

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: P963655

Luminaire Tested: **NAV-SB3A-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963655
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12606.5 lumens
Efficiency: N/A
Efficacy: 148.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 84.7
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

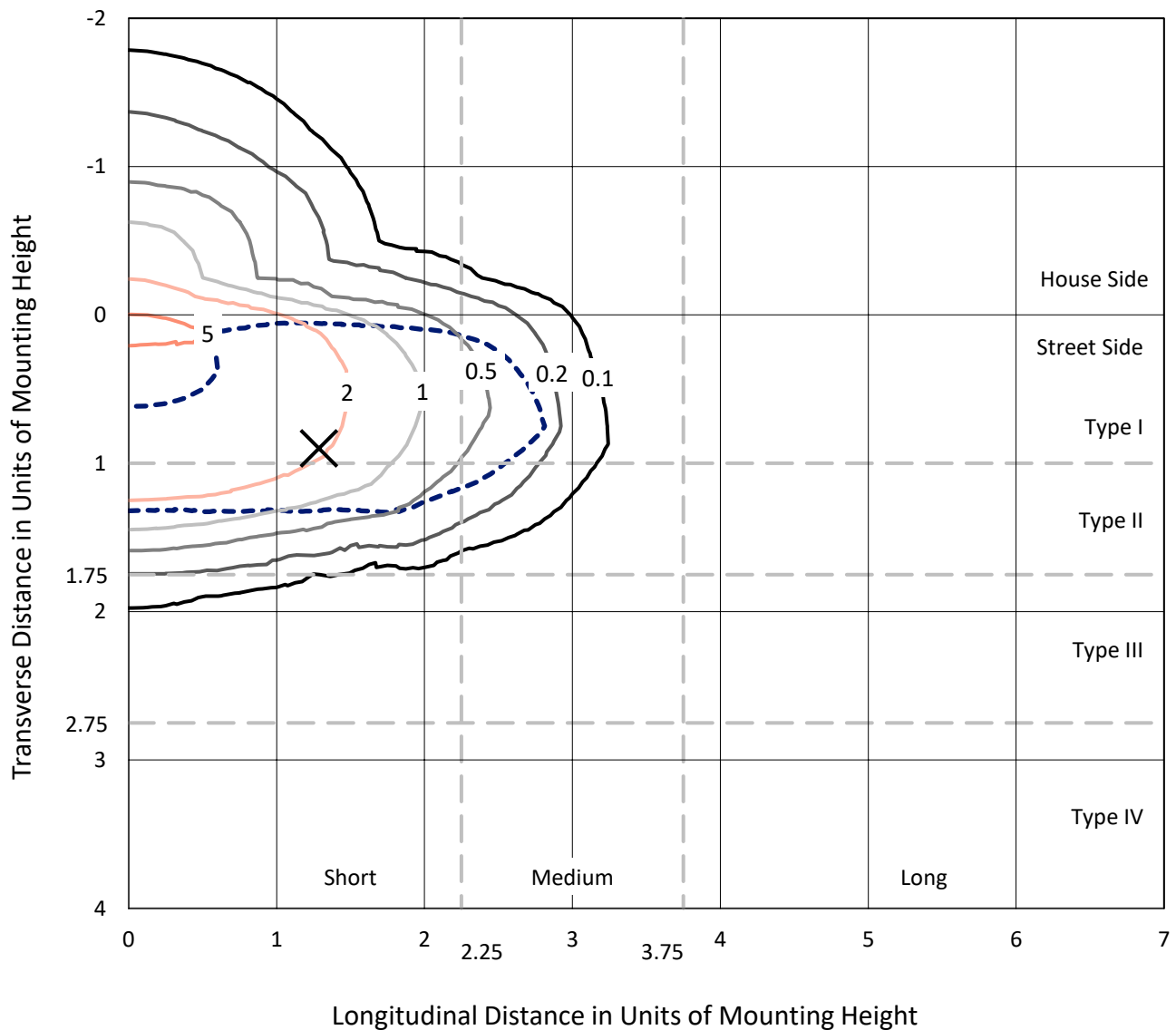


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Iso-Footcandle Lines of Horizontal Illumination

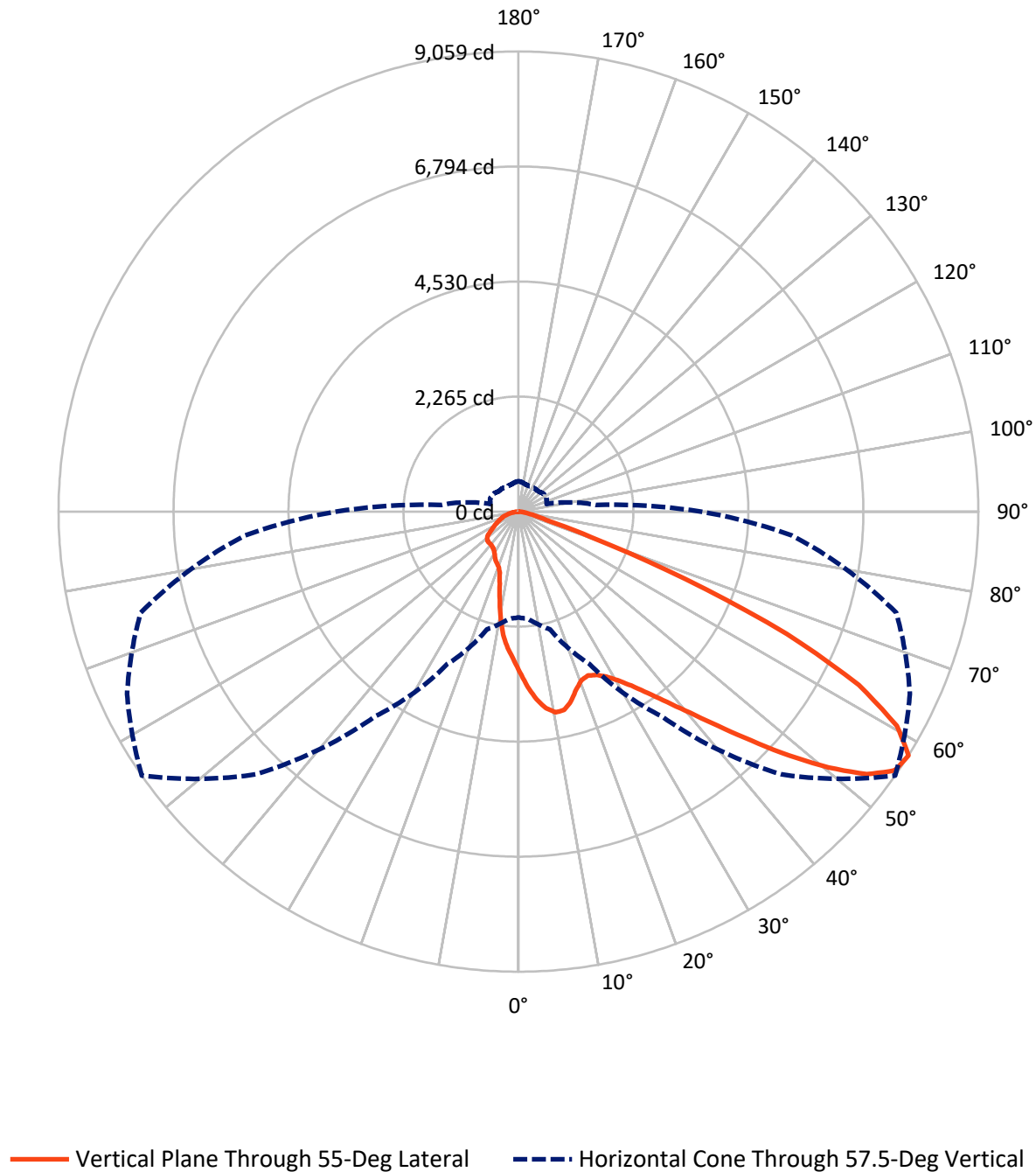
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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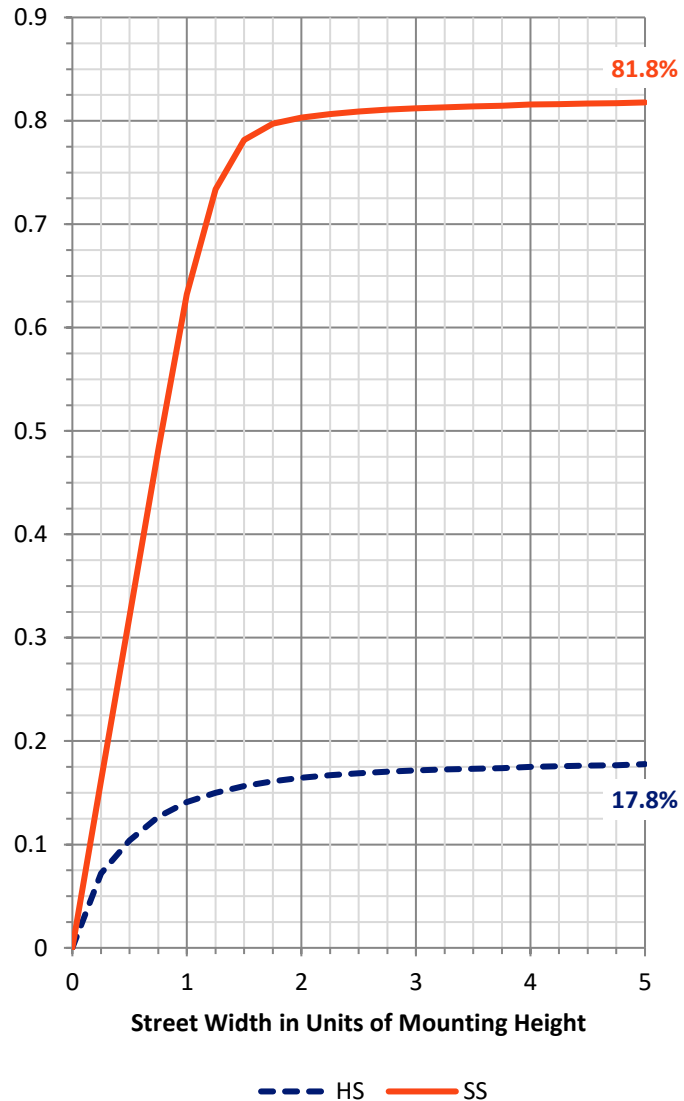
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2281.1	0.0	2281.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	10325.4	0.0	10325.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	12606.5	0.0	12606.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.1	2.3
10°-20°	739.8	5.9
20°-30°	1180.6	9.4
30°-40°	1869.1	14.8
40°-50°	2860.9	22.7
50°-60°	3064.3	24.3
60°-70°	1927.8	15.3
70°-80°	570.1	4.5
80°-90°	100.8	0.8
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°	12606.5	100.0
0°-180°	12606.5	100.0

Coefficient of Utilization



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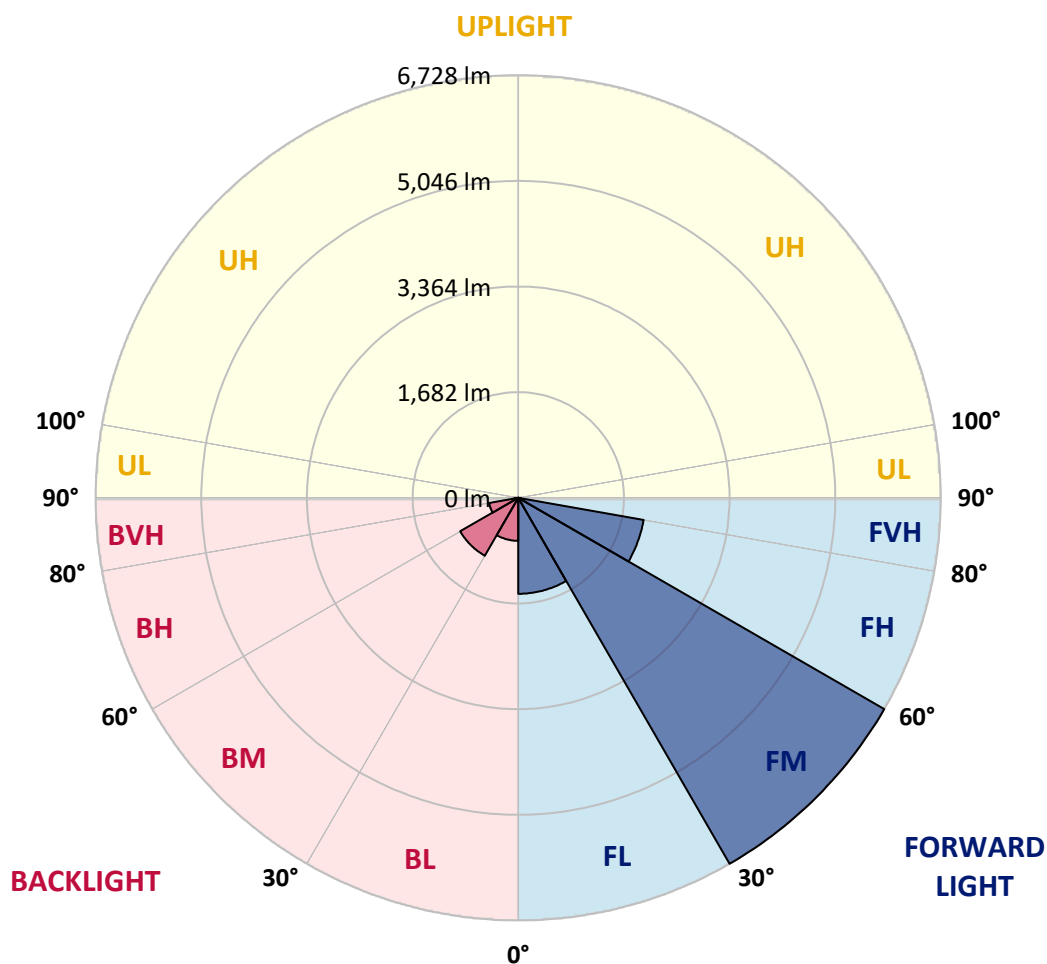
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1527.9	12.1			
FM	(30°-60°)	6728.2	53.4			
FH	(60°-80°)	2026.7	16.1			G2/5000
FVH	(80°-90°)	42.6	0.3			G1/100
BL	(0°-30°)	685.6	5.4	B2/1000		
BM	(30°-60°)	1066.2	8.5	B2/2500		
BH	(60°-80°)	471.1	3.7	B1/500		G1/500
BVH	(80°-90°)	58.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7
2.5°	3624.1	3621.4	3635.8	3587.0	3553.7	3508.8	3449.4	3373.8	3292.4	3206.3	3169.2
5°	3950.6	3927.8	3942.8	3906.3	3869.8	3802.0	3714.0	3590.9	3440.3	3268.9	3177.7
7.5°	3899.1	3883.4	3922.0	3954.4	3981.8	3973.4	3908.8	3779.8	3585.7	3336.7	3204.4
10°	3484.0	3466.3	3520.5	3633.2	3798.8	3942.8	4021.0	3940.8	3734.2	3411.0	3230.5
12.5°	3117.7	3109.2	3145.1	3236.3	3420.1	3696.5	4006.6	4081.6	3888.6	3498.9	3265.6
15°	2961.3	2950.9	2973.7	3020.0	3137.2	3394.7	3876.2	4178.0	4040.6	3600.6	3321.7
17.5°	2926.8	2915.0	2924.8	2948.9	3024.6	3220.7	3679.4	4225.6	4198.9	3714.0	3368.7
20°	2990.6	2980.9	2982.1	2980.9	3033.7	3189.4	3542.6	4207.3	4337.1	3818.3	3414.3
22.5°	3145.1	3128.8	3129.4	3094.9	3123.6	3244.1	3506.7	4158.4	4460.2	3909.6	3448.8
25°	3396.6	3367.3	3373.2	3285.2	3277.3	3366.7	3562.8	4120.7	4582.8	3982.5	3455.3
27.5°	3740.7	3707.5	3689.9	3558.9	3496.4	3540.7	3676.9	4133.7	4698.7	4045.8	3439.0
30°	4170.8	4130.4	4094.6	3908.8	3795.5	3779.2	3854.1	4219.7	4835.5	4112.2	3411.0
32.5°	4698.1	4651.1	4586.0	4339.6	4180.0	4094.6	4083.5	4372.9	4996.0	4197.0	3396.6
35°	5325.7	5264.4	5171.8	4853.2	4651.1	4476.5	4385.9	4593.8	5215.5	4324.7	3412.9
37.5°	5972.2	5903.1	5818.3	5439.1	5190.8	4933.3	4754.8	4893.6	5508.1	4498.0	3456.0
40°	6568.4	6490.9	6412.1	6074.5	5808.0	5497.7	5206.4	5272.9	5865.9	4705.3	3529.0
42.5°	6920.4	6863.0	6833.1	6650.6	6444.6	6129.8	5768.2	5722.6	6268.0	4943.8	3612.3
45°	6904.7	6881.2	6973.8	7049.4	7000.5	6825.9	6426.3	6219.8	6671.4	5150.3	3689.3
47.5°	6535.9	6551.5	6758.1	7183.0	7370.1	7461.3	7175.8	6707.9	7022.1	5304.8	3723.8
50°	5532.2	5545.2	6023.6	6940.0	7465.2	7979.4	7919.5	7184.3	7293.8	5399.3	3715.9
52.5°	4737.9	4746.3	4951.6	6219.2	7151.1	8240.1	8589.4	7633.3	7492.5	5425.3	3672.3
55°	3568.6	3598.1	3828.1	4879.2	6333.9	8033.4	8997.3	8096.1	7618.3	5428.0	3626.7
57.5°	2084.7	2116.7	2400.9	3311.9	4922.9	7313.4	9059.3	8506.6	7703.7	5407.1	3599.3
60°	1021.2	1034.9	1158.8	1740.7	3035.6	5925.8	8561.3	8705.3	7751.3	5396.0	3598.1
62.5°	688.2	686.2	691.5	859.0	1495.7	3807.3	7523.8	8357.3	7725.8	5353.7	3584.9
65°	591.7	584.6	565.0	602.8	774.9	1741.4	5813.1	7318.6	7532.3	5247.5	3495.7
67.5°	511.6	512.2	512.9	501.1	553.3	803.5	3552.4	5764.9	6837.6	4744.3	3151.6
70°	423.6	429.5	432.0	432.0	451.0	527.3	1516.5	3951.3	5393.4	3719.9	2538.3
72.5°	385.8	373.4	374.7	368.2	368.2	401.5	610.6	2239.8	3398.0	2092.6	1549.1
75°	314.8	322.6	323.9	319.3	304.3	306.3	362.3	939.7	1454.0	868.1	765.8
77.5°	271.7	271.7	274.4	271.1	259.3	229.4	241.8	364.3	494.7	355.8	382.5
80°	218.3	217.7	228.8	235.2	217.0	169.4	154.5	201.4	219.7	156.4	198.7
82.5°	106.2	112.7	157.0	179.2	164.9	122.5	94.5	125.2	117.3	69.1	89.3
85°	61.9	58.6	70.4	99.7	94.5	67.8	45.6	65.2	61.3	35.2	35.9
87.5°	19.6	18.2	14.3	33.9	27.4	18.9	12.4	18.9	16.9	7.8	7.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7	3158.7
2.5°	3123.0	3046.0	2969.7	2900.0	2857.7	2830.3	2803.0	2772.3	2760.6	2743.0
5°	3091.6	2943.1	2810.8	2696.7	2593.1	2511.7	2429.6	2363.0	2333.1	2353.3
7.5°	3073.4	2858.3	2654.3	2445.1	2243.8	2082.8	1942.7	1844.3	1800.0	1811.1
10°	3057.1	2762.6	2451.7	2121.2	1831.9	1632.5	1489.1	1414.2	1386.1	1392.1
12.5°	3042.1	2655.1	2207.3	1772.6	1465.0	1333.4	1292.3	1292.9	1298.2	1302.1
15°	3039.5	2525.3	1934.3	1467.6	1266.9	1258.4	1302.8	1330.8	1345.7	1350.3
17.5°	3035.6	2370.2	1656.0	1259.7	1218.6	1276.0	1317.1	1335.4	1347.1	1347.7
20°	3020.0	2173.4	1399.2	1160.7	1208.3	1257.8	1283.2	1297.5	1307.3	1310.6
22.5°	2971.8	1954.5	1199.1	1116.3	1166.6	1206.3	1236.3	1252.6	1258.4	1262.3
25°	2885.1	1709.4	1061.0	1074.0	1108.5	1158.8	1182.8	1186.1	1184.2	1190.0
27.5°	2771.7	1446.8	975.0	1016.7	1061.0	1103.9	1117.0	1115.1	1111.1	1117.7
30°	2634.8	1210.8	920.2	952.1	1012.7	1051.9	1063.5	1059.0	1051.1	1058.3
32.5°	2490.1	1017.9	875.2	907.1	973.0	1011.5	1023.2	1018.6	1012.7	1018.6
35°	2355.2	883.0	833.5	877.2	941.7	979.5	994.5	995.2	995.2	1002.3
37.5°	2231.4	804.2	799.0	858.3	920.2	954.1	975.6	976.9	948.8	950.8
40°	2116.7	771.0	783.3	845.9	899.3	931.9	933.3	860.3	808.7	807.5
42.5°	2022.8	764.4	787.9	844.6	884.4	885.7	793.8	737.1	722.7	723.3
45°	1934.9	762.5	798.4	844.6	862.2	765.1	703.2	688.2	689.5	694.7
47.5°	1836.5	754.7	800.3	832.9	798.4	680.4	662.2	655.6	653.0	654.3
50°	1729.0	726.6	775.5	809.4	688.8	643.9	621.0	619.1	622.4	624.3
52.5°	1615.6	681.0	733.2	767.0	638.7	611.9	586.5	591.1	605.5	610.0
55°	1541.3	627.6	677.1	682.3	603.5	582.0	560.5	570.9	597.6	606.1
57.5°	1521.7	570.9	613.3	607.4	558.5	555.9	542.8	552.0	585.9	598.3
60°	1515.9	520.1	550.7	546.1	514.9	527.3	524.0	528.5	540.3	544.2
62.5°	1470.3	479.6	494.7	488.1	475.7	497.2	505.0	495.3	504.4	509.0
65°	1354.2	447.1	439.9	435.3	440.5	460.1	475.7	456.2	464.6	477.6
67.5°	1162.7	402.7	383.2	388.4	404.7	415.1	435.3	413.2	420.4	442.5
70°	940.4	346.7	329.1	344.1	359.8	381.2	384.5	369.5	386.4	411.2
72.5°	665.4	290.0	277.7	308.2	313.4	341.5	334.4	327.2	350.7	359.1
75°	461.4	234.0	226.8	250.2	269.2	293.3	288.0	296.5	346.0	349.9
77.5°	291.9	181.8	177.2	192.3	218.3	245.1	253.5	349.9	591.1	614.6
80°	169.4	135.5	130.4	142.1	164.9	189.6	244.4	429.5	389.7	385.2
82.5°	94.5	93.2	86.7	89.9	110.2	136.8	345.4	302.4	245.7	253.5
85°	44.3	54.7	46.9	45.0	61.9	160.3	230.7	172.7	114.7	112.1
87.5°	11.7	10.5	10.5	11.7	26.0	138.2	91.8	73.6	43.7	42.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)