

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: P966190

Luminaire Tested: **NAV-SB4B-740-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966190
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-SB4B-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24189 lumens
Efficiency: N/A
Efficacy: 164.6 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): 147
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



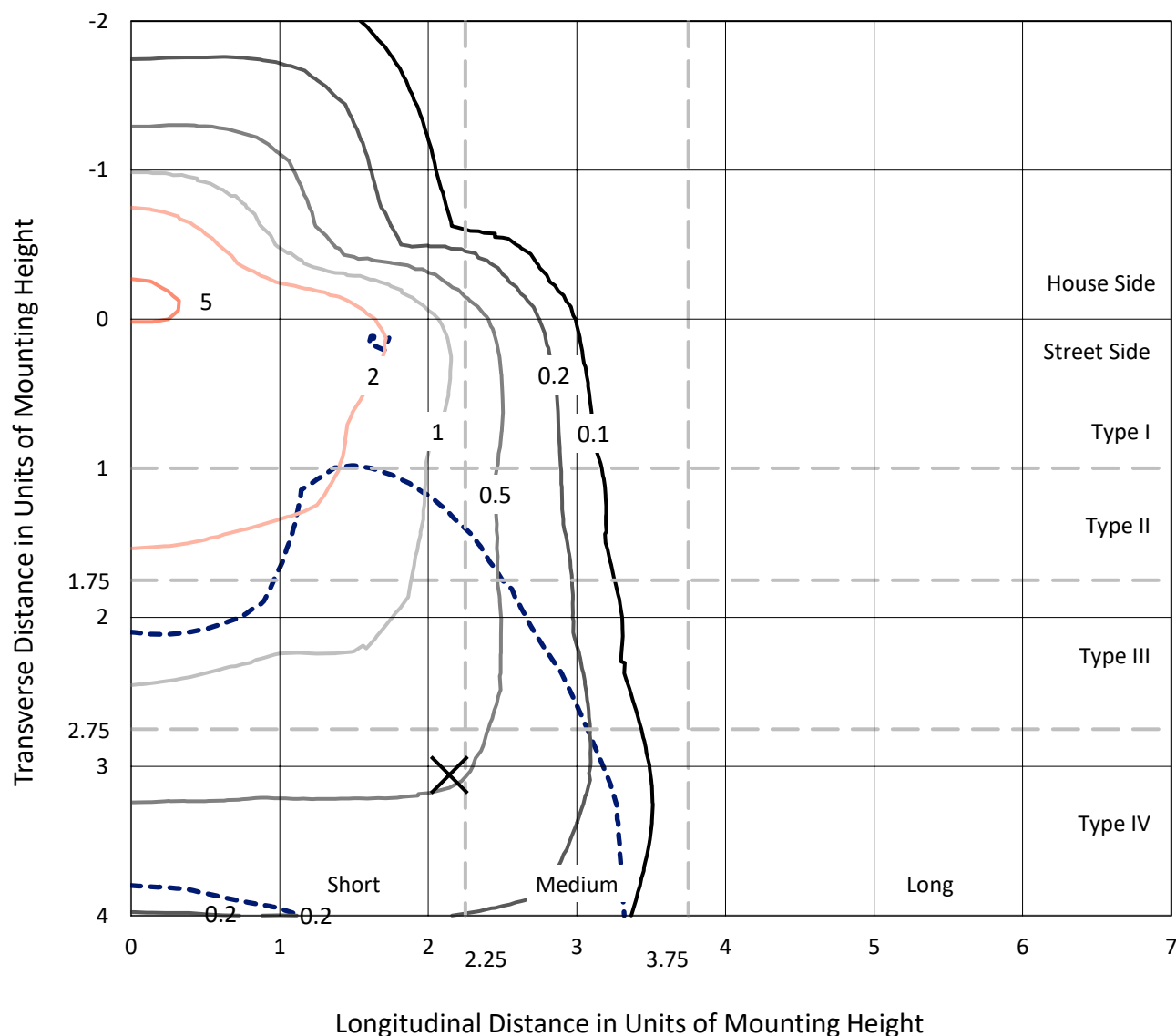
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

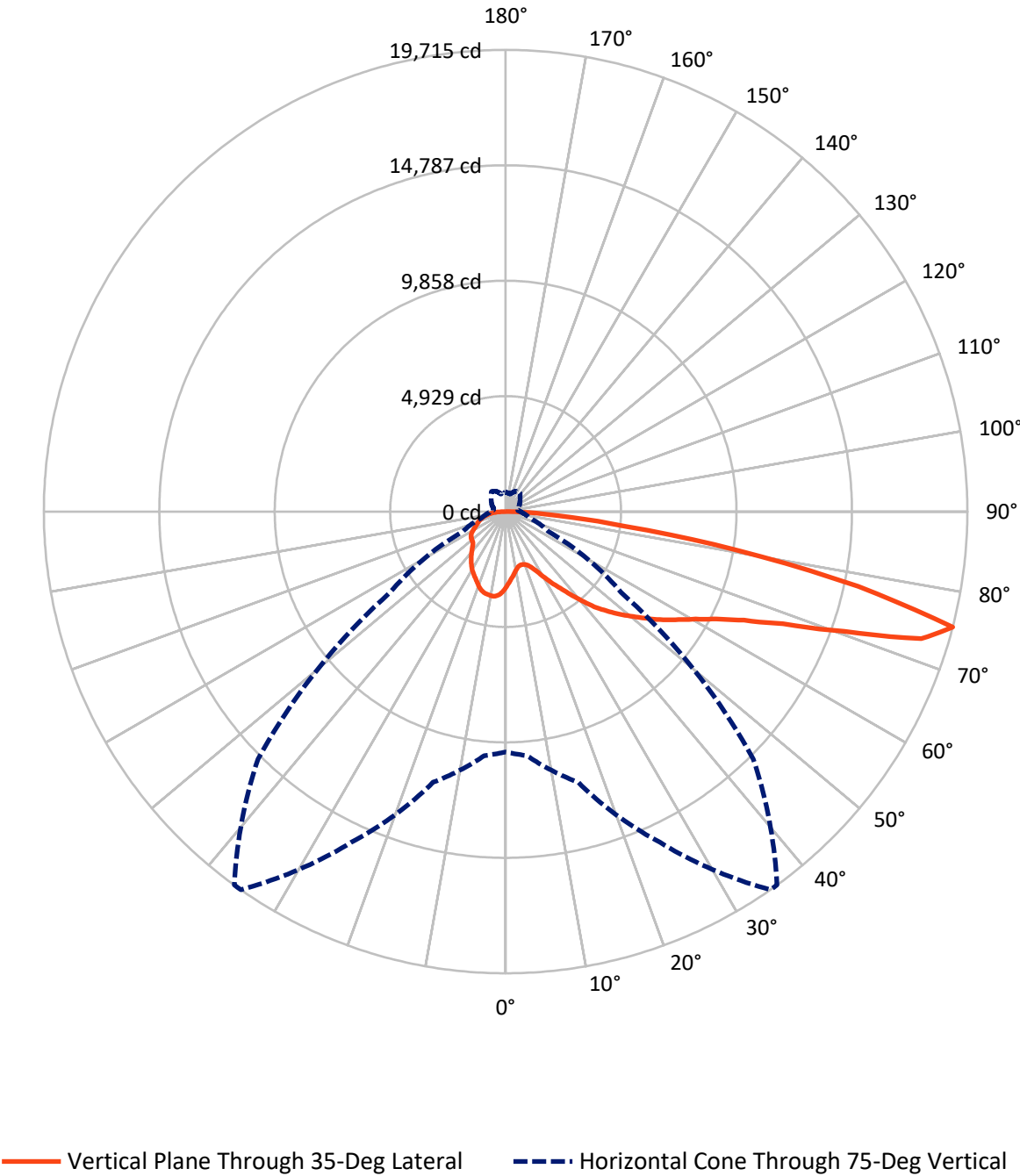


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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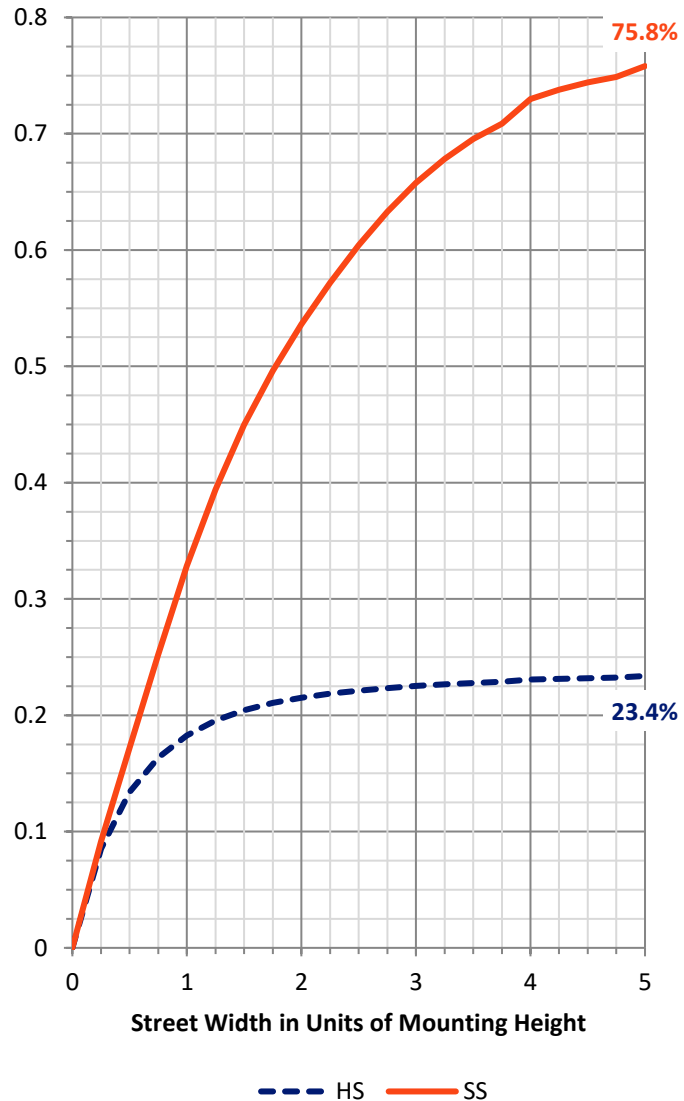
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5756.4	0.0	5756.4
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	18432.6	0.0	18432.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	24189.0	0.0	24189.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.2	1.3
10°-20°	880.3	3.6
20°-30°	1478.2	6.1
30°-40°	2297.4	9.5
40°-50°	3409.9	14.1
50°-60°	4707.6	19.5
60°-70°	5711.4	23.6
70°-80°	4720.1	19.5
80°-90°	678.9	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°	24189.0	100.0
0°-180°	24189.0	100.0

Coefficient of Utilization



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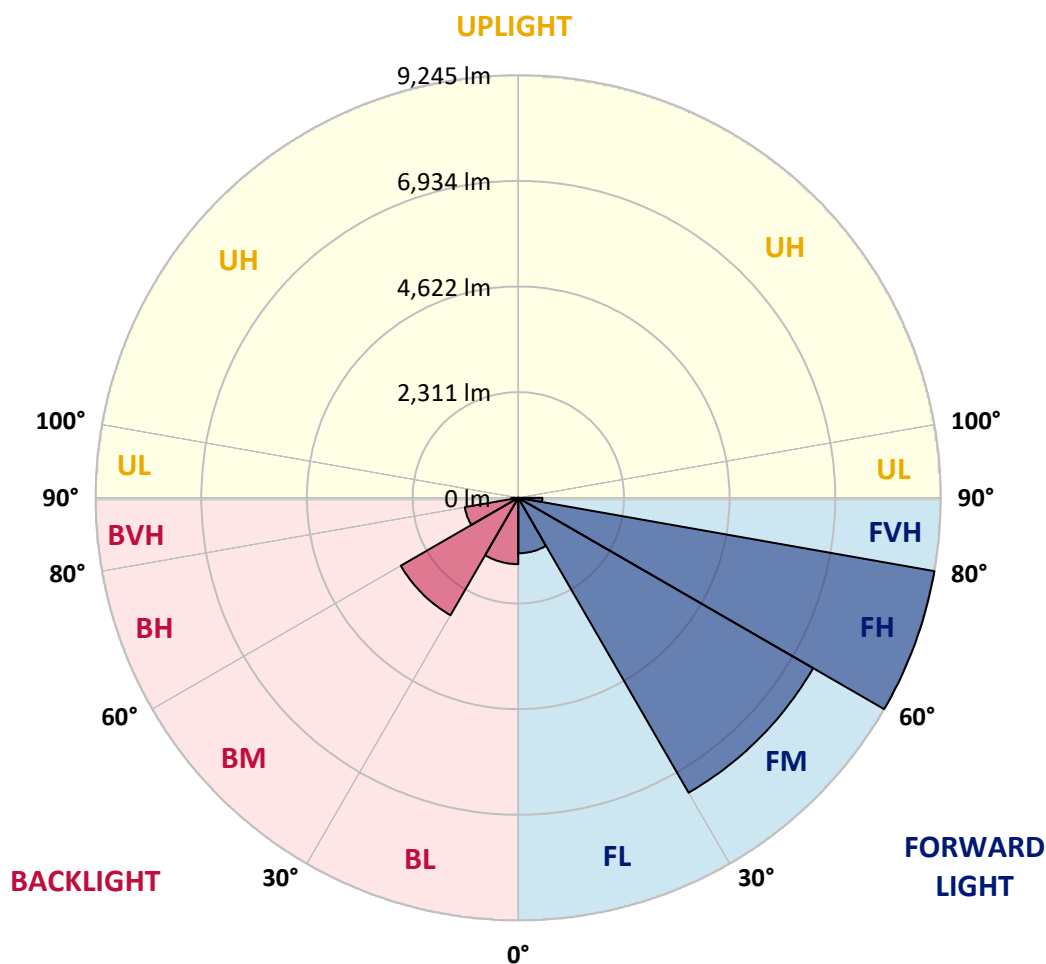
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1213.0	5.0			
FM	(30°-60°)	7448.9	30.8			
FH	(60°-80°)	9244.7	38.2			G4/12000
FVH	(80°-90°)	526.0	2.2			G4/750
BL	(0°-30°)	1450.7	6.0	B3/2500		
BM	(30°-60°)	2966.0	12.3	B3/5000		
BH	(60°-80°)	1186.8	4.9	B3/2500		G3/2500
BVH	(80°-90°)	152.9	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°	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3
2.5°	2972.3	2990.5	2998.4	2994.5	3014.1	3011.6	3038.9	3073.0	3120.0	3165.8	3232.5
5°	2743.4	2763.1	2780.0	2795.8	2833.7	2845.4	2888.6	2953.9	3040.3	3127.9	3237.8
7.5°	2530.3	2547.3	2573.5	2602.2	2666.3	2678.0	2750.0	2852.0	2972.3	3100.4	3252.1
10°	2356.4	2373.4	2400.9	2433.6	2513.3	2527.6	2619.2	2755.2	2912.1	3074.3	3267.8
12.5°	2281.9	2287.1	2302.8	2335.5	2404.8	2413.9	2514.6	2670.2	2853.3	3054.7	3291.4
15°	2278.0	2288.4	2289.6	2306.7	2364.3	2368.2	2461.0	2615.3	2816.7	3050.7	3326.6
17.5°	2317.1	2325.0	2313.2	2323.7	2372.1	2378.6	2451.8	2589.1	2804.9	3067.7	3386.8
20°	2421.8	2428.3	2393.0	2378.6	2413.9	2419.1	2491.1	2606.2	2816.7	3103.1	3469.2
22.5°	2644.1	2648.0	2561.7	2502.8	2505.4	2508.1	2570.8	2675.5	2862.4	3167.1	3573.8
25°	2990.5	2988.0	2850.6	2736.9	2671.6	2657.1	2699.0	2787.9	2939.6	3252.1	3708.4
27.5°	3395.9	3376.4	3239.0	3069.1	2926.5	2905.6	2896.4	2934.4	3049.5	3364.6	3873.3
30°	3853.6	3835.3	3687.5	3465.2	3267.8	3233.8	3147.5	3127.9	3212.9	3517.6	4102.0
32.5°	4355.7	4344.0	4167.4	3898.1	3633.9	3594.7	3449.5	3397.3	3464.0	3749.0	4421.1
35°	4776.8	4766.4	4619.9	4342.7	4019.7	3971.4	3823.6	3764.7	3798.8	4045.9	4838.3
37.5°	5157.4	5152.2	5026.6	4808.2	4474.7	4415.9	4249.9	4230.3	4223.7	4436.8	5344.3
40°	5510.4	5497.4	5366.6	5251.5	5004.4	4950.8	4804.3	4787.3	4737.5	4918.1	5917.1
42.5°	5901.4	5867.4	5677.8	5624.2	5557.4	5513.1	5425.4	5428.0	5318.2	5460.7	6523.8
45°	6220.4	6200.8	6006.0	5974.6	6046.6	6028.2	6104.1	6123.7	5910.6	6029.6	7154.1
47.5°	6563.1	6544.7	6380.0	6357.8	6552.6	6557.8	6825.9	6832.4	6488.6	6620.6	7785.7
50°	6985.5	6959.2	6795.9	6823.3	7041.6	7061.3	7551.7	7507.2	7020.7	7220.8	8412.1
52.5°	7264.0	7279.7	7244.4	7288.8	7586.9	7605.3	8265.6	8151.8	7547.7	7813.2	9026.7
55°	7469.3	7500.6	7610.5	7712.5	8162.3	8180.6	8939.0	8765.2	7984.4	8362.4	9604.7
57.5°	7733.4	7688.9	7894.2	8093.0	8708.9	8757.3	9594.2	9356.2	8371.6	8835.7	10000.8
60°	8112.7	8081.2	8240.8	8535.0	9320.9	9398.0	10287.2	9888.4	8655.3	9211.1	10078.0
62.5°	8881.5	8803.1	8827.9	9088.2	10092.4	10194.4	11069.2	10352.6	8796.6	9357.5	9664.8
65°	10031.0	9896.3	9770.7	9951.2	11179.1	11279.7	11951.9	10717.5	8744.2	9073.7	8567.7
67.5°	11478.5	11345.1	11190.8	11360.8	12779.6	12859.3	13041.2	10922.7	8332.3	7980.5	6628.5
70°	12672.4	12622.7	12807.1	13506.6	15336.0	15338.7	14437.7	10752.8	7203.8	5658.2	3835.3
72.5°	12514.1	12484.1	13455.7	15618.5	18558.1	18488.7	15759.8	9466.1	4852.7	2552.6	1437.2
75°	10266.3	10461.2	11966.3	15580.6	19715.4	19706.2	14950.3	6017.8	2007.3	1057.9	742.7
77.5°	5505.2	5813.8	7768.7	11503.4	15391.0	15622.4	10510.9	2105.4	861.7	677.3	513.9
80°	1795.4	2064.8	3096.5	5857.0	10000.8	9957.7	4504.9	826.5	589.8	479.9	355.7
82.5°	762.4	793.8	1383.4	2765.7	5132.5	5052.7	1434.5	474.7	414.5	328.2	219.7
85°	298.2	333.4	610.7	1278.9	2223.0	2174.6	517.8	235.3	265.5	214.4	130.8
87.5°	98.1	119.0	218.4	438.1	691.8	666.9	126.8	81.1	115.1	98.1	47.0
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°	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3	3223.3
2.5°	3250.8	3271.7	3296.6	3333.2	3364.6	3390.7	3418.2	3435.2	3441.7	3461.3	3460.0
5°	3274.4	3320.1	3381.6	3441.7	3500.6	3535.8	3567.2	3583.0	3597.3	3607.8	3610.4
7.5°	3313.6	3372.5	3469.2	3547.6	3597.3	3626.1	3647.1	3641.8	3647.1	3649.6	3653.5
10°	3347.5	3430.0	3545.1	3619.6	3657.5	3658.8	3653.5	3635.3	3626.1	3627.4	3630.0
12.5°	3388.1	3479.7	3603.9	3666.6	3677.1	3648.3	3626.1	3594.7	3583.0	3577.8	3575.1
15°	3443.1	3547.6	3668.0	3691.4	3665.3	3628.7	3590.8	3539.8	3513.6	3492.7	3499.2
17.5°	3509.7	3624.8	3717.7	3700.7	3644.4	3584.2	3522.8	3445.6	3392.0	3369.8	3371.1
20°	3602.6	3705.9	3755.6	3681.0	3596.0	3504.5	3399.9	3305.7	3256.0	3233.8	3231.2
22.5°	3715.0	3814.4	3792.2	3647.1	3526.7	3380.2	3249.5	3180.2	3155.4	3139.7	3142.2
25°	3849.7	3934.7	3818.3	3597.3	3412.9	3215.5	3114.8	3092.6	3080.8	3069.1	3069.1
27.5°	4025.0	4070.7	3837.9	3524.1	3235.1	3040.3	3003.7	3007.6	3003.7	2984.1	2988.0
30°	4256.4	4247.2	3856.3	3405.2	3031.1	2882.1	2884.7	2901.7	2904.2	2891.2	2897.8
32.5°	4561.0	4468.2	3865.4	3250.8	2836.3	2743.4	2746.1	2764.3	2777.4	2755.2	2765.7
35°	4929.8	4725.9	3851.0	3057.3	2685.9	2611.4	2591.7	2596.9	2600.9	2580.0	2594.4
37.5°	5360.0	5014.8	3787.0	2842.8	2561.7	2481.9	2440.1	2404.8	2383.8	2364.3	2377.3
40°	5832.0	5330.0	3669.3	2633.6	2423.1	2344.6	2281.9	2215.1	2144.5	2118.4	2130.2
42.5°	6326.4	5654.2	3526.7	2433.6	2263.5	2199.4	2132.7	2036.0	1930.1	1876.5	1883.0
45°	6839.0	5986.4	3386.8	2236.0	2100.1	2072.7	1995.5	1879.1	1764.0	1696.0	1690.7
47.5°	7341.2	6300.3	3181.5	2037.3	1947.1	1977.1	1917.1	1809.7	1681.6	1574.4	1562.6
50°	7821.1	6594.4	2845.4	1836.0	1822.9	1948.4	1890.8	1736.6	1590.1	1452.8	1441.0
52.5°	8297.0	6832.4	2415.2	1652.8	1756.1	1940.5	1856.9	1686.8	1507.7	1363.9	1348.2
55°	8701.0	6955.3	2000.7	1496.0	1659.4	1873.9	1816.3	1628.0	1391.3	1238.3	1225.3
57.5°	8931.2	6856.0	1655.5	1341.6	1526.0	1764.0	1747.0	1502.4	1252.8	1135.1	1119.3
60°	8831.8	6453.2	1373.0	1206.9	1399.2	1645.0	1626.7	1378.2	1146.8	1035.7	1020.0
62.5°	8283.9	5685.7	1149.4	1089.3	1284.1	1523.4	1506.4	1282.8	1065.7	958.5	941.5
65°	7180.2	4625.1	975.5	991.2	1167.7	1377.0	1401.8	1203.0	1001.6	897.1	880.1
67.5°	5476.4	3350.2	839.5	906.2	1054.0	1233.1	1305.0	1145.5	948.0	848.7	833.0
70°	3121.3	1902.6	724.5	823.8	953.2	1099.7	1230.5	1099.7	890.5	808.1	797.7
72.5°	1183.5	873.5	626.4	741.5	856.5	987.3	1148.1	1027.8	823.8	762.4	751.9
75°	631.6	532.2	527.0	644.6	745.4	877.4	1044.8	957.1	774.1	805.5	831.7
77.5°	430.2	376.6	440.6	551.9	623.7	755.8	935.0	849.9	670.9	668.2	615.9
80°	298.2	266.8	358.3	444.6	482.6	635.5	816.0	729.7	546.6	509.9	487.8
82.5°	179.2	173.9	268.0	332.1	341.3	490.4	676.1	612.0	447.2	389.7	392.3
85°	98.1	103.3	171.3	194.9	198.7	342.6	529.6	473.3	343.9	288.9	291.6
87.5°	27.5	35.3	62.7	77.2	95.4	177.8	315.2	281.2	172.6	120.3	120.3
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)