

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: P883770

Luminaire Tested: **NAV-SB4B-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883770
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17279 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

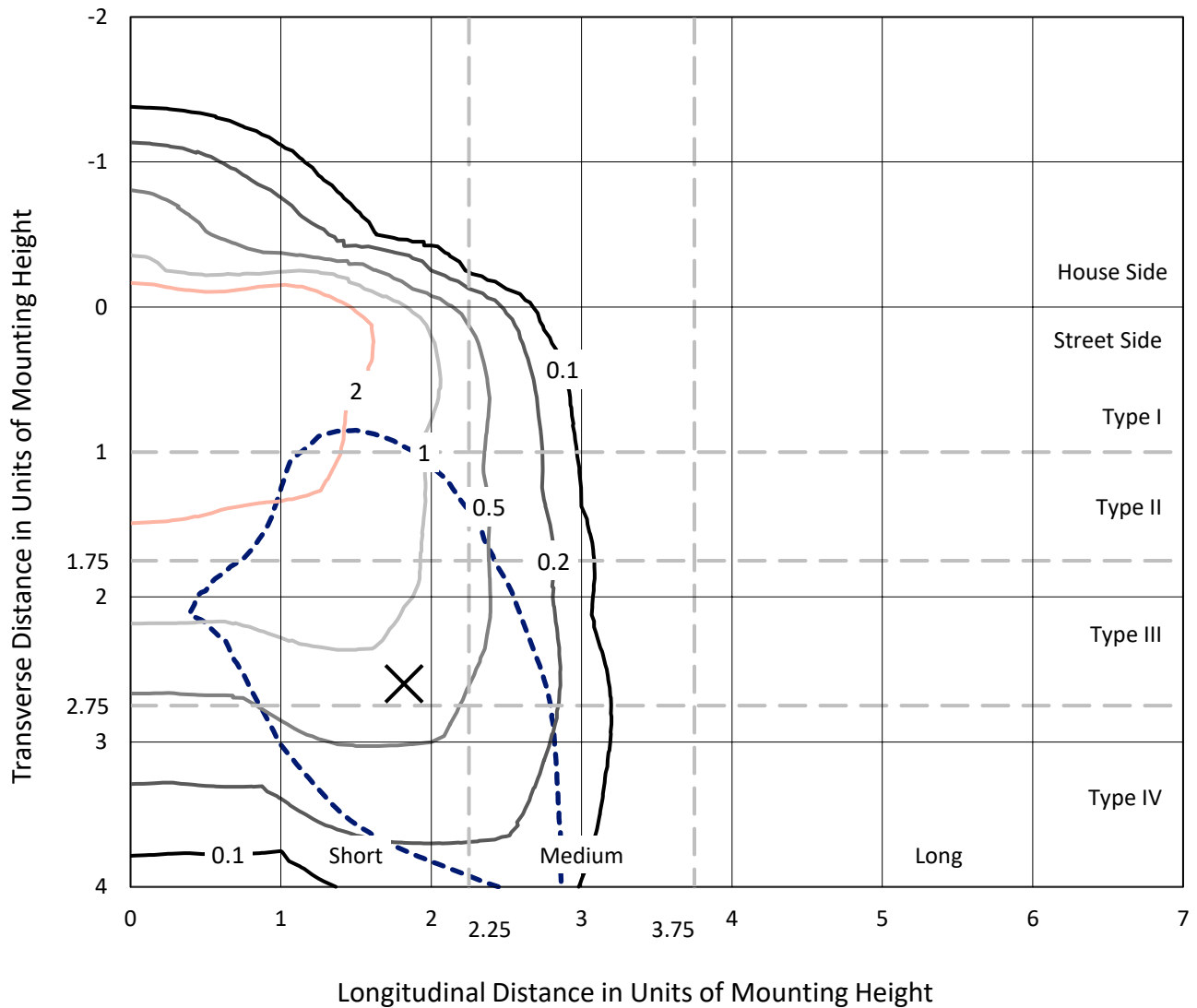
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

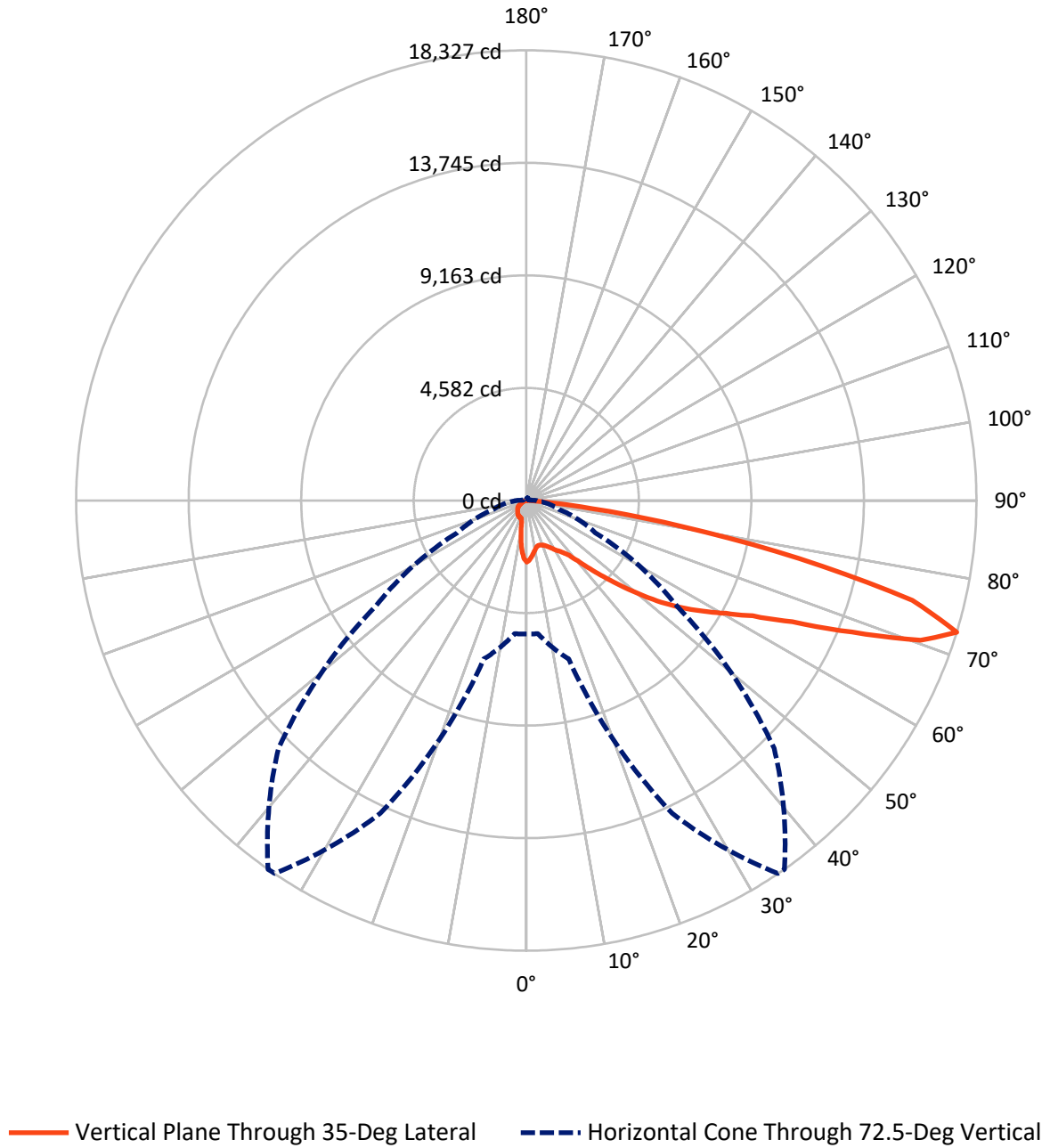
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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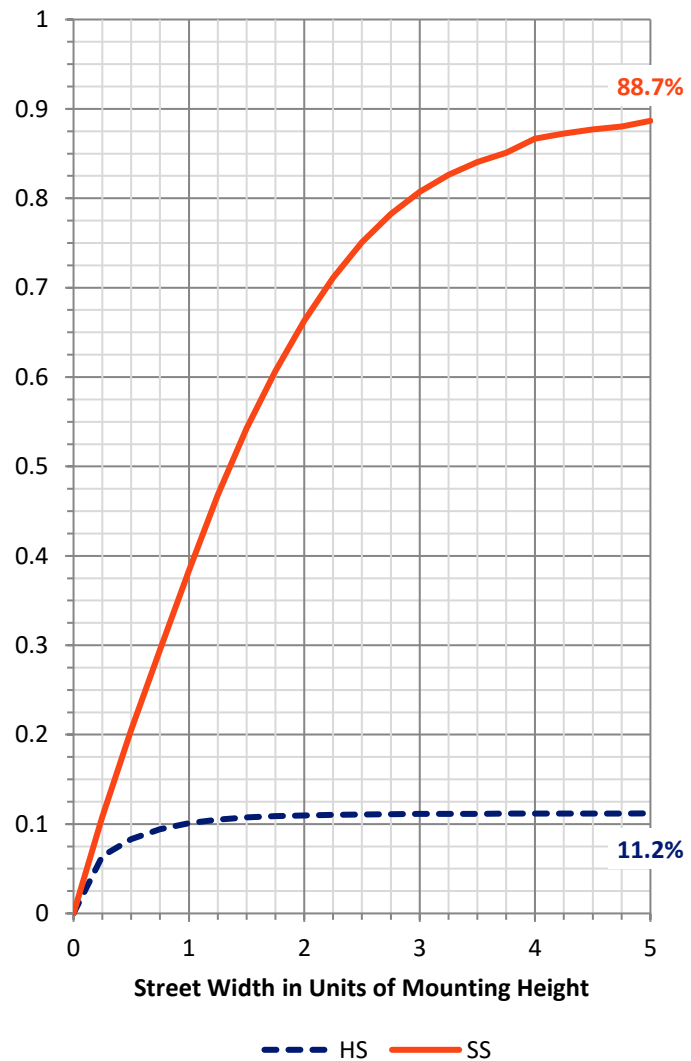
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1944.7	0.0	1944.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	15334.3	0.0	15334.3
	% Fixture	88.7	0.0	88.7
Total	Lumens	17279.0	0.0	17279.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.8	1.2
10°-20°	481.4	2.8
20°-30°	782.0	4.5
30°-40°	1304.8	7.6
40°-50°	2468.8	14.3
50°-60°	3922.9	22.7
60°-70°	4852.9	28.1
70°-80°	3016.6	17.5
80°-90°	243.8	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°	17279.0	100.0
0°-180°	17279.0	100.0

Coefficient of Utilization



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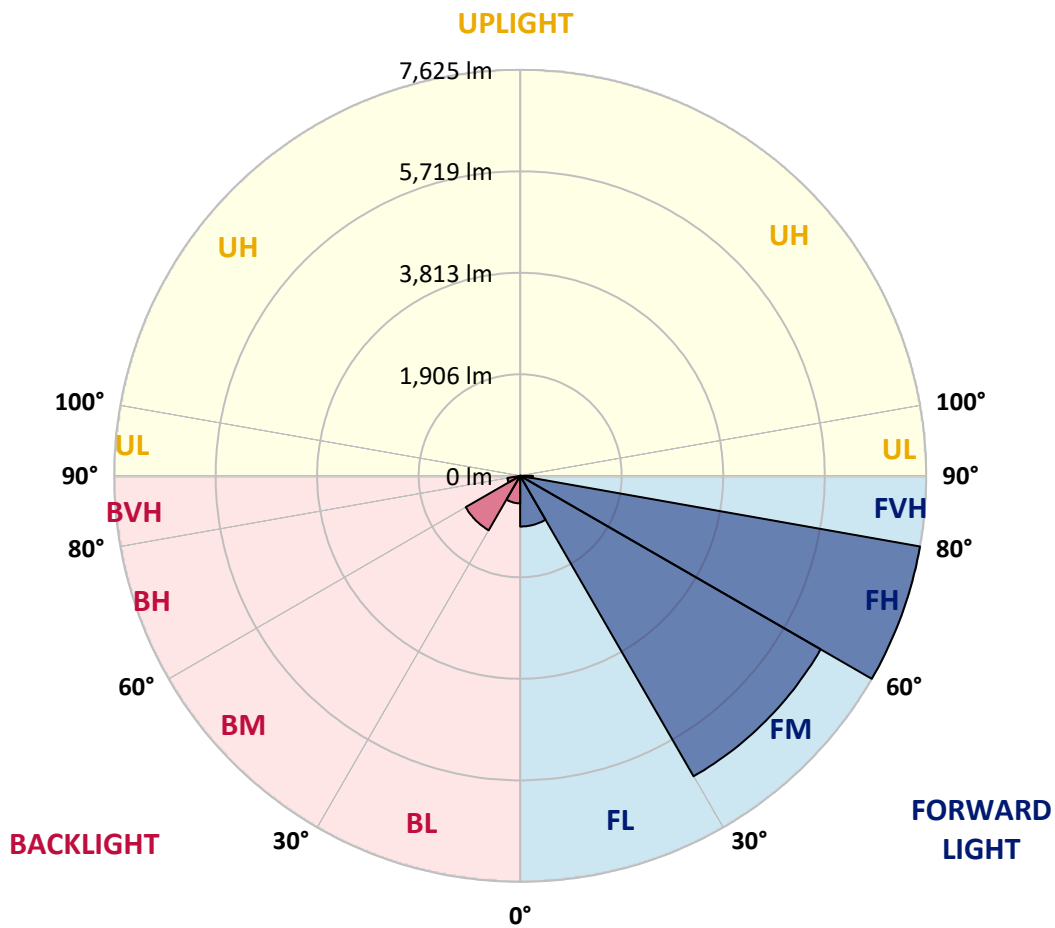
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	952.5	5.5			
FM (30°-60°)	6515.9	37.7			
FH (60°-80°)	7625.4	44.1			G4/12000
FVH (80°-90°)	240.5	1.4			G3/500
BL (0°-30°)	516.7	3.0	B2/1000		
BM (30°-60°)	1180.6	6.8	B2/2500		
BH (60°-80°)	244.0	1.4	B1/500		G1/500
BVH (80°-90°)	3.3	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3
2.5°	2392.9	2413.1	2416.9	2423.3	2423.3	2430.9	2443.5	2461.3	2490.4	2505.6	2515.7
5°	2205.5	2220.7	2239.7	2254.9	2284.0	2287.8	2337.2	2385.3	2452.4	2503.0	2538.5
7.5°	2016.9	2034.6	2059.9	2096.6	2134.6	2146.0	2220.7	2301.7	2408.1	2503.0	2562.5
10°	1883.9	1885.2	1908.0	1944.7	2005.5	2019.4	2110.6	2225.8	2358.7	2487.8	2585.3
12.5°	1809.2	1818.1	1828.2	1856.1	1914.3	1923.2	2020.7	2156.1	2309.3	2479.0	2611.9
15°	1809.2	1815.6	1821.9	1835.8	1882.7	1890.3	1976.4	2111.8	2284.0	2482.8	2655.0
17.5°	1828.2	1838.3	1833.3	1849.7	1899.1	1904.2	1980.1	2099.2	2282.7	2506.8	2720.8
20°	1873.8	1881.4	1871.3	1881.4	1930.8	1940.9	2019.4	2123.2	2304.3	2548.6	2803.1
22.5°	1946.0	1949.8	1925.7	1933.3	1983.9	1996.6	2087.8	2191.6	2356.2	2615.7	2913.3
25°	2037.1	2044.7	2008.0	2016.9	2065.0	2080.2	2185.3	2294.1	2438.5	2708.1	3053.8
27.5°	2142.2	2146.0	2114.4	2113.1	2175.1	2196.6	2303.0	2420.7	2548.6	2824.6	3231.0
30°	2262.5	2273.9	2243.5	2238.4	2316.9	2334.7	2439.7	2576.5	2710.7	2999.3	3483.0
32.5°	2357.4	2366.3	2348.6	2361.2	2441.0	2454.9	2605.6	2796.8	2965.2	3247.5	3826.1
35°	2494.2	2499.2	2458.7	2481.5	2572.7	2608.1	2832.2	3105.7	3285.5	3559.0	4274.3
37.5°	2989.2	2989.2	2817.0	2704.3	2791.7	2823.4	3142.4	3494.4	3680.5	3976.8	4839.0
40°	3674.2	3662.8	3410.8	3180.4	3169.0	3231.0	3584.3	3984.4	4190.7	4478.1	5474.5
42.5°	4404.7	4387.0	4043.9	3816.0	3778.0	3799.5	4094.5	4588.3	4798.4	5089.6	6158.2
45°	5052.9	5047.9	4733.9	4427.5	4359.1	4427.5	4731.3	5294.7	5445.4	5751.8	6840.6
47.5°	5596.1	5596.1	5366.9	5166.9	5131.4	5171.9	5593.5	6078.5	6064.5	6457.0	7505.3
50°	6221.5	6216.5	5998.7	5912.6	5949.3	6006.3	6586.1	6903.9	6705.2	7149.6	8099.1
52.5°	6659.6	6690.0	6615.3	6601.3	6788.7	6887.5	7593.9	7711.7	7278.7	7806.6	8543.5
55°	7006.5	7041.9	7128.0	7225.5	7586.4	7715.5	8570.1	8477.7	7758.5	8376.4	8799.3
57.5°	7497.7	7447.1	7580.0	7772.5	8356.1	8511.9	9515.9	9200.6	8144.7	8838.5	8827.1
60°	8094.1	8101.6	8124.4	8367.5	9124.6	9324.7	10447.7	9884.3	8392.8	9122.1	8518.2
62.5°	8810.7	8822.0	8868.9	9242.4	10156.5	10345.1	11440.3	10443.9	8506.8	9042.3	7720.6
65°	8761.3	8809.4	9332.3	10609.8	11725.2	11911.3	12598.8	10836.4	8334.6	8313.1	6286.1
67.5°	7981.4	8059.9	8934.7	12243.0	14090.2	14297.8	13999.0	10913.6	7591.4	6464.6	4100.8
70°	6958.4	6986.2	8038.3	13711.6	16828.7	17038.9	15252.5	10064.1	5760.7	3605.8	1837.1
72.5°	5434.0	5440.3	6674.8	14052.2	18315.1	18326.5	14268.7	7471.1	3098.1	1385.1	638.1
75°	3881.8	3843.8	4470.5	11396.0	16113.4	16242.5	10697.1	3504.5	1183.8	654.6	317.8
77.5°	2081.4	2123.2	2529.6	6758.3	11131.4	11351.7	5836.6	1010.3	602.7	445.7	210.2
80°	643.2	678.6	1036.9	3094.3	6305.1	6438.0	2163.7	449.5	420.3	317.8	138.0
82.5°	202.6	210.2	483.6	1300.3	2617.0	2677.8	626.7	254.5	287.4	210.2	81.0
85°	58.2	59.5	215.2	484.9	647.0	659.6	176.0	98.8	164.6	130.4	41.8
87.5°	6.3	20.3	81.0	81.0	57.0	55.7	19.0	21.5	46.8	16.5	7.6
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°	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3	2504.3
2.5°	2509.4	2510.6	2494.2	2466.3	2435.9	2410.6	2379.0	2353.6	2335.9	2330.9	2339.7
5°	2527.1	2518.2	2471.4	2386.6	2285.3	2197.9	2100.4	2023.2	1972.6	1951.0	1958.6
7.5°	2553.7	2528.4	2425.8	2258.7	2065.0	1892.8	1718.1	1582.6	1496.5	1453.5	1459.8
10°	2576.5	2525.8	2349.8	2073.8	1777.6	1516.8	1281.3	1117.9	1026.8	983.7	985.0
12.5°	2598.0	2524.6	2251.1	1854.8	1453.5	1134.4	915.4	834.3	809.0	800.2	797.6
15°	2638.5	2528.4	2127.0	1604.1	1130.6	857.1	777.4	776.1	781.2	778.6	777.4
17.5°	2694.2	2532.2	1986.5	1338.2	872.3	755.8	752.1	763.4	771.0	767.2	766.0
20°	2766.4	2547.4	1837.1	1074.9	749.5	730.5	739.4	749.5	755.8	749.5	748.3
22.5°	2867.7	2573.9	1673.8	863.5	710.3	715.3	722.9	734.3	740.7	731.8	730.5
25°	2991.7	2615.7	1513.0	750.8	691.3	697.6	709.0	721.7	729.3	720.4	719.1
27.5°	3152.5	2682.8	1364.8	725.5	672.3	676.1	692.5	711.5	721.7	710.3	710.3
30°	3385.5	2793.0	1237.0	736.9	660.9	652.0	674.8	701.4	712.8	702.7	701.4
32.5°	3694.4	2948.7	1158.5	754.6	655.8	624.2	645.7	679.9	698.9	692.5	692.5
35°	4099.6	3185.5	1128.1	774.8	652.0	595.1	610.3	647.0	679.9	686.2	686.2
37.5°	4590.8	3514.6	1136.9	783.7	640.6	571.0	578.6	610.3	653.3	673.6	678.6
40°	5149.1	3898.3	1187.6	774.8	628.0	550.7	552.0	576.1	614.0	644.4	654.6
42.5°	5725.2	4346.5	1281.3	741.9	616.6	533.0	529.2	545.7	571.0	592.5	601.4
45°	6273.4	4807.3	1373.7	696.3	602.7	515.3	506.4	512.8	517.8	526.7	531.8
47.5°	6752.0	5131.4	1347.1	654.6	583.7	495.0	479.8	477.3	462.1	460.9	459.6
50°	7082.5	5202.3	1196.4	612.8	555.8	472.2	448.2	433.0	406.4	393.8	395.0
52.5°	7187.5	4922.5	977.4	571.0	510.2	441.9	407.7	383.6	350.7	339.3	338.0
55°	7048.3	4374.3	781.2	520.4	446.9	401.3	363.4	331.7	305.1	291.2	291.2
57.5°	6707.7	3676.7	617.8	460.9	379.8	355.8	317.8	286.1	263.3	249.4	246.9
60°	6143.0	2919.6	488.7	390.0	324.1	306.4	267.1	246.9	226.6	210.2	206.4
62.5°	5285.9	2084.0	383.6	308.9	270.9	250.7	227.9	212.7	188.6	165.9	162.1
65°	4124.9	1274.9	296.3	226.6	217.8	207.6	193.7	179.8	150.7	127.9	124.1
67.5°	2601.8	603.9	211.4	170.9	172.2	167.1	160.8	149.4	127.9	107.6	105.1
70°	1145.8	292.5	139.3	130.4	127.9	127.9	132.9	129.1	108.9	89.9	86.1
72.5°	390.0	157.0	103.8	98.8	92.4	91.2	111.4	107.6	87.4	69.6	65.8
75°	203.8	105.1	76.0	70.9	55.7	67.1	88.6	83.6	62.0	45.6	41.8
77.5°	132.9	74.7	51.9	45.6	31.7	44.3	65.8	58.2	36.7	22.8	20.3
80°	83.6	49.4	30.4	21.5	15.2	24.1	35.5	25.3	13.9	5.1	3.8
82.5°	44.3	25.3	11.4	7.6	6.3	7.6	8.9	6.3	2.5	0.0	0.0
85°	17.7	8.9	3.8	2.5	1.3	0.0	2.5	1.3	0.0	0.0	0.0
87.5°	6.3	1.3	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)