

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: P965781

Luminaire Tested: **NAV-SB4A-830-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965781
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16406.2 lumens
Efficiency: N/A
Efficacy: 143.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

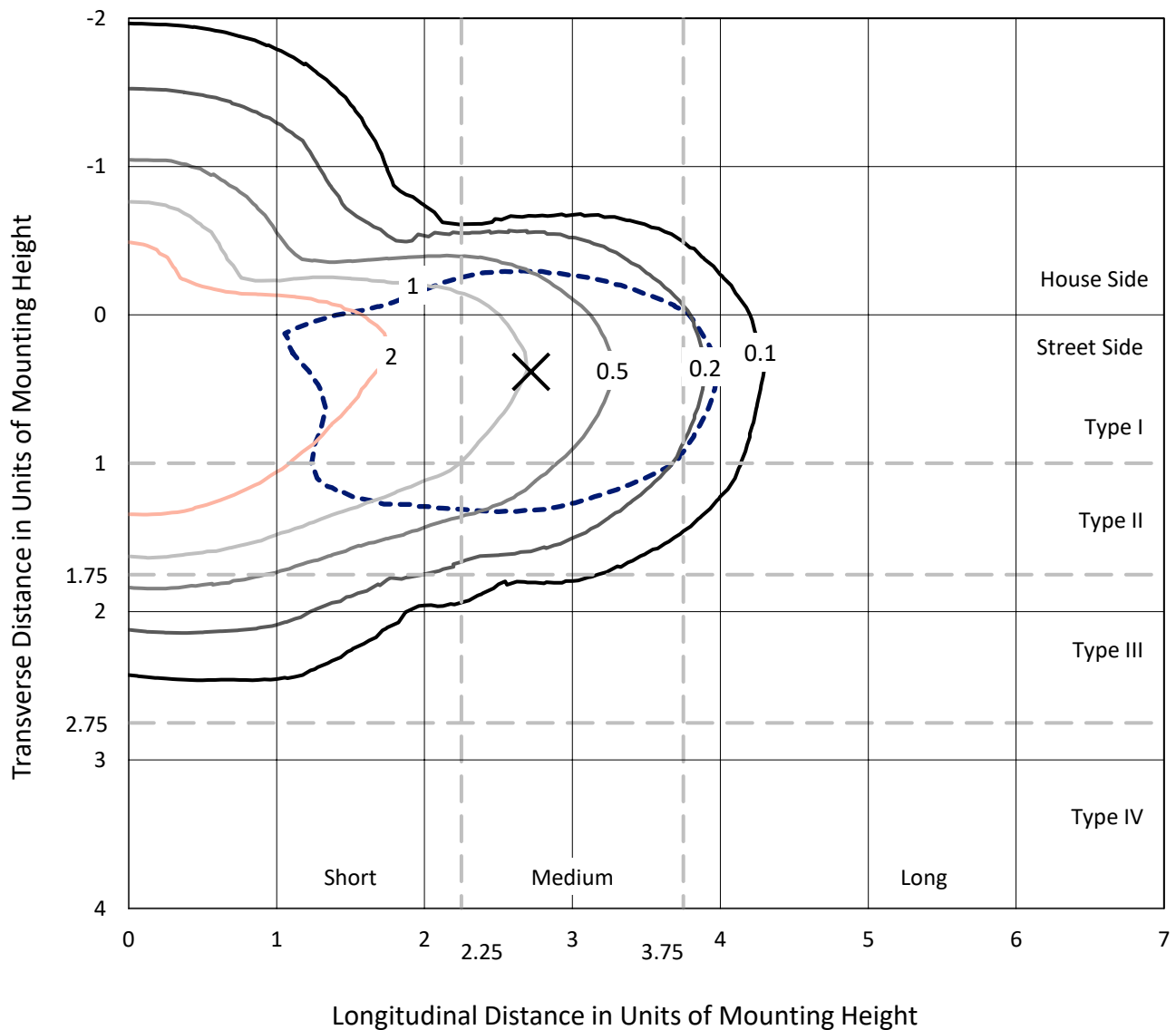
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

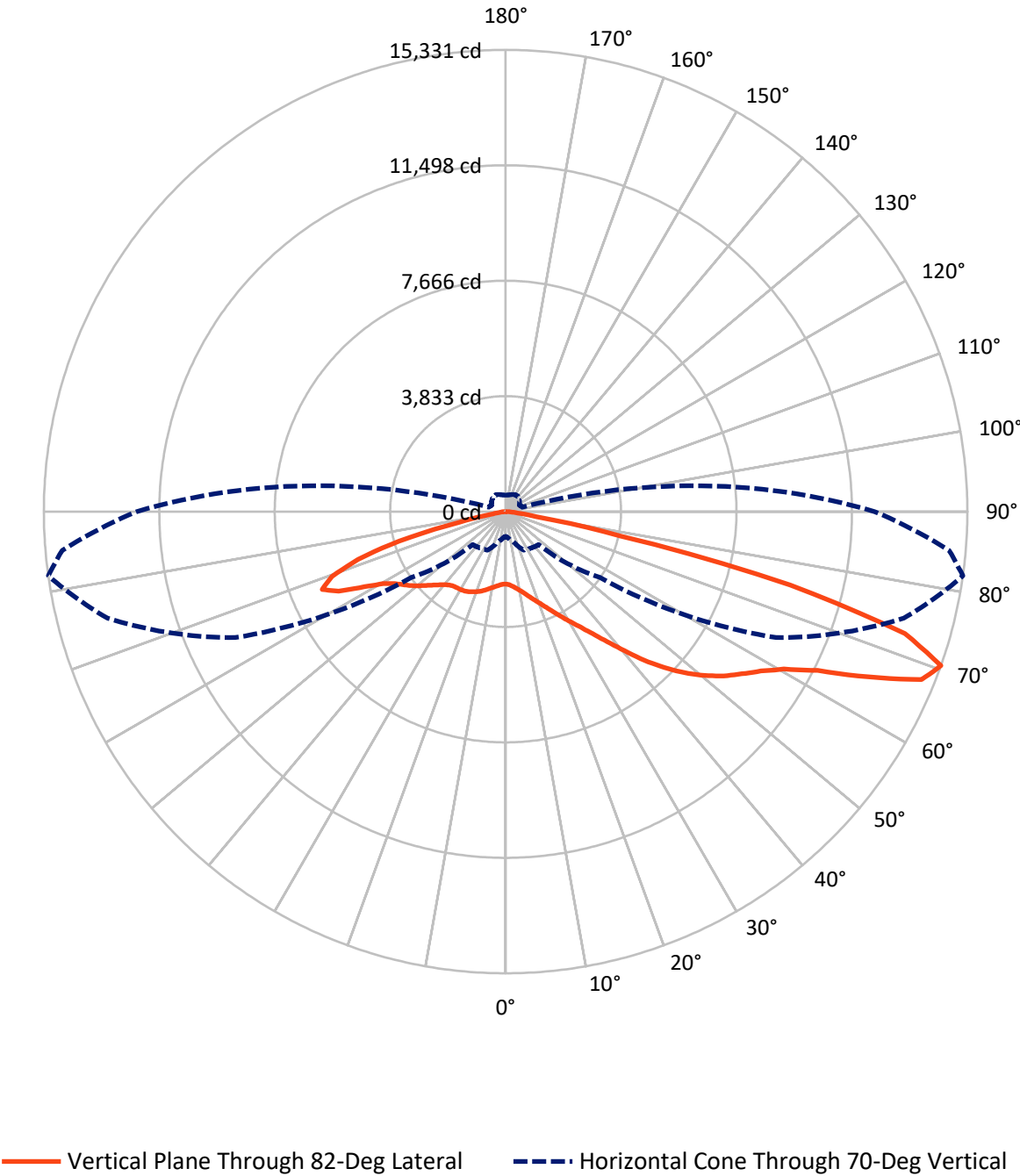
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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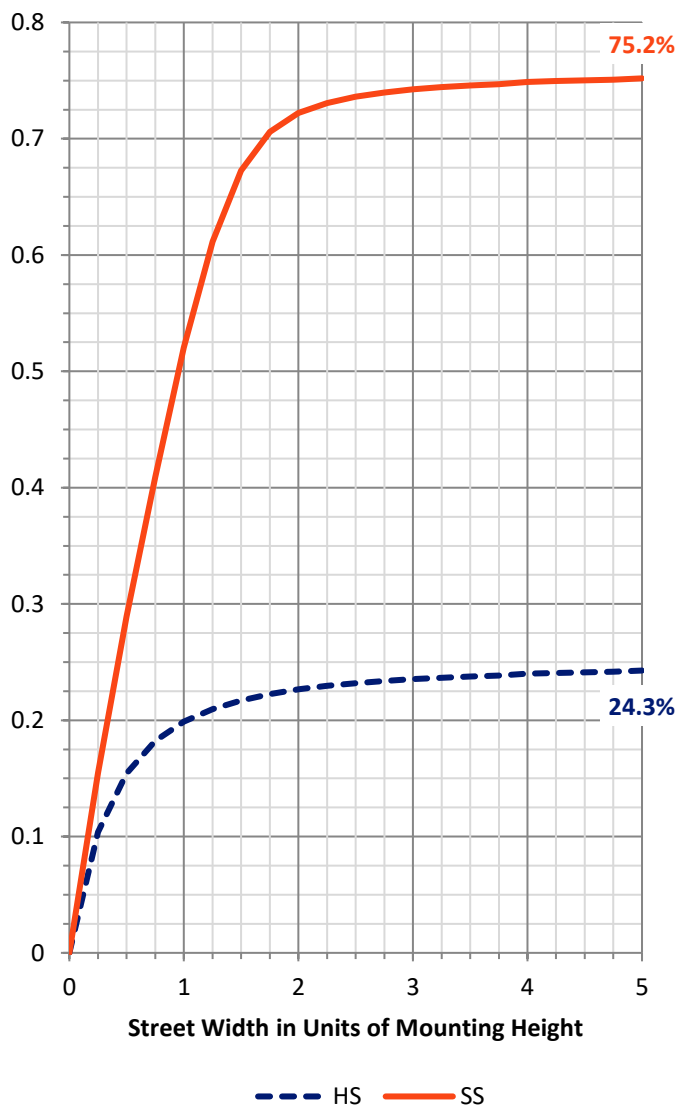
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4044.5	0.0	4044.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	12361.6	0.0	12361.6
	% Fixture	75.3	0.0	75.3
Total	Lumens	16406.2	0.0	16406.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.1	1.4
10°-20°	652.5	4.0
20°-30°	1091.6	6.7
30°-40°	1705.3	10.4
40°-50°	2715.9	16.6
50°-60°	3779.5	23.0
60°-70°	3953.5	24.1
70°-80°	2066.3	12.6
80°-90°	214.6	1.3
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°	16406.2	100.0
0°-180°	16406.2	100.0

Coefficient of Utilization



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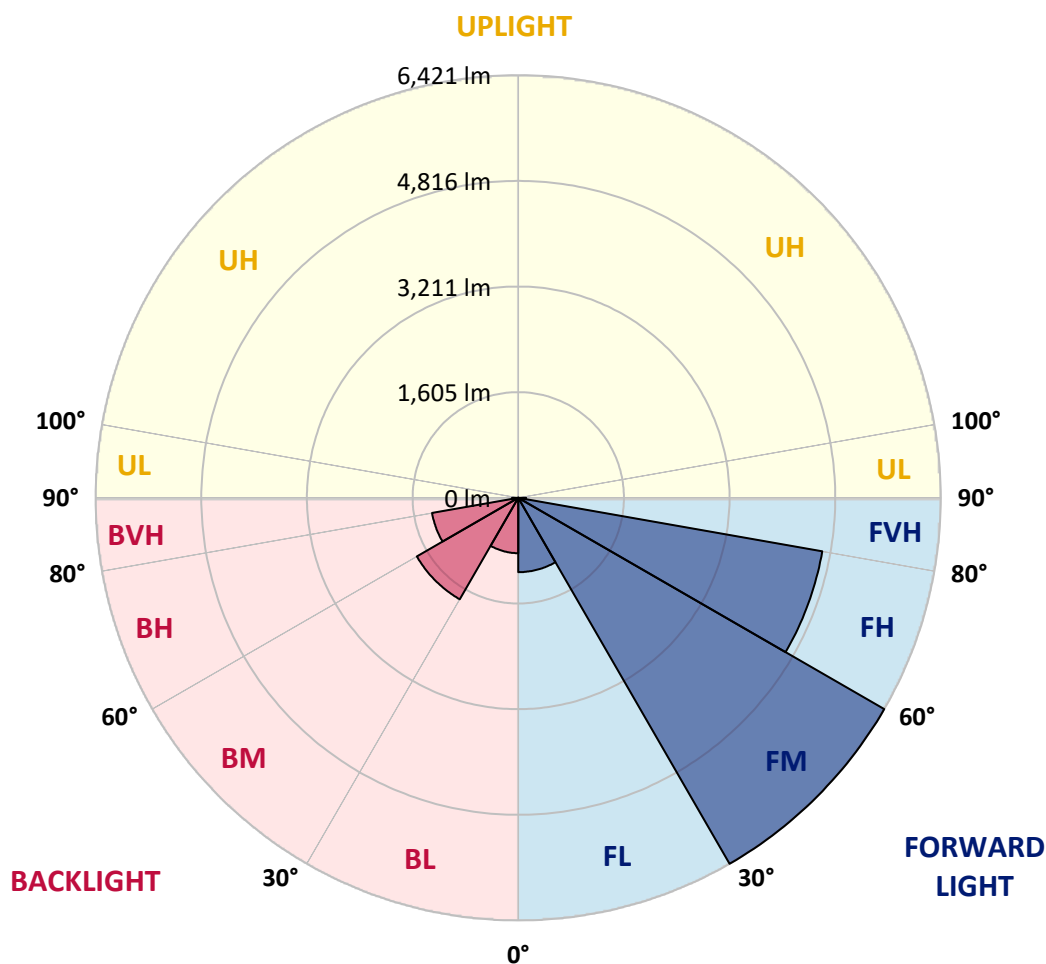
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1129.7	6.9			
FM	(30°-60°)	6421.2	39.1			
FH	(60°-80°)	4690.6	28.6			G2/5000
FVH	(80°-90°)	120.1	0.7			G2/225
BL	(0°-30°)	841.4	5.1	B2/1000		
BM	(30°-60°)	1779.4	10.8	B2/2500		
BH	(60°-80°)	1329.2	8.1	B3/2500		G3/2500
BVH	(80°-90°)	94.4	0.6			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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4
2.5°	2462.8	2476.7	2472.4	2468.0	2468.0	2461.9	2461.0	2452.3	2445.3	2434.1	2431.5
5°	2494.1	2508.9	2507.3	2510.6	2522.0	2524.6	2527.2	2522.0	2508.1	2494.1	2488.1
7.5°	2466.3	2482.9	2488.1	2508.9	2543.7	2575.1	2598.6	2608.2	2595.1	2575.1	2565.6
10°	2372.3	2390.5	2408.9	2458.5	2520.3	2594.3	2656.9	2694.4	2691.8	2672.6	2656.1
12.5°	2181.6	2200.8	2239.9	2336.6	2449.8	2580.3	2697.0	2775.3	2802.4	2788.4	2759.7
15°	2029.3	2045.8	2075.4	2174.6	2321.7	2520.3	2711.7	2864.2	2932.9	2925.0	2890.3
17.5°	2024.9	2031.9	2050.2	2097.1	2210.3	2426.3	2696.2	2951.2	3082.7	3081.8	3038.2
20°	2101.6	2104.1	2114.6	2124.1	2188.6	2354.8	2656.1	3023.4	3250.7	3250.7	3203.6
22.5°	2207.7	2206.0	2216.5	2207.7	2239.1	2348.8	2630.9	3087.0	3437.8	3451.8	3392.5
25°	2367.0	2358.3	2355.8	2335.7	2341.8	2405.4	2658.6	3159.3	3659.9	3688.6	3614.6
27.5°	2579.4	2565.6	2555.9	2509.8	2494.1	2522.0	2744.0	3246.3	3907.1	3956.7	3862.6
30°	2856.3	2831.0	2817.1	2737.1	2680.5	2684.8	2872.9	3362.1	4165.6	4245.7	4126.4
32.5°	3234.1	3194.9	3157.5	3026.0	2922.5	2888.6	3039.1	3522.3	4445.9	4573.9	4420.7
35°	3657.2	3625.8	3585.9	3383.0	3223.6	3145.3	3263.7	3746.0	4774.1	4977.0	4777.6
37.5°	4064.6	4037.7	4056.7	3783.5	3578.0	3464.0	3558.0	4046.4	5178.9	5478.4	5225.0
40°	4486.0	4465.1	4467.7	4206.5	3967.2	3839.1	3914.9	4423.3	5642.9	6074.8	5763.1
42.5°	4943.9	4928.2	4876.0	4644.4	4375.4	4256.1	4325.8	4858.6	6140.9	6753.7	6353.4
45°	5456.7	5447.1	5398.4	5132.8	4824.6	4690.6	4784.6	5339.1	6641.5	7392.8	6946.1
47.5°	5899.8	5907.6	5901.5	5677.8	5358.3	5161.5	5273.8	5840.6	7107.2	7993.5	7514.7
50°	6113.0	6154.0	6214.1	6144.4	5945.9	5745.6	5767.5	6324.6	7551.2	8556.7	8059.6
52.5°	6001.6	6079.1	6242.8	6354.2	6430.7	6389.0	6330.7	6805.2	7969.1	9065.1	8574.9
55°	5586.4	5695.2	5966.8	6235.8	6626.6	6930.5	7007.1	7337.9	8376.5	9512.6	9062.5
57.5°	4829.8	5006.6	5250.4	5794.4	6452.6	7192.5	7795.8	8077.0	8808.3	9990.5	9572.7
60°	3532.8	3769.5	4072.4	4882.1	5843.2	7052.4	8467.0	9212.2	9422.0	10609.5	10236.9
62.5°	2260.8	2407.1	2685.7	3448.3	4553.0	6334.2	8672.5	10631.2	10462.4	11624.5	11232.8
65°	1547.9	1641.8	1897.0	2325.2	2943.4	4714.9	8122.3	11695.0	12114.7	13233.4	12935.6
67.5°	1124.7	1196.2	1413.8	1789.0	1917.9	2790.2	6302.8	11646.3	13720.9	14890.9	14427.7
70°	820.1	870.5	1053.4	1413.8	1475.6	1552.2	3818.2	9900.0	13686.0	15331.3	14776.8
72.5°	607.6	642.5	765.3	1096.9	1194.4	1048.2	1890.0	7195.2	11760.3	13867.1	13422.3
75°	439.6	465.8	556.3	839.2	955.9	798.3	942.8	4204.8	8203.3	9754.6	9832.9
77.5°	336.0	356.1	415.2	614.6	765.3	598.9	585.0	1934.4	3889.7	3908.8	4128.2
80°	269.9	282.9	315.2	432.7	586.7	448.3	381.3	780.8	1229.2	1040.3	1091.7
82.5°	198.4	220.3	266.4	303.8	419.6	309.0	232.5	394.3	467.5	402.2	405.7
85°	113.2	128.0	161.0	217.6	268.1	188.9	133.1	175.0	217.6	178.5	159.3
87.5°	40.1	52.3	56.6	85.3	116.6	78.3	51.4	50.5	71.3	53.1	44.4
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°	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4	2405.4
2.5°	2422.8	2418.4	2401.0	2377.5	2353.1	2329.6	2321.7	2305.2	2294.0	2287.8	2294.8
5°	2471.5	2457.5	2416.6	2364.5	2309.6	2250.4	2208.6	2170.3	2142.5	2116.3	2126.8
7.5°	2541.2	2516.8	2446.3	2354.8	2257.4	2159.0	2085.9	2030.1	1992.7	1968.3	1973.5
10°	2622.2	2584.6	2476.7	2340.1	2189.4	2048.5	1962.3	1914.4	1890.8	1877.8	1881.3
12.5°	2715.2	2662.1	2508.1	2306.1	2085.9	1924.8	1865.6	1851.7	1852.6	1853.4	1855.1
15°	2830.1	2756.2	2533.3	2232.1	1950.9	1829.9	1819.5	1842.1	1865.6	1876.9	1876.1
17.5°	2959.9	2855.4	2537.7	2110.3	1818.6	1768.9	1802.1	1850.8	1886.5	1902.2	1905.7
20°	3099.2	2956.4	2506.3	1937.9	1709.8	1719.3	1778.6	1841.2	1880.4	1900.5	1905.7
22.5°	3258.5	3064.3	2431.5	1756.7	1620.9	1665.4	1735.0	1796.0	1836.9	1856.9	1862.1
25°	3440.4	3185.4	2313.9	1604.4	1544.4	1604.4	1674.0	1724.6	1757.7	1775.9	1781.1
27.5°	3642.4	3311.6	2157.2	1483.4	1477.3	1541.8	1599.2	1638.4	1655.8	1669.7	1675.0
30°	3845.3	3426.5	1967.5	1392.1	1419.0	1479.9	1520.9	1538.3	1543.4	1546.1	1552.2
32.5°	4064.6	3525.8	1768.1	1316.3	1363.2	1419.8	1444.2	1452.1	1427.7	1411.2	1416.3
35°	4330.1	3632.0	1573.1	1256.2	1308.4	1357.2	1365.0	1358.0	1329.3	1295.4	1297.1
37.5°	4658.3	3764.3	1417.3	1213.6	1257.1	1289.2	1279.7	1278.0	1280.6	1240.6	1243.1
40°	5060.5	3936.6	1303.2	1180.5	1215.3	1222.2	1195.3	1210.1	1223.1	1162.1	1163.9
42.5°	5507.1	4144.7	1230.9	1157.8	1180.5	1163.9	1122.2	1138.7	1136.9	1056.9	1056.0
45°	5962.4	4371.1	1205.7	1141.3	1148.3	1115.2	1069.1	1073.4	1036.8	964.6	967.2
47.5°	6415.2	4613.9	1221.4	1127.4	1108.2	1070.8	1035.0	1016.0	962.0	907.9	907.9
50°	6859.1	4869.1	1278.9	1099.5	1053.4	1031.6	1005.5	971.5	914.1	868.0	864.5
52.5°	7270.8	5125.8	1343.3	1053.4	984.6	997.6	981.1	942.0	885.4	838.3	839.2
55°	7660.8	5382.7	1368.5	989.8	920.1	968.0	958.5	886.2	818.4	780.0	776.5
57.5°	8085.7	5691.7	1340.7	908.9	868.0	934.1	897.6	817.4	778.3	749.6	746.9
60°	8674.3	6176.5	1280.6	808.7	818.4	883.7	820.9	787.8	745.2	713.0	711.2
62.5°	9651.8	7081.1	1184.0	709.5	760.0	808.7	784.3	751.3	707.8	676.4	676.4
65°	11097.0	8338.2	1002.0	632.0	694.7	735.6	745.2	712.1	666.9	633.8	635.5
67.5°	12315.8	9126.9	758.3	567.6	627.7	676.4	703.5	671.2	623.3	591.1	591.9
70°	12248.7	8554.0	578.9	504.1	568.5	618.1	652.9	627.7	576.4	545.8	548.5
72.5°	10879.3	7155.9	468.3	439.6	508.4	557.2	598.9	579.7	527.6	497.9	497.9
75°	7992.5	5079.7	374.3	374.3	433.6	493.6	539.8	527.6	479.7	458.8	452.6
77.5°	3369.1	2131.1	293.4	310.8	360.4	423.9	481.4	485.7	444.0	470.1	426.6
80°	895.8	587.6	223.8	244.7	282.9	349.9	418.7	417.0	371.8	347.4	323.0
82.5°	341.2	231.5	159.3	172.4	204.6	268.1	331.7	342.1	296.8	256.9	256.9
85°	131.4	99.2	98.4	103.6	119.3	177.6	250.7	259.4	223.8	189.8	195.9
87.5°	33.9	29.6	36.6	34.8	54.8	94.9	143.6	148.8	136.6	79.2	113.2
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)