

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: P963135

Luminaire Tested: **NAV-SB2D-830-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963135
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-SB2D-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18579.2 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

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

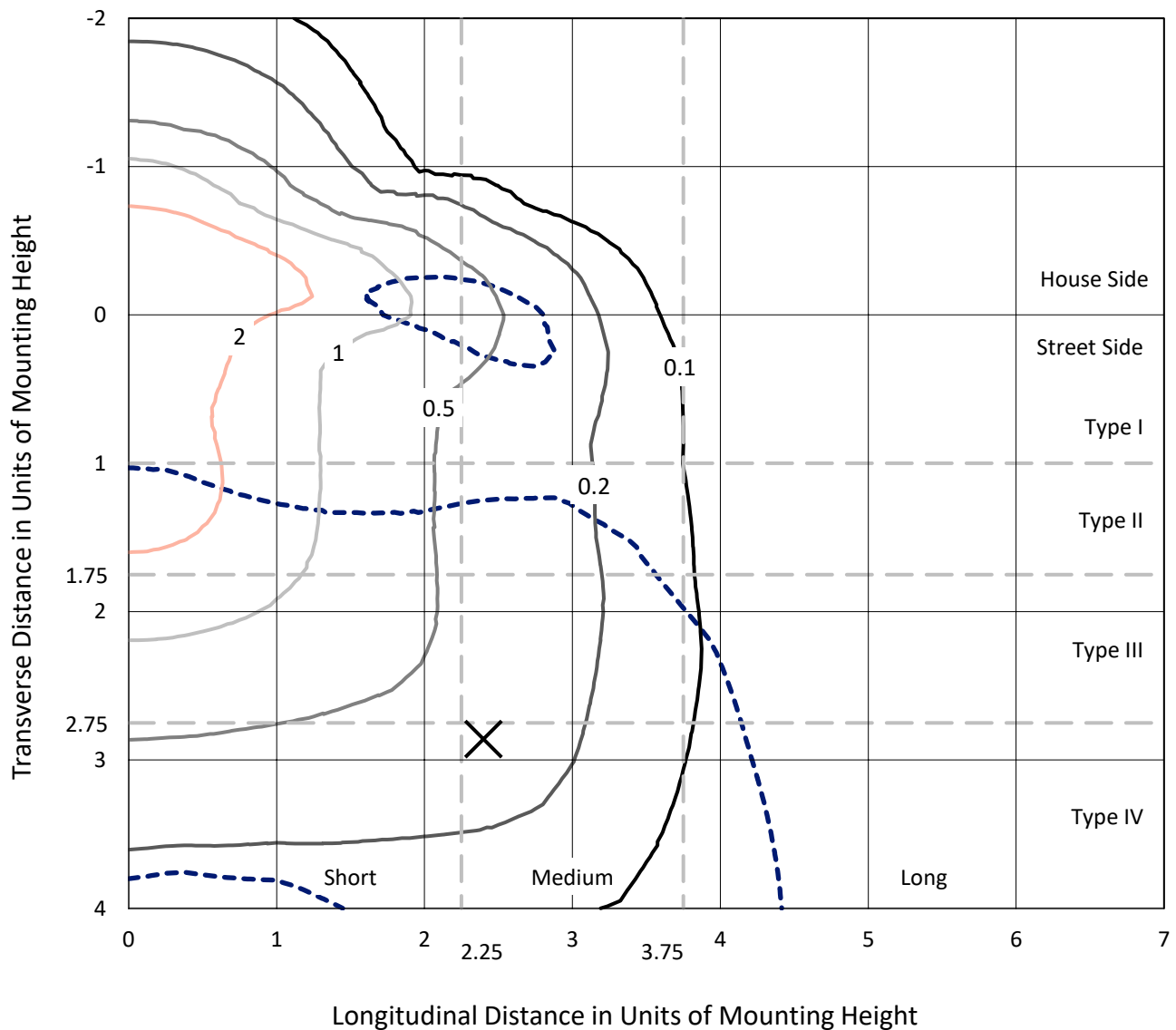


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Iso-Footcandle Lines of Horizontal Illumination

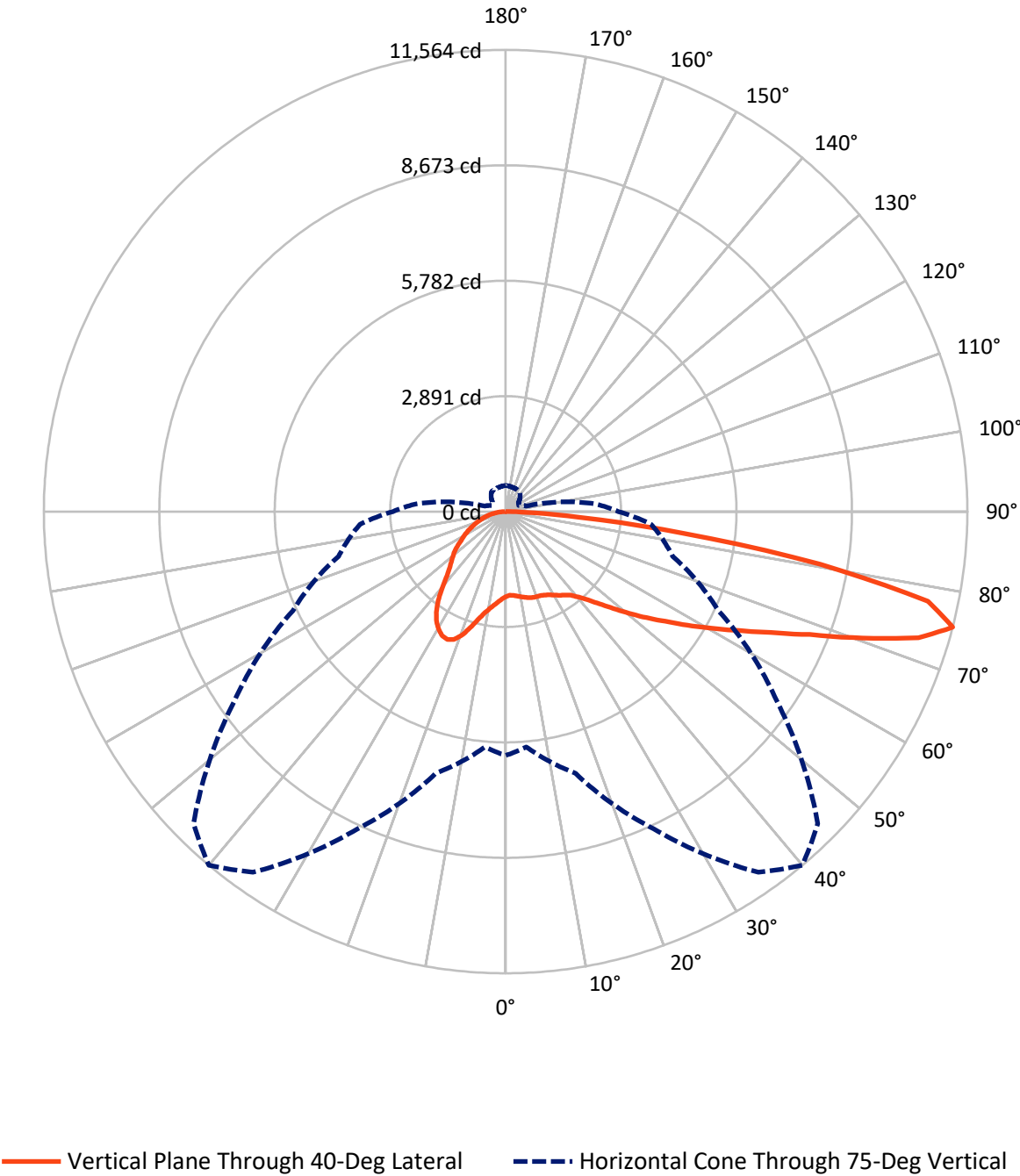
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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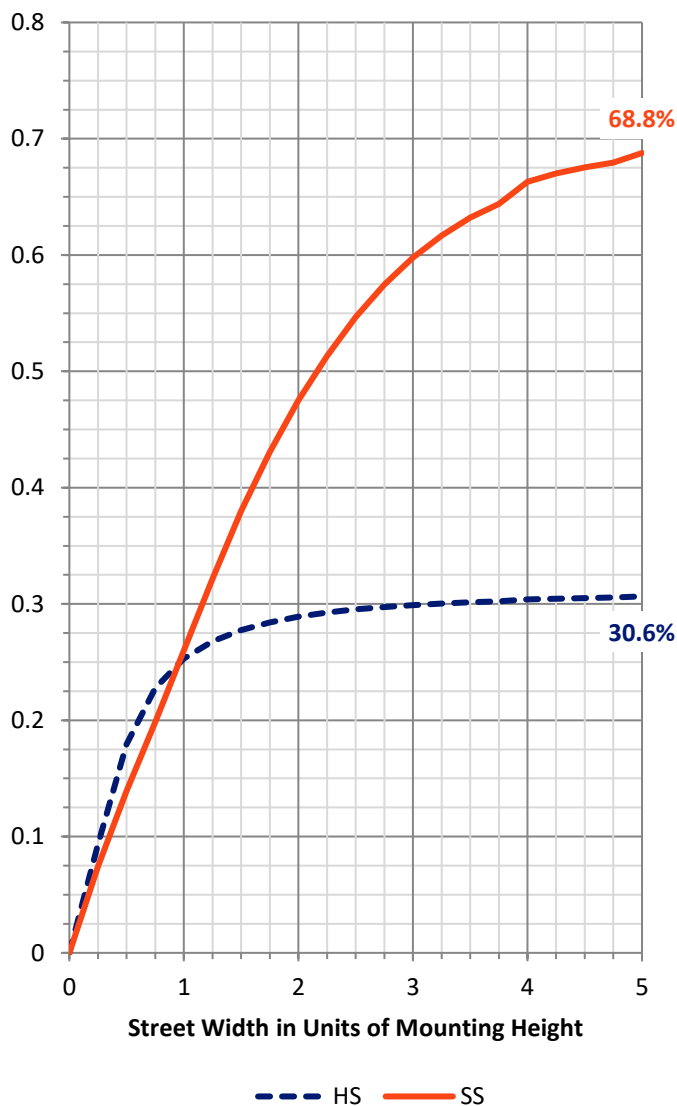
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5756.4	0.0	5756.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	12822.7	0.0	12822.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	18579.2	0.0	18579.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.1	1.1
10°-20°	712.0	3.8
20°-30°	1300.1	7.0
30°-40°	1843.9	9.9
40°-50°	2489.8	13.4
50°-60°	3349.4	18.0
60°-70°	4251.2	22.9
70°-80°	3858.2	20.8
80°-90°	562.4	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°	18579.2	100.0
0°-180°	18579.2	100.0

Coefficient of Utilization



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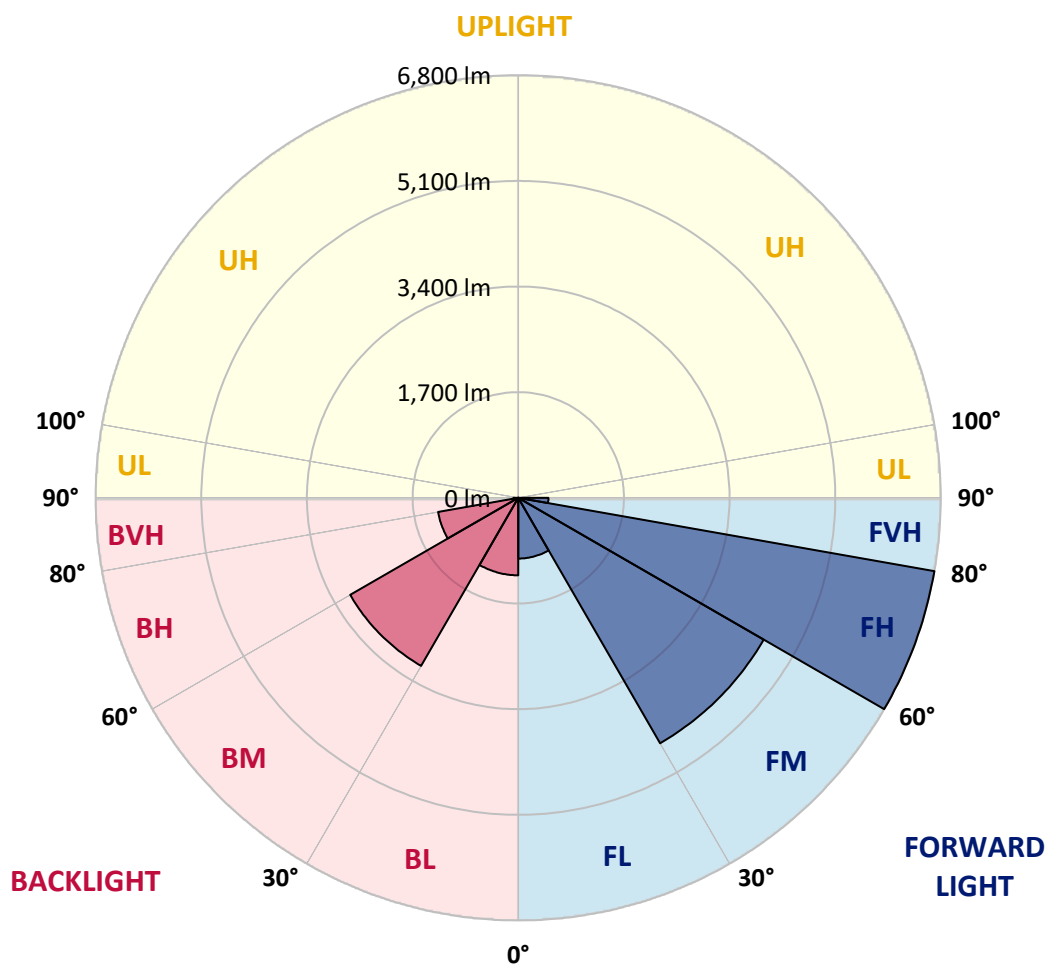
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	977.3	5.3			
FM	(30°-60°)	4560.8	24.5			
FH	(60°-80°)	6799.7	36.6			G3/7500
FVH	(80°-90°)	485.0	2.6			G3/500
BL	(0°-30°)	1246.9	6.7	B3/2500		
BM	(30°-60°)	3122.3	16.8	B3/5000		
BH	(60°-80°)	1309.8	7.0	B3/2500		G3/2500
BVH	(80°-90°)	77.4	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°	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5
2.5°	2092.0	2103.8	2100.9	2096.9	2096.9	2098.0	2096.9	2103.8	2110.8	2117.6	2128.5
5°	2113.8	2125.5	2119.6	2114.7	2110.8	2109.8	2106.8	2105.9	2109.8	2118.7	2133.4
7.5°	2156.1	2167.9	2159.1	2150.1	2142.2	2138.4	2134.4	2128.5	2125.5	2130.5	2151.2
10°	2203.3	2215.2	2204.4	2188.6	2175.8	2170.8	2167.0	2161.0	2157.1	2160.0	2182.7
12.5°	2250.7	2262.5	2247.7	2226.1	2209.3	2206.3	2201.4	2199.4	2198.4	2197.5	2220.1
15°	2295.1	2304.9	2286.2	2260.5	2242.8	2237.9	2233.0	2235.9	2240.9	2246.7	2272.3
17.5°	2329.5	2339.4	2311.8	2278.3	2261.6	2259.5	2256.6	2266.5	2280.2	2295.1	2326.5
20°	2361.1	2370.9	2335.5	2290.1	2270.4	2270.4	2271.4	2292.1	2311.8	2333.4	2376.8
22.5°	2405.4	2413.3	2369.9	2307.8	2279.3	2281.2	2289.1	2309.8	2334.4	2364.0	2424.1
25°	2471.4	2477.3	2424.1	2341.3	2308.8	2314.8	2321.6	2331.5	2355.1	2389.6	2470.5
27.5°	2577.9	2582.8	2512.8	2400.4	2351.1	2361.1	2370.9	2364.0	2374.8	2404.4	2507.9
30°	2727.6	2730.6	2641.9	2493.1	2423.1	2428.0	2430.1	2401.5	2380.8	2404.4	2534.5
32.5°	2905.0	2904.0	2798.6	2605.4	2504.9	2500.0	2483.3	2427.1	2378.8	2399.5	2558.1
35°	3180.0	3169.1	3033.1	2763.1	2597.6	2567.0	2527.5	2455.7	2388.7	2394.5	2578.8
37.5°	3635.2	3601.6	3413.5	3021.3	2735.5	2657.6	2599.5	2501.9	2410.3	2392.6	2603.5
40°	4148.6	4106.3	3899.3	3375.0	2942.5	2817.3	2723.7	2568.0	2445.8	2401.5	2639.9
42.5°	4757.5	4697.5	4474.7	3791.9	3204.6	3023.2	2882.3	2651.8	2498.0	2430.1	2689.2
45°	5505.5	5425.7	5110.3	4262.0	3534.7	3293.2	3105.0	2778.9	2577.9	2485.2	2763.1
47.5°	6261.3	6281.0	5832.7	4800.0	3930.8	3626.3	3383.9	2970.0	2694.1	2573.9	2882.3
50°	7064.4	7078.2	6551.0	5396.1	4380.1	4002.7	3697.3	3183.9	2855.8	2700.1	3060.6
52.5°	7691.2	7693.1	7203.4	6019.9	4848.2	4416.6	4035.2	3428.2	3042.9	2867.5	3298.1
55°	8083.4	8078.4	7660.6	6610.1	5386.3	4851.2	4409.8	3706.1	3271.6	3064.6	3596.7
57.5°	8368.1	8353.3	7975.9	7117.6	5959.8	5364.5	4833.5	4021.5	3541.6	3299.2	3989.9
60°	8476.5	8467.6	8189.7	7556.2	6562.9	5932.2	5322.2	4374.3	3848.1	3576.0	4495.4
62.5°	8518.0	8534.7	8399.7	7980.9	7208.3	6560.9	5859.3	4796.0	4193.0	3889.5	5028.5
65°	8663.7	8694.3	8666.7	8536.6	7937.5	7297.0	6571.7	5297.6	4569.3	4225.5	5585.3
67.5°	8952.5	8983.0	8994.9	9201.8	8828.3	8214.5	7460.6	5922.3	5009.8	4574.3	6004.1
70°	8945.6	8936.7	9145.7	9730.9	9943.8	9484.6	8658.8	6691.0	5535.1	4864.0	6057.3
72.5°	8142.5	8071.6	8565.2	9725.0	10872.1	10811.0	10122.2	7682.3	5988.4	4899.5	5256.2
75°	6108.6	5919.4	6791.4	8764.3	11026.7	11563.8	11052.4	8297.2	5880.9	4328.9	3657.8
77.5°	2612.3	2422.2	3449.9	6487.9	9868.9	10810.0	10199.1	7238.9	4694.5	2862.6	1796.4
80°	683.9	682.9	1042.5	2941.4	6711.6	7982.8	7003.3	4674.8	2682.3	1022.8	495.7
82.5°	282.8	275.9	383.3	1144.1	3279.5	4479.7	3655.9	2085.2	968.6	276.9	164.6
85°	105.5	104.4	186.2	395.1	1156.9	1847.7	1337.2	533.1	241.4	135.0	73.9
87.5°	29.5	28.6	40.4	136.9	281.9	427.6	228.6	87.7	68.0	53.2	21.7
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°	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5	2124.5
2.5°	2131.5	2136.4	2145.2	2152.2	2161.0	2170.8	2184.7	2193.5	2202.4	2208.3	2204.4
5°	2140.3	2151.2	2173.8	2196.5	2223.1	2247.7	2276.3	2297.0	2313.7	2318.7	2320.6
7.5°	2160.0	2177.7	2216.2	2254.6	2297.0	2337.4	2378.8	2414.3	2442.9	2453.6	2454.7
10°	2194.5	2218.2	2272.3	2326.5	2382.7	2444.8	2498.0	2549.3	2589.7	2606.4	2607.4
12.5°	2237.9	2267.4	2338.4	2413.3	2491.2	2576.8	2645.8	2708.9	2759.2	2781.8	2781.8
15°	2294.1	2332.5	2423.1	2523.7	2637.9	2757.1	2844.9	2914.9	2971.1	2998.6	2996.7
17.5°	2355.1	2406.4	2520.7	2672.5	2836.0	2992.7	3095.2	3146.4	3204.6	3231.2	3230.2
20°	2414.3	2477.3	2640.9	2861.6	3079.4	3246.0	3328.7	3342.5	3346.4	3349.4	3357.3
22.5°	2475.4	2560.1	2791.7	3100.1	3333.6	3448.9	3460.8	3401.7	3318.8	3280.4	3291.3
25°	2542.4	2654.7	2988.8	3363.2	3552.4	3566.2	3475.6	3331.7	3175.0	3103.1	3114.0
27.5°	2607.4	2764.1	3225.3	3614.5	3710.1	3588.8	3393.8	3189.8	3000.6	2924.7	2933.5
30°	2672.5	2889.3	3486.4	3834.2	3782.0	3532.7	3264.6	3037.1	2846.8	2767.1	2775.9
32.5°	2738.5	3035.0	3787.0	3992.9	3769.2	3413.5	3104.0	2865.6	2698.1	2614.3	2625.1
35°	2813.3	3214.4	4071.7	4079.6	3683.4	3238.1	2892.1	2660.6	2514.7	2447.8	2462.6
37.5°	2910.9	3442.1	4323.0	4101.3	3533.7	2980.9	2629.1	2418.2	2297.9	2267.4	2289.1
40°	3032.2	3716.0	4515.1	4066.8	3312.0	2668.5	2341.3	2172.8	2104.8	2111.7	2135.4
42.5°	3189.8	4022.4	4650.1	3978.1	3003.6	2346.2	2089.1	2014.2	2046.7	2074.3	2099.9
45°	3394.7	4340.8	4734.0	3827.3	2654.7	2073.3	1940.3	1958.1	1982.7	1985.6	2005.3
47.5°	3656.9	4662.9	4789.1	3599.7	2299.0	1881.2	1845.7	1849.6	1844.7	1824.0	1839.8
50°	3984.1	4976.4	4838.4	3298.1	1996.5	1761.0	1713.6	1699.9	1631.8	1564.9	1573.7
52.5°	4356.6	5264.1	4859.1	2923.7	1761.0	1660.4	1583.5	1496.8	1369.7	1349.0	1356.0
55°	4770.3	5530.2	4805.8	2463.5	1562.8	1531.4	1415.0	1310.6	1296.8	1279.1	1282.1
57.5°	5265.0	5816.9	4697.5	1950.2	1359.9	1380.6	1267.2	1279.1	1254.4	1226.8	1221.9
60°	5806.0	6113.5	4507.2	1482.0	1149.9	1192.4	1228.8	1227.8	1220.9	1198.2	1190.3
62.5°	6292.9	6308.6	4132.8	1135.2	965.8	1046.5	1146.1	1145.0	1139.2	1126.4	1121.4
65°	6582.6	6279.0	3508.1	893.8	814.0	926.3	1033.7	1041.6	1042.5	1041.6	1041.6
67.5°	6531.3	5933.2	2650.8	711.5	688.8	804.1	922.4	933.2	941.1	943.0	945.0
70°	5951.9	5173.4	1728.5	567.6	577.5	696.7	816.9	827.8	834.7	842.6	846.4
72.5°	4639.4	3803.7	989.3	459.2	479.9	604.0	712.5	725.3	729.2	743.9	749.9
75°	2827.2	2236.9	534.1	361.6	394.2	516.4	609.0	623.8	630.7	648.4	650.4
77.5°	1344.1	968.6	304.5	281.9	317.3	421.8	514.3	531.2	512.4	522.2	514.3
80°	454.3	359.7	192.2	214.8	242.4	329.1	411.9	428.7	389.2	387.2	383.3
82.5°	158.7	145.9	122.2	142.9	156.7	235.5	311.4	333.0	289.7	288.7	274.9
85°	62.1	59.1	68.0	77.8	93.6	144.8	205.0	215.8	178.4	143.9	141.9
87.5°	12.8	13.8	16.7	17.7	28.6	50.2	73.9	90.6	72.0	61.1	56.2
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)