

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: P965626

Luminaire Tested: **NAV-SB4A-735-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18258.3 lumens
Efficiency: N/A
Efficacy: 160.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

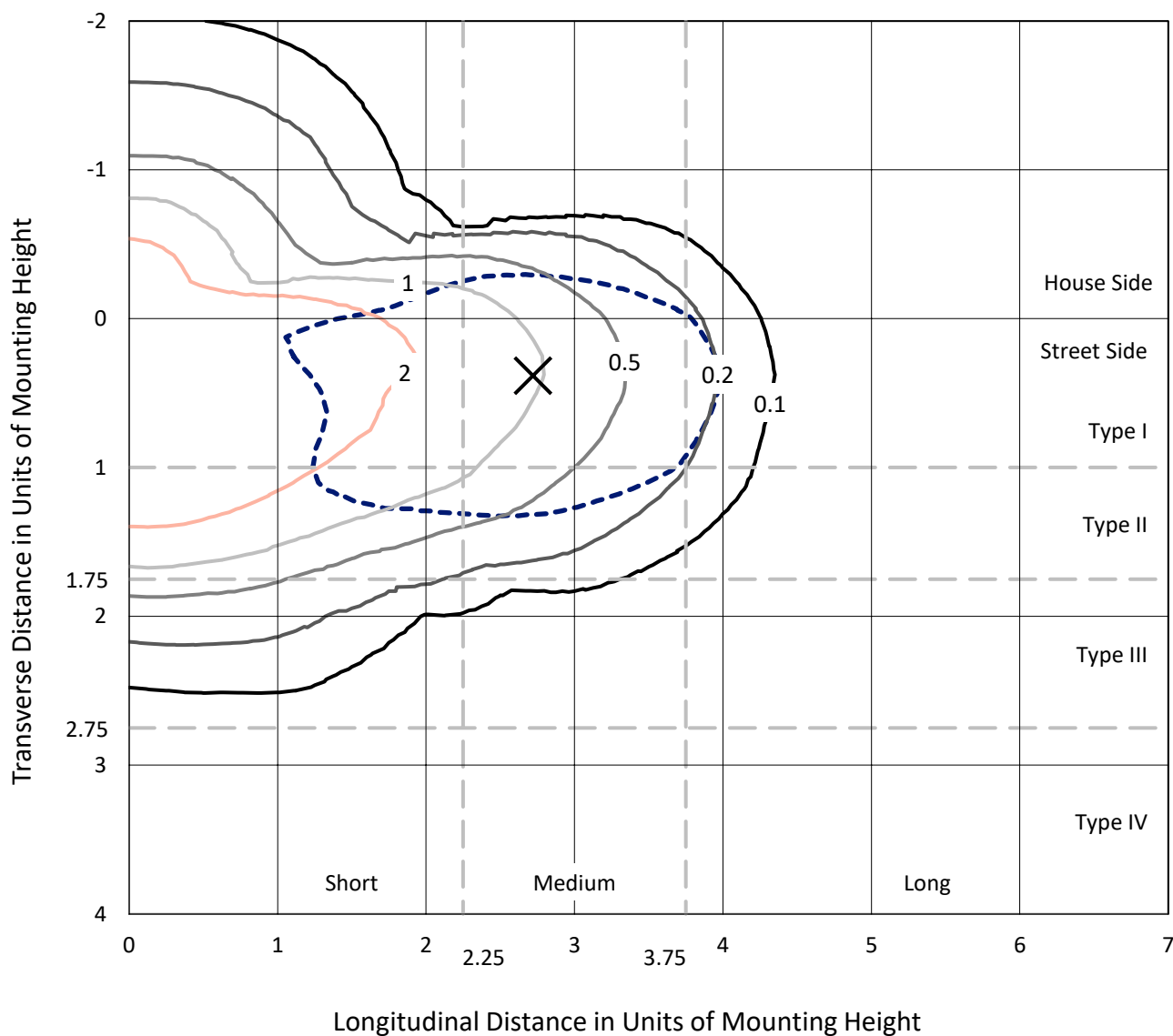
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

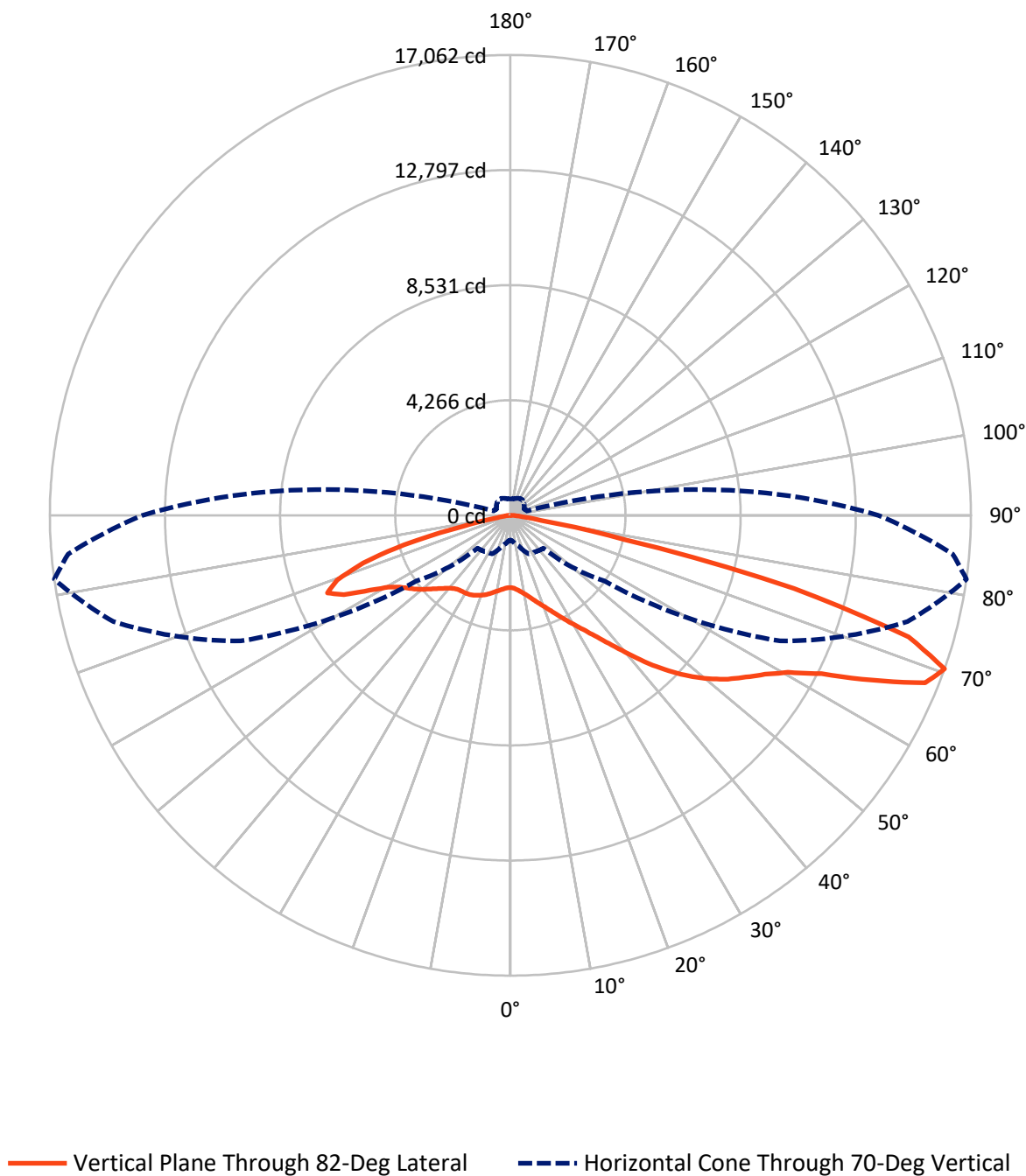
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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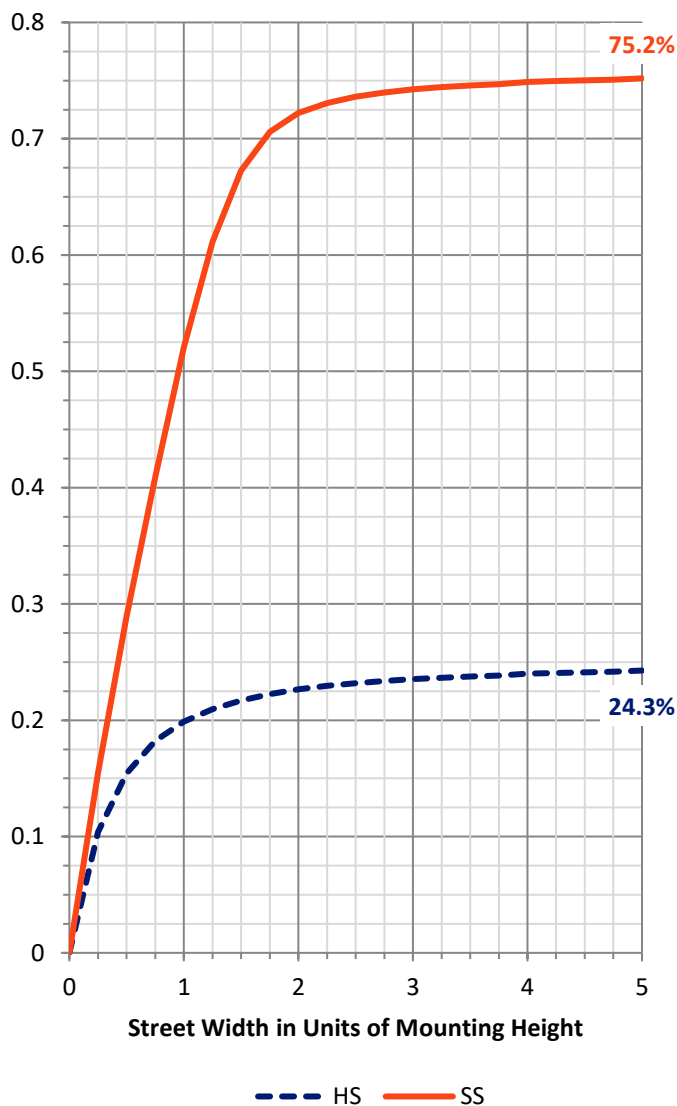
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4501.1	0.0	4501.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13757.2	0.0	13757.2
	% Fixture	75.3	0.0	75.3
Total	Lumens	18258.3	0.0	18258.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	1.4
10°-20°	726.2	4.0
20°-30°	1214.8	6.7
30°-40°	1897.8	10.4
40°-50°	3022.5	16.6
50°-60°	4206.2	23.0
60°-70°	4399.8	24.1
70°-80°	2299.6	12.6
80°-90°	238.8	1.3
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°	18258.3	100.0
0°-180°	18258.3	100.0

Coefficient of Utilization



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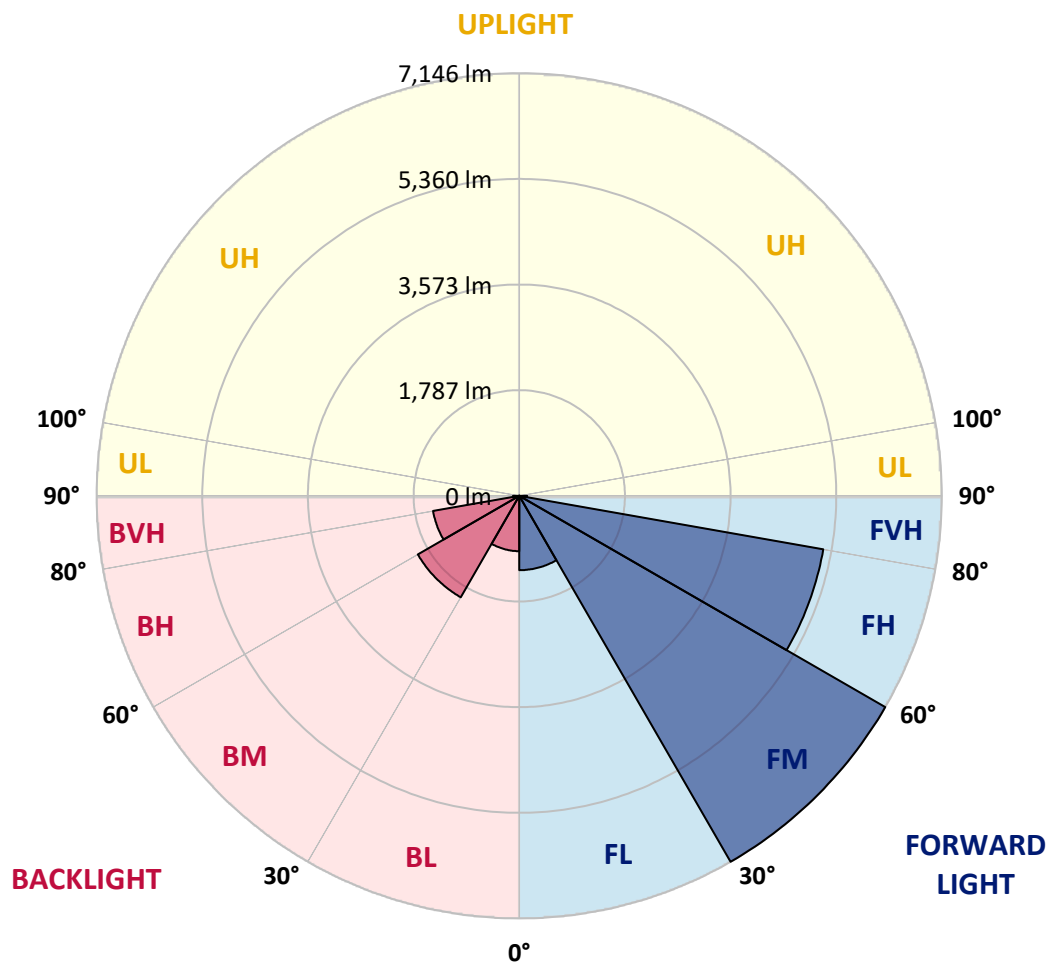
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1257.3	6.9			
FM	(30°-60°)	7146.1	39.1			
FH	(60°-80°)	5220.1	28.6			G3/7500
FVH	(80°-90°)	133.7	0.7			G2/225
BL	(0°-30°)	936.4	5.1	B2/1000		
BM	(30°-60°)	1980.3	10.8	B2/2500		
BH	(60°-80°)	1479.3	8.1	B3/2500		G3/2500
BVH	(80°-90°)	105.1	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9
2.5°	2740.8	2756.3	2751.5	2746.7	2746.7	2739.8	2738.9	2729.2	2721.5	2708.9	2706.0
5°	2775.7	2792.2	2790.3	2794.1	2806.8	2809.6	2812.5	2806.8	2791.2	2775.7	2768.9
7.5°	2744.7	2763.1	2768.9	2792.2	2830.9	2865.8	2891.9	2902.6	2888.1	2865.8	2855.1
10°	2640.1	2660.4	2680.8	2736.0	2804.8	2887.1	2956.9	2998.5	2995.7	2974.3	2955.9
12.5°	2427.9	2449.2	2492.8	2600.3	2726.3	2871.6	3001.5	3088.6	3118.7	3103.2	3071.2
15°	2258.4	2276.7	2309.7	2420.1	2583.9	2804.8	3017.9	3187.4	3264.0	3255.3	3216.6
17.5°	2253.6	2261.3	2281.6	2333.9	2459.9	2700.2	3000.5	3284.4	3430.7	3429.6	3381.3
20°	2338.7	2341.7	2353.3	2364.0	2435.7	2620.7	2955.9	3364.8	3617.6	3617.6	3565.4
22.5°	2456.9	2455.1	2466.7	2456.9	2491.9	2614.0	2927.8	3435.5	3825.9	3841.4	3775.6
25°	2634.2	2624.6	2621.6	2599.4	2606.2	2676.9	2958.9	3516.0	4073.0	4104.9	4022.6
27.5°	2870.7	2855.1	2844.5	2793.1	2775.7	2806.8	3053.8	3612.8	4348.2	4403.4	4298.7
30°	3178.7	3150.6	3135.2	3046.0	2983.1	2987.9	3197.2	3741.7	4635.9	4725.0	4592.3
32.5°	3599.2	3555.6	3514.0	3367.6	3252.4	3214.6	3382.2	3919.9	4947.9	5090.3	4919.8
35°	4070.1	4035.2	3990.6	3764.9	3587.6	3500.4	3632.2	4168.9	5313.1	5538.9	5317.0
37.5°	4523.5	4493.5	4514.8	4210.6	3981.9	3855.0	3959.7	4503.1	5763.6	6096.9	5814.9
40°	4992.5	4969.2	4972.1	4681.4	4415.0	4272.6	4356.9	4922.7	6280.0	6760.6	6413.7
42.5°	5502.0	5484.6	5426.5	5168.8	4869.4	4736.6	4814.1	5407.1	6834.2	7516.2	7070.6
45°	6072.7	6062.1	6007.7	5712.2	5369.3	5220.1	5324.8	5941.9	7391.3	8227.4	7730.3
47.5°	6565.8	6574.6	6567.8	6318.7	5963.2	5744.2	5869.3	6499.9	7909.6	8895.9	8363.0
50°	6803.1	6848.7	6915.6	6838.1	6617.2	6394.4	6418.5	7038.6	8403.7	9522.7	8969.5
52.5°	6679.2	6765.4	6947.6	7071.6	7156.8	7110.3	7045.3	7573.4	8868.7	10088.5	9543.1
55°	6217.0	6338.1	6640.5	6939.8	7374.8	7712.9	7798.2	8166.4	9322.2	10586.5	10085.6
57.5°	5375.1	5571.8	5843.0	6448.6	7181.0	8004.5	8675.9	8988.8	9802.7	11118.4	10653.3
60°	3931.6	4195.0	4532.2	5433.2	6502.8	7848.5	9422.9	10252.3	10485.8	11807.2	11392.6
62.5°	2516.1	2678.8	2988.9	3837.6	5067.0	7049.2	9651.6	11831.5	11643.5	12936.9	12500.9
65°	1722.6	1827.3	2111.1	2587.7	3275.6	5247.2	9039.3	13015.3	13482.3	14727.3	14395.9
67.5°	1251.7	1331.2	1573.4	1991.0	2134.4	3105.1	7014.4	12961.1	15269.8	16572.0	16056.5
70°	912.7	968.8	1172.3	1573.4	1642.2	1727.4	4249.3	11017.6	15231.1	17062.3	16445.1
72.5°	676.3	715.0	851.6	1220.8	1329.2	1166.4	2103.3	8007.4	13088.0	15432.6	14937.5
75°	489.2	518.3	619.1	934.0	1063.7	888.5	1049.3	4679.5	9129.4	10855.9	10943.0
77.5°	374.0	396.3	462.2	684.0	851.6	666.6	651.1	2152.8	4328.8	4350.1	4594.3
80°	300.3	314.9	350.8	481.5	653.0	499.0	424.4	869.1	1368.0	1157.7	1214.9
82.5°	220.9	245.1	296.4	338.1	467.0	343.9	258.7	438.9	520.3	447.6	451.5
85°	126.0	142.4	179.3	242.2	298.4	210.2	148.2	194.7	242.2	198.6	177.3
87.5°	44.6	58.1	62.9	94.9	129.9	87.2	57.2	56.2	79.4	59.1	49.4
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°	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9	2676.9
2.5°	2696.3	2691.4	2672.1	2645.9	2618.8	2592.6	2583.9	2565.5	2552.9	2546.1	2553.9
5°	2750.5	2735.0	2689.5	2631.4	2570.3	2504.5	2458.0	2415.3	2384.4	2355.2	2366.8
7.5°	2828.1	2800.9	2722.4	2620.7	2512.2	2402.7	2321.3	2259.3	2217.7	2190.5	2196.4
10°	2918.2	2876.5	2756.3	2604.2	2436.6	2279.7	2183.8	2130.5	2104.3	2089.8	2093.7
12.5°	3021.8	2962.7	2791.2	2566.5	2321.3	2142.1	2076.2	2060.8	2061.7	2062.6	2064.6
15°	3149.7	3067.3	2819.4	2484.1	2171.2	2036.5	2024.9	2050.1	2076.2	2088.8	2087.8
17.5°	3294.0	3177.8	2824.2	2348.5	2023.9	1968.7	2005.5	2059.7	2099.5	2116.9	2120.8
20°	3449.0	3290.1	2789.3	2156.6	1902.8	1913.5	1979.4	2049.1	2092.6	2115.0	2120.8
22.5°	3626.3	3410.3	2706.0	1955.1	1804.0	1853.4	1930.9	1998.7	2044.3	2066.5	2072.3
25°	3828.9	3545.0	2575.2	1785.6	1718.7	1785.6	1863.0	1919.3	1956.1	1976.4	1982.2
27.5°	4053.6	3685.5	2400.8	1650.9	1644.1	1715.8	1779.7	1823.4	1842.7	1858.2	1864.1
30°	4279.4	3813.3	2189.6	1549.2	1579.2	1647.1	1692.6	1712.0	1717.8	1720.7	1727.4
32.5°	4523.5	3923.8	1967.7	1464.9	1517.2	1580.1	1607.3	1616.0	1588.9	1570.5	1576.3
35°	4819.0	4042.0	1750.7	1398.0	1456.1	1510.4	1519.2	1511.4	1479.4	1441.7	1443.6
37.5°	5184.2	4189.3	1577.3	1350.5	1399.0	1434.9	1424.2	1422.3	1425.2	1380.6	1383.5
40°	5631.9	4381.1	1450.4	1313.7	1352.5	1360.3	1330.2	1346.6	1361.2	1293.4	1295.3
42.5°	6128.9	4612.6	1369.9	1288.5	1313.7	1295.3	1248.9	1267.2	1265.3	1176.2	1175.2
45°	6635.5	4864.5	1341.8	1270.2	1277.9	1241.1	1189.7	1194.5	1153.8	1073.5	1076.4
47.5°	7139.3	5134.8	1359.3	1254.6	1233.3	1191.7	1152.0	1130.7	1070.6	1010.5	1010.5
50°	7633.5	5418.7	1423.2	1223.6	1172.3	1148.1	1119.0	1081.3	1017.3	966.0	962.1
52.5°	8091.8	5704.5	1495.0	1172.3	1095.7	1110.3	1091.8	1048.3	985.3	933.0	934.0
55°	8525.7	5990.3	1523.0	1101.6	1024.1	1077.4	1066.7	986.3	910.7	868.1	864.2
57.5°	8998.6	6334.3	1492.0	1011.5	966.0	1039.6	998.9	909.7	866.1	834.1	831.3
60°	9653.4	6873.9	1425.2	900.1	910.7	983.4	913.6	876.8	829.3	793.5	791.5
62.5°	10741.5	7880.5	1317.6	789.6	845.8	900.1	872.9	836.1	787.7	752.8	752.8
65°	12349.8	9279.5	1115.1	703.4	773.2	818.7	829.3	792.5	742.1	705.3	707.2
67.5°	13706.2	10157.3	843.9	631.7	698.5	752.8	782.8	747.0	693.7	657.8	658.8
70°	13631.6	9519.8	644.3	561.0	632.6	687.9	726.6	698.5	641.3	607.4	610.4
72.5°	12107.6	7963.8	521.2	489.2	565.8	620.0	666.6	645.2	587.1	554.2	554.2
75°	8894.9	5653.2	416.6	416.6	482.5	549.3	600.6	587.1	533.8	510.6	503.8
77.5°	3749.4	2371.7	326.5	345.8	401.1	471.8	535.8	540.6	494.2	523.2	474.8
80°	996.9	653.9	249.0	272.2	314.9	389.5	466.0	464.1	413.7	386.5	359.5
82.5°	379.8	257.7	177.3	191.9	227.7	298.4	369.1	380.8	330.4	285.8	285.8
85°	146.3	110.5	109.5	115.3	132.7	197.6	279.0	288.7	249.0	211.3	218.0
87.5°	37.8	32.9	40.7	38.7	61.0	105.6	159.9	165.6	152.1	88.1	126.0
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)