

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: P967762

Luminaire Tested: **NAV-SB5A-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967762
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25028.4 lumens
Efficiency: N/A
Efficacy: 176.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 141.7
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

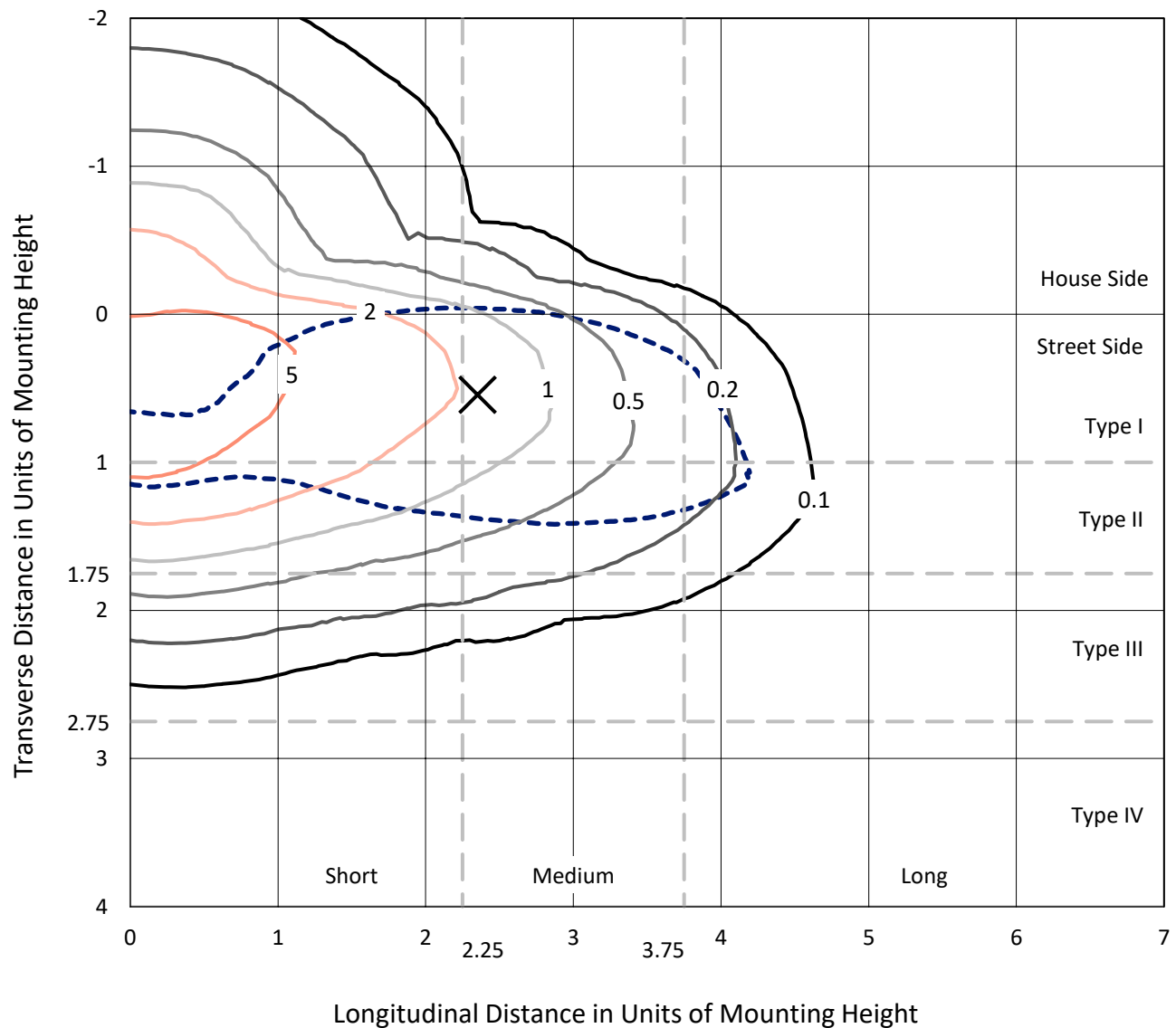


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Iso-Footcandle Lines of Horizontal Illumination

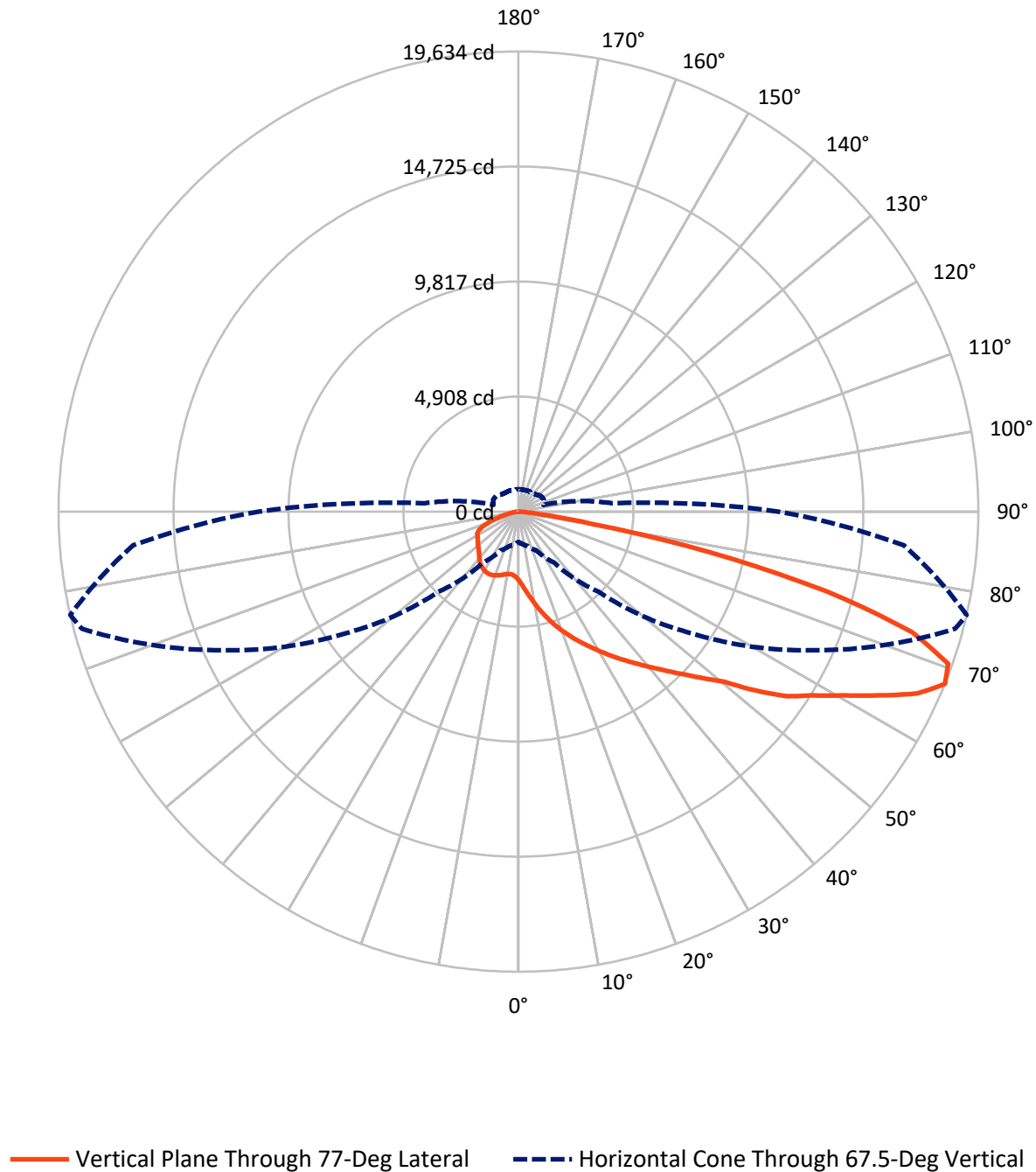
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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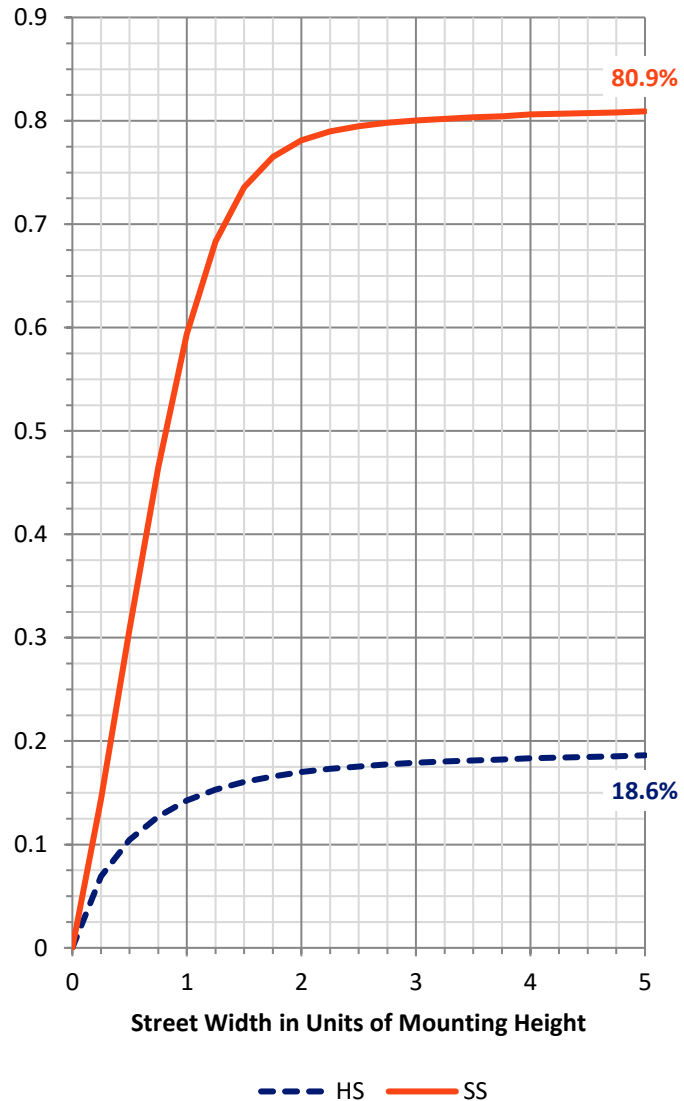
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4734.4	0.0	4734.4
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	20294.1	0.0	20294.1
	% Fixture	81.1	0.0	81.1
Total	Lumens	25028.4	0.0	25028.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.8	1.3
10°-20°	1130.8	4.5
20°-30°	2135.1	8.5
30°-40°	3439.6	13.7
40°-50°	4704.8	18.8
50°-60°	5307.0	21.2
60°-70°	4953.4	19.8
70°-80°	2715.3	10.8
80°-90°	327.5	1.3
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°	25028.4	100.0
0°-180°	25028.4	100.0

Coefficient of Utilization



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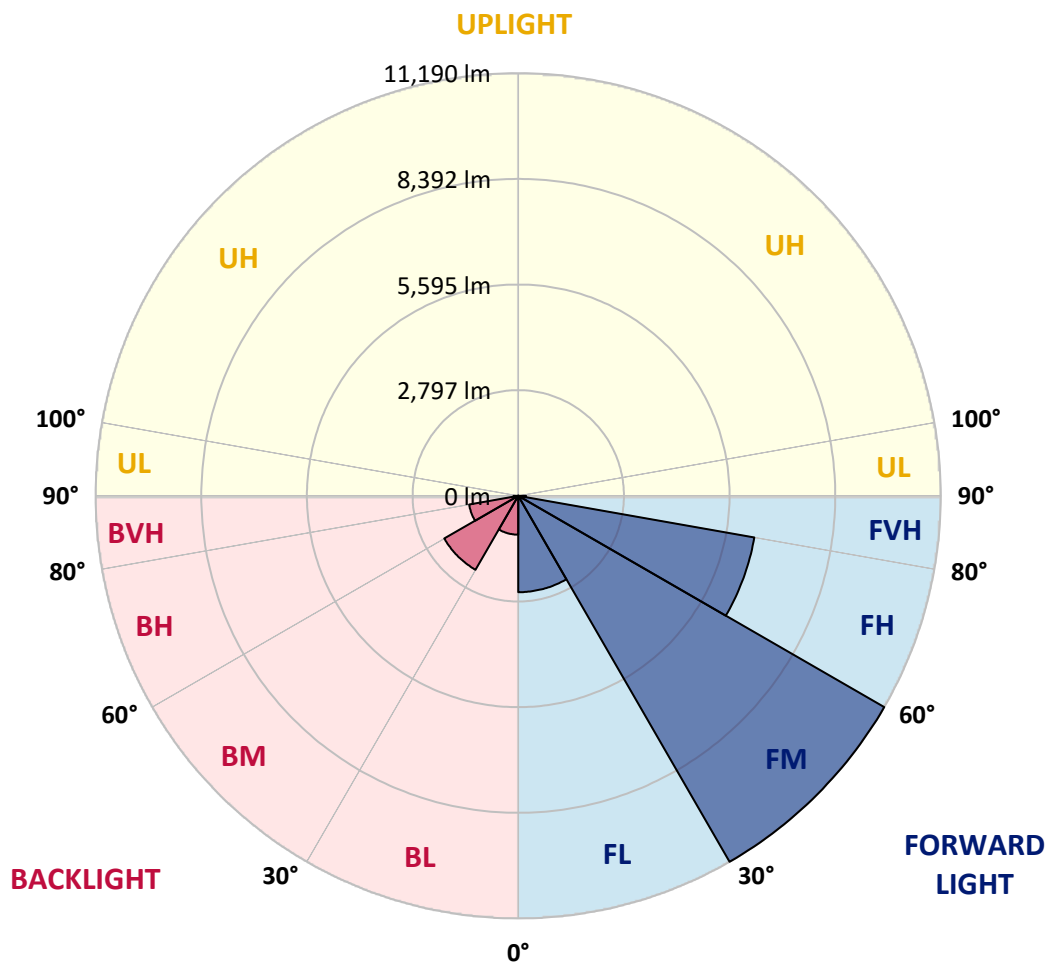
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2551.3	10.2			
FM	(30°-60°)	11189.9	44.7			
FH	(60°-80°)	6347.9	25.4			G3/7500
FVH	(80°-90°)	204.8	0.8			G2/225
BL	(0°-30°)	1029.4	4.1	B3/2500		
BM	(30°-60°)	2261.5	9.0	B2/2500		
BH	(60°-80°)	1320.8	5.3	B3/2500		G3/2500
BVH	(80°-90°)	122.7	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6
2.5°	3676.9	3702.7	3670.4	3670.4	3561.9	3505.1	3396.5	3313.8	3165.3	3139.5	3041.3
5°	4346.1	4378.4	4333.2	4313.8	4185.9	4068.3	3886.2	3706.6	3441.7	3414.7	3183.3
7.5°	4864.2	4905.5	4865.5	4844.9	4731.1	4599.4	4386.2	4135.6	3762.2	3709.2	3374.6
10°	5286.6	5293.1	5280.2	5288.0	5198.8	5090.4	4871.9	4580.0	4113.6	4041.3	3605.8
12.5°	5525.7	5555.4	5581.2	5627.8	5612.3	5545.0	5348.7	4999.8	4485.7	4392.6	3857.8
15°	5638.1	5689.8	5747.9	5855.1	5941.7	5958.5	5808.7	5450.7	4864.2	4751.8	4112.3
17.5°	5678.2	5727.2	5818.9	5974.0	6160.0	6285.4	6218.2	5888.7	5238.9	5109.7	4379.7
20°	5880.9	5895.2	5950.7	6098.0	6299.5	6507.6	6558.0	6309.9	5609.6	5463.7	4656.2
22.5°	6315.1	6286.6	6302.1	6369.3	6514.1	6715.6	6830.6	6682.0	5990.8	5822.8	4935.3
25°	7032.1	6949.4	6866.8	6789.2	6862.9	6976.6	7107.0	7054.0	6390.1	6176.9	5216.9
27.5°	7937.8	7837.0	7654.8	7400.3	7311.2	7351.2	7409.3	7399.1	6759.5	6543.8	5507.6
30°	8829.2	8711.7	8494.6	8126.4	7891.3	7785.3	7741.4	7711.7	7161.3	6931.4	5800.9
32.5°	9541.1	9448.0	9234.9	8822.8	8481.7	8300.9	8154.8	8048.9	7581.2	7351.2	6110.9
35°	10163.8	10077.3	9833.0	9383.5	9012.7	8820.2	8629.0	8402.8	8017.9	7785.3	6444.3
37.5°	10732.3	10645.8	10311.1	9843.4	9470.1	9336.9	9166.5	8782.7	8455.8	8236.2	6797.0
40°	11091.4	11072.0	10759.4	10229.7	9842.2	9776.2	9719.4	9223.3	8941.6	8737.5	7184.5
42.5°	11183.2	11225.8	10977.7	10542.3	10172.8	10119.9	10253.0	9721.9	9486.8	9291.7	7623.8
45°	10962.3	11085.0	10922.2	10626.4	10408.0	10379.6	10725.8	10267.2	10090.2	9911.9	8153.6
47.5°	10402.8	10610.8	10543.7	10502.4	10471.3	10594.0	11141.9	10845.9	10773.6	10618.6	8758.2
50°	9273.7	9667.7	9785.3	10046.2	10345.9	10760.7	11520.4	11477.7	11572.0	11415.7	9494.6
52.5°	7321.5	7864.1	8546.2	9200.0	9960.9	10705.1	11936.3	12384.7	12782.6	12697.3	10665.1
55°	6043.8	6288.0	6812.5	8011.4	9214.2	10471.3	12123.7	13117.2	13984.1	13907.9	11552.7
57.5°	5061.9	5280.2	5603.2	6604.5	8085.1	9940.3	12239.9	13564.2	14807.1	14799.4	12428.6
60°	4009.0	4240.2	4571.0	5280.2	6765.9	9023.0	12214.1	14073.2	15857.5	15922.0	13497.1
62.5°	2820.4	3074.9	3441.7	4103.3	5418.5	7834.4	11687.0	14441.4	17093.8	17269.6	14782.6
65°	1853.9	2021.9	2298.4	2869.4	4037.4	6306.0	10680.6	14489.3	18416.8	18713.9	15989.3
67.5°	1299.7	1364.3	1527.0	1837.2	2661.4	4835.7	9077.3	13994.4	19299.2	19633.9	16512.4
70°	1014.1	1046.5	1129.1	1253.2	1671.8	3251.8	6955.9	12707.6	19110.6	19459.4	15966.0
72.5°	876.0	906.9	938.0	953.5	1121.5	2007.7	4711.7	10625.0	17334.2	17570.6	13882.1
75°	794.6	802.3	828.1	823.0	855.3	1302.3	2719.5	7741.4	13676.7	13595.3	10247.7
77.5°	667.9	678.2	720.9	714.4	759.6	890.1	1412.1	4996.0	8866.7	8313.8	5704.0
80°	565.9	571.0	617.6	609.8	660.2	644.7	720.9	2546.4	3760.9	3186.0	1644.6
82.5°	196.4	242.9	471.6	485.7	503.9	390.2	416.0	1038.7	1148.5	879.9	344.9
85°	95.6	102.1	240.3	341.1	339.8	196.4	202.8	370.7	361.7	284.2	115.0
87.5°	15.5	19.4	28.4	133.0	106.0	51.7	69.8	72.4	74.9	64.6	25.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6	2936.6
2.5°	2968.9	2904.3	2768.6	2643.4	2545.2	2450.9	2397.9	2352.7	2326.9	2321.6	2321.6
5°	3049.0	2915.9	2669.2	2461.1	2325.5	2224.8	2171.8	2138.1	2121.3	2111.1	2109.8
7.5°	3164.0	2968.9	2617.5	2381.1	2239.0	2166.6	2139.5	2134.4	2133.0	2134.4	2138.1
10°	3322.9	3055.5	2612.3	2361.7	2242.8	2202.8	2201.5	2202.8	2208.0	2209.3	2210.5
12.5°	3494.7	3144.6	2633.0	2378.5	2291.9	2270.0	2266.1	2264.8	2268.6	2271.3	2272.5
15°	3682.1	3262.2	2667.9	2414.7	2346.2	2323.0	2319.1	2311.3	2310.0	2308.7	2307.5
17.5°	3874.6	3378.5	2706.6	2453.4	2381.1	2348.8	2334.5	2316.5	2302.3	2298.4	2302.3
20°	4069.7	3493.4	2733.8	2472.8	2383.6	2338.4	2310.0	2279.0	2254.5	2240.2	2245.5
22.5°	4277.6	3613.6	2750.6	2467.6	2360.4	2298.4	2246.7	2210.5	2173.1	2148.5	2149.8
25°	4480.5	3718.3	2749.3	2440.5	2315.2	2236.3	2170.4	2124.0	2072.3	2046.4	2046.4
27.5°	4675.5	3812.6	2717.0	2392.7	2250.6	2162.8	2083.9	2028.4	1977.9	1953.4	1952.1
30°	4877.2	3891.4	2666.6	2323.0	2174.3	2077.5	1990.9	1943.1	1897.9	1874.6	1873.3
32.5°	5077.3	3963.7	2595.5	2236.3	2086.5	1993.5	1908.2	1864.3	1837.2	1837.2	1838.4
35°	5289.3	4014.1	2501.2	2135.6	1993.5	1904.3	1837.2	1811.3	1808.7	1793.2	1789.3
37.5°	5512.8	4046.4	2386.2	2032.3	1901.8	1817.7	1797.1	1766.1	1740.2	1706.6	1701.5
40°	5747.9	4078.7	2248.0	1925.1	1804.8	1758.4	1749.3	1708.0	1634.4	1551.6	1540.0
42.5°	6033.5	4100.7	2104.6	1817.7	1702.8	1687.3	1700.2	1629.1	1511.6	1449.6	1450.9
45°	6364.1	4136.8	1972.8	1711.9	1598.2	1598.2	1652.4	1559.4	1462.5	1423.7	1430.2
47.5°	6793.1	4220.8	1850.1	1595.5	1501.2	1527.0	1546.5	1475.4	1421.2	1373.4	1372.1
50°	7413.2	4422.4	1723.4	1477.9	1427.6	1479.3	1452.1	1410.8	1347.5	1308.7	1304.8
52.5°	8183.3	4541.3	1611.1	1372.1	1364.3	1415.9	1377.2	1338.4	1290.7	1239.0	1228.7
55°	8707.8	4563.2	1516.8	1294.6	1321.6	1316.5	1302.3	1267.4	1241.6	1173.1	1174.3
57.5°	9294.3	4607.1	1439.2	1248.0	1294.6	1237.7	1232.6	1202.8	1169.2	1122.7	1107.2
60°	9995.9	4675.5	1372.1	1229.9	1271.3	1186.0	1160.2	1148.5	1115.0	1091.7	1098.2
62.5°	10760.7	4737.5	1303.6	1232.6	1244.1	1135.6	1096.9	1093.0	1072.4	1064.6	1064.6
65°	11282.7	4568.3	1218.3	1229.9	1201.5	1083.9	1034.8	1033.6	1016.8	1014.1	1012.9
67.5°	11100.4	4032.1	1103.3	1193.8	1157.6	1032.3	978.1	972.8	950.9	952.1	952.1
70°	10188.4	3267.4	944.4	1104.6	1103.3	985.7	918.6	901.8	872.1	877.2	882.4
72.5°	8477.8	2421.2	731.2	956.0	1016.8	943.1	850.1	823.0	785.6	790.7	789.4
75°	6122.5	1645.9	532.3	727.3	885.0	892.8	782.9	736.5	691.2	698.9	701.5
77.5°	3133.0	932.7	391.4	501.3	695.1	811.4	722.2	660.2	649.8	722.2	711.9
80°	1021.9	467.7	271.3	351.4	456.0	664.1	633.0	562.0	559.4	576.3	494.9
82.5°	304.9	197.6	174.5	231.2	251.9	509.0	546.5	425.1	365.6	385.0	397.9
85°	104.7	95.6	99.5	115.0	120.1	298.5	382.4	281.7	266.2	293.3	289.4
87.5°	24.5	33.6	28.4	25.8	25.8	72.4	148.6	117.6	162.8	108.5	104.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)