

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: P966340

Luminaire Tested: **NAV-SB4B-835-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966340
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-SB4B-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA 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: 16827.4 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - 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



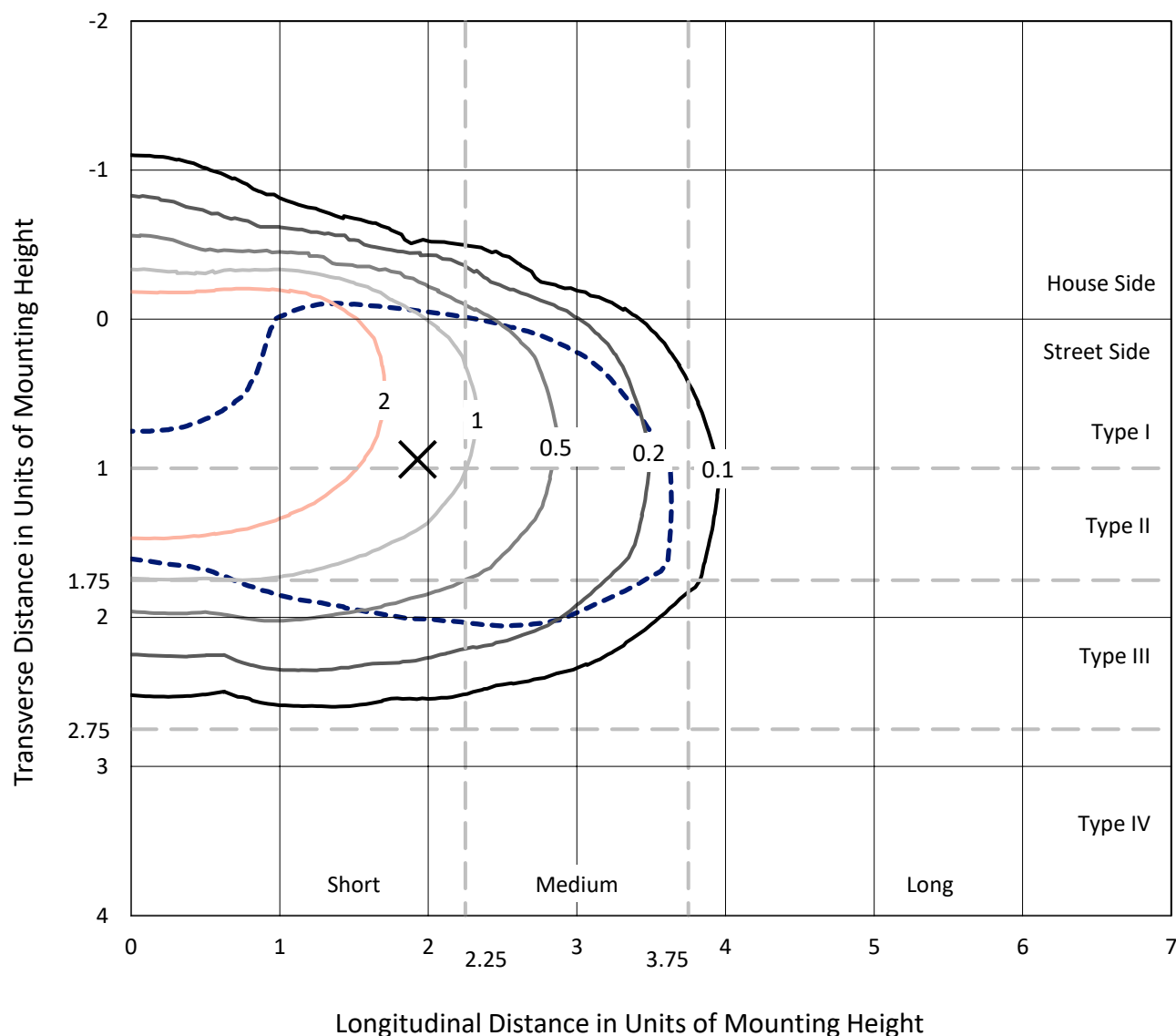
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



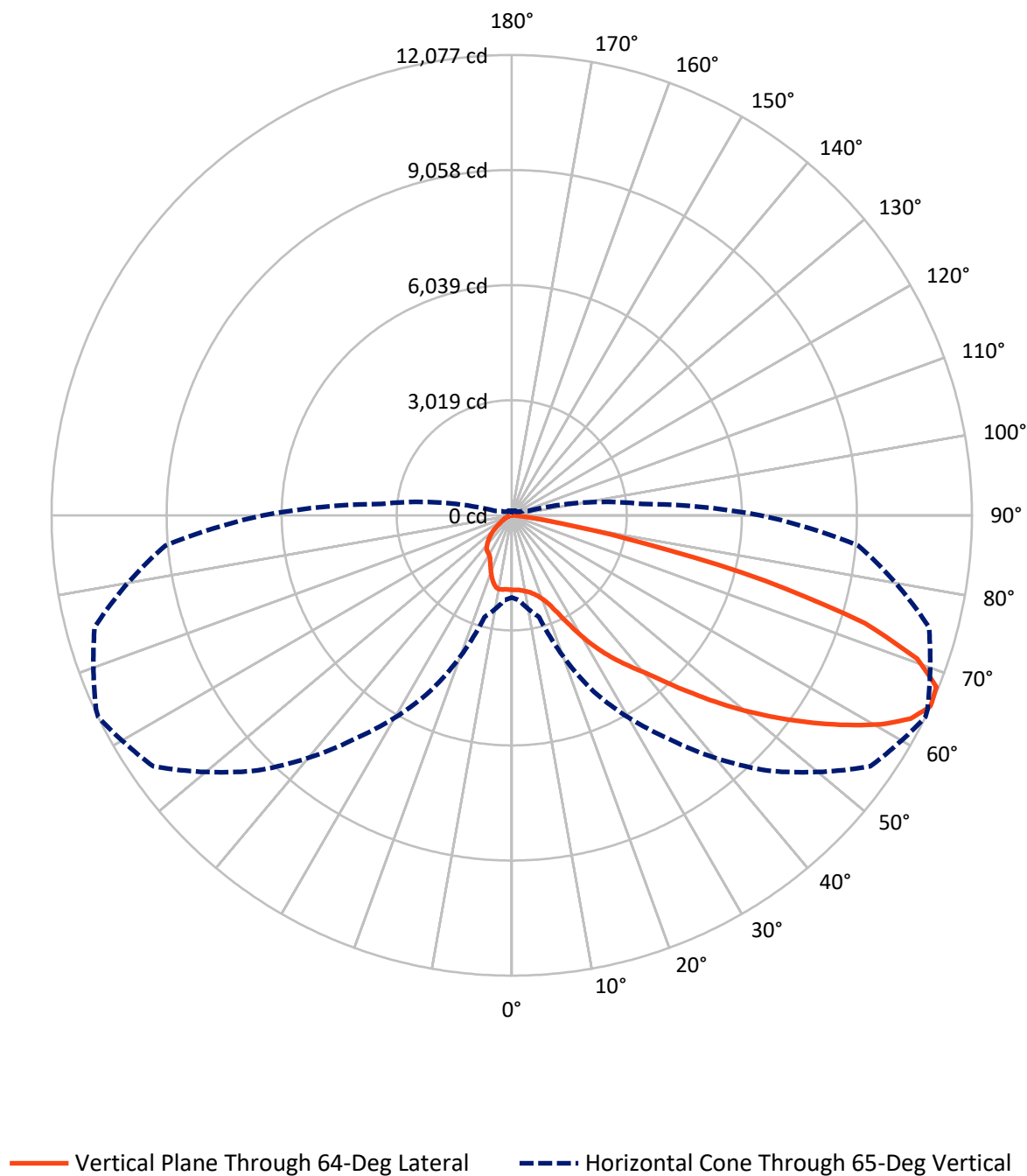
Based on 25 foot mounting height. Maximum calculated value = 4.9 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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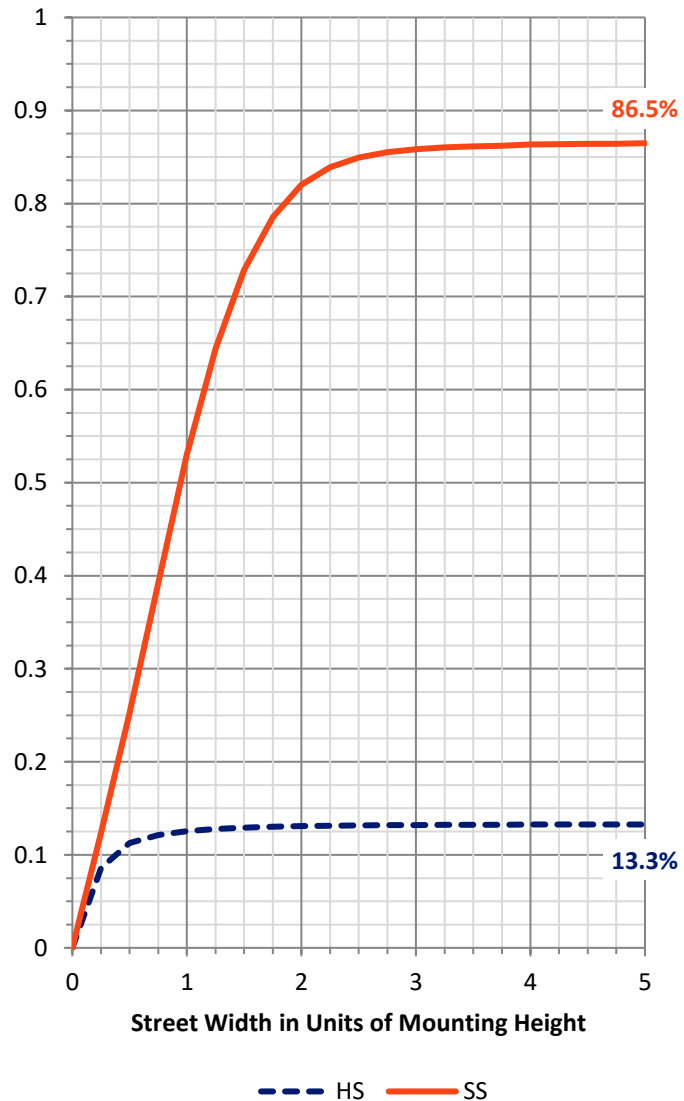
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2250.3	0.0	2250.3
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14577.1	0.0	14577.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	16827.4	0.0	16827.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.6	1.1
10°-20°	489.8	2.9
20°-30°	928.1	5.5
30°-40°	1877.9	11.2
40°-50°	3199.1	19.0
50°-60°	4350.5	25.9
60°-70°	4085.4	24.3
70°-80°	1636.8	9.7
80°-90°	79.3	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°	16827.4	100.0
0°-180°	16827.4	100.0

Coefficient of Utilization



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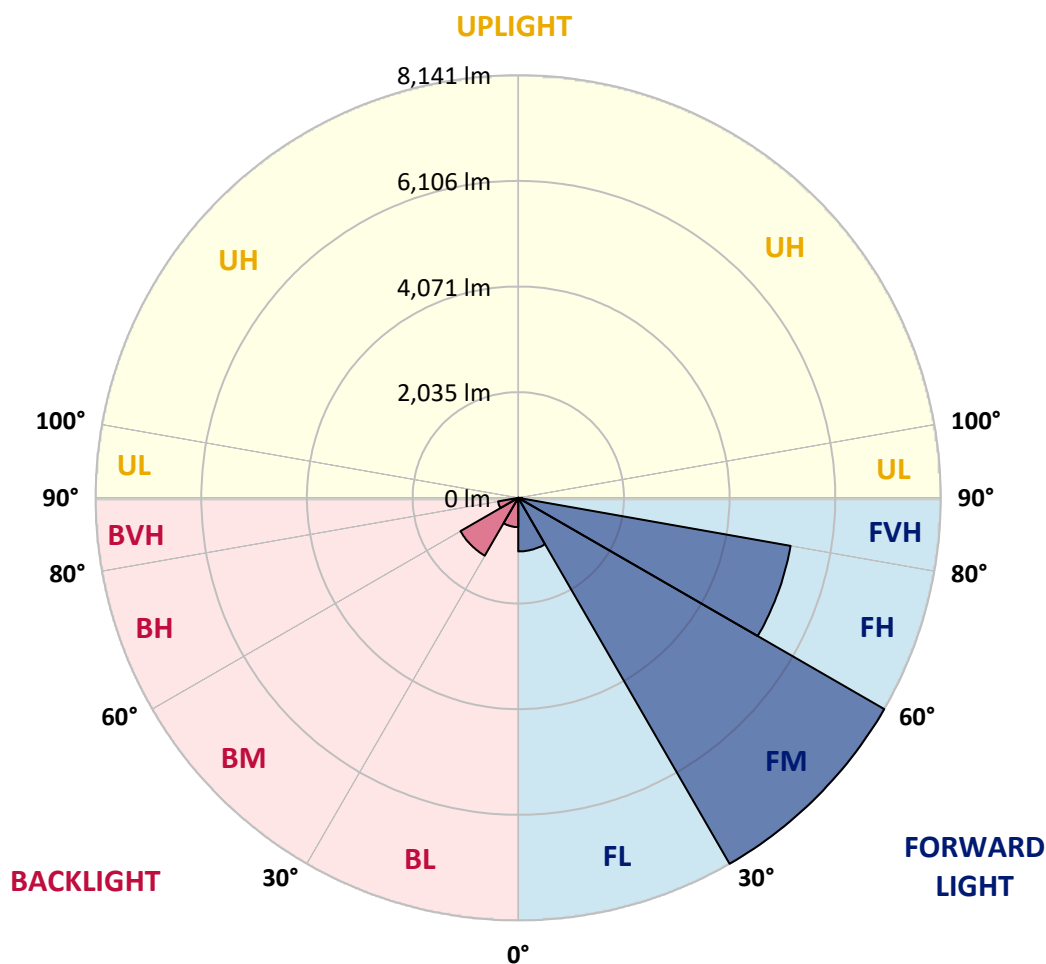
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1033.4	6.1			
FM	(30°-60°)	8141.1	48.4			
FH	(60°-80°)	5327.2	31.7			G3/7500
FVH	(80°-90°)	75.4	0.4			G1/100
BL	(0°-30°)	565.0	3.4	B2/1000		
BM	(30°-60°)	1286.5	7.6	B2/2500		
BH	(60°-80°)	395.0	2.3	B1/500		G1/500
BVH	(80°-90°)	3.9	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2
2.5°	1950.5	1964.0	1960.6	1957.2	1956.1	1958.4	1959.5	1958.4	1958.4	1958.4	1959.5
5°	1913.2	1924.5	1924.5	1932.4	1943.7	1957.2	1967.4	1969.6	1971.9	1975.3	1974.2
7.5°	1842.1	1851.2	1857.9	1883.8	1912.0	1948.2	1978.7	1994.4	1996.7	2009.1	2013.6
10°	1793.6	1804.9	1816.2	1843.3	1883.8	1938.1	1989.9	2028.3	2033.9	2063.2	2076.8
12.5°	1791.4	1802.7	1817.3	1846.6	1894.0	1951.6	2014.7	2070.0	2080.1	2123.0	2151.3
15°	1815.1	1828.6	1842.1	1878.2	1929.0	1999.0	2066.6	2135.5	2145.6	2206.5	2237.0
17.5°	1863.6	1881.6	1891.7	1927.9	1982.0	2059.8	2149.0	2227.9	2237.0	2308.0	2346.4
20°	1959.5	1980.9	1984.3	2013.6	2066.6	2150.1	2256.1	2354.3	2365.6	2446.8	2489.6
22.5°	2158.0	2188.5	2161.4	2176.1	2223.4	2306.9	2422.0	2546.1	2561.9	2654.3	2692.7
25°	2507.7	2550.6	2480.6	2455.8	2476.1	2563.0	2707.3	2864.2	2882.2	2956.7	2975.9
27.5°	3194.7	3139.5	3033.4	2929.6	2868.7	2918.3	3080.7	3274.8	3297.3	3369.6	3347.0
30°	3949.4	3900.8	3757.6	3527.4	3383.1	3375.2	3525.2	3741.8	3767.8	3836.6	3767.8
32.5°	4705.2	4658.9	4503.2	4220.1	3969.7	3845.6	3949.4	4189.7	4203.2	4247.2	4145.6
35°	5448.6	5401.2	5245.5	4955.6	4647.7	4365.7	4345.3	4616.1	4620.6	4666.8	4515.6
37.5°	6196.5	6157.0	5991.2	5706.9	5403.5	5014.3	4825.9	5019.9	5025.6	5070.7	4913.8
40°	6730.0	6747.0	6633.1	6413.1	6152.5	5727.2	5365.2	5449.7	5415.9	5491.4	5397.9
42.5°	7188.1	7221.9	7122.6	7012.1	6860.9	6486.4	6032.9	6018.3	5964.1	6004.8	5907.7
45°	7584.0	7612.3	7523.1	7497.2	7493.8	7231.0	6762.7	6674.8	6599.3	6591.4	6475.1
47.5°	7729.5	7783.6	7822.1	7908.9	8078.1	7967.5	7517.5	7380.9	7296.4	7234.3	7050.5
50°	7784.8	7842.4	7973.2	8225.9	8626.4	8673.8	8268.8	8115.3	8011.6	7898.8	7628.0
52.5°	7710.4	7813.1	7989.0	8414.3	8995.2	9240.1	8989.6	8855.4	8736.9	8553.0	8151.4
55°	7271.6	7374.2	7734.0	8412.1	9179.1	9637.2	9671.0	9611.2	9478.1	9188.1	8574.4
57.5°	6346.5	6498.8	7068.5	8125.5	9175.7	9978.9	10338.8	10381.6	10232.8	9817.7	8907.2
60°	5065.0	5271.5	5966.3	7490.4	8892.6	10163.9	10924.2	11138.6	10980.6	10438.1	9176.8
62.5°	3534.2	3773.4	4431.1	6495.4	8245.1	10030.9	11351.8	11747.7	11628.1	10993.0	9280.7
65°	2155.8	2232.4	2762.7	5111.3	7144.0	9473.6	11483.8	12077.2	12037.7	11332.6	9127.2
67.5°	1436.0	1500.3	1652.6	3504.9	5545.6	8360.1	11167.9	12019.6	12030.8	11277.4	8565.4
70°	865.2	920.6	1019.8	2038.4	3594.1	6617.3	10189.8	11286.4	11351.8	10538.4	7500.5
72.5°	356.5	393.7	483.9	923.9	1861.3	4199.8	8114.2	9690.1	9842.5	8861.0	5756.5
75°	201.9	221.1	284.2	463.6	807.7	1957.2	4915.0	6879.0	7103.5	6107.4	3463.2
77.5°	134.3	143.3	183.9	300.0	454.6	667.8	2100.4	3583.9	4012.6	3335.7	1499.2
80°	90.2	98.1	126.4	200.8	295.5	286.5	668.9	1327.8	1633.4	1146.2	365.5
82.5°	60.9	62.0	90.2	132.0	187.3	138.8	197.4	412.9	519.0	331.7	138.8
85°	35.0	33.8	66.5	76.7	83.4	57.5	59.8	124.1	162.5	139.9	78.9
87.5°	4.5	6.8	25.9	20.3	11.3	12.4	12.4	21.4	31.6	33.8	16.9
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°	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2
2.5°	1959.5	1958.4	1955.0	1951.6	1943.7	1939.2	1941.5	1939.2	1938.1	1939.2	1943.7
5°	1974.2	1970.8	1961.7	1950.5	1934.7	1915.4	1903.0	1885.0	1868.1	1857.9	1860.2
7.5°	2013.6	2010.2	1997.8	1966.3	1915.4	1835.4	1762.1	1697.7	1649.2	1621.0	1622.2
10°	2076.8	2071.1	2051.9	1982.0	1848.9	1674.0	1528.6	1407.8	1328.9	1291.6	1288.2
12.5°	2151.3	2144.5	2110.6	1967.4	1722.6	1449.6	1248.8	1114.6	1041.2	1008.5	1005.1
15°	2239.2	2230.2	2163.7	1897.4	1538.7	1201.4	1017.5	917.2	869.7	840.4	841.5
17.5°	2348.7	2332.9	2203.1	1792.5	1339.1	1011.9	875.4	799.8	758.1	729.9	727.6
20°	2490.8	2464.8	2234.7	1667.3	1155.2	892.3	779.5	716.4	684.7	659.9	655.4
22.5°	2689.3	2652.1	2273.0	1532.0	1025.4	810.0	708.5	662.2	636.2	608.0	603.5
25°	2935.3	2891.2	2320.4	1406.7	936.3	738.9	656.5	618.2	587.7	555.0	551.7
27.5°	3279.3	3200.4	2376.9	1304.0	859.6	677.9	609.2	566.3	531.4	504.2	498.6
30°	3662.8	3533.1	2426.5	1242.0	789.7	621.6	547.1	504.2	471.5	452.3	449.0
32.5°	4026.1	3850.1	2459.2	1214.9	726.5	557.3	479.4	433.2	408.4	402.7	406.1
35°	4369.1	4136.6	2455.8	1189.0	670.0	492.9	412.9	365.5	346.3	349.7	349.7
37.5°	4763.9	4442.3	2432.1	1148.4	623.8	434.3	355.4	313.6	296.6	297.8	302.3
40°	5223.0	4795.5	2417.5	1071.6	573.1	380.2	308.0	274.1	261.7	257.2	256.0
42.5°	5712.5	5137.2	2419.7	984.8	509.9	331.7	275.2	247.0	235.7	232.4	231.2
45°	6204.4	5463.2	2423.1	894.5	443.3	294.4	251.5	227.9	221.1	216.6	216.6
47.5°	6666.9	5740.7	2360.0	797.6	377.9	266.2	232.4	216.6	210.9	205.3	205.3
50°	7097.8	5925.7	2207.6	684.7	326.1	243.6	217.7	206.4	200.8	195.2	195.2
52.5°	7432.9	5955.0	1956.1	568.6	289.9	226.7	208.7	198.5	191.8	186.1	185.0
55°	7581.7	5771.3	1598.5	460.2	261.7	212.1	199.7	189.5	181.6	176.0	174.9
57.5°	7543.4	5384.3	1246.5	370.0	234.6	197.4	188.4	181.6	172.6	163.6	162.5
60°	7355.0	4866.5	939.7	308.0	209.8	181.6	176.0	170.4	158.0	144.4	142.2
62.5°	7029.0	4215.6	670.0	254.9	182.8	163.6	161.3	156.8	138.8	114.0	111.7
65°	6530.4	3424.8	451.2	212.1	156.8	143.3	144.4	136.5	112.9	84.6	82.3
67.5°	5801.7	2504.3	288.7	173.7	130.9	119.6	120.7	116.2	95.8	72.2	68.8
70°	4873.3	1658.2	188.4	132.0	105.0	92.5	99.2	100.3	81.2	58.6	56.4
72.5°	3572.6	979.2	132.0	98.1	76.7	64.3	81.2	83.4	65.4	44.0	41.7
75°	2036.2	464.7	99.2	71.0	47.4	45.1	63.1	63.1	45.1	29.3	27.1
77.5°	855.1	194.0	69.9	46.2	27.1	25.9	42.8	39.5	22.5	13.5	13.5
80°	247.0	86.8	37.2	22.5	11.3	10.1	16.9	12.4	5.6	2.3	2.3
82.5°	97.0	38.3	14.7	9.0	4.5	4.5	2.3	0.0	0.0	0.0	0.0
85°	57.5	15.8	6.8	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	14.7	3.4	2.3	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)