

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: P966806

Luminaire Tested: **NAV-SB4C-827-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966806
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22272.2 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G4

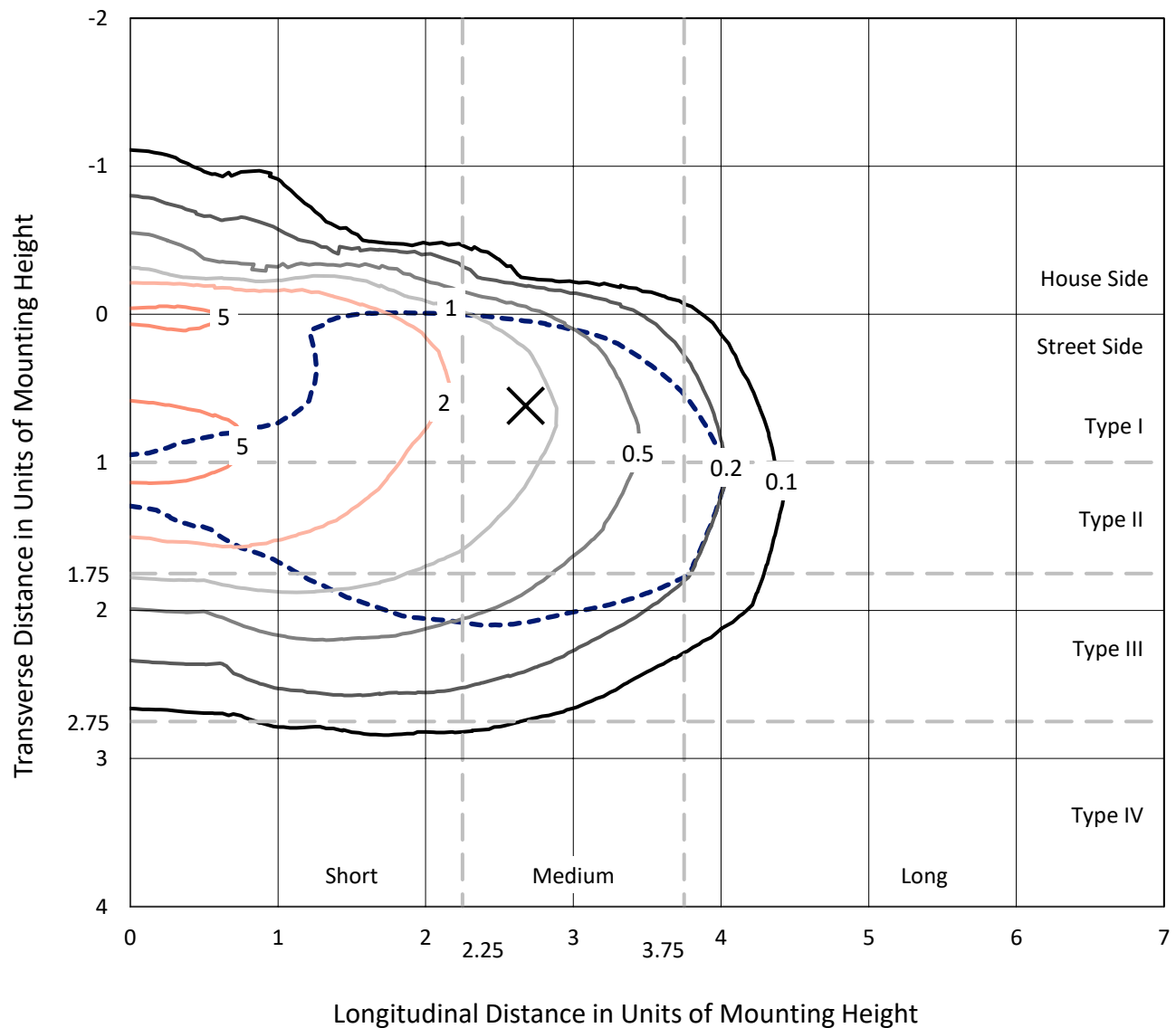
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

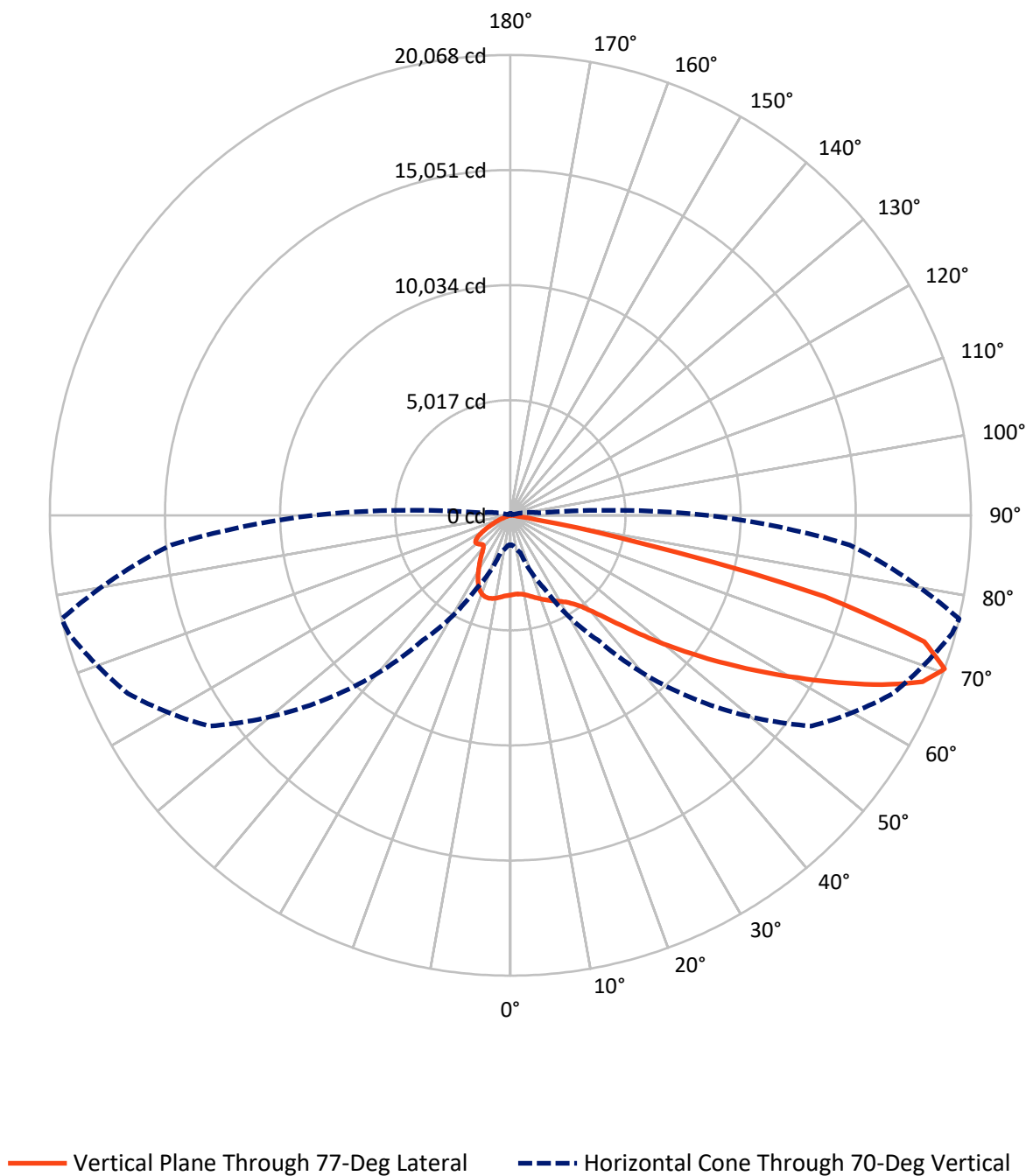
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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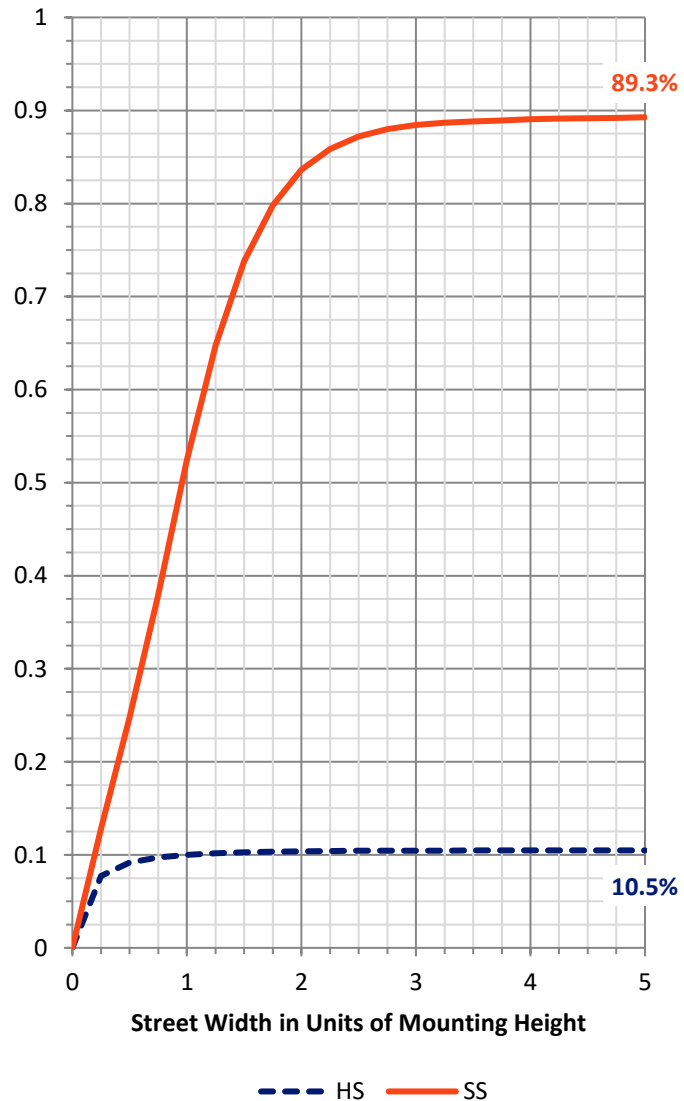
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2347.8	0.0	2347.8
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	19924.4	0.0	19924.4
	% Fixture	89.5	0.0	89.5
Total	Lumens	22272.2	0.0	22272.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.4	1.3
10°-20°	710.8	3.2
20°-30°	1099.4	4.9
30°-40°	1994.8	9.0
40°-50°	3765.5	16.9
50°-60°	5440.8	24.4
60°-70°	5791.6	26.0
70°-80°	3069.2	13.8
80°-90°	100.8	0.5
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°	22272.2	100.0
0°-180°	22272.2	100.0

Coefficient of Utilization



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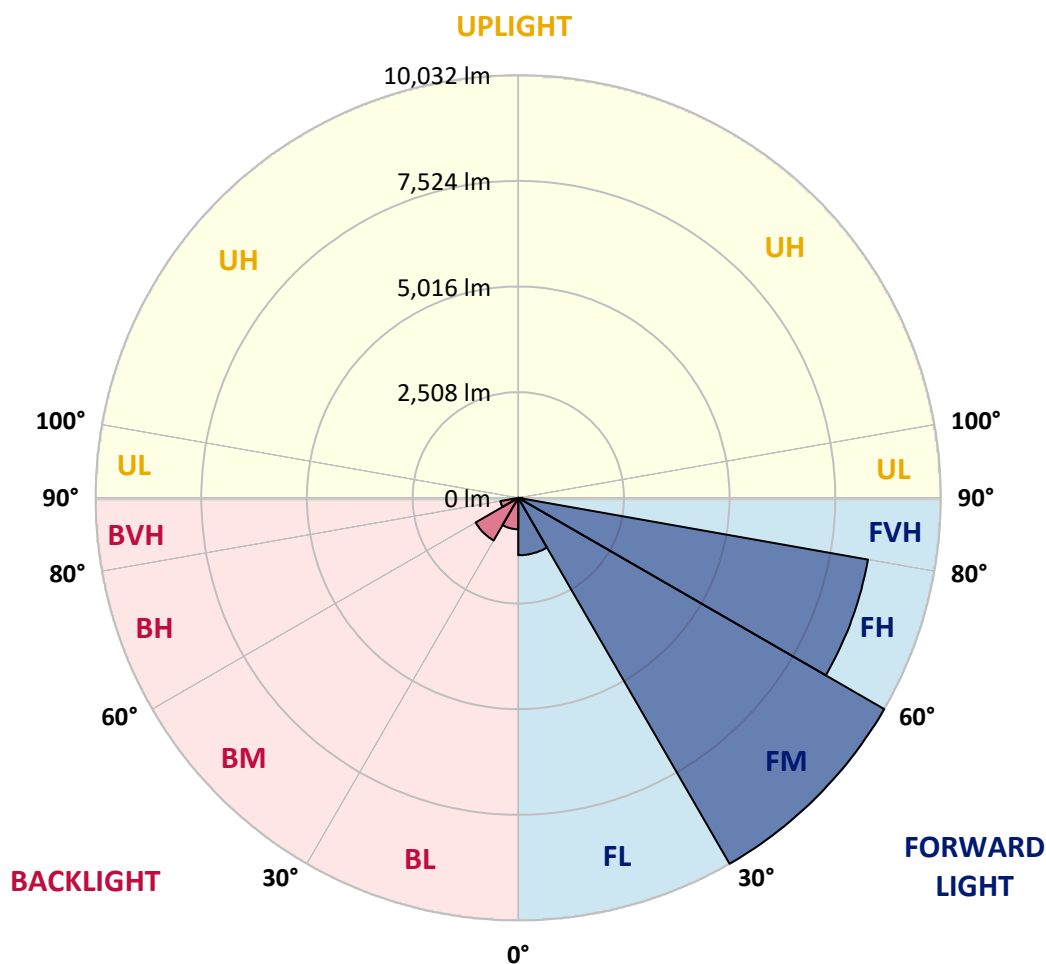
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1363.6	6.1			
FM	(30°-60°)	10032.4	45.0			
FH	(60°-80°)	8430.3	37.9			G4/12000
FVH	(80°-90°)	98.1	0.4			G1/100
BL	(0°-30°)	745.9	3.3	B2/1000		
BM	(30°-60°)	1168.7	5.2	B2/2500		
BH	(60°-80°)	430.4	1.9	B1/500		G1/500
BVH	(80°-90°)	2.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0
2.5°	3261.7	3291.2	3287.0	3306.6	3313.7	3341.8	3370.0	3407.9	3450.2	3448.7	3476.9
5°	3077.5	3107.0	3114.0	3140.7	3174.5	3218.1	3275.8	3351.7	3430.5	3443.1	3499.4
7.5°	2859.4	2890.4	2908.6	2962.1	3024.0	3114.0	3208.2	3319.4	3450.2	3468.4	3576.7
10°	2641.4	2669.5	2693.5	2769.4	2867.8	3001.5	3154.7	3315.2	3490.9	3517.7	3670.9
12.5°	2506.4	2533.1	2559.8	2625.9	2748.3	2911.5	3119.6	3334.8	3558.5	3596.4	3799.0
15°	2458.6	2482.4	2503.6	2562.6	2676.6	2862.2	3112.6	3375.6	3644.3	3694.9	3953.7
17.5°	2465.6	2478.2	2492.3	2537.3	2648.5	2839.8	3125.2	3445.9	3745.6	3790.6	4108.4
20°	2506.4	2513.4	2514.8	2545.8	2644.2	2836.9	3150.5	3513.5	3841.2	3901.7	4261.7
22.5°	2558.4	2561.3	2558.4	2579.5	2670.9	2858.0	3184.4	3595.0	3948.1	4004.4	4416.4
25°	2801.7	2748.3	2680.8	2640.0	2715.9	2898.8	3235.0	3704.8	4064.8	4119.7	4566.9
27.5°	3557.1	3403.7	3161.8	2890.4	2808.8	2957.8	3305.3	3815.9	4182.9	4232.1	4728.6
30°	4783.5	4582.4	4171.6	3559.8	3107.0	3081.7	3396.7	3927.0	4308.1	4361.6	4901.7
32.5°	6012.9	5963.6	5489.6	4642.8	3777.8	3357.3	3548.7	4077.4	4474.1	4516.3	5135.1
35°	7256.2	7156.2	6768.1	5931.3	4811.7	3918.5	3801.8	4274.4	4692.1	4739.9	5475.5
37.5°	8208.4	8147.8	7907.4	7218.2	6038.2	4784.9	4235.0	4579.6	5008.6	5062.0	5911.6
40°	9049.4	9021.3	8939.7	8485.5	7409.4	5918.6	4908.7	5052.1	5447.4	5510.7	6446.0
42.5°	9710.5	9776.7	9823.0	9696.4	8823.0	7212.5	5814.5	5716.0	6059.2	6124.0	7126.7
45°	10387.0	10409.5	10596.6	10779.4	10226.7	8565.6	6835.6	6493.8	6820.1	6900.3	7942.5
47.5°	10821.6	10911.6	11240.8	11562.8	11406.7	9907.4	7932.7	7412.3	7702.1	7852.5	8856.7
50°	10854.0	11024.2	11477.0	12038.3	12266.1	11184.5	9125.4	8458.7	8766.7	8932.7	9832.8
52.5°	10315.3	10579.7	11281.6	12103.0	12730.3	12266.1	10358.9	9505.1	9900.4	10117.0	10845.5
55°	7908.8	8254.7	10545.9	11751.3	12748.5	13086.1	11560.1	10595.2	11163.4	11408.1	11939.8
57.5°	6890.5	7064.9	8291.3	11140.9	12409.6	13416.6	12645.8	11633.2	12537.6	12841.4	12973.6
60°	5732.9	5962.2	6953.8	10142.3	11949.7	13449.0	13605.1	12972.2	14027.0	14368.9	13921.6
62.5°	3896.0	4145.0	5130.9	8426.3	11320.9	13433.5	14391.3	14350.5	15682.5	16049.7	14724.7
65°	2413.6	2569.7	3219.5	6880.6	10441.9	13450.4	15214.2	16024.3	17429.4	17802.1	15346.4
67.5°	1907.2	1979.0	2317.9	5282.8	8927.0	13070.6	16035.5	17598.2	19073.6	19369.0	15536.2
70°	1281.4	1324.9	1686.4	3541.6	6641.5	11318.2	16020.0	18388.6	19920.4	20068.0	14844.3
72.5°	675.2	708.9	985.9	1640.0	4011.3	8045.2	13503.9	17443.4	19077.8	18855.6	12688.1
75°	337.5	393.8	663.9	832.6	1713.1	4486.7	8385.6	13752.8	15015.8	14155.0	8140.9
77.5°	255.9	309.4	548.6	548.6	596.3	1510.5	3551.4	7500.8	6918.5	5761.0	2389.7
80°	163.2	210.9	479.6	414.9	249.0	384.0	925.5	2101.4	1469.7	1118.2	434.6
82.5°	95.6	137.9	399.4	274.3	139.2	142.1	261.6	447.3	381.2	296.7	133.7
85°	37.9	90.0	274.3	108.3	54.8	35.2	78.7	95.6	78.7	59.0	33.7
87.5°	0.0	21.1	47.9	0.0	4.2	2.8	5.6	7.1	7.1	5.6	11.3
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°	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0	3474.0
2.5°	3489.5	3492.4	3500.8	3502.2	3482.5	3457.2	3447.4	3443.1	3426.3	3424.8	3427.6
5°	3531.7	3544.3	3531.7	3495.1	3407.9	3285.6	3192.8	3116.8	3047.9	3026.8	3014.1
7.5°	3616.1	3628.8	3590.8	3447.4	3227.9	2984.6	2765.1	2610.5	2471.3	2419.2	2398.1
10°	3737.0	3754.0	3634.4	3344.7	2956.5	2565.5	2194.1	1932.5	1728.6	1645.6	1610.5
12.5°	3889.0	3896.0	3658.3	3188.6	2603.4	2045.1	1519.0	1239.1	1057.7	990.1	969.0
15°	4056.3	4046.5	3661.1	2976.2	2122.4	1445.9	991.6	814.4	741.2	718.7	718.7
17.5°	4232.1	4191.4	3604.8	2669.5	1595.0	988.8	735.6	693.4	680.7	675.2	673.7
20°	4405.1	4313.7	3502.2	2268.7	1144.9	738.4	668.1	655.4	648.4	645.5	642.8
22.5°	4562.7	4406.6	3326.4	1803.2	831.3	652.6	631.5	620.2	607.6	602.0	600.5
25°	4716.0	4460.0	3078.8	1368.5	665.3	610.4	593.6	572.5	555.6	548.6	545.7
27.5°	4865.1	4493.8	2769.4	1012.7	593.6	571.0	540.1	510.6	497.9	495.1	492.3
30°	5024.0	4505.1	2417.8	755.3	549.9	521.8	476.8	443.0	436.0	437.5	437.5
32.5°	5218.2	4521.9	2063.3	618.9	513.4	462.8	409.3	374.1	368.5	374.1	372.7
35°	5450.2	4555.7	1721.6	569.6	481.0	402.2	344.6	315.1	309.4	313.6	312.2
37.5°	5765.2	4610.6	1402.3	559.8	454.3	351.6	289.8	265.8	265.8	267.2	265.8
40°	6184.4	4756.8	1116.7	552.8	440.2	313.6	244.8	234.9	239.1	241.9	241.9
42.5°	6695.0	5067.6	924.0	544.3	424.8	296.7	222.2	218.0	225.1	227.9	227.9
45°	7267.5	5461.4	856.6	530.2	410.7	308.0	212.4	206.7	215.1	216.6	218.0
47.5°	7859.5	5846.8	848.1	514.8	396.7	324.9	209.6	196.9	206.7	208.2	209.6
50°	8458.7	6098.6	856.6	490.9	374.1	324.9	210.9	187.1	195.5	199.8	201.1
52.5°	9062.1	6214.0	851.0	438.8	334.8	305.2	210.9	178.7	187.1	189.8	189.8
55°	9647.2	6191.4	765.2	361.5	284.1	270.1	205.3	171.6	177.2	178.7	178.7
57.5°	10110.0	5877.8	606.2	281.3	230.6	225.1	187.1	163.2	167.4	165.9	165.9
60°	10351.9	5188.5	433.2	216.6	181.4	177.2	164.5	151.9	154.7	147.7	146.3
62.5°	10354.7	4277.2	289.8	171.6	144.8	140.6	140.6	136.4	133.7	119.5	115.3
65°	10133.9	3265.9	192.7	136.4	116.7	109.7	118.2	116.7	106.9	87.2	84.4
67.5°	9633.2	2140.7	146.3	106.9	90.0	85.8	94.2	98.5	91.4	73.2	71.8
70°	8603.5	1246.2	121.0	83.0	67.5	63.2	76.0	84.4	76.0	59.0	56.3
72.5°	7146.4	672.3	98.5	61.9	46.4	42.2	60.5	68.9	60.5	43.6	42.2
75°	4637.2	360.1	76.0	40.8	23.9	26.8	45.0	50.6	42.2	28.1	25.3
77.5°	1557.0	159.0	47.9	19.7	11.3	11.3	26.8	31.0	19.7	9.8	8.4
80°	347.4	66.1	19.7	8.4	4.2	4.2	5.6	5.6	2.8	0.0	0.0
82.5°	113.9	26.8	8.4	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	43.6	9.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)