

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: P967393

Luminaire Tested: **NAV-SB4D-835-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967393
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-SB4D-835-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38419 lumens
Efficiency: N/A
Efficacy: 130.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G4

Input Watts (W): 293.6
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



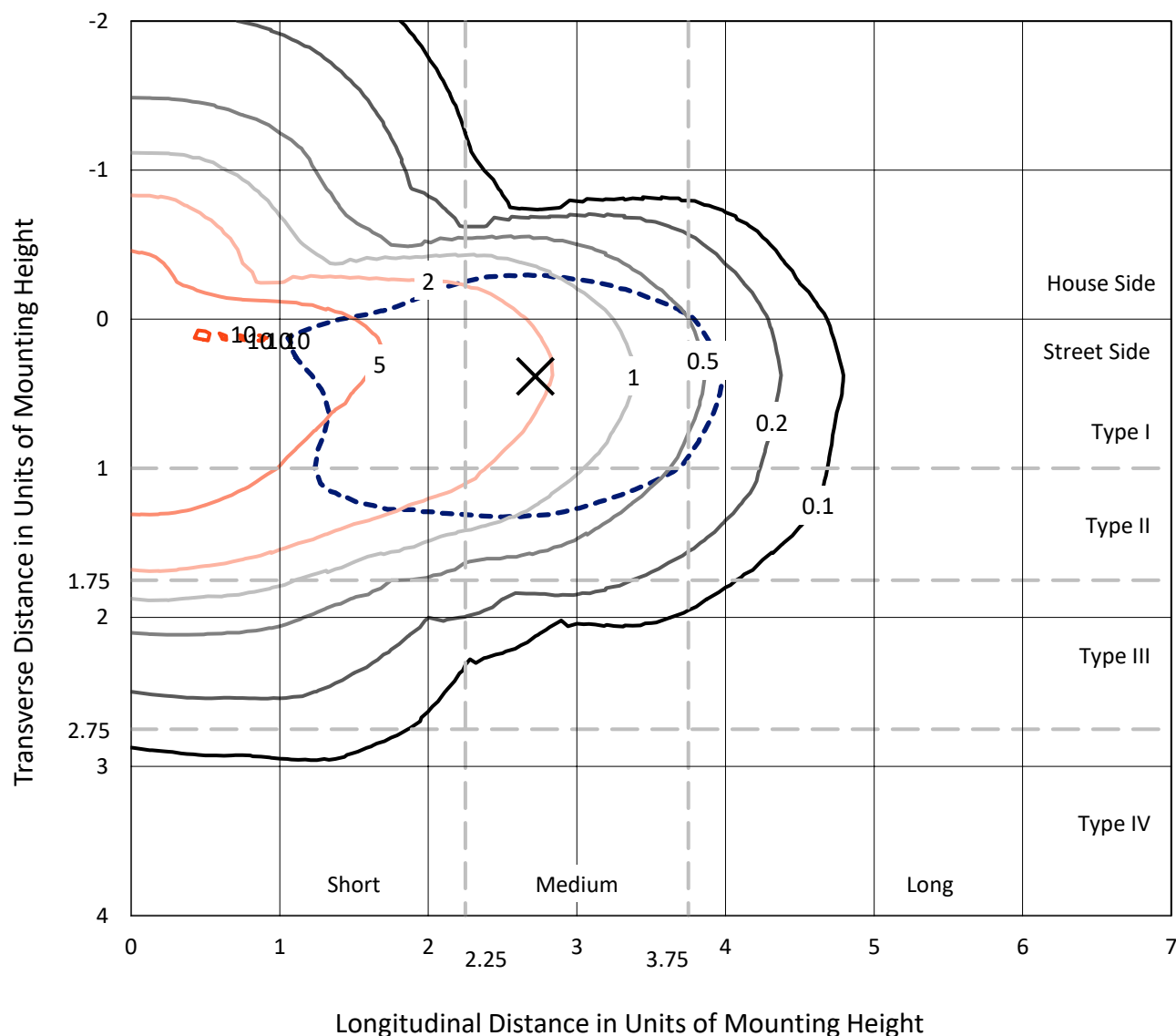
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

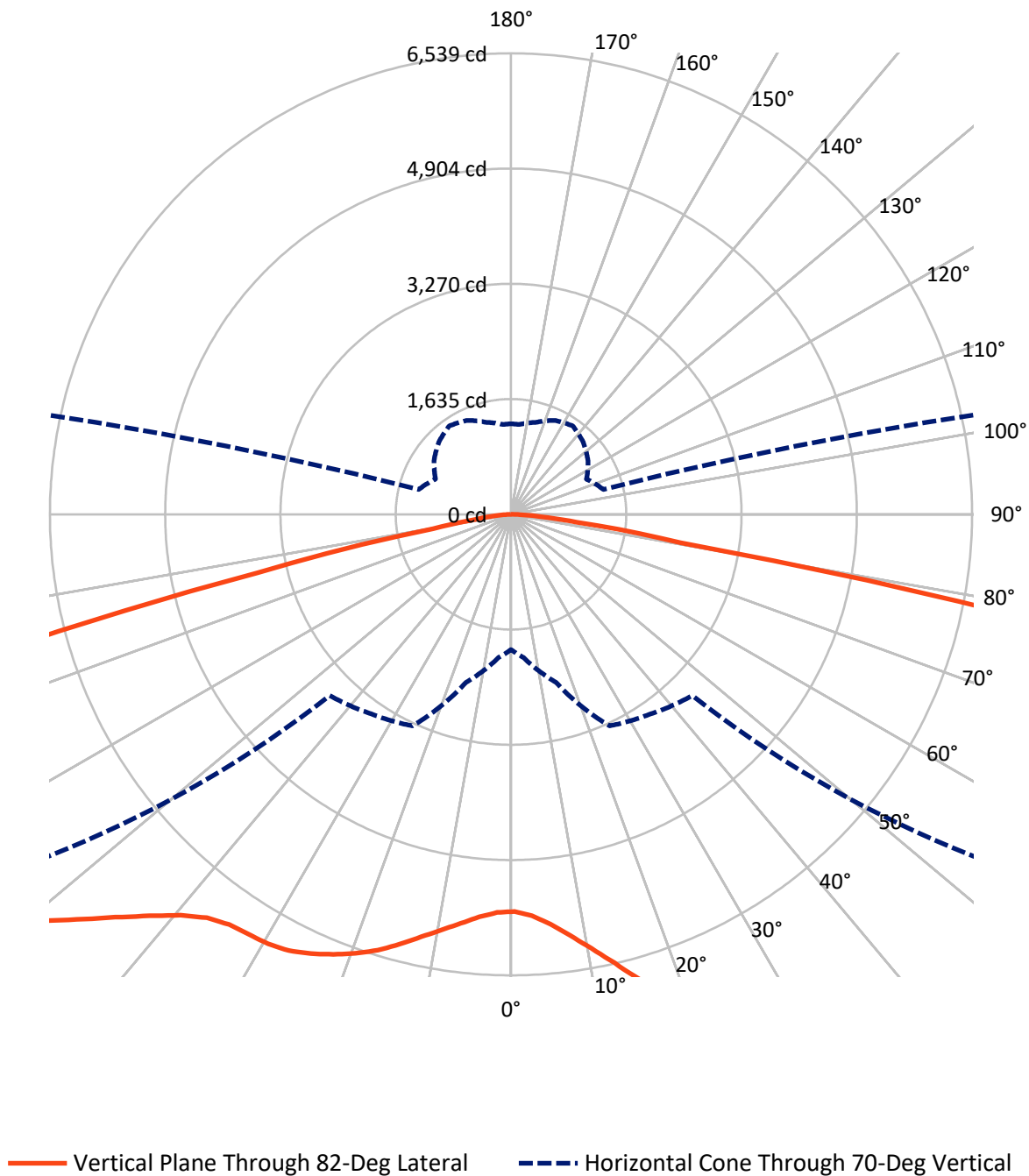
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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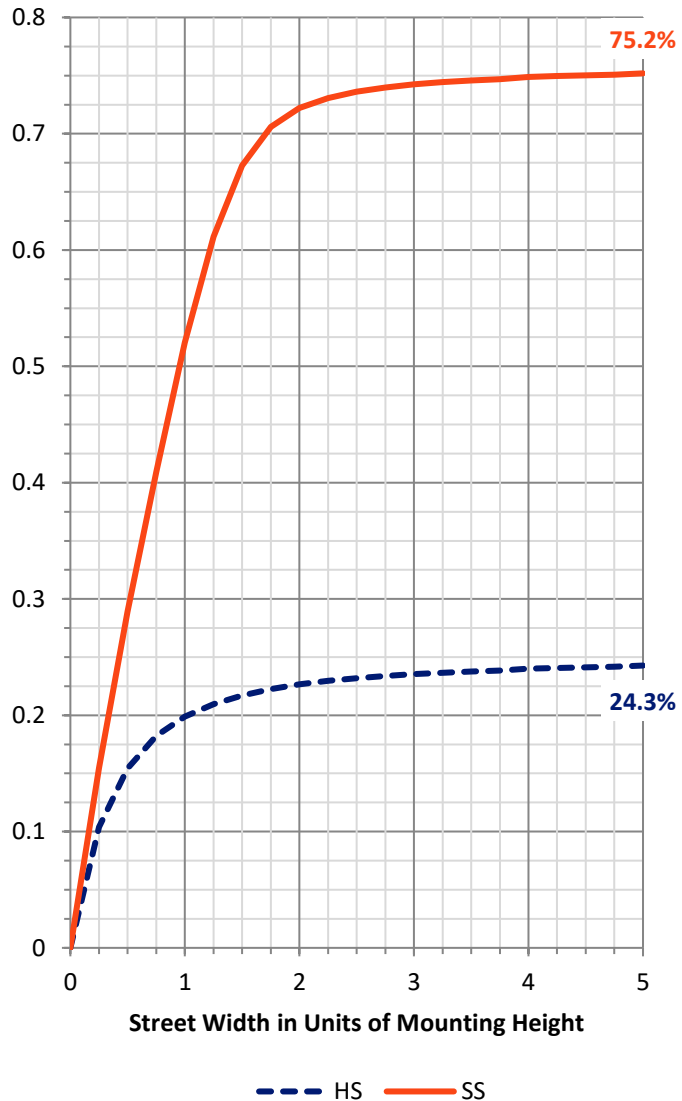
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9471.2	0.0	9471.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	28947.8	0.0	28947.8
	% Fixture	75.3	0.0	75.3
Total	Lumens	38419.0	0.0	38419.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	531.8	1.4
10°-20°	1528.0	4.0
20°-30°	2556.1	6.7
30°-40°	3993.4	10.4
40°-50°	6359.9	16.6
50°-60°	8850.6	23.0
60°-70°	9258.1	24.1
70°-80°	4838.8	12.6
80°-90°	502.4	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°	38419.0	100.0
0°-180°	38419.0	100.0

Coefficient of Utilization



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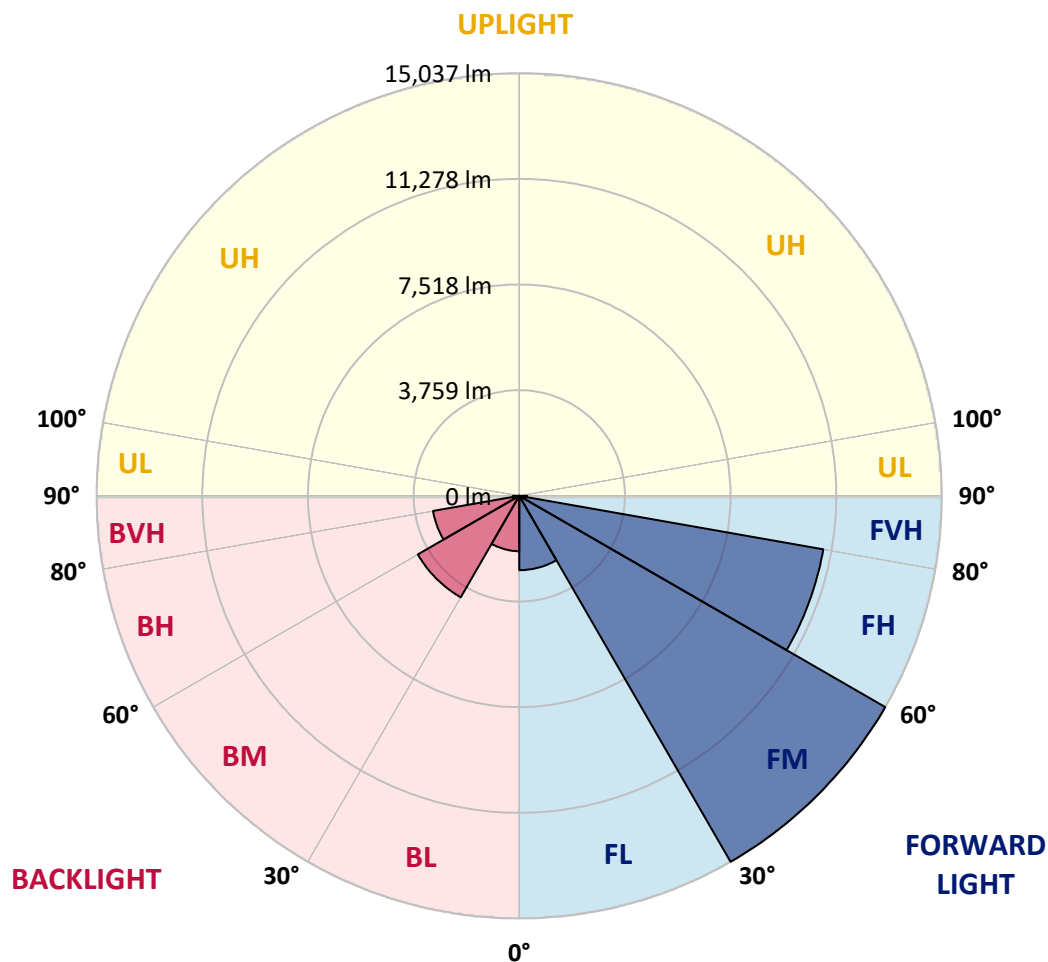
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2645.6	6.9			
FM	(30°-60°)	15036.8	39.1			
FH	(60°-80°)	10984.1	28.6			G4/12000
FVH	(80°-90°)	281.3	0.7			G3/500
BL	(0°-30°)	1970.4	5.1	B3/2500		
BM	(30°-60°)	4167.0	10.8	B3/5000		
BH	(60°-80°)	3112.7	8.1	B4/5000		G4/5000
BVH	(80°-90°)	221.2	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7
2.5°	5767.3	5799.9	5789.7	5779.5	5779.5	5765.2	5763.2	5742.8	5726.5	5700.0	5693.9
5°	5840.7	5875.3	5871.2	5879.4	5905.8	5912.0	5918.1	5905.8	5873.2	5840.7	5826.4
7.5°	5775.5	5814.1	5826.4	5875.3	5956.9	6030.3	6085.3	6107.7	6077.1	6030.3	6007.8
10°	5555.3	5598.0	5640.9	5757.1	5901.8	6075.1	6221.9	6309.5	6303.4	6258.5	6219.8
12.5°	5108.8	5153.6	5245.3	5471.7	5736.7	6042.5	6315.6	6499.1	6562.4	6529.7	6462.4
15°	4752.0	4790.7	4860.0	5092.5	5437.0	5901.8	6350.3	6707.1	6868.1	6849.8	6768.2
17.5°	4741.9	4758.2	4801.0	4911.1	5176.0	5681.7	6313.6	6911.0	7218.8	7216.7	7114.8
20°	4921.2	4927.4	4951.8	4974.2	5125.1	5514.5	6219.8	7080.1	7612.3	7612.3	7502.2
22.5°	5169.9	5165.9	5190.3	5169.9	5243.4	5500.3	6160.8	7228.9	8050.6	8083.2	7944.5
25°	5543.0	5522.6	5516.5	5469.6	5483.9	5632.7	6226.0	7398.1	8570.3	8637.7	8464.3
27.5°	6040.4	6007.8	5985.4	5877.3	5840.7	5905.8	6425.7	7602.0	9149.4	9265.5	9045.3
30°	6688.7	6629.6	6597.0	6409.4	6276.9	6287.1	6727.5	7873.1	9754.8	9942.4	9663.1
32.5°	7573.5	7481.8	7394.0	7086.2	6843.6	6764.2	7116.8	8248.3	10411.2	10710.9	10352.1
35°	8564.3	8490.9	8397.1	7922.1	7549.0	7365.5	7642.8	8772.2	11179.8	11654.8	11188.0
37.5°	9518.4	9455.1	9500.0	8859.9	8378.8	8111.6	8331.8	9475.5	12127.8	12829.0	12235.8
40°	10505.0	10456.1	10462.2	9850.7	9290.0	8990.3	9167.7	10358.2	13214.3	14225.5	13495.7
42.5°	11577.4	11540.7	11418.3	10876.1	10246.1	9966.8	10129.9	11377.5	14380.4	15815.6	14877.9
45°	12778.1	12755.6	12641.5	12019.8	11298.1	10984.1	11204.3	12502.8	15552.6	17311.9	16266.1
47.5°	13815.8	13834.1	13819.9	13295.9	12547.7	12087.0	12350.0	13677.1	16643.3	18718.7	17597.4
50°	14315.3	14411.0	14551.7	14388.6	13923.8	13454.9	13505.9	14810.6	17683.0	20037.6	18873.5
52.5°	14054.3	14235.7	14619.0	14879.9	15059.3	14961.4	14824.9	15935.9	18661.6	21228.2	20080.5
55°	13081.9	13336.7	13972.7	14602.7	15518.0	16229.4	16408.9	17183.5	19615.6	22276.0	21222.0
57.5°	11310.3	11724.2	12295.0	13569.1	15110.2	16843.1	18255.9	18914.3	20626.8	23395.2	22416.6
60°	8272.8	8827.2	9536.7	11432.5	13683.2	16514.9	19827.6	21572.7	22064.0	24844.7	23972.2
62.5°	5294.3	5636.8	6289.2	8074.9	10661.9	14833.0	20308.7	24895.6	24500.2	27221.7	26304.4
65°	3624.7	3844.9	4442.1	5445.2	6892.6	11041.2	19020.3	27386.9	28369.4	30989.1	30291.9
67.5°	2633.9	2801.0	3310.7	4189.4	4491.0	6533.8	14759.6	27272.7	32130.7	34870.6	33786.0
70°	1920.3	2038.6	2466.8	3310.7	3455.5	3634.9	8941.4	23183.2	32049.2	35902.2	34603.6
72.5°	1423.0	1504.5	1791.9	2568.6	2797.0	2454.5	4425.8	16849.3	27539.7	32473.2	31431.5
75°	1029.5	1090.7	1302.7	1965.2	2238.4	1869.4	2207.8	9846.6	19209.9	22842.7	23026.2
77.5°	786.9	833.8	972.4	1439.3	1791.9	1402.6	1369.9	4529.8	9108.6	9153.5	9667.2
80°	632.0	662.6	738.0	1013.2	1374.0	1049.9	892.9	1828.6	2878.5	2436.1	2556.5
82.5°	464.8	515.8	623.8	711.5	982.6	723.8	544.3	923.5	1094.7	941.9	950.0
85°	265.1	299.7	377.1	509.6	627.9	442.4	311.9	409.8	509.6	417.9	373.1
87.5°	93.8	122.3	132.5	199.8	273.2	183.5	120.2	118.3	167.2	124.3	103.9
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°	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7	5632.7
2.5°	5673.5	5663.3	5622.5	5567.5	5510.4	5455.4	5437.0	5398.3	5371.8	5357.5	5373.8
5°	5787.7	5755.1	5659.2	5536.9	5408.5	5269.8	5171.9	5082.3	5017.1	4955.9	4980.4
7.5°	5950.7	5893.6	5728.5	5514.5	5286.1	5055.8	4884.5	4754.1	4666.4	4609.3	4621.5
10°	6140.4	6052.6	5799.9	5479.9	5127.2	4796.9	4595.1	4482.9	4427.9	4397.4	4405.4
12.5°	6358.5	6234.2	5873.2	5400.3	4884.5	4507.4	4368.8	4336.2	4338.2	4340.3	4344.3
15°	6627.5	6454.3	5932.4	5227.0	4568.5	4285.2	4260.7	4313.7	4368.8	4395.3	4393.3
17.5°	6931.4	6686.7	5942.5	4941.6	4258.7	4142.4	4219.9	4334.1	4417.6	4454.3	4462.5
20°	7257.5	6923.2	5869.2	4538.0	4003.9	4026.3	4164.9	4311.7	4403.4	4450.3	4462.5
22.5°	7630.6	7175.9	5693.9	4113.9	3795.9	3899.9	4063.0	4205.7	4301.5	4348.4	4360.7
25°	8056.6	7459.3	5418.7	3757.1	3616.5	3757.1	3920.3	4038.5	4116.0	4158.8	4171.0
27.5°	8529.6	7754.9	5051.7	3473.8	3459.6	3610.4	3744.9	3836.7	3877.5	3910.1	3922.3
30°	9004.6	8024.0	4607.3	3259.8	3322.9	3465.6	3561.5	3602.3	3614.5	3620.6	3634.9
32.5°	9518.4	8256.4	4140.5	3082.4	3192.5	3325.0	3382.1	3400.4	3343.3	3304.6	3316.8
35°	10140.1	8505.1	3683.7	2941.7	3064.0	3178.2	3196.6	3180.3	3112.9	3033.5	3037.6
37.5°	10908.7	8815.0	3318.8	2841.8	2943.8	3019.2	2996.8	2992.7	2998.8	2905.1	2911.1
40°	11850.5	9218.6	3051.8	2764.3	2845.9	2862.2	2799.1	2833.7	2864.3	2721.6	2725.7
42.5°	12896.3	9705.9	2882.6	2711.3	2764.3	2725.7	2627.8	2666.5	2662.4	2474.9	2472.8
45°	13962.6	10236.0	2823.5	2672.6	2689.0	2611.5	2503.5	2513.6	2428.0	2258.8	2264.9
47.5°	15022.6	10804.7	2860.2	2640.0	2595.2	2507.5	2423.9	2379.0	2252.6	2126.3	2126.3
50°	16062.3	11402.0	2994.7	2574.8	2466.8	2415.7	2354.6	2275.1	2140.5	2032.5	2024.4
52.5°	17026.6	12003.4	3145.6	2466.8	2305.6	2336.3	2297.5	2205.8	2073.3	1963.2	1965.2
55°	17939.9	12604.8	3204.8	2317.9	2154.9	2267.0	2244.5	2075.3	1916.3	1826.7	1818.5
57.5°	18934.7	13328.5	3139.5	2128.3	2032.5	2187.5	2101.9	1914.3	1822.6	1755.2	1749.2
60°	20312.8	14464.0	2998.8	1893.9	1916.3	2069.2	1922.4	1845.0	1745.1	1669.6	1665.5
62.5°	22602.2	16582.1	2772.5	1661.5	1779.7	1893.9	1836.8	1759.3	1657.4	1584.0	1584.0
65°	25986.3	19525.9	2346.4	1480.0	1626.8	1722.6	1745.1	1667.6	1561.6	1484.1	1488.2
67.5°	28840.4	21372.9	1775.6	1329.2	1469.8	1584.0	1647.2	1571.7	1459.7	1384.3	1386.3
70°	28683.4	20031.5	1355.7	1180.4	1331.3	1447.4	1529.0	1469.8	1349.6	1278.2	1284.3
72.5°	25476.7	16757.5	1096.8	1029.5	1190.5	1304.7	1402.6	1357.7	1235.4	1166.1	1166.1
75°	18716.6	11895.3	876.6	876.6	1015.3	1155.9	1263.9	1235.4	1123.3	1074.4	1060.1
77.5°	7889.4	4990.5	687.1	727.7	844.0	992.8	1127.4	1137.5	1039.7	1100.8	999.0
80°	2097.8	1376.1	523.9	572.9	662.6	819.5	980.6	976.5	870.5	813.4	756.3
82.5°	799.1	542.2	373.1	403.6	479.1	627.9	776.7	801.1	695.2	601.4	601.4
85°	307.8	232.4	230.3	242.6	279.3	415.8	587.1	607.5	523.9	444.4	458.7
87.5°	79.5	69.3	85.6	81.6	128.4	222.2	336.4	348.6	320.1	185.5	265.1
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)