

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: P967864

Luminaire Tested: **NAV-SB5A-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967864
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-SB5A-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 19961.9 lumens
Efficiency: N/A
Efficacy: 140.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 141.7
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



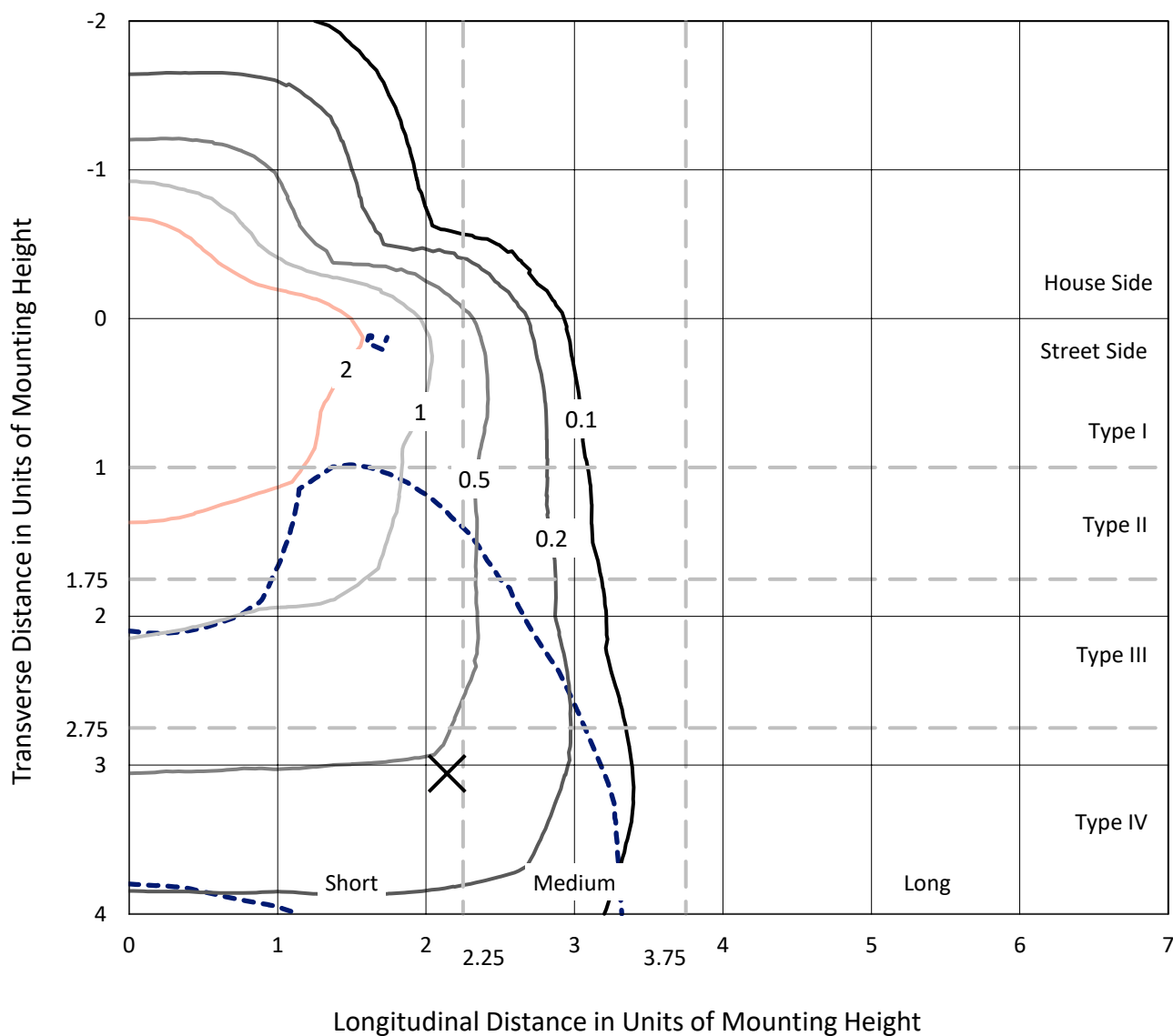
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

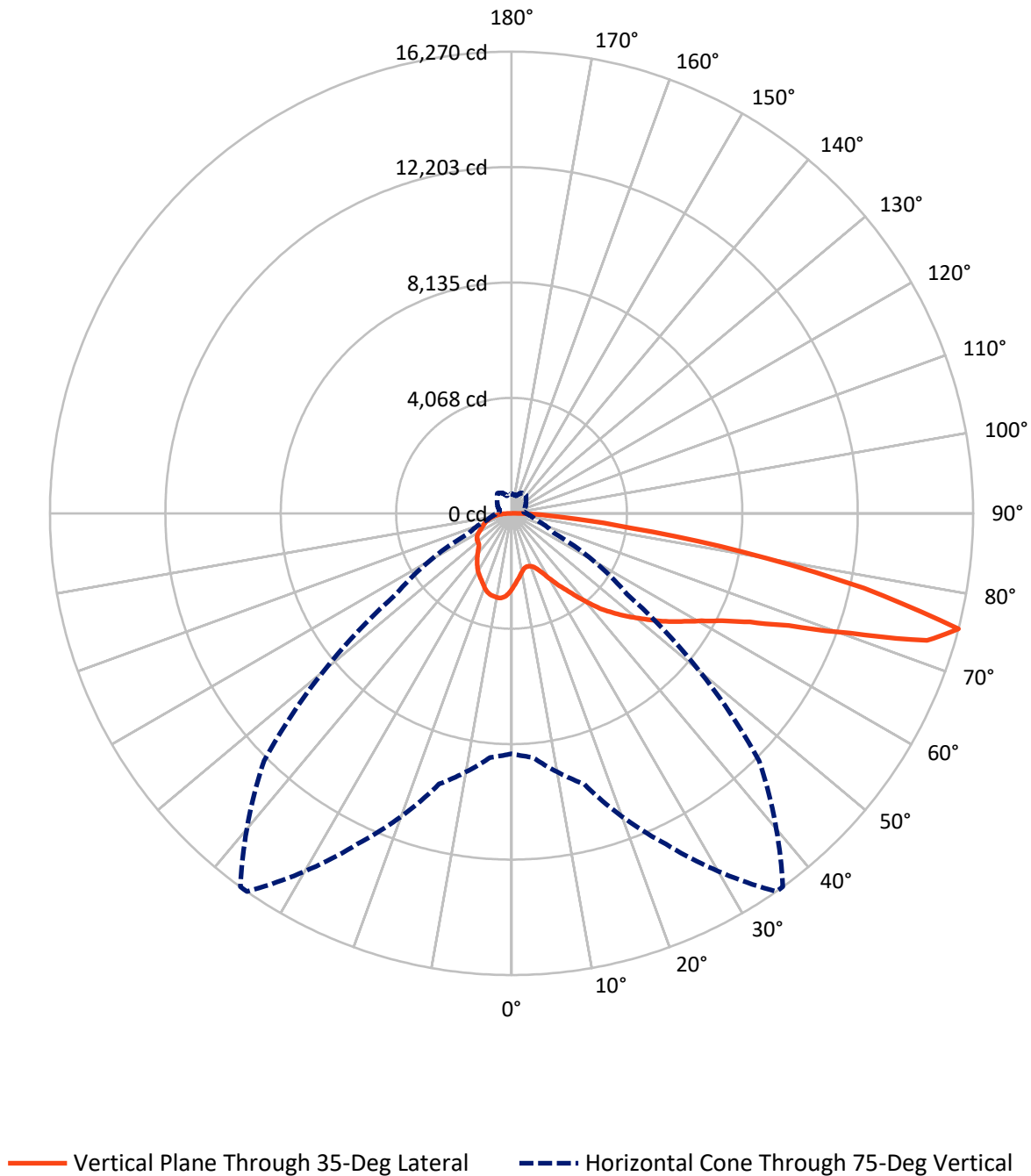


Based on 25 foot mounting height. Maximum calculated value = 4.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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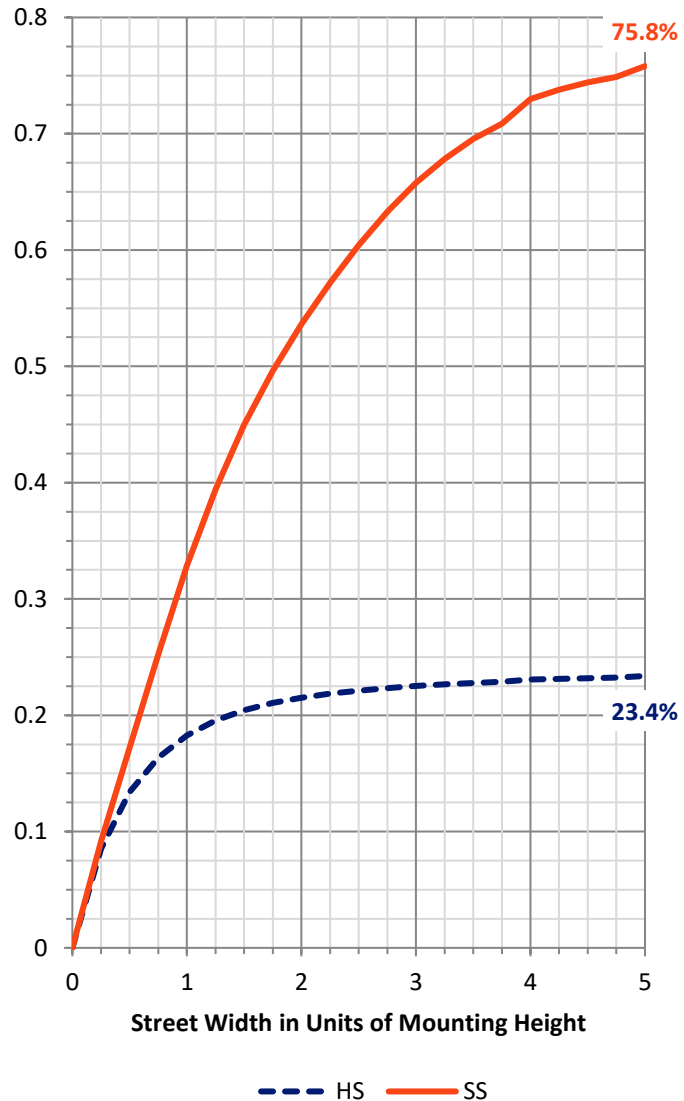
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4750.4	0.0	4750.4
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	15211.5	0.0	15211.5
	% Fixture	76.2	0.0	76.2
Total	Lumens	19961.9	0.0	19961.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.9	1.3
10°-20°	726.5	3.6
20°-30°	1219.9	6.1
30°-40°	1895.9	9.5
40°-50°	2814.0	14.1
50°-60°	3884.9	19.5
60°-70°	4713.3	23.6
70°-80°	3895.2	19.5
80°-90°	560.3	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°	19961.9	100.0
0°-180°	19961.9	100.0

Coefficient of Utilization



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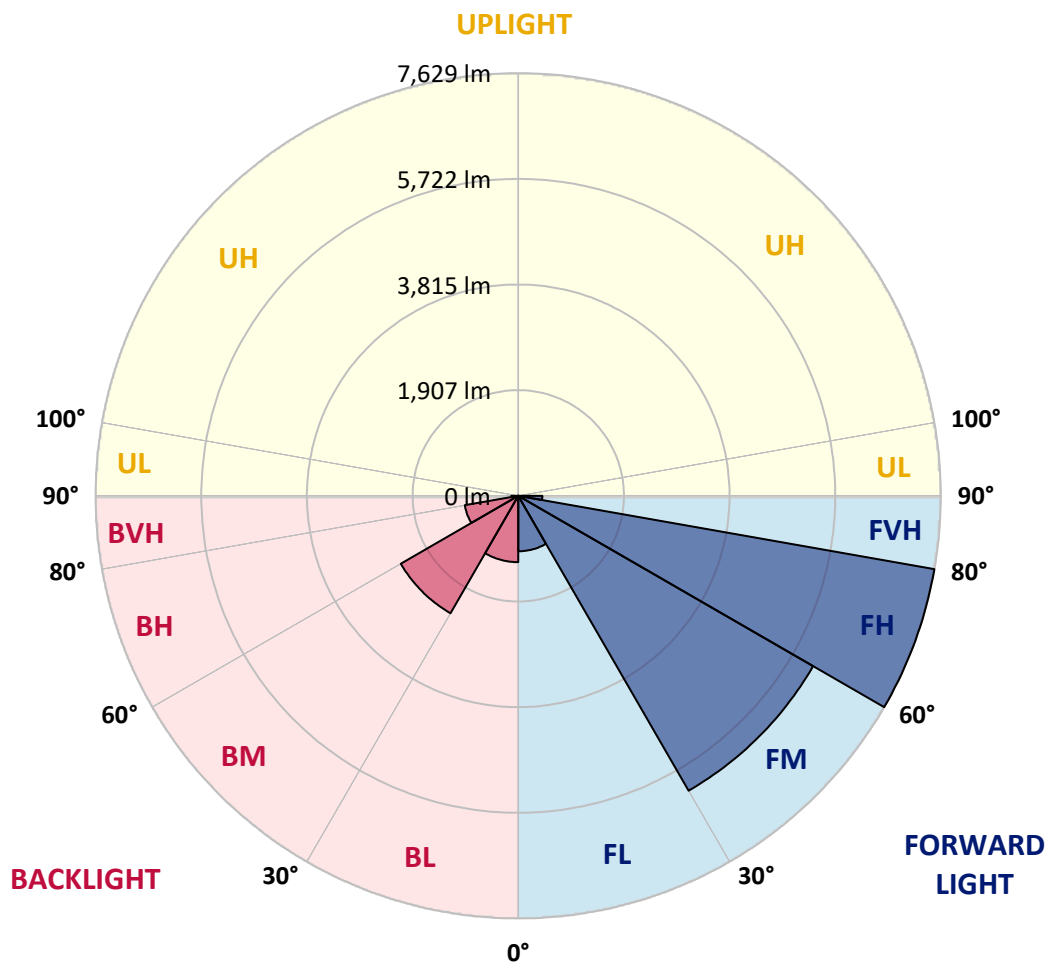
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1001.1	5.0			
FM	(30°-60°)	6147.2	30.8			
FH	(60°-80°)	7629.1	38.2			G4/12000
FVH	(80°-90°)	434.1	2.2			G3/500
BL	(0°-30°)	1197.2	6.0	B3/2500		
BM	(30°-60°)	2447.7	12.3	B2/2500		
BH	(60°-80°)	979.4	4.9	B2/1000		G2/1000
BVH	(80°-90°)	126.2	0.6			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°	36°	45°	55°	65°	75°	85°
0°	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1
2.5°	2452.8	2468.0	2474.5	2471.2	2487.4	2485.2	2507.9	2536.0	2574.8	2612.6	2667.6
5°	2264.0	2280.2	2294.3	2307.2	2338.4	2348.2	2383.8	2437.8	2509.0	2581.3	2672.0
7.5°	2088.1	2102.2	2123.7	2147.5	2200.4	2210.1	2269.5	2353.6	2452.8	2558.6	2683.8
10°	1944.6	1958.6	1981.3	2008.3	2074.1	2086.0	2161.5	2273.8	2403.2	2537.1	2696.8
12.5°	1883.1	1887.4	1900.4	1927.3	1984.5	1992.1	2075.2	2203.5	2354.6	2520.9	2716.1
15°	1879.8	1888.5	1889.6	1903.6	1951.1	1954.3	2030.9	2158.2	2324.5	2517.6	2745.3
17.5°	1912.2	1918.7	1909.0	1917.6	1957.5	1963.0	2023.4	2136.7	2314.8	2531.6	2795.0
20°	1998.5	2004.0	1974.8	1963.0	1992.1	1996.4	2055.7	2150.7	2324.5	2560.8	2862.9
22.5°	2182.0	2185.2	2114.1	2065.5	2067.6	2069.8	2121.5	2207.8	2362.2	2613.6	2949.2
25°	2468.0	2465.8	2352.5	2258.6	2204.7	2192.8	2227.3	2300.7	2425.9	2683.8	3060.4
27.5°	2802.5	2786.4	2673.0	2532.7	2415.1	2397.8	2390.3	2421.6	2516.6	2776.6	3196.4
30°	3180.2	3165.1	3043.1	2859.6	2696.8	2668.7	2597.5	2581.3	2651.5	2902.9	3385.3
32.5°	3594.6	3584.8	3439.2	3216.9	2998.9	2966.6	2846.7	2803.6	2858.6	3093.9	3648.5
35°	3942.0	3933.4	3812.6	3583.8	3317.2	3277.3	3155.4	3106.8	3134.9	3338.8	3992.8
37.5°	4256.1	4251.8	4148.2	3968.0	3692.8	3644.2	3507.1	3490.9	3485.6	3661.5	4410.4
40°	4547.4	4536.6	4428.7	4333.8	4129.8	4085.5	3964.7	3950.7	3909.7	4058.6	4883.1
42.5°	4870.1	4842.1	4685.6	4641.3	4586.3	4549.6	4477.3	4479.5	4388.8	4506.4	5383.8
45°	5133.4	5117.2	4956.5	4930.6	4989.9	4974.8	5037.4	5053.6	4877.7	4975.9	5903.9
47.5°	5416.2	5401.0	5265.1	5246.8	5407.5	5411.8	5633.1	5638.4	5354.6	5463.7	6425.1
50°	5764.7	5743.2	5608.3	5630.9	5811.1	5827.3	6232.0	6195.3	5793.8	5958.9	6942.0
52.5°	5994.6	6007.5	5978.4	6015.1	6261.1	6276.2	6821.2	6727.3	6228.7	6447.8	7449.2
55°	6163.9	6189.9	6280.6	6364.7	6735.9	6751.1	7376.9	7233.4	6589.2	6901.0	7926.2
57.5°	6382.0	6345.3	6514.7	6678.7	7187.0	7227.0	7917.6	7721.2	6908.6	7291.6	8253.2
60°	6694.9	6669.1	6800.7	7043.5	7692.0	7755.7	8489.6	8160.3	7142.7	7601.4	8316.8
62.5°	7329.5	7264.7	7285.2	7499.9	8328.7	8412.9	9134.8	8543.5	7259.3	7722.2	7975.8
65°	8278.0	8166.9	8063.3	8212.2	9225.5	9308.5	9863.3	8844.5	7216.1	7488.0	7070.4
67.5°	9472.6	9362.6	9235.1	9375.5	10546.3	10612.1	10762.2	9014.0	6876.2	6585.9	5470.1
70°	10457.9	10416.9	10569.0	11146.4	12656.1	12658.2	11914.7	8873.7	5944.9	4669.4	3165.1
72.5°	10327.3	10302.5	11104.2	12889.2	15315.0	15257.8	13005.7	7811.8	4004.7	2106.5	1185.9
75°	8472.2	8633.1	9875.2	12857.8	16270.0	16262.4	12337.7	4966.1	1656.5	873.0	612.9
77.5°	4543.1	4797.8	6411.1	9493.1	12701.4	12892.3	8674.1	1737.4	711.1	559.0	424.1
80°	1481.6	1704.0	2555.4	4833.4	8253.2	8217.5	3717.6	682.0	486.7	396.1	293.6
82.5°	629.1	655.1	1141.7	2282.4	4235.6	4169.8	1183.8	391.8	342.0	270.9	181.3
85°	246.0	275.2	504.0	1055.3	1834.5	1794.6	427.3	194.2	219.0	177.0	107.9
87.5°	81.0	98.2	180.2	361.5	570.8	550.3	104.7	66.9	94.9	81.0	38.8
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°	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1	2660.1
2.5°	2682.7	2700.0	2720.5	2750.7	2776.6	2798.1	2820.8	2834.8	2840.3	2856.5	2855.3
5°	2702.1	2739.9	2790.7	2840.3	2888.9	2918.0	2943.9	2956.8	2968.7	2977.3	2979.5
7.5°	2734.5	2783.1	2862.9	2927.7	2968.7	2992.4	3009.7	3005.4	3009.7	3011.9	3015.0
10°	2762.6	2830.5	2925.6	2987.1	3018.3	3019.4	3015.0	3000.0	2992.4	2993.5	2995.7
12.5°	2796.0	2871.5	2974.0	3025.9	3034.5	3010.7	2992.4	2966.6	2956.8	2952.5	2950.4
15°	2841.3	2927.7	3026.9	3046.4	3024.8	2994.5	2963.3	2921.2	2899.6	2882.4	2887.7
17.5°	2896.3	2991.4	3067.9	3054.0	3007.6	2957.9	2907.2	2843.6	2799.3	2780.9	2782.0
20°	2973.0	3058.3	3099.3	3037.8	2967.6	2892.0	2805.7	2728.0	2687.0	2668.7	2666.5
22.5°	3065.8	3147.8	3129.4	3009.7	2910.4	2789.5	2681.6	2624.4	2603.9	2591.0	2593.1
25°	3177.0	3247.1	3151.1	2968.7	2816.5	2653.6	2570.5	2552.1	2542.4	2532.7	2532.7
27.5°	3321.5	3359.3	3167.2	2908.2	2669.8	2509.0	2478.8	2482.0	2478.8	2462.6	2465.8
30°	3512.6	3505.0	3182.3	2810.0	2501.4	2378.4	2380.6	2394.6	2396.8	2386.0	2391.3
32.5°	3764.0	3687.4	3189.9	2682.7	2340.6	2264.0	2266.2	2281.2	2292.1	2273.8	2282.4
35°	4068.3	3900.0	3178.0	2523.0	2216.6	2155.1	2138.9	2143.2	2146.4	2129.1	2141.0
37.5°	4423.4	4138.4	3125.1	2346.0	2114.1	2048.2	2013.6	1984.5	1967.3	1951.1	1961.8
40°	4812.9	4398.6	3028.1	2173.4	1999.7	1934.9	1883.1	1828.1	1769.8	1748.2	1757.9
42.5°	5220.8	4666.1	2910.4	2008.3	1868.0	1815.1	1760.0	1680.2	1592.7	1548.6	1553.9
45°	5643.9	4940.3	2795.0	1845.3	1733.1	1710.4	1646.8	1550.7	1455.7	1399.6	1395.3
47.5°	6058.3	5199.2	2625.5	1681.3	1606.8	1631.6	1582.0	1493.5	1387.7	1299.3	1289.6
50°	6454.3	5442.0	2348.2	1515.1	1504.3	1607.9	1560.5	1433.1	1312.2	1198.9	1189.2
52.5°	6847.1	5638.4	1993.1	1364.1	1449.2	1601.5	1532.4	1392.1	1244.2	1125.6	1112.5
55°	7180.5	5739.9	1651.1	1234.5	1369.4	1546.4	1499.0	1343.5	1148.2	1021.9	1011.2
57.5°	7370.5	5657.9	1366.2	1107.2	1259.3	1455.7	1441.8	1239.9	1033.8	936.6	923.7
60°	7288.5	5325.5	1133.1	996.0	1154.7	1357.5	1342.4	1137.4	946.4	854.6	841.7
62.5°	6836.2	4692.0	948.5	898.9	1059.7	1257.2	1243.1	1058.6	879.4	791.0	776.9
65°	5925.5	3816.9	805.0	817.9	963.7	1136.3	1156.8	992.8	826.7	740.3	726.2
67.5°	4519.4	2764.7	692.8	747.8	869.8	1017.6	1077.0	945.4	782.4	700.4	687.4
70°	2575.9	1570.1	597.9	679.9	786.7	907.5	1015.5	907.5	734.9	666.9	658.3
72.5°	976.6	720.9	516.9	611.8	706.8	814.8	947.5	848.2	679.9	629.1	620.5
75°	521.2	439.2	434.9	532.0	615.1	724.1	862.2	790.0	638.9	664.7	686.3
77.5°	355.1	310.8	363.7	455.4	514.8	623.7	771.6	701.4	553.6	551.4	508.3
80°	246.0	220.2	295.7	367.0	398.2	524.5	673.4	602.2	451.1	420.9	402.5
82.5°	147.8	143.5	221.2	274.1	281.7	404.7	557.9	505.0	369.1	321.5	323.7
85°	81.0	85.3	141.3	160.8	164.0	282.7	437.1	390.6	283.8	238.5	240.7
87.5°	22.7	29.1	51.8	63.7	78.8	146.8	260.0	232.1	142.5	99.3	99.3
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)