

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: P962989

Luminaire Tested: **NAV-SB2D-735-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962989
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-SB2D-735-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA 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: 15941.8 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - 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

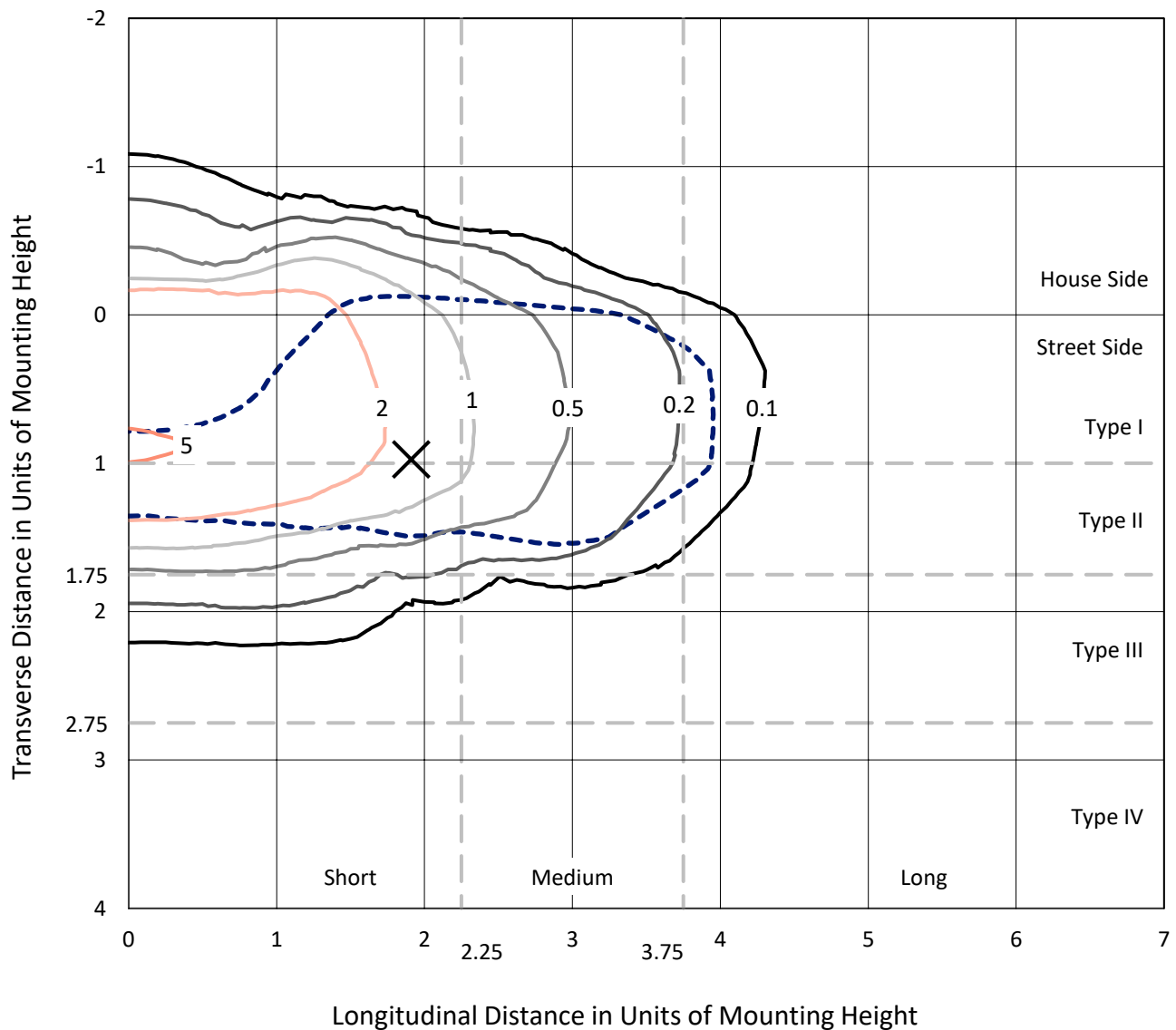


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Iso-Footcandle Lines of Horizontal Illumination

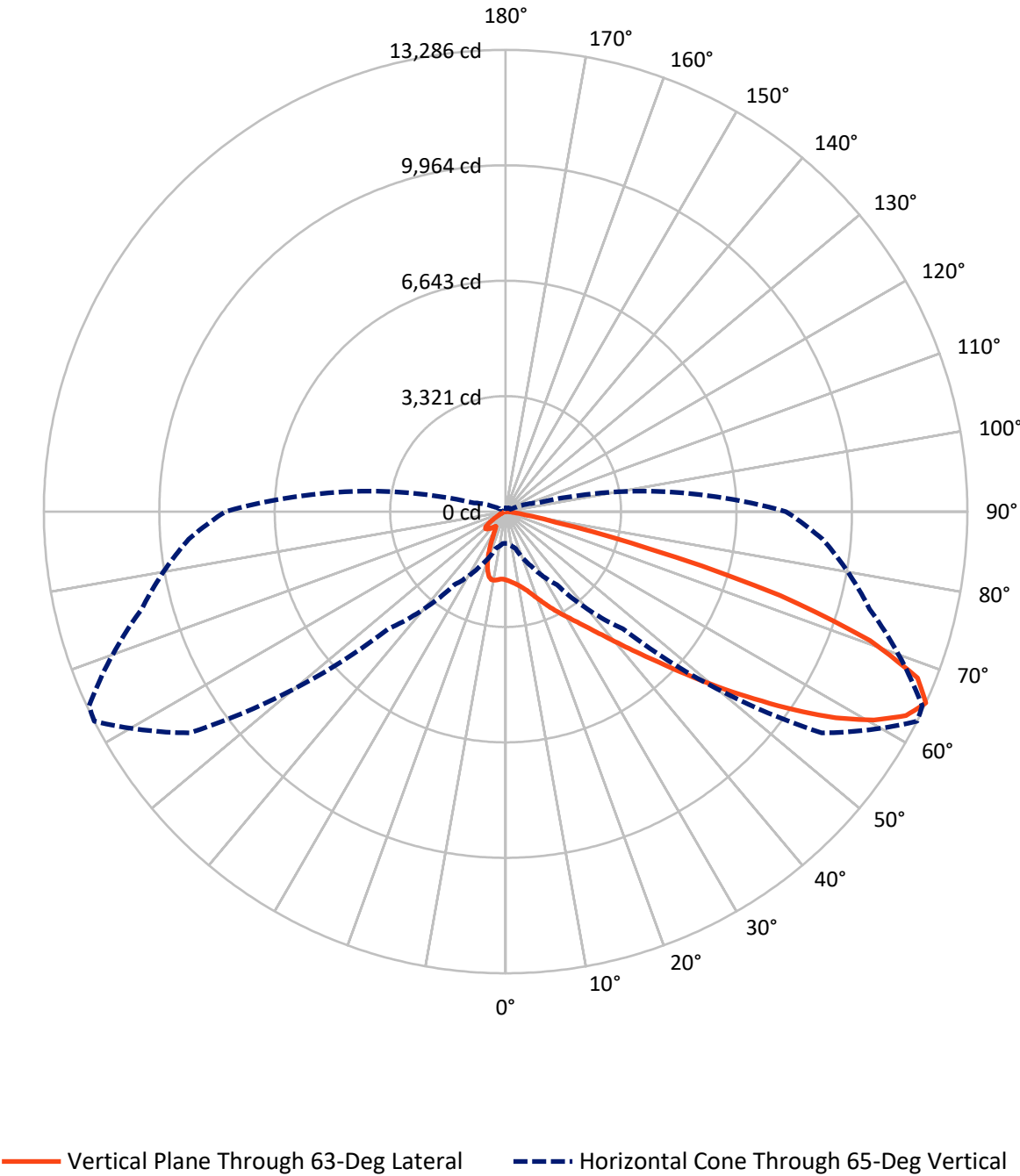
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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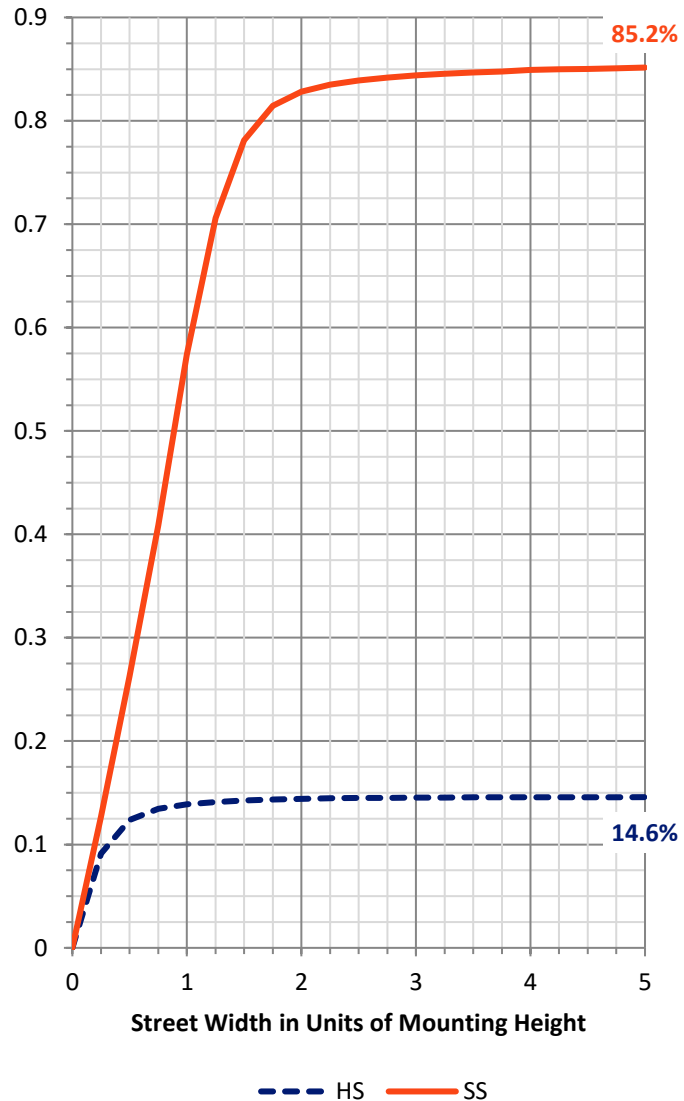
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2343.3	0.0	2343.3
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	13598.5	0.0	13598.5
	% Fixture	85.3	0.0	85.3
Total	Lumens	15941.8	0.0	15941.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.4	1.2
10°-20°	514.4	3.2
20°-30°	895.6	5.6
30°-40°	1614.3	10.1
40°-50°	3201.6	20.1
50°-60°	4361.1	27.4
60°-70°	3481.0	21.8
70°-80°	1575.2	9.9
80°-90°	113.2	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°	15941.8	100.0
0°-180°	15941.8	100.0

Coefficient of Utilization



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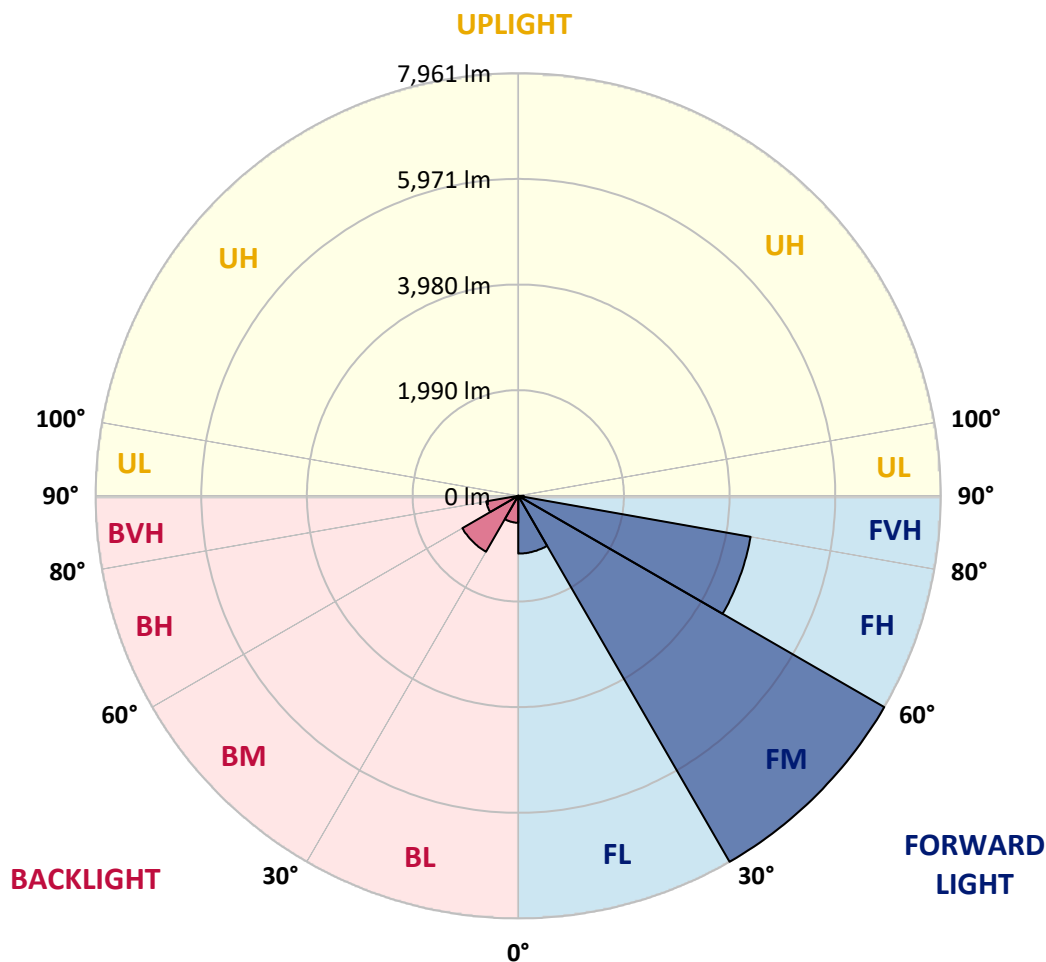
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1088.2	6.8			
FM	(30°-60°)	7960.9	49.9			
FH	(60°-80°)	4444.5	27.9			G2/5000
FVH	(80°-90°)	104.8	0.7			G2/225
BL	(0°-30°)	507.1	3.2	B2/1000		
BM	(30°-60°)	1216.0	7.6	B2/2500		
BH	(60°-80°)	611.7	3.8	B2/1000		G2/1000
BVH	(80°-90°)	8.4	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°	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5
2.5°	2013.6	2008.1	2015.8	2012.5	2010.3	2005.9	2003.7	2001.5	1997.1	1993.8	1980.7
5°	2019.0	2015.8	2023.5	2030.0	2036.6	2043.2	2046.5	2050.9	2046.5	2037.7	2024.6
7.5°	1973.0	1970.8	1987.3	2007.1	2036.6	2061.9	2089.3	2104.6	2105.8	2102.4	2088.1
10°	1969.7	1964.2	1980.7	2004.8	2043.2	2088.1	2136.4	2169.3	2173.7	2188.0	2172.6
12.5°	2021.3	2015.8	2038.8	2065.2	2104.6	2151.8	2211.0	2257.0	2263.6	2283.4	2272.4
15°	2107.9	2100.2	2126.6	2160.5	2211.0	2264.7	2327.3	2368.9	2374.4	2398.5	2378.8
17.5°	2208.8	2201.1	2231.8	2268.0	2322.9	2396.3	2468.7	2514.8	2521.4	2536.8	2500.5
20°	2338.2	2328.4	2352.5	2385.4	2443.5	2531.2	2617.8	2683.7	2682.6	2682.6	2623.4
22.5°	2488.5	2473.1	2493.9	2520.3	2575.1	2681.5	2796.6	2874.5	2874.5	2843.8	2746.2
25°	2649.7	2634.4	2657.3	2681.5	2729.8	2850.4	2985.3	3081.8	3086.2	3033.5	2877.8
27.5°	2851.4	2831.8	2849.3	2877.8	2906.3	3029.2	3189.3	3301.1	3303.4	3222.2	3002.8
30°	3239.7	3183.8	3128.9	3098.3	3111.4	3233.2	3404.2	3528.2	3539.1	3427.3	3138.9
32.5°	3950.3	3939.4	3746.4	3494.1	3362.5	3452.5	3644.4	3793.5	3800.2	3656.5	3315.4
35°	5054.8	5041.7	4731.3	4250.9	3822.1	3746.4	3936.1	4112.7	4108.3	3946.0	3544.7
37.5°	6373.0	6361.0	5952.0	5309.2	4615.1	4190.6	4312.3	4497.7	4525.1	4312.3	3840.8
40°	7499.4	7454.4	7195.6	6576.0	5667.8	4927.6	4847.5	4970.3	4998.8	4746.6	4217.0
42.5°	8352.6	8314.3	8182.7	7795.5	6942.2	6017.7	5478.1	5525.3	5557.1	5254.4	4649.0
45°	8794.6	8785.9	8838.5	8802.3	8240.8	7355.7	6379.6	6183.3	6195.4	5817.0	5139.2
47.5°	8857.1	8852.7	9093.0	9432.9	9357.2	8864.8	7536.7	7003.7	6960.9	6452.1	5672.2
50°	8488.6	8479.8	8940.5	9577.7	10103.0	10132.6	8850.6	7928.2	7833.9	7109.0	6228.3
52.5°	7311.8	7309.7	8066.4	9126.9	10365.1	11242.5	10149.0	8943.7	8785.9	7804.2	6816.1
55°	5626.2	5666.8	6534.3	7787.8	9886.9	11776.6	11314.9	10071.2	9828.8	8504.0	7358.0
57.5°	3985.5	4044.8	4902.4	6018.8	8404.2	11460.7	12103.4	11200.8	10939.8	9201.5	7907.4
60°	2140.8	2193.4	3052.1	4384.7	6252.4	10282.9	12519.1	12181.3	11934.6	9863.9	8403.1
62.5°	1275.5	1293.0	1648.4	2830.6	4228.9	7855.8	12342.5	12928.2	12725.3	10419.9	8834.1
65°	915.7	919.0	1097.8	1728.5	2567.4	4772.9	11104.3	13285.7	13223.2	10839.0	9153.2
67.5°	771.0	768.9	843.4	1148.3	1749.3	2390.8	8510.6	12780.1	13045.5	11104.3	9334.3
70°	661.3	664.6	752.3	841.2	1315.0	1353.3	4231.2	11127.4	11693.3	11174.6	9323.3
72.5°	492.4	503.4	584.6	766.6	992.5	931.1	1460.8	8250.6	9273.9	10528.6	8839.6
75°	347.7	353.1	411.2	644.8	740.3	677.7	745.8	4265.1	5576.8	8071.9	7235.1
77.5°	267.6	277.5	311.5	450.8	729.3	476.0	456.2	1476.2	2268.0	4876.0	4960.5
80°	144.7	162.4	224.8	325.7	512.2	336.7	225.9	587.8	768.9	2280.1	1912.6
82.5°	74.6	83.3	156.8	234.7	291.7	294.0	111.8	244.6	316.9	704.1	262.1
85°	29.6	36.2	105.3	129.5	150.3	144.7	50.4	98.7	114.1	195.3	80.1
87.5°	6.6	11.0	38.3	29.6	28.5	30.7	12.1	23.1	21.9	23.1	14.2
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°	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5	1967.5
2.5°	1979.6	1975.2	1963.2	1950.0	1934.6	1925.9	1920.3	1919.3	1911.6	1906.1	1911.6
5°	2012.5	2008.1	1985.1	1957.6	1928.0	1905.0	1883.0	1863.3	1834.9	1829.3	1827.2
7.5°	2078.3	2066.2	2029.0	1991.7	1935.7	1868.8	1787.7	1694.4	1611.1	1585.9	1573.8
10°	2159.5	2143.0	2095.8	2030.0	1906.1	1724.0	1527.8	1345.7	1200.9	1160.3	1145.0
12.5°	2251.6	2237.3	2174.8	2053.1	1782.2	1452.0	1151.6	925.7	785.3	750.2	740.3
15°	2361.3	2340.4	2253.8	2018.0	1560.7	1103.3	790.8	656.9	606.5	599.9	593.4
17.5°	2477.5	2443.5	2324.0	1891.8	1262.3	784.1	610.9	572.5	550.5	544.0	540.7
20°	2583.9	2540.1	2365.6	1701.0	943.2	610.9	547.2	522.0	502.2	494.7	490.3
22.5°	2690.2	2627.8	2365.6	1441.0	707.4	541.8	502.2	479.3	456.2	446.4	440.9
25°	2801.0	2717.7	2324.0	1151.6	569.2	496.8	459.5	434.3	414.6	402.5	398.1
27.5°	2908.5	2793.3	2228.6	877.4	506.7	457.4	420.0	396.0	377.3	368.5	368.5
30°	3010.5	2868.0	2094.8	665.7	466.1	418.9	383.9	363.1	344.4	335.6	336.7
32.5°	3148.7	2962.2	1952.2	546.1	431.0	382.7	351.0	331.2	314.8	308.2	308.2
35°	3340.6	3101.5	1829.3	536.3	401.4	353.1	321.3	302.7	286.3	280.7	280.7
37.5°	3612.6	3326.3	1764.6	602.1	377.3	326.9	297.2	277.5	262.1	257.7	256.7
40°	3948.2	3631.3	1799.7	667.9	360.8	303.8	275.3	255.5	242.4	236.9	235.7
42.5°	4346.3	4007.4	1993.8	718.3	349.8	284.0	254.4	232.5	223.8	221.5	221.5
45°	4803.7	4420.9	2291.1	772.1	332.3	265.4	233.6	217.2	210.5	209.5	208.4
47.5°	5323.5	4874.9	2635.4	839.0	314.8	247.8	217.2	206.2	200.7	198.5	198.5
50°	5838.9	5332.3	2989.7	876.3	300.5	231.4	204.0	195.3	190.9	189.7	189.7
52.5°	6378.6	5802.7	3275.9	841.2	288.4	218.2	193.0	186.4	182.0	180.9	180.9
55°	6892.9	6183.3	3325.3	714.0	264.3	205.1	180.9	177.6	172.2	172.2	171.1
57.5°	7336.0	6374.2	2976.5	524.2	240.2	185.3	168.9	165.6	161.2	160.1	159.0
60°	7742.8	6319.3	2297.6	353.1	213.8	165.6	153.5	151.4	147.0	141.4	140.4
62.5°	7972.0	6078.0	1571.6	230.3	187.6	144.7	136.0	134.9	125.0	114.1	111.8
65°	8058.8	5582.4	980.5	167.8	156.8	123.9	117.4	115.1	100.9	88.9	87.7
67.5°	7983.0	4766.4	494.7	132.7	123.9	103.1	96.6	96.6	86.6	75.6	74.6
70°	7680.3	3573.2	208.4	106.4	95.4	78.9	78.9	83.3	73.5	61.4	60.3
72.5°	7023.4	2404.0	110.8	81.2	71.2	56.0	64.7	68.0	58.1	46.0	46.0
75°	5583.4	1466.4	76.8	60.3	45.0	39.5	49.3	51.6	39.5	30.7	29.6
77.5°	3818.8	842.2	51.6	38.3	28.5	23.1	34.0	31.8	20.8	14.2	15.4
80°	1676.9	351.0	29.6	17.5	11.0	8.8	12.1	8.8	6.6	4.4	4.4
82.5°	196.3	82.2	11.0	6.6	4.4	2.2	1.1	0.0	0.0	0.0	0.0
85°	40.6	9.8	5.4	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.7	2.2	1.1	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)