

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: P967304

Luminaire Tested: **NAV-SB4D-760-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967304
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-760-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44256.4 lumens
Efficiency: N/A
Efficacy: 150.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - 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



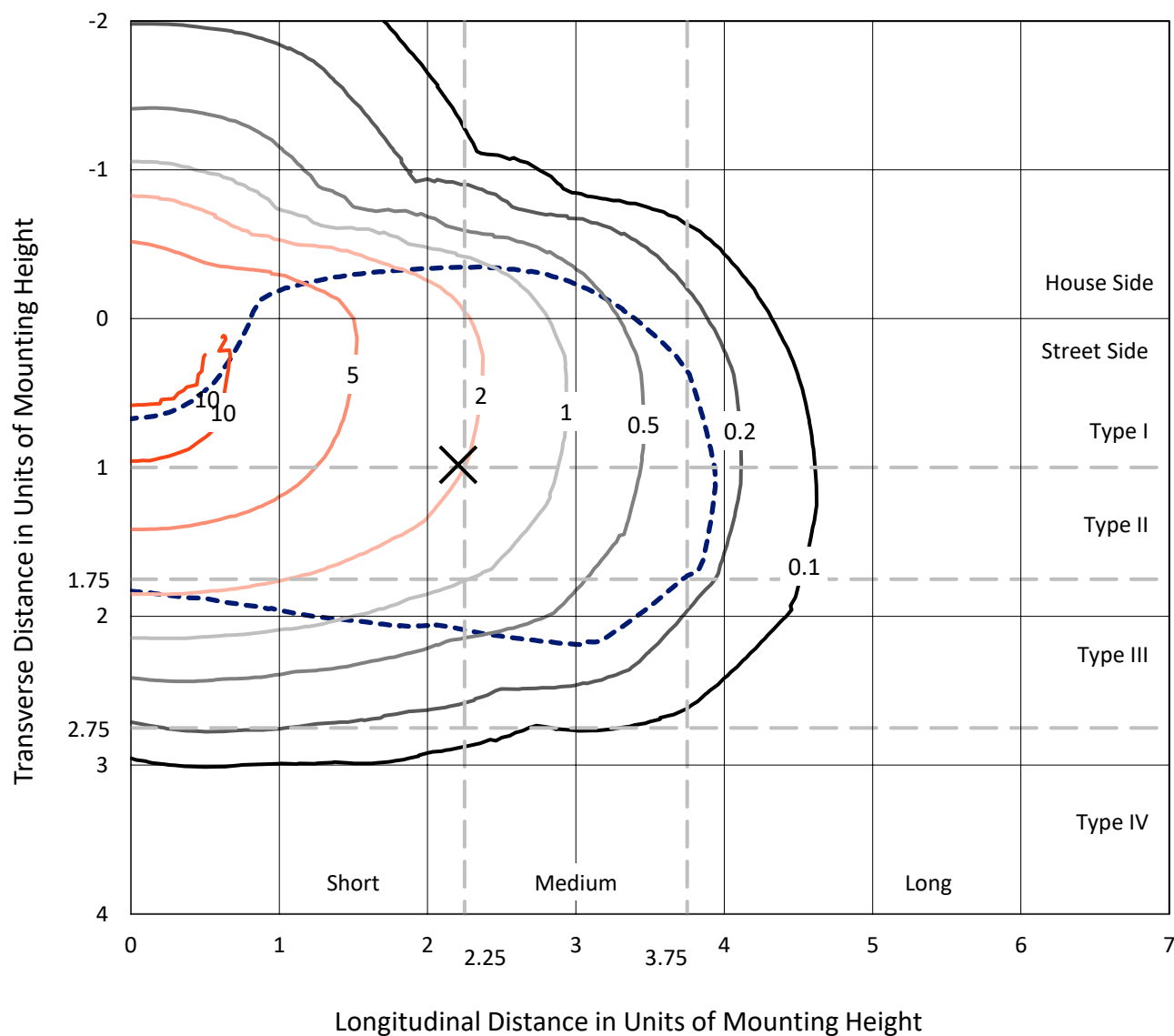
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

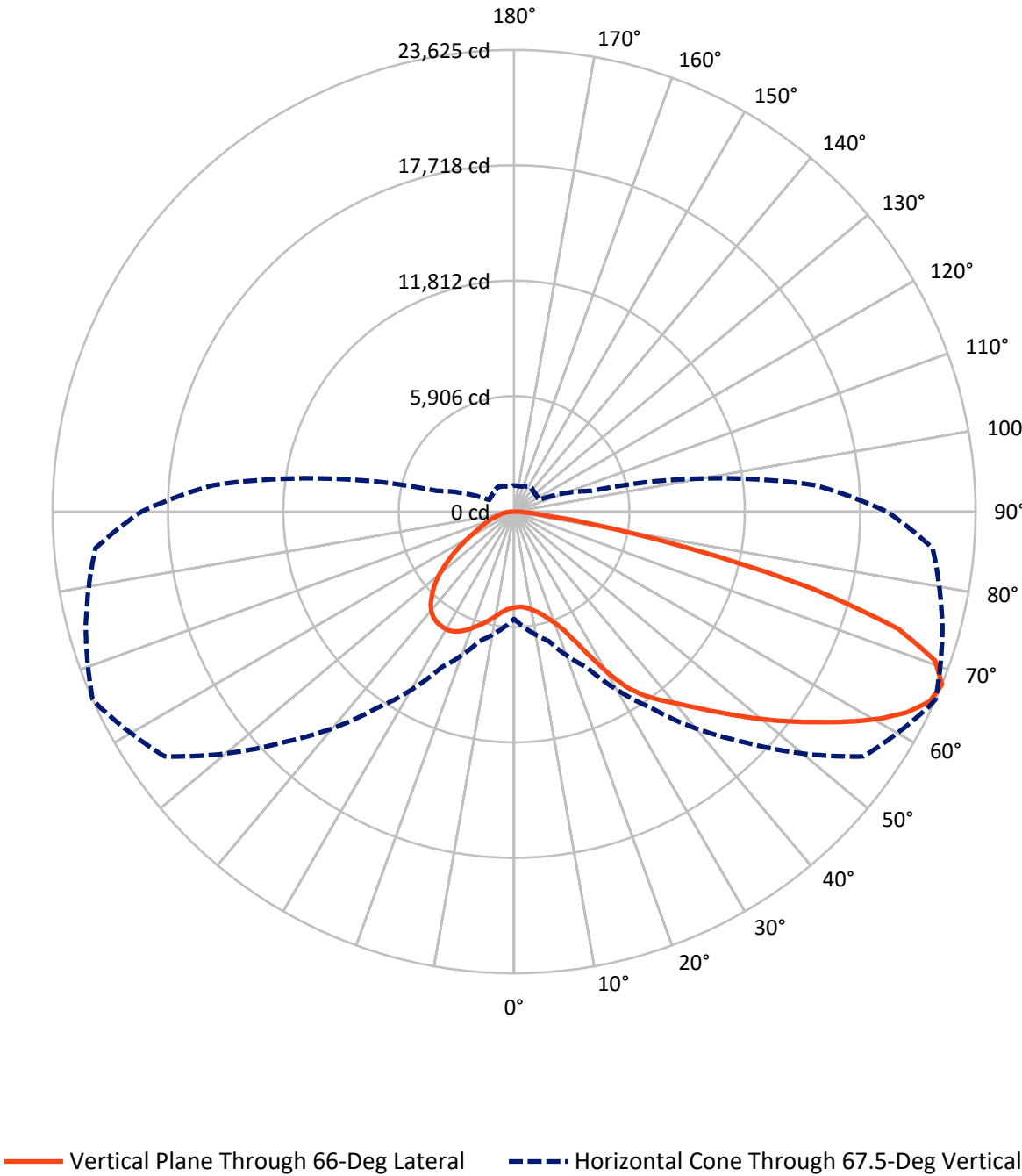


Based on 25 foot mounting height. Maximum calculated value = 11.1 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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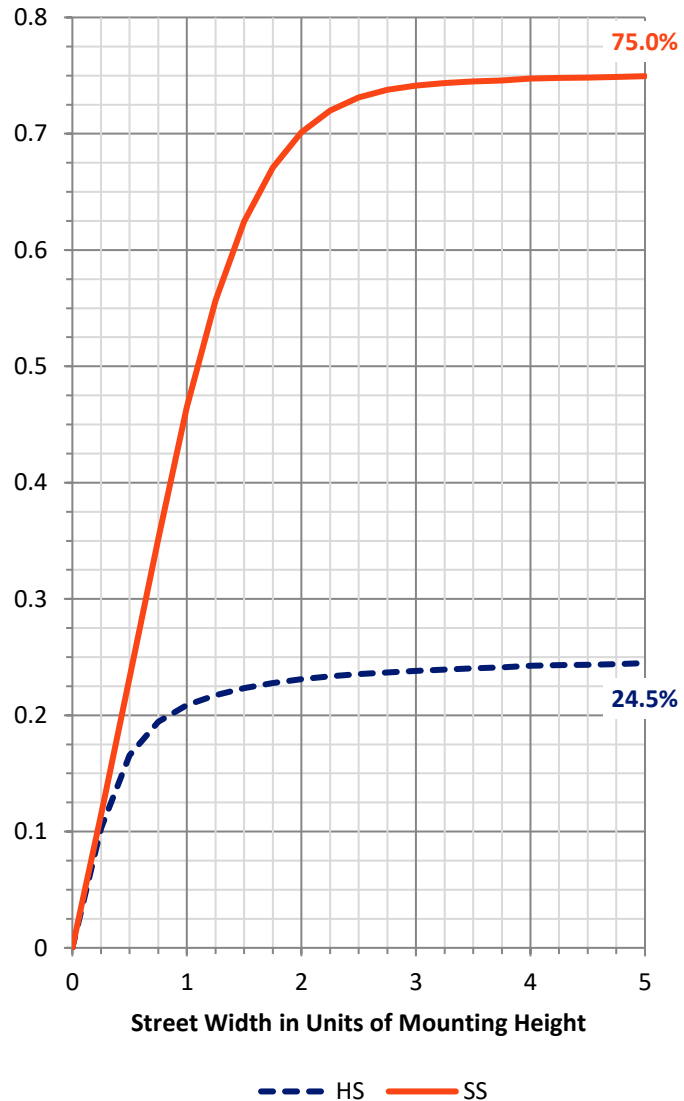
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11004.2	0.0	11004.2
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	33252.2	0.0	33252.2
	% Fixture	75.1	0.0	75.1
Total	Lumens	44256.4	0.0	44256.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	486.7	1.1
10°-20°	1607.9	3.6
20°-30°	3099.1	7.0
30°-40°	5433.9	12.3
40°-50°	8078.4	18.3
50°-60°	10240.2	23.1
60°-70°	10019.8	22.6
70°-80°	4779.5	10.8
80°-90°	510.8	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°	44256.4	100.0
0°-180°	44256.4	100.0

Coefficient of Utilization



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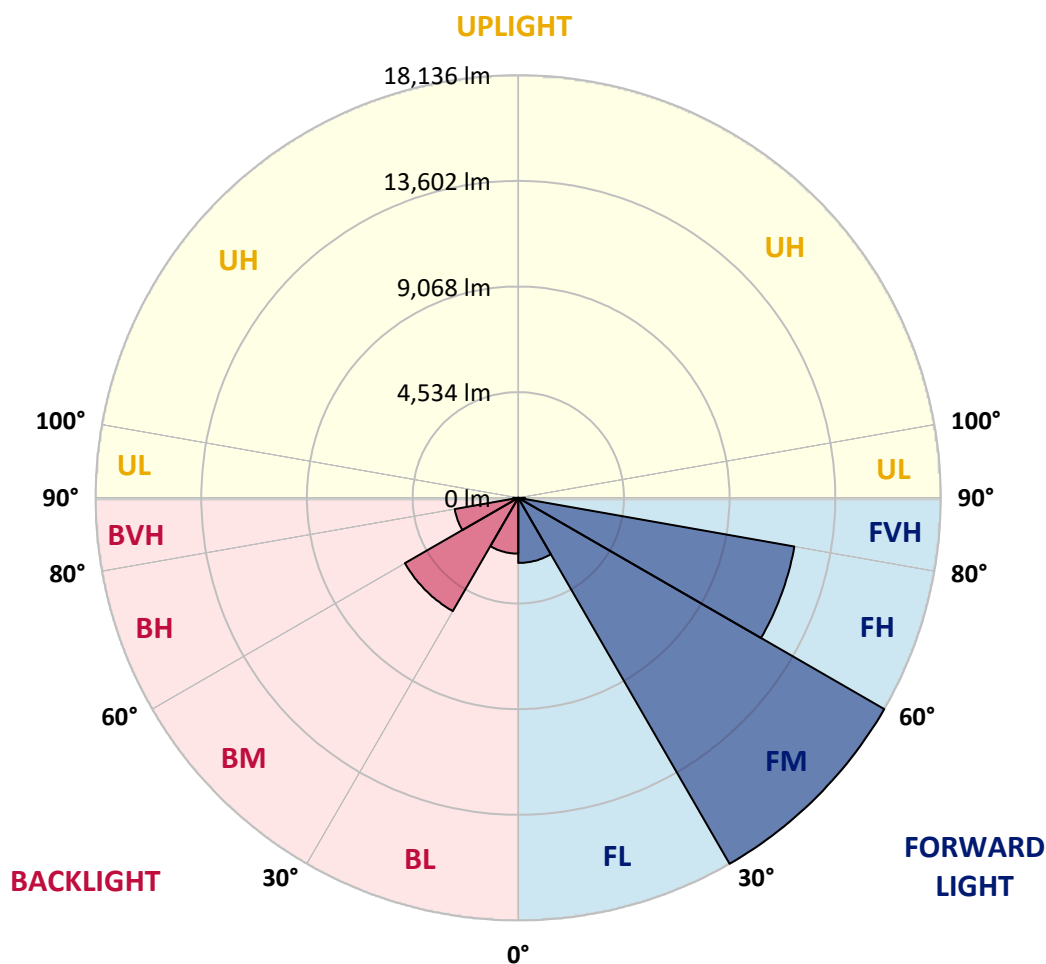
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2796.6	6.3			
FM	(30°-60°)	18135.9	41.0			
FH	(60°-80°)	12030.1	27.2			G5
FVH	(80°-90°)	289.6	0.7			G3/500
BL	(0°-30°)	2397.1	5.4	B3/2500		
BM	(30°-60°)	5616.7	12.7	B4/8500		
BH	(60°-80°)	2769.2	6.3	B4/5000		G4/5000
BVH	(80°-90°)	221.2	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-G5

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6
2.5°	4857.5	4885.4	4878.4	4866.8	4864.4	4869.1	4876.0	4883.0	4880.7	4892.3	4911.0
5°	4843.5	4871.4	4869.1	4869.1	4878.4	4897.0	4908.6	4920.2	4908.6	4922.6	4948.2
7.5°	4852.9	4873.8	4883.0	4892.3	4915.6	4950.4	4978.4	5003.9	4990.0	5006.3	5038.8
10°	4971.5	4987.6	4997.0	4997.0	5013.3	5052.7	5080.7	5127.2	5115.6	5141.2	5183.0
12.5°	5187.6	5203.9	5203.9	5194.6	5206.3	5231.8	5241.1	5292.3	5271.4	5313.2	5355.1
15°	5452.7	5485.3	5459.7	5443.5	5448.1	5473.7	5471.3	5510.9	5489.9	5524.9	5562.1
17.5°	5745.7	5787.6	5745.7	5743.4	5734.1	5762.0	5764.3	5799.2	5762.0	5787.6	5813.2
20°	6092.2	6150.3	6115.5	6127.0	6106.1	6117.7	6129.4	6180.5	6122.4	6141.0	6134.0
22.5°	6580.5	6650.2	6613.0	6657.2	6643.2	6634.0	6631.6	6722.4	6631.6	6638.6	6571.2
25°	7292.1	7375.7	7310.6	7371.1	7371.1	7401.3	7436.2	7552.4	7401.3	7357.1	7182.7
27.5°	8343.0	8426.7	8298.8	8336.0	8324.4	8398.8	8361.6	8650.0	8487.2	8415.1	8064.0
30°	9607.9	9756.8	9515.0	9505.6	9494.1	9612.7	9666.1	9856.8	9691.7	9619.6	9196.4
32.5°	10975.2	11131.0	10842.7	10759.0	10714.8	10786.9	10742.7	10896.2	10782.2	10670.7	10147.4
35°	12421.6	12575.0	12300.6	12137.8	11961.1	11809.9	11651.9	11691.4	11584.4	11414.7	10872.9
37.5°	13788.8	14070.2	13779.5	13605.1	13279.6	12984.3	12542.4	12358.7	12258.8	12103.0	11556.6
40°	15181.6	15342.1	15121.2	14972.4	14618.9	14156.2	13449.3	13061.0	12926.1	12775.0	12312.2
42.5°	16207.1	16360.5	16241.9	16139.6	15862.9	15325.8	14411.9	13926.0	13730.7	13561.0	13168.0
45°	17020.9	17134.8	17060.4	17097.6	16979.0	16458.2	15409.5	14853.8	14651.5	14444.5	14135.3
47.5°	17348.7	17469.7	17588.3	17809.2	18011.5	17627.7	16481.5	15858.3	15644.4	15432.7	15128.2
50°	17311.5	17434.8	17778.9	18248.6	18876.5	18748.6	17611.6	16927.9	16730.3	16488.5	16207.1
52.5°	17013.9	17153.5	17595.3	18376.5	19376.4	19588.0	18762.5	18032.4	17846.4	17558.0	17276.7
55°	16232.6	16316.4	16979.0	18085.8	19495.0	20173.9	19890.2	19209.0	19023.0	18620.7	18313.8
57.5°	14784.0	14904.9	15869.9	17302.2	19197.3	20571.5	20880.8	20446.0	20266.9	19688.0	19367.1
60°	12893.6	13086.6	14191.0	15986.2	18439.3	20569.3	21780.7	21662.1	21513.3	20739.0	20404.2
62.5°	10754.3	10977.5	12040.2	14125.9	17113.9	19985.7	22343.5	22680.6	22603.8	21708.6	21280.7
65°	8259.3	8412.8	9470.8	11719.3	15051.4	18732.3	22408.6	23375.8	23389.8	22445.8	21738.8
67.5°	5499.2	5941.0	6859.5	8794.1	12289.0	16683.7	21836.5	23489.7	23624.6	22699.1	21508.6
70°	2683.3	3264.6	4164.6	5715.5	8794.1	13542.3	20341.3	22555.0	22854.9	21959.7	20136.7
72.5°	1113.8	1302.2	1792.7	2820.5	5048.1	9138.3	17337.2	20020.5	20576.3	19457.8	16930.2
75°	751.0	813.8	1025.4	1446.3	2299.7	4506.3	12502.9	14928.2	15823.4	14695.6	12012.3
77.5°	579.0	618.5	746.4	1011.5	1367.2	1704.4	6692.1	8996.4	9459.1	8756.9	6250.3
80°	455.7	486.0	558.1	737.1	969.6	911.5	2281.0	4076.2	4343.5	3643.7	2009.0
82.5°	395.3	406.9	400.0	499.9	644.1	532.5	748.8	1504.4	1660.2	1204.5	655.7
85°	286.0	318.6	332.5	309.2	341.8	269.8	306.9	532.5	586.0	523.2	369.7
87.5°	116.2	172.1	211.6	200.0	125.6	76.8	95.3	155.8	179.1	195.4	121.0
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°	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6	4908.6
2.5°	4913.2	4929.5	4941.2	4955.2	4964.4	4978.4	5006.3	5022.6	5024.9	5036.5	5034.2
5°	4957.4	4980.7	5006.3	5043.5	5085.3	5120.2	5173.7	5210.9	5224.8	5236.5	5234.2
7.5°	5052.7	5085.3	5131.9	5197.0	5257.4	5304.0	5369.1	5413.2	5457.4	5473.7	5476.0
10°	5194.6	5241.1	5308.6	5396.9	5462.0	5522.5	5589.9	5627.1	5671.3	5689.9	5699.2
12.5°	5371.3	5420.2	5508.6	5631.8	5692.2	5734.1	5757.3	5748.0	5757.3	5773.6	5778.2
15°	5573.6	5627.1	5727.1	5859.6	5901.5	5864.3	5813.2	5766.6	5759.7	5764.3	5780.6
17.5°	5813.2	5852.6	5969.0	6080.5	6050.4	5896.8	5785.2	5710.8	5673.7	5662.0	5678.3
20°	6148.0	6148.0	6243.3	6313.1	6110.7	5850.4	5675.9	5555.1	5478.3	5445.7	5438.8
22.5°	6554.9	6517.7	6578.1	6529.4	6099.2	5720.1	5478.3	5269.0	5152.8	5106.2	5099.3
25°	7071.1	7026.9	7010.7	6708.4	6015.4	5513.2	5120.2	4866.8	4764.5	4738.9	4743.5
27.5°	7850.1	7738.4	7526.9	6806.0	5862.0	5187.6	4701.7	4466.8	4408.7	4411.0	4418.0
30°	8887.2	8663.9	8145.4	6822.3	5610.8	4727.3	4273.8	4106.5	4078.5	4090.2	4129.6
32.5°	9847.5	9635.9	8777.9	6747.9	5224.8	4276.2	3890.2	3778.6	3736.7	3750.7	3769.2
35°	10600.9	10542.7	9363.8	6643.2	4750.5	3853.0	3546.0	3450.7	3369.3	3350.7	3364.7
37.5°	11312.4	11289.1	9803.3	6496.8	4280.8	3553.0	3269.3	3143.8	3025.2	2960.1	2962.4
40°	12093.7	12070.4	10091.6	6271.3	3864.6	3292.6	3020.5	2855.4	2709.0	2590.4	2602.0
42.5°	12972.6	12835.5	10228.8	5948.0	3511.1	3071.6	2818.2	2595.0	2402.0	2292.7	2299.7
45°	13932.9	13623.7	10226.5	5536.4	3213.5	2869.4	2602.0	2285.8	2106.7	2004.4	1999.7
47.5°	14951.4	14377.1	10101.0	5080.7	2925.1	2646.1	2267.1	2025.3	1906.7	1844.0	1829.9
50°	16002.4	15081.6	9887.0	4557.5	2629.8	2392.7	2057.9	1892.8	1802.1	1743.9	1723.0
52.5°	16990.7	15721.0	9628.8	3964.6	2329.9	2146.2	1964.8	1837.0	1741.6	1676.5	1648.6
55°	17909.1	16272.2	9263.8	3357.7	2085.8	1981.1	1920.6	1813.7	1704.4	1627.7	1597.5
57.5°	18725.3	16630.2	8633.7	2788.0	1911.3	1867.1	1874.1	1774.2	1648.6	1583.5	1541.6
60°	19404.3	16893.0	7701.2	2260.1	1769.6	1755.6	1802.1	1699.8	1553.3	1478.9	1446.3
62.5°	19811.2	16888.3	6557.2	1850.9	1648.6	1653.2	1706.7	1606.8	1458.0	1388.2	1367.2
65°	19776.4	16474.4	5301.6	1583.5	1532.4	1537.0	1606.8	1504.4	1378.8	1337.0	1334.7
67.5°	19076.4	15465.3	4066.9	1409.1	1404.5	1425.4	1506.7	1434.7	1330.0	1325.4	1332.4
70°	17181.4	13370.2	2929.9	1269.6	1271.9	1302.2	1409.1	1390.5	1304.5	1313.7	1311.5
72.5°	13777.1	10193.9	1967.2	1123.1	1125.4	1174.2	1316.1	1355.7	1278.9	1402.1	1420.8
75°	9175.5	6357.3	1265.0	967.3	969.6	1032.4	1234.7	1288.2	1209.1	1397.5	1409.1
77.5°	4408.7	2857.7	916.1	813.8	813.8	872.0	1067.3	1153.3	1030.1	1085.9	995.2
80°	1523.0	1074.3	720.8	655.7	641.8	681.3	899.8	999.9	888.3	818.5	767.3
82.5°	599.9	558.1	579.0	509.2	462.7	488.3	699.9	825.4	653.4	590.6	588.2
85°	344.1	362.7	409.3	337.1	267.4	299.9	513.8	593.0	492.9	434.8	444.1
87.5°	93.0	127.9	188.4	174.4	121.0	127.9	244.2	327.9	283.7	218.5	225.5
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)