

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: P968455

Luminaire Tested: **NAV-SB5B-835-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968455
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-835-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26990.3 lumens
Efficiency: N/A
Efficacy: 147.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
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

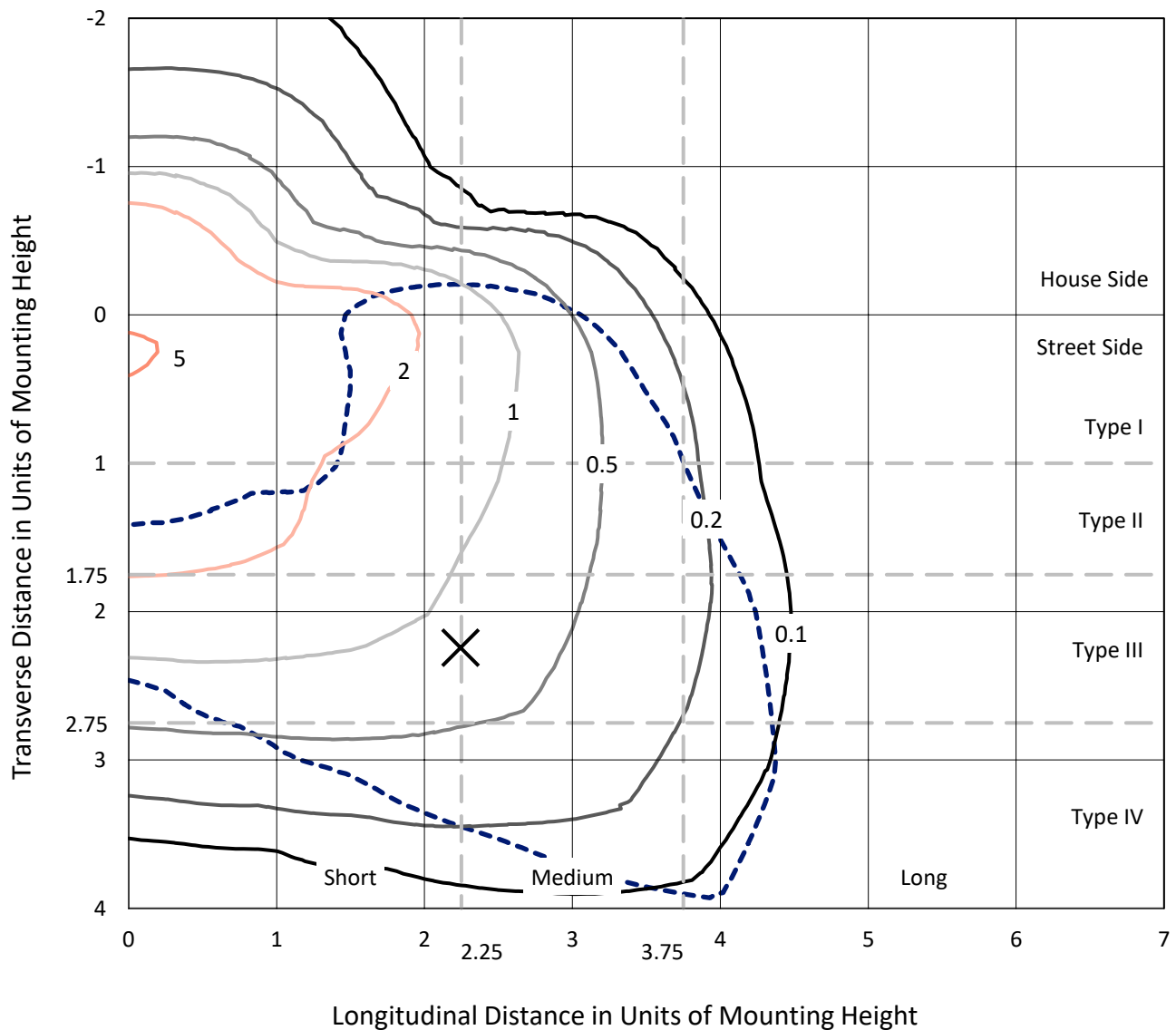


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Iso-Footcandle Lines of Horizontal Illumination

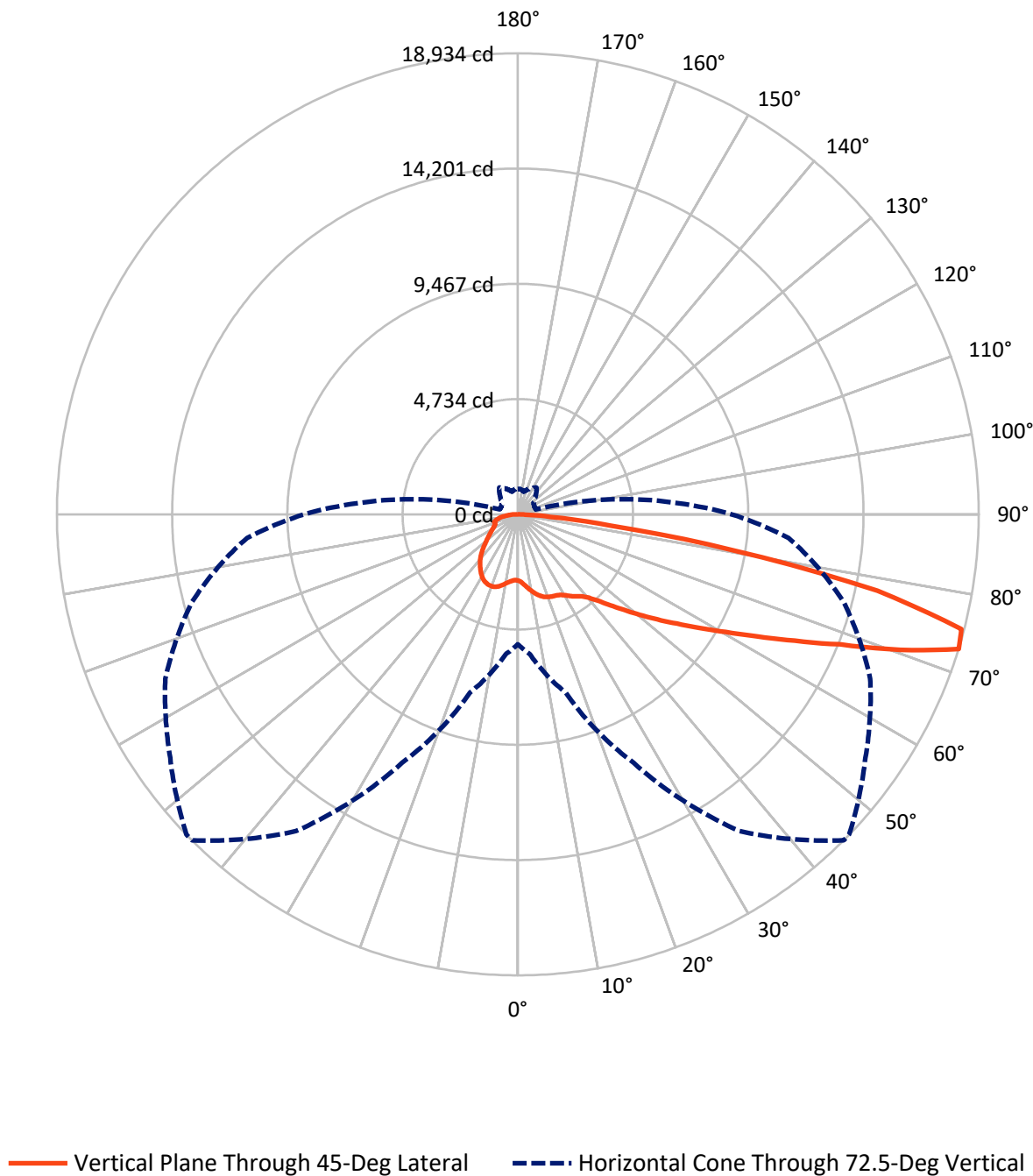
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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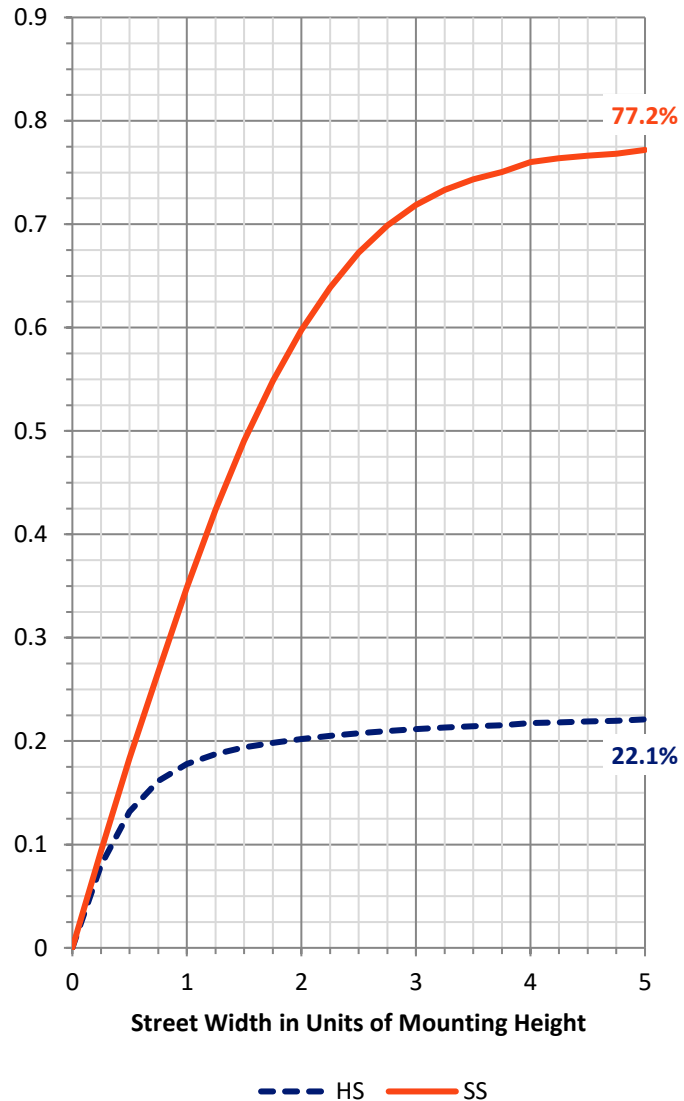
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6101.6	0.0	6101.6
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	20888.7	0.0	20888.7
	% Fixture	77.4	0.0	77.4
Total	Lumens	26990.3	0.0	26990.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.1	1.0
10°-20°	924.0	3.4
20°-30°	1607.3	6.0
30°-40°	2304.2	8.5
40°-50°	3244.4	12.0
50°-60°	4969.5	18.4
60°-70°	7199.0	26.7
70°-80°	5748.9	21.3
80°-90°	716.0	2.7
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°	26990.3	100.0
0°-180°	26990.3	100.0

Coefficient of Utilization



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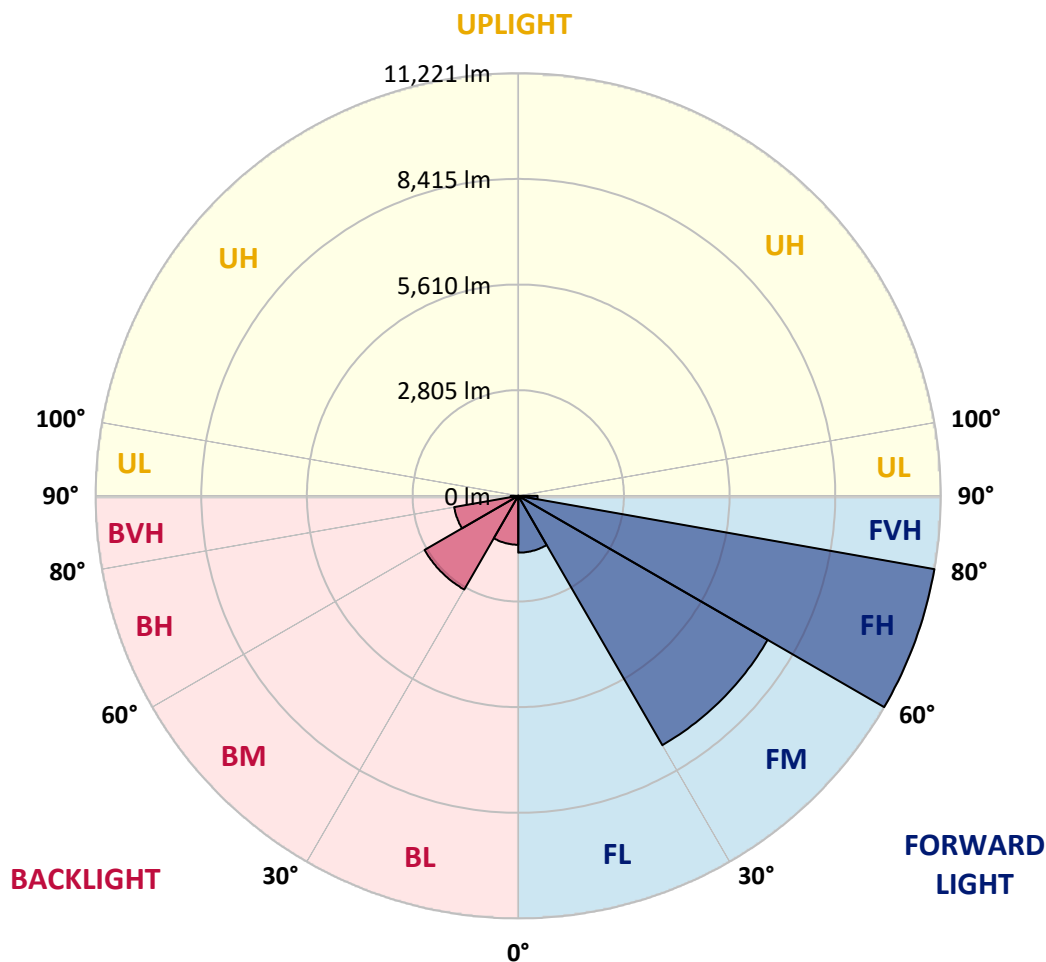
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1509.3	5.6			
FM	(30°-60°)	7645.1	28.3			
FH	(60°-80°)	11220.7	41.6			G4/12000
FVH	(80°-90°)	513.7	1.9			G4/750
BL	(0°-30°)	1299.1	4.8	B3/2500		
BM	(30°-60°)	2873.0	10.6	B3/5000		
BH	(60°-80°)	1727.2	6.4	B3/2500		G3/2500
BVH	(80°-90°)	202.3	0.7			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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8
2.5°	2829.4	2848.0	2830.8	2815.3	2808.1	2789.6	2788.2	2776.8	2769.8	2749.8	2744.1
5°	3027.0	3051.2	3022.8	2991.6	2963.1	2917.6	2911.9	2879.2	2842.2	2799.6	2775.4
7.5°	3250.3	3271.6	3238.9	3192.0	3142.2	3066.9	3065.5	3005.7	2947.5	2874.9	2833.7
10°	3445.1	3473.5	3429.4	3365.5	3302.9	3217.6	3207.6	3139.4	3065.5	2971.6	2909.1
12.5°	3617.1	3637.0	3594.4	3516.2	3443.7	3358.3	3345.6	3270.2	3187.7	3081.0	3001.5
15°	3753.7	3779.2	3722.4	3638.4	3561.7	3477.8	3466.4	3398.2	3315.7	3203.3	3101.0
17.5°	3843.2	3864.6	3806.2	3712.3	3638.4	3568.7	3560.2	3503.3	3430.9	3317.1	3207.6
20°	3877.3	3900.0	3838.9	3743.7	3675.4	3621.4	3617.1	3575.9	3526.1	3422.4	3311.5
22.5°	3911.4	3932.7	3853.2	3753.7	3693.9	3659.8	3658.3	3631.4	3611.5	3526.1	3418.1
25°	4049.4	4055.0	3948.4	3804.8	3719.5	3689.6	3688.3	3686.8	3695.3	3628.5	3533.3
27.5°	4168.8	4167.3	4076.4	3941.3	3809.1	3746.5	3745.0	3759.3	3786.3	3730.9	3652.7
30°	4343.6	4328.1	4220.0	4079.2	3958.3	3861.7	3853.2	3840.4	3861.7	3817.6	3772.1
32.5°	4714.8	4665.0	4490.1	4239.9	4082.1	4008.2	3996.8	3917.1	3925.6	3898.7	3875.9
35°	5246.6	5181.2	4948.0	4544.1	4235.6	4130.4	4124.7	4023.7	4006.7	3982.5	3991.0
37.5°	5879.3	5798.2	5526.6	4984.9	4500.1	4272.6	4264.1	4173.1	4103.4	4077.8	4126.1
40°	6514.8	6412.4	6187.8	5522.4	4889.7	4510.0	4483.0	4345.1	4265.4	4222.8	4325.2
42.5°	7131.8	7046.6	6854.6	6125.2	5370.3	4857.0	4797.2	4561.2	4501.5	4461.7	4646.5
45°	7677.9	7601.1	7460.4	6769.3	5933.3	5329.0	5270.8	4885.4	4866.9	4866.9	5134.2
47.5°	8121.5	8104.4	7955.1	7426.2	6597.3	5866.5	5765.5	5336.2	5385.9	5462.6	5826.6
50°	8613.4	8566.5	8407.3	8073.1	7377.8	6482.1	6399.6	5889.2	6075.5	6285.9	6827.6
52.5°	9065.5	9091.1	8913.4	8747.0	8259.3	7168.8	7023.8	6541.9	6944.2	7292.6	8000.6
55°	9530.4	9531.9	9482.2	9459.4	9183.6	7928.1	7768.9	7326.7	7966.5	8398.7	9368.4
57.5°	9967.0	9969.9	10043.8	10244.3	10255.6	8803.9	8623.3	8290.7	9102.5	9543.3	10778.9
60°	10356.6	10376.5	10578.4	11047.6	11198.3	9807.7	9637.2	9429.6	10277.0	10720.6	12261.9
62.5°	10487.4	10559.9	11009.2	11676.1	12129.6	11039.0	10871.3	10747.5	11511.1	11923.4	13501.6
65°	10265.6	10431.9	11300.6	12195.0	13087.9	12502.1	12335.8	12200.7	12793.5	13181.7	14519.6
67.5°	9721.0	9935.7	11283.6	12739.5	14251.0	14262.4	14107.4	13790.2	14168.5	14317.8	14850.9
70°	8286.4	8607.7	10289.8	12942.9	15586.0	16669.5	16520.2	15704.0	15540.5	14818.2	13918.3
72.5°	5338.9	5771.2	7576.9	11269.4	15883.2	18934.4	18925.9	17431.6	15974.2	13845.7	11162.8
75°	1947.9	2212.4	3520.5	7073.6	13332.5	18819.3	18874.8	17135.8	14582.3	10695.0	6954.1
77.5°	709.5	776.3	1148.8	2718.5	8199.7	15099.8	15215.0	13699.3	10379.4	5367.4	2755.5
80°	372.5	409.5	588.7	1055.0	3513.3	8967.4	9148.0	8141.4	4878.3	1616.6	826.0
82.5°	206.1	223.2	329.8	573.0	1582.5	3834.6	3942.8	3216.1	1716.2	685.3	341.2
85°	110.9	118.0	155.0	312.8	773.5	1329.4	1359.3	961.1	683.9	402.4	164.9
87.5°	32.7	39.8	51.1	99.5	302.9	298.6	305.7	190.5	270.2	203.4	54.0
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°	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8	2722.8
2.5°	2735.6	2731.3	2715.7	2708.6	2700.1	2698.6	2705.7	2707.1	2708.6	2710.0	2715.7
5°	2761.1	2747.0	2732.8	2724.2	2727.0	2728.4	2742.7	2752.6	2759.8	2765.4	2768.3
7.5°	2811.0	2799.6	2775.4	2774.0	2778.3	2791.1	2809.5	2832.3	2845.1	2855.0	2857.9
10°	2884.9	2863.5	2835.1	2839.4	2848.0	2866.4	2904.7	2923.3	2944.6	2963.1	2958.9
12.5°	2960.2	2941.7	2909.1	2911.9	2926.1	2958.9	2995.8	3018.5	3032.8	3047.0	3052.7
15°	3058.4	3025.6	2990.1	2990.1	3015.7	3051.2	3068.3	3086.8	3095.3	3111.0	3116.6
17.5°	3159.3	3116.6	3069.8	3066.9	3098.2	3115.2	3125.1	3128.0	3130.9	3147.9	3153.6
20°	3260.2	3213.4	3146.5	3140.8	3147.9	3145.1	3143.7	3140.8	3145.1	3166.4	3174.9
22.5°	3359.7	3305.7	3213.4	3187.7	3167.9	3140.8	3139.4	3137.9	3140.8	3162.1	3176.4
25°	3476.4	3411.0	3287.3	3210.5	3143.7	3106.7	3111.0	3112.4	3115.2	3132.3	3155.1
27.5°	3602.9	3530.4	3355.5	3203.3	3082.5	3057.0	3049.8	3054.1	3064.0	3091.1	3118.0
30°	3729.5	3644.2	3418.1	3174.9	3005.7	2970.1	2947.5	2957.4	2988.7	3015.7	3045.6
32.5°	3844.6	3759.3	3467.9	3112.4	2907.6	2852.2	2822.3	2835.1	2866.4	2876.4	2911.9
35°	3979.7	3883.0	3489.2	3012.9	2801.0	2715.7	2675.9	2657.4	2673.0	2663.1	2694.3
37.5°	4130.4	4029.5	3486.3	2882.0	2675.9	2577.8	2522.3	2452.6	2419.9	2385.8	2407.1
40°	4353.6	4208.6	3452.2	2724.2	2520.9	2431.3	2331.8	2213.8	2139.9	2073.1	2077.3
42.5°	4657.9	4457.4	3389.7	2550.7	2346.0	2262.2	2127.1	1989.1	1872.6	1761.7	1751.7
45°	5111.5	4783.1	3311.5	2365.9	2156.9	2074.4	1928.0	1773.0	1640.8	1498.7	1481.5
47.5°	5765.5	5220.9	3237.5	2155.5	1957.9	1882.5	1750.3	1606.7	1450.3	1312.3	1296.7
50°	6664.1	5849.4	3169.3	1950.8	1761.7	1704.8	1599.5	1453.1	1295.3	1184.4	1177.3
52.5°	7807.2	6703.9	3140.8	1753.2	1578.2	1556.9	1473.0	1336.5	1187.3	1093.4	1086.3
55°	9119.6	7726.2	3140.8	1564.0	1417.6	1424.6	1366.3	1239.8	1110.5	1026.5	1018.0
57.5°	10459.0	8761.3	3083.9	1389.1	1281.0	1310.9	1274.0	1163.1	1046.4	959.7	945.6
60°	11693.1	9628.6	2853.6	1229.9	1160.2	1207.1	1183.0	1087.7	945.6	873.0	861.6
62.5°	12641.4	10117.7	2410.0	1103.3	1060.7	1114.7	1101.9	988.2	927.0	897.2	887.2
65°	13116.3	10038.1	1842.6	991.0	976.8	1060.7	1033.7	1029.4	981.0	946.9	935.5
67.5°	12824.9	9352.8	1336.5	908.6	928.4	1011.0	1114.7	1131.8	1042.2	975.4	964.0
70°	11546.6	8113.0	995.3	830.4	867.4	1012.3	1271.1	1184.4	1022.3	944.1	931.3
72.5°	8784.0	6049.9	772.0	747.8	787.7	1019.5	1340.8	1160.2	965.4	1043.7	1035.0
75°	5023.3	3321.4	619.9	647.0	688.2	952.6	1305.2	1097.7	921.4	958.3	958.3
77.5°	1915.2	1276.8	511.9	547.5	553.1	831.8	1248.3	1093.4	877.3	856.0	780.5
80°	664.0	499.1	423.7	435.1	427.9	739.3	1197.2	951.2	718.0	642.7	621.4
82.5°	271.5	248.9	335.6	321.3	304.2	574.4	966.9	777.8	587.2	519.0	513.3
85°	118.0	157.8	221.8	194.7	176.3	398.1	774.9	658.3	496.2	427.9	426.5
87.5°	24.2	59.8	93.9	88.1	91.0	265.9	550.2	467.8	351.2	263.0	206.1
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)