

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: P963092

Luminaire Tested: **NAV-SB2D-760-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963092
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-760-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22025.2 lumens
Efficiency: N/A
Efficacy: 149.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 147.6
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

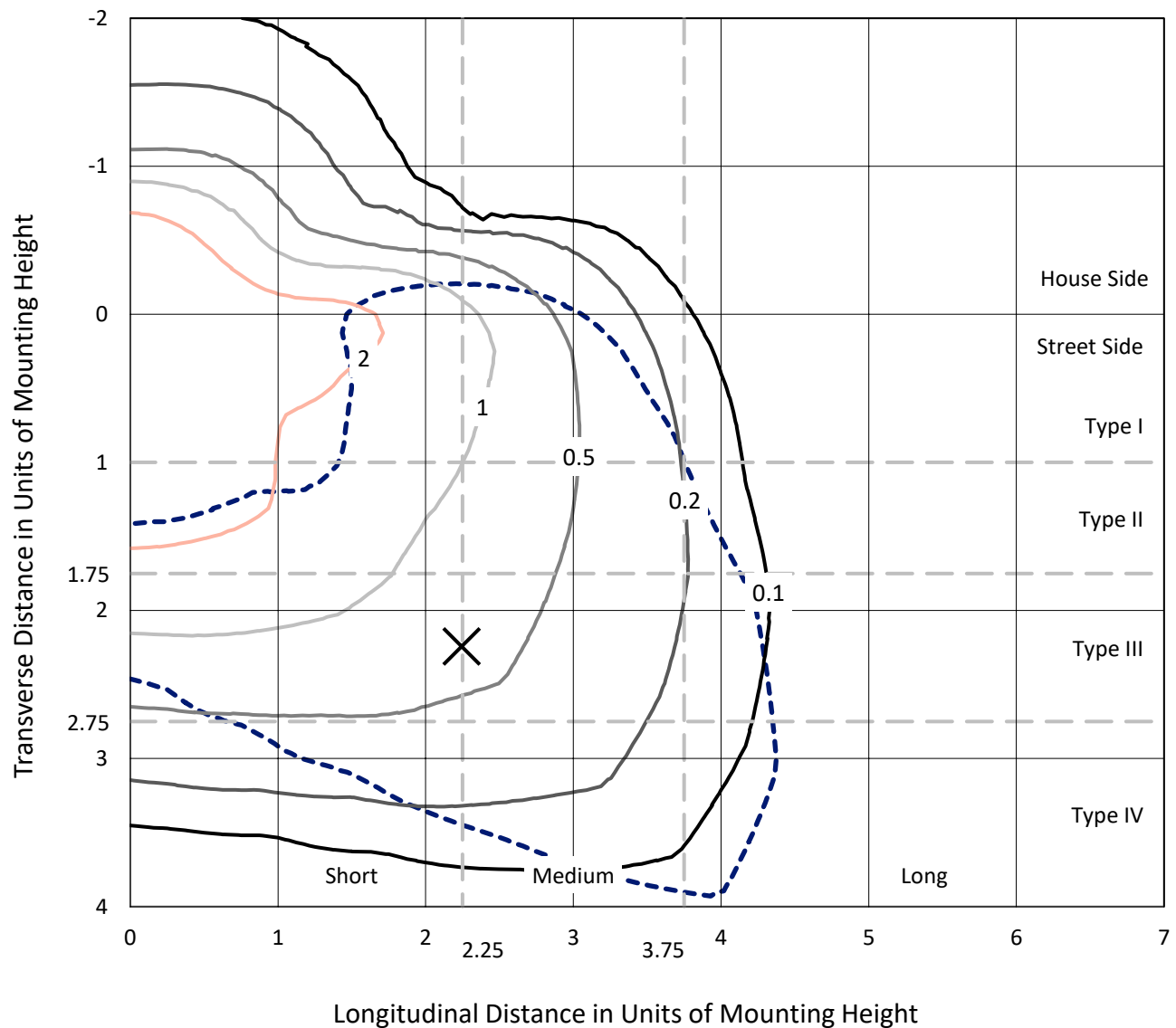


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Iso-Footcandle Lines of Horizontal Illumination

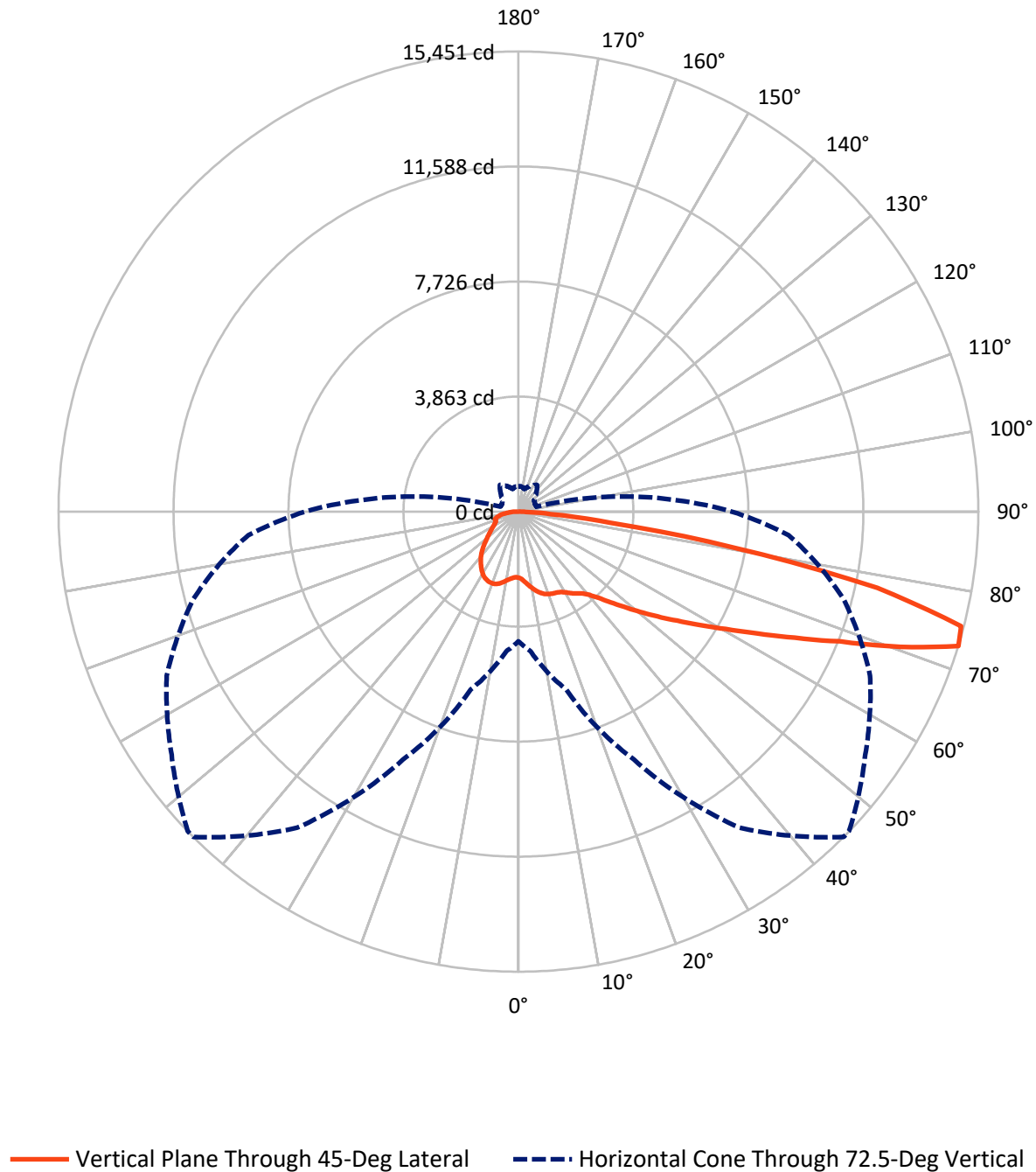
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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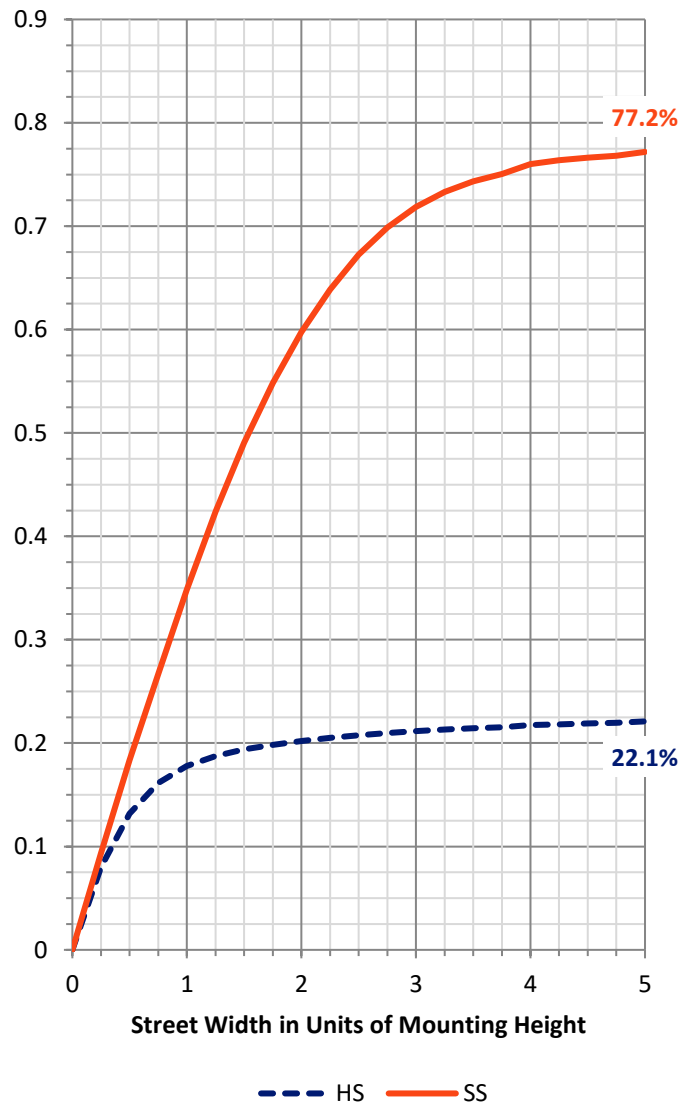
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4979.1	0.0	4979.1
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	17046.0	0.0	17046.0
	% Fixture	77.4	0.0	77.4
Total	Lumens	22025.2	0.0	22025.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.1	1.0
10°-20°	754.0	3.4
20°-30°	1311.6	6.0
30°-40°	1880.3	8.5
40°-50°	2647.6	12.0
50°-60°	4055.3	18.4
60°-70°	5874.7	26.7
70°-80°	4691.3	21.3
80°-90°	584.3	2.7
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°	22025.2	100.0
0°-180°	22025.2	100.0

Coefficient of Utilization



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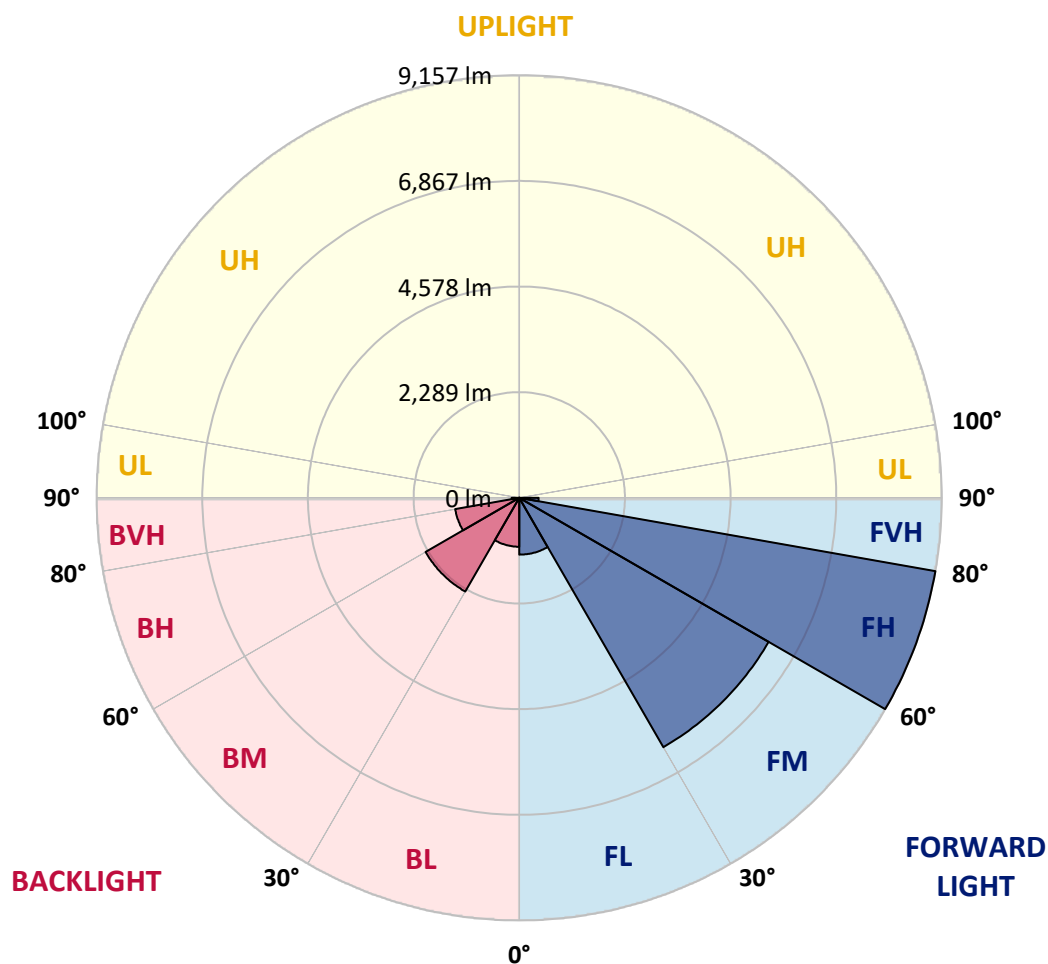
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1231.7	5.6			
FM	(30°-60°)	6238.7	28.3			
FH	(60°-80°)	9156.5	41.6			G4/12000
FVH	(80°-90°)	419.2	1.9			G3/500
BL	(0°-30°)	1060.1	4.8	B3/2500		
BM	(30°-60°)	2344.5	10.6	B2/2500		
BH	(60°-80°)	1409.5	6.4	B3/2500		G3/2500
BVH	(80°-90°)	165.1	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9
2.5°	2308.9	2324.0	2310.1	2297.3	2291.5	2276.4	2275.3	2266.0	2260.2	2243.9	2239.3
5°	2470.2	2489.9	2466.8	2441.2	2418.0	2380.9	2376.3	2349.5	2319.4	2284.5	2264.8
7.5°	2652.4	2669.8	2643.1	2604.8	2564.2	2502.7	2501.5	2452.8	2405.3	2346.0	2312.4
10°	2811.4	2834.5	2798.6	2746.4	2695.3	2625.6	2617.5	2561.9	2501.5	2424.9	2373.9
12.5°	2951.7	2968.0	2933.1	2869.4	2810.1	2740.5	2730.1	2668.6	2601.3	2514.3	2449.3
15°	3063.1	3084.0	3037.6	2969.1	2906.5	2838.0	2828.7	2773.0	2705.8	2614.1	2530.5
17.5°	3136.2	3153.6	3106.1	3029.5	2969.1	2912.2	2905.4	2858.9	2799.7	2706.9	2617.5
20°	3164.1	3182.6	3132.7	3055.0	2999.3	2955.2	2951.7	2918.1	2877.5	2792.7	2702.3
22.5°	3191.8	3209.3	3144.3	3063.1	3014.4	2986.5	2985.4	2963.3	2947.1	2877.5	2789.3
25°	3304.4	3309.1	3222.1	3104.8	3035.2	3010.9	3009.7	3008.6	3015.5	2961.0	2883.2
27.5°	3401.9	3400.7	3326.5	3216.2	3108.3	3057.3	3056.1	3067.7	3089.8	3044.6	2980.7
30°	3544.7	3531.8	3443.7	3328.8	3230.2	3151.3	3144.3	3133.8	3151.3	3115.3	3078.2
32.5°	3847.4	3806.8	3664.2	3459.9	3331.1	3270.8	3261.5	3196.6	3203.5	3181.5	3162.8
35°	4281.4	4228.0	4037.8	3708.2	3456.4	3370.6	3365.9	3283.6	3269.6	3249.9	3256.8
37.5°	4797.7	4731.6	4510.0	4067.9	3672.3	3486.6	3479.7	3405.4	3348.6	3327.7	3367.1
40°	5316.4	5232.8	5049.5	4506.5	3990.1	3680.4	3658.3	3545.8	3480.8	3445.9	3529.6
42.5°	5820.0	5750.2	5593.6	4998.4	4382.3	3963.5	3914.8	3722.2	3673.4	3640.9	3791.8
45°	6265.4	6202.8	6087.9	5524.0	4841.8	4348.7	4301.1	3986.6	3971.6	3971.6	4189.7
47.5°	6627.4	6613.5	6491.7	6060.1	5383.6	4787.3	4704.9	4354.5	4395.1	4457.7	4754.8
50°	7028.9	6990.6	6860.6	6588.0	6020.6	5289.6	5222.4	4805.8	4957.8	5129.5	5571.6
52.5°	7397.8	7418.7	7273.7	7138.0	6740.0	5850.1	5731.7	5338.4	5666.7	5951.0	6528.8
55°	7777.3	7778.4	7737.8	7719.3	7494.2	6469.7	6339.7	5978.8	6501.0	6853.7	7645.0
57.5°	8133.5	8135.8	8196.1	8359.7	8369.0	7184.4	7037.0	6765.5	7428.1	7787.7	8796.0
60°	8451.4	8467.6	8632.4	9015.3	9138.3	8003.5	7864.3	7694.9	8386.4	8748.4	10006.2
62.5°	8558.1	8617.3	8983.9	9528.1	9898.2	9008.3	8871.4	8770.5	9393.5	9730.0	11017.9
65°	8377.1	8512.9	9221.8	9951.6	10680.3	10202.2	10066.5	9956.2	10440.1	10756.9	11848.7
67.5°	7932.8	8108.0	9207.9	10396.0	11629.3	11638.7	11512.2	11253.5	11562.1	11683.9	12119.0
70°	6762.0	7024.2	8396.9	10561.9	12718.8	13603.0	13481.1	12815.2	12681.7	12092.3	11357.8
72.5°	4356.8	4709.6	6183.1	9196.3	12961.3	15451.3	15444.3	14224.8	13035.6	11298.7	9109.3
75°	1589.6	1805.3	2872.9	5772.3	10879.9	15357.3	15402.6	13983.6	11899.7	8727.6	5674.9
77.5°	579.0	633.6	937.5	2218.4	6691.3	12322.0	12416.0	11179.2	8470.0	4380.0	2248.6
80°	304.0	334.2	480.3	860.9	2867.0	7317.8	7465.2	6643.7	3980.9	1319.2	674.1
82.5°	168.2	182.1	269.2	467.6	1291.4	3129.2	3217.5	2624.5	1400.5	559.2	278.5
85°	90.5	96.4	126.5	255.2	631.2	1084.9	1109.3	784.3	558.1	328.3	134.6
87.5°	26.6	32.5	41.8	81.2	247.1	243.6	249.5	155.5	220.5	165.9	44.1
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°	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9
2.5°	2232.3	2228.9	2216.2	2210.3	2203.3	2202.2	2208.0	2209.2	2210.3	2211.4	2216.2
5°	2253.3	2241.7	2230.0	2223.1	2225.4	2226.5	2238.2	2246.3	2252.1	2256.7	2259.0
7.5°	2293.8	2284.5	2264.8	2263.7	2267.2	2277.7	2292.7	2311.3	2321.7	2329.8	2332.2
10°	2354.2	2336.8	2313.5	2317.0	2324.0	2339.0	2370.4	2385.5	2402.9	2418.0	2414.5
12.5°	2415.7	2400.5	2373.9	2376.3	2387.8	2414.5	2444.7	2463.3	2474.9	2486.4	2491.1
15°	2495.8	2469.0	2440.0	2440.0	2460.9	2489.9	2503.9	2518.9	2525.9	2538.6	2543.3
17.5°	2578.1	2543.3	2505.0	2502.7	2528.3	2542.1	2550.3	2552.6	2554.9	2568.9	2573.5
20°	2660.5	2622.3	2567.6	2563.0	2568.9	2566.5	2565.4	2563.0	2566.5	2583.9	2590.9
22.5°	2741.7	2697.6	2622.3	2601.3	2585.0	2563.0	2561.9	2560.8	2563.0	2580.4	2592.0
25°	2836.9	2783.5	2682.5	2619.9	2565.4	2535.2	2538.6	2539.8	2542.1	2556.0	2574.6
27.5°	2940.1	2881.0	2738.2	2614.1	2515.5	2494.5	2488.8	2492.3	2500.4	2522.4	2544.5
30°	3043.4	2973.7	2789.3	2590.9	2452.8	2423.8	2405.3	2413.4	2438.9	2460.9	2485.3
32.5°	3137.3	3067.7	2829.9	2539.8	2372.8	2327.5	2303.2	2313.5	2339.0	2347.2	2376.3
35°	3247.6	3168.7	2847.3	2458.6	2285.8	2216.2	2183.7	2168.6	2181.3	2173.2	2198.7
37.5°	3370.6	3288.2	2845.0	2351.9	2183.7	2103.6	2058.3	2001.4	1974.8	1946.9	1964.3
40°	3552.8	3434.4	2817.1	2223.1	2057.2	1984.1	1902.8	1806.6	1746.2	1691.7	1695.1
42.5°	3801.0	3637.4	2766.1	2081.6	1914.4	1846.0	1735.7	1623.2	1528.1	1437.6	1429.5
45°	4171.1	3903.1	2702.3	1930.7	1760.1	1692.8	1573.4	1446.9	1339.0	1222.9	1209.0
47.5°	4704.9	4260.5	2641.9	1759.0	1597.7	1536.2	1428.3	1311.1	1183.5	1070.9	1058.2
50°	5438.1	4773.3	2586.3	1591.9	1437.6	1391.1	1305.3	1185.8	1057.0	966.5	960.7
52.5°	6371.0	5470.6	2563.0	1430.6	1287.9	1270.5	1202.0	1090.7	968.8	892.3	886.4
55°	7442.0	6304.9	2563.0	1276.3	1156.8	1162.6	1115.0	1011.8	906.2	837.7	830.8
57.5°	8535.0	7149.6	2516.6	1133.5	1045.4	1069.8	1039.6	949.1	853.9	783.2	771.6
60°	9542.0	7857.3	2328.7	1003.7	946.8	985.0	965.3	887.6	771.6	712.4	703.2
62.5°	10315.9	8256.5	1966.7	900.4	865.5	909.7	899.2	806.4	756.4	732.2	724.0
65°	10703.5	8191.5	1503.7	808.7	797.1	865.5	843.5	840.0	800.6	772.7	763.4
67.5°	10465.7	7632.3	1090.7	741.4	757.7	824.9	909.7	923.5	850.4	795.9	786.7
70°	9422.5	6620.5	812.2	677.6	707.8	826.2	1037.3	966.5	834.2	770.4	759.9
72.5°	7168.1	4936.9	630.1	610.3	642.8	831.9	1094.1	946.8	787.8	851.7	844.7
75°	4099.2	2710.4	505.8	527.9	561.6	777.4	1065.1	895.7	751.8	782.0	782.0
77.5°	1562.9	1041.9	417.7	446.7	451.3	678.8	1018.7	892.3	715.9	698.4	637.0
80°	541.8	407.2	345.7	355.1	349.2	603.3	976.9	776.2	585.9	524.5	507.1
82.5°	221.6	203.1	273.8	262.2	248.3	468.7	788.9	634.7	479.2	423.5	418.8
85°	96.4	128.7	181.0	159.0	143.9	324.9	632.3	537.2	405.0	349.2	348.1
87.5°	19.7	48.7	76.6	72.0	74.2	217.0	449.1	381.7	286.6	214.6	168.2
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)