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

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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: LUMARK

Report Number: P959476

Luminaire Tested: **NAV-SB1A-835-U-SL4-HSS**

Issue Date: 1/21/2025

Report Generated By 670246001

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Test Information

Test Method:	LM-79-08
Report Number:	P959476
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab:	INNOVATION CENTER
Issue Date:	1/21/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	NAV-SB1A-835-U-SL4-HSS
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
	(1) 80 CRI, 3500K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	2977.6 lumens
Efficiency:	N/A
Efficacy:	96.4 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G1

Input Watts (W):	30.9
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:	24 FT

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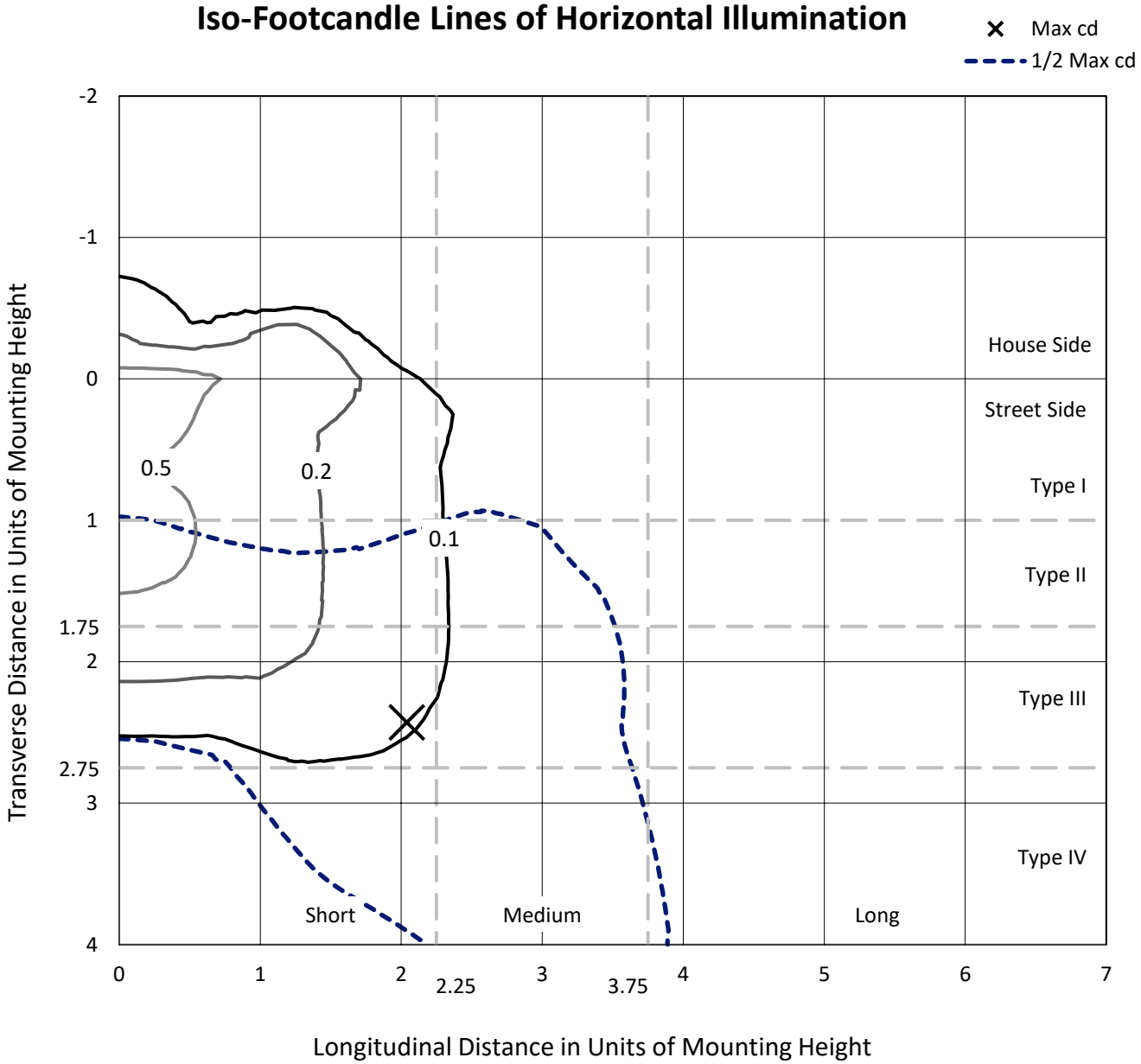
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
Type IV - Short - N/A

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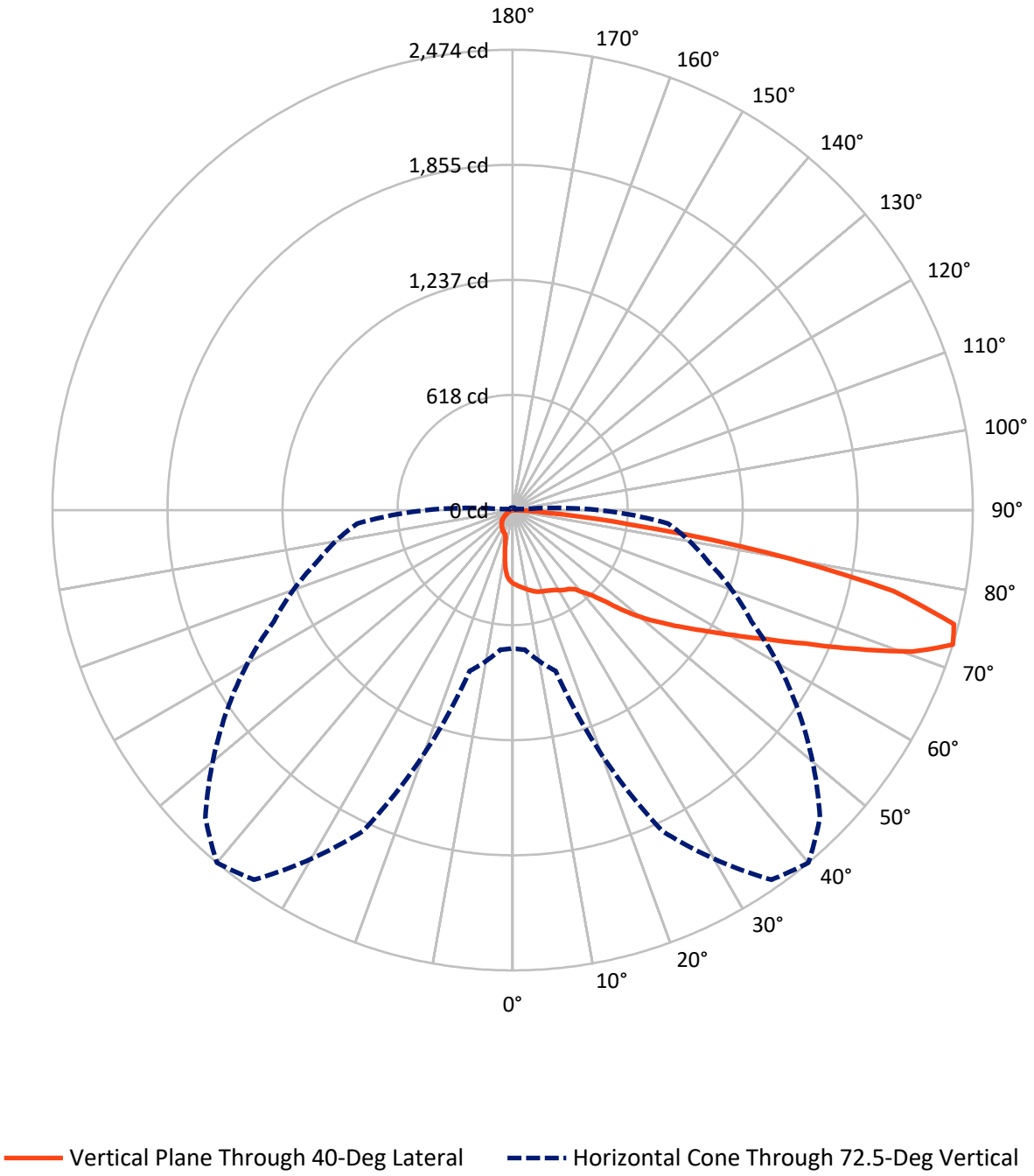
Luminous Intensity Polar Plot



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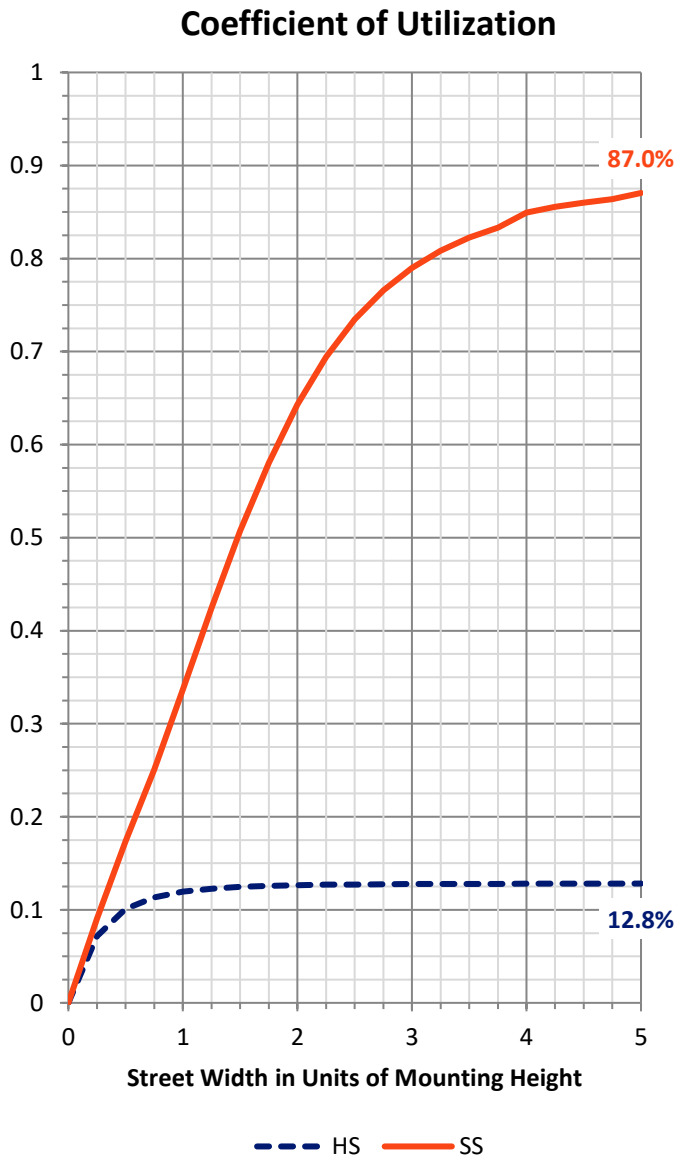
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	384.5	0.0	384.5
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	2593.1	0.0	2593.1
	% Fixture	87.1	0.0	87.1
Total	Lumens	2977.6	0.0	2977.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	1.2
10°-20°	97.8	3.3
20°-30°	158.2	5.3
30°-40°	233.6	7.8
40°-50°	393.1	13.2
50°-60°	610.4	20.5
60°-70°	763.8	25.7
70°-80°	625.3	21.0
80°-90°	59.3	2.0
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°	2977.6	100.0
0°-180°	2977.6	100.0



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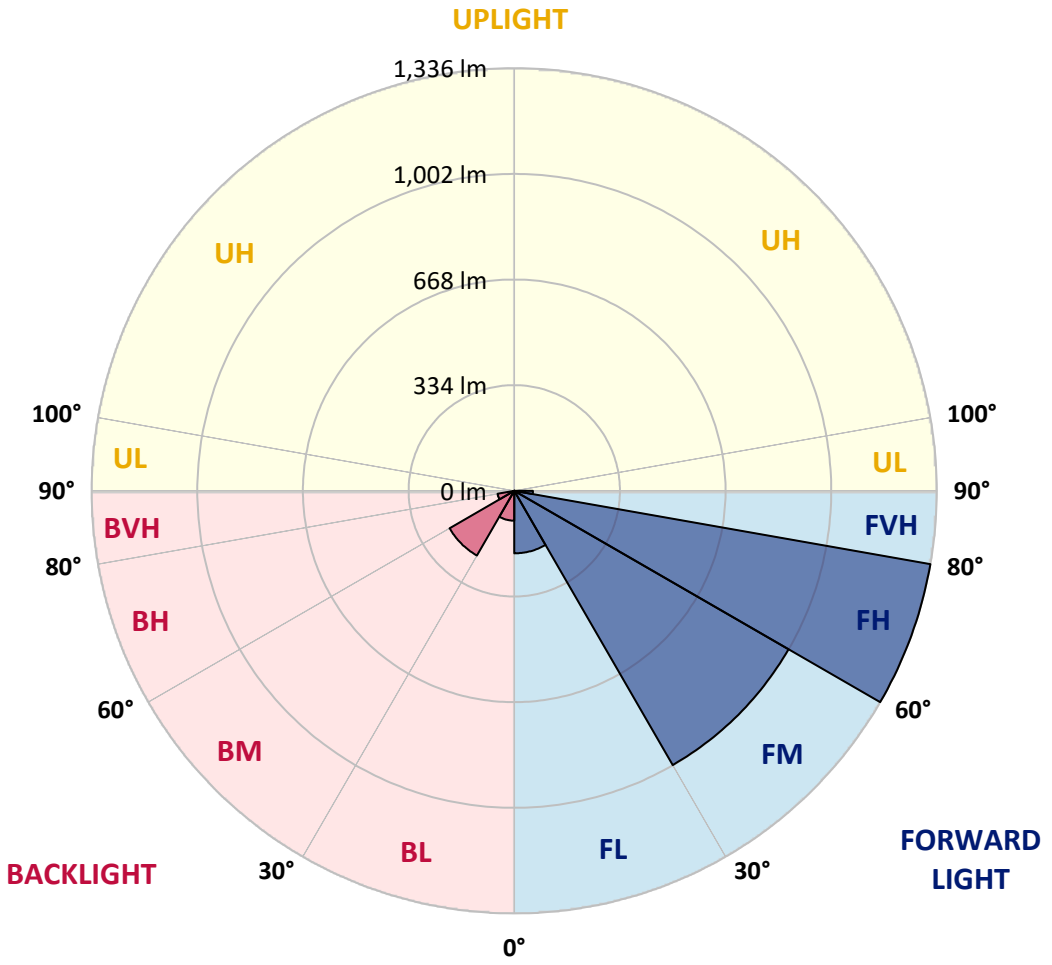
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	197.6	6.6			
FM	(30°-60°)	1001.0	33.6			
FH	(60°-80°)	1335.6	44.9			G1/1800
FVH	(80°-90°)	58.8	2.0			G1/100
BL	(0°-30°)	94.4	3.2	B0/110		
BM	(30°-60°)	236.1	7.9	B1/1000		
BH	(60°-80°)	53.6	1.8	B0/110		G0/110
BVH	(80°-90°)	0.4	0.0			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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2
2.5°	406.1	407.7	406.8	405.0	404.6	403.6	402.5	402.1	400.6	399.2	397.6
5°	417.6	419.1	418.0	415.5	414.4	413.3	411.7	410.4	407.2	404.4	400.8
7.5°	430.2	431.5	430.2	426.6	424.8	423.4	421.2	419.1	415.5	411.3	406.8
10°	444.0	445.2	443.1	438.4	435.5	433.5	431.5	429.3	425.9	421.2	415.8
12.5°	457.0	458.4	455.3	449.7	446.3	444.2	442.0	440.2	436.9	432.3	426.8
15°	468.9	471.0	465.6	459.5	455.7	454.2	451.9	450.8	448.5	445.4	440.2
17.5°	478.0	479.3	473.7	466.5	462.2	461.0	459.5	460.2	459.7	458.2	454.8
20°	485.5	486.5	479.1	470.3	465.6	465.8	465.4	467.6	468.5	468.5	468.2
22.5°	495.0	495.2	485.7	474.8	469.1	470.8	471.4	473.9	475.7	477.4	481.5
25°	507.3	506.9	495.6	480.6	475.7	478.0	479.5	480.4	482.4	485.3	494.5
27.5°	525.7	524.3	509.9	490.1	484.2	486.3	489.1	488.7	487.8	490.1	505.5
30°	549.0	547.2	528.2	503.3	497.8	499.7	500.6	496.5	490.1	492.0	515.2
32.5°	586.0	582.9	556.4	518.0	509.7	511.8	510.7	502.4	492.7	494.8	524.8
35°	650.4	642.8	605.3	549.0	523.3	521.0	518.2	510.2	498.4	496.3	532.9
37.5°	787.2	773.8	709.8	609.4	553.7	539.2	530.8	522.8	504.4	496.3	542.0
40°	941.5	927.8	854.0	710.2	604.4	579.7	560.0	537.6	510.7	499.2	556.4
42.5°	1102.5	1087.4	1011.7	835.4	676.8	626.2	589.4	549.5	521.0	508.2	575.4
45°	1282.4	1263.5	1164.4	966.0	782.0	703.3	636.7	573.9	538.9	524.1	601.5
47.5°	1472.1	1447.6	1316.7	1092.6	895.2	810.1	723.2	617.7	565.4	547.9	636.7
50°	1640.3	1616.1	1473.8	1225.2	1001.1	911.6	821.9	678.1	605.1	581.5	684.0
52.5°	1761.2	1742.8	1616.9	1362.0	1111.2	1007.0	911.4	748.6	655.3	624.6	739.8
55°	1842.1	1825.3	1718.3	1491.6	1239.3	1111.9	999.6	825.1	715.9	676.2	801.6
57.5°	1891.2	1881.6	1791.7	1607.3	1366.2	1226.7	1100.4	909.2	787.2	737.0	870.4
60°	1908.8	1900.9	1837.2	1717.7	1519.7	1364.7	1219.1	1004.1	873.7	806.1	941.1
62.5°	1862.1	1863.7	1869.9	1848.4	1681.3	1526.1	1361.3	1118.0	969.8	884.3	1007.4
65°	1642.6	1655.6	1774.9	1993.3	1895.5	1728.5	1542.3	1257.1	1079.6	973.3	1060.2
67.5°	1360.0	1378.8	1527.2	2078.1	2123.8	1991.1	1794.4	1434.2	1210.6	1063.9	1080.0
70°	1041.1	1061.2	1241.1	2060.4	2337.5	2278.1	2106.1	1659.6	1346.2	1126.7	1029.2
72.5°	743.0	753.3	895.0	1902.7	2425.3	2473.6	2335.8	1873.1	1415.5	1091.9	839.5
75°	522.1	520.3	614.3	1532.2	2288.6	2449.9	2255.2	1757.6	1281.0	867.5	517.6
77.5°	227.4	227.9	306.8	930.5	1826.7	2092.4	1874.6	1101.0	893.1	459.7	218.4
80°	58.9	60.8	112.5	370.5	1099.8	1381.1	1143.3	484.0	412.7	112.1	41.7
82.5°	20.8	22.2	51.8	116.4	405.7	633.3	509.1	154.8	107.6	32.1	11.2
85°	6.0	7.2	27.8	35.7	83.8	179.0	123.6	30.0	26.4	16.6	2.9
87.5°	0.0	0.9	5.6	4.9	4.9	3.4	6.3	3.4	4.3	2.0	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2
2.5°	396.3	394.7	391.3	387.8	384.4	381.3	380.4	377.0	375.5	375.7	375.5
5°	398.3	395.3	388.9	381.0	373.0	363.8	356.2	345.3	336.2	335.1	334.4
7.5°	403.6	398.9	388.5	373.2	353.0	327.7	304.1	280.7	267.5	260.3	259.9
10°	411.9	405.7	389.6	360.4	317.5	272.2	236.6	207.3	192.2	185.2	183.9
12.5°	421.9	414.9	391.3	338.7	271.8	212.4	173.8	155.9	152.7	152.3	152.0
15°	435.7	428.1	393.4	309.2	222.2	161.7	144.0	144.2	146.7	148.0	147.8
17.5°	451.2	443.6	390.4	273.4	173.3	138.2	137.7	139.7	143.3	144.6	144.4
20°	466.9	459.7	380.2	231.2	140.1	131.6	133.5	135.7	139.3	141.0	141.0
22.5°	483.1	476.8	363.8	186.3	126.5	126.9	129.1	131.4	135.5	137.5	137.5
25°	500.3	495.0	342.0	149.3	120.6	122.0	124.9	127.6	131.9	134.4	134.4
27.5°	517.8	513.8	317.3	124.7	115.3	116.8	120.2	123.8	128.0	131.0	131.2
30°	536.9	534.6	297.6	115.5	110.1	111.4	115.3	119.3	124.0	127.6	128.0
32.5°	556.4	556.0	287.9	122.2	105.4	106.3	109.7	113.7	119.5	124.0	124.4
35°	575.7	576.6	282.4	141.2	103.8	101.4	103.6	107.2	114.2	119.7	120.6
37.5°	600.3	602.6	282.1	162.0	107.6	96.5	98.0	100.4	106.5	113.1	114.2
40°	637.1	649.0	296.4	179.7	114.4	91.9	92.4	92.9	95.9	101.4	103.1
42.5°	686.0	720.8	348.3	191.8	117.1	87.9	86.3	83.8	83.4	86.3	87.9
45°	746.8	807.6	439.3	198.4	114.4	83.4	79.1	72.7	70.2	72.3	72.3
47.5°	818.4	902.7	547.2	200.1	109.9	77.8	70.2	61.7	59.7	60.4	60.1
50°	888.1	974.0	642.1	187.1	102.5	70.6	60.4	53.2	51.8	52.1	52.1
52.5°	949.8	998.5	669.0	156.3	92.7	61.9	51.8	46.8	46.0	46.0	45.7
55°	990.6	972.0	596.6	119.5	80.3	52.9	44.4	41.9	41.5	41.3	40.8
57.5°	999.1	885.8	450.6	86.3	62.8	44.6	39.5	38.1	37.2	36.3	35.9
60°	968.6	742.3	286.8	60.4	47.0	38.1	35.0	34.1	32.3	30.5	29.8
62.5°	902.7	560.7	158.8	41.9	37.9	32.5	31.0	29.8	26.4	23.6	22.7
65°	814.1	372.7	70.2	32.7	31.0	27.4	26.4	24.9	20.8	17.5	16.8
67.5°	725.1	214.6	31.7	26.2	24.9	22.4	21.7	20.6	17.7	14.6	14.1
70°	623.5	108.8	21.7	20.8	19.3	17.0	17.7	17.5	14.6	11.9	11.5
72.5°	*464.2*	*54.0*	*16.4*	*15.7*	*13.9*	*12.1*	*14.6*	*14.3*	*11.5*	*9.0*	*8.5*
75°	262.8	26.6	11.9	11.0	8.3	9.0	11.7	11.0	7.9	5.8	5.4
77.5°	104.2	13.6	7.9	6.8	4.9	6.0	8.5	7.4	4.0	2.5	2.3
80°	24.0	6.8	4.0	2.9	2.3	3.6	4.5	2.7	1.1	0.2	0.0
82.5°	6.8	2.9	1.3	1.1	1.1	1.3	1.1	0.4	0.0	0.0	0.0
85°	2.3	1.3	0.4	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0
87.5°	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)