

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: P968450

Luminaire Tested: **NAV-SB5B-835-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968450
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-SB5B-835-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27762.1 lumens
Efficiency: N/A
Efficacy: 152.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 182.7
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



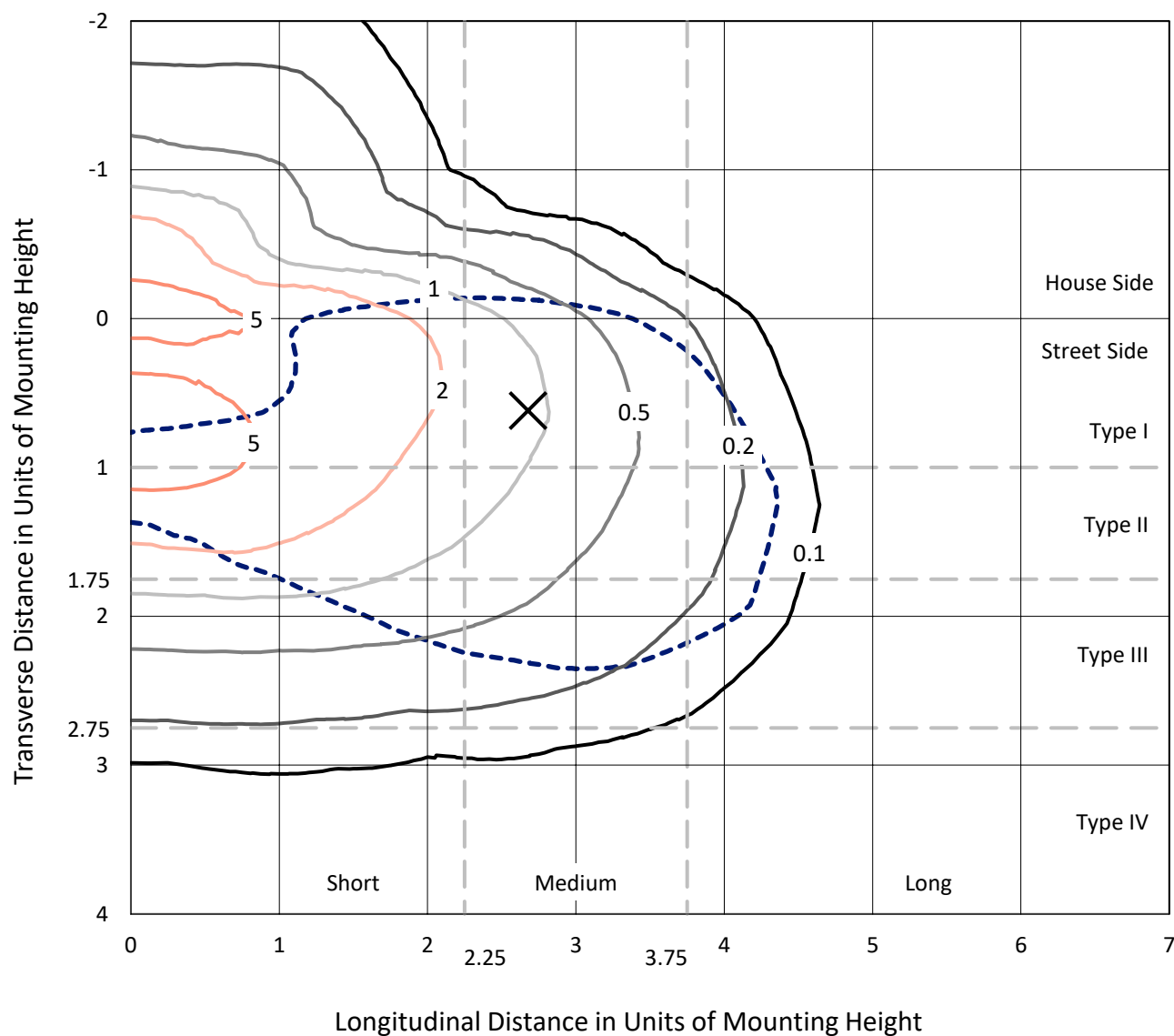
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

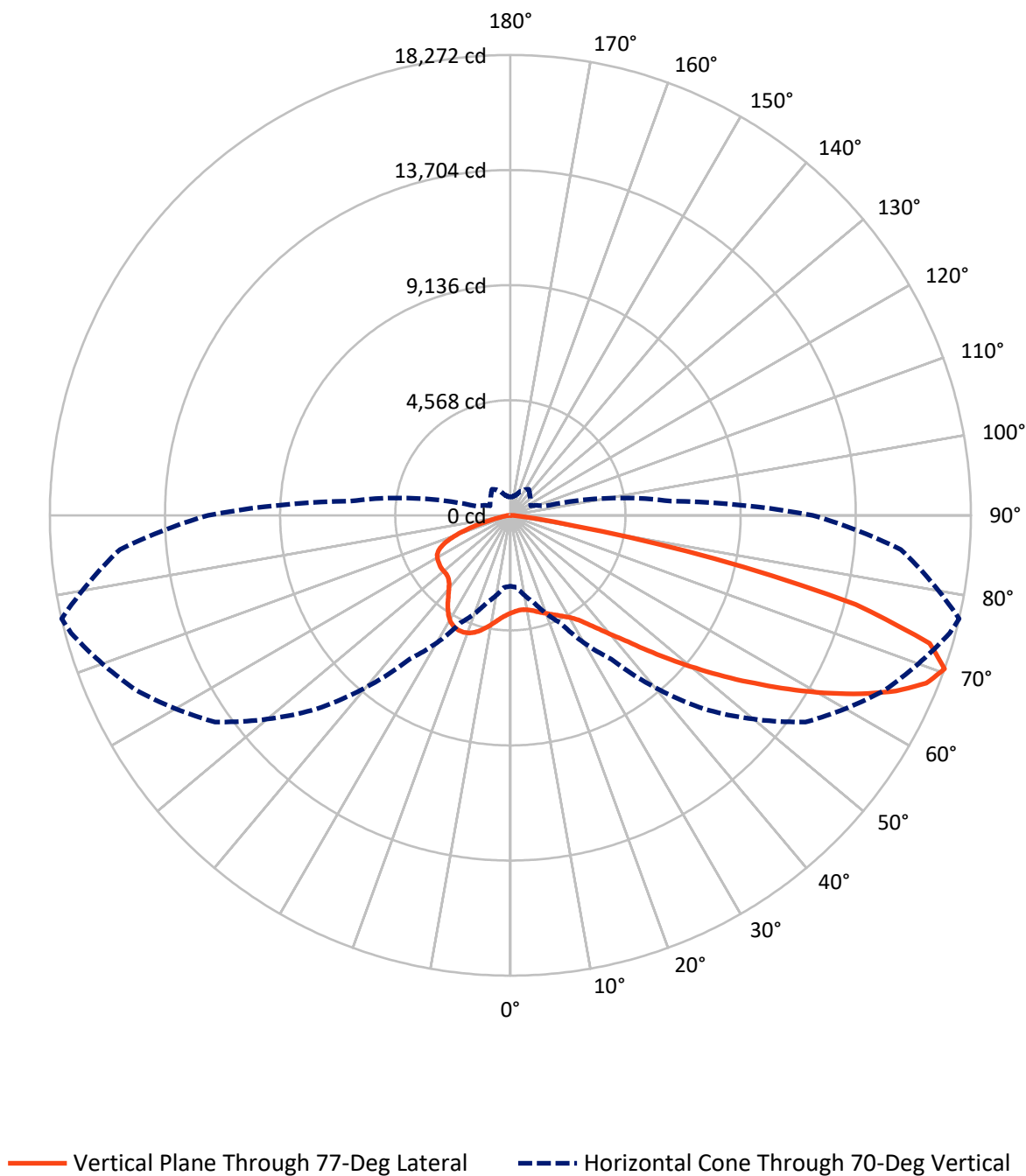
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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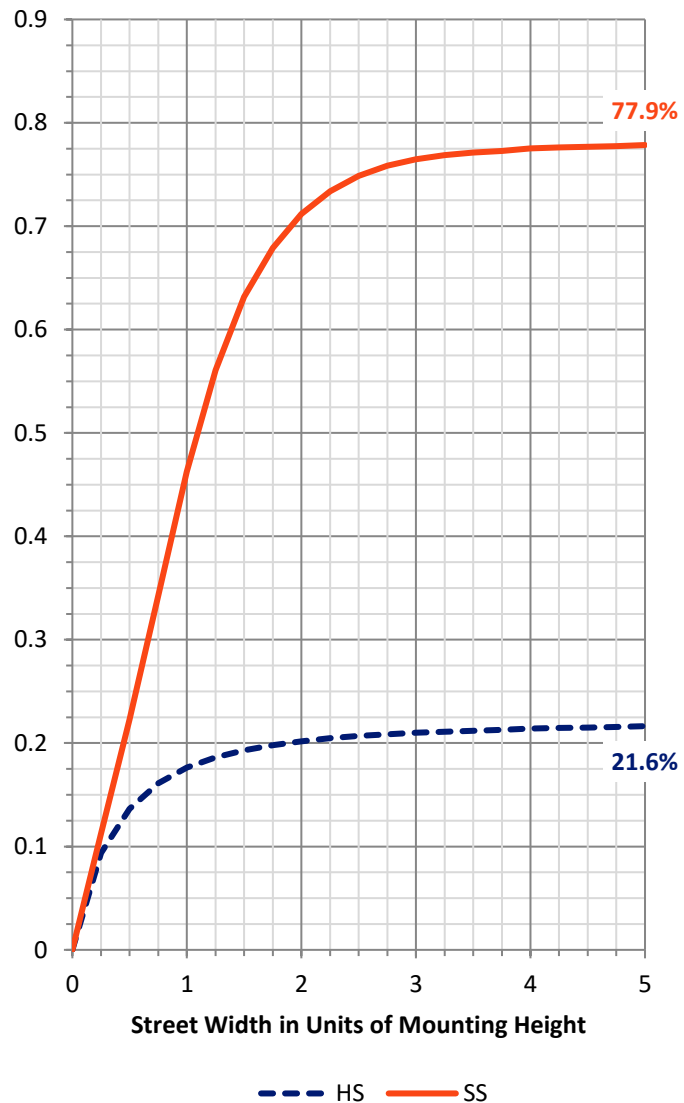
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6079.5	0.0	6079.5
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	21682.6	0.0	21682.6
	% Fixture	78.1	0.0	78.1
Total	Lumens	27762.1	0.0	27762.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.4	1.3
10°-20°	1066.1	3.8
20°-30°	1823.2	6.6
30°-40°	2931.8	10.6
40°-50°	4577.3	16.5
50°-60°	6114.2	22.0
60°-70°	6516.8	23.5
70°-80°	4011.7	14.5
80°-90°	351.5	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°	27762.1	100.0
0°-180°	27762.1	100.0

Coefficient of Utilization



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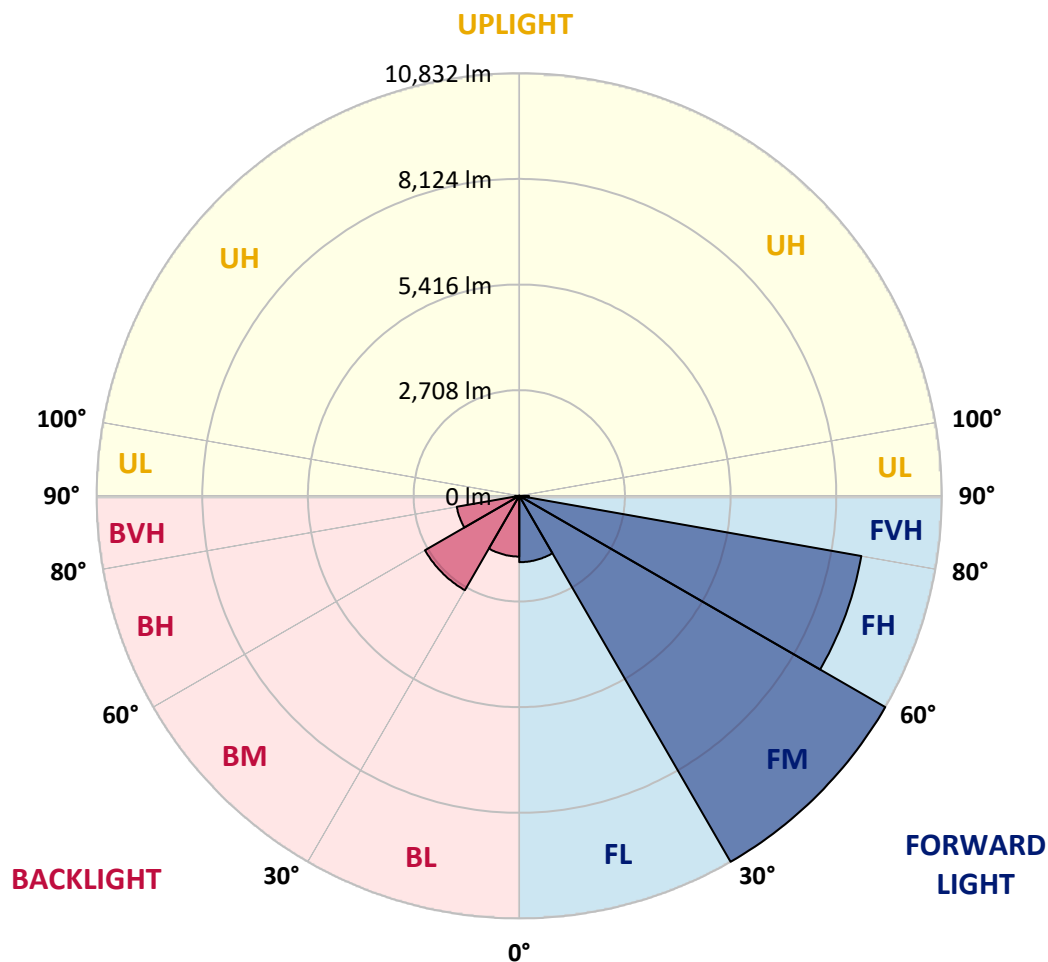
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1700.9	6.1			
FM	(30°-60°)	10832.2	39.0			
FH	(60°-80°)	8903.8	32.1			G4/12000
FVH	(80°-90°)	245.8	0.9			G3/500
BL	(0°-30°)	1557.8	5.6	B3/2500		
BM	(30°-60°)	2791.2	10.1	B3/5000		
BH	(60°-80°)	1624.8	5.9	B3/2500		G3/2500
BVH	(80°-90°)	105.7	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1
2.5°	3570.2	3568.8	3587.3	3592.9	3627.1	3651.3	3696.8	3745.1	3807.7	3814.7	3853.2
5°	3364.0	3364.0	3385.4	3408.1	3452.2	3500.6	3570.2	3654.1	3762.2	3779.3	3874.5
7.5°	3189.2	3200.6	3219.0	3263.1	3314.3	3383.9	3490.6	3610.0	3752.2	3779.3	3932.8
10°	3048.5	3061.2	3083.9	3119.5	3196.3	3292.9	3432.3	3585.9	3776.4	3819.0	4018.1
12.5°	3004.4	3017.1	3029.9	3057.0	3128.0	3241.8	3408.1	3597.2	3834.7	3877.4	4134.6
15°	3106.7	3122.4	3112.4	3105.2	3142.2	3246.1	3419.5	3638.4	3907.2	3968.3	4278.2
17.5°	3342.7	3348.4	3325.7	3258.9	3253.1	3308.6	3473.5	3695.3	3998.2	4065.0	4423.3
20°	3723.8	3713.8	3666.9	3534.7	3459.3	3447.9	3566.0	3780.6	4092.0	4163.1	4579.7
22.5°	4241.3	4230.0	4136.1	3927.1	3759.3	3648.4	3699.6	3891.5	4197.3	4276.9	4731.8
25°	4886.8	4871.2	4733.2	4448.9	4188.8	3914.3	3881.6	4038.0	4326.6	4400.5	4891.1
27.5°	5640.4	5627.7	5478.3	5103.0	4727.6	4278.2	4107.7	4210.1	4461.7	4545.6	5070.3
30°	6450.8	6487.8	6223.4	5819.5	5344.7	4753.2	4411.9	4421.8	4636.6	4711.9	5287.8
32.5°	7403.5	7467.4	7149.0	6637.1	5988.8	5269.3	4795.9	4717.7	4891.1	4953.6	5562.2
35°	8347.6	8420.1	8155.6	7589.7	6843.3	5877.9	5196.8	5057.5	5229.4	5297.7	5926.2
37.5°	9163.7	9260.4	9123.9	8631.9	7757.5	6611.6	5720.0	5457.0	5646.1	5731.4	6415.3
40°	9807.8	9955.6	9945.7	9638.6	8835.3	7501.6	6384.0	5950.3	6163.6	6256.1	7008.2
42.5°	10331.1	10459.0	10569.9	10554.2	9959.9	8512.5	7164.6	6591.6	6753.7	6860.3	7675.1
45°	10692.2	10828.7	11067.5	11324.9	11041.9	9594.5	8059.0	7352.3	7500.1	7660.8	8469.9
47.5°	11015.0	11169.9	11479.9	11887.9	11960.4	10680.8	9038.6	8238.1	8373.1	8539.5	9267.5
50°	11043.3	11177.0	11657.6	12236.2	12613.0	11724.5	10090.7	9232.0	9358.5	9536.2	10122.0
52.5°	10356.6	10567.0	11405.9	12226.3	12913.1	12597.5	11135.8	10265.6	10407.8	10621.0	11006.4
55°	8039.1	8347.6	10668.0	11845.3	12806.5	13161.9	12129.6	11364.7	11546.7	11770.0	11896.5
57.5°	6924.3	7059.4	8468.4	11151.4	12320.2	13308.4	12968.5	12475.2	12768.0	13012.6	12837.7
60°	6223.4	6335.7	7168.8	10072.3	11680.4	13076.5	13616.9	13510.2	14016.5	14307.9	13800.3
62.5°	5472.7	5579.3	6337.1	8410.1	10861.4	12691.2	14026.4	14465.7	15296.1	15614.5	14707.4
65°	4727.6	4818.6	5545.1	7066.6	9820.6	12305.9	14238.2	15291.8	16480.5	16810.3	15461.0
67.5°	3897.3	3972.6	4659.3	5961.7	8555.2	11778.5	14343.4	15941.6	17511.3	17794.2	15833.5
70°	2812.4	2870.7	3580.2	4714.8	6966.9	10871.4	14300.8	16402.3	18045.8	18272.0	15552.0
72.5°	1329.4	1382.0	2215.2	3061.2	4920.9	9105.4	13437.7	16036.8	17502.8	17390.5	13828.7
75°	709.5	755.0	1272.5	1679.2	2599.1	6241.8	10996.4	13814.5	14697.5	14151.5	10220.2
77.5°	480.6	516.1	787.7	1008.1	1187.3	2963.1	7067.9	9564.7	9202.1	8300.7	5118.6
80°	381.1	418.0	645.5	682.4	574.4	1070.6	2920.4	4427.6	3180.7	2543.6	1455.9
82.5°	292.9	334.2	543.1	494.8	312.8	439.3	850.2	1400.5	814.7	619.9	352.6
85°	179.2	223.2	426.5	315.6	176.3	200.5	288.6	389.6	248.9	207.6	126.6
87.5°	91.0	127.9	216.1	115.2	79.6	46.9	76.8	76.8	65.4	56.9	32.7
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°	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1	3873.1
2.5°	3887.3	3915.7	3964.1	4009.6	4045.2	4079.2	4113.3	4131.9	4137.5	4160.3	4173.1
5°	3932.8	3985.4	4079.2	4167.3	4222.8	4256.9	4281.1	4295.4	4298.2	4305.3	4316.7
7.5°	4016.7	4100.5	4231.4	4319.6	4360.8	4357.9	4347.9	4312.4	4298.2	4285.4	4288.3
10°	4134.6	4245.5	4406.3	4467.4	4441.8	4373.6	4285.4	4181.6	4133.3	4086.4	4072.1
12.5°	4281.1	4421.8	4579.7	4576.8	4450.3	4275.5	4070.7	3911.5	3810.5	3738.0	3721.0
15°	4458.9	4620.9	4741.9	4645.1	4367.8	4053.7	3753.7	3546.1	3455.1	3375.4	3366.9
17.5°	4642.3	4815.8	4871.2	4623.8	4160.3	3725.2	3385.4	3221.9	3132.3	3089.7	3102.5
20°	4821.4	4993.5	4948.0	4501.5	3844.7	3352.7	3049.8	2960.3	2941.7	2951.7	2947.5
22.5°	5010.5	5164.1	4963.7	4265.5	3442.3	2971.6	2805.3	2808.1	2849.4	2879.2	2886.3
25°	5203.9	5307.7	4922.4	3924.2	3010.0	2691.5	2650.3	2695.7	2776.8	2835.1	2850.7
27.5°	5390.2	5435.7	4832.8	3502.0	2639.0	2491.1	2498.1	2592.0	2714.3	2795.3	2815.3
30°	5600.6	5549.5	4660.8	3027.0	2381.6	2319.0	2378.7	2488.2	2610.5	2683.0	2700.1
32.5°	5838.0	5647.5	4387.8	2587.7	2199.5	2181.1	2279.2	2350.3	2404.3	2425.7	2437.0
35°	6133.8	5785.4	4038.0	2279.2	2036.1	2080.1	2174.0	2138.5	2117.1	2105.8	2117.1
37.5°	6517.7	5971.6	3628.5	2078.7	1903.8	2007.7	2046.0	1935.1	1851.3	1809.9	1820.0
40°	6979.7	6244.7	3234.7	1923.7	1820.0	1945.0	1878.2	1744.6	1637.9	1579.6	1583.9
42.5°	7493.1	6530.5	2903.4	1807.2	1773.0	1893.9	1754.5	1595.3	1423.2	1404.8	1423.2
45°	8031.9	6824.8	2677.3	1717.6	1750.3	1849.8	1683.5	1426.1	1303.8	1379.1	1419.0
47.5°	8570.8	7094.9	2540.8	1650.8	1738.9	1800.0	1620.9	1332.3	1245.5	1355.0	1406.2
50°	9170.8	7336.6	2479.7	1602.4	1726.1	1780.1	1527.0	1308.1	1184.4	1256.9	1311.0
52.5°	9766.6	7524.3	2434.2	1554.1	1707.6	1764.5	1481.5	1279.6	1110.5	1114.7	1144.6
55°	10360.9	7646.6	2384.5	1490.0	1666.3	1730.4	1477.3	1248.3	1055.0	1035.0	1049.3
57.5°	10995.1	7716.3	2323.3	1419.0	1595.3	1643.6	1473.0	1224.2	1037.9	1005.2	1009.5
60°	11640.5	7818.7	2243.6	1332.3	1500.0	1539.9	1463.1	1215.6	1028.0	972.5	976.8
62.5°	12219.2	7854.2	2148.4	1249.8	1377.8	1437.5	1441.8	1208.6	1001.0	905.7	905.7
65°	12598.9	7700.6	1982.0	1156.0	1245.5	1332.3	1400.5	1184.4	952.6	857.4	857.4
67.5°	12583.2	7262.7	1721.8	1035.0	1117.6	1215.6	1340.8	1143.2	894.3	797.7	802.0
70°	11997.4	6398.3	1391.9	894.3	976.8	1090.5	1264.0	1082.0	824.6	732.3	740.8
72.5°	10289.8	5007.7	1011.0	729.4	813.3	961.1	1164.5	1008.1	753.6	673.9	669.6
75°	7350.9	3169.3	685.3	560.2	632.7	814.7	1040.8	921.4	688.2	676.8	638.4
77.5°	3755.1	1514.2	453.6	409.5	440.7	642.7	874.4	823.3	698.1	558.8	497.6
80°	1221.4	558.8	285.8	278.7	292.9	427.9	676.8	675.4	528.9	379.7	335.6
82.5°	389.6	240.3	186.2	179.2	172.0	268.8	472.0	534.6	356.9	240.3	238.8
85°	155.0	143.6	109.5	101.0	72.5	126.6	247.4	355.5	265.9	173.4	177.7
87.5°	56.9	56.9	29.8	21.3	15.7	42.6	66.8	106.6	152.1	89.6	88.1
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)