

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: P962993

Luminaire Tested: **NAV-SB2D-735-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962993
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17365.6 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

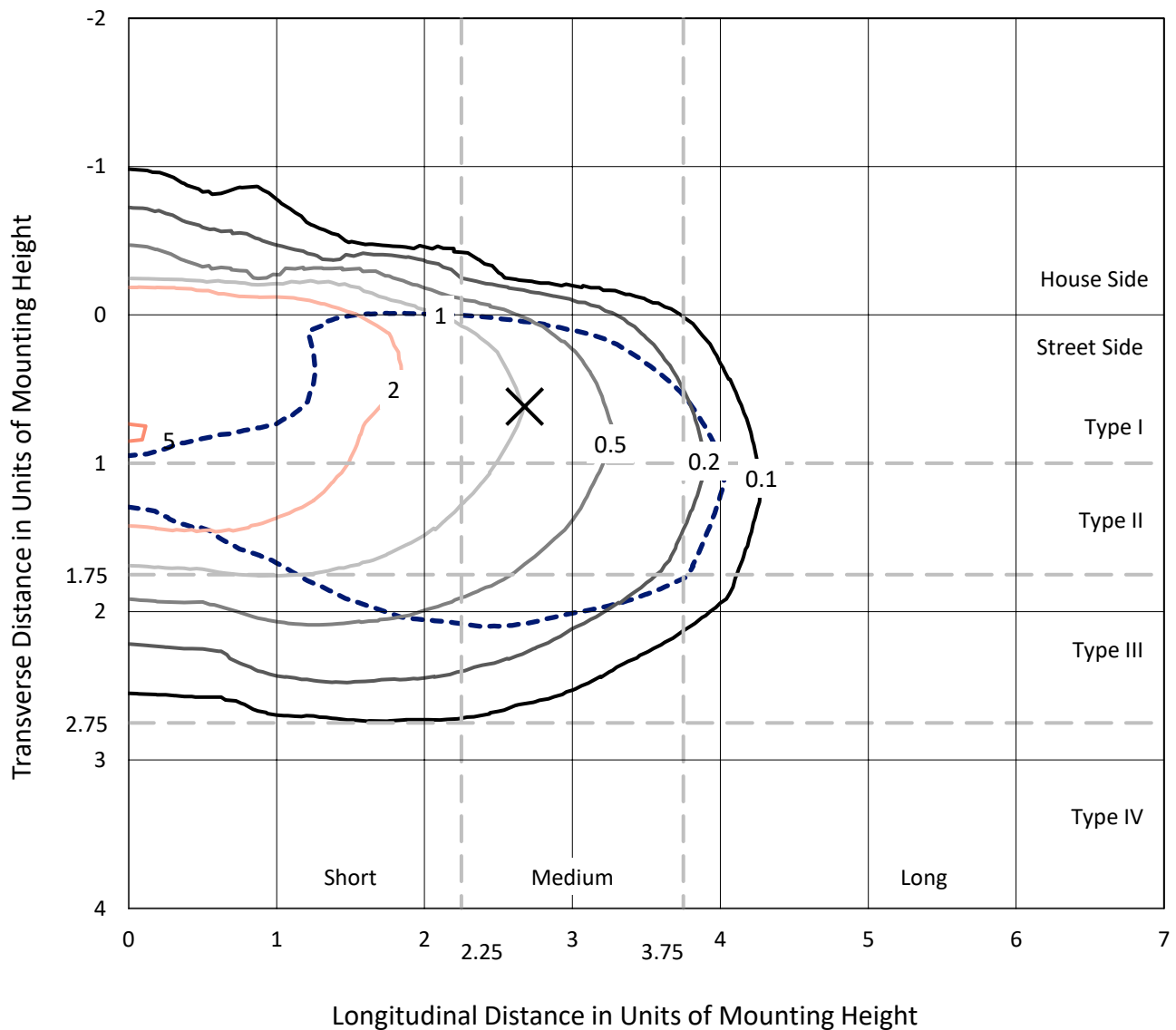
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

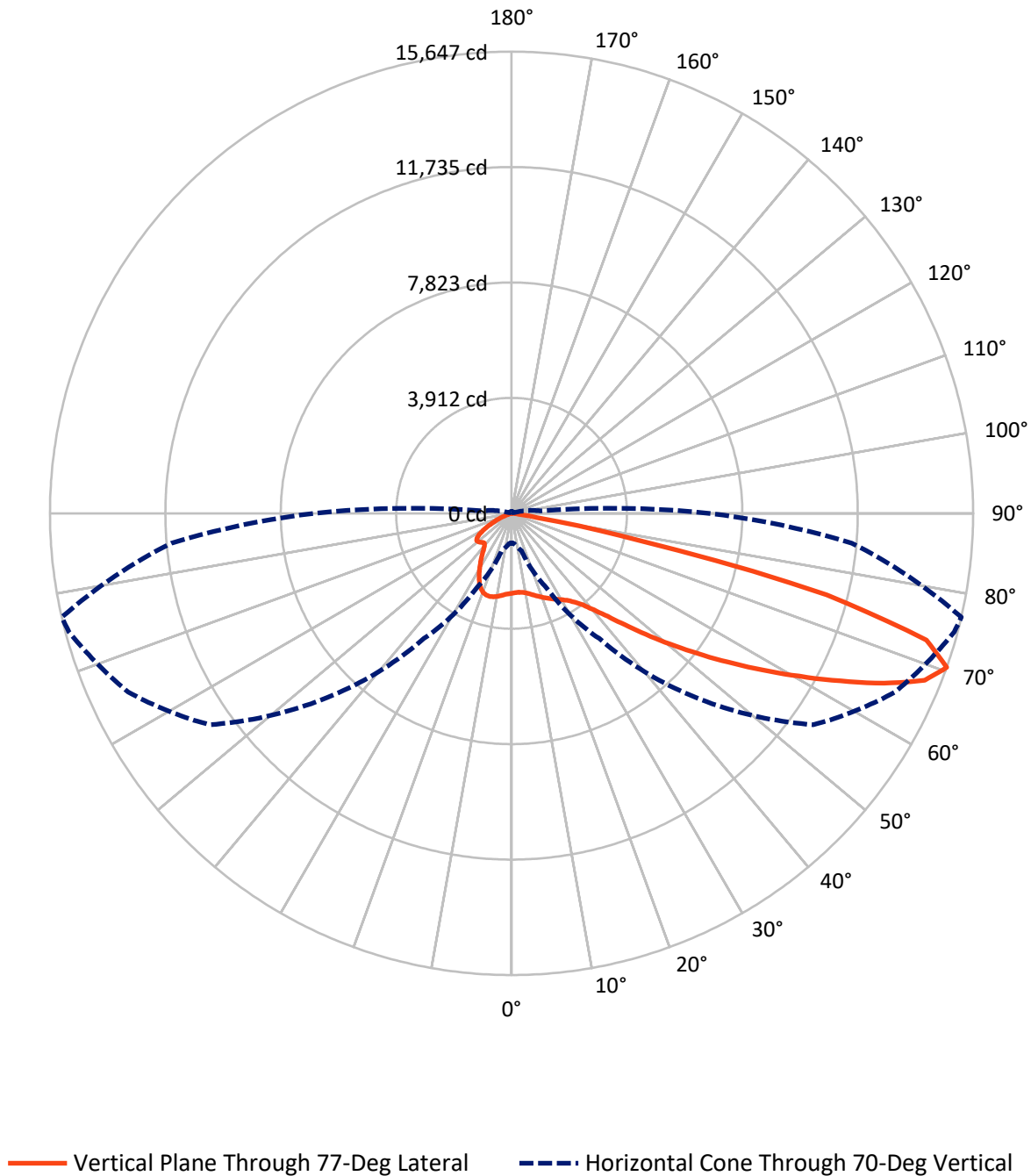
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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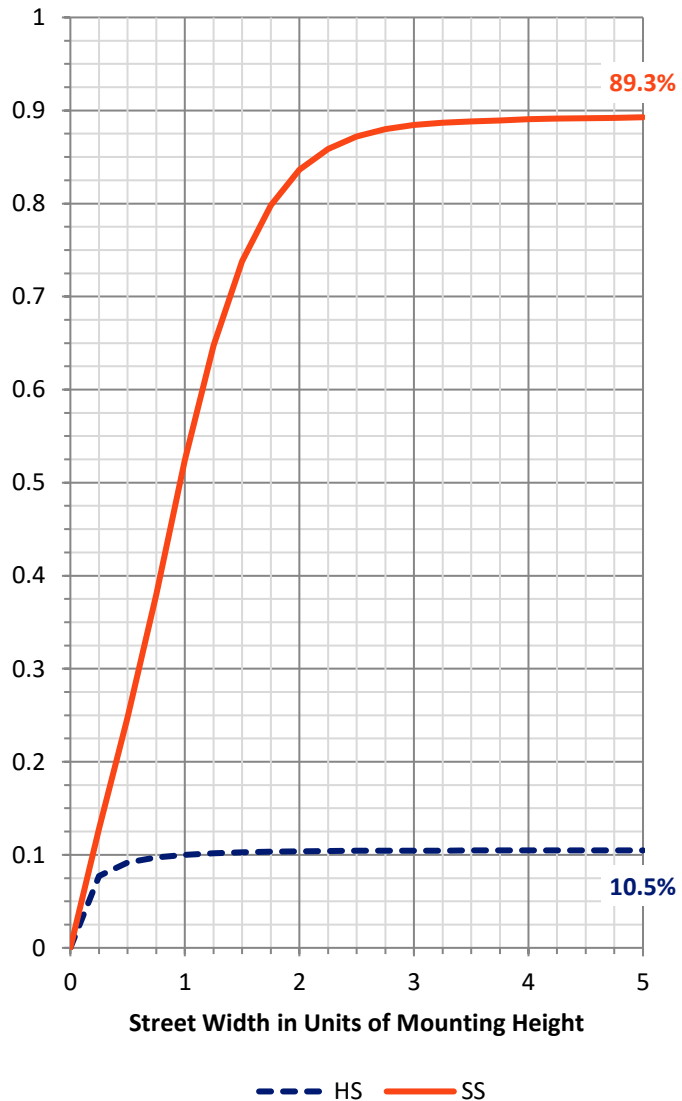
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1830.6	0.0	1830.6
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	15535.0	0.0	15535.0
	% Fixture	89.5	0.0	89.5
Total	Lumens	17365.6	0.0	17365.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.4	1.3
10°-20°	554.2	3.2
20°-30°	857.2	4.9
30°-40°	1555.4	9.0
40°-50°	2935.9	16.9
50°-60°	4242.2	24.4
60°-70°	4515.7	26.0
70°-80°	2393.0	13.8
80°-90°	78.6	0.5
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°	17365.6	100.0
0°-180°	17365.6	100.0

Coefficient of Utilization



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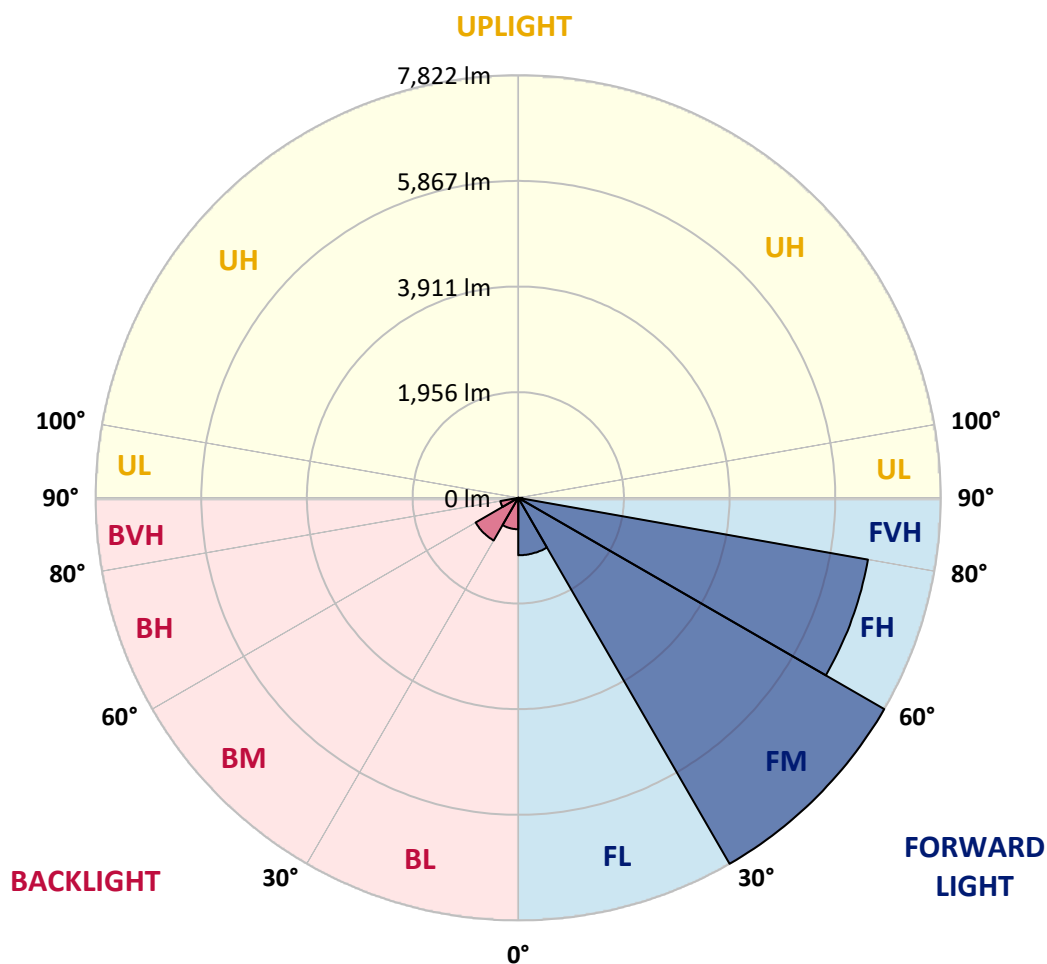
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1063.2	6.1			
FM	(30°-60°)	7822.2	45.0			
FH	(60°-80°)	6573.1	37.9			G3/7500
FVH	(80°-90°)	76.5	0.4			G1/100
BL	(0°-30°)	581.6	3.3	B2/1000		
BM	(30°-60°)	911.3	5.2	B1/1000		
BH	(60°-80°)	335.6	1.9	B1/500		G1/500
BVH	(80°-90°)	2.1	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-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7
2.5°	2543.1	2566.2	2562.8	2578.2	2583.7	2605.7	2627.6	2657.2	2690.1	2689.0	2710.9
5°	2399.4	2422.5	2428.0	2448.8	2475.2	2509.1	2554.1	2613.3	2674.7	2684.6	2728.4
7.5°	2229.5	2253.6	2267.8	2309.5	2357.8	2428.0	2501.4	2588.1	2690.1	2704.4	2788.7
10°	2059.5	2081.5	2100.1	2159.3	2236.0	2340.3	2459.8	2584.7	2721.9	2742.7	2862.2
12.5°	1954.3	1975.1	1995.9	2047.4	2142.9	2270.1	2432.3	2600.1	2774.5	2804.1	2962.0
15°	1917.0	1935.6	1952.0	1998.1	2086.9	2231.6	2426.9	2632.0	2841.4	2880.9	3082.7
17.5°	1922.4	1932.3	1943.3	1978.4	2065.0	2214.1	2436.7	2686.7	2920.3	2955.5	3203.3
20°	1954.3	1959.7	1960.8	1984.9	2061.7	2212.0	2456.5	2739.4	2994.9	3042.1	3322.8
22.5°	1994.8	1997.0	1994.8	2011.3	2082.5	2228.4	2482.8	2803.1	3078.3	3122.1	3443.5
25°	2184.5	2142.9	2090.2	2058.4	2117.6	2260.2	2522.3	2888.6	3169.3	3212.0	3560.8
27.5°	2773.4	2653.9	2465.2	2253.6	2190.0	2306.2	2577.2	2975.2	3261.4	3299.8	3686.9
30°	3729.7	3572.8	3252.6	2775.6	2422.5	2402.7	2648.4	3061.9	3359.0	3400.7	3821.8
32.5°	4688.1	4649.8	4280.2	3620.0	2945.5	2617.6	2766.9	3179.1	3488.4	3521.3	4003.9
35°	5657.6	5579.7	5277.0	4624.6	3751.6	3055.2	2964.2	3332.7	3658.4	3695.7	4269.2
37.5°	6400.0	6352.8	6165.4	5628.0	4707.9	3730.8	3302.0	3570.7	3905.1	3946.9	4609.2
40°	7055.8	7033.9	6970.3	6616.1	5777.1	4614.7	3827.2	3939.2	4247.3	4296.7	5025.9
42.5°	7571.3	7622.8	7659.0	7560.3	6879.3	5623.6	4533.6	4456.8	4724.3	4774.8	5556.7
45°	8098.7	8116.3	8262.1	8404.7	7973.7	6678.6	5329.7	5063.2	5317.6	5380.1	6192.7
47.5°	8437.6	8507.8	8764.4	9015.5	8893.8	7724.8	6185.1	5779.4	6005.3	6122.5	6905.5
50°	8462.8	8595.5	8948.7	9386.1	9563.9	8720.5	7115.0	6595.3	6835.4	6964.8	7666.7
52.5°	8042.8	8249.0	8796.1	9436.7	9925.7	9563.9	8076.8	7411.2	7719.3	7888.2	8456.2
55°	6166.4	6436.2	8222.7	9162.5	9939.9	10203.2	9013.3	8261.0	8704.1	8894.8	9309.5
57.5°	5372.4	5508.5	6464.7	8686.6	9675.7	10460.8	9859.9	9070.3	9775.5	10012.4	10115.4
60°	4469.9	4648.7	5421.8	7907.9	9317.0	10486.2	10607.8	10114.4	10936.9	11203.4	10854.5
62.5°	3037.7	3231.8	4000.6	6570.0	8826.9	10474.1	11220.9	11189.1	12227.6	12513.8	11480.8
65°	1881.8	2003.6	2510.2	5364.7	8141.5	10487.2	11862.4	12494.0	13589.7	13880.2	11965.4
67.5°	1487.1	1542.9	1807.3	4119.0	6960.4	10191.2	12502.8	13721.3	14871.6	15101.9	12113.6
70°	999.1	1033.0	1314.9	2761.4	5178.4	8824.7	12490.8	14337.5	15531.8	15646.9	11574.0
72.5°	526.4	552.7	768.7	1278.7	3127.6	6272.8	10528.9	13600.6	14874.9	14701.6	9892.8
75°	263.2	307.1	517.6	649.2	1335.7	3498.3	6538.2	10723.0	11707.8	11036.6	6347.4
77.5°	199.6	241.3	427.7	427.7	464.9	1177.8	2769.0	5848.4	5394.4	4491.9	1863.2
80°	127.2	164.5	373.9	323.5	194.1	299.4	721.6	1638.4	1145.9	871.9	338.9
82.5°	74.6	107.4	311.5	213.8	108.5	110.8	204.0	348.7	297.1	231.3	104.1
85°	29.6	70.2	213.8	84.5	42.7	27.4	61.4	74.6	61.4	46.0	26.3
87.5°	0.0	16.4	37.3	0.0	3.3	2.2	4.4	5.4	5.4	4.4	8.8
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°	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7	2708.7
2.5°	2720.8	2723.0	2729.6	2730.6	2715.3	2695.5	2687.9	2684.6	2671.5	2670.3	2672.5
5°	2753.7	2763.5	2753.7	2725.2	2657.2	2561.8	2489.4	2430.2	2376.5	2360.0	2350.1
7.5°	2819.5	2829.3	2799.7	2687.9	2516.8	2327.1	2156.0	2035.3	1926.8	1886.2	1869.8
10°	2913.8	2927.0	2833.7	2607.8	2305.1	2000.3	1710.7	1506.7	1347.8	1283.1	1255.6
12.5°	3032.3	3037.7	2852.4	2486.1	2029.9	1594.5	1184.4	966.2	824.7	772.0	755.6
15°	3162.7	3155.1	2854.5	2320.5	1654.9	1127.4	773.2	635.0	577.9	560.4	560.4
17.5°	3299.8	3268.0	2810.7	2081.5	1243.6	770.9	573.6	540.7	530.7	526.4	525.3
20°	3434.7	3363.4	2730.6	1768.8	892.7	575.7	520.9	511.1	505.5	503.4	501.1
22.5°	3557.5	3435.8	2593.6	1405.9	648.1	508.8	492.4	483.6	473.8	469.3	468.2
25°	3677.1	3477.4	2400.5	1067.0	518.8	475.9	462.8	446.3	433.2	427.7	425.5
27.5°	3793.3	3503.8	2159.3	789.6	462.8	445.3	421.1	398.1	388.2	386.0	383.9
30°	3917.2	3512.6	1885.2	588.9	428.8	406.8	371.8	345.4	340.0	341.0	341.0
32.5°	4068.5	3525.7	1608.7	482.6	400.3	360.8	319.1	291.7	287.3	291.7	290.6
35°	4249.5	3552.0	1342.3	444.1	375.0	313.6	268.7	245.7	241.3	244.6	243.4
37.5°	4495.1	3594.8	1093.4	436.4	354.2	274.2	225.9	207.3	207.3	208.4	207.3
40°	4821.9	3708.9	870.7	431.0	343.3	244.6	190.9	183.2	186.4	188.6	188.6
42.5°	5220.0	3951.2	720.5	424.5	331.2	231.3	173.2	169.9	175.5	177.6	177.6
45°	5666.4	4258.3	667.9	413.5	320.2	240.2	165.6	161.2	167.8	168.9	169.9
47.5°	6128.1	4558.8	661.2	401.4	309.2	253.3	163.4	153.5	161.2	162.3	163.4
50°	6595.3	4755.1	667.9	382.7	291.7	253.3	164.5	145.9	152.4	155.7	156.8
52.5°	7065.6	4845.0	663.5	342.1	261.0	238.0	164.5	139.3	145.9	148.0	148.0
55°	7521.9	4827.4	596.6	281.9	221.5	210.5	160.1	133.8	138.2	139.3	139.3
57.5°	7882.7	4582.9	472.6	219.4	179.9	175.5	145.9	127.2	130.5	129.4	129.4
60°	8071.3	4045.6	337.7	168.9	141.4	138.2	128.3	118.4	120.6	115.1	114.1
62.5°	8073.5	3334.9	225.9	133.8	113.0	109.7	109.7	106.4	104.1	93.2	89.9
65°	7901.3	2546.4	150.3	106.4	91.0	85.6	92.1	91.0	83.3	68.0	65.8
67.5°	7510.9	1669.1	114.1	83.3	70.2	66.9	73.5	76.8	71.2	57.0	56.0
70°	6708.2	971.6	94.3	64.7	52.7	49.3	59.2	65.8	59.2	46.0	43.9
72.5°	5572.0	524.2	76.8	48.3	36.2	32.9	47.2	53.7	47.2	34.0	32.9
75°	3615.7	280.7	59.2	31.8	18.7	20.8	35.1	39.5	32.9	21.9	19.8
77.5°	1214.0	123.9	37.3	15.4	8.8	8.8	20.8	24.1	15.4	7.7	6.6
80°	270.9	51.6	15.4	6.6	3.3	3.3	4.4	4.4	2.2	0.0	0.0
82.5°	88.9	20.8	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	34.0	7.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.1	1.1	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)