

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: P960867

Luminaire Tested: **NAV-SB1D-735-U-SL2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-735-U-SL2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8456.3 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 79.6
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



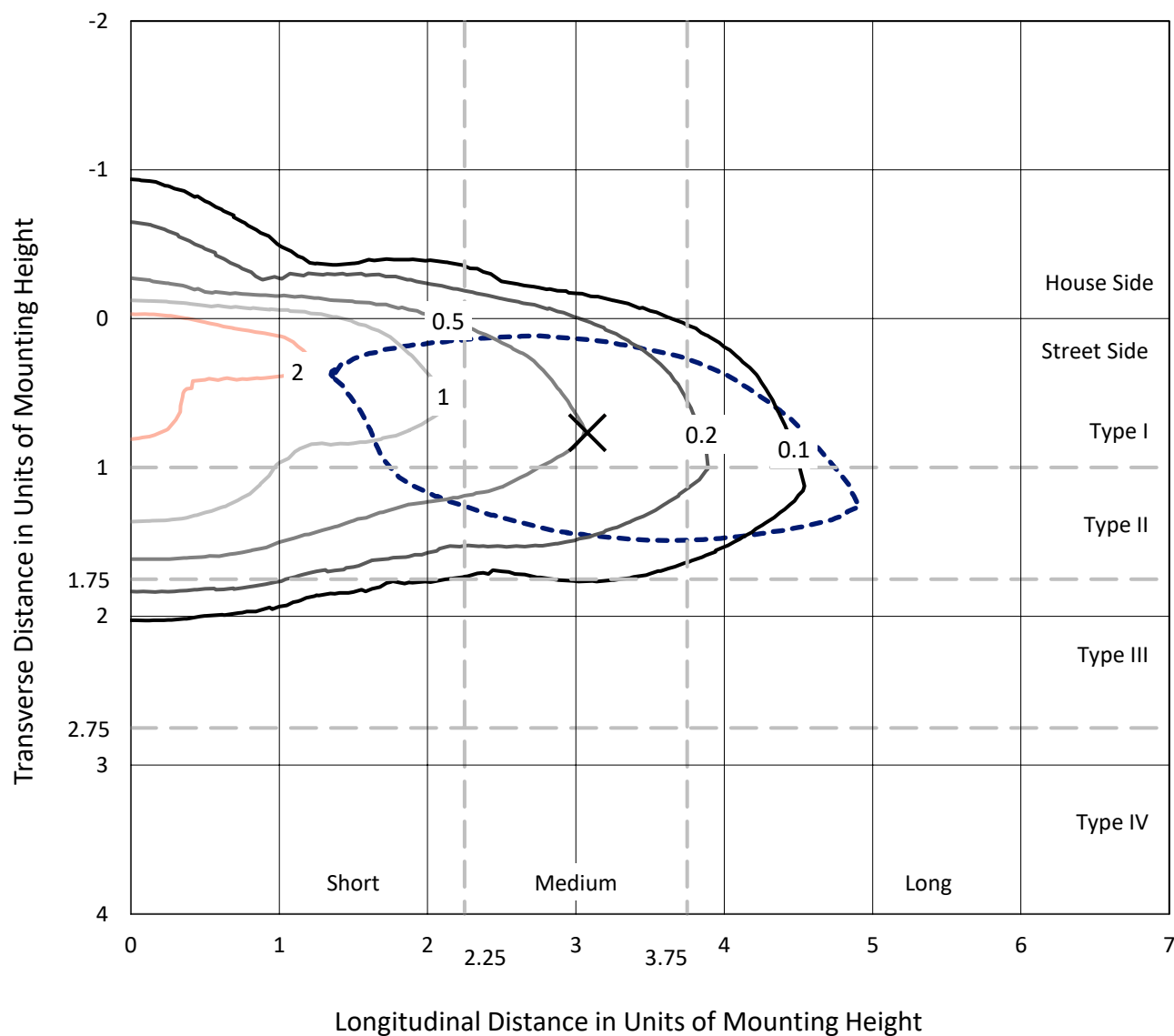
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

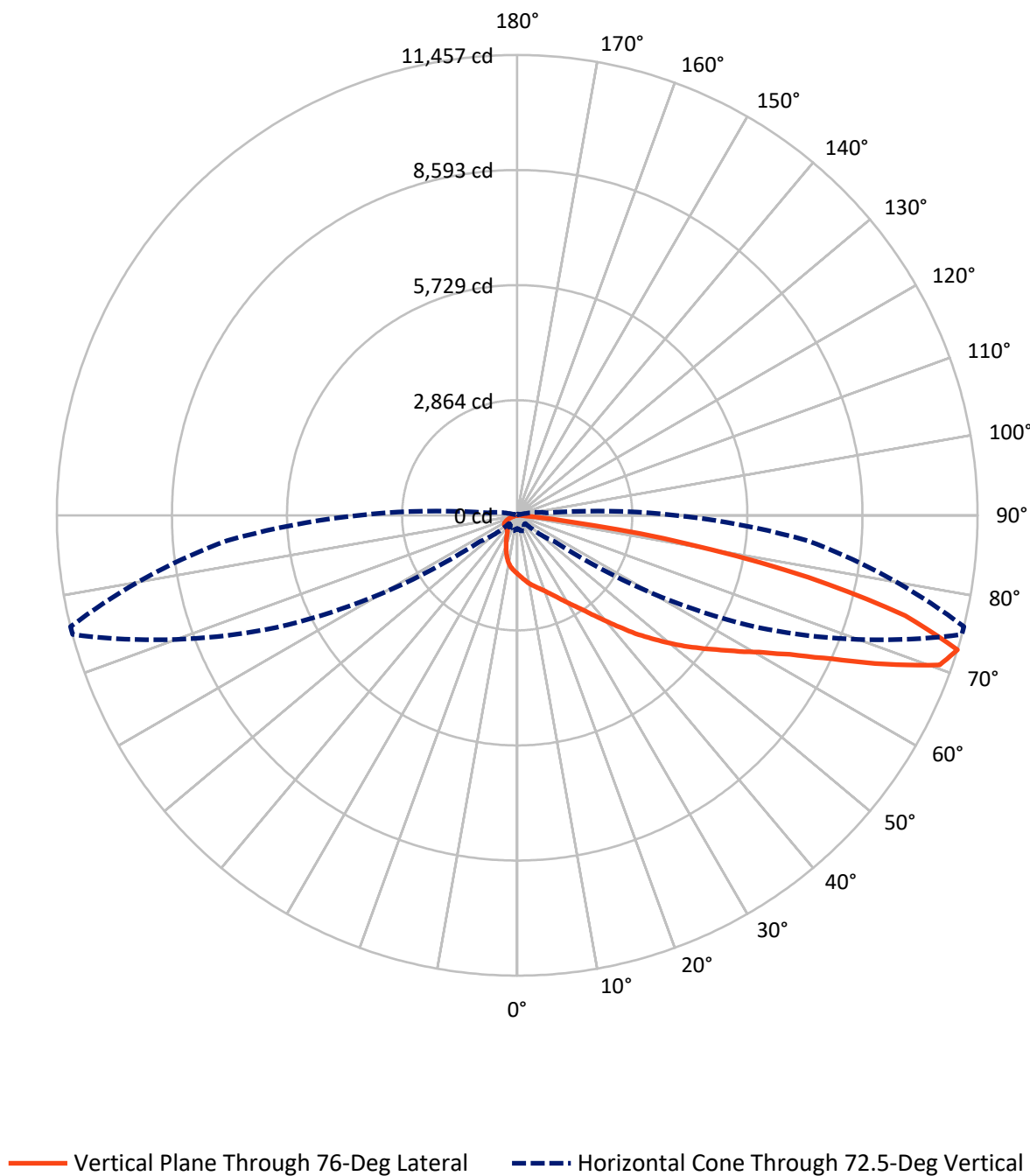
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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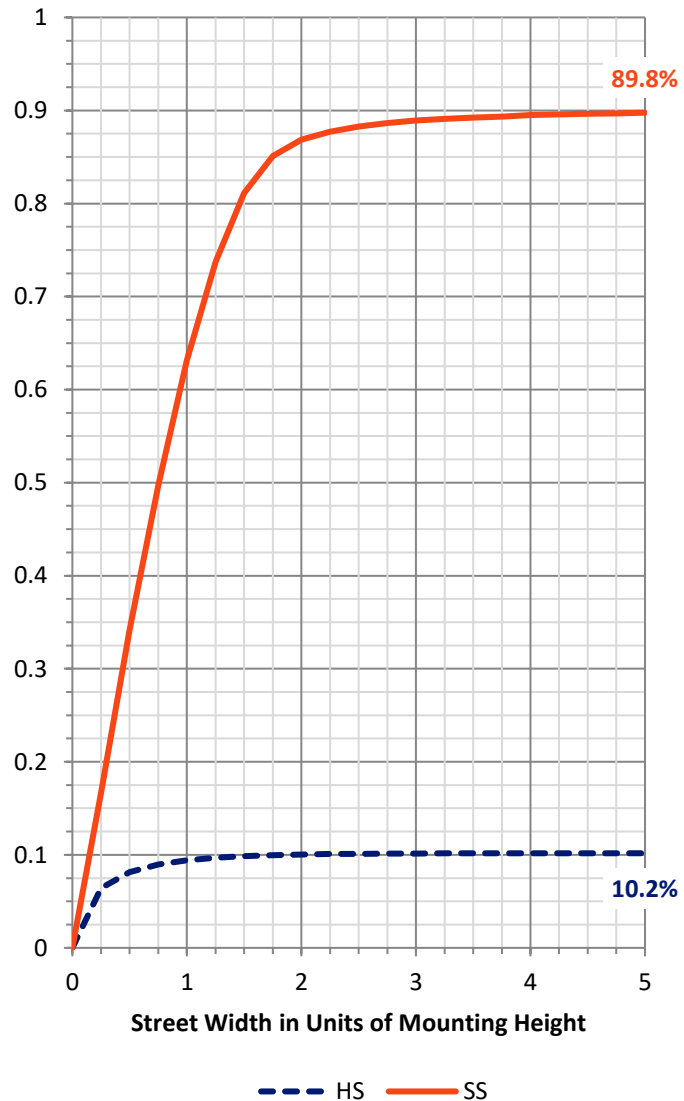
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	865.5	0.0	865.5
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	7590.8	0.0	7590.8
	% Fixture	89.8	0.0	89.8
Total	Lumens	8456.3	0.0	8456.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.9	1.6
10°-20°	356.4	4.2
20°-30°	564.0	6.7
30°-40°	872.6	10.3
40°-50°	1325.4	15.7
50°-60°	1827.2	21.6
60°-70°	1930.3	22.8
70°-80°	1324.2	15.7
80°-90°	123.2	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°	8456.3	100.0
0°-180°	8456.3	100.0

Coefficient of Utilization



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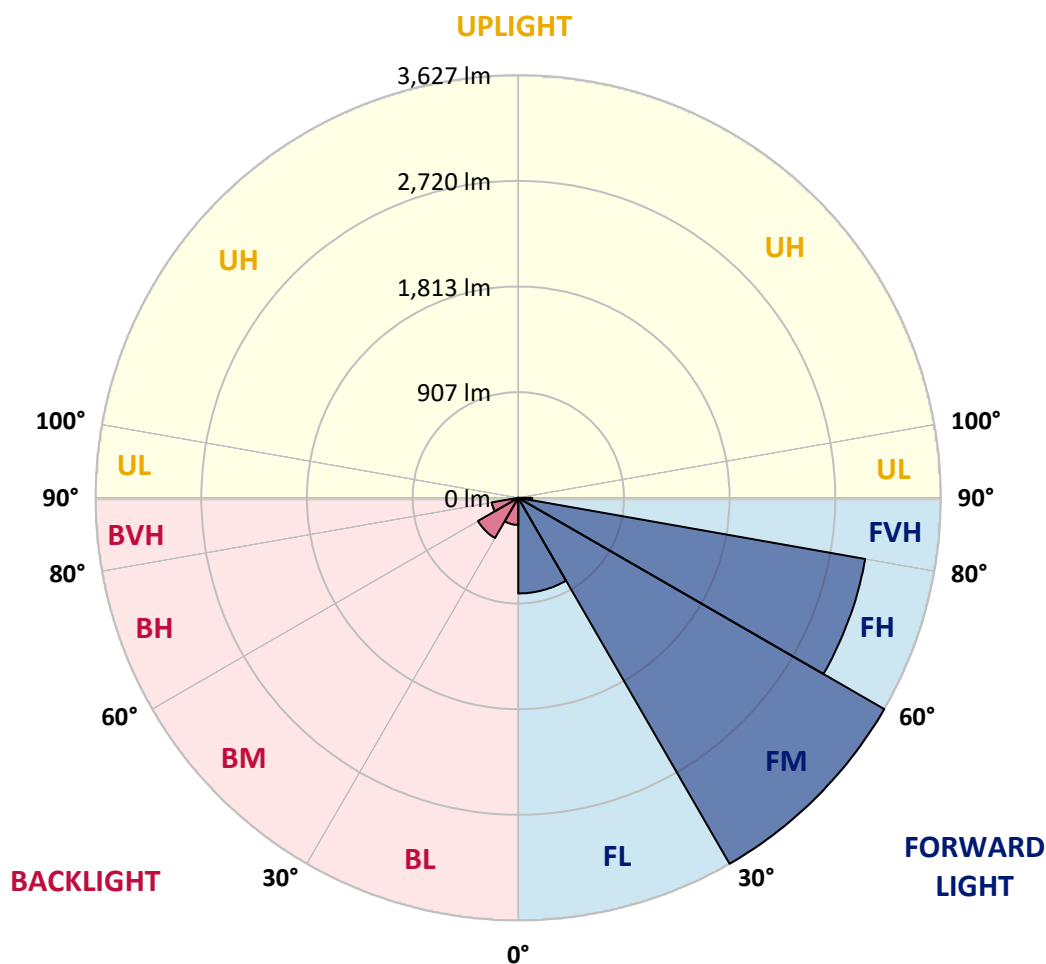
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	820.7	9.7			
FM	(30°-60°)	3626.7	42.9			
FH	(60°-80°)	3023.5	35.8			G2/5000
FVH	(80°-90°)	119.9	1.4			G2/225
BL	(0°-30°)	232.6	2.8	B1/500		
BM	(30°-60°)	398.5	4.7	B1/1000		
BH	(60°-80°)	231.0	2.7	B1/500		G1/500
BVH	(80°-90°)	3.3	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-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3
2.5°	1698.8	1676.4	1680.7	1658.2	1647.8	1622.6	1596.2	1561.7	1523.3	1523.3	1486.0
5°	1877.7	1863.3	1863.3	1837.1	1816.8	1777.2	1730.1	1669.2	1596.8	1589.7	1518.9
7.5°	1987.4	1978.6	1984.1	1968.7	1952.2	1911.1	1855.1	1775.6	1673.0	1664.3	1557.9
10°	2008.8	2008.2	2023.6	2028.0	2038.9	2018.1	1968.2	1876.6	1748.2	1735.6	1591.3
12.5°	1926.0	1915.5	1953.3	1997.8	2060.4	2088.3	2062.5	1968.7	1816.8	1799.2	1622.6
15°	1789.9	1792.1	1828.3	1896.9	2001.1	2100.9	2134.4	2058.7	1886.4	1865.6	1652.2
17.5°	1712.0	1703.8	1735.0	1796.5	1911.6	2052.7	2167.9	2142.6	1960.5	1936.9	1682.3
20°	1702.6	1702.1	1709.3	1737.3	1825.0	1983.5	2164.0	2224.4	2047.7	2020.3	1725.7
22.5°	1767.4	1766.3	1760.2	1754.8	1778.9	1916.0	2147.6	2302.3	2151.9	2122.3	1787.2
25°	1866.7	1865.1	1855.8	1822.2	1798.7	1879.8	2132.2	2374.6	2275.4	2242.4	1861.7
27.5°	1987.9	1986.9	1969.8	1919.3	1858.4	1883.1	2124.5	2449.2	2418.0	2385.6	1947.9
30°	2136.6	2134.4	2099.3	2028.0	1948.4	1935.3	2135.0	2533.2	2566.6	2541.9	2047.1
32.5°	2323.1	2317.0	2271.0	2163.5	2052.0	2004.9	2154.7	2619.3	2742.7	2719.6	2179.9
35°	2467.4	2458.1	2431.1	2336.3	2172.2	2090.5	2200.8	2721.3	2954.5	2934.2	2349.4
37.5°	2591.3	2582.0	2560.0	2482.1	2344.5	2199.6	2274.8	2857.4	3204.6	3194.7	2556.2
40°	2725.2	2709.8	2699.3	2616.0	2491.5	2357.1	2380.7	3016.5	3492.6	3493.6	2804.7
42.5°	2828.3	2822.2	2823.4	2759.2	2633.5	2543.5	2521.1	3195.8	3837.6	3848.1	3103.6
45°	2916.6	2911.6	2931.9	2887.0	2776.7	2665.9	2685.7	3398.8	4215.0	4236.4	3438.3
47.5°	2984.6	2990.1	3019.1	2990.1	2925.4	2752.0	2831.6	3617.6	4611.6	4614.3	3783.8
50°	3052.7	3054.8	3103.1	3088.8	3062.5	2861.2	2965.9	3862.3	5029.6	5034.5	4107.0
52.5°	3074.0	3070.7	3147.6	3182.6	3183.8	2996.2	3139.9	4128.9	5439.4	5455.3	4439.4
55°	2964.3	2973.6	3097.7	3240.2	3296.7	3182.6	3374.6	4466.2	5876.0	5882.6	4768.5
57.5°	2427.8	2479.4	2753.7	3084.4	3369.7	3449.7	3711.9	4860.7	6380.1	6374.1	5101.9
60°	1473.3	1534.8	1862.8	2586.9	3131.6	3718.0	4209.0	5471.7	6930.8	6913.8	5439.4
62.5°	823.9	842.6	947.3	1548.6	2381.8	3547.4	4694.4	6256.7	7670.3	7612.7	5771.2
65°	607.2	613.3	638.0	758.6	1170.6	2728.4	4588.0	7195.2	8709.2	8606.6	6168.9
67.5°	527.7	533.7	557.9	574.3	522.8	1433.4	3780.0	7715.8	10028.4	9894.0	6707.0
70°	444.3	447.6	486.6	497.5	374.1	545.3	2428.4	7555.1	11249.5	11153.5	7284.7
72.5°	331.3	344.5	401.0	427.3	300.0	289.7	1143.2	6605.5	11456.3	11457.3	7245.7
75°	224.9	237.0	301.7	351.6	231.4	203.0	461.4	4932.5	9975.8	9975.8	6351.5
77.5°	153.5	163.5	210.1	275.9	175.6	139.3	239.1	3130.6	7156.9	7408.6	4527.1
80°	68.1	74.0	135.5	200.2	133.2	90.0	135.5	1714.2	4328.0	4274.8	1774.5
82.5°	33.4	38.4	86.7	125.0	86.1	55.5	71.3	815.2	1402.6	1332.9	277.1
85°	6.6	8.8	46.6	53.2	40.1	24.7	26.9	250.7	168.9	193.1	58.7
87.5°	0.0	0.0	14.2	9.8	4.4	5.5	5.5	22.4	13.1	15.4	15.4
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°	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3	1461.3
2.5°	1466.3	1446.0	1401.5	1357.6	1312.6	1271.5	1243.0	1214.4	1196.9	1189.2	1190.3
5°	1477.7	1436.6	1343.4	1245.8	1149.2	1054.8	984.1	917.7	896.9	862.3	864.5
7.5°	1495.9	1429.0	1282.0	1117.4	960.5	822.3	722.4	642.9	611.1	580.4	579.8
10°	1508.0	1414.7	1200.8	980.8	768.5	613.3	517.8	460.2	439.4	420.8	420.1
12.5°	1512.9	1388.4	1107.5	827.8	597.9	467.4	410.3	383.5	376.3	369.7	369.7
15°	1517.3	1362.5	1003.3	680.2	472.3	391.1	368.6	359.9	354.9	350.5	350.5
17.5°	1521.1	1329.6	884.3	552.9	398.8	360.4	349.4	340.1	336.3	331.3	331.3
20°	1534.2	1297.9	777.9	456.4	358.7	338.5	326.4	316.5	313.2	310.0	310.5
22.5°	1558.9	1272.0	674.7	391.1	334.6	316.0	300.6	289.7	287.4	285.3	283.6
25°	1588.5	1240.2	577.6	348.9	311.0	290.2	273.2	263.8	261.7	262.2	261.1
27.5°	1626.5	1205.2	494.3	322.0	290.2	266.1	246.8	239.7	240.8	243.0	241.9
30°	1668.1	1172.8	429.0	303.3	271.5	244.7	225.5	220.5	224.4	227.7	226.5
32.5°	1730.1	1144.2	383.5	288.5	255.1	227.1	211.8	205.7	210.1	214.4	213.4
35°	1814.6	1130.0	357.6	275.9	240.8	213.4	198.0	193.6	198.0	199.2	198.5
37.5°	1918.3	1128.9	346.7	265.5	227.7	201.8	184.8	183.2	186.5	187.1	185.9
40°	2052.0	1136.0	338.5	257.8	213.9	188.7	172.8	171.2	172.2	176.1	175.6
42.5°	2221.6	1165.6	327.0	247.9	199.2	175.6	162.9	159.1	158.6	162.9	162.4
45°	2434.4	1230.9	311.6	232.1	185.9	164.5	151.9	147.6	146.0	147.0	148.6
47.5°	2666.4	1311.0	296.2	217.2	176.6	155.8	143.2	137.7	134.9	134.9	134.9
50°	2891.3	1401.5	285.8	201.8	170.0	147.6	133.9	128.3	123.9	122.9	122.3
52.5°	3114.1	1490.4	277.6	186.5	162.4	137.1	125.0	119.0	114.1	111.9	110.8
55°	3317.0	1574.9	263.3	171.7	152.5	126.2	116.3	110.3	104.2	100.3	98.7
57.5°	3511.8	1645.1	237.0	156.3	137.1	115.7	107.0	100.3	93.3	88.4	86.1
60°	3689.0	1681.3	204.1	139.9	121.8	104.8	96.6	90.5	81.2	73.0	70.7
62.5°	3823.9	1667.1	168.4	121.3	105.9	94.9	84.5	78.4	67.4	57.6	53.7
65°	3962.1	1589.2	134.4	101.5	92.7	81.7	70.7	64.7	52.1	41.7	38.9
67.5°	4141.5	1422.9	105.9	84.5	80.1	64.7	55.5	51.6	42.7	32.9	30.7
70°	4256.7	1105.4	82.3	68.6	65.8	47.2	42.7	42.2	34.0	25.2	22.4
72.5°	3940.7	724.6	63.0	52.1	47.2	30.7	32.9	32.9	24.7	17.0	14.8
75°	3289.6	424.0	45.5	37.3	26.9	19.8	22.4	22.4	15.4	8.2	6.6
77.5°	2349.4	226.0	30.1	23.1	13.7	8.8	12.1	11.5	4.9	0.5	0.0
80°	898.5	77.9	14.2	9.3	3.8	1.6	1.1	0.5	0.5	0.0	0.0
82.5°	137.1	20.3	2.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	24.7	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.5	0.0	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)