Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P821439

Luminaire Tested: **TT-D1-830-12VDC-WQ-UPL**

Issue Date: 7/23/2020

Report Generated By 670245763

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821439
	REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab:	INNOVATION CENTER
Issue Date:	7/23/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D1-830-12VDC-WQ-UPL
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
	3000K, 80 CRI LEDS AND WIDE DISTRIBUTION
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4284.7 lumens
Efficiency:	N/A
Efficacy:	153.0 lumens/watt
Luminous Opening:	Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification:	Type V - Short
BUG Rating:	B2 - U4 - G1

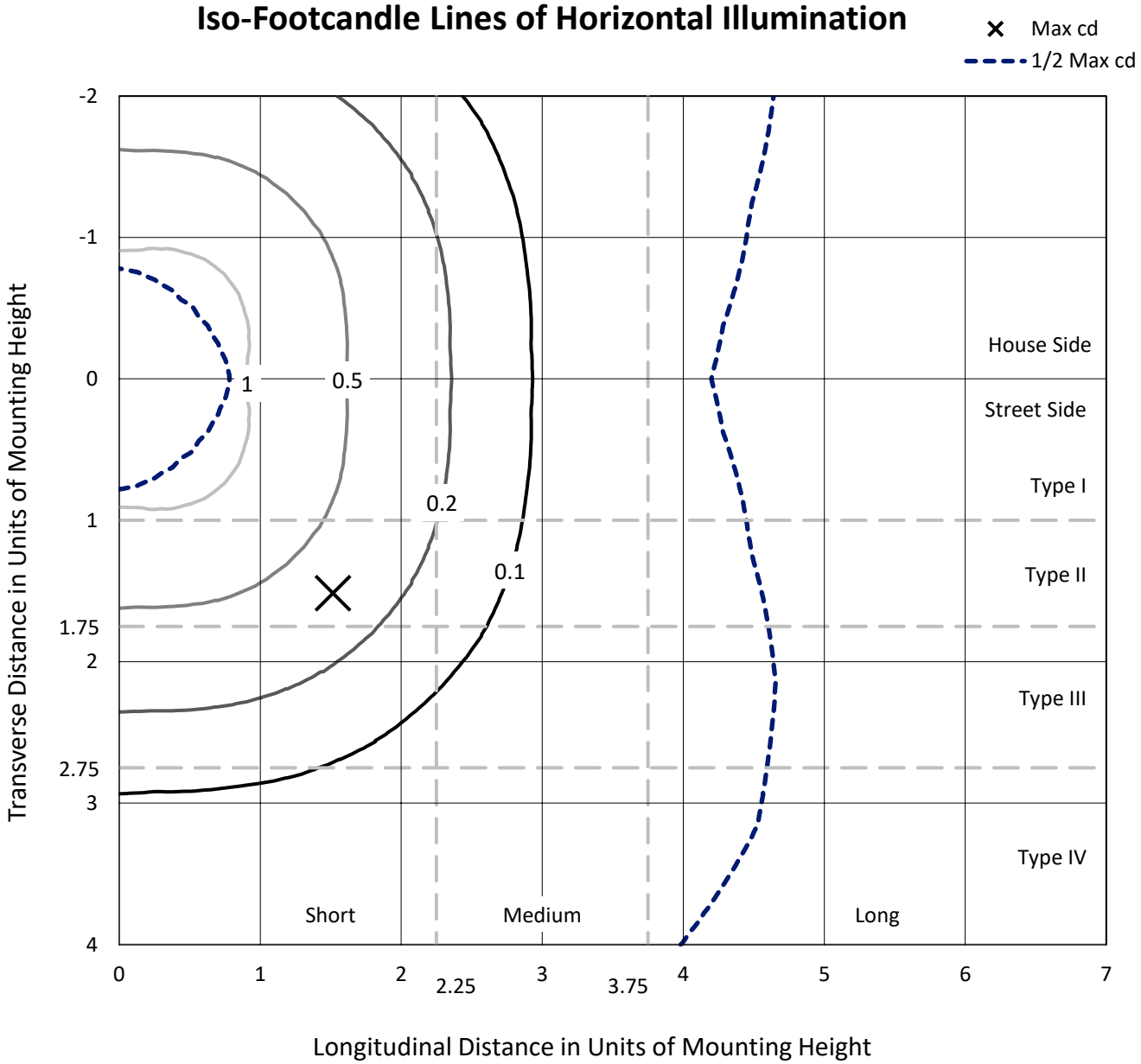
Input Watts (W):	28
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



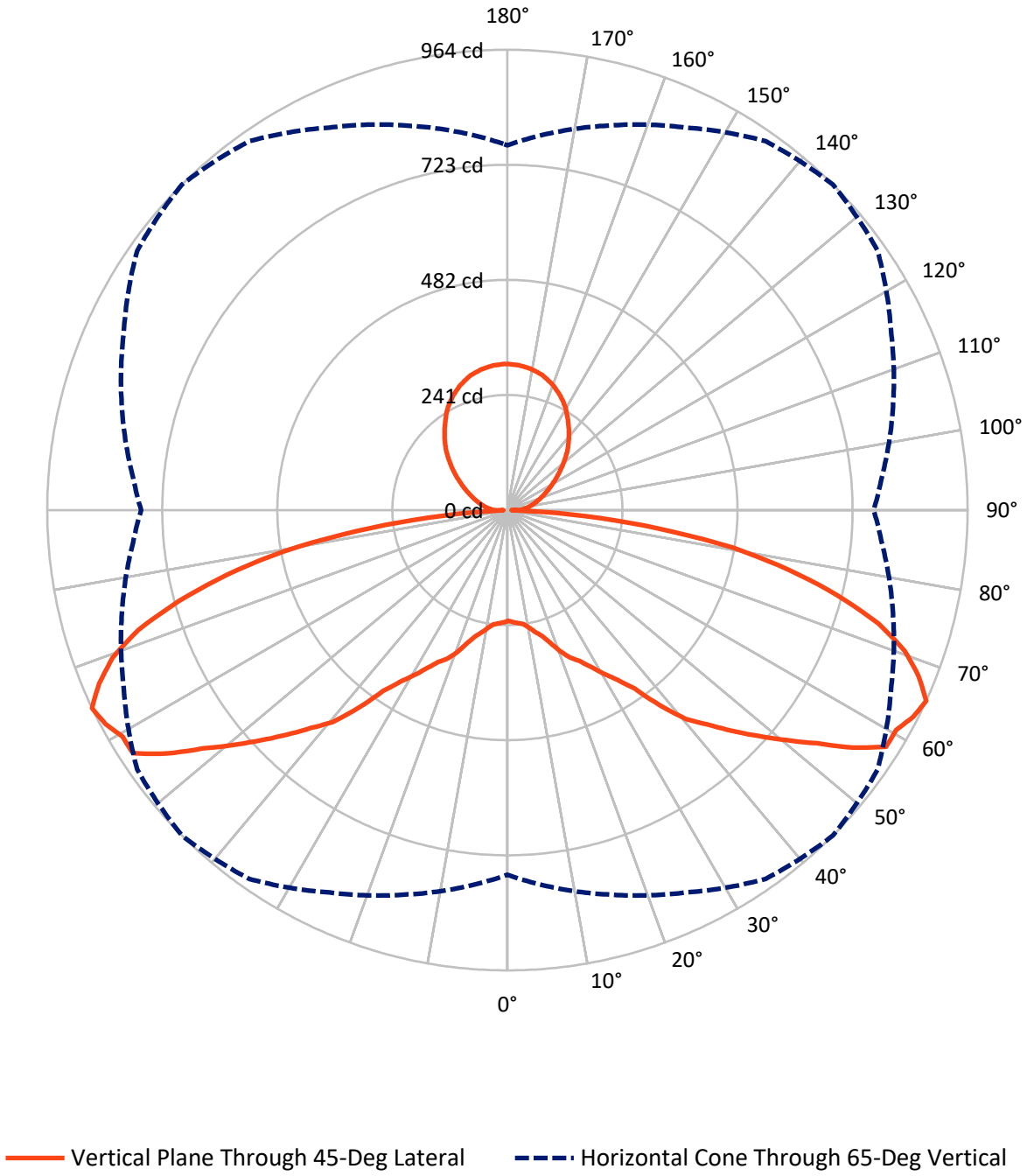
Based on 15 foot mounting height. Maximum calculated value = 1.2 fc
Type V - Short - N/A

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Luminous Intensity Polar Plot



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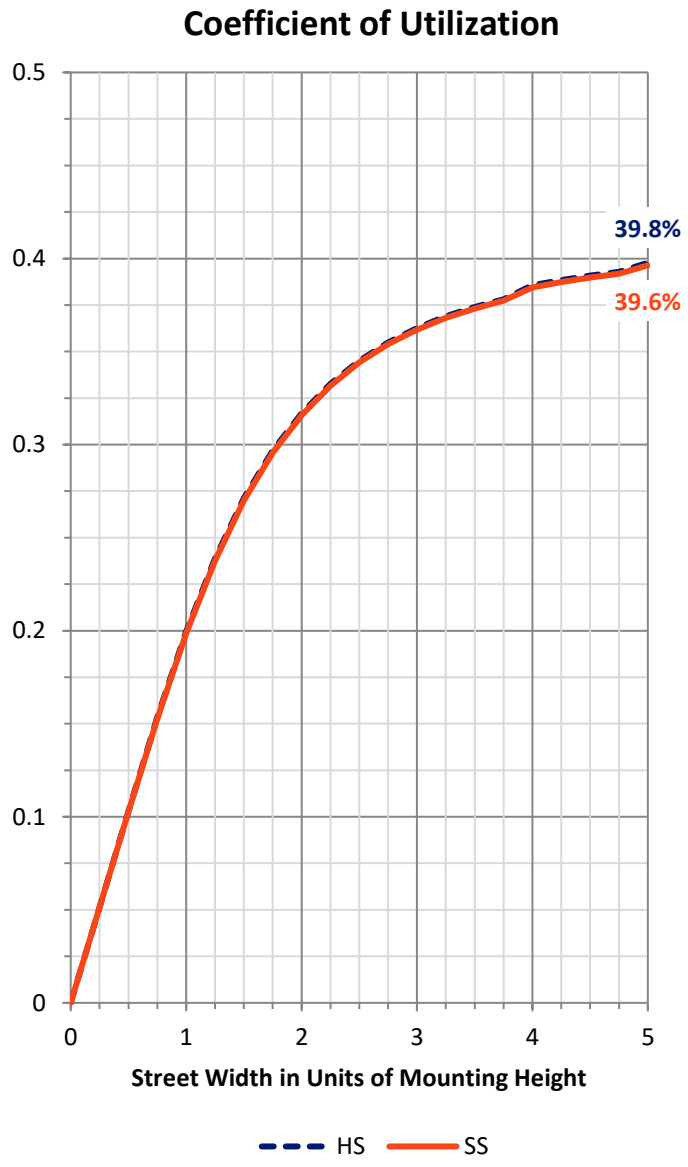
REPORT NUMBER: P821439
CATALOG NUMBER: TT-D1-830-12VDC-WQ-UPL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1726.5	415.9	2142.4
	% Fixture	40.3	9.7	50.0
Street Side	Lumens	1726.5	415.9	2142.4
	% Fixture	40.3	9.7	50.0
Total	Lumens	3453.0	831.7	4284.7
	% Fixture	80.6	19.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.1	0.5
10°-20°	79.6	1.9
20°-30°	163.5	3.8
30°-40°	290.4	6.8
40°-50°	489.6	11.4
50°-60°	722.2	16.9
60°-70°	847.6	19.8
70°-80°	660.3	15.4
80°-90°	176.6	4.1
90°-100°	42.6	1.0
100°-110°	66.0	1.5
110°-120°	91.9	2.1
120°-130°	119.0	2.8
130°-140°	138.7	3.2
140°-150°	140.5	3.3
150°-160°	121.9	2.8
160°-170°	82.2	1.9
170°-180°	28.9	0.7
0°-90°	3453.0	80.6
0°-180°	4284.7	100.0



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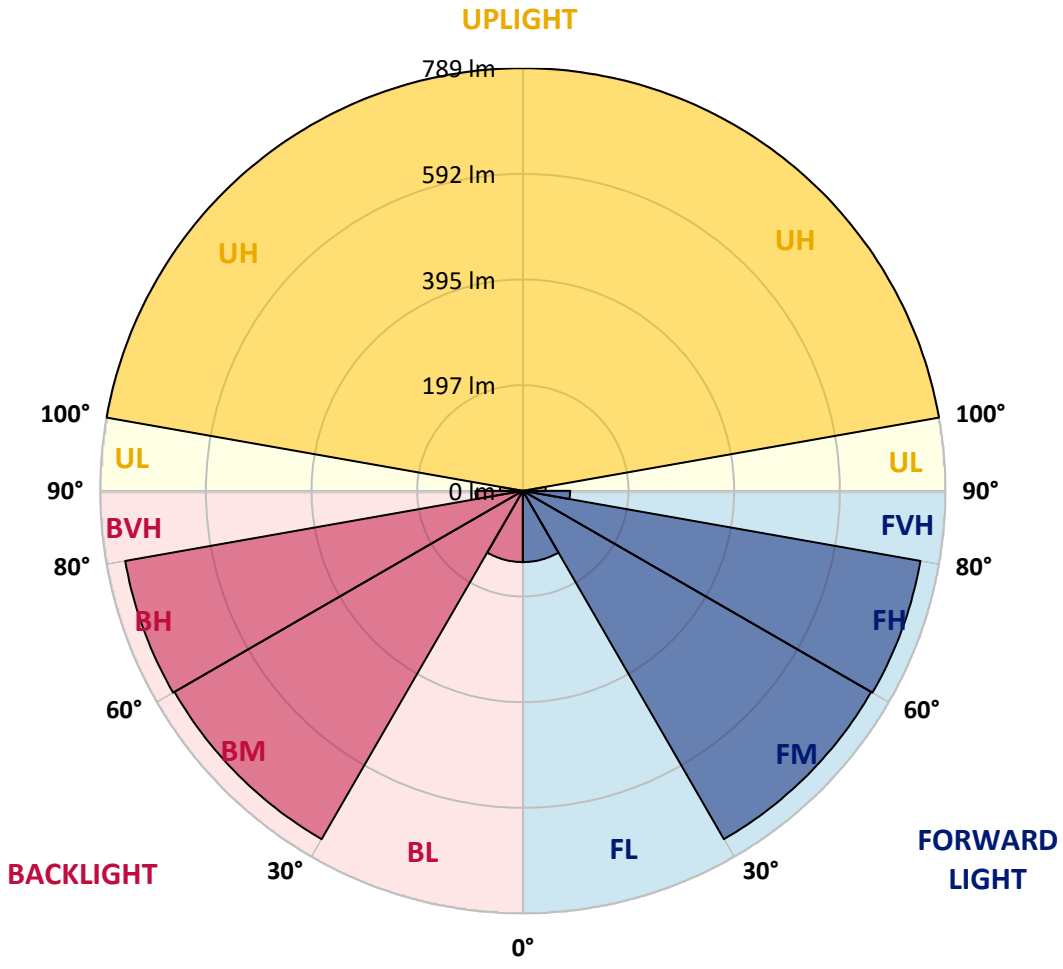
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	133.1	3.1			
FM	(30°-60°)	751.1	17.5			
FH	(60°-80°)	754.0	17.6			G1/1800
FVH	(80°-90°)	88.3	2.1			G1/100
BL	(0°-30°)	133.1	3.1	B1/500		
BM	(30°-60°)	751.1	17.5	B1/1000		
BH	(60°-80°)	754.0	17.6	B2/1000		G1/1800
BVH	(80°-90°)	88.3	2.1			G1/100
UL	(90°-100°)	42.6	1.0		U2/50	
UH	(100°-180°)	789.1	18.4		U4/1000	

BUG Rating: B2-U4-G1
Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	232.1	232.1	232.1	232.1	232.1	*232.1*	232.1	232.1	232.1	232.1	232.1
2.5°	235.9	235.9	235.9	235.4	235.4	*235.4*	235.4	235.9	235.9	235.9	235.9
5°	241.3	241.3	240.3	239.2	238.1	*238.1*	238.6	239.2	239.7	240.8	240.8
7.5°	244.6	244.6	244.1	243.0	241.3	*241.3*	241.9	243.0	243.5	243.5	243.0
10°	248.9	249.5	251.1	251.7	250.6	*250.6*	251.1	251.7	250.6	248.9	248.9
12.5°	259.2	259.8	262.0	263.6	263.6	*262.5*	263.0	264.1	261.4	258.7	259.2
15°	273.9	273.9	274.4	276.1	275.0	*273.9*	275.0	275.5	273.9	273.3	274.4
17.5°	293.4	293.4	290.2	292.9	293.4	*292.9*	294.0	291.2	289.6	291.8	292.9
20°	314.6	312.4	310.8	312.9	317.3	*315.7*	317.8	311.9	310.2	311.3	311.9
22.5°	328.1	329.8	330.8	331.9	337.9	*335.7*	337.9	331.4	330.3	328.1	326.5
25°	344.4	346.0	352.5	349.3	353.1	*349.8*	352.5	348.7	350.9	344.4	344.4
27.5°	362.8	366.1	369.9	368.3	373.1	*371.5*	373.1	367.7	368.3	365.5	364.5
30°	387.8	387.8	386.7	390.0	398.6	*397.5*	398.1	391.0	386.2	386.7	388.9
32.5°	412.7	409.5	411.1	420.9	426.3	*424.1*	425.2	422.0	411.1	408.9	410.6
35°	436.1	440.9	444.7	452.9	460.5	*459.4*	458.8	453.4	446.4	437.7	435.0
37.5°	472.4	477.8	488.1	502.8	516.3	*519.0*	512.0	504.9	488.7	476.2	469.7
40°	520.1	520.7	532.6	560.8	573.3	*575.4*	571.6	559.7	534.8	520.7	520.1
42.5°	561.9	558.1	577.6	601.5	612.9	*613.9*	611.2	601.5	577.6	557.5	561.3
45°	594.4	594.4	617.7	636.7	655.2	*659.5*	654.6	634.0	618.3	595.0	593.3
47.5°	624.3	632.4	651.9	675.2	701.3	*707.2*	701.3	676.9	650.3	632.9	623.7
50°	660.0	669.8	683.9	720.2	749.5	*757.7*	749.0	722.4	683.9	669.3	663.8
52.5°	701.8	709.9	732.2	777.7	799.4	*811.4*	804.3	778.8	733.3	711.0	706.7
55°	751.7	744.1	778.8	822.8	862.9	*878.6*	864.5	823.8	784.2	744.1	751.7
57.5°	777.2	768.5	817.3	859.1	915.0	*935.6*	918.2	862.3	817.3	771.2	776.7
60°	779.4	783.2	820.0	888.4	926.9	*935.6*	930.1	893.3	821.7	786.4	776.1
62.5°	772.9	796.2	827.6	898.1	932.9	*954.0*	935.6	899.2	830.9	800.0	773.4
65°	*764.2*	*787.5*	*834.1*	*884.0*	*943.2*	*964.3*	*947.0*	*886.8*	*836.3*	*787.5*	*767.4*
67.5°	749.0	740.9	798.3	865.1	916.6	*929.1*	918.2	866.1	797.8	739.8	750.6
70°	700.7	693.7	743.0	816.2	865.6	*883.0*	869.9	817.3	744.1	695.3	701.8
72.5°	629.1	631.3	679.0	749.0	802.1	*813.0*	805.9	748.5	681.7	634.0	625.3
75°	545.6	551.0	596.6	660.0	708.3	*714.8*	707.8	662.8	596.0	554.3	542.9
77.5°	448.5	456.7	493.5	557.0	589.0	*603.6*	592.3	558.6	496.3	458.8	447.4
80°	347.7	350.4	376.4	427.4	469.7	*479.4*	468.6	429.0	379.6	351.4	343.3
82.5°	227.8	232.1	255.4	294.5	322.2	*319.4*	322.2	291.2	258.2	231.0	217.5
85°	101.4	110.1	125.8	144.3	162.2	*167.0*	162.2	146.4	125.8	107.9	105.8
87.5°	7.1	8.1	9.8	10.3	11.4	*8.7*	8.7	8.7	7.6	8.7	7.1
90°	30.1	29.1	29.1	29.1	29.1	*29.1*	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	*33.8*	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	*38.5*	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	*44.2*	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	*49.8*	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	*55.9*	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	*62.0*	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	*69.0*	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	*76.1*	76.1	76.1	76.1	76.1	76.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	*84.0*	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	*92.0*	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	*101.4*	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	*110.8*	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	*121.6*	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	*132.4*	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	*144.2*	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	*155.9*	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	*168.1*	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	*180.3*	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	*191.6*	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	*202.9*	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	*213.7*	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	*224.5*	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	*235.8*	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	*247.0*	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	*256.0*	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	*264.9*	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	*272.4*	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	*279.9*	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	*286.0*	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	*292.1*	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	*295.8*	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	*299.6*	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	*302.0*	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	*304.3*	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	*305.2*	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	*306.2*	306.2	306.2	306.2	306.2	306.2

(END OF REPORT)