

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: P963557

Luminaire Tested: **NAV-SB3A-740-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963557
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-740-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14566.3 lumens
Efficiency: N/A
Efficacy: 172.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

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



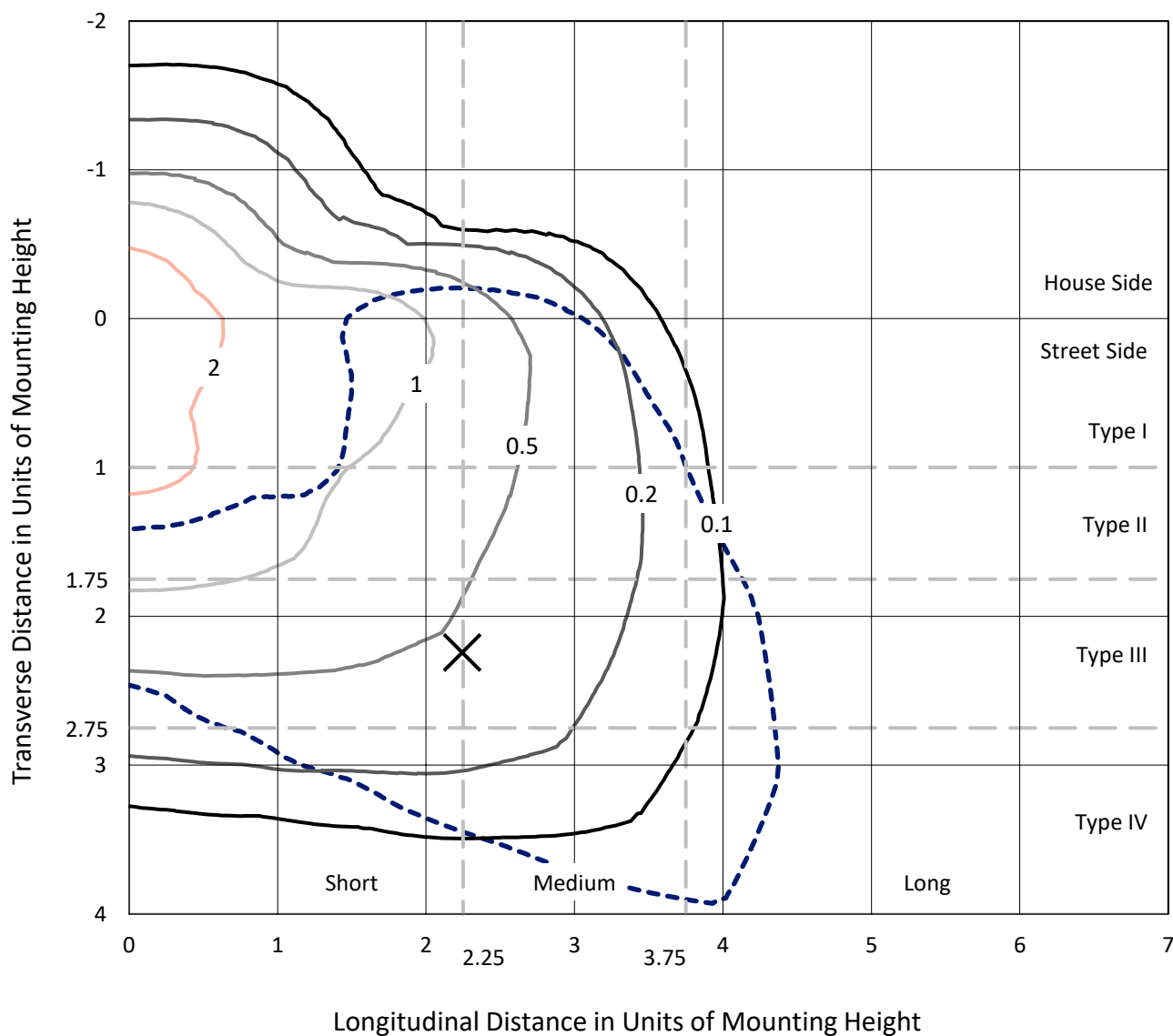
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

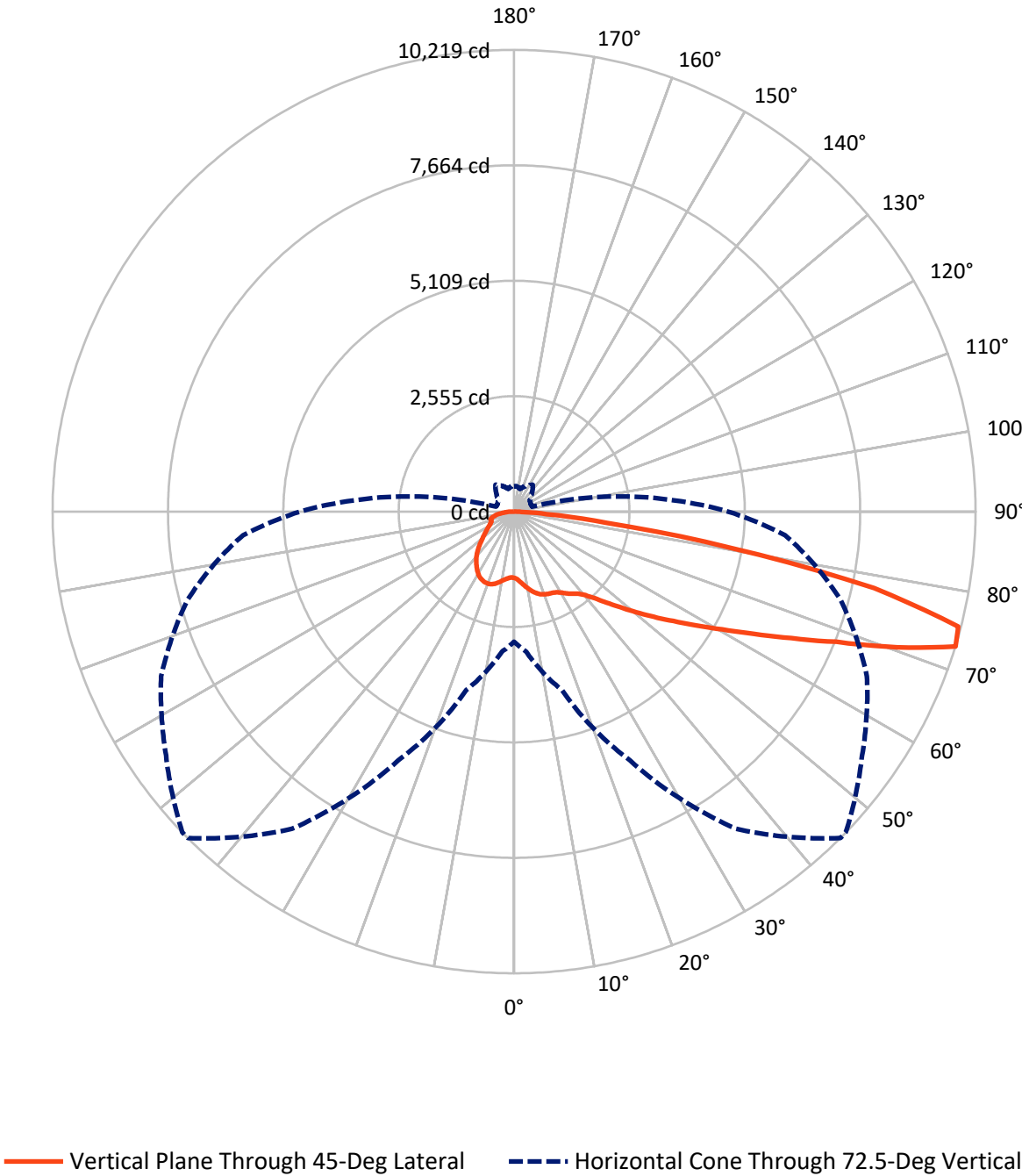


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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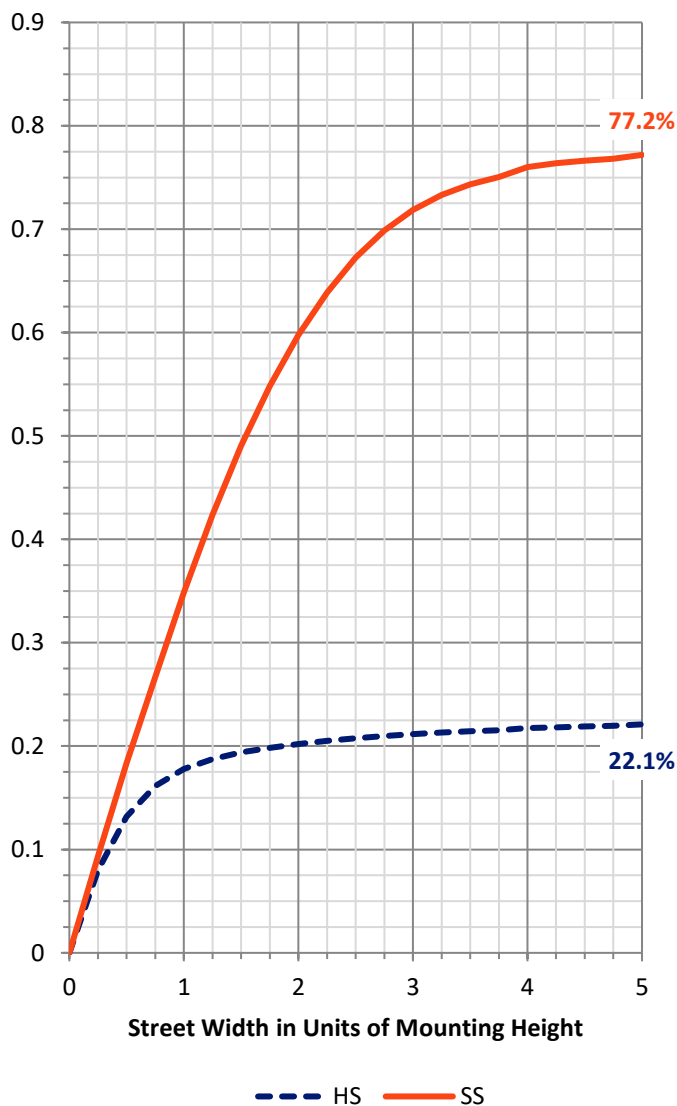
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3292.9	0.0	3292.9
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	11273.3	0.0	11273.3
	% Fixture	77.4	0.0	77.4
Total	Lumens	14566.3	0.0	14566.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	1.0
10°-20°	498.7	3.4
20°-30°	867.4	6.0
30°-40°	1243.5	8.5
40°-50°	1751.0	12.0
50°-60°	2682.0	18.4
60°-70°	3885.2	26.7
70°-80°	3102.6	21.3
80°-90°	386.4	2.7
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°	14566.3	100.0
0°-180°	14566.3	100.0

Coefficient of Utilization



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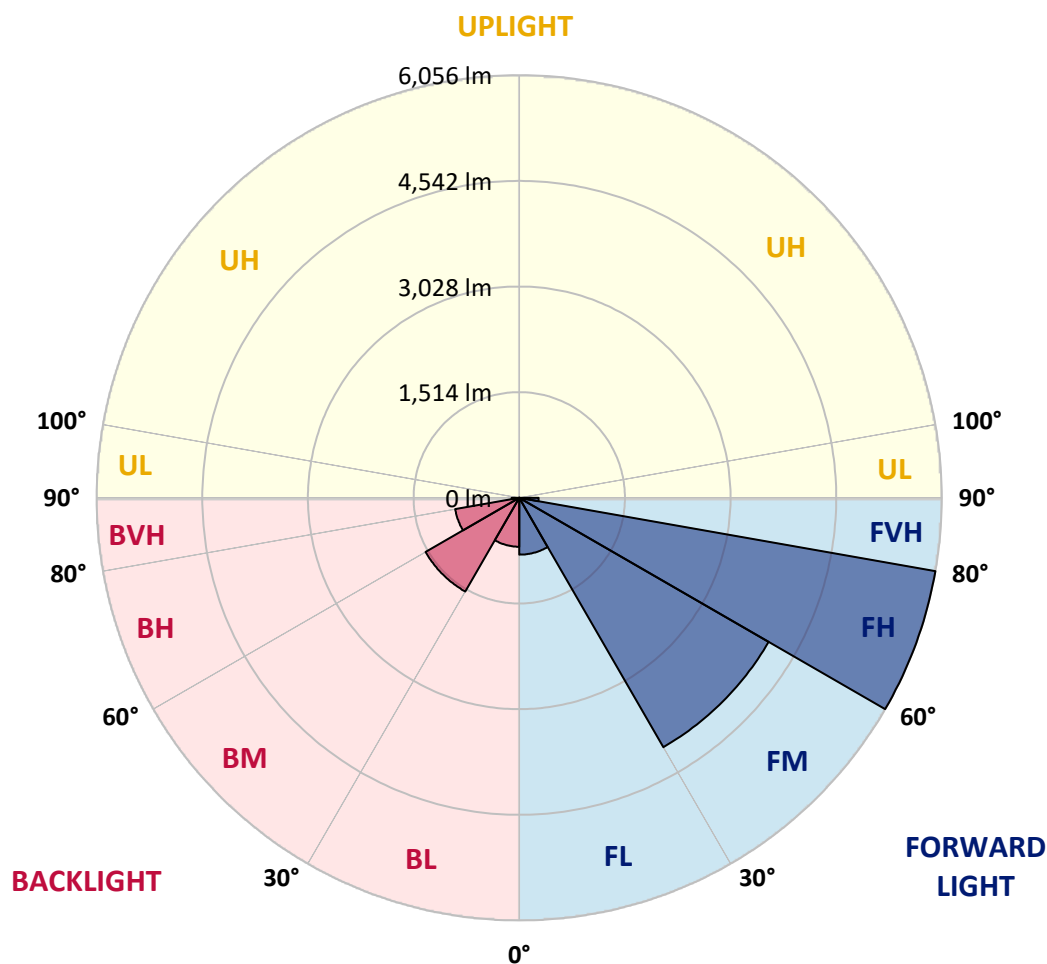
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	814.6	5.6			
FM	(30°-60°)	4125.9	28.3			
FH	(60°-80°)	6055.6	41.6			G3/7500
FVH	(80°-90°)	277.2	1.9			G3/500
BL	(0°-30°)	701.1	4.8	B2/1000		
BM	(30°-60°)	1550.5	10.6	B2/2500		
BH	(60°-80°)	932.1	6.4	B2/1000		G2/1000
BVH	(80°-90°)	109.2	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4
2.5°	1527.0	1537.0	1527.8	1519.4	1515.5	1505.5	1504.7	1498.7	1494.8	1484.0	1480.9
5°	1633.6	1646.7	1631.4	1614.5	1599.1	1574.6	1571.5	1553.9	1533.9	1510.8	1497.8
7.5°	1754.2	1765.7	1748.0	1722.7	1695.9	1655.2	1654.4	1622.2	1590.7	1551.5	1529.3
10°	1859.2	1874.6	1850.8	1816.3	1782.6	1736.5	1731.1	1694.3	1654.4	1603.7	1570.0
12.5°	1952.1	1962.9	1939.8	1897.6	1858.5	1812.4	1805.5	1764.8	1720.4	1662.9	1619.8
15°	2025.8	2039.5	2008.9	1963.6	1922.2	1876.9	1870.7	1833.9	1789.4	1728.8	1673.5
17.5°	2074.1	2085.7	2054.2	2003.6	1963.6	1926.0	1921.5	1890.7	1851.6	1790.2	1731.1
20°	2092.5	2104.8	2071.8	2020.4	1983.6	1954.4	1952.1	1929.9	1903.0	1846.9	1787.1
22.5°	2111.0	2122.5	2079.5	2025.8	1993.5	1975.2	1974.4	1959.8	1949.0	1903.0	1844.7
25°	2185.4	2188.5	2130.9	2053.4	2007.4	1991.3	1990.4	1989.7	1994.3	1958.3	1906.8
27.5°	2249.9	2249.1	2200.0	2127.1	2055.7	2021.9	2021.2	2028.9	2043.4	2013.5	1971.3
30°	2344.2	2335.8	2277.4	2201.5	2136.3	2084.1	2079.5	2072.5	2084.1	2060.4	2035.8
32.5°	2544.5	2517.6	2423.3	2288.2	2203.0	2163.2	2157.0	2114.1	2118.6	2104.0	2091.7
35°	2831.5	2796.2	2670.3	2452.4	2285.9	2229.2	2226.1	2171.6	2162.3	2149.3	2153.9
37.5°	3173.0	3129.2	2982.6	2690.3	2428.6	2305.8	2301.2	2252.1	2214.5	2200.8	2226.8
40°	3516.0	3460.7	3339.4	2980.4	2638.9	2434.0	2419.4	2345.0	2302.0	2279.0	2334.2
42.5°	3849.0	3803.0	3699.3	3305.7	2898.2	2621.2	2589.0	2461.6	2429.4	2407.9	2507.7
45°	4143.7	4102.2	4026.2	3653.3	3202.1	2875.9	2844.5	2636.6	2626.6	2626.6	2770.9
47.5°	4383.0	4373.9	4293.2	4007.9	3560.4	3166.0	3111.6	2879.8	2906.7	2948.1	3144.6
50°	4648.6	4623.3	4537.3	4357.0	3981.7	3498.3	3453.8	3178.3	3278.9	3392.4	3684.8
52.5°	4892.5	4906.4	4810.4	4720.6	4457.5	3869.0	3790.7	3530.5	3747.7	3935.7	4317.8
55°	5143.4	5144.3	5117.4	5105.1	4956.3	4278.7	4192.8	3954.1	4299.4	4532.7	5056.0
57.5°	5379.0	5380.5	5420.5	5528.6	5534.8	4751.4	4653.9	4474.3	4912.5	5150.4	5817.2
60°	5589.3	5600.1	5709.0	5962.2	6043.6	5293.1	5201.1	5089.0	5546.3	5785.7	6617.5
62.5°	5659.8	5699.0	5941.5	6301.4	6546.2	5957.6	5867.1	5800.3	6212.4	6435.0	7286.6
65°	5540.2	5629.9	6098.9	6581.4	7063.4	6747.2	6657.5	6584.5	6904.5	7114.0	7836.0
67.5°	5246.3	5362.2	6089.6	6875.4	7691.0	7697.1	7613.5	7442.4	7646.5	7727.1	8014.9
70°	4472.1	4645.5	5553.2	6985.1	8411.6	8996.3	8915.8	8475.2	8387.1	7997.3	7511.5
72.5°	2881.4	3114.7	4089.1	6081.9	8572.0	10218.6	10214.0	9407.6	8621.1	7472.4	6024.3
75°	1051.2	1194.0	1899.9	3817.5	7195.3	10156.5	10186.4	9248.0	7869.8	5771.9	3753.0
77.5°	382.9	418.9	620.0	1467.2	4425.2	8149.2	8211.3	7393.3	5601.5	2896.8	1487.1
80°	201.0	221.0	317.6	569.4	1896.0	4839.6	4937.0	4393.8	2632.7	872.5	445.9
82.5°	111.3	120.4	178.0	309.2	854.0	2069.5	2127.8	1735.7	926.2	369.8	184.2
85°	59.9	63.7	83.6	168.8	417.5	717.5	733.6	518.8	369.1	217.2	89.0
87.5°	17.6	21.5	27.7	53.7	163.5	161.1	165.0	102.8	145.8	109.8	29.1
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°	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4	1469.4
2.5°	1476.4	1474.1	1465.6	1461.8	1457.1	1456.4	1460.2	1461.0	1461.8	1462.6	1465.6
5°	1490.1	1482.5	1474.9	1470.3	1471.8	1472.5	1480.2	1485.5	1489.4	1492.5	1494.0
7.5°	1517.0	1510.8	1497.8	1497.1	1499.4	1506.2	1516.3	1528.6	1535.4	1540.8	1542.3
10°	1557.0	1545.4	1530.1	1532.4	1537.0	1546.9	1567.6	1577.7	1589.2	1599.1	1596.8
12.5°	1597.6	1587.6	1570.0	1571.5	1579.2	1596.8	1616.7	1629.0	1636.7	1644.4	1647.5
15°	1650.6	1632.9	1613.8	1613.8	1627.5	1646.7	1655.9	1665.9	1670.5	1679.0	1682.0
17.5°	1705.0	1682.0	1656.7	1655.2	1672.0	1681.2	1686.6	1688.2	1689.7	1698.9	1701.9
20°	1759.5	1734.2	1698.1	1695.0	1698.9	1697.4	1696.6	1695.0	1697.4	1708.9	1713.5
22.5°	1813.2	1784.0	1734.2	1720.4	1709.6	1695.0	1694.3	1693.5	1695.0	1706.5	1714.2
25°	1876.2	1840.8	1774.1	1732.7	1696.6	1676.6	1679.0	1679.7	1681.2	1690.4	1702.7
27.5°	1944.4	1905.3	1811.0	1728.8	1663.6	1649.7	1645.9	1648.2	1653.6	1668.2	1682.7
30°	2012.7	1966.7	1844.7	1713.5	1622.2	1603.0	1590.7	1596.0	1612.9	1627.5	1643.7
32.5°	2074.9	2028.9	1871.5	1679.7	1569.2	1539.2	1523.1	1530.1	1546.9	1552.4	1571.5
35°	2147.8	2095.6	1883.0	1626.0	1511.7	1465.6	1444.1	1434.2	1442.6	1437.3	1454.1
37.5°	2229.2	2174.6	1881.5	1555.4	1444.1	1391.2	1361.3	1323.7	1306.1	1287.6	1299.1
40°	2349.6	2271.3	1863.1	1470.3	1360.5	1312.1	1258.4	1194.7	1154.9	1118.8	1121.0
42.5°	2513.8	2405.6	1829.3	1376.6	1266.1	1220.9	1147.9	1073.5	1010.5	950.7	945.4
45°	2758.6	2581.4	1787.1	1276.8	1164.1	1119.5	1040.5	956.8	885.5	808.7	799.6
47.5°	3111.6	2817.6	1747.2	1163.3	1056.7	1016.0	944.6	867.0	782.7	708.3	699.8
50°	3596.5	3156.8	1710.4	1052.8	950.7	920.0	863.3	784.2	699.0	639.2	635.4
52.5°	4213.5	3618.0	1695.0	946.2	851.8	840.2	795.0	721.3	640.7	590.1	586.2
55°	4921.7	4169.7	1695.0	844.1	765.1	768.9	737.4	669.1	599.3	554.0	549.4
57.5°	5644.6	4728.3	1664.4	749.7	691.4	707.5	687.6	627.7	564.8	517.9	510.2
60°	6310.6	5196.4	1540.1	663.8	626.2	651.5	638.5	587.0	510.2	471.2	465.0
62.5°	6822.4	5460.4	1300.6	595.4	572.5	601.6	594.7	533.3	500.3	484.2	478.8
65°	7078.6	5417.4	994.5	534.8	527.2	572.5	557.8	555.6	529.4	511.1	504.9
67.5°	6921.4	5047.5	721.3	490.4	501.1	545.6	601.6	610.8	562.4	526.4	520.3
70°	6231.6	4378.4	537.1	448.1	468.1	546.3	686.0	639.2	551.8	509.5	502.6
72.5°	4740.6	3265.0	416.7	403.6	425.1	550.2	723.6	626.2	521.0	563.2	558.6
75°	2711.0	1792.5	334.6	349.1	371.4	514.1	704.4	592.3	497.2	517.2	517.2
77.5°	1033.6	689.1	276.2	295.4	298.5	448.8	673.7	590.1	473.4	462.0	421.3
80°	358.3	269.4	228.7	234.8	230.9	399.0	646.1	513.3	387.6	346.9	335.3
82.5°	146.6	134.3	181.1	173.4	164.2	310.0	521.8	419.7	316.9	280.0	277.1
85°	63.7	85.2	119.7	105.2	95.1	214.8	418.2	355.3	267.8	230.9	230.2
87.5°	13.0	32.2	50.6	47.6	49.1	143.5	296.9	252.5	189.5	142.0	111.3
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)