

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: P965634

Luminaire Tested: **NAV-SB4A-735-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965634
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-735-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18391.6 lumens
Efficiency: N/A
Efficacy: 161.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

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

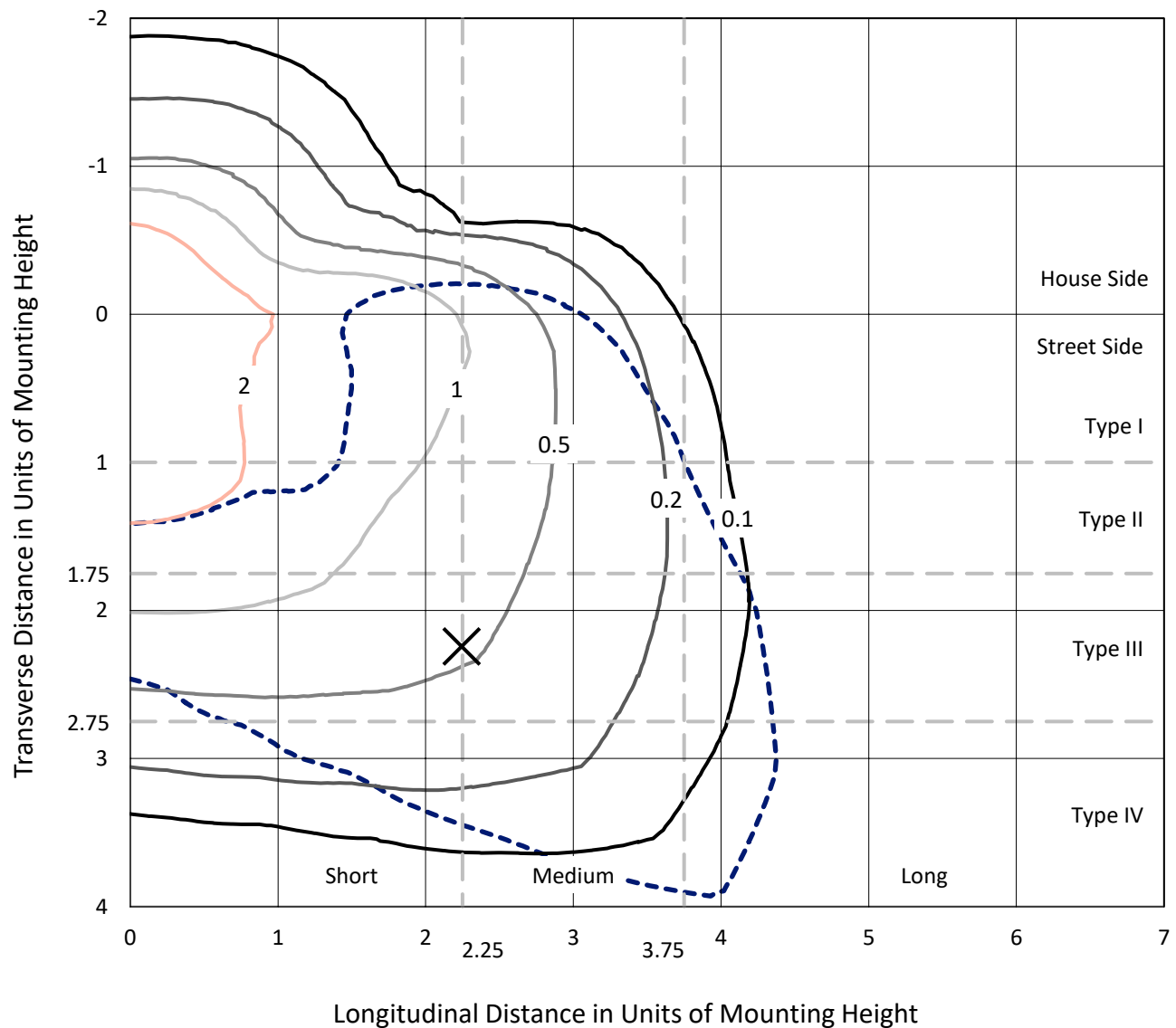


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Iso-Footcandle Lines of Horizontal Illumination

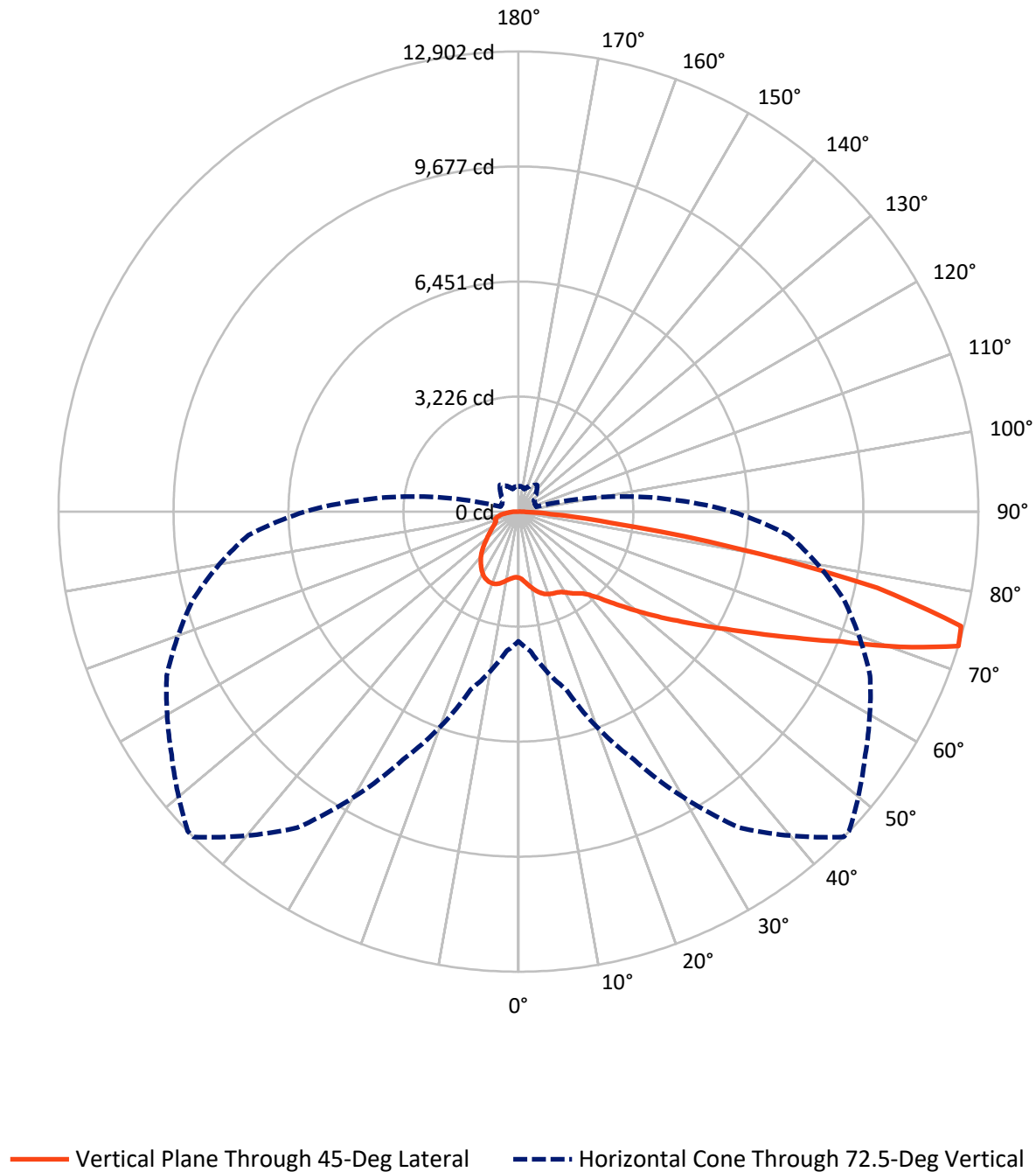
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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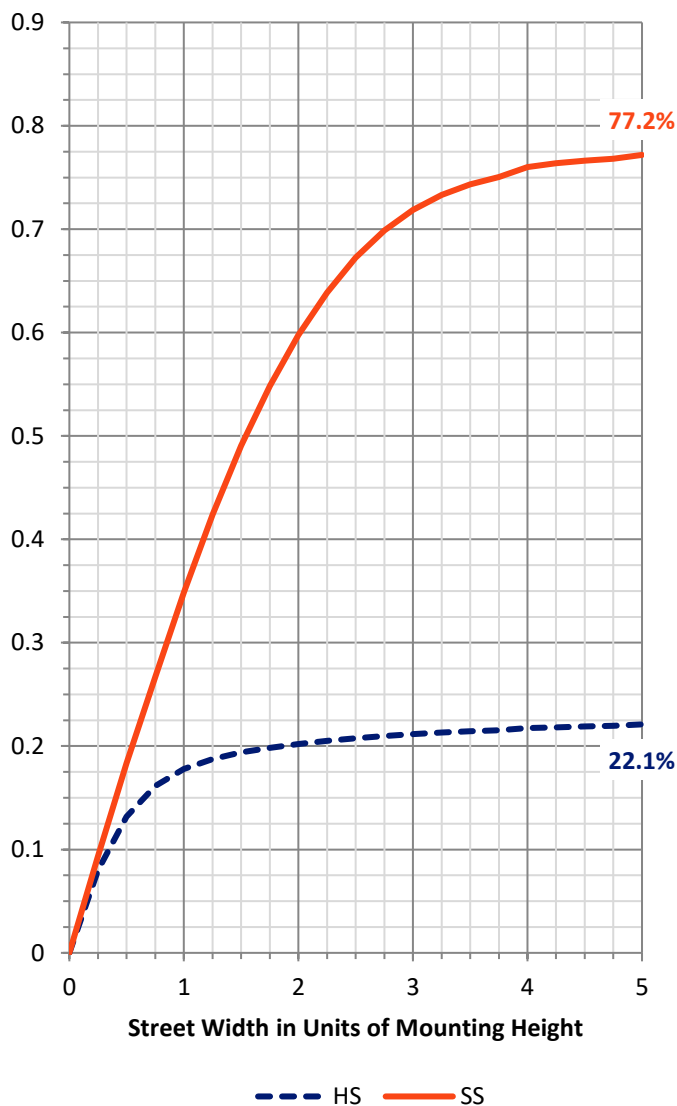
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4157.7	0.0	4157.7
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	14233.9	0.0	14233.9
	% Fixture	77.4	0.0	77.4
Total	Lumens	18391.6	0.0	18391.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.8	1.0
10°-20°	629.6	3.4
20°-30°	1095.2	6.0
30°-40°	1570.1	8.5
40°-50°	2210.8	12.0
50°-60°	3386.3	18.4
60°-70°	4905.5	26.7
70°-80°	3917.3	21.3
80°-90°	487.9	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°	18391.6	100.0
0°-180°	18391.6	100.0

Coefficient of Utilization



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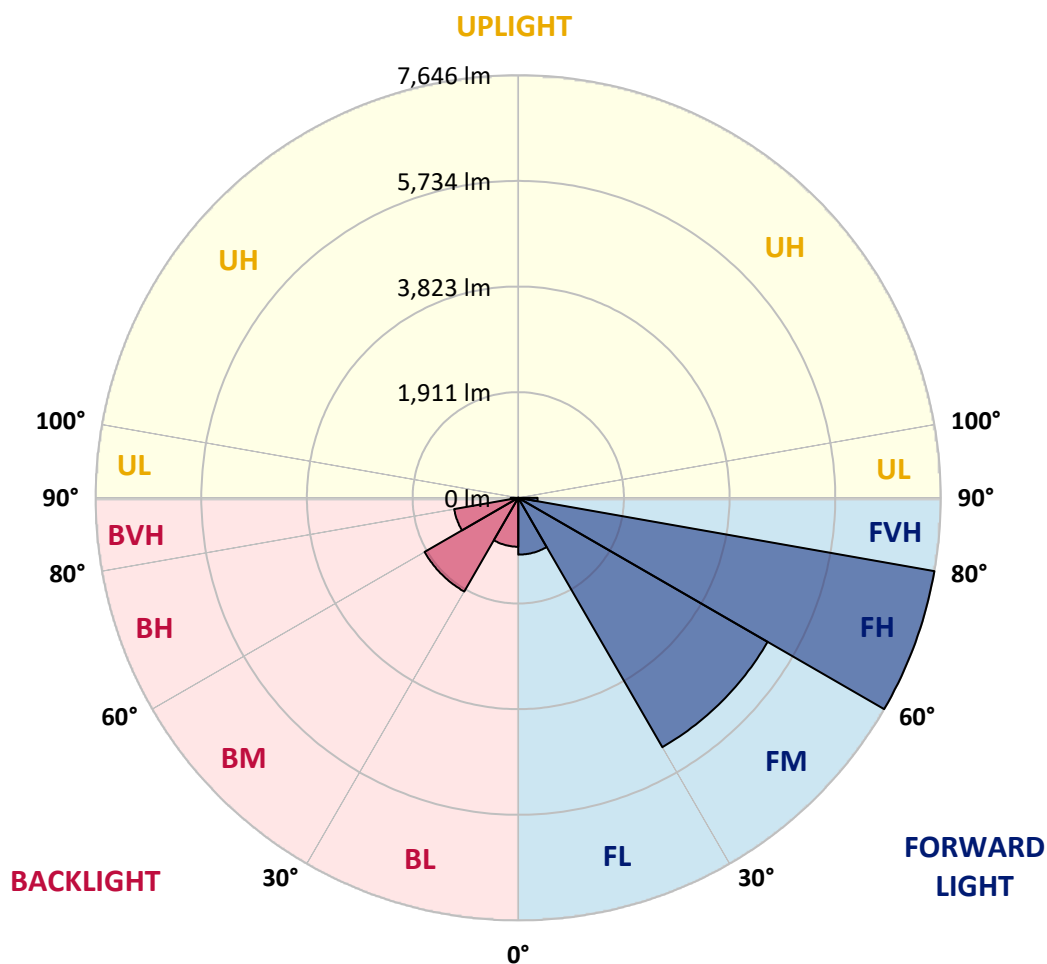
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1028.5	5.6			
FM	(30°-60°)	5209.5	28.3			
FH	(60°-80°)	7645.9	41.6			G4/12000
FVH	(80°-90°)	350.0	1.9			G3/500
BL	(0°-30°)	885.2	4.8	B2/1000		
BM	(30°-60°)	1957.7	10.6	B2/2500		
BH	(60°-80°)	1176.9	6.4	B3/2500		G3/2500
BVH	(80°-90°)	137.9	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4
2.5°	1928.0	1940.6	1928.9	1918.3	1913.5	1900.9	1899.9	1892.2	1887.3	1873.8	1869.9
5°	2062.7	2079.1	2059.7	2038.4	2019.0	1988.1	1984.2	1962.0	1936.7	1907.6	1891.2
7.5°	2214.8	2229.4	2207.0	2175.0	2141.1	2089.8	2088.8	2048.2	2008.4	1959.0	1930.9
10°	2347.6	2366.9	2336.9	2293.2	2250.6	2192.5	2185.7	2139.2	2088.8	2024.9	1982.2
12.5°	2464.7	2478.3	2449.2	2395.9	2346.5	2288.4	2279.7	2228.4	2172.2	2099.5	2045.3
15°	2557.8	2575.2	2536.5	2479.3	2427.0	2369.8	2362.1	2315.6	2259.4	2182.8	2113.0
17.5°	2618.8	2633.3	2593.7	2529.7	2479.3	2431.8	2426.0	2387.2	2337.8	2260.3	2185.7
20°	2642.0	2657.5	2615.9	2551.0	2504.5	2467.7	2464.7	2436.6	2402.7	2332.0	2256.4
22.5°	2665.3	2679.9	2625.6	2557.8	2517.1	2493.8	2492.9	2474.5	2460.9	2402.7	2329.1
25°	2759.3	2763.2	2690.5	2592.6	2534.5	2514.2	2513.2	2512.3	2518.0	2472.5	2407.6
27.5°	2840.7	2839.7	2777.7	2685.7	2595.5	2553.0	2551.9	2561.7	2580.0	2542.3	2489.0
30°	2959.9	2949.2	2875.5	2779.6	2697.3	2631.4	2625.6	2616.8	2631.4	2601.3	2570.4
32.5°	3212.8	3178.8	3059.6	2889.2	2781.5	2731.2	2723.4	2669.2	2675.0	2656.6	2641.1
35°	3575.1	3530.5	3371.6	3096.4	2886.2	2814.5	2810.7	2741.9	2730.2	2713.8	2719.5
37.5°	4006.2	3951.0	3766.0	3396.7	3066.4	2911.4	2905.6	2843.6	2796.1	2778.7	2811.6
40°	4439.3	4369.5	4216.4	3763.0	3331.9	3073.2	3054.8	2960.8	2906.6	2877.5	2947.3
42.5°	4859.7	4801.6	4670.8	4173.8	3659.4	3309.6	3268.9	3108.1	3067.4	3040.3	3166.2
45°	5231.8	5179.5	5083.6	4612.7	4043.0	3631.3	3591.5	3329.0	3316.4	3316.4	3498.5
47.5°	5534.1	5522.5	5420.7	5060.3	4495.4	3997.5	3928.7	3636.1	3670.0	3722.3	3970.3
50°	5869.4	5837.4	5728.8	5501.2	5027.4	4417.0	4360.8	4013.0	4139.9	4283.3	4652.5
52.5°	6177.4	6194.8	6073.7	5960.4	5628.1	4884.9	4786.1	4457.7	4731.9	4969.2	5451.8
55°	6494.2	6495.2	6461.3	6445.8	6257.8	5402.4	5293.8	4992.5	5428.5	5723.0	6383.8
57.5°	6791.6	6793.6	6843.9	6980.6	6988.3	5999.1	5876.1	5649.4	6202.6	6502.9	7344.8
60°	7057.1	7070.7	7208.2	7528.0	7630.7	6683.1	6566.9	6425.4	7002.9	7305.2	8355.4
62.5°	7146.3	7195.7	7501.9	7956.3	8265.3	7522.2	7407.9	7323.5	7843.8	8124.8	9200.2
65°	6995.1	7108.5	7700.4	8309.9	8918.3	8519.1	8405.7	8313.7	8717.7	8982.2	9893.9
67.5°	6624.1	6770.3	7688.8	8680.9	9710.8	9718.5	9613.0	9396.9	9654.6	9756.4	10119.6
70°	5646.5	5865.5	7011.6	8819.5	10620.5	11358.8	11257.1	10701.0	10589.6	10097.4	9484.1
72.5°	3638.0	3932.6	5163.0	7679.1	10823.1	12902.2	12896.3	11878.1	10885.1	9434.7	7606.4
75°	1327.4	1507.6	2398.9	4820.1	9084.9	12823.8	12861.5	11676.6	9936.6	7287.7	4738.7
77.5°	483.5	529.0	782.8	1852.5	5587.4	10289.3	10367.7	9334.9	7072.6	3657.4	1877.6
80°	253.8	279.0	401.1	718.9	2394.0	6110.5	6233.6	5547.6	3324.2	1101.6	562.9
82.5°	140.5	152.1	224.8	390.4	1078.3	2613.0	2686.6	2191.6	1169.4	467.0	232.6
85°	75.5	80.5	105.6	213.1	527.1	905.9	926.2	655.0	466.1	274.2	112.3
87.5°	22.2	27.2	34.8	67.9	206.3	203.5	208.3	129.9	184.1	138.6	36.8
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°	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4
2.5°	1864.1	1861.2	1850.5	1845.6	1839.9	1838.8	1843.8	1844.7	1845.6	1846.6	1850.5
5°	1881.5	1871.9	1862.1	1856.3	1858.2	1859.2	1868.9	1875.6	1880.6	1884.5	1886.3
7.5°	1915.4	1907.6	1891.2	1890.2	1893.2	1901.9	1914.5	1930.0	1938.7	1945.4	1947.4
10°	1965.8	1951.3	1931.9	1934.8	1940.6	1953.2	1979.4	1992.0	2006.5	2019.0	2016.2
12.5°	2017.2	2004.6	1982.2	1984.2	1993.9	2016.2	2041.4	2056.9	2066.6	2076.2	2080.1
15°	2084.0	2061.7	2037.5	2037.5	2054.9	2079.1	2090.8	2103.4	2109.1	2119.8	2123.7
17.5°	2152.8	2123.7	2091.7	2089.8	2111.1	2122.8	2129.5	2131.5	2133.4	2145.0	2148.9
20°	2221.6	2189.6	2144.1	2140.2	2145.0	2143.1	2142.1	2140.2	2143.1	2157.6	2163.5
22.5°	2289.4	2252.5	2189.6	2172.2	2158.6	2140.2	2139.2	2138.3	2140.2	2154.8	2164.4
25°	2368.9	2324.3	2240.0	2187.7	2142.1	2116.9	2119.8	2120.8	2122.8	2134.4	2149.8
27.5°	2455.1	2405.7	2286.5	2182.8	2100.4	2083.0	2078.2	2081.1	2087.9	2106.3	2124.7
30°	2541.3	2483.2	2329.1	2163.5	2048.2	2024.0	2008.4	2015.3	2036.6	2054.9	2075.3
32.5°	2619.8	2561.7	2363.0	2120.8	1981.3	1943.5	1923.2	1931.9	1953.2	1960.0	1984.2
35°	2711.8	2645.9	2377.6	2053.0	1908.7	1850.5	1823.4	1810.8	1821.4	1814.7	1836.0
37.5°	2814.5	2745.8	2375.6	1963.9	1823.4	1756.5	1718.7	1671.3	1649.0	1625.8	1640.3
40°	2966.7	2867.8	2352.4	1856.3	1717.8	1656.7	1589.0	1508.5	1458.2	1412.6	1415.5
42.5°	3173.9	3037.4	2309.7	1738.1	1598.6	1541.4	1449.5	1355.5	1276.0	1200.4	1193.6
45°	3483.1	3259.2	2256.4	1612.1	1469.7	1413.6	1313.7	1208.2	1118.1	1021.2	1009.5
47.5°	3928.7	3557.7	2206.1	1468.8	1334.1	1282.8	1192.7	1094.8	988.2	894.2	883.6
50°	4541.1	3985.8	2159.6	1329.2	1200.4	1161.6	1090.0	990.1	882.6	807.1	802.2
52.5°	5320.0	4568.1	2140.2	1194.6	1075.4	1060.9	1003.7	910.7	809.0	745.1	740.2
55°	6214.3	5264.7	2140.2	1065.7	966.0	970.8	931.1	844.8	756.7	699.6	693.7
57.5°	7126.9	5970.1	2101.5	946.6	872.9	893.3	868.1	792.5	713.1	653.9	644.3
60°	7967.8	6561.0	1944.5	838.0	790.6	822.6	806.1	741.2	644.3	594.9	587.1
62.5°	8614.1	6894.4	1642.3	751.8	722.7	759.6	750.8	673.3	631.7	611.3	604.5
65°	8937.7	6840.1	1255.6	675.3	665.6	722.7	704.4	701.4	668.5	645.2	637.6
67.5°	8739.0	6373.1	910.7	619.1	632.6	688.9	759.6	771.2	710.1	664.6	656.9
70°	7868.0	5528.2	678.2	565.8	591.0	689.8	866.1	807.1	696.6	643.3	634.6
72.5°	5985.6	4122.4	526.1	509.6	536.8	694.6	913.6	790.6	657.8	711.1	705.3
75°	3423.0	2263.2	422.4	440.9	468.9	649.1	889.4	747.9	627.8	653.0	653.0
77.5°	1305.0	870.0	348.8	373.0	376.9	566.8	850.6	745.1	597.8	583.2	531.9
80°	452.4	340.1	288.7	296.4	291.6	503.8	815.8	648.2	489.2	437.9	423.4
82.5°	185.0	169.5	228.7	218.9	207.4	391.4	658.9	529.9	400.2	353.6	349.7
85°	80.5	107.5	151.2	132.7	120.1	271.3	528.0	448.5	338.1	291.6	290.7
87.5°	16.5	40.7	64.0	60.1	62.0	181.2	374.9	318.8	239.3	179.3	140.5
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)