

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: P965564

Luminaire Tested: **NAV-SB4A-727-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965564
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-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16936.1 lumens
Efficiency: N/A
Efficacy: 148.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

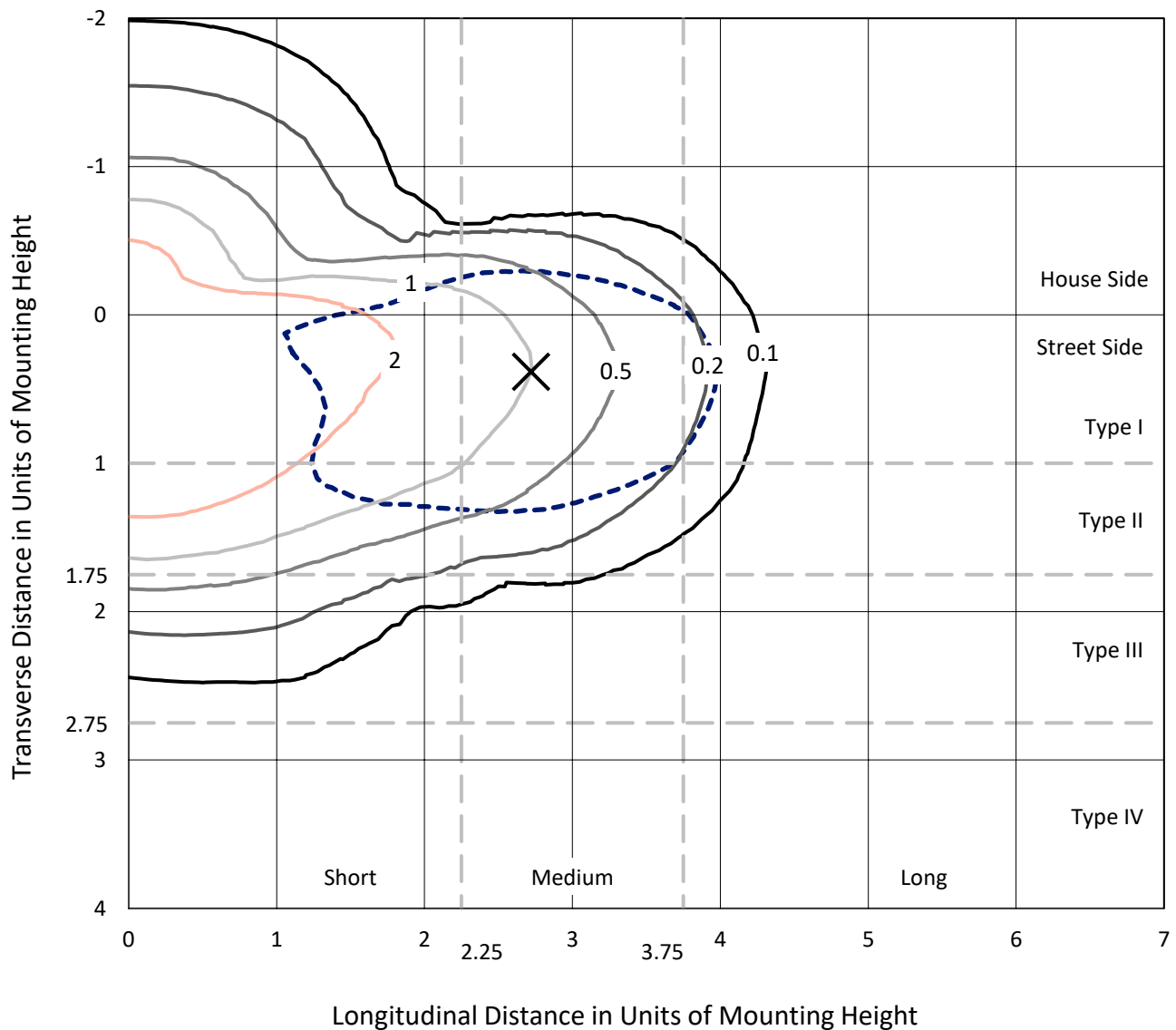
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

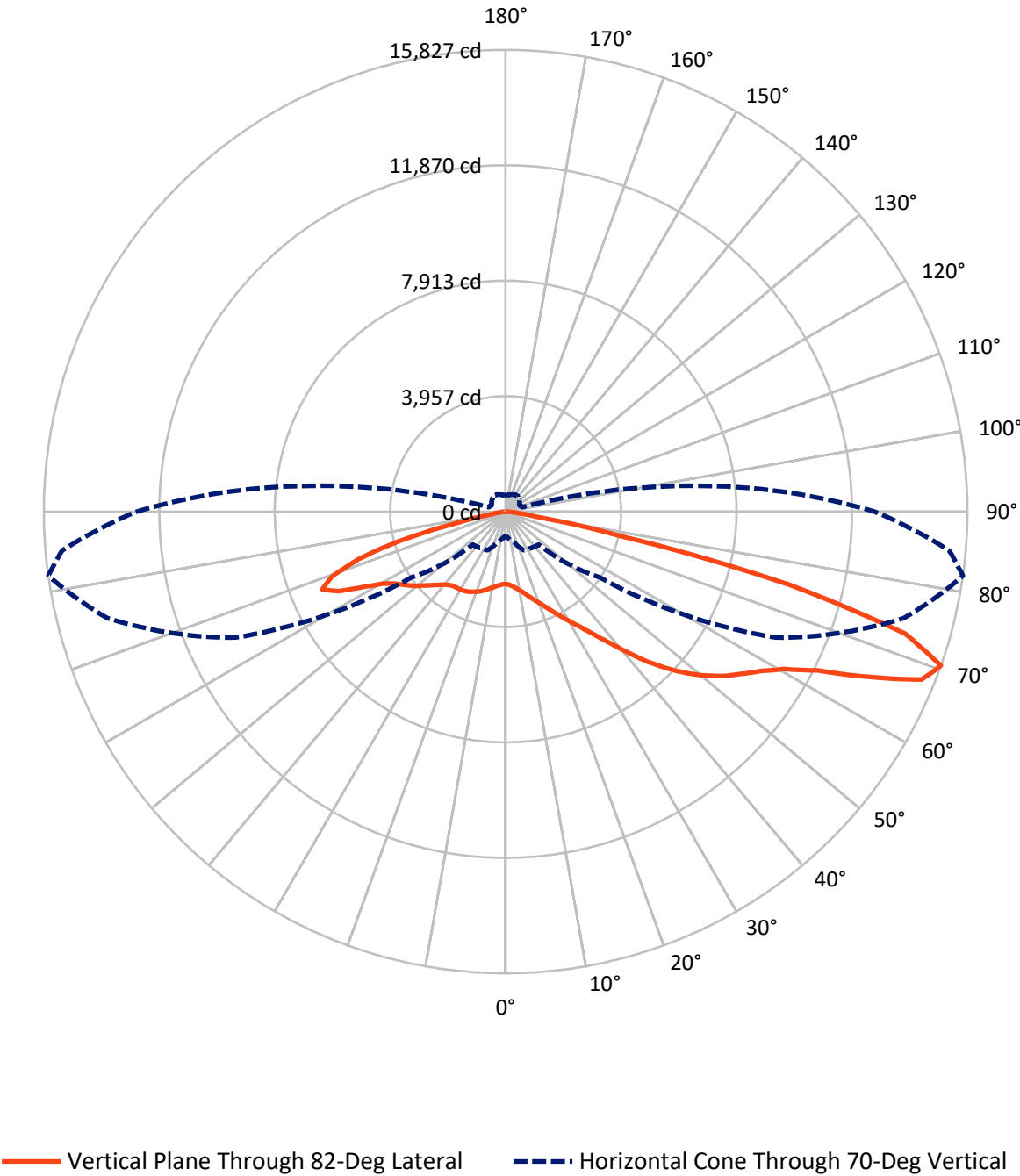
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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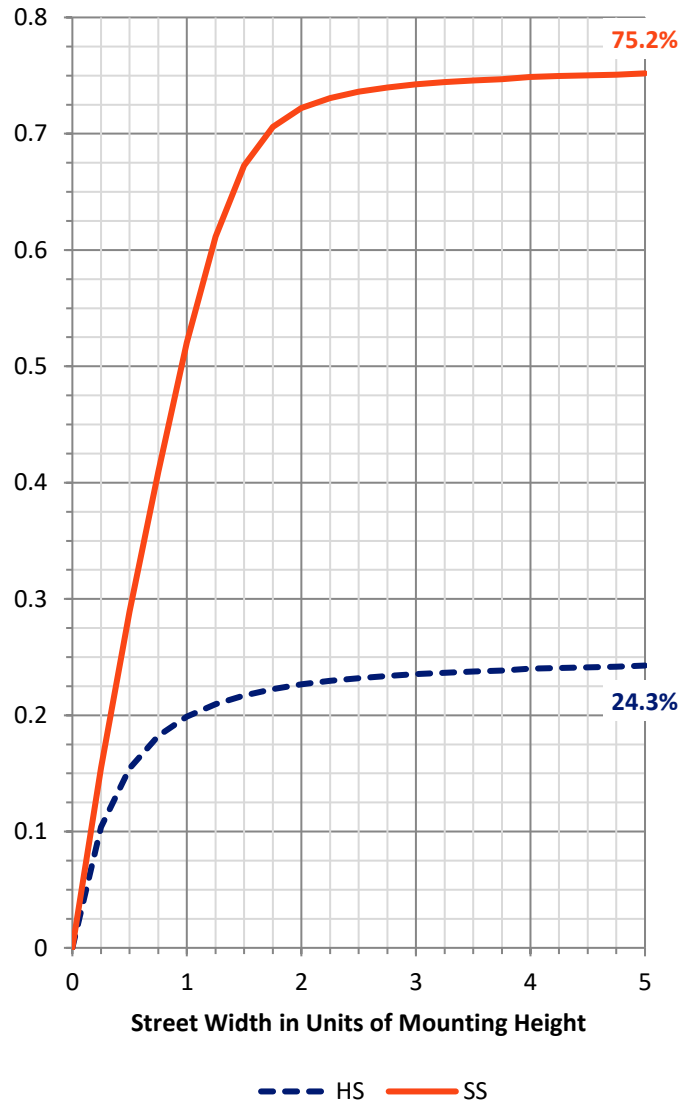
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4175.2	0.0	4175.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	12760.9	0.0	12760.9
	% Fixture	75.3	0.0	75.3
Total	Lumens	16936.1	0.0	16936.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.4	1.4
10°-20°	673.6	4.0
20°-30°	1126.8	6.7
30°-40°	1760.4	10.4
40°-50°	2803.6	16.6
50°-60°	3901.6	23.0
60°-70°	4081.2	24.1
70°-80°	2133.1	12.6
80°-90°	221.5	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°	16936.1	100.0
0°-180°	16936.1	100.0

Coefficient of Utilization



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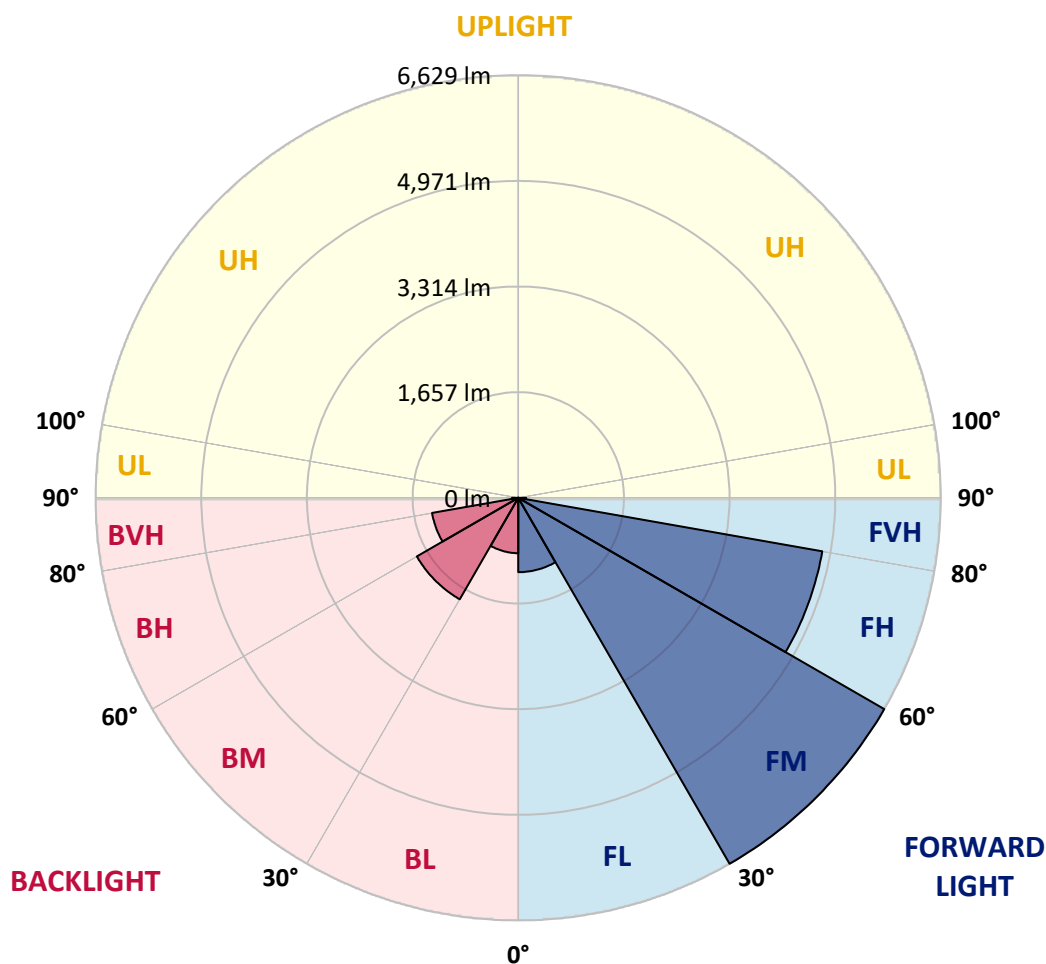
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1166.2	6.9			
FM	(30°-60°)	6628.6	39.1			
FH	(60°-80°)	4842.1	28.6			G2/5000
FVH	(80°-90°)	124.0	0.7			G2/225
BL	(0°-30°)	868.6	5.1	B2/1000		
BM	(30°-60°)	1836.9	10.8	B2/2500		
BH	(60°-80°)	1372.2	8.1	B3/2500		G3/2500
BVH	(80°-90°)	97.5	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°	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1
2.5°	2542.3	2556.8	2552.2	2547.7	2547.7	2541.5	2540.6	2531.5	2524.4	2512.7	2510.0
5°	2574.7	2590.0	2588.2	2591.8	2603.5	2606.2	2608.8	2603.5	2589.0	2574.7	2568.4
7.5°	2546.0	2563.0	2568.4	2590.0	2625.9	2658.2	2682.5	2692.5	2678.9	2658.2	2648.4
10°	2448.9	2467.8	2486.6	2537.9	2601.7	2678.0	2742.8	2781.4	2778.7	2758.9	2741.9
12.5°	2252.1	2271.8	2312.3	2412.0	2528.9	2663.7	2784.1	2865.0	2892.9	2878.5	2848.8
15°	2094.8	2111.9	2142.5	2244.9	2396.8	2601.7	2799.4	2956.6	3027.6	3019.5	2983.6
17.5°	2090.3	2097.5	2116.4	2164.9	2281.8	2504.6	2783.2	3046.5	3182.2	3181.3	3136.4
20°	2169.4	2172.1	2182.8	2192.8	2259.3	2430.9	2741.9	3121.1	3355.6	3355.6	3307.2
22.5°	2279.1	2277.2	2288.0	2279.1	2311.4	2424.6	2715.8	3186.7	3548.9	3563.2	3502.1
25°	2443.5	2434.5	2431.8	2411.1	2417.5	2483.1	2744.5	3261.2	3778.0	3807.7	3731.3
27.5°	2662.7	2648.4	2638.6	2590.9	2574.7	2603.5	2832.6	3351.1	4033.3	4084.5	3987.5
30°	2948.5	2922.5	2908.1	2825.4	2767.0	2771.5	2965.6	3470.6	4300.2	4382.8	4259.7
32.5°	3338.6	3298.1	3259.5	3123.8	3016.9	2981.8	3137.3	3636.1	4589.5	4721.7	4563.5
35°	3775.4	3743.0	3701.7	3492.3	3327.8	3246.9	3369.2	3867.0	4928.3	5137.7	4931.9
37.5°	4195.9	4168.1	4187.8	3905.7	3693.6	3575.8	3672.9	4177.1	5346.2	5655.3	5393.9
40°	4630.8	4609.3	4612.0	4342.4	4095.3	3963.2	4041.4	4566.2	5825.2	6271.0	5949.2
42.5°	5103.6	5087.4	5033.5	4794.4	4516.8	4393.7	4465.5	5015.5	6339.2	6971.9	6558.6
45°	5632.9	5623.0	5572.7	5298.6	4980.5	4842.1	4939.2	5511.5	6856.0	7631.5	7170.5
47.5°	6090.3	6098.4	6092.1	5861.2	5531.3	5328.3	5444.2	6029.3	7336.7	8251.7	7757.4
50°	6310.5	6352.7	6414.8	6342.8	6137.9	5931.3	5953.7	6528.8	7795.1	8833.0	8319.9
52.5°	6195.5	6275.5	6444.4	6559.4	6638.5	6595.4	6535.2	7024.9	8226.4	9357.9	8852.0
55°	5766.8	5879.1	6159.5	6437.2	6840.7	7154.4	7233.4	7575.0	8647.1	9819.8	9355.2
57.5°	4985.8	5168.3	5419.9	5981.6	6661.0	7424.9	8047.7	8337.9	9092.8	10313.2	9881.8
60°	3646.8	3891.3	4204.0	5039.8	6031.9	7280.2	8740.5	9509.7	9726.3	10952.1	10567.5
62.5°	2333.8	2484.8	2772.4	3559.6	4700.0	6538.8	8952.6	10974.7	10800.3	12000.0	11595.6
65°	1597.9	1694.9	1958.3	2400.3	3038.4	4867.2	8384.6	12072.8	12505.9	13660.8	13353.4
67.5°	1161.1	1234.8	1459.5	1846.7	1979.8	2880.2	6506.4	12022.4	14164.1	15371.8	14893.8
70°	846.5	898.7	1087.4	1459.5	1523.3	1602.4	3941.6	10219.8	14128.1	15826.6	15254.2
72.5°	627.3	663.2	790.0	1132.3	1233.0	1082.0	1951.0	7427.6	12140.2	14315.0	13855.7
75°	453.9	480.8	574.2	866.3	986.8	824.1	973.2	4340.6	8468.2	10069.7	10150.6
77.5°	346.9	367.6	428.7	634.5	790.0	618.3	603.9	1996.9	4015.2	4035.0	4261.5
80°	278.6	292.0	325.3	446.6	605.7	462.8	393.6	806.2	1268.9	1073.9	1127.0
82.5°	204.9	227.3	275.0	313.6	433.2	319.0	240.0	407.1	482.6	415.2	418.8
85°	116.8	132.1	166.3	224.7	276.8	195.1	137.5	180.6	224.7	184.2	164.4
87.5°	41.3	53.9	58.4	88.0	120.4	80.9	53.0	52.2	73.7	54.8	45.8
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°	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1	2483.1
2.5°	2501.0	2496.5	2478.6	2454.3	2429.1	2404.9	2396.8	2379.7	2368.1	2361.7	2368.9
5°	2551.3	2537.0	2494.7	2440.8	2384.1	2323.1	2279.9	2240.4	2211.6	2184.7	2195.4
7.5°	2623.3	2598.1	2525.3	2430.9	2330.2	2228.8	2153.2	2095.7	2057.1	2031.9	2037.3
10°	2706.8	2668.2	2556.8	2415.6	2260.1	2114.6	2025.6	1976.2	1951.9	1938.5	1942.1
12.5°	2803.0	2748.1	2589.0	2380.6	2153.2	1987.0	1925.9	1911.5	1912.3	1913.3	1915.1
15°	2921.6	2845.2	2615.2	2304.2	2013.9	1889.0	1878.2	1901.6	1925.9	1937.6	1936.6
17.5°	3055.5	2947.7	2619.6	2178.4	1877.3	1826.1	1860.3	1910.6	1947.4	1963.6	1967.2
20°	3199.3	3051.9	2587.3	2000.5	1764.9	1774.9	1836.0	1900.7	1941.1	1961.8	1967.2
22.5°	3363.7	3163.4	2510.0	1813.5	1673.3	1719.1	1791.1	1853.9	1896.2	1916.9	1922.3
25°	3551.5	3288.3	2388.7	1656.3	1594.3	1656.3	1728.2	1780.3	1814.5	1833.3	1838.6
27.5°	3760.0	3418.6	2226.9	1531.4	1525.1	1591.5	1650.9	1691.4	1709.3	1723.6	1729.1
30°	3969.4	3537.2	2031.0	1436.9	1464.8	1527.8	1570.0	1587.9	1593.4	1596.0	1602.4
32.5°	4195.9	3639.7	1825.2	1358.8	1407.3	1465.7	1490.9	1499.0	1473.8	1456.7	1462.2
35°	4470.0	3749.2	1623.9	1296.8	1350.7	1401.1	1409.2	1401.9	1372.3	1337.2	1339.1
37.5°	4808.8	3885.9	1463.1	1252.8	1297.6	1331.0	1321.0	1319.3	1321.9	1280.6	1283.3
40°	5224.0	4063.8	1345.3	1218.6	1254.6	1261.8	1233.9	1249.2	1262.6	1199.8	1201.5
42.5°	5685.1	4278.6	1270.7	1195.3	1218.6	1201.5	1158.4	1175.5	1173.6	1091.0	1090.1
45°	6155.0	4512.3	1244.7	1178.1	1185.3	1151.2	1103.6	1108.0	1070.3	995.7	998.5
47.5°	6622.3	4763.0	1260.9	1163.8	1144.0	1105.4	1068.6	1048.8	993.0	937.4	937.4
50°	7080.7	5026.3	1320.2	1135.0	1087.4	1065.0	1038.0	1003.0	943.6	896.0	892.4
52.5°	7505.8	5291.4	1386.6	1087.4	1016.4	1029.9	1012.8	972.4	914.0	865.4	866.3
55°	7908.4	5556.5	1412.8	1021.8	949.9	999.4	989.4	914.8	844.8	805.2	801.7
57.5°	8346.9	5875.5	1384.0	938.2	896.0	964.3	926.5	843.9	803.4	773.8	771.1
60°	8954.4	6376.1	1321.9	834.9	844.8	912.1	847.5	813.3	769.3	736.1	734.2
62.5°	9963.6	7309.8	1222.2	732.5	784.5	834.9	809.7	775.5	730.6	698.2	698.2
65°	11455.4	8607.5	1034.3	652.4	717.2	759.4	769.3	735.1	688.4	654.3	656.0
67.5°	12713.6	9421.7	782.8	585.9	647.9	698.2	726.1	692.9	643.5	610.2	611.1
70°	12644.4	8830.4	597.6	520.3	586.8	638.1	674.0	647.9	594.9	563.4	566.2
72.5°	11230.7	7387.1	483.5	453.9	524.8	575.1	618.3	598.5	544.6	514.0	514.0
75°	8250.7	5243.8	386.4	386.4	447.5	509.5	557.2	544.6	495.2	473.7	467.3
77.5°	3477.8	2200.0	302.9	320.8	372.1	437.7	496.9	501.4	458.3	485.2	440.3
80°	924.8	606.6	230.9	252.6	292.0	361.3	432.2	430.5	383.8	358.5	333.4
82.5°	352.3	239.0	164.4	177.9	211.2	276.8	342.3	353.2	306.5	265.1	265.1
85°	135.7	102.5	101.6	106.9	123.1	183.4	258.8	267.8	230.9	195.9	202.2
87.5°	35.1	30.5	37.7	36.0	56.6	98.0	148.3	153.6	141.1	81.8	116.8
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)