

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: P963066

Luminaire Tested: **NAV-SB2D-760-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963066
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-760-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22444.4 lumens
Efficiency: N/A
Efficacy: 152.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

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

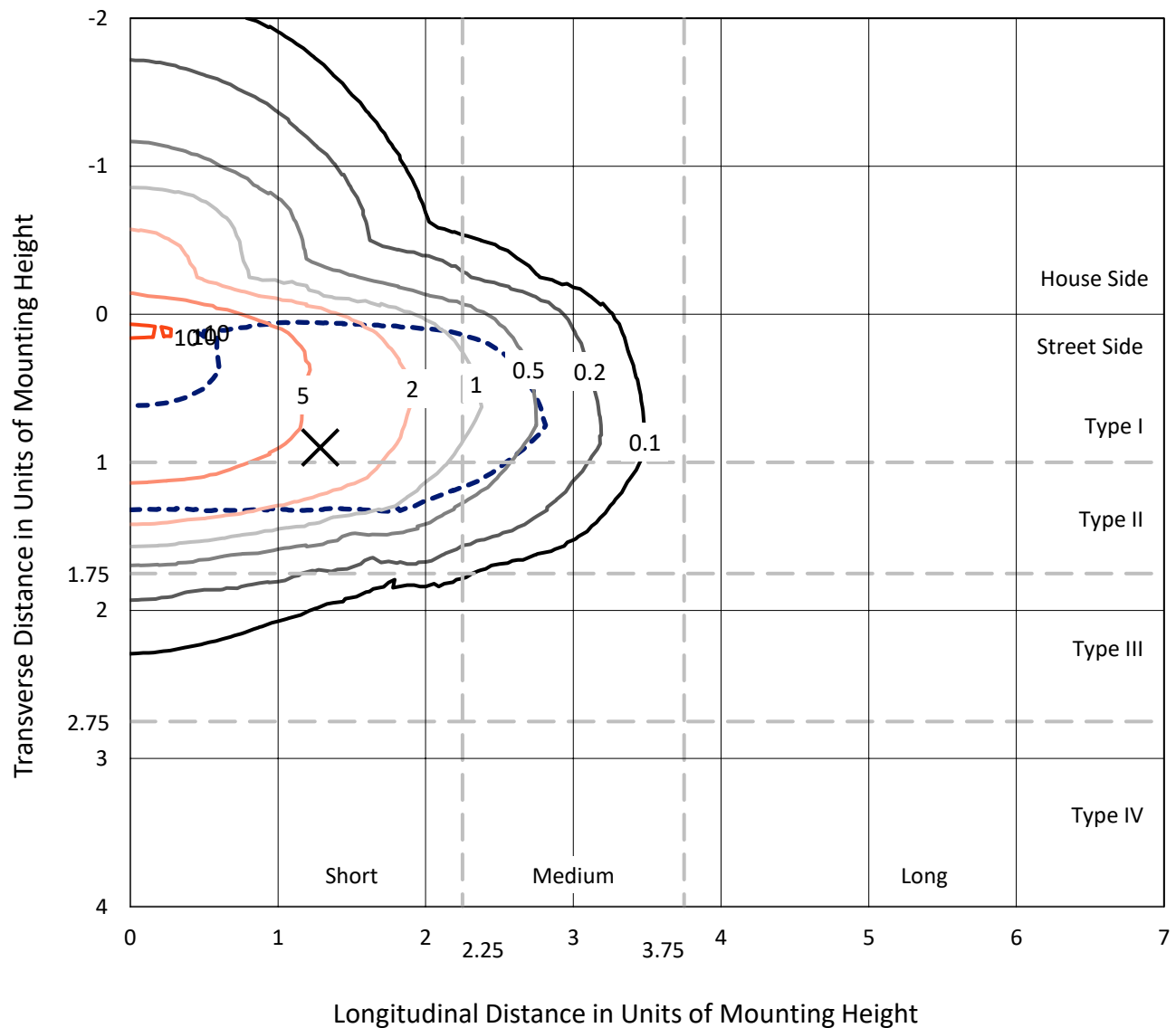


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Iso-Footcandle Lines of Horizontal Illumination

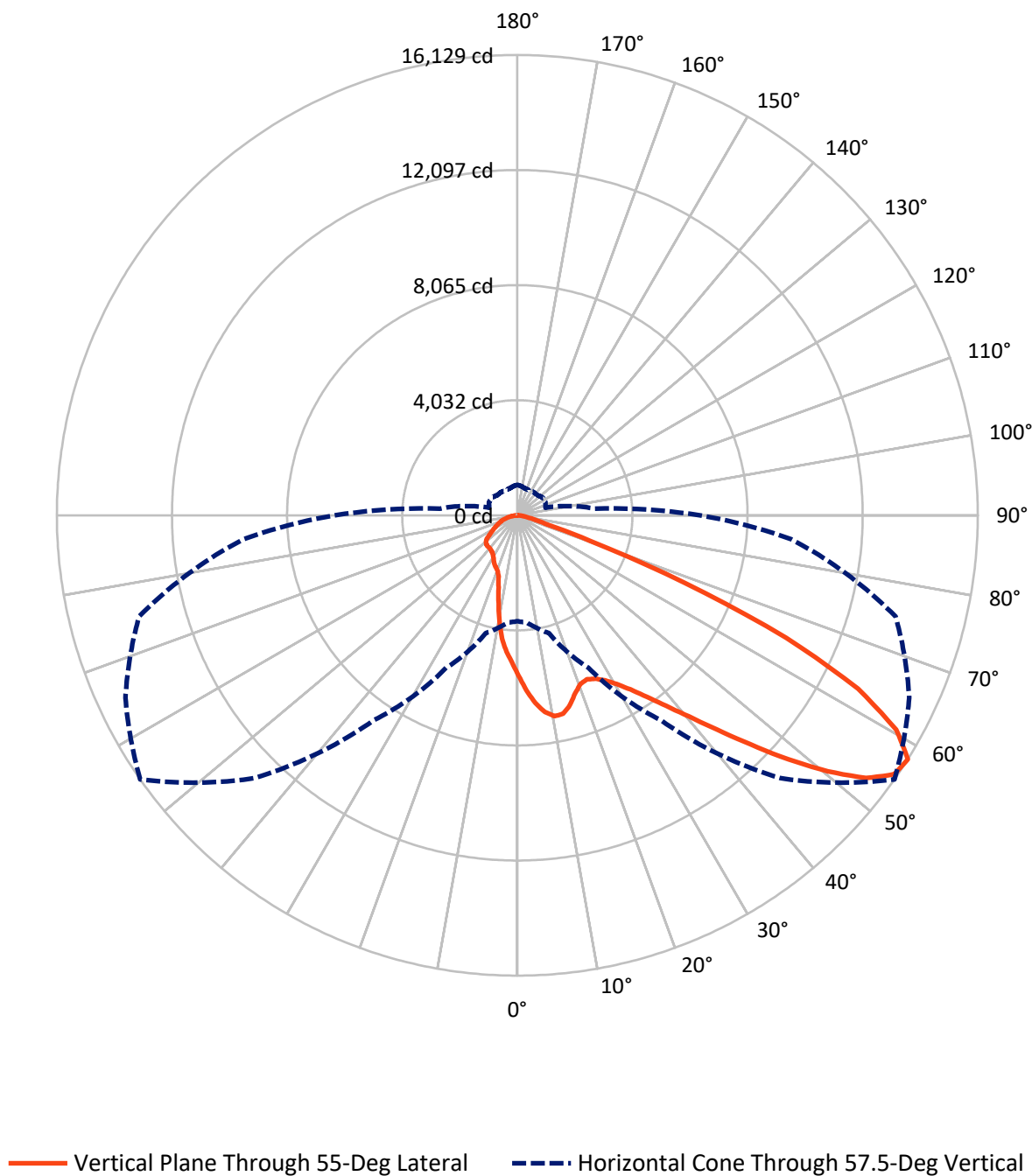
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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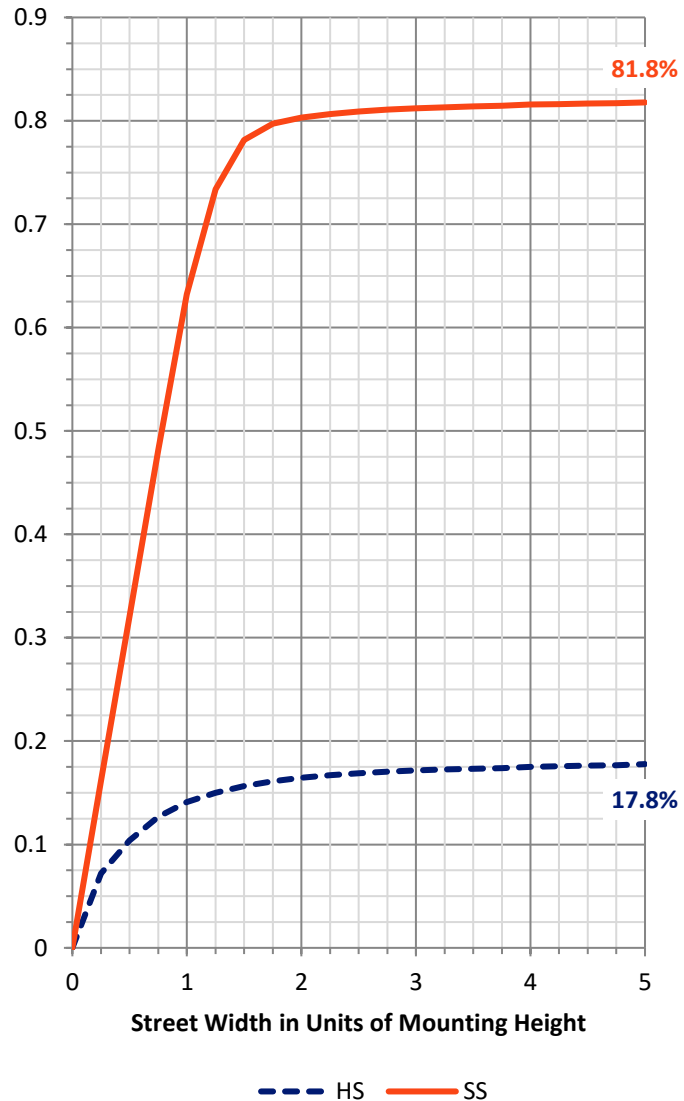
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4061.2	0.0	4061.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	18383.2	0.0	18383.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	22444.4	0.0	22444.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	521.9	2.3
10°-20°	1317.2	5.9
20°-30°	2101.9	9.4
30°-40°	3327.8	14.8
40°-50°	5093.5	22.7
50°-60°	5455.6	24.3
60°-70°	3432.2	15.3
70°-80°	1015.0	4.5
80°-90°	179.5	0.8
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°	22444.4	100.0
0°-180°	22444.4	100.0

Coefficient of Utilization



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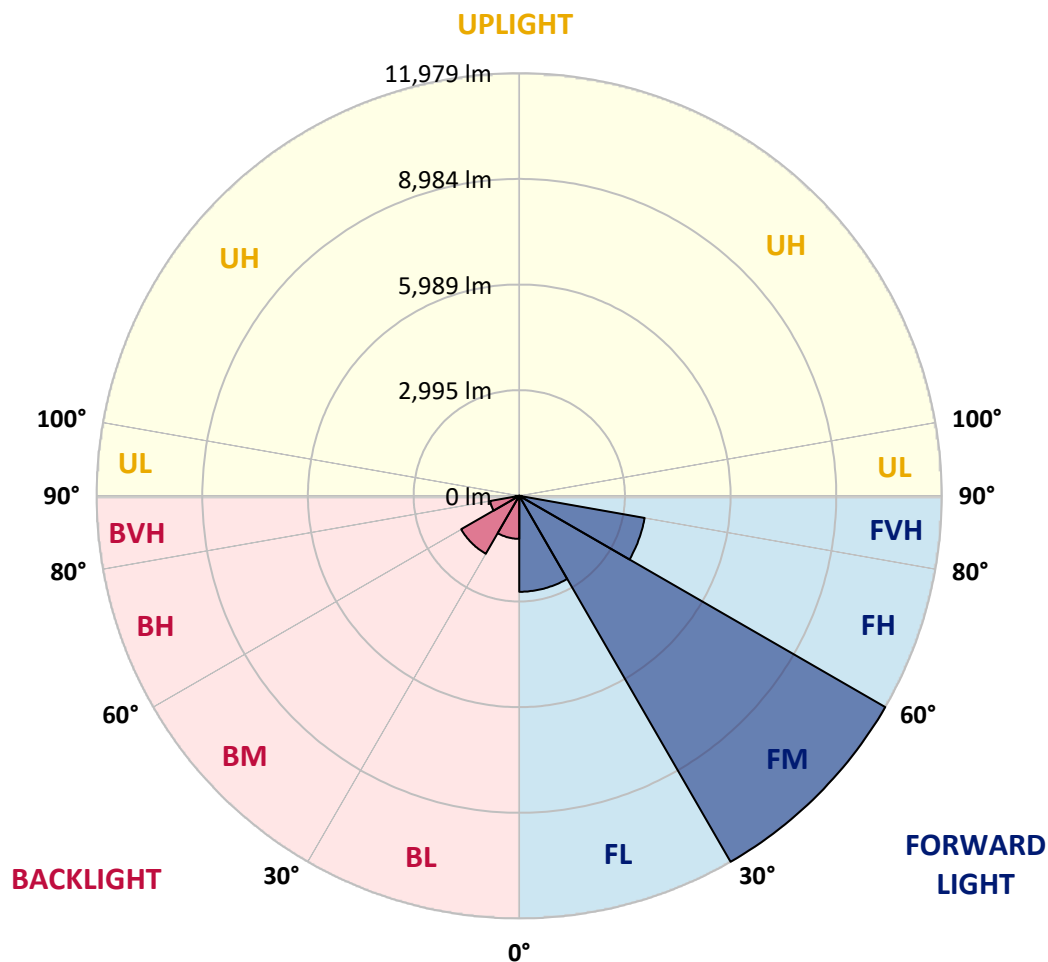
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2720.3	12.1			
FM	(30°-60°)	11978.8	53.4			
FH	(60°-80°)	3608.4	16.1			G2/5000
FVH	(80°-90°)	75.8	0.3			G1/100
BL	(0°-30°)	1220.7	5.4	B3/2500		
BM	(30°-60°)	1898.2	8.5	B2/2500		
BH	(60°-80°)	838.7	3.7	B2/1000		G2/1000
BVH	(80°-90°)	103.6	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-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9
2.5°	6452.3	6447.7	6473.2	6386.2	6327.0	6246.9	6141.3	6006.7	5861.7	5708.5	5642.4
5°	7033.6	6993.0	7019.6	6954.7	6889.7	6769.0	6612.4	6393.1	6125.1	5820.0	5657.5
7.5°	6941.9	6914.0	6982.5	7040.5	7089.3	7074.1	6959.3	6729.5	6383.8	5940.6	5705.0
10°	6202.8	6171.5	6267.8	6468.6	6763.3	7019.6	7158.9	7016.1	6648.4	6072.9	5751.5
12.5°	5550.8	5535.6	5599.5	5761.9	6089.1	6581.1	7133.4	7266.8	6923.4	6229.5	5814.1
15°	5272.3	5253.7	5294.3	5376.7	5585.5	6043.9	6901.3	7438.5	7193.7	6410.6	5913.9
17.5°	5210.8	5189.9	5207.3	5250.3	5384.8	5734.1	6550.9	7523.2	7475.6	6612.4	5997.5
20°	5324.5	5307.0	5309.4	5307.0	5401.0	5678.4	6307.2	7490.7	7721.6	6798.0	6078.7
22.5°	5599.5	5570.5	5571.6	5510.1	5561.2	5775.9	6243.5	7403.7	7940.9	6960.5	6140.2
25°	6047.3	5995.1	6005.6	5849.0	5835.0	5994.0	6343.2	7336.4	8159.0	7090.4	6151.7
27.5°	6659.9	6600.8	6569.4	6336.2	6224.8	6303.7	6546.3	7359.6	8365.5	7203.0	6122.7
30°	7425.7	7353.9	7290.0	6959.3	6757.4	6728.4	6861.9	7512.7	8609.2	7321.4	6072.9
32.5°	8364.4	8280.9	8164.8	7726.2	7442.0	7290.0	7270.2	7785.4	8894.6	7472.1	6047.3
35°	9481.8	9372.7	9207.9	8640.5	8280.9	7969.9	7808.7	8178.8	9285.7	7699.6	6076.3
37.5°	10632.7	10509.7	10359.0	9683.7	9241.6	8783.2	8465.4	8712.5	9806.6	8008.2	6153.0
40°	11694.4	11556.4	11415.9	10814.9	10340.4	9788.0	9269.4	9387.8	10443.6	8377.2	6282.8
42.5°	12320.9	12218.8	12165.4	11840.6	11474.0	10913.5	10269.6	10188.4	11159.5	8801.9	6431.4
45°	12293.1	12251.3	12416.1	12550.7	12463.7	12152.7	11441.5	11073.7	11877.7	9169.6	6568.3
47.5°	11636.4	11664.2	12032.1	12788.5	13121.5	13284.0	12775.8	11942.7	12501.9	9444.7	6629.8
50°	9849.5	9872.8	10724.4	12355.8	13291.0	14206.4	14099.6	12790.9	12985.8	9612.9	6615.9
52.5°	8435.2	8450.3	8815.7	11072.5	12731.6	14670.5	15292.4	13590.3	13339.7	9659.3	6538.2
55°	6353.7	6405.8	6815.4	8687.0	11276.7	14302.6	16018.7	14414.1	13563.6	9663.9	6456.9
57.5°	3711.7	3768.6	4274.5	5896.5	8764.7	13020.6	16129.0	15145.1	13715.6	9626.8	6408.2
60°	1818.1	1842.5	2062.9	3099.1	5404.5	10550.3	15242.5	15498.9	13800.3	9607.0	6405.8
62.5°	1225.3	1221.8	1231.0	1529.2	2662.8	6778.3	13395.3	14879.3	13755.1	9531.7	6382.7
65°	1053.5	1040.8	1005.9	1073.3	1379.5	3100.2	10349.6	13029.9	13410.5	9342.6	6223.7
67.5°	910.8	911.9	913.2	892.3	985.0	1430.6	6324.7	10263.7	12173.6	8446.8	5611.1
70°	754.2	764.6	769.3	769.3	802.9	938.7	2700.0	7034.8	9602.4	6622.8	4519.2
72.5°	686.9	664.8	667.2	655.6	655.6	714.7	1087.2	3987.9	6049.7	3725.7	2758.0
75°	560.4	574.3	576.7	568.6	541.8	545.3	645.1	1673.1	2588.5	1545.5	1363.4
77.5°	483.8	483.8	488.5	482.7	461.8	408.5	430.5	648.6	880.7	633.6	681.1
80°	388.7	387.6	407.2	418.8	386.3	301.7	275.0	358.5	391.0	278.5	353.9
82.5°	189.1	200.7	279.6	319.1	293.6	218.1	168.2	222.7	208.9	123.0	159.0
85°	110.2	104.4	125.4	177.5	168.2	120.6	81.2	116.0	109.1	62.6	63.9
87.5°	34.8	32.5	25.5	60.4	48.7	33.6	22.0	33.6	30.1	13.9	13.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9	5623.9
2.5°	5560.0	5423.1	5287.4	5163.2	5087.8	5039.1	4990.3	4935.8	4914.9	4883.6
5°	5504.4	5239.8	5004.3	4801.2	4616.7	4471.7	4325.5	4207.1	4153.8	4189.8
7.5°	5471.9	5088.9	4725.8	4353.4	3994.8	3708.2	3458.8	3283.6	3204.7	3224.4
10°	5442.9	4918.4	4365.0	3776.7	3261.5	2906.5	2651.3	2517.8	2467.9	2478.3
12.5°	5416.2	4727.0	3929.8	3156.0	2608.3	2373.9	2300.8	2301.9	2311.3	2318.2
15°	5411.5	4496.1	3443.7	2612.9	2255.6	2240.4	2319.4	2369.3	2395.9	2404.0
17.5°	5404.5	4219.9	2948.2	2242.8	2169.7	2271.8	2344.9	2377.4	2398.3	2399.4
20°	5376.7	3869.5	2491.1	2066.4	2151.2	2239.3	2284.6	2310.1	2327.5	2333.3
22.5°	5290.8	3479.7	2134.9	1987.6	2076.9	2147.7	2201.1	2230.1	2240.4	2247.4
25°	5136.5	3043.4	1889.0	1912.1	1973.6	2062.9	2105.9	2111.7	2108.2	2118.7
27.5°	4934.7	2575.8	1735.7	1810.0	1889.0	1965.5	1988.7	1985.2	1978.2	1989.8
30°	4691.0	2155.8	1638.3	1695.1	1803.1	1872.7	1893.6	1885.5	1871.5	1884.3
32.5°	4433.4	1812.3	1558.2	1615.1	1732.2	1800.7	1821.6	1813.5	1803.1	1813.5
35°	4193.3	1572.1	1484.0	1561.7	1676.6	1743.9	1770.6	1771.7	1771.7	1784.5
37.5°	3972.8	1431.8	1422.5	1528.1	1638.3	1698.6	1737.0	1739.2	1689.4	1692.8
40°	3768.6	1372.6	1394.6	1506.0	1601.2	1659.2	1661.5	1531.6	1439.9	1437.6
42.5°	3601.4	1361.0	1402.8	1503.7	1574.5	1576.9	1413.2	1312.3	1286.8	1287.9
45°	3444.8	1357.5	1421.4	1503.7	1535.0	1362.1	1251.9	1225.3	1227.5	1236.9
47.5°	3269.6	1343.6	1424.9	1482.9	1421.4	1211.3	1178.9	1167.3	1162.6	1164.9
50°	3078.2	1293.8	1380.7	1441.0	1226.4	1146.4	1105.8	1102.3	1108.0	1111.5
52.5°	2876.4	1212.5	1305.3	1365.6	1137.0	1089.5	1044.3	1052.4	1077.9	1086.0
55°	2744.0	1117.4	1205.5	1214.8	1074.4	1036.2	997.8	1016.4	1063.9	1079.0
57.5°	2709.3	1016.4	1091.8	1081.4	994.4	989.7	966.5	982.8	1043.0	1065.2
60°	2698.8	925.9	980.4	972.3	916.7	938.7	932.9	941.0	961.9	968.8
62.5°	2617.5	853.9	880.7	869.0	847.0	885.3	899.2	881.8	898.0	906.2
65°	2411.0	795.9	783.2	775.1	784.3	819.2	847.0	812.2	827.3	850.4
67.5°	2069.9	717.1	682.2	691.6	720.6	739.1	775.1	735.6	748.4	787.8
70°	1674.2	617.3	585.9	612.6	640.4	678.8	684.6	657.8	688.1	732.2
72.5°	1184.6	516.3	494.3	548.8	558.1	608.0	595.2	582.5	624.2	639.3
75°	821.4	416.6	403.7	445.6	479.2	522.1	512.8	527.9	616.1	623.1
77.5°	519.8	323.7	315.6	342.2	388.7	436.2	451.3	623.1	1052.4	1094.2
80°	301.7	241.4	232.1	253.0	293.6	337.6	435.1	764.6	693.8	685.7
82.5°	168.2	165.9	154.4	160.1	196.1	243.6	614.9	538.3	437.5	451.3
85°	78.9	97.5	83.5	80.1	110.2	285.5	410.7	307.5	204.2	199.6
87.5°	20.9	18.6	18.6	20.9	46.4	246.0	163.6	131.1	77.7	75.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)