

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: INVUE

Report Number: P141860

Luminaire Tested: **ECM-E01-LED-E1-T3**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141860
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E01-LED-E1-T3
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2936.3 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

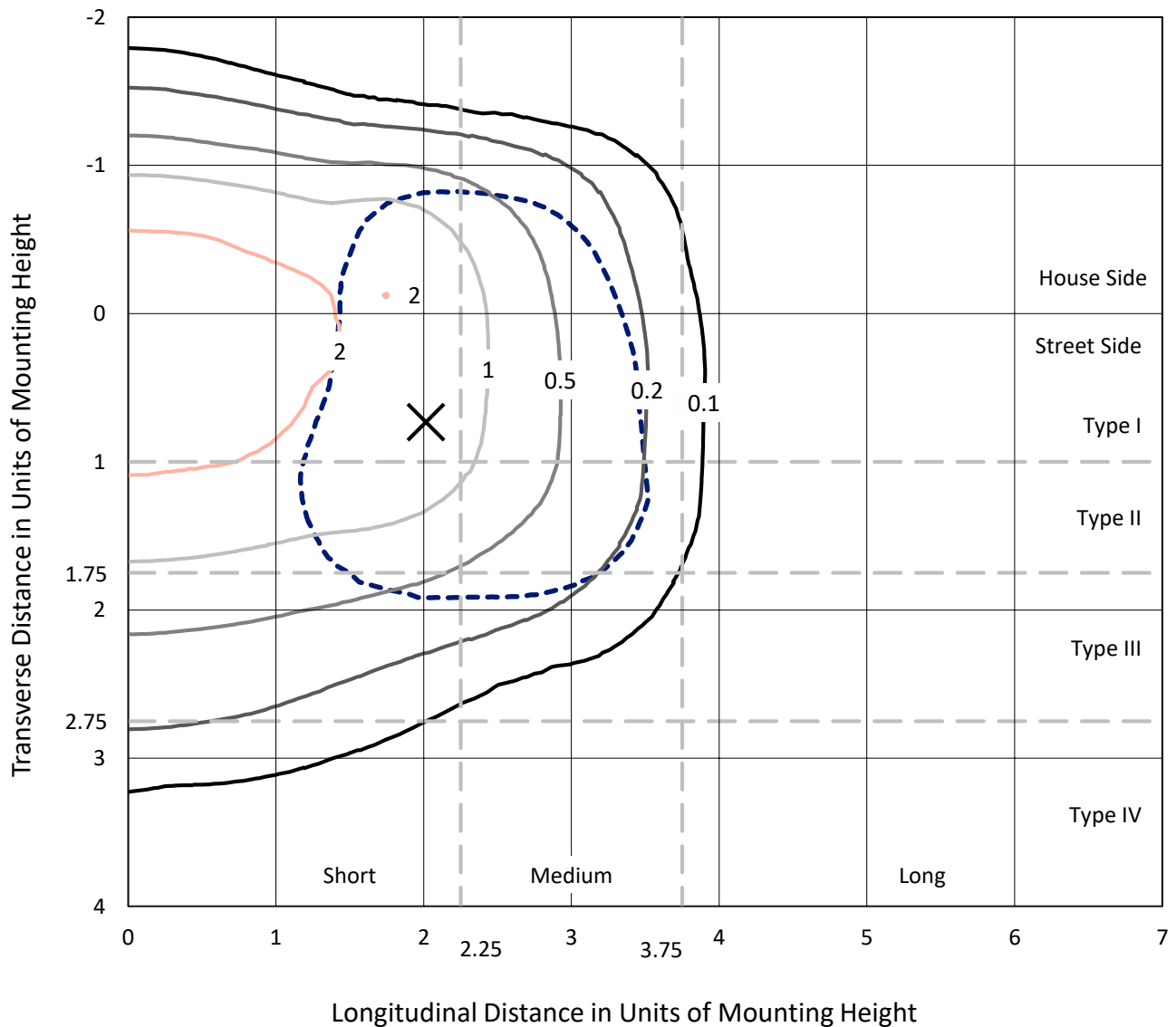
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

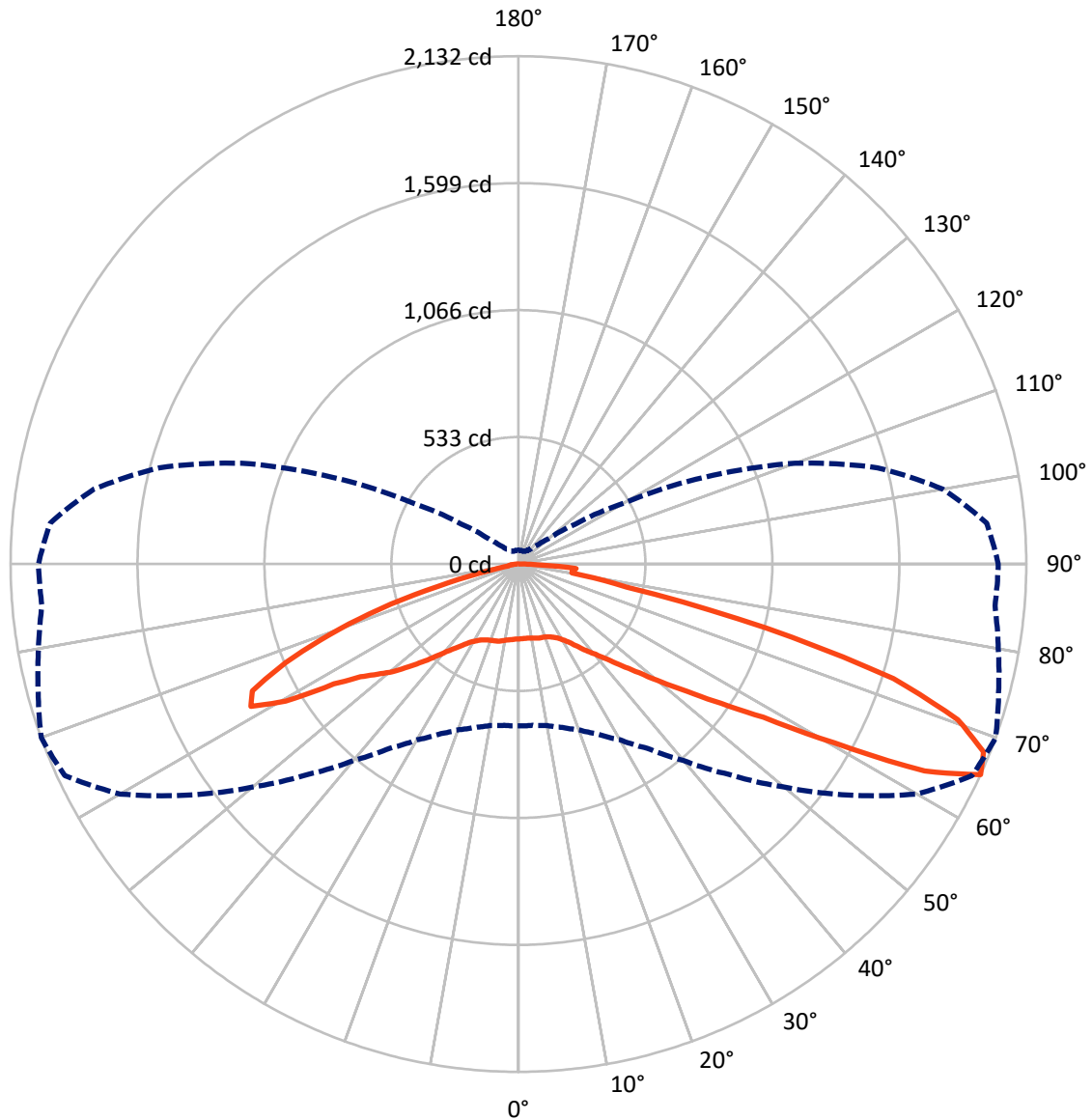
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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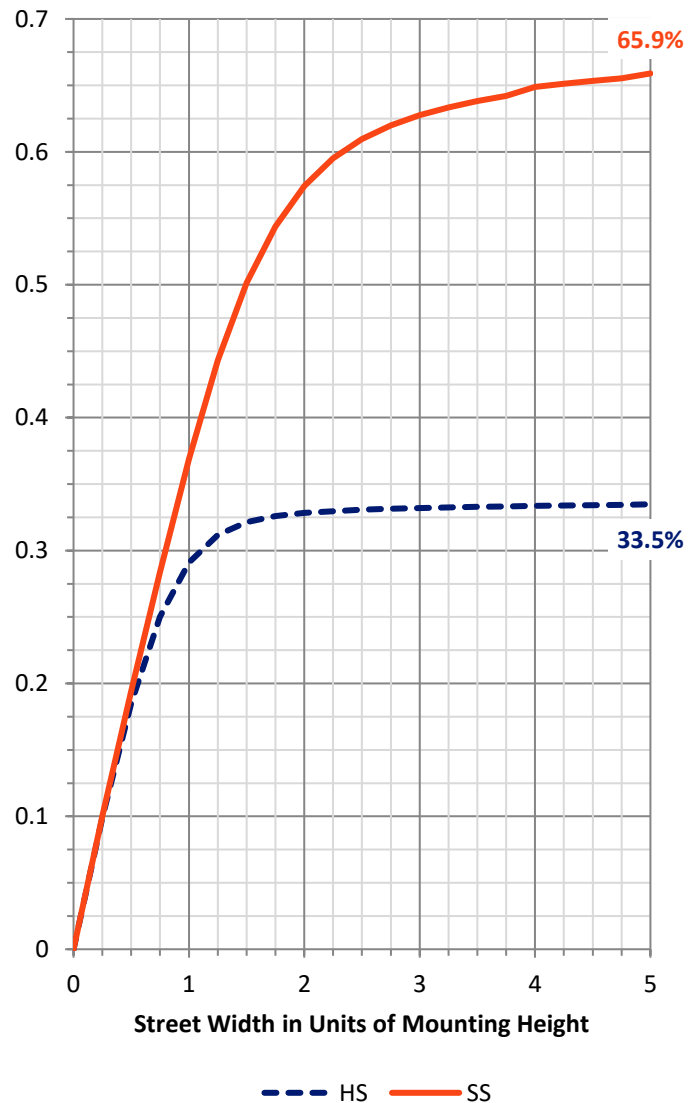
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	991.2	0.0	991.2
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	1945.1	0.0	1945.1
	% Fixture	66.2	0.0	66.2
Total	Lumens	2936.3	0.0	2936.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.3	1.0
10°-20°	89.7	3.1
20°-30°	154.2	5.3
30°-40°	247.2	8.4
40°-50°	404.8	13.8
50°-60°	633.6	21.6
60°-70°	890.4	30.3
70°-80°	421.4	14.3
80°-90°	64.7	2.2
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°	2936.3	100.0
0°-180°	2936.3	100.0



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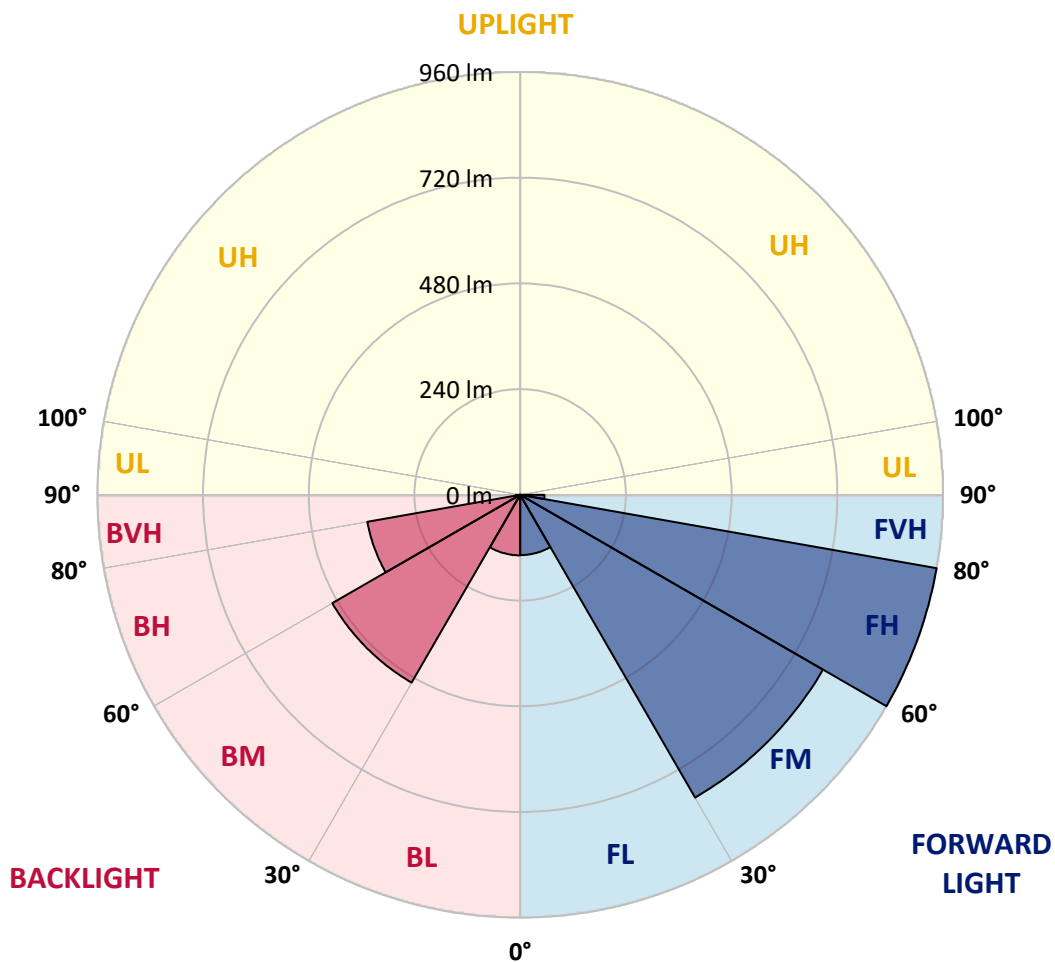
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	136.8	4.7			
FM	(30°-60°)	793.5	27.0			
FH	(60°-80°)	959.6	32.7			G1/1800
FVH	(80°-90°)	55.2	1.9			G1/100
BL	(0°-30°)	137.4	4.7	B1/500		
BM	(30°-60°)	492.1	16.8	B1/1000		
BH	(60°-80°)	352.1	12.0	B1/500		G1/500
BVH	(80°-90°)	9.6	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7
2.5°	313.0	313.3	313.3	312.7	312.7	313.0	313.0	313.3	313.3	313.3	313.7
5°	313.0	313.3	313.3	313.0	312.7	313.3	313.0	313.3	313.3	313.3	313.3
7.5°	312.3	312.7	312.7	312.3	312.7	313.0	313.0	313.7	314.0	314.0	314.3
10°	309.0	309.3	309.7	309.7	310.3	311.3	311.7	313.0	313.3	314.3	315.0
12.5°	303.0	303.0	303.7	304.3	305.3	307.3	308.3	310.3	312.0	313.3	315.7
15°	297.7	297.7	298.3	298.7	300.7	302.0	304.0	306.3	309.3	312.0	315.7
17.5°	300.3	300.3	300.0	299.7	300.0	300.0	301.7	304.0	306.7	310.3	315.0
20°	310.7	310.3	309.0	308.3	308.0	306.7	305.7	305.3	306.7	309.3	314.0
22.5°	319.7	319.0	318.7	318.0	319.0	318.3	317.0	315.3	313.3	312.3	315.0
25°	325.0	325.3	325.3	325.3	327.3	328.0	328.7	326.7	324.3	321.0	321.3
27.5°	332.3	332.7	332.0	333.3	335.7	337.3	339.0	340.3	339.0	337.0	334.7
30°	348.0	348.0	347.0	348.0	350.0	351.7	354.0	356.3	356.3	354.3	352.0
32.5°	364.3	364.7	364.7	365.3	368.3	369.7	373.0	375.3	377.0	375.7	377.0
35°	384.0	383.7	384.7	385.0	389.7	391.3	398.0	399.7	402.3	403.0	404.0
37.5°	416.7	417.3	415.3	414.0	418.0	418.0	426.7	431.3	430.7	435.3	438.7
40°	469.3	466.3	465.3	464.7	467.0	466.7	466.3	472.7	475.7	476.3	478.0
42.5°	527.7	528.7	527.7	530.0	530.0	528.3	527.0	526.0	531.7	535.3	536.0
45°	596.0	597.3	595.3	593.7	598.0	600.3	600.3	603.0	607.7	609.3	608.3
47.5°	650.7	654.3	652.7	655.0	662.0	670.0	680.7	687.7	692.7	697.3	704.7
50°	700.0	701.7	705.7	713.3	723.7	736.3	753.7	771.0	781.0	792.7	801.3
52.5°	730.0	735.0	741.0	753.7	771.0	788.7	815.3	843.7	869.0	882.0	892.3
55°	748.0	751.7	759.7	777.0	801.3	827.7	861.0	900.0	933.7	962.3	984.7
57.5°	747.3	750.3	761.3	780.3	809.3	842.3	884.0	932.7	982.3	1030.0	1072.0
60°	733.0	735.7	746.7	767.0	798.7	838.0	888.0	947.7	1015.0	1086.7	1160.3
62.5°	711.0	713.0	722.7	743.0	775.0	817.0	875.7	954.0	1049.7	1162.7	1305.7
65°	680.0	680.0	689.0	710.0	740.7	787.7	852.3	944.3	1076.7	1248.7	1456.7
67.5°	634.3	634.3	641.7	659.0	683.0	715.7	780.3	876.0	1015.7	1221.7	1465.0
70°	548.0	549.3	549.3	560.0	570.7	585.3	616.0	689.3	820.3	1021.7	1261.0
72.5°	401.7	377.3	396.3	413.7	425.7	433.7	451.3	474.3	540.3	691.3	908.0
75°	253.0	259.3	273.7	293.3	323.0	353.7	387.3	401.7	395.7	413.7	559.3
77.5°	153.3	148.0	162.0	191.3	224.7	266.3	329.3	384.0	415.3	413.3	396.0
80°	66.3	64.7	74.0	88.0	104.3	142.0	199.7	274.7	358.0	406.3	399.0
82.5°	23.7	24.0	30.3	36.0	43.3	55.7	79.0	126.3	200.3	285.3	352.7
85°	7.0	7.7	10.7	15.0	17.0	19.3	26.7	39.7	67.7	108.0	192.0
87.5°	2.0	2.3	3.0	5.3	5.0	4.7	5.3	8.3	6.3	5.3	26.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7
2.5°	313.3	313.3	313.3	313.7	313.3	313.3	313.7	313.7	314.0	314.3	315.0
5°	313.0	313.0	313.3	313.3	313.3	313.7	314.0	314.3	315.0	316.0	317.0
7.5°	314.0	314.0	313.7	314.0	314.0	314.3	315.0	315.3	316.7	317.7	319.3
10°	315.0	315.0	315.3	315.7	315.7	316.3	317.3	317.7	319.0	321.0	322.7
12.5°	316.3	317.3	318.7	319.3	320.0	320.7	321.7	322.3	324.0	326.7	328.7
15°	317.3	319.7	321.0	322.7	323.7	324.0	325.0	326.3	328.0	330.7	333.0
17.5°	317.3	320.3	322.3	324.0	325.7	326.7	327.7	329.0	331.3	334.0	336.3
20°	317.0	321.3	324.0	326.7	329.7	330.7	332.3	333.7	336.3	339.7	341.3
22.5°	318.7	323.7	327.3	332.0	335.3	338.0	340.0	342.3	344.3	346.7	347.3
25°	323.7	328.7	334.7	340.3	345.0	349.0	351.7	353.7	356.0	357.0	355.7
27.5°	332.0	335.7	344.0	352.3	359.7	364.7	367.7	370.3	371.0	373.0	368.0
30°	347.0	348.7	357.3	369.3	377.7	386.0	390.0	392.7	393.0	391.7	383.0
32.5°	371.7	368.7	376.3	392.3	405.0	412.0	418.3	420.0	419.0	414.7	400.7
35°	401.7	397.0	400.7	424.0	438.0	448.3	454.3	456.0	453.7	446.0	426.7
37.5°	438.7	437.0	438.7	461.0	485.3	495.0	497.7	499.7	494.0	480.0	454.7
40°	479.7	480.0	478.0	498.3	529.0	543.0	549.3	545.0	538.0	518.0	490.0
42.5°	536.3	534.3	527.3	545.7	585.0	599.3	605.0	601.7	594.7	569.3	536.7
45°	611.3	604.7	598.0	607.7	645.7	664.3	672.7	670.3	658.0	627.3	596.7
47.5°	703.0	696.0	683.7	682.0	720.3	742.3	745.3	741.7	732.3	701.7	664.0
50°	799.3	797.3	791.7	778.3	812.7	834.7	832.7	830.0	819.7	780.7	742.0
52.5°	899.0	903.0	899.3	890.0	926.7	935.7	936.3	928.3	916.3	880.3	827.7
55°	1003.7	1018.7	1024.3	1031.7	1060.7	1059.3	1051.7	1032.7	1035.7	994.7	921.7
57.5°	1114.7	1160.7	1197.0	1213.3	1241.0	1249.0	1229.7	1236.0	1233.3	1191.0	1076.0
60°	1261.0	1371.0	1465.7	1524.0	1561.3	1547.0	1574.0	1575.3	1621.0	1528.0	1348.7
62.5°	1494.3	1696.3	1864.3	1914.7	1924.3	1921.0	1889.0	1921.0	1912.3	1799.0	1566.7
65°	1690.7	1931.0	2101.7	2132.3	2087.3	2046.0	2008.7	2015.0	1973.7	1809.7	1560.3
67.5°	1717.3	1956.7	2115.0	2106.3	2008.0	1931.3	1869.3	1820.7	1736.3	1588.0	1370.7
70°	1506.3	1760.0	1964.0	1957.3	1820.7	1718.3	1617.7	1544.3	1458.3	1343.7	1138.0
72.5°	1171.7	1397.7	1595.3	1646.7	1512.0	1399.0	1306.7	1213.3	1124.7	1015.7	886.0
75°	797.7	967.7	1059.7	1073.7	950.3	865.7	830.0	753.7	659.7	636.3	540.3
77.5°	463.3	528.7	500.7	463.3	373.0	274.0	209.3	179.0	179.7	206.3	197.7
80°	376.7	358.7	283.0	227.0	154.3	78.7	52.7	45.3	45.7	53.0	51.3
82.5°	388.3	398.7	327.7	229.3	158.0	83.3	40.0	29.7	34.7	37.7	37.0
85°	287.7	377.0	338.0	243.3	169.7	88.7	26.0	16.3	23.0	28.0	30.0
87.5°	80.7	126.7	98.3	65.0	47.3	16.0	10.3	8.7	10.7	14.7	14.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7
2.5°	315.3	316.7	316.3	317.0	317.3	318.3	319.0	318.7	318.7	319.3	320.0
5°	318.0	319.7	319.7	320.7	321.7	323.0	324.0	323.3	323.7	324.3	325.0
7.5°	320.7	322.7	323.0	324.0	324.7	325.3	326.0	325.0	324.7	324.7	324.3
10°	324.0	326.0	325.7	325.7	325.3	324.7	323.3	321.0	319.3	318.3	317.7
12.5°	329.7	331.0	329.0	327.0	323.7	321.3	318.3	315.7	313.7	312.0	311.3
15°	334.7	334.0	331.7	328.0	323.3	319.7	316.7	313.0	310.7	308.7	307.7
17.5°	337.3	335.0	331.7	328.3	324.3	321.0	317.3	313.0	309.3	306.7	305.3
20°	340.0	336.3	332.0	328.7	325.7	323.0	320.3	315.0	310.3	306.3	304.3
22.5°	344.0	339.0	334.7	331.7	328.7	326.0	323.3	318.3	313.3	308.0	305.0
25°	349.7	343.0	340.0	337.0	333.7	331.0	327.3	322.7	317.3	311.0	306.7
27.5°	358.7	352.7	349.3	346.3	342.3	338.0	334.0	327.7	322.7	315.3	309.7
30°	371.7	365.3	362.3	359.3	354.7	349.0	343.3	335.3	328.3	320.0	312.7
32.5°	388.0	384.7	381.0	376.0	369.7	362.7	354.3	343.7	333.7	323.3	314.0
35°	413.3	407.7	401.7	396.7	387.3	377.7	365.0	349.3	336.0	323.3	312.0
37.5°	442.3	436.3	428.3	419.3	405.3	390.0	372.3	352.7	335.0	319.7	307.0
40°	477.3	469.7	459.0	442.0	421.3	398.3	374.7	350.0	329.3	311.7	297.0
42.5°	523.7	508.0	487.3	462.3	433.0	401.7	371.7	343.0	319.7	300.3	285.7
45°	576.0	551.0	517.7	480.3	439.7	400.3	365.0	331.7	305.3	284.0	268.7
47.5°	632.3	593.3	544.3	491.7	440.3	393.0	352.0	314.7	285.0	262.3	243.3
50°	696.0	631.7	563.0	497.3	436.0	380.0	333.3	290.3	259.7	232.7	215.3
52.5°	750.7	665.3	576.0	495.0	420.7	357.3	302.7	261.0	225.0	201.0	184.0
55°	815.3	698.0	583.0	483.3	396.0	322.0	269.7	223.3	189.3	168.0	153.3
57.5°	924.3	753.3	589.0	459.7	355.3	277.7	224.0	180.7	154.0	135.3	125.0
60°	1134.7	860.7	613.7	424.3	303.7	224.3	173.0	141.3	118.3	106.0	98.7
62.5°	1272.3	933.7	602.7	370.0	237.3	168.0	126.7	102.0	88.7	79.7	76.3
65°	1237.3	860.0	511.3	293.3	165.3	111.7	85.0	70.0	64.0	59.3	57.3
67.5°	1062.7	693.7	370.7	189.7	104.7	68.0	55.7	49.7	47.0	45.0	44.7
70°	846.7	489.0	220.3	100.7	58.0	45.0	39.7	37.3	36.3	36.3	36.3
72.5°	614.3	281.7	108.3	54.3	39.0	34.3	32.0	31.3	31.0	31.0	31.3
75°	351.0	122.0	55.7	37.3	32.0	29.7	28.3	28.3	28.3	28.3	28.7
77.5°	122.3	55.7	39.3	31.3	27.7	26.3	25.7	26.3	26.7	26.7	26.7
80°	44.7	39.3	33.7	27.3	24.7	23.3	23.3	24.3	25.0	24.3	24.0
82.5°	35.3	31.0	27.3	23.7	21.7	21.0	21.3	22.0	21.7	21.3	20.3
85°	27.0	20.3	19.0	17.7	17.3	17.3	18.7	19.0	17.7	17.0	16.0
87.5°	13.3	10.7	9.7	11.3	11.0	10.0	10.3	10.3	8.7	8.0	8.3
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):

	165°	170°	175°	180°
0°	314.7	314.7	314.7	314.7
2.5°	320.0	320.3	321.3	321.0
5°	324.7	325.0	325.7	325.7
7.5°	323.7	324.0	324.0	324.0
10°	316.0	316.0	316.7	316.7
12.5°	310.0	309.7	309.7	309.0
15°	306.3	305.7	306.0	305.0
17.5°	303.7	303.3	303.3	302.7
20°	302.7	302.0	301.7	301.0
22.5°	302.0	301.7	301.0	300.3
25°	303.7	302.0	301.7	301.0
27.5°	305.3	303.7	302.3	302.0
30°	307.0	304.0	302.3	301.7
32.5°	306.7	302.7	300.3	299.3
35°	303.0	298.0	295.0	294.0
37.5°	296.0	290.3	285.7	284.0
40°	286.0	278.7	274.3	272.0
42.5°	274.0	265.7	262.0	260.0
45°	254.3	247.7	243.3	241.7
47.5°	232.3	223.3	219.3	217.7
50°	204.0	196.7	193.3	191.0
52.5°	174.0	167.3	164.3	163.0
55°	145.0	141.7	137.0	136.0
57.5°	117.7	116.7	113.3	113.0
60°	95.7	94.0	91.7	91.7
62.5°	75.3	73.7	72.7	72.7
65°	58.0	57.7	57.0	56.7
67.5°	44.7	45.7	46.0	45.3
70°	37.3	37.7	37.7	37.7
72.5°	32.3	32.3	32.3	32.0
75°	29.3	29.3	28.7	28.3
77.5°	27.0	26.7	27.0	26.7
80°	23.7	23.3	22.7	22.0
82.5°	19.7	19.3	17.7	17.7
85°	15.3	14.3	13.0	11.7
87.5°	8.7	7.7	5.7	4.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)