

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: P965745

Luminaire Tested: **NAV-SB4A-827-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965745
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

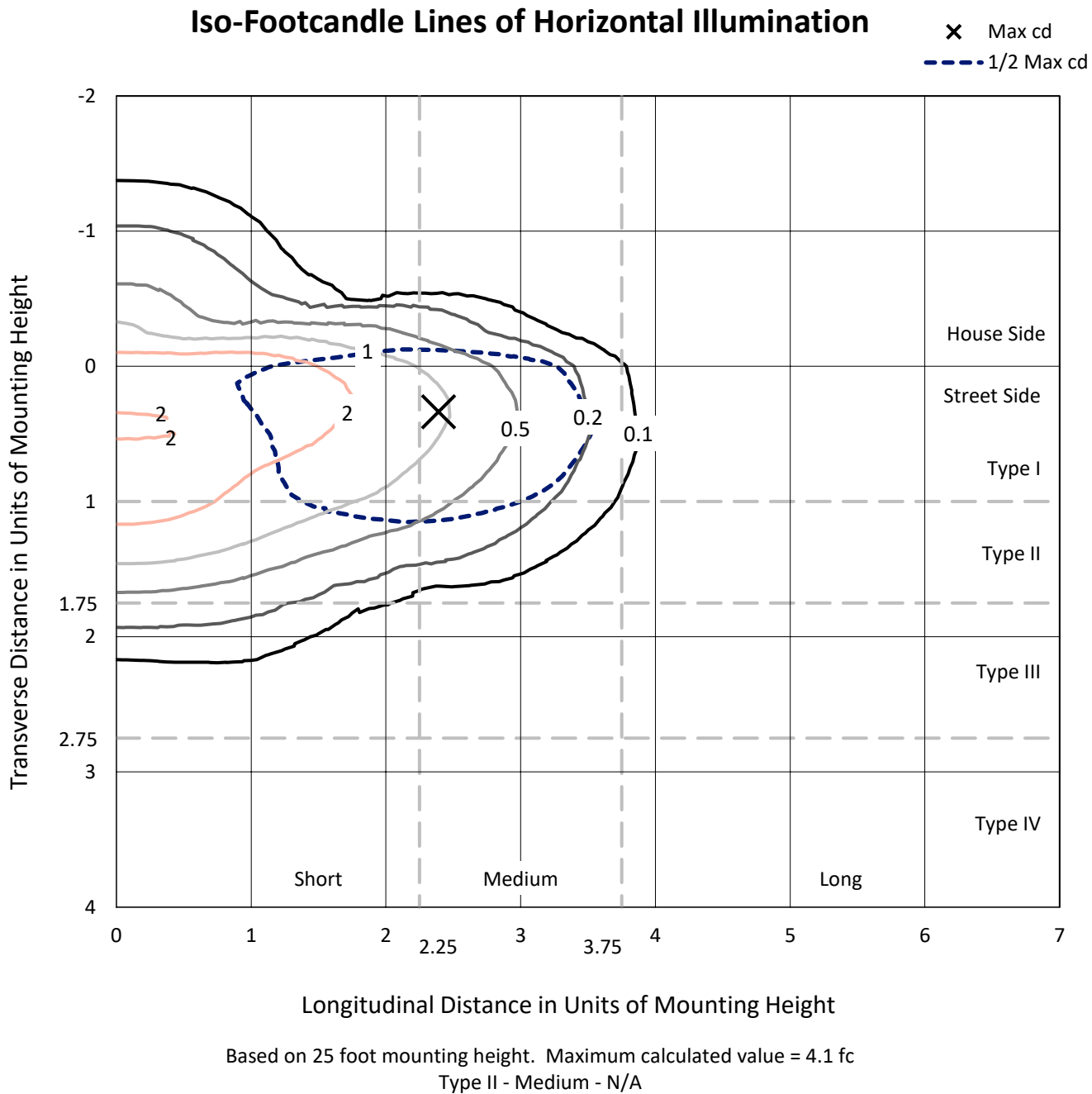
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11701.4 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

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

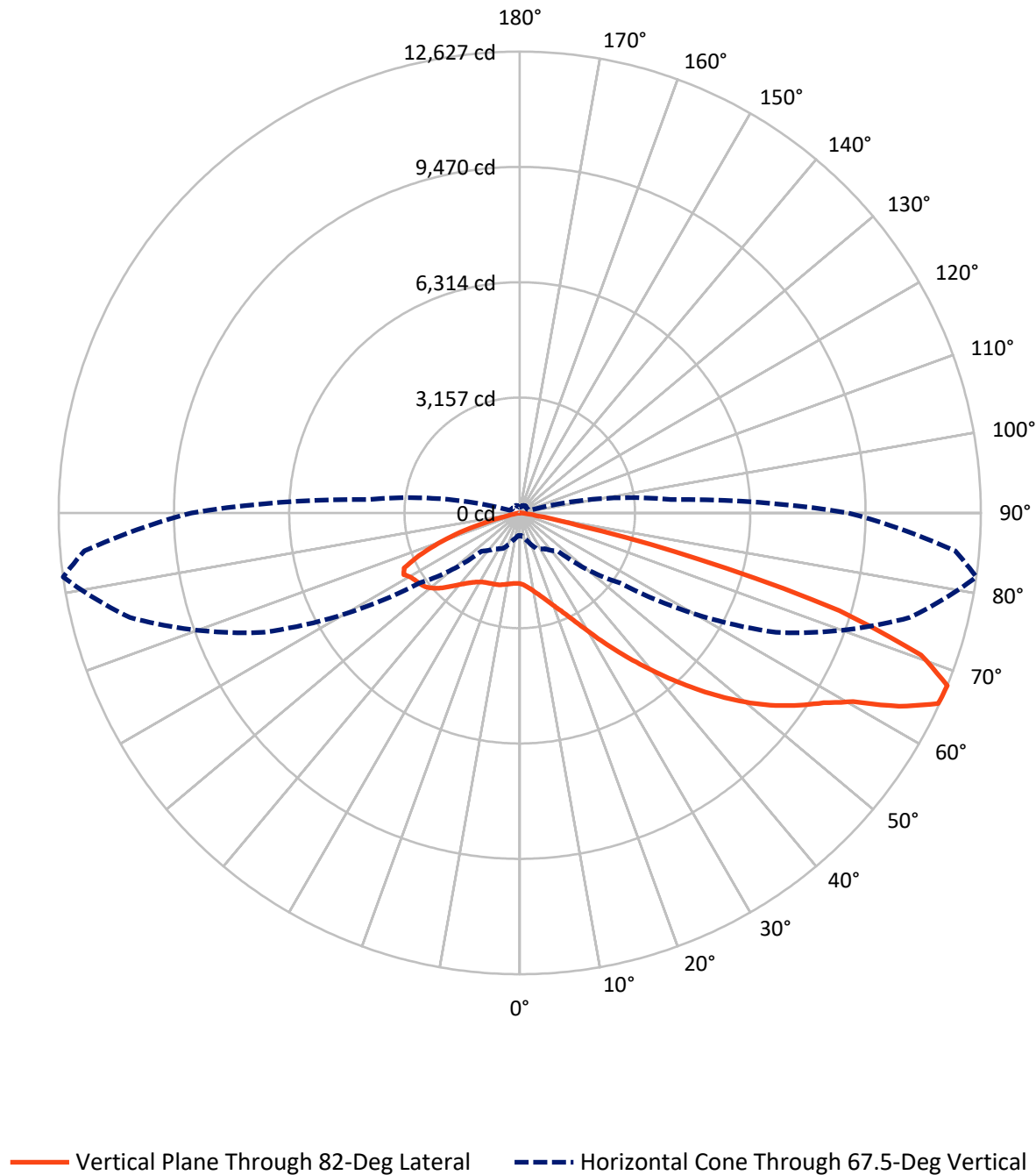


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Luminous Intensity Polar Plot



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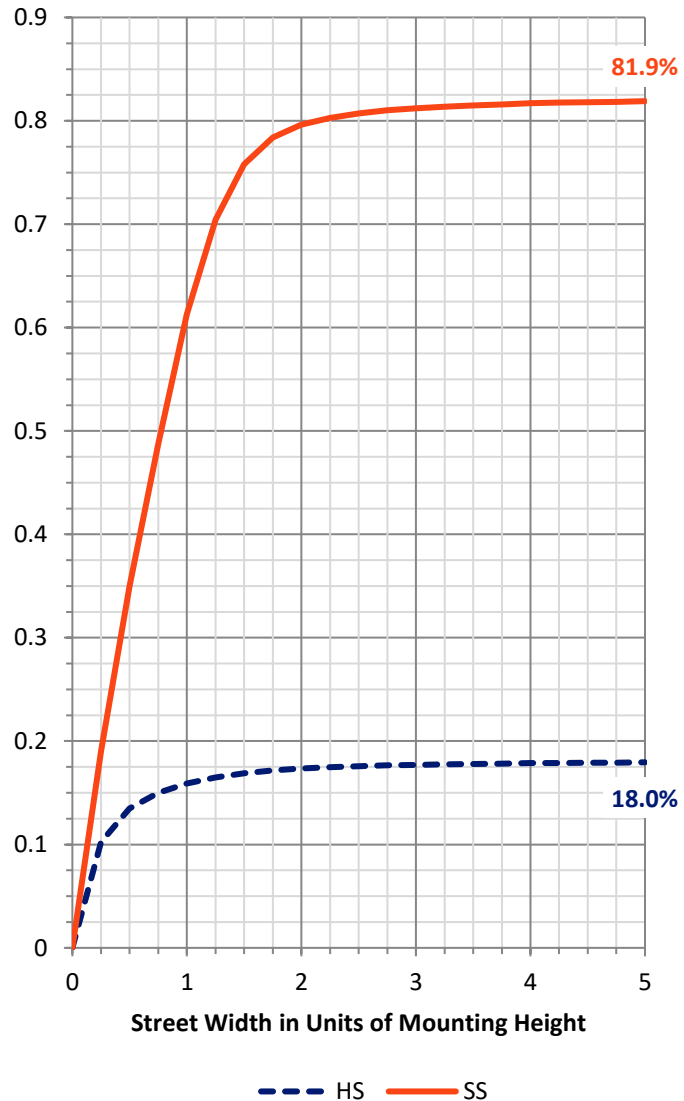
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2119.6	0.0	2119.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	9581.8	0.0	9581.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	11701.4	0.0	11701.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.7	1.5
10°-20°	448.8	3.8
20°-30°	718.8	6.1
30°-40°	1271.1	10.9
40°-50°	2227.1	19.0
50°-60°	2970.4	25.4
60°-70°	2765.2	23.6
70°-80°	1061.3	9.1
80°-90°	65.9	0.6
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°	11701.4	100.0
0°-180°	11701.4	100.0

Coefficient of Utilization



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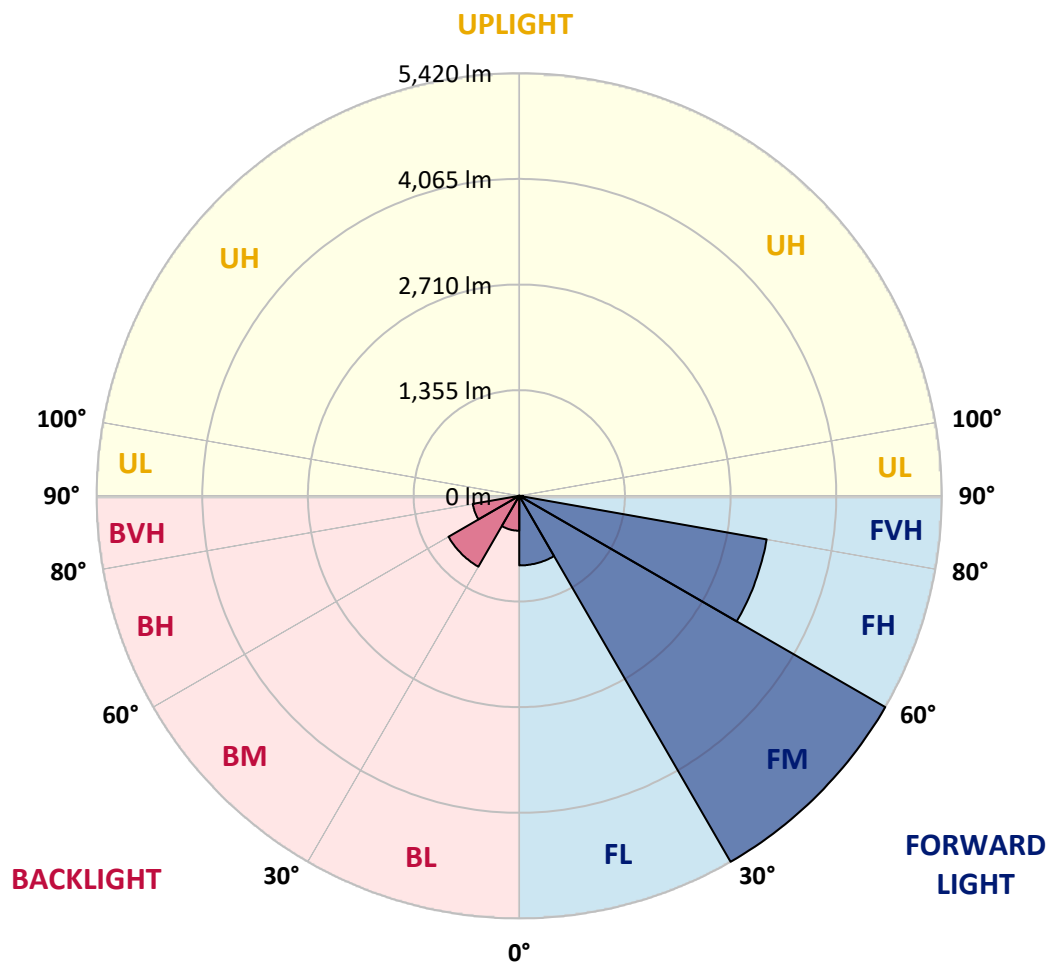
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	892.7	7.6			
FM	(30°-60°)	5419.6	46.3			
FH	(60°-80°)	3221.6	27.5			G2/5000
FVH	(80°-90°)	47.9	0.4			G1/100
BL	(0°-30°)	447.7	3.8	B1/500		
BM	(30°-60°)	1049.0	9.0	B2/2500		
BH	(60°-80°)	605.0	5.2	B2/1000		G2/1000
BVH	(80°-90°)	18.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5
2.5°	2048.9	2060.7	2053.9	2050.6	2044.7	2036.3	2029.5	2008.5	1986.6	1972.2	1967.2
5°	2090.2	2102.0	2101.1	2104.5	2108.7	2111.2	2109.6	2086.0	2054.8	2030.3	2016.1
7.5°	2054.8	2068.2	2079.2	2096.0	2125.5	2156.7	2171.9	2166.8	2134.9	2101.1	2083.4
10°	1954.6	1968.8	1995.0	2034.5	2096.9	2164.3	2220.8	2246.9	2226.6	2189.6	2165.1
12.5°	1770.9	1785.2	1836.6	1922.5	2026.9	2144.1	2251.9	2321.8	2327.0	2289.8	2261.1
15°	1564.5	1578.8	1633.5	1741.4	1900.7	2088.4	2268.7	2401.1	2445.6	2413.7	2379.1
17.5°	1436.4	1449.0	1490.4	1577.1	1743.1	1977.3	2262.9	2485.3	2587.2	2562.0	2520.7
20°	1397.7	1408.7	1428.0	1488.6	1626.8	1861.8	2224.1	2564.4	2739.7	2725.4	2679.0
22.5°	1438.9	1449.0	1455.0	1481.9	1568.7	1786.1	2175.3	2645.3	2916.6	2918.3	2861.9
25°	1534.1	1544.3	1537.5	1554.3	1592.2	1762.5	2156.7	2740.5	3139.1	3157.6	3093.6
27.5°	1690.8	1691.7	1675.7	1674.8	1680.7	1797.8	2176.1	2842.5	3419.6	3454.1	3374.9
30°	2005.1	1992.4	1930.9	1864.4	1834.0	1903.9	2230.0	2963.0	3750.7	3812.2	3712.8
32.5°	2489.5	2471.0	2358.1	2198.8	2038.8	2075.0	2327.0	3100.3	4111.3	4222.5	4101.1
35°	3015.2	3010.1	2892.2	2655.5	2375.7	2318.4	2484.5	3280.6	4504.7	4681.6	4537.6
37.5°	3503.9	3501.3	3434.0	3155.1	2814.6	2658.0	2737.2	3516.5	4925.9	5182.0	5011.8
40°	3950.3	3957.9	3890.5	3641.2	3298.2	3093.6	3080.9	3808.0	5394.4	5727.1	5525.0
42.5°	4336.2	4344.7	4276.4	4091.9	3776.0	3575.4	3503.0	4165.2	5851.8	6312.7	6073.3
45°	4598.3	4650.4	4640.4	4492.9	4266.3	4058.2	4010.2	4613.4	6373.2	6933.5	6653.0
47.5°	4672.4	4720.3	4796.2	4816.4	4678.2	4473.5	4530.8	5153.4	6900.7	7555.3	7236.0
50°	4489.5	4534.2	4691.7	4901.4	4997.5	4934.3	5037.2	5732.2	7440.7	8175.3	7808.0
52.5°	4128.9	4174.4	4373.3	4705.2	5096.9	5295.8	5545.1	6302.5	7963.8	8762.5	8349.8
55°	3607.5	3655.5	3910.8	4286.4	4907.4	5444.9	5968.9	6872.0	8443.2	9290.8	8838.4
57.5°	2898.1	2933.4	3198.8	3724.5	4430.6	5296.6	6281.5	7493.8	8894.8	9809.8	9322.8
60°	1888.9	1920.0	2228.4	2814.6	3640.3	4801.2	6343.8	8187.1	9494.7	10484.5	9975.7
62.5°	1256.1	1277.1	1460.0	1890.5	2563.6	3850.1	5979.0	8740.7	10374.2	11659.0	11095.3
65°	861.8	882.9	1065.7	1365.6	1656.3	2546.8	4930.1	8667.3	11171.2	12591.6	11925.2
67.5°	615.0	632.7	787.7	1070.8	1198.8	1479.4	3342.1	7730.6	11056.6	12627.0	11969.8
70°	440.6	450.7	578.8	834.0	952.8	888.8	1858.5	5912.5	9680.8	11659.8	11058.3
72.5°	308.3	311.7	401.9	635.2	767.5	648.7	884.6	3941.9	7321.9	9151.7	8573.0
75°	208.9	213.1	270.4	465.9	615.8	495.4	468.4	2113.8	4298.3	5065.8	4541.0
77.5°	128.0	129.8	174.4	318.5	460.8	377.4	301.6	895.5	1663.1	1632.7	1391.7
80°	72.5	72.5	111.2	198.0	314.3	243.4	211.5	380.8	526.5	462.5	407.7
82.5°	40.5	41.3	80.9	123.0	208.1	144.0	116.2	176.1	227.4	201.3	175.3
85°	16.8	18.6	49.7	58.1	99.4	71.6	47.2	74.1	84.3	75.0	54.7
87.5°	1.6	2.6	15.2	11.0	11.8	14.3	6.8	14.3	11.8	11.8	8.4
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°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5
2.5°	1951.2	1938.5	1906.5	1869.4	1820.6	1797.0	1764.9	1743.1	1724.6	1726.2	1709.4
5°	1989.1	1957.0	1885.5	1796.1	1684.9	1605.8	1521.5	1463.4	1416.2	1406.1	1383.3
7.5°	2041.3	1990.8	1865.2	1704.4	1516.5	1374.1	1246.8	1165.1	1107.0	1088.4	1069.9
10°	2108.7	2035.4	1839.2	1588.9	1318.5	1137.3	1000.8	936.8	897.2	883.8	873.6
12.5°	2187.0	2086.8	1804.6	1448.2	1114.6	940.2	853.4	821.4	808.7	804.5	802.1
15°	2285.6	2150.9	1752.3	1281.4	941.9	819.7	782.7	778.5	780.1	778.5	777.6
17.5°	2402.7	2220.8	1667.3	1109.6	825.6	758.2	744.8	748.1	752.3	751.5	749.8
20°	2530.8	2289.8	1558.6	957.0	746.4	714.4	706.8	710.2	713.6	711.9	711.0
22.5°	2676.5	2364.0	1438.1	838.2	693.3	673.9	665.5	666.4	666.4	663.1	661.3
25°	2850.9	2445.6	1311.7	754.0	652.9	637.8	627.6	624.2	619.2	609.2	607.4
27.5°	3059.0	2532.5	1190.4	695.1	620.9	606.6	594.8	586.4	573.7	556.9	555.1
30°	3293.2	2637.7	1087.6	657.9	595.6	581.3	567.8	555.1	536.7	515.6	513.9
32.5°	3568.7	2750.7	1012.7	633.6	572.9	557.7	541.7	526.5	506.4	485.2	486.1
35°	3897.3	2887.1	968.8	616.6	555.1	534.9	517.3	500.4	485.2	466.7	465.0
37.5°	4253.6	3032.1	955.4	608.2	543.4	512.2	492.0	480.2	478.6	467.6	466.7
40°	4643.7	3203.9	965.4	603.2	530.7	490.4	468.4	465.9	470.1	450.7	451.6
42.5°	5056.5	3407.8	982.4	597.3	513.1	468.4	447.3	447.3	444.0	417.1	417.1
45°	5503.0	3642.8	999.2	583.0	492.0	446.5	430.5	424.6	410.3	384.2	383.3
47.5°	5952.9	3882.1	1011.8	556.9	466.7	427.9	413.7	400.2	379.1	355.6	354.6
50°	6380.0	4096.9	998.4	518.1	438.1	410.3	395.1	376.6	353.8	337.8	335.3
52.5°	6761.7	4283.2	941.1	472.6	407.7	391.8	378.2	358.9	340.4	323.5	321.8
55°	7093.6	4433.9	840.0	429.7	380.8	375.8	362.2	337.8	312.5	298.3	296.5
57.5°	7412.1	4548.5	713.6	394.3	356.4	358.0	337.8	315.9	292.3	277.2	275.5
60°	7835.8	4701.9	585.5	361.4	330.3	335.3	313.4	297.4	267.9	248.6	246.0
62.5°	8513.1	4940.3	465.0	321.0	299.9	301.6	292.3	273.0	237.6	214.8	213.1
65°	9050.6	4852.7	366.4	277.2	265.4	267.9	267.9	246.8	208.9	182.9	180.3
67.5°	8990.0	4155.0	292.3	234.2	232.6	234.2	240.1	222.4	185.3	164.3	160.9
70°	8281.5	3305.0	234.2	194.6	202.2	198.0	214.8	203.1	166.8	145.8	143.2
72.5°	6757.4	2380.9	178.6	160.9	155.0	161.7	193.7	182.9	139.0	115.4	112.9
75°	3948.7	1270.5	133.1	127.2	112.0	134.8	171.9	155.9	106.2	85.1	82.5
77.5°	1285.7	443.1	97.7	93.5	83.4	108.6	146.6	131.4	86.8	67.4	64.9
80°	344.6	134.0	66.5	61.5	53.9	80.9	116.2	104.4	62.3	43.8	42.9
82.5°	138.2	56.5	38.7	34.5	29.5	55.6	91.8	84.3	46.3	27.8	27.8
85°	44.7	18.6	14.3	11.0	13.5	34.5	54.7	57.3	32.9	14.3	11.0
87.5°	5.9	2.6	2.6	3.4	2.6	5.9	16.8	16.0	9.2	1.6	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)