

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: P967362

Luminaire Tested: **NAV-SB4D-830-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967362
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-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37217.7 lumens
Efficiency: N/A
Efficacy: 126.8 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



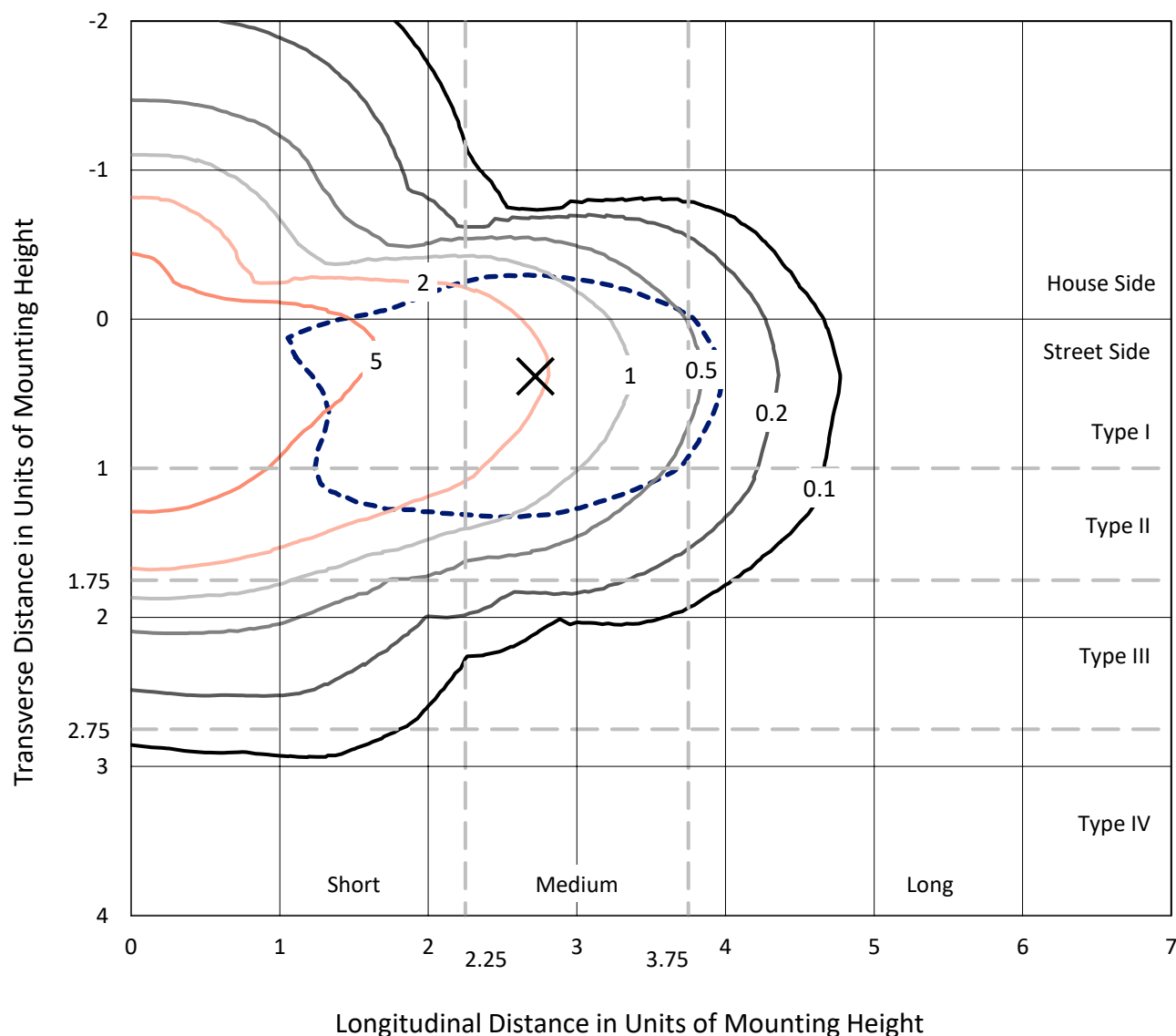
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

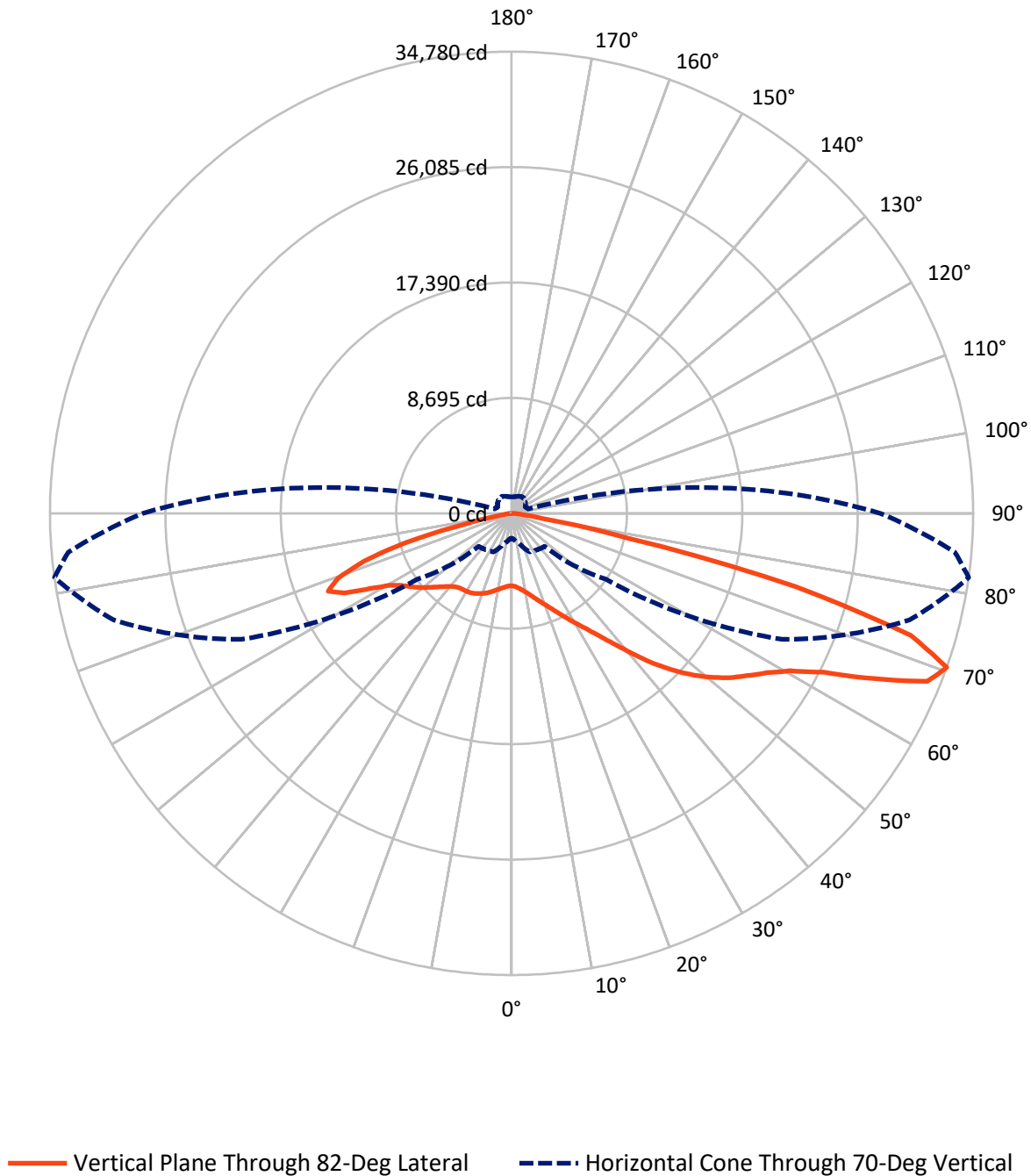
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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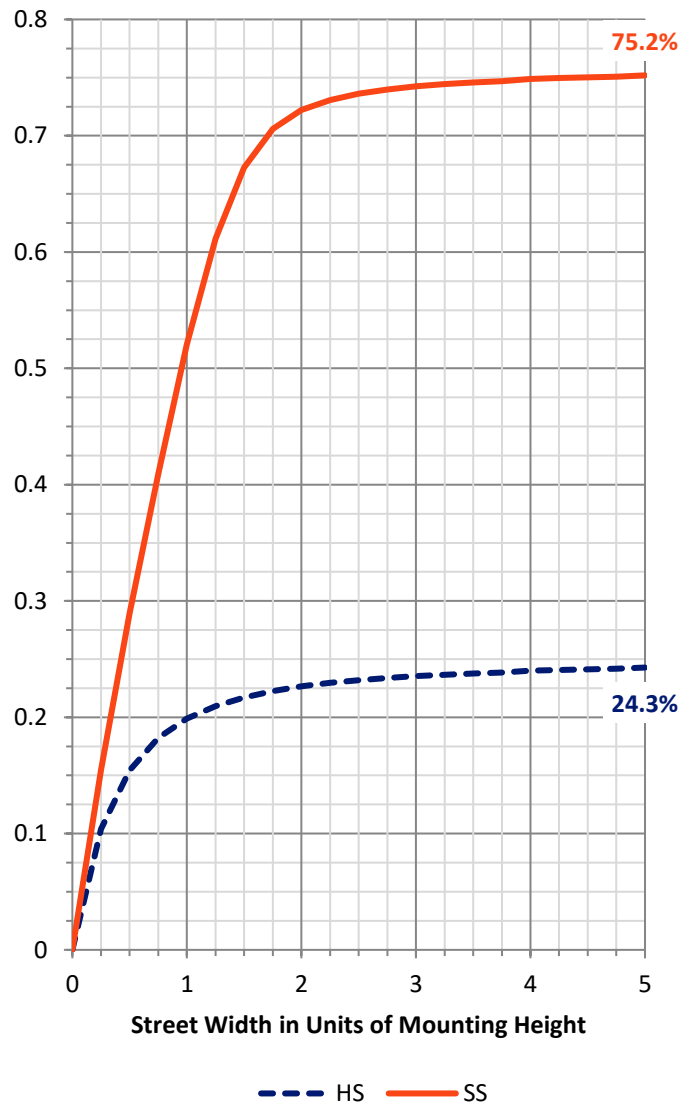
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9175.1	0.0	9175.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	28042.7	0.0	28042.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	37217.7	0.0	37217.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	515.2	1.4
10°-20°	1480.2	4.0
20°-30°	2476.2	6.7
30°-40°	3868.5	10.4
40°-50°	6161.0	16.6
50°-60°	8573.8	23.0
60°-70°	8968.6	24.1
70°-80°	4687.5	12.6
80°-90°	486.7	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°	37217.7	100.0
0°-180°	37217.7	100.0

Coefficient of Utilization



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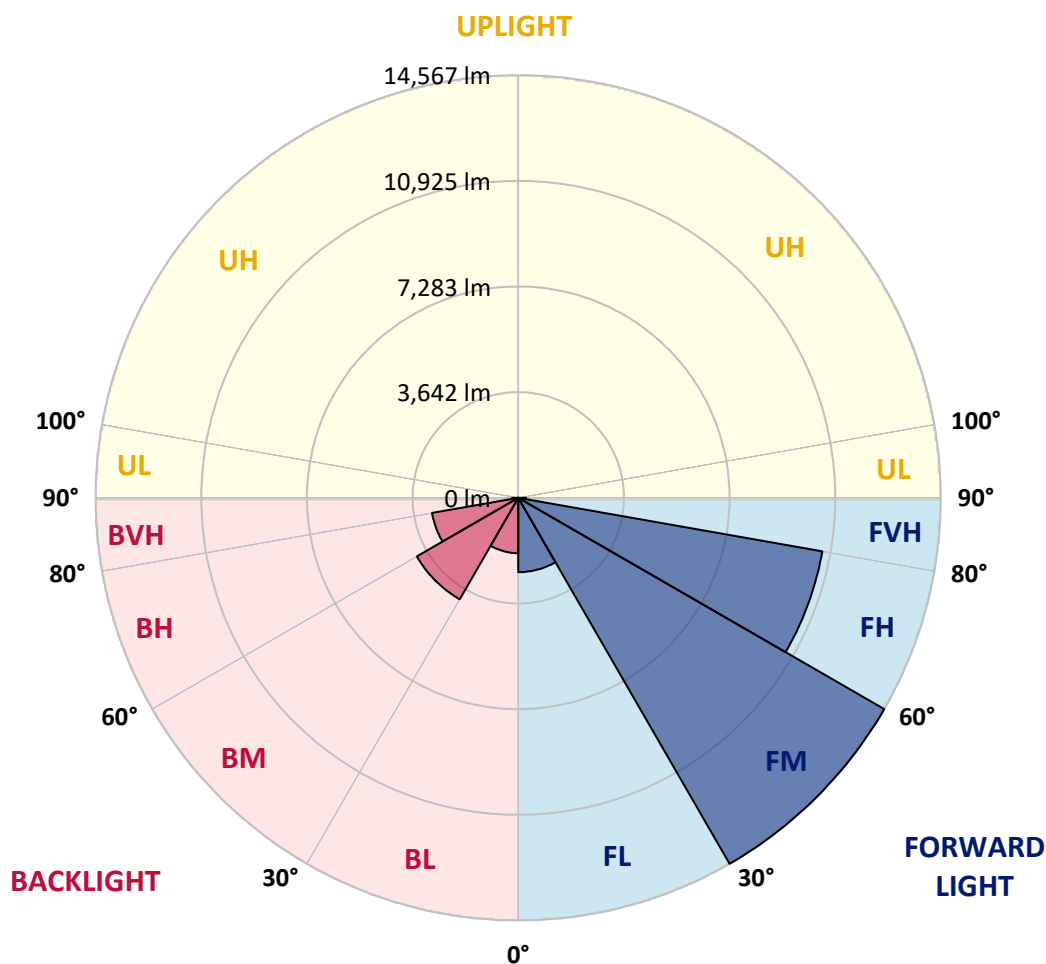
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2562.9	6.9			
FM	(30°-60°)	14566.7	39.1			
FH	(60°-80°)	10640.7	28.6			G4/12000
FVH	(80°-90°)	272.5	0.7			G3/500
BL	(0°-30°)	1908.8	5.1	B3/2500		
BM	(30°-60°)	4036.7	10.8	B3/5000		
BH	(60°-80°)	3015.4	8.1	B4/5000		G4/5000
BVH	(80°-90°)	214.3	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°	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6
2.5°	5587.0	5618.5	5608.7	5598.8	5598.8	5584.9	5583.0	5563.2	5547.4	5521.8	5515.8
5°	5658.0	5691.6	5687.6	5695.5	5721.2	5727.2	5733.0	5721.2	5689.7	5658.0	5644.2
7.5°	5594.9	5632.4	5644.2	5691.6	5770.5	5841.7	5895.0	5916.7	5887.1	5841.7	5820.0
10°	5381.6	5423.0	5464.5	5577.0	5717.2	5885.1	6027.3	6112.3	6106.3	6062.9	6025.4
12.5°	4949.0	4992.5	5081.3	5300.6	5557.3	5853.6	6118.1	6296.0	6357.2	6325.6	6260.4
15°	4603.5	4641.0	4708.1	4933.2	5267.0	5717.2	6151.7	6497.4	6653.4	6635.5	6556.6
17.5°	4593.5	4609.3	4650.8	4757.4	5014.2	5503.9	6116.2	6694.8	6993.1	6991.1	6892.3
20°	4767.4	4773.3	4797.0	4818.7	4964.8	5342.1	6025.4	6858.8	7374.2	7374.2	7267.6
22.5°	5008.3	5004.4	5028.0	5008.3	5079.4	5328.3	5968.1	7002.9	7798.8	7830.4	7696.1
25°	5369.7	5350.0	5344.0	5298.6	5312.5	5456.6	6031.3	7166.8	8302.4	8367.6	8199.7
27.5°	5851.5	5820.0	5798.2	5693.6	5658.0	5721.2	6224.8	7364.3	8863.3	8975.8	8762.5
30°	6479.5	6422.3	6390.7	6209.0	6080.6	6090.5	6517.1	7627.0	9449.8	9631.5	9360.9
32.5°	7336.6	7247.8	7162.9	6864.6	6629.7	6552.6	6894.3	7990.4	10085.7	10376.0	10028.4
35°	8296.5	8225.3	8134.5	7674.4	7313.0	7135.2	7403.8	8497.9	10830.3	11290.4	10838.1
37.5°	9220.7	9159.5	9203.0	8582.8	8116.8	7858.1	8071.4	9179.2	11748.6	12427.9	11853.2
40°	10176.5	10129.2	10135.1	9542.6	8999.5	8709.2	8881.0	10034.3	12801.1	13780.7	13073.7
42.5°	11215.3	11179.8	11061.3	10536.0	9925.7	9655.2	9813.1	11021.8	13930.8	15321.1	14412.6
45°	12378.5	12356.8	12246.2	11643.9	10944.7	10640.6	10853.9	12111.9	15066.4	16770.6	15757.5
47.5°	13383.7	13401.6	13387.7	12880.2	12155.4	11709.1	11963.8	13249.5	16122.9	18133.4	17047.2
50°	13867.6	13960.4	14096.7	13938.7	13488.4	13034.2	13083.6	14347.4	17130.1	19411.0	18283.4
52.5°	13614.8	13790.6	14161.8	14414.7	14588.4	14493.6	14361.3	15437.6	18078.0	20564.4	19452.6
55°	12672.8	12919.6	13535.8	14146.0	15032.8	15722.0	15895.8	16646.2	19002.3	21579.5	20558.5
57.5°	10956.6	11357.5	11910.5	13144.8	14637.8	16316.5	17685.0	18322.9	19981.9	22663.7	21715.8
60°	8014.1	8551.3	9238.4	11075.1	13255.4	15998.5	19207.7	20898.1	21374.1	24067.8	23222.6
62.5°	5128.8	5460.6	6092.5	7822.5	10328.6	14369.2	19673.7	24117.2	23734.1	26370.6	25481.8
65°	3511.3	3724.6	4303.3	5274.9	6677.1	10696.0	18425.6	26530.5	27482.4	30020.1	29344.7
67.5°	2551.5	2713.5	3207.2	4058.4	4350.6	6329.5	14298.1	26419.9	31126.1	33780.3	32729.7
70°	1860.4	1974.9	2389.6	3207.2	3347.4	3521.2	8661.9	22458.3	31047.0	34779.6	33521.6
72.5°	1378.4	1457.4	1735.9	2488.4	2709.5	2377.8	4287.5	16322.4	26678.6	31457.9	30448.6
75°	997.3	1056.6	1262.0	1903.7	2168.4	1811.0	2138.8	9538.6	18609.3	22128.5	22306.3
77.5°	762.3	807.7	942.0	1394.3	1735.9	1358.7	1327.1	4388.1	8823.7	8867.2	9364.9
80°	612.2	641.9	714.9	981.5	1331.1	1017.1	865.0	1771.5	2788.5	2360.0	2476.5
82.5°	450.3	499.7	604.3	689.2	951.9	701.1	527.3	894.6	1060.5	912.4	920.2
85°	256.8	290.3	365.3	493.7	608.2	428.6	302.2	397.0	493.7	404.9	361.4
87.5°	90.8	118.5	128.3	193.5	264.7	177.7	116.5	114.5	162.0	120.4	100.8
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°	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6	5456.6
2.5°	5496.0	5486.2	5446.7	5393.3	5338.1	5284.8	5267.0	5229.4	5203.8	5190.0	5205.8
5°	5606.6	5575.1	5482.2	5363.7	5239.4	5105.0	5010.3	4923.4	4860.1	4800.9	4824.7
7.5°	5764.7	5709.4	5549.5	5342.1	5120.9	4897.7	4731.8	4605.4	4520.5	4465.2	4477.1
10°	5948.4	5863.4	5618.5	5308.5	4966.8	4646.8	4451.4	4342.7	4289.4	4259.8	4267.7
12.5°	6159.6	6039.2	5689.7	5231.5	4731.8	4366.5	4232.1	4200.6	4202.5	4204.5	4208.4
15°	6420.3	6252.5	5746.9	5063.6	4425.7	4151.1	4127.5	4178.8	4232.1	4257.8	4255.9
17.5°	6714.6	6477.6	5756.8	4787.1	4125.5	4013.0	4088.0	4198.6	4279.6	4315.1	4323.0
20°	7030.6	6706.7	5685.7	4396.1	3878.7	3900.4	4034.7	4176.9	4265.7	4311.2	4323.0
22.5°	7392.0	6951.6	5515.8	3985.3	3677.2	3777.9	3935.9	4074.2	4167.0	4212.4	4224.2
25°	7804.8	7226.0	5249.2	3639.7	3503.4	3639.7	3797.7	3912.2	3987.2	4028.8	4040.6
27.5°	8262.9	7512.4	4893.8	3365.2	3351.3	3497.5	3627.9	3716.8	3756.2	3787.8	3799.7
30°	8723.1	7773.1	4463.3	3157.8	3219.0	3357.3	3450.2	3489.6	3501.5	3507.3	3521.2
32.5°	9220.7	7998.3	4010.9	2986.0	3092.6	3221.1	3276.3	3294.1	3238.8	3201.3	3213.2
35°	9823.1	8239.2	3568.6	2849.7	2968.2	3078.8	3096.6	3080.8	3015.7	2938.6	2942.6
37.5°	10567.5	8539.4	3215.1	2752.9	2851.8	2924.8	2903.1	2899.1	2905.1	2814.2	2820.1
40°	11480.0	8930.4	2956.4	2677.9	2756.9	2772.7	2711.5	2745.1	2774.7	2636.5	2640.4
42.5°	12493.1	9402.4	2792.5	2626.6	2677.9	2640.4	2545.6	2583.1	2579.2	2397.5	2395.5
45°	13525.9	9915.8	2735.2	2589.0	2604.8	2529.8	2425.1	2435.0	2352.1	2188.2	2194.1
47.5°	14552.8	10466.9	2770.8	2557.5	2514.0	2429.1	2348.2	2304.7	2182.2	2059.8	2059.8
50°	15560.0	11045.5	2901.1	2494.2	2389.6	2340.3	2281.0	2204.0	2073.6	1968.9	1961.0
52.5°	16494.2	11628.1	3047.2	2389.6	2233.6	2263.2	2225.7	2136.8	2008.5	1901.8	1903.7
55°	17378.9	12210.6	3104.5	2245.5	2087.4	2196.1	2174.3	2010.4	1856.4	1769.5	1761.6
57.5°	18342.7	12911.7	3041.3	2061.8	1968.9	2119.1	2036.1	1854.4	1765.6	1700.4	1694.4
60°	19677.6	14011.7	2905.1	1834.6	1856.4	2004.5	1862.3	1787.3	1690.5	1617.4	1613.5
62.5°	21895.4	16063.7	2685.8	1609.6	1724.0	1834.6	1779.4	1704.4	1605.6	1534.5	1534.5
65°	25173.8	18915.4	2273.0	1433.8	1575.9	1668.8	1690.5	1615.4	1512.8	1437.7	1441.7
67.5°	27938.6	20704.6	1720.2	1287.6	1423.9	1534.5	1595.7	1522.6	1414.0	1340.9	1343.0
70°	27786.5	19405.2	1313.3	1143.5	1289.6	1402.2	1481.1	1423.9	1307.4	1238.2	1244.1
72.5°	24680.1	16233.5	1062.5	997.3	1153.3	1263.9	1358.7	1315.3	1196.8	1129.7	1129.7
75°	18131.3	11523.5	849.2	849.2	983.5	1119.7	1224.5	1196.8	1088.1	1040.8	1026.9
77.5°	7642.8	4834.5	665.5	705.0	817.6	961.8	1092.1	1102.0	1007.2	1066.4	967.7
80°	2032.2	1333.0	507.6	554.9	641.9	793.9	949.9	946.0	843.3	788.0	732.7
82.5°	774.2	525.3	361.4	391.0	464.1	608.2	752.5	776.1	673.4	582.6	582.6
85°	298.2	225.1	223.1	235.0	270.6	402.8	568.8	588.6	507.6	430.5	444.3
87.5°	77.0	67.1	82.9	79.0	124.4	215.2	325.8	337.7	310.1	179.7	256.8
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)