

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: P965630

Luminaire Tested: **NAV-SB4A-735-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965630
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18439.7 lumens
Efficiency: N/A
Efficacy: 161.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

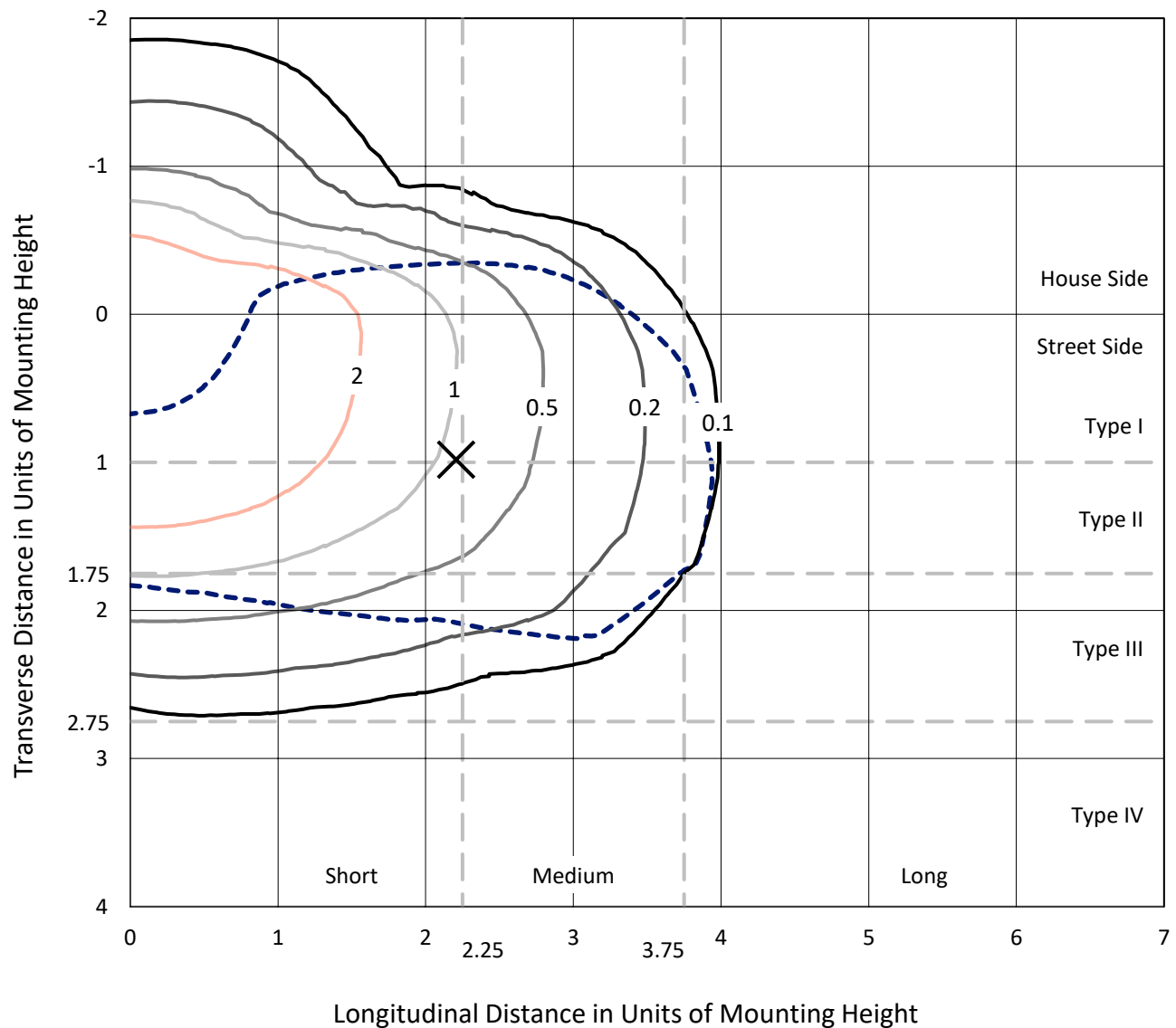
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

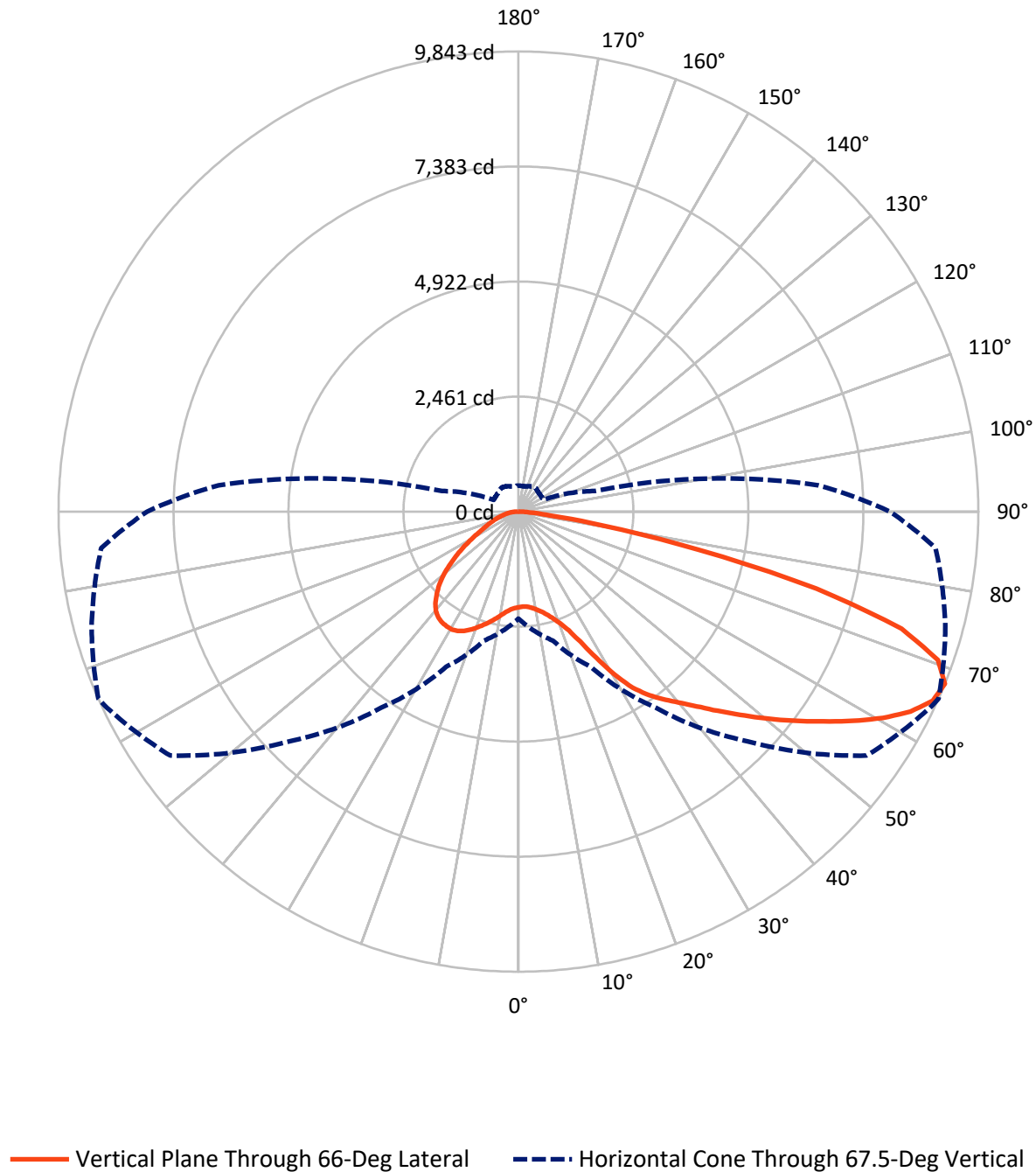
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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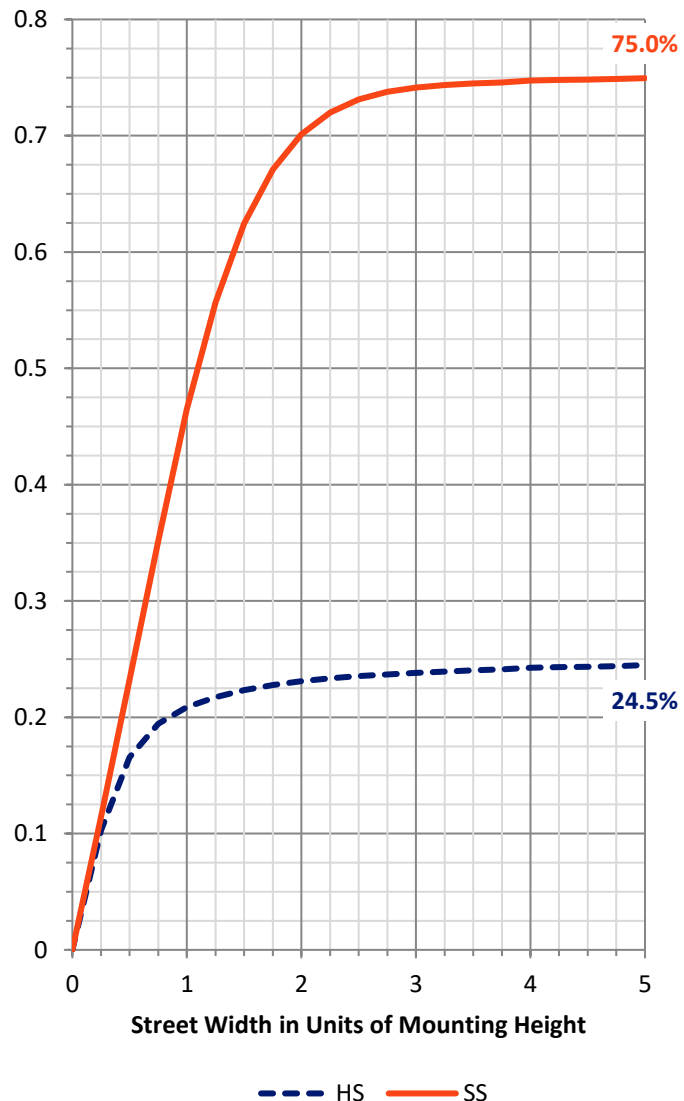
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4585.0	0.0	4585.0
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	13854.8	0.0	13854.8
	% Fixture	75.1	0.0	75.1
Total	Lumens	18439.7	0.0	18439.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.8	1.1
10°-20°	669.9	3.6
20°-30°	1291.3	7.0
30°-40°	2264.1	12.3
40°-50°	3365.9	18.3
50°-60°	4266.7	23.1
60°-70°	4174.8	22.6
70°-80°	1991.4	10.8
80°-90°	212.8	1.2
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°	18439.7	100.0
0°-180°	18439.7	100.0

Coefficient of Utilization



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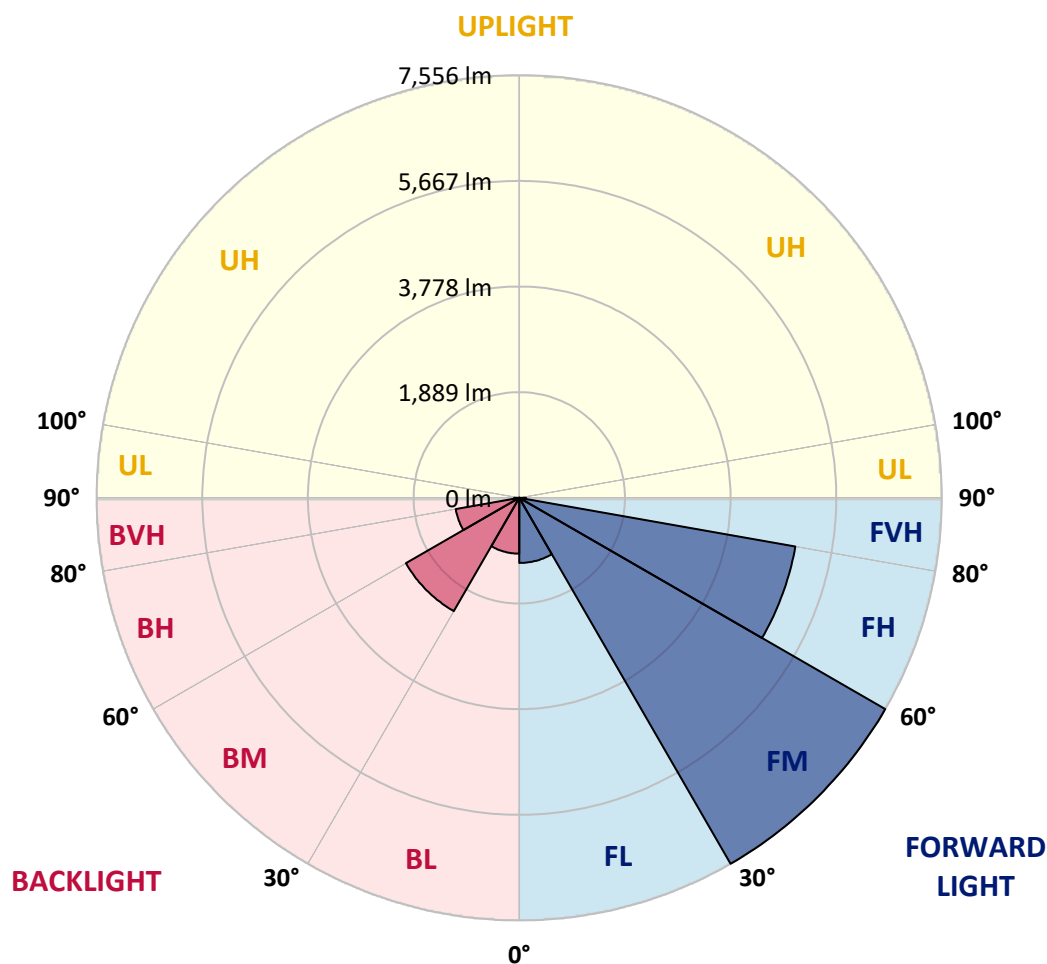
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1165.2	6.3			
FM	(30°-60°)	7556.5	41.0			
FH	(60°-80°)	5012.4	27.2			G3/7500
FVH	(80°-90°)	120.7	0.7			G2/225
BL	(0°-30°)	998.8	5.4	B2/1000		
BM	(30°-60°)	2340.2	12.7	B2/2500		
BH	(60°-80°)	1153.8	6.3	B3/2500		G3/2500
BVH	(80°-90°)	92.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2
2.5°	2023.9	2035.5	2032.6	2027.8	2026.8	2028.8	2031.7	2034.5	2033.6	2038.4	2046.2
5°	2018.1	2029.7	2028.8	2028.8	2032.6	2040.4	2045.2	2050.1	2045.2	2051.0	2061.7
7.5°	2021.9	2030.7	2034.5	2038.4	2048.2	2062.6	2074.3	2085.0	2079.1	2085.9	2099.5
10°	2071.3	2078.2	2082.0	2082.0	2088.8	2105.2	2116.9	2136.3	2131.5	2142.0	2159.6
12.5°	2161.5	2168.3	2168.3	2164.4	2169.2	2179.9	2183.8	2205.1	2196.4	2213.8	2231.2
15°	2271.9	2285.4	2274.8	2268.0	2270.0	2280.6	2279.7	2296.1	2287.4	2301.9	2317.4
17.5°	2394.0	2411.4	2394.0	2393.1	2389.2	2400.8	2401.8	2416.2	2400.8	2411.4	2422.1
20°	2538.3	2562.6	2548.0	2552.9	2544.2	2549.0	2553.9	2575.2	2550.9	2558.7	2555.8
22.5°	2741.8	2770.9	2755.4	2773.8	2768.0	2764.1	2763.1	2800.9	2763.1	2766.1	2738.0
25°	3038.3	3073.2	3046.0	3071.2	3071.2	3083.8	3098.4	3146.7	3083.8	3065.4	2992.7
27.5°	3476.2	3511.0	3457.7	3473.3	3468.4	3499.5	3484.0	3604.1	3536.2	3506.2	3360.0
30°	4003.2	4065.3	3964.5	3960.6	3955.8	4005.2	4027.4	4106.9	4038.1	4008.1	3831.8
32.5°	4572.9	4637.8	4517.7	4482.8	4464.4	4494.4	4476.0	4539.9	4492.5	4445.9	4228.0
35°	5175.5	5239.5	5125.1	5057.3	4983.7	4920.7	4854.8	4871.3	4826.7	4756.0	4530.3
37.5°	5745.2	5862.4	5741.3	5668.7	5533.1	5410.0	5225.9	5149.4	5107.7	5042.8	4815.1
40°	6325.5	6392.4	6300.4	6238.4	6091.1	5898.3	5603.8	5441.9	5385.8	5322.8	5130.0
42.5°	6752.8	6816.8	6767.4	6724.7	6609.4	6385.5	6004.9	5802.3	5720.9	5650.2	5486.5
45°	7091.9	7139.3	7108.4	7123.9	7074.4	6857.5	6420.5	6189.0	6104.6	6018.4	5889.5
47.5°	7228.5	7278.8	7328.2	7420.3	7504.6	7344.7	6867.1	6607.5	6518.3	6430.1	6303.2
50°	7213.0	7264.4	7407.7	7603.4	7865.0	7811.7	7338.0	7053.1	6970.8	6870.1	6752.8
52.5°	7089.0	7147.1	7331.2	7656.7	8073.3	8161.5	7817.6	7513.4	7435.9	7315.6	7198.5
55°	6763.5	6798.3	7074.4	7535.6	8122.7	8405.6	8287.4	8003.5	7926.0	7758.4	7630.5
57.5°	6159.8	6210.3	6612.3	7209.1	7998.7	8571.3	8700.1	8519.0	8444.4	8203.2	8069.4
60°	5372.2	5452.6	5912.8	6660.8	7682.9	8570.3	9075.0	9025.6	8963.6	8641.1	8501.6
62.5°	4480.9	4573.9	5016.7	5885.7	7130.6	8327.1	9309.6	9450.0	9418.0	9045.0	8866.8
65°	3441.3	3505.3	3946.0	4882.9	6271.3	7805.0	9336.6	9739.8	9745.5	9352.2	9057.6
67.5°	2291.3	2475.4	2858.1	3664.2	5120.3	6951.3	9098.3	9787.2	9843.4	9457.8	8961.8
70°	1118.1	1360.3	1735.2	2381.4	3664.2	5642.5	8475.4	9397.7	9522.7	9149.7	8390.1
72.5°	464.1	542.5	747.0	1175.2	2103.3	3807.6	7223.7	8341.7	8573.2	8107.2	7054.0
75°	312.9	339.1	427.2	602.6	958.2	1877.6	5209.5	6219.9	6592.9	6123.0	5005.0
77.5°	241.3	257.7	311.0	421.5	569.7	710.1	2788.3	3748.4	3941.2	3648.6	2604.2
80°	189.9	202.4	232.5	307.1	404.1	379.8	950.4	1698.3	1809.7	1518.1	837.1
82.5°	164.7	169.5	166.7	208.3	268.3	221.9	312.0	626.8	691.8	501.8	273.2
85°	119.2	132.7	138.6	128.8	142.4	112.3	127.9	221.9	244.2	218.0	154.1
87.5°	48.5	71.6	88.1	83.3	52.3	32.0	39.8	64.9	74.6	81.4	50.4
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°	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2	2045.2
2.5°	2047.1	2053.9	2058.8	2064.6	2068.4	2074.3	2085.9	2092.6	2093.7	2098.5	2097.6
5°	2065.6	2075.2	2085.9	2101.5	2118.9	2133.3	2155.7	2171.2	2177.0	2181.8	2180.9
7.5°	2105.2	2118.9	2138.3	2165.3	2190.5	2209.9	2237.1	2255.4	2273.9	2280.6	2281.6
10°	2164.4	2183.8	2211.8	2248.6	2275.8	2301.0	2329.1	2344.6	2363.0	2370.7	2374.6
12.5°	2238.0	2258.4	2295.2	2346.5	2371.7	2389.2	2398.8	2394.9	2398.8	2405.6	2407.5
15°	2322.3	2344.6	2386.2	2441.4	2458.9	2443.4	2422.1	2402.7	2399.8	2401.8	2408.5
17.5°	2422.1	2438.6	2487.0	2533.5	2520.9	2456.9	2410.5	2379.4	2364.0	2359.1	2365.9
20°	2561.6	2561.6	2601.3	2630.4	2546.1	2437.6	2364.9	2314.6	2282.6	2269.0	2266.1
22.5°	2731.1	2715.6	2740.8	2720.5	2541.3	2383.3	2282.6	2195.3	2147.0	2127.6	2124.6
25°	2946.3	2927.8	2921.0	2795.1	2506.3	2297.1	2133.3	2027.8	1985.1	1974.5	1976.4
27.5°	3270.8	3224.2	3136.1	2835.8	2442.5	2161.5	1959.0	1861.1	1836.9	1837.9	1840.8
30°	3702.9	3609.8	3393.9	2842.5	2337.8	1969.6	1780.7	1710.9	1699.3	1704.2	1720.7
32.5°	4103.0	4014.8	3657.4	2811.6	2177.0	1781.7	1620.8	1574.4	1556.9	1562.7	1570.5
35°	4416.9	4392.7	3901.5	2768.0	1979.4	1605.4	1477.4	1437.8	1403.8	1396.0	1401.9
37.5°	4713.4	4703.7	4084.6	2706.9	1783.6	1480.4	1362.2	1309.8	1260.4	1233.3	1234.3
40°	5038.9	5029.3	4204.8	2612.9	1610.2	1371.9	1258.5	1189.7	1128.7	1079.3	1084.1
42.5°	5405.1	5347.9	4262.0	2478.2	1463.0	1279.8	1174.2	1081.2	1000.8	955.3	958.2
45°	5805.3	5676.4	4260.9	2306.8	1339.0	1195.6	1084.1	952.3	877.8	835.2	833.2
47.5°	6229.6	5990.3	4208.6	2116.9	1218.8	1102.5	944.6	843.9	794.5	768.2	762.5
50°	6667.5	6283.9	4119.5	1898.9	1095.7	996.9	857.4	788.6	750.8	726.6	717.9
52.5°	7079.3	6550.3	4012.0	1651.9	970.8	894.2	818.7	765.4	725.7	698.5	687.0
55°	7462.0	6779.9	3859.8	1399.0	869.0	825.4	800.2	755.7	710.1	678.1	665.6
57.5°	7802.0	6929.1	3597.2	1161.6	796.4	778.0	780.8	739.2	687.0	659.8	642.4
60°	8084.9	7038.6	3208.8	941.7	737.3	731.4	750.8	708.2	647.2	616.2	602.6
62.5°	8254.5	7036.6	2732.1	771.2	687.0	688.8	711.1	669.4	607.4	578.4	569.7
65°	8240.0	6864.2	2209.0	659.8	638.5	640.4	669.4	626.8	574.5	557.1	556.1
67.5°	7948.4	6443.8	1694.5	587.1	585.2	593.9	627.8	597.8	554.2	552.3	555.1
70°	7158.7	5570.8	1220.8	529.0	529.9	542.5	587.1	579.3	543.6	547.3	546.4
72.5°	5740.3	4247.4	819.6	467.9	468.9	489.2	548.4	564.9	532.9	584.2	591.9
75°	3823.0	2648.8	527.1	403.0	404.1	430.2	514.4	536.7	503.8	582.3	587.1
77.5°	1836.9	1190.7	381.7	339.1	339.1	363.4	444.6	480.5	429.2	452.4	414.6
80°	634.6	447.6	300.3	273.2	267.4	283.8	374.9	416.6	370.1	341.0	319.7
82.5°	250.0	232.5	241.3	212.2	192.8	203.5	291.6	343.9	272.2	246.1	245.1
85°	143.4	151.2	170.6	140.5	111.4	124.9	214.1	247.0	205.4	181.2	185.0
87.5°	38.7	53.3	78.5	72.7	50.4	53.3	101.7	136.6	118.2	91.0	94.0
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)