

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: P966155

Luminaire Tested: **NAV-SB4B-735-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966155
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-735-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 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: 19258.7 lumens
Efficiency: N/A
Efficacy: 131.0 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



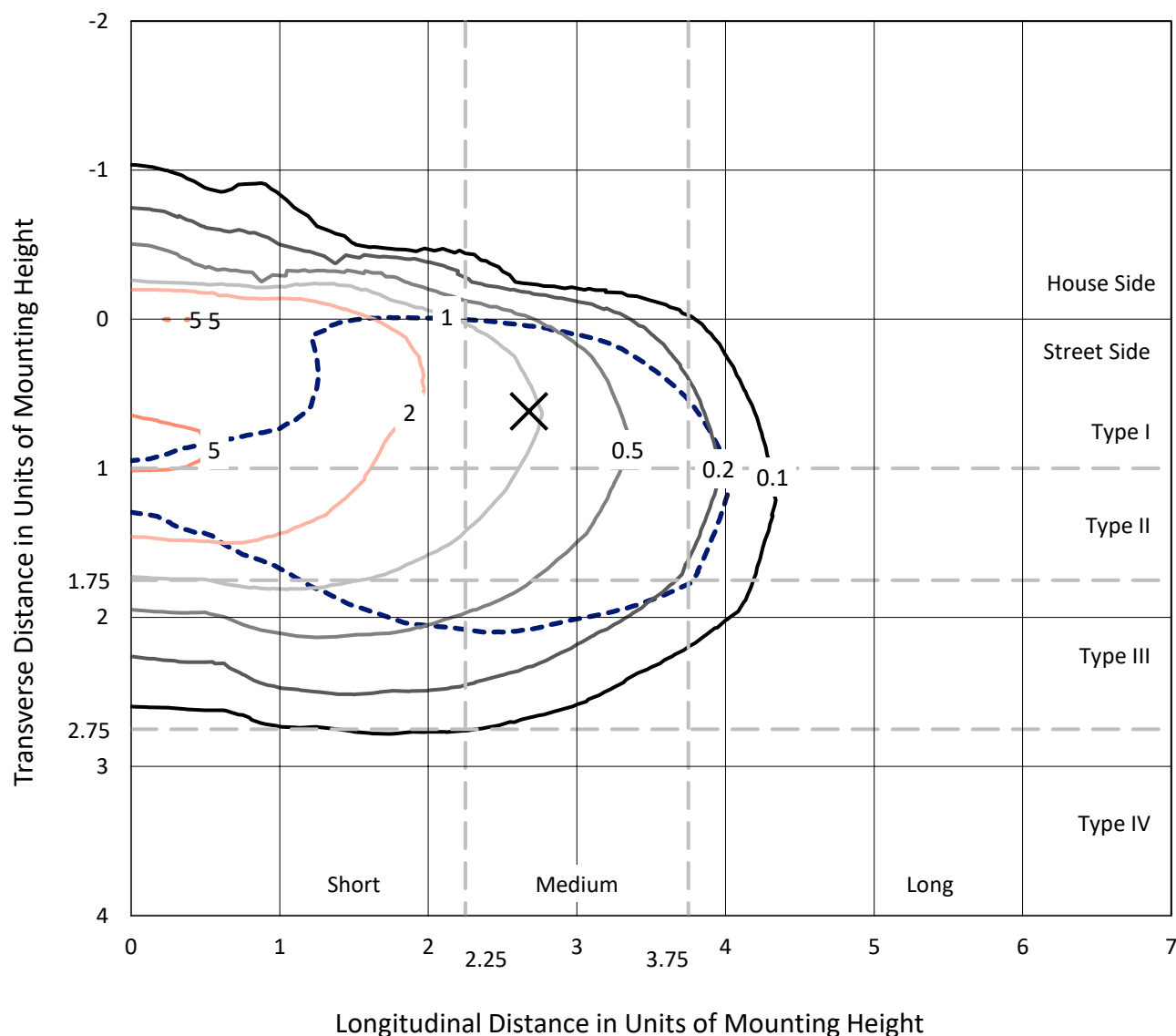
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

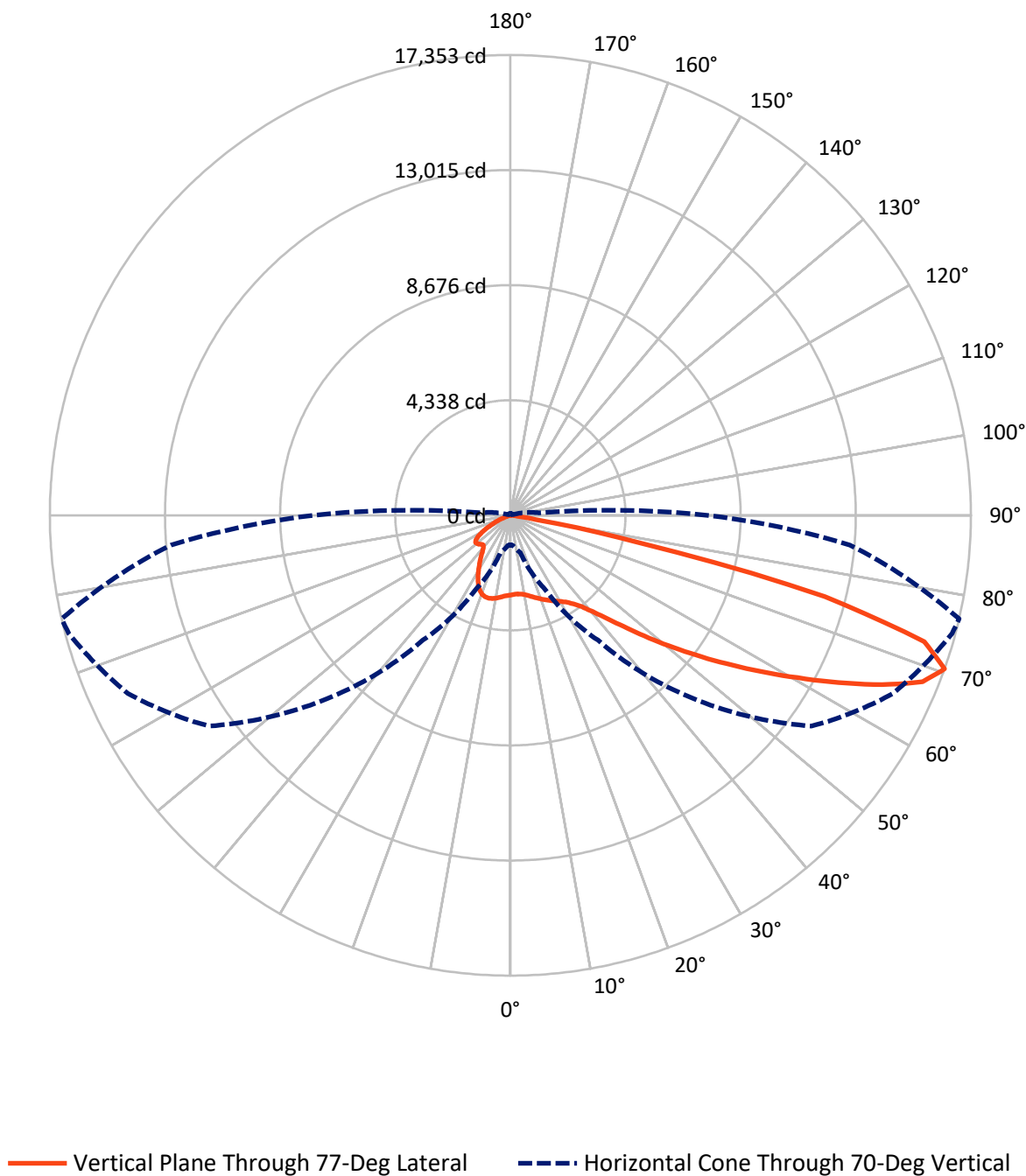


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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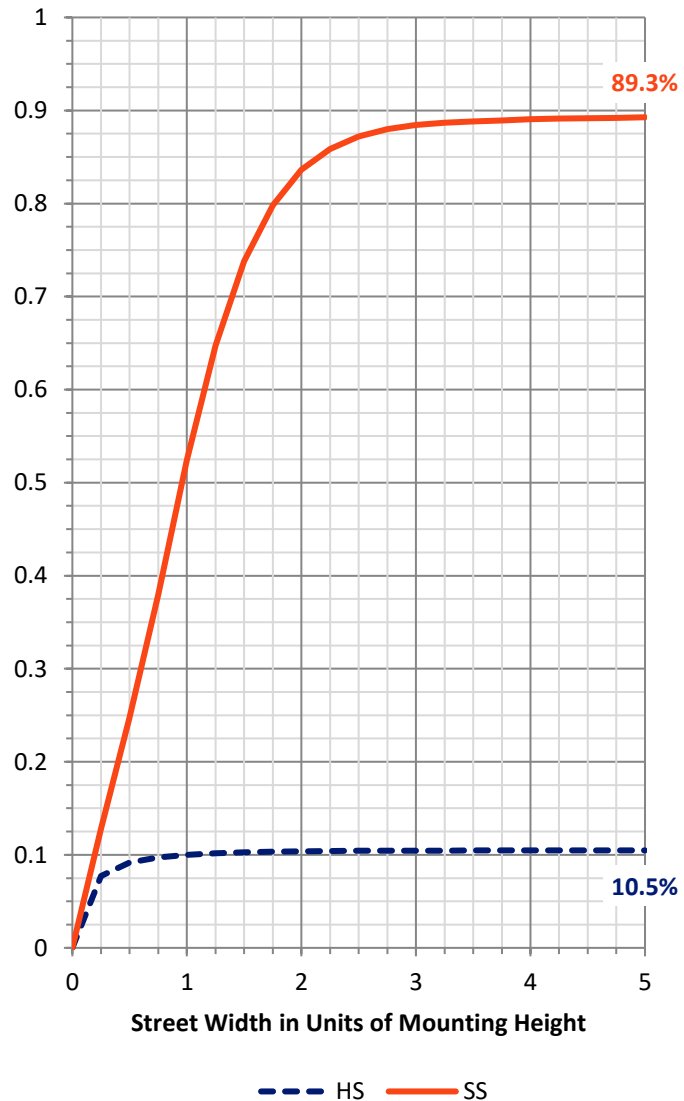
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2030.2	0.0	2030.2
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	17228.6	0.0	17228.6
	% Fixture	89.5	0.0	89.5
Total	Lumens	19258.7	0.0	19258.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.9	1.3
10°-20°	614.6	3.2
20°-30°	950.6	4.9
30°-40°	1724.9	9.0
40°-50°	3256.0	16.9
50°-60°	4704.7	24.4
60°-70°	5008.0	26.0
70°-80°	2653.9	13.8
80°-90°	87.1	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°	19258.7	100.0
0°-180°	19258.7	100.0

Coefficient of Utilization



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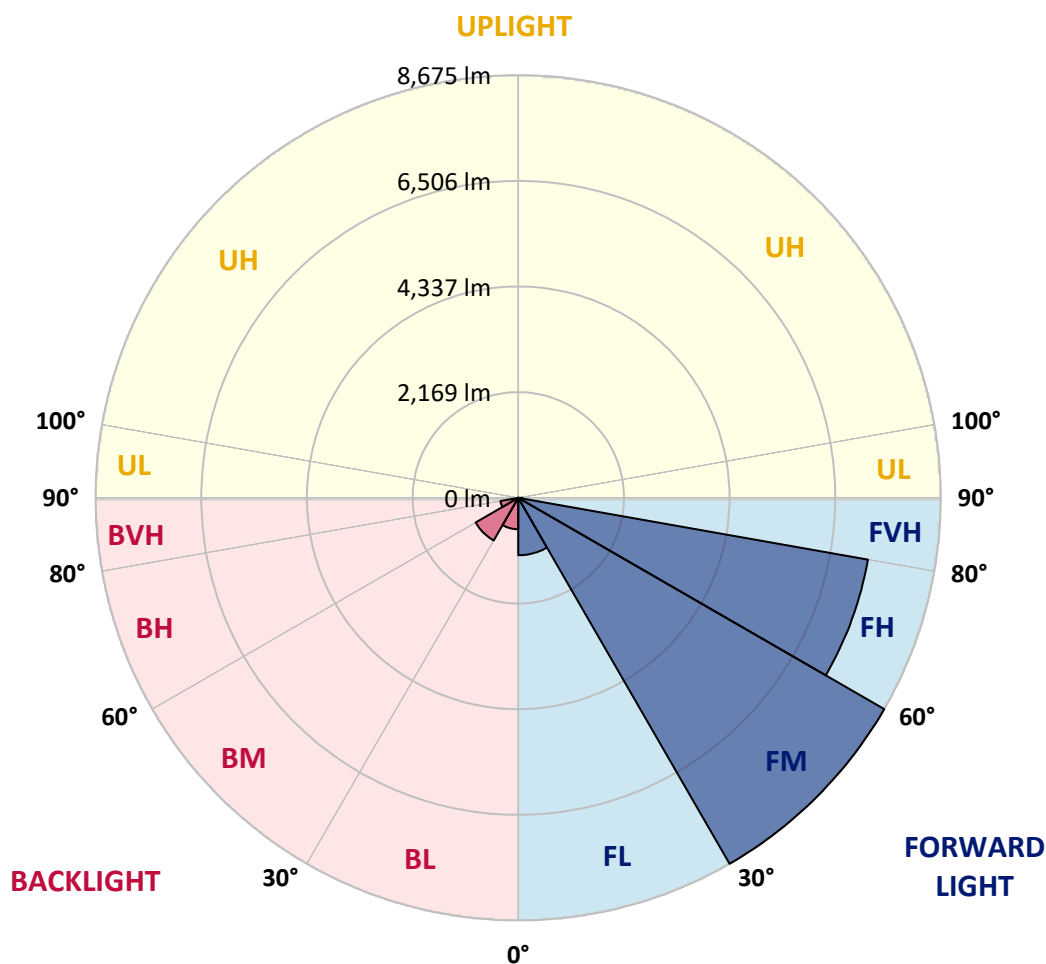
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1179.1	6.1			
FM	(30°-60°)	8675.0	45.0			
FH	(60°-80°)	7289.7	37.9			G3/7500
FVH	(80°-90°)	84.8	0.4			G1/100
BL	(0°-30°)	645.0	3.3	B2/1000		
BM	(30°-60°)	1010.6	5.2	B2/2500		
BH	(60°-80°)	372.2	1.9	B1/500		G1/500
BVH	(80°-90°)	2.3	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-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0
2.5°	2820.4	2845.9	2842.2	2859.2	2865.4	2889.7	2914.0	2946.9	2983.4	2982.1	3006.4
5°	2661.0	2686.6	2692.7	2715.7	2745.0	2782.7	2832.5	2898.2	2966.4	2977.2	3025.9
7.5°	2472.5	2499.3	2515.1	2561.3	2614.9	2692.7	2774.2	2870.2	2983.4	2999.1	3092.8
10°	2284.0	2308.3	2329.0	2394.7	2479.8	2595.4	2727.9	2866.6	3018.6	3041.7	3174.3
12.5°	2167.3	2190.4	2213.5	2270.7	2376.5	2517.5	2697.5	2883.6	3076.9	3109.8	3284.9
15°	2126.0	2146.6	2164.8	2215.9	2314.4	2475.0	2691.4	2918.9	3151.2	3194.9	3418.8
17.5°	2132.0	2143.0	2155.1	2194.0	2290.1	2455.5	2702.4	2979.7	3238.7	3277.6	3552.5
20°	2167.3	2173.3	2174.5	2201.3	2286.5	2453.0	2724.2	3038.1	3321.4	3373.8	3685.1
22.5°	2212.3	2214.7	2212.3	2230.5	2309.5	2471.3	2753.5	3108.6	3413.9	3462.6	3818.8
25°	2422.7	2376.5	2318.0	2282.8	2348.5	2506.6	2797.2	3203.4	3514.8	3562.3	3949.0
27.5°	3075.8	2943.2	2734.0	2499.3	2428.7	2557.7	2858.1	3299.6	3617.0	3659.6	4088.8
30°	4136.3	3962.3	3607.3	3078.2	2686.6	2664.7	2937.1	3395.6	3725.3	3771.4	4238.5
32.5°	5199.2	5156.7	4746.9	4014.7	3266.7	2903.1	3068.4	3525.8	3868.8	3905.2	4440.3
35°	6274.3	6188.0	5852.3	5128.7	4160.6	3388.3	3287.4	3696.0	4057.3	4098.6	4734.7
37.5°	7097.7	7045.4	6837.5	6241.5	5221.1	4137.5	3662.0	3960.0	4330.9	4377.1	5111.7
40°	7825.1	7800.7	7730.1	7337.4	6407.0	5117.7	4244.5	4368.5	4710.4	4765.0	5573.8
42.5°	8396.6	8453.8	8494.0	8384.5	7629.2	6236.7	5027.7	4942.7	5239.4	5295.4	6162.5
45°	8981.7	9001.1	9162.9	9320.9	8843.0	7406.6	5910.8	5615.2	5897.3	5966.6	6867.9
47.5°	9357.4	9435.2	9719.9	9998.4	9863.4	8566.9	6859.4	6409.3	6659.9	6790.0	7658.4
50°	9385.4	9532.6	9924.2	10409.5	10606.5	9671.2	7890.7	7314.2	7580.6	7724.1	8502.5
52.5°	8919.7	9148.2	9755.1	10465.4	11007.8	10606.5	8957.3	8219.1	8560.8	8748.2	9378.1
55°	6838.7	7137.9	9119.0	10161.3	11023.7	11315.5	9995.9	9161.7	9652.9	9864.6	10324.3
57.5°	5958.1	6109.0	7169.5	9633.6	10730.5	11601.4	10934.8	10059.1	10841.2	11103.9	11218.2
60°	4957.2	5155.4	6012.9	8770.0	10332.8	11629.3	11764.3	11217.0	12129.1	12424.7	12037.9
62.5°	3368.9	3584.1	4436.7	7286.2	9789.2	11615.9	12444.1	12408.9	13560.6	13878.1	12732.3
65°	2087.0	2222.0	2783.9	5949.6	9029.0	11630.5	13155.7	13856.2	15071.2	15393.4	13270.0
67.5°	1649.1	1711.2	2004.3	4568.0	7719.2	11302.2	13865.9	15217.0	16492.9	16748.3	13434.2
70°	1107.9	1145.6	1458.3	3062.4	5742.9	9786.8	13852.5	15900.6	17225.0	17352.7	12835.8
72.5°	583.7	612.9	852.6	1418.1	3468.6	6956.7	11676.7	15083.3	16496.6	16304.4	10971.3
75°	291.9	340.5	574.0	720.0	1481.3	3879.7	7251.0	11892.0	12984.2	12239.8	7039.4
77.5°	221.3	267.5	474.3	474.3	515.7	1306.2	3070.9	6486.0	5982.5	4981.6	2066.3
80°	141.0	182.4	414.7	358.7	215.2	332.0	800.2	1817.0	1270.9	966.9	375.8
82.5°	82.7	119.2	345.4	237.2	120.4	122.8	226.2	386.7	329.6	256.7	115.5
85°	32.8	77.8	237.2	93.7	47.5	30.4	68.1	82.7	68.1	51.0	29.2
87.5°	0.0	18.2	41.3	0.0	3.7	2.5	4.8	6.0	6.0	4.8	9.7
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°	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0	3004.0
2.5°	3017.4	3019.9	3027.1	3028.4	3011.3	2989.4	2980.9	2977.2	2962.7	2961.4	2963.9
5°	3053.9	3064.9	3053.9	3022.2	2946.9	2841.0	2760.7	2695.1	2635.5	2617.2	2606.3
7.5°	3126.9	3137.8	3104.9	2980.9	2791.2	2580.7	2391.0	2257.3	2136.8	2091.8	2073.6
10°	3231.4	3246.1	3142.6	2892.1	2556.5	2218.3	1897.3	1671.1	1494.8	1422.9	1392.6
12.5°	3362.8	3368.9	3163.4	2757.1	2251.2	1768.3	1313.5	1071.4	914.6	856.2	837.9
15°	3507.6	3499.0	3165.8	2573.5	1835.3	1250.3	857.4	704.2	640.9	621.5	621.5
17.5°	3659.6	3624.3	3117.1	2308.3	1379.1	855.0	636.1	599.6	588.7	583.7	582.6
20°	3809.1	3730.1	3028.4	1961.7	989.9	638.5	577.7	566.7	560.7	558.2	555.8
22.5°	3945.3	3810.3	2876.4	1559.1	718.7	564.4	546.1	536.4	525.4	520.5	519.4
25°	4078.0	3856.6	2662.2	1183.4	575.2	527.9	513.2	495.0	480.4	474.3	471.9
27.5°	4206.8	3885.8	2394.7	875.7	513.2	493.7	467.0	441.5	430.5	428.1	425.7
30°	4344.3	3895.5	2090.7	653.1	475.5	451.2	412.3	383.1	377.0	378.2	378.2
32.5°	4512.0	3910.1	1784.1	535.2	443.9	400.2	353.9	323.5	318.7	323.5	322.3
35°	4712.7	3939.3	1488.6	492.5	415.9	347.8	298.0	272.4	267.5	271.2	270.0
37.5°	4985.2	3986.7	1212.6	484.0	392.9	304.0	250.5	229.9	229.9	231.0	229.9
40°	5347.6	4113.2	965.7	478.0	380.7	271.2	211.7	203.2	206.7	209.2	209.2
42.5°	5789.1	4382.0	799.1	470.7	367.3	256.7	192.2	188.5	194.5	197.0	197.0
45°	6284.1	4722.5	740.7	458.5	355.2	266.4	183.7	178.8	186.0	187.3	188.5
47.5°	6796.2	5055.7	733.4	445.2	343.0	281.0	181.2	170.3	178.8	180.0	181.2
50°	7314.2	5273.4	740.7	424.5	323.5	281.0	182.4	161.7	169.0	172.7	173.9
52.5°	7836.0	5373.2	735.8	379.5	289.5	263.9	182.4	154.5	161.7	164.2	164.2
55°	8342.0	5353.7	661.6	312.5	245.7	233.5	177.5	148.4	153.2	154.5	154.5
57.5°	8742.0	5082.5	524.2	243.2	199.5	194.5	161.7	141.0	144.7	143.5	143.5
60°	8951.2	4486.5	374.6	187.3	156.9	153.2	142.3	131.3	133.8	127.7	126.5
62.5°	8953.7	3698.5	250.5	148.4	125.3	121.7	121.7	118.0	115.5	103.4	99.7
65°	8762.7	2824.0	166.7	118.0	101.0	94.8	102.2	101.0	92.5	75.4	73.0
67.5°	8329.8	1851.0	126.5	92.5	77.8	74.2	81.5	85.2	79.0	63.2	62.0
70°	7439.4	1077.6	104.6	71.8	58.4	54.7	65.7	73.0	65.7	51.0	48.7
72.5°	6179.5	581.4	85.2	53.5	40.2	36.5	52.3	59.6	52.3	37.7	36.5
75°	4009.8	311.4	65.7	35.3	20.7	23.1	38.9	43.8	36.5	24.3	21.9
77.5°	1346.3	137.5	41.3	17.0	9.7	9.7	23.1	26.8	17.0	8.5	7.3
80°	300.4	57.2	17.0	7.3	3.7	3.7	4.8	4.8	2.5	0.0	0.0
82.5°	98.5	23.1	7.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	37.7	8.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	14.6	1.2	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)