

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: P962042

Luminaire Tested: **NAV-SB2B-827-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962042
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-827-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8557.7 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 73.9
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

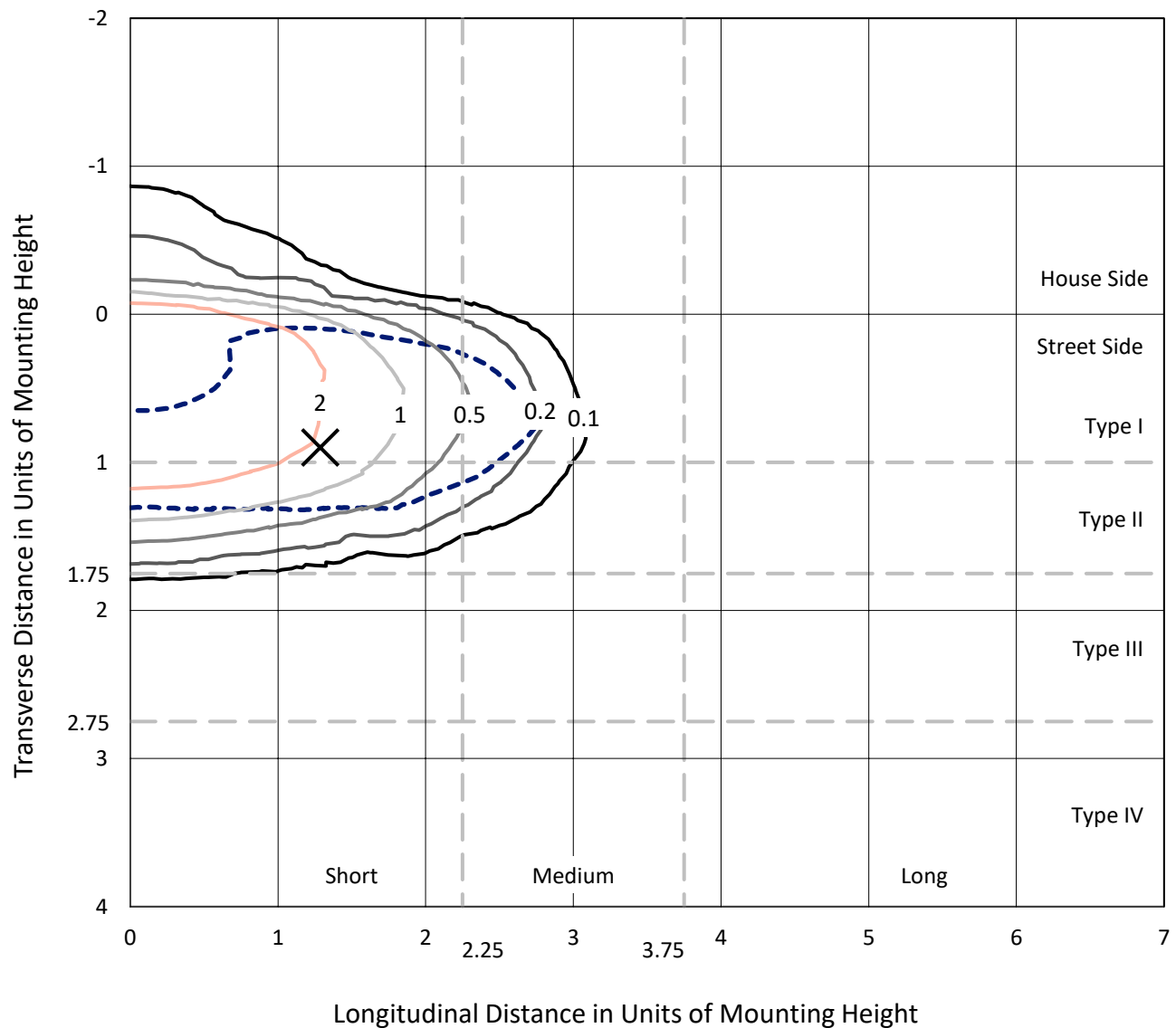


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

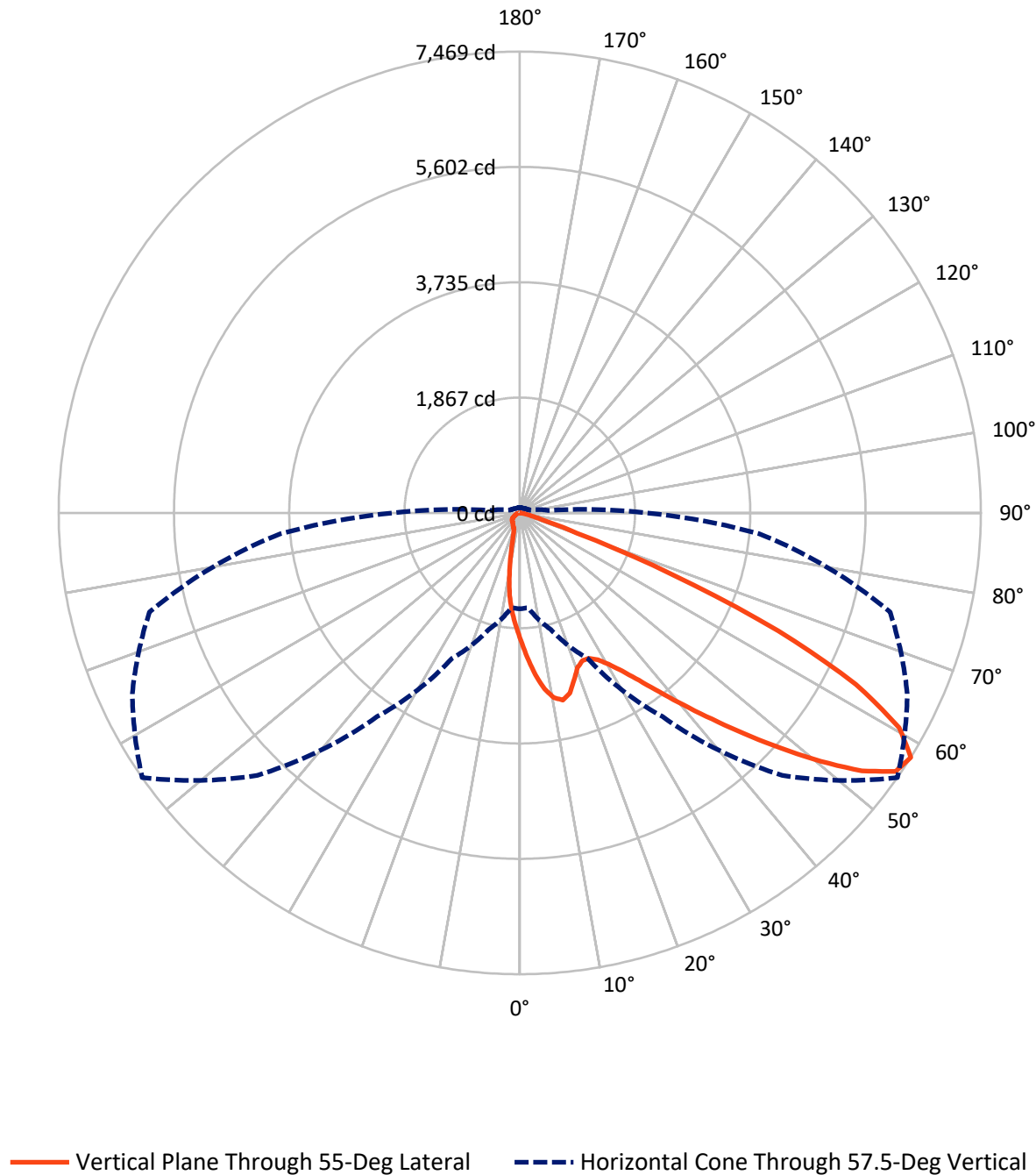


Based on 25 foot mounting height. Maximum calculated value = 4.7 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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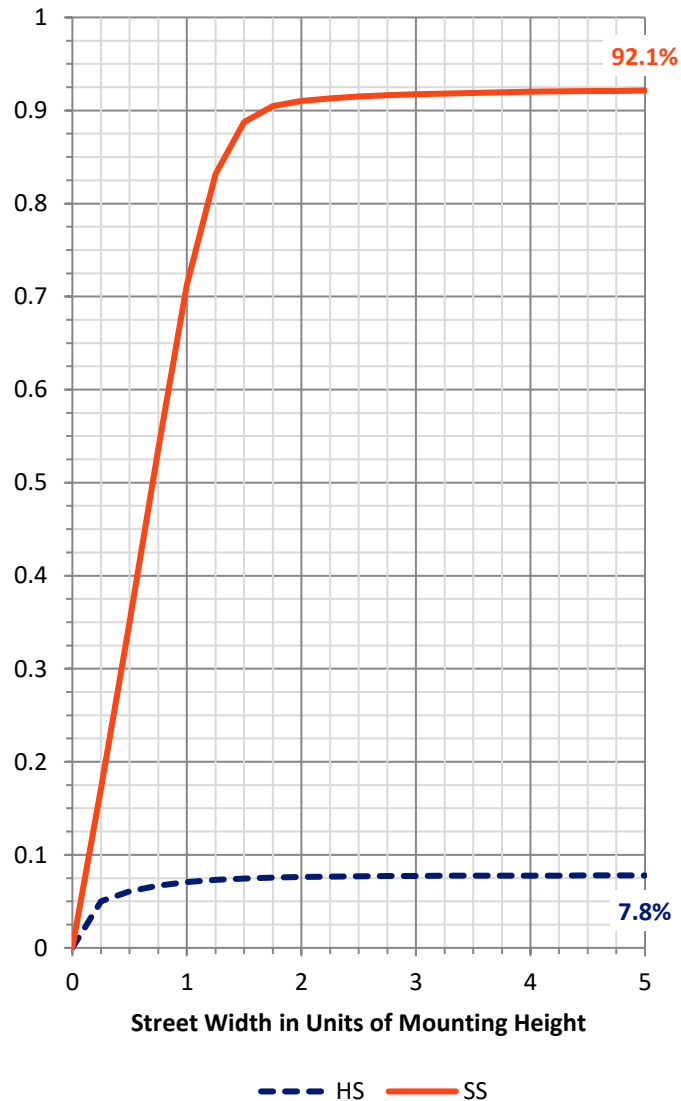
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	668.3	0.0	668.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	7889.4	0.0	7889.4
	% Fixture	92.2	0.0	92.2
Total	Lumens	8557.7	0.0	8557.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.9	2.2
10°-20°	463.5	5.4
20°-30°	741.6	8.7
30°-40°	1255.1	14.7
40°-50°	2060.7	24.1
50°-60°	2264.8	26.5
60°-70°	1299.1	15.2
70°-80°	265.4	3.1
80°-90°	15.7	0.2
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°	8557.7	100.0
0°-180°	8557.7	100.0

Coefficient of Utilization



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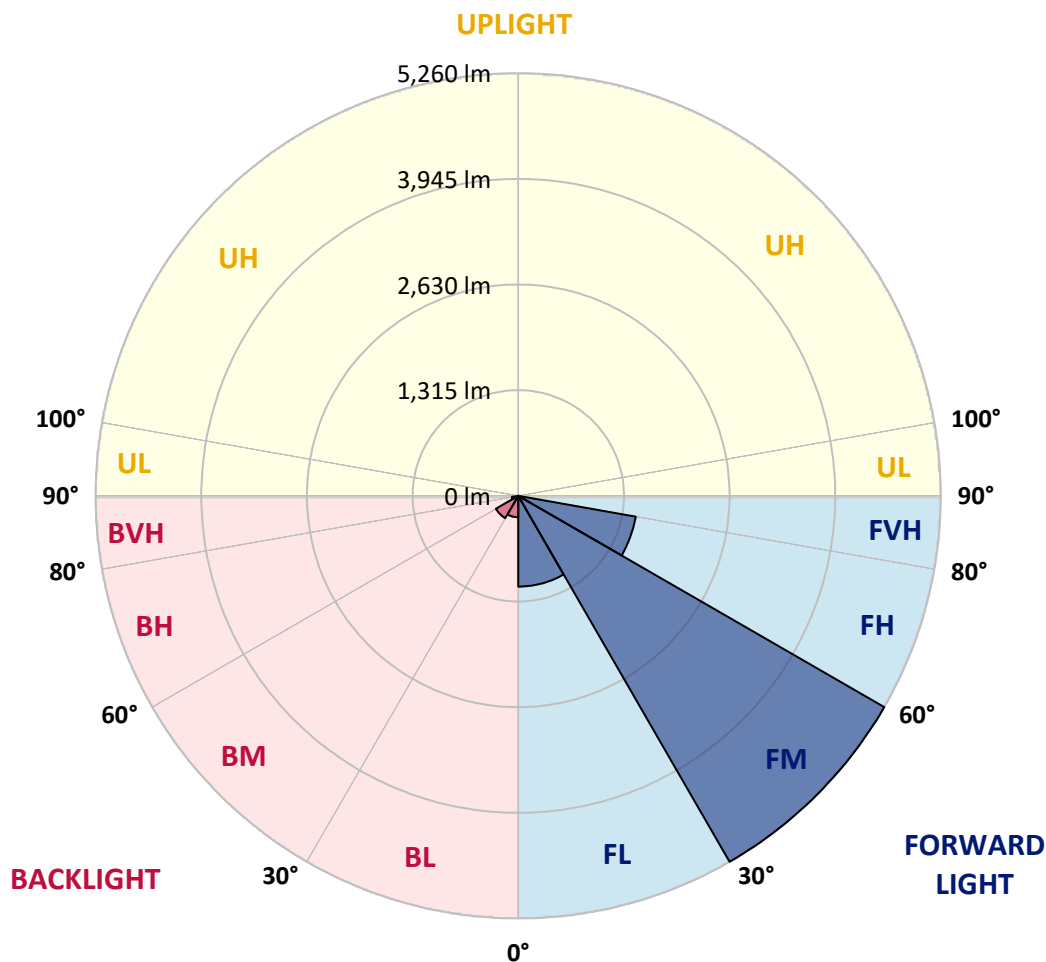
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1130.1	13.2			
FM	(30°-60°)	5259.6	61.5			
FH	(60°-80°)	1485.1	17.4			G1/1800
FVH	(80°-90°)	14.6	0.2			G1/100
BL	(0°-30°)	266.8	3.1	B1/500		
BM	(30°-60°)	321.0	3.8	B1/1000		
BH	(60°-80°)	79.5	0.9	B0/110		G0/110
BVH	(80°-90°)	1.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2
2.5°	2558.7	2526.5	2521.8	2515.5	2454.3	2408.3	2341.9	2269.0	2187.2	2103.9	2066.9
5°	2956.1	2930.8	2926.1	2896.4	2826.8	2748.7	2630.6	2481.2	2328.7	2149.2	2072.2
7.5°	3033.2	3028.4	3050.0	3049.0	3039.4	2977.7	2878.0	2700.2	2471.2	2205.2	2086.0
10°	2689.6	2701.8	2766.2	2822.6	2975.1	3063.7	3042.1	2895.4	2617.8	2269.0	2101.2
12.5°	2376.7	2362.4	2408.3	2472.2	2649.5	2913.4	3110.2	3058.5	2785.6	2341.3	2123.9
15°	2180.4	2174.6	2200.5	2230.0	2365.1	2631.1	3031.0	3190.9	2947.2	2426.8	2158.2
17.5°	2117.6	2112.8	2120.7	2128.2	2215.7	2421.6	2842.6	3272.2	3101.8	2524.5	2196.3
20°	2168.8	2162.4	2161.4	2155.6	2192.0	2332.4	2672.2	3278.0	3240.5	2613.1	2229.0
22.5°	2318.1	2310.8	2284.9	2261.7	2264.8	2344.5	2596.2	3219.9	3345.0	2696.0	2249.6
25°	2588.8	2576.6	2522.8	2444.7	2395.2	2428.9	2607.8	3143.5	3444.7	2760.8	2239.5
27.5°	2927.6	2911.8	2842.6	2726.6	2613.1	2571.9	2691.8	3090.7	3527.5	2810.4	2217.9
30°	3259.5	3238.9	3170.8	3080.6	2914.9	2785.1	2843.1	3113.8	3626.2	2862.2	2189.4
32.5°	3617.8	3598.3	3508.1	3396.2	3259.0	3084.3	3050.6	3227.3	3747.1	2934.5	2169.3
35°	4071.1	4040.6	3912.3	3759.8	3614.2	3437.3	3331.2	3423.1	3908.0	3044.8	2180.4
37.5°	4587.2	4546.0	4407.8	4197.3	4007.2	3809.4	3673.2	3692.3	4144.0	3192.5	2214.7
40°	5073.8	5036.2	4908.5	4710.2	4471.7	4231.5	4086.4	4044.2	4469.5	3372.5	2274.9
42.5°	5365.6	5331.7	5277.9	5194.0	4993.0	4748.1	4565.0	4473.7	4854.7	3587.7	2348.2
45°	5381.9	5352.3	5424.6	5522.3	5482.6	5319.6	5096.4	4929.1	5241.5	3789.8	2424.2
47.5°	5120.2	5100.1	5319.6	5660.5	5830.4	5899.0	5693.3	5346.5	5560.7	3935.0	2455.3
50°	4406.7	4399.3	4851.0	5476.9	5962.8	6406.7	6322.7	5734.9	5808.3	4009.9	2425.8
52.5°	3821.0	3794.0	4057.4	4889.0	5770.2	6673.7	6938.0	6115.9	5981.3	4024.2	2356.7
55°	2898.1	2874.3	3204.7	3905.5	5149.2	6578.7	7388.1	6509.1	6105.3	3987.8	2232.7
57.5°	1554.5	1539.8	1957.2	2599.4	4025.2	6008.8	7469.4	6924.8	6209.9	3891.2	2059.0
60°	605.3	602.6	758.8	1261.2	2446.4	4888.5	7059.4	7174.4	6275.3	3772.4	1913.9
62.5°	366.2	374.1	399.4	566.2	1080.7	3036.9	6114.3	6890.6	6319.0	3663.8	1794.2
65°	302.9	303.4	306.6	388.9	517.6	1270.7	4603.0	5956.5	6210.9	3470.0	1624.2
67.5°	259.6	264.3	276.5	308.7	365.2	557.2	2650.0	4614.1	5552.8	3019.4	1359.4
70°	204.7	211.0	226.4	253.8	281.8	348.8	979.4	3070.1	4242.1	2275.9	1028.0
72.5°	172.5	172.0	180.0	206.3	223.8	245.4	376.8	1720.3	2465.3	1086.5	508.7
75°	133.5	138.8	148.8	172.5	183.1	177.8	204.2	628.4	883.3	329.2	173.1
77.5°	104.4	108.8	117.7	140.9	151.5	126.1	117.7	224.8	283.9	118.2	78.1
80°	46.9	50.6	80.3	103.9	123.5	87.0	63.9	115.0	126.1	53.8	39.6
82.5°	8.4	14.2	46.9	54.8	63.3	56.5	33.2	59.7	61.7	21.6	13.7
85°	0.5	1.0	16.4	20.1	25.3	18.4	10.0	23.8	20.6	7.4	5.2
87.5°	0.0	0.0	0.0	0.5	0.5	2.7	3.2	4.2	3.2	2.7	2.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2	2062.2
2.5°	2029.0	1954.1	1881.2	1821.5	1786.8	1727.6	1688.6	1682.2	1665.9	1680.2
5°	1989.9	1855.9	1720.3	1598.9	1499.2	1370.4	1274.4	1233.7	1198.3	1210.5
7.5°	1971.5	1759.8	1548.8	1341.4	1128.2	922.4	769.4	705.5	656.9	663.8
10°	1946.7	1660.1	1329.2	1012.6	727.1	524.0	418.4	379.5	357.7	358.3
12.5°	1927.6	1540.9	1074.4	686.5	442.7	334.6	301.9	292.3	286.0	286.5
15°	1918.2	1400.5	822.7	457.5	316.6	283.4	275.4	271.2	267.0	266.5
17.5°	1902.3	1244.2	602.1	334.0	277.1	265.5	258.6	253.8	248.6	247.4
20°	1878.5	1067.0	440.1	282.3	259.6	250.6	241.2	234.8	228.5	227.4
22.5°	1834.7	879.7	338.2	261.2	246.9	237.0	225.3	217.9	211.6	210.5
25°	1753.5	704.0	285.0	248.0	235.9	223.8	211.0	201.0	195.3	194.2
27.5°	1650.6	553.0	258.6	235.9	221.6	210.5	196.3	186.8	181.5	180.5
30°	1529.2	425.9	243.2	222.1	204.7	195.3	182.6	174.7	171.5	171.5
32.5°	1398.4	340.4	237.0	208.5	189.9	179.4	169.4	166.3	165.1	164.6
35°	1275.4	295.5	233.8	197.3	176.8	166.8	162.6	163.1	165.1	165.1
37.5°	1166.1	281.3	232.2	189.4	165.1	156.2	158.9	163.6	161.4	161.4
40°	1067.5	282.8	231.1	183.7	155.7	150.4	155.7	152.0	146.7	146.2
42.5°	992.1	296.0	229.0	178.9	149.9	146.2	144.0	138.3	137.8	138.8
45°	937.2	307.6	228.5	176.8	143.5	136.6	134.1	128.2	138.8	141.4
47.5°	872.3	307.6	228.5	169.4	132.9	130.4	126.1	119.8	130.4	132.9
50°	788.3	288.1	219.6	160.9	124.5	123.0	115.5	107.6	105.6	107.1
52.5°	682.3	252.8	196.8	149.3	116.1	113.0	103.9	98.2	96.6	96.6
55°	561.5	211.6	166.3	132.4	107.1	101.3	95.0	92.4	90.7	89.7
57.5°	456.4	173.6	133.5	117.7	98.7	91.3	89.2	86.0	83.3	81.8
60°	374.6	136.6	110.3	104.4	90.2	83.3	82.8	78.6	71.8	70.7
62.5°	289.2	100.2	92.9	90.7	81.8	76.0	74.9	66.5	56.0	53.8
65°	204.2	78.1	74.9	79.6	72.8	67.5	64.9	52.3	41.2	39.6
67.5°	143.5	65.4	59.1	69.7	63.3	56.5	54.8	44.3	34.3	33.2
70°	102.4	53.3	48.6	59.7	50.6	49.6	46.4	36.9	28.0	27.0
72.5°	72.3	40.6	37.5	51.8	34.8	42.7	38.0	28.5	21.1	20.1
75°	53.3	29.0	26.3	30.0	25.3	32.2	27.0	19.0	13.2	12.7
77.5°	39.1	18.4	15.8	14.8	14.8	20.1	14.8	7.9	5.8	5.2
80°	27.5	8.4	7.4	6.4	5.8	4.7	2.2	1.0	0.5	0.5
82.5°	16.4	3.7	3.7	2.7	1.5	0.0	0.0	0.0	0.0	0.0
85°	3.7	1.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	0.5	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

(END OF REPORT)