

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: P966151

Luminaire Tested: **NAV-SB4B-735-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966151
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-SB4B-735-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA 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: 17678.2 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

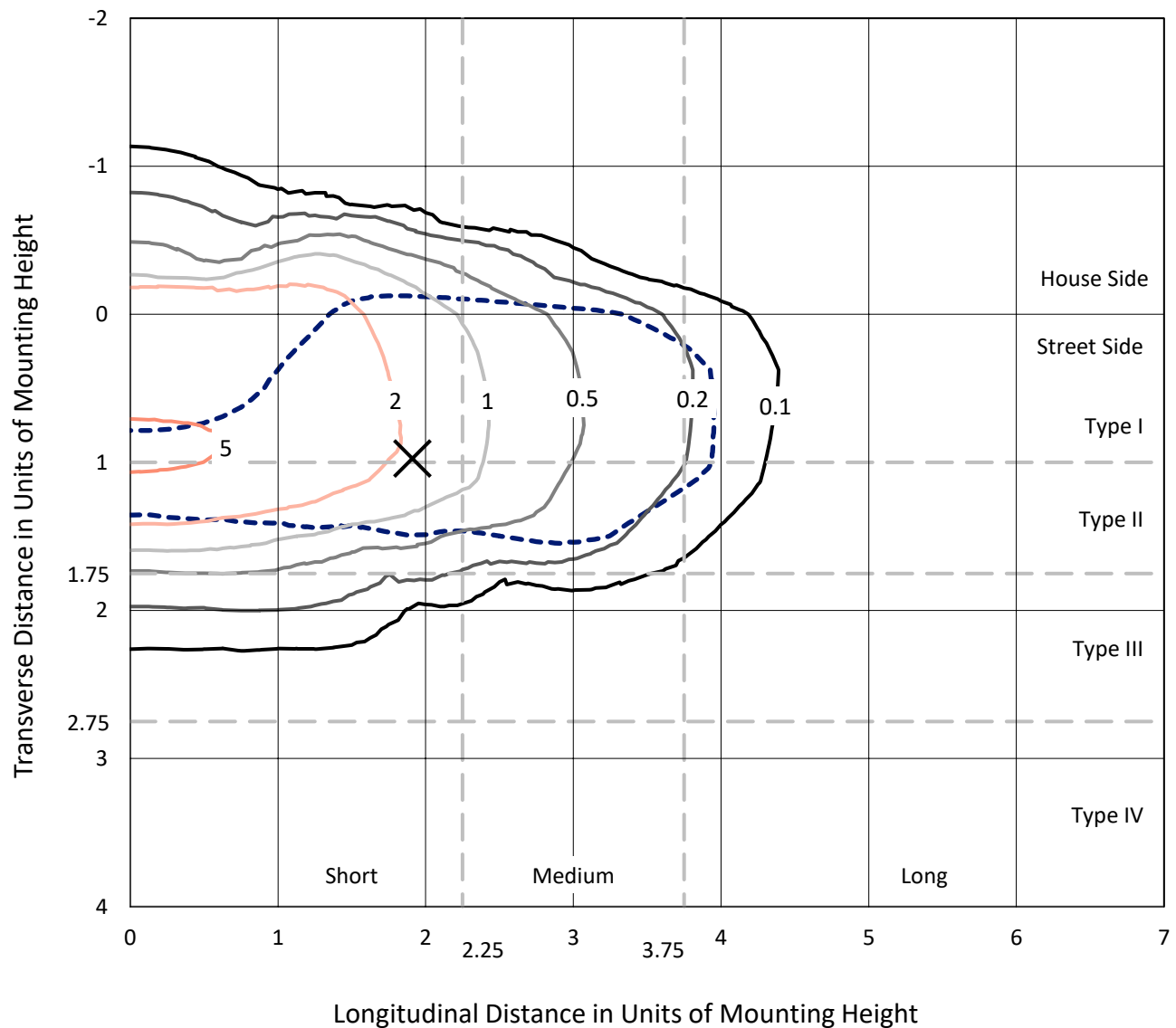
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

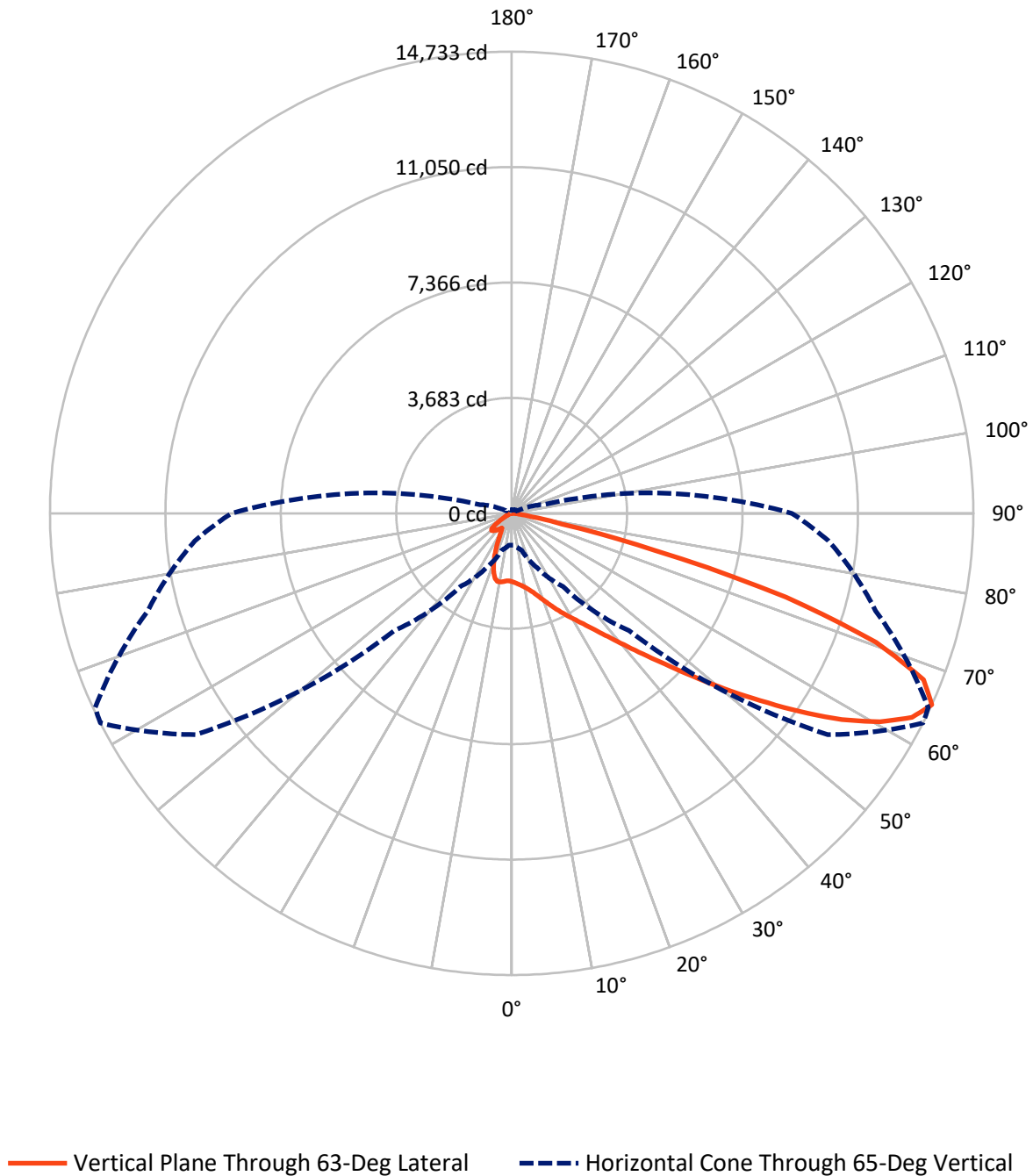
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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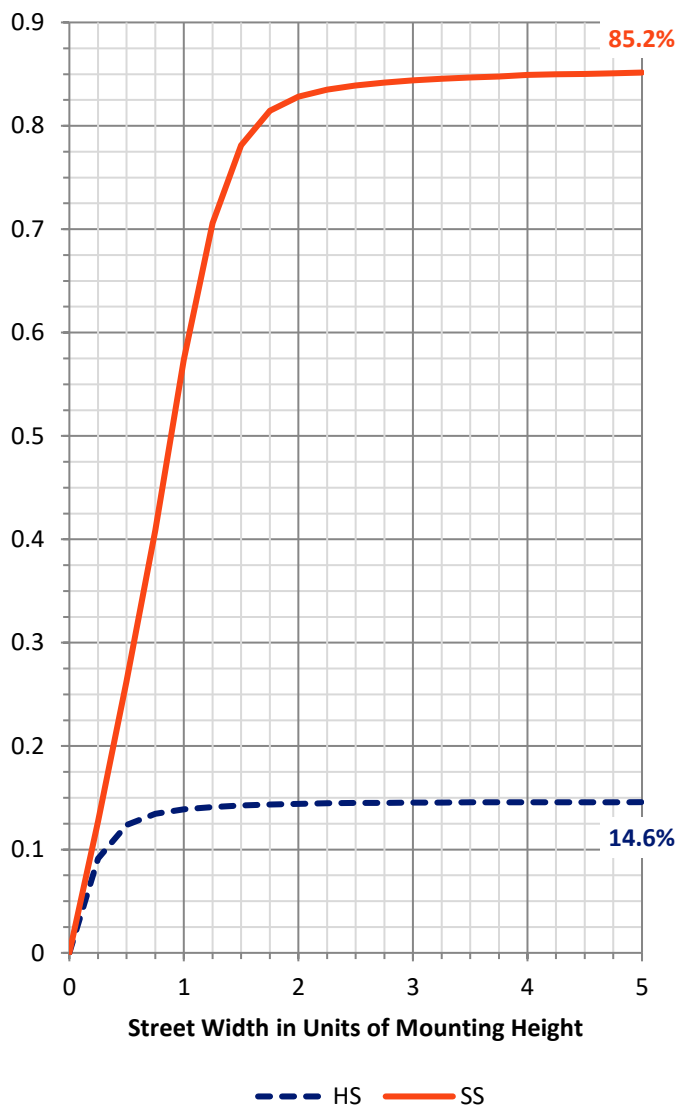
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2598.6	0.0	2598.6
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	15079.6	0.0	15079.6
	% Fixture	85.3	0.0	85.3
Total	Lumens	17678.2	0.0	17678.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.6	1.2
10°-20°	570.4	3.2
20°-30°	993.2	5.6
30°-40°	1790.1	10.1
40°-50°	3550.3	20.1
50°-60°	4836.1	27.4
60°-70°	3860.2	21.8
70°-80°	1746.8	9.9
80°-90°	125.6	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°	17678.2	100.0
0°-180°	17678.2	100.0

Coefficient of Utilization



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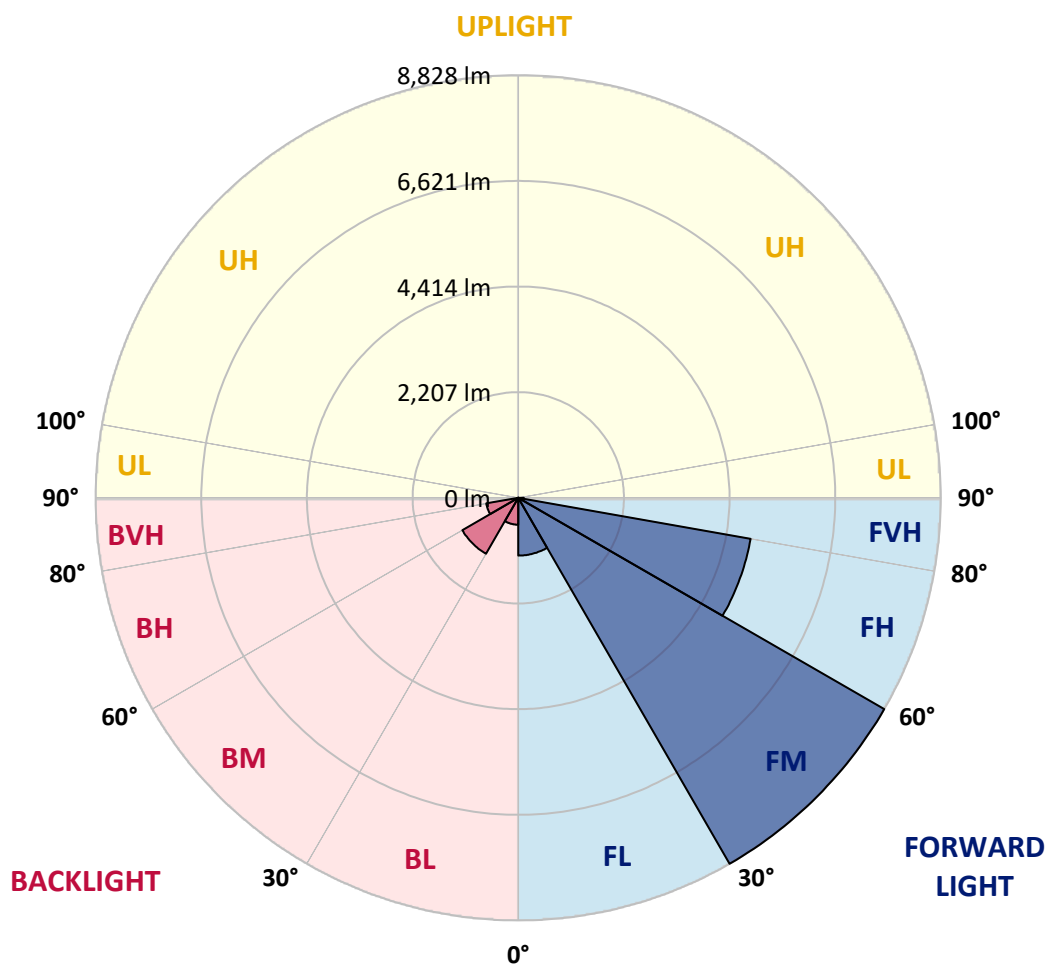
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1206.7	6.8			
FM	(30°-60°)	8828.0	49.9			
FH	(60°-80°)	4928.6	27.9			G2/5000
FVH	(80°-90°)	116.2	0.7			G2/225
BL	(0°-30°)	562.4	3.2	B2/1000		
BM	(30°-60°)	1348.5	7.6	B2/2500		
BH	(60°-80°)	678.4	3.8	B2/1000		G2/1000
BVH	(80°-90°)	9.3	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8
2.5°	2232.9	2226.8	2235.3	2231.7	2229.3	2224.4	2222.0	2219.5	2214.6	2211.0	2196.4
5°	2239.0	2235.3	2243.8	2251.1	2258.5	2265.8	2269.4	2274.3	2269.4	2259.6	2245.1
7.5°	2187.9	2185.5	2203.8	2225.6	2258.5	2286.4	2316.8	2333.8	2335.1	2331.4	2315.6
10°	2184.3	2178.1	2196.4	2223.1	2265.8	2315.6	2369.1	2405.6	2410.5	2426.3	2409.3
12.5°	2241.4	2235.3	2260.8	2290.1	2333.8	2386.1	2451.8	2502.8	2510.2	2532.1	2520.0
15°	2337.5	2329.0	2358.2	2395.8	2451.8	2511.5	2580.7	2627.0	2633.0	2659.8	2637.8
17.5°	2449.3	2440.8	2475.0	2515.0	2575.8	2657.3	2737.6	2788.7	2796.0	2813.0	2772.9
20°	2592.8	2582.0	2608.7	2645.2	2709.7	2807.0	2903.0	2976.0	2974.8	2974.8	2909.1
22.5°	2759.5	2742.5	2765.6	2794.8	2855.5	2973.5	3101.2	3187.6	3187.6	3153.5	3045.3
25°	2938.3	2921.2	2946.8	2973.5	3027.0	3160.8	3310.4	3417.5	3422.3	3363.9	3191.2
27.5°	3162.0	3140.2	3159.7	3191.2	3222.9	3359.1	3536.7	3660.7	3663.1	3573.2	3329.9
30°	3592.6	3530.5	3469.7	3435.7	3450.3	3585.2	3775.0	3912.4	3924.6	3800.6	3480.7
32.5°	4380.6	4368.5	4154.4	3874.7	3728.8	3828.5	4041.4	4206.8	4214.1	4054.7	3676.5
35°	5605.3	5590.8	5246.6	4713.9	4238.4	4154.4	4364.9	4560.6	4555.8	4375.8	3930.7
37.5°	7067.2	7053.8	6600.2	5887.5	5117.6	4647.0	4782.0	4987.5	5018.0	4782.0	4259.1
40°	8316.2	8266.3	7979.3	7292.2	6285.2	5464.3	5375.5	5511.7	5543.3	5263.6	4676.2
42.5°	9262.4	9219.9	9073.9	8644.5	7698.4	6673.2	6074.8	6127.1	6162.4	5826.7	5155.3
45°	9752.6	9742.8	9801.2	9761.1	9138.4	8156.8	7074.6	6856.8	6870.2	6450.6	5699.0
47.5°	9821.9	9816.9	10083.3	10460.3	10376.4	9830.4	8357.5	7766.5	7719.1	7154.8	6290.0
50°	9413.2	9403.5	9914.3	10620.8	11203.5	11236.3	9814.6	8791.7	8687.2	7883.3	6906.7
52.5°	8108.3	8105.8	8945.0	10121.1	11494.0	12467.1	11254.5	9917.9	9742.8	8654.3	7558.6
55°	6239.0	6284.0	7245.9	8636.0	10963.8	13059.3	12547.3	11168.2	10899.3	9430.2	8159.3
57.5°	4419.6	4485.3	5436.3	6674.4	9319.6	12709.1	13421.8	12420.8	12131.4	10203.8	8768.7
60°	2374.0	2432.3	3384.7	4862.3	6933.4	11402.9	13882.7	13508.1	13234.4	10938.3	9318.4
62.5°	1414.4	1433.9	1827.9	3139.0	4689.6	8711.5	13686.8	14336.3	14111.3	11554.9	9796.3
65°	1015.5	1019.2	1217.4	1916.6	2847.0	5292.8	12313.8	14732.7	14663.4	12019.5	10150.2
67.5°	855.0	852.5	935.2	1273.4	1939.8	2651.3	9437.5	14172.1	14466.4	12313.8	10350.9
70°	733.4	737.0	834.2	932.9	1458.2	1500.8	4692.0	12339.4	12966.9	12391.6	10338.8
72.5°	546.0	558.2	648.2	850.1	1100.6	1032.6	1619.9	9149.3	10284.0	11675.3	9802.4
75°	385.5	391.7	456.0	715.1	820.9	751.6	827.0	4729.8	6184.2	8951.0	8023.1
77.5°	296.7	307.7	345.4	499.9	808.7	527.8	505.9	1636.9	2515.0	5407.1	5500.8
80°	160.5	180.0	249.3	361.2	568.0	373.4	250.5	651.9	852.5	2528.5	2121.0
82.5°	82.7	92.5	173.9	260.2	323.5	326.0	124.0	271.2	351.5	780.7	290.7
85°	32.8	40.2	116.7	143.5	166.7	160.5	56.0	109.5	126.5	216.5	88.8
87.5°	7.3	12.2	42.5	32.8	31.6	34.0	13.4	25.5	24.3	25.5	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°	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8	2181.8
2.5°	2195.2	2190.3	2177.0	2162.3	2145.3	2135.6	2129.5	2128.3	2119.8	2113.8	2119.8
5°	2231.7	2226.8	2201.3	2170.8	2138.0	2112.5	2088.1	2066.3	2034.6	2028.6	2026.1
7.5°	2304.6	2291.3	2250.0	2208.6	2146.6	2072.3	1982.4	1879.0	1786.6	1758.6	1745.2
10°	2394.6	2376.4	2324.1	2251.1	2113.8	1911.8	1694.1	1492.3	1331.7	1286.7	1269.7
12.5°	2496.8	2481.0	2411.7	2276.7	1976.3	1610.2	1276.9	1026.4	870.7	831.9	820.9
15°	2618.5	2595.3	2499.3	2237.8	1730.6	1223.4	876.9	728.5	672.5	665.2	657.9
17.5°	2747.3	2709.7	2577.1	2097.9	1399.8	869.6	677.4	634.9	610.5	603.2	599.6
20°	2865.3	2816.7	2623.3	1886.3	1045.9	677.4	606.9	578.9	557.0	548.5	543.7
22.5°	2983.3	2914.0	2623.3	1598.1	784.4	600.8	557.0	531.5	505.9	495.0	488.9
25°	3106.2	3013.7	2577.1	1276.9	631.2	550.9	509.5	481.6	459.7	446.4	441.5
27.5°	3225.3	3097.7	2471.3	972.9	561.9	507.2	465.8	439.0	418.4	408.7	408.7
30°	3338.4	3180.3	2322.9	738.2	516.9	464.5	425.7	402.5	381.9	372.2	373.4
32.5°	3491.7	3284.9	2164.8	605.7	478.0	424.5	389.2	367.3	349.0	341.7	341.7
35°	3704.5	3439.4	2028.6	594.7	445.2	391.7	356.3	335.7	317.4	311.3	311.3
37.5°	4006.1	3688.7	1956.8	667.7	418.4	362.4	329.5	307.7	290.7	285.8	284.5
40°	4378.2	4026.7	1995.8	740.7	400.2	336.9	305.2	283.4	268.8	262.7	261.5
42.5°	4819.8	4443.9	2211.0	796.6	388.0	315.0	282.2	257.8	248.0	245.7	245.7
45°	5326.8	4902.4	2540.6	856.2	368.5	294.3	259.0	240.8	233.5	232.3	231.0
47.5°	5903.3	5406.0	2922.5	930.4	349.0	274.9	240.8	228.7	222.5	220.2	220.2
50°	6474.9	5913.0	3315.3	971.7	333.2	256.7	226.2	216.5	211.7	210.4	210.4
52.5°	7073.3	6434.7	3632.7	932.9	319.9	242.0	214.0	206.7	201.9	200.7	200.7
55°	7643.6	6856.8	3687.4	791.7	293.0	227.4	200.7	197.0	191.0	191.0	189.7
57.5°	8135.0	7068.4	3300.7	581.4	266.3	205.5	187.3	183.7	178.8	177.5	176.3
60°	8586.2	7007.6	2547.8	391.7	237.2	183.7	170.3	167.8	163.0	156.9	155.7
62.5°	8840.4	6740.1	1742.8	255.4	208.0	160.5	150.8	149.5	138.7	126.5	124.0
65°	8936.5	6190.4	1087.2	186.0	173.9	137.5	130.2	127.7	111.9	98.5	97.3
67.5°	8852.5	5285.5	548.5	147.2	137.5	114.3	107.0	107.0	96.0	83.9	82.7
70°	8516.9	3962.3	231.0	118.0	105.8	87.5	87.5	92.5	81.5	68.1	66.9
72.5°	7788.4	2665.8	122.8	90.0	79.0	62.0	71.8	75.4	64.5	51.0	51.0
75°	6191.5	1626.1	85.2	66.9	49.8	43.8	54.7	57.2	43.8	34.0	32.8
77.5°	4234.7	934.0	57.2	42.5	31.6	25.5	37.7	35.3	23.1	15.8	17.0
80°	1859.6	389.2	32.8	19.5	12.2	9.7	13.4	9.7	7.3	4.8	4.8
82.5°	217.7	91.2	12.2	7.3	4.8	2.5	1.2	0.0	0.0	0.0	0.0
85°	45.0	11.0	6.0	2.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.5	2.5	1.2	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)