

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: P965230

Luminaire Tested: **NAV-SB3D-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965230
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20962.3 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

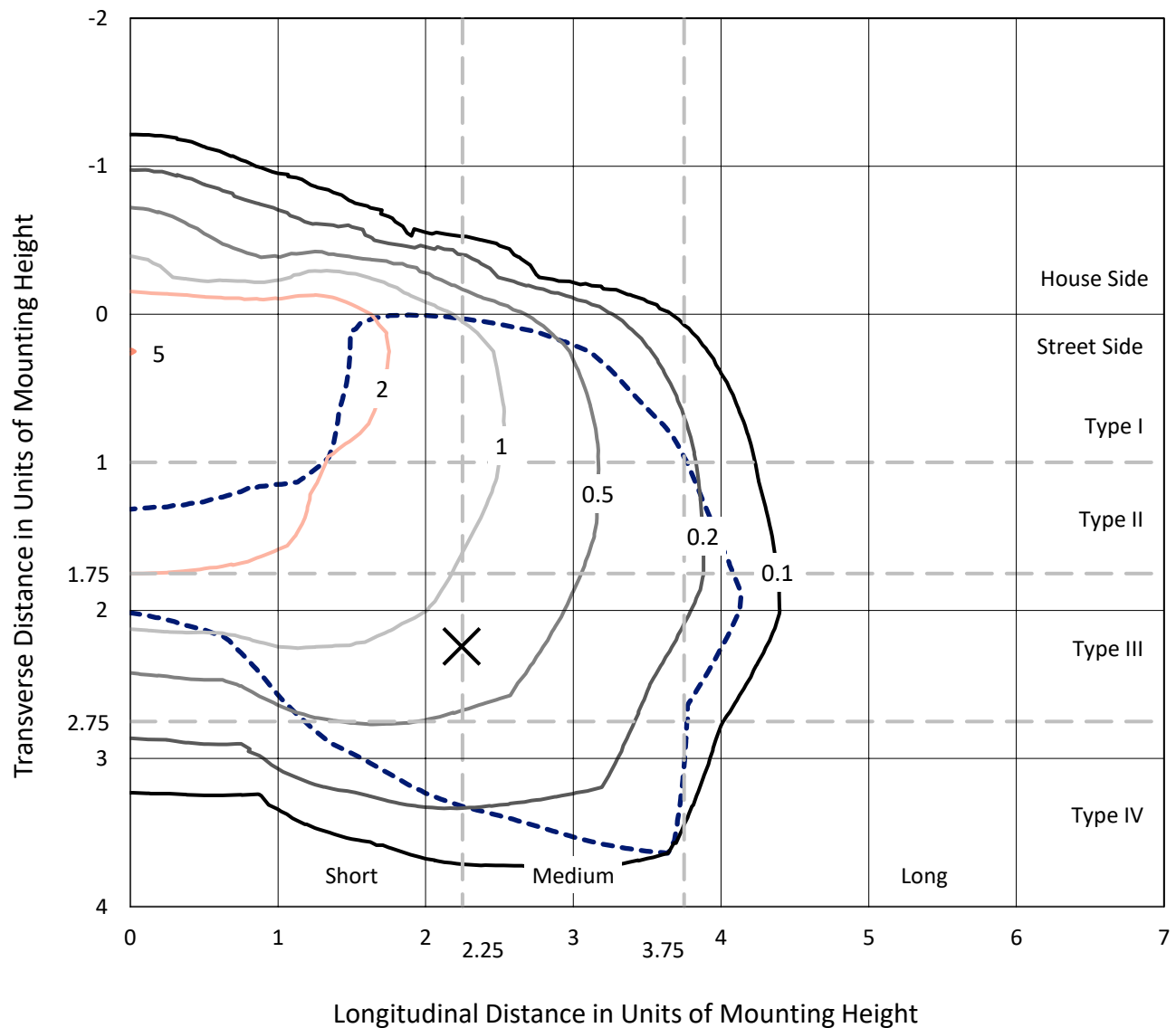
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

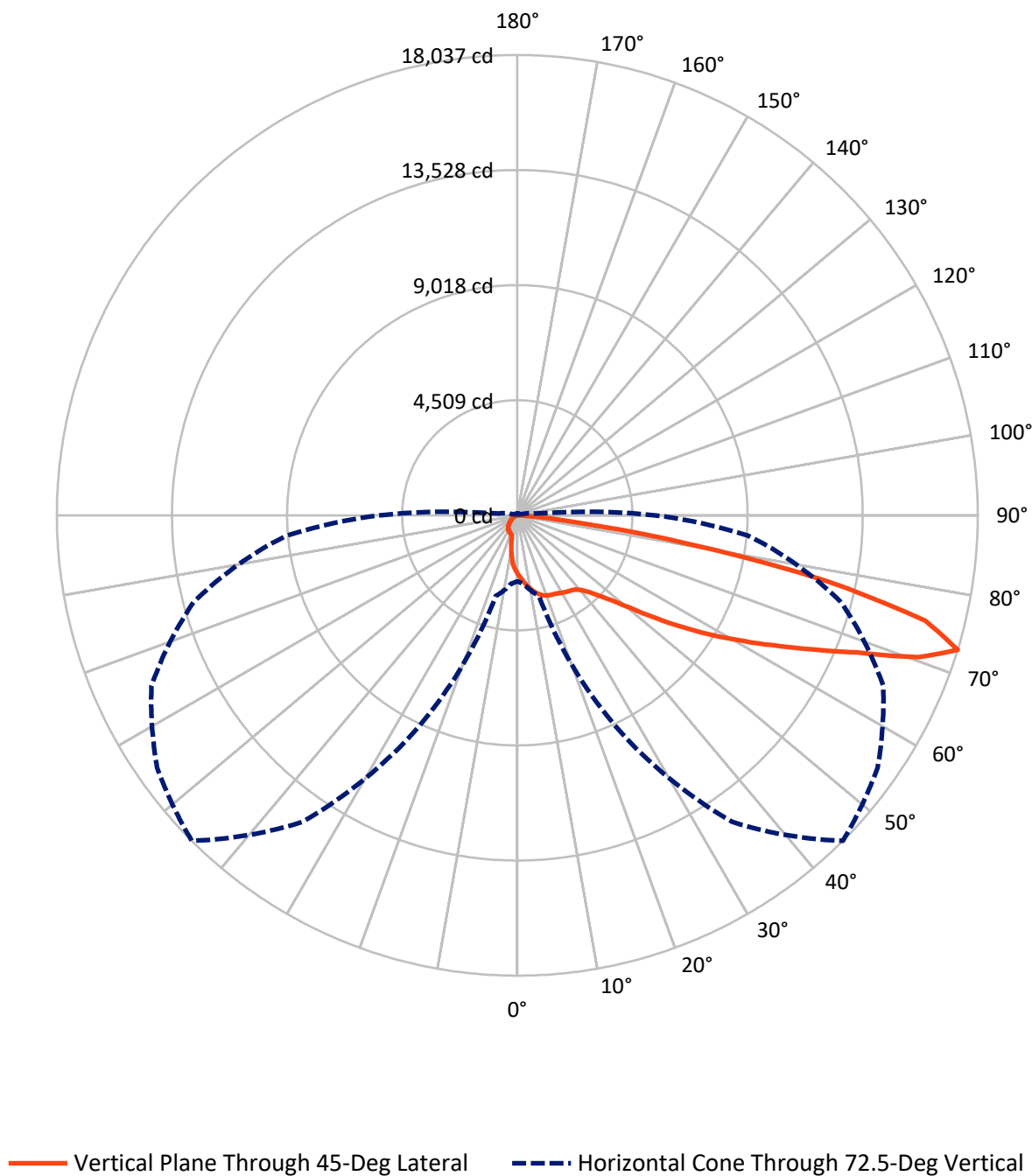
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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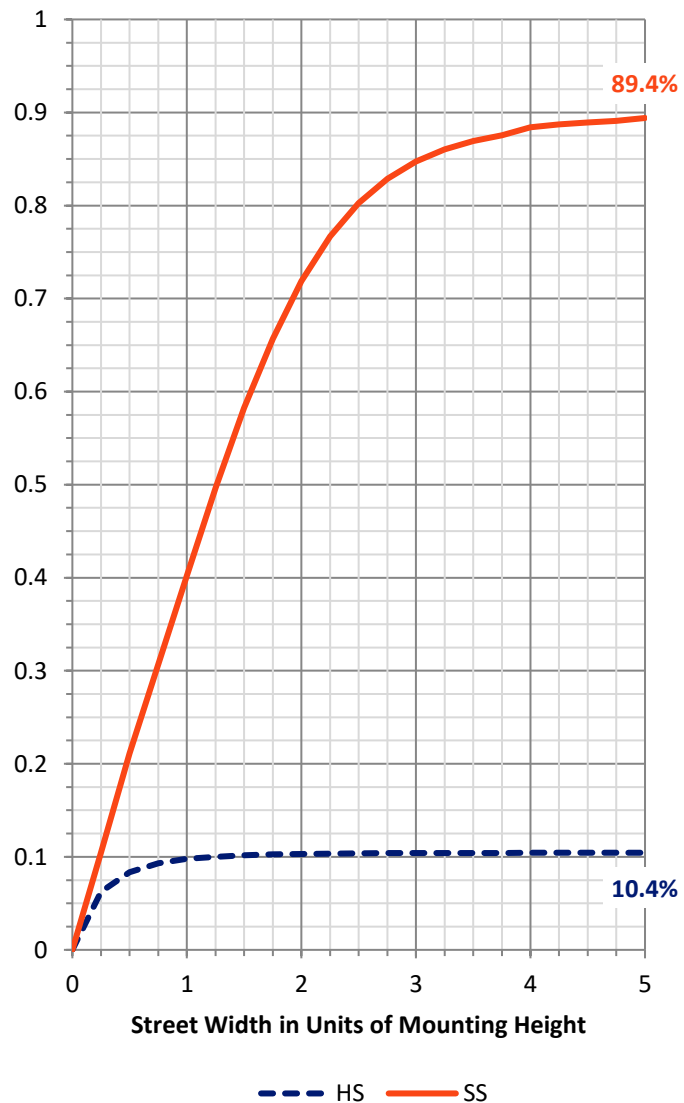
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2202.6	0.0	2202.6
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	18759.7	0.0	18759.7
	% Fixture	89.5	0.0	89.5
Total	Lumens	20962.3	0.0	20962.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.4	1.0
10°-20°	632.4	3.0
20°-30°	1038.4	5.0
30°-40°	1472.8	7.0
40°-50°	2434.3	11.6
50°-60°	4373.0	20.9
60°-70°	6072.1	29.0
70°-80°	4404.5	21.0
80°-90°	318.4	1.5
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°	20962.3	100.0
0°-180°	20962.3	100.0

Coefficient of Utilization



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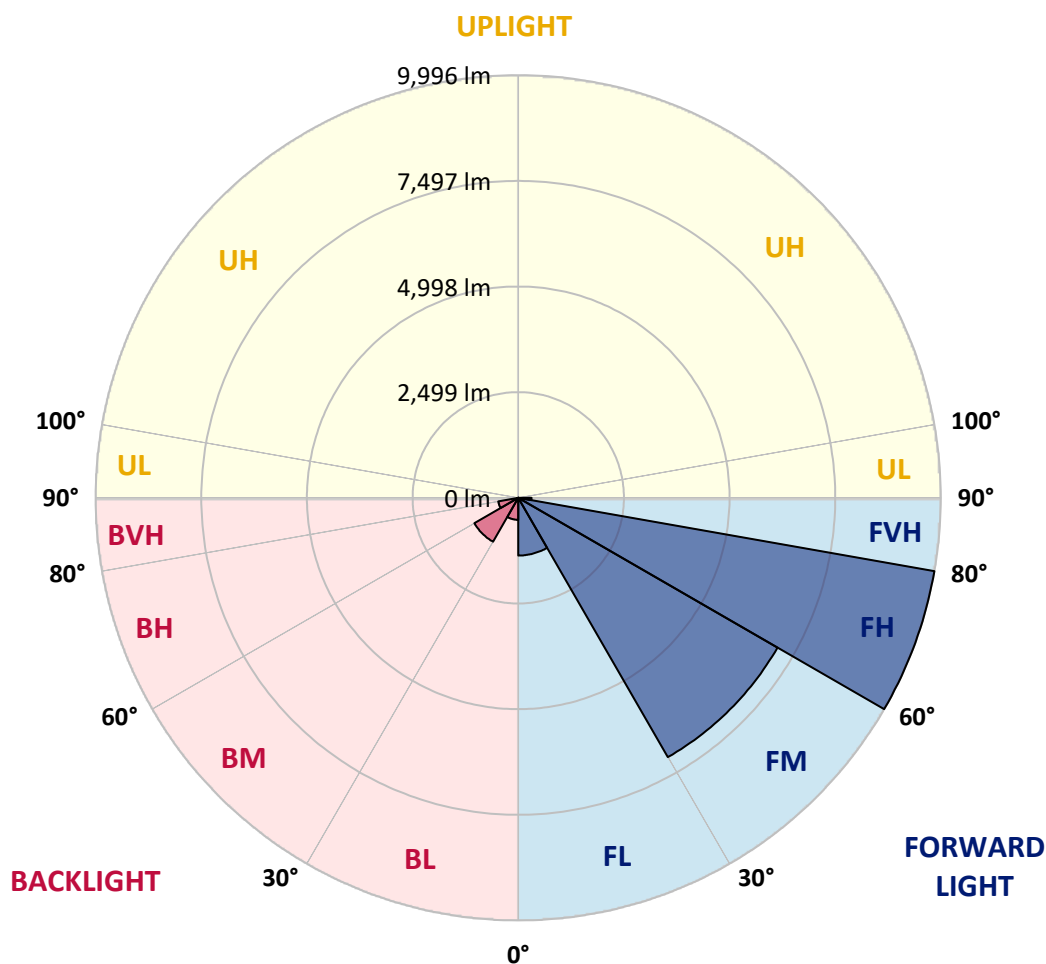
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1365.5	6.5			
FM	(30°-60°)	7082.2	33.8			
FH	(60°-80°)	9996.3	47.7			G4/12000
FVH	(80°-90°)	315.7	1.5			G3/500
BL	(0°-30°)	521.7	2.5	B2/1000		
BM	(30°-60°)	1197.9	5.7	B2/2500		
BH	(60°-80°)	480.3	2.3	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5
2.5°	2508.2	2512.5	2509.6	2492.5	2463.9	2448.1	2439.5	2410.9	2392.4	2359.4	2325.1
5°	2738.6	2755.7	2745.8	2711.4	2657.0	2618.4	2607.0	2548.3	2495.4	2433.9	2362.3
7.5°	2983.3	2991.9	2973.2	2928.8	2856.0	2790.0	2780.1	2698.5	2614.1	2519.7	2422.4
10°	3195.0	3205.1	3176.4	3112.0	3029.1	2947.5	2933.1	2843.0	2742.9	2627.0	2502.5
12.5°	3372.5	3382.5	3345.3	3268.0	3176.4	3092.0	3077.7	2983.3	2873.1	2744.3	2589.8
15°	3506.9	3525.5	3475.5	3392.4	3293.7	3209.3	3202.2	3109.1	3001.8	2858.7	2694.2
17.5°	3585.7	3604.2	3557.1	3456.8	3372.5	3300.9	3292.3	3215.0	3114.9	2977.5	2795.8
20°	3598.5	3615.7	3565.6	3478.3	3408.2	3350.9	3346.7	3290.9	3217.9	3086.3	2906.0
22.5°	3559.8	3581.4	3535.5	3465.4	3416.8	3386.7	3381.1	3349.5	3308.1	3196.5	3009.0
25°	3519.8	3537.0	3502.6	3441.1	3415.4	3412.5	3416.8	3411.1	3402.5	3308.1	3129.2
27.5°	3517.0	3535.5	3496.9	3438.3	3423.9	3453.9	3458.2	3485.5	3492.6	3409.7	3245.0
30°	3541.3	3554.2	3517.0	3455.4	3448.3	3517.0	3518.4	3567.0	3578.5	3495.5	3359.5
32.5°	3594.2	3608.5	3571.3	3481.2	3471.2	3567.0	3571.3	3635.7	3654.3	3587.1	3479.8
35°	3718.7	3735.8	3693.0	3552.8	3517.0	3614.3	3627.2	3702.9	3740.1	3684.4	3604.2
37.5°	4029.2	3979.2	3920.4	3697.3	3621.4	3688.7	3710.1	3798.9	3864.7	3800.3	3753.0
40°	4800.4	4643.0	4459.9	3943.4	3804.5	3847.4	3864.7	3953.3	4043.5	3980.5	3957.6
42.5°	5957.9	5771.9	5477.2	4509.9	4080.7	4102.2	4115.1	4192.2	4319.7	4269.5	4275.3
45°	6989.6	6922.3	6621.8	5477.2	4597.2	4491.3	4507.0	4547.1	4734.6	4716.0	4753.1
47.5°	7782.2	7743.6	7511.8	6587.5	5470.0	4967.8	5012.1	5030.8	5301.2	5367.0	5467.1
50°	8391.8	8377.4	8170.0	7574.7	6610.3	5670.3	5686.1	5646.0	6050.9	6214.1	6404.3
52.5°	8966.9	9015.6	8862.5	8491.9	7828.0	6590.3	6587.5	6398.7	6945.2	7191.3	7516.1
55°	9486.3	9503.5	9519.3	9427.6	9052.8	7637.7	7610.5	7301.5	7982.5	8237.2	8589.2
57.5°	9974.3	9981.3	10121.6	10309.0	10327.6	8762.3	8712.3	8341.7	9115.7	9297.5	9513.5
60°	10301.9	10334.8	10631.0	11151.8	11379.2	9922.7	9895.6	9517.8	10269.0	10353.4	10313.3
62.5°	9829.8	10030.0	10777.0	11809.9	12372.3	11209.0	11196.2	10841.3	11482.4	11413.6	11070.2
65°	7956.8	8295.8	9609.4	12254.9	13346.6	12645.5	12664.2	12286.5	12728.6	12505.3	11685.5
67.5°	5565.9	5923.6	7477.5	12290.7	14435.5	14332.5	14439.8	13847.4	14052.0	13551.3	11831.5
70°	3848.9	4033.5	5045.0	11520.9	15284.0	16656.1	16653.3	15764.7	15368.4	14027.7	11087.4
72.5°	2588.3	2684.2	3276.6	9140.0	14660.2	18036.9	17953.9	17229.9	15812.0	13119.2	9058.5
75°	1091.7	1161.8	1516.7	5136.7	11598.2	16501.6	16277.0	15226.8	14049.2	10330.5	5651.7
77.5°	346.2	376.3	598.1	1838.6	6388.6	12403.7	12166.2	9509.2	9416.2	5182.4	2066.1
80°	164.5	191.8	336.2	738.3	2513.9	6746.3	6713.4	4313.9	4050.6	1399.3	414.9
82.5°	71.5	84.5	186.0	394.9	1124.6	2406.6	2455.3	1468.0	1214.7	530.8	127.3
85°	22.9	30.0	85.9	181.7	475.0	598.1	590.9	349.1	489.3	289.0	44.4
87.5°	0.0	0.0	28.6	41.5	48.7	34.3	38.6	30.0	135.9	80.2	15.8
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°	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5	2296.5
2.5°	2307.9	2285.0	2245.0	2207.7	2174.8	2141.9	2121.9	2093.3	2090.4	2090.4	2097.6
5°	2323.7	2286.5	2214.9	2139.1	2051.7	1968.8	1885.8	1805.7	1779.9	1761.4	1770.0
7.5°	2369.4	2310.8	2197.7	2053.2	1887.2	1705.5	1578.2	1440.8	1387.8	1359.3	1363.6
10°	2435.3	2355.1	2183.5	1930.2	1661.2	1413.7	1231.9	1083.1	1025.9	1001.5	1001.5
12.5°	2508.2	2409.5	2157.6	1777.0	1413.7	1117.5	940.0	871.4	862.7	862.7	862.7
15°	2595.5	2475.3	2113.3	1596.7	1154.7	884.3	821.3	824.1	832.7	838.4	838.4
17.5°	2685.6	2545.4	2043.2	1395.0	925.8	795.5	796.9	801.2	808.4	814.2	814.2
20°	2783.0	2615.5	1950.2	1180.4	794.1	769.8	774.1	778.4	784.1	787.0	788.4
22.5°	2887.4	2681.4	1840.1	970.1	749.8	748.4	749.8	754.0	761.2	761.2	764.0
25°	2998.9	2754.3	1714.1	817.0	726.8	726.8	729.7	732.6	738.3	738.3	739.7
27.5°	3113.4	2821.6	1581.1	736.9	706.8	705.4	705.4	709.7	712.6	714.0	715.4
30°	3239.4	2900.2	1448.0	719.7	691.1	683.9	679.7	682.5	685.3	686.7	689.6
32.5°	3368.2	2976.1	1329.2	726.8	675.4	662.5	648.2	645.3	645.3	651.0	655.3
35°	3511.2	3059.1	1237.7	751.2	666.8	631.0	608.1	595.2	596.7	605.3	609.6
37.5°	3682.9	3159.3	1170.4	772.6	661.0	595.2	558.0	542.3	532.3	542.3	539.5
40°	3907.6	3306.6	1121.8	789.8	653.8	553.7	503.7	477.9	459.3	465.0	462.2
42.5°	4238.1	3538.4	1103.2	791.2	638.2	505.1	447.8	413.5	386.3	387.8	382.0
45°	4701.7	3904.7	1199.0	772.6	603.8	452.1	389.2	343.4	326.3	322.0	316.2
47.5°	5337.0	4438.4	1420.8	734.0	553.7	400.7	332.0	293.4	280.4	273.3	269.0
50°	6188.3	5123.8	1666.9	691.1	503.7	352.0	284.7	260.5	251.8	244.7	243.2
52.5°	7175.5	5819.1	1868.7	648.2	453.6	309.0	254.7	240.4	233.2	227.6	226.1
55°	8081.3	6298.4	1857.2	602.4	404.9	274.7	233.2	224.7	216.1	210.3	207.5
57.5°	8645.0	6365.7	1530.9	552.3	349.1	247.5	213.2	207.5	197.4	190.3	188.9
60°	8904.0	5982.2	1073.1	486.5	293.4	221.8	191.8	188.9	176.0	165.9	163.1
62.5°	8951.2	5269.7	715.4	404.9	244.7	197.4	170.3	165.9	148.8	131.6	123.0
65°	8759.4	4251.0	495.1	316.2	208.9	171.7	146.0	137.4	118.8	101.6	95.8
67.5°	8152.7	2984.7	344.8	227.6	177.4	135.9	115.9	113.1	98.7	84.5	80.2
70°	7041.0	1701.2	230.3	170.3	140.2	93.0	91.5	94.4	80.2	68.7	62.9
72.5°	5398.5	778.4	143.1	124.4	95.8	62.9	73.0	74.4	61.5	51.6	45.8
75°	3177.8	333.3	90.1	80.2	48.7	41.5	52.9	54.3	41.5	32.9	28.6
77.5°	1081.7	125.9	57.2	47.3	24.3	22.9	34.3	34.3	22.9	12.9	10.0
80°	246.1	47.3	28.6	18.6	11.5	10.0	11.5	10.0	5.7	1.4	0.0
82.5°	70.1	18.6	11.5	7.2	4.3	4.3	1.4	0.0	0.0	0.0	0.0
85°	20.0	8.6	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.6	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)