

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: P969457

Luminaire Tested: **NAV-SB5D-830-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46270.6 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

Input Watts (W): 364.9
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



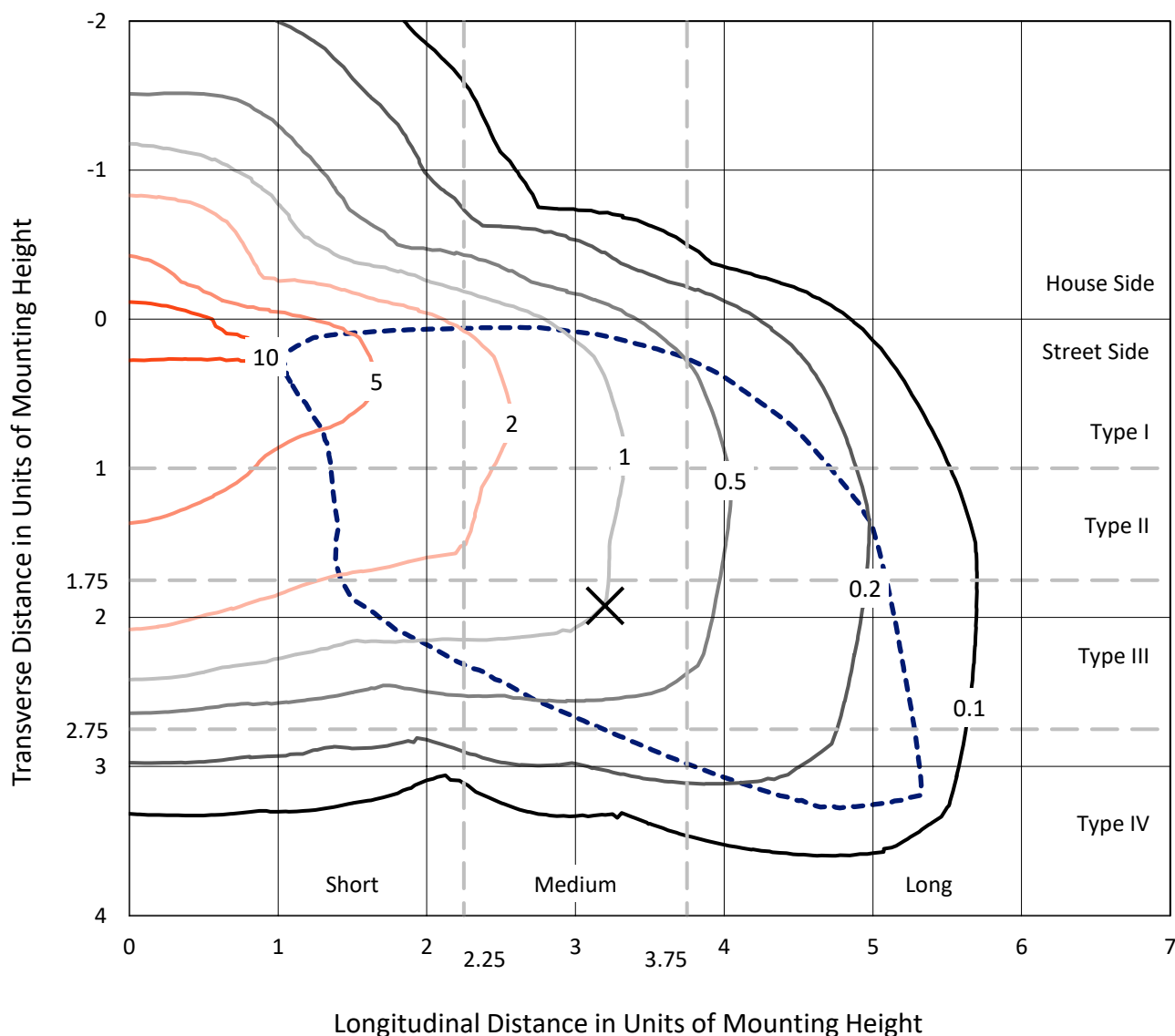
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

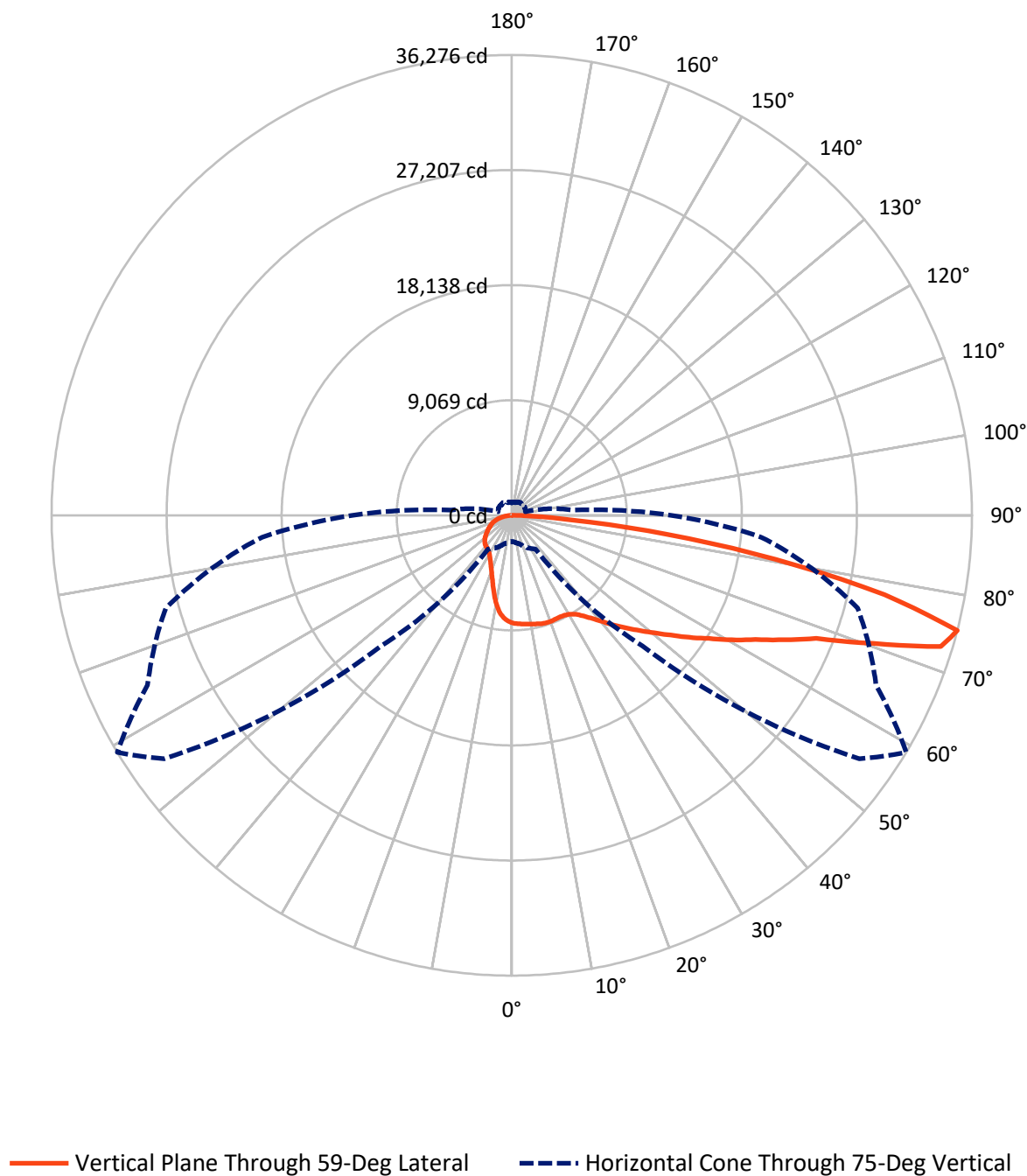
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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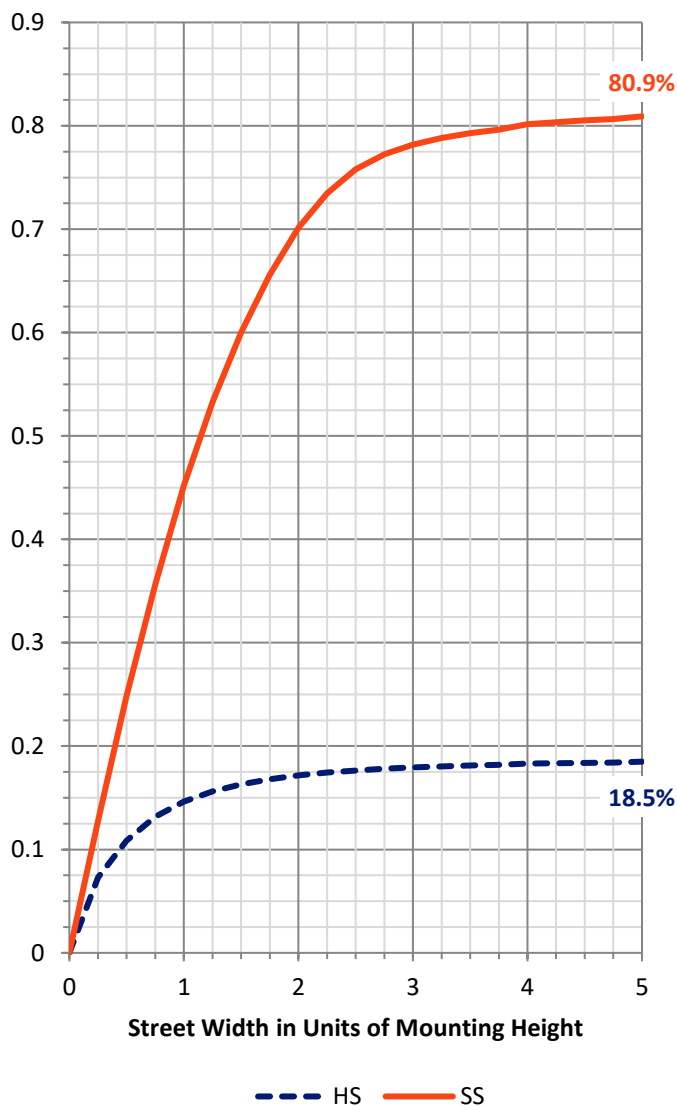
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8678.4	0.0	8678.4
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	37592.2	0.0	37592.2
	% Fixture	81.2	0.0	81.2
Total	Lumens	46270.6	0.0	46270.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	761.5	1.6
10°-20°	1946.5	4.2
20°-30°	2956.6	6.4
30°-40°	4394.9	9.5
40°-50°	6535.9	14.1
50°-60°	8871.8	19.2
60°-70°	10831.0	23.4
70°-80°	8500.0	18.4
80°-90°	1472.4	3.2
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°	46270.6	100.0
0°-180°	46270.6	100.0

Coefficient of Utilization



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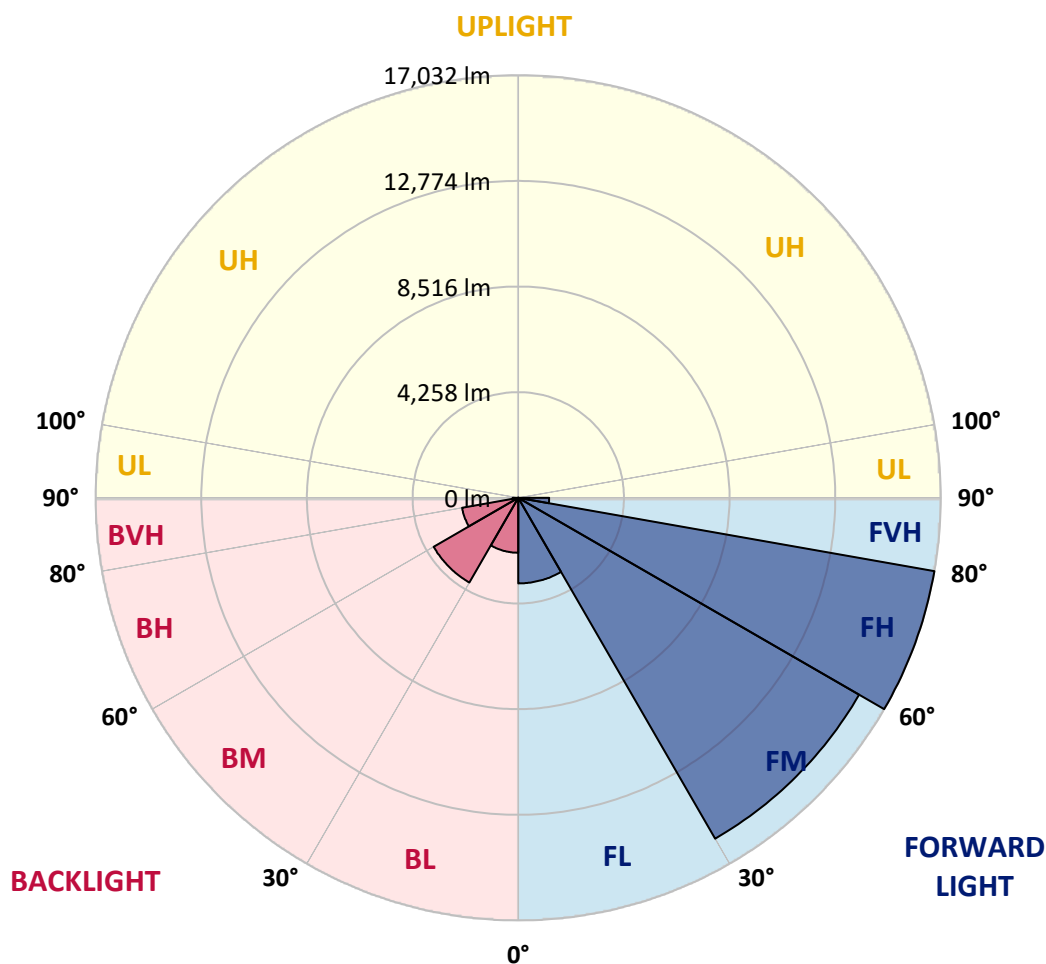
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3450.0	7.5			
FM	(30°-60°)	15863.5	34.3			
FH	(60°-80°)	17031.7	36.8			G5
FVH	(80°-90°)	1247.0	2.7			G5
BL	(0°-30°)	2214.6	4.8	B3/2500		
BM	(30°-60°)	3939.1	8.5	B3/5000		
BH	(60°-80°)	2299.2	5.0	B3/2500		G3/2500
BVH	(80°-90°)	225.4	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8
2.5°	8565.0	8535.2	8565.0	8552.6	8547.6	8537.6	8540.2	8557.6	8547.6	8560.1	8517.8
5°	8507.8	8490.4	8520.2	8512.7	8545.1	8550.1	8582.4	8602.4	8614.8	8617.3	8585.0
7.5°	8413.2	8395.8	8438.1	8473.0	8542.7	8562.5	8629.8	8662.1	8679.5	8709.4	8662.1
10°	8067.3	8059.8	8164.3	8296.2	8460.5	8562.5	8664.6	8719.4	8746.7	8826.4	8771.6
12.5°	7454.9	7464.9	7601.7	7855.6	8184.2	8512.7	8704.4	8784.0	8826.4	8926.0	8901.1
15°	6870.0	6867.5	7016.8	7288.2	7748.6	8293.7	8724.4	8861.2	8933.4	9080.3	9060.4
17.5°	6531.4	6521.5	6626.0	6832.6	7260.8	7957.7	8674.6	8903.6	9057.9	9242.1	9224.7
20°	6469.2	6449.3	6504.0	6606.1	6909.7	7589.3	8545.1	8903.6	9157.5	9396.4	9386.4
22.5°	6695.7	6663.3	6641.0	6628.5	6763.0	7285.6	8398.2	8873.7	9304.3	9618.0	9600.6
25°	7151.2	7101.4	6986.9	6875.0	6835.1	7148.8	8268.9	8866.2	9523.4	9916.7	9851.9
27.5°	7888.0	7825.8	7594.3	7325.5	7084.0	7218.5	8211.6	8911.0	9764.8	10232.8	10103.3
30°	8801.5	8734.3	8443.0	8029.8	7596.8	7477.3	8283.7	9043.0	10073.4	10653.4	10399.5
32.5°	9620.4	9545.7	9296.9	8876.2	8291.2	7925.3	8512.7	9294.4	10558.8	11238.3	10845.1
35°	10347.3	10260.1	10036.1	9647.8	9142.5	8555.1	8926.0	9739.9	11248.3	12189.2	11450.0
37.5°	11059.1	10957.0	10713.1	10302.5	9949.0	9393.9	9496.0	10312.4	12164.3	13344.2	12251.4
40°	11855.7	11708.8	11412.6	11006.9	10663.4	10377.1	10245.2	11014.3	13095.2	14633.5	13252.0
42.5°	12627.3	12487.9	12134.5	11788.4	11357.8	11275.7	11113.9	11835.8	14113.2	16049.8	14267.6
45°	13458.7	13291.9	12863.7	12425.7	12154.3	11873.1	11955.2	12657.1	15111.4	17493.5	15333.0
47.5°	14237.8	14051.0	13545.8	13057.9	12908.5	12375.8	12726.8	13560.6	16149.4	18957.1	16388.3
50°	14658.4	14474.2	14053.6	13612.9	13496.0	12995.7	13563.2	14553.9	17237.1	20415.7	17401.4
52.5°	15009.4	14810.2	14260.1	14016.2	13981.3	13670.2	14593.6	15688.9	18324.8	21705.1	18379.6
55°	15382.7	15161.2	14459.3	14240.2	14399.5	14426.9	15815.9	16975.7	19474.8	22962.0	19303.1
57.5°	15813.3	15532.0	14650.9	14429.4	14807.8	15313.0	17219.7	18309.9	20604.9	24127.0	20124.4
60°	16219.1	15935.3	15019.3	14730.6	15248.3	16341.1	18830.2	19925.4	21884.3	25165.0	20901.1
62.5°	16298.7	16064.7	15313.0	15310.5	15845.7	17540.8	20736.8	21555.7	23001.9	26190.5	21598.1
65°	14919.8	14772.9	14327.3	15288.2	16702.0	19268.3	22860.1	23641.6	24423.2	27086.5	22210.3
67.5°	11355.4	11375.2	11342.9	13197.3	16010.0	21749.9	25934.0	25874.4	26178.0	28092.2	22914.8
70°	5192.3	5309.3	6071.0	9110.2	12826.4	22036.2	31016.8	30242.7	28380.9	29393.9	23524.6
72.5°	2805.2	2894.8	3206.0	4413.2	7711.3	19591.8	34815.3	35365.4	31310.6	30270.1	22855.0
75°	2058.5	2108.3	2324.8	2805.2	3238.4	14561.4	33453.6	36276.4	31676.5	28226.6	19736.2
77.5°	1540.8	1563.1	1739.9	2222.8	1657.7	7676.4	26730.6	30043.6	27116.4	23191.0	14578.8
80°	1117.7	1142.5	1274.4	1667.7	1162.5	2807.7	18354.7	21087.7	18571.3	14782.9	7265.7
82.5°	771.6	781.6	838.9	1135.1	811.5	1090.2	10414.4	12365.9	10367.2	5187.3	1961.4
85°	465.5	478.0	502.8	662.2	460.5	517.7	4495.3	4649.7	3099.0	1239.5	609.9
87.5°	191.7	204.1	224.1	278.8	181.7	144.3	741.8	930.9	579.9	363.4	189.2
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°	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8	8492.8
2.5°	8505.3	8487.9	8440.6	8375.9	8316.1	8241.4	8209.1	8181.8	8156.8	8109.5	8087.1
5°	8557.6	8510.3	8383.4	8219.1	8032.4	7828.2	7629.2	7492.2	7375.3	7288.2	7215.9
7.5°	8637.3	8547.6	8316.1	7980.1	7552.0	7113.9	6718.2	6436.9	6225.2	6148.2	6013.7
10°	8719.4	8612.4	8209.1	7616.7	6877.4	6202.9	5677.7	5388.9	5219.7	5164.9	5080.3
12.5°	8816.4	8659.6	8042.4	7111.3	6123.2	5383.9	4925.9	4756.7	4669.6	4639.7	4647.1
15°	8958.3	8699.5	7790.9	6479.1	5403.9	4786.5	4490.3	4373.4	4328.6	4326.1	4336.1
17.5°	9065.3	8707.0	7400.1	5802.1	4851.3	4425.6	4181.7	4136.9	4166.7	4211.6	4229.0
20°	9184.8	8639.7	6887.4	5184.9	4463.0	4109.5	4007.4	4037.4	4109.5	4174.2	4196.7
22.5°	9269.5	8517.8	6267.6	4704.4	4127.0	3927.8	3922.9	3985.1	4024.9	4057.3	4074.7
25°	9344.1	8311.1	5610.4	4301.2	3850.6	3818.3	3873.1	3853.2	3825.8	3853.2	3870.6
27.5°	9398.9	7985.1	5023.0	3947.7	3656.5	3743.6	3711.2	3666.4	3664.0	3678.9	3703.8
30°	9381.5	7549.4	4540.1	3611.7	3519.6	3604.2	3527.0	3519.6	3512.2	3519.6	3547.0
32.5°	9381.5	7054.2	4169.3	3380.2	3432.5	3400.1	3392.6	3375.2	3345.4	3342.8	3375.2
35°	9433.8	6558.8	3850.6	3255.8	3360.3	3283.2	3288.1	3245.8	3183.5	3153.7	3183.5
37.5°	9540.8	6160.6	3534.5	3196.1	3233.4	3230.9	3210.9	3138.8	3029.3	2934.7	2967.1
40°	9799.6	6043.6	3318.0	3168.7	3173.6	3203.5	3151.3	3011.9	2762.9	2608.6	2628.5
42.5°	10205.4	6240.2	3270.7	3101.4	3133.8	3163.7	3061.6	2738.0	2561.3	2469.2	2469.2
45°	10720.6	6583.7	3372.8	3004.4	3039.2	3091.5	2787.8	2633.5	2553.8	2556.4	2568.8
47.5°	11372.8	6944.6	3561.9	2919.7	2902.3	2932.2	2606.1	2511.6	2402.0	2429.4	2499.1
50°	12127.0	7310.5	3741.1	2805.2	2750.5	2653.4	2489.1	2399.5	2260.1	2195.4	2212.9
52.5°	12943.4	7664.0	3813.3	2665.8	2586.2	2474.1	2409.5	2299.9	2130.7	2023.7	2021.2
55°	13717.5	7985.1	3733.7	2499.1	2421.9	2334.7	2324.8	2257.7	2075.9	1926.6	1926.6
57.5°	14449.3	8253.9	3534.5	2329.8	2255.1	2202.8	2270.1	2237.7	2008.7	1817.0	1807.1
60°	15069.1	8438.1	3245.8	2158.0	2105.8	2078.4	2180.5	2170.5	1914.1	1700.1	1692.6
62.5°	15562.0	8510.3	2927.2	1993.8	1981.3	1931.5	2056.0	2056.0	1794.7	1585.6	1578.1
65°	15947.8	8440.6	2603.6	1832.0	1856.9	1782.2	1904.1	1889.3	1667.7	1483.5	1473.5
67.5°	16288.8	8211.6	2245.2	1672.7	1729.9	1635.4	1744.9	1710.0	1528.3	1381.5	1371.6
70°	16440.6	7678.9	1837.0	1513.4	1583.1	1491.0	1585.6	1520.9	1371.6	1271.9	1252.0
72.5°	15220.9	6382.1	1446.2	1346.6	1406.3	1331.7	1413.8	1339.2	1202.2	1157.4	1120.1
75°	12592.4	4789.0	1112.6	1164.9	1209.7	1152.5	1207.2	1152.5	1028.0	1060.4	968.2
77.5°	9145.0	3233.4	851.3	973.2	993.1	963.3	1010.5	948.3	836.3	828.9	791.5
80°	4547.6	1894.2	667.1	769.2	761.7	741.8	796.5	766.6	672.1	711.9	704.4
82.5°	1316.7	811.5	485.3	540.2	525.2	530.1	570.0	585.0	876.2	868.7	888.6
85°	413.2	318.6	291.2	301.1	286.3	293.8	336.0	667.1	617.3	360.9	390.8
87.5°	107.0	109.5	72.2	77.2	79.6	94.6	107.0	405.7	194.1	126.9	134.4
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)