

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: P963645

Luminaire Tested: **NAV-SB3A-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963645
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-SB3A-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12315.4 lumens
Efficiency: N/A
Efficacy: 145.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G2

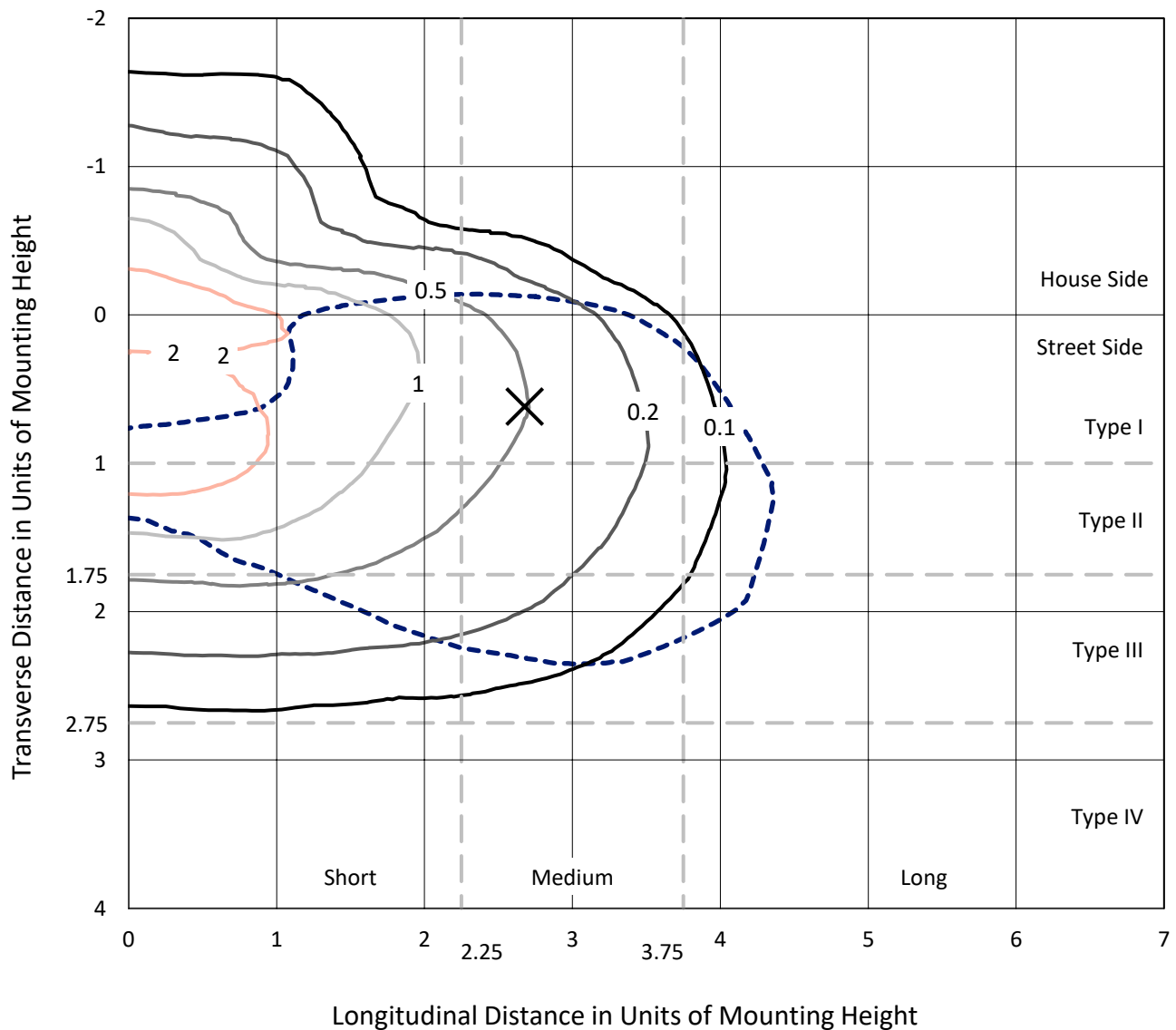
Input Watts (W): 84.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

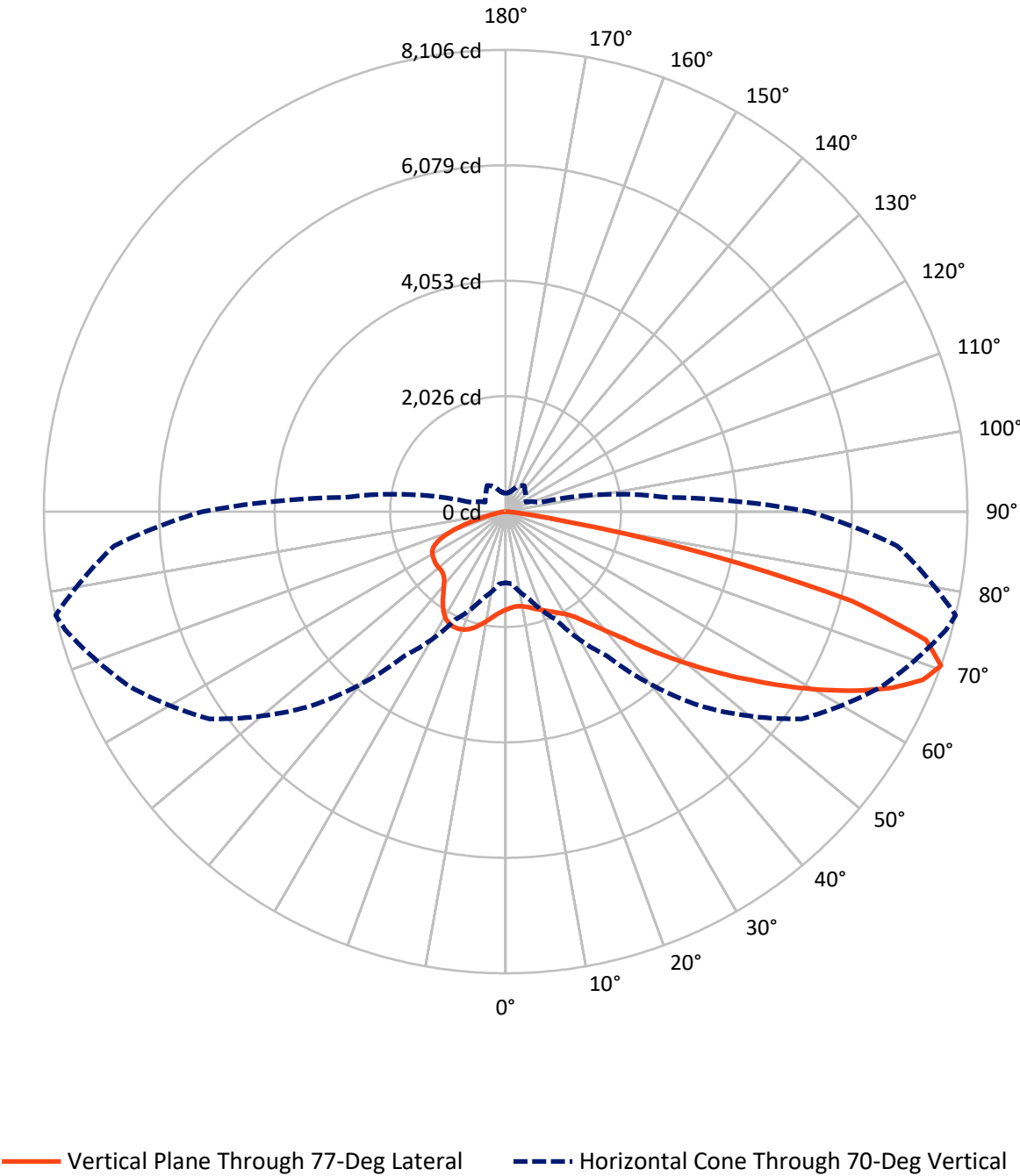
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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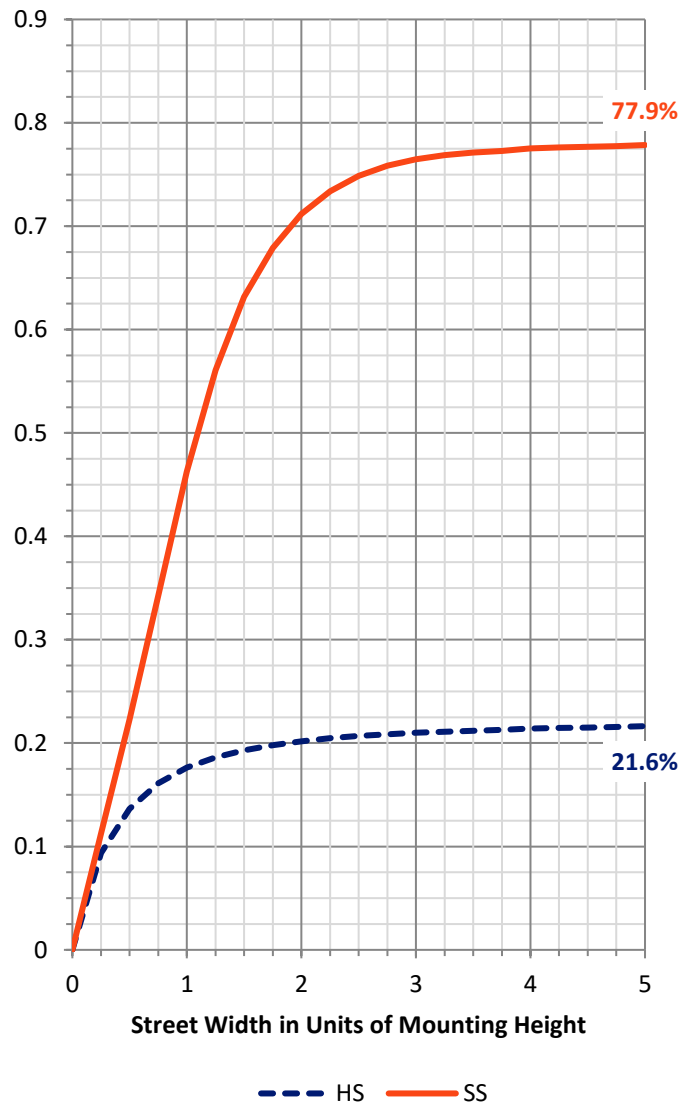
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2696.9	0.0	2696.9
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	9618.5	0.0	9618.5
	% Fixture	78.1	0.0	78.1
Total	Lumens	12315.4	0.0	12315.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.9	1.3
10°-20°	472.9	3.8
20°-30°	808.8	6.6
30°-40°	1300.6	10.6
40°-50°	2030.5	16.5
50°-60°	2712.3	22.0
60°-70°	2890.9	23.5
70°-80°	1779.6	14.5
80°-90°	155.9	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°	12315.4	100.0
0°-180°	12315.4	100.0

Coefficient of Utilization



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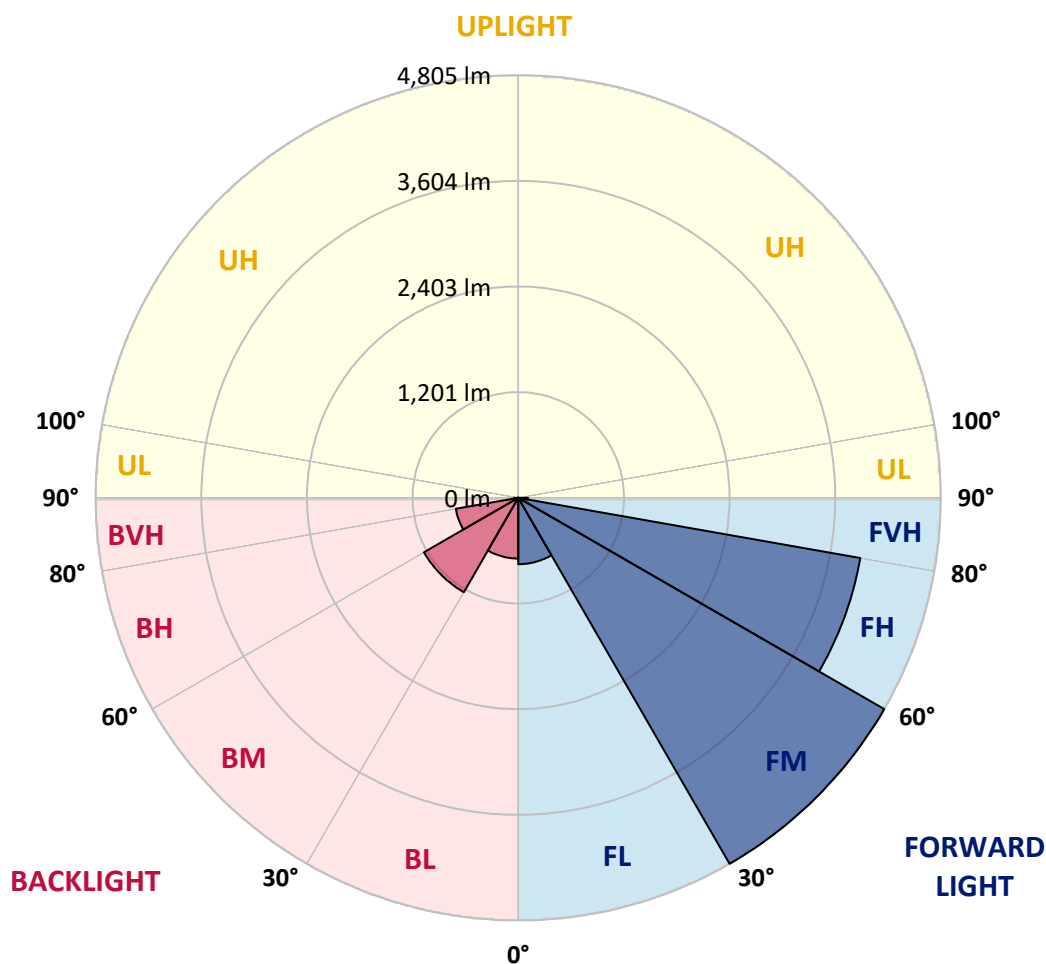
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	754.5	6.1			
FM	(30°-60°)	4805.2	39.0			
FH	(60°-80°)	3949.7	32.1			G2/5000
FVH	(80°-90°)	109.0	0.9			G2/225
BL	(0°-30°)	691.0	5.6	B2/1000		
BM	(30°-60°)	1238.2	10.1	B2/2500		
BH	(60°-80°)	720.8	5.9	B2/1000		G2/1000
BVH	(80°-90°)	46.9	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°	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1
2.5°	1583.7	1583.1	1591.3	1593.9	1608.9	1619.7	1639.9	1661.3	1689.1	1692.3	1709.3
5°	1492.3	1492.3	1501.7	1511.9	1531.5	1552.9	1583.7	1620.9	1668.9	1676.5	1718.7
7.5°	1414.7	1419.7	1427.9	1447.5	1470.3	1501.1	1548.5	1601.5	1664.5	1676.5	1744.6
10°	1352.3	1357.9	1368.1	1383.9	1417.9	1460.7	1522.5	1590.7	1675.3	1694.1	1782.5
12.5°	1332.7	1338.4	1344.1	1356.1	1387.6	1438.1	1511.9	1595.7	1701.1	1720.0	1834.1
15°	1378.1	1385.1	1380.7	1377.5	1393.9	1439.9	1516.9	1614.1	1733.3	1760.3	1897.9
17.5°	1482.9	1485.3	1475.3	1445.7	1443.1	1467.7	1540.9	1639.3	1773.7	1803.3	1962.2
20°	1651.9	1647.5	1626.7	1567.9	1534.5	1529.5	1581.9	1677.1	1815.3	1846.7	2031.5
22.5°	1881.5	1876.5	1834.7	1742.1	1667.7	1618.5	1641.1	1726.3	1861.9	1897.3	2099.1
25°	2167.8	2160.9	2099.7	1973.5	1858.1	1736.4	1721.9	1791.3	1919.3	1952.1	2169.7
27.5°	2502.1	2496.4	2430.2	2263.7	2097.1	1897.9	1822.1	1867.5	1979.3	2016.5	2249.2
30°	2861.6	2878.0	2760.7	2581.6	2370.9	2108.5	1957.1	1961.5	2056.8	2090.3	2345.7
32.5°	3284.2	3312.6	3171.4	2944.2	2656.6	2337.5	2127.5	2092.7	2169.7	2197.5	2467.4
35°	3703.0	3735.2	3617.8	3366.8	3035.7	2607.4	2305.3	2243.5	2319.8	2350.1	2628.9
37.5°	4065.0	4107.9	4047.4	3829.2	3441.2	2932.9	2537.4	2420.7	2504.6	2542.5	2845.8
40°	4350.8	4416.4	4411.9	4275.7	3919.4	3327.8	2832.0	2639.6	2734.2	2775.2	3108.8
42.5°	4582.9	4639.7	4688.9	4681.9	4418.3	3776.2	3178.2	2924.0	2996.0	3043.2	3404.6
45°	4743.1	4803.7	4909.6	5023.7	4898.3	4256.2	3575.0	3261.5	3327.0	3398.4	3757.2
47.5°	4886.3	4955.1	5092.5	5273.5	5305.7	4738.1	4009.6	3654.4	3714.4	3788.2	4111.1
50°	4898.9	4958.1	5171.3	5428.1	5595.2	5201.0	4476.3	4095.3	4151.5	4230.3	4490.1
52.5°	4594.3	4687.6	5059.7	5423.7	5728.3	5588.3	4939.9	4553.9	4616.9	4711.5	4882.5
55°	3566.2	3703.0	4732.3	5254.6	5681.0	5838.7	5380.7	5041.5	5122.1	5221.1	5277.3
57.5°	3071.6	3131.6	3756.6	4946.9	5465.3	5903.6	5752.9	5534.0	5663.9	5772.4	5694.9
60°	2760.7	2810.5	3180.2	4468.1	5181.5	5800.8	6040.5	5993.2	6217.8	6347.0	6121.8
62.5°	2427.7	2475.0	2811.2	3730.8	4818.1	5629.9	6222.2	6417.0	6785.4	6926.6	6524.2
65°	2097.1	2137.5	2459.8	3134.8	4356.5	5458.9	6316.2	6783.4	7310.8	7457.1	6858.6
67.5°	1728.9	1762.3	2066.9	2644.6	3795.1	5224.9	6362.8	7071.8	7768.1	7893.6	7023.8
70°	1247.6	1273.5	1588.1	2091.5	3090.6	4822.5	6343.8	7276.1	8005.2	8105.5	6899.0
72.5°	589.7	613.1	982.7	1357.9	2182.9	4039.2	5961.0	7114.0	7764.3	7714.5	6134.5
75°	314.8	334.9	564.5	744.9	1153.0	2768.9	4878.1	6128.2	6519.8	6277.6	4533.7
77.5°	213.2	229.0	349.4	447.2	526.6	1314.5	3135.4	4242.9	4082.1	3682.2	2270.6
80°	169.0	185.4	286.4	302.8	254.8	475.0	1295.5	1964.1	1410.9	1128.4	645.9
82.5°	130.0	148.2	241.0	219.5	138.8	194.9	377.2	621.3	361.4	275.0	156.4
85°	79.4	99.0	189.2	140.0	78.2	89.0	128.0	172.8	110.4	92.0	56.2
87.5°	40.4	56.8	95.8	51.0	35.4	20.8	34.0	34.0	29.0	25.2	14.6
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°	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1	1718.1
2.5°	1724.5	1737.1	1758.5	1778.7	1794.5	1809.5	1824.7	1832.9	1835.5	1845.5	1851.2
5°	1744.6	1767.9	1809.5	1848.7	1873.3	1888.4	1899.1	1905.5	1906.7	1909.9	1914.9
7.5°	1781.9	1819.1	1877.1	1916.1	1934.5	1933.2	1928.7	1913.0	1906.7	1901.1	1902.3
10°	1834.1	1883.3	1954.7	1981.7	1970.4	1940.1	1901.1	1854.9	1833.5	1812.7	1806.5
12.5°	1899.1	1961.5	2031.5	2030.3	1974.2	1896.6	1805.7	1735.1	1690.3	1658.1	1650.7
15°	1977.9	2049.9	2103.5	2060.6	1937.6	1798.3	1665.1	1573.1	1532.7	1497.3	1493.5
17.5°	2059.3	2136.3	2160.9	2051.1	1845.5	1652.5	1501.7	1429.3	1389.5	1370.5	1376.3
20°	2138.8	2215.1	2194.9	1996.9	1705.5	1487.3	1352.9	1313.2	1305.0	1309.4	1307.5
22.5°	2222.7	2290.8	2201.9	1892.2	1527.0	1318.3	1244.5	1245.7	1264.0	1277.3	1280.4
25°	2308.5	2354.5	2183.6	1740.9	1335.3	1193.9	1175.7	1195.9	1231.8	1257.7	1264.6
27.5°	2391.1	2411.3	2143.9	1553.5	1170.7	1105.1	1108.2	1149.8	1204.1	1240.0	1248.9
30°	2484.4	2461.7	2067.5	1342.9	1056.5	1028.7	1055.2	1103.8	1158.0	1190.2	1197.7
32.5°	2589.8	2505.3	1946.5	1147.9	975.7	967.5	1011.1	1042.6	1066.5	1076.0	1081.1
35°	2721.0	2566.4	1791.3	1011.1	903.2	922.8	964.4	948.6	939.1	934.1	939.1
37.5°	2891.2	2649.1	1609.7	922.1	844.5	890.6	907.6	858.4	821.2	802.9	807.3
40°	3096.2	2770.2	1434.9	853.4	807.3	862.8	833.2	773.9	726.6	700.7	702.6
42.5°	3324.0	2897.0	1287.9	801.7	786.5	840.1	778.3	707.7	631.4	623.2	631.4
45°	3563.0	3027.5	1187.7	761.9	776.4	820.6	746.8	632.6	578.4	611.8	629.5
47.5°	3802.0	3147.4	1127.1	732.3	771.4	798.5	719.0	591.0	552.5	601.1	623.8
50°	4068.2	3254.6	1100.0	710.8	765.7	789.7	677.4	580.3	525.4	557.6	581.5
52.5°	4332.5	3337.8	1079.8	689.4	757.5	782.7	657.2	567.6	492.6	494.5	507.8
55°	4596.1	3392.0	1057.7	661.0	739.2	767.6	655.3	553.8	468.0	459.2	465.5
57.5°	4877.5	3423.0	1030.6	629.5	707.7	729.1	653.4	543.0	460.4	445.9	447.8
60°	5163.7	3468.4	995.3	591.0	665.4	683.1	649.0	539.3	456.0	431.4	433.3
62.5°	5420.5	3484.2	953.0	554.4	611.2	637.7	639.6	536.1	444.0	401.8	401.8
65°	5588.9	3416.0	879.2	512.8	552.5	591.0	621.3	525.4	422.6	380.4	380.4
67.5°	5581.9	3221.8	763.8	459.2	495.8	539.3	594.8	507.1	396.8	353.8	355.8
70°	5322.1	2838.3	617.5	396.8	433.3	483.8	560.7	480.0	365.8	324.8	328.6
72.5°	4564.6	2221.4	448.4	323.6	360.8	426.4	516.6	447.2	334.3	299.0	297.0
75°	3260.8	1405.9	304.0	248.5	280.6	361.4	461.7	408.7	305.2	300.2	283.2
77.5°	1665.7	671.7	201.2	181.6	195.6	285.1	387.9	365.2	309.7	247.8	220.8
80°	541.8	247.8	126.8	123.6	130.0	189.8	300.2	299.6	234.6	168.4	148.8
82.5°	172.8	106.6	82.6	79.4	76.4	119.2	209.4	237.2	158.4	106.6	106.0
85°	68.8	63.7	48.6	44.8	32.2	56.2	109.8	157.6	118.0	77.0	78.8
87.5°	25.2	25.2	13.2	9.4	7.0	19.0	29.6	47.4	67.4	39.8	39.2
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)