

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: P961020

Luminaire Tested: **NAV-SB1D-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961020
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-SB1D-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9534.5 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

Input Watts (W): 79.6
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



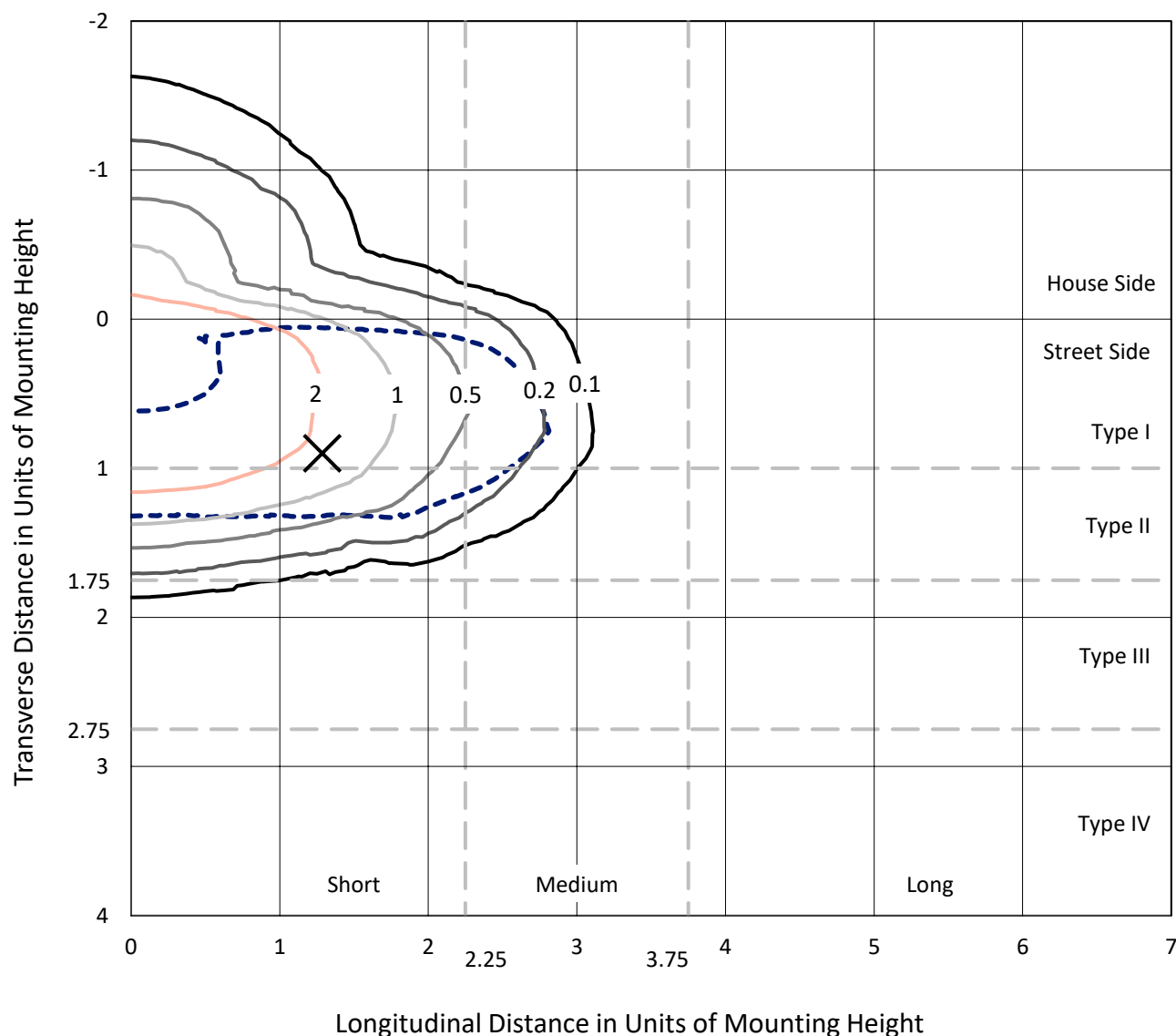
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

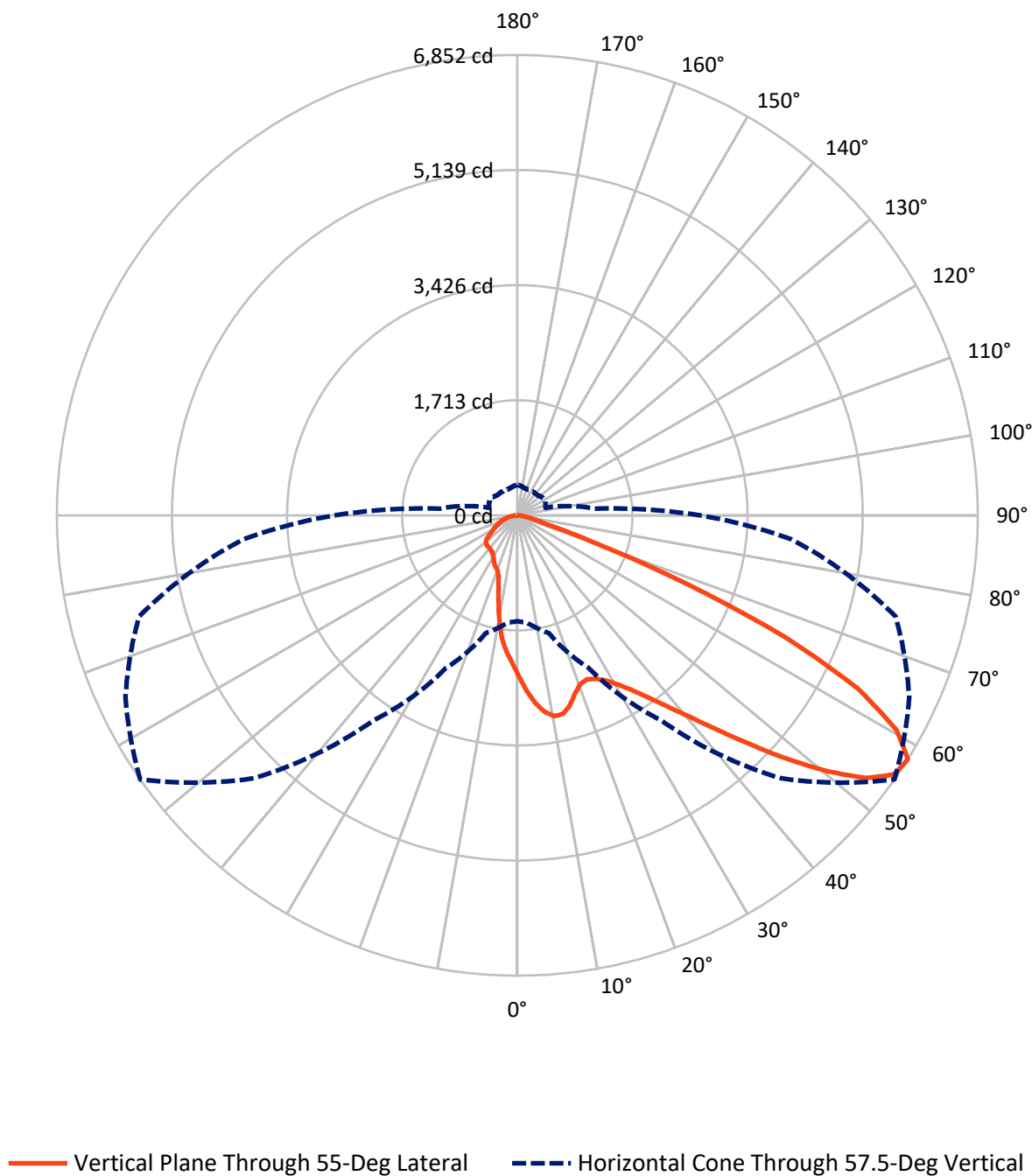


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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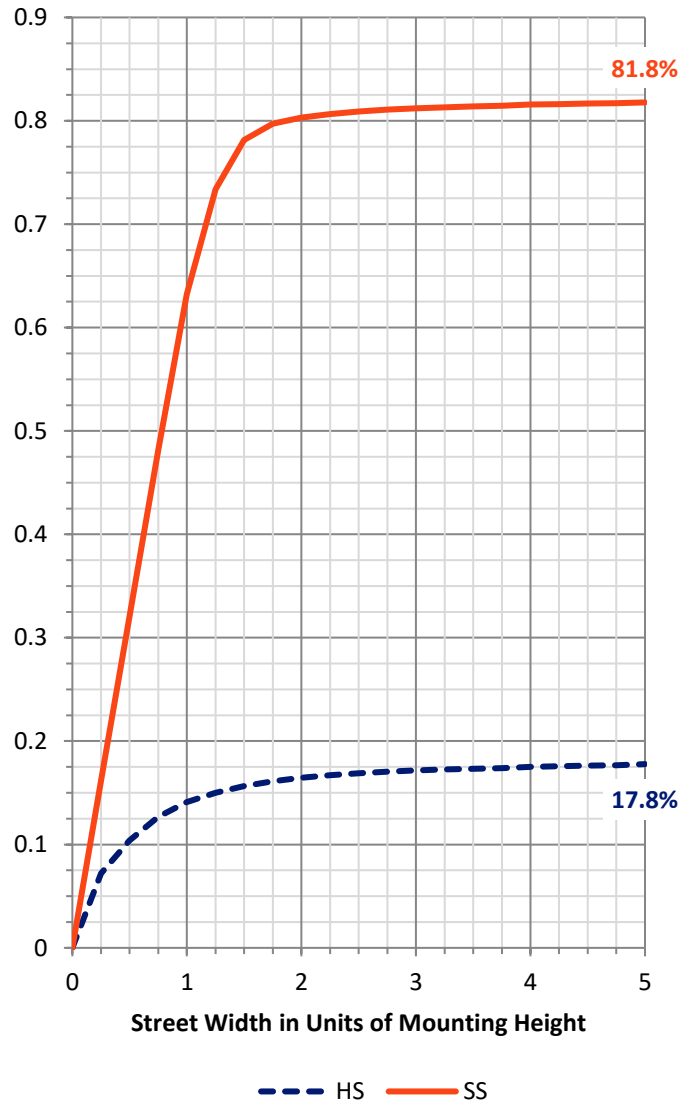
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1725.2	0.0	1725.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	7809.3	0.0	7809.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	9534.5	0.0	9534.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	2.3
10°-20°	559.6	5.9
20°-30°	892.9	9.4
30°-40°	1413.7	14.8
40°-50°	2163.8	22.7
50°-60°	2317.6	24.3
60°-70°	1458.0	15.3
70°-80°	431.2	4.5
80°-90°	76.2	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°	9534.5	100.0
0°-180°	9534.5	100.0

Coefficient of Utilization



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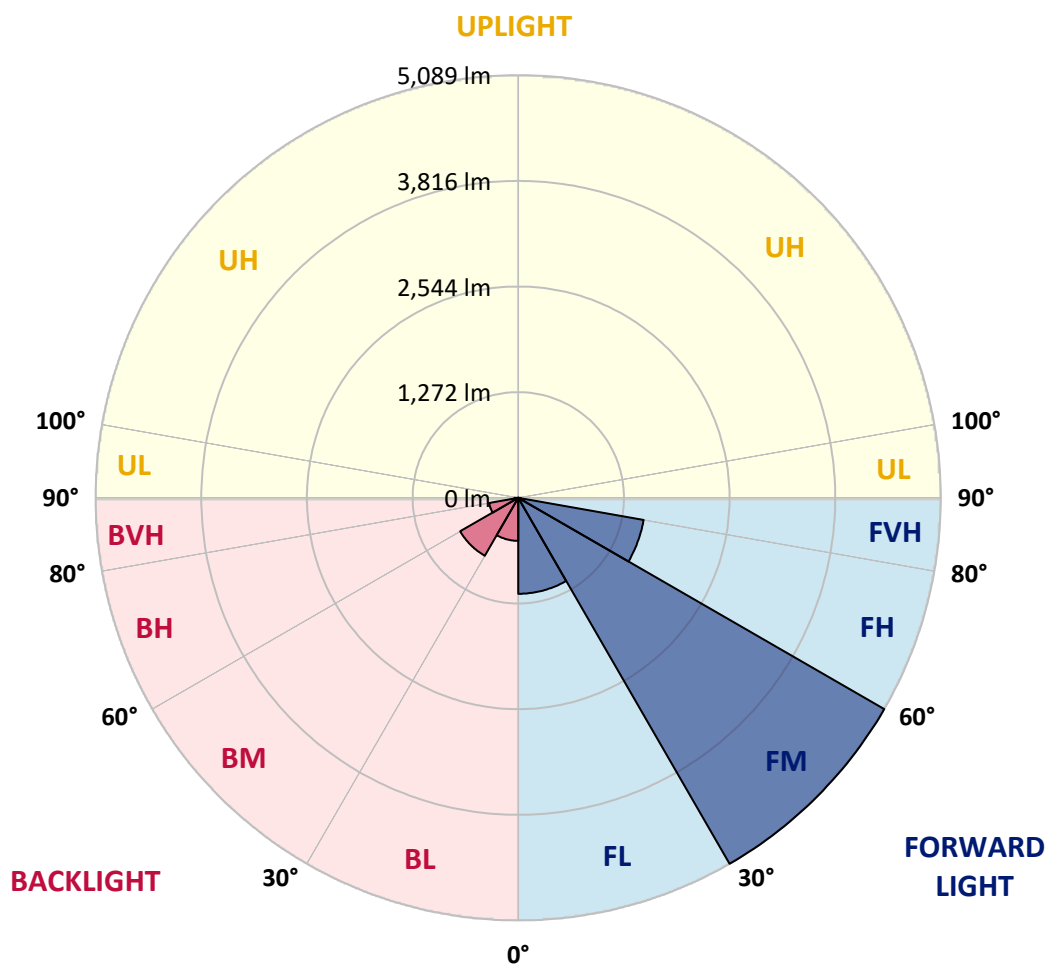
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1155.6	12.1			
FM	(30°-60°)	5088.7	53.4			
FH	(60°-80°)	1532.9	16.1			G1/1800
FVH	(80°-90°)	32.2	0.3			G1/100
BL	(0°-30°)	518.5	5.4	B2/1000		
BM	(30°-60°)	806.4	8.5	B1/1000		
BH	(60°-80°)	356.3	3.7	B1/500		G1/500
BVH	(80°-90°)	44.0	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-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1
2.5°	2741.0	2739.0	2749.9	2712.9	2687.8	2653.7	2608.8	2551.7	2490.1	2425.0	2397.0
5°	2987.9	2970.7	2982.0	2954.4	2926.8	2875.5	2809.0	2715.8	2602.0	2472.3	2403.3
7.5°	2948.9	2937.1	2966.2	2990.8	3011.6	3005.2	2956.4	2858.7	2711.8	2523.7	2423.5
10°	2635.0	2621.7	2662.6	2747.9	2873.1	2982.0	3041.2	2980.5	2824.3	2579.8	2443.3
12.5°	2358.0	2351.6	2378.7	2447.7	2586.7	2795.7	3030.3	3087.0	2941.1	2646.3	2469.8
15°	2239.7	2231.8	2249.1	2284.1	2372.8	2567.5	2931.7	3160.0	3055.9	2723.2	2512.3
17.5°	2213.6	2204.7	2212.1	2230.3	2287.5	2435.9	2782.9	3196.0	3175.7	2809.0	2547.7
20°	2261.9	2254.5	2255.5	2254.5	2294.5	2412.2	2679.4	3182.1	3280.2	2887.8	2582.3
22.5°	2378.7	2366.4	2366.8	2340.8	2362.4	2453.6	2652.3	3145.1	3373.4	2956.8	2608.4
25°	2569.0	2546.8	2551.2	2484.7	2478.8	2546.3	2694.6	3116.5	3466.0	3012.1	2613.3
27.5°	2829.2	2804.1	2790.8	2691.6	2644.4	2677.9	2780.9	3126.5	3553.8	3059.8	2601.0
30°	3154.5	3124.0	3096.8	2956.4	2870.6	2858.3	2915.0	3191.4	3657.3	3110.2	2579.8
32.5°	3553.3	3517.8	3468.5	3282.2	3161.4	3096.8	3088.4	3307.3	3778.6	3174.2	2569.0
35°	4027.9	3981.6	3911.6	3670.5	3517.8	3385.7	3317.2	3474.4	3944.6	3270.9	2581.3
37.5°	4516.9	4464.6	4400.5	4113.6	3925.9	3731.2	3596.1	3701.2	4165.9	3402.0	2613.9
40°	4967.9	4909.2	4849.6	4594.3	4392.6	4158.0	3937.7	3988.0	4436.5	3558.7	2669.0
42.5°	5234.1	5190.6	5167.9	5030.0	4874.2	4636.2	4362.6	4328.1	4740.6	3739.1	2732.1
45°	5222.2	5204.4	5274.4	5331.6	5294.6	5162.5	4860.4	4704.1	5045.8	3895.3	2790.3
47.5°	4943.3	4955.1	5111.3	5432.7	5574.2	5643.1	5427.3	5073.3	5310.9	4012.2	2816.4
50°	4184.2	4194.0	4555.8	5248.8	5646.1	6035.0	5989.6	5433.6	5516.4	4083.6	2810.4
52.5°	3583.3	3589.8	3745.0	4703.6	5408.5	6232.1	6496.3	5773.2	5666.8	4103.3	2777.4
55°	2699.0	2721.3	2895.2	3690.3	4790.4	6075.9	6804.9	6123.2	5761.9	4105.3	2742.9
57.5°	1576.8	1600.9	1815.8	2504.9	3723.3	5531.2	6851.7	6433.7	5826.5	4089.5	2722.2
60°	772.3	782.7	876.4	1316.5	2295.9	4481.9	6475.1	6584.1	5862.5	4081.1	2721.3
62.5°	520.5	519.1	523.0	649.6	1131.2	2879.4	5690.4	6320.9	5843.2	4049.2	2711.4
65°	447.5	442.1	427.3	455.9	586.1	1317.0	4396.6	5535.2	5696.8	3968.8	2643.9
67.5°	386.9	387.4	387.9	379.0	418.5	607.7	2686.7	4360.1	5171.4	3588.2	2383.6
70°	320.4	324.8	326.8	326.8	341.1	398.7	1147.0	2988.4	4079.2	2813.4	1919.8
72.5°	291.8	282.4	283.4	278.5	278.5	303.6	461.9	1694.1	2570.0	1582.7	1171.6
75°	238.1	244.0	245.0	241.5	230.2	231.6	274.1	710.7	1099.6	656.5	579.1
77.5°	205.5	205.5	207.5	205.0	196.2	173.5	182.9	275.5	374.1	269.2	289.4
80°	165.1	164.6	173.0	177.9	164.1	128.1	116.8	152.3	166.2	118.3	150.4
82.5°	80.4	85.3	118.8	135.5	124.7	92.7	71.4	94.6	88.8	52.3	67.5
85°	46.8	44.4	53.2	75.4	71.4	51.2	34.5	49.3	46.3	26.6	27.1
87.5°	14.8	13.8	10.9	25.6	20.7	14.2	9.3	14.2	12.8	5.9	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1	2389.1
2.5°	2361.9	2303.8	2246.1	2193.4	2161.3	2140.6	2119.9	2096.7	2087.9	2074.6
5°	2338.2	2225.9	2125.8	2039.5	1961.2	1899.6	1837.5	1787.2	1764.5	1779.8
7.5°	2324.5	2161.8	2007.6	1849.3	1697.0	1575.3	1469.3	1394.9	1361.4	1369.7
10°	2312.2	2089.4	1854.2	1604.3	1385.5	1234.7	1126.3	1069.6	1048.4	1052.8
12.5°	2300.8	2008.1	1669.4	1340.7	1108.0	1008.5	977.4	977.8	981.8	984.8
15°	2298.9	1910.0	1462.9	1110.0	958.2	951.8	985.3	1006.4	1017.8	1021.3
17.5°	2295.9	1792.6	1252.4	952.7	921.7	965.0	996.1	1009.9	1018.8	1019.3
20°	2284.1	1643.8	1058.2	877.8	913.8	951.3	970.5	981.3	988.7	991.2
22.5°	2247.6	1478.2	906.9	844.3	882.3	912.4	935.0	947.3	951.8	954.7
25°	2182.0	1292.8	802.5	812.3	838.4	876.4	894.6	897.1	895.5	900.1
27.5°	2096.2	1094.2	737.4	769.0	802.5	835.0	844.8	843.4	840.4	845.3
30°	1992.8	915.8	696.0	720.2	766.0	795.5	804.4	800.9	795.0	800.4
32.5°	1883.3	769.9	661.9	686.1	735.8	765.0	773.9	770.4	766.0	770.4
35°	1781.3	667.9	630.4	663.5	712.3	740.8	752.1	752.7	752.7	758.1
37.5°	1687.7	608.2	604.2	649.1	696.0	721.6	737.9	738.8	717.6	719.1
40°	1600.9	583.1	592.4	639.8	680.2	704.8	705.8	650.6	611.7	610.7
42.5°	1529.9	578.2	595.9	638.8	668.8	669.8	600.3	557.5	546.6	547.1
45°	1463.4	576.7	603.8	638.8	652.1	578.6	531.9	520.5	521.5	525.4
47.5°	1389.0	570.7	605.3	630.0	603.8	514.6	500.8	495.9	493.8	494.9
50°	1307.6	549.6	586.5	612.1	521.0	487.0	469.8	468.2	470.7	472.2
52.5°	1221.9	515.1	554.5	580.2	483.1	462.8	443.6	447.0	457.9	461.4
55°	1165.7	474.7	512.1	516.1	456.4	440.1	423.8	431.7	452.0	458.4
57.5°	1150.9	431.7	463.8	459.4	422.4	420.5	410.6	417.5	443.1	452.4
60°	1146.5	393.3	416.5	413.1	389.4	398.7	396.3	399.7	408.6	411.5
62.5°	1111.9	362.7	374.1	369.2	359.8	376.1	382.0	374.6	381.5	385.0
65°	1024.2	338.1	332.7	329.2	333.2	348.0	359.8	345.0	351.5	361.3
67.5°	879.3	304.6	289.9	293.8	306.1	314.0	329.2	312.5	318.0	334.7
70°	711.2	262.2	248.9	260.2	272.0	288.3	290.8	279.5	292.3	311.0
72.5°	503.3	219.4	210.0	233.2	237.1	258.3	252.9	247.4	265.2	271.6
75°	349.0	176.9	171.5	189.3	203.6	221.8	217.8	224.3	261.7	264.7
77.5°	220.8	137.6	134.1	145.4	165.1	185.3	191.8	264.7	447.0	464.8
80°	128.1	102.5	98.6	107.4	124.7	143.4	184.8	324.8	294.8	291.3
82.5°	71.4	70.5	65.6	68.1	83.3	103.5	261.3	228.7	185.8	191.8
85°	33.5	41.4	35.5	34.0	46.8	121.3	174.5	130.6	86.7	84.8
87.5°	8.9	7.9	7.9	8.9	19.7	104.4	69.5	55.7	33.0	32.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)