

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: P964172

Luminaire Tested: **NAV-SB3B-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964172
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15459 lumens
Efficiency: N/A
Efficacy: 141.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 109.2
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



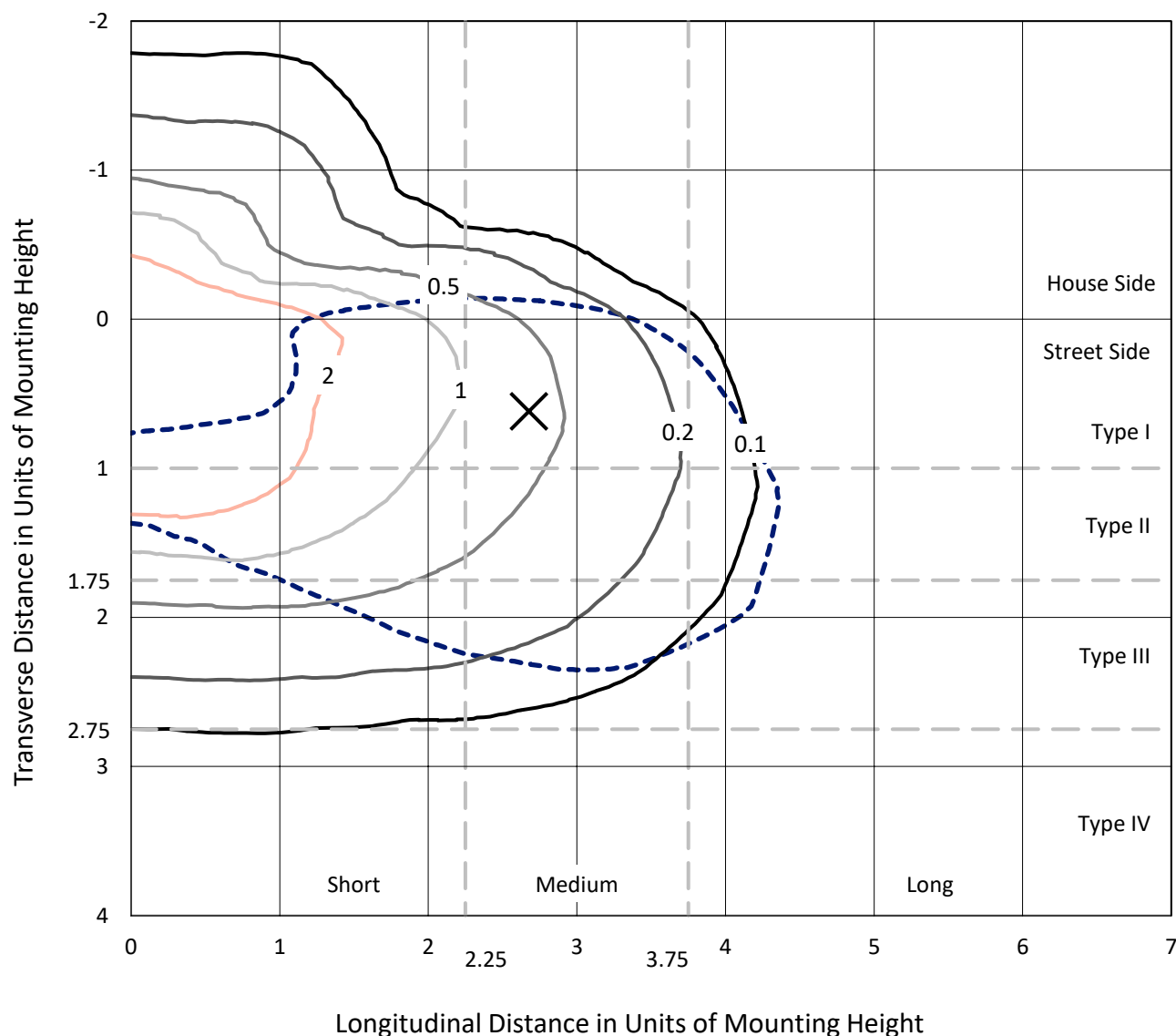
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

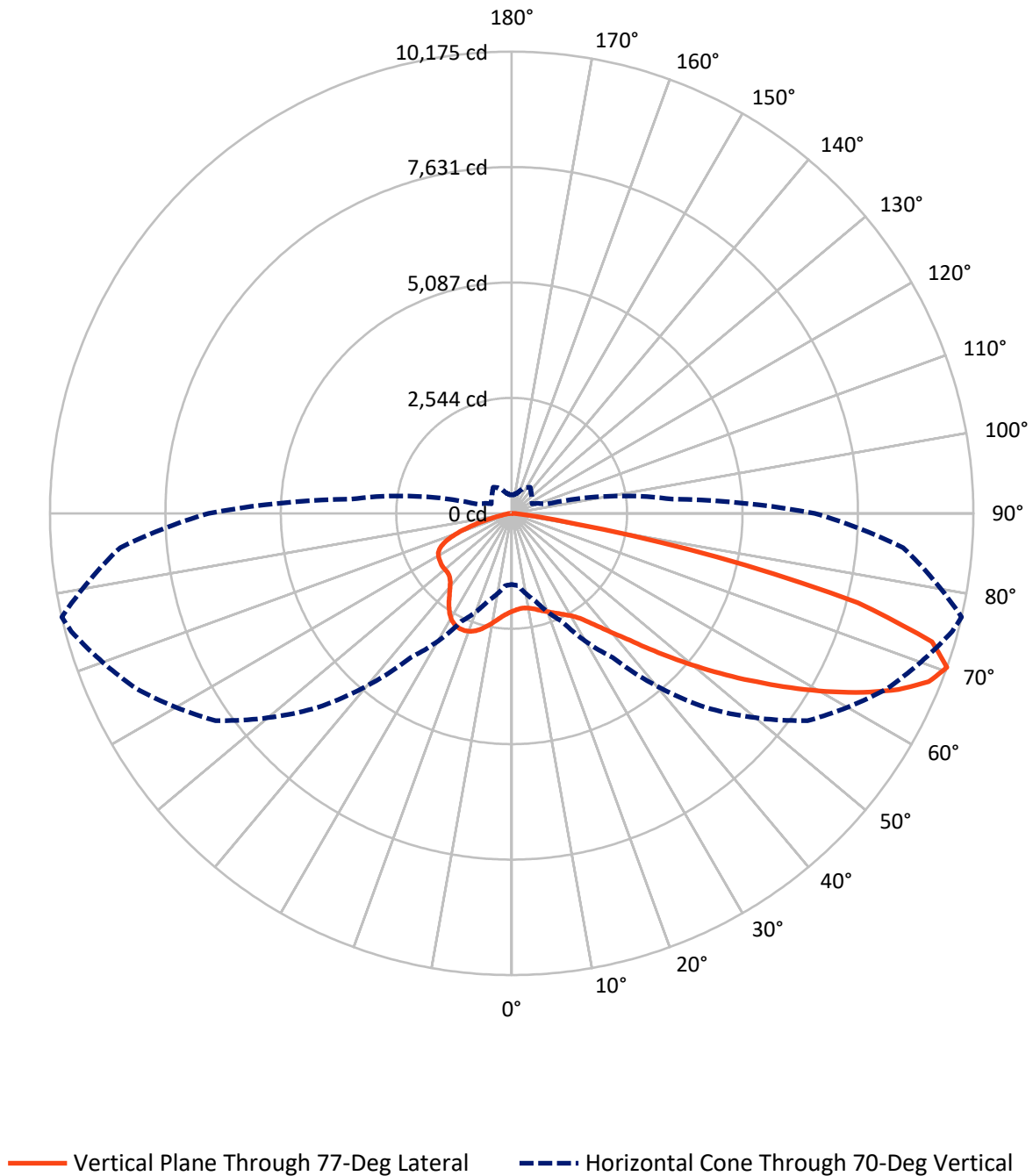
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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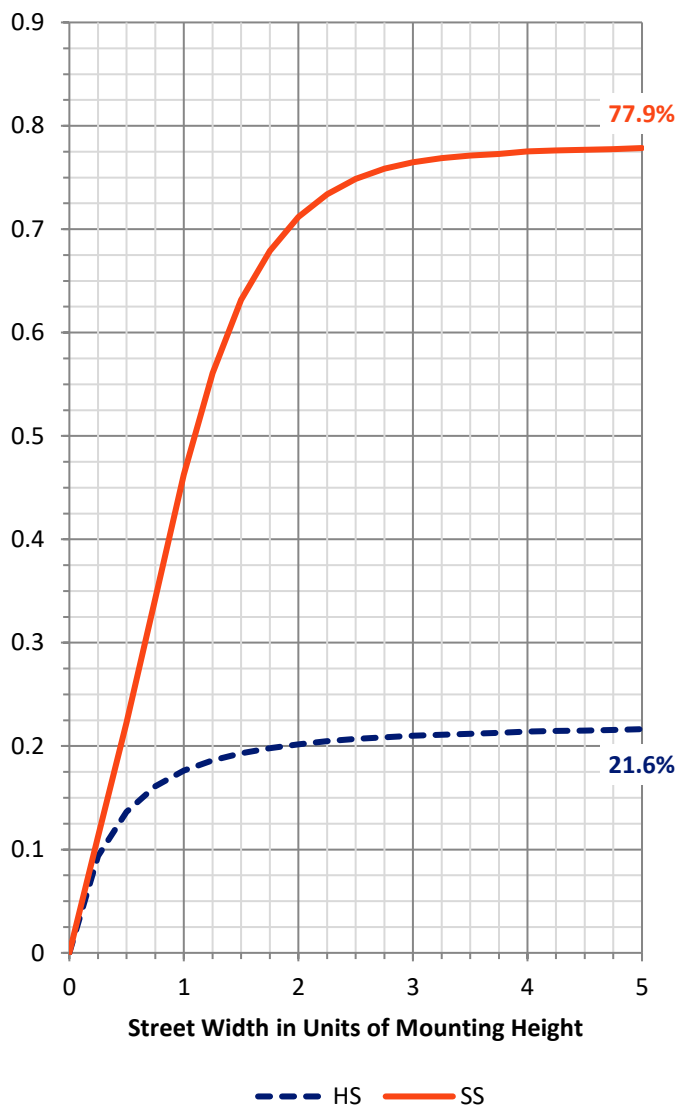
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3385.3	0.0	3385.3
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	12073.7	0.0	12073.7
	% Fixture	78.1	0.0	78.1
Total	Lumens	15459.0	0.0	15459.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.7	1.3
10°-20°	593.6	3.8
20°-30°	1015.2	6.6
30°-40°	1632.6	10.6
40°-50°	2548.8	16.5
50°-60°	3404.7	22.0
60°-70°	3628.8	23.5
70°-80°	2233.9	14.5
80°-90°	195.7	1.3
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°	15459.0	100.0
0°-180°	15459.0	100.0

Coefficient of Utilization



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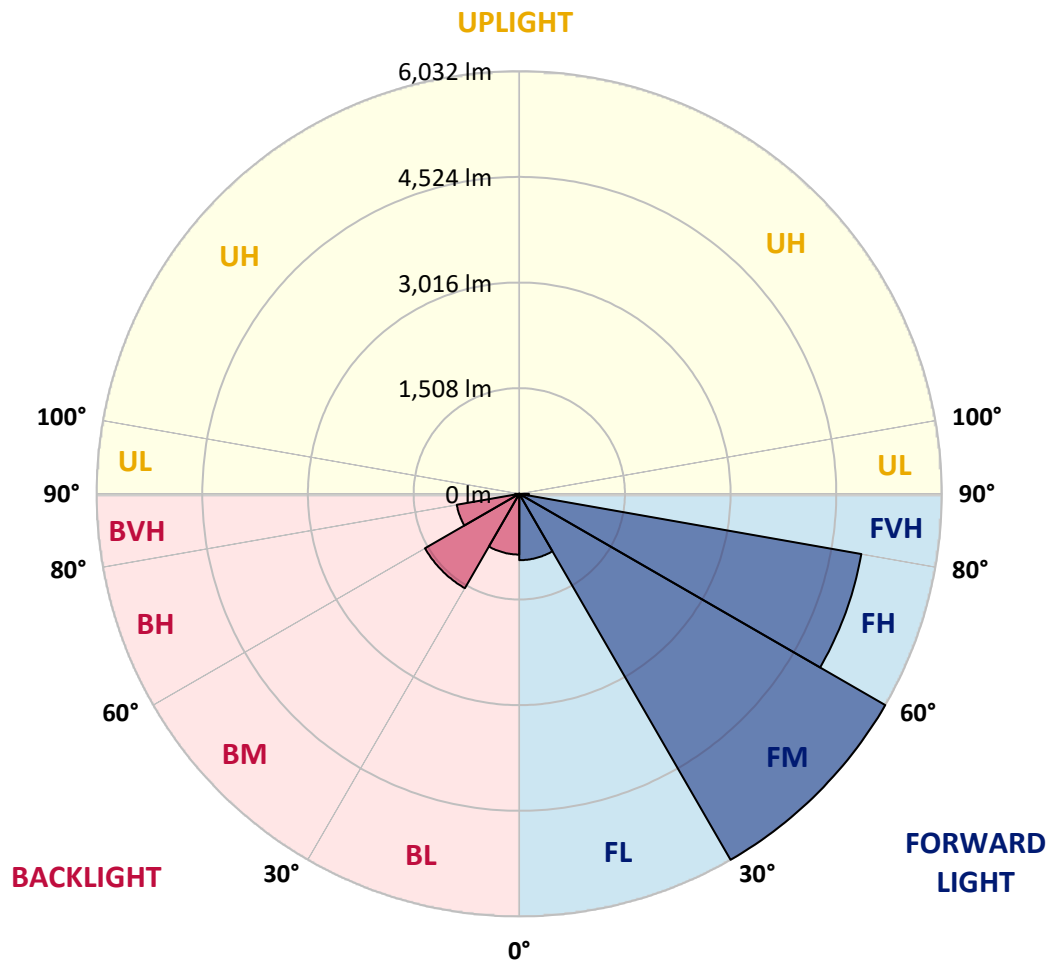
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	947.1	6.1			
FM	(30°-60°)	6031.8	39.0			
FH	(60°-80°)	4958.0	32.1			G2/5000
FVH	(80°-90°)	136.9	0.9			G2/225
BL	(0°-30°)	867.4	5.6	B2/1000		
BM	(30°-60°)	1554.3	10.1	B2/2500		
BH	(60°-80°)	904.7	5.9	B2/1000		G2/1000
BVH	(80°-90°)	58.9	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7
2.5°	1988.1	1987.3	1997.5	2000.7	2019.7	2033.2	2058.5	2085.5	2120.2	2124.2	2145.6
5°	1873.2	1873.2	1885.1	1897.8	1922.3	1949.2	1988.1	2034.7	2094.9	2104.4	2157.4
7.5°	1775.8	1782.2	1792.5	1817.0	1845.5	1884.4	1943.7	2010.2	2089.4	2104.4	2189.9
10°	1697.5	1704.6	1717.3	1737.1	1779.8	1833.6	1911.2	1996.7	2102.9	2126.6	2237.5
12.5°	1672.9	1680.1	1687.2	1702.2	1741.8	1805.1	1897.8	2003.1	2135.3	2159.1	2302.4
15°	1729.9	1738.6	1733.1	1729.2	1749.8	1807.5	1904.1	2026.0	2175.7	2209.7	2382.3
17.5°	1861.4	1864.6	1851.9	1814.7	1811.5	1842.3	1934.2	2057.7	2226.3	2263.6	2463.1
20°	2073.6	2068.0	2041.9	1968.2	1926.3	1919.9	1985.6	2105.2	2278.6	2318.2	2550.2
22.5°	2361.7	2355.4	2303.2	2186.7	2093.4	2031.5	2060.0	2167.0	2337.2	2381.5	2634.9
25°	2721.2	2712.5	2635.7	2477.3	2332.5	2179.7	2161.4	2248.5	2409.3	2450.4	2723.5
27.5°	3140.8	3133.6	3050.5	2841.5	2632.5	2382.3	2287.3	2344.3	2484.5	2531.1	2823.4
30°	3592.1	3612.7	3465.4	3240.5	2976.1	2646.8	2456.7	2462.3	2581.9	2623.8	2944.4
32.5°	4122.5	4158.2	3980.8	3695.8	3334.7	2934.2	2670.5	2627.0	2723.5	2758.4	3097.2
35°	4648.3	4688.7	4541.4	4226.3	3810.6	3273.0	2893.8	2816.2	2912.0	2950.0	3300.0
37.5°	5102.8	5156.6	5080.5	4806.6	4319.7	3681.6	3185.2	3038.7	3144.0	3191.4	3572.3
40°	5461.4	5543.7	5538.2	5367.1	4919.8	4177.2	3554.9	3313.4	3432.1	3483.7	3902.5
42.5°	5752.7	5823.9	5885.8	5877.0	5546.1	4740.1	3989.5	3670.4	3760.7	3820.1	4273.7
45°	5953.8	6029.9	6162.8	6306.1	6148.6	5342.6	4487.6	4094.1	4176.4	4265.8	4716.3
47.5°	6133.6	6219.8	6392.4	6619.7	6660.0	5947.5	5033.1	4587.3	4662.5	4755.2	5160.5
50°	6149.4	6223.8	6491.4	6813.7	7023.5	6528.6	5618.9	5140.7	5211.2	5310.1	5636.4
52.5°	5767.0	5884.1	6351.3	6808.2	7190.5	7014.8	6200.8	5716.3	5795.5	5914.2	6128.8
55°	4476.5	4648.3	5940.4	6595.9	7131.1	7329.1	6754.2	6328.3	6429.6	6554.0	6624.5
57.5°	3855.7	3931.0	4715.5	6209.6	6860.3	7410.6	7221.4	6946.6	7109.7	7245.9	7148.6
60°	3465.4	3527.9	3991.9	5608.6	6504.0	7281.6	7582.4	7523.1	7804.9	7967.2	7684.5
62.5°	3047.4	3106.8	3528.8	4683.1	6048.0	7067.0	7810.4	8055.1	8517.4	8694.8	8189.6
65°	2632.5	2683.1	3087.7	3934.9	5468.5	6852.4	7928.4	8515.1	9176.9	9360.6	8609.3
67.5°	2170.1	2212.1	2594.5	3319.8	4763.9	6558.7	7987.0	8876.9	9750.9	9908.6	8816.7
70°	1566.1	1598.5	1993.6	2625.4	3879.5	6053.5	7963.2	9133.5	10048.7	10174.6	8659.9
72.5°	740.3	769.6	1233.5	1704.6	2740.2	5070.3	7482.7	8929.9	9746.2	9683.7	7700.4
75°	395.0	420.5	708.6	935.0	1447.3	3475.7	6123.2	7692.4	8184.1	7880.1	5691.0
77.5°	267.6	287.4	438.6	561.3	661.1	1649.9	3935.7	5326.0	5124.1	4622.1	2850.2
80°	212.2	232.8	359.5	380.1	319.9	596.1	1626.3	2465.4	1771.1	1416.4	810.8
82.5°	163.1	186.0	302.5	275.5	174.1	244.7	473.4	779.8	453.7	345.2	196.4
85°	99.7	124.3	237.5	175.8	98.2	111.6	160.7	216.9	138.6	115.6	70.4
87.5°	50.6	71.2	120.3	64.2	44.4	26.1	42.7	42.7	36.4	31.7	18.2
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°	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7	2156.7
2.5°	2164.6	2180.4	2207.3	2232.7	2252.4	2271.5	2290.5	2300.8	2303.9	2316.6	2323.8
5°	2189.9	2219.2	2271.5	2320.6	2351.5	2370.4	2383.9	2391.8	2393.4	2397.4	2403.7
7.5°	2236.7	2283.4	2356.2	2405.3	2428.2	2426.7	2421.2	2401.4	2393.4	2386.3	2387.8
10°	2302.4	2364.2	2453.5	2487.6	2473.3	2435.4	2386.3	2328.5	2301.5	2275.4	2267.5
12.5°	2383.9	2462.3	2550.2	2548.6	2478.1	2380.8	2266.7	2178.0	2121.9	2081.5	2071.9
15°	2482.9	2573.2	2640.4	2586.6	2432.2	2257.3	2090.2	1974.6	1923.9	1879.5	1874.8
17.5°	2585.0	2681.6	2712.5	2574.7	2316.6	2074.3	1885.1	1794.1	1744.1	1720.5	1727.5
20°	2684.8	2780.5	2755.2	2506.6	2140.8	1866.9	1698.2	1648.4	1638.1	1643.6	1641.2
22.5°	2790.0	2875.5	2763.9	2375.2	1916.7	1654.8	1562.1	1563.6	1586.6	1603.3	1607.2
25°	2897.8	2955.6	2741.0	2185.2	1676.1	1498.8	1475.8	1501.1	1546.2	1578.7	1587.4
27.5°	3001.5	3026.8	2691.1	1950.1	1469.4	1387.1	1391.0	1443.3	1511.5	1556.6	1567.6
30°	3118.7	3090.2	2595.3	1685.6	1326.1	1291.3	1324.6	1385.5	1453.7	1494.0	1503.5
32.5°	3250.9	3144.8	2443.3	1440.9	1224.8	1214.5	1269.2	1308.7	1338.9	1350.7	1357.0
35°	3415.5	3221.6	2248.5	1269.2	1133.8	1158.4	1210.5	1190.7	1178.9	1172.6	1178.9
37.5°	3629.3	3325.3	2020.5	1157.5	1060.2	1118.0	1139.3	1077.6	1030.8	1007.9	1013.4
40°	3886.6	3477.3	1801.2	1071.2	1013.4	1083.1	1045.9	971.5	912.0	879.7	882.0
42.5°	4172.5	3636.4	1616.7	1006.2	987.3	1054.6	977.0	888.4	792.5	782.3	792.5
45°	4472.5	3800.3	1490.9	956.4	974.7	1030.0	937.4	794.1	726.0	767.9	790.2
47.5°	4772.6	3950.8	1414.8	919.2	968.3	1002.3	902.6	741.9	693.5	754.5	783.0
50°	5106.7	4085.3	1380.8	892.3	961.1	991.3	850.3	728.4	659.5	699.9	730.0
52.5°	5438.4	4189.9	1355.5	865.4	950.9	982.6	825.0	712.6	618.4	620.7	637.3
55°	5769.3	4258.0	1327.8	829.7	927.9	963.5	822.6	695.2	587.4	576.4	584.2
57.5°	6122.4	4296.7	1293.7	790.2	888.4	915.2	820.2	681.7	578.0	559.8	562.1
60°	6481.9	4353.7	1249.4	741.9	835.3	857.4	814.7	676.9	572.5	541.5	544.0
62.5°	6804.2	4373.6	1196.3	696.0	767.2	800.4	802.8	673.0	557.4	504.3	504.3
65°	7015.5	4288.0	1103.7	643.7	693.5	741.9	779.8	659.5	530.4	477.4	477.4
67.5°	7006.8	4044.1	958.8	576.4	622.3	676.9	746.6	636.5	498.0	444.1	446.5
70°	6680.6	3562.8	775.1	498.0	544.0	607.2	703.9	602.5	459.2	407.7	412.5
72.5°	5729.7	2788.5	562.9	406.2	452.8	535.3	648.4	561.3	419.6	375.3	372.9
75°	4093.2	1764.7	381.6	311.9	352.3	453.7	579.5	513.0	383.2	376.9	355.5
77.5°	2091.0	843.2	252.6	228.1	245.5	357.8	486.9	458.4	388.8	311.2	277.1
80°	680.1	311.2	159.2	155.2	163.1	238.3	376.9	376.1	294.5	211.4	186.9
82.5°	216.9	133.8	103.7	99.7	95.8	149.6	262.8	297.7	198.7	133.8	133.0
85°	86.3	79.9	61.0	56.2	40.4	70.4	137.8	197.9	148.0	96.6	99.0
87.5°	31.7	31.7	16.6	11.9	8.7	23.8	37.2	59.3	84.7	49.9	49.1
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)