

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: P967211

Luminaire Tested: **NAV-SB4D-735-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967211
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41831.3 lumens
Efficiency: N/A
Efficacy: 142.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

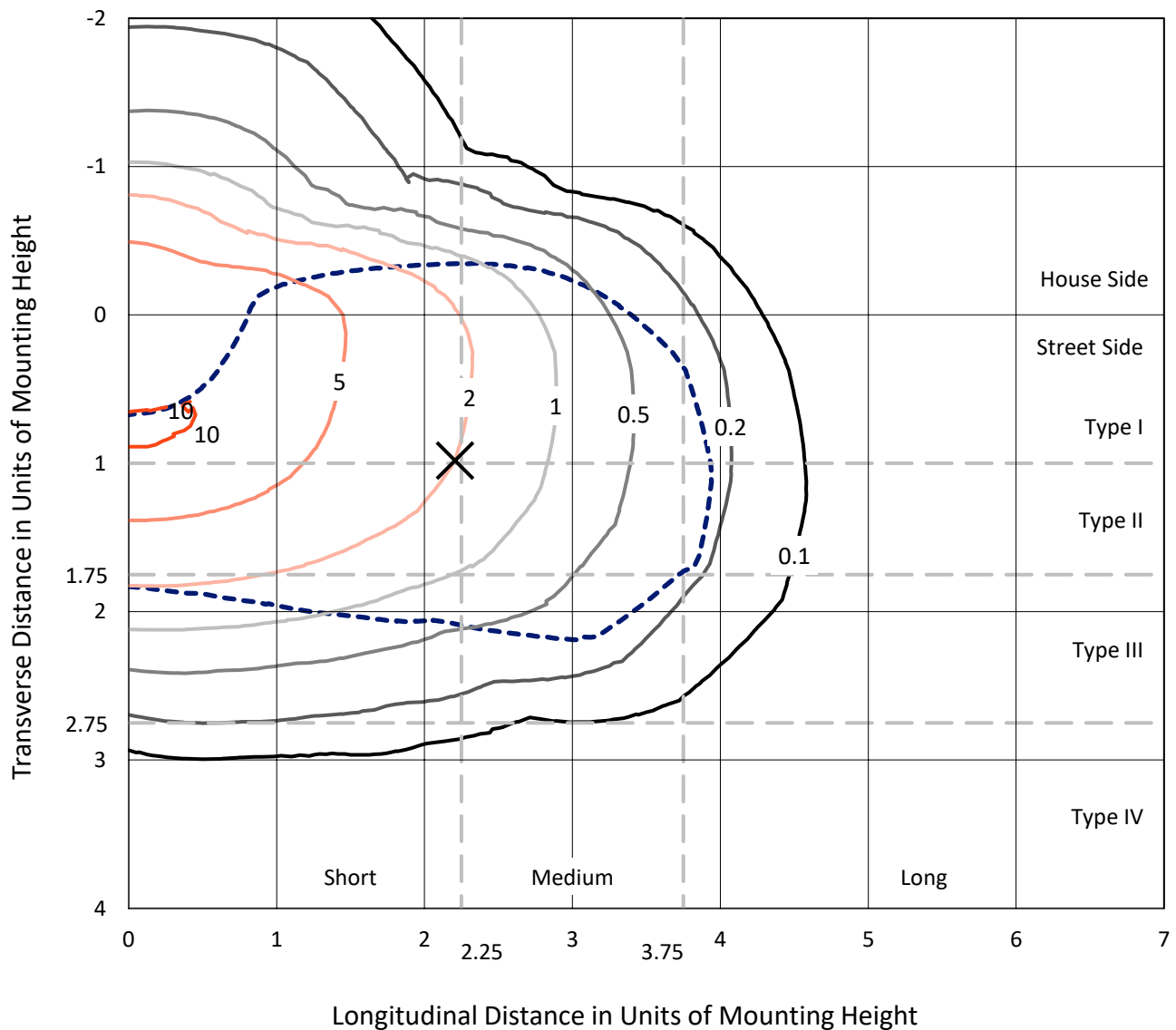
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

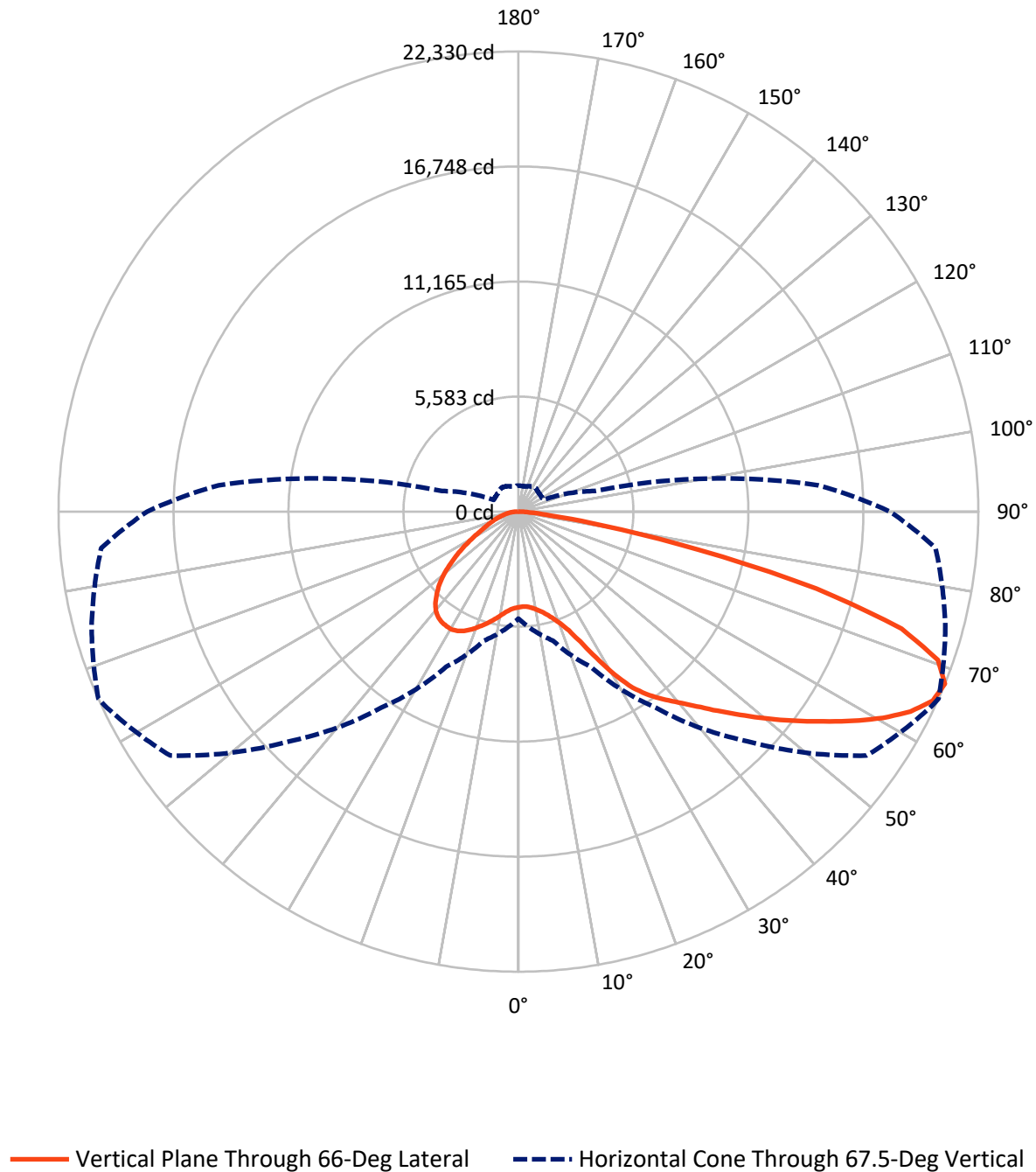
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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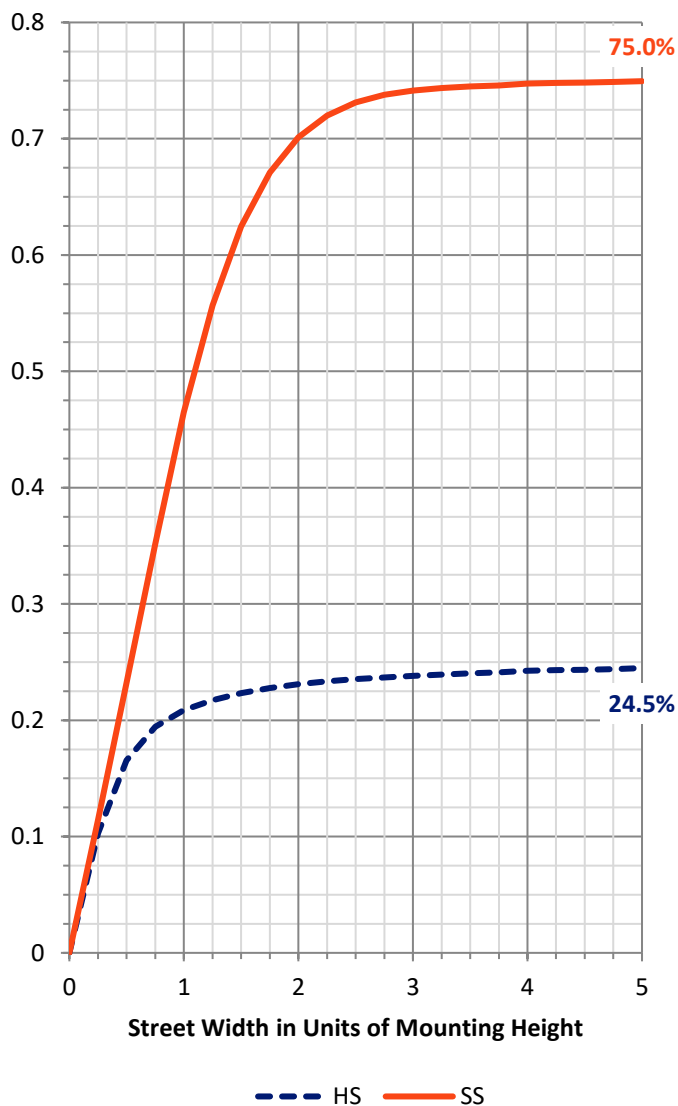
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10401.2	0.0	10401.2
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	31430.0	0.0	31430.0
	% Fixture	75.1	0.0	75.1
Total	Lumens	41831.3	0.0	41831.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.0	1.1
10°-20°	1519.8	3.6
20°-30°	2929.3	7.0
30°-40°	5136.2	12.3
40°-50°	7635.8	18.3
50°-60°	9679.1	23.1
60°-70°	9470.7	22.6
70°-80°	4517.6	10.8
80°-90°	482.8	1.2
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°	41831.3	100.0
0°-180°	41831.3	100.0

Coefficient of Utilization



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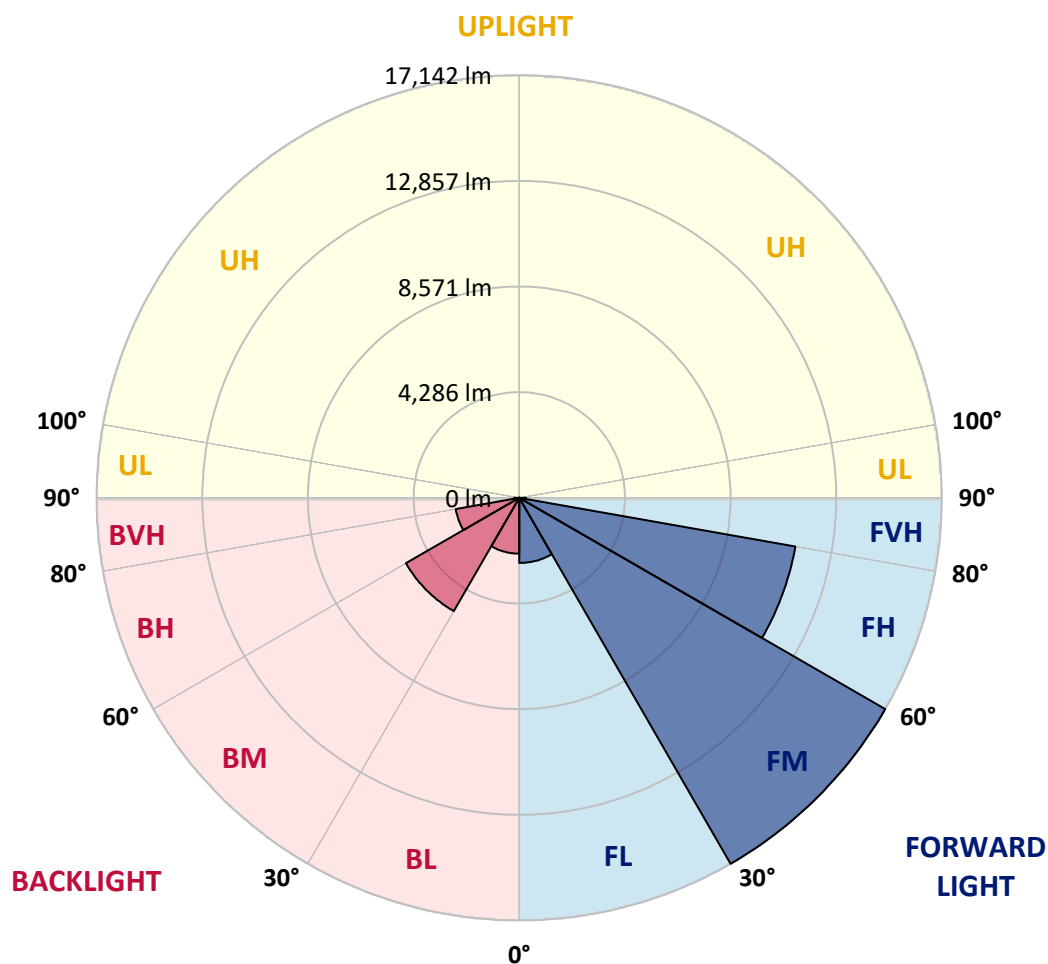
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2643.3	6.3			
FM	(30°-60°)	17142.1	41.0			
FH	(60°-80°)	11370.9	27.2			G4/12000
FVH	(80°-90°)	273.7	0.7			G3/500
BL	(0°-30°)	2265.8	5.4	B3/2500		
BM	(30°-60°)	5308.9	12.7	B4/8500		
BH	(60°-80°)	2617.5	6.3	B4/5000		G4/5000
BVH	(80°-90°)	209.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7
2.5°	4591.3	4617.6	4611.1	4600.1	4597.8	4602.2	4608.9	4615.5	4613.2	4624.3	4641.8
5°	4578.1	4604.5	4602.2	4602.2	4611.1	4628.7	4639.7	4650.6	4639.7	4652.8	4677.0
7.5°	4586.9	4606.7	4615.5	4624.3	4646.2	4679.2	4705.6	4729.8	4716.5	4731.9	4762.8
10°	4699.0	4714.4	4723.2	4723.2	4738.6	4775.9	4802.3	4846.2	4835.2	4859.4	4899.0
12.5°	4903.4	4918.8	4918.8	4910.0	4920.9	4945.1	4953.9	5002.3	4982.5	5022.1	5061.7
15°	5153.9	5184.7	5160.6	5145.2	5149.5	5173.7	5171.5	5208.8	5189.1	5222.1	5257.2
17.5°	5430.9	5470.4	5430.9	5428.7	5419.9	5446.2	5448.5	5481.4	5446.2	5470.4	5494.6
20°	5758.3	5813.3	5780.3	5791.4	5771.6	5782.5	5793.5	5841.9	5786.9	5804.5	5797.9
22.5°	6219.9	6285.8	6250.7	6292.4	6279.3	6270.4	6268.3	6354.0	6268.3	6274.8	6211.1
25°	6892.4	6971.5	6910.0	6967.1	6967.1	6995.7	7028.7	7138.6	6995.7	6954.0	6789.1
27.5°	7885.8	7965.0	7844.1	7879.3	7868.3	7938.6	7903.5	8176.0	8022.2	7954.0	7622.1
30°	9081.5	9222.1	8993.6	8984.7	8973.8	9085.9	9136.4	9316.6	9160.6	9092.5	8692.4
32.5°	10373.8	10521.1	10248.6	10169.4	10127.6	10195.8	10154.1	10299.1	10191.4	10085.9	9591.3
35°	11740.9	11885.9	11626.6	11472.7	11305.6	11162.9	11013.4	11050.7	10949.7	10789.2	10277.1
37.5°	13033.2	13299.2	13024.4	12859.5	12551.8	12272.7	11855.2	11681.5	11587.0	11439.7	10923.2
40°	14349.7	14501.4	14292.6	14151.9	13817.8	13380.5	12712.4	12345.3	12217.8	12074.9	11637.5
42.5°	15318.9	15464.0	15351.9	15255.2	14993.7	14486.0	13622.2	13162.8	12978.2	12817.8	12446.4
45°	16088.2	16195.9	16125.5	16160.8	16048.6	15556.3	14565.0	14039.8	13848.6	13653.0	13360.7
47.5°	16398.1	16512.3	16624.5	16833.3	17024.4	16661.8	15578.3	14989.3	14787.1	14587.1	14299.2
50°	16362.9	16479.4	16804.7	17248.7	17842.1	17721.2	16646.4	16000.2	15813.5	15584.9	15318.9
52.5°	16081.6	16213.4	16631.0	17369.5	18314.6	18514.6	17734.3	17044.2	16868.4	16595.9	16330.0
55°	15343.1	15422.3	16048.6	17094.8	18426.7	19068.5	18800.3	18156.3	17980.6	17600.3	17310.2
57.5°	13973.8	14088.1	15000.3	16354.1	18145.4	19444.2	19736.6	19325.7	19156.3	18609.1	18305.8
60°	12187.0	12369.5	13413.5	15110.1	17428.9	19442.1	20587.1	20475.1	20334.5	19602.5	19286.1
62.5°	10165.0	10376.0	11380.4	13351.9	16176.1	18890.4	21119.1	21437.8	21365.2	20519.1	20114.6
65°	7806.7	7951.7	8951.8	11077.1	14226.6	17705.8	21180.6	22094.9	22108.1	21215.8	20547.6
67.5°	5197.9	5615.5	6483.6	8312.2	11615.6	15769.5	20639.9	22202.6	22330.0	21455.3	20330.1
70°	2536.3	3085.8	3936.3	5402.3	8312.2	12800.2	19226.7	21319.1	21602.6	20756.5	19033.3
72.5°	1052.8	1230.8	1694.5	2666.0	4771.5	8637.5	16387.1	18923.4	19448.7	18391.6	16002.5
75°	709.9	769.3	969.2	1367.0	2173.6	4259.4	11817.7	14110.2	14956.3	13890.4	11354.0
77.5°	547.2	584.7	705.5	956.0	1292.3	1611.0	6325.4	8503.4	8940.8	8277.1	5907.8
80°	430.8	459.3	527.5	696.7	916.5	861.5	2156.1	3852.8	4105.5	3444.0	1898.9
82.5°	373.6	384.6	378.0	472.5	608.8	503.3	707.7	1422.0	1569.3	1138.5	619.8
85°	270.3	301.1	314.3	292.3	323.1	254.9	290.1	503.3	553.8	494.6	349.4
87.5°	109.9	162.7	200.0	189.0	118.7	72.6	90.1	147.3	169.2	184.6	114.3
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°	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7	4639.7
2.5°	4644.1	4659.4	4670.4	4683.6	4692.3	4705.6	4731.9	4747.3	4749.5	4760.5	4758.4
5°	4685.8	4707.8	4731.9	4767.1	4806.6	4839.6	4890.2	4925.3	4938.6	4949.5	4947.4
7.5°	4775.9	4806.6	4850.6	4912.2	4969.3	5013.3	5074.8	5116.6	5158.3	5173.7	5175.9
10°	4910.0	4953.9	5017.7	5101.2	5162.7	5219.9	5283.6	5318.7	5360.5	5378.1	5386.9
12.5°	5077.0	5123.2	5206.7	5323.1	5380.3	5419.9	5441.8	5433.0	5441.8	5457.2	5461.6
15°	5268.2	5318.7	5413.2	5538.6	5578.2	5543.0	5494.6	5450.6	5444.1	5448.5	5463.9
17.5°	5494.6	5531.9	5641.9	5747.4	5718.8	5573.7	5468.3	5397.9	5362.7	5351.7	5367.1
20°	5811.1	5811.1	5901.2	5967.1	5775.9	5529.8	5365.0	5250.7	5178.1	5147.3	5140.8
22.5°	6195.7	6160.6	6217.6	6171.5	5764.9	5406.7	5178.1	4980.3	4870.4	4826.4	4819.9
25°	6683.6	6641.9	6626.5	6340.8	5685.8	5211.1	4839.6	4600.1	4503.3	4479.2	4483.6
27.5°	7419.9	7314.4	7114.4	6433.1	5540.7	4903.4	4444.0	4222.1	4167.1	4169.3	4175.8
30°	8400.2	8189.1	7699.1	6448.5	5303.3	4468.2	4039.6	3881.4	3855.0	3866.0	3903.4
32.5°	9307.8	9107.8	8296.9	6378.2	4938.6	4041.8	3677.0	3571.5	3531.9	3545.2	3562.7
35°	10020.0	9965.0	8850.7	6279.3	4490.2	3641.8	3351.7	3261.5	3184.7	3167.0	3180.3
37.5°	10692.5	10670.6	9266.1	6140.8	4046.2	3358.3	3090.2	2971.5	2859.3	2797.8	2800.1
40°	11431.0	11409.0	9538.6	5927.6	3652.8	3112.1	2855.0	2698.9	2560.4	2448.4	2459.4
42.5°	12261.8	12132.1	9668.3	5622.1	3318.7	2903.3	2663.8	2452.8	2270.4	2167.1	2173.6
45°	13169.5	12877.2	9666.1	5233.0	3037.4	2712.1	2459.4	2160.5	1991.3	1894.5	1890.1
47.5°	14132.1	13589.2	9547.5	4802.3	2764.8	2501.1	2142.9	1914.3	1802.3	1742.9	1729.7
50°	15125.5	14255.2	9345.2	4307.8	2485.7	2261.6	1945.0	1789.0	1703.3	1648.4	1628.6
52.5°	16059.6	14859.6	9101.3	3747.3	2202.2	2028.6	1857.2	1736.2	1646.2	1584.6	1558.3
55°	16927.8	15380.5	8756.2	3173.7	1971.5	1872.6	1815.4	1714.3	1611.0	1538.5	1509.9
57.5°	17699.2	15719.0	8160.5	2635.2	1806.7	1764.8	1771.5	1677.0	1558.3	1496.7	1457.1
60°	18340.9	15967.3	7279.2	2136.3	1672.6	1659.4	1703.3	1606.6	1468.1	1397.8	1367.0
62.5°	18725.6	15962.9	6197.9	1749.5	1558.3	1562.7	1613.2	1518.7	1378.0	1312.1	1292.3
65°	18692.6	15571.7	5011.1	1496.7	1448.4	1452.7	1518.7	1422.0	1303.3	1263.7	1261.6
67.5°	18031.1	14617.8	3844.1	1331.9	1327.5	1347.3	1424.2	1356.1	1257.2	1252.8	1259.3
70°	16239.8	12637.5	2769.2	1200.1	1202.2	1230.8	1331.9	1314.4	1233.0	1241.8	1239.5
72.5°	13022.2	9635.3	1859.4	1061.6	1063.7	1109.9	1243.9	1281.4	1208.8	1325.3	1342.9
75°	8672.6	6008.9	1195.7	914.3	916.5	975.8	1167.1	1217.6	1142.9	1320.9	1331.9
77.5°	4167.1	2701.2	865.9	769.3	769.3	824.2	1008.8	1090.1	973.6	1026.4	940.6
80°	1439.6	1015.4	681.3	619.8	606.6	644.0	850.5	945.0	839.6	773.7	725.3
82.5°	567.0	527.5	547.2	481.3	437.4	461.6	661.5	780.2	617.6	558.2	556.1
85°	325.2	342.9	386.8	318.7	252.8	283.5	485.7	560.5	466.0	411.0	419.7
87.5°	87.9	120.8	178.0	164.8	114.3	120.8	230.7	309.9	268.1	206.6	213.2
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)