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: P963582

Luminaire Tested: **NAV-SB3A-750-U-T3R-HSS**

Issue Date: 1/21/2025

Report Generated By 670246001

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

Test Information

Test Method:	LM-79-08
Report Number:	P963582
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab:	INNOVATION CENTER
Issue Date:	1/21/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	NAV-SB3A-750-U-T3R-HSS
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE (3) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	12151.4 lumens
Efficiency:	N/A
Efficacy:	143.5 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B1 - U0 - G2
Input Watts (W):	84.7
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:	24 FT

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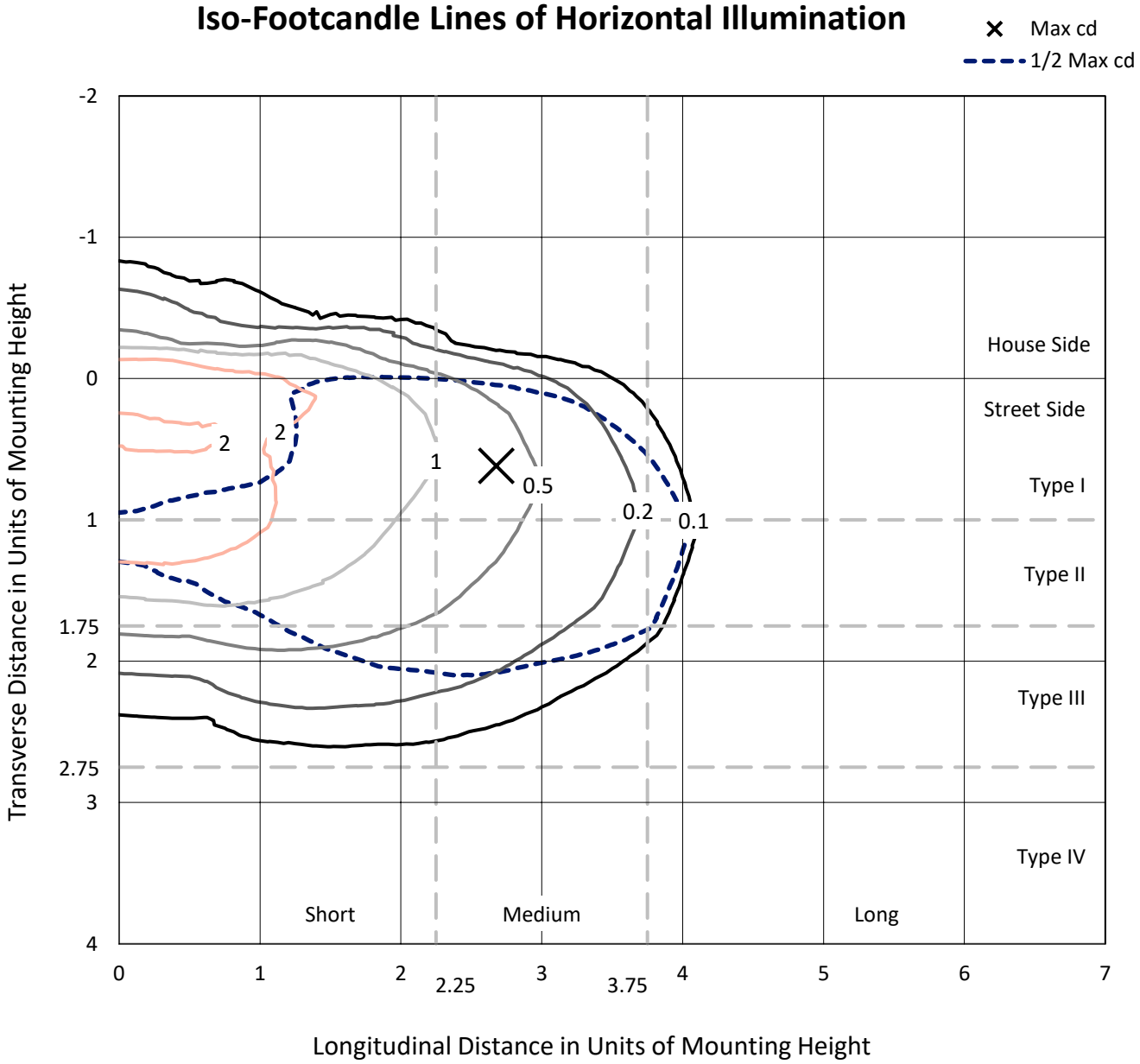
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
Type III - Medium - N/A

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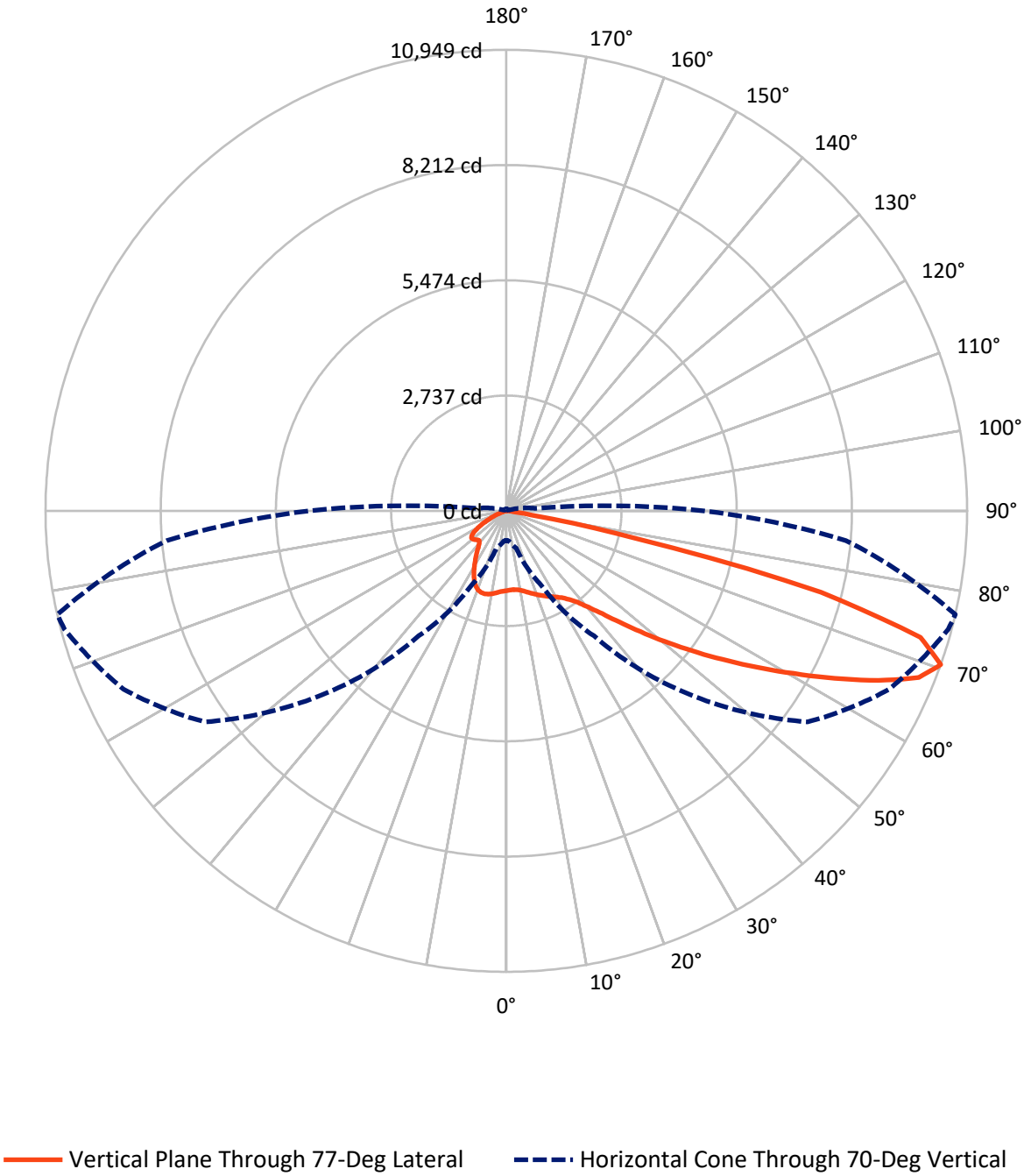
Luminous Intensity Polar Plot



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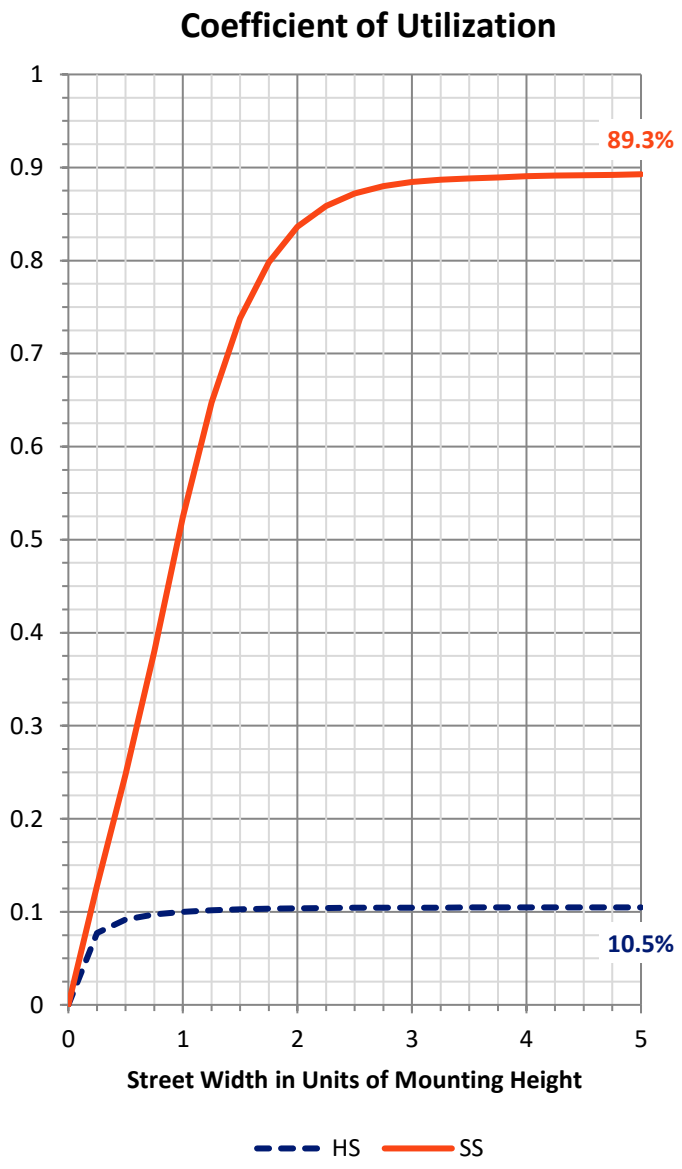
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1280.9	0.0	1280.9
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	10870.4	0.0	10870.4
	% Fixture	89.5	0.0	89.5
Total	Lumens	12151.4	0.0	12151.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.4	1.3
10°-20°	387.8	3.2
20°-30°	599.8	4.9
30°-40°	1088.4	9.0
40°-50°	2054.4	16.9
50°-60°	2968.4	24.4
60°-70°	3159.8	26.0
70°-80°	1674.5	13.8
80°-90°	55.0	0.5
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°	12151.4	100.0
0°-180°	12151.4	100.0



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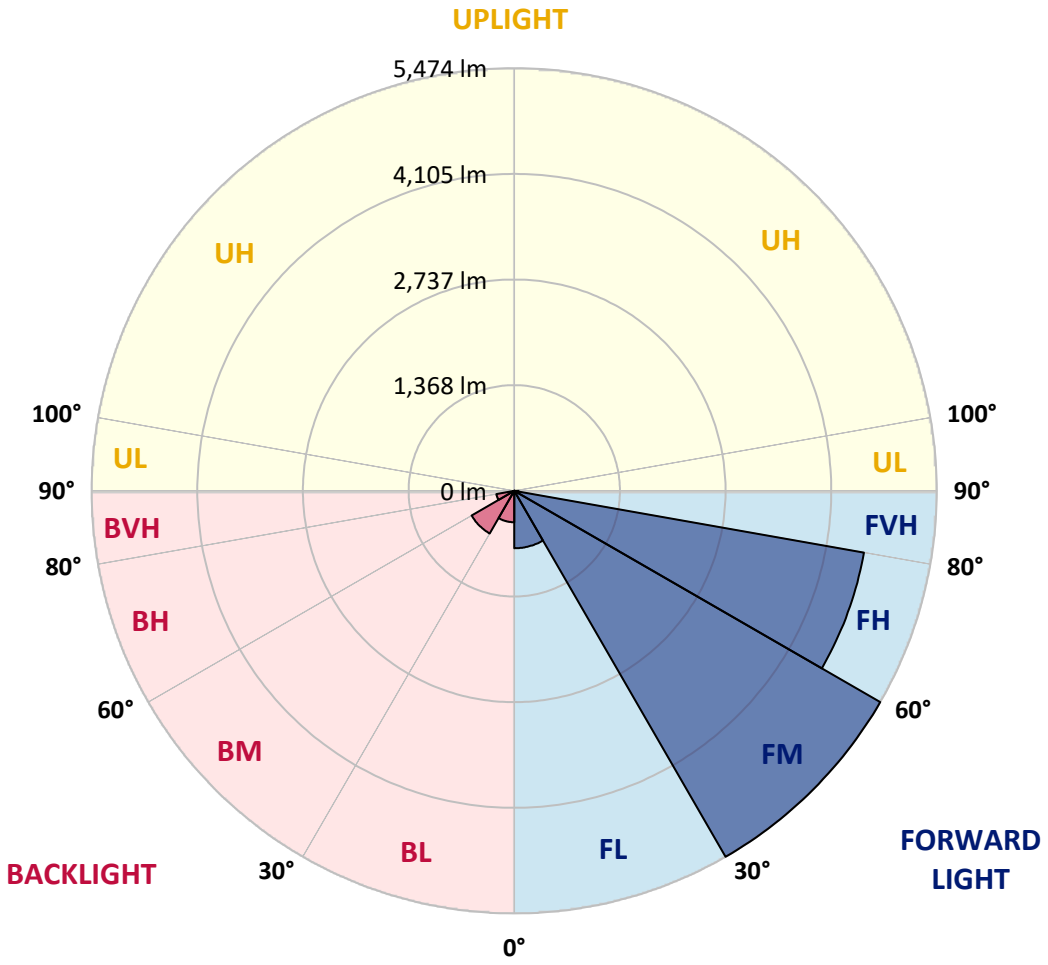
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	744.0	6.1			
FM	(30°-60°)	5473.5	45.0			
FH	(60°-80°)	4599.5	37.9			G2/5000
FVH	(80°-90°)	53.5	0.4			G1/100
BL	(0°-30°)	407.0	3.3	B1/500		
BM	(30°-60°)	637.7	5.2	B1/1000		
BH	(60°-80°)	234.8	1.9	B1/500		G1/500
BVH	(80°-90°)	1.5	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-G2
Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	*1895.4*	1895.4
2.5°	1779.5	1795.6	1793.3	1804.1	1807.9	1823.3	1838.6	1859.4	1882.3	*1881.6*	1897.0
5°	1679.0	1695.1	1698.9	1713.5	1731.9	1755.7	1787.2	1828.6	1871.6	*1878.5*	1909.2
7.5°	1560.0	1577.0	1586.9	1616.1	1649.8	1698.9	1750.4	1811.0	1882.3	*1892.4*	1951.4
10°	1441.1	1456.4	1469.5	1511.0	1564.7	1637.5	1721.2	1808.7	1904.6	*1919.2*	2002.8
12.5°	1367.5	1382.0	1396.6	1432.6	1499.5	1588.4	1702.0	1819.4	1941.5	*1962.2*	2072.7
15°	1341.3	1354.4	1365.9	1398.1	1460.3	1561.6	1698.2	1841.7	1988.3	*2015.9*	2157.1
17.5°	1345.2	1352.1	1359.8	1384.4	1444.9	1549.3	1705.1	1880.1	2043.5	*2068.0*	2241.5
20°	1367.5	1371.2	1372.1	1389.0	1442.7	1547.7	1718.9	1916.9	2095.7	*2128.7*	2325.1
22.5°	1395.8	1397.4	1395.8	1407.3	1457.2	1559.3	1737.3	1961.3	2154.0	*2184.7*	2409.6
25°	1528.6	1499.5	1462.6	1440.3	1481.7	1581.6	1764.9	2021.2	2217.7	*2247.6*	2491.7
27.5°	1940.6	1857.0	1725.1	1577.0	1532.5	1613.8	1803.3	2081.9	2282.2	*2309.0*	2579.9
30°	2609.9	2500.1	2276.0	1942.2	1695.1	1681.3	1853.2	2142.5	2350.4	*2379.6*	2674.2
32.5°	3280.5	3253.7	2995.0	2533.1	2061.2	1831.7	1936.0	2224.6	2441.0	*2464.0*	2801.6
35°	3958.9	3904.3	3692.6	3236.0	2625.1	2137.8	2074.2	2332.0	2559.9	*2586.1*	2987.4
37.5°	4478.3	4445.3	4314.1	3938.2	3294.4	2610.6	2310.6	2498.5	2732.5	*2761.8*	3225.3
40°	4937.2	4921.8	4877.4	4629.5	4042.5	3229.1	2678.1	2756.4	2972.0	*3006.5*	3516.9
42.5°	5297.9	5334.0	5359.3	5290.2	4813.7	3935.1	3172.3	3118.6	3305.8	*3341.1*	3888.2
45°	5667.0	5679.3	5781.3	5881.1	5579.5	4673.3	3729.4	3542.9	3721.0	*3764.7*	4333.3
47.5°	5904.1	5953.2	6132.8	6308.6	6223.4	5405.3	4328.0	4044.0	4202.1	*4284.2*	4832.2
50°	5921.7	6014.6	6261.7	6567.9	6692.2	6102.1	4978.6	4615.0	4783.0	*4873.6*	5364.6
52.5°	5627.9	5772.1	6155.0	6603.2	6945.4	6692.2	5651.6	5185.9	5401.4	*5519.6*	5917.1
55°	4314.9	4503.6	5753.7	6411.4	6955.4	7139.5	6307.0	5780.6	6090.5	*6224.1*	6514.2
57.5°	3759.3	3854.5	4523.6	6078.4	6770.4	7319.9	6899.4	6346.9	6840.3	*7006.1*	7078.1
60°	3127.8	3252.8	3793.8	5533.5	6519.5	7337.6	7422.7	7077.4	7653.0	*7839.4*	7595.4
62.5°	2125.6	2261.5	2799.4	4597.3	6176.5	7329.2	7851.7	7829.5	8556.1	*8756.4*	8033.5
65°	1316.8	1402.0	1756.5	3754.0	5697.0	7338.3	8300.6	8742.6	9509.2	*9712.6*	8372.7
67.5°	1040.6	1079.7	1264.6	2882.2	4870.5	7131.1	8748.8	9601.3	10406.2	*10567.4*	8476.3
70°	*699.0*	*722.8*	*920.0*	*1932.2*	*3623.5*	*6175.0*	*8740.3*	*10032.6*	*10868.2*	*10948.7*	*8098.8*
72.5°	368.4	386.7	537.9	894.7	2188.6	4389.4	7367.5	9516.9	10408.6	*10287.3*	6922.4
75°	184.2	214.8	362.2	454.3	934.7	2447.9	4575.1	7503.3	8192.4	*7722.8*	4441.5
77.5°	139.7	168.8	299.3	299.3	325.3	824.2	1937.6	4092.4	3774.7	*3143.2*	1303.8
80°	89.0	115.1	261.7	226.4	135.8	209.5	504.9	1146.5	801.9	*610.1*	237.1
82.5°	52.2	75.2	217.9	149.6	76.0	77.5	142.7	244.1	208.0	*162.0*	72.9
85°	20.7	49.1	149.6	59.0	29.9	19.2	42.9	52.2	42.9	*32.2*	18.4
87.5°	0.0	11.5	26.1	0.0	2.3	1.5	3.1	3.8	3.8	*3.1*	6.1
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°	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4	1895.4
2.5°	1903.8	1905.4	1910.0	1910.7	1900.0	1886.2	1880.8	1878.5	1869.3	1868.6	1870.1
5°	1926.9	1933.8	1926.9	1906.9	1859.4	1792.5	1741.9	1700.5	1662.9	1651.4	1644.5
7.5°	1972.9	1979.8	1959.1	1880.8	1761.2	1628.3	1508.6	1424.2	1348.3	1319.9	1308.3
10°	2038.9	2048.1	1982.9	1824.8	1613.0	1399.6	1197.1	1054.3	943.1	897.8	878.6
12.5°	2121.8	2125.6	1995.9	1739.6	1420.4	1115.7	828.7	676.1	577.1	540.2	528.7
15°	2213.1	2207.7	1997.4	1623.7	1157.9	788.8	541.0	444.3	404.4	392.2	392.2
17.5°	2309.0	2286.8	1966.8	1456.4	870.2	539.5	401.3	378.3	371.4	368.4	367.6
20°	2403.4	2353.5	1910.7	1237.8	624.6	402.8	364.5	357.6	353.7	352.2	350.7
22.5°	2489.3	2404.1	1814.9	983.8	453.6	356.1	344.5	338.5	331.5	328.4	327.7
25°	2573.0	2433.4	1679.8	746.6	363.0	333.0	323.8	312.3	303.1	299.3	297.8
27.5°	2654.3	2451.7	1511.0	552.5	323.8	311.6	294.7	278.6	271.6	270.1	268.5
30°	2741.1	2457.8	1319.1	412.0	300.0	284.6	260.1	241.7	237.9	238.6	238.6
32.5°	2846.9	2467.1	1125.8	337.6	280.1	252.5	223.3	204.1	201.0	204.1	203.4
35°	2973.5	2485.5	939.2	310.8	262.4	219.5	188.0	171.9	168.8	171.1	170.4
37.5°	3145.4	2515.5	765.1	305.4	247.8	191.9	158.1	145.0	145.0	145.8	145.0
40°	3374.1	2595.2	609.3	301.6	240.2	171.1	133.6	128.1	130.5	132.0	132.0
42.5°	3652.7	2764.8	504.2	296.9	231.8	162.0	121.3	118.9	122.8	124.3	124.3
45°	3965.0	2979.7	467.3	289.3	224.1	168.1	115.8	112.9	117.4	118.2	118.9
47.5°	4288.1	3189.9	462.7	280.8	216.4	177.2	114.3	107.4	112.9	113.6	114.3
50°	4615.0	3327.3	467.3	267.8	204.1	177.2	115.1	102.1	106.7	109.0	109.8
52.5°	4944.2	3390.2	464.2	239.4	182.7	166.6	115.1	97.5	102.1	103.6	103.6
55°	5263.4	3378.0	417.5	197.2	155.0	147.3	112.0	93.6	96.7	97.5	97.5
57.5°	5515.8	3206.8	330.8	153.4	125.9	122.8	102.1	89.0	91.3	90.5	90.5
60°	5647.9	2830.8	236.4	118.2	99.0	96.7	89.8	82.9	84.5	80.6	79.8
62.5°	5649.4	2333.5	158.1	93.6	79.0	76.8	76.8	74.4	72.9	65.2	62.9
65°	5528.8	1781.9	105.2	74.4	63.7	59.9	64.5	63.7	58.3	47.6	46.0
67.5°	5255.7	1167.9	79.8	58.3	49.1	46.8	51.5	53.7	49.9	39.9	39.2
70°	*4694.0*	*679.9*	*66.0*	*45.3*	*36.8*	*34.5*	*41.4*	*46.0*	*41.4*	*32.2*	*30.6*
72.5°	3899.0	366.8	53.7	33.7	25.3	23.1	33.0	37.6	33.0	23.8	23.1
75°	2530.0	196.5	41.4	22.2	13.0	14.6	24.6	27.7	23.1	15.4	13.8
77.5°	849.5	86.7	26.1	10.8	6.1	6.1	14.6	16.9	10.8	5.3	4.6
80°	189.5	36.1	10.8	4.6	2.3	2.3	3.1	3.1	1.5	0.0	0.0
82.5°	62.1	14.6	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	23.8	5.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.2	0.7	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)