

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: P965104

Luminaire Tested: **NAV-SB3D-735-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23694.9 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - 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



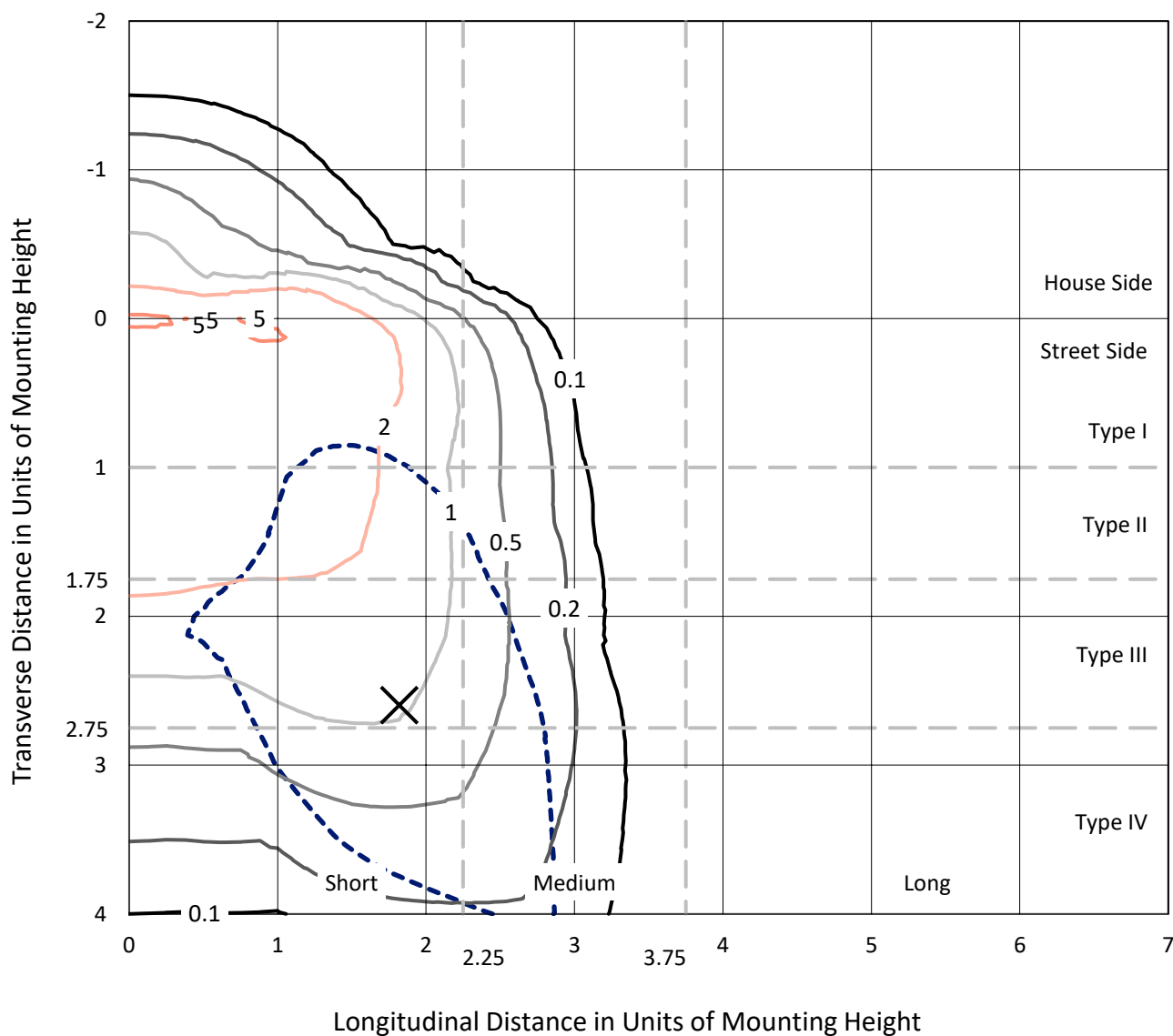
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

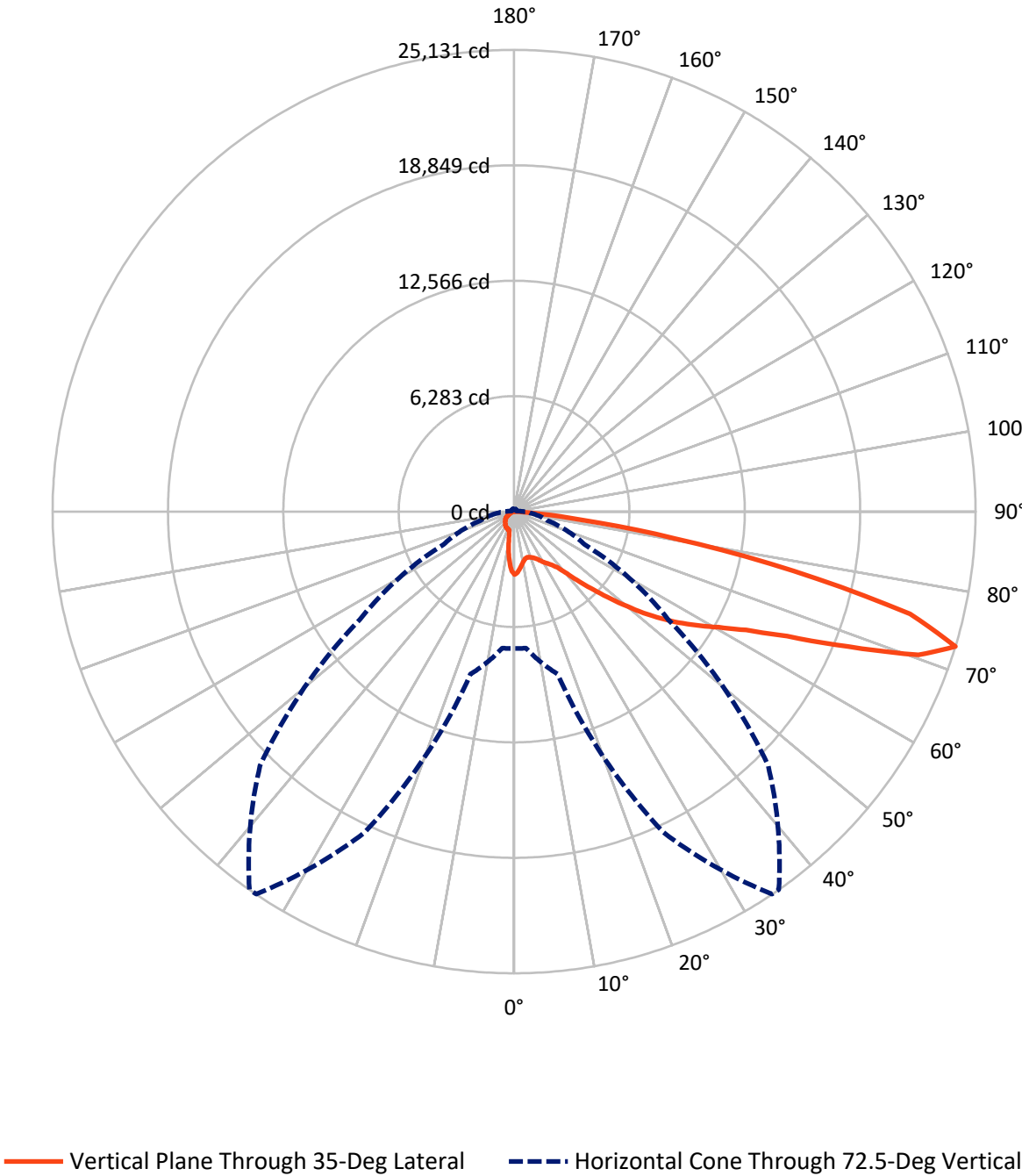


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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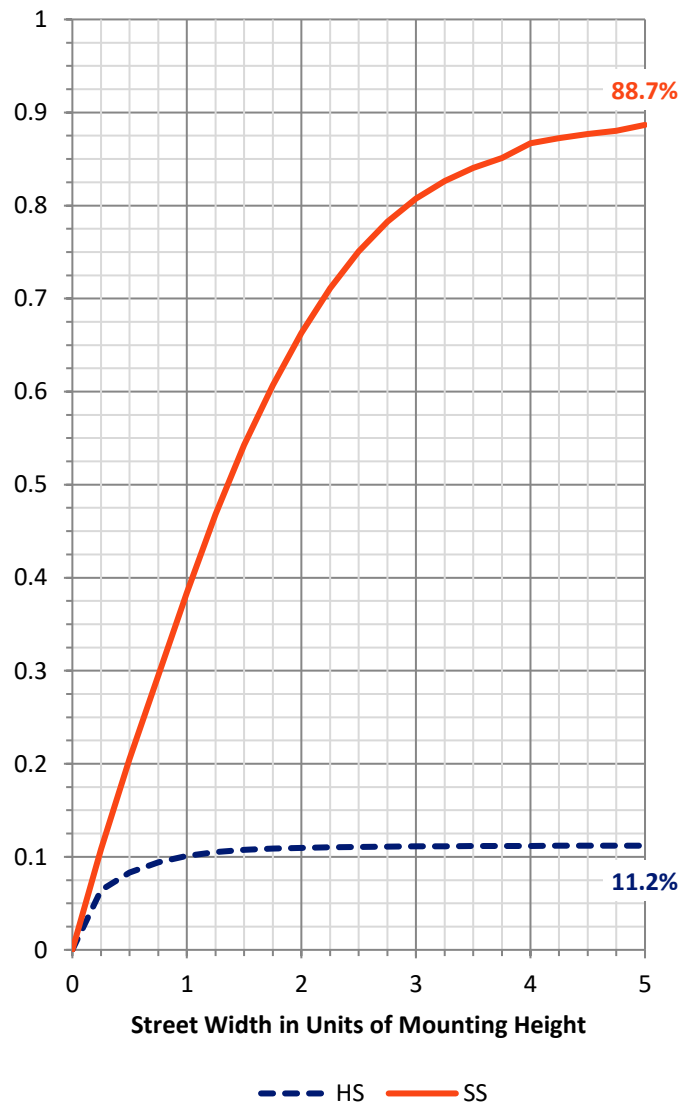
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2666.8	0.0	2666.8
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	21028.2	0.0	21028.2
	% Fixture	88.7	0.0	88.7
Total	Lumens	23694.9	0.0	23694.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.2	1.2
10°-20°	660.2	2.8
20°-30°	1072.4	4.5
30°-40°	1789.3	7.6
40°-50°	3385.5	14.3
50°-60°	5379.5	22.7
60°-70°	6654.8	28.1
70°-80°	4136.7	17.5
80°-90°	334.3	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°	23694.9	100.0
0°-180°	23694.9	100.0

Coefficient of Utilization



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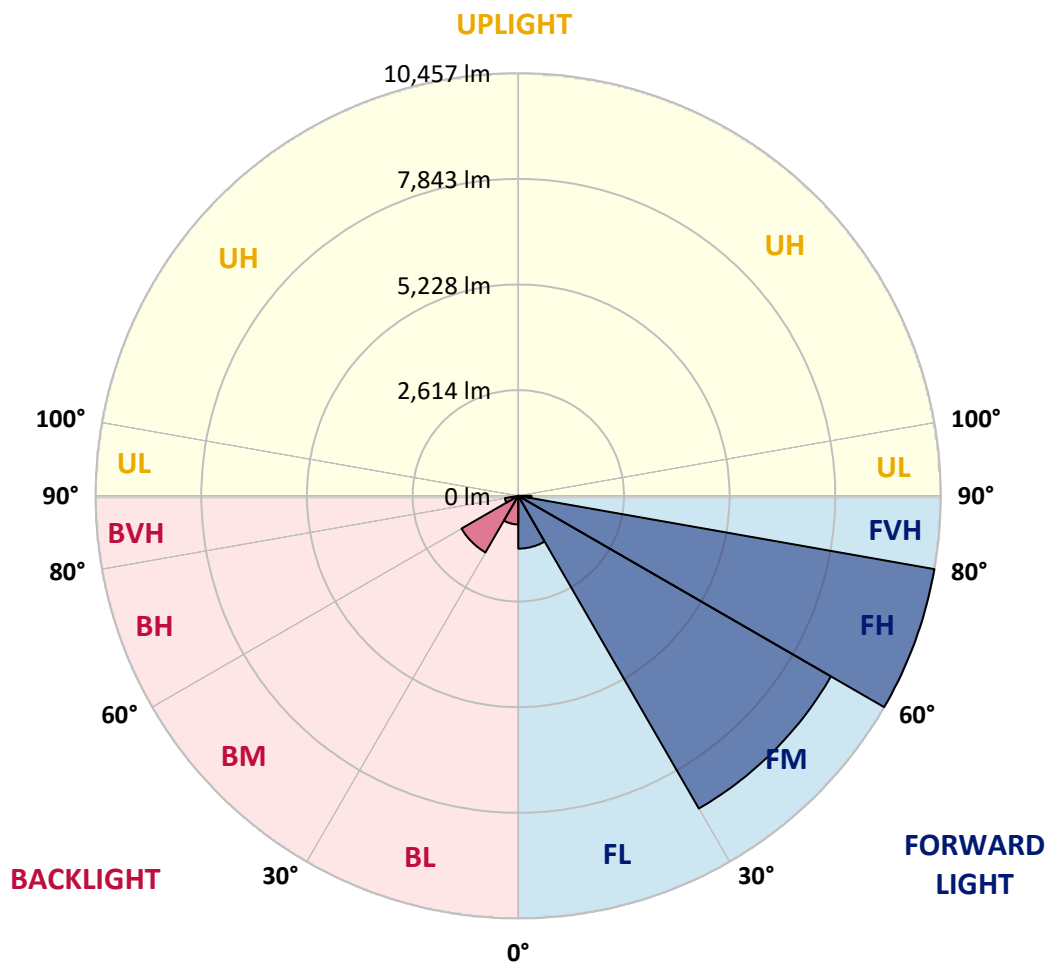
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1306.2	5.5			
FM	(30°-60°)	8935.4	37.7			
FH	(60°-80°)	10456.9	44.1			G4/12000
FVH	(80°-90°)	329.8	1.4			G3/500
BL	(0°-30°)	708.6	3.0	B2/1000		
BM	(30°-60°)	1619.0	6.8	B2/2500		
BH	(60°-80°)	334.6	1.4	B1/500		G1/500
BVH	(80°-90°)	4.6	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2
2.5°	3281.4	3309.2	3314.4	3323.0	3323.0	3333.5	3350.8	3375.1	3415.1	3435.9	3449.8
5°	3024.5	3045.3	3071.3	3092.1	3132.1	3137.3	3205.0	3271.0	3363.0	3432.4	3481.1
7.5°	2765.8	2790.0	2824.8	2875.1	2927.2	2942.9	3045.3	3156.4	3302.2	3432.4	3514.0
10°	2583.4	2585.2	2616.4	2666.7	2750.2	2769.2	2894.2	3052.2	3234.5	3411.6	3545.3
12.5°	2481.0	2493.2	2507.0	2545.3	2625.1	2637.3	2771.0	2956.7	3166.8	3399.5	3581.8
15°	2481.0	2489.7	2498.3	2517.5	2581.7	2592.1	2710.2	2895.9	3132.1	3404.6	3640.8
17.5°	2507.0	2521.0	2514.0	2536.6	2604.3	2611.2	2715.4	2878.6	3130.4	3437.6	3731.1
20°	2569.6	2580.0	2566.1	2580.0	2647.7	2661.6	2769.2	2911.6	3159.9	3494.9	3844.0
22.5°	2668.5	2673.7	2640.7	2651.2	2720.7	2738.0	2863.0	3005.3	3231.0	3587.0	3994.9
25°	2793.5	2804.0	2753.6	2765.8	2831.8	2852.6	2996.7	3145.9	3343.9	3713.7	4187.7
27.5°	2937.6	2942.9	2899.4	2897.7	2982.7	3012.3	3158.1	3319.6	3494.9	3873.5	4430.8
30°	3102.6	3118.2	3076.5	3069.6	3177.2	3201.6	3345.6	3533.2	3717.2	4113.0	4776.3
32.5°	3232.7	3244.9	3220.7	3238.0	3347.3	3366.5	3573.0	3835.2	4066.2	4453.3	5246.8
35°	3420.3	3427.3	3371.6	3402.9	3527.9	3576.5	3883.8	4258.9	4505.4	4880.4	5861.4
37.5°	4099.2	4099.2	3863.0	3708.6	3828.3	3871.7	4309.2	4791.9	5047.1	5453.4	6635.7
40°	5038.4	5022.8	4677.3	4361.3	4345.7	4430.8	4915.2	5463.8	5746.8	6140.9	7507.3
42.5°	6040.2	6015.9	5545.4	5232.9	5180.8	5210.3	5614.8	6292.0	6580.2	6979.5	8444.9
45°	6929.1	6922.2	6491.6	6071.5	5977.7	6071.5	6488.1	7260.8	7467.3	7887.5	9380.7
47.5°	7674.0	7674.0	7359.7	7085.4	7036.8	7092.4	7670.5	8335.5	8316.3	8854.6	10292.1
50°	8531.7	8524.7	8226.0	8108.1	8158.4	8236.5	9031.7	9467.4	9194.9	9804.3	11106.4
52.5°	9132.3	9174.1	9071.6	9052.5	9309.5	9444.9	10413.7	10575.1	9981.3	10705.4	11715.9
55°	9608.0	9656.7	9774.8	9908.5	10403.2	10580.4	11752.2	11625.6	10639.4	11486.7	12066.5
57.5°	10281.8	10212.3	10394.6	10658.5	11458.9	11672.4	13049.3	12616.9	11168.9	12120.3	12104.7
60°	11099.5	11109.9	11141.1	11474.5	12512.8	12787.1	14327.0	13554.5	11509.2	12509.3	11681.1
62.5°	12082.2	12097.8	12162.0	12674.2	13927.7	14186.4	15688.2	14321.8	11665.5	12399.9	10587.3
65°	12014.4	12080.4	12797.4	14549.3	16078.9	16334.1	17276.9	14860.0	11429.4	11399.8	8620.1
67.5°	10944.9	11052.6	12252.3	16789.0	19322.1	19606.8	19197.1	14966.0	10410.2	8865.0	5623.6
70°	9542.1	9580.3	11023.1	18803.0	23077.5	23365.7	20915.9	13801.0	7899.7	4944.7	2519.2
72.5°	7451.7	7460.5	9153.2	19270.0	25115.8	25131.4	19566.8	10245.3	4248.4	1899.4	875.0
75°	5323.1	5271.1	6130.5	15627.5	22096.5	22273.7	14669.1	4805.8	1623.3	897.6	435.8
77.5°	2854.3	2911.6	3468.9	9267.8	15264.6	15566.7	8003.8	1385.5	826.5	611.1	288.2
80°	882.0	930.6	1422.0	4243.3	8646.3	8828.5	2967.2	616.3	576.5	435.8	189.2
82.5°	277.8	288.2	663.2	1783.1	3588.7	3672.1	859.5	349.0	394.1	288.2	111.1
85°	79.8	81.6	295.2	664.9	887.2	904.6	241.3	135.4	225.7	178.9	57.3
87.5°	8.7	27.8	111.1	111.1	78.1	76.4	26.0	29.5	64.3	22.5	10.5
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°	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2	3434.2
2.5°	3441.1	3442.9	3420.3	3382.1	3340.5	3305.7	3262.3	3227.6	3203.2	3196.4	3208.5
5°	3465.4	3453.3	3389.1	3272.7	3133.8	3014.0	2880.4	2774.5	2705.0	2675.5	2685.9
7.5°	3501.9	3467.2	3326.5	3097.3	2831.8	2595.6	2356.0	2170.2	2052.2	1993.1	2001.8
10°	3533.2	3463.7	3222.4	2843.9	2437.7	2079.9	1757.1	1533.1	1408.0	1349.0	1350.7
12.5°	3562.7	3461.9	3087.0	2543.5	1993.1	1555.6	1255.3	1144.1	1109.5	1097.3	1093.8
15°	3618.2	3467.2	2916.8	2199.8	1550.4	1175.4	1066.0	1064.3	1071.2	1067.7	1066.0
17.5°	3694.6	3472.4	2724.0	1835.2	1196.3	1036.5	1031.3	1046.9	1057.4	1052.2	1050.4
20°	3793.6	3493.2	2519.2	1474.1	1027.9	1001.7	1013.9	1027.9	1036.5	1027.9	1026.1
22.5°	3932.5	3529.7	2295.3	1184.1	974.0	980.9	991.4	1007.0	1015.7	1003.5	1001.7
25°	4102.7	3587.0	2074.7	1029.6	947.9	956.6	972.3	989.6	1000.1	987.9	986.2
27.5°	4323.1	3679.0	1871.6	994.9	921.9	927.1	949.7	975.7	989.6	974.0	974.0
30°	4642.5	3830.0	1696.3	1010.4	906.3	894.1	925.4	961.9	977.4	963.6	961.9
32.5°	5066.2	4043.6	1588.6	1034.7	899.3	856.0	885.5	932.3	958.4	949.7	949.7
35°	5621.8	4368.2	1546.9	1062.5	894.1	816.0	836.8	887.2	932.3	941.1	941.1
37.5°	6295.4	4819.7	1559.1	1074.7	878.5	783.0	793.5	836.8	895.8	923.6	930.6
40°	7061.1	5345.8	1628.5	1062.5	861.1	755.2	757.0	790.0	842.0	883.8	897.6
42.5°	7851.1	5960.4	1757.1	1017.4	845.5	730.9	725.7	748.2	783.0	812.5	824.7
45°	8602.8	6592.3	1883.7	954.9	826.5	706.6	694.4	703.2	710.1	722.2	729.2
47.5°	9259.1	7036.8	1847.4	897.6	800.4	678.9	658.0	654.6	633.8	632.0	630.3
50°	9712.3	7134.0	1640.7	840.3	762.2	647.6	614.6	593.8	557.3	540.0	541.7
52.5°	9856.4	6750.3	1340.3	783.0	699.7	606.0	559.0	526.0	480.9	465.4	463.6
55°	9665.3	5998.5	1071.2	713.6	612.8	550.3	498.3	454.9	418.4	399.3	399.3
57.5°	9198.3	5041.9	847.3	632.0	520.9	487.9	435.8	392.4	361.1	342.0	338.6
60°	8424.0	4003.6	670.1	534.7	444.4	420.1	366.3	338.6	310.8	288.2	283.0
62.5°	7248.6	2857.8	526.0	423.6	371.6	343.8	312.5	291.7	258.7	227.4	222.2
65°	5656.6	1748.3	406.3	310.8	298.6	284.7	265.7	246.5	206.6	175.4	170.1
67.5°	3567.9	828.2	290.0	234.4	236.2	229.2	220.5	204.9	175.4	147.6	144.1
70°	1571.2	401.1	191.0	178.9	175.4	175.4	182.3	177.1	149.3	123.3	118.1
72.5°	534.7	215.2	142.4	135.4	126.8	125.0	152.8	147.6	119.8	95.5	90.3
75°	279.5	144.1	104.1	97.3	76.4	92.0	121.6	114.6	85.1	62.5	57.3
77.5°	182.3	102.4	71.1	62.5	43.4	60.8	90.3	79.8	50.3	31.3	27.8
80°	114.6	67.8	41.7	29.5	20.8	33.0	48.6	34.7	19.1	7.0	5.2
82.5°	60.8	34.7	15.6	10.5	8.7	10.5	12.2	8.7	3.5	0.0	0.0
85°	24.3	12.2	5.2	3.5	1.7	0.0	3.5	1.7	0.0	0.0	0.0
87.5°	8.7	1.7	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)