

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: P967361

Luminaire Tested: **NAV-SB4D-830-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967361
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-830-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38065.4 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - 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

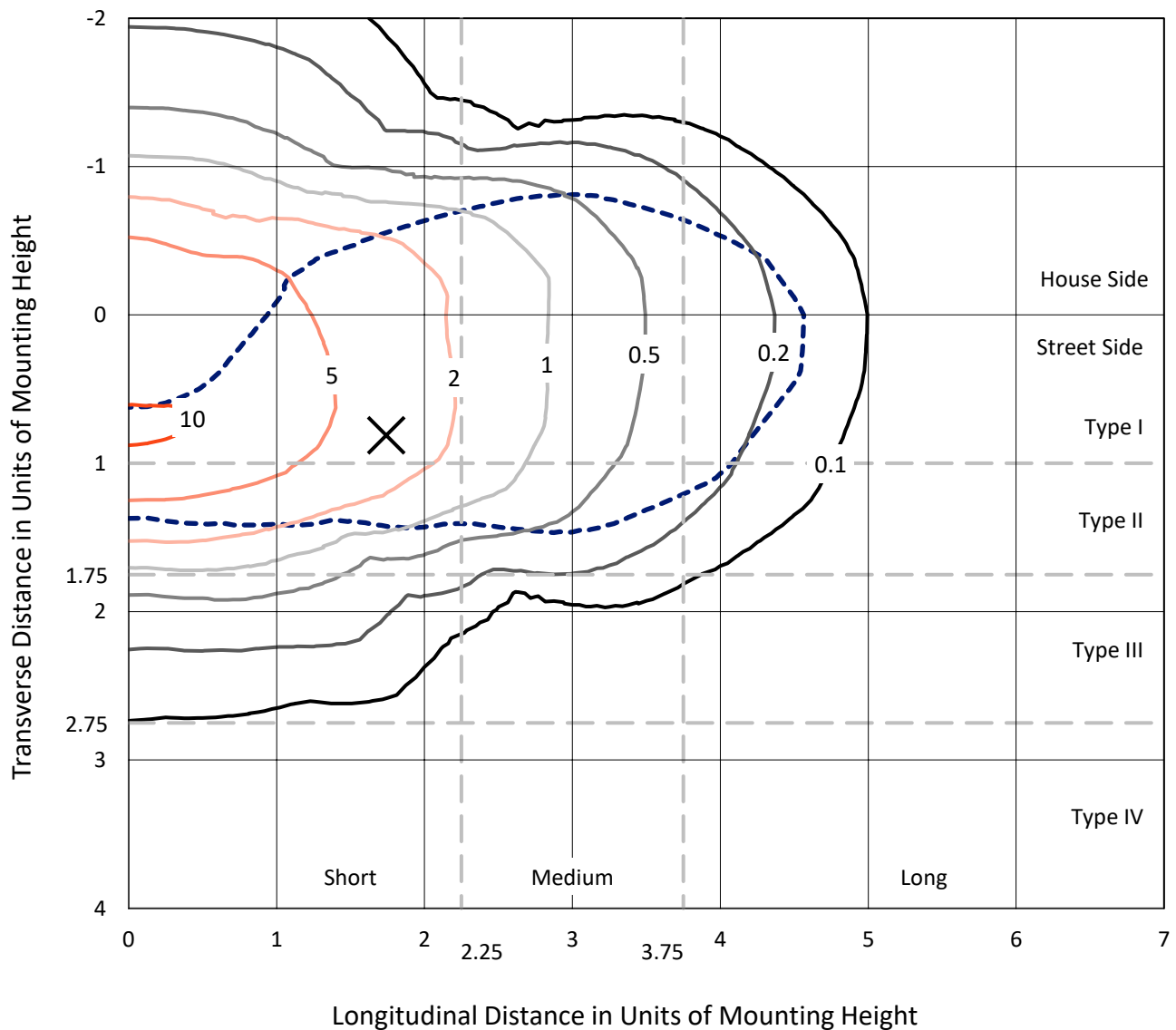


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Iso-Footcandle Lines of Horizontal Illumination

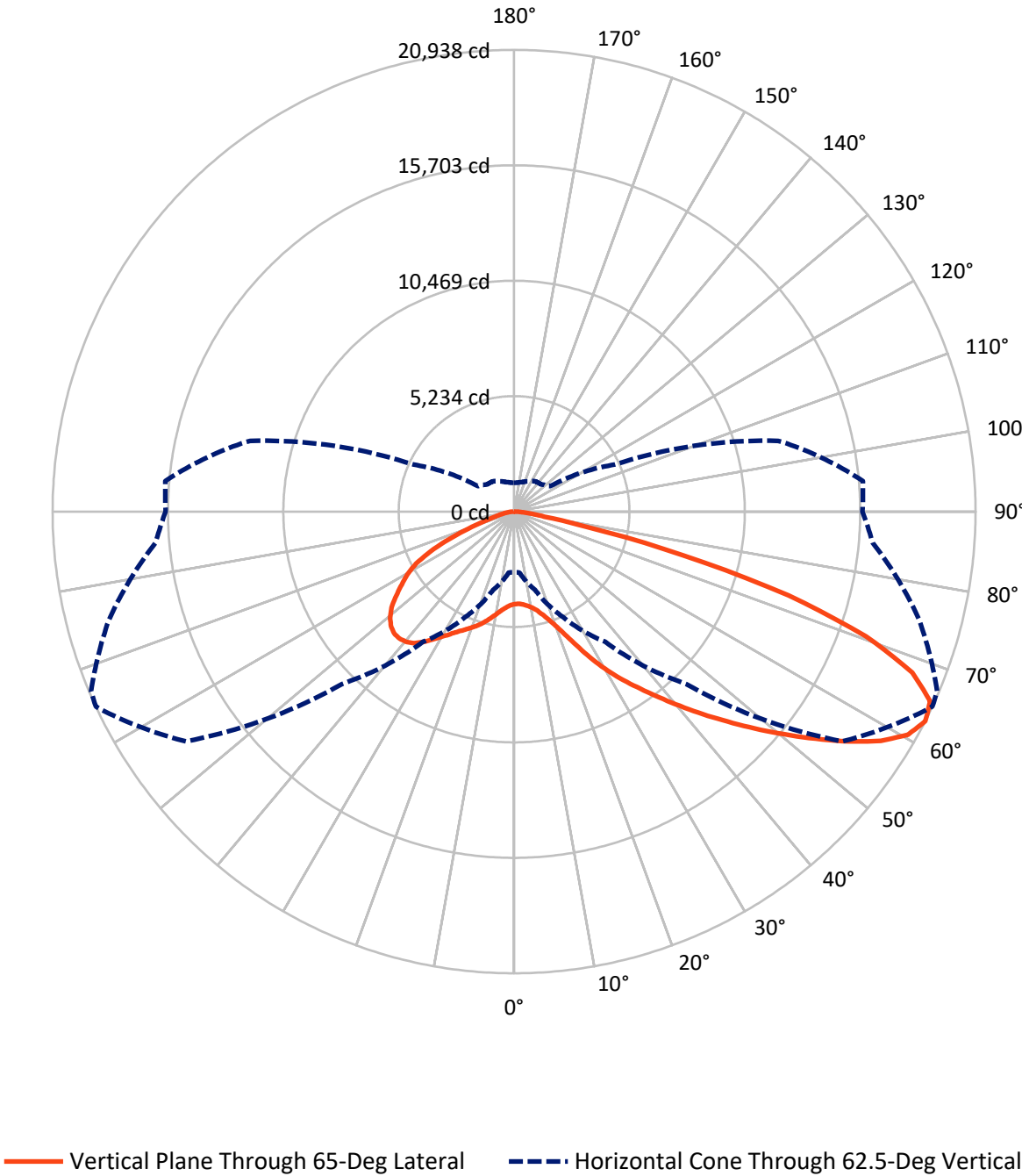
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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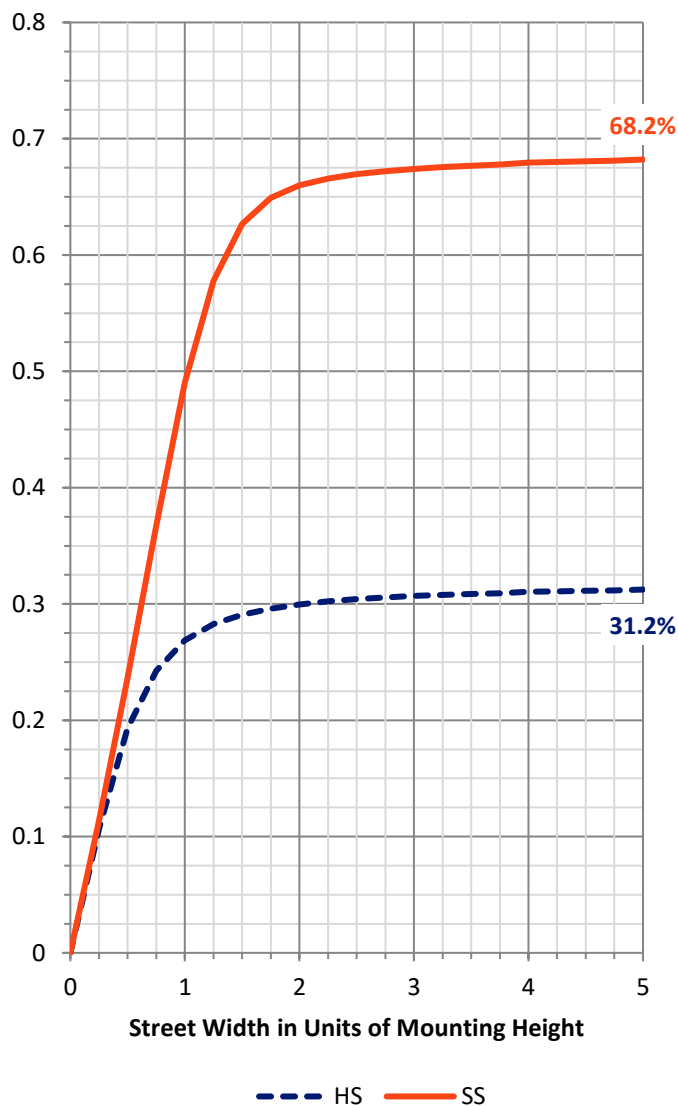
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12011.8	0.0	12011.8
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	26053.6	0.0	26053.6
	% Fixture	68.4	0.0	68.4
Total	Lumens	38065.4	0.0	38065.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	418.2	1.1
10°-20°	1418.2	3.7
20°-30°	2875.5	7.6
30°-40°	4975.9	13.1
40°-50°	7530.1	19.8
50°-60°	8828.6	23.2
60°-70°	7401.7	19.4
70°-80°	4086.4	10.7
80°-90°	530.8	1.4
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°	38065.4	100.0
0°-180°	38065.4	100.0

Coefficient of Utilization



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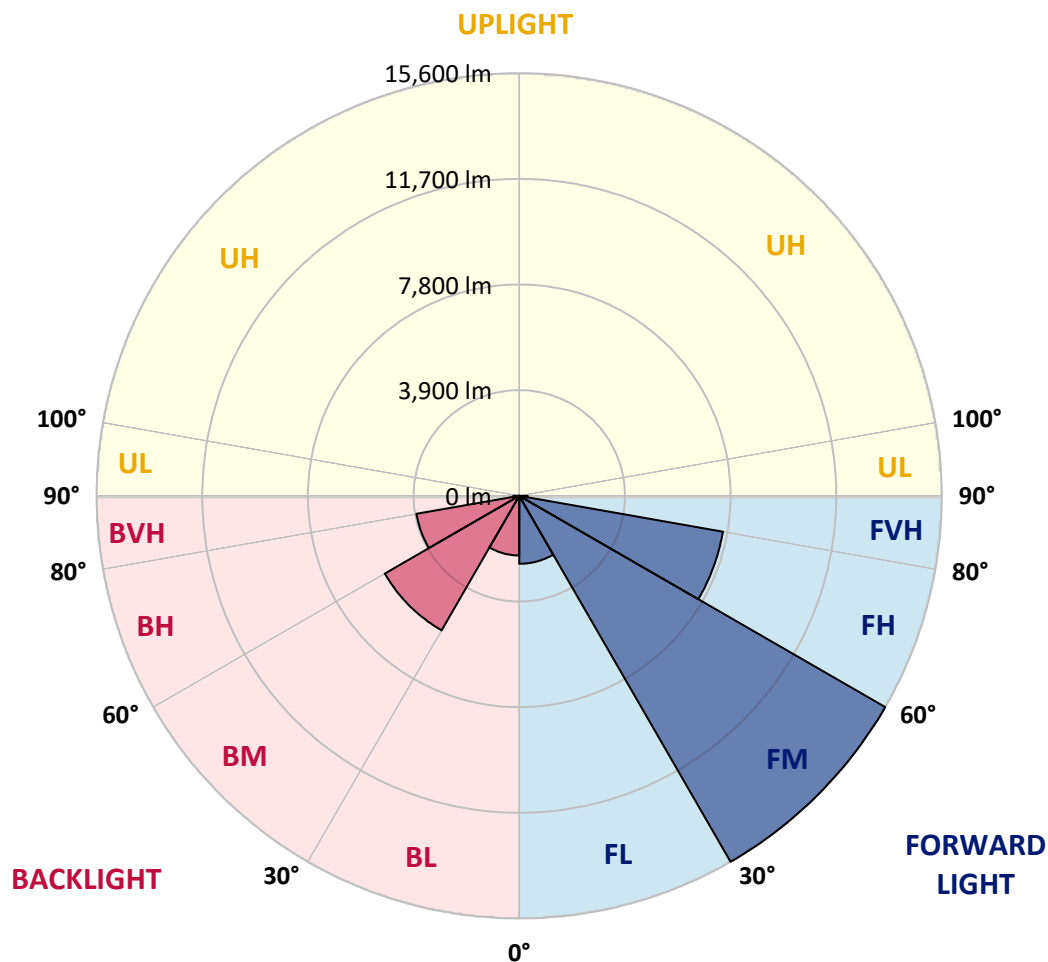
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2509.0	6.6			
FM	(30°-60°)	15600.4	41.0			
FH	(60°-80°)	7634.8	20.1			G4/12000
FVH	(80°-90°)	309.4	0.8			G3/500
BL	(0°-30°)	2202.8	5.8	B3/2500		
BM	(30°-60°)	5734.3	15.1	B4/8500		
BH	(60°-80°)	3853.3	10.1	B4/5000		G4/5000
BVH	(80°-90°)	221.4	0.6			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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6
2.5°	4167.0	4155.1	4165.0	4165.0	4169.0	4167.0	4180.8	4184.8	4190.7	4202.5	4202.5
5°	4125.5	4123.6	4141.3	4157.1	4172.9	4186.7	4204.5	4230.2	4234.2	4248.0	4265.7
7.5°	4111.7	4099.9	4127.5	4147.3	4184.8	4218.4	4265.7	4309.2	4326.9	4332.9	4366.5
10°	4218.4	4198.6	4224.2	4236.1	4267.7	4301.3	4356.6	4425.7	4445.4	4469.1	4506.7
12.5°	4400.0	4378.3	4415.8	4433.6	4463.3	4492.9	4530.4	4597.5	4607.4	4650.8	4686.4
15°	4648.9	4623.2	4646.9	4668.6	4718.0	4745.6	4783.2	4848.4	4848.4	4881.9	4907.6
17.5°	4986.5	4953.0	4970.7	4978.6	5010.3	5051.7	5115.0	5172.3	5201.9	5190.0	5154.4
20°	5490.2	5448.7	5448.7	5409.2	5397.3	5431.0	5513.9	5592.8	5624.5	5563.2	5476.4
22.5°	6246.6	6187.3	6153.7	6019.4	5966.1	5970.1	6053.0	6149.8	6175.4	6066.9	5871.3
25°	7208.3	7115.4	7070.0	6872.6	6752.1	6647.4	6712.6	6837.1	6872.6	6738.2	6422.3
27.5°	8170.1	8176.0	8132.6	7895.6	7696.1	7504.5	7471.0	7601.3	7638.8	7486.8	7095.8
30°	9519.0	9378.8	9295.7	9011.4	8727.0	8458.4	8320.1	8373.5	8383.4	8201.6	7747.5
32.5°	10682.1	10646.6	10468.8	10220.0	9854.7	9434.0	9203.0	9118.0	9102.2	8843.5	8304.3
35°	12007.3	11987.5	11799.9	11503.7	11108.7	10524.1	10107.4	9864.5	9844.8	9481.4	8855.4
37.5°	13354.1	13354.1	13170.4	12846.6	12437.8	11707.0	11073.2	10688.1	10624.8	10150.9	9416.3
40°	14428.5	14363.3	14396.8	14260.6	13792.6	13016.5	12145.5	11586.6	11501.7	10933.0	10012.6
42.5°	15038.7	15017.0	15218.4	15370.5	15178.9	14558.8	13326.5	12560.2	12441.8	11794.0	10699.9
45°	15175.0	15151.2	15510.7	16067.6	16336.2	16081.4	14610.1	13585.2	13441.0	12694.5	11436.5
47.5°	14861.0	14813.6	15340.9	16219.7	17080.7	17529.0	16000.5	14697.1	14487.8	13571.4	12192.9
50°	13916.9	13871.5	14669.4	15836.6	17331.5	18512.5	17509.3	15876.0	15556.1	14511.4	12957.2
52.5°	11865.1	11886.8	13136.9	14740.5	17001.8	19124.8	18808.8	17118.2	16733.1	15473.2	13674.1
55°	9242.4	9289.9	10826.3	12591.8	15682.5	19031.9	19695.5	18397.9	18014.9	16377.7	14414.7
57.5°	6617.8	6827.1	8266.8	10014.7	13148.7	17560.6	19889.0	19614.5	19243.2	17365.1	15139.5
60°	4289.4	4326.9	5808.2	7569.7	10012.6	14945.9	19496.0	20536.8	20246.5	18372.3	15745.7
62.5°	2749.0	2774.7	3677.2	5294.6	7206.4	11057.4	18172.8	20937.7	20848.8	19037.8	16328.4
65°	2020.3	2000.6	2470.6	3499.5	4854.3	6819.2	15603.6	20744.2	20919.9	19454.5	16810.2
67.5°	1686.5	1658.9	1890.0	2423.2	3576.5	3872.8	11545.2	19486.2	20130.0	19407.1	17163.7
70°	1536.5	1512.8	1653.0	1799.1	2790.5	2593.0	5820.0	16940.5	17931.9	18868.0	17106.4
72.5°	1301.4	1259.9	1451.5	1597.7	2170.4	1988.7	2405.4	13012.5	14221.2	17139.9	16300.7
75°	1009.1	981.5	1145.4	1406.1	1631.3	1552.3	1520.7	7901.5	9220.7	13255.4	14260.6
77.5°	799.8	762.3	912.4	1096.0	1467.3	1171.1	1107.9	3402.7	4710.1	8462.4	10670.2
80°	602.3	568.8	693.2	866.9	1127.7	882.7	716.9	1388.4	1775.4	4287.5	5365.8
82.5°	428.6	398.9	483.8	635.9	758.4	791.9	440.4	778.1	874.8	1653.0	1198.7
85°	274.5	256.8	323.9	398.9	481.9	509.5	268.5	406.8	446.3	681.3	499.7
87.5°	150.1	122.5	173.8	185.6	223.1	203.5	128.3	148.1	160.0	246.8	211.4
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°	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6	4194.6
2.5°	4210.5	4216.3	4236.1	4242.1	4255.9	4273.6	4285.5	4297.3	4297.3	4309.2	4309.2
5°	4267.7	4281.5	4323.0	4344.8	4380.2	4415.8	4437.5	4463.3	4479.0	4486.9	4490.8
7.5°	4378.3	4400.0	4459.3	4496.8	4558.1	4607.4	4641.0	4676.6	4684.5	4706.2	4698.2
10°	4528.4	4554.1	4621.2	4692.3	4765.4	4826.6	4858.2	4883.9	4893.8	4897.7	4887.8
12.5°	4700.2	4737.8	4824.7	4911.5	4988.6	5041.9	5049.8	5043.8	5016.1	4992.5	4992.5
15°	4911.5	4945.1	5041.9	5136.7	5211.7	5221.6	5172.3	5140.6	5107.1	5101.1	5101.1
17.5°	5164.4	5182.1	5271.0	5363.7	5369.7	5336.2	5263.1	5233.4	5201.9	5180.1	5182.1
20°	5458.5	5452.7	5515.8	5555.3	5513.9	5411.2	5300.6	5251.2	5219.6	5194.0	5195.9
22.5°	5810.1	5764.7	5756.8	5746.9	5636.3	5421.0	5271.0	5207.7	5158.4	5122.8	5134.7
25°	6321.6	6147.8	6027.3	5960.2	5711.4	5367.7	5176.1	5035.9	4943.2	4881.9	4905.6
27.5°	6961.5	6669.2	6365.0	6201.1	5711.4	5259.1	4947.1	4719.9	4567.9	4504.7	4536.3
30°	7571.7	7265.6	6817.3	6491.4	5697.6	5081.3	4577.8	4261.7	4084.0	4020.9	4058.4
32.5°	8093.1	7759.4	7297.2	6809.4	5663.9	4793.0	4119.6	3770.1	3598.3	3523.2	3560.7
35°	8576.9	8221.4	7779.0	7158.9	5575.1	4370.4	3616.0	3349.4	3157.8	3037.4	3076.8
37.5°	9072.6	8650.0	8235.3	7474.9	5415.1	3876.7	3229.0	3001.8	2776.7	2614.8	2658.2
40°	9611.7	9106.2	8723.1	7662.5	5152.5	3406.7	2928.7	2721.4	2482.4	2310.7	2344.2
42.5°	10241.7	9653.2	9266.1	7759.4	4793.0	3073.0	2733.3	2529.8	2304.7	2164.5	2192.2
45°	10899.3	10255.5	9761.8	7757.3	4392.1	2916.9	2670.0	2468.6	2219.7	2073.6	2097.4
47.5°	11588.5	10885.5	10190.3	7630.9	4044.5	2938.6	2634.5	2336.3	2061.8	1919.6	1939.3
50°	12279.8	11574.8	10605.1	7393.9	3896.4	2891.2	2502.1	2150.7	1826.8	1698.4	1706.3
52.5°	12965.1	12307.5	10962.6	7056.2	3746.4	2715.4	2332.3	1909.7	1730.0	1641.1	1641.1
55°	13654.3	13032.3	11351.6	6564.5	3371.1	2510.1	2048.0	1818.9	1653.0	1572.0	1564.1
57.5°	14345.5	13869.6	11720.9	6072.7	2899.1	2257.3	1891.9	1708.3	1575.9	1506.9	1495.0
60°	15064.4	14827.4	12102.1	5620.5	2433.0	1933.5	1777.4	1619.4	1485.1	1408.0	1402.2
62.5°	15805.0	15882.0	12400.2	5037.9	2004.5	1735.9	1674.7	1512.8	1382.4	1309.3	1307.4
65°	16551.5	16899.1	12595.8	4230.2	1625.3	1548.3	1564.1	1396.3	1263.9	1200.7	1198.7
67.5°	17114.3	17631.7	12540.5	3201.3	1333.0	1370.5	1425.9	1273.8	1149.3	1100.0	1102.0
70°	17177.5	17544.8	11995.4	2192.2	1115.8	1196.8	1271.8	1153.3	1025.0	989.4	991.4
72.5°	16336.2	16359.9	10476.7	1431.8	944.0	1050.6	1109.9	1030.8	906.5	870.9	869.0
75°	14130.2	13529.9	7692.1	944.0	790.0	902.5	957.9	902.5	782.1	790.0	762.3
77.5°	10705.8	9582.1	4670.6	671.5	659.6	758.4	833.4	793.9	691.2	776.1	683.3
80°	5515.8	5184.0	2083.5	501.6	521.4	606.3	685.3	634.0	547.0	521.4	475.9
82.5°	1263.9	1469.3	821.5	359.5	377.2	436.4	523.4	475.9	393.0	331.8	327.8
85°	442.4	483.8	363.4	225.1	221.2	272.5	355.5	318.0	266.6	213.3	225.1
87.5°	140.2	183.7	136.2	90.8	94.8	122.5	163.9	150.1	124.4	81.0	84.9
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)