

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: P965817

Luminaire Tested: **NAV-SB4A-835-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965817
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-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

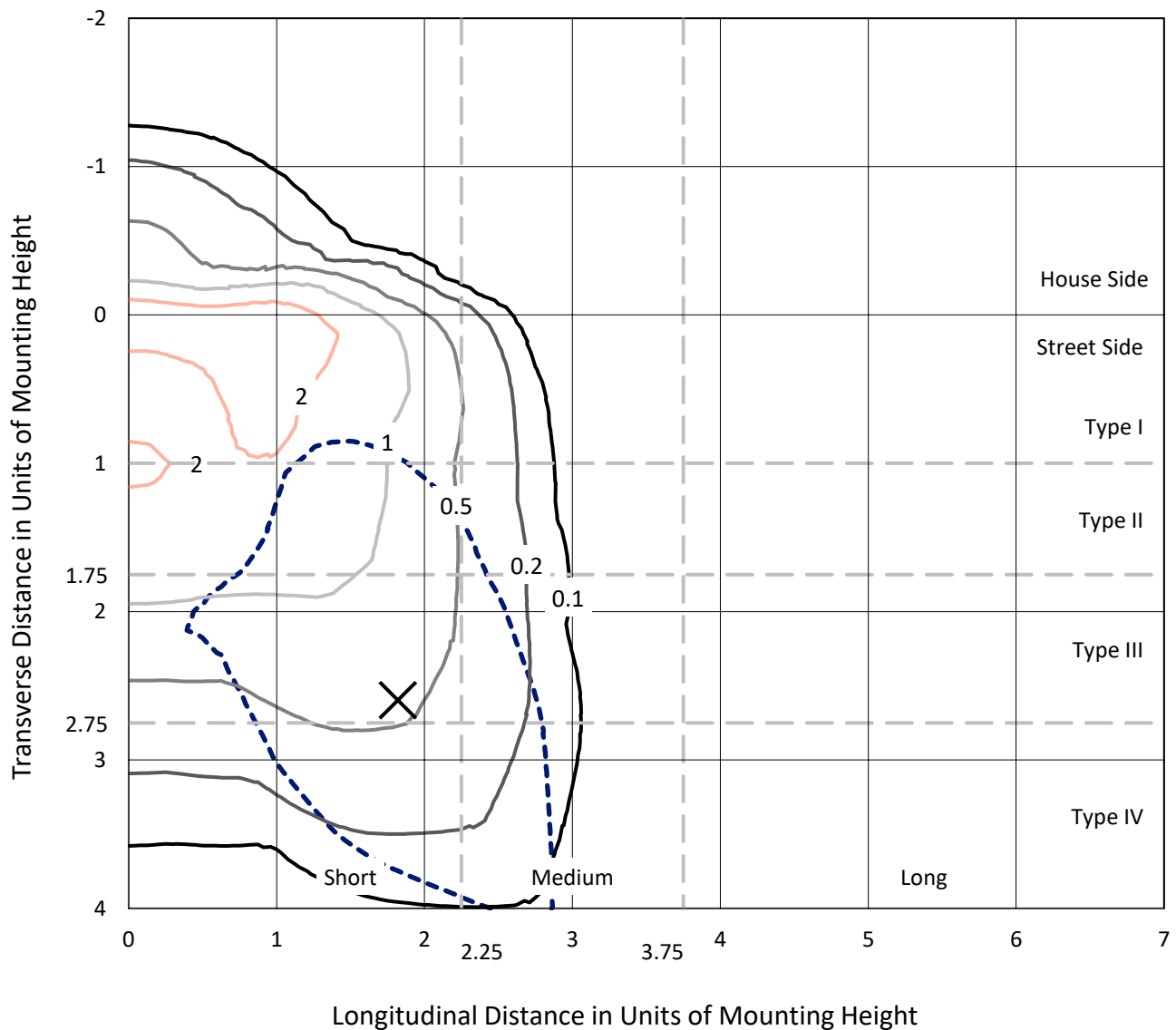
Lumens per Lamp: N/A
Luminaire Lumens: 12941.6 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

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



Iso-Footcandle Lines of Horizontal Illumination

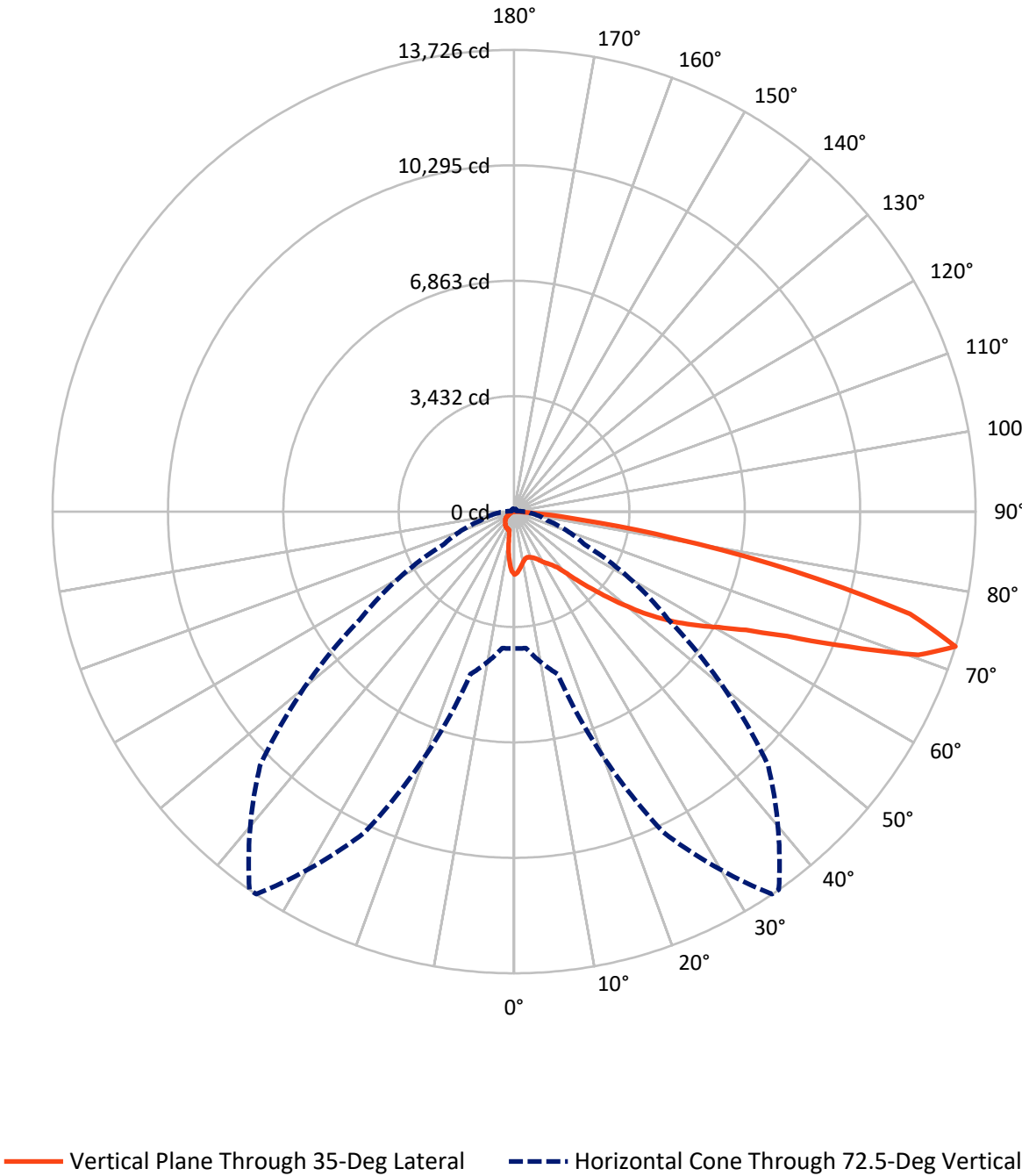
✕ Max cd
 --- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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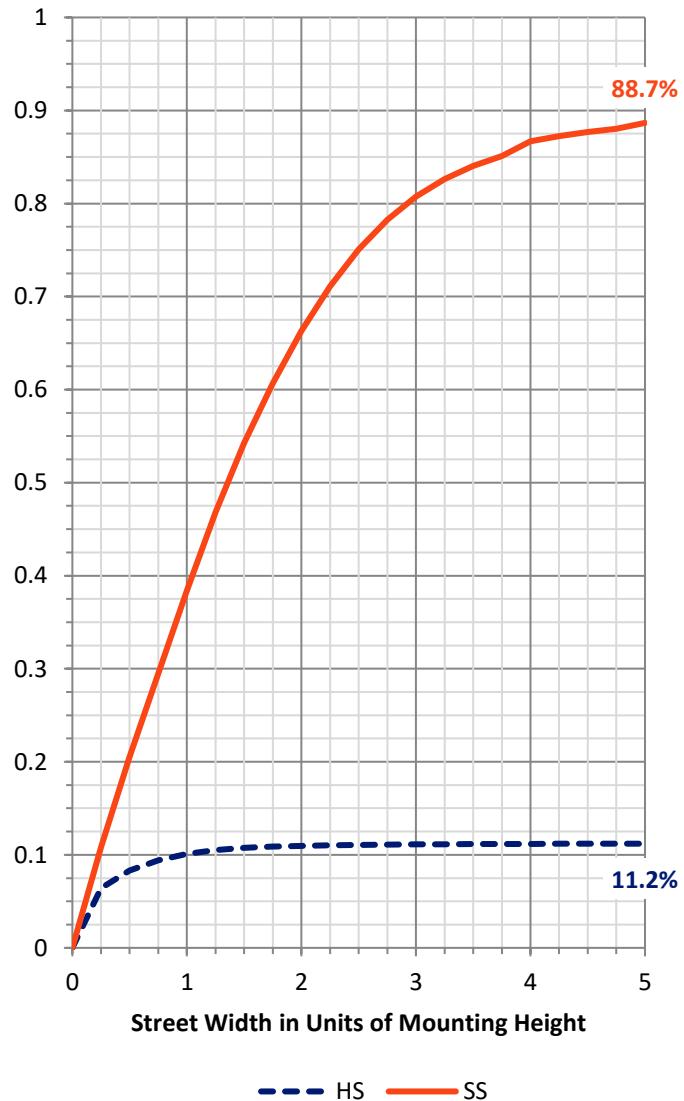
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1456.5	0.0	1456.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	11485.1	0.0	11485.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	12941.6	0.0	12941.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.1	1.2
10°-20°	360.6	2.8
20°-30°	585.7	4.5
30°-40°	977.3	7.6
40°-50°	1849.1	14.3
50°-60°	2938.2	22.7
60°-70°	3634.7	28.1
70°-80°	2259.4	17.5
80°-90°	182.6	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°	12941.6	100.0
0°-180°	12941.6	100.0

Coefficient of Utilization



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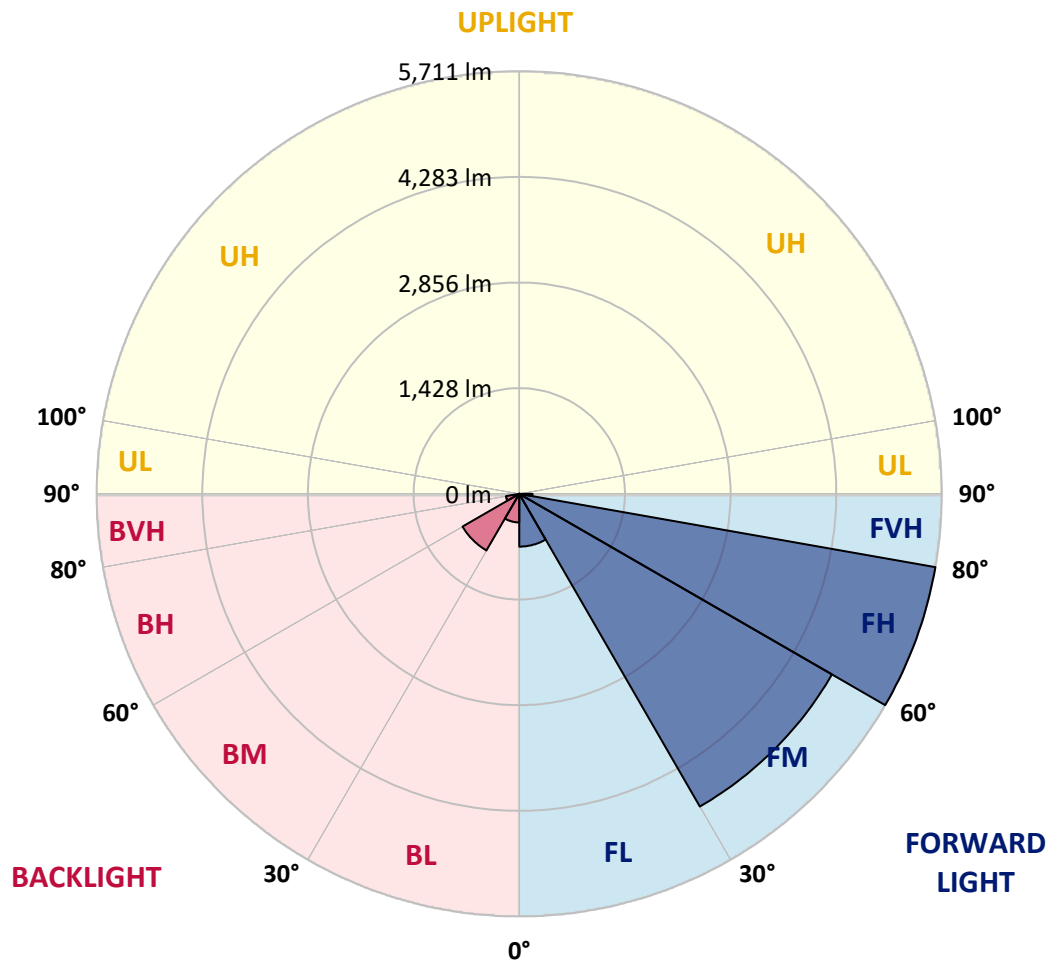
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	713.4	5.5			
FM	(30°-60°)	4880.3	37.7			
FH	(60°-80°)	5711.3	44.1			G3/7500
FVH	(80°-90°)	180.1	1.4			G2/225
BL	(0°-30°)	387.0	3.0	B1/500		
BM	(30°-60°)	884.2	6.8	B1/1000		
BH	(60°-80°)	182.8	1.4	B1/500		G1/500
BVH	(80°-90°)	2.5	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°	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6
2.5°	1792.2	1807.4	1810.3	1815.0	1815.0	1820.7	1830.1	1843.5	1865.3	1876.7	1884.3
5°	1651.9	1663.3	1677.5	1688.9	1710.7	1713.5	1750.5	1786.6	1836.8	1874.7	1901.3
7.5°	1510.6	1523.9	1542.8	1570.3	1598.8	1607.3	1663.3	1723.9	1803.6	1874.7	1919.3
10°	1411.0	1411.9	1429.1	1456.5	1502.0	1512.5	1580.8	1667.1	1766.6	1863.3	1936.3
12.5°	1355.0	1361.7	1369.3	1390.2	1433.8	1440.4	1513.4	1614.9	1729.7	1856.7	1956.3
15°	1355.0	1359.9	1364.6	1375.0	1410.1	1415.7	1480.2	1581.7	1710.7	1859.6	1988.5
17.5°	1369.3	1376.9	1373.1	1385.4	1422.4	1426.2	1483.1	1572.2	1709.7	1877.6	2037.8
20°	1403.4	1409.2	1401.6	1409.2	1446.1	1453.7	1512.5	1590.3	1725.9	1908.9	2099.5
22.5°	1457.4	1460.3	1442.3	1448.0	1485.9	1495.4	1563.7	1641.4	1764.7	1959.1	2182.0
25°	1525.8	1531.5	1504.0	1510.6	1546.6	1558.0	1636.7	1718.3	1826.3	2028.4	2287.2
27.5°	1604.4	1607.3	1583.6	1582.7	1629.1	1645.2	1724.9	1813.1	1908.9	2115.6	2420.0
30°	1694.5	1703.1	1680.4	1676.6	1735.3	1748.6	1827.3	1929.8	2030.2	2246.5	2608.7
32.5°	1765.7	1772.3	1759.0	1768.5	1828.3	1838.7	1951.5	2094.7	2220.9	2432.3	2865.7
35°	1868.1	1871.9	1841.5	1858.6	1926.9	1953.4	2121.2	2326.1	2460.7	2665.6	3201.4
37.5°	2238.9	2238.9	2109.9	2025.5	2090.9	2114.7	2353.6	2617.2	2756.6	2978.5	3624.3
40°	2751.9	2743.3	2554.6	2382.1	2373.5	2420.0	2684.6	2984.2	3138.8	3354.0	4100.3
42.5°	3299.1	3285.7	3028.8	2858.1	2829.6	2845.8	3066.7	3436.5	3594.0	3812.1	4612.4
45°	3784.5	3780.7	3545.6	3316.1	3264.9	3316.1	3543.7	3965.6	4078.5	4308.0	5123.5
47.5°	4191.3	4191.3	4019.7	3869.9	3843.3	3873.7	4189.5	4552.6	4542.2	4836.2	5621.3
50°	4659.8	4656.0	4492.9	4428.4	4455.9	4498.6	4932.9	5170.9	5022.1	5354.9	6066.1
52.5°	4987.9	5010.6	4954.7	4944.3	5084.6	5158.6	5687.7	5775.9	5451.6	5847.0	6399.0
55°	5247.7	5274.2	5338.7	5411.8	5682.1	5778.7	6418.9	6349.7	5811.0	6273.7	6590.4
57.5°	5615.7	5577.7	5677.3	5821.4	6258.5	6375.2	7127.2	6891.1	6100.2	6619.9	6611.4
60°	6062.3	6068.0	6085.0	6267.2	6834.2	6984.0	7825.2	7403.2	6286.1	6832.2	6380.0
62.5°	6599.1	6607.6	6642.6	6922.3	7607.0	7748.3	8568.6	7822.3	6371.4	6772.6	5782.5
65°	6562.0	6598.0	6989.7	7946.5	8781.9	8921.3	9436.3	8116.3	6242.5	6226.4	4708.1
67.5°	5977.9	6036.7	6691.9	9169.8	10553.3	10708.8	10485.0	8174.1	5685.9	4841.9	3071.4
70°	5211.7	5232.5	6020.5	10269.8	12604.4	12761.9	11423.8	7537.8	4314.6	2700.7	1376.0
72.5°	4070.0	4074.7	4999.2	10524.9	13717.7	13726.2	10687.0	5595.8	2320.4	1037.4	478.0
75°	2907.4	2878.9	3348.4	8535.4	12068.7	12165.3	8011.9	2624.8	886.6	490.3	238.0
77.5°	1558.9	1590.3	1894.6	5061.9	8337.1	8502.2	4371.5	756.8	451.4	333.7	157.4
80°	481.7	508.3	776.6	2317.5	4722.4	4821.9	1620.6	336.6	314.8	238.0	103.3
82.5°	151.7	157.4	362.2	973.9	1960.1	2005.6	469.3	190.6	215.2	157.4	60.7
85°	43.7	44.6	161.2	363.2	484.5	494.0	131.8	74.0	123.3	97.7	31.3
87.5°	4.7	15.2	60.7	60.7	42.6	41.7	14.2	16.1	35.1	12.3	5.7
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°	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6	1875.6
2.5°	1879.4	1880.5	1868.1	1847.3	1824.5	1805.5	1781.8	1762.8	1749.6	1745.8	1752.4
5°	1892.8	1886.1	1851.0	1787.5	1711.6	1646.2	1573.2	1515.4	1477.4	1461.2	1467.0
7.5°	1912.6	1893.7	1816.9	1691.8	1546.6	1417.7	1286.8	1185.3	1120.8	1088.7	1093.4
10°	1929.8	1891.8	1760.0	1553.3	1331.4	1136.0	959.6	837.3	769.1	736.8	737.8
12.5°	1945.9	1890.8	1686.0	1389.2	1088.7	849.6	685.6	624.9	606.0	599.3	597.4
15°	1976.2	1893.7	1593.1	1201.5	846.9	642.0	582.2	581.3	585.1	583.2	582.2
17.5°	2017.9	1896.6	1487.8	1002.3	653.3	566.1	563.2	571.8	577.5	574.6	573.7
20°	2071.9	1907.9	1376.0	805.0	561.4	547.1	553.8	561.4	566.1	561.4	560.5
22.5°	2147.8	1927.8	1253.6	646.7	532.0	535.8	541.5	550.0	554.7	548.1	547.1
25°	2240.8	1959.1	1133.1	562.3	517.7	522.5	531.1	540.5	546.2	539.6	538.6
27.5°	2361.2	2009.4	1022.2	543.4	503.6	506.4	518.8	532.9	540.5	532.0	532.0
30°	2535.6	2091.9	926.5	551.9	495.0	488.3	505.4	525.3	533.9	526.3	525.3
32.5°	2767.1	2208.6	867.7	565.2	491.2	467.5	483.6	509.2	523.5	518.8	518.8
35°	3070.5	2385.9	844.9	580.4	488.3	445.7	457.0	484.5	509.2	513.9	513.9
37.5°	3438.5	2632.4	851.6	587.0	479.8	427.6	433.4	457.0	489.3	504.5	508.3
40°	3856.7	2919.7	889.5	580.4	470.4	412.5	413.5	431.4	459.9	482.7	490.3
42.5°	4288.1	3255.4	959.6	555.7	461.8	399.2	396.4	408.7	427.6	443.8	450.4
45°	4698.7	3600.6	1028.9	521.5	451.4	385.9	379.4	384.1	387.9	394.5	398.3
47.5°	5057.1	3843.3	1009.0	490.3	437.2	370.7	359.4	357.5	346.1	345.2	344.2
50°	5304.6	3896.4	896.2	459.0	416.3	353.7	335.7	324.3	304.4	294.9	295.8
52.5°	5383.3	3686.9	732.1	427.6	382.1	331.0	305.3	287.3	262.7	254.1	253.2
55°	5279.1	3276.3	585.1	389.7	334.8	300.6	272.1	248.5	228.6	218.1	218.1
57.5°	5023.9	2753.8	462.8	345.2	284.4	266.5	238.0	214.3	197.2	186.9	184.9
60°	4601.0	2186.7	366.0	292.0	242.7	229.5	200.1	184.9	169.7	157.4	154.6
62.5°	3959.1	1560.9	287.3	231.3	203.0	187.8	170.7	159.3	141.2	124.2	121.4
65°	3089.5	954.9	221.9	169.7	163.1	155.5	145.0	134.7	112.9	95.7	93.0
67.5°	1948.7	452.3	158.4	128.0	128.9	125.2	120.4	111.9	95.7	80.6	78.7
70°	858.2	219.0	104.3	97.7	95.7	95.7	99.5	96.8	81.6	67.3	64.5
72.5°	292.0	117.6	77.8	74.0	69.2	68.3	83.4	80.6	65.4	52.2	49.3
75°	152.6	78.7	56.9	53.1	41.7	50.2	66.4	62.6	46.4	34.1	31.3
77.5°	99.5	56.0	38.8	34.1	23.7	33.2	49.3	43.7	27.5	17.1	15.2
80°	62.6	37.0	22.8	16.1	11.4	18.0	26.5	19.0	10.5	3.8	2.9
82.5°	33.2	19.0	8.5	5.7	4.7	5.7	6.7	4.7	1.9	0.0	0.0
85°	13.3	6.7	2.9	1.9	0.9	0.0	1.9	0.9	0.0	0.0	0.0
87.5°	4.7	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)