

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: P965695

Luminaire Tested: **NAV-SB4A-750-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965695
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-750-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15017.3 lumens
Efficiency: N/A
Efficacy: 131.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

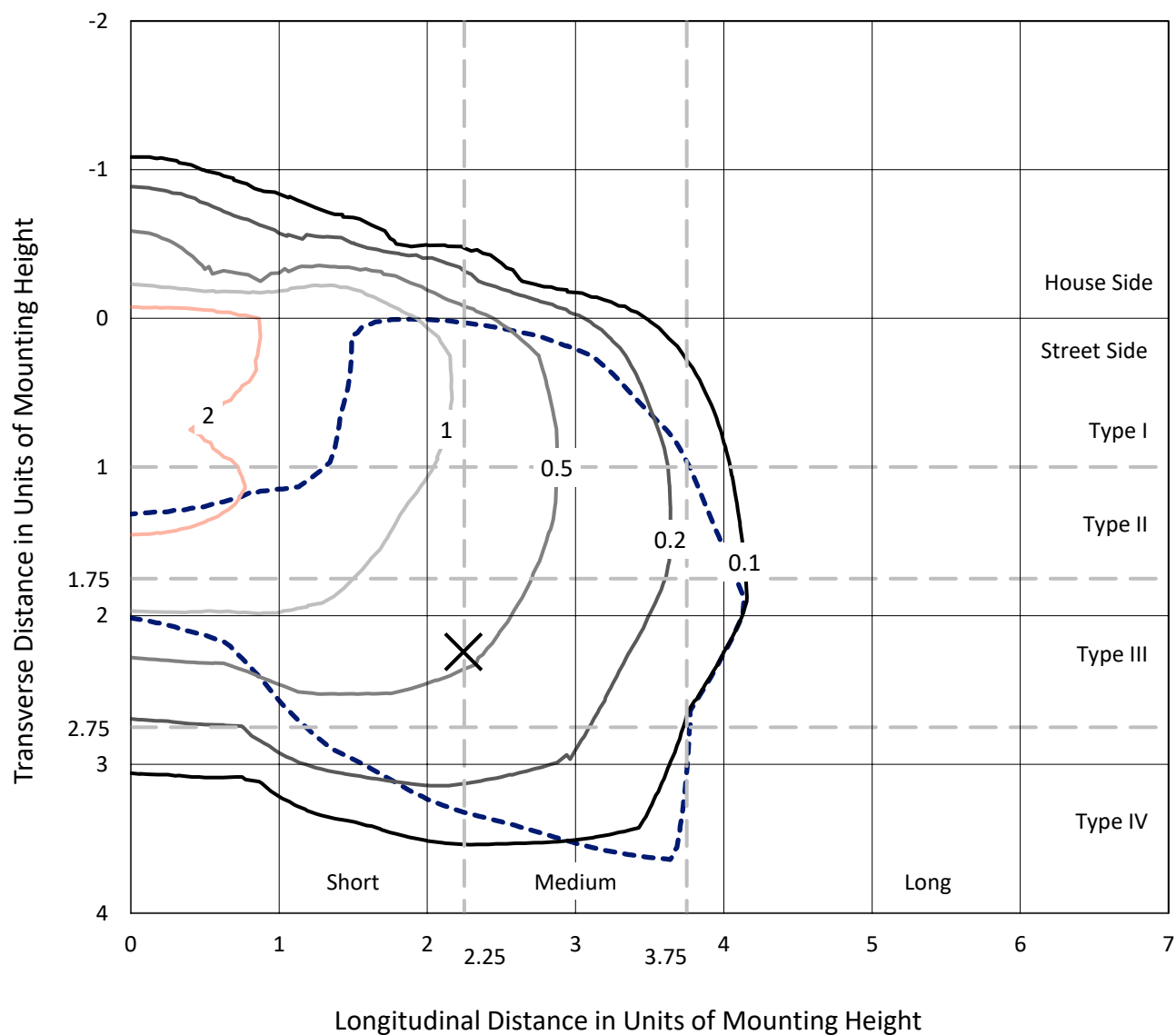
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

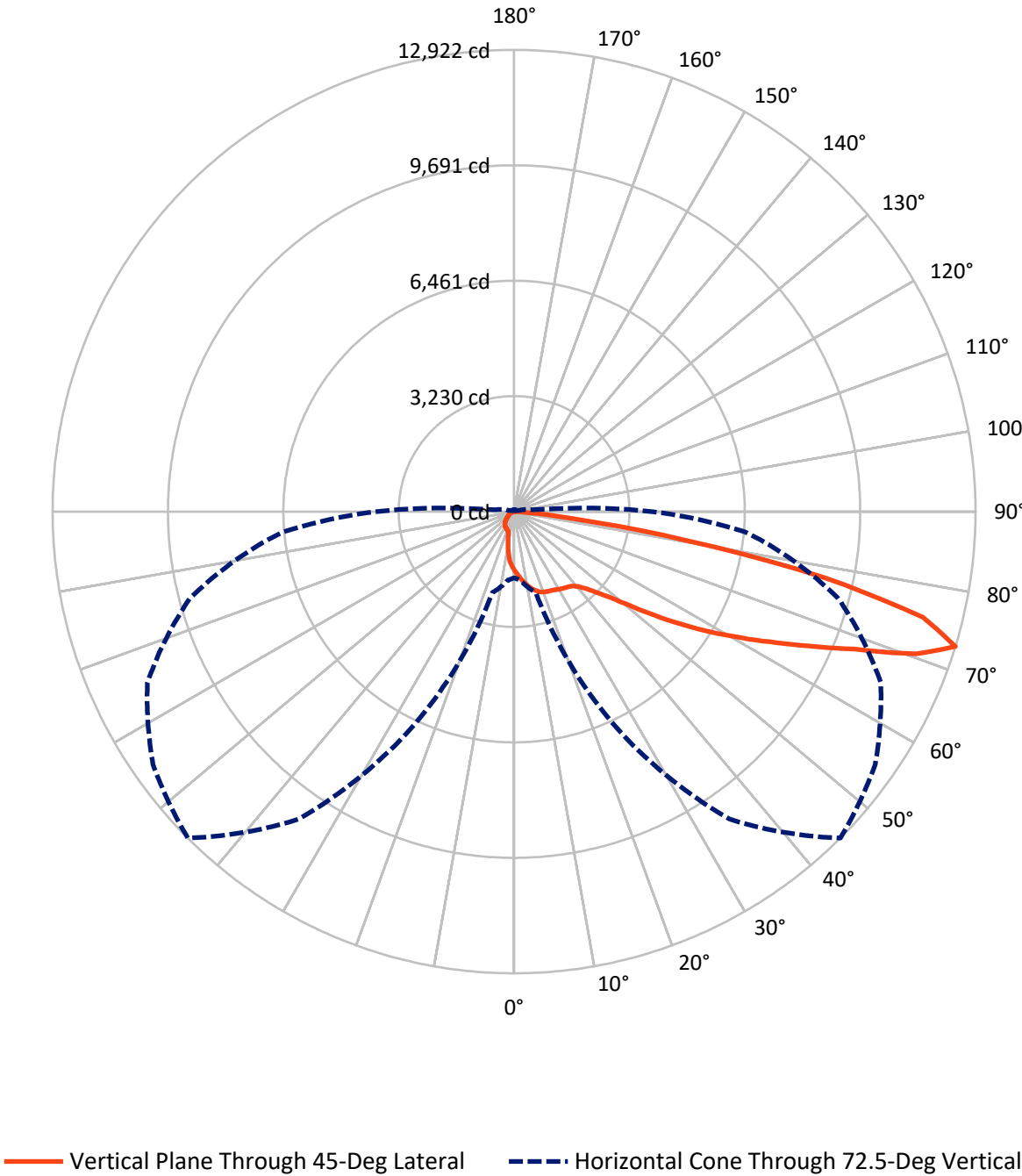
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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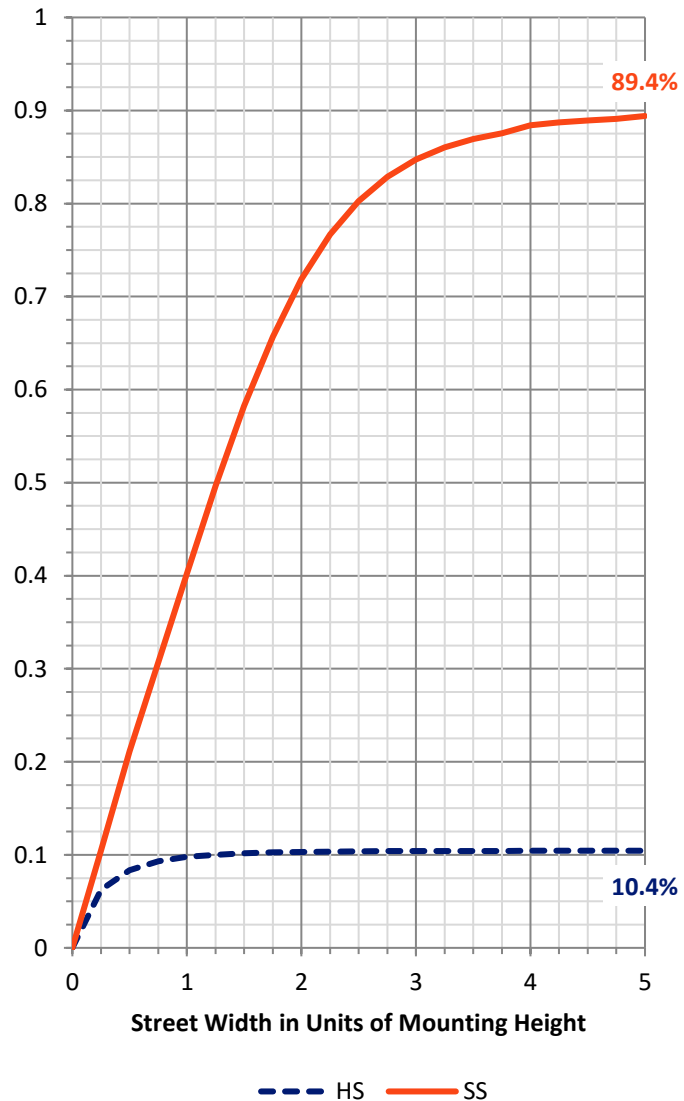
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1577.9	0.0	1577.9
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	13439.4	0.0	13439.4
	% Fixture	89.5	0.0	89.5
Total	Lumens	15017.3	0.0	15017.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.0	1.0
10°-20°	453.0	3.0
20°-30°	743.9	5.0
30°-40°	1055.1	7.0
40°-50°	1743.9	11.6
50°-60°	3132.8	20.9
60°-70°	4350.0	29.0
70°-80°	3155.4	21.0
80°-90°	228.1	1.5
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°	15017.3	100.0
0°-180°	15017.3	100.0

Coefficient of Utilization



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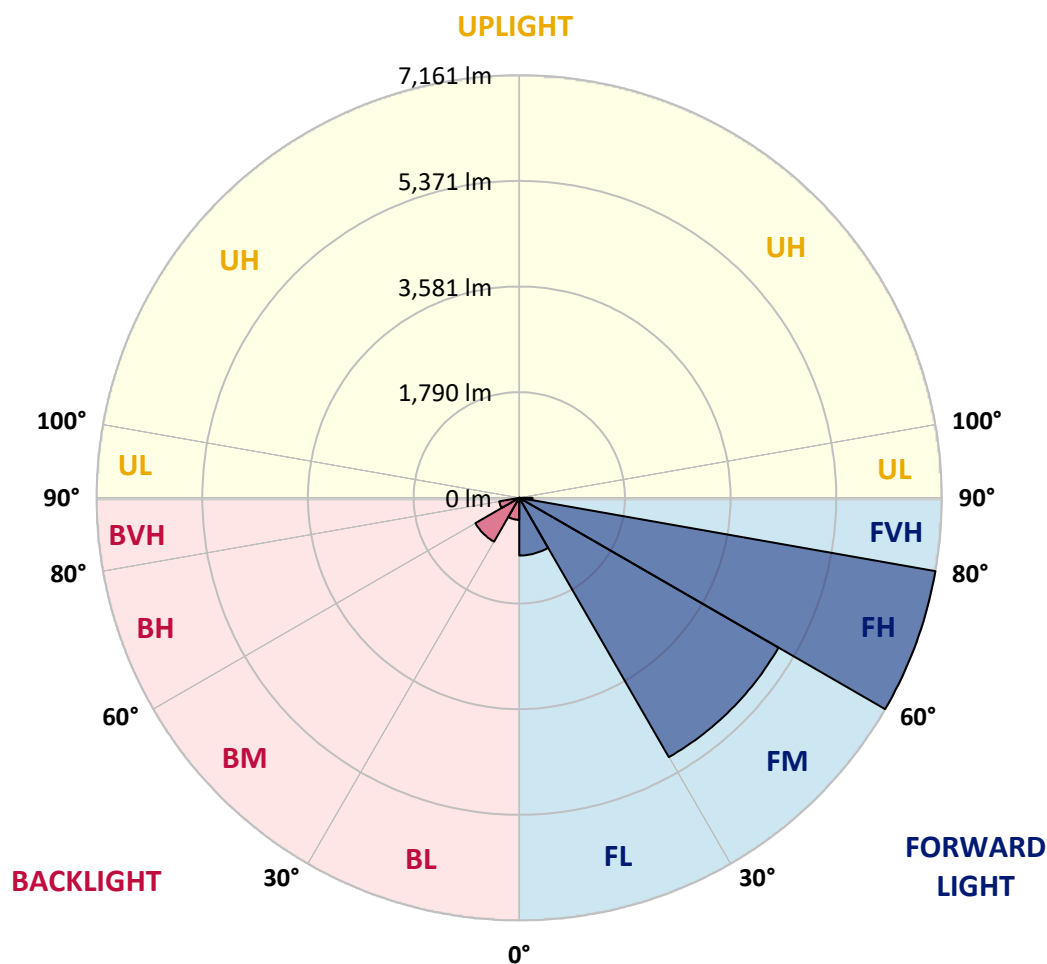
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	978.2	6.5			
FM	(30°-60°)	5073.7	33.8			
FH	(60°-80°)	7161.3	47.7			G3/7500
FVH	(80°-90°)	226.2	1.5			G3/500
BL	(0°-30°)	373.7	2.5	B1/500		
BM	(30°-60°)	858.1	5.7	B1/1000		
BH	(60°-80°)	344.1	2.3	B1/500		G1/500
BVH	(80°-90°)	1.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1
2.5°	1796.9	1800.0	1798.0	1785.7	1765.2	1753.9	1747.7	1727.2	1713.9	1690.2	1665.6
5°	1962.0	1974.3	1967.1	1942.5	1903.5	1875.9	1867.7	1825.6	1787.7	1743.6	1692.3
7.5°	2137.2	2143.4	2130.1	2098.3	2046.0	1998.9	1991.7	1933.3	1872.8	1805.1	1735.4
10°	2288.9	2296.1	2275.6	2229.5	2170.0	2111.6	2101.4	2036.8	1965.0	1882.0	1792.8
12.5°	2416.0	2423.2	2396.6	2341.2	2275.6	2215.1	2204.9	2137.2	2058.3	1966.1	1855.4
15°	2512.4	2525.7	2489.8	2430.4	2359.7	2299.2	2294.1	2227.4	2150.6	2048.1	1930.2
17.5°	2568.8	2582.1	2548.3	2476.5	2416.0	2364.8	2358.6	2303.3	2231.5	2133.1	2003.0
20°	2578.0	2590.3	2554.4	2491.9	2441.7	2400.7	2397.6	2357.6	2305.3	2211.0	2081.9
22.5°	2550.3	2565.7	2532.9	2482.7	2447.8	2426.3	2422.2	2399.6	2369.9	2290.0	2155.7
25°	2521.6	2533.9	2509.3	2465.2	2446.8	2444.7	2447.8	2443.7	2437.6	2369.9	2241.8
27.5°	2519.6	2532.9	2505.2	2463.2	2452.9	2474.5	2477.5	2497.0	2502.1	2442.7	2324.8
30°	2537.0	2546.2	2519.6	2475.5	2470.4	2519.6	2520.6	2555.4	2563.6	2504.2	2406.8
32.5°	2574.9	2585.2	2558.5	2493.9	2486.8	2555.4	2558.5	2604.6	2618.0	2569.8	2492.9
35°	2664.1	2676.4	2645.6	2545.2	2519.6	2589.3	2598.5	2652.8	2679.5	2639.5	2582.1
37.5°	2886.5	2850.6	2808.6	2648.7	2594.4	2642.6	2657.9	2721.5	2768.6	2722.5	2688.7
40°	3439.0	3326.2	3195.0	2825.0	2725.6	2756.3	2768.6	2832.2	2896.8	2851.7	2835.3
42.5°	4268.2	4135.0	3923.8	3230.9	2923.4	2938.8	2948.0	3003.4	3094.6	3058.7	3062.8
45°	5007.2	4959.1	4743.8	3923.8	3293.4	3217.6	3228.9	3257.6	3391.8	3378.5	3405.2
47.5°	5575.2	5547.5	5381.5	4719.2	3918.7	3558.9	3590.7	3604.0	3797.7	3844.9	3916.6
50°	6011.8	6001.6	5853.0	5426.6	4735.6	4062.2	4073.5	4044.8	4334.8	4451.7	4588.0
52.5°	6423.9	6458.7	6349.1	6083.6	5608.0	4721.3	4719.2	4583.9	4975.5	5151.9	5384.5
55°	6796.0	6808.3	6819.5	6753.9	6485.4	5471.7	5452.2	5230.8	5718.7	5901.1	6153.3
57.5°	7145.5	7150.6	7251.1	7385.3	7398.7	6277.3	6241.4	5976.0	6530.5	6660.7	6815.4
60°	7380.2	7403.8	7616.0	7989.1	8152.0	7108.6	7089.1	6818.5	7356.6	7417.1	7388.4
62.5°	7042.0	7185.5	7720.5	8460.6	8863.5	8030.1	8020.8	7766.6	8225.8	8176.6	7930.6
65°	5700.2	5943.2	6884.1	8779.4	9561.5	9059.3	9072.6	8802.0	9118.7	8958.8	8371.4
67.5°	3987.4	4243.6	5356.9	8805.1	10341.5	10267.7	10344.6	9920.3	10066.8	9708.1	8475.9
70°	2757.4	2889.6	3614.3	8253.5	10949.4	11932.3	11930.3	11293.8	11009.8	10049.4	7942.9
72.5°	1854.3	1923.0	2347.4	6547.9	10502.5	12921.6	12862.1	12343.5	11327.6	9398.5	6489.5
75°	782.1	832.3	1086.5	3679.9	8308.9	11821.6	11660.7	10908.4	10064.8	7400.7	4048.9
77.5°	248.0	269.6	428.4	1317.1	4576.7	8886.0	8715.9	6812.4	6745.7	3712.7	1480.1
80°	117.9	137.4	240.9	528.9	1801.0	4833.0	4809.4	3090.5	2901.9	1002.4	297.2
82.5°	51.2	60.5	133.2	282.9	805.6	1724.2	1759.0	1051.6	870.2	380.3	91.2
85°	16.4	21.5	61.5	130.2	340.3	428.4	423.3	250.1	350.5	207.0	31.8
87.5°	0.0	0.0	20.5	29.7	34.8	24.6	27.7	21.5	97.4	57.4	11.3
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°	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1
2.5°	1653.3	1636.9	1608.2	1581.6	1558.0	1534.4	1520.1	1499.6	1497.5	1497.5	1502.6
5°	1664.6	1637.9	1586.7	1532.4	1469.8	1410.4	1350.9	1293.6	1275.1	1261.8	1267.9
7.5°	1697.4	1655.4	1574.4	1470.9	1352.0	1221.8	1130.6	1032.2	994.2	973.7	976.8
10°	1744.7	1687.2	1564.1	1382.7	1190.0	1012.7	882.5	775.9	734.9	717.5	717.5
12.5°	1796.9	1726.2	1545.7	1273.0	1012.7	800.5	673.4	624.2	618.1	618.1	618.1
15°	1859.5	1773.4	1513.9	1143.9	827.2	633.4	588.3	590.4	596.6	600.6	600.6
17.5°	1924.0	1823.6	1463.7	999.4	663.2	569.9	570.9	574.0	579.1	583.2	583.2
20°	1993.7	1873.8	1397.1	845.6	568.9	551.4	554.5	557.6	561.7	563.8	564.8
22.5°	2068.6	1921.0	1318.1	694.9	537.1	536.1	537.1	540.2	545.3	545.3	547.3
25°	2148.5	1973.2	1227.9	585.3	520.7	520.7	522.8	524.8	528.9	528.9	529.9
27.5°	2230.5	2021.4	1132.6	527.9	506.4	505.3	505.3	508.4	510.4	511.5	512.5
30°	2320.7	2077.8	1037.3	515.6	495.1	489.9	486.9	488.9	491.0	492.0	494.0
32.5°	2413.0	2132.1	952.2	520.7	483.8	474.6	464.3	462.3	462.3	466.4	469.4
35°	2515.5	2191.6	886.6	538.1	477.6	452.0	435.6	426.4	427.4	433.6	436.6
37.5°	2638.5	2263.3	838.4	553.5	473.6	426.4	399.7	388.5	381.3	388.5	386.4
40°	2799.4	2368.9	803.6	565.8	468.4	396.7	360.8	342.3	329.0	333.1	331.1
42.5°	3036.2	2534.9	790.3	566.8	457.2	361.8	320.8	296.2	276.8	277.8	273.7
45°	3368.3	2797.3	859.0	553.5	432.6	323.9	278.8	246.0	233.7	230.6	226.5
47.5°	3823.4	3179.7	1017.8	525.8	396.7	287.0	237.8	210.1	200.9	195.8	192.7
50°	4433.2	3670.6	1194.1	495.1	360.8	252.2	204.0	186.5	180.4	175.3	174.2
52.5°	5140.6	4168.8	1338.6	464.3	324.9	221.4	182.4	172.2	167.1	163.0	162.0
55°	5789.4	4512.2	1330.4	431.5	290.1	196.8	167.1	160.9	154.8	150.7	148.6
57.5°	6193.3	4560.3	1096.8	395.6	250.1	177.3	152.7	148.6	141.4	136.3	135.3
60°	6378.8	4285.6	768.7	348.5	210.1	158.9	137.4	135.3	126.1	118.9	116.8
62.5°	6412.6	3775.2	512.5	290.1	175.3	141.4	122.0	118.9	106.6	94.3	88.1
65°	6275.3	3045.4	354.6	226.5	149.6	123.0	104.6	98.4	85.1	72.8	68.7
67.5°	5840.7	2138.3	247.0	163.0	127.1	97.4	83.0	81.0	70.7	60.5	57.4
70°	5044.1	1218.7	165.0	122.0	100.4	66.6	65.6	67.6	57.4	49.2	45.1
72.5°	3867.4	557.6	102.5	89.2	68.7	45.1	52.3	53.3	44.1	36.9	32.8
75°	2276.6	238.8	64.6	57.4	34.8	29.7	37.9	38.9	29.7	23.6	20.5
77.5°	774.9	90.2	41.0	33.8	17.4	16.4	24.6	24.6	16.4	9.2	7.2
80°	176.3	33.8	20.5	13.3	8.2	7.2	8.2	7.2	4.1	1.0	0.0
82.5°	50.2	13.3	8.2	5.1	3.1	3.1	1.0	0.0	0.0	0.0	0.0
85°	14.3	6.1	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)