

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: P966311

Luminaire Tested: **NAV-SB4B-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966311
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21338.5 lumens
Efficiency: N/A
Efficacy: 145.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - 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



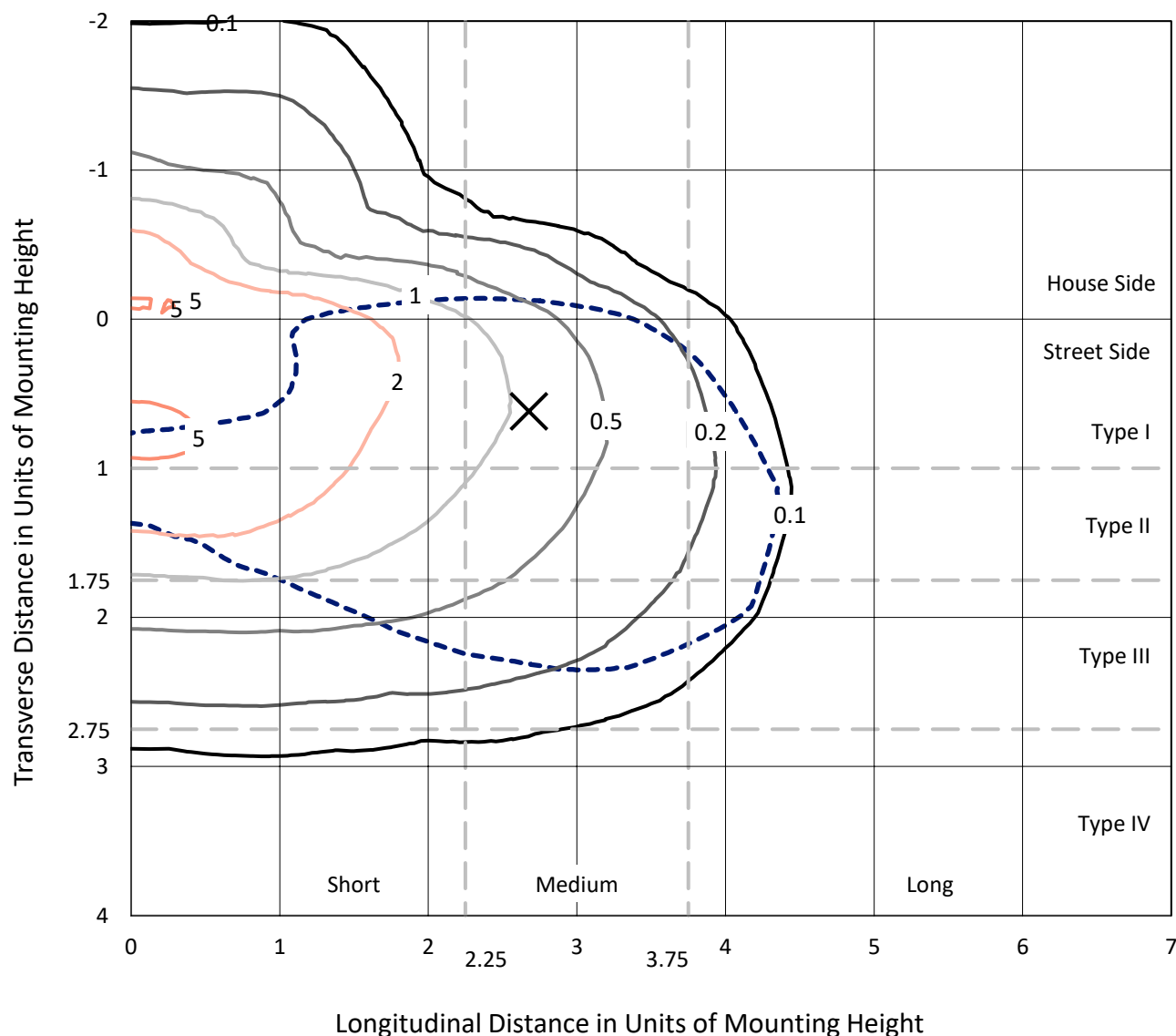
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

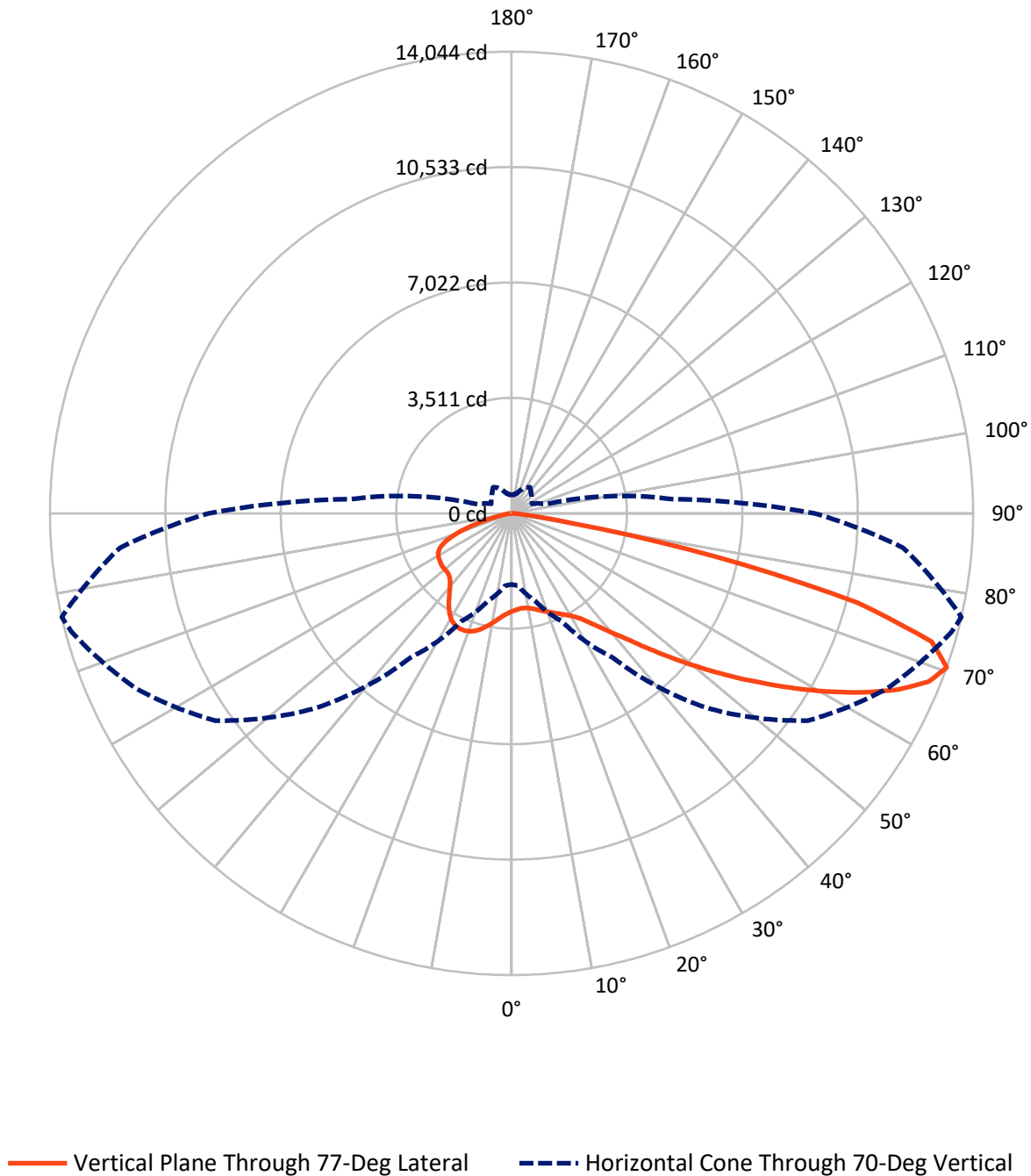


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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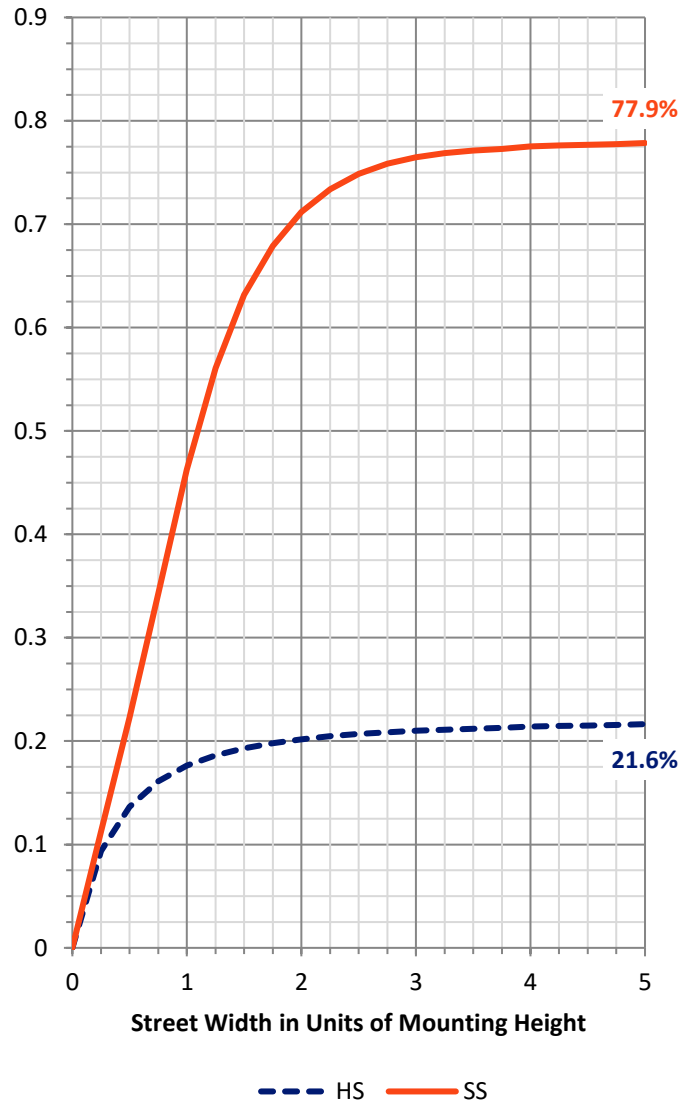
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4672.8	0.0	4672.8
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	16665.7	0.0	16665.7
	% Fixture	78.1	0.0	78.1
Total	Lumens	21338.5	0.0	21338.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.9	1.3
10°-20°	819.4	3.8
20°-30°	1401.3	6.6
30°-40°	2253.4	10.6
40°-50°	3518.2	16.5
50°-60°	4699.5	22.0
60°-70°	5009.0	23.5
70°-80°	3083.5	14.5
80°-90°	270.2	1.3
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°	21338.5	100.0
0°-180°	21338.5	100.0

Coefficient of Utilization



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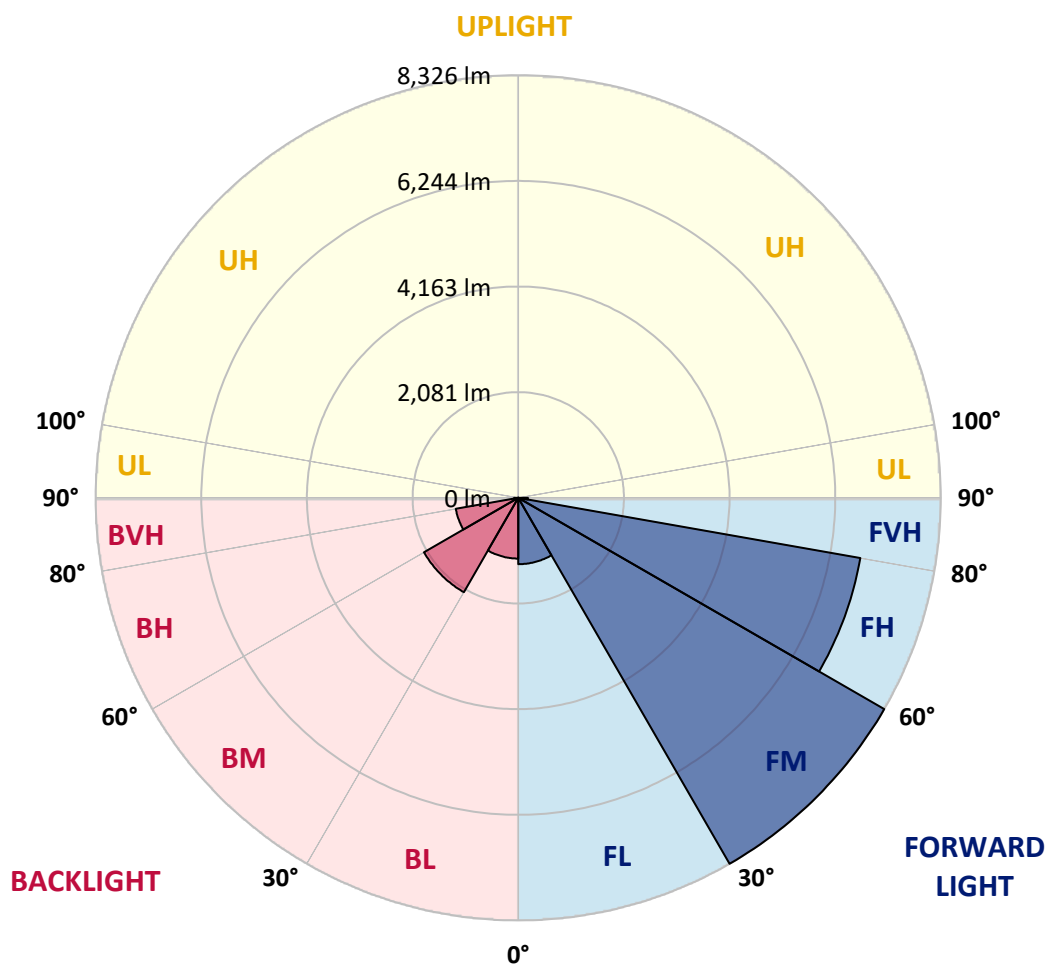
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1307.3	6.1			
FM	(30°-60°)	8325.8	39.0			
FH	(60°-80°)	6843.6	32.1			G3/7500
FVH	(80°-90°)	188.9	0.9			G2/225
BL	(0°-30°)	1197.3	5.6	B3/2500		
BM	(30°-60°)	2145.4	10.1	B2/2500		
BH	(60°-80°)	1248.8	5.9	B3/2500		G3/2500
BVH	(80°-90°)	81.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9
2.5°	2744.1	2743.0	2757.2	2761.7	2787.9	2806.4	2841.4	2878.5	2926.7	2932.1	2961.6
5°	2585.7	2585.7	2602.1	2619.6	2653.4	2690.6	2744.1	2808.6	2891.6	2904.7	2978.0
7.5°	2451.3	2460.0	2474.2	2508.1	2547.4	2600.9	2682.9	2774.8	2884.0	2904.7	3022.8
10°	2343.0	2352.9	2370.4	2397.7	2456.7	2531.0	2638.1	2756.1	2902.6	2935.4	3088.4
12.5°	2309.2	2319.1	2328.9	2349.6	2404.2	2491.7	2619.6	2764.9	2947.4	2980.2	3178.0
15°	2387.8	2399.9	2392.2	2386.8	2415.2	2495.0	2628.3	2796.6	3003.1	3050.1	3288.4
17.5°	2569.3	2573.7	2556.1	2504.8	2500.4	2543.0	2669.8	2840.3	3073.1	3124.4	3399.8
20°	2862.2	2854.5	2818.4	2716.8	2658.8	2650.1	2740.8	2905.9	3145.2	3199.8	3520.1
22.5°	3259.9	3251.2	3179.0	3018.4	2889.5	2804.2	2843.6	2991.2	3226.1	3287.3	3637.0
25°	3756.1	3744.1	3638.0	3419.5	3219.5	3008.6	2983.5	3103.7	3325.5	3382.4	3759.4
27.5°	4335.3	4325.5	4210.7	3922.3	3633.7	3288.4	3157.2	3235.9	3429.3	3493.8	3897.0
30°	4958.2	4986.6	4783.4	4473.0	4108.0	3653.4	3391.1	3398.8	3563.7	3621.7	4064.3
32.5°	5690.5	5739.6	5494.8	5101.4	4603.1	4050.1	3686.2	3626.0	3759.4	3807.5	4275.2
35°	6416.1	6471.8	6268.6	5833.6	5259.9	4517.8	3994.3	3887.2	4019.4	4071.9	4555.0
37.5°	7043.4	7117.7	7012.7	6634.6	5962.5	5081.7	4396.5	4194.3	4339.6	4405.2	4930.9
40°	7538.5	7652.1	7644.4	7408.4	6790.9	5765.8	4906.9	4573.5	4737.4	4808.5	5386.6
42.5°	7940.6	8039.0	8124.3	8112.2	7655.4	6542.9	5506.8	5066.5	5191.0	5273.0	5899.2
45°	8218.1	8323.1	8506.7	8704.5	8487.0	7374.5	6194.3	5651.1	5764.8	5888.2	6510.1
47.5°	8466.3	8585.4	8823.6	9137.3	9193.0	8209.4	6947.2	6331.9	6435.8	6563.6	7123.1
50°	8488.1	8590.8	8960.2	9405.0	9694.7	9011.6	7755.9	7095.9	7193.1	7329.7	7780.0
52.5°	7960.3	8122.0	8766.8	9397.4	9925.2	9682.6	8559.2	7890.3	7999.6	8163.5	8459.7
55°	6178.9	6416.1	8199.6	9104.5	9843.3	10116.4	9323.1	8735.2	8875.0	9046.5	9143.8
57.5°	5322.1	5425.9	6509.0	8571.2	9469.5	10229.0	9967.8	9588.6	9813.8	10001.7	9867.3
60°	4783.4	4869.7	5510.1	7741.7	8977.7	10050.8	10466.2	10384.2	10773.3	10997.3	10607.1
62.5°	4206.4	4288.3	4870.8	6464.2	8348.2	9754.7	10780.9	11118.6	11756.9	12001.6	11304.4
65°	3633.7	3703.6	4262.1	5431.5	7548.3	9458.6	10943.7	11753.6	12667.2	12920.7	11883.5
67.5°	2995.5	3053.4	3581.2	4582.3	6575.7	9053.1	11024.6	12253.0	13459.5	13677.0	12169.9
70°	2161.6	2206.4	2751.8	3623.9	5354.9	8355.9	10991.8	12607.1	13870.4	14044.1	11953.6
72.5°	1021.8	1062.2	1702.6	2352.9	3782.4	6998.6	10328.5	12326.2	13452.9	13366.6	10629.0
75°	545.3	580.3	978.1	1290.7	1997.7	4797.6	8452.0	10618.1	11296.7	10877.1	7855.4
77.5°	369.4	396.7	605.5	774.8	912.6	2277.4	5432.5	7351.6	7072.9	6380.0	3934.3
80°	292.8	321.3	496.2	524.6	441.5	822.9	2244.8	3403.1	2444.7	1955.1	1119.1
82.5°	225.1	256.9	417.5	380.3	240.5	337.7	653.5	1076.5	626.2	476.5	271.0
85°	137.7	171.6	327.9	242.6	135.5	154.1	221.8	299.4	191.3	159.6	97.3
87.5°	69.9	98.4	166.2	88.6	61.2	36.1	59.0	59.0	50.2	43.7	25.1
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°	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9	2976.9
2.5°	2987.9	3009.7	3046.8	3081.9	3109.1	3135.4	3161.6	3175.8	3180.2	3197.7	3207.5
5°	3022.8	3063.2	3135.4	3203.1	3245.8	3272.0	3290.6	3301.5	3303.7	3309.1	3317.9
7.5°	3087.3	3151.8	3252.3	3320.1	3351.7	3349.6	3341.9	3314.6	3303.7	3293.8	3296.0
10°	3178.0	3263.2	3386.7	3433.7	3414.1	3361.6	3293.8	3214.1	3176.9	3140.8	3129.9
12.5°	3290.6	3398.8	3520.1	3517.9	3420.6	3286.2	3128.8	3006.4	2928.8	2873.1	2860.0
15°	3427.2	3551.7	3644.6	3570.3	3357.2	3115.7	2885.1	2725.6	2655.6	2594.4	2587.8
17.5°	3568.1	3701.5	3744.1	3553.9	3197.7	2863.2	2602.1	2476.4	2407.5	2374.7	2384.6
20°	3705.8	3838.1	3803.1	3460.0	2955.1	2577.0	2344.2	2275.3	2261.0	2268.7	2265.5
22.5°	3851.2	3969.2	3815.2	3278.6	2645.7	2284.0	2156.2	2158.3	2190.0	2213.0	2218.5
25°	3999.9	4079.6	3783.4	3016.3	2313.5	2068.8	2037.1	2072.0	2134.4	2179.1	2191.1
27.5°	4142.9	4177.9	3714.6	2691.6	2028.3	1914.7	1920.1	1992.3	2086.3	2148.5	2163.9
30°	4304.7	4265.3	3582.4	2326.6	1830.5	1782.5	1828.3	1912.4	2006.4	2062.2	2075.3
32.5°	4487.2	4340.8	3372.6	1989.0	1690.6	1676.4	1751.8	1806.5	1848.0	1864.4	1873.1
35°	4714.5	4446.8	3103.7	1751.8	1565.0	1598.8	1671.0	1643.6	1627.3	1618.5	1627.3
37.5°	5009.6	4590.0	2788.9	1597.8	1463.3	1543.1	1572.6	1487.4	1422.9	1391.2	1398.8
40°	5364.7	4799.8	2486.2	1478.7	1398.8	1495.0	1443.6	1340.9	1259.0	1214.1	1217.4
42.5°	5759.3	5019.4	2231.6	1389.0	1362.7	1455.7	1348.6	1226.2	1094.0	1079.7	1094.0
45°	6173.5	5245.6	2057.8	1320.2	1345.3	1421.8	1294.0	1096.1	1002.1	1060.1	1090.7
47.5°	6587.7	5453.3	1952.9	1268.7	1336.6	1383.5	1245.9	1024.0	957.4	1041.5	1080.9
50°	7048.8	5639.0	1905.9	1231.6	1326.8	1368.3	1173.7	1005.4	910.3	966.1	1007.6
52.5°	7506.8	5783.4	1870.9	1194.4	1312.5	1356.2	1138.8	983.6	853.5	856.8	879.8
55°	7963.5	5877.3	1832.7	1145.3	1280.8	1330.0	1135.5	959.5	810.9	795.6	806.5
57.5°	8450.9	5930.9	1785.8	1090.7	1226.2	1263.3	1132.2	941.0	797.8	772.6	775.9
60°	8947.1	6009.6	1724.5	1024.0	1152.9	1183.6	1124.5	934.4	790.2	747.5	750.8
62.5°	9391.9	6036.8	1651.3	960.6	1058.9	1104.8	1108.1	929.0	769.4	696.2	696.2
65°	9683.7	5918.9	1523.5	888.5	957.4	1024.0	1076.5	910.3	732.2	659.0	659.0
67.5°	9671.7	5582.3	1323.5	795.6	859.0	934.4	1030.5	878.6	687.4	613.1	616.3
70°	9221.4	4917.8	1069.9	687.4	750.8	838.2	971.5	831.7	633.9	562.8	569.4
72.5°	7908.9	3849.0	777.1	560.7	625.1	738.7	895.0	774.8	579.2	518.0	514.8
75°	5650.0	2435.9	526.7	430.6	486.4	626.2	800.0	708.2	528.9	520.2	490.7
77.5°	2886.2	1163.9	348.6	314.8	338.8	493.9	672.1	632.7	536.6	429.5	382.5
80°	938.8	429.5	219.7	214.2	225.1	328.9	520.2	519.1	406.5	291.8	257.9
82.5°	299.4	184.7	143.2	137.7	132.2	206.5	362.8	410.9	274.3	184.7	183.6
85°	119.1	110.4	84.2	77.6	55.8	97.3	190.1	273.2	204.4	133.4	136.6
87.5°	43.7	43.7	23.0	16.4	12.0	32.8	51.4	82.0	117.0	68.9	67.8
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)