

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: P967375

Luminaire Tested: **NAV-SB4D-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967375
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-SB4D-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39433.8 lumens
Efficiency: N/A
Efficacy: 134.3 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): 293.6
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



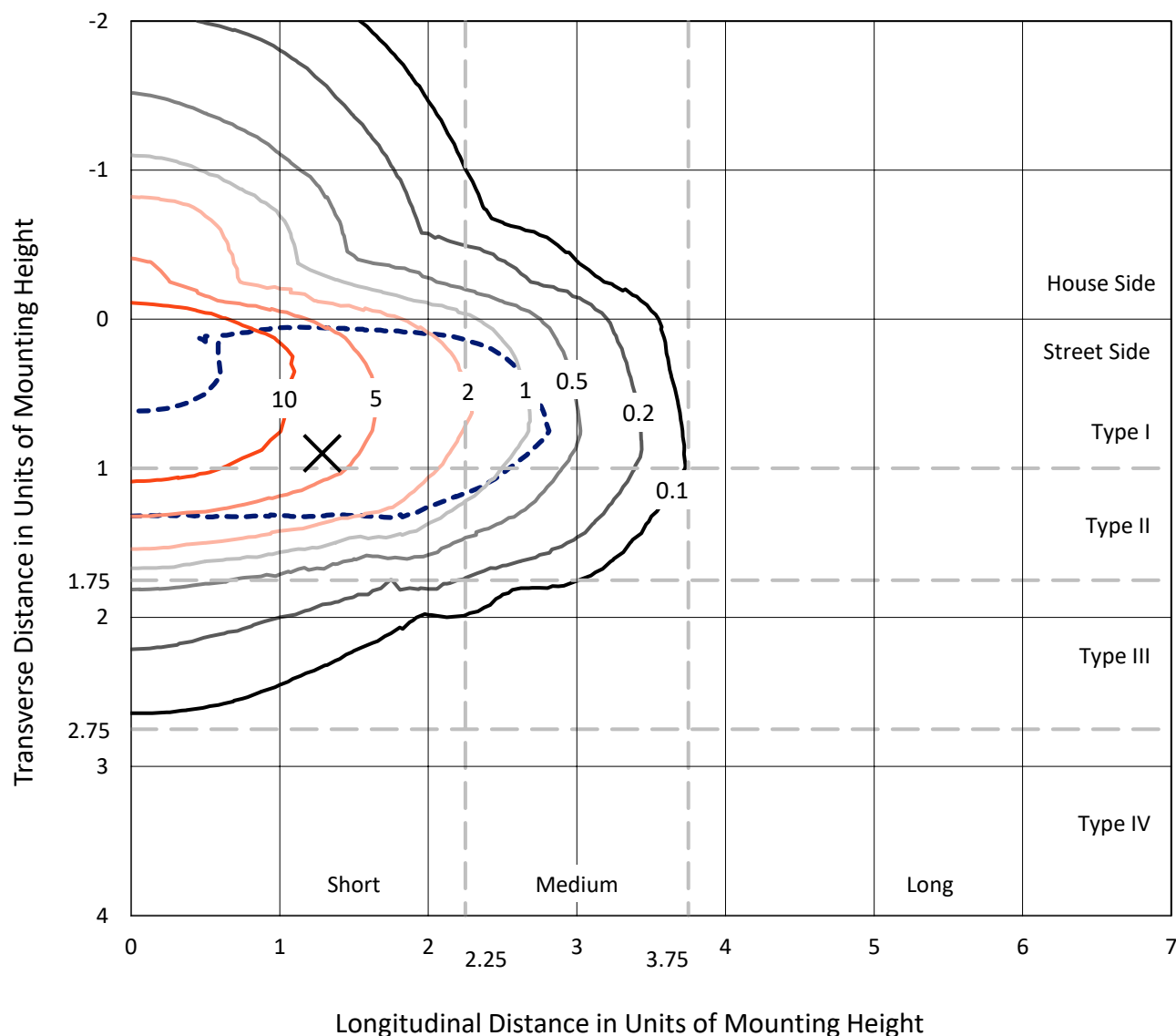
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



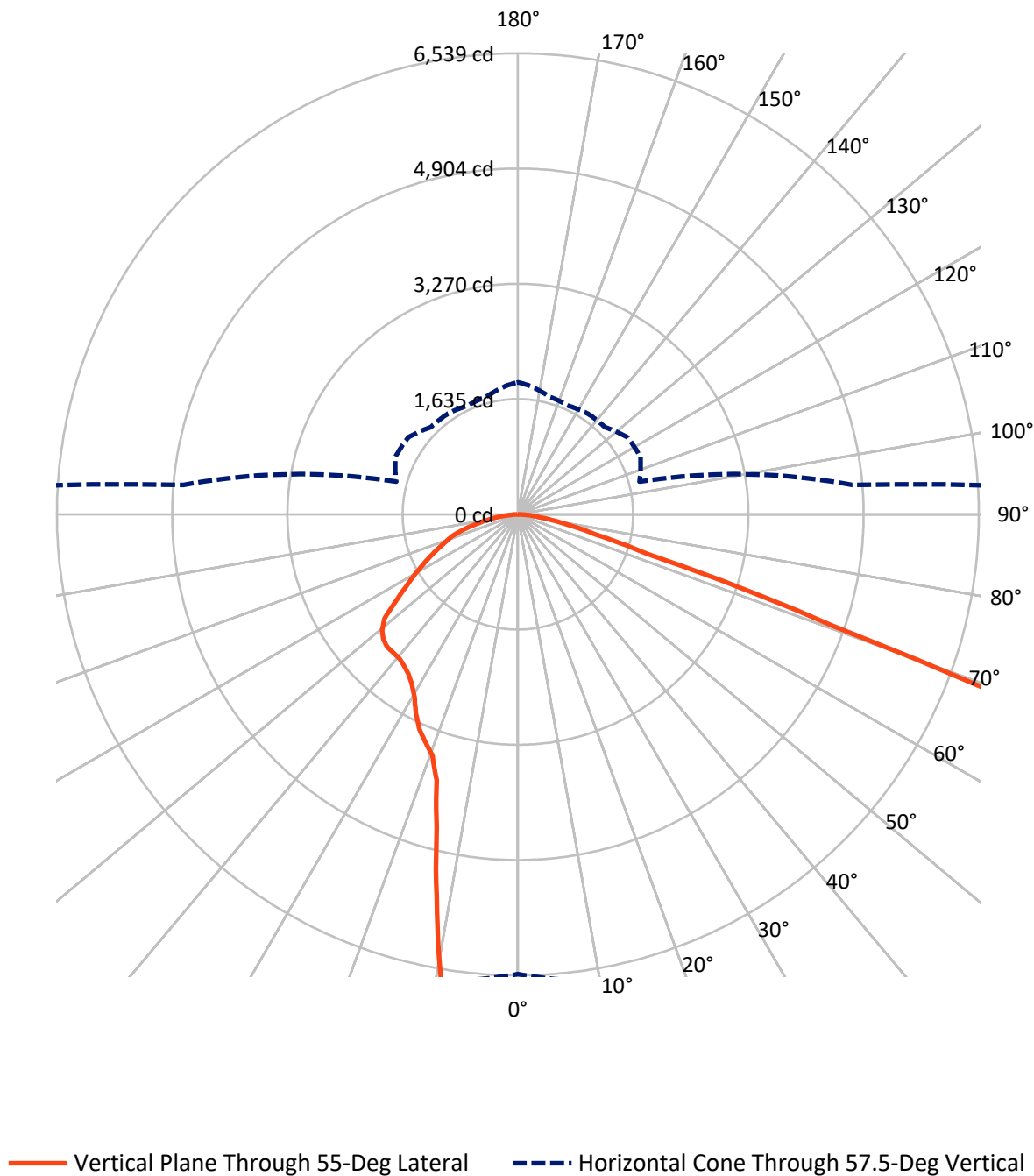
Based on 25 foot mounting height. Maximum calculated value = 19.1 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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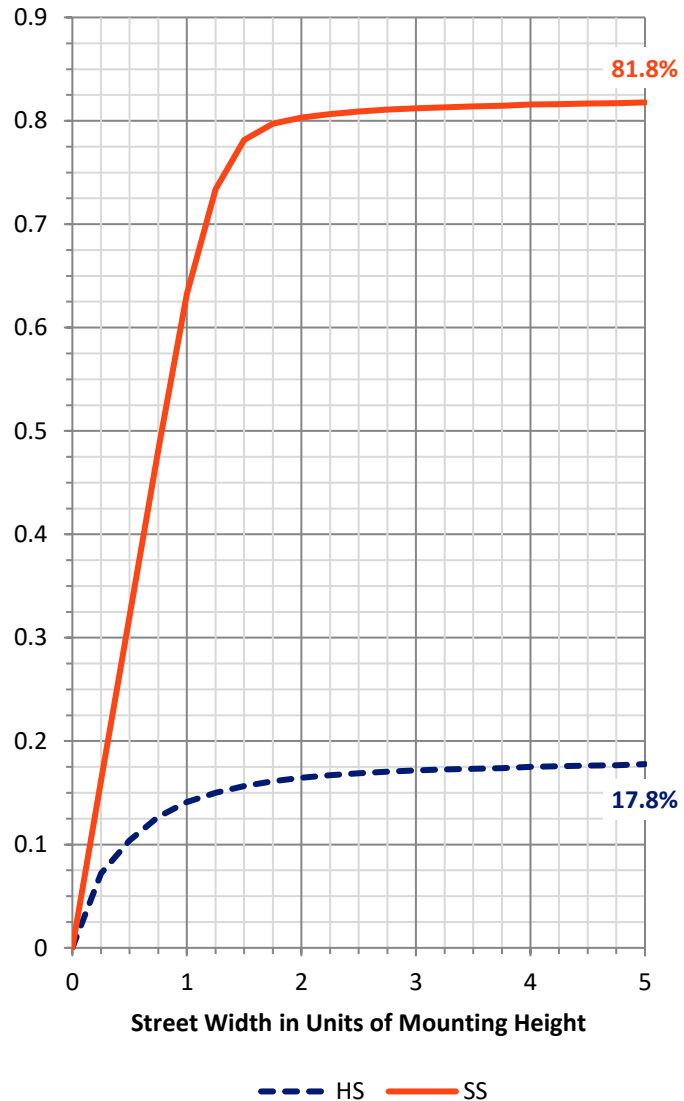
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7135.3	0.0	7135.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	32298.5	0.0	32298.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	39433.8	0.0	39433.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	916.9	2.3
10°-20°	2314.3	5.9
20°-30°	3692.9	9.4
30°-40°	5846.8	14.8
40°-50°	8949.1	22.7
50°-60°	9585.3	24.3
60°-70°	6030.1	15.3
70°-80°	1783.2	4.5
80°-90°	315.3	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°	39433.8	100.0
0°-180°	39433.8	100.0

Coefficient of Utilization



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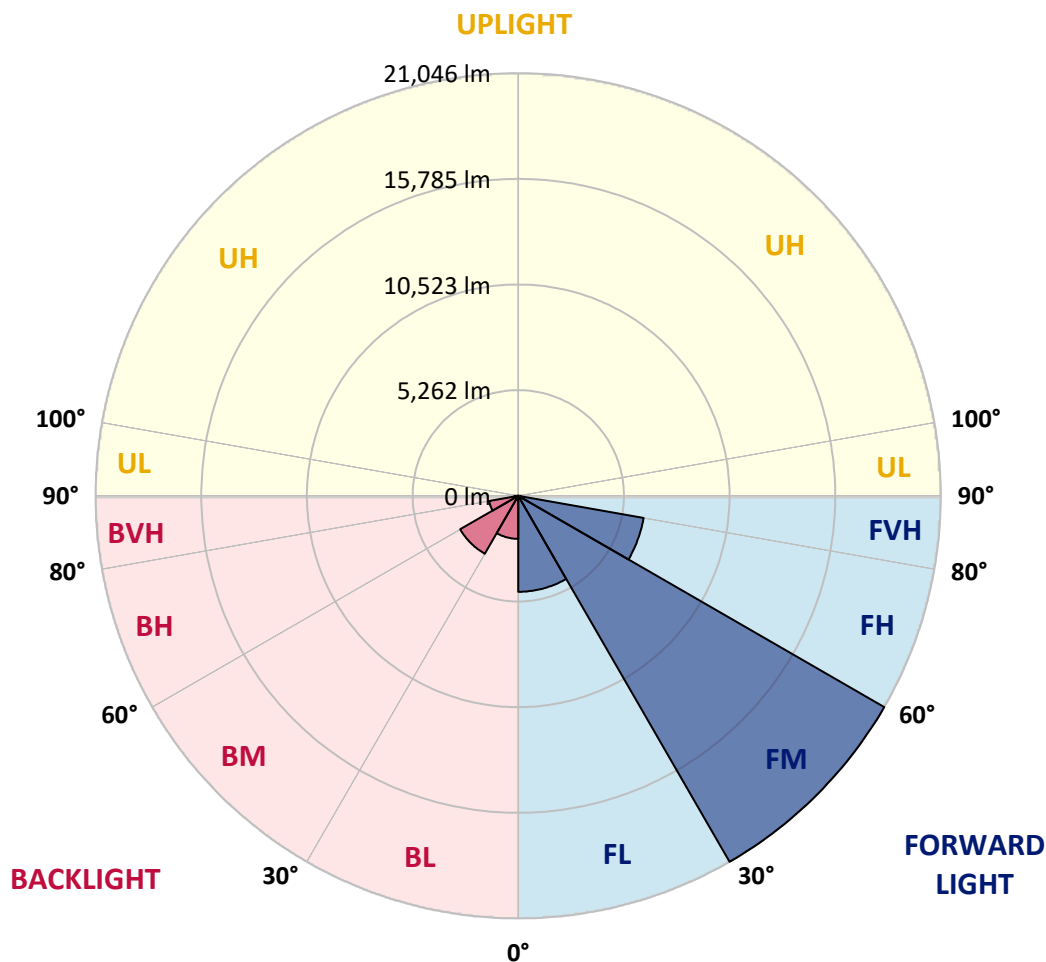
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4779.4	12.1			
FM	(30°-60°)	21046.1	53.4			
FH	(60°-80°)	6339.8	16.1			G3/7500
FVH	(80°-90°)	133.2	0.3			G2/225
BL	(0°-30°)	2144.6	5.4	B3/2500		
BM	(30°-60°)	3335.0	8.5	B3/5000		
BH	(60°-80°)	1473.6	3.7	B3/2500		G3/2500
BVH	(80°-90°)	182.1	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°	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8
2.5°	11336.4	11328.2	11373.1	11220.2	11116.2	10975.5	10790.1	10553.5	10298.7	10029.6	9913.5
5°	12357.7	12286.3	12333.2	12219.0	12104.8	11892.9	11617.7	11232.4	10761.5	10225.3	9939.9
7.5°	12196.6	12147.7	12267.9	12369.9	12455.5	12429.0	12227.2	11823.6	11216.1	10437.4	10023.6
10°	10898.1	10843.1	11012.2	11364.9	11882.7	12333.2	12577.8	12327.1	11680.9	10669.7	10105.1
12.5°	9752.4	9725.9	9838.1	10123.4	10698.3	11562.6	12533.0	12767.4	12164.0	10944.9	10215.2
15°	9263.1	9230.5	9301.9	9446.6	9813.6	10618.8	12125.2	13069.2	12639.0	11263.0	10390.4
17.5°	9155.1	9118.4	9148.9	9224.4	9460.9	10074.5	11509.6	13217.9	13134.4	11617.7	10537.2
20°	9354.9	9324.3	9328.4	9324.3	9489.4	9976.6	11081.6	13160.9	13566.5	11943.8	10680.0
22.5°	9838.1	9787.0	9789.1	9681.0	9770.7	10147.9	10969.4	13008.0	13951.8	12229.3	10788.0
25°	10624.9	10533.2	10551.6	10276.3	10251.8	10531.2	11144.7	12889.7	14335.0	12457.5	10808.3
27.5°	11701.3	11597.3	11542.2	11132.5	10936.7	11075.4	11501.5	12930.5	14697.9	12655.3	10757.4
30°	13046.7	12920.3	12808.2	12227.2	11872.5	11821.5	12055.9	13199.5	15126.0	12863.2	10669.7
32.5°	14695.8	14549.1	14345.3	13574.7	13075.2	12808.2	12773.6	13678.6	15627.5	13128.2	10624.9
35°	16659.0	16467.3	16177.9	15181.1	14549.1	14002.7	13719.4	14369.7	16314.5	13527.7	10675.9
37.5°	18681.2	18465.2	18200.1	17013.7	16237.0	15431.8	14873.3	15307.5	17229.7	14070.1	10810.4
40°	20546.5	20303.9	20057.2	19001.2	18167.5	17197.1	16285.9	16493.9	18348.9	14718.3	11038.7
42.5°	21647.3	21467.9	21374.1	20803.4	20159.2	19174.6	18043.2	17900.5	19606.7	15464.4	11299.7
45°	21598.4	21525.0	21814.5	22050.9	21898.1	21351.8	20102.1	19455.8	20868.6	16110.6	11540.2
47.5°	20444.5	20493.5	21139.7	22468.8	23053.9	23339.4	22446.5	20982.8	21965.3	16593.7	11648.2
50°	17305.2	17346.0	18842.3	21708.5	23351.6	24960.0	24772.4	22472.9	22815.4	16889.3	11623.8
52.5°	14820.3	14846.7	15488.9	19453.9	22369.0	25775.4	26868.0	23877.5	23437.1	16970.9	11487.2
55°	11163.1	11254.8	11974.5	15262.6	19812.6	25129.1	28144.1	25324.9	23830.6	16979.0	11344.5
57.5°	6521.4	6621.2	7510.0	10359.9	15399.2	22876.6	28337.9	26609.1	24097.6	16913.8	11258.9
60°	3194.4	3237.3	3624.5	5445.0	9495.5	18536.5	26780.4	27230.9	24246.5	16879.2	11254.8
62.5°	2152.7	2146.6	2162.9	2686.8	4678.5	11909.2	23535.0	26142.3	24166.9	16746.7	11214.0
65°	1851.0	1828.6	1767.4	1885.7	2423.8	5447.0	18183.8	22892.9	23561.5	16414.4	10934.8
67.5°	1600.2	1602.3	1604.3	1567.6	1730.7	2513.5	11112.1	18032.9	21388.5	14840.6	9858.4
70°	1325.0	1343.4	1351.6	1351.6	1410.7	1649.2	4743.7	12359.7	16871.0	11636.0	7940.2
72.5°	1206.8	1168.1	1172.2	1151.8	1151.8	1255.7	1910.1	7006.5	10628.9	6545.8	4845.6
75°	984.6	1009.1	1013.1	998.9	952.0	958.1	1133.4	2939.6	4548.0	2715.3	2395.3
77.5°	850.0	850.0	858.2	848.1	811.4	717.6	756.3	1139.6	1547.2	1113.0	1196.6
80°	683.0	680.9	715.6	735.9	678.9	530.0	483.2	629.9	687.0	489.2	621.8
82.5°	332.3	352.7	491.3	560.6	515.8	383.2	295.6	391.4	367.0	216.1	279.3
85°	193.6	183.5	220.2	311.9	295.6	212.0	142.7	203.9	191.6	110.1	112.1
87.5°	61.2	57.1	44.9	106.0	85.6	59.1	38.7	59.1	53.0	24.5	24.5
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°	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8	9880.8
2.5°	9768.7	9528.2	9289.7	9071.6	8939.0	8853.4	8767.7	8672.0	8635.3	8580.3
5°	9670.9	9206.0	8792.2	8435.5	8111.3	7856.5	7599.7	7391.8	7298.0	7361.1
7.5°	9613.8	8941.1	8303.0	7648.7	7018.7	6515.2	6076.9	5769.1	5630.4	5665.1
10°	9562.8	8641.4	7669.0	6635.4	5730.4	5106.5	4658.1	4423.7	4336.0	4354.3
12.5°	9515.9	8305.1	6904.6	5544.8	4582.7	4170.8	4042.4	4044.4	4060.7	4073.0
15°	9507.8	7899.4	6050.4	4590.8	3963.0	3936.4	4075.1	4162.7	4209.6	4223.8
17.5°	9495.5	7414.2	5179.9	3940.5	3812.1	3991.5	4119.9	4177.0	4213.7	4215.7
20°	9446.6	6798.5	4376.8	3630.7	3779.5	3934.4	4013.9	4058.8	4089.3	4099.5
22.5°	9295.7	6113.6	3750.9	3492.1	3649.0	3773.3	3867.1	3918.1	3936.4	3948.7
25°	9024.6	5347.1	3318.7	3359.5	3467.6	3624.5	3699.9	3710.2	3704.0	3722.4
27.5°	8670.0	4525.6	3049.7	3180.2	3318.7	3453.3	3494.0	3488.0	3475.7	3496.1
30°	8241.8	3787.6	2878.4	2978.3	3167.9	3290.2	3326.9	3312.6	3288.2	3310.6
32.5°	7789.3	3184.2	2737.8	2837.6	3043.5	3163.9	3200.6	3186.2	3167.9	3186.2
35°	7367.3	2762.3	2607.3	2743.9	2945.7	3063.9	3110.8	3112.8	3112.8	3135.3
37.5°	6979.9	2515.6	2499.3	2684.8	2878.4	2984.4	3051.7	3055.7	2968.1	2974.2
40°	6621.2	2411.6	2450.4	2646.0	2813.2	2915.1	2919.2	2690.8	2529.8	2525.8
42.5°	6327.6	2391.2	2464.6	2641.9	2766.3	2770.4	2483.0	2305.6	2260.7	2262.8
45°	6052.4	2385.1	2497.2	2641.9	2697.0	2393.3	2199.5	2152.7	2156.8	2173.1
47.5°	5744.6	2360.7	2503.4	2605.2	2497.2	2128.2	2071.1	2050.8	2042.6	2046.7
50°	5408.3	2272.9	2425.9	2531.9	2154.8	2014.1	1942.8	1936.6	1946.8	1952.9
52.5°	5053.6	2130.3	2293.3	2399.3	1997.7	1914.2	1834.6	1849.0	1893.8	1908.0
55°	4821.2	1963.1	2118.1	2134.4	1887.7	1820.4	1753.2	1785.8	1869.4	1895.8
57.5°	4760.0	1785.8	1918.3	1899.9	1747.0	1738.9	1698.1	1726.6	1832.7	1871.3
60°	4741.6	1626.8	1722.6	1708.3	1610.5	1649.2	1639.0	1653.2	1689.9	1702.2
62.5°	4599.0	1500.4	1547.2	1526.8	1488.1	1555.4	1579.8	1549.3	1577.9	1592.1
65°	4236.1	1398.4	1376.1	1361.7	1378.0	1439.2	1488.1	1427.0	1453.4	1494.2
67.5°	3636.8	1259.8	1198.6	1214.9	1266.0	1298.6	1361.7	1292.4	1314.9	1384.2
70°	2941.6	1084.6	1029.5	1076.4	1125.2	1192.6	1202.7	1155.9	1208.9	1286.3
72.5°	2081.4	907.1	868.4	964.2	980.5	1068.2	1045.8	1023.4	1096.8	1123.2
75°	1443.3	731.8	709.4	782.8	841.9	917.4	901.1	927.5	1082.5	1094.7
77.5°	913.3	568.8	554.5	601.4	683.0	766.5	793.0	1094.7	1849.0	1922.4
80°	530.0	424.0	407.7	444.4	515.8	593.2	764.4	1343.4	1219.0	1204.8
82.5°	295.6	291.5	271.1	281.4	344.5	428.1	1080.5	945.9	768.5	793.0
85°	138.6	171.3	146.8	140.6	193.6	501.5	721.6	540.2	358.7	350.7
87.5°	36.7	32.6	32.6	36.7	81.6	432.1	287.4	230.3	136.6	132.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)