

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: P960920

Luminaire Tested: **NAV-SB1D-740-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960920
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10910.1 lumens
Efficiency: N/A
Efficacy: 137.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

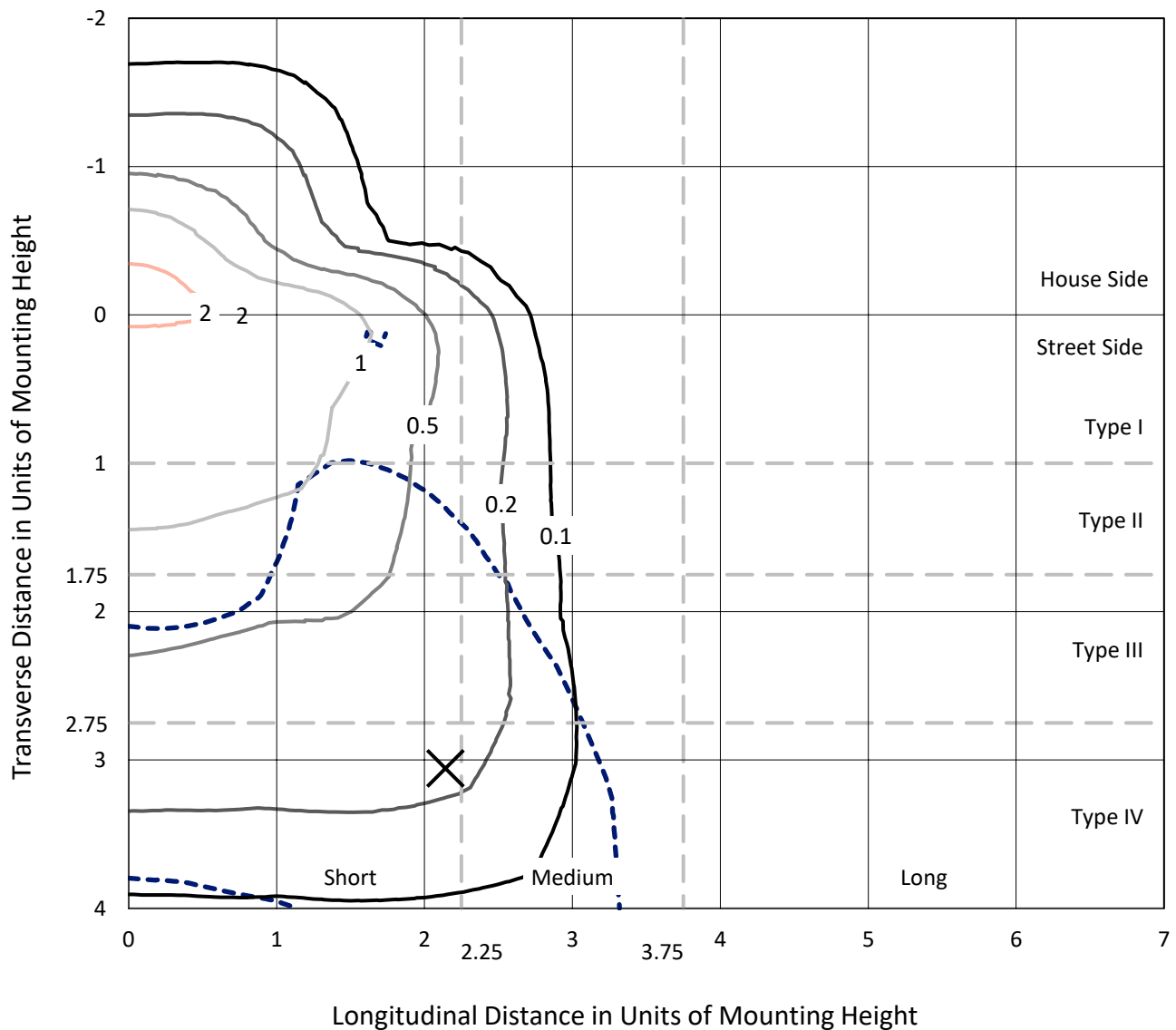
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

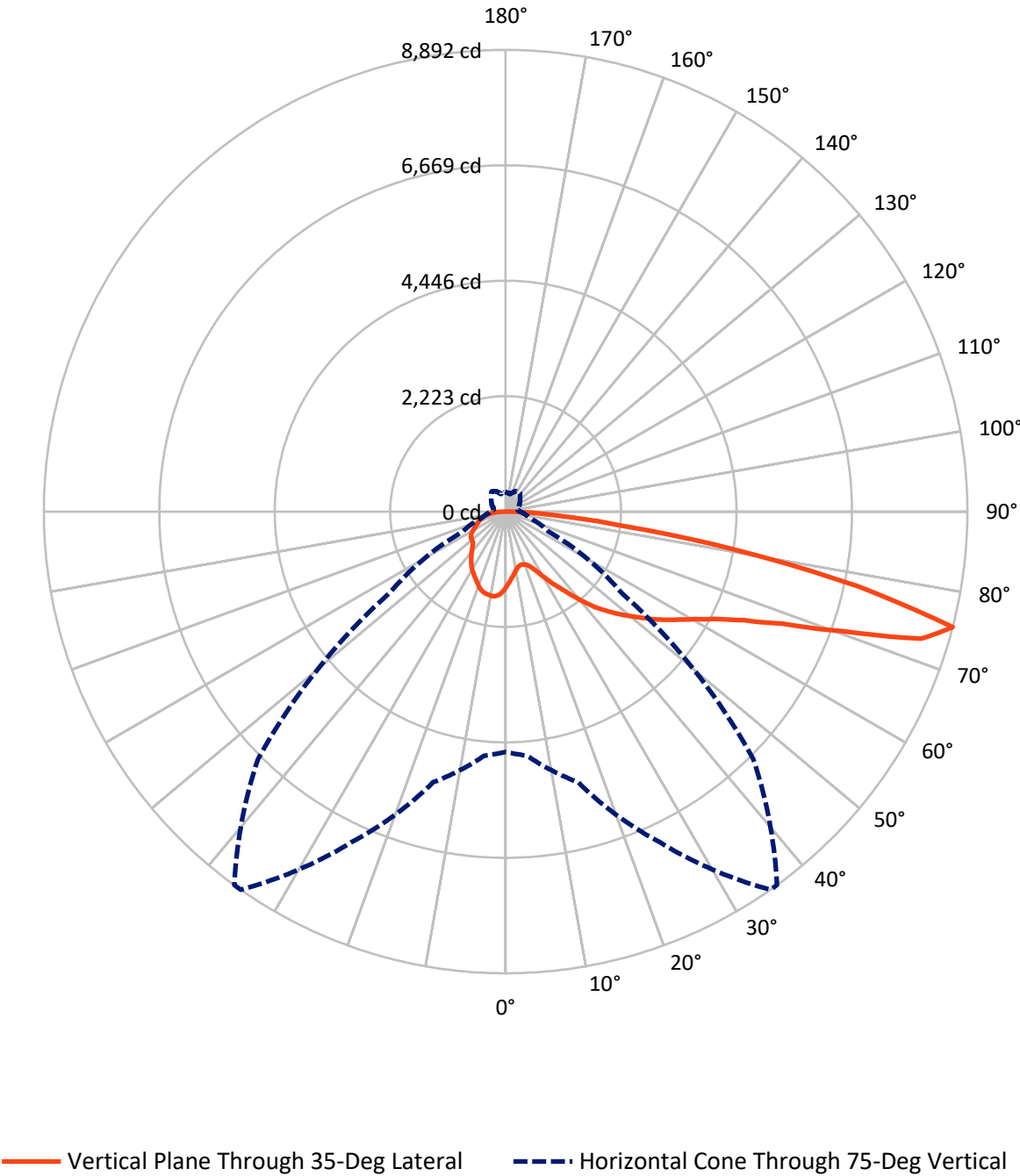
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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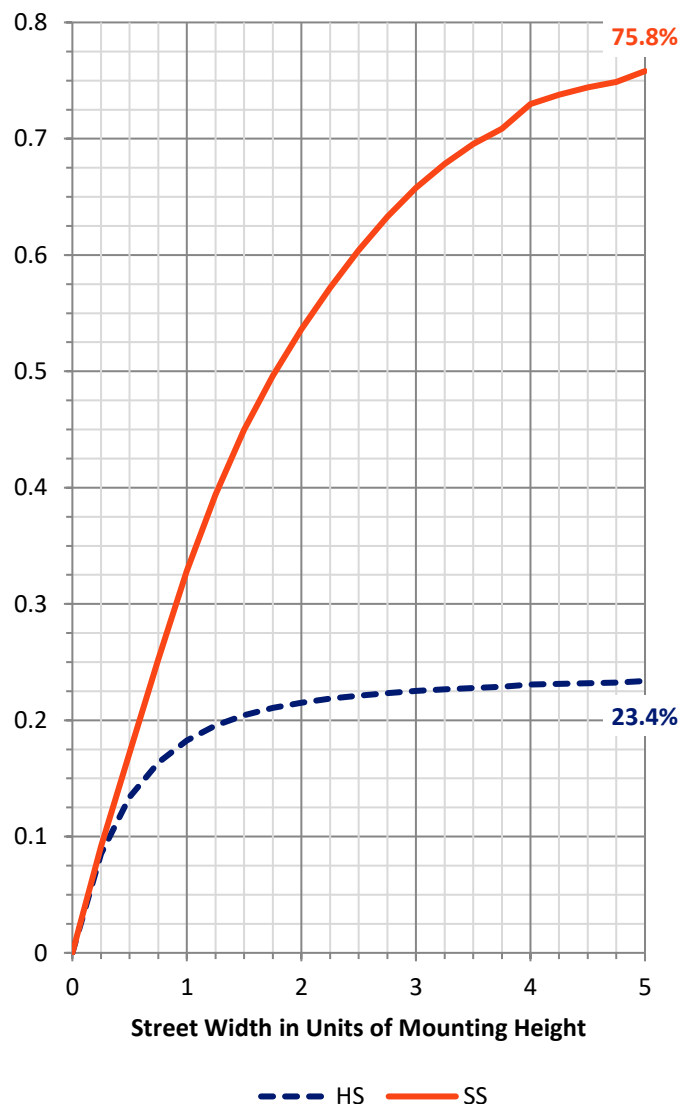
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2596.3	0.0	2596.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	8313.8	0.0	8313.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	10910.1	0.0	10910.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.6	1.3
10°-20°	397.0	3.6
20°-30°	666.7	6.1
30°-40°	1036.2	9.5
40°-50°	1538.0	14.1
50°-60°	2123.3	19.5
60°-70°	2576.1	23.6
70°-80°	2128.9	19.5
80°-90°	306.2	2.8
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°	10910.1	100.0
0°-180°	10910.1	100.0

Coefficient of Utilization



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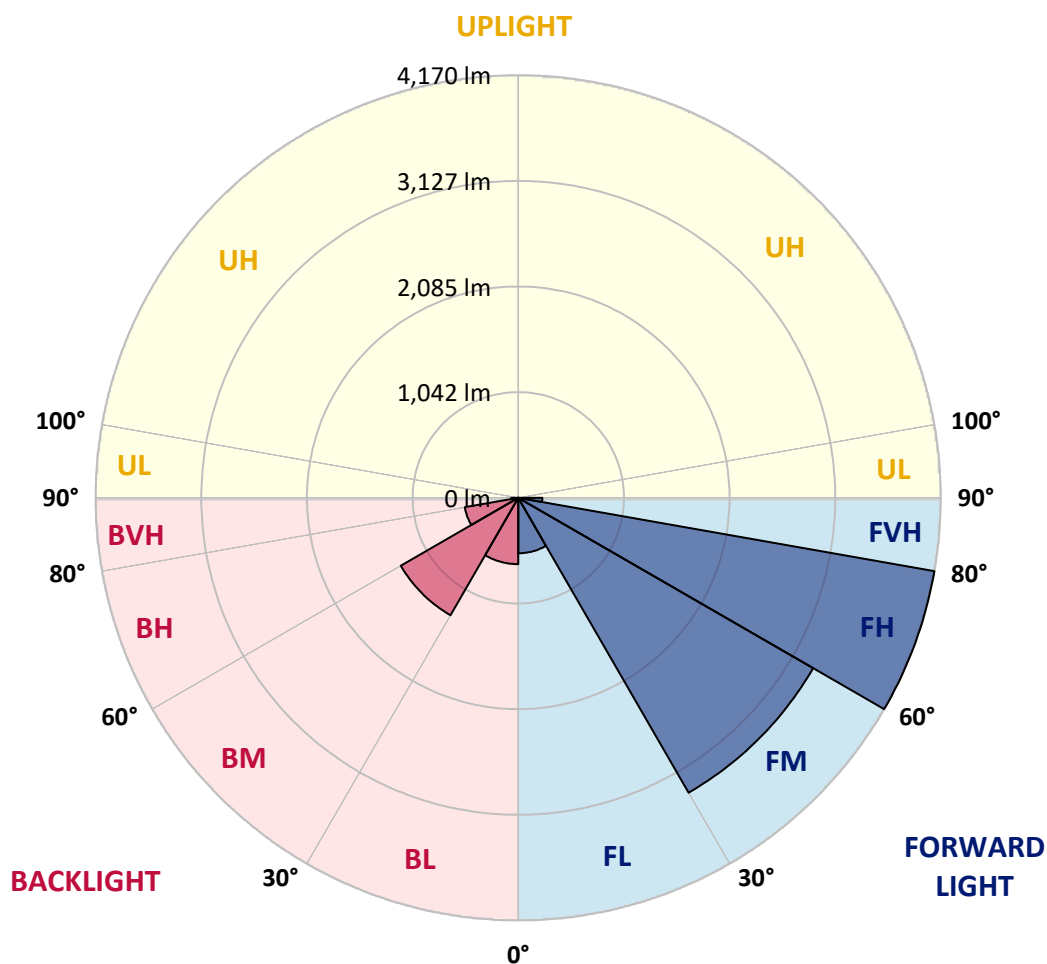
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	547.1	5.0			
FM	(30°-60°)	3359.7	30.8			
FH	(60°-80°)	4169.7	38.2			G2/5000
FVH	(80°-90°)	237.3	2.2			G3/500
BL	(0°-30°)	654.3	6.0	B2/1000		
BM	(30°-60°)	1337.8	12.3	B2/2500		
BH	(60°-80°)	535.3	4.9	B2/1000		G2/1000
BVH	(80°-90°)	69.0	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9
2.5°	1340.6	1348.9	1352.4	1350.6	1359.5	1358.3	1370.7	1386.0	1407.2	1427.9	1458.0
5°	1237.4	1246.2	1253.9	1261.0	1278.1	1283.4	1302.9	1332.4	1371.2	1410.8	1460.3
7.5°	1141.2	1148.9	1160.7	1173.7	1202.6	1207.9	1240.4	1286.4	1340.6	1398.4	1466.8
10°	1062.8	1070.5	1082.9	1097.6	1133.5	1140.1	1181.3	1242.7	1313.4	1386.6	1473.8
12.5°	1029.2	1031.6	1038.6	1053.4	1084.7	1088.8	1134.2	1204.4	1286.9	1377.8	1484.5
15°	1027.5	1032.2	1032.7	1040.4	1066.3	1068.2	1110.0	1179.6	1270.4	1376.0	1500.4
17.5°	1045.1	1048.7	1043.3	1048.1	1069.9	1072.9	1105.9	1167.8	1265.2	1383.6	1527.6
20°	1092.3	1095.2	1079.3	1072.9	1088.8	1091.1	1123.6	1175.5	1270.4	1399.5	1564.8
22.5°	1192.6	1194.3	1155.4	1128.8	1130.1	1131.2	1159.6	1206.7	1291.1	1428.4	1611.9
25°	1348.9	1347.7	1285.8	1234.4	1205.0	1198.4	1217.3	1257.5	1325.8	1466.8	1672.7
27.5°	1531.7	1522.8	1460.9	1384.3	1320.0	1310.6	1306.4	1323.5	1375.4	1517.5	1747.0
30°	1738.1	1729.9	1663.3	1562.9	1473.8	1458.6	1419.6	1410.8	1449.1	1586.6	1850.2
32.5°	1964.6	1959.3	1879.6	1758.2	1639.1	1621.3	1555.8	1532.3	1562.4	1690.9	1994.1
35°	2154.5	2149.8	2083.7	1958.7	1813.0	1791.2	1724.6	1698.0	1713.4	1824.8	2182.2
37.5°	2326.1	2323.8	2267.2	2168.7	2018.3	1991.8	1916.9	1908.0	1905.1	2001.2	2410.5
40°	2485.4	2479.5	2420.5	2368.6	2257.2	2233.0	2167.0	2159.3	2136.8	2218.2	2668.8
42.5°	2661.7	2646.4	2560.9	2536.7	2506.6	2486.5	2447.1	2448.2	2398.7	2463.0	2942.5
45°	2805.6	2796.8	2709.0	2694.7	2727.2	2718.9	2753.1	2762.0	2665.9	2719.5	3226.8
47.5°	2960.2	2951.9	2877.6	2867.5	2955.5	2957.8	3078.7	3081.7	2926.6	2986.1	3511.6
50°	3150.6	3138.9	3065.2	3077.6	3176.1	3184.9	3406.1	3386.0	3166.6	3256.8	3794.1
52.5°	3276.3	3283.4	3267.5	3287.5	3422.0	3430.3	3728.1	3676.8	3404.3	3524.1	4071.4
55°	3368.9	3383.1	3432.6	3478.6	3681.5	3689.8	4031.8	3953.4	3601.3	3771.7	4332.1
57.5°	3488.1	3468.0	3560.5	3650.2	3928.0	3949.8	4327.3	4220.0	3775.9	3985.2	4510.7
60°	3659.0	3644.9	3716.9	3849.6	4204.0	4238.9	4639.9	4460.0	3903.8	4154.5	4545.6
62.5°	4005.9	3970.5	3981.7	4099.1	4552.0	4598.0	4992.6	4669.4	3967.6	4220.5	4359.2
65°	4524.3	4463.6	4407.0	4488.4	5042.2	5087.6	5390.7	4834.0	3944.0	4092.6	3864.4
67.5°	5177.2	5117.1	5047.5	5124.2	5764.1	5800.1	5882.1	4926.6	3758.2	3599.5	2989.7
70°	5715.7	5693.3	5776.5	6092.0	6917.1	6918.3	6511.9	4849.9	3249.1	2552.0	1729.9
72.5°	5644.4	5630.7	6069.0	7044.5	8370.4	8339.1	7108.2	4269.5	2188.7	1151.3	648.2
75°	4630.4	4718.4	5397.2	7027.4	8892.4	8888.2	6743.2	2714.2	905.4	477.1	335.0
77.5°	2483.1	2622.3	3504.0	5188.4	6941.9	7046.3	4740.7	949.6	388.7	305.6	231.8
80°	809.7	931.3	1396.7	2641.7	4510.7	4491.2	2031.9	372.8	266.0	216.5	160.4
82.5°	343.9	358.0	624.0	1247.4	2315.0	2279.0	647.0	214.1	187.0	148.0	99.1
85°	134.5	150.4	275.4	576.9	1002.7	980.8	233.6	106.2	119.7	96.8	58.9
87.5°	44.3	53.7	98.5	197.6	312.0	300.8	57.2	36.6	51.9	44.3	21.2
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°	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9
2.5°	1466.3	1475.7	1486.9	1503.4	1517.5	1529.3	1541.7	1549.4	1552.4	1561.2	1560.6
5°	1476.8	1497.5	1525.2	1552.4	1578.9	1594.8	1608.9	1616.0	1622.6	1627.3	1628.4
7.5°	1494.6	1521.1	1564.8	1600.1	1622.6	1635.5	1644.9	1642.6	1644.9	1646.2	1647.9
10°	1509.8	1547.0	1598.9	1632.5	1649.6	1650.2	1647.9	1639.6	1635.5	1636.1	1637.2
12.5°	1528.2	1569.5	1625.4	1653.7	1658.6	1645.5	1635.5	1621.3	1616.0	1613.7	1612.5
15°	1553.0	1600.1	1654.4	1665.0	1653.2	1636.7	1619.6	1596.5	1584.8	1575.3	1578.3
17.5°	1583.0	1634.9	1676.8	1669.1	1643.8	1616.6	1589.0	1554.1	1529.9	1519.9	1520.5
20°	1624.9	1671.5	1693.9	1660.3	1622.0	1580.7	1533.5	1491.0	1468.6	1458.6	1457.3
22.5°	1675.6	1720.5	1710.4	1644.9	1590.7	1524.6	1465.6	1434.4	1423.2	1416.1	1417.3
25°	1736.4	1774.7	1722.2	1622.6	1539.3	1450.3	1404.9	1394.8	1389.6	1384.3	1384.3
27.5°	1815.4	1836.1	1731.0	1589.5	1459.2	1371.2	1354.7	1356.5	1354.7	1345.9	1347.7
30°	1919.8	1915.6	1739.3	1535.9	1367.1	1299.9	1301.1	1308.7	1309.9	1304.0	1307.0
32.5°	2057.2	2015.4	1743.4	1466.3	1279.3	1237.4	1238.6	1246.8	1252.8	1242.7	1247.4
35°	2223.5	2131.5	1737.0	1378.9	1211.4	1177.8	1169.0	1171.4	1173.1	1163.7	1170.1
37.5°	2417.6	2261.9	1708.1	1282.2	1155.4	1119.4	1100.5	1084.7	1075.2	1066.3	1072.3
40°	2630.5	2404.0	1655.0	1187.9	1092.9	1057.5	1029.2	999.1	967.3	955.5	960.7
42.5°	2853.4	2550.3	1590.7	1097.6	1020.9	992.0	962.0	918.3	870.5	846.3	849.3
45°	3084.6	2700.1	1527.6	1008.6	947.2	934.8	900.1	847.6	795.6	765.0	762.6
47.5°	3311.2	2841.6	1435.0	918.9	878.2	891.7	864.7	816.3	758.5	710.1	704.8
50°	3527.5	2974.3	1283.4	828.1	822.2	878.8	852.8	783.2	717.2	655.3	650.0
52.5°	3742.3	3081.7	1089.4	745.5	792.1	875.2	837.5	760.9	680.0	615.2	608.0
55°	3924.5	3137.1	902.4	674.8	748.5	845.2	819.2	734.3	627.5	558.5	552.7
57.5°	4028.2	3092.3	746.7	605.2	688.3	795.6	787.9	677.6	565.0	512.0	504.9
60°	3983.5	2910.6	619.3	544.4	631.1	742.0	733.7	621.7	517.2	467.1	460.0
62.5°	3736.3	2564.4	518.4	491.3	579.2	687.2	679.5	578.6	480.7	432.3	424.7
65°	3238.6	2086.1	440.0	447.1	526.6	621.0	632.2	542.6	451.8	404.6	397.0
67.5°	2470.0	1511.1	378.6	408.8	475.4	556.2	588.7	516.7	427.6	382.7	375.7
70°	1407.8	858.1	326.8	371.6	430.0	496.0	555.0	496.0	401.7	364.5	359.8
72.5°	533.7	394.0	282.5	334.5	386.3	445.3	517.8	463.6	371.6	343.9	339.2
75°	284.8	240.1	237.7	290.8	336.2	395.8	471.3	431.7	349.1	363.4	375.2
77.5°	194.0	169.8	198.7	248.9	281.4	340.9	421.7	383.3	302.6	301.3	277.8
80°	134.5	120.3	161.6	200.5	217.6	286.6	368.1	329.1	246.5	230.0	220.0
82.5°	80.8	78.4	121.0	149.9	154.0	221.2	304.9	276.0	201.7	175.8	176.9
85°	44.3	46.6	77.3	87.8	89.7	154.6	238.8	213.5	155.1	130.4	131.5
87.5°	12.4	15.9	28.3	34.7	43.0	80.3	142.2	126.8	77.9	54.2	54.2
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)