

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: P965112

Luminaire Tested: **NAV-SB3D-740-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965112
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-SB3D-740-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33673.3 lumens
Efficiency: N/A
Efficacy: 154.4 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): 218.1
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

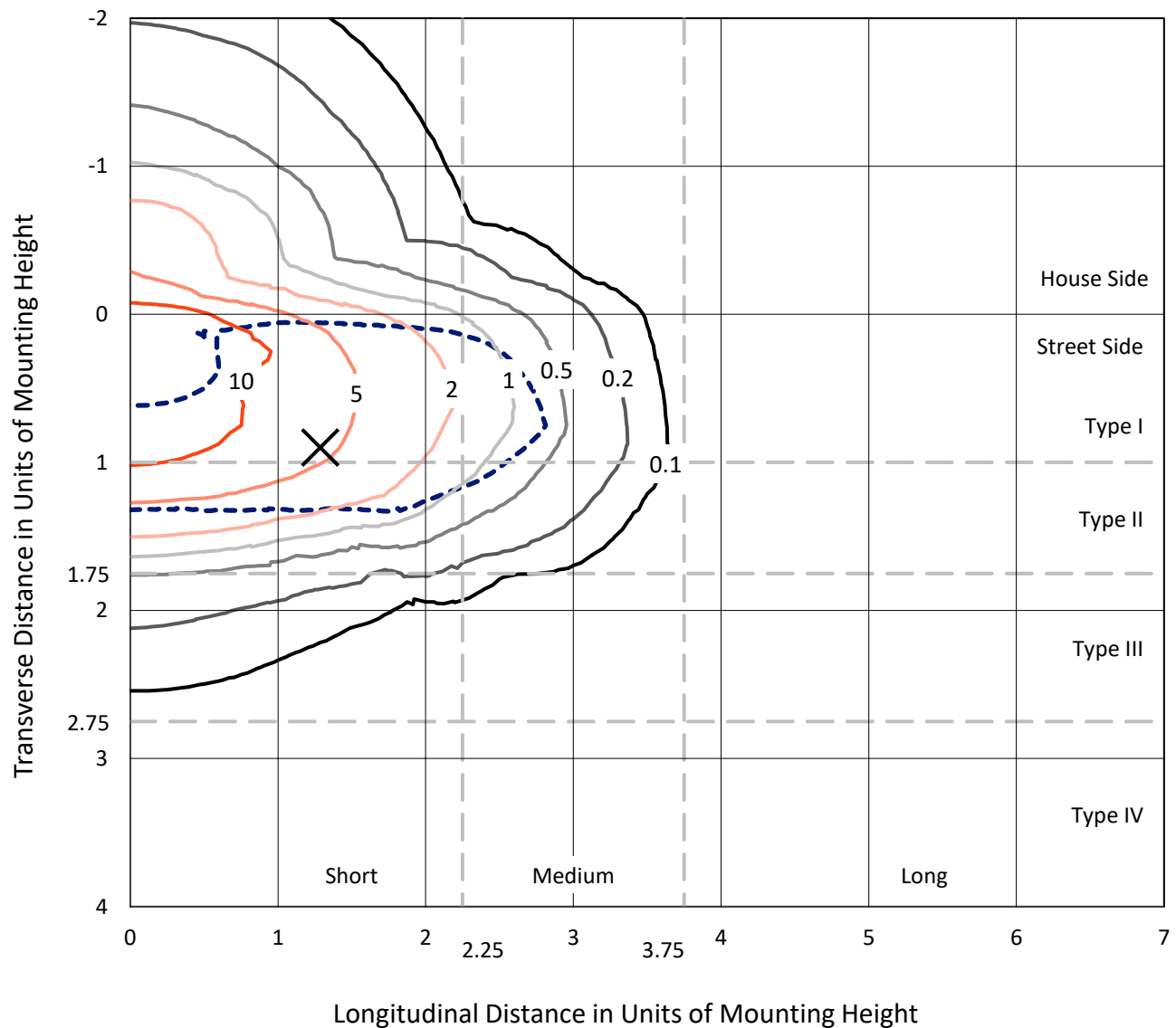


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Iso-Footcandle Lines of Horizontal Illumination

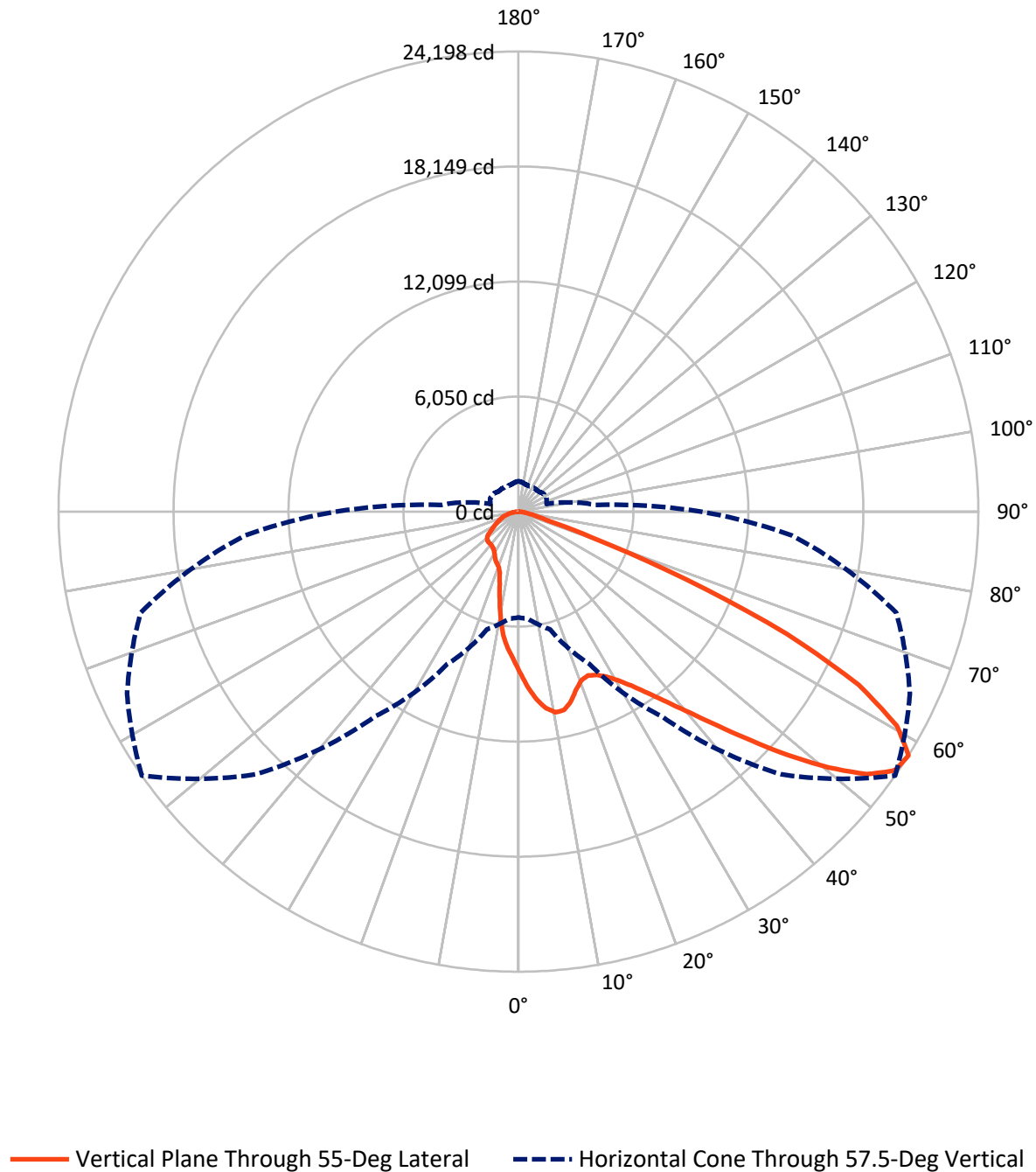
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.3 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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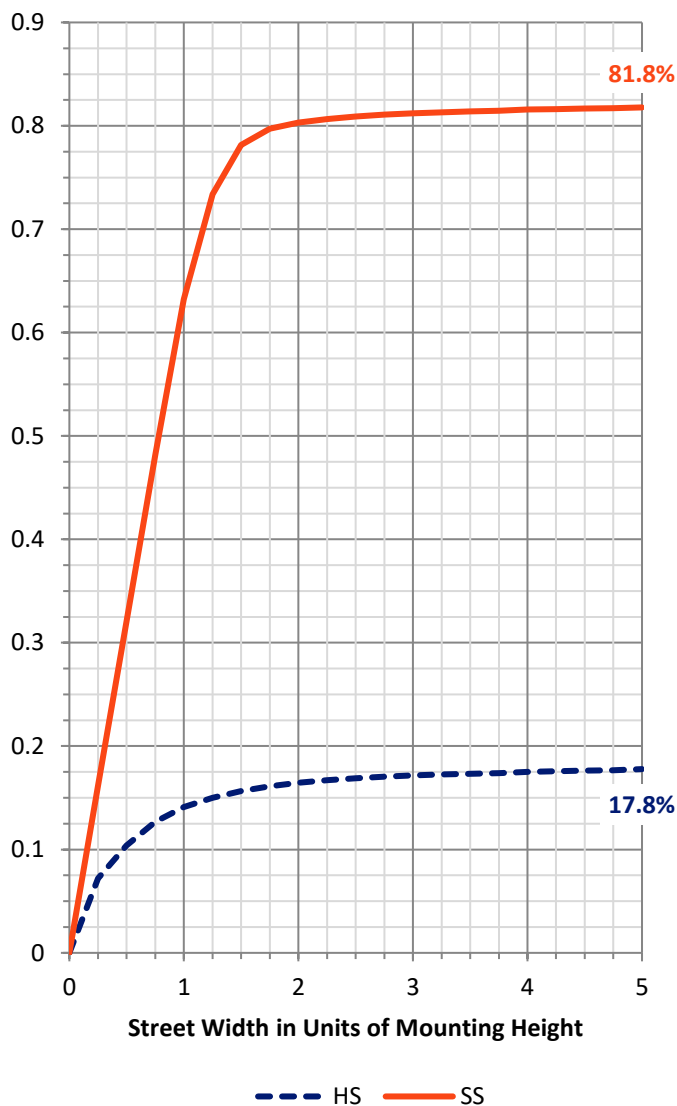
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6093.0	0.0	6093.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	27580.3	0.0	27580.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	33673.3	0.0	33673.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	782.9	2.3
10°-20°	1976.2	5.9
20°-30°	3153.4	9.4
30°-40°	4992.7	14.8
40°-50°	7641.8	22.7
50°-60°	8185.1	24.3
60°-70°	5149.3	15.3
70°-80°	1522.7	4.5
80°-90°	269.2	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°	33673.3	100.0
0°-180°	33673.3	100.0

Coefficient of Utilization



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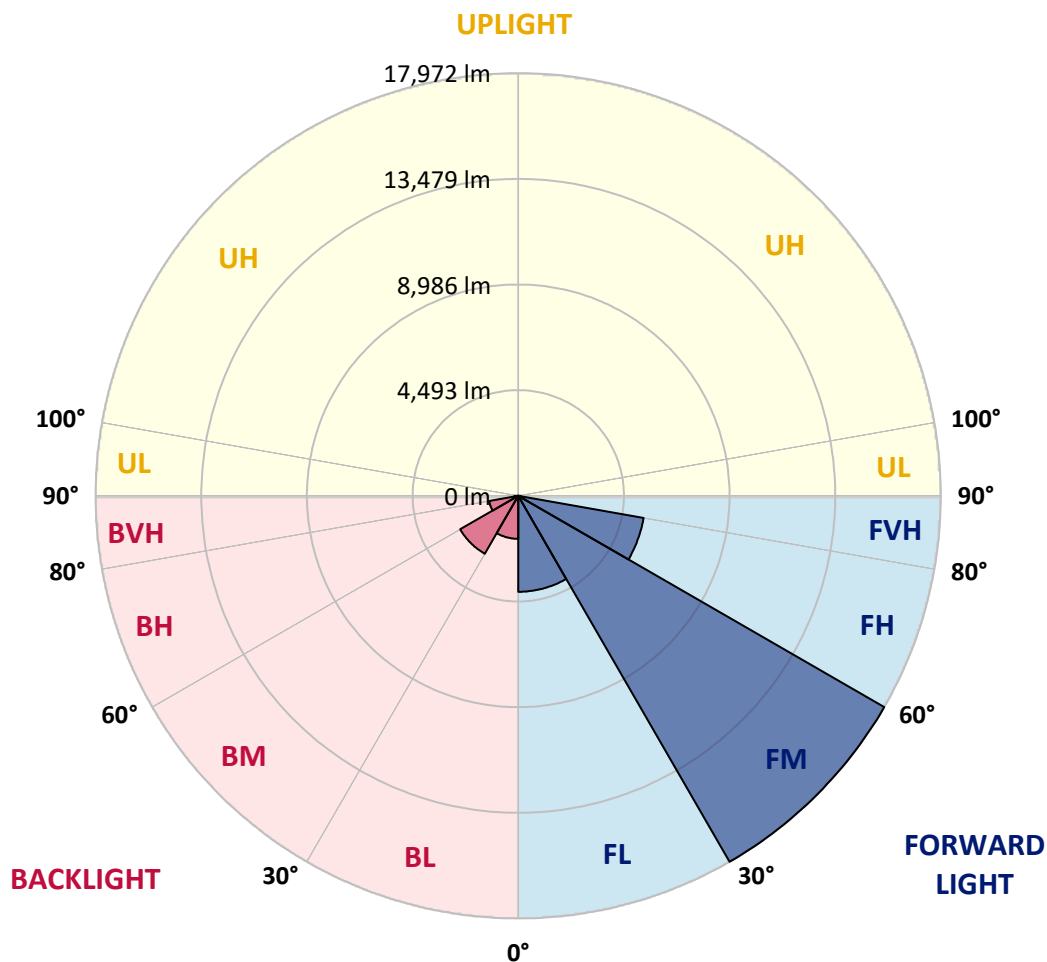
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4081.2	12.1			
FM	(30°-60°)	17971.7	53.4			
FH	(60°-80°)	5413.6	16.1			G3/7500
FVH	(80°-90°)	113.8	0.3			G2/225
BL	(0°-30°)	1831.4	5.4	B3/2500		
BM	(30°-60°)	2847.8	8.5	B3/5000		
BH	(60°-80°)	1258.3	3.7	B3/2500		G3/2500
BVH	(80°-90°)	155.5	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°	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4
2.5°	9680.3	9673.3	9711.7	9581.1	9492.3	9372.2	9213.8	9011.9	8794.3	8564.5	8465.3
5°	10552.5	10491.5	10531.6	10434.1	10336.6	10155.6	9920.6	9591.5	9189.4	8731.7	8487.9
7.5°	10414.9	10373.2	10475.9	10562.9	10636.0	10613.4	10441.1	10096.4	9577.6	8912.7	8559.3
10°	9306.1	9259.0	9403.6	9704.7	10146.9	10531.6	10740.5	10526.3	9974.5	9111.1	8629.0
12.5°	8327.8	8305.2	8400.9	8644.5	9135.5	9873.5	10702.1	10902.3	10387.0	9346.2	8723.0
15°	7910.0	7882.1	7943.0	8066.6	8380.0	9067.6	10354.0	11160.0	10792.6	9617.7	8872.6
17.5°	7817.8	7786.4	7812.6	7876.9	8078.8	8602.8	9828.3	11287.1	11215.7	9920.6	8998.0
20°	7988.3	7962.2	7965.7	7962.2	8103.2	8519.3	9462.7	11238.3	11584.8	10199.1	9119.8
22.5°	8400.9	8357.3	8359.1	8266.8	8343.4	8665.5	9367.0	11107.7	11913.7	10442.8	9212.1
25°	9072.8	8994.5	9010.2	8775.1	8754.2	8992.7	9516.7	11006.8	12241.0	10637.8	9229.5
27.5°	9991.9	9903.1	9856.2	9506.3	9339.2	9457.5	9821.3	11041.6	12550.8	10806.6	9185.9
30°	11140.8	11032.9	10937.2	10441.1	10138.2	10094.6	10294.8	11271.4	12916.4	10984.2	9111.1
32.5°	12549.1	12423.7	12249.7	11591.7	11165.2	10937.2	10907.5	11680.5	13344.6	11210.4	9072.8
35°	14225.5	14061.8	13814.6	12963.4	12423.7	11957.2	11715.2	12270.6	13931.3	11551.6	9116.3
37.5°	15952.3	15767.8	15541.5	14528.4	13865.1	13177.5	12700.6	13071.3	14712.8	12014.6	9231.3
40°	17545.0	17337.9	17127.2	16225.5	15513.6	14685.0	13906.9	14084.4	15668.6	12568.2	9426.2
42.5°	18485.1	18331.9	18251.8	17764.4	17214.4	16373.6	15407.4	15285.5	16742.6	13205.4	9649.0
45°	18443.3	18380.6	18627.8	18829.8	18699.2	18232.7	17165.6	16613.7	17820.1	13757.1	9854.5
47.5°	17458.0	17499.8	18051.6	19186.6	19686.1	19929.9	19167.4	17917.6	18756.6	14169.7	9946.7
50°	14777.2	14812.1	16089.8	18537.3	19940.4	21313.7	21153.6	19190.0	19482.5	14422.2	9925.8
52.5°	12655.3	12677.9	13226.3	16612.0	19101.3	22010.1	22943.2	20389.5	20013.4	14491.8	9809.1
55°	9532.4	9610.7	10225.2	13033.0	16918.3	21458.3	24032.9	21625.3	20349.4	14498.7	9687.3
57.5°	5568.7	5654.0	6412.9	8846.5	13149.6	19534.8	24198.2	22722.1	20577.5	14443.1	9614.2
60°	2727.7	2764.3	3095.1	4649.6	8108.5	15828.7	22868.3	23252.9	20704.5	14413.4	9610.7
62.5°	1838.2	1833.0	1846.9	2294.4	3995.0	10169.5	20097.0	22323.5	20636.6	14300.3	9575.9
65°	1580.7	1561.5	1509.2	1610.2	2069.8	4651.2	15527.5	19548.7	20119.6	14016.6	9337.4
67.5°	1366.5	1368.3	1370.0	1338.6	1477.9	2146.4	9488.8	15398.7	18264.0	12672.7	8418.3
70°	1131.5	1147.2	1154.1	1154.1	1204.6	1408.2	4050.7	10554.2	14406.5	9936.2	6780.3
72.5°	1030.5	997.4	1000.9	983.5	983.5	1072.4	1631.1	5982.9	9076.3	5589.5	4137.8
75°	840.8	861.7	865.2	853.0	812.9	818.2	967.9	2510.1	3883.6	2318.7	2045.4
77.5°	725.9	725.9	732.9	724.2	692.8	612.7	645.9	973.0	1321.2	950.5	1021.8
80°	583.1	581.4	611.0	628.4	579.6	452.6	412.6	537.9	586.6	417.8	530.9
82.5°	283.7	301.1	419.5	478.7	440.4	327.3	252.5	334.3	313.3	184.5	238.5
85°	165.3	156.6	188.0	266.3	252.5	181.0	121.9	174.0	163.6	94.0	95.7
87.5°	52.2	48.8	38.3	90.5	73.1	50.5	33.1	50.5	45.3	20.9	20.9
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°	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4	8437.4
2.5°	8341.7	8136.2	7932.6	7746.3	7633.2	7560.1	7487.0	7405.2	7373.8	7326.8
5°	8258.1	7861.2	7507.9	7203.3	6926.4	6708.8	6489.6	6312.0	6231.9	6285.8
7.5°	8209.4	7634.9	7090.1	6531.3	5993.4	5563.5	5189.2	4926.4	4808.0	4837.6
10°	8165.9	7379.1	6548.7	5666.2	4893.2	4360.6	3977.6	3777.4	3702.6	3718.3
12.5°	8125.8	7091.9	5895.9	4734.9	3913.2	3561.6	3451.9	3453.6	3467.6	3478.0
15°	8118.9	6745.4	5166.5	3920.2	3384.0	3361.4	3479.8	3554.6	3594.7	3606.9
17.5°	8108.5	6331.1	4423.3	3364.9	3255.2	3408.4	3518.1	3566.8	3598.2	3599.9
20°	8066.6	5805.4	3737.4	3100.3	3227.3	3359.6	3427.5	3465.8	3492.0	3500.7
22.5°	7937.8	5220.5	3203.0	2981.9	3116.0	3222.1	3302.2	3345.7	3361.4	3371.8
25°	7706.4	4566.0	2833.9	2868.8	2961.0	3095.1	3159.5	3168.2	3162.9	3178.6
27.5°	7403.5	3864.5	2604.2	2715.5	2833.9	2948.8	2983.7	2978.4	2968.0	2985.4
30°	7037.9	3234.3	2458.0	2543.2	2705.2	2809.6	2840.9	2828.7	2807.9	2827.0
32.5°	6651.4	2719.0	2337.8	2423.1	2599.0	2701.7	2733.0	2720.8	2705.2	2720.8
35°	6291.0	2358.7	2226.4	2343.0	2515.4	2616.3	2656.4	2658.1	2658.1	2677.3
37.5°	5960.4	2148.1	2134.2	2292.6	2458.0	2548.5	2606.0	2609.3	2534.5	2539.7
40°	5654.0	2059.3	2092.4	2259.5	2402.2	2489.3	2492.8	2297.8	2160.3	2156.8
42.5°	5403.3	2041.9	2104.5	2256.0	2362.2	2365.7	2120.2	1968.8	1930.5	1932.2
45°	5168.3	2036.7	2132.4	2256.0	2303.0	2043.6	1878.3	1838.2	1841.7	1855.7
47.5°	4905.4	2015.8	2137.6	2224.7	2132.4	1817.3	1768.6	1751.2	1744.2	1747.7
50°	4618.2	1940.9	2071.5	2162.0	1840.0	1719.8	1659.0	1653.7	1662.4	1667.7
52.5°	4315.4	1819.1	1958.4	2048.9	1705.9	1634.6	1566.7	1578.9	1617.1	1629.3
55°	4116.9	1676.4	1808.6	1822.6	1611.9	1554.5	1497.0	1524.9	1596.2	1618.9
57.5°	4064.6	1524.9	1638.1	1622.4	1491.8	1484.8	1450.1	1474.5	1565.0	1598.0
60°	4049.0	1389.1	1471.0	1458.8	1375.2	1408.2	1399.5	1411.7	1443.1	1453.6
62.5°	3927.2	1281.1	1321.2	1303.8	1270.8	1328.2	1349.1	1323.0	1347.4	1359.6
65°	3617.3	1194.1	1175.1	1162.9	1176.7	1229.0	1270.8	1218.5	1241.2	1276.0
67.5°	3105.5	1075.7	1023.6	1037.5	1081.0	1108.8	1162.9	1103.6	1122.8	1181.9
70°	2511.9	926.1	879.0	919.1	960.9	1018.3	1027.0	987.0	1032.3	1098.4
72.5°	1777.4	774.6	741.6	823.4	837.3	912.1	893.0	873.8	936.5	959.2
75°	1232.5	624.9	605.8	668.4	718.9	783.3	769.4	792.0	924.3	934.8
77.5°	779.8	485.6	473.4	513.5	583.1	654.6	677.1	934.8	1578.9	1641.5
80°	452.6	362.0	348.2	379.5	440.4	506.6	652.8	1147.2	1041.0	1028.8
82.5°	252.5	249.0	231.5	240.3	294.2	365.5	922.6	807.7	656.3	677.1
85°	118.4	146.3	125.4	120.1	165.3	428.2	616.2	461.2	306.4	299.4
87.5°	31.4	27.9	27.9	31.4	69.6	369.0	245.5	196.7	116.6	113.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)