

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: P969439

Luminaire Tested: **NAV-SB5D-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969439
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45397.2 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9
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



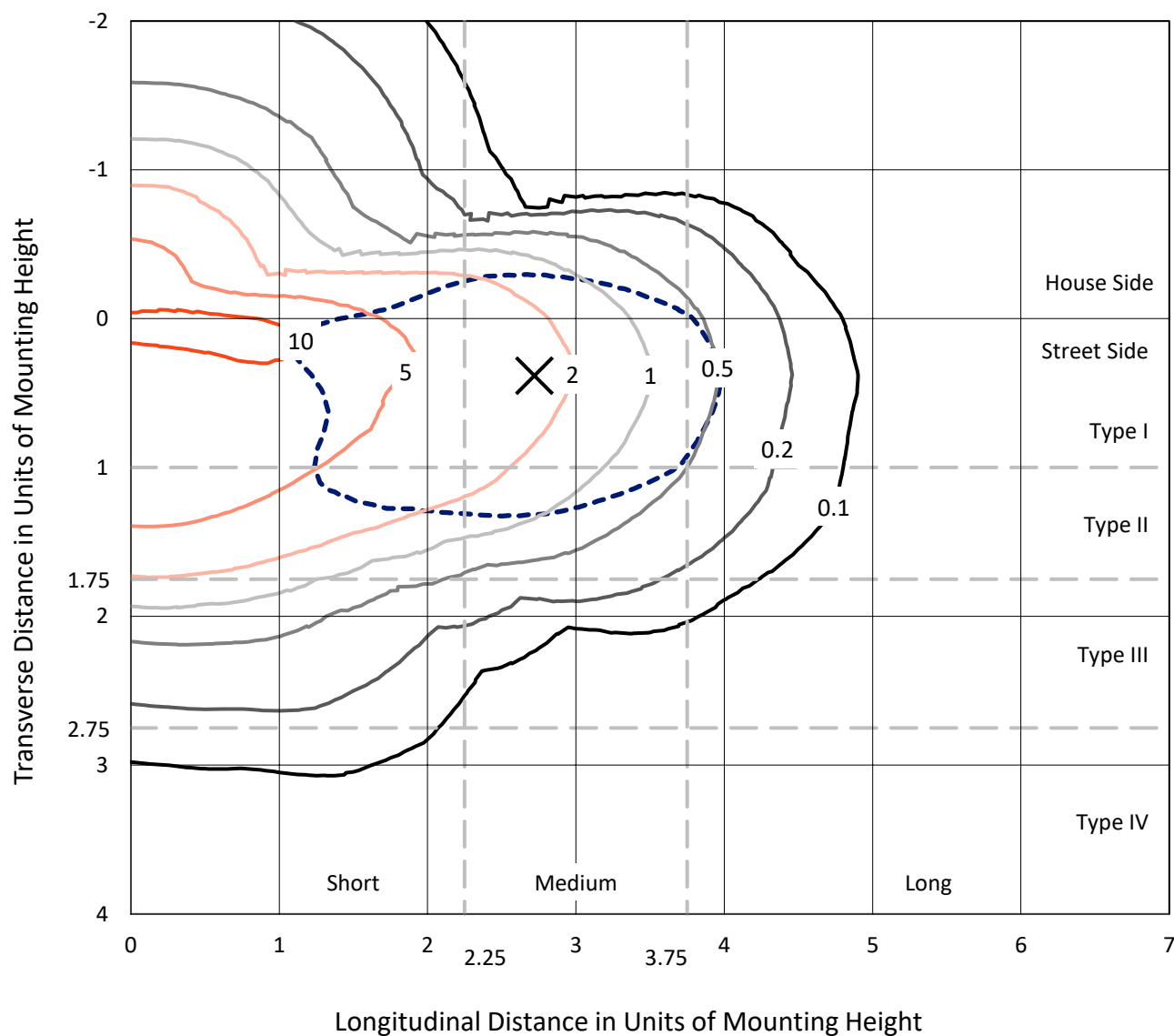
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

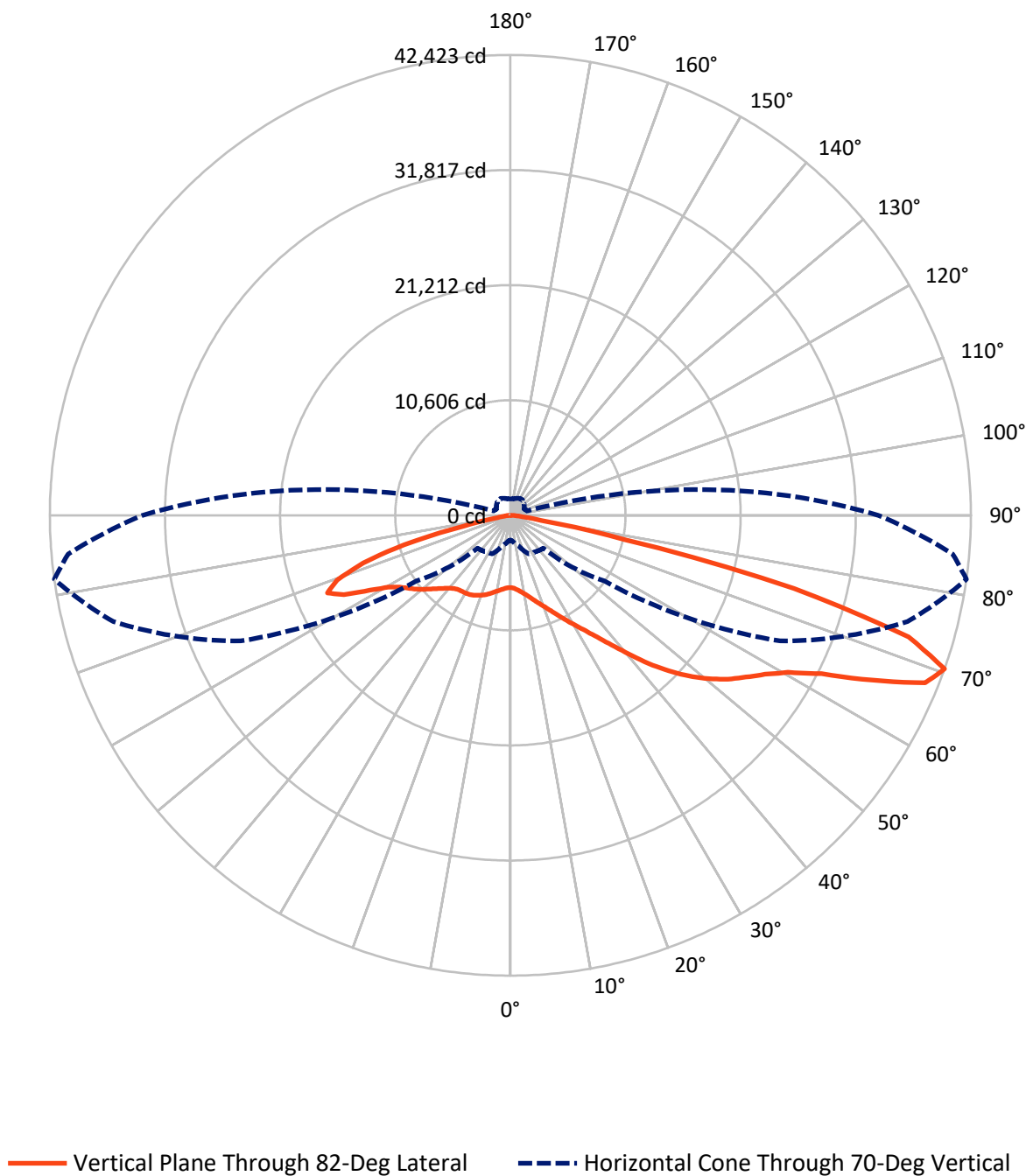
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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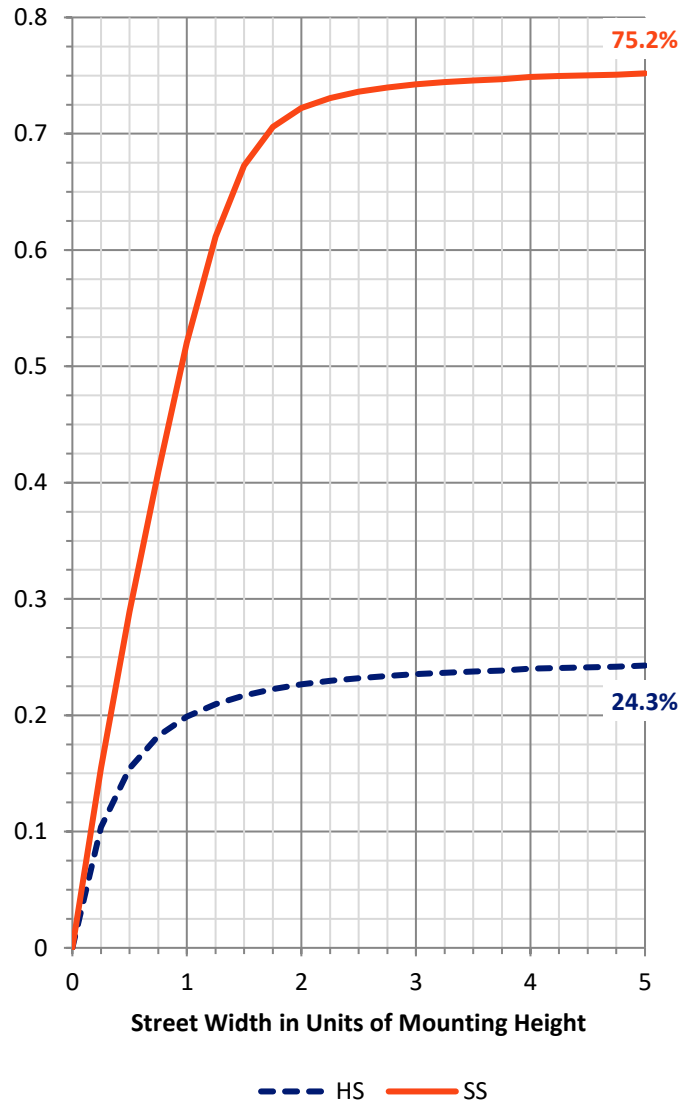
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11191.5	0.0	11191.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	34205.7	0.0	34205.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	45397.2	0.0	45397.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	628.4	1.4
10°-20°	1805.5	4.0
20°-30°	3020.4	6.7
30°-40°	4718.7	10.4
40°-50°	7515.1	16.6
50°-60°	10458.1	23.0
60°-70°	10939.7	24.1
70°-80°	5717.7	12.6
80°-90°	593.7	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°	45397.2	100.0
0°-180°	45397.2	100.0

Coefficient of Utilization



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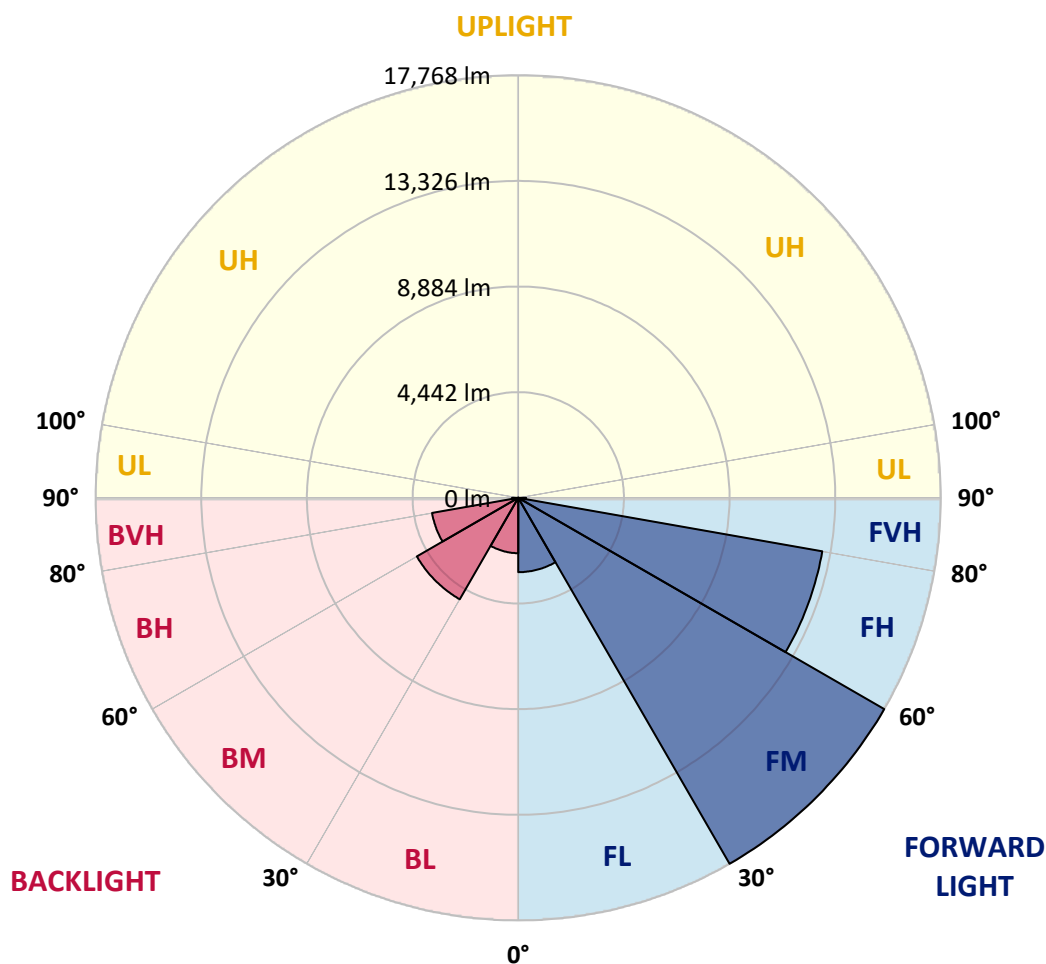
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3126.1	6.9			
FM	(30°-60°)	17768.0	39.1			
FH	(60°-80°)	12979.2	28.6			G5
FVH	(80°-90°)	332.4	0.7			G3/500
BL	(0°-30°)	2328.3	5.1	B3/2500		
BM	(30°-60°)	4923.8	10.8	B3/5000		
BH	(60°-80°)	3678.1	8.1	B4/5000		G4/5000
BVH	(80°-90°)	261.3	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8
2.5°	6814.8	6853.4	6841.3	6829.3	6829.3	6812.4	6810.0	6785.9	6766.6	6735.3	6728.1
5°	6901.5	6942.4	6937.6	6947.2	6978.6	6985.8	6993.1	6978.6	6940.1	6901.5	6884.6
7.5°	6824.4	6870.2	6884.6	6942.4	7038.8	7125.5	7190.6	7217.1	7180.9	7125.5	7099.0
10°	6564.3	6614.8	6665.5	6802.7	6973.8	7178.6	7352.0	7455.5	7448.4	7395.4	7349.6
12.5°	6036.7	6089.7	6198.1	6465.5	6778.6	7139.9	7462.8	7679.6	7754.2	7715.7	7636.2
15°	5615.2	5661.0	5742.9	6017.5	6424.6	6973.8	7503.7	7925.3	8115.6	8093.9	7997.6
17.5°	5603.2	5622.4	5673.0	5803.0	6116.2	6713.6	7460.4	8166.2	8529.9	8527.5	8407.0
20°	5815.1	5822.3	5851.2	5877.8	6056.0	6516.1	7349.6	8366.2	8994.9	8994.9	8864.8
22.5°	6109.0	6104.2	6133.1	6109.0	6195.7	6499.2	7279.8	8541.9	9512.7	9551.3	9387.5
25°	6549.9	6525.8	6518.5	6463.1	6479.9	6655.8	7356.8	8741.9	10127.0	10206.5	10001.7
27.5°	7137.6	7099.0	7072.5	6944.9	6901.5	6978.6	7592.9	8982.8	10811.2	10948.4	10688.3
30°	7903.6	7833.8	7795.2	7573.6	7417.0	7429.1	7949.4	9303.2	11526.6	11748.2	11418.2
32.5°	8949.1	8840.7	8737.1	8373.3	8086.7	7992.7	8409.5	9746.4	12302.3	12656.4	12232.5
35°	10119.8	10033.1	9922.3	9361.0	8920.2	8703.4	9031.0	10365.5	13210.4	13771.7	13220.0
37.5°	11247.2	11172.5	11225.5	10469.1	9900.6	9585.1	9845.2	11196.6	14330.5	15159.2	14458.2
40°	12413.1	12355.2	12362.5	11639.8	10977.3	10623.3	10832.8	12239.6	15614.5	16809.4	15947.0
42.5°	13680.2	13636.8	13492.3	12851.6	12107.2	11777.1	11969.8	13444.1	16992.4	18688.3	17580.2
45°	15099.0	15072.5	14937.6	14202.9	13350.1	12979.2	13239.3	14773.8	18377.5	20456.4	19220.7
47.5°	16325.2	16346.8	16330.0	15710.9	14826.8	14282.4	14593.1	16161.4	19666.3	22118.6	20793.7
50°	16915.4	17028.5	17194.8	17002.1	16452.8	15898.8	15959.0	17500.6	20894.8	23677.1	22301.6
52.5°	16606.9	16821.4	17274.2	17582.6	17794.6	17679.0	17517.6	18830.4	22051.1	25083.9	23727.7
55°	15457.9	15759.1	16510.6	17255.0	18336.6	19177.3	19389.3	20304.6	23178.5	26322.1	25076.7
57.5°	13364.6	13853.6	14528.1	16033.7	17854.8	19902.3	21571.7	22349.8	24373.3	27644.6	26488.4
60°	9775.3	10430.6	11268.8	13509.1	16168.6	19514.6	23429.0	25491.0	26071.6	29357.3	28326.3
62.5°	6255.9	6660.7	7431.5	9541.6	12598.6	17527.2	23997.5	29417.5	28950.2	32166.1	31082.1
65°	4283.1	4543.2	5249.0	6434.2	8144.5	13046.6	22475.1	32361.2	33522.3	36617.7	35793.9
67.5°	3112.3	3309.8	3912.0	4950.3	5306.8	7720.5	17440.5	32226.3	37966.7	41204.3	39922.8
70°	2269.1	2409.0	2914.8	3912.0	4083.1	4295.1	10565.5	27394.0	37870.4	42423.2	40888.8
72.5°	1681.4	1777.8	2117.4	3035.2	3305.0	2900.3	5229.8	19909.6	32541.9	38371.5	37140.5
75°	1216.5	1288.7	1539.2	2322.1	2645.0	2209.0	2608.8	11635.0	22699.1	26991.7	27208.6
77.5°	929.9	985.2	1149.0	1700.7	2117.4	1657.3	1618.8	5352.5	10763.0	10816.0	11423.0
80°	746.7	782.9	872.1	1197.2	1623.6	1240.6	1055.1	2160.8	3401.4	2878.6	3020.8
82.5°	549.2	609.5	737.1	840.7	1161.1	855.2	643.2	1091.2	1293.6	1112.9	1122.6
85°	313.1	354.1	445.7	602.2	741.9	522.8	368.6	484.2	602.2	493.8	440.9
87.5°	110.8	144.5	156.6	236.1	322.8	216.8	142.2	139.7	197.5	147.0	122.9
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°	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8	6655.8
2.5°	6704.0	6691.9	6643.7	6578.8	6511.3	6446.2	6424.6	6378.8	6347.4	6330.6	6349.9
5°	6838.9	6800.4	6687.1	6542.6	6390.9	6227.0	6111.4	6005.4	5928.3	5856.0	5884.9
7.5°	7031.6	6964.2	6769.0	6516.1	6246.2	5974.1	5771.8	5617.6	5514.0	5446.5	5461.0
10°	7255.7	7152.0	6853.4	6475.1	6058.4	5668.1	5429.6	5297.2	5232.1	5196.0	5205.7
12.5°	7513.4	7366.5	6940.1	6381.2	5771.8	5326.1	5162.3	5123.8	5126.1	5128.6	5133.4
15°	7831.3	7626.6	7009.9	6176.4	5398.4	5063.5	5034.6	5097.2	5162.3	5193.6	5191.2
17.5°	8190.3	7901.2	7022.0	5839.2	5032.2	4894.9	4986.4	5121.3	5220.1	5263.5	5273.1
20°	8575.7	8180.6	6935.3	5362.2	4731.1	4757.5	4921.4	5094.9	5203.2	5258.7	5273.1
22.5°	9016.5	8479.3	6728.1	4861.2	4485.4	4608.2	4801.0	4969.6	5082.8	5138.2	5152.7
25°	9520.0	8814.2	6402.9	4439.6	4273.4	4439.6	4632.3	4772.0	4863.6	4914.2	4928.6
27.5°	10078.8	9163.5	5969.3	4104.8	4087.9	4266.2	4425.1	4533.6	4581.8	4620.3	4634.7
30°	10640.1	9481.5	5444.1	3851.8	3926.5	4095.2	4208.3	4256.5	4271.0	4278.2	4295.1
32.5°	11247.2	9756.1	4892.5	3642.2	3772.3	3928.9	3996.4	4018.1	3950.6	3904.8	3919.3
35°	11981.9	10049.9	4352.9	3476.1	3620.6	3755.5	3777.1	3757.9	3678.4	3584.4	3589.2
37.5°	12890.1	10416.2	3921.6	3358.0	3478.4	3567.6	3541.1	3536.2	3543.5	3432.7	3439.9
40°	14002.9	10893.1	3606.2	3266.5	3362.8	3382.1	3307.5	3348.4	3384.6	3215.9	3220.8
42.5°	15238.8	11468.8	3406.2	3203.8	3266.5	3220.8	3105.0	3150.8	3146.0	2924.4	2922.0
45°	16498.6	12095.1	3336.4	3158.0	3177.3	3085.8	2958.1	2970.1	2869.0	2669.1	2676.3
47.5°	17751.3	12767.2	3379.7	3119.5	3066.5	2963.0	2864.2	2811.2	2661.8	2512.5	2512.5
50°	18979.7	13473.0	3538.7	3042.4	2914.8	2854.5	2782.3	2688.4	2529.4	2401.7	2392.0
52.5°	20119.2	14183.6	3717.0	2914.8	2724.4	2760.6	2714.8	2606.5	2449.9	2319.8	2322.1
55°	21198.3	14894.3	3786.8	2738.9	2546.2	2678.7	2652.2	2452.3	2264.3	2158.3	2148.7
57.5°	22373.9	15749.4	3709.7	2514.9	2401.7	2584.7	2483.6	2262.0	2153.5	2074.1	2066.8
60°	24002.3	17091.2	3543.5	2237.9	2264.3	2445.0	2271.6	2180.1	2062.0	1972.9	1968.1
62.5°	26707.5	19594.0	3276.1	1963.3	2103.0	2237.9	2170.4	2078.9	1958.5	1871.8	1871.8
65°	30706.3	23072.4	2772.6	1748.9	1922.3	2035.5	2062.0	1970.5	1845.2	1753.7	1758.5
67.5°	34078.8	25255.0	2098.2	1570.6	1736.9	1871.8	1946.4	1857.3	1724.8	1635.7	1638.1
70°	33893.3	23669.9	1602.0	1394.7	1573.0	1710.3	1806.7	1736.9	1594.7	1510.3	1517.6
72.5°	30104.0	19801.2	1296.0	1216.5	1406.8	1541.7	1657.3	1604.3	1459.8	1377.9	1377.9
75°	22116.1	14055.9	1035.9	1035.9	1199.7	1365.8	1493.5	1459.8	1327.3	1269.5	1252.7
77.5°	9322.5	5897.0	811.8	860.0	997.3	1173.1	1332.1	1344.2	1228.6	1300.8	1180.4
80°	2478.8	1626.1	619.1	676.9	782.9	968.4	1158.7	1153.8	1028.6	961.1	893.7
82.5°	944.3	640.7	440.9	476.9	566.1	741.9	917.8	946.7	821.4	710.6	710.6
85°	363.8	274.6	272.2	286.7	330.0	491.4	693.7	717.8	619.1	525.1	542.0
87.5°	94.0	81.9	101.2	96.4	151.8	262.6	397.5	411.9	378.2	219.2	313.1
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)