

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: P965815

Luminaire Tested: **NAV-SB4A-835-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965815
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17547 lumens
Efficiency: N/A
Efficacy: 153.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
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



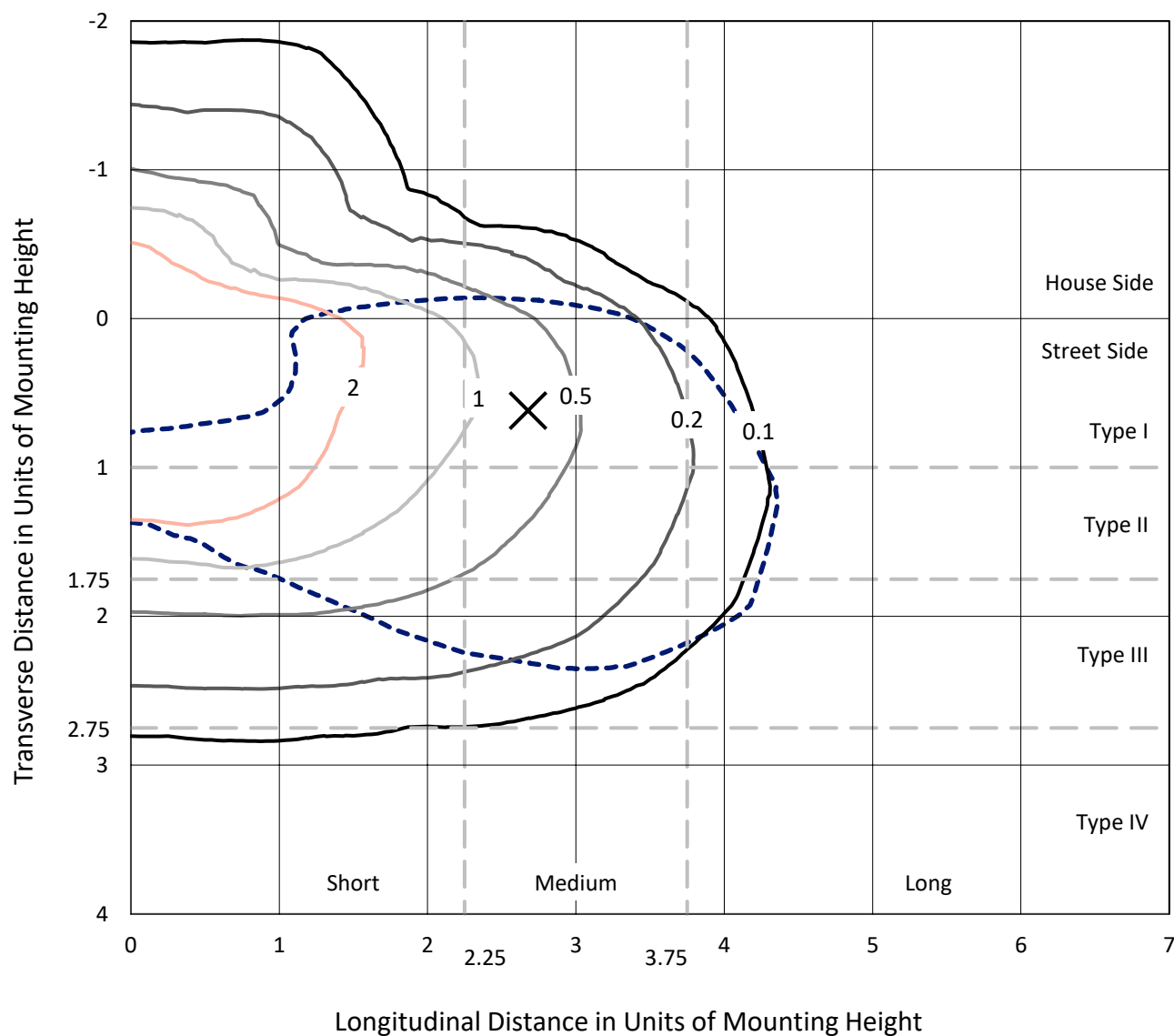
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

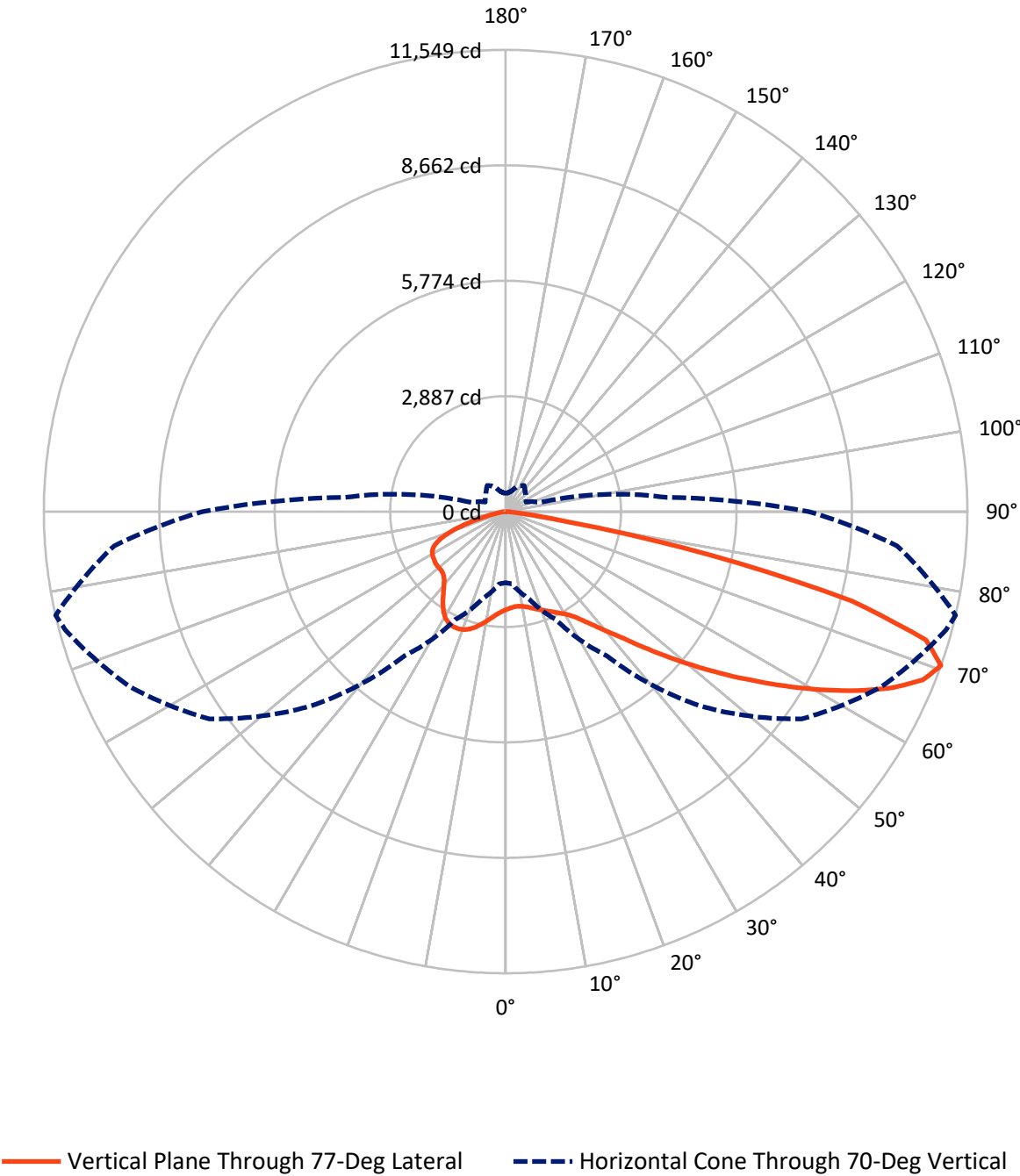
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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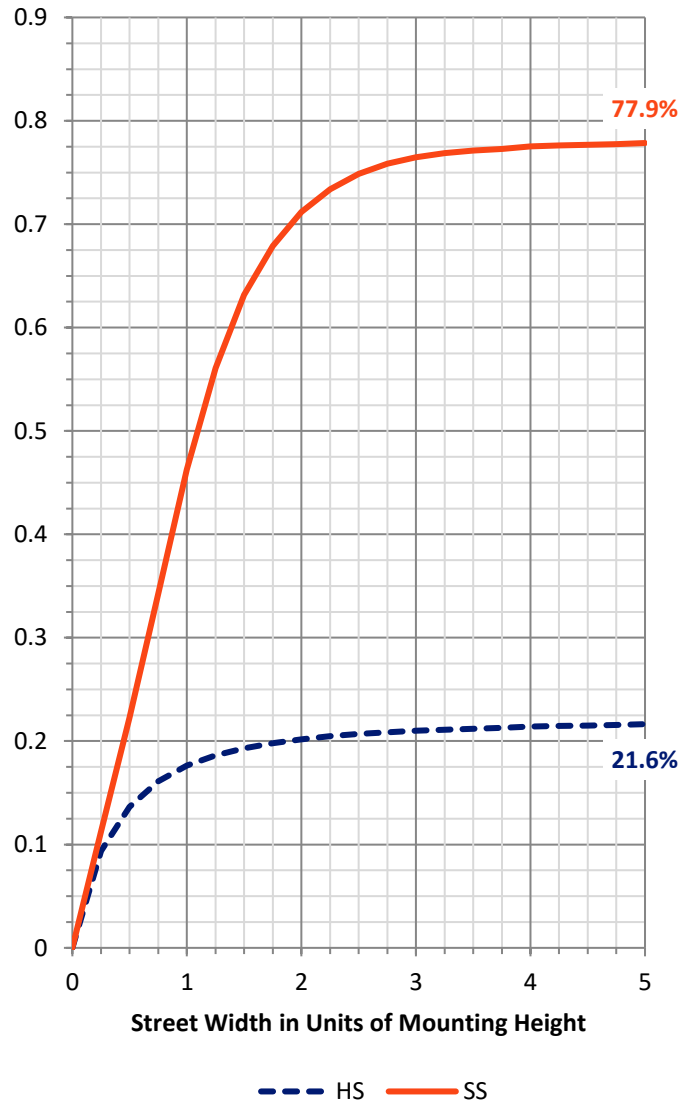
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3842.5	0.0	3842.5
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	13704.5	0.0	13704.5
	% Fixture	78.1	0.0	78.1
Total	Lumens	17547.0	0.0	17547.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.5	1.3
10°-20°	673.8	3.8
20°-30°	1152.3	6.6
30°-40°	1853.0	10.6
40°-50°	2893.1	16.5
50°-60°	3864.5	22.0
60°-70°	4118.9	23.5
70°-80°	2535.6	14.5
80°-90°	222.2	1.3
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°	17547.0	100.0
0°-180°	17547.0	100.0

Coefficient of Utilization



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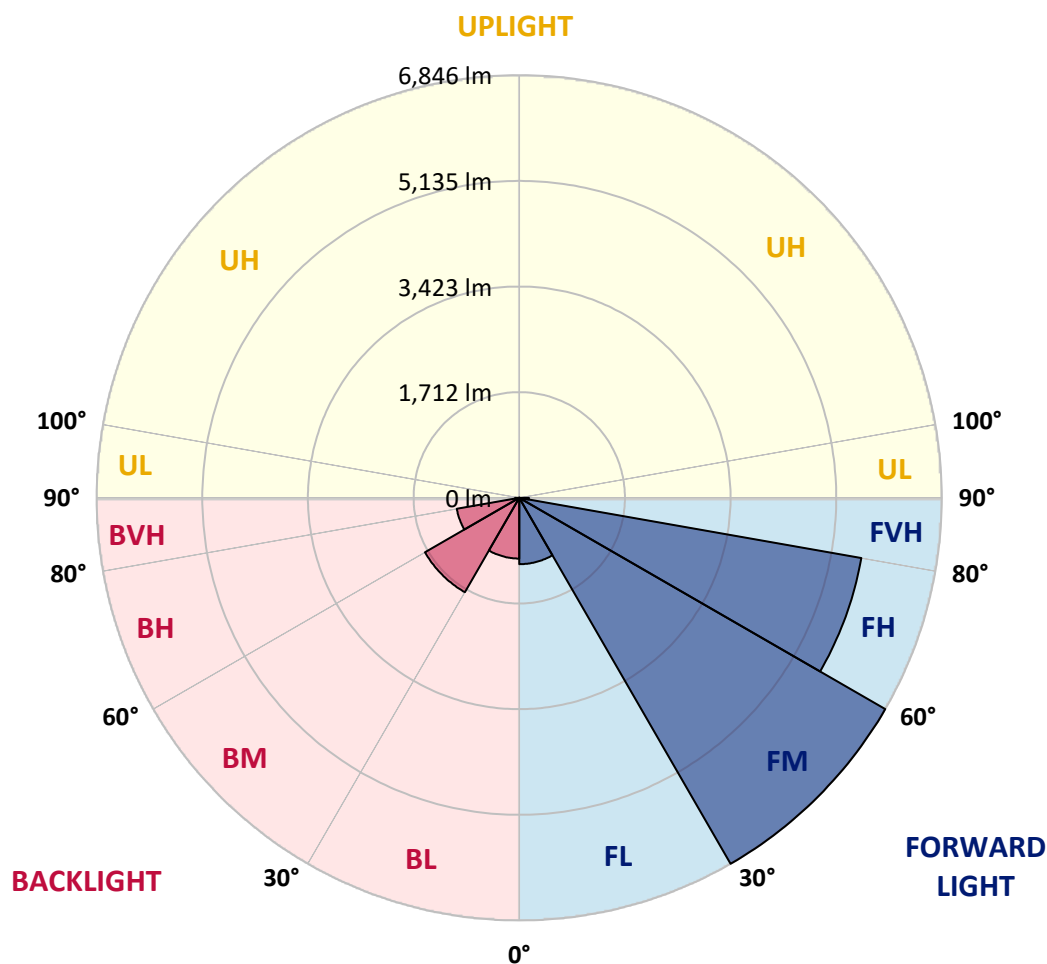
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1075.0	6.1			
FM	(30°-60°)	6846.4	39.0			
FH	(60°-80°)	5627.6	32.1			G3/7500
FVH	(80°-90°)	155.4	0.9			G2/225
BL	(0°-30°)	984.6	5.6	B2/1000		
BM	(30°-60°)	1764.2	10.1	B2/2500		
BH	(60°-80°)	1026.9	5.9	B3/2500		G3/2500
BVH	(80°-90°)	66.8	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0
2.5°	2256.5	2255.6	2267.3	2270.9	2292.5	2307.8	2336.5	2367.0	2406.6	2411.1	2435.4
5°	2126.3	2126.3	2139.7	2154.1	2181.9	2212.5	2256.5	2309.5	2377.9	2388.7	2448.8
7.5°	2015.7	2022.9	2034.6	2062.4	2094.8	2138.9	2206.2	2281.8	2371.5	2388.7	2485.7
10°	1926.7	1934.8	1949.2	1971.7	2020.2	2081.3	2169.4	2266.5	2386.8	2413.8	2539.6
12.5°	1898.9	1907.0	1915.0	1932.1	1977.0	2049.0	2154.1	2273.7	2423.7	2450.7	2613.3
15°	1963.6	1973.4	1967.2	1962.7	1986.0	2051.6	2161.3	2299.7	2469.5	2508.2	2704.1
17.5°	2112.7	2116.3	2102.0	2059.7	2056.1	2091.2	2195.4	2335.7	2527.0	2569.3	2795.8
20°	2353.6	2347.4	2317.6	2234.1	2186.4	2179.3	2253.9	2389.6	2586.4	2631.3	2894.6
22.5°	2680.7	2673.5	2614.3	2482.1	2376.1	2305.9	2338.3	2459.7	2652.9	2703.2	2990.7
25°	3088.7	3078.8	2991.7	2811.9	2647.5	2474.0	2453.3	2552.2	2734.6	2781.3	3091.4
27.5°	3565.1	3557.0	3462.6	3225.3	2988.1	2704.1	2596.2	2660.9	2820.0	2873.1	3204.7
30°	4077.2	4100.6	3933.4	3678.2	3378.1	3004.3	2788.5	2794.9	2930.6	2978.1	3342.1
32.5°	4679.3	4719.8	4518.5	4195.0	3785.2	3330.4	3031.2	2981.7	3091.4	3131.0	3515.5
35°	5276.1	5321.9	5154.7	4797.1	4325.3	3715.1	3284.6	3196.6	3305.3	3348.5	3745.7
37.5°	5791.9	5853.0	5766.8	5455.8	4903.1	4178.8	3615.3	3449.1	3568.6	3622.6	4054.8
40°	6199.0	6292.5	6286.1	6092.1	5584.3	4741.3	4035.0	3760.9	3895.7	3954.1	4429.5
42.5°	6529.7	6610.5	6680.6	6670.8	6295.1	5380.3	4528.3	4166.2	4268.6	4336.1	4851.0
45°	6757.9	6844.2	6995.2	7157.9	6979.0	6064.2	5093.6	4647.0	4740.4	4842.0	5353.4
47.5°	6962.0	7059.9	7255.8	7513.8	7559.6	6750.8	5712.8	5206.9	5292.3	5397.3	5857.5
50°	6979.9	7064.4	7368.1	7733.9	7972.0	7410.3	6377.9	5835.0	5915.0	6027.3	6397.6
52.5°	6545.9	6678.9	7209.1	7727.6	8161.7	7962.2	7038.4	6488.4	6578.2	6713.0	6956.6
55°	5081.0	5276.1	6742.7	7486.8	8094.3	8318.9	7666.5	7183.0	7298.1	7439.1	7519.1
57.5°	4376.5	4461.8	5352.4	7048.2	7786.9	8411.5	8196.7	7884.9	8070.0	8224.6	8114.0
60°	3933.4	4004.5	4531.1	6366.2	7382.6	8265.0	8606.5	8539.1	8859.1	9043.3	8722.4
62.5°	3459.0	3526.4	4005.4	5315.6	6864.9	8021.4	8865.3	9143.0	9667.8	9869.1	9295.8
65°	2988.1	3045.6	3504.8	4466.3	6207.1	7777.9	8999.2	9665.1	10416.5	10624.9	9772.0
67.5°	2463.3	2510.8	2944.9	3768.1	5407.3	7444.6	9065.7	10075.9	11067.9	11246.8	10007.5
70°	1777.6	1814.5	2262.8	2980.0	4403.5	6871.2	9038.8	10367.0	11405.9	11548.8	9829.6
72.5°	840.3	873.5	1400.1	1934.8	3110.3	5755.1	8493.3	10136.0	11062.5	10991.6	8740.4
75°	448.4	477.2	804.3	1061.3	1642.8	3945.1	6950.3	8731.5	9289.5	8944.5	6459.7
77.5°	303.7	326.3	497.8	637.1	750.4	1872.8	4467.3	6045.3	5816.2	5246.4	3235.2
80°	240.9	264.2	408.0	431.3	363.1	676.7	1845.8	2798.5	2010.3	1607.7	920.2
82.5°	185.1	211.2	343.3	312.7	197.7	277.7	537.4	885.2	515.0	391.9	222.8
85°	113.3	141.0	269.6	199.5	111.4	126.7	182.4	246.2	157.2	131.2	79.9
87.5°	57.5	80.9	136.6	72.8	50.3	29.6	48.5	48.5	41.3	36.0	20.7
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°	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0	2448.0
2.5°	2456.9	2475.0	2505.5	2534.2	2556.7	2578.3	2599.8	2611.5	2615.1	2629.5	2637.6
5°	2485.7	2518.9	2578.3	2633.9	2669.0	2690.6	2705.9	2714.9	2716.7	2721.2	2728.3
7.5°	2538.7	2591.7	2674.4	2730.2	2756.2	2754.4	2748.1	2725.7	2716.7	2708.6	2710.4
10°	2613.3	2683.4	2784.9	2823.6	2807.5	2764.3	2708.6	2643.0	2612.4	2582.8	2573.8
12.5°	2705.9	2794.9	2894.6	2892.8	2812.8	2702.3	2572.9	2472.2	2408.4	2362.6	2351.8
15°	2818.2	2920.6	2997.0	2935.9	2760.7	2562.1	2372.5	2241.3	2183.8	2133.4	2128.0
17.5°	2934.2	3043.7	3078.8	2922.5	2629.5	2354.5	2139.7	2036.4	1979.8	1952.8	1960.9
20°	3047.3	3156.1	3127.4	2845.2	2430.0	2119.1	1927.6	1871.0	1859.4	1865.6	1862.9
22.5°	3166.9	3263.9	3137.2	2696.0	2175.7	1878.2	1773.0	1774.9	1800.9	1819.8	1824.3
25°	3289.1	3354.7	3111.2	2480.3	1902.5	1701.2	1675.2	1703.9	1755.1	1791.9	1801.8
27.5°	3406.8	3435.6	3054.6	2213.4	1667.9	1574.5	1578.9	1638.3	1715.5	1766.8	1779.4
30°	3539.8	3507.4	2945.8	1913.3	1505.2	1465.7	1503.5	1572.7	1649.9	1695.8	1706.5
32.5°	3689.9	3569.5	2773.2	1635.6	1390.2	1378.5	1440.5	1485.5	1519.7	1533.1	1540.3
35°	3876.9	3656.7	2552.2	1440.5	1286.9	1314.8	1374.0	1351.6	1338.1	1331.0	1338.1
37.5°	4119.5	3774.4	2293.4	1313.8	1203.4	1268.9	1293.1	1223.1	1170.0	1144.0	1150.3
40°	4411.5	3947.0	2044.5	1215.9	1150.3	1229.4	1187.2	1102.7	1035.2	998.5	1001.1
42.5°	4736.0	4127.6	1835.1	1142.2	1120.6	1197.0	1108.9	1008.3	899.5	887.9	899.5
45°	5076.5	4313.6	1692.2	1085.6	1106.3	1169.1	1064.1	901.4	824.1	871.7	896.9
47.5°	5417.1	4484.4	1605.9	1043.3	1099.1	1137.8	1024.5	842.0	787.2	856.4	888.8
50°	5796.4	4637.1	1567.2	1012.8	1091.0	1125.1	965.1	826.8	748.6	794.4	828.6
52.5°	6173.0	4755.7	1538.5	982.3	1079.3	1115.2	936.4	808.8	701.8	704.6	723.4
55°	6548.5	4833.0	1507.1	941.8	1053.2	1093.7	933.7	789.0	666.8	654.3	663.2
57.5°	6949.4	4877.1	1468.4	896.9	1008.3	1038.8	931.0	773.8	656.0	635.4	638.1
60°	7357.3	4941.7	1418.1	842.0	948.1	973.2	924.8	768.3	649.7	614.7	617.4
62.5°	7723.2	4964.2	1357.9	790.0	870.8	908.6	911.2	763.8	632.6	572.5	572.5
65°	7963.0	4867.2	1252.8	730.6	787.2	842.0	885.2	748.6	602.1	541.9	541.9
67.5°	7953.2	4590.4	1088.2	654.3	706.3	768.3	847.5	722.5	565.3	504.2	506.9
70°	7582.9	4044.0	879.8	565.3	617.4	689.3	798.9	683.9	521.2	462.8	468.2
72.5°	6503.6	3165.1	639.0	461.0	514.0	607.5	736.1	637.1	476.3	426.0	423.2
75°	4646.1	2003.2	433.2	354.0	400.0	515.0	657.8	582.3	434.9	427.7	403.5
77.5°	2373.4	957.0	286.7	258.8	278.6	406.2	552.7	520.3	441.3	353.2	314.6
80°	771.9	353.2	180.6	176.1	185.1	270.5	427.7	426.9	334.3	240.0	212.1
82.5°	246.2	151.9	117.8	113.3	108.8	169.8	298.4	337.9	225.6	151.9	151.0
85°	98.0	90.8	69.2	63.8	45.8	79.9	156.4	224.7	168.1	109.7	112.3
87.5°	36.0	36.0	18.9	13.5	9.8	27.0	42.2	67.4	96.1	56.6	55.8
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)