

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: P967401

Luminaire Tested: **NAV-SB4D-835-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967401
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-835-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38697.8 lumens
Efficiency: N/A
Efficacy: 131.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

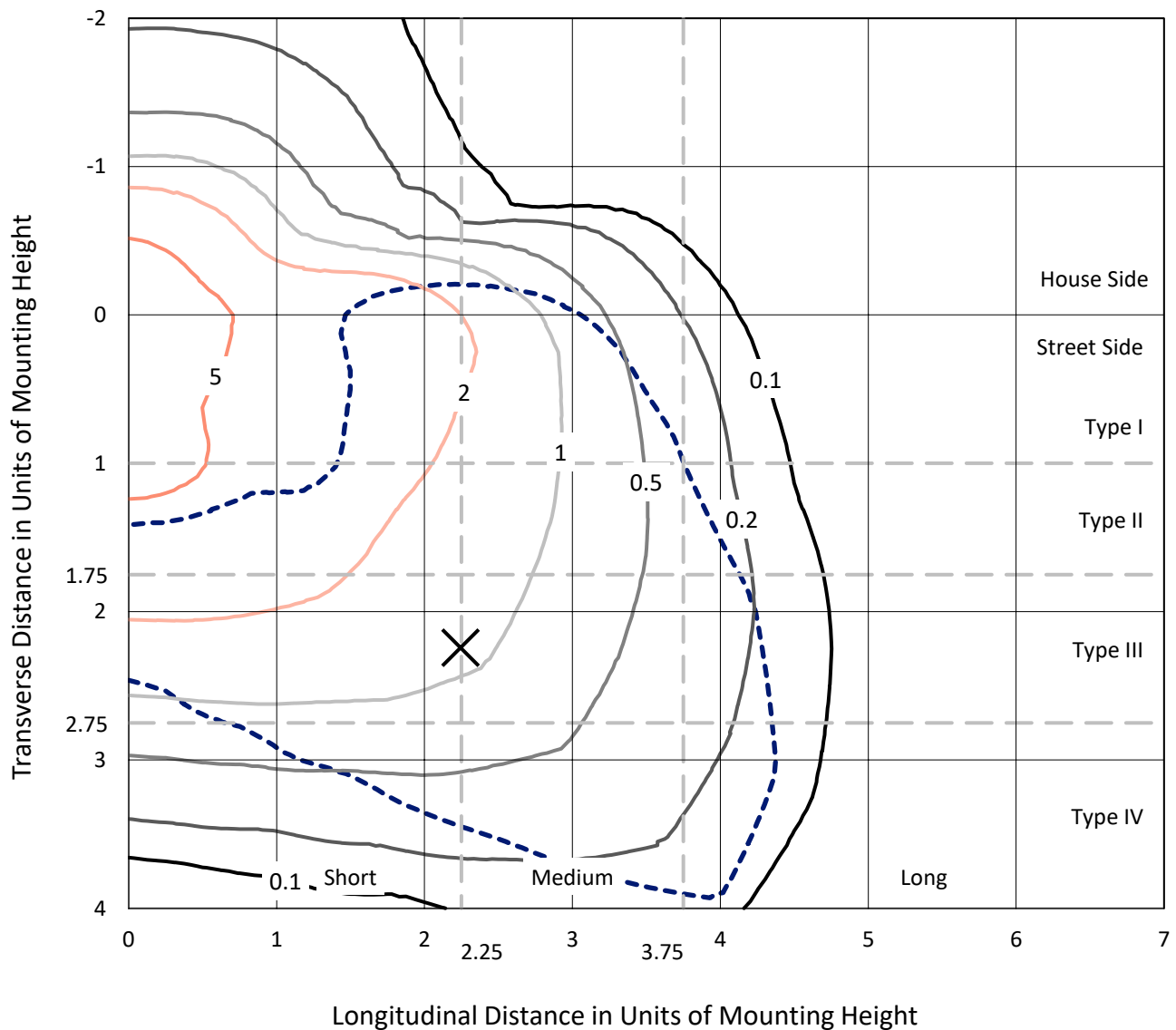
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

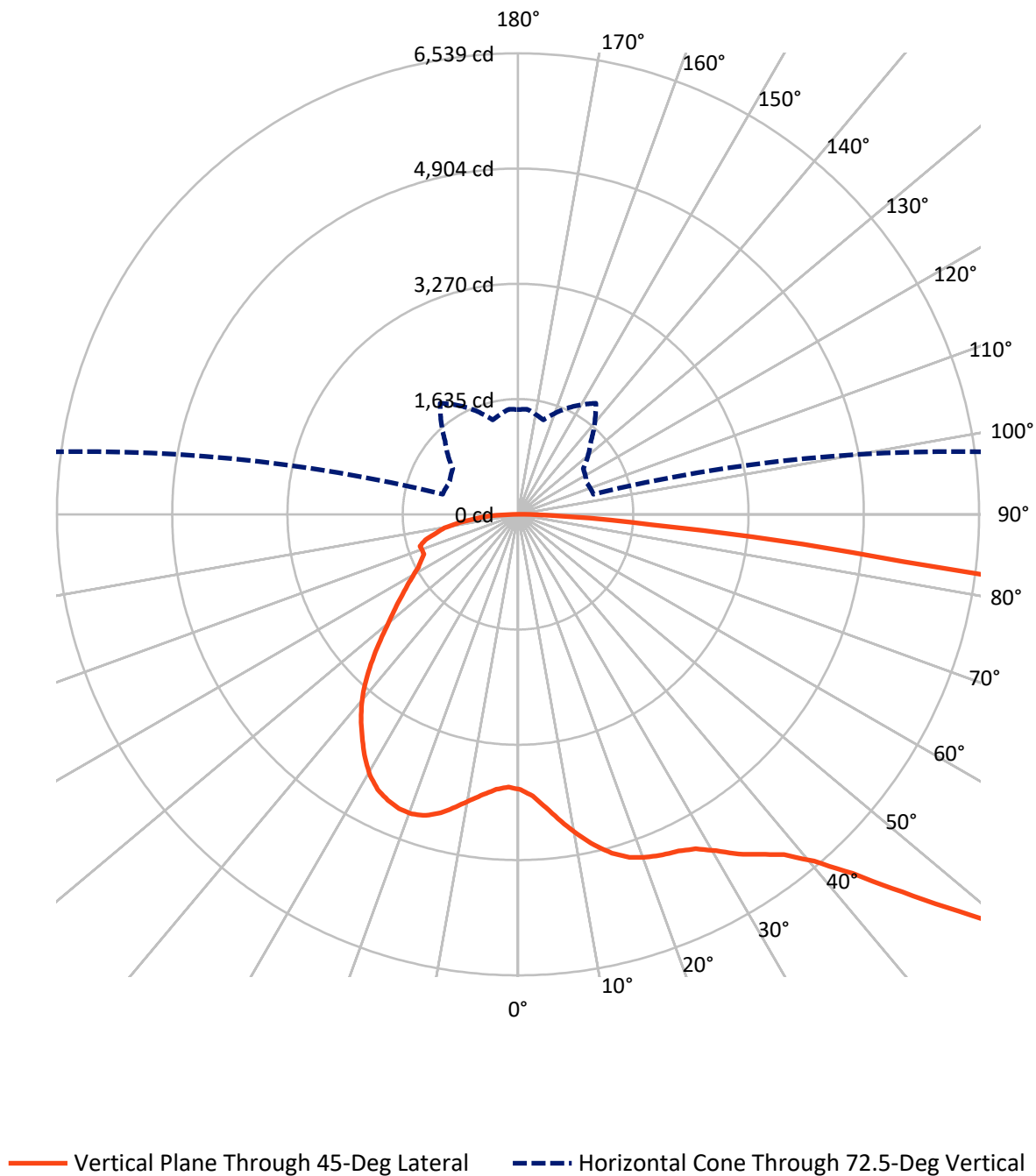


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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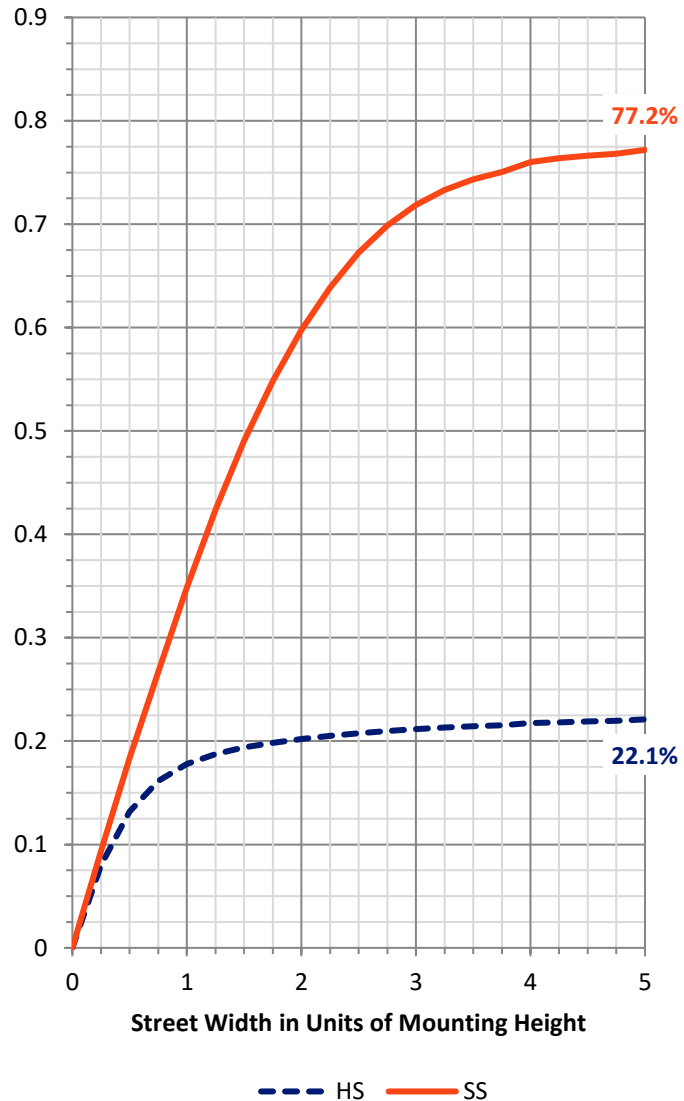
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8748.2	0.0	8748.2
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	29949.6	0.0	29949.6
	% Fixture	77.4	0.0	77.4
Total	Lumens	38697.8	0.0	38697.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	397.3	1.0
10°-20°	1324.8	3.4
20°-30°	2304.5	6.0
30°-40°	3303.6	8.5
40°-50°	4651.7	12.0
50°-60°	7125.1	18.4
60°-70°	10321.7	26.7
70°-80°	8242.5	21.3
80°-90°	1026.6	2.7
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°	38697.8	100.0
0°-180°	38697.8	100.0

Coefficient of Utilization



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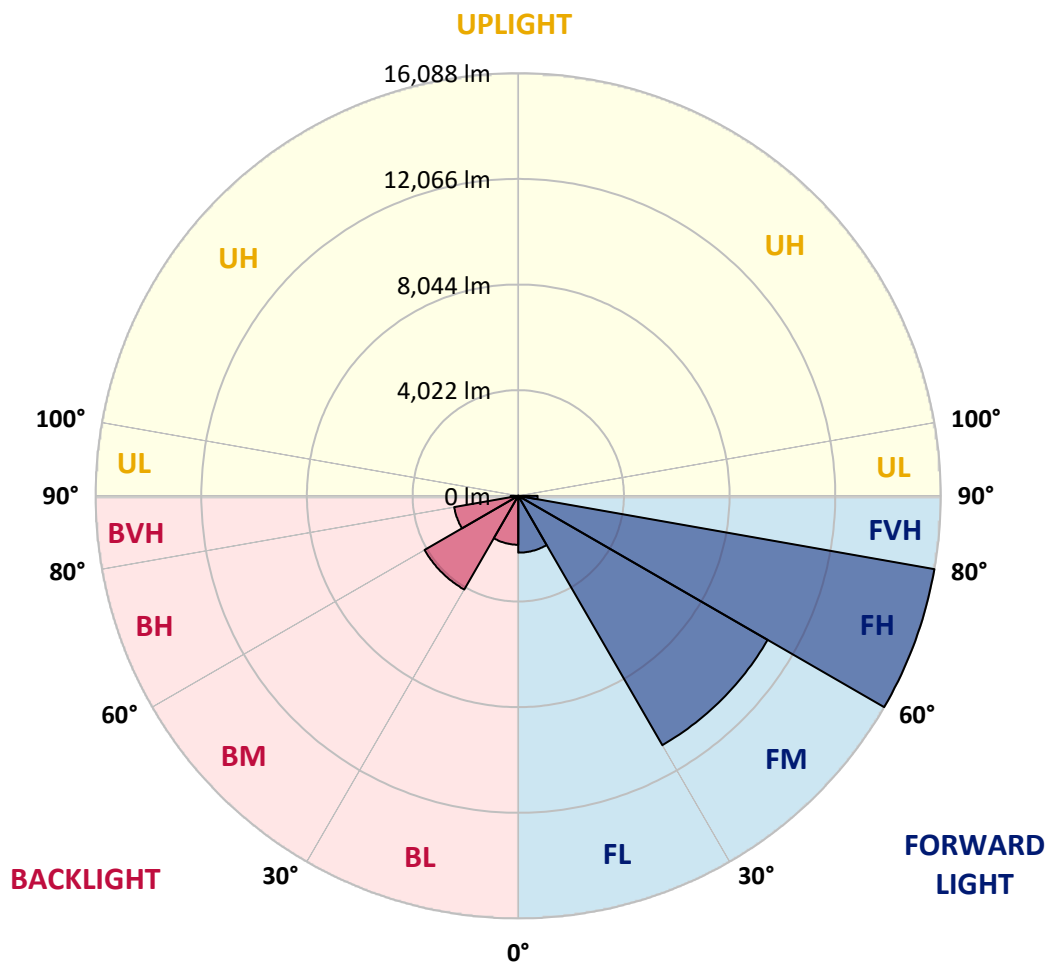
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2164.0	5.6			
FM	(30°-60°)	10961.2	28.3			
FH	(60°-80°)	16087.8	41.6			G5
FVH	(80°-90°)	736.5	1.9			G4/750
BL	(0°-30°)	1862.6	4.8	B3/2500		
BM	(30°-60°)	4119.2	10.6	B3/5000		
BH	(60°-80°)	2476.4	6.4	B3/2500		G3/2500
BVH	(80°-90°)	290.1	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8
2.5°	4056.7	4083.3	4058.8	4036.3	4026.2	3999.7	3997.6	3981.3	3971.2	3942.6	3934.5
5°	4340.2	4374.8	4334.0	4289.1	4248.4	4183.1	4175.0	4128.1	4075.1	4013.9	3979.3
7.5°	4660.2	4690.7	4643.9	4576.6	4505.3	4397.1	4395.2	4309.5	4226.0	4122.0	4062.9
10°	4939.5	4980.3	4917.0	4825.3	4735.6	4613.3	4599.0	4501.2	4395.2	4260.6	4170.9
12.5°	5186.1	5214.7	5153.5	5041.4	4937.4	4815.1	4796.8	4688.8	4570.5	4417.5	4303.5
15°	5381.9	5418.6	5337.0	5216.7	5106.7	4986.3	4970.0	4872.1	4754.0	4592.9	4446.1
17.5°	5510.3	5540.8	5457.2	5322.7	5216.7	5116.8	5104.6	5023.0	4919.1	4756.0	4599.0
20°	5559.2	5591.8	5504.1	5367.5	5269.7	5192.2	5186.1	5127.0	5055.6	4906.9	4747.8
22.5°	5608.1	5638.7	5524.5	5381.9	5296.2	5247.3	5245.2	5206.5	5178.0	5055.6	4900.7
25°	5805.8	5814.0	5661.1	5455.3	5332.9	5290.1	5288.1	5286.0	5298.2	5202.4	5065.9
27.5°	5977.1	5975.0	5844.5	5650.9	5461.3	5371.6	5369.6	5390.0	5428.7	5349.2	5237.1
30°	6227.8	6205.5	6050.5	5848.6	5675.4	5536.7	5524.5	5506.2	5536.7	5473.6	5408.3
32.5°	6759.9	6688.5	6437.8	6079.0	5852.7	5746.8	5730.5	5616.3	5628.5	5589.7	5557.1
35°	7522.3	7428.6	7094.2	6515.3	6072.9	5922.0	5913.8	5769.1	5744.7	5710.1	5722.3
37.5°	8429.5	8313.3	7924.0	7147.2	6452.1	6125.9	6113.7	5983.2	5883.3	5846.6	5915.9
40°	9340.7	9193.9	8871.9	7917.8	7010.6	6466.3	6427.6	6229.8	6115.7	6054.6	6201.4
42.5°	10225.5	10103.1	9827.9	8782.2	7699.7	6963.7	6878.2	6539.7	6454.1	6397.0	6662.1
45°	11008.3	10898.2	10696.4	9705.6	8507.0	7640.6	7557.0	7004.5	6978.0	6978.0	7361.2
47.5°	11644.3	11619.8	11405.8	10647.5	9459.0	8411.2	8266.4	7650.7	7722.1	7832.2	8354.1
50°	12349.6	12282.4	12054.1	11575.0	10578.1	9293.9	9175.6	8443.7	8710.8	9012.5	9789.2
52.5°	12997.9	13034.6	12779.8	12541.3	11842.0	10278.5	10070.5	9379.5	9956.3	10455.8	11471.0
55°	13664.5	13666.5	13595.2	13562.6	13167.2	11367.0	11138.8	10504.7	11422.1	12041.8	13432.1
57.5°	14290.3	14294.4	14400.4	14687.8	14704.2	12622.8	12364.0	11886.9	13050.9	13682.8	15454.4
60°	14849.0	14877.5	15166.9	15839.6	16055.8	14062.1	13817.4	13519.7	14734.8	15370.8	17580.6
62.5°	15036.4	15140.5	15784.6	16740.7	17391.1	15827.4	15586.9	15409.5	16504.2	17095.5	19358.3
65°	14718.5	14957.0	16202.6	17484.8	18765.0	17925.1	17686.6	17493.0	18343.1	18899.6	20817.9
67.5°	13937.7	14245.6	16178.1	18265.6	20432.6	20448.9	20226.6	19772.0	20314.4	20528.4	21292.8
70°	11880.8	12341.5	14753.1	18557.1	22346.8	23900.2	23686.1	22516.0	22281.6	21246.0	19955.5
72.5°	7654.8	8274.5	10863.6	16157.7	22772.8	27147.6	27135.4	24992.9	22903.3	19851.6	16004.8
75°	2792.8	3172.0	5047.5	10141.9	19115.6	26982.5	27062.0	24568.8	20907.5	15334.1	9970.7
77.5°	1017.2	1113.0	1647.2	3897.8	11756.4	21649.6	21814.8	19641.6	14881.6	7695.6	3950.8
80°	534.1	587.1	844.0	1512.6	5037.3	12857.3	13116.1	11672.8	6994.3	2317.8	1184.4
82.5°	295.6	320.0	472.9	821.5	2268.9	5498.0	5653.0	4611.3	2460.5	982.6	489.2
85°	159.0	169.2	222.2	448.4	1108.9	1906.1	1948.8	1378.1	980.5	576.9	236.5
87.5°	46.8	57.1	73.4	142.7	434.2	428.1	438.3	273.2	387.3	291.5	77.5
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8
2.5°	3922.2	3916.1	3893.7	3883.5	3871.2	3869.2	3879.4	3881.5	3883.5	3885.5	3893.7
5°	3958.9	3938.6	3918.2	3905.9	3910.0	3912.0	3932.4	3946.7	3956.9	3965.0	3969.1
7.5°	4030.3	4013.9	3979.3	3977.2	3983.4	4001.7	4028.2	4060.8	4079.2	4093.4	4097.5
10°	4136.3	4105.6	4064.9	4071.0	4083.3	4109.7	4164.8	4191.3	4221.9	4248.4	4242.3
12.5°	4244.3	4217.8	4170.9	4175.0	4195.3	4242.3	4295.3	4327.9	4348.3	4368.7	4376.9
15°	4385.0	4338.1	4287.1	4287.1	4323.8	4374.8	4399.2	4425.7	4437.9	4460.4	4468.6
17.5°	4529.7	4468.6	4401.2	4397.1	4442.0	4466.5	4480.8	4484.9	4488.9	4513.4	4521.6
20°	4674.4	4607.2	4511.3	4503.2	4513.4	4509.3	4507.2	4503.2	4509.3	4539.9	4552.1
22.5°	4817.1	4739.7	4607.2	4570.5	4542.0	4503.2	4501.2	4499.1	4503.2	4533.8	4554.2
25°	4984.3	4890.5	4713.2	4603.1	4507.2	4454.2	4460.4	4462.4	4466.5	4490.9	4523.6
27.5°	5165.7	5061.8	4811.0	4592.9	4419.6	4382.9	4372.8	4378.8	4393.2	4431.9	4470.5
30°	5347.1	5224.8	4900.7	4552.1	4309.5	4258.6	4226.0	4240.2	4285.1	4323.8	4366.6
32.5°	5512.2	5390.0	4972.1	4462.4	4168.9	4089.3	4046.6	4064.9	4109.7	4124.0	4175.0
35°	5706.0	5567.3	5002.6	4319.8	4016.0	3893.7	3836.6	3810.1	3832.5	3818.2	3863.1
37.5°	5922.0	5777.3	4998.6	4132.2	3836.6	3695.9	3616.4	3516.6	3469.6	3420.7	3451.3
40°	6242.1	6034.2	4949.6	3905.9	3614.4	3485.9	3343.2	3174.0	3068.0	2972.2	2978.3
42.5°	6678.4	6390.9	4859.9	3657.2	3363.6	3243.4	3049.7	2852.0	2684.8	2525.8	2511.6
45°	7328.6	6857.8	4747.8	3392.1	3092.5	2974.2	2764.3	2542.1	2352.5	2148.6	2124.2
47.5°	8266.4	7485.6	4641.8	3090.5	2807.1	2699.0	2509.5	2303.6	2079.3	1881.6	1859.1
50°	9554.7	8386.7	4543.9	2796.9	2525.8	2444.2	2293.4	2083.4	1857.1	1698.1	1688.0
52.5°	11193.8	9611.8	4503.2	2513.5	2262.8	2232.2	2111.9	1916.2	1702.2	1567.6	1557.5
55°	13075.4	11077.6	4503.2	2242.4	2032.5	2042.6	1959.1	1777.7	1592.1	1471.8	1459.6
57.5°	14995.7	12561.7	4421.6	1991.7	1836.8	1879.5	1826.6	1667.6	1500.4	1376.1	1355.7
60°	16765.2	13805.2	4091.4	1763.4	1663.5	1730.7	1696.1	1559.5	1355.7	1251.7	1235.3
62.5°	18124.9	14506.4	3455.4	1581.9	1520.8	1598.3	1579.9	1416.8	1329.1	1286.4	1272.0
65°	18805.8	14392.3	2641.9	1420.9	1400.5	1520.8	1482.0	1475.9	1406.6	1357.7	1341.4
67.5°	18387.9	13409.7	1916.2	1302.7	1331.2	1449.5	1598.3	1622.7	1494.2	1398.4	1382.1
70°	16555.2	11632.1	1427.0	1190.5	1243.5	1451.5	1822.4	1698.1	1465.7	1353.6	1335.3
72.5°	12594.3	8674.1	1106.9	1072.3	1129.3	1461.6	1922.4	1663.5	1384.2	1496.3	1484.1
75°	7202.3	4762.0	888.8	927.5	986.7	1365.8	1871.4	1573.8	1321.0	1374.0	1374.0
77.5°	2746.0	1830.6	733.9	784.8	793.0	1192.6	1789.9	1567.6	1257.8	1227.2	1119.2
80°	952.0	715.6	607.5	623.8	613.6	1060.1	1716.5	1363.8	1029.5	921.5	890.8
82.5°	389.4	356.7	481.1	460.7	436.2	823.6	1386.2	1115.1	841.9	744.0	735.9
85°	169.2	226.3	318.1	279.3	252.8	570.8	1111.0	943.8	711.5	613.6	611.6
87.5°	34.6	85.6	134.6	126.4	130.5	381.2	788.9	670.7	503.5	377.1	295.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)