

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: P969470

Luminaire Tested: **NAV-SB5D-830-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969470
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-SB5D-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 46910.2 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9
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



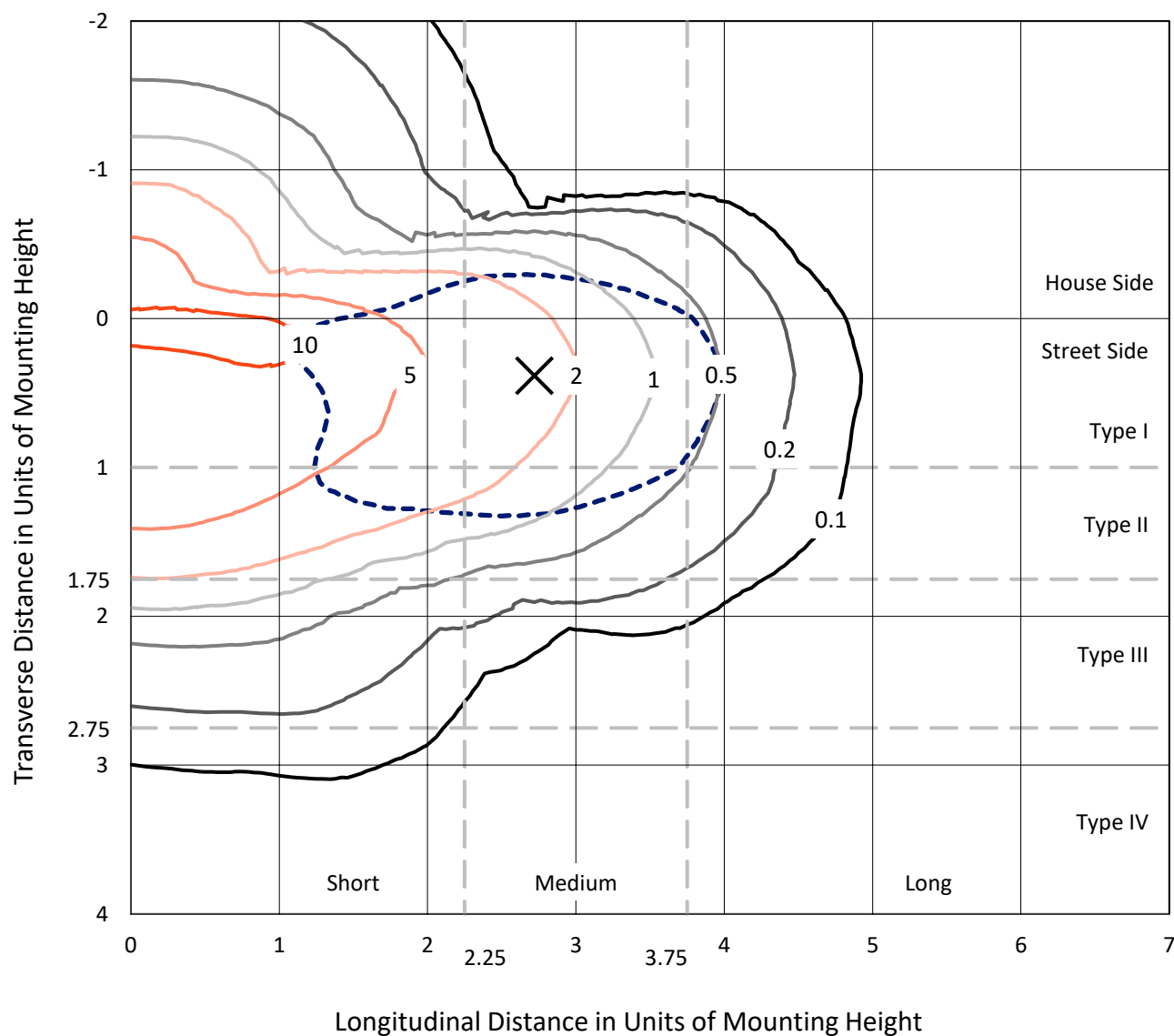
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

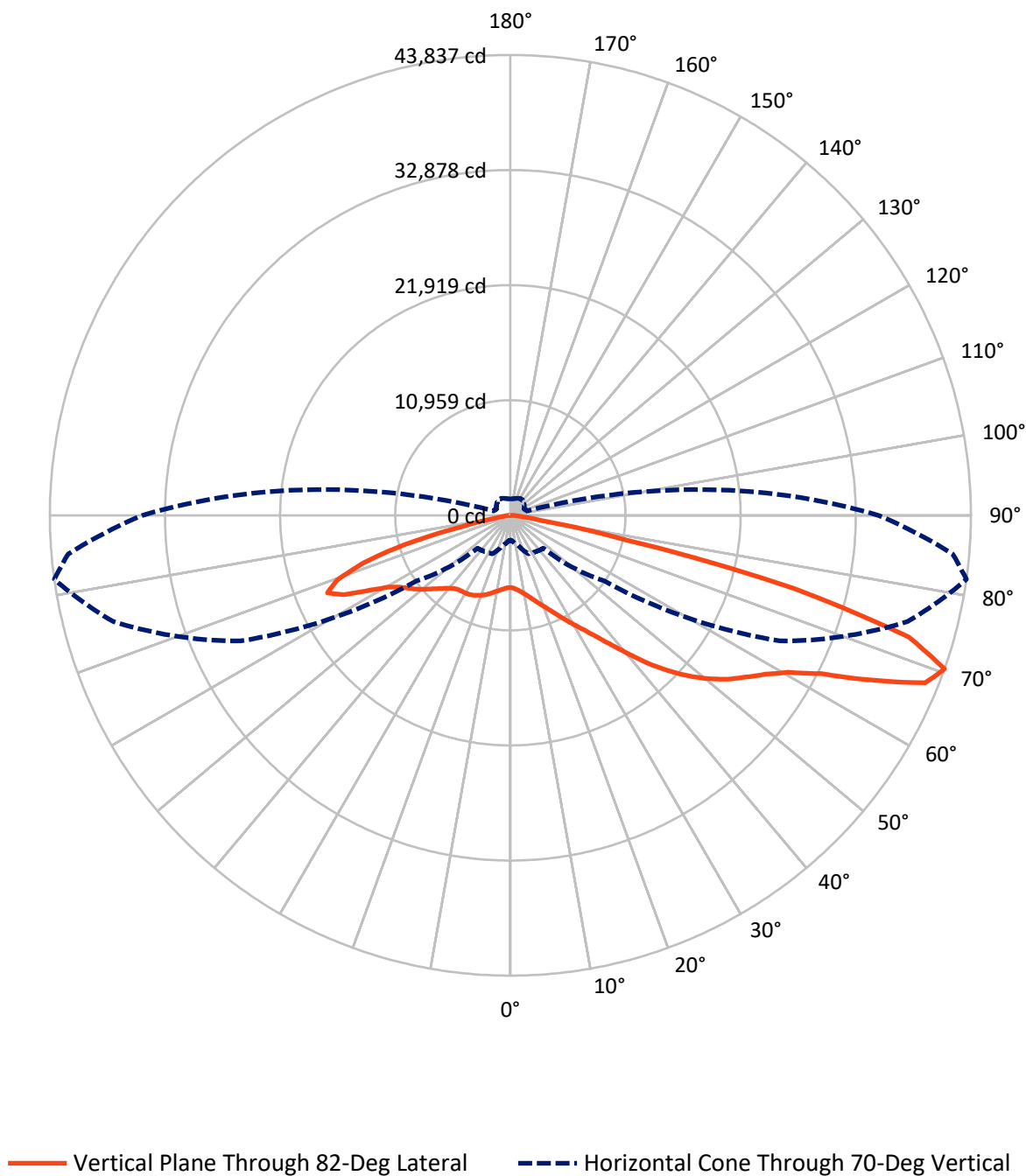
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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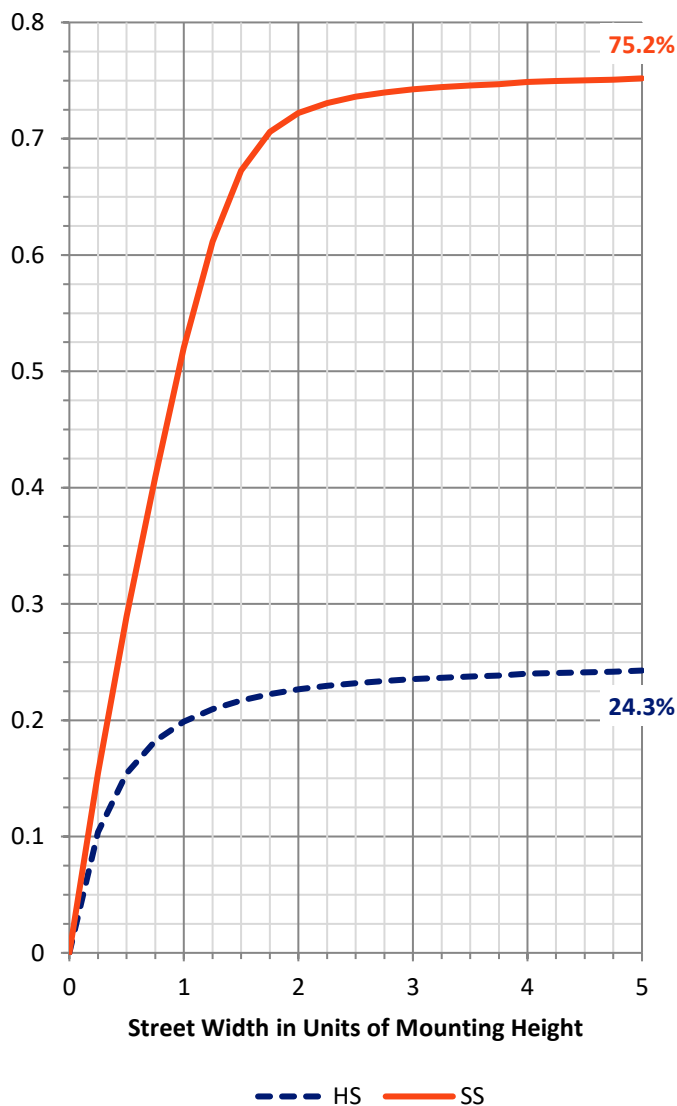
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11564.5	0.0	11564.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	35345.7	0.0	35345.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	46910.2	0.0	46910.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	649.4	1.4
10°-20°	1865.7	4.0
20°-30°	3121.1	6.7
30°-40°	4875.9	10.4
40°-50°	7765.5	16.6
50°-60°	10806.6	23.0
60°-70°	11304.2	24.1
70°-80°	5908.2	12.6
80°-90°	613.5	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°	46910.2	100.0
0°-180°	46910.2	100.0

Coefficient of Utilization



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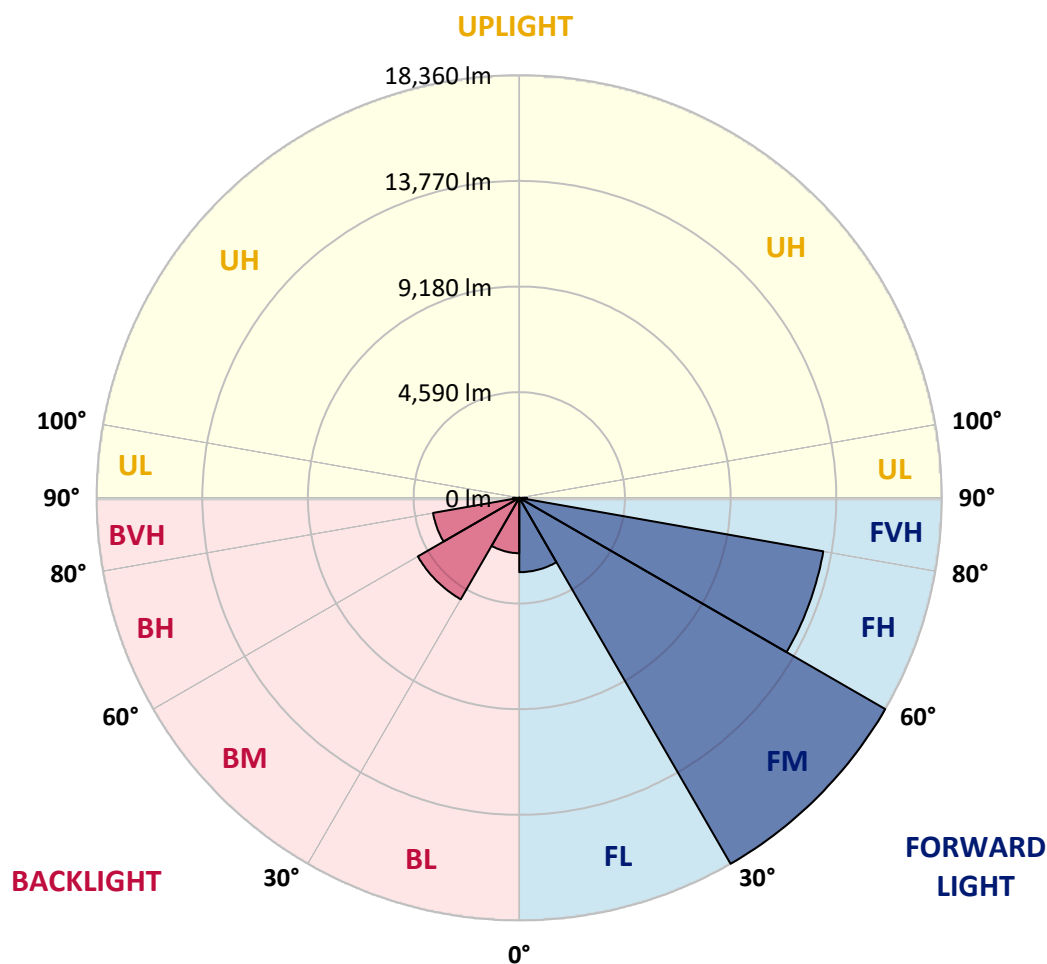
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3230.3	6.9			
FM	(30°-60°)	18360.2	39.1			
FH	(60°-80°)	13411.8	28.6			G5
FVH	(80°-90°)	343.4	0.7			G3/500
BL	(0°-30°)	2405.8	5.1	B3/2500		
BM	(30°-60°)	5087.9	10.8	B4/8500		
BH	(60°-80°)	3800.7	8.1	B4/5000		G4/5000
BVH	(80°-90°)	270.1	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6
2.5°	7041.9	7081.7	7069.3	7056.8	7056.8	7039.4	7036.9	7012.0	6992.1	6959.7	6952.3
5°	7131.5	7173.9	7168.8	7178.8	7211.2	7218.7	7226.1	7211.2	7171.3	7131.5	7114.1
7.5°	7051.9	7099.2	7114.1	7173.9	7273.4	7363.0	7430.2	7457.6	7420.3	7363.0	7335.6
10°	6783.0	6835.3	6887.6	7029.4	7206.2	7417.7	7597.0	7704.0	7696.5	7641.8	7594.5
12.5°	6237.9	6292.7	6404.7	6681.0	7004.5	7377.9	7711.5	7935.6	8012.7	7972.9	7890.8
15°	5802.3	5849.6	5934.2	6218.0	6638.6	7206.2	7753.8	8189.4	8386.0	8363.7	8264.1
17.5°	5789.8	5809.8	5862.1	5996.5	6320.0	6937.4	7709.0	8438.3	8814.2	8811.7	8687.3
20°	6008.9	6016.3	6046.3	6073.6	6257.8	6733.2	7594.5	8645.0	9294.6	9294.6	9160.2
22.5°	6312.6	6307.5	6337.5	6312.6	6402.2	6715.8	7522.3	8826.7	9829.8	9869.6	9700.4
25°	6768.1	6743.2	6735.7	6678.5	6695.9	6877.6	7602.0	9033.2	10464.5	10546.6	10335.1
27.5°	7375.5	7335.6	7308.2	7176.3	7131.5	7211.2	7845.9	9282.2	11171.5	11313.3	11044.5
30°	8167.0	8094.8	8055.0	7826.0	7664.2	7676.6	8214.3	9613.3	11910.7	12139.8	11798.8
32.5°	9247.3	9135.3	9028.3	8652.4	8356.2	8259.1	8689.7	10071.2	12712.3	13078.2	12640.1
35°	10457.0	10367.5	10253.0	9672.9	9217.4	8993.5	9331.9	10710.9	13650.6	14230.7	13660.7
37.5°	11622.0	11544.9	11599.6	10818.0	10230.5	9904.5	10173.3	11569.7	14808.2	15664.5	14940.1
40°	12826.7	12767.0	12774.5	12027.8	11343.2	10977.3	11193.8	12647.6	16134.9	17369.5	16478.4
42.5°	14136.1	14091.3	13941.9	13279.8	12510.6	12169.6	12368.8	13892.1	17558.7	19311.1	18166.1
45°	15602.2	15574.8	15435.5	14676.3	13795.1	13411.7	13680.6	15266.1	18990.0	21138.2	19861.2
47.5°	16869.2	16891.6	16874.2	16234.5	15320.9	14758.4	15079.5	16699.9	20321.6	22855.7	21486.7
50°	17479.0	17596.1	17767.8	17568.7	17001.2	16428.6	16490.8	18083.9	21591.2	24466.2	23044.9
52.5°	17160.4	17381.9	17850.0	18168.5	18387.6	18268.2	18101.3	19458.0	22786.0	25919.9	24518.4
55°	15973.1	16284.3	17060.8	17830.0	18947.6	19816.4	20035.5	20981.3	23951.0	27199.3	25912.4
57.5°	13810.0	14315.3	15012.3	16568.0	18449.8	20565.6	22290.7	23094.7	25185.6	28565.8	27371.1
60°	10101.1	10778.2	11644.4	13959.4	16707.4	20164.9	24209.8	26340.6	26940.5	30335.7	29270.3
62.5°	6464.4	6882.6	7679.1	9859.7	13018.4	18111.3	24797.2	30397.9	29915.0	33238.1	32118.0
65°	4425.7	4694.6	5423.9	6648.6	8416.0	13481.4	23224.0	33439.7	34639.5	37838.1	36986.8
67.5°	3216.0	3420.1	4042.4	5115.3	5483.6	7977.9	18021.7	33300.3	39232.0	42577.5	41253.3
70°	2344.8	2489.2	3012.0	4042.4	4219.2	4438.2	10917.6	28307.0	39132.4	43837.0	42251.4
72.5°	1737.5	1837.0	2188.0	3136.4	3415.2	2997.0	5404.0	20573.1	33626.4	39650.2	38378.3
75°	1257.1	1331.7	1590.6	2399.5	2733.2	2282.6	2695.7	12022.7	23455.6	27891.3	28115.3
77.5°	960.8	1018.0	1187.4	1757.4	2188.0	1712.6	1672.7	5531.0	11121.7	11176.4	11803.7
80°	771.6	809.0	901.1	1237.2	1677.7	1282.0	1090.3	2232.8	3514.7	2974.5	3121.4
82.5°	567.5	629.8	761.7	868.7	1199.8	883.7	664.6	1127.6	1336.7	1150.0	1160.0
85°	323.6	365.9	460.5	622.3	766.7	540.2	380.9	500.3	622.3	510.2	455.5
87.5°	114.5	149.3	161.8	244.0	333.5	224.1	146.9	144.4	204.1	151.8	127.0
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°	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6	6877.6
2.5°	6927.4	6915.0	6865.1	6798.0	6728.3	6661.1	6638.6	6591.4	6559.0	6541.5	6561.5
5°	7066.8	7027.0	6909.9	6760.6	6603.8	6434.5	6315.0	6205.6	6125.9	6051.2	6081.1
7.5°	7265.9	7196.2	6994.6	6733.2	6454.4	6173.2	5964.1	5804.8	5697.8	5628.1	5642.9
10°	7497.5	7390.4	7081.7	6690.9	6260.3	5857.1	5610.6	5473.7	5406.5	5369.2	5379.1
12.5°	7763.8	7612.0	7171.3	6593.8	5964.1	5503.6	5334.3	5294.5	5297.0	5299.5	5304.5
15°	8092.4	7880.7	7243.6	6382.3	5578.3	5232.2	5202.4	5267.1	5334.3	5366.7	5364.2
17.5°	8463.2	8164.5	7256.0	6033.8	5199.9	5058.1	5152.6	5292.0	5394.1	5438.9	5448.8
20°	8861.5	8453.3	7166.4	5540.9	4888.7	4916.1	5085.4	5264.6	5376.6	5433.9	5448.8
22.5°	9317.0	8761.9	6952.3	5023.2	4634.8	4761.8	4960.9	5135.1	5252.2	5309.4	5324.4
25°	9837.2	9107.9	6616.3	4587.6	4415.8	4587.6	4786.8	4931.1	5025.7	5078.0	5092.9
27.5°	10414.7	9468.8	6168.2	4241.6	4224.1	4408.3	4572.6	4684.7	4734.5	4774.2	4789.2
30°	10994.8	9797.5	5625.5	3980.2	4057.4	4231.6	4348.6	4398.4	4413.3	4420.8	4438.2
32.5°	11622.0	10081.2	5055.5	3763.6	3898.1	4059.8	4129.5	4152.0	4082.3	4035.0	4049.9
35°	12381.2	10384.9	4497.9	3591.9	3741.2	3880.6	3903.0	3883.1	3801.0	3703.9	3708.9
37.5°	13319.7	10763.2	4052.4	3469.9	3594.4	3686.5	3659.1	3654.1	3661.6	3547.1	3554.6
40°	14469.6	11256.0	3726.3	3375.3	3474.9	3494.8	3417.7	3460.0	3497.3	3323.0	3328.1
42.5°	15746.6	11851.0	3519.7	3310.6	3375.3	3328.1	3208.6	3255.8	3250.9	3021.9	3019.3
45°	17048.4	12498.2	3447.5	3263.3	3283.3	3188.7	3056.8	3069.2	2964.6	2758.0	2765.4
47.5°	18342.8	13192.7	3492.3	3223.5	3168.7	3061.7	2959.7	2904.8	2750.6	2596.2	2596.2
50°	19612.2	13922.0	3656.6	3143.9	3012.0	2949.6	2875.0	2778.0	2613.6	2481.7	2471.8
52.5°	20789.7	14656.3	3840.8	3012.0	2815.3	2852.6	2805.3	2693.3	2531.5	2397.1	2399.5
55°	21904.9	15390.6	3913.0	2830.2	2631.1	2768.0	2740.5	2534.0	2339.9	2230.3	2220.4
57.5°	23119.5	16274.2	3833.3	2598.7	2481.7	2670.9	2566.4	2337.3	2225.4	2143.2	2135.7
60°	24802.2	17660.8	3661.6	2312.5	2339.9	2526.5	2347.2	2252.7	2130.8	2038.6	2033.7
62.5°	27597.6	20247.0	3385.3	2028.7	2173.1	2312.5	2242.8	2148.2	2023.7	1934.1	1934.1
65°	31729.6	23841.4	2865.1	1807.2	1986.3	2103.4	2130.8	2036.2	1906.7	1812.1	1817.1
67.5°	35214.5	26096.6	2168.1	1623.0	1794.7	1934.1	2011.3	1919.2	1782.3	1690.1	1692.7
70°	35022.8	24458.8	1655.3	1441.3	1625.4	1767.3	1866.9	1794.7	1647.8	1560.8	1568.1
72.5°	31107.3	20461.0	1339.2	1257.1	1453.7	1593.1	1712.6	1657.8	1508.5	1423.8	1423.8
75°	22853.2	14524.4	1070.3	1070.3	1239.6	1411.3	1543.3	1508.5	1371.6	1311.8	1294.4
77.5°	9633.2	6093.5	838.9	888.7	1030.5	1212.3	1376.5	1389.0	1269.5	1344.2	1219.8
80°	2561.4	1680.2	639.7	699.5	809.0	1000.6	1197.3	1192.3	1062.9	993.2	923.5
82.5°	975.8	662.2	455.5	492.8	585.0	766.7	948.3	978.3	848.8	734.3	734.3
85°	375.9	283.7	281.3	296.2	341.0	507.8	716.9	741.8	639.7	542.6	560.1
87.5°	97.1	84.7	104.6	99.5	156.8	271.3	410.7	425.7	390.8	226.5	323.6
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)