

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: P962046

Luminaire Tested: **NAV-SB2B-827-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-827-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9976.3 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 73.9
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

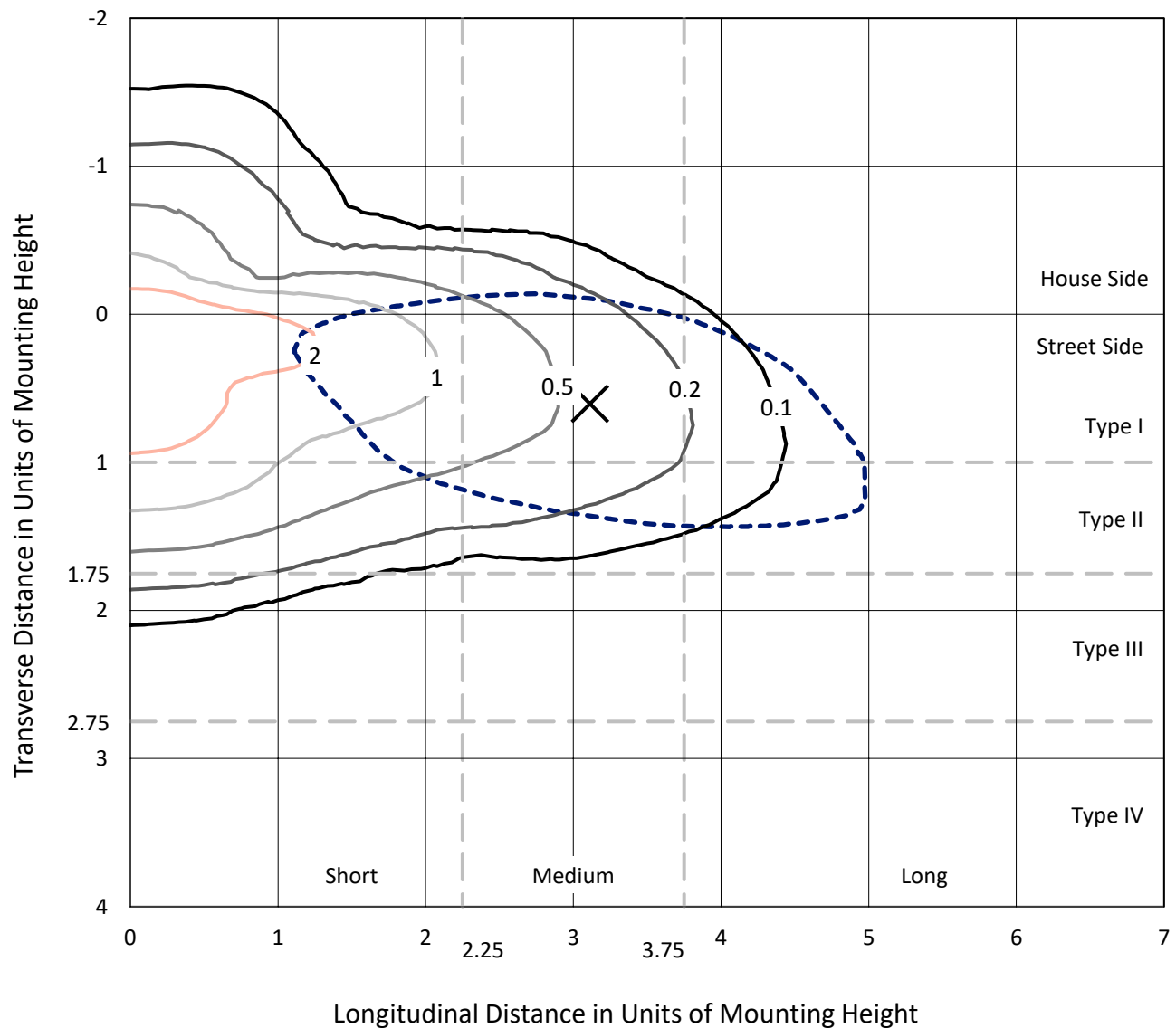


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Iso-Footcandle Lines of Horizontal Illumination

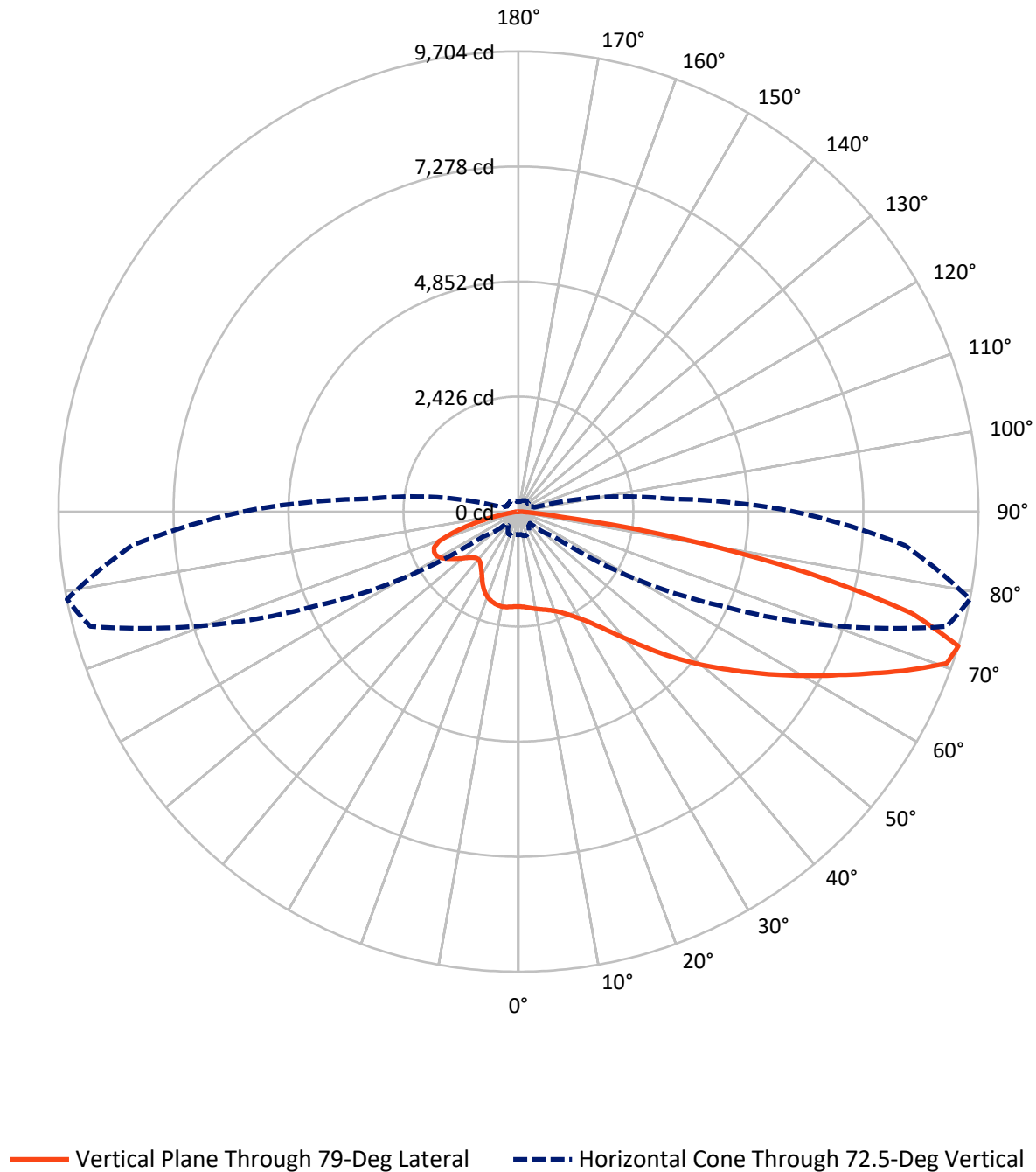
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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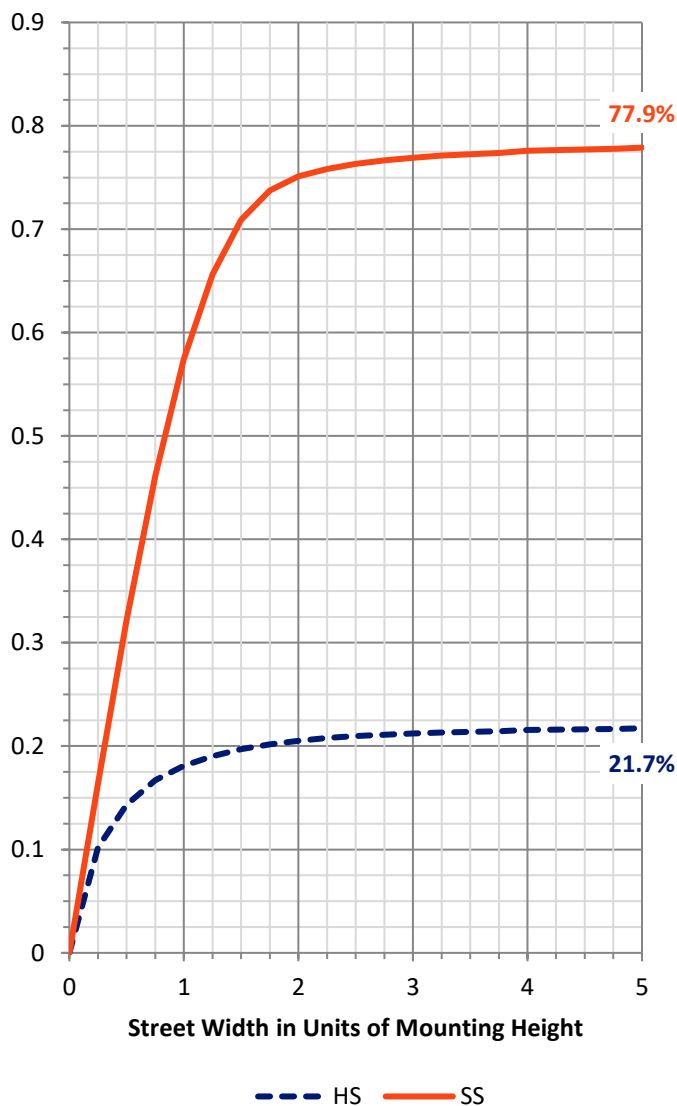
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2195.3	0.0	2195.3
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	7781.0	0.0	7781.0
	% Fixture	78.0	0.0	78.0
Total	Lumens	9976.3	0.0	9976.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.8	1.8
10°-20°	475.3	4.8
20°-30°	766.9	7.7
30°-40°	1151.0	11.5
40°-50°	1632.8	16.4
50°-60°	2062.0	20.7
60°-70°	2094.2	21.0
70°-80°	1427.3	14.3
80°-90°	185.2	1.9
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°	9976.3	100.0
0°-180°	9976.3	100.0

Coefficient of Utilization



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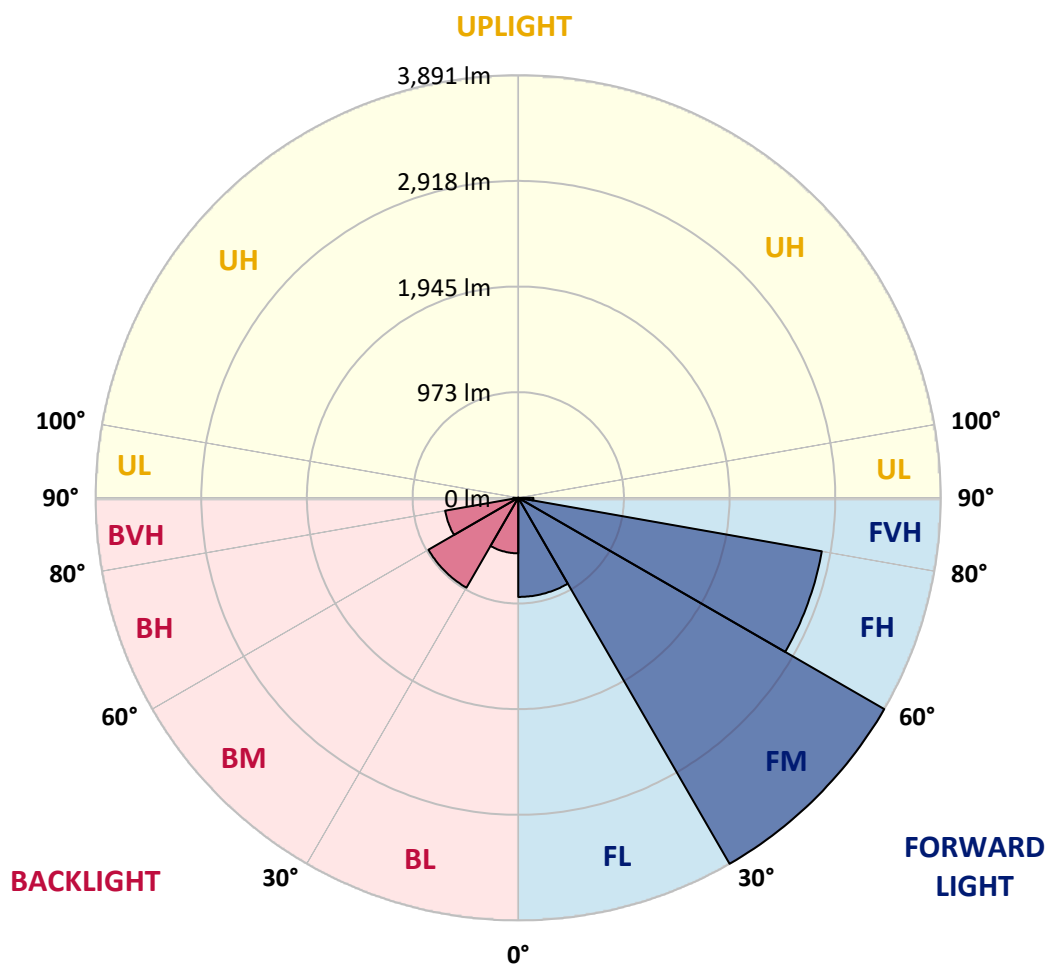
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	912.6	9.1			
FM	(30°-60°)	3891.0	39.0			
FH	(60°-80°)	2837.9	28.4			G2/5000
FVH	(80°-90°)	139.5	1.4			G2/225
BL	(0°-30°)	511.4	5.1	B2/1000		
BM	(30°-60°)	954.7	9.6	B1/1000		
BH	(60°-80°)	683.6	6.9	B2/1000		G2/1000
BVH	(80°-90°)	45.7	0.5			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°	79°	85°
0°	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6
2.5°	2003.7	1994.2	2000.0	1997.9	2000.5	2003.7	2004.8	2006.3	2011.7	2011.0	2010.5
5°	1999.5	1990.0	1997.9	1995.3	2002.1	2009.5	2015.9	2021.6	2030.1	2033.8	2028.5
7.5°	1990.5	1984.2	1992.1	2000.0	2012.7	2023.8	2032.8	2045.9	2058.1	2060.1	2063.8
10°	1938.3	1933.6	1952.0	1972.6	2007.4	2037.5	2057.0	2072.3	2085.5	2087.6	2092.8
12.5°	1884.0	1878.1	1898.7	1926.7	1983.2	2037.5	2078.6	2098.7	2110.3	2117.1	2125.0
15°	1874.9	1870.2	1881.8	1906.1	1953.0	2023.2	2093.5	2130.4	2140.4	2148.3	2151.5
17.5°	1918.2	1909.3	1914.0	1922.5	1949.9	2010.0	2105.0	2166.2	2181.5	2190.0	2190.0
20°	2018.5	2005.8	1998.4	1981.5	1976.8	2012.2	2104.0	2209.5	2229.6	2240.1	2242.8
22.5°	2152.0	2143.6	2127.7	2085.0	2038.5	2038.0	2124.0	2264.9	2302.4	2312.4	2306.0
25°	2313.4	2300.8	2280.7	2222.7	2133.5	2089.2	2157.8	2335.7	2398.4	2401.1	2382.6
27.5°	2499.3	2480.2	2452.8	2376.3	2255.9	2169.4	2209.5	2417.0	2508.7	2507.7	2469.6
30°	2695.0	2676.0	2647.0	2554.1	2402.7	2277.5	2281.2	2504.5	2639.6	2633.8	2568.9
32.5°	2838.0	2823.8	2817.9	2746.2	2571.5	2405.3	2363.6	2601.6	2801.1	2795.8	2705.1
35°	2947.8	2929.3	2936.2	2899.7	2755.7	2548.3	2464.4	2717.2	2997.4	2996.9	2883.9
37.5°	3056.4	3040.1	3045.9	3021.7	2926.2	2729.9	2587.3	2858.6	3240.6	3252.2	3100.3
40°	3155.7	3138.2	3161.5	3138.9	3058.6	2923.0	2727.2	3018.5	3522.4	3544.7	3362.0
42.5°	3215.3	3201.6	3240.1	3240.6	3173.6	3086.1	2880.8	3194.7	3848.6	3898.2	3684.0
45°	3235.9	3231.1	3289.2	3301.3	3275.5	3180.5	3019.0	3386.8	4200.0	4288.7	4050.7
47.5°	3213.8	3204.8	3285.0	3329.8	3350.4	3224.9	3133.5	3594.8	4558.9	4688.7	4450.7
50°	3101.9	3084.4	3203.7	3298.1	3371.5	3253.9	3249.1	3834.8	4966.7	5108.7	4852.8
52.5°	2900.9	2887.6	3023.2	3187.3	3325.1	3268.1	3378.9	4097.1	5354.1	5537.8	5264.9
55°	2643.8	2626.4	2775.7	2990.0	3209.5	3263.4	3508.8	4390.5	5811.1	5997.4	5690.8
57.5°	2236.4	2201.6	2390.5	2643.8	3021.1	3257.6	3643.9	4682.4	6275.5	6498.7	6145.2
60°	1642.3	1590.5	1822.1	2122.5	2652.8	3201.1	3811.2	5009.5	6832.8	7033.9	6641.2
62.5°	956.2	926.1	1077.6	1357.8	1999.5	2868.7	3905.0	5390.0	7380.5	7591.6	7128.8
65°	742.5	734.0	747.2	768.9	1112.9	2147.8	3615.3	5761.0	8077.1	8224.9	7637.0
67.5°	679.2	672.8	678.7	638.0	564.7	1196.3	2860.2	5854.9	8823.3	8913.0	8081.8
70°	603.7	596.3	615.3	580.5	444.3	544.1	1848.1	5514.0	9417.0	9585.3	8420.1
72.5°	491.8	483.4	527.7	511.9	374.1	349.3	928.2	4704.0	9354.7	9704.0	8177.9
75°	377.8	373.1	425.9	439.0	305.0	274.9	445.4	3496.6	8232.3	8584.3	7048.1
77.5°	293.4	289.7	316.6	364.7	245.9	213.2	273.9	2218.0	6203.7	6265.5	4857.1
80°	220.1	209.5	234.3	282.3	191.6	155.7	185.7	1293.4	3921.4	3554.6	2114.0
82.5°	137.8	132.4	153.0	188.4	135.1	107.1	120.8	714.5	1571.5	925.6	408.0
85°	78.6	76.6	83.3	107.6	73.4	61.7	69.1	315.6	287.1	197.3	123.0
87.5°	31.7	30.6	38.0	48.1	27.0	22.7	24.3	76.0	63.3	58.5	40.6
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°	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6	2002.6
2.5°	2008.5	2008.5	2001.1	1989.4	1976.3	1967.8	1954.1	1950.4	1936.1	1931.9	1938.8
5°	2032.8	2028.5	2005.8	1973.1	1928.2	1887.1	1841.7	1813.2	1773.1	1758.9	1769.4
7.5°	2063.3	2051.7	2012.7	1940.9	1846.9	1754.6	1658.6	1585.8	1516.1	1491.3	1494.4
10°	2091.3	2074.9	2008.5	1882.8	1720.4	1560.5	1407.4	1300.3	1219.0	1185.7	1193.1
12.5°	2119.3	2089.2	1980.5	1786.3	1540.4	1323.5	1160.4	1077.1	1026.9	986.8	1000.0
15°	2145.6	2103.4	1937.2	1657.0	1343.1	1123.0	1002.7	936.1	896.1	869.7	874.4
17.5°	2176.3	2115.6	1872.3	1492.9	1155.2	984.2	886.0	845.9	838.0	834.9	836.9
20°	2219.0	2126.7	1786.8	1309.2	1016.9	873.4	822.7	819.0	818.5	816.9	822.2
22.5°	2264.9	2139.9	1673.9	1142.5	899.2	804.2	795.3	787.9	783.1	782.6	788.4
25°	2319.3	2144.1	1532.5	1005.8	799.0	771.5	761.0	749.9	746.7	746.7	749.9
27.5°	2372.1	2129.8	1367.9	887.0	742.5	741.4	727.7	724.1	723.4	725.1	729.3
30°	2424.8	2102.9	1204.3	777.4	709.8	709.8	705.0	707.7	709.8	715.0	718.7
32.5°	2496.1	2074.4	1067.5	696.1	681.3	676.0	680.7	686.0	688.1	694.9	700.8
35°	2600.5	2054.4	958.9	651.7	651.7	644.8	647.5	646.5	641.6	638.6	646.0
37.5°	2738.8	2053.3	869.1	631.1	626.9	625.9	626.4	619.5	601.1	578.9	579.4
40°	2905.1	2081.8	800.0	616.8	613.8	620.0	616.8	598.4	547.8	509.2	508.2
42.5°	3128.3	2163.1	755.6	599.5	609.0	616.8	604.2	540.4	506.0	480.2	479.2
45°	3391.0	2295.0	733.0	581.0	600.0	609.5	548.3	520.3	492.9	461.8	459.6
47.5°	3688.7	2461.2	727.7	563.5	579.9	585.8	524.5	511.9	480.7	447.0	444.3
50°	4012.7	2658.0	742.0	543.0	550.9	530.8	516.6	505.0	472.8	439.6	435.9
52.5°	4347.7	2874.9	770.5	515.1	521.9	499.8	513.4	503.5	468.1	423.2	420.0
55°	4677.1	3093.4	797.9	482.4	492.3	471.8	504.5	497.1	446.5	395.8	393.2
57.5°	5011.6	3310.9	824.8	453.3	463.8	444.8	490.3	480.2	422.2	370.4	369.4
60°	5359.4	3521.9	837.4	425.4	432.8	420.0	468.6	451.2	394.7	344.6	343.0
62.5°	5685.0	3697.7	816.9	397.4	402.1	396.9	440.1	416.9	367.3	315.6	315.1
65°	6011.6	3802.1	753.6	369.9	370.9	368.4	400.0	380.0	335.1	290.3	287.1
67.5°	6307.6	3860.7	652.8	340.4	337.7	336.7	362.5	339.9	303.9	264.9	261.8
70°	6370.5	3711.9	498.7	305.6	305.6	302.9	321.3	298.2	269.7	238.0	237.0
72.5°	5818.5	3122.5	354.1	266.0	270.2	264.9	280.2	260.7	234.8	213.7	207.4
75°	4691.8	2289.7	257.5	225.3	232.7	223.8	238.0	224.3	202.1	201.6	181.5
77.5°	3223.7	1415.8	186.9	185.7	191.1	179.4	195.8	188.4	168.3	159.4	149.3
80°	1375.8	564.7	136.1	143.5	143.5	132.9	152.0	154.1	136.6	132.4	132.4
82.5°	273.9	160.4	95.5	98.7	92.9	89.7	107.6	119.3	164.6	183.1	183.7
85°	82.3	59.1	57.5	53.8	47.5	48.1	63.3	119.8	147.8	84.5	72.8
87.5°	22.7	14.8	15.3	12.1	10.0	13.2	21.6	90.8	49.6	21.1	17.9
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)