

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: P964694

Luminaire Tested: **NAV-SB3C-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964694
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3C-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15306.3 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 149.1
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



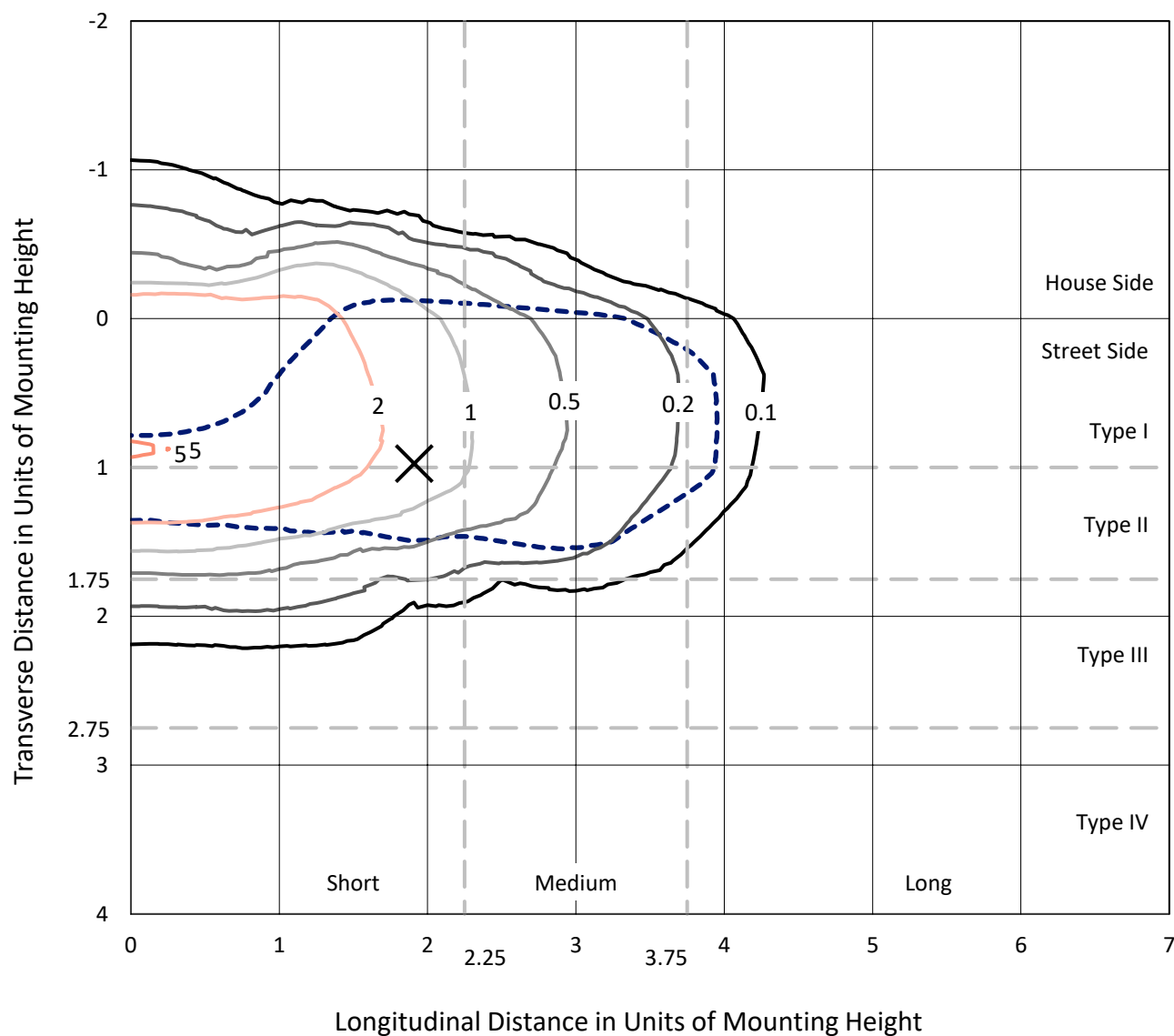
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

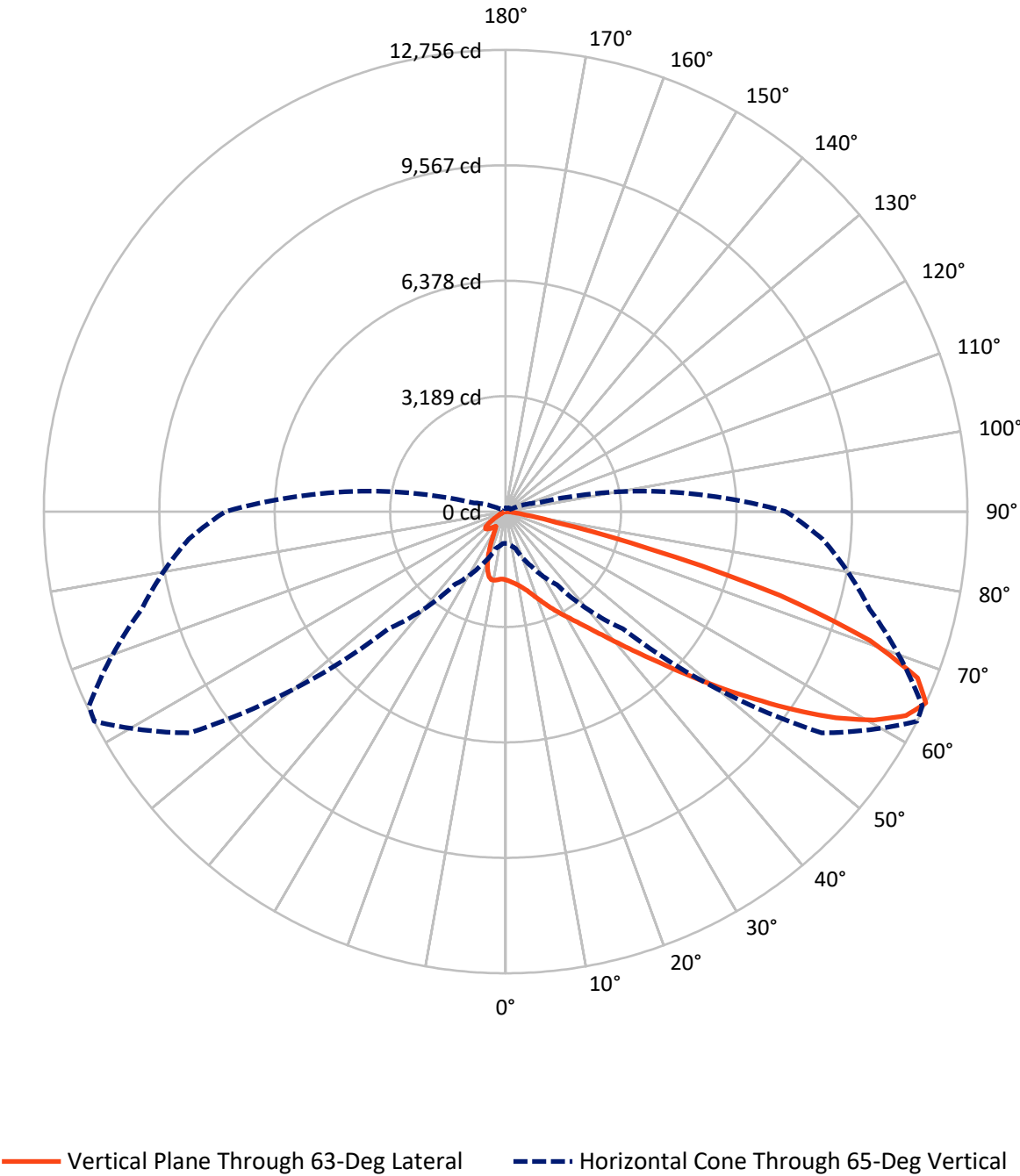


Based on 25 foot mounting height. Maximum calculated value = 5.2 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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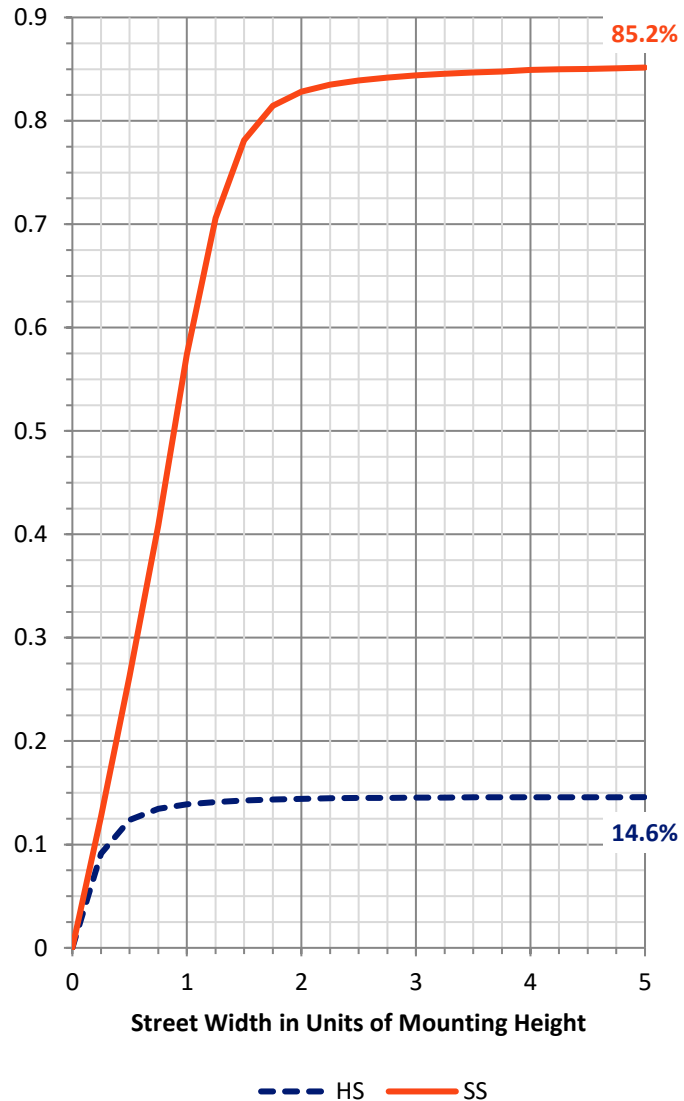
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2249.9	0.0	2249.9
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	13056.4	0.0	13056.4
	% Fixture	85.3	0.0	85.3
Total	Lumens	15306.3	0.0	15306.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.0	1.2
10°-20°	493.9	3.2
20°-30°	859.9	5.6
30°-40°	1549.9	10.1
40°-50°	3074.0	20.1
50°-60°	4187.3	27.4
60°-70°	3342.3	21.8
70°-80°	1512.4	9.9
80°-90°	108.7	0.7
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°	15306.3	100.0
0°-180°	15306.3	100.0

Coefficient of Utilization



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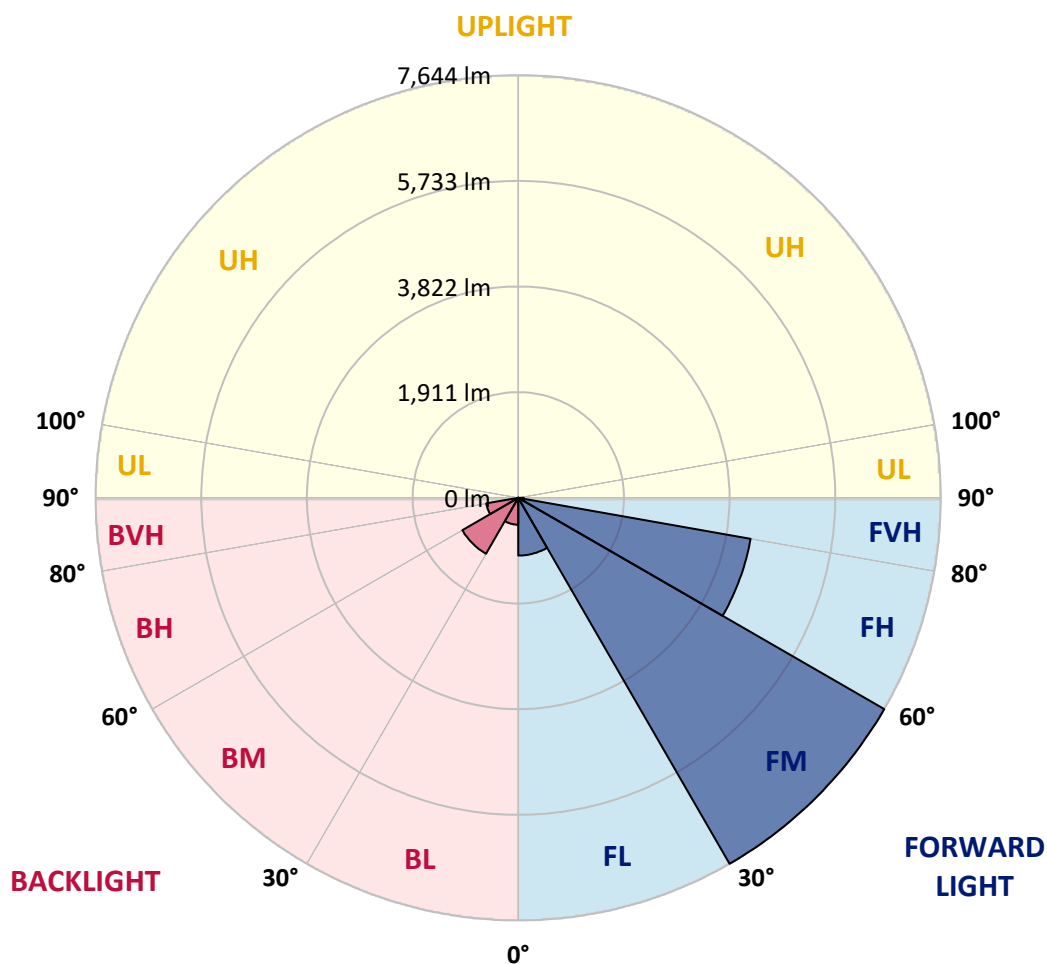
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1044.8	6.8			
FM	(30°-60°)	7643.6	49.9			
FH	(60°-80°)	4267.3	27.9			G2/5000
FVH	(80°-90°)	100.6	0.7			G2/225
BL	(0°-30°)	486.9	3.2	B1/500		
BM	(30°-60°)	1167.6	7.6	B2/2500		
BH	(60°-80°)	587.4	3.8	B2/1000		G2/1000
BVH	(80°-90°)	8.1	0.1			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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1
2.5°	1933.4	1928.0	1935.4	1932.2	1930.2	1926.0	1923.8	1921.8	1917.6	1914.4	1901.7
5°	1938.6	1935.4	1942.8	1949.1	1955.4	1961.7	1964.9	1969.1	1964.9	1956.5	1943.8
7.5°	1894.4	1892.3	1908.0	1927.0	1955.4	1979.7	2005.9	2020.7	2021.8	2018.6	2004.9
10°	1891.2	1885.9	1901.7	1924.8	1961.7	2004.9	2051.2	2082.8	2087.1	2100.7	2086.0
12.5°	1940.7	1935.4	1957.5	1982.8	2020.7	2066.0	2122.9	2167.1	2173.4	2192.4	2181.8
15°	2023.9	2016.5	2041.8	2074.4	2122.9	2174.4	2234.5	2274.5	2279.8	2303.0	2284.0
17.5°	2120.7	2113.3	2142.9	2177.6	2230.3	2300.8	2370.3	2414.5	2420.8	2435.6	2400.9
20°	2245.0	2235.5	2258.7	2290.3	2346.1	2430.4	2513.5	2576.7	2575.6	2575.6	2518.8
22.5°	2389.3	2374.5	2394.5	2419.8	2472.5	2574.6	2685.2	2759.9	2759.9	2730.4	2636.7
25°	2544.0	2529.3	2551.4	2574.6	2620.9	2736.7	2866.3	2959.0	2963.2	2912.6	2763.1
27.5°	2737.8	2718.8	2735.7	2763.1	2790.5	2908.4	3062.2	3169.5	3171.7	3093.8	2883.1
30°	3110.6	3056.9	3004.2	2974.8	2987.4	3104.2	3268.5	3387.5	3398.1	3290.7	3013.7
32.5°	3792.9	3782.4	3597.0	3354.8	3228.5	3314.8	3499.1	3642.3	3648.7	3510.7	3183.2
35°	4853.3	4840.7	4542.7	4081.4	3669.7	3597.0	3779.3	3948.8	3944.5	3788.7	3403.3
37.5°	6119.0	6107.5	5714.7	5097.6	4431.1	4023.5	4140.4	4318.3	4344.7	4140.4	3687.6
40°	7200.4	7157.3	6908.8	6313.8	5441.9	4731.2	4654.3	4772.2	4799.6	4557.4	4048.9
42.5°	8019.7	7982.8	7856.4	7484.8	6665.5	5777.8	5259.8	5305.0	5335.5	5044.9	4463.7
45°	8444.1	8435.6	8486.2	8451.4	7912.3	7062.5	6125.3	5936.8	5948.4	5585.1	4934.3
47.5°	8504.0	8499.8	8730.4	9056.9	8984.2	8511.4	7236.3	6724.5	6683.4	6194.8	5446.1
50°	8150.3	8141.8	8584.1	9195.9	9700.3	9728.7	8497.8	7612.2	7521.7	6825.6	5980.1
52.5°	7020.4	7018.3	7744.8	8763.1	9951.9	10794.4	9744.5	8587.2	8435.6	7493.2	6544.4
55°	5402.0	5440.9	6273.8	7477.4	9492.8	11307.2	10863.9	9669.7	9437.1	8164.9	7064.6
57.5°	3826.6	3883.5	4706.9	5778.8	8069.2	11003.9	11620.9	10754.3	10503.7	8834.7	7592.2
60°	2055.4	2106.0	2930.5	4209.9	6003.2	9873.0	12020.1	11695.8	11458.8	9470.7	8068.1
62.5°	1224.7	1241.5	1582.7	2717.8	4060.4	7542.7	11850.5	12412.9	12218.0	10004.6	8482.0
65°	879.2	882.4	1054.0	1659.6	2465.1	4582.7	10661.6	12756.1	12696.1	10406.8	8788.3
67.5°	740.3	738.2	809.7	1102.5	1679.6	2295.6	8171.3	12270.7	12525.5	10661.6	8962.1
70°	635.0	638.2	722.3	807.7	1262.6	1299.4	4062.5	10683.8	11227.1	10729.1	8951.6
72.5°	472.8	483.3	561.3	736.1	952.9	894.0	1402.6	7921.7	8904.2	10108.9	8487.2
75°	333.8	339.1	394.8	619.2	710.7	650.8	716.1	4095.2	5354.5	7750.1	6946.6
77.5°	257.0	266.4	299.1	432.8	700.3	457.0	438.1	1417.4	2177.6	4681.7	4762.8
80°	139.0	155.8	215.9	312.7	491.8	323.3	216.9	564.4	738.2	2189.2	1836.4
82.5°	71.6	80.1	150.6	225.3	280.1	282.2	107.4	234.8	304.3	676.0	251.6
85°	28.4	34.7	101.1	124.2	144.2	139.0	48.5	94.8	109.5	187.5	76.9
87.5°	6.4	10.6	36.9	28.4	27.4	29.5	11.6	22.1	21.0	22.1	13.7
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°	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1	1889.1
2.5°	1900.7	1896.5	1884.9	1872.3	1857.5	1849.1	1843.8	1842.7	1835.4	1830.1	1835.4
5°	1932.2	1928.0	1906.0	1879.6	1851.2	1829.1	1808.0	1789.0	1761.7	1756.4	1754.3
7.5°	1995.5	1983.9	1948.0	1912.2	1858.5	1794.4	1716.4	1626.9	1546.8	1522.6	1511.1
10°	2073.4	2057.6	2012.3	1949.1	1830.1	1655.3	1466.9	1292.0	1153.0	1114.1	1099.3
12.5°	2161.8	2148.1	2088.1	1971.2	1711.1	1394.2	1105.7	888.8	754.0	720.3	710.7
15°	2267.1	2247.1	2163.9	1937.6	1498.4	1059.3	759.2	630.8	582.3	575.9	569.7
17.5°	2378.7	2346.1	2231.3	1816.4	1212.0	752.9	586.5	549.7	528.6	522.3	519.2
20°	2480.9	2438.8	2271.3	1633.2	905.6	586.5	525.4	501.2	482.3	474.9	470.7
22.5°	2583.0	2523.0	2271.3	1383.6	679.2	520.2	482.3	460.1	438.1	428.6	423.3
25°	2689.4	2609.3	2231.3	1105.7	546.5	477.0	441.2	417.0	398.0	386.4	382.2
27.5°	2792.6	2682.0	2139.7	842.4	486.5	439.1	403.3	380.2	362.2	353.8	353.8
30°	2890.5	2753.6	2011.3	639.2	447.5	402.2	368.6	348.5	330.7	322.3	323.3
32.5°	3023.1	2844.2	1874.3	524.4	413.8	367.5	336.9	318.1	302.2	295.9	295.9
35°	3207.4	2977.9	1756.4	515.0	385.4	339.1	308.5	290.6	274.8	269.6	269.6
37.5°	3468.6	3193.8	1694.3	578.1	362.2	313.8	285.4	266.4	251.6	247.4	246.4
40°	3790.9	3486.5	1727.9	641.2	346.4	291.7	264.3	245.4	232.7	227.4	226.4
42.5°	4173.1	3847.6	1914.4	689.7	335.9	272.8	244.3	223.2	214.8	212.7	212.7
45°	4612.2	4244.6	2199.8	741.3	319.1	254.8	224.3	208.5	202.1	201.1	200.1
47.5°	5111.3	4680.6	2530.4	805.5	302.2	238.0	208.5	197.9	192.7	190.5	190.5
50°	5606.2	5119.7	2870.5	841.3	288.5	222.2	195.9	187.5	183.3	182.1	182.1
52.5°	6124.3	5571.5	3145.3	807.7	277.0	209.5	185.3	179.0	174.8	173.7	173.7
55°	6618.1	5936.8	3192.7	685.5	253.8	196.9	173.7	170.6	165.3	165.3	164.3
57.5°	7043.6	6120.1	2857.8	503.4	230.6	177.9	162.2	159.0	154.8	153.8	152.7
60°	7434.2	6067.4	2206.0	339.1	205.3	159.0	147.4	145.3	141.1	135.8	134.8
62.5°	7654.3	5835.7	1509.0	221.1	180.1	139.0	130.6	129.6	120.0	109.5	107.4
65°	7737.5	5359.8	941.4	161.1	150.6	119.0	112.6	110.6	96.9	85.3	84.3
67.5°	7664.8	4576.3	474.9	127.4	119.0	99.0	92.7	92.7	83.2	72.7	71.6
70°	7374.2	3430.7	200.1	102.2	91.6	75.8	75.8	80.1	70.5	58.9	57.9
72.5°	6743.5	2308.2	106.4	77.9	68.5	53.7	62.1	65.3	55.8	44.2	44.2
75°	5360.9	1407.8	73.7	57.9	43.2	37.9	47.4	49.5	37.9	29.5	28.4
77.5°	3666.5	808.7	49.5	36.9	27.4	22.1	32.6	30.5	20.0	13.7	14.8
80°	1610.1	336.9	28.4	16.8	10.6	8.4	11.6	8.4	6.4	4.2	4.2
82.5°	188.5	78.9	10.6	6.4	4.2	2.2	1.0	0.0	0.0	0.0	0.0
85°	38.9	9.4	5.2	2.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.4	2.2	1.0	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)