

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: P963648

Luminaire Tested: **NAV-SB3A-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963648
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-SB3A-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11856.2 lumens
Efficiency: N/A
Efficacy: 140.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 84.7
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

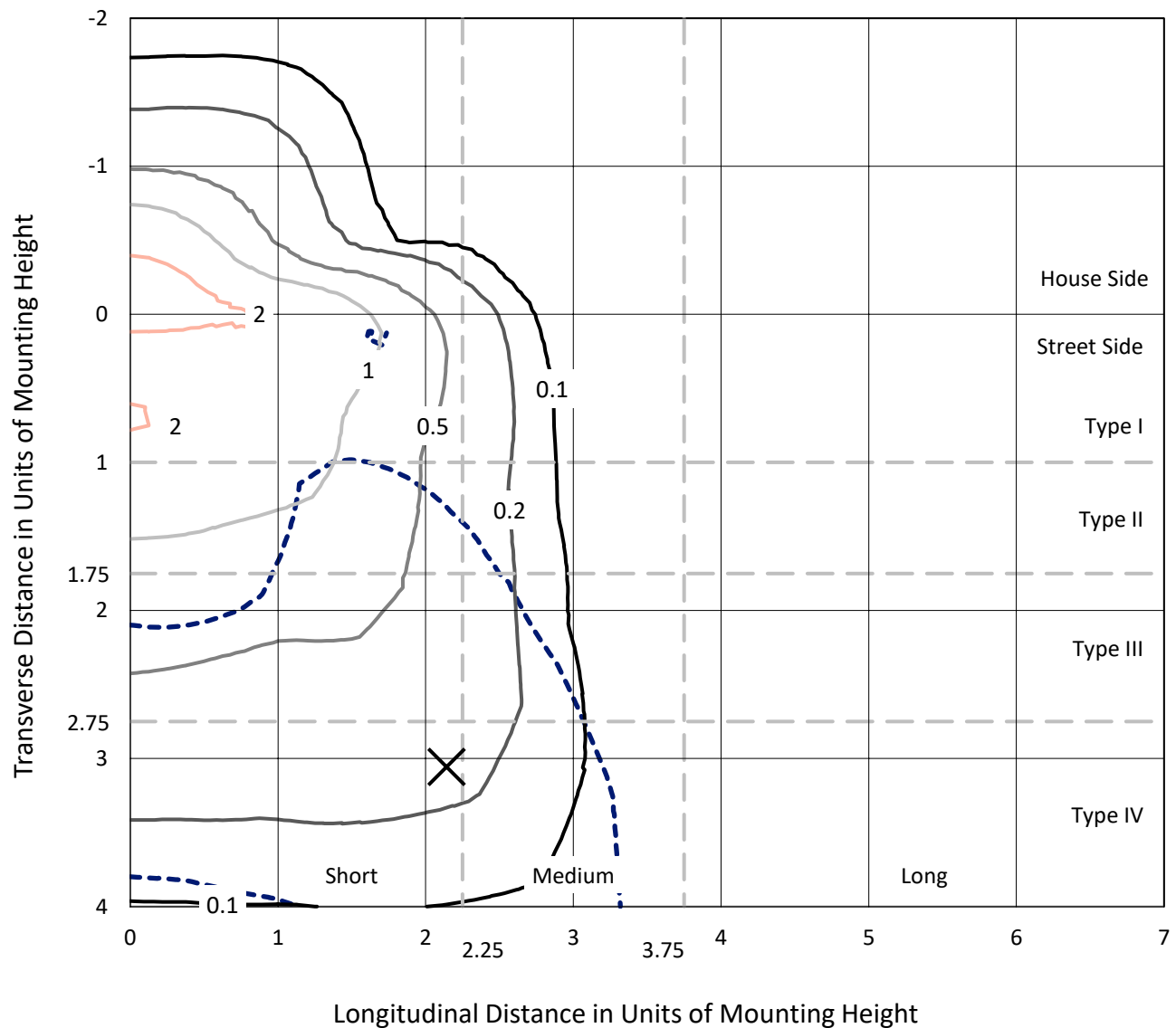


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Iso-Footcandle Lines of Horizontal Illumination

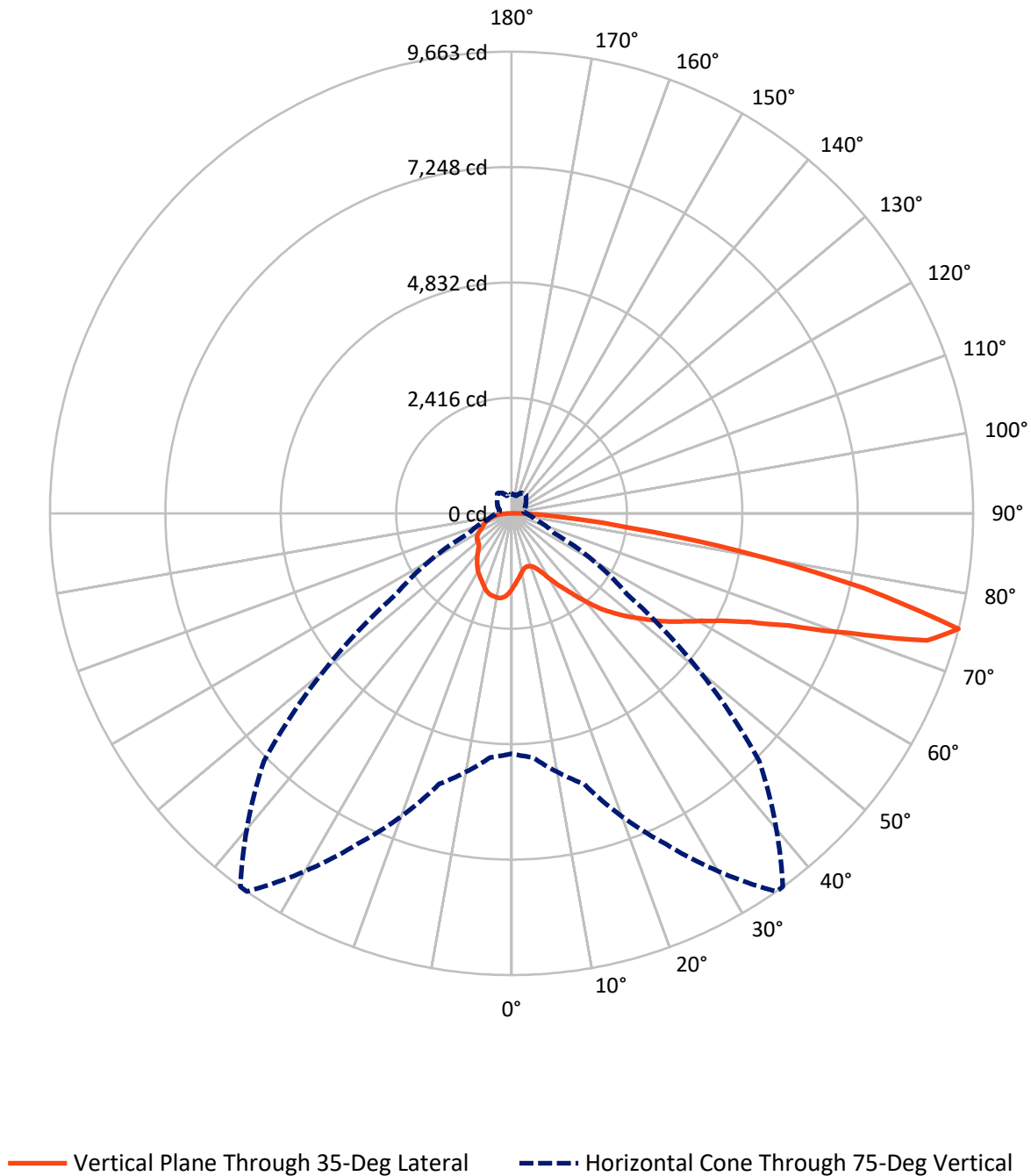
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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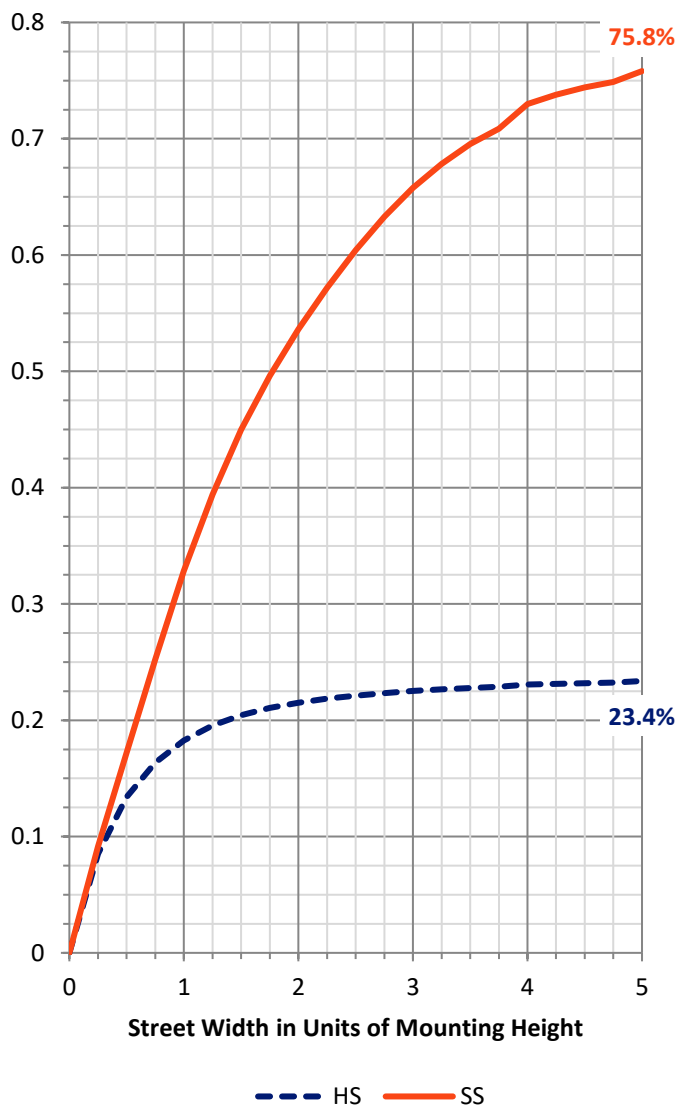
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2821.5	0.0	2821.5
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	9034.7	0.0	9034.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	11856.2	0.0	11856.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	1.3
10°-20°	431.5	3.6
20°-30°	724.6	6.1
30°-40°	1126.1	9.5
40°-50°	1671.4	14.1
50°-60°	2307.4	19.5
60°-70°	2799.4	23.6
70°-80°	2313.5	19.5
80°-90°	332.8	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°	11856.2	100.0
0°-180°	11856.2	100.0

Coefficient of Utilization



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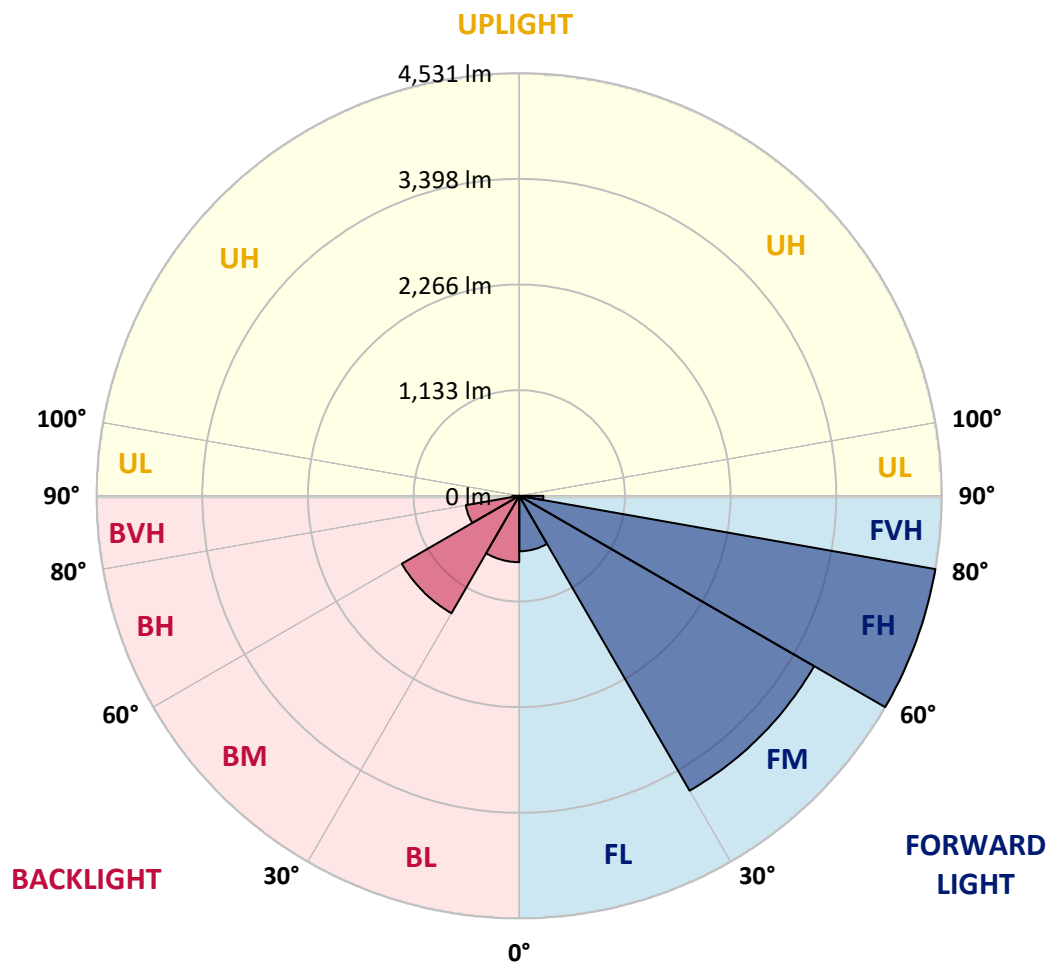
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	594.6	5.0			
FM	(30°-60°)	3651.1	30.8			
FH	(60°-80°)	4531.2	38.2			G2/5000
FVH	(80°-90°)	257.8	2.2			G3/500
BL	(0°-30°)	711.0	6.0	B2/1000		
BM	(30°-60°)	1453.8	12.3	B2/2500		
BH	(60°-80°)	581.7	4.9	B2/1000		G2/1000
BVH	(80°-90°)	74.9	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°	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9
2.5°	1456.8	1465.9	1469.6	1467.8	1477.3	1476.1	1489.5	1506.2	1529.3	1551.7	1584.4
5°	1344.7	1354.3	1362.6	1370.3	1388.9	1394.7	1415.8	1447.9	1490.1	1533.1	1587.0
7.5°	1240.2	1248.6	1261.4	1275.5	1306.9	1312.6	1347.9	1397.9	1456.8	1519.7	1594.0
10°	1155.0	1163.3	1176.8	1192.8	1231.8	1238.9	1283.8	1350.4	1427.4	1506.9	1601.7
12.5°	1118.5	1121.0	1128.7	1144.7	1178.6	1183.2	1232.6	1308.8	1398.5	1497.2	1613.2
15°	1116.5	1121.7	1122.3	1130.6	1158.9	1160.7	1206.2	1281.9	1380.6	1495.3	1630.6
17.5°	1135.7	1139.6	1133.9	1139.0	1162.7	1165.8	1201.8	1269.1	1374.8	1503.7	1660.0
20°	1187.1	1190.2	1172.9	1165.8	1183.2	1185.7	1221.0	1277.4	1380.6	1521.0	1700.4
22.5°	1296.0	1297.9	1255.6	1226.7	1228.1	1229.3	1260.1	1311.4	1403.0	1552.4	1751.7
25°	1465.9	1464.5	1397.3	1341.5	1309.4	1302.4	1322.9	1366.5	1440.8	1594.0	1817.7
27.5°	1664.5	1654.9	1587.6	1504.3	1434.4	1424.1	1419.7	1438.3	1494.7	1649.1	1898.5
30°	1888.9	1879.8	1807.5	1698.5	1601.7	1585.1	1542.7	1533.1	1574.8	1724.2	2010.6
32.5°	2135.0	2129.2	2042.7	1910.6	1781.1	1762.0	1690.8	1665.1	1697.8	1837.6	2167.1
35°	2341.3	2336.2	2264.4	2128.5	1970.3	1946.6	1874.1	1845.3	1861.9	1983.1	2371.4
37.5°	2527.9	2525.3	2463.8	2356.8	2193.3	2164.5	2083.0	2073.5	2070.2	2174.7	2619.5
40°	2700.9	2694.5	2630.5	2574.0	2452.8	2426.6	2354.8	2346.4	2322.1	2410.6	2900.2
42.5°	2892.5	2875.9	2783.0	2756.6	2724.0	2702.2	2659.3	2660.5	2606.7	2676.6	3197.7
45°	3049.0	3039.3	2943.8	2928.4	2963.7	2954.8	2991.9	3001.5	2897.1	2955.4	3506.6
47.5°	3216.9	3207.9	3127.2	3116.2	3211.7	3214.3	3345.7	3348.9	3180.4	3245.0	3816.2
50°	3423.9	3411.1	3330.9	3344.5	3451.5	3461.1	3701.4	3679.6	3441.2	3539.2	4123.2
52.5°	3560.4	3568.1	3550.8	3572.6	3718.7	3727.7	4051.4	3995.7	3699.5	3829.6	4424.4
55°	3661.1	3676.5	3730.3	3780.3	4000.8	4009.7	4381.5	4296.2	3913.6	4098.8	4707.7
57.5°	3790.6	3768.7	3869.4	3966.7	4268.6	4292.4	4702.6	4586.0	4103.3	4330.8	4901.9
60°	3976.4	3961.0	4039.2	4183.4	4568.6	4606.5	5042.3	4846.8	4242.4	4514.8	4939.7
62.5°	4353.3	4314.8	4326.9	4454.5	4946.8	4996.8	5425.5	5074.4	4311.6	4586.6	4737.1
65°	4916.6	4850.6	4789.1	4877.6	5479.3	5528.7	5858.2	5253.1	4285.9	4447.5	4199.4
67.5°	5626.1	5560.8	5485.2	5568.5	6263.9	6303.0	6392.1	5353.8	4084.1	3911.6	3248.9
70°	6211.3	6187.0	6277.4	6620.3	7516.9	7518.2	7076.6	5270.4	3530.9	2773.3	1879.8
72.5°	6133.8	6119.0	6595.3	7655.4	9096.3	9062.2	7724.6	4639.8	2378.5	1251.1	704.4
75°	5032.0	5127.6	5865.3	7636.8	9663.4	9659.0	7327.8	2949.6	983.8	518.5	364.1
77.5°	2698.3	2849.6	3807.8	5638.3	7543.9	7657.3	5151.9	1031.9	422.4	332.0	251.8
80°	880.0	1012.1	1517.7	2870.7	4901.9	4880.7	2208.1	405.1	289.0	235.2	174.4
82.5°	373.7	389.1	678.1	1355.6	2515.7	2476.6	703.2	232.7	203.2	160.9	107.7
85°	146.2	163.5	299.3	626.8	1089.6	1065.9	253.8	115.4	130.1	105.2	64.1
87.5°	48.1	58.3	107.0	214.7	339.1	326.9	62.2	39.8	56.4	48.1	23.1
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°	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9	1579.9
2.5°	1593.4	1603.6	1615.8	1633.7	1649.1	1661.9	1675.5	1683.8	1686.9	1696.6	1696.0
5°	1604.9	1627.4	1657.4	1686.9	1715.7	1733.1	1748.4	1756.1	1763.2	1768.3	1769.7
7.5°	1624.1	1653.0	1700.4	1738.9	1763.2	1777.4	1787.6	1785.0	1787.6	1788.8	1790.8
10°	1640.8	1681.2	1737.6	1774.1	1792.7	1793.3	1790.8	1781.9	1777.4	1778.0	1779.3
12.5°	1660.7	1705.5	1766.4	1797.2	1802.4	1788.2	1777.4	1762.0	1756.1	1753.6	1752.3
15°	1687.6	1738.9	1797.8	1809.3	1796.5	1778.6	1760.0	1735.0	1722.2	1712.0	1715.1
17.5°	1720.3	1776.7	1822.1	1813.8	1786.3	1756.8	1726.7	1688.9	1662.6	1651.7	1652.3
20°	1765.8	1816.4	1840.8	1804.2	1762.6	1717.7	1666.4	1620.3	1595.9	1585.1	1583.7
22.5°	1820.9	1869.6	1858.7	1787.6	1728.7	1656.8	1592.7	1558.7	1546.6	1538.9	1540.2
25°	1886.9	1928.5	1871.5	1763.2	1672.9	1576.0	1526.7	1515.9	1510.0	1504.3	1504.3
27.5°	1972.8	1995.3	1881.2	1727.3	1585.7	1490.1	1472.2	1474.2	1472.2	1462.6	1464.5
30°	2086.3	2081.8	1890.1	1669.0	1485.7	1412.7	1413.9	1422.3	1423.5	1417.2	1420.3
32.5°	2235.6	2190.1	1894.6	1593.4	1390.2	1344.7	1345.9	1354.9	1361.4	1350.4	1355.6
35°	2416.3	2316.4	1887.5	1498.6	1316.5	1279.9	1270.4	1272.9	1274.8	1264.5	1271.6
37.5°	2627.2	2458.1	1856.2	1393.4	1255.6	1216.5	1196.0	1178.6	1168.4	1158.9	1165.2
40°	2858.6	2612.5	1798.5	1290.9	1187.7	1149.2	1118.5	1085.8	1051.1	1038.3	1044.1
42.5°	3100.8	2771.4	1728.7	1192.8	1109.5	1078.1	1045.4	997.9	946.1	919.7	922.9
45°	3352.2	2934.3	1660.0	1096.0	1029.3	1015.9	978.1	921.1	864.6	831.3	828.7
47.5°	3598.3	3088.0	1559.4	998.6	954.4	969.1	939.6	887.0	824.2	771.7	765.9
50°	3833.5	3232.2	1394.7	899.8	893.5	955.0	926.8	851.2	779.4	712.1	706.3
52.5°	4066.8	3348.9	1183.8	810.2	860.8	951.2	910.1	826.8	739.0	668.5	660.8
55°	4264.8	3409.2	980.6	733.3	813.3	918.5	890.3	798.0	681.9	607.0	600.5
57.5°	4377.6	3360.5	811.4	657.6	747.9	864.6	856.3	736.5	614.0	556.4	548.7
60°	4328.9	3163.0	673.0	591.6	685.8	806.3	797.3	675.6	562.1	507.6	499.9
62.5°	4060.3	2786.8	563.3	533.9	629.5	746.7	738.4	628.7	522.3	469.8	461.5
65°	3519.4	2267.0	478.2	485.8	572.4	674.9	687.1	589.7	491.0	439.7	431.3
67.5°	2684.3	1642.0	411.4	444.1	516.6	604.4	639.7	561.5	464.6	415.9	408.3
70°	1529.9	932.5	355.1	403.7	467.2	539.0	603.1	539.0	436.4	396.1	390.9
72.5°	580.0	428.1	307.0	363.4	419.8	483.9	562.7	503.8	403.7	373.7	368.6
75°	309.5	260.9	258.3	316.0	365.3	430.1	512.1	469.1	379.5	394.8	407.6
77.5°	210.8	184.6	216.0	270.5	305.8	370.4	458.3	416.6	328.8	327.5	301.9
80°	146.2	130.8	175.6	217.9	236.5	311.5	400.0	357.6	267.9	250.0	239.0
82.5°	87.8	85.3	131.4	162.8	167.3	240.4	331.4	299.9	219.2	191.0	192.3
85°	48.1	50.6	83.9	95.5	97.4	167.9	259.5	232.1	168.6	141.7	142.9
87.5°	13.4	17.3	30.7	37.8	46.7	87.1	154.5	137.8	84.6	58.9	58.9
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)