

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: P962601

Luminaire Tested: **NAV-SB2C-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962601
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2C-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14029.2 lumens
Efficiency: N/A
Efficacy: 139.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 100.9
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

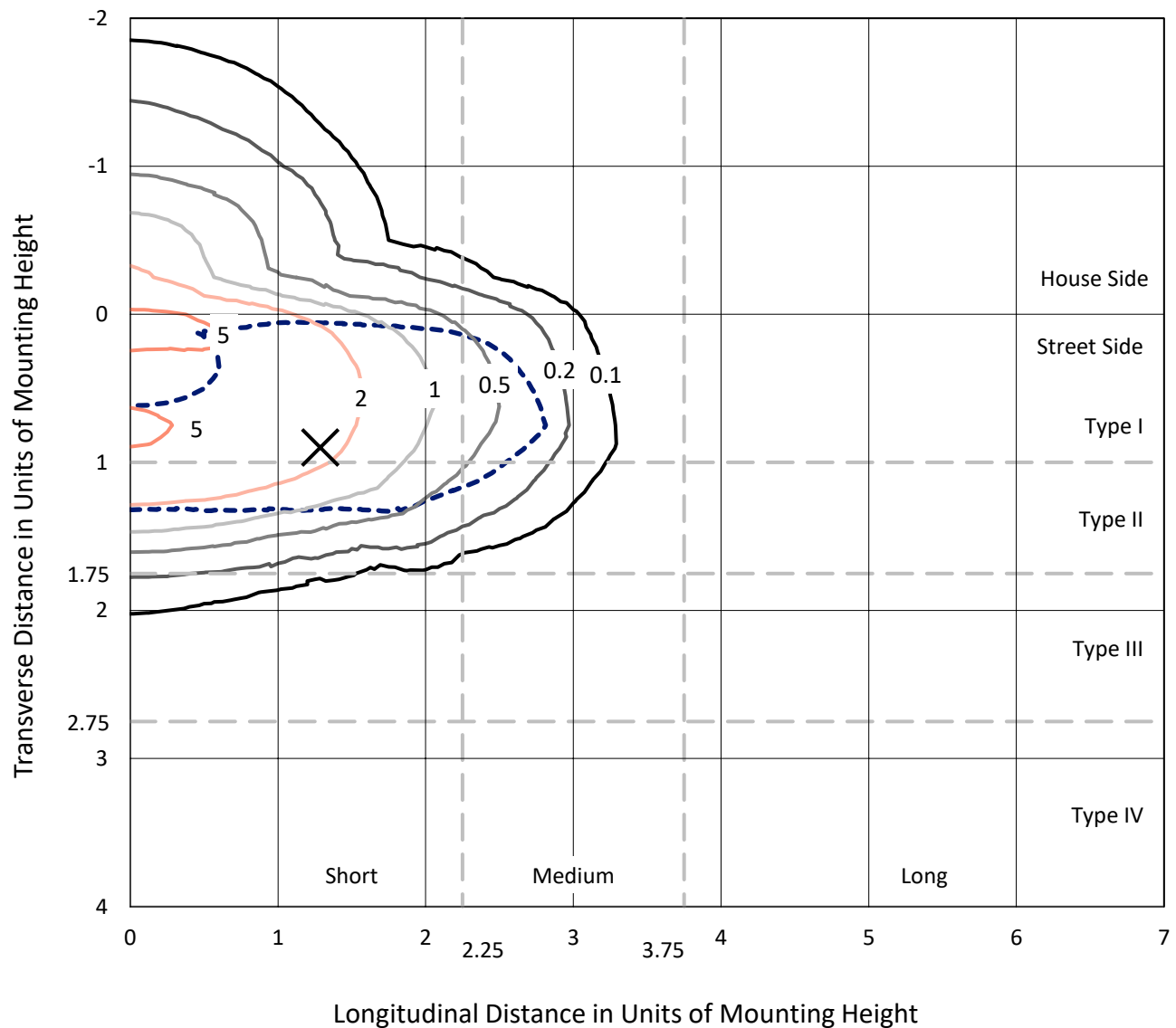


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

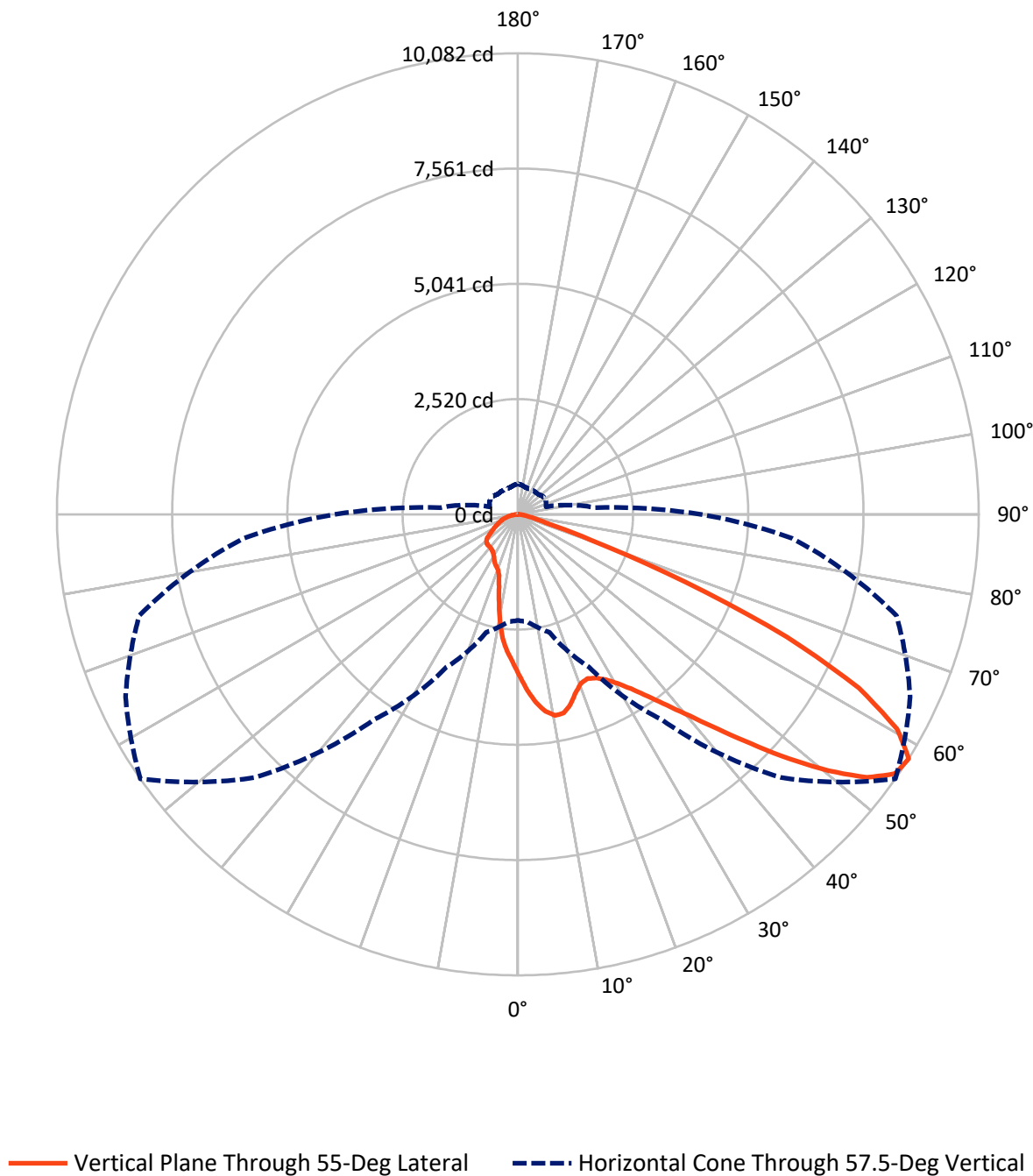


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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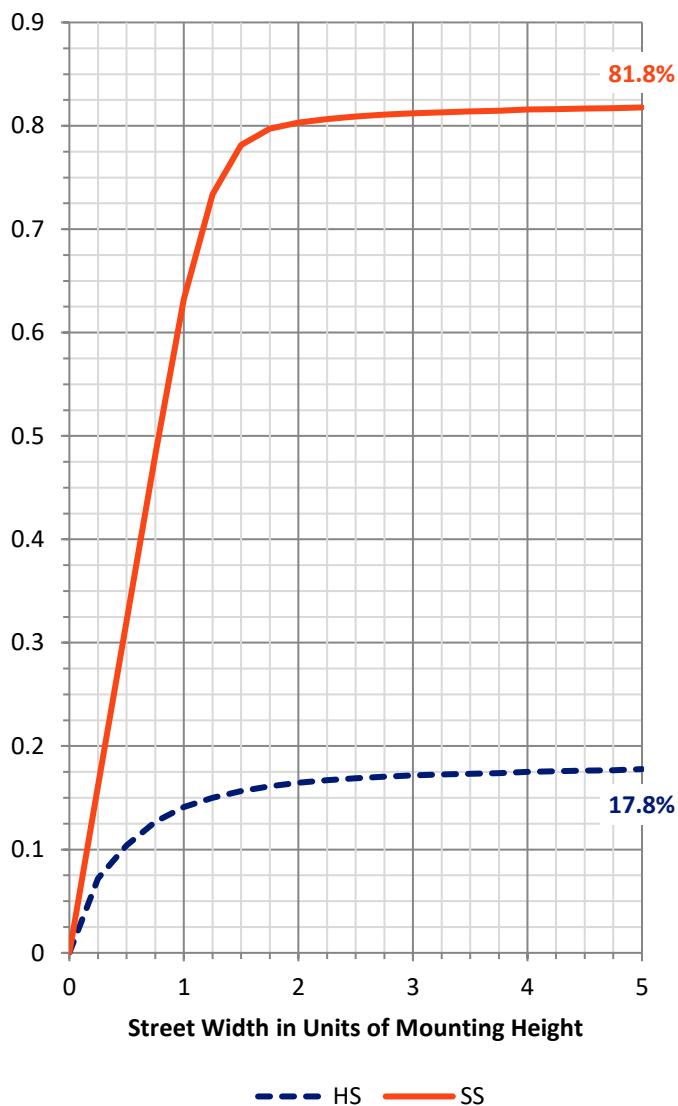
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2538.5	0.0	2538.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11490.7	0.0	11490.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	14029.2	0.0	14029.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.2	2.3
10°-20°	823.3	5.9
20°-30°	1313.8	9.4
30°-40°	2080.1	14.8
40°-50°	3183.8	22.7
50°-60°	3410.1	24.3
60°-70°	2145.3	15.3
70°-80°	634.4	4.5
80°-90°	112.2	0.8
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°	14029.2	100.0
0°-180°	14029.2	100.0

Coefficient of Utilization



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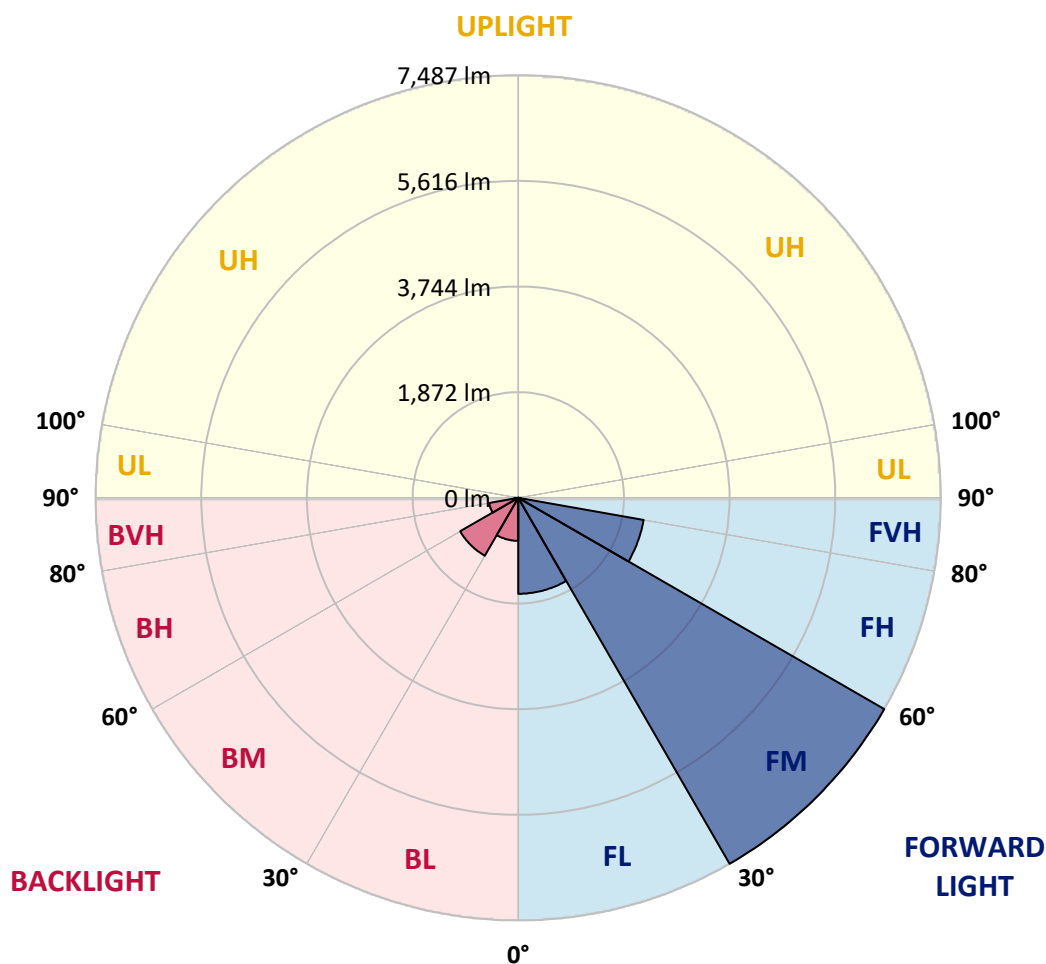
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1700.3	12.1			
FM	(30°-60°)	7487.5	53.4			
FH	(60°-80°)	2255.5	16.1			G2/5000
FVH	(80°-90°)	47.4	0.3			G1/100
BL	(0°-30°)	763.0	5.4	B2/1000		
BM	(30°-60°)	1186.5	8.5	B2/2500		
BH	(60°-80°)	524.3	3.7	B2/1000		G2/1000
BVH	(80°-90°)	64.8	0.5			G1/100
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°	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2
2.5°	4033.1	4030.2	4046.1	3991.8	3954.8	3904.7	3838.7	3754.6	3664.0	3568.2	3526.8
5°	4396.4	4371.0	4387.7	4347.1	4306.5	4231.1	4133.2	3996.1	3828.6	3637.8	3536.2
7.5°	4339.1	4321.7	4364.6	4400.7	4431.3	4421.8	4350.0	4206.4	3990.3	3713.3	3566.0
10°	3877.2	3857.6	3917.8	4043.2	4227.4	4387.7	4474.7	4385.6	4155.7	3795.9	3595.0
12.5°	3469.5	3460.1	3500.1	3601.5	3806.0	4113.6	4458.8	4542.2	4327.5	3893.9	3634.2
15°	3295.5	3283.9	3309.3	3360.8	3491.4	3777.8	4313.7	4649.5	4496.5	4006.9	3696.6
17.5°	3257.0	3244.0	3254.9	3281.7	3365.9	3584.1	4094.8	4702.5	4672.8	4133.2	3748.8
20°	3328.2	3317.3	3318.7	3317.3	3376.0	3549.4	3942.5	4682.2	4826.5	4249.2	3799.6
22.5°	3500.1	3481.9	3482.6	3444.2	3476.1	3610.3	3902.6	4627.8	4963.6	4350.7	3838.0
25°	3780.0	3747.3	3753.9	3656.0	3647.3	3746.6	3964.9	4585.7	5099.9	4432.0	3845.3
27.5°	4162.9	4125.9	4106.4	3960.6	3890.9	3940.2	4091.8	4600.2	5229.0	4502.3	3827.1
30°	4641.6	4596.6	4556.7	4350.0	4223.8	4205.7	4289.1	4695.9	5381.4	4576.3	3795.9
32.5°	5228.3	5176.0	5103.6	4829.4	4651.8	4556.7	4544.3	4866.4	5559.7	4670.6	3780.0
35°	5926.7	5858.5	5755.6	5400.9	5176.0	4981.7	4880.8	5112.3	5804.2	4812.7	3798.1
37.5°	6646.1	6569.2	6474.9	6052.9	5776.6	5490.1	5291.4	5445.8	6129.8	5005.6	3846.0
40°	7309.7	7223.4	7135.6	6760.0	6463.3	6118.1	5794.0	5867.9	6527.9	5236.2	3927.2
42.5°	7701.3	7637.6	7604.2	7401.1	7171.9	6821.7	6419.2	6368.3	6975.4	5501.7	4020.0
45°	7683.9	7657.9	7760.8	7844.9	7790.6	7596.2	7151.6	6921.7	7424.3	5731.6	4105.6
47.5°	7273.5	7290.8	7520.7	7993.7	8201.7	8303.3	7985.7	7465.0	7814.5	5903.5	4144.1
50°	6156.6	6171.1	6703.4	7723.2	8307.6	8879.9	8813.2	7995.1	8117.0	6008.7	4135.4
52.5°	5272.5	5281.9	5510.4	6921.0	7958.1	9170.0	9558.7	8494.8	8338.2	6037.7	4086.8
55°	3971.5	4004.1	4260.1	5429.9	7048.6	8940.0	10012.7	9009.8	8478.1	6040.5	4035.9
57.5°	2320.1	2355.6	2671.8	3685.7	5478.5	8138.7	10081.6	9466.6	8573.1	6017.4	4005.5
60°	1136.4	1151.7	1289.4	1937.1	3378.2	6594.6	9527.5	9687.8	8626.1	6005.1	4004.1
62.5°	765.9	763.7	769.5	955.9	1664.4	4236.8	8372.9	9300.5	8597.8	5957.9	3989.6
65°	658.6	650.6	628.7	670.9	862.3	1937.9	6469.2	8144.4	8382.3	5839.6	3890.2
67.5°	569.3	570.0	570.7	557.7	615.7	894.2	3953.3	6415.5	7609.3	5279.8	3507.2
70°	471.4	478.0	480.8	480.8	501.8	586.7	1687.7	4397.1	6002.1	4139.7	2824.8
72.5°	429.4	415.5	417.0	409.8	409.8	446.8	679.6	2492.7	3781.4	2328.8	1723.9
75°	350.2	359.0	360.5	355.4	338.7	340.9	403.2	1045.8	1618.1	966.1	852.2
77.5°	302.5	302.5	305.3	301.7	288.6	255.3	269.1	405.4	550.4	396.0	425.7
80°	242.9	242.2	254.6	261.8	241.5	188.6	171.9	224.1	244.4	174.0	221.2
82.5°	118.2	125.5	174.8	199.5	183.5	136.3	105.2	139.3	130.6	76.9	99.3
85°	68.9	65.3	78.3	111.0	105.2	75.4	50.7	72.6	68.2	39.2	39.9
87.5°	21.7	20.3	16.0	37.7	30.4	21.0	13.7	21.0	18.9	8.7	8.7
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°	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2	3515.2
2.5°	3475.4	3389.8	3304.9	3227.3	3180.2	3149.7	3119.3	3085.1	3072.1	3052.6
5°	3440.5	3275.2	3128.0	3001.1	2885.8	2795.1	2703.7	2629.7	2596.3	2618.9
7.5°	3420.2	3180.9	2953.9	2721.1	2497.0	2317.8	2161.9	2052.5	2003.2	2015.5
10°	3402.1	3074.3	2728.3	2360.7	2038.6	1816.7	1657.2	1573.8	1542.6	1549.1
12.5°	3385.5	2954.7	2456.4	1972.6	1630.4	1483.9	1438.2	1438.9	1444.6	1449.0
15°	3382.5	2810.3	2152.5	1633.2	1409.9	1400.5	1449.8	1480.9	1497.6	1502.8
17.5°	3378.2	2637.7	1842.8	1401.9	1356.2	1420.0	1465.7	1486.0	1499.1	1499.8
20°	3360.8	2418.7	1557.1	1291.7	1344.6	1399.7	1428.0	1443.9	1454.9	1458.5
22.5°	3307.1	2175.0	1334.4	1242.3	1298.2	1342.4	1375.8	1393.9	1400.5	1404.8
25°	3210.6	1902.3	1180.7	1195.3	1233.7	1289.4	1316.3	1319.9	1317.7	1324.3
27.5°	3084.4	1610.1	1085.0	1131.4	1180.7	1228.6	1243.0	1240.9	1236.6	1243.8
30°	2932.1	1347.5	1024.1	1059.5	1127.0	1170.6	1183.6	1178.5	1169.8	1177.8
32.5°	2771.2	1132.8	974.0	1009.5	1082.8	1125.6	1138.7	1133.5	1127.0	1133.5
35°	2621.0	982.7	927.6	976.2	1048.0	1090.1	1106.7	1107.4	1107.4	1115.4
37.5°	2483.3	894.9	889.2	955.1	1024.1	1061.8	1085.7	1087.1	1056.0	1058.1
40°	2355.6	857.9	871.8	941.4	1000.8	1037.1	1038.5	957.4	900.1	898.6
42.5°	2251.1	850.7	876.8	939.9	984.2	985.6	883.3	820.2	804.3	805.0
45°	2153.2	848.5	888.5	939.9	959.5	851.5	782.6	765.9	767.3	773.2
47.5°	2043.7	839.8	890.6	926.9	888.5	757.2	736.9	729.6	726.7	728.2
50°	1924.0	808.6	863.0	900.8	766.6	716.6	691.2	689.0	692.6	694.7
52.5°	1797.8	757.9	815.9	853.6	710.7	681.0	652.7	657.8	673.7	678.9
55°	1715.2	698.4	753.5	759.3	671.6	647.6	623.7	635.3	665.0	674.4
57.5°	1693.4	635.3	682.4	675.9	621.6	618.6	604.1	614.3	652.0	665.7
60°	1686.9	578.7	612.8	607.7	573.0	586.7	583.1	588.1	601.3	605.6
62.5°	1636.1	533.8	550.4	543.2	529.4	553.4	562.1	551.1	561.3	566.4
65°	1507.1	497.5	489.5	484.4	490.3	512.0	529.4	507.7	517.1	531.6
67.5°	1293.9	448.2	426.4	432.2	450.4	462.0	484.4	459.8	467.8	492.4
70°	1046.5	385.8	366.2	382.9	400.4	424.2	427.9	411.2	430.1	457.7
72.5°	740.5	322.8	308.9	343.1	348.8	380.1	372.1	364.1	390.2	399.6
75°	513.4	260.3	252.4	278.5	299.5	326.4	320.5	329.9	385.1	389.5
77.5°	324.9	202.3	197.3	213.9	242.9	272.6	282.1	389.5	657.8	683.9
80°	188.6	150.9	145.0	158.1	183.5	211.0	271.9	478.0	433.7	428.7
82.5°	105.2	103.7	96.5	100.0	122.6	152.3	384.4	336.5	273.4	282.1
85°	49.3	60.9	52.2	50.0	68.9	178.5	256.8	192.2	127.6	124.7
87.5°	13.0	11.6	11.6	13.0	29.0	153.8	102.3	82.0	48.6	47.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)