

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: P965235

Luminaire Tested: **NAV-SB3D-830-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965235
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-SB3D-830-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 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: 23975.8 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 218.1
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

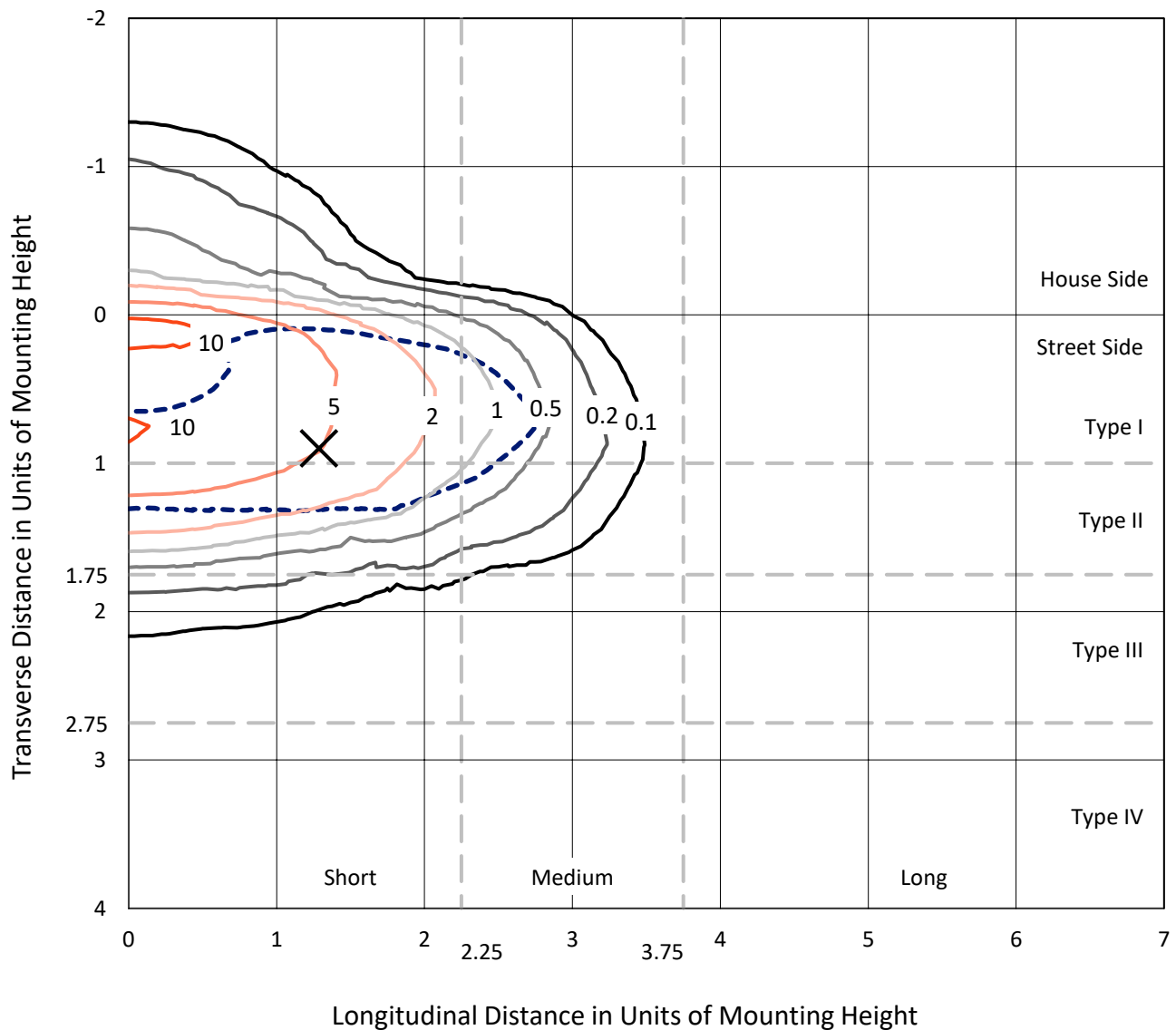


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Iso-Footcandle Lines of Horizontal Illumination

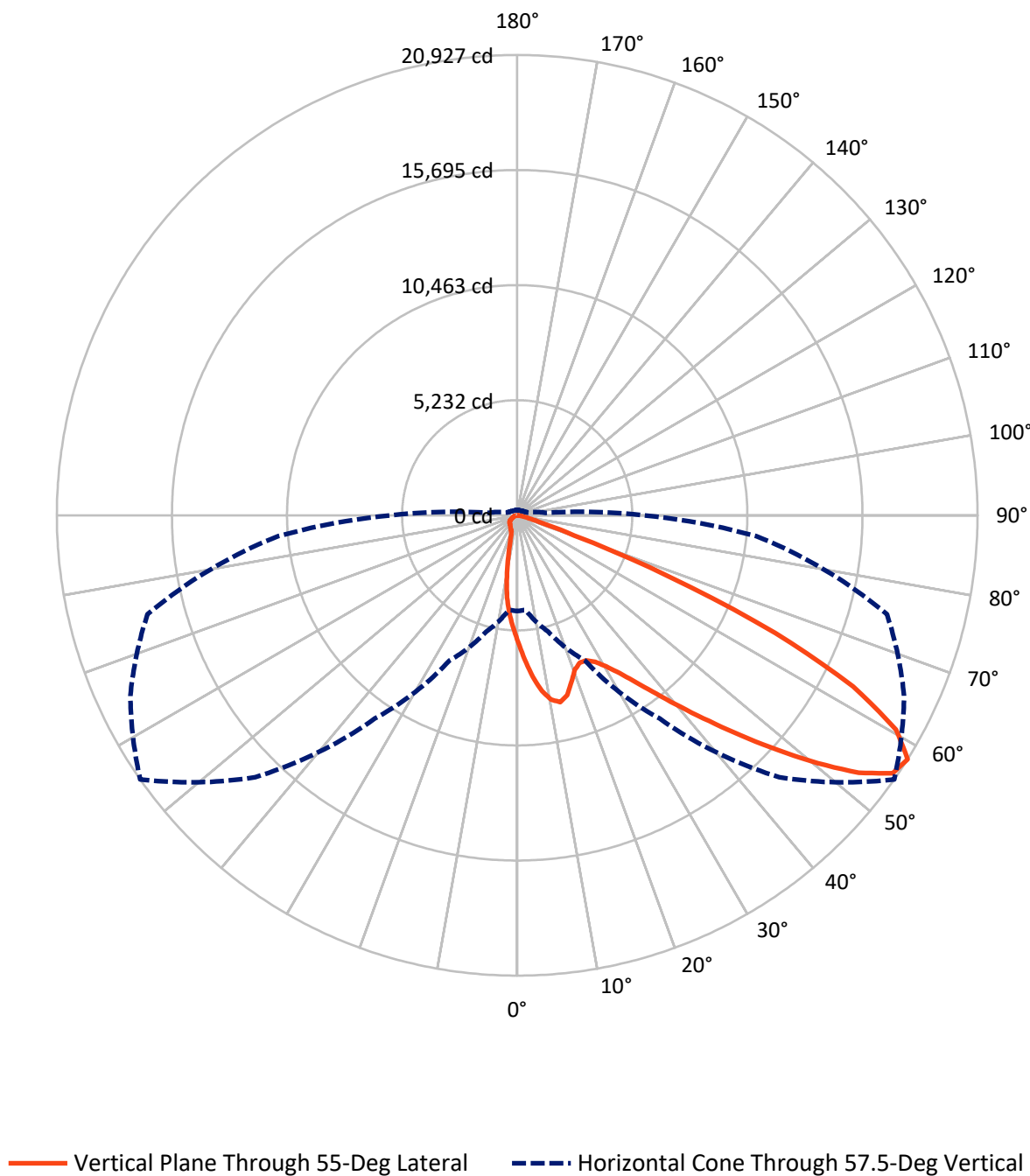
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.2 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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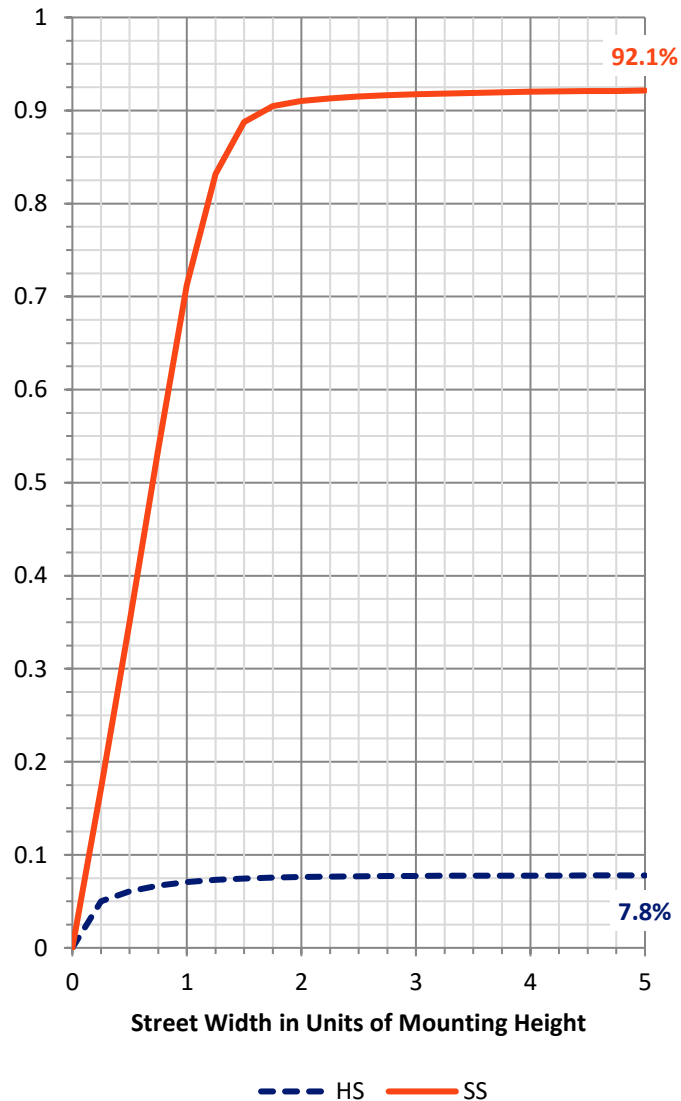
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1872.4	0.0	1872.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	22103.4	0.0	22103.4
	% Fixture	92.2	0.0	92.2
Total	Lumens	23975.8	0.0	23975.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	537.6	2.2
10°-20°	1298.5	5.4
20°-30°	2077.6	8.7
30°-40°	3516.5	14.7
40°-50°	5773.3	24.1
50°-60°	6345.2	26.5
60°-70°	3639.6	15.2
70°-80°	743.7	3.1
80°-90°	43.9	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°	23975.8	100.0
0°-180°	23975.8	100.0

Coefficient of Utilization



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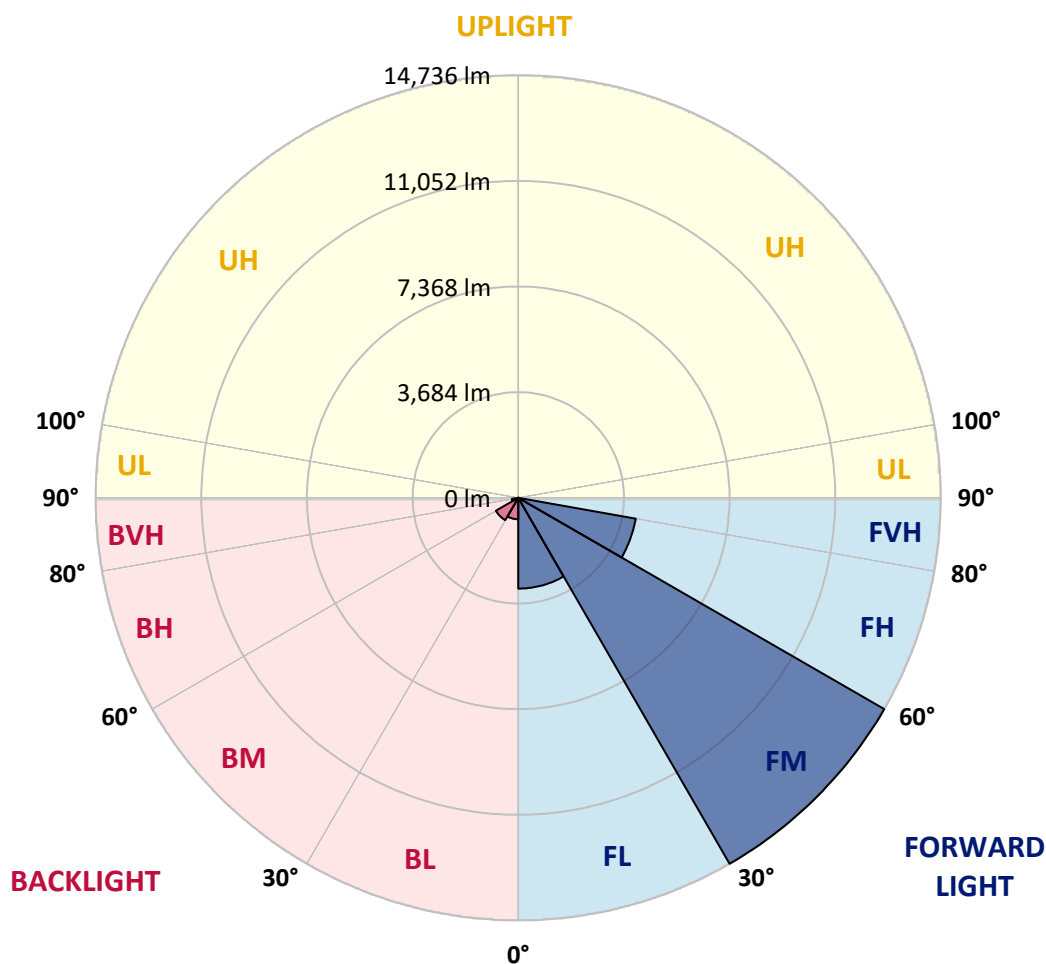
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3166.1	13.2			
FM	(30°-60°)	14735.7	61.5			
FH	(60°-80°)	4160.6	17.4			G2/5000
FVH	(80°-90°)	40.9	0.2			G1/100
BL	(0°-30°)	747.5	3.1	B2/1000		
BM	(30°-60°)	899.2	3.8	B1/1000		
BH	(60°-80°)	222.7	0.9	B1/500		G1/500
BVH	(80°-90°)	3.0	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°	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6
2.5°	7168.7	7078.5	7065.2	7047.5	6876.0	6747.4	6561.1	6357.2	6128.0	5894.4	5790.8
5°	8282.0	8211.0	8197.7	8114.9	7919.8	7700.9	7369.9	6951.4	6524.1	6021.5	5805.7
7.5°	8497.9	8484.5	8545.1	8542.1	8515.6	8342.6	8063.2	7564.9	6923.4	6178.2	5844.1
10°	7535.4	7569.4	7749.7	7908.0	8335.2	8583.6	8523.0	8112.0	7334.3	6357.2	5887.0
12.5°	6658.7	6618.7	6747.4	6926.3	7423.0	8162.2	8713.6	8568.8	7804.5	6559.7	5950.5
15°	6108.7	6092.5	6164.9	6247.7	6626.2	7371.3	8491.9	8939.8	8256.9	6799.1	6046.7
17.5°	5932.8	5919.5	5941.7	5962.3	6207.8	6784.4	7964.1	9167.5	8690.1	7072.6	6153.1
20°	6076.2	6058.5	6055.5	6039.2	6141.3	6534.5	7486.6	9183.8	9078.8	7321.1	6244.7
22.5°	6494.6	6473.9	6401.4	6336.4	6345.3	6568.5	7273.7	9021.1	9371.6	7553.1	6302.4
25°	7253.0	7219.0	7068.2	6849.4	6710.5	6805.1	7306.2	8806.8	9651.0	7735.0	6274.3
27.5°	8202.2	8157.8	7964.1	7638.9	7321.1	7205.7	7541.3	8659.0	9883.0	7873.9	6213.7
30°	9132.0	9074.4	8883.7	8630.9	8166.7	7803.0	7965.6	8724.0	10159.5	8018.8	6133.9
32.5°	10135.9	10081.2	9828.4	9515.0	9130.6	8641.3	8546.7	9041.8	10498.0	8221.3	6077.6
35°	11405.8	11320.1	10960.8	10533.6	10125.6	9630.3	9333.1	9590.3	10949.0	8530.4	6108.7
37.5°	12851.7	12736.3	12349.0	11759.2	11226.9	10672.5	10291.1	10344.3	11609.9	8944.3	6204.8
40°	14214.8	14109.8	13752.0	13196.2	12528.0	11855.3	11448.7	11330.5	12522.0	9448.4	6373.3
42.5°	15032.3	14937.7	14787.0	14551.8	13988.6	13302.7	12789.6	12533.8	13601.2	10051.7	6578.9
45°	15078.2	14995.3	15197.9	15471.5	15360.5	14903.7	14278.4	13809.7	14684.9	10617.9	6791.8
47.5°	14344.9	14288.7	14903.7	15858.8	16334.8	16527.0	15950.4	14979.1	15579.4	11024.4	6879.0
50°	12346.1	12325.4	13590.9	15344.2	16705.9	17949.2	17714.2	16067.2	16272.7	11234.3	6796.2
52.5°	10705.1	10629.7	11367.4	13697.4	16166.3	18697.2	19438.0	17134.6	16757.6	11274.3	6602.5
55°	8119.3	8052.8	8978.3	10941.6	14426.2	18431.1	20699.1	18236.0	17105.0	11172.2	6255.1
57.5°	4355.3	4313.9	5483.3	7282.6	11277.2	16834.5	20926.7	19401.0	17397.7	10901.7	5768.7
60°	1695.8	1688.3	2126.0	3533.4	6853.9	13695.8	19778.0	20100.2	17581.1	10569.1	5362.2
62.5°	1026.0	1048.2	1119.1	1586.3	3027.7	8508.2	17130.2	19304.8	17703.8	10264.5	5026.5
65°	848.6	850.0	859.0	1089.6	1450.3	3559.9	12896.0	16688.1	17400.7	9721.9	4550.5
67.5°	727.3	740.7	774.7	864.9	1023.1	1561.2	7424.5	12927.1	15557.1	8459.4	3808.4
70°	573.6	591.3	634.3	711.1	789.5	977.2	2743.9	8601.3	11884.9	6376.3	2879.9
72.5°	483.4	482.0	504.1	578.1	626.9	687.5	1055.5	4819.5	6907.1	3044.0	1425.2
75°	374.0	388.8	416.9	483.4	513.0	498.3	572.2	1760.7	2474.9	922.5	484.9
77.5°	292.7	304.5	329.6	394.7	424.4	353.3	329.6	629.8	795.4	331.2	218.8
80°	131.6	142.0	224.7	291.2	345.9	244.0	178.9	322.3	353.3	150.8	110.9
82.5°	23.7	39.9	131.6	153.8	177.4	158.2	93.2	167.1	173.0	60.6	38.4
85°	1.4	3.0	45.8	56.2	70.9	51.8	28.1	66.5	57.7	20.7	14.8
87.5°	0.0	0.0	0.0	1.4	1.4	7.4	8.9	11.8	8.9	7.4	5.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6	5777.6
2.5°	5684.4	5474.5	5270.4	5103.4	5005.9	4840.3	4730.9	4713.2	4667.3	4707.2
5°	5575.1	5199.5	4819.5	4479.6	4200.1	3839.4	3570.3	3456.5	3357.4	3391.4
7.5°	5523.3	4930.5	4339.1	3758.1	3160.8	2584.2	2155.5	1976.6	1840.6	1859.9
10°	5453.8	4651.0	3724.0	2837.0	2037.2	1468.0	1172.4	1062.9	1002.3	1003.8
12.5°	5400.6	4316.9	3010.0	1923.4	1240.4	937.3	845.6	819.1	801.2	802.8
15°	5374.0	3923.7	2304.8	1281.8	887.0	793.9	771.7	759.9	748.0	746.6
17.5°	5329.6	3486.0	1686.8	935.8	776.1	743.6	724.4	711.1	696.3	693.4
20°	5263.1	2989.3	1233.0	791.0	727.3	702.2	675.6	657.8	640.1	637.1
22.5°	5140.4	2464.5	947.6	731.8	691.9	663.8	631.3	610.6	592.9	589.9
25°	4912.7	1972.2	798.4	694.8	660.8	626.9	591.3	563.2	547.0	544.1
27.5°	4624.4	1549.4	724.4	660.8	620.9	589.9	549.9	523.4	508.6	505.6
30°	4284.4	1193.1	681.5	622.4	573.6	547.0	511.5	489.3	480.5	480.5
32.5°	3917.8	953.6	663.8	583.9	532.2	502.7	474.6	465.7	462.8	461.2
35°	3573.3	827.9	655.0	552.9	495.3	467.2	455.3	456.8	462.8	462.8
37.5°	3267.3	788.0	650.5	530.7	462.8	437.6	445.0	458.3	452.4	452.4
40°	2990.7	792.4	647.5	514.4	436.1	421.4	436.1	425.8	411.0	409.5
42.5°	2779.4	829.4	641.6	501.2	419.8	409.5	403.6	387.3	385.9	388.8
45°	2625.6	861.9	640.1	495.3	402.1	382.9	375.6	359.3	388.8	396.2
47.5°	2443.8	861.9	640.1	474.6	372.6	365.2	353.3	335.6	365.2	372.6
50°	2208.8	807.2	615.0	450.9	348.9	344.5	323.8	301.6	295.7	300.1
52.5°	1911.5	708.2	551.4	418.4	325.2	316.4	291.2	275.0	270.5	270.5
55°	1573.0	592.9	465.7	371.0	300.1	283.8	266.1	258.7	254.3	251.3
57.5°	1278.8	486.4	374.0	329.6	276.4	255.7	249.9	241.0	233.6	229.2
60°	1049.7	382.9	308.9	292.7	252.8	233.6	232.1	220.3	201.1	198.1
62.5°	810.2	280.8	260.2	254.3	229.2	212.9	209.9	186.2	156.7	150.8
65°	572.2	218.8	209.9	223.2	204.0	189.2	181.8	146.4	115.3	110.9
67.5°	402.1	183.3	165.5	195.2	177.4	158.2	153.8	124.2	96.1	93.2
70°	286.8	149.3	136.0	167.1	142.0	139.0	130.1	103.5	78.3	75.4
72.5°	202.5	113.9	105.0	144.8	97.6	119.7	106.4	79.8	59.1	56.2
75°	149.3	81.3	73.9	84.3	70.9	90.2	75.4	53.2	37.0	35.5
77.5°	109.4	51.8	44.4	41.4	41.4	56.2	41.4	22.1	16.3	14.8
80°	76.9	23.7	20.7	17.7	16.3	13.3	5.9	3.0	1.4	1.4
82.5°	45.8	10.4	10.4	7.4	4.4	0.0	0.0	0.0	0.0	0.0
85°	10.4	4.4	4.4	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)