

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: P967192

Luminaire Tested: **NAV-SB4D-735-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967192
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41549.4 lumens
Efficiency: N/A
Efficacy: 141.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G4

Input Watts (W): 293.6
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



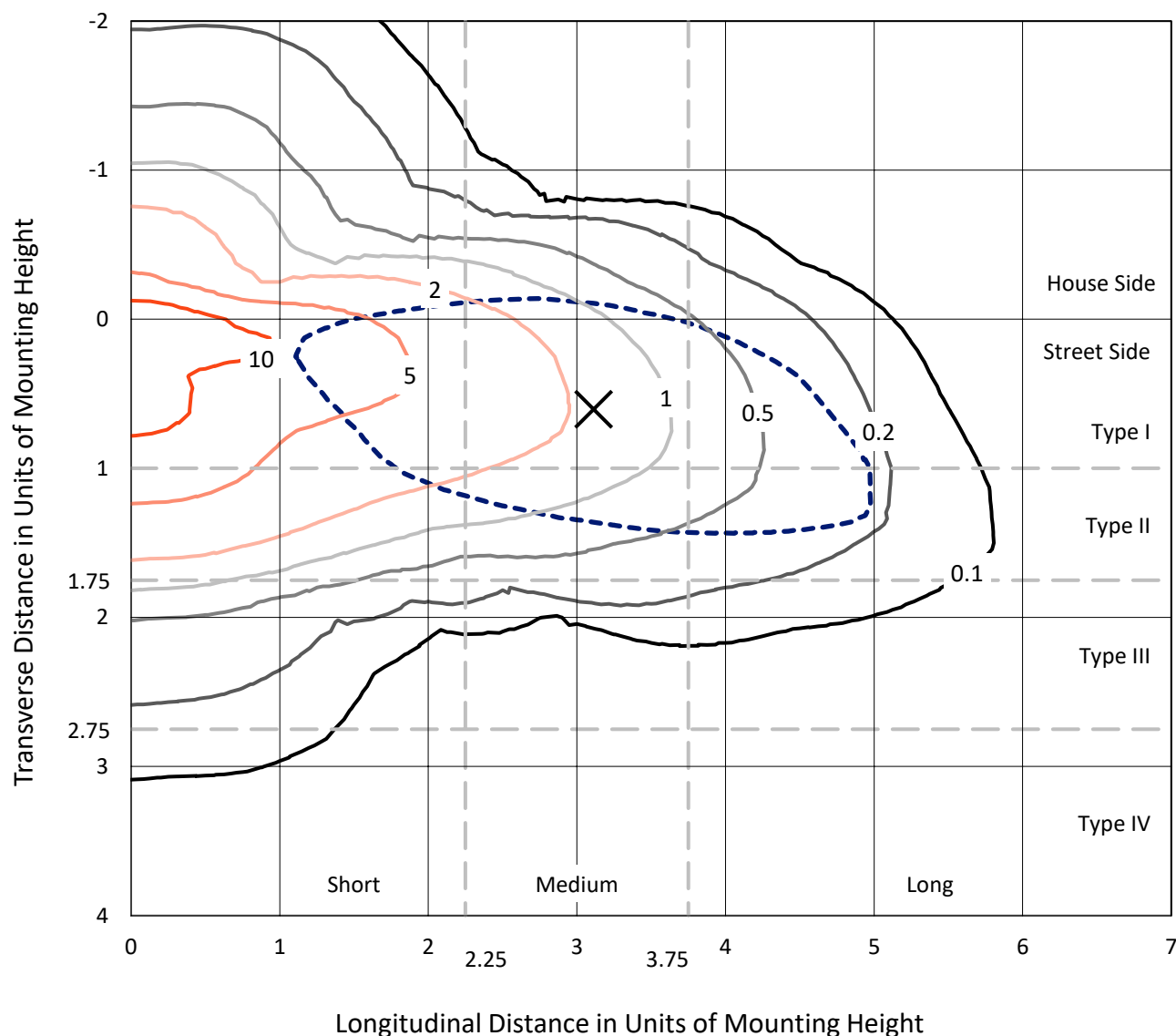
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

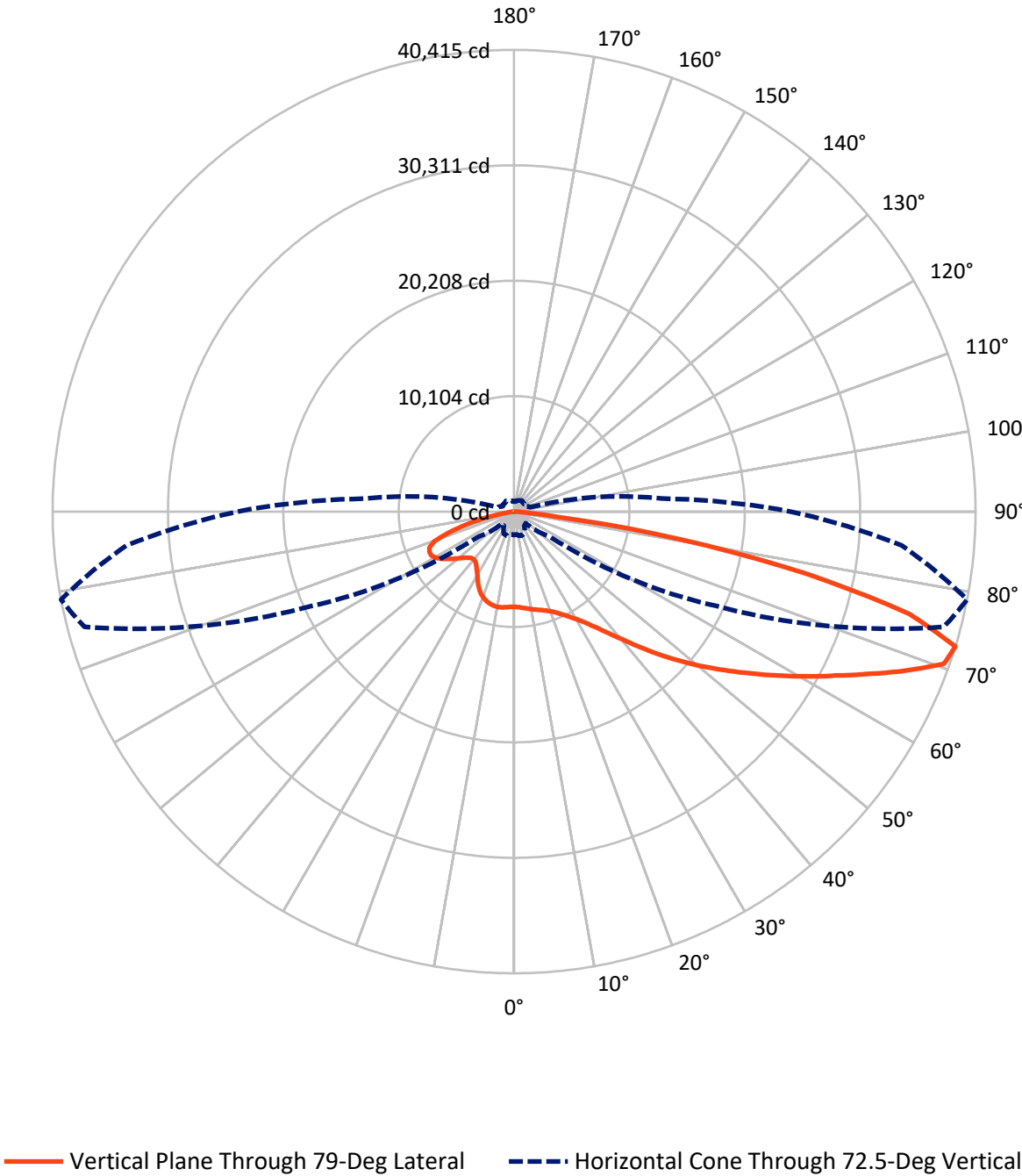
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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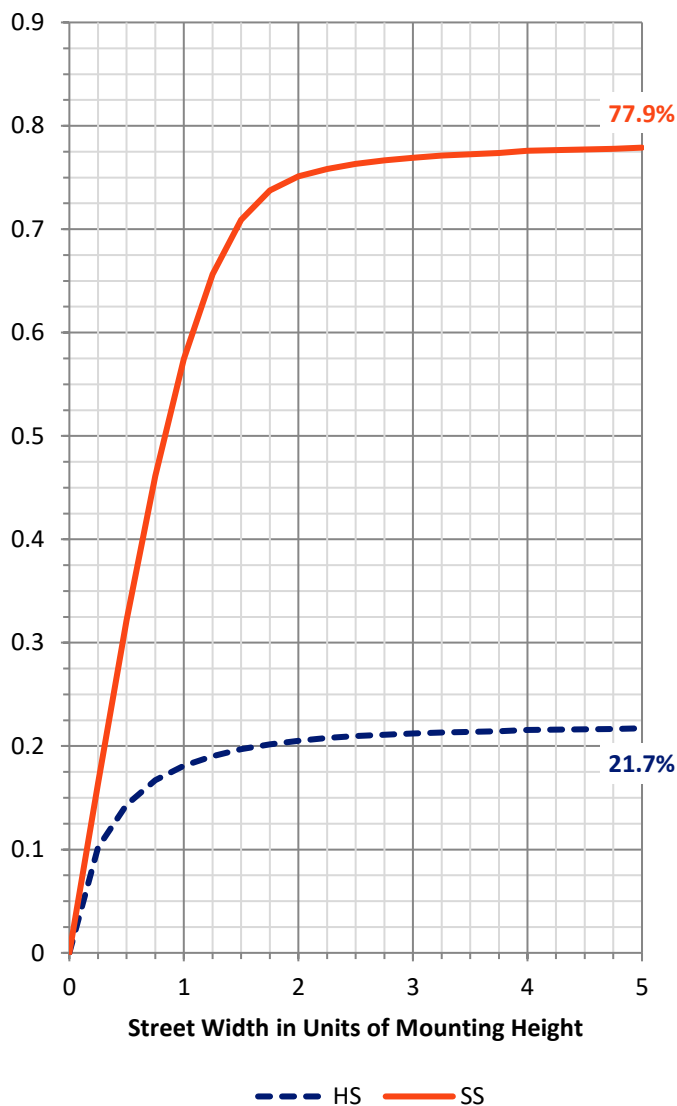
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9143.2	0.0	9143.2
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	32406.2	0.0	32406.2
	% Fixture	78.0	0.0	78.0
Total	Lumens	41549.4	0.0	41549.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	757.1	1.8
10°-20°	1979.4	4.8
20°-30°	3194.0	7.7
30°-40°	4793.7	11.5
40°-50°	6800.1	16.4
50°-60°	8587.6	20.7
60°-70°	8721.9	21.0
70°-80°	5944.4	14.3
80°-90°	771.2	1.9
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°	41549.4	100.0
0°-180°	41549.4	100.0

Coefficient of Utilization



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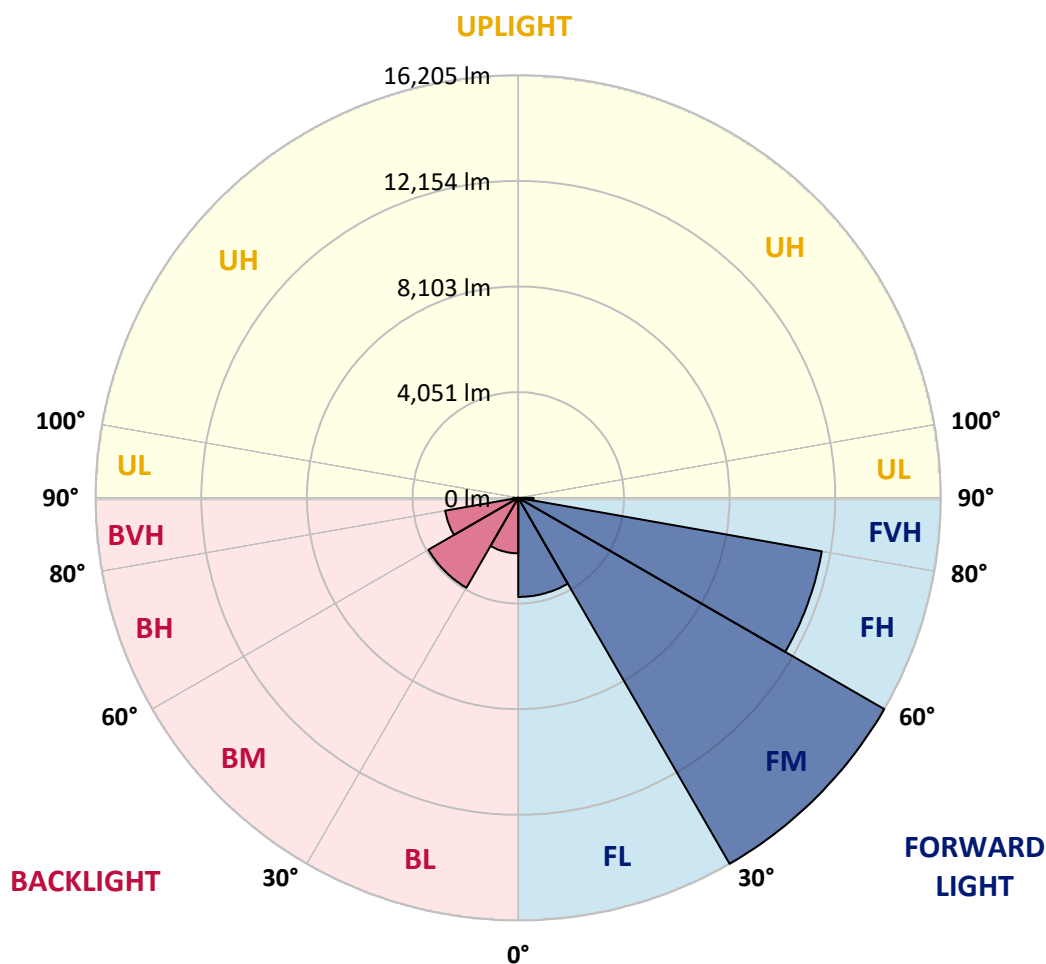
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3800.8	9.1			
FM	(30°-60°)	16205.1	39.0			
FH	(60°-80°)	11819.4	28.4			G4/12000
FVH	(80°-90°)	581.0	1.4			G4/750
BL	(0°-30°)	2129.7	5.1	B3/2500		
BM	(30°-60°)	3976.3	9.6	B3/5000		
BH	(60°-80°)	2846.9	6.9	B4/5000		G4/5000
BVH	(80°-90°)	190.3	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6
2.5°	8345.0	8305.5	8329.7	8320.8	8331.8	8345.0	8349.4	8356.0	8378.0	8375.8	8373.6
5°	8327.5	8287.9	8320.8	8309.9	8338.5	8369.2	8395.6	8419.8	8454.9	8470.3	8448.4
7.5°	8290.1	8263.8	8296.7	8329.7	8382.4	8428.6	8465.9	8520.8	8571.5	8580.2	8595.5
10°	8072.5	8052.7	8129.7	8215.4	8360.4	8485.7	8567.1	8630.8	8685.7	8694.5	8716.5
12.5°	7846.2	7822.0	7907.7	8024.2	8259.3	8485.7	8657.2	8740.7	8789.0	8817.6	8850.6
15°	7808.8	7789.0	7837.4	7938.4	8134.1	8426.3	8718.6	8872.5	8914.3	8947.2	8960.4
17.5°	7989.0	7951.6	7971.4	8006.6	8120.9	8371.4	8767.0	9021.9	9085.7	9120.9	9120.9
20°	8406.5	8353.9	8323.1	8252.7	8233.0	8380.2	8762.6	9202.1	9285.7	9329.7	9340.6
22.5°	8962.6	8927.4	8861.5	8683.5	8490.1	8487.9	8846.2	9433.0	9589.0	9630.8	9604.4
25°	9635.1	9582.4	9498.9	9257.1	8885.7	8701.1	8986.8	9727.5	9989.0	10000.0	9923.0
27.5°	10408.8	10329.6	10215.4	9896.7	9395.6	9035.2	9202.1	10065.9	10448.3	10443.9	10285.7
30°	11224.2	11145.0	11024.2	10637.3	10006.6	9485.7	9501.1	10430.7	10993.4	10969.2	10698.8
32.5°	11819.8	11760.4	11736.2	11437.4	10709.9	10017.5	9843.9	10835.2	11665.9	11643.9	11265.9
35°	12276.9	12200.0	12228.6	12076.9	11476.9	10613.2	10263.7	11316.5	12483.5	12481.3	12010.9
37.5°	12729.7	12661.5	12685.7	12584.6	12186.8	11369.2	10775.8	11905.5	13496.7	13545.1	12912.0
40°	13142.9	13070.3	13167.0	13072.5	12738.4	12173.6	11358.2	12571.4	14670.3	14762.7	14002.2
42.5°	13391.2	13334.0	13494.5	13496.7	13217.6	12852.7	11997.8	13305.5	16028.5	16235.2	15342.8
45°	13476.9	13457.1	13698.9	13749.5	13641.7	13246.2	12573.6	14105.4	17492.2	17861.5	16870.3
47.5°	13384.6	13347.2	13681.3	13868.1	13953.8	13430.8	13050.5	14971.5	18986.8	19527.5	18536.2
50°	12918.7	12846.1	13342.8	13736.2	14041.8	13551.6	13531.8	15971.4	20685.7	21276.8	20210.9
52.5°	12081.3	12026.3	12591.2	13274.7	13848.4	13611.0	14072.5	17063.7	22298.9	23063.7	21927.4
55°	11011.0	10938.5	11560.5	12452.7	13367.0	13591.2	14613.1	18285.7	24202.2	24978.0	23701.1
57.5°	9314.3	9169.2	9956.0	11011.0	12582.4	13567.0	15175.8	19501.0	26136.3	27065.9	25593.3
60°	6839.5	6624.2	7589.0	8839.5	11048.4	13331.9	15872.5	20863.7	28457.1	29294.5	27659.3
62.5°	3982.4	3857.2	4487.9	5654.9	8327.5	11947.2	16263.7	22448.3	30738.4	31617.6	29690.0
65°	3092.3	3057.2	3112.1	3202.2	4635.2	8945.1	15057.1	23993.4	33639.5	34254.9	31806.6
67.5°	2828.6	2802.1	2826.3	2657.1	2351.7	4982.4	11912.0	24384.5	36747.2	37120.8	33659.3
70°	2514.3	2483.5	2562.6	2417.6	1850.5	2266.0	7696.7	22964.8	39219.7	39920.8	35068.1
72.5°	2048.4	2013.2	2197.8	2131.9	1558.2	1455.0	3865.9	19591.1	38960.4	40415.3	34059.3
75°	1573.6	1553.8	1773.7	1828.6	1270.3	1145.0	1854.9	14562.6	34285.6	35751.6	29353.8
77.5°	1222.0	1206.6	1318.7	1518.6	1024.2	888.0	1140.6	9237.3	25837.3	26094.4	20228.6
80°	916.5	872.5	975.8	1175.8	797.8	648.3	773.7	5386.8	16331.8	14804.4	8804.3
82.5°	573.6	551.7	637.3	784.6	562.6	446.2	503.3	2975.8	6545.0	3854.9	1698.9
85°	327.5	318.7	347.3	448.3	305.4	257.2	287.9	1314.3	1195.6	821.9	512.1
87.5°	131.9	127.5	158.3	200.0	112.1	94.5	101.1	316.5	263.7	244.0	169.2
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°	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6	8340.6
2.5°	8364.8	8364.8	8334.1	8285.7	8230.8	8195.6	8138.5	8123.0	8063.7	8046.1	8074.7
5°	8465.9	8448.4	8353.9	8217.5	8030.8	7859.3	7670.3	7551.7	7384.6	7325.3	7369.2
7.5°	8593.4	8545.0	8382.4	8083.5	7692.3	7307.6	6907.7	6604.4	6314.3	6211.0	6224.2
10°	8709.8	8641.8	8364.8	7841.8	7164.9	6498.9	5861.6	5415.4	5076.9	4938.4	4969.2
12.5°	8826.4	8701.1	8248.4	7439.6	6415.4	5512.0	4833.0	4485.7	4276.9	4109.8	4164.8
15°	8936.3	8760.5	8068.1	6901.1	5593.4	4676.9	4175.8	3898.9	3731.8	3621.9	3641.7
17.5°	9063.8	8811.0	7797.8	6217.5	4810.9	4098.9	3690.1	3523.0	3490.1	3476.9	3485.7
20°	9241.7	8857.1	7441.7	5452.7	4235.2	3637.3	3426.4	3411.0	3408.7	3402.2	3424.2
22.5°	9433.0	8912.1	6971.4	4758.3	3745.0	3349.5	3312.1	3281.3	3261.5	3259.3	3283.5
25°	9659.3	8929.7	6382.4	4189.0	3327.5	3213.2	3169.2	3123.1	3109.8	3109.8	3123.1
27.5°	9879.2	8870.3	5696.7	3694.5	3092.3	3087.9	3030.7	3015.3	3013.2	3019.8	3037.4
30°	10098.9	8758.2	5015.4	3237.4	2956.0	2956.0	2936.2	2947.3	2956.0	2978.0	2993.4
32.5°	10395.6	8639.5	4446.1	2898.9	2837.4	2815.4	2835.1	2857.2	2865.9	2894.5	2918.7
35°	10830.8	8556.0	3993.4	2714.3	2714.3	2685.7	2696.7	2692.3	2672.5	2659.4	2690.1
37.5°	11406.6	8551.7	3619.8	2628.6	2611.0	2606.6	2608.8	2580.2	2503.3	2411.0	2413.2
40°	12098.9	8670.3	3331.9	2569.3	2556.0	2582.4	2569.3	2492.3	2281.3	2120.8	2116.5
42.5°	13028.6	9008.8	3147.3	2496.7	2536.3	2569.3	2516.5	2250.6	2107.7	2000.0	1995.6
45°	14123.1	9558.2	3052.8	2419.8	2498.8	2538.4	2283.5	2167.1	2052.8	1923.1	1914.3
47.5°	15362.6	10250.5	3030.7	2347.2	2415.4	2439.6	2184.6	2131.9	2002.2	1861.5	1850.5
50°	16712.1	11070.3	3090.1	2261.6	2294.5	2211.0	2151.7	2103.3	1969.2	1830.8	1815.4
52.5°	18107.6	11973.6	3208.8	2145.0	2173.6	2081.4	2138.5	2096.7	1949.4	1762.6	1749.5
55°	19479.1	12883.5	3323.0	2008.8	2050.5	1964.8	2101.0	2070.3	1859.4	1648.3	1637.3
57.5°	20872.5	13789.0	3435.2	1887.9	1931.8	1852.8	2041.8	2000.0	1758.3	1542.8	1538.4
60°	22320.8	14668.2	3487.9	1771.4	1802.2	1749.5	1951.6	1879.1	1644.0	1435.2	1428.5
62.5°	23676.9	15400.0	3402.2	1655.0	1674.7	1652.7	1833.0	1736.2	1529.7	1314.3	1312.1
65°	25037.4	15835.1	3138.4	1540.7	1545.1	1534.0	1665.9	1582.4	1395.6	1208.8	1195.6
67.5°	26270.3	16079.1	2718.7	1417.6	1406.6	1402.2	1509.9	1415.4	1266.0	1103.3	1090.1
70°	26531.8	15459.4	2077.0	1272.5	1272.5	1261.6	1338.4	1241.8	1123.1	991.2	986.8
72.5°	24232.9	13004.4	1474.8	1107.7	1125.2	1103.3	1167.1	1085.7	978.1	890.1	863.8
75°	19540.6	9536.3	1072.6	938.5	969.2	931.8	991.2	934.1	841.7	839.6	756.0
77.5°	13426.4	5896.7	778.0	773.7	795.6	747.2	815.4	784.6	701.1	663.7	622.0
80°	5729.6	2351.7	567.0	597.8	597.8	553.8	632.9	641.8	569.2	551.7	551.7
82.5°	1140.6	668.1	397.8	411.0	386.8	373.6	448.3	496.7	685.7	762.6	764.9
85°	342.9	246.1	239.5	224.2	197.8	200.0	263.7	498.9	615.4	351.7	303.3
87.5°	94.5	61.5	63.8	50.5	41.7	54.9	90.1	378.0	206.6	87.9	74.7
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)