

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: P966840

Luminaire Tested: **NAV-SB4C-830-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20930.5 lumens
Efficiency: N/A
Efficacy: 104.3 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): 200.7
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



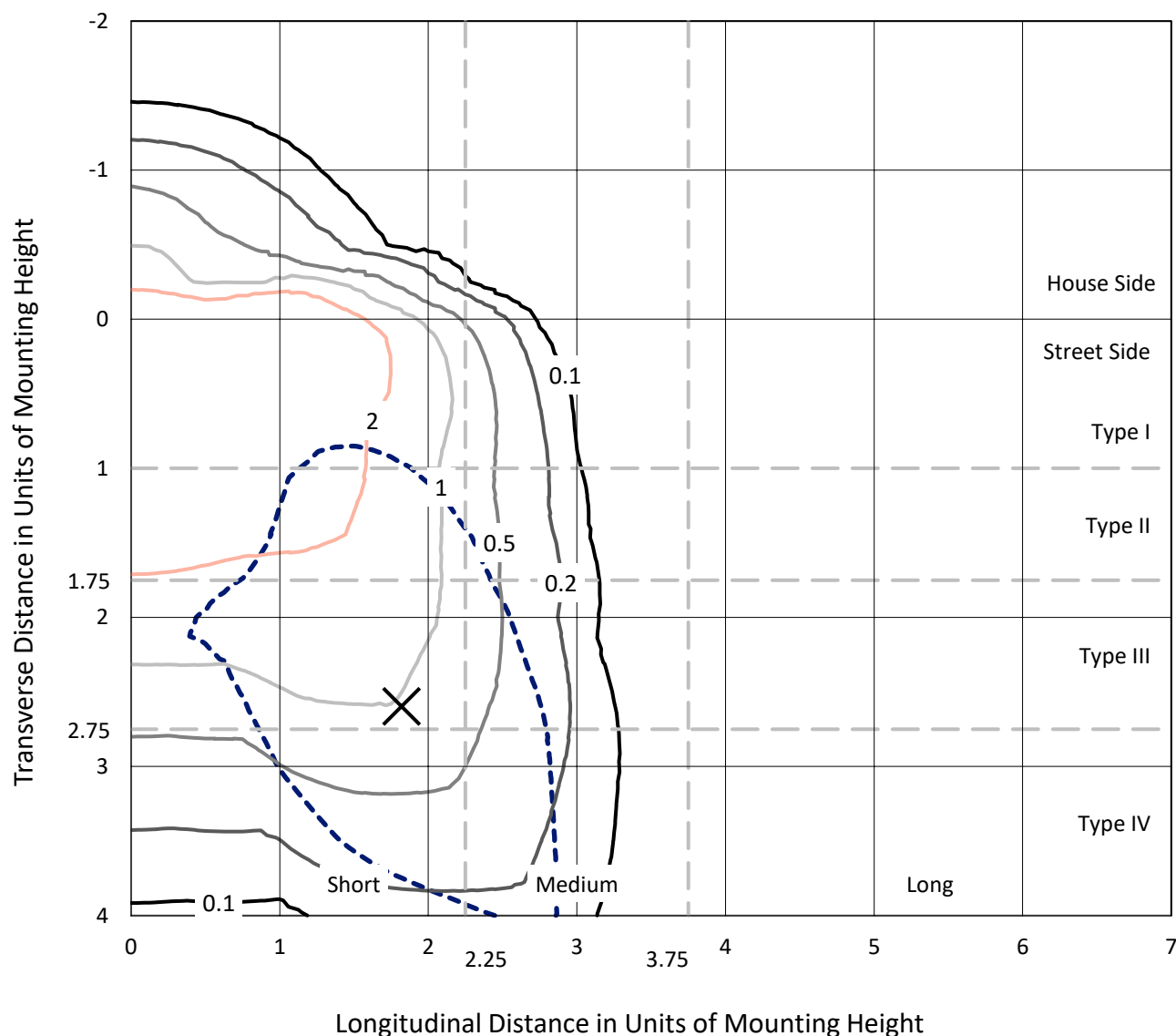
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

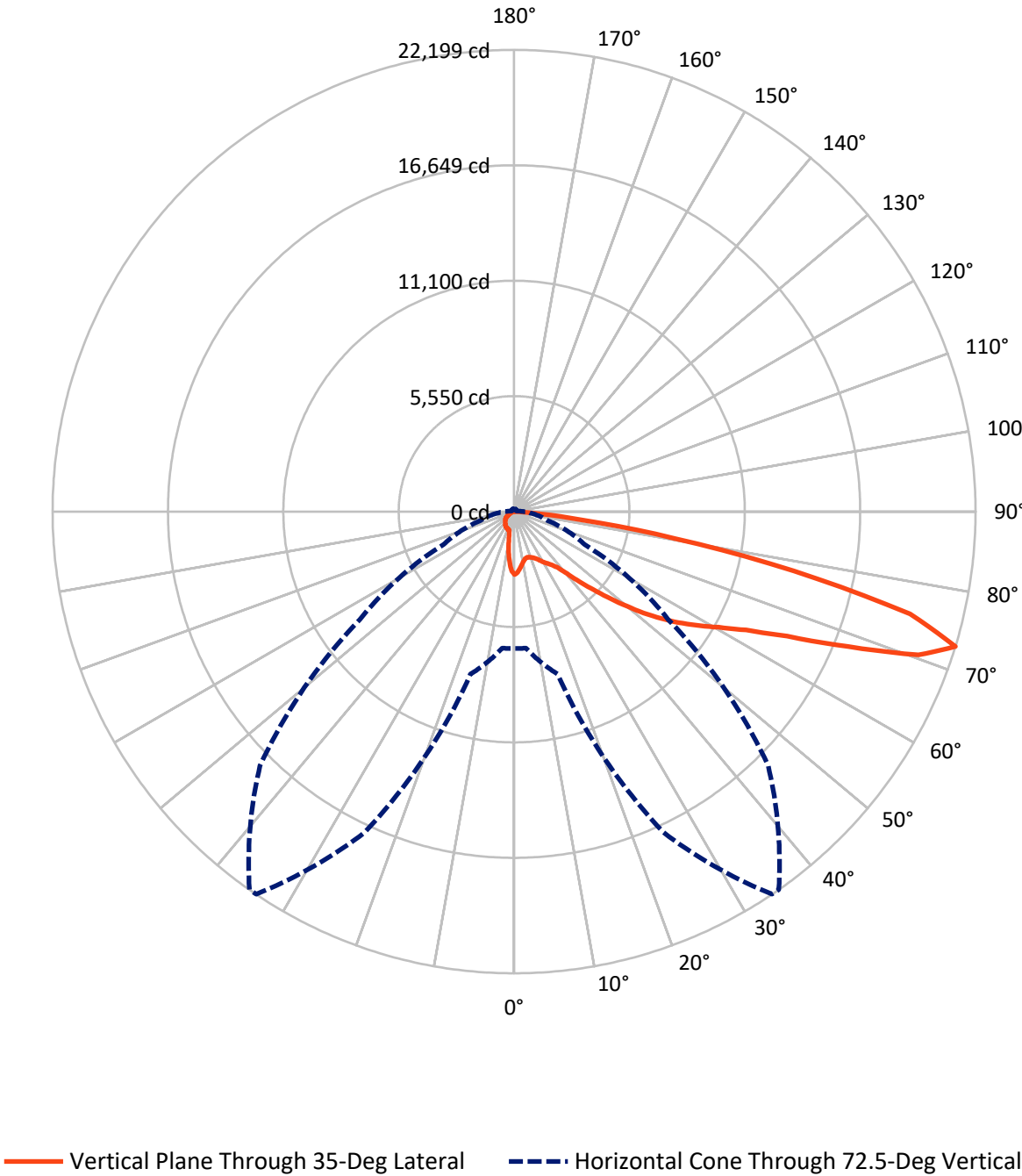


Based on 25 foot mounting height. Maximum calculated value = 4.9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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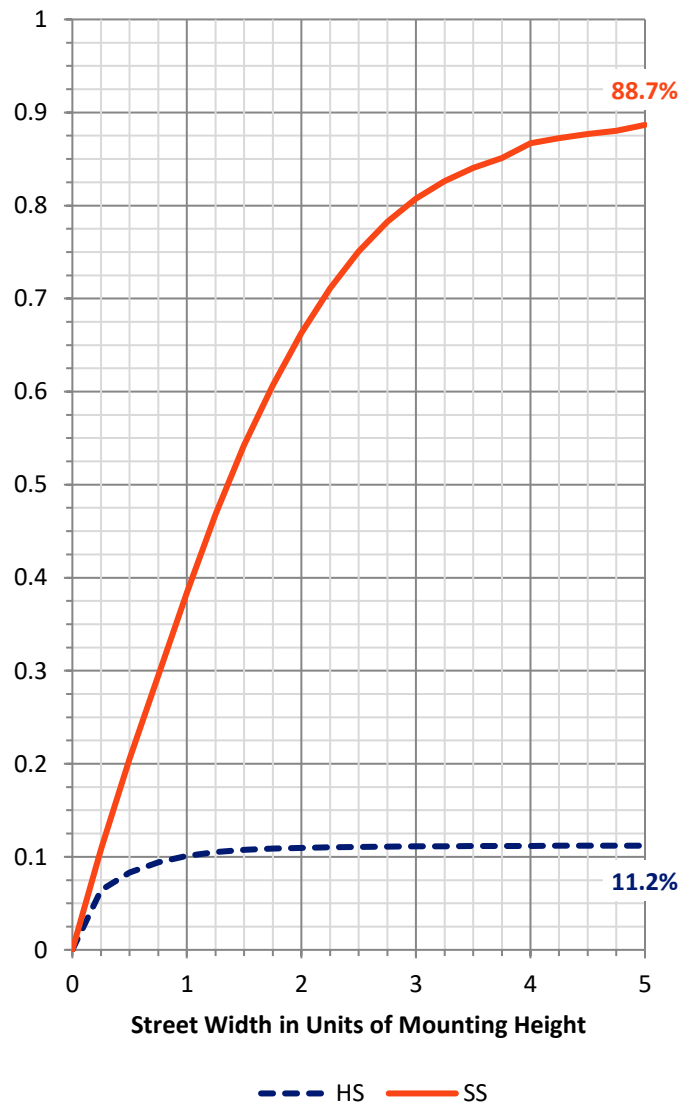
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2355.6	0.0	2355.6
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	18574.9	0.0	18574.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	20930.5	0.0	20930.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.3	1.2
10°-20°	583.1	2.8
20°-30°	947.3	4.5
30°-40°	1580.6	7.6
40°-50°	2990.5	14.3
50°-60°	4751.9	22.7
60°-70°	5878.4	28.1
70°-80°	3654.1	17.5
80°-90°	295.3	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°	20930.5	100.0
0°-180°	20930.5	100.0

Coefficient of Utilization



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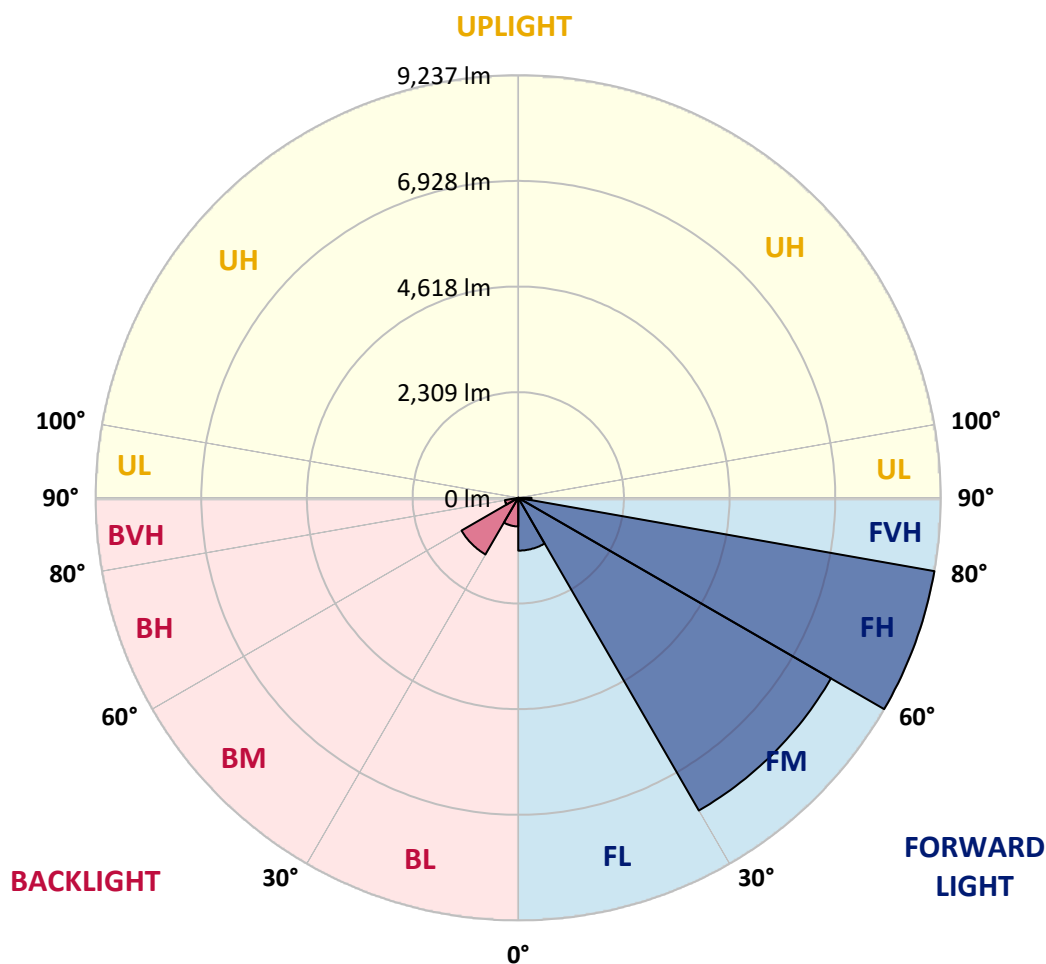
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1153.8	5.5			
FM	(30°-60°)	7892.9	37.7			
FH	(60°-80°)	9236.9	44.1			G4/12000
FVH	(80°-90°)	291.3	1.4			G3/500
BL	(0°-30°)	625.9	3.0	B2/1000		
BM	(30°-60°)	1430.1	6.8	B2/2500		
BH	(60°-80°)	295.6	1.4	B1/500		G1/500
BVH	(80°-90°)	4.0	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°	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5
2.5°	2898.6	2923.1	2927.7	2935.4	2935.4	2944.6	2959.9	2981.4	3016.7	3035.0	3047.3
5°	2671.6	2690.0	2713.0	2731.4	2766.7	2771.3	2831.0	2889.4	2970.7	3032.0	3074.9
7.5°	2443.1	2464.5	2495.3	2539.7	2585.7	2599.5	2690.0	2788.1	2916.9	3032.0	3104.1
10°	2282.1	2283.6	2311.2	2355.7	2429.2	2446.2	2556.6	2696.2	2857.2	3013.6	3131.7
12.5°	2191.6	2202.3	2214.6	2248.3	2318.9	2329.6	2447.7	2611.8	2797.3	3002.8	3163.9
15°	2191.6	2199.2	2206.9	2223.7	2280.5	2289.7	2394.0	2558.1	2766.7	3007.5	3216.0
17.5°	2214.6	2226.8	2220.7	2240.6	2300.4	2306.6	2398.6	2542.7	2765.1	3036.6	3295.8
20°	2269.8	2279.0	2266.7	2279.0	2338.8	2351.0	2446.2	2571.9	2791.2	3087.2	3395.5
22.5°	2357.2	2361.8	2332.7	2341.8	2403.2	2418.6	2529.0	2654.7	2854.1	3168.5	3528.9
25°	2467.6	2476.8	2432.3	2443.1	2501.4	2519.8	2647.1	2779.0	2953.7	3280.4	3699.1
27.5°	2594.9	2599.5	2561.2	2559.6	2634.8	2660.9	2789.6	2932.3	3087.2	3421.6	3913.9
30°	2740.6	2754.4	2717.6	2711.4	2806.6	2828.0	2955.3	3120.9	3283.5	3633.2	4219.0
32.5°	2855.6	2866.4	2844.9	2860.3	2956.8	2973.7	3156.2	3387.8	3591.8	3933.7	4634.6
35°	3021.3	3027.4	2978.3	3005.9	3116.3	3159.3	3430.8	3762.1	3979.8	4311.0	5177.6
37.5°	3620.9	3620.9	3412.3	3275.8	3381.7	3420.0	3806.4	4232.8	4458.2	4817.2	5861.6
40°	4450.7	4436.8	4131.6	3852.5	3838.7	3913.9	4341.7	4826.3	5076.3	5424.5	6631.4
42.5°	5335.5	5314.0	4898.5	4622.3	4576.3	4602.5	4959.8	5557.9	5812.5	6165.2	7459.6
45°	6120.8	6114.6	5734.3	5363.1	5280.3	5363.1	5731.2	6413.6	6596.2	6967.3	8286.2
47.5°	6778.6	6778.6	6501.1	6258.8	6215.8	6264.9	6775.6	7363.0	7346.1	7821.6	9091.4
50°	7536.3	7530.2	7266.3	7162.1	7206.6	7275.6	7978.0	8362.9	8122.1	8660.4	9810.7
52.5°	8067.0	8103.8	8013.2	7996.3	8223.4	8343.0	9198.8	9341.3	8816.8	9456.4	10349.0
55°	8487.1	8530.0	8634.4	8752.5	9189.5	9345.9	10381.2	10269.3	9398.1	10146.6	10658.8
57.5°	9082.2	9020.8	9181.8	9415.0	10122.0	10310.7	11526.8	11144.9	9865.8	10706.3	10692.5
60°	9804.5	9813.8	9841.3	10135.8	11052.9	11295.2	12655.6	11973.1	10166.5	11049.8	10318.3
62.5°	10672.6	10686.3	10743.1	11195.6	12302.9	12531.3	13857.9	12651.0	10304.5	10953.3	9352.1
65°	10612.7	10671.1	11304.4	12851.9	14203.0	14428.4	15261.2	13126.4	10095.9	10069.8	7614.5
67.5°	9668.0	9763.1	10822.9	14830.2	17067.8	17319.3	16957.4	13219.9	9195.7	7830.7	4967.5
70°	8428.9	8462.6	9737.1	16609.3	20385.1	20639.7	18475.7	12190.8	6978.0	4367.8	2225.3
72.5°	6582.3	6590.0	8085.3	17021.9	22185.6	22199.3	17284.1	9050.0	3752.8	1677.8	773.0
75°	4702.1	4656.2	5415.3	13804.3	19518.6	19675.0	12957.6	4245.1	1434.0	792.9	385.0
77.5°	2521.3	2571.9	3064.2	8186.6	13483.8	13750.6	7070.0	1223.8	730.0	539.9	254.6
80°	779.1	822.0	1256.0	3748.2	7637.5	7798.5	2621.0	544.5	509.1	385.0	167.2
82.5°	245.4	254.6	585.9	1575.0	3170.0	3243.6	759.1	308.2	348.1	254.6	98.2
85°	70.5	72.1	260.8	587.4	783.7	799.0	213.2	119.6	199.4	158.0	50.6
87.5°	7.7	24.5	98.2	98.2	69.0	67.4	23.0	26.0	56.8	20.0	9.2
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°	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5	3033.5
2.5°	3039.6	3041.2	3021.3	2987.6	2950.7	2920.0	2881.7	2851.0	2829.5	2823.5	2834.1
5°	3061.2	3050.4	2993.6	2890.9	2768.2	2662.4	2544.3	2450.8	2389.4	2363.3	2372.6
7.5°	3093.3	3062.7	2938.5	2736.0	2501.4	2292.8	2081.2	1917.1	1812.7	1760.6	1768.3
10°	3120.9	3059.6	2846.4	2512.1	2153.2	1837.3	1552.1	1354.2	1243.7	1191.7	1193.2
12.5°	3147.1	3058.1	2726.8	2246.8	1760.6	1374.1	1108.8	1010.6	980.0	969.2	966.2
15°	3196.1	3062.7	2576.5	1943.1	1369.5	1038.2	941.7	940.1	946.3	943.2	941.7
17.5°	3263.6	3067.3	2406.3	1621.0	1056.7	915.5	911.0	924.8	934.0	929.4	927.8
20°	3351.0	3085.7	2225.3	1302.1	907.9	884.9	895.6	907.9	915.5	907.9	906.4
22.5°	3473.7	3117.8	2027.4	1045.9	860.4	866.5	875.7	889.5	897.2	886.4	884.9
25°	3624.0	3168.5	1832.7	909.5	837.3	845.0	858.8	874.2	883.3	872.7	871.1
27.5°	3818.7	3249.8	1653.2	878.7	814.4	819.0	838.9	861.9	874.2	860.4	860.4
30°	4100.9	3383.2	1498.3	892.6	800.5	789.9	817.4	849.6	863.5	851.2	849.6
32.5°	4475.2	3571.8	1403.3	914.1	794.4	756.0	782.2	823.6	846.5	838.9	838.9
35°	4965.9	3858.6	1366.4	938.6	789.9	720.8	739.2	783.7	823.6	831.3	831.3
37.5°	5560.9	4257.3	1377.2	949.4	776.0	691.7	700.9	739.2	791.4	815.9	822.0
40°	6237.3	4722.1	1438.6	938.6	760.7	667.2	668.7	697.8	743.8	780.6	792.9
42.5°	6935.2	5265.0	1552.1	898.7	746.9	645.6	641.0	661.0	691.7	717.7	728.5
45°	7599.1	5823.2	1664.0	843.5	730.0	624.2	613.5	621.2	627.3	638.0	644.1
47.5°	8178.9	6215.8	1631.8	792.9	707.0	599.6	581.3	578.2	559.8	558.2	556.7
50°	8579.1	6301.7	1449.2	742.3	673.2	572.1	542.9	524.5	492.3	476.9	478.5
52.5°	8706.5	5962.7	1184.0	691.7	618.1	535.3	493.8	464.7	424.9	411.0	409.5
55°	8537.7	5298.7	946.3	630.4	541.4	486.2	440.1	401.8	369.6	352.7	352.7
57.5°	8125.2	4453.7	748.5	558.2	460.1	430.9	385.0	346.6	319.0	302.2	299.1
60°	7441.2	3536.6	591.9	472.3	392.6	371.2	323.6	299.1	274.5	254.6	250.0
62.5°	6403.0	2524.4	464.7	374.2	328.2	303.7	276.0	257.7	228.5	200.9	196.3
65°	4996.6	1544.4	358.9	274.5	263.8	251.5	234.6	217.8	182.6	154.9	150.3
67.5°	3151.7	731.5	256.1	207.0	208.6	202.4	194.7	181.0	154.9	130.4	127.3
70°	1388.0	354.2	168.7	158.0	154.9	154.9	161.0	156.4	131.9	108.9	104.2
72.5°	472.3	190.1	125.8	119.6	111.9	110.4	135.0	130.4	105.8	84.4	79.7
75°	246.9	127.3	92.0	85.9	67.4	81.3	107.3	101.3	75.1	55.2	50.6
77.5°	161.0	90.5	62.8	55.2	38.3	53.7	79.7	70.5	44.5	27.6	24.5
80°	101.3	59.9	36.8	26.0	18.4	29.1	42.9	30.6	16.9	6.1	4.6
82.5°	53.7	30.6	13.8	9.2	7.7	9.2	10.8	7.7	3.1	0.0	0.0
85°	21.4	10.8	4.6	3.1	1.5	0.0	3.1	1.5	0.0	0.0	0.0
87.5°	7.7	1.5	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)