

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: P965786

Luminaire Tested: **NAV-SB4A-830-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965786
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12536.8 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

Input Watts (W): 114
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



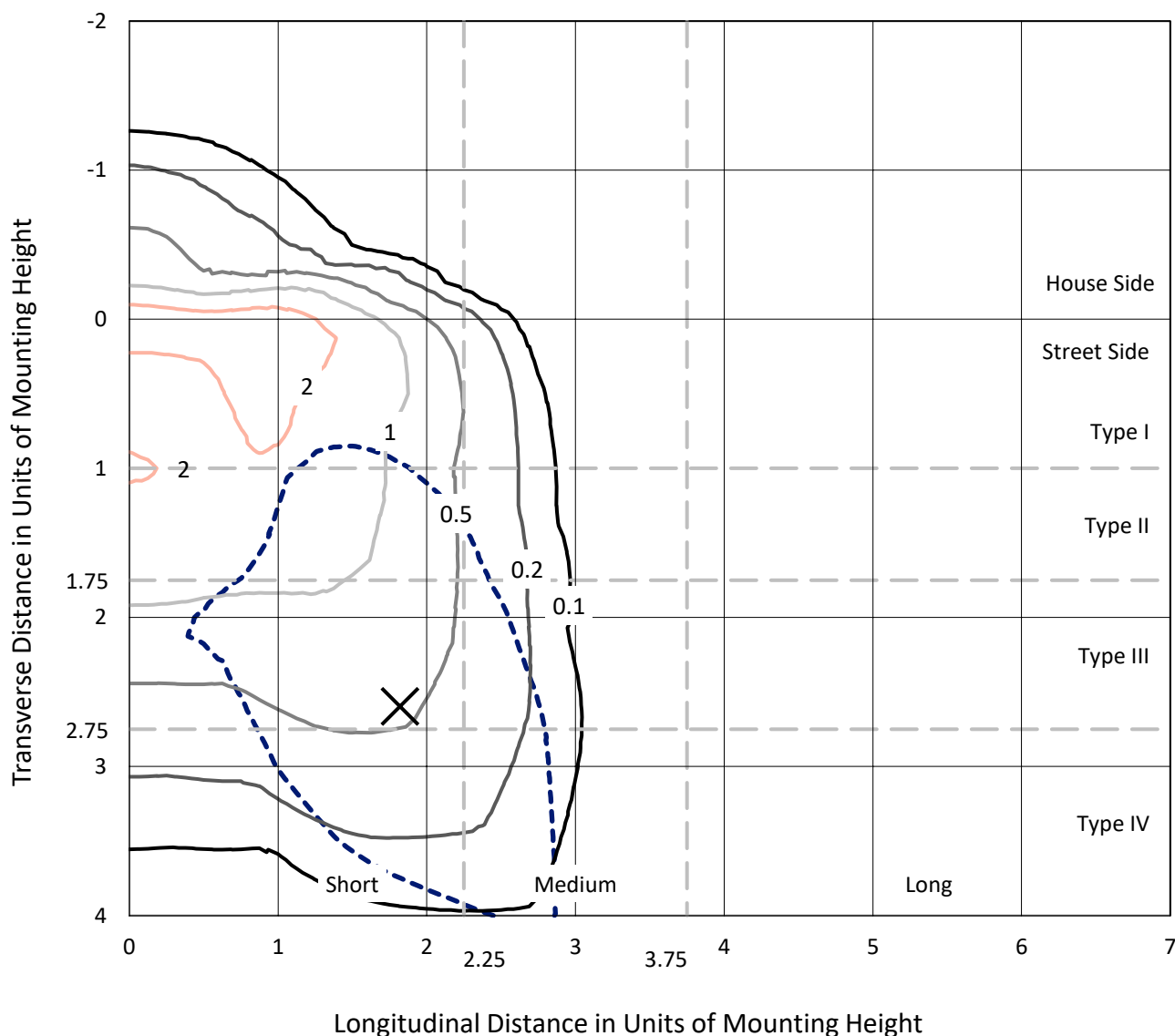
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

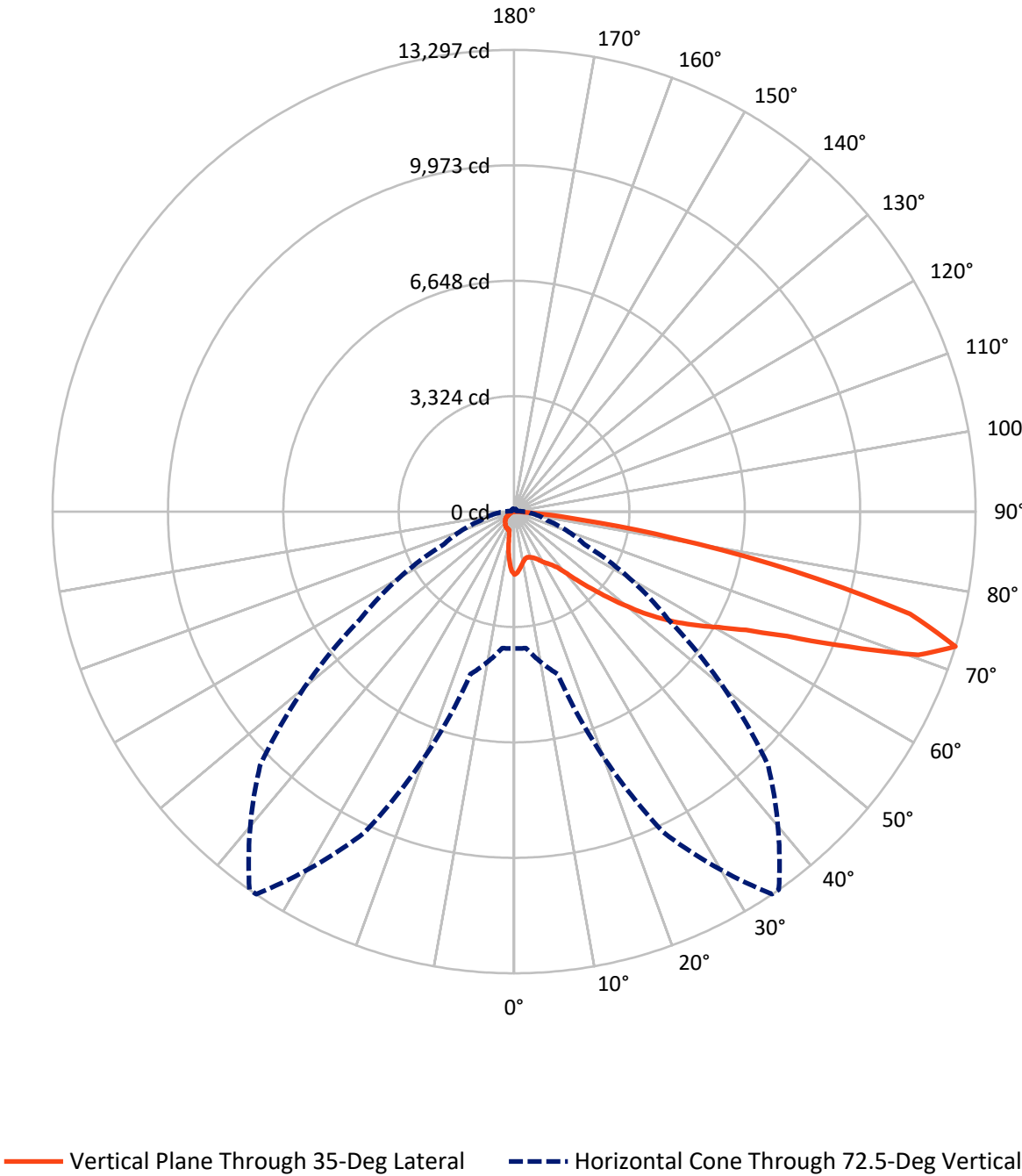


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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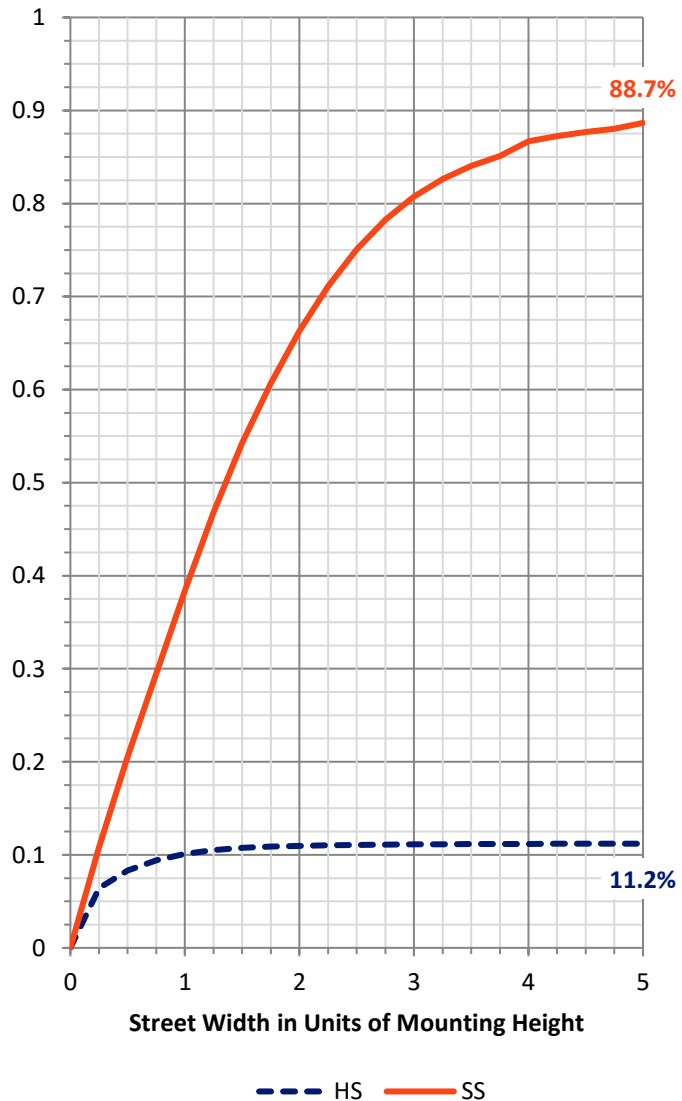
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1411.0	0.0	1411.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	11125.8	0.0	11125.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	12536.8	0.0	12536.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.3	1.2
10°-20°	349.3	2.8
20°-30°	567.4	4.5
30°-40°	946.7	7.6
40°-50°	1791.2	14.3
50°-60°	2846.2	22.7
60°-70°	3521.0	28.1
70°-80°	2188.7	17.5
80°-90°	176.9	1.4
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°	12536.8	100.0
0°-180°	12536.8	100.0

Coefficient of Utilization



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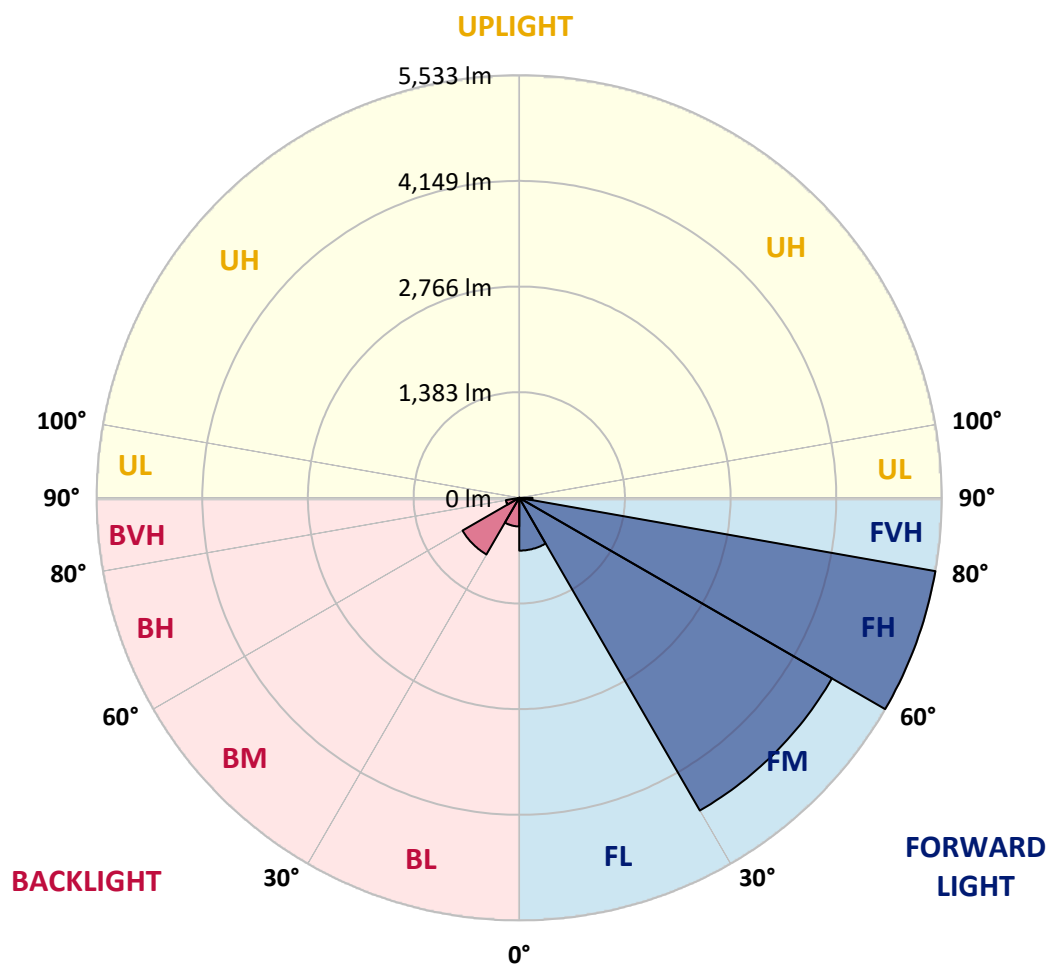
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	691.1	5.5			
FM	(30°-60°)	4727.6	37.7			
FH	(60°-80°)	5532.6	44.1			G3/7500
FVH	(80°-90°)	174.5	1.4			G2/225
BL	(0°-30°)	374.9	3.0	B1/500		
BM	(30°-60°)	856.6	6.8	B1/1000		
BH	(60°-80°)	177.0	1.4	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0
2.5°	1736.1	1750.9	1753.6	1758.2	1758.2	1763.7	1772.9	1785.8	1806.9	1817.9	1825.2
5°	1600.2	1611.2	1625.0	1636.0	1657.1	1659.9	1695.8	1730.6	1779.3	1816.1	1841.8
7.5°	1463.3	1476.2	1494.6	1521.2	1548.8	1557.1	1611.2	1670.0	1747.2	1816.1	1859.2
10°	1366.8	1367.8	1384.4	1411.0	1455.1	1465.1	1531.4	1614.9	1711.3	1805.0	1875.7
12.5°	1312.7	1319.1	1326.5	1346.6	1389.0	1395.3	1466.1	1564.4	1675.6	1798.7	1895.1
15°	1312.7	1317.2	1321.8	1332.0	1365.9	1371.4	1434.0	1532.3	1657.1	1801.3	1926.3
17.5°	1326.5	1333.8	1330.1	1342.0	1377.9	1381.6	1436.7	1523.0	1656.2	1818.9	1974.0
20°	1359.6	1365.1	1357.7	1365.1	1400.9	1408.2	1465.1	1540.5	1671.9	1849.1	2033.8
22.5°	1411.9	1414.6	1397.2	1402.7	1439.4	1448.6	1514.7	1590.1	1709.5	1897.8	2113.8
25°	1478.0	1483.6	1456.9	1463.3	1498.2	1509.3	1585.5	1664.5	1769.3	1964.9	2215.6
27.5°	1554.3	1557.1	1534.1	1533.2	1578.2	1593.8	1671.0	1756.3	1849.1	2049.4	2344.3
30°	1641.5	1649.8	1627.8	1624.1	1681.0	1693.9	1770.2	1869.4	1966.8	2176.2	2527.0
32.5°	1710.4	1716.9	1704.0	1713.2	1771.1	1781.1	1890.5	2029.2	2151.4	2356.3	2776.0
35°	1809.6	1813.3	1783.9	1800.5	1866.6	1892.4	2054.9	2253.4	2383.7	2582.2	3101.2
37.5°	2168.8	2168.8	2043.8	1962.2	2025.5	2048.5	2280.0	2535.3	2670.4	2885.4	3510.9
40°	2665.8	2657.5	2474.8	2307.6	2299.3	2344.3	2600.5	2890.8	3040.6	3249.1	3972.1
42.5°	3195.8	3182.9	2934.1	2768.6	2741.2	2756.7	2970.8	3329.0	3481.5	3692.8	4468.1
45°	3666.1	3662.4	3434.7	3212.4	3162.7	3212.4	3432.8	3841.6	3951.0	4173.2	4963.3
47.5°	4060.2	4060.2	3894.0	3748.8	3723.1	3752.5	4058.4	4410.3	4400.1	4684.9	5445.5
50°	4514.0	4510.3	4352.4	4289.9	4316.5	4357.9	4778.5	5009.2	4865.0	5187.3	5876.3
52.5°	4831.8	4853.9	4799.7	4789.6	4925.5	4997.2	5509.8	5595.2	5281.0	5664.2	6198.8
55°	5083.6	5109.3	5171.7	5242.5	5504.2	5597.9	6218.1	6150.9	5629.2	6077.5	6384.3
57.5°	5440.0	5403.2	5499.6	5639.3	6062.8	6175.7	6904.2	6675.5	5909.3	6412.8	6404.5
60°	5872.6	5878.2	5894.7	6071.1	6620.4	6765.5	7580.3	7171.5	6089.4	6618.5	6180.3
62.5°	6392.6	6400.8	6434.8	6705.9	7369.0	7505.9	8300.6	7577.5	6172.1	6560.7	5601.6
65°	6356.7	6391.7	6771.0	7697.9	8507.2	8642.2	9141.1	7862.4	6047.2	6031.5	4560.8
67.5°	5790.8	5847.8	6482.6	8882.9	10223.1	10373.8	10157.0	7918.3	5507.9	4690.4	2975.4
70°	5048.6	5068.8	5832.2	9948.4	12210.1	12362.5	11066.4	7302.0	4179.6	2616.2	1332.9
72.5°	3942.7	3947.3	4842.9	10195.6	13288.5	13296.8	10352.7	5420.7	2247.8	1004.9	463.0
75°	2816.4	2788.9	3243.6	8268.4	11691.0	11784.7	7761.3	2542.7	858.8	474.9	230.5
77.5°	1510.2	1540.5	1835.4	4903.5	8076.4	8236.2	4234.8	733.1	437.3	323.4	152.5
80°	466.7	492.4	752.3	2245.1	4574.7	4671.1	1569.9	326.2	304.9	230.5	100.1
82.5°	147.0	152.5	350.9	943.4	1898.7	1942.9	454.7	184.6	208.5	152.5	58.8
85°	42.2	43.2	156.2	351.8	469.4	478.6	127.7	71.6	119.4	94.6	30.3
87.5°	4.6	14.7	58.8	58.8	41.3	40.4	13.7	15.6	34.0	12.0	5.5
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°	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0	1817.0
2.5°	1820.7	1821.6	1809.6	1789.4	1767.4	1749.1	1726.1	1707.6	1694.8	1691.1	1697.6
5°	1833.5	1827.1	1793.1	1731.5	1658.0	1594.7	1524.0	1467.9	1431.2	1415.5	1421.1
7.5°	1852.8	1834.4	1760.0	1638.8	1498.2	1373.3	1246.5	1148.2	1085.8	1054.5	1059.1
10°	1869.4	1832.6	1704.9	1504.7	1289.8	1100.4	929.7	811.1	745.0	713.7	714.6
12.5°	1885.0	1831.7	1633.2	1345.7	1054.5	823.1	664.2	605.4	587.0	580.6	578.7
15°	1914.4	1834.4	1543.2	1163.9	820.3	621.9	564.1	563.1	566.8	565.0	564.1
17.5°	1954.8	1837.2	1441.3	971.0	632.9	548.4	545.6	553.9	559.4	556.7	555.8
20°	2007.2	1848.3	1332.9	779.9	543.8	530.0	536.5	543.8	548.4	543.8	542.9
22.5°	2080.6	1867.5	1214.4	626.5	515.4	519.1	524.5	532.8	537.4	530.9	530.0
25°	2170.6	1897.8	1097.8	544.7	501.5	506.1	514.4	523.6	529.1	522.6	521.7
27.5°	2287.3	1946.5	990.3	526.3	487.8	490.6	502.5	516.3	523.6	515.4	515.4
30°	2456.3	2026.4	897.5	534.6	479.5	473.0	489.6	508.9	517.2	509.8	508.9
32.5°	2680.5	2139.4	840.5	547.5	475.8	452.8	468.5	493.3	507.1	502.5	502.5
35°	2974.4	2311.2	818.5	562.2	473.0	431.7	442.8	469.4	493.3	497.8	497.8
37.5°	3330.8	2550.0	824.9	568.6	464.8	414.3	419.8	442.8	474.0	488.7	492.4
40°	3735.9	2828.4	861.6	562.2	455.6	399.5	400.5	418.0	445.6	467.6	474.9
42.5°	4153.9	3153.6	929.7	538.3	447.3	386.7	384.0	396.0	414.3	429.9	436.3
45°	4551.7	3488.0	996.7	505.2	437.3	373.9	367.5	372.1	375.7	382.1	385.8
47.5°	4898.9	3723.1	977.4	474.9	423.4	359.2	348.2	346.3	335.3	334.4	333.4
50°	5138.6	3774.6	868.1	444.6	403.2	342.7	325.2	314.2	294.9	285.7	286.6
52.5°	5214.9	3571.5	709.2	414.3	370.2	320.6	295.8	278.3	254.4	246.2	245.3
55°	5113.8	3173.8	566.8	377.5	324.3	291.2	263.6	240.7	221.4	211.3	211.3
57.5°	4866.8	2667.7	448.2	334.4	275.6	258.1	230.5	207.6	191.1	181.0	179.2
60°	4457.1	2118.3	354.5	282.9	235.1	222.3	193.8	179.2	164.4	152.5	149.8
62.5°	3835.1	1512.0	278.3	224.2	196.6	181.8	165.3	154.4	136.8	120.3	117.6
65°	2992.8	925.1	214.9	164.4	158.0	150.7	140.5	130.5	109.3	92.8	90.0
67.5°	1887.7	438.2	153.4	124.0	124.9	121.3	116.6	108.4	92.8	78.1	76.3
70°	831.4	212.2	101.1	94.6	92.8	92.8	96.5	93.7	79.0	65.2	62.4
72.5°	282.9	113.9	75.3	71.6	67.0	66.1	80.9	78.1	63.3	50.5	47.8
75°	147.9	76.3	55.1	51.5	40.4	48.7	64.3	60.6	45.0	33.1	30.3
77.5°	96.5	54.2	37.6	33.1	23.0	32.2	47.8	42.2	26.6	16.5	14.7
80°	60.6	35.9	22.0	15.6	11.1	17.4	25.7	18.3	10.1	3.7	2.8
82.5°	32.2	18.3	8.3	5.5	4.6	5.5	6.5	4.6	1.8	0.0	0.0
85°	12.8	6.5	2.8	1.8	0.9	0.0	1.8	0.9	0.0	0.0	0.0
87.5°	4.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)