

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: P968429

Luminaire Tested: **NAV-SB5B-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968429
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-SB5B-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27503.8 lumens
Efficiency: N/A
Efficacy: 150.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 182.7
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



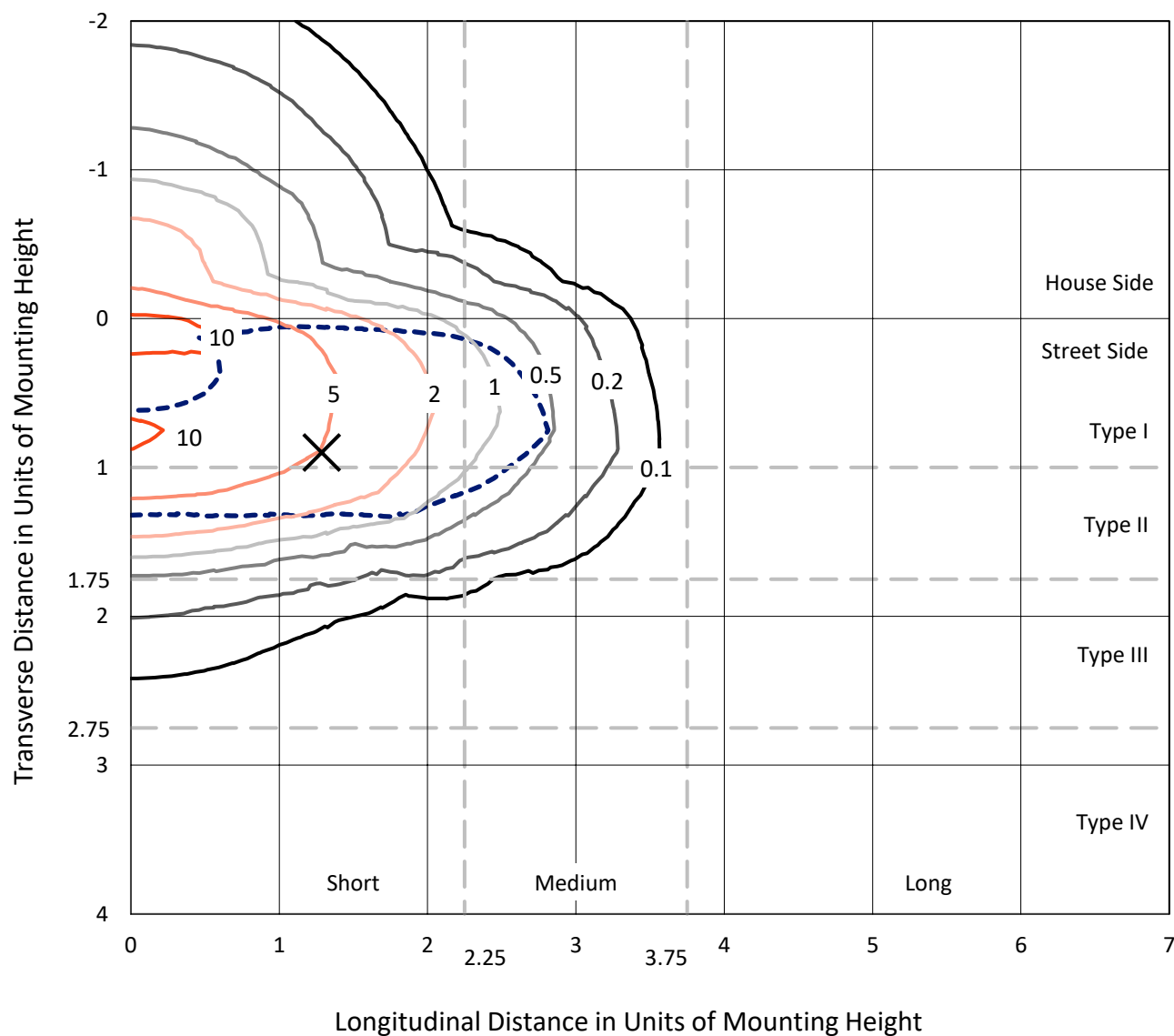
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



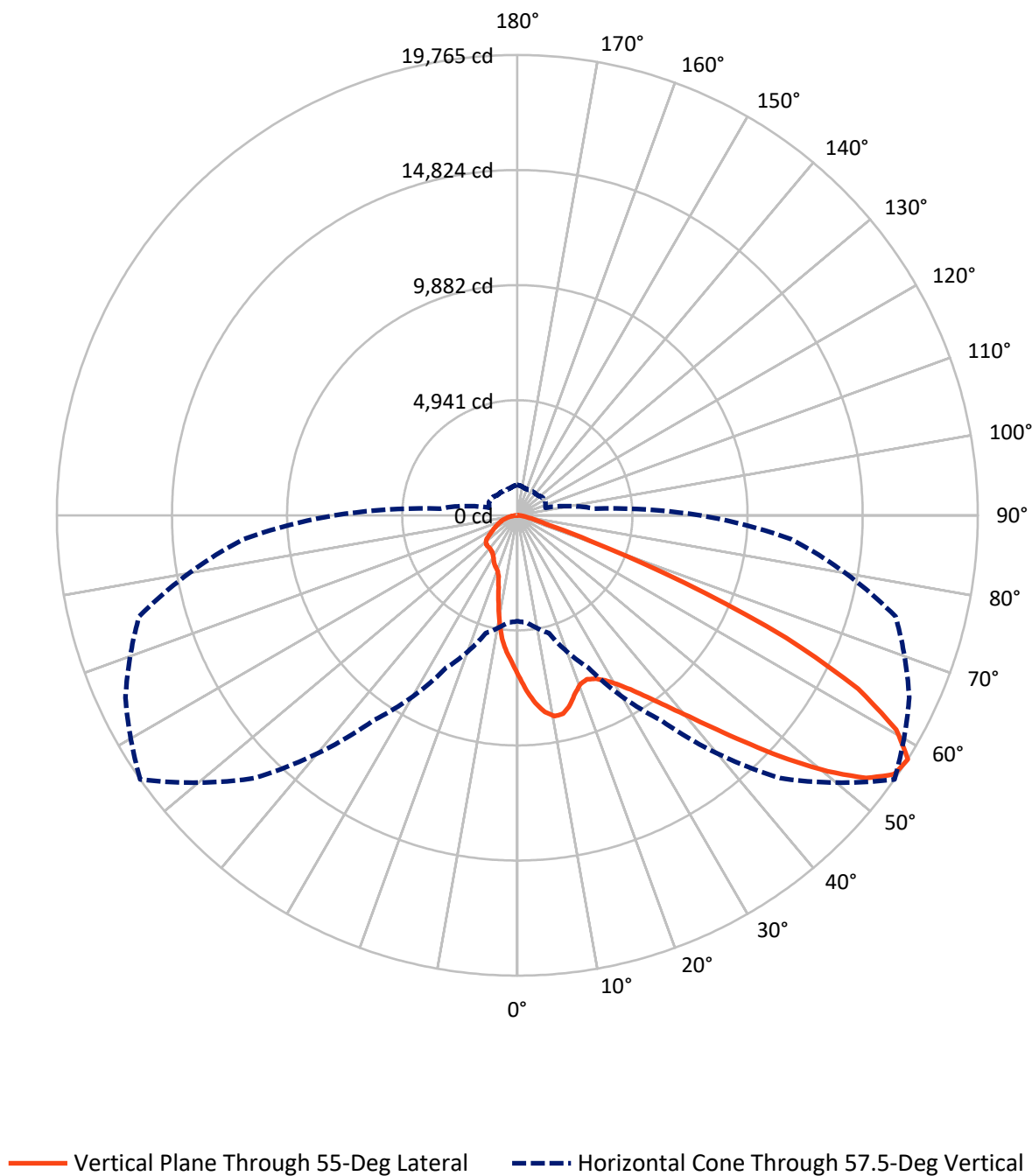
Based on 25 foot mounting height. Maximum calculated value = 13.3 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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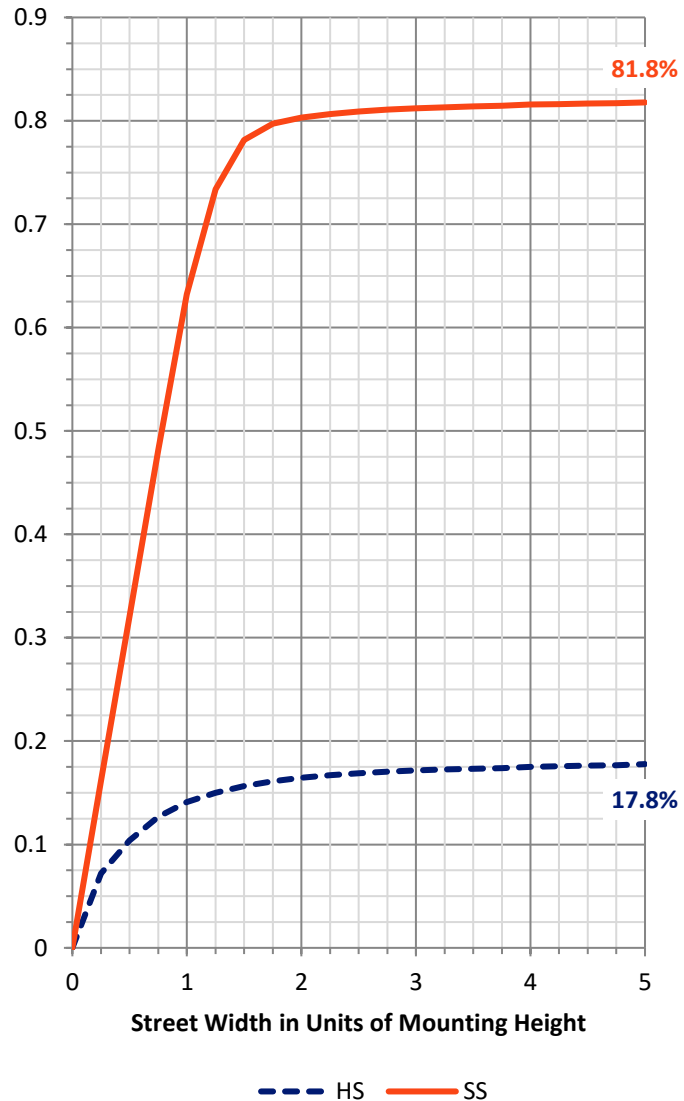
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4976.7	0.0	4976.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	22527.1	0.0	22527.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	27503.8	0.0	27503.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	639.5	2.3
10°-20°	1614.1	5.9
20°-30°	2575.7	9.4
30°-40°	4077.9	14.8
40°-50°	6241.7	22.7
50°-60°	6685.4	24.3
60°-70°	4205.8	15.3
70°-80°	1243.7	4.5
80°-90°	219.9	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°	27503.8	100.0
0°-180°	27503.8	100.0

Coefficient of Utilization



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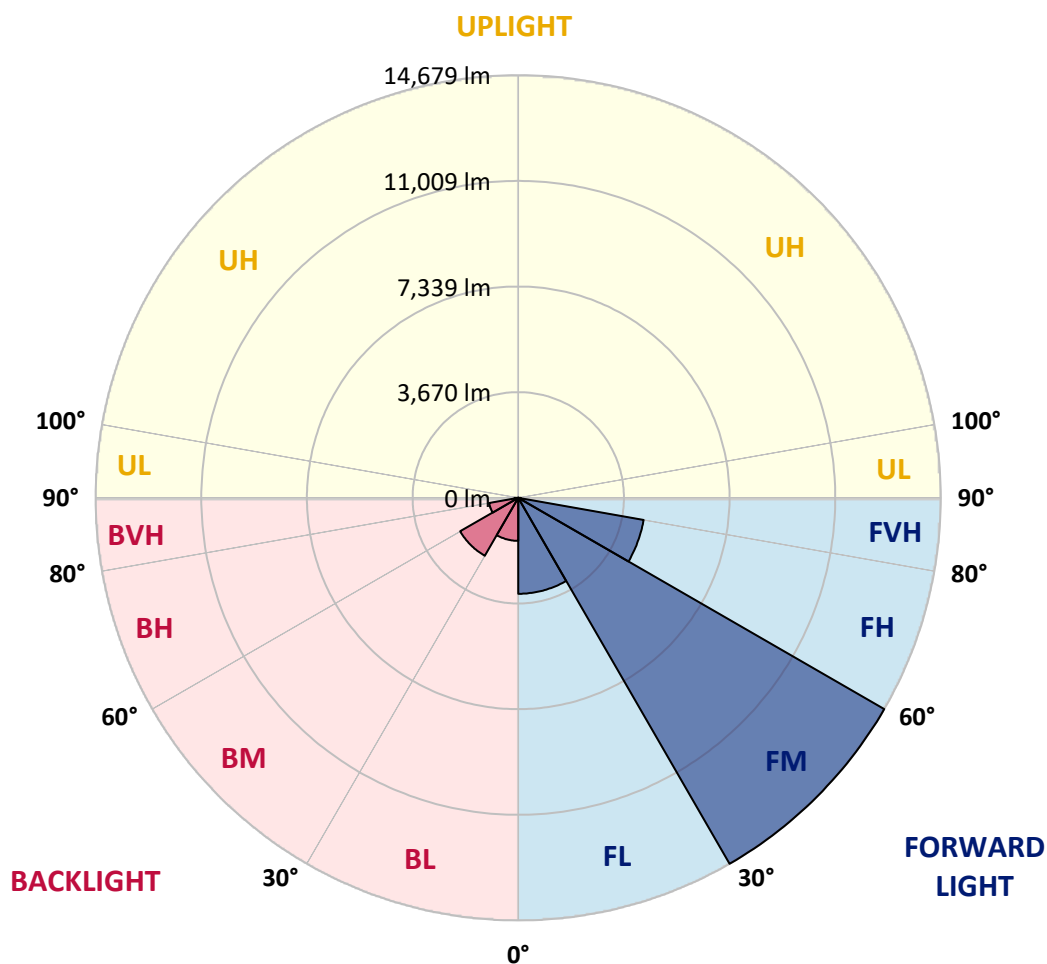
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3333.5	12.1			
FM	(30°-60°)	14679.0	53.4			
FH	(60°-80°)	4421.8	16.1			G2/5000
FVH	(80°-90°)	92.9	0.3			G1/100
BL	(0°-30°)	1495.8	5.4	B3/2500		
BM	(30°-60°)	2326.1	8.5	B2/2500		
BH	(60°-80°)	1027.8	3.7	B3/2500		G3/2500
BVH	(80°-90°)	127.0	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°	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6
2.5°	7906.7	7901.0	7932.4	7825.7	7753.2	7655.1	7525.7	7360.7	7183.0	6995.3	6914.3
5°	8619.1	8569.3	8602.0	8522.4	8442.8	8294.9	8102.9	7834.3	7505.8	7131.8	6932.8
7.5°	8506.8	8472.6	8556.5	8627.6	8687.3	8668.8	8528.1	8246.5	7822.9	7279.8	6991.1
10°	7601.1	7562.7	7680.6	7926.6	8287.8	8602.0	8772.7	8597.7	8147.0	7441.8	7048.0
12.5°	6802.0	6783.6	6861.7	7060.7	7461.7	8064.6	8741.4	8904.9	8484.0	7633.8	7124.8
15°	6460.8	6438.0	6487.7	6588.7	6844.6	7406.2	8457.0	9115.3	8815.3	7855.6	7247.1
17.5°	6385.4	6359.8	6381.1	6433.7	6598.6	7026.7	8027.6	9219.1	9160.8	8102.9	7349.4
20°	6524.7	6503.4	6506.3	6503.4	6618.5	6958.4	7729.0	9179.3	9462.2	8330.5	7448.9
22.5°	6861.7	6826.2	6827.6	6752.2	6814.8	7077.8	7650.8	9072.7	9730.9	8529.5	7524.3
25°	7410.5	7346.6	7359.3	7167.4	7150.3	7345.2	7773.1	8990.2	9998.3	8688.7	7538.5
27.5°	8161.3	8088.8	8050.4	7764.6	7628.0	7724.7	8022.0	9018.6	10251.3	8826.7	7503.0
30°	9099.6	9011.5	8933.3	8528.1	8280.7	8245.1	8408.7	9206.2	10549.9	8971.7	7441.8
32.5°	10249.9	10147.5	10005.3	9467.9	9119.5	8933.3	8909.1	9540.4	10899.6	9156.5	7410.5
35°	11619.1	11485.4	11283.6	10588.2	10147.5	9766.5	9568.9	10022.4	11378.8	9435.2	7446.1
37.5°	13029.6	12878.8	12694.0	11866.5	11324.8	10763.2	10373.6	10676.5	12017.2	9813.5	7539.9
40°	14330.5	14161.3	13989.3	13252.8	12671.3	11994.4	11358.9	11504.0	12797.8	10265.6	7699.2
42.5°	15098.4	14973.2	14907.8	14509.7	14060.4	13373.7	12584.5	12485.0	13675.0	10786.0	7881.1
45°	15064.2	15013.0	15214.9	15379.8	15273.2	14892.1	14020.6	13569.9	14555.2	11236.7	8048.9
47.5°	14259.5	14293.5	14744.3	15671.3	16079.4	16278.4	15655.6	14634.8	15320.2	11573.6	8124.3
50°	12069.9	12098.3	13141.9	15141.0	16286.9	17408.8	17278.0	15674.2	15913.0	11779.8	8107.2
52.5°	10336.6	10355.2	10803.0	13568.4	15601.6	17977.5	18739.6	16653.8	16346.7	11836.7	8011.9
55°	7785.9	7849.9	8351.8	10645.1	13818.6	17526.8	19629.7	17663.3	16621.1	11842.3	7912.4
57.5°	4548.4	4618.0	5238.0	7225.7	10740.5	15955.7	19764.8	18559.1	16807.3	11796.8	7852.7
60°	2228.0	2257.9	2528.0	3797.7	6622.8	12928.6	18678.5	18992.6	16911.2	11772.6	7849.9
62.5°	1501.4	1497.2	1508.6	1874.0	3263.1	8306.3	16415.0	18233.4	16855.7	11680.3	7821.5
65°	1291.0	1275.4	1232.8	1315.2	1690.5	3799.1	12682.6	15967.0	16433.4	11448.5	7626.6
67.5°	1116.1	1117.6	1119.0	1093.4	1207.1	1753.1	7750.3	12577.5	14917.7	10350.9	6875.9
70°	924.1	937.0	942.7	942.7	983.9	1150.3	3308.6	8620.5	11767.0	8115.7	5538.0
72.5°	841.7	814.7	817.5	803.3	803.3	875.9	1332.3	4886.8	7413.4	4565.5	3379.6
75°	686.7	703.8	706.6	696.7	664.0	668.3	790.6	2050.3	3172.1	1893.9	1670.6
77.5°	592.9	592.9	598.6	591.5	565.9	500.5	527.5	794.8	1079.1	776.3	834.7
80°	476.3	474.9	499.1	513.3	473.4	369.7	337.0	439.3	479.2	341.2	433.7
82.5°	231.8	246.0	342.7	391.0	359.7	267.3	206.1	273.0	255.9	150.7	194.7
85°	135.1	127.9	153.5	217.5	206.1	147.9	99.5	142.2	133.7	76.8	78.2
87.5°	42.6	39.8	31.3	73.9	59.8	41.2	27.1	41.2	37.0	17.0	17.0
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°	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6	6891.6
2.5°	6813.4	6645.6	6479.2	6327.1	6234.7	6175.0	6115.3	6048.4	6022.8	5984.5
5°	6745.1	6420.9	6132.3	5883.5	5657.4	5479.6	5300.6	5155.5	5090.2	5134.2
7.5°	6705.3	6236.1	5791.0	5334.7	4895.3	4544.1	4238.5	4023.7	3927.1	3951.3
10°	6669.8	6027.1	5348.9	4628.0	3996.8	3561.7	3248.8	3085.4	3024.3	3037.0
12.5°	6637.1	5792.5	4815.8	3867.3	3196.3	2909.1	2819.5	2820.9	2832.3	2840.8
15°	6631.3	5509.6	4219.9	3201.9	2764.0	2745.6	2842.2	2903.3	2936.0	2946.1
17.5°	6622.8	5171.1	3612.8	2748.3	2658.8	2783.9	2873.5	2913.4	2938.9	2940.3
20°	6588.7	4741.8	3052.7	2532.3	2636.1	2744.1	2799.6	2830.8	2852.2	2859.2
22.5°	6483.5	4264.0	2616.1	2435.6	2545.1	2631.8	2697.2	2732.8	2745.6	2754.1
25°	6294.4	3729.5	2314.8	2343.1	2418.5	2528.0	2580.6	2587.7	2583.4	2596.2
27.5°	6047.0	3156.5	2127.1	2218.0	2314.8	2408.5	2437.0	2432.7	2424.2	2438.4
30°	5748.4	2641.7	2007.6	2077.3	2209.5	2294.8	2320.4	2310.5	2293.4	2309.0
32.5°	5432.8	2220.9	1909.5	1979.2	2122.8	2206.6	2232.2	2222.3	2209.5	2222.3
35°	5138.4	1926.6	1818.6	1913.8	2054.5	2137.0	2169.7	2171.2	2171.2	2186.7
37.5°	4868.3	1754.5	1743.1	1872.6	2007.6	2081.6	2128.5	2131.3	2070.2	2074.4
40°	4618.0	1682.0	1709.0	1845.5	1962.2	2033.2	2036.1	1876.8	1764.4	1761.7
42.5°	4413.3	1667.8	1719.0	1842.6	1929.5	1932.2	1731.7	1608.1	1576.8	1578.2
45°	4221.4	1663.6	1741.7	1842.6	1881.1	1669.2	1534.1	1501.4	1504.3	1515.7
47.5°	4006.7	1646.5	1746.0	1817.1	1741.7	1484.4	1444.5	1430.4	1424.6	1427.5
50°	3772.1	1585.4	1692.0	1765.9	1502.9	1404.8	1354.9	1350.7	1357.8	1362.1
52.5°	3524.7	1485.8	1599.5	1673.5	1393.4	1335.1	1279.6	1289.6	1320.9	1330.9
55°	3362.6	1369.2	1477.2	1488.6	1316.6	1269.7	1222.7	1245.5	1303.8	1322.2
57.5°	3320.0	1245.5	1337.9	1325.1	1218.5	1212.8	1184.4	1204.3	1278.2	1305.2
60°	3307.2	1134.6	1201.4	1191.5	1123.2	1150.3	1143.2	1153.1	1178.6	1187.3
62.5°	3207.6	1046.4	1079.1	1065.0	1037.9	1084.9	1101.9	1080.6	1100.4	1110.5
65°	2954.6	975.4	959.7	949.8	961.1	1003.8	1037.9	995.3	1013.7	1042.2
67.5°	2536.6	878.7	836.0	847.4	882.9	905.7	949.8	901.4	917.1	965.4
70°	2051.6	756.4	718.0	750.7	784.8	831.8	838.9	806.2	843.2	897.2
72.5°	1451.7	632.7	605.7	672.5	683.9	745.1	729.4	713.7	765.0	783.4
75°	1006.7	510.4	494.8	546.0	587.2	639.8	628.4	646.9	755.0	763.5
77.5°	636.9	396.7	386.7	419.4	476.3	534.6	553.1	763.5	1289.6	1340.8
80°	369.7	295.7	284.3	310.0	359.7	413.8	533.2	937.0	850.2	840.3
82.5°	206.1	203.4	189.1	196.2	240.3	298.6	753.6	659.7	536.1	553.1
85°	96.7	119.4	102.4	98.1	135.1	349.7	503.3	376.8	250.2	244.6
87.5°	25.6	22.8	22.8	25.6	56.9	301.5	200.5	160.6	95.2	92.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)