

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: P965794

Luminaire Tested: **NAV-SB4A-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965794
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-SB4A-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17383 lumens
Efficiency: N/A
Efficacy: 152.5 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): 114
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



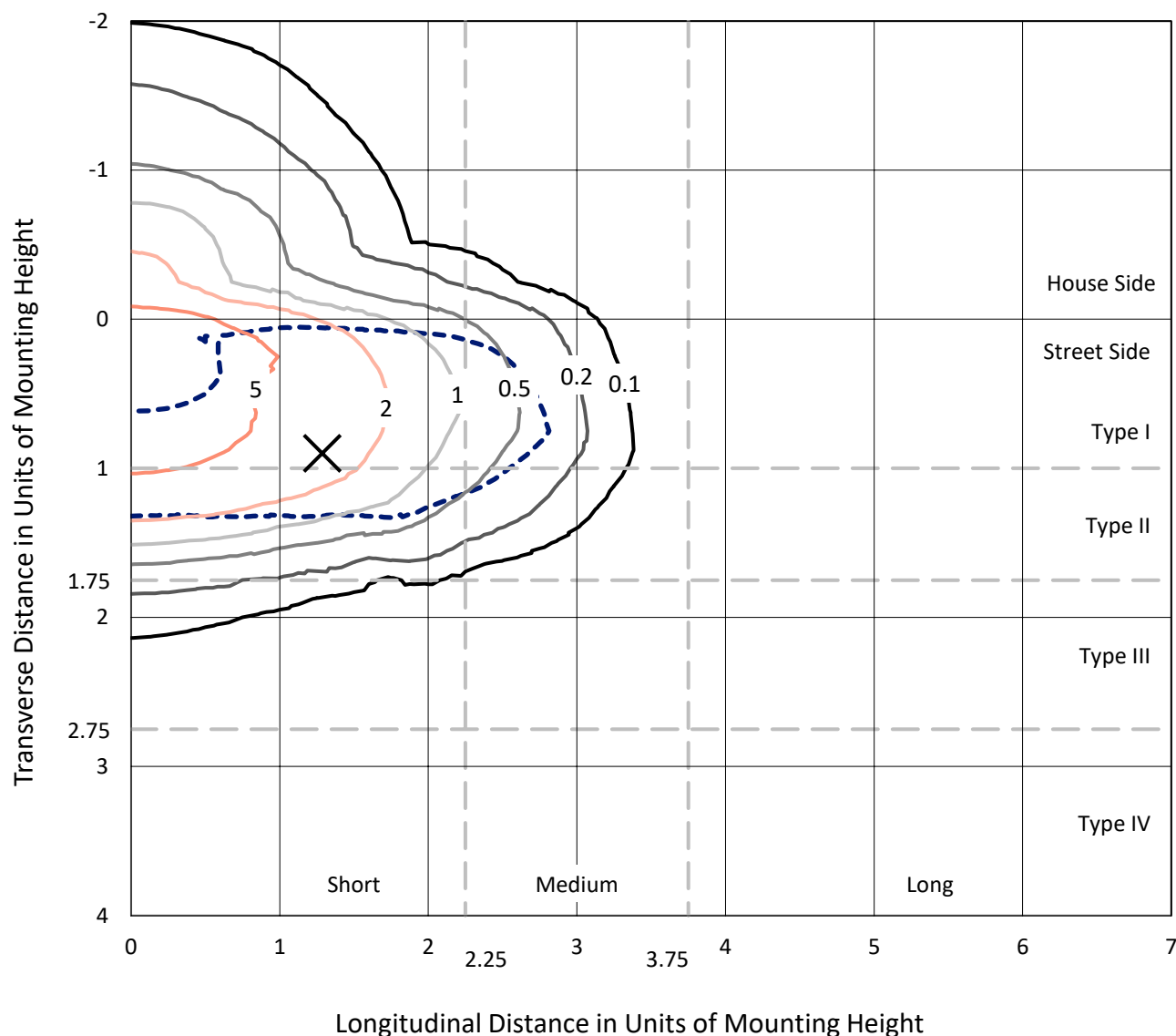
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

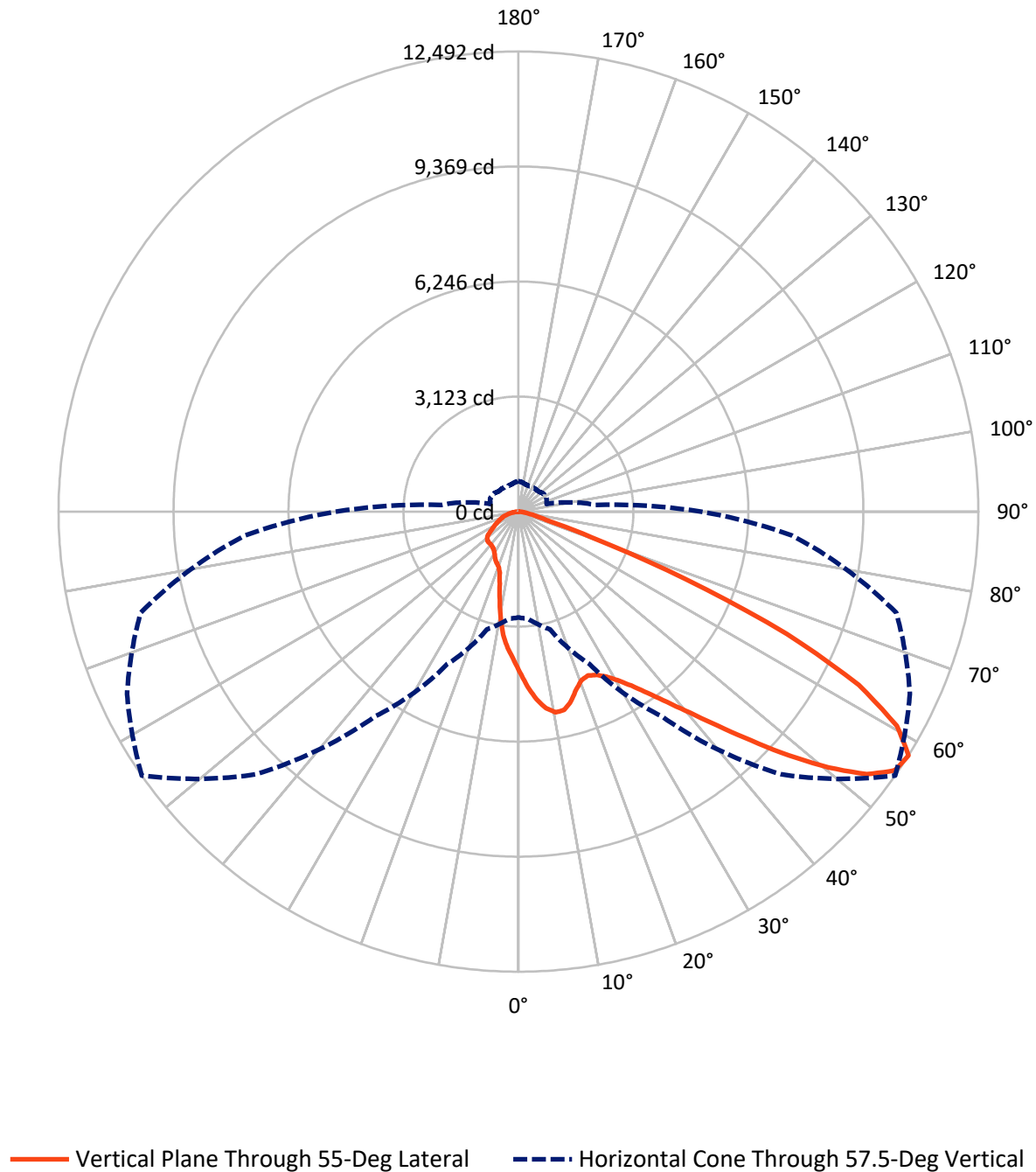


Based on 25 foot mounting height. Maximum calculated value = 8.4 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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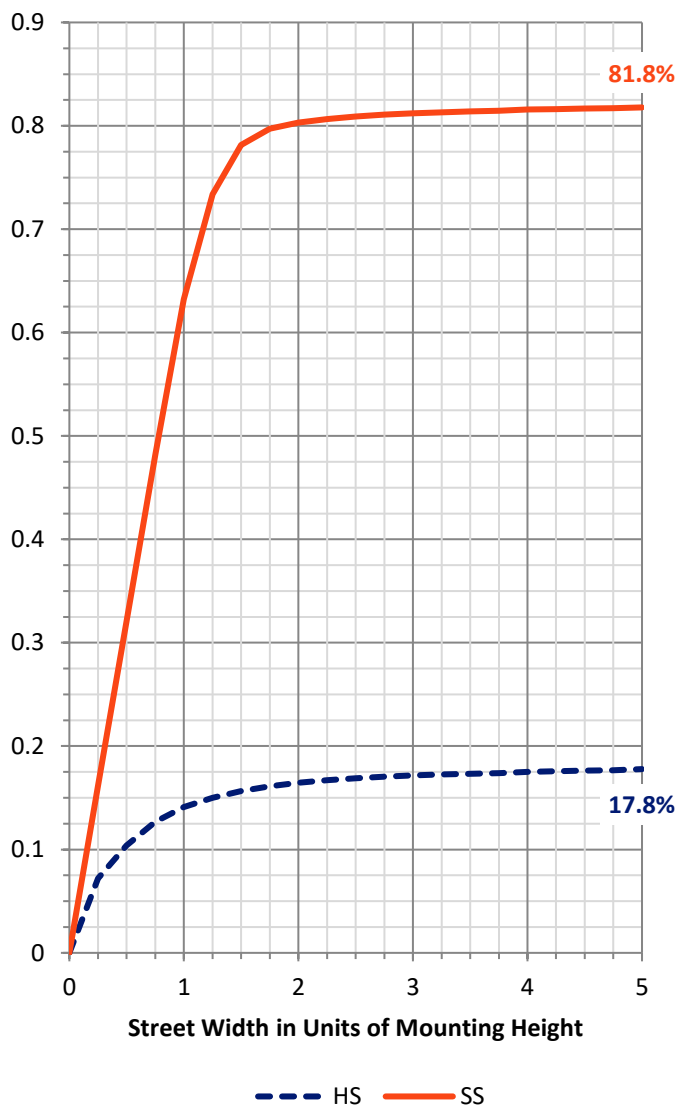
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3145.4	0.0	3145.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14237.6	0.0	14237.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	17383.0	0.0	17383.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	404.2	2.3
10°-20°	1020.2	5.9
20°-30°	1627.9	9.4
30°-40°	2577.3	14.8
40°-50°	3944.9	22.7
50°-60°	4225.3	24.3
60°-70°	2658.2	15.3
70°-80°	786.1	4.5
80°-90°	139.0	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°	17383.0	100.0
0°-180°	17383.0	100.0

Coefficient of Utilization



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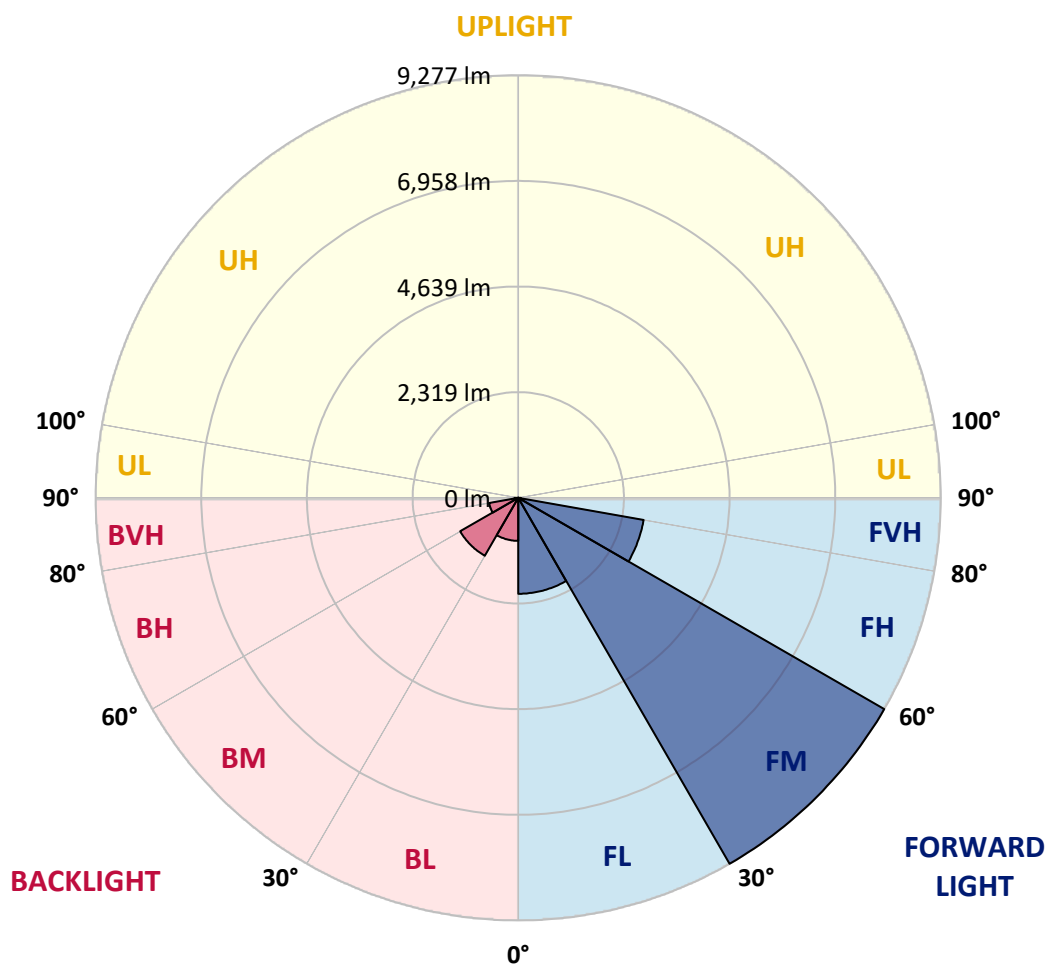
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2106.8	12.1			
FM	(30°-60°)	9277.4	53.4			
FH	(60°-80°)	2794.7	16.1			G2/5000
FVH	(80°-90°)	58.7	0.3			G1/100
BL	(0°-30°)	945.4	5.4	B2/1000		
BM	(30°-60°)	1470.1	8.5	B2/2500		
BH	(60°-80°)	649.6	3.7	B2/1000		G2/1000
BVH	(80°-90°)	80.3	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°	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6
2.5°	4997.2	4993.6	5013.4	4946.0	4900.2	4838.2	4756.4	4652.2	4539.8	4421.2	4370.0
5°	5447.5	5416.0	5436.6	5386.4	5336.0	5242.6	5121.2	4951.4	4743.8	4507.4	4381.7
7.5°	5376.4	5354.9	5407.9	5452.8	5490.5	5478.9	5390.0	5212.0	4944.2	4600.9	4418.5
10°	4804.0	4779.8	4854.3	5009.8	5238.1	5436.6	5544.5	5433.9	5149.1	4703.4	4454.4
12.5°	4299.0	4287.3	4336.8	4462.5	4715.9	5097.0	5524.7	5628.1	5362.1	4824.7	4503.0
15°	4083.3	4068.9	4100.4	4164.2	4325.9	4680.9	5345.0	5761.0	5571.5	4964.9	4580.3
17.5°	4035.7	4019.5	4033.0	4066.3	4170.5	4441.0	5073.6	5826.6	5789.8	5121.2	4645.0
20°	4123.8	4110.2	4112.1	4110.2	4183.0	4397.9	4884.9	5801.5	5980.4	5265.0	4707.8
22.5°	4336.8	4314.2	4315.1	4267.6	4307.0	4473.3	4835.4	5734.1	6150.1	5390.8	4755.5
25°	4683.6	4643.1	4651.2	4530.0	4519.1	4642.2	4912.7	5682.0	6319.1	5491.4	4764.5
27.5°	5158.1	5112.3	5088.0	4907.4	4821.1	4882.2	5070.1	5699.9	6479.0	5578.7	4742.1
30°	5751.2	5695.4	5646.0	5390.0	5233.5	5211.1	5314.4	5818.5	6667.7	5670.3	4703.4
32.5°	6478.1	6413.4	6323.6	5984.0	5763.8	5646.0	5630.7	6029.8	6888.8	5787.2	4683.6
35°	7343.5	7259.0	7131.4	6692.0	6413.4	6172.7	6047.7	6334.4	7191.6	5963.2	4706.1
37.5°	8235.0	8139.7	8022.9	7499.9	7157.5	6802.5	6556.3	6747.8	7595.1	6202.3	4765.4
40°	9057.2	8950.3	8841.5	8376.0	8008.5	7580.8	7179.1	7270.7	8088.5	6488.0	4866.0
42.5°	9542.4	9463.3	9422.0	9170.4	8886.4	8452.5	7953.7	7890.8	8642.9	6817.0	4981.1
45°	9520.9	9488.5	9616.1	9720.4	9652.9	9412.2	8861.3	8576.4	9199.2	7101.8	5087.1
47.5°	9012.2	9033.8	9318.7	9904.6	10162.5	10288.3	9894.7	9249.5	9682.7	7314.8	5134.7
50°	7628.4	7646.4	8306.0	9569.4	10293.7	11002.7	10920.0	9906.4	10057.3	7445.1	5124.0
52.5°	6532.9	6544.6	6827.7	8575.6	9860.6	11362.1	11843.8	10525.5	10331.4	7481.0	5063.7
55°	4920.8	4961.3	5278.4	6728.0	8733.7	11077.3	12406.3	11163.6	10504.8	7484.7	5000.8
57.5°	2874.7	2918.7	3310.5	4566.8	6788.2	10084.4	12491.7	11729.7	10622.6	7455.8	4963.0
60°	1408.1	1427.0	1597.8	2400.2	4185.8	8171.2	11805.1	12003.8	10688.2	7440.6	4961.3
62.5°	948.9	946.3	953.5	1184.4	2062.3	5249.7	10374.5	11523.9	10653.1	7382.2	4943.3
65°	815.9	806.1	779.1	831.2	1068.5	2401.1	8015.7	10091.5	10386.2	7235.7	4820.2
67.5°	705.4	706.3	707.2	691.1	762.9	1108.0	4898.4	7949.2	9428.4	6542.0	4345.7
70°	584.1	592.1	595.8	595.8	621.9	727.0	2091.1	5448.3	7437.0	5129.3	3500.2
72.5°	532.0	515.0	516.7	507.7	507.7	553.5	842.0	3088.5	4685.4	2885.5	2136.0
75°	434.0	444.8	446.6	440.3	419.6	422.3	499.6	1295.8	2004.8	1197.0	1055.9
77.5°	374.7	374.7	378.3	373.8	357.6	316.3	333.4	502.4	682.0	490.7	527.5
80°	301.0	300.1	315.4	324.4	299.2	233.6	213.0	277.7	302.8	215.7	274.1
82.5°	146.5	155.5	216.6	247.1	227.3	168.9	130.3	172.5	161.7	95.2	123.1
85°	85.4	80.9	97.1	137.5	130.3	93.5	62.9	89.9	84.5	48.5	49.4
87.5°	27.0	25.1	19.8	46.7	37.7	26.0	17.1	26.0	23.4	10.8	10.8
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°	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6	4355.6
2.5°	4306.2	4200.1	4095.0	3998.8	3940.4	3902.7	3865.0	3822.7	3806.5	3782.2
5°	4263.1	4058.2	3875.7	3718.5	3575.6	3463.3	3350.0	3258.4	3217.1	3244.9
7.5°	4237.9	3941.3	3660.1	3371.6	3094.0	2871.9	2678.7	2543.1	2482.0	2497.3
10°	4215.4	3809.2	3380.7	2925.0	2526.0	2251.0	2053.4	1950.0	1911.3	1919.4
12.5°	4194.7	3661.0	3043.6	2444.2	2020.1	1838.5	1782.0	1782.9	1790.1	1795.5
15°	4191.1	3482.1	2667.2	2023.7	1746.9	1735.2	1796.3	1835.0	1855.7	1861.9
17.5°	4185.8	3268.3	2283.4	1737.1	1680.4	1759.5	1816.1	1841.3	1857.4	1858.3
20°	4164.2	2996.9	1929.4	1600.4	1666.0	1734.3	1769.4	1789.1	1802.7	1807.1
22.5°	4097.7	2694.9	1653.4	1539.3	1608.5	1663.4	1704.7	1727.1	1735.2	1740.7
25°	3978.2	2357.1	1463.0	1480.9	1528.6	1597.8	1631.0	1635.5	1632.8	1640.9
27.5°	3821.8	1995.0	1344.3	1401.9	1463.0	1522.2	1540.3	1537.5	1532.2	1541.1
30°	3633.1	1669.6	1268.8	1312.9	1396.5	1450.4	1466.6	1460.2	1449.5	1459.4
32.5°	3433.6	1403.6	1206.8	1250.9	1341.6	1394.6	1410.8	1404.6	1396.5	1404.6
35°	3247.6	1217.6	1149.3	1209.5	1298.5	1350.6	1371.2	1372.2	1372.2	1382.1
37.5°	3076.8	1108.9	1101.7	1183.5	1268.8	1315.6	1345.2	1347.1	1308.4	1311.1
40°	2918.7	1063.0	1080.1	1166.4	1240.0	1285.0	1286.8	1186.1	1115.2	1113.4
42.5°	2789.3	1054.1	1086.4	1164.6	1219.4	1221.2	1094.5	1016.4	996.6	997.4
45°	2668.0	1051.3	1100.8	1164.6	1188.9	1054.9	969.6	948.9	950.8	958.0
47.5°	2532.3	1040.6	1103.5	1148.4	1100.8	938.2	913.0	904.0	900.5	902.2
50°	2384.0	1001.9	1069.4	1116.1	949.9	887.9	856.4	853.7	858.2	860.9
52.5°	2227.6	939.1	1011.0	1057.7	880.7	843.8	808.7	815.1	834.9	841.1
55°	2125.2	865.4	933.7	940.8	832.1	802.5	772.8	787.2	824.0	835.7
57.5°	2098.3	787.2	845.6	837.5	770.1	766.5	748.6	761.2	807.9	824.9
60°	2090.2	717.1	759.3	753.1	709.9	727.0	722.5	728.8	745.0	750.3
62.5°	2027.2	661.4	682.0	673.0	656.0	685.6	696.4	683.0	695.6	701.8
65°	1867.3	616.4	606.6	600.2	607.5	634.5	656.0	629.0	640.7	658.7
67.5°	1603.1	555.3	528.4	535.6	558.0	572.5	600.2	569.7	579.6	610.2
70°	1296.7	478.1	453.8	474.5	496.0	525.7	530.2	509.5	532.9	567.0
72.5°	917.5	399.9	382.8	425.1	432.2	470.9	460.9	451.1	483.5	495.2
75°	636.2	322.6	312.7	345.1	371.2	404.4	397.2	408.9	477.1	482.6
77.5°	402.6	250.7	244.5	265.1	301.0	337.8	349.5	482.6	815.1	847.4
80°	233.6	187.0	179.7	195.9	227.3	261.5	337.0	592.1	537.4	531.1
82.5°	130.3	128.5	119.5	124.0	151.9	188.7	476.3	417.0	338.8	349.5
85°	61.1	75.4	64.7	62.0	85.4	221.1	318.2	238.1	158.2	154.6
87.5°	16.2	14.3	14.3	16.2	36.0	190.5	126.7	101.6	60.2	58.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)