

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: P964227

Luminaire Tested: **NAV-SB3B-835-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964227
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-SB3B-835-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3500K, 450mA 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: 13599.7 lumens
Efficiency: N/A
Efficacy: 124.5 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): 109.2
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

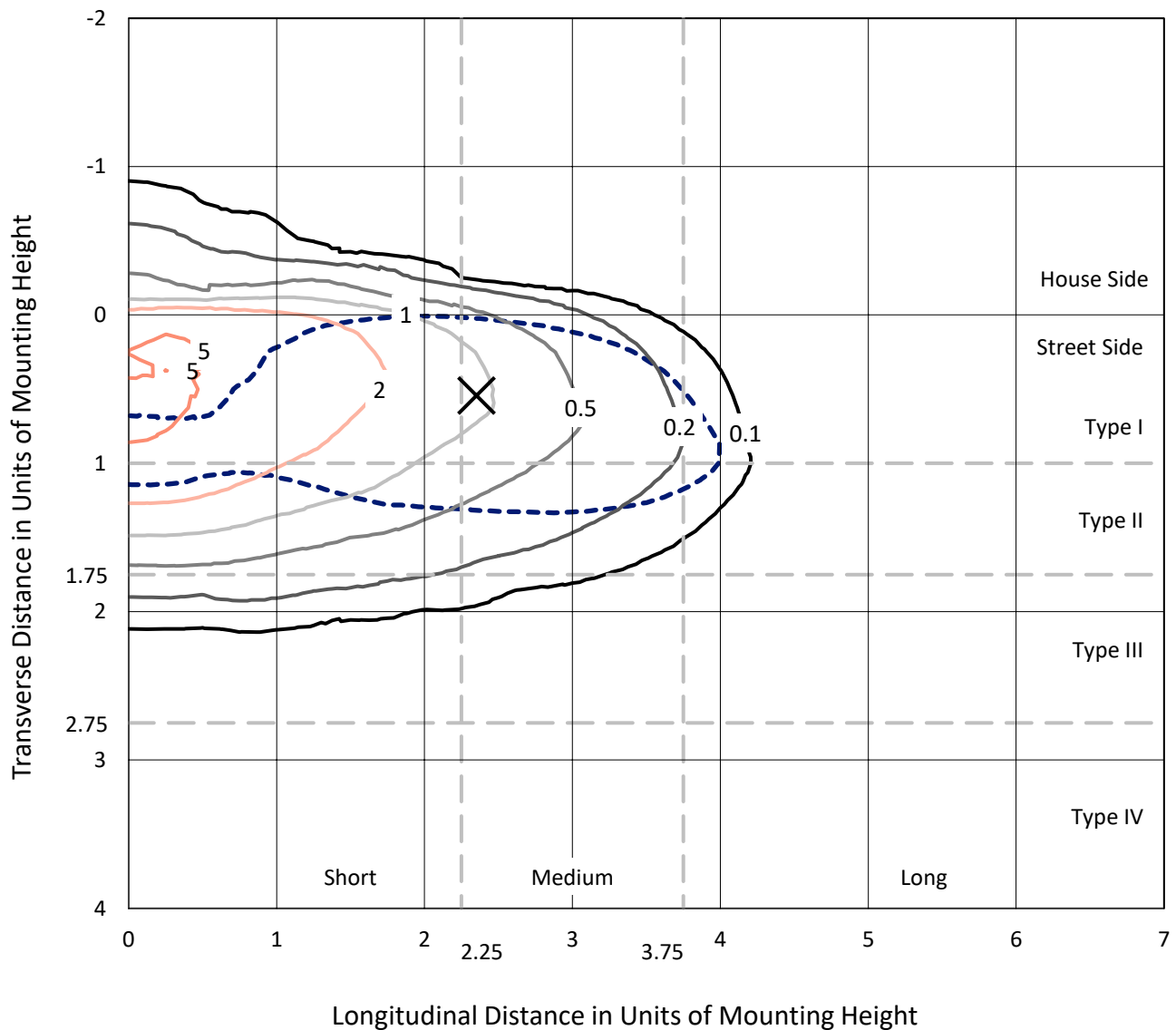


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Iso-Footcandle Lines of Horizontal Illumination

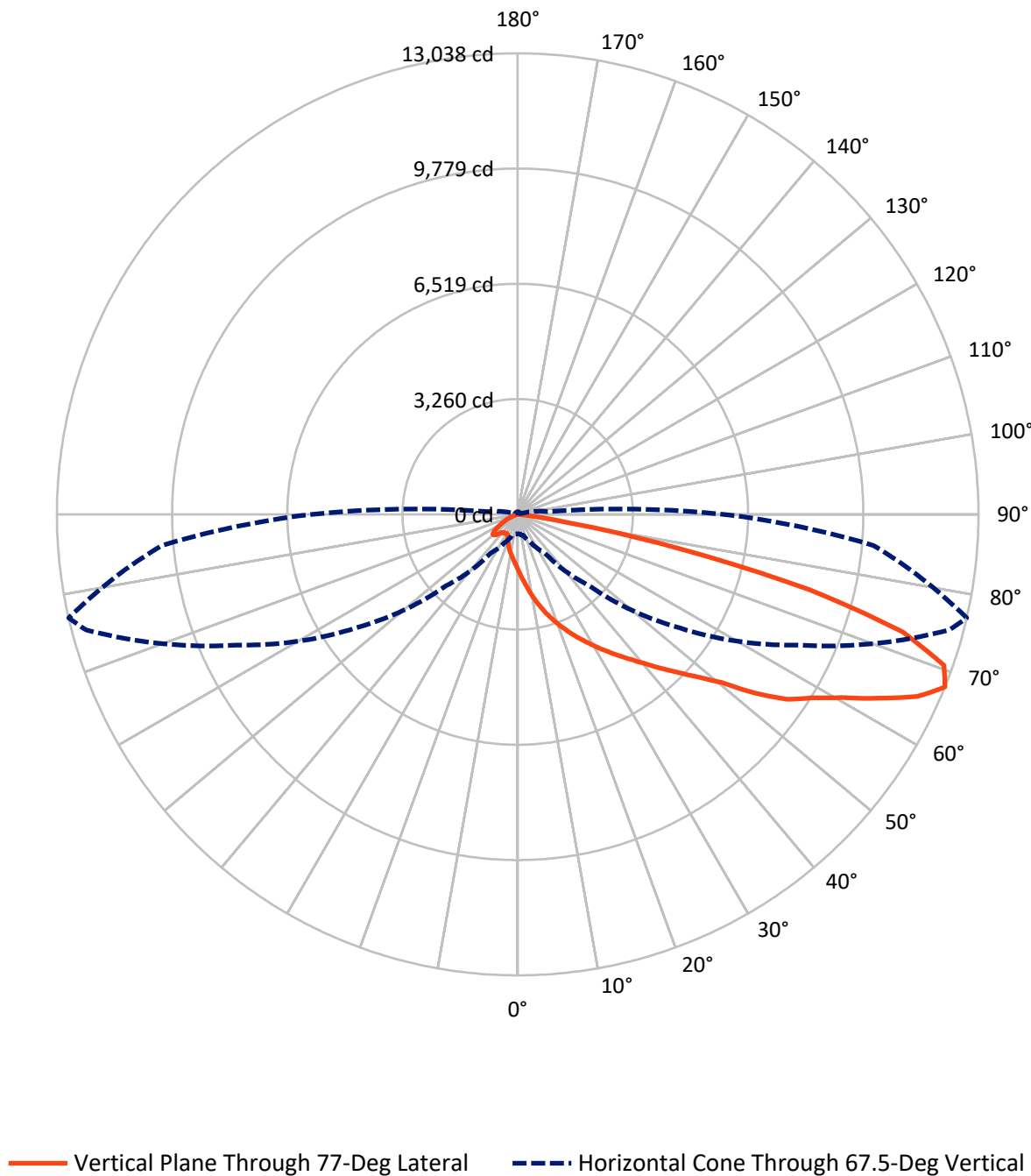
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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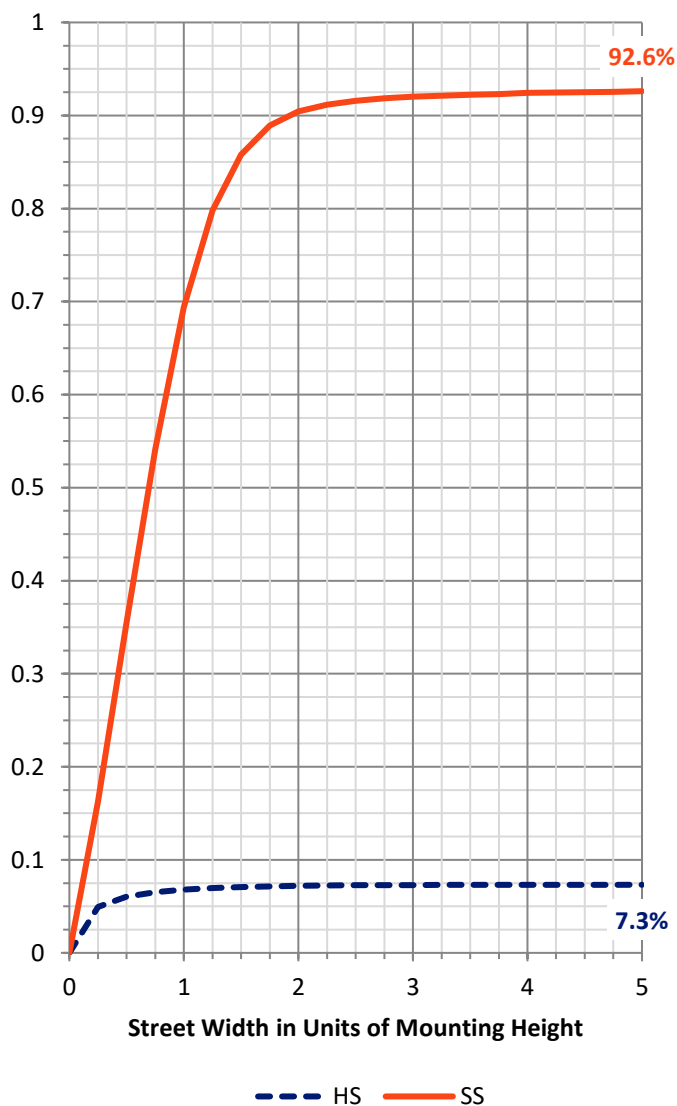
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1000.5	0.0	1000.5
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	12599.2	0.0	12599.2
	% Fixture	92.6	0.0	92.6
Total	Lumens	13599.7	0.0	13599.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.1	1.2
10°-20°	560.5	4.1
20°-30°	1081.7	8.0
30°-40°	1877.8	13.8
40°-50°	2726.5	20.0
50°-60°	3131.1	23.0
60°-70°	2718.3	20.0
70°-80°	1280.4	9.4
80°-90°	63.3	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°	13599.7	100.0
0°-180°	13599.7	100.0

Coefficient of Utilization



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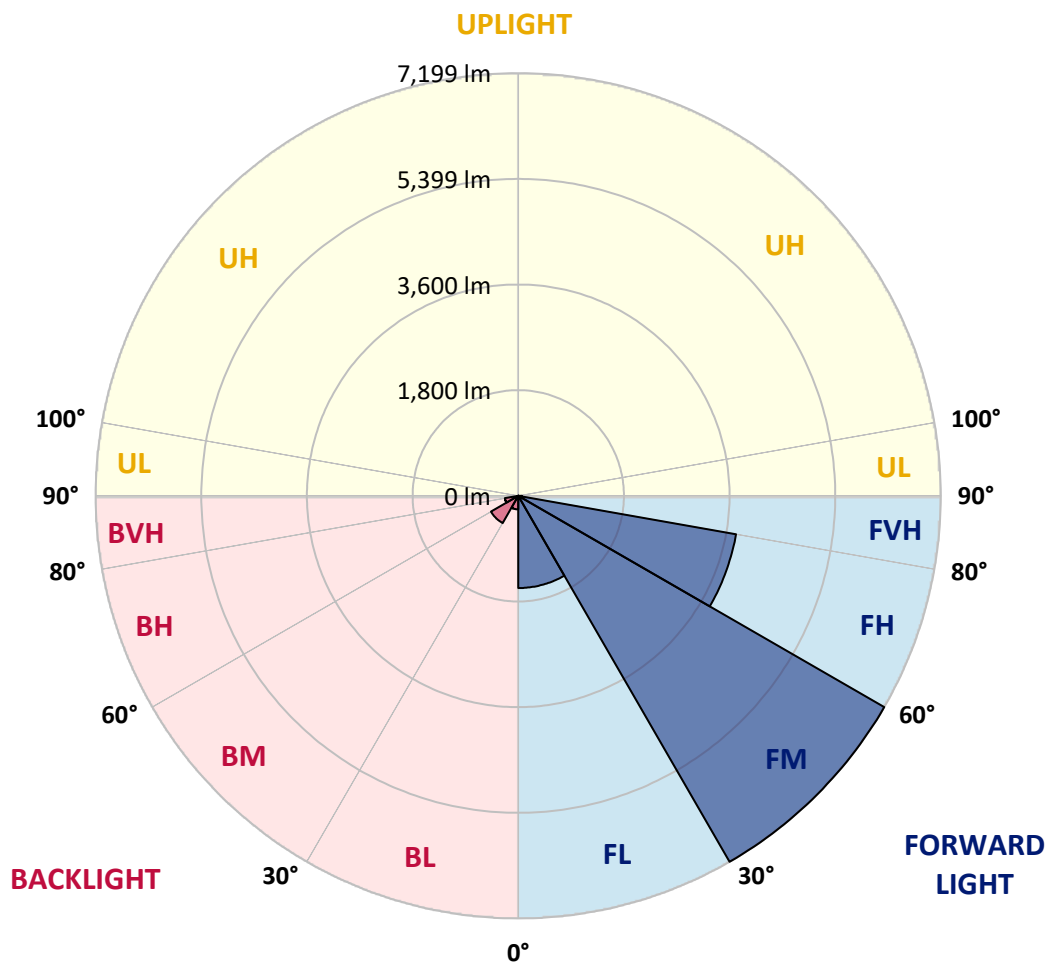
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1570.6	11.5			
FM	(30°-60°)	7199.3	52.9			
FH	(60°-80°)	3767.1	27.7			G2/5000
FVH	(80°-90°)	62.2	0.5			G1/100
BL	(0°-30°)	231.6	1.7	B1/500		
BM	(30°-60°)	536.1	3.9	B1/1000		
BH	(60°-80°)	231.6	1.7	B1/500		G1/500
BVH	(80°-90°)	1.2	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°	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2
2.5°	2171.3	2184.7	2165.3	2128.1	2072.4	2036.1	1947.4	1863.9	1770.9	1741.4	1648.5
5°	2646.7	2658.5	2636.5	2596.0	2521.7	2450.8	2334.2	2159.4	1977.8	1919.5	1754.9
7.5°	2998.8	3005.6	2997.1	2960.0	2889.1	2808.8	2678.7	2471.9	2202.4	2138.3	1885.8
10°	3252.2	3274.2	3271.6	3257.2	3210.0	3144.9	3006.4	2770.8	2454.2	2371.3	2033.6
12.5°	3420.2	3444.7	3459.1	3491.2	3488.7	3447.3	3325.6	3076.5	2705.0	2607.8	2200.0
15°	3469.2	3495.5	3550.3	3624.6	3690.5	3711.6	3626.3	3376.4	2981.1	2857.0	2370.5
17.5°	3441.3	3481.9	3547.7	3665.2	3809.5	3904.9	3895.7	3666.0	3231.9	3090.1	2537.7
20°	3503.0	3541.9	3593.3	3692.2	3860.3	4033.4	4102.6	3943.0	3481.0	3332.4	2713.4
22.5°	3844.2	3837.4	3842.5	3858.5	3959.1	4130.4	4273.2	4194.6	3727.6	3575.6	2899.2
25°	4384.6	4354.3	4302.7	4215.7	4190.4	4273.2	4421.8	4417.6	3987.8	3824.8	3089.2
27.5°	5004.6	4999.4	4878.7	4669.3	4551.0	4518.9	4589.8	4634.6	4245.3	4071.4	3280.1
30°	5598.2	5611.8	5448.7	5215.7	4998.6	4872.7	4808.6	4840.7	4507.1	4337.4	3476.8
32.5°	6115.0	6129.4	5952.1	5679.3	5410.8	5258.8	5123.6	5044.2	4792.6	4607.6	3693.0
35°	6551.7	6566.0	6362.5	6061.0	5774.7	5637.1	5484.3	5267.2	5079.7	4907.4	3933.7
37.5°	6941.8	6937.6	6664.9	6360.8	6079.6	5970.6	5890.5	5541.7	5375.3	5208.9	4200.6
40°	7172.3	7190.1	6957.0	6621.8	6349.0	6269.6	6264.5	5882.0	5716.4	5555.2	4492.8
42.5°	7240.0	7271.1	7102.3	6827.0	6579.6	6493.4	6626.0	6250.1	6113.4	5956.3	4822.9
45°	7118.3	7148.8	7071.9	6881.0	6736.6	6680.8	6936.8	6631.9	6537.3	6382.0	5195.4
47.5°	6763.7	6801.6	6820.2	6779.7	6778.0	6834.6	7215.5	7033.9	7040.6	6881.8	5626.9
50°	6077.0	6141.3	6311.8	6455.3	6677.5	6956.2	7486.5	7469.7	7608.2	7471.3	6189.4
52.5°	4828.9	4920.1	5507.8	5900.5	6399.7	6933.4	7784.7	8168.9	8603.8	8403.7	6982.4
55°	3880.5	3880.5	4358.5	5093.2	5857.5	6783.0	7914.7	8623.2	9282.0	9234.6	7540.6
57.5°	3163.6	3201.5	3506.4	4155.8	5072.9	6425.0	7994.9	8908.7	9828.3	9793.8	8086.1
60°	1952.5	2034.4	2610.4	3251.3	4180.3	5787.4	7944.3	9197.5	10491.3	10519.2	8743.1
62.5°	1099.5	1130.0	1386.7	2339.3	3250.5	4930.2	7556.6	9358.8	11339.2	11457.3	9420.5
65°	759.2	774.4	873.2	1455.9	2253.2	3925.2	6799.1	9258.3	12188.8	12427.7	9994.7
67.5°	551.4	559.0	620.7	889.3	1336.8	2846.0	5611.8	8751.6	12638.9	13038.3	10104.4
70°	423.9	429.0	473.8	584.4	789.7	1756.5	4075.6	7744.1	12312.9	12790.1	9542.0
72.5°	344.6	349.6	384.3	432.3	523.6	1038.7	2470.1	6289.0	10873.8	11389.0	8123.3
75°	290.5	297.2	328.5	359.8	410.4	667.2	1158.7	4379.6	8177.3	8515.2	5648.9
77.5°	161.3	148.6	266.9	298.1	346.2	422.3	542.1	2577.5	4579.7	4673.5	2506.5
80°	100.4	103.8	212.0	239.8	266.0	212.8	248.3	992.3	1587.6	1508.3	485.5
82.5°	5.9	13.5	163.0	173.1	182.4	91.2	93.8	336.9	382.5	351.3	86.1
85°	0.0	0.0	74.3	60.0	63.3	26.1	27.1	78.5	51.6	55.8	16.9
87.5°	0.0	0.0	0.0	1.6	0.0	2.6	5.0	6.8	2.6	3.4	5.9
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°	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2	1568.2
2.5°	1589.4	1530.2	1410.3	1292.9	1197.5	1108.8	1045.5	985.5	955.1	953.5	951.7
5°	1637.5	1513.3	1273.6	1061.6	890.9	754.1	665.4	602.1	570.0	559.0	557.4
7.5°	1705.1	1518.4	1153.6	858.8	657.8	540.5	489.8	469.6	462.8	455.2	453.5
10°	1790.4	1530.2	1046.3	691.7	518.5	459.4	439.1	430.7	425.6	420.6	418.9
12.5°	1885.8	1541.2	939.9	574.3	456.0	425.6	411.2	401.2	394.4	388.5	386.7
15°	1978.7	1548.0	829.3	492.3	423.9	399.4	384.3	373.3	364.0	357.2	356.4
17.5°	2070.7	1557.3	725.4	443.4	397.8	373.3	358.0	344.6	336.9	329.3	328.5
20°	2172.9	1555.5	627.5	408.8	371.6	347.1	331.1	318.4	310.8	302.4	301.5
22.5°	2267.5	1547.1	541.3	379.1	344.6	320.9	303.2	290.5	282.9	276.1	275.3
25°	2376.5	1540.4	469.6	352.2	319.2	295.6	276.1	264.3	255.8	250.0	249.2
27.5°	2481.1	1530.2	417.2	327.7	294.7	271.9	253.4	239.8	232.3	228.1	228.1
30°	2584.2	1527.7	397.8	304.0	272.8	250.0	231.4	218.7	212.8	211.2	210.3
32.5°	2708.4	1534.4	406.2	295.6	252.5	229.7	212.0	202.6	196.8	196.8	196.8
35°	2840.9	1532.8	418.9	303.2	239.0	209.4	195.9	190.0	184.1	184.1	184.1
37.5°	3007.2	1535.3	429.0	315.8	233.9	192.6	184.9	177.3	173.9	173.9	173.9
40°	3255.6	1618.9	423.9	326.9	232.3	180.7	165.5	163.0	160.4	160.4	160.4
42.5°	3559.6	1800.5	430.7	327.7	231.4	172.3	152.0	157.0	151.2	150.4	149.4
45°	3892.3	1999.0	473.8	310.0	230.5	168.1	145.2	151.2	141.9	141.9	141.9
47.5°	4222.5	2195.8	517.7	284.6	228.1	167.2	139.3	135.9	133.5	134.3	134.3
50°	4677.7	2356.2	534.5	250.0	222.1	165.5	128.3	129.3	127.5	129.3	129.3
52.5°	5173.5	2390.0	514.3	211.2	205.2	160.4	120.7	124.1	123.3	124.9	124.9
55°	5482.5	2353.6	424.8	175.7	179.1	140.2	113.2	119.9	119.9	119.9	119.9
57.5°	5801.7	2199.1	301.5	142.7	148.6	114.9	106.4	115.7	114.9	114.0	114.0
60°	6031.4	1949.1	198.4	117.4	118.2	94.6	98.8	109.0	108.1	103.8	103.8
62.5°	6202.9	1673.0	127.5	99.6	90.4	85.3	90.4	98.8	95.4	86.1	84.5
65°	6183.4	1290.4	98.0	85.3	74.3	74.3	78.5	86.1	76.1	60.8	59.1
67.5°	5822.8	873.2	81.1	71.8	62.5	61.6	65.0	71.8	65.0	51.6	49.8
70°	5178.5	570.9	65.0	55.8	49.8	45.6	52.4	61.6	54.9	41.4	39.7
72.5°	4203.1	347.9	49.0	40.5	36.3	29.5	41.4	50.6	43.9	30.4	28.7
75°	2719.3	177.3	33.8	26.1	19.4	17.7	30.4	38.0	30.4	18.6	16.1
77.5°	1040.5	74.3	18.6	11.8	10.1	8.4	16.9	22.8	12.7	4.2	3.4
80°	200.2	31.3	9.3	5.9	5.0	3.4	2.6	1.6	0.0	0.0	0.0
82.5°	34.6	10.1	3.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	11.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.2	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)