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: P962125

Luminaire Tested: **NAV-SB2B-835-U-T3R-HSS**

Issue Date: 1/21/2025

Report Generated By 670246001

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Test Information

Test Method:	LM-79-08
Report Number:	P962125
	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-SB2B-835-U-T3R-HSS
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
	(2) 80 CRI, 3500K, 450mA 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:	8913.4 lumens
Efficiency:	N/A
Efficacy:	120.6 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B1 - U0 - G2

Input Watts (W):	73.9
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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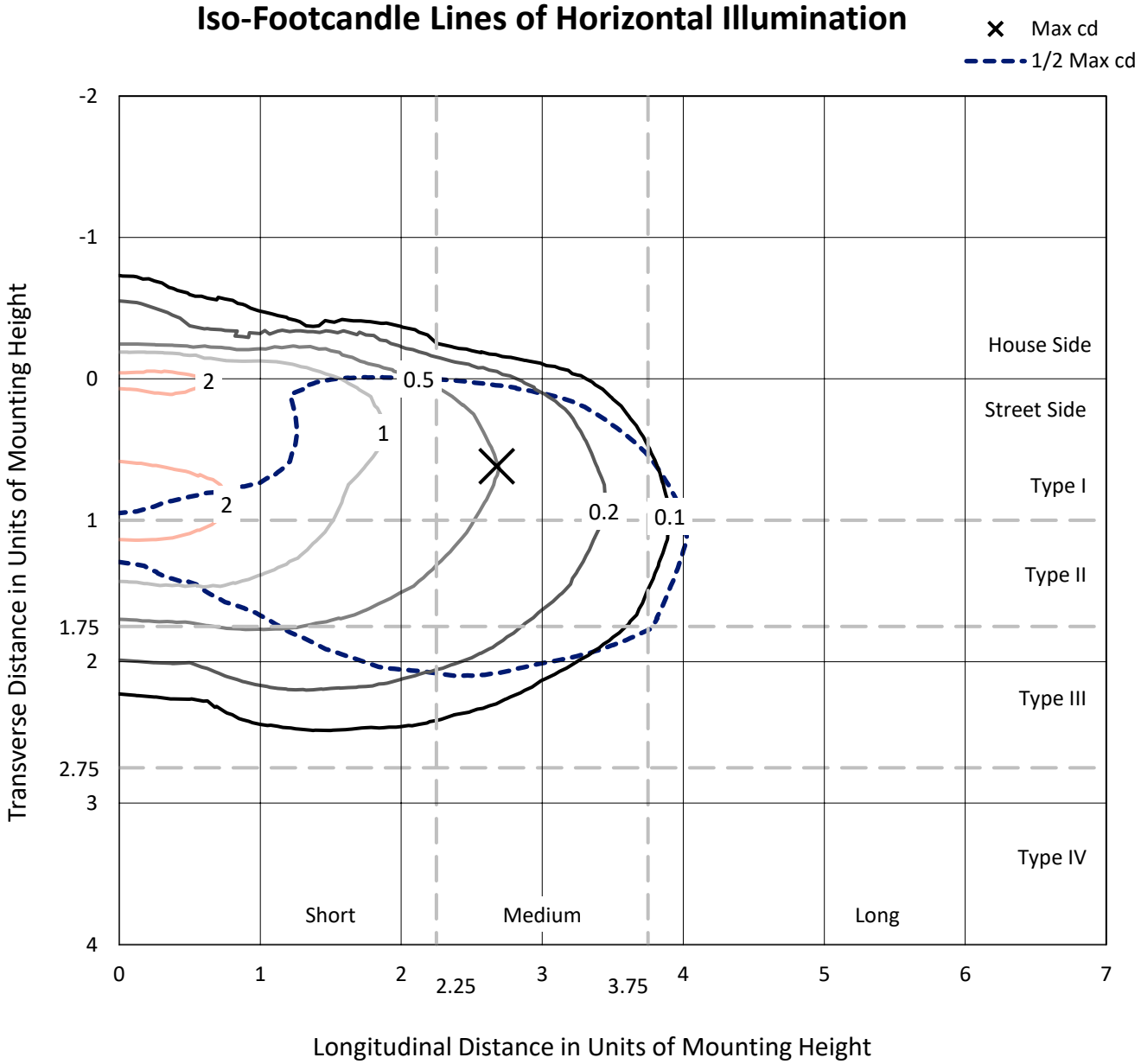
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
Type III - Medium - N/A

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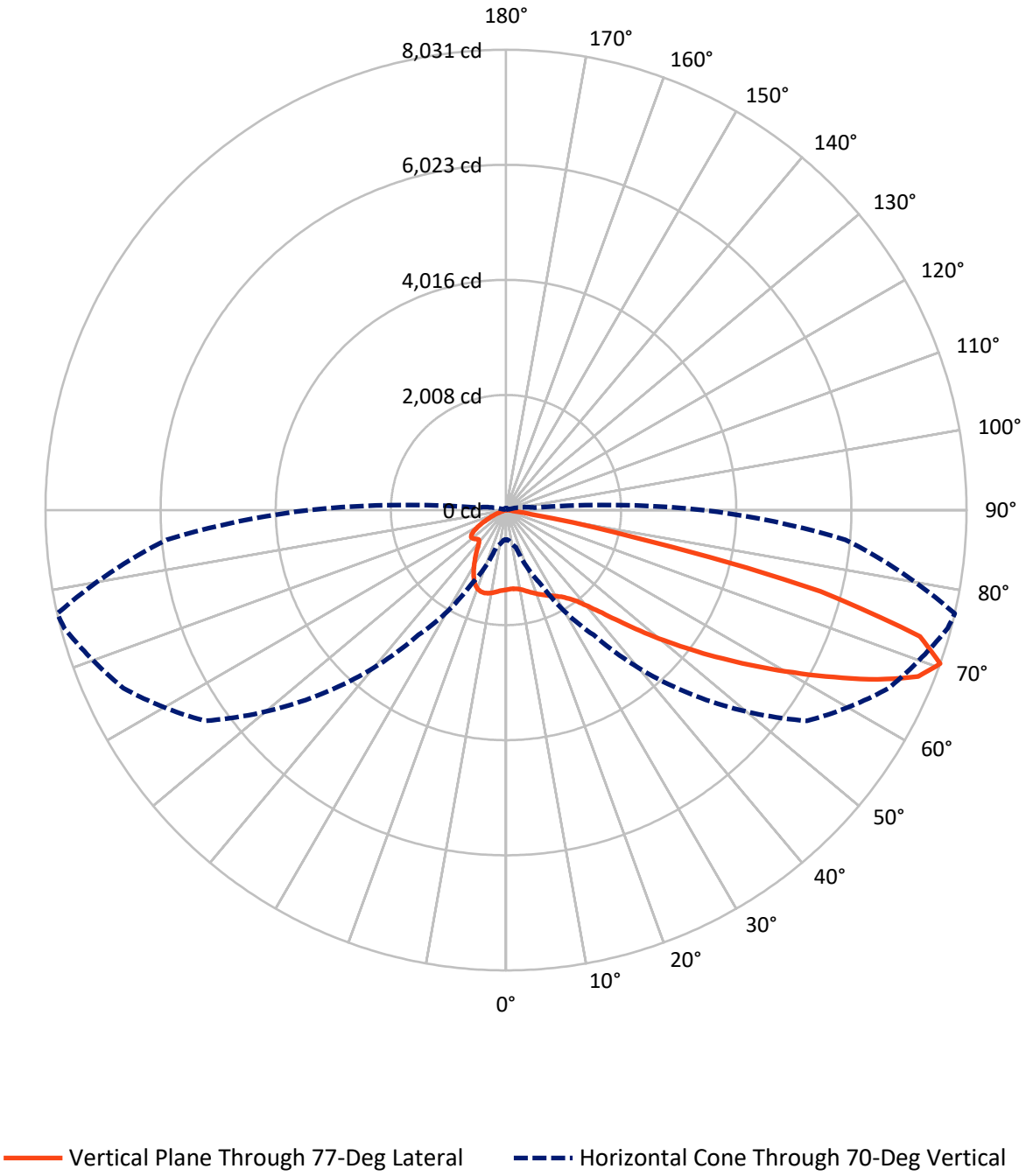
Luminous Intensity Polar Plot



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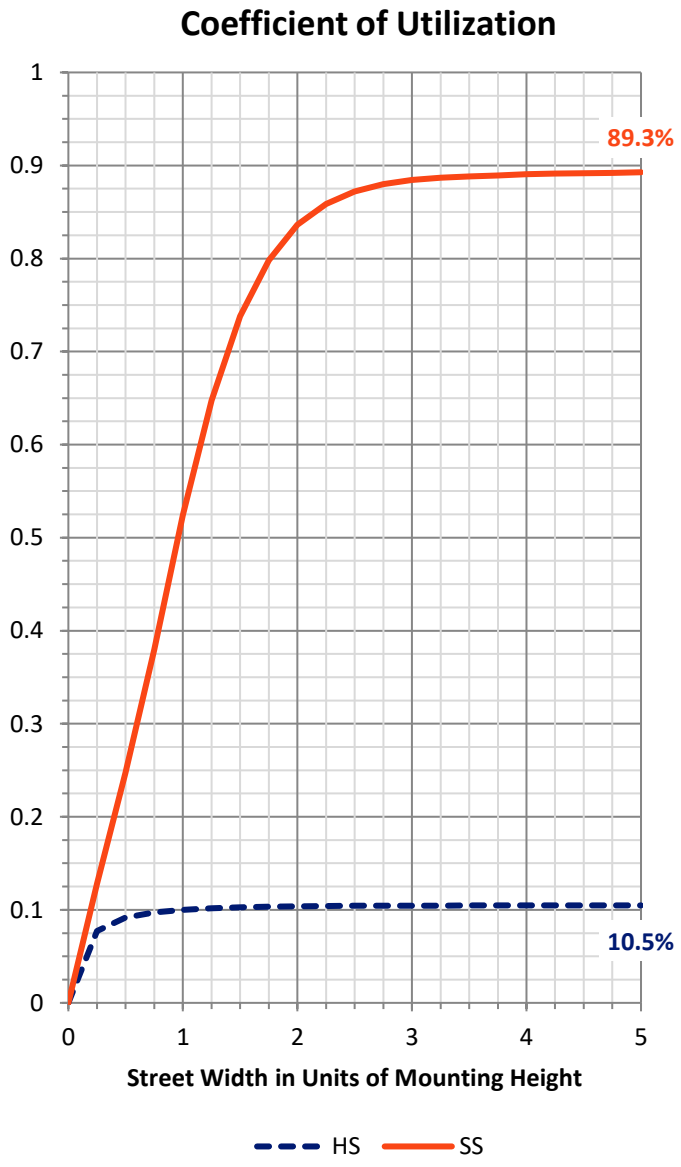
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	939.6	0.0	939.6
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	7973.8	0.0	7973.8
	% Fixture	89.5	0.0	89.5
Total	Lumens	8913.4	0.0	8913.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	1.3
10°-20°	284.4	3.2
20°-30°	440.0	4.9
30°-40°	798.3	9.0
40°-50°	1507.0	16.9
50°-60°	2177.4	24.4
60°-70°	2317.8	26.0
70°-80°	1228.3	13.8
80°-90°	40.3	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°	8913.4	100.0
0°-180°	8913.4	100.0



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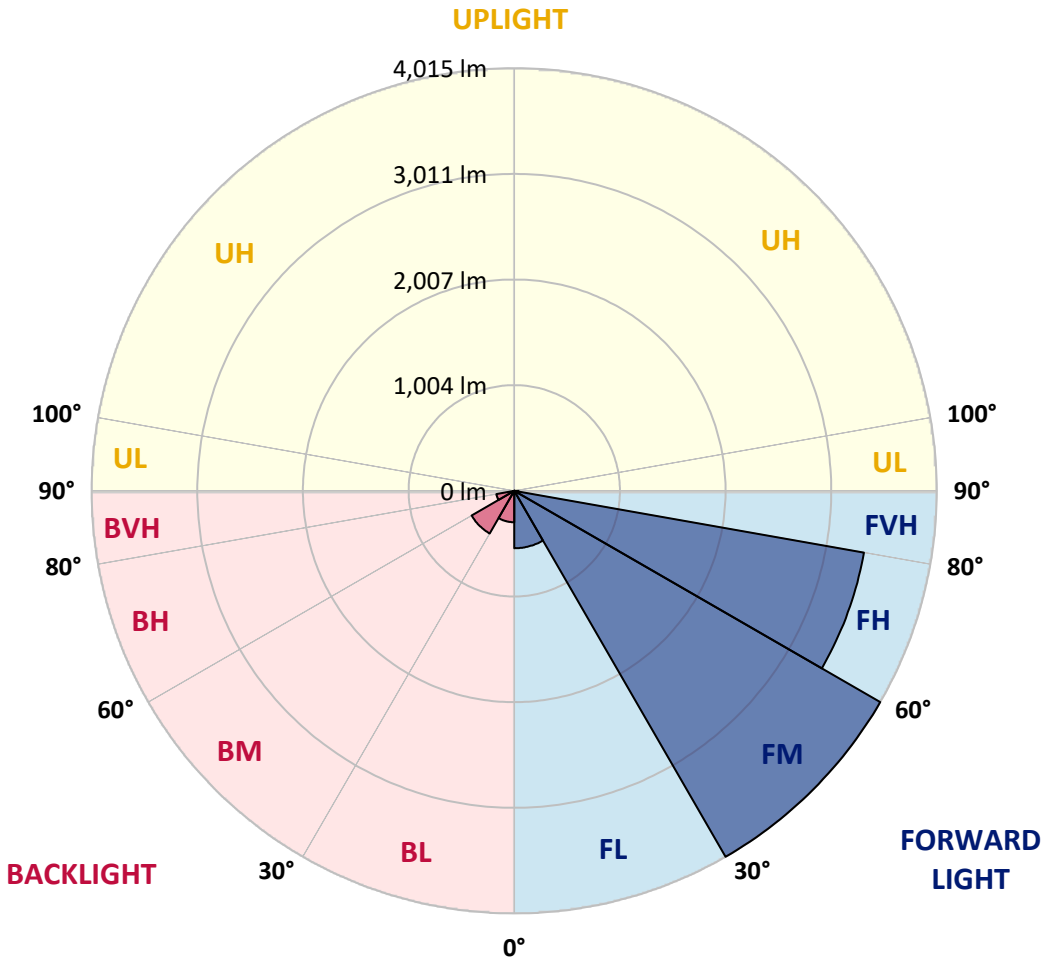
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	545.7	6.1			
FM	(30°-60°)	4015.0	45.0			
FH	(60°-80°)	3373.8	37.9			G2/5000
FVH	(80°-90°)	39.2	0.4			G1/100
BL	(0°-30°)	298.5	3.3	B1/500		
BM	(30°-60°)	467.7	5.2	B1/1000		
BH	(60°-80°)	172.3	1.9	B1/500		G1/500
BVH	(80°-90°)	1.1	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°	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	*1390.3*	1390.3
2.5°	1305.3	1317.1	1315.5	1323.4	1326.1	1337.4	1348.7	1363.9	1380.8	*1380.2*	1391.4
5°	1231.6	1243.4	1246.2	1257.0	1270.4	1287.9	1311.0	1341.3	1372.9	*1377.9*	1400.5
7.5°	1144.3	1156.7	1164.1	1185.4	1210.2	1246.2	1283.9	1328.4	1380.8	*1388.1*	1431.4
10°	1057.1	1068.4	1077.9	1108.3	1147.7	1201.2	1262.6	1326.8	1397.1	*1407.7*	1469.1
12.5°	1003.1	1013.7	1024.5	1050.9	1099.9	1165.2	1248.4	1334.7	1424.1	*1439.3*	1520.4
15°	983.9	993.5	1001.9	1025.6	1071.1	1145.4	1245.7	1350.9	1458.5	*1478.7*	1582.3
17.5°	986.8	991.8	997.4	1015.5	1060.0	1136.4	1250.7	1379.0	1499.0	*1517.0*	1644.2
20°	1003.1	1005.8	1006.4	1018.8	1058.2	1135.4	1260.9	1406.1	1537.2	*1561.5*	1705.5
22.5°	1023.9	1025.0	1023.9	1032.4	1069.0	1143.8	1274.4	1438.7	1580.0	*1602.6*	1767.5
25°	1121.2	1099.9	1072.9	1056.6	1086.9	1160.1	1294.7	1482.7	1626.8	*1648.7*	1827.7
27.5°	1423.5	1362.2	1265.4	1156.7	1124.1	1183.8	1322.8	1527.1	1674.0	*1693.7*	1892.5
30°	1914.4	1833.9	1669.5	1424.6	1243.4	1233.3	1359.4	1571.5	1724.2	*1745.5*	1961.6
32.5°	2406.3	2386.6	2197.0	1858.1	1511.9	1343.6	1420.1	1631.8	1790.6	*1807.4*	2055.1
35°	2903.9	2864.0	2708.6	2373.7	1925.7	1568.2	1521.5	1710.6	1877.8	*1897.0*	2191.3
37.5°	3285.0	3260.8	3164.6	2888.8	2416.4	1914.9	1694.8	1832.8	2004.4	*2025.8*	2365.8
40°	3621.6	3610.4	3577.7	3395.9	2965.3	2368.7	1964.5	2021.9	2180.1	*2205.4*	2579.7
42.5°	3886.2	3912.6	3931.2	3880.5	3531.0	2886.5	2327.0	2287.6	2424.9	*2450.8*	2852.2
45°	4156.9	4165.9	4240.8	4313.9	4092.7	3428.0	2735.6	2598.9	2729.5	*2761.6*	3178.6
47.5°	4330.8	4366.9	4498.6	4627.5	4565.0	3965.0	3174.6	2966.5	3082.4	*3142.5*	3544.4
50°	4343.7	4411.9	4593.1	4817.7	4908.9	4476.1	3652.0	3385.2	3508.5	*3574.9*	3935.2
52.5°	4128.2	4234.1	4514.9	4843.6	5094.7	4908.9	4145.6	3804.0	3962.1	*4048.9*	4340.5
55°	3165.1	3303.6	4220.5	4702.9	5102.0	5237.1	4626.3	4240.2	4467.7	*4565.6*	4778.3
57.5°	2757.6	2827.4	3318.2	4458.6	4966.3	5369.4	5060.9	4655.7	5017.6	*5139.1*	5192.0
60°	2294.4	2386.1	2782.9	4059.0	4782.2	5382.3	5444.8	5191.5	5613.6	*5750.5*	5571.5
62.5°	1559.2	1658.9	2053.4	3372.2	4530.7	5376.1	5759.5	5743.2	6276.2	*6423.1*	5892.8
65°	966.0	1028.4	1288.4	2753.7	4178.8	5382.9	6088.7	6413.0	6975.3	*7124.5*	6141.7
67.5°	763.3	792.0	927.6	2114.2	3572.6	5230.9	6417.4	7042.9	7633.3	*7751.5*	6217.6
70°	*512.8*	*530.2*	*674.9*	*1417.4*	*2657.9*	*4529.6*	*6411.3*	*7359.2*	*7972.1*	*8031.3*	*5940.7*
72.5°	270.2	283.7	394.6	656.3	1605.4	3219.7	5404.3	6981.0	7635.0	*7546.0*	5077.7
75°	135.1	157.6	265.7	333.2	685.6	1795.6	3356.0	5503.9	6009.4	*5664.9*	3258.0
77.5°	102.4	123.8	219.6	219.6	238.6	604.5	1421.3	3001.9	2768.8	*2305.5*	956.3
80°	65.3	84.5	192.0	166.0	99.6	153.6	370.3	840.9	588.2	*447.5*	173.9
82.5°	38.2	55.1	159.9	109.8	55.8	56.9	104.7	179.0	152.5	*118.8*	53.5
85°	15.2	36.0	109.8	43.4	21.9	14.0	31.6	38.2	31.6	*23.7*	13.5
87.5°	0.0	8.4	19.2	0.0	1.6	1.1	2.3	2.8	2.8	*2.3*	4.5
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°	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3	1390.3
2.5°	1396.6	1397.7	1401.1	1401.6	1393.7	1383.5	1379.6	1377.9	1371.1	1370.6	1371.8
5°	1413.4	1418.5	1413.4	1398.8	1363.9	1314.9	1277.8	1247.3	1219.8	1211.3	1206.2
7.5°	1447.2	1452.2	1437.0	1379.6	1291.8	1194.4	1106.6	1044.7	989.0	968.2	959.7
10°	1495.6	1502.3	1454.5	1338.5	1183.2	1026.7	878.1	773.4	691.8	658.6	644.5
12.5°	1556.4	1559.2	1464.1	1276.0	1041.9	818.5	607.9	495.9	423.3	396.3	387.9
15°	1623.4	1619.4	1465.2	1191.0	849.4	578.6	396.9	326.0	296.6	287.6	287.6
17.5°	1693.7	1677.4	1442.7	1068.4	638.3	395.8	294.4	277.5	272.4	270.2	269.6
20°	1763.0	1726.4	1401.6	907.9	458.2	295.5	267.3	262.3	259.5	258.4	257.3
22.5°	1826.0	1763.5	1331.3	721.6	332.7	261.2	252.8	248.3	243.1	240.9	240.4
25°	1887.3	1784.9	1232.2	547.7	266.3	244.3	237.5	229.1	222.3	219.6	218.4
27.5°	1947.0	1798.5	1108.3	405.3	237.5	228.6	216.2	204.3	199.3	198.1	197.0
30°	2010.6	1803.0	967.6	302.3	220.1	208.8	190.9	177.3	174.5	175.1	175.1
32.5°	2088.3	1809.6	825.7	247.6	205.4	185.2	163.8	149.8	147.5	149.8	149.1
35°	2181.2	1823.2	689.0	228.0	192.5	161.0	137.9	126.1	123.8	125.6	124.9
37.5°	2307.3	1845.1	561.2	224.1	181.8	140.7	115.9	106.4	106.4	106.9	106.4
40°	2475.0	1903.7	446.9	221.2	176.2	125.6	98.0	94.0	95.7	96.9	96.9
42.5°	2679.4	2028.1	369.8	217.8	169.9	118.8	89.0	87.2	90.1	91.2	91.2
45°	2908.4	2185.7	342.8	212.2	164.4	123.3	85.0	82.7	86.1	86.7	87.2
47.5°	3145.4	2339.9	339.4	206.0	158.8	130.1	83.8	78.8	82.7	83.3	83.8
50°	3385.2	2440.6	342.8	196.5	149.8	130.1	84.5	74.8	78.2	79.9	80.5
52.5°	3626.7	2486.9	340.5	175.6	134.0	122.2	84.5	71.4	74.8	76.0	76.0
55°	3860.9	2477.8	306.2	144.6	113.7	108.0	82.2	68.7	70.9	71.4	71.4
57.5°	4046.0	2352.3	242.6	112.5	92.4	90.1	74.8	65.3	66.9	66.4	66.4
60°	4142.8	2076.4	173.3	86.7	72.6	70.9	65.9	60.8	61.9	59.1	58.5
62.5°	4144.0	1711.7	115.9	68.7	58.0	56.3	56.3	54.6	53.5	47.9	46.1
65°	4055.6	1307.0	77.1	54.6	46.7	43.9	47.3	46.7	42.7	34.8	33.7
67.5°	3855.2	856.7	58.5	42.7	36.0	34.3	37.7	39.4	36.6	29.3	28.7
70°	*3443.2*	*498.8*	*48.4*	*33.2*	*27.1*	*25.3*	*30.4*	*33.7*	*30.4*	*23.7*	*22.5*
72.5°	2860.1	269.1	39.4	24.8	18.6	16.9	24.2	27.6	24.2	17.4	16.9
75°	1855.9	144.1	30.4	16.3	9.5	10.7	18.0	20.3	16.9	11.3	10.1
77.5°	623.1	63.7	19.2	7.9	4.5	4.5	10.7	12.4	7.9	3.9	3.4
80°	139.0	26.4	7.9	3.4	1.6	1.6	2.3	2.3	1.1	0.0	0.0
82.5°	45.6	10.7	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	17.4	3.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.8	0.5	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)