

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: P965663

Luminaire Tested: **NAV-SB4A-740-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965663
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19269 lumens
Efficiency: N/A
Efficacy: 169.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 114
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



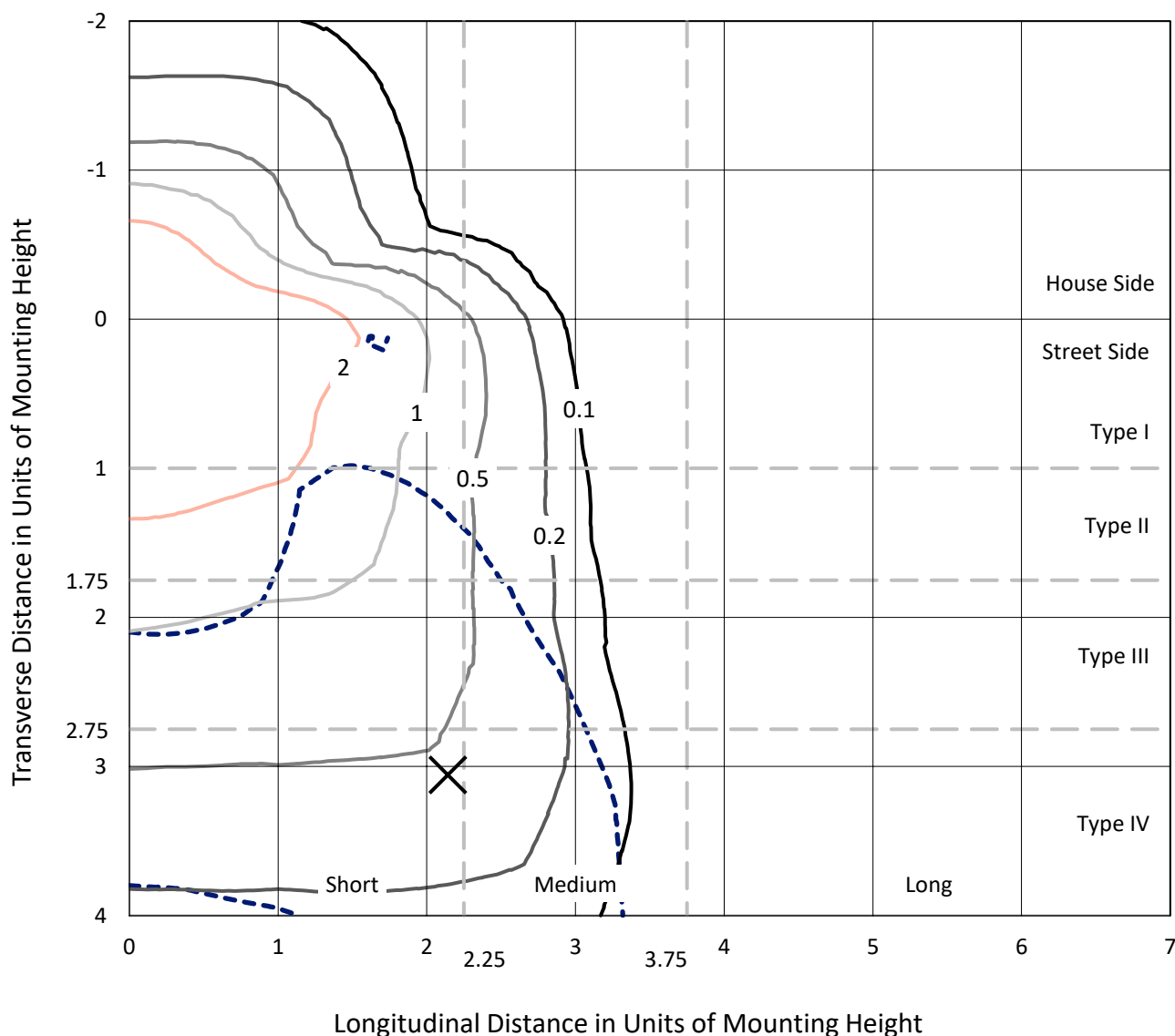
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

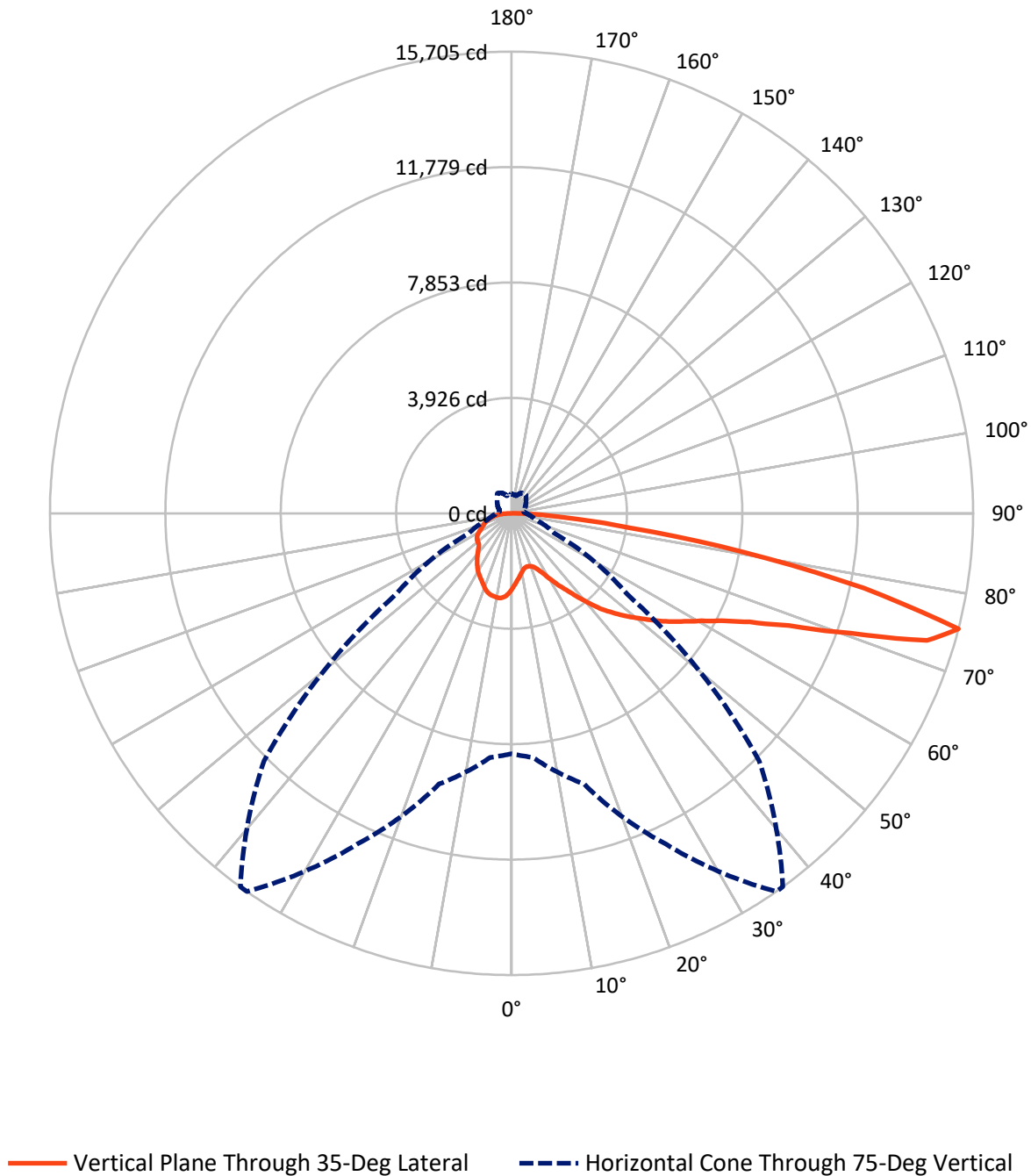


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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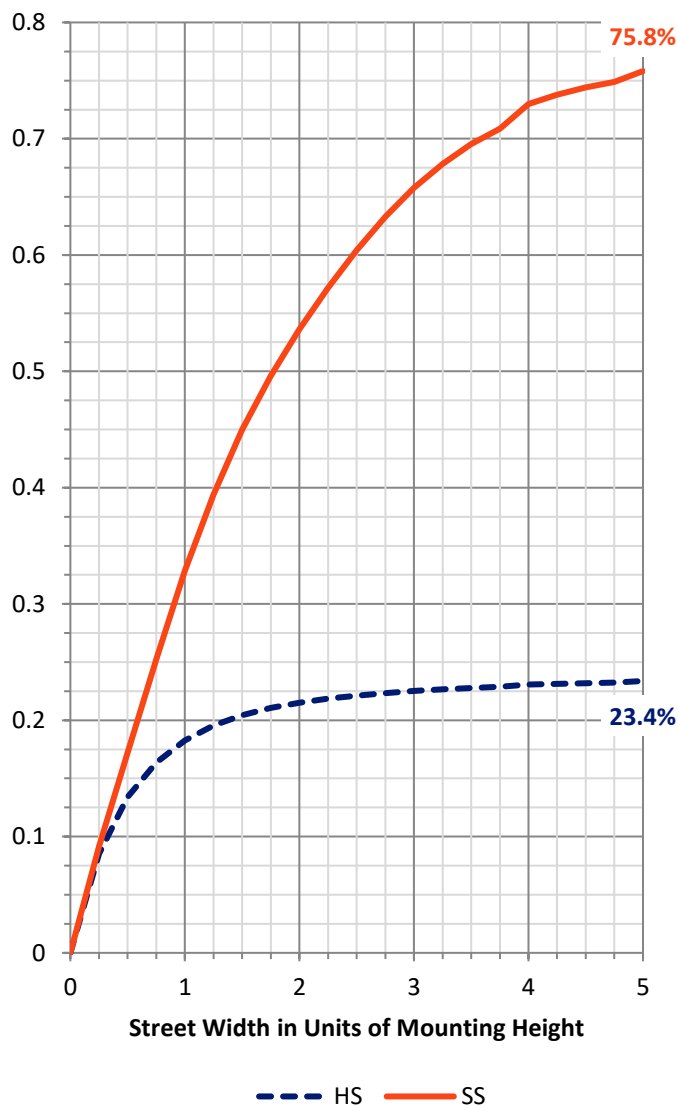
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4585.5	0.0	4585.5
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	14683.4	0.0	14683.4
	% Fixture	76.2	0.0	76.2
Total	Lumens	19269.0	0.0	19269.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.1	1.3
10°-20°	701.2	3.6
20°-30°	1177.6	6.1
30°-40°	1830.1	9.5
40°-50°	2716.4	14.1
50°-60°	3750.1	19.5
60°-70°	4549.7	23.6
70°-80°	3760.0	19.5
80°-90°	540.8	2.8
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°	19269.0	100.0
0°-180°	19269.0	100.0

Coefficient of Utilization



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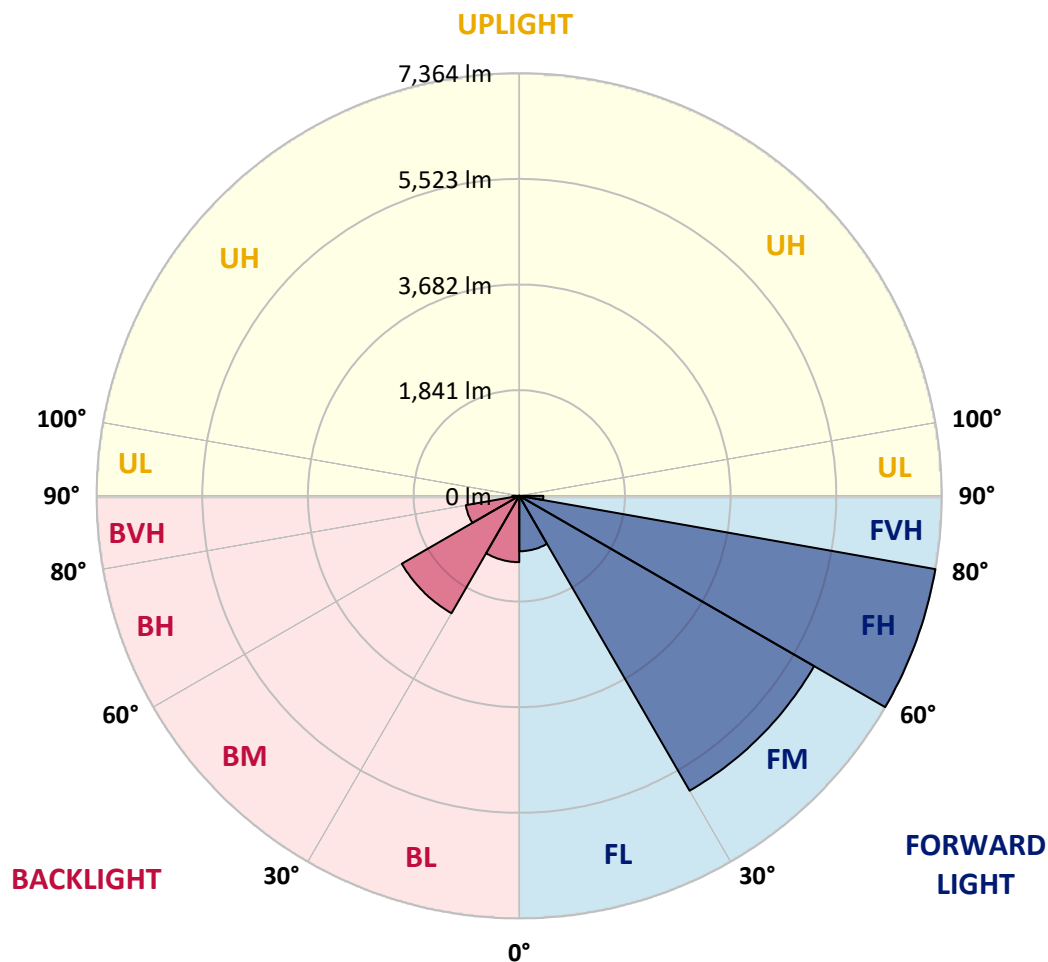
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	966.3	5.0			
FM	(30°-60°)	5933.8	30.8			
FH	(60°-80°)	7364.3	38.2			G3/7500
FVH	(80°-90°)	419.0	2.2			G3/500
BL	(0°-30°)	1155.6	6.0	B3/2500		
BM	(30°-60°)	2362.7	12.3	B2/2500		
BH	(60°-80°)	945.4	4.9	B2/1000		G2/1000
BVH	(80°-90°)	121.8	0.6			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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7
2.5°	2367.8	2382.3	2388.6	2385.4	2401.1	2399.0	2420.8	2447.9	2485.4	2521.9	2575.0
5°	2185.4	2201.1	2214.6	2227.1	2257.3	2266.7	2301.0	2353.1	2421.9	2491.7	2579.2
7.5°	2015.7	2029.2	2050.0	2073.0	2124.0	2133.3	2190.6	2271.9	2367.8	2469.8	2590.7
10°	1877.1	1890.6	1912.5	1938.6	2002.1	2013.5	2086.5	2194.8	2319.8	2448.9	2603.1
12.5°	1817.7	1821.8	1834.3	1860.4	1915.6	1922.9	2003.2	2127.1	2272.9	2433.4	2621.8
15°	1814.6	1823.0	1824.0	1837.5	1883.3	1886.5	1960.4	2083.3	2243.7	2430.2	2650.0
17.5°	1845.8	1852.1	1842.7	1851.0	1889.6	1894.8	1953.1	2062.5	2234.4	2443.8	2697.9
20°	1929.2	1934.4	1906.3	1894.8	1922.9	1927.1	1984.4	2076.0	2243.7	2471.9	2763.6
22.5°	2106.3	2109.3	2040.7	1993.7	1995.9	1997.9	2048.0	2131.3	2280.2	2522.9	2846.9
25°	2382.3	2380.3	2270.9	2180.2	2128.1	2116.7	2150.0	2220.9	2341.7	2590.7	2954.2
27.5°	2705.2	2689.6	2580.2	2444.8	2331.3	2314.6	2307.3	2337.5	2429.1	2680.3	3085.5
30°	3069.8	3055.2	2937.5	2760.4	2603.1	2576.0	2507.4	2491.7	2559.4	2802.1	3267.7
32.5°	3469.8	3460.4	3319.8	3105.2	2894.8	2863.5	2747.9	2706.3	2759.4	2986.4	3521.9
35°	3805.2	3796.9	3680.3	3459.4	3202.1	3163.6	3045.9	2998.9	3026.1	3222.9	3854.2
37.5°	4108.4	4104.2	4004.2	3830.2	3564.6	3517.7	3385.5	3369.8	3364.6	3534.4	4257.3
40°	4389.6	4379.2	4275.1	4183.3	3986.4	3943.8	3827.1	3813.5	3773.9	3917.8	4713.6
42.5°	4701.1	4674.0	4522.9	4480.3	4427.1	4391.7	4321.9	4324.0	4236.5	4350.0	5196.9
45°	4955.3	4939.6	4784.4	4759.4	4816.7	4802.1	4862.5	4878.2	4708.3	4803.2	5699.0
47.5°	5228.1	5213.6	5082.4	5064.6	5219.8	5224.0	5437.5	5442.7	5168.8	5274.0	6202.1
50°	5564.6	5543.8	5413.5	5435.5	5609.4	5625.0	6015.6	5980.3	5592.7	5752.1	6701.0
52.5°	5786.5	5798.9	5770.9	5806.3	6043.8	6058.4	6584.4	6493.8	6012.5	6224.0	7190.7
55°	5950.0	5975.0	6062.6	6143.7	6502.1	6516.7	7120.9	6982.3	6360.4	6661.5	7651.1
57.5°	6160.5	6125.0	6288.6	6446.9	6937.5	6976.0	7642.7	7453.2	6668.8	7038.6	7966.7
60°	6462.5	6437.5	6564.6	6799.0	7425.0	7486.5	8194.9	7877.1	6894.9	7337.6	8028.2
62.5°	7075.1	7012.5	7032.3	7239.6	8039.6	8120.9	8817.8	8246.9	7007.3	7454.2	7699.0
65°	7990.7	7883.4	7783.3	7927.1	8905.3	8985.5	9520.9	8537.5	6965.7	7228.2	6825.1
67.5°	9143.8	9037.5	8914.6	9050.0	10180.3	10243.8	10388.6	8701.1	6637.5	6357.4	5280.2
70°	10094.8	10055.2	10202.1	10759.4	12216.8	12218.8	11501.1	8565.6	5738.6	4507.3	3055.2
72.5°	9968.8	9944.9	10718.8	12441.8	14783.4	14728.2	12554.2	7540.6	3865.7	2033.3	1144.8
75°	8178.2	8333.4	9532.3	12411.5	15705.3	15698.0	11909.5	4793.8	1599.0	842.8	591.6
77.5°	4385.5	4631.3	6188.5	9163.6	12260.4	12444.8	8372.9	1677.1	686.4	539.6	409.4
80°	1430.2	1644.8	2466.7	4665.7	7966.7	7932.4	3588.5	658.4	469.8	382.3	283.3
82.5°	607.3	632.3	1102.1	2203.1	4088.5	4025.0	1142.7	378.1	330.3	261.5	175.0
85°	237.5	265.6	486.5	1018.7	1770.9	1732.2	412.5	187.5	211.5	170.9	104.1
87.5°	78.1	94.8	173.9	348.9	551.0	531.3	101.1	64.6	91.6	78.1	37.5
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7	2567.7
2.5°	2589.6	2606.3	2626.0	2655.3	2680.3	2701.1	2722.9	2736.4	2741.7	2757.4	2756.2
5°	2608.3	2644.8	2693.8	2741.7	2788.5	2816.7	2841.7	2854.2	2865.6	2874.0	2876.0
7.5°	2639.6	2686.4	2763.6	2826.0	2865.6	2888.6	2905.3	2901.1	2905.3	2907.3	2910.4
10°	2666.6	2732.3	2824.0	2883.3	2913.6	2914.6	2910.4	2895.8	2888.6	2889.6	2891.7
12.5°	2698.9	2771.9	2870.8	2920.8	2929.1	2906.3	2888.6	2863.5	2854.2	2850.0	2848.0
15°	2742.7	2826.0	2921.9	2940.6	2919.8	2890.6	2860.5	2819.8	2799.0	2782.3	2787.5
17.5°	2795.9	2887.5	2961.4	2947.9	2903.1	2855.2	2806.2	2744.8	2702.1	2684.4	2685.4
20°	2869.8	2952.1	2991.7	2932.3	2864.6	2791.7	2708.4	2633.3	2593.8	2576.0	2574.0
22.5°	2959.4	3038.5	3020.9	2905.3	2809.4	2692.7	2588.5	2533.4	2513.5	2501.1	2503.2
25°	3066.7	3134.3	3041.7	2865.6	2718.8	2561.5	2481.2	2463.6	2454.2	2444.8	2444.8
27.5°	3206.3	3242.7	3057.3	2807.3	2577.1	2421.9	2392.8	2395.8	2392.8	2377.1	2380.3
30°	3390.6	3383.3	3071.9	2712.6	2414.6	2295.8	2297.9	2311.5	2313.5	2303.2	2308.3
32.5°	3633.3	3559.4	3079.2	2589.6	2259.4	2185.4	2187.6	2202.1	2212.5	2194.8	2203.1
35°	3927.1	3764.6	3067.7	2435.4	2139.6	2080.2	2064.6	2068.8	2071.9	2055.2	2066.7
37.5°	4269.8	3994.8	3016.7	2264.6	2040.7	1977.1	1943.8	1915.6	1899.0	1883.3	1893.8
40°	4645.8	4245.9	2922.9	2098.0	1930.2	1867.8	1817.7	1764.6	1708.4	1687.5	1696.9
42.5°	5039.6	4504.2	2809.4	1938.6	1803.2	1752.1	1698.9	1621.9	1537.5	1494.8	1500.0
45°	5448.0	4768.8	2697.9	1781.2	1672.9	1651.1	1589.6	1496.9	1405.2	1351.1	1346.8
47.5°	5847.9	5018.8	2534.4	1622.9	1551.0	1575.0	1527.0	1441.7	1339.6	1254.2	1244.8
50°	6230.3	5253.1	2266.7	1462.5	1452.1	1552.1	1506.2	1383.3	1266.7	1157.3	1147.9
52.5°	6609.4	5442.7	1923.9	1316.7	1398.9	1545.8	1479.2	1343.8	1201.1	1086.5	1074.0
55°	6931.3	5540.6	1593.8	1191.7	1321.8	1492.7	1446.9	1296.9	1108.3	986.5	976.0
57.5°	7114.6	5461.5	1318.8	1068.8	1215.6	1405.2	1391.6	1196.9	997.9	904.2	891.6
60°	7035.5	5140.7	1093.8	961.4	1114.6	1310.5	1295.8	1097.9	913.6	825.0	812.5
62.5°	6599.0	4529.2	915.6	867.7	1023.0	1213.5	1200.0	1021.9	849.0	763.5	750.0
65°	5719.8	3684.4	777.1	789.6	930.2	1096.9	1116.6	958.4	798.0	714.6	701.0
67.5°	4362.5	2668.8	668.7	721.9	839.6	982.3	1039.6	912.5	755.2	676.1	663.6
70°	2486.4	1515.7	577.1	656.2	759.4	876.1	980.2	876.1	709.4	643.8	635.4
72.5°	942.7	695.9	499.0	590.6	682.3	786.5	914.6	818.8	656.2	607.3	599.0
75°	503.2	423.9	419.8	513.5	593.8	698.9	832.3	762.5	616.6	641.6	662.5
77.5°	342.8	300.0	351.1	439.6	496.9	602.1	744.8	677.1	534.3	532.3	490.7
80°	237.5	212.5	285.5	354.1	384.4	506.2	650.0	581.3	435.4	406.2	388.6
82.5°	142.7	138.6	213.5	264.6	271.8	390.6	538.5	487.5	356.3	310.4	312.5
85°	78.1	82.3	136.4	155.2	158.4	273.0	421.9	377.1	274.0	230.2	232.3
87.5°	21.8	28.1	50.0	61.5	76.1	141.7	251.0	224.0	137.5	95.8	95.8
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)