

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: P966341

Luminaire Tested: **NAV-SB4B-835-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966341
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-835-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17862.7 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
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



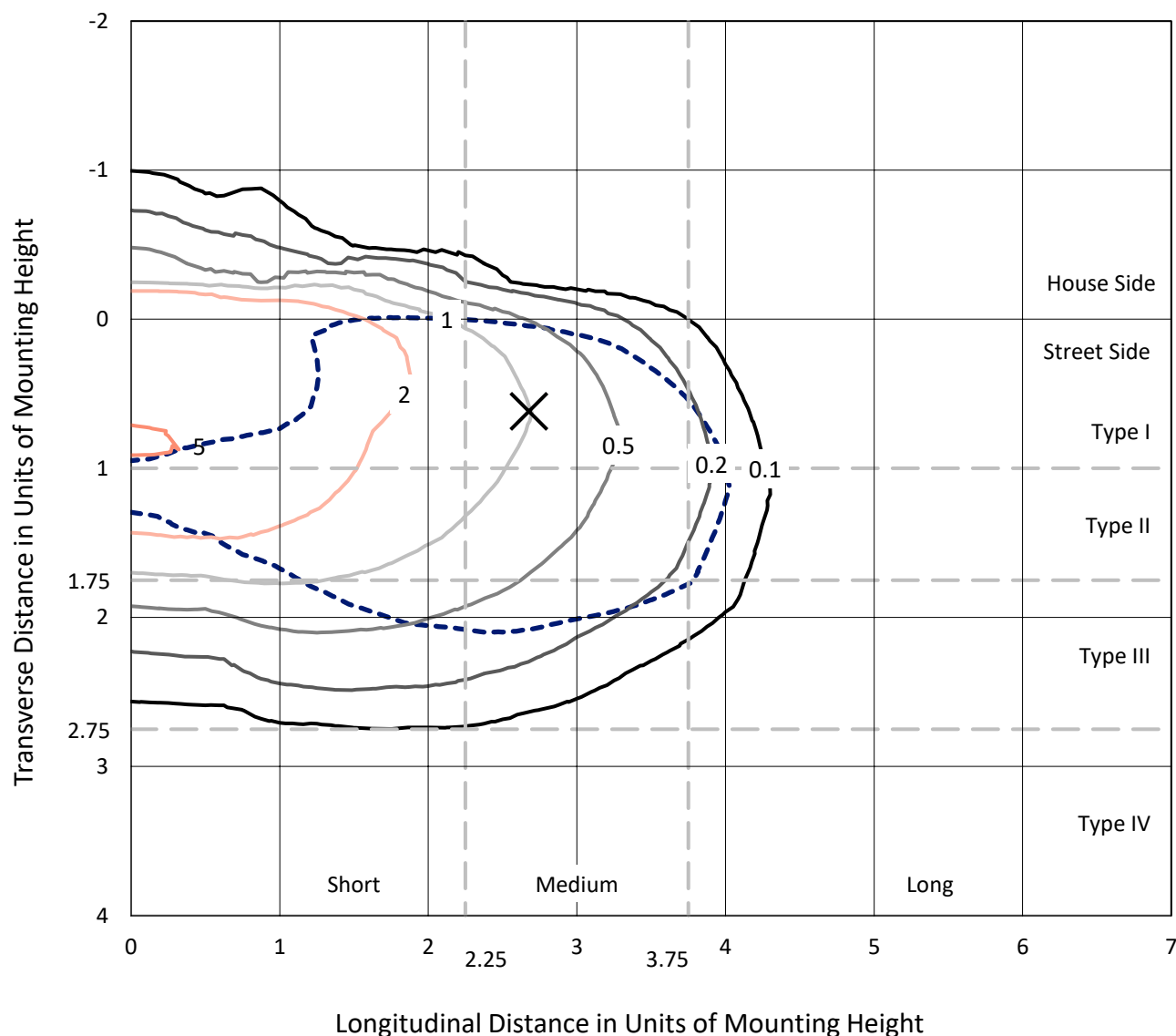
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

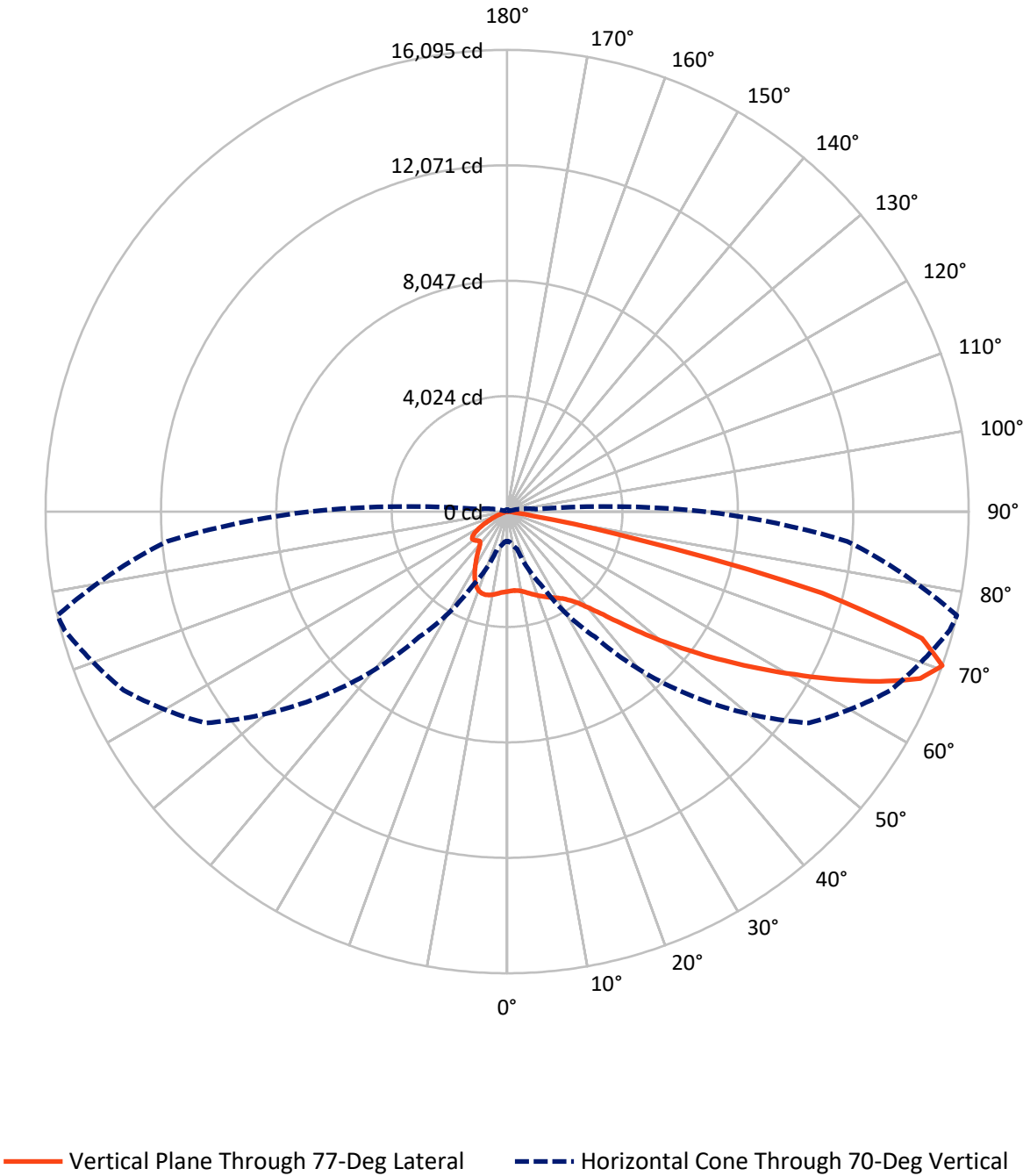


Based on 25 foot mounting height. Maximum calculated value = 5.2 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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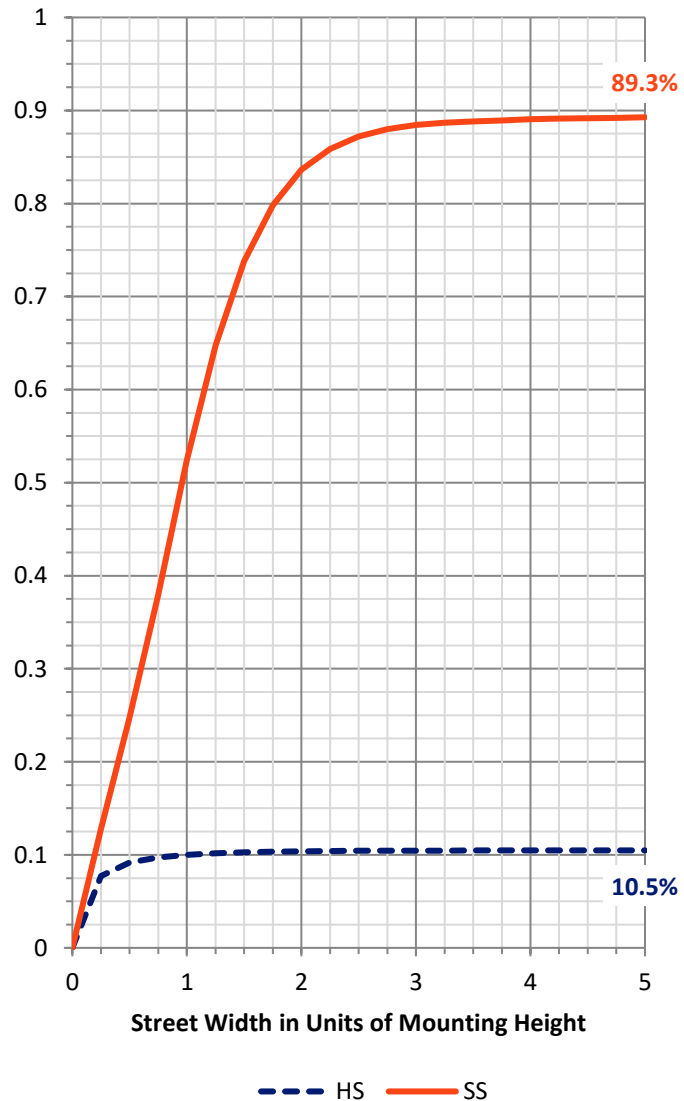
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1883.0	0.0	1883.0
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	15979.7	0.0	15979.7
	% Fixture	89.5	0.0	89.5
Total	Lumens	17862.7	0.0	17862.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.1	1.3
10°-20°	570.0	3.2
20°-30°	881.7	4.9
30°-40°	1599.9	9.0
40°-50°	3020.0	16.9
50°-60°	4363.6	24.4
60°-70°	4645.0	26.0
70°-80°	2461.5	13.8
80°-90°	80.8	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°	17862.7	100.0
0°-180°	17862.7	100.0

Coefficient of Utilization



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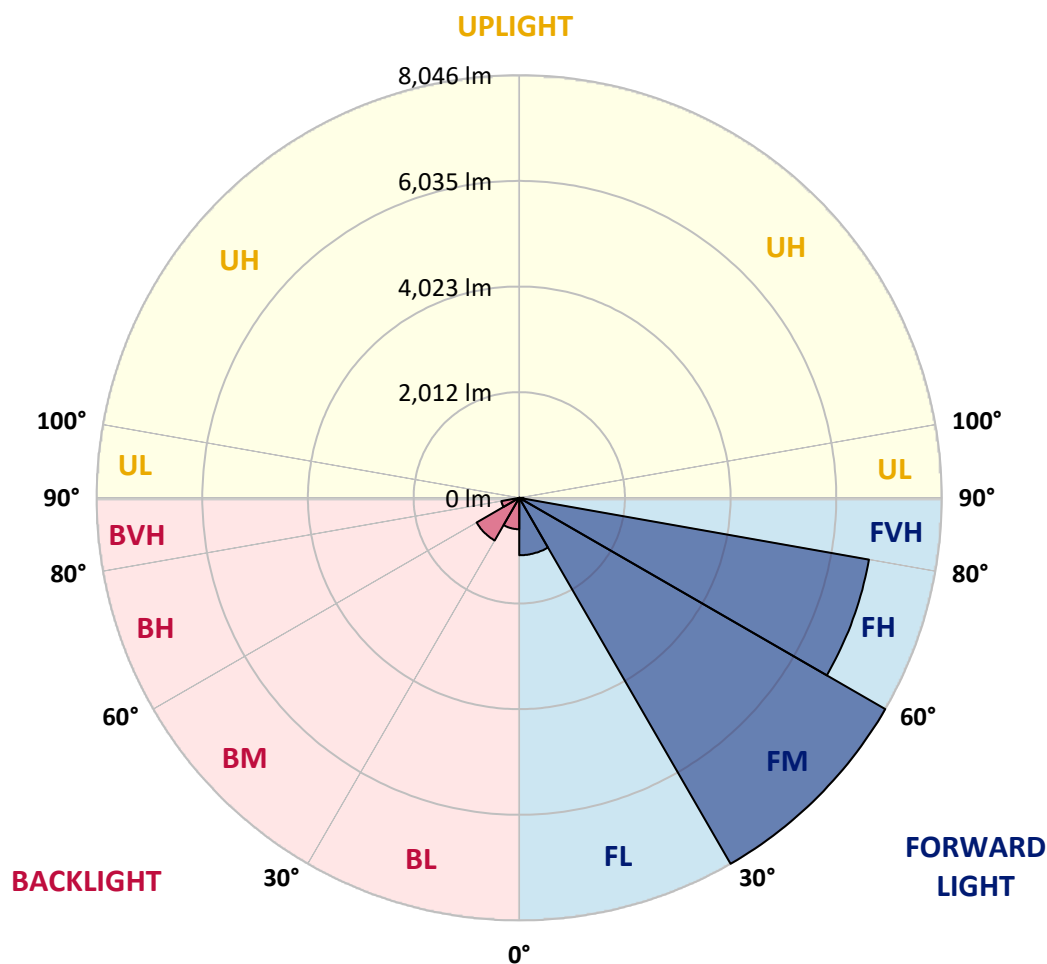
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1093.6	6.1			
FM	(30°-60°)	8046.2	45.0			
FH	(60°-80°)	6761.3	37.9			G3/7500
FVH	(80°-90°)	78.6	0.4			G1/100
BL	(0°-30°)	598.3	3.3	B2/1000		
BM	(30°-60°)	937.4	5.2	B1/1000		
BH	(60°-80°)	345.2	1.9	B1/500		G1/500
BVH	(80°-90°)	2.2	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3
2.5°	2615.9	2639.6	2636.2	2652.0	2657.6	2680.2	2702.8	2733.3	2767.1	2766.0	2788.5
5°	2468.1	2491.9	2497.5	2518.9	2546.0	2581.0	2627.2	2688.2	2751.3	2761.5	2806.6
7.5°	2293.3	2318.1	2332.8	2375.6	2425.3	2497.5	2573.1	2662.1	2767.1	2781.7	2868.6
10°	2118.5	2141.0	2160.2	2221.1	2300.1	2407.2	2530.2	2658.7	2799.8	2821.2	2944.2
12.5°	2010.1	2031.5	2053.1	2106.1	2204.2	2335.1	2502.0	2674.5	2853.9	2884.4	3046.8
15°	1971.8	1991.0	2007.9	2055.3	2146.7	2295.6	2496.4	2707.3	2922.8	2963.4	3170.9
17.5°	1977.4	1987.6	1998.9	2034.9	2124.1	2277.5	2506.5	2763.7	3004.0	3040.0	3295.0
20°	2010.1	2015.8	2016.9	2041.8	2120.7	2275.3	2526.8	2817.8	3080.6	3129.2	3418.0
22.5°	2051.9	2054.2	2051.9	2068.9	2142.1	2292.2	2553.9	2883.2	3166.4	3211.5	3542.0
25°	2247.0	2204.2	2150.0	2117.3	2178.2	2324.9	2594.5	2971.3	3260.0	3304.0	3662.7
27.5°	2852.8	2729.9	2535.8	2318.1	2252.6	2372.3	2650.9	3060.3	3354.8	3394.3	3792.5
30°	3836.5	3675.1	3345.8	2855.0	2491.9	2471.6	2724.2	3149.5	3455.2	3498.0	3931.2
32.5°	4822.3	4782.9	4402.7	3723.6	3029.9	2692.7	2846.0	3270.2	3588.3	3622.1	4118.4
35°	5819.5	5739.5	5428.1	4756.9	3859.0	3142.8	3049.1	3428.1	3763.2	3801.5	4391.4
37.5°	6583.3	6534.7	6341.9	5789.1	4842.7	3837.6	3396.5	3672.9	4017.0	4059.8	4741.1
40°	7257.8	7235.3	7169.8	6805.5	5942.5	4746.8	3936.8	4051.9	4368.9	4419.7	5169.8
42.5°	7787.9	7841.0	7878.3	7776.7	7076.2	5784.6	4663.3	4584.3	4859.6	4911.5	5715.8
45°	8330.6	8348.6	8498.7	8645.3	8201.9	6869.8	5482.3	5208.1	5469.8	5534.2	6370.1
47.5°	8679.1	8751.3	9015.3	9273.6	9148.4	7945.9	6362.2	5944.8	6177.2	6297.8	7103.2
50°	8705.1	8841.5	9204.8	9654.9	9837.6	8970.2	7318.7	6784.1	7031.1	7164.1	7886.1
52.5°	8273.1	8485.2	9048.0	9706.8	10209.9	9837.6	8308.0	7623.2	7940.3	8114.0	8698.3
55°	6343.0	6620.5	8458.0	9424.8	10224.6	10495.3	9271.3	8497.6	8953.3	9149.6	9576.0
57.5°	5526.3	5666.1	6649.8	8935.2	9952.6	10760.3	10142.2	9330.0	10055.4	10299.0	10405.0
60°	4597.8	4781.7	5577.0	8134.3	9583.9	10786.3	10911.5	10403.9	11249.9	11524.1	11165.3
62.5°	3124.7	3324.3	4115.1	6758.0	9079.6	10773.9	11542.1	11509.4	12577.7	12872.1	11809.4
65°	1935.7	2061.0	2582.1	5518.4	8374.6	10787.4	12202.0	12851.8	13978.6	14277.5	12308.0
67.5°	1529.6	1587.1	1859.0	4236.9	7159.6	10482.9	12860.8	14114.0	15297.3	15534.2	12460.3
70°	1027.7	1062.6	1352.5	2840.4	5326.6	9077.3	12848.4	14748.0	15976.4	16094.9	11905.3
72.5°	541.5	568.6	790.8	1315.3	3217.2	6452.4	10830.3	13989.9	15300.7	15122.4	10176.0
75°	270.7	315.8	532.4	667.8	1373.9	3598.5	6725.3	11029.9	12042.9	11352.6	6529.0
77.5°	205.3	248.2	439.9	439.9	478.3	1211.6	2848.3	6015.8	5548.8	4620.5	1916.5
80°	130.9	169.2	384.7	332.8	199.7	307.9	742.2	1685.3	1178.8	896.8	348.6
82.5°	76.7	110.6	320.3	220.0	111.7	114.0	209.8	358.7	305.7	238.0	107.1
85°	30.4	72.2	220.0	86.8	44.0	28.2	63.1	76.7	63.1	47.4	27.1
87.5°	0.0	16.9	38.3	0.0	3.4	2.3	4.5	5.6	5.6	4.5	9.0
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°	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3	2786.3
2.5°	2798.7	2800.9	2807.7	2808.8	2793.0	2772.7	2764.8	2761.5	2747.9	2746.8	2749.0
5°	2832.5	2842.6	2832.5	2803.2	2733.3	2635.1	2560.7	2499.8	2444.4	2427.5	2417.4
7.5°	2900.2	2910.4	2879.8	2764.8	2588.8	2393.7	2217.7	2093.7	1981.9	1940.2	1923.3
10°	2997.2	3010.7	2914.9	2682.4	2371.1	2057.6	1759.7	1549.9	1386.3	1319.8	1291.6
12.5°	3119.1	3124.7	2934.1	2557.3	2088.0	1640.2	1218.3	993.8	848.3	794.2	777.3
15°	3253.2	3245.4	2936.3	2386.9	1702.2	1159.6	795.3	653.1	594.5	576.5	576.5
17.5°	3394.3	3361.6	2891.1	2141.0	1279.2	793.0	590.0	556.2	546.0	541.5	540.4
20°	3533.0	3459.7	2808.8	1819.5	918.2	592.2	535.8	525.6	520.0	517.7	515.5
22.5°	3659.4	3534.1	2667.8	1446.2	666.7	523.4	506.5	497.4	487.3	482.8	481.6
25°	3782.4	3577.0	2469.2	1097.6	533.5	489.5	476.0	459.1	445.6	439.9	437.7
27.5°	3901.9	3604.1	2221.1	812.2	476.0	458.0	433.2	409.5	399.3	397.1	394.8
30°	4029.4	3613.1	1939.1	605.8	441.1	418.5	382.4	355.4	349.7	350.9	350.9
32.5°	4185.0	3626.7	1654.9	496.3	411.7	371.2	328.3	300.0	295.5	300.0	298.9
35°	4371.1	3653.7	1380.7	456.8	385.8	322.7	276.3	252.7	248.2	251.5	250.4
37.5°	4623.9	3697.7	1124.6	449.0	364.4	282.0	232.4	213.2	213.2	214.3	213.2
40°	4960.0	3815.0	895.6	443.3	353.1	251.5	196.3	188.4	191.8	194.0	194.0
42.5°	5369.5	4064.3	741.1	436.5	340.7	238.0	178.2	174.9	180.5	182.8	182.8
45°	5828.6	4380.1	687.0	425.3	329.4	247.0	170.4	165.8	172.6	173.7	174.9
47.5°	6303.4	4689.3	680.2	412.9	318.1	260.6	168.1	158.0	165.8	167.0	168.1
50°	6784.1	4891.2	687.0	393.7	300.0	260.6	169.2	150.1	156.8	160.2	161.3
52.5°	7268.0	4983.7	682.4	352.0	268.4	244.8	169.2	143.3	150.1	152.3	152.3
55°	7737.2	4965.6	613.7	289.9	227.9	216.6	164.7	137.7	142.2	143.3	143.3
57.5°	8108.4	4714.1	486.2	225.6	185.0	180.5	150.1	130.9	134.3	133.1	133.1
60°	8302.4	4161.3	347.5	173.7	145.5	142.2	132.0	121.9	124.1	118.5	117.4
62.5°	8304.7	3430.4	232.4	137.7	116.2	112.9	112.9	109.5	107.1	95.8	92.5
65°	8127.5	2619.3	154.6	109.5	93.6	87.9	94.7	93.6	85.7	69.9	67.6
67.5°	7725.9	1716.9	117.4	85.7	72.2	68.8	75.5	78.9	73.3	58.6	57.5
70°	6900.2	999.5	97.0	66.5	54.1	50.7	60.9	67.6	60.9	47.4	45.1
72.5°	5731.6	539.3	78.9	49.6	37.2	33.8	48.5	55.2	48.5	35.0	33.8
75°	3719.1	288.7	60.9	32.7	19.2	21.4	36.1	40.6	33.8	22.5	20.3
77.5°	1248.8	127.5	38.3	15.8	9.0	9.0	21.4	24.8	15.8	7.9	6.8
80°	278.6	53.0	15.8	6.8	3.4	3.4	4.5	4.5	2.3	0.0	0.0
82.5°	91.3	21.4	6.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	35.0	7.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.5	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)