

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: P960941

Luminaire Tested: **NAV-SB1D-750-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-750-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 5000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9345.9 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

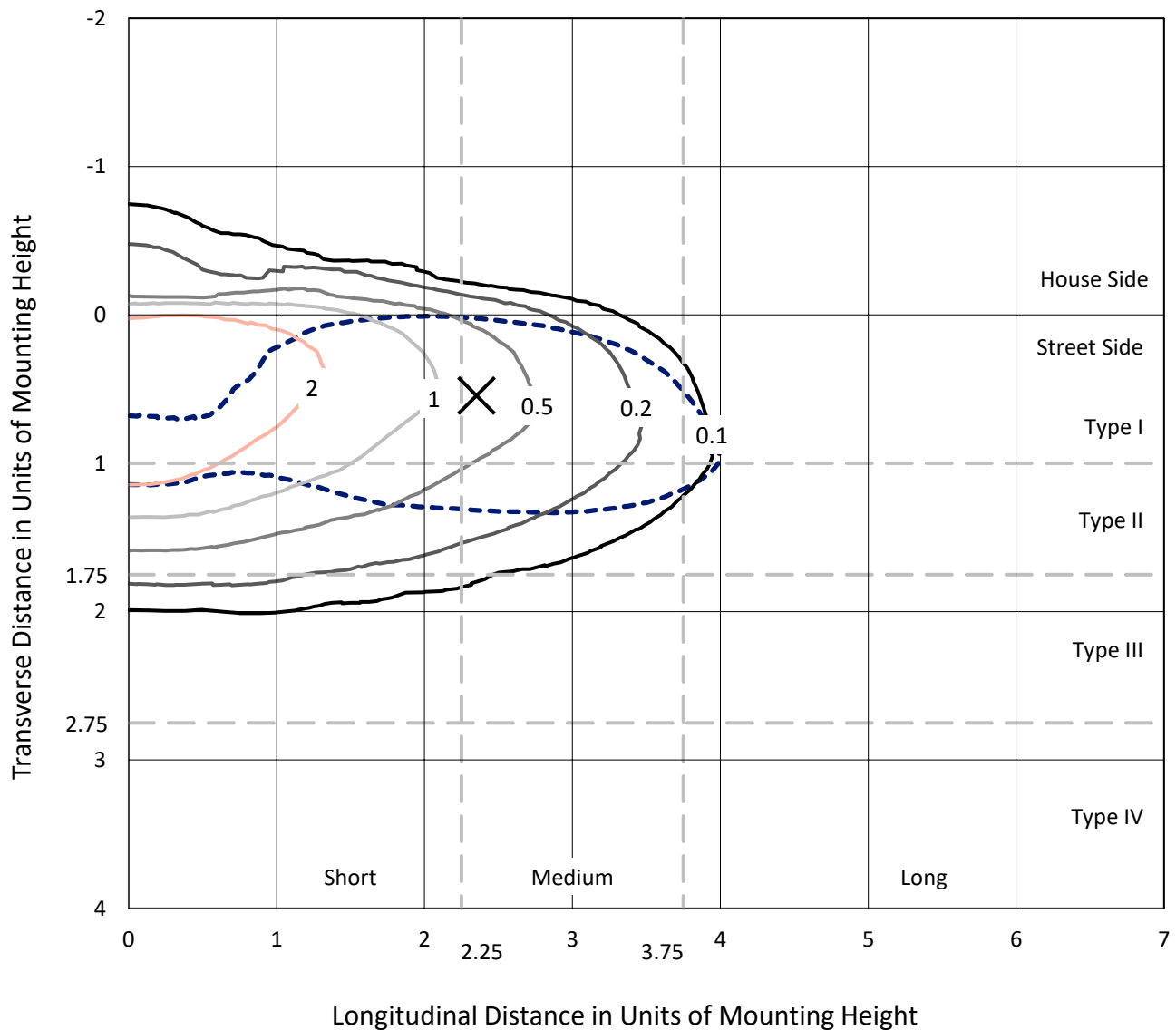
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

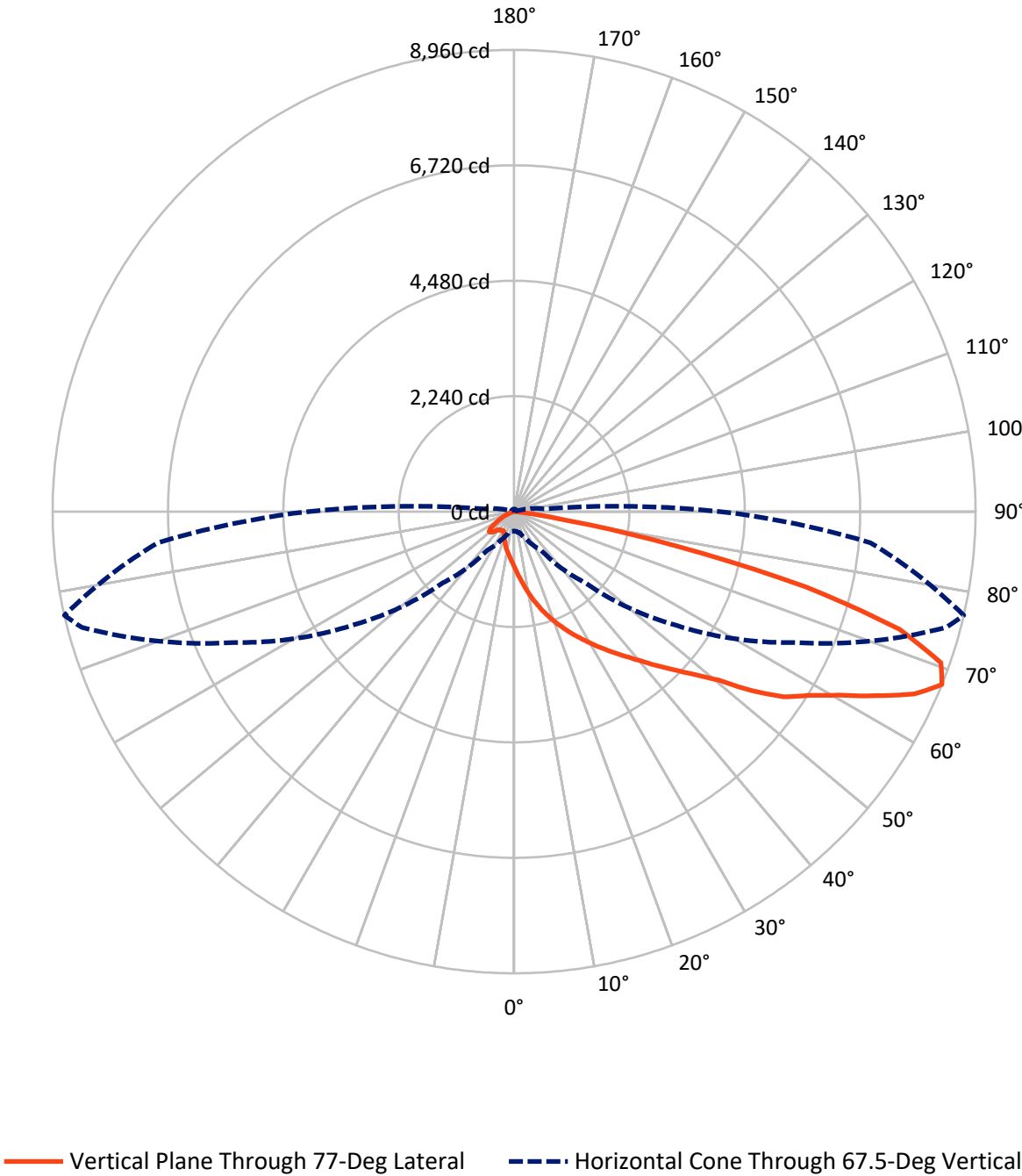
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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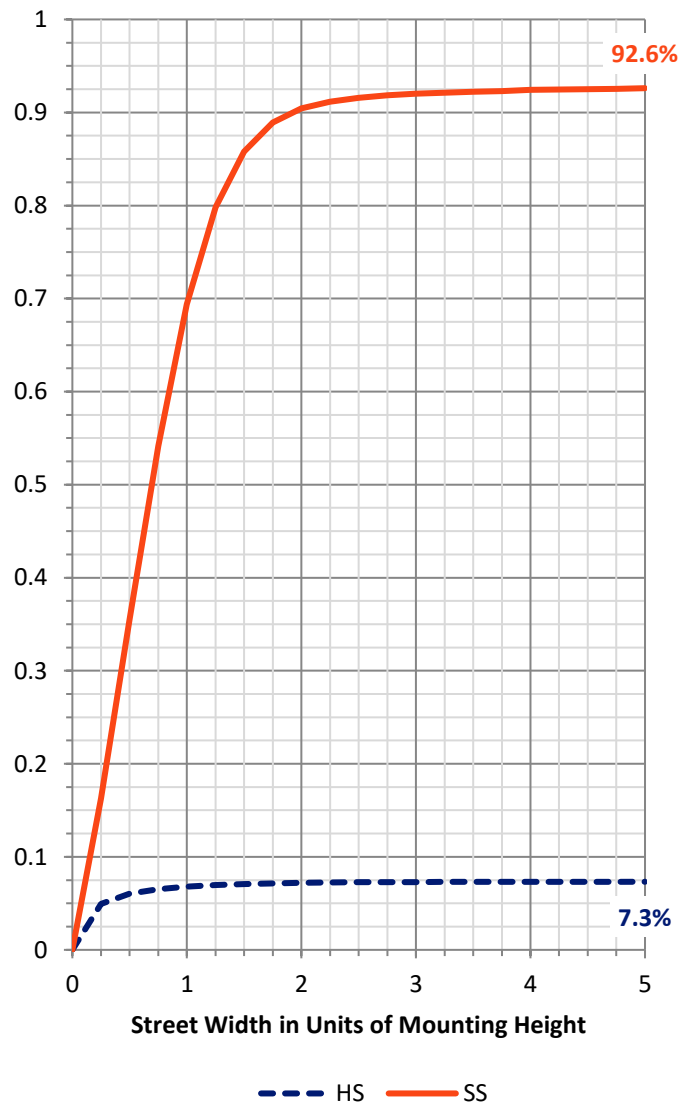
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	687.6	0.0	687.6
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	8658.4	0.0	8658.4
	% Fixture	92.6	0.0	92.6
Total	Lumens	9345.9	0.0	9345.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.0	1.2
10°-20°	385.2	4.1
20°-30°	743.3	8.0
30°-40°	1290.5	13.8
40°-50°	1873.7	20.0
50°-60°	2151.7	23.0
60°-70°	1868.1	20.0
70°-80°	879.9	9.4
80°-90°	43.5	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°	9345.9	100.0
0°-180°	9345.9	100.0

Coefficient of Utilization



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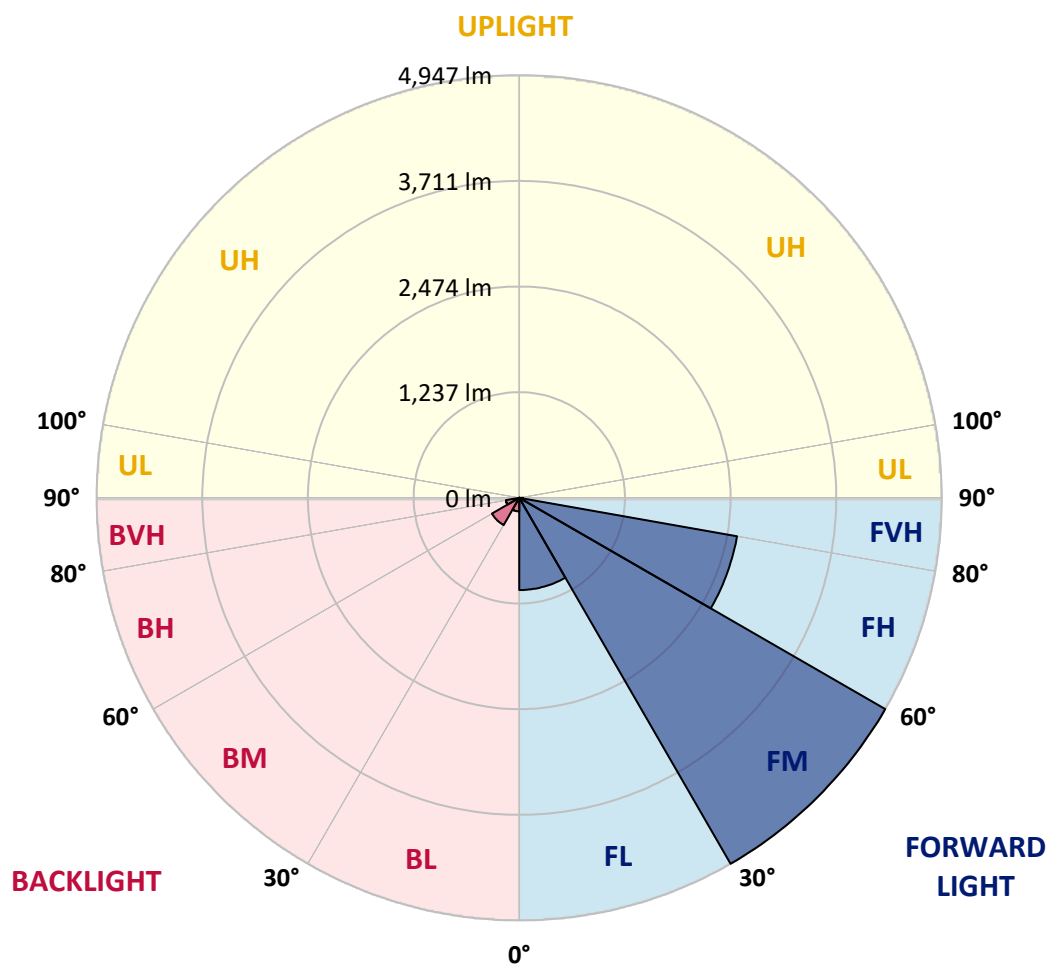
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1079.4	11.5			
FM	(30°-60°)	4947.5	52.9			
FH	(60°-80°)	2588.8	27.7			G2/5000
FVH	(80°-90°)	42.7	0.5			G1/100
BL	(0°-30°)	159.2	1.7	B1/500		
BM	(30°-60°)	368.4	3.9	B1/1000		
BH	(60°-80°)	159.2	1.7	B1/500		G1/500
BVH	(80°-90°)	0.8	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-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7
2.5°	1492.1	1501.4	1488.0	1462.5	1424.2	1399.2	1338.3	1280.8	1217.0	1196.7	1132.8
5°	1818.9	1827.0	1811.9	1784.0	1733.0	1684.2	1604.1	1484.0	1359.1	1319.2	1206.0
7.5°	2060.9	2065.5	2059.7	2034.1	1985.4	1930.3	1840.9	1698.7	1513.6	1469.4	1295.9
10°	2234.9	2250.1	2248.3	2238.4	2205.9	2161.2	2066.1	1904.1	1686.5	1629.6	1397.5
12.5°	2350.4	2367.2	2377.2	2399.2	2397.5	2369.0	2285.4	2114.3	1858.8	1792.1	1511.9
15°	2384.1	2402.1	2439.8	2490.9	2536.2	2550.7	2492.1	2320.3	2048.7	1963.4	1629.0
17.5°	2365.0	2392.9	2438.1	2518.7	2618.0	2683.6	2677.2	2519.3	2221.1	2123.5	1743.9
20°	2407.3	2434.1	2469.4	2537.3	2652.8	2771.8	2819.4	2709.7	2392.2	2290.1	1864.7
22.5°	2641.8	2637.1	2640.6	2651.7	2720.8	2838.5	2936.6	2882.6	2561.7	2457.2	1992.4
25°	3013.2	2992.3	2956.9	2897.2	2879.7	2936.6	3038.7	3035.8	2740.4	2628.4	2123.0
27.5°	3439.2	3435.7	3352.8	3208.8	3127.6	3105.5	3154.2	3185.0	2917.5	2797.9	2254.1
30°	3847.2	3856.5	3744.4	3584.3	3435.2	3348.7	3304.6	3326.6	3097.3	2980.7	2389.4
32.5°	4202.4	4212.2	4090.4	3902.9	3718.4	3613.8	3521.1	3466.4	3293.5	3166.4	2537.9
35°	4502.4	4512.3	4372.4	4165.2	3968.5	3873.9	3768.8	3619.7	3490.8	3372.5	2703.3
37.5°	4770.6	4767.7	4580.2	4371.2	4178.0	4103.2	4048.0	3808.3	3694.0	3579.6	2886.7
40°	4929.0	4941.2	4781.0	4550.6	4363.1	4308.6	4305.1	4042.2	3928.4	3817.6	3087.5
42.5°	4975.5	4996.9	4880.8	4691.6	4521.6	4462.3	4553.5	4295.3	4201.2	4093.2	3314.4
45°	4891.8	4912.7	4859.9	4728.7	4629.5	4591.2	4767.1	4557.6	4492.6	4385.8	3570.4
47.5°	4648.1	4674.2	4687.0	4659.1	4657.9	4696.9	4958.5	4833.8	4838.4	4729.3	3866.9
50°	4176.3	4220.3	4337.6	4436.3	4588.9	4780.4	5144.9	5133.3	5228.4	5134.4	4253.4
52.5°	3318.5	3381.2	3785.1	4055.0	4398.0	4764.7	5349.8	5613.8	5912.7	5775.2	4798.4
55°	2666.7	2666.7	2995.3	3500.2	4025.4	4661.4	5439.2	5926.0	6378.7	6346.2	5182.0
57.5°	2174.0	2200.2	2409.7	2856.0	3486.2	4415.4	5494.2	6122.2	6754.2	6730.5	5556.9
60°	1341.8	1398.1	1793.9	2234.4	2872.8	3977.2	5459.5	6320.7	7209.7	7228.9	6008.4
62.5°	755.6	776.5	952.9	1607.6	2233.8	3388.1	5193.1	6431.6	7792.5	7873.7	6473.9
65°	521.7	532.2	600.1	1000.5	1548.4	2697.5	4672.5	6362.5	8376.3	8540.5	6868.5
67.5°	378.9	384.2	426.6	611.1	918.7	1955.8	3856.5	6014.3	8685.6	8960.1	6944.0
70°	291.3	294.8	325.5	401.6	542.6	1207.1	2800.8	5321.9	8461.6	8789.5	6557.4
72.5°	236.8	240.3	264.0	297.1	359.8	713.8	1697.5	4321.9	7472.7	7826.7	5582.5
75°	199.7	204.3	225.8	247.2	282.1	458.5	796.2	3009.7	5619.6	5851.7	3882.0
77.5°	110.8	102.2	183.4	204.9	237.9	290.2	372.6	1771.3	3147.3	3211.7	1722.5
80°	69.1	71.3	145.7	164.8	182.9	146.3	170.7	681.9	1091.1	1036.5	333.7
82.5°	4.1	9.3	112.0	119.0	125.4	62.6	64.4	231.5	262.9	241.4	59.2
85°	0.0	0.0	51.0	41.2	43.6	18.0	18.6	54.0	35.4	38.3	11.6
87.5°	0.0	0.0	0.0	1.1	0.0	1.7	3.5	4.6	1.7	2.4	4.1
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°	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7	1077.7
2.5°	1092.2	1051.6	969.2	888.6	823.0	762.0	718.5	677.3	656.4	655.2	654.1
5°	1125.3	1040.0	875.1	729.5	612.2	518.2	457.4	413.8	391.8	384.2	383.0
7.5°	1171.8	1043.4	792.7	590.2	452.1	371.5	336.6	322.7	318.1	312.8	311.7
10°	1230.4	1051.6	719.0	475.3	356.3	315.7	301.8	296.0	292.5	289.0	287.8
12.5°	1295.9	1059.1	646.0	394.6	313.3	292.5	282.6	275.6	271.0	267.0	265.8
15°	1359.8	1063.8	569.9	338.4	291.3	274.5	264.0	256.6	250.1	245.5	244.9
17.5°	1423.0	1070.2	498.6	304.7	273.4	256.6	246.1	236.8	231.5	226.3	225.8
20°	1493.2	1069.0	431.2	280.8	255.3	238.5	227.6	218.8	213.6	207.8	207.2
22.5°	1558.3	1063.2	372.0	260.6	236.8	220.6	208.4	199.7	194.4	189.7	189.2
25°	1633.1	1058.6	322.7	242.0	219.4	203.2	189.7	181.6	175.9	171.8	171.2
27.5°	1705.1	1051.6	286.7	225.2	202.5	186.9	174.1	164.8	159.6	156.7	156.7
30°	1775.9	1049.9	273.4	208.9	187.5	171.8	159.0	150.3	146.3	145.1	144.5
32.5°	1861.2	1054.5	279.1	203.2	173.5	157.8	145.7	139.3	135.2	135.2	135.2
35°	1952.3	1053.4	287.8	208.4	164.2	143.9	134.7	130.6	126.5	126.5	126.5
37.5°	2066.6	1055.1	294.8	217.1	160.7	132.3	127.1	121.9	119.5	119.5	119.5
40°	2237.3	1112.5	291.3	224.6	159.6	124.2	113.8	112.0	110.3	110.3	110.3
42.5°	2446.2	1237.3	296.0	225.2	159.0	118.4	104.4	107.9	103.9	103.3	102.7
45°	2674.8	1373.7	325.5	213.0	158.5	115.5	99.8	103.9	97.5	97.5	97.5
47.5°	2901.8	1508.9	355.8	195.6	156.7	114.9	95.7	93.5	91.7	92.2	92.2
50°	3214.6	1619.2	367.4	171.8	152.6	113.8	88.3	88.8	87.6	88.8	88.8
52.5°	3555.3	1642.5	353.4	145.1	141.0	110.3	83.0	85.3	84.8	85.9	85.9
55°	3767.7	1617.4	291.9	120.7	123.0	96.4	77.8	82.4	82.4	82.4	82.4
57.5°	3987.0	1511.3	207.2	98.1	102.2	78.9	73.1	79.5	78.9	78.3	78.3
60°	4144.9	1339.5	136.4	80.7	81.3	65.0	67.9	74.8	74.3	71.3	71.3
62.5°	4262.8	1149.6	87.6	68.5	62.1	58.6	62.1	67.9	65.6	59.2	58.0
65°	4249.3	886.8	67.3	58.6	51.0	51.0	54.0	59.2	52.3	41.8	40.6
67.5°	4001.6	600.1	55.8	49.3	42.9	42.3	44.7	49.3	44.7	35.4	34.2
70°	3558.8	392.4	44.7	38.3	34.2	31.4	36.0	42.3	37.7	28.4	27.3
72.5°	2888.4	239.1	33.6	27.9	24.9	20.3	28.4	34.8	30.1	20.9	19.8
75°	1868.8	121.9	23.2	18.0	13.3	12.2	20.9	26.1	20.9	12.8	11.1
77.5°	715.0	51.0	12.8	8.1	7.0	5.8	11.6	15.7	8.7	2.9	2.4
80°	137.6	21.4	6.4	4.1	3.5	2.4	1.7	1.1	0.0	0.0	0.0
82.5°	23.8	7.0	2.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	0.0	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)