

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: P961974

Luminaire Tested: **NAV-SB2B-740-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961974
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-SB2B-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12069.4 lumens
Efficiency: N/A
Efficacy: 163.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

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

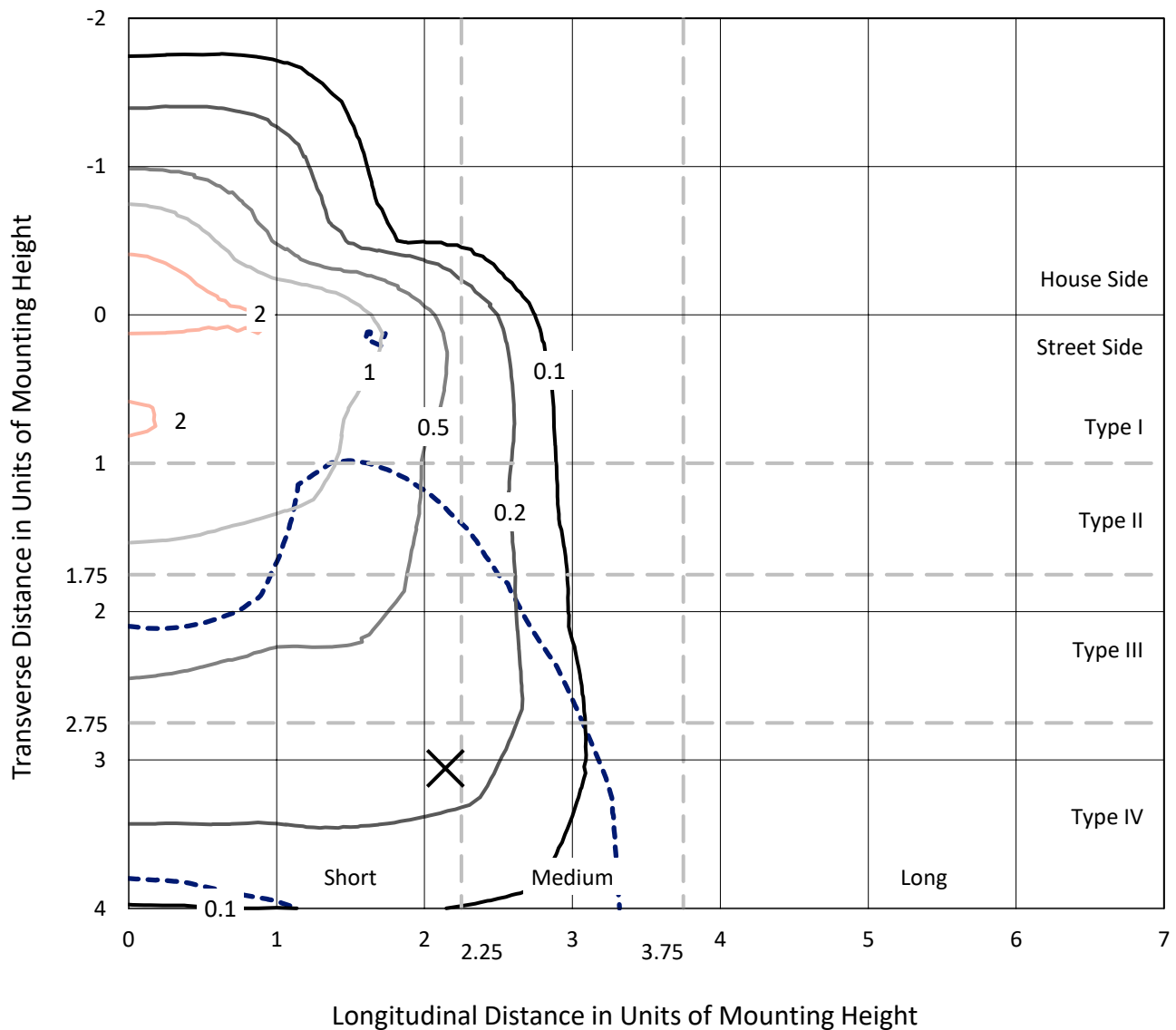


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Iso-Footcandle Lines of Horizontal Illumination

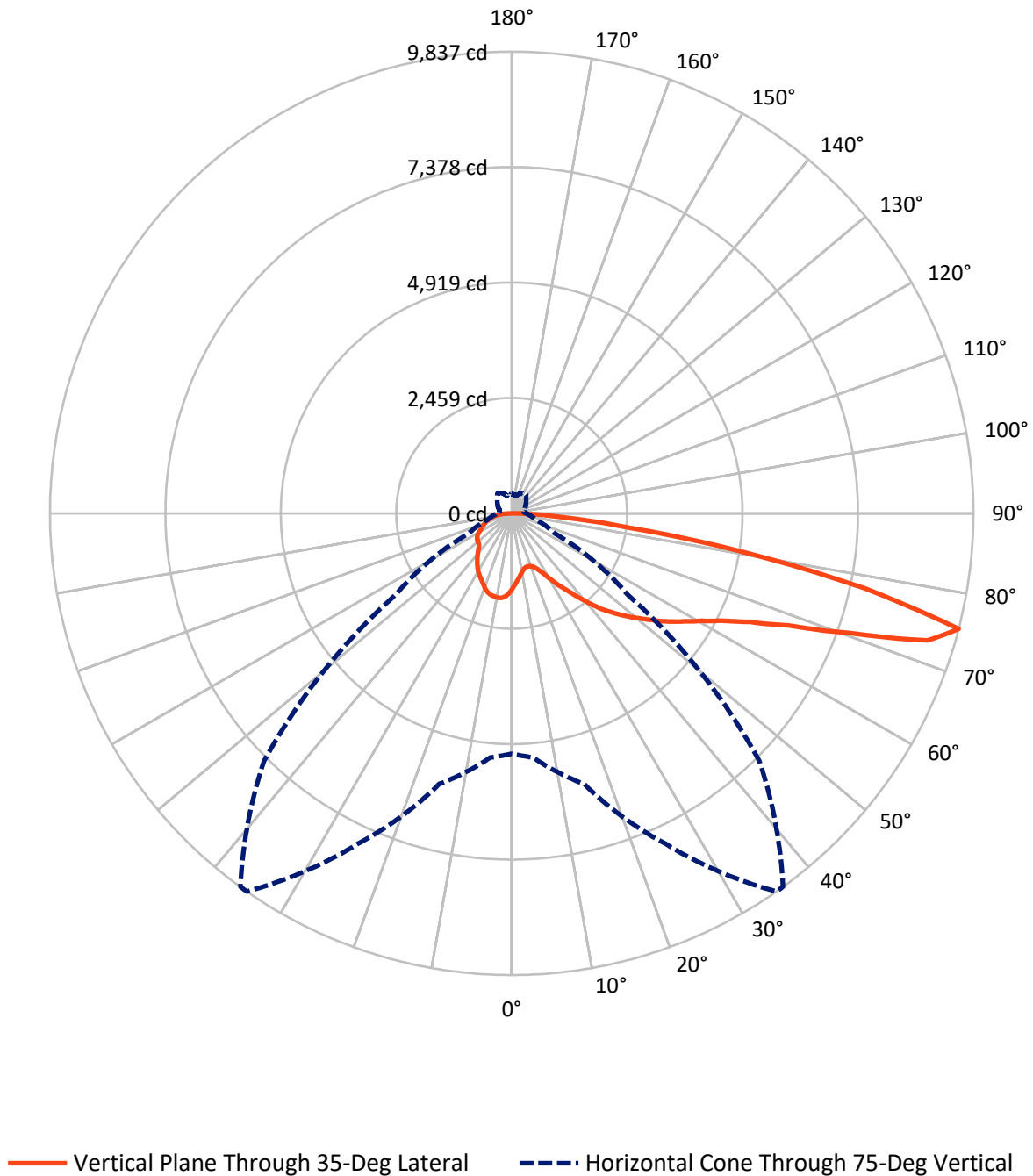
× Max cd
- - - 1/2 Max cd



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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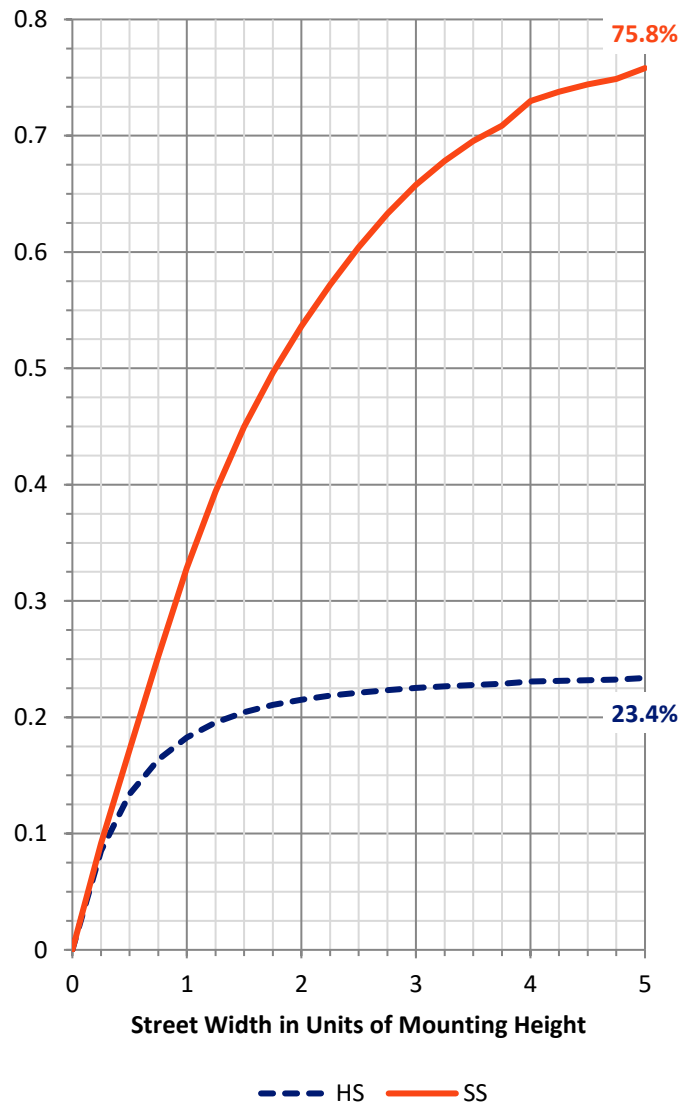
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2872.2	0.0	2872.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	9197.2	0.0	9197.2
	% Fixture	76.2	0.0	76.2
Total	Lumens	12069.4	0.0	12069.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	1.3
10°-20°	439.2	3.6
20°-30°	737.6	6.1
30°-40°	1146.3	9.5
40°-50°	1701.4	14.1
50°-60°	2348.9	19.5
60°-70°	2849.8	23.6
70°-80°	2355.1	19.5
80°-90°	338.7	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°	12069.4	100.0
0°-180°	12069.4	100.0

Coefficient of Utilization



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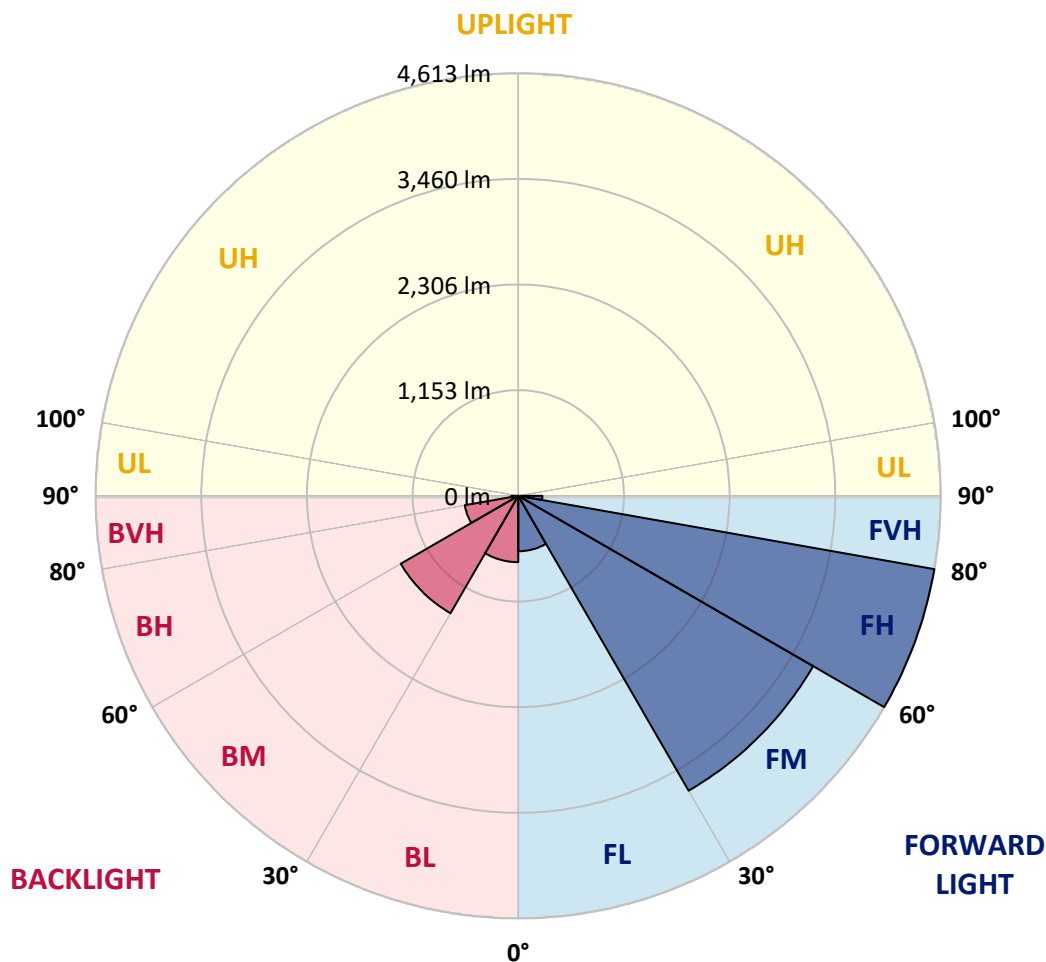
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	605.3	5.0			
FM	(30°-60°)	3716.7	30.8			
FH	(60°-80°)	4612.7	38.2			G2/5000
FVH	(80°-90°)	262.5	2.2			G3/500
BL	(0°-30°)	723.8	6.0	B2/1000		
BM	(30°-60°)	1479.9	12.3	B2/2500		
BH	(60°-80°)	592.2	4.9	B2/1000		G2/1000
BVH	(80°-90°)	76.3	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°	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3
2.5°	1483.1	1492.2	1496.1	1494.1	1504.0	1502.6	1516.3	1533.3	1556.8	1579.6	1612.9
5°	1368.9	1378.6	1387.1	1394.9	1413.9	1419.7	1441.3	1473.9	1517.0	1560.7	1615.5
7.5°	1262.5	1271.0	1284.0	1298.4	1330.3	1336.3	1372.2	1423.0	1483.1	1547.0	1622.7
10°	1175.8	1184.2	1197.9	1214.2	1254.1	1261.3	1306.9	1374.7	1453.0	1533.9	1630.5
12.5°	1138.6	1141.1	1149.0	1165.3	1199.9	1204.5	1254.7	1332.3	1423.7	1524.2	1642.3
15°	1136.6	1141.8	1142.5	1151.0	1179.7	1181.6	1227.9	1304.9	1405.4	1522.2	1659.9
17.5°	1156.2	1160.1	1154.3	1159.5	1183.6	1186.8	1223.3	1291.9	1399.5	1530.6	1689.9
20°	1208.4	1211.7	1194.0	1186.8	1204.5	1207.0	1242.9	1300.3	1405.4	1548.3	1731.0
22.5°	1319.3	1321.2	1278.2	1248.9	1250.1	1251.4	1282.8	1335.0	1428.2	1580.2	1783.2
25°	1492.2	1490.9	1422.4	1365.6	1333.0	1325.8	1346.6	1391.0	1466.8	1622.7	1850.4
27.5°	1694.4	1684.7	1616.1	1531.4	1460.2	1449.8	1445.2	1464.1	1521.5	1678.7	1932.6
30°	1922.8	1913.7	1840.0	1729.1	1630.5	1613.6	1570.5	1560.7	1603.1	1755.1	2046.8
32.5°	2173.4	2167.5	2079.4	1945.0	1813.2	1793.6	1721.2	1695.1	1728.4	1870.6	2206.0
35°	2383.4	2378.2	2305.1	2166.8	2005.7	1981.5	1907.8	1878.4	1895.4	2018.7	2414.1
37.5°	2573.4	2570.7	2508.1	2399.1	2232.8	2203.3	2120.5	2110.7	2107.5	2213.8	2666.6
40°	2749.5	2743.0	2677.7	2620.3	2497.0	2470.2	2397.2	2388.7	2363.9	2454.0	2952.4
42.5°	2944.6	2927.6	2833.0	2806.2	2772.9	2750.8	2707.1	2708.4	2653.6	2724.7	3255.2
45°	3103.8	3094.0	2996.8	2981.1	3017.0	3007.9	3045.7	3055.5	2949.1	3008.5	3569.7
47.5°	3274.7	3265.5	3183.3	3172.3	3269.5	3272.1	3405.9	3409.2	3237.6	3303.5	3884.7
50°	3485.5	3472.4	3390.9	3404.5	3513.5	3523.3	3768.0	3745.8	3503.0	3602.9	4197.3
52.5°	3624.4	3632.3	3614.7	3636.8	3785.6	3794.8	4124.2	4067.5	3766.1	3898.5	4504.0
55°	3726.9	3742.6	3797.3	3848.3	4072.7	4081.9	4460.3	4373.5	3984.0	4172.5	4792.4
57.5°	3858.7	3836.5	3939.0	4038.1	4345.4	4369.6	4787.2	4668.4	4177.1	4408.7	4990.0
60°	4047.9	4032.2	4111.8	4258.7	4650.7	4689.3	5132.9	4933.9	4318.6	4596.0	5028.5
62.5°	4431.6	4392.4	4404.8	4534.6	5035.7	5086.7	5523.1	5165.6	4389.2	4669.1	4822.3
65°	5005.1	4937.8	4875.2	4965.3	5577.9	5628.2	5963.6	5347.6	4363.0	4527.4	4275.0
67.5°	5727.3	5660.8	5583.8	5668.7	6376.5	6416.3	6507.0	5450.0	4157.5	3982.0	3307.4
70°	6323.0	6298.2	6390.3	6739.3	7652.1	7653.4	7203.9	5365.3	3594.5	2823.3	1913.7
72.5°	6244.1	6229.1	6713.9	7793.1	9259.7	9225.2	7863.5	4723.2	2421.3	1273.6	717.1
75°	5122.5	5219.7	5970.7	7774.1	9837.2	9832.6	7459.6	3002.6	1001.5	527.9	370.6
77.5°	2746.9	2900.9	3876.2	5739.7	7679.5	7795.0	5244.5	1050.4	430.0	337.9	256.5
80°	895.8	1030.2	1545.1	2922.4	4990.0	4968.5	2247.7	412.4	294.3	239.4	177.4
82.5°	380.4	396.1	690.3	1380.0	2561.0	2521.1	715.8	236.9	206.8	163.8	109.6
85°	148.7	166.4	304.7	638.1	1109.2	1085.1	258.4	117.5	132.4	107.0	65.3
87.5°	48.9	59.3	109.0	218.5	345.1	332.7	63.2	40.5	57.4	48.9	23.5
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°	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3	1608.3
2.5°	1622.1	1632.5	1644.8	1663.2	1678.7	1691.9	1705.5	1714.0	1717.3	1727.1	1726.4
5°	1633.7	1656.6	1687.3	1717.3	1746.6	1764.2	1779.9	1787.7	1795.0	1800.1	1801.4
7.5°	1653.3	1682.7	1731.0	1770.2	1795.0	1809.3	1819.7	1817.1	1819.7	1821.0	1823.0
10°	1670.3	1711.4	1768.8	1806.0	1824.9	1825.6	1823.0	1813.8	1809.3	1809.9	1811.3
12.5°	1690.5	1736.2	1798.2	1829.5	1834.7	1820.4	1809.3	1793.6	1787.7	1785.1	1783.8
15°	1717.9	1770.2	1830.1	1841.9	1828.9	1810.6	1791.7	1766.2	1753.2	1742.7	1746.0
17.5°	1751.2	1808.6	1854.9	1846.4	1818.5	1788.4	1757.8	1719.2	1692.5	1681.4	1682.0
20°	1797.5	1849.1	1873.9	1836.7	1794.3	1748.6	1696.4	1649.4	1624.6	1613.6	1612.2
22.5°	1853.6	1903.2	1892.2	1819.7	1759.7	1686.6	1621.3	1586.8	1574.4	1566.6	1567.8
25°	1920.8	1963.3	1905.2	1795.0	1702.9	1604.4	1554.2	1543.0	1537.2	1531.4	1531.4
27.5°	2008.3	2031.1	1915.0	1758.4	1614.2	1517.0	1498.8	1500.7	1498.8	1488.9	1490.9
30°	2123.8	2119.2	1924.1	1699.0	1512.4	1438.1	1439.3	1447.8	1449.1	1442.6	1445.9
32.5°	2275.8	2229.5	1928.6	1622.1	1415.2	1368.9	1370.2	1379.3	1385.8	1374.7	1380.0
35°	2459.8	2358.0	1921.5	1525.5	1340.2	1303.0	1293.1	1295.8	1297.8	1287.3	1294.5
37.5°	2674.4	2502.2	1889.6	1418.5	1278.2	1238.4	1217.5	1199.9	1189.4	1179.7	1186.1
40°	2910.0	2659.5	1830.9	1314.0	1209.0	1169.8	1138.6	1105.3	1070.0	1057.0	1062.8
42.5°	3156.6	2821.2	1759.7	1214.2	1129.4	1097.5	1064.2	1015.9	963.0	936.3	939.5
45°	3412.4	2987.0	1689.9	1115.7	1047.9	1034.1	995.7	937.6	880.2	846.2	843.7
47.5°	3662.9	3143.6	1587.4	1016.5	971.5	986.6	956.5	903.0	839.1	785.6	779.7
50°	3902.4	3290.4	1419.7	916.0	909.6	972.2	943.5	866.4	793.3	724.9	719.0
52.5°	4139.9	3409.2	1205.1	824.7	876.3	968.2	926.5	841.7	752.2	680.5	672.7
55°	4341.5	3470.4	998.2	746.4	828.0	935.0	906.3	812.3	694.2	617.9	611.3
57.5°	4456.3	3420.8	826.0	669.4	761.5	880.2	871.7	749.7	625.0	566.3	558.5
60°	4406.8	3219.9	685.1	602.2	698.1	820.8	811.7	687.7	572.3	516.7	508.9
62.5°	4133.4	2836.9	573.5	543.5	640.7	760.1	751.6	640.1	531.8	478.3	469.8
65°	3582.7	2307.8	486.8	494.6	582.6	687.1	699.5	600.2	499.8	447.6	439.1
67.5°	2732.5	1671.6	418.9	452.1	525.9	615.3	651.2	571.5	473.0	423.4	415.6
70°	1557.4	949.4	361.4	411.0	475.6	548.7	614.0	548.7	444.3	403.2	398.0
72.5°	590.5	435.8	312.5	369.9	427.3	492.6	572.9	512.8	411.0	380.4	375.2
75°	315.2	265.6	262.9	321.6	371.9	437.8	521.3	477.6	386.2	401.9	414.9
77.5°	214.6	187.9	219.9	275.3	311.2	377.1	466.5	424.1	334.8	333.4	307.3
80°	148.7	133.1	178.8	221.8	240.8	317.1	407.1	364.1	272.8	254.5	243.3
82.5°	89.4	86.8	133.8	165.7	170.3	244.7	337.3	305.3	223.1	194.4	195.8
85°	48.9	51.6	85.5	97.2	99.2	171.0	264.2	236.2	171.6	144.2	145.5
87.5°	13.7	17.6	31.4	38.5	47.7	88.8	157.2	140.3	86.1	60.1	60.1
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)