

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: P967839

Luminaire Tested: **NAV-SB5A-827-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-827-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17220 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 141.7
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

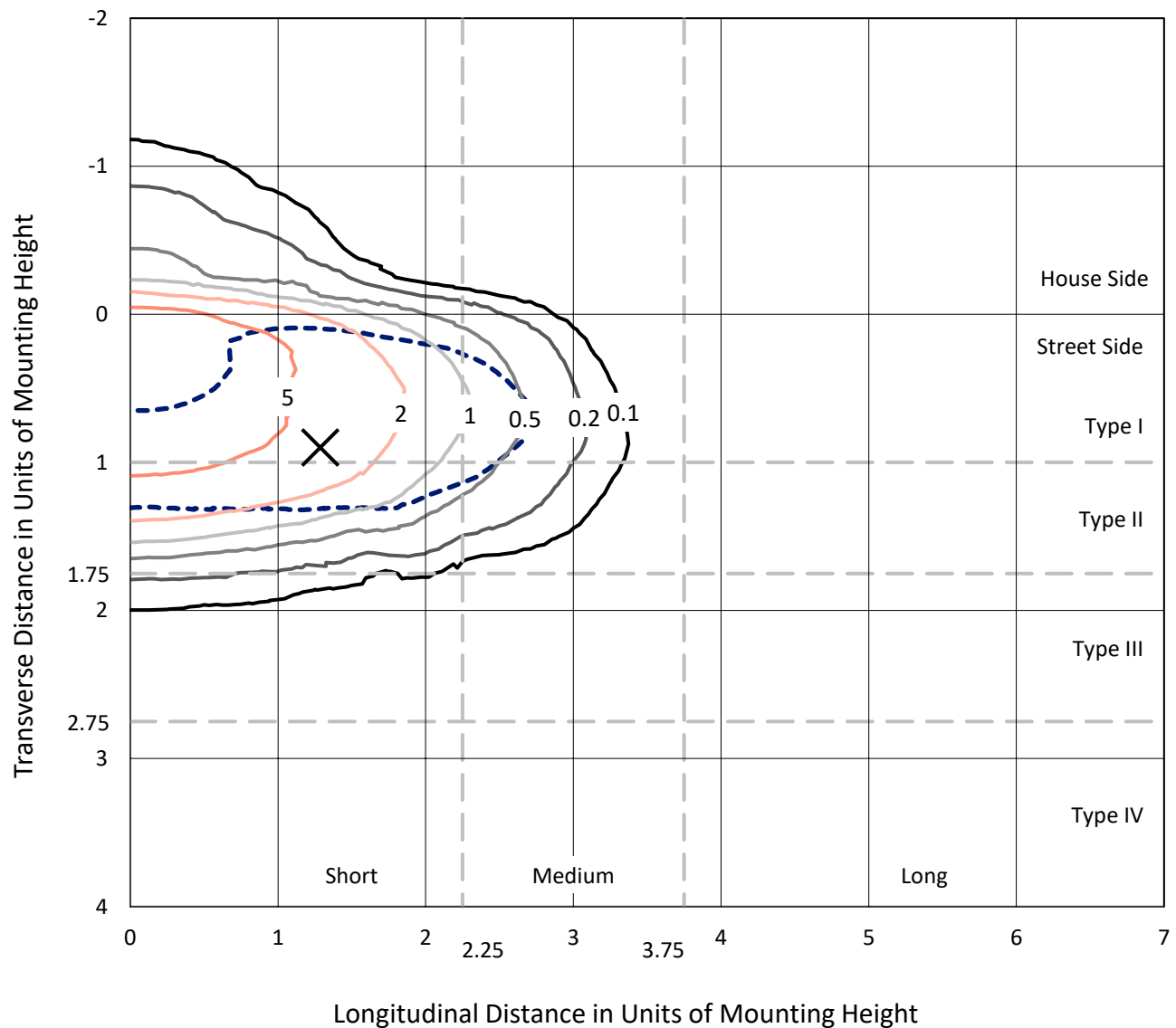


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

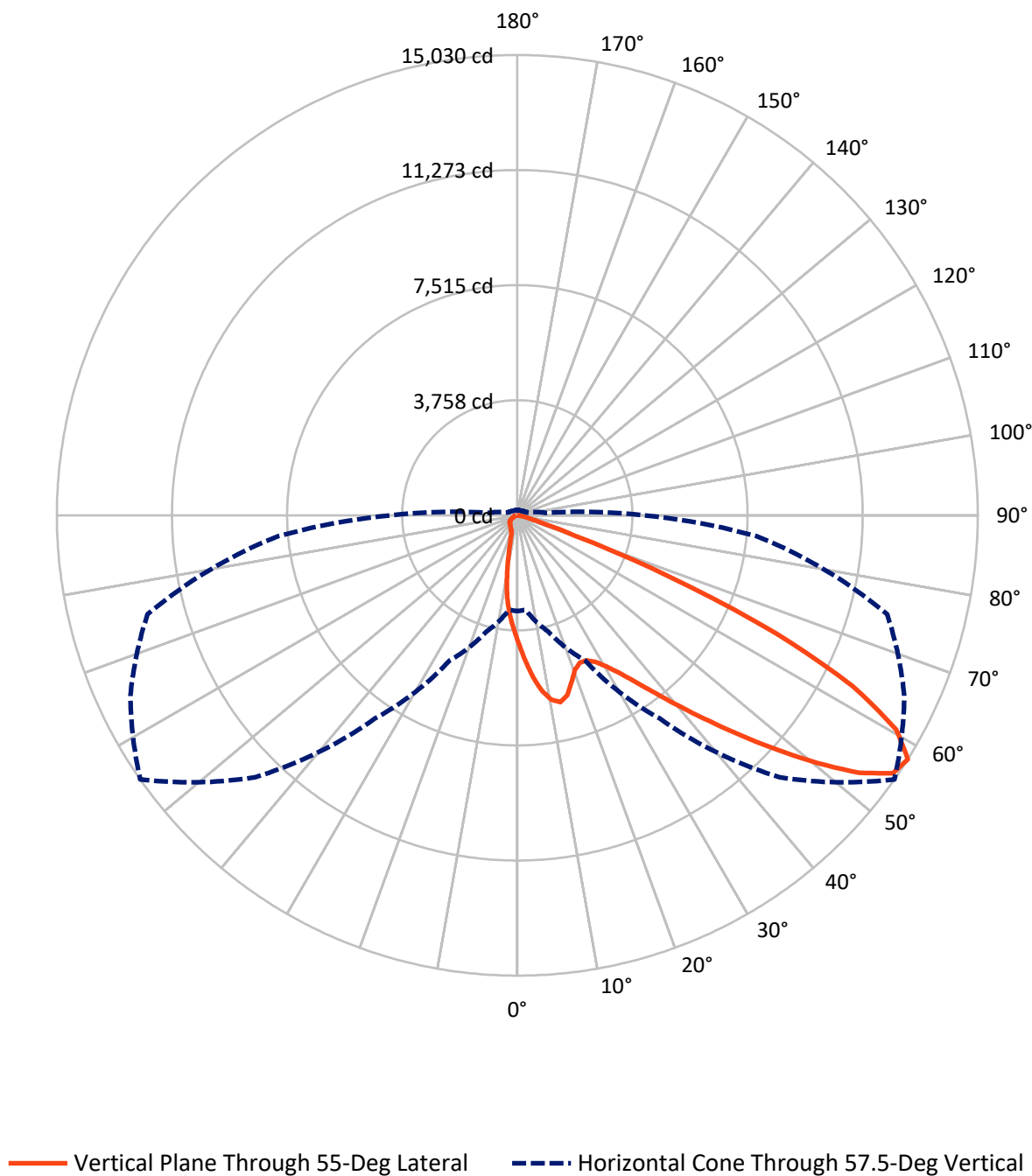


Based on 25 foot mounting height. Maximum calculated value = 9.5 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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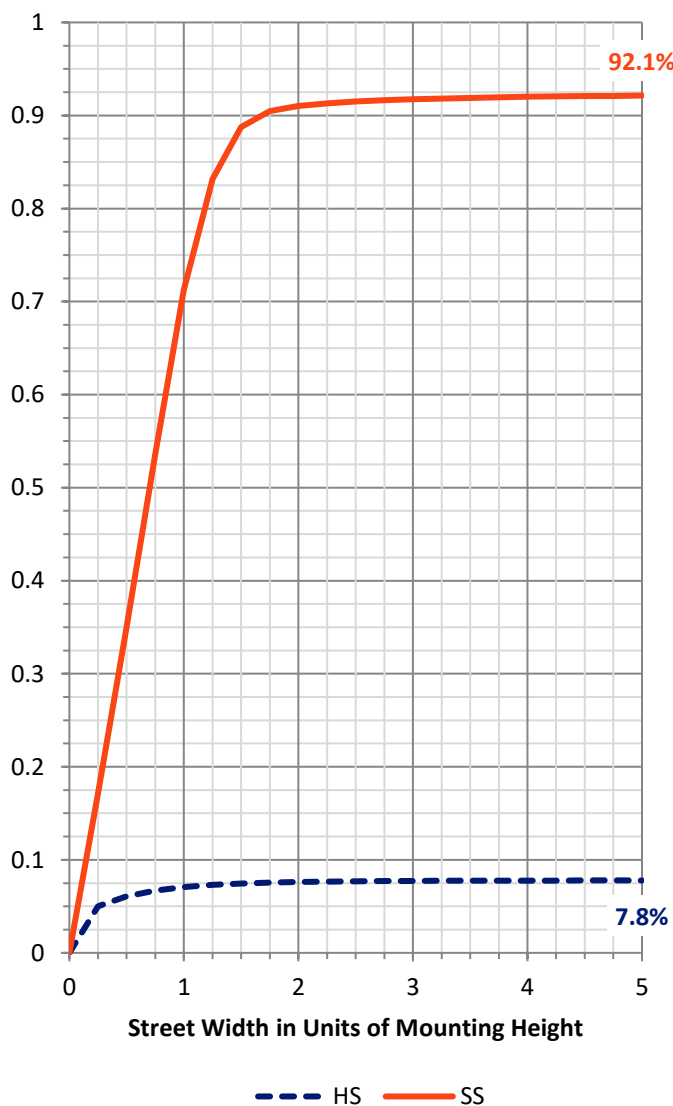
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1344.8	0.0	1344.8
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	15875.2	0.0	15875.2
	% Fixture	92.2	0.0	92.2
Total	Lumens	17220.0	0.0	17220.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.1	2.2
10°-20°	932.6	5.4
20°-30°	1492.2	8.7
30°-40°	2525.6	14.7
40°-50°	4146.5	24.1
50°-60°	4557.3	26.5
60°-70°	2614.1	15.2
70°-80°	534.1	3.1
80°-90°	31.5	0.2
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°	17220.0	100.0
0°-180°	17220.0	100.0

Coefficient of Utilization



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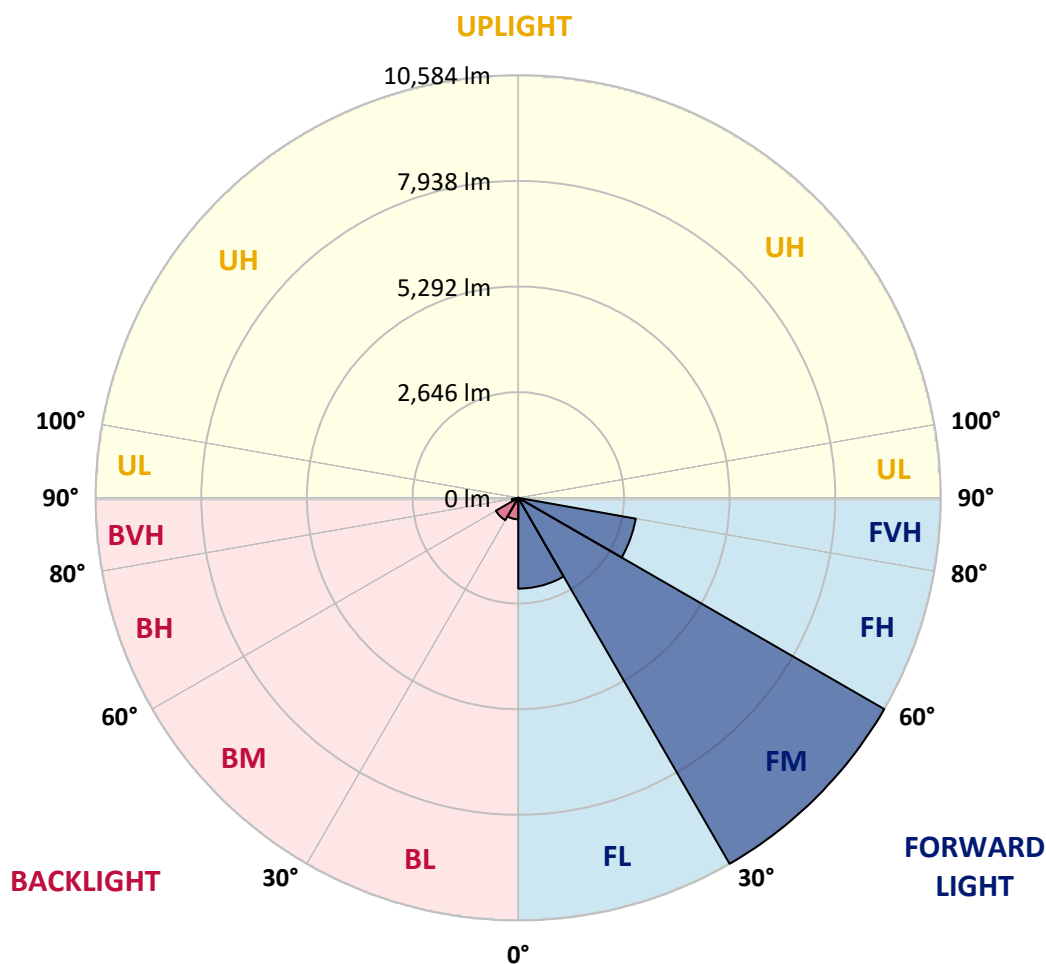
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2274.0	13.2			
FM	(30°-60°)	10583.5	61.5			
FH	(60°-80°)	2988.3	17.4			G2/5000
FVH	(80°-90°)	29.4	0.2			G1/100
BL	(0°-30°)	536.9	3.1	B2/1000		
BM	(30°-60°)	645.9	3.8	B1/1000		
BH	(60°-80°)	159.9	0.9	B1/500		G1/500
BVH	(80°-90°)	2.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6
2.5°	5148.8	5084.0	5074.5	5061.7	4938.6	4846.2	4712.3	4565.9	4401.2	4233.5	4159.1
5°	5948.3	5897.3	5887.8	5828.4	5688.1	5531.0	5293.2	4992.7	4685.8	4324.8	4169.8
7.5°	6103.4	6093.8	6137.3	6135.2	6116.1	5991.8	5791.1	5433.3	4972.5	4437.3	4197.4
10°	5412.1	5436.5	5566.1	5679.7	5986.5	6165.0	6121.4	5826.2	5267.7	4565.9	4228.1
12.5°	4782.4	4753.7	4846.2	4974.6	5331.4	5862.3	6258.3	6154.3	5605.3	4711.3	4273.8
15°	4387.4	4375.7	4427.8	4487.2	4759.1	5294.2	6099.1	6420.8	5930.2	4883.3	4342.8
17.5°	4261.1	4251.5	4267.5	4282.3	4458.5	4872.6	5720.0	6584.4	6241.4	5079.8	4419.3
20°	4364.0	4351.3	4349.2	4337.5	4410.8	4693.3	5377.0	6596.1	6520.6	5258.1	4485.1
22.5°	4664.6	4649.7	4597.6	4551.0	4557.4	4717.7	5224.1	6479.2	6730.9	5424.8	4526.5
25°	5209.3	5184.9	5076.5	4919.4	4819.7	4887.6	5247.5	6325.3	6931.6	5555.4	4506.4
27.5°	5891.0	5859.1	5720.0	5486.4	5258.1	5175.3	5416.3	6219.1	7098.2	5655.2	4462.8
30°	6558.9	6517.5	6380.5	6198.9	5865.5	5604.3	5721.1	6265.8	7296.9	5759.3	4405.4
32.5°	7279.9	7240.6	7059.0	6833.9	6557.8	6206.4	6138.4	6494.1	7540.0	5904.8	4365.2
35°	8191.9	8130.4	7872.3	7565.4	7272.4	6916.7	6703.3	6888.0	7863.8	6126.7	4387.4
37.5°	9230.4	9147.6	8869.4	8445.7	8063.5	7665.3	7391.4	7429.6	8338.5	6424.0	4456.5
40°	10209.4	10134.0	9877.1	9477.8	8997.9	8514.8	8222.8	8137.8	8993.7	6786.1	4577.5
42.5°	10796.6	10728.7	10620.3	10451.5	10046.9	9554.2	9185.8	9002.2	9768.8	7219.3	4725.1
45°	10829.5	10770.1	10915.5	11111.9	11032.3	10704.2	10255.0	9918.5	10547.0	7626.0	4878.0
47.5°	10302.9	10262.5	10704.2	11390.1	11732.0	11870.1	11456.0	10758.4	11189.5	7918.0	4940.6
50°	8867.3	8852.4	9761.3	11020.6	11998.5	12891.5	12722.7	11539.9	11687.5	8068.8	4881.2
52.5°	7688.6	7634.5	8164.3	9837.7	11611.0	13428.8	13960.8	12306.5	12035.8	8097.4	4742.1
55°	5831.5	5783.8	6448.5	7858.6	10361.2	13237.7	14866.6	13097.6	12285.2	8024.2	4492.6
57.5°	3128.1	3098.4	3938.3	5230.6	8099.6	12091.0	15030.1	13934.3	12495.5	7829.9	4143.3
60°	1217.9	1212.6	1526.9	2537.8	4922.6	9836.7	14205.1	14436.5	12627.2	7590.9	3851.2
62.5°	736.9	752.9	803.8	1139.3	2174.6	6110.7	12303.3	13865.3	12715.3	7372.2	3610.2
65°	609.5	610.6	616.9	782.6	1041.6	2556.9	9262.3	11985.8	12497.6	6982.5	3268.3
67.5°	522.4	532.0	556.4	621.2	734.8	1121.2	5332.5	9284.6	11173.5	6075.7	2735.2
70°	411.9	424.8	455.5	510.8	567.0	701.8	1970.8	6177.7	8536.0	4579.6	2068.4
72.5°	347.2	346.1	362.0	415.1	450.2	493.7	758.1	3461.5	4960.8	2186.3	1023.6
75°	268.7	279.2	299.4	347.2	368.5	357.8	410.9	1264.6	1777.5	662.6	348.3
77.5°	210.2	218.7	236.8	283.5	304.7	253.8	236.8	452.3	571.2	237.8	157.1
80°	94.5	101.9	161.4	209.2	248.5	175.2	128.4	231.4	253.8	108.3	79.6
82.5°	17.0	28.7	94.5	110.4	127.4	113.6	66.9	120.0	124.2	43.6	27.6
85°	1.0	2.2	32.9	40.4	50.9	37.2	20.2	47.8	41.4	14.9	10.7
87.5°	0.0	0.0	0.0	1.0	1.0	5.3	6.4	8.5	6.4	5.3	4.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6	4149.6
2.5°	4082.7	3931.9	3785.4	3665.4	3595.3	3476.4	3397.9	3385.1	3352.2	3380.9
5°	4004.2	3734.4	3461.5	3217.3	3016.7	2757.6	2564.3	2482.5	2411.4	2435.8
7.5°	3967.0	3541.2	3116.4	2699.1	2270.2	1856.1	1548.2	1419.6	1321.9	1335.8
10°	3917.0	3340.5	2674.7	2037.6	1463.2	1054.4	842.0	763.4	720.0	721.0
12.5°	3878.8	3100.5	2161.8	1381.4	890.8	673.2	607.3	588.2	575.5	576.6
15°	3859.7	2818.0	1655.4	920.6	637.1	570.2	554.3	545.8	537.3	536.2
17.5°	3827.9	2503.8	1211.6	672.1	557.5	534.1	520.3	510.8	500.1	497.9
20°	3780.1	2147.0	885.6	568.1	522.4	504.4	485.2	472.5	459.8	457.7
22.5°	3691.9	1770.1	680.6	525.6	496.9	476.7	453.4	438.5	425.8	423.6
25°	3528.5	1416.4	573.4	499.1	474.7	450.2	424.8	404.6	392.9	390.7
27.5°	3321.4	1112.7	520.3	474.7	446.0	423.6	395.0	375.9	365.3	363.2
30°	3077.2	856.9	489.5	447.0	411.9	392.9	367.4	351.5	345.1	345.1
32.5°	2813.8	684.9	476.7	419.4	382.2	361.0	340.8	334.5	332.3	331.3
35°	2566.4	594.6	470.4	397.1	355.7	335.6	327.1	328.1	332.3	332.3
37.5°	2346.6	565.9	467.2	381.2	332.3	314.3	319.6	329.1	324.9	324.9
40°	2148.1	569.2	465.0	369.5	313.2	302.6	313.2	305.8	295.2	294.2
42.5°	1996.2	595.7	460.8	360.0	301.6	294.2	289.9	278.2	277.2	279.2
45°	1885.8	619.0	459.8	355.7	288.8	275.0	269.7	258.0	279.2	284.5
47.5°	1755.2	619.0	459.8	340.8	267.6	262.3	253.8	241.1	262.3	267.6
50°	1586.4	579.7	441.7	323.9	250.6	247.4	232.6	216.6	212.4	215.6
52.5°	1372.9	508.6	396.1	300.5	233.6	227.2	209.2	197.5	194.3	194.3
55°	1129.8	425.8	334.5	266.5	215.6	203.9	191.2	185.8	182.7	180.5
57.5°	918.5	349.3	268.7	236.8	198.5	183.7	179.5	173.1	167.8	164.6
60°	753.9	275.0	221.9	210.2	181.5	167.8	166.7	158.3	144.4	142.3
62.5°	581.9	201.7	186.9	182.7	164.6	152.9	150.8	133.8	112.5	108.3
65°	410.9	157.1	150.8	160.3	146.6	135.9	130.6	105.2	82.8	79.6
67.5°	288.8	131.7	118.9	140.1	127.4	113.6	110.4	89.2	69.0	66.9
70°	206.0	107.2	97.7	120.0	101.9	99.8	93.5	74.3	56.3	54.1
72.5°	145.4	81.8	75.4	104.0	70.1	86.0	76.5	57.3	42.4	40.4
75°	107.2	58.4	53.1	60.5	50.9	64.8	54.1	38.2	26.5	25.5
77.5°	78.6	37.2	31.9	29.7	29.7	40.4	29.7	15.9	11.7	10.7
80°	55.2	17.0	14.9	12.7	11.7	9.5	4.2	2.2	1.0	1.0
82.5°	32.9	7.5	7.5	5.3	3.2	0.0	0.0	0.0	0.0	0.0
85°	7.5	3.2	3.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)