

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: P963149

Luminaire Tested: **NAV-SB2D-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963149
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-SB2D-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19241.3 lumens
Efficiency: N/A
Efficacy: 130.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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

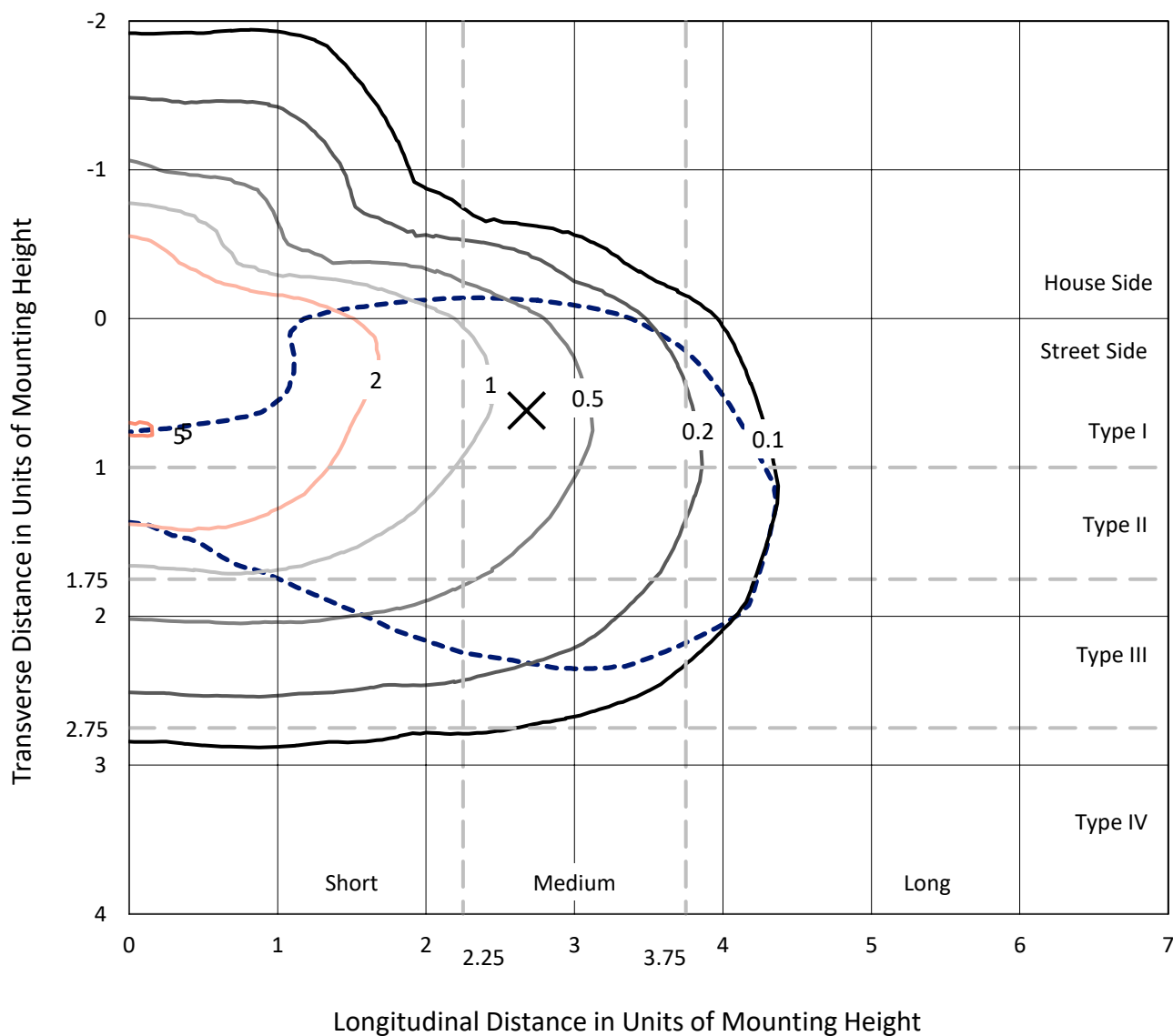


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Iso-Footcandle Lines of Horizontal Illumination

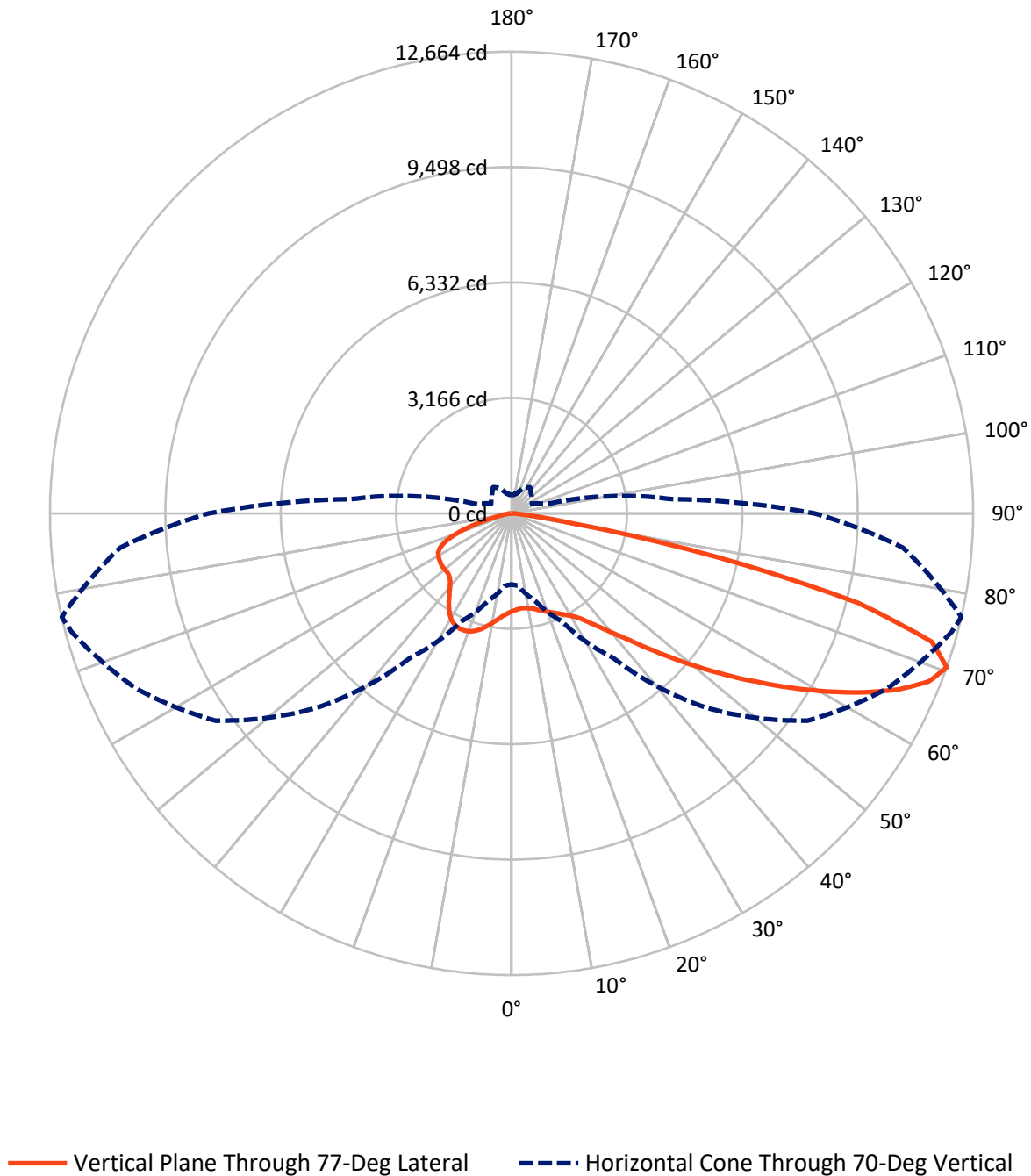
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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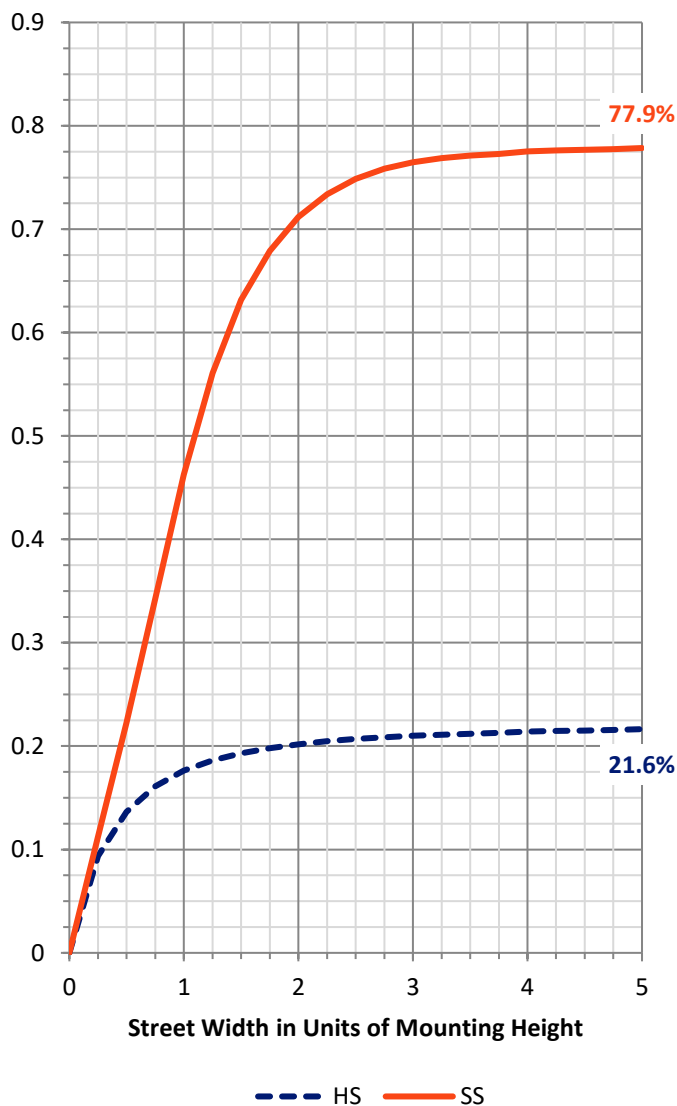
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4213.5	0.0	4213.5
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	15027.8	0.0	15027.8
	% Fixture	78.1	0.0	78.1
Total	Lumens	19241.3	0.0	19241.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.0	1.3
10°-20°	738.9	3.8
20°-30°	1263.6	6.6
30°-40°	2032.0	10.6
40°-50°	3172.5	16.5
50°-60°	4237.6	22.0
60°-70°	4516.7	23.5
70°-80°	2780.4	14.5
80°-90°	243.6	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°	19241.3	100.0
0°-180°	19241.3	100.0

Coefficient of Utilization



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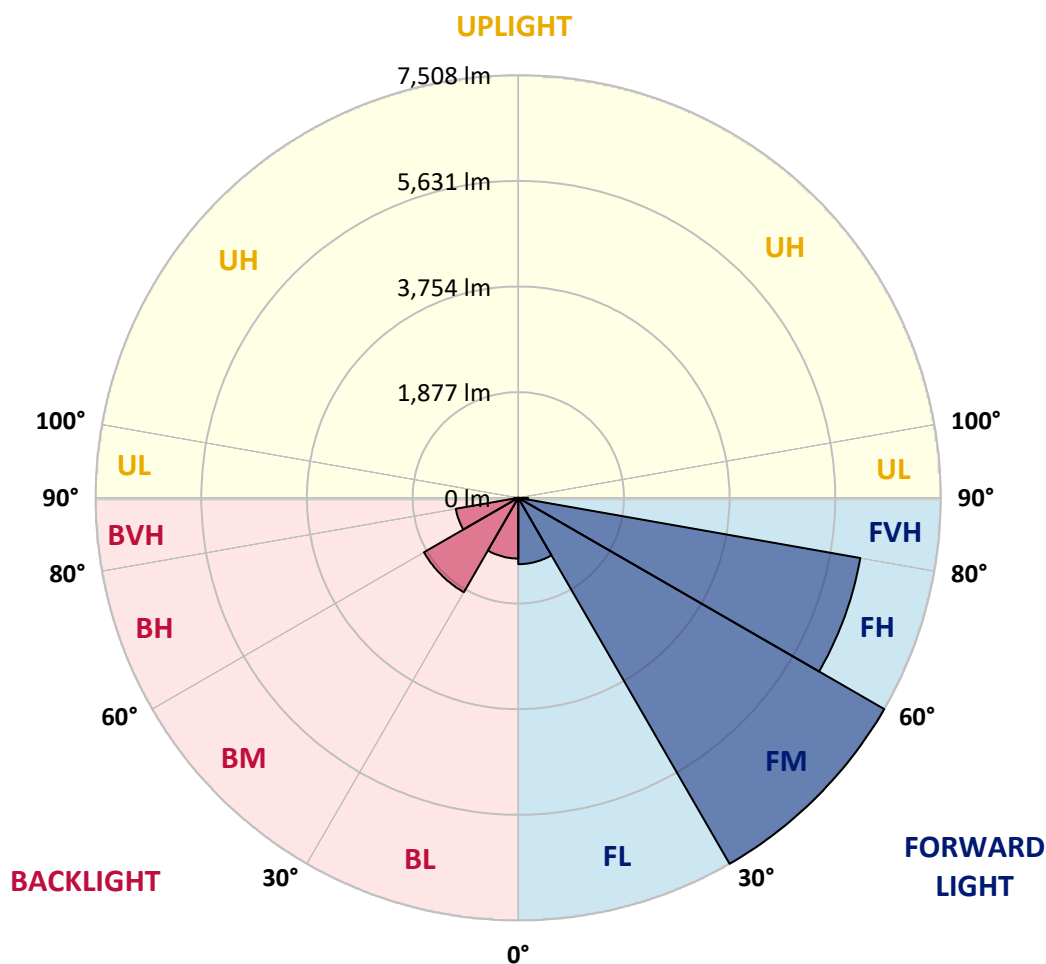
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1178.8	6.1			
FM	(30°-60°)	7507.5	39.0			
FH	(60°-80°)	6171.0	32.1			G3/7500
FVH	(80°-90°)	170.4	0.9			G2/225
BL	(0°-30°)	1079.6	5.6	B3/2500		
BM	(30°-60°)	1934.5	10.1	B2/2500		
BH	(60°-80°)	1126.1	5.9	B3/2500		G3/2500
BVH	(80°-90°)	73.3	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°	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4
2.5°	2474.5	2473.4	2486.2	2490.2	2513.8	2530.6	2562.2	2595.6	2639.0	2643.9	2670.5
5°	2331.6	2331.6	2346.3	2362.1	2392.7	2426.2	2474.5	2532.6	2607.5	2619.3	2685.3
7.5°	2210.3	2218.2	2231.0	2261.6	2297.0	2345.3	2419.2	2502.0	2600.5	2619.3	2725.7
10°	2112.8	2121.6	2137.4	2162.0	2215.2	2282.3	2378.8	2485.3	2617.3	2646.9	2784.8
12.5°	2082.2	2091.1	2100.0	2118.7	2168.0	2246.8	2362.1	2493.2	2657.7	2687.2	2865.7
15°	2153.2	2164.0	2157.1	2152.2	2177.8	2249.8	2370.0	2521.7	2707.9	2750.4	2965.2
17.5°	2316.8	2320.7	2304.9	2258.6	2254.7	2293.1	2407.4	2561.2	2771.1	2817.4	3065.7
20°	2580.8	2574.0	2541.5	2449.9	2397.6	2389.7	2471.5	2620.3	2836.1	2885.4	3174.1
22.5°	2939.6	2931.7	2866.6	2721.8	2605.5	2528.7	2564.1	2697.2	2909.1	2964.2	3279.6
25°	3386.9	3376.1	3280.5	3083.4	2903.1	2712.9	2690.2	2798.7	2998.7	3049.9	3389.9
27.5°	3909.2	3900.3	3796.9	3536.8	3276.6	2965.2	2846.9	2917.9	3092.3	3150.4	3514.1
30°	4470.9	4496.6	4313.3	4033.4	3704.2	3294.4	3057.8	3064.7	3213.5	3265.8	3664.9
32.5°	5131.2	5175.5	4954.7	4600.0	4150.6	3652.1	3323.9	3269.6	3389.9	3433.2	3855.0
35°	5785.5	5835.7	5652.5	5260.3	4742.9	4073.8	3601.7	3505.2	3624.4	3671.8	4107.3
37.5°	6351.2	6418.1	6323.5	5982.6	5376.5	4582.3	3964.4	3782.1	3913.1	3972.3	4446.3
40°	6797.6	6900.1	6893.1	6680.3	6123.6	5199.2	4424.6	4124.1	4271.9	4336.0	4857.3
42.5°	7160.2	7248.9	7325.8	7314.9	6903.0	5899.8	4965.6	4568.5	4680.9	4754.8	5319.4
45°	7410.5	7505.2	7670.7	7849.0	7653.0	6649.8	5585.4	5095.7	5198.2	5309.5	5870.3
47.5°	7634.2	7741.6	7956.5	8239.3	8289.5	7402.7	6264.4	5709.7	5803.2	5918.6	6423.1
50°	7653.9	7746.5	8079.7	8480.6	8741.8	8125.9	6993.7	6398.5	6486.2	6609.3	7015.3
52.5°	7178.0	7323.8	7905.2	8473.8	8949.8	8730.9	7717.9	7114.8	7213.4	7361.2	7628.3
55°	5571.7	5785.5	7393.7	8209.7	8875.9	9122.2	8406.7	7876.6	8002.8	8157.5	8245.2
57.5°	4799.0	4892.7	5869.3	7728.8	8538.9	9223.7	8988.2	8646.3	8849.2	9018.8	8897.5
60°	4313.3	4391.1	4968.6	6980.9	8095.3	9063.0	9437.6	9363.7	9714.4	9916.5	9564.7
62.5°	3792.9	3866.9	4392.1	5828.9	7527.8	8796.0	9721.4	10025.8	10601.4	10822.1	10193.4
65°	3276.6	3339.7	3843.2	4897.7	6806.4	8529.0	9868.2	10598.4	11422.2	11650.9	10715.7
67.5°	2701.1	2753.4	3229.3	4132.0	5929.4	8163.4	9941.1	11048.8	12136.7	12332.8	10973.9
70°	1949.2	1989.6	2481.3	3267.7	4828.7	7534.7	9911.5	11368.1	12507.2	12663.9	10778.7
72.5°	921.4	957.9	1535.3	2121.6	3410.6	6310.7	9313.4	11114.8	12130.8	12052.9	9584.4
75°	491.7	523.3	882.0	1163.8	1801.3	4326.1	7621.4	9574.5	10186.4	9808.1	7083.4
77.5°	333.1	357.7	545.9	698.6	822.9	2053.7	4898.6	6629.1	6377.8	5753.0	3547.6
80°	264.1	289.8	447.4	473.0	398.1	742.0	2024.1	3068.6	2204.5	1763.0	1009.1
82.5°	203.0	231.5	376.5	343.0	216.8	304.5	589.3	970.7	564.7	429.7	244.4
85°	124.1	154.7	295.6	218.7	122.2	139.0	200.1	270.0	172.4	143.9	87.7
87.5°	63.0	88.7	149.8	79.8	55.1	32.5	53.2	53.2	45.3	39.5	22.7
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°	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4	2684.4
2.5°	2694.2	2713.9	2747.4	2779.0	2803.6	2827.3	2850.8	2863.6	2867.6	2883.4	2892.2
5°	2725.7	2762.2	2827.3	2888.3	2926.8	2950.4	2967.2	2977.0	2979.0	2983.9	2991.8
7.5°	2783.9	2842.0	2932.6	2993.7	3022.3	3020.4	3013.5	2988.8	2979.0	2970.1	2972.1
10°	2865.7	2942.6	3053.9	3096.2	3078.5	3031.2	2970.1	2898.2	2864.7	2832.2	2822.3
12.5°	2967.2	3064.7	3174.1	3172.2	3084.4	2963.2	2821.3	2710.9	2641.0	2590.7	2578.9
15°	3090.4	3202.7	3286.5	3219.4	3027.2	2809.5	2601.6	2457.6	2394.6	2339.5	2333.5
17.5°	3217.5	3337.7	3376.1	3204.7	2883.4	2581.9	2346.3	2233.0	2171.0	2141.3	2150.2
20°	3341.6	3460.9	3429.3	3119.9	2664.6	2323.7	2113.8	2051.6	2038.8	2045.8	2042.8
22.5°	3472.7	3579.1	3440.2	2956.3	2385.8	2059.5	1944.3	1946.3	1974.9	1995.5	2000.5
25°	3606.7	3678.6	3411.6	2719.8	2086.2	1865.4	1836.9	1868.4	1924.5	1964.9	1975.8
27.5°	3735.8	3767.3	3349.5	2427.1	1829.0	1726.5	1731.4	1796.4	1881.2	1937.4	1951.2
30°	3881.7	3846.2	3230.3	2098.0	1650.7	1607.3	1648.6	1724.6	1809.2	1859.6	1871.3
32.5°	4046.2	3914.2	3041.1	1793.5	1524.5	1511.7	1579.6	1628.9	1666.3	1681.2	1689.0
35°	4251.2	4009.8	2798.7	1579.6	1411.1	1441.7	1506.7	1482.1	1467.3	1459.4	1467.3
37.5°	4517.3	4138.8	2514.8	1440.7	1319.5	1391.4	1418.1	1341.2	1283.0	1254.5	1261.4
40°	4837.5	4328.1	2241.9	1333.3	1261.4	1348.1	1301.8	1209.1	1135.2	1094.8	1097.8
42.5°	5193.3	4526.1	2012.3	1252.4	1228.9	1312.6	1216.1	1105.7	986.5	973.6	986.5
45°	5566.8	4730.1	1855.6	1190.4	1213.1	1282.1	1166.8	988.4	903.6	955.9	983.5
47.5°	5940.2	4917.3	1761.0	1144.1	1205.2	1247.5	1123.4	923.3	863.3	939.1	974.6
50°	6356.1	5084.8	1718.6	1110.6	1196.3	1233.8	1058.3	906.6	820.8	871.1	908.6
52.5°	6769.0	5215.0	1687.0	1077.1	1183.5	1222.9	1026.8	886.9	769.7	772.5	793.2
55°	7180.9	5299.7	1652.6	1032.8	1155.0	1199.2	1023.9	865.2	731.2	717.4	727.2
57.5°	7620.4	5347.9	1610.2	983.5	1105.7	1139.2	1020.9	848.5	719.3	696.7	699.7
60°	8067.8	5419.0	1555.0	923.3	1039.7	1067.2	1014.0	842.6	712.5	674.0	677.0
62.5°	8468.9	5443.6	1489.0	866.2	954.9	996.3	999.3	837.6	693.7	627.7	627.7
65°	8732.0	5337.2	1373.7	801.1	863.3	923.3	970.7	820.8	660.2	594.2	594.2
67.5°	8721.1	5033.7	1193.4	717.4	774.6	842.6	929.3	792.3	619.8	552.8	555.8
70°	8315.1	4434.5	964.7	619.8	677.0	755.8	876.1	749.9	571.5	507.5	513.4
72.5°	7131.6	3470.8	700.7	505.5	563.6	666.1	807.1	698.6	522.2	467.1	464.1
75°	5094.8	2196.6	475.0	388.3	438.5	564.7	721.3	638.6	476.9	469.0	442.5
77.5°	2602.6	1049.5	314.4	283.8	305.4	445.5	606.1	570.6	483.8	387.2	344.9
80°	846.4	387.2	198.0	193.1	203.0	296.6	469.0	468.1	366.5	263.1	232.6
82.5°	270.0	166.6	129.0	124.1	119.2	186.2	327.2	370.5	247.3	166.6	165.5
85°	107.4	99.5	75.8	70.0	50.2	87.7	171.5	246.4	184.3	120.2	123.2
87.5°	39.5	39.5	20.7	14.8	10.9	29.5	46.3	73.9	105.5	62.1	61.1
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)