

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: P969497

Luminaire Tested: **NAV-SB5D-835-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-835-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41378.2 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

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

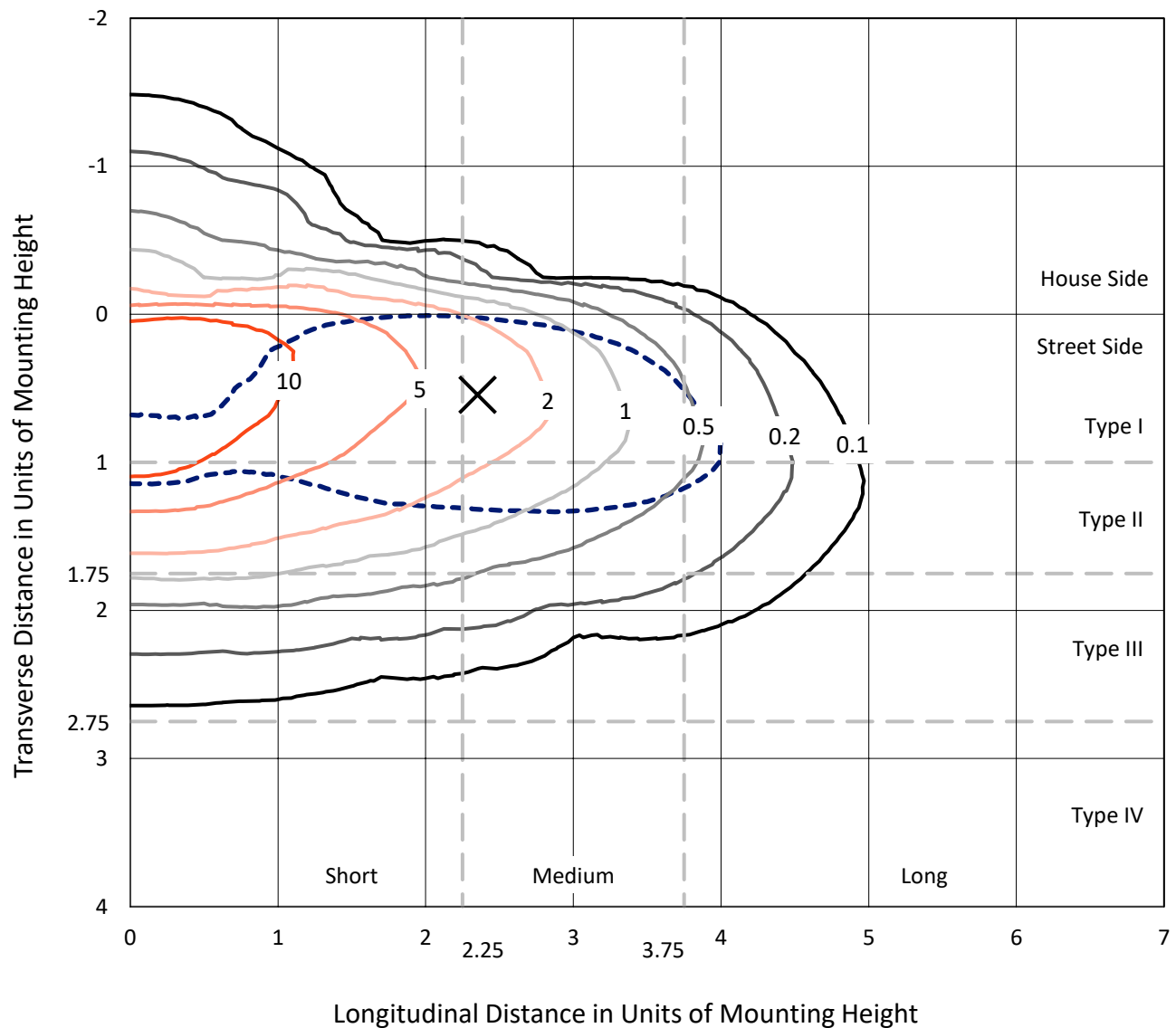


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

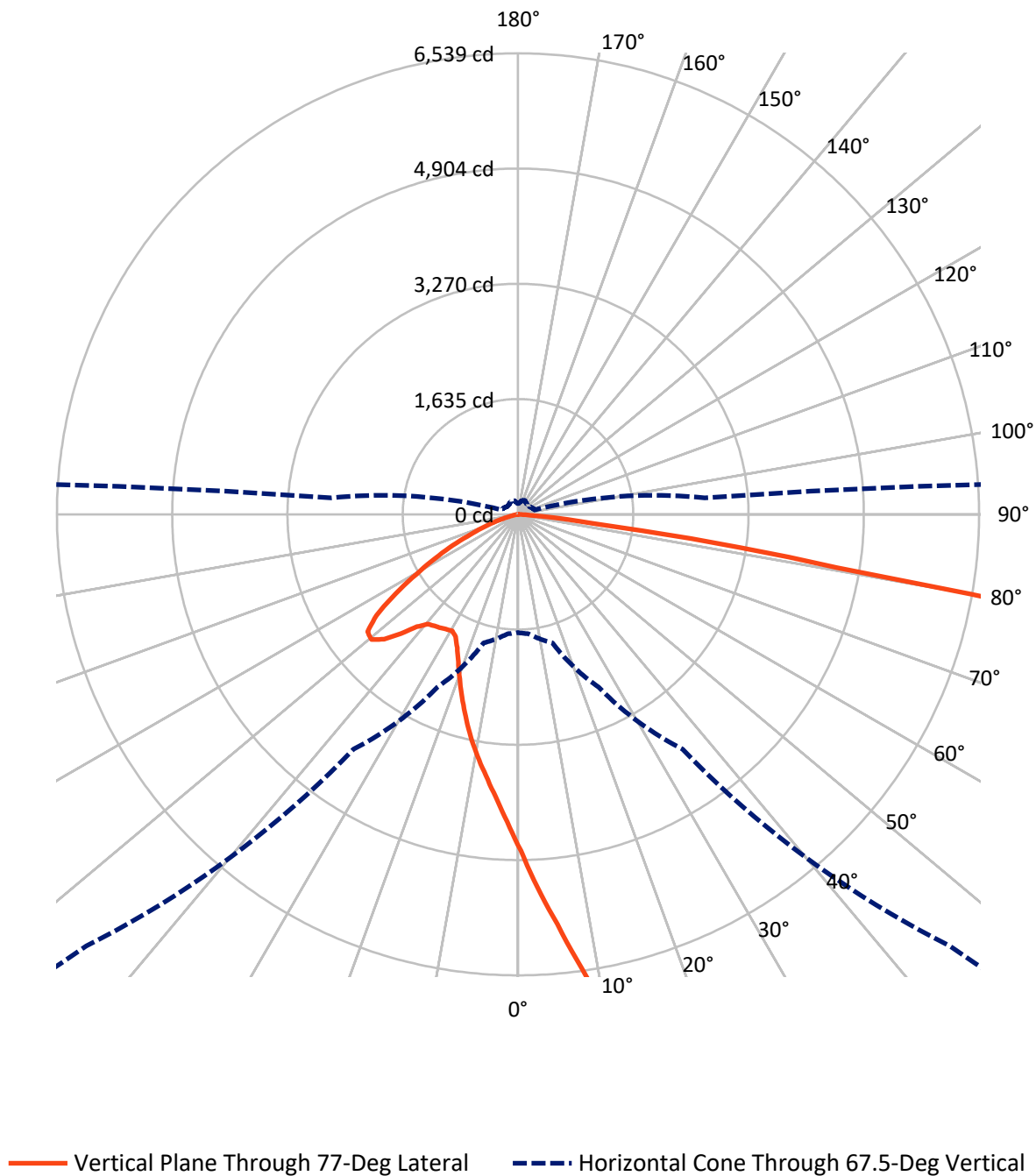


Based on 25 foot mounting height. Maximum calculated value = 17.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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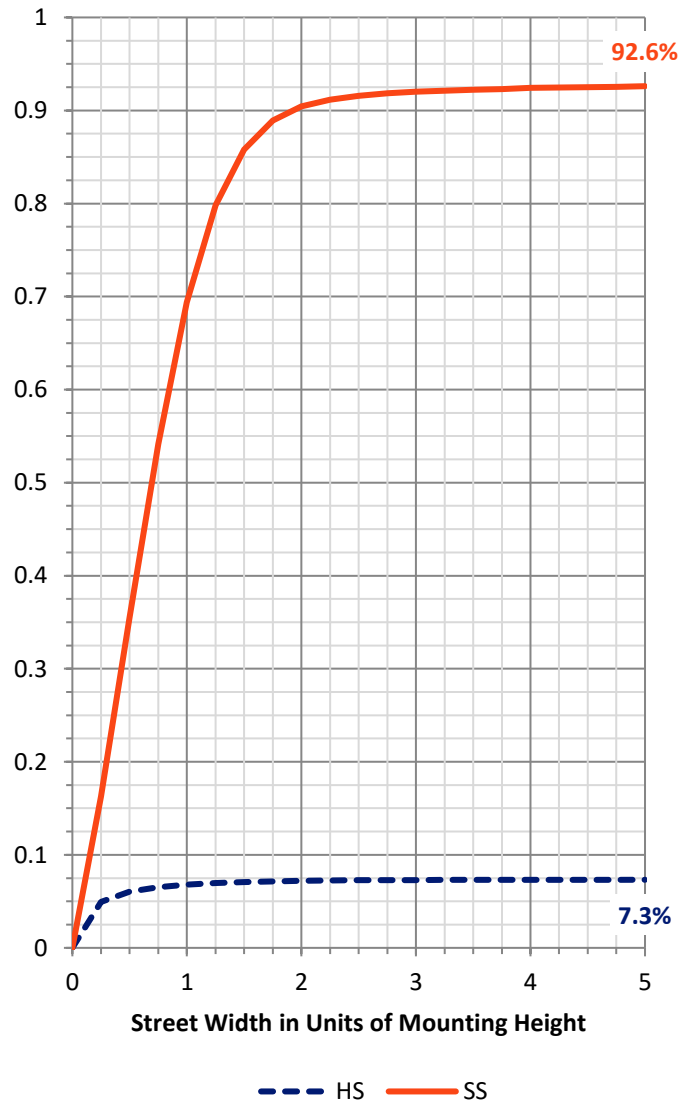
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3044.2	0.0	3044.2
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	38334.0	0.0	38334.0
	% Fixture	92.6	0.0	92.6
Total	Lumens	41378.2	0.0	41378.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	487.0	1.2
10°-20°	1705.5	4.1
20°-30°	3291.1	8.0
30°-40°	5713.5	13.8
40°-50°	8295.7	20.0
50°-60°	9526.5	23.0
60°-70°	8270.8	20.0
70°-80°	3895.6	9.4
80°-90°	192.6	0.5
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°	41378.2	100.0
0°-180°	41378.2	100.0

Coefficient of Utilization



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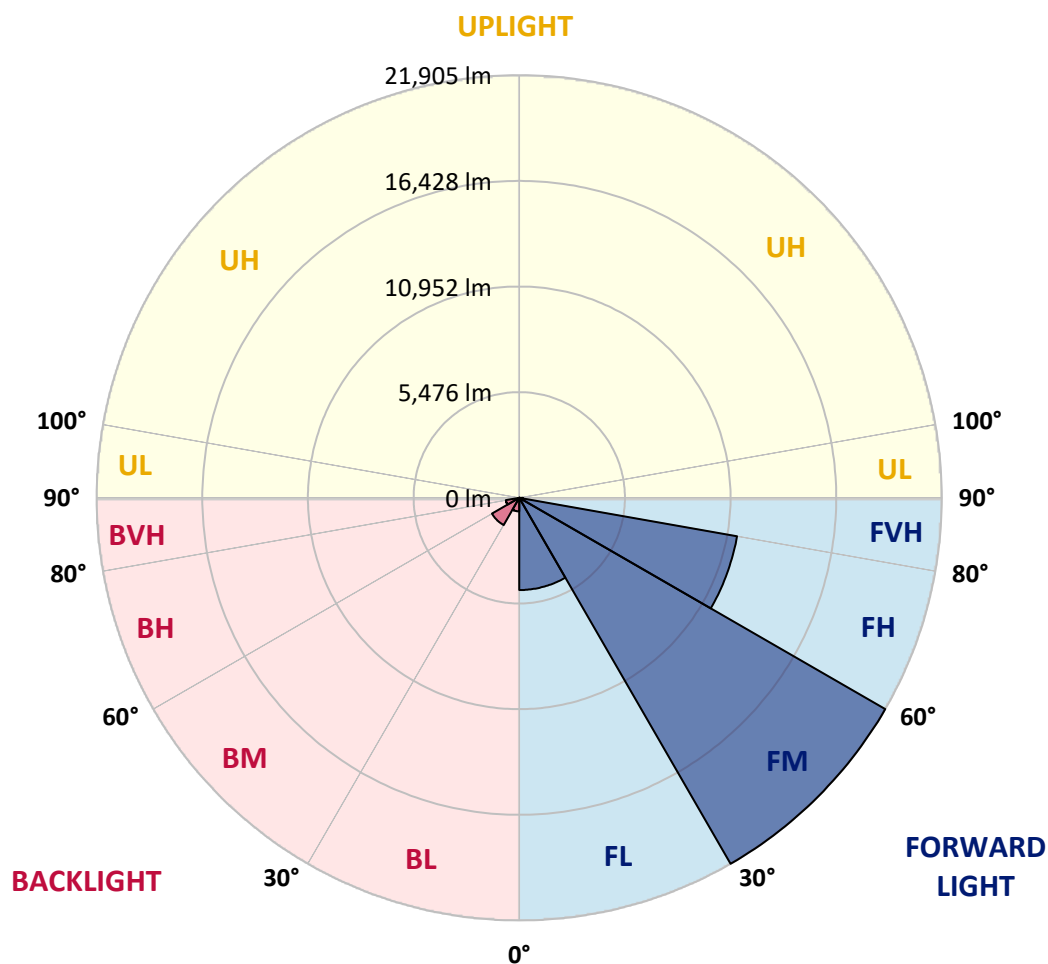
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4778.7	11.5			
FM	(30°-60°)	21904.5	52.9			
FH	(60°-80°)	11461.6	27.7			G4/12000
FVH	(80°-90°)	189.1	0.5			G2/225
BL	(0°-30°)	704.8	1.7	B2/1000		
BM	(30°-60°)	1631.1	3.9	B2/2500		
BH	(60°-80°)	704.8	1.7	B2/1000		G2/1000
BVH	(80°-90°)	3.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5
2.5°	6606.1	6647.2	6588.2	6475.1	6305.5	6195.0	5925.2	5670.8	5388.2	5298.2	5015.6
5°	8052.7	8088.7	8021.9	7898.5	7672.4	7456.7	7102.0	6570.1	6017.7	5840.4	5339.3
7.5°	9124.2	9144.7	9119.1	9006.1	8790.2	8546.0	8150.4	7520.8	6701.2	6505.9	5737.6
10°	9895.0	9961.9	9954.2	9910.5	9766.6	9568.7	9147.3	8430.4	7466.9	7215.1	6187.3
12.5°	10406.4	10480.9	10524.6	10622.2	10614.5	10488.6	10118.6	9360.6	8230.0	7934.5	6693.5
15°	10555.4	10635.1	10802.1	11028.2	11228.6	11292.8	11033.3	10272.8	9070.2	8692.5	7212.5
17.5°	10470.6	10594.0	10794.4	11151.5	11590.9	11881.3	11853.0	11154.0	9833.3	9401.7	7721.3
20°	10658.2	10776.3	10933.2	11233.8	11745.1	12271.8	12482.6	11996.9	10591.4	10139.2	8255.8
22.5°	11696.3	11675.7	11691.2	11739.9	12045.7	12567.3	13001.5	12762.6	11341.6	10879.1	8821.0
25°	13340.7	13248.2	13091.5	12826.8	12749.8	13001.5	13453.7	13440.9	12133.0	11637.1	9399.1
27.5°	15226.7	15211.3	14843.8	14206.6	13846.9	13749.2	13965.1	14101.3	12916.7	12387.4	9979.8
30°	17033.0	17074.1	16578.2	15869.0	15208.7	14825.9	14630.6	14728.2	13713.3	13196.9	10578.5
32.5°	18605.6	18649.3	18109.7	17279.8	16462.6	16000.1	15589.0	15347.5	14581.8	14019.0	11236.4
35°	19934.0	19977.7	19358.5	18441.1	17570.0	17151.2	16686.2	16025.9	15455.4	14931.3	11968.6
37.5°	21121.0	21108.2	20278.3	19353.3	18497.7	18166.2	17922.1	16860.9	16354.7	15848.6	12780.6
40°	21822.6	21876.5	21167.4	20147.3	19317.4	19075.8	19060.4	17896.4	17392.8	16902.0	13669.6
42.5°	22028.1	22123.2	21609.3	20771.6	20018.8	19756.7	20160.1	19016.7	18600.5	18122.5	14674.3
45°	21658.1	21750.6	21516.8	20936.1	20496.7	20327.1	21105.7	20178.0	19890.3	19417.5	15807.4
47.5°	20578.9	20694.5	20751.1	20627.7	20622.6	20794.8	21953.7	21401.2	21421.7	20938.7	17120.4
50°	18490.0	18685.2	19204.3	19641.0	20316.8	21164.8	22778.4	22727.0	23148.4	22732.1	18831.7
52.5°	14692.2	14969.8	16758.1	17953.0	19471.5	21095.4	23685.4	24854.5	26177.8	25568.8	21244.5
55°	11806.8	11806.8	13261.0	15496.5	17821.9	20638.1	24081.1	26236.9	28241.1	28097.2	22942.9
57.5°	9625.3	9740.9	10668.5	12644.4	15434.9	19548.6	24325.2	27105.4	29903.6	29798.2	24602.8
60°	5940.6	6189.9	7942.2	9892.5	12718.9	17608.6	24171.0	27984.1	31920.7	32005.4	26601.8
62.5°	3345.5	3438.0	4219.1	7117.5	9889.9	15000.6	22991.7	28474.9	34500.4	34860.0	28662.5
65°	2309.9	2356.2	2656.8	4429.7	6855.4	11942.9	20686.9	28169.2	37085.2	37812.5	30409.8
67.5°	1677.8	1701.0	1888.6	2705.7	4067.5	8659.1	17074.1	26627.4	38454.8	39670.2	30743.7
70°	1289.9	1305.3	1441.5	1778.1	2402.5	5344.6	12400.2	23562.1	37462.9	38914.7	29032.5
72.5°	1048.4	1063.7	1169.1	1315.6	1593.1	3160.5	7515.7	19134.9	33084.5	34652.0	24715.8
75°	883.9	904.5	999.5	1094.6	1248.8	2029.9	3525.3	13325.3	24880.2	25908.0	17187.2
77.5°	490.8	452.2	812.0	907.0	1053.5	1284.7	1649.6	7842.1	13934.3	14219.5	7626.2
80°	305.8	316.0	644.9	729.7	809.3	647.5	755.4	3019.1	4830.6	4589.1	1477.4
82.5°	17.9	41.1	495.9	526.7	555.0	277.5	285.3	1025.2	1164.0	1068.9	262.1
85°	0.0	0.0	226.1	182.4	192.7	79.6	82.2	238.9	156.7	169.5	51.4
87.5°	0.0	0.0	0.0	5.1	0.0	7.7	15.4	20.6	7.7	10.2	17.9
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°	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5	4771.5
2.5°	4835.7	4655.9	4291.1	3933.8	3643.6	3373.7	3181.0	2998.5	2906.1	2901.0	2895.8
5°	4982.2	4604.5	3874.8	3229.9	2710.8	2294.6	2024.8	1832.1	1734.4	1701.0	1695.9
7.5°	5187.7	4619.9	3509.9	2613.1	2001.6	1644.5	1490.2	1428.6	1408.0	1385.0	1379.9
10°	5447.3	4655.9	3183.5	2104.4	1577.7	1397.8	1336.1	1310.5	1295.0	1279.6	1274.5
12.5°	5737.6	4689.3	2859.9	1747.2	1387.5	1295.0	1251.3	1220.5	1200.0	1181.9	1176.8
15°	6020.2	4709.9	2523.2	1498.0	1289.9	1215.3	1169.1	1135.7	1107.4	1086.9	1084.3
17.5°	6300.4	4738.2	2207.1	1349.0	1210.2	1135.7	1089.5	1048.4	1025.2	1002.1	999.5
20°	6611.2	4732.9	1909.2	1243.6	1130.6	1056.1	1007.3	968.7	945.6	919.8	917.3
22.5°	6899.1	4707.3	1647.1	1153.7	1048.4	976.4	922.4	883.9	860.8	840.2	837.6
25°	7230.6	4686.7	1428.6	1071.4	971.3	899.3	840.2	804.2	778.6	760.6	758.0
27.5°	7549.1	4655.9	1269.4	996.9	896.8	827.4	770.8	729.7	706.6	693.7	693.7
30°	7862.6	4648.2	1210.2	925.1	829.9	760.6	704.1	665.5	647.5	642.4	639.8
32.5°	8240.3	4668.8	1235.9	899.3	768.2	698.9	644.9	616.6	598.7	598.7	598.7
35°	8643.7	4663.6	1274.5	922.4	727.1	637.2	596.1	578.1	560.2	560.2	560.2
37.5°	9149.9	4671.3	1305.3	960.9	711.8	585.9	562.7	539.6	529.3	529.3	529.3
40°	9905.3	4925.6	1289.9	994.4	706.6	549.9	503.6	495.9	488.2	488.2	488.2
42.5°	10830.4	5478.1	1310.5	996.9	704.1	524.2	462.5	478.0	459.9	457.4	454.8
45°	11842.7	6081.9	1441.5	943.0	701.5	511.4	442.0	459.9	431.6	431.6	431.6
47.5°	12847.3	6680.6	1575.1	865.9	693.7	508.7	423.9	413.7	406.0	408.6	408.6
50°	14232.3	7168.8	1626.5	760.6	675.8	503.6	390.5	393.1	388.0	393.1	393.1
52.5°	15740.6	7271.7	1564.8	642.4	624.4	488.2	367.5	377.7	375.2	380.3	380.3
55°	16681.1	7161.2	1292.4	534.4	544.7	426.5	344.3	364.9	364.9	364.9	364.9
57.5°	17652.3	6690.9	917.3	434.3	452.2	349.4	323.8	352.0	349.4	346.9	346.9
60°	18351.2	5930.3	603.8	357.1	359.8	287.8	300.6	331.5	328.9	316.0	316.0
62.5°	18872.8	5090.2	388.0	303.2	274.9	259.5	274.9	300.6	290.4	262.1	257.0
65°	18813.7	3926.2	298.1	259.5	226.1	226.1	238.9	262.1	231.2	185.0	179.9
67.5°	17716.5	2656.8	246.7	218.4	190.1	187.6	197.8	218.4	197.8	156.7	151.6
70°	15756.0	1737.0	197.8	169.5	151.6	138.8	159.3	187.6	167.0	125.9	120.7
72.5°	12788.3	1058.6	149.0	123.3	110.5	89.9	125.9	154.2	133.7	92.5	87.3
75°	8273.7	539.6	102.8	79.6	59.1	53.9	92.5	115.6	92.5	56.5	48.8
77.5°	3165.6	226.1	56.5	36.0	30.9	25.7	51.4	69.4	38.5	12.8	10.2
80°	609.0	95.1	28.3	17.9	15.4	10.2	7.7	5.1	0.0	0.0	0.0
82.5°	105.4	30.9	10.2	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	36.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)