

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: P962570

Luminaire Tested: **NAV-SB2C-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962570
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-SB2C-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13576.1 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 100.9
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



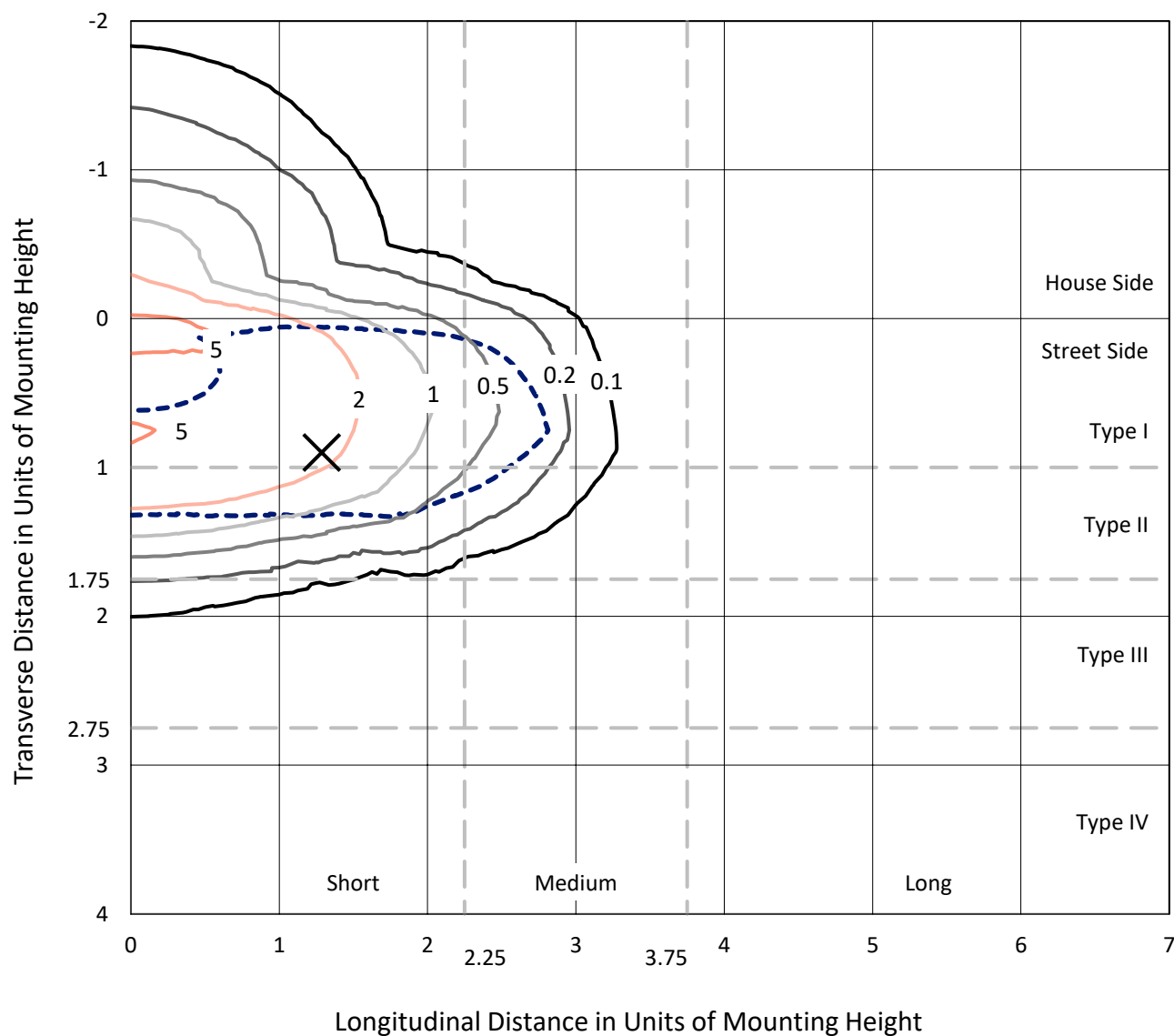
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

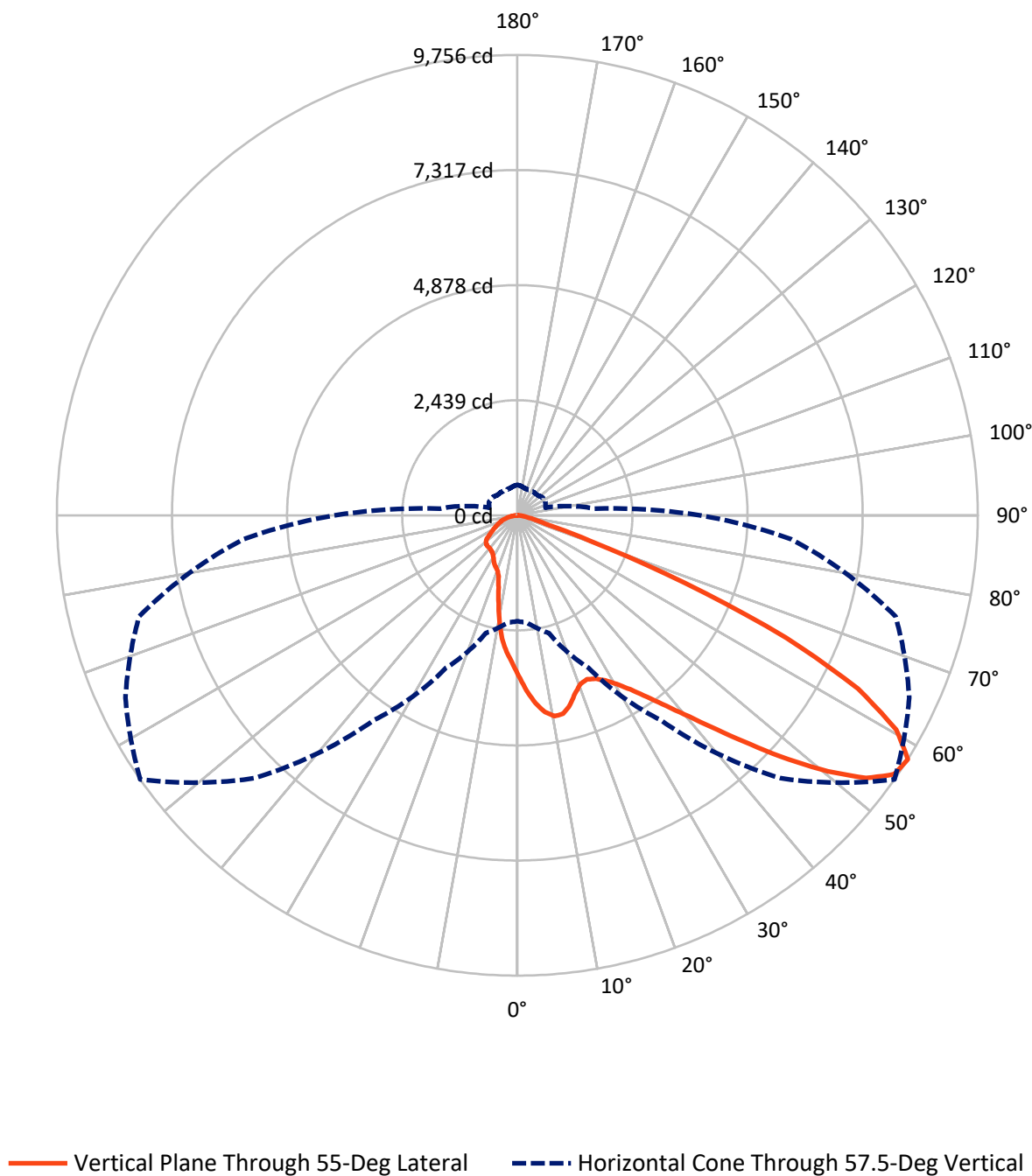


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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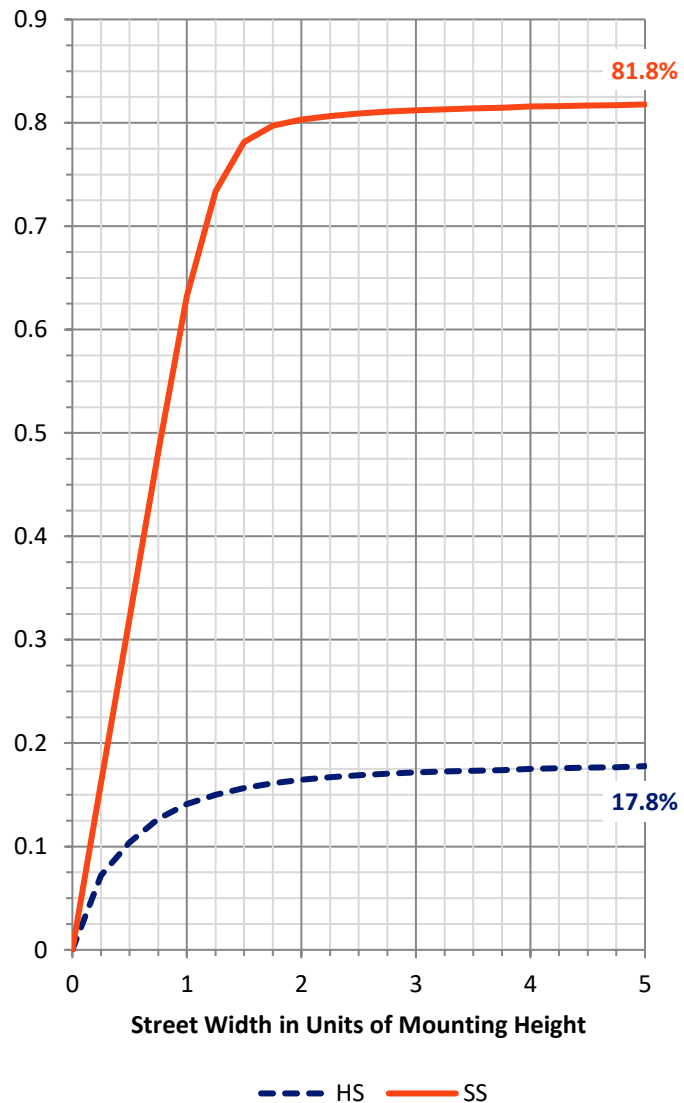
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2456.5	0.0	2456.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11119.6	0.0	11119.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	13576.1	0.0	13576.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.7	2.3
10°-20°	796.7	5.9
20°-30°	1271.4	9.4
30°-40°	2012.9	14.8
40°-50°	3080.9	22.7
50°-60°	3300.0	24.3
60°-70°	2076.0	15.3
70°-80°	613.9	4.5
80°-90°	108.5	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°	13576.1	100.0
0°-180°	13576.1	100.0

Coefficient of Utilization



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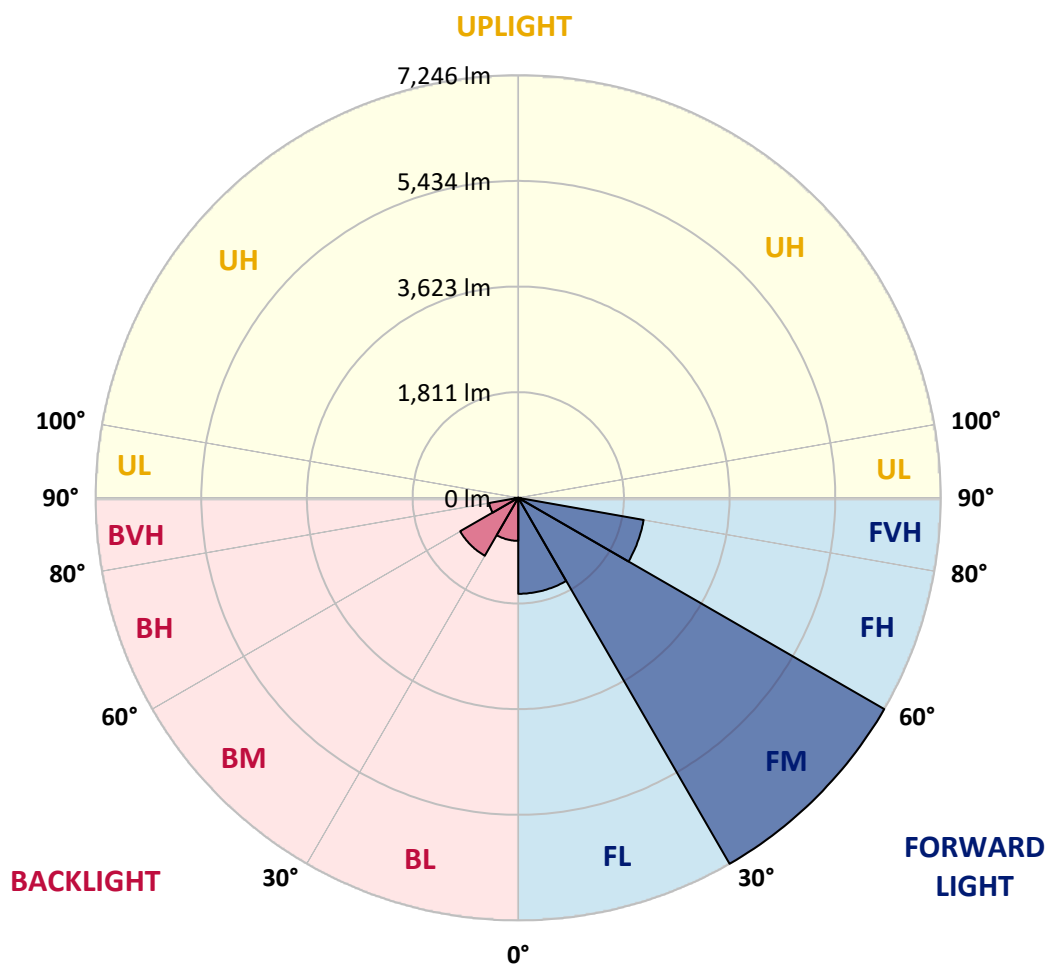
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1645.4	12.1			
FM	(30°-60°)	7245.7	53.4			
FH	(60°-80°)	2182.6	16.1			G2/5000
FVH	(80°-90°)	45.9	0.3			G1/100
BL	(0°-30°)	738.4	5.4	B2/1000		
BM	(30°-60°)	1148.2	8.5	B2/2500		
BH	(60°-80°)	507.3	3.7	B2/1000		G2/1000
BVH	(80°-90°)	62.7	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°	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8
2.5°	3902.8	3900.0	3915.5	3862.8	3827.0	3778.7	3714.7	3633.3	3545.6	3453.0	3412.9
5°	4254.5	4229.9	4246.1	4206.7	4167.4	4094.5	3999.7	3867.0	3705.0	3520.4	3422.1
7.5°	4199.0	4182.2	4223.6	4258.7	4288.1	4279.0	4209.6	4070.6	3861.4	3593.3	3450.9
10°	3751.9	3732.9	3791.3	3912.6	4090.9	4246.1	4330.2	4243.9	4021.5	3673.3	3479.0
12.5°	3357.5	3348.4	3387.0	3485.2	3683.1	3980.7	4314.8	4395.5	4187.7	3768.1	3516.9
15°	3189.1	3177.8	3202.4	3252.2	3378.6	3655.8	4174.4	4499.3	4351.3	3877.6	3577.1
17.5°	3151.9	3139.3	3149.8	3175.8	3257.1	3468.4	3962.4	4550.6	4521.9	3999.7	3627.7
20°	3220.7	3210.1	3211.5	3210.1	3267.0	3434.7	3815.2	4531.0	4670.6	4112.0	3676.9
22.5°	3387.0	3369.5	3370.2	3333.0	3363.8	3493.7	3776.5	4478.3	4803.3	4210.2	3714.1
25°	3657.9	3626.3	3632.6	3537.9	3529.5	3625.6	3836.9	4437.6	4935.2	4288.8	3721.1
27.5°	4028.5	3992.7	3973.7	3832.7	3765.2	3813.0	3959.7	4451.7	5060.1	4357.0	3703.5
30°	4491.7	4448.2	4409.5	4209.6	4087.4	4069.9	4150.5	4544.3	5207.5	4428.5	3673.3
32.5°	5059.4	5008.9	4938.8	4673.5	4501.5	4409.5	4397.7	4709.3	5380.2	4519.7	3657.9
35°	5735.3	5669.4	5569.6	5226.5	5008.9	4820.8	4723.3	4947.2	5616.7	4657.3	3675.4
37.5°	6431.5	6357.2	6265.8	5857.5	5590.0	5312.8	5120.5	5270.0	5931.8	4843.9	3721.8
40°	7073.6	6990.2	6905.2	6541.7	6254.7	5920.6	5606.9	5678.5	6317.1	5067.2	3800.4
42.5°	7452.7	7390.9	7358.6	7162.1	6940.4	6601.3	6211.8	6162.7	6750.1	5324.1	3890.2
45°	7435.9	7410.5	7510.2	7591.7	7539.0	7350.9	6920.7	6698.2	7184.5	5546.5	3973.0
47.5°	7038.6	7055.4	7277.9	7735.5	7936.9	8035.2	7727.8	7223.9	7562.1	5712.8	4010.2
50°	5957.8	5971.9	6486.9	7473.7	8039.4	8593.1	8528.5	7736.9	7854.8	5814.6	4001.8
52.5°	5102.2	5111.4	5332.5	6697.5	7701.1	8873.8	9250.0	8220.5	8068.9	5842.7	3954.8
55°	3843.1	3874.8	4122.5	5254.6	6821.1	8651.4	9689.3	8718.8	8204.3	5845.5	3905.7
57.5°	2245.2	2279.5	2585.6	3566.7	5301.6	7875.9	9756.1	9160.9	8296.2	5823.0	3876.1
60°	1099.7	1114.5	1247.8	1874.5	3269.1	6381.6	9219.9	9375.0	8347.5	5811.1	3874.8
62.5°	741.1	739.0	744.7	925.0	1610.7	4100.0	8102.5	9000.2	8320.1	5765.5	3860.8
65°	637.2	629.6	608.4	649.2	834.5	1875.2	6260.3	7881.4	8111.6	5651.0	3764.6
67.5°	550.9	551.7	552.4	539.7	595.8	865.3	3825.6	6208.3	7363.5	5109.3	3394.0
70°	456.2	462.5	465.4	465.4	485.6	567.7	1633.1	4255.2	5808.3	4006.0	2733.6
72.5°	415.4	402.1	403.5	396.6	396.6	432.3	657.6	2412.1	3659.4	2253.6	1668.2
75°	339.0	347.4	348.8	343.9	327.8	329.8	390.2	1012.0	1565.8	934.8	824.6
77.5°	292.6	292.6	295.5	291.9	279.3	247.0	260.3	392.4	532.7	383.1	411.9
80°	235.1	234.4	246.3	253.4	233.7	182.4	166.4	216.9	236.5	168.4	214.0
82.5°	114.4	121.5	169.1	193.0	177.5	131.9	101.8	134.8	126.3	74.4	96.1
85°	66.6	63.1	75.7	107.4	101.8	73.0	49.1	70.2	66.0	37.9	38.6
87.5°	21.0	19.7	15.5	36.5	29.5	20.4	13.3	20.4	18.2	8.4	8.4
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8	3401.8
2.5°	3363.1	3280.3	3198.2	3123.1	3077.5	3048.0	3018.5	2985.5	2972.9	2953.9
5°	3329.4	3169.4	3026.9	2904.1	2792.5	2704.9	2616.4	2544.8	2512.5	2534.3
7.5°	3309.8	3078.2	2858.5	2633.2	2416.3	2243.0	2092.1	1986.1	1938.5	1950.4
10°	3292.3	2975.1	2640.3	2284.4	1972.8	1758.1	1603.7	1522.9	1492.8	1499.1
12.5°	3276.1	2859.2	2377.1	1909.0	1577.7	1435.9	1391.7	1392.5	1398.0	1402.2
15°	3273.3	2719.5	2083.0	1580.6	1364.4	1355.3	1402.9	1433.2	1449.2	1454.2
17.5°	3269.1	2552.6	1783.3	1356.6	1312.4	1374.2	1418.4	1438.1	1450.7	1451.4
20°	3252.2	2340.6	1506.9	1250.0	1301.1	1354.5	1381.9	1397.3	1407.8	1411.3
22.5°	3200.4	2104.7	1291.4	1202.2	1256.2	1299.1	1331.4	1348.9	1355.3	1359.5
25°	3107.0	1840.9	1142.6	1156.6	1193.8	1247.8	1273.8	1277.4	1275.2	1281.6
27.5°	2984.9	1558.0	1049.9	1094.8	1142.6	1188.9	1202.9	1200.8	1196.6	1203.7
30°	2837.5	1304.0	991.0	1025.4	1090.6	1132.7	1145.3	1140.4	1132.0	1139.8
32.5°	2681.7	1096.2	942.6	976.9	1047.9	1089.3	1101.9	1097.0	1090.6	1097.0
35°	2536.4	951.0	897.6	944.6	1014.1	1054.8	1071.0	1071.6	1071.6	1079.4
37.5°	2403.0	866.0	860.4	924.3	991.0	1027.5	1050.6	1052.1	1021.8	1024.0
40°	2279.5	830.2	843.6	910.9	968.5	1003.6	1005.0	926.4	870.9	869.5
42.5°	2178.4	823.3	848.5	909.6	952.3	953.8	854.8	793.8	778.3	779.0
45°	2083.7	821.1	859.8	909.6	928.5	823.9	757.3	741.1	742.5	748.1
47.5°	1977.7	812.7	861.8	897.0	859.8	732.7	713.1	706.0	703.3	704.6
50°	1861.9	782.5	835.2	871.7	741.8	693.4	668.8	666.8	670.2	672.3
52.5°	1739.8	733.4	789.6	826.0	687.8	659.0	631.6	636.5	652.0	656.9
55°	1659.8	675.9	729.2	734.8	649.8	626.7	603.5	614.8	643.6	652.7
57.5°	1638.8	614.8	660.4	654.1	601.5	598.7	584.7	594.4	631.0	644.3
60°	1632.4	560.1	593.1	588.1	554.4	567.7	564.3	569.2	581.8	586.0
62.5°	1583.3	516.5	532.7	525.6	512.3	535.5	543.9	533.4	543.2	548.2
65°	1458.4	481.4	473.8	468.8	474.5	495.5	512.3	491.3	500.4	514.4
67.5°	1252.0	433.7	412.7	418.3	435.8	447.1	468.8	445.0	452.6	476.5
70°	1012.7	373.4	354.4	370.5	387.4	410.6	414.1	397.9	416.2	442.8
72.5°	716.6	312.3	299.0	332.0	337.5	367.8	360.1	352.3	377.6	386.7
75°	496.9	251.9	244.3	269.5	289.9	315.8	310.2	319.3	372.7	376.9
77.5°	314.4	195.8	190.9	207.0	235.1	263.8	273.1	376.9	636.5	661.8
80°	182.4	146.0	140.3	153.0	177.5	204.2	263.2	462.5	419.7	414.8
82.5°	101.8	100.3	93.4	96.9	118.6	147.4	372.0	325.6	264.6	273.1
85°	47.8	58.9	50.5	48.4	66.6	172.6	248.5	185.9	123.5	120.7
87.5°	12.6	11.3	11.3	12.6	28.1	148.8	98.9	79.3	47.0	45.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)