

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: P968421

Luminaire Tested: **NAV-SB5B-830-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19835.8 lumens
Efficiency: N/A
Efficacy: 108.6 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): 182.7
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



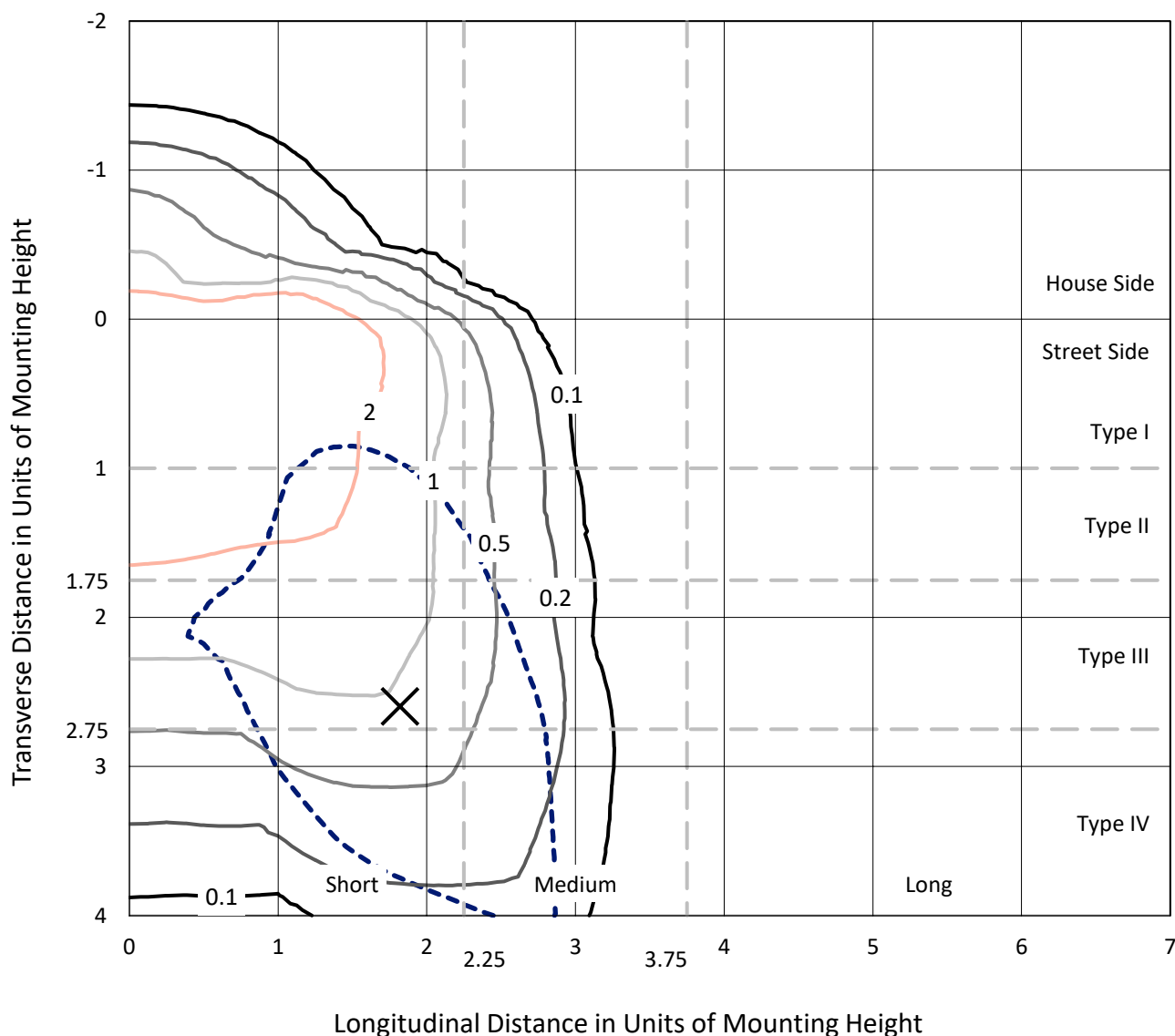
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

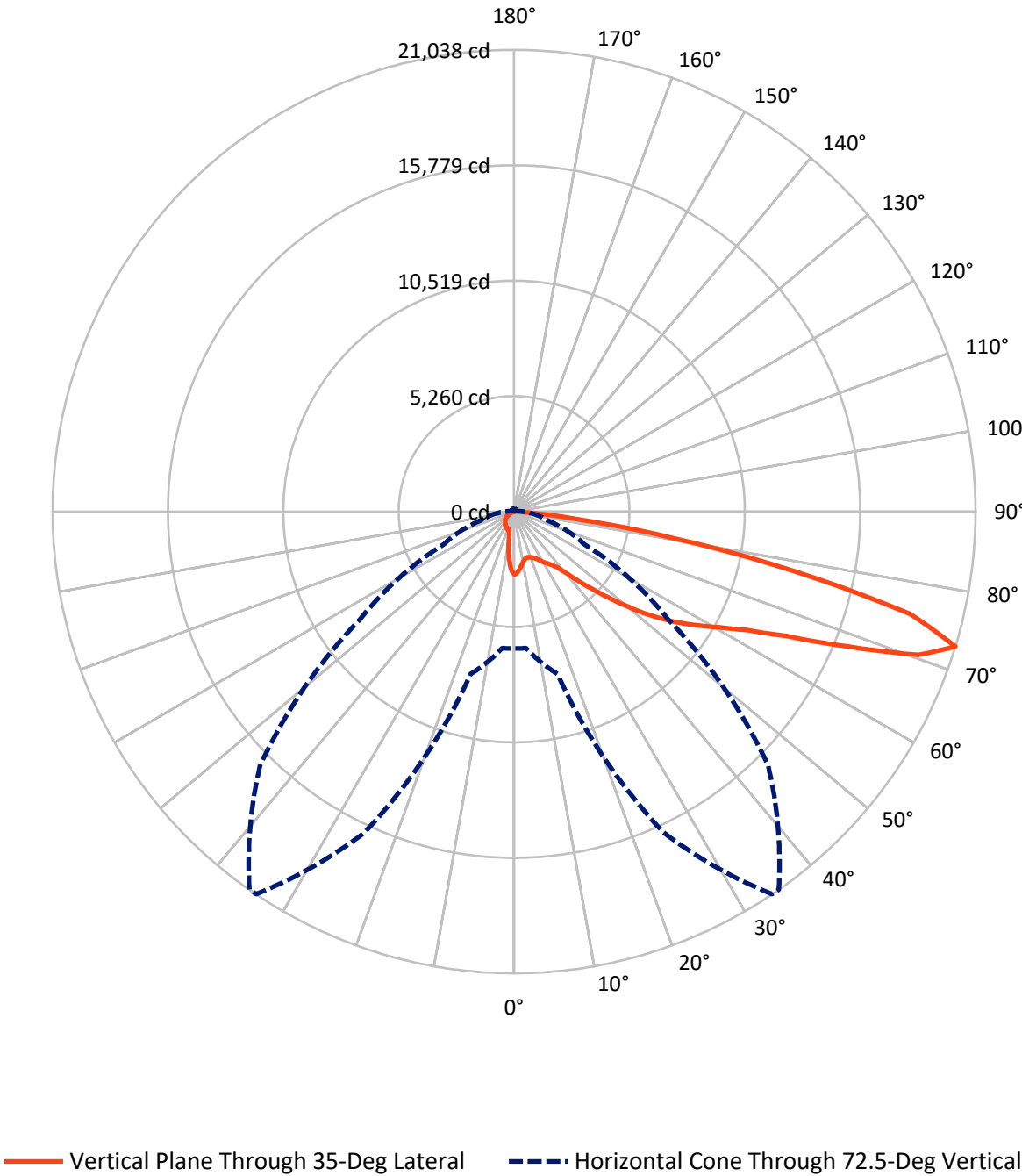


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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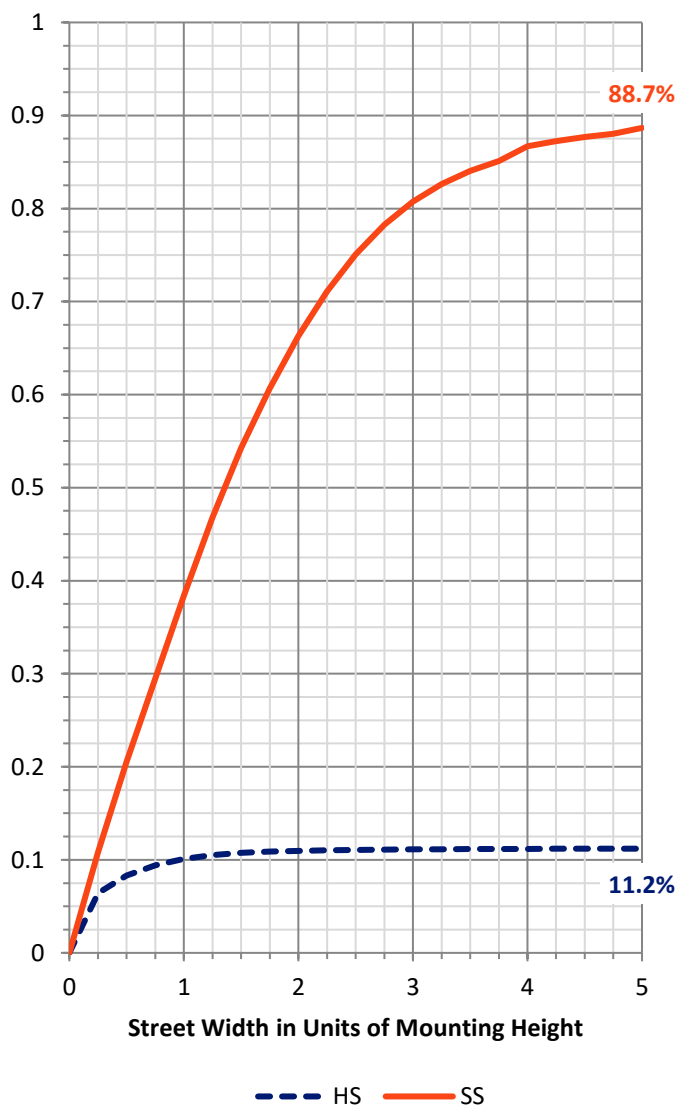
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2232.4	0.0	2232.4
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	17603.4	0.0	17603.4
	% Fixture	88.7	0.0	88.7
Total	Lumens	19835.8	0.0	19835.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.2	1.2
10°-20°	552.7	2.8
20°-30°	897.8	4.5
30°-40°	1497.9	7.6
40°-50°	2834.1	14.3
50°-60°	4503.4	22.7
60°-70°	5571.0	28.1
70°-80°	3462.9	17.5
80°-90°	279.9	1.4
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°	19835.8	100.0
0°-180°	19835.8	100.0

Coefficient of Utilization



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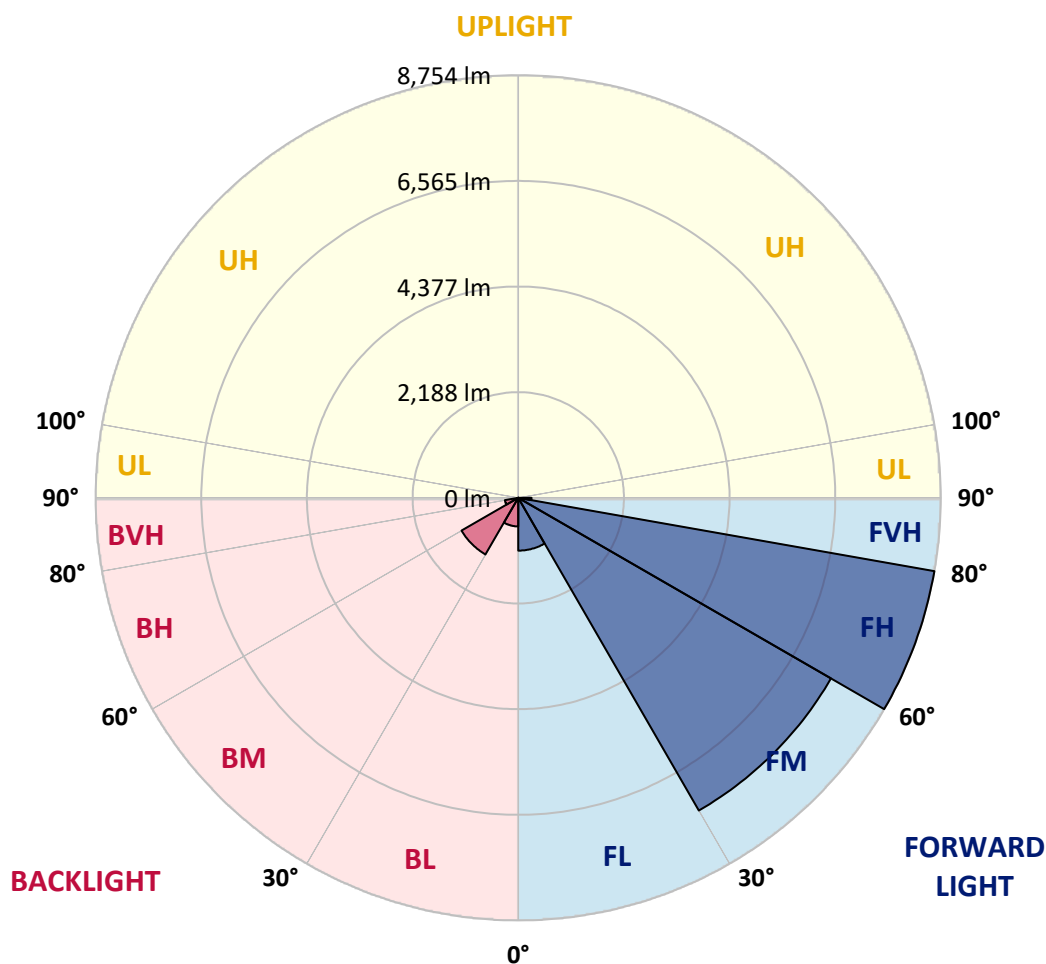
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1093.5	5.5			
FM	(30°-60°)	7480.1	37.7			
FH	(60°-80°)	8753.8	44.1			G4/12000
FVH	(80°-90°)	276.1	1.4			G3/500
BL	(0°-30°)	593.2	3.0	B2/1000		
BM	(30°-60°)	1355.3	6.8	B2/2500		
BH	(60°-80°)	280.1	1.4	B1/500		G1/500
BVH	(80°-90°)	3.8	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°	34°	35°	45°	55°	65°	75°	85°
0°	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9
2.5°	2747.0	2770.3	2774.6	2781.8	2781.8	2790.6	2805.1	2825.4	2858.9	2876.4	2887.9
5°	2531.9	2549.3	2571.1	2588.5	2622.0	2626.4	2683.0	2738.3	2815.3	2873.4	2914.1
7.5°	2315.3	2335.7	2364.7	2406.9	2450.5	2463.6	2549.3	2642.3	2764.4	2873.4	2941.7
10°	2162.6	2164.2	2190.3	2232.4	2302.3	2318.2	2422.9	2555.1	2707.7	2856.0	2967.9
12.5°	2077.0	2087.1	2098.8	2130.8	2197.6	2207.7	2319.7	2475.2	2651.1	2845.8	2998.4
15°	2077.0	2084.2	2091.5	2107.5	2161.2	2169.9	2268.8	2424.3	2622.0	2850.1	3047.8
17.5°	2098.8	2110.4	2104.5	2123.5	2180.2	2185.9	2273.1	2409.8	2620.5	2877.8	3123.4
20°	2151.1	2159.8	2148.2	2159.8	2216.5	2228.1	2318.2	2437.3	2645.2	2925.8	3217.9
22.5°	2233.9	2238.3	2210.6	2219.3	2277.5	2292.0	2396.7	2515.9	2704.9	3002.7	3344.4
25°	2338.5	2347.2	2305.1	2315.3	2370.5	2387.9	2508.6	2633.6	2799.3	3108.8	3505.7
27.5°	2459.2	2463.6	2427.2	2425.8	2497.0	2521.7	2643.8	2779.0	2925.8	3242.6	3709.2
30°	2597.2	2610.4	2575.5	2569.7	2659.8	2680.1	2800.7	2957.7	3111.8	3443.2	3998.3
32.5°	2706.3	2716.5	2696.1	2710.6	2802.2	2818.2	2991.2	3210.6	3403.9	3728.0	4392.2
35°	2863.2	2869.1	2822.5	2848.7	2953.3	2994.0	3251.3	3565.3	3771.6	4085.5	4906.8
37.5°	3431.5	3431.5	3233.9	3104.5	3204.8	3241.2	3607.4	4011.4	4225.2	4565.2	5555.0
40°	4217.9	4204.8	3915.5	3651.0	3637.9	3709.2	4114.7	4574.0	4810.8	5140.8	6284.6
42.5°	5056.4	5036.1	4642.2	4380.6	4337.0	4361.7	4700.3	5267.2	5508.5	5842.8	7069.4
45°	5800.6	5794.8	5434.3	5082.7	5004.2	5082.7	5431.5	6078.2	6251.2	6602.9	7852.8
47.5°	6424.1	6424.1	6161.1	5931.5	5890.8	5937.2	6421.2	6977.9	6961.9	7412.5	8615.9
50°	7142.1	7136.4	6886.4	6787.4	6829.7	6895.1	7560.7	7925.5	7697.3	8207.5	9297.6
52.5°	7645.0	7679.9	7594.1	7578.1	7793.3	7906.6	8717.6	8852.8	8355.7	8961.8	9807.7
55°	8043.3	8084.0	8182.8	8294.7	8708.9	8857.1	9838.3	9732.2	8906.5	9615.8	10101.3
57.5°	8607.1	8549.0	8701.6	8922.5	9592.6	9771.3	10923.9	10562.0	9349.8	10146.4	10133.3
60°	9291.7	9300.4	9326.6	9605.7	10474.8	10704.5	11993.6	11346.9	9634.8	10471.9	9778.6
62.5°	10114.4	10127.4	10181.2	10610.0	11659.4	11876.0	13133.1	11989.3	9765.6	10380.4	8863.0
65°	10057.7	10113.0	10713.2	12179.7	13460.2	13673.8	14463.1	12439.8	9567.9	9543.2	7216.2
67.5°	9162.4	9252.5	10256.8	14054.6	16175.1	16413.5	16070.5	12528.5	8714.8	7421.2	4707.6
70°	7988.0	8020.0	9227.8	15740.6	19318.9	19560.2	17509.4	11553.3	6613.1	4139.4	2108.9
72.5°	6238.0	6245.3	7662.5	16131.6	21025.2	21038.3	16380.1	8576.7	3556.5	1590.1	732.6
75°	4456.2	4412.6	5132.1	13082.3	18497.8	18646.0	12280.0	4023.1	1358.9	751.4	364.8
77.5°	2389.5	2437.3	2903.9	7758.3	12778.5	13031.4	6700.3	1159.8	691.9	511.6	241.3
80°	738.3	779.0	1190.3	3552.1	7238.0	7390.7	2483.9	516.0	482.6	364.8	158.5
82.5°	232.6	241.3	555.2	1492.7	3004.3	3074.0	719.4	292.1	329.9	241.3	93.1
85°	66.8	68.3	247.1	556.7	742.7	757.3	202.0	113.4	188.9	149.8	48.0
87.5°	7.3	23.3	93.1	93.1	65.4	64.0	21.8	24.7	53.8	18.9	8.7
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°	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9	2874.9
2.5°	2880.7	2882.1	2863.2	2831.3	2796.4	2767.3	2731.0	2701.9	2681.6	2675.8	2685.9
5°	2901.1	2890.9	2837.1	2739.7	2623.4	2523.1	2411.2	2322.5	2264.4	2239.7	2248.4
7.5°	2931.6	2902.5	2784.7	2592.9	2370.5	2172.9	1972.3	1816.8	1717.9	1668.5	1675.8
10°	2957.7	2899.6	2697.6	2380.7	2040.6	1741.2	1470.9	1283.4	1178.8	1129.3	1130.8
12.5°	2982.4	2898.1	2584.2	2129.2	1668.5	1302.3	1050.8	957.8	928.8	918.6	915.6
15°	3029.0	2902.5	2441.8	1841.5	1298.0	984.0	892.4	890.9	896.8	893.9	892.4
17.5°	3092.8	2906.8	2280.4	1536.3	1001.4	867.7	863.4	876.4	885.1	880.8	879.3
20°	3175.8	2924.3	2108.9	1234.0	860.4	838.7	848.8	860.4	867.7	860.4	859.0
22.5°	3292.0	2954.8	1921.5	991.3	815.4	821.2	829.9	843.0	850.2	840.1	838.7
25°	3434.5	3002.7	1736.9	861.9	793.6	800.8	814.0	828.4	837.2	827.0	825.5
27.5°	3619.1	3079.8	1566.8	832.8	771.7	776.1	795.0	816.8	828.4	815.4	815.4
30°	3886.5	3206.3	1420.0	845.9	758.7	748.6	774.7	805.2	818.3	806.7	805.2
32.5°	4241.0	3385.1	1329.8	866.2	752.9	716.6	741.3	780.5	802.3	795.0	795.0
35°	4706.2	3656.8	1295.0	889.5	748.6	683.1	700.6	742.7	780.5	787.7	787.7
37.5°	5270.1	4034.7	1305.1	899.6	735.4	655.5	664.2	700.6	750.0	773.3	779.0
40°	5911.1	4475.0	1363.4	889.5	720.9	632.2	633.7	661.3	704.9	739.7	751.4
42.5°	6572.4	4989.6	1470.9	851.7	707.9	611.9	607.5	626.4	655.5	680.2	690.3
45°	7201.8	5518.6	1577.0	799.4	691.9	591.5	581.4	588.7	594.5	604.6	610.4
47.5°	7751.2	5890.8	1546.4	751.4	670.0	568.3	550.8	548.0	530.5	529.0	527.6
50°	8130.4	5972.2	1373.5	703.5	638.1	542.1	514.6	497.0	466.6	452.0	453.5
52.5°	8251.0	5650.9	1122.1	655.5	585.7	507.3	468.0	440.3	402.6	389.5	388.1
55°	8091.2	5021.6	896.8	597.4	513.0	460.7	417.2	380.8	350.2	334.3	334.3
57.5°	7700.2	4220.7	709.3	529.0	436.0	408.5	364.8	328.5	302.3	286.3	283.4
60°	7052.0	3351.5	561.0	447.6	372.1	351.7	306.7	283.4	260.1	241.3	236.9
62.5°	6068.0	2392.4	440.3	354.6	311.0	287.8	261.6	244.2	216.6	190.4	186.0
65°	4735.3	1463.6	340.1	260.1	250.0	238.3	222.4	206.4	172.9	146.8	142.5
67.5°	2986.7	693.3	242.7	196.2	197.6	191.9	184.6	171.5	146.8	123.5	120.6
70°	1315.4	335.8	159.9	149.8	146.8	146.8	152.6	148.2	124.9	103.2	98.8
72.5°	447.6	180.2	119.2	113.4	106.1	104.7	127.9	123.5	100.2	79.9	75.5
75°	234.0	120.6	87.2	81.4	64.0	77.1	101.8	95.9	71.2	52.3	48.0
77.5°	152.6	85.8	59.6	52.3	36.3	50.8	75.5	66.8	42.1	26.1	23.3
80°	95.9	56.7	34.8	24.7	17.4	27.6	40.7	29.1	16.0	5.8	4.4
82.5°	50.8	29.1	13.1	8.7	7.3	8.7	10.1	7.3	2.9	0.0	0.0
85°	20.4	10.1	4.4	2.9	1.4	0.0	2.9	1.4	0.0	0.0	0.0
87.5°	7.3	1.4	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)