

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: P964699

Luminaire Tested: **NAV-SB3C-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964699
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-SB3C-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20560.5 lumens
Efficiency: N/A
Efficacy: 137.9 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): 149.1
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

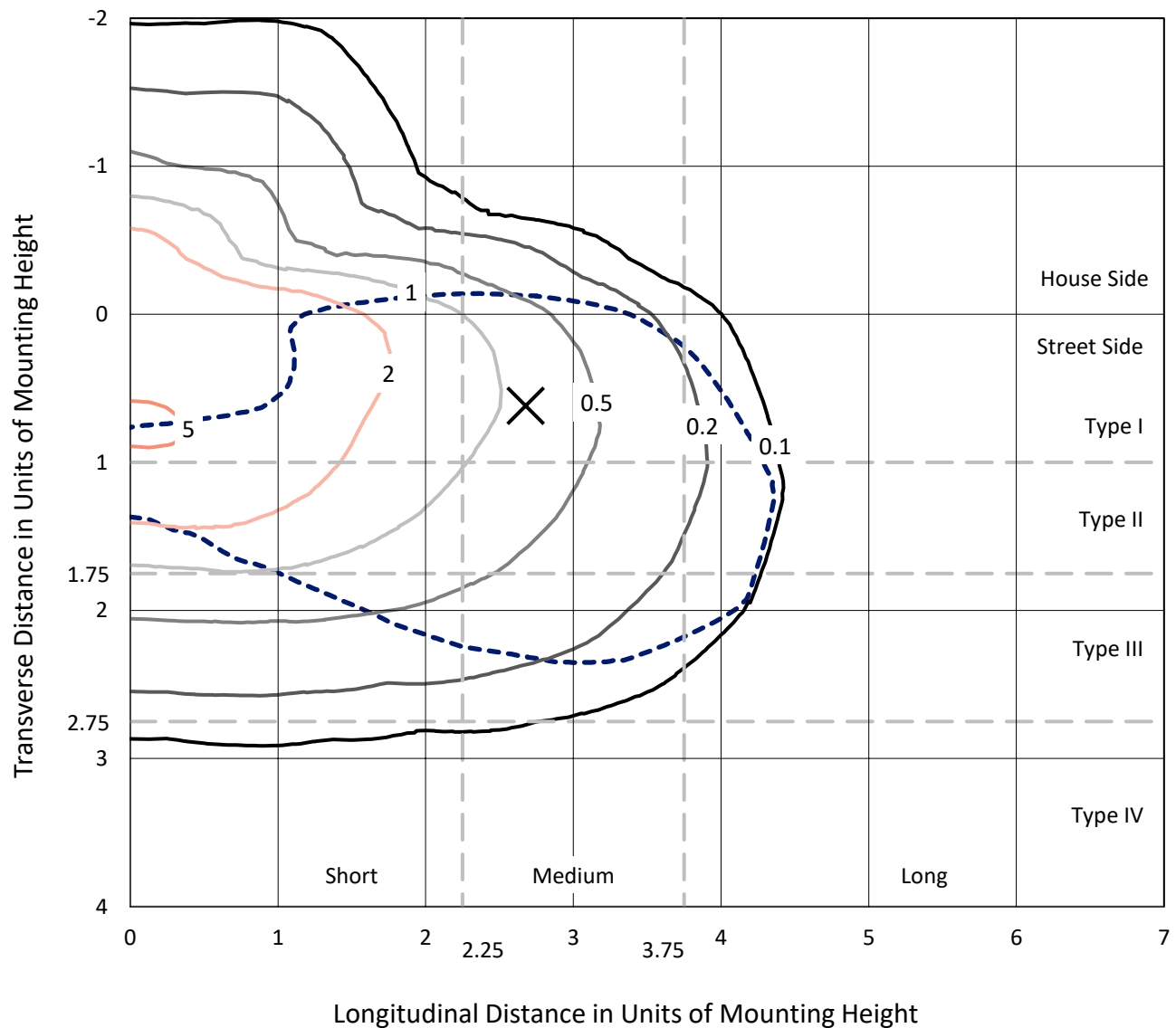


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Iso-Footcandle Lines of Horizontal Illumination

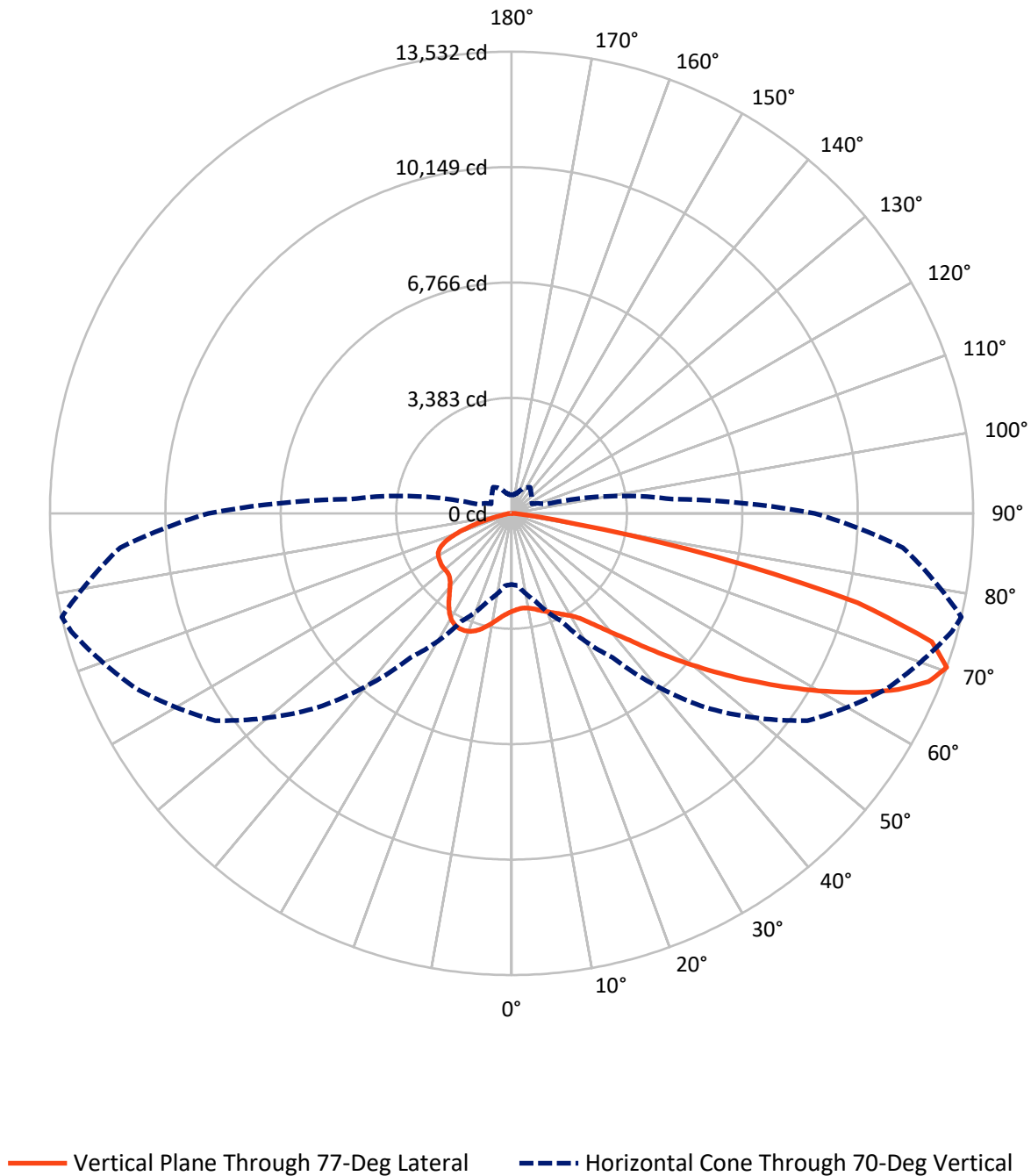
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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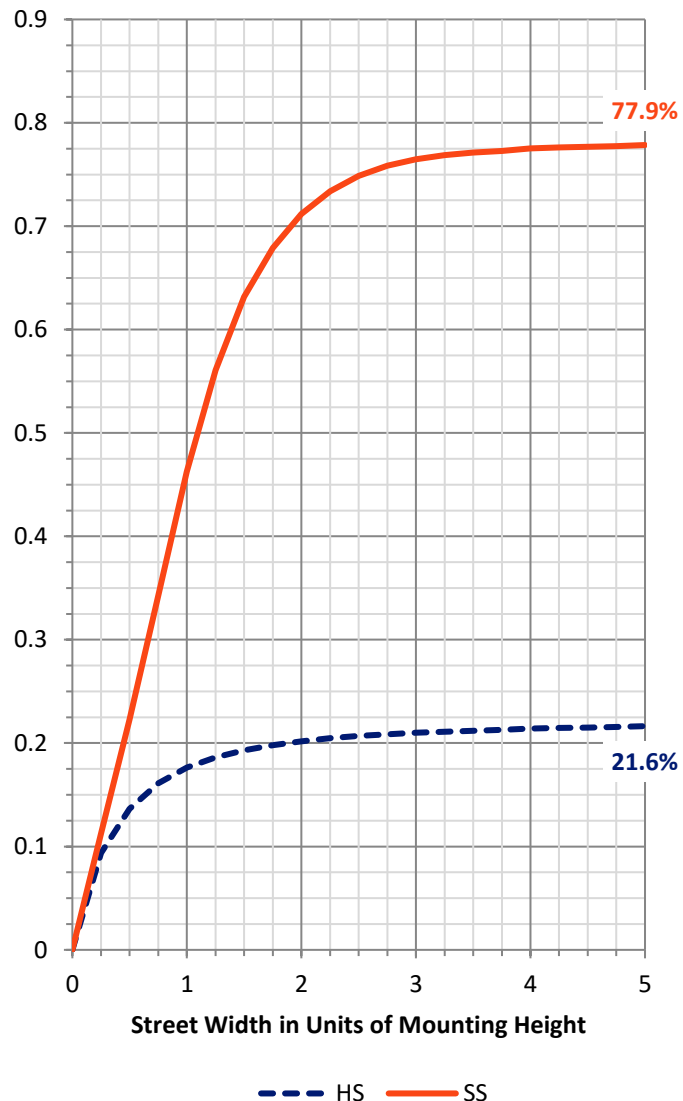
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4502.4	0.0	4502.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	16058.1	0.0	16058.1
	% Fixture	78.1	0.0	78.1
Total	Lumens	20560.5	0.0	20560.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.6	1.3
10°-20°	789.5	3.8
20°-30°	1350.2	6.6
30°-40°	2171.3	10.6
40°-50°	3390.0	16.5
50°-60°	4528.2	22.0
60°-70°	4826.3	23.5
70°-80°	2971.1	14.5
80°-90°	260.3	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°	20560.5	100.0
0°-180°	20560.5	100.0

Coefficient of Utilization



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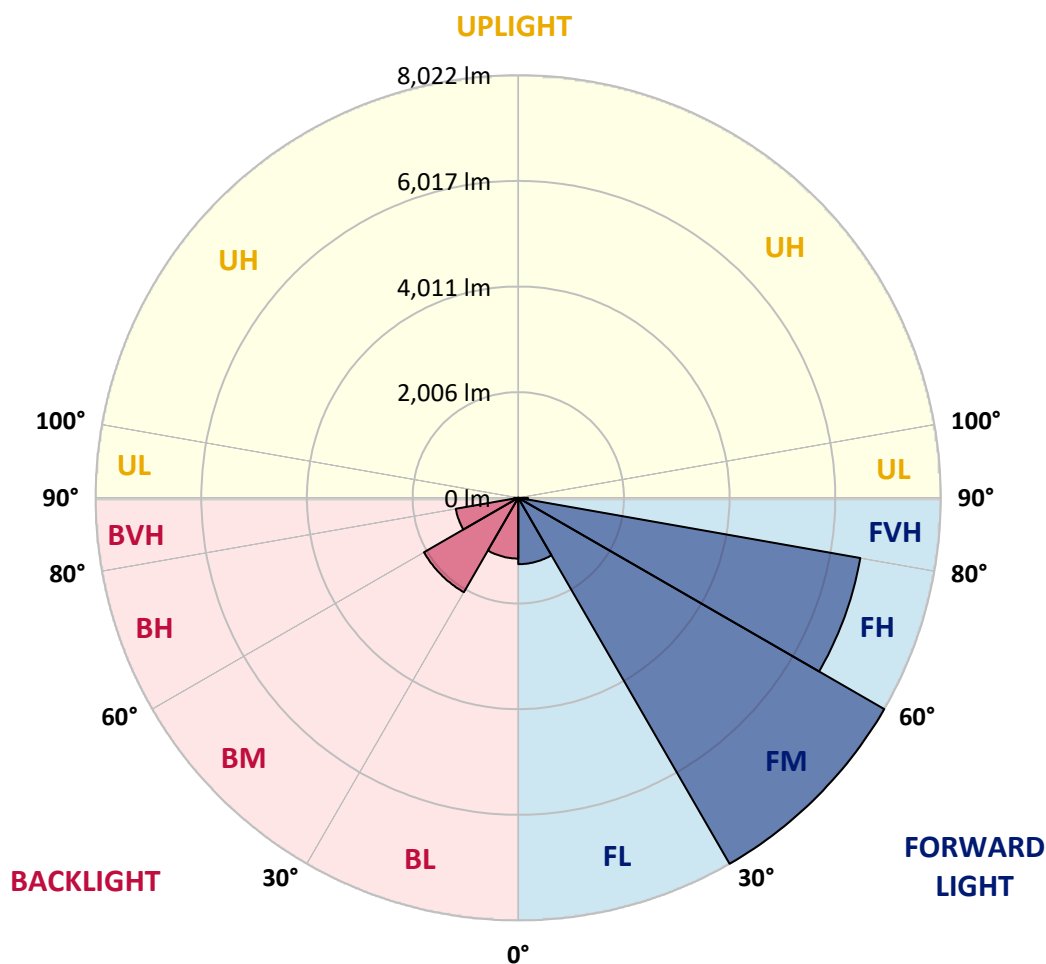
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1259.7	6.1			
FM	(30°-60°)	8022.3	39.0			
FH	(60°-80°)	6594.1	32.1			G3/7500
FVH	(80°-90°)	182.0	0.9			G2/225
BL	(0°-30°)	1153.7	5.6	B3/2500		
BM	(30°-60°)	2067.2	10.1	B2/2500		
BH	(60°-80°)	1203.3	5.9	B3/2500		G3/2500
BVH	(80°-90°)	78.3	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°	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4
2.5°	2644.1	2643.1	2656.7	2660.9	2686.2	2704.2	2737.8	2773.6	2820.0	2825.2	2853.6
5°	2491.4	2491.4	2507.1	2524.1	2556.7	2592.5	2644.1	2706.2	2786.3	2798.9	2869.4
7.5°	2361.9	2370.3	2383.9	2416.6	2454.6	2506.1	2585.2	2673.6	2778.9	2798.9	2912.6
10°	2257.7	2267.1	2284.0	2310.2	2367.1	2438.8	2541.9	2655.7	2796.8	2828.4	2975.8
12.5°	2225.0	2234.5	2243.9	2263.9	2316.6	2400.9	2524.1	2664.1	2840.0	2871.5	3062.1
15°	2300.8	2312.4	2305.0	2299.8	2327.2	2404.0	2532.5	2694.6	2893.7	2938.9	3168.5
17.5°	2475.6	2479.8	2463.0	2413.5	2409.3	2450.4	2572.4	2736.7	2961.0	3010.5	3275.9
20°	2757.8	2750.5	2715.7	2617.7	2562.0	2553.5	2640.9	2799.9	3030.5	3083.2	3391.7
22.5°	3141.1	3132.7	3063.2	2908.4	2784.1	2702.0	2739.9	2882.1	3108.4	3167.5	3504.4
25°	3619.2	3607.6	3505.4	3294.9	3102.2	2898.9	2874.7	2990.5	3204.3	3259.0	3622.4
27.5°	4177.3	4167.8	4057.3	3779.2	3501.2	3168.5	3042.1	3117.9	3304.3	3366.4	3755.0
30°	4777.4	4804.9	4609.0	4309.9	3958.2	3520.2	3267.5	3274.9	3433.9	3489.6	3916.1
32.5°	5482.9	5530.4	5294.5	4915.4	4435.3	3902.4	3551.7	3493.8	3622.4	3668.7	4119.4
35°	6182.2	6235.9	6040.0	5620.9	5068.1	4353.1	3848.7	3745.6	3873.0	3923.5	4388.9
37.5°	6786.6	6858.2	6757.1	6392.7	5745.1	4896.4	4236.2	4041.4	4181.5	4244.6	4751.2
40°	7263.6	7373.1	7365.8	7138.3	6543.4	5555.6	4728.0	4406.8	4564.7	4633.2	5190.2
42.5°	7651.1	7745.8	7828.0	7816.4	7376.3	6304.4	5306.1	4881.7	5001.8	5080.7	5684.1
45°	7918.5	8019.7	8196.5	8387.2	8177.6	7105.6	5968.4	5445.1	5554.6	5673.6	6272.7
47.5°	8157.6	8272.4	8502.0	8804.1	8857.8	7910.1	6694.0	6101.1	6201.1	6324.4	6863.5
50°	8178.7	8277.6	8633.6	9062.1	9341.1	8683.1	7473.2	6837.2	6930.8	7062.5	7496.3
52.5°	7670.1	7825.9	8447.1	9054.7	9563.4	9329.6	8247.2	7602.6	7708.0	7866.0	8151.3
55°	5953.7	6182.2	7900.7	8772.6	9484.4	9747.6	8983.1	8416.7	8551.4	8716.7	8810.5
57.5°	5128.1	5228.1	6271.7	8258.7	9124.2	9856.1	9604.5	9239.0	9455.9	9637.0	9507.6
60°	4609.0	4692.1	5309.2	7459.4	8650.4	9684.4	10084.6	10005.6	10380.5	10596.3	10220.4
62.5°	4053.0	4132.0	4693.3	6228.5	8043.9	9399.0	10387.9	10713.2	11328.2	11564.0	10892.3
65°	3501.2	3568.6	4106.7	5233.4	7273.1	9113.7	10544.8	11325.0	12205.3	12449.6	11450.4
67.5°	2886.3	2942.1	3450.7	4415.2	6335.9	8723.1	10622.7	11806.3	12968.7	13178.3	11726.2
70°	2082.8	2126.1	2651.5	3491.8	5159.7	8051.3	10591.1	12147.4	13364.7	13532.2	11517.7
72.5°	984.5	1023.6	1640.6	2267.1	3644.4	6743.4	9951.9	11876.8	12962.5	12879.2	10241.5
75°	525.4	559.1	942.4	1243.6	1924.8	4622.6	8143.9	10230.9	10884.9	10480.5	7569.0
77.5°	355.9	382.2	583.3	746.6	879.2	2194.4	5234.5	7083.6	6815.0	6147.4	3790.8
80°	282.2	309.5	478.1	505.4	425.4	792.9	2162.9	3279.1	2355.6	1883.8	1078.3
82.5°	216.9	247.4	402.2	366.4	231.6	325.3	629.7	1037.2	603.4	459.1	261.2
85°	132.6	165.3	315.9	233.8	130.6	148.5	213.7	288.5	184.3	153.8	93.7
87.5°	67.3	94.8	160.1	85.3	58.9	34.7	56.9	56.9	48.5	42.1	24.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4	2868.4
2.5°	2878.9	2899.9	2935.8	2969.4	2995.8	3021.1	3046.3	3060.0	3064.2	3081.0	3090.6
5°	2912.6	2951.6	3021.1	3086.4	3127.4	3152.7	3170.6	3181.1	3183.2	3188.5	3196.9
7.5°	2974.8	3036.9	3133.7	3199.0	3229.6	3227.4	3220.0	3193.8	3183.2	3173.7	3175.9
10°	3062.1	3144.3	3263.3	3308.5	3289.5	3239.0	3173.7	3096.8	3061.1	3026.3	3015.8
12.5°	3170.6	3274.9	3391.7	3389.6	3295.9	3166.3	3014.7	2896.9	2822.0	2768.3	2755.7
15°	3302.2	3422.3	3511.8	3440.1	3234.8	3002.1	2779.9	2626.2	2558.8	2499.9	2493.5
17.5°	3438.1	3566.5	3607.6	3424.3	3081.0	2758.9	2507.1	2386.1	2319.8	2288.2	2297.6
20°	3570.7	3698.1	3664.5	3333.8	2847.3	2483.0	2258.7	2192.4	2178.6	2186.0	2182.8
22.5°	3710.8	3824.5	3676.1	3159.0	2549.3	2200.8	2077.6	2079.7	2110.2	2132.3	2137.6
25°	3854.0	3930.9	3645.5	2906.3	2229.2	1993.3	1962.8	1996.5	2056.6	2099.7	2111.3
27.5°	3992.0	4025.6	3579.2	2593.6	1954.4	1844.9	1850.1	1919.6	2010.1	2070.2	2085.0
30°	4147.8	4109.8	3451.7	2241.9	1763.8	1717.5	1761.7	1842.7	1933.4	1987.0	1999.7
32.5°	4323.7	4182.5	3249.6	1916.4	1629.0	1615.3	1688.0	1740.7	1780.6	1796.4	1804.8
35°	4542.6	4284.7	2990.5	1688.0	1507.9	1540.6	1610.1	1583.7	1567.9	1559.5	1567.9
37.5°	4826.9	4422.6	2687.2	1539.4	1410.0	1486.9	1515.3	1433.2	1371.0	1340.5	1347.9
40°	5169.2	4624.8	2395.5	1424.7	1347.9	1440.5	1391.0	1292.0	1213.1	1169.8	1173.0
42.5°	5549.3	4836.5	2150.2	1338.3	1313.1	1402.6	1299.4	1181.5	1054.0	1040.4	1054.0
45°	5948.4	5054.4	1982.8	1272.0	1296.2	1369.9	1246.7	1056.2	965.7	1021.4	1050.9
47.5°	6347.5	5254.5	1881.7	1222.5	1287.8	1333.1	1200.4	986.7	922.4	1003.5	1041.4
50°	6791.9	5433.5	1836.4	1186.7	1278.4	1318.4	1130.9	968.7	877.2	930.8	970.9
52.5°	7233.0	5572.5	1802.8	1151.0	1264.6	1306.8	1097.3	947.7	822.4	825.5	847.7
55°	7673.3	5663.0	1765.9	1103.5	1234.1	1281.5	1094.1	924.6	781.4	766.6	777.2
57.5°	8142.8	5714.7	1720.6	1050.9	1181.5	1217.3	1090.9	906.6	768.6	744.5	747.6
60°	8621.0	5790.4	1661.6	986.7	1110.9	1140.4	1083.5	900.4	761.4	720.3	723.4
62.5°	9049.5	5816.8	1591.1	925.6	1020.4	1064.6	1067.7	895.0	741.3	670.8	670.8
65°	9330.7	5703.1	1467.9	856.1	922.4	986.7	1037.2	877.2	705.5	635.0	635.0
67.5°	9319.1	5378.7	1275.2	766.6	827.7	900.4	993.0	846.6	662.4	590.7	593.9
70°	8885.2	4738.5	1030.8	662.4	723.4	807.7	936.1	801.3	610.7	542.3	548.6
72.5°	7620.6	3708.7	748.7	540.2	602.3	711.9	862.4	746.6	558.1	499.1	496.0
75°	5444.0	2347.1	507.6	414.9	468.6	603.4	770.8	682.3	509.6	501.2	472.8
77.5°	2780.9	1121.5	335.9	303.3	326.5	475.9	647.6	609.7	517.0	413.8	368.6
80°	904.6	413.8	211.7	206.4	216.9	316.9	501.2	500.2	391.8	281.2	248.5
82.5°	288.5	177.9	138.0	132.6	127.4	199.1	349.6	396.0	264.3	177.9	176.9
85°	114.8	106.4	81.1	74.7	53.7	93.7	183.3	263.2	196.9	128.4	131.6
87.5°	42.1	42.1	22.1	15.8	11.6	31.6	49.5	78.9	112.6	66.3	65.3
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)