

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: P966158

Luminaire Tested: **NAV-SB4B-735-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966158
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-SB4B-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 17514.2 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 147
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



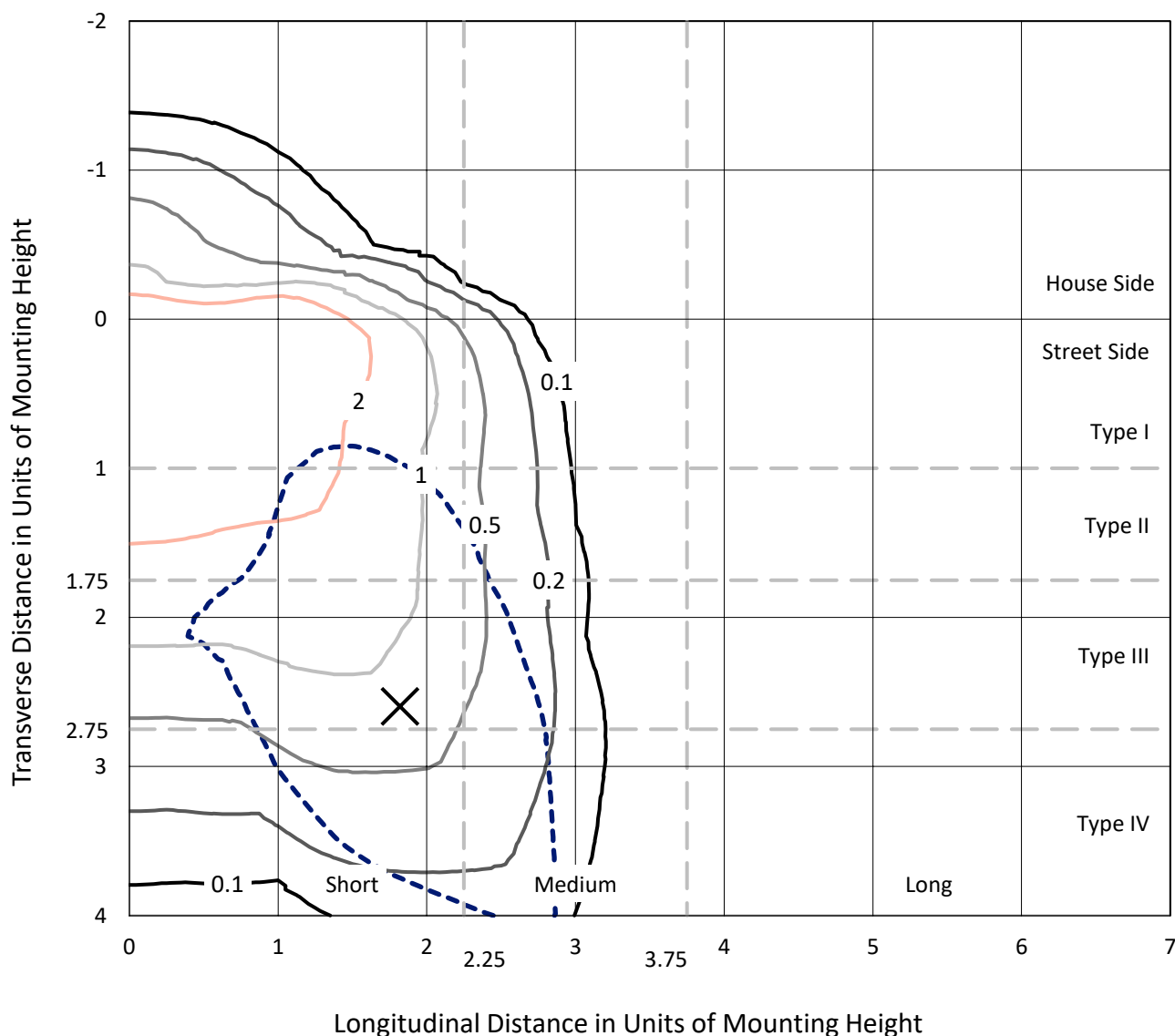
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

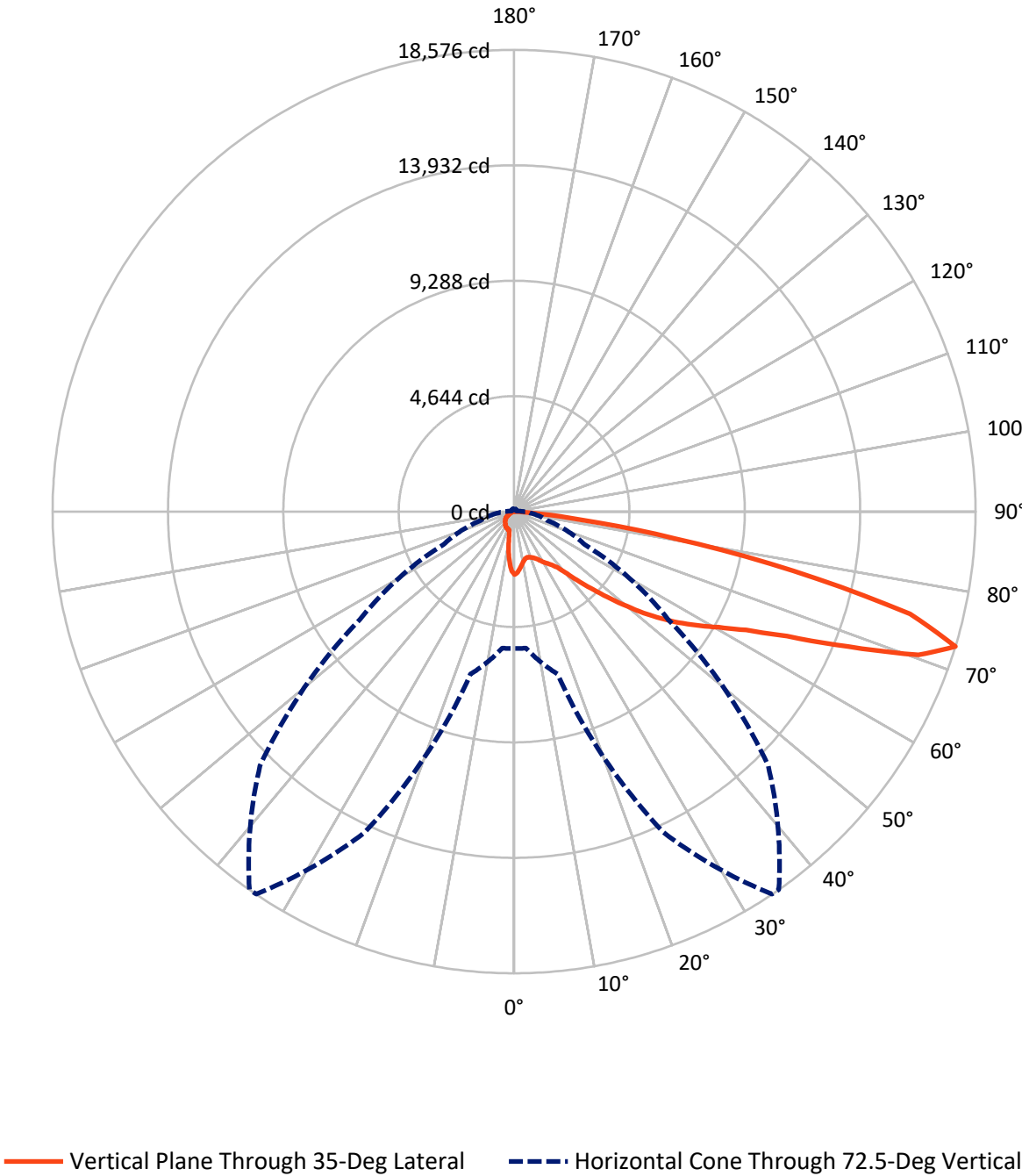


Based on 25 foot mounting height. Maximum calculated value = 4.1 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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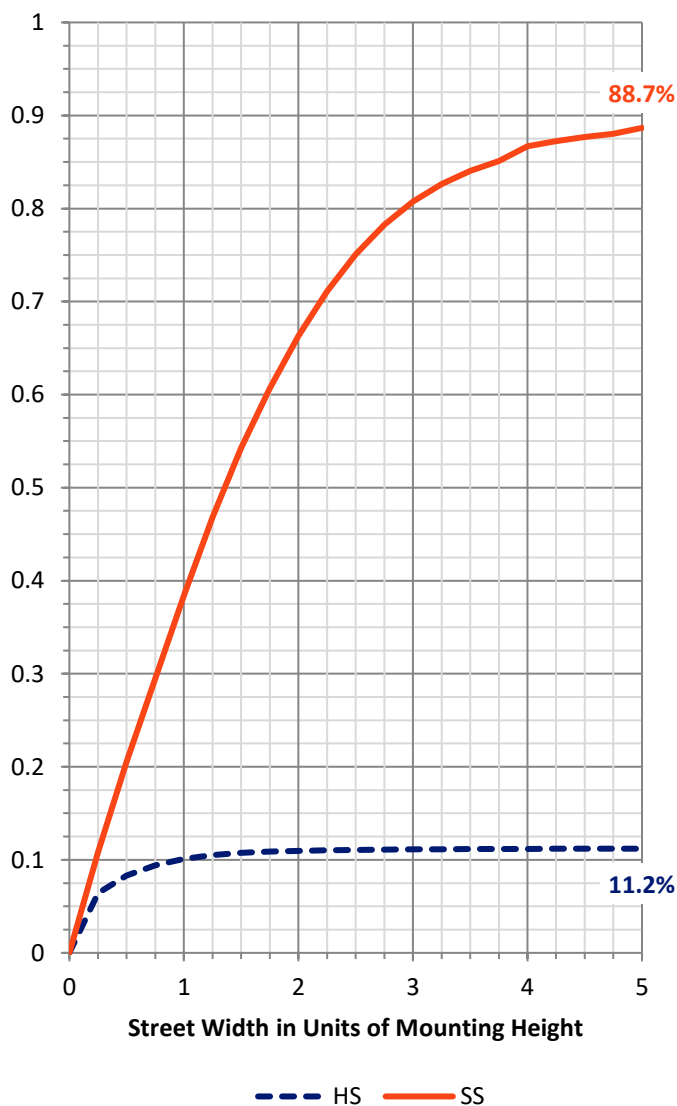
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1971.1	0.0	1971.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	15543.0	0.0	15543.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	17514.2	0.0	17514.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.6	1.2
10°-20°	488.0	2.8
20°-30°	792.7	4.5
30°-40°	1322.6	7.6
40°-50°	2502.4	14.3
50°-60°	3976.3	22.7
60°-70°	4918.9	28.1
70°-80°	3057.6	17.5
80°-90°	247.1	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°	17514.2	100.0
0°-180°	17514.2	100.0

Coefficient of Utilization



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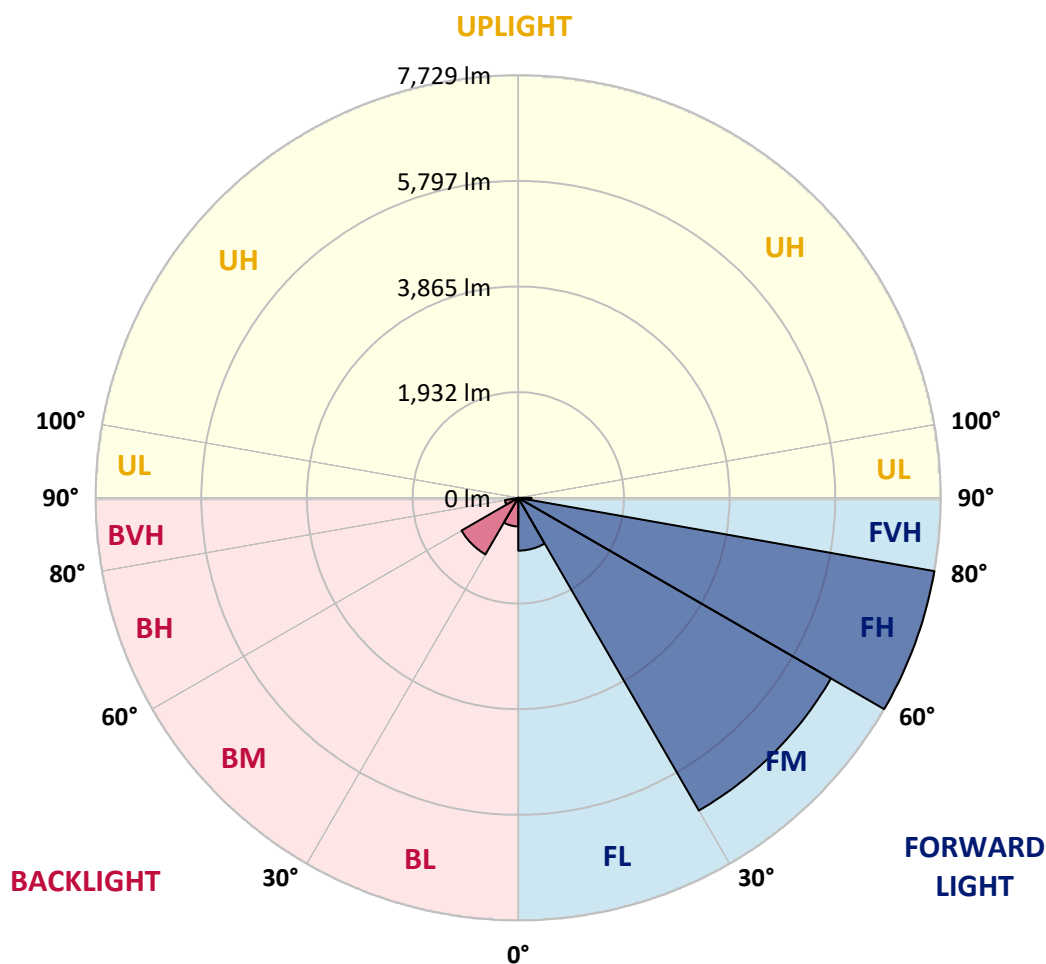
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	965.5	5.5			
FM	(30°-60°)	6604.6	37.7			
FH	(60°-80°)	7729.2	44.1			G4/12000
FVH	(80°-90°)	243.7	1.4			G3/500
BL	(0°-30°)	523.8	3.0	B2/1000		
BM	(30°-60°)	1196.7	6.8	B2/2500		
BH	(60°-80°)	247.4	1.4	B1/500		G1/500
BVH	(80°-90°)	3.4	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°	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4
2.5°	2425.5	2446.0	2449.9	2456.3	2456.3	2464.0	2476.8	2494.7	2524.3	2539.6	2549.9
5°	2235.5	2250.9	2270.2	2285.5	2315.1	2319.0	2369.0	2417.8	2485.7	2537.1	2573.1
7.5°	2044.4	2062.3	2087.9	2125.1	2163.7	2175.3	2250.9	2333.1	2440.8	2537.1	2597.5
10°	1909.6	1910.8	1934.0	1971.2	2032.8	2046.9	2139.3	2256.0	2390.8	2521.7	2620.5
12.5°	1833.8	1842.8	1853.1	1881.3	1940.3	1949.3	2048.2	2185.5	2340.8	2512.7	2647.5
15°	1833.8	1840.3	1846.6	1860.8	1908.2	1916.0	2003.3	2140.6	2315.1	2516.6	2691.1
17.5°	1853.1	1863.3	1858.2	1874.9	1925.0	1930.1	2007.1	2127.7	2313.8	2541.0	2757.9
20°	1899.3	1907.0	1896.8	1907.0	1957.0	1967.3	2046.9	2152.1	2335.7	2583.3	2841.3
22.5°	1972.4	1976.3	1951.9	1959.6	2010.9	2023.8	2116.2	2221.4	2388.2	2651.4	2952.9
25°	2064.9	2072.5	2035.3	2044.4	2093.0	2108.5	2215.0	2325.3	2471.7	2745.1	3095.4
27.5°	2171.4	2175.3	2143.2	2141.8	2204.8	2226.5	2334.3	2453.6	2583.3	2863.0	3275.0
30°	2293.2	2304.8	2274.1	2268.9	2348.5	2366.4	2472.9	2611.5	2747.6	3040.1	3530.4
32.5°	2389.5	2398.5	2380.6	2393.4	2474.2	2488.4	2641.0	2834.8	3005.5	3291.7	3878.2
35°	2528.2	2533.3	2492.2	2515.2	2607.7	2643.6	2870.8	3148.0	3330.2	3607.4	4332.5
37.5°	3029.9	3029.9	2855.3	2741.2	2829.7	2861.8	3185.2	3542.0	3730.6	4030.9	4904.8
40°	3724.1	3712.7	3457.2	3223.7	3212.1	3275.0	3633.0	4038.6	4247.8	4539.1	5549.0
42.5°	4464.6	4446.7	4098.9	3867.9	3829.4	3851.2	4150.2	4650.7	4863.7	5158.9	6242.0
45°	5121.7	5116.6	4798.3	4487.8	4418.5	4487.8	4795.8	5366.8	5519.5	5830.1	6933.7
47.5°	5672.2	5672.2	5440.0	5237.2	5201.3	5242.4	5669.7	6161.2	6147.0	6544.9	7607.4
50°	6306.2	6301.1	6080.3	5993.1	6030.3	6088.0	6675.8	6997.9	6796.5	7246.9	8209.3
52.5°	6750.2	6781.0	6705.3	6691.2	6881.1	6981.2	7697.3	7816.6	7377.7	7912.9	8659.8
55°	7101.8	7137.8	7225.0	7323.8	7689.7	7820.5	8686.8	8593.1	7864.1	8490.4	8919.0
57.5°	7599.8	7548.4	7683.2	7878.3	8469.9	8627.7	9645.4	9325.9	8255.6	8958.8	8947.2
60°	8204.2	8211.9	8235.1	8481.4	9248.8	9451.6	10589.9	10018.9	8507.1	9246.2	8634.1
62.5°	8930.5	8942.1	8989.6	9368.2	10294.7	10486.0	11596.0	10586.0	8622.6	9165.4	7825.7
65°	8880.5	8929.3	9459.3	10754.2	11884.8	12073.4	12770.3	10983.9	8448.0	8426.2	6371.6
67.5°	8090.0	8169.6	9056.3	12409.7	14281.9	14492.5	14189.6	11062.1	7694.8	6552.6	4156.7
70°	7053.1	7081.3	8147.7	13898.3	17057.7	17270.8	15460.1	10201.0	5839.1	3654.8	1862.1
72.5°	5507.9	5514.4	6765.6	14243.5	18564.4	18576.0	14463.0	7572.8	3140.3	1403.9	646.8
75°	3934.7	3896.1	4531.4	11551.1	16332.8	16463.7	10842.7	3552.2	1199.9	663.5	322.2
77.5°	2109.8	2152.1	2564.0	6850.3	11282.9	11506.1	5916.1	1024.1	610.9	451.7	213.0
80°	651.9	687.9	1051.0	3136.4	6390.9	6525.7	2193.2	455.6	426.1	322.2	139.9
82.5°	205.3	213.0	490.3	1317.9	2652.6	2714.2	635.2	258.0	291.3	213.0	82.1
85°	59.0	60.3	218.1	491.5	655.8	668.6	178.4	100.1	166.9	132.2	42.3
87.5°	6.5	20.5	82.1	82.1	57.7	56.5	19.3	21.8	47.5	16.7	7.7
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°	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4
2.5°	2543.5	2544.8	2528.2	2499.9	2469.1	2443.4	2411.3	2385.7	2367.8	2362.6	2371.5
5°	2561.5	2552.6	2505.0	2419.0	2316.4	2227.8	2129.0	2050.7	1999.4	1977.6	1985.3
7.5°	2588.4	2562.8	2458.9	2289.4	2093.0	1918.6	1741.5	1604.1	1516.9	1473.2	1479.7
10°	2611.5	2560.2	2381.8	2102.1	1801.7	1537.4	1298.7	1133.1	1040.8	997.1	998.5
12.5°	2633.3	2558.9	2281.8	1880.1	1473.2	1149.8	927.8	845.7	820.0	811.1	808.5
15°	2674.4	2562.8	2156.0	1626.0	1145.9	868.8	787.9	786.7	791.8	789.2	787.9
17.5°	2730.9	2566.6	2013.5	1356.5	884.2	766.2	762.3	773.9	781.6	777.7	776.4
20°	2804.0	2582.0	1862.1	1089.6	759.7	740.5	749.5	759.7	766.2	759.7	758.4
22.5°	2906.7	2608.9	1696.6	875.2	720.0	725.1	732.8	744.4	750.7	741.8	740.5
25°	3032.5	2651.4	1533.6	761.0	700.7	707.1	718.6	731.4	739.2	730.2	728.9
27.5°	3195.4	2719.3	1383.4	735.3	681.4	685.3	702.0	721.2	731.4	720.0	720.0
30°	3431.6	2830.9	1253.8	746.9	669.9	660.9	684.0	710.9	722.5	712.3	710.9
32.5°	3744.7	2988.8	1174.2	764.9	664.7	632.6	654.5	689.1	708.4	702.0	702.0
35°	4155.3	3228.9	1143.4	785.4	660.9	603.1	618.6	655.8	689.1	695.6	695.6
37.5°	4653.3	3562.5	1152.4	794.4	649.3	578.8	586.5	618.6	662.2	682.8	687.9
40°	5219.2	3951.3	1203.8	785.4	636.5	558.2	559.5	583.9	622.4	653.2	663.5
42.5°	5803.1	4405.7	1298.7	752.0	624.9	540.3	536.4	553.1	578.8	600.5	609.6
45°	6358.8	4872.7	1392.4	705.8	610.9	522.3	513.3	519.8	524.9	533.8	538.9
47.5°	6843.9	5201.3	1365.4	663.5	591.6	501.7	486.4	483.8	468.4	467.1	465.9
50°	7178.9	5273.1	1212.8	621.2	563.3	478.7	454.3	438.9	411.9	399.1	400.4
52.5°	7285.4	4989.5	990.8	578.8	517.2	447.9	413.2	388.9	355.5	343.9	342.7
55°	7144.1	4433.8	791.8	527.5	453.0	406.8	368.3	336.2	309.2	295.2	295.2
57.5°	6799.0	3726.7	626.3	467.1	385.0	360.6	322.2	290.1	266.9	252.8	250.2
60°	6226.7	2959.3	495.4	395.2	328.5	310.6	270.8	250.2	229.7	213.0	209.2
62.5°	5357.8	2112.3	388.9	313.1	274.6	254.1	231.0	215.6	191.2	168.1	164.3
65°	4181.1	1292.3	300.3	229.7	220.7	210.4	196.4	182.2	152.7	129.7	125.8
67.5°	2637.2	612.1	214.3	173.2	174.6	169.4	163.0	151.4	129.7	109.1	106.5
70°	1161.4	296.4	141.1	132.2	129.7	129.7	134.8	130.9	110.4	91.1	87.2
72.5°	395.2	159.1	105.3	100.1	93.7	92.4	113.0	109.1	88.6	70.6	66.7
75°	206.6	106.5	77.0	71.9	56.5	68.1	89.8	84.7	62.8	46.2	42.3
77.5°	134.8	75.7	52.6	46.2	32.1	44.9	66.7	59.0	37.2	23.1	20.5
80°	84.7	50.0	30.7	21.8	15.4	24.4	36.0	25.6	14.1	5.1	3.9
82.5°	44.9	25.6	11.6	7.7	6.5	7.7	9.0	6.5	2.6	0.0	0.0
85°	17.9	9.0	3.9	2.6	1.3	0.0	2.6	1.3	0.0	0.0	0.0
87.5°	6.5	1.3	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)