

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: P966247

Luminaire Tested: **NAV-SB4B-760-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966247
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-SB4B-760-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 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: 19194.1 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
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



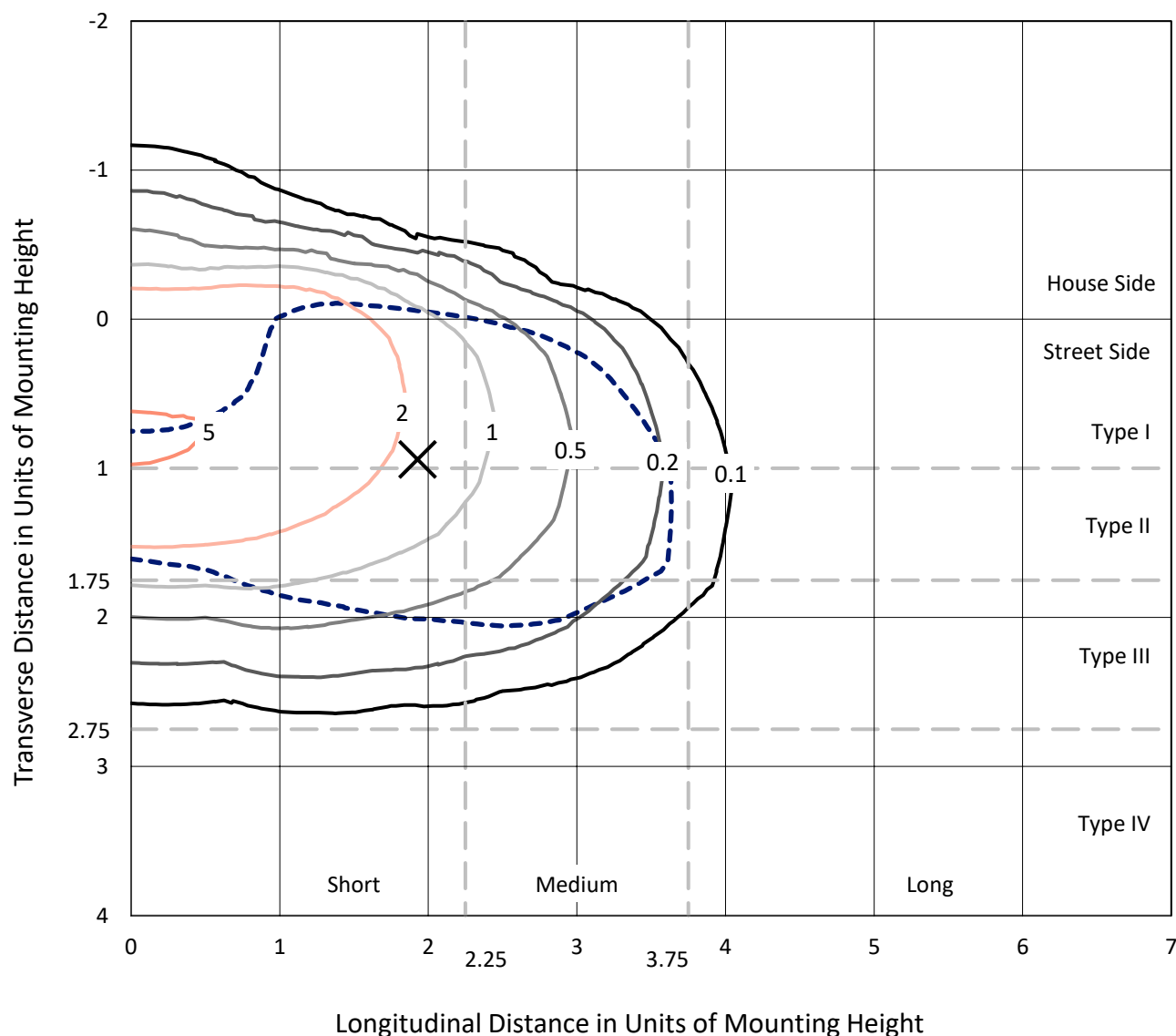
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



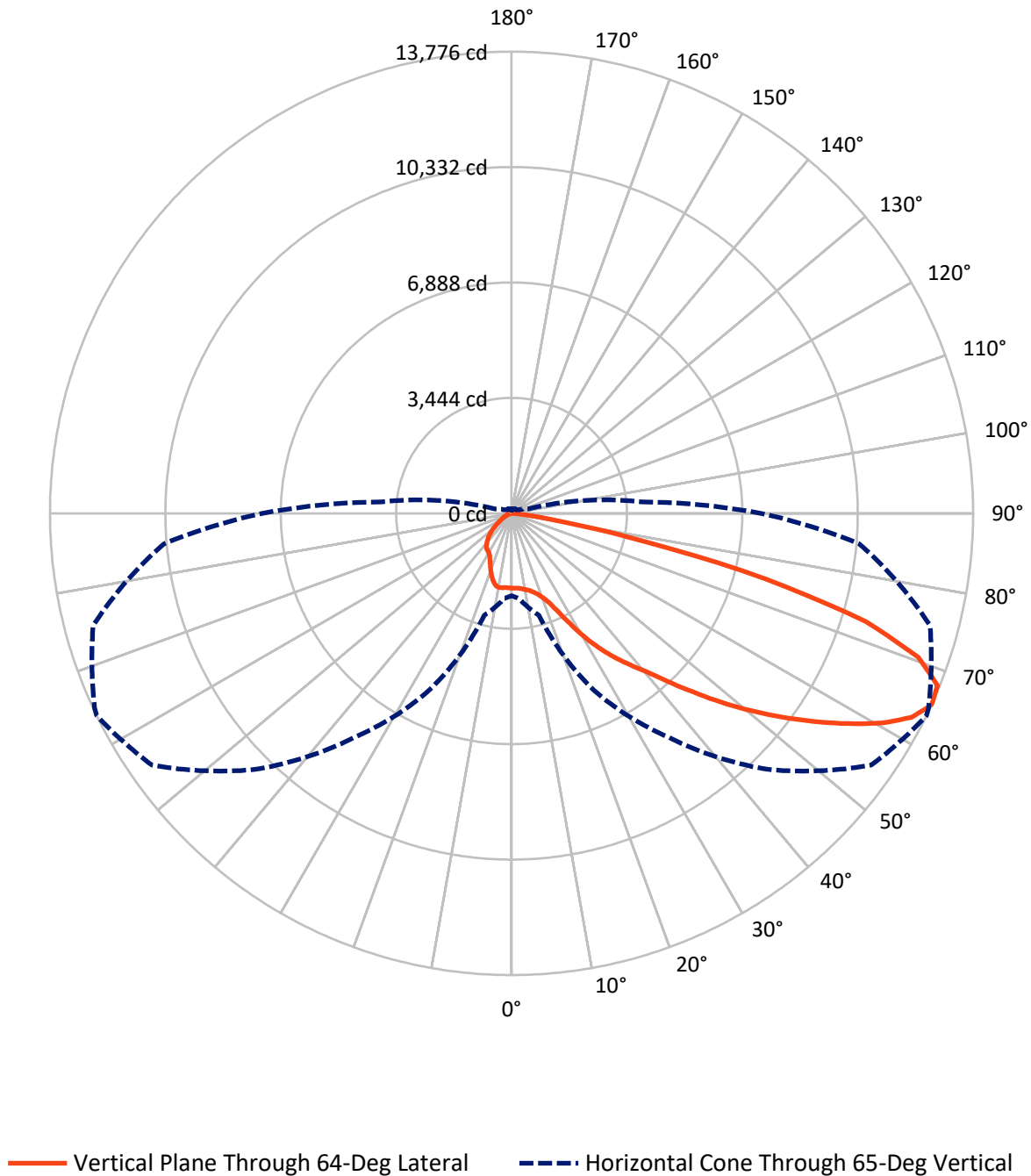
Based on 25 foot mounting height. Maximum calculated value = 5.6 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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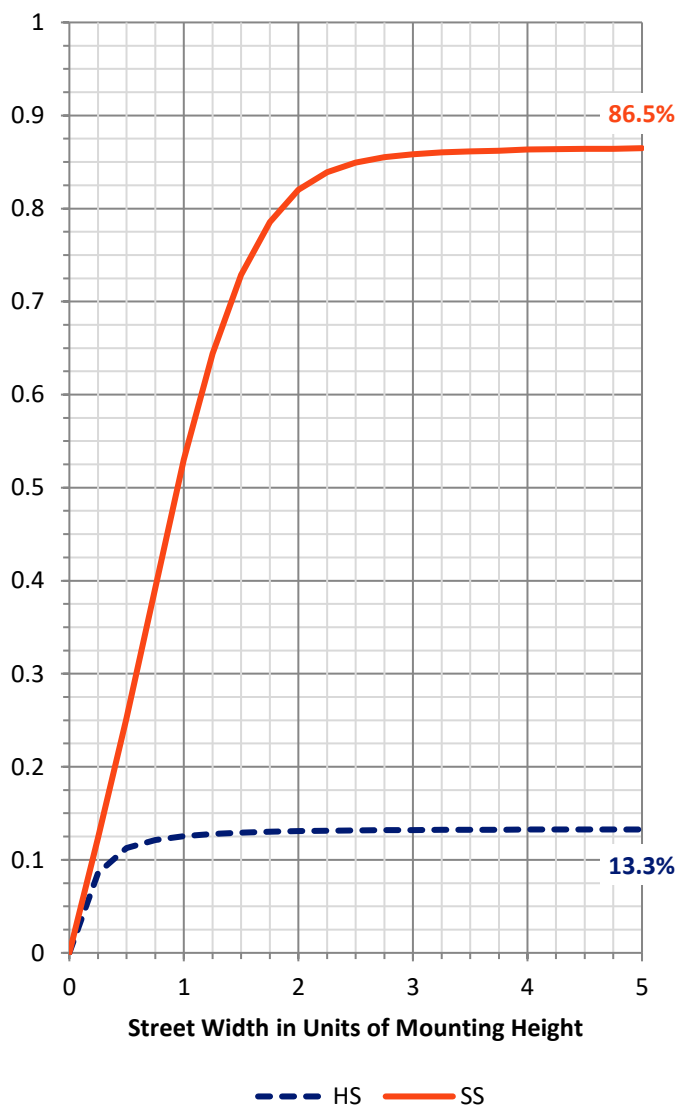
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2566.8	0.0	2566.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	16627.3	0.0	16627.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	19194.1	0.0	19194.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.0	1.1
10°-20°	558.6	2.9
20°-30°	1058.6	5.5
30°-40°	2142.1	11.2
40°-50°	3649.0	19.0
50°-60°	4962.4	25.9
60°-70°	4660.0	24.3
70°-80°	1867.0	9.7
80°-90°	90.4	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°	19194.1	100.0
0°-180°	19194.1	100.0

Coefficient of Utilization



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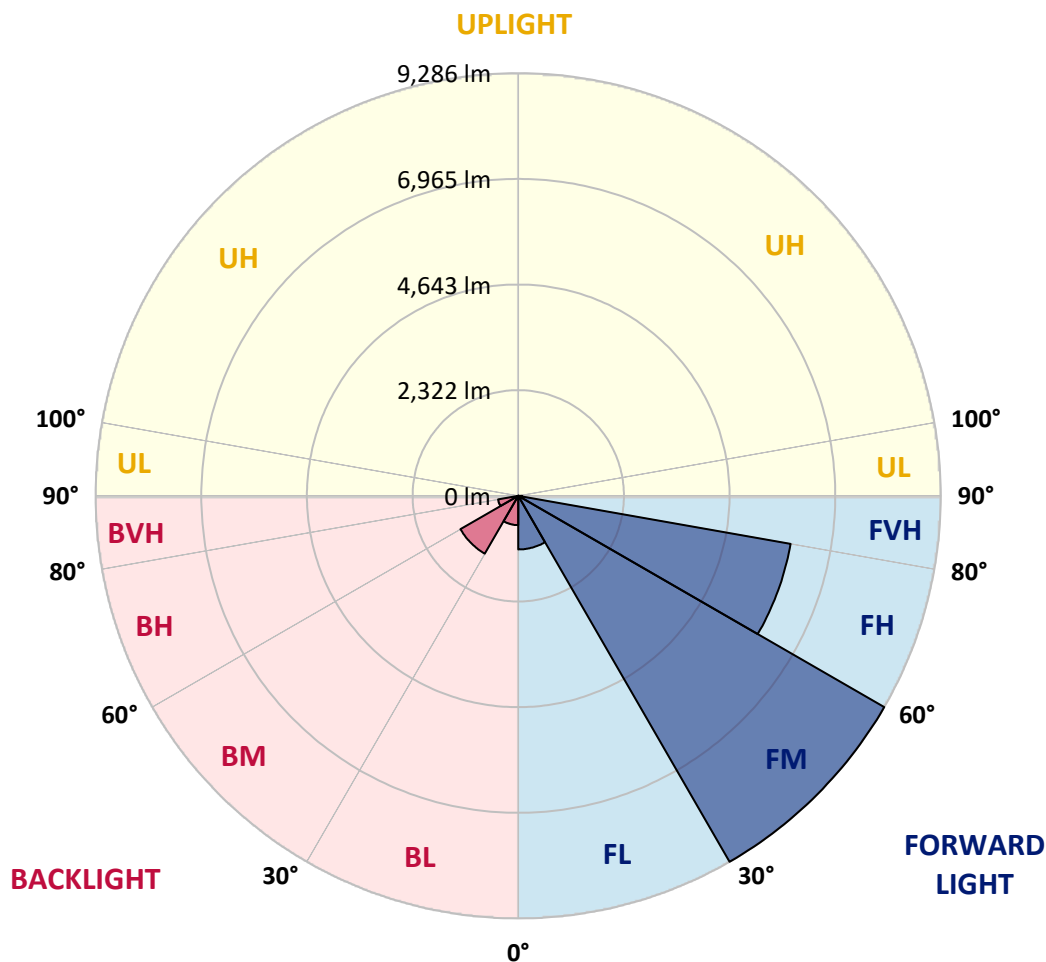
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1178.7	6.1			
FM	(30°-60°)	9286.1	48.4			
FH	(60°-80°)	6076.4	31.7			G3/7500
FVH	(80°-90°)	86.0	0.4			G1/100
BL	(0°-30°)	644.5	3.4	B2/1000		
BM	(30°-60°)	1467.4	7.6	B2/2500		
BH	(60°-80°)	450.5	2.3	B1/500		G1/500
BVH	(80°-90°)	4.4	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°	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4
2.5°	2224.8	2240.2	2236.3	2232.4	2231.2	2233.8	2235.0	2233.8	2233.8	2233.8	2235.0
5°	2182.3	2195.1	2195.1	2204.2	2217.1	2232.4	2244.0	2246.6	2249.2	2253.1	2251.8
7.5°	2101.2	2111.5	2119.3	2148.8	2181.0	2222.2	2256.9	2275.0	2277.5	2291.7	2296.8
10°	2045.9	2058.8	2071.6	2102.5	2148.8	2210.6	2269.8	2313.5	2320.0	2353.4	2368.9
12.5°	2043.3	2056.1	2073.0	2106.4	2160.4	2226.1	2298.2	2361.2	2372.8	2421.7	2453.7
15°	2070.4	2085.8	2101.2	2142.5	2200.3	2280.1	2357.3	2435.8	2447.4	2516.9	2551.6
17.5°	2125.6	2146.2	2157.8	2199.0	2260.7	2349.6	2451.2	2541.3	2551.6	2632.6	2676.4
20°	2235.0	2259.5	2263.4	2296.8	2357.3	2452.5	2573.5	2685.4	2698.3	2790.9	2839.9
22.5°	2461.5	2496.3	2465.3	2482.1	2536.2	2631.4	2762.6	2904.1	2922.2	3027.6	3071.4
25°	2860.4	2909.3	2829.5	2801.2	2824.4	2923.4	3088.1	3267.0	3287.6	3372.6	3394.4
27.5°	3644.0	3580.9	3460.0	3341.6	3272.1	3328.8	3514.1	3735.4	3761.1	3843.4	3817.7
30°	4504.9	4449.5	4286.1	4023.6	3858.9	3849.9	4021.1	4268.1	4297.7	4376.1	4297.7
32.5°	5367.0	5314.2	5136.6	4813.7	4528.0	4386.5	4504.9	4779.0	4794.3	4844.6	4728.7
35°	6214.9	6160.9	5983.3	5652.6	5301.3	4979.7	4956.5	5265.3	5270.4	5323.2	5150.8
37.5°	7068.0	7023.0	6833.9	6509.6	6163.4	5719.5	5504.7	5726.0	5732.4	5783.9	5605.0
40°	7676.6	7695.9	7565.9	7315.1	7017.9	6532.7	6119.7	6216.2	6177.6	6263.8	6157.0
42.5°	8199.1	8237.6	8124.5	7998.3	7825.9	7398.7	6881.4	6864.7	6802.9	6849.3	6738.7
45°	8650.7	8682.9	8581.2	8551.6	8547.8	8248.0	7713.9	7613.6	7527.4	7518.4	7385.8
47.5°	8816.6	8878.4	8922.2	9021.2	9214.2	9088.2	8574.7	8419.0	8322.6	8251.8	8042.0
50°	8879.8	8945.4	9094.6	9382.8	9839.6	9893.7	9431.7	9256.8	9138.4	9009.6	8700.9
52.5°	8794.8	8911.9	9112.7	9597.7	10260.4	10539.7	10254.0	10100.9	9965.8	9755.9	9297.9
55°	8294.3	8411.4	8821.9	9595.1	10470.2	10992.5	11031.2	10963.0	10811.1	10480.4	9780.4
57.5°	7239.2	7412.9	8062.6	9268.4	10466.3	11382.4	11792.9	11841.8	11672.0	11198.4	10160.0
60°	5777.4	6012.9	6805.5	8543.9	10143.3	11593.5	12460.7	12705.2	12525.1	11906.1	10467.6
62.5°	4031.3	4304.1	5054.3	7409.0	9404.7	11441.7	12948.4	13400.0	13263.6	12539.2	10585.9
65°	2459.0	2546.4	3151.2	5830.2	8148.9	10806.0	13098.9	13775.8	13730.7	12926.5	10410.9
67.5°	1638.1	1711.3	1885.1	3997.9	6325.6	9536.0	12738.6	13710.1	13723.0	12863.4	9770.2
70°	987.0	1050.0	1163.2	2325.1	4099.5	7548.0	11623.1	12873.8	12948.4	12020.7	8555.5
72.5°	406.6	449.1	552.0	1053.8	2123.1	4790.5	9255.4	11053.0	11226.7	10107.3	6566.2
75°	230.3	252.2	324.2	528.8	921.3	2232.4	5606.2	7846.5	8102.5	6966.4	3950.2
77.5°	153.1	163.4	209.7	342.2	518.5	761.8	2395.9	4087.9	4576.9	3804.9	1710.1
80°	102.9	111.9	144.1	229.1	337.1	326.9	763.0	1514.4	1863.1	1307.3	416.9
82.5°	69.5	70.7	102.9	150.6	213.6	158.3	225.2	471.0	591.9	378.3	158.3
85°	39.9	38.6	76.0	87.5	95.2	65.6	68.2	141.6	185.3	159.6	90.1
87.5°	5.1	7.7	29.6	23.2	12.9	14.1	14.1	24.5	36.0	38.6	19.3
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°	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4	2232.4
2.5°	2235.0	2233.8	2229.9	2226.1	2217.1	2211.8	2214.5	2211.8	2210.6	2211.8	2217.1
5°	2251.8	2247.9	2237.6	2224.8	2206.7	2184.9	2170.7	2150.1	2130.9	2119.3	2121.9
7.5°	2296.8	2292.9	2278.8	2242.8	2184.9	2093.6	2009.9	1936.5	1881.2	1849.0	1850.3
10°	2368.9	2362.4	2340.6	2260.7	2108.9	1909.5	1743.5	1605.9	1515.8	1473.3	1469.4
12.5°	2453.7	2446.1	2407.5	2244.0	1964.8	1653.4	1424.4	1271.3	1187.7	1150.4	1146.5
15°	2554.2	2543.8	2468.0	2164.3	1755.1	1370.3	1160.6	1046.1	992.1	958.6	959.9
17.5°	2678.9	2661.0	2513.0	2044.6	1527.4	1154.1	998.5	912.2	864.7	832.5	829.9
20°	2841.1	2811.5	2549.0	1901.8	1317.6	1017.8	889.1	817.0	781.0	752.8	747.6
22.5°	3067.5	3025.1	2592.7	1747.4	1169.6	923.8	808.1	755.3	725.7	693.5	688.4
25°	3348.1	3297.9	2646.9	1604.5	1067.9	842.9	748.9	705.1	670.3	633.0	629.2
27.5°	3740.5	3650.4	2711.1	1487.5	980.5	773.4	694.8	646.0	606.1	575.1	568.8
30°	4178.0	4030.0	2767.8	1416.7	900.7	709.0	624.0	575.1	537.8	516.0	512.1
32.5°	4592.3	4391.6	2805.1	1385.8	828.6	635.6	546.8	494.2	465.8	459.4	463.2
35°	4983.5	4718.5	2801.2	1356.2	764.3	562.3	471.0	416.9	395.0	398.9	398.9
37.5°	5433.8	5067.2	2774.2	1309.8	711.6	495.4	405.3	357.7	338.5	339.7	344.8
40°	5957.6	5469.9	2757.5	1222.4	653.6	433.7	351.3	312.6	298.5	293.4	292.1
42.5°	6516.0	5859.8	2760.0	1123.3	581.6	378.3	314.0	281.8	269.0	265.1	263.7
45°	7077.0	6231.6	2763.9	1020.4	505.7	335.8	286.9	259.9	252.2	247.0	247.0
47.5°	7604.6	6548.2	2691.9	909.7	431.0	303.7	265.1	247.0	240.7	234.2	234.2
50°	8096.1	6759.2	2518.1	781.0	371.9	278.0	248.4	235.4	229.1	222.6	222.6
52.5°	8478.3	6792.7	2231.2	648.5	330.7	258.6	238.0	226.4	218.7	212.3	211.0
55°	8648.1	6583.0	1823.3	525.0	298.5	241.9	227.8	216.2	207.2	200.7	199.5
57.5°	8604.4	6141.6	1421.9	422.1	267.6	225.2	214.8	207.2	196.9	186.5	185.3
60°	8389.5	5551.0	1071.8	351.3	239.3	207.2	200.7	194.3	180.1	164.7	162.2
62.5°	8017.7	4808.5	764.3	290.8	208.5	186.5	184.0	178.9	158.3	130.0	127.4
65°	7448.9	3906.5	514.7	241.9	178.9	163.4	164.7	155.7	128.6	96.6	93.9
67.5°	6617.7	2856.6	329.4	198.1	149.2	136.4	137.7	132.5	109.4	82.3	78.5
70°	5558.7	1891.5	214.8	150.6	119.6	105.5	113.3	114.5	92.7	66.9	64.4
72.5°	4075.1	1116.8	150.6	111.9	87.5	73.4	92.7	95.2	74.6	50.2	47.6
75°	2322.5	530.1	113.3	81.1	54.0	51.5	72.1	72.1	51.5	33.4	30.9
77.5°	975.4	221.3	79.7	52.8	30.9	29.6	48.9	45.0	25.7	15.5	15.5
80°	281.8	99.1	42.4	25.7	12.9	11.6	19.3	14.1	6.5	2.6	2.6
82.5°	110.7	43.8	16.7	10.2	5.1	5.1	2.6	0.0	0.0	0.0	0.0
85°	65.6	18.0	7.7	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.7	3.9	2.6	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)