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: P961552

Luminaire Tested: **NAV-SB2A-830-U-SL3**

Issue Date: 1/21/2025

Report Generated By 670246001

Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

Test Information

Test Method:	LM-79-08
Report Number:	P961552
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab:	INNOVATION CENTER
Issue Date:	1/21/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	NAV-SB2A-830-U-SL3
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE (2) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8074.9 lumens
Efficiency:	N/A
Efficacy:	140.9 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification:	Type IV - Medium
BUG Rating:	B1 - U0 - G2
Input Watts (W):	57.3
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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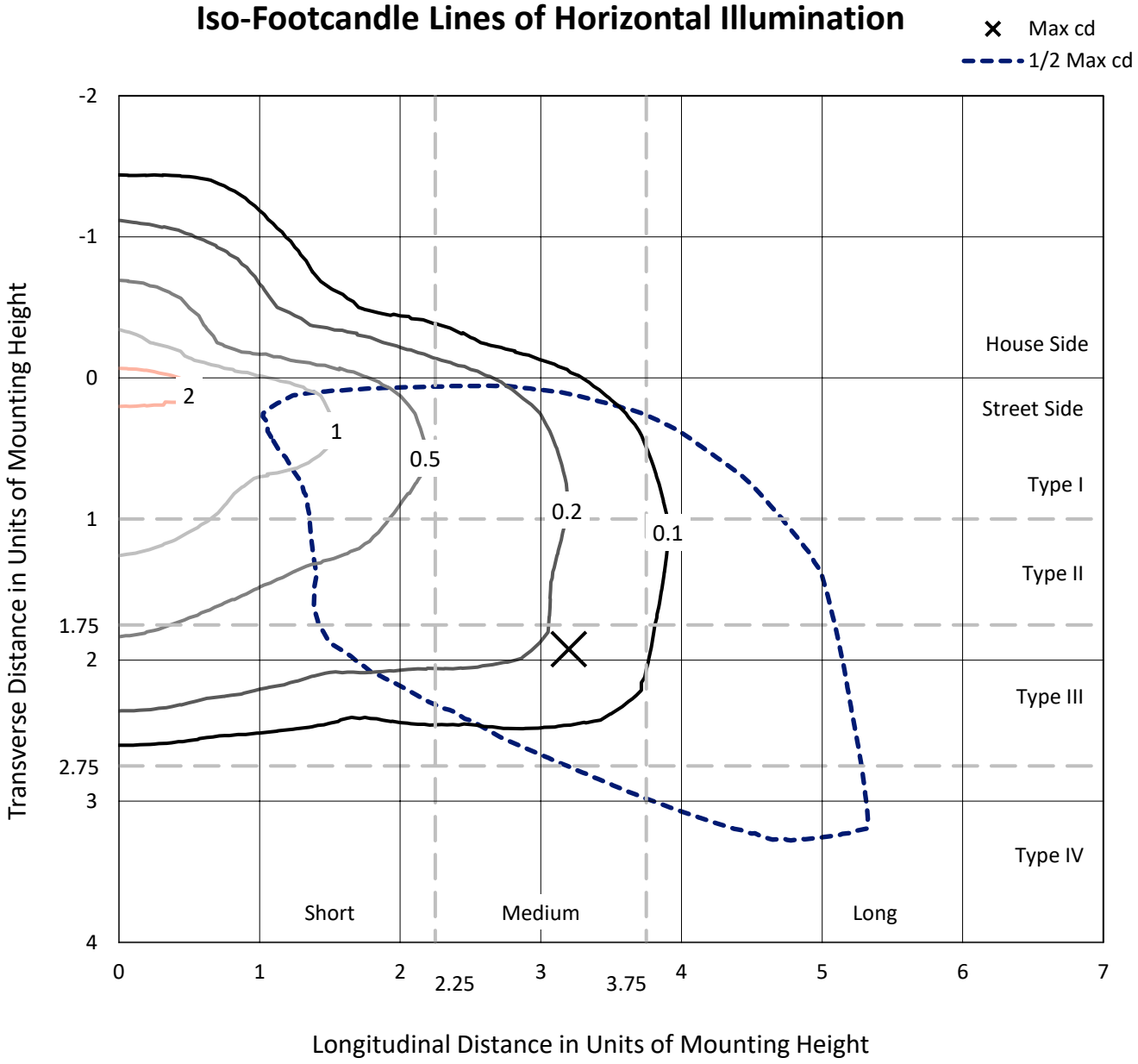
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
Type IV - Medium - N/A

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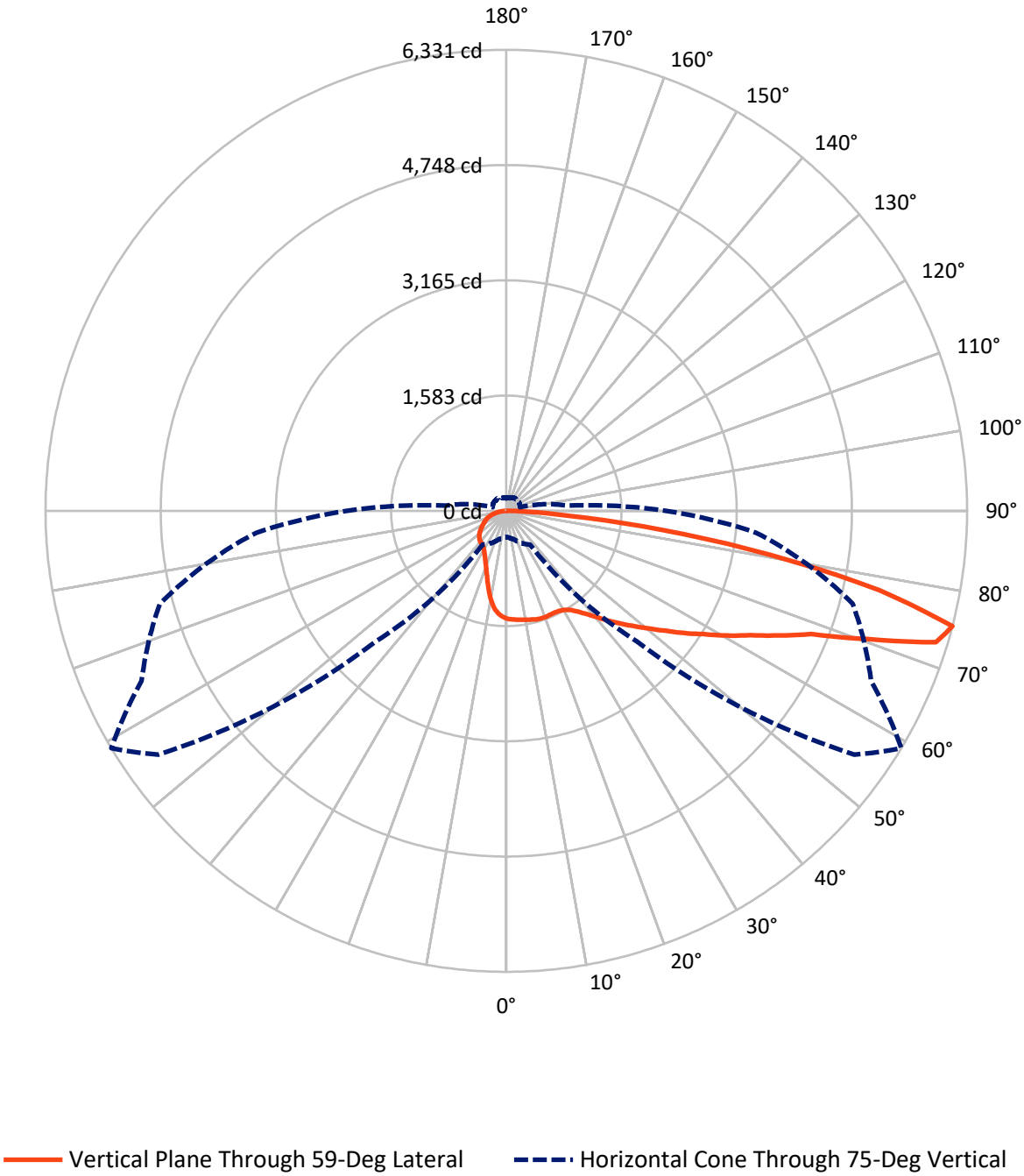
Luminous Intensity Polar Plot



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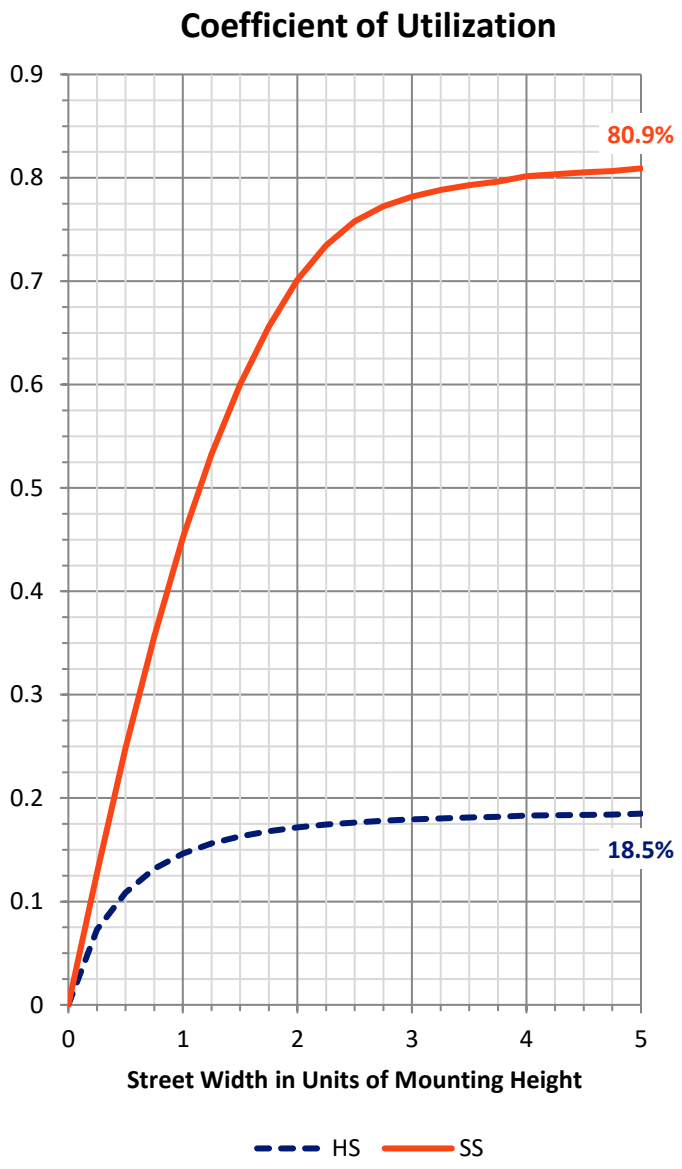
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1514.5	0.0	1514.5
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	6560.4	0.0	6560.4
	% Fixture	81.2	0.0	81.2
Total	Lumens	8074.9	0.0	8074.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.9	1.6
10°-20°	339.7	4.2
20°-30°	516.0	6.4
30°-40°	767.0	9.5
40°-50°	1140.6	14.1
50°-60°	1548.3	19.2
60°-70°	1890.2	23.4
70°-80°	1483.4	18.4
80°-90°	257.0	3.2
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°	8074.9	100.0
0°-180°	8074.9	100.0



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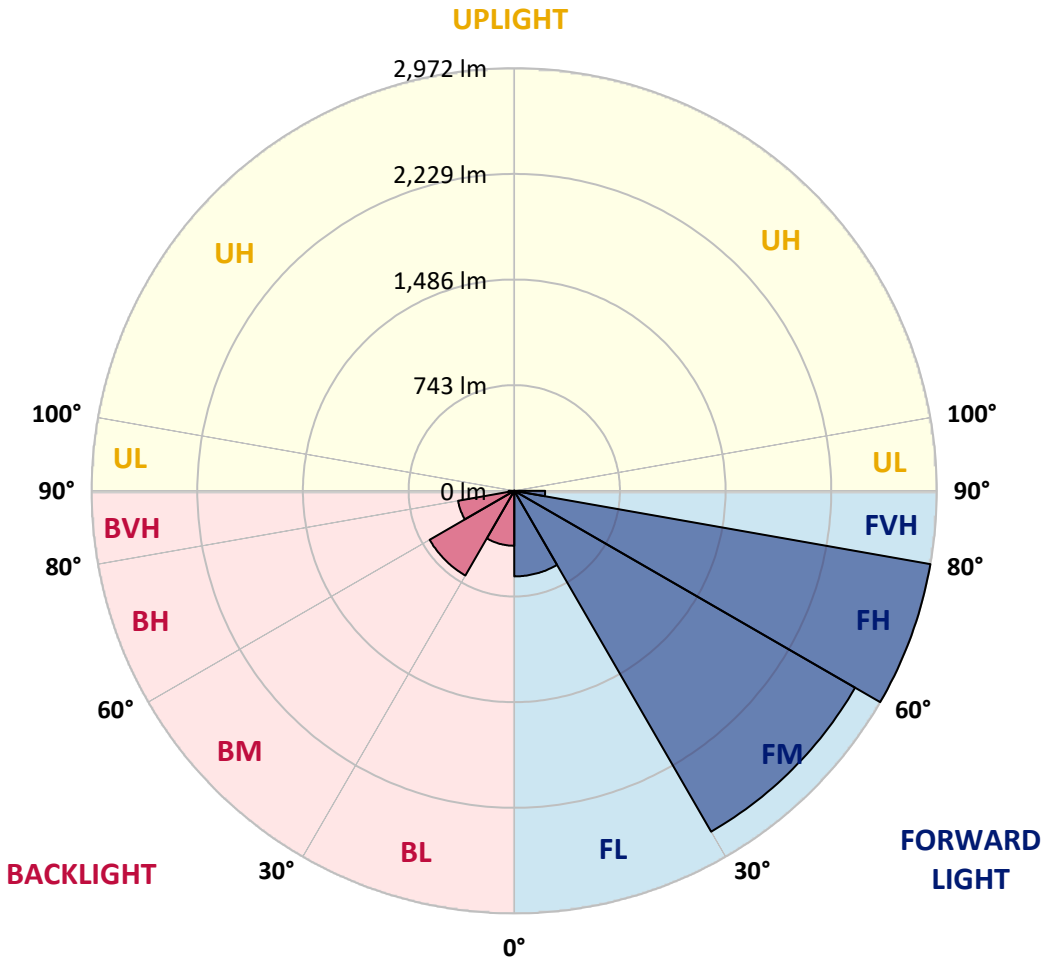
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	602.1	7.5			
FM	(30°-60°)	2768.4	34.3			
FH	(60°-80°)	2972.3	36.8			G2/5000
FVH	(80°-90°)	217.6	2.7			G2/225
BL	(0°-30°)	386.5	4.8	B1/500		
BM	(30°-60°)	687.4	8.5	B1/1000		
BH	(60°-80°)	401.3	5.0	B1/500		G1/500
BVH	(80°-90°)	39.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	*1482.1*	1482.1	1482.1	1482.1
2.5°	1494.8	1489.5	1494.8	1492.6	1491.7	1489.9	1490.4	*1493.4*	1491.7	1493.8	1486.5
5°	1484.7	1481.7	1487.0	1485.6	1491.3	1492.1	1497.7	*1501.2*	1503.5	1503.9	1498.2
7.5°	1468.2	1465.2	1472.6	1478.7	1490.9	1494.3	1506.0	*1511.7*	1514.7	1520.0	1511.7
10°	1407.8	1406.5	1424.7	1447.8	1476.5	1494.3	1512.1	*1521.7*	1526.4	1540.4	1530.8
12.5°	1301.0	1302.8	1326.7	1370.9	1428.2	1485.6	1519.0	*1533.0*	1540.4	1557.7	1553.4
15°	1198.9	1198.5	1224.6	1271.9	1352.3	1447.4	1522.5	*1546.4*	1559.0	1584.6	1581.2
17.5°	1139.8	1138.1	1156.3	1192.4	1267.1	1388.8	1513.8	*1553.8*	1580.8	1612.9	1609.9
20°	1128.9	1125.6	1135.1	1152.9	1205.9	1324.5	1491.3	*1553.8*	1598.1	1639.8	1638.1
22.5°	1168.5	1162.9	1159.0	1156.8	1180.3	1271.4	1465.6	*1548.6*	1623.7	1678.4	1675.5
25°	1248.0	1239.3	1219.3	1199.8	1192.8	1247.5	1443.0	*1547.3*	1661.9	1730.6	1719.3
27.5°	1376.6	1365.7	1325.3	1278.4	1236.3	1259.7	1433.1	*1555.1*	1704.1	1785.8	1763.2
30°	1536.0	1524.3	1473.4	1401.4	1325.7	1304.9	1445.7	*1578.1*	1758.0	1859.1	1814.9
32.5°	1679.0	1665.9	1622.5	1549.1	1447.0	1383.1	1485.6	*1622.1*	1842.6	1961.2	1892.7
35°	1805.7	1790.6	1751.4	1683.7	1595.5	1493.0	1557.7	*1699.8*	1963.0	2127.2	1998.2
37.5°	1930.0	1912.1	1869.6	1798.0	1736.2	1639.4	1657.2	*1799.7*	2122.9	2328.8	2138.0
40°	2069.0	2043.3	1991.7	1920.8	1860.9	1811.0	1787.9	*1922.2*	2285.3	2553.8	2312.7
42.5°	2203.6	2179.4	2117.6	2057.3	1982.1	1967.8	1939.5	*2065.5*	2463.0	2800.9	2489.9
45°	2348.8	2319.7	2245.0	2168.5	2121.1	2072.0	2086.4	*2208.9*	2637.2	3052.9	2675.9
47.5°	2484.7	2452.1	2364.0	2278.8	2252.7	2159.8	2221.1	*2366.5*	2818.3	3308.3	2860.1
50°	2558.1	2526.0	2452.5	2375.6	2355.2	2267.9	2367.0	*2539.8*	3008.2	3562.9	3036.9
52.5°	2619.4	2584.6	2488.6	2446.1	2440.0	2385.7	2546.8	*2738.0*	3198.0	3787.9	3207.5
55°	2684.6	2645.8	2523.3	2485.1	2513.0	2517.7	2760.1	*2962.6*	3398.7	4007.2	3368.7
57.5°	2759.7	2710.6	2556.9	2518.1	2584.2	2672.4	3005.1	*3195.3*	3595.9	4210.5	3512.1
60°	2830.4	2780.9	2621.1	2570.7	2661.1	2851.8	3286.2	*3477.3*	3819.2	4391.7	3647.6
62.5°	2844.4	2803.6	2672.4	2672.0	2765.3	3061.2	3618.9	*3761.9*	4014.2	4570.7	3769.2
65°	2603.7	2578.1	2500.4	2668.1	2914.8	3362.6	3989.4	*4125.8*	4262.3	4727.0	3876.0
67.5°	1981.7	1985.1	1979.5	2303.2	2794.0	3795.7	4525.9	*4515.5*	4568.5	4902.6	3999.0
70°	906.1	926.6	1059.4	1589.9	2238.4	3845.7	5412.9	*5277.8*	4952.9	5129.7	4105.4
72.5°	489.5	505.2	559.4	770.2	1345.7	3419.1	6075.8	*6171.8*	5464.2	5282.6	3988.6
75°	*359.3*	*368.0*	*405.7*	*489.5*	*565.2*	*2541.2*	*5838.2*	*6330.8*	*5528.0*	*4925.9*	*3444.3*
77.5°	268.9	272.8	303.6	387.9	289.3	1339.7	4664.9	*5243.1*	4732.2	4047.2	2544.3
80°	195.1	199.4	222.4	291.0	202.8	489.9	3203.2	*3680.2*	3240.9	2579.8	1268.0
82.5°	134.7	136.4	146.4	198.1	141.7	190.2	1817.5	*2158.0*	1809.2	905.3	342.3
85°	81.2	83.4	87.7	115.5	80.4	90.3	784.5	*811.4*	540.8	216.4	106.4
87.5°	33.4	35.7	39.1	48.7	31.7	25.2	129.5	*162.5*	101.2	63.4	33.0
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°	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1
2.5°	1484.3	1481.2	1473.0	1461.8	1451.3	1438.3	1432.6	1427.8	1423.5	1415.2	1411.3
5°	1493.4	1485.2	1463.0	1434.4	1401.8	1366.1	1331.4	1307.5	1287.1	1271.9	1259.3
7.5°	1507.4	1491.7	1451.3	1392.7	1317.9	1241.5	1172.4	1123.3	1086.4	1073.0	1049.5
10°	1521.7	1503.0	1432.6	1329.2	1200.2	1082.5	990.9	940.4	910.9	901.4	886.6
12.5°	1538.6	1511.3	1403.5	1241.1	1068.6	939.6	859.7	830.1	814.9	809.7	811.0
15°	1563.3	1518.2	1359.7	1130.7	943.1	835.4	783.6	763.2	755.4	755.0	756.8
17.5°	1582.1	1519.5	1291.4	1012.6	846.6	772.3	729.8	721.9	727.1	735.0	738.0
20°	1602.9	1507.8	1201.9	904.9	778.9	717.2	699.4	704.6	717.2	728.5	732.4
22.5°	1617.7	1486.5	1093.8	821.0	720.3	685.4	684.6	695.5	702.4	708.1	711.1
25°	1630.7	1450.5	979.1	750.6	672.0	666.4	675.9	672.4	667.7	672.4	675.5
27.5°	1640.3	1393.5	876.6	688.9	638.2	653.3	647.7	639.9	639.4	642.1	646.4
30°	1637.2	1317.5	792.3	630.3	614.2	629.0	615.5	614.2	612.9	614.2	619.0
32.5°	1637.2	1231.0	727.6	589.9	599.0	593.4	592.0	589.1	583.8	583.4	589.1
35°	1646.4	1144.6	672.0	568.2	586.4	573.0	573.8	566.4	555.6	550.3	555.6
37.5°	1665.0	1075.1	616.8	557.8	564.3	563.9	560.4	547.8	528.7	512.2	517.8
40°	1710.2	1054.7	579.0	553.0	553.8	559.0	549.9	525.6	482.2	455.2	458.7
42.5°	1781.0	1089.1	570.8	541.2	546.9	552.1	534.3	477.9	447.0	430.9	430.9
45°	1870.9	1148.9	588.6	524.3	530.4	539.6	486.6	459.6	445.7	446.1	448.3
47.5°	1984.7	1212.0	621.7	509.5	506.5	511.7	454.8	438.3	419.2	423.9	436.1
50°	2116.3	1275.8	652.9	489.5	480.0	463.1	434.4	418.7	394.4	383.1	386.2
52.5°	2258.8	1337.5	665.5	465.2	451.3	431.8	420.5	401.4	371.9	353.1	352.7
55°	2393.9	1393.5	651.6	436.1	422.7	407.4	405.7	394.0	362.2	336.2	336.2
57.5°	2521.6	1440.4	616.8	406.6	393.6	384.5	396.2	390.5	350.5	317.1	315.4
60°	2629.8	1472.6	566.4	376.6	367.5	362.7	380.5	378.7	334.0	296.7	295.4
62.5°	2715.8	1485.2	510.9	348.0	345.7	337.1	358.9	358.9	313.2	276.8	275.4
65°	2783.2	1473.0	454.4	319.7	324.1	311.0	332.3	329.7	291.0	258.9	257.2
67.5°	2842.6	1433.1	391.9	291.9	301.9	285.4	304.5	298.4	266.7	241.1	239.3
70°	2869.2	1340.1	320.6	264.1	276.2	260.2	276.8	265.4	239.3	222.0	218.5
72.5°	2656.3	1113.8	252.4	235.0	245.4	232.4	246.7	233.7	209.8	202.0	195.5
75°	*2197.6*	*835.8*	*194.1*	*203.3*	*211.2*	*201.1*	*210.6*	*201.1*	*179.4*	*185.0*	*169.0*
77.5°	1595.9	564.3	148.5	169.8	173.3	168.1	176.4	165.5	146.0	144.6	138.2
80°	793.7	330.6	116.4	134.3	132.9	129.5	139.0	133.8	117.3	124.2	122.9
82.5°	229.8	141.7	84.7	94.3	91.6	92.6	99.4	102.1	152.9	151.6	155.1
85°	72.2	55.6	50.8	52.6	49.9	51.2	58.6	116.4	107.7	63.0	68.2
87.5°	18.7	19.1	12.6	13.4	13.9	16.5	18.7	70.8	33.9	22.1	23.5
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)