

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: P968428

Luminaire Tested: **NAV-SB5B-835-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968428
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-SB5B-835-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA 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: 23057.4 lumens
Efficiency: N/A
Efficacy: 126.2 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): 182.7
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

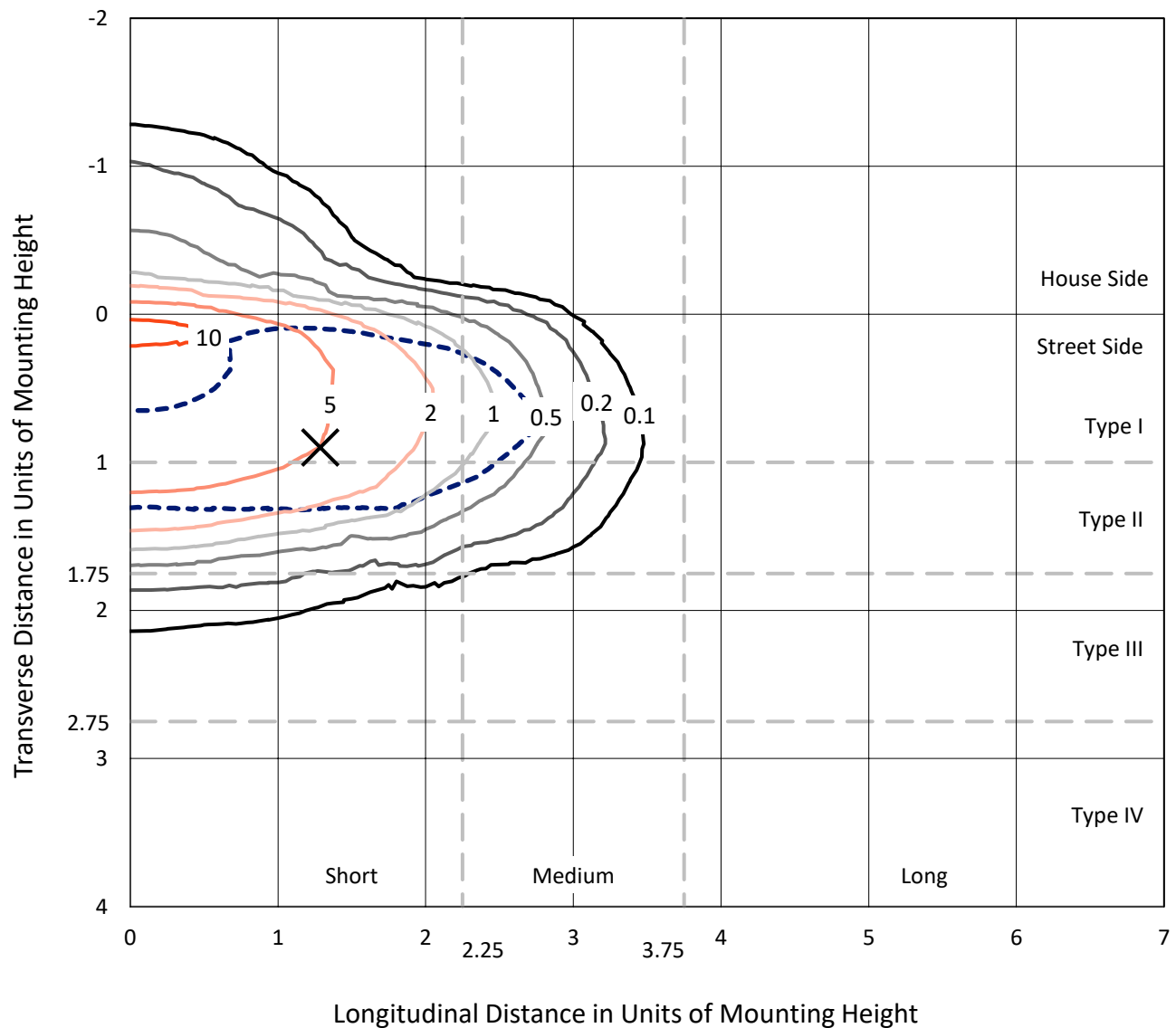


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Iso-Footcandle Lines of Horizontal Illumination

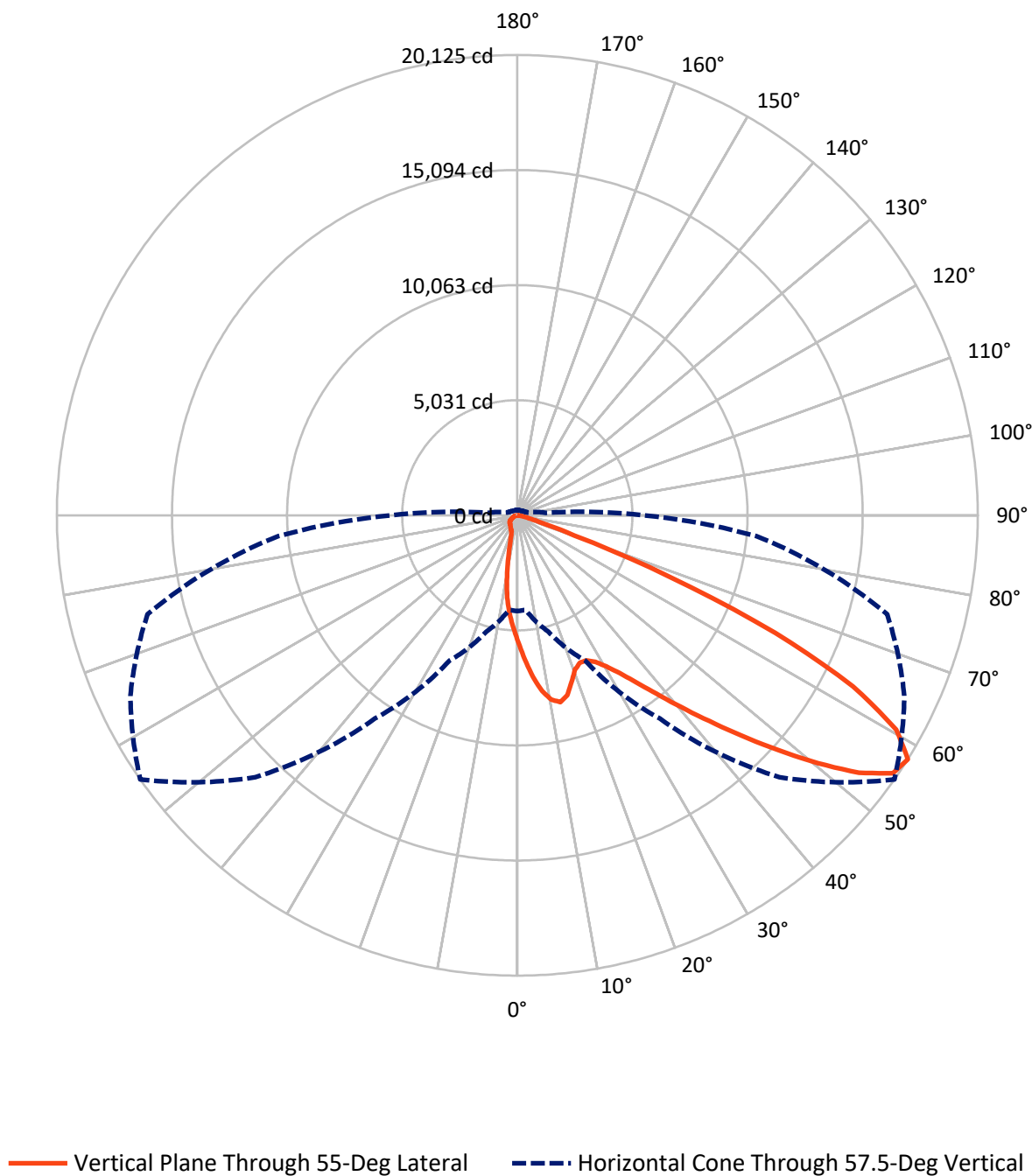
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.7 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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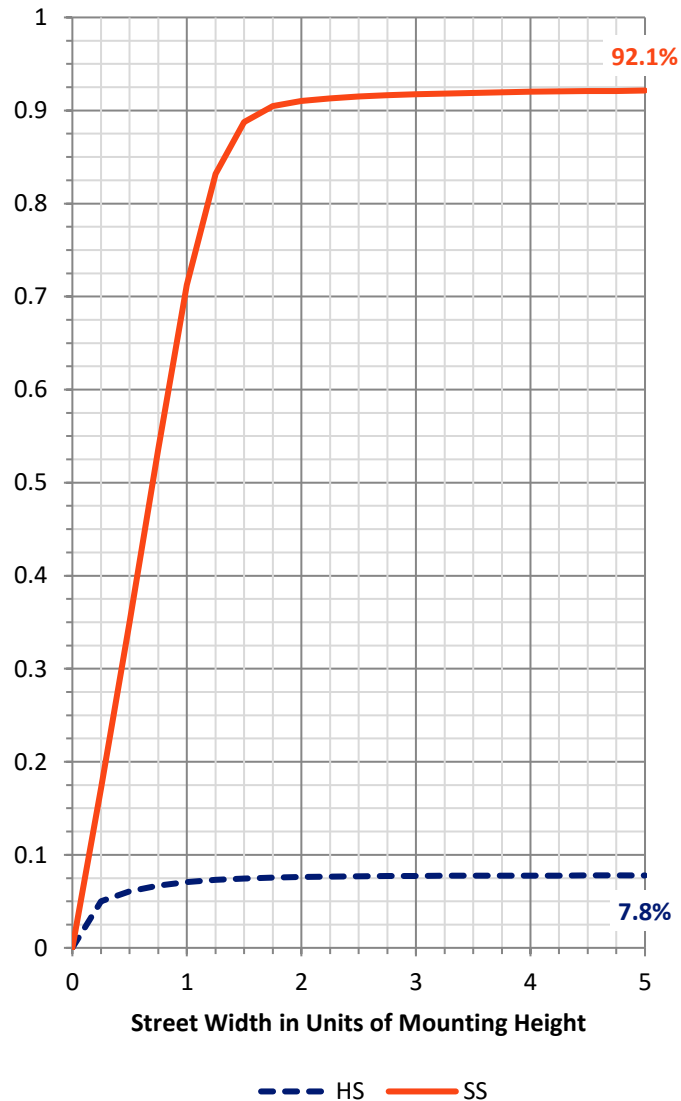
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1800.7	0.0	1800.7
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	21256.7	0.0	21256.7
	% Fixture	92.2	0.0	92.2
Total	Lumens	23057.4	0.0	23057.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	517.0	2.2
10°-20°	1248.8	5.4
20°-30°	1998.0	8.7
30°-40°	3381.8	14.7
40°-50°	5552.1	24.1
50°-60°	6102.2	26.5
60°-70°	3500.2	15.2
70°-80°	715.2	3.1
80°-90°	42.2	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°	23057.4	100.0
0°-180°	23057.4	100.0

Coefficient of Utilization



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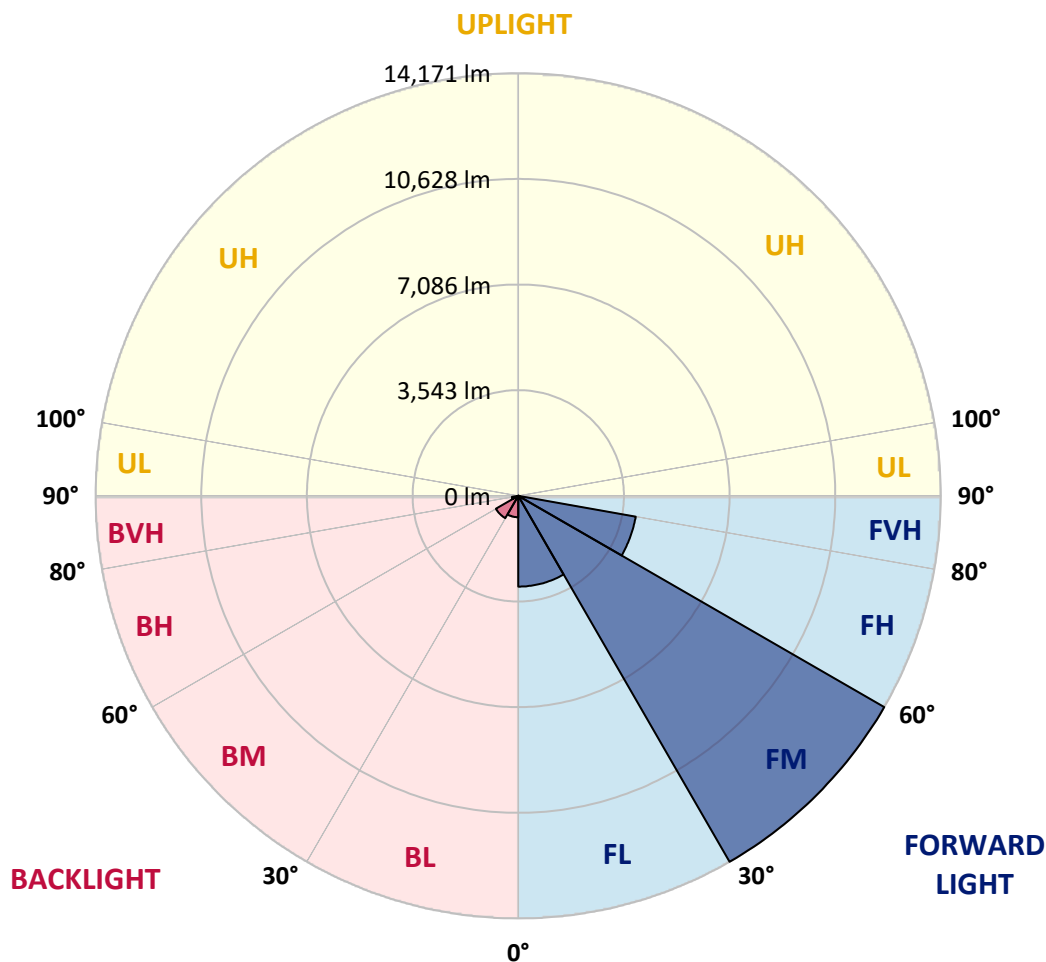
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3044.9	13.2			
FM	(30°-60°)	14171.2	61.5			
FH	(60°-80°)	4001.2	17.4			G2/5000
FVH	(80°-90°)	39.3	0.2			G1/100
BL	(0°-30°)	718.9	3.1	B2/1000		
BM	(30°-60°)	864.8	3.8	B1/1000		
BH	(60°-80°)	214.2	0.9	B1/500		G1/500
BVH	(80°-90°)	2.8	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°	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2
2.5°	6894.2	6807.4	6794.6	6777.5	6612.6	6489.0	6309.8	6113.6	5893.2	5668.6	5569.0
5°	7964.8	7896.5	7883.7	7804.0	7616.4	7405.9	7087.5	6685.2	6274.2	5790.8	5583.3
7.5°	8172.3	8159.5	8217.8	8215.0	8189.3	8023.0	7754.3	7275.1	6658.1	5941.5	5620.3
10°	7246.7	7279.4	7452.9	7605.0	8015.9	8254.7	8196.5	7801.3	7053.3	6113.6	5661.5
12.5°	6403.6	6365.2	6489.0	6661.0	7138.7	7849.6	8379.9	8240.6	7505.5	6308.4	5722.6
15°	5874.7	5859.1	5928.8	6008.3	6372.3	7088.9	8166.6	8597.4	7940.6	6538.7	5815.0
17.5°	5705.6	5692.7	5714.1	5734.0	5970.0	6524.4	7659.0	8816.3	8357.1	6801.7	5917.4
20°	5843.4	5826.4	5823.5	5808.0	5906.0	6284.2	7199.8	8832.0	8731.1	7040.6	6005.6
22.5°	6245.8	6226.0	6156.3	6093.7	6102.2	6316.9	6995.1	8675.6	9012.6	7263.8	6061.0
25°	6975.2	6942.5	6797.5	6587.1	6453.4	6544.4	7026.4	8469.5	9281.3	7438.6	6034.0
27.5°	7888.0	7845.4	7659.0	7346.3	7040.6	6929.7	7252.4	8327.3	9504.5	7572.3	5975.6
30°	8782.2	8726.7	8543.4	8300.2	7853.9	7504.1	7660.4	8389.8	9770.4	7711.7	5898.9
32.5°	9747.6	9695.1	9451.9	9150.5	8780.9	8310.2	8219.3	8695.5	10095.9	7906.4	5844.9
35°	10968.9	10886.4	10541.0	10130.1	9737.7	9261.4	8975.6	9222.9	10529.6	8203.6	5874.7
37.5°	12359.4	12248.5	11876.0	11308.7	10796.8	10263.7	9896.9	9948.1	11165.1	8601.7	5967.1
40°	13670.3	13569.4	13225.3	12690.6	12048.1	11401.2	11010.1	10896.4	12042.3	9086.5	6129.2
42.5°	14456.5	14365.5	14220.5	13994.4	13452.7	12793.0	12299.7	12053.7	13080.2	9666.6	6326.8
45°	14500.6	14420.9	14615.8	14878.8	14772.1	14332.8	13731.4	13280.7	14122.3	10211.2	6531.6
47.5°	13795.4	13741.4	14332.8	15251.3	15709.0	15894.0	15339.4	14405.4	14982.5	10602.1	6615.5
50°	11873.2	11853.3	13070.3	14756.5	16066.0	17261.6	17035.6	15451.8	15649.4	10804.0	6535.8
52.5°	10295.0	10222.5	10931.9	13172.7	15547.0	17981.1	18693.3	16478.3	16115.7	10842.3	6349.6
55°	7808.3	7744.4	8634.4	10522.4	13873.6	17725.1	19906.1	17537.4	16449.8	10744.3	6015.5
57.5°	4188.6	4148.7	5273.3	7003.6	10845.2	16189.7	20125.1	18657.9	16731.4	10484.1	5547.7
60°	1630.8	1623.7	2044.5	3398.0	6591.3	13171.2	19020.4	19330.4	16907.7	10164.2	5156.8
62.5°	986.7	1008.0	1076.2	1525.5	2911.8	8182.3	16474.0	18565.4	17025.7	9871.4	4834.0
65°	816.1	817.5	826.0	1047.9	1394.7	3423.6	12402.1	16048.9	16734.1	9349.5	4376.2
67.5°	699.5	712.3	745.0	831.7	983.9	1501.4	7140.2	12431.9	14961.2	8135.3	3662.4
70°	551.7	568.7	610.0	683.9	759.2	939.8	2638.8	8271.9	11429.6	6132.1	2769.5
72.5°	464.9	463.5	484.8	556.0	602.8	661.1	1015.2	4634.9	6642.5	2927.4	1370.6
75°	359.7	373.9	401.0	464.9	493.3	479.1	550.2	1693.3	2380.0	887.1	466.4
77.5°	281.5	292.8	317.0	379.7	408.1	339.8	317.0	605.7	765.0	318.5	210.4
80°	126.6	136.5	216.1	280.1	332.7	234.6	172.0	310.0	339.8	145.0	106.6
82.5°	22.8	38.4	126.6	147.9	170.7	152.1	89.6	160.6	166.4	58.3	37.0
85°	1.4	2.9	44.1	54.0	68.3	49.7	27.1	64.0	55.5	19.9	14.2
87.5°	0.0	0.0	0.0	1.4	1.4	7.1	8.5	11.4	8.5	7.1	5.6
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°	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2	5556.2
2.5°	5466.7	5264.8	5068.6	4907.9	4814.1	4654.8	4549.7	4532.5	4488.5	4526.9
5°	5361.5	5000.4	4634.9	4308.0	4039.2	3692.4	3433.5	3324.1	3228.9	3261.5
7.5°	5311.8	4741.5	4172.9	3614.2	3039.7	2485.2	2073.0	1900.9	1770.1	1788.6
10°	5244.9	4472.9	3581.5	2728.3	1959.2	1411.8	1127.5	1022.2	963.9	965.3
12.5°	5193.7	4151.6	2894.7	1849.7	1192.9	901.4	813.2	787.6	770.6	772.0
15°	5168.2	3773.3	2216.6	1232.7	853.1	763.5	742.2	730.8	719.4	718.0
17.5°	5125.5	3352.6	1622.3	900.0	746.4	715.1	696.7	683.9	669.6	666.8
20°	5061.4	2874.8	1185.7	760.7	699.5	675.4	649.7	632.7	615.6	612.7
22.5°	4943.5	2370.1	911.3	703.8	665.4	638.4	607.1	587.2	570.1	567.2
25°	4724.5	1896.7	767.7	668.2	635.5	602.8	568.7	541.7	526.0	523.2
27.5°	4447.3	1490.0	696.7	635.5	597.2	567.2	528.9	503.3	489.1	486.3
30°	4120.3	1147.4	655.4	598.6	551.7	526.0	491.9	470.6	462.1	462.1
32.5°	3767.7	917.1	638.4	561.6	511.9	483.4	456.4	447.8	445.1	443.6
35°	3436.4	796.2	629.9	531.8	476.3	449.3	437.9	439.3	445.1	445.1
37.5°	3142.1	757.8	625.6	510.4	445.1	420.9	427.9	440.7	435.0	435.0
40°	2876.3	762.1	622.7	494.8	419.4	405.2	419.4	409.5	395.2	393.8
42.5°	2672.9	797.7	617.0	482.0	403.7	393.8	388.2	372.5	371.0	373.9
45°	2525.1	828.9	615.6	476.3	386.7	368.3	361.1	345.5	373.9	381.0
47.5°	2350.2	828.9	615.6	456.4	358.2	351.2	339.8	322.8	351.2	358.2
50°	2124.1	776.3	591.4	433.7	335.6	331.3	311.4	290.1	284.3	288.6
52.5°	1838.3	681.0	530.3	402.3	312.8	304.2	280.1	264.4	260.1	260.1
55°	1512.8	570.1	447.8	356.9	288.6	273.0	255.9	248.8	244.6	241.7
57.5°	1229.8	467.8	359.7	317.0	265.9	246.0	240.3	231.8	224.7	220.4
60°	1009.4	368.3	297.1	281.5	243.1	224.7	223.2	211.9	193.3	190.5
62.5°	779.1	270.1	250.2	244.6	220.4	204.7	201.9	179.2	150.7	145.0
65°	550.2	210.4	201.9	214.7	196.2	181.9	174.9	140.7	110.9	106.6
67.5°	386.7	176.3	159.3	187.7	170.7	152.1	147.9	119.4	92.5	89.6
70°	275.8	143.6	130.8	160.6	136.5	133.7	125.2	99.5	75.3	72.5
72.5°	194.7	109.5	101.0	139.3	93.8	115.2	102.4	76.8	56.9	54.0
75°	143.6	78.2	71.1	81.1	68.3	86.7	72.5	51.1	35.6	34.1
77.5°	105.2	49.7	42.6	39.8	39.8	54.0	39.8	21.3	15.7	14.2
80°	73.9	22.8	19.9	17.0	15.7	12.8	5.6	2.9	1.4	1.4
82.5°	44.1	9.9	9.9	7.1	4.3	0.0	0.0	0.0	0.0	0.0
85°	9.9	4.3	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	1.4	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)