

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: P967860

Luminaire Tested: **NAV-SB5A-827-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967860
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-SB5A-827-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA 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: 16814.1 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

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



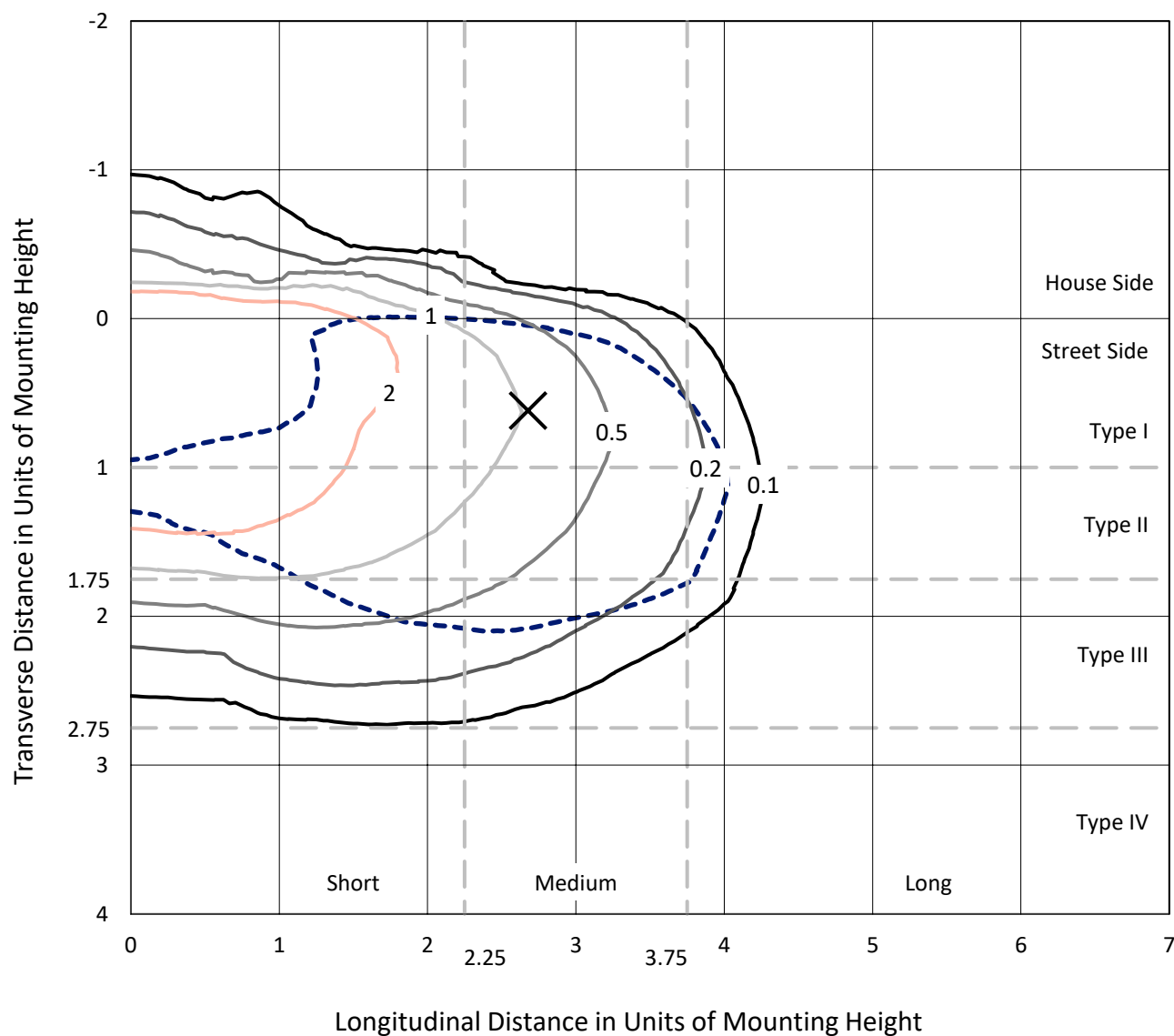
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

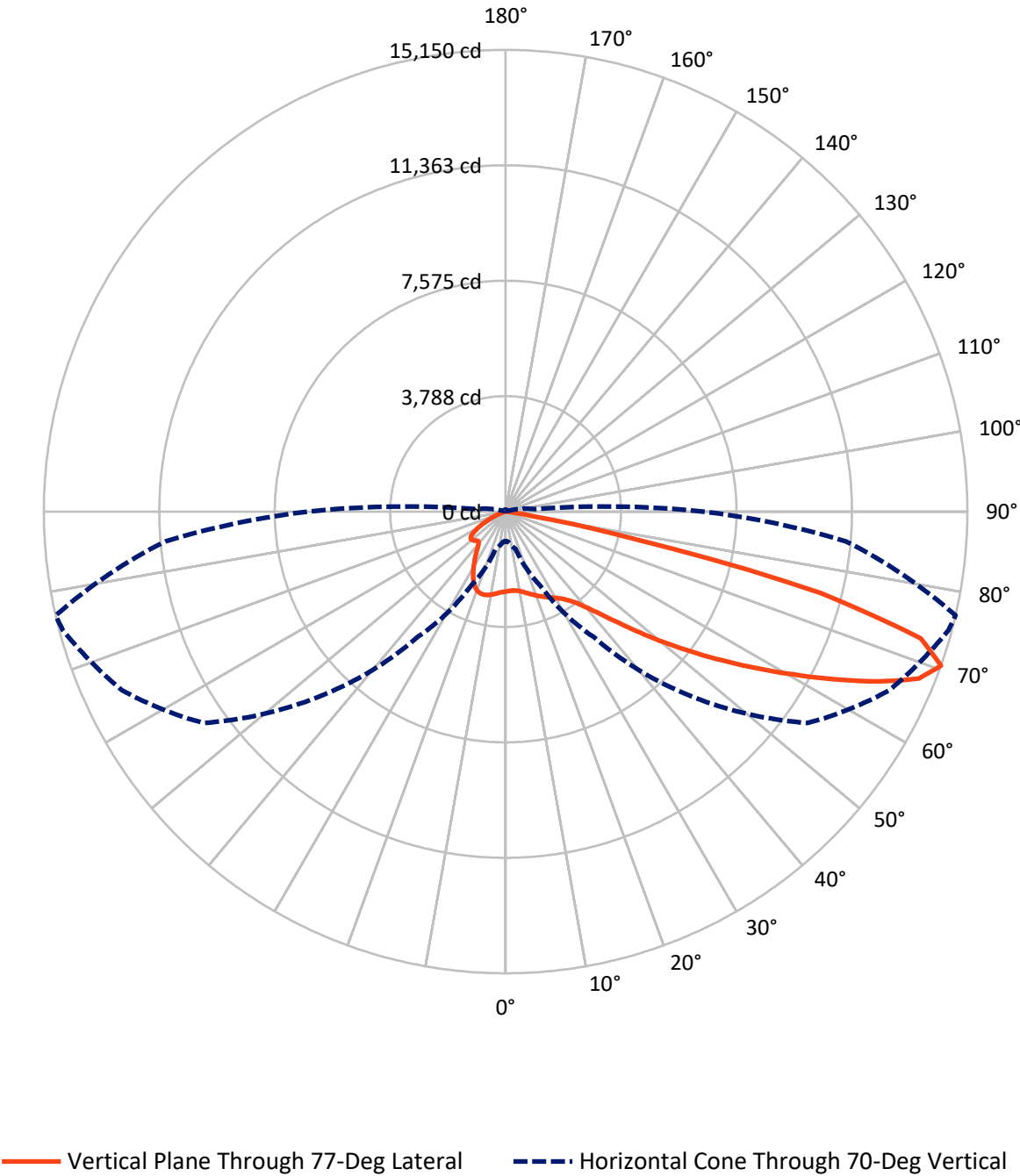
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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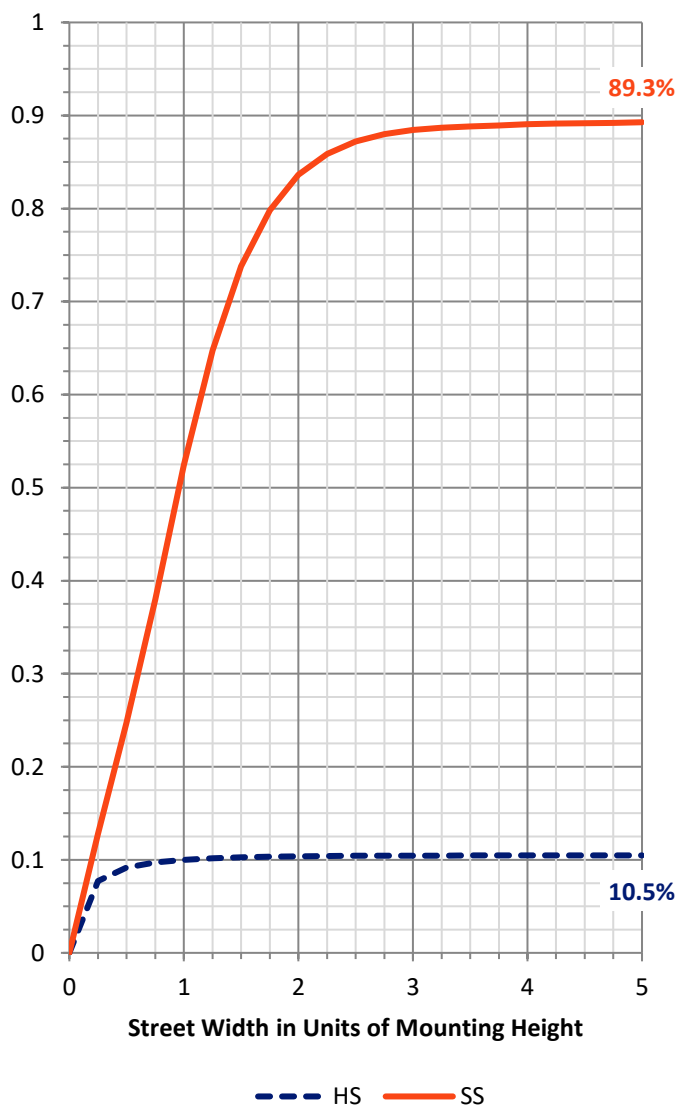
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1772.4	0.0	1772.4
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	15041.7	0.0	15041.7
	% Fixture	89.5	0.0	89.5
Total	Lumens	16814.1	0.0	16814.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.0	1.3
10°-20°	536.6	3.2
20°-30°	829.9	4.9
30°-40°	1506.0	9.0
40°-50°	2842.7	16.9
50°-60°	4107.5	24.4
60°-70°	4372.3	26.0
70°-80°	2317.0	13.8
80°-90°	76.1	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°	16814.1	100.0
0°-180°	16814.1	100.0

Coefficient of Utilization



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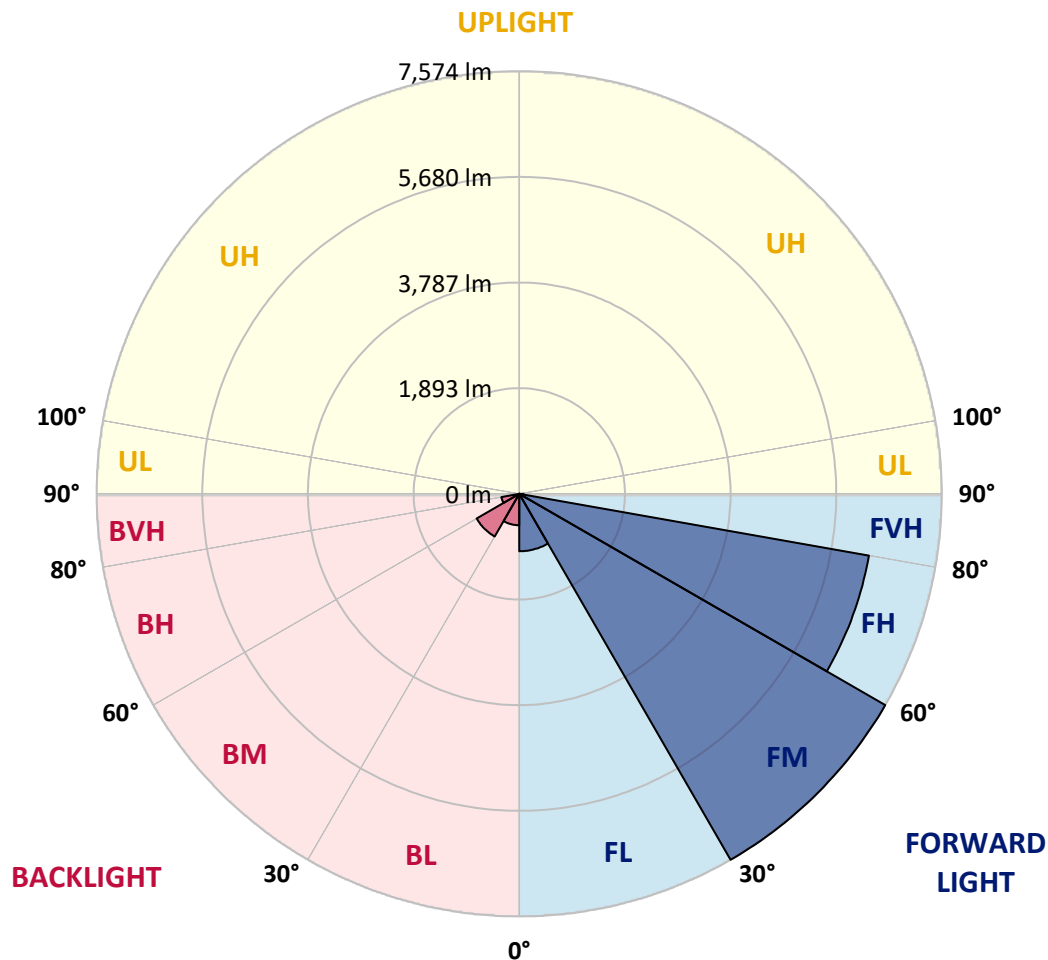
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1029.4	6.1			
FM	(30°-60°)	7573.8	45.0			
FH	(60°-80°)	6364.4	37.9			G3/7500
FVH	(80°-90°)	74.0	0.4			G1/100
BL	(0°-30°)	563.1	3.3	B2/1000		
BM	(30°-60°)	882.3	5.2	B1/1000		
BH	(60°-80°)	324.9	1.9	B1/500		G1/500
BVH	(80°-90°)	2.0	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°	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7
2.5°	2462.4	2484.7	2481.5	2496.4	2501.6	2522.9	2544.2	2572.8	2604.6	2603.6	2624.8
5°	2323.3	2345.6	2350.8	2371.0	2396.6	2429.5	2473.0	2530.3	2589.8	2599.3	2641.8
7.5°	2158.6	2182.0	2195.9	2236.2	2282.9	2350.8	2422.0	2505.9	2604.6	2618.5	2700.3
10°	1994.1	2015.4	2033.4	2090.7	2165.0	2266.0	2381.7	2502.7	2635.5	2655.6	2771.4
12.5°	1892.2	1912.3	1932.5	1982.5	2074.8	2198.0	2355.1	2517.6	2686.4	2715.1	2868.0
15°	1856.1	1874.1	1890.0	1934.7	2020.7	2160.8	2349.8	2548.4	2751.2	2789.4	2984.8
17.5°	1861.4	1870.9	1881.6	1915.5	1999.4	2143.8	2359.3	2601.4	2827.7	2861.6	3101.5
20°	1892.2	1897.5	1898.5	1921.9	1996.2	2141.7	2378.5	2652.4	2899.8	2945.4	3217.3
22.5°	1931.4	1933.6	1931.4	1947.4	2016.4	2157.6	2403.9	2714.0	2980.5	3023.0	3334.1
25°	2115.2	2074.8	2023.9	1993.0	2050.4	2188.4	2442.2	2796.8	3068.6	3110.1	3447.7
27.5°	2685.3	2569.6	2387.0	2182.0	2120.4	2233.0	2495.3	2880.8	3157.8	3195.0	3569.9
30°	3611.3	3459.4	3149.3	2687.4	2345.6	2326.4	2564.3	2964.6	3252.3	3292.7	3700.5
32.5°	4539.3	4502.1	4144.3	3505.1	2852.1	2534.5	2678.9	3078.2	3377.7	3409.5	3876.8
35°	5477.9	5402.6	5109.5	4477.7	3632.5	2958.3	2870.1	3226.9	3542.2	3578.4	4133.6
37.5°	6196.7	6151.1	5969.6	5449.3	4558.4	3612.3	3197.2	3457.3	3781.1	3821.5	4462.8
40°	6831.7	6810.5	6748.9	6405.9	5593.6	4468.2	3705.8	3814.0	4112.4	4160.2	4866.3
42.5°	7330.8	7380.7	7415.8	7320.1	6660.8	5445.0	4389.6	4315.2	4574.4	4623.2	5380.2
45°	7841.6	7858.6	7999.7	8137.8	7720.5	6466.5	5160.5	4902.5	5148.8	5209.3	5996.1
47.5°	8169.7	8237.6	8486.1	8729.2	8611.3	7479.4	5988.7	5595.8	5814.5	5928.2	6686.3
50°	8194.1	8322.6	8664.4	9088.2	9260.2	8443.6	6889.1	6385.7	6618.3	6743.6	7423.2
52.5°	7787.4	7987.0	8516.8	9137.0	9610.5	9260.2	7820.3	7175.8	7474.2	7637.7	8187.7
55°	5970.6	6231.8	7961.5	8871.5	9624.3	9879.2	8727.1	7998.7	8427.7	8612.5	9013.7
57.5°	5201.9	5333.5	6259.5	8410.6	9368.4	10128.7	9546.8	8782.3	9465.1	9694.4	9794.2
60°	4328.0	4501.1	5249.6	7656.7	9021.2	10153.1	10271.0	9793.2	10589.6	10847.6	10509.9
62.5°	2941.2	3129.2	3873.5	6361.4	8546.6	10141.5	10864.6	10833.7	11839.3	12116.4	11116.2
65°	1822.0	1939.9	2430.5	5194.4	7883.0	10154.2	11485.7	12097.4	13158.0	13439.5	11585.5
67.5°	1439.8	1493.9	1749.9	3988.2	6739.4	9867.5	12105.8	13285.5	14399.3	14622.3	11728.9
70°	967.3	1000.2	1273.2	2673.7	5013.9	8544.5	12094.2	13882.2	15038.6	15150.0	11206.4
72.5°	509.6	535.2	744.4	1238.1	3028.4	6073.6	10194.5	13168.7	14402.5	14234.8	9578.7
75°	254.8	297.4	501.2	628.6	1293.3	3387.2	6330.6	10382.4	11336.0	10686.1	6145.8
77.5°	193.2	233.6	414.1	414.1	450.2	1140.4	2681.1	5662.7	5223.1	4349.2	1804.0
80°	123.2	159.3	362.0	313.2	188.0	289.9	698.6	1586.4	1109.6	844.2	328.1
82.5°	72.2	104.0	301.6	207.0	105.2	107.2	197.5	337.6	287.7	224.1	100.9
85°	28.7	68.0	207.0	81.8	41.4	26.5	59.4	72.2	59.4	44.6	25.5
87.5°	0.0	15.9	36.1	0.0	3.2	2.2	4.2	5.3	5.3	4.2	8.5
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°	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7	2622.7
2.5°	2634.4	2636.5	2642.9	2643.9	2629.0	2610.0	2602.5	2599.3	2586.6	2585.6	2587.6
5°	2666.2	2675.8	2666.2	2638.7	2572.8	2480.4	2410.3	2353.0	2300.9	2285.0	2275.5
7.5°	2730.0	2739.5	2710.8	2602.5	2436.8	2253.2	2087.5	1970.8	1865.6	1826.3	1810.4
10°	2821.2	2834.0	2743.7	2525.0	2231.9	1936.7	1656.4	1459.0	1304.9	1242.3	1215.8
12.5°	2935.9	2941.2	2761.8	2407.1	1965.4	1543.9	1146.8	935.4	798.5	747.5	731.6
15°	3062.3	3054.8	2763.9	2246.8	1602.3	1091.5	748.6	614.8	559.5	542.6	542.6
17.5°	3195.0	3164.2	2721.5	2015.4	1204.1	746.5	555.3	523.5	513.9	509.6	508.6
20°	3325.6	3256.6	2643.9	1712.7	864.3	557.5	504.4	494.8	489.5	487.4	485.2
22.5°	3444.5	3326.6	2511.2	1361.3	627.5	492.7	476.7	468.2	458.7	454.5	453.4
25°	3560.2	3367.0	2324.3	1033.2	502.2	460.8	448.1	432.1	419.4	414.1	411.9
27.5°	3672.9	3392.5	2090.7	764.5	448.1	431.1	407.7	385.4	375.9	373.7	371.7
30°	3792.8	3401.1	1825.3	570.2	415.1	393.9	360.0	334.5	329.1	330.3	330.3
32.5°	3939.4	3413.8	1557.7	467.2	387.6	349.3	309.0	282.5	278.2	282.5	281.4
35°	4114.6	3439.3	1299.7	430.0	363.2	303.7	260.1	237.8	233.6	236.8	235.7
37.5°	4352.4	3480.7	1058.6	422.6	343.0	265.5	218.7	200.7	200.7	201.7	200.7
40°	4668.8	3591.1	843.1	417.3	332.3	236.8	184.8	177.3	180.5	182.7	182.7
42.5°	5054.3	3825.7	697.6	410.9	320.6	224.1	167.8	164.6	169.8	172.0	172.0
45°	5486.4	4123.1	646.7	400.3	310.1	232.6	160.3	156.1	162.5	163.5	164.6
47.5°	5933.4	4414.0	640.3	388.6	299.4	245.3	158.3	148.6	156.1	157.1	158.3
50°	6385.7	4604.1	646.7	370.5	282.5	245.3	159.3	141.2	147.6	150.8	151.8
52.5°	6841.3	4691.1	642.4	331.3	252.7	230.4	159.3	134.9	141.2	143.3	143.3
55°	7283.0	4674.1	577.6	272.9	214.5	203.9	155.0	129.6	133.8	134.9	134.9
57.5°	7632.4	4437.3	457.7	212.4	174.1	169.8	141.2	123.2	126.4	125.3	125.3
60°	7815.0	3917.0	327.1	163.5	136.9	133.8	124.2	114.7	116.8	111.5	110.4
62.5°	7817.2	3229.0	218.7	129.6	109.4	106.2	106.2	103.0	100.9	90.3	87.0
65°	7650.4	2465.5	145.4	103.0	88.1	82.8	89.2	88.1	80.7	65.8	63.8
67.5°	7272.4	1616.1	110.4	80.7	68.0	64.8	71.1	74.3	69.0	55.2	54.1
70°	6495.1	940.7	91.3	62.6	50.9	47.8	57.3	63.8	57.3	44.6	42.4
72.5°	5395.1	507.6	74.3	46.7	35.1	31.9	45.6	52.1	45.6	32.9	31.9
75°	3500.8	271.8	57.3	30.7	18.0	20.2	33.9	38.2	31.9	21.2	19.1
77.5°	1175.5	120.0	36.1	14.9	8.5	8.5	20.2	23.4	14.9	7.5	6.4
80°	262.3	49.9	14.9	6.4	3.2	3.2	4.2	4.2	2.2	0.0	0.0
82.5°	86.0	20.2	6.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	32.9	7.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.7	1.0	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)