

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: P967368

Luminaire Tested: **NAV-SB4D-830-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967368
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-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37125.5 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

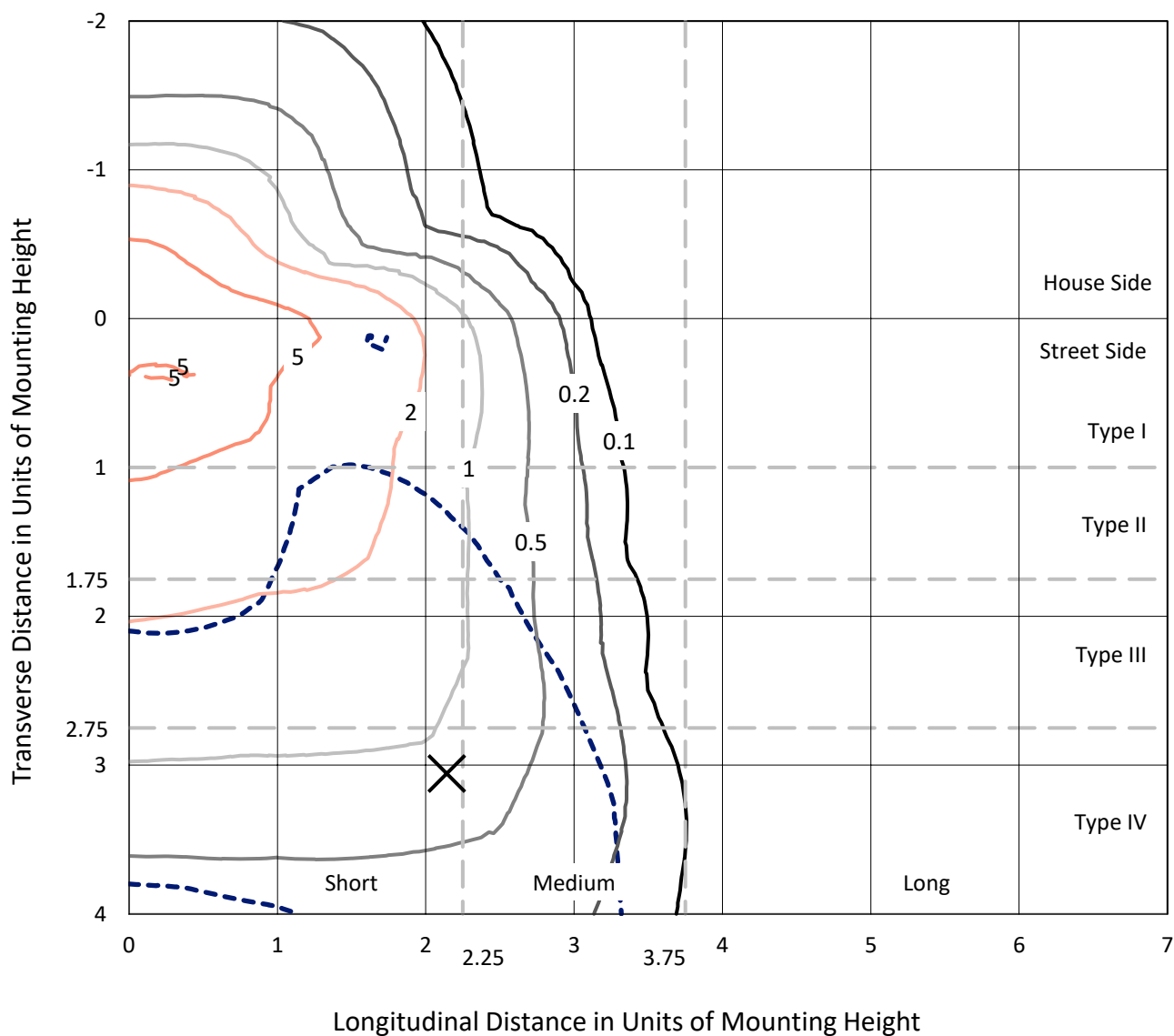
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

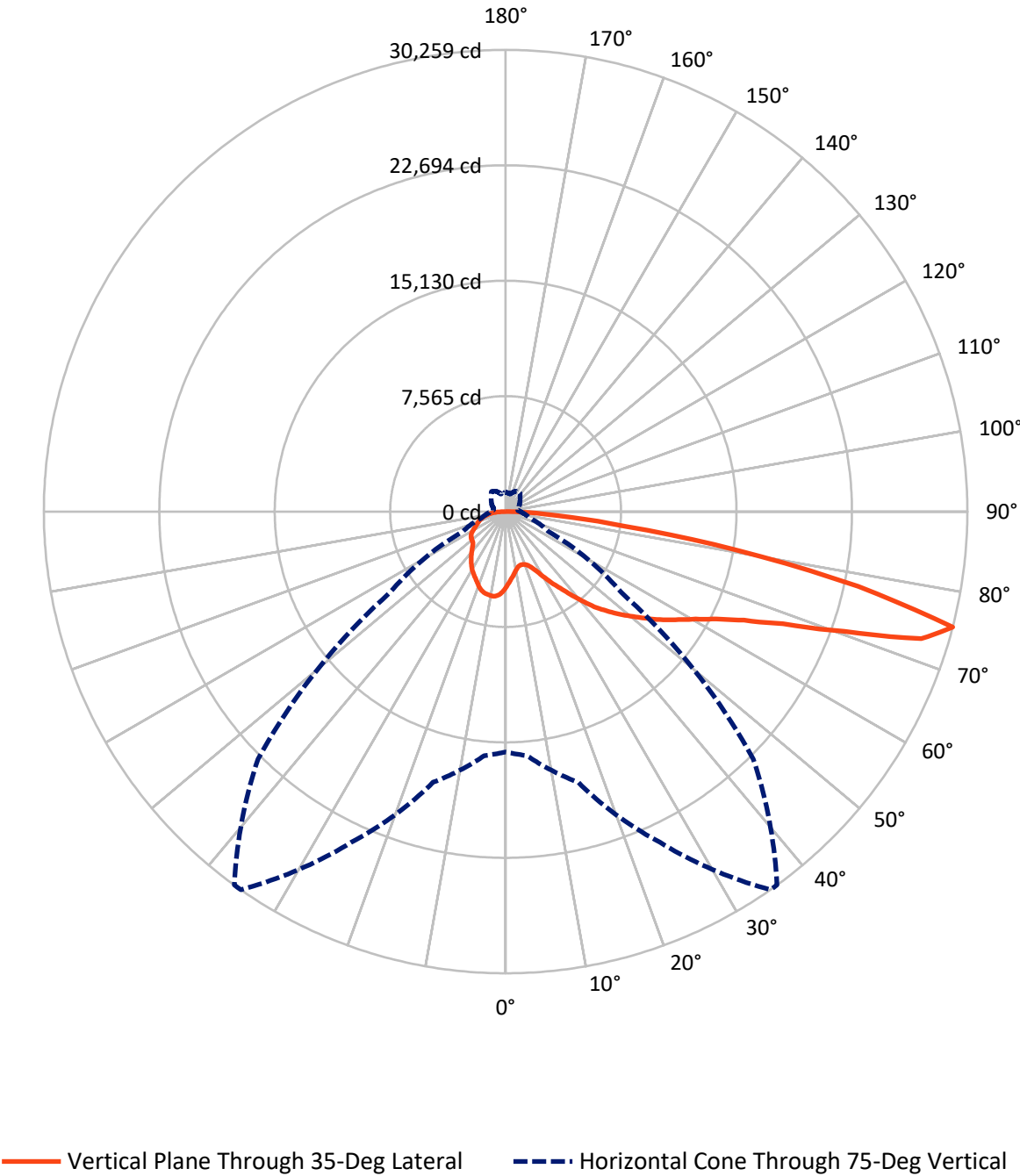
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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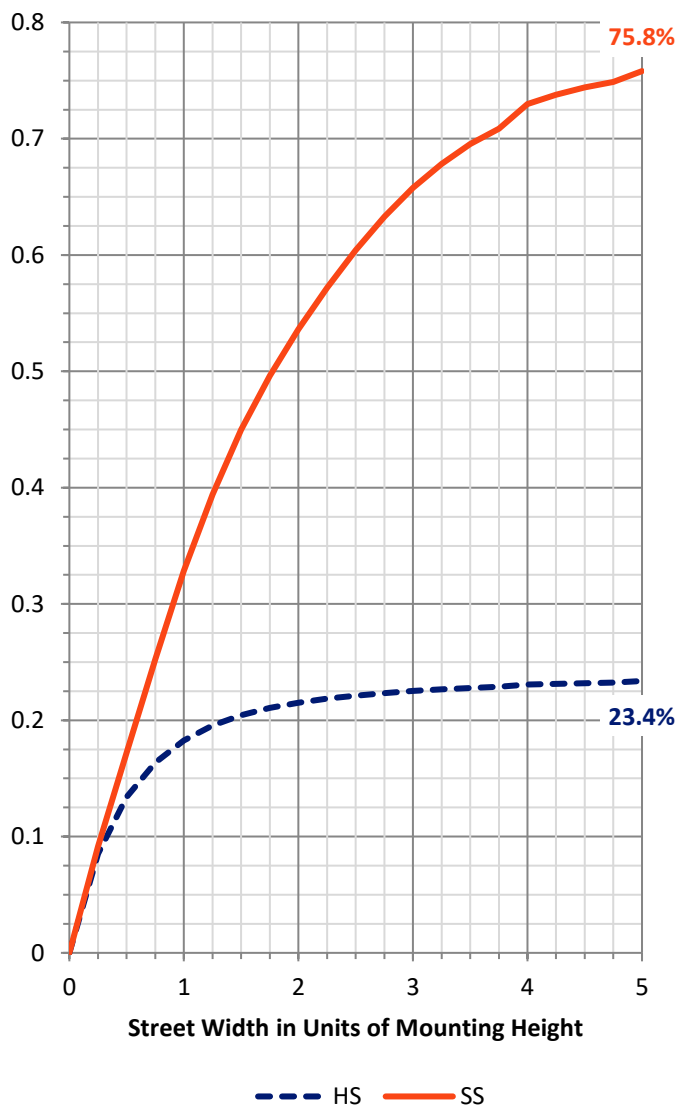
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8834.9	0.0	8834.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	28290.6	0.0	28290.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	37125.5	0.0	37125.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	468.4	1.3
10°-20°	1351.1	3.6
20°-30°	2268.8	6.1
30°-40°	3526.0	9.5
40°-50°	5233.6	14.1
50°-60°	7225.3	19.5
60°-70°	8765.9	23.6
70°-80°	7244.4	19.5
80°-90°	1042.0	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°	37125.5	100.0
0°-180°	37125.5	100.0

Coefficient of Utilization



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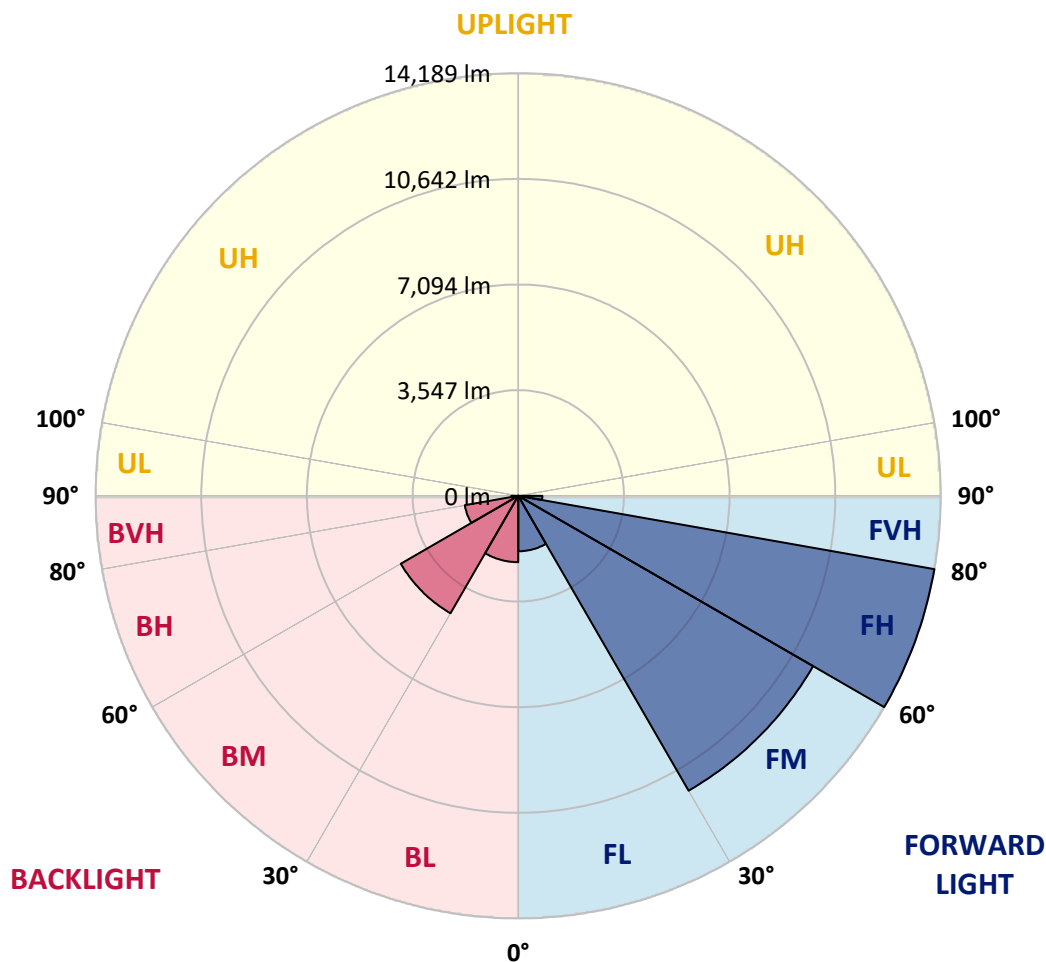
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1861.8	5.0			
FM	(30°-60°)	11432.6	30.8			
FH	(60°-80°)	14188.8	38.2			G5
FVH	(80°-90°)	807.3	2.2			G5
BL	(0°-30°)	2226.5	6.0	B3/2500		
BM	(30°-60°)	4552.3	12.3	B3/5000		
BH	(60°-80°)	1821.5	4.9	B3/2500		G3/2500
BVH	(80°-90°)	234.6	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°	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3
2.5°	4561.9	4590.0	4602.0	4596.0	4626.1	4622.1	4664.3	4716.4	4788.7	4858.9	4961.3
5°	4210.7	4240.7	4266.9	4291.0	4349.2	4367.2	4433.4	4533.8	4666.2	4800.7	4969.3
7.5°	3883.5	3909.7	3949.7	3993.9	4092.2	4110.4	4220.7	4377.3	4561.9	4758.6	4991.3
10°	3616.6	3642.6	3684.9	3735.0	3857.4	3879.5	4019.9	4228.7	4469.5	4718.4	5015.4
12.5°	3502.2	3510.2	3534.3	3584.5	3690.8	3704.9	3859.4	4098.3	4379.2	4688.3	5051.6
15°	3496.2	3512.3	3514.2	3540.4	3628.6	3634.6	3777.1	4014.0	4323.0	4682.3	5105.7
17.5°	3556.3	3568.4	3550.4	3566.4	3640.7	3650.7	3763.1	3973.8	4305.0	4708.4	5198.1
20°	3717.0	3727.0	3672.8	3650.7	3704.9	3713.0	3823.4	4000.0	4323.0	4762.6	5324.6
22.5°	4058.1	4064.1	3931.7	3841.4	3845.4	3849.4	3945.7	4106.3	4393.3	4861.0	5485.1
25°	4590.0	4586.0	4375.2	4200.7	4100.3	4078.2	4142.4	4278.9	4511.7	4991.3	5691.8
27.5°	5212.1	5182.1	4971.4	4710.4	4491.7	4459.6	4445.5	4503.6	4680.3	5164.0	5944.7
30°	5914.6	5886.5	5659.7	5318.5	5015.4	4963.3	4830.8	4800.7	4931.2	5398.8	6296.0
32.5°	6685.3	6667.2	6396.3	5982.8	5577.4	5517.2	5294.4	5214.2	5316.5	5754.0	6785.6
35°	7331.5	7315.4	7090.6	6665.2	6169.5	6095.3	5868.4	5778.1	5830.3	6209.7	7425.8
37.5°	7915.6	7907.6	7714.9	7379.7	6867.9	6777.6	6522.7	6492.6	6482.6	6809.7	8202.6
40°	8457.5	8437.4	8236.7	8060.1	7680.7	7598.4	7373.6	7347.6	7271.4	7548.3	9081.6
42.5°	9057.5	9005.3	8714.3	8632.0	8529.7	8461.5	8327.0	8331.0	8162.4	8381.2	10012.8
45°	9547.3	9517.1	9218.1	9170.0	9280.3	9252.2	9368.6	9398.7	9071.6	9254.2	10980.2
47.5°	10073.1	10045.0	9792.1	9758.0	10057.0	10065.1	10476.5	10486.5	9958.7	10161.3	11949.6
50°	10721.3	10681.2	10430.3	10472.4	10807.6	10837.7	11590.4	11522.1	10775.5	11082.6	12910.9
52.5°	11148.8	11172.9	11118.7	11187.0	11644.5	11672.6	12686.1	12511.6	11584.3	11991.8	13854.2
55°	11463.9	11512.1	11680.7	11837.2	12527.7	12555.7	13719.7	13452.8	12254.7	12834.6	14741.3
57.5°	11869.3	11801.1	12116.2	12421.3	13366.5	13440.8	14725.3	14360.0	12848.7	13561.3	15349.5
60°	12451.4	12403.2	12648.0	13099.6	14305.8	14424.2	15789.0	15176.9	13284.2	14137.2	15467.9
62.5°	13631.5	13511.0	13549.2	13948.6	15489.9	15646.5	16989.2	15889.3	13501.0	14362.0	14833.6
65°	15395.6	15188.9	14996.2	15273.2	17157.8	17312.2	18343.9	16449.3	13420.7	13926.5	13149.8
67.5°	17617.3	17412.6	17175.8	17436.7	19614.3	19736.7	20015.7	16764.4	12788.5	12248.6	10173.4
70°	19449.7	19373.4	19656.4	20730.2	23538.0	23542.0	22159.2	16503.4	11056.5	8684.2	5886.5
72.5°	19206.9	19160.7	20651.9	23971.5	28483.2	28376.8	24188.3	14528.6	7448.0	3917.7	2205.7
75°	15756.8	16055.9	18365.9	23913.2	30259.3	30245.3	22945.9	9236.2	3080.7	1623.7	1140.0
77.5°	8449.4	8923.0	11923.5	17655.4	23622.3	23977.5	16132.2	3231.2	1322.6	1039.7	788.7
80°	2755.6	3169.0	4752.5	8989.2	15349.5	15283.2	6914.0	1268.4	905.2	736.6	545.9
82.5°	1170.0	1218.2	2123.4	4244.7	7877.4	7755.0	2201.7	728.6	636.2	503.8	337.2
85°	457.6	511.8	937.3	1962.9	3411.9	3337.6	794.8	361.2	407.4	329.1	200.7
87.5°	150.6	182.7	335.2	672.3	1061.7	1023.6	194.6	124.4	176.6	150.6	72.3
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°	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3	4947.3
2.5°	4989.4	5021.5	5059.6	5115.8	5164.0	5204.1	5246.3	5272.4	5282.4	5312.5	5310.5
5°	5025.5	5095.8	5190.1	5282.4	5372.7	5426.9	5475.0	5499.1	5521.3	5537.3	5541.3
7.5°	5085.7	5176.0	5324.6	5445.0	5521.3	5565.3	5597.5	5589.4	5597.5	5601.5	5607.6
10°	5137.9	5264.3	5440.9	5555.3	5613.5	5615.6	5607.6	5579.4	5565.3	5567.4	5571.4
12.5°	5200.1	5340.6	5531.2	5627.6	5643.6	5599.5	5565.3	5517.2	5499.1	5491.1	5487.1
15°	5284.4	5445.0	5629.6	5665.7	5625.6	5569.4	5511.2	5432.9	5392.7	5360.6	5370.7
17.5°	5386.8	5563.4	5705.9	5679.7	5593.4	5501.2	5406.9	5288.4	5206.1	5172.0	5174.0
20°	5529.3	5687.8	5764.1	5649.7	5519.2	5378.7	5218.2	5073.6	4997.4	4963.3	4959.3
22.5°	5701.9	5854.4	5820.3	5597.5	5412.8	5188.0	4987.3	4880.9	4842.8	4818.7	4822.8
25°	5908.6	6039.0	5860.4	5521.3	5238.3	4935.2	4780.6	4746.6	4728.4	4710.4	4710.4
27.5°	6177.5	6247.8	5890.5	5408.8	4965.3	4666.2	4610.0	4616.1	4610.0	4579.9	4586.0
30°	6532.7	6518.7	5918.6	5226.2	4652.2	4423.4	4427.4	4453.5	4457.5	4437.4	4447.5
32.5°	7000.3	6857.9	5932.7	4989.4	4353.2	4210.7	4214.7	4242.8	4262.9	4228.7	4244.7
35°	7566.3	7253.2	5910.6	4692.3	4122.3	4008.0	3977.8	3985.9	3991.9	3959.8	3981.8
37.5°	8226.6	7696.8	5812.3	4363.2	3931.7	3809.3	3745.0	3690.8	3658.7	3628.6	3648.7
40°	8951.1	8180.5	5631.7	4042.1	3718.9	3598.6	3502.2	3399.8	3291.5	3251.3	3269.3
42.5°	9709.8	8678.2	5412.8	3735.0	3474.1	3375.7	3273.4	3124.9	2962.4	2880.0	2890.1
45°	10496.5	9188.0	5198.1	3431.9	3223.2	3181.1	3062.7	2884.0	2707.4	2603.1	2595.0
47.5°	11267.2	9669.6	4883.0	3126.9	2988.4	3034.6	2942.3	2777.6	2581.0	2416.4	2398.4
50°	12003.8	10121.3	4367.2	2817.8	2797.7	2990.4	2902.1	2665.3	2440.5	2229.8	2211.7
52.5°	12734.3	10486.5	3706.9	2536.9	2695.3	2978.3	2849.9	2589.0	2314.0	2093.3	2069.2
55°	13354.5	10675.2	3070.7	2296.0	2546.8	2876.0	2787.7	2498.7	2135.5	1900.7	1880.6
57.5°	13707.7	10522.6	2540.9	2059.1	2342.1	2707.4	2681.3	2306.0	1922.7	1742.1	1718.0
60°	13555.2	9904.5	2107.3	1852.5	2147.5	2524.8	2496.7	2115.4	1760.1	1589.6	1565.5
62.5°	12714.3	8726.3	1764.1	1671.8	1970.9	2338.1	2312.1	1968.8	1635.7	1471.1	1445.0
65°	11020.4	7098.7	1497.2	1521.3	1792.2	2113.3	2151.5	1846.4	1537.4	1376.8	1350.7
67.5°	8405.3	5141.9	1288.5	1390.8	1617.7	1892.6	2003.0	1758.1	1455.1	1302.6	1278.5
70°	4790.6	2920.1	1111.9	1264.4	1463.1	1687.9	1888.6	1687.9	1366.7	1240.4	1224.3
72.5°	1816.3	1340.7	961.3	1138.0	1314.6	1515.3	1762.2	1577.5	1264.4	1170.0	1154.0
75°	969.3	816.8	808.8	989.4	1144.0	1346.6	1603.6	1469.1	1188.2	1236.4	1276.4
77.5°	660.3	578.0	676.4	847.0	957.4	1160.0	1435.0	1304.5	1029.6	1025.6	945.3
80°	457.6	409.4	549.9	682.3	740.6	975.4	1252.3	1119.9	839.0	782.7	748.6
82.5°	275.0	266.9	411.4	509.7	523.8	752.7	1037.6	939.3	686.3	598.1	602.1
85°	150.6	158.6	262.9	299.0	305.0	525.8	812.8	726.5	527.9	443.5	447.5
87.5°	42.1	54.2	96.4	118.4	146.5	273.0	483.7	431.5	265.0	184.6	184.6
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)