

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: P960993

Luminaire Tested: **NAV-SB1D-827-U-SL3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960993
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-13)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-SL3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7306.2 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 79.6
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



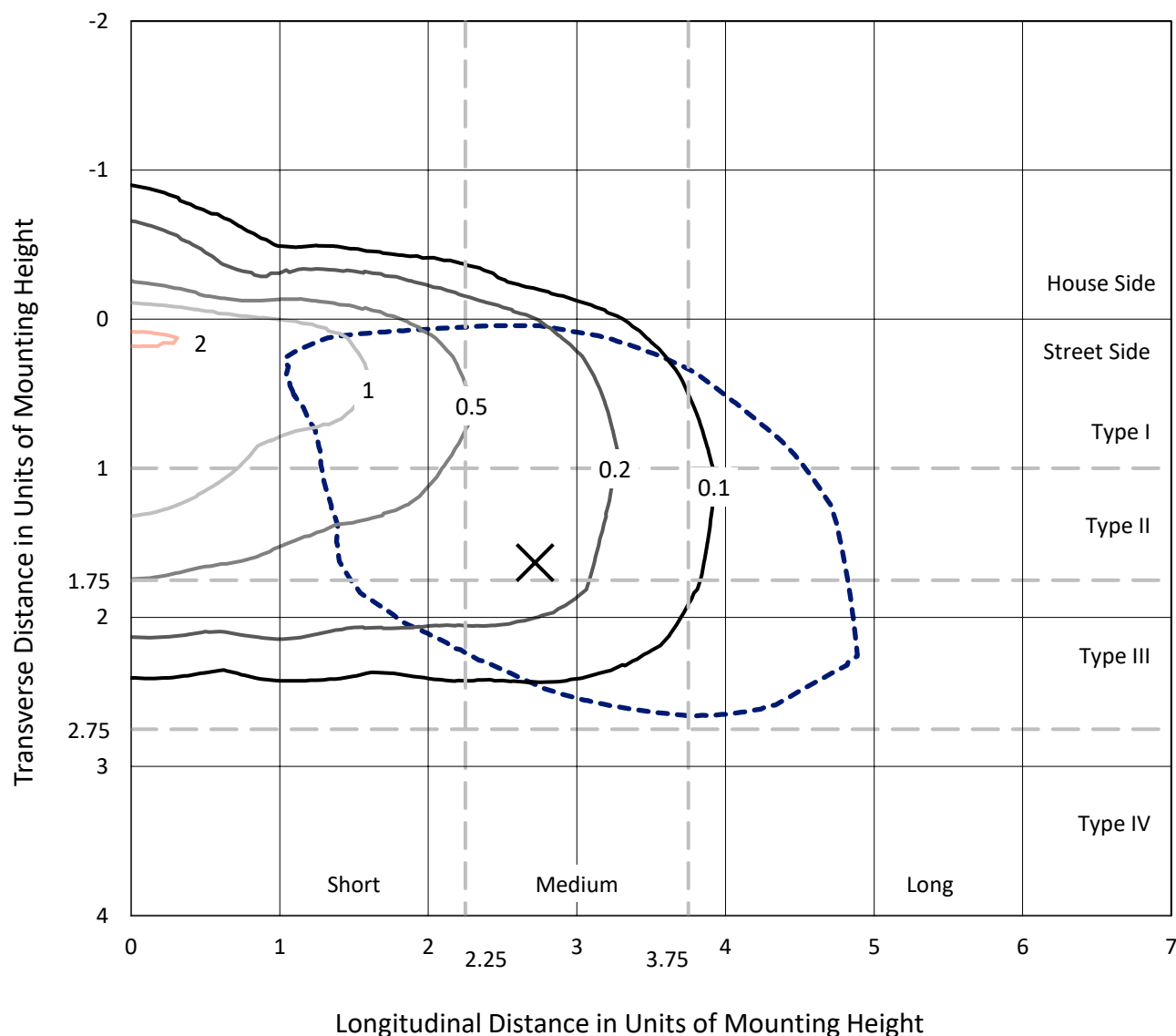
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

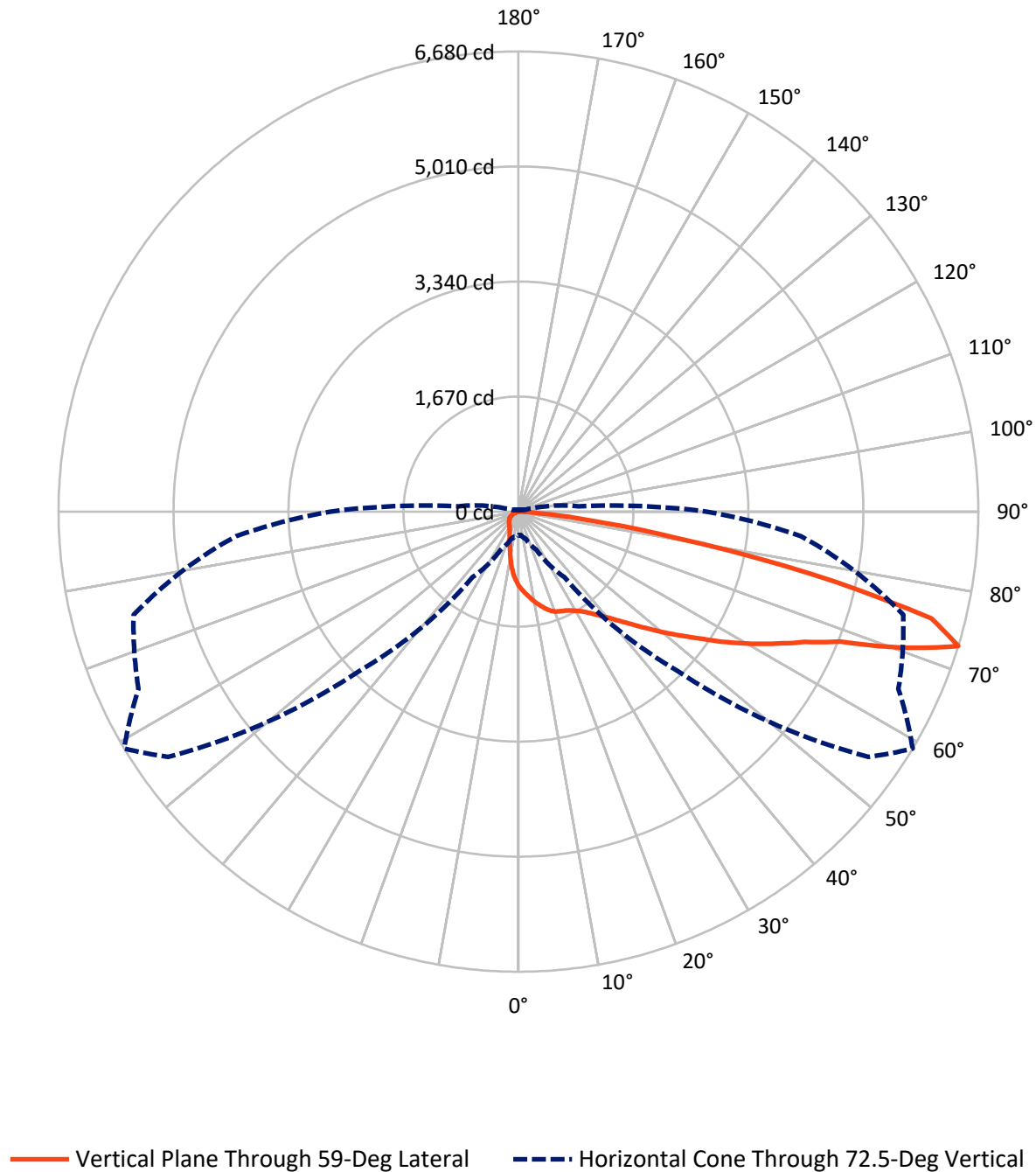
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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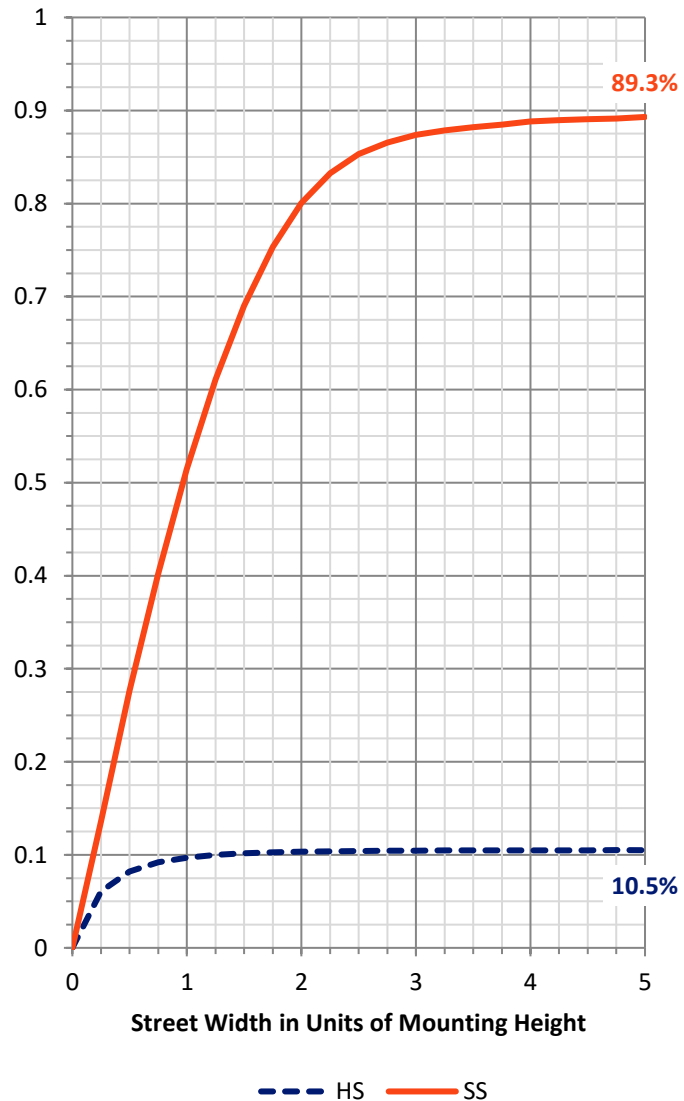
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	771.7	0.0	771.7
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	6534.5	0.0	6534.5
	% Fixture	89.4	0.0	89.4
Total	Lumens	7306.2	0.0	7306.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.7	1.3
10°-20°	259.6	3.6
20°-30°	411.5	5.6
30°-40°	660.4	9.0
40°-50°	1054.7	14.4
50°-60°	1527.1	20.9
60°-70°	1812.3	24.8
70°-80°	1345.3	18.4
80°-90°	137.6	1.9
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°	7306.2	100.0
0°-180°	7306.2	100.0

Coefficient of Utilization



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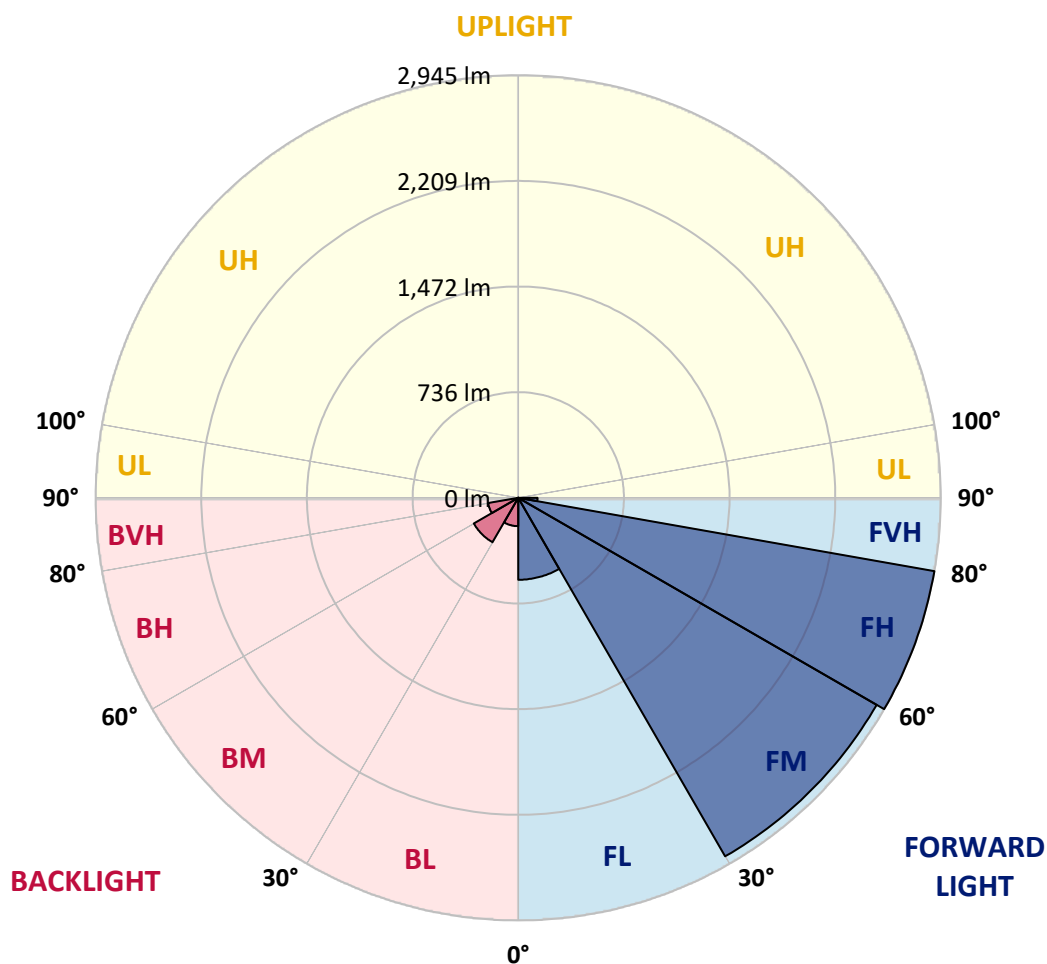
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	571.2	7.8			
FM	(30°-60°)	2884.4	39.5			
FH	(60°-80°)	2944.8	40.3			G2/5000
FVH	(80°-90°)	134.1	1.8			G2/225
BL	(0°-30°)	197.7	2.7	B1/500		
BM	(30°-60°)	357.8	4.9	B1/1000		
BH	(60°-80°)	212.8	2.9	B1/500		G1/500
BVH	(80°-90°)	3.4	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-G2

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5
2.5°	1198.7	1192.1	1193.0	1181.5	1173.4	1164.8	1148.1	1145.7	1133.9	1112.8	1091.4
5°	1303.2	1298.9	1295.1	1282.2	1265.5	1244.5	1216.4	1206.3	1184.4	1148.1	1106.2
7.5°	1379.4	1374.2	1376.2	1363.2	1349.9	1326.6	1287.9	1269.3	1240.2	1184.9	1121.5
10°	1394.3	1391.4	1403.8	1408.6	1408.6	1393.8	1356.1	1337.5	1295.1	1224.5	1137.1
12.5°	1311.3	1311.8	1342.7	1380.0	1428.6	1442.5	1417.2	1397.2	1355.2	1266.5	1157.2
15°	1214.4	1214.9	1245.0	1292.7	1372.4	1452.0	1472.0	1459.2	1415.7	1311.8	1180.6
17.5°	1156.3	1153.8	1173.9	1213.0	1296.5	1408.6	1505.4	1514.0	1478.7	1361.8	1206.3
20°	1148.1	1143.9	1154.4	1173.9	1233.5	1354.2	1509.2	1549.8	1543.5	1418.6	1235.9
22.5°	1197.7	1191.0	1185.3	1186.3	1211.6	1308.9	1499.7	1569.8	1610.4	1486.9	1276.4
25°	1296.0	1285.6	1266.9	1243.1	1237.8	1299.4	1493.0	1591.7	1672.4	1574.1	1329.8
27.5°	1416.2	1401.5	1365.7	1329.8	1299.4	1326.0	1506.9	1626.6	1742.5	1675.7	1391.8
30°	1548.4	1530.2	1494.4	1426.7	1378.1	1385.7	1539.8	1672.4	1832.2	1790.7	1469.6
32.5°	1742.5	1700.5	1638.1	1534.5	1470.2	1450.1	1589.4	1730.6	1943.3	1943.8	1582.2
35°	1909.0	1885.6	1822.7	1693.8	1561.7	1535.4	1654.8	1812.6	2097.4	2146.6	1739.6
37.5°	2018.2	1986.2	1930.9	1834.0	1703.9	1623.3	1742.0	1913.3	2260.5	2377.4	1933.8
40°	2140.3	2108.8	2035.3	1944.2	1868.9	1774.0	1852.2	2029.2	2439.4	2614.5	2155.6
42.5°	2287.7	2246.7	2159.9	2061.6	1982.9	1972.4	1996.3	2173.7	2623.1	2872.0	2386.4
45°	2460.8	2422.2	2322.5	2198.5	2129.3	2110.8	2177.5	2342.1	2827.7	3154.4	2619.7
47.5°	2623.1	2578.2	2470.9	2357.8	2281.0	2222.4	2370.2	2541.0	3059.5	3449.7	2840.1
50°	2760.9	2715.1	2616.8	2496.2	2444.2	2367.3	2559.6	2762.8	3289.4	3749.8	3041.4
52.5°	2855.3	2814.8	2699.3	2617.3	2582.0	2543.3	2781.4	2997.9	3518.4	4024.5	3240.3
55°	2833.9	2797.6	2696.1	2690.3	2688.0	2728.4	3046.6	3264.6	3751.6	4284.4	3438.3
57.5°	2765.7	2724.7	2597.8	2685.1	2769.4	2893.5	3333.8	3579.9	4007.3	4529.6	3629.0
60°	2564.9	2550.5	2473.2	2675.0	2803.8	3055.2	3661.9	3896.6	4284.0	4745.2	3798.3
62.5°	2139.8	2152.2	2151.8	2696.1	2865.8	3239.3	3960.1	4217.2	4554.4	4952.7	3949.1
65°	1602.3	1645.2	1700.1	2507.1	2948.8	3568.0	4316.4	4564.9	4829.2	5194.1	4102.3
67.5°	1076.6	1110.9	1148.1	2056.9	2701.8	3913.3	4908.3	5041.5	5158.3	5461.7	4274.5
70°	616.3	627.3	679.3	1284.5	2082.6	3817.9	5872.4	5920.6	5649.2	5791.2	4399.9
72.5°	345.3	341.5	410.2	609.6	1163.9	3269.3	6210.1	6679.9	6088.5	5786.0	4119.9
75°	230.8	231.3	282.4	384.5	453.7	2288.6	5351.5	6193.9	5825.2	5130.6	3366.2
77.5°	157.4	162.7	207.5	297.1	209.9	1116.6	3540.4	4338.8	4716.1	3962.0	2324.0
80°	68.2	68.7	136.9	213.2	141.7	355.4	1835.5	2324.4	2957.9	2224.8	920.7
82.5°	35.3	40.1	87.3	137.9	89.2	124.5	867.2	1015.6	1241.2	653.0	188.9
85°	12.4	14.8	53.9	67.8	44.8	44.4	302.0	307.7	262.8	98.3	52.0
87.5°	0.0	2.4	21.0	16.7	5.7	5.2	35.8	30.0	23.9	13.8	17.2
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°	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5	1080.5
2.5°	1081.4	1068.5	1047.6	1021.7	991.7	975.5	952.1	937.8	925.0	925.4	935.9
5°	1082.8	1061.3	1007.9	951.1	888.2	841.9	790.4	754.1	726.5	719.8	729.8
7.5°	1087.1	1050.8	963.5	869.1	764.1	686.4	615.3	570.5	545.2	538.5	545.2
10°	1092.9	1039.4	913.5	769.0	638.7	545.2	486.1	457.5	446.0	437.4	442.7
12.5°	1097.6	1027.5	850.5	665.4	527.1	454.1	409.3	385.4	375.4	369.2	372.6
15°	1105.7	1011.7	782.3	569.1	451.7	392.1	349.6	332.0	329.1	330.0	331.5
17.5°	1113.8	996.5	705.9	493.7	396.4	337.7	312.0	309.1	312.9	316.7	318.2
20°	1122.9	974.5	628.7	437.0	345.3	300.0	293.4	295.3	297.1	303.8	305.8
22.5°	1136.2	946.9	561.0	388.8	302.9	281.9	278.6	280.0	281.5	288.1	290.0
25°	1155.3	917.3	506.1	344.4	276.1	267.1	263.7	263.7	265.7	271.9	274.3
27.5°	1175.4	875.4	461.8	303.4	260.5	250.9	245.2	245.2	247.5	254.7	257.6
30°	1197.7	837.1	426.9	272.9	247.1	234.7	227.0	225.2	228.0	237.1	239.4
32.5°	1238.3	812.3	402.1	258.5	235.1	219.9	209.4	204.2	207.0	217.5	220.4
35°	1299.8	806.6	385.0	251.3	223.8	206.5	191.8	183.7	186.0	197.0	200.4
37.5°	1371.9	818.6	368.3	241.8	212.8	193.6	174.1	163.6	167.4	177.4	180.3
40°	1475.4	868.2	355.4	234.7	201.8	178.4	156.4	146.0	152.2	160.7	162.2
42.5°	1600.3	956.4	352.0	228.0	188.4	162.2	140.2	132.6	137.4	145.4	146.9
45°	1755.4	1069.0	367.3	219.5	173.6	146.5	127.4	123.1	124.5	132.6	136.4
47.5°	1921.9	1184.4	409.3	211.8	160.7	133.6	117.4	113.6	112.5	120.2	124.9
50°	2090.2	1287.0	458.9	206.0	151.7	123.1	109.7	105.0	102.6	107.3	109.3
52.5°	2256.7	1368.5	491.3	196.5	142.6	112.5	103.0	95.8	91.6	94.0	95.8
55°	2425.6	1440.0	493.2	182.2	134.1	105.9	96.4	88.3	83.0	83.0	83.9
57.5°	2583.4	1503.1	465.0	163.2	122.1	99.7	87.3	80.6	74.9	73.0	73.5
60°	2723.2	1549.8	418.3	141.7	111.6	91.6	78.2	73.0	65.8	62.0	61.1
62.5°	2847.8	1572.7	354.4	119.7	98.7	82.0	69.6	64.0	54.4	49.6	49.1
65°	2953.1	1549.3	287.6	99.2	87.7	71.5	59.7	53.9	43.4	37.7	37.7
67.5°	3057.6	1442.5	217.5	83.4	76.4	60.1	49.1	43.9	36.3	31.5	31.5
70°	3070.9	1217.8	152.2	70.1	63.4	46.2	39.6	36.3	29.6	25.3	24.8
72.5°	2733.7	876.3	92.6	57.2	49.6	32.9	31.5	28.6	21.9	19.1	18.6
75°	2185.2	537.1	54.4	42.9	32.9	23.4	23.4	20.5	14.8	12.4	12.4
77.5°	1510.2	281.0	32.0	27.7	19.6	13.8	15.3	12.4	7.2	5.7	5.7
80°	604.9	106.8	17.2	12.9	9.0	6.1	5.2	2.9	1.4	0.9	1.4
82.5°	120.6	28.2	5.7	3.4	3.4	1.4	0.0	0.0	0.0	0.0	0.0
85°	31.0	6.1	1.4	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.5	0.0	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)