

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: P965789

Luminaire Tested: **NAV-SB4A-830-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965789
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16526.1 lumens
Efficiency: N/A
Efficacy: 145.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 114
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



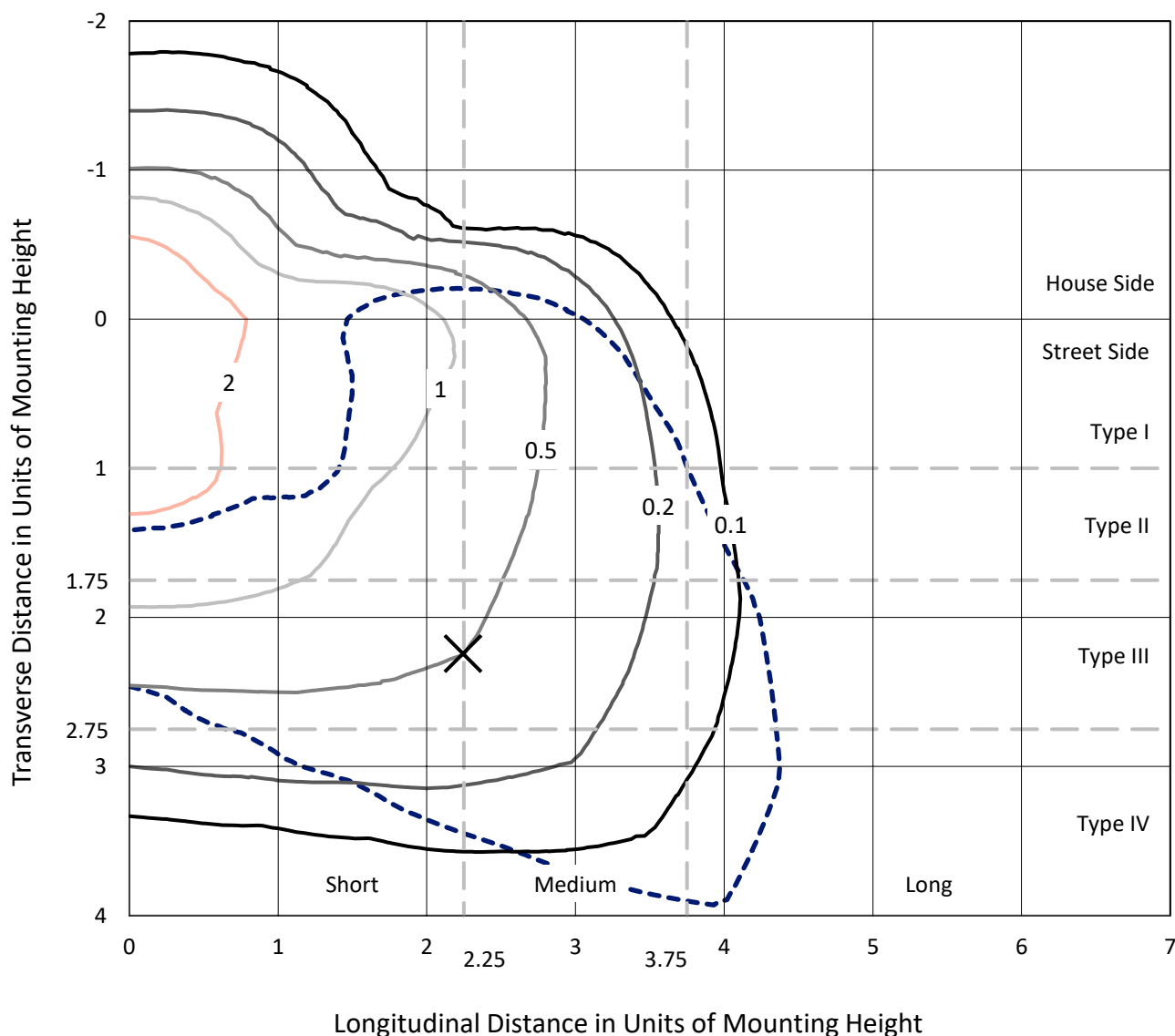
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

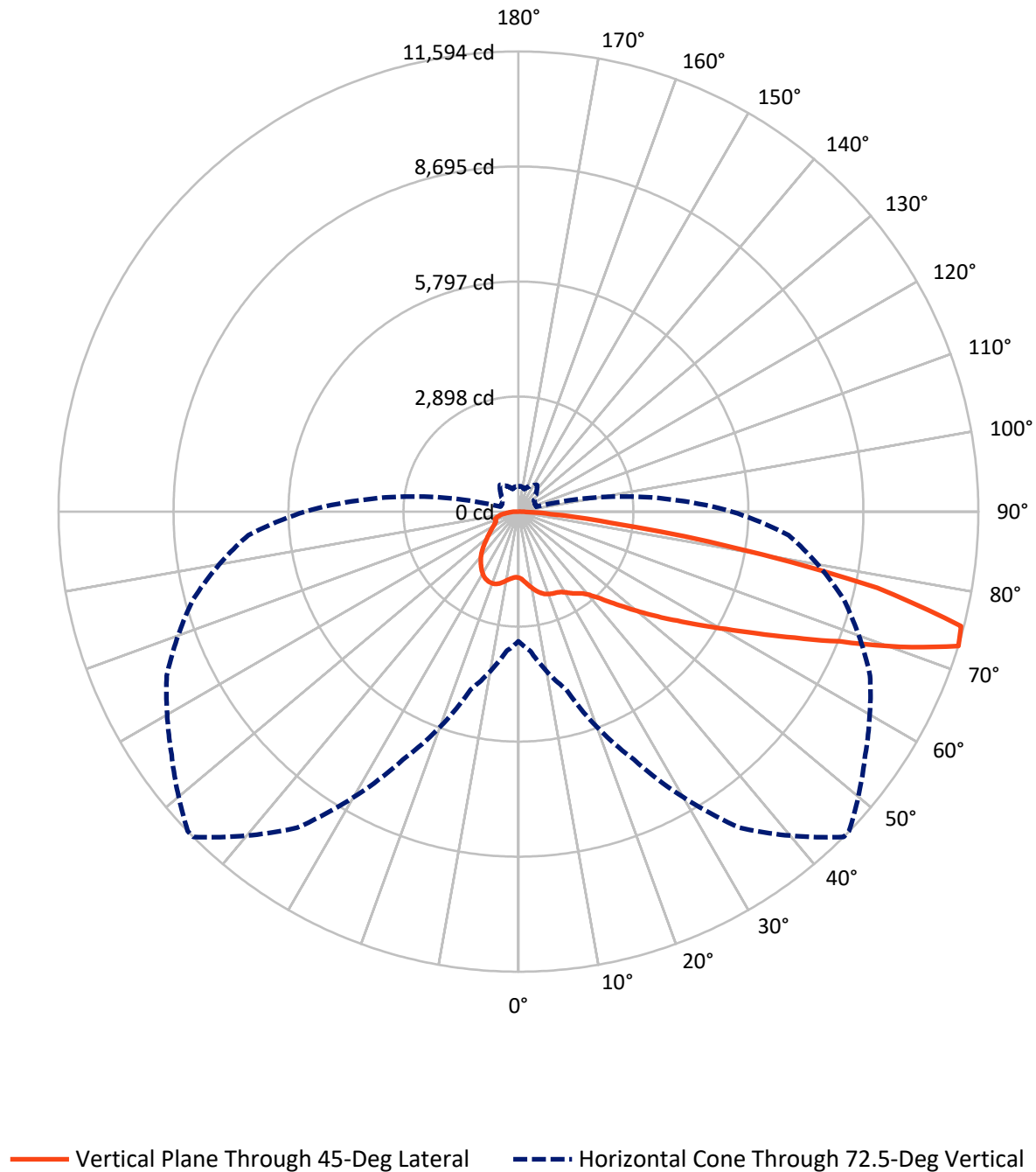


Based on 25 foot mounting height. Maximum calculated value = 3.3 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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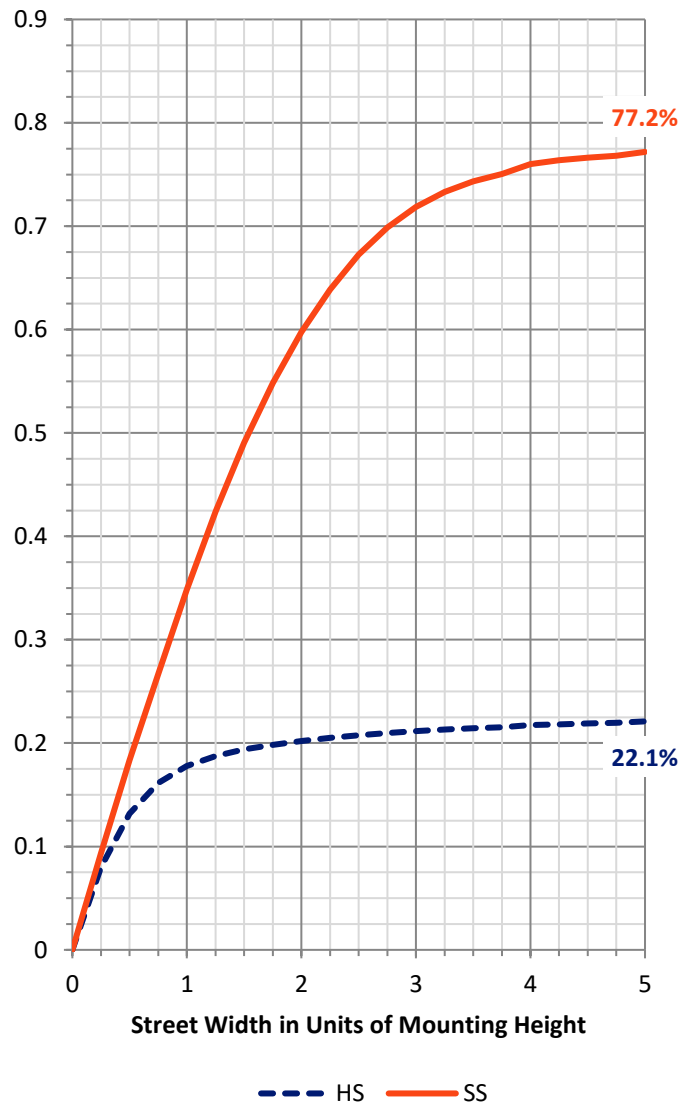
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3736.0	0.0	3736.0
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	12790.1	0.0	12790.1
	% Fixture	77.4	0.0	77.4
Total	Lumens	16526.1	0.0	16526.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	1.0
10°-20°	565.7	3.4
20°-30°	984.1	6.0
30°-40°	1410.8	8.5
40°-50°	1986.5	12.0
50°-60°	3042.8	18.4
60°-70°	4407.9	26.7
70°-80°	3520.0	21.3
80°-90°	438.4	2.7
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°	16526.1	100.0
0°-180°	16526.1	100.0

Coefficient of Utilization



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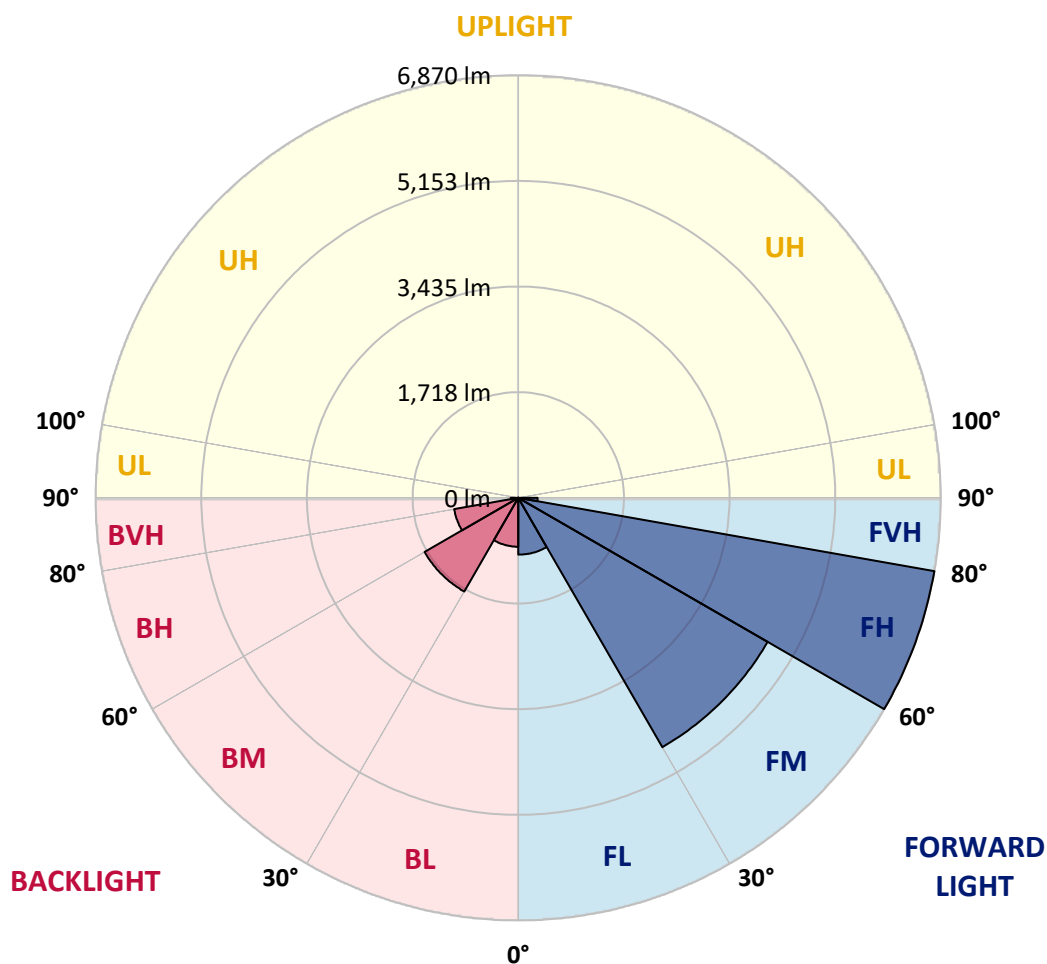
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	924.2	5.6			
FM	(30°-60°)	4681.0	28.3			
FH	(60°-80°)	6870.4	41.6			G3/7500
FVH	(80°-90°)	314.5	1.9			G3/500
BL	(0°-30°)	795.4	4.8	B2/1000		
BM	(30°-60°)	1759.1	10.6	B2/2500		
BH	(60°-80°)	1057.6	6.4	B3/2500		G3/2500
BVH	(80°-90°)	123.9	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2
2.5°	1732.5	1743.7	1733.3	1723.7	1719.4	1708.1	1707.2	1700.3	1695.9	1683.7	1680.2
5°	1853.5	1868.3	1850.8	1831.7	1814.2	1786.5	1783.0	1762.9	1740.2	1714.2	1699.3
7.5°	1990.1	2003.2	1983.2	1954.5	1924.0	1877.8	1877.0	1840.4	1804.7	1760.3	1735.0
10°	2109.4	2126.9	2099.8	2060.7	2022.3	1970.2	1964.0	1922.3	1877.0	1819.5	1781.2
12.5°	2214.7	2226.9	2200.8	2152.9	2108.5	2056.4	2048.5	2002.3	1951.8	1886.5	1837.8
15°	2298.4	2314.0	2279.2	2227.8	2180.8	2129.4	2122.5	2080.6	2030.2	1961.4	1898.7
17.5°	2353.2	2366.2	2330.5	2273.0	2227.8	2185.2	2180.0	2145.1	2100.7	2031.0	1964.0
20°	2374.1	2388.0	2350.5	2292.2	2250.5	2217.4	2214.7	2189.5	2159.1	2095.5	2027.6
22.5°	2394.9	2408.0	2359.2	2298.4	2261.8	2240.9	2240.0	2223.4	2211.2	2159.1	2092.8
25°	2479.4	2482.9	2417.6	2329.6	2277.4	2259.2	2258.3	2257.5	2262.6	2221.7	2163.4
27.5°	2552.6	2551.6	2496.0	2413.3	2332.3	2294.0	2293.1	2301.8	2318.3	2284.4	2236.5
30°	2659.7	2650.0	2583.9	2497.7	2423.7	2364.5	2359.2	2351.5	2364.5	2337.5	2309.6
32.5°	2886.8	2856.4	2749.3	2596.0	2499.5	2454.2	2447.2	2398.4	2403.6	2387.1	2373.2
35°	3212.5	3172.4	3029.6	2782.4	2593.5	2529.0	2525.6	2463.7	2453.3	2438.5	2443.7
37.5°	3599.8	3550.2	3383.9	3052.2	2755.4	2616.1	2610.9	2555.1	2512.5	2496.8	2526.4
40°	3989.0	3926.3	3788.8	3381.4	2993.9	2761.5	2745.0	2660.5	2611.7	2585.7	2648.3
42.5°	4366.8	4314.6	4197.1	3750.5	3288.2	2973.9	2937.3	2792.8	2756.2	2731.8	2845.1
45°	4701.2	4654.1	4567.9	4144.8	3632.9	3262.9	3227.2	2991.4	2980.0	2980.0	3143.7
47.5°	4972.8	4962.3	4870.9	4547.0	4039.5	3592.0	3530.2	3267.3	3297.7	3344.8	3567.6
50°	5273.9	5245.2	5147.8	4943.2	4517.5	3969.0	3918.5	3606.0	3720.0	3848.9	4180.6
52.5°	5550.8	5566.5	5457.6	5355.8	5057.1	4389.5	4300.7	4005.5	4251.9	4465.2	4898.8
55°	5835.5	5836.3	5805.9	5792.0	5623.0	4854.4	4756.8	4486.1	4877.9	5142.5	5736.2
57.5°	6102.7	6104.5	6149.8	6272.5	6279.5	5390.6	5280.1	5076.3	5573.4	5843.3	6599.9
60°	6341.3	6353.5	6477.1	6764.4	6856.6	6005.3	5900.8	5773.7	6292.6	6564.2	7507.9
62.5°	6421.4	6465.8	6740.9	7149.2	7426.9	6759.2	6656.5	6580.7	7048.2	7300.7	8267.0
65°	6285.6	6387.4	6919.4	7466.9	8013.7	7655.0	7553.1	7470.4	7833.5	8071.2	8890.3
67.5°	5952.2	6083.6	6908.9	7800.4	8725.8	8732.8	8637.9	8443.7	8675.3	8766.7	9093.2
70°	5073.8	5270.4	6300.4	7924.9	9543.3	10206.6	10115.2	9615.5	9515.4	9073.2	8522.1
72.5°	3269.0	3533.7	4639.4	6900.2	9725.2	11593.5	11588.2	10673.3	9781.0	8477.7	6834.9
75°	1192.7	1354.6	2155.6	4331.1	8163.4	11522.9	11557.0	10492.2	8928.7	6548.5	4258.0
77.5°	434.4	475.3	703.5	1664.5	5020.7	9245.6	9316.0	8388.0	6355.2	3286.5	1687.2
80°	228.1	250.7	360.4	646.0	2151.2	5490.7	5601.3	4985.0	2987.0	989.8	505.8
82.5°	126.3	136.6	201.9	350.9	968.9	2348.0	2414.1	1969.2	1050.8	419.6	208.9
85°	67.9	72.3	94.9	191.6	473.6	814.0	832.3	588.6	418.7	246.4	101.0
87.5°	20.0	24.4	31.4	61.0	185.4	182.9	187.2	116.6	165.4	124.5	33.1
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°	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2	1667.2
2.5°	1675.0	1672.4	1662.9	1658.4	1653.2	1652.4	1656.7	1657.6	1658.4	1659.4	1662.9
5°	1690.6	1681.9	1673.2	1668.0	1669.7	1670.6	1679.4	1685.4	1689.8	1693.3	1695.0
7.5°	1721.2	1714.2	1699.3	1698.5	1701.1	1709.0	1720.3	1734.2	1742.0	1748.1	1749.9
10°	1766.4	1753.4	1735.9	1738.5	1743.7	1755.1	1778.6	1790.0	1803.0	1814.2	1811.7
12.5°	1812.5	1801.2	1781.2	1783.0	1791.7	1811.7	1834.3	1848.3	1857.0	1865.6	1869.1
15°	1872.6	1852.6	1830.9	1830.9	1846.5	1868.3	1878.7	1890.0	1895.2	1904.9	1908.3
17.5°	1934.4	1908.3	1879.5	1877.8	1897.0	1907.4	1913.6	1915.3	1917.1	1927.5	1930.9
20°	1996.2	1967.5	1926.6	1923.1	1927.5	1925.8	1924.8	1923.1	1925.8	1938.8	1944.0
22.5°	2057.2	2024.1	1967.5	1951.8	1939.6	1923.1	1922.3	1921.4	1923.1	1936.1	1944.8
25°	2128.6	2088.5	2012.8	1965.7	1924.8	1902.2	1904.9	1905.7	1907.4	1917.9	1931.8
27.5°	2206.0	2161.6	2054.6	1961.4	1887.4	1871.8	1867.3	1870.0	1876.1	1892.7	1909.2
30°	2283.5	2231.3	2092.8	1944.0	1840.4	1818.7	1804.7	1810.8	1829.9	1846.5	1864.8
32.5°	2354.0	2301.8	2123.4	1905.7	1780.3	1746.4	1728.2	1735.9	1755.1	1761.2	1783.0
35°	2436.7	2377.6	2136.4	1844.8	1715.0	1662.9	1638.5	1627.1	1636.7	1630.6	1649.7
37.5°	2529.0	2467.2	2134.7	1764.6	1638.5	1578.4	1544.4	1501.7	1481.7	1460.8	1473.8
40°	2665.7	2577.0	2113.8	1668.0	1543.5	1488.7	1427.7	1355.5	1310.3	1269.3	1271.9
42.5°	2852.1	2729.3	2075.4	1561.8	1436.4	1385.1	1302.4	1217.9	1146.6	1078.6	1072.6
45°	3129.7	2928.6	2027.6	1448.6	1320.7	1270.2	1180.5	1085.6	1004.6	917.6	907.1
47.5°	3530.2	3196.8	1982.4	1319.8	1198.7	1152.6	1071.6	983.8	888.0	803.5	794.0
50°	4080.4	3581.6	1940.5	1194.4	1078.6	1043.9	979.4	889.7	793.1	725.2	720.9
52.5°	4780.4	4104.8	1923.1	1073.4	966.4	953.2	901.9	818.4	726.9	669.4	665.1
55°	5583.9	4730.7	1923.1	957.7	868.0	872.3	836.6	759.1	679.9	628.5	623.3
57.5°	6404.0	5364.5	1888.3	850.5	784.4	802.7	780.0	712.2	640.7	587.6	578.9
60°	7159.6	5895.6	1747.2	753.1	710.4	739.1	724.4	665.9	578.9	534.5	527.6
62.5°	7740.3	6195.0	1475.6	675.6	649.4	682.5	674.7	605.1	567.6	549.3	543.2
65°	8031.1	6146.3	1128.3	606.8	598.1	649.4	632.9	630.3	600.6	579.8	572.9
67.5°	7852.6	5726.7	818.4	556.3	568.5	619.0	682.5	693.0	638.2	597.3	590.3
70°	7069.9	4967.6	609.4	508.4	531.1	619.8	778.3	725.2	626.0	578.1	570.2
72.5°	5378.5	3704.3	472.7	458.0	482.3	624.2	820.9	710.4	591.1	639.0	633.8
75°	3075.7	2033.7	379.6	396.2	421.4	583.3	799.2	672.1	564.2	586.8	586.8
77.5°	1172.7	781.8	313.4	335.2	338.7	509.3	764.3	669.4	537.1	524.1	478.0
80°	406.5	305.6	259.4	266.4	262.1	452.7	733.0	582.4	439.6	393.5	380.5
82.5°	166.3	152.3	205.4	196.8	186.3	351.7	592.0	476.2	359.6	317.8	314.3
85°	72.3	96.7	135.8	119.3	107.9	243.7	474.5	403.0	303.8	262.1	261.2
87.5°	14.8	36.6	57.5	54.0	55.8	162.8	336.9	286.4	215.0	161.0	126.3
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)