

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: P967337

Luminaire Tested: **NAV-SB4D-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967337
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35927.3 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

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



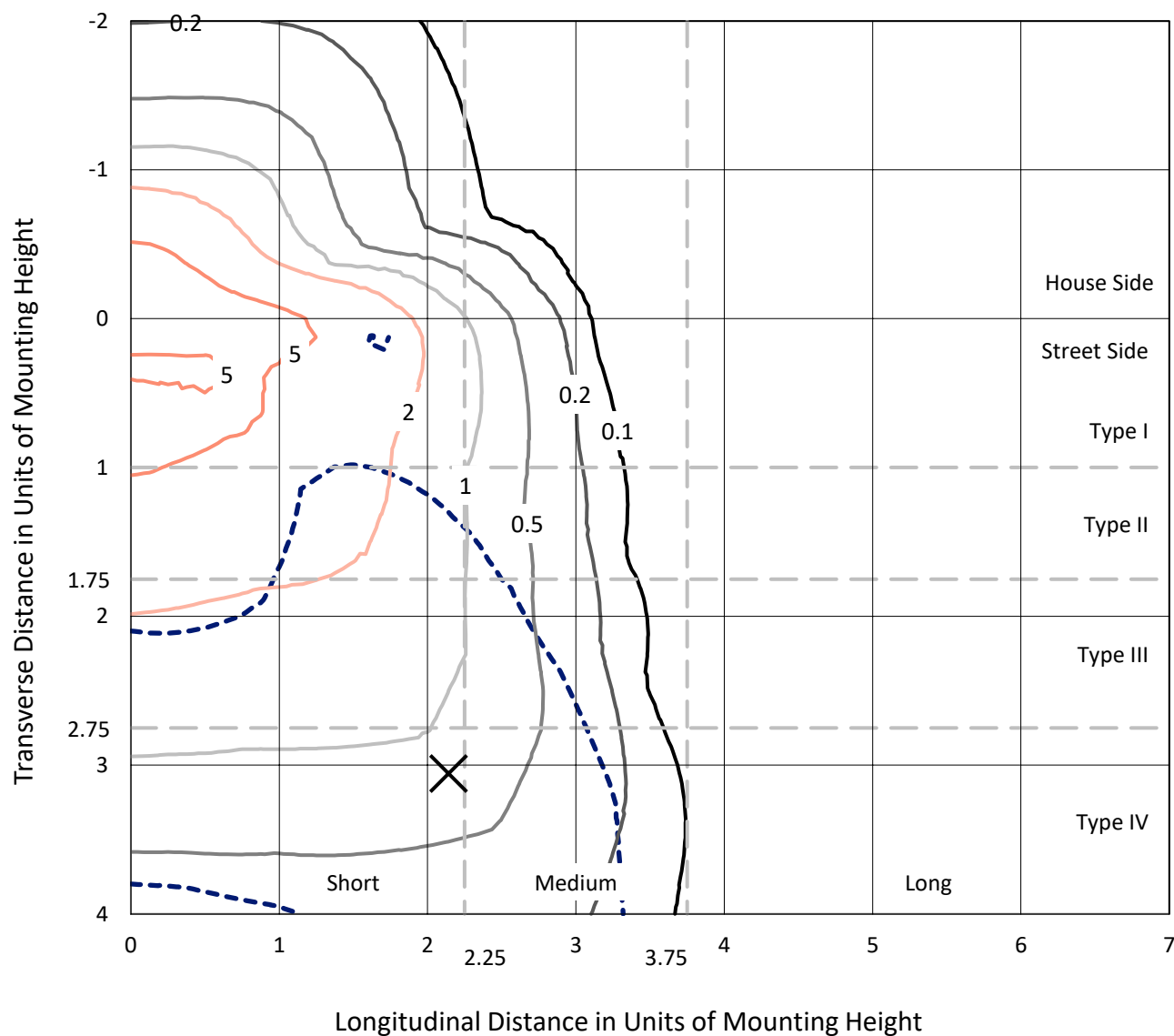
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

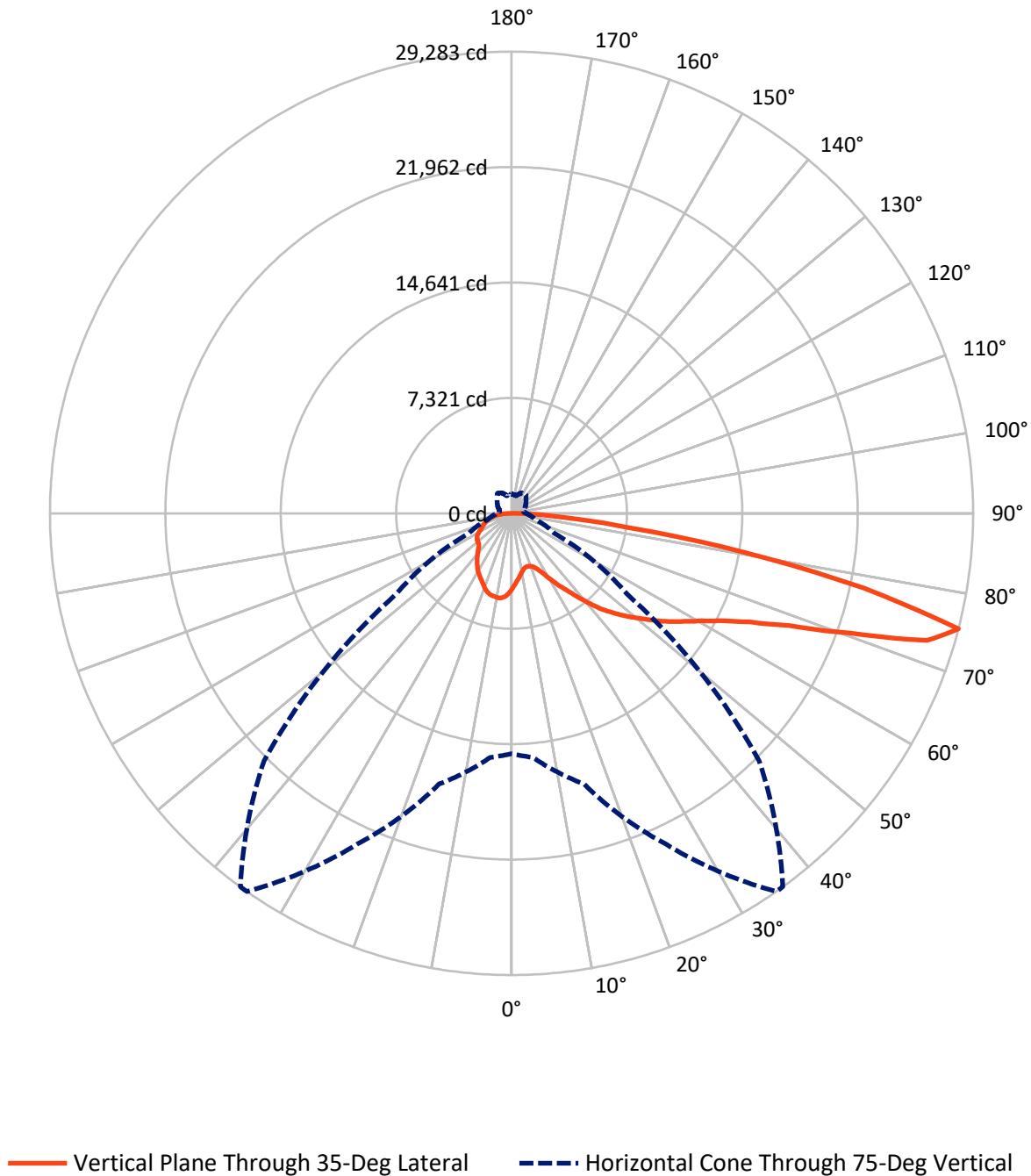


Based on 25 foot mounting height. Maximum calculated value = 8.5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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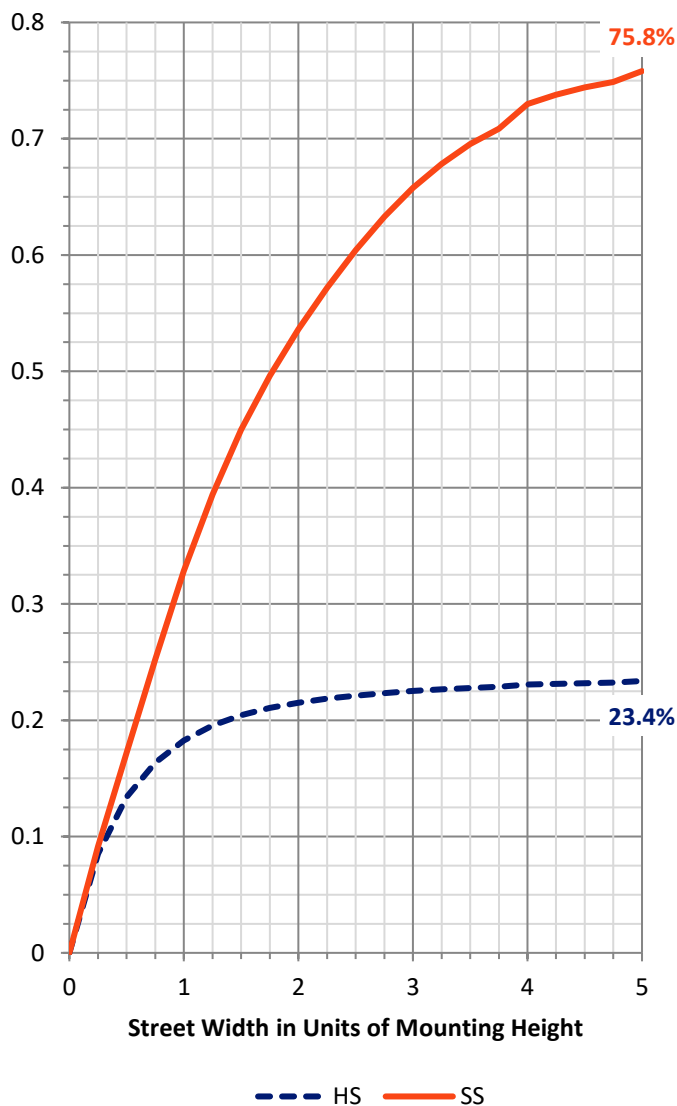
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8549.8	0.0	8549.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	27377.5	0.0	27377.5
	% Fixture	76.2	0.0	76.2
Total	Lumens	35927.3	0.0	35927.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.3	1.3
10°-20°	1307.5	3.6
20°-30°	2195.6	6.1
30°-40°	3412.2	9.5
40°-50°	5064.7	14.1
50°-60°	6992.1	19.5
60°-70°	8483.0	23.6
70°-80°	7010.6	19.5
80°-90°	1008.3	2.8
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°	35927.3	100.0
0°-180°	35927.3	100.0

Coefficient of Utilization



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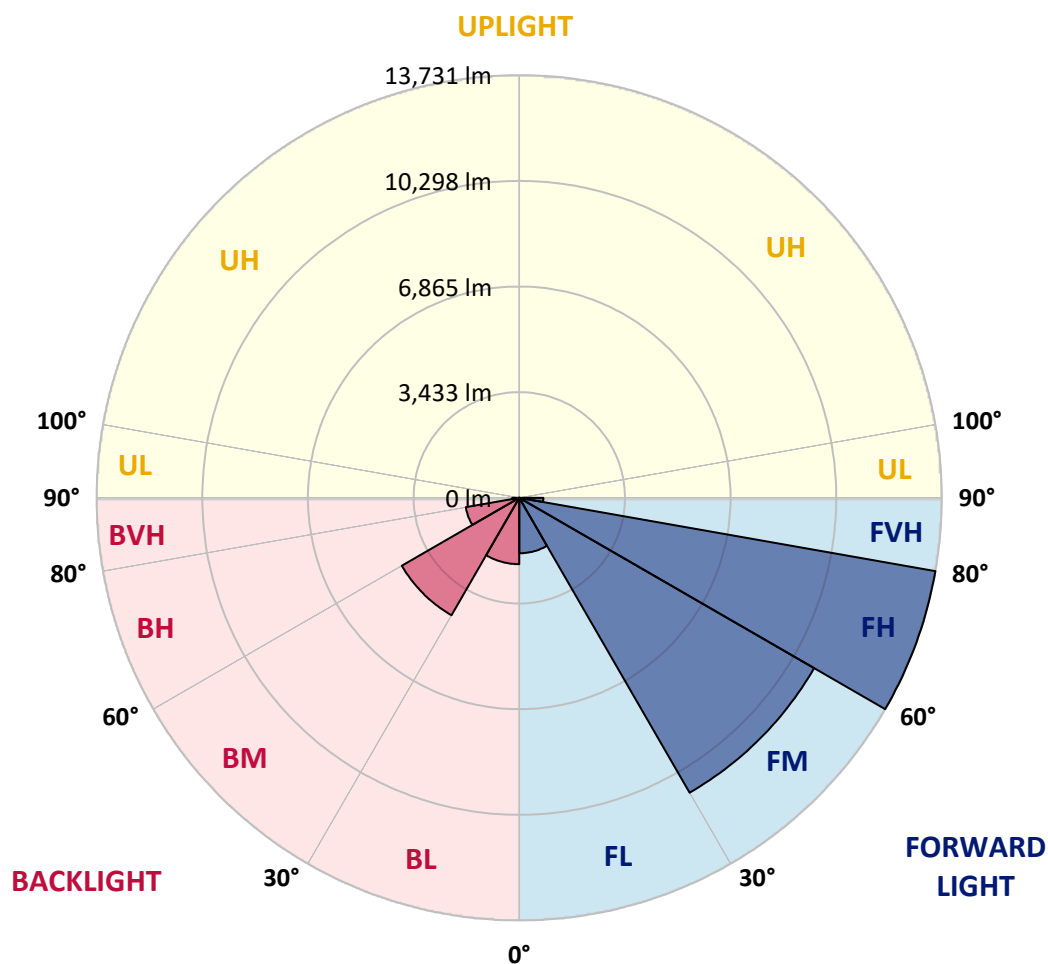
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1801.7	5.0			
FM	(30°-60°)	11063.6	30.8			
FH	(60°-80°)	13730.9	38.2			G5
FVH	(80°-90°)	781.3	2.2			G5
BL	(0°-30°)	2154.7	6.0	B3/2500		
BM	(30°-60°)	4405.4	12.3	B3/5000		
BH	(60°-80°)	1762.7	4.9	B3/2500		G3/2500
BVH	(80°-90°)	227.1	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6
2.5°	4414.7	4441.8	4453.5	4447.7	4476.8	4472.9	4513.7	4564.2	4634.1	4702.1	4801.1
5°	4074.8	4103.9	4129.1	4152.5	4208.8	4226.3	4290.3	4387.4	4515.6	4645.8	4808.9
7.5°	3758.2	3783.5	3822.2	3865.0	3960.2	3977.6	4084.5	4235.9	4414.7	4605.0	4830.3
10°	3499.9	3525.1	3565.9	3614.5	3732.9	3754.3	3890.3	4092.2	4325.3	4566.2	4853.6
12.5°	3389.2	3397.0	3420.2	3468.8	3571.7	3585.3	3734.9	3966.0	4237.9	4537.0	4888.5
15°	3383.3	3398.9	3400.8	3426.1	3511.5	3517.4	3655.3	3884.4	4183.5	4531.2	4941.0
17.5°	3441.6	3453.2	3435.8	3451.3	3523.1	3532.9	3641.6	3845.6	4166.0	4556.4	5030.3
20°	3596.9	3606.7	3554.3	3532.9	3585.3	3593.1	3699.9	3870.8	4183.5	4608.9	5152.7
22.5°	3927.2	3933.0	3804.8	3717.4	3721.3	3725.2	3818.4	3973.7	4251.5	4704.0	5308.1
25°	4441.8	4437.9	4234.1	4065.0	3968.0	3946.6	4008.8	4140.8	4366.1	4830.3	5508.1
27.5°	5043.9	5014.8	4810.8	4558.4	4346.7	4315.6	4302.0	4358.3	4529.3	4997.3	5752.8
30°	5723.7	5696.5	5477.1	5146.8	4853.6	4803.0	4674.9	4645.8	4772.0	5224.5	6092.7
32.5°	6469.5	6452.1	6189.9	5789.7	5397.4	5339.1	5123.6	5045.9	5144.9	5568.3	6566.7
35°	7094.9	7079.4	6861.9	6450.1	5970.3	5898.5	5679.0	5591.6	5642.1	6009.2	7186.2
37.5°	7660.1	7652.3	7465.9	7141.5	6646.2	6558.9	6312.2	6283.0	6273.3	6589.9	7937.8
40°	8184.5	8165.0	7970.8	7799.9	7432.9	7353.2	7135.6	7110.4	7036.6	7304.7	8788.6
42.5°	8765.2	8714.8	8433.1	8353.4	8254.4	8188.3	8058.2	8062.1	7899.0	8110.7	9689.7
45°	9239.1	9209.9	8920.6	8873.9	8980.7	8953.6	9066.2	9095.3	8778.8	8955.5	10625.9
47.5°	9748.0	9720.8	9476.0	9443.0	9732.4	9740.2	10138.4	10148.0	9637.3	9833.4	11563.9
50°	10375.3	10336.4	10093.7	10134.5	10458.8	10487.9	11216.3	11150.3	10427.7	10724.9	12494.2
52.5°	10788.9	10812.3	10759.8	10825.8	11268.7	11295.9	12276.7	12107.7	11210.4	11604.7	13407.1
55°	11093.9	11140.5	11303.7	11455.2	12123.3	12150.5	13276.9	13018.6	11859.1	12420.4	14265.5
57.5°	11486.3	11420.2	11725.2	12020.4	12935.1	13006.9	14250.0	13896.5	12434.1	13123.5	14854.0
60°	12049.5	12002.9	12239.8	12676.8	13844.1	13958.7	15279.4	14687.0	12855.6	13681.0	14968.6
62.5°	13191.5	13075.0	13111.9	13498.3	14990.0	15141.5	16440.8	15376.5	13065.3	13898.5	14354.9
65°	14898.7	14698.7	14512.3	14780.2	16604.0	16753.5	17751.8	15918.4	12987.6	13477.0	12725.4
67.5°	17048.7	16850.6	16621.4	16874.0	18981.3	19099.7	19369.6	16223.3	12375.7	11853.3	9845.0
70°	18822.0	18748.2	19022.1	20061.1	22778.3	22782.2	21443.9	15970.8	10699.7	8404.0	5696.5
72.5°	18586.9	18542.2	19985.3	23197.8	27563.9	27461.0	23407.5	14059.7	7207.6	3791.2	2134.5
75°	15248.3	15537.7	17773.2	23141.4	29282.7	29269.2	22205.3	8938.1	2981.3	1571.2	1103.2
77.5°	8176.7	8635.1	11538.6	17085.6	22859.9	23203.6	15611.5	3127.0	1279.9	1006.0	763.3
80°	2666.6	3066.8	4599.2	8699.2	14854.0	14789.9	6690.9	1227.4	876.0	712.8	528.3
82.5°	1132.3	1179.0	2054.8	4107.8	7623.2	7504.7	2130.6	705.0	615.7	487.5	326.3
85°	442.8	495.3	907.0	1899.5	3301.7	3229.9	769.2	349.6	394.3	318.6	194.2
87.5°	145.7	176.7	324.3	650.7	1027.5	990.6	188.4	120.4	170.9	145.7	69.9
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°	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6	4787.6
2.5°	4828.4	4859.4	4896.3	4950.6	4997.3	5036.1	5076.9	5102.1	5111.9	5141.0	5139.0
5°	4863.3	4931.3	5022.6	5111.9	5199.3	5251.7	5298.3	5321.7	5343.0	5358.6	5362.5
7.5°	4921.5	5009.0	5152.7	5269.2	5343.0	5385.8	5416.8	5409.0	5416.8	5420.7	5426.6
10°	4972.1	5094.5	5265.3	5376.0	5432.4	5434.3	5426.6	5399.4	5385.8	5387.7	5391.6
12.5°	5032.2	5168.3	5352.8	5445.9	5461.5	5418.8	5385.8	5339.1	5321.7	5313.9	5310.0
15°	5113.8	5269.2	5447.9	5482.8	5444.0	5389.7	5333.3	5257.5	5218.7	5187.6	5197.4
17.5°	5212.9	5383.8	5521.7	5496.5	5412.9	5323.6	5232.3	5117.7	5038.1	5005.1	5007.0
20°	5350.8	5504.2	5578.0	5467.3	5341.1	5205.2	5049.8	4910.0	4836.2	4803.0	4799.3
22.5°	5517.8	5665.5	5632.4	5416.8	5238.2	5020.7	4826.4	4723.5	4686.6	4663.2	4667.1
25°	5717.9	5844.1	5671.2	5343.0	5069.1	4775.9	4626.3	4593.3	4575.8	4558.4	4558.4
27.5°	5978.1	6046.1	5700.4	5234.3	4805.0	4515.6	4461.2	4467.1	4461.2	4432.1	4437.9
30°	6321.9	6308.3	5727.6	5057.6	4502.0	4280.6	4284.5	4309.8	4313.6	4294.2	4304.0
32.5°	6774.4	6636.6	5741.1	4828.4	4212.6	4074.8	4078.7	4105.8	4125.2	4092.2	4107.8
35°	7322.2	7019.2	5719.8	4540.9	3989.3	3878.6	3849.5	3857.3	3863.0	3832.0	3853.4
37.5°	7961.2	7448.4	5624.7	4222.4	3804.8	3686.3	3624.2	3571.7	3540.7	3511.5	3530.9
40°	8662.3	7916.5	5449.8	3911.6	3598.9	3482.3	3389.2	3290.1	3185.2	3146.3	3163.9
42.5°	9396.4	8398.1	5238.2	3614.5	3362.0	3266.8	3167.8	3024.1	2866.7	2787.1	2796.8
45°	10157.8	8891.5	5030.3	3321.2	3119.2	3078.4	2963.8	2791.0	2620.0	2519.0	2511.2
47.5°	10903.5	9357.5	4725.4	3026.0	2891.9	2936.6	2847.2	2688.1	2497.7	2338.4	2320.9
50°	11616.3	9794.6	4226.3	2726.9	2707.4	2893.9	2808.4	2579.2	2361.7	2157.8	2140.3
52.5°	12323.4	10148.0	3587.3	2455.0	2608.4	2882.2	2758.0	2505.4	2239.4	2025.7	2002.4
55°	12923.5	10330.7	2971.6	2221.9	2464.7	2783.2	2697.7	2418.1	2066.5	1839.3	1819.9
57.5°	13265.3	10183.1	2458.9	1992.7	2266.6	2620.0	2594.8	2231.6	1860.7	1685.8	1662.6
60°	13117.7	9584.8	2039.3	1792.6	2078.2	2443.3	2416.1	2047.1	1703.3	1538.2	1514.9
62.5°	12303.9	8444.8	1707.2	1617.9	1907.2	2262.7	2237.5	1905.3	1582.9	1423.6	1398.4
65°	10664.7	6869.7	1448.9	1472.2	1734.4	2045.2	2082.1	1786.9	1487.7	1332.4	1307.1
67.5°	8134.0	4976.0	1246.9	1345.9	1565.4	1831.5	1938.4	1701.4	1408.1	1260.5	1237.2
70°	4636.1	2825.9	1075.9	1223.5	1415.8	1633.4	1827.6	1633.4	1322.7	1200.3	1184.8
72.5°	1757.7	1297.4	930.3	1101.3	1272.1	1466.4	1705.3	1526.5	1223.5	1132.3	1116.7
75°	938.1	790.5	782.7	957.6	1107.1	1303.2	1551.8	1421.7	1149.7	1196.4	1235.2
77.5°	639.0	559.3	654.6	819.6	926.4	1122.6	1388.7	1262.4	996.4	992.5	914.8
80°	442.8	396.2	532.2	660.3	716.7	943.9	1212.0	1083.7	811.8	757.5	724.5
82.5°	266.1	258.3	398.1	493.3	507.0	728.4	1004.1	909.0	664.2	578.8	582.7
85°	145.7	153.4	254.4	289.4	295.2	508.8	786.6	703.0	510.8	429.3	433.1
87.5°	40.8	52.5	93.3	114.6	141.8	264.1	468.1	417.6	256.4	178.7	178.7
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)