

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: P965814

Luminaire Tested: **NAV-SB4A-835-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965814
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14230.1 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
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

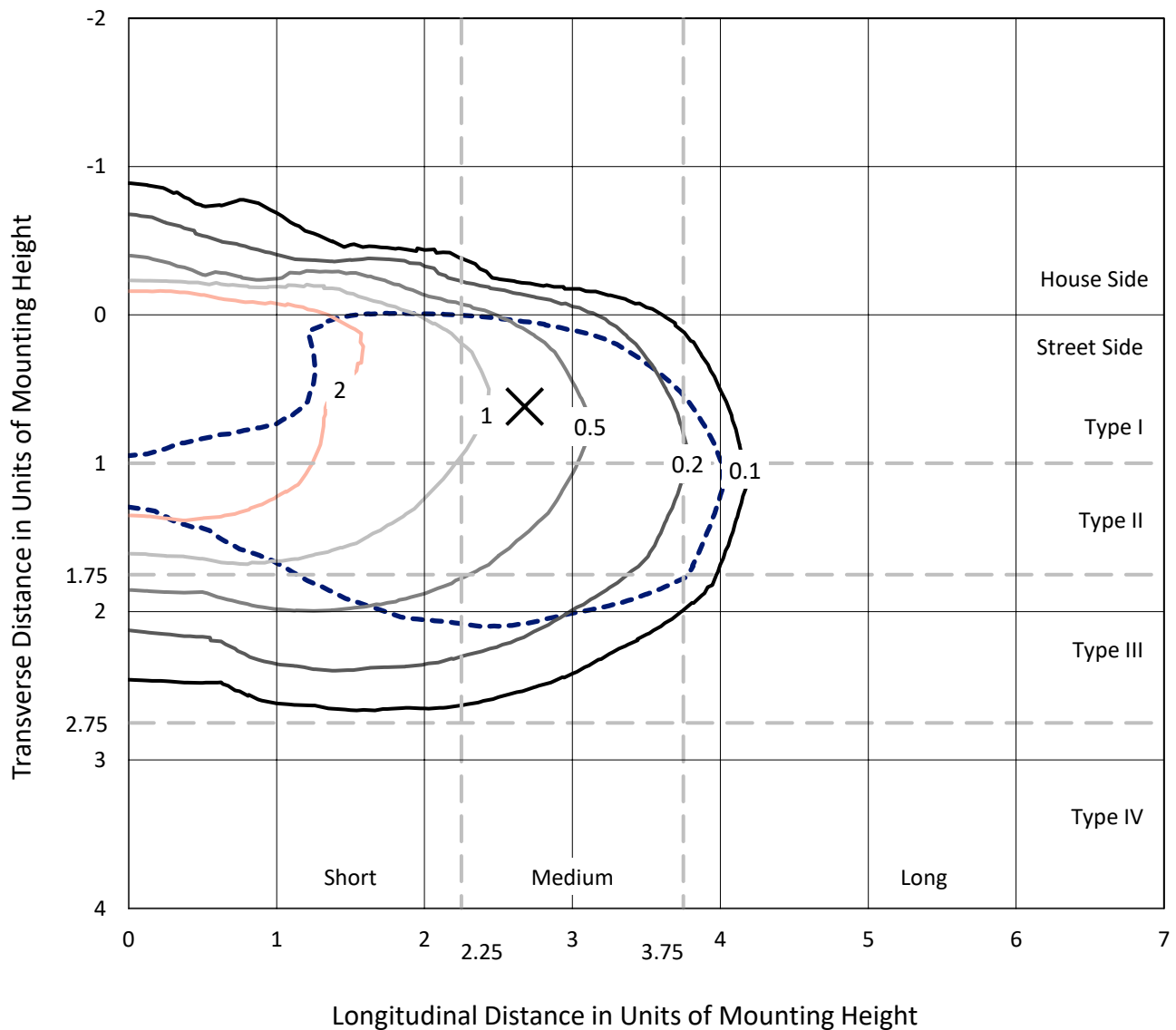


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Iso-Footcandle Lines of Horizontal Illumination

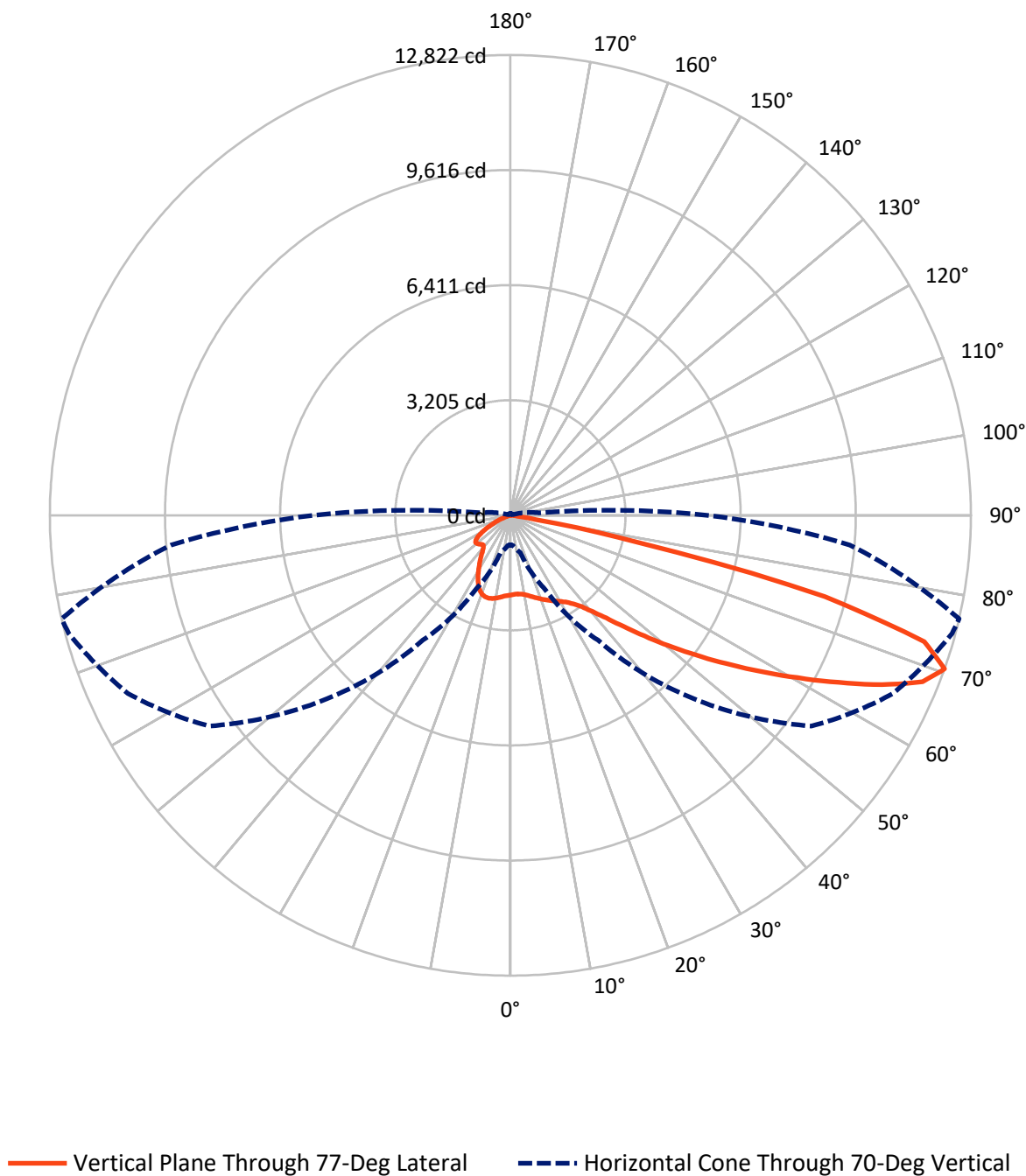
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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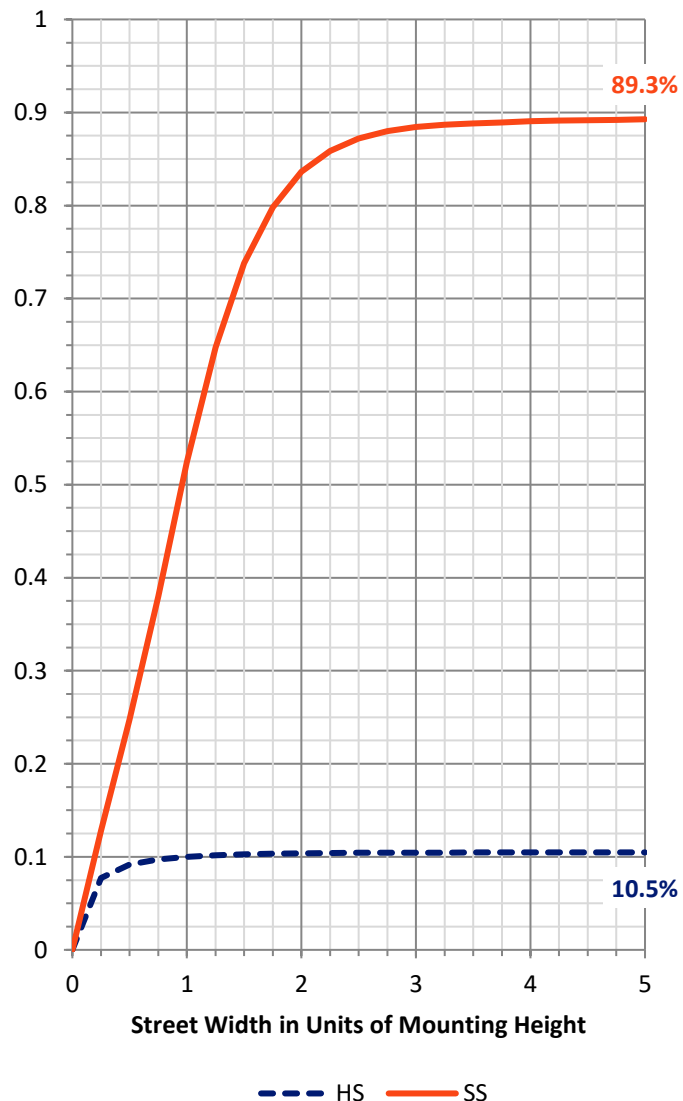
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1500.1	0.0	1500.1
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	12730.0	0.0	12730.0
	% Fixture	89.5	0.0	89.5
Total	Lumens	14230.1	0.0	14230.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.3	1.3
10°-20°	454.1	3.2
20°-30°	702.4	4.9
30°-40°	1274.5	9.0
40°-50°	2405.8	16.9
50°-60°	3476.2	24.4
60°-70°	3700.4	26.0
70°-80°	1960.9	13.8
80°-90°	64.4	0.5
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°	14230.1	100.0
0°-180°	14230.1	100.0

Coefficient of Utilization



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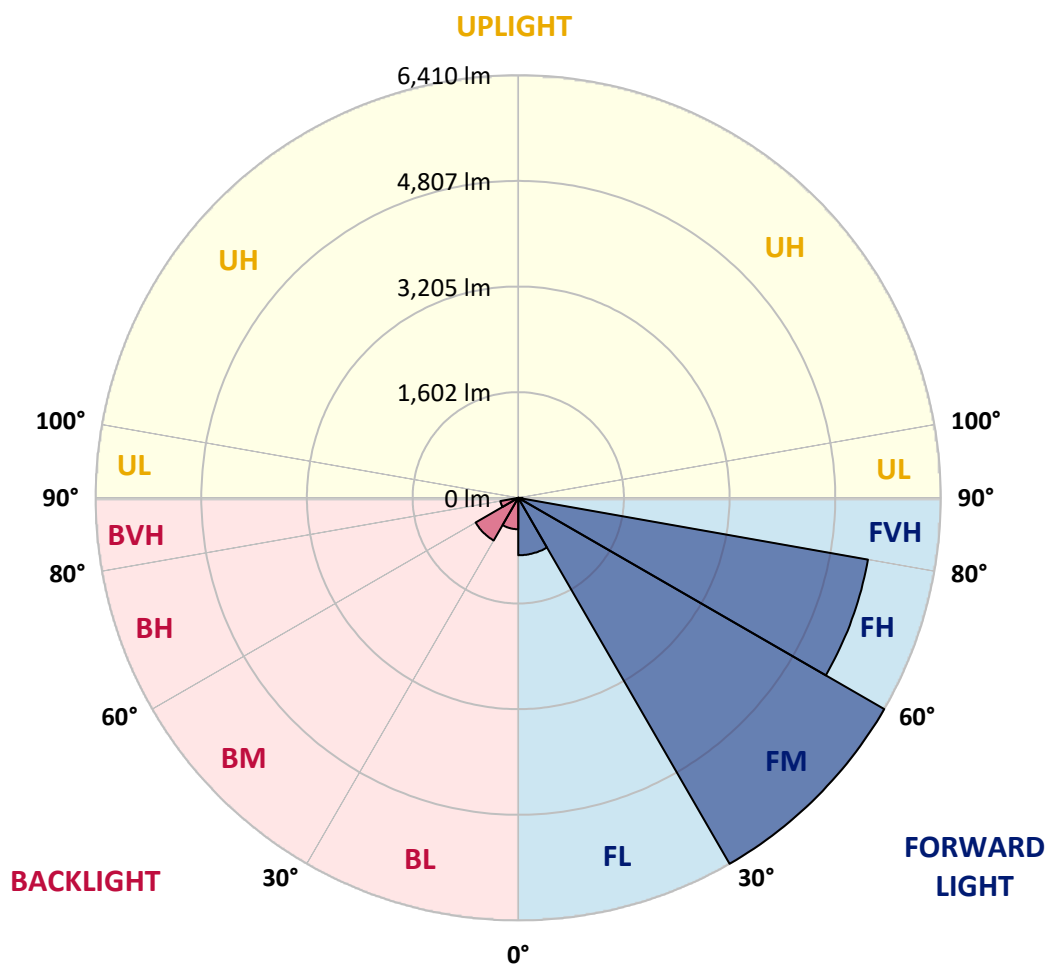
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	871.2	6.1			
FM	(30°-60°)	6409.9	45.0			
FH	(60°-80°)	5386.3	37.9			G3/7500
FVH	(80°-90°)	62.7	0.4			G1/100
BL	(0°-30°)	476.6	3.3	B1/500		
BM	(30°-60°)	746.7	5.2	B1/1000		
BH	(60°-80°)	275.0	1.9	B1/500		G1/500
BVH	(80°-90°)	1.7	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6
2.5°	2083.9	2102.8	2100.1	2112.7	2117.2	2135.2	2153.1	2177.4	2204.4	2203.4	2221.5
5°	1966.3	1985.1	1989.6	2006.6	2028.3	2056.0	2092.9	2141.4	2191.8	2199.9	2235.8
7.5°	1827.0	1846.7	1858.4	1892.6	1932.0	1989.6	2049.8	2120.8	2204.4	2216.0	2285.2
10°	1687.7	1705.6	1720.9	1769.5	1832.3	1917.7	2015.7	2118.1	2230.4	2247.5	2345.4
12.5°	1601.4	1618.5	1635.5	1677.7	1755.9	1860.2	1993.2	2130.7	2273.6	2297.8	2427.2
15°	1570.8	1586.1	1599.6	1637.3	1710.1	1828.7	1988.7	2156.7	2328.4	2360.7	2526.1
17.5°	1575.3	1583.4	1592.3	1621.1	1692.2	1814.4	1996.8	2201.7	2393.1	2421.9	2624.9
20°	1601.4	1605.9	1606.8	1626.6	1689.4	1812.5	2013.0	2244.8	2454.2	2492.8	2722.9
22.5°	1634.7	1636.4	1634.7	1648.1	1706.5	1826.0	2034.5	2296.9	2522.5	2558.4	2821.7
25°	1790.1	1755.9	1712.8	1686.7	1735.2	1852.1	2066.9	2367.0	2597.0	2632.1	2917.9
27.5°	2272.6	2174.7	2020.2	1846.7	1794.6	1889.8	2111.8	2438.0	2672.6	2704.0	3021.2
30°	3056.2	2927.8	2665.4	2274.5	1985.1	1968.9	2170.2	2509.0	2752.5	2786.7	3131.8
32.5°	3841.7	3810.2	3507.3	2966.5	2413.8	2145.0	2267.3	2605.1	2858.5	2885.5	3280.9
35°	4636.1	4572.2	4324.3	3789.5	3074.3	2503.6	2429.0	2731.0	2997.8	3028.4	3498.4
37.5°	5244.4	5205.8	5052.1	4611.8	3857.9	3057.2	2705.8	2926.0	3200.0	3234.2	3777.0
40°	5781.8	5763.9	5711.7	5421.4	4734.1	3781.4	3136.3	3227.9	3480.4	3520.9	4118.4
42.5°	6204.2	6246.5	6276.1	6195.2	5637.2	4608.2	3715.0	3652.1	3871.3	3912.6	4553.4
45°	6636.5	6650.8	6770.3	6887.2	6534.0	5472.7	4367.4	4149.0	4357.5	4408.7	5074.6
47.5°	6914.1	6971.6	7181.9	7387.7	7288.0	6330.0	5068.3	4735.8	4920.9	5017.1	5658.7
50°	6934.7	7043.5	7332.8	7691.4	7837.0	7146.0	5830.4	5404.4	5601.2	5707.2	6282.3
52.5°	6590.6	6759.6	7208.0	7732.8	8133.6	7837.0	6618.4	6073.0	6325.5	6463.9	6929.4
55°	5053.0	5274.1	6737.9	7508.1	8145.3	8360.9	7385.9	6769.4	7132.5	7288.9	7628.6
57.5°	4402.4	4513.9	5297.5	7118.1	7928.7	8572.1	8079.7	7432.6	8010.5	8204.5	8289.1
60°	3662.8	3809.3	4442.9	6480.0	7634.8	8592.8	8692.5	8288.2	8962.1	9180.5	8894.7
62.5°	2489.2	2648.3	3278.3	5383.7	7233.1	8582.8	9194.9	9168.8	10019.8	10254.3	9407.9
65°	1542.1	1641.8	2057.0	4396.1	6671.5	8593.7	9720.6	10238.2	11135.9	11374.0	9805.0
67.5°	1218.5	1264.3	1480.9	3375.3	5703.6	8351.1	10245.4	11243.7	12186.4	12375.1	9926.3
70°	818.7	846.5	1077.5	2262.8	4243.4	7231.4	10235.4	11748.8	12727.4	12821.7	9484.2
72.5°	431.3	452.9	630.0	1047.9	2562.9	5140.2	8627.8	11144.9	12189.1	12047.1	8106.6
75°	215.7	251.6	424.1	532.0	1094.5	2866.6	5357.7	8786.9	9593.9	9043.9	5201.4
77.5°	163.6	197.7	350.4	350.4	381.0	965.1	2269.0	4792.4	4420.4	3680.8	1526.7
80°	104.2	134.8	306.5	265.1	159.1	245.3	591.3	1342.5	939.1	714.4	277.7
82.5°	61.1	88.0	255.2	175.3	89.0	90.7	167.2	285.8	243.5	189.6	85.4
85°	24.3	57.5	175.3	69.2	35.1	22.4	50.3	61.1	50.3	37.7	21.5
87.5°	0.0	13.5	30.5	0.0	2.7	1.8	3.6	4.5	4.5	3.6	7.2
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°	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6	2219.6
2.5°	2229.5	2231.3	2236.8	2237.6	2225.1	2208.9	2202.5	2199.9	2189.1	2188.2	2190.0
5°	2256.4	2264.5	2256.4	2233.1	2177.4	2099.2	2040.0	1991.4	1947.4	1933.9	1925.8
7.5°	2310.4	2318.4	2294.3	2202.5	2062.4	1906.9	1766.7	1667.9	1578.9	1545.7	1532.2
10°	2387.6	2398.5	2322.0	2136.9	1889.0	1639.1	1401.9	1234.7	1104.4	1051.4	1028.9
12.5°	2484.7	2489.2	2337.3	2037.2	1663.4	1306.7	970.6	791.7	675.8	632.6	619.2
15°	2591.7	2585.4	2339.2	1901.5	1356.1	923.8	633.6	520.3	473.6	459.2	459.2
17.5°	2704.0	2677.9	2303.2	1705.6	1019.1	631.7	470.0	443.0	434.9	431.3	430.4
20°	2814.5	2756.1	2237.6	1449.5	731.4	471.8	426.8	418.8	414.3	412.5	410.7
22.5°	2915.2	2815.5	2125.2	1152.1	531.1	417.0	403.4	396.3	388.2	384.6	383.8
25°	3013.1	2849.6	1967.1	874.3	425.1	390.0	379.2	365.7	355.0	350.4	348.7
27.5°	3108.4	2871.1	1769.5	647.0	379.2	364.8	345.1	326.2	318.2	316.3	314.6
30°	3209.9	2878.3	1544.8	482.6	351.4	333.4	304.6	283.1	278.6	279.5	279.5
32.5°	3333.9	2889.2	1318.3	395.4	328.0	295.6	261.5	239.0	235.4	239.0	238.1
35°	3482.2	2910.7	1099.9	364.0	307.3	257.0	220.2	201.3	197.7	200.4	199.5
37.5°	3683.5	2945.7	896.0	357.6	290.3	224.7	185.1	169.8	169.8	170.8	169.8
40°	3951.3	3039.2	713.5	353.2	281.3	200.4	156.3	150.1	152.7	154.6	154.6
42.5°	4277.5	3237.8	590.4	347.8	271.4	189.6	142.0	139.3	143.8	145.5	145.5
45°	4643.2	3489.4	547.2	338.8	262.4	196.8	135.7	132.1	137.5	138.4	139.3
47.5°	5021.6	3735.6	541.9	328.9	253.4	207.6	133.9	125.8	132.1	133.0	133.9
50°	5404.4	3896.5	547.2	313.6	239.0	207.6	134.8	119.5	124.9	127.6	128.5
52.5°	5789.9	3970.1	543.7	280.3	213.9	195.0	134.8	114.1	119.5	121.4	121.4
55°	6163.7	3955.8	488.8	230.9	181.5	172.5	131.2	109.7	113.3	114.1	114.1
57.5°	6459.4	3755.4	387.3	179.7	147.4	143.8	119.5	104.2	106.9	106.1	106.1
60°	6614.0	3315.1	276.8	138.4	115.9	113.3	105.2	97.1	98.8	94.4	93.5
62.5°	6615.8	2732.8	185.1	109.7	92.6	89.9	89.9	87.1	85.4	76.4	73.7
65°	6474.7	2086.6	123.1	87.1	74.6	70.1	75.4	74.6	68.3	55.8	53.9
67.5°	6154.8	1367.8	93.5	68.3	57.5	54.8	60.2	62.9	58.4	46.7	45.8
70°	5497.0	796.2	77.3	53.0	43.2	40.5	48.5	53.9	48.5	37.7	36.0
72.5°	4566.0	429.6	62.9	39.6	29.6	27.0	38.6	44.1	38.6	27.9	27.0
75°	2962.8	230.0	48.5	26.0	15.3	17.1	28.8	32.4	27.0	17.9	16.2
77.5°	994.8	101.6	30.5	12.6	7.2	7.2	17.1	19.8	12.6	6.3	5.4
80°	221.9	42.2	12.6	5.4	2.7	2.7	3.6	3.6	1.8	0.0	0.0
82.5°	72.8	17.1	5.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	27.9	6.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.8	0.9	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)