

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: P965224

Luminaire Tested: **NAV-SB3D-827-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965224
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21342.6 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 218.1
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

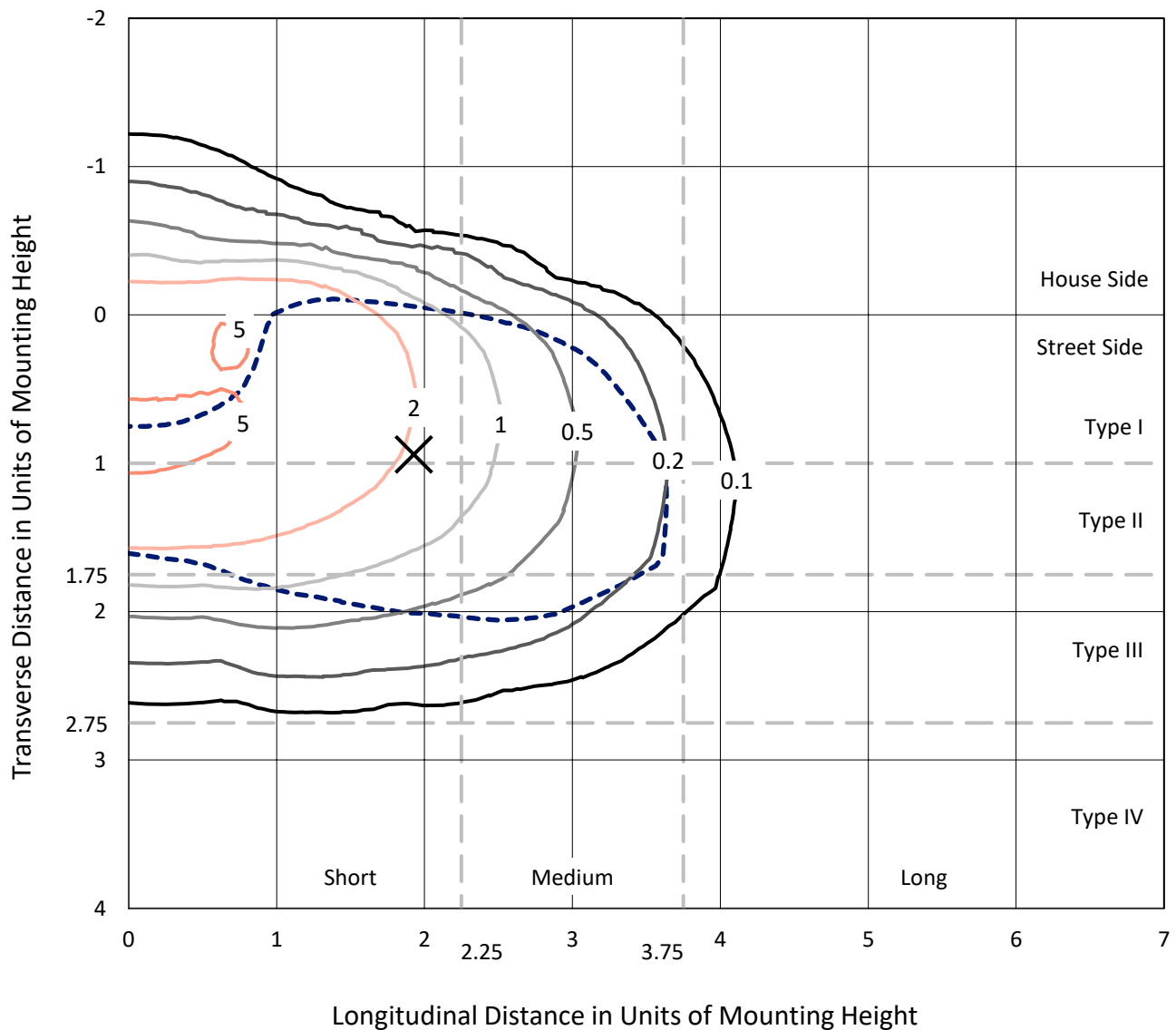


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Iso-Footcandle Lines of Horizontal Illumination

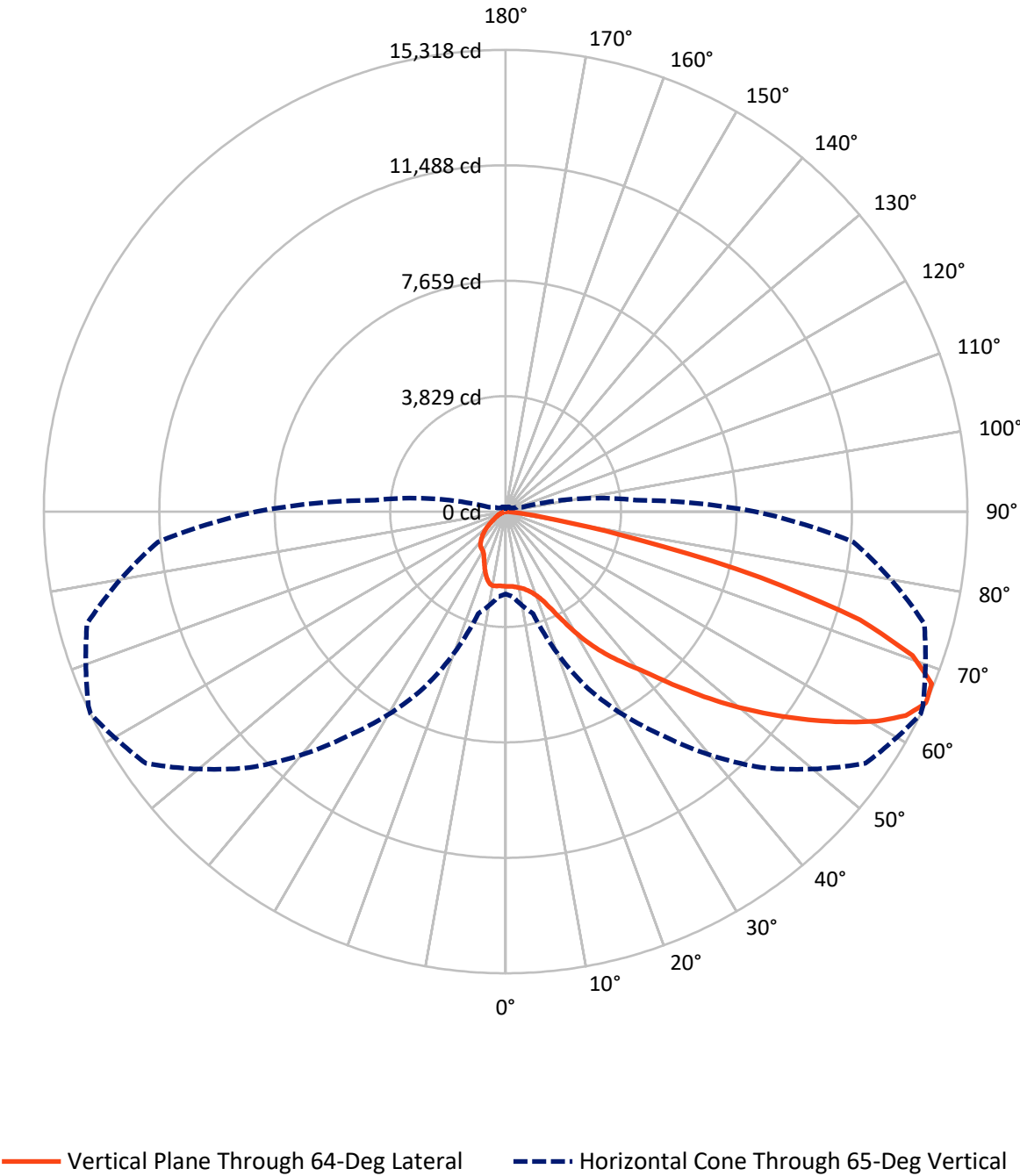
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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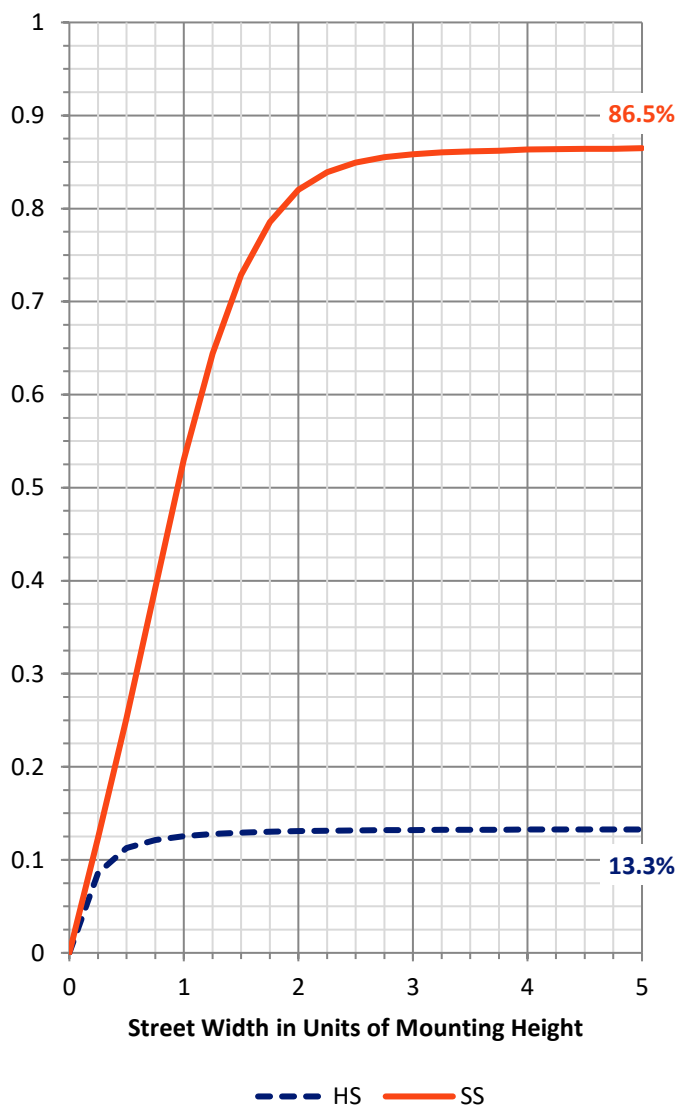
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2854.1	0.0	2854.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	18488.4	0.0	18488.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	21342.6	0.0	21342.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.0	1.1
10°-20°	621.2	2.9
20°-30°	1177.1	5.5
30°-40°	2381.8	11.2
40°-50°	4057.5	19.0
50°-60°	5517.9	25.9
60°-70°	5181.6	24.3
70°-80°	2076.0	9.7
80°-90°	100.6	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°	21342.6	100.0
0°-180°	21342.6	100.0

Coefficient of Utilization



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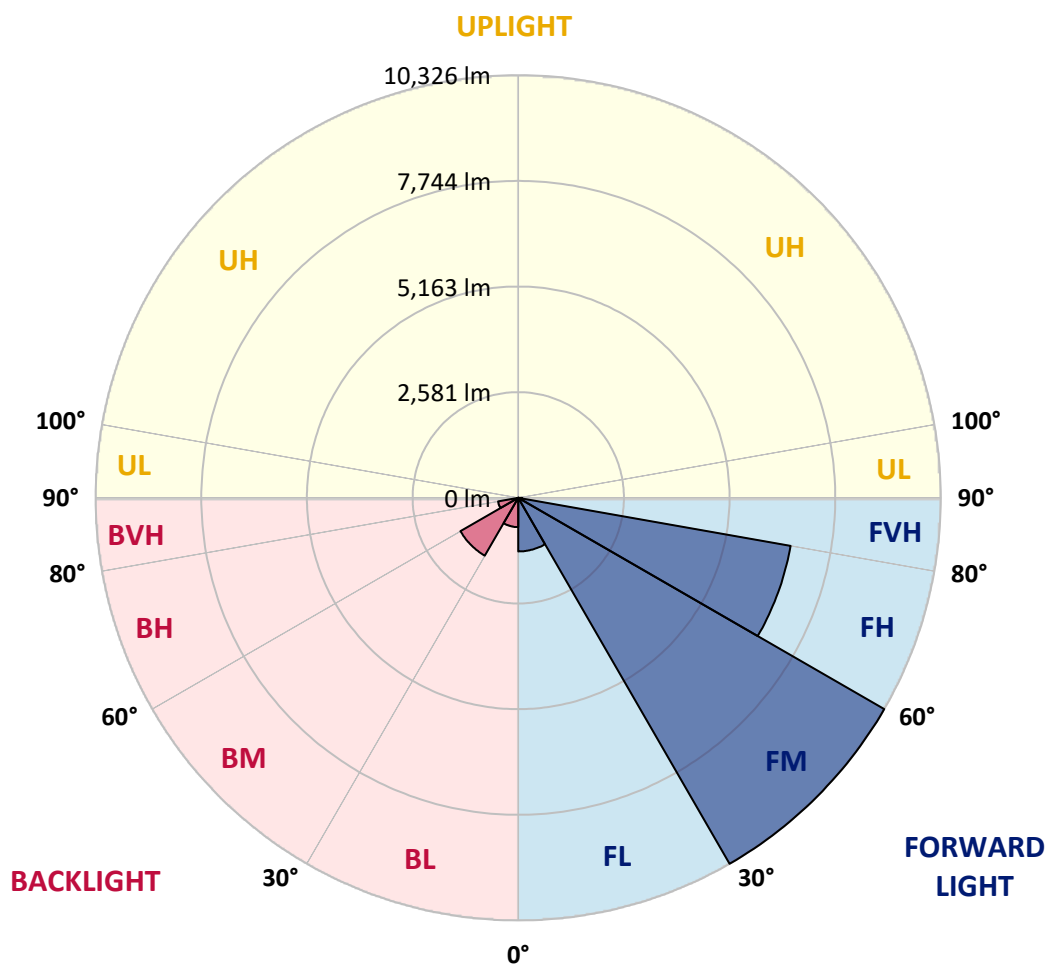
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1310.7	6.1			
FM	(30°-60°)	10325.5	48.4			
FH	(60°-80°)	6756.6	31.7			G3/7500
FVH	(80°-90°)	95.7	0.4			G1/100
BL	(0°-30°)	716.6	3.4	B2/1000		
BM	(30°-60°)	1631.7	7.6	B2/2500		
BH	(60°-80°)	500.9	2.3	B2/1000		G2/1000
BVH	(80°-90°)	4.9	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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3
2.5°	2473.7	2491.0	2486.6	2482.3	2480.9	2483.8	2485.2	2483.8	2483.8	2483.8	2485.2
5°	2426.6	2440.8	2440.8	2450.9	2465.2	2482.3	2495.3	2498.1	2501.0	2505.2	2503.9
7.5°	2336.4	2347.9	2356.5	2389.4	2425.1	2470.9	2509.5	2529.6	2532.5	2548.1	2553.9
10°	2274.9	2289.2	2303.5	2337.8	2389.4	2458.1	2523.9	2572.5	2579.6	2616.8	2634.0
12.5°	2272.0	2286.4	2304.9	2342.1	2402.2	2475.2	2555.3	2625.4	2638.4	2692.7	2728.4
15°	2302.0	2319.3	2336.4	2382.2	2446.6	2535.3	2621.1	2708.5	2721.3	2798.6	2837.2
17.5°	2363.6	2386.5	2399.4	2445.1	2513.8	2612.5	2725.6	2825.7	2837.2	2927.3	2976.0
20°	2485.2	2512.4	2516.7	2553.9	2621.1	2727.0	2861.5	2986.0	3000.3	3103.3	3157.7
22.5°	2737.1	2775.7	2741.4	2759.9	2820.0	2925.9	3071.8	3229.3	3249.2	3366.6	3415.2
25°	3180.6	3234.9	3146.2	3114.8	3140.5	3250.7	3433.9	3632.7	3655.6	3750.0	3774.4
27.5°	4051.9	3981.8	3847.3	3715.6	3638.4	3701.4	3907.4	4153.5	4182.1	4273.6	4245.0
30°	5009.1	4947.6	4765.8	4474.0	4290.9	4280.8	4471.2	4745.9	4778.8	4866.0	4778.8
32.5°	5967.7	5909.0	5711.6	5352.4	5034.8	4877.5	5009.1	5313.8	5331.0	5386.8	5258.0
35°	6910.6	6850.5	6653.0	6285.3	5894.7	5537.0	5511.2	5854.7	5860.3	5919.1	5727.3
37.5°	7859.2	7809.1	7598.7	7238.1	6853.4	6359.7	6120.8	6366.9	6374.1	6431.3	6232.4
40°	8535.9	8557.3	8412.8	8133.9	7803.3	7264.0	6804.7	6912.0	6869.0	6964.9	6846.2
42.5°	9116.8	9159.7	9033.8	8893.6	8701.8	8226.9	7651.7	7633.1	7564.4	7616.0	7492.9
45°	9619.0	9654.8	9541.7	9508.8	9504.5	9171.2	8577.4	8465.8	8369.9	8359.9	8212.5
47.5°	9803.5	9872.2	9920.9	10031.1	10245.6	10105.4	9534.6	9361.4	9254.1	9175.4	8942.2
50°	9873.6	9946.6	10112.5	10433.1	10941.0	11001.1	10487.4	10292.8	10161.2	10018.1	9674.8
52.5°	9779.2	9909.4	10132.6	10672.0	11408.9	11719.3	11401.7	11231.4	11081.2	10848.0	10338.7
55°	9222.6	9352.8	9809.2	10669.1	11642.1	12222.9	12265.9	12190.0	12021.2	11653.5	10875.1
57.5°	8049.4	8242.5	8965.2	10305.8	11637.7	12656.5	13112.8	13167.3	12978.3	12451.9	11297.2
60°	6424.1	6685.9	7567.3	9500.2	11278.7	12891.1	13855.4	14127.3	13927.0	13238.8	11639.2
62.5°	4482.5	4785.8	5620.0	8238.3	10457.4	12722.3	14397.7	14899.9	14748.2	13942.7	11770.8
65°	2734.2	2831.5	3504.0	6482.7	9061.0	12015.5	14565.0	15317.7	15267.6	14373.4	11576.2
67.5°	1821.3	1902.9	2096.0	4445.3	7033.6	10603.3	14164.5	15244.7	15259.0	14303.3	10863.8
70°	1097.4	1167.5	1293.4	2585.4	4558.4	8392.8	12924.0	14314.7	14397.7	13366.1	9513.1
72.5°	452.1	499.4	613.8	1171.8	2360.8	5326.7	10291.4	12290.2	12483.4	11238.6	7301.2
75°	256.1	280.4	360.6	588.0	1024.4	2482.3	6233.8	8724.7	9009.4	7746.1	4392.4
77.5°	170.3	181.7	233.2	380.6	576.6	847.0	2664.1	4545.5	5089.2	4230.8	1901.5
80°	114.5	124.4	160.2	254.7	374.8	363.4	848.4	1684.0	2071.7	1453.7	463.6
82.5°	77.3	78.7	114.5	167.4	237.5	176.0	250.4	523.7	658.2	420.7	176.0
85°	44.4	42.9	84.5	97.3	105.9	73.0	75.8	157.3	206.0	177.4	100.1
87.5°	5.7	8.6	32.9	25.7	14.3	15.8	15.8	27.2	40.1	42.9	21.4
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°	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3	2482.3
2.5°	2485.2	2483.8	2479.5	2475.2	2465.2	2459.5	2462.4	2459.5	2458.1	2459.5	2465.2
5°	2503.9	2499.6	2488.1	2473.7	2453.7	2429.5	2413.7	2390.8	2369.3	2356.5	2359.3
7.5°	2553.9	2549.6	2533.9	2493.8	2429.5	2327.9	2234.8	2153.3	2091.7	2055.9	2057.4
10°	2634.0	2626.9	2602.6	2513.8	2345.0	2123.3	1938.7	1785.6	1685.4	1638.3	1634.0
12.5°	2728.4	2719.8	2677.0	2495.3	2184.8	1838.5	1583.8	1413.6	1320.6	1279.1	1274.8
15°	2840.1	2828.6	2744.2	2406.5	1951.6	1523.8	1290.6	1163.2	1103.1	1065.9	1067.3
17.5°	2978.9	2958.8	2794.3	2273.4	1698.3	1283.4	1110.3	1014.4	961.4	925.7	922.8
20°	3159.2	3126.2	2834.3	2114.7	1465.1	1131.7	988.6	908.6	868.5	837.0	831.3
22.5°	3410.9	3363.7	2883.0	1943.0	1300.5	1027.3	898.5	839.9	807.0	771.2	765.5
25°	3722.8	3667.0	2943.1	1784.1	1187.6	937.2	832.7	784.0	745.4	704.0	699.7
27.5°	4159.2	4059.1	3014.6	1653.9	1090.2	859.9	772.6	718.2	673.8	639.5	632.4
30°	4645.7	4481.1	3077.6	1575.2	1001.5	788.3	693.9	639.5	598.1	573.7	569.5
32.5°	5106.3	4883.2	3119.1	1540.9	921.4	706.8	608.0	549.4	517.9	510.8	515.1
35°	5541.4	5246.6	3114.8	1508.0	849.8	625.2	523.7	463.6	439.2	443.5	443.5
37.5°	6042.1	5634.3	3084.7	1456.5	791.2	550.8	450.7	397.7	376.3	377.7	383.5
40°	6624.4	6082.1	3066.1	1359.3	726.8	482.2	390.6	347.7	331.9	326.3	324.8
42.5°	7245.3	6515.6	3069.0	1249.1	646.7	420.7	349.1	313.3	299.0	294.7	293.4
45°	7869.1	6929.1	3073.3	1134.6	562.3	373.4	319.1	289.0	280.4	274.7	274.7
47.5°	8455.7	7281.1	2993.1	1011.6	479.3	337.6	294.7	274.7	267.5	260.3	260.3
50°	9002.3	7515.7	2800.0	868.5	413.5	309.0	276.1	261.8	254.7	247.5	247.5
52.5°	9427.2	7552.9	2480.9	721.1	367.7	287.6	264.7	251.8	243.2	236.1	234.6
55°	9616.1	7319.7	2027.3	583.7	331.9	269.0	253.3	240.4	230.3	223.2	221.8
57.5°	9567.5	6829.0	1581.0	469.2	297.6	250.4	238.9	230.3	218.9	207.5	206.0
60°	9328.5	6172.2	1191.9	390.6	266.1	230.3	223.2	216.1	200.3	183.2	180.3
62.5°	8915.0	5346.7	849.8	323.4	231.8	207.5	204.6	198.8	176.0	144.5	141.7
65°	8282.6	4343.7	572.3	269.0	198.8	181.7	183.2	173.1	143.1	107.3	104.4
67.5°	7358.4	3176.3	366.2	220.4	165.9	151.7	153.1	147.4	121.6	91.5	87.2
70°	6180.9	2103.2	238.9	167.4	133.0	117.4	125.9	127.3	103.0	74.4	71.5
72.5°	4531.2	1241.9	167.4	124.4	97.3	81.6	103.0	105.9	83.0	55.8	52.9
75°	2582.5	589.5	125.9	90.1	60.1	57.2	80.2	80.2	57.2	37.2	34.3
77.5°	1084.6	246.1	88.7	58.6	34.3	32.9	54.3	50.1	28.6	17.2	17.2
80°	313.3	110.2	47.3	28.6	14.3	12.9	21.4	15.8	7.2	2.9	2.9
82.5°	123.0	48.7	18.6	11.5	5.7	5.7	2.9	0.0	0.0	0.0	0.0
85°	73.0	20.0	8.6	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	18.6	4.3	2.9	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)