

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: P963146

Luminaire Tested: **NAV-SB2D-830-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963146
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18570.9 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

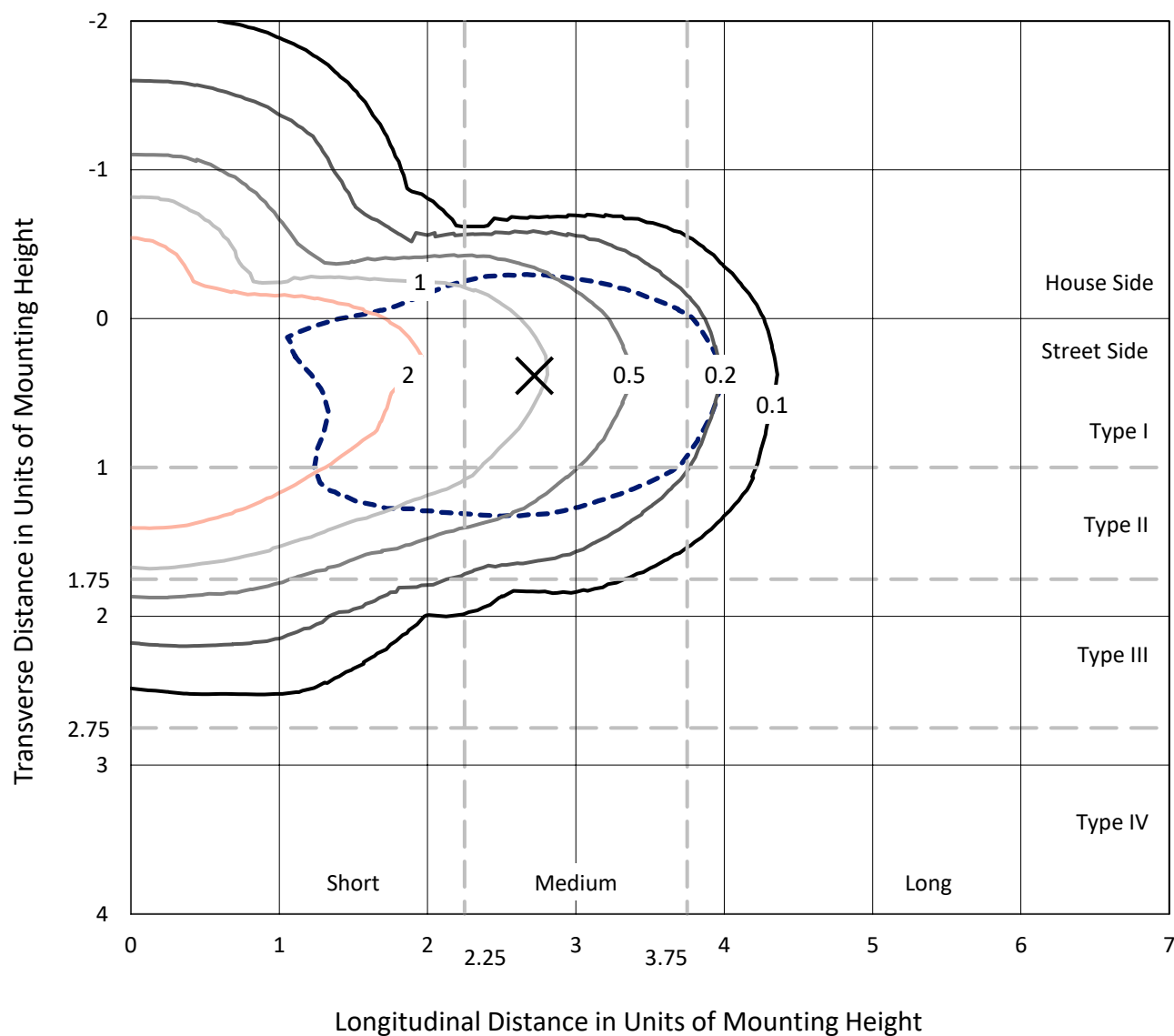
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

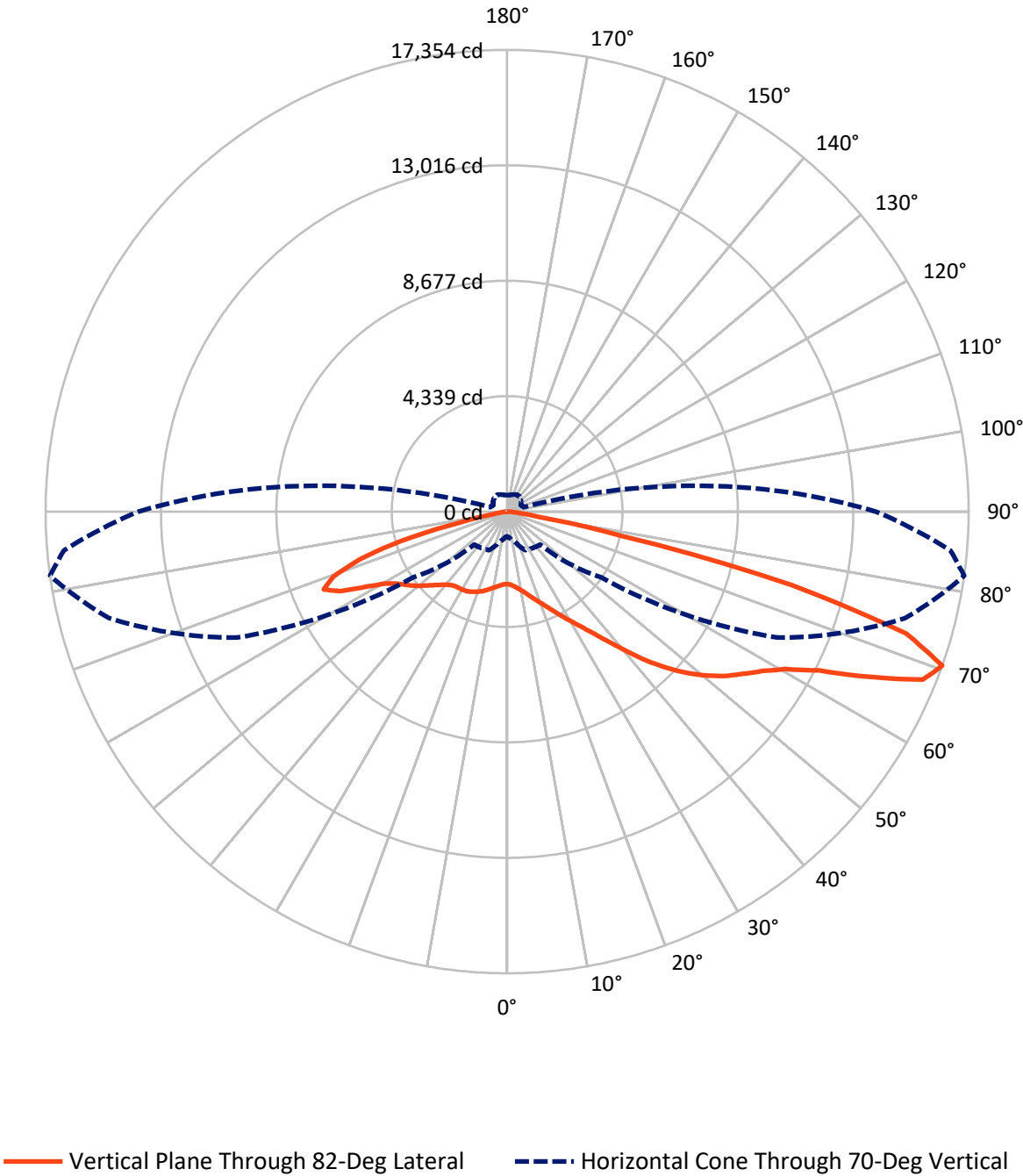
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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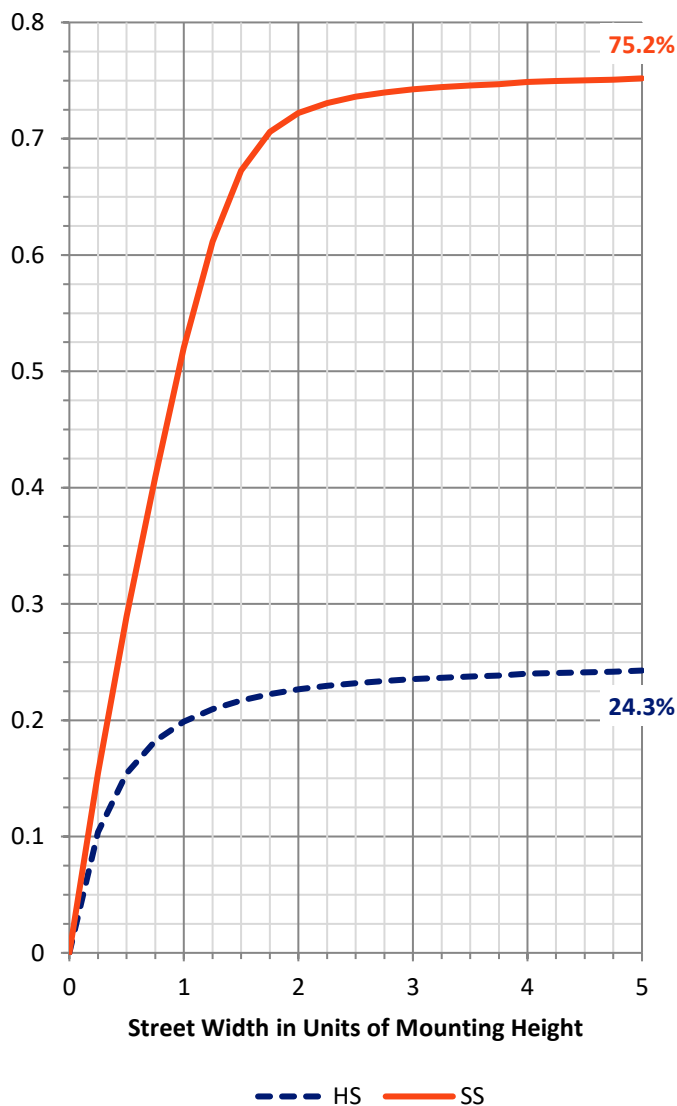
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4578.2	0.0	4578.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13992.7	0.0	13992.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	18570.9	0.0	18570.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.1	1.4
10°-20°	738.6	4.0
20°-30°	1235.6	6.7
30°-40°	1930.3	10.4
40°-50°	3074.2	16.6
50°-60°	4278.2	23.0
60°-70°	4475.2	24.1
70°-80°	2339.0	12.6
80°-90°	242.9	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°	18570.9	100.0
0°-180°	18570.9	100.0

Coefficient of Utilization



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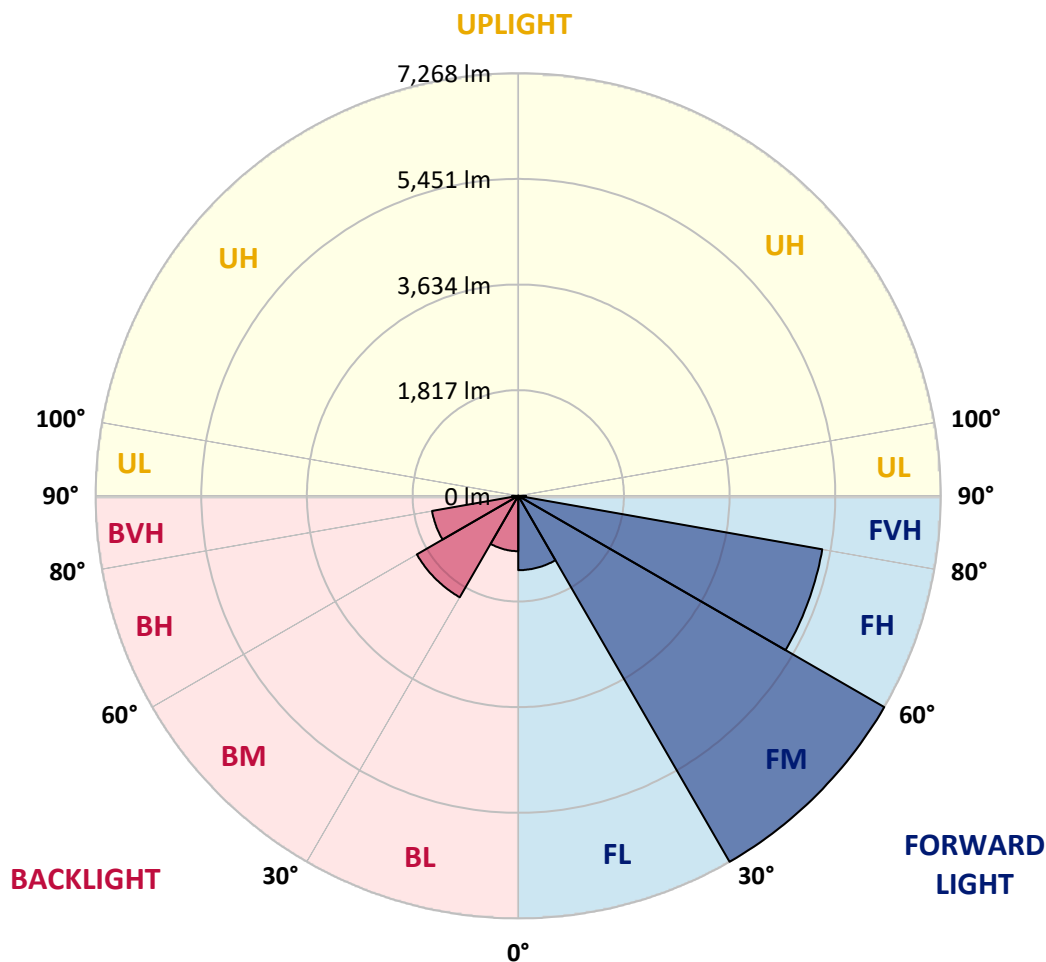
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1278.8	6.9			
FM	(30°-60°)	7268.5	39.1			
FH	(60°-80°)	5309.5	28.6			G3/7500
FVH	(80°-90°)	136.0	0.7			G2/225
BL	(0°-30°)	952.4	5.1	B2/1000		
BM	(30°-60°)	2014.2	10.8	B2/2500		
BH	(60°-80°)	1504.6	8.1	B3/2500		G3/2500
BVH	(80°-90°)	106.9	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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7
2.5°	2787.8	2803.6	2798.7	2793.6	2793.6	2786.8	2785.8	2775.9	2768.0	2755.3	2752.3
5°	2823.3	2840.0	2838.0	2842.0	2854.8	2857.7	2860.7	2854.8	2839.0	2823.3	2816.4
7.5°	2791.7	2810.4	2816.4	2840.0	2879.4	2914.9	2941.5	2952.3	2937.5	2914.9	2904.0
10°	2685.3	2706.0	2726.7	2782.9	2852.8	2936.5	3007.6	3049.9	3046.9	3025.3	3006.5
12.5°	2469.4	2491.2	2535.5	2644.9	2773.0	2920.8	3052.9	3141.5	3172.1	3156.3	3123.8
15°	2297.0	2315.8	2349.3	2461.6	2628.1	2852.8	3069.6	3242.1	3319.9	3311.1	3271.6
17.5°	2292.1	2300.0	2320.7	2373.9	2502.0	2746.4	3051.8	3340.6	3489.4	3488.4	3439.2
20°	2378.8	2381.8	2393.6	2404.4	2477.3	2665.6	3006.5	3422.4	3679.5	3679.5	3626.3
22.5°	2499.1	2497.1	2508.9	2499.1	2534.5	2658.6	2977.9	3494.3	3891.4	3907.2	3840.2
25°	2679.4	2669.5	2666.5	2643.9	2650.8	2722.7	3009.5	3576.1	4142.7	4175.2	4091.5
27.5°	2919.8	2904.0	2893.2	2841.0	2823.3	2854.8	3106.1	3674.6	4422.6	4478.7	4372.3
30°	3233.2	3204.6	3188.9	3098.2	3034.1	3039.0	3251.9	3805.7	4715.3	4805.9	4670.9
32.5°	3660.9	3616.5	3574.2	3425.3	3308.1	3269.6	3440.1	3987.0	5032.5	5177.5	5003.9
35°	4139.8	4104.3	4059.0	3829.4	3649.0	3560.3	3694.4	4240.3	5404.1	5633.7	5408.0
37.5°	4600.9	4570.4	4592.1	4282.7	4050.1	3921.0	4027.4	4580.2	5862.3	6201.2	5914.6
40°	5078.0	5054.3	5057.2	4761.5	4490.6	4345.7	4431.5	5006.9	6387.5	6876.3	6523.5
42.5°	5596.2	5578.5	5519.4	5257.2	4952.8	4817.7	4896.6	5499.6	6951.2	7645.0	7191.6
45°	6176.6	6165.8	6110.6	5810.1	5461.2	5309.5	5415.9	6043.6	7517.9	8368.2	7862.7
47.5°	6678.3	6687.1	6680.2	6427.0	6065.3	5842.6	5969.7	6611.2	8045.0	9048.2	8506.2
50°	6919.7	6966.0	7034.0	6955.1	6730.5	6503.8	6528.4	7159.1	8547.6	9685.7	9123.1
52.5°	6793.5	6881.2	7066.5	7192.6	7279.3	7232.1	7166.0	7703.1	9020.6	10261.3	9706.4
55°	6323.5	6446.6	6754.1	7058.6	7501.1	7844.9	7931.7	8306.2	9481.8	10767.7	10258.3
57.5°	5467.1	5667.2	5943.2	6559.0	7303.9	8141.6	8824.5	9142.8	9970.6	11308.7	10835.8
60°	3998.8	4266.9	4609.8	5526.3	6614.2	7982.9	9584.3	10427.7	10665.2	12009.4	11587.6
62.5°	2559.1	2724.7	3040.0	3903.3	5153.8	7170.0	9816.8	12034.0	11842.8	13158.4	12714.9
65°	1752.1	1858.5	2147.3	2632.1	3331.8	5337.1	9194.0	13238.2	13713.2	14979.5	14642.4
67.5°	1273.2	1354.0	1600.3	2025.1	2170.8	3158.3	7134.5	13183.0	15531.3	16855.7	16331.4
70°	928.2	985.4	1192.4	1600.3	1670.3	1757.1	4322.1	11206.2	15491.8	17354.4	16726.7
72.5°	687.9	727.2	866.2	1241.7	1352.0	1186.4	2139.4	8144.5	13312.1	15696.8	15193.3
75°	497.6	527.2	629.7	950.0	1082.0	903.6	1067.2	4759.6	9285.7	11041.7	11130.4
77.5°	380.4	403.0	470.1	695.7	866.2	677.9	662.3	2189.6	4402.9	4424.5	4672.9
80°	305.4	320.3	356.7	489.7	664.2	507.5	431.6	884.0	1391.4	1177.6	1235.7
82.5°	224.7	249.3	301.6	343.9	475.0	349.8	263.1	446.4	529.2	455.3	459.2
85°	128.1	144.8	182.3	246.3	303.5	213.8	150.8	198.0	246.3	202.0	180.3
87.5°	45.3	59.1	64.1	96.6	132.0	88.7	58.1	57.2	80.8	60.1	50.2
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°	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7	2722.7
2.5°	2742.5	2737.5	2717.8	2691.2	2663.6	2637.0	2628.1	2609.4	2596.6	2589.7	2597.6
5°	2797.6	2781.8	2735.5	2676.4	2614.4	2547.3	2500.1	2456.6	2425.1	2395.5	2407.4
7.5°	2876.5	2848.9	2769.0	2665.6	2555.2	2443.9	2361.1	2298.0	2255.6	2228.0	2234.0
10°	2968.1	2925.8	2803.6	2648.8	2478.3	2318.8	2221.2	2167.0	2140.3	2125.5	2129.5
12.5°	3073.6	3013.4	2839.0	2610.4	2361.1	2178.7	2111.8	2096.0	2096.9	2098.0	2099.9
15°	3203.6	3119.9	2867.5	2526.6	2208.4	2071.3	2059.5	2085.2	2111.8	2124.6	2123.6
17.5°	3350.4	3232.2	2872.6	2388.7	2058.5	2002.3	2039.9	2095.0	2135.4	2153.1	2157.1
20°	3508.2	3346.5	2837.0	2193.6	1935.4	1946.2	2013.2	2084.1	2128.5	2151.2	2157.1
22.5°	3688.5	3468.7	2752.3	1988.6	1834.9	1885.1	1964.0	2033.0	2079.2	2101.9	2107.8
25°	3894.4	3605.6	2619.3	1816.1	1748.1	1816.1	1895.0	1952.1	1989.5	2010.2	2016.2
27.5°	4123.1	3748.5	2441.9	1679.2	1672.3	1745.2	1810.3	1854.5	1874.3	1890.0	1895.9
30°	4352.7	3878.6	2227.0	1575.7	1606.3	1675.3	1721.6	1741.3	1747.1	1750.1	1757.1
32.5°	4600.9	3990.9	2001.4	1489.9	1543.1	1607.2	1634.8	1643.7	1616.1	1597.4	1603.3
35°	4901.5	4111.2	1780.6	1422.0	1481.1	1536.3	1545.2	1537.3	1504.7	1466.4	1468.3
37.5°	5273.0	4261.0	1604.2	1373.7	1422.9	1459.4	1448.5	1446.6	1449.6	1404.2	1407.2
40°	5728.3	4456.1	1475.2	1336.2	1375.7	1383.5	1353.0	1369.7	1384.6	1315.6	1317.5
42.5°	6233.8	4691.6	1393.4	1310.7	1336.2	1317.5	1270.2	1288.9	1287.0	1196.3	1195.4
45°	6749.2	4947.8	1364.8	1291.9	1299.8	1262.3	1210.1	1215.0	1173.6	1091.8	1094.8
47.5°	7261.6	5222.8	1382.5	1276.1	1254.5	1212.1	1171.7	1149.9	1088.9	1027.8	1027.8
50°	7764.2	5511.5	1447.6	1244.6	1192.4	1167.7	1138.2	1099.7	1034.7	982.5	978.6
52.5°	8230.2	5802.2	1520.5	1192.4	1114.5	1129.3	1110.6	1066.2	1002.1	948.9	950.0
55°	8671.7	6092.9	1549.1	1120.4	1041.6	1095.8	1085.0	1003.2	926.3	882.9	879.0
57.5°	9152.6	6442.7	1517.5	1028.8	982.5	1057.4	1016.0	925.3	881.0	848.5	845.5
60°	9818.8	6991.6	1449.6	915.4	926.3	1000.2	929.3	891.9	843.6	807.1	805.1
62.5°	10925.5	8015.5	1340.2	803.1	860.3	915.4	887.9	850.4	801.1	765.7	765.7
65°	12561.3	9438.4	1134.3	715.4	786.4	832.7	843.6	806.1	754.8	717.4	719.3
67.5°	13940.8	10331.2	858.3	642.5	710.5	765.7	796.2	759.7	705.6	669.1	670.0
70°	13865.0	9682.8	655.3	570.5	643.5	699.7	739.0	710.5	652.3	617.9	620.8
72.5°	12314.9	8100.2	530.1	497.6	575.5	630.7	677.9	656.3	597.2	563.6	563.6
75°	9047.2	5749.9	423.7	423.7	490.8	558.7	611.0	597.2	542.9	519.4	512.4
77.5°	3813.6	2412.3	332.1	351.8	408.0	479.9	544.9	549.9	502.6	532.2	482.9
80°	1014.0	665.1	253.3	277.0	320.3	396.2	474.0	472.0	420.8	393.2	365.6
82.5°	386.3	262.1	180.3	195.2	231.5	303.5	375.5	387.2	336.0	290.7	290.7
85°	148.8	112.3	111.3	117.3	135.0	201.0	283.8	293.7	253.3	214.8	221.7
87.5°	38.4	33.5	41.4	39.5	62.1	107.4	162.6	168.5	154.7	89.7	128.1
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)