

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: P969500

Luminaire Tested: **NAV-SB5D-835-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969500
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-SB5D-835-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49525.9 lumens
Efficiency: N/A
Efficacy: 135.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G5

Input Watts (W): 364.9
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

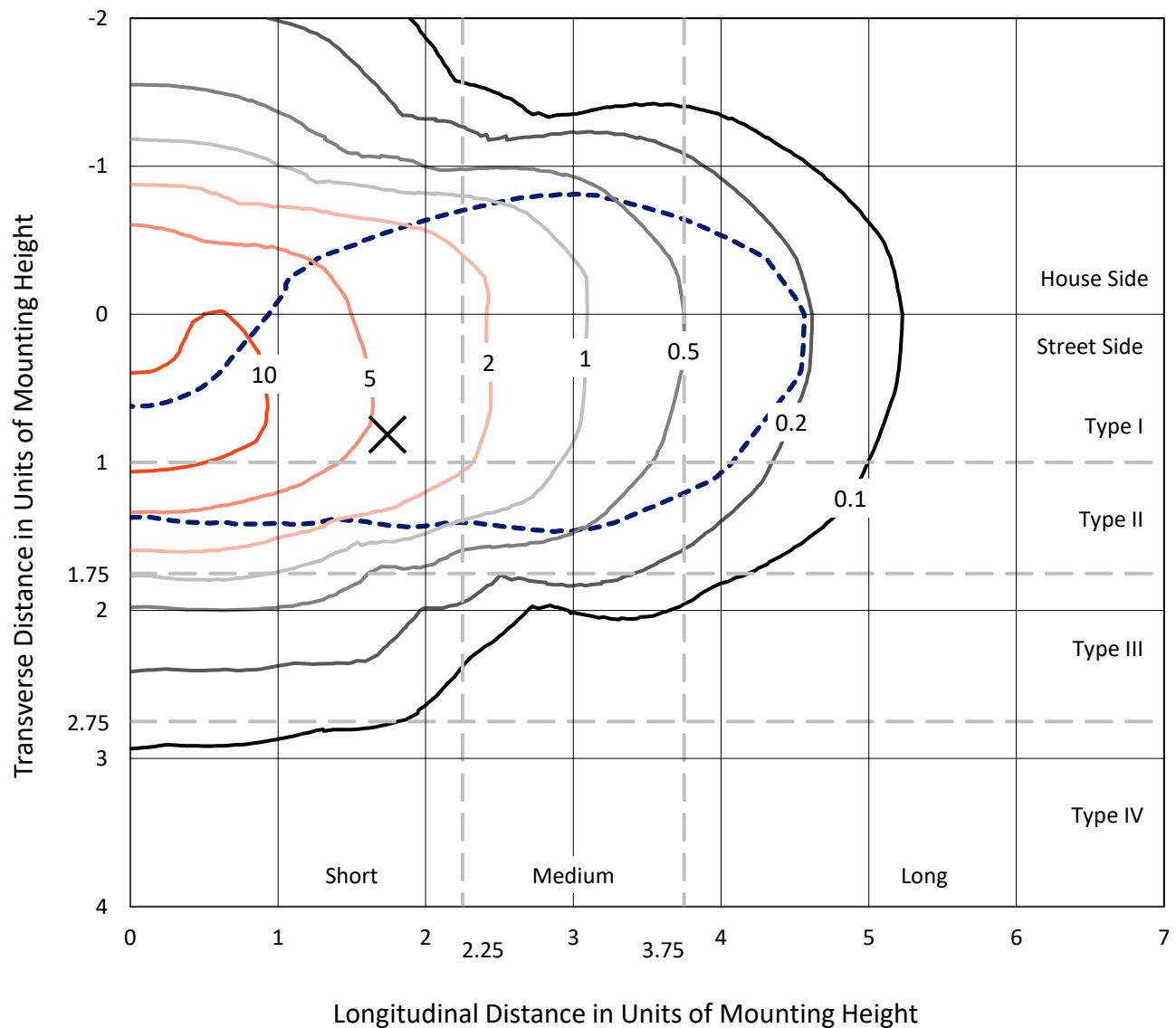


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

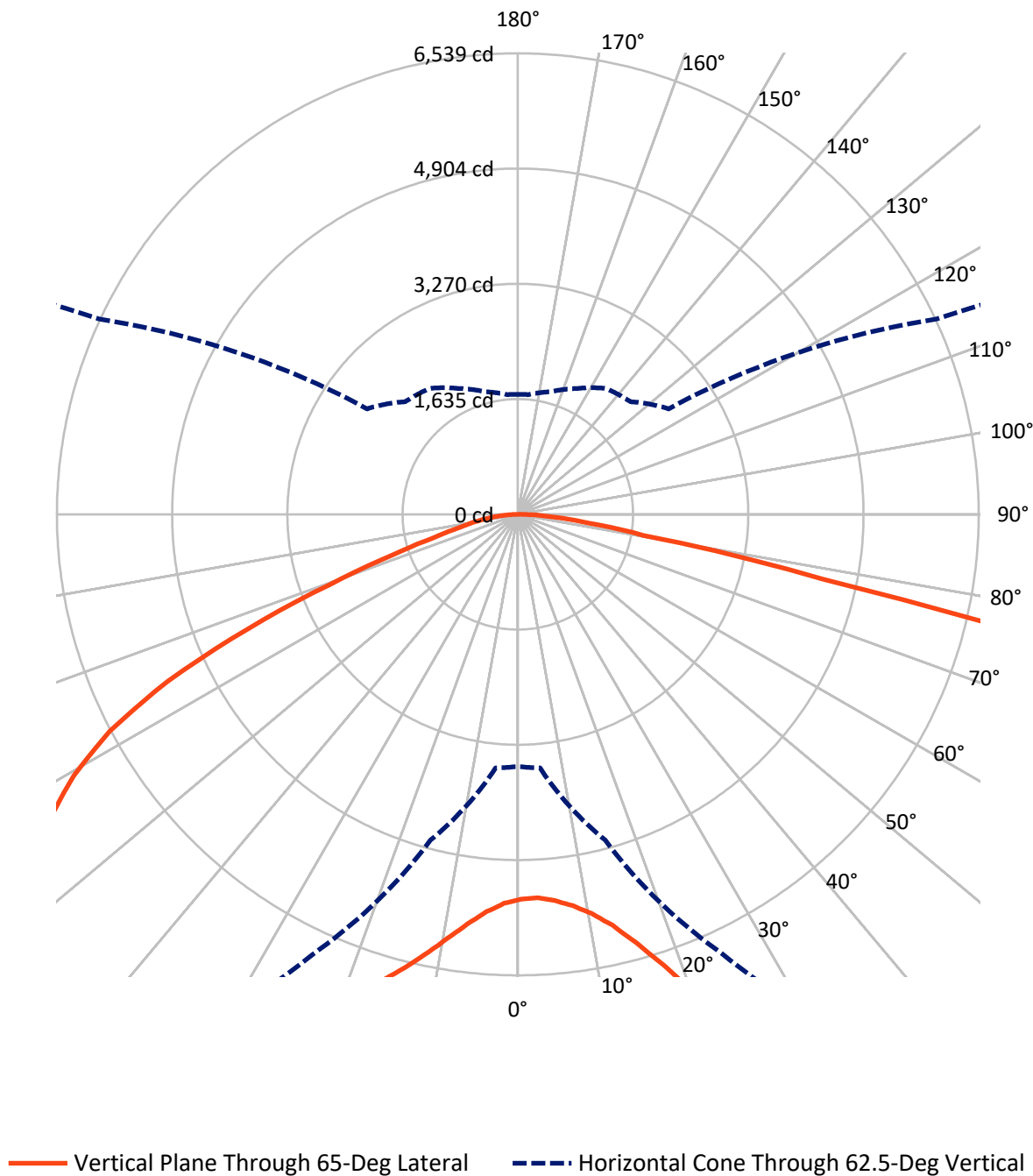


Based on 25 foot mounting height. Maximum calculated value = 13.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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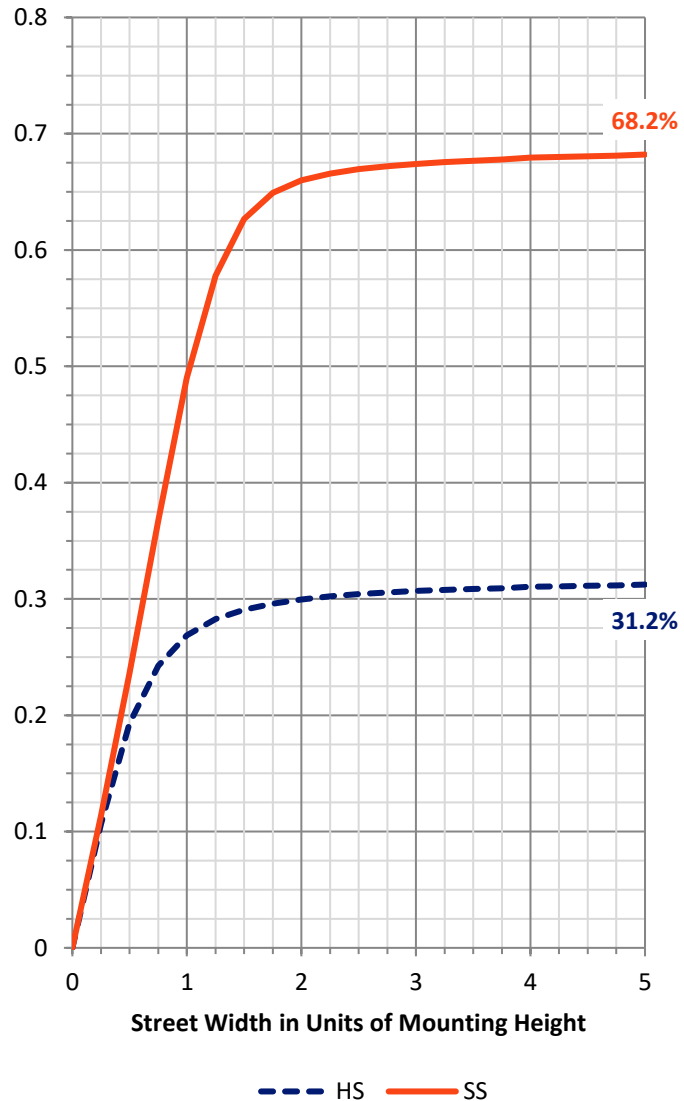
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15628.2	0.0	15628.2
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	33897.7	0.0	33897.7
	% Fixture	68.4	0.0	68.4
Total	Lumens	49525.9	0.0	49525.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	544.1	1.1
10°-20°	1845.1	3.7
20°-30°	3741.2	7.6
30°-40°	6474.1	13.1
40°-50°	9797.3	19.8
50°-60°	11486.7	23.2
60°-70°	9630.2	19.4
70°-80°	5316.7	10.7
80°-90°	690.6	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°	49525.9	100.0
0°-180°	49525.9	100.0

Coefficient of Utilization



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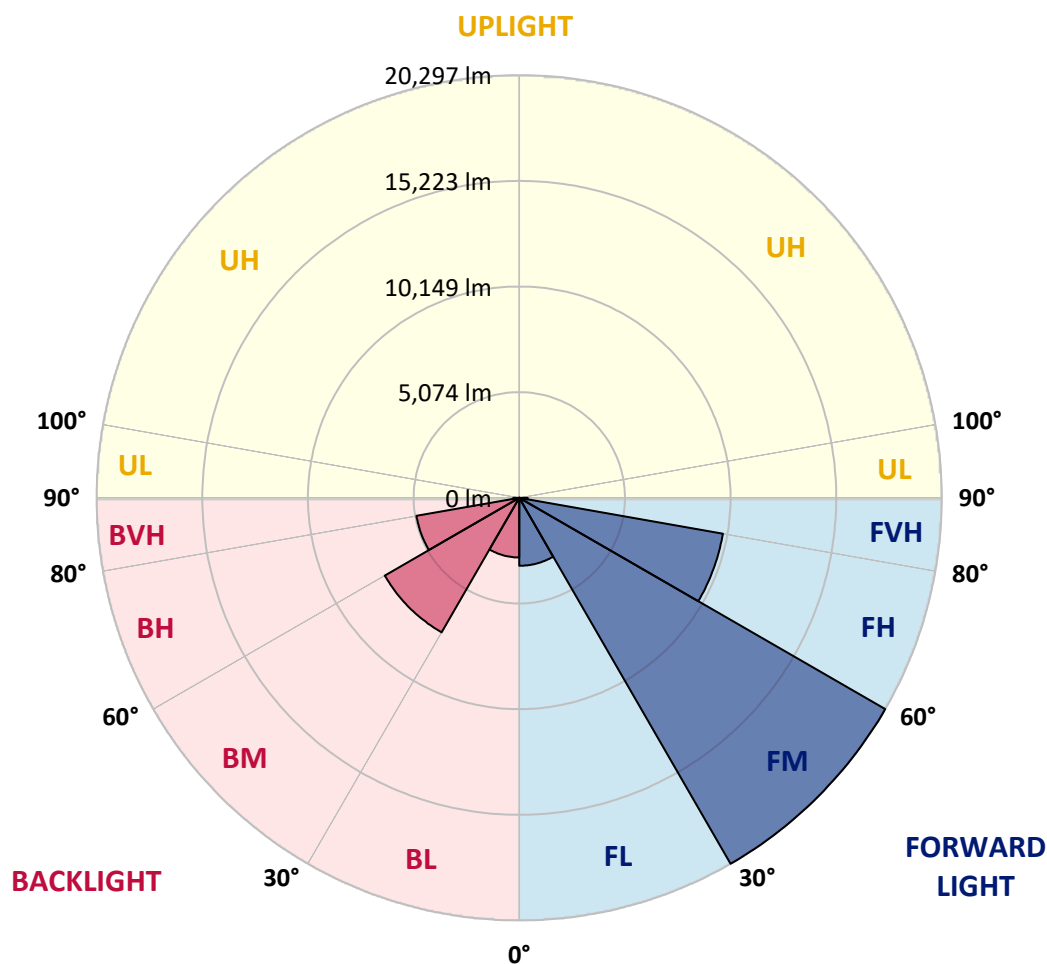
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3264.4	6.6			
FM	(30°-60°)	20297.3	41.0			
FH	(60°-80°)	9933.4	20.1			G4/12000
FVH	(80°-90°)	402.5	0.8			G3/500
BL	(0°-30°)	2866.0	5.8	B4/5000		
BM	(30°-60°)	7460.7	15.1	B4/8500		
BH	(60°-80°)	5013.4	10.1	B5		G5
BVH	(80°-90°)	288.1	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5
2.5°	5421.5	5406.2	5419.0	5419.0	5424.1	5421.5	5439.6	5444.7	5452.4	5467.9	5467.9
5°	5367.6	5365.1	5388.2	5408.7	5429.3	5447.3	5470.4	5503.8	5509.0	5526.9	5550.1
7.5°	5349.6	5334.2	5370.2	5395.9	5444.7	5488.4	5550.1	5606.5	5629.7	5637.4	5681.1
10°	5488.4	5462.6	5496.0	5511.5	5552.6	5596.3	5668.2	5758.1	5783.9	5814.7	5863.5
12.5°	5724.7	5696.5	5745.3	5768.5	5807.0	5845.6	5894.4	5981.7	5994.6	6051.1	6097.3
15°	6048.5	6015.1	6046.0	6074.3	6138.4	6174.4	6223.3	6308.1	6308.1	6351.7	6385.1
17.5°	6487.9	6444.2	6467.3	6477.6	6518.7	6572.7	6654.9	6729.4	6768.0	6752.6	6706.3
20°	7143.1	7089.1	7089.1	7037.8	7022.4	7066.0	7174.0	7276.7	7317.9	7238.1	7125.1
22.5°	8127.2	8050.1	8006.5	7831.7	7762.3	7767.4	7875.4	8001.4	8034.8	7893.4	7639.0
25°	9378.5	9257.8	9198.7	8941.7	8785.0	8648.8	8733.6	8895.5	8941.7	8767.0	8355.9
27.5°	10629.9	10637.6	10581.1	10272.8	10013.2	9763.9	9720.3	9889.9	9938.7	9740.9	9232.1
30°	12384.9	12202.4	12094.5	11724.5	11354.4	11005.0	10825.1	10894.5	10907.3	10671.0	10080.1
32.5°	13898.3	13852.0	13620.7	13297.0	12821.6	12274.4	11973.7	11863.2	11842.6	11506.0	10804.6
35°	15622.3	15596.6	15352.6	14967.2	14453.2	13692.7	13150.5	12834.4	12808.8	12336.0	11521.5
37.5°	17374.8	17374.8	17135.7	16714.4	16182.5	15231.8	14407.0	13906.0	13823.8	13207.0	12251.2
40°	18772.5	18687.7	18731.4	18554.1	17945.2	16935.4	15802.2	15075.1	14964.6	14224.5	13027.2
42.5°	19566.4	19538.2	19800.3	19998.2	19748.9	18942.1	17338.8	16341.8	16187.6	15344.9	13921.3
45°	19743.8	19712.9	20180.6	20905.2	21254.6	20923.1	19008.9	17675.3	17487.8	16516.5	14879.8
47.5°	19335.2	19273.6	19959.6	21103.0	22223.3	22806.6	20817.9	19122.0	18849.6	17657.4	15863.9
50°	18107.0	18047.9	19086.0	20604.6	22549.6	24086.2	22780.9	20655.9	20239.6	18880.4	16858.3
52.5°	15437.3	15465.6	17092.1	19178.5	22120.5	24882.7	24471.6	22272.1	21771.1	20131.7	17791.0
55°	12025.1	12086.8	14085.9	16382.9	20404.2	24761.9	25625.3	23937.1	23438.7	21308.6	18754.5
57.5°	8610.3	8882.6	10755.7	13029.8	17107.5	22847.7	25877.0	25519.9	25036.9	22593.4	19697.5
60°	5580.9	5629.7	7556.8	9848.7	13027.2	19445.7	25365.8	26719.9	26342.2	23903.7	20486.4
62.5°	3576.7	3610.0	4784.4	6888.7	9376.0	14386.4	23644.2	27241.4	27125.8	24769.6	21244.4
65°	2628.6	2602.9	3214.4	4553.0	6315.7	8872.4	20301.4	26989.7	27218.4	25311.8	21871.2
67.5°	2194.3	2158.3	2459.0	3152.7	4653.3	5038.7	15021.1	25353.0	26190.6	25250.2	22331.3
70°	1999.1	1968.2	2150.7	2340.8	3630.7	3373.7	7572.2	22040.9	23330.7	24548.6	22256.7
72.5°	1693.3	1639.3	1888.6	2078.7	2823.9	2587.4	3129.6	16930.2	18502.7	22300.4	21208.4
75°	1313.0	1277.0	1490.2	1829.4	2122.4	2019.6	1978.5	10280.4	11996.8	17246.2	18554.1
77.5°	1040.7	991.8	1187.1	1426.1	1909.1	1523.7	1441.5	4427.2	6128.2	11010.1	13882.8
80°	783.7	740.0	901.9	1128.0	1467.2	1148.5	932.7	1806.4	2309.9	5578.4	6981.3
82.5°	557.6	519.1	629.6	827.4	986.7	1030.3	573.0	1012.4	1138.3	2150.7	1559.6
85°	357.1	334.0	421.4	519.1	627.0	663.0	349.4	529.3	580.7	886.4	650.1
87.5°	195.3	159.3	226.1	241.5	290.4	264.7	167.0	192.7	208.2	321.1	274.9
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°	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5	5457.5
2.5°	5478.1	5485.8	5511.5	5519.2	5537.2	5560.3	5575.7	5591.2	5591.2	5606.5	5606.5
5°	5552.6	5570.6	5624.6	5652.9	5699.1	5745.3	5773.6	5807.0	5827.5	5837.8	5843.0
7.5°	5696.5	5724.7	5801.8	5850.7	5930.3	5994.6	6038.3	6084.5	6094.8	6123.0	6112.8
10°	5891.8	5925.2	6012.5	6105.0	6200.1	6279.8	6320.9	6354.3	6367.1	6372.3	6359.4
12.5°	6115.4	6164.1	6277.2	6390.3	6490.5	6559.8	6570.1	6562.5	6526.5	6495.6	6495.6
15°	6390.3	6433.9	6559.8	6683.2	6780.8	6793.7	6729.4	6688.3	6644.7	6637.0	6637.0
17.5°	6719.2	6742.2	6857.9	6978.7	6986.4	6942.7	6847.6	6809.1	6768.0	6739.7	6742.2
20°	7102.0	7094.3	7176.5	7227.9	7174.0	7040.3	6896.4	6832.2	6791.1	6757.7	6760.3
22.5°	7559.4	7500.2	7490.0	7477.2	7333.3	7053.2	6857.9	6775.7	6711.5	6665.2	6680.6
25°	8224.9	7998.8	7842.0	7754.6	7430.9	6983.8	6734.6	6552.1	6431.4	6351.7	6382.6
27.5°	9057.4	8677.0	8281.4	8068.1	7430.9	6842.5	6436.5	6141.0	5943.2	5861.0	5902.1
30°	9851.4	9453.1	8869.8	8445.8	7412.9	6611.2	5956.1	5544.9	5313.7	5231.4	5280.3
32.5°	10529.6	10095.4	9494.2	8859.5	7369.2	6236.1	5359.9	4905.1	4681.6	4583.9	4632.8
35°	11159.2	10696.7	10121.2	9314.3	7253.6	5686.2	4704.6	4357.8	4108.6	3951.9	4003.2
37.5°	11804.1	11254.3	10714.6	9725.4	7045.4	5043.8	4201.1	3905.6	3612.7	3402.0	3458.5
40°	12505.6	11847.8	11349.3	9969.6	6703.7	4432.3	3810.5	3540.8	3229.8	3006.3	3050.0
42.5°	13325.2	12559.5	12055.9	10095.4	6236.1	3998.1	3556.1	3291.5	2998.5	2816.1	2852.1
45°	14180.9	13343.2	12700.9	10092.9	5714.5	3795.1	3473.9	3211.8	2888.0	2697.9	2728.8
47.5°	15077.6	14162.9	13258.5	9928.5	5262.2	3823.4	3427.7	3039.6	2682.5	2497.5	2523.2
50°	15977.0	15059.6	13798.0	9620.0	5069.5	3761.6	3255.5	2798.1	2376.8	2209.7	2220.0
52.5°	16868.5	16013.0	14263.1	9180.7	4874.3	3533.0	3034.5	2484.7	2250.9	2135.2	2135.2
55°	17765.3	16955.9	14769.3	8540.9	4386.1	3265.8	2664.5	2366.5	2150.7	2045.3	2035.0
57.5°	18664.6	18045.3	15249.7	7901.1	3772.0	2936.9	2461.5	2222.6	2050.4	1960.5	1945.0
60°	19599.8	19291.5	15745.6	7312.7	3165.6	2515.6	2312.5	2107.0	1932.2	1832.0	1824.3
62.5°	20563.4	20663.7	16133.7	6554.7	2608.0	2258.6	2178.9	1968.2	1798.7	1703.6	1701.0
65°	21534.7	21987.0	16388.0	5503.8	2114.7	2014.4	2035.0	1816.6	1644.4	1562.2	1559.6
67.5°	22267.0	22940.2	16316.2	4165.1	1734.4	1783.2	1855.1	1657.3	1495.5	1431.2	1433.8
70°	22349.2	22827.2	15607.0	2852.1	1451.7	1557.1	1654.8	1500.6	1333.5	1287.3	1289.9
72.5°	21254.6	21285.5	13631.1	1862.8	1228.2	1366.9	1444.0	1341.2	1179.4	1133.1	1130.6
75°	18384.5	17603.5	10008.1	1228.2	1027.8	1174.2	1246.2	1174.2	1017.5	1027.8	991.8
77.5°	13929.0	12467.1	6076.8	873.6	858.2	986.7	1084.3	1032.9	899.3	1009.8	889.1
80°	7176.5	6744.8	2710.8	652.6	678.3	788.8	891.6	824.8	711.8	678.3	619.2
82.5°	1644.4	1911.7	1068.9	467.6	490.8	567.8	680.9	619.2	511.4	431.6	426.5
85°	575.5	629.6	472.8	292.9	287.8	354.5	462.5	413.7	346.9	277.5	292.9
87.5°	182.4	238.9	177.3	118.2	123.3	159.3	213.3	195.3	161.8	105.4	110.5
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)