

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: P966693

Luminaire Tested: **NAV-SB4C-740-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966693
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-SB4C-740-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33102.4 lumens
Efficiency: N/A
Efficacy: 164.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 200.7
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



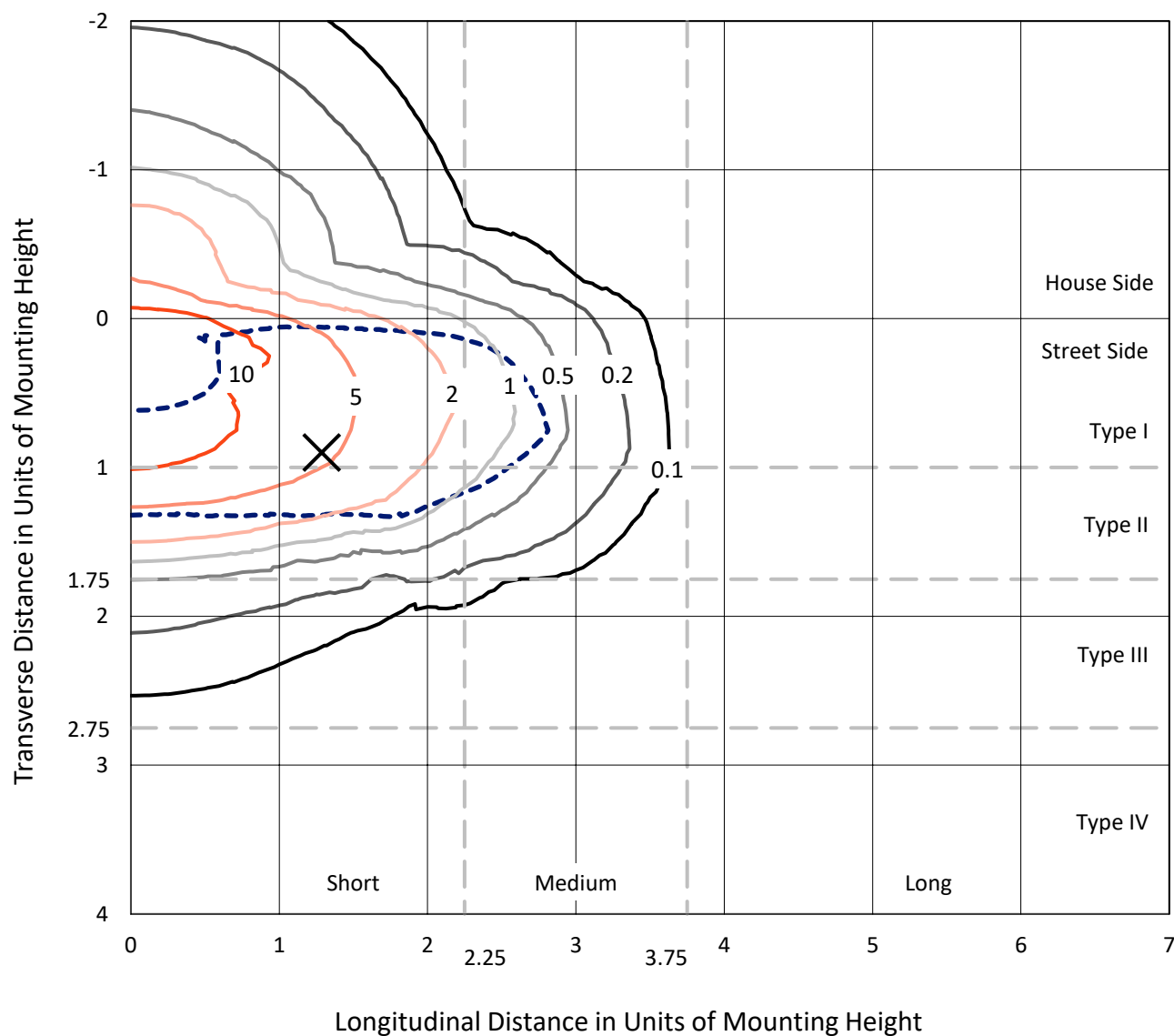
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

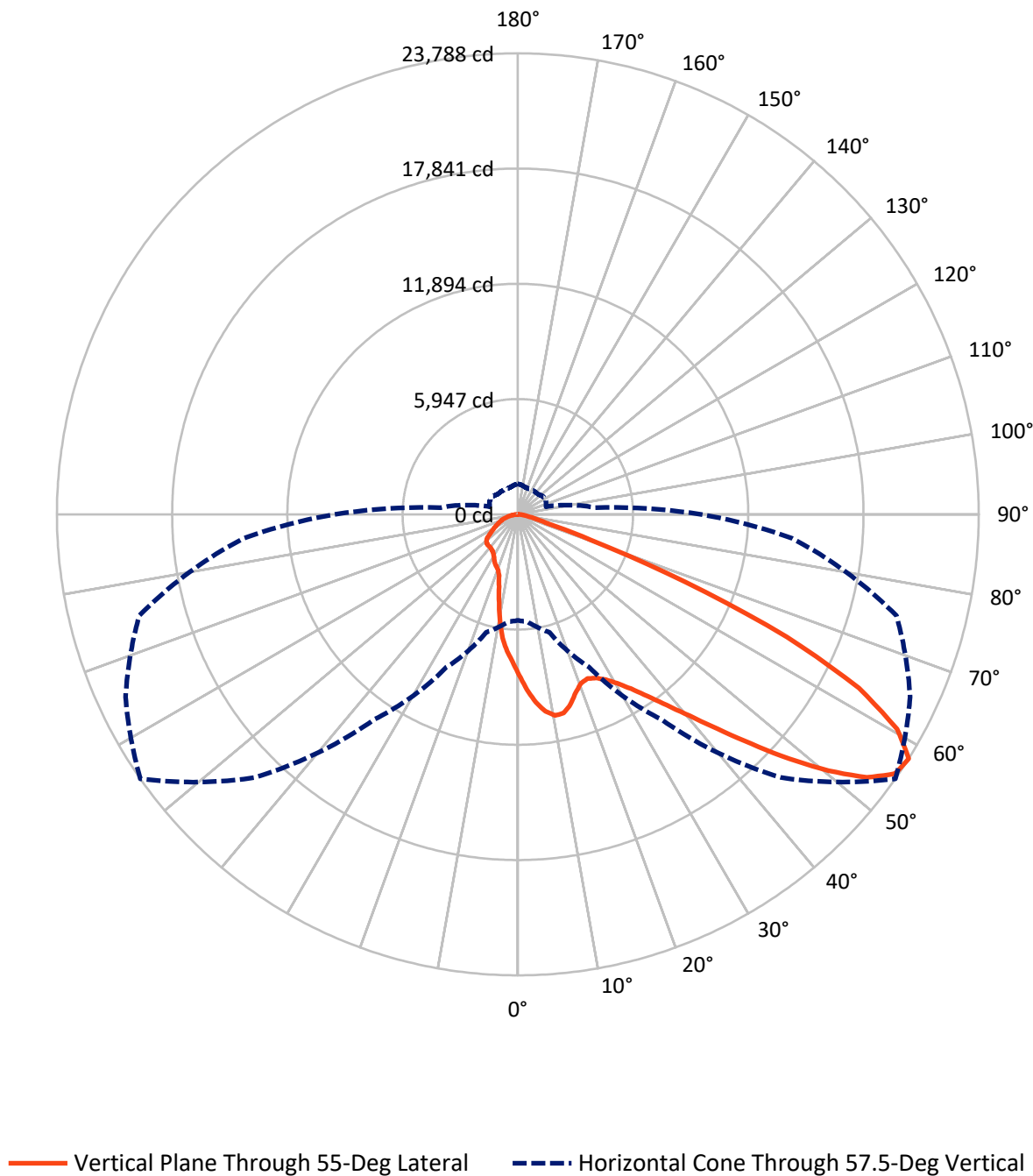


Based on 25 foot mounting height. Maximum calculated value = 16 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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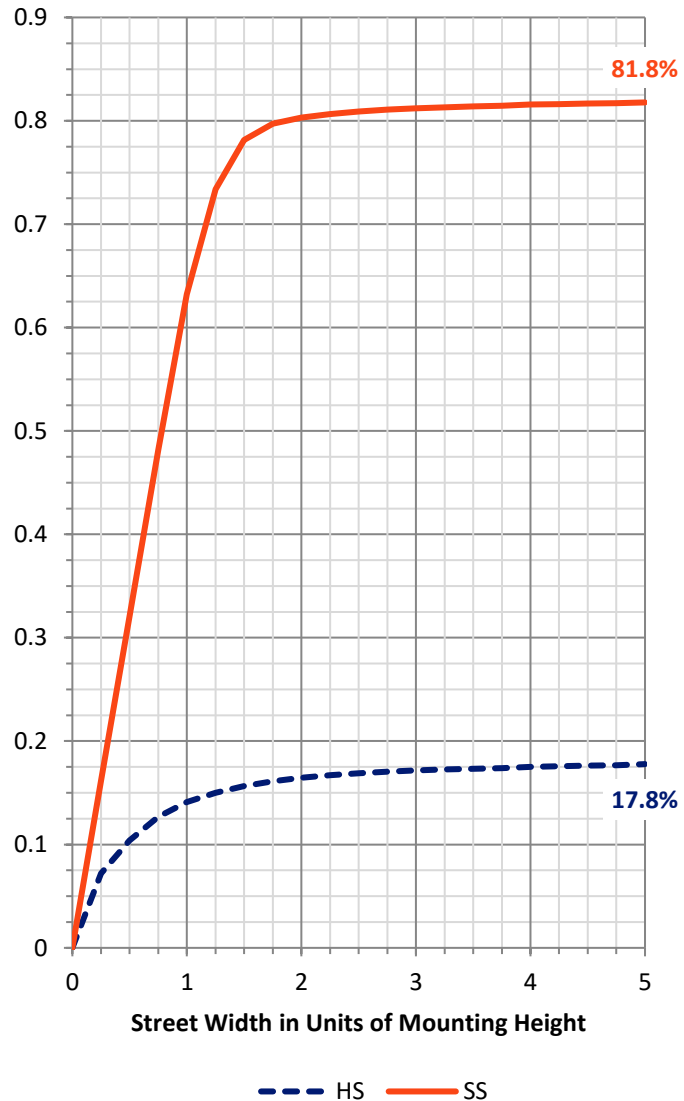
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5989.7	0.0	5989.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	27112.7	0.0	27112.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	33102.4	0.0	33102.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	769.7	2.3
10°-20°	1942.7	5.9
20°-30°	3100.0	9.4
30°-40°	4908.0	14.8
40°-50°	7512.2	22.7
50°-60°	8046.3	24.3
60°-70°	5062.0	15.3
70°-80°	1496.9	4.5
80°-90°	264.7	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°	33102.4	100.0
0°-180°	33102.4	100.0

Coefficient of Utilization



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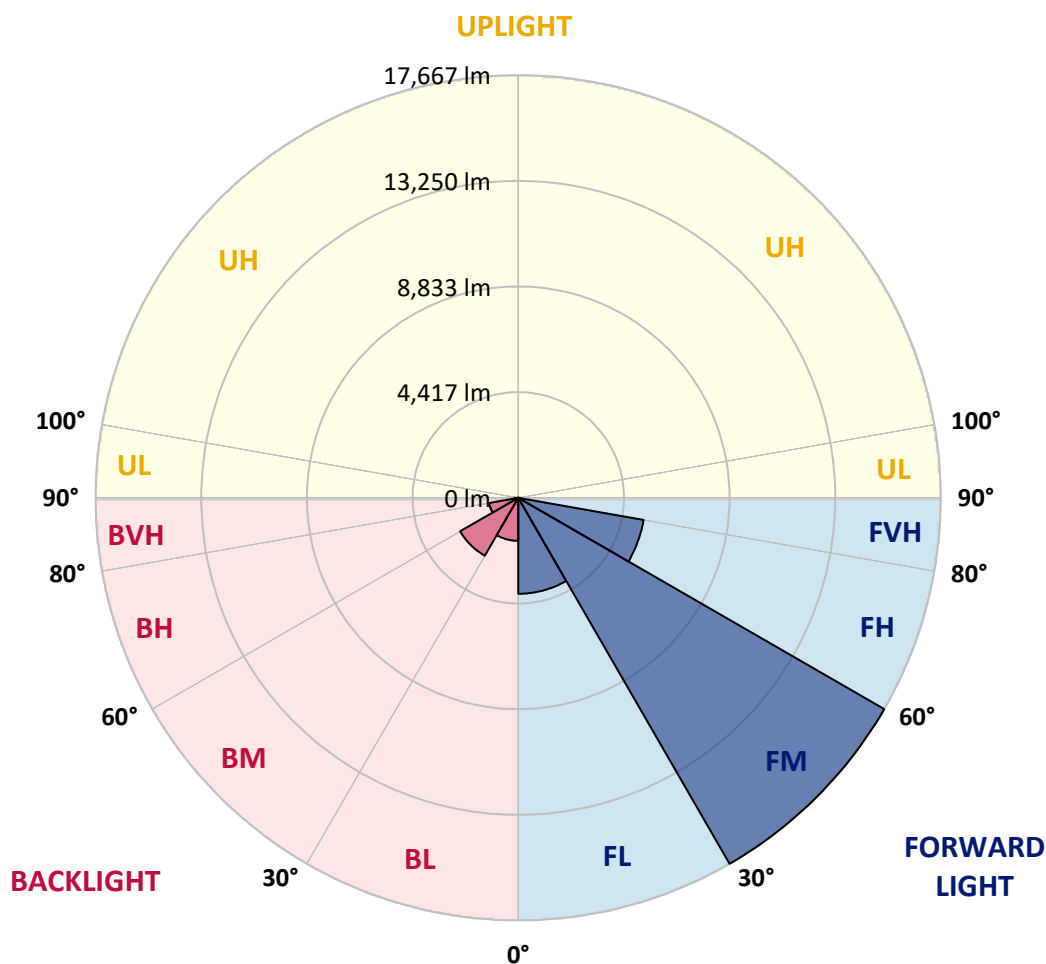
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4012.0	12.1			
FM	(30°-60°)	17667.0	53.4			
FH	(60°-80°)	5321.9	16.1			G3/7500
FVH	(80°-90°)	111.8	0.3			G2/225
BL	(0°-30°)	1800.3	5.4	B3/2500		
BM	(30°-60°)	2799.5	8.5	B3/5000		
BH	(60°-80°)	1237.0	3.7	B3/2500		G3/2500
BVH	(80°-90°)	152.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4
2.5°	9516.2	9509.3	9547.1	9418.6	9331.4	9213.3	9057.6	8859.1	8645.2	8419.3	8321.8
5°	10373.5	10313.7	10353.0	10257.2	10161.3	9983.4	9752.4	9429.0	9033.6	8583.6	8344.0
7.5°	10238.3	10197.3	10298.3	10383.8	10455.7	10433.5	10264.0	9925.2	9415.2	8761.6	8414.1
10°	9148.3	9102.1	9244.2	9540.2	9974.8	10353.0	10558.3	10347.9	9805.4	8956.7	8482.6
12.5°	8186.6	8164.3	8258.4	8498.0	8980.5	9706.1	10520.7	10717.5	10210.9	9187.7	8575.0
15°	7775.9	7748.5	7808.3	7929.9	8237.9	8913.8	10178.5	10970.8	10609.7	9454.6	8722.2
17.5°	7685.1	7654.4	7680.0	7743.4	7941.9	8457.0	9661.6	11095.7	11025.5	9752.4	8845.4
20°	7852.8	7827.2	7830.6	7827.2	7965.8	8374.8	9302.3	11047.8	11388.3	10026.1	8965.2
22.5°	8258.4	8215.7	8217.4	8126.7	8201.9	8518.6	9208.2	10919.4	11711.8	10265.7	9055.9
25°	8918.9	8842.0	8857.3	8626.4	8605.8	8840.3	9355.4	10820.2	12033.4	10457.4	9073.0
27.5°	9822.5	9735.2	9689.0	9345.1	9180.8	9297.2	9654.8	10854.4	12338.0	10623.4	9030.2
30°	10951.9	10845.8	10751.7	10264.0	9966.3	9923.4	10120.2	11080.2	12697.4	10798.0	8956.7
32.5°	12336.3	12213.1	12042.0	11395.1	10975.9	10751.7	10722.6	11482.5	13118.4	11020.4	8918.9
35°	13984.3	13823.4	13580.4	12743.6	12213.1	11754.5	11516.7	12062.5	13695.0	11355.8	8961.8
37.5°	15681.8	15500.5	15277.9	14282.0	13630.0	12954.1	12485.2	12849.7	14463.4	11811.0	9074.7
40°	17247.6	17043.9	16836.9	15950.4	15250.6	14436.0	13671.1	13845.6	15402.9	12355.1	9266.4
42.5°	18171.6	18021.0	17942.3	17463.2	16922.4	16095.9	15146.2	15026.4	16458.7	12981.4	9485.5
45°	18130.6	18069.0	18311.9	18510.5	18382.1	17923.6	16874.6	16332.0	17518.0	13524.0	9687.4
47.5°	17162.0	17203.1	17745.5	18861.3	19352.4	19592.0	18842.5	17613.8	18438.6	13929.5	9778.0
50°	14526.7	14560.9	15817.0	18223.0	19602.3	20952.4	20795.0	18864.7	19152.2	14177.6	9757.5
52.5°	12440.7	12463.0	13002.0	16330.4	18777.5	21636.9	22554.1	20043.8	19674.2	14246.1	9642.8
55°	9370.8	9447.7	10051.9	12812.1	16631.5	21094.5	23625.4	21258.7	20004.4	14252.9	9523.1
57.5°	5474.2	5558.1	6304.2	8696.5	12926.7	19203.6	23788.0	22336.8	20228.6	14198.2	9451.2
60°	2681.5	2717.5	3042.6	4570.7	7970.9	15560.3	22480.6	22858.7	20353.5	14169.1	9447.7
62.5°	1807.1	1802.0	1815.6	2255.4	3927.3	9997.0	19756.3	21944.9	20286.8	14057.9	9413.5
65°	1553.8	1534.9	1483.7	1582.9	2034.6	4572.4	15264.3	19217.2	19778.5	13778.9	9179.1
67.5°	1343.4	1345.0	1346.7	1315.9	1452.8	2110.0	9328.0	15137.6	17954.3	12457.8	8275.5
70°	1112.3	1127.7	1134.6	1134.6	1184.2	1384.4	3982.0	10375.3	14162.2	9767.7	6665.3
72.5°	1013.0	980.5	984.0	966.9	966.9	1054.1	1603.4	5881.6	8922.4	5494.8	4067.6
75°	826.6	847.1	850.4	838.6	799.2	804.3	951.4	2467.6	3817.8	2279.4	2010.7
77.5°	713.6	713.6	720.5	711.9	681.1	602.4	634.9	956.6	1298.9	934.3	1004.5
80°	573.3	571.5	600.6	617.8	569.8	445.0	405.6	528.8	576.7	410.7	521.9
82.5°	278.9	296.0	412.5	470.6	433.0	321.7	248.2	328.5	308.0	181.4	234.4
85°	162.6	154.1	184.8	261.8	248.2	177.9	119.8	171.2	160.8	92.5	94.1
87.5°	51.4	47.9	37.6	89.0	71.9	49.6	32.5	49.6	44.5	20.5	20.5
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°	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4	8294.4
2.5°	8200.3	7998.4	7798.1	7615.0	7503.8	7431.9	7360.0	7279.7	7248.8	7202.6
5°	8118.1	7728.0	7380.6	7081.1	6809.1	6595.2	6379.5	6204.9	6126.2	6179.3
7.5°	8070.2	7505.5	6969.9	6420.6	5891.8	5469.1	5101.2	4842.8	4726.5	4755.5
10°	8027.4	7253.9	6437.7	5570.1	4810.3	4286.7	3910.2	3713.4	3639.8	3655.3
12.5°	7988.0	6971.6	5796.0	4654.5	3846.8	3501.2	3393.4	3395.1	3408.7	3419.1
15°	7981.3	6631.0	5079.0	3853.7	3326.6	3304.4	3420.7	3494.3	3533.7	3545.7
17.5°	7970.9	6223.8	4348.3	3307.8	3200.0	3350.6	3458.5	3506.3	3537.2	3538.8
20°	7929.9	5707.0	3674.0	3047.7	3172.7	3302.7	3369.5	3407.1	3432.7	3441.3
22.5°	7803.2	5132.0	3148.7	2931.4	3063.1	3167.5	3246.2	3289.0	3304.4	3314.6
25°	7575.7	4488.6	2786.0	2820.1	2910.8	3042.6	3105.9	3114.5	3109.3	3124.7
27.5°	7277.9	3799.0	2560.0	2669.5	2786.0	2898.8	2933.0	2927.9	2917.7	2934.8
30°	6918.5	3179.4	2416.2	2500.1	2659.3	2762.0	2792.7	2780.7	2760.2	2779.1
32.5°	6538.7	2673.0	2298.2	2382.0	2554.9	2655.9	2686.6	2674.6	2659.3	2674.6
35°	6184.4	2318.8	2188.7	2303.4	2472.7	2572.0	2611.4	2613.0	2613.0	2631.9
37.5°	5859.3	2111.7	2098.0	2253.7	2416.2	2505.3	2561.7	2565.2	2491.6	2496.7
40°	5558.1	2024.4	2056.9	2221.2	2361.5	2447.1	2450.5	2258.8	2123.7	2120.2
42.5°	5311.7	2007.3	2068.9	2217.8	2322.1	2325.6	2084.3	1935.4	1897.8	1899.4
45°	5080.7	2002.1	2096.2	2217.8	2264.0	2009.0	1846.4	1807.1	1810.5	1824.2
47.5°	4822.3	1981.6	2101.4	2186.9	2096.2	1786.6	1738.6	1721.5	1714.6	1718.1
50°	4539.9	1908.0	2036.4	2125.3	1808.8	1690.7	1630.8	1625.6	1634.3	1639.4
52.5°	4242.2	1788.2	1925.2	2014.1	1677.0	1606.9	1540.2	1552.1	1589.8	1601.8
55°	4047.1	1647.9	1778.0	1791.7	1584.6	1528.2	1471.7	1499.1	1569.2	1591.4
57.5°	3995.8	1499.1	1610.3	1594.9	1466.6	1459.7	1425.5	1449.5	1538.4	1570.9
60°	3980.4	1365.6	1446.0	1434.0	1351.9	1384.4	1375.9	1387.8	1418.6	1428.8
62.5°	3860.6	1259.5	1298.9	1281.8	1249.2	1305.6	1326.2	1300.5	1324.5	1336.5
65°	3555.9	1173.9	1155.1	1143.1	1156.8	1208.2	1249.2	1197.9	1220.2	1254.3
67.5°	3052.9	1057.6	1006.2	1019.9	1062.7	1090.1	1143.1	1085.0	1103.7	1161.9
70°	2469.3	910.4	864.2	903.5	944.6	1001.1	1009.6	970.3	1014.7	1079.8
72.5°	1747.2	761.5	729.0	809.4	823.1	896.7	877.9	859.1	920.7	942.9
75°	1211.6	614.4	595.5	657.1	706.7	770.1	756.3	778.6	908.7	918.9
77.5°	766.6	477.4	465.5	504.8	573.3	643.4	665.6	918.9	1552.1	1613.7
80°	445.0	356.0	342.2	373.1	433.0	497.9	641.8	1127.7	1023.4	1011.4
82.5°	248.2	244.7	227.6	236.2	289.2	359.4	906.9	794.0	645.1	665.6
85°	116.3	143.7	123.2	118.1	162.6	421.0	605.8	453.5	301.1	294.4
87.5°	30.9	27.4	27.4	30.9	68.5	362.7	241.3	193.4	114.7	111.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)