

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: P965722

Luminaire Tested: **NAV-SB4A-760-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965722
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-760-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20014.1 lumens
Efficiency: N/A
Efficacy: 175.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
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



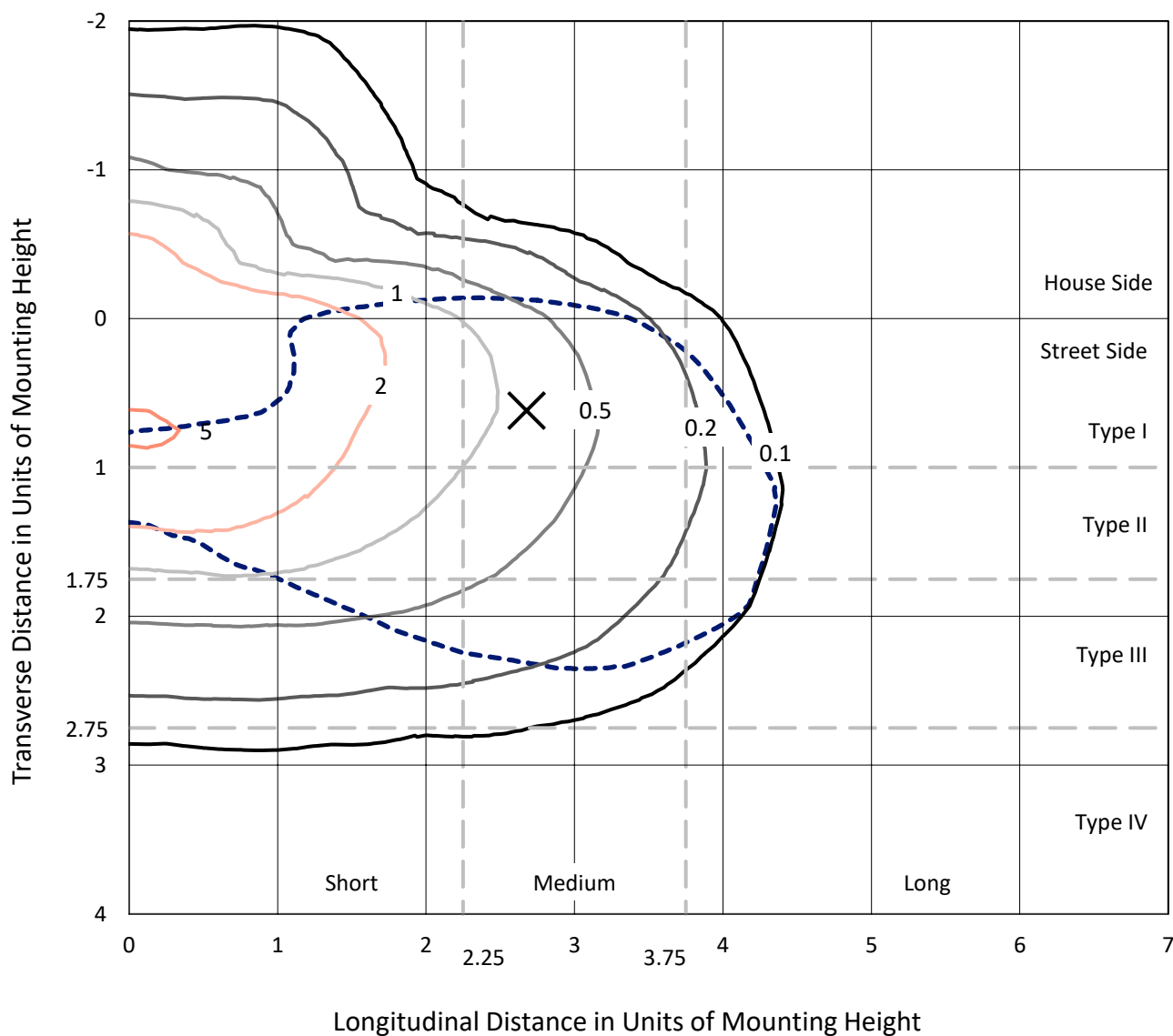
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

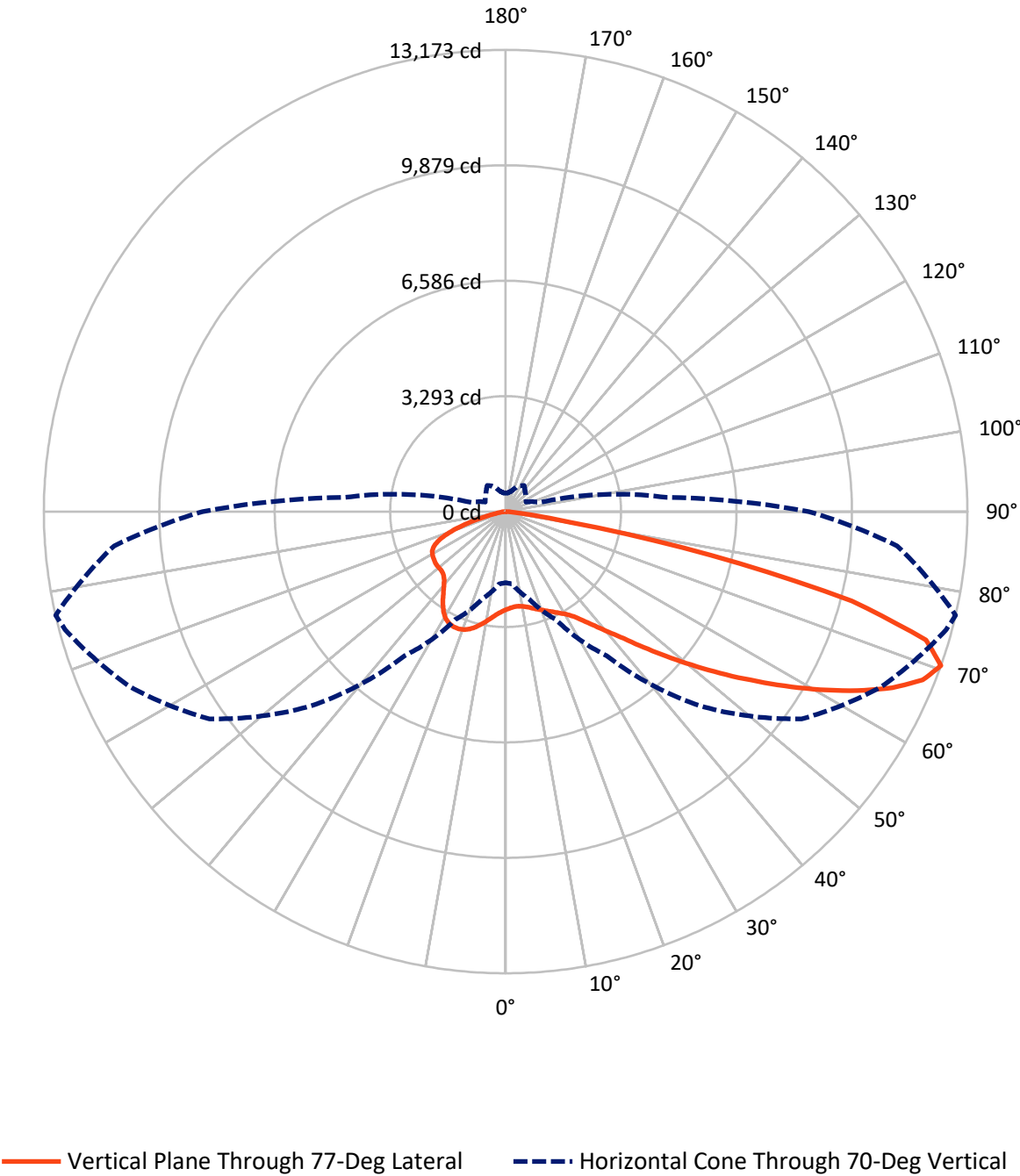


Based on 25 foot mounting height. Maximum calculated value = 5.3 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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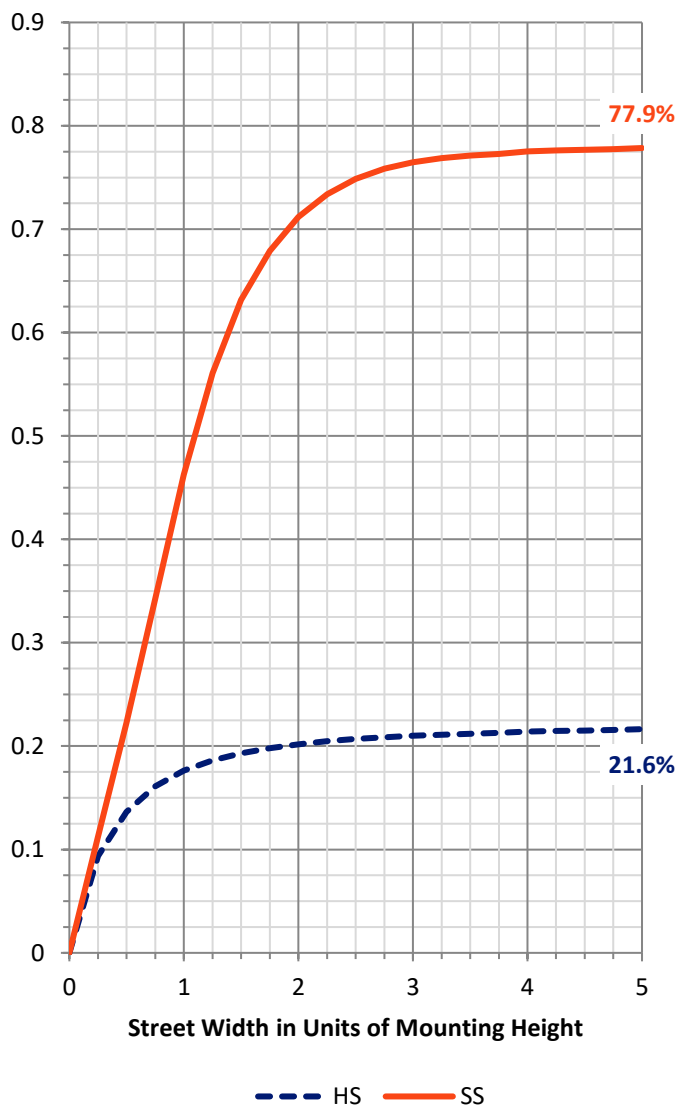
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4382.7	0.0	4382.7
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	15631.4	0.0	15631.4
	% Fixture	78.1	0.0	78.1
Total	Lumens	20014.1	0.0	20014.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.3	1.3
10°-20°	768.6	3.8
20°-30°	1314.3	6.6
30°-40°	2113.6	10.6
40°-50°	3299.9	16.5
50°-60°	4407.8	22.0
60°-70°	4698.1	23.5
70°-80°	2892.1	14.5
80°-90°	253.4	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°	20014.1	100.0
0°-180°	20014.1	100.0

Coefficient of Utilization



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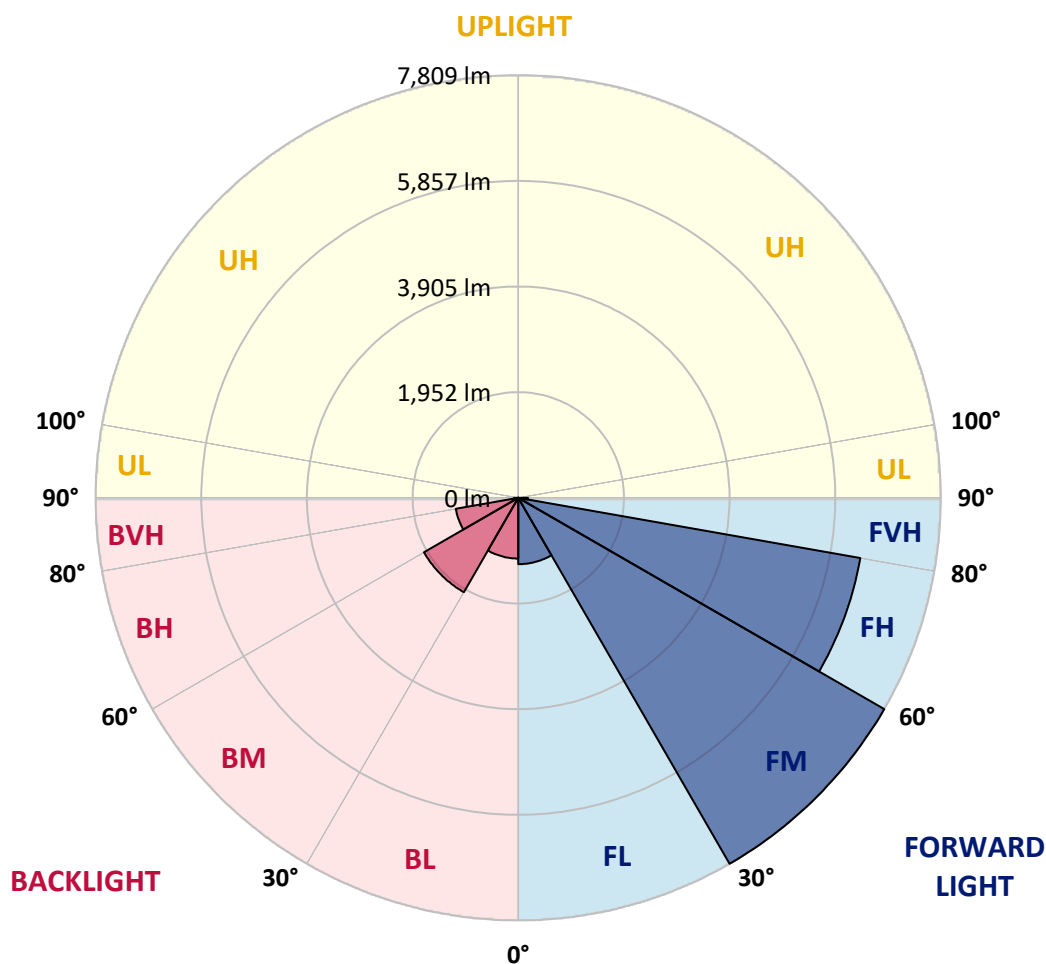
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1226.2	6.1			
FM	(30°-60°)	7809.1	39.0			
FH	(60°-80°)	6418.9	32.1			G3/7500
FVH	(80°-90°)	177.2	0.9			G2/225
BL	(0°-30°)	1123.0	5.6	B3/2500		
BM	(30°-60°)	2012.2	10.1	B2/2500		
BH	(60°-80°)	1171.3	5.9	B3/2500		G3/2500
BVH	(80°-90°)	76.2	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2
2.5°	2573.9	2572.9	2586.2	2590.3	2614.9	2632.3	2665.1	2700.0	2745.1	2750.2	2777.9
5°	2425.1	2425.1	2440.5	2456.9	2488.7	2523.5	2573.9	2634.4	2712.3	2724.6	2793.2
7.5°	2299.1	2307.3	2320.6	2352.4	2389.3	2439.5	2516.4	2602.6	2705.1	2724.6	2835.3
10°	2197.6	2206.8	2223.2	2248.8	2304.2	2373.9	2474.4	2585.2	2722.5	2753.3	2896.8
12.5°	2165.8	2175.0	2184.3	2203.8	2255.0	2337.0	2456.9	2593.4	2764.5	2795.3	2980.8
15°	2239.6	2250.9	2243.7	2238.6	2265.2	2340.1	2465.1	2623.1	2816.8	2860.9	3084.3
17.5°	2409.8	2413.9	2397.5	2349.3	2345.2	2385.2	2504.1	2664.1	2882.4	2930.6	3188.9
20°	2684.6	2677.4	2643.6	2548.3	2493.8	2485.6	2570.8	2725.6	2950.1	3001.3	3301.6
22.5°	3057.7	3049.5	2981.8	2831.2	2710.2	2630.3	2667.2	2805.5	3025.9	3083.3	3411.3
25°	3523.0	3511.8	3412.3	3207.3	3019.8	2821.9	2798.4	2911.1	3119.2	3172.5	3526.1
27.5°	4066.3	4057.1	3949.4	3678.8	3408.2	3084.3	2961.3	3035.1	3216.6	3277.0	3655.3
30°	4650.5	4677.2	4486.5	4195.4	3853.1	3426.7	3180.7	3187.9	3342.6	3397.0	3812.1
32.5°	5337.3	5383.4	5153.8	4784.8	4317.4	3798.8	3457.4	3401.1	3526.1	3571.2	4009.9
35°	6017.9	6070.2	5879.5	5471.6	4933.4	4237.5	3746.5	3646.0	3770.1	3819.3	4272.3
37.5°	6606.2	6675.9	6577.5	6222.9	5592.5	4766.4	4123.7	3934.1	4070.4	4131.9	4624.9
40°	7070.6	7177.2	7170.0	6948.6	6369.5	5408.0	4602.4	4289.7	4443.5	4510.1	5052.3
42.5°	7447.8	7540.0	7620.1	7608.8	7180.2	6136.8	5165.1	4752.0	4868.9	4945.7	5533.1
45°	7708.2	7806.6	7978.8	8164.3	7960.4	6916.8	5809.8	5300.4	5407.0	5522.8	6106.0
47.5°	7940.9	8052.6	8276.1	8570.2	8622.5	7700.0	6516.0	5939.0	6036.3	6156.3	6681.1
50°	7961.4	8057.7	8404.2	8821.4	9093.0	8452.4	7274.5	6655.4	6746.7	6874.8	7297.1
52.5°	7466.2	7618.0	8222.8	8814.2	9309.3	9081.7	8028.0	7400.6	7503.1	7657.0	7934.7
55°	5795.5	6017.9	7690.8	8539.5	9232.4	9488.6	8744.5	8193.0	8324.2	8485.2	8576.4
57.5°	4991.9	5089.2	6105.0	8039.3	8881.8	9594.2	9349.2	8993.6	9204.7	9381.0	9254.9
60°	4486.5	4567.5	5168.2	7261.2	8420.6	9427.1	9816.6	9739.8	10104.7	10314.8	9948.9
62.5°	3945.3	4022.2	4568.5	6063.0	7830.2	9149.4	10111.8	10428.6	11027.2	11256.8	10602.8
65°	3408.2	3473.8	3997.6	5094.4	7079.8	8871.6	10264.6	11024.1	11881.0	12118.8	11146.1
67.5°	2809.6	2864.0	3359.0	4297.9	6167.5	8491.3	10340.4	11492.5	12624.1	12828.2	11414.6
70°	2027.4	2069.5	2581.1	3399.0	5022.6	7837.4	10309.7	11824.6	13009.6	13172.6	11211.7
72.5°	958.4	996.3	1596.9	2206.8	3547.6	6564.2	9687.5	11561.2	12618.0	12537.0	9969.4
75°	511.5	544.3	917.4	1210.5	1873.7	4499.9	7927.6	9959.1	10595.6	10202.0	7367.8
77.5°	346.4	372.1	567.8	726.7	855.9	2136.1	5095.4	6895.3	6633.9	5984.1	3690.1
80°	274.7	301.3	465.4	492.0	414.1	771.8	2105.4	3192.0	2292.9	1833.7	1049.6
82.5°	211.2	240.9	391.5	356.7	225.5	316.7	612.9	1009.6	587.3	446.9	254.2
85°	129.1	160.9	307.5	227.6	127.1	144.5	208.1	280.8	179.4	149.6	91.2
87.5°	65.6	92.2	155.8	83.0	57.4	33.8	55.4	55.4	47.2	41.0	23.6
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°	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2	2792.2
2.5°	2802.5	2823.0	2857.8	2890.6	2916.2	2940.8	2965.4	2978.8	2982.9	2999.3	3008.5
5°	2835.3	2873.2	2940.8	3004.4	3044.4	3069.0	3086.4	3096.6	3098.7	3103.8	3112.0
7.5°	2895.7	2956.2	3050.5	3114.1	3143.8	3141.7	3134.6	3108.9	3098.7	3089.5	3091.5
10°	2980.8	3060.8	3176.6	3220.7	3202.2	3153.0	3089.5	3014.6	2979.8	2946.0	2935.7
12.5°	3086.4	3187.9	3301.6	3299.6	3208.4	3082.3	2934.7	2819.9	2747.1	2694.8	2682.5
15°	3214.5	3331.4	3418.5	3348.8	3148.9	2922.4	2706.1	2556.5	2490.8	2433.4	2427.2
17.5°	3346.7	3471.8	3511.8	3333.4	2999.3	2685.6	2440.5	2322.6	2258.1	2227.3	2236.5
20°	3475.9	3599.9	3567.1	3245.3	2771.7	2417.0	2198.6	2134.0	2120.7	2127.9	2124.8
22.5°	3612.2	3722.9	3578.4	3075.1	2481.5	2142.2	2022.3	2024.4	2054.1	2075.6	2080.8
25°	3751.6	3826.4	3548.7	2829.1	2169.9	1940.3	1910.6	1943.4	2001.8	2043.8	2055.1
27.5°	3885.9	3918.7	3484.1	2524.6	1902.4	1795.8	1800.9	1868.6	1956.7	2015.2	2029.5
30°	4037.6	4000.7	3360.1	2182.2	1716.9	1671.8	1714.8	1793.7	1881.9	1934.2	1946.5
32.5°	4208.8	4071.4	3163.3	1865.5	1585.7	1572.4	1643.1	1694.3	1733.3	1748.6	1756.8
35°	4422.0	4170.8	2911.1	1643.1	1467.8	1499.6	1567.2	1541.6	1526.2	1518.0	1526.2
37.5°	4698.7	4305.1	2615.9	1498.6	1372.5	1447.3	1475.0	1395.0	1334.6	1304.8	1312.0
40°	5031.8	4501.9	2331.9	1386.8	1312.0	1402.2	1354.0	1257.7	1180.8	1138.8	1141.8
42.5°	5401.9	4707.9	2093.0	1302.8	1278.2	1365.3	1264.8	1150.0	1026.0	1012.7	1026.0
45°	5790.3	4920.1	1930.1	1238.2	1261.8	1333.5	1213.6	1028.1	939.9	994.2	1023.0
47.5°	6178.8	5114.9	1831.7	1190.0	1253.6	1297.6	1168.5	960.4	897.9	976.8	1013.7
50°	6611.4	5289.1	1787.6	1155.2	1244.4	1283.3	1100.8	943.0	853.8	906.1	945.0
52.5°	7040.8	5424.4	1754.8	1120.3	1231.0	1272.0	1068.0	922.5	800.5	803.6	825.1
55°	7469.3	5512.6	1718.9	1074.2	1201.3	1247.4	1065.0	900.0	760.6	746.2	756.4
57.5°	7926.5	5562.8	1674.8	1023.0	1150.0	1184.9	1061.9	882.5	748.2	724.7	727.7
60°	8391.9	5636.6	1617.4	960.4	1081.4	1110.1	1054.7	876.4	741.1	701.1	704.2
62.5°	8809.1	5662.2	1548.8	901.0	993.2	1036.3	1039.4	871.2	721.6	652.9	652.9
65°	9082.7	5551.5	1428.8	833.3	897.9	960.4	1009.6	853.8	686.7	618.1	618.1
67.5°	9071.5	5235.8	1241.3	746.2	805.6	876.4	966.6	824.1	644.7	575.0	578.1
70°	8649.2	4612.6	1003.5	644.7	704.2	786.2	911.2	780.0	594.5	527.9	534.0
72.5°	7418.0	3610.2	728.8	525.8	586.3	692.9	839.5	726.7	543.2	485.8	482.8
75°	5299.4	2284.7	494.0	403.8	456.1	587.3	750.3	664.2	496.1	487.9	460.2
77.5°	2707.1	1091.6	327.0	295.2	317.8	463.3	630.4	593.5	503.3	402.8	358.7
80°	880.5	402.8	206.0	200.9	211.2	308.5	487.9	486.9	381.3	273.7	241.9
82.5°	280.8	173.2	134.3	129.1	124.0	193.7	340.3	385.4	257.3	173.2	172.2
85°	111.7	103.5	78.9	72.8	52.3	91.2	178.4	256.2	191.7	125.0	128.1
87.5°	41.0	41.0	21.5	15.4	11.3	30.7	48.2	76.9	109.7	64.6	63.6
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)