

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: P963178

Luminaire Tested: **NAV-SB2D-835-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963178
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15174.1 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 147.6
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

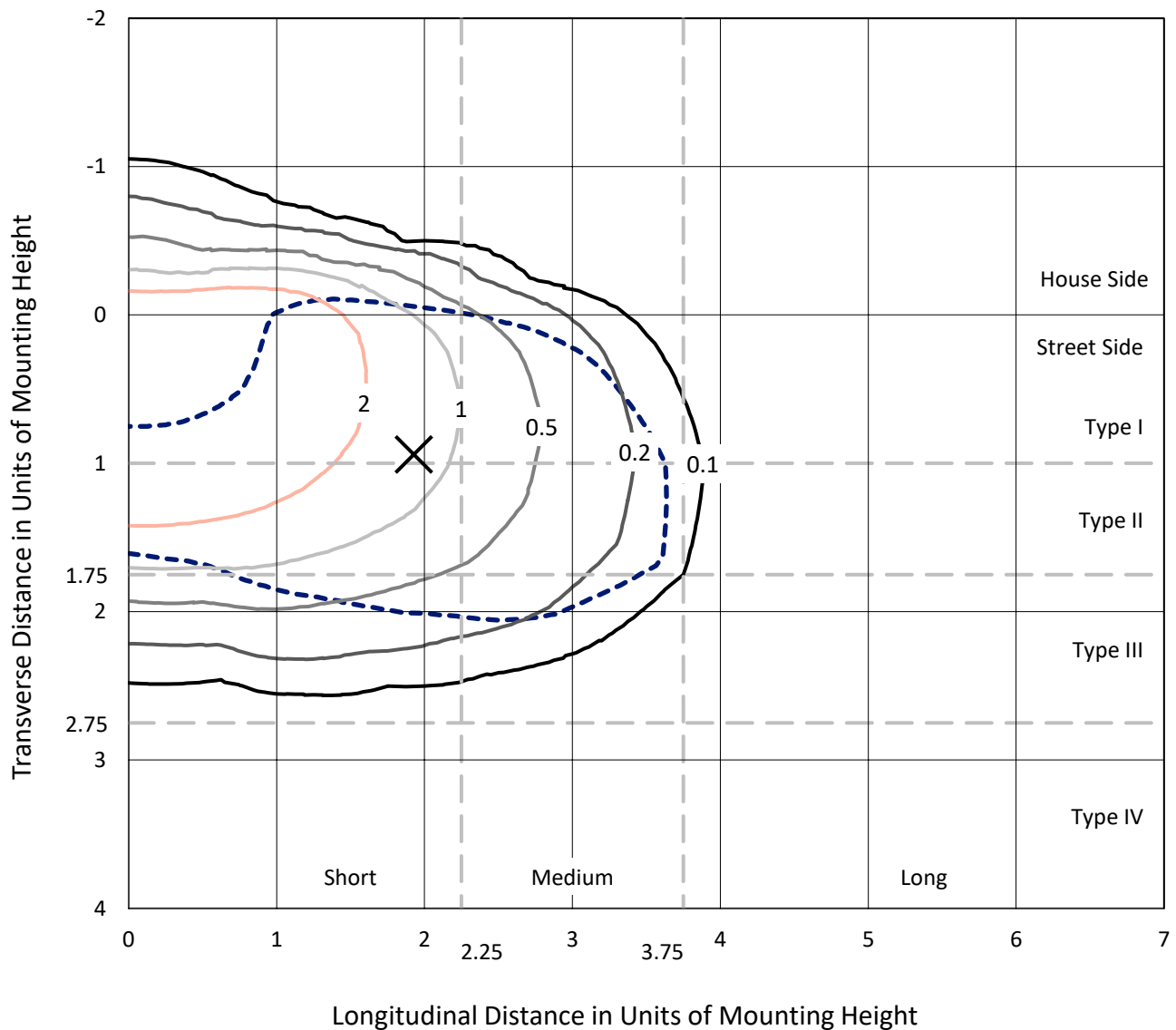


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Iso-Footcandle Lines of Horizontal Illumination

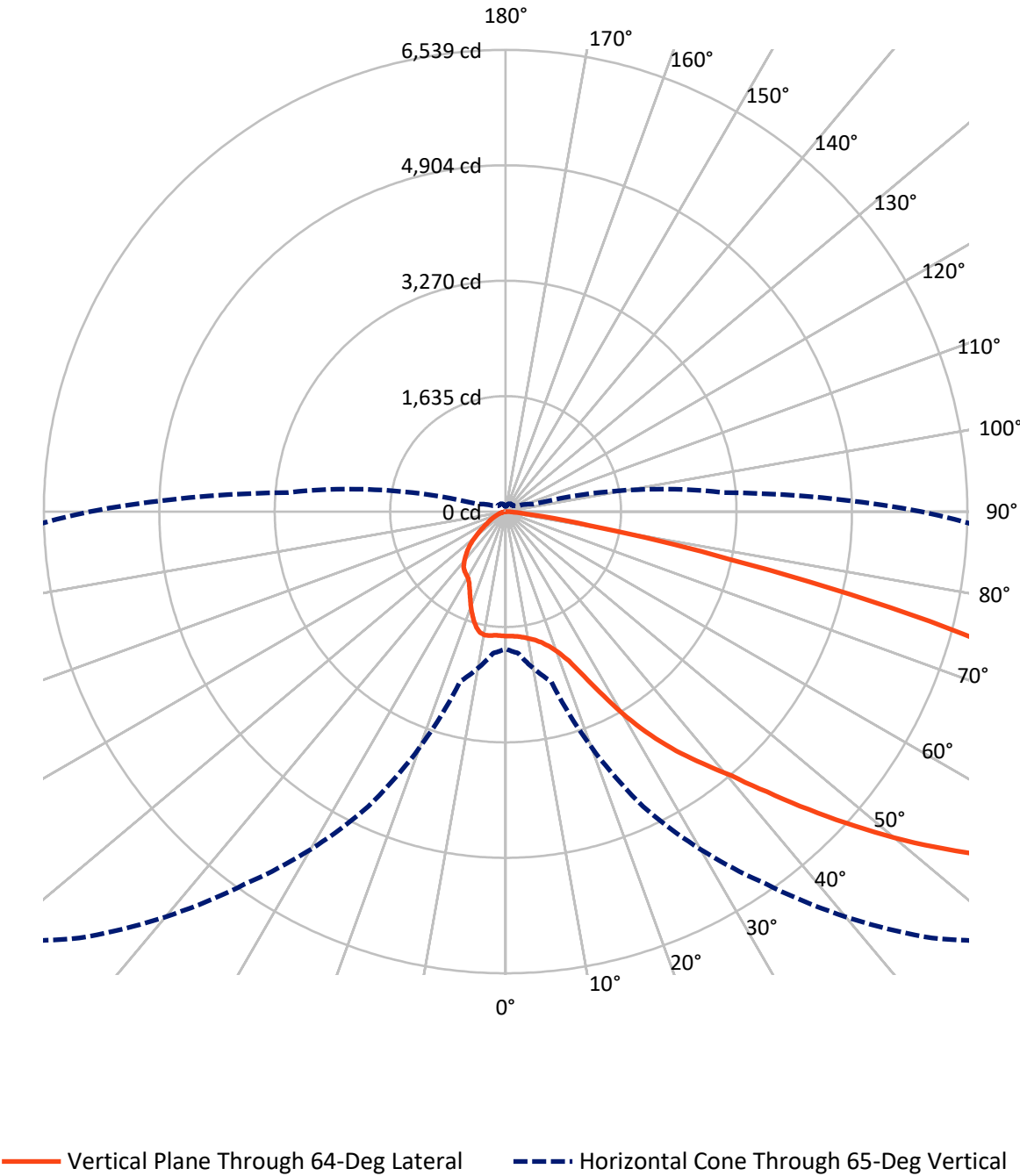
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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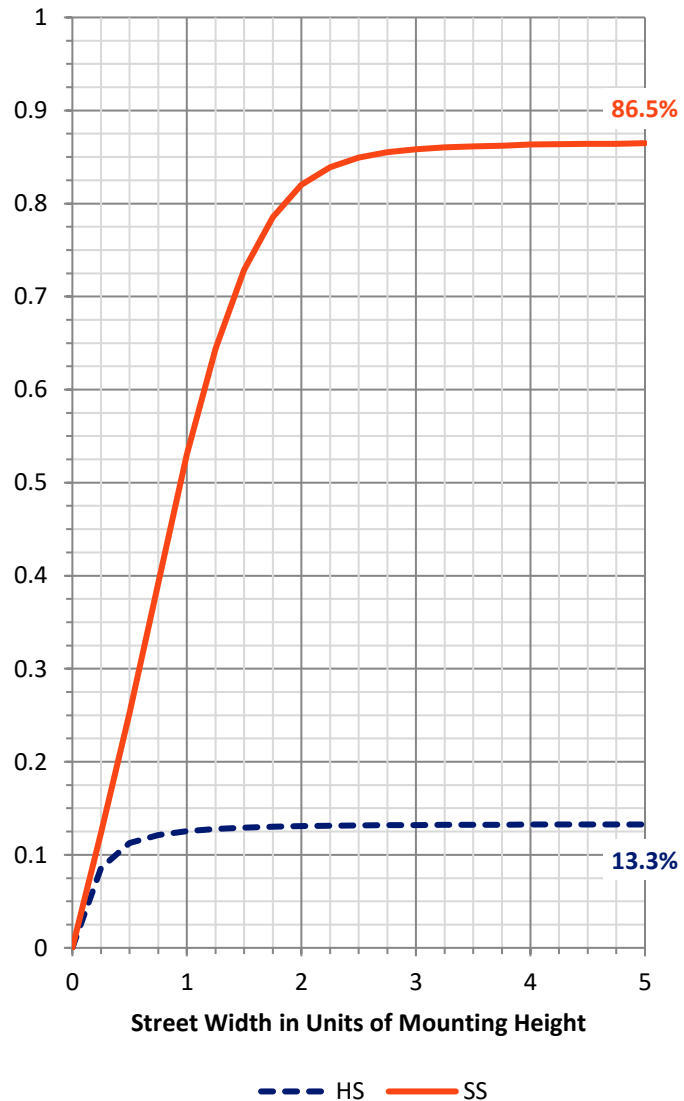
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2029.2	0.0	2029.2
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	13144.9	0.0	13144.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	15174.1	0.0	15174.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.8	1.1
10°-20°	441.6	2.9
20°-30°	836.9	5.5
30°-40°	1693.4	11.2
40°-50°	2884.8	19.0
50°-60°	3923.1	25.9
60°-70°	3684.0	24.3
70°-80°	1476.0	9.7
80°-90°	71.5	0.5
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°	15174.1	100.0
0°-180°	15174.1	100.0

Coefficient of Utilization



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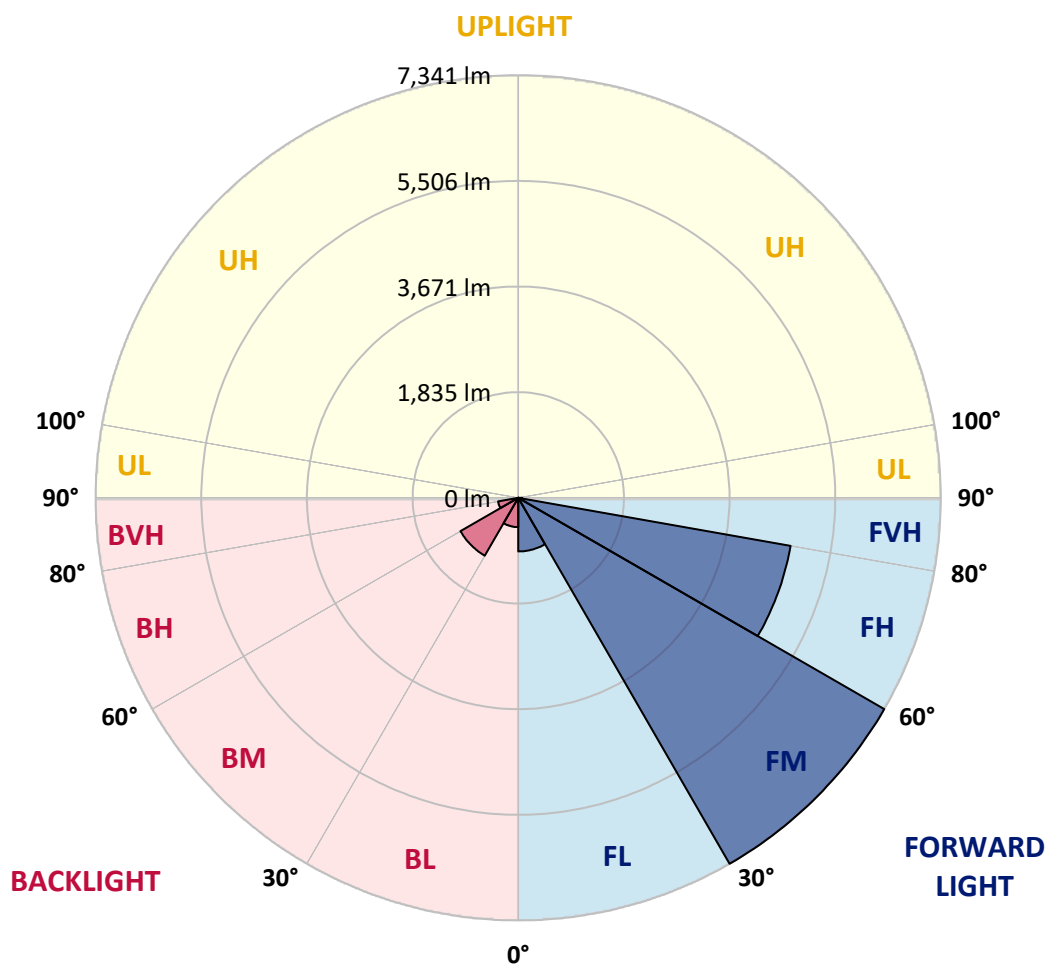
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	931.9	6.1			
FM	(30°-60°)	7341.2	48.4			
FH	(60°-80°)	4803.8	31.7			G2/5000
FVH	(80°-90°)	68.0	0.4			G1/100
BL	(0°-30°)	509.5	3.4	B2/1000		
BM	(30°-60°)	1160.1	7.6	B2/2500		
BH	(60°-80°)	356.2	2.3	B1/500		G1/500
BVH	(80°-90°)	3.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9
2.5°	1758.8	1771.0	1767.9	1764.9	1763.9	1766.0	1766.9	1766.0	1766.0	1766.0	1766.9
5°	1725.3	1735.4	1735.4	1742.5	1752.6	1764.9	1774.1	1776.1	1778.2	1781.1	1780.1
7.5°	1661.1	1669.3	1675.4	1698.8	1724.3	1756.7	1784.2	1798.5	1800.5	1811.7	1815.8
10°	1617.4	1627.6	1637.7	1662.1	1698.8	1747.6	1794.4	1829.0	1834.0	1860.5	1872.8
12.5°	1615.4	1625.5	1638.8	1665.2	1708.0	1759.8	1816.8	1866.6	1875.7	1914.4	1939.9
15°	1636.7	1648.9	1661.1	1693.7	1739.4	1802.6	1863.6	1925.7	1934.8	1989.7	2017.2
17.5°	1680.5	1696.8	1705.9	1738.5	1787.3	1857.5	1937.9	2009.0	2017.2	2081.3	2115.8
20°	1766.9	1786.3	1789.3	1815.8	1863.6	1938.9	2034.5	2123.0	2133.1	2206.4	2245.1
22.5°	1946.0	1973.4	1949.0	1962.3	2005.0	2080.2	2184.0	2295.9	2310.1	2393.6	2428.1
25°	2261.4	2300.0	2236.9	2214.5	2232.9	2311.2	2441.3	2582.8	2599.0	2666.1	2683.4
27.5°	2880.9	2830.9	2735.3	2641.7	2586.8	2631.6	2778.1	2953.0	2973.4	3038.5	3018.1
30°	3561.4	3517.6	3388.4	3180.9	3050.7	3043.5	3178.8	3374.2	3397.6	3459.6	3397.6
32.5°	4242.9	4201.2	4060.8	3805.5	3579.6	3467.8	3561.4	3778.0	3790.2	3829.9	3738.4
35°	4913.2	4870.5	4730.2	4468.7	4191.0	3936.7	3918.4	4162.5	4166.6	4208.3	4072.0
37.5°	5587.7	5552.1	5402.6	5146.2	4872.5	4521.6	4351.7	4526.7	4531.8	4572.5	4431.1
40°	6068.8	6084.1	5981.4	5782.9	5548.0	5164.5	4838.0	4914.3	4883.7	4951.9	4867.5
42.5°	6481.8	6512.3	6422.9	6323.1	6186.8	5849.1	5440.2	5427.0	5378.2	5414.8	5327.2
45°	6838.9	6864.3	6784.0	6760.6	6757.5	6520.4	6098.3	6019.0	5950.8	5943.7	5838.9
47.5°	6970.1	7018.9	7053.5	7131.8	7284.5	7184.7	6778.8	6655.7	6579.5	6523.5	6357.8
50°	7019.9	7071.8	7189.9	7417.7	7778.8	7821.6	7456.4	7318.0	7224.4	7122.7	6878.6
52.5°	6952.8	7045.3	7204.1	7587.6	8111.4	8332.2	8106.3	7985.3	7878.5	7712.7	7350.6
55°	6557.1	6649.7	6974.2	7585.5	8277.3	8690.3	8720.8	8666.9	8546.9	8285.4	7732.0
57.5°	5723.0	5860.3	6374.0	7327.1	8274.2	8998.5	9323.0	9361.6	9227.4	8853.0	8032.1
60°	4567.4	4753.5	5380.1	6754.4	8018.9	9165.3	9851.0	10044.2	9901.8	9412.5	8275.2
62.5°	3187.0	3402.7	3995.7	5857.3	7434.9	9045.3	10236.5	10593.5	10485.6	9913.0	8368.8
65°	1943.9	2013.1	2491.3	4609.1	6442.1	8542.8	10355.5	10890.5	10855.0	10219.1	8230.4
67.5°	1295.0	1352.9	1490.2	3160.6	5000.8	7538.8	10070.6	10838.7	10848.8	10169.3	7723.9
70°	780.2	830.0	919.6	1838.1	3240.9	5967.1	9188.7	10177.4	10236.5	9503.0	6763.6
72.5°	321.4	355.1	436.4	833.1	1678.4	3787.2	7317.0	8738.0	8875.4	7990.4	5190.9
75°	182.0	199.4	256.4	418.1	728.4	1764.9	4432.1	6203.1	6405.5	5507.3	3122.9
77.5°	121.1	129.1	165.8	270.6	409.9	602.2	1894.1	3231.7	3618.4	3008.0	1351.9
80°	81.4	88.5	114.0	181.1	266.5	258.4	603.2	1197.3	1472.9	1033.5	329.5
82.5°	54.9	56.0	81.4	119.0	168.8	125.2	178.0	372.3	467.9	299.1	125.2
85°	31.6	30.5	60.1	69.2	75.2	51.9	53.9	111.9	146.5	126.2	71.2
87.5°	4.1	6.1	23.4	18.3	10.1	11.2	11.2	19.4	28.5	30.5	15.3
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°	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9	1764.9
2.5°	1766.9	1766.0	1762.9	1759.8	1752.6	1748.6	1750.7	1748.6	1747.6	1748.6	1752.6
5°	1780.1	1777.1	1768.9	1758.8	1744.6	1727.2	1716.1	1699.8	1684.6	1675.4	1677.4
7.5°	1815.8	1812.7	1801.5	1773.0	1727.2	1655.1	1589.0	1530.9	1487.2	1461.8	1462.8
10°	1872.8	1867.7	1850.3	1787.3	1667.3	1509.6	1378.3	1269.5	1198.3	1164.7	1161.7
12.5°	1939.9	1933.8	1903.2	1774.1	1553.3	1307.2	1126.1	1005.0	938.9	909.4	906.4
15°	2019.2	2011.0	1951.1	1711.0	1387.5	1083.3	917.6	827.0	784.3	757.9	758.8
17.5°	2117.9	2103.6	1986.7	1616.4	1207.4	912.5	789.4	721.2	683.6	658.2	656.1
20°	2246.1	2222.7	2015.2	1503.5	1041.6	804.6	702.9	646.0	617.5	595.1	591.0
22.5°	2425.0	2391.5	2049.7	1381.4	924.7	730.4	638.8	597.2	573.7	548.3	544.2
25°	2646.9	2607.2	2092.4	1268.5	844.3	666.2	592.0	557.4	530.0	500.5	497.4
27.5°	2957.1	2885.9	2143.3	1175.9	775.1	611.3	549.3	510.7	479.1	454.7	449.7
30°	3303.0	3186.0	2188.1	1120.0	712.1	560.5	493.3	454.7	425.2	408.0	404.9
32.5°	3630.6	3471.8	2217.6	1095.5	655.1	502.6	432.3	390.6	368.3	363.2	366.2
35°	3939.8	3730.2	2214.5	1072.1	604.2	444.5	372.3	329.5	312.3	315.4	315.4
37.5°	4295.8	4005.9	2193.2	1035.6	562.5	391.7	320.4	282.8	267.5	268.5	272.6
40°	4709.8	4324.3	2180.0	966.4	516.8	342.8	277.7	247.2	236.0	232.0	230.9
42.5°	5151.2	4632.5	2182.0	888.1	459.8	299.1	248.3	222.7	212.6	209.5	208.5
45°	5594.8	4926.5	2185.0	806.7	399.7	265.5	226.8	205.5	199.4	195.3	195.3
47.5°	6011.8	5176.8	2128.1	719.1	340.8	240.1	209.5	195.3	190.2	185.1	185.1
50°	6400.4	5343.5	1990.8	617.5	294.0	219.8	196.3	186.1	181.1	176.0	176.0
52.5°	6702.6	5370.0	1763.9	512.7	261.5	204.5	188.2	179.1	172.9	167.9	166.9
55°	6836.9	5204.2	1441.5	415.0	236.0	191.3	180.1	170.9	163.8	158.7	157.6
57.5°	6802.3	4855.2	1124.0	333.6	211.6	178.0	169.8	163.8	155.6	147.5	146.5
60°	6632.4	4388.3	847.4	277.7	189.2	163.8	158.7	153.6	142.4	130.2	128.1
62.5°	6338.4	3801.4	604.2	229.9	164.8	147.5	145.4	141.3	125.2	102.7	100.8
65°	5888.8	3088.3	406.9	191.3	141.3	129.1	130.2	123.1	101.7	76.3	74.2
67.5°	5231.6	2258.3	260.5	156.6	118.0	107.8	108.9	104.8	86.5	65.1	62.0
70°	4394.5	1495.4	169.8	119.0	94.6	83.4	89.5	90.5	73.3	52.9	50.8
72.5°	3221.6	882.9	119.0	88.5	69.2	58.0	73.3	75.2	59.0	39.7	37.6
75°	1836.1	419.1	89.5	64.1	42.7	40.7	57.0	57.0	40.7	26.4	24.4
77.5°	771.1	175.0	63.0	41.7	24.4	23.4	38.6	35.6	20.3	12.2	12.2
80°	222.7	78.3	33.6	20.3	10.1	9.1	15.3	11.2	5.1	2.0	2.0
82.5°	87.4	34.5	13.2	8.1	4.1	4.1	2.0	0.0	0.0	0.0	0.0
85°	51.9	14.2	6.1	3.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.2	3.1	2.0	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)