

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: P964158

Luminaire Tested: **NAV-SB3B-827-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964158
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14927.1 lumens
Efficiency: N/A
Efficacy: 136.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

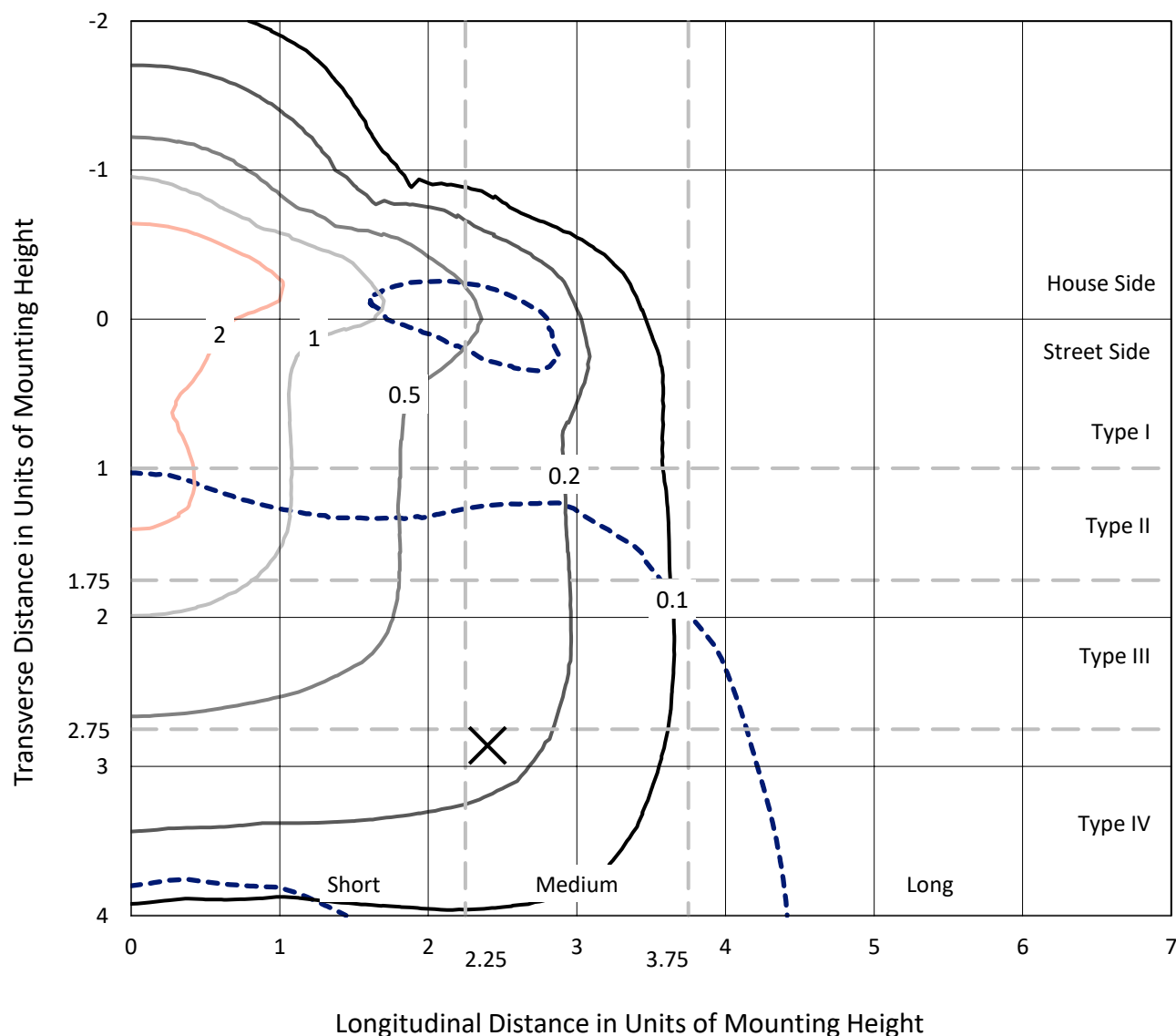
Input Watts (W): 109.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

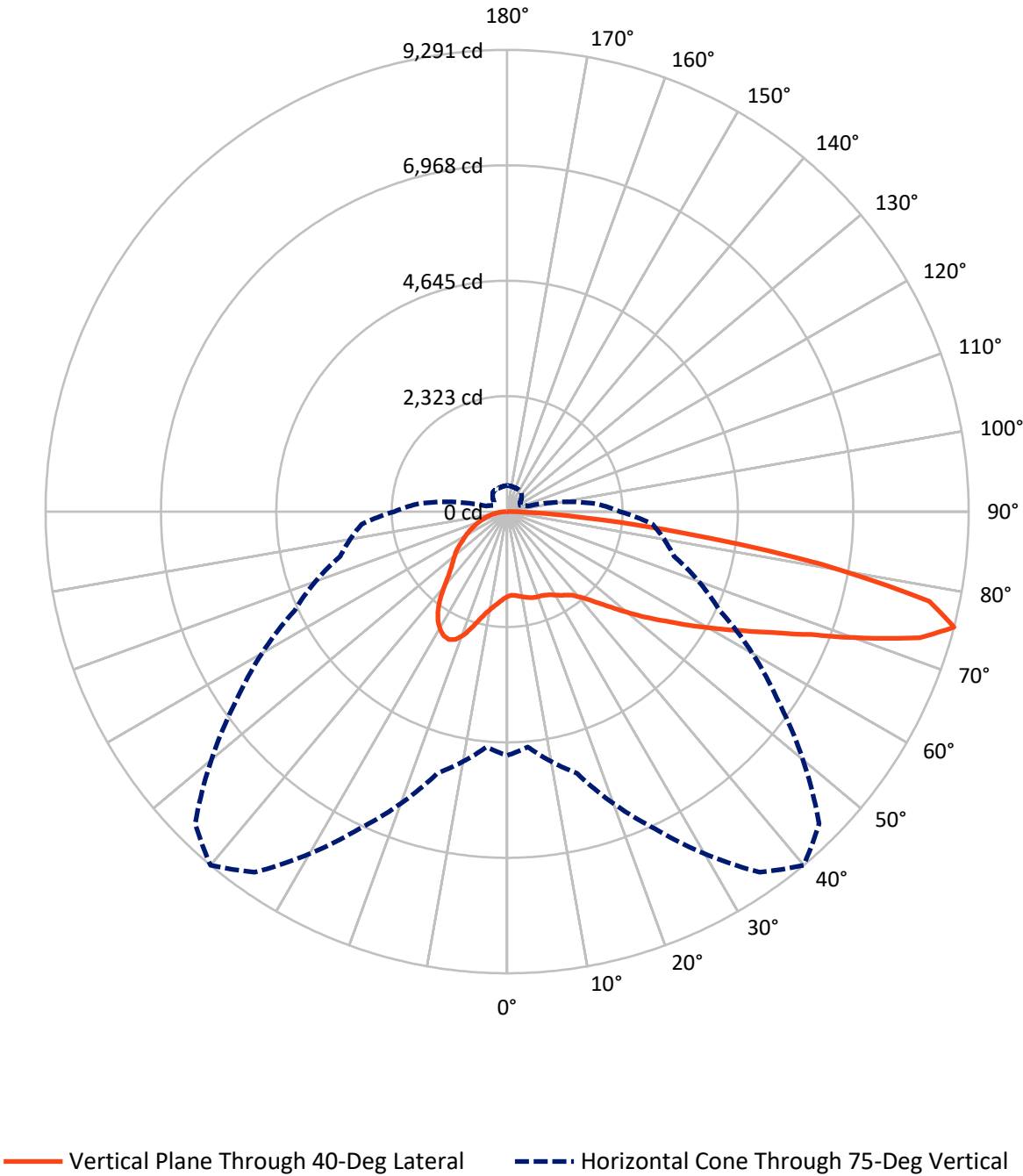
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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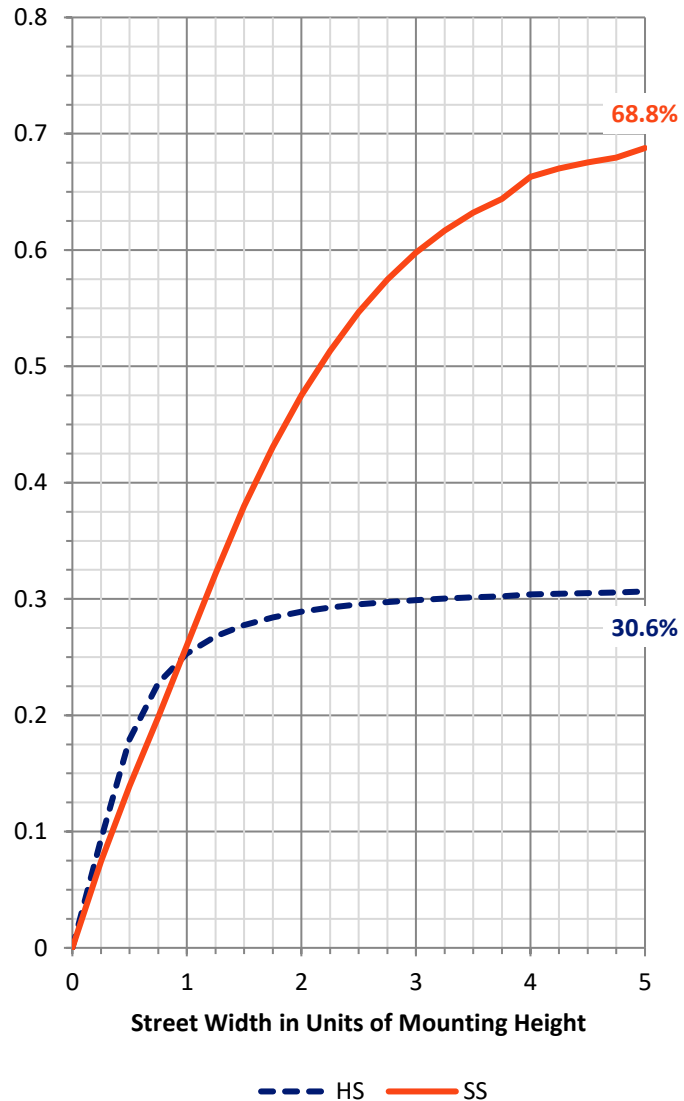
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4624.9	0.0	4624.9
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	10302.2	0.0	10302.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	14927.1	0.0	14927.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.4	1.1
10°-20°	572.1	3.8
20°-30°	1044.5	7.0
30°-40°	1481.4	9.9
40°-50°	2000.4	13.4
50°-60°	2691.0	18.0
60°-70°	3415.6	22.9
70°-80°	3099.8	20.8
80°-90°	451.9	3.0
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°	14927.1	100.0
0°-180°	14927.1	100.0

Coefficient of Utilization



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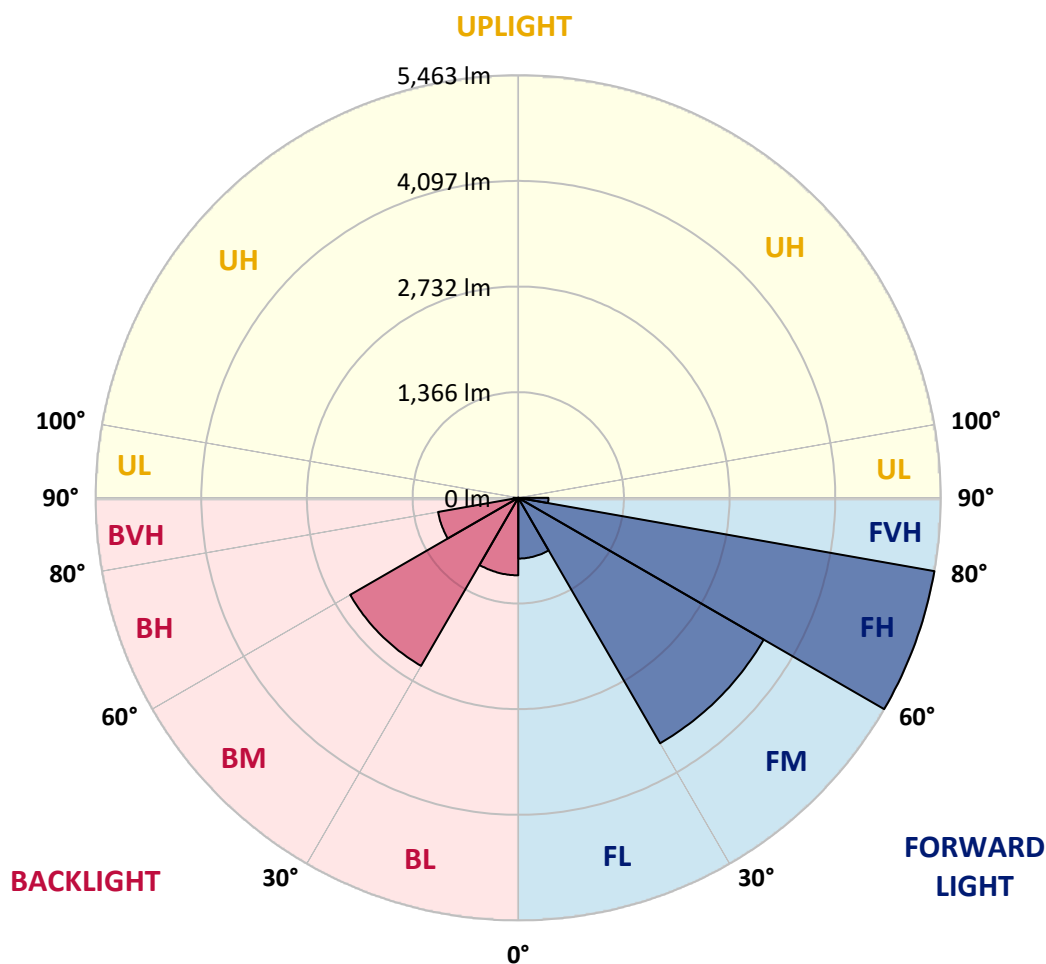
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	785.2	5.3			
FM	(30°-60°)	3664.3	24.5			
FH	(60°-80°)	5463.1	36.6			G3/7500
FVH	(80°-90°)	389.6	2.6			G3/500
BL	(0°-30°)	1001.8	6.7	B3/2500		
BM	(30°-60°)	2508.6	16.8	B3/5000		
BH	(60°-80°)	1052.3	7.0	B3/2500		G3/2500
BVH	(80°-90°)	62.2	0.4			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9
2.5°	1680.8	1690.3	1688.0	1684.8	1684.8	1685.5	1684.8	1690.3	1695.9	1701.4	1710.1
5°	1698.2	1707.8	1702.9	1699.0	1695.9	1695.0	1692.7	1691.9	1695.0	1702.2	1714.1
7.5°	1732.2	1741.8	1734.6	1727.5	1721.2	1718.0	1714.8	1710.1	1707.8	1711.6	1728.4
10°	1770.3	1779.8	1771.1	1758.4	1748.1	1744.1	1741.0	1736.2	1733.1	1735.4	1753.7
12.5°	1808.3	1817.7	1805.8	1788.5	1775.0	1772.6	1768.6	1767.1	1766.3	1765.6	1783.7
15°	1843.9	1851.8	1836.8	1816.2	1802.0	1798.0	1794.1	1796.4	1800.3	1805.1	1825.7
17.5°	1871.6	1879.5	1857.4	1830.4	1817.0	1815.4	1813.0	1820.9	1832.0	1843.9	1869.2
20°	1897.0	1904.9	1876.4	1840.0	1824.1	1824.1	1824.9	1841.5	1857.4	1874.7	1909.6
22.5°	1932.5	1938.9	1904.0	1854.2	1831.3	1832.8	1839.2	1855.8	1875.5	1899.3	1947.6
25°	1985.6	1990.3	1947.6	1881.1	1854.9	1859.8	1865.3	1873.2	1892.2	1919.9	1984.8
27.5°	2071.1	2075.1	2018.8	1928.6	1889.1	1897.0	1904.9	1899.3	1908.0	1931.8	2014.9
30°	2191.4	2193.8	2122.6	2003.1	1946.8	1950.8	1952.3	1929.4	1912.8	1931.8	2036.3
32.5°	2333.9	2333.2	2248.4	2093.3	2012.5	2008.6	1995.2	1950.0	1911.2	1927.8	2055.3
35°	2554.8	2546.1	2436.9	2219.9	2087.0	2062.4	2030.7	1972.9	1919.1	1923.8	2071.9
37.5°	2920.6	2893.7	2742.5	2427.4	2197.8	2135.3	2088.5	2010.1	1936.5	1922.3	2091.7
40°	3333.1	3299.1	3132.8	2711.6	2364.1	2263.5	2188.3	2063.2	1965.0	1929.4	2121.0
42.5°	3822.4	3774.0	3595.2	3046.5	2574.7	2428.9	2315.8	2130.5	2007.0	1952.3	2160.6
45°	4423.3	4359.1	4105.8	3424.1	2839.9	2645.9	2494.6	2232.7	2071.1	1996.7	2219.9
47.5°	5030.5	5046.4	4686.1	3856.5	3158.1	2913.5	2718.7	2386.2	2164.5	2067.9	2315.8
50°	5675.7	5686.9	5263.3	4335.4	3519.1	3215.9	2970.6	2558.0	2294.4	2169.3	2459.1
52.5°	6179.3	6180.9	5787.5	4836.6	3895.2	3548.4	3242.1	2754.4	2444.8	2303.9	2649.8
55°	6494.4	6490.5	6154.8	5310.8	4327.4	3897.6	3542.9	2977.6	2628.5	2462.3	2889.8
57.5°	6723.2	6711.4	6408.1	5718.6	4788.3	4310.1	3883.3	3231.0	2845.4	2650.6	3205.7
60°	6810.3	6803.1	6579.9	6070.9	5272.8	4766.1	4276.0	3514.4	3091.6	2873.1	3611.8
62.5°	6843.5	6857.0	6748.6	6412.1	5791.4	5271.3	4707.5	3853.3	3368.8	3124.9	4040.1
65°	6960.8	6985.3	6963.1	6858.6	6377.2	5862.6	5279.9	4256.2	3671.1	3394.9	4487.4
67.5°	7192.7	7217.2	7226.8	7393.0	7092.9	6599.7	5994.1	4758.2	4025.1	3675.1	4823.9
70°	7187.2	7180.0	7347.9	7818.2	7989.2	7620.3	6956.8	5375.7	4447.1	3907.9	4866.7
72.5°	6542.0	6484.9	6881.5	7813.4	8734.9	8685.8	8132.5	6172.1	4811.2	3936.4	4223.0
75°	4907.8	4755.8	5456.5	7041.4	8859.3	9290.7	8879.9	6666.2	4724.9	3478.0	2938.9
77.5°	2098.8	1946.1	2771.8	5212.6	7929.0	8685.0	8194.3	5816.0	3771.7	2299.9	1443.3
80°	549.4	548.7	837.6	2363.2	5392.3	6413.6	5626.7	3755.9	2155.1	821.8	398.2
82.5°	227.2	221.7	308.0	919.2	2634.9	3599.1	2937.2	1675.3	778.3	222.4	132.2
85°	84.7	83.9	149.6	317.4	929.5	1484.5	1074.3	428.3	193.9	108.4	59.3
87.5°	23.8	23.0	32.5	110.1	226.4	343.6	183.7	70.4	54.6	42.7	17.4
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°	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9
2.5°	1712.5	1716.5	1723.5	1729.1	1736.2	1744.1	1755.2	1762.4	1769.5	1774.3	1771.1
5°	1719.6	1728.4	1746.5	1764.7	1786.1	1805.8	1828.8	1845.5	1858.9	1862.9	1864.5
7.5°	1735.4	1749.7	1780.5	1811.5	1845.5	1877.9	1911.2	1939.7	1962.7	1971.4	1972.2
10°	1763.1	1782.2	1825.7	1869.2	1914.4	1964.2	2007.0	2048.2	2080.6	2094.1	2094.9
12.5°	1798.0	1821.7	1878.7	1938.9	2001.4	2070.3	2125.7	2176.4	2216.8	2235.0	2235.0
15°	1843.2	1874.0	1946.8	2027.6	2119.4	2215.2	2285.6	2341.9	2387.0	2409.2	2407.6
17.5°	1892.2	1933.4	2025.2	2147.2	2278.6	2404.4	2486.8	2528.0	2574.7	2596.0	2595.2
20°	1939.7	1990.3	2121.8	2299.2	2474.1	2607.9	2674.4	2685.5	2688.7	2691.0	2697.4
22.5°	1988.8	2056.9	2242.9	2490.8	2678.3	2771.0	2780.5	2733.0	2666.4	2635.6	2644.3
25°	2042.6	2132.9	2401.3	2702.1	2854.1	2865.2	2792.4	2676.8	2550.9	2493.1	2501.8
27.5°	2094.9	2220.8	2591.3	2904.0	2980.8	2883.4	2726.7	2562.8	2410.8	2349.8	2356.9
30°	2147.2	2321.3	2801.1	3080.5	3038.6	2838.3	2623.0	2440.0	2287.3	2223.1	2230.3
32.5°	2200.2	2438.5	3042.5	3208.0	3028.3	2742.5	2493.9	2302.3	2167.7	2100.4	2109.1
35°	2260.3	2582.6	3271.4	3277.6	2959.4	2601.6	2323.7	2137.6	2020.5	1966.6	1978.5
37.5°	2338.7	2765.4	3473.2	3295.1	2839.0	2394.9	2112.3	1942.9	1846.2	1821.7	1839.2
40°	2436.1	2985.5	3627.6	3267.4	2660.9	2144.0	1881.1	1745.7	1691.1	1696.7	1715.6
42.5°	2562.8	3231.7	3736.1	3196.2	2413.2	1885.1	1678.4	1618.3	1644.4	1666.5	1687.2
45°	2727.4	3487.5	3803.4	3075.0	2132.9	1665.7	1558.9	1573.2	1593.0	1595.3	1611.1
47.5°	2938.1	3746.4	3847.7	2892.1	1847.0	1511.4	1482.9	1486.0	1482.0	1465.4	1478.2
50°	3200.9	3998.1	3887.3	2649.8	1604.0	1414.8	1376.8	1365.7	1311.1	1257.3	1264.3
52.5°	3500.2	4229.4	3903.9	2349.0	1414.8	1334.0	1272.2	1202.6	1100.4	1083.8	1089.4
55°	3832.7	4443.1	3861.2	1979.3	1255.6	1230.3	1136.9	1053.0	1041.9	1027.7	1030.0
57.5°	4230.1	4673.5	3774.0	1566.8	1092.5	1109.2	1018.1	1027.7	1007.9	985.6	981.7
60°	4664.8	4911.8	3621.3	1190.7	923.9	958.0	987.3	986.5	980.9	962.7	956.4
62.5°	5055.9	5068.5	3320.5	912.0	775.9	840.8	920.8	919.9	915.2	905.0	901.0
65°	5288.6	5044.7	2818.5	718.1	653.9	744.3	830.5	836.8	837.6	836.8	836.8
67.5°	5247.5	4766.9	2129.7	571.6	553.4	646.1	741.1	749.8	756.0	757.7	759.2
70°	4781.9	4156.5	1388.7	456.0	463.9	559.8	656.3	665.0	670.6	676.9	680.1
72.5°	3727.4	3056.0	794.9	368.9	385.6	485.3	572.4	582.7	585.9	597.8	602.5
75°	2271.4	1797.2	429.1	290.6	316.7	414.8	489.2	501.1	506.7	520.9	522.5
77.5°	1079.9	778.3	244.7	226.4	254.9	338.9	413.3	426.7	411.6	419.6	413.3
80°	365.0	288.9	154.4	172.6	194.7	264.4	331.0	344.4	312.7	311.2	308.0
82.5°	127.5	117.2	98.2	114.8	125.9	189.2	250.2	267.6	232.8	232.0	220.9
85°	49.9	47.5	54.6	62.5	75.2	116.3	164.7	173.4	143.3	115.6	114.0
87.5°	10.2	11.1	13.4	14.2	23.0	40.4	59.3	72.9	57.8	49.1	45.1
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)