

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: P965222

Luminaire Tested: **NAV-SB3D-827-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965222
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27577.6 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

Input Watts (W): 218.1
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

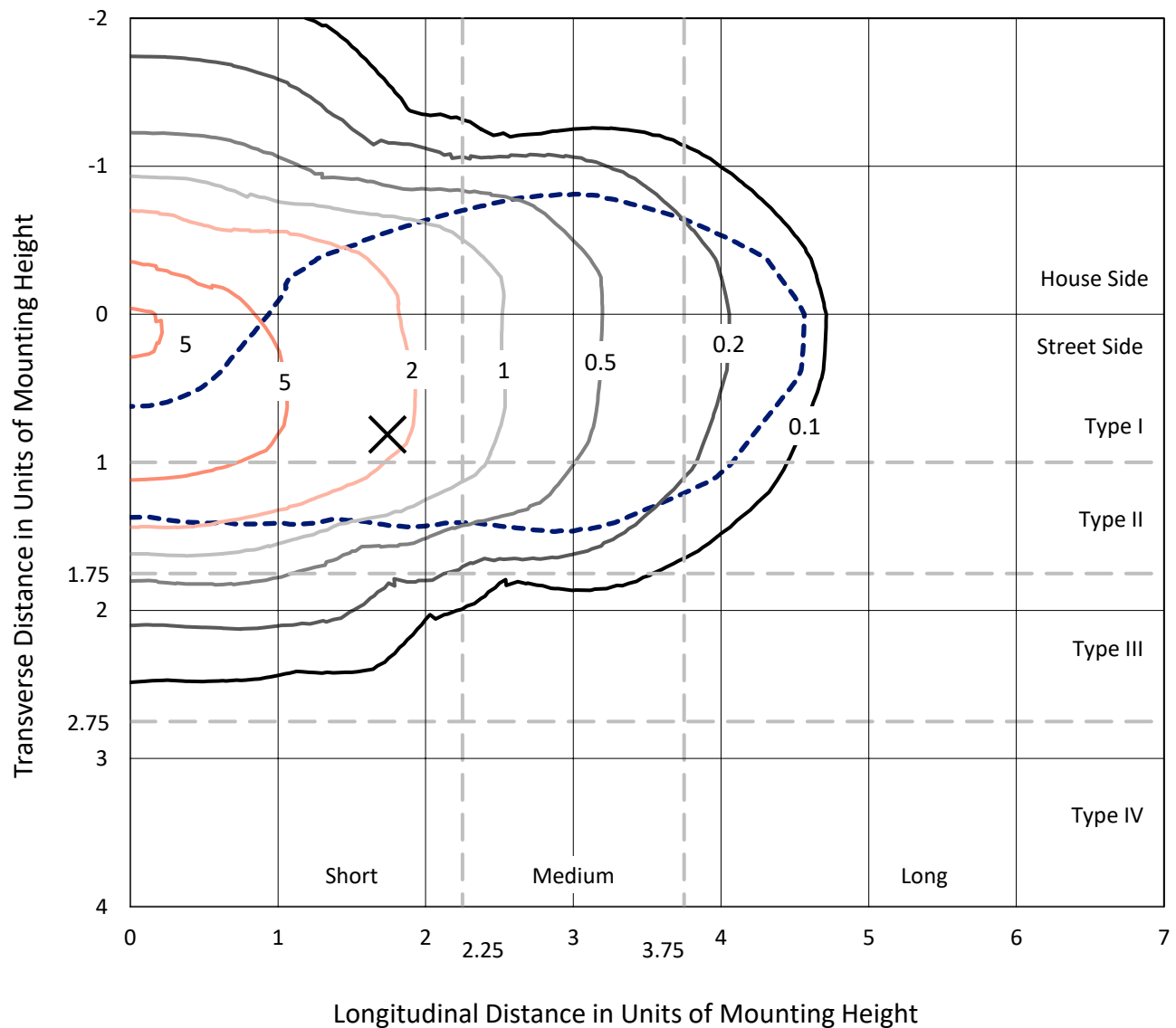


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Iso-Footcandle Lines of Horizontal Illumination

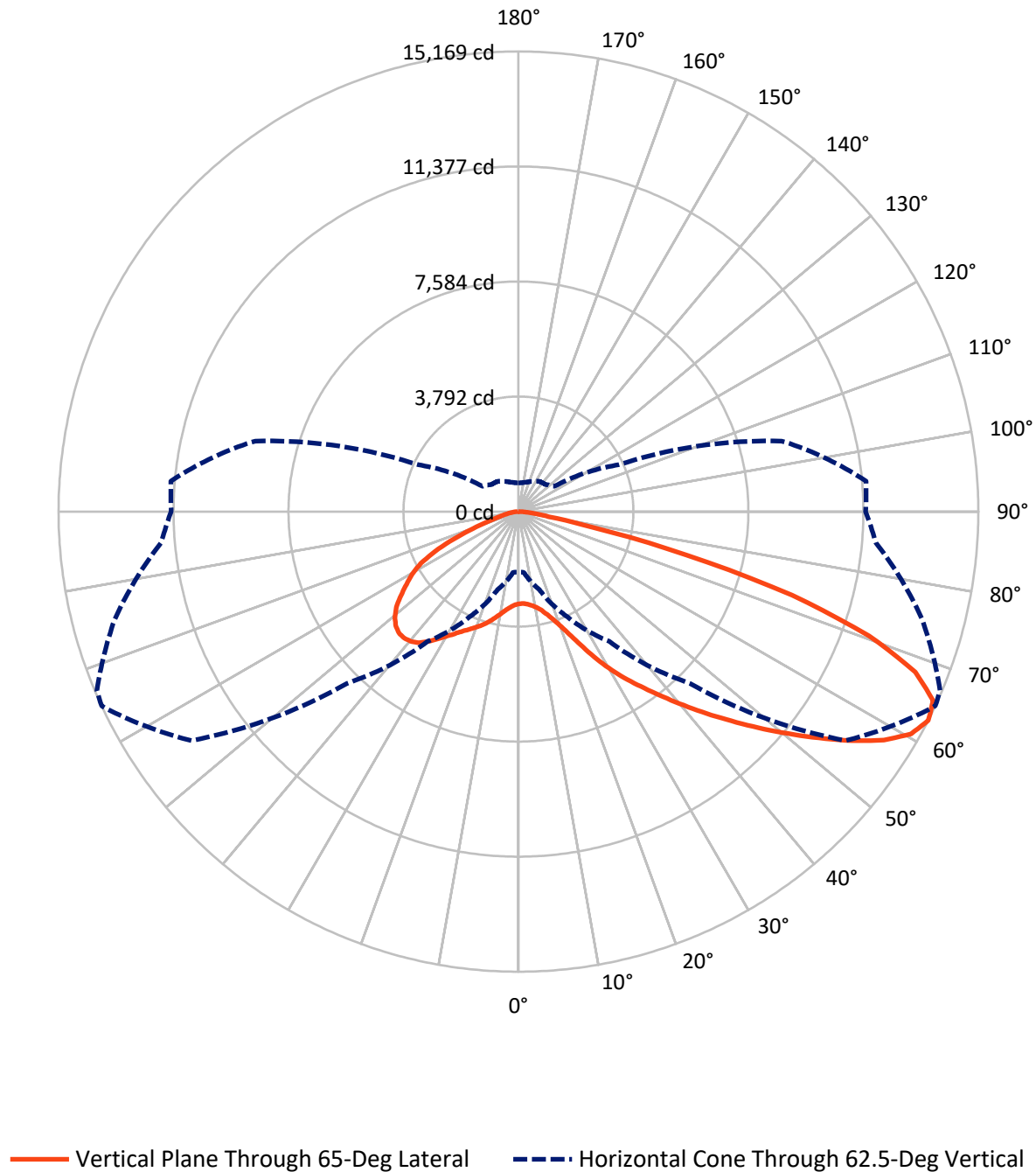
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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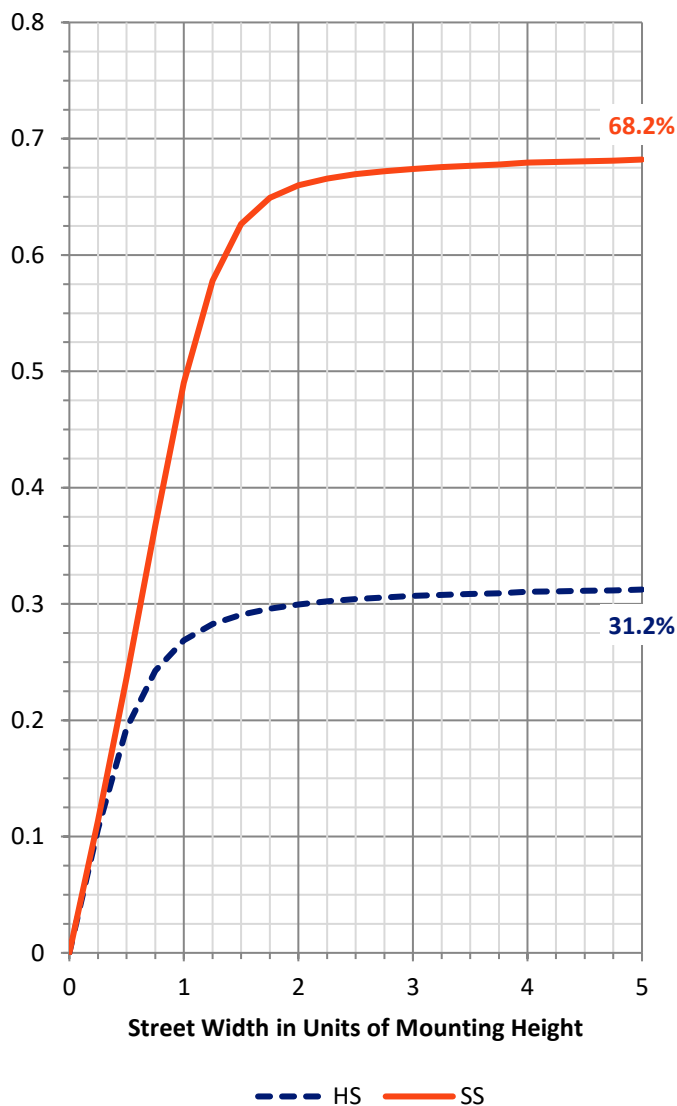
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8702.3	0.0	8702.3
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	18875.3	0.0	18875.3
	% Fixture	68.4	0.0	68.4
Total	Lumens	27577.6	0.0	27577.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.0	1.1
10°-20°	1027.4	3.7
20°-30°	2083.2	7.6
30°-40°	3605.0	13.1
40°-50°	5455.4	19.8
50°-60°	6396.1	23.2
60°-70°	5362.4	19.4
70°-80°	2960.5	10.7
80°-90°	384.5	1.4
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°	27577.6	100.0
0°-180°	27577.6	100.0

Coefficient of Utilization



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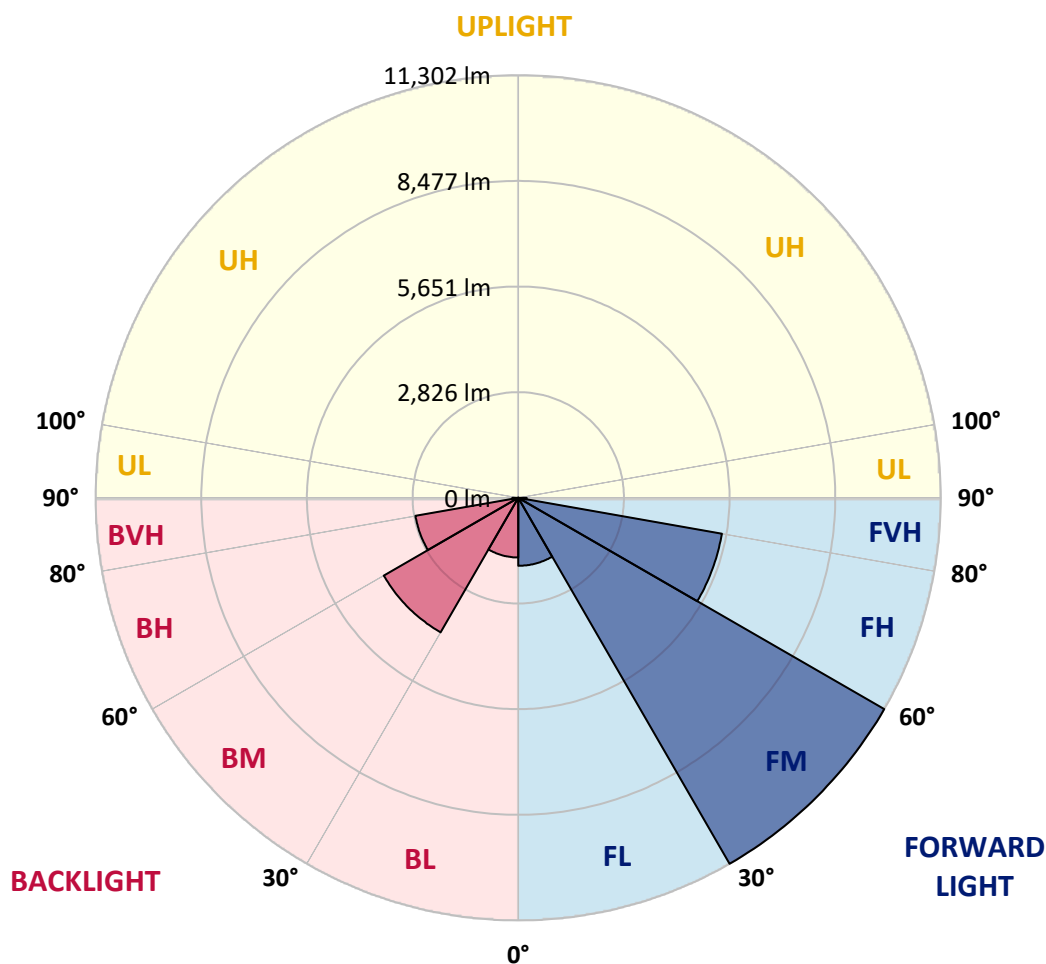
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1817.7	6.6			
FM	(30°-60°)	11302.2	41.0			
FH	(60°-80°)	5531.3	20.1			G3/7500
FVH	(80°-90°)	224.1	0.8			G2/225
BL	(0°-30°)	1595.9	5.8	B3/2500		
BM	(30°-60°)	4154.4	15.1	B3/5000		
BH	(60°-80°)	2791.6	10.1	B4/5000		G4/5000
BVH	(80°-90°)	160.4	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9
2.5°	3018.9	3010.3	3017.5	3017.5	3020.4	3018.9	3028.9	3031.7	3036.0	3044.7	3044.7
5°	2988.9	2987.5	3000.3	3011.8	3023.2	3033.2	3046.1	3064.6	3067.5	3077.6	3090.5
7.5°	2978.9	2970.2	2990.3	3004.6	3031.7	3056.1	3090.5	3121.9	3134.8	3139.1	3163.5
10°	3056.1	3041.8	3060.4	3069.0	3091.9	3116.2	3156.3	3206.3	3220.7	3237.8	3265.0
12.5°	3187.7	3172.0	3199.2	3212.0	3233.6	3255.0	3282.2	3330.8	3337.9	3369.5	3395.2
15°	3368.0	3349.4	3366.6	3382.3	3418.1	3438.2	3465.3	3512.5	3512.5	3536.9	3555.4
17.5°	3612.7	3588.3	3601.2	3607.0	3629.8	3659.9	3705.7	3747.2	3768.6	3760.0	3734.3
20°	3977.5	3947.5	3947.5	3918.9	3910.3	3934.6	3994.7	4051.9	4074.8	4030.4	3967.5
22.5°	4525.5	4482.5	4458.2	4361.0	4322.3	4325.2	4385.3	4455.4	4474.0	4395.3	4253.6
25°	5222.3	5155.0	5122.1	4979.0	4891.8	4816.0	4863.1	4953.3	4979.0	4881.8	4652.8
27.5°	5919.1	5923.4	5891.9	5720.2	5575.7	5436.9	5412.6	5507.0	5534.2	5424.0	5140.7
30°	6896.3	6794.7	6734.6	6528.5	6322.5	6128.0	6027.8	6066.5	6073.5	5941.9	5612.9
32.5°	7739.0	7713.2	7584.5	7404.2	7139.5	6834.7	6667.3	6605.8	6594.3	6407.0	6016.3
35°	8699.1	8684.7	8548.8	8334.2	8048.0	7624.6	7322.6	7146.6	7132.4	6869.0	6415.6
37.5°	9674.8	9674.8	9541.7	9307.1	9010.9	8481.6	8022.3	7743.3	7697.4	7354.1	6821.9
40°	10453.2	10405.9	10430.2	10331.5	9992.4	9430.1	8799.2	8394.2	8332.7	7920.7	7253.9
42.5°	10895.2	10879.5	11025.4	11135.6	10996.8	10547.6	9654.8	9099.6	9013.7	8544.5	7751.9
45°	10993.9	10976.8	11237.2	11640.6	11835.3	11650.7	10584.8	9842.2	9737.7	9196.9	8285.5
47.5°	10766.5	10732.2	11114.2	11750.8	12374.6	12699.4	11592.0	10647.7	10496.1	9832.2	8833.6
50°	10082.6	10049.6	10627.7	11473.2	12556.4	13411.9	12685.1	11501.8	11270.1	10513.2	9387.3
52.5°	8596.0	8611.7	9517.4	10679.2	12317.4	13855.4	13626.6	12401.8	12122.9	11210.0	9906.6
55°	6695.9	6730.3	7843.4	9122.5	11361.7	13788.2	14268.9	13329.0	13051.4	11865.3	10443.1
57.5°	4794.4	4946.1	5989.2	7255.4	9526.0	12722.3	14409.1	14210.3	13941.3	12580.6	10968.2
60°	3107.6	3134.8	4207.8	5484.1	7253.9	10828.0	14124.5	14878.5	14668.2	13310.3	11407.4
62.5°	1991.6	2010.2	2664.1	3835.9	5220.8	8010.8	13165.8	15168.9	15104.5	13792.5	11829.5
65°	1463.7	1449.4	1789.9	2535.3	3516.8	4940.4	11304.4	15028.8	15156.1	14094.5	12178.6
67.5°	1221.9	1201.8	1369.2	1755.5	2591.1	2805.7	8364.2	14117.3	14583.7	14060.1	12434.8
70°	1113.1	1095.9	1197.5	1303.4	2021.7	1878.6	4216.4	12273.0	12991.3	13669.5	12393.3
72.5°	942.9	912.9	1051.6	1157.5	1572.5	1440.7	1742.7	9427.2	10302.9	12417.6	11809.5
75°	731.1	711.0	829.8	1018.7	1181.8	1124.5	1101.7	5724.5	6680.2	9603.2	10331.5
77.5°	579.4	552.3	661.0	794.1	1063.0	848.4	802.7	2465.2	3412.3	6130.8	7730.4
80°	436.3	412.0	502.1	628.1	816.9	639.6	519.4	1005.8	1286.3	3106.2	3887.4
82.5°	310.5	289.0	350.5	460.7	549.4	573.7	319.1	563.8	633.9	1197.5	868.5
85°	198.8	186.0	234.6	289.0	349.1	369.1	194.5	294.7	323.4	493.6	362.0
87.5°	108.8	88.7	125.9	134.5	161.6	147.4	93.0	107.3	115.9	178.9	153.1
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°	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9	3038.9
2.5°	3050.4	3054.7	3069.0	3073.3	3083.3	3096.1	3104.7	3113.3	3113.3	3121.9	3121.9
5°	3091.9	3101.9	3131.9	3147.7	3173.4	3199.2	3214.9	3233.6	3244.9	3250.7	3253.6
7.5°	3172.0	3187.7	3230.7	3257.9	3302.2	3337.9	3362.3	3388.0	3393.8	3409.5	3403.8
10°	3280.7	3299.4	3348.0	3399.5	3452.4	3496.8	3519.6	3538.3	3545.5	3548.2	3541.2
12.5°	3405.3	3432.4	3495.4	3558.3	3614.2	3652.7	3658.4	3654.1	3634.1	3616.9	3616.9
15°	3558.3	3582.6	3652.7	3721.4	3775.8	3783.0	3747.2	3724.2	3699.9	3695.6	3695.6
17.5°	3741.5	3754.3	3818.7	3886.0	3890.3	3865.9	3813.0	3791.5	3768.6	3752.9	3754.3
20°	3954.7	3950.3	3996.1	4024.8	3994.7	3920.3	3840.2	3804.4	3781.5	3762.9	3764.3
22.5°	4209.3	4176.4	4170.6	4163.5	4083.4	3927.4	3818.7	3772.9	3737.2	3711.4	3719.9
25°	4579.9	4453.9	4366.7	4318.0	4137.7	3888.8	3750.1	3648.5	3581.1	3536.9	3554.0
27.5°	5043.4	4831.6	4611.4	4492.6	4137.7	3810.1	3584.0	3419.5	3309.3	3263.6	3286.5
30°	5485.5	5263.8	4939.0	4702.9	4127.8	3681.4	3316.5	3087.6	2958.8	2913.0	2940.2
32.5°	5863.2	5621.4	5286.6	4933.2	4103.4	3472.5	2984.6	2731.3	2606.9	2552.5	2579.6
35°	6213.8	5956.3	5635.8	5186.5	4039.0	3166.2	2619.7	2426.6	2287.8	2200.5	2229.2
37.5°	6572.9	6266.7	5966.3	5415.4	3923.2	2808.6	2339.3	2174.7	2011.7	1894.3	1925.8
40°	6963.5	6597.2	6319.6	5551.4	3732.8	2468.1	2121.9	1971.6	1798.5	1674.0	1698.3
42.5°	7419.9	6993.6	6713.1	5621.4	3472.5	2226.3	1980.2	1832.8	1669.7	1568.1	1588.1
45°	7896.4	7429.9	7072.3	5620.1	3182.0	2113.2	1934.4	1788.4	1608.2	1502.3	1519.5
47.5°	8395.7	7886.4	7382.8	5528.4	2930.2	2128.9	1908.7	1692.6	1493.7	1390.7	1405.0
50°	8896.5	8385.7	7683.2	5356.8	2822.8	2094.6	1812.8	1558.1	1323.5	1230.4	1236.1
52.5°	9392.9	8916.5	7942.1	5112.1	2714.2	1967.3	1689.7	1383.5	1253.4	1189.0	1189.0
55°	9892.3	9441.6	8224.0	4755.9	2442.3	1818.5	1483.7	1317.7	1197.5	1138.9	1133.1
57.5°	10393.1	10048.3	8491.6	4399.6	2100.3	1635.4	1370.6	1237.6	1141.7	1091.6	1083.1
60°	10913.8	10742.1	8767.7	4071.9	1762.7	1400.8	1287.7	1173.2	1075.9	1020.2	1015.9
62.5°	11450.4	11506.1	8983.7	3649.8	1452.2	1257.7	1213.3	1095.9	1001.5	948.6	947.2
65°	11991.2	12243.0	9125.4	3064.6	1177.5	1121.8	1133.1	1011.6	915.7	869.9	868.5
67.5°	12399.0	12773.9	9085.3	2319.3	965.8	992.9	1033.0	922.8	832.7	796.9	798.4
70°	12444.7	12710.9	8690.5	1588.1	808.4	867.0	921.4	835.6	742.6	716.8	718.2
72.5°	11835.3	11852.4	7590.2	1037.3	683.9	761.2	804.1	746.8	656.7	631.0	629.6
75°	10237.1	9802.2	5572.8	683.9	572.3	653.8	693.9	653.8	566.6	572.3	552.3
77.5°	7756.2	6942.0	3383.7	486.5	477.9	549.4	603.8	575.1	500.8	562.3	495.1
80°	3996.1	3755.7	1509.4	363.4	377.7	439.2	496.5	459.3	396.4	377.7	344.8
82.5°	915.7	1064.5	595.2	260.3	273.3	316.2	379.1	344.8	284.7	240.4	237.5
85°	320.5	350.5	263.2	163.1	160.2	197.4	257.6	230.3	193.1	154.6	163.1
87.5°	101.6	133.0	98.7	65.8	68.7	88.7	118.8	108.8	90.1	58.6	61.5
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)