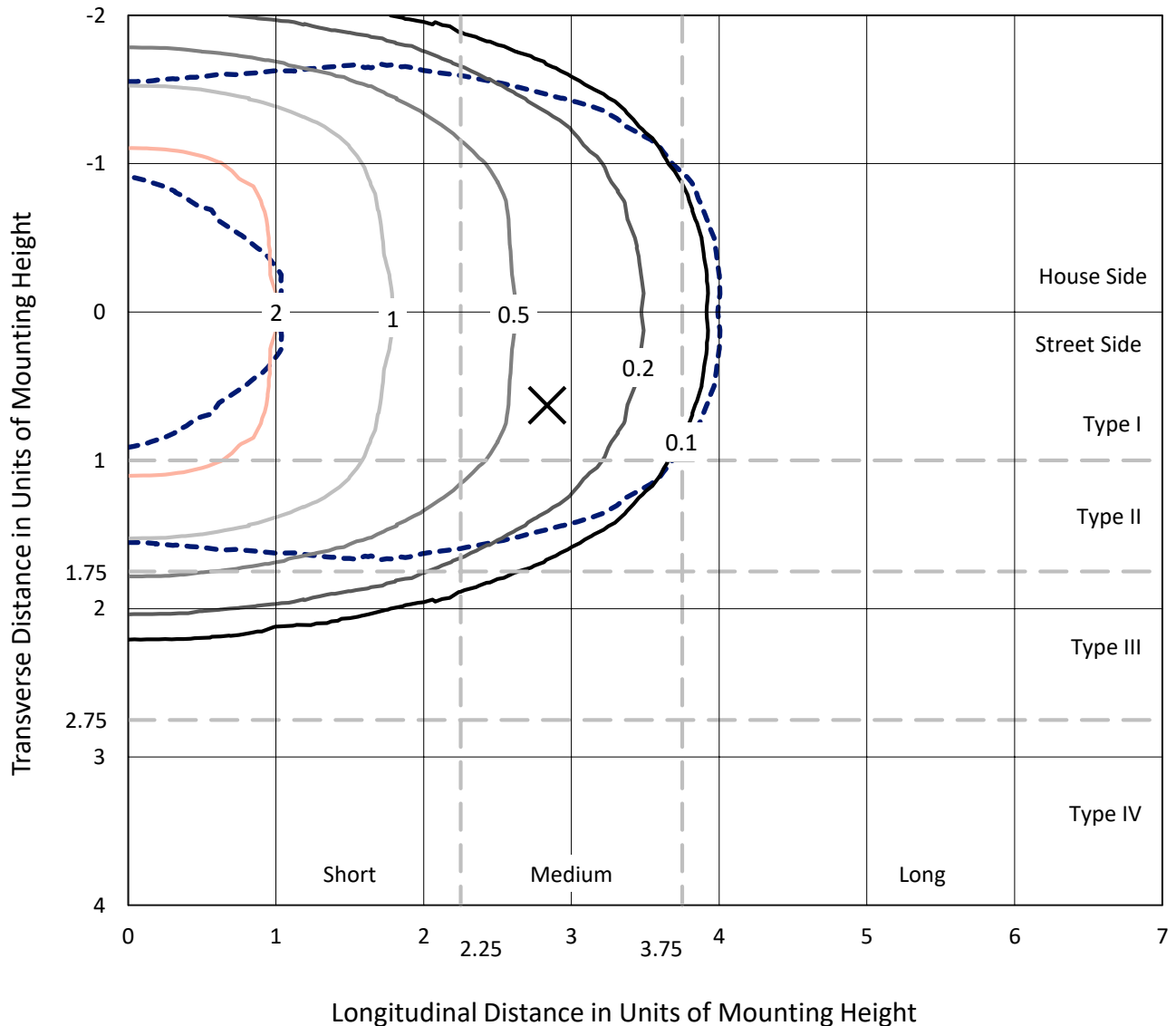
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

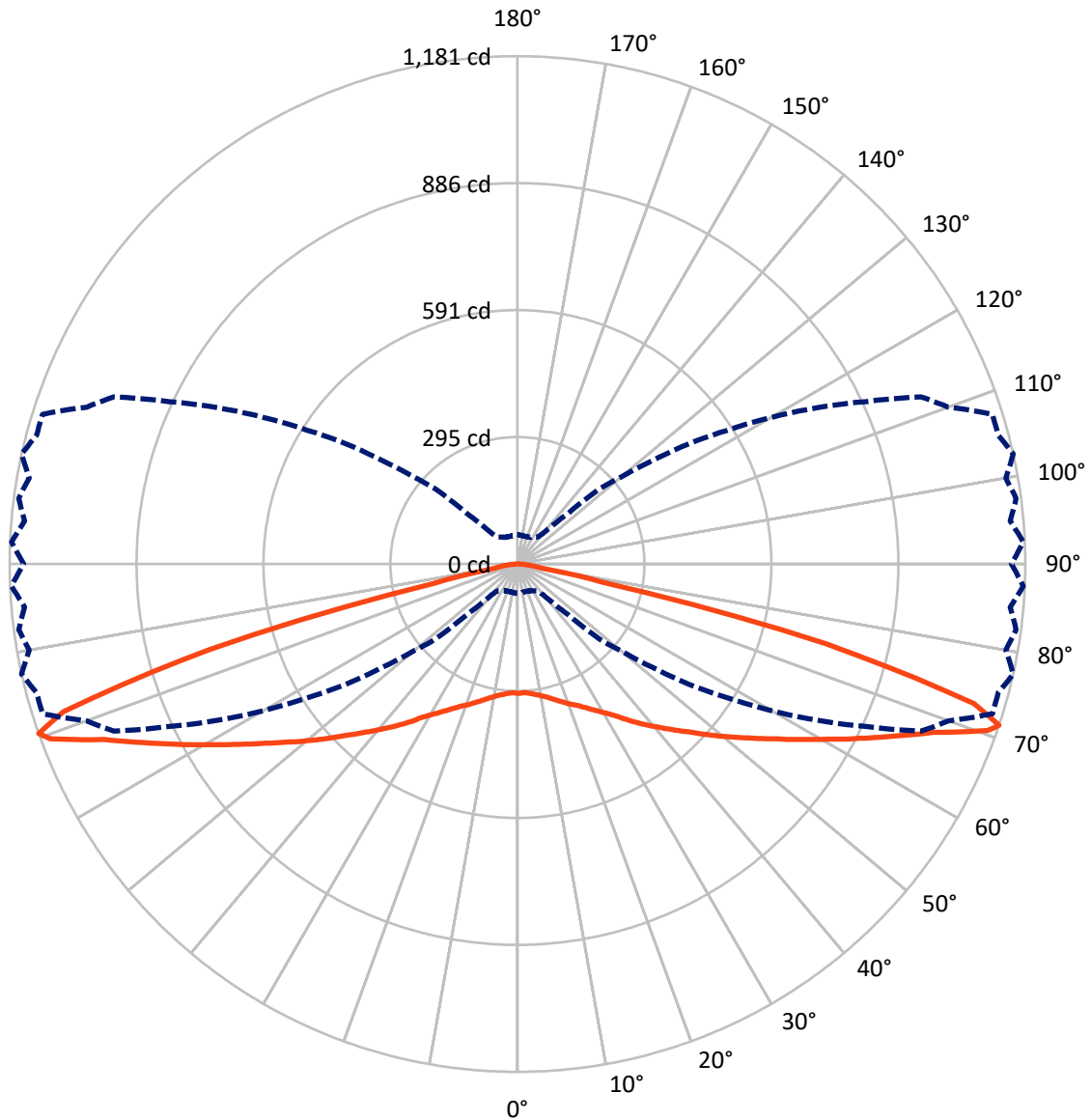
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type II - Medium - Full 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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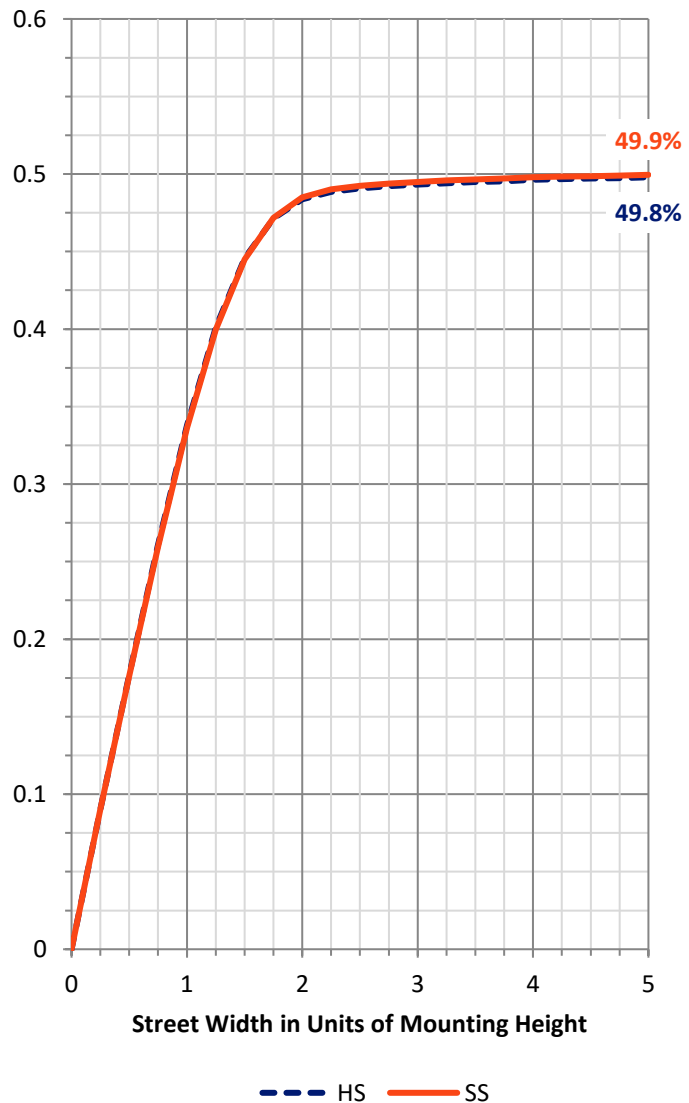
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1322.5	0.0	1322.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1322.5	0.0	1322.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	2645.0	0.0	2645.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	1.1
10°-20°	90.9	3.4
20°-30°	170.1	6.4
30°-40°	296.1	11.2
40°-50°	483.2	18.3
50°-60°	666.8	25.2
60°-70°	632.5	23.9
70°-80°	260.4	9.8
80°-90°	15.7	0.6
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°	2645.0	100.0
0°-180°	2645.0	100.0



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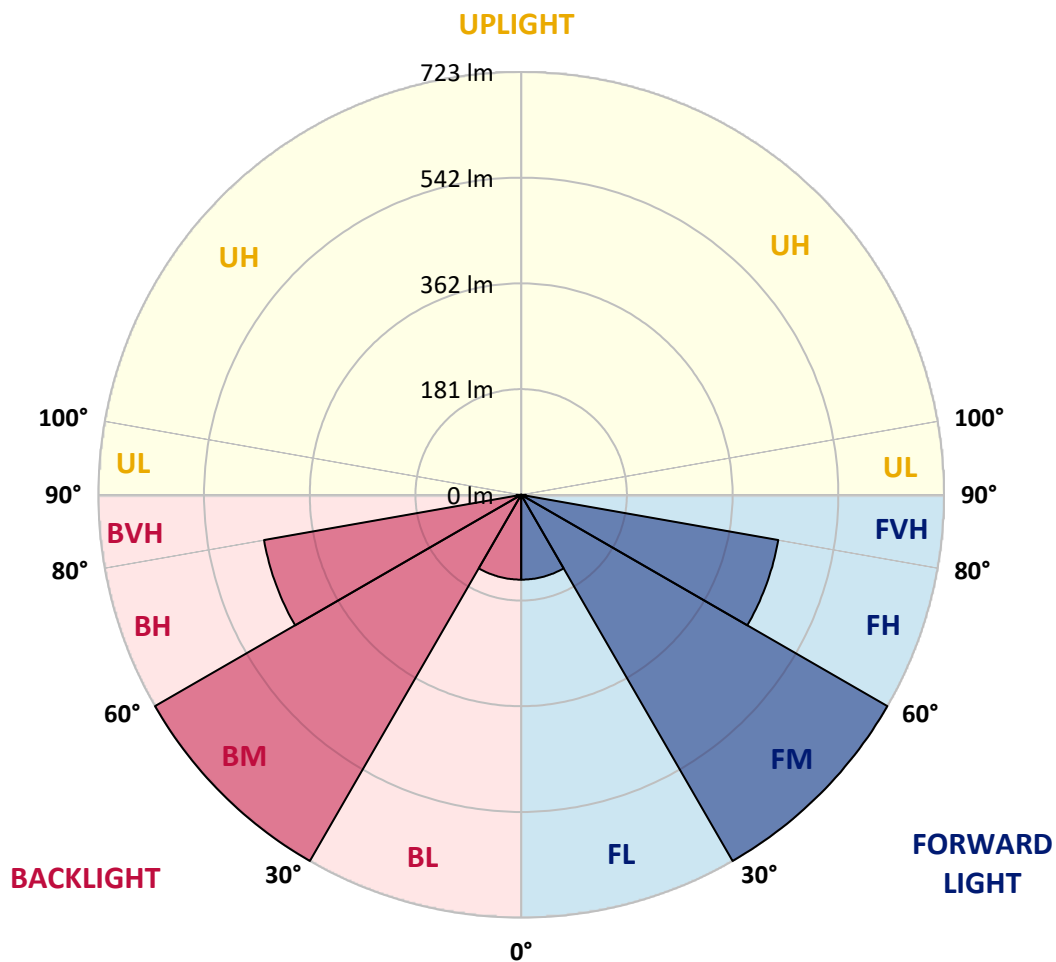
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	145.1	5.5			
FM (30°-60°)	723.1	27.3			
FH (60°-80°)	446.5	16.9			G0/660
FVH (80°-90°)	7.9	0.3			G0/10
BL (0°-30°)	145.1	5.5	B1/500		
BM (30°-60°)	723.1	27.3	B1/1000		
BH (60°-80°)	446.5	16.9	B1/500		G1/500
BVH (80°-90°)	7.9	0.3			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
2.5°	300.3	299.4	300.3	300.3	301.2	301.2	301.2	301.2	300.3	302.1	302.1
5°	300.3	300.3	301.2	301.2	302.9	304.7	302.1	302.9	303.8	302.9	304.7
7.5°	300.3	300.3	300.3	302.1	304.7	306.4	304.7	305.6	307.3	307.3	309.1
10°	297.7	296.8	298.6	302.1	306.4	309.1	308.2	311.7	310.8	311.7	313.4
12.5°	293.3	293.3	296.8	302.1	309.9	311.7	312.6	314.3	316.9	316.1	318.7
15°	294.2	295.1	298.6	305.6	315.2	316.9	317.8	317.8	322.2	320.4	325.7
17.5°	300.3	301.2	304.7	311.7	323.1	323.1	323.9	325.7	331.8	328.3	335.3
20°	309.9	310.8	314.3	322.2	332.7	331.8	333.6	335.3	343.2	339.7	346.7
22.5°	321.3	323.1	327.4	336.2	347.6	342.3	345.8	349.3	357.2	351.1	360.7
25°	337.1	339.7	344.1	353.7	366.0	359.8	363.3	366.0	374.7	366.0	375.6
27.5°	359.8	361.6	365.1	375.6	386.1	381.7	383.5	385.2	395.7	386.1	396.6
30°	387.0	389.6	393.1	402.7	413.2	406.2	409.7	411.5	420.3	410.6	419.4
32.5°	421.1	423.8	428.1	436.9	445.6	435.1	436.0	438.6	447.4	437.8	447.4
35°	461.4	463.2	469.3	479.8	485.9	469.3	470.2	470.2	481.5	468.4	478.9
37.5°	503.4	505.2	512.2	522.7	529.7	511.3	511.3	512.2	522.7	507.8	517.4
40°	547.2	552.5	560.3	570.8	576.1	555.1	556.8	556.0	568.2	550.7	560.3
42.5°	591.0	595.4	606.7	619.0	625.1	604.1	605.0	602.4	614.6	596.2	604.1
45°	628.6	632.1	646.1	663.6	673.3	651.4	651.4	651.4	663.6	640.9	650.5
47.5°	659.3	661.9	676.8	702.2	717.9	696.0	697.8	694.3	712.7	684.7	697.8
50°	681.2	682.0	701.3	730.2	757.3	737.2	739.8	741.6	759.1	734.6	745.9
52.5°	688.2	689.9	711.8	746.8	786.2	773.1	782.7	786.2	802.0	775.7	791.5
55°	663.6	668.0	701.3	753.0	806.4	802.0	813.4	820.4	840.5	818.6	835.2
57.5°	581.3	586.6	633.0	717.9	810.7	817.7	833.5	844.9	873.8	860.6	879.0
60°	464.0	468.4	515.7	618.1	755.6	798.5	834.4	866.8	896.5	899.2	922.8
62.5°	318.7	324.8	370.3	468.4	635.6	692.5	744.2	797.6	847.5	907.9	938.6
65°	155.8	159.3	197.9	292.4	466.7	539.3	599.7	675.0	721.4	808.1	858.0
67.5°	85.8	85.8	91.9	121.7	249.5	321.3	386.1	480.7	527.9	634.8	698.7
70°	71.8	71.8	70.0	74.4	94.6	112.1	145.3	199.6	265.3	373.0	430.8
71°	68.3	67.4	66.5	68.3	76.2	79.7	93.7	122.6	166.3	257.4	314.3
72.5°	63.9	62.2	59.5	60.4	64.8	64.8	67.4	71.8	88.4	120.8	162.0
75°	55.2	53.4	50.8	50.8	51.7	52.5	53.4	55.2	56.0	57.8	64.8
77.5°	45.5	43.8	41.1	41.1	40.3	41.1	42.9	43.8	42.0	45.5	46.4
80°	35.0	32.4	31.5	31.5	30.6	29.8	29.8	29.8	30.6	32.4	33.3
82.5°	21.9	20.1	21.0	20.1	19.3	19.3	19.3	19.3	20.1	20.1	21.9
85°	10.5	10.5	11.4	10.5	8.8	8.8	7.9	7.0	7.9	7.0	8.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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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°	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
2.5°	299.4	301.2	300.3	301.2	299.4	301.2	298.6	301.2	300.3	301.2	299.4
5°	302.1	304.7	302.1	305.6	302.1	305.6	302.1	305.6	302.9	305.6	302.1
7.5°	304.7	309.9	306.4	310.8	306.4	311.7	306.4	311.7	308.2	312.6	306.4
10°	309.9	316.1	310.8	316.1	310.8	316.9	310.8	317.8	312.6	319.6	311.7
12.5°	314.3	321.3	316.1	323.1	315.2	324.8	316.9	327.4	318.7	329.2	318.7
15°	320.4	329.2	323.9	331.8	323.9	334.4	324.8	337.1	327.4	338.8	327.4
17.5°	329.2	338.8	331.8	341.5	332.7	344.1	333.6	346.7	337.1	348.5	337.1
20°	341.5	349.3	342.3	352.8	343.2	353.7	345.0	355.5	347.6	358.1	347.6
22.5°	355.5	362.5	357.2	363.3	354.6	363.3	354.6	363.3	357.2	366.0	357.2
25°	371.2	376.5	370.3	376.5	368.6	375.6	367.7	374.7	368.6	376.5	370.3
27.5°	392.2	394.9	387.9	393.1	383.5	390.5	381.7	388.7	382.6	389.6	385.2
30°	415.0	417.6	410.6	414.1	403.6	408.0	398.4	404.5	399.2	404.5	401.9
32.5°	440.4	443.9	436.0	437.8	429.0	429.9	422.0	424.6	420.3	422.0	421.1
35°	469.3	473.7	464.9	467.5	457.9	457.9	450.9	450.0	448.3	446.5	446.5
37.5°	506.1	507.8	500.8	500.8	489.4	489.4	480.7	480.7	477.2	473.7	471.9
40°	546.3	547.2	535.8	534.9	523.6	523.6	513.9	511.3	505.2	500.8	498.2
42.5°	589.2	588.4	571.7	573.5	556.8	557.7	545.5	542.8	536.7	531.4	526.2
45°	633.0	629.5	612.9	612.0	592.7	593.6	578.7	577.0	568.2	563.0	556.8
47.5°	677.7	675.9	657.5	653.1	633.0	632.1	612.9	612.9	604.1	598.9	592.7
50°	724.1	723.2	702.2	699.5	678.5	675.0	652.3	652.3	641.8	640.0	631.3
52.5°	774.8	771.3	748.6	747.7	727.6	724.9	700.4	698.7	682.9	682.0	672.4
55°	824.7	818.6	803.7	796.7	776.6	775.7	753.8	749.4	729.3	729.3	717.1
57.5°	870.3	865.0	852.8	846.6	827.4	824.7	801.1	801.1	783.6	782.7	769.6
60°	917.5	919.3	906.2	903.5	885.2	884.3	860.6	860.6	843.1	842.3	827.4
62.5°	957.8	975.3	970.1	971.8	956.1	953.4	929.8	928.1	907.9	905.3	893.0
65°	918.4	979.7	1019.1	1045.4	1043.6	1042.7	1020.0	1016.5	991.1	984.1	964.0
67.5°	771.3	851.0	922.8	1001.6	1059.4	1103.2	1116.3	1111.0	1089.2	1069.0	1044.5
70°	516.6	608.5	699.5	797.6	896.5	992.8	1091.8	1134.7	1180.2	1164.4	1160.1
71°	393.1	487.7	578.7	682.0	787.1	893.9	1015.6	1066.4	1158.3	1157.4	1181.1
72.5°	221.5	305.6	402.7	492.9	591.9	702.2	827.4	883.4	1015.6	1041.9	1110.2
75°	70.9	97.2	128.7	203.1	264.4	365.1	457.9	513.9	601.5	645.3	740.7
77.5°	47.3	52.5	54.3	63.0	70.9	100.7	136.6	167.2	183.9	192.6	202.2
80°	34.1	36.8	38.5	42.9	43.8	49.0	49.0	54.3	53.4	56.9	54.3
82.5°	21.9	24.5	25.4	27.1	28.0	31.5	33.3	36.8	36.8	38.5	37.6
85°	10.5	12.3	12.3	14.0	14.0	16.6	16.6	19.3	19.3	21.9	21.0
87.5°	0.9	0.9	0.9	1.8	1.8	1.8	2.6	3.5	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
0°	301.2	301.2	301.2	301.2	301.2
2.5°	302.1	301.2	302.1	300.3	302.1
5°	306.4	302.9	307.3	302.9	307.3
7.5°	313.4	309.1	314.3	307.3	313.4
10°	319.6	313.4	320.4	313.4	319.6
12.5°	330.1	320.4	331.8	320.4	331.8
15°	340.6	329.2	343.2	330.9	342.3
17.5°	350.2	339.7	352.8	340.6	352.0
20°	359.0	349.3	360.7	348.5	360.7
22.5°	367.7	361.6	370.3	361.6	370.3
25°	379.1	374.7	380.9	374.7	380.9
27.5°	392.2	390.5	394.0	389.6	394.9
30°	407.1	408.0	408.9	408.0	409.7
32.5°	425.5	429.9	428.1	428.1	428.1
35°	450.9	458.8	453.5	455.3	454.4
37.5°	474.5	485.9	478.9	481.5	479.8
40°	500.8	508.7	506.9	506.9	505.2
42.5°	529.7	539.3	536.7	537.6	535.8
45°	561.2	570.0	566.5	565.6	566.5
47.5°	597.1	606.7	602.4	601.5	602.4
50°	634.8	646.1	642.6	640.9	642.6
52.5°	675.9	689.9	688.2	686.4	689.0
55°	724.1	737.2	735.4	737.2	738.1
57.5°	772.2	787.1	783.6	788.0	789.7
60°	832.6	841.4	842.3	843.1	844.0
62.5°	893.9	897.4	900.0	902.7	903.5
65°	964.8	965.7	967.5	964.8	967.5
67.5°	1033.1	1027.0	1026.1	1028.7	1030.5
70°	1139.1	1139.1	1130.3	1142.6	1132.1
71°	1153.1	1169.7	1150.4	1177.6	1148.7
72.5°	1084.8	1115.4	1093.5	1118.0	1089.2
75°	754.7	825.6	824.7	859.8	831.7
77.5°	209.3	196.1	209.3	180.4	172.5
80°	56.9	51.7	56.0	47.3	53.4
82.5°	37.6	32.4	31.5	25.4	27.1
85°	21.9	16.6	16.6	13.1	14.0
87.5°	3.5	0.9	3.5	1.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)