

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: P967188

Luminaire Tested: **NAV-SB4D-735-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967188
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-SB4D-735-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA 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: 35642.3 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

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



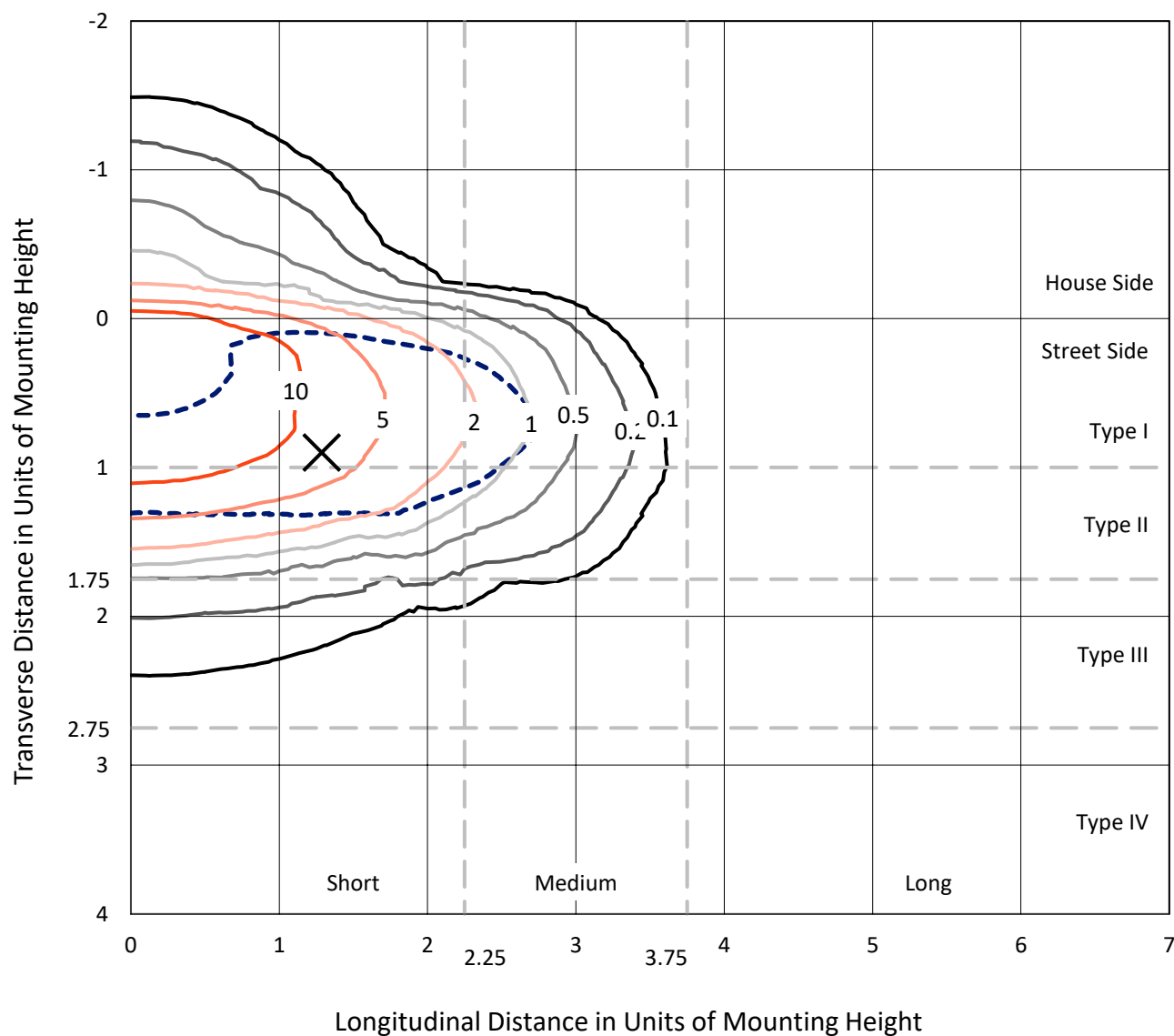
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

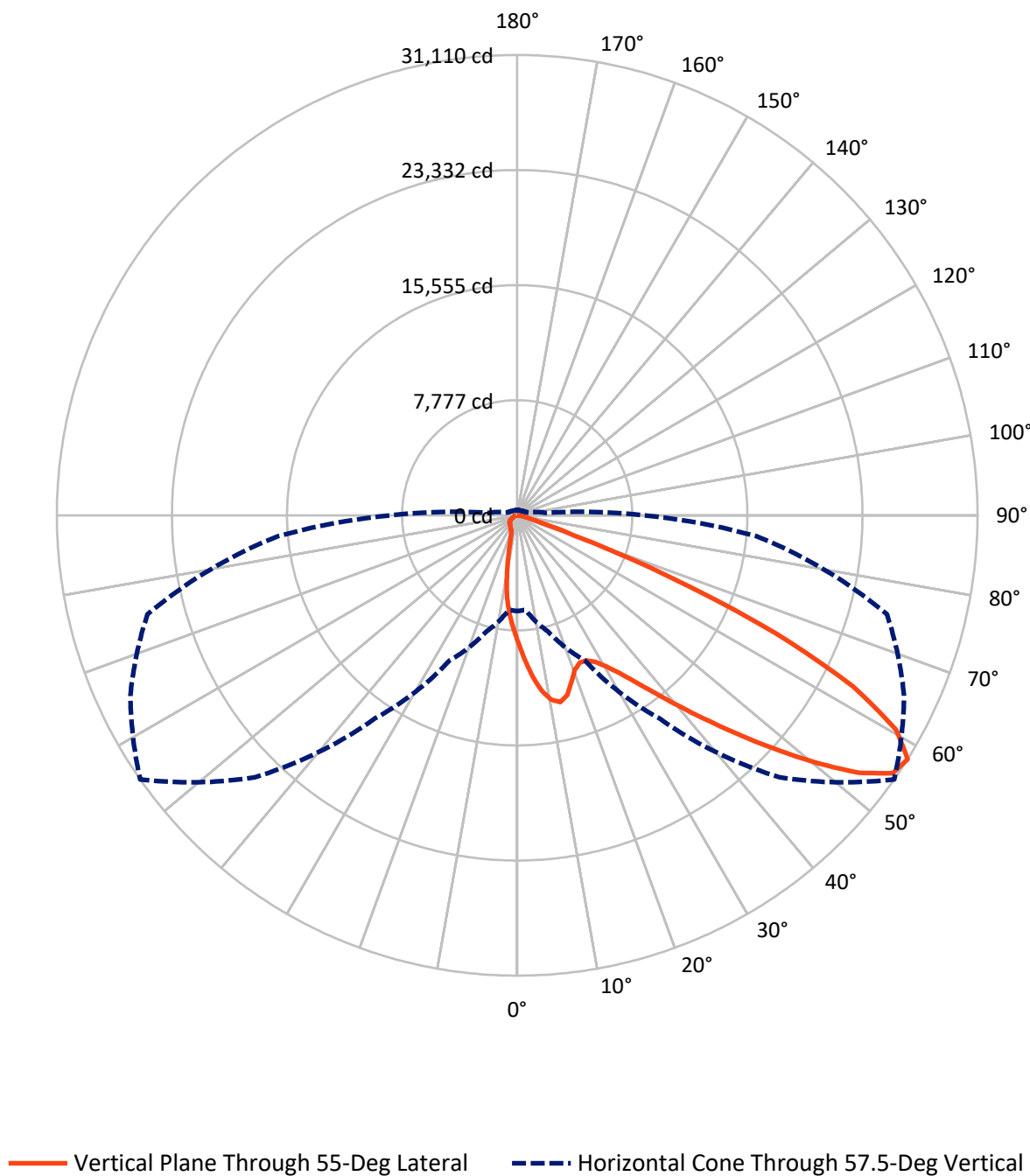


Based on 25 foot mounting height. Maximum calculated value = 19.7 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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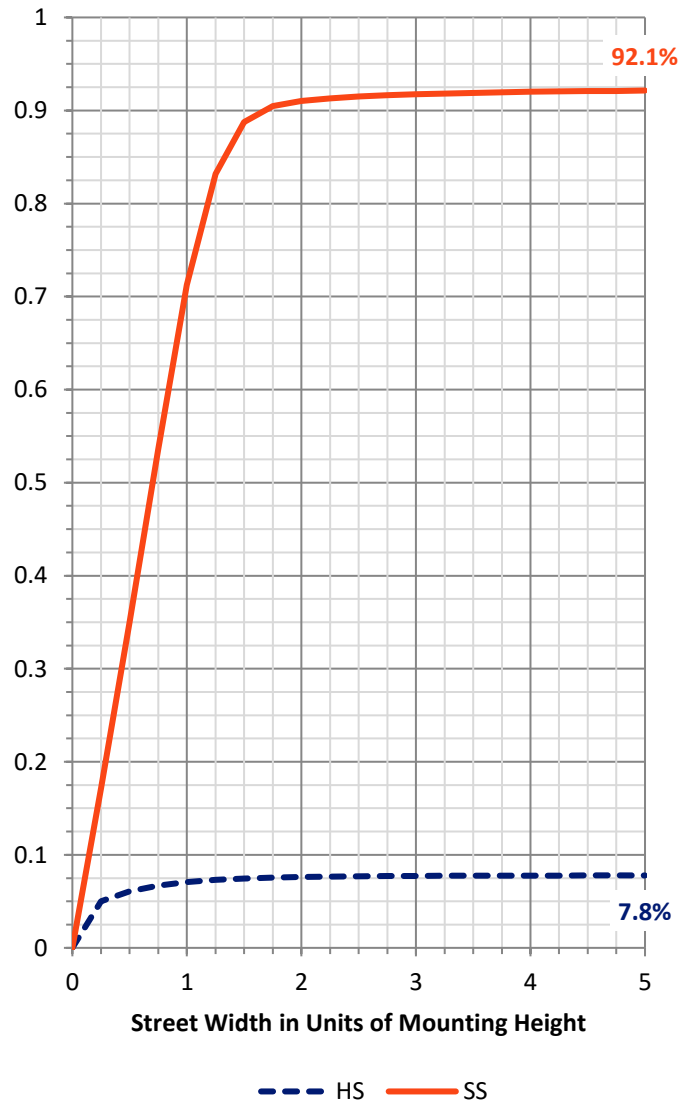
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2783.5	0.0	2783.5
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	32858.8	0.0	32858.8
	% Fixture	92.2	0.0	92.2
Total	Lumens	35642.3	0.0	35642.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	799.1	2.2
10°-20°	1930.4	5.4
20°-30°	3088.5	8.7
30°-40°	5227.5	14.7
40°-50°	8582.5	24.1
50°-60°	9432.8	26.5
60°-70°	5410.7	15.2
70°-80°	1105.5	3.1
80°-90°	65.2	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°	35642.3	100.0
0°-180°	35642.3	100.0

Coefficient of Utilization



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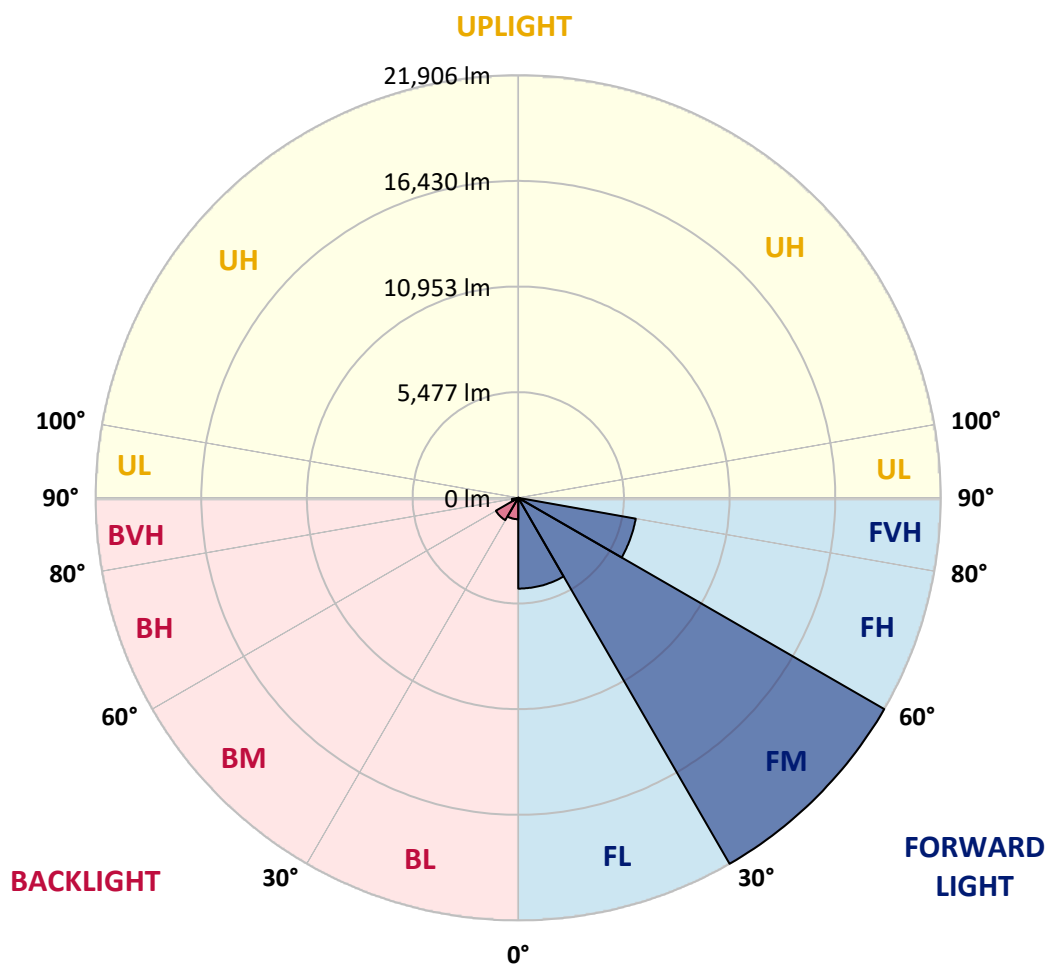
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4706.8	13.2			
FM	(30°-60°)	21906.0	61.5			
FH	(60°-80°)	6185.2	17.4			G3/7500
FVH	(80°-90°)	60.8	0.2			G1/100
BL	(0°-30°)	1111.3	3.1	B3/2500		
BM	(30°-60°)	1336.8	3.8	B2/2500		
BH	(60°-80°)	331.0	0.9	B1/500		G1/500
BVH	(80°-90°)	4.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9
2.5°	10657.0	10523.0	10503.2	10476.8	10221.9	10030.6	9753.7	9450.5	9109.8	8762.5	8608.7
5°	12312.0	12206.4	12186.7	12063.6	11773.5	11448.2	10955.9	10333.9	9698.8	8951.5	8630.7
7.5°	12632.8	12613.0	12703.1	12698.7	12659.2	12402.1	11986.7	11246.0	10292.2	9184.5	8687.8
10°	11202.1	11252.7	11520.8	11755.9	12391.1	12760.3	12670.2	12059.2	10903.2	9450.5	8751.6
12.5°	9898.8	9839.5	10030.6	10296.6	11035.0	12133.9	12953.7	12738.3	11602.1	9751.5	8846.1
15°	9081.2	9057.0	9164.7	9287.8	9850.5	10958.2	12624.0	13289.9	12274.6	10107.6	8988.9
17.5°	8819.7	8799.9	8832.8	8863.7	9228.5	10085.6	11839.5	13628.4	12918.6	10514.1	9147.2
20°	9032.9	9006.5	9002.1	8978.0	9129.6	9714.2	11129.6	13652.6	13496.6	10883.4	9283.4
22.5°	9654.9	9624.0	9516.4	9419.6	9432.9	9764.8	10813.0	13410.9	13931.7	11228.5	9369.1
25°	10782.3	10731.7	10507.6	10182.3	9975.7	10116.3	10861.4	13092.2	14347.1	11498.8	9327.4
27.5°	12193.3	12127.4	11839.5	11356.0	10883.4	10712.0	11210.8	12872.4	14692.1	11705.4	9237.3
30°	13575.7	13489.9	13206.4	12830.6	12140.5	11599.9	11841.6	12969.1	15103.2	11920.7	9118.6
32.5°	15068.0	14986.6	14610.9	14144.9	13573.5	12846.0	12705.4	13441.6	15606.4	12221.9	9035.1
35°	16955.9	16828.3	16294.3	15659.1	15052.6	14316.4	13874.6	14257.0	16276.8	12681.2	9081.2
37.5°	19105.3	18933.9	18358.1	17481.2	16690.0	15865.8	15298.7	15377.9	17259.2	13296.6	9224.1
40°	21131.6	20975.6	20443.7	19617.4	18623.9	17624.0	17019.6	16843.8	18615.2	14046.0	9474.6
42.5°	22347.0	22206.3	21982.1	21632.7	20795.4	19775.6	19013.0	18632.8	20219.6	14942.7	9780.1
45°	22415.1	22292.1	22593.2	22999.8	22834.9	22155.8	21226.1	20529.4	21830.6	15784.5	10096.6
47.5°	21325.0	21241.6	22155.8	23575.6	24283.3	24568.9	23711.8	22267.9	23160.2	16388.8	10226.2
50°	18353.6	18322.9	20204.2	22810.8	24834.9	26683.2	26333.8	23885.5	24190.9	16700.9	10103.2
52.5°	15914.1	15802.0	16898.8	20362.4	24032.8	27795.3	28896.4	25472.3	24911.8	16760.3	9815.3
55°	12070.2	11971.3	13347.1	16265.7	21446.0	27399.7	30771.1	27109.6	25428.3	16608.6	9298.8
57.5°	6474.6	6413.1	8151.5	10826.3	16764.7	25026.1	31109.6	28841.4	25863.5	16206.4	8575.8
60°	2520.9	2509.8	3160.4	5252.7	10188.9	20360.2	29401.9	29881.0	26136.0	15711.9	7971.3
62.5°	1525.3	1558.2	1663.7	2358.2	4501.1	12648.2	25465.7	28698.6	26318.4	15259.2	7472.5
65°	1261.6	1263.7	1276.9	1619.8	2156.0	5292.3	19171.2	24808.5	25867.8	14452.6	6764.8
67.5°	1081.3	1101.1	1151.6	1285.7	1520.9	2320.8	11037.2	19217.4	23127.3	12575.7	5661.5
70°	852.7	879.1	942.9	1057.1	1173.6	1452.7	4079.1	12786.7	17667.9	9479.0	4281.3
72.5°	718.6	716.5	749.5	859.4	931.8	1021.9	1569.2	7164.7	10268.0	4525.3	2118.7
75°	556.1	578.0	619.8	718.6	762.6	740.7	850.5	2617.5	3679.0	1371.4	720.9
77.5°	435.1	452.7	490.2	586.8	630.8	525.3	490.2	936.2	1182.4	492.3	325.2
80°	195.6	210.9	334.0	433.0	514.2	362.6	265.9	479.1	525.3	224.2	164.8
82.5°	35.2	59.3	195.6	228.6	263.7	235.1	138.5	248.4	257.2	90.1	57.1
85°	2.2	4.4	68.2	83.5	105.5	76.9	41.7	98.9	85.7	30.7	21.9
87.5°	0.0	0.0	0.0	2.2	2.2	11.0	13.2	17.6	13.2	11.0	8.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9	8588.9
2.5°	8450.5	8138.4	7835.1	7586.7	7441.7	7195.5	7032.9	7006.5	6938.4	6997.8
5°	8287.8	7729.6	7164.7	6659.3	6243.9	5707.6	5307.7	5138.4	4991.1	5041.7
7.5°	8210.9	7329.6	6450.5	5586.8	4698.8	3841.7	3204.4	2938.5	2736.2	2764.8
10°	8107.6	6914.2	5536.2	4217.6	3028.6	2182.4	1742.8	1580.2	1490.1	1492.3
12.5°	8028.5	6417.5	4474.6	2859.3	1844.0	1393.4	1257.2	1217.6	1191.2	1193.4
15°	7989.0	5832.9	3426.4	1905.5	1318.7	1180.2	1147.3	1129.7	1112.1	1109.9
17.5°	7923.0	5182.4	2507.7	1391.2	1153.8	1105.5	1076.9	1057.1	1035.1	1030.7
20°	7824.1	4443.9	1832.9	1175.8	1081.3	1044.0	1004.4	978.1	951.6	947.2
22.5°	7641.7	3663.7	1408.8	1087.9	1028.6	986.8	938.5	907.6	881.3	876.9
25°	7303.2	2931.8	1186.8	1033.0	982.4	931.8	879.1	837.3	813.1	808.8
27.5°	6874.7	2303.3	1076.9	982.4	923.1	876.9	817.5	778.0	756.0	751.6
30°	6369.1	1773.6	1013.2	925.3	852.7	813.1	760.4	727.4	714.3	714.3
32.5°	5824.2	1417.6	986.8	868.1	791.2	747.2	705.5	692.3	687.9	685.7
35°	5312.1	1230.7	973.6	821.9	736.3	694.5	676.9	679.2	687.9	687.9
37.5°	4857.1	1171.4	967.0	789.0	687.9	650.6	661.5	681.3	672.5	672.5
40°	4446.1	1178.0	962.6	764.9	648.3	626.4	648.3	632.9	611.0	608.7
42.5°	4131.8	1233.0	953.9	745.1	624.1	608.7	600.0	575.8	573.6	578.0
45°	3903.3	1281.4	951.6	736.3	597.8	569.2	558.2	534.0	578.0	589.0
47.5°	3632.9	1281.4	951.6	705.5	553.8	542.8	525.3	498.9	542.8	553.8
50°	3283.5	1200.0	914.3	670.3	518.6	512.1	481.3	448.3	439.5	446.2
52.5°	2841.7	1052.8	819.8	622.0	483.5	470.4	433.0	408.8	402.2	402.2
55°	2338.4	881.3	692.3	551.7	446.2	422.0	395.6	384.6	378.0	373.6
57.5°	1901.1	723.0	556.1	490.2	411.0	380.2	371.5	358.2	347.3	340.6
60°	1560.5	569.2	459.3	435.1	375.9	347.3	345.0	327.5	298.9	294.5
62.5°	1204.4	417.6	386.8	378.0	340.6	316.5	312.1	277.0	233.0	224.2
65°	850.5	325.2	312.1	331.9	303.3	281.4	270.3	217.6	171.4	164.8
67.5°	597.8	272.5	246.1	290.1	263.7	235.1	228.6	184.6	142.9	138.5
70°	426.4	222.0	202.2	248.4	210.9	206.6	193.4	153.9	116.4	112.1
72.5°	301.1	169.2	156.0	215.4	145.0	178.0	158.3	118.7	87.9	83.5
75°	222.0	120.8	109.9	125.3	105.5	134.1	112.1	79.1	54.9	52.8
77.5°	162.7	76.9	65.9	61.5	61.5	83.5	61.5	33.0	24.2	21.9
80°	114.3	35.2	30.7	26.3	24.2	19.8	8.8	4.4	2.2	2.2
82.5°	68.2	15.4	15.4	11.0	6.6	0.0	0.0	0.0	0.0	0.0
85°	15.4	6.6	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	2.2	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)