

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: P964176

Luminaire Tested: **NAV-SB3B-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11599.9 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

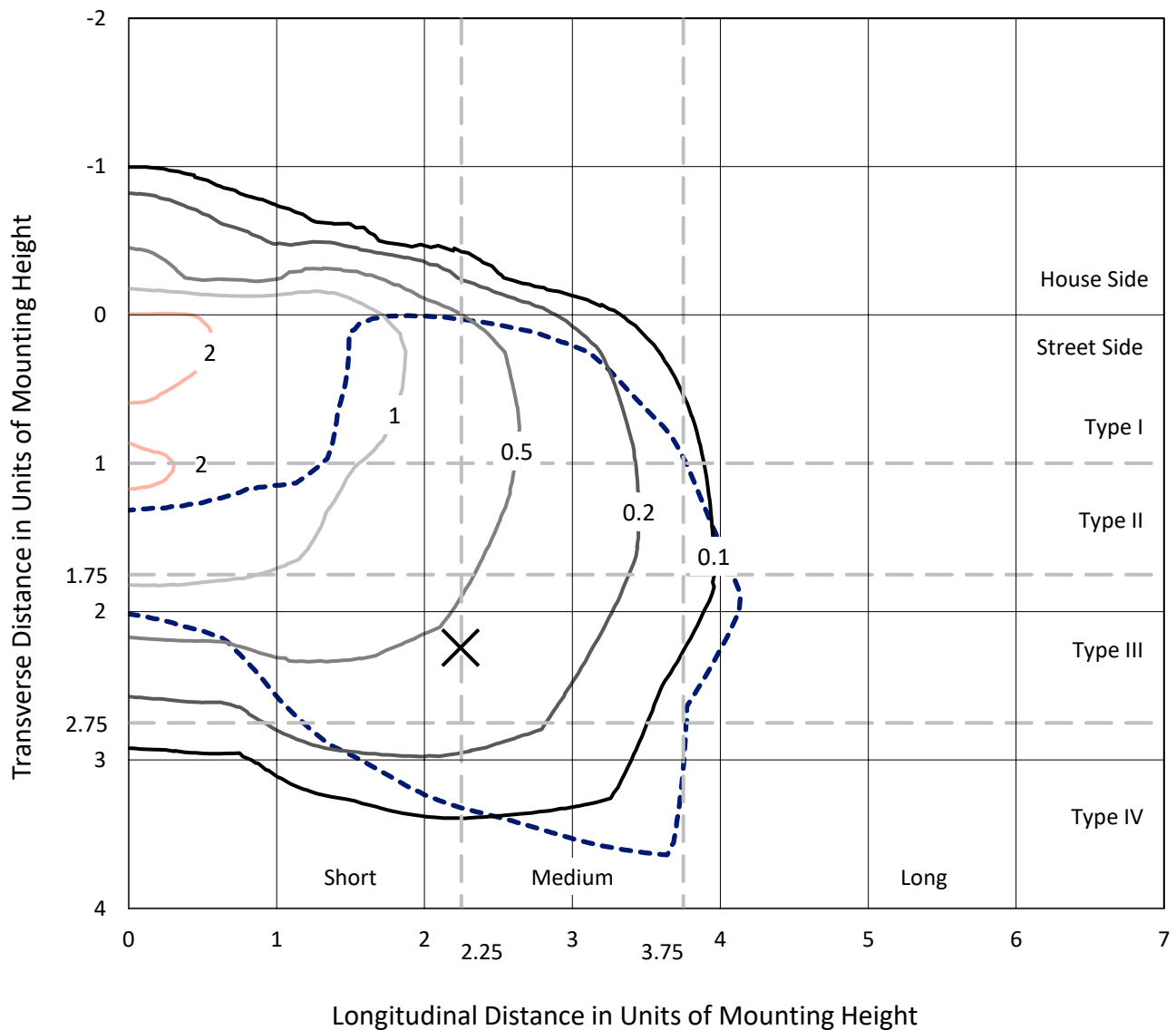
Input Watts (W): 109.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

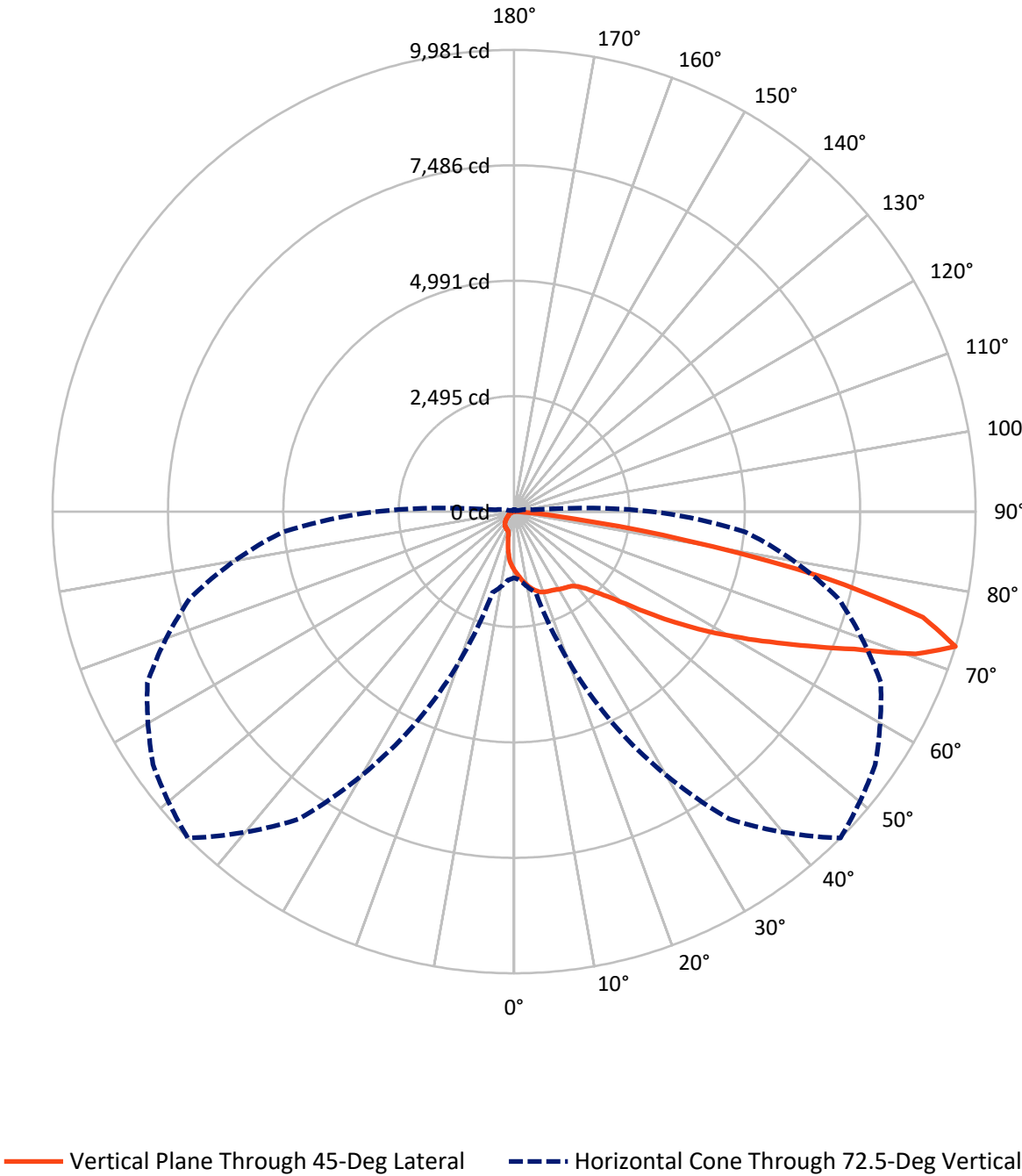
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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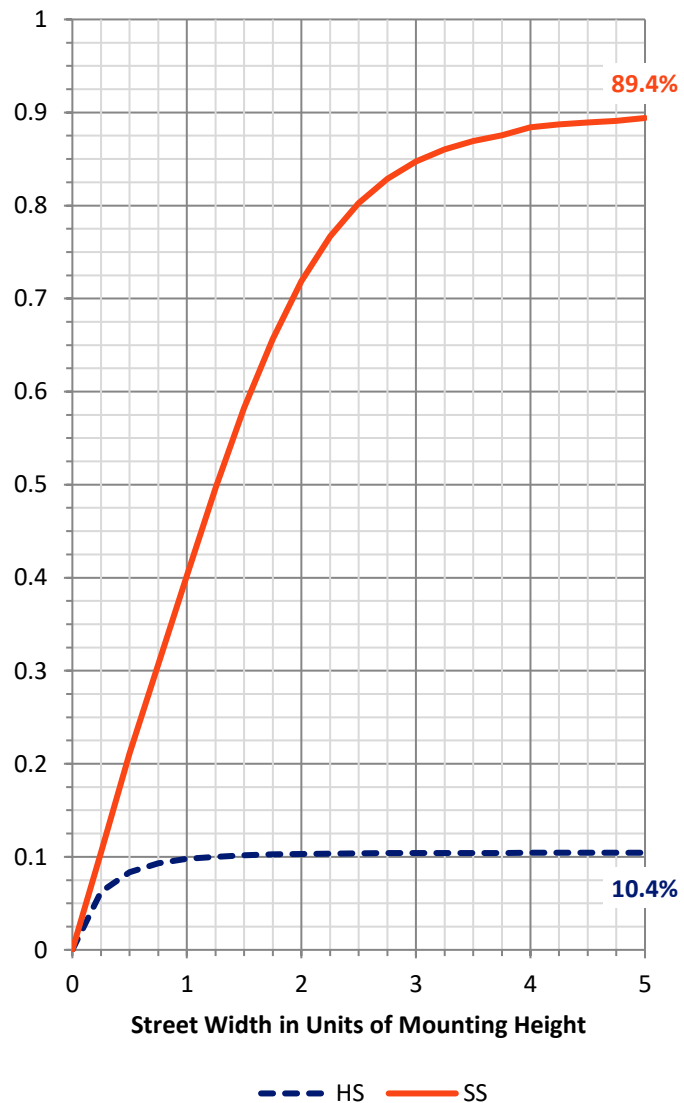
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1218.8	0.0	1218.8
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	10381.1	0.0	10381.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	11599.9	0.0	11599.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.7	1.0
10°-20°	349.9	3.0
20°-30°	574.6	5.0
30°-40°	815.0	7.0
40°-50°	1347.1	11.6
50°-60°	2419.9	20.9
60°-70°	3360.1	29.0
70°-80°	2437.3	21.0
80°-90°	176.2	1.5
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°	11599.9	100.0
0°-180°	11599.9	100.0

Coefficient of Utilization



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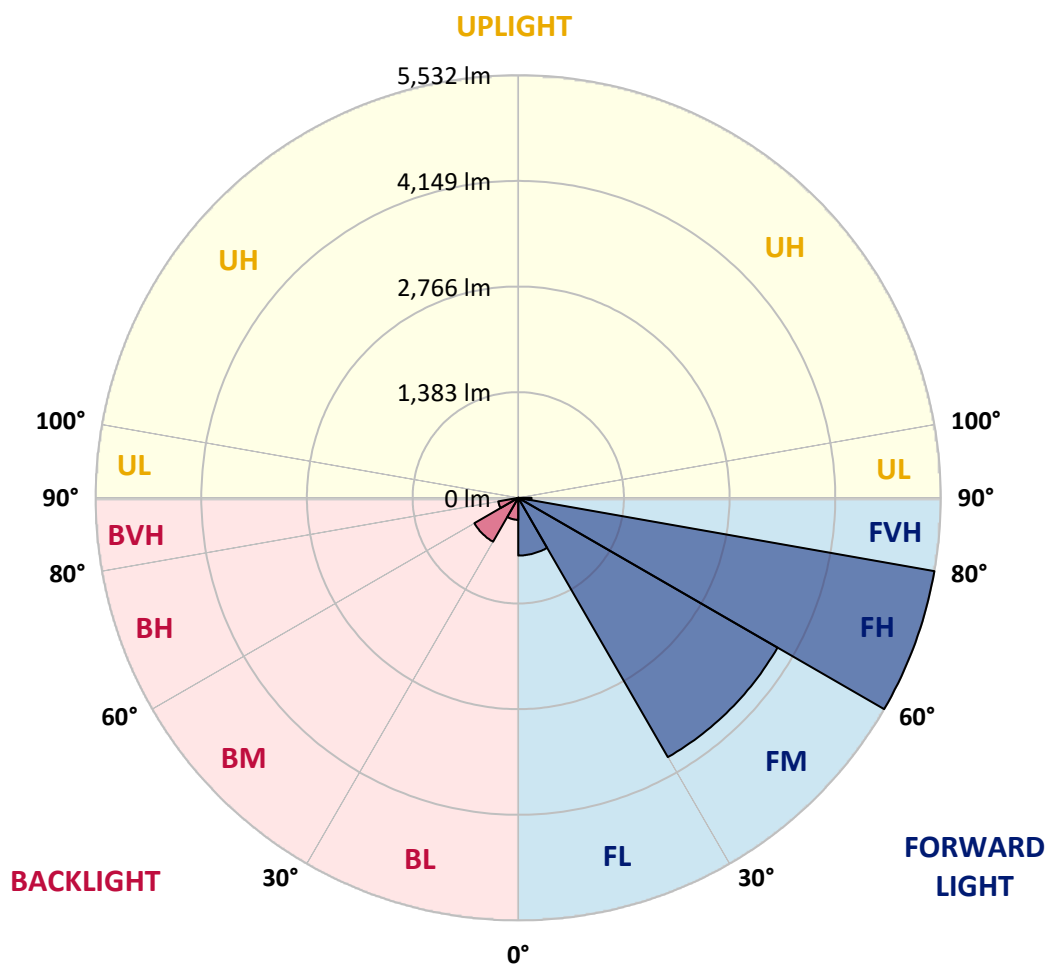
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	755.6	6.5			
FM	(30°-60°)	3919.1	33.8			
FH	(60°-80°)	5531.7	47.7			G3/7500
FVH	(80°-90°)	174.7	1.5			G2/225
BL	(0°-30°)	288.7	2.5	B1/500		
BM	(30°-60°)	662.9	5.7	B1/1000		
BH	(60°-80°)	265.8	2.3	B1/500		G1/500
BVH	(80°-90°)	1.5	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°	35°	45°	46°	55°	65°	75°	85°
0°	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8
2.5°	1388.0	1390.3	1388.8	1379.2	1363.5	1354.7	1349.9	1334.1	1323.9	1305.6	1286.7
5°	1515.5	1525.0	1519.5	1500.4	1470.4	1448.9	1442.6	1410.2	1380.9	1346.8	1307.2
7.5°	1650.9	1655.6	1645.3	1620.7	1580.3	1544.0	1538.4	1493.3	1446.6	1394.3	1340.5
10°	1768.0	1773.6	1757.8	1722.1	1676.2	1631.1	1623.1	1573.3	1517.8	1453.7	1384.8
12.5°	1866.2	1871.8	1851.2	1808.4	1757.8	1711.0	1703.1	1650.9	1589.9	1518.6	1433.2
15°	1940.6	1950.9	1923.2	1877.3	1822.7	1775.9	1772.0	1720.6	1661.1	1582.0	1490.9
17.5°	1984.2	1994.4	1968.3	1913.0	1866.2	1826.7	1821.8	1779.1	1723.6	1647.7	1547.1
20°	1991.3	2000.8	1973.1	1924.8	1886.0	1854.3	1852.0	1821.1	1780.7	1707.9	1608.1
22.5°	1969.9	1981.8	1956.5	1917.7	1890.7	1874.1	1870.9	1853.5	1830.5	1768.8	1665.1
25°	1947.8	1957.2	1938.3	1904.2	1890.0	1888.4	1890.7	1887.5	1882.8	1830.5	1731.6
27.5°	1946.2	1956.5	1935.1	1902.6	1894.7	1911.3	1913.7	1928.7	1932.7	1886.8	1795.7
30°	1959.6	1966.8	1946.2	1912.1	1908.1	1946.2	1947.0	1973.8	1980.2	1934.3	1859.0
32.5°	1988.9	1996.8	1976.3	1926.4	1920.8	1973.8	1976.3	2011.9	2022.2	1985.0	1925.6
35°	2057.8	2067.3	2043.5	1966.0	1946.2	2000.0	2007.2	2049.1	2069.7	2038.8	1994.4
37.5°	2229.7	2201.9	2169.4	2045.9	2004.0	2041.2	2053.1	2102.2	2138.6	2103.0	2076.9
40°	2656.4	2569.3	2468.0	2182.1	2105.4	2129.1	2138.6	2187.7	2237.6	2202.7	2190.0
42.5°	3296.9	3194.0	3030.9	2495.7	2258.2	2270.0	2277.1	2319.9	2390.4	2362.6	2365.8
45°	3867.8	3830.6	3664.4	3030.9	2543.9	2485.4	2494.1	2516.3	2620.0	2609.6	2630.3
47.5°	4306.4	4285.1	4156.8	3645.3	3026.9	2749.0	2773.5	2783.9	2933.5	2969.9	3025.4
50°	4643.8	4635.9	4521.1	4191.6	3658.0	3137.8	3146.5	3124.3	3348.4	3438.7	3543.9
52.5°	4962.0	4989.0	4904.2	4699.2	4331.8	3647.0	3645.3	3540.8	3843.2	3979.5	4159.1
55°	5249.4	5259.0	5267.7	5217.0	5009.6	4226.5	4211.4	4040.4	4417.3	4558.3	4753.0
57.5°	5519.4	5523.4	5601.0	5704.7	5715.0	4848.9	4821.1	4616.1	5044.4	5145.0	5264.5
60°	5700.7	5719.0	5882.9	6171.1	6297.0	5490.9	5475.9	5266.9	5682.6	5729.2	5707.1
62.5°	5439.5	5550.4	5963.7	6535.3	6846.5	6202.8	6195.6	5999.2	6354.0	6315.9	6125.9
65°	4403.1	4590.7	5317.6	6781.5	7385.6	6997.7	7008.0	6798.9	7043.6	6920.1	6466.4
67.5°	3080.0	3278.0	4137.8	6801.3	7988.2	7931.2	7990.6	7662.8	7776.0	7498.9	6547.2
70°	2129.8	2232.0	2791.8	6375.4	8457.7	9217.0	9215.5	8723.8	8504.4	7762.5	6135.4
72.5°	1432.3	1485.3	1813.1	5057.9	8112.5	9981.1	9935.2	9534.6	8749.9	7259.8	5012.8
75°	604.1	642.9	839.3	2842.4	6418.1	9131.5	9007.2	8426.0	7774.4	5716.6	3127.5
77.5°	191.6	208.3	331.0	1017.4	3535.2	6863.9	6732.4	5262.1	5210.7	2867.8	1143.3
80°	91.0	106.1	186.0	408.6	1391.1	3733.3	3715.0	2387.2	2241.5	774.4	229.6
82.5°	39.6	46.7	102.9	218.5	622.4	1331.8	1358.6	812.3	672.2	293.8	70.4
85°	12.7	16.6	47.5	100.6	262.9	331.0	327.0	193.2	270.8	159.9	24.5
87.5°	0.0	0.0	15.8	23.0	27.0	19.0	21.4	16.6	75.2	44.4	8.7
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°	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8	1270.8
2.5°	1277.1	1264.4	1242.3	1221.7	1203.5	1185.3	1174.2	1158.4	1156.8	1156.8	1160.7
5°	1285.9	1265.3	1225.7	1183.7	1135.4	1089.5	1043.6	999.2	984.9	974.7	979.4
7.5°	1311.2	1278.7	1216.2	1136.2	1044.4	943.8	873.3	797.3	768.0	752.1	754.6
10°	1347.6	1303.3	1208.3	1068.2	919.2	782.3	681.7	599.4	567.7	554.2	554.2
12.5°	1388.0	1333.3	1194.0	983.4	782.3	618.4	520.2	482.2	477.4	477.4	477.4
15°	1436.2	1369.8	1169.4	883.7	639.0	489.3	454.5	456.0	460.8	464.0	464.0
17.5°	1486.1	1408.6	1130.7	772.0	512.3	440.2	441.1	443.4	447.3	450.5	450.5
20°	1540.0	1447.4	1079.2	653.2	439.4	426.0	428.3	430.7	433.9	435.5	436.2
22.5°	1597.8	1483.8	1018.2	536.8	414.9	414.1	414.9	417.3	421.2	421.2	422.8
25°	1659.6	1524.2	948.5	452.1	402.2	402.2	403.8	405.4	408.6	408.6	409.4
27.5°	1722.9	1561.4	874.9	407.7	391.1	390.3	390.3	392.7	394.3	395.1	395.9
30°	1792.6	1604.9	801.2	398.2	382.4	378.4	376.1	377.7	379.2	380.1	381.6
32.5°	1863.9	1646.9	735.5	402.2	373.7	366.5	358.6	357.1	357.1	360.3	362.6
35°	1943.0	1692.8	684.9	415.6	369.0	349.2	336.5	329.3	330.2	335.0	337.3
37.5°	2038.0	1748.2	647.7	427.5	365.8	329.3	308.8	300.1	294.6	300.1	298.5
40°	2162.3	1829.8	620.7	437.1	361.8	306.4	278.7	264.4	254.2	257.4	255.7
42.5°	2345.2	1958.1	610.5	437.9	353.1	279.5	247.8	228.8	213.8	214.5	211.4
45°	2601.8	2160.7	663.5	427.5	334.2	250.2	215.4	190.0	180.5	178.1	175.0
47.5°	2953.3	2456.1	786.3	406.2	306.4	221.7	183.7	162.4	155.2	151.2	148.8
50°	3424.4	2835.4	922.4	382.4	278.7	194.7	157.5	144.1	139.4	135.4	134.6
52.5°	3970.7	3220.1	1034.0	358.6	251.0	171.1	140.9	133.0	129.0	125.9	125.0
55°	4472.0	3485.4	1027.8	333.3	224.1	152.0	129.0	124.3	119.5	116.4	114.8
57.5°	4783.9	3522.6	847.2	305.7	193.2	136.9	118.0	114.8	109.3	105.3	104.6
60°	4927.2	3310.4	593.8	269.2	162.4	122.7	106.1	104.6	97.4	91.8	90.3
62.5°	4953.3	2916.1	395.9	224.1	135.4	109.3	94.2	91.8	82.3	72.9	68.1
65°	4847.2	2352.4	274.0	175.0	115.6	95.0	80.8	76.1	65.7	56.2	53.1
67.5°	4511.5	1651.7	190.9	125.9	98.2	75.2	64.2	62.5	54.6	46.7	44.4
70°	3896.3	941.5	127.5	94.2	77.6	51.5	50.6	52.3	44.4	38.0	34.8
72.5°	2987.4	430.7	79.1	68.9	53.1	34.8	40.4	41.2	34.0	28.5	25.3
75°	1758.5	184.5	49.9	44.4	27.0	23.0	29.3	30.1	23.0	18.2	15.8
77.5°	598.6	69.7	31.7	26.1	13.4	12.7	19.0	19.0	12.7	7.2	5.5
80°	136.2	26.1	15.8	10.2	6.4	5.5	6.4	5.5	3.2	0.8	0.0
82.5°	38.8	10.2	6.4	4.0	2.4	2.4	0.8	0.0	0.0	0.0	0.0
85°	11.1	4.7	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.7	0.8	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)