

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: P967741

Luminaire Tested: **NAV-SB5A-735-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967741
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17890.3 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

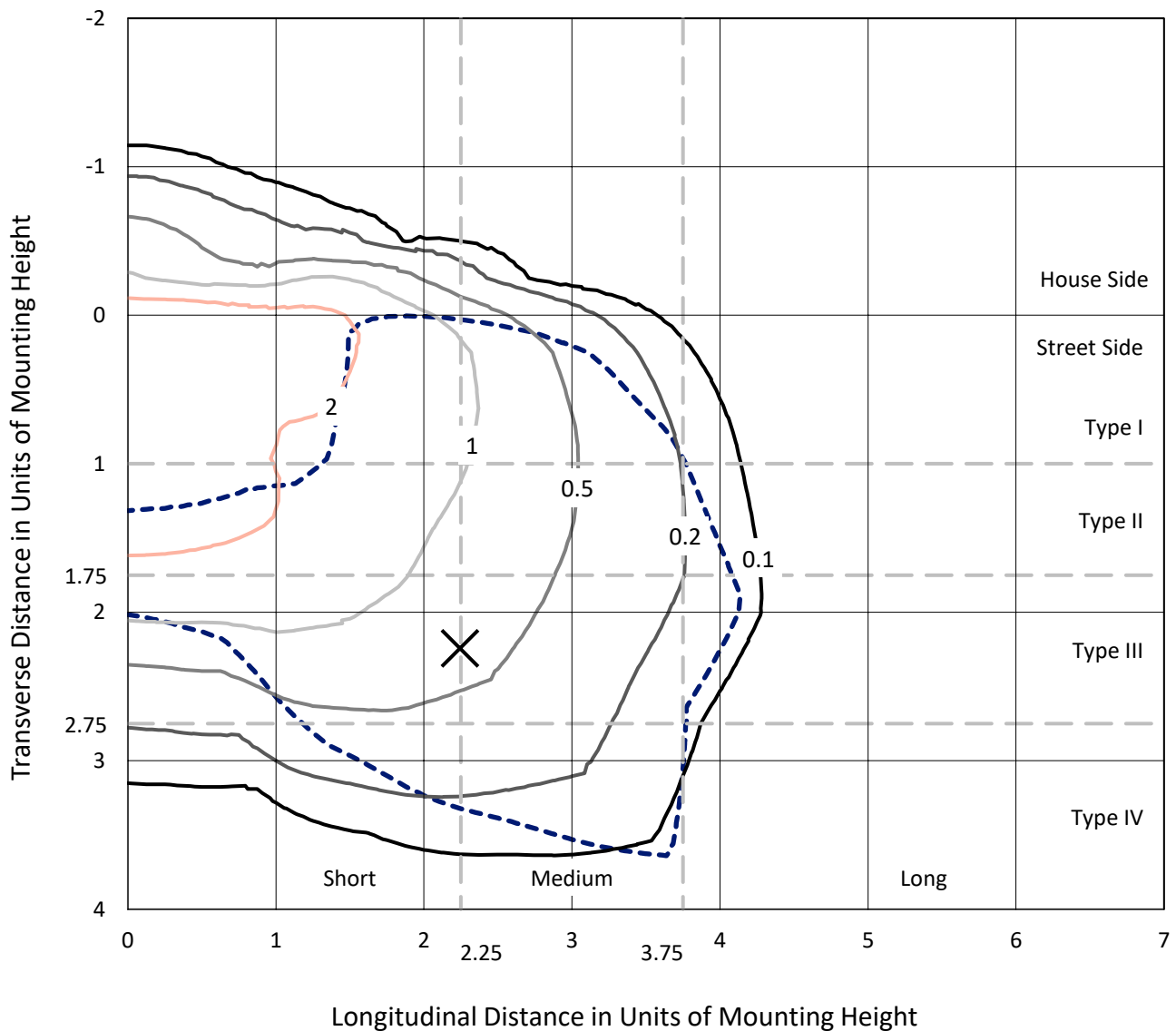
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

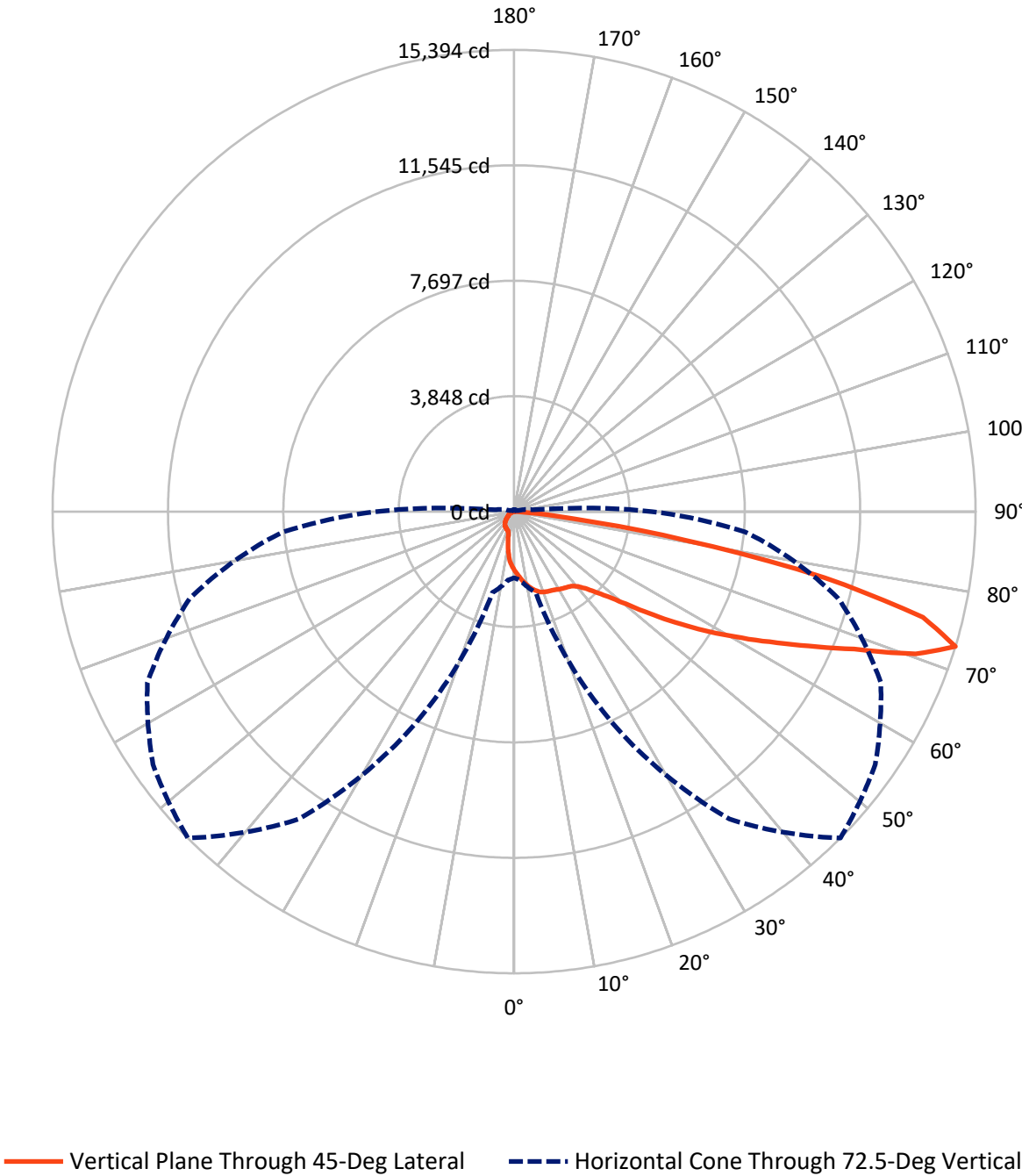
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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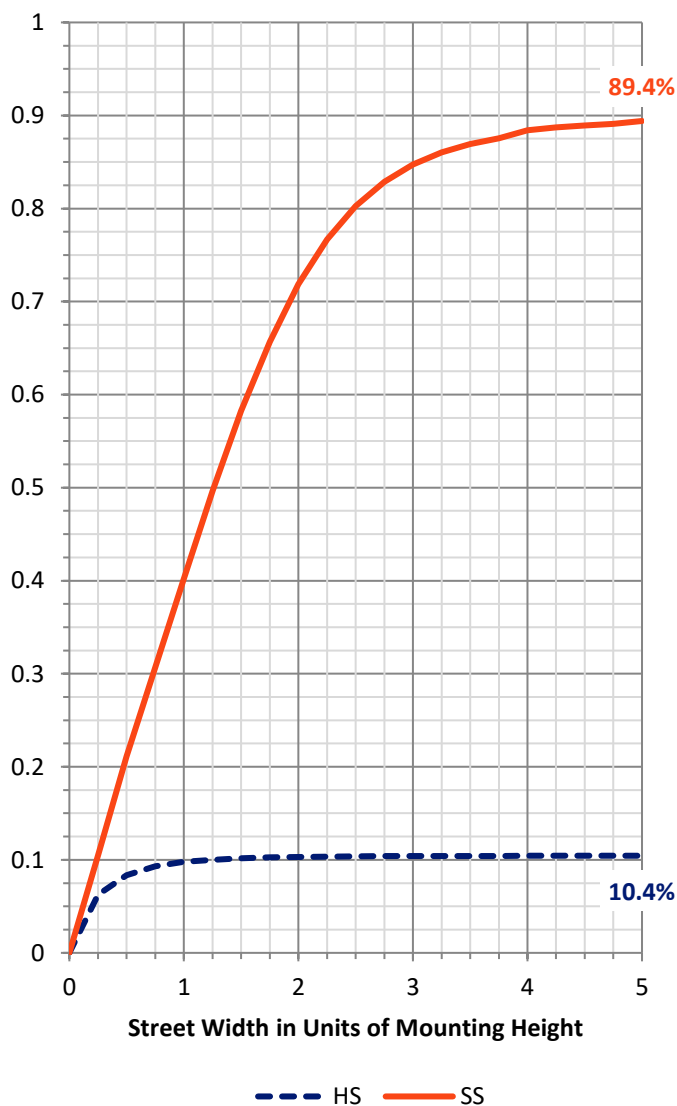
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1879.8	0.0	1879.8
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	16010.6	0.0	16010.6
	% Fixture	89.5	0.0	89.5
Total	Lumens	17890.3	0.0	17890.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.7	1.0
10°-20°	539.7	3.0
20°-30°	886.3	5.0
30°-40°	1256.9	7.0
40°-50°	2077.6	11.6
50°-60°	3732.1	20.9
60°-70°	5182.3	29.0
70°-80°	3759.1	21.0
80°-90°	271.8	1.5
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°	17890.3	100.0
0°-180°	17890.3	100.0

Coefficient of Utilization



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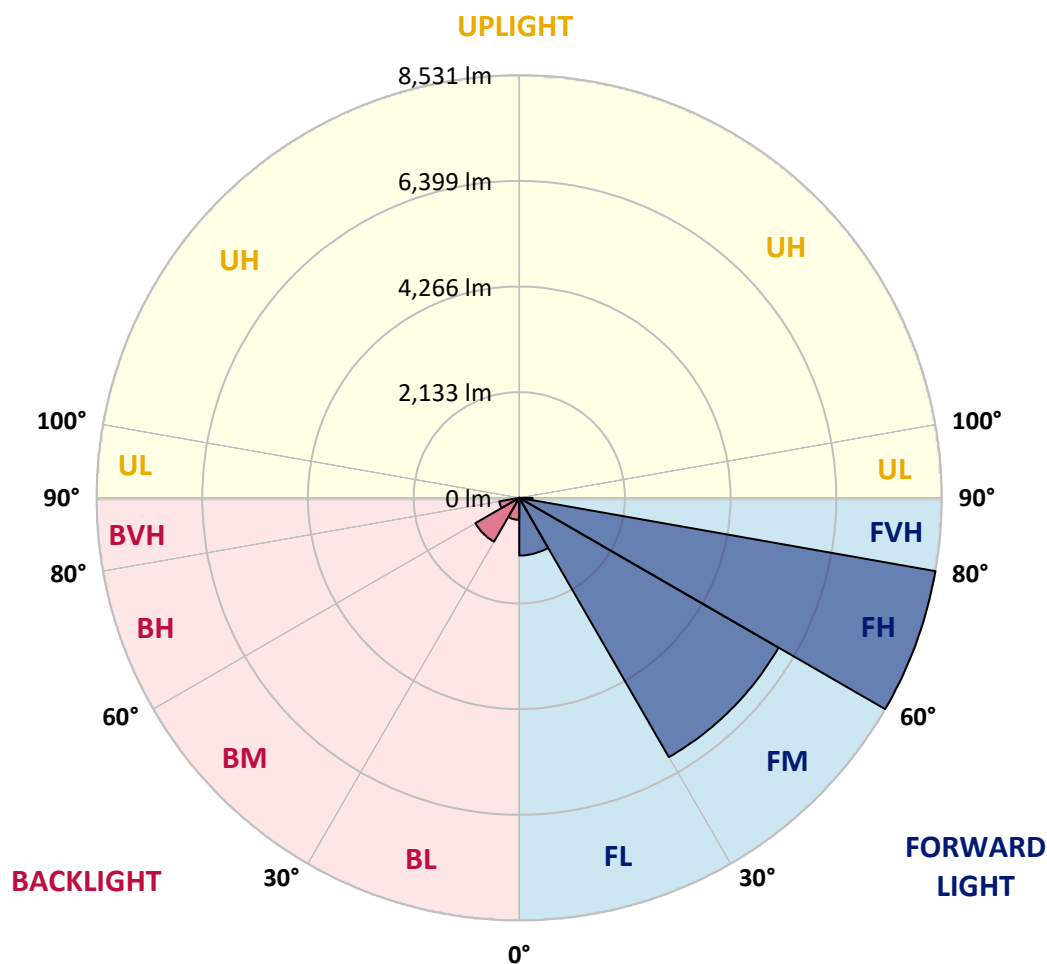
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1165.4	6.5			
FM	(30°-60°)	6044.3	33.8			
FH	(60°-80°)	8531.4	47.7			G4/12000
FVH	(80°-90°)	269.5	1.5			G3/500
BL	(0°-30°)	445.2	2.5	B1/500		
BM	(30°-60°)	1022.3	5.7	B2/2500		
BH	(60°-80°)	409.9	2.3	B1/500		G1/500
BVH	(80°-90°)	2.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9
2.5°	2140.6	2144.3	2141.8	2127.2	2102.8	2089.4	2082.1	2057.6	2041.7	2013.6	1984.3
5°	2337.3	2351.9	2343.4	2314.0	2267.6	2234.7	2224.9	2174.8	2129.6	2077.2	2016.1
7.5°	2546.1	2553.4	2537.5	2499.7	2437.3	2381.2	2372.7	2303.1	2231.0	2150.4	2067.4
10°	2726.8	2735.3	2710.9	2656.0	2585.2	2515.6	2503.4	2426.4	2340.9	2242.0	2135.8
12.5°	2878.2	2886.8	2855.0	2789.1	2710.9	2638.9	2626.7	2546.1	2452.0	2342.1	2210.3
15°	2993.0	3008.9	2966.1	2895.3	2811.1	2739.0	2732.9	2653.5	2562.0	2439.8	2299.4
17.5°	3060.1	3076.0	3035.7	2950.3	2878.2	2817.2	2809.8	2743.9	2658.4	2541.2	2386.1
20°	3071.2	3085.9	3043.1	2968.6	2908.7	2860.0	2856.3	2808.6	2746.4	2634.0	2480.1
22.5°	3038.2	3056.5	3017.4	2957.6	2916.1	2890.4	2885.6	2858.7	2823.3	2728.0	2568.0
25°	3004.0	3018.6	2989.3	2936.8	2914.9	2912.4	2916.1	2911.2	2903.8	2823.3	2670.6
27.5°	3001.5	3017.4	2984.5	2934.4	2922.2	2947.8	2951.5	2974.7	2980.8	2910.0	2769.5
30°	3022.3	3033.3	3001.5	2949.0	2943.0	3001.5	3002.7	3044.2	3054.1	2983.3	2867.2
32.5°	3067.5	3079.7	3047.9	2971.1	2962.5	3044.2	3047.9	3102.9	3118.8	3061.4	2969.8
35°	3173.7	3188.4	3151.8	3032.1	3001.5	3084.6	3095.6	3160.3	3192.1	3144.4	3076.0
37.5°	3438.8	3396.0	3345.9	3155.5	3090.7	3148.1	3166.4	3242.1	3298.2	3243.3	3203.0
40°	4096.9	3962.5	3806.2	3365.5	3247.0	3283.7	3298.2	3374.0	3451.0	3397.2	3377.7
42.5°	5084.8	4926.0	4674.5	3849.0	3482.6	3501.0	3512.0	3578.0	3686.6	3643.9	3648.8
45°	5965.3	5907.9	5651.4	4674.5	3923.5	3833.2	3846.6	3880.8	4040.8	4024.9	4056.6
47.5°	6641.8	6608.8	6411.0	5622.1	4668.4	4239.8	4277.6	4293.5	4524.3	4580.5	4666.0
50°	7162.0	7149.8	6972.7	6464.7	5641.7	4839.3	4852.8	4818.6	5164.2	5303.3	5465.8
52.5°	7652.9	7694.4	7563.7	7247.5	6680.8	5624.6	5622.1	5460.9	5927.4	6137.4	6414.7
55°	8096.2	8110.8	8124.3	8046.0	7726.1	6518.4	6495.2	6231.5	6812.8	7030.1	7330.5
57.5°	8512.5	8518.7	8638.3	8798.3	8814.2	7478.3	7435.6	7119.2	7779.9	7934.9	8119.3
60°	8792.1	8820.2	9073.1	9517.5	9711.7	8468.6	8445.4	8123.0	8764.1	8836.1	8802.0
62.5°	8389.2	8560.2	9197.6	10079.2	10559.1	9566.4	9555.4	9252.6	9799.6	9741.0	9447.9
65°	6790.7	7080.2	8201.1	10459.0	11390.7	10792.4	10808.3	10486.0	10863.3	10672.7	9973.0
67.5°	4750.3	5055.5	6381.6	10489.5	12320.1	12232.1	12323.7	11818.1	11992.8	11565.4	10097.6
70°	3284.8	3442.4	4305.7	9832.6	13044.2	14215.2	14212.9	13454.5	13116.2	11972.0	9462.6
72.5°	2209.1	2290.9	2796.4	7800.7	12511.8	15393.7	15322.8	14705.0	13494.8	11196.6	7731.1
75°	931.7	991.6	1294.4	4383.9	9898.5	14083.4	13891.6	12995.4	11990.3	8816.6	4823.4
77.5°	295.5	321.1	510.4	1569.2	5452.4	10586.0	10383.4	8115.6	8036.3	4423.0	1763.3
80°	140.4	163.6	287.0	630.1	2145.5	5757.6	5729.5	3681.7	3457.0	1194.2	354.1
82.5°	61.1	72.1	158.8	337.0	959.8	2054.0	2095.5	1252.9	1036.8	453.0	108.6
85°	19.6	25.6	73.3	155.1	405.4	510.4	504.3	298.0	417.6	246.7	37.8
87.5°	0.0	0.0	24.4	35.4	41.5	29.3	33.0	25.6	116.0	68.4	13.4
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°	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9	1959.9
2.5°	1969.7	1950.2	1915.9	1884.3	1856.2	1828.1	1811.0	1786.6	1784.1	1784.1	1790.2
5°	1983.2	1951.4	1890.3	1825.6	1751.1	1680.3	1609.5	1541.1	1519.0	1503.3	1510.5
7.5°	2022.2	1972.1	1875.6	1752.3	1610.7	1455.6	1347.0	1229.7	1184.5	1160.1	1163.8
10°	2078.4	2010.0	1863.4	1647.3	1417.8	1206.5	1051.4	924.4	875.6	854.7	854.7
12.5°	2140.6	2056.4	1841.5	1516.7	1206.5	953.7	802.3	743.6	736.4	736.4	736.4
15°	2215.1	2112.5	1803.6	1362.8	985.4	754.7	700.9	703.4	710.7	715.6	715.6
17.5°	2292.1	2172.4	1743.8	1190.6	790.1	679.0	680.2	683.9	689.9	694.8	694.8
20°	2375.1	2232.2	1664.4	1007.5	677.7	656.9	660.6	664.3	669.2	671.6	672.8
22.5°	2464.3	2288.4	1570.4	827.9	639.9	638.7	639.9	643.5	649.6	649.6	652.1
25°	2559.5	2350.7	1462.9	697.3	620.3	620.3	622.8	625.2	630.1	630.1	631.3
27.5°	2657.2	2408.0	1349.3	628.8	603.2	602.0	602.0	605.7	608.1	609.4	610.6
30°	2764.6	2475.3	1235.8	614.3	589.8	583.7	580.0	582.5	585.0	586.1	588.6
32.5°	2874.5	2540.0	1134.5	620.3	576.4	565.4	553.2	550.7	550.7	555.7	559.2
35°	2996.7	2610.8	1056.3	641.1	569.1	538.5	519.0	508.0	509.2	516.5	520.2
37.5°	3143.2	2696.3	998.9	659.4	564.2	508.0	476.2	462.8	454.3	462.8	460.3
40°	3334.9	2822.0	957.4	674.0	558.0	472.6	429.9	407.8	392.0	396.9	394.4
42.5°	3617.0	3019.9	941.5	675.3	544.6	431.0	382.2	352.9	329.7	331.0	326.1
45°	4012.7	3332.5	1023.4	659.4	515.4	385.9	332.1	293.0	278.4	274.8	269.9
47.5°	4554.8	3788.0	1212.6	626.5	472.6	341.9	283.3	250.3	239.3	233.2	229.6
50°	5281.4	4372.9	1422.6	589.8	429.9	300.4	243.0	222.2	214.9	208.8	207.6
52.5°	6124.0	4966.3	1594.8	553.2	387.1	263.7	217.4	205.1	199.1	194.1	192.9
55°	6897.0	5375.4	1585.1	514.1	345.6	234.4	199.1	191.7	184.4	179.5	177.0
57.5°	7378.2	5432.8	1306.6	471.4	298.0	211.3	181.9	177.0	168.5	162.5	161.2
60°	7599.1	5105.6	915.8	415.2	250.3	189.3	163.6	161.2	150.2	141.7	139.2
62.5°	7639.4	4497.5	610.6	345.6	208.8	168.5	145.3	141.7	127.0	112.3	105.1
65°	7475.8	3628.0	422.5	269.9	178.2	146.6	124.5	117.3	101.4	86.7	81.8
67.5°	6958.0	2547.3	294.3	194.1	151.4	116.0	98.9	96.5	84.3	72.1	68.4
70°	6009.3	1451.9	196.6	145.3	119.7	79.3	78.1	80.6	68.4	58.6	53.7
72.5°	4607.4	664.3	122.1	106.2	81.8	53.7	62.3	63.6	52.5	44.0	39.1
75°	2712.1	284.5	77.0	68.4	41.5	35.4	45.2	46.4	35.4	28.1	24.4
77.5°	923.2	107.4	48.9	40.3	20.8	19.6	29.3	29.3	19.6	11.0	8.5
80°	210.0	40.3	24.4	15.9	9.7	8.5	9.7	8.5	4.9	1.2	0.0
82.5°	59.9	15.9	9.7	6.1	3.7	3.7	1.2	0.0	0.0	0.0	0.0
85°	17.1	7.3	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)