

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: P959934

Luminaire Tested: **NAV-SB1B-827-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959934
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1B-827-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4280.4 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 39.8
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

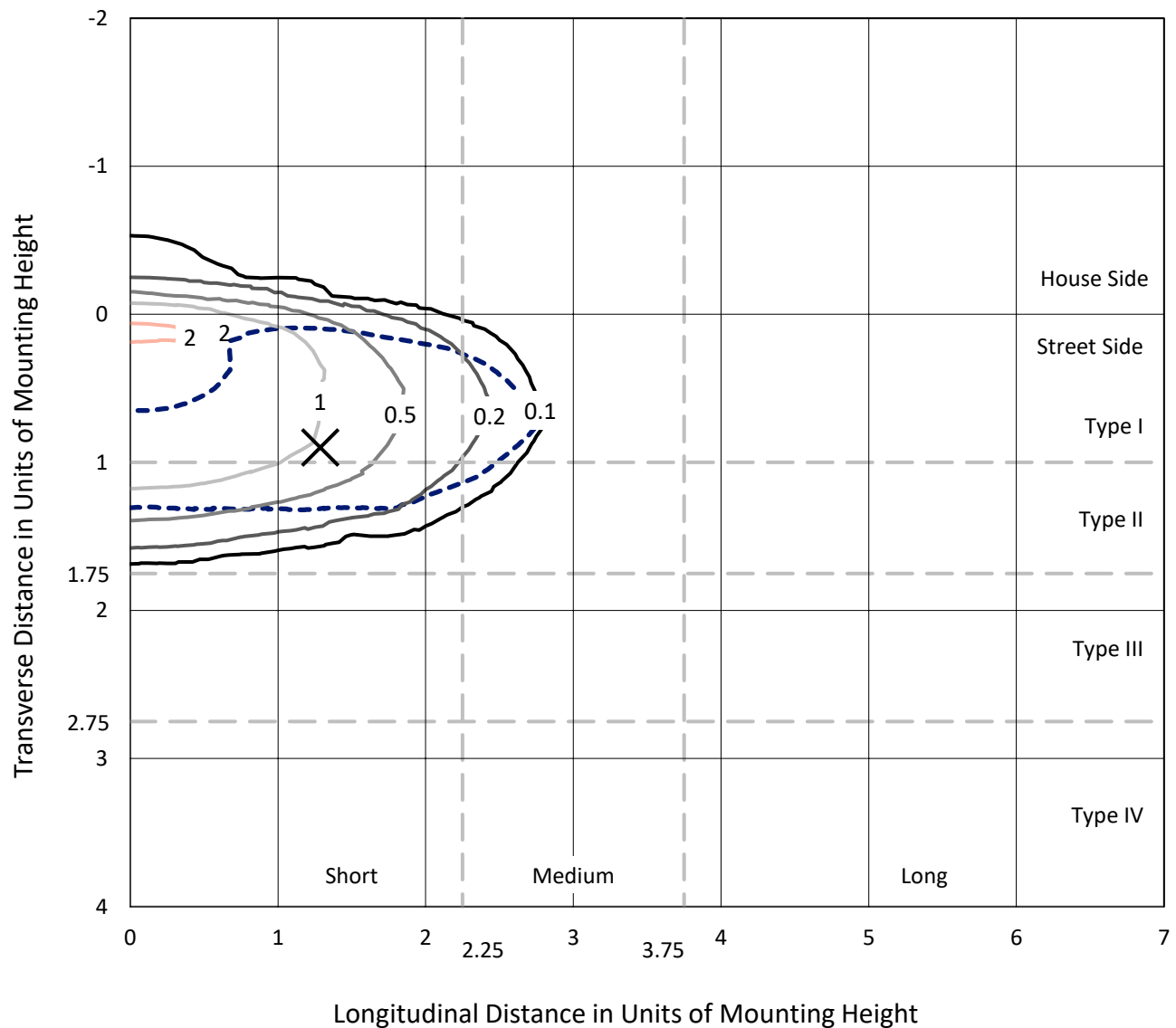


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Iso-Footcandle Lines of Horizontal Illumination

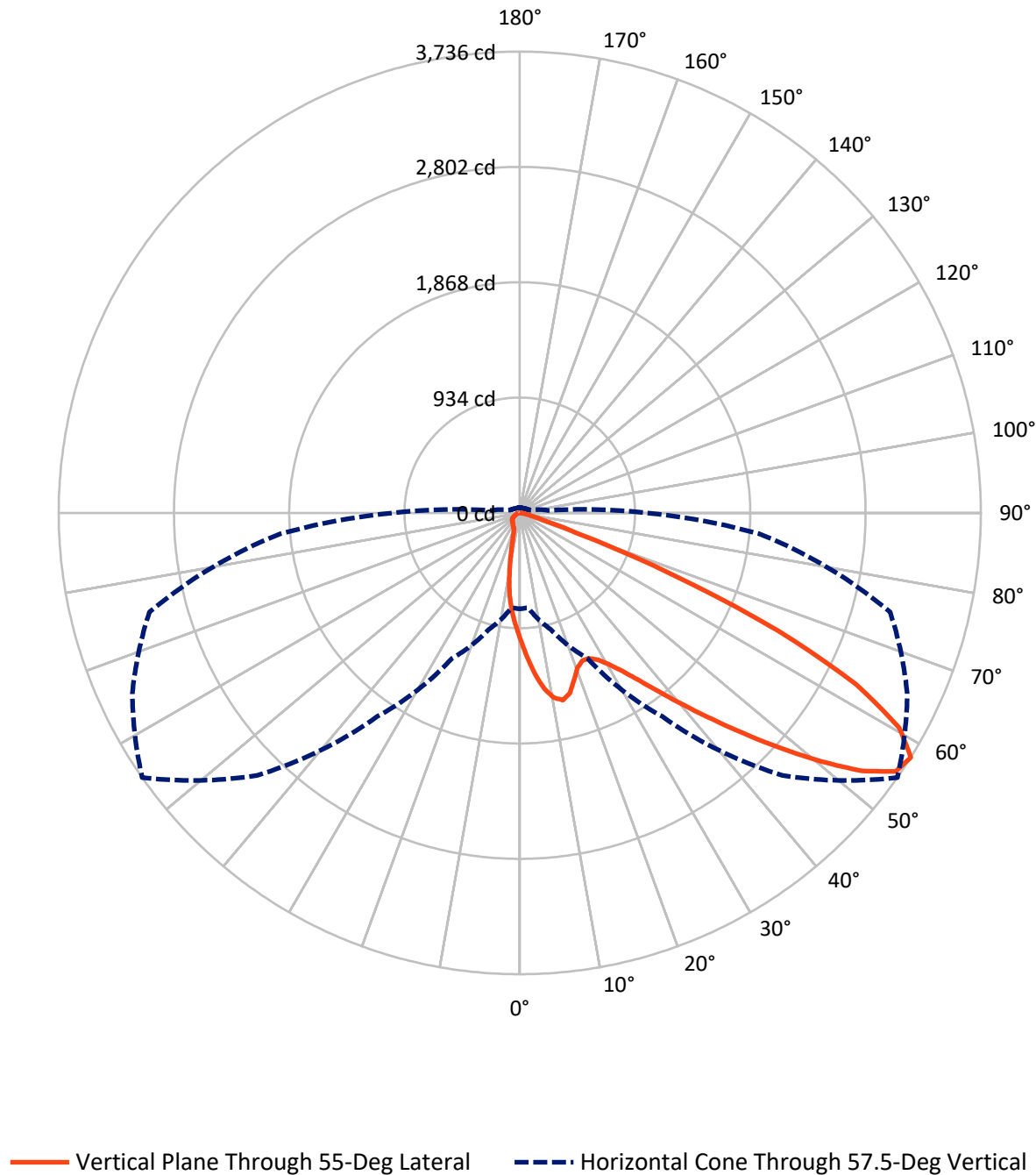
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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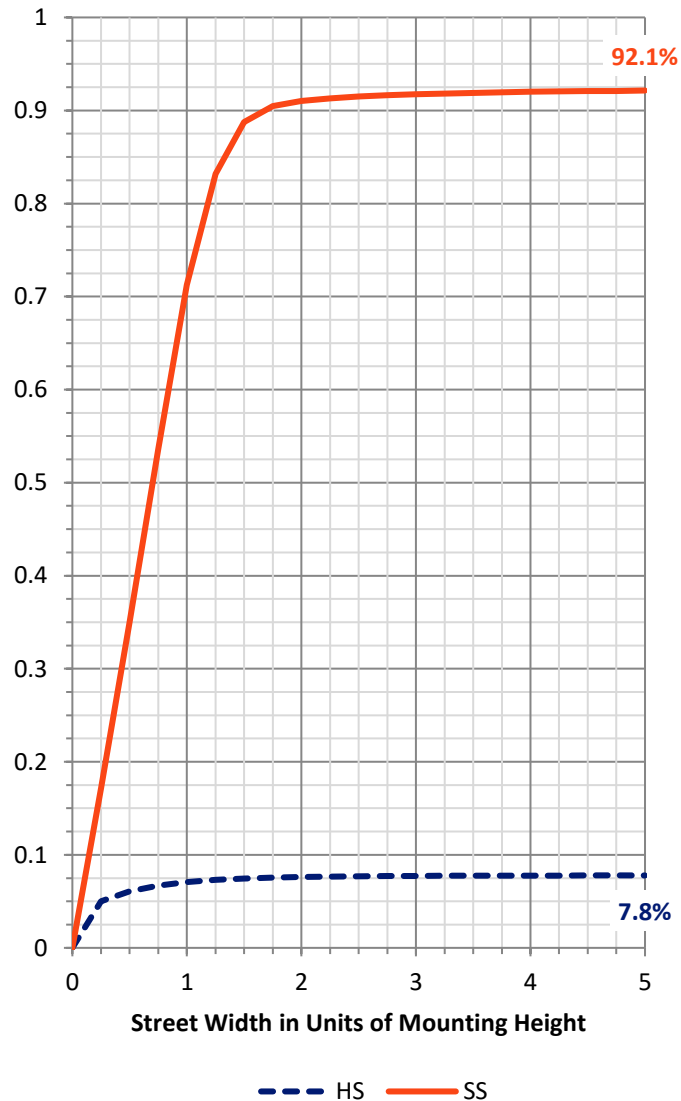
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	334.3	0.0	334.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	3946.1	0.0	3946.1
	% Fixture	92.2	0.0	92.2
Total	Lumens	4280.4	0.0	4280.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	2.2
10°-20°	231.8	5.4
20°-30°	370.9	8.7
30°-40°	627.8	14.7
40°-50°	1030.7	24.1
50°-60°	1132.8	26.5
60°-70°	649.8	15.2
70°-80°	132.8	3.1
80°-90°	7.8	0.2
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°	4280.4	100.0
0°-180°	4280.4	100.0

Coefficient of Utilization



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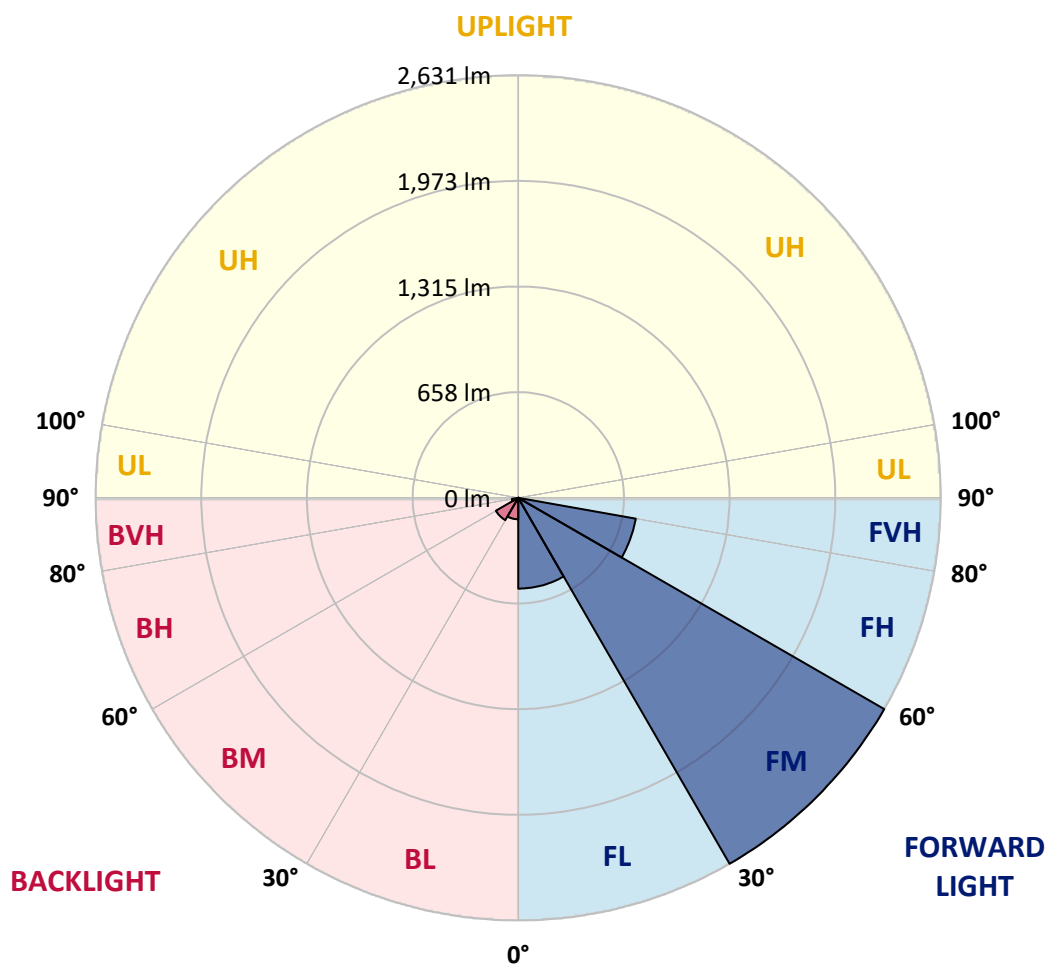
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	565.3	13.2			
FM	(30°-60°)	2630.8	61.5			
FH	(60°-80°)	742.8	17.4			G1/1800
FVH	(80°-90°)	7.3	0.2			G0/10
BL	(0°-30°)	133.5	3.1	B1/500		
BM	(30°-60°)	160.5	3.8	B0/220		
BH	(60°-80°)	39.8	0.9	B0/110		G0/110
BVH	(80°-90°)	0.5	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-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5
2.5°	1279.8	1263.7	1261.4	1258.2	1227.5	1204.6	1171.4	1135.0	1094.0	1052.4	1033.8
5°	1478.6	1466.0	1463.5	1448.7	1413.9	1374.8	1315.7	1241.1	1164.8	1075.0	1036.5
7.5°	1517.1	1514.7	1525.6	1525.0	1520.3	1489.4	1439.5	1350.5	1236.0	1103.0	1043.3
10°	1345.3	1351.4	1383.5	1411.8	1488.1	1532.4	1521.6	1448.2	1309.4	1135.0	1051.0
12.5°	1188.8	1181.6	1204.6	1236.6	1325.2	1457.2	1555.6	1529.8	1393.3	1171.1	1062.3
15°	1090.6	1087.7	1100.6	1115.4	1183.0	1316.0	1516.1	1596.0	1474.1	1213.8	1079.5
17.5°	1059.2	1056.8	1060.8	1064.5	1108.2	1211.2	1421.9	1636.7	1551.4	1262.7	1098.5
20°	1084.8	1081.6	1081.1	1078.2	1096.4	1166.7	1336.6	1639.6	1620.8	1307.0	1114.9
22.5°	1159.5	1155.8	1142.9	1131.2	1132.8	1172.7	1298.6	1610.6	1673.1	1348.5	1125.1
25°	1294.9	1288.8	1261.9	1222.8	1198.0	1214.9	1304.4	1572.2	1723.0	1380.9	1120.1
27.5°	1464.3	1456.4	1421.9	1363.8	1307.0	1286.5	1346.3	1545.9	1764.4	1405.7	1109.4
30°	1630.4	1620.0	1586.0	1540.9	1458.0	1393.1	1422.1	1557.5	1813.7	1431.6	1095.1
32.5°	1809.5	1799.8	1754.7	1698.7	1630.1	1542.7	1525.8	1614.3	1874.2	1467.8	1085.1
35°	2036.3	2021.0	1956.8	1880.6	1807.7	1719.3	1666.2	1712.2	1954.8	1522.9	1090.6
37.5°	2294.5	2273.9	2204.7	2099.4	2004.4	1905.4	1837.3	1846.7	2072.8	1596.8	1107.7
40°	2537.8	2519.0	2455.2	2356.0	2236.7	2116.5	2044.0	2022.8	2235.5	1686.8	1137.9
42.5°	2683.8	2666.8	2639.9	2598.0	2497.4	2374.9	2283.3	2237.7	2428.2	1794.5	1174.5
45°	2692.0	2677.1	2713.3	2762.1	2742.3	2660.8	2549.1	2465.4	2621.7	1895.6	1212.6
47.5°	2561.0	2550.9	2660.8	2831.3	2916.2	2950.6	2847.7	2674.2	2781.3	1968.2	1228.2
50°	2204.2	2200.5	2426.4	2739.4	2982.5	3204.5	3162.5	2868.5	2905.2	2005.6	1213.3
52.5°	1911.2	1897.7	2029.4	2445.3	2886.2	3338.0	3470.2	3059.0	2991.8	2012.8	1178.8
55°	1449.6	1437.7	1602.9	1953.4	2575.5	3290.6	3695.4	3255.7	3053.8	1994.5	1116.7
57.5°	777.6	770.2	979.0	1300.1	2013.3	3005.5	3736.0	3463.7	3106.1	1946.3	1029.9
60°	302.8	301.5	379.6	630.8	1223.6	2445.1	3530.9	3588.5	3138.8	1886.9	957.4
62.5°	183.2	187.2	199.8	283.2	540.6	1518.9	3058.3	3446.5	3160.7	1832.5	897.4
65°	151.5	151.8	153.3	194.5	258.9	635.6	2302.4	2979.4	3106.6	1735.6	812.4
67.5°	129.9	132.2	138.3	154.4	182.7	278.7	1325.5	2307.9	2777.4	1510.2	679.9
70°	102.4	105.6	113.3	127.0	140.9	174.5	489.8	1535.6	2121.8	1138.4	514.1
72.5°	86.3	86.0	90.0	103.2	111.9	122.7	188.5	860.5	1233.1	543.5	254.4
75°	66.7	69.4	74.4	86.3	91.6	89.0	102.2	314.4	441.9	164.7	86.6
77.5°	52.3	54.3	58.8	70.5	75.7	63.0	58.8	112.4	142.0	59.1	39.1
80°	23.5	25.3	40.1	52.0	61.8	43.6	32.0	57.5	63.0	27.0	19.8
82.5°	4.2	7.2	23.5	27.5	31.7	28.3	16.6	29.8	30.9	10.9	6.9
85°	0.3	0.5	8.2	10.0	12.7	9.2	5.0	11.9	10.2	3.7	2.7
87.5°	0.0	0.0	0.0	0.3	0.3	1.3	1.5	2.2	1.5	1.3	1.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5	1031.5
2.5°	1014.9	977.3	941.0	911.1	893.7	864.2	844.6	841.4	833.2	840.4
5°	995.3	928.2	860.5	799.7	749.9	685.4	637.4	617.0	599.4	605.5
7.5°	986.0	880.3	774.7	671.0	564.3	461.4	384.8	352.9	328.6	332.0
10°	973.6	830.4	664.8	506.5	363.7	262.1	209.3	189.7	179.0	179.2
12.5°	964.2	770.7	537.4	343.4	221.4	167.4	151.0	146.3	143.1	143.3
15°	959.4	700.5	411.4	228.9	158.4	141.8	137.8	135.7	133.6	133.2
17.5°	951.5	622.4	301.1	167.1	138.6	132.7	129.4	127.0	124.3	123.8
20°	939.6	533.7	220.2	141.2	129.9	125.4	120.6	117.5	114.3	113.8
22.5°	917.7	440.0	169.2	130.7	123.5	118.5	112.7	109.0	105.9	105.3
25°	877.1	352.1	142.6	124.0	118.0	111.9	105.6	100.6	97.7	97.2
27.5°	825.6	276.6	129.4	118.0	110.9	105.3	98.2	93.5	90.8	90.3
30°	764.9	213.0	121.7	111.1	102.4	97.7	91.3	87.3	85.8	85.8
32.5°	699.5	170.3	118.5	104.2	95.0	89.8	84.8	83.1	82.6	82.3
35°	638.0	147.8	117.0	98.7	88.5	83.4	81.3	81.6	82.6	82.6
37.5°	583.3	140.6	116.1	94.7	82.6	78.1	79.4	81.8	80.8	80.8
40°	533.9	141.4	115.6	91.8	77.9	75.2	77.9	76.1	73.4	73.1
42.5°	496.2	148.1	114.6	89.5	74.9	73.1	72.1	69.2	68.9	69.4
45°	468.7	153.9	114.3	88.5	71.8	68.4	67.0	64.2	69.4	70.7
47.5°	436.2	153.9	114.3	84.8	66.5	65.2	63.0	60.0	65.2	66.5
50°	394.3	144.1	109.8	80.5	62.3	61.5	57.8	53.8	52.8	53.6
52.5°	341.2	126.4	98.4	74.7	58.1	56.5	52.0	49.1	48.3	48.3
55°	280.8	105.9	83.1	66.2	53.6	50.6	47.6	46.2	45.4	44.9
57.5°	228.3	86.8	66.7	58.8	49.4	45.6	44.6	43.0	41.7	40.9
60°	187.4	68.4	55.1	52.3	45.1	41.7	41.4	39.4	35.9	35.4
62.5°	144.6	50.1	46.4	45.4	40.9	38.0	37.5	33.2	28.0	27.0
65°	102.2	39.1	37.5	39.9	36.4	33.8	32.5	26.1	20.6	19.8
67.5°	71.8	32.7	29.5	34.8	31.7	28.3	27.5	22.1	17.1	16.6
70°	51.2	26.6	24.3	29.8	25.3	24.8	23.3	18.4	13.9	13.4
72.5°	36.2	20.3	18.8	25.8	17.4	21.4	19.0	14.2	10.6	10.0
75°	26.6	14.6	13.2	15.1	12.7	16.1	13.4	9.5	6.6	6.4
77.5°	19.6	9.2	7.9	7.4	7.4	10.0	7.4	4.0	2.9	2.7
80°	13.7	4.2	3.7	3.2	2.9	2.4	1.0	0.5	0.3	0.3
82.5°	8.2	1.8	1.8	1.3	0.8	0.0	0.0	0.0	0.0	0.0
85°	1.8	0.8	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.3	0.3	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

(END OF REPORT)