

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: P965615

Luminaire Tested: **NAV-SB4A-735-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965615
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

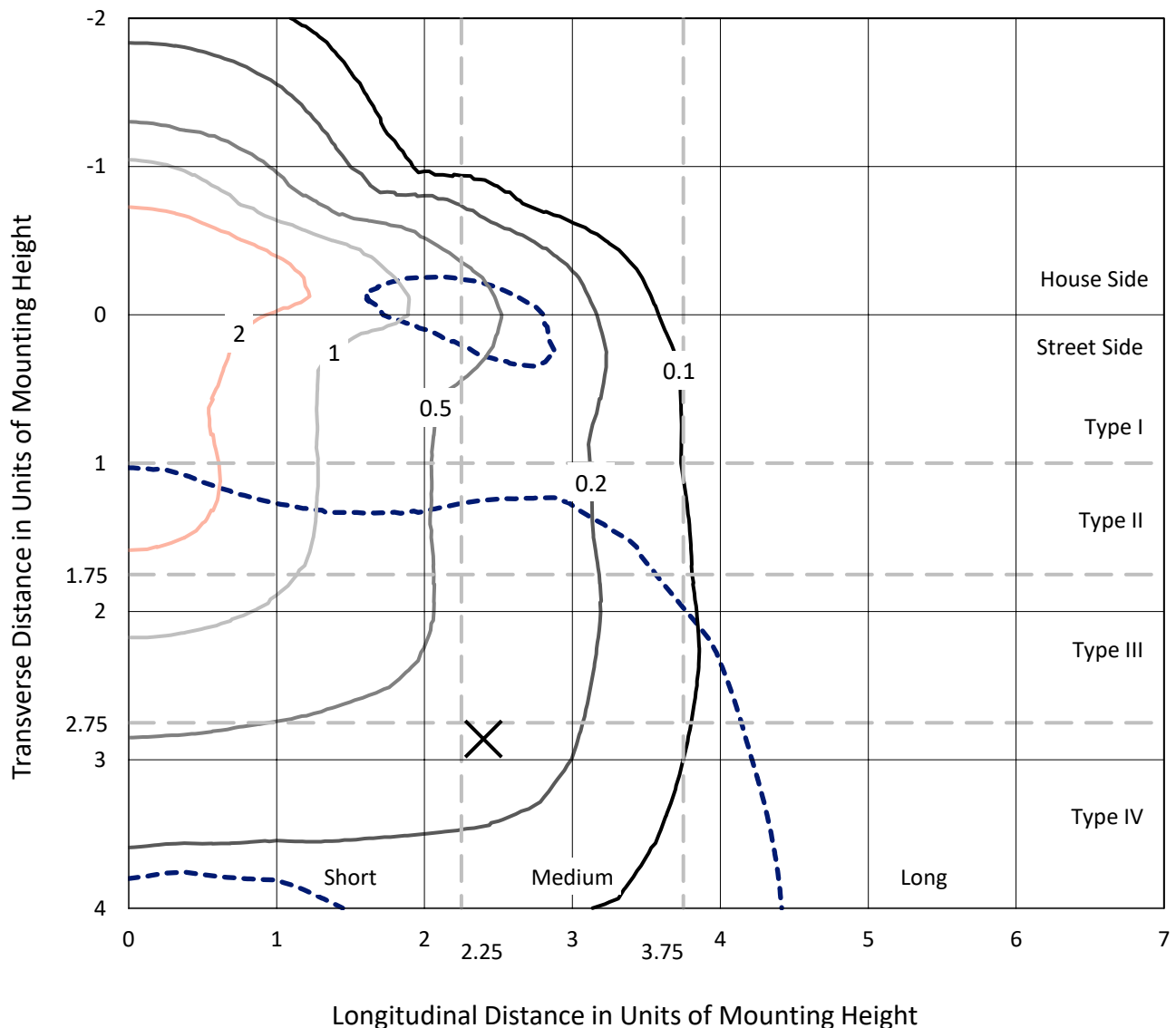
Lumens per Lamp: N/A
Luminaire Lumens: 18266.5 lumens
Efficiency: N/A
Efficacy: 160.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

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



Iso-Footcandle Lines of Horizontal Illumination

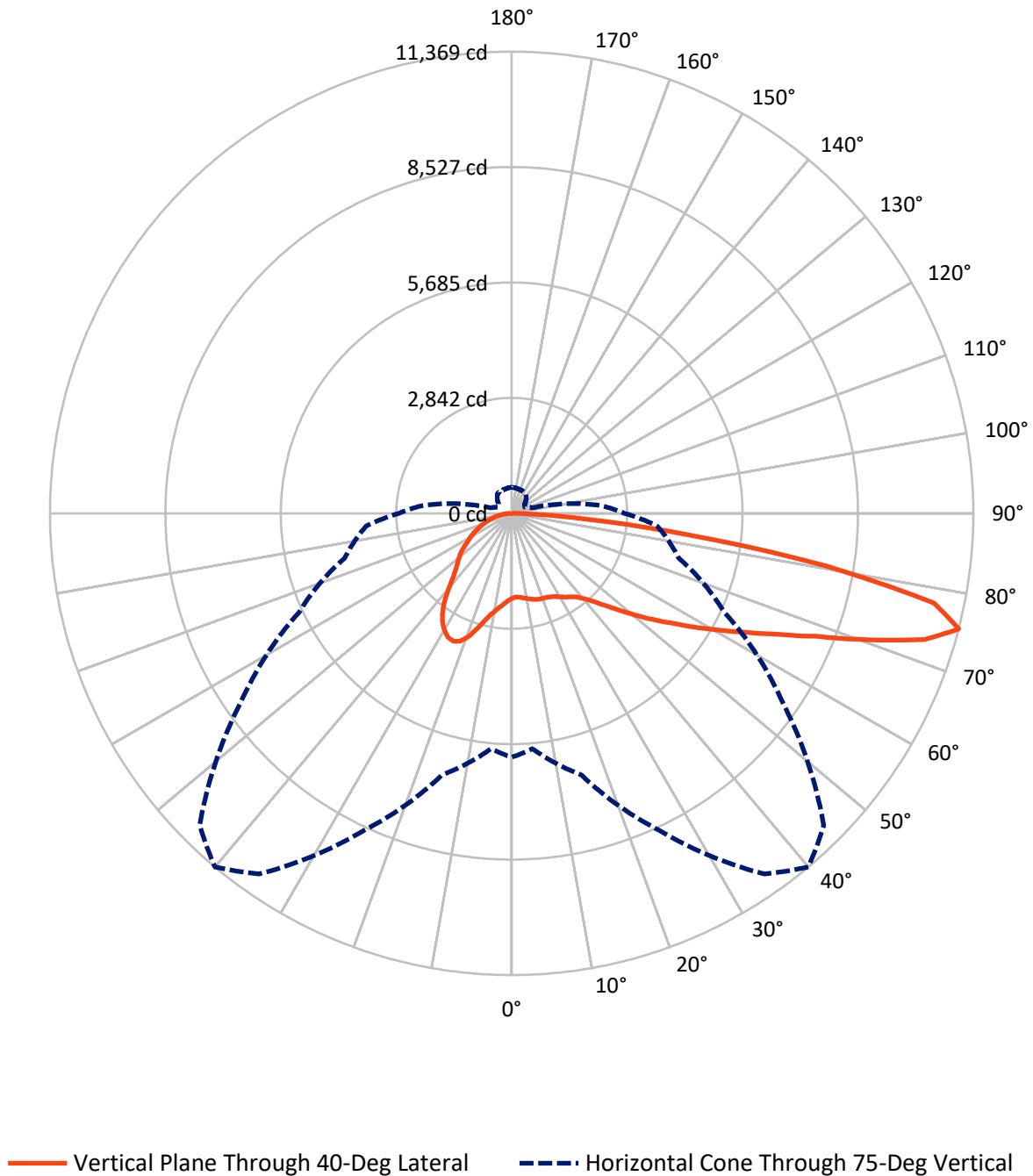
✕ Max cd
 --- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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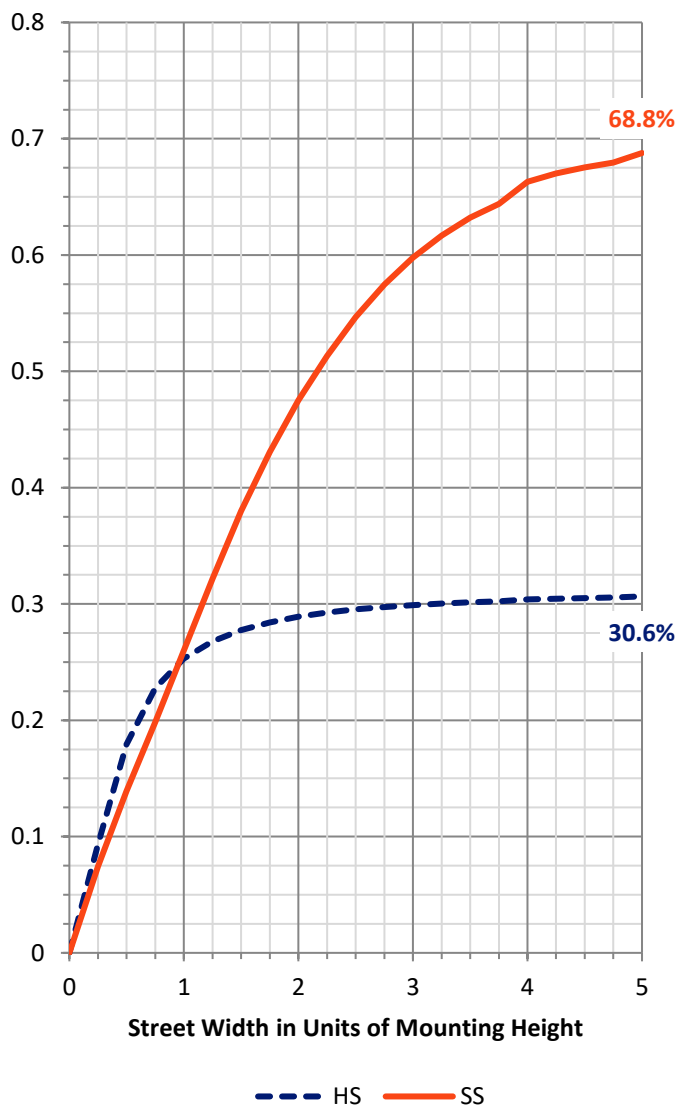
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5659.6	0.0	5659.6
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	12606.9	0.0	12606.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	18266.5	0.0	18266.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.5	1.1
10°-20°	700.0	3.8
20°-30°	1278.2	7.0
30°-40°	1812.9	9.9
40°-50°	2447.9	13.4
50°-60°	3293.1	18.0
60°-70°	4179.7	22.9
70°-80°	3793.3	20.8
80°-90°	552.9	3.0
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°	18266.5	100.0
0°-180°	18266.5	100.0

Coefficient of Utilization



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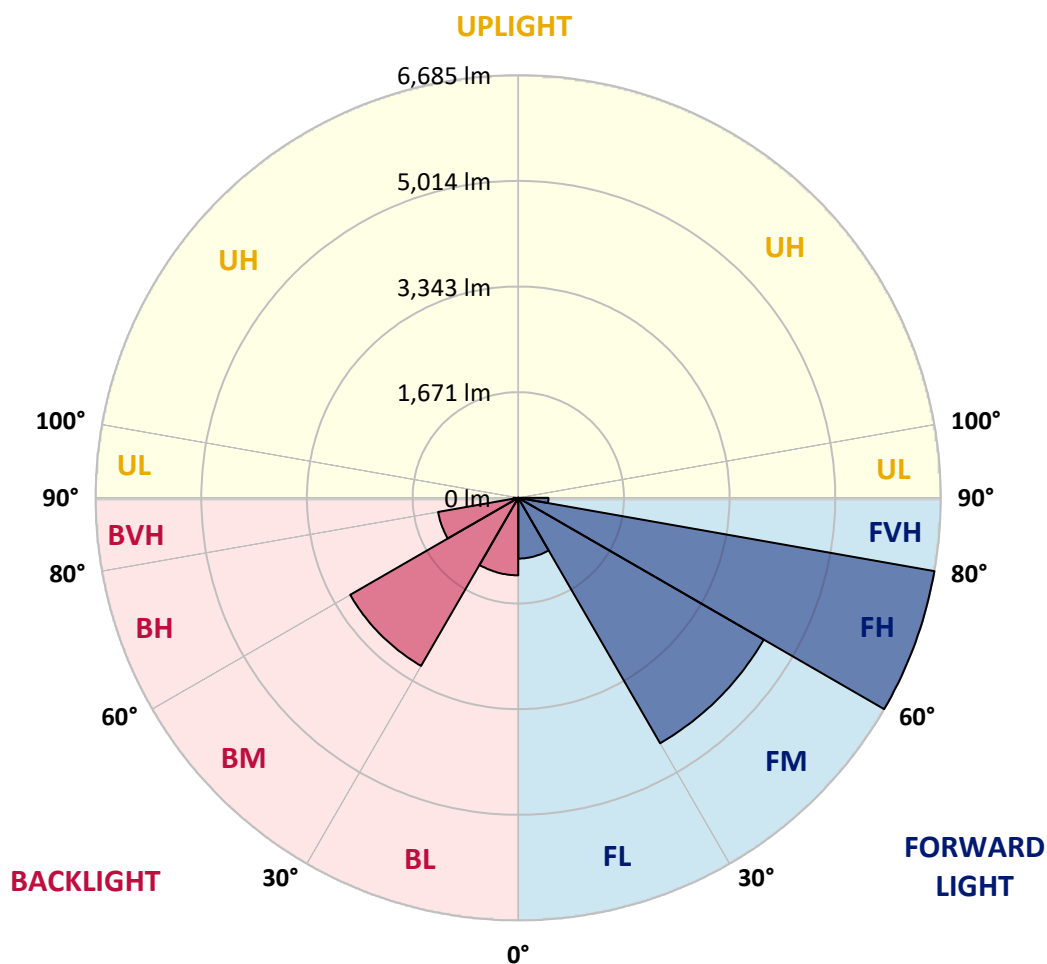
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	960.8	5.3			
FM	(30°-60°)	4484.0	24.5			
FH	(60°-80°)	6685.3	36.6			G3/7500
FVH	(80°-90°)	476.8	2.6			G3/500
BL	(0°-30°)	1225.9	6.7	B3/2500		
BM	(30°-60°)	3069.8	16.8	B3/5000		
BH	(60°-80°)	1287.7	7.0	B3/2500		G3/2500
BVH	(80°-90°)	76.1	0.4			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 IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8
2.5°	2056.9	2068.4	2065.6	2061.7	2061.7	2062.6	2061.7	2068.4	2075.2	2082.0	2092.6
5°	2078.2	2089.8	2083.9	2079.1	2075.2	2074.3	2071.3	2070.4	2074.3	2083.0	2097.6
7.5°	2119.8	2131.4	2122.7	2114.0	2106.3	2102.4	2098.5	2092.6	2089.8	2094.6	2115.0
10°	2166.3	2177.9	2167.3	2151.8	2139.2	2134.4	2130.5	2124.6	2120.7	2123.7	2145.9
12.5°	2212.8	2224.5	2209.9	2188.6	2172.1	2169.2	2164.4	2162.4	2161.4	2160.5	2182.7
15°	2256.4	2266.1	2247.7	2222.5	2205.1	2200.3	2195.3	2198.3	2203.1	2209.0	2234.1
17.5°	2290.4	2300.0	2272.8	2239.9	2223.4	2221.5	2218.6	2228.4	2241.9	2256.4	2287.4
20°	2321.3	2331.1	2296.1	2251.5	2232.1	2232.1	2233.2	2253.5	2272.8	2294.2	2336.8
22.5°	2364.9	2372.7	2330.0	2269.0	2241.0	2242.8	2250.6	2271.0	2295.2	2324.2	2383.3
25°	2429.9	2435.6	2383.3	2301.9	2270.0	2275.8	2282.6	2292.2	2315.5	2349.4	2428.8
27.5°	2534.4	2539.3	2470.6	2360.1	2311.7	2321.3	2331.1	2324.2	2334.8	2364.0	2465.6
30°	2681.7	2684.7	2597.5	2451.2	2382.4	2387.2	2389.2	2361.1	2340.7	2364.0	2491.9
32.5°	2856.2	2855.1	2751.5	2561.6	2462.8	2458.0	2441.4	2386.2	2338.7	2359.1	2515.0
35°	3126.5	3115.8	2982.0	2716.6	2553.9	2523.9	2485.0	2414.3	2348.5	2354.2	2535.4
37.5°	3574.0	3541.1	3356.1	2970.4	2689.5	2612.9	2555.7	2459.9	2369.8	2352.3	2559.6
40°	4078.8	4037.2	3833.7	3318.2	2893.0	2769.9	2677.8	2524.8	2404.6	2361.1	2595.5
42.5°	4677.5	4618.4	4399.5	3728.0	3150.6	2972.4	2833.8	2607.1	2456.0	2389.2	2644.0
45°	5412.8	5334.4	5024.3	4190.2	3475.2	3237.9	3052.8	2732.1	2534.4	2443.4	2716.6
47.5°	6155.9	6175.3	5734.5	4719.2	3864.7	3565.3	3326.9	2920.0	2648.8	2530.6	2833.8
50°	6945.6	6959.1	6440.8	5305.3	4306.4	3935.4	3635.1	3130.2	2807.7	2654.6	3009.2
52.5°	7561.7	7563.7	7082.1	5918.6	4766.7	4342.3	3967.4	3370.6	2991.8	2819.3	3242.7
55°	7947.3	7942.5	7531.7	6498.9	5295.7	4769.5	4335.5	3643.8	3216.6	3013.1	3536.2
57.5°	8227.4	8212.8	7841.8	6997.9	5859.5	5274.3	4752.1	3953.8	3482.0	3243.6	3922.8
60°	8333.9	8325.2	8052.0	7429.0	6452.4	5832.4	5232.6	4300.7	3783.3	3515.9	4419.8
62.5°	8374.6	8391.1	8258.3	7846.6	7087.1	6450.5	5760.7	4715.3	4122.3	3824.0	4944.0
65°	8518.0	8548.0	8520.8	8393.0	7803.9	7174.2	6461.2	5208.4	4492.5	4154.3	5491.3
67.5°	8801.9	8831.9	8843.5	9047.0	8679.8	8076.2	7335.0	5822.7	4925.5	4497.3	5903.1
70°	8795.0	8786.3	8991.7	9567.2	9776.4	9325.0	8513.1	6578.3	5441.9	4782.1	5955.5
72.5°	8005.5	7935.7	8421.1	9561.4	10689.1	10629.0	9951.8	7553.0	5887.6	4817.0	5167.7
75°	6005.8	5819.7	6677.2	8616.8	10841.2	11369.2	10866.4	8157.6	5782.0	4256.1	3596.3
77.5°	2568.3	2381.4	3391.9	6378.8	9702.9	10628.1	10027.4	7117.1	4615.5	2814.4	1766.2
80°	672.4	671.4	1025.0	2891.9	6598.7	7848.5	6885.4	4596.1	2637.1	1005.6	487.3
82.5°	278.1	271.3	376.9	1124.8	3224.2	4404.3	3594.4	2050.0	952.3	272.2	161.7
85°	103.6	102.7	183.1	388.5	1137.4	1816.6	1314.7	524.2	237.4	132.7	72.7
87.5°	29.1	28.1	39.8	134.7	277.1	420.5	224.8	86.2	66.8	52.3	21.3
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°	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8	2088.8
2.5°	2095.6	2100.4	2109.1	2115.9	2124.6	2134.4	2147.9	2156.6	2165.3	2171.2	2167.3
5°	2104.3	2115.0	2137.2	2159.6	2185.7	2209.9	2238.0	2258.4	2274.8	2279.7	2281.6
7.5°	2123.7	2141.1	2178.9	2216.7	2258.4	2298.0	2338.7	2373.6	2401.8	2412.4	2413.4
10°	2157.6	2180.8	2234.1	2287.4	2342.6	2403.6	2456.0	2506.3	2546.1	2562.6	2563.5
12.5°	2200.3	2229.3	2299.1	2372.7	2449.2	2533.5	2601.3	2663.4	2712.8	2735.0	2735.0
15°	2255.4	2293.2	2382.4	2481.2	2593.6	2710.8	2797.0	2865.8	2921.0	2948.1	2946.3
17.5°	2315.5	2365.9	2478.2	2627.5	2788.3	2942.4	3043.1	3093.4	3150.6	3176.8	3175.9
20°	2373.6	2435.6	2596.4	2813.5	3027.6	3191.3	3272.7	3286.3	3290.1	3293.0	3300.8
22.5°	2433.7	2517.0	2744.7	3047.9	3277.5	3390.9	3402.5	3344.4	3263.0	3225.3	3235.9
25°	2499.6	2610.1	2938.5	3306.6	3492.7	3506.2	3417.0	3275.6	3121.5	3050.8	3061.5
27.5°	2563.5	2717.6	3170.9	3553.7	3647.7	3528.5	3336.7	3136.1	2950.1	2875.5	2884.2
30°	2627.5	2840.6	3427.7	3769.7	3718.4	3473.2	3209.8	2985.9	2799.0	2720.5	2729.2
32.5°	2692.4	2984.0	3723.2	3925.7	3705.8	3356.1	3051.8	2817.3	2652.7	2570.3	2581.0
35°	2766.1	3160.3	4003.2	4010.9	3621.5	3183.5	2843.6	2615.8	2472.5	2406.6	2421.2
37.5°	2861.9	3384.1	4250.3	4032.2	3474.2	2930.7	2584.8	2377.5	2259.3	2229.3	2250.6
40°	2981.1	3653.5	4439.2	3998.3	3256.2	2623.6	2301.9	2136.3	2069.5	2076.2	2099.5
42.5°	3136.1	3954.8	4571.9	3911.2	2953.0	2306.8	2053.9	1980.3	2012.3	2039.3	2064.6
45°	3337.6	4267.7	4654.2	3763.0	2610.1	2038.4	1907.6	1925.1	1949.2	1952.2	1971.6
47.5°	3595.3	4584.5	4708.5	3539.1	2260.3	1849.5	1814.7	1818.5	1813.6	1793.3	1808.8
50°	3917.0	4892.6	4756.9	3242.7	1962.9	1731.3	1684.8	1671.3	1604.4	1538.5	1547.2
52.5°	4283.2	5175.5	4777.3	2874.5	1731.3	1632.5	1556.9	1471.7	1346.6	1326.4	1333.1
55°	4690.1	5437.1	4724.9	2422.1	1536.6	1505.5	1391.2	1288.5	1275.0	1257.6	1260.4
57.5°	5176.5	5719.0	4618.4	1917.4	1337.0	1357.3	1245.9	1257.6	1233.3	1206.2	1201.4
60°	5708.3	6010.6	4431.5	1457.1	1130.7	1172.3	1208.2	1207.1	1200.4	1178.1	1170.3
62.5°	6187.0	6202.5	4063.3	1116.1	949.5	1028.9	1126.8	1125.8	1120.0	1107.4	1102.5
65°	6471.7	6173.4	3449.0	878.7	800.2	910.7	1016.3	1024.1	1025.0	1024.1	1024.1
67.5°	6421.4	5833.4	2606.2	699.5	677.2	790.6	906.8	917.5	925.3	927.2	929.1
70°	5851.7	5086.4	1699.3	558.0	567.7	685.0	803.2	813.8	820.6	828.3	832.2
72.5°	4561.2	3739.7	972.7	451.5	471.8	593.9	700.5	713.1	716.9	731.4	737.3
75°	2779.6	2199.2	525.1	355.6	387.6	507.7	598.7	613.3	620.0	637.4	639.4
77.5°	1321.5	952.3	299.4	277.1	312.0	414.6	505.7	522.2	503.8	513.5	505.7
80°	446.6	353.6	188.9	211.3	238.3	323.6	405.0	421.5	382.7	380.8	376.9
82.5°	156.0	143.4	120.1	140.5	154.1	231.5	306.2	327.5	284.8	283.8	270.3
85°	61.0	58.1	66.8	76.6	92.0	142.4	201.5	212.2	175.4	141.4	139.5
87.5°	12.6	13.5	16.5	17.4	28.1	49.4	72.7	89.2	70.7	60.1	55.2
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)