

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: P968971

Luminaire Tested: **NAV-SB5C-835-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-835-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36633.5 lumens
Efficiency: N/A
Efficacy: 146.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 249.5
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



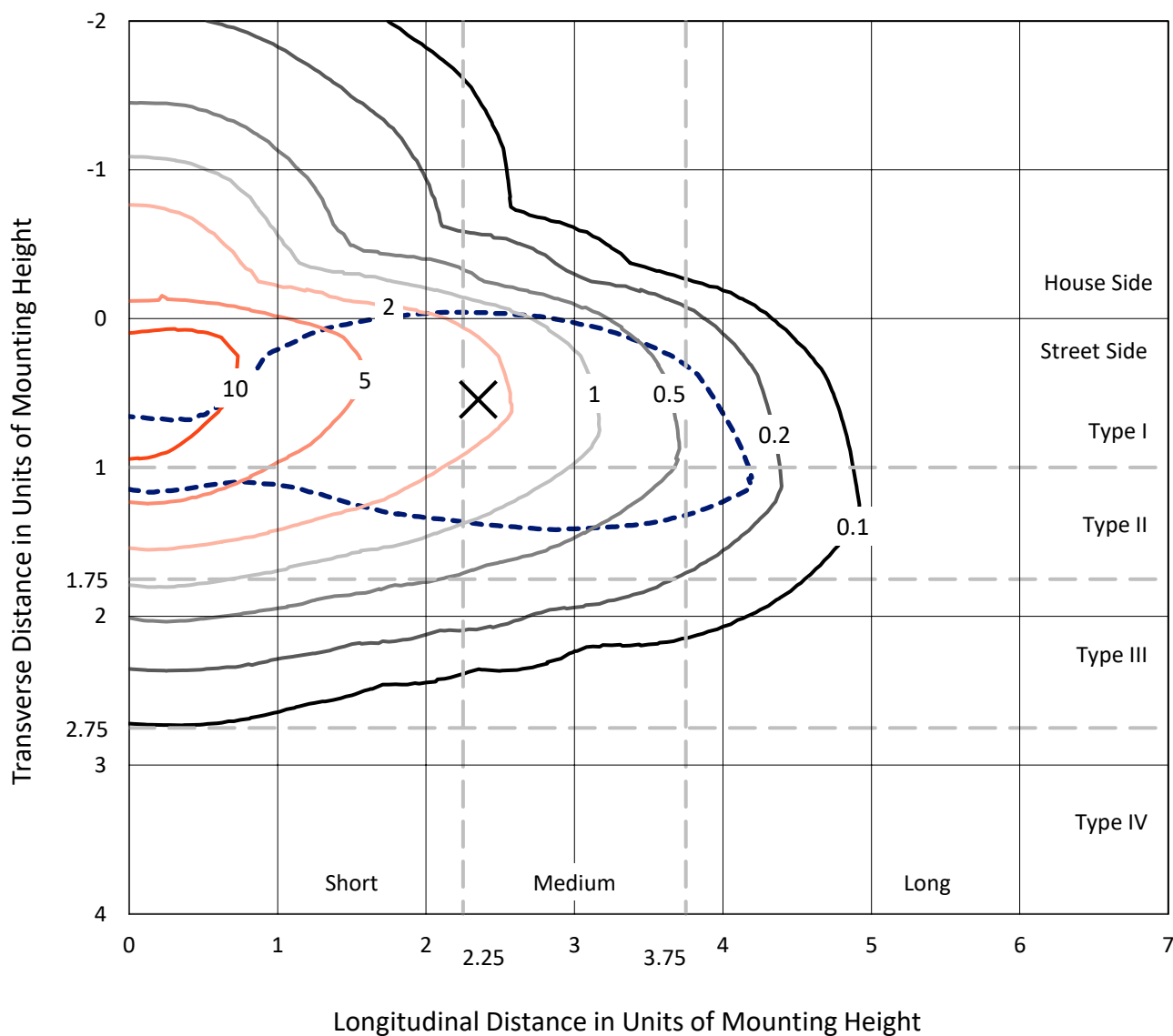
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

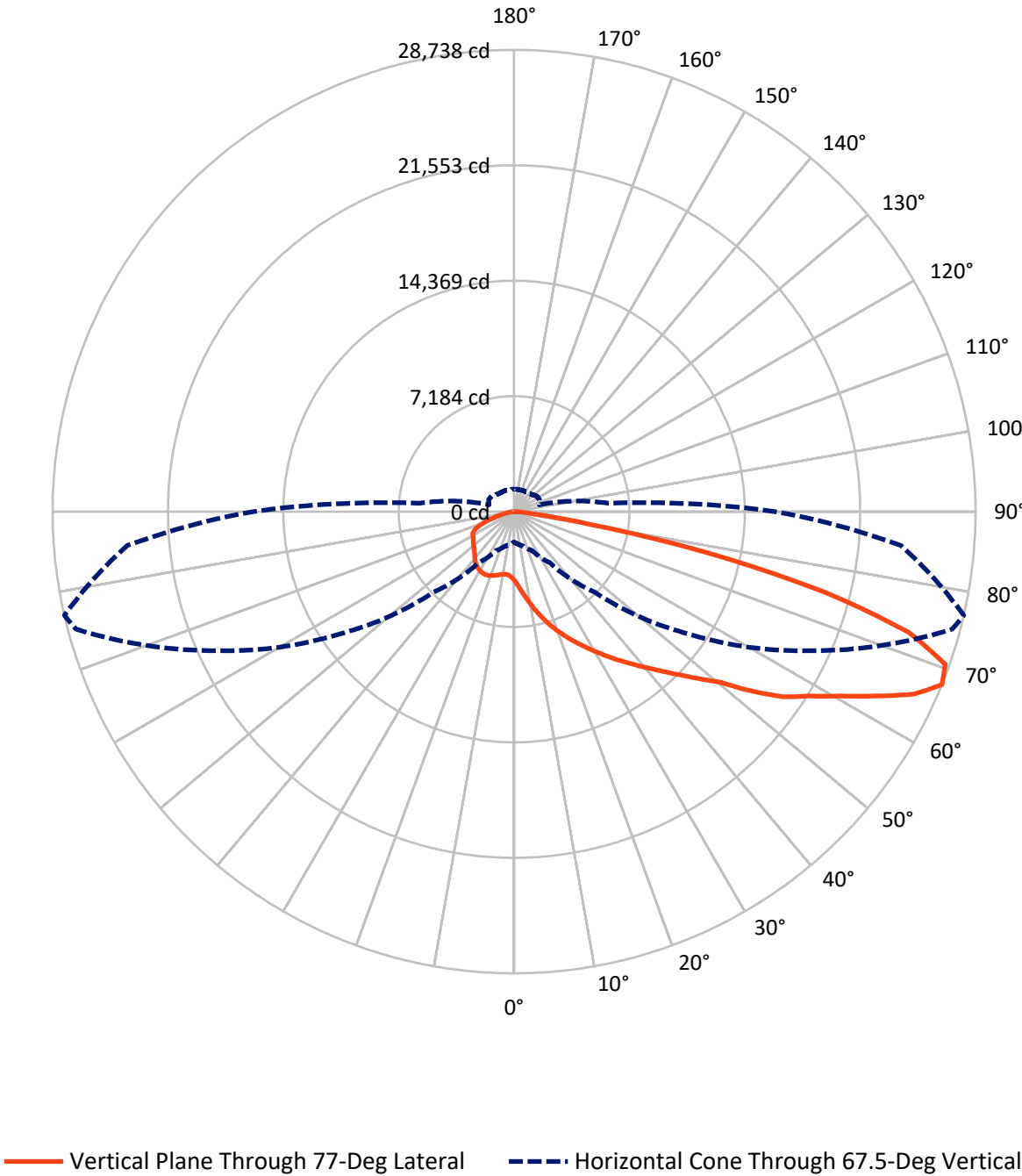
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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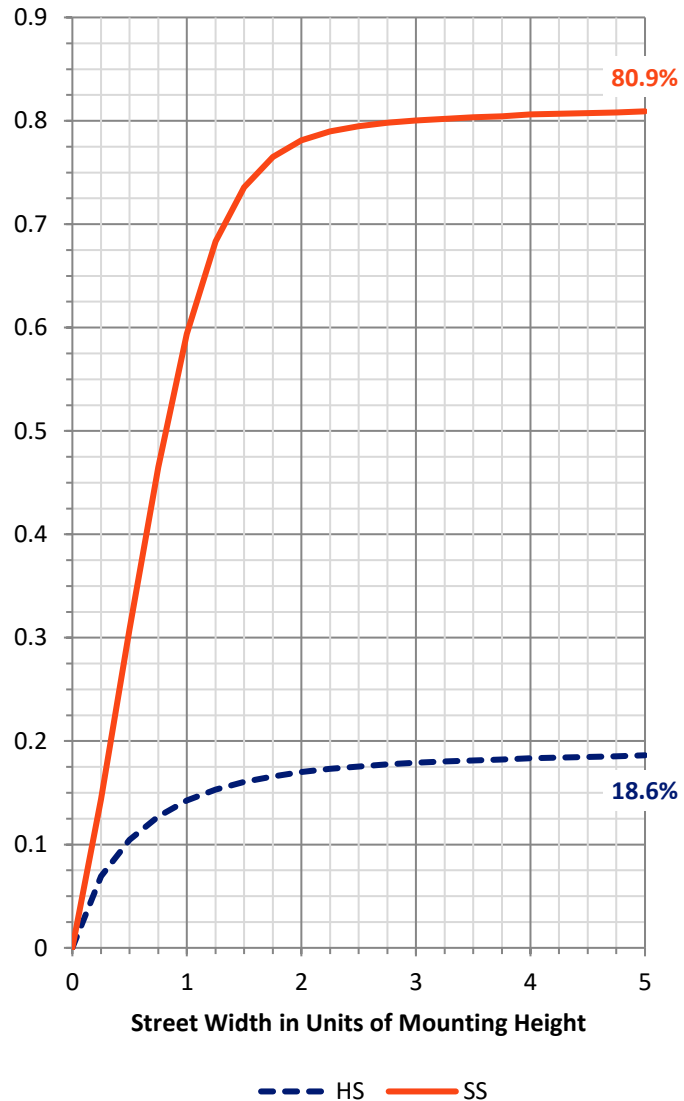
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6929.6	0.0	6929.6
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	29703.9	0.0	29703.9
	% Fixture	81.1	0.0	81.1
Total	Lumens	36633.5	0.0	36633.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.7	1.3
10°-20°	1655.2	4.5
20°-30°	3125.1	8.5
30°-40°	5034.5	13.7
40°-50°	6886.3	18.8
50°-60°	7767.8	21.2
60°-70°	7250.2	19.8
70°-80°	3974.4	10.8
80°-90°	479.4	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°	36633.5	100.0
0°-180°	36633.5	100.0

Coefficient of Utilization



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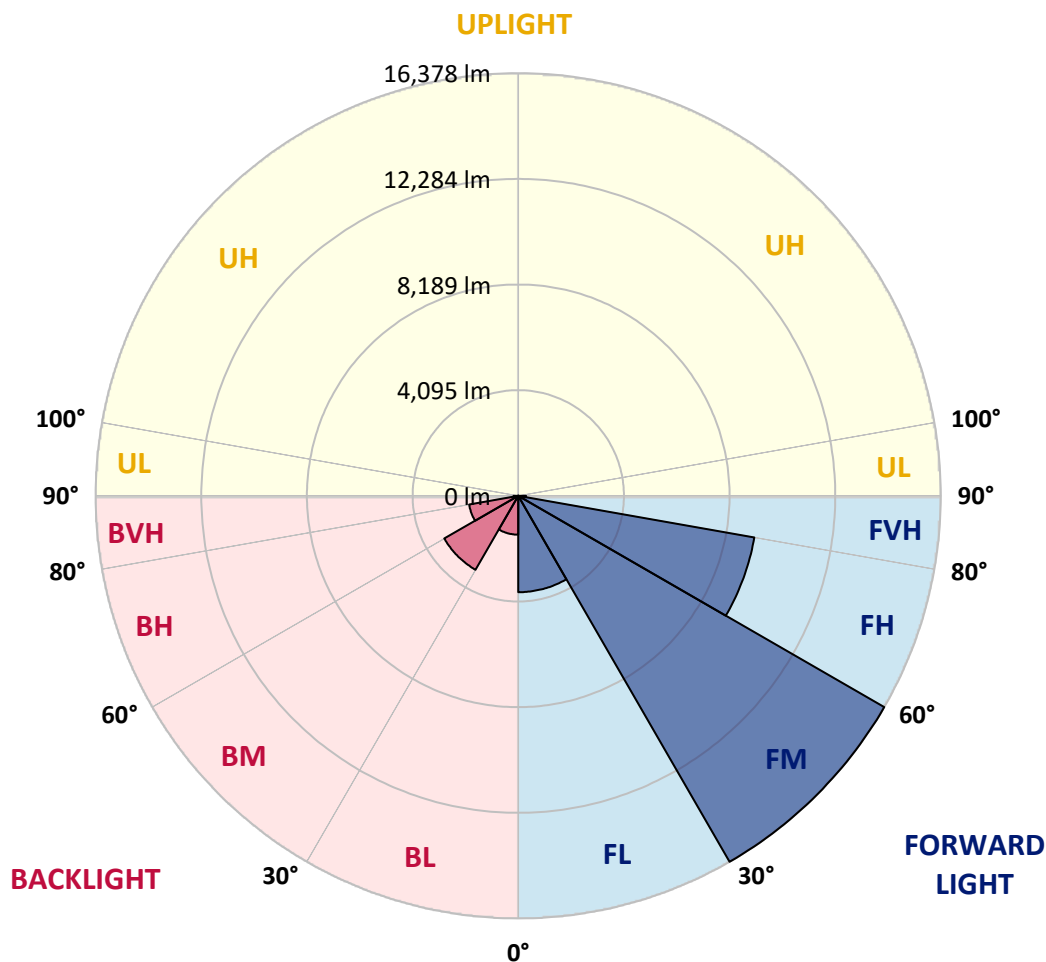
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3734.3	10.2			
FM	(30°-60°)	16378.4	44.7			
FH	(60°-80°)	9291.3	25.4			G4/12000
FVH	(80°-90°)	299.8	0.8			G3/500
BL	(0°-30°)	1506.7	4.1	B3/2500		
BM	(30°-60°)	3310.1	9.0	B3/5000		
BH	(60°-80°)	1933.2	5.3	B3/2500		G3/2500
BVH	(80°-90°)	179.6	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2
2.5°	5381.8	5419.6	5372.3	5372.3	5213.5	5130.3	4971.5	4850.4	4633.0	4595.2	4451.4
5°	6361.4	6408.6	6342.4	6314.1	6126.8	5954.7	5688.1	5425.3	5037.7	4997.9	4659.4
7.5°	7119.6	7180.1	7121.5	7091.3	6924.9	6732.0	6420.0	6053.1	5506.6	5429.1	4939.3
10°	7737.9	7747.5	7728.5	7739.9	7609.4	7450.5	7130.9	6703.6	6021.0	5915.1	5277.8
12.5°	8087.9	8131.3	8169.1	8237.2	8214.6	8116.2	7828.7	7318.2	6565.5	6429.4	5646.5
15°	8252.4	8328.0	8413.1	8570.0	8696.7	8721.3	8502.0	7978.1	7119.6	6955.1	6019.1
17.5°	8310.9	8382.9	8517.0	8744.0	9016.3	9199.7	9101.4	8619.2	7668.0	7478.9	6410.5
20°	8607.8	8628.7	8709.9	8925.5	9220.5	9525.0	9598.7	9235.7	8210.8	7997.0	6815.1
22.5°	9243.2	9201.6	9224.3	9322.7	9534.4	9829.4	9997.7	9780.2	8768.6	8522.8	7223.6
25°	10292.7	10171.7	10050.6	9937.2	10045.0	10211.5	10402.4	10324.8	9352.9	9040.9	7635.8
27.5°	11618.3	11470.8	11204.2	10831.7	10701.2	10759.8	10844.9	10829.7	9893.7	9577.9	8061.3
30°	12923.1	12751.0	12433.4	11894.4	11550.2	11395.1	11330.9	11287.4	10481.9	10145.2	8490.6
32.5°	13965.0	13828.9	13516.9	12913.7	12414.4	12149.7	11936.0	11780.9	11096.4	10759.8	8944.5
35°	14876.5	14749.9	14392.4	13734.4	13191.6	12909.9	12630.0	12299.1	11735.5	11395.1	9432.4
37.5°	15708.5	15581.8	15092.1	14407.5	13861.1	13666.2	13416.6	12855.0	12376.6	12055.1	9948.5
40°	16234.3	16205.9	15748.3	14973.0	14405.7	14309.2	14226.0	13499.9	13087.6	12788.8	10515.9
42.5°	16368.5	16431.0	16067.8	15430.6	14889.8	14812.2	15007.0	14229.8	13885.7	13600.1	11158.8
45°	16045.1	16224.8	15986.5	15553.5	15234.0	15192.3	15699.1	15027.8	14768.7	14507.7	11934.1
47.5°	15226.4	15530.8	15432.5	15371.9	15326.6	15506.2	16308.0	15875.0	15769.1	15542.2	12819.1
50°	13573.6	14150.3	14322.4	14704.4	15143.1	15750.1	16862.1	16799.6	16937.7	16708.9	13897.0
52.5°	10716.3	11510.5	12509.0	13465.8	14579.6	15668.9	17470.9	18127.1	18709.5	18584.8	15610.2
55°	8846.1	9203.5	9971.3	11726.1	13486.6	15326.6	17745.2	19199.4	20468.2	20356.6	16909.3
57.5°	7408.9	7728.5	8201.2	9666.8	11833.9	14549.4	17915.4	19853.6	21672.8	21661.4	18191.4
60°	5867.8	6206.3	6690.4	7728.5	9903.1	13206.7	17877.5	20598.7	23210.2	23304.7	19755.3
62.5°	4128.1	4500.6	5037.7	6005.8	7930.8	11467.1	17106.0	21137.7	25019.8	25277.0	21636.8
65°	2713.6	2959.4	3364.0	4199.9	5909.4	9230.0	15632.9	21207.6	26956.3	27391.2	23403.0
67.5°	1902.3	1996.9	2235.1	2689.0	3895.5	7078.0	13286.2	20483.3	28247.8	28737.5	24168.9
70°	1484.4	1531.8	1652.7	1834.2	2447.0	4759.7	10181.1	18599.9	27971.7	28482.3	23369.0
72.5°	1282.1	1327.5	1372.9	1395.5	1641.4	2938.6	6896.5	15551.6	25371.6	25717.7	20318.8
75°	1163.0	1174.3	1212.2	1204.6	1251.8	1906.1	3980.6	11330.9	20018.1	19899.0	14999.4
77.5°	977.6	992.8	1055.1	1045.7	1111.9	1302.9	2066.9	7312.6	12977.9	12168.6	8348.7
80°	828.3	835.8	903.9	892.6	966.3	943.6	1055.1	3727.2	5504.7	4663.2	2407.2
82.5°	287.4	355.5	690.2	711.0	737.5	571.1	609.0	1520.4	1681.1	1287.8	504.9
85°	139.9	149.3	351.7	499.2	497.3	287.4	296.8	542.7	529.5	416.0	168.3
87.5°	22.7	28.4	41.6	194.7	155.1	75.6	102.1	105.9	109.7	94.5	37.8
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°	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2	4298.2
2.5°	4345.5	4251.0	4052.4	3869.0	3725.3	3587.2	3509.7	3443.5	3405.7	3398.1	3398.1
5°	4462.7	4268.0	3906.8	3602.4	3403.8	3256.3	3178.7	3129.6	3105.0	3089.9	3088.0
7.5°	4631.1	4345.5	3831.1	3485.1	3277.1	3171.2	3131.5	3123.9	3122.0	3123.9	3129.6
10°	4863.6	4472.2	3823.6	3456.7	3282.8	3224.1	3222.3	3224.1	3231.7	3233.6	3235.5
12.5°	5115.2	4602.7	3853.9	3481.3	3354.6	3322.5	3316.8	3315.0	3320.6	3324.4	3326.2
15°	5389.3	4774.8	3904.9	3534.3	3434.1	3400.0	3394.4	3383.0	3381.1	3379.2	3377.4
17.5°	5671.1	4945.0	3961.6	3591.0	3485.1	3437.8	3417.0	3390.6	3369.8	3364.0	3369.8
20°	5956.7	5113.3	4001.4	3619.4	3488.9	3422.7	3381.1	3335.8	3299.8	3279.0	3286.6
22.5°	6261.1	5289.1	4025.9	3611.8	3454.9	3364.0	3288.4	3235.5	3180.7	3144.7	3146.6
25°	6558.0	5442.3	4024.0	3572.1	3388.6	3273.3	3176.9	3108.8	3033.2	2995.4	2995.4
27.5°	6843.5	5580.3	3976.8	3502.1	3294.1	3165.5	3050.2	2968.9	2895.1	2859.2	2857.3
30°	7138.5	5695.7	3903.0	3400.0	3182.5	3040.8	2914.1	2844.1	2777.9	2743.8	2742.0
32.5°	7431.7	5801.6	3799.1	3273.3	3054.0	2917.8	2793.0	2728.8	2689.0	2689.0	2690.9
35°	7741.7	5875.3	3661.0	3125.8	2917.8	2787.4	2689.0	2651.2	2647.4	2624.7	2619.1
37.5°	8068.9	5922.7	3492.7	2974.5	2783.6	2660.6	2630.4	2585.0	2547.2	2498.0	2490.4
40°	8413.1	5969.9	3290.4	2817.6	2641.7	2573.7	2560.4	2499.9	2392.1	2271.1	2254.1
42.5°	8831.0	6002.0	3080.4	2660.6	2492.4	2469.6	2488.6	2384.6	2212.5	2121.8	2123.6
45°	9315.1	6055.0	2887.5	2505.6	2339.2	2339.2	2418.6	2282.5	2140.6	2083.9	2093.4
47.5°	9942.9	6177.9	2707.9	2335.4	2197.4	2235.1	2263.5	2159.6	2080.1	2010.1	2008.3
50°	10850.5	6472.9	2522.6	2163.3	2089.6	2165.2	2125.4	2065.0	1972.3	1915.6	1909.9
52.5°	11977.6	6646.9	2358.1	2008.3	1996.9	2072.5	2015.8	1959.1	1889.1	1813.4	1798.4
55°	12745.4	6679.0	2220.0	1894.8	1934.5	1926.9	1906.1	1855.0	1817.2	1717.1	1718.9
57.5°	13603.9	6743.3	2106.6	1826.8	1894.8	1811.6	1804.0	1760.5	1711.3	1643.3	1620.6
60°	14630.6	6843.5	2008.3	1800.2	1860.8	1735.9	1698.1	1681.1	1631.9	1597.9	1607.3
62.5°	15750.1	6934.3	1908.0	1804.0	1821.0	1662.1	1605.5	1599.8	1569.6	1558.2	1558.2
65°	16514.1	6686.6	1783.2	1800.2	1758.6	1586.6	1514.6	1512.8	1488.2	1484.4	1482.6
67.5°	16247.5	5901.8	1614.9	1747.3	1694.3	1511.0	1431.5	1423.9	1391.7	1393.7	1393.7
70°	14912.4	4782.3	1382.3	1616.8	1614.9	1442.8	1344.5	1319.9	1276.4	1284.0	1291.6
72.5°	12408.8	3543.7	1070.3	1399.3	1488.2	1380.5	1244.2	1204.6	1149.7	1157.3	1155.4
75°	8961.5	2409.2	779.1	1064.7	1295.3	1306.7	1145.9	1077.9	1011.7	1023.1	1026.8
77.5°	4585.6	1365.3	573.0	733.7	1017.3	1187.6	1057.1	966.3	951.2	1057.1	1041.9
80°	1495.8	684.5	397.1	514.3	667.5	972.0	926.6	822.6	818.8	843.4	724.3
82.5°	446.3	289.4	255.3	338.5	368.8	745.1	799.9	622.2	535.2	563.5	582.4
85°	153.1	139.9	145.7	168.3	175.9	436.9	559.8	412.3	389.5	429.3	423.6
87.5°	36.0	49.2	41.6	37.8	37.8	105.9	217.5	172.1	238.3	158.9	153.1
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)