

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: P965811

Luminaire Tested: **NAV-SB4A-835-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965811
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17321.5 lumens
Efficiency: N/A
Efficacy: 151.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - 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

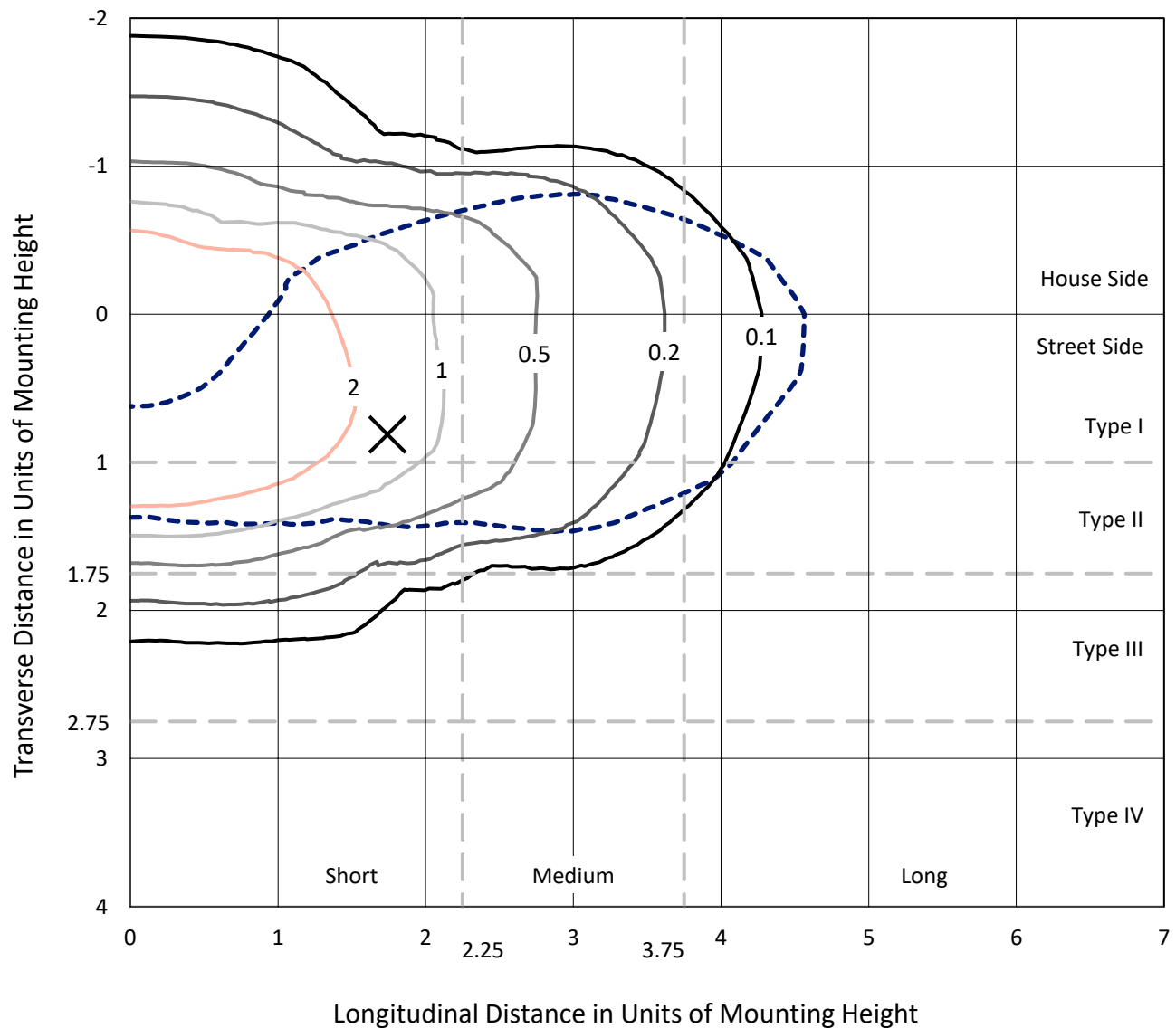


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Iso-Footcandle Lines of Horizontal Illumination

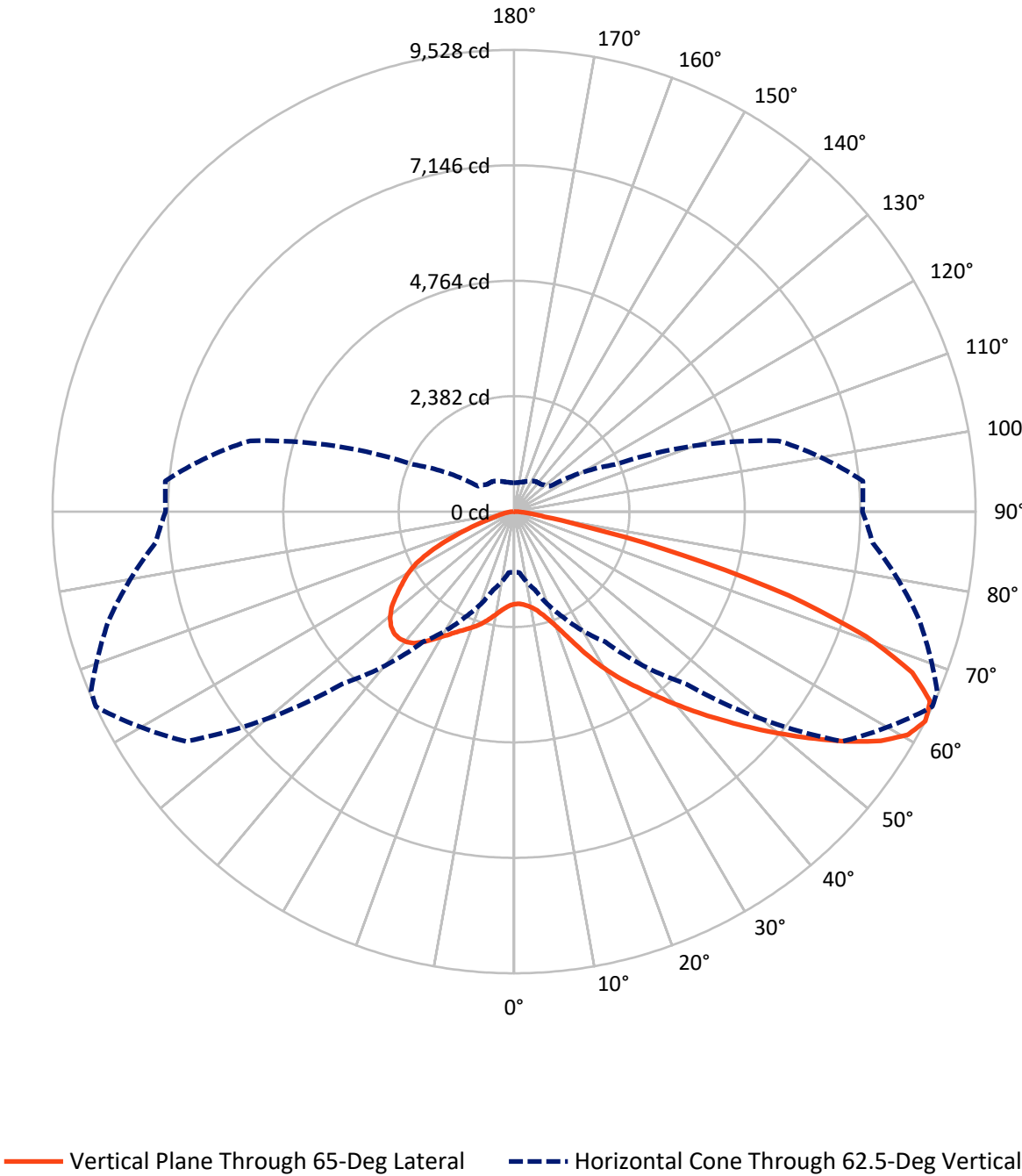
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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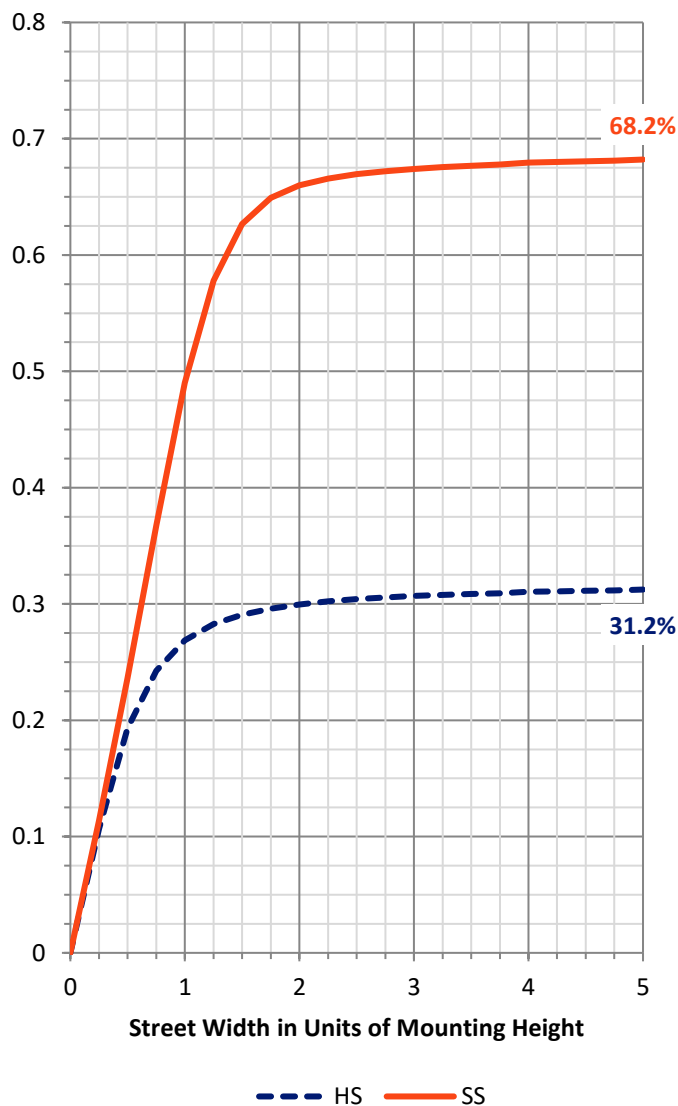
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5465.9	0.0	5465.9
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	11855.6	0.0	11855.6
	% Fixture	68.4	0.0	68.4
Total	Lumens	17321.5	0.0	17321.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.3	1.1
10°-20°	645.3	3.7
20°-30°	1308.5	7.6
30°-40°	2264.3	13.1
40°-50°	3426.6	19.8
50°-60°	4017.4	23.2
60°-70°	3368.1	19.4
70°-80°	1859.5	10.7
80°-90°	241.5	1.4
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°	17321.5	100.0
0°-180°	17321.5	100.0

Coefficient of Utilization



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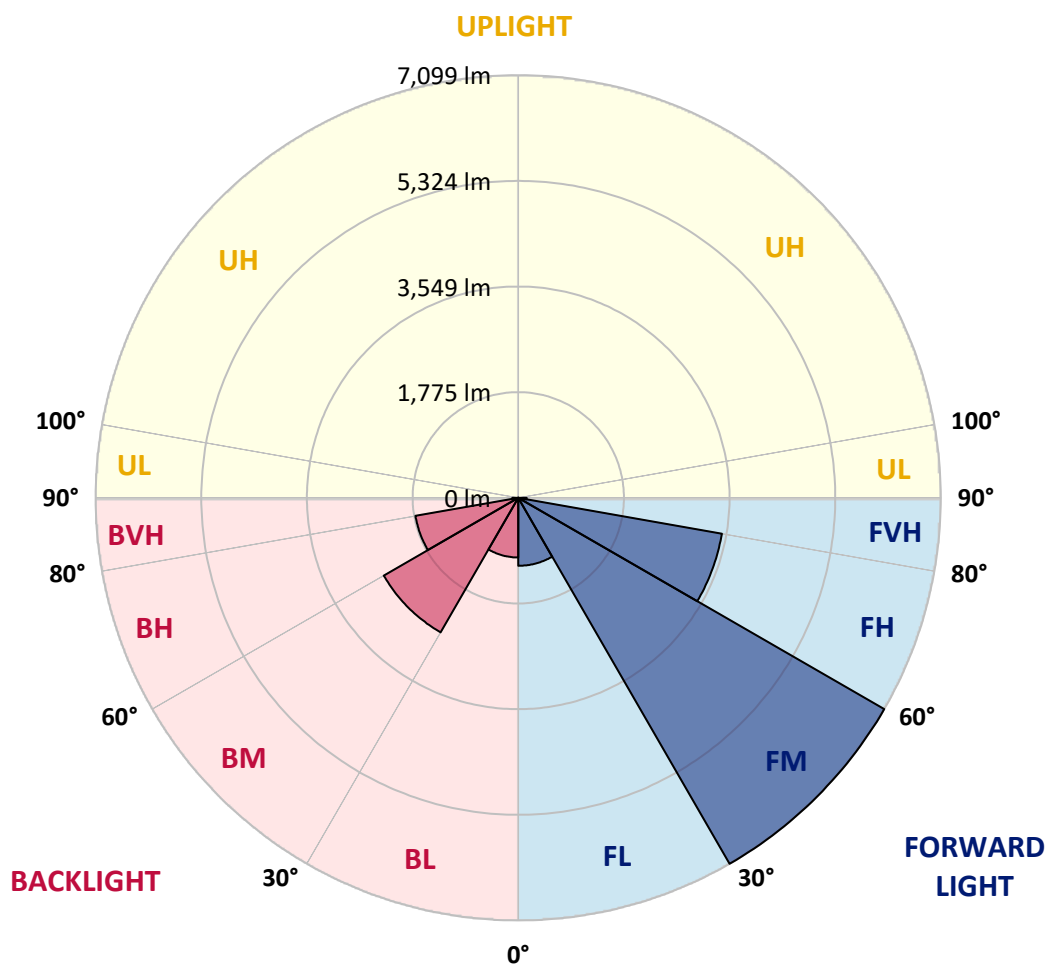
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1141.7	6.6			
FM	(30°-60°)	7098.9	41.0			
FH	(60°-80°)	3474.2	20.1			G2/5000
FVH	(80°-90°)	140.8	0.8			G2/225
BL	(0°-30°)	1002.4	5.8	B3/2500		
BM	(30°-60°)	2609.3	15.1	B3/5000		
BH	(60°-80°)	1753.4	10.1	B3/2500		G3/2500
BVH	(80°-90°)	100.8	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8
2.5°	1896.1	1890.8	1895.2	1895.2	1897.1	1896.1	1902.5	1904.2	1906.9	1912.3	1912.3
5°	1877.3	1876.4	1884.5	1891.6	1898.9	1905.2	1913.3	1925.0	1926.7	1933.0	1941.1
7.5°	1871.0	1865.6	1878.2	1887.2	1904.2	1919.5	1941.1	1960.8	1968.9	1971.7	1987.0
10°	1919.5	1910.6	1922.2	1927.6	1942.0	1957.2	1982.5	2013.9	2022.8	2033.7	2050.7
12.5°	2002.2	1992.3	2009.4	2017.5	2030.9	2044.5	2061.5	2092.1	2096.5	2116.3	2132.5
15°	2115.4	2103.7	2114.6	2124.4	2146.9	2159.5	2176.6	2206.2	2206.2	2221.5	2233.2
17.5°	2269.1	2253.9	2262.0	2265.6	2279.9	2298.8	2327.6	2353.6	2367.0	2361.7	2345.5
20°	2498.2	2479.4	2479.4	2461.4	2456.0	2471.3	2509.1	2545.0	2559.4	2531.5	2492.0
22.5°	2842.4	2815.5	2800.2	2739.1	2714.8	2716.7	2754.4	2798.5	2810.1	2760.6	2671.7
25°	3280.1	3237.9	3217.2	3127.4	3072.5	3024.9	3054.5	3111.2	3127.4	3066.2	2922.5
27.5°	3717.8	3720.4	3700.7	3592.8	3502.1	3414.9	3399.6	3459.0	3476.0	3406.8	3228.9
30°	4331.5	4267.7	4230.0	4100.6	3971.2	3849.0	3786.0	3810.3	3814.8	3732.1	3525.5
32.5°	4860.9	4844.7	4763.8	4650.5	4484.3	4292.9	4187.7	4149.1	4141.9	4024.2	3778.9
35°	5463.9	5454.8	5369.5	5234.7	5055.0	4788.9	4599.4	4488.8	4479.9	4314.4	4029.6
37.5°	6076.7	6076.7	5993.2	5845.8	5659.7	5327.2	5038.8	4863.5	4834.8	4619.1	4284.8
40°	6565.6	6535.9	6551.2	6489.2	6276.3	5923.1	5526.8	5272.4	5233.8	4974.9	4556.2
42.5°	6843.3	6833.4	6925.1	6994.3	6907.1	6624.9	6064.1	5715.5	5661.6	5366.8	4869.0
45°	6905.3	6894.6	7058.0	7311.5	7433.7	7317.8	6648.3	6181.9	6116.3	5776.6	5204.1
47.5°	6762.4	6740.8	6980.8	7380.7	7772.5	7976.4	7281.0	6687.8	6592.6	6175.6	5548.3
50°	6332.9	6312.2	6675.2	7206.4	7886.7	8424.1	7967.5	7224.3	7078.8	6603.4	5896.1
52.5°	5399.2	5409.0	5977.9	6707.6	7736.6	8702.7	8558.9	7789.6	7614.3	7041.0	6222.4
55°	4205.7	4227.3	4926.5	5729.9	7136.3	8660.3	8962.3	8371.9	8197.5	7452.6	6559.3
57.5°	3011.4	3106.7	3761.7	4557.2	5983.2	7990.9	9050.4	8925.5	8756.6	7901.9	6889.1
60°	1951.9	1968.9	2643.0	3444.5	4556.2	6801.1	8871.6	9345.1	9213.0	8360.2	7165.1
62.5°	1250.9	1262.6	1673.3	2409.3	3279.2	5031.6	8269.5	9527.6	9487.1	8663.1	7430.1
65°	919.3	910.3	1124.2	1592.4	2208.9	3103.1	7100.3	9439.5	9519.5	8852.7	7649.4
67.5°	767.4	754.9	860.0	1102.7	1627.5	1762.3	5253.5	8867.1	9160.0	8831.1	7810.3
70°	699.2	688.4	752.1	818.7	1269.8	1180.0	2648.4	7708.7	8159.8	8585.8	7784.2
72.5°	592.2	573.4	660.5	727.0	987.6	905.0	1094.6	5921.2	6471.2	7799.4	7417.5
75°	459.2	446.6	521.2	639.8	742.3	706.3	692.0	3595.5	4195.8	6031.8	6489.2
77.5°	364.0	346.9	415.2	498.8	667.7	532.9	504.2	1548.4	2143.3	3850.7	4855.4
80°	274.1	258.8	315.4	394.5	513.1	401.7	326.3	631.7	807.9	1951.0	2441.7
82.5°	195.1	181.5	220.2	289.4	345.1	360.4	200.4	354.0	398.1	752.1	545.5
85°	124.9	116.8	147.4	181.5	219.2	231.9	122.2	185.1	203.1	310.1	227.3
87.5°	68.3	55.8	79.1	84.5	101.6	92.6	58.4	67.4	72.8	112.3	96.1
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°	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8	1908.8
2.5°	1915.9	1918.6	1927.6	1930.3	1936.6	1944.7	1950.1	1955.5	1955.5	1960.8	1960.8
5°	1942.0	1948.3	1967.2	1977.0	1993.2	2009.4	2019.2	2030.9	2038.1	2041.8	2043.5
7.5°	1992.3	2002.2	2029.2	2046.2	2074.1	2096.5	2111.8	2128.0	2131.6	2141.5	2137.9
10°	2060.7	2072.3	2102.9	2135.2	2168.5	2196.4	2210.7	2222.4	2226.9	2228.7	2224.1
12.5°	2138.8	2155.9	2195.4	2235.0	2270.0	2294.3	2297.8	2295.2	2282.6	2271.8	2271.8
15°	2235.0	2250.3	2294.3	2337.4	2371.5	2376.1	2353.6	2339.3	2324.0	2321.2	2321.2
17.5°	2350.0	2358.1	2398.5	2440.7	2443.5	2428.2	2394.9	2381.5	2367.0	2357.2	2358.1
20°	2483.9	2481.2	2509.9	2528.0	2509.1	2462.4	2412.0	2389.6	2375.1	2363.4	2364.4
22.5°	2643.9	2623.2	2619.6	2615.1	2564.8	2466.9	2398.5	2369.8	2347.2	2331.2	2336.5
25°	2876.6	2797.5	2742.7	2712.1	2598.9	2442.6	2355.3	2291.6	2249.4	2221.5	2232.2
27.5°	3167.8	3034.8	2896.3	2821.8	2598.9	2393.2	2251.1	2147.8	2078.6	2049.8	2064.2
30°	3445.4	3306.1	3102.2	2953.8	2592.6	2312.3	2083.1	1939.3	1858.4	1829.6	1846.7
32.5°	3682.7	3530.8	3320.6	3098.6	2577.4	2181.0	1874.6	1715.5	1637.3	1603.2	1620.3
35°	3902.9	3741.1	3539.8	3257.7	2536.9	1988.7	1645.4	1524.2	1436.9	1382.1	1400.1
37.5°	4128.4	3936.1	3747.4	3401.5	2464.1	1764.0	1469.3	1365.9	1263.5	1189.8	1209.6
40°	4373.8	4143.7	3969.4	3486.8	2344.6	1550.2	1332.7	1238.3	1129.7	1051.4	1066.7
42.5°	4660.5	4392.6	4216.5	3530.8	2181.0	1398.3	1243.7	1151.2	1048.8	984.9	997.5
45°	4959.7	4666.7	4442.0	3529.9	1998.6	1327.3	1215.0	1123.3	1010.1	943.6	954.4
47.5°	5273.3	4953.4	4637.1	3472.4	1840.5	1337.2	1198.8	1063.1	938.2	873.5	882.5
50°	5587.9	5267.1	4825.8	3364.6	1773.0	1315.6	1138.6	978.7	831.3	772.8	776.4
52.5°	5899.7	5600.4	4988.5	3210.9	1704.8	1235.6	1061.3	869.0	787.2	746.8	746.8
55°	6213.3	5930.2	5165.5	2987.2	1534.0	1142.2	931.9	827.7	752.1	715.3	711.8
57.5°	6527.8	6311.2	5333.6	2763.4	1319.3	1027.2	860.9	777.4	717.1	685.7	680.3
60°	6855.0	6747.2	5507.0	2557.6	1107.1	879.8	808.8	736.9	675.8	640.7	638.1
62.5°	7192.0	7227.0	5642.7	2292.5	912.1	790.0	762.1	688.4	629.0	595.8	594.9
65°	7531.7	7689.9	5731.7	1925.0	739.6	704.6	711.8	635.4	575.1	546.4	545.5
67.5°	7787.7	8023.2	5706.5	1456.7	606.6	623.7	648.8	579.6	523.1	500.5	501.4
70°	7816.5	7983.7	5458.4	997.5	507.8	544.6	578.7	524.8	466.4	450.2	451.1
72.5°	7433.7	7444.5	4767.4	651.5	429.6	478.1	505.0	469.1	412.5	396.3	395.4
75°	6429.9	6156.7	3500.3	429.6	359.5	410.7	435.8	410.7	355.9	359.5	346.9
77.5°	4871.6	4360.2	2125.3	305.6	300.1	345.1	379.2	361.2	314.6	353.2	311.0
80°	2509.9	2358.9	948.1	228.3	237.3	275.9	311.8	288.4	249.0	237.3	216.6
82.5°	575.1	668.6	373.8	163.6	171.7	198.6	238.1	216.6	178.9	151.0	149.1
85°	201.3	220.2	165.3	102.4	100.7	124.0	161.7	144.7	121.4	97.1	102.4
87.5°	63.8	83.5	62.0	41.3	43.2	55.8	74.6	68.3	56.6	36.8	38.6
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)