

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: P967370

Luminaire Tested: **NAV-SB4D-830-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967370
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-830-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37488.4 lumens
Efficiency: N/A
Efficacy: 127.7 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



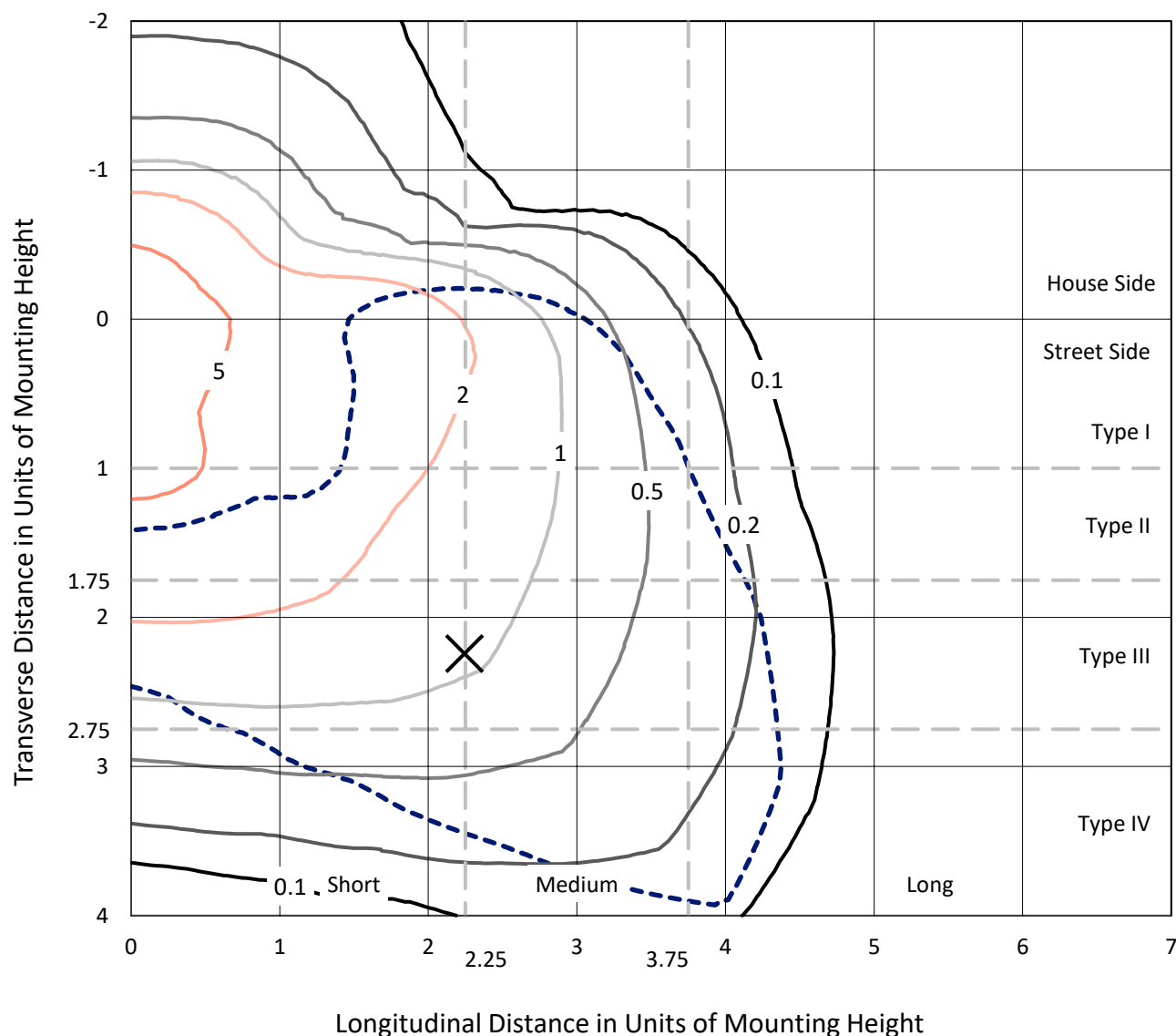
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

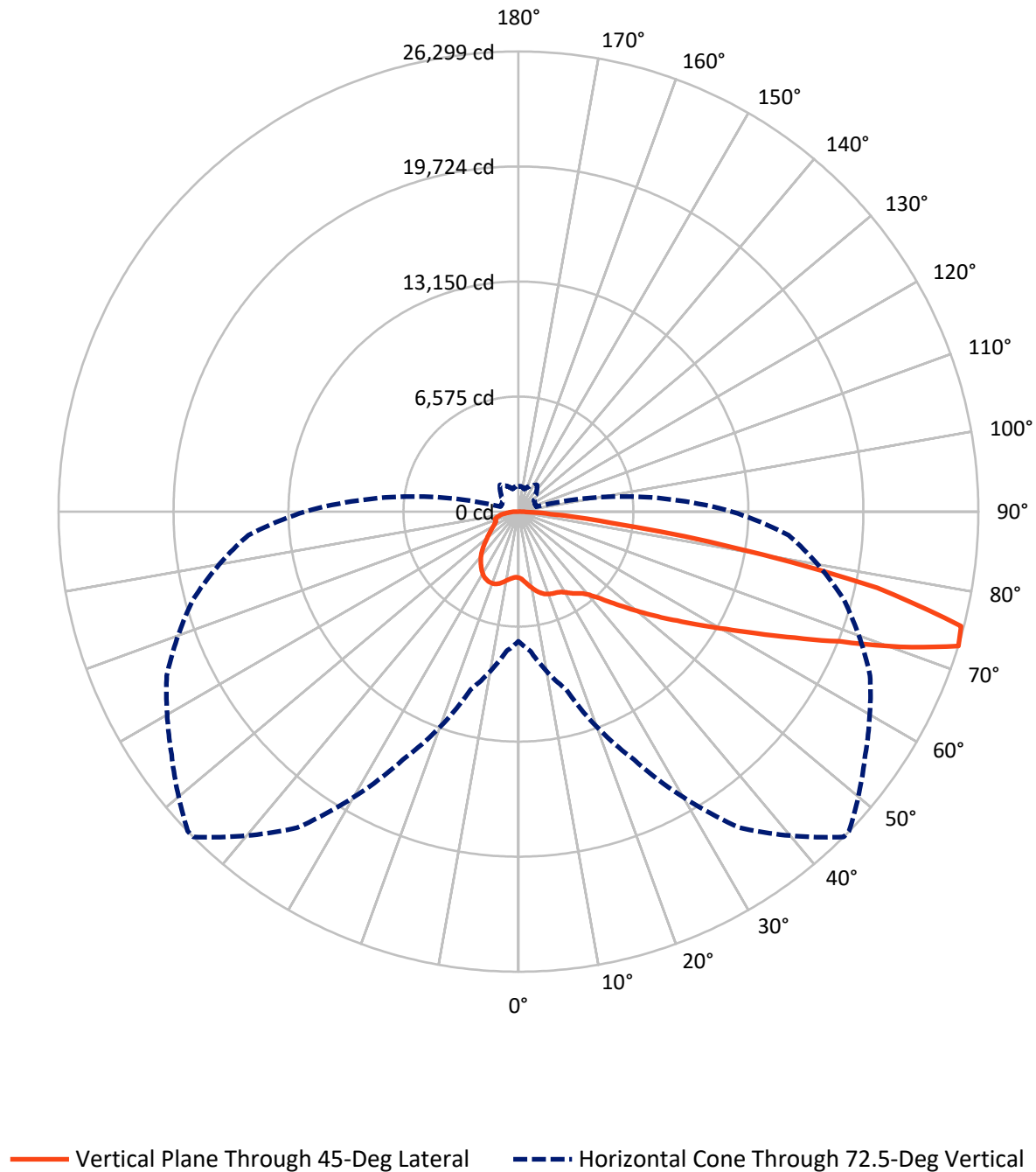


Based on 25 foot mounting height. Maximum calculated value = 7.5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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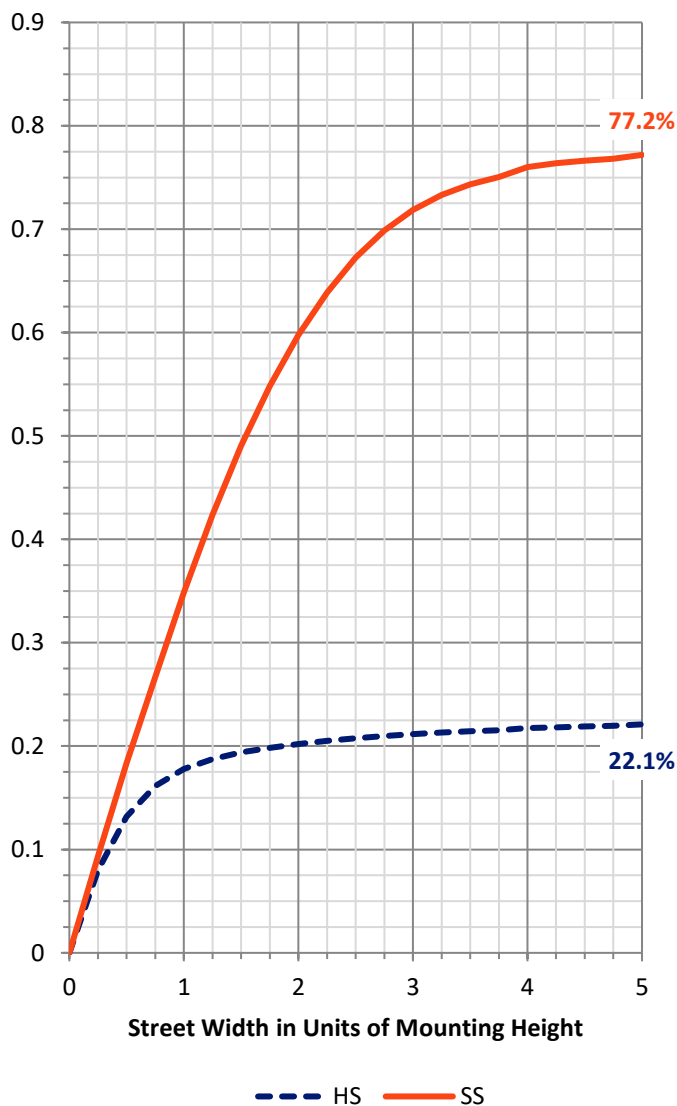
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8474.8	0.0	8474.8
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	29013.5	0.0	29013.5
	% Fixture	77.4	0.0	77.4
Total	Lumens	37488.4	0.0	37488.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.9	1.0
10°-20°	1283.4	3.4
20°-30°	2232.5	6.0
30°-40°	3200.4	8.5
40°-50°	4506.3	12.0
50°-60°	6902.4	18.4
60°-70°	9999.1	26.7
70°-80°	7984.9	21.3
80°-90°	994.5	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°	37488.4	100.0
0°-180°	37488.4	100.0

Coefficient of Utilization



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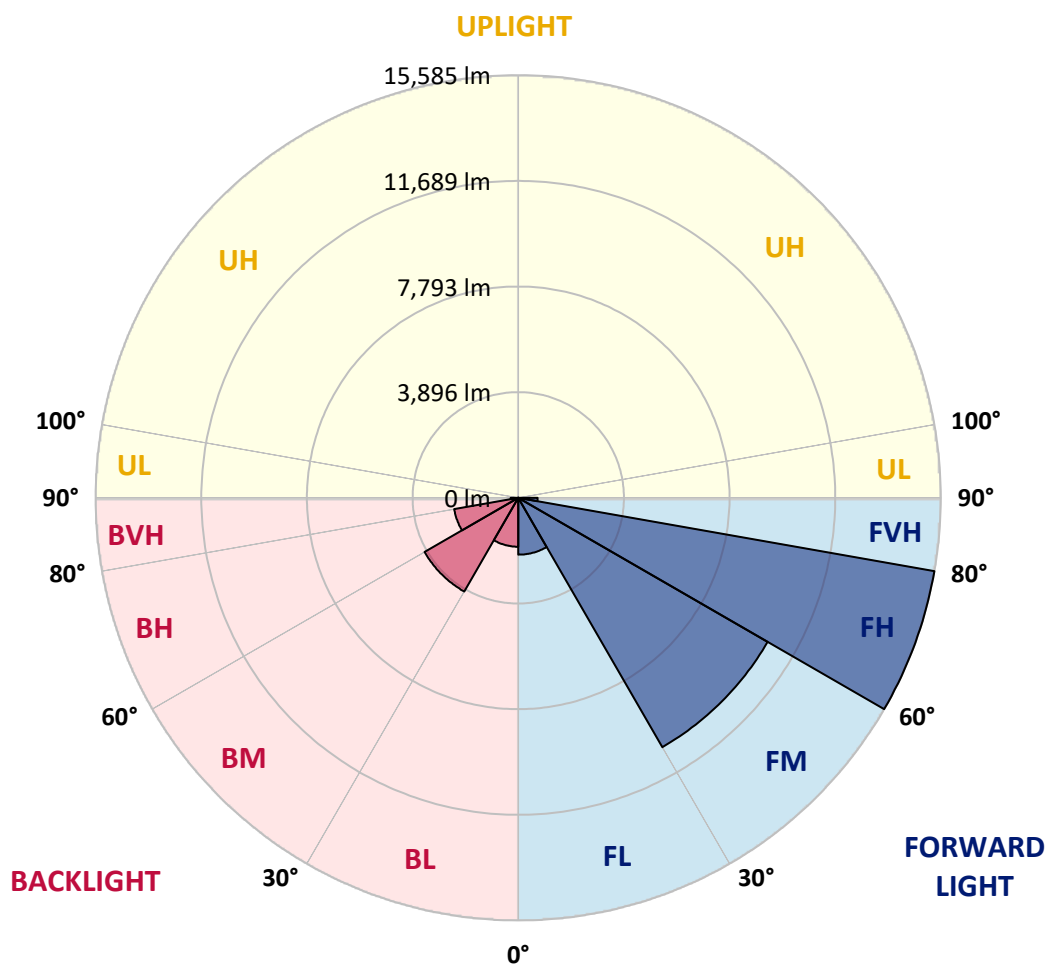
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2096.4	5.6			
FM	(30°-60°)	10618.6	28.3			
FH	(60°-80°)	15585.0	41.6			G5
FVH	(80°-90°)	713.5	1.9			G4/750
BL	(0°-30°)	1804.4	4.8	B3/2500		
BM	(30°-60°)	3990.4	10.6	B3/5000		
BH	(60°-80°)	2399.0	6.4	B3/2500		G3/2500
BVH	(80°-90°)	281.0	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°	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8
2.5°	3930.0	3955.7	3931.9	3910.2	3900.3	3874.7	3872.7	3856.9	3847.0	3819.4	3811.5
5°	4204.4	4238.1	4198.5	4155.0	4115.6	4052.4	4044.5	3999.0	3947.7	3888.4	3854.9
7.5°	4514.5	4544.1	4498.7	4433.5	4364.4	4259.8	4257.7	4174.8	4093.8	3993.2	3935.9
10°	4785.1	4824.6	4763.4	4674.5	4587.6	4469.1	4455.3	4360.5	4257.7	4127.5	4040.6
12.5°	5024.0	5051.7	4992.5	4883.8	4783.1	4664.6	4646.8	4542.2	4427.6	4279.5	4168.9
15°	5213.7	5249.1	5170.2	5053.7	4947.0	4830.5	4814.7	4719.9	4605.3	4449.3	4307.2
17.5°	5338.0	5367.6	5286.6	5156.4	5053.7	4956.9	4945.0	4866.1	4765.3	4607.4	4455.3
20°	5385.5	5417.0	5332.2	5199.8	5105.0	5030.0	5024.0	4966.7	4897.7	4753.4	4599.5
22.5°	5432.8	5462.4	5351.8	5213.7	5130.6	5083.3	5081.3	5043.8	5016.1	4897.7	4747.6
25°	5624.4	5632.3	5484.2	5284.7	5166.2	5124.8	5122.7	5120.8	5132.7	5039.8	4907.5
27.5°	5790.2	5788.3	5661.9	5474.3	5290.6	5203.7	5201.8	5221.6	5259.1	5182.0	5073.4
30°	6033.2	6011.4	5861.4	5665.9	5498.0	5363.7	5351.8	5334.1	5363.7	5302.5	5239.3
32.5°	6548.6	6479.5	6236.6	5889.0	5669.8	5567.1	5551.3	5440.7	5452.6	5415.1	5383.4
35°	7287.2	7196.3	6872.5	6311.6	5883.1	5736.9	5729.0	5588.8	5565.1	5531.5	5543.4
37.5°	8166.0	8053.4	7676.2	6923.9	6250.4	5934.4	5922.6	5796.2	5699.4	5663.8	5731.0
40°	9048.8	8906.6	8594.5	7670.4	6791.5	6264.2	6226.7	6035.2	5924.6	5865.4	6007.5
42.5°	9905.9	9787.4	9520.8	8507.7	7459.0	6746.1	6663.1	6335.3	6252.4	6197.0	6453.8
45°	10664.2	10557.6	10362.0	9402.3	8241.1	7401.7	7320.8	6785.6	6759.9	6759.9	7131.2
47.5°	11280.3	11256.7	11049.3	10314.7	9163.3	8148.2	8008.0	7411.7	7480.8	7587.4	8093.0
50°	11963.7	11898.5	11677.3	11213.2	10247.5	9003.4	8888.8	8179.8	8438.5	8730.8	9483.2
52.5°	12591.7	12627.2	12380.4	12149.3	11471.9	9957.3	9755.7	9086.3	9645.1	10129.0	11112.5
55°	13237.5	13239.4	13170.3	13138.7	12755.6	11011.8	10790.6	10176.4	11065.1	11665.4	13012.3
57.5°	13843.8	13847.6	13950.4	14228.8	14244.6	12228.2	11977.5	11515.4	12643.0	13255.2	14971.4
60°	14384.8	14412.5	14692.9	15344.7	15554.0	13622.6	13385.6	13097.2	14274.3	14890.4	17031.1
62.5°	14566.5	14667.2	15291.3	16217.4	16847.5	15332.8	15099.7	14927.9	15988.5	16561.1	18753.2
65°	14258.5	14489.5	15696.1	16938.3	18178.5	17364.9	17133.8	16946.2	17769.7	18308.9	20167.2
67.5°	13502.1	13800.3	15672.5	17694.7	19794.0	19809.8	19594.5	19154.1	19679.4	19886.7	20627.3
70°	11509.4	11955.8	14292.0	17977.1	21648.3	23153.2	22945.9	21812.3	21585.2	20581.9	19331.8
72.5°	7415.6	8015.9	10524.0	15652.7	22061.1	26299.1	26287.3	24211.7	22187.5	19231.2	15504.6
75°	2705.6	3072.8	4889.8	9824.9	18518.2	26139.1	26216.2	23800.9	20254.1	14854.8	9659.0
77.5°	985.4	1078.3	1595.7	3775.9	11389.0	20972.9	21132.9	19027.7	14416.4	7455.0	3827.2
80°	517.4	568.8	817.5	1465.3	4879.8	12455.4	12706.2	11308.0	6775.8	2245.4	1147.4
82.5°	286.4	310.1	458.2	795.9	2198.0	5326.2	5476.3	4467.2	2383.6	951.9	474.0
85°	154.1	163.9	215.2	434.5	1074.3	1846.5	1887.9	1335.0	949.9	558.9	229.1
87.5°	45.4	55.2	71.1	138.3	420.7	414.7	424.6	264.7	375.3	282.4	75.0
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°	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8	3781.8
2.5°	3799.6	3793.7	3772.0	3762.1	3750.3	3748.3	3758.2	3760.1	3762.1	3764.1	3772.0
5°	3835.1	3815.5	3795.7	3783.8	3787.8	3789.7	3809.5	3823.4	3833.2	3841.1	3845.1
7.5°	3904.3	3888.4	3854.9	3853.0	3858.8	3876.7	3902.3	3934.0	3951.7	3965.5	3969.4
10°	4006.9	3977.3	3937.8	3943.8	3955.7	3981.3	4034.6	4060.3	4090.0	4115.6	4109.6
12.5°	4111.7	4086.0	4040.6	4044.5	4064.2	4109.6	4161.0	4192.7	4212.3	4232.1	4240.0
15°	4247.9	4202.5	4153.1	4153.1	4188.7	4238.1	4261.7	4287.4	4299.3	4321.0	4328.9
17.5°	4388.1	4328.9	4263.7	4259.8	4303.2	4326.9	4340.8	4344.7	4348.7	4372.3	4380.2
20°	4528.3	4463.2	4370.4	4362.5	4372.3	4368.3	4366.4	4362.5	4368.3	4398.0	4409.9
22.5°	4666.6	4591.5	4463.2	4427.6	4400.0	4362.5	4360.5	4358.5	4362.5	4392.1	4411.8
25°	4828.5	4737.7	4565.9	4459.3	4366.4	4315.0	4321.0	4322.9	4326.9	4350.6	4382.2
27.5°	5004.3	4903.6	4660.7	4449.3	4281.5	4246.0	4236.0	4242.0	4255.8	4293.3	4330.8
30°	5180.0	5061.6	4747.6	4409.9	4174.8	4125.4	4093.8	4107.7	4151.1	4188.7	4230.2
32.5°	5340.0	5221.6	4816.7	4322.9	4038.6	3961.5	3920.1	3937.8	3981.3	3995.1	4044.5
35°	5527.6	5393.3	4846.3	4184.7	3890.5	3772.0	3716.6	3691.0	3712.8	3698.9	3742.4
37.5°	5736.9	5596.7	4842.3	4003.0	3716.6	3580.4	3503.3	3406.6	3361.2	3313.8	3343.4
40°	6047.0	5845.6	4795.0	3783.8	3501.4	3377.0	3238.8	3074.9	2972.2	2879.3	2885.3
42.5°	6469.6	6191.2	4708.0	3542.9	3258.5	3142.0	2954.4	2762.8	2600.8	2446.9	2433.0
45°	7099.6	6643.4	4599.5	3286.2	2995.9	2881.3	2677.9	2462.7	2279.0	2081.5	2057.8
47.5°	8008.0	7251.7	4496.8	2993.9	2719.3	2614.7	2431.1	2231.6	2014.3	1822.8	1801.0
50°	9256.2	8124.6	4402.0	2709.5	2446.9	2367.9	2221.7	2018.3	1799.1	1645.0	1635.2
52.5°	10843.9	9311.4	4362.5	2435.0	2192.1	2162.4	2045.9	1856.4	1649.0	1518.6	1508.8
55°	12666.7	10731.3	4362.5	2172.4	1968.9	1978.8	1897.8	1722.1	1542.3	1425.9	1414.0
57.5°	14527.0	12169.0	4283.5	1929.5	1779.3	1820.8	1769.5	1615.4	1453.4	1333.0	1313.2
60°	16241.2	13373.7	3963.6	1708.3	1611.5	1676.7	1643.1	1510.7	1313.2	1212.6	1196.8
62.5°	17558.5	14053.1	3347.3	1532.5	1473.2	1548.3	1530.5	1372.5	1287.6	1246.1	1232.4
65°	18218.0	13942.5	2559.4	1376.5	1356.7	1473.2	1435.7	1429.8	1362.6	1315.3	1299.5
67.5°	17813.2	12990.5	1856.4	1262.0	1289.6	1404.1	1548.3	1571.9	1447.6	1354.7	1339.0
70°	16037.8	11268.5	1382.4	1153.3	1204.7	1406.1	1765.6	1645.0	1419.9	1311.3	1293.6
72.5°	12200.7	8403.1	1072.4	1038.7	1094.1	1415.9	1862.3	1611.5	1340.9	1449.6	1437.7
75°	6977.2	4613.2	861.0	898.5	955.8	1323.2	1812.9	1524.6	1279.7	1331.1	1331.1
77.5°	2660.1	1773.5	710.9	760.3	768.2	1155.3	1733.9	1518.6	1218.5	1188.9	1084.2
80°	922.3	693.2	588.6	604.3	594.4	1026.9	1662.9	1321.2	997.3	892.7	863.0
82.5°	377.2	345.6	466.1	446.3	422.6	797.9	1342.9	1080.2	815.6	720.8	712.9
85°	163.9	219.2	308.1	270.6	244.9	553.0	1076.2	914.4	689.2	594.4	592.4
87.5°	33.6	82.9	130.4	122.5	126.4	369.3	764.2	649.7	487.8	365.3	286.4
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)