

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: P966282

Luminaire Tested: **NAV-SB4B-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966282
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-SB4B-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA 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: 15229.5 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

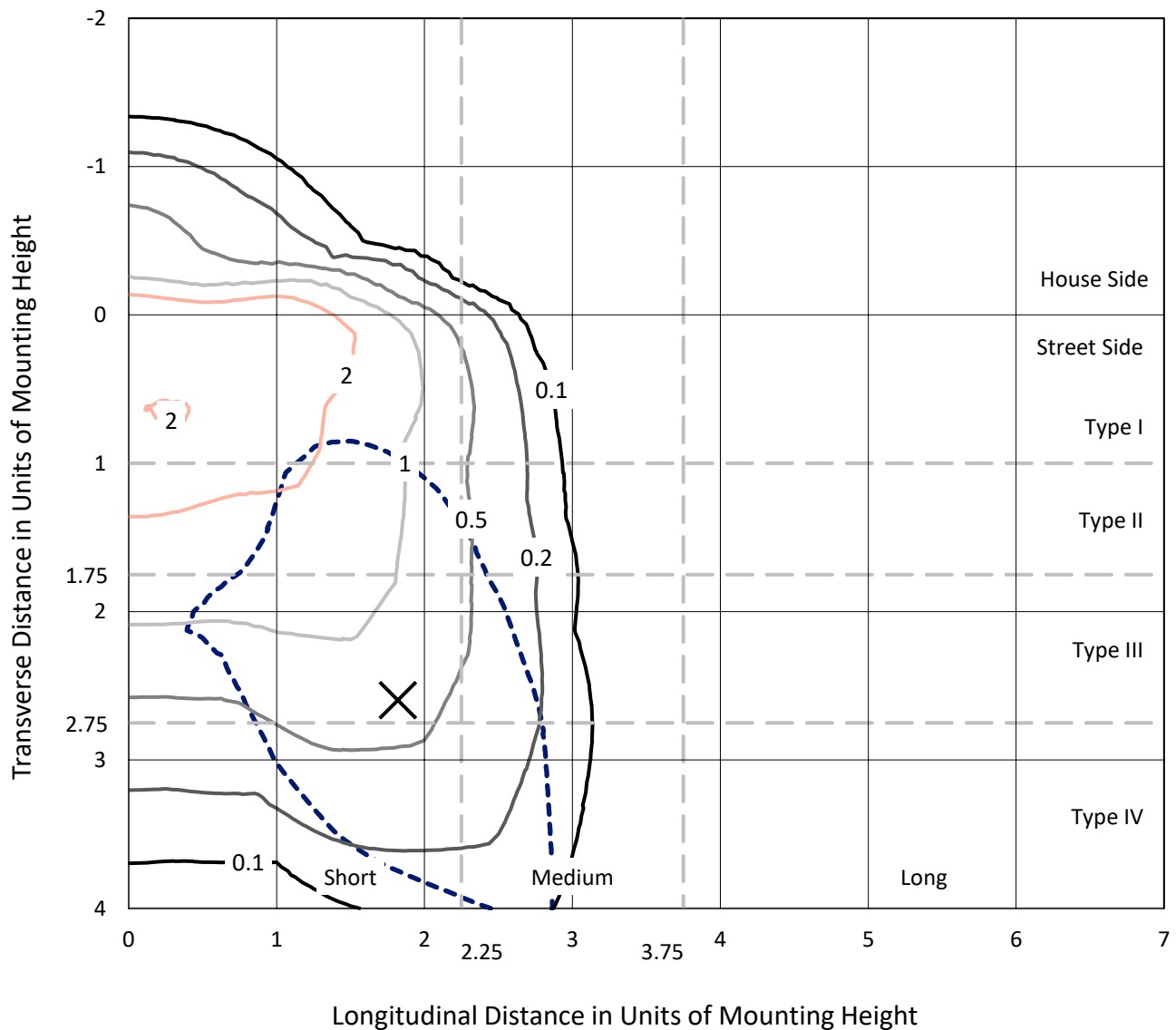
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

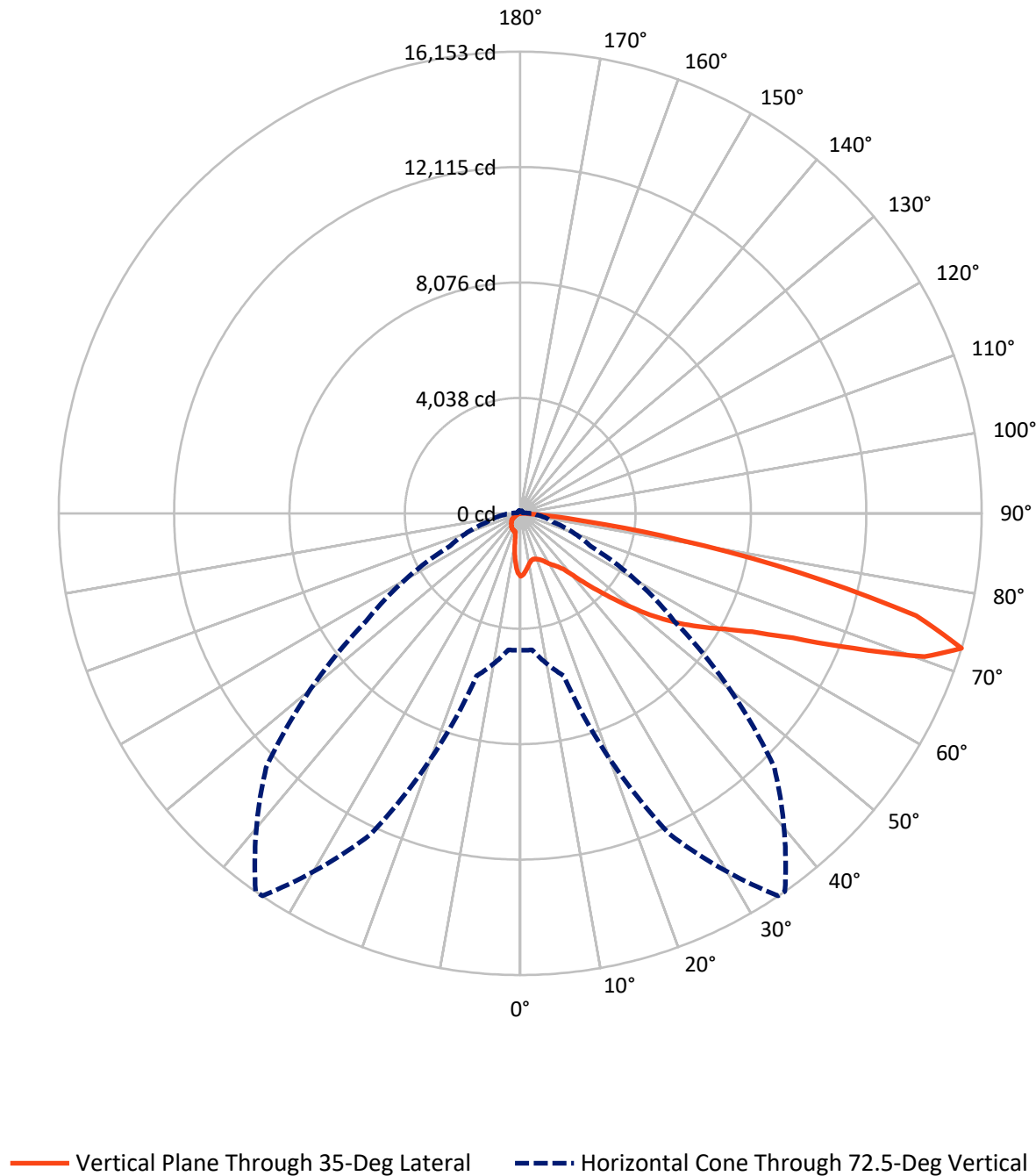
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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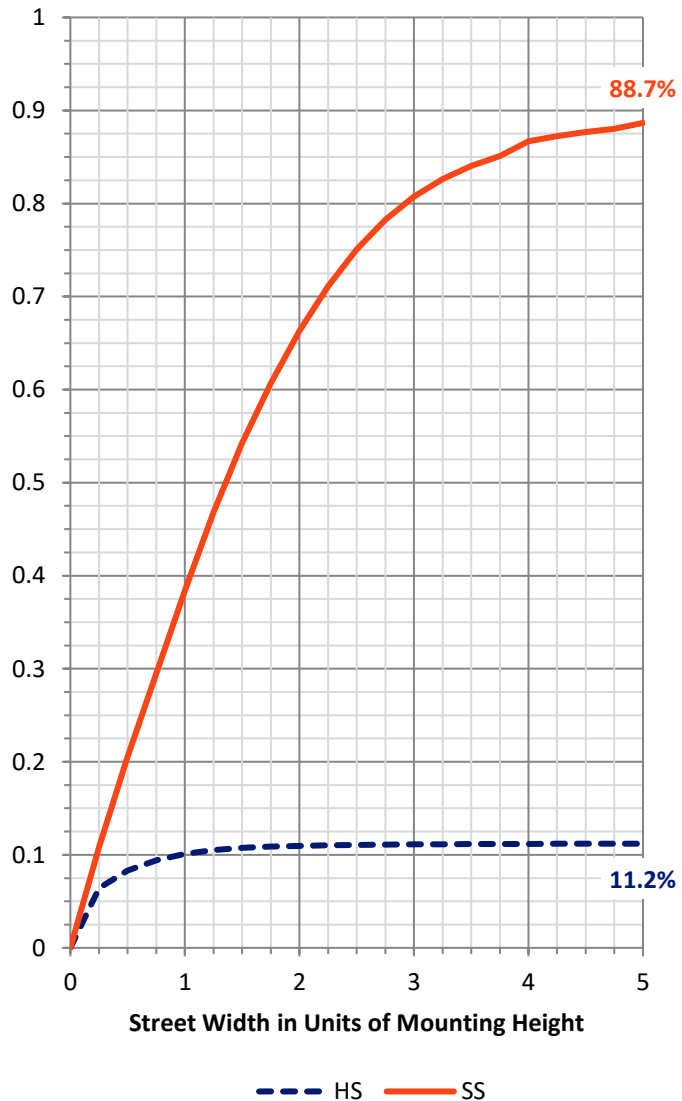
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1714.0	0.0	1714.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	13515.5	0.0	13515.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	15229.5	0.0	15229.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.4	1.2
10°-20°	424.3	2.8
20°-30°	689.3	4.5
30°-40°	1150.1	7.6
40°-50°	2175.9	14.3
50°-60°	3457.6	22.7
60°-70°	4277.3	28.1
70°-80°	2658.8	17.5
80°-90°	214.9	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°	15229.5	100.0
0°-180°	15229.5	100.0

Coefficient of Utilization



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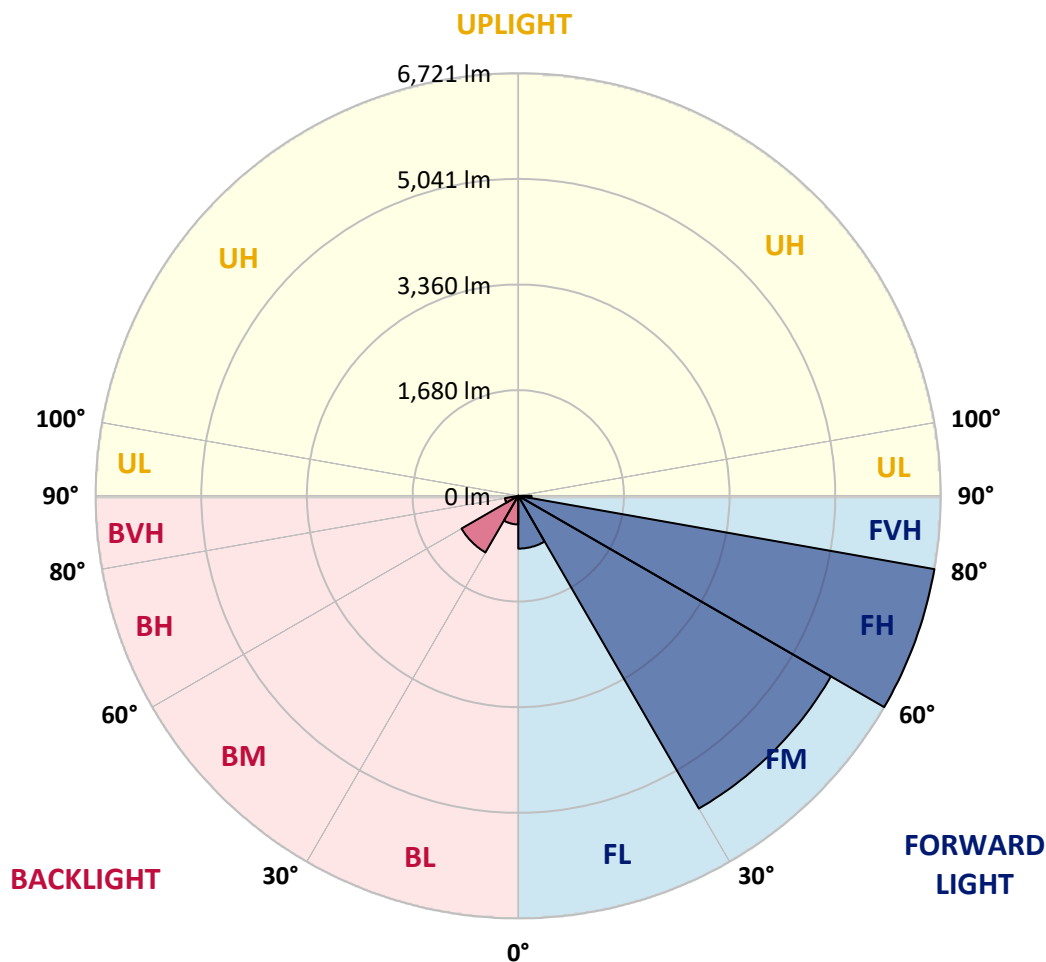
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	839.5	5.5			
FM	(30°-60°)	5743.0	37.7			
FH	(60°-80°)	6721.0	44.1			G3/7500
FVH	(80°-90°)	211.9	1.4			G2/225
BL	(0°-30°)	455.4	3.0	B1/500		
BM	(30°-60°)	1040.6	6.8	B2/2500		
BH	(60°-80°)	215.1	1.4	B1/500		G1/500
BVH	(80°-90°)	2.9	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2
2.5°	2109.0	2126.9	2130.3	2135.8	2135.8	2142.6	2153.7	2169.3	2194.9	2208.4	2217.3
5°	1943.9	1957.3	1974.0	1987.5	2013.1	2016.5	2059.9	2102.4	2161.5	2206.1	2237.4
7.5°	1777.7	1793.2	1815.6	1848.0	1881.4	1891.4	1957.3	2028.7	2122.5	2206.1	2258.6
10°	1660.5	1661.6	1681.7	1714.0	1767.6	1779.9	1860.2	1961.7	2078.9	2192.8	2278.7
12.5°	1594.6	1602.5	1611.4	1635.9	1687.3	1695.0	1780.9	1900.4	2035.4	2184.9	2302.1
15°	1594.6	1600.2	1605.8	1618.1	1659.4	1666.0	1741.9	1861.3	2013.1	2188.3	2340.1
17.5°	1611.4	1620.3	1615.8	1630.4	1673.8	1678.3	1745.3	1850.1	2012.0	2209.5	2398.1
20°	1651.6	1658.2	1649.3	1658.2	1701.7	1710.7	1779.9	1871.3	2030.9	2246.3	2470.7
22.5°	1715.1	1718.5	1697.3	1704.0	1748.6	1759.8	1840.1	1931.6	2076.6	2305.4	2567.7
25°	1795.5	1802.2	1769.9	1777.7	1820.0	1833.4	1926.1	2022.0	2149.2	2386.9	2691.5
27.5°	1888.2	1891.4	1863.6	1862.4	1917.2	1936.1	2029.8	2133.6	2246.3	2489.6	2847.8
30°	1994.1	2004.2	1977.4	1972.9	2042.1	2057.7	2150.3	2270.9	2389.2	2643.6	3069.9
32.5°	2077.8	2085.7	2070.0	2081.2	2151.5	2163.8	2296.5	2465.0	2613.4	2862.3	3372.2
35°	2198.3	2202.8	2167.1	2187.1	2267.5	2298.8	2496.3	2737.3	2895.7	3136.8	3767.3
37.5°	2634.7	2634.7	2482.9	2383.5	2460.6	2488.5	2769.7	3079.9	3243.9	3505.1	4265.0
40°	3238.4	3228.3	3006.2	2803.2	2793.1	2847.8	3159.2	3511.8	3693.7	3947.0	4825.2
42.5°	3882.2	3866.6	3564.2	3363.3	3329.8	3348.8	3608.8	4044.0	4229.3	4485.9	5427.8
45°	4453.5	4449.1	4172.4	3902.3	3842.0	3902.3	4170.1	4666.7	4799.5	5069.5	6029.3
47.5°	4932.3	4932.3	4730.3	4554.0	4522.7	4558.5	4930.0	5357.5	5345.2	5691.1	6615.0
50°	5483.5	5479.1	5287.2	5211.3	5243.6	5293.8	5804.9	6085.0	5909.8	6301.5	7138.4
52.5°	5869.7	5896.4	5830.6	5818.3	5983.4	6070.6	6693.1	6797.0	6415.4	6880.6	7530.2
55°	6175.4	6206.7	6282.5	6368.4	6686.5	6800.4	7553.5	7472.0	6838.3	7382.9	7755.6
57.5°	6608.4	6563.8	6681.0	6850.5	7364.9	7502.2	8387.2	8109.3	7178.6	7790.1	7780.1
60°	7134.0	7140.7	7160.8	7375.0	8042.4	8218.7	9208.4	8711.9	7397.3	8040.1	7507.8
62.5°	7765.6	7775.6	7817.0	8146.1	8951.7	9118.1	10083.3	9205.1	7497.8	7969.8	6804.8
65°	7722.0	7764.5	8225.3	9351.3	10334.4	10498.5	11104.3	9551.1	7346.0	7327.0	5540.4
67.5°	7034.7	7103.9	7875.0	10790.8	12418.9	12601.9	12338.5	9619.1	6691.0	5697.8	3614.5
70°	6133.0	6157.6	7084.9	12085.3	14832.6	15017.8	13443.3	8870.3	5077.3	3178.1	1619.2
72.5°	4789.4	4795.1	5883.1	12385.4	16142.6	16152.7	12576.2	6584.9	2730.6	1220.8	562.4
75°	3421.3	3387.9	3940.3	10044.3	14202.1	14316.0	9428.3	3088.8	1043.3	577.0	280.1
77.5°	1834.5	1871.3	2229.6	5956.7	9811.0	10005.2	5144.3	890.5	531.2	392.8	185.2
80°	566.9	598.1	913.9	2727.3	5557.2	5674.4	1907.1	396.2	370.4	280.1	121.7
82.5°	178.6	185.2	426.3	1146.1	2306.6	2360.2	552.4	224.3	253.3	185.2	71.4
85°	51.4	52.5	189.7	427.4	570.2	581.4	155.1	87.0	145.0	114.9	36.8
87.5°	5.5	17.8	71.4	71.4	50.2	49.1	16.7	19.0	41.3	14.6	6.7
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°	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2
2.5°	2211.7	2212.9	2198.3	2173.8	2147.0	2124.7	2096.7	2074.5	2058.8	2054.4	2062.2
5°	2227.3	2219.5	2178.2	2103.5	2014.2	1937.2	1851.3	1783.2	1738.6	1719.6	1726.3
7.5°	2250.8	2228.5	2138.0	1990.8	1820.0	1668.3	1514.2	1394.9	1319.0	1281.0	1286.7
10°	2270.9	2226.2	2071.1	1827.9	1566.7	1336.8	1129.3	985.3	905.0	867.0	868.2
12.5°	2289.8	2225.1	1984.1	1634.8	1281.0	999.9	806.8	735.3	713.1	705.3	703.0
15°	2325.5	2228.5	1874.7	1413.9	996.5	755.4	685.2	684.1	688.5	686.2	685.2
17.5°	2374.6	2231.8	1750.8	1179.5	768.9	666.1	662.9	672.9	679.6	676.2	675.2
20°	2438.3	2245.2	1619.2	947.4	660.6	643.9	651.7	660.6	666.1	660.6	659.5
22.5°	2527.5	2268.6	1475.2	761.1	626.1	630.5	637.1	647.2	652.8	645.0	643.9
25°	2636.9	2305.4	1333.5	661.7	609.3	614.9	624.9	636.1	642.8	635.0	633.9
27.5°	2778.6	2364.6	1202.9	639.4	592.6	595.9	610.4	627.1	636.1	626.1	626.1
30°	2983.9	2461.6	1090.2	649.4	582.5	574.7	594.8	618.2	628.2	619.3	618.2
32.5°	3256.2	2599.0	1021.0	665.1	578.0	550.1	569.1	599.2	616.0	610.4	610.4
35°	3613.3	2807.6	994.2	683.0	574.7	524.5	537.8	570.2	599.2	604.9	604.9
37.5°	4046.3	3097.8	1002.0	690.7	564.7	503.3	509.9	537.8	575.8	593.7	598.1
40°	4538.4	3435.9	1046.7	683.0	553.5	485.4	486.6	507.8	541.2	568.0	577.0
42.5°	5046.1	3830.9	1129.3	653.9	543.5	469.8	466.5	480.9	503.3	522.2	530.0
45°	5529.3	4237.0	1210.7	613.8	531.2	454.2	446.4	451.9	456.4	464.2	468.6
47.5°	5951.2	4522.7	1187.4	577.0	514.4	436.3	422.9	420.7	407.3	406.2	405.1
50°	6242.4	4585.2	1054.5	540.1	489.8	416.3	395.0	381.6	358.2	347.1	348.2
52.5°	6335.0	4338.6	861.5	503.3	449.7	389.5	359.4	338.1	309.1	299.1	298.0
55°	6212.2	3855.4	688.5	458.7	393.9	353.7	320.3	292.3	269.0	256.7	256.7
57.5°	5912.1	3240.5	544.6	406.2	334.8	313.5	280.1	252.2	232.1	219.9	217.6
60°	5414.4	2573.3	430.7	343.7	285.7	270.1	235.4	217.6	199.8	185.2	181.9
62.5°	4658.9	1836.8	338.1	272.2	238.8	221.0	200.9	187.5	166.3	146.2	142.9
65°	3635.6	1123.7	261.2	199.8	192.0	183.0	170.8	158.5	132.8	112.7	109.4
67.5°	2293.2	532.3	186.3	150.7	151.8	147.3	141.8	131.7	112.7	94.8	92.7
70°	1009.9	257.8	122.8	114.9	112.7	112.7	117.2	113.8	95.9	79.2	75.8
72.5°	343.7	138.4	91.5	87.0	81.5	80.4	98.2	94.8	77.0	61.4	58.0
75°	179.7	92.7	66.9	62.5	49.1	59.1	78.1	73.7	54.6	40.2	36.8
77.5°	117.2	65.8	45.7	40.2	27.9	39.1	58.0	51.4	32.4	20.1	17.8
80°	73.7	43.6	26.8	19.0	13.4	21.2	31.3	22.3	12.3	4.5	3.4
82.5°	39.1	22.3	10.0	6.7	5.5	6.7	7.8	5.5	2.3	0.0	0.0
85°	15.6	7.8	3.4	2.3	1.1	0.0	2.3	1.1	0.0	0.0	0.0
87.5°	5.5	1.1	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)