

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: P966833

Luminaire Tested: **NAV-SB4C-830-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966833
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21126.3 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

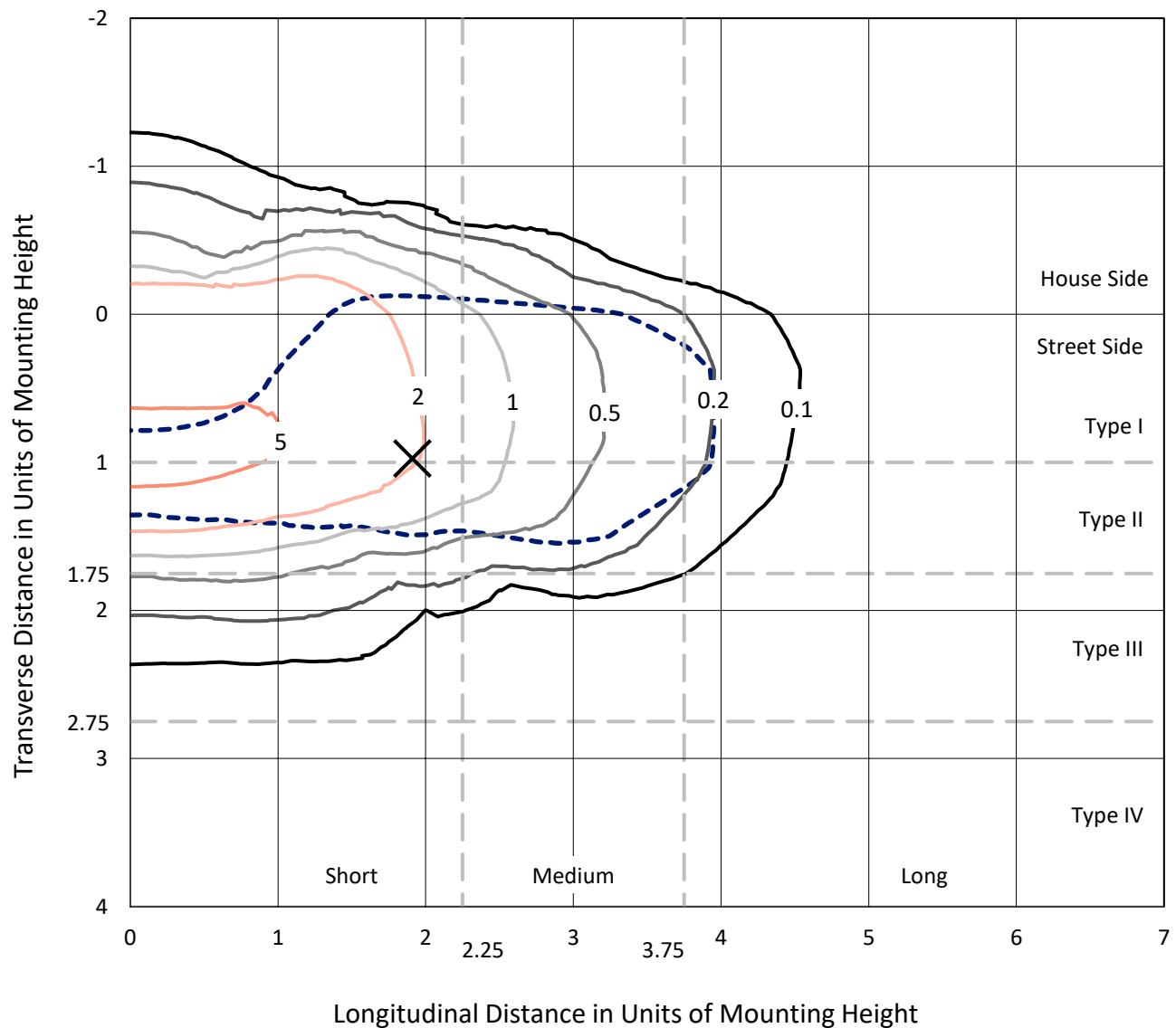
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

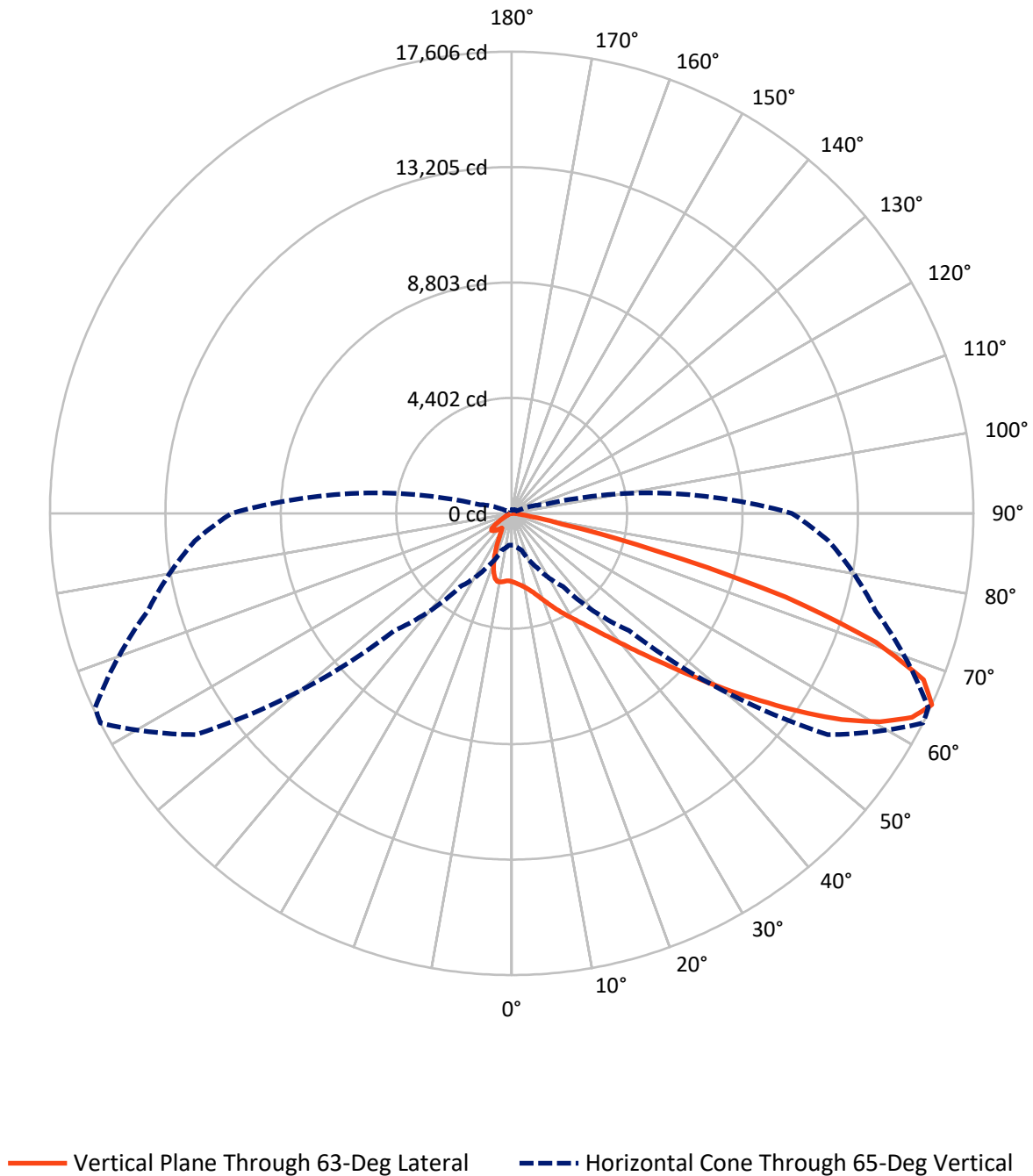
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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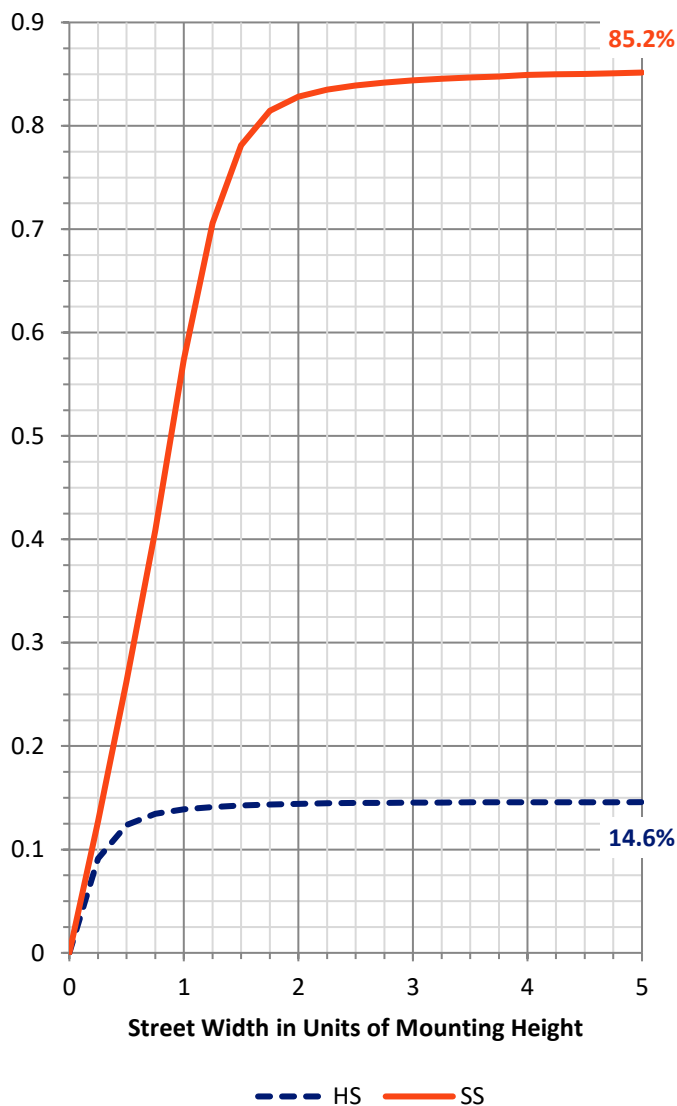
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3105.4	0.0	3105.4
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	18020.9	0.0	18020.9
	% Fixture	85.3	0.0	85.3
Total	Lumens	21126.3	0.0	21126.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.7	1.2
10°-20°	681.6	3.2
20°-30°	1186.9	5.6
30°-40°	2139.2	10.1
40°-50°	4242.8	20.1
50°-60°	5779.4	27.4
60°-70°	4613.1	21.8
70°-80°	2087.5	9.9
80°-90°	150.1	0.7
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°	21126.3	100.0
0°-180°	21126.3	100.0

Coefficient of Utilization



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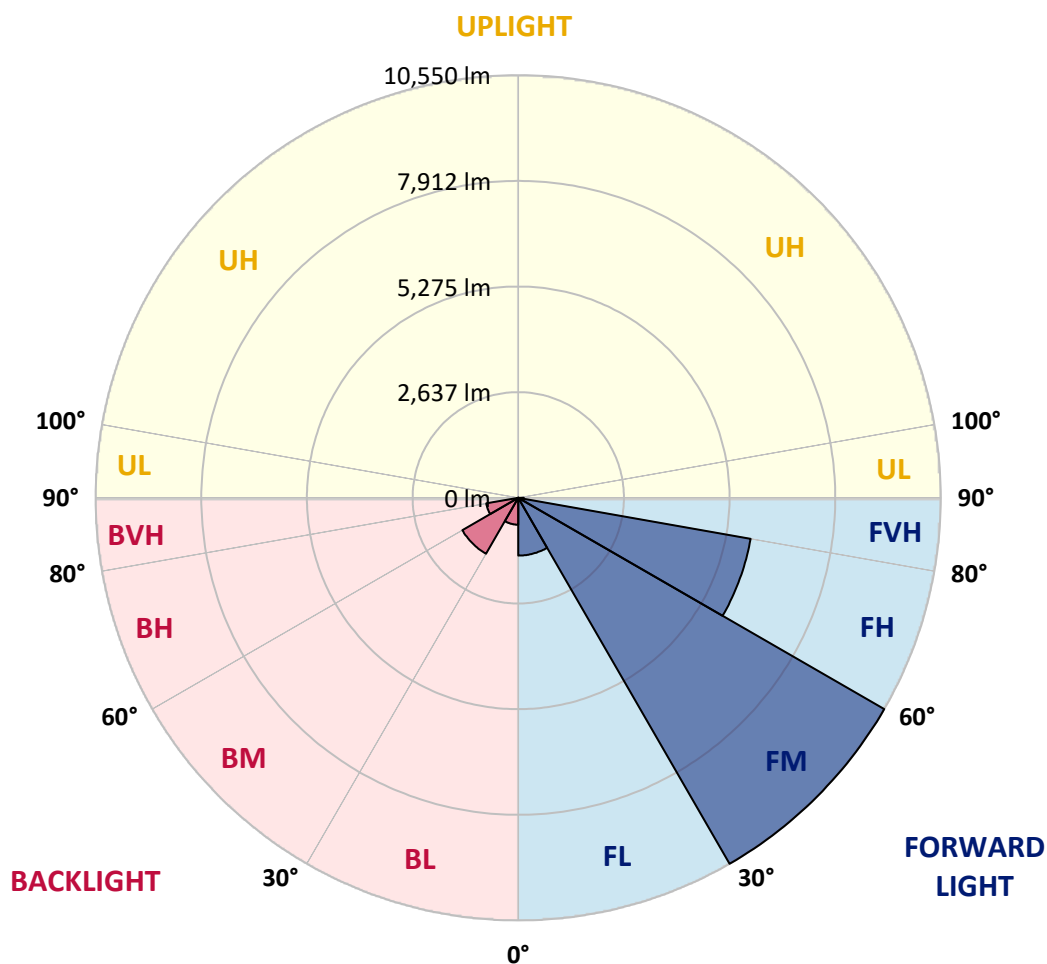
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1442.1	6.8			
FM	(30°-60°)	10549.9	49.9			
FH	(60°-80°)	5889.9	27.9			G3/7500
FVH	(80°-90°)	138.9	0.7			G2/225
BL	(0°-30°)	672.1	3.2	B2/1000		
BM	(30°-60°)	1611.5	7.6	B2/2500		
BH	(60°-80°)	810.7	3.8	B2/1000		G2/1000
BVH	(80°-90°)	11.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4
2.5°	2668.4	2661.2	2671.4	2666.9	2664.1	2658.2	2655.4	2652.4	2646.7	2642.2	2624.8
5°	2675.7	2671.4	2681.5	2690.2	2698.9	2707.6	2712.0	2717.9	2712.0	2700.4	2682.9
7.5°	2614.7	2611.7	2633.5	2659.7	2698.9	2732.3	2768.7	2789.0	2790.5	2786.2	2767.3
10°	2610.3	2603.0	2624.8	2656.8	2707.6	2767.3	2831.2	2874.8	2880.7	2899.5	2879.1
12.5°	2678.6	2671.4	2701.9	2736.7	2789.0	2851.5	2930.1	2991.1	2999.8	3026.0	3011.4
15°	2793.4	2783.3	2818.1	2863.1	2930.1	3001.2	3084.1	3139.4	3146.5	3178.5	3152.4
17.5°	2927.1	2916.9	2957.6	3005.6	3078.3	3175.7	3271.6	3332.6	3341.3	3361.7	3313.7
20°	3098.7	3085.6	3117.5	3161.1	3238.2	3354.4	3469.2	3556.4	3555.0	3555.0	3476.5
22.5°	3297.7	3277.4	3305.0	3339.9	3412.5	3553.6	3706.2	3809.3	3809.3	3768.6	3639.3
25°	3511.3	3491.0	3521.6	3553.6	3617.5	3777.3	3956.1	4084.0	4089.9	4020.0	3813.7
27.5°	3778.8	3752.6	3775.9	3813.7	3851.4	4014.3	4226.5	4374.7	4377.6	4270.0	3979.4
30°	4293.3	4219.2	4146.5	4105.8	4123.3	4284.6	4511.3	4675.5	4690.1	4541.9	4159.6
32.5°	5235.1	5220.5	4964.8	4630.5	4456.1	4575.3	4829.6	5027.3	5036.0	4845.6	4393.6
35°	6698.7	6681.3	6269.9	5633.3	5065.0	4964.8	5216.2	5450.2	5444.4	5229.3	4697.4
37.5°	8445.7	8429.7	7887.6	7035.9	6115.9	5553.4	5714.7	5960.4	5996.7	5714.7	5089.7
40°	9938.3	9878.6	9535.7	8714.6	7511.1	6530.1	6424.0	6586.8	6624.6	6290.3	5588.3
42.5°	11069.0	11018.1	10843.8	10330.7	9200.0	7974.7	7259.7	7322.2	7364.3	6963.2	6161.0
45°	11654.8	11643.1	11712.9	11664.9	10920.8	9747.9	8454.4	8194.3	8210.2	7708.8	6810.6
47.5°	11737.6	11731.7	12050.1	12500.6	12400.3	11747.7	9987.7	9281.4	9224.7	8550.2	7516.9
50°	11249.3	11237.6	11848.1	12692.5	13388.7	13427.9	11728.9	10506.6	10381.6	9420.9	8253.8
52.5°	9689.7	9686.9	10689.7	12095.1	13736.0	14898.7	13449.6	11852.4	11643.1	10342.4	9032.8
55°	7455.8	7509.7	8659.3	10320.5	13102.3	15606.5	14994.6	13346.5	13025.3	11269.6	9750.8
57.5°	5281.6	5360.1	6496.7	7976.2	11137.3	15187.9	16039.6	14843.4	14497.6	12193.9	10479.0
60°	2837.0	2906.8	4044.8	5810.6	8285.8	13627.0	16590.4	16142.8	15815.7	13071.8	11135.9
62.5°	1690.3	1713.6	2184.5	3751.2	5604.3	10410.6	16356.4	17132.6	16863.7	13808.7	11707.0
65°	1213.6	1217.9	1454.9	2290.6	3402.4	6325.2	14715.6	17606.3	17523.5	14363.8	12130.0
67.5°	1021.7	1018.8	1117.7	1521.7	2318.1	3168.4	11278.3	16936.4	17288.1	14715.6	12369.8
70°	876.4	880.8	997.0	1114.8	1742.6	1793.4	5607.2	14746.1	15496.1	14808.6	12355.2
72.5°	652.6	667.1	774.7	1015.9	1315.3	1233.9	1935.9	10933.9	12289.9	13952.5	11714.3
75°	460.7	468.0	545.0	854.5	981.0	898.2	988.3	5652.3	7390.5	10696.9	9588.1
77.5°	354.6	367.7	412.8	597.4	966.5	630.8	604.6	1956.2	3005.6	6461.8	6573.6
80°	191.9	215.1	298.0	431.6	678.8	446.2	299.4	779.0	1018.8	3021.6	2534.7
82.5°	98.8	110.5	207.9	311.0	386.6	389.5	148.2	324.1	420.0	933.1	347.4
85°	39.3	48.0	139.5	171.5	199.2	191.9	66.8	130.8	151.2	258.7	106.1
87.5°	8.7	14.6	50.8	39.3	37.8	40.7	16.0	30.5	29.1	30.5	18.9
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°	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4	2607.4
2.5°	2623.4	2617.5	2601.6	2584.1	2563.7	2552.1	2544.9	2543.4	2533.3	2526.0	2533.3
5°	2666.9	2661.2	2630.7	2594.3	2555.0	2524.6	2495.5	2469.3	2431.5	2424.2	2421.4
7.5°	2754.2	2738.2	2688.8	2639.4	2565.3	2476.6	2369.0	2245.5	2135.1	2101.6	2085.6
10°	2861.7	2840.0	2777.4	2690.2	2526.0	2284.7	2024.6	1783.3	1591.4	1537.7	1517.3
12.5°	2983.8	2964.9	2882.1	2720.8	2361.8	1924.3	1526.0	1226.6	1040.6	994.1	981.0
15°	3129.1	3101.5	2986.7	2674.2	2068.1	1462.1	1047.9	870.5	803.7	795.0	786.3
17.5°	3283.2	3238.2	3079.7	2507.0	1672.9	1039.1	809.5	758.7	729.6	720.9	716.5
20°	3424.2	3366.1	3135.0	2254.2	1249.9	809.5	725.3	691.8	665.6	655.5	649.6
22.5°	3565.2	3482.3	3135.0	1909.8	937.5	718.0	665.6	635.1	604.6	591.5	584.2
25°	3711.9	3601.5	3079.7	1526.0	754.3	658.4	609.0	575.5	549.4	533.4	527.6
27.5°	3854.4	3701.8	2953.3	1162.8	671.5	606.1	556.7	524.7	500.0	488.3	488.3
30°	3989.5	3800.6	2776.0	882.2	617.7	555.2	508.7	481.0	456.3	444.7	446.2
32.5°	4172.7	3925.6	2587.0	723.8	571.2	507.3	465.0	438.9	417.1	408.4	408.4
35°	4427.0	4110.1	2424.2	710.7	532.0	468.0	425.9	401.2	379.4	372.1	372.1
37.5°	4787.5	4408.1	2338.5	797.9	500.0	433.1	393.9	367.7	347.4	341.5	340.1
40°	5232.2	4812.2	2385.0	885.1	478.2	402.6	364.8	338.7	321.2	314.0	312.5
42.5°	5759.8	5310.7	2642.2	952.0	463.6	376.4	337.2	308.1	296.5	293.6	293.6
45°	6365.9	5858.6	3036.2	1023.2	440.3	351.7	309.5	287.8	279.0	277.6	276.1
47.5°	7054.8	6460.3	3492.5	1111.8	417.1	328.5	287.8	273.3	266.0	263.0	263.0
50°	7737.8	7066.4	3961.9	1161.2	398.2	306.7	270.3	258.7	252.9	251.4	251.4
52.5°	8452.9	7689.9	4341.3	1114.8	382.2	289.3	255.8	247.1	241.3	239.8	239.8
55°	9134.6	8194.3	4406.7	946.2	350.2	271.8	239.8	235.4	228.2	228.2	226.7
57.5°	9721.7	8447.1	3944.5	694.7	318.3	245.6	223.9	219.5	213.6	212.2	210.7
60°	10261.0	8374.5	3044.9	468.0	283.4	219.5	203.5	200.6	194.7	187.5	186.0
62.5°	10564.7	8054.7	2082.7	305.2	248.6	191.9	180.2	178.8	165.6	151.2	148.2
65°	10679.5	7397.7	1299.3	222.3	207.9	164.2	155.5	152.6	133.8	117.8	116.2
67.5°	10579.2	6316.5	655.5	175.9	164.2	136.6	127.9	127.9	114.8	100.2	98.8
70°	10178.0	4735.2	276.1	140.9	126.5	104.7	104.7	110.5	97.4	81.4	79.9
72.5°	9307.5	3185.8	146.8	107.5	94.5	74.1	85.8	90.1	77.1	61.1	61.1
75°	7399.2	1943.2	101.8	79.9	59.6	52.3	65.4	68.3	52.3	40.7	39.3
77.5°	5060.7	1116.2	68.3	50.8	37.8	30.5	45.1	42.1	27.6	18.9	20.4
80°	2222.2	465.0	39.3	23.3	14.6	11.6	16.0	11.6	8.7	5.8	5.8
82.5°	260.1	109.0	14.6	8.7	5.8	2.9	1.4	0.0	0.0	0.0	0.0
85°	53.8	13.1	7.3	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.1	2.9	1.4	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)