

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: P968386

Luminaire Tested: **NAV-SB5B-827-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968386
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19884 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 182.7
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

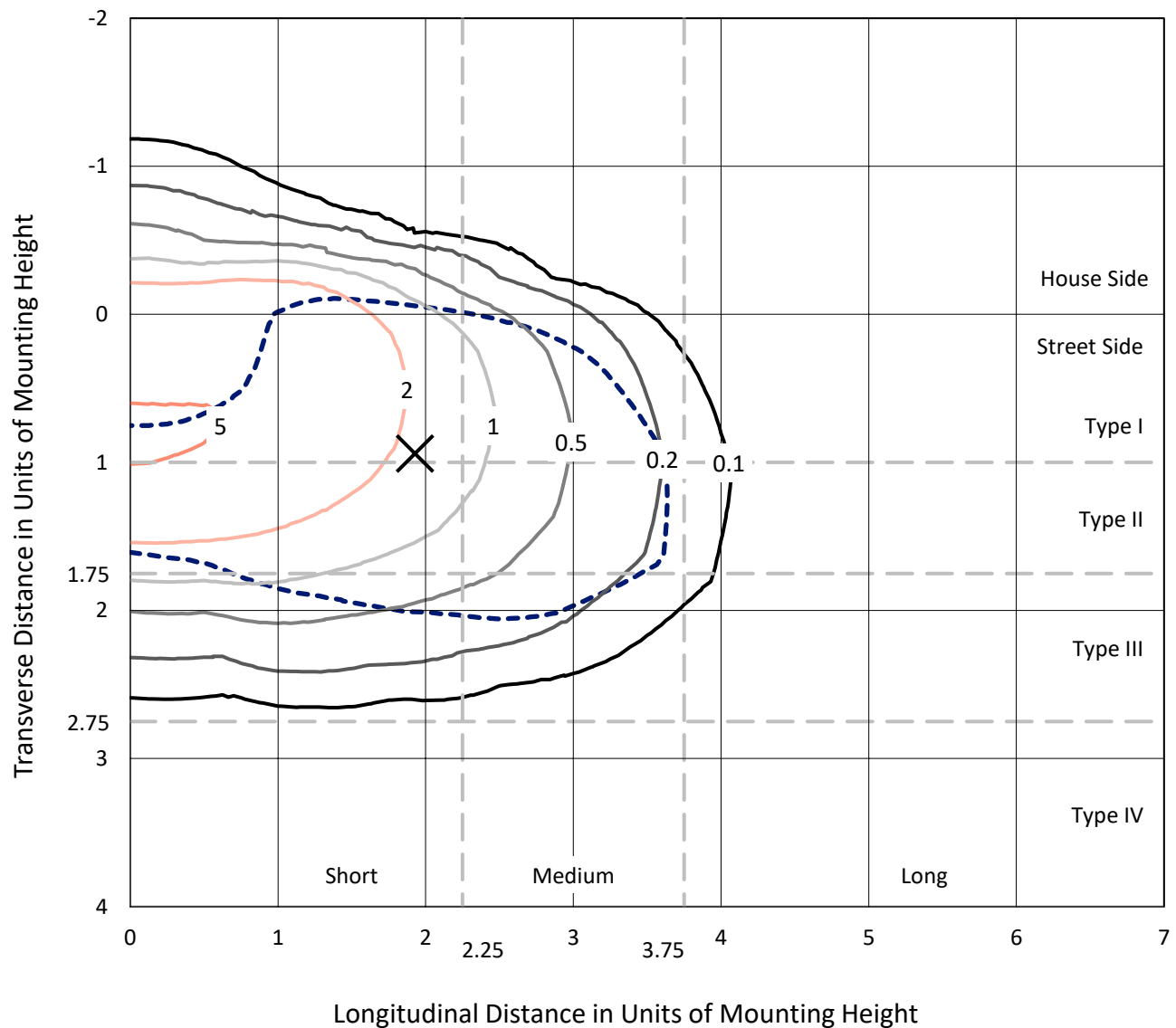


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

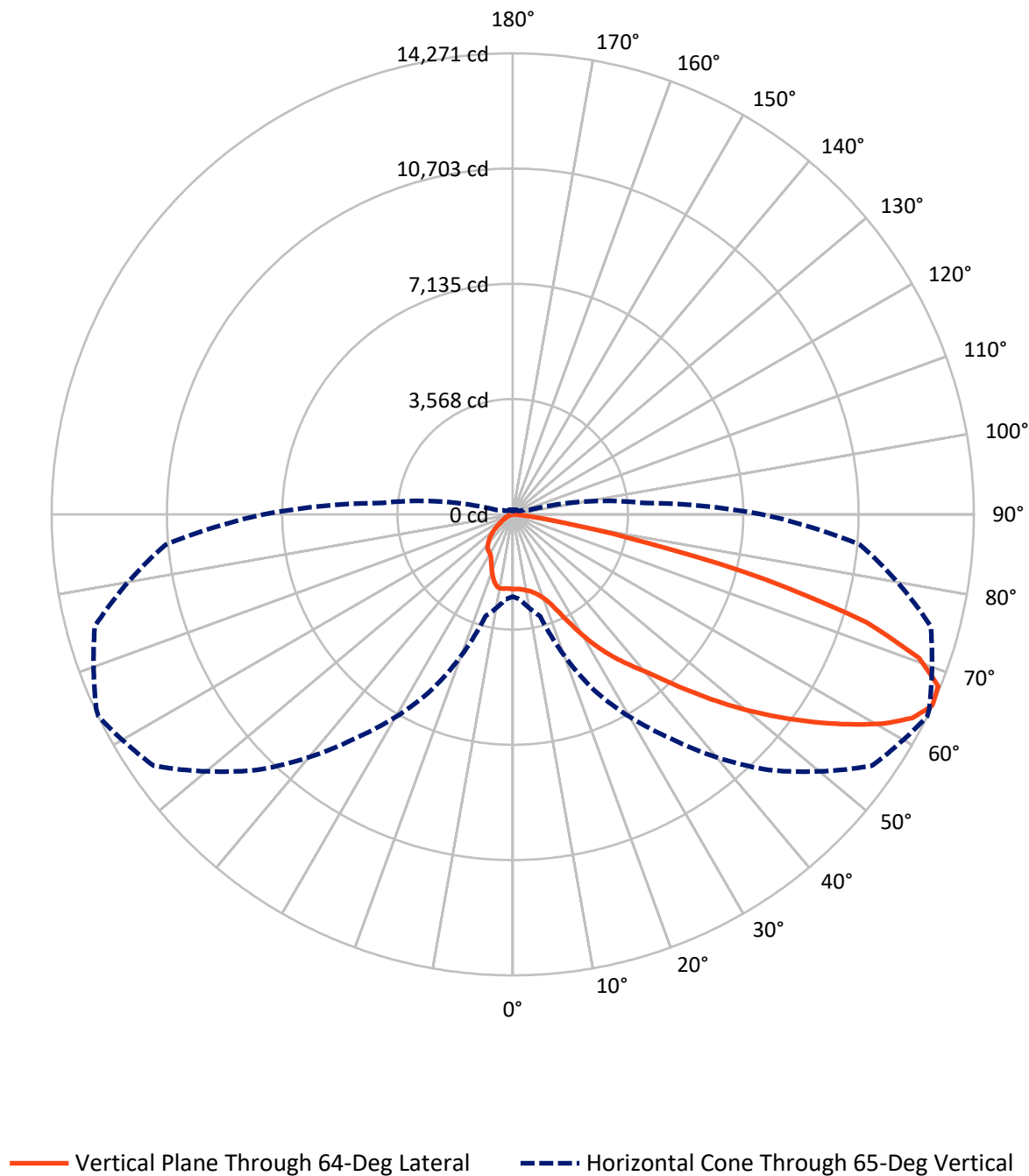


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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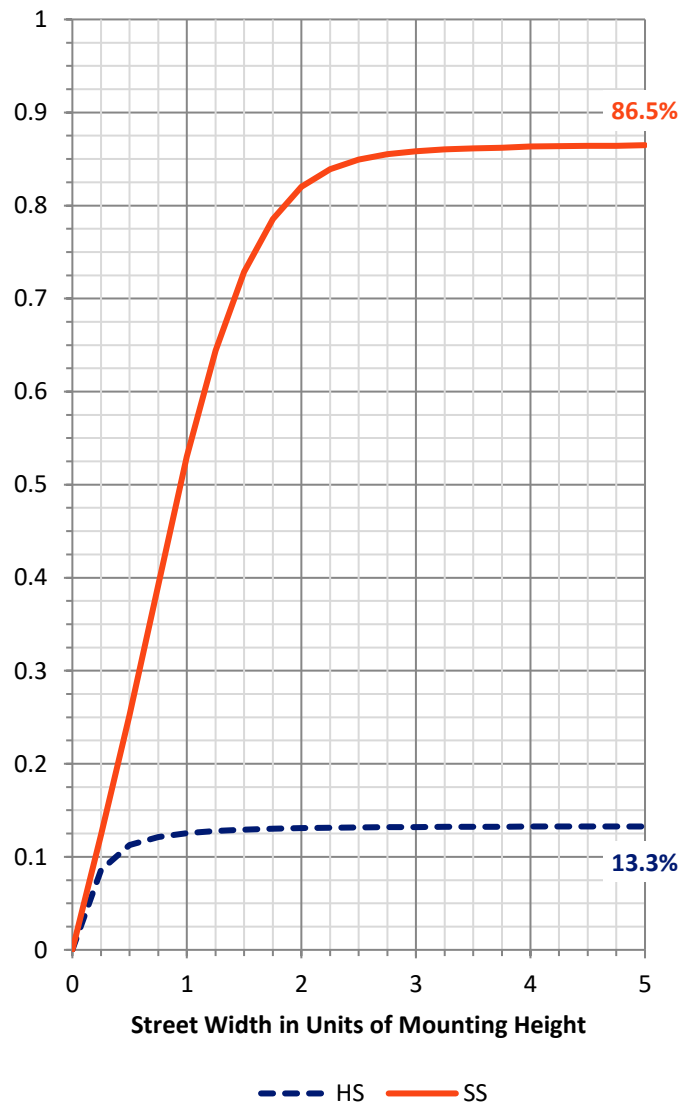
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2659.1	0.0	2659.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	17224.9	0.0	17224.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	19884.0	0.0	19884.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.4	1.1
10°-20°	578.7	2.9
20°-30°	1096.6	5.5
30°-40°	2219.1	11.2
40°-50°	3780.2	19.0
50°-60°	5140.8	25.9
60°-70°	4827.4	24.3
70°-80°	1934.1	9.7
80°-90°	93.7	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°	19884.0	100.0
0°-180°	19884.0	100.0

Coefficient of Utilization



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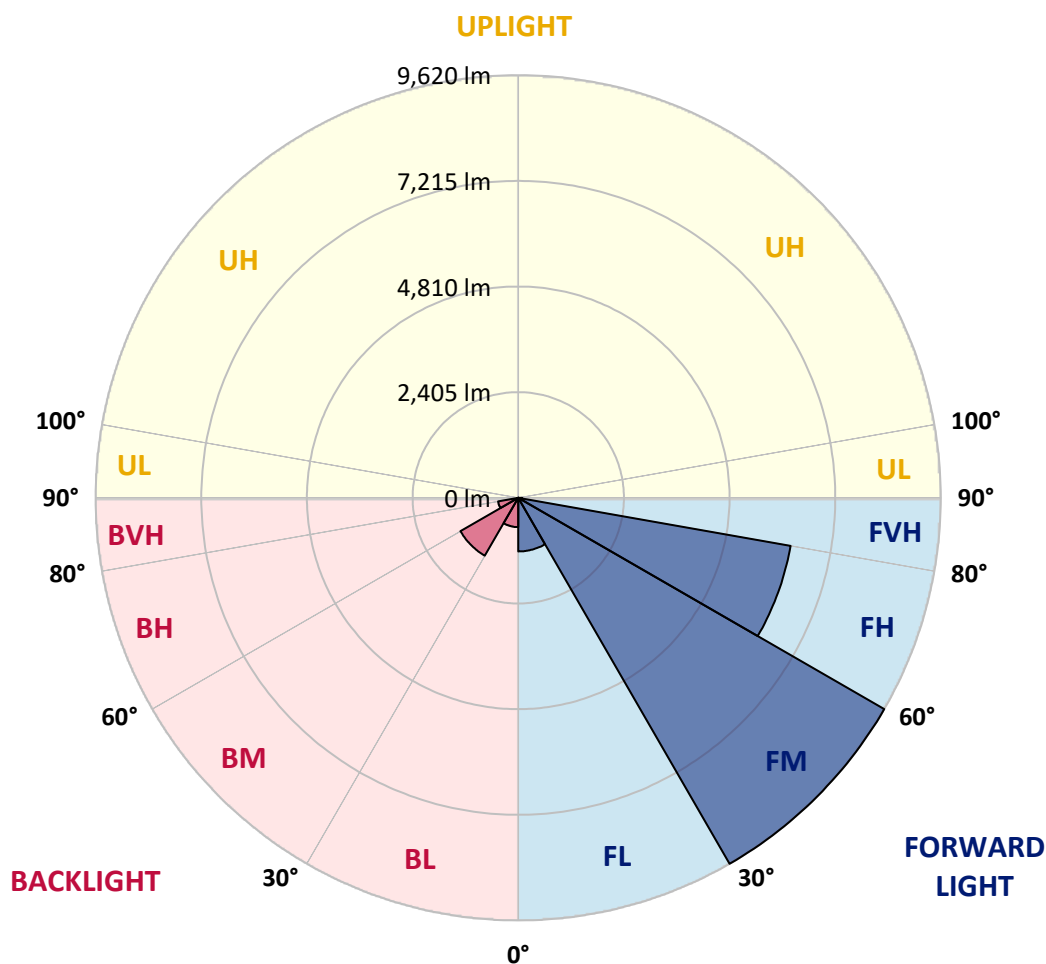
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1221.1	6.1			
FM	(30°-60°)	9619.8	48.4			
FH	(60°-80°)	6294.8	31.7			G3/7500
FVH	(80°-90°)	89.1	0.4			G1/100
BL	(0°-30°)	667.6	3.4	B2/1000		
BM	(30°-60°)	1520.2	7.6	B2/2500		
BH	(60°-80°)	466.7	2.3	B1/500		G1/500
BVH	(80°-90°)	4.6	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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7
2.5°	2304.7	2320.7	2316.7	2312.7	2311.4	2314.0	2315.4	2314.0	2314.0	2314.0	2315.4
5°	2260.7	2274.1	2274.1	2283.4	2296.7	2312.7	2324.7	2327.4	2330.0	2334.0	2332.7
7.5°	2176.8	2187.5	2195.4	2226.1	2259.4	2302.0	2338.0	2356.7	2359.3	2374.0	2379.3
10°	2119.4	2132.7	2146.0	2178.1	2226.1	2290.1	2351.4	2396.7	2403.3	2438.0	2454.1
12.5°	2116.7	2130.1	2147.4	2182.1	2238.1	2306.0	2380.7	2446.1	2458.1	2508.7	2542.0
15°	2144.7	2160.8	2176.8	2219.4	2279.4	2362.0	2442.1	2523.3	2535.3	2607.3	2643.3
17.5°	2202.1	2223.4	2235.4	2278.1	2342.0	2434.0	2539.3	2632.6	2643.3	2727.2	2772.6
20°	2315.4	2340.7	2344.7	2379.3	2442.1	2540.7	2665.9	2782.0	2795.3	2891.2	2941.9
22.5°	2550.0	2586.0	2554.0	2571.3	2627.3	2725.9	2861.9	3008.5	3027.2	3136.5	3181.8
25°	2963.2	3013.8	2931.2	2901.9	2925.9	3028.6	3199.1	3384.4	3405.8	3493.7	3516.4
27.5°	3775.0	3709.7	3584.3	3461.7	3389.8	3448.4	3640.4	3869.6	3896.3	3981.6	3955.0
30°	4666.7	4609.4	4440.1	4168.3	3997.6	3988.3	4165.6	4421.4	4452.1	4533.5	4452.1
32.5°	5559.8	5505.2	5321.3	4986.6	4690.7	4544.1	4666.7	4950.6	4966.6	5018.6	4898.7
35°	6438.2	6382.3	6198.4	5855.7	5491.8	5158.6	5134.6	5454.5	5459.9	5514.5	5335.9
37.5°	7322.0	7275.3	7079.5	6743.5	6384.9	5925.1	5702.5	5931.8	5938.4	5991.7	5806.4
40°	7952.6	7972.6	7837.9	7577.9	7270.0	6767.6	6339.6	6439.6	6399.6	6489.0	6378.3
42.5°	8493.8	8533.7	8416.4	8285.8	8107.1	7664.6	7128.8	7111.4	7047.5	7095.5	6980.8
45°	8961.6	8994.9	8889.6	8859.0	8855.0	8544.4	7991.2	7887.2	7797.9	7788.6	7651.3
47.5°	9133.6	9197.5	9242.8	9345.5	9545.4	9414.8	8883.0	8721.6	8621.7	8548.4	8331.1
50°	9198.9	9266.8	9421.5	9720.1	10193.2	10249.3	9770.7	9589.4	9466.8	9333.4	9013.5
52.5°	9110.9	9232.2	9440.1	9942.7	10629.1	10918.4	10622.5	10463.8	10323.9	10106.6	9632.1
55°	8592.4	8713.6	9138.9	9940.0	10846.4	11387.6	11427.6	11357.0	11199.7	10857.1	10131.9
57.5°	7499.3	7679.3	8352.4	9601.4	10842.4	11791.5	12216.8	12267.4	12091.4	11600.8	10525.2
60°	5985.1	6229.0	7050.2	8851.0	10507.9	12010.1	12908.5	13161.8	12975.2	12334.0	10843.8
62.5°	4176.3	4458.9	5235.9	7675.3	9742.7	11852.8	13413.8	13881.6	13740.3	12989.8	10966.4
65°	2547.3	2637.9	3264.4	6039.7	8441.7	11194.3	13569.7	14270.9	14224.2	13391.1	10785.2
67.5°	1696.9	1772.8	1952.8	4141.5	6552.9	9878.6	13196.5	14202.8	14216.1	13325.7	10121.3
70°	1022.4	1087.7	1205.0	2408.6	4246.9	7819.2	12040.8	13336.4	13413.8	12452.6	8863.0
72.5°	421.2	465.2	571.8	1091.7	2199.4	4962.6	9588.1	11450.3	11630.2	10470.5	6802.2
75°	238.6	261.3	335.9	547.9	954.4	2312.7	5807.8	8128.5	8393.7	7216.7	4092.2
77.5°	158.7	169.3	217.3	354.5	537.2	789.1	2482.0	4234.9	4741.4	3941.6	1771.5
80°	106.6	115.9	149.3	237.3	349.2	338.6	790.5	1568.9	1930.2	1354.3	431.9
82.5°	72.0	73.3	106.6	156.0	221.3	164.0	233.3	487.9	613.2	391.9	164.0
85°	41.3	40.0	78.6	90.6	98.6	68.0	70.6	146.7	192.0	165.3	93.3
87.5°	5.3	8.0	30.6	24.0	13.3	14.7	14.7	25.3	37.3	40.0	20.0
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°	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7	2312.7
2.5°	2315.4	2314.0	2310.0	2306.0	2296.7	2291.4	2294.1	2291.4	2290.1	2291.4	2296.7
5°	2332.7	2328.7	2318.0	2304.7	2286.1	2263.4	2248.7	2227.4	2207.4	2195.4	2198.1
7.5°	2379.3	2375.3	2360.7	2323.4	2263.4	2168.8	2082.1	2006.1	1948.8	1915.5	1916.9
10°	2454.1	2447.4	2424.6	2342.0	2184.8	1978.1	1806.2	1663.6	1570.2	1526.2	1522.2
12.5°	2542.0	2534.0	2494.0	2324.7	2035.4	1712.9	1475.6	1317.0	1230.3	1191.7	1187.7
15°	2645.9	2635.3	2556.7	2242.1	1818.1	1419.6	1202.3	1083.7	1027.8	993.0	994.4
17.5°	2775.3	2756.6	2603.3	2118.1	1582.3	1195.7	1034.4	945.0	895.7	862.4	859.8
20°	2943.2	2912.5	2640.6	1970.2	1365.0	1054.4	921.1	846.4	809.1	779.8	774.5
22.5°	3177.8	3133.8	2685.9	1810.2	1211.7	957.0	837.1	782.5	751.8	718.5	713.1
25°	3468.4	3416.4	2742.0	1662.2	1106.4	873.1	775.8	730.5	694.4	655.8	651.8
27.5°	3874.9	3781.6	2808.6	1540.9	1015.8	801.1	719.9	669.1	627.8	595.8	589.2
30°	4328.2	4174.9	2867.2	1467.6	933.1	734.5	646.5	595.8	557.2	534.5	530.5
32.5°	4757.4	4549.5	2905.9	1435.6	858.4	658.5	566.5	511.9	482.6	475.9	479.9
35°	5162.6	4888.0	2901.9	1405.0	791.8	582.5	487.9	431.9	409.2	413.2	413.2
37.5°	5629.2	5249.2	2873.9	1357.0	737.2	513.2	419.8	370.5	350.5	351.9	357.2
40°	6171.6	5666.5	2856.6	1266.3	677.1	449.3	363.9	323.9	309.2	303.9	302.6
42.5°	6750.1	6070.4	2859.2	1163.7	602.5	391.9	325.2	291.9	278.6	274.6	273.3
45°	7331.4	6455.6	2863.2	1057.1	523.9	347.9	297.2	269.3	261.3	255.9	255.9
47.5°	7877.8	6783.6	2788.6	942.4	446.6	314.6	274.6	255.9	249.3	242.6	242.6
50°	8387.1	7002.1	2608.6	809.1	385.2	287.9	257.3	244.0	237.3	230.6	230.6
52.5°	8783.0	7036.7	2311.4	671.8	342.6	267.9	246.6	234.6	226.6	220.0	218.6
55°	8958.9	6819.5	1888.9	543.9	309.2	250.6	236.0	224.0	214.6	208.0	206.6
57.5°	8913.6	6362.3	1472.9	437.3	277.3	233.3	222.6	214.6	204.0	193.3	192.0
60°	8691.0	5750.5	1110.4	363.9	247.9	214.6	208.0	201.3	186.7	170.7	168.0
62.5°	8305.8	4981.3	791.8	301.2	216.0	193.3	190.6	185.3	164.0	134.6	131.9
65°	7716.6	4046.9	533.2	250.6	185.3	169.3	170.7	161.3	133.2	99.9	97.3
67.5°	6855.5	2959.2	341.2	205.3	154.7	141.2	142.6	137.2	113.3	85.3	81.3
70°	5758.4	1959.5	222.6	156.0	123.9	109.3	117.3	118.6	95.9	69.3	66.6
72.5°	4221.6	1157.0	156.0	115.9	90.6	76.0	95.9	98.6	77.3	52.0	49.3
75°	2406.0	549.2	117.3	83.9	56.0	53.3	74.6	74.6	53.3	34.6	32.0
77.5°	1010.4	229.3	82.6	54.6	32.0	30.6	50.6	46.6	26.6	16.0	16.0
80°	291.9	102.6	44.0	26.6	13.3	12.0	20.0	14.7	6.7	2.7	2.7
82.5°	114.6	45.3	17.3	10.7	5.3	5.3	2.7	0.0	0.0	0.0	0.0
85°	68.0	18.7	8.0	4.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.3	4.0	2.7	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)