

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: P965653

Luminaire Tested: **NAV-SB4A-740-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965653
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-740-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16506.6 lumens
Efficiency: N/A
Efficacy: 144.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

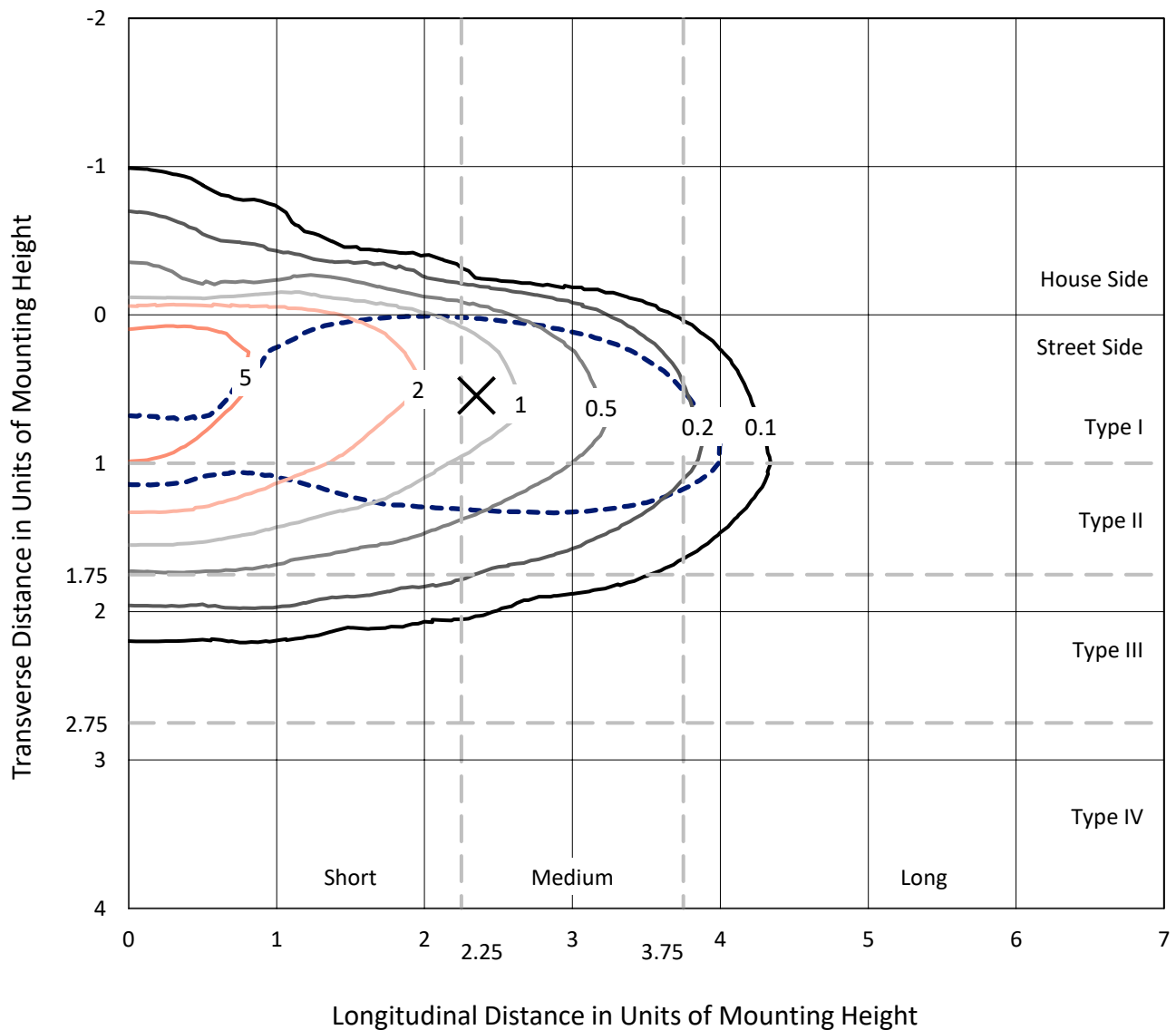
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

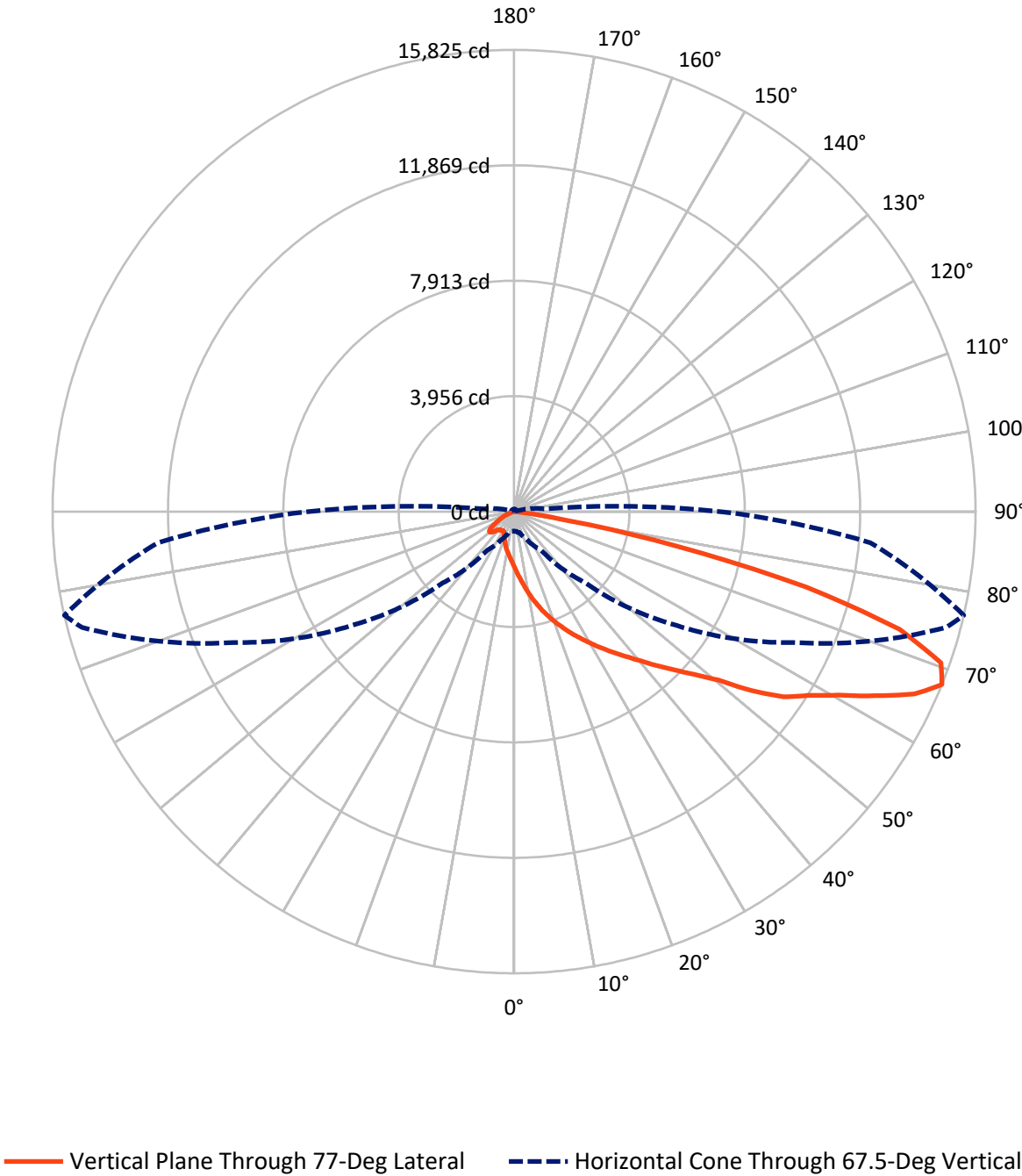
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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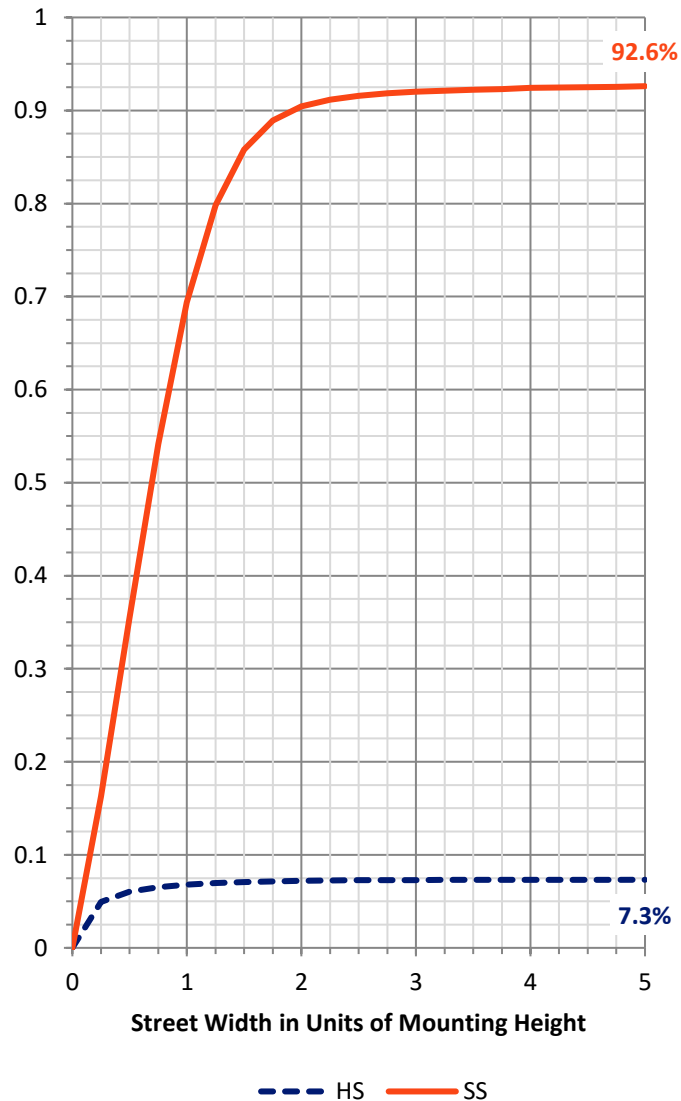
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1214.4	0.0	1214.4
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	15292.2	0.0	15292.2
	% Fixture	92.6	0.0	92.6
Total	Lumens	16506.6	0.0	16506.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.3	1.2
10°-20°	680.3	4.1
20°-30°	1312.9	8.0
30°-40°	2279.2	13.8
40°-50°	3309.3	20.0
50°-60°	3800.3	23.0
60°-70°	3299.4	20.0
70°-80°	1554.0	9.4
80°-90°	76.8	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°	16506.6	100.0
0°-180°	16506.6	100.0

Coefficient of Utilization



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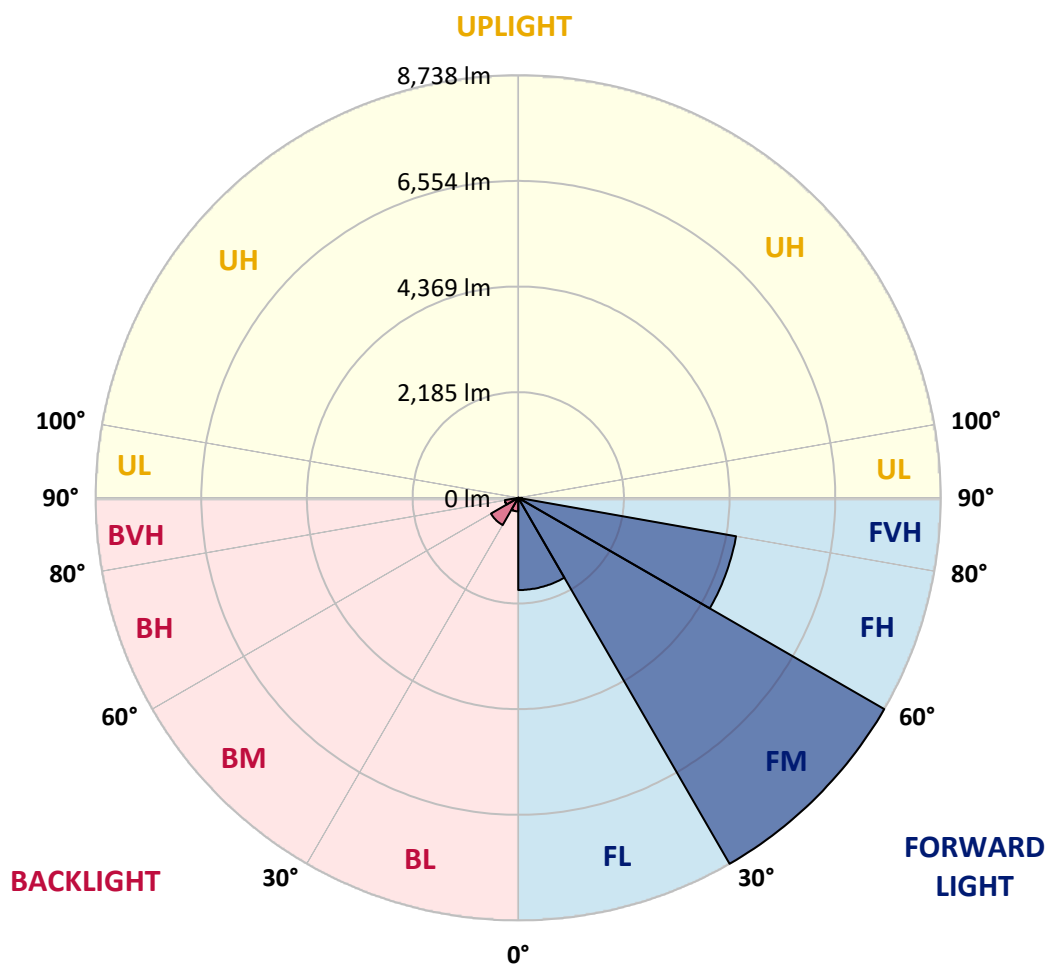
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1906.3	11.5			
FM	(30°-60°)	8738.2	52.9			
FH	(60°-80°)	4572.3	27.7			G2/5000
FVH	(80°-90°)	75.4	0.5			G1/100
BL	(0°-30°)	281.1	1.7	B1/500		
BM	(30°-60°)	650.7	3.9	B1/1000		
BH	(60°-80°)	281.1	1.7	B1/500		G1/500
BVH	(80°-90°)	1.4	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-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4
2.5°	2635.3	2651.7	2628.1	2583.0	2515.4	2471.3	2363.6	2262.2	2149.4	2113.5	2000.8
5°	3212.4	3226.7	3200.0	3150.8	3060.6	2974.5	2833.1	2620.9	2400.5	2329.8	2130.0
7.5°	3639.9	3648.1	3637.8	3592.7	3506.6	3409.3	3251.3	3000.2	2673.2	2595.3	2288.8
10°	3947.4	3974.0	3971.0	3953.5	3896.1	3817.2	3649.1	3363.0	2978.6	2878.2	2468.2
12.5°	4151.4	4181.1	4198.5	4237.5	4234.4	4184.2	4036.6	3734.2	3283.1	3165.2	2670.1
15°	4210.8	4242.6	4309.2	4399.4	4479.4	4505.0	4401.5	4098.1	3618.4	3467.7	2877.2
17.5°	4177.0	4226.2	4306.1	4448.6	4623.9	4739.7	4728.4	4449.6	3922.8	3750.6	3080.1
20°	4251.8	4299.0	4361.5	4481.4	4685.4	4895.5	4979.6	4785.8	4225.2	4044.8	3293.3
22.5°	4665.9	4657.7	4663.9	4683.3	4805.3	5013.4	5186.6	5091.3	4524.5	4340.0	3518.9
25°	5321.9	5285.0	5222.5	5116.9	5086.2	5186.6	5367.0	5361.9	4840.2	4642.3	3749.6
27.5°	6074.3	6068.1	5921.5	5667.3	5523.8	5484.9	5571.0	5625.3	5152.8	4941.6	3981.2
30°	6794.8	6811.2	6613.4	6330.5	6067.1	5914.4	5836.5	5875.4	5470.5	5264.5	4220.0
32.5°	7422.1	7439.6	7224.3	6893.2	6567.3	6382.8	6218.8	6122.4	5817.0	5592.5	4482.4
35°	7952.1	7969.5	7722.5	7356.5	7009.1	6842.0	6656.5	6393.0	6165.5	5956.4	4774.6
37.5°	8425.6	8420.5	8089.4	7720.4	7379.1	7246.9	7149.5	6726.2	6524.2	6322.3	5098.5
40°	8705.4	8727.0	8444.1	8037.1	7706.1	7609.7	7603.6	7139.2	6938.3	6742.6	5453.1
42.5°	8787.4	8825.4	8620.4	8286.2	7985.9	7881.3	8042.3	7586.1	7420.1	7229.4	5853.9
45°	8639.8	8676.7	8583.5	8351.8	8176.5	8108.9	8419.5	8049.4	7934.6	7746.0	6305.9
47.5°	8209.3	8255.5	8278.0	8228.8	8226.8	8295.4	8757.7	8537.3	8545.5	8352.8	6829.7
50°	7376.0	7453.9	7661.0	7835.2	8104.8	8443.0	9086.7	9066.2	9234.3	9068.3	7512.3
52.5°	5861.1	5971.8	6685.2	7161.8	7767.6	8415.4	9448.6	9914.9	10442.9	10199.9	8474.8
55°	4710.0	4710.0	5290.1	6181.9	7109.5	8232.9	9606.4	10466.5	11266.0	11208.6	9152.3
57.5°	3839.8	3885.9	4255.9	5044.1	6157.3	7798.3	9703.8	10812.9	11929.2	11887.1	9814.5
60°	2369.8	2469.2	3168.3	3946.4	5073.9	7024.4	9642.3	11163.5	12733.8	12767.6	10612.0
62.5°	1334.6	1371.4	1683.0	2839.2	3945.3	5984.1	9171.8	11359.3	13762.9	13906.4	11434.1
65°	921.5	939.9	1059.8	1767.1	2734.7	4764.3	8252.4	11237.3	14794.0	15084.1	12131.1
67.5°	669.3	678.6	753.4	1079.3	1622.6	3454.4	6811.2	10622.3	15340.4	15825.2	12264.3
70°	514.6	520.7	575.0	709.3	958.4	2132.0	4946.8	9399.4	14944.7	15523.8	11581.7
72.5°	418.2	424.4	466.4	524.8	635.5	1260.8	2998.1	7633.3	13198.1	13823.4	9859.6
75°	352.6	360.8	398.7	436.6	498.2	809.7	1406.3	5315.8	9925.2	10335.3	6856.3
77.5°	195.8	180.4	323.9	361.8	420.2	512.5	658.0	3128.3	5558.7	5672.5	3042.2
80°	122.0	126.1	257.3	291.1	322.9	258.3	301.3	1204.4	1927.0	1830.6	589.4
82.5°	7.2	16.4	197.8	210.1	221.4	110.7	113.8	409.0	464.3	426.4	104.6
85°	0.0	0.0	90.2	72.8	76.9	31.8	32.8	95.3	62.5	67.6	20.5
87.5°	0.0	0.0	0.0	2.0	0.0	3.1	6.1	8.2	3.1	4.1	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°	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4	1903.4
2.5°	1929.0	1857.3	1711.7	1569.3	1453.4	1345.8	1268.9	1196.2	1159.3	1157.2	1155.2
5°	1987.5	1836.8	1545.7	1288.4	1081.4	915.3	807.7	730.8	691.9	678.6	676.5
7.5°	2069.5	1843.0	1400.1	1042.4	798.5	656.0	594.5	569.9	561.7	552.5	550.4
10°	2173.0	1857.3	1270.0	839.5	629.3	557.6	533.0	522.8	516.6	510.4	508.4
12.5°	2288.8	1870.6	1140.8	697.0	553.5	516.6	499.2	486.9	478.7	471.5	469.4
15°	2401.6	1878.8	1006.6	597.6	514.6	484.8	466.4	453.0	441.8	433.6	432.6
17.5°	2513.3	1890.1	880.5	538.1	482.8	453.0	434.6	418.2	409.0	399.7	398.7
20°	2637.3	1888.0	761.6	496.1	451.0	421.3	401.8	386.4	377.2	367.0	365.9
22.5°	2752.1	1877.8	657.0	460.2	418.2	389.5	368.0	352.6	343.4	335.2	334.2
25°	2884.4	1869.6	569.9	427.4	387.4	358.7	335.2	320.8	310.6	303.4	302.4
27.5°	3011.4	1857.3	506.4	397.7	357.7	330.0	307.5	291.1	281.9	276.8	276.8
30°	3136.5	1854.2	482.8	369.0	331.1	303.4	280.8	265.5	258.3	256.2	255.2
32.5°	3287.2	1862.4	493.0	358.7	306.5	278.8	257.3	246.0	238.8	238.8	238.8
35°	3448.2	1860.4	508.4	368.0	290.1	254.2	237.8	230.6	223.4	223.4	223.4
37.5°	3650.1	1863.4	520.7	383.3	283.9	233.7	224.5	215.2	211.2	211.2	211.2
40°	3951.5	1964.9	514.6	396.7	281.9	219.4	200.9	197.8	194.7	194.7	194.7
42.5°	4320.5	2185.3	522.8	397.7	280.8	209.1	184.5	190.6	183.5	182.4	181.4
45°	4724.3	2426.2	575.0	376.2	279.8	204.0	176.3	183.5	172.2	172.2	172.2
47.5°	5125.1	2665.0	628.3	345.4	276.8	203.0	169.1	165.0	162.0	163.0	163.0
50°	5677.6	2859.7	648.8	303.4	269.6	200.9	155.8	156.8	154.8	156.8	156.8
52.5°	6279.3	2900.7	624.2	256.2	249.1	194.7	146.6	150.7	149.6	151.7	151.7
55°	6654.4	2856.7	515.6	213.2	217.3	170.1	137.4	145.5	145.5	145.5	145.5
57.5°	7041.9	2669.1	365.9	173.2	180.4	139.4	129.1	140.4	139.4	138.4	138.4
60°	7320.7	2365.7	240.9	142.5	143.5	114.8	119.9	132.2	131.2	126.1	126.1
62.5°	7528.7	2030.5	154.8	121.0	109.7	103.5	109.7	119.9	115.8	104.6	102.5
65°	7505.2	1566.2	118.9	103.5	90.2	90.2	95.3	104.6	92.2	73.8	71.8
67.5°	7067.5	1059.8	98.4	87.1	75.8	74.8	78.9	87.1	78.9	62.5	60.5
70°	6285.4	692.9	78.9	67.6	60.5	55.4	63.6	74.8	66.6	50.2	48.2
72.5°	5101.5	422.3	59.4	49.2	44.1	35.9	50.2	61.5	53.3	36.9	34.8
75°	3300.5	215.2	41.0	31.8	23.6	21.5	36.9	46.1	36.9	22.5	19.5
77.5°	1262.8	90.2	22.5	14.3	12.3	10.2	20.5	27.7	15.4	5.1	4.1
80°	242.9	37.9	11.3	7.2	6.1	4.1	3.1	2.0	0.0	0.0	0.0
82.5°	42.0	12.3	4.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	14.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	0.0	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)