

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: P962995

Luminaire Tested: **NAV-SB2D-735-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20873.1 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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



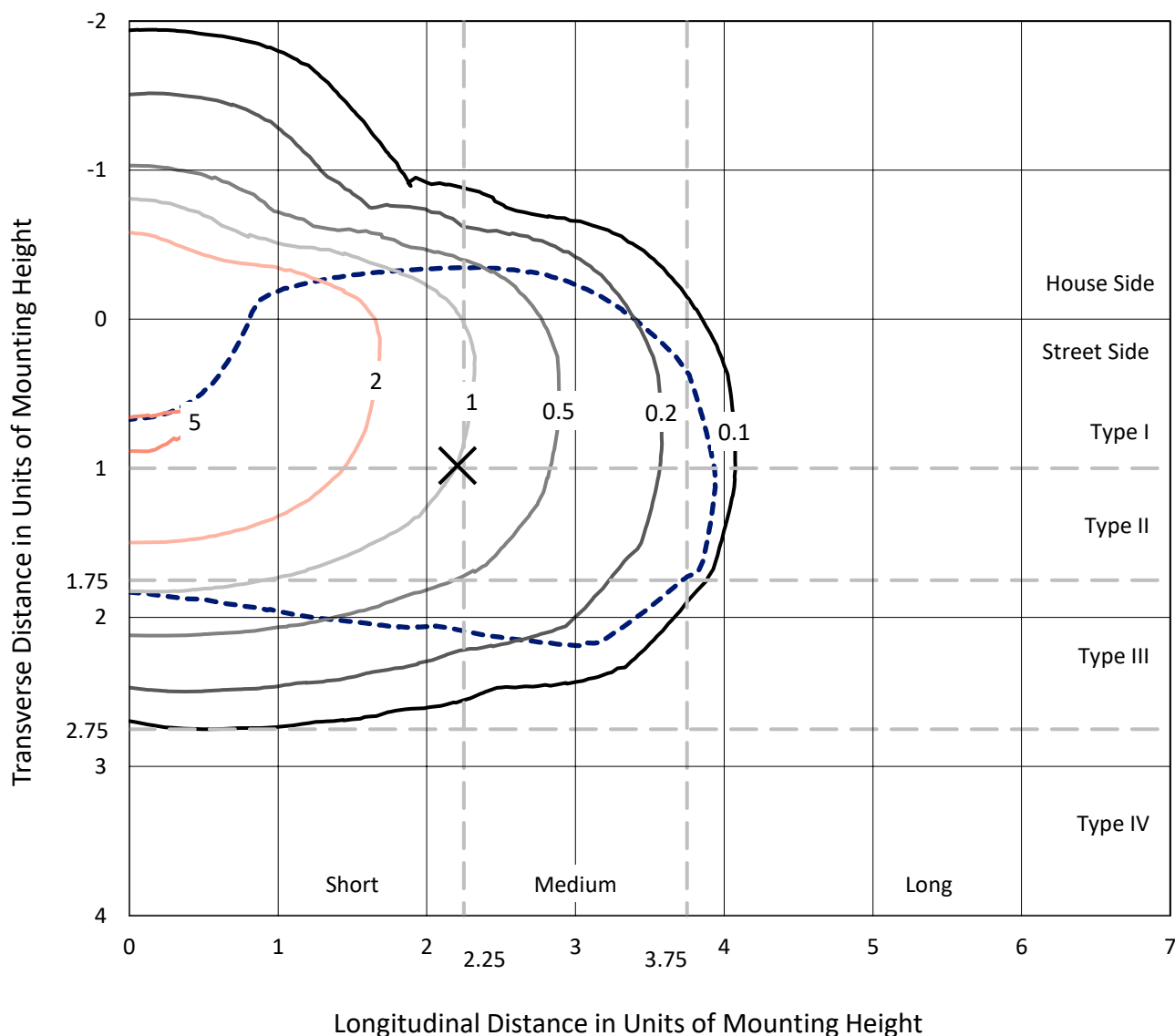
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

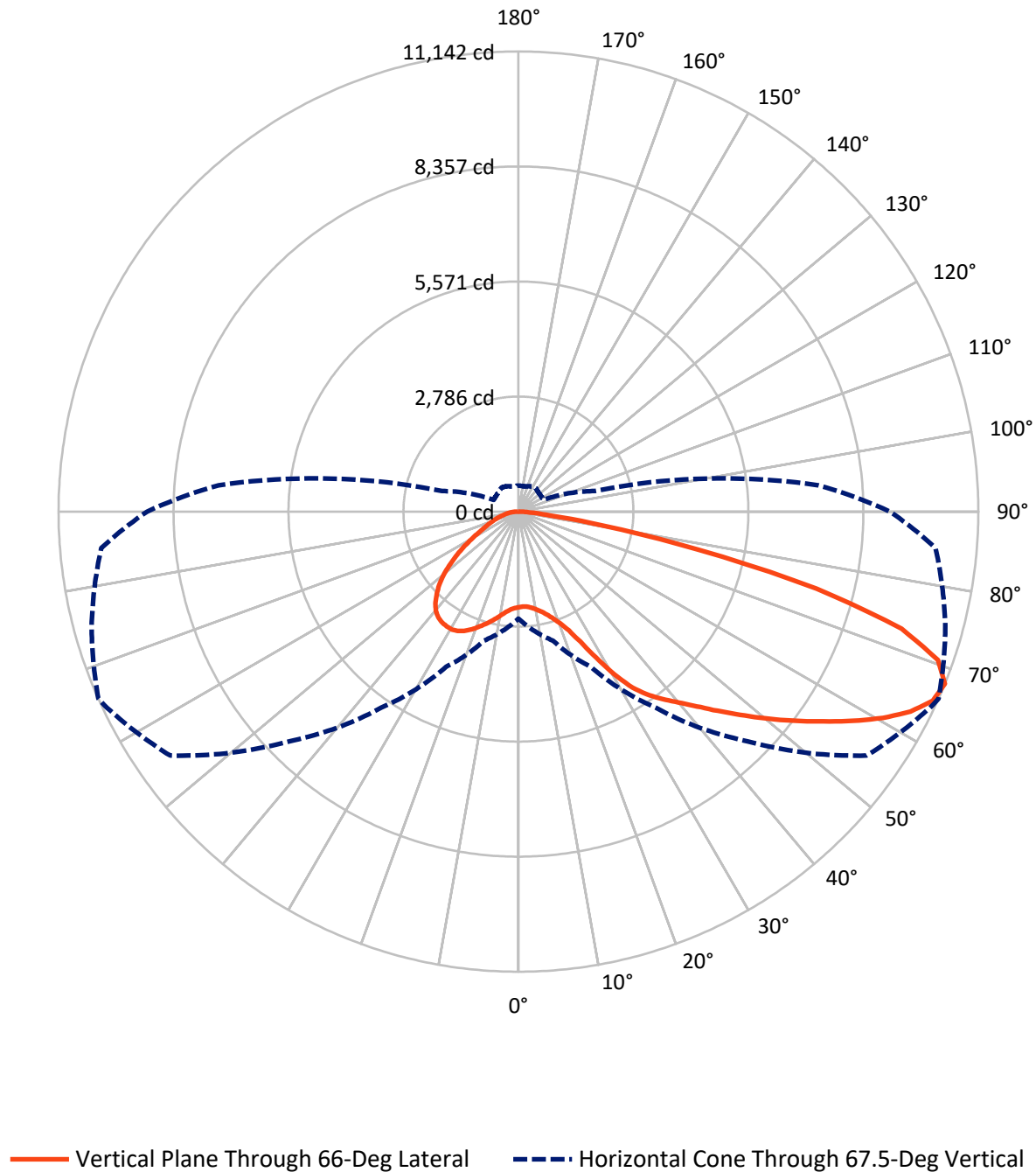


Based on 25 foot mounting height. Maximum calculated value = 5.2 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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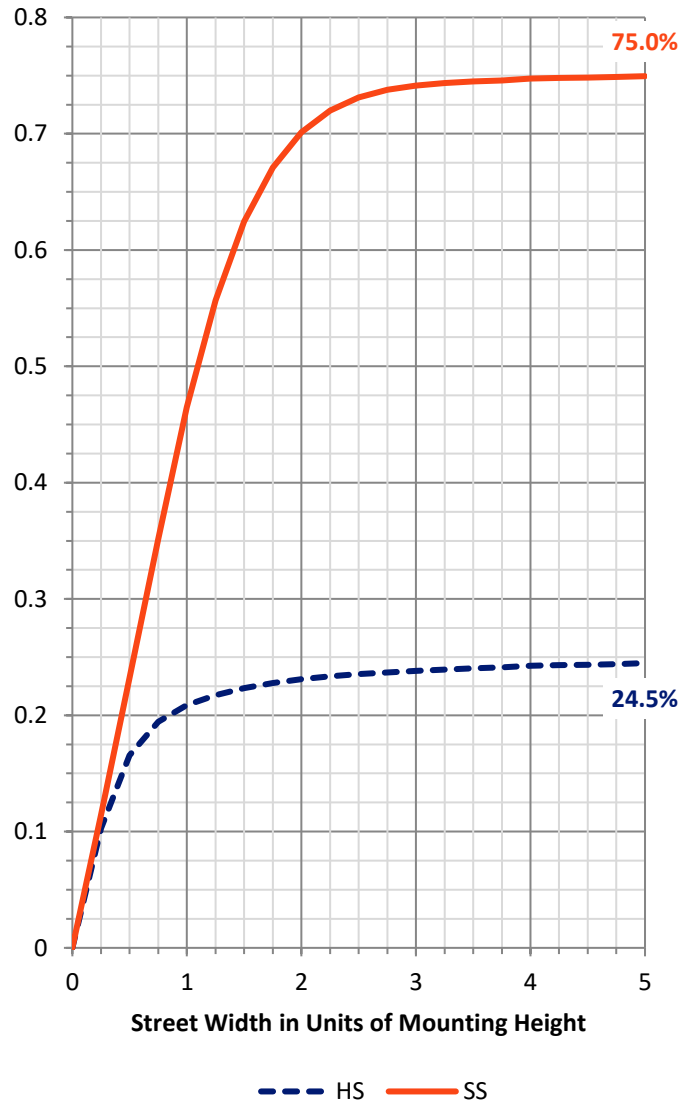
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5190.0	0.0	5190.0
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	15683.1	0.0	15683.1
	% Fixture	75.1	0.0	75.1
Total	Lumens	20873.1	0.0	20873.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.5	1.1
10°-20°	758.3	3.6
20°-30°	1461.7	7.0
30°-40°	2562.9	12.3
40°-50°	3810.1	18.3
50°-60°	4829.7	23.1
60°-70°	4725.7	22.6
70°-80°	2254.2	10.8
80°-90°	240.9	1.2
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°	20873.1	100.0
0°-180°	20873.1	100.0

Coefficient of Utilization



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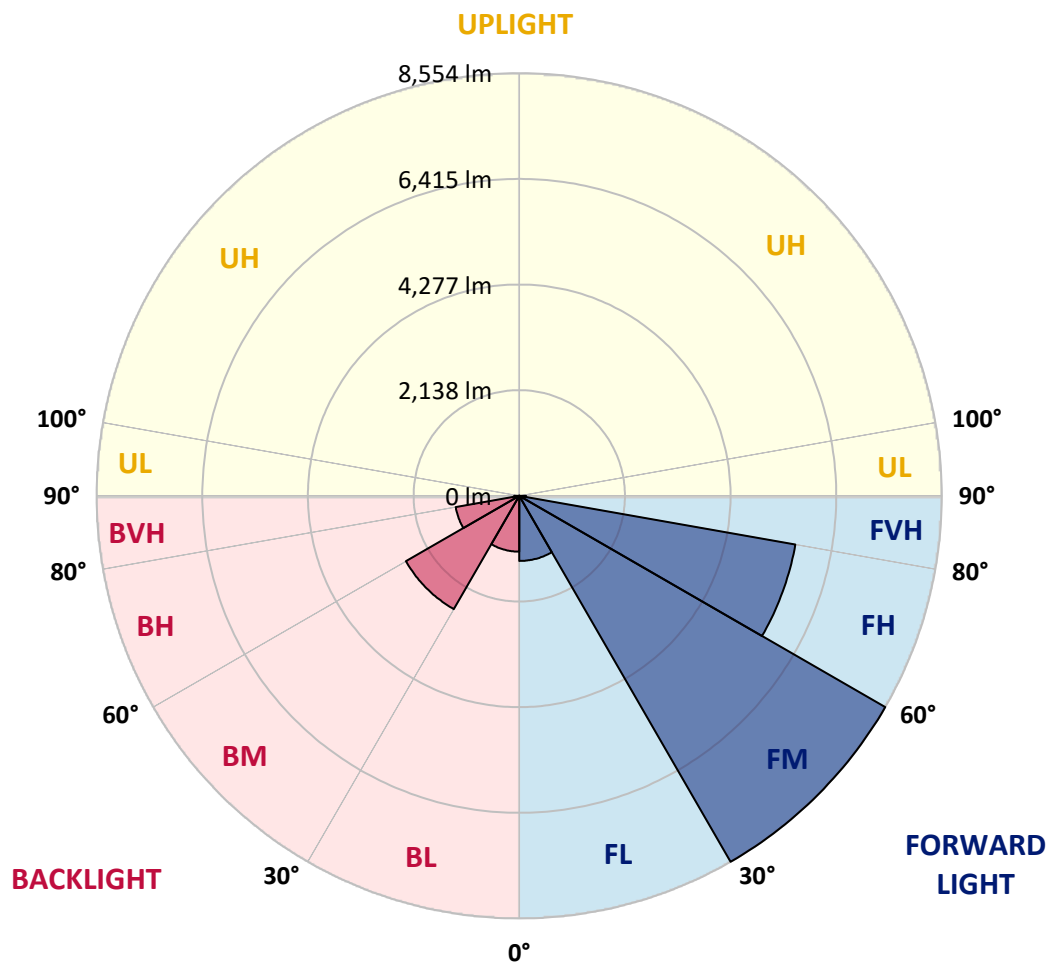
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1319.0	6.3			
FM	(30°-60°)	8553.6	41.0			
FH	(60°-80°)	5673.9	27.2			G3/7500
FVH	(80°-90°)	136.6	0.7			G2/225
BL	(0°-30°)	1130.6	5.4	B3/2500		
BM	(30°-60°)	2649.1	12.7	B3/5000		
BH	(60°-80°)	1306.1	6.3	B3/2500		G3/2500
BVH	(80°-90°)	104.3	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1
2.5°	2291.0	2304.1	2300.8	2295.4	2294.3	2296.4	2299.8	2303.1	2301.9	2307.4	2316.2
5°	2284.4	2297.5	2296.4	2296.4	2300.8	2309.6	2315.1	2320.6	2315.1	2321.7	2333.7
7.5°	2288.8	2298.7	2303.1	2307.4	2318.3	2334.8	2348.0	2360.1	2353.5	2361.2	2376.6
10°	2344.7	2352.4	2356.8	2356.8	2364.5	2383.1	2396.2	2418.2	2412.7	2424.7	2444.5
12.5°	2446.7	2454.4	2454.4	2450.0	2455.5	2467.6	2471.9	2496.1	2486.1	2505.9	2525.7
15°	2571.7	2587.1	2575.0	2567.3	2569.6	2581.6	2580.5	2599.2	2589.3	2605.8	2623.3
17.5°	2709.9	2729.7	2709.9	2708.8	2704.5	2717.6	2718.7	2735.1	2717.6	2729.7	2741.7
20°	2873.3	2900.7	2884.2	2889.8	2879.9	2885.4	2890.9	2915.0	2887.5	2896.3	2893.1
22.5°	3103.6	3136.5	3119.0	3139.8	3133.2	3128.8	3127.8	3170.5	3127.8	3131.1	3099.2
25°	3439.2	3478.6	3448.0	3476.5	3476.5	3490.7	3507.2	3562.1	3490.7	3469.9	3387.6
27.5°	3934.9	3974.4	3914.1	3931.6	3926.2	3961.2	3943.7	4079.7	4002.9	3968.9	3803.3
30°	4531.5	4601.7	4487.7	4483.2	4477.8	4533.7	4558.9	4648.9	4571.0	4537.0	4337.4
32.5°	5176.4	5249.8	5113.8	5074.4	5053.6	5087.5	5066.7	5139.0	5085.3	5032.6	4785.9
35°	5858.5	5930.9	5801.5	5724.7	5641.4	5570.1	5495.5	5514.1	5463.7	5383.6	5128.1
37.5°	6503.3	6636.1	6498.9	6416.7	6263.2	6123.9	5915.5	5828.9	5781.7	5708.2	5450.5
40°	7160.2	7235.9	7131.7	7061.5	6894.9	6676.6	6343.2	6160.0	6096.5	6025.2	5806.9
42.5°	7643.9	7716.3	7660.3	7612.1	7481.6	7228.3	6797.3	6568.1	6476.0	6395.9	6210.6
45°	8027.7	8081.5	8046.4	8063.9	8008.0	7762.3	7267.8	7005.7	6910.2	6812.6	6666.7
47.5°	8182.4	8239.4	8295.3	8399.5	8494.9	8314.0	7773.3	7479.4	7378.5	7278.7	7135.0
50°	8164.8	8223.0	8385.2	8606.8	8902.8	8842.6	8306.3	7983.8	7890.7	7776.6	7643.9
52.5°	8024.4	8090.2	8298.6	8667.1	9138.7	9238.4	8849.1	8504.8	8417.1	8281.1	8148.3
55°	7655.9	7695.4	8008.0	8530.0	9194.7	9514.9	9381.0	9059.7	8972.0	8782.3	8637.5
57.5°	6972.8	7029.8	7484.9	8160.4	9054.2	9702.3	9848.2	9643.2	9558.7	9285.7	9134.3
60°	6081.1	6172.1	6693.0	7539.7	8696.7	9701.3	10272.7	10216.7	10146.6	9781.4	9623.4
62.5°	5072.2	5177.5	5678.6	6662.4	8071.6	9426.0	10538.0	10697.1	10660.9	10238.6	10036.9
65°	3895.4	3967.8	4466.8	5527.3	7098.8	8834.9	10568.8	11025.0	11031.6	10586.3	10252.9
67.5°	2593.7	2802.0	3235.2	4147.7	5796.0	7868.7	10299.0	11078.7	11142.4	10705.8	10144.3
70°	1265.6	1539.8	1964.2	2695.6	4147.7	6387.1	9593.8	10637.9	10779.3	10357.1	9497.3
72.5°	525.3	614.2	845.5	1330.2	2380.9	4310.0	8176.8	9442.5	9704.6	9177.0	7985.0
75°	354.2	383.9	483.6	682.1	1084.7	2125.3	5896.9	7040.7	7462.9	6931.0	5665.5
77.5°	273.1	291.7	352.0	477.0	644.8	803.9	3156.3	4243.1	4461.3	4130.1	2947.9
80°	214.9	229.2	263.2	347.7	457.4	429.9	1075.8	1922.5	2048.6	1718.5	947.5
82.5°	186.4	191.9	188.6	235.7	303.8	251.1	353.1	709.5	783.0	568.1	309.2
85°	134.9	150.3	156.8	145.9	161.2	127.2	144.7	251.1	276.3	246.7	174.4
87.5°	54.8	81.2	99.8	94.3	59.2	36.2	45.0	73.5	84.5	92.1	57.0
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°	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1	2315.1
2.5°	2317.3	2325.0	2330.4	2337.0	2341.4	2348.0	2361.2	2368.9	2369.9	2375.4	2374.3
5°	2338.1	2349.1	2361.2	2378.7	2398.5	2414.9	2440.1	2457.6	2464.2	2469.7	2468.6
7.5°	2383.1	2398.5	2420.4	2451.1	2479.6	2501.5	2532.3	2553.1	2573.9	2581.6	2582.7
10°	2450.0	2471.9	2503.8	2545.4	2576.1	2604.6	2636.4	2653.9	2674.8	2683.6	2688.0
12.5°	2533.4	2556.4	2598.1	2656.2	2684.7	2704.5	2715.4	2711.0	2715.4	2723.1	2725.3
15°	2628.7	2653.9	2701.2	2763.6	2783.4	2765.9	2741.7	2719.7	2716.5	2718.7	2726.4
17.5°	2741.7	2760.3	2815.2	2867.8	2853.6	2781.2	2728.5	2693.5	2675.9	2670.4	2678.1
20°	2899.6	2899.6	2944.6	2977.5	2882.1	2759.3	2677.0	2620.0	2583.8	2568.4	2565.2
22.5°	3091.6	3074.0	3102.6	3079.5	2876.6	2697.8	2583.8	2485.1	2430.3	2408.3	2405.1
25°	3335.0	3314.1	3306.5	3164.0	2837.1	2600.2	2414.9	2295.4	2247.1	2235.0	2237.3
27.5°	3702.4	3649.7	3550.0	3210.0	2764.7	2446.7	2217.5	2106.7	2079.3	2080.4	2083.7
30°	4191.5	4086.3	3841.7	3217.7	2646.3	2229.6	2015.7	1936.7	1923.6	1929.0	1947.7
32.5°	4644.5	4544.6	4140.0	3182.6	2464.2	2016.8	1834.7	1782.1	1762.4	1768.9	1777.8
35°	4999.7	4972.4	4416.3	3133.2	2240.5	1817.2	1672.5	1627.5	1589.1	1580.3	1586.9
37.5°	5335.3	5324.4	4623.7	3064.1	2019.0	1675.8	1541.9	1482.8	1426.8	1396.0	1397.2
40°	5703.8	5692.8	4759.6	2957.7	1822.7	1552.9	1424.5	1346.7	1277.7	1221.7	1227.2
42.5°	6118.4	6053.8	4824.4	2805.3	1656.0	1448.7	1329.2	1223.8	1132.8	1081.4	1084.7
45°	6571.4	6425.5	4823.2	2611.2	1515.7	1353.3	1227.2	1078.0	993.6	945.4	943.1
47.5°	7051.7	6780.8	4764.0	2396.2	1379.6	1248.0	1069.3	955.2	899.2	869.7	863.0
50°	7547.4	7113.1	4663.1	2149.5	1240.4	1128.5	970.6	892.7	849.9	822.6	812.6
52.5°	8013.4	7414.6	4541.4	1869.8	1098.9	1012.3	926.7	866.4	821.4	790.7	777.6
55°	8446.7	7674.6	4369.2	1583.6	983.7	934.4	905.9	855.5	803.9	767.7	753.4
57.5°	8831.6	7843.5	4072.0	1315.0	901.5	880.7	884.0	836.8	777.6	746.8	727.1
60°	9151.8	7967.4	3632.2	1066.0	834.6	828.0	849.9	801.7	732.6	697.5	682.1
62.5°	9343.8	7965.3	3092.6	873.0	777.6	779.7	804.9	757.8	687.7	654.8	644.8
65°	9327.3	7770.0	2500.5	746.8	722.7	724.9	757.8	709.5	650.4	630.6	629.5
67.5°	8997.2	7294.1	1918.1	664.6	662.4	672.3	710.6	676.7	627.3	625.1	628.4
70°	8103.4	6305.9	1381.8	598.8	599.9	614.2	664.6	655.8	615.2	619.6	618.5
72.5°	6497.9	4807.9	927.8	529.7	530.7	553.8	620.7	639.4	603.2	661.3	670.0
75°	4327.5	2998.3	596.6	456.2	457.4	487.0	582.3	607.5	570.3	659.1	664.6
77.5°	2079.3	1347.9	432.1	383.9	383.9	411.2	503.4	544.0	485.8	512.2	469.3
80°	718.3	506.7	340.0	309.2	302.7	321.3	424.5	471.6	418.9	386.0	361.9
82.5°	282.9	263.2	273.1	240.2	218.2	230.3	330.2	389.3	308.2	278.6	277.5
85°	162.4	171.1	193.0	159.0	126.1	141.4	242.4	279.6	232.5	205.1	209.5
87.5°	43.9	60.3	88.9	82.2	57.0	60.3	115.1	154.7	133.8	103.1	106.4
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)